



Southwest LRT (METRO Green Line Extension) Project

Supplemental Draft EIS Comments

**Comments from Businesses, Community Groups
and Non-Profit Organizations**

July 2015

www.swlrt.org

6465 Wayzata Boulevard, Suite 500 • St. Louis Park, MN 55426 • Main: 612-373-3800 • Fax: 612-373-3899

Lebold, BillieJo

From: Jim Herbert <JHerbert@barr.com>
Sent: Wednesday, June 10, 2015 6:00 PM
To: swlrt
Cc: 'Laura Jester' (laura.jester@keystonewaters.com); Karen Chandler
Subject: SWLRT SDEIS comment period extended to July 21

On behalf of the Bassett Creek Watershed Management Commission (BCWMC), thank you for the opportunity to comment on the SWLRT SDEIS. The BCWMC is in the process of preparing its updated Watershed Management Plan (Plan) that should be adopted by September 2015. The BCWMC staff has met with SWLRT Project staff regarding the Penn Avenue Station and the segment of the SWLRT project located in the Bassett Creek Watershed. During our meeting we discussed the new policies and development requirements in the Plan and understand the project will be constructed in accordance to the policies of the updated Bassett Creek Watershed Management Plan. Please contact us regarding any questions.

Jim Herbert, PE
Barr Engineering Co.
Engineers for the BCWMC

Jim Herbert, PE

Vice President
Senior Civil Engineer
Minneapolis office: 952.832.2784
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jherbert@barr.com
www.barr.com

resourceful. naturally.



Lebold, BillieJo

From: Pat Mulqueeny <pat.mulqueeny@epchamber.org>
Sent: Monday, June 08, 2015 1:02 PM
To: swlrt
Subject: Latest SWLRT budget numbers

I am writing to request the latest projections on costs for the project and specifically the breakdown of cost savings being discussed. Can I have those e-mailed to me?

If you have any questions, please feel free to call me at 952-944-2830.

Thank you for your help.

Pat MulQueeny, IOM
President
Eden Prairie Chamber of Commerce
(952) 944-2830

Get involved with the Chamber! Go to epchamber.org for program and event details – we want to see you at one of our 120+ programs and events this year!



FOLLOW THE EDEN PRAIRIE CHAMBER ON SOCIAL MEDIA!



PRT Minnesota, Inc.

11330 86th Ave N • Maple Grove MN 55369
612-247-6685 • jlampe@prt-mn.com



21st Century Urban Mobility

June 17, 2015

COPY

Nancy Tyra-Lukens, Mayor
City of Eden Prairie
8080 Mitchell Rd
Eden Prairie, MN 55344

Dear Mayor,

This letter is addressed to you in your capacity as a member of the Southwest LRT Corridor Management Committee. Recent mandated cuts in the cost of the SW line have caught my attention, and last month I began to study the options. I have seen your written comments submitted to the Corridor Management Committee on June 3 and I am very sympathetic to the concerns and problems you raised. I am committed to solving them.

On Sunday June 7 I took a vehicle tour of Eden Prairie to examine the potential for a low cost "range extender system" if SW LRT terminates at the Golden Triangle station, which I am making the case for. Bear with me . . .

A little background -- I am a transit enthusiast. When I lived in Washington DC my mobility was primarily walking and the DC Metro. Daily transit trip share in the Twin Cities is only 3% of the 12 million daily trips by all modes. We can do better. My personal goal for the Twin Cities is 20% transit trip share by 2040.

The more I investigate the SW LRT budget cuts the more interesting it gets. I appreciate that the Corridor Management Committee currently opposes ending the line at Golden Triangle. According to the June 3 staff presentation to the Committee, the cost savings of ending it there would be \$52 to \$59 million more than the cost reduction goal of \$341 million. Additionally, other proposed cost reductions in the LRT line would be unnecessary, thereby gaining allies in the affected cities.

The savings would pay for more than half of a Personal Rapid Transit range extender system beyond the Golden Triangle. Because there would be 12 additional stations over a large area, LRT ridership would increase well beyond the original estimates. This increased ridership will improve the SW project's Cost Effectiveness Index with the FTA. To achieve high ridership, transit station walk distances should be no more than 1/4 mile. PRT stations are close together, resulting in very short walk distances.

PRT Minnesota can build a 10.7 mile Personal Rapid Transit range extender and local circulator system for about \$10 million per connectivity mile. A conceptual map of such a system is enclosed. I have provided an earlier version of it to Randy Newton in the Public Works Department for staff to discuss.

Enclosed is a short presentation on PRT made last week to the Brooklyn Park Rotary. A collection of PRT videos is at <http://www.prtconsulting.com/prtvendorvideos.html> A video animation is at <http://www.gettherefast.org/bettercampus.html> A pro and con overview is at http://en.wikipedia.org/wiki/Personal_rapid_transit All of these items are on the enclosed DVD.

PRT technology has advanced dramatically in recent years, in great measure because of lessons learned from the deployment of four systems in other countries during the past five years. We have designed a world-class 4th generation PRT technology. Our technology is beyond the research phase, and significant engineering development has been completed. About \$20 million is needed to bring the system to manufacturing and deployment readiness. Engineering innovations from our California-based control system provider and from Ingmar Andreasson in Sweden allow peak traffic period throughput of 14,400 persons per hour, using paired 3-person vehicles at 1.5 sec headways. Ingmar's presentation at the Podcar City 8 conference is available at https://www.youtube.com/watch?v=RI_2YgS9JXg and is on the enclosed DVD. A paper copy of Ingmar's PowerPoint presentation is enclosed.

The partnership of PRT Minnesota and Transit Control Solutions (TCS) has designed a PRT system with 60 MPH speeds and one second intervals between vehicles. Trip times and wait times for the PRT system will be much shorter than trips on current transit systems. Urban travel by PRT will be time and cost competitive with travel by automobile.

The TCS vehicle control system is the world's most advanced Communications Based Train Control, based on their Dynamic Block Control (DBC) technology. The TCS founder, Eugene Nishinaga, has a patent for the DBC technology, with ten more to follow. He had 37 years of employment in the transit industry, most of it with BART, followed by eight years of R&D on PRT and train control technology.

Our physical design and control technology is driving down the cost and vastly increasing the performance of PRT relative to recent systems built in other countries by Ultra, Vectus, 2GetThere and ModuTram. A major reason for skepticism of PRT by public transit agencies is that the Morgantown WV PRT and the newer PRT systems are relatively low speed and low capacity. There are no PRT designs in the US or elsewhere with the advanced functionality that the PRT Minnesota design has. Our guideway and vehicle concepts were greatly influenced by a world famous roller coaster designer.

PRT has been trapped in a loop for decades:

- The customer (such as Eden Prairie) needs a product
- The product development needs an investor (about \$20 million)
- The investor needs a customer

But we are getting close to breaking out of this loop, and Eden Prairie may be part of the solution. The city has the most ideal structure for PRT that we have found in the USA.

Historically PRT has been rejected because of its perceived low speeds and low capacity and the lack of real-world deployments. Our control, vehicle and guideway technologies solve the speed, capacity and cost issues. PRT is a proven technology, with five automated systems now operating in five countries. Driverless automated vehicles are rapidly joining

the transportation world. Rivium in the Netherlands even has a driverless automated bus system, called Park Shuttle, in operation since 2008:

<http://www.advancedtransit.org/advanced-transit/applications/rivium/>

Self-driving vehicles require control technology at least 10X more complex than PRT control, but it is being done and therefore PRT control can be done.

The low capital and operating costs of PRT, coupled with very high capacity and short trip times, means that public agencies can build PRT systems for a fraction of the cost of current transit, while achieving high ridership and reaching deep into low density suburban areas. Fare box revenues can pay the construction or operating costs. Federal government money is not needed.

Because of slow and inconvenient service compared to automobiles, transit in the US carries only 1 to 2 percent of all urban daily trips. Only six US cities have transit trip share above four percent. In our metro area daily trip share is 3%. To have a large share of daily trips, transit has to "go everywhere all the time, with automobile competitive travel time." Buses have large networks, but trip times are too long and rail has too few destinations as well as long trip times.

Transit mode share is determined by walk time, wait time, ride time, transfer time, fare, number of origins and destinations, plus other criteria like health status, age, weather and "can you afford to own and operate a car?" Total trip time is the most important factor. Current transit technology is not automobile competitive, so few people use it unless they absolutely have to. Because current transit is not a workable travel mode for most people, they drive cars. But traffic congestion continues to increase. The number of vehicle miles traveled each year increases much faster than lane miles of roads. Buses can't attract riders and there is not enough money and land to build sufficient roads and urban rail systems.

High performance PRT is the only urban travel mode that can overcome these limitations and problems. It can be built and operated at low cost relative to other modes, and can provide high capacity, large numbers of origin destination pairs and short trip times, thereby attracting riders. It is time to demonstrate these characteristics in an environment where it is complementing rather than competing with rail transit.

The decision process on SW LRT is moving rapidly and I would like to meet with you to discuss a path forward to building a world-class transit system for Eden Prairie that will complement the SW Corridor project.

Sincerely yours.

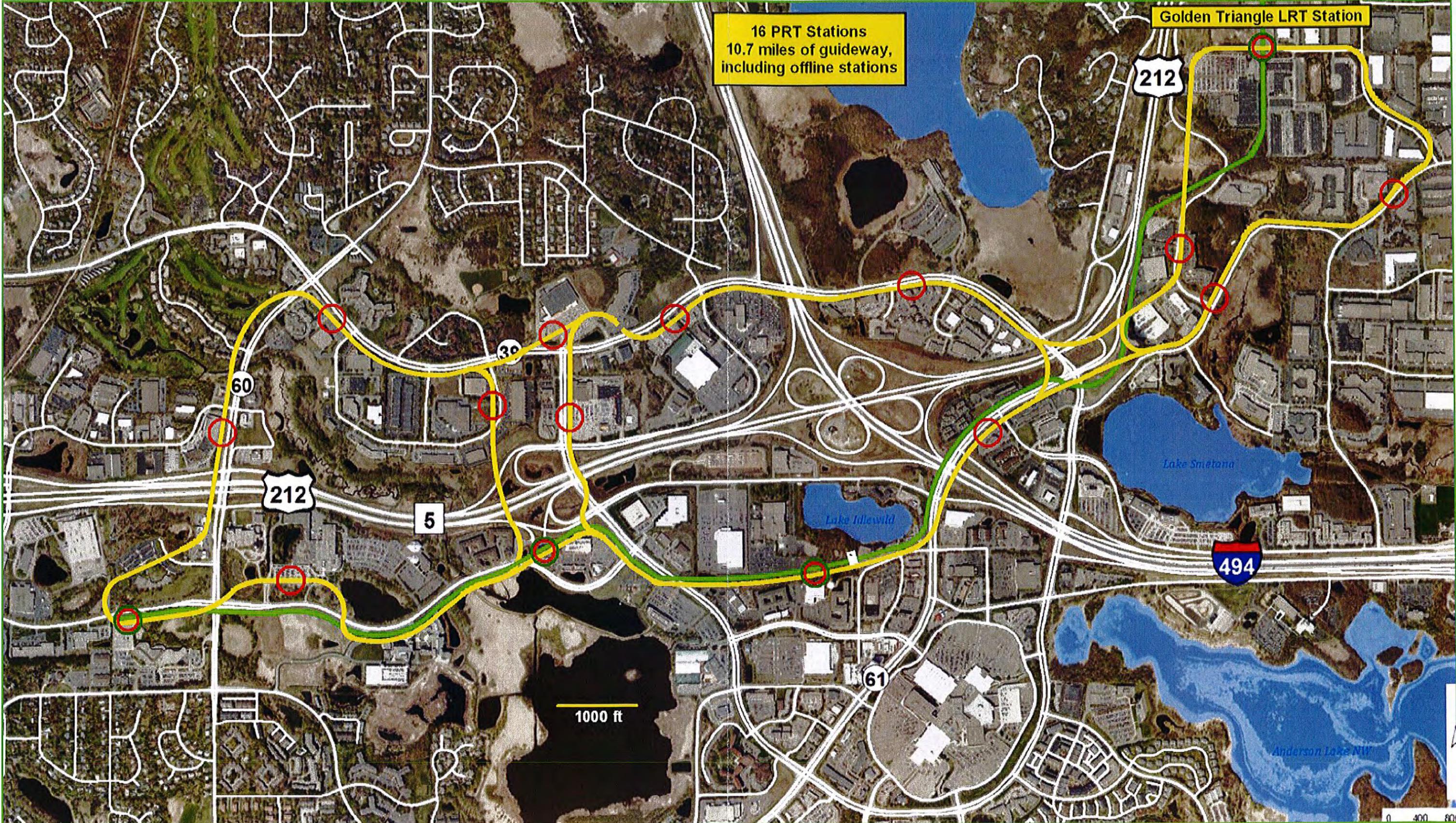
A handwritten signature in cursive script that reads "Joseph Lampe".

Joseph Lampe, President
PRT Minnesota, Inc.

cc: City Council
Corridor Management Committee

Range Extender for SW LRT

3.6 LRT route miles 9.6 PRT route miles



16 PRT Stations
10.7 miles of guideway,
including offline stations

Golden Triangle LRT Station

1000 ft

0 400 800

Appendix

PRT Simplifies Transit Planning, Construction and Operations:

No vibration or acoustic noise emission.

No buried cable ducts -- communication links are in the guideway.

No at-grade street crossings.

No pilings or retaining walls

No overhead power catenary.

No large and expensive traction transformer-rectifier substations.

No ongoing track and switch maintenance

No replacement of poorly compacted soils

No relocation or abandonment of freight rail.

No "capital maintenance" funding requests to Legislature

Minimal utility relocations (at Heathrow there were zero).

Simple 13.8KV 3-phase power feed to 480V transformers.

Almost no land acquisition required (need only 50-year easements).

Trivial wetlands impacts and mitigation, thus greatly simplified and less expensive EIS.

Most of the system can be installed on existing public right-of-way.

3-berth stations can have a footprint as small as 19 ft x 38 ft (4 parking stalls)

Each additional loading berth adds about 9 ft to the length.

Rapid construction and installation.

Much smaller OMF building and yards.

Greatly reduced OMF staffing requirements.

Extreme flexibility and simplicity of system layout and station locations.

Near immunity to severe winter weather conditions.

Complete automation means lower operating costs.

Curve radii as small as 75 ft.

Vehicles can climb 10% grade.

etc.

etc.

etc.

A few of the many PRT resources on the Internet:

<http://www.ilsr.org/really-light-rail/>

StarTribune article by David Morris - Institute for Local Self Reliance

<http://gettherefast.org/bettercampus.html> (click on the video icon)

<http://youtube.com/watch?v=B7hgipbl1BK8>

collection of 20 ULTra videos - PRT at Heathrow

<http://www.advancedtransit.org/advanced-transit/applications/rivium/>

driverless automated bus system in the Netherlands

http://www.en.wikipedia.org/wiki/Personal_rapid_transit

pro and con overview (somewhat out-of-date)

<http://hbswk.edu/item/6333.html>

commentary from Harvard Business School

http://faculty.washington.edu/jbs/itrans/planetizen_article.htm

http://faculty.washington.edu/jbs/itrans/big/Goran_shortfalls.pdf

https://www.youtube.com/watch?v=RI_2YgS9JXg

Ingmar Andreasson - PRT as mass transit

<http://www.prtconsulting.com/content.html>

PRT resource site

<http://www.prtconsulting.com/prtvendorvideos.html>

assorted videos of driverless transit systems

<http://faculty.washington.edu/jbs/itrans/burke.htm>

Innovation and Public Policy: The Case of Personal Rapid Transit - book

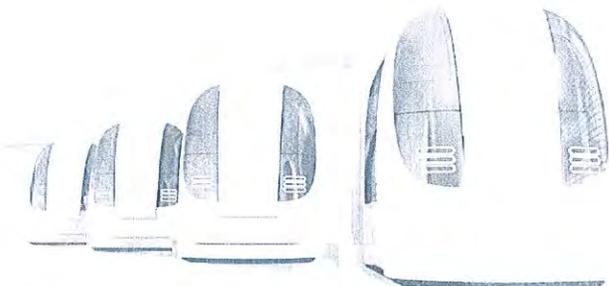
<http://www.open-spaces.com/article-v3n2-bundy.php>

analysis of transit by a Seattle environmentalist

<http://www.containerstory.com>

how the standardized container industry revolutionized shipping
(history lesson on technological innovation)

PERSONAL RAPID TRANSIT (PRT)



Urban Mobility for the 21st Century

June 16, 2015

"The Americans have need of the telephone, but we do not. We have plenty of messenger boys."
- Sir William Preece, Chief Engineer, British Post Office, 1878



"The idea that cavalry will be replaced by these iron coaches is absurd. It is little short of treasonous."
- Comment of Aide-de-camp to Field Marshal Haig, at tank demonstration, 1916



"How, sir, would you make a ship sail against the wind and currents by lighting a bonfire under her deck?
I pray you, excuse me, I have not the time to listen to such nonsense." - Napoleon Bonaparte, when told of Robert Fulton's steamboat, 1800s



"No one will pay good money to get from Berlin to Potsdam in one hour when he can ride his horse there in one day for free." - King William I of Prussia, on trains, 1864



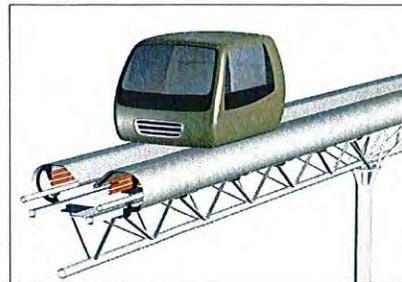
The Problem

- Increasing traffic congestion & travel delays
- Vehicle Miles Traveled increase much faster than Lane Miles Built
- Taxpayers oppose fuel taxes to build more roads
- Current transit is unworkable for most urban trips
- Only six US cities are above 4% transit trip share
- Most US cities are at 1-2% transit trip share

More Problems

- Increasing need for urban mobility without an automobile
- Current bus and rail technology can't improve urban mobility
- 60-year backlog of federal transit funding requests

The Solution is Personal Rapid Transit (*ULtra-Light Rail*)



Morgantown, WV - 1975

8.7 mile system
20 passenger vehicles
Cost \$130 million

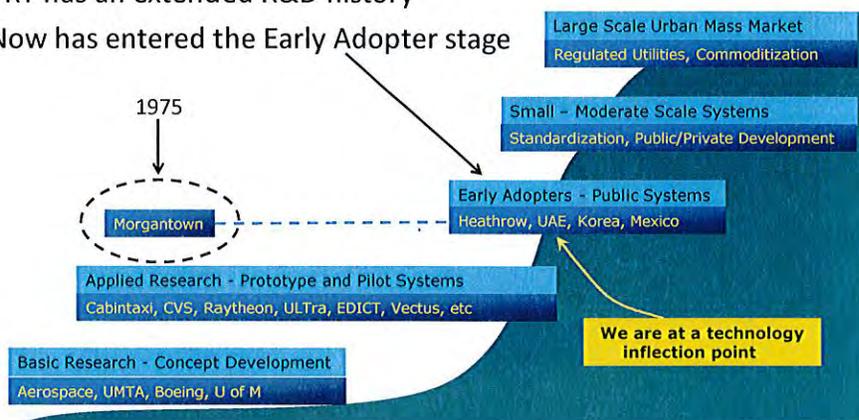
Still operating in 2015
No accidents in 40 years



PRT Technology Maturation

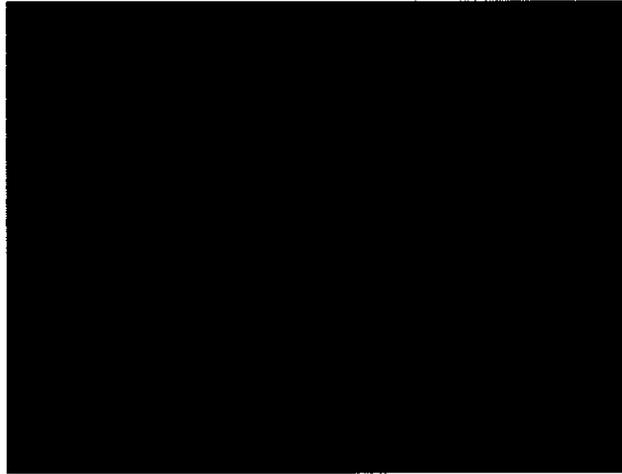
PRT has an extended R&D history

Now has entered the Early Adopter stage

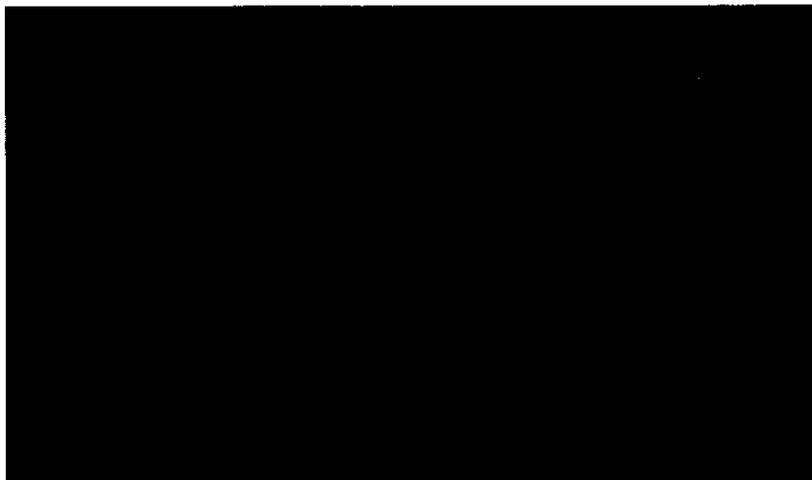


Booz | Allen | Hamilton

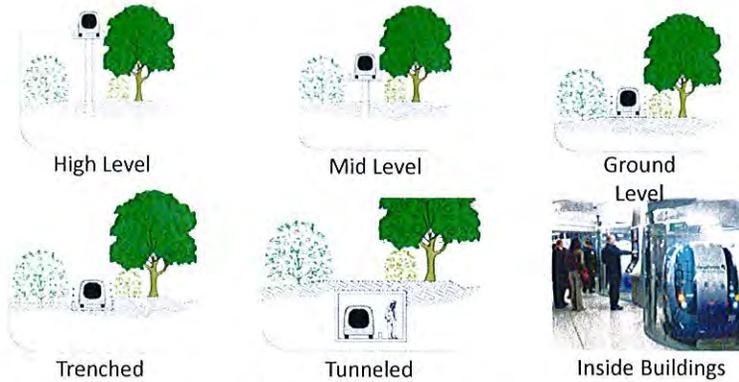
PRT for the Microsoft Campus
(*extending the range of rail transit*)



Recent Automated Transit
(*no sound track*)



PRT Urban Integration



Can be attached to sides of buildings and bridges

Why So Few Transit Riders?

- Rail and buses have long trip times
- Rail has very few stations
- Rail is very expensive and intrusive, so large networks cannot be built
- Transit is inconvenient for most urban trips
 - *walk time, wait time, trip time, transfers, weather*

Why PRT Has High Ridership

- Many stations, closely spaced
- Short trip times, travel up to 60 MPH
- The high capacity of rail transit
- Private, safe, secure and seated ride
- On-demand service, no waiting at stations
- Trips are direct to destination, no stops or transfers
- All weather, available 24x7, handicapped accessible
- Efficiently serves lower population density areas

Cost/Benefit Analysis

- PRT has Low Capital Costs:
about 10% of LRT per connectivity mile
- PRT has Low Operating Costs:
50% of LRT and bus transit
- The PRT MN design has High Capacity
and Short Trip Times
- Life-Cycle Cost per passenger mile is low

Benefits to Communities

- Flexible, non-intrusive design
- Simple route planning and urban integration
- Network and corridor layouts are feasible
- Energy efficient – equivalent to 80 MPG auto
- Able to climb and descend 10% grades
- No need for Federal transit funding
- Reduced transit operating subsidies

Benefits to Transit Agencies and Government

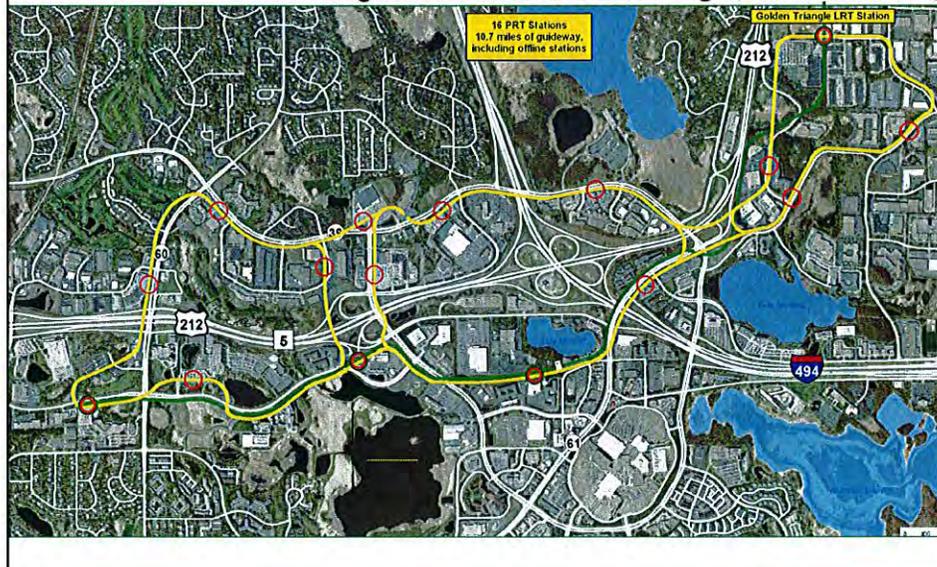
- Increased transit accessibility and use
- Reduced need for road expansion
- Low construction costs
- Low operating costs
- No need for federal funding to build systems

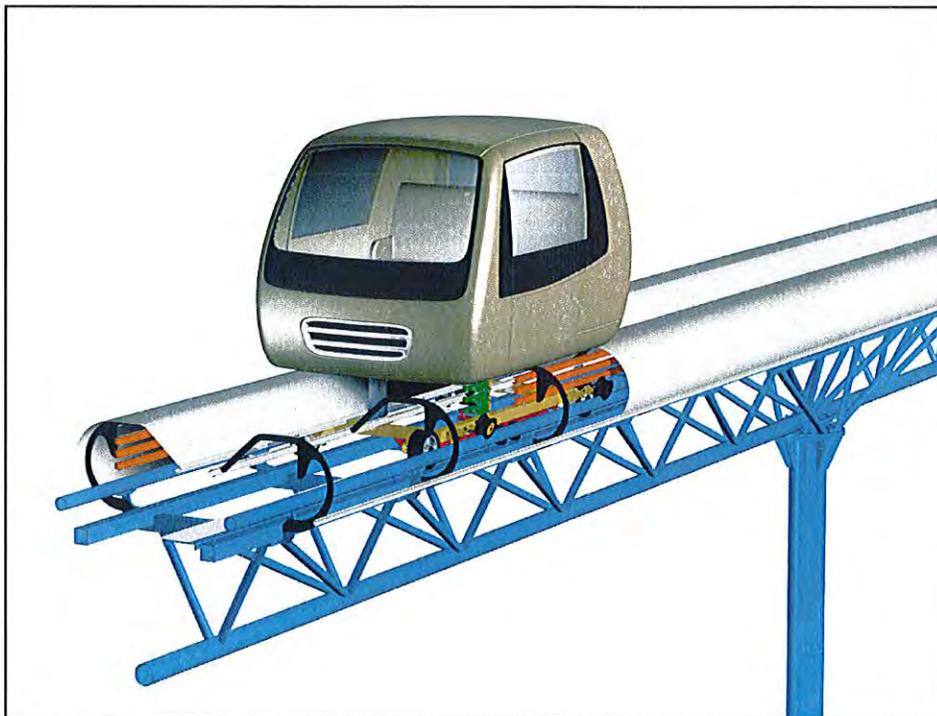
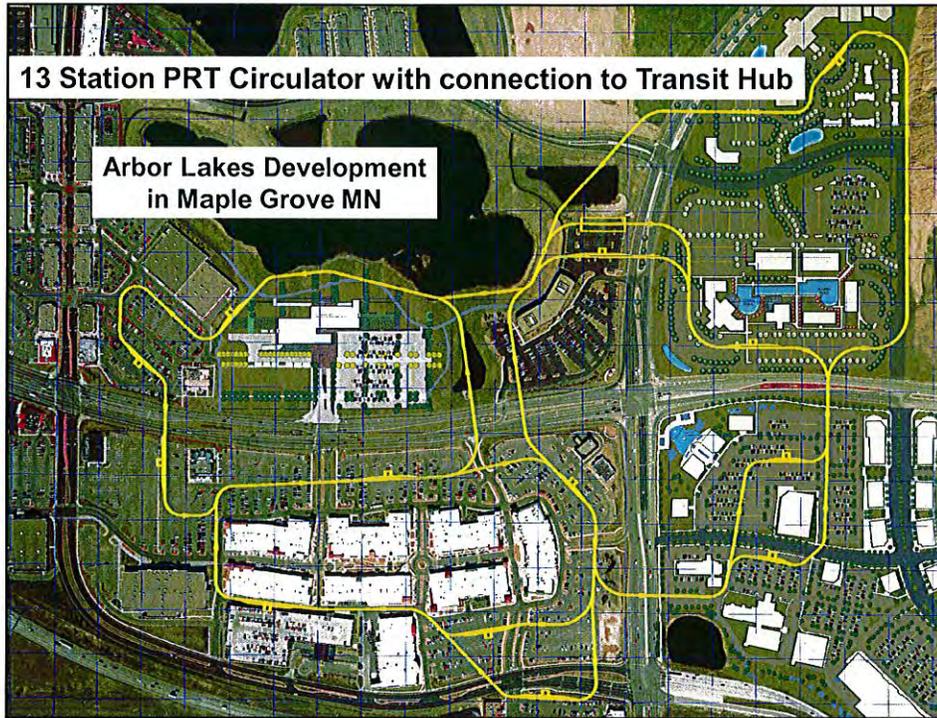
Data from Minneapolis/St. Paul

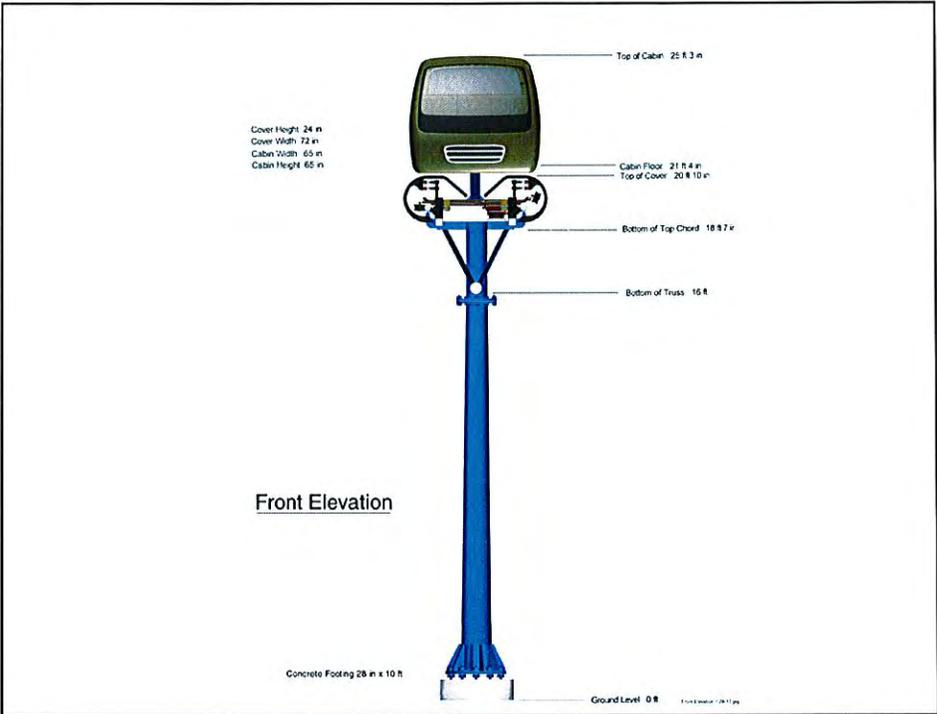
- Five LRT lines will cost \$6 billion, but in 2030 they will provide only 1.3% of all daily trips
- In 2030 buses will provide only 3% of all daily trips in Minneapolis/St. Paul
- 100% of public transit capital costs and 70% of operating costs are financed by taxes

PRT for Eden Prairie

Range Extender for SW LRT







Target Markets and Customers

- Public transit agencies ultimately will be the largest purchasers
- 250 US cities that cannot afford to build conventional rail transit
- Collector/distributor for rail stations
- Corporate campuses
- Amusement parks
- Shopping districts
- **Global market is 10 X larger than US market**

Contact Information

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From personal to mass transit

Prof. em. Ingmar Andreasson

ingmar@logistikcentrum.se

40 years in transportation

- Transit network planning - VIPS
- Taxi fleet management - Taxi80
- Multi-discipline PRT research - Chalmers
- Road traffic research – KTH
- 5 PRT patents
- VP, Advanced Transit Association

Storyline

- A challenging podcar application
- Five strategies to cope with large demand
- => Mass transit with podcars

The challenge

- Dense urban area in California
- Very large employers
- Severe highway congestion
- Promote non-car modes
- Transfers from Train and LRT
- Connecting buildings (horizontal elevator)

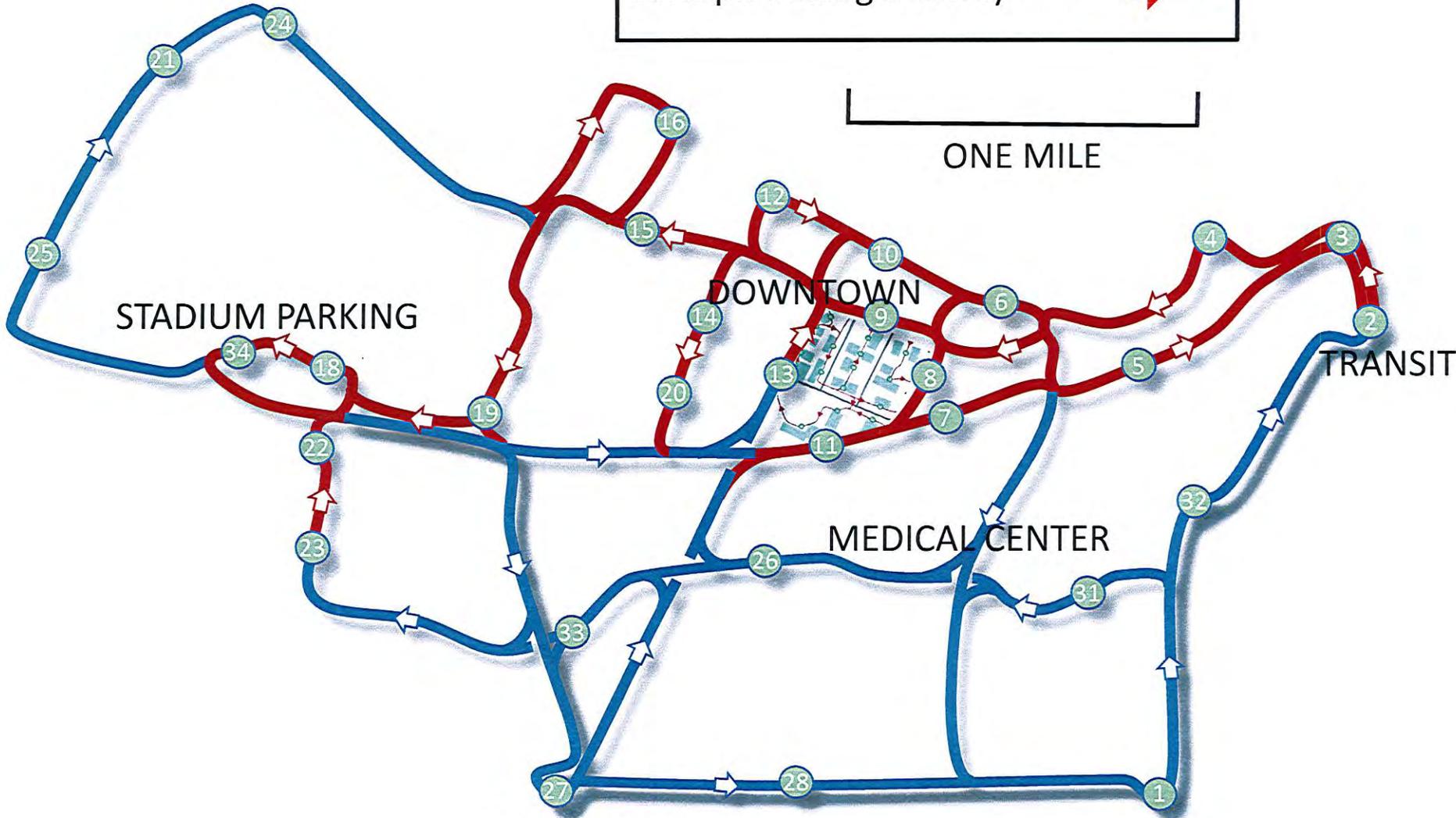
Contract with PRTCconsulting

Legend

Station	
28 mph main guideway	
22 mph main guideway	



ONE MILE



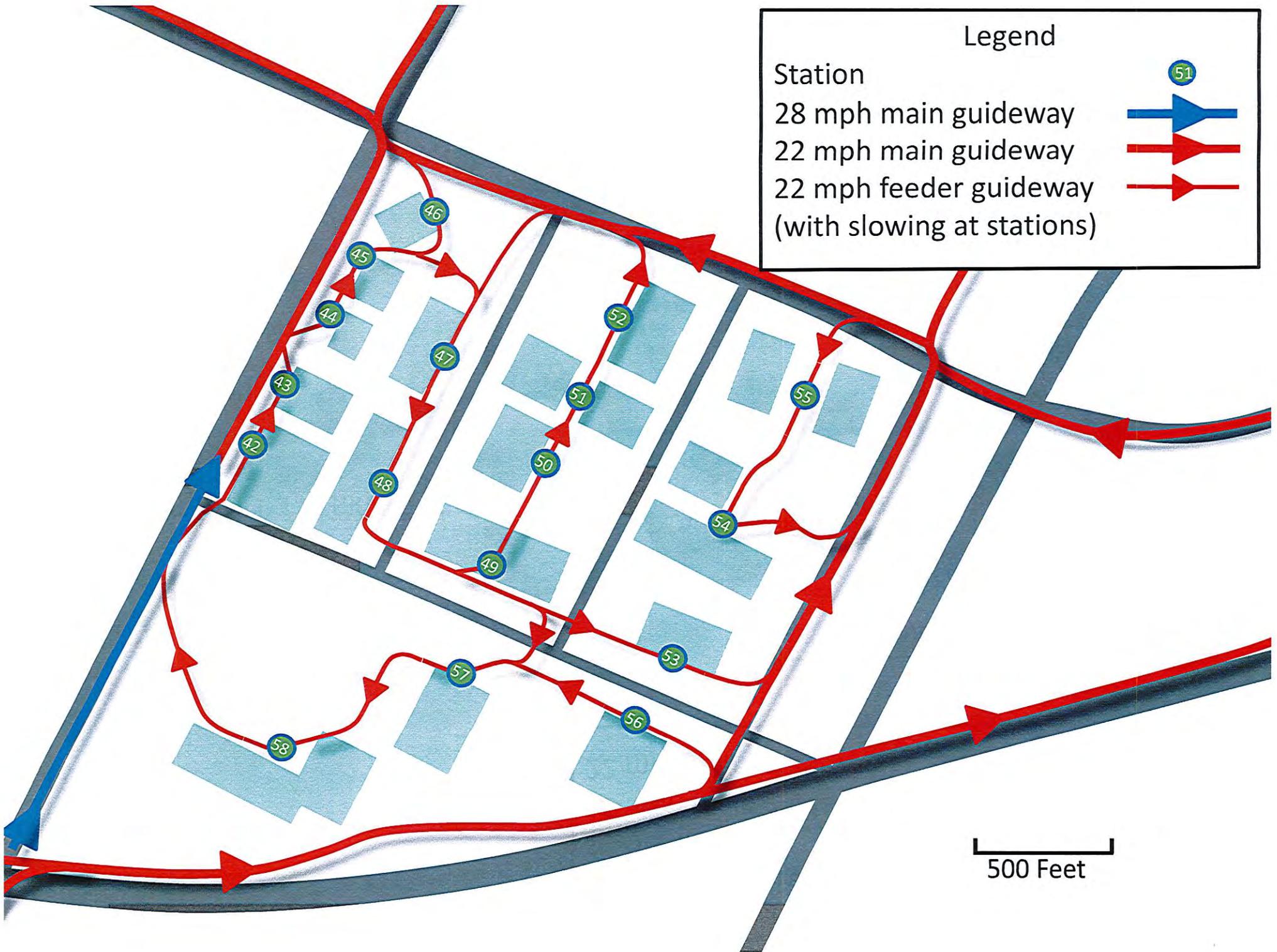
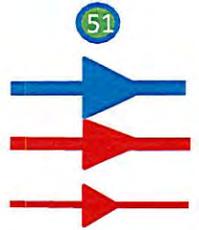
Legend

Station

28 mph main guideway

22 mph main guideway

22 mph feeder guideway
(with slowing at stations)



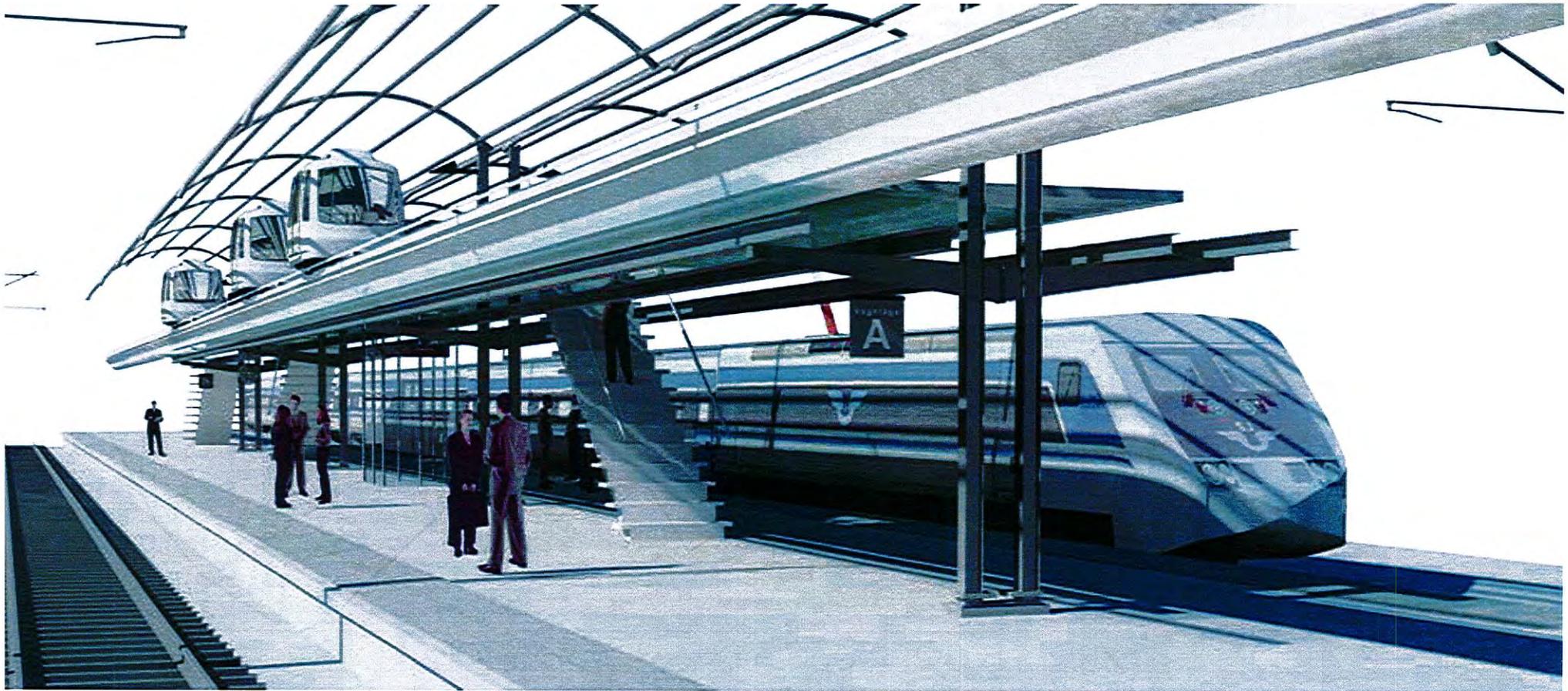
Our tentative design

- 50 stations
- 48 kms main guideway (6 % double)
- 4 bi-level intersections out of 54
- Speeds 36 and 45 kph
- Headway 3 secs (as certified)
- 900 vehicles with 6-seats

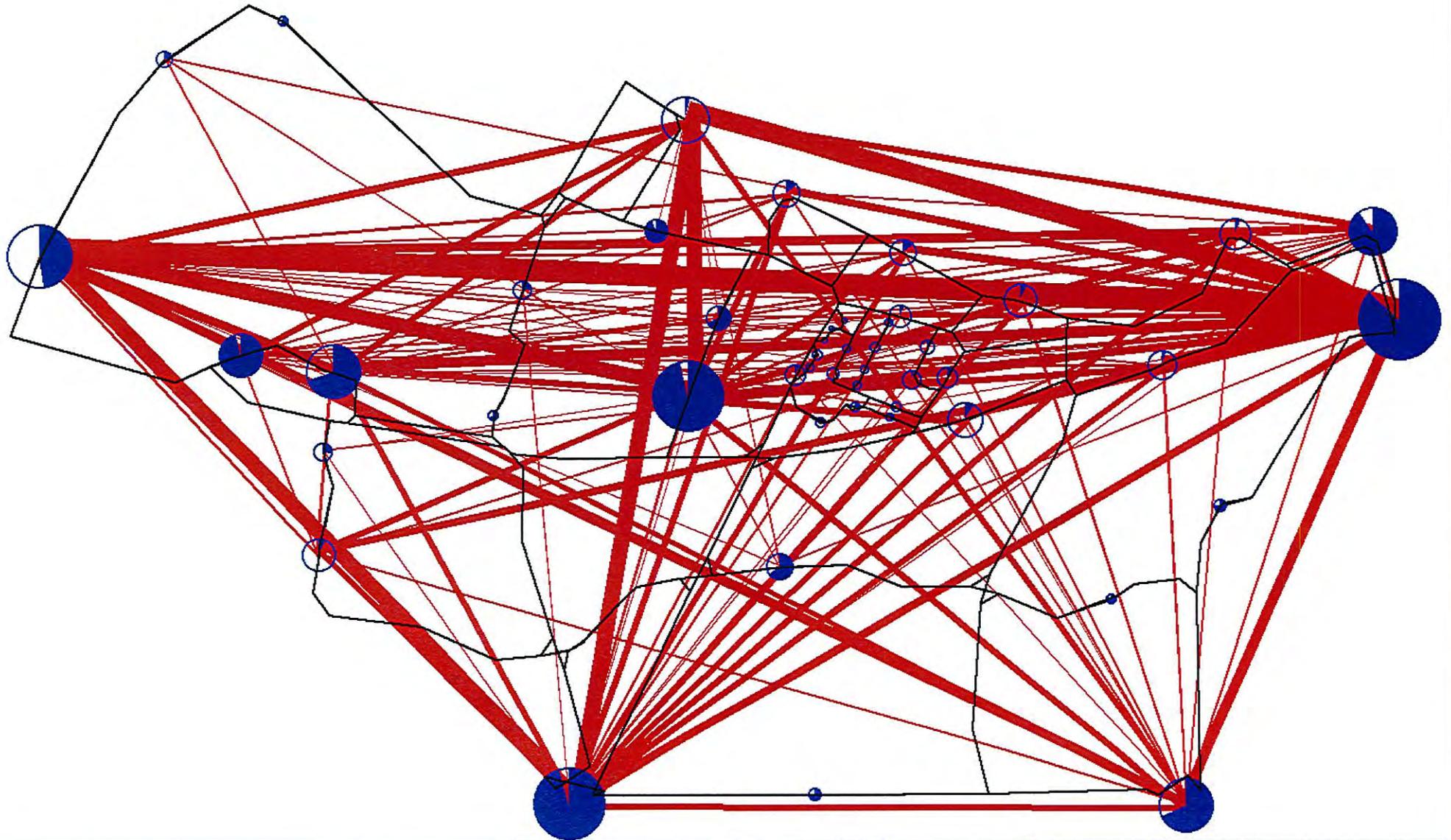
Morning peak hour demand

- 13 000 passengers
- 30 % of trips from 3 transfer stations
- 400 passengers from one train
- Many dispersed destinations

Train / PRT station



Morning peak demand 13 000 / h



Personal Rapid Transit

- Average 1.5 passengers per vehicle
- Can carry 4 800 passengers
- 24 mins waiting

Ride-matching at departure

- System knows requested destinations
- First passenger determines destination
- Destination sign over vehicle
- System assigns vehicle when enough load (5 of 6)
- ...or after max holding (1 min)

Ride-sharing morning

- In relations with >1 party per minute
- 7 % of relations have 60 % of all trips
- 48 % of passengers matched
- Average load 3.9 passengers
- 11 400 passengers carried
- 11 minutes waiting

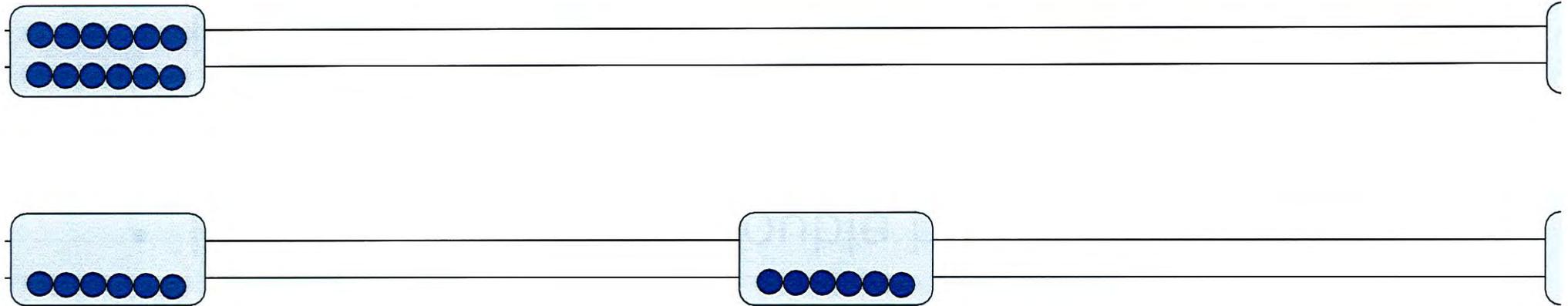
Evening peak most challenging

- Many small origins
- Less opportunities for matching
- 43 % of passengers matched (48)
- 10 800 passengers carried (11 400)

Standing passengers?

- Vehicle for 6 seated + 6 standing
- Limited braking => double headway
- Same capacity
- Longer station ramps

Same capacity without standees



Coupled vehicles

- Coupled in station
- Decouple in switches to different destinations
- Safe distance between couples
- 2 x line capacity at departure
- Average 1.5 en route

Vehicle pair can safely split apart

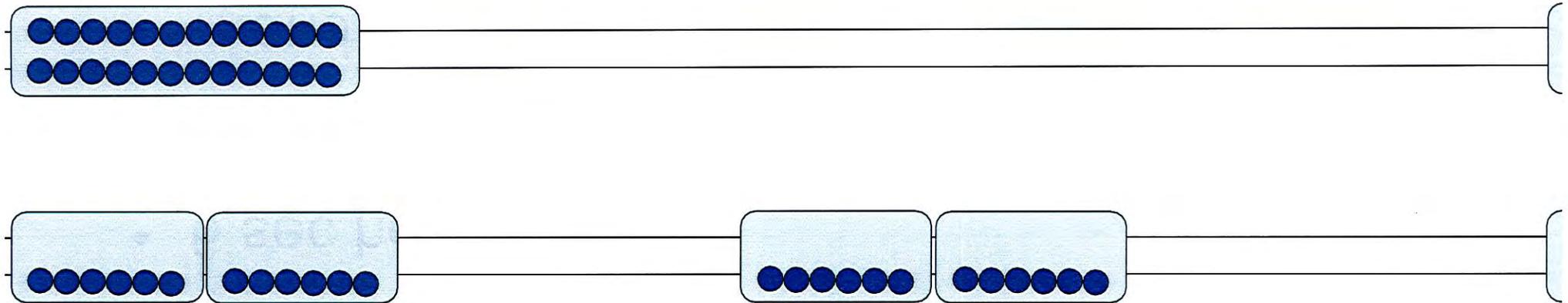


- Can serve different destinations
- More load with two destinations
- Each vehicle goes non-stop

Larger vehicle?

- 24 passengers including standees
- 6 sec headway
- Couple 2 x 6 seated has same capacity
- ...and can split up en route

Coupled vehicles better than big



- Can serve 4 destinations

Electronic or mechanical coupling



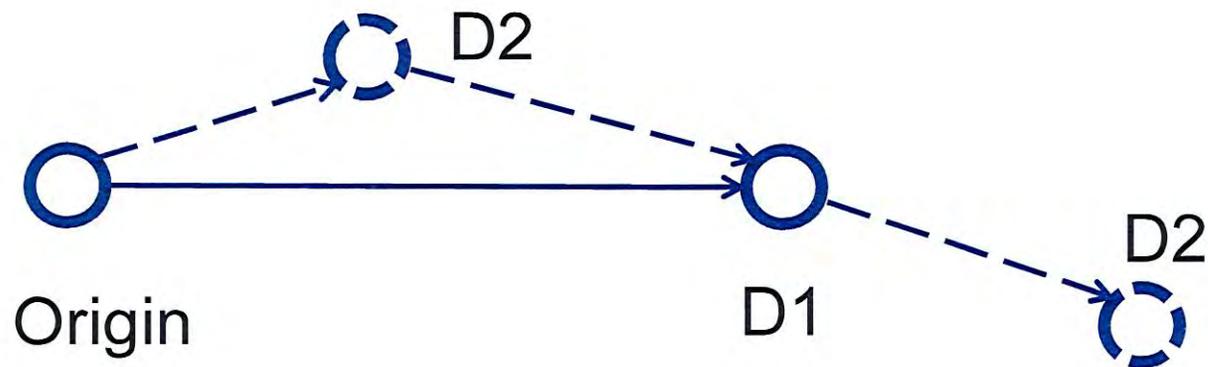
Ride-sharing plus coupling

- 13 200 passengers carried evening (10 800)
- 5 mins waiting (11)
- Better – but still too much waiting

Sharing to 2 destinations

- 26 % of departures for 2 destinations
- 58 % of passengers matched (48)
- 13 300 passengers carried
- 3.5 mins waiting (5)

Second destination before or after



- Detours within 20 %

Allow boarding to same destination

- When stopped to drop off
- Waiting passengers to same destination
- Destination sign over vehicle
- No reason not to allow boarding

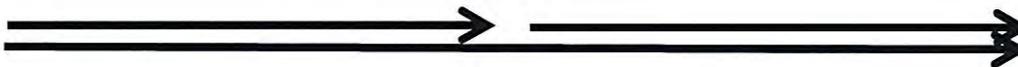
Ride-sharing patterns



Same O & same D



Two destinations

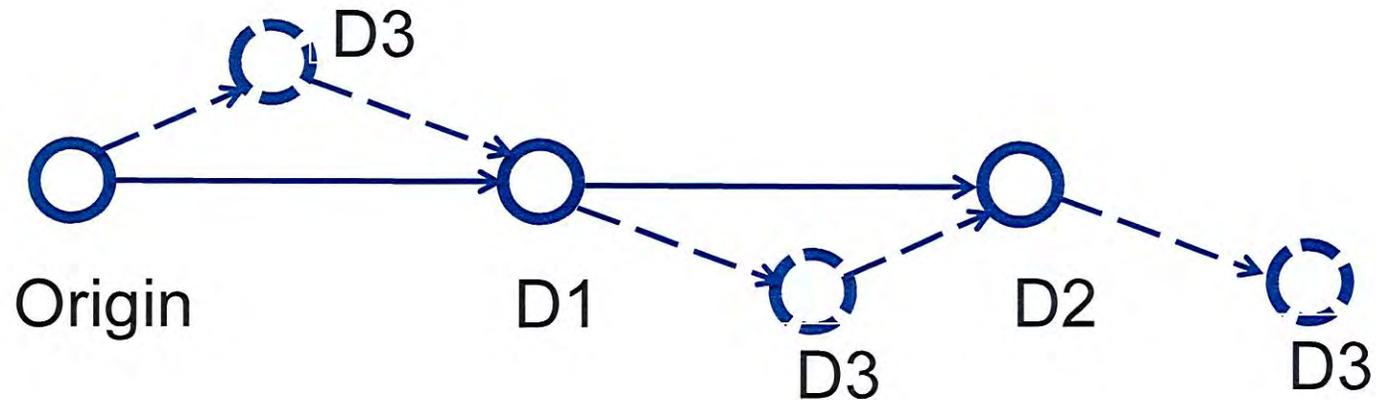


Allow boarding

Sharing to 3 destinations

- 59 % of passengers matched
- 1.2 destinations average
- 13 400 passengers carried
- 3.3 mins waiting (3.5)

Adding a third destination

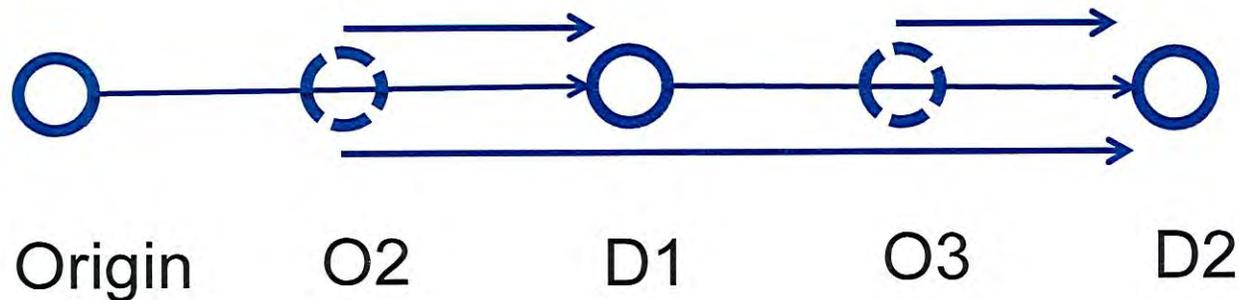


- Before, between or after

Matching many-to-few

- Evening demands more difficult to match
- Multiple pick-ups to common destination (transfer)
- First passengers determine destinations and route
- Stopping en route to pick up for same destinations

Stop en route to pick up



- Route fixed to one or two destinations
- Check waiting passengers en route
- Pick up for same destinations
- No passenger makes more than two extra stops

Stop to pick up

- Picking up 2 000 passengers out of 13 400
- 0.3 intermediate stops per passenger
- 4.5 passengers per vehicle (3.9)
- All vehicles full (6) on max link
- 2.9 mins wait (3.1)
- +10 % ride time

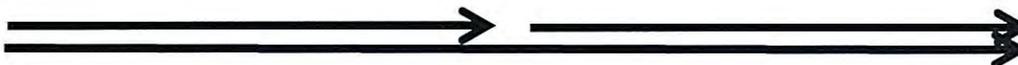
Ride-sharing patterns



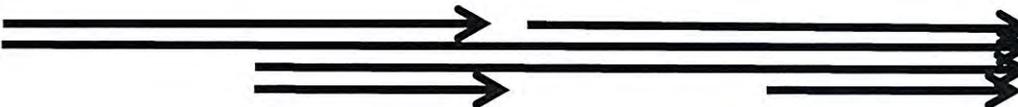
Same origin & destin



Two destinations



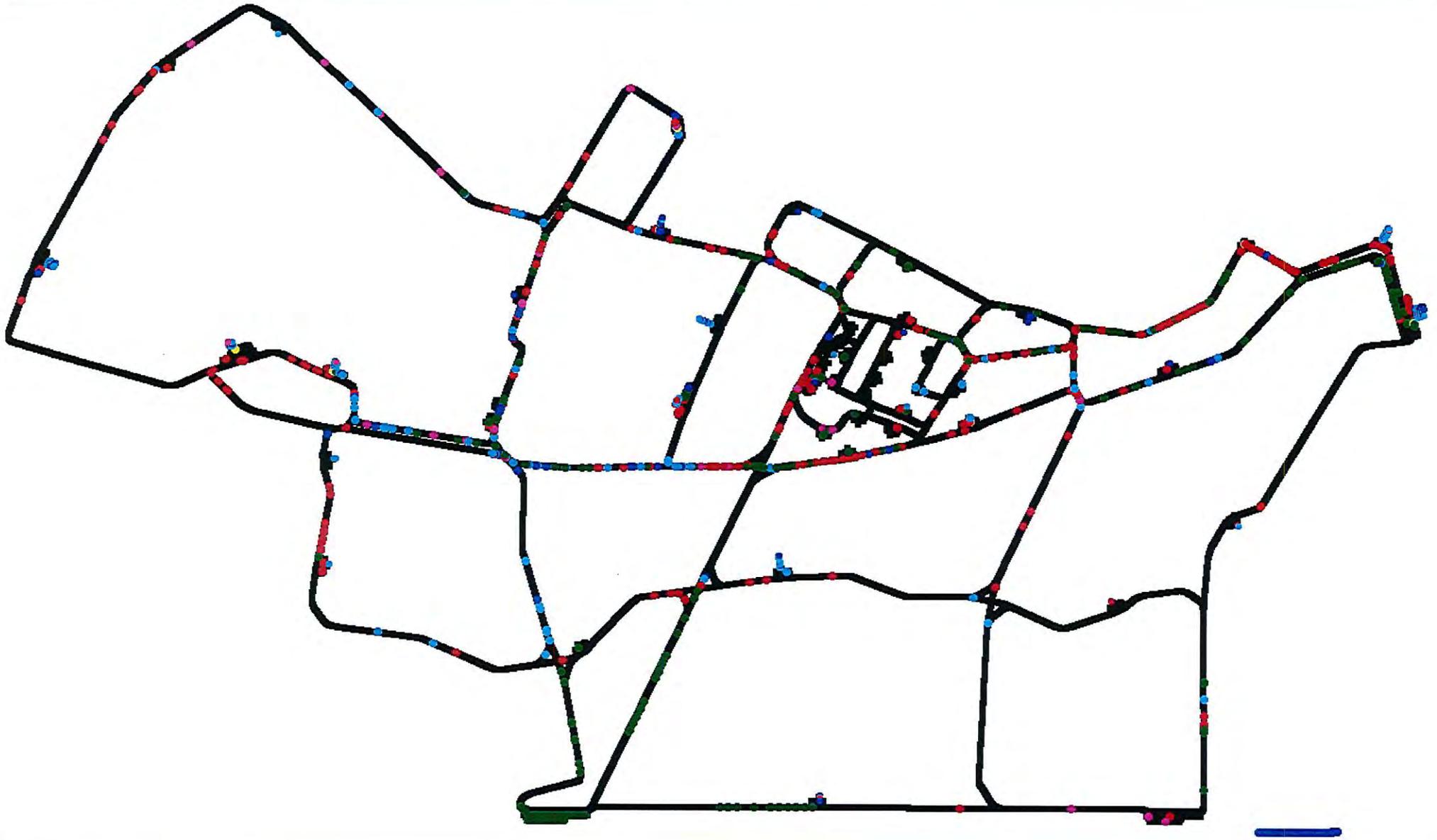
Allow boarding



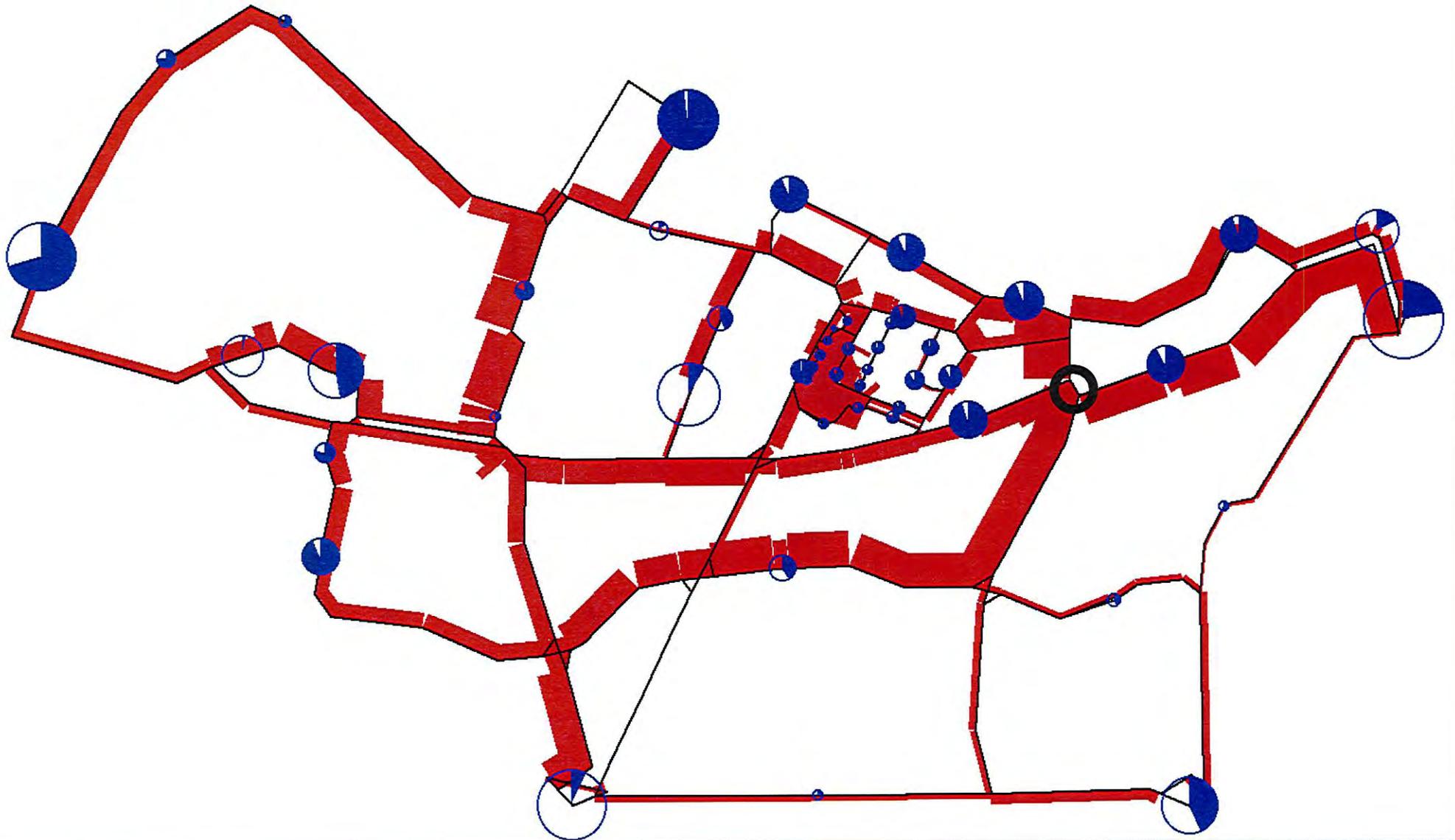
Stop to pick en route

Animation 10 x real speed

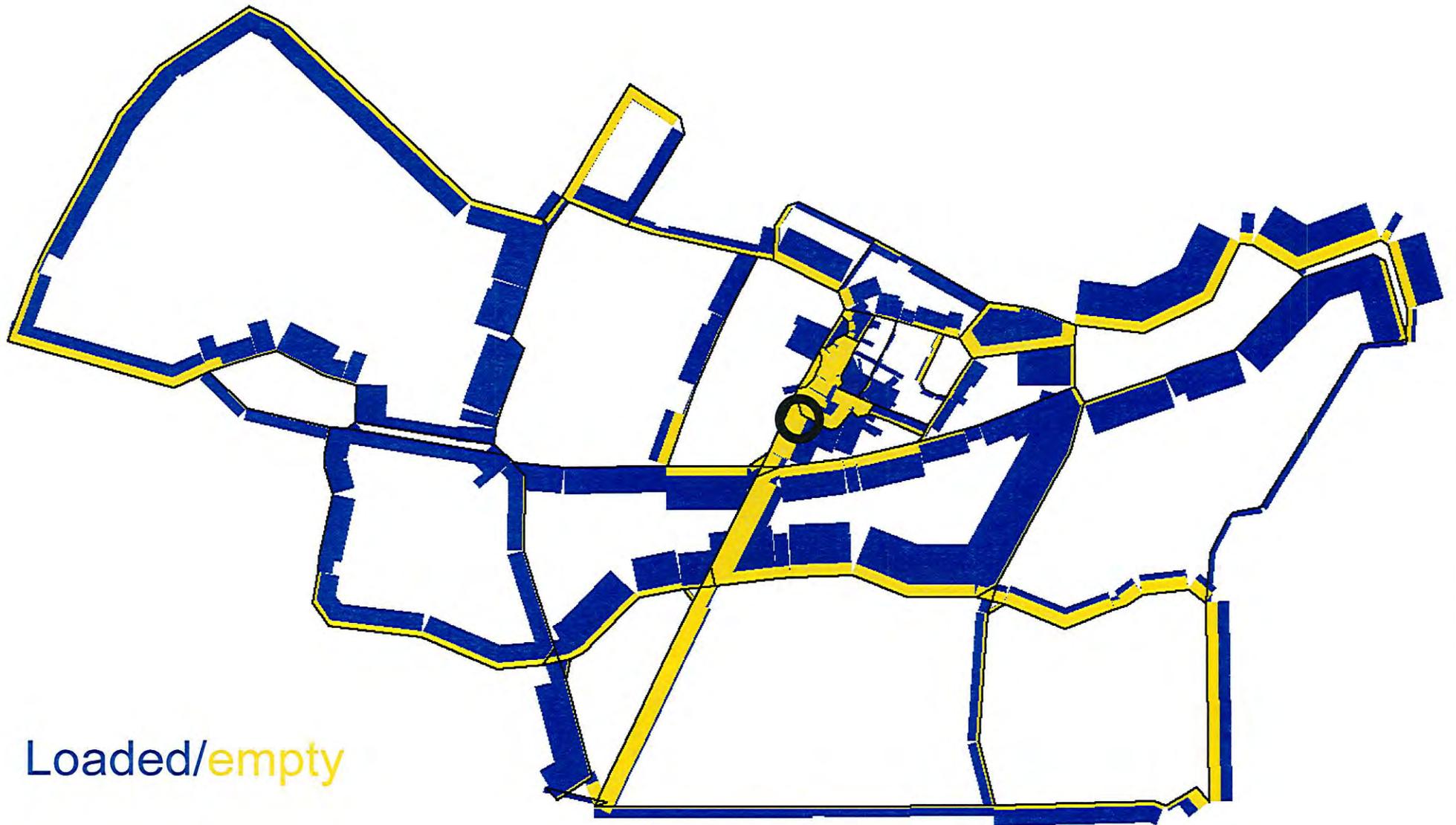
-  Empty vehicle
-  1 passenger
-  2
-  3
-  4 or more
-  Load/unload
-  Couple



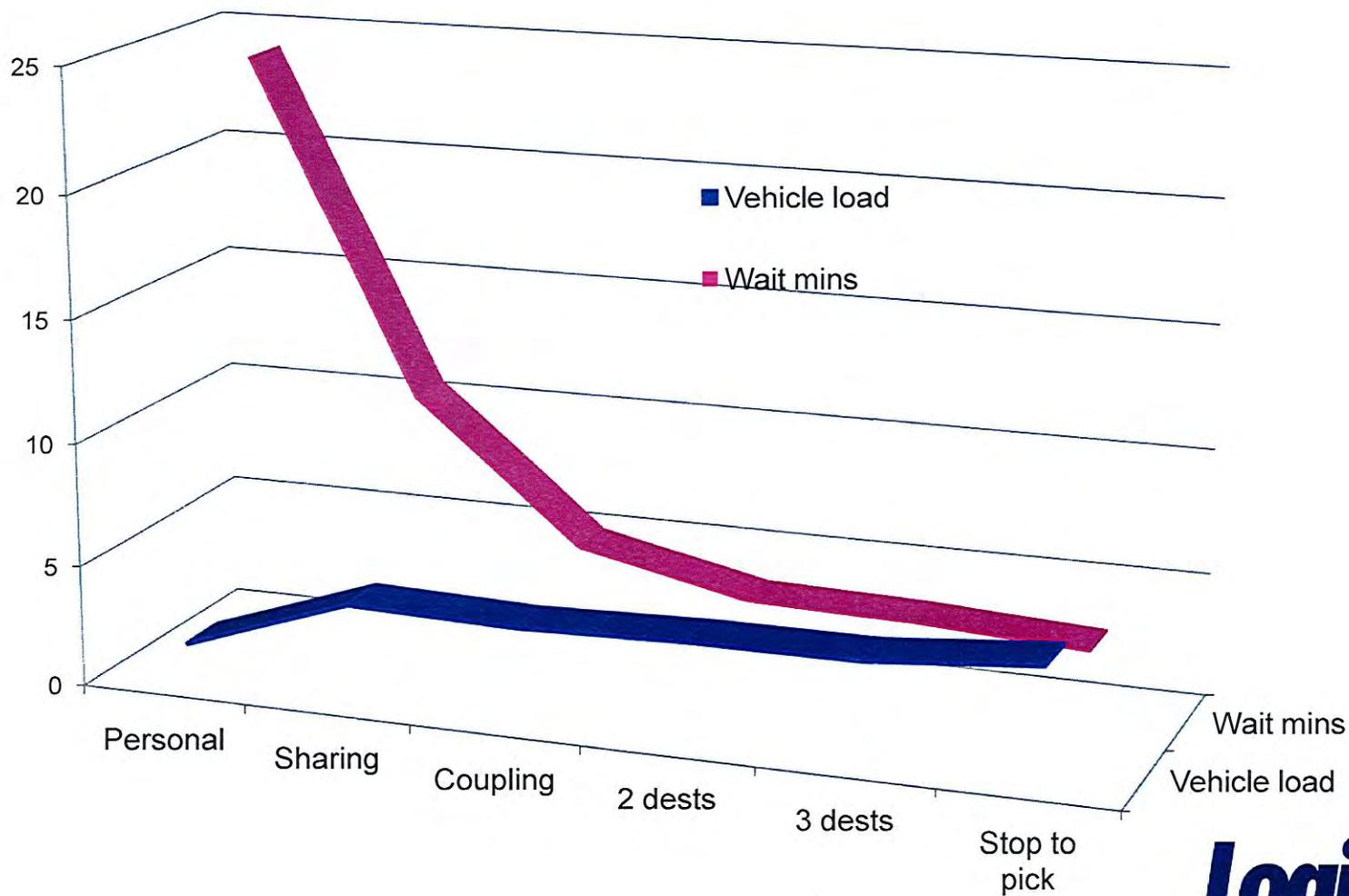
13 400 trips evening peak (6 000 link)



910 vehicles (1800 vph on link)



Less waiting with more ride-sharing



All strategies combined

- Up to 1 800 vph on link (average coupling 1.5)
- Up to 6 passengers per vehicle
- Up to 6 000 pph on link, 13 400 in network
- 85 % of vehicles running with passengers
- 8 % running empty
- 7 % in stations

APM for same capacity

- Stopping on-line => double travel time
- Can only serve 30 out of 50 stations
- Minimum headway 90 secs (40 depts/h)
- To achieve link flow 6 000 pphpd
- Needs to load $6000 / 40 = 150$ passengers

APM or LRT



$200 \text{ pass} / 90 \text{ sec} * 75 \% \text{ load} = 6\,000 \text{ pph corridor}$

PRT



$6+6 \text{ pass} / 3 \text{ sec} = 14\,400 \text{ pph (all paired \& full)}$

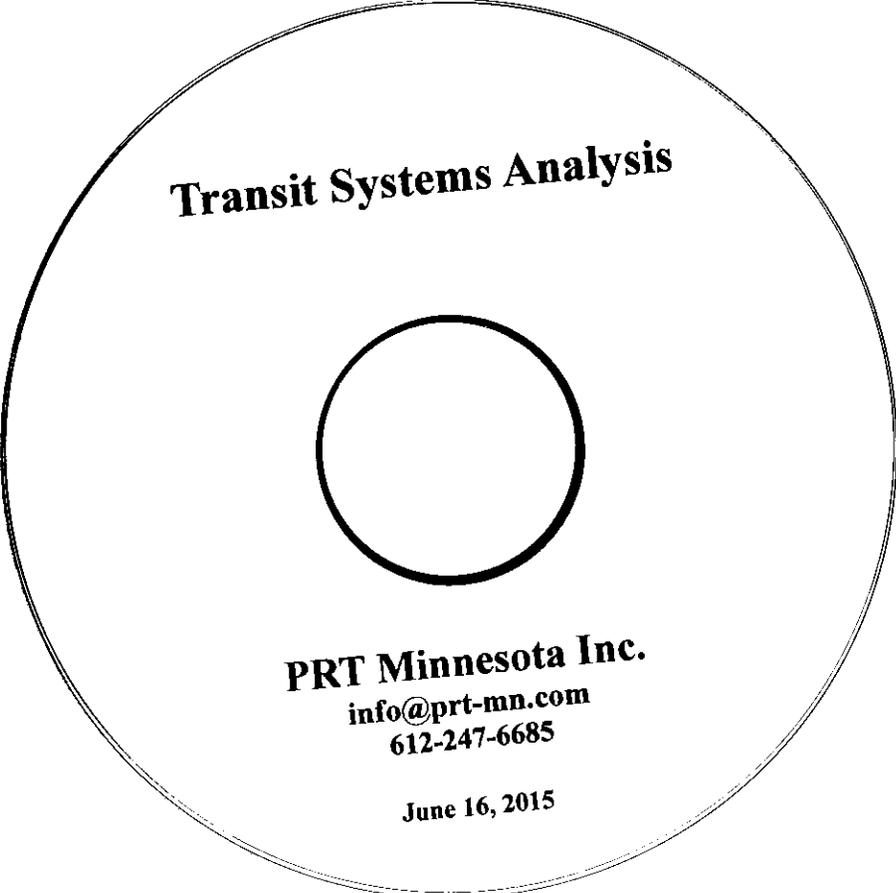
Case 6 000 on link, 13 400 in network

Conclusions

- Apply ride-sharing and pick-ups during peaks
- On demand, almost non-stop (0.3 extra stops)
- Slightly longer trips (+10 %)
- Can handle mass transit flow
 - 6 000 pph on link, 13 000 in network
- Not always Personal, but very Efficient
- Mass Rapid Transit, but faster & cheaper

PRT Minnesota Inc
11330 86th Ave N
Maple Grove MN 55369

SDEIS ~~Submission~~ submission



Transit Systems Analysis

PRT Minnesota Inc.
info@prt-mn.com
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June 16, 2015

Appendix

PRT Simplifies Transit Planning, Construction and Operations:

No vibration or acoustic noise emission.

No buried cable ducts -- communication links are in the guideway.

No at-grade street crossings.

No pilings or retaining walls

No overhead power catenary.

No large and expensive traction transformer-rectifier substations.

No ongoing track and switch maintenance

No replacement of poorly compacted soils

No relocation or abandonment of freight rail.

No "capital maintenance" funding requests to Legislature

Minimal utility relocations (at Heathrow there were zero).

Simple 13.8KV 3-phase power feed to 480V transformers.

Almost no land acquisition required (need only 50-year easements).

Trivial wetlands impacts and mitigation, thus greatly simplified and less expensive EIS.

Most of the system can be installed on existing public right-of-way.

3-berth stations can have a footprint as small as 19 ft x 38 ft (4 parking stalls)

Each additional loading berth adds about 9 ft to the length.

Rapid construction and installation.

Much smaller OMF building and yards.

Greatly reduced OMF staffing requirements.

Extreme flexibility and simplicity of system layout and station locations.

Near immunity to severe winter weather conditions.

Complete automation means lower operating costs.

Curve radii as small as 75 ft.

Vehicles can climb 10% grade.

etc.

etc.

etc.

Transit Systems Analysis

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June 16, 2015

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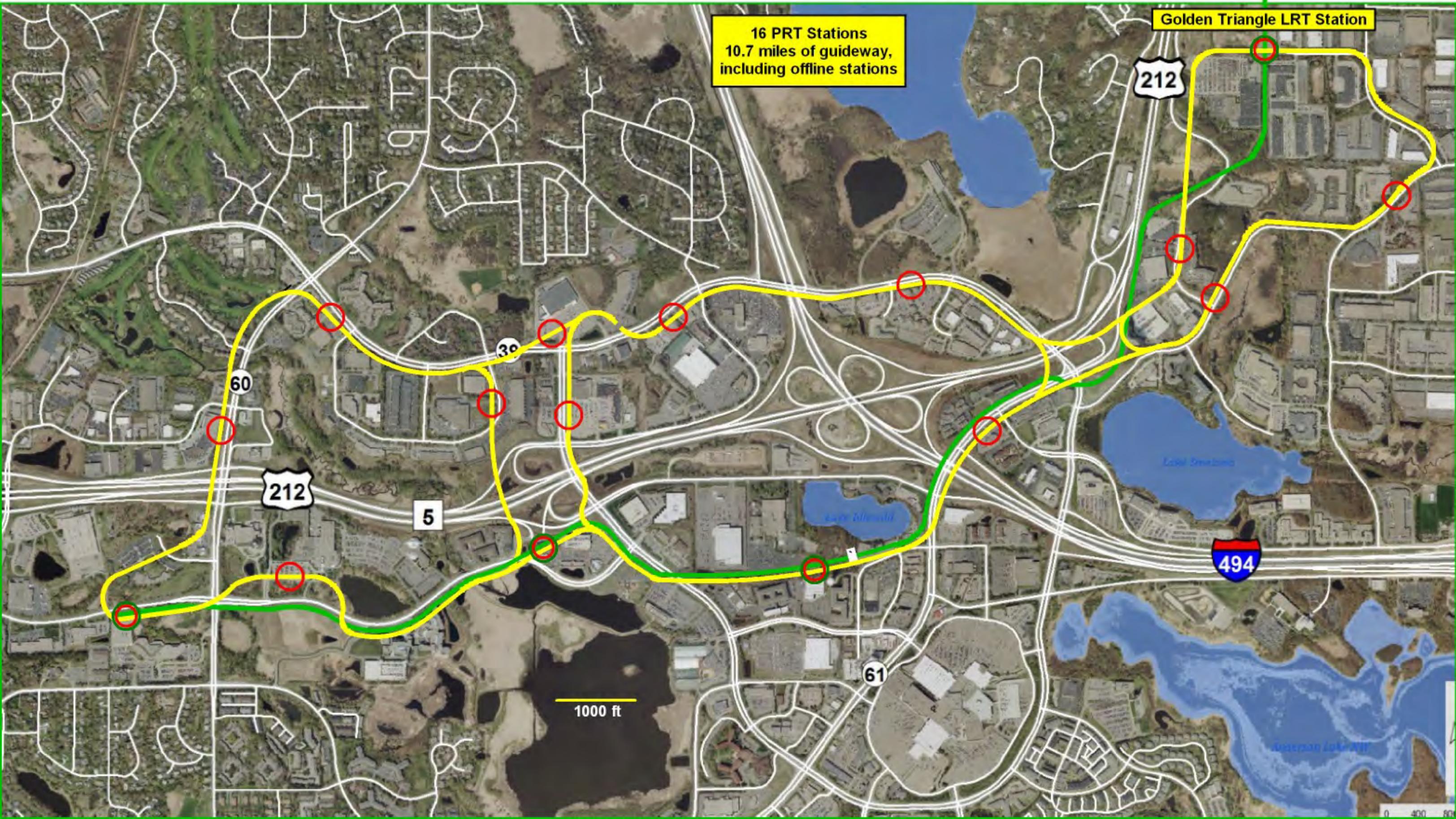
June 16, 2015

Range Extender for SW LRT

○ 3.6 LRT route miles 9.6 PRT route miles ○

16 PRT Stations
10.7 miles of guideway,
including offline stations

Golden Triangle LRT Station



1000 ft

0 400 800

Modelling and software innovations

Prof. Ingmar Andreasson
KTH and LogistikCentrum

Previous developments

- Generic PRT simulator PRTsim
- Dynamic routeing with look-ahead
- Reallocation of empty vehicles en route
- Ride-sharing options
- High-speed links
- Coupled vehicles

PRT implementation

- Initial system pioneer for evaluation
- To demonstrate technology and service
- Meaningful traffic mission
- Limited size and cost
- Few destinations, low utilisation
- Can first stage be cost effective?

Darwin's evolution principle

- Improvement in each step is necessary
- PRT system introduced in stages
- Initial stage involves transfers
- People dislike transfers
- Can first stage offer improvement?

Stage I challenge

- Evaluation based on full system
- First phase only a step
- Needs to be large enough to be effective
- Pick the raisins first
- Connect main attractors at short distance

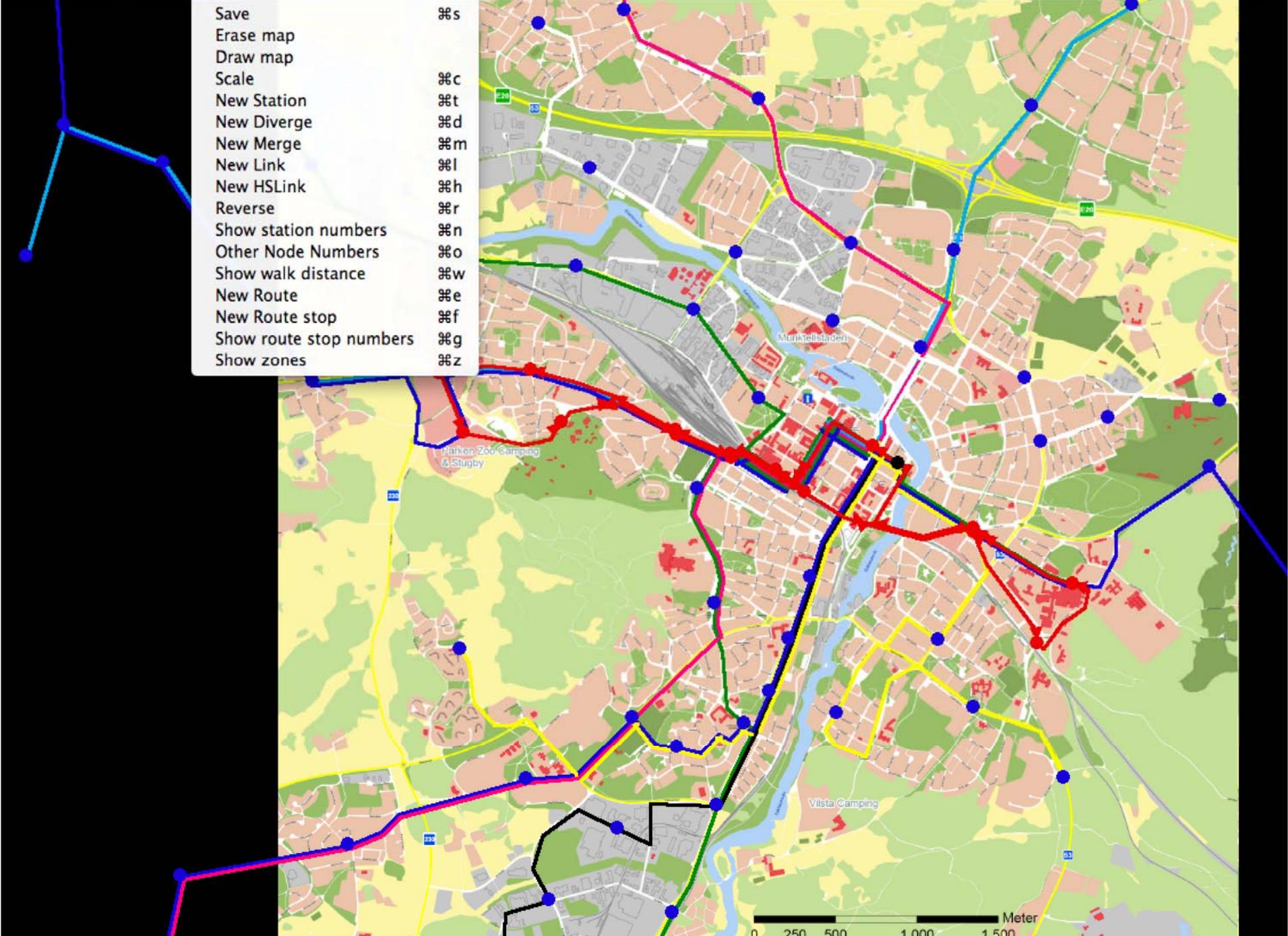
PRTsim developments

- Mixed networks PRT-LRT-Bus-Metro
- Assignment on “best” combination
- Trip disutilities walk-wait-ride-transfer...
- Mode split PT-Car-Bike-Walk
- Elastic travel demand

Eskilstuna

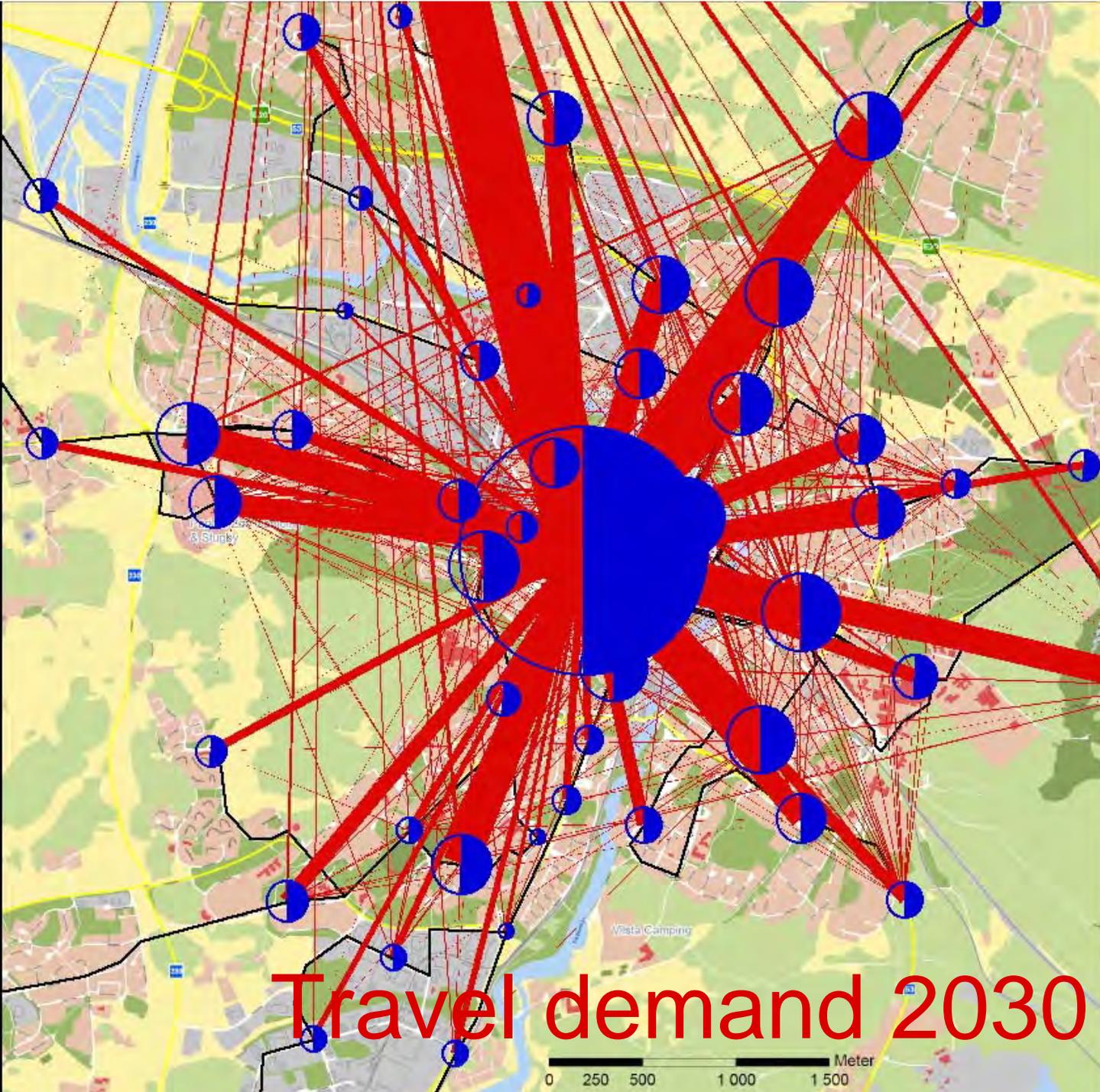


- Save ⌘s
- Erase map
- Draw map
- Scale ⌘c
- New Station ⌘t
- New Diverge ⌘d
- New Merge ⌘m
- New Link ⌘l
- New HSLink ⌘h
- Reverse ⌘r
- Show station numbers ⌘n
- Other Node Numbers ⌘o
- Show walk distance ⌘w
- New Route ⌘e
- New Route stop ⌘f
- Show route stop numbers ⌘g
- Show zones ⌘z



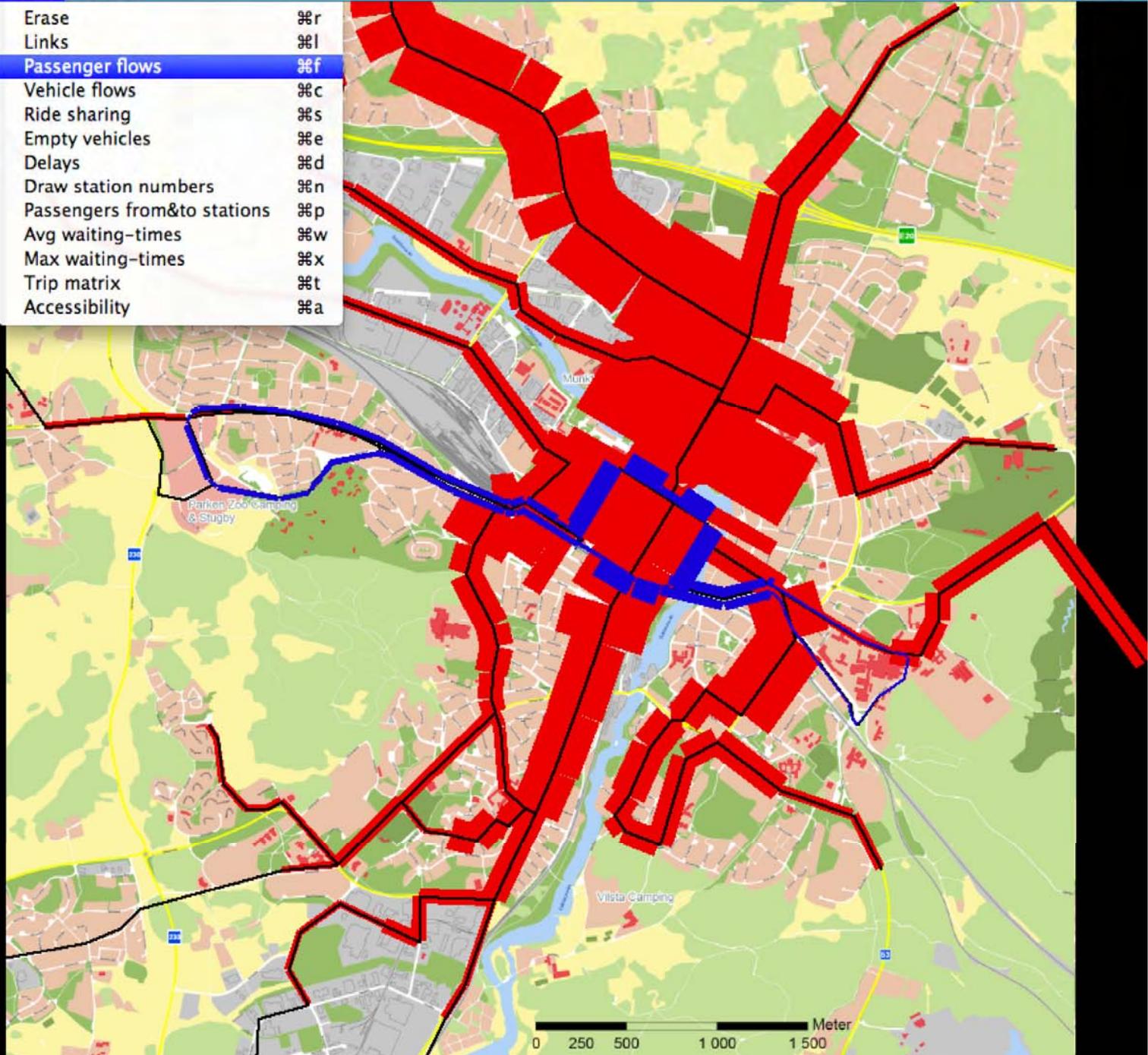
Demand zones



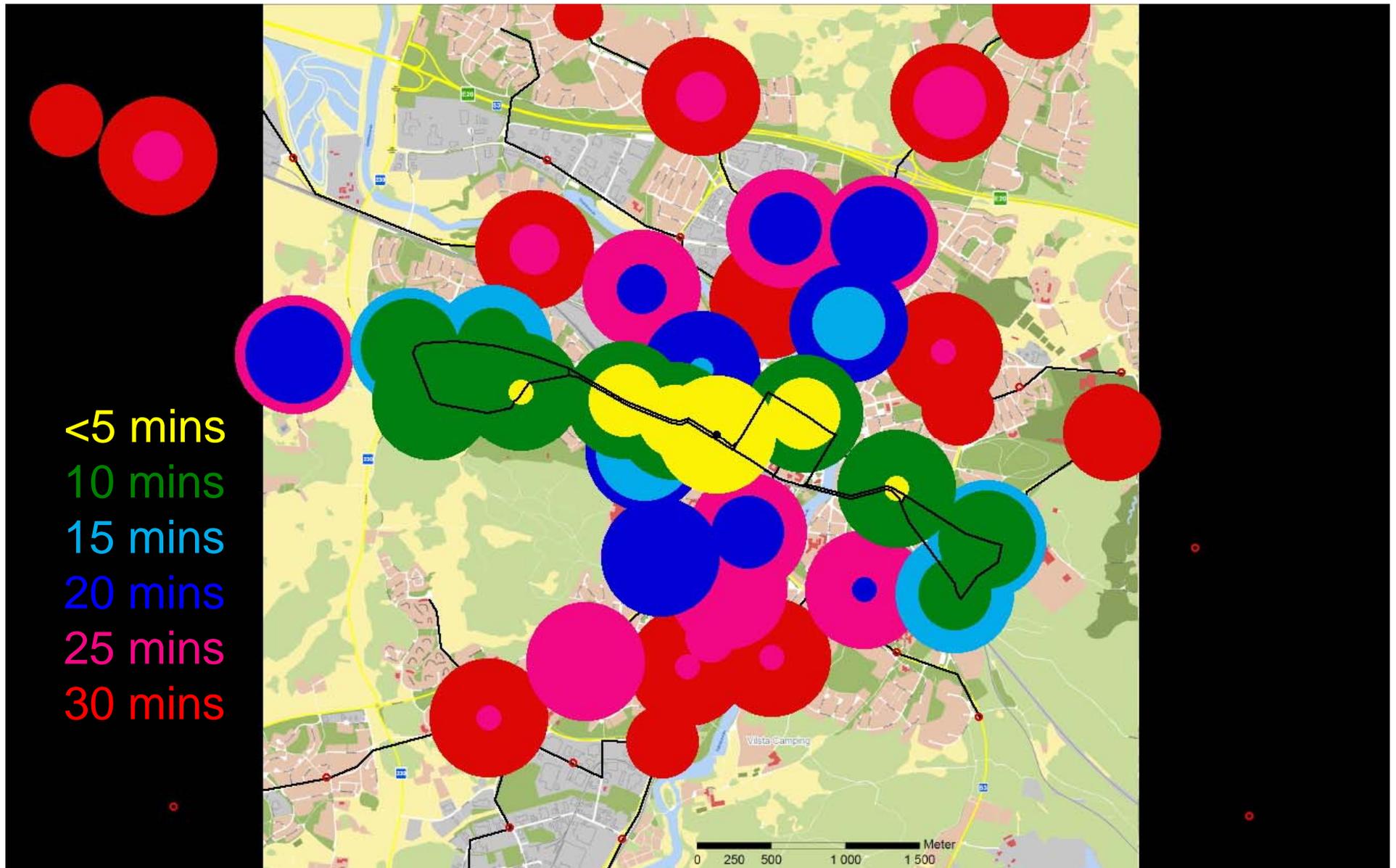


Travel demand 2030

- Erase ⌘r
- Links ⌘l
- Passenger flows ⌘f**
- Vehicle flows ⌘c
- Ride sharing ⌘s
- Empty vehicles ⌘e
- Delays ⌘d
- Draw station numbers ⌘n
- Passengers from&to stations ⌘p
- Avg waiting-times ⌘w
- Max waiting-times ⌘x
- Trip matrix ⌘t
- Accessibility ⌘a

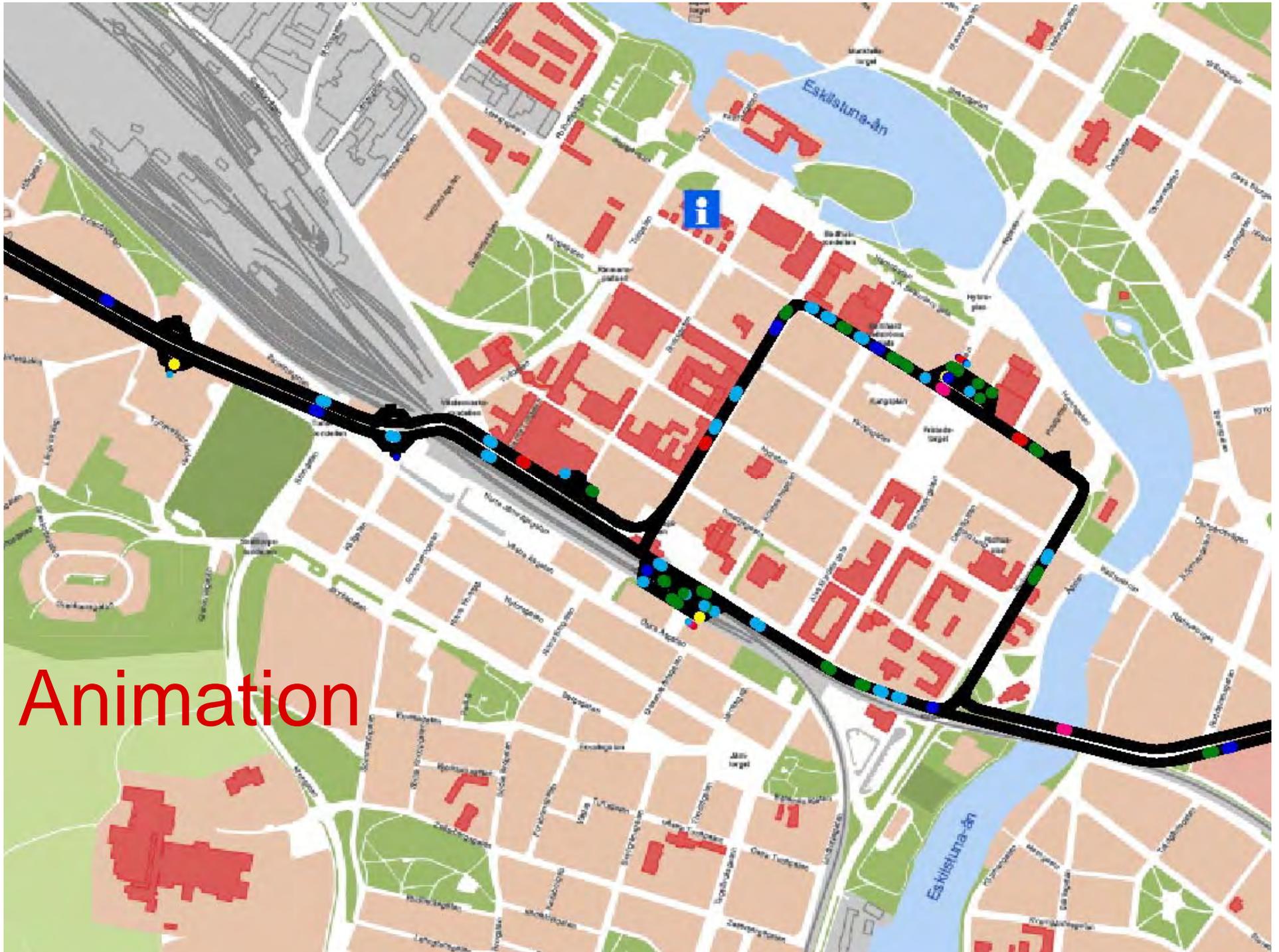


Access time to Travel Center



Demo

- Edit PRT and bus route
- Animation



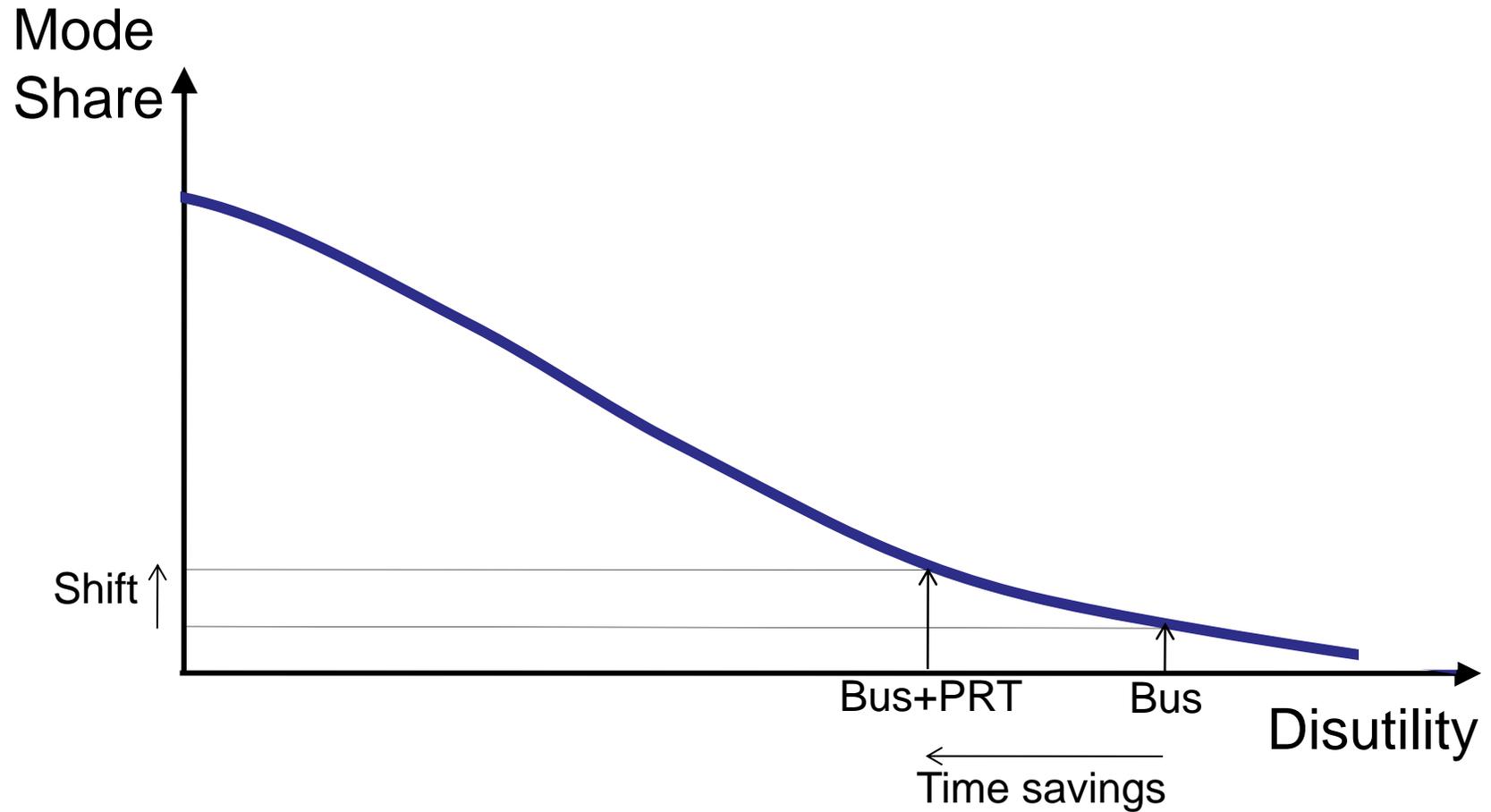
Animation

Travel disutility

Basis for demand and mode choice

- Ride time
- Walk time * 2
- Wait time * 2
- Transfer penalty +5 mins
- Ticket cost

Mode shift to transit



Planning process

- Citywide PRT vision
- First stage in mixed network
- Adapt bus routes
- Elasticity estimation of mode shift
- Costs and benefits
- Basis for political decision

Results for Eskilstuna

- Small first stage PRT (10 % of bus routes)
- Connects Center, Malls and Hospital
- Transit ridership +14 % citywide
- +100-150 % in some PRT relations
- Worth transfer for 3 kms PRT ride
- CBA positive already in first stage

Models available

- PRTsim for all types of PRT
- Several PRT control options
- Mixed transit networks
- Effects on trip-making
- Basis for capital + O&M costs and benefits
- Evaluation of implementation strategies

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21st Century Urban Mobility

June 17, 2015

COPY

Nancy Tyra-Lukens, Mayor
City of Eden Prairie
8080 Mitchell Rd
Eden Prairie, MN 55344

Dear Mayor,

This letter is addressed to you in your capacity as a member of the Southwest LRT Corridor Management Committee. Recent mandated cuts in the cost of the SW line have caught my attention, and last month I began to study the options. I have seen your written comments submitted to the Corridor Management Committee on June 3 and I am very sympathetic to the concerns and problems you raised. I am committed to solving them.

On Sunday June 7 I took a vehicle tour of Eden Prairie to examine the potential for a low cost “range extender system” if SW LRT terminates at the Golden Triangle station, which I am making the case for. Bear with me . . .

A little background -- I am a transit enthusiast. When I lived in Washington DC my mobility was primarily walking and the DC Metro. Daily transit trip share in the Twin Cities is only 3% of the 12 million daily trips by all modes. We can do better. My personal goal for the Twin Cities is 20% transit trip share by 2040.

The more I investigate the SW LRT budget cuts the more interesting it gets. I appreciate that the Corridor Management Committee currently opposes ending the line at Golden Triangle. According to the June 3 staff presentation to the Committee, the cost savings of ending it there would be \$52 to \$59 million more than the cost reduction goal of \$341 million. Additionally, other proposed cost reductions in the LRT line would be unnecessary, thereby gaining allies in the affected cities.

The savings would pay for more than half of a Personal Rapid Transit range extender system beyond the Golden Triangle. Because there would be 12 additional stations over a large area, LRT ridership would increase well beyond the original estimates. This increased ridership will improve the SW project’s Cost Effectiveness Index with the FTA. To achieve high ridership, transit station walk distances should be no more than 1/4 mile. PRT stations are close together, resulting in very short walk distances.

PRT Minnesota can build a 10.7 mile Personal Rapid Transit range extender and local circulator system for about \$10 million per connectivity mile. A conceptual map of such a system is enclosed. I have provided an earlier version of it to Randy Newton in the Public Works Department for staff to discuss.

Enclosed is a short presentation on PRT made last week to the Brooklyn Park Rotary. A collection of PRT videos is at <http://www.prtconsulting.com/prtvendortvideos.html> A video animation is at <http://www.gettherefast.org/bettercampus.html> A pro and con overview is at http://en.wikipedia.org/wiki/Personal_rapid_transit All of these items are on the enclosed DVD.

PRT technology has advanced dramatically in recent years, in great measure because of lessons learned from the deployment of four systems in other countries during the past five years. We have designed a world-class 4th generation PRT technology. Our technology is beyond the research phase, and significant engineering development has been completed. About \$20 million is needed to bring the system to manufacturing and deployment readiness. Engineering innovations from our California-based control system provider and from Ingmar Andreasson in Sweden allow peak traffic period throughput of 14,400 persons per hour, using paired 3-person vehicles at 1.5 sec headways. Ingmar's presentation at the Podcar City 8 conference is available at https://www.youtube.com/watch?v=RI_2YgS9JXg and is on the enclosed DVD. A paper copy of Ingmar's PowerPoint presentation is enclosed.

The partnership of PRT Minnesota and Transit Control Solutions (TCS) has designed a PRT system with 60 MPH speeds and one second intervals between vehicles. Trip times and wait times for the PRT system will be much shorter than trips on current transit systems. Urban travel by PRT will be time and cost competitive with travel by automobile.

The TCS vehicle control system is the world's most advanced Communications Based Train Control, based on their Dynamic Block Control (DBC) technology. The TCS founder, Eugene Nishinaga, has a patent for the DBC technology, with ten more to follow. He had 37 years of employment in the transit industry, most of it with BART, followed by eight years of R&D on PRT and train control technology.

Our physical design and control technology is driving down the cost and vastly increasing the performance of PRT relative to recent systems built in other countries by Ultra, Vectus, 2GetThere and ModuTram. A major reason for skepticism of PRT by public transit agencies is that the Morgantown WV PRT and the newer PRT systems are relatively low speed and low capacity. There are no PRT designs in the US or elsewhere with the advanced functionality that the PRT Minnesota design has. Our guideway and vehicle concepts were greatly influenced by a world famous roller coaster designer.

PRT has been trapped in a loop for decades:

- The customer (such as Eden Prairie) needs a product
- The product development needs an investor (about \$20 million)
- The investor needs a customer

But we are getting close to breaking out of this loop, and Eden Prairie may be part of the solution. The city has the most ideal structure for PRT that we have found in the USA.

Historically PRT has been rejected because of its perceived low speeds and low capacity and the lack of real-world deployments. Our control, vehicle and guideway technologies solve the speed, capacity and cost issues. PRT is a proven technology, with five automated systems now operating in five countries. Driverless automated vehicles are rapidly joining

the transportation world. Rivium in the Netherlands even has a driverless automated bus system, called Park Shuttle, in operation since 2008:

<http://www.advancedtransit.org/advanced-transit/applications/rivium/>

Self-driving vehicles require control technology at least 10X more complex than PRT control, but it is being done and therefore PRT control can be done.

The low capital and operating costs of PRT, coupled with very high capacity and short trip times, means that public agencies can build PRT systems for a fraction of the cost of current transit, while achieving high ridership and reaching deep into low density suburban areas. Fare box revenues can pay the construction or operating costs. Federal government money is not needed.

Because of slow and inconvenient service compared to automobiles, transit in the US carries only 1 to 2 percent of all urban daily trips. Only six US cities have transit trip share above four percent. In our metro area daily trip share is 3%. To have a large share of daily trips, transit has to "go everywhere all the time, with automobile competitive travel time." Buses have large networks, but trip times are too long and rail has too few destinations as well as long trip times.

Transit mode share is determined by walk time, wait time, ride time, transfer time, fare, number of origins and destinations, plus other criteria like health status, age, weather and "can you afford to own and operate a car?" Total trip time is the most important factor. Current transit technology is not automobile competitive, so few people use it unless they absolutely have to. Because current transit is not a workable travel mode for most people, they drive cars. But traffic congestion continues to increase. The number of vehicle miles traveled each year increases much faster than lane miles of roads. Buses can't attract riders and there is not enough money and land to build sufficient roads and urban rail systems.

High performance PRT is the only urban travel mode that can overcome these limitations and problems. It can be built and operated at low cost relative to other modes, and can provide high capacity, large numbers of origin destination pairs and short trip times, thereby attracting riders. It is time to demonstrate these characteristics in an environment where it is complementing rather than competing with rail transit.

The decision process on SW LRT is moving rapidly and I would like to meet with you to discuss a path forward to building a world-class transit system for Eden Prairie that will complement the SW Corridor project.

Sincerely yours.

Joseph Lampe, President
PRT Minnesota, Inc.

cc: City Council
Corridor Management Committee

PODCARS - A Personal Rapid Transit primer



September 13, 2009



Part 1



David Gow
Seattle Transportation Examiner

This year has seen an increasing stream of news, **Examiner.com included**, about the mass transit alternative concept Personal Rapid Transit (PRT) -- also known as "podcars."

Stories on podcars are usually followed by discussions among readers speculating about what PRT is, how it would work, or why is it needed. Answers tend not to resolve their questions to any great satisfaction.

I have some insights into the subject, having observed PRT development for nearly twenty years. Wider public understanding is needed about PRT, because there are two PRT projects that are to begin operating soon -- short initial phases of what could become larger PRT-based transit networks. In the next few years, your community could start thinking about adding PRT to existing transit services, and your thumbs-up or thumbs-down needs to be an informed one.

How PRT would work



2getthere

**Taxi 2000****Vectus**

The PRT concept is pretty straightforward: imagine splitting trains into small segments -- 4 to 6 seat pods. Each segment can run around separately on an elevated guideway, driverless, under computer control. The guideway connects stops (stations) distributed across a service area, forming a network. Each stop is located on a siding off the main guideway, so that loading or unloading passengers at one stop doesn't block pods going elsewhere. Designers of PRT systems believe small light weight vehicles have economic advantages -- they can use smaller profile guideways, and therefore could have lower per-mile capital cost. It is hoped that PRT can build more miles of transit, reaching more places and expanding the base of transit users.

Pods would operate on-demand instead of according to schedules. During off-peak periods the pods would wait at stops until needed. A traveler would go to a PRT stop, request a ride by selecting a destination stop from an ATM-like machine, provide payment, then board a pod that would take her on the most direct route (balancing distance and time) through the network to her destination, bypassing intermediate stops. When the ride is over, the pod is available for another user.

You might be surprised to learn that on paper PRT is more energy efficient than trains and buses. Due to our experience with automobiles, small vehicles are assumed to be more wasteful. But a big part of energy use in any type of transportation correlates to the amount of vehicle weight that must be moved with the passengers. A 50 ton light rail car with 70 seats is moving over 1,400 pounds per seat, a 23 ton articulated hybrid bus with 58 seats has 769 pounds per seat, and a 7,000 pound six-seater Escalade has 1,166 pounds per seat. In contrast, a six-person PRT pod might weigh only 900 pounds, or 150 pounds per seat.

Other sources of energy waste in transit are frequent starting and stopping (addressed when

vehicles have regenerative braking) and low occupancy. Because the average occupancy on transit (the occupied percentage of all available service) is on the order of 15%, government statistics on transportation energy show transit as sometimes less efficient than automobiles (see Fig. 2.12 and 2.2 at **this Center for Transportation Analysis page**). However, the automobile's dominance has a cumulative effect that more than overcomes any small statistical differences -- and for **CO2 emissions as well** as energy.

Capacity in a PRT system is mostly a function of the number of pods, and short headways between them. Congestion is avoided by having a set number of pods, in contrast to the continual increase in new automobiles being put on the roads. Capacity is the number of trips each pod makes, times the number of seats per pod, times the number of pods in the system. Just as an example, in a fleet of 1,000 four-seat pods each making five trips per hour, the capacity is 20,000 passengers per hour. Therefore on-demand service is the chief difference between PRT and light rail -- light rail is good at moving large groups in trains many minutes apart, along corridors; PRT serves the same number in smaller groups, with pods sometimes separated only by seconds, around a grid-like network.

In addition to bus and rail schedules, there is another feature of typical transit that isn't part of PRT: each trip is an express ride to the selected destination. Rider groups are determined at the start of the trip. The odds of people going from the same point A to the same point B at exactly the same time is quite low, so travelers share a pod when they plan to travel together, or several strangers going to the same place can negotiate ridesharing.

And because pods are usually ready and waiting, crowds aren't expected to accumulate inside PRT stops, so most stops can be comparable in size to an elevator lobby. Crowds at train platforms and bus stops are partly caused by having to wait for scheduled departures -- that's not a judgment, it's just how scheduled transit works.

PRT seeks to address the need for convenient transit access by having relatively short distances between stops. Because stops are on sidings, they don't slow down PRT traffic the way average speeds of trains and buses are reduced by frequent stops. The ideal is that, within a PRT service area, people should never be more than a quarter-mile from a PRT stop -- they are more likely to walk to PRT and not drive. Thus the ideal distance between stops is about a half mile. These small ridersheds also benefit the PRT network's performance -- rider demand and pod traffic is more dispersed than if there were fewer stations. This also helps keep the size of stops small.

PRT is network-based and on-demand, and therefore can't be evaluated in the same way as corridor-based, scheduled conventional rail. Forgetting this difference has been a major source of

misunderstanding over the years, and continues to this day.

Next time: Part II - Origins

PODCARS - Origins



David Gow
Seattle Transportation Examiner
|

September 13, 2009



Part 2

It is generally agreed that a transit concept resembling Personal Rapid Transit as we now know it was first developed in the 1950s by Donn Fichter, a graduate student and later an official with the New York Department of Transportation. Fichter published his work in a book, "**Individualized Automated Transit and the City**" (1964).

The idea came to the attention of the nonprofit Aerospace Corporation, a federal R&D center, which essentially defined the state of the art of the new technology. **A scale model was tested** that successfully **demonstrated the different aspects** of the PRT concept, and in 1970 PRT was added to a list of new technology initiatives given to the White House Office Science and Technology. Nixon reportedly decided, "**If we can send three men to the moon 200,000 miles away, we should be able to move 200,000 people to work three miles away.**" The transit initiative came only a year after establishment of the Environmental Protection Agency and OSHA. The following year Nixon created the Consumer Product Safety Commission and the Watergate cover-up.

But a federal PRT project was launched in 1973, with the ambitious goal of creating a high capacity system with minimum headways of a second or less. The US program was paralleled by competing efforts in England, West Germany, France, and Japan. Of the overseas programs, only West Germany produced a finished product: **Cabintaxi**, by Messerschmitt-Bölkow-Blohm.

Although MBB and regulators said it ready to be built somewhere, Cabintaxi **was torpedoed in the 1980s** when the government backed out because of a general budget crunch. Today the technology **lives on as a hospital shuttle** in Schwalmstadt, Germany.

The American PRT program resulted in just one installation, connecting the three-part campus of the university in Morgantown, West Virginia. Built by a Boeing-led contractor team, the essentially experimental project suffered from design changes that resulted in guideway and vehicles being too large. There were cost overruns, minimum headways are 15 seconds, and it only runs in PRT mode part-time. But since going public in 1975 it has logged more than 20 million miles, carried over 60 million passengers, and is in service 98% of the time. An expansion is currently being studied.

Morgantown PRT links:

WVU's one-of-a-kind transit system rolls on

Boeing History: Personal Rapid Transit System

City's White Elephant Now Looks Like a Transit Workhorse

Next time: Part III - Close but no cigar



Raytheon PRT2000



Skyweb Express, a vehicle based on the original design (2003)

In the early 1990s the Chicago Regional Transit Authority became interested in Anderson's design, in order to create a prototype system that would complement commuter rail. He was **already working with Raytheon**. After a public competition, the RTA chose the suburb of Rosemont as the project site. **PRT would provide links among** hotels, civic facilities and the adjacent O'Hare airport, and serve as a feeder to a Chicago Transit rail station.

Raytheon proceeded to change Taxi 2000 beyond all recognition; the **megacorporation dubbed its version "PRT2000"**. The vehicle was made too large and heavy, and its wheels also too large. Because the wheels had to fit inside the guideway, that too had to be bigger and therefore more expensive as well. The guideway was built atop an unsightly and unnecessarily large 36" diameter steel pipe. Raytheon even **wrote its own control program** instead of using Anderson's. Nevertheless, a test track with three pods and a station was built in Massachusetts, with costs shared by Raytheon and Chicago RTA. It was a technical success. However, the sticker price to build PRT2000 in Rosemont had escalated, possibly to more than \$35 million per mile.

It still would have been cheaper than some conventional systems, but it was a far cry from the hoped-for affordable alternative. Interest in Chicago, as well as in SeaTac, Washington (**SeaTac Major Investment Study**, 1997), rightly evaporated.*

But even as Raytheon was canceling PRT2000 in 1999, the next wave of PRT development was already underway.

Next time: Part IV - Misunderstanding PRT

PODCARS Series

Part 1

Part 2

* Out of the rubble came two successor programs: a reborn **Taxi 2000** which created a small prototype in 2003; **PRT International**, a new company

Anderson founded in 2006 after **losing control of Taxi 2000**.

PODCARS - Misunderstanding PRT



David Gow
Seattle Transportation Examiner
|

September 27, 2009



Part 4

A number of individuals and groups express doubt that Personal Rapid Transit would be useful, and say it would be a waste of limited public funds. Some are even opposed to attempting it with private funding. Sometimes disagreements get heated on both sides.

PRT is a new concept for most, so misunderstandings about technical issues are to be expected. People get it when their questions about PRT are answered clearly and simply. But at the extreme there is a group of people who support transit, yet are adamantly opposed to PRT.^{1, 2, 3}

But why should transit supporters get *extremely* bent out of shape over PRT?

One example, perhaps the **most prevalent vein of opposition**, arises out of conspiracy-fueled logic that reads like theories about President Obama's birth certificate and Sarah Palin's "death panels." This school of thought variously claims that PRT is **technically impossible** and/or **demonizes PRT as a right wing political conspiracy** stretching back three decades.

Minimal investigation shows PRT prototypes have received safety approval from the 1970s up to the present day, and the latter claim is more likely the result of bureaucratic infighting. Yet there are a host of other outlandish claims, and new ones keep coming to the fore thanks to a small but vocal cadre that **claims PRT is a "stalking horse"** -- part of a conspiracy to stop conventional (usually light rail) transit projects.

Obviously, these claims do not overcome what is *prima facie* to most people: a technology doesn't have a say over who uses it.

But it is also true that the PRT community brought some of this grief on itself, mostly in Minnesota. That state has been a hotbed for PRT since the 1970s due mostly to one man: Ed Anderson, whom we met in Part III. Following the 1999 cancellation of Raytheon's "PRT2000, which was loosely based on Anderson's "Taxi 2000" (T2) Anderson won back the rights to the design and, as in the 1980s, struck out on his own.

Democrats and environment/transit activists should have been the ones most excited by PRT. But in Minneapolis they had been working hard to get more conventional transit approved and built; they understandably showed little interest in the high-tech alternative.

Responsibility for what followed is unclear, but the political missteps likely can be explained by the fact that PRT is created by engineers, and engineers are not politicians.

For the most part rebuffed by the local pro-transit coalition, T2 and supporters in the community turned to the only ears that seemed willing to listen -- Greens at the local level, and Republicans at the state level.

The agenda was modest -- not outright funding for a PRT installation or even a testing facility, but rather incentives to attract private investors -- such as sales tax exemptions for purchases made by PRT companies. Such benefits are of the type states commonly award to local industries. Somehow, after several years this effort led to the egregious Congresswoman Michele Bachmann, then a Minnesota state senator.

None of the proposed PRT legislation ever passed, yet a meme was born. Some seized on the Republican cooties on Minnesota PRT as a means to cast their opposition to PRT in partisan ideological terms everywhere in the world. Examples of some of the allegations:

- *Only right wing extremists want PRT.* This claims Bachmann proposed a "PRT boondoggle." In reality Bachmann **proposed adding the words "personal rapid transit" to Minnesota's lengthy list of types of public projects eligible to be funded by bonds.** That was in 2004, and she hasn't said a word since about PRT, or introduced federal legislation about it -- nor did any other Republican in all the years they controlled Congress after the 1994 midterm elections.

Ed Anderson (see **Part 3**) -- **an arms control activist** during the Reagan administration -- was likely not very happy with Bachmann's involvement. The year after her bill, Anderson left T2 to start a new PRT company.

The claim that PRT is only supported by conservatives seems true only when the person making the claim ignores the list of notable **PRT supporters from the progressive side.**

- *PRT is linked to a torture scandal, captured on video, involving a member of the United Arab Emirates royal family.* In reality the only real linkage is geographic -- PRT is only one part of Masdar City, a planned carbon neutral research community being built outside Abu Dhabi, and the project is headed by a *different member* of the ruling family. In addition, the project agreed to abide by the ten principles (including social goals) of the **World Wildlife Fund's One Planet Living program** in return for that program's **endorsement**.

Masdar is therefore correctly viewed as an opportunity to *constructively engage* the UAE on human rights.

- *PRT for just one metro area would cost "trillions" of dollars.* In reality, even \$2 trillion is an absurdly massive portion of all the money in the world. Even the world's most advanced train now operating, the maglev Shanghai Transrapid, cost an estimated \$1.33 billion -- **0.13%** of a trillion.

But even if PRT advocates *did* want to junk trains and buses, the promoters of the conspiracy theory forget one important thing: advocates alone don't determine public policy. There is no way a pod transit plan could be studied, planned, designed, and funded without being vetted by government transportation planners, commented upon by neutral experts both with and without skin in the game, and approved by officials answerable to elected representatives -- and maybe okayed by the representatives and the voters themselves.

For the alleged "PRT scam" to work, everyone would have to be in on it. Can you imagine any jurisdiction deciding to *totally replace* its light rail or subway system with pods? Of course not -- if a city chooses to implement pods, it will be to fill specific niches within a multimodal transit strategy.

Next time: Part 5 - Is it the future yet?

PODCARS Series

Part 1

Part 2

Part 3

PODCARS - Is it the future yet?

cIMG_6384(Large).jpg

October 1, 2009



David Gow
Seattle Transportation Examiner



Part 5

The year 1999 saw Raytheon withdraw from the Personal Rapid Transit field with the cancellation of its PRT2000 program (see **Part 3**). But many disappointed PRT advocates may not have known that a successor was already in the works.

An engineer named Martin Lawson started working on transportation at Bristol University in 1995. Lawson previously worked with the American space program on Apollo, which no doubt emphasized for him how quickly humanity went from Earthbound, to flight, to space travel. So when Lawson turned his attention to Earthly transportation, what he noticed were the historical changes -- **every 50 years or so we experience the rise of a new transportation mode**, involving a new vehicle and infrastructure.

Lowson decided to derive a concept that would succeed the motorway (*motorway* -- because he's *British*). He reasoned that whatever the new mode is, it would involve computing and information technology. But it would not involve merely applying IT to the dominant paradigm. Instead Lowson decided to identify the actual requirements of urban travel, and **what he came up with** was:

The optimum urban transport (again, *British*) system should-

- be available on demand
- go non-stop from start to destination
- be easily accessible and offer a full choice of destinations
- be environmentally sustainable
- have a low cost
- have demonstrably high safety, together with personal security
- integrate well with other forms of transport.

The optimum system turned out to be Personal Rapid Transit. Lowson dubbed his version ULTra (Urban Light Transport). ULTra is a four-wheeled, rubber-tired, battery-powered electric vehicle that steers like a car. Lasers are used to navigate along an exclusive guideway that resembles a footbridge. By not being locked into the guideway like other PRT concepts, ULTra vehicles can do things like operate on the surface if needed, and pass each other at station platforms.

After a few years the project -- spun off by the university under the name **Advanced Transport Systems (ATS)** -- designed and produced a prototype ULTra vehicle. A test track opened in Cardiff, Wales, in 2002 with support from the British government and **European Union**, and the design was **successfully tested and perfected**.

In 2005 ATS signed a deal with BAA (formerly British Airports Authority) to build a first ULTra system at Heathrow Airport Terminal 5. Construction started in 2007, finishing in October 2008; since then it has been running test operations and giving rides to **reporters, consultants** and transportation officials.

ULTra is now in its final stage at Heathrow, the "commissioning" stage which ends in final regulatory certification and public operations. This phase is taking longer than impatient PRT advocates would like -- originally slated for the 4th quarter of 2009, the public opening has been moved to spring 2010.



This initial phase with 18 pods fits the "shuttle" niche. However should BAA expand it to the rest of the airport and surrounding area **as intended**, it would have a level of service sufficient for many towns and suburbs.

In addition to ULTra there are currently two other PRT programs likewise positioned to be among the first since Morgantown to go into actual public service -- finally becoming the 'transit of the future,' as PRT has been called.

Cybercab by 2getthere (The Netherlands). This company has been around for some time, and has expertise in automating coaches, low speed parking lot shuttles, and goods movement in factories. Its Cybercab podcar (styling by Zagato, of Ferrari fame) shares many characteristics of ULTra, but navigates by following magnetic markers.



Cybercab is part of the **Masdar carbon neutral city** project in Abu Dhabi. Cars will be banned inside **Masdar**. Light rail and a metro will link Masdar to other cities, but motorized transit within

Masdar will be solely provided by PRT, which will operate subway-style in a utility services level (basement) below street level. An initial track circuit is being set up to serve the first Masdar building to be completed, the Masdar Institute of Science & Technology; **Cybercab testing** is said to be underway.

Vectus by POSCO (South Korea). POSCO is one of the world's biggest steel companies, and it shows in the Vectus PRT guideway: a steel tube with guideway mounted on top. It looks like the Raytheon PRT2000 guideway, but a **side by side comparison** shows it is much smaller. Unlike ULtra and Cybercab, the Vectus cabin is on top of a wheeled undercarriage (called a 'bogie') that is locked inside the guideway. Propulsion occurs by linear (magnetic impulse) motors in the guideway.

POSCO only got into the PRT game in 2005, as part of a business diversification strategy. The first step was a scale model to test their approaches to propulsion, switching and control. Then it was on to a full scale version in the college town of Uppsala, Sweden (**see it**). Not only did this enable Vectus to be tested under wintry conditions, but regulatory approval in Sweden (which was granted in 2008) also applies to the rest of the EU, hence opening Europe as a potential market.

POSCO is likely in the lead to be supplier for Sweden's national podcar program. This effort, which arises from the country's goal of **ending its dependence on oil by 2020**, envisions construction of podcar networks to act as local transit, and serving as tendrils of the national rail system. **Last month the government released its slate of sites** for the first PRT network, a list topped by Sodertalje, Umea, the 'Science City' in Stockholm, and Uppsala. The next steps are to select one location -- and organize the funding.

Finally, in a new development, POSCO last week signed a **memorandum of understanding to build a Vectus system in Suncheon**, a city on the south coast of South Korea.

There are **many other planned podcar concepts** at various stages of advancement. There always have been -- testament to the intuitive power of PRT's basic concept.

What caused the current resurgence of PRT activity to happen in Europe and not the United States? Mostly two factors: the need, even in a transit-paradise like Europe, to **improve overall transportation**, and forward-looking **environmental priorities**.

Next time: Part 6 - Toward a transit-oriented city

Updated

PODCARS Series

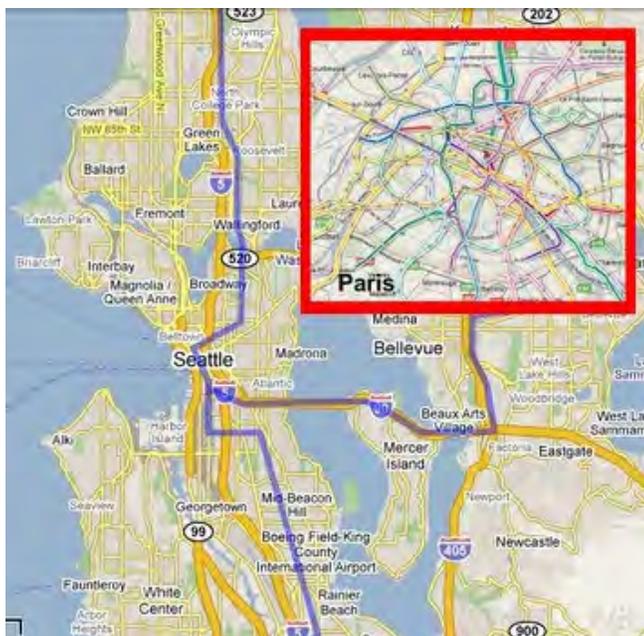
Part 1

Part 2

Part 3

Part 4

PODCARS - Toward a transit-oriented city



October 11, 2009

PODCARS a PRT primer

Part 6

(Updated) You might still be asking why a new technology like Personal Rapid Transit is needed. Instead of these podcars, why not simply build more of the conventional systems?

The answer lies in the challenges of making a compact, dense and walkable city out of one with patterns laid down in the automobile era. Seattle is 84 square miles, with population density just under 7,200 per square mile. It is too late for the city to be made compact. After Central Link light rail is built out to Northgate, there will be 16



David Gow

Seattle Transportation Examiner

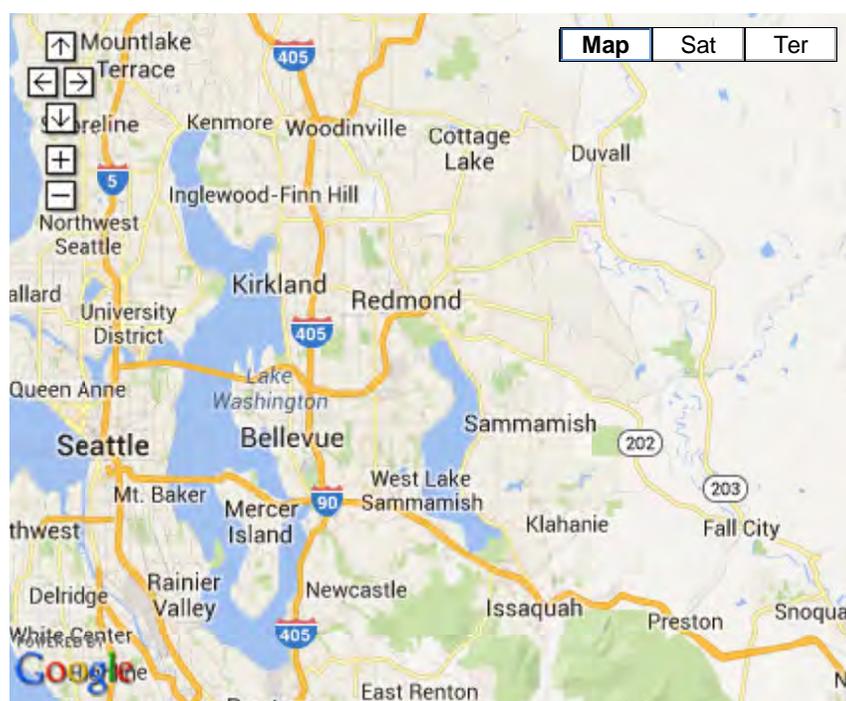
stations inside the city proper.

For contrast, compare the Seattle area to the world's leading urban subway systems:

NEW YORK	PARIS	LONDON	TOKYO	KING COUNTY, WA (2023)
area: 304.8 sq mi	area: 41 sq mi	area: 659 sq mi	area: 239 sq mi	Urbanized area: 460 sq mi
Density: 27,440	Density: 65,700	Density: 12,331	Density: 53000	Population: 1.91M Density: 3846

Obviously we can't afford to build 588 stations worth of light rail in Seattle, let alone what would be needed for the urbanized area of King County or central Puget Sound region. PSRC projects the county population will grow to 2.47 million by 2040, meaning a density of 5370 per square mile. To reach London levels of rapid transit, we would need 187 light rail stations and 1045 miles of rail.

We should plan now to extend the current "backbone" train system into a decent urban rapid transit network. Central Link's phase 1 is already laid out like a metro line, so why not add (1) a line in the old Green Line monorail alignment to Northgate, (2) an Aurora Avenue line, (3) a line reaching Georgetown, South Park and Burien, (4) service for the rest of the I-405 corridor, and (5) a line in the I-90 corridor east of Issaquah, maybe as far as North Bend. Where sprawl has already gone, we need to provide rapid transit options.



Needed corridors

What I've just proposed is a pretty decent system by American standards. Of course, it only begins to reach all the areas that ought to be connected to rapid transit. For lacking such access means an incentive to continue driving.

In New York, London and Paris trains have finer grain that is also fast throughout the systems. Whereas in Seattle at present--and for the foreseeable future--only the light rail corridor is fast. Metro and Sound Transit will be relying on buses and streetcars to provide the finer grain coverage.

But light rail (and the unrealized monorail) is necessary because buses are slow and get stuck in traffic. Streetcars are more reliable but tend to be slow due to operating in mixed traffic; according

to Portland's streetcar system plan, the average speed for the just-approved system will be 7-12 mph.

The question then is how an expanded regional light rail system can send rapid transit 'tendrils' out into more of Seattle and urbanized King County -- tendrils that are just as fast as the main lines. This is the niche for podcars.

PRT could be deployed as a complement to light rail, providing **finer grain** that is also fast -- but affordable to construct at \$7-20 million per mile (depending on vendor and routing challenges). This is how PRT is to be used in Sweden and at the Masdar carbon neutral city project (**see Part 4**).

Construction would also be fast due to the small profile of guideway. The elevated portion of the new ULTra podcar system at Heathrow was erected at a rate of two miles per month.

PRT could stretch transit dollars in order to reach more areas that won't be served by commuter or light rail due to density, geography, or budget.

PODCARS Series

Part 1

Part 2

Part 3

Part 4

Part 5

A few of the many PRT resources on the Internet:

<http://www.ilsr.org/really-light-rail/>

StarTribune article by David Morris - Institute for Local Self Reliance

<http://gettherefast.org/bettercampus.html> (click on the video icon)

<http://youtube.com/watch?v=B7hgipbHBK8>

collection of 20 ULTra videos - PRT at Heathrow

<http://www.advancedtransit.org/advanced-transit/applications/rivium/>

driverless automated bus system in the Netherlands

http://www.en.wikipedia.org/wiki/Personal_rapid_transit

pro and con overview (somewhat out-of-date)

<http://hbswk.edu/item/6333.html>

commentary from Harvard Business School

http://faculty.washington.edu/jbs/itrans/planetizen_article.htm

http://faculty.washington.edu/jbs/itrans/big/Goran_shortfalls.pdf

https://www.youtube.com/watch?v=RI_2YgS9JXg

Ingmar Andreasson - PRT as mass transit

<http://www.prtconsulting.com/content.html>

PRT resource site

<http://www.prtconsulting.com/prtvendorevideos.html>

assorted videos of driverless transit systems

<http://faculty.washington.edu/jbs/itrans/burke.htm>

Innovation and Public Policy: The Case of Personal Rapid Transit - book

<http://www.open-spaces.com/article-v3n2-bundy.php>

analysis of transit by a Seattle environmentalist

<http://www.containerstory.com>

how the standardized container industry revolutionized shipping
(history lesson on technological innovation)

Really Light Rail

By David Morris

November 14, 1999

This article originally appeared in the [Star Tribune](#)

When I was on KTCA's "Almanac" a few months ago with Elwyn Tinklenberg, the transportation commissioner held forth on the promise of light-rail transit (LRT). The cohost anticipated my response.

"Mr. Morris, you're against rail and for buses, right?" She was surprised and confused when I declared my enthusiasm for rail, but for a rail system using technology of the 1990s, not the 1890s.

Her confusion was perfectly understandable. For 25 years the discussion about mass transit has been narrowly framed. That wasn't always the case.

In the 1960s, as automobile use began outpacing the capacity for roads to expand, transportation planners explored a variety of alternatives. Two contrasting approaches emerged.

One was the conventional line haul system of buses and rail, in which stations are located on-line and all passengers must stop when one wants to get off. The other was a new concept, an automated area network, quickly dubbed personal rapid transit or PRT, in which stations were off-line and passengers could go directly to their desired destination. A PRT system is usually elevated. Passengers enter a station off the main line, get on a vehicle and punch in their destination, and the vehicle moves out of the station into the flow of traffic.

The federal government was intrigued by the possibilities of PRT and financed a working model in Morgantown, W.Va. That system, opened in 1972 and still operating, does boast some PRT features, but its overall design looks and acts more like an elevated light-rail system, with large, 20-passenger vehicles and thus a very costly and visually intrusive support structure.

In the early 1970s, the Minnesota Legislature financed an evaluation of PRT. After looking only at the Morgantown system, the state decided it was too expensive. And for the next quarter of a century, PRT disappeared from the Minnesota transportation debate. Line haul, whether buses or rail, was and is deemed the only conceivable alternative to road expansion.

Research in PRT continued, with most of the progress occurring at the University of Minnesota Engineering Department under the direction of Prof. J. Edward Anderson. By the 1980s, Anderson and the university had received five patents for major improvements in PRT. The Anderson system's striking feature is its small vehicles, about the size of a VW bug. Such vehicles allow for a lightweight, inexpensive and visually unobtrusive support structure.

Over the last 20 years, dramatic advances in electronics have made possible a control system far more sophisticated than Morgantown's. That translates into much shorter distances between cars traveling at 30 to 40 miles per hour, which allows very high traffic

volumes during peak hours. The breakthrough of Anderson's system is that one can serve large numbers of passengers while allowing them the privacy of their own cars and direct transportation to their desired destination.

The small vehicle size and inexpensive support structures allows more stations to be added at a small cost, thereby eventually extending the PRT system to within a few blocks of all city residents. Rather than an elevated light-rail system, Anderson's looks like an elevated narrow-gauge road system populated by small cars. Indeed, the very name of his company evokes a visual image of the concept - Taxi 2000.

While PRT in Minnesota was making great strides in engineering design, light-rail systems had captured the fancy of policymakers. More than a dozen have been built. For the most part, they are attractive, popular and well-used. But even LRT's most optimistic advocates concede that they are expensive and do virtually nothing to alleviate congestion.

The proposed Hiawatha line, for example, at a cost of almost \$600 million, may take 2,000 to 3,000 cars off the road by 2010. That is equal to the traffic on one highway lane in an hour and a quarter. Even when the system is fully built out, it might displace no more than a fraction of a percent of all automobile trips. And the cost for each trip could be \$8 to \$10.

A growing number of transportation planners -- realizing that light rail, while attractive, is not a realistic solution to the traffic problem -- are taking another look at PRT, and they like what they see. A series of recent in-depth analyses of PRT systems for the Swedish cities of Gothenburg, Stockholm and Umea came to two remarkable conclusions: First, PRT could potentially displace over 20 percent of all automobile trips. Second, a PRT system potentially could operate at a profit! Which means it could be financed privately.

In this country, Cincinnati is seriously considering a PRT system for its downtown. Closer to home, Rochester's Mayo Clinic is exploring a PRT system to ferry patients and doctors within its extensive medical complex.

Yet in Minnesota, Anderson and the area-network approach to transportation continue to be treated with indifference or worse. Four months after my appearance on "Almanac," Anderson has yet to be given the opportunity even to present his case to either Commissioner Tinklenberg or Metropolitan Council Chairman Ted Mondale. Any reader who wants to explore the alternative personally can see a computer simulation online and get a direct and detailed answer to virtually any question at the company's Web site: www.taxi2000.com.

After 20 years of trying, and with the lure of \$250 million in federal matching money, it is understandable that Minnesota government officials are eager to do nothing that might delay their quest for a light-rail system. Yet it is unclear whether this needs to be an either-or situation. PRT may complement LRT, or vice versa.

In any case, the potential benefits of Minnesota's investing in a PRT system are enormous, while the potential costs are modest. An LRT system, at best, offers no economic-development spinoffs. But imagine that we were to build the first commercial PRT system here, with its patents owned by the University of Minnesota and with a homegrown company supplying the control software and technical design advice. Could Minnesota become the world center of PRT design and manufacturing? Why not?

According to Anderson, a \$5 million to \$10 million investment would be sufficient to build a small operating system and prove the viability of PRT here in Minnesota. That is small change for transportation budgets. Indeed, last June, Tinklenberg added another line item in the Hiawatha budget - \$31 million for "contingencies." Wouldn't the potential introduction of a less expensive, more attractive rail transportation system be considered a "contingency"?

<http://www.ilsr.org/columns/1999/111499.html>

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Service Effectiveness of PRT vs Collective – Corridor Transport

Martin Lowson

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Summary

A generalised model is used to provide estimates of overall trip times and speed for conventional corridor-collective transport and PRT. The results demonstrate why traditional forms of transport find difficulty providing an effective service in a city. Short separations between stops are required to minimise walk times but on conventional transport this leads to significant reductions in achievable speed because of the need for frequent stops. It is also shown that there is very little benefit in service effectiveness from LRT/APM/Monorail over buses. PRT is immune to these effects. The present calculations typically show a benefit for PRT of a factor of two or greater in trip time over either bus or LRT/APM.

Introduction

The problems of collective –corridor transport are established. Any corridor can only serve trips which are along that corridor. Collective transport requires both waiting and frequent stops, probably at every stop on the route during peak periods.

PRT systems are projected to have major benefits for city transport because, in contrast to conventional forms of transport, they offer a combination of good accessibility and short trip times. This note seeks to calibrate this projection via numerical calculations.

The model assumed is shown in Figure 1. The corridor transport stops at each of the stops, assumed to serve a square area with side equal to the distance between the stops.

A trip from start at A to destination at B requires:

1. Walk to station A-C
2. Wait for transport C-C
3. Stop at every stop C-D
4. Walk to destination D-B

“You have to go to a place you don’t want to go to to get to a place you don’t want to get to”

The present model involves an estimation of the times taken for each part of the trip.

2. Average Speed In-Vehicle

It is of interest to start with the in-vehicle speed for the central part of the trip. The results are shown in Figure 2. They are based on a simple Newton’s Law calculation of the acceleration – deceleration process from stop to stop. It is assumed that acceleration and deceleration occur at 0.1g and that stops are 20 seconds each. These results parallel results given originally in Hamilton and Nance (1969) and Lowson (1999).

Stop to start times on buses, including door opening, passenger alighting and door closing can be as little as 10 seconds. However passenger boarding normally takes rather longer, especially if there is a need to pay fares to the driver. For light rail times very low stop times are less likely to be achieved since the driver has less direct interaction with the boarding process. Measurements on buses over several routes in Cardiff showed that the average stop time was 23 seconds between 9.00 and 12.00. Other measurements in peak periods showed that average stop times increased to over 30 seconds. Thus it is thought that 20 seconds is an acceptable overall figure. But in any case, modest changes in stop time have little effect on average speed compared to the deceleration acceleration process.

Figure 2 shows the average speed achieved for various stop spacings. It can be seen that high maximum speeds are of little benefit if stops are closely spaced. Under these circumstances, the vehicle merely accelerates to the mid point between the stops and then decelerates without reaching its maximum speed. For 250m stop spacings, the average speed achieved is less than 20 kph regardless of handbook maximum speed.

This corresponds to speeds achieved in practice by buses in favourable conditions. Light rail, or other systems such as monorails and Automatic People Movers (APMs), which have a higher maximum speed, will normally use longer stop spacings, reducing accessibility in order to provide higher average trip speed. Even so it can be seen that the average in-vehicle speeds achieved for 1 km stop spacings is still only 40 kph, ie the same as projected for PRT systems such as ULTra.

3. Walk and Wait Times

Average walk time to the station is dependent on size of the area served by the station, which is in turn dependent on the average stop separation. A simple assumption is that the corridor is serving a “grid” city with all roads laid out at right angles. Although not typical of all European Cities, this offers an acceptable approximation for the purposes of the present estimates.

Figure 3 shows this typical case. A walk from any location to the central station will involve a trip N-S and a trip E-W. Consider a trip starting from any point on the diagonal line. The length of any trip from a point on this line to the centre is $L/2$ where L is the length of side of the square. But by symmetry since there is exactly the same area on the far side of the line away from the station as on the near side, this line also represents the average trip length.

Thus, the average walk length in a grid route system over a service area of side L is simply $L/2$. If it is assumed that the walk trip has to be made at both the start and end of the journey then the average distance walked is identically equal to the average stop separation L .

Use of any form of public transport involves a walk at each end of the trip. In typical cases such as shown in Figure 1, the area served by each station can be assumed to be at the centre of gravity of the served area. Thus the average distance from all points in served area at the start to all destination points in the served area at the destination is equal to the station separation. This is an interesting result which applies to a wide range of circumstances; for example, it applies both to grid based and to straight line travel.

Since, under the above fairly general assumptions, the average distance between start and destination is simply the station spacing, the walk required to get to and from the station is an overhead. Although some walks are in the direction of travel, others are in the reverse direction, while half of all walk distance is normal to the direction required. This overhead adds to the average time taken for travel, but not to the distance usefully travelled.

If it assumed that passengers will walk to the downline station where this provides a net benefit in travel time, there is a small modification to the above argument. This is illustrated in the second diagram in Figure 3. Suppose that the blue line indicates the boundary between the locations where it is preferable to walk to the upline or downline stations. Then on the boundary the journey time via either station is the same, either by walk directly to the downline station, or by walk to the upline station and in-vehicle travel to the downline. This can be expressed algebraically as

$$T = (L/2 + x)/W = (L/2 - x)/W + L/V$$

Where W is the walk speed and V in the vehicle speed (which should include the effect of stops).

This gives $x = L/2 \cdot W/V$

The effect is that the area served by any station is displaced upline. Under the present grid city assumptions it can be seen that the additional walk time to be added on for upline passengers is balanced the reduced walk time to be added for the downline. Thus the average walk distance to the station remains the same. However, the area served has been displaced upline by x . Similar arguments apply to the passengers arriving at the destination, who can choose to get off one stop early. Thus at the destination, the area served is displaced downline by x . This means that the average distance between origin and destination served by a station pair a distance D apart increases to $D + 2x$, ie to

$$D + LW/V$$

This only makes a small difference to the numerical results, but is included for completeness.

In practice bus or other journeys will use variable spacings so that the relations above will not apply exactly. However, it appears to offers an acceptable first approximation for the walk distance required. Walk times can be found directly from the walk distance by assuming an average walk speed, taken here as 4.8 kph ie 80m/min the average walk speed recommended by the Confederation of Passenger Transport.

In addition to the walk time there is also a wait time. For the present calculations, this has been assumed to be 5 minutes. This would imply a service frequency of 10 minutes, only occasionally provided by conventional transport.

Finally, a typical trip length must be assumed. For the purposes of the present comparisons, this has been taken to be 8 km, corresponding to the average trip length in the UK. As noted above the average separation of origin destination pairs served by stations 8 km apart is equal to $8 + LV/W$. The total time is the time taken in-vehicle plus the walk overhead at both ends of the trip, plus the wait time. The average speed is found by dividing total distance by total time as defined.

4. Results Including Walk and Wait

Figures 4A and B give the results of these fuller calculations. The two Figures show results for bus and light rail respectively. For the bus case, an average in-vehicle speed of 30 kph has been assumed. This is a reasonable assumption for achieved in-vehicle speed in a city where the bus is obliged to stop regularly at pedestrian crossings, traffic lights etc. The second case shows the results for a higher speed service assumed here to be 80 kph. This is a somewhat generous figure to represent light rail, monorail or APM. This figure also provides an indication of the possible effects of priority bus lanes, or guided bus, which could provide increases in in-vehicle speed for buses.

The results in both Figures 4 are presented in terms of average speed achieved against stop spacing. The top curve gives the speed achieved in-vehicle, and is essentially a replot of the 30 kph results from Figure 2. At high stop spacings, it is possible to achieve high in-vehicle speeds, approaching the maximum speed of the vehicle being considered. However, the addition of walk and wait elements to the journey reduces overall trip speed considerably.

As might be expected that the best overall speed for the journey is achieved when stop spacings are short and the amount of time spent walking to and from the stop in is minimised. It can be seen that for the bus case this provides an optimum stop spacing of around 0.5 km. This is quite close to the average stop spacings used by buses in city operations, although typically closer stop separations (and thus lower average speeds) will occur in the city centre.

For the Light Rail/APM model, the optimum stop spacings are also found to be around 0.75 km. The higher speed of the vehicle means that a higher proportion of the time is spent in the walk for the optimum case.

However the most striking feature of these graphs is the low average speed achieved, for the bus this is 14.0 kph and for the Light Rail/APM 17.4 kph. This is because the length of time in the walk part of the trip forces the systems to work at short stop spacings for which the in-vehicle speed is of little benefit. The small improvement in average speed offered by the far higher maximum speed of the Light Rail/APM case is striking.¹ It is also noteworthy that these average speeds are virtually identical to the average speeds achieved by cars in peak periods. This speed is achieved on the corridor, which itself only serves a limited proportion of the trips desired. It is not surprising that current forms of public transport have little attraction compared to car transport.

5. Comparison with PRT

Finally these results are compared to a PRT model. ULTra has been taken as the base for this comparison. This operates at a maximum speed of 40 kph. More importantly, it does not have to stop at the stations since, as with all PRT, these are off-line. For ULTra, it has been anticipated that station spacings would be about 0.5 km, but it would be reasonably straightforward to shorten this separation to 0.25 km if required. The same walk time assumptions have been made for PRT as for the previous cases. For ULTra most passengers

¹ Doubling maximum speed again to 160 kph (or indeed again to 320 kph) provides no benefit. The maximum achieved overall speed is 17.5 kph.

will have a zero wait time, but a total additional time of 30 seconds to include both wait and boarding has been assumed for the purposes of these calculations.

The comparison is shown in Figure 5. For Bus/LRT these figures correspond to the same data as presented in Figs 4, but now presented in terms of trip time. It can be seen that PRT can typically offer around a halving of average trip time. These calculations refer to uncongested conditions. In congested peak periods the average speed of buses, and cars, will reduce further, while PRT will continue to offer the same level of service.

However the key issue is that the overall trip time for small stop spacings by conventional transport is unacceptably high. Small stop spacings are necessary to provide good accessibility, so that the basic nature of the corridor –collective service leads to major transport inefficiencies.

For bus, and particularly for Light Rail/APM/Monorail there is pressure to choose larger stop spacings to provide shorter trip times at the expense of accessibility. In the case of PRT in-vehicle speed is independent of the stop spacings selected. Thus in areas such as a city centre it is straightforward to provide closer stop spacings for better accessibility with no loss of transport effectiveness in terms of total delivered trip time.

Conclusions

Analysis of the service effectiveness of conventional corridor collective and PRT transport systems using a typical 8 km trip with walk wait and in-vehicle travel has shown that

For conventional transport

1. Achieved in-vehicle travel speeds are controlled by station to station separation.
2. High maximum speeds offer no benefit to in-vehicle speed at the small station spacings necessary to provide good accessibility.
3. Inclusion of representative walk and wait travel times shows that minimum overall trip times are achieved with modest station spacings (0.5-0.75 km).
4. Maximum achieved speed for the complete trip in any case studied was 17.5 kph, little more than buses.
5. Higher speed forms of conventional transport such as Light Rail, APM or monorail offer little benefit over buses.

For PRT

6. A benefit of around a factor of two is provided over the best trip times achievable by conventional corridor-collective transport.
7. Additional improvements in accessibility can be provided via closer station spacing with no penalty in trip time.

Acknowledgments

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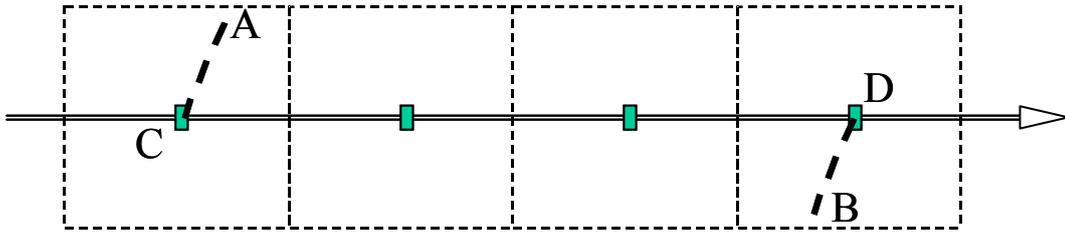


Figure 1 Area Served by Corridor Transport

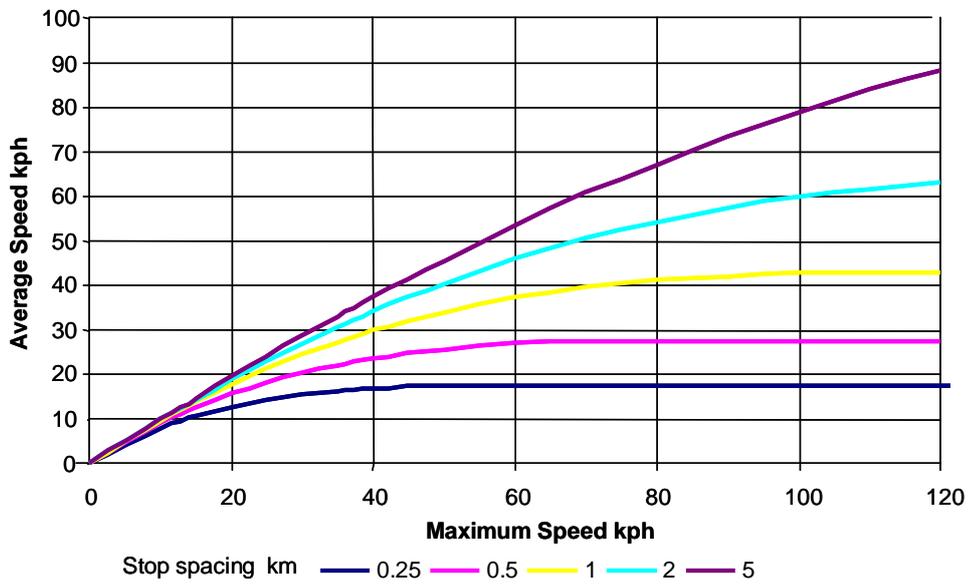


Figure 2 Average Speed in-Vehicle Against Maximum Speed for Various Stop Separations

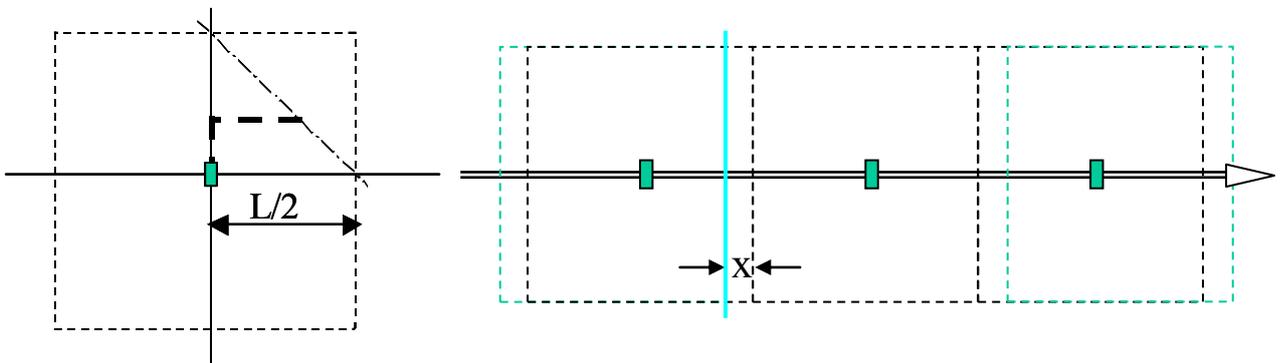
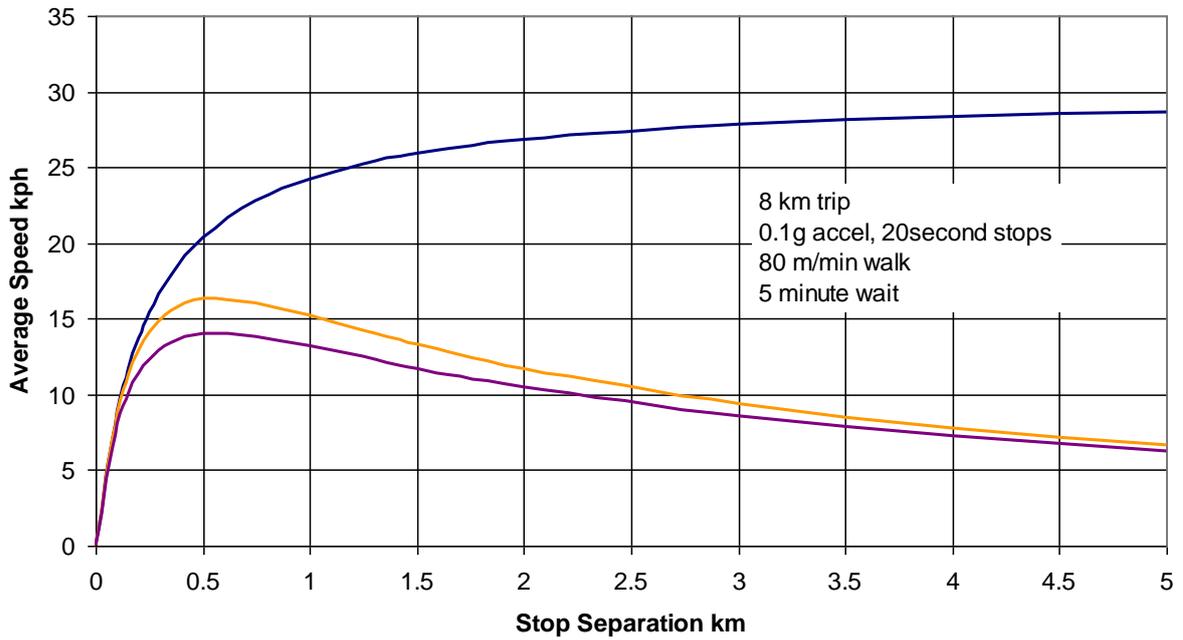


Figure 3 Diagrams showing walk trip length

Average Speed by Bus (30kph travel speed)



Average Speed by Light Rail / APM / Monorail (80kph travel speed)

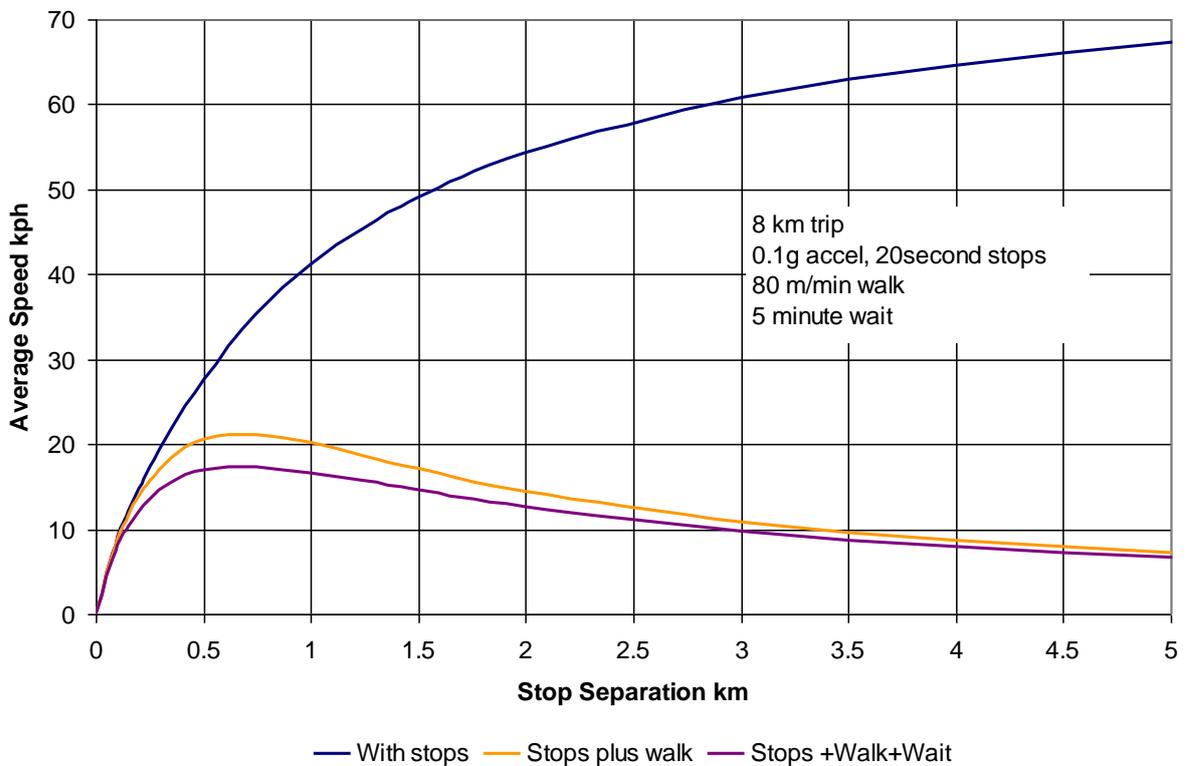
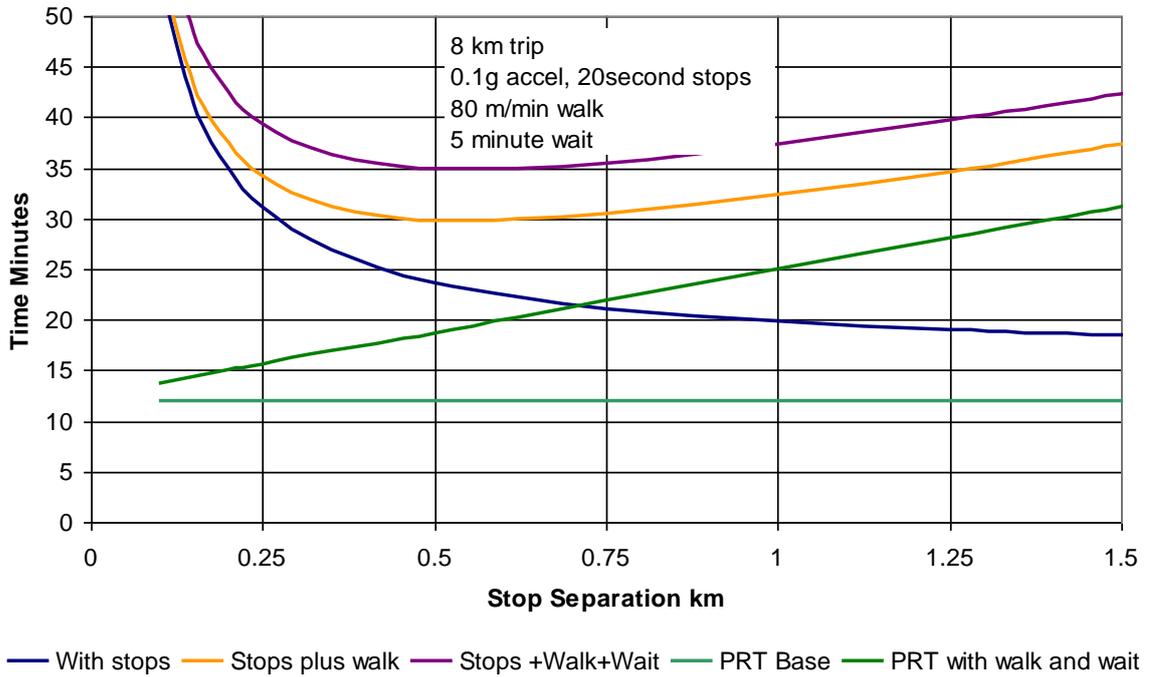


Figure 4 Overall Average Speed for Conventional Transport vs Stop Separation

Bus Compared to PRT



LRT/APM Compared to PRT

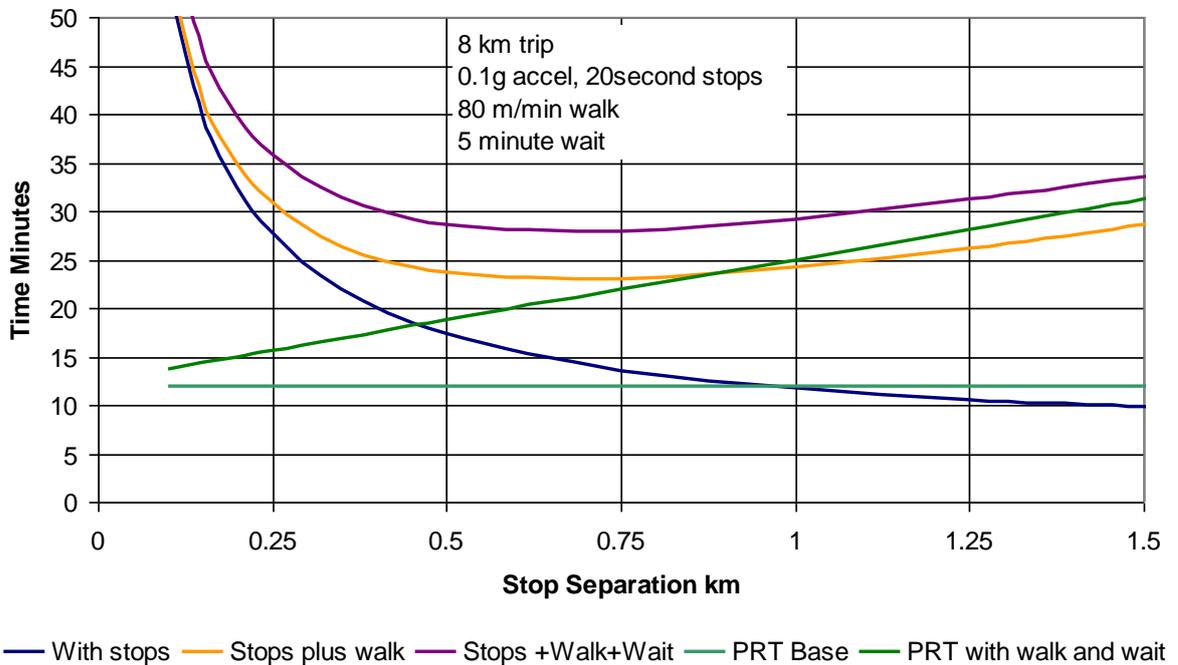


Figure 5 Average Trip Times: PRT Compared to Conventional Transport

Personal Rapid Transit in Stockholm – Market demand and Economic Appraisal

Author: Mr Göran Tegnér, M. Pol. Sc.
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1. ABSTRACT

This research project deals with the problem of introducing a potential demonstration-track in the form of a PRT system somewhere in the Stockholm region. The aim of the study is to find an answer to the following main questions:

- i) Which is the best site for such a test-track of a PRT system for Stockholm?
- ii) Which is the most probable demand for such a PRT system, and how much traffic would be diverted from the private car and other modes of transport and how much would be newly generated?
- iii) Which is the economic viability of such a PRT system in Stockholm in terms of user benefits, system costs and overall cost-benefit ratio?

In order to answer these three highly important and interesting questions, the study is divided into the following major parts - a PRT Market Demand Analysis; and a PRT Economic appraisal.

The research results and findings were documented in a research report (in Swedish) by the end of 1998. This paper describes the contents of the project, the methods chosen for the analyses, and the results and research findings.

2. Personal Rapid Transit (PRT) – individual trips in public vehicles

Personal Rapid Transit (PRT) offers individual trips in public vehicles – a competitive alternative to the most popular mode of urban transport – the private automobile. PRT is developed to offer some of the advantages of the private auto:

- + It departs on demand without any timetable.
- + It runs the quickest path without any stop and without any transfer.
- + It offers a private trip alone or together with passengers of your own choice.

At the same time one would like to avoid some of the major disadvantages of the private auto:

- Noise and exhausts.
- Congestion and accidents.
- Parking demand.

PRT is a system of small, automated vehicles on their own guideway that is demand-responsive and offers a direct trip to the destination without any stop en route.

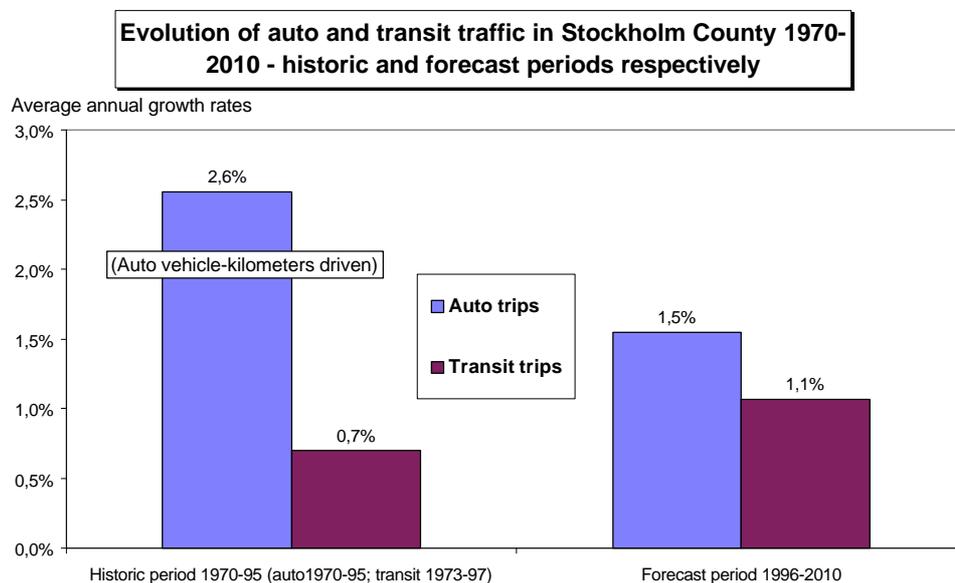
The PRT solution with many small vehicles can be derived from many different perspectives:

- The trip maker should not wait for the vehicle to come – the vehicle should wait for the passenger
- If one does not force several passengers to travel together, there is no need for large vehicles. The load will resemble that of a taxicab.
- The track should not be larger or more expensive than what is needed. The track cost increases with the weight of the vehicle. One has to distribute the weight. A car with 4 passengers every second gives the same capacity as a traditional train every 15-minute with 1,800 seats.
- The stations should be short. This will be possible with a constant turnover of vehicles and travelers, i.e. dense departures with small vehicles.
- If the vehicle is driven automatically, the only reason for large-scale vehicles falls short. The passenger service governs the traffic performance, not the driver cost. Small vehicles demands a very dense traffic, which means that vehicles are not allowed to stop for boarding and alighting on the main track from capacity reasons. Also, unnecessary stops for service reasons should be avoided. Therefore, all PRT systems are designed with stations located on sidetracks.
- Short time slots between vehicles do not allow switches on the track; this would be too time-consuming. Instead the vehicle chooses its route through fixed switches.

- Acceleration and deceleration does not allow standing passengers. Therefore the system is designed to carry seated passengers only. Guaranteed seating capacity also contributes to the attractiveness of the system. Wheel-chair passengers are foreseen to be able to travel in all PRT-vehicles.
- A PRT ride without a stop between origin and destination station is not only comfortable and convenient. The energy consumption is less than one fourth of that of an automobile.

3. The long-term evolution of auto and transit traffic

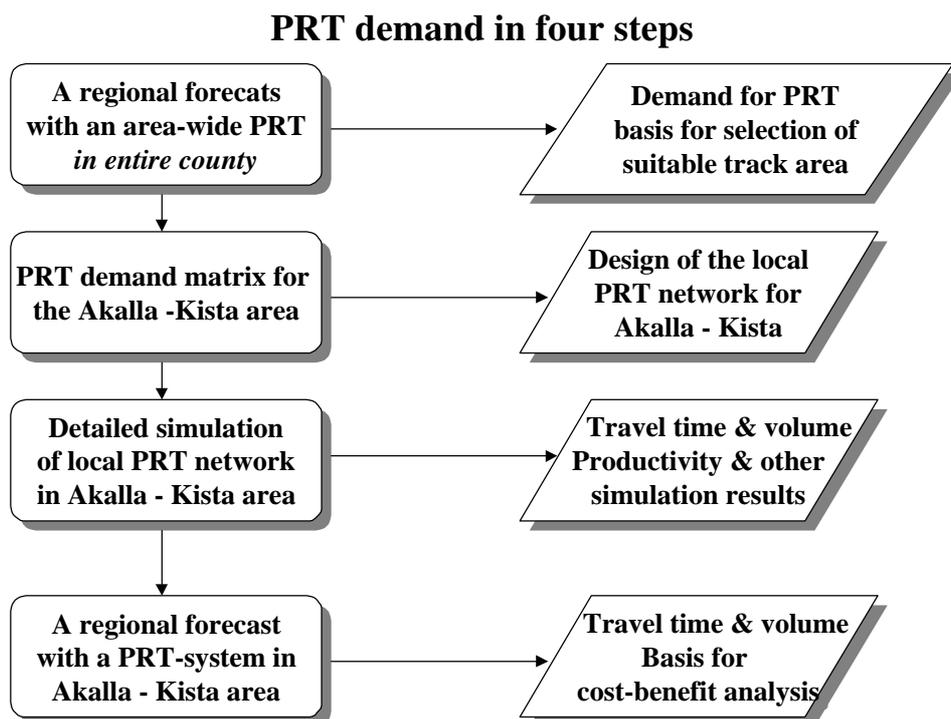
Transek Consultants was commissioned by the Regional Planning and Urban Transportation Office, Stockholm County Council to investigate the long-term evolution of auto and transit traffic (Ref. 1, 2, 3 and 4). The estimated auto traffic production in terms of vehicle-kilometers has increased by 88 % between 1970 and 1995 or by 2,5 % annually. The corresponding transit ridership, estimated through ticket sales records, is estimated to have increased by 18 % or by 0,7 % annually between 1973 and 1997. The imbalance of modal development, both in the retrospective and in the forthcoming period is shown below:



Our conclusion from this observation is that the present type of transit systems (bus, metro and commuter rail) is insufficient in its performance to attract new travelers to cope with the self-service system of the automobile. There is a strong need for a high-quality performance transit system – such as PRT – if the urban transportation problems of too low efficiency, too high accident rates and environmental air pollution should be curbed.

4. PRT in Stockholm – an efficient and sustainable transport system

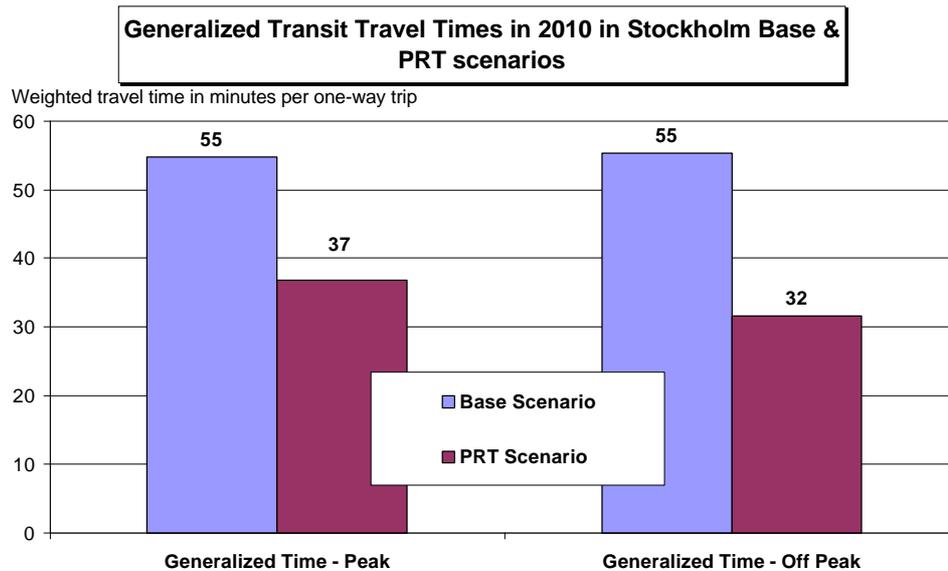
The purpose of this chapter is to illustrate the *area-wide* potential of a high-level-of-service transit system in terms of generalized travel times and market shares – in comparison to the more traditional transit modes, such as bus, commuter rail and subway. A second purpose of this exercise is to form a basis for the selection of the best site for a PRT demonstration track in the Stockholm Region. Therefore, a PRT trip demand analysis has been carried out for the entire Stockholm County Area (population; 1,775,000 inhabitants in 1998), with the simplified assumption that a PRT-station would be (theoretically) available in every traffic zone (1,043 zones) and running on the present major road links in the network. The existing transit modes are assumed to prevail. The demand procedure is summarised in figure 2.



This formed a basis for considerations of the best suitable location for a PRT demonstration track.

The major changes in the generalized travel times that could be achieved by the PRT system, are mostly a dramatic reduction in the waiting and transfer times, compared to the present day modes of mass transit.

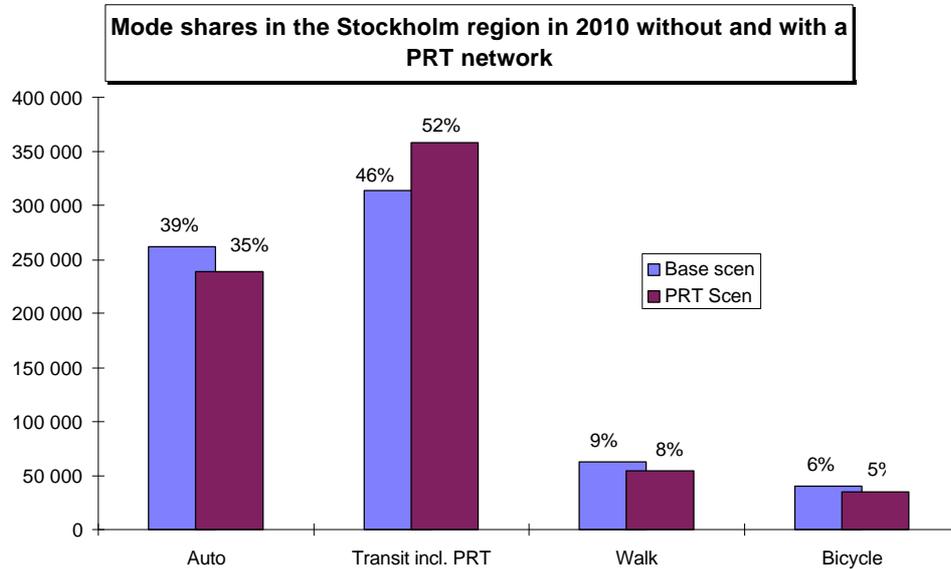
As the PRT system operates as an automated and a demand responsive system, the time spent waiting for the vehicles, does not differ at all between peak and off-peak time periods; this being the opposite for today's manually driven fixed line service. Thus, the major travel time gains with PRT will occur during the off-peak period. The weighted generalized time¹ is calculated to be reduced from almost one hour (55 minutes) in the base scenario to a little more than a half-hour in the PRT scenario. (Figure 3)



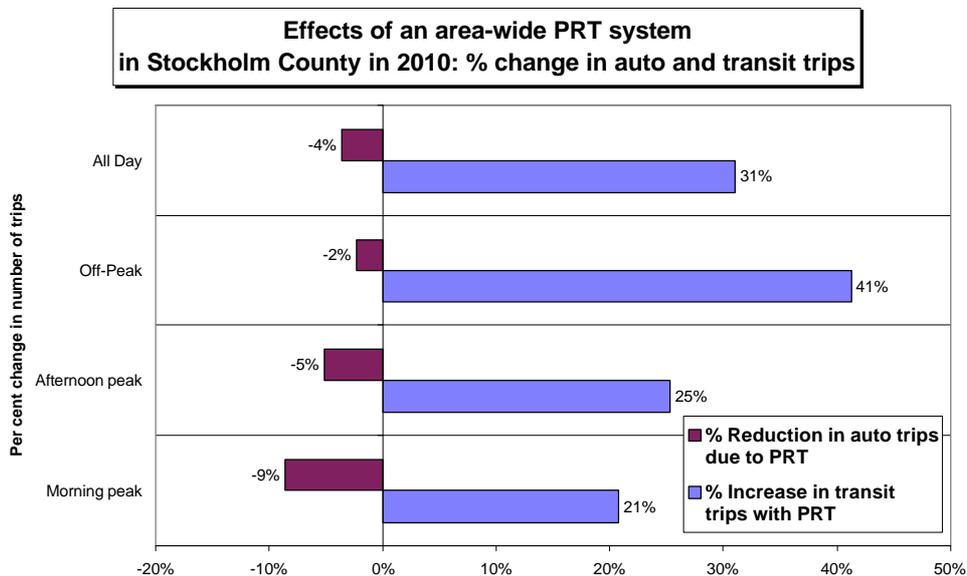
If an *area-wide PRT system* would be introduced in all Stockholm region, a substantial modal shift from the auto mode (-4 % units) would occur; also a slight shift from the walk and bike modes towards the transit modes, including the new area-wide PRT-system.

¹ The weights are 2 for the walk, wait and transfer travel time and 1 for the in-vehicle travel time (see Reference 6).

The transit modal split is estimated to augment from 46 to 52 % by the new PRT system, i.e. a 13 % growth in market share:



The number of auto trips is calculated to be reduced by 9 % in the peak period, with its dramatic and positive impacts in terms of reduced congestion, air pollution and road traffic accidents. Transit trips – including the new PRT mode – is forecast to expand by almost one third (31%) during all day, and by 41 % in the off-peak period:



5. The demand for PRT-trips in the Akalla – Kista area

The choice of the most suitable location for a potential PRT demonstration track is based on at least six various criteria:

- Areas (in fact origin-destination pairs) with a generalized time elasticity with respect to the demand for transit trips (numerically) above -2.0 and a minimum number of transit trips
- Areas with a travel time relationship between the transit and auto mode of three or more and a minimum number of transit trips
- Areas with an even distribution of peak and off-peak trips and a minimum number of transit trips
- Areas with a high traffic load and a minimum number of transit trips
- Areas with a high load of estimated PRT trips per track-kilometer
- Robust areas with a combination of high densities in the number of:
 - Occupied residents per square kilometer
 - Work-places per square kilometer
 - Household income potential per square kilometer
 - Privately owned automobiles per square kilometer.

Maybe, the most important criteria above all, are the support from local authorities. By coincidence, most of the areas selected according to the above mentioned six criteria, are also preferred locations by the local municipalities:

- Handen Center
- Järfälla-Kista-Akalla-Häggvik
- Karolinska Institute & Hospital-Solna-Sundbyberg
- Sigtuna - Arlanda - Märsta
- Skärholmen-Kungens kurva-Huddinge C-Huddinge Hospital
- Södertälje Centre
- Upplands-Väsby

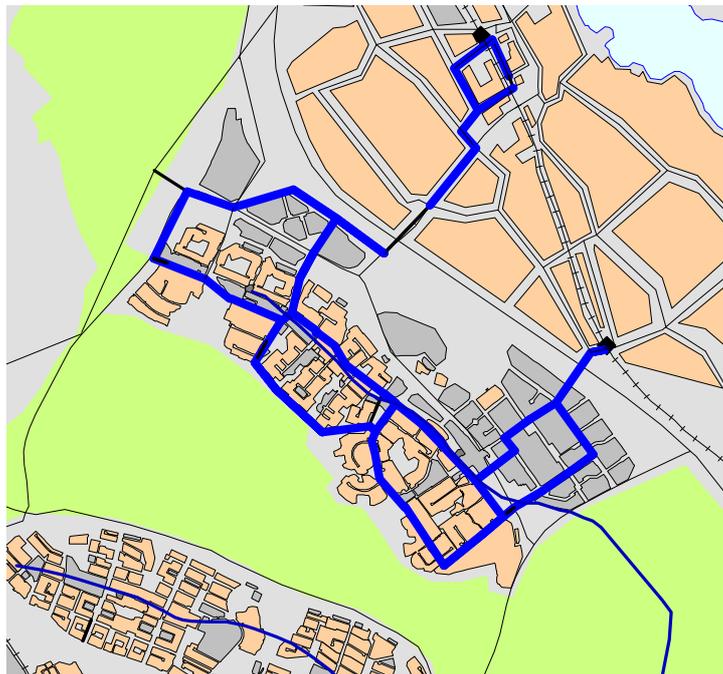
A corridor from the cities of Sundbyberg – Solna – Karolinska and the northwestern part of the inner city have been excluded due to political and visual intrusion points of view.

The major results for the studied PRT network alternatives are shown below

Indicator/ Network alternative	Kista	Kista- Helenelund	Akalla-Husby- Kista	Akalla-Husby- Kista- Helenelund	Akalla-Husby- Kista- Helenelund- Sollentuna C
Track length, km	9	11	18	20	28
Number of stations	9	10	19	20	26
Vehicle fleet size	31	38	82	121	275
PRT Trips per day	2 750	3 460	6 125	7 460	12 735
Daily trips per track km	305	315	340	375	455
Average trip length in peak	2,3 km	2,6 km	3,0 km	3,6 km	5,8 km
Average trip time in peak	4,1 min	4,6 min	5,2 min	6,1 min	9,9 min

The structure of the entire network examined is shown below:

The PRT networkfor Akalla-Kista-Helenelund-Sollentuna C



The results indicate that the number of daily trips per track-kilometer increases as the network size augments from 9 to 28 kilometers. This is an indicator of the cost-benefit ratio, as the number of trips is associated with user benefits, and track size with its costs.

6. A Stated Preference Study on PRT comfort and convenience

A Stated Preference survey was carried out with the aim to investigate the willingness to pay for PRT comfort and convenience factors, such as:

- In-vehicle travel time with PRT
- PRT headway
- In-vehicle travel time with bus
- Bus headway

In all 162 persons were interviewed in the Barkarby – Kista area in the northwestern suburbs of Stockholm, of which 50 % were auto drivers and 50 % transit users.

- The result for the onboard travel time as well as for the trip frequency (or headway) showed *no significant* deviation in the travel time component value for a PRT trip compared to a bus trip.
- To have *manned stations* - instead of unmanned stations – has a very high value, 0.50 US\$ per trip, reflecting the insecurity of today's mostly unmanned metro and rail stations in Stockholm.
- Travelling 5 meter above the surface with a PRT vehicle, is shown to have a slight negative value of -7 cents per trip.

Besides, the following types of *attitudinal* questions also revealed some interesting results:

- On the question: "I am uninterested in PRT, as it has a negative visual intrusion (makes the city look more ugly)", only 25 % agreed. Therefore, visual intrusion does not seem to be a major drawback for PRT.
- On the question: "I am uninterested in travelling by PRT if I have to share my trip with other passengers in peak hours", only 13 % seem to think this might be any problem. More than two thirds of the respondents denied this would be a problem.
- Of all respondents, about half of them felt insecure travelling in a driver-less vehicle, of which 15 % had a very strong expression against it; while 30 % declared this was no problem. This shows there is a need for more information to the customers of this new kind of driver-less transit service (which is not in operation anywhere in Sweden so far). Professor Elsa Rosenblad's focus group interviews in Gothenburg show that this fears for automation disappears after a proper information about it (Ref. 5).
- On the question: "I feel unsafe travelling 5 meters above the ground", only 20 % confirmed this negative statement. As many as 60 % expressed their view, this was no problem to them. As the average monetary value was slightly negative, we conclude that there is a minority with a very strong negative feeling for going elevated (there is no such transit system in Sweden except for ski lifts).

- The last question was “If a PRT system would be built between Barkarby and Kista, how often could you imagine to go with it”? Almost 65 % or two-thirds could imagine going by PRT regularly or sometimes and only 16 % answered ‘seldom’ and just 3 % said ‘never’. These positive results are well in accordance with the research findings from Professor Elsa Rosenblad’s study in Gothenburg (Ref. 5).

7. A Cost-benefit Analysis of a PRT network in the Akalla-Kista Area

Several cost-benefit analyses have been carried out for the five various PRT-networks (described in section 4 above). Our findings reveal that the best cost recovery is obtained for the largest PRT network, i.e. the Akalla-Husby-Kista-Helenlund-Sollentuna network.

Investment cost data were obtained from Raytheon’s PRT2000, and from two conceptual Swedish systems - Swedetrack’s FlyWay (a suspended PRT system) and SkyCab (a supported system). A high (0,24 US\$) and a low (0,17 US\$) operating cost per passenger-kilometer is also associated with the US PRT2000 and the two Swedish conceptual systems, respectively.

The analysis is carried out over the calculated economic lifetime of the PRT project, 60 years. In our recommended cost-benefit analysis procedure, we consider higher values of time, comfort, safety and environmental impacts over the total time span for the project. This is related to the assumed average long-term economic growth rate of 1-2 % annually (GNP or household disposable income per capita). A present value and related annuity benefits and costs are then calculated.

As a consequence of these assumptions, the first year’s benefits from the PRT project will increase over time due to the fact that the travelers will evaluate the benefits at a higher value each year, as prosperity grows in the future years to come. As a sensitivity analysis we have also calculated the benefits without an adjustment of the behavioral values over time (not presented in this paper). The table below shows that a PRT demonstration network in the presented Akalla – Husby – Kista –Helenelund – Sollentuna area of Stockholm would be economically viable and well justified in the low cost alternative. The cost-benefit ratio is calculated to be 1,5, which means that one dollar spent on PRT in this area yields one dollar and 50 cents in total benefits. Even the more expensive Raytheon PRT 2000 system would yield 70 cents per spent US dollar at its full-calculated price.

With a 25 % reduction (covering engineering, construction, management, administration, start-up and testing²), also the PRT 2000 system would balance benefits and costs (benefit-cost ratio equals 1,0).

Summary result: Benefit – Cost Analysis of PRT in Akalla-Kista-Helenelund-Sollentuna

Cost item;	FlyWay	PRT 2000	PRT 2000
Annual Costs, MSEK³			(less 25% overhead)
Capitalized Investment costs	63 (investment: 1,885)	152 (investment: 3,428)	116 (investment: 2,628)
Annual Operating costs	81	133	106
Cost of public capital; shadow price	33	65	51
VAT tax burden	53	105	82
TOTAL ANNUAL COSTS	230	455	355
Benefit item;	FlyWay	PRT 2000	PRT 2000
Annual Benefits, MSEK⁴			(less 25% overhead)
Transit travel time gains, incl. .PRT	178	178	178
Ticket revenues, incl. less public capital	26	26	26
Traffic safety gains from less auto trips	48	48	48
PRT Comfort & Convenience gains	42	42	42
Less congestion due to less auto traffic	21	21	21
Health and Environmental gains	24	24	24
TOTAL ANNUAL BENEFITS	339	339	339
NET BENEFITS (Benefits – Costs)	109	-116	- 16
BENEFIT/COST ratio	1,5	0,7	1,0

A PRT System in the Akalla - Kista area of Stockholm would yield a wide range of positive and desired impacts:

- Travel time and comfort and convenience gains for PRT users
- A modal shift from auto to transit (including PRT) modes of transport
- Traffic safety gains
- Eased congestion from less auto traffic
- Health and environmental gains.

² These figures are based on the SeaTac study: Personal Rapid Transit (PRT) Feasibility Project-Executive Summary and Technical Appendices, City of SeaTac, August 1997)

³ One million Swedish Crowns roughly corresponds to 125,000 US\$ (exchange rate 1 SEK = 0,13 US \$)

⁴ One million Swedish Crowns roughly corresponds to 125,000 US\$ (exchange rate 1 SEK = 0,13 US \$)

From the analysis, one could estimate the maximum investment cost per system-kilometer for a PRT network of the relevant size to be about 115 MSEK/km (corresponding to 15 million US\$ per track-kilometer). The desired minimum peak load should amount at least 500 passengers per peak hour and track-kilometer.

From our area wide PRT demand study (section 3 above), we have indicators of the cost-benefit ratio for 14 potential areas within the Stockholm region. As a rough estimate we have used the number of daily trips per track-kilometer. Bearing in mind, that this is just a crude indicator of economic viability, one could however conclude that there might be at least six potential areas, with an even higher possible return in terms of social net benefits over costs:

These areas are in order of cost-benefit ratio:

- Odenplan - Karolinska Institutet & Hospital - Solna
- Bergshamra - University of Stockholm - Odenplan
- Solna Center – Sundbyberg
- Solna Center - Bergshamra
- Barkarby – Akalla.
- Södertälje C

Our recommendation is therefore clear – a PRT system for Stockholm provides such a broad range of desired qualities, that it should be given highest priority in research, development, testing and demonstration for implementation in the Stockholm Metropolitan area.

8. References

- 1 Tegnér, G. ; Loncar-Lucassi, V., (1997) "Demand for Road Use, Accidents and their Gravity in Stockholm: Measurement and analysis of the Dennis Package". Transek AB, Stockholm, 18 p.
- 2 Tegnér, G.; Loncar-Lucassi, V. (1997) "Time-series Models for Urban Road Traffic and Accidents in Stockholm". Paper presented at the Aalborg University, Denmark.
- 3 Tegnér, Göran B., Loncar-Lucassi, Vesna M. (1997): "An Analysis of Urban Road Traffic Safety in Stockholm - The use of aggregate time-series models with the TRIO programme". Proceedings, the European Transport Forum Annual Meeting, 1-5 Sept, 1997, London.
- 4 Tegnér, G; Loncar-Lucassi, v; Nilsson, C., TRANSEK Consultants; and Holmberg, I., Gothenburg University, Department of Statistics, School of Economics and Commercial law, (1998) "The Demand for Public Transport Trips in Stockholm County – a two-stage aggregate, non-linear time-series model. Paper presented at for Economics and Institutions of Transport, May 25th - 27th, 1998, Borlänge, Sweden.
- 5 Rosenblad, E., (1997) "Spårtaxiresenärer – brukares möte med ny teknik", (in Swedish), CTH Rapport 1997:10, Chalmers Tekniska Högskola, Göteborg, Sweden
- 6 Tegnér, G., (1997) "Market Demand and Social Benefits of a PRT System: A Model Evaluation for the City of Umeå, Sweden". Infrastructure, Vol. 2, No. 3, pp. 27-32, 1997, John Wiley & Sons, Inc.



HEARTLAND CORN PRODUCTS

July 2015

Nani Jacobson
Assistant Director, Environmental and Agreements
Metro Transit – Southwest LRT Project Office
6465 Wayzata Blvd., Suite 500
St. Louis Park, MN 55426

RE: Southwest Light Rail Transit

Dear Nani Jacobson,

Heartland Corn Products (“HCP”) is a farmer owned ethanol production cooperative in Winthrop MN that is located on and utilizes the Minnesota Prairie Line/Twin Cities & Western railroad (“MPL/TCW”). The MPL/TCW provides the vital transportation link to domestic and international markets for HCP ethanol and co product production. Any changes to the MPL/TCW route that increase costs and impact their ability to deliver goods safely and efficiently will have an adverse effect on HCP and its 900 farmer members.

As discussions continue regarding the construction of the Southwest Light Rail Transit, we want to have some assurance that serious consideration is given to the economic impact on the HCP farmer members. In addition to HCP, any negative impact on rail shipments will affect thousands of Minnesotans located along the MPL/TCW railroad line in ten counties and 40 plus communities across south central MN. This decision not only impacts the Metro corridors, but the economic well-being of a large swath of south central MN residents. Safe and efficient access to the global marketplace is critical to the survival of HCP and other shippers in this region.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Scott Blumhoefer'.

Scott Blumhoefer

Vice President

Heartland Corn Products



HEARTLAND CORN PRODUCTS

53331 State Hwy. 19 • P.O. Box A
Winthrop, MN 55396

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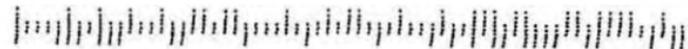
\$00.48⁵



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Nani Jacobson
Assistant Director, Environmental Agreements
Metro Transit – Southwest LRT Project Office
6465 Wayzata Blvd., Suite 500
St Louis Park MN 55426

5542631724 0019



From: [Safety In the Park](#)
To: [swlrt](#)
Cc: [Jacobson, Nani](#)
Subject: Comment for the SWLRT - DEIS
Date: Friday, July 10, 2015 12:23:39 PM
Attachments: [SDEIS comment.docx](#)

July 09, 2015

Ms. Nani Jacobson, Project Manager

Southwest Light Rail Transit Project Office

6465 Wayzata Boulevard, Suite 500, St. Louis Park, MN 55426

Dear Ms. Jacobsen,

The attached document is the official Safety in the Park Comment to the Supplemental Draft Environmental Impact Statement. Please add this four-page document to the comments for review by the FTA.

Thank you,

Jami LaPray and Thom Miller – Co-Chairs, Safety in the Park!

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SAFETY IN THE PARK!
RESPONSE TO THE SOUTHWEST LIGHT RAIL TRANSIT PROJECT
SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT
STATEMENT (SDEIS)
JULY 9, 2015

This document constitutes a comment in response to the announcement of the Supplemental Draft Environmental Impact Statement (SDEIS) for the Southwest Light Rail Transit (SWLRT) Project published in the Federal Register on May 22, 2015. Note that this comment is post-marked before the published comment deadline of July 21, 2015.

This comment is officially from the neighborhood advocacy group, Safety in the Park, which, while led by a steering committee of seven residents, represents perhaps thousands of residents in St. Louis Park MN as evidenced by over 1500 signed names on petitions supporting our stated cause, an email/blog recipient list of over 1000 individuals, and a Facebook page with over 450 participants. Safety in the Park is a not-for-profit, volunteer neighborhood advocacy group based in St. Louis Park, MN. Safety in the Park fully supports the SWLRT project as a whole, but rejects any proposal to relocate freight rail traffic onto newly built tracks and tracks that were never built for such a purpose. Members of this group have worked on the freight relocation issue since the mid-1990's. Early in 2010 we began a more concerted effort to be heard, holding numerous public meetings, meetings with elected officials, and other stakeholders. We spent untold hours learning about railroad engineering and the railroad business. We also found and consulted with pro-bono rail experts, to help us by double-checking our findings. We know that our understanding of the issues and impacts of this project are strong.

St. Louis Park/Minneapolis Segment:

While we agree with the final Supplemental Draft Environmental Impact Statement conclusion that Co-location of freight and Light rail (LRT) in the Kenilworth Corridor of Minneapolis is the only viable option for the Southwest Light Rail Transit project, Safety in the Park challenges the very nature of the Met Council's decision-making process. In a September 2, 2011 letter from the FTA the Met Council was given the mandate to evaluate both freight rail relocation and co-location for the SWLRT project. Safety in the Park representatives to the SWLRT Community Advisory Committee (CAC), asked for written documentation confirming the need to retain re-location options into perpetuity. Responses from Mark Fuhrmann, SWLRT project director, confirmed that no where in the September FTA letter does it say that both options have to be carried to the end.

Furthermore, there are no subsequent written documents giving that direction.

<http://metro council.org/METC/files/f8/f88ed9f2-a4a1-4190-b856-9bce04fbd003.pdf>

Had the Met Council applied the criteria used (the taking of property, cost, above ground structures, and community opposition) in the culling of options equally for both co-location and re-location options all of the relocation options would have been dismissed after the first round of evaluations. Brunswick Central, the relocation option held to the end, ranks higher on this scale of negative impacts than all of the co-location options, many of which were eliminated after that first evaluation. Table F.5-6 St. Lois Park/Minneapolis Segment Alignment Adjustment - Third Step Evaluation, as well as, all of the explanations of the decision process, leaves the reader with the impression that there are only two possibilities for freight as part of the SWLRT project. Furthermore, the cost given for Brunswick Central does not seem to include the ongoing operating subsidy the TC&W Railroad would need in order to accept rerouting their trains to the MN&S.

<http://metro council.org/METC/files/82/82d110c1-cd37-4842-b37e-21b001a76d9d.pdf>

This arbitrary and capricious evaluation by the Met Council in regard to re-location of freight continues to put the residents of St. Louis Park at risk.

Action Requested: At least one of the co-location options that do not involve tunnels should remain in the list of viable options and/or all relocation options should be removed from contention after the step one evaluation. Due to the signed 1998 City of Minneapolis agreement with the Hennepin County Regional Rail Authority (HCRRA) to move the bike trail when the Kenilworth Corridor is needed for transit the most likely option to retain would be relocation of the bike trail.

<http://www.safetyinthepark.com/uploads/1/5/9/9/15992878/kenilworthtrail.pdf>

The Freight Rail and Light Rail “Swap” and “Southerly Connection.”

Safety in the Park, supporters believe that the SWLRT project needs to be built in such a way as to ensure its success. The case made in the SDEIS for the need for the Light Rail “swap” and the “Southerly Connection” in the Executive Summary (ES) page 11 and in Chapter 2 Alternatives Considered page 42 is very well done. Descriptions of short-term and construction impacts make it easy to understand the reasoning behind the expense of this addition. However, there are no significant descriptions of long-term impacts in Table ES-1 or anywhere else in the SDEIS.

While we understand the need for the “Swap” and “Southerly Connection”, Safety in the Park has grave concerns regarding the dearth of public meetings about this addition as well as lack of information about the long-term impacts the change in

design of freight rail infrastructure will have not only on St. Louis Park, but on the communities of Edina, Bloomington and Savage. The wye configuration that is being replaced by the Southerly Connection effectively limits the potential of the TC&W Railroad to grow their business south of St. Louis Park using the MN&S. Moving unit trains through the wye, while possible, would be both time consuming and economically unfeasible.

During the Project Management Team (PMT) meetings that took place in late 2010 to early 2011 in conjunction with the Environmental Assessment Worksheet (EAW) for the proposed freight re-route, representatives of the TC&W Railroad made it clear that they are looking forward to the opening of the expanded Panama Canal so that shipping grain on the Minnesota River to the Mississippi, the Gulf of Mexico then through the canal to Asia will make economic sense. Near the Southern end of the MN&S the TC&W Railroad is rebuilding the bridge over the Minnesota River. This will make it possible for the railroad to connect with grain elevators in Savage. <https://www.minneapolisfed.org/publications/fedgazette/the-little-railroads-that-could>

When the Southerly Connection from the Bass Lake Spur to the MN&S in St. Louis Park is completed, the TC&W railroad will have an uninterrupted route from Eastern South Dakota to the Minnesota River, making it possible for them to ship unit trains of grain, ethanol and other products through St. Louis Park to the Minnesota River.

With the probable change in business plan for the TC&W railroad, come lone-term impacts that that need to be addressed. These impacts include, but are not limited to the following:

- Noise - mitigation will be needed for the area around the Louisiana Station – a noise study needs to be done.
 - Diagram 2.5.5 from Chapter 2 of the SDEIS shows the Louisiana Station and lines showing the position of the Southerly Connection
 - The Bass Lake Spur and the MN&S are not at the same grade. The Southerly connection will be a ramp connecting the two rail lines
 - Trains going up and down the ramp will be louder than trains currently going straight through St. Louis Park on the Bass Lake Spur
- Grade Crossings – the impacts of long trains regularly blocking crossings needs to be studied
 - Enhancements of crossing arms and signals may be needed at small crossing
 - Impact to traffic and businesses just West of Miracle Mile could be significant
 - Grade crossings in Edina, Bloomington and Savage will be impacted – Those communities need to be informed of the potential impact
- How long will it take for the City of St. Louis Park to realize the loss of tax base due to the loss of property and businesses in the Skunk Hollow area?

Action Requested: An enhanced study of the long-term impacts and implications of the new rail corridor being created from Eastern South Dakota to the Minnesota River through with a vital Southerly Connection in St. Louis Park. Once a complete study of the new corridor is complete, public meetings need to be held to explain what can be done to mitigate the traffic, noise and other problems created by adding the Southerly Connection to the SWLRT Project.

Prepared by: Jami LaPray, Thom Miller and the Safety in the Park Steering Committee - July 8, 2015
Safety in the Park! – safetyinthepark@gmail.com

From: [Kathleen Pekach](#)
To: [swlrt](#)
Cc: [Richard Weiblen](#)
Subject: Liberty Property Trust - OMF at Site 9A
Date: Friday, July 17, 2015 2:49:36 PM
Attachments: [Scan.pdf](#)

Attached, please find a copy of Liberty Property Trust's response to the proposed OMF at site 9A. Original to follow via US Mail.

Thank you,

Kathy Pekach
Marketing Assistant
Liberty Property Trust
O 952.947-1100 D 952.833.5263
10400 Viking Drive, Suite 130, Eden Prairie, MN 55344
kpekach@libertyproperty.com

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July 17, 2015

Nani Jacobson
Assistant Director, Environmental & Agreements
Metro Transit – SWLRT Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park, MN 55426

Re: Comments of Liberty Property Trust Regarding OMF to be Located at Site 9A

Dear Ms. Jacobson:

Liberty Property Trust is the owner of the developed industrial properties at 1515 Sixth Street South, and 1600 Fifth Street South, Hopkins Minnesota, which will be taken for the proposed Operations and Maintenance Facility (OMF), Site 9A, Hopkins K-Tel East. As a property owner that will suffer the loss of two important industrial investment properties, we are deeply concerned about how this taking will impact us. We have reviewed the SDEIS and have the following comments on that document.

1. OMF Site 9A Selection Evaluation:

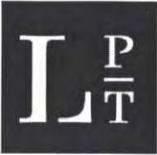
Our review revealed that Site 9A was not part of the original DEIS review and was only added as part of the SDEIS process and not subject to the same site selection evaluation that was done during the DEIS review. We understand that as part of the SDEIS analysis for a preferred OMF site a four step process was conducted that initially identified approximately 30 sites and through each step dismissed potential sites until site 9A was the final selection.

It appears to us that SDEIS failed to fully or properly evaluate the OMF site (identified in the SDEIS as site 9A) against comparable sites that were also being considered. We believe that additional information should be provided that will explain why site 9A was preferred over a number of others.

2. A Total Taking of the Liberty Property for OMF at Site 9A is Required

The SDEIS under Section 3.3.1.2 Acquisitions and Displacement indicates that there will be a full taking of both our industrial properties within the site 9A footprint. Liberty Property Trust concurs that any taking must be a full taking of each property.

The SDEIS notes that land which is acquired for the SW/LRT Project but not fully used for the OMF may be considered a remnant parcel and sold. Liberty Property Trust has no interest in buying back a remnant piece and there should be no expectation that such remnants will have any



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material economic value to Liberty. Liberty has previously conveyed this same information to representatives of the Met Council.

Liberty Property Trust has been an active participant in the public process and planning of the SWLRT. We are supportive of the project but recognize that a number of our properties will be taken if the project goes forward. Our concerns regarding the SDEIS reflect our past comments on the DEIS regarding our properties in Hopkins, Minnetonka and Eden Prairie, adjacent the Golden Triangle Station. Our earlier DEIS comments are attached for your convenience.

Finally, if the project goes forward, it is essential that our industrial tenants are fully compensated for their relocation costs and are given sufficient lead time to plan and execute a complex industrial plant relocation.

Liberty Property Trust

Richard Weiblen
Vice President, Development.

From: [Wanda Lambert](#)
To: [swlrt](#)
Cc: [Mark Wegner](#); [Victor Meyers](#); [Tina Ryberg](#)
Subject: Response to SDEIS
Date: Friday, July 17, 2015 2:34:15 PM
Attachments: [07172015123552300.pdf](#)

Good Afternoon,
Please find for inclusion in the office record the response of Twin Cities & Western Railroad on the Metropolitan Council's Southwest Transitway Supplemental Draft Environmental Impact Statement. These comments are set forth in the attachment.

Kind Regards,

Wanda Lambert

Twin Cities & Western Railroad Company

Minnesota Prairie Line, Inc.

Sisseton Milbank Railroad Company

2925 12th Street E.

Glencoe, MN 55336

PH: 320-864-7234

www.tcwr.net

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TWIN CITIES & WESTERN RAILROAD COMPANY

2925 - 12th Street East
Glencoe, MN 55336
(320) 864-7200
FAX (320) 864-7220

July 17, 2015

VIA EMAIL AND U.S. MAIL

Ms. Nani Jacobson
Assistant Director, Environmental and Agreements
Metro Transit – Southwest LRT Project Office
6465 Wayzata Blvd., Suite 500
St. Louis Park, MN 55426
nami.jacobson@metrotransit.org

Re: Response to Metropolitan Council's Southwest Transitway Supplemental Draft
Environmental Impact Statement

Dear Ms. Jacobson:

Please find for inclusion in the office record the response of Twin Cities & Western Railroad on the Metropolitan Council's Southwest Transitway Supplemental Draft Environmental Impact Statement. These comments are set forth in the attached.

Thank you.

Sincerely,

Mark Wegner

President

Twin Cities & Western Railroad

Phone: 320-864-7204

Email: mwegner@tcwr.net

Website: www.tcwr.net

Enclosure

Twin Cities & Western Railroad Company Response to Metropolitan Council's Southwest Transitway Supplemental Draft Environmental Impact Statement

Twin Cities & Western Railroad Company (TC&W) responded to the Southwest Transitway Draft Environmental Impact Statement (DEIS) in December 2012, and the issues raised in that response remain valid for this response. TC&W's response to the DEIS can be found at <http://tcwr.net/responsetodeis/>.

TC&W's comments should be viewed in the context that TC&W serves numerous Counties, Communities and Customers in south central Minnesota and South Dakota. Over the last 10 years our shippers and their customers have collectively invested over \$100 million in expanding and enhancing their freight rail facilities, creating additional jobs and economic growth in the area of rural Minnesota served by TC&W. These businesses have made these massive investments based on the understanding that their freight rail service will, at minimum, remain at its current level. This is a fair and reasonable understanding, given the protective mandate of the United States Surface Transportation Board (STB), which has exclusive jurisdiction over freight railroad transportation, including economics and service levels. Our response to the SDEIS, therefore, is made with the purpose of preserving TC&W's ability to continue to provide freight transportation economically and at current service levels.

Changes in Scope/Elements

There are two changes in scope/elements from the October 2012 DEIS to the May 2015 SDEIS that affect TC&W.

- **Freight Route:** The SDEIS avoids the relocation of freight traffic traversing north on the CP MN&S line (from a point in St. Louis Park just east of Louisiana Avenue), and instead continues freight traffic traversing north via the Kenilworth Corridor (at Cedar Lake Junction just west of downtown Minneapolis). This results in a co-location of freight trains and light rail between these points and through the Kenilworth Corridor (co-location was planned from approximately Shady Oak Road in Hopkins to the point in St. Louis Park just east of Louisiana Avenue in both the DEIS and the SDEIS). TC&W will refer to this change as "Co-locate" within this document.
- **Freight Alignment Change:** The SDEIS contemplates moving the SWLRT from the north side of the existing freight rail to the south side of the future freight rail location, by shifting the freight rail to the current bike trail alignment by angling the freight rail north, just east of 169, and building a bridge to carry the LRT from north of the freight rail to south of the freight rail just east of Hopkins. TC&W will refer to this change as "Alignment Change" within this document.

Comments Related to above Scope/Element Changes

Freight Route – Service Disruption during Construction:

TC&W staff and consultants worked diligently with Met Council's staff and consultants from January 2013 until present to arrive at a plan that would retain the freight service south central Minnesota depends on, while at the same time preserving the "Locally Preferred Alternative" (LPA) for the Southwest Transitway.

There have been extensive documentation and discussion of the engineering and construction challenges of building the SWLRT in the Kenilworth Corridor from the point southwest of the lagoon connecting Cedar Lake to Lake of the Isles to the point where the LRT's Lake Street station is planned. It is TC&W's understanding that with the SDEIS, the SWLRT is at the approximately 30% engineering phase. The discussions with Met Council and staff have occurred with the understanding that TC&W will allow the SWLRT contractors to work during the day and the freight trains will be able to operate safely from the close of the SWLRT construction day until the beginning of the following construction day. This will delay freight rail, but with careful planning, managing and communication it can be done. It has also been noted at the 30% engineering phase that the bridge swap at State Highway 100 would create a significant service outage for TC&W customers. Having TC&W cease operations during construction for periods longer than the work windows described above would be disruptive to TC&W's service obligation that its customers rely upon.

Freight Route – Safety & Public Perception:

Our comment is made in the context that freight railroad operations are largely a mystery to the general public. They get noticed if the motorists must stop at a railroad crossing for a train, or a derailment makes the news, but otherwise the general public has little knowledge of freight railroads. Unfortunately, public perceptions of freight rail service are colored by highly publicized but relatively isolated incidents such as the ignition of flammable Bakken crude oil that occurred when a train derailed and ruptured in December 2013 in eastern North Dakota. Most Minnesotans do not know that 99.999997% of freight rail shipments arrive safely at their destinations.

Given the public's current perception of freight rail (particularly the safety of freight rail), it is important that Met Council communicate with the affected neighborhoods not only the safety precautions built into the construction plan, but also any contingency plans should a natural disaster occur during construction (wind storm, rain, deluge, etc.). Also, an emergency response plan ought to be part of the construction plan and this should be communicated to the affected neighborhoods and public officials.

Freight Alignment Change – Cost cutting options affecting TC&W:

Our comment is made in the context of the announcement in April 2015 that the costs of the SWLRT, as shown in this SDEIS had increased to approximately \$2 billion. The reaction by elected officials and decision-makers, since that announcement, has been to cut the costs of the SWLRT to approach the earlier \$1.6 billion estimate.

In comments relating to the Alignment Change, the SDEIS discusses, as a result of the Alignment Change, the elimination of the side tracks that TC&W currently uses for sorting freight and staging freight cars. The SDEIS does not mention building replacement track capacity at a location further west along the TC&W. Replacement track capacity must be built by Met Council as part of the cost of the SWLRT project in order to meet Federal STB requirements and preserve the existing shipper service levels provided by TC&W to its customers. The expense of providing replacement track capacity must be factored into the project, and cannot be included in the cost cutting being considered by the Met Council. It should also be noted that severing the southerly connection from the CP Bass Lake Spur to the CP MN&S is not a cost cutting option as this connection provides freight rail access for grain producers in south central Minnesota to move their product to the river barge terminals located in Savage, MN.

Conclusion

TC&W remains committed to providing safe, efficient and reliable freight service to its south central Minnesota customers, as well as providing safe passage through the neighborhoods in the Twin Cities metropolitan area in which we operate. As planning moves towards 90% engineering, within the context of cost cutting, the safe passage of freight during and after SWLRT construction and effective and continuous operations must not be compromised.

Attached is a list of the Cities, Counties and Customers that provided letters of support of TC&W's response to the DEIS (<http://tcwr.net/responsetodeis/>). All of these constituents remain extremely interested in the SWLRT process with respect to the preservation of their freight rail service.

List of entities that responded to the DEIS in support of TC&W's response

ADM – Benson Quinn (Minneapolis, MN)
Agri-Trading (Hutchinson, MN)
Bird Island Bean Co, LLC (Bird Island, MN)
Bird Island Soil Service Center (Bird Island, MN)
Central Bi-Products (Redwood Falls, MN)
Clifton Co-op Farmers Elevator Association (Clinton, MN)
Cloud Peak Energy Resources, LLC (Decker, MN; Broomfield, CO)
Co-op Country Farmers Elevator (Renville, MN)
Corona Grain & Feed (Corona, SD)
Dairy Farmers of America (Winthrop, MN)
Equity Elevator & Trading Company (Wood Lake, MN)
Farmers Co-operative Elevator Co. (Hanley Falls, MN)
Farmers Union Coop Oil Company (Montevideo, MN)
Farmers Cooperative Oil & Fertilizer (Echo, MN)
FGDI (St. Louis Park, MN)
Form-A-Feed, Inc. (Stewart, MN)
Glacial Plains Cooperative (Murdock, MN)
Granite Falls Energy, LLC (Granite Falls, MN)
Hanley Falls Farmers Elevator (Hanley Falls, MN)
Heartland Corn Products (Winthrop, MN)
L.G. Everist, Inc. (Sioux Falls, SD)
Lyman Lumber Company (Excelsior, MN)
Meadowland Farmers Coop (Lamberton, MN)
Midwest Asphalt Corporation (Hopkins, MN)
Minnesota Grain & Feed Association (Eagan, MN)
Minnesota Valley Regional Rail Coalition
Mosaic Company (Savage, MN)
RPMG Inc. (Shakopee, MN)
Seneca Foods Corporation (Glencoe, MN)
Seneca Foods Plant (Arlington, MN)
South Central Grain & Energy (Fairfax, MN; Gibbon, MN; Hector, MN; Buffalo Lake, MN)
Southern Minnesota Beet Sugar Cooperative (Renville, MN)
Step Saver, Inc. (Redwood Falls, MN)
United Farmers Cooperative (Winthrop, MN)
Western Consolidated Cooperative (Holloway, MN)
Western Co-op Transport Association (Montevideo, MN)
Wheaton Dumont Co-op Elevator (Wheaton, MN)
United Grain Systems, LLC (Winthrop, MN)

City of Arlington
City of Bird Island
City of Buffalo Lake

City of Glencoe
City of Hector
City of Milan
City of Montevideo
City of Morton
City of Norwood Young America
City of Olivia
City of Plato
City of Sacred Heart
City of Stewart
City of Winthrop

Big Stone County
Carver County
Grant County (South Dakota)
McLeod County
Minnesota Valley Regional Rail Authority
Redwood Area Development Corporation
Redwood County
Upper Minnesota Valley Regional Development Commission
Renville County
Renville County HRA/EDA
Roberts County
MinnRail, Inc.
Sibley County Economic Development Commission
Sibley County Auditor
Sibley County
Sibley County Attorney
Wright County
Yellow Medicine County

From: [Terri J. Smith](#)
To: [swlrt](#)
Cc: [craig@redstonegrill.com](#); [thomas.goodrum@westwoodps.com](#); [vern.swing@westwoodps.com](#); [Patrick B. Steinhoff](#); [Bruce D. Malkerson](#)
Subject: Comments on the Southwest Transitway
Date: Tuesday, July 21, 2015 12:38:59 PM
Attachments: [Idlewild Properties and Redstone American Grill Comment Letter on Southwest Transitway \(178317x9C65D\).pdf](#)

Ms. Jacobson:

Please see the attached letter from Idlewild Properties, LLC and Redstone American Grill, Inc. regarding the above-referenced matter.

Terri Smith
Legal Administrative Assistant to Bruce D. Malkerson and Patrick B. Steinhoff
MALKERSON GUNN MARTIN LLP
220 South Sixth Street, Suite 1900
Minneapolis, MN 55402
Direct Dial 612.455.6651; Fax 612.455.2054
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REDSTONE™

AMERICAN GRILL

July 21, 2015

Nani Jacobson
Assistant Director, Environmental and Agreements
Metro-Transit – Southwest LRT Project Office
6465 Wayzata Blvd., Suite 500
St. Louis Park, MN 55426

RE: Comments on the Southwest Transitway
Supplemental Draft Environmental Impact Statement (SDEIS)

Dear Ms. Jacobson and other Interested Parties:

We write on behalf of Idlewild Properties, LLC and Redstone American Grill, Inc. (together, “Redstone”)¹ to comment on the Supplemental Draft Environmental Impact Statement (“SDEIS”) for the SWLRT project.

Redstone owns and operates the Redstone restaurant located at 8000 Eden Road, Eden Prairie. This property is located in the Eden Prairie Segment of the SDEIS and has been identified as a property that will be partially taken for the SWLRT project. Redstone has completed a review of the SDEIS document, and it opposes the recommendation stated in the SDEIS to move the location of the SWLRT rail line to Eden Road. The proposed location recommended by the SDEIS will result in substantial adverse impacts on Redstone’s ability to operate its restaurant. These substantial adverse impacts include, but are not limited to, the loss of parking, access restrictions, increased noise, visual impacts, safety concerns, and the creation of obstacles to the public enjoyment of existing natural amenities (e.g, Lake Idlewild) in the immediate vicinity of the Redstone property.

Redstone offers the following specific comments concerning the SDEIS:

Chapter 2: ALTERNATIVE CONSIDERED:

All of the rail alignments recommended in the DEIS showed the SWLRT line located along Technology Drive. This reasonably demonstrates that the route best suited for the SWLRT is along Technology Drive. We understand the SDEIS was authorized with the intent of reviewing this alignment based on requests by the City of Eden Prairie and certain businesses impacted by the proposed Technology Drive route. However, Technology Drive is the best alignment for the efficient operation of SWLRT as originally concluded.

¹ Idlewild Properties, LLC owns the real property located at 8000 Eden Road, Eden Prairie. Redstone American Grill, Inc. leases that real property and operates the Redstone American Grill restaurant located at the site.



SWLRT SDEIS Comments

Idlewild Properties, LLC/Redstone American Grill, Inc.

July 21, 2015

Page 2

Section 2.3.1 of the SDEIS states that the City of Eden Prairie asked the Metropolitan Council to investigate the feasibility of a more centrally located and walkable Eden Prairie Town Center Station that would provide better opportunities for transit-oriented development and redevelopment. The City prefers a station within walking distance of the Eden Prairie Center (a regional shopping mall) which the City believes will promote its long term economic development goals and provide higher ridership due to the station's proximity to existing and future commercial activity centers. These points are driven solely by the expected economic benefit to the City, not by any improvement in the operation of the SWLRT. As identified throughout this review, moving the route from Technology Drive to Eden Road:

- impacts more businesses
- impacts more roads and intersections
- requires the construction of a new road
- requires crossing more intersections
- creates more safety risks
- does not achieve the walkability to the mall that the city desired (1/4 mile to a mall entrance)

The proposed Town Center Station does not correspond to the three proposed station locations (described in the document attached hereto as Exhibit A), that the City had considered during the DEIS process. The closest recommended station location is near the intersection of Eden Road and Singletree Lane. (See attached maps and city location criteria) The desire to have the station more centrally located within the City's Town Center District is referenced in three city documents:

- Comprehensive Guide Plan, Future Land Use Plan (2009)
- Eden Prairie Town Center Design Guidelines (2007)
- Eden Prairie Major Center Area Study (2006)

Through the 4-step evaluation process conducted for the SDEIS selection of alternative alignments, there are two alignments along Singletree Lane compared to a single alignment along Eden Road. The final step of the evaluation identified two finalist routes for this section of the line:

- Option 1 is the proposed route (comprehensive plan)
- Option 3 is the Singletree Lane route

Both routes are very comparable in their listed advantages to the LRT system. However, it is noted the Singletree Lane route (Option 3) received a Very Good rating for walkability to the Eden Prairie Mall while Option 1 only received a Good (Table F.3.7 from Appendix F). This noted because it reflects a key criteria from the City of Eden Prairie in its request to move the line away from the DEIS recommended route along Technology Drive.

In light of the new announcement that the SWLRT alignment is being amended due to budget constraints and that the Town Center Station is being deferred for cost savings, we demand a new review of the SDEIS alignment be conducted to re-evaluate if the Technology Drive or the Singletree Lane alignment and the proposed Town Center Station are better suited elsewhere to stay on budget for the project.

Chapter 3: AFFECTED ENVIRONMENT, IMPACTS and MITIGATION

Section 3.1.2.1 (Land Use) of the SDEIS states that there is no significant change in land use from the DEIS alignment and the SDEIS alignment. The SDEIS review evaluates which alignment can support higher density or mixed use development. There are no specific federal regulations guiding land use, so the SDEIS relies on local zoning and comprehensive plans to guide their assessments.

There is a significant difference in existing land uses between the Technology Drive alignment and the City's Comprehensive Plan alignment. Although the guiding and zoning of the lands are similar, the actual existing land uses and impacted properties are significantly different. The proposed alignment will impact at least six more businesses than would be impacted on the Technology Drive route. Moreover, the large vacant land areas and under-used land within the larger developed lots along Technology Drive can support future redevelopment better than the smaller parcels along Eden Road. For these reasons as well as the additional reasons identified above, we demand that the Project Office re-evaluate the potential redevelopment of this area in relation to a Town Center Station that will be built (if at all) several years in the future. During that time, the City can plan and construct improvements that will make a station along Technology Drive a viable destination for people to live, work, and play. A road connecting Singletree Lane to Technology Drive and a Town Center Park on the existing Emerson property are currently being considered. These planned projects can be catalysts in supporting a station on Technology Drive.

Section 3.1.2.4 (Parklands, Recreation Areas, and Open Spaces) of the SDEIS notes that land within 350 feet of the proposed SWLRT rail line was considered for potential impacts and that no parks, recreational areas or open spaces exist along this segment of the SWLRT line. The SDEIS therefore concludes that there are no long-term impacts. The SDEIS is simply incorrect on this point, and a new evaluation must therefore be undertaken. The new evaluation must include Lake Idlewild, which is well within the 350 feet limit identified in the SDEIS and, in fact, is only 150 feet from the proposed SWLRT rail line at the east side of the Redstone property. The SDEIS evaluation failed to consider any impacts at all, either, direct, indirect, long-term or short-term to Lake Idlewild. The City of Eden Prairie's 2013 trail map shows the trail around Lake Idlewild as a public trail, and the City's 2007 Comprehensive Plan identifies a future Town Center Park on the vacant land eastern edge of the land owned by Emerson Process Management Educational Services adjacent to Lake Idlewild. These impacts should and must be

considered. It is obvious the noise and scenic disruption caused by the SWLRT will have a long-term impact on these existing and future recreational areas.

We demand that this existing trail and future park be incorporated into the SDEIS document and be given the same consideration provided to Purgatory Park by the SDEIS. In section 3.2.1.4 of the SDEIS, there is a great amount of detail concerning how the SWLRT line will impact Purgatory Park. The SDEIS lists several ways Purgatory Park would be indirectly impacted by the SWLRT including impacts to access into the park, amenities that would require relocation to avoid the rail line, and the visual intrusions that would be experienced by park users as a result of the proposed rail structures. These changes in the Purgatory Par setting would disrupt a visitor's visual experience, resulting in a moderately-low to low impact upon views into and from the park. A solution to avoiding the existing trail and the future park will be to move the proposed rail line to the other finalist alignment along Singletree Lane (Option 3).

Chapter 3.2 EDEN PRAIRIE SEGMENT

This section provides a summary of the potential environmental impacts within the area between Mitchell Road and Flying Cloud Drive, which includes the Redstone property. Our comments relating to this section will be focused on the direct impacts that the recommended SWLRT line would have on Redstone and on its ability to successfully operate the existing restaurant business at the property. In our review of the SDEIS, it is clearly evident that the recommended SWLRT line route would result in substantial adverse impacts on Redstone's ability to operate its restaurant at the property.

Subsection 3.2.4.2 (Roadway and Traffic) of the SDEIS notes that the SDEIS was analyzed using a preemption strategy for LRT traffic signals, as opposed to the Traffic Signal Priority (TSP) operation that was used for the traffic study in the DEIS. In theory, the preemption strategy would represent the worst-case scenario for vehicular traffic. However, this strategy does not analyze the possibility of increased delays caused by the arrival of trains at the very end of the green cycle for the main line movement, the extension of the green light to service the train, and the transition back into that main line green before transitioning to service the minor driveway approaches. In other words, the analysis employed by the SDEIS does not accurately model the traffic signal delays caused by SWLRT that may be experienced by vehicle traffic seeking to enter or depart from the Redstone property. Delays of this sort occur frequently on the Green Line (Central Corridor Light Rail). Given the operational history of LRT in the Twin Cities Metro area, there is a significant potential for Redstone customers to have to wait up to three traffic signal cycles before being given the right-of-way. The analysis conducted for the SDEIS failed to address this situation and how it will impact the minor approaches at signalized intersections.

The intersections of Eden Rd/Eden Rd and Glen Rd/Eden Rd are not expected to meet vehicular signal warrants without the presence of the LRT. The traffic impact study states that driveways were included in the analysis. However, there is no evidence to support this claim. This

information must be provided to allow businesses to evaluate SWLRT impacts. Based on observations of the Green Line (Central Corridor), which also operates with TSP, phases are skipped and excessive delays on the side streets are experienced. Significant delays are not conducive to long term customer relations for a business. Redstone must be presented with the analysis showing the change in delay values from the No Build to the Build scenario to determine true impacts to customers entering and exiting the restaurant.

The traffic impact analysis presented in the SDEIS fails to accurately reflect traffic operations consistent with other LRT lines operating with TSP. It was also not included in the air quality section. With increased delays present on the minor approaches, there will be an increase in emissions along the corridor. This must be addressed.

Subsection 3.2.4.3 (Parking) of the SDEIS includes a chart that shows the Redstone property currently having 179 parking stalls. As a result of the SWLRT project as currently proposed, Redstone will lose 36 stalls due to the acquisition of part of the Redstone property, leaving only 143 stalls remaining. This loss of parking raises several issues that are inadequately addressed in the SDEIS.

We disagree with the number of lost parking stalls predicted by the SDEIS at the Redstone property and believe that the actual number of lost parking stalls will be much higher. The Redstone parking lot will need to be reconfigured as a result of the SWLRT project to provide adequate maneuvering space for delivery vehicles and to accommodate the relocation of the western parking lot access. This reconfiguration will eliminate several additional stalls currently unaccounted for by the SDEIS. Reconfiguring the parking lot will require City of Eden Prairie site plan approvals. The reconfigured parking lot must satisfy City setback requirements and may require variances from the City's zoning ordinance.

The loss of any parking stall is critical to the Redstone property. The Redstone parking lot is continuously full, and Redstone's patrons currently struggle to find parking spots. Redstone employees even now must park off-site to free spaces for Redstone customers. The loss of even a few parking stalls would be detrimental to Redstone's business operations. Based on our review, Redstone will have only 97 parking stalls remaining after construction of the SWLRT project, note the 143 parking stalls identified in the SDEIS. Redstone cannot accept additional stalls that are off the current Redstone property, especially to the east, as this would create too great of a distance for Redstone customers to walk to the restaurant's front door.

We believe that the acquisition of additional parking stalls along the southern edge of the Redstone parking lot adjacent to Eden Road and the proposed rail line will be necessary in order to construct the SWLRT. The engineered plans fail to show grading limits or cross sections to adequately account for grading impacts to our site. This must be addressed in the SDEIS.

Review of the engineered plans show there is only one to two feet between the parking stalls and the side of a train. This does not take into consideration vehicle overhang from the curb stop.

Furthermore, the SDEIS ignores the safety of Redstone's patrons parking and exiting their vehicles so close to the passing LRT. The safety of those patrons, especially those with small children and those visiting Redstone at night, is of great concern to Redstone. Redstone notes that, for approximately six months of every year, the majority of Redstone's patrons visit the restaurant after sunset. Redstone also notes that approximately 130 of its employees park off-site and therefore will be required to cross the SWLRT tracks when walking to and from their vehicles each workday. Current plans for the SWLRT do not provide for any sort of physical barrier between the Redstone parking lot and SWLRT rail line. These conditions are simply not safe, and they are not adequately addressed by the SDEIS.

Redstone's driveways will also be drastically impacted by SWLRT trains creating unsafe conditions at the access into and out of the Redstone property. The traffic impact study did not include any discussion regarding how the driveways at the Redstone property would be controlled in coordination with the associated train crossings. Will gate arms be provided for the driveways? Will the trains have the right of way through Redstone's driveways? What will be the speed of the LRT through the Redstone property? Redstone has concerns about the answers to these questions based on the frequency with which vehicles stop at rail crossings within the Twin Cities Metro area on or beyond the painted stop bar at those crossing combined with the proposed volume of LRT crossings expected across the driveways at the Redstone property. We have significant concerns regarding the safety of Redstone patrons entering and leaving the Redstone property. According to the traffic impact studies prepared for the SDEIS, there is an expectation of 10 minutes headway between train vehicles in the p.m. peak hour, consistent with the Blue Line and Green Line operations. "A 10 minute headway corresponds to 12 trains in the peak hour (six in each direction) which equates to one train approximately every five minutes." Redstone customers would be subject to delays, close encounters with the trains, and confusion maneuvering between the tracks and Eden Road, especially in the later hours. This will create a sense of fear and will cause potential customers to avoid the Redstone site, which will have significant negative impacts to the operation of Redstone's business operations.

Subsection 3.2.2.3 of the SDEIS notes that permanent noise impacts would not affect the area around Redstone. It does state that there is a moderate noise impact at one hotel, and moderate or severe noise impact at other nearby hotels. There were four sites where noise monitoring was conducted. The two monitoring sites closest to Redstone were N4 and N25, as identified on table 3.2-8 and Appendix H. Site N4 was conducted at the Lincoln Park Apartments in July-August of 2013 as part of SDEIS, and site N25 was conducted at the Homestead Hotel across from Lake Idlewild in 2010 as part of DEIS. Site N4 measured for 24 hours near the water tower and is representative of the ambient noise conditions at the Lincoln Park and Water Tower apartments plus Singletree Lane. According to Table 3.2-9 of the SDEIS, the Summary of Noise Impacts for Residential Lane Use is as follows:

Excerpt from SDEIS Table 3.2-9
Summary of Noise Impacts for Residential Lane Use – Eden Prairie Segment

Location	Distance from near LRT Track Centerline (ft)	Existing Noise Level (dBA)	Project Noise Level, LRT (dBA)
Lincoln Park Apartments	138	62	57
Water Tower Apartments	113	62	58
Residence Inn	44	61	65

Noise levels at 59 dBA are considered moderate, and noise levels over 64 are considered severe. With projected noise levels at 58 dBA, one level below a moderate level impact, further studies are needed to fully understand the noise impact in this area. How are the projected noise levels shown to be lower than the existing noise levels? The last few pages of Appendix H are a SWLRT Noise Fact Sheet which includes a table of Typical Maximum Noise Levels. According to this table, an LRT vehicle traveling at 45 mph at a distance of 50 ft from the noise source generates noise volumes in the range of 71-76 dBA. The noise analysis reported in the SDEIS does not have results consistent with the associated fact sheet and must be accurately addressed.

Furthermore, the noise impacts become more concerning with the numerous bells and horns that are emitted at intersections and stations are included. The SDEIS does not consider these impacts. Appendix H lists the dBA levels for the bells and horns used along train corridors (see below). The train speed will be at 45 mph when crossing the at-grade intersection at Flying Cloud Drive, and the use of LRT horns are therefore necessary. Bells are expected to be used at the Redstone driveway crossings if gates are provided, and will be used at the Town Center Station 750 feet away.

- LRT bells are sounded for 5 seconds as Light Rail Vehicles approach at-grade crossings
- Grade crossing bells will ring for 20 seconds for each train
- LRT horns would be sounded at an at-grade intersection when traveling 45 mph
- Bells would be sounded twice when entering/exiting a station
- Crossing bells have a sound exposure level of 106 dBA
- LRT bells have a sound exposure level of 88 dBA
- LRT horn have a sound exposure level of 99 dBA

The SDEIS states that LRT vehicles speeds are expected to range between 20 to 55 mph. The SDEIS fails to study the noise associated with an LRT vehicle braking as it approaches a station. The volume of noise from a braking train will be higher than the train noise itself, thus increasing the noise of an LRT vehicle approaching a station and at the Redstone property significantly more than what is described in this section of the SDEIS.

The SDEIS further fails to address noises associated with accessible pedestrian signals that will be installed at the proposed traffic signals near Redstone. While we recognize and support the need for such devices, they produce noise, are subject to noise pollution, are loud, and emit constant beeps and tones which will also have an impact on the dining experience at Redstone.

High noise levels are a very important concern with Redstone, as its business operations depend on a relaxing, enjoyable atmosphere for patrons dining in the restaurant and especially for those using Redstone's outdoor patio. With noise from the trains directly in front of the restaurant plus noise carried across Lake Idlewild from other areas of the SWLRT line, intense focus on the study of noise at Redstone is necessary to protect Redstone's business. The SDEIS only analyzed noise impacts associated with a residential area and did not take into consideration other types of uses, such as restaurants with outdoor patios. There are many such businesses in the area with outdoor facilities in addition to Redstone, such as Champps and Old Chicago. Redstone will lose the ambiance that its customers have come to know and expect with the relative quiet that is provided in Redstone's existing setting adjacent to a nature park, lake, and suburban environment.

Subsection 3.2.1.5 (Visual Quality and Aesthetics) of the SDEIS notes that viewpoint 9 was taken at the eastern end of the Redstone property looking west along Eden Road. That view shows the line of boulevard trees along the parking lot edge of Redstone. Due to the boulevard trees, the existing view score was Moderately Low while the anticipated change in visual quality and aesthetics scored Low due to the loss of those trees. In accordance with the SDEIS findings, the SWLRT project may reduce visual unity of the view unless design and landscape measures are taken. The visual quality of the view will be reduced because of the removal of vegetation and the introduction of the SWLRT tracks, which will reduce the visual intactness and visual unity for this view. The overall level of change in the visual quality of this view is Moderate, not Low as inaccurately stated in the SDEIS.

In review of the engineered plans there will not be enough space to plant trees between Redstone and the tracks nor along the sidewalk. The existing views from Redstone will be altered from trees to a LRT train and tracks with no space for screening. The removal of trees along the boulevard and the inability to screen the trains from our patrons and the public is a substantial negative impact to our business. We are a fine-dining establishment that promotes ambiance and a natural aesthetics atmosphere for our patrons.

Another objection to the SDEIS review of the visual quality and aesthetics near Redstone is the absence of any consideration of the view looking over Lake Idlewild and the trees that surround it. Lake Idlewild provides an aesthetic backdrop for the businesses in this area and is clearly

visible to the public driving on Eden Road or walking among the surrounding shops. We demand that further analysis be conducted on the view-sheds near Redstone so that the analysis includes views to the north across Lake Idlewild.

Subsection 3.2.4.5 (Safety and Security) of the SDEIS reviews the long-term direct and indirect safety and security impacts. Redstone is outraged by the newly introduced potential for violent train-vehicle or train-pedestrian conflicts that will be present at the at-grade crossing of roadways or driveways at and around the Redstone property. The SWLRT trains will be crossing not only Redstone's two driveways but also the intersection of Glen Road and Eden Road. There will be numerous Redstone patrons trying to get into and out of the Redstone property by vehicle or on foot. With SWLRT trains crossing in front of the Redstone property with unknown measures for public safety, Redstone may face potential liability arising from accidents caused by the SWLRT crossings near its property. The proposed SWLRT alignment simply creates too many conflict points between trains, vehicles and pedestrians in a very small and uncontrolled area.

The SDEIS identifies a sidewalk section for pedestrians that would require pedestrians to traverse a parking lot and use a sidewalk currently associated with another business (Brunswick Zone Bowl). This is unacceptable to Redstone. Easements are required to use a private walk for public use and liability will perpetually be an issue. Moreover, requiring pedestrians to walk through the middle of an existing parking lot creates considerable safety concerns. A safer alternative is to provide sidewalks along public roads. If the Town Center Station were located east of the intersection with Eden Road, then a sidewalk could be provided adjacent to Eden Road south to Singletree Lane. The SWLRT's blatant disinterest in the safety of its riders and Redstone's patrons requires correction and further study.

Summary

As noted above, the SWLRT project as currently designed will result in substantial adverse impacts on Redstone's ability to operate its restaurant. These substantial adverse impacts include, but are not limited to, the loss of parking, access restrictions, increased noise, visual impacts, safety concerns, and the creation of obstacles to the public enjoyment of existing natural amenities (e.g, Lake Idlewild) in the immediate vicinity of the Redstone property.

"The adequacy of an environmental impact statement is subject to challenge on both procedural and substantive grounds." *Minnesota Public Interest Research Group v. Adams*, 482 F. Supp. 170 (D. Minn. 1979). An environmental impact statement is substantively inadequate when an agency's "actual balance of costs and benefits" is arbitrary and when the agency gives "insufficient weight to environmental values." *Minnesota Public Interest Research Group v. Butz*, 541 F.2d 1292, 1300 (8th Cir. 1976). An EIS is likewise inadequate if it does not contain sufficient information to permit a reasoned choice of alternatives. *Id.* Moreover, an EIS "must not be so vague, general and conclusory that it cannot form the basis for reasonable evaluation and criticism." *Id.*

The SDEIS prepared for the SWLRT here is both substantively and procedurally inadequate. The costs and benefits set forth in the SDEIS are arbitrary and give insufficient weight to the environmental values that underlay NEPA and MEPA. Moreover, the SDEIS is so vague, general and conclusory in nature that it cannot form the basis for reasoned analysis of the true environmental, social and economic effects of the SWLRT

As such, the SDEIS prepared for the SWLRT here fails to fulfill the fundamental purposes of the National Environmental Policy Act, 42 U.S.C. 4432, et seq. or the Minnesota Environmental Policy Act, Minn. Stat. § 116D.01, et seq. “[T]he overall purpose of NEPA is to establish ‘a broad national commitment to protecting and promoting environmental quality.’” *Sierra Club v. United States Army Corp of Engineers*, 446 F.3d 808, 1126 (8th Cir. 2006), quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989). An EIS prepared pursuant to NEPA and MEPA must consider the “social and economic effects of [a] proposed agency action must ... once it is determined that the proposed agency action significant affects the physical environment.” *Id.* NEPA and MEPA require government agencies to evaluate environmental impact of a proposed government action and possible alternatives to that action before the agency takes any action that will “significantly affect the quality of the human environment.” *Id.* Notably, the term “human environment” must be interpreted “comprehensively to include the natural and physical environment and the relationship of people with that environment.” *Id.*

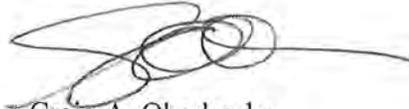
Here, the effect of the SWLRT on the “human environment” surrounding the Redstone property will simply be disastrous. It will irreparably disrupt the natural and physical environment in which the Redstone property is currently situated. Moreover, it will create hazards and inconveniences for people attempting to enter that environment in order to dine at Redstone. Finally, it will cause substantial economic hardships for Redstone and similarly situated businesses located along the proposed SWLRT route recommended by the SDEIS.

Redstone recognizes that there have been many changes to the SWLRT project since the release of the SDEIS. The Metropolitan Council has recently supported the elimination of the Mitchell Station and the deferment of the Town Center Station along with many other cost saving adjustments. To support cost reductions and a more efficient LRT operation, Redstone encourages the Project Office to act upon its request to re-examine the many issues raised in this letter and consider if past options or new options can provide a better alignment for the SWLRT. The Eden Prairie Segment carries numerous costs and environmental impacts that must be investigated further. The widening and extension of Eden Road is just one example. A second is the ability to avoid the wetland south of Costco if the line is realigned. As noted earlier, the Technology Drive and Singletree Lane alignments were considered viable options and deserve to be reconsidered now. We ask that the Metropolitan Council do so.

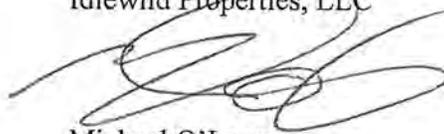
We look forward to working with you on addressing our concerns and finding solutions that benefit the SWLRT project, the City of Eden Prairie, Redstone and the public.

Very Truly Yours,

SWLRT SDEIS Comments
Idlewild Properties, LLC/Redstone American Grill, Inc.
July 21, 2015
Page 11



Craig A. Oberlander
Chief Manager
Idlewild Properties, LLC



Michael O'Leary
Chief Operating Officer
Redstone American Grill, Inc.

Enclosure

c: Bruce D. Malkerson, Esq., Attorney for Redstone
Tom Goodrum and Vern Swing, Westwood Professional Services, Engineering and
Planning Consultants for Redstone

Southwest Transitway

Town Center Station Location Considerations

General

- The feasibility of more centrally located and walkable Town Center Station should be evaluated during the Preliminary Engineering Process
- Minimize Town Center Station parking. If possible re-allocate parking to Southwest Station and Mitchell Road.

Location Priorities

- Walkability to Housing and Employment (Ridership Potential)
- Close proximity to Eden Prairie Center. Station within $\frac{1}{4}$ mile to a mall entrance.
- Maximize potential redevelopment and reinvestment opportunities.
 - Considered recent investments in area
- Separation from Southwest Station LRT Station
- Acceptable traffic impacts of track alignment



Potential MCA Station Locations

Location A – Town Center

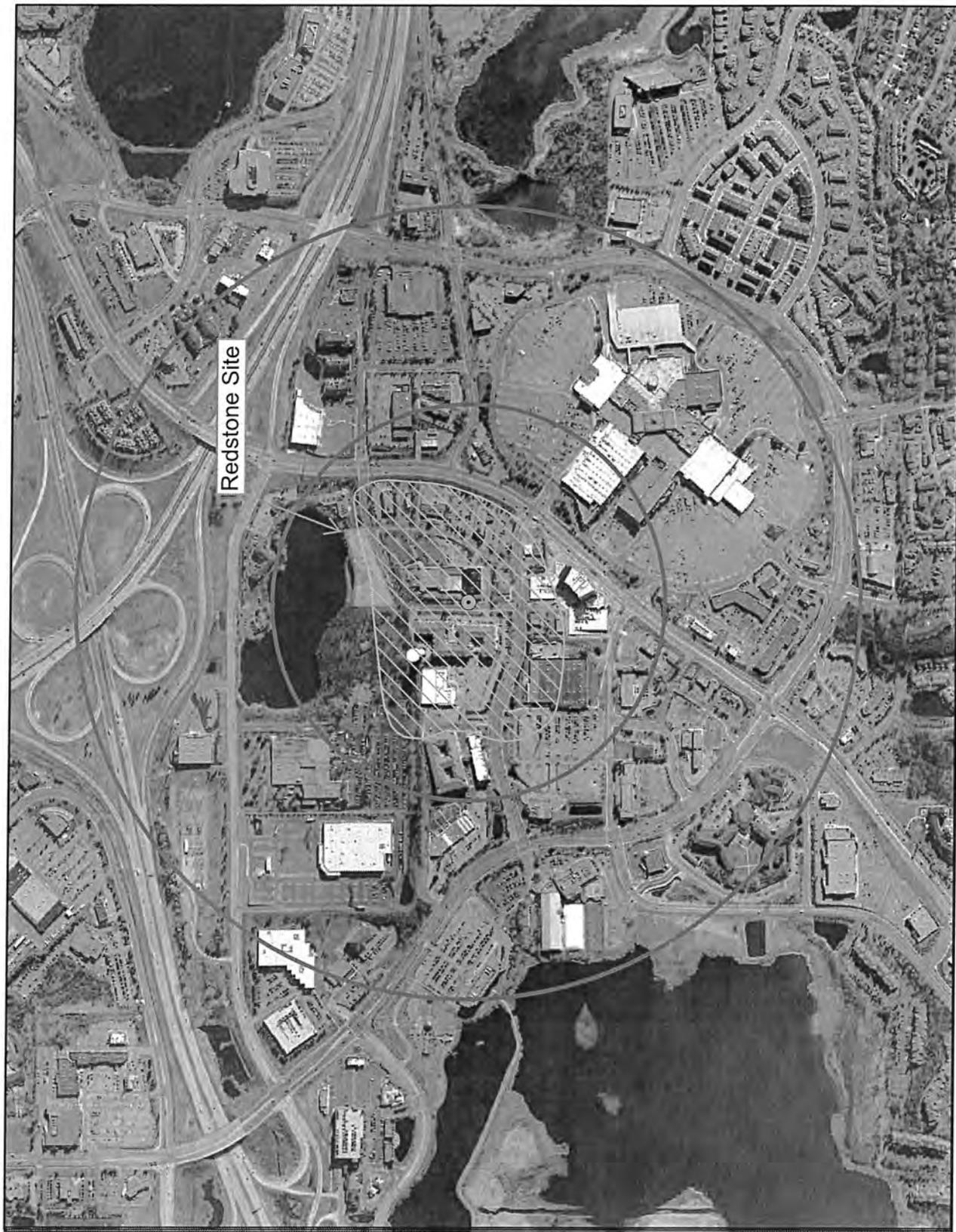
- Guide Plan Approved Town Center Location
- Close proximity to existing and future housing and employment densities
- Potential for planned re-development
- Walkable to Eden Prairie Center (across Flying Cloud Dr)
- Anticipated Moderate Track Alignment Impacts

Location B – EPC Northeast

- Close proximity to Eden Prairie Center
- Potential for re-development
- Walkable to existing and future housing and employment uses in Town Center (across Flying Cloud Dr)
- Anticipated Moderate Track Alignment Impacts

Location C – MCA South

- Close proximity to Presbyterian Homes and walkable to residential uses south of MCA (across Prairie Center Dr)
- Walkable to housing and employment uses in Town Center
- Walkable to Eden Prairie Center (across Flying Cloud Dr)
- Potential for re-development
- Anticipated High Track Alignment Impacts



Redstone Site



Legend

- Center of Radius Rings
- ▨ Station Area
- 1/4, 1/2 Mile Radius Ring

STATION AREA A



April 18, 2012



Legend

- Center of Radius Rings
- ▨ Station Area
- 1/4, 1/2 Mile Radius Ring

STATION AREA B



April 18, 2012



Legend

- Center of Radius Rings
- ▨ Station Area
- 1/4, 1/2 Mile Radius Ring

STATION AREA C



April 18, 2012

From: [John Erickson](#)
To: [swlrt](#)
Cc: [Ginis, Sophia](#)
Subject: SDEIS Response
Date: Friday, July 17, 2015 1:41:35 PM

July 17, 2015

RE: Supplemental Draft Environmental Impact Statement Comments

To whom it may concern:

On behalf of the elected Board of Directors of the Cedar Lake Shores Townhome Association (CLSTA), we are responding to the Supplemental Draft Environmental Impact Statement (SDEIS) issued for the Southwest LRT project. Our association is comprised of fifty-seven homeowners and we are located immediately to the west/north of the freight rail tracks between the Lake St. bridge and Cedar Lake Parkway (also known as the pinch point of the proposed fifteen plus miles SWLRT line). We have both concerns and comments about this document that we believe need to be addressed and considered in order to protect our homes and neighborhood should this transportation project be approved and funded. In the following paragraphs and with appropriate reference to the SDEIS document, we will highlight our concerns or comments.

Light Rail Tunnel

We continue to strongly support the building of this tunnel from just north of the Lake St. bridge to north of Cedar Lake Parkway (p. 2-52). This is the singularly most important change from the original DEIS and the only recommended solution that provides for the maintenance of our immediate neighborhood and our homes as well as the continuation of the current trails, freight rail traffic and LRT development in the Kenilworth corridor portion of the proposed LRT route. We also need to add that in addition to the challenges during the construction phase of the tunnel for all of our homeowners, particular attention will need to be given to vibration, noise, bell and light mitigation for those homes immediately adjacent to the SWLRT tunnel entrance.

Freight Rail

In order to build the LRT tunnel in the Kenilworth corridor, freight trains will have to be temporarily moved closer to our homes. The SDEIS states that this movement will last for approximately one week (section 3.196). The SDEIS also states that the freight rail speed of 10 mph or less will be maintained during construction and beyond (Table 3.1-4). We want to strongly support both of these plans as they will greatly enhance safety for workers and residents, reduce the need to remove vegetation and trees on our property and ultimately

make the construction phase more tolerable.

Vibration

Ground Borne Noise (reradiated noise from ceilings and walls) is one of the issues noted in the SDEIS that will have impacts on our homes (3.4-14, p.3-187). Specifically, three unidentified impacts on our townhomes are noted and there are references to "vehicle source input characteristics". As we do not feel we currently know enough about this expected effect and what can be done to mitigate it, we need additional engagement about this issue. Until that occurs, we have very serious concerns about what this means for our association.

Noise

Station related bells will produce a very intrusive noise to nearby homes and neighborhoods (88dBA according to Appendix H-5). We know this is a standard issue in LRT operations. What we don't know is whether the specific design for the West Lake Street station and surrounding immediate area can be adjusted or whether there are any available mitigation strategies to reduce these decibel levels. We strongly urge that creative design efforts be employed to address this old but continuing serious problem in LRT operations.

Visual Quality and Aesthetics

The SDEIS states that the overall impact of the LRT development near us is "substantial" as it relates to these important considerations (Section 3.167). It also notes that "..the Council will consider mitigation measures for visual quality impacts that are deemed substantial..." (p. 3-168). We are requesting that whatever can be done to preserve the current natural world ambience of this portion of the corridor be implemented. Also, we have a unique problem related to LRT lights at night. Because of the LRT track curvature going downtown out of the West Lake Street station into the tunnel entrance, certain townhomes in our association may be lit up. We believe that possibility can be mitigated by placing something on top of the rail crash wall. We strongly urge the design team to look at this problem and create a reasonable solution.

Closing

Thank you for both the opportunity to read and respond to the SDEIS. We sincerely hope that our concerns expressed in this memorandum are addressed in the final design. If we can be of any assistance in achieving that goal, please don't hesitate to contact us.

Sincerely,

Richard Johnson, President CLSTA Dickatcls@aol.com

John Erickson, Vice President CLSTA eldonjohn@hotmail.com

From: CDeJarlais@bachmans.com
To: [swlrt](#)
Cc: DBachman@bachmans.com
Subject: SWLRT SDEIS
Date: Friday, July 17, 2015 9:58:52 AM
Attachments: [SWLRT SDEIS from Dale Bachman 071715.pdf](#)
[pic13261.jpg](#)

Good morning,

Attached is a letter from Dale Bachman, Chairman/CEO of Bachman's, Inc., expressing comments relative to the SWLRT SDEIS.

As indicated on the document, we have also sent the original of this letter to Ms. Nani Jacobson via US Mail; we elected to send it via email, as well, as the deadline for comments of July 21, is fast approaching.

Thank you,
Cherie DeJarlais

(See attached file: SWLRT SDEIS from Dale Bachman 071715.pdf)

Cherie DeJarlais
Bachman's Executive Offices
Phone: 612-861-7691
Fax: 612-861-7745

(Embedded image moved to file: pic13261.jpg)

BACHMAN'S

July 17, 2015

SENT VIA US MAIL and EMAIL

Ms. Nani Jacobson
Assistant Director, Environmental and Agreements
Metro – Transit – Southwest LRT Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park, MN 55426

Dear Ms. Jacobson:

The purpose of this letter is to provide comments for Bachman's, Inc. and its Eden Prairie location, 770 Prairie Center Drive, on the SWLRT Supplemental Draft Environmental Impact Statement (SDEIS).

Chapter 2: Alternative Considered:

All of the rail alignments recommended in the original DEIS showed the SWLRT line along Technology Drive. This reasonably demonstrates that the preferred route and the route best suited for the SWLRT is along Technology Drive. We understand the SDEIS was authorized to review this alignment based on political requests by the City of Eden Prairie and a few impacted businesses. However, it must be assumed that Technology Drive is the most advantageous alignment for the efficient operation of the rail corridor as originally concluded. If the line could be located on the north side of Technology Drive the objections of those businesses could be resolved. Moving the line from Technology Drive will do the following:

- Lengthen travel times
- Impact more businesses
- Impact more roads and intersections
- Require the construction of a new road
- Require crossing more intersections
- Create more safety risks

We appreciate the fact that the at-grade alignment along Singletree and Prairie Center Drive is not being considered. We have significant concerns about that alignment for safety reasons and negative access impacts on our property. We prefer a north side of Technology Drive alignment to the proposed alignment along the steep slope between Bachman's and Costco.

Ms. Nani Jacobson
Metro-Transit-Southwest LRT Project
July 17, 2015

Chapter 3.2 Eden Prairie Segment, Wetlands:

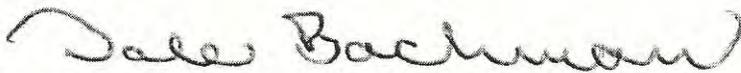
We have concern about the impact to the steep slope and the Costco stormwater pond/wetland along the north side of our site. The impact of grading is not addressed adequately in the SDEIS. We would request the Project Office to provide grading plans as they become available to ensure that the grading of the steep slope does not negatively impact our property. In addition the SDEIS notes that the Costco stormwater pond/wetland will be impacted. We are concerned about the potential impact that may occur with the removal/replacement of the Costco pond. Additional information must be provided on how and where the stormwater pond will be replaced.

Chapter 3.2 Eden Prairie Segment, Acquisitions:

The Construction Plans available on the Project Office website show the project will need a temporary construction easement along the north side of our property. The proposed easement is shown to come up against our north wall and within our parking, loading dock, and storage areas. We require more information on the length and impact of the construction work on our store operations. We must not lose access to our only loading dock. Losing access to our only loading dock would have significant negative impact on our business operations.

Thank you for this opportunity to provide comments on the SDEIS.

Sincerely,

A handwritten signature in cursive script that reads "Dale Bachman".

Dale L. Bachman
Chairman / Chief Executive Officer

DLB:cad

From: [Doug Jones](#)
To: [swlrt](#)
Cc:
Subject: Light-Rail Alternative and the Southern Arm
Date: Monday, July 20, 2015 3:07:34 PM

Dear Ms. Jacobson,

On behalf of myself and our 86 members I want to express our chagrin to learn that the Met council, with the current SDEIS, was going back on their original agreement to move the bike trail rather than reroute rail traffic thru SLP if the Kenilworth Tunnel fully engineered out becomes too expensive. Clearly the entire SWLRT project's cost are escalating at such a rate that the economic viability not to mention funding is suspect.

At the very least we need to begin taking steps that pass the test of common sense and make it clear that if the Kenilworth tunnel once fully engineered out is cost prohibitive then we will move the bike trail rather than reroute an entire freight line. In addition, we need to demonstrate stewardship to our citizens by planning the addition of a Light-Rail Bridge over the wye for the Southern Arm rather than embarking on the more expensive and intrusive alternative of building a new Freight Rail Bridge.

Sincerely,
Doug Jones
President
Pointe West Commons Homeowner Association
St. Louis Park, MN

From: [Shawn Smith](#)
To: [swlrt](#)
Cc: [Jeanette Colby](#); [Shawn Smith](#)
Subject: Southwest Light Rail SDEIS Response - Kenwood Isles Area Association (KIAA)
Date: Monday, July 20, 2015 5:41:29 PM
Attachments: [KIAA SDEIS Response July 2015.docx](#)

Attn: Met Council Commissioners and Planning Office

Whereas public comment has been asked for by the Met Council and SW Project Office regarding the SDEIS for Southwest Light Rail Transit,

Whereas the Kenwood Isles Area Association (KIAA) is the elected board representing the Kenwood neighborhood,

Whereas on July 6th, KIAA voted unanimously to submit the attached SDEIS response to the Met Council on behalf of the Kenwood neighborhood,

Whereas KIAA and the Kenwood residents have substantive concerns and questions regarding the SDEIS and the Minneapolis Segment, Kenilworth Corridor, of the proposed Southwest Light Rail Line, we do submit this response on July 20th, 2015.

KIAA would appreciate an acknowledgement of receipt of this document and the opportunity to discuss the concerns within in further detail.

Should there be an issue opening the file, two identical hard copies will be delivered to the Project Office in the morning of July 21st.

Sincerely,
KIAA Board

Jeanette Colby (Chair)
Larry Moran (Vice Chair)
Ed Pluimer (Treasurer)
Shawn Smith (Secretary)
Michael Bono
Dr Angela Erdrich
James Gilroy
Jack Levi
Josine Peters
Matthew Spies

Kenwood Isles Area Association

Southwest Light Rail Supplemental DEIS response

July 20th, 2015

Introduction to SDEIS Comments by the Kenwood Isles Area Association

The Kenwood Isles Area Association (KIAA) represents the neighborhood that extends, on its west side, from the proposed SWLRT Penn Avenue station to the Kenilworth Lagoon.

KIAA has participated in the SWLRT planning process in the spirit of cooperation and compromise for approximately nine years. For most of this time, we were assured verbally and in planning documents that freight rail in the Kenilworth Corridor was a temporary condition and would be moved to make way for LRT. The 2012 Draft Environmental Impact Statement clearly recommended that the best course of action was to relocate freight out of the Kenilworth Corridor.

This position was reversed in 2013, and the Metropolitan Council's policy is now to "co-locate" freight and light rail in the Kenilworth Corridor. We consider this a significant breach of public trust and the low point of a deeply flawed planning process.

The current Supplementary Draft Environmental Impact Statement is partly intended to assess the impact of co-location in the Kenilworth Corridor. It fails to do so on many levels, summarized in the two following points:

First, it considers the *temporary* freight rail part of the existing condition. Freight rail service that runs through the corridor will be both upgraded and made permanent; this is a *new* project that needs a full analysis. Because new *permanent* freight infrastructure is being added to the corridor, all visual, noise, vibration, safety and other environmental impacts should be measured from a basis of no freight and no light rail.

Second, this SDEIS is silent on the safety implications of locating freight trains carrying hazardous materials through an urban environment within feet of homes, parks, trails, passenger trains, and live overhead electrical wires. The new and serious impacts created by this situation will continue to grow as transport of oil, ethanol and other volatile materials expands and freight trains grow longer.

When Hennepin County and the Met Council chose the present route for SWLRT between the Chain of Lakes through the Kenilworth Corridor – and included "co-location" making the temporary freight rail permanent – they accepted the responsibility to respect the natural and built environments that it travels through as well as the people who bicycle, walk, recreate, and live there. KIAA does not see evidence that this responsibility has been taken as seriously as necessary and the following pages, which respond to specific elements of the SDEIS, articulate some of the reasons why.

3.4.1.2 Acquisitions and Displacements

B. Potential Acquisitions and Displacements Impacts

Comment: In Short-Term Acquisition and Displacement Impacts, the Council states “[s]hort-term occupancies of parcels for construction would...change existing land uses” including “potential increases in noise levels, dust traffic congestion, visual changes, and increased difficulty accessing residential, commercial and other uses.” The Council should say what the plans are to mitigate these effects for residents and businesses. Most important, how will prompt emergency fire, medical and police access be maintained?

In Short-Term Acquisition and Displacement Impacts, the Council discusses plans for remnant parcels without acknowledging its commitment with the City of Minneapolis in the Memorandum of Understanding. The MOU documents the Council’s agreement to convey property they own or acquire from BNSF or HCRRA in the Kenilworth Corridor that is not needed for the Project or freight rail to the Minneapolis Park and Recreation Board for use as parkland. Please see:

<http://metro council.org/METC/files/f7/f7d41cfb-a062-46c7-942d-0785989da8a0.pdf>

In the case that the MPRB decides against owning these properties, KIAA expects that the spirit of the agreement be upheld, i.e., that any remnant parcels remain publicly held.

3.4.1.3 Cultural Resources

B. Potential Cultural Resources Impacts

Comment: Minneapolis residents have continually expressed concern with the impact the project will have, both during construction and after operation of SWLRT, on cultural resources in the City.

As stated by the Minnesota State Historic Preservation Office, an adverse effect on one contributing feature is an adverse effect on an entire historic district. Therefore, the conclusion that the project will have an adverse effect on the Lagoon means that there will be an adverse effect on the Grand Rounds Historic District as a whole, as indicated in the SDEIS.

Section 3.1.2.3 of the SDEIS lists possible mitigation measures that may be included in the Section 106 agreement:

- Consultation with MNSHPO and other consulting parties during the development of project design and engineering activities for locations within and/or near historic properties
- Integration of information about historic properties into station area planning efforts
- Recovering data from eligible archaeological properties before construction
- Consultation with MNSHPO and other consulting parties during construction to minimize impacts on historic properties
- Preparation of NRHP nominations to facilitate preservation of historic properties
- Public education about historic properties in the project area

These items will not avoid, minimize or mitigate the long term adverse effects of the project on the Grand Rounds Historic District in a meaningful way. The noise impacts, including bells and horns, will be audible from distances within and beyond the Area of Potential Effect, and include not only the Lagoon area but also Lake of the Isles and Cedar Lake as well as the other parts of the Grand Rounds Historic District. Noise and vibration impact studies should be done from a baseline assuming no freight, as HCRRA had committed to do and as was contemplated in the DEIS. Despite the requirement that such impacts be minimized, co-locating both freight and light rail in the Kenilworth Corridor results in the opposite outcome.

The bridges over the Lagoon will have an adverse impact because of their the size and scale, inconsistency with the historic cultural landscape of the channel, the noise and vibrations caused by the light rail vehicles traveling the bridge and the fact that it may not be possible to mitigate the impacts of the new bridges, as stated by the MPRB earlier in the 106 process. The appearance of the new bridge structures and the sounds associated with modern rail infrastructure will alter the characteristics of “community planning and development,” “entertainment and recreation,” and “landscape architecture” that make the Lagoon eligible for NRHP designation, and will adversely affect the character and feeling of the Lagoon and how people use the historic resource, including the experience of using the waterway under the new structures. Given that the Council is proceeding with this project in spite of this adverse effect, we hope that designers will continue to be vigilant about minimizing the impact on the setting and feeling of the historic channel, including audible and visual intrusions that will alter the park-like setting of the Lagoon, a vital element of its historic character. These concerns extend to Cedar Lake and the beaches on it nearest to SWLRT, as well as the visual impact on Park Board Bridge #4, Lake of the Isles, Lake of the Isles Parkway and Lake of the Isles Historic District.

Table 3.4-5 lists cultural resources that have been preliminarily considered to have no adverse effect from the Project, because of continued consultation and avoidance/minimization/mitigation measures to be identified. The possible mitigation measures listed above would also not significantly address impacts on the cultural resources listed in this table. The Council must be responsible for ensuring that “continued consultation” is meaningful by conducting assessments and proposing specific

mitigation solutions before the 106 agreement is written and finalized, as it is impossible to avoid adverse effects after SWLRT construction and operations commence.

Cultural resources covered in table 3.4-5 include Lake of the Isles Residential Historic District, Kenwood Parkway Residential Historic District, Lake Calhoun, Cedar Lake Parkway, Cedar Lake, Park Bridge #4, Lake of the Isles Parkway, Lake of the Isles, Kenwood Parkway, Kenwood Park, Kenwood Water Tower and four NRHP listed or eligible homes in the Area of Potential Effect. Station activity will change traffic and parking patterns in the neighborhood and introduce long-term visual and audible intrusions that adversely impact these historic resources. Concerns about the long term Project impact on some or all of these cultural resources include the following:

- Long-term visual and audible intrusion from changes in traffic patterns related to station access: We are concerned that auditory impacts and changes in traffic and parking patterns will adversely affect the integrity of setting and feeling that make Kenwood Park, Kenwood Parkway, Lake of the Isles Parkway, Cedar Lake Parkway and the related residential historic districts, and the four individual homes listed on or eligible for the NRHP. A traffic analysis must be conducted and a plan to mitigate adverse impacts proposed and discussed before the 106 agreement is drafted.
- Noise effects from LRT operations: Audible intrusion from train operations, including bells and horns and the impact of trains going in and out of the tunnel, will alter the environment of the historic resources and the characteristics that make certain of these resources eligible for the NRHP. It seems unlikely that a few homes in the Kenwood Parkway Residential Historic District are the only cultural resources that will be adversely affected by noise from train operations.
- Infrastructure surrounding the tunnel and the massive tunnel portals could adversely affect the historic integrity of the resources. Signage along the historic parkways could also have an adverse effect. Specific design elements should be proposed to minimize these impacts and should be reviewed as part of the 106 process.

The degree of concern regarding the short term impact of SWLRT construction on all of these cultural resources cannot be overstated. Noise and vibration sensitive resources need to be identified. The public needs to see a comprehensive noise and vibration study and analysis for the Project during construction including the impact of increased truck and construction equipment traffic. We would like details on what will be included in the “project wide construction plan.” It should identify measures to be taken during construction to protect all historic properties from project-related activity including construction related traffic. We need to ensure that plans are in place to prevent or repair damage resulting project activities, incorporating guidance offered by the National Park Service in Preservation Tech Note #3: Protecting a Historic Structure during Adjacent Construction as well as an agreement that specifies how these potential impacts will be monitored. The Council previously communicated to a neighborhood group whose residents experienced damage from a Council project that “[c]ontinuing with future projects, our goal is to ensure that claims are promptly and appropriately investigated to determine whether or not they may be related to the project. Depending on the facts of the claim, this may involve independent experts.” We request that the Council communicate with owners of historic homes in the APE prior to construction.

The SDEIS also lists “station area development” as an item to be addressed through continued consultation. Numerous statements have been made that development is not anticipated at the 21st Street Station. For example, the Southwest Community Works website and documents state: “Future development is not envisioned around this station....”

<http://www.swlrtcommunityworks.org/explore-corridor/stations/21st-street-station>

The discussion of development potential at the Penn Station does not relate to the Kenwood Parkway side:

<http://www.swlrtcommunityworks.org/~media/SW%20Corridor/Document%20Archive/investment-framework/ch-4-penn.pdf>

The Council must explain what development is being referred to in Table 3.4-5.

3.4.1.4 Source: MnDOT CRU, 2014.Parklands, Recreation Areas, and Open Spaces

Long-Term Direct and Indirect Parklands, Recreation Areas, and Open Spaces Impacts

Comment: The SDEIS states: “None of the indirect impacts on parklands, recreation areas, and open spaces from the LPA in the St. Louis Park/Minneapolis Segment would substantially impair the recreational activities, features, or attributes of those parklands, recreation areas, and open spaces.” We dispute this conclusion. The permanent installation of freight rail and light rail in the Kenilworth Corridor that is too narrow to permit separation in accordance with AREMA and FTA guidelines creates a safety risk that would directly impair park activities in the event of a derailment and/or explosion of flammable materials.

For comment on the indirect impacts of the LPA in the form of visual, noise, and/or access impacts, please see comments to sections 3.4.1.5, 3.4.2.3, and 3.4.4.4 of this Supplemental Draft EIS response.

Short-Term Parklands, Recreation Areas, and Open Spaces Impacts

Comment: Please specify the extent to which the stated “standard” measures would be sufficient to protect the environmentally sensitive parkland, recreation areas, and open spaces along the Kenilworth Trail and adjacent parks. During construction, how can the safety of park and trail users (East Cedar Lake Beach, Cedar Lake Park, Lake of the Isles Park, and nearby trails and lakes) be assured, given that unit freight trains of 100 or more cars containing Class III flammable liquids, especially ethanol, travel through this narrow corridor in close proximity to a construction pit and materials, without whatever protective walls will later be installed? Please also explain how emergency vehicles will maintain access to East Cedar Lake Beach and Cedar Lake Park.

Section 3.4.1.5 Visual Quality and Aesthetics

Excerpt from City of Minneapolis RESOLUTION 2010R-008 by Colvin Roy:

Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained.

Comment: While we appreciate and agree that the visual impact from Viewpoints 2, 3, and 4 are recognized as being substantial, we strongly disagree and contest the idea that the level of visual impact north of the Kenilworth Channel crossing (including Viewpoints 5 and 6) will be “not substantial.” (pages 3-167, 168). The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be substantial throughout the corridor.

Throughout this area, the SWLRT project will remove a large amount of green space and trees, and replace them with an overhead catenary system, tracks and ballast. The park-like environment will be permanently degraded by this infrastructure, as well as by the approximately 220 daily trains traveling over the historic Kenilworth Lagoon and through the corridor.

Clearly, the degree of change in the visual resource will be great, and, with well over 600,000 annual visitors to the Kenilworth Trail, the exposure to viewers will be high. Over the past 7 to 10 years, neighbors and trail users have clearly expressed to Hennepin County and the Met Council the very high value they place on the green space, wildlife and bird habitat, trees and other vegetation in the Kenilworth Corridor.

The visual impact to the park-like environment is exacerbated by the continuing presence of freight rail, which was expected to be removed from the Kenilworth corridor at the time of the Alternatives Analysis, the Locally Preferred Alternative decision, and the 2012 DEIS.

It appears that the consultant determining the visual qualities of the corridor relied entirely on Google Earth, files of the revised project layout, and selected “photographically documented” views (Appendix J, section 2B). If this is true, it is very discouraging that the area was not visited in person by the evaluator, nor were any stakeholders consulted.

At **Viewpoint 5**, we support all efforts to create an “attractive design” for the bridges crossing the Kenilworth Channel. The three new bridges will certainly become a “focal point,” adding large cement structures and heavily impacting the setting and feeling of this element of the Historic Chain of Lakes and the Kenilworth Trail. An attractive design for these bridges does not compensate for the vegetative clearing. The character of the City of Lakes’ signature canoe, kayak and skiing route from Lake of the Isles through the Kenilworth Channel to Cedar Lake will be fundamentally and permanently degraded. There will be a substantial negative visual impact from the level of the water as well as the level of the trail.

At **Viewpoint 6**, the SWLRT project plans to remove a significant amount of vegetation along the edge of Cedar Lake Park, as well as trees, plants, and restored prairie currently along the bicycle and pedestrian trails. The claim that removing trees and replacing them with overhead power lines would create a positive visual experience for trail users (“open up the view, making it more expansive”) is absurd on its face and contradicts the clearly expressed will of the Minneapolis City Council and the adjacent

neighborhood. The 21st Street Station – a slab of concrete and metal with fencing and catenaries – will certainly “create a focal point,” but it is not credible to assert that this will positively impact the visual qualities of a place that is now adjacent to an urban forest and is itself in a “park-like environment.”

The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be substantial throughout the corridor. **We assert that the Council must recognize this and identify robust and meaningful mitigation measures for incorporation into the project. In fact, many feel that the adjacent parkland and the park-like environment of the Kenilworth Trail will be forever disrupted, and this alignment was selected when other, better alignments exist.**

3.4.2.1, 3.4.2.2 Geology and Groundwater, Water Resources

Comment: Given its history as a marshy area that in many places was made solid by landfill, and its former use as an active freight corridor, KIAA is very concerned that so much remains unknown about the soil and groundwater conditions in the Kenilworth Corridor under which the SWRLT tunnel and other elements will be built.

On page 3-170, the SDEIS notes, “the amount of settlement below and in the vicinity of the tunnel would be negligible.” KIAA urges the Met Council to consult with the builders and managers of Calhoun Village about settling. Our understanding is that the buildings in Calhoun Village are built on pilings; the parking lot has settled and been raised, perhaps more than once, so the step from the walkway in front of the stores to the asphalt remains within reach. KIAA has no engineering data, but we have been told that an underground flow from Cedar Lake to Lake Calhoun is believed to be responsible for the parking lot sinking. With the longer, heavier freight trains that have begun to use the Kenilworth Corridor – which will likely increase with the upgraded rail facilities that the Met Council plans to build as part of the SWLRT project – and the frequent LRT trains, KIAA is not confident that “construction and operation of the light rail system would not affect the performance of the proposed tunnel or the other structures located in the vicinity of the tunnel, such as roadways, utilities, and nearby buildings.”

Regarding groundwater, the SDEIS further points out that “in areas with high groundwater elevations and granular soils, there is an increased potential for groundwater contamination as a result of previous hazardous and contaminated materials spills” (page 3-168). We appreciate the Council’s plan to create a system of filtration tanks and infiltration basins to accommodate a 100-year storm event during construction, but urge the Council to fully understand the nature of the contaminants in the soil before digging begins. The Council assumes that it will obtain permits from all local, state, and federal agencies for impacts to wetlands and other aquatic resources, but it would, of course, be irresponsible for these agencies to grant permits if unknown contaminants cannot be safely managed. We also urge the Council to understand the costs of dealing with this contamination before proceeding with construction, as we understand these cost are not currently known.

KIAA requests that there be a much more significant and transparent presentation regarding the compensatory mitigation for damage to wetlands and aquatic resources in the Minneapolis segment, especially potential for damage to the Kenilworth Channel and Cedar Lake.

While a permit application is required, the SDEIS identifies that there will be damage done to Minneapolis’ aquatic resources but does not specify the level of damage that may be done during construction and operation of the SWLRT. The further impairment of these resources is a violation of the EPA Clean Water Act. The Minneapolis Chain of Lakes is a vital recreational and natural resource; while we appreciate that the Council will apply for a Section 404 permit, to knowingly degrade the Chain of Lakes is unacceptable.

Further, KIAA is not convinced that sufficient analysis has been done on existing contamination in the Kenilworth Corridor. The Kenilworth Corridor north of 21st Street is a former rail yard that housed up to 58 rail lines during its peak and was in service for decades. The SDEIS specifies the numerous toxic contaminants in the area due to this former use. Much of the rest of the Kenilworth area was constructed through landfill when standards for waste disposal were not stringent. When disturbed, contaminants from freight operations and landfill could enter the nearby lakes and groundwater.

In a June, 2015, Community Advisory Committee meeting, Southwest Project Office staff told the committee that contamination beyond what was identified in the SDEIS is likely to be found. Advancing the project without thorough knowledge of the type and degree of contamination elevates the risk to our water resources. The SPO staff further stated that measures to address the additional contamination are to be covered by contingency monies from the overall project budget. The SPO admits it does not fully understand the scope of the contamination nor does it know whether there will be adequate funds to address the potential

contamination of soil and water resources due to the construction and operations of the SWLRT. KIAA finds this approach to be irresponsible both financially and environmentally.

Noise 3.4.2.3

The SDEIS simply states that the noise issues described below will be addressed in the Final EIS and that they will be mitigated. We take the strong view that now is the critical and only time to prove that mitigating the noise issues we have described is possible and that the cost of such mitigation is in the budget.

Comment: We believe that the SDEIS substantially minimizes the noise impacts associated with the proposed SWLRT. The noise impact of SWLRT through Kenwood and CIDNA will be highly significant for a number of reasons, but most notably because of the tranquility, recreational, park, and residential use currently existing in and bordering the Kenilworth Corridor. This proposed SWLRT route is not comparable to the Blue Line (Hiawatha) and the Green Line (Central Corridor down University Avenue), which are immediately adjacent to commercial thoroughfares or four-lane roads that carry cars and heavy trucks around the clock. By contrast, the Kenilworth area is a quiet environment, and is part of the **Grand Rounds National Scenic Byway**.

A **National Scenic Byway** is a road recognized by the [United States Department of Transportation](#) for one or more of six "intrinsic qualities": archeological, cultural, historic, natural, recreational, and scenic. The program was established by Congress in 1991 to preserve and protect the nation's scenic but often less-traveled roads and promote [tourism](#) and economic development. The National Scenic Byways Program (NSBP) is administered by the [Federal Highway Administration](#) (FHWA). The Kenilworth Corridor accommodates pedestrian and bike traffic, along with a slow moving freight train – two to five times per 24 hour period – which was intended to occupy the corridor only on a temporary basis.

The noise of 220 light-rail trains running daily from 4 a.m. to 2 a.m. would fundamentally transform the Kenilworth Corridor and the adjacent neighborhood with near-constant noise and vibration.

The noise levels given in Noise Fact Sheet (Appendix H p. 19) state the following: LRT trains traveling at 45 mph generate maximum typical noise levels of 76 dBA at 50 feet, 71 dBA at 100 feet, and 66 dBA at 200 feet. Adding 211-220 LRT 3 - car trains to the Kenilworth Corridor day and night, each producing such elevated noise levels, would be a severe and overwhelming intrusion, critically increasing the noise generated. This holds true even if the only noise increase resulted from the LRT trains traveling at their stated speed, per the SDEIS, of 45 mph.

The result of LRT noise is the corridor will be permanently changed from a quiet, tranquil area sought by pedestrians, cyclists, and outdoor enthusiasts, to a severely noise disrupted, highly mechanized transit route.

Beyond permanently degrading the area, there will be multiple public health consequences of SWLRT noise in the corridor. The impact of repetitive noise intrusion on neighborhood public health will be significant. For example, regarding the obvious potential for sleep interruption caused by SWLRT noise, a research review published in the December 2014 edition of Sleep Science, summarizes:

emerging evidence that these short-term effects of environmental noise, particularly when the exposure is nocturnal, may be followed by long-term adverse cardio metabolic outcomes. Nocturnal environmental noise may be the most worrying form of noise pollution in terms of its health consequences because of its synergistic direct and indirect (through sleep disturbances acting as a mediator) influence on biological systems. Duration and quality of sleep should thus be regarded as risk factors or markers significantly influenced by the environment. One of the means that should be proposed is avoidance at all costs of sleep disruptions caused by environmental noise."

The article goes on to review that:

The World Health Organization (WHO) has documented seven categories of adverse health and social effects of noise pollution, whether occupational, social or environmental. The latter [sleep disturbance] is considered the most deleterious non-auditory effect because of its impact on quality of life and daytime performance. Environmental noise, especially that caused by transportation means, is a growing problem in our modern cities. A number of cardiovascular risk factors and cardiovascular outcomes have been associated with disturbed sleep: coronary artery calcifications, atherogenic lipid profiles, atherosclerosis, obesity, type 2 diabetes, hypertension, cardiovascular events and increased

mortality....during the past year, the relationship between insomnia and psychiatric disorders has come to be considered synergistic, including bi-directional causation.”¹

Further, there is growing evidence that the opportunity for experiences in greenspace and nature supports social and psychological resources and recovery from stress.² The perpetual and repetitive noise from SWLRT would interrupt the current experience of the Kenilworth Corridor, nearby beaches, parks, the Kenilworth Channel and general environs of Lake of the Isles and Cedar Lake. Opportunities for experiences in natural environments, though often taken for granted by suburban dwellers, are extremely limited in urban areas, yet equally if not more critical for the mental health of urban residents. With healthcare costs and disease prevention being prominent national and local priorities, the economic value of the public health benefit of the Chain of Lakes and Kenilworth Corridor cannot be simply ignored.

A. Existing Conditions (p. 3-180)

Fundamental defect with baseline noise measurements

Comment: The SDEIS uses wrong data as the fundamental framework for noise and vibration analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise and vibration data on a scenario that *does* include a freight train, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the Draft EIS in 2012.”³ ***This defect renders the noise and vibration sections of the SDEIS fundamentally flawed and misleading. They need to be reworked with appropriate and correct data.***

The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporated into the SDEIS. KIAA requests that the SW Project Office contact CIDNA to obtain a copy of this report.

Additionally, there are significant seasonal and weather-related variations in noise levels, which cannot be captured when sound is measured during one 24-hour period in the summer.

Finally, in Appendix H, p.2, it is noted that “noise monitoring was performed at other locations not listed in the table. Those sites will either be addressed in the forthcoming Final EIS or no longer fall within the area where they would be potentially impacted by project noise due to design refinements during Project Development.” Since the purpose of the SDEIS is to inform the public and decision makers, and provide opportunity for comment on all areas of concern, in order to fulfill that NEPA mandate, all measurements that were made and publicly financed should be made public.

B. Potential Noise Impacts

Comment: Following FTA noise assessment guidelines, the 76 dBA LRT noise every 5 minutes is measured as having a lower impact than actual dBA of 76 because the LRT noise is not continuous. Thus, though this quiet urban area will be exposed to an actual repetitive noise of 76-80 dBA day and night, the rating of the impact is lower and measured as 51 – 64 dBA in Tables 3.4-11, 3.4-12. The significantly lower measurement lessens the determination of findings of impacts, and therefore, whether impacts are determined as non-existent, moderate or severe. This engineering methodology covers up the actual impact on people of loud repetitive noise in a peaceful setting.

Repetitive bell noise does not appear to be included in the SDEIS noise analysis in Tables 3.4-11, 3.4-12, which would clearly increase the severity of noise impact at all locations.

The SDEIS also neglects to report and measure the cumulative effect of LRT and freight train noise. This information would likely show that more than 24 residences would be affected; more of them would be impacted at the severe level, and a greater impact on the Kenilworth Channel and Kenilworth Lagoon Bank.

¹ Sleep Science, Volume 7, Issue 4, December 2014, Pages 209-212).

² British Journal of Sports Medicine 2012, “The Urban Brain: Analyzing Outdoor Physical Activity with Mobile EEG.”

³ <http://metro council.org/swlrt/sdeis>

Analysis of Table 3.4-12

Inaccurate land use designation for the Kenilworth Channel

KIAA strongly questions the land use designation of the Kenilworth Channel as Category 3. As defined in Appendix H, Category 3 is:

Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, and churches where it is important to avoid interference with such activities as speech and concentration on reading material..."

The SDEIS designates the banks of the Kenilworth Channel as falling within the most noise sensitive Category 1. However, as stated above, the Channel itself is not included in that most highly sensitive designation, but instead is classified as "institutional land use." Category 1 is defined in Appendix H as:

Tracts of land where quiet is an essential element in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheatres and concert pavilions, as well as National Historic Landmarks with significant outdoor use.

The SDEIS states the "grassy area on the banks of the Lagoon" falls within Category 1 due to the "passive and noise sensitive recreational activities that occur there (where quietude is an essential feature of the park)." The designation of Category 1 versus 3 for the Kenilworth Channel appears to hinge excessively on one word -- the term "passive" to describe the activities for which the Channel banks are used. However, quietude is equally and very clearly an essential feature of the Kenilworth Channel itself, whose peaceful though not "passive" activities include canoers and cross country skiers gliding serenely on the water or ice while those on the grassy banks look on. The quietude of the Kenilworth Channel is inseparable from the quietude of its grassy banks; therefore both should be Category 1.

Most significantly, that the consequence of placing the Kenilworth Channel in Category 3 is that both the obligation to mitigate impacts is lowered, and the threshold to establish severe impact is higher and harder to reach. Had the Kenilworth Channel been accurately designated a Category 1, then the Channel would have been only 1 dBA below "Severe impact."

Even with the lowering of the land use category of the Kenilworth Channel to a Category 3, the SDEIS finds a moderate impact of the addition of LRT noise. The footnote to SDEIS Table 3.4-12, states that the noise impact increases as one approaches the LRT line and becomes severe when the channel falls within the HCRRA right of way.

While the SDEIS states that the land use categories were made in consultation with the MPRB and MN SHPO, we strongly dispute their coherence and accuracy. If the intention of the SPO is to preserve the character and experience of the Channel, then it must designate it as a Category 1 and then make public the mitigation plans and costs well in advance of the final FEIS.

SWLRT Breaks the System of Minneapolis Parks.

Horace Cleveland's visionary masterplan, Suggestions for a System of Parks and Parkways for the City of Minneapolis, proposed a park *system* of connecting sites of beauty and natural interest throughout the city, rather than a series of detached open areas or public squares. The vision of a park "system" has guided the Park Board ever since and is one of the primary reasons for the success and national prestige of the Minneapolis Parks. The SDEIS procedure of singling out specific pieces of park for analysis such as Lilac Park, the Kenilworth Channel and its grassy banks runs fundamentally contrary to the underlying vision of a Minneapolis Park System.

The scenario of perpetual, repetitive LRT noise over the Kenilworth Lagoon and throughout the interconnecting parks and lakes woven throughout this area breaks the larger system of the Minneapolis Parks.

Site N 17 (p. 3-182)

21st Street Noise Impacts

We strongly disagree with the characterization of the noise impacts in the 21st Street station area as moderate and limited. "Sensitive receptors" in this area will be subject to train arrivals, departures, signal bells and perhaps horns, seriously eroding the quality of life in the neighborhood and reducing the enjoyment of the recreational trail and Cedar Lake Park for users of these regional amenities.

As we currently understand the SWLRT project, crossing and station bells will generate a noise level of 106 dBA and LRT bells generating 88 dBA for 22 hours; only between 2:00 a.m. and 4:00 a.m. will neighborhood residents be able to sleep uninterrupted.

Further, freight trains, which were supposed to have been relocated out of the Kenilworth Corridor to make way for LRT, may need to use bells and horns to safely cross 21st Street. This noise impact, which we regard as *new* since the status of the freight rail is going from temporary to permanent, does not seem to have been considered in the SDEIS.

We disagree with the assessment that the SWLRT project will create only 22 moderate noise impacts and one severe impact within the 21st Street station area. With appropriately robust measurement of the existing conditions (*without* freight), many of the residences with noise impacts deemed “moderate” would likely experience severe impacts. In addition to the residences identified in the SDEIS, residences along 21st Street, 22nd Street, and Sheridan Avenues will also experience at least moderate noise impacts. It’s clear that although measurements may not rise to the “moderate” or “severe” level as defined in engineering manuals, noise from the 21st Street station will degrade a large portion of the Kenwood neighborhood. We underscore the need for the highest level of noise management and mitigation.

NB: It appears that the SDEIS may misidentify some of the homes deemed to have a “moderate impact without mitigation” as being on Thomas Avenue South; some of the addresses may actually be on Sheridan Avenue South.

LRT Horns are Likely

According to the federal Train Horn Rule⁴, locomotive engineers must sound horns at a minimum of 96 decibels for at least 15 seconds at public highway rail grade crossings. Appendix H indicates that LRT Horns are 99 decibels and are sounded for 20 seconds. The SDEIS states that LRT horns would only be sounded at crossings where speeds exceed 45 mph. Since LRT and freight trains may not reach that speed in the Kenilworth Corridor, presumably no horns would be sounded when LRT vehicles cross 21st Street. Given the volume of pedestrian, bicycle, and car traffic at this crossing, it may not be safe to silence LRT horns at this crossing. That does not mean that KIAA welcomes the horns being sounded due to the pre-stated tranquility of the corridor and the severity of the noise impacts. If they were reinstated for safety reasons, the noise created by horns sounding for LRT trains at least 96 decibels for a minimum of 15 (or 99dBA for 20) seconds represents a “severe” noise impact and is therefore prohibitively detrimental to quality of life in a residential neighborhood. KIAA has no evidence that there is a viable solution to the conflicting imperatives of safety vs. quality of life.

Not addressed: Impacts near Portals

Two areas of potential noise impacts do not appear to be adequately addressed by the SDEIS.

First, table 3.4-11 does not appear to cover noise that will be experienced by the homes directly behind the SWLRT tracks after it emerges from the tunnel and crosses the Kenilworth Channel. Since LRT on ballast and tie track produces noise at 81 dBA, we believe that those residences will experience noise at the same level as homes on Burnham Road and Thomas Avenue South. Further, Appendix H notes that noise will increase by 1 dBA for homes within 100 feet of the tunnel entrance/exits. We strongly request that noise impacts be determined for those residences and that they be included in consideration for noise mitigation. We further request that the cost of that additional mitigation be identified and made public prior to the final DEIS.

Not addressed: Tunnel Ventilation System

Second, noise from the tunnel ventilation systems does not appear to have been considered. The SDEIS states that the tunnel section of the SWLRT is supposed to eliminate “almost all noise impacts within that segment of the corridor.” However, we understand that there will be ventilation fans connected to the tunnels as well as a ventilation “building” planned near Cedar Lake Parkway. The SDEIS neglects assessment of the noise impacts from such a ventilation system, and this information is critical to determining whether the proposed tunnel would have a positive or negative environmental impact.

Policy-makers and citizens need adequate information on the noise impacts of both the vents and the ventilation building, among other things, before proceeding with tunnel construction. Appendix H indicates that the fans will operate only on an emergency basis, but we do not see any mention of the ventilation building in the SDEIS. We request clarity on the amount of time each day that they will be operational and creating noise impacts, and the dBA of each.

Not addressed: Freight Operations

The existing freight operations, intended to be temporary, are being made permanent. The noise generated by these trains, which often have three or four engines, must be measured and considered in the overall assessment of noise impacts of the SWLRT project.

The SDEIS simply states that the noise issues described above will be addressed in the Final EIS and that they will be mitigated. We take the strong view that now is the critical and only time to prove that mitigating the noise issues we have described is possible and that the cost of such mitigation is in the budget.

3.4.2.4 Vibration

LONG-TERM DIRECT AND INDIRECT VIBRATION IMPACTS

Comment: The SDEIS states, “There are no vibration impacts in this segment [of the SWLRT route]” This claim is not credible in view of advice provided in *Transit Noise and Vibration Impact Assessment*, the FTA’s own guidance manual presenting procedures for predicting and assessing noise and vibration impacts of proposed mass transit projects:

Vibration from freight trains can be a consideration for FTA-assisted projects when a new transit line will share an existing freight train right-of-way. Relocating the freight tracks within the right-of-way to make room for the transit tracks must be considered a direct impact of the transit system which must be evaluated as part of the proposed project. However, vibration mitigation is very difficult to implement on tracks where trains with heavy axle loads will be operating.”⁵

The SDEIS says that 54 residences⁶ in the “St. Louis Park/Minneapolis” segment (note that all of them are within Minneapolis) will be impacted by the ground-borne noise. This is an unacceptable level of impact on those 54 families.

Regardless of whether the residences are impacted by vibration from the tunnels or from the noise which is flagged as a “Residential Annoyance” in the tables in Appendix H, the fact that these “annoyances” will occur incessantly — 220 times per day starting at 4 a.m. and continuing to 2 a.m. — means the impact on those residents will be significant and should be considered “severe”. The impact of vibration of the freight rail, which the SW LRT is making into a permanent condition, should be included in this analysis.

Regarding ground-borne vibration and noise, it should be noted that the impacts projected might underestimate real-world impacts, which could be more annoying than assumed in this SDEIS. The FDA manual states: ⁷

...the degree of [ground-borne vibration and noise] annoyance can not always be explained by the magnitude of the vibration alone. In some cases the complaints are associated with measured vibration that is lower than the perception threshold.

SHORT TERM VIBRATION IMPACTS

The SDEIS all but ignores construction-related ground-borne noise (vibration) — except for a single, dismissive comment: “Short-term vibration impacts are those that might occur during construction of the LPA while jackhammers, rock drills, and impact pile-drivers are being used.” Within a month of this writing, impact pile-driving on the former Tryg’s restaurant site in the West Lake Station area caused serious damage to the Loop Calhoun condominiums, as well as some level of damage to the Cedar-Isles Condominiums. The project had to be halted (the piles were extracted), since going forward was deemed to be catastrophic. The pile-driving entailed in building the SWLRT tunnel would take place much closer to these and other condominiums, duplexes and apartment houses. The Tryg’s site incident seems to strongly predict a risk of significant construction-related damage to the homes of hundreds of people who live along the corridor where impact pile-driving for SWLRT is planned.

Furthermore, the recent Met Council sewer project completed in this area caused damage to homes located beyond the “expected” range of distance from construction. Residents who attempted to get compensation for the damage were often told by the Met Council to take the matter up with their own insurance companies rather than through the contractors whose work caused the damage. A specific liability plan and budget should be included in the project cost estimates. There is a “contingency” line item in the budget, but it should be used for truly “unpredictable” costs that arise during the construction, and not for costs that could be, should be, and even are anticipated.

Construction-related vibration impacts could well extend beyond the construction period itself. Damage incurred during construction may not be initially apparent, and could show up months or even years later.

Note that KIAA submitted concerns about building conditions during the 2012 DEIS scoping period. During this period, Kenwood residents showed that new construction in the 2500 block of Upton Avenue South required extra deep footings due to the unstable nature of the soil. Architects’ drawings and technical information were submitted to Hennepin County.

KIAA requests that the nature of the building conditions be better understood before proceeding with the tunnel and bridge construction. Further study is needed of:

⁵ Chapter 7: Basic Ground-Borne Vibration Concepts, 7-9

⁶ All of them are Category 2 receivers: “residences and buildings where people normally sleep.”

⁷ Chapter 7: Basic Ground-Borne Vibration Concepts, 7-6

- 1) The effects of various pile-driving alternatives on the many at-risk structures
- 2) The costs involved with each of those alternatives;
- 3) The geology of the area, and its ability to support the construction process.

MITIGATION

The SDEIS promises mitigation of a number of vibration problems. However, the failure of Met Council mitigation measures taken to address LRT problems experienced by the University of Minnesota and Minnesota Public Radio cast abundant doubt on whether they will be effective here.

With respect to the vibration mitigation (to be further detailed in the Final DEIS), the measures suggested in Appendix H appear to be inapplicable to the many residences that would be affected. The SDEIS describes isolated tables and floating floors. It's hard to imagine a retrofit of the residences impacted by the vibration affects utilizing "floating floors." If this is the intent of the mitigation planned for the SWLRT, a cost estimate of the retrofit of all the residences should be included in the Final DEIS.

3.4.2.5 Hazardous and Contaminated Materials

KIAA understands that an online search of MPCA and MDA databases was conducted to identify documented hazardous and contaminated soils in the Kenilworth Corridor (page 3-189). While we appreciate that several sites were located with this method, people who have lived in Kenwood for many years have reported that undocumented disposal of hazardous waste formerly occurred in the Kenilworth Corridor area. KIAA has only anecdotal evidence, but we urge the Met Council to thoroughly investigate the possibility of undocumented contamination prior to commencing construction.

The SDEIS does not make clear whether the contamination risks throughout the corridor, including those areas of potential groundwater contamination or contamination that may infiltrate groundwater when disturbed, will be subject to Phase II evaluation prior to construction. Permanent pumping of an average of up to 520 gallons per day of water that has seeped into the tunnel would, if contaminated with the residue of freight operations or landfill, directly pollute the Chain of Lakes. We request that this risk and valid mitigation measures be identified before it is determined that a tunnel is environmentally safe and appropriate to build. The SDEIS states:

"Over the short term, four of the high-risk sites have the potential to directly affect LPA-related construction activities in the St. Louis Park/Minneapolis Segment (see Table 3.4-15). As previously noted, the high-risk sites would be investigated prior to construction using a Phase II ESA, which would include preliminary soil and groundwater investigations."

Long-term Direct and Indirect Hazardous and Contaminated Materials Impacts include:

- Permanent pumping of contaminated groundwater
- Impacts of disturbance of dangers in soils that may have long term health impacts on children and vulnerable adults
- Not covered in the SDEIS is the co-location of SWLRT in close proximity to hazardous and explosive materials being carried by the railroad. KIAA does not believe that the general public is even aware of the amount of wiring and electrical current and sparking in the LRT infrastructure, and we request that the Met Council make a public statement informing the general public of such. Below is a photo of a green line junction of a power tower that will be in very close proximity to the ethanol trains. KIAA strongly objects to this alignment and the risk to those families living in the "blast zone."



SHORT TERM

The DEIS called for Phase I ESA to be completed, and it was completed in August 2013. It was not made public by the Met Council until May 19, 2015, and indicates many potentially hazardous and contaminated sites along the alignment. It is reasonable to expect to encounter extensive contamination in the Kenilworth Corridor. In addition to being home to several railroad tracks, the Kenilworth Corridor was home to a maintenance yard, blacksmith and boiler shops, a diesel shop and a 90,000-gallon fuel storage facility. In addition, the land was used as a dump — a common practice of the time, and it is likely that arsenic will be among the dangers encountered, requiring special remediation.

The Phase II Environmental Site Assessment (ESA) is said to be near completion; the report must be made available for public review and comment as soon as it is available. The SDEIS says it is “reasonable to expect that previously undocumented soil or groundwater contamination may be encountered during construction.” It is unclear if any findings in the Phase II ESA have been incorporated into the SWLRT project budget.

The SDEIS comment, however, seems to say that the cost of such remediation is unknown and has not been included in the cost estimates. Several sections of the alignment have been designated part of the MPCA Brownfields Program. In the best-case scenario, they will not require much remediation; in the worst case, they could become a Superfund site, requiring significant and expensive remediation.

Several members of the public requested budget information that would indicate what amount of the May 2015 increase in the budget from \$1.65 billion to \$1.99 billion was earmarked for remediation in the Kenilworth Corridor. The SW Project Office provided only the highest level of information, and indicated that they do not track the line items for things like soil remediation on a segment-by-segment basis, but only in total for the project. KIAA is disappointed in this low level of transparency and is left to wonder if remediation will require a Construction Contingency Plan above and beyond the general Contingency budget line item. The cost of such a Contingency Plan for Remediation should be included in the project budget.

3.4.3 Economic Effects

Long-Term Direct and Indirect Economic Impacts

Comment: KIAA disputes the statement that SWLRT will positively impact property values, especially around the 21st St station and Kenilworth Channel. The current freight alignment in the Kenilworth Corridor, which was supposed to be temporary, is already a negative and permanent defect on property values, and this becomes magnified as a negative defect on properties along the line with co-location of SWLRT. The threat of a collision and derailment as such incidents gain increased attention in the news media will in all likelihood increase the scrutiny of buyers as they evaluate the Kenilworth area as an investment and home for their families. Much of Kenwood is within the half mile “blast zone.” Currently there is no viable plan to contain the effect of a derailment and crash in any urban area other than to let the blast “burn out” for the safety of the overwhelmed first responders. Further, the increased noise, vibration, and light without the previously promised removal of freight rail is an exponential increase in the disturbance in an area that is well known for its park-like feel and “up north” atmosphere. The increased adverse effects of co-location will be a permanent defect to homes within earshot and sight of the line; auditory adverse effects would reach as far as Lake of the Isles Parkway based on the audible sounds of the current freight line, but as a much more disruptive cacophony of LRT bells and horns versus the current infrequent “low rumble” of freight.

Further, while studies such as *rtd-fastracks.com* and others show that the access to light rail increase property values in high density, transient (apartment-filled), younger, urban neighborhoods, the area around the Kenilworth corridor is not representative of those attributes. The study mentioned, among others, shows that higher income and low-density neighborhoods do not see the positive impact on property values, as they do in lower to middle income neighborhoods that more regularly use public transit.

While the projected 1600 ride/daily boardings and alightings appear unrealistic, there will nonetheless be an adverse impact from those who do park in the neighborhood to access the station, resulting in residents closest to the station losing on street parking in front of their homes. This will create a parking lot feel to the low density neighborhood and be a detractor from potential buyers, negatively impacting home values.

Finally we do not support denser development in Kenwood, nor would it be feasible on any meaningful scale due to the mature and stable nature of the neighborhood. Any development would further denigrate the existing green space in the corridor, especially around the 21st St station.

We therefore dispute and challenge the SDEIS statement that mitigation for economic impacts is not warranted for the Kenilworth Corridor, particularly in the absence of any plausible property impact study.

Short-Term Direct and Indirect Economic Impacts

Comment: The SDEIS addresses only short-term economic impacts related to freight movements in the corridor. We assert that property owners in Kenwood would experience adverse economic impacts during construction; we are concerned that there will be a severe temporary degradation of property values due to the noise, traffic, vibration and uncertainties of the construction period, and we request that property assessments be reconsidered with the purpose of providing tax relief such as what was seen and acted upon during the upgrade of Highway 12 to Interstate 394. We request that a standard preconstruction survey be conducted on the route of construction vehicles or within the construction zone. We also request that there be a plan to ensure that school hours at the Kenwood School be respected – noise and activity should not take place in a manner that interrupts learning. Further, we request specification on what daily clean up and street sweeping would occur to minimize impact on the neighborhood.

3.4.4.2 Roadway and Traffic

As summarized in Table 3.4-1, there would be three new at-grade light rail crossings of roadways within the segment (Wooddale Avenue, Beltline Boulevard, and West 21st Street). At each crossing, light rail operations would impede vehicular traffic for approximately 50 seconds approximately 12 times per hour (six times per hour in both directions).

Comment: KIAA is concerned about emergency access being reduced 12 times per hour to East Cedar Lake Beach and the residences on Upton Avenue S. The freight train, which was originally to be removed, coupled with the light rail line, will exponentially impair access. We see no possible way to mitigate this impact even beyond the measures that are mentioned in the SDEIS. Police frequently need immediate access to the beach and park for the purpose of public safety and criminal matters; Water emergencies, fire, or medical emergencies would be exacerbated with each moment of delay. We see no possible way to mitigate this impact.

KIAA is concerned about the short-term impact on neighborhood roads that would be used for construction of the Kenilworth Corridor segment, including, but not limited to Penn Ave S, 21st St W. KIAA requests that funding be set aside for road repair

during and at the conclusion of construction to ensure that the burden of the cost of repair is not tendered to Kenwood residents via an assessment.

KIAA requests that passage of construction vehicles and materials through the neighborhood are limited to normal business hours to minimize neighborhood disruption. Please see Addendum #2 for the referendum passed by KIAA regarding the importance of this issue and we request some acknowledgement and plan for such mitigation during construction and repair post construction to any damage sustained to neighborhood housing or infrastructure.

3.4.4.3 Parking

Indirectly, the LPA could affect the supply of and demand for off-street parking in the St. Louis Park/ Minneapolis Segment due to development new light rail station areas. Any development occurring within the segment would, however, be required to comply with the City of St. Louis Park's and the City of Minneapolis' parking requirements, which would tend to ensure a long-term balance of parking supply and demand.

Comment: KIAA is concerned that there is complete disregard in the SDEIS for the impairment of on-street parking availability in its neighborhoods near the proposed 21st St Station for residents and their guests, as well as emergency access to those homes, especially in winter when streets are narrowed due to snow buildup. KIAA continues to oppose a park and ride lots at 21st St.

3.4.4.4 Freight Rail

Comment: Contrary to 15 years of previous planning, the SDEIS now claims that the need "to develop and maintain a balanced economically competitive multimodal freight rail system" as a justification for the Southwest light rail project (SDEIS page 1-1). The public, policy makers, and funders are generally unaware of this new "need" – one that has directed approximately \$200 million of the Southwest light rail budget to improving *freight* rail and making it permanent in the Kenilworth Corridor.

In 1998, when freight was reintroduced to the Kenilworth Corridor, freight was to be a temporary alignment until light rail could be built. Despite public agreements and related state funding, none of the responsible parties secured appropriate legal documentation to ensure that freight would be moved to make way for light rail. Many of the parties responsible for this serious and politically tainted "mistake" have been, and continue to be, deeply involved in the SWLRT planning process.

Since the Alternatives Analysis assumed that "freight would be relocated to make way for light rail," the financial, political, and environmental costs of addressing freight rail in the Kenilworth Corridor were not considered at this critical juncture. Neither Hennepin County nor the Met Council has ever conducted an honest and unbiased analysis of alternative ways to serve the southwest suburbs' transit needs.

When the City of Minneapolis was required to vote on alignment 3A as the proposed Locally Preferred Alternative (LPA), the City Council members were told that freight rail would be relocated and that LRT would run at-grade in Kenilworth. The costs and concerns of freight relocation were again ignored.

The Project Scoping Report for the 2012 Draft Environmental Impact Statement said clearly, "Freight Rail is independent of the Study." Although the Federal Transit Administration (FTA) noted this erroneous assumption when it approved preliminary engineering, neither Hennepin County nor Met Council ever amended the project scope to include freight rail.

When the City of Minneapolis was pressed to accept co-location in 2014, the City Council lacked critical information to make an informed decision because freight co-location with LRT and tunneling were never part of the original LPA and subsequent DEIS.

The present SDEIS does little to further the knowledge of risks to the environment and public safety of co-location of freight and SWLRT. It is remarkable more for what is not included than what is included.

Not addressed in this SDEIS are the following issues related to making freight permanent in the Kenilworth Corridor:

1) The current freight operator, TC&W, transports hazardous freight through Kenilworth, in very close proximity to homes, trails and parks. This freight includes such flammable and explosive products as ethanol, fuel oil, propane, and anhydrous ammonia. Should a derailment occur, the consequences could be catastrophic. The need for containment and evacuation plans is nowhere acknowledged in the SDEIS. The federal Freight Rail Administration (FRA) expects at least 10 to 20 oil or ethanol derailments annually. Nationwide, over 7000 train derailments occurred in 2014. These concerns are not just theoretical.

It is troubling that even after a multitude of concerns were raised by the City of St. Louis Park and its residents in response to the

relocation of freight proposed the 2012 DEIS, the current SDEIS does not contain one word acknowledging the presence or dangers of high hazard freight through the Kenilworth Corridor. There is evidently no safety plan should an ethanol or other hazardous materials freight derailment occur, and no containment and recovery planning should a disaster encroach on the tunnel and/or spill in to the Minneapolis Chain of Lakes.

2) TC&W is a private business and is free to operate as it deems appropriate. Since 1998 when freight was temporarily reintroduced, TC&W has significantly expanded the number of cars shipped through Kenilworth. The contents of these cars has also changed and will continue to do so as ethanol production increases – unit trains of 100 ethanol tankers have replaced short configurations of soybean and farm equipment carriers. Furthermore, the owners of TC&W are free to sell the company at any point to any one of the major railroads. This would cause an even greater expansion of traffic and movement of hazardous products in close proximity to homes. Upgrading the freight rail infrastructure at public expense and making it permanent increases the value of TC&W and thus increases the likelihood that it will be sold. Nowhere has this been made public.

3) Currently, TC&W trains voluntarily operate at a speed of 10 miles per hour through the Kenilworth Corridor. Our understanding is that they are under no legal obligation to do so. Going forward, the company may choose to sell to a company that does not respect this speed limit or TC&W may decide to increase speeds. A long-term enforceable agreement with the freight operator and the Hennepin County Regional Rail Authority should be considered as part of this project.

4) The Met Council has requested waivers from the Federal Rail Administration in order to put the jurisdiction of the co-located freight and light rail under the FTA. We see no evidence that the FTA or the Met Council have the capacity to oversee the co-location of hazardous freight and passenger rail in a narrow urban corridor.

5) The distance between the newly permanent freight rail and the light rail with its overhead electrical wires does not appear to respect industry standards or best practices. Even with crash walls, the proximity of electrified freight rail to passenger rail adds to safety risks. Catenaries can and do spark, which could be disastrous if it occurs when an ethanol tanker is passing. The risk may be low, but the consequences would be extreme.

6) Heavy freight rail obviously causes vibrations that travel through the ground. We see no evidence that the potential for long-term damage to either LRT structures or to residences and other buildings from freight vibrations has been considered in this SDEIS. Upgrading and making freight permanent increases the risks that freight vibrations will damage homes; KIAA therefore requests a pre-construction assessment of potentially affected properties and long-term monitoring with agreements that damage to residences will be compensated.

7) The SDEIS does not explore public sector liability if SWLRT or freight causes damage or harm. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. In light of the catastrophic potential of any accident in the Kenilworth Corridor, this insurance liability assessment should be done prior to building SWLRT, made public, and included in construction and operating cost estimates.

3.4.4.5 Bicycle and Pedestrian

Comment: The Minneapolis Park and Rec board reported in 2010 the Kenilworth Corridor receives 600,000 discrete unique visits per year. And the current “north woods” feel of the area enhances those visits. That experience would be significantly impacted by the addition of light rail, especially co-located with freight rail. This includes an expectation of natural quiet conditions. Pedestrians do not pass quickly through the park-like environment and will therefore be significantly impacted by added noise, movement and infrastructure of the LRT and freight rail. The speed joined with the noise at close proximity greatly detracts from the trail experience for both bicyclists and pedestrians, and can even be frightening to users. KIAA asserts that this clearly constitutes a long-term adverse impact on bicycle and pedestrian experience in the Kenilworth Trail and must be mitigated to the greatest extent possible.

There is also a concern for safety at crossings, and a poor precedent set by previously constructed light rail lines on what we might expect. We find this photo to be an example of an unacceptable measure of safety:



As previously stated, is there any concern of having live wires for light rail within 25 feet of an active ethanol freight line? We ask for consideration on this matter per Rep Hornstein’s statement at the Dunwoody SWLRT hearing.

3.4.4.6 Safety and Security

Comment: KIAA is concerned about the difficulty of providing emergency services to LRT users and freight trains throughout the Minneapolis portion of the corridor. There is limited operational infrastructure in the corridor (e.g., lack of hydrants), and few access points for emergency vehicles. In particular, we expect that the 21st Street access point will have to be used by police cars, fire engines, and ambulances to service points between the Kenilworth Lagoon and the Penn Avenue station. We request and urge the Council to design access in a minimally intrusive way, and consider mitigation that will limit the impact of these public services on the neighborhood.

LONG-TERM IMPACTS

Comment: The current plan to co-locate freight and LRT within the same corridor — within a dozen feet of each other in certain places — creates new, potentially catastrophic hazards. It is currently proposed that the freight train (which carries volatile and explosive ethanol on a daily basis, and several unit trains of ethanol per month) remain permanently in the Kenilworth Corridor. The addition of the SWLRT with its electrical power wires only a few feet away exacerbates the existing danger of ethanol in the corridor. Current safety standards recommend against co-location in such close proximity when there are alternatives; other alternatives for this SWLRT alignment must be explored.

Furthermore, in the event of an explosion of ethanol trains along this corridor, we understand that the foam retardant required to extinguish the fire is “within a 3 hour distance” of the corridor. We believe that the potential harm during that “3 hour window” along with permanent damage to residences and residents should be quantified. Should an explosion occur during the passing of an LRT train, the potential exists for loss of life or harm to those exposed to the hazardous fumes.

Comment: Please note that the Minneapolis Park Police also provide service within the study area. KIAA requests that the MPRB Police be consulted on security issues related to the impact of a proposed station at 21st Street on East Cedar Lake Beach (Hidden Beach) and their input be incorporated into final design plans. In the summer 2012, Hidden Beach generated more police actions than any other park in the MPRB system. For the last five years, KIAA has provided supplementary funding to the Park Police to allow for increased patrols in this area. The neighborhood has expressed grave concern that an inadequately managed station would increase opportunities for illegal behavior. To reduce the risk of such behavior we request that the Met Council study whether it be appropriate for service at 21st St station cease at 10PM, which coincides with the normal evening closure of Cedar Lake Park.

SHORT-TERM IMPACTS

Cedar Lake Parkway is a critical artery for Kenwood residents and others. Currently, rush hour traffic produces backups that sometimes extend from Lake Street, along Dean Parkway and Cedar Lake Parkway. (On June 11, 2015, an accident at Dean Parkway and Lake Street slowed traffic on Dean Parkway to a crawl for over an hour.) The closing of Cedar Lake Parkway at the Kenilworth Trail would be necessary during the construction of the proposed tunnel from West Lake Street to just past Cedar Lake Parkway. Affected neighborhoods already have limited entry and exit points.

The SDEIS does not address the need to ensure reasonable transportation options during this period. Especially important are routes for emergency vehicle access. There must be plans for fire and ambulance routes in the affected neighborhoods. Travel time for emergency vehicles would be increased during that closing. The SDEIS describes such delays as "minor"; we take vigorous issue with such a demotion of safety concerns, as even two minutes could be the difference between life and death, or a home being saved from fire or destroyed.

Also missing is information on what measures, including evacuation plans, would be necessary to protect the Cedar Shores townhomes when the TC&W trains, with their explosive freight, are moved several feet closer to them during construction.

Appendix – Addendum #1

Addendum: Kenwood Isles Area Association Position Statement on Freight Relocation for SWLRT

Adopted July 1, 2013

Nearly a mile of the proposed SWLRT runs through the Kenwood Isles Area Association neighborhood. **We vehemently oppose the idea of maintaining freight rail along with light rail at grade in the Kenilworth Corridor, known as "co-location."**

Relocation of freight out of the Kenilworth Corridor has been promised for years. While the corridor was long used for transporting goods, freight use of Kenilworth was halted in 1993 when the Midtown Greenway was established. When freight was later re-introduced into the Kenilworth Corridor, Hennepin County assured residents this use of the corridor was temporary.

Meanwhile, over 20 years of citizen efforts to build and maintain Cedar Lake Park and the Kenilworth Trail have resulted in a more beautiful and complete Grand Rounds and Chain of Lakes. Traffic on federally funded commuter and recreational bicycle trails in the Kenilworth Corridor grew to at least 620,000, perhaps approaching one million, visits in 2012.

When the Hennepin County Regional Railroad Authority began looking at using the Kenilworth Corridor for LRT, several key studies and decisions reiterated the expectation that if Kenilworth is to be used for transit, then the freight line must be relocated. (See notes below.) Trails were to be preserved. Freight rail was to be considered a separate project with a separate funding stream, according to Hennepin County. This position was stated publicly on many occasions, including Community Advisory Committee meetings and Policy Advisory Committee meetings.

Minneapolis residents have positively contributed to the SWLRT process based on the information that freight and light rail would not co-exist in the Kenilworth Corridor. Although many of us think that Kenilworth is not the best route, most have participated in the spirit of cooperation and compromise to make the SWLRT the best it can be.

Despite numerous engineering studies on rerouting the freight rail, it was not until December 2012 that the current freight operator in the Kenilworth Corridor, TC&W, decided to weigh in publicly on the location of its freight rail route. TC&W rejected the proposed reroute.

The Met Council has responded by advancing new proposals for both rerouting the freight and keeping it in the Kenilworth Corridor. For either option, these proposals range from the hugely impactful to the very expensive – or both. Six of the eight proposals call for “co-location” despite the temporary status of freight in Kenilworth. The Kenilworth proposals include the destruction of homes, trails, parkland, and green space. Most of the proposals would significantly add to the noise, safety issues, visual impacts, traffic backups, and other environmental impacts identified in the DEIS.

This is not a NIMBY issue. The Kenilworth Trail provides safe, healthy recreational and commuter options for the city and region. It is functionally part of our park system. The Kenilworth Corridor is priceless green space that cannot be replaced.

For over a decade public agencies have stated that freight rail must be relocated to make way for LRT through the Kenilworth Corridor. If this position is reversed midway through the design process for SWLRT, the residents of Kenwood Isles would find this a significant breach of the public trust.

Simply stated, none of the co-location proposals are in keeping with the project goals of preserving the environment, protecting the quality of life, and creating a safe transit mode compatible with existing trails.

This has been a deeply flawed process, and we **reject any recommendation for at-grade co-location in the Kenilworth Corridor. If freight doesn't work in St. Louis Park, perhaps it's time to rethink the Locally Preferred Alternative.**

Notes

1) The 29th Street and Southwest Corridor Vintage Trolley Study (2000) noted that, "To implement transit service in the Southwest Corridor, either a rail swap with Canadian Pacific Rail or a southern interconnect must occur."

2) The FTA-compliant Alternatives Analysis (2005-2007) defines the Kenilworth section of route 3A for the proposed Southwest Light Rail in this way: "Just north of West Lake Street the route enters **an exclusive (LRT) guideway in the HCRRA's Kenilworth Corridor to Penn Avenue**" (page 25). This study goes on to say that "to construct and operate an exclusive transit-only guideway in the HCRRA's Kenilworth Corridor the **existing freight rail service must be relocated**" (page 26).

3) The "Locally Preferred Alternative" (LPA) recommended by HCRRA (10/29/2009) to participating municipalities and the Metropolitan Council included a recommendation that freight rail relocation be considered as a separate "parallel process."

4) In adopting HCRRA's recommended Locally Preferred Alternative based on treating relocation of the freight rail as a separate process, the City of Minneapolis' Resolution (January, 2010) stated:

"Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained."

5) The Draft Environmental Impact Statement supports the Locally Preferred Alternative, which includes relocation of freight out of the Kenilworth Corridor. (December, 2012)

6) The **southwesttransitway.org** has stated since its inception that:

Hennepin County and its partners are committed to ensuring that a connected system of trails is retained throughout the southwest metro area. Currently, there are four trails that may be affected by a Southwest LRT line. They are the

Southwest LRT trail, the Kenilworth trail, the Cedar Lake Park trail, and the Midtown Greenway. These trails are all located on property owned by the HCRRRA. The existing walking and biking trails will be maintained; **there is plenty of space for light rail and the existing trails.** Currently, rails and trails safely coexist in more than 60 areas of the United States.

End of Addendum

Appendix: Addendum #2

January 5, 2015

Resolution to Recommend Review of Metropolitan Council's Policy Regarding Project Administration and Accountability to Property Owners

WHEREAS, It has come to the attention of the Kenwood Isles Area Association (KIAA) that a number of homeowners in the Cedar-Isles-Dean neighborhood apparently suffered damage to their properties as a result of the Metropolitan Council's Cedar-Lakes Sewer Improvement Project (MCES Project No. 804122), and

WHEREAS, Neither the Metropolitan Council's contractor nor the Metropolitan Council Environmental Services have taken responsibility or satisfactorily addressed CIDNA homeowners' documented property damage claims, and

WHEREAS, This lack of accountability leads to legitimate concerns about this and all other projects the Metropolitan Council administers, especially the construction and operation of the proposed Southwest Light Rail Transit (SWLRT), and

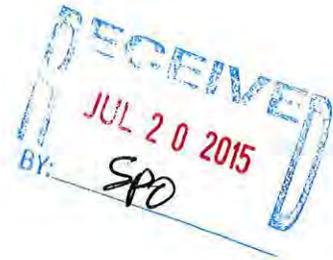
WHEREAS, This dereliction of responsibility with regard to property damage will potentially affect all properties – public, park or private property alike - along the 16-mile proposed SWLRT route.

THEREFORE BE IT RESOLVED, That the KIAA Board of Directors urgently requests that the Metropolitan Council review its policies for resolving property damage disputes resulting from its construction projects and its role in administering projects;

BE IT FURTHER RESOLVED, That based on this review and before construction begins on the SWLRT, the KIAA Board of Directors urges the Metropolitan Council to put clear and reasonable processes in place to resolve damage disputes and fairly compensate property owners who experience damage as a result of Metropolitan Council projects.



LIBERTY
PROPERTY
TRUST



July 17, 2015

Nani Jacobson
Assistant Director, Environmental & Agreements
Metro Transit – SWLRT Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park, MN 55426

Re: Comments of Liberty Property Trust Regarding OMF to be Located at Site 9A

Dear Ms. Jacobson:

Liberty Property Trust is the owner of the developed industrial properties at 1515 Sixth Street South, and 1600 Fifth Street South, Hopkins Minnesota, which will be taken for the proposed Operations and Maintenance Facility (OMF), Site 9A, Hopkins K-Tel East. As a property owner that will suffer the loss of two important industrial investment properties, we are deeply concerned about how this taking will impact us. We have reviewed the SDEIS and have the following comments on that document.

1. OMF Site 9A Selection Evaluation:

Our review revealed that Site 9A was not part of the original DEIS review and was only added as part of the SDEIS process and not subject to the same site selection evaluation that was done during the DEIS review. We understand that as part of the SDEIS analysis for a preferred OMF site a four step process was conducted that initially identified approximately 30 sites and through each step dismissed potential sites until site 9A was the final selection.

It appears to us that SDEIS failed to fully or properly evaluate the OMF site (identified in the SDEIS as site 9A) against comparable sites that were also being considered. We believe that additional information should be provided that will explain why site 9A was preferred over a number of others.

2. A Total Taking of the Liberty Property for OMF at Site 9A is Required

The SDEIS under Section 3.3.1.2 Acquisitions and Displacement indicates that there will be a full taking of both our industrial properties within the site 9A footprint. Liberty Property Trust concurs that any taking must be a full taking of each property.

The SDEIS notes that land which is acquired for the SW/LRT Project but not fully used for the OMF may be considered a remnant parcel and sold. Liberty Property Trust has no interest in buying back a remnant piece and there should be no expectation that such remnants will have any



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material economic value to Liberty. Liberty has previously conveyed this same information to representatives of the Met Council.

Liberty Property Trust has been an active participant in the public process and planning of the SWLRT. We are supportive of the project but recognize that a number of our properties will be taken if the project goes forward. Our concerns regarding the SDEIS reflect our past comments on the DEIS regarding our properties in Hopkins, Minnetonka and Eden Prairie, adjacent the Golden Triangle Station. Our earlier DEIS comments are attached for your convenience.

Finally, if the project goes forward, it is essential that our industrial tenants are fully compensated for their relocation costs and are given sufficient lead time to plan and execute a complex industrial plant relocation.

Liberty Property Trust

Richard Weiblen
Vice President, Development.

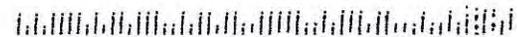


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10400 Viking Drive, Suite 130 | Eden Prairie, MN 55344

Ms. Nani Jacobson
Assistant Director, Environmental & Agreements
Metro Transit – SWLRT Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park, MN 55426

RECEIVED
JUL 20 2015
BY: *SJA*





TWIN CITIES & WESTERN RAILROAD COMPANY

2925 - 12th Street East
Glencoe, MN 55336
(320) 864-7200
FAX (320) 864-7220

July 17, 2015

VIA EMAIL AND U.S. MAIL

Ms. Nani Jacobson
Assistant Director, Environmental and Agreements
Metro Transit – Southwest LRT Project Office
6465 Wayzata Blvd., Suite 500
St. Louis Park, MN 55426
nami.jacobson@metrotransit.org



Re: Response to Metropolitan Council’s Southwest Transitway Supplemental Draft
Environmental Impact Statement

Dear Ms. Jacobson:

Please find for inclusion in the office record the response of Twin Cities & Western Railroad on the Metropolitan Council’s Southwest Transitway Supplemental Draft Environmental Impact Statement. These comments are set forth in the attached.

Thank you.

Sincerely,

Mark Wegner
President
Twin Cities & Western Railroad
Phone: 320-864-7204
Email: mwegner@tcwr.net
Website: www.tcwr.net

Enclosure

Twin Cities & Western Railroad Company Response to Metropolitan Council's Southwest Transitway Supplemental Draft Environmental Impact Statement

Twin Cities & Western Railroad Company (TC&W) responded to the Southwest Transitway Draft Environmental Impact Statement (DEIS) in December 2012, and the issues raised in that response remain valid for this response. TC&W's response to the DEIS can be found at <http://tcwr.net/responsetodeis/>.

TC&W's comments should be viewed in the context that TC&W serves numerous Counties, Communities and Customers in south central Minnesota and South Dakota. Over the last 10 years our shippers and their customers have collectively invested over \$100 million in expanding and enhancing their freight rail facilities, creating additional jobs and economic growth in the area of rural Minnesota served by TC&W. These businesses have made these massive investments based on the understanding that their freight rail service will, at minimum, remain at its current level. This is a fair and reasonable understanding, given the protective mandate of the United States Surface Transportation Board (STB), which has exclusive jurisdiction over freight railroad transportation, including economics and service levels. Our response to the SDEIS, therefore, is made with the purpose of preserving TC&W's ability to continue to provide freight transportation economically and at current service levels.

Changes in Scope/Elements

There are two changes in scope/elements from the October 2012 DEIS to the May 2015 SDEIS that affect TC&W.

- **Freight Route:** The SDEIS avoids the relocation of freight traffic traversing north on the CP MN&S line (from a point in St. Louis Park just east of Louisiana Avenue), and instead continues freight traffic traversing north via the Kenilworth Corridor (at Cedar Lake Junction just west of downtown Minneapolis). This results in a co-location of freight trains and light rail between these points and through the Kenilworth Corridor (co-location was planned from approximately Shady Oak Road in Hopkins to the point in St. Louis Park just east of Louisiana Avenue in both the DEIS and the SDEIS). TC&W will refer to this change as "Co-locate" within this document.
- **Freight Alignment Change:** The SDEIS contemplates moving the SWLRT from the north side of the existing freight rail to the south side of the future freight rail location, by shifting the freight rail to the current bike trail alignment by angling the freight rail north, just east of 169, and building a bridge to carry the LRT from north of the freight rail to south of the freight rail just east of Hopkins. TC&W will refer to this change as "Alignment Change" within this document.

Comments Related to above Scope/Element Changes

Freight Route – Service Disruption during Construction:

TC&W staff and consultants worked diligently with Met Council's staff and consultants from January 2013 until present to arrive at a plan that would retain the freight service south central Minnesota depends on, while at the same time preserving the "Locally Preferred Alternative" (LPA) for the Southwest Transitway.

There have been extensive documentation and discussion of the engineering and construction challenges of building the SWLRT in the Kenilworth Corridor from the point southwest of the lagoon connecting Cedar Lake to Lake of the Isles to the point where the LRT's Lake Street station is planned. It is TC&W's understanding that with the SDEIS, the SWLRT is at the approximately 30% engineering phase. The discussions with Met Council and staff have occurred with the understanding that TC&W will allow the SWLRT contractors to work during the day and the freight trains will be able to operate safely from the close of the SWLRT construction day until the beginning of the following construction day. This will delay freight rail, but with careful planning, managing and communication it can be done. It has also been noted at the 30% engineering phase that the bridge swap at State Highway 100 would create a significant service outage for TC&W customers. Having TC&W cease operations during construction for periods longer than the work windows described above would be disruptive to TC&W's service obligation that its customers rely upon.

Freight Route – Safety & Public Perception:

Our comment is made in the context that freight railroad operations are largely a mystery to the general public. They get noticed if the motorists must stop at a railroad crossing for a train, or a derailment makes the news, but otherwise the general public has little knowledge of freight railroads. Unfortunately, public perceptions of freight rail service are colored by highly publicized but relatively isolated incidents such as the ignition of flammable Bakken crude oil that occurred when a train derailed and ruptured in December 2013 in eastern North Dakota. Most Minnesotans do not know that 99.999997% of freight rail shipments arrive safely at their destinations.

Given the public's current perception of freight rail (particularly the safety of freight rail), it is important that Met Council communicate with the affected neighborhoods not only the safety precautions built into the construction plan, but also any contingency plans should a natural disaster occur during construction (wind storm, rain, deluge, etc.). Also, an emergency response plan ought to be part of the construction plan and this should be communicated to the affected neighborhoods and public officials.

Freight Alignment Change – Cost cutting options affecting TC&W:

Our comment is made in the context of the announcement in April 2015 that the costs of the SWLRT, as shown in this SDEIS had increased to approximately \$2 billion. The reaction by elected officials and decision-makers, since that announcement, has been to cut the costs of the SWLRT to approach the earlier \$1.6 billion estimate.

In comments relating to the Alignment Change, the SDEIS discusses, as a result of the Alignment Change, the elimination of the side tracks that TC&W currently uses for sorting freight and staging freight cars. The SDEIS does not mention building replacement track capacity at a location further west along the TC&W. Replacement track capacity must be built by Met Council as part of the cost of the SWLRT project in order to meet Federal STB requirements and preserve the existing shipper service levels provided by TC&W to its customers. The expense of providing replacement track capacity must be factored into the project, and cannot be included in the cost cutting being considered by the Met Council. It should also be noted that severing the southerly connection from the CP Bass Lake Spur to the CP MN&S is not a cost cutting option as this connection provides freight rail access for grain producers in south central Minnesota to move their product to the river barge terminals located in Savage, MN.

Conclusion

TC&W remains committed to providing safe, efficient and reliable freight service to its south central Minnesota customers, as well as providing safe passage through the neighborhoods in the Twin Cities metropolitan area in which we operate. As planning moves towards 90% engineering, within the context of cost cutting, the safe passage of freight during and after SWLRT construction and effective and continuous operations must not be compromised.

Attached is a list of the Cities, Counties and Customers that provided letters of support of TC&W's response to the DEIS (<http://tcwr.net/responsetodeis/>). All of these constituents remain extremely interested in the SWLRT process with respect to the preservation of their freight rail service.

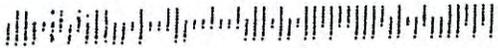
List of entities that responded to the DEIS in support of TC&W's response

ADM – Benson Quinn (Minneapolis, MN)
Agri-Trading (Hutchinson, MN)
Bird Island Bean Co, LLC (Bird Island, MN)
Bird Island Soil Service Center (Bird Island, MN)
Central Bi-Products (Redwood Falls, MN)
Clifton Co-op Farmers Elevator Association (Clinton, MN)
Cloud Peak Energy Resources, LLC (Decker, MN; Broomfield, CO)
Co-op Country Farmers Elevator (Renville, MN)
Corona Grain & Feed (Corona, SD)
Dairy Farmers of America (Winthrop, MN)
Equity Elevator & Trading Company (Wood Lake, MN)
Farmers Co-operative Elevator Co. (Hanley Falls, MN)
Farmers Union Coop Oil Company (Montevideo, MN)
Farmers Cooperative Oil & Fertilizer (Echo, MN)
FGDI (St. Louis Park, MN)
Form-A-Feed, Inc. (Stewart, MN)
Glacial Plains Cooperative (Murdock, MN)
Granite Falls Energy, LLC (Granite Falls, MN)
Hanley Falls Farmers Elevator (Hanley Falls, MN)
Heartland Corn Products (Winthrop, MN)
L.G. Everist, Inc. (Sioux Falls, SD)
Lyman Lumber Company (Excelsior, MN)
Meadowland Farmers Coop (Lamberton, MN)
Midwest Asphalt Corporation (Hopkins, MN)
Minnesota Grain & Feed Association (Eagan, MN)
Minnesota Valley Regional Rail Coalition
Mosaic Company (Savage, MN)
RPMG Inc. (Shakopee, MN)
Seneca Foods Corporation (Glencoe, MN)
Seneca Foods Plant (Arlington, MN)
South Central Grain & Energy (Fairfax, MN; Gibbon, MN; Hector, MN; Buffalo Lake, MN)
Southern Minnesota Beet Sugar Cooperative (Renville, MN)
Step Saver, Inc. (Redwood Falls, MN)
United Farmers Cooperative (Winthrop, MN)
Western Consolidated Cooperative (Holloway, MN)
Western Co-op Transport Association (Montevideo, MN)
Wheaton Dumont Co-op Elevator (Wheaton, MN)
United Grain Systems, LLC (Winthrop, MN)

City of Arlington
City of Bird Island
City of Buffalo Lake

City of Glencoe
City of Hector
City of Milan
City of Montevideo
City of Morton
City of Norwood Young America
City of Olivia
City of Plato
City of Sacred Heart
City of Stewart
City of Winthrop

Big Stone County
Carver County
Grant County (South Dakota)
McLeod County
Minnesota Valley Regional Rail Authority
Redwood Area Development Corporation
Redwood County
Upper Minnesota Valley Regional Development Commission
Renville County
Renville County HRA/EDA
Roberts County
MinnRail, Inc.
Sibley County Economic Development Commission
Sibley County Auditor
Sibley County
Sibley County Attorney
Wright County
Yellow Medicine County



TC&w

TWIN CITIES & WESTERN
RAILROAD COMPANY

2925 12th Street East
Glencoe, Minnesota 55336



Ms. Nani Jacobson
Assistant Director, Environmental and Agreements
Metro Transit - Southwest LRT Project office
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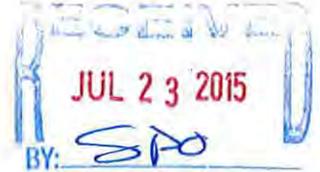
Larkin Hoffman

8300 Norman Center Drive
Suite 1000
Minneapolis, Minnesota 55437-1060

GENERAL: 952-835-3800

FAX: 952-896-3333

WEB: www.larkinhoffman.com



July 21, 2015

Nani Jacobson
Assistant Director, Environmental and Agreements
Metro Transit – Southwest LRT Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park, MN 55426

Re: Southwest Light Rail Transit (“SWLRT”) Supplemental Draft Environmental Impact Statement

Dear Ms. Jacobson:

This letter supplements our previous comment letters, dated December 28, 2012, and August 12, 2013, on behalf of SFI Partnership 54, the owner of the Claremont (the “Claremont”). In our meetings with officials of Metro Transit and project management, we have continued to express strong concerns that Segment 3 of the SW LRT-LPA severely and negatively impacts the Claremont Apartments and the public recreational trail (the “Public Trail”).

Introduction

The Southwest Light Rail Transit (SWLRT) Supplemental Draft Environmental Impact Statement (SDEIS) was released on May 22, 2015. Our comments summarize our review with respect to the anticipated impacts of the light rail project on the Claremont Apartments and the Public Trail, as well as public open space owned by the City of Minnetonka, immediately east and south of the Claremont (the “Open Space”). We have also summarized the relevant noise and vibration findings in the DEIS. Due to the narrow scope of the supplemental information provided in the SDEIS, there was limited supplemental information on any of the issues as they relate to the Claremont, the Public Trail, or Open Space, and in addition, the environmental review for the project once again failed to evaluate the Open Space as a Section 4(f) property.

Discussion

1. Section 4(f) Properties:

Section 4(f) of the US Department of Transportation Act of 1966, 49 USC 303(c) protects “publicly owned parks, recreation areas, wildlife and/or waterfowl refuges, as well as significant historic sites, whether publicly or privately owned.” The SDEIS discussion of Section 4(f) evaluations focused primarily on the areas of change in the LPA elsewhere along the route, but not near the Claremont, and did not include the Public Trail or Open Space. The discussion and analysis of Section 4(f) methodologies is described in far more detail in the SDEIS than that DEIS. However, the SDEIS Section 4(f) evaluation update is narrower in scope and addresses only the following issues:

- 1) design adjustments to the LPA identified by the Council in April and July 2014;
- 2) preliminary determinations of effect on historic properties on properties within the LPA made by FTA, in consultation with the Council, MnSHPO and consulting parties as part of the project’s Section 106 assessment of historical and archaeological resources;
- 3) provide opportunity for public comment in FTA’s intent to make a de minimis impact determination; and
- 4) revised preliminary determinations for Section 4(f) protected properties, including preliminary non-de minimis and de minimis use determinations and temporary occupancy exception determinations.

SDEIS 3-218. Because the SDEIS Section 4(f) discussion was narrow, it did not include any new information about the Public Trail, Open Space, or Opus Hill. Updated Tables 3.5-1 and 3.5-2 list the Section 4(f) properties that have been determined to be impacted, none of which are the Public Trail or Open Space. Table 3.5-3 also shows all potential Section 4(f) properties evaluated in the SDEIS Section 4(f) update, but focuses on newly impacted Section 4(f) properties that result from the alignment revisions; therefore, it does not include the Public Trail or Open Space.

It is worth noting that despite not classifying the Open Space as impacted Section 4(f) property, or potential Section 4(f) property, Exhibit 3.5-2 of the SDEIS does identify the Open Space as “Parklands, Recreation Areas, and Open Spaces,” within the Section 4(f) study area. *See Attached Exhibit 3.5-2.* No information or analysis is provided to explain why, despite being publicly-owned and classified as a “parkland, recreation area, and open space” in the SDEIS, the Open Space was not treated as a Section 4(f) property. Thus, the SDEIS has failed to provide the necessary and required analysis for permanent occupation and use of a Section 4(f) property.

2. Noise and Vibration

The Supplemental Draft EIS noise impact analysis is based on the same noise standards and methodology used for the Draft EIS, including the same FTA noise impact thresholds for severe and moderate noise impacts, which can be found in Transit Noise and Vibration Impact Assessment (FTA, 2006). *SDEIS 3-12*. The SDEIS does not revise or amend the calculations for noise or vibration levels for the Claremont, the Public Trail or Open Space, but it does provide further insight on methodology. Based on the additional information provided in the SDEIS, we believe the Council used flawed methodology in performing both the noise analysis and the vibration analysis. The issues with the methodology are described further below.

a. Noise Levels

For classification of noise impacts, the DEIS classifies affected properties as either “No Impact,” “Moderate Impact,” or “Severe Impact,” depending on the anticipated volume and frequency of noise. The anticipated noise levels qualify as a “Severe Impact” for the Claremont. The Claremont is identified as a Category 2 (residential) Noise Sensitive Land Use. *DEIS Figure 4.7-2*. The noise assessment table identifies properties only by a “cluster identifier,” and includes five Category 2 clusters without reference to an address or property. *Noise Assessment Table, Page 2 of 11*. However, using the FTA Noise Impact Assessment Spreadsheet and the assumptions used by the Council as described in the DEIS, we were able to reproduce the analysis with a result of “Severe Impact” classification for the Claremont. *See attached FTA Spreadsheet*. A Severe Impact classification is described as:

A significant percentage of people are highly annoyed by noise in this range. Noise mitigation would normally be specified for severe impact areas unless it is not feasible or reasonable (unless there is no practical method of mitigating the impact).

DEIS 4-77. Because the Claremont is identified as a Noise-Sensitive Land Use, **we request a copy of the Met Council’s FTA Noise Impact Assessment Spreadsheet specifically for the Claremont.** Of the five clusters shown in the Noise Assessment Table, it appears that the Claremont is located in the cluster identified as 3-F-EB-2-18, based on the SWT Noise Assessment Table. *DEIS Noise Assessment Table, Page 2 of 11*.

b. Vibration Levels

For classification of vibration impacts, the DEIS classifies affected properties as either “Impacted” or not impacted. While the DEIS does not identify the specific properties by name or address in the Vibration Assessment Table, the predicted noise levels appear to be 74 VdB for the Claremont, which exceeds the classification of “Residential Annoyance” and qualifies as an “Impacted” property. The DEIS identifies the Claremont as a Vibration-Sensitive Land Use; although, similar to the noise assessment, the vibration data does not indicate the specific properties by name. *DEIS Figure 4.8-2*. There appears to be a discrepancy with the number of properties identified as vibration sensitive land uses and reviewed under the vibration analysis in Segment 3F. The Vibration-Sensitive Land Use map in Figure 4.8-2 identifies three vibration-

sensitive Category 2 (residential) parcels in Segment 3F, including the Claremont; however, the data only lists one such Cluster ID. *DEIS 4-115*. That single Category 2 cluster shows a vibration level of 74 VdB. *DEIS Vibration Assessment Results by Segment, Table 2*. This means that two of the uses were either deemed to have “no impact,” were omitted, or all three uses were calculated as one single cluster. If all were calculated as a single cluster, it would likely yield an inaccurate result in light of the fact that the three parcels cover a distance of more than .80 miles. In addition, the single Category 2 cluster also indicates a distance of 133 feet from the track to the building for the 74 VdB forecast. However, the Claremont, which consists of five (5) buildings, includes two buildings at a distance of only 86 feet from the track, and the other three range from 100 to 110 feet to the tracks. A much greater vibration should be felt at a closer distance. **We request the underlying vibration analysis data on Segment 3F for further analysis.**

The DEIS also addresses soils in the LPA and describes the likelihood that soils will affect vibration. The Claremont is located in Segment 3 of the LPA. Given the geologic conditions and increased train speeds anticipated in Segment 3, the DEIS notes that “Segment 3 geologic conditions are predominantly characterized as having a high potential for efficient vibration propagation. There are few homogenous zones of ground with normal propagation characteristics.” *DEIS 4-115*. These geologic conditions should be adequately accounted for in the vibration assessment for the Claremont, as they are likely to result in vibration effects that exceed those projected.

c. Noise Methodology Discrepancy

The SDEIS and the DEIS both purport to analyze the noise impacts consistently with the methodology described in the FTA manual titled Transit Noise and Vibration Impact Assessment (FTA, 2006) (the “FTA Manual”). However, according to the methodology described in the DEIS for assessing the number of affected dwelling units, the Claremont was calculated as one dwelling unit, as opposed to the approximately 330 apartments with 600 residents that actually exist. The unit counts for the analysis were determined through Hennepin County GIS parcel data. In counting the number of dwelling units in each multi-family apartment building, the Met Council used the number of property owners to estimate the number of units. *DEIS 4-85*. This methodology is inconsistent with the methodology described in the FTA Manual, and results in a dramatic under-counting the dwellings affected by SWLRT noise and vibration.

The FTA Manual describes the importance of counting dwelling units for noise impacts and states that “In some cases it may be necessary to supplement the land-use information or determine the number of dwelling units within a multi-family building with a visual survey.” *FTA Manual, 5-17*. The steps for developing an assessment of noise impact are described as follows:

1. Construct tables for all the noise-sensitive land uses identified in the three land-use categories from Section 5.4.

2. Tabulate buildings and sites that lie between the impact contours and the project boundary. For residential buildings, an estimate of the number of dwelling units is satisfactory. This is done for each alternative being considered.
3. Prepare summary tables showing the number of buildings (and estimated dwelling units, if available) within each impact zone for each alternative. Various alternatives can be compared in this way, including those with and without noise mitigation measures.
4. Determine the need for mitigation based on the policy considerations discussed in Section 3.2.4 and the application guidelines provided in Section 6.8.

FTA Manual, 5-17 (emphasis added). Additionally, when establishing the noise-assessment inventory tables for rail and bus facilities, the FTA Manual states that the tables should include the following types of information:

- Receiver identification and location
- Land-use description
- Number of noise-sensitive sites represented (number of dwelling units in residences or acres of outdoor noise-sensitive land)
- Closest distance to the project
- Existing noise exposure
- Project noise exposure
- Level of noise impact (No Impact, Moderate Impact, or Severe Impact)

These tables should provide a sum of the total number of receivers, especially numbers of dwelling units, predicted to experience Moderate Impact or Severe Impact.

FTA Manual 6-34–6-35 (emphasis added). Despite the guidance in the FTA Manual to estimate dwelling units in multi-family units, it appears the Council simply based the calculation off of property owners listed on Hennepin County records. This means that the Council failed to adequately ascertain the number of dwelling units in non-owner-occupied multi-family dwellings, which results in a gross under-calculation of affected dwelling units that disproportionately affects renters.

3. Proposed Cost Reductions

In May and June of 2015, the Council proposed the elimination of two pedestrian underpasses near the Opus station that would result in increased risks and reduced access for the

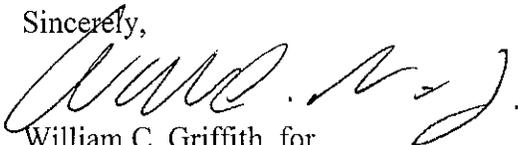
approximately 600 residents of the Claremont who may attempt to use the pedestrian trails near the station. The reduction in access will make it more difficult and dangerous for Claremont residents to access Opus Station and use the SWLRT. While there are no details regarding which two of the four underpasses near the Opus station would be eliminated, any elimination would be detrimental to the residents of the Claremont and would not likely yield the anticipated \$1-2 million in savings. These underpasses were included in the original plan for safety to allow the existing trails to be used without disruption. While the details are yet to be revealed, the elimination of underpasses is unlikely to yield the \$1-2 million in capital cost savings because any alternative methods of pedestrian access must be constructed, whether it is to reroute existing trails or construct at-grade pedestrian crossings. Not only would any alternative plans be expensive, but they would result in increased risk and reduced access for the Claremont residents.

Conclusion

The SDEIS provides little new information about the evaluation of the impacts of the SWLRT on the Claremont, in terms of noise and vibration, or on the Public Trail, or on the Open Space as Section 4(f) land. It does, however, confirm that the Council has not revised its earlier analysis based on the Section 4(f) information that has been made available by SFI. In addition, the review of the methodology used in both the DEIS and the SDEIS indicates that the approach used for counting dwelling units for the purposes of noise assessments was inconsistent with the Federal guidelines. Similarly, the vibration assessments are not accurate as they pertain to the Claremont and the impact is grossly understated, with vibration levels that are likely significantly higher than the 72 VdB impact threshold and much higher than the 74 VdB represented. In addition, the recently announced elimination of pedestrian underpasses near the Opus station would cause the residents of the Claremont to bear even more of the burden of the SWLRT than previously proposed, by eliminating pedestrian access and decreasing safety.

Please include this comment letter in the official record for environmental review of the project. In addition, please provide the requested data which was highlighted within our comments contained in this letter.

Sincerely,



William C. Griffith, for
Larkin Hoffman

Direct Dial: 952-896-3290
Direct Fax: 952-842-1729
Email: wgriffith@larkinhoffman.com

cc: Brian Lamb, Metro Transit
Don Meuting, Metropolitan Council

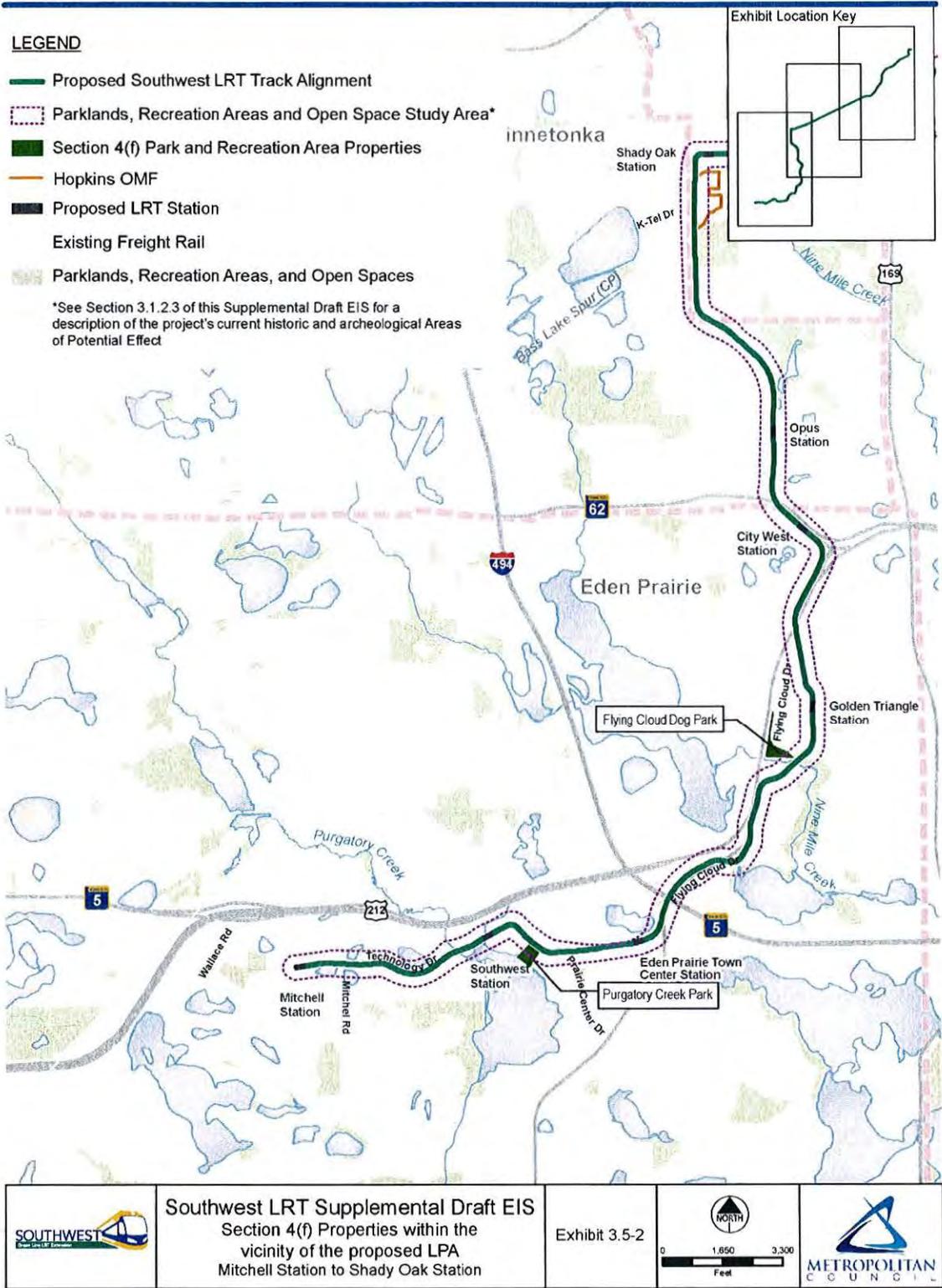
Nani Jacobson
July 21, 2015
Page 7

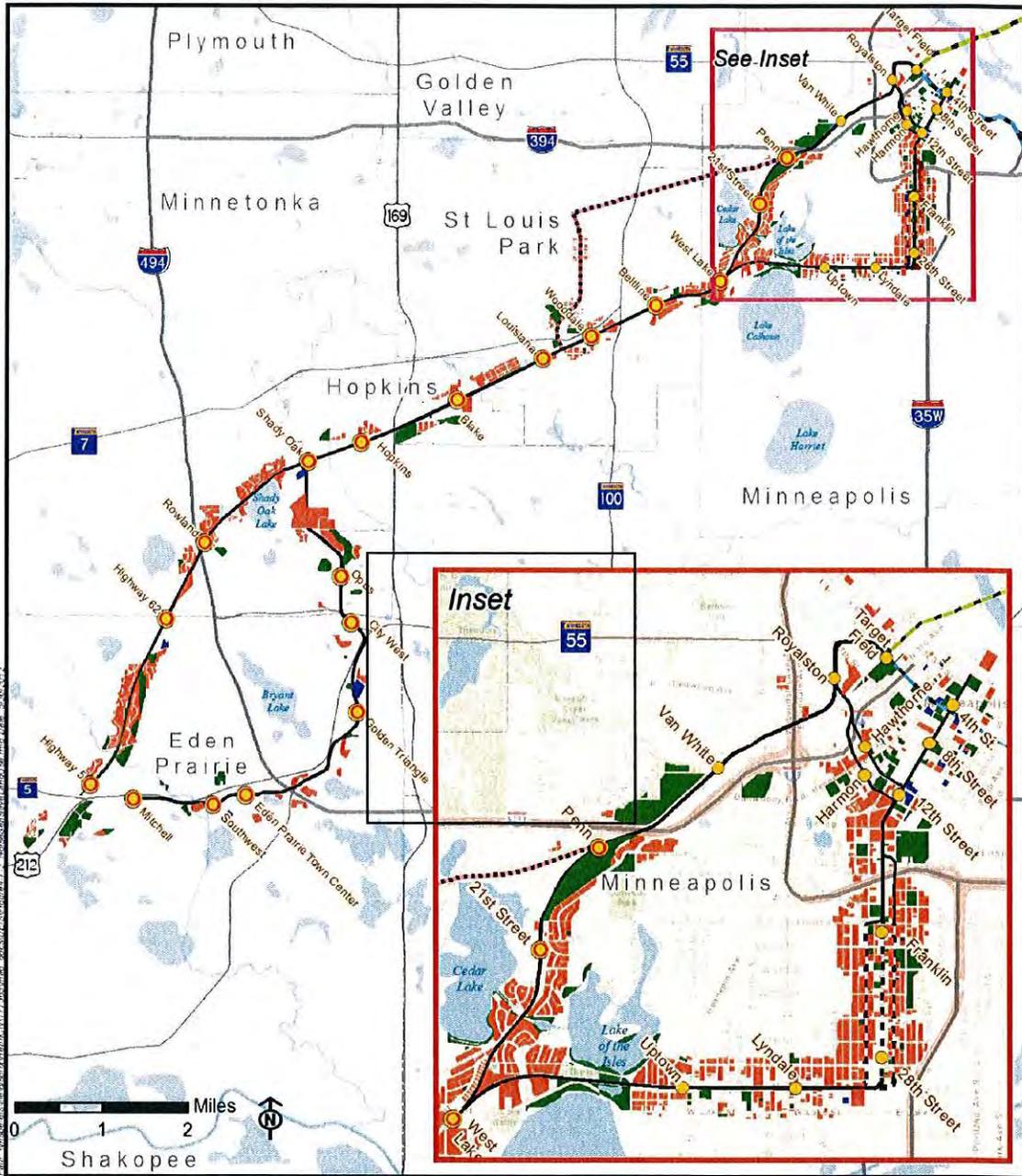
Mark Fuhrmann, Metro Transit
Members of the Metropolitan Council

4843-2146-2054, v. 2

EXHIBIT 3.5-2

Section 4(f) Properties within the vicinity of the proposed LPA – Mitchell Station to Shady Oak Station





<p>Legend</p> <ul style="list-style-type: none"> ● Station ● Park & Ride Station — LRT Alignment Alternatives --- Freight Rail Relocation — Northstar Commuter Rail — Hiawatha Light Rail 		<p>Noise-sensitive land use categories</p> <ul style="list-style-type: none"> Category 1 noise sensitive land use Category 2 noise sensitive land use Category 3 noise sensitive land use 	<p>Figure 4.7-2 Noise Sensitive Land Use</p>  
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Data: MnDOT, DNR, MetCouncil, Hennepin County

Noise Assessment Table

Alternatives with Freight-rail Traffic Relocation	Count		Use Category	Side of Guideway (EB/WB)	Distance to Track (feet)	Train Speed (mph)	Noise Assessment Metric (Leq/Ldn)	Existing Noise Level (dBA)	Impact Criteria		Project Related Noise (dBA)	Cumulative Noise Level (dBA)	Increase Over Existing (dBA)	Impact Level	Number of Impacted Receptors	
	Land (qty)	Unit (qty)							Moderate (dBA)	Severe (dBA)					Moderate (land [units])	Severe (land [units])
	Receptor/Cluster Identifier			(1,2 or 3)												
1-C-EB-2-32	1	1	2	EB	663	40	Ldn	55	55	61	50	56	1	None	-	-
1-C-EB-2-38	6	6	2	EB	89	40	Ldn	55	55	61	60	61	6	Moderate	6 [6]	-
1-C-EB-2-39	8	8	2	EB	312	40	Ldn	55	55	61	51	56	1	None	-	-
1-C-EB-3-7	1	1	3	EB	1407	40	Leq	60	63	68	44	60	0	None	-	-
1-C-WB-2-24	13	13	2	WB	125	40	Ldn	64	60	66	62	66	2	Moderate	13 [13]	-
1-C-WB-2-25	17	17	2	WB	489	40	Ldn	64	60	66	53	64	0	None	-	-
1-C-WB-2-26	13	12	2	WB	443	40	Ldn	55	55	61	54	58	3	None	-	-
1-C-WB-2-33	10	10	2	WB	210	40	Ldn	55	55	61	60	61	6	Moderate	10 [10]	-
1-C-WB-2-34	6	6	2	WB	121	40	Ldn	55	55	61	60	61	6	Moderate	6 [6]	-
1-C-WB-2-35	26	26	2	WB	413	40	Ldn	55	55	61	53	57	2	None	-	-
1-C-WB-2-36	13	13	2	WB	115	40	Ldn	55	55	61	59	60	5	Moderate	13 [13]	-
1-C-WB-2-37	43	43	2	WB	305	40	Ldn	55	55	61	52	57	2	None	-	-
3-A-EB-2-1	1	91	2	EB	20	50	Ldn	63	60	65	71	72	9	Severe	-	1 [91]
3-A-EB-2-2	2	146	2	EB	125	50	Ldn	63	60	65	63	66	3	Moderate	2 [146]	-
3-A-EB-3-1	1	1	3	EB	154	50	Leq	62	64	69	58	63	1	None	-	-
3-A-WB-3-9	1	1	3	WB	1040	50	Leq	62	64	69	51	62	0	None	-	-
3-B-EB-1-1	1	1	1	EB	758	20	Leq	62	59	64	51	62	0	None	-	-
3-B-WB-3-2	1	1	3	WB	912	20	Leq	62	64	69	53	63	1	None	-	-
3-C-EB-2-3	4	4	2	EB	1293	30	Ldn	63	60	65	51	63	0	None	-	-
3-C-EB-2-4	2	2	2	EB	719	30	Ldn	61	58	64	54	62	1	None	-	-
3-C-EB-2-5	2	2	2	EB	702	30	Ldn	61	58	64	51	61	0	None	-	-
3-C-EB-2-6	2	2	2	EB	256	30	Ldn	61	58	64	57	62	1	None	-	-
3-C-EB-2-8	2	97	2	EB	653	30	Ldn	65	61	66	53	65	0	None	-	-
3-C-EB-3-3	1	1	3	EB	240	30	Leq	64	65	71	58	65	1	None	-	-
3-C-WB-2-23	4	4	2	WB	1112	30	Ldn	65	61	66	51	65	0	None	-	-
3-C-WB-2-7	2	2	2	WB	233	30	Ldn	61	58	64	58	63	2	None	-	-
3-D-EB-1-2	1	1	1	EB	213	30	Leq	58	57	62	55	60	2	None	-	-
3-D-EB-2-10	1	1	2	EB	627	30	Ldn	65	61	66	54	65	0	None	-	-
3-D-EB-2-9	1	1	2	EB	269	30	Ldn	65	61	66	56	66	1	None	-	-
3-D-WB-2-11	2	2	2	WB	791	30	Ldn	65	61	66	52	65	0	None	-	-
3-D-WB-3-4	1	1	3	WB	89	30	Leq	58	62	67	57	61	3	None	-	-
3-D-WB-3-5	1	1	3	WB	617	30	Leq	58	62	67	51	59	1	None	-	-
3-E-EB-3-6	1	1	3	EB	768	30	Leq	62	64	69	49	62	0	None	-	-
3-E-WB-2-12	1	1	2	WB	1237	30	Ldn	65	61	66	51	65	0	None	-	-
3-F-EB-2-13	3	99	2	EB	938	50	Ldn	62	59	64	55	63	1	None	-	-
3-F-EB-2-14	1	1	2	EB	187	50	Ldn	62	59	64	66	67	5	Severe	-	1 [1]
3-F-EB-2-15	1	1	2	EB	164	50	Ldn	62	59	64	71	72	10	Severe	-	1 [1]
3-F-EB-2-18	1	1	2	EB	230	50	Ldn	62	59	64	66	67	5	Severe	-	1 [1]
3-F-EB-2-19	3	3	2	EB	528	50	Ldn	62	59	64	63	66	4	Moderate	3 [3]	-
3-F-EB-3-8	1	1	3	EB	607	50	Leq	62	64	69	57	63	1	None	-	-

Project: **Claremont**

Receiver Parameters	
Receiver:	Claremont
Land Use Category:	2- Residential
Existing Noise (Measured or Generic Value):	62 dBA

Noise Source Parameters	
Number of Noise Sources:	4

Noise Source Parameters		Source 1
Source Type:		Fixed Guideway
Specific Source:		Electric Locomotive
Daytime hrs	Avg. Number of Loco/train	1
	Speed (mph)	50
	Avg. Number of Events/hr	13.2
Nighttime hrs	Avg. Number of Loco/train	1
	Speed (mph)	50
	Avg. Number of Events/hr	6.66
Distance	Distance from Source to Receiver (ft)	500
	Number of Intervening Rows of Buildings	0
Adjustments		

Noise Source Parameters		Source 2
Source Type:		Fixed Guideway
Specific Source:		Rail Car
Daytime hrs	Avg. Number of Rail Cars/train	3
	Speed (mph)	50
	Avg. Number of Events/hr	13.2
Nighttime hrs	Avg. Number of Rail Cars/train	3
	Speed (mph)	50
	Avg. Number of Events/hr	6.66
Distance	Distance from Source to Receiver (ft)	500
	Number of Intervening Rows of Buildings	
Adjustments		Noise Barrier? No
		Jointed Track? No
		Embedded Track? No
		Aerial Structure? No

Noise Source Parameters		Source 3
Source Type:		Fixed Guideway
Specific Source:		Locomotive Warning Horn
Daytime hrs	Speed	50
	Avg. Number of Events/hr	13.2
Nighttime hrs	Speed	50
	Avg. Number of Events/hr	6.66
Distance	Distance from Source to Receiver (ft)	500
	Number of Intervening Rows of Buildings	0
Adjustments		

Noise Source Parameters		Source 4
Source Type:		Stationary Source
Specific Source:		Crossing Signals
Daytime hrs	Signal Duration/hr (seconds)	5
Nighttime hrs	Signal Duration/hr (seconds)	5
Distance	Distance from Source to Receiver (ft)	1500
	Number of Intervening Rows of Buildings	0
Adjustments		Noise Barrier? No

Noise Source Parameters		Source 5
Source Type:		Stationary Source
Specific Source:		Other
Daytime hrs	Signal Duration/hr (seconds)	
Nighttime hrs	Signal Duration/hr (seconds)	
Distance	Distance from Source to Receiver (ft)	
	Number of Intervening Rows of Buildings	
Adjustments		Noise Barrier? No

Project Results Summary

Existing Ldn:	62 dBA
Total Project Ldn:	75 dBA
Total Noise Exposure:	75 dBA
Increase:	13 dB
Impact?:	Severe

Distance to Impact Contours

Dist to Mod. Impact Contour:	...
Dist to Sev. Impact Contour:	...

Source 1 Results

Leq(day):	50.6 dBA
Leq(night):	47.6 dBA
Ldn:	54.6 dBA

Source 2 Results

Leq(day):	47.4 dBA
Leq(night):	44.4 dBA
Ldn:	51.4 dBA
Incremental Ldn (Src 1-2):	58.3 dBA

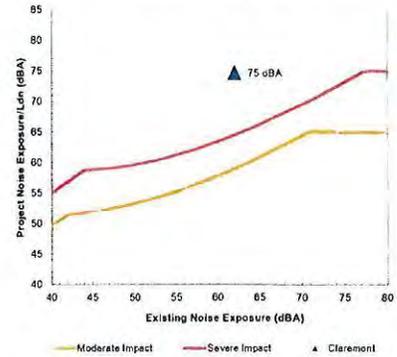
Source 3 Results

Leq(day):	70.6 dBA
Leq(night):	67.6 dBA
Ldn:	74.6 dBA
Incremental Ldn (Src 1-3):	74.7 dBA

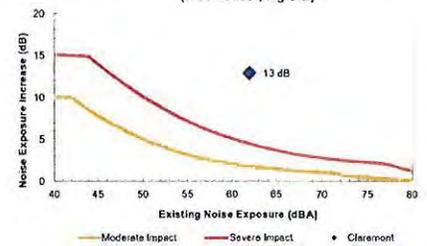
Source 4 Results

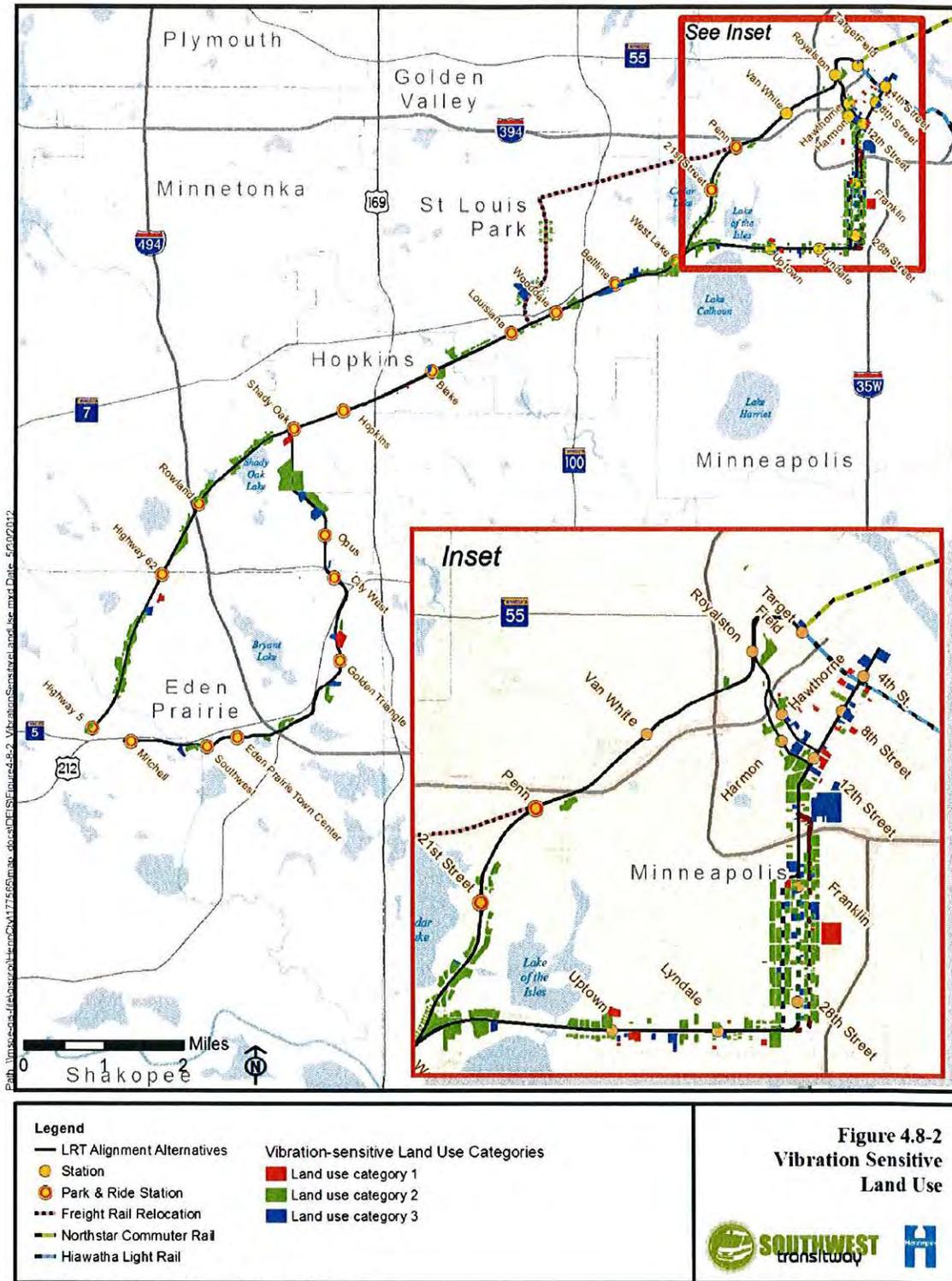
Leq(day):	7.9 dBA
Leq(night):	7.9 dBA
Ldn:	14.3 dBA
Incremental Ldn (Src 1-4):	74.7 dBA

Noise Impact Criteria
(FTA Manual, Fig 3-1)



Increase in Cumulative Noise Levels Allowed
(FTA Manual, Fig 3-2)





**Table 2. Segment 3 (LRT 3A, LRT 3C-1, and LRT 3C-2)
General Vibration Assessment Results**

Cluster ID	Land Use Category	Side of Track	Distance to Track (feet)	Speed (mph)	Predicted Vibration Level (VdB)	Impact Criterion (VdB)	Number of Impacts (No. of impacted units)
Segment 3 between Mitchell Station and Southwest Station							
3-A-EB-2-1	2	EB	38	50	85	72	1 (91)
3-A-EB-2-2	2	EB	124	50	75	72	2 (146)
Segment 3 between Southwest Station and Eden Prairie Town Center Station							
No Predicted Impacts							
Segment 3 between Eden Prairie Town Center Station and Golden Triangle Station							
No Predicted Impacts							
Segment 3 between Golden Triangle Station and City West Station							
3-D-EB-1-1	1	EB	160	30	68	65	1 (1)
Segment 3 between City West Station and Opus Station							
No Predicted Impacts							
Segment 3 between Opus Station and Shady Oak Station							
3-F-EB-2-7	2	EB	133	50	74	72	3 (3)
3-F-EB-3-3	3	EB	26	50	87	75	1 (1)
3-F-WB-1-2	1	WB	107	50	66	65	1 (1)
3-F-WB-3-4	3	WB	50	50	83	75	2 (2)
Total Number of Segment 3 Impacts							11 (245)

**Table 3. Segment 4 (LRT 1A, LRT 3A, LRT 3C-1, and LRT 3C-2)
General Vibration Assessment Results**

Cluster ID	Land Use Category	Side of Track	Distance to Track (feet)	Speed (mph)	Predicted Vibration Level (VdB)	Impact Criterion (VdB)	Number of Impacts (No. of impacted units)
Segment 4 between Shady Oak Station and Hopkins Station							
No Predicted Impacts							
Segment 4 between Hopkins Station and Blake Station							
4-B-EB-1-1	1	EB	111	50	76	65	1 (1)
4-B-WB-3-1	3	WB	104	50	77	75	1 (1)
Segment 4 between Blake Station and Louisiana Station							
4-C-EB-2-2	2	EB	162	50	72	72	1 (1)
Segment 4 between Louisiana Station and Wooddale Station							
No Predicted Impacts							
Segment 4 between Wooddale Station and Bellline Station							
No Predicted Impacts							
Segment 4 between Bellline Station and West Lake Station							
4-F-EB-2-11	2	EB	101	40	75	72	12 (12)
Total Number of Segment 4 Impacts							15 (15)

- Light Rail Vehicle horns are sounded at grade crossings and crosswalks where vehicle speeds exceed 45 mph (not including 45 mph).
- Stationary bells are used at preemptive grade crossings and crosswalks for five seconds at each passing of a train.
- This analysis modeled each segment-specific speed to accurately account for proposed operational conditions. Additionally, the acoustical shielding effects of intervening buildings were applied where more than one row of buildings existed. The analysis applied ground attenuation where applicable.

4.7.3.5 Assessment

The unit counts for this analysis were arrived at using Hennepin County GIS parcel data. These data identify multiple property owners for the same parcel of residential property. Using aerial photographs to verify the parcel data, these were determined to be multiunit residences. Each parcel was counted as one land-use, and the number of owners was used to estimate the number of units. This may have omitted from the unit count some multiunit housing where there is one owner with one or more tenants, but these properties would still be counted in the land-uses.

Ambient noise is measured by what is present in existing conditions. Low ambient noise levels cause the impact threshold (the point at which there is an impact) to be lower. Ambient noise levels were as low as 48 dBA on an Leq basis and 51 dBA on an Ldn basis for Segment 1, 55 dBA on an Leq basis and 56 dBA on an Ldn basis for Segment 3, 56 dBA on an Leq basis and 54 dBA on an Ldn basis for Segment 4, 44 dBA on an Leq basis and 52 dBA on an Ldn basis for Segment A, and 58 dBA on an Leq basis and 58 dBA on an Ldn basis for Segment C.

Table 4.7-3 summarizes the results of the noise impact assessment included category 1, 2 and 3 land uses for the four major alternatives. Both the land parcel and individual housing/business unit impacts are presented. Brief discussions of noise impacts along the corridor follow, separated by track segment. A complete list of representative receptors is provided Appendix H, Supporting Technical Reports and Memoranda. Each representative receptor was assessed for project-related noise and it is compared to the existing noise level. LRT 3A (LPA) and LRT 3A-1 (co-location alternative) include the fewest number of moderate and severe impacts overall. LRT 1A has a lower number of moderate and severe impacts than LRT 3C-1 (Nicollet Mall) and LRT 3C-2 (11th/12th Street) because it has a lower number of total units than these alternatives. LRT C-1 (Nicollet Mall) and LRT 3C-2 (11th/12th Street) are located in more densely populated urban areas with a greater number of units per residential parcel.

Larkin Hoffman
8300 Norman Center Drive
Suite 1000
Minneapolis, Minnesota 55437-1060

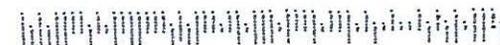


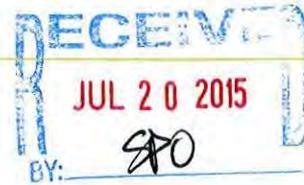
**Larkin
Hoffman**
ATTORNEYS

RECEIVED
JUL 23 2015
BY: SPO

TO

Mr. Mark Fuhrmann
Program Director for New Starts
Metro Transit
Park Place West
Suite 500
6465 Wayzata Boulevard
St. Louis Park, MN 55426





July 17, 2015

SENT VIA US MAIL and EMAIL

Ms. Nani Jacobson
Assistant Director, Environmental and Agreements
Metro – Transit – Southwest LRT Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park, MN 55426

Dear Ms. Jacobson:

The purpose of this letter is to provide comments for Bachman's, Inc. and its Eden Prairie location, 770 Prairie Center Drive, on the SWLRT Supplemental Draft Environmental Impact Statement (SDEIS).

Chapter 2: Alternative Considered:

All of the rail alignments recommended in the original DEIS showed the SWLRT line along Technology Drive. This reasonably demonstrates that the preferred route and the route best suited for the SWLRT is along Technology Drive. We understand the SDEIS was authorized to review this alignment based on political requests by the City of Eden Prairie and a few impacted businesses. However, it must be assumed that Technology Drive is the most advantageous alignment for the efficient operation of the rail corridor as originally concluded. If the line could be located on the north side of Technology Drive the objections of those businesses could be resolved. Moving the line from Technology Drive will do the following:

- Lengthen travel times
- Impact more businesses
- Impact more roads and intersections
- Require the construction of a new road
- Require crossing more intersections
- Create more safety risks

We appreciate the fact that the at-grade alignment along Singletree and Prairie Center Drive is not being considered. We have significant concerns about that alignment for safety reasons and negative access impacts on our property. We prefer a north side of Technology Drive alignment to the proposed alignment along the steep slope between Bachman's and Costco.

Ms. Nani Jacobson
Metro-Transit-Southwest LRT Project
July 17, 2015

Chapter 3.2 Eden Prairie Segment, Wetlands:

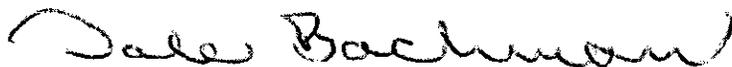
We have concern about the impact to the steep slope and the Costco stormwater pond/wetland along the north side of our site. The impact of grading is not addressed adequately in the SDEIS. We would request the Project Office to provide grading plans as they become available to ensure that the grading of the steep slope does not negatively impact our property. In addition the SDEIS notes that the Costco stormwater pond/wetland will be impacted. We are concerned about the potential impact that may occur with the removal/replacement of the Costco pond. Additional information must be provided on how and where the stormwater pond will be replaced.

Chapter 3.2 Eden Prairie Segment, Acquisitions:

The Construction Plans available on the Project Office website show the project will need a temporary construction easement along the north side of our property. The proposed easement is shown to come up against our north wall and within our parking, loading dock, and storage areas. We require more information on the length and impact of the construction work on our store operations. We must not lose access to our only loading dock. Losing access to our only loading dock would have significant negative impact on our business operations.

Thank you for this opportunity to provide comments on the SDEIS.

Sincerely,

A handwritten signature in black ink that reads "Dale Bachman". The signature is written in a cursive, flowing style.

Dale L. Bachman
Chairman / Chief Executive Officer

DLB:cad

Executive Office / cad

BACHMAN'S

6010 Lyndale Avenue South, Minneapolis, MN 55419-2289

MINNEAPOLIS MN 554

17 JUL 2015 PM 8 1

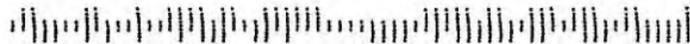


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RECEIVED
JUL 20 2015
BY: SPO

Ms. Nani Jacobson
Assistant Director, Environmental and
Agreements
Metro – Transit – Southwest LRT Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park, MN 55426

55426+1724





July 17, 2015

RECEIVED
JUL 20 2015
SP

Nani Jacobson
Assistant Director, Environmental & Agreements
Metro Transit – SWLRT Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park, MN 55426

RE: Comments and Objections of Stuart Companies to Supplemental Draft EIS (SDEIS) and Supporting Reports of Westwood Engineering and ESI Engineering

Dear Ms. Jacobson:

Stuart Companies has reviewed the Supplemental Draft Environmental Impact Statement (SDEIS) prepared by the Met Council. We were struck by the document's failure to adequately consider important issues affecting Stuart's residential development north of Smetana Road in Minnetonka and Hopkins. These omissions, including failure to properly identify, analyze and consider noise impacts, and inadequate consideration of alternative sites which would avoid such adverse impacts, and failure to adequately consider risks of the release of environmental contaminants, are described in more detail in the attached reports done by Westwood Engineering and ESI Engineering. These reports are incorporated as part of Stuart's comments and objections.

It should be apparent from the matters discussed in the ESI and Westwood Reports that the SDEIS has been rushed and is defective in key respects. It should not have been necessary for Stuart Companies to retain its own engineering firms to identify issues that should have been investigated as part of the Project's own environmental studies. Nonetheless, we have done this work and provided it to you. Please take note of the issues and adverse impacts raised that have not been properly considered in the SDEIS. Your response should consider and address these incorporated reports.

We strongly object to this process going forward until the environmental impacts on our property – which will be severe and disruptive to a quiet and protected residential property with more than 1,500 residents – are correctly analyzed and considered. This is especially true since a preferable alternative using 11th Avenue is readily available at a lesser cost.

Sincerely,

STUART COMPANIES


Stuart H. Nolan
Chairman and Founder


Lisa Moe
President and CEO

**Corporate
Headquarters**

1000 West 80th Street
Minneapolis, MN 55420-1000
☎ (952) 948-9500
fax: (952) 948-9570

www.stuartco.com

July 17, 2015

Ms. Lisa Moe
StuartCo
1000 West 80th Street
Minneapolis, MN 55420

Phone (952) 948-9506



ESI ENGINEERING, INC.

7831 Glenroy Road/Suite 430
Minneapolis, Minnesota 55439

Tel: (952) 831-4646

Fax: (952) 831-6897

Internet: esi-engineering.com

**Supplemental Draft EIS Comments
Southwest Transitway Light Rail Noise and Vibration
StuartCo – Minneapolis, Minnesota**

Dear Ms. Moe,

We have completed an initial review of the May 2015 Supplemental Draft Environmental Impact Statement (SDEIS) prepared by the Met Council for the Southwest Light Rail Transit (SWLRT) project. We understand the last day for public comment is July 21, 2015. The following are our findings related to noise and vibration impacts to your properties north of Smetana Drive in Hopkins, Minnesota.

As you are aware, the SDEIS references the Draft EIS issued October 2012. Several assumptions used by the Met Council's consultants for the noise and vibration analysis are listed in Chapter 4 of the DEIS, including the following:

- The LRT makes 198 trips between 7:00 am and 10:00 pm
- 60 trips are made between the hours of 10:00 pm and 7:00 am
- 16 trips are made each hour during peak hours (6:00 am to 9:00 am and 3:00 pm to 6:30 pm)
- There are three articulating cars per transit train
- Train speeds vary in different segments of the corridor, ranging from 20 to 50 miles per hour
- LRT bells are used for five seconds as vehicles approach at grade crossings, crosswalks, and station platforms.
- Grade crossing bells are used for 20 seconds for each train. (from Appendix H of 2015 SDEIS)

Operations and Maintenance Facility Location

Figure 1 shows the location of the proposed Hopkins Operations and Maintenance Facility (OMF) in comparison to nearby StuartCo properties. In the review of possible environmental categories effecting OMF sites, several categories were dismissed for review for Site 9A, Hopkins K-Tel East. These dismissed categories include noise and vibration impacts. According to the FTA guidelines in the 2006 Transit Noise and Vibration Impact Assessment document, the screening distance required for noise assessments from "yards and shops" is 1000 feet. Figure 1 shows a circle with a radius of 1000 feet with a center at a point on the south end of the proposed Hopkins OMF site location. Multiple StuartCo residential units fall within this area, with the closest unit being approximately 750 feet from the proposed Hopkins OMF. Clearly a noise impact assessment will be needed per the FTA requirements and none was done. Noise from the OMF will also need to meet the MPCA requirements, which may be more restrictive.

Existing Noise and Vibration Assessments

Appendix H of the DEIS includes the representative receptor/clusters used in the noise assessments that were done for the project. In an evaluation of the Distance to track and Unit count columns, the noise assessment data given in the DEIS appears to be inaccurate regarding the representative receptor properties for the StuartCo properties.

Table 1 is a summary of the clusters assessed in the DEIS Noise Assessment Table that are near Smetana Drive in Hopkins and the StuartCo properties. The main column categories we are concerned about are highlighted in red. Based on our review, the values listed for distance to track are too large to represent the Greenfield buildings. The shortest "distance to track" length that was listed in the DEIS for the 3-F segment is 125 feet. According to our estimates, there are apartments and townhomes in this track segment that are less than 100 feet from the track. Additionally, the unit count data for the eastbound clusters does not match an expected unit count for the Greenfield properties that would fall into these clusters.

Based on a review of the clusters listed in Table 1 that are greater distances than the StuartCo properties, we expect the impact assessment for the StuartCo properties, had it been done, would be in the severe range.

We do not find that a vibration impact assessment was completed for the Greenfield or other StuartCo properties. The FTA screening distance for a vibration assessment for residences is 150 feet. Since these apartments are within that distance, it is necessary for the vibration impacts to be assessed.

Event Building

An outdoor social event building is located on the north side of the Greenfield property. This particular building is less than 30 feet from the proposed LRT tracks. Because there are no cluster identifiers within the 3-F segment that are listed as being even somewhat within this distance from the tracks, it is apparent that this particular unit has been overlooked in the noise assessment. The screening distance for vibration is 100 feet for this type of building (Land Use Category 3), which means a vibration assessment is also required.

Rail Crossovers

Segments of the track with crossovers or turnouts can produce an increase in noise level of up to 6 dB and an increase in vibration levels of up to 10 dB. These assumptions are stated in the SDEIS, but are not stated as assumptions in the DEIS noise and vibration assessment for StuartCo's properties. The drawings do not show where railway crossover locations are positioned. However, if there are crossovers near the StuartCo properties, it is necessary for these to be included in the impact assessments.

Elevated Rail

Portions of the track nearby StuartCo properties are proposed to be elevated on bridges due to ground conditions and ponds. When track is built on an elevated structure rather than on ground, there is potential for additional structure-borne noise. This additional impact has not been addressed in the noise assessment for this area. Figure 2 shows the elevated track near the StuartCo properties. The effects of the elevated rail structure should be included in the impact assessment.

Table 1 – Noise Assessment Summary for Segment 3-F Near the StuartCo Properties

Cluster Identifier	Count		Land Use Category	Side of Guide way	Distance to track (ft)	Train Speed (mph)	Noise Metric	Existing Noise Level (dBA)	Impact Criteria		Project Related Noise (dBA)	Cumulative Noise Level (dBA)	Increase Over Existing (dBA)	Impact Level	Number of Impacted Receptors	
	Land	Unit							Moderate (dBA)	Severe (dBA)					Moderate (land [units])	Severe (land [units])
3-F-EB-2-13	3	99	2	EB	938	50	Ldn	62	59	64	55	63	1	None	-	-
3-F-EB-2-14	1	1	2	EB	187	50	Ldn	62	59	64	66	67	5	Severe	-	1 [1]
3-F-EB-2-15	1	1	2	EB	164	50	Ldn	62	59	64	71	72	10	Severe	-	1 [1]
3-F-EB-2-18	1	1	2	EB	230	50	Ldn	62	59	64	66	67	5	Severe	-	1 [1]
3-F-EB-2-19	3	3	2	EB	528	50	Ldn	62	59	64	63	66	4	Moderate	3 [3]	-
3-F-EB-3-8	1	1	3	EB	607	50	Leq	62	64	69	57	63	1	None	-	-
3-F-WB-1-3	1	1	1	WB	125	50	Leq	62	59	64	61	65	3	Moderate	1 [1]	-
3-F-WB-2-16	1	1	2	WB	295	50	Ldn	62	59	64	63	66	4	Moderate	1 [1]	-
3-F-WB-2-17	1	1	2	WB	200	50	Ldn	62	59	64	70	71	9	Severe	-	1 [1]
3-F-WB-2-20	13	19	2	WB	344	50	Ldn	62	59	64	68	69	7	Severe	-	13 [19]
3-F-WB-2-21	33	33	2	WB	449	50	Ldn	62	59	64	64	66	4	Moderate	33 [33]	-
3-F-WB-2-22	7	13	2	WB	673	50	Ldn	62	59	64	62	65	3	Moderate	7 [13]	-
3-F-WB-3-7	1	1	3	WB	1056	50	Leq	62	64	69	52	62	0	None	-	-

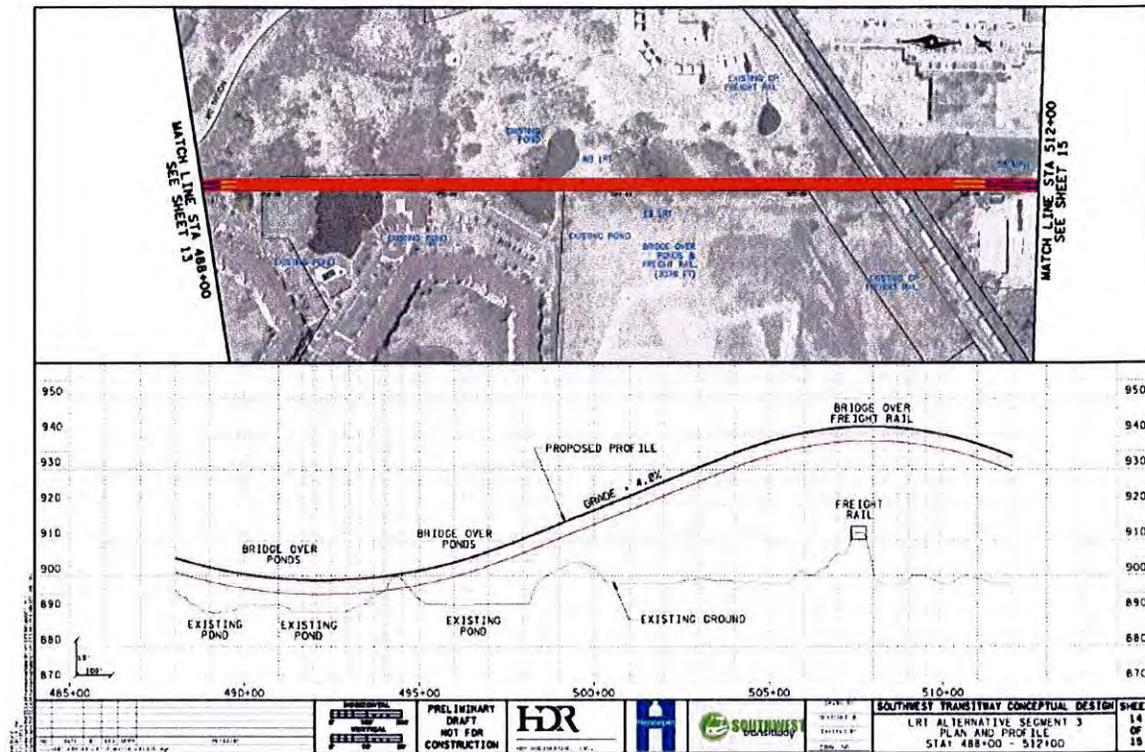


Figure 2 - Elevation of track in SDEIS Appendix F

Construction Vibration and Noise

Appendix H in the DEIS has a section on construction noise; however we do not find that an assessment has been done. Considering the extremely close proximity of the construction to the StuartCo properties, and the number of affected residences, construction vibration and noise will need to be studied and alternate construction methods may need to be considered. We are particularly concerned about the pile driving vibration and noise impacts.

We appreciate the opportunity to work with you on this project and remain available to assist in the resolution of these and any other matters. Please let us know if you have questions or need more information.

Sincerely,

Anthony J. Baxter, P.E.
ESI Engineering, Inc.

July 17, 2015

Ms. Lisa Moe
Stuart Companies
1000 West 80th Street
Minneapolis, MN 55420

RE: Supplemental Draft EIS (SDEIS) Comments
Operations and Maintenance Facility Location, Hopkins

Dear Ms. Moe,

At the request of Stuart Companies, Westwood Professional Services (Westwood) has completed our review of the SDEIS. Based on our review we found numerous shortcomings in the SDEIS's analysis of and preference for the selection of the Operations and Maintenance Facility (OMF) at the SW corner of K-Tel and 16th Avenue in Hopkins (Site 9A, Hopkins K-Tel East). Though by no means exhaustive, these problems are the result of the lack of information provided on the Environmental Resources studied for the OMF site, and the lack of findings on how the criteria were graded to support and/or dismiss compatible sites. Specifically there is a lack of information on the evaluation of alternative site, 11A Hopkins 11th Ave West, which was the runner-up site.

The following points outline our objections.

1. OMF Site Selection Evaluation: Failure to Identify Reasons for Selection of Site 9A

The SDEIS does not adequately address the rationale for selecting the proposed 9A site over a compatible alternative neighboring site, 11A, 11th Ave West. We request that the SDEIS provide more detail on the selection of its preferred site per our notes below.

Site 9A was not part of the original DEIS review and thus did not receive the full studies that were associated with the DEIS. In fact the DEIS recommended four other sites for the location of an OMF, all of them outside the city of Hopkins. The four other sites included three in Eden Prairie and one in Minneapolis. Although early in the process four sites were considered in Hopkins they were all dismissed during the review process. We understand that a more centralized location was identified as a reason for selecting a site in Hopkins in the SDEIS, however we feel not enough information was provided on the selection process.

As part of the SDEIS analysis for a preferred OMF site the Met Council used a four step process. Through that process approximately 30 sites were initially identified and subsequent steps dismissed potential sites. The four steps were as follows:

- First Step—preliminary site evaluation, 30 initial sites were reduced to 18 sites
- Second Step—detailed assessment based on 13 criteria—18 sites were reduced to 7 sites
- Third Step—an operational analysis and public jurisdictional review—7 sites were reduced to, the recommended 9A site and 11th Ave site 11A.
- Fourth Step final selection—detailed assessment and public jurisdictional review

Site 11A, K-Tel at 11th Ave., was a top candidate throughout the process. During the second step evaluation, assessed on 13 criteria as listed on table F.4-2, site 11A had a better rating than 9A. The K-Tel at 11th Ave site received seven (7) Excellent ratings compared to 5 received by site 9A, K-Tel East. Site 11A also received three (3) Very Good rating, two (2) Good ratings and a marginal rating for cost. The cost difference between the two sites was marginal as the 11A site had a cost range of 40-45 million while the 9A site was 35 to 40 million, thus having overlapping cost estimates.

In the Third Step Evaluation site 11A received better scores in alignment location and was even in all other categories except for the cost, as noted above. In regards to cost, the SDEIS does not identify the costs associated with the two sites. With critical budget constraints being currently discussed this part of the analysis should be further reviewed. This is especially true since it is apparent that the likely costs of acquisition from Stuart Companies are substantially understated.

The reasons cited in Appendix F, Table 4.3 (attached) for selecting site 9A apply equally to site 11A, but were not credited to 11A:

- Consistent with land and zoning
- Operate relief access/station proximity favorable
- Freight Rail and LRT alignment buffer along property borders
- Redevelopment potential of remnant area

While the rationales cited in Table 4.3 for dismissing 11A included "Nine Mile Creek crossing the site"; known site contamination; and potential development impact on Shady Oak Station, it is apparent, however, that these same arguments should apply to dismiss site 9A. This failure to apply identical physical criteria equally suggests an arbitrary and defective evaluation process. Also site 9A has significant additional environmental problems: the K-Tel East site (Site 9A) requires the filling of wetland and of floodplain and is adjacent to a capped sanitary land fill, which is being monitored for methane. The report does not identify if there are known site contaminations on site 9A, but does note that all industrial sites are subject to contamination and must go through a Phase II analysis. And as far as potential development impact to the Shady Oak Station, moving the OMF to site 11A would support the potential growth around the station. By

contrast, the SDEIS notes that the proposed OMF will adversely impact the potential development opportunity around the Shady Oak Station under the long-term impact section of the SDEIS.

In conclusion, the site selection process appears arbitrary and incomplete. We recommend that additional information be obtained and analyzed to demonstrate why site 9A was selected over site 11A.

2. Environmental Resources Which the SDEIS Did Not Consider in the 9A Site Selection

The SDEIS concluded that sixteen (16) environmental resource categories not be reviewed. We believe that since this is a new OMF location that was not reviewed in the previous DEIS it is imperative that all resource categories should be considered. Determination not to review an environmental resource was based on whether there would likely be new substantial environmental impacts for a particular resource category. The sixteen (16) categories dismissed by the SDEIS are as follows:

- | | |
|--------------------------------------|---|
| • Social Economics* | Noise |
| • Neighborhood and Communities | Parklands, Recreational Areas, and Open Space |
| • Cultural Resources | Vibration |
| • Visual Quality and Aesthetics | Electromagnetic Interference and Utilities* |
| • Biota and Habitat | Energy and Climate Change* |
| • Threatened and Endangered Species* | Transit |
| • Farmlands* | Freight Rail* |
| • Air Quality | Bicycle and Pedestrian |

We agree that a few of the categories need not be investigated as they do not exist at or near the site and are a non-factor to the review; they are highlighted by an asterisk above. However the remaining categories should be considered and reviewed. An Operations and Maintenance Facility brings with it many environmental impacts to the surrounding area, especially when operating 24 hours a day, 7 days a week, and 365 days a year. The site is proximate to numerous residences (including those of Stuart Companies), an extensive and environmentally sensitive wetland and a closed sanitary landfill. With trains continuously entering the OMF facility through the network of switching rails and being routinely serviced at the OMF, the community surrounding the facility as well as the physical environment will be adversely impacted by its operations.

The categories associated with Neighborhood and Communities, Air Quality and Pedestrian Interference will be negatively impacted by the 24-7, 365 days a year operation of a rail facility. The lights, noise and activity of the OMF will be a change to the neighborhoods and a potential impact to the landfill.

The categories associated with Cultural Resources, Visual Quality, Habitat and Open Space are all negatively impacted by the location of the OMF adjacent a large wetland basin and the park like qualities associated with the surrounding residences.

One key example of an environmental resource being improperly dismissed is the noise category. No further testing is identified for the proposed OMF site even though critically sensitive residential properties (including Stuart Companies' development) are proximate to that site. This omission is a major failing for a study of this kind.

Stuart Companies has engaged ESI Engineering to provide further review of the SDEIS with regarding to its analysis (or lack of analysis) of noise.

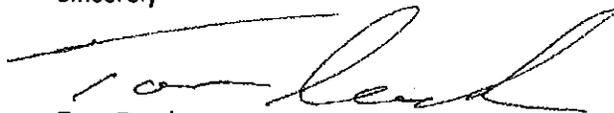
3. Risk of Environmental Releases at Site 9A

In its review of the environmental resources categories that were studied the SDEIS raised potential concerns with groundwater contamination resulting from hazardous material releases. With four known hazardous sites at site 9A and several potential hazardous sites the possibility of groundwater contamination near residential homes is concerning.

This is compounded by the fact that a capped landfill is adjacent the site and presents a risk of a release which would contaminate groundwater if disturbed by vibration resulting from construction or the constant running of trains immediately adjacent to the landfill.

We believe a more in-depth study is necessary that shows how the landfill may be protected from potential groundwater impacts and identifies the mitigation steps that will be taken if the landfill releases methane or other contaminants as a result of the construction of the OMF or vibration of the trains utilizing the facility and rails.

Sincerely



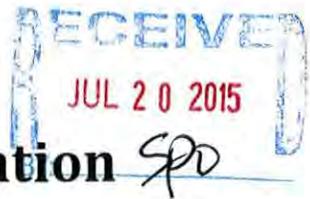
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Kenwood Isles Area Association

Southwest Light Rail Supplemental DEIS response

July 20th, 2015

Introduction to SDEIS Comments by the Kenwood Isles Area Association

The Kenwood Isles Area Association (KIAA) represents the neighborhood that extends, on its west side, from the proposed SWLRT Penn Avenue station to the Kenilworth Lagoon.

KIAA has participated in the SWLRT planning process in the spirit of cooperation and compromise for approximately nine years. For most of this time, we were assured verbally and in planning documents that freight rail in the Kenilworth Corridor was a temporary condition and would be moved to make way for LRT. The 2012 Draft Environmental Impact Statement clearly recommended that the best course of action was to relocate freight out of the Kenilworth Corridor.

This position was reversed in 2013, and the Metropolitan Council's policy is now to "co-locate" freight and light rail in the Kenilworth Corridor. We consider this a significant breach of public trust and the low point of a deeply flawed planning process.

The current Supplementary Draft Environmental Impact Statement is partly intended to assess the impact of co-location in the Kenilworth Corridor. It fails to do so on many levels, summarized in the two following points:

First, it considers the *temporary* freight rail part of the existing condition. Freight rail service that runs through the corridor will be both upgraded and made permanent; this is a *new* project that needs a full analysis. Because new *permanent* freight infrastructure is being added to the corridor, all visual, noise, vibration, safety and other environmental impacts should be measured from a basis of no freight and no light rail.

Second, this SDEIS is silent on the safety implications of locating freight trains carrying hazardous materials through an urban environment within feet of homes, parks, trails, passenger trains, and live overhead electrical wires. The new and serious impacts created by this situation will continue to grow as transport of oil, ethanol and other volatile materials expands and freight trains grow longer.

When Hennepin County and the Met Council chose the present route for SWLRT between the Chain of Lakes through the Kenilworth Corridor – and included "co-location" making the temporary freight rail permanent – they accepted the responsibility to respect the natural and built environments that it travels through as well as the people who bicycle, walk, recreate, and live there. KIAA does not see evidence that this responsibility has been taken as seriously as necessary and the following pages, which respond to specific elements of the SDEIS, articulate some of the reasons why.

3.4.1.2 Acquisitions and Displacements

B. Potential Acquisitions and Displacements Impacts

Comment: In Short-Term Acquisition and Displacement Impacts, the Council states “[s]hort-term occupancies of parcels for construction would...change existing land uses” including “potential increases in noise levels, dust traffic congestion, visual changes, and increased difficulty accessing residential, commercial and other uses.” The Council should say what the plans are to mitigate these effects for residents and businesses. Most important, how will prompt emergency fire, medical and police access be maintained?

In Short-Term Acquisition and Displacement Impacts, the Council discusses plans for remnant parcels without acknowledging its commitment with the City of Minneapolis in the Memorandum of Understanding. The MOU documents the Council’s agreement to convey property they own or acquire from BNSF or HCRRA in the Kenilworth Corridor that is not needed for the Project or freight rail to the Minneapolis Park and Recreation Board for use as parkland. Please see:

<http://metro council.org/METC/files/f7/f7d41cfb-a062-46c7-942d-0785989da8a0.pdf>.

In the case that the MPRB decides against owning these properties, KIAA expects that the spirit of the agreement be upheld, i.e., that any remnant parcels remain publicly held.

3.4.1.3 Cultural Resources

B. Potential Cultural Resources Impacts

Comment: Minneapolis residents have continually expressed concern with the impact the project will have, both during construction and after operation of SWLRT, on cultural resources in the City.

As stated by the Minnesota State Historic Preservation Office, an adverse effect on one contributing feature is an adverse effect on an entire historic district. Therefore, the conclusion that the project will have an adverse effect on the Lagoon means that there will be an adverse effect on the Grand Rounds Historic District as a whole, as indicated in the SDEIS.

Section 3.1.2.3 of the SDEIS lists possible mitigation measures that may be included in the Section 106 agreement:

- Consultation with MNSHPO and other consulting parties during the development of project design and engineering activities for locations within and/or near historic properties
- Integration of information about historic properties into station area planning efforts
- Recovering data from eligible archaeological properties before construction
- Consultation with MNSHPO and other consulting parties during construction to minimize impacts on historic properties
- Preparation of NRHP nominations to facilitate preservation of historic properties
- Public education about historic properties in the project area

These items will not avoid, minimize or mitigate the long term adverse effects of the project on the Grand Rounds Historic District in a meaningful way. The noise impacts, including bells and horns, will be audible from distances within and beyond the Area of Potential Effect, and include not only the Lagoon area but also Lake of the Isles and Cedar Lake as well as the other parts of the Grand Rounds Historic District. Noise and vibration impact studies should be done from a baseline assuming no freight, as HCRRA had committed to do and as was contemplated in the DEIS. Despite the requirement that such impacts be minimized, co-locating both freight and light rail in the Kenilworth Corridor results in the opposite outcome.

The bridges over the Lagoon will have an adverse impact because of their the size and scale, inconsistency with the historic cultural landscape of the channel, the noise and vibrations caused by the light rail vehicles traveling the bridge and the fact that it may not be possible to mitigate the impacts of the new bridges, as stated by the MPRB earlier in the 106 process. The appearance of the new bridge structures and the sounds associated with modern rail infrastructure will alter the characteristics of “community planning and development,” “entertainment and recreation,” and “landscape architecture” that make the Lagoon eligible for NRHP designation, and will adversely affect the character and feeling of the Lagoon and how people use the historic resource, including the experience of using the waterway under the new structures. Given that the Council is proceeding with this project in spite of this adverse effect, we hope that designers will continue to be vigilant about minimizing the impact on the setting and feeling of the historic channel, including audible and visual intrusions that will alter the park-like setting of the Lagoon, a vital element of its historic character. These concerns extend to Cedar Lake and the beaches on it nearest to SWLRT, as well as the visual impact on Park Board Bridge #4, Lake of the Isles, Lake of the Isles Parkway and Lake of the Isles Historic District.

Table 3.4-5 lists cultural resources that have been preliminarily considered to have no adverse effect from the Project, because of continued consultation and avoidance/minimization/mitigation measures to be identified. The possible mitigation measures listed above would also not significantly address impacts on the cultural resources listed in this table. The Council must be responsible for ensuring that “continued consultation” is meaningful by conducting assessments and proposing specific

mitigation solutions before the 106 agreement is written and finalized, as it is impossible to avoid adverse effects after SWLRT construction and operations commence.

Cultural resources covered in table 3.4-5 include Lake of the Isles Residential Historic District, Kenwood Parkway Residential Historic District, Lake Calhoun, Cedar Lake Parkway, Cedar Lake, Park Bridge #4, Lake of the Isles Parkway, Lake of the Isles, Kenwood Parkway, Kenwood Park, Kenwood Water Tower and four NRHP listed or eligible homes in the Area of Potential Effect. Station activity will change traffic and parking patterns in the neighborhood and introduce long-term visual and audible intrusions that adversely impact these historic resources. Concerns about the long term Project impact on some or all of these cultural resources include the following:

- Long-term visual and audible intrusion from changes in traffic patterns related to station access: We are concerned that auditory impacts and changes in traffic and parking patterns will adversely affect the integrity of setting and feeling that make Kenwood Park, Kenwood Parkway, Lake of the Isles Parkway, Cedar Lake Parkway and the related residential historic districts, and the four individual homes listed on or eligible for the NRHP. A traffic analysis must be conducted and a plan to mitigate adverse impacts proposed and discussed before the 106 agreement is drafted.
- Noise effects from LRT operations: Audible intrusion from train operations, including bells and horns and the impact of trains going in and out of the tunnel, will alter the environment of the historic resources and the characteristics that make certain of these resources eligible for the NRHP. It seems unlikely that a few homes in the Kenwood Parkway Residential Historic District are the only cultural resources that will be adversely affected by noise from train operations.
- Infrastructure surrounding the tunnel and the massive tunnel portals could adversely affect the historic integrity of the resources. Signage along the historic parkways could also have an adverse effect. Specific design elements should be proposed to minimize these impacts and should be reviewed as part of the 106 process.

The degree of concern regarding the short term impact of SWLRT construction on all of these cultural resources cannot be overstated. Noise and vibration sensitive resources need to be identified. The public needs to see a comprehensive noise and vibration study and analysis for the Project during construction including the impact of increased truck and construction equipment traffic. We would like details on what will be included in the "project wide construction plan." It should identify measures to be taken during construction to protect all historic properties from project-related activity including construction related traffic. We need to ensure that plans are in place to prevent or repair damage resulting project activities, incorporating guidance offered by the National Park Service in Preservation Tech Note #3: Protecting a Historic Structure during Adjacent Construction as well as an agreement that specifies how these potential impacts will be monitored. The Council previously communicated to a neighborhood group whose residents experienced damage from a Council project that "[c]ontinuing with future projects, our goal is to ensure that claims are promptly and appropriately investigated to determine whether or not they may be related to the project. Depending on the facts of the claim, this may involve independent experts." We request that the Council communicate with owners of historic homes in the APE prior to construction.

The SDEIS also lists "station area development" as an item to be addressed through continued consultation. Numerous statements have been made that development is not anticipated at the 21st Street Station. For example, the Southwest Community Works website and documents state: "Future development is not envisioned around this station..."

<http://www.swlrtcommunityworks.org/explore-corridor/stations/21st-street-station>

The discussion of development potential at the Penn Station does not relate to the Kenwood Parkway side:

http://www.swlrtcommunityworks.org/~/_media/SW%20Corridor/Document%20Archive/investment-framework/ch-4-penn.pdf

The Council must explain what development is being referred to in Table 3.4-5.

3.4.1.4 Source: MnDOT CRU, 2014. Parklands, Recreation Areas, and Open Spaces

Long-Term Direct and Indirect Parklands, Recreation Areas, and Open Spaces Impacts

Comment: The SDEIS states: "None of the indirect impacts on parklands, recreation areas, and open spaces from the LPA in the St. Louis Park/Minneapolis Segment would substantially impair the recreational activities, features, or attributes of those parklands, recreation areas, and open spaces." We dispute this conclusion. The permanent installation of freight rail and light rail in the Kenilworth Corridor that is too narrow to permit separation in accordance with AREMA and FTA guidelines creates a safety risk that would directly impair park activities in the event of a derailment and/or explosion of flammable materials.

For comment on the indirect impacts of the LPA in the form of visual, noise, and/or access impacts, please see comments to sections 3.4.1.5, 3.4.2.3, and 3.4.4.4 of this Supplemental Draft EIS response.

Short-Term Parklands, Recreation Areas, and Open Spaces Impacts

Comment: Please specify the extent to which the stated "standard" measures would be sufficient to protect the environmentally sensitive parkland, recreation areas, and open spaces along the Kenilworth Trail and adjacent parks. During construction, how can the safety of park and trail users (East Cedar Lake Beach, Cedar Lake Park, Lake of the Isles Park, and nearby trails and lakes) be assured, given that unit freight trains of 100 or more cars containing Class III flammable liquids, especially ethanol, travel through this narrow corridor in close proximity to a construction pit and materials, without whatever protective walls will later be installed? Please also explain how emergency vehicles will maintain access to East Cedar Lake Beach and Cedar Lake Park.

Section 3.4.1.5 Visual Quality and Aesthetics

Excerpt from City of Minneapolis RESOLUTION 2010R-008 by Colvin Roy:

Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained.

Comment: While we appreciate and agree that the visual impact from Viewpoints 2, 3, and 4 are recognized as being substantial, we strongly disagree and contest the idea that the level of visual impact north of the Kenilworth Channel crossing (including Viewpoints 5 and 6) will be "not substantial." (pages 3-167, 168). The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be substantial throughout the corridor.

Throughout this area, the SWLRT project will remove a large amount of green space and trees, and replace them with an overhead catenary system, tracks and ballast. The park-like environment will be permanently degraded by this infrastructure, as well as by the approximately 220 daily trains traveling over the historic Kenilworth Lagoon and through the corridor.

Clearly, the degree of change in the visual resource will be great, and, with well over 600,000 annual visitors to the Kenilworth Trail, the exposure to viewers will be high. Over the past 7 to 10 years, neighbors and trail users have clearly expressed to Hennepin County and the Met Council the very high value they place on the green space, wildlife and bird habitat, trees and other vegetation in the Kenilworth Corridor.

The visual impact to the park-like environment is exacerbated by the continuing presence of freight rail, which was expected to be removed from the Kenilworth corridor at the time of the Alternatives Analysis, the Locally Preferred Alternative decision, and the 2012 DEIS.

It appears that the consultant determining the visual qualities of the corridor relied entirely on Google Earth, files of the revised project layout, and selected "photographically documented" views (Appendix J, section 2B). If this is true, it is very discouraging that the area was not visited in person by the evaluator, nor were any stakeholders consulted.

At Viewpoint 5, we support all efforts to create an "attractive design" for the bridges crossing the Kenilworth Channel. The three new bridges will certainly become a "focal point," adding large cement structures and heavily impacting the setting and feeling of this element of the Historic Chain of Lakes and the Kenilworth Trail. An attractive design for these bridges does not compensate for the vegetative clearing. The character of the City of Lakes' signature canoe, kayak and skiing route from Lake of the Isles through the Kenilworth Channel to Cedar Lake will be fundamentally and permanently degraded. There will be a substantial negative visual impact from the level of the water as well as the level of the trail.

At Viewpoint 6, the SWLRT project plans to remove a significant amount of vegetation along the edge of Cedar Lake Park, as well as trees, plants, and restored prairie currently along the bicycle and pedestrian trails. The claim that removing trees and replacing them with overhead power lines would create a positive visual experience for trail users ("open up the view, making it more expansive") is absurd on its face and contradicts the clearly expressed will of the Minneapolis City Council and the adjacent

neighborhood. The 21st Street Station – a slab of concrete and metal with fencing and catenaries – will certainly “create a focal point,” but it is not credible to assert that this will positively impact the visual qualities of a place that is now adjacent to an urban forest and is itself in a “park-like environment.”

The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be substantial throughout the corridor. **We assert that the Council must recognize this and identify robust and meaningful mitigation measures for incorporation into the project. In fact, many feel that the adjacent parkland and the park-like environment of the Kenilworth Trail will be forever disrupted, and this alignment was selected when other, better alignments exist.**

3.4.2.1, 3.4.2.2 Geology and Groundwater, Water Resources

Comment: Given its history as a marshy area that in many places was made solid by landfill, and its former use as an active freight corridor, KIAA is very concerned that so much remains unknown about the soil and groundwater conditions in the Kenilworth Corridor under which the SWRLT tunnel and other elements will be built.

On page 3-170, the SDEIS notes, “the amount of settlement below and in the vicinity of the tunnel would be negligible.” KIAA urges the Met Council to consult with the builders and managers of Calhoun Village about settling. Our understanding is that the buildings in Calhoun Village are built on pilings; the parking lot has settled and been raised, perhaps more than once, so the step from the walkway in front of the stores to the asphalt remains within reach. KIAA has no engineering data, but we have been told that an underground flow from Cedar Lake to Lake Calhoun is believed to be responsible for the parking lot sinking. With the longer, heavier freight trains that have begun to use the Kenilworth Corridor – which will likely increase with the upgraded rail facilities that the Met Council plans to build as part of the SWLRT project – and the frequent LRT trains, KIAA is not confident that “construction and operation of the light rail system would not affect the performance of the proposed tunnel or the other structures located in the vicinity of the tunnel, such as roadways, utilities, and nearby buildings.”

Regarding groundwater, the SDEIS further points out that “in areas with high groundwater elevations and granular soils, there is an increased potential for groundwater contamination as a result of previous hazardous and contaminated materials spills” (page 3-168). We appreciate the Council’s plan to create a system of filtration tanks and infiltration basins to accommodate a 100-year storm event during construction, but urge the Council to fully understand the nature of the contaminants in the soil before digging begins. The Council assumes that it will obtain permits from all local, state, and federal agencies for impacts to wetlands and other aquatic resources, but it would, of course, be irresponsible for these agencies to grant permits if unknown contaminants cannot be safely managed. We also urge the Council to understand the costs of dealing with this contamination before proceeding with construction, as we understand these cost are not currently known. KIAA requests that there be a much more significant and transparent presentation regarding the compensatory mitigation for damage to wetlands and aquatic resources in the Minneapolis segment, especially potential for damage to the Kenilworth Channel and Cedar Lake.

While a permit application is required, the SDEIS identifies that there will be damage done to Minneapolis’ aquatic resources but does not specify the level of damage that may be done during construction and operation of the SWLRT. The further impairment of these resources is a violation of the EPA Clean Water Act. The Minneapolis Chain of Lakes is a vital recreational and natural resource; while we appreciate that the Council will apply for a Section 404 permit, to knowingly degrade the Chain of Lakes is unacceptable.

Further, KIAA is not convinced that sufficient analysis has been done on existing contamination in the Kenilworth Corridor. The Kenilworth Corridor north of 21st Street is a former rail yard that housed up to 58 rail lines during its peak and was in service for decades. The SDEIS specifies the numerous toxic contaminants in the area due to this former use. Much of the rest of the Kenilworth area was constructed through landfill when standards for waste disposal were not stringent. When disturbed, contaminants from freight operations and landfill could enter the nearby lakes and groundwater.

In a June, 2015, Community Advisory Committee meeting, Southwest Project Office staff told the committee that contamination beyond what was identified in the SDEIS is likely to be found. Advancing the project without thorough knowledge of the type and degree of contamination elevates the risk to our water resources. The SPO staff further stated that measures to address the additional contamination are to be covered by contingency monies from the overall project budget. The SPO admits it does not fully understand the scope of the contamination nor does it know whether there will be adequate funds to address the potential

contamination of soil and water resources due to the construction and operations of the SWLRT. KIAA finds this approach to be irresponsible both financially and environmentally.

Noise 3.4.2.3

The SDEIS simply states that the noise issues described below will be addressed in the Final EIS and that they will be mitigated. We take the strong view that now is the critical and only time to prove that mitigating the noise issues we have described is possible and that the cost of such mitigation is in the budget.

Comment: We believe that the SDEIS substantially minimizes the noise impacts associated with the proposed SWLRT. The noise impact of SWLRT through Kenwood and CIDNA will be highly significant for a number of reasons, but most notably because of the tranquility, recreational, park, and residential use currently existing in and bordering the Kenilworth Corridor. This proposed SWLRT route is not comparable to the Blue Line (Hiawatha) and the Green Line (Central Corridor down University Avenue), which are immediately adjacent to commercial thoroughfares or four-lane roads that carry cars and heavy trucks around the clock. By contrast, the Kenilworth area is a quiet environment, and is part of the **Grand Rounds National Scenic Byway**.

A **National Scenic Byway** is a road recognized by the [United States Department of Transportation](#) for one or more of six "intrinsic qualities": archeological, cultural, historic, natural, recreational, and scenic. The program was established by Congress in 1991 to preserve and protect the nation's scenic but often less-traveled roads and promote [tourism](#) and economic development. The National Scenic Byways Program (NSBP) is administered by the [Federal Highway Administration](#) (FHWA). The Kenilworth Corridor accommodates pedestrian and bike traffic, along with a slow moving freight train – two to five times per 24 hour period – which was intended to occupy the corridor only on a temporary basis.

The noise of 220 light-rail trains running daily from 4 a.m. to 2 a.m. would fundamentally transform the Kenilworth Corridor and the adjacent neighborhood with near-constant noise and vibration.

The noise levels given in Noise Fact Sheet (Appendix H p. 19) state the following: LRT trains traveling at 45 mph generate maximum typical noise levels of 76 dBA at 50 feet, 71 dBA at 100 feet, and 66 dBA at 200 feet. Adding 211-220 LRT 3 - car trains to the Kenilworth Corridor day and night, each producing such elevated noise levels, would be a severe and overwhelming intrusion, critically increasing the noise generated. This holds true even if the only noise increase resulted from the LRT trains traveling at their stated speed, per the SDEIS, of 45 mph.

The result of LRT noise is the corridor will be permanently changed from a quiet, tranquil area sought by pedestrians, cyclists, and outdoor enthusiasts, to a severely noise disrupted, highly mechanized transit route.

Beyond permanently degrading the area, there will be multiple public health consequences of SWLRT noise in the corridor. The impact of repetitive noise intrusion on neighborhood public health will be significant. For example, regarding the obvious potential for sleep interruption caused by SWLRT noise, a research review published in the December 2014 edition of *Sleep Science*, summarizes:

emerging evidence that these short-term effects of environmental noise, particularly when the exposure is nocturnal, may be followed by long-term adverse cardio metabolic outcomes. Nocturnal environmental noise may be the most worrying form of noise pollution in terms of its health consequences because of its synergistic direct and indirect (through sleep disturbances acting as a mediator) influence on biological systems. Duration and quality of sleep should thus be regarded as risk factors or markers significantly influenced by the environment. One of the means that should be proposed is avoidance at all costs of sleep disruptions caused by environmental noise."

The article goes on to review that:

The World Health Organization (WHO) has documented seven categories of adverse health and social effects of noise pollution, whether occupational, social or environmental. The latter [sleep disturbance] is considered the most deleterious non-auditory effect because of its impact on quality of life and daytime performance. Environmental noise, especially that caused by transportation means, is a growing problem in our modern cities. A number of cardiovascular risk factors and cardiovascular outcomes have been associated with disturbed sleep: coronary artery calcifications, atherogenic lipid profiles, atherosclerosis, obesity, type 2 diabetes, hypertension, cardiovascular events and increased

mortality....during the past year, the relationship between insomnia and psychiatric disorders has come to be considered synergistic, including bi-directional causation.”¹

Further, there is growing evidence that the opportunity for experiences in greenspace and nature supports social and psychological resources and recovery from stress.² The perpetual and repetitive noise from SWLRT would interrupt the current experience of the Kenilworth Corridor, nearby beaches, parks, the Kenilworth Channel and general environs of Lake of the Isles and Cedar Lake. Opportunities for experiences in natural environments, though often taken for granted by suburban dwellers, are extremely limited in urban areas, yet equally if not more critical for the mental health of urban residents.

With healthcare costs and disease prevention being prominent national and local priorities, the economic value of the public health benefit of the Chain of Lakes and Kenilworth Corridor cannot be simply ignored.

A. Existing Conditions (p. 3-180)

Fundamental defect with baseline noise measurements

Comment: The SDEIS uses wrong data as the fundamental framework for noise and vibration analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise and vibration data on a scenario that *does include a freight train*, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the Draft EIS in 2012.”³ ***This defect renders the noise and vibration sections of the SDEIS fundamentally flawed and misleading. They need to be reworked with appropriate and correct data.***

The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporated into the SDEIS. KIAA requests that the SW Project Office contact CIDNA to obtain a copy of this report.

Additionally, there are significant seasonal and weather-related variations in noise levels, which cannot be captured when sound is measured during one 24-hour period in the summer.

Finally, in Appendix H, p.2, it is noted that “noise monitoring was performed at other locations not listed in the table. Those sites will either be addressed in the forthcoming Final EIS or no longer fall within the area where they would be potentially impacted by project noise due to design refinements during Project Development.” Since the purpose of the SDEIS is to inform the public and decision makers, and provide opportunity for comment on all areas of concern, in order to fulfill that NEPA mandate, all measurements that were made and publicly financed should be made public.

B. Potential Noise Impacts

Comment: Following FTA noise assessment guidelines, the 76 dBA LRT noise every 5 minutes is measured as having a lower impact than actual dBA of 76 because the LRT noise is not continuous. Thus, though this quiet urban area will be exposed to an actual repetitive noise of 76-80 dBA day and night, the rating of the impact is lower and measured as 51 – 64 dBA in Tables 3.4-11, 3.4-12. The significantly lower measurement lessens the determination of findings of impacts, and therefore, whether impacts are determined as non-existent, moderate or severe. This engineering methodology covers up the actual impact on people of loud repetitive noise in a peaceful setting.

Repetitive bell noise does not appear to be included in the SDEIS noise analysis in Tables 3.4-11, 3.4-12, which would clearly increase the severity of noise impact at all locations.

The SDEIS also neglects to report and measure the cumulative effect of LRT and freight train noise. This information would likely show that more than 24 residences would be affected; more of them would be impacted at the severe level, and a greater impact on the Kenilworth Channel and Kenilworth Lagoon Bank.

¹ Sleep Science, Volume 7, Issue 4, December 2014, Pages 209-212).

² British Journal of Sports Medicine 2012, “The Urban Brain: Analyzing Outdoor Physical Activity with Mobile EEG.”

³ <http://metro council.org/swlrt/sdeis>

Analysis of Table 3.4-12

Inaccurate land use designation for the Kenilworth Channel

KIAA strongly questions the land use designation of the Kenilworth Channel as Category 3. As defined in Appendix H, Category 3 is:

Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, and churches where it is important to avoid interference with such activities as speech and concentration on reading material..."

The SDEIS designates the banks of the Kenilworth Channel as falling within the most noise sensitive Category 1. However, as stated above, the Channel itself is not included in that most highly sensitive designation, but instead is classified as "institutional land use." Category 1 is defined in Appendix H as:

Tracts of land where quiet is an essential element in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheaters and concert pavilions, as well as National Historic Landmarks with significant outdoor use.

The SDEIS states the "grassy area on the banks of the Lagoon" falls within Category 1 due to the "passive and noise sensitive recreational activities that occur there (where quietude is an essential feature of the park)." The designation of Category 1 versus 3 for the Kenilworth Channel appears to hinge excessively on one word -- the term "passive" to describe the activities for which the Channel banks are used. However, quietude is equally and very clearly an essential feature of the Kenilworth Channel itself, whose peaceful though not "passive" activities include canoers and cross country skiers gliding serenely on the water or ice while those on the grassy banks look on. The quietude of the Kenilworth Channel is inseparable from the quietude of its grassy banks; therefore both should be Category 1.

Most significantly, that the consequence of placing the Kenilworth Channel in Category 3 is that both the obligation to mitigate impacts is lowered, and the threshold to establish severe impact is higher and harder to reach. Had the Kenilworth Channel been accurately designated a Category 1, then the Channel would have been only 1 dBA below "Severe impact."

Even with the lowering of the land use category of the Kenilworth Channel to a Category 3, the SDEIS finds a moderate impact of the addition of LRT noise. The footnote to SDEIS Table 3.4-12, states that the noise impact increases as one approaches the LRT line and becomes severe when the channel falls within the HCRRA right of way.

While the SDEIS states that the land use categories were made in consultation with the MPRB and MN SHPO, we strongly dispute their coherence and accuracy. If the intention of the SPO is to preserve the character and experience of the Channel, then it must designate it as a Category 1 and then make public the mitigation plans and costs well in advance of the final FEIS.

SWLRT Breaks the System of Minneapolis Parks.

Horace Cleveland's visionary masterplan, Suggestions for a System of Parks and Parkways for the City of Minneapolis, proposed a park system of connecting sites of beauty and natural interest throughout the city, rather than a series of detached open areas or public squares. The vision of a park "system" has guided the Park Board ever since and is one of the primary reasons for the success and national prestige of the Minneapolis Parks. The SDEIS procedure of singling out specific pieces of park for analysis such as Lilac Park, the Kenilworth Channel and its grassy banks runs fundamentally contrary to the underlying vision of a Minneapolis Park System.

The scenario of perpetual, repetitive LRT noise over the Kenilworth Lagoon and throughout the interconnecting parks and lakes woven throughout this area breaks the larger system of the Minneapolis Parks.

Site N 17 (p. 3-182)

21st Street Noise Impacts

We strongly disagree with the characterization of the noise impacts in the 21st Street station area as moderate and limited. "Sensitive receptors" in this area will be subject to train arrivals, departures, signal bells and perhaps horns, seriously eroding the quality of life in the neighborhood and reducing the enjoyment of the recreational trail and Cedar Lake Park for users of these regional amenities.

As we currently understand the SWLRT project, crossing and station bells will generate a noise level of 106 dBA and LRT bells generating 88 dBA for 22 hours; only between 2:00 a.m. and 4:00 a.m. will neighborhood residents be able to sleep uninterrupted.

Further, freight trains, which were supposed to have been relocated out of the Kenilworth Corridor to make way for LRT, may need to use bells and horns to safely cross 21st Street. This noise impact, which we regard as *new* since the status of the freight rail is going from temporary to permanent, does not seem to have been considered in the SDEIS.

We disagree with the assessment that the SWLRT project will create only 22 moderate noise impacts and one severe impact within the 21st Street station area. With appropriately robust measurement of the existing conditions (*without* freight), many of the residences with noise impacts deemed "moderate" would likely experience severe impacts. In addition to the residences identified in the SDEIS, residences along 21st Street, 22nd Street, and Sheridan Avenues will also experience at least moderate noise impacts. It's clear that although measurements may not rise to the "moderate" or "severe" level as defined in engineering manuals, noise from the 21st Street station will degrade a large portion of the Kenilworth neighborhood. We underscore the need for the highest level of noise management and mitigation.

NB: It appears that the SDEIS may misidentify some of the homes deemed to have a "moderate impact without mitigation" as being on Thomas Avenue South; some of the addresses may actually be on Sheridan Avenue South.

LRT Horns are Likely

According to the federal Train Horn Rule⁴, locomotive engineers must sound horns at a minimum of 96 decibels for at least 15 seconds at public highway rail grade crossings. Appendix H indicates that LRT Horns are 99 decibels and are sounded for 20 seconds. The SDEIS states that LRT horns would only be sounded at crossings where speeds exceed 45 mph. Since LRT and freight trains may not reach that speed in the Kenilworth Corridor, presumably no horns would be sounded when LRT vehicles cross 21st Street. Given the volume of pedestrian, bicycle, and car traffic at this crossing, it may not be safe to silence LRT horns at this crossing. That does not mean that KIAA welcomes the horns being sounded due to the pre-stated tranquility of the corridor and the severity of the noise impacts. If they were reinstated for safety reasons, the noise created by horns sounding for LRT trains at least 96 decibels for a minimum of 15 (or 99dBA for 20) seconds represents a "severe" noise impact and is therefore prohibitively detrimental to quality of life in a residential neighborhood. KIAA has no evidence that there is a viable solution to the conflicting imperatives of safety vs. quality of life.

Not addressed: Impacts near Portals

Two areas of potential noise impacts do not appear to be adequately addressed by the SDEIS.

First, table 3.4-11 does not appear to cover noise that will be experienced by the homes directly behind the SWLRT tracks after it emerges from the tunnel and crosses the Kenilworth Channel. Since LRT on ballast and tie track produces noise at 81 dBA, we believe that those residences will experience noise at the same level as homes on Burnham Road and Thomas Avenue South. Further, Appendix H notes that noise will increase by 1 dBA for homes within 100 feet of the tunnel entrance/exits. We strongly request that noise impacts be determined for those residences and that they be included in consideration for noise mitigation. We further request that the cost of that additional mitigation be identified and made public prior to the final DEIS.

Not addressed: Tunnel Ventilation System

Second, noise from the tunnel ventilation systems does not appear to have been considered. The SDEIS states that the tunnel section of the SWLRT is supposed to eliminate "almost all noise impacts within that segment of the corridor." However, we understand that there will be ventilation fans connected to the tunnels as well as a ventilation "building" planned near Cedar Lake Parkway. The SDEIS neglects assessment of the noise impacts from such a ventilation system, and this information is critical to determining whether the proposed tunnel would have a positive or negative environmental impact. Policy-makers and citizens need adequate information on the noise impacts of both the vents and the ventilation building, among other things, before proceeding with tunnel construction. Appendix H indicates that the fans will operate only on an emergency basis, but we do not see any mention of the ventilation building in the SDEIS. We request clarity on the amount of time each day that they will be operational and creating noise impacts, and the dBA of each.

Not addressed: Freight Operations

The existing freight operations, intended to be temporary, are being made permanent. The noise generated by these trains, which often have three or four engines, must be measured and considered in the overall assessment of noise impacts of the SWLRT project.

The SDEIS simply states that the noise issues described above will be addressed in the Final EIS and that they will be mitigated. We take the strong view that now is the critical and only time to prove that mitigating the noise issues we have described is possible and that the cost of such mitigation is in the budget.

3.4.2.4 Vibration

LONG-TERM DIRECT AND INDIRECT VIBRATION IMPACTS

Comment: The SDEIS states, "There are no vibration impacts in this segment [of the SWLRT route]" This claim is not credible in view of advice provided in *Transit Noise and Vibration Impact Assessment*, the FTA's own guidance manual presenting procedures for predicting and assessing noise and vibration impacts of proposed mass transit projects:

Vibration from freight trains can be a consideration for FTA-assisted projects when a new transit line will share an existing freight train right-of-way. Relocating the freight tracks within the right-of-way to make room for the transit tracks must be considered a direct impact of the transit system which must be evaluated as part of the proposed project. However, vibration mitigation is very difficult to implement on tracks where trains with heavy axle loads will be operating."⁵

The SDEIS says that 54 residences⁶ in the "St. Louis Park/Minneapolis" segment (note that all of them are within Minneapolis) will be impacted by the ground-borne noise. This is an unacceptable level of impact on those 54 families.

Regardless of whether the residences are impacted by vibration from the tunnels or from the noise which is flagged as a "Residential Annoyance" in the tables in Appendix H, the fact that these "annoyances" will occur incessantly — 220 times per day starting at 4 a.m. and continuing to 2 a.m. — means the impact on those residents will be significant and should be considered "severe". The impact of vibration of the freight rail, which the SW LRT is making into a permanent condition, should be included in this analysis.

Regarding ground-borne vibration and noise, it should be noted that the impacts projected might underestimate real-world impacts, which could be more annoying than assumed in this SDEIS. The FDA manual states: ⁷

...the degree of [ground-borne vibration and noise] annoyance can not always be explained by the magnitude of the vibration alone. In some cases the complaints are associated with measured vibration that is lower than the perception threshold.

SHORT TERM VIBRATION IMPACTS

The SDEIS all but ignores construction-related ground-borne noise (vibration) — except for a single, dismissive comment: "Short-term vibration impacts are those that might occur during construction of the LPA while jackhammers, rock drills, and impact pile-drivers are being used." Within a month of this writing, impact pile-driving on the former Tryg's restaurant site in the West Lake Station area caused serious damage to the Loop Calhoun condominiums, as well as some level of damage to the Cedar-Isles Condominiums. The project had to be halted (the piles were extracted), since going forward was deemed to be catastrophic. The pile-driving entailed in building the SWLRT tunnel would take place much closer to these and other condominiums, duplexes and apartment houses. The Tryg's site incident seems to strongly predict a risk of significant construction-related damage to the homes of hundreds of people who live along the corridor where impact pile-driving for SWLRT is planned.

Furthermore, the recent Met Council sewer project completed in this area caused damage to homes located beyond the "expected" range of distance from construction. Residents who attempted to get compensation for the damage were often told by the Met Council to take the matter up with their own insurance companies rather than through the contractors whose work caused the damage. A specific liability plan and budget should be included in the project cost estimates. There is a "contingency" line item in the budget, but it should be used for truly "unpredictable" costs that arise during the construction, and not for costs that could be, should be, and even are anticipated.

Construction-related vibration impacts could well extend beyond the construction period itself. Damage incurred during construction may not be initially apparent, and could show up months or even years later.

Note that KIAA submitted concerns about building conditions during the 2012 DEIS scoping period. During this period, Kenwood residents showed that new construction in the 2500 block of Upton Avenue South required extra deep footings due to the unstable nature of the soil. Architects' drawings and technical information were submitted to Hennepin County.

KIAA requests that the nature of the building conditions be better understood before proceeding with the tunnel and bridge construction. Further study is needed of:

⁵ Chapter 7: Basic Ground-Borne Vibration Concepts, 7-9

⁶ All of them are Category 2 receivers: "residences and buildings where people normally sleep."

⁷ Chapter 7: Basic Ground-Borne Vibration Concepts, 7-6

- 1) The effects of various pile-driving alternatives on the many at-risk structures
- 2) The costs involved with each of those alternatives;
- 3) The geology of the area, and its ability to support the construction process.

MITIGATION

The SDEIS promises mitigation of a number of vibration problems. However, the failure of Met Council mitigation measures taken to address LRT problems experienced by the University of Minnesota and Minnesota Public Radio cast abundant doubt on whether they will be effective here.

With respect to the vibration mitigation (to be further detailed in the Final DEIS), the measures suggested in Appendix H appear to be inapplicable to the many residences that would be affected. The SDEIS describes isolated tables and floating floors. It's hard to imagine a retrofit of the residences impacted by the vibration affects utilizing "floating floors." If this is the intent of the mitigation planned for the SWLRT, a cost estimate of the retrofit of all the residences should be included in the Final DEIS.

3.4.2.5 Hazardous and Contaminated Materials

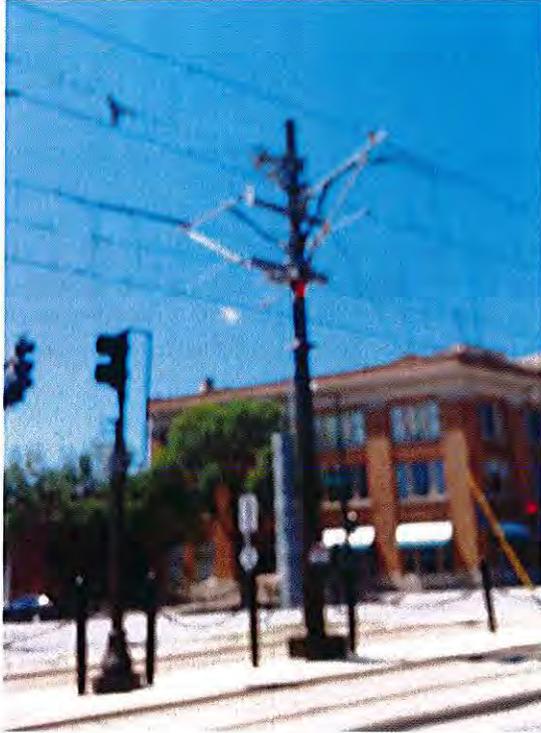
KIAA understands that an online search of MPCA and MDA databases was conducted to identify documented hazardous and contaminated soils in the Kenilworth Corridor (page 3-189). While we appreciate that several sites were located with this method, people who have lived in Kenwood for many years have reported that undocumented disposal of hazardous waste formerly occurred in the Kenilworth Corridor area. KIAA has only anecdotal evidence, but we urge the Met Council to thoroughly investigate the possibility of undocumented contamination prior to commencing construction.

The SDEIS does not make clear whether the contamination risks throughout the corridor, including those areas of potential groundwater contamination or contamination that may infiltrate groundwater when disturbed, will be subject to Phase II evaluation prior to construction. Permanent pumping of an average of up to 520 gallons per day of water that has seeped into the tunnel would, if contaminated with the residue of freight operations or landfill, directly pollute the Chain of Lakes. We request that this risk and valid mitigation measures be identified before it is determined that a tunnel is environmentally safe and appropriate to build. The SDEIS states:

"Over the short term, four of the high-risk sites have the potential to directly affect LPA-related construction activities in the St. Louis Park/Minneapolis Segment (see Table 3.4-15). As previously noted, the high-risk sites would be investigated prior to construction using a Phase II ESA, which would include preliminary soil and groundwater investigations."

Long-term Direct and Indirect Hazardous and Contaminated Materials Impacts include:

- Permanent pumping of contaminated groundwater
- Impacts of disturbance of dangers in soils that may have long term health impacts on children and vulnerable adults
- Not covered in the SDEIS is the co-location of SWLRT in close proximity to hazardous and explosive materials being carried by the railroad. KIAA does not believe that the general public is even aware of the amount of wiring and electrical current and sparking in the LRT infrastructure, and we request that the Met Council make a public statement informing the general public of such. Below is a photo of a green line junction of a power tower that will be in very close proximity to the ethanol trains. KIAA strongly objects to this alignment and the risk to those families living in the "blast zone."



SHORT TERM

The DEIS called for Phase I ESA to be completed, and it was completed in August 2013. It was not made public by the Met Council until May 19, 2015, and indicates many potentially hazardous and contaminated sites along the alignment. It is reasonable to expect to encounter extensive contamination in the Kenilworth Corridor. In addition to being home to several railroad tracks, the Kenilworth Corridor was home to a maintenance yard, blacksmith and boiler shops, a diesel shop and a 90,000-gallon fuel storage facility. In addition, the land was used as a dump — a common practice of the time, and it is likely that arsenic will be among the dangers encountered, requiring special remediation.

The Phase II Environmental Site Assessment (ESA) is said to be near completion; the report must be made available for public review and comment as soon as it is available. The SDEIS says it is “reasonable to expect that previously undocumented soil or groundwater contamination may be encountered during construction.” It is unclear if any findings in the Phase II ESA have been incorporated into the SWLRT project budget.

The SDEIS comment, however, seems to say that the cost of such remediation is unknown and has not been included in the cost estimates. Several sections of the alignment have been designated part of the MPCA Brownfields Program. In the best-case scenario, they will not require much remediation; in the worst case, they could become a Superfund site, requiring significant and expensive remediation.

Several members of the public requested budget information that would indicate what amount of the May 2015 increase in the budget from \$1.65 billion to \$1.99 billion was earmarked for remediation in the Kenilworth Corridor. The SW Project Office provided only the highest level of information, and indicated that they do not track the line items for things like soil remediation on a segment-by-segment basis, but only in total for the project. KIAA is disappointed in this low level of transparency and is left to wonder if remediation will require a Construction Contingency Plan above and beyond the general Contingency budget line item. The cost of such a Contingency Plan for Remediation should be included in the project budget.

3.4.3 Economic Effects

Long-Term Direct and Indirect Economic Impacts

Comment: KIAA disputes the statement that SWLRT will positively impact property values, especially around the 21st St station and Kenilworth Channel. The current freight alignment in the Kenilworth Corridor, which was supposed to be temporary, is already a negative and permanent defect on property values, and this becomes magnified as a negative defect on properties along the line with co-location of SWLRT. The threat of a collision and derailment as such incidents gain increased attention in the news media will in all likelihood increase the scrutiny of buyers as they evaluate the Kenilworth area as an investment and home for their families. Much of Kenwood is within the half mile "blast zone." Currently there is no viable plan to contain the effect of a derailment and crash in any urban area other than to let the blast "burn out" for the safety of the overwhelmed first responders. Further, the increased noise, vibration, and light without the previously promised removal of freight rail is an exponential increase in the disturbance in an area that is well known for its park-like feel and "up north" atmosphere. The increased adverse effects of co-location will be a permanent defect to homes within earshot and sight of the line; auditory adverse effects would reach as far as Lake of the Isles Parkway based on the audible sounds of the current freight line, but as a much more disruptive cacophony of LRT bells and horns versus the current infrequent "low rumble" of freight.

Further, while studies such as *rtd-fastracks.com* and others show that the access to light rail increase property values in high density, transient (apartment-filled), younger, urban neighborhoods, the area around the Kenilworth corridor is not representative of those attributes. The study mentioned, among others, shows that higher income and low-density neighborhoods do not see the positive impact on property values, as they do in lower to middle income neighborhoods that more regularly use public transit.

While the projected 1600 ride/daily boardings and alightings appear unrealistic, there will nonetheless be an adverse impact from those who do park in the neighborhood to access the station, resulting in residents closest to the station losing on street parking in front of their homes. This will create a parking lot feel to the low density neighborhood and be a detractor from potential buyers, negatively impacting home values.

Finally we do not support denser development in Kenwood, nor would it be feasible on any meaningful scale due to the mature and stable nature of the neighborhood. Any development would further denigrate the existing green space in the corridor, especially around the 21st St station.

We therefore dispute and challenge the SDEIS statement that mitigation for economic impacts is not warranted for the Kenilworth Corridor, particularly in the absence of any plausible property impact study.

Short-Term Direct and Indirect Economic Impacts

Comment: The SDEIS addresses only short-term economic impacts related to freight movements in the corridor. We assert that property owners in Kenwood would experience adverse economic impacts during construction; we are concerned that there will be a severe temporary degradation of property values due to the noise, traffic, vibration and uncertainties of the construction period, and we request that property assessments be reconsidered with the purpose of providing tax relief such as what was seen and acted upon during the upgrade of Highway 12 to Interstate 394. We request that a standard preconstruction survey be conducted on the route of construction vehicles or within the construction zone. We also request that there be a plan to ensure that school hours at the Kenwood School be respected – noise and activity should not take place in a manner that interrupts learning. Further, we request specification on what daily clean up and street sweeping would occur to minimize impact on the neighborhood.

3.4.4.2 Roadway and Traffic

As summarized in Table 3.4-1, there would be three new at-grade light rail crossings of roadways within the segment (Wooddale Avenue, Beltline Boulevard, and West 21st Street). At each crossing, light rail operations would impede vehicular traffic for approximately 50 seconds approximately 12 times per hour (six times per hour in both directions).

Comment: KIAA is concerned about emergency access being reduced 12 times per hour to East Cedar Lake Beach and the residences on Upton Avenue S. The freight train, which was originally to be removed, coupled with the light rail line, will exponentially impair access. We see no possible way to mitigate this impact even beyond the measures that are mentioned in the SDEIS. Police frequently need immediate access to the beach and park for the purpose of public safety and criminal matters; Water emergencies, fire, or medical emergencies would be exacerbated with each moment of delay. We see no possible way to mitigate this impact.

KIAA is concerned about the short-term impact on neighborhood roads that would be used for construction of the Kenilworth Corridor segment, including, but not limited to Penn Ave S, 21st St W. KIAA requests that funding be set aside for road repair

during and at the conclusion of construction to ensure that the burden of the cost of repair is not tendered to Kenwood residents via an assessment.

KIAA requests that passage of construction vehicles and materials through the neighborhood are limited to normal business hours to minimize neighborhood disruption. Please see Addendum #2 for the referendum passed by KIAA regarding the importance of this issue and we request some acknowledgement and plan for such mitigation during construction and repair post construction to any damage sustained to neighborhood housing or infrastructure.

3.4.4.3 Parking

Indirectly, the LPA could affect the supply of and demand for off-street parking in the St. Louis Park/ Minneapolis Segment due to development new light rail station areas. Any development occurring within the segment would, however, be required to comply with the City of St. Louis Park's and the City of Minneapolis' parking requirements, which would tend to ensure a long-term balance of parking supply and demand.

Comment: KIAA is concerned that there is complete disregard in the SDEIS for the impairment of on-street parking availability in its neighborhoods near the proposed 21st St Station for residents and their guests, as well as emergency access to those homes, especially in winter when streets are narrowed due to snow buildup. KIAA continues to oppose a park and ride lots at 21st St.

3.4.4.4 Freight Rail

Comment: Contrary to 15 years of previous planning, the SDEIS now claims that the need "to develop and maintain a balanced economically competitive multimodal freight rail system" as a justification for the Southwest light rail project (SDEIS page 1-1). The public, policy makers, and funders are generally unaware of this new "need" – one that has directed approximately \$200 million of the Southwest light rail budget to improving freight rail and making it permanent in the Kenilworth Corridor.

In 1998, when freight was reintroduced to the Kenilworth Corridor, freight was to be a temporary alignment until light rail could be built. Despite public agreements and related state funding, none of the responsible parties secured appropriate legal documentation to ensure that freight would be moved to make way for light rail. Many of the parties responsible for this serious and politically tainted "mistake" have been, and continue to be, deeply involved in the SWLRT planning process.

Since the Alternatives Analysis assumed that "freight would be relocated to make way for light rail," the financial, political, and environmental costs of addressing freight rail in the Kenilworth Corridor were not considered at this critical juncture. Neither Hennepin County nor the Met Council has ever conducted an honest and unbiased analysis of alternative ways to serve the southwest suburbs' transit needs.

When the City of Minneapolis was required to vote on alignment 3A as the proposed Locally Preferred Alternative (LPA), the City Council members were told that freight rail would be relocated and that LRT would run at-grade in Kenilworth. The costs and concerns of freight relocation were again ignored.

The Project Scoping Report for the 2012 Draft Environmental Impact Statement said clearly, "Freight Rail is independent of the Study." Although the Federal Transit Administration (FTA) noted this erroneous assumption when it approved preliminary engineering, neither Hennepin County nor Met Council ever amended the project scope to include freight rail.

When the City of Minneapolis was pressed to accept co-location in 2014, the City Council lacked critical information to make an informed decision because freight co-location with LRT and tunneling were never part of the original LPA and subsequent DEIS.

The present SDEIS does little to further the knowledge of risks to the environment and public safety of co-location of freight and SWLRT. It is remarkable more for what is not included than what is included.

Not addressed in this SDEIS are the following issues related to making freight permanent in the Kenilworth Corridor:

1) The current freight operator, TC&W, transports hazardous freight through Kenilworth, in very close proximity to homes, trails and parks. This freight includes such flammable and explosive products as ethanol, fuel oil, propane, and anhydrous ammonia. Should a derailment occur, the consequences could be catastrophic. The need for containment and evacuation plans is nowhere acknowledged in the SDEIS. The federal Freight Rail Administration (FRA) expects at least 10 to 20 oil or ethanol derailments annually. Nationwide, over 7000 train derailments occurred in 2014. These concerns are not just theoretical.

It is troubling that even after a multitude of concerns were raised by the City of St. Louis Park and its residents in response to the

relocation of freight proposed the 2012 DEIS, the current SDEIS does not contain one word acknowledging the presence or dangers of high hazard freight through the Kenilworth Corridor. There is evidently no safety plan should an ethanol or other hazardous materials freight derailment to occur, and no containment and recovery planning should a disaster encroach on the tunnel and/or spill in to the Minneapolis Chain of Lakes.

2) TC&W is a private business and is free to operate as it deems appropriate. Since 1998 when freight was temporarily reintroduced, TC&W has significantly expanded the number of cars shipped through Kenilworth. The contents of these cars has also changed and will continue to do so as ethanol production increases – unit trains of 100 ethanol tankers have replaced short configurations of soybean and farm equipment carriers. Furthermore, the owners of TC&W are free to sell the company at any point to any one of the major railroads. This would cause an even greater expansion of traffic and movement of hazardous products in close proximity to homes. Upgrading the freight rail infrastructure at public expense and making it permanent increases the value of TC&W and thus increases the likelihood that it will be sold. Nowhere has this been made public.

3) Currently, TC&W trains voluntarily operate at a speed of 10 miles per hour through the Kenilworth Corridor. Our understanding is that they are under no legal obligation to do so. Going forward, the company may choose to sell to a company that does not respect this speed limit or TC&W may decide to increase speeds. A long-term enforceable agreement with the freight operator and the Hennepin County Regional Rail Authority should be considered as part of this project.

4) The Met Council has requested waivers from the Federal Rail Administration in order to put the jurisdiction of the co-located freight and light rail under the FTA. We see no evidence that the FTA or the Met Council have the capacity to oversee the co-location of hazardous freight and passenger rail in a narrow urban corridor.

5) The distance between the newly permanent freight rail and the light rail with its overhead electrical wires does not appear to respect industry standards or best practices. Even with crash walls, the proximity of electrified freight rail to passenger rail adds to safety risks. Catenaries can and do spark, which could be disastrous if it occurs when an ethanol tanker is passing. The risk may be low, but the consequences would be extreme.

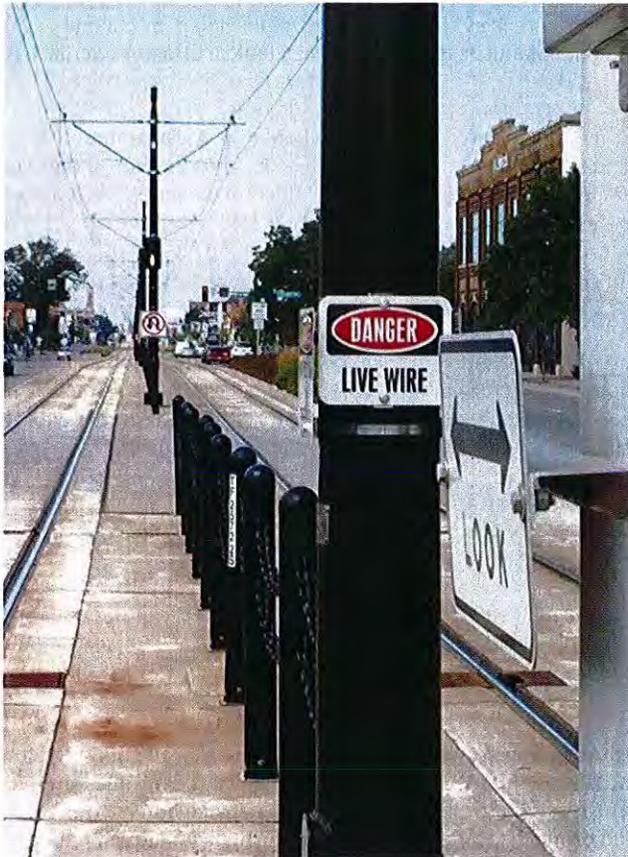
6) Heavy freight rail obviously causes vibrations that travel through the ground. We see no evidence that the potential for long-term damage to either LRT structures or to residences and other buildings from freight vibrations has been considered in this SDEIS. Upgrading and making freight permanent increases the risks that freight vibrations will damage homes; KIAA therefore requests a pre-construction assessment of potentially affected properties and long-term monitoring with agreements that damage to residences will be compensated.

7) The SDEIS does not explore public sector liability if SWLRT or freight causes damage or harm. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. In light of the catastrophic potential of any accident in the Kenilworth Corridor, this insurance liability assessment should be done prior to building SWLRT, made public, and included in construction and operating cost estimates.

3.4.4.5 Bicycle and Pedestrian

Comment: The Minneapolis Park and Rec board reported in 2010 the Kenilworth Corridor receives 600,000 discrete unique visits per year. And the current “north woods” feel of the area enhances those visits. That experience would be significantly impacted by the addition of light rail, especially co-located with freight rail. This includes an expectation of natural quiet conditions. Pedestrians do not pass quickly through the park-like environment and will therefore be significantly impacted by added noise, movement and infrastructure of the LRT and freight rail. The speed joined with the noise at close proximity greatly detracts from the trail experience for both bicyclists and pedestrians, and can even be frightening to users. KIAA asserts that this clearly constitutes a long-term adverse impact on bicycle and pedestrian experience in the Kenilworth Trail and must be mitigated to the greatest extent possible.

There is also a concern for safety at crossings, and a poor precedent set by previously constructed light rail lines on what we might expect. We find this photo to be an example of an unacceptable measure of safety:



As previously stated, is there any concern of having live wires for light rail within 25 feet of an active ethanol freight line? We ask for consideration on this matter per Rep Hornstein's statement at the Dunwoody SWLRT hearing.

3.4.4.6 Safety and Security

Comment: KIAA is concerned about the difficulty of providing emergency services to LRT users and freight trains throughout the Minneapolis portion of the corridor. There is limited operational infrastructure in the corridor (e.g., lack of hydrants), and few access points for emergency vehicles. In particular, we expect that the 21st Street access point will have to be used by police cars, fire engines, and ambulances to service points between the Kenilworth Lagoon and the Penn Avenue station. We request and urge the Council to design access in a minimally intrusive way, and consider mitigation that will limit the impact of these public services on the neighborhood.

LONG-TERM IMPACTS

Comment: The current plan to co-locate freight and LRT within the same corridor — within a dozen feet of each other in certain places — creates new, potentially catastrophic hazards. It is currently proposed that the freight train (which carries volatile and explosive ethanol on a daily basis, and several unit trains of ethanol per month) remain permanently in the Kenilworth Corridor. The addition of the SWLRT with its electrical power wires only a few feet away exacerbates the existing danger of ethanol in the corridor. Current safety standards recommend against co-location in such close proximity when there are alternatives; other alternatives for this SWLRT alignment must be explored.

Furthermore, in the event of an explosion of ethanol trains along this corridor, we understand that the foam retardant required to extinguish the fire is "within a 3 hour distance" of the corridor. We believe that the potential harm during that "3 hour window" along with permanent damage to residences and residents should be quantified. Should an explosion occur during the passing of an LRT train, the potential exists for loss of life or harm to those exposed to the hazardous fumes.

Comment: Please note that the Minneapolis Park Police also provide service within the study area. KIAA requests that the MPRB Police be consulted on security issues related to the impact of a proposed station at 21st Street on East Cedar Lake Beach (Hidden Beach) and their input be incorporated into final design plans. In the summer 2012, Hidden Beach generated more police actions than any other park in the MPRB system. For the last five years, KIAA has provided supplementary funding to the Park Police to allow for increased patrols in this area. The neighborhood has expressed grave concern that an inadequately managed station would increase opportunities for illegal behavior. To reduce the risk of such behavior we request that the Met Council study whether it be appropriate for service at 21st St station cease at 10PM, which coincides with the normal evening closure of Cedar Lake Park.

SHORT-TERM IMPACTS

Cedar Lake Parkway is a critical artery for Kenwood residents and others. Currently, rush hour traffic produces backups that sometimes extend from Lake Street, along Dean Parkway and Cedar Lake Parkway. (On June 11, 2015, an accident at Dean Parkway and Lake Street slowed traffic on Dean Parkway to a crawl for over an hour.) The closing of Cedar Lake Parkway at the Kenilworth Trail would be necessary during the construction of the proposed tunnel from West Lake Street to just past Cedar Lake Parkway. Affected neighborhoods already have limited entry and exit points.

The SDEIS does not address the need to ensure reasonable transportation options during this period. Especially important are routes for emergency vehicle access. There must be plans for fire and ambulance routes in the affected neighborhoods. Travel time for emergency vehicles would be increased during that closing. The SDEIS describes such delays as "minor"; we take vigorous issue with such a demotion of safety concerns, as even two minutes could be the difference between life and death, or a home being saved from fire or destroyed.

Also missing is information on what measures, including evacuation plans, would be necessary to protect the Cedar Shores townhomes when the TC&W trains, with their explosive freight, are moved several feet closer to them during construction.

Appendix – Addendum #1

Addendum: Kenwood Isles Area Association Position Statement on Freight Relocation for SWLRT

Adopted July 1, 2013

Nearly a mile of the proposed SWLRT runs through the Kenwood Isles Area Association neighborhood. **We vehemently oppose the idea of maintaining freight rail along with light rail at grade in the Kenilworth Corridor, known as "co-location."**

Relocation of freight out of the Kenilworth Corridor has been promised for years. While the corridor was long used for transporting goods, freight use of Kenilworth was halted in 1993 when the Midtown Greenway was established. When freight was later re-introduced into the Kenilworth Corridor, Hennepin County assured residents this use of the corridor was temporary.

Meanwhile, over 20 years of citizen efforts to build and maintain Cedar Lake Park and the Kenilworth Trail have resulted in a more beautiful and complete Grand Rounds and Chain of Lakes. Traffic on federally funded commuter and recreational bicycle trails in the Kenilworth Corridor grew to at least 620,000, perhaps approaching one million, visits in 2012.

When the Hennepin County Regional Railroad Authority began looking at using the Kenilworth Corridor for LRT, several key studies and decisions reiterated the expectation that if Kenilworth is to be used for transit, then the freight line must be relocated. (See notes below.) Trails were to be preserved. Freight rail was to be considered a separate project with a separate funding stream, according to Hennepin County. This position was stated publicly on many occasions, including Community Advisory Committee meetings and Policy Advisory Committee meetings.

Minneapolis residents have positively contributed to the SWLRT process based on the information that freight and light rail would not co-exist in the Kenilworth Corridor. Although many of us think that Kenilworth is not the best route, most have participated in the spirit of cooperation and compromise to make the SWLRT the best it can be.

Despite numerous engineering studies on rerouting the freight rail, it was not until December 2012 that the current freight operator in the Kenilworth Corridor, TC&W, decided to weigh in publicly on the location of its freight rail route. TC&W rejected the proposed reroute.

The Met Council has responded by advancing new proposals for both rerouting the freight and keeping it in the Kenilworth Corridor. For either option, these proposals range from the hugely impactful to the very expensive – or both. Six of the eight proposals call for “co-location” despite the temporary status of freight in Kenilworth. The Kenilworth proposals include the destruction of homes, trails, parkland, and green space. Most of the proposals would significantly add to the noise, safety issues, visual impacts, traffic backups, and other environmental impacts identified in the DEIS.

This is not a NIMBY issue. The Kenilworth Trail provides safe, healthy recreational and commuter options for the city and region. It is functionally part of our park system. The Kenilworth Corridor is priceless green space that cannot be replaced.

For over a decade public agencies have stated that freight rail must be relocated to make way for LRT through the Kenilworth Corridor. If this position is reversed midway through the design process for SWLRT, the residents of Kenwood Isles would find this a significant breach of the public trust.

Simply stated, none of the co-location proposals are in keeping with the project goals of preserving the environment, protecting the quality of life, and creating a safe transit mode compatible with existing trails.

This has been a deeply flawed process, and we **reject any recommendation for at-grade co-location in the Kenilworth Corridor. If freight doesn't work in St. Louis Park, perhaps it's time to rethink the Locally Preferred Alternative.**

Notes

1) The 29th Street and Southwest Corridor Vintage Trolley Study (2000) noted that, “To implement transit service in the Southwest Corridor, either a rail swap with Canadian Pacific Rail or a southern interconnect must occur.”

2) The FTA-compliant Alternatives Analysis (2005-2007) defines the Kenilworth section of route 3A for the proposed Southwest Light Rail in this way: “Just north of West Lake Street the route enters **an exclusive (LRT) guideway in the HCRRA's Kenilworth Corridor to Penn Avenue**” (page 25). This study goes on to say that “to construct and operate an exclusive transit-only guideway in the HCRRA's Kenilworth Corridor the **existing freight rail service must be relocated**” (page 26).

3) The “Locally Preferred Alternative” (LPA) recommended by HCRRA (10/29/2009) to participating municipalities and the Metropolitan Council included a recommendation that freight rail relocation be considered as a separate “parallel process.”

4) In adopting HCRRA's recommended Locally Preferred Alternative based on treating relocation of the freight rail as a separate process, the City of Minneapolis' Resolution (January, 2010) stated:

“Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained.”

5) The Draft Environmental Impact Statement supports the Locally Preferred Alternative, which includes relocation of freight out of the Kenilworth Corridor. (December, 2012)

6) The southwesttransitway.org has stated since its inception that:

Hennepin County and its partners are committed to ensuring that a connected system of trails is retained throughout the southwest metro area. Currently, there are four trails that may be affected by a Southwest LRT line. They are the

Southwest LRT trail, the Kenilworth trail, the Cedar Lake Park trail, and the Midtown Greenway. These trails are all located on property owned by the HCRRRA. The existing walking and biking trails will be maintained; **there is plenty of space for light rail and the existing trails**. Currently, rails and trails safely coexist in more than 60 areas of the United States.

End of Addendum

Appendix: Addendum #2

January 5, 2015

Resolution to Recommend Review of Metropolitan Council's Policy Regarding Project Administration and Accountability to Property Owners

WHEREAS, It has come to the attention of the Kenwood Isles Area Association (KIAA) that a number of homeowners in the Cedar-Isles-Dean neighborhood apparently suffered damage to their properties as a result of the Metropolitan Council's Cedar-Lakes Sewer Improvement Project (MCES Project No. 804122), and

WHEREAS, Neither the Metropolitan Council's contractor nor the Metropolitan Council Environmental Services have taken responsibility or satisfactorily addressed CIDNA homeowners' documented property damage claims, and

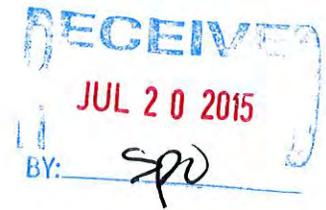
WHEREAS, This lack of accountability leads to legitimate concerns about this and all other projects the Metropolitan Council administers, especially the construction and operation of the proposed Southwest Light Rail Transit (SWLRT), and

WHEREAS, This dereliction of responsibility with regard to property damage will potentially affect all properties – public, park or private property alike - along the 16-mile proposed SWLRT route.

THEREFORE BE IT RESOLVED, That the KIAA Board of Directors urgently requests that the Metropolitan Council review its policies for resolving property damage disputes resulting from its construction projects and its role in administering projects;

BE IT FURTHER RESOLVED, That based on this review and before construction begins on the SWLRT, the KIAA Board of Directors urges the Metropolitan Council to put clear and reasonable processes in place to resolve damage disputes and fairly compensate property owners who experience damage as a result of Metropolitan Council projects.

Kenwood - Isles Area Association



Nani Jacobson
SWRT Project Office
6465 Wayzata Blvd Suite 500

Re: SDEIS Response

Lakes and Parks Alliance of Minneapolis, Inc.
c/o The Chazin Group
Lake Point Corporate Centre
3100 West Lake Street, Suite 230
Minneapolis, MN 55416



July 20, 2015

Ms. Nani Jacobson, Project Manager
Southwest Light Rail Transit Project Office
6465 Wayzata Blvd., Suite 500
St. Louis Park, MN 55426

Via email: swlrt@metrotransit.org

Dear Ms. Jacobson,

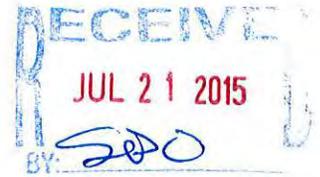
I am contacting you as a board member of the Lakes and Parks Alliance of Minneapolis, Inc. Our organization endorses and supports the comments submitted by Light Rail Transit Done Right (LRTDR).

Please add this letter to the record of comments on the Southwest Light Rail Supplemental DEIS.

Sincerely,

George Puzak
Lakes and Parks Alliance of Minneapolis, Inc., board member

Kenilworth Preservation Group (KPG)
c/o The Chazin Group
Lake Point Corporate Centre
3100 West Lake Street, Suite 230
Minneapolis, Minnesota 55416-5392



Via email: swlrt@metrotransit.org

July 20, 2015

Ms. Nani Jacobson, Project Manager
Southwest Light Rail Transit Project Office
6465 Wayzata Blvd., Suite 500
St. Louis Park, MN 55426

RE: Supplemental DEIS

Dear Ms. Jacobson,

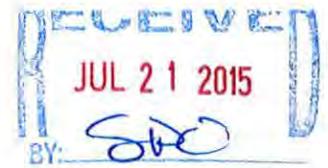
I am contacting you as chair of the Kenilworth Preservation Group (KPG). KPG endorses and supports the comments submitted by LRT Done Right.

Please add this letter to the record of comments on the Southwest Light Rail Supplemental DEIS.

Sincerely,

A handwritten signature in blue ink that reads "Stuart A Chazin".

Stuart A Chazin
Chair - Kenilworth Preservation Group



LRT-Done Right

2782 Dean Parkway
Minneapolis, MN 55416

July 21, 2015

Nani Jacobson
Assistant Director, Environmental and Agreements
Metro Transit — Southwest LRT Project Office
6465 Wayzata Blvd, Suite 500
St. Louis Park, MN 55426

Dear Ms. Jacobson:

LRT-Done Right is a grassroots organization of some 500 Minneapolis residents and taxpayers who have conducted exhaustive research and advocacy on the effects of light rail transit and freight lines on community well being. We hereby submit to you our comments on the Southwest LRT Supplemental Draft EIS. They are the product of literally thousands of volunteer hours of research, analysis, and writing. As citizens of Minneapolis and the Metro area, we hope and expect that they will receive appropriate respect, attention, and response.

The 2012 Draft Environmental Impact Statement clearly recommended that the best course of action was to relocate freight out of the Kenilworth Corridor.

This position was reversed in 2013, and the Metropolitan Council's recommendation is now to "co-locate" freight and light rail in the Kenilworth Corridor. We consider this a significant breach of public trust and the low point of a deeply flawed planning process. We are an organization that seeks to represent concerns of those most impacted by this unfortunate decision.

The current Supplementary Draft Environmental Impact Statement is partly intended to assess the impact of co-location in the Kenilworth Corridor. It fails to do so on many levels, summarized in the following points:

First, it considers the *temporary* freight rail part of the existing condition. Freight rail service that runs through the corridor would be both upgraded and made permanent; this is a *new* project that needs a full analysis. Because new *permanent* freight infrastructure is being added to the corridor, all visual, noise, vibration, safety and other environmental impacts should be measured *from a basis of no freight and no light rail*.

Second, this SDEIS is silent on the safety implications of locating freight trains carrying hazardous materials through an urban environment within feet of homes, parks, trails, passenger trains, and live overhead electrical wires. The new and serious impacts created by this situation would continue to grow as transport of ethanol and other volatile materials expands and freight trains grow longer.

Third, this SDEIS is significantly flawed in its findings regarding environmental impact, safety concerns, and disturbance of livability, if not outright danger, to those living within a half mile of the route, which we will refer to as the "Blast Zone." This is a real issue that was not as prevalent in the news when the alignment was first proposed. In the context of current discussions regarding the increased number of freight accidents across the United States and Minnesota, we are seriously concerned about the safety of families and loved ones who would live in a Blast Zone zone surrounding ethanol trains and sparking LRT wires.

Fourth, we are disturbed by the promises of unspecified remediation activities found throughout the SDEIS. As the Department of the Interior says in its *Handbook on Departmental Review of Section 4(f) Evaluations*: "Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable.... Reviewers should make sure that all possible site-specific planning has been done to identify and list the measures which will be undertaken, at project expense, to minimize harm to Section 4(f) properties." Such general promises are not acceptable to the federal government. Nor are they acceptable to us.

Finally, the SDEIS fails to address the significant costs associated with the many design and construction, safety, and environmental remedies that it will, based on our assessment, be required to implement — the relocation of a sewer force main that the Met Council installed only months ago, and sound and vibration remediation measures for area residents are but two. Nor does it recognize long-term costs of lost property tax revenue that would erode the tax base of the City of Minneapolis in perpetuity. We estimate that these combined costs would initially total at least \$13 million to \$24 million, and much more over the years.

When Hennepin County and the Met Council chose the present route for SWLRT between the Chain of Lakes through the Kenilworth Corridor — including "co-location," thus making the temporary freight rail permanent — they accepted the responsibility to respect the natural and built environments that it travels through as well as the people who bicycle, walk, recreate, and live there. LRTDR does not see evidence that this responsibility has been taken as seriously as necessary and the following pages, which respond to specific elements of the SDEIS, articulate some of the reasons why.

Mary Pattock

On behalf of LRT-Done Right

LRT-Done Right response to Southwest Light Rail Supplemental DEIS

3.4.1.2 Acquisitions and Displacements

B. Potential Acquisitions and Displacements Impacts

Comment: We request more information about 3400 Cedar Lake Parkway, a strip of land valued by the City of Minneapolis \$2.1 million.¹ For years, the Hennepin County property tax website listed this parkland as owned by the Minneapolis Park and Recreation Board. Meanwhile, in discussions concerning SWLRT, the Met Council disputed this information, maintaining that the property belongs to BNSF. Recently, however, Hennepin County changed its website to say the property belongs to BNSF.² What is the basis of the change? What evidence does the Council have that the land is owned by BNSF railroad? Where are the supporting documents, or what was the process by which this change was made? Did the property change hands via a gift of public property? If so, when and why did that happen? If the property is indeed owned by the Park Board, then a compliance analysis will need to be conducted to comply with both Section 106 and 4(f).

In Short-Term Acquisition and Displacement Impacts, the Council states that “[s]hort-term occupancies of parcels for construction would...change existing land uses” including “potential increases in noise levels, dust traffic congestion, visual changes, and increased difficulty accessing residential, commercial and other uses.” The Council should say what the plans are to mitigate these effects for residents and businesses. Most important, how will prompt emergency fire, medical and police access be maintained?

In Short-Term Acquisition and Displacement Impacts, the Council discusses plans for remnant parcels without acknowledging its commitment with the City of Minneapolis in the Memorandum of Understanding. The MOU documents the Council’s agreement to convey property they own or acquire from BNSF or HCRRA in the Kenilworth Corridor that is not needed for the Project or freight rail to the Minneapolis Park and Recreation Board for use as parkland. Please see:
<http://metro council.org/METC/files/f7/f7d41cfb-a062-46c7-942d-0785989da8a0.pdf>

Based on figures listed on the Hennepin County property tax website, annual property taxes payable just for the St. Louis Park properties listed as potential FULL parcel acquisitions in Table 3.4-3 total approximately \$240,000. Yet Section 3.4.3, Economic Effects, states that the annual reduction in property tax revenue to the City of St. Louis Park for all full AND partial acquisitions is only \$35,940. The SDEIS lists plans for partial acquisition of properties owned by Calhoun Towers, Calhoun Isles Condo Association, Cedar Lake Shores Townhomes, and other private property in Minneapolis, but identifies no property tax loss for Minneapolis. The Council should explain the calculations it used to conclude that the property tax losses are so low or even nonexistent. Although we understand that the Council may not wish to release dollar figures for specific property acquisitions at this time, the public must nevertheless be assured that the Council is not both minimizing the costs of acquiring these properties and ignoring the fact that taxpayers will need to compensate for a shrunken property-tax base, which we estimate would exceed \$4 million annually (based on an estimated 5 percent decline in property value for private homes and commercial buildings most impacted by SWLRT).

3.4.1.3 Cultural Resources

B. Potential Cultural Resources Impacts

This section identifies the potential long-term and short-term impacts to the archaeological and architecture/history resources listed in or eligible for the NRHP.

Long-Term Direct and Indirect Cultural Resources Impacts.

Comment: Minneapolis residents have continually expressed concern with the impact the project will have, both during construction and after operation of SWLRT, on cultural resources in the City.

As stated by the Minnesota State Historic Preservation Office (MnSHPO), an adverse effect on one contributing feature is an adverse effect on an entire historic district. Therefore, the conclusion that the project will have an adverse effect on the Lagoon means that there will be an adverse effect on the Grand Rounds Historic District as a whole, as indicated in the SDEIS.

¹ See <http://apps.ci.minneapolis.mn.us/PIApp/ValuationRpt.aspx?pid=3202924120001> and <http://apps.ci.minneapolis.mn.us/PIApp/GeneralInfoRpt.aspx?pid=3202924120001>

² See <https://gis.hennepin.us/property/map/default.aspx>

Section 3.1.2.3 of the SDEIS lists possible mitigation measures that *may* be included in the Section 106 agreement:

- Consultation with MNSHPO and other consulting parties during the development of project design and engineering activities for locations within and/or near historic properties
- Integration of information about historic properties into station area planning efforts
- Recovering data from eligible archaeological properties before construction
- Consultation with MNSHPO and other consulting parties during construction to minimize impacts on historic properties
- Preparation of NRHP nominations to facilitate preservation of historic properties
- Public education about historic properties in the project area

None of these measures can avoid, minimize or mitigate the long-term adverse effects of the project on the Grand Rounds Historic District in a meaningful way. The noise impacts, including bells and horns, will be audible from distances within and beyond the Area of Potential Effect, and include not only the Lagoon area but also Lake of the Isles and Cedar Lake as well as the other parts of the Grand Rounds Historic District. *Noise and vibration impact studies should be done from a baseline assuming no freight, as HCRRA had committed to do and as was contemplated in the DEIS.* Despite the requirement that such impacts be minimized, co-locating both freight and light rail in the Kenilworth Corridor results in the opposite outcome.

The proposed bridges over the Lagoon would have an adverse impact because of their size and scale, inconsistency with the historic cultural landscape of the channel, the noise and vibrations caused by the light rail vehicles traveling the bridge and the fact that it may not be possible to mitigate the impacts of the new bridges, as stated by the MPRB earlier in the 106 process. The appearance of the new bridge structures and the sounds associated with modern rail infrastructure would alter the characteristics of “community planning and development,” “entertainment and recreation,” and “landscape architecture” that make the Lagoon eligible for NRHP designation, and will adversely affect the character and feeling of the Lagoon and how people use the historic resource, including the experience of using the waterway under the new structures. Given that the Council is proceeding with this project in spite of this adverse effect, we hope that designers will continue to be vigilant about minimizing the impact on the setting and feeling of the historic channel, including audible and visual intrusions that will alter the park-like setting of the Lagoon, a vital element of its historic character. These concerns extend to Cedar Lake and the beaches on it nearest to SWLRT, as well as the visual impact on Park Board Bridge #4, Lake of the Isles, Lake of the Isles Parkway and Lake of the Isles Historic District.

Table 3.4-5 lists cultural resources that have been preliminarily considered to have no adverse effect from the Project, because of continued consultation with MnSHPO and certain unidentified avoidance/minimization/mitigation measures. Throughout this table, “consultation” is offered as mitigation. But “consultation” is not the same as “mitigation.” Consulting means talking; mitigation means doing something. The SDEIS does not identify what it could do that would mitigate negative impacts. In any event, the possible mitigation measures listed above would also not significantly address impacts on the cultural resources listed in this table. *The Council must be responsible for ensuring that “continued consultation” is meaningful by conducting assessments and proposing specific mitigation solutions before the 106 agreement is written and finalized, as it is impossible to avoid adverse effects after SWLRT construction and operations commence.* See also our comments below on 3.5 Draft 4(f) Section Evaluation Update.

Cultural resources covered in table 3.4-5 include Lake of the Isles Residential Historic District, Kenwood Parkway Residential Historic District, Lake Calhoun, Cedar Lake Parkway, Cedar Lake, Park Bridge #4, Lake of the Isles Parkway, Lake of the Isles, Kenwood Parkway, Kenwood Park, Kenwood Water Tower and four NRHP listed or eligible homes in the Area of Potential Effect. Station activity will change traffic and parking patterns in the neighborhood and introduce long-term visual and audible intrusions that adversely impact these historic resources. Concerns about the long term Project impact on some or all of these cultural resources include the following:

- Long-term visual and audible intrusion from changes in traffic patterns related to station access: We are concerned that auditory impacts and changes in traffic and parking patterns will adversely affect the integrity of setting and feeling that make Kenwood Park, Kenwood Parkway, Lake of the Isles Parkway, Cedar Lake Parkway and the related residential historic districts, and the four individual homes listed on or eligible for the NRHP. A traffic analysis must be conducted and a plan to mitigate adverse impacts proposed and discussed before the 106 agreement is drafted.
- Noise effects from LRT operations: Audible intrusion from train operations, including bells and horns and the impact of trains going in and out of the tunnel, will alter the environment of the historic resources and the characteristics that make certain of these resources eligible for the NRHP. It seems unlikely that a few homes in the Kenwood Parkway Residential Historic District are the only cultural resources that will be adversely affected by noise from train operations.
- Infrastructure surrounding the tunnel and the massive tunnel portals could adversely affect the historic integrity of the resources. Signage along the historic parkways could also have an adverse effect. Specific design elements should be proposed to minimize these impacts and should be reviewed as part of the 106 process.

The degree of concern regarding the short-term impact of SWLRT construction on all of these cultural resources cannot be overstated. Noise and vibration sensitive resources need to be identified. The public needs to see a comprehensive noise and vibration study and analysis for the Project during construction including the impact of increased truck and construction equipment traffic. We would like details on what will be included in the "project wide construction plan." It should identify measures to be taken during construction to protect all historic properties from project-related activity including construction related traffic. We need real plans to prevent or repair damage resulting project activities, incorporating guidance offered by the National Park Service in Preservation Tech Note #3: Protecting a Historic Structure during Adjacent Construction, as well as an agreement that specifies how these potential impacts will be monitored and mitigated. The Council previously communicated to a neighborhood group whose residents experienced damage from a Council project that "[c]ontinuing with future projects, our goal is to ensure that claims are promptly and appropriately investigated to determine whether or not they may be related to the project. Depending on the facts of the claim, this may involve independent experts." We request that the Council communicate with owners of historic homes in the APE prior to construction to establish baselines and mitigation commitments.

Table 3.4-5 is confusing in that it lists station area development as a possible effect on the Kenwood Parkway Residential Historical District that will require continued consultation. The Met Council needs to explain what development it is referring to, because none is anticipated in this district. For example, the Southwest Community Works website and documents state: "Future development is not envisioned around this station...."

<http://www.swlrtcommunityworks.org/explore-corridor/stations/21st-street-station>

See also

<http://www.swlrtcommunityworks.org/~ /media/SW%20Corridor/Document%20Archive/investment-framework/ch-4-penn.pdf>

3.4.1.4 Source: MnDOT CRU, 2014.Parklands, Recreation Areas, and Open Spaces

Long-Term Direct and Indirect Parklands, Recreation Areas, and Open Spaces Impacts

Comment: As noted in our comments on 3.4.1.2 above, we request more information about 3400 Cedar Lake Parkway. This parkland has long been listed on the Hennepin County property tax website as belonging to the Minneapolis Park and Recreation Board. What evidence has the Council or Hennepin County discovered to recently change the website to indicate that this \$2.1 million property is owned by BNSF railroad? Does the conclusion of "no long-term direct impact" of the Project on Cedar Lake Park depend on the Met Council taking advantage of a loophole: that documentation conveying this Cedar Lake Park property to the Park Board many years ago may be lacking, even though the intent that it be parkland was understood? Is the conclusion a way to avoid conducting a compliance analysis as would be required under Section 106 and 4(f) if the property belonged to the Park Board?

The SDEIS states: "None of the indirect impacts on parklands, recreation areas, and open spaces from the LPA in the St. Louis Park/Minneapolis Segment would substantially impair the recreational activities, features, or attributes of those parklands, recreation areas, and open spaces." We dispute this conclusion. The permanent installation of freight rail and light rail in the Kenilworth Corridor that is too narrow to permit separation in accordance with AREMA and FTA guidelines creates a safety risk that would directly impair park activities in the event of a derailment and/or explosion of flammable materials.

For comment on the indirect impacts of the LPA in the form of visual, noise, and/or access impacts, please see comments to sections 3.4.1.5, 3.4.2.3, and 3.4.4.4 of this Supplemental Draft EIS.

Short-Term Parklands, Recreation Areas, and Open Spaces Impacts

Comment: Please specify the extent to which the stated "standard" measures would be sufficient to protect this environmentally sensitive parkland.

During construction, how can the safety of park and trail users (Park Siding Park, Cedar Lake Park, Lake of the Isles Park, and nearby trails and lakes) be assured, given that unit freight trains of 100 or more cars containing Class III flammable liquids, especially ethanol, travel through this narrow corridor in close proximity to a construction pit and materials, without whatever protective walls will later be installed?

Section 3.4.1.5 Visual Quality and Aesthetics

Excerpt from City of Minneapolis RESOLUTION 2010R-008 by Colvin Roy:

Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained.

While we appreciate and agree that the visual impact from Viewpoints 2, 3, and 4 are recognized as being substantial, we strongly disagree and contest the idea that the level of visual impact north of the Kenilworth Channel crossing (including Viewpoints 5 and 6) will be “not substantial” (pages 3-167, 168). The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be *substantial throughout the corridor*.

The SWLRT plan proposes clear-cutting in the Kenilworth Corridor, a rare urban natural resource. It would remove a large amount of green space and thousands of trees, replacing them with an overhead catenary system, tracks and ballast. The park-like environment will be permanently degraded by this infrastructure, as well as by the approximately 220 daily trains traveling over the historic Kenilworth Lagoon and through the corridor.

Clearly, the visual impact of deforestation of this area will be great, especially given that the Kenilworth Trail is used by well over 600,000 annually. Over the past 7 to 10 years, neighbors and trail users have clearly expressed to Hennepin County and the Met Council the very high value they place on the green space, wildlife and bird habitat, trees and other vegetation in the Kenilworth Corridor.

The visual impact to the park-like environment is exacerbated by the continuing presence of freight rail, which was expected to be removed from the Kenilworth corridor at the time of the Alternatives Analysis, the Locally Preferred Alternative decision, and the 2012 DEIS.

The SDEIS says the consultant determining the *visual qualities* of the corridor relied on Google Earth, files of the revised project layout, and selected “photographically documented” views (Appendix J, section 2B). It does not say the consultant actually set foot in the area, or consulted any stakeholders. Assuming that is the case, we are most discouraged at the slipshod research methods used in this important document, and find it even less credible.

At Viewpoint 5, we support all efforts to create an “attractive design” for the bridges crossing the Kenilworth Channel. The three new bridges will certainly become a “focal point,” adding large cement structures and heavily impacting the setting and feeling of this element of the Historic Chain of Lakes and the Kenilworth Trail. An attractive design for these bridges does not compensate for the vegetative clearing. The character of the City of Lakes’ signature canoe, kayak and skiing route from Lake of the Isles through the Kenilworth Channel to Cedar Lake will be fundamentally and permanently degraded. There will be a substantial negative visual impact from the level of the water as well as the level of the trail.

At Viewpoint 6, the SWLRT project plans to remove a significant amount of vegetation along the edge of Cedar Lake Park, as well as trees, plants, and restored prairie currently along the bicycle and pedestrian trails. The claim that removing trees and replacing them with overhead power lines would create a positive visual experience for trail users (“open up the view, making it more expansive”) is absurd on its face and contradicts the clearly expressed will of the Minneapolis City Council and the adjacent neighborhood. The 21st Street Station, a slab of concrete and metal with fencing and catenaries, will indeed “create a focal point” — that is to say, a negative one. It is not credible, and it is even laughable, to assert that a concrete slab will positively impact the visual qualities of a spot immediately adjacent to an urban forest and is itself in a “park-like environment.”

The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be substantial throughout the corridor. We find it absurd and disingenuous for the Council to claim otherwise. The Council must stop pretending that this problem does not exist, and get serious about identifying robust and meaningful mitigation measures for incorporation into the project.

3.4.2.1, 3.4.2.2 Geology and Groundwater, Water Resources

Comment: LRT Done Right demands that there be a much more significant and transparent discussion regarding the compensatory mitigation for damage to wetlands and aquatic resources in the Minneapolis segment, especially the Kenilworth Channel and Cedar Lake. While a permit application is required, the SDEIS identifies that there will be damage done to aquatic resources but does not specify the level of damage done during construction and then during operation of the line. The further impairment of these resources is a direct violation of the EPA Clean Water Act and will degrade one of the crown jewels of the Minneapolis "City of Lakes" water resources. Residents swim, paddle, and recreate in those resources, and to callously suggest that a section 404 permit will just address those concerns is alarming.

Further, LRTDR is not convinced that sufficient analysis has been done on existing contamination in the Kenilworth Corridor. Southwest Project Office has already stated that additional contamination is likely to be found, and while the additional contamination is stated to be covered by the contingency fund, LRTDR finds this approach to be irresponsible budgeting without fully knowing what contamination exists and if enough is actually budgeted in the fund. The Kenilworth Corridor north of 21st St is a former rail yard that housed up to 58 rail lines during its peak, and was in service for decades. The SDEIS itself specifies the numerous toxic contaminations in such soil due to its former use. LRTDR strongly opposes disturbing the land and releasing contamination into the water and air.

Southwest LRT Supplemental Draft EIS - Supporting Documents and Technical Reports: SWLRT Kenilworth Shallow LRT Tunnel Basis of Design Technical Report (Met Council, 2014d):

An Existing Sewer Force Main Crosses the Proposed Location of the SWLRT South Tunnel in the Kenilworth Corridor.

The removal and relocation of recently installed dual force mains, running beneath the freight tracks and Kenilworth Trail (between Depot Street and W. 28th Street) at the site of the proposed south tunnel, will be necessary to accommodate co-location of LRT with freight in the Kenilworth Corridor. The presence of the existing dual sewer force mains has design, construction, and cost implications on the shallow tunnel, which are not addressed in the SDEIS. The SDEIS technical drawings for the shallow tunnel do not indicate the existing force sewer main or the sewer relocation plan. Although Metropolitan Council is clearly aware of this complication, since it refers to replacing 200 feet of the dual 18-inch sanitary sewer force mains at Depot Street in its 9/19/14 CTIB capital grant application, it nevertheless does not address its design impacts and costs in the SDEIS in the Kenilworth Shallow Tunnel Design Technical Report.

In 2013 the Metropolitan Council Environmental Services (MCES) installed replacement sewer force mains between France Avenue and Dean Parkway. The force mains follow Sunset Boulevard to Depot Street and then crosses under active freight railroad tracks and the Kenilworth Trail to West 28th Street. The force mains installation at this location was completed by tunneling under, and placed perpendicular to, the railroad tracks and Kenilworth Trail so as not to disrupt active rail operations. The tunneling process required construction of two tunneling (jacking) pits on either side of the tracks. One pit was located at Depot Street and the other was located at the end of West 28th Street adjacent to Park Siding Park. The tunneling pit near Park Siding Park measured 16 by 34 feet and was approximately 27 feet deep. The excavation of these pits required the use of a crane and an excavator.

The SWLRT south tunnel construction plan says a pit would be dug to a depth of approximately 35 feet in this same location. The existing force main crossing consists of a 60-inch diameter tunneled steel "casing" pipe. The distance to the top of the casing pipe is approximately 17 feet and the distance to the bottom is 22 feet. The dual 18-inch force main pipes pass through this tunneled casing. The current placement of the force main interferes with the proposed location of the tunnel construction pit. The force main will need to be removed and relocated either above the proposed tunnel or below the tunnel to a depth greater than approximately 45 feet below ground level. See diagrams A through C below. If the force main is relocated above the shallow tunnel, the tunnel will need to be dug deeper in order to accommodate the force main above. This will result in an increased steepness in the incline of descent and ascent of the entrance and exit to the tunnel respectively. If LRT trains cannot navigate said increased grade change then it may require building a longer tunnel in order to safely allow trains to exit and enter at a lesser incline/decline, adding to the cost and impact.

Risks associated with possible stray electrical current traveling in the ground from the LRT power lines to the sewer force mains have not been identified or addressed in the SDEIS.

The removal and re-installation of the dual force mains will have Economic, Social, and Environmental impacts:

Economic costs:

Long term increase in cost of the SWLRT project of an undetermined amount as a result of co-locating freight and LRT, including:

1. Cost of removing and relocating the sewer force main located under the freight tracks and the Kenilworth Trail.
2. Cost of possible redesign of the south tunnel to accommodate force main relocation if it is reinstalled above the south tunnel.
3. Costs associated with re-engineering or lift station(s) that may be required to ensure adequate force is maintained in the sewer main if the main is re-located to a deeper position (i.e., from approximately 22 feet to more than 45 feet below ground level).
4. Cost of remediation of any portions of Park Siding Park that may be affected during removal/relocation of the force sewer main.
5. Cost of roadwork at Depot Street to remove/relocate force main.
6. Cost of damages to walls, ceilings and foundations of neighboring residences as a result of construction to remove/relocate the force sewer main.
7. Costs to remediate noise and vibrations impacts on the community that may be experienced during the construction period and post construction period should lift station(s) be required.

Social:

Parkland, Recreation, Open Spaces and Safety Impact:

Short-term construction impact - Portions of Park Siding Park (a Section 4 (f) property) may again be affected in order to accommodate the removal and reinstallation of this force sewer main and construction of tunneling (jacking) pits. The original construction resulted in closure of the park to users for an extended period, installation of a temporary detour through the park to accommodate the closure of Dean Court, destruction of park vegetation, gardens and lighting, and the removal of playground equipment. Some of these same impacts may again occur during the removal/relocation of the force main and construction of associated jacking pits. In addition, the construction of the south tunnel is expected to take 2-3 years and requires a deep open pit adjacent to Park Siding Park. The access and enjoyment of this park will be affected by the tunnel construction during this extended time frame and presents a dangerous environment for nearby park users and freight rail operations. The mitigation and cost of remediation of the parkland have not been addressed in the SDEIS.

Environmental:

Noise:

Short-term noise impacts - Removal and reinstallation of the force line will result in noise impacts of an undetermined level to both neighboring residents and Park Siding Park users as a result of both construction activities and construction vehicles. Mitigation plans/cost are not included in the SDEIS and need to be addressed.

Vibration:

Short-term vibration impacts – Effects of construction activities and, to a lesser extent, construction vehicles will have an impact on park users, neighbors and their residences. Vibration and associated ground-borne noise impacts may damage walls, ceilings and foundations of nearby residences, as was experienced in the original construction of this force line. Mitigation plans/cost are not included in the SDEIS and need to be addressed.

Diagram A – Existing sewer force main at approximately 22 feet below grade obstructs planned location of SWLRT south tunnel in the Kenilworth Corridor, which requires an estimated 45 feet below ground level for construction pit and helical piles.

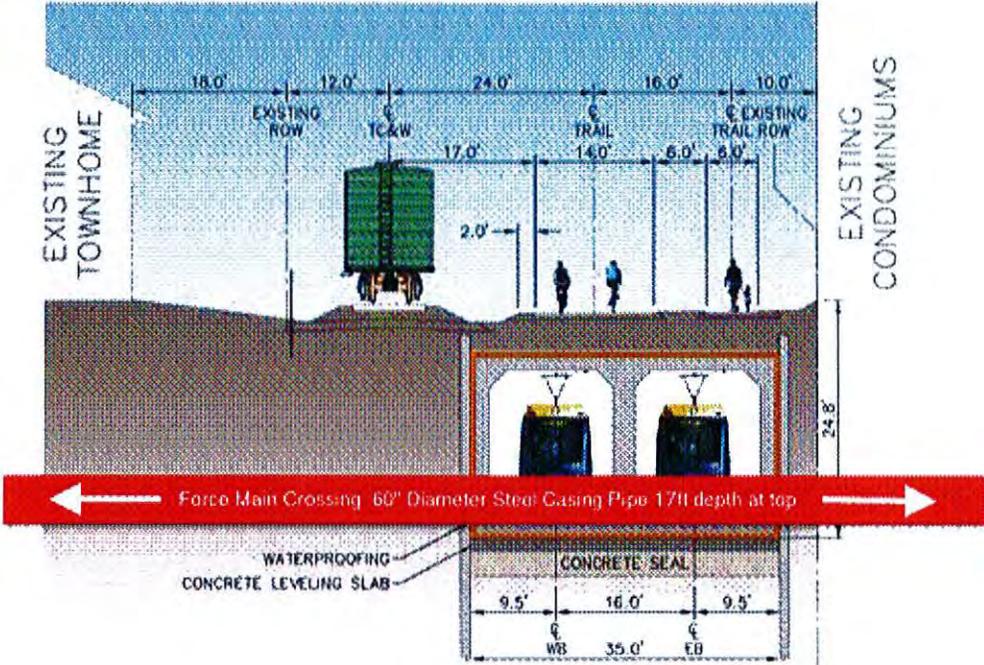


Diagram B - Typical Kenilworth Shallow LRT Tunnel Section per SDEIS

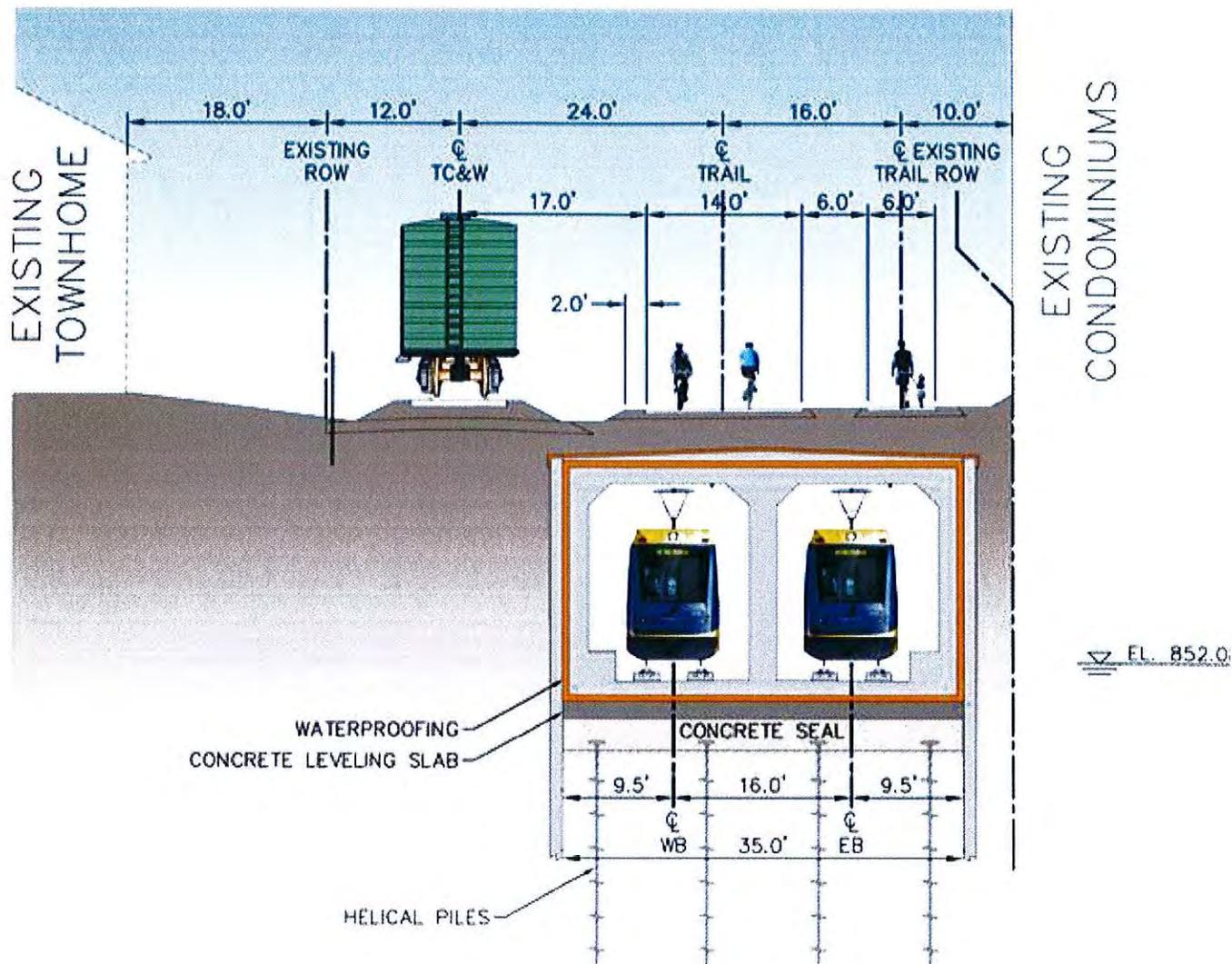
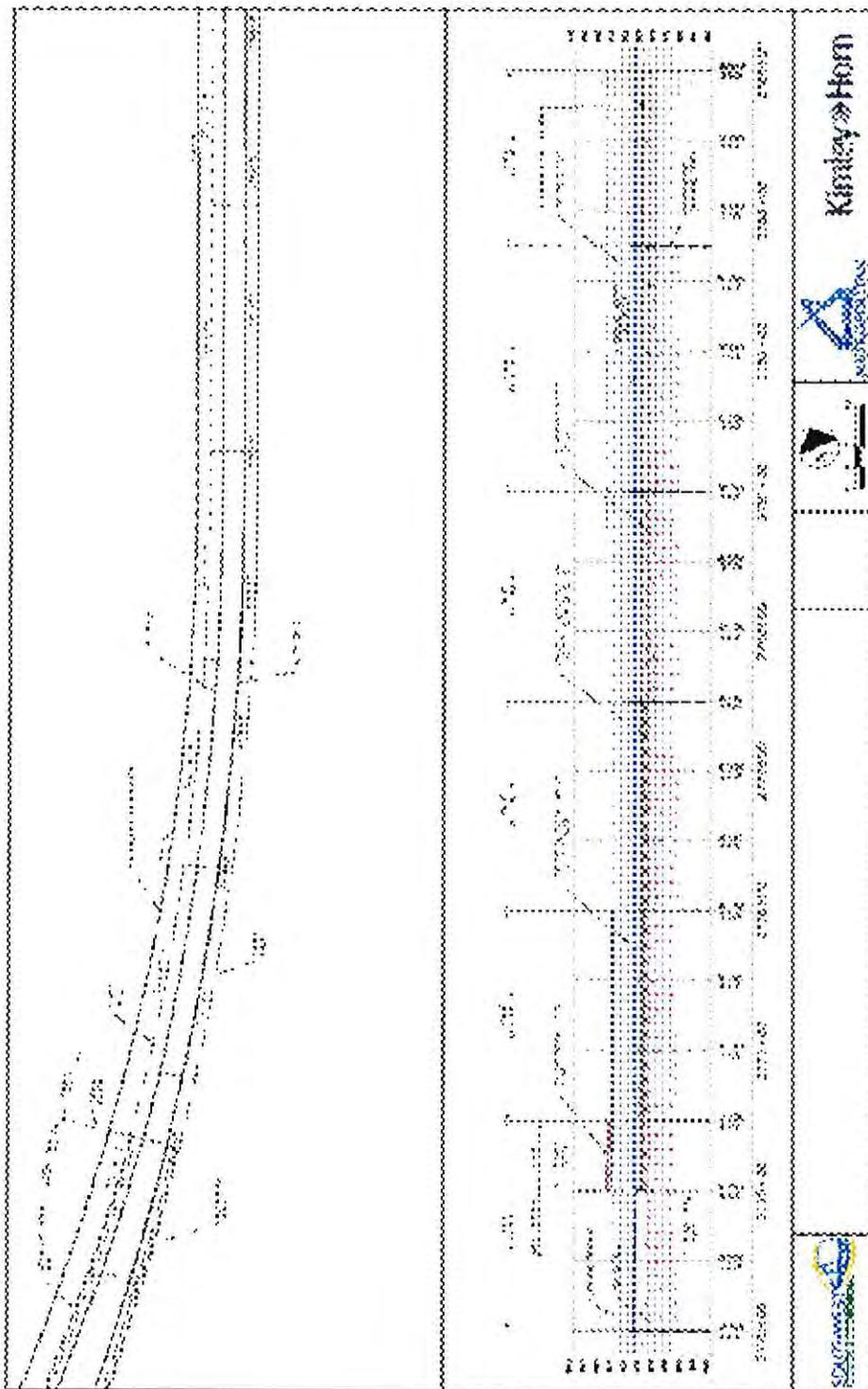


Diagram C - SWLRT South Tunnel Typical Cell Sequencing per SDEIS Note: the helical piles are shown at approximately 820 feet above sea level which is approximately 45 feet below the ground level.



3.4.2.3 AND 3.4.2.3 NOISE AND VIBRATION

Comment: The SDEIS greatly understates both noise and vibration impacts of SWLRT.

- It uses wrong data as the fundamental framework for noise and vibration analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise and vibration data on a scenario that *does* include a freight train, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the Draft EIS in 2012.”³ *This defect renders the noise and vibration sections of the SDEIS fundamentally flawed and misleading. They need to be reworked with appropriate and correct data.*
- The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporated into the SDEIS.
- The SDEIS effectively ignores the impacts of construction. See more below.

Noise 3.4.2.3

Comment: When the Met Council chose the present route for SWLRT between the Chain of Lakes through the Kenilworth Corridor, and included “co-location” which will make the existing freight rail permanent, the project implicitly accepted the responsibility to respect the natural and built environments that it travels through as well as the people who bike, walk, recreate, and live there. We believe that this responsibility has not been taken seriously and the following describes why.

SWLRT noise impacts substantially minimized: We believe that the SDEIS substantially minimizes the noise impacts associated with the proposed SWLRT. The noise impact of SWLRT in this area of Minneapolis will be highly significant for a number of reasons, but most notably because of the tranquility, recreational, park, and residential use currently existing in and bordering the Corridor. Some have compared the proposed SWLRT route with the Blue Line (Hiawatha) and the Green Line (Central Corridor down University Avenue). But such comparison is inappropriate, since the Blue and Green lines run immediately adjacent to commercial thoroughfares or four-lane roads that carry cars and heavy trucks around the clock. By contrast, the Kenilworth area is a quiet environment, and is part of the **Grand Rounds National Scenic Byway**.⁴ By contrast, the Kenilworth Corridor is a unique, quiet environment, part of the Grand Rounds National Scenic Byway.

The SDEIS coolly states that 24 residences would suffer Severe or Moderate noise impact. Translated, this means the noise of 220 light-rail trains running daily from 4 a.m. to 2 a.m. would fundamentally transform the adjacent neighborhood with near-constant noise and vibration at sound levels up to 106 dBA (the sound of warning bells — equal to the sound of a jet take-off 1,000 feet away). As noted in Appendix H (SDEIS Noise and Vibrations Memoranda), residences are considered Category 2 buildings, with the expectation that sleep occurs there.

The noise levels given in Noise Fact Sheet (Appendix H p. 19) state the following: LRT trains traveling at 45 mph generate maximum typical noise levels of 76 dBA at 50 feet (equivalent to freeway noise at 50 feet), 71 dBA at 100 feet, and 66 dBA at 200 feet. Adding 211-220 LRT three-car trains to the Kenilworth Corridor day and night, each producing such elevated noise levels, would be a severe and overwhelming intrusion, drastically increasing the noise generated. This would hold true even if the only noise increase were from the LRT trains traveling at their stated speed, per the SDEIS, of 45 mph.

³ <http://metrocouncil.org/swlrt/sdeis>

⁴ A National Scenic Byway is a road recognized by the [United States Department of Transportation](#) for one or more of six “intrinsic qualities”: archeological, cultural, historic, natural, recreational, and scenic. Congress established the program in 1991 to preserve and protect the nation’s scenic but often less-traveled roads and promote [tourism](#) and economic development. The National Scenic Byways Program (NSBP) is administered by the [Federal Highway Administration](#) (FHWA).

Our conclusion that the LRT trains in the midst of a residential and recreational area would be an overwhelming intrusion is supported by the analysis below, which assesses the combined impacts of LRT frequency, time of day or night of LRT, and LRT bell noise intensity and frequency identified in Appendix H, SDEIS p.3-13 and p.3-18.

LRTDR Analysis of SDEIS Appendix H Table 1 & p. H-4 Data

- Bells are sounded for 5 seconds prior to grade crossings, as vehicles approach grade crossings, such as the 21st Street in the Kenilworth Corridor
- Grade crossing bells are used at grade crossings for 20 seconds for each train; 21st Street is also a grade crossing.
- Bells are sounded twice at stations — once entering and once exiting station platforms, such as the 21st Station (SDEIS gives no duration. We request the duration of bells sounding when entering and exiting station platforms be made public. This information is needed for accurate noise impacts to be known.
- Total bell time (not counting the brief pause between entering and exiting the station) is known or given as more than 25 seconds per train. It is unknown how much longer than 25 seconds the bells will sound, as exit/enter bell duration is not given in the SDEIS.

WEEKDAYS

Early morning 4:00 AM – 5:30 AM

- 6 to 8 trains per hour equals 9 to 12 trains per day between 4:00 AM and 5:30 AM
- This means 1 SWLRT train at 66 to 76 dBA every 7.5 to 10 minutes
- Would produce 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

Early morning to evening 5:30 AM – 9:00 PM

- 12 SWLRT trains per hour equals 186 trains per day between 5:30 AM and 9:00 PM
- This means 1 SWLRT train every 5 minutes
- Would produce 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 5 minutes.
- At least 10% of every 5 minute period in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise
- *At least 6 minutes of every hour from early morning to 9 PM in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise.*

Evening to early morning 9 PM to 2 AM

9 PM to 11 PM

- 6 to 8 trains per hour equals 12 to 16 trains per evening between 9 PM and 11 PM
- This means 1 SWLRT train every 7.5 to 10 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

11 PM – 12AM

- 2 trains per hour equals 2 trains per night between 11 PM and 12 AM
- This means 1 SWLRT train every 30 minutes
- Would entail 25-plus seconds of bells ((5 seconds 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 30 minutes

Very early morning 12 AM – 2 AM

- 1 to 2 trains per hour equals 2 to 4 trains per day, between 12 AM and 2 AM

- This means 1 SWLRT train every 30 to 60 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 30 to 60 minutes

Very early morning 2 AM – 4 AM

- 2 hours of no LRT trains equals baseline — current noise levels

Total equals 211-220 SWLRT three-car trains per weekday

WEEKENDS

Early morning 4:30 AM to 9 AM

- 6-8 trains per hour equals 26 to 36 trains per day between 4:30 AM and 9 AM
- This means 1 SWLRT train every 7.5 to 10 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

Morning to evening 9 AM – 7 PM

- 12 trains per hour equals 120 trains per day between 9 AM and 7 PM
- This means 1 SWLRT train every 5 minutes
- Would entail at least 25 seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 5 minutes.
- At least 10% of every 5 minute period in the Kenilworth Corridor would consist of bell noise at 88dBA and 106 dBA
- At least 6 minutes of every hour from early morning to evening in the Kenilworth Corridor will consist of bell noise at 88dBA and 106 dBA

Evening 7 PM to 9 PM

- 8 trains per hour equals 16 trains per day between 7 PM and 9 PM
- This means 1 SWLRT train every 7.5 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 minutes

Late evening 9 PM – 11 PM

- 6 – 8 trains per hour equals 12 to 16 trains per day, 9 PM – 11 PM
- 1 SWLRT train every 7.5 – 10 minutes
- 25-plus seconds of bell noise (5 seconds 88 dBA, plus 20 seconds 106 dBA, unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

Late evening 11 PM – 12 AM

- 4 trains per hour equals 4 trains per day between 11 PM and 12 AM
- This means 1 SWLRT train every 15 minutes
- 11 PM to 12 AM weekend train frequency is double the weekday frequency of 11 AM to 12 AM
- Would entail 25-plus seconds of bell noise (5 seconds 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 15 minutes

Very early morning 12 AM to 2 AM

- 2 to 4 trains per hour equals 4-8 trains per day between 12 AM and 2 AM
- This means 1 SWLRT train every 15 to 30 minutes
- 12 AM to 2 AM weekend train frequency is double the weekday frequency of 12 AM to 2 AM
- 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 15 to 30 minutes

Very early morning 2 AM – 4 AM

- No trains — equals current existing conditions

Total equals 180 -195 SWLRT three-car trains every weekend day.

The result of LRT noise would be that the corridor will be permanently changed from a quiet, tranquil area sought by pedestrians, cyclists, and outdoor enthusiasts, and a highly desirable residential area to an area severely disrupted by the noise of a highly mechanized transit route.

Beyond permanently degrading the area, there will be multiple public health consequences of SWLRT noise in the corridor. The impact of repetitive noise intrusion on neighborhood public health will be significant. For example, regarding the obvious potential for sleep interruption caused by SWLRT noise (and there will be more trains during the late evening and early morning weekend hours) a research review published in the December 2014 edition of *Sleep Science*, summarizes:

Emerging evidence that these short-term effects of environmental noise, particularly when the exposure is nocturnal, may be followed by long-term adverse cardio metabolic outcomes. Nocturnal environmental noise may be the most worrying form of noise pollution in terms of its health consequences because of its synergistic direct and indirect (through sleep disturbances acting as a mediator) influence on biological systems. Duration and quality of sleep should thus be regarded as risk factors or markers significantly influenced by the environment. One of the means that should be proposed is avoidance at all costs of sleep disruptions caused by environmental noise.”

The article continues:

The World Health Organization (WHO) has documented seven categories of adverse health and social effects of noise pollution, whether occupational, social or environmental. The latter [sleep disturbance] is considered the most deleterious non-auditory effect because of its impact on quality of life and daytime performance. Environmental noise, especially that caused by transportation means, is a growing problem in our modern cities. A number of cardiovascular risk factors and cardiovascular outcomes have been associated with disturbed sleep: coronary artery calcifications, atherogenic lipid profiles, atherosclerosis, obesity, type 2 diabetes, hypertension, cardiovascular events and increased mortality....during the past year, the relationship between insomnia and psychiatric disorders has come to be considered synergistic, including bi-directional causation.”⁵

There is growing evidence that the opportunity to benefit from greenspace — what some mental health experts have referred to as “soft fascination”⁶— supports social and psychological resources and recovery from stress. The perpetual and repetitive noise from SWLRT would interrupt the restful and restorative experience enjoyed by tens of thousands of people in the Kenilworth Corridor, at nearby beaches, parks, in the Kenilworth Channel and general environs of Lake of the Isles and Cedar Lake. Such opportunities to enjoy nature and relieve stress, though often taken for granted by suburban dwellers, are extremely limited in urban areas, yet equally critical for their mental health.

With healthcare costs and disease prevention being prominent national and local priorities, the economic value of the public health benefit of the Chain of Lakes and Kenilworth Corridor cannot be ignored. *We request a study of the physical and mental*

⁵ *Sleep Science*, Volume 7, Issue 4, December 2014, Pages 209-212

⁶ *British Journal of Sports Medicine* 2012, “The Urban Brain: Analyzing Outdoor Physical Activity with Mobile EEG”

health impacts of the noisy, hyper-mechanization of this currently placid area, which plays a key role in the life and character of our neighborhood and the entire City of Minneapolis.

A. Existing Conditions (p. 3-180)

This section describes existing noise-sensitive land uses in the St. Louis Park/Minneapolis Segment and existing noise levels.

Fundamental defect with baseline noise measurements

Comment: As noted above, the SDEIS uses wrong data as the fundamental framework for noise analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise data on a scenario that *does* include a freight train, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the Draft EIS in 2012.”⁷ *This defect renders the noise section of the SDEIS fundamentally flawed and misleading. It needs to be reworked with appropriate and correct data.*

The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporated into the SDEIS.

Further, since aircraft overflights are generally scarce, the average current noise level per hour is extremely low when averaged over a 24-hour period.

Additionally, there are significant seasonal and weather-related variations in noise levels, which cannot be captured when sound is measured during one 24-hour period in the summer.

Finally, in Appendix H, p.2, it is noted, “noise monitoring was performed at other locations not listed in the table. Those sites will either be addressed in the forthcoming Final EIS or no longer fall within the area where they would be potentially impacted by project noise due to design refinements during Project Development.” Since the purpose of the SDEIS is to inform the public and decision makers, and provide opportunity for comment on all areas of concern, in order to fulfill that NEPA mandate, all measurements that were made and publicly financed should be made public.

B. Potential Noise Impacts

Noise Impacts Measurement Tables (Table 3.4-11, 3.4-12)

Comment: Following FTA noise assessment guidelines, the 76 dBA LRT noise occurring every 5 minutes is measured as having a lower impact than that actual dBA of 76 because the LRT noise is not continuous. Thus, though this quiet urban area will be exposed to an actual repetitive noise of 76-80 dBA day and night, the rating of the impact is lower and measured as only 51 – 64 dBA in Tables 3.4-11, 3.4-12. The significantly lower measurement lessens the determination of findings of impacts, and therefore, whether impacts are determined as non-existent, Moderate or Severe. *This engineering methodology covers up the actual impact on people of loud repetitive noise in a peaceful setting.*

The 25-plus seconds of repetitive bell noise described in the LRTDR Analysis of SDEIS Appendix H Table 1 & p. H-4 Data above does not appear to be included in the SDEIS noise analysis in Tables 3.4-11, 3.4-12, which would clearly increase the severity of noise impact at all locations. The SDEIS also neglects to report and measure the cumulative effect of LRT and freight train noise. This information would likely show that more than 24 residences would be affected; more of them would be impacted at the severe level, and a greater impact on the Kenilworth Channel and Kenilworth Lagoon Bank.

⁷ <http://metro council.org/swlrt/sdeis>

Furthermore, future projected noise levels of LRT and freight will be higher than the projection inputs used by the SDEIS after the clear cutting of trees and vegetation in the corridor, increasing the impact of noise generated by both SWLRT and the freight rail. When utilizing the Source – Path – Receptor FTA noise impact assessment framework, it is clear that the inputs for each of the three parameters are critical and control the outcomes determining the severity of noise impact. Removal of the trees and vegetation eliminates a significant and well-established noise barrier currently in the path of noise from freight and future SWLRT. *The SDEIS does not address the impact of clear-cutting the trees and vegetation in the Kenilworth Corridor on Moderate versus Severe LRT noise impacts.*

Tunnel Swaps Noise for Vibration

As stated in the SDEIS, the tunnel section of the SWLRT is supposed to eliminate “almost all noise impacts within that segment of the corridor.” It must be noted, however, that these noise impacts will be replaced by vibration impacts; see the Vibration Section below.

Analysis of Table 3.4-12

Inaccurate land use designation for the Kenilworth Channel: We strongly challenge the land use designation of the Kenilworth Channel as Category 3. As defined in Appendix H, Category 3 is:

Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, and churches where it is important to avoid interference with such activities as speech and concentration on reading material...”

The SDEIS designates the banks of the Kenilworth Channel as falling within the most noise sensitive Category 1. However, as stated above, the Channel itself is not included in that most highly sensitive designation, but instead is classified as “institutional land use.” Category 1 is defined in Appendix H as:

Tracts of land where quiet is an essential element in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheatres and concert pavilions, as well as National Historic Landmarks with significant outdoor use.

The SDEIS states the “grassy area on the banks of the Lagoon” falls within Category 1 due to the “passive and noise sensitive recreational activities that occur there (where quietude is an essential feature of the park).” The designation of Category 1 versus 3 for the Kenilworth Channel appears to hinge excessively on one word — the term “passive” — to describe the activities for which the Channel banks are used. However, quietude is equally and very clearly an essential feature of the Kenilworth Channel itself, whose peaceful though not “passive” activities include canoers and cross country skiers gliding serenely on the water or ice while those on the grassy banks look on. The quietude of the Kenilworth Channel is inseparable from the quietude of its grassy banks; therefore both should be Category 1.

Significantly, the consequences of placing the Kenilworth Channel in Category 3 are 1) that the obligation to mitigate impacts is lowered, and 2) that the threshold to establish severe impact is higher and harder to reach. Had the Kenilworth Channel been accurately designated a Category 1, then the Channel would have been only 1 dBA below “Severe impact.”

Even with the lowering of the land use category of the Kenilworth Channel to a Category 3, the SDEIS finds a moderate impact of the addition of LRT noise. The footnote to SDEIS Table 3.4-12, states that the noise impact increases as one approaches the LRT line and becomes severe when the channel falls within the HCRRA right of way.

While the SDEIS states that the land use categories were made in consultation with the MPRB and MN SHPO, we strongly dispute their coherence and accuracy. If the intention of the SPO is to preserve the character and experience of the Channel, then it must designate it as a Category 1 and then make public the mitigation plans and costs well in advance of the final FEIS.

SWLRT Violates the System of Minneapolis Parks: Horace Cleveland’s visionary master plan, *Suggestions for a System of Parks and Parkways for the City of Minneapolis*, proposed a park system of connecting sites of beauty and natural interest throughout the city, rather than a series of detached open areas or public squares. The vision of a park “system” has guided the Park Board ever since and is one of the primary reasons for the success and national prestige of the Minneapolis Parks. The SDEIS procedure of singling out specific pieces of park for analysis such as Lilac Park, the Kenilworth Channel and its grassy banks runs fundamentally contrary to the underlying vision of a coherent Minneapolis Park System.

*The presence of perpetual, repetitive LRT noise over the Kenilworth Lagoon and throughout the interconnecting parks and lakes woven throughout this area violates the larger system of the Minneapolis Parks.
Site N 17 (p. 3-182)*

21st Street Station Noise Impacts: At the proposed 21st Street Station, crossing and station bells generating a noise level of 106 dBA and LRT bells generating 88 dBA will seriously add to the overall noise levels for 22 hours a day; only between 2:00 a.m. and 4:00 a.m. will neighborhood residents in this area be able to sleep uninterrupted. The LRTDR Analysis of the SDEIS Appendix H Table 1 & p. H-4 given above shows the impact throughout the day and night.

Further, freight trains may need to use their horns to safely cross 21st Street, as is the current case with the “temporary” freight operations. We thus strongly disagree with the characterization of the noise impacts in the 21st Street station area as moderate and limited. “Sensitive receptors” in this area will be subject to train arrivals, departures, signal bells and perhaps horns, seriously eroding the quality of life in the neighborhood and reducing the enjoyment of the recreational trail and Cedar Lake Park for users of these regional amenities.

We believe that the residences with noise impacts deemed “moderate” in the SDEIS will likely experience severe noise impacts without proper mitigation, and that in addition to the residences identified, residences along 21st Street, 22nd Street, and Sheridan Avenues will also experience at least a moderate noise impacts. We further believe that there will be an impact on more residences than the 24 cited in the SDEIS.

Note: The SDEIS misidentifies some of the homes deemed to have a “moderate impact without mitigation” as being on Thomas Avenue South; some of the addresses are actually on Sheridan Avenue South.

LRT Horns are Likely: According to the federal Train Horn Rule⁸, locomotive engineers must sound horns at a minimum of 96 decibels for at least 15 seconds at public highway rail grade crossings. Appendix H indicates that LRT Horns are 99 decibels and are sounded for 20 seconds. The SDEIS states that LRT horns would only be sounded at crossings where speeds exceed 45 mph. Since LRT and freight trains may not reach that speed in the Kenilworth Corridor, presumably no horns would be sounded when LRT vehicles cross 21st Street. Given the volume of pedestrian, bicycle, and car traffic at this crossing, it is not safe to silence LRT horns at this crossing. The noise created by horns sounding for LRT trains at least 96 decibels for a minimum of 15 (or 99dBA for 20) seconds represents a “severe” noise impact and is therefore prohibitively detrimental to quality of life in a residential neighborhood.

Issues Not Addressed in SDEIS Noise 3.4.2.3

Not addressed: Impacts near Portals: Two areas of potential noise impacts do not appear to be adequately addressed by the SDEIS. First, table 3.4-11 does not appear to cover noise that will be experienced by the homes directly behind the SWLRT tracks after it emerges from the tunnel and crosses the Kenilworth Channel. Since LRT on ballast and tie track produces noise at 81 dBA, we believe that those residences will experience noise at the same level as homes on Burnham Road and Thomas Avenue South. Further, Appendix H notes that noise will increase by 1 dBA for homes within 100 feet of the tunnel entrance/exits. We strongly request that noise impacts be determined for those residences and that they be included in consideration for noise mitigation. We further request that the cost of that additional mitigation be included in the costs of the Final DEIS.

Not addressed: Tunnel Ventilation System: Second, noise from the tunnel ventilation systems does not appear to have been considered. The SDEIS states that the tunnel section of the SWLRT is supposed to eliminate “almost all noise impacts within that segment of the corridor.” However, we understand that there will be ventilation fans connected to the tunnels as well as a ventilation “building” planned near Cedar Lake Parkway. The SDEIS neglects assessment of the noise impacts from such a ventilation system, and this information is critical to determining whether the proposed tunnel would have a positive or negative environmental impact.

Policy-makers and citizens need adequate information on the noise impacts of both the vents and the ventilation building before proceeding with tunnel construction. Appendix H indicates that the fans will operate only on an emergency basis, but we do not see any mention of the ventilation building in the SDEIS. We request clarity on the amount of time each day that they will be operational and creating noise impacts, and the dBA of each.

Not addressed: Freight Operations: The existing freight operations, intended to be temporary, are being made permanent. The noise generated by these trains, which often have three or four engines, must be measured and considered in the overall assessment of noise impacts of the SWLRT project.

The SDEIS simply states that the noise issues described above will be addressed in the Final EIS and that they will be mitigated. *We take the strong view that now is the critical and only time to prove that mitigating the noise issues we have described is possible and that the cost of such mitigation is in the budget.*

3.4.2.4 Vibration

LONG-TERM DIRECT AND INDIRECT VIBRATION IMPACTS

Comment: The SDEIS states, "There are no vibration impacts in this segment [of the SWLRT route]" This claim is not credible in view of advice provided in *Transit Noise and Vibration Impact Assessment*, the FTA's own guidance manual presenting procedures for predicting and assessing noise and vibration impacts of proposed mass transit projects:

Vibration from freight trains can be a consideration for FTA-assisted projects when a new transit line will share an existing freight train right-of-way. Relocating the freight tracks within the right-of-way to make room for the transit tracks must be considered a direct impact of the transit system, which must be evaluated as part of the proposed project. However, vibration mitigation is very difficult to implement on tracks where trains with heavy axle loads will be operating."⁹

The SDEIS says that 54 residences¹⁰ in the "St. Louis Park/Minneapolis" segment (note that all of them are within Minneapolis) will be impacted by the ground-borne noise. This is an unacceptable level of impact on those 54 families.

According to Appendix H, which addresses both noise and vibration, the table titled Typical Maximum Noise Levels (dBA) on page H-19 quantifies the dBA for LRT, freight and then lawnmowers and buses idling. The dBA for freight rail in that same table is shown for a speed of 20 MPH. The freight in the Kenilworth Corridor travels at a maximum of 10 MPH. For comparison purposes, the assessment should use the dBA of freight trains traveling at 10 mph. Use of the sound impact from a train travelling twice as fast (20 mph) as the current speed in the corridor understates the current noise level (from freight), thereby minimizing the impact and differential from the LRT trains.

Regardless of whether the residences are impacted by vibration from the tunnels or from the noise which is flagged as a "Residential Annoyance" in the tables in Appendix H, the fact that these "annoyances" will occur incessantly — 220 times per day starting at 4 a.m. and continuing to 2 a.m. — means the impact on those residents will be significant and should be considered "severe". This is very unlike the impact of the freight trains: they may in some cases may be louder than the LRT, but there are only one or two of them per day — often not during the night hours — and then they are gone.

Regarding ground-borne vibration and noise, it should be noted that the impacts projected might underestimate real-world impacts, which could be more annoying than assumed. The FDA manual states: ¹¹

...the degree of [ground-borne vibration and noise] annoyance cannot always be explained by the magnitude of the vibration alone. In some cases the complaints are associated with measured vibration that is lower than the perception threshold.

⁹ Chapter 7: *Basic Ground-Borne Vibration Concepts*, 7-9

¹⁰ All of them are Category 2 receivers: "residences and buildings where people normally sleep."

¹¹ Chapter 7: *Basic Ground-Borne Vibration Concepts*, 7-6

SHORT-TERM VIBRATION IMPACTS

The SDEIS all but ignores construction-related ground-borne noise (vibration) — except for a single, dismissive comment: “Short-term vibration impacts are those that might occur during construction of the LPA while jackhammers, rock drills, and impact pile-drivers are being used.” Within weeks of this writing, impact pile-driving on the former Tryg’s restaurant site in the West Lake Station area caused serious damage to the Loop Calhoun condominiums, as well as some level of damage to the Cedar-Isles Condominiums. The contractor, Trammel Crow, had to halt the project and extract the piles, since going forward was deemed to be catastrophic. Yet, the pile driving entailed in building the SWLRT tunnel would take place much closer to these and other condominiums, duplexes and apartment houses. The Trammel Crow incident seems to strongly predict a risk of significant construction-related damage to the homes of hundreds of people who live along the corridor where impact pile driving for SWLRT is planned. The SDEIS does not address this problem.

Furthermore, the recent Met Council sewer project completed in this area caused damage to homes located beyond the “expected” range of distance from construction. Residents who attempted to get compensation for the damage were often told by the Met Council to take the matter up with their own insurance companies rather than through the contractors whose work caused the damage. A specific liability plan and budget should be included in the SWLRT project cost estimates. There is a “contingency” line item in the budget, but it should be reserved for genuinely unpredictable costs that arise during the construction, and not for costs that could be, should be, and even are anticipated.

Construction-related vibration impacts could well extend beyond the construction period itself. Damage incurred during construction may not be initially apparent, and could show up months or even years later.

Further study is needed of:

- 1) The effects of various pile-driving alternatives on the many at-risk structures
- 2) The costs involved with each of those alternatives;
- 3) The geology of the area, and its ability to support the construction process.

MITIGATION

The SDEIS promises mitigation of a number of vibration problems. However, the failure of Met Council mitigation measures taken to address LRT problems experienced by the University of Minnesota and Minnesota Public Radio cast abundant doubt on whether they will be effective here.

With respect to the vibration mitigation (to be further detailed in the Final DEIS), the measures suggested in Appendix H appear to be inapplicable to the many residences that would be affected. The SDEIS describes isolated tables and floating floors. It’s hard to imagine a retrofit of the residences impacted by the vibration affects utilizing “floating floors.” If this is the intent of the mitigation planned for the SWLRT, a cost estimate of the retrofit of all the residences should be included in the Final DEIS.

3.4.2.5 Hazardous and Contaminated Materials

Long-term Direct and Indirect Hazardous and Contaminated Materials Impacts

- Permanent pumping of contaminated groundwater
- Impacts of disturbance of dangers in soils that may have long term health impacts on children and vulnerable adults
- Not covered in the SDEIS is the co-location of SWLRT in close proximity to hazardous and explosive materials being carried by the railroad.

SHORT TERM

The DEIS called for Phase I ESA to be completed, and it was completed in August 2013. It was not made public by the Met Council until May 19, 2015, and indicates many potentially hazardous and contaminated sites along the alignment. It is reasonable to expect to encounter extensive contamination in the Kenilworth Corridor. In addition to being home to several railroad tracks, the Kenilworth Corridor was home to a maintenance yard, blacksmith and boiler shops, a diesel shop and a 90,000-gallon fuel storage facility. In addition, the land was used as a dump — a common practice of the time, and it is likely that arsenic will be among the dangers encountered, requiring special remediation.

The Phase II Environmental Site Assessment (ESA) is said to be near completion; the report must be made available for public review and comment as soon as it is available. The SDEIS says it is “reasonable to expect that previously undocumented soil or

groundwater contamination may be encountered during construction.” It is unclear if any findings in the Phase II ESA have been incorporated into the cost increase recently made public.

The cost of such remediation is unknown and has not been included in the cost estimates. Several sections of the alignment have been designated part of the MPCA Brownfields Program. In the best-case scenario, they will not require much remediation; in the worst case, they will become a Superfund site, requiring significant and expensive remediation.

We attempted to receive budget information that would indicate what amount of the increase in the budget from \$1.65 billion to \$1.99 billion was earmarked for remediation in this corridor. However, the SW Project Office provided only the highest, most general, level of information, claiming that they do not track the line items for things like soil remediation on a segment-by-segment basis, but only in total for the project.

We believe that remediation will require a Construction Contingency Plan above and beyond the general Contingency budget line item. The cost of such a Contingency Plan for Remediation should be included in the project budget.

3.4.3 Economic Effects

Long-Term Direct and Indirect Economic Impacts

Comment: LRT Done Right disputes the statement that SWLRT will positively impact property values, especially around the 21st Street station and Channel. The current freight alignment in the Kenilworth Corridor is already a negative and permanent defect affecting the value of properties along the line, one that would only be magnified by co-location of SWLRT. This is precisely why some residents argued against co-location. The threat of a collision and derailment — such incidents are gaining increased attention in the news media — will in all likelihood increase the scrutiny of buyers as they evaluate the Kenilworth area as an investment and home for their families. Further, the increased noise, vibration, and (nighttime) light from SWLRT, without the previously promised removal of freight rail, would exponentially increase aesthetic disturbance in a neighborhood that until now has been desirable for its park-like feel and up-north atmosphere. The increased adverse effects of co-location will represent a permanent defect to homes within earshot and sight of the line; based on the audible sounds of the current freight line, auditory adverse effects would reach as far as Lake of the Isles Parkway, but those sounds would no longer be the low rumble of freight, but a much more disruptive cacophony of bells and horns.

Further, while studies such as rtd-fastracks.com and others show that access to light rail can increase property values in areas of high density, especially in transient (apartment-filled), younger, urban neighborhoods, the area around the Kenilworth corridor does not wholly represent those attributes. The study mentioned, among others, shows that higher income and low-density neighborhoods, which also comprise this neighborhood, do not experience the same positive impact on property values and rentals as do lower-to-middle-income neighborhoods where public transit is more generally used.

While the Met Council’s 1,600 rides-per-day estimate is unrealistic and unsubstantiated, there will nonetheless be an adverse impact from those who do park in the neighborhood to access the station, resulting in residents closest to the station losing street parking in front of their homes. This would be a disincentive to potential buyers, and negatively impact home values.

We do not support changing the character of the neighborhood with dense development (with the exception of the West Lake Station area, assuming that land is available). Such development would not be feasible on any meaningful scale due to the mature and stable nature of the neighborhood and minimal available free space. Development would denigrate the existing green space in the corridor, especially around the 21st Street station, which is the access point for the beach and trail access for the neighborhood.

We believe the negative economic impact on the entire “brand” of the City of Minneapolis incurred by running a divisive, noisy, and environmentally unsound line through one of the crown jewels of “The City of Lakes” park area will forever have a negative impact on tourism as LRT will disturb the current serenity of the channel, lagoon and lake. The larger, oppressive, industrial-scale bridge will downgrade the experience currently enjoyed by kayakers, walkers, bikers, etc., and cause tourists to leave the city to obtain that natural experience they once enjoyed in Minneapolis.

Finally, we have identified a number of issues not recognized in the SDEIS that will require, by our calculation, initially at least \$13 million to \$24 million of investment above and beyond the projected \$1.65 billion budget goal, and additional costs in perpetuity.

- *\$1 million to \$5 million* — For permanent dewatering of contaminated soils; this will require an extra sewer line in Kenilworth. The City of Minneapolis will need to approve this, since it owns the sewer. The city did not approve this for the 1800 Lake building and went to court over it; would they approve it, on a much larger scale, for SWLRT?
- *\$5 million to \$10 million*: For polluted soil removals. Known polluted soil conditions will require mitigation of thousands of tons of soil, but since the extent of pollution is unknown, the cost may be much higher. This cost will likely be in the millions for Kenilworth section alone; MPCA will need to approve and may add scope/cost.
- *Unknown millions*: For construction-related damage to existing buildings, including possible buy-out of impacted buildings. We understand that there is no way to guarantee that the Calhoun Isles Condominium towers will not be damaged by construction beneath their foundations. What is the current value of these condos?
- *\$3 million to \$5 million*: For relocation of existing sewer force main, pump station, ongoing operational costs of a new pump station.
- *\$4 million annually*: In lost property tax revenues. Approximately \$2 billion of the City of Minneapolis' net \$35 billion tax base is located within 1,000 feet of the Kenilworth Corridor. Most of this \$2 billion is commercial property taxed at 4 percent of value and some is from some of the city's highest-priced homes. Annual taxes from these properties are about \$80,000,000. A decline of just 5 percent in property tax value in this area would equate to an annual loss of \$4,000,000 per year to the City of Minneapolis. Forever. The Met Council would be clobbering one of the golden geese that currently supports Minneapolis Equity Transfer Payments. This area is built out already and limited by zoning from growing further, so there is no net benefit to the city if there is no new growth.

We therefore dispute and challenge the SDEIS statement that mitigation for economic impacts is not warranted for the Kenilworth Corridor, particularly in the absence of any plausible property impact study.

3.4.4.2 Roadway and Traffic

Comment: LRT Done Right is concerned about emergency access being reduced 12 times per hour to East Cedar Lake Beach and the residences on Upton Avenue S. The freight train, which was originally to be removed, coupled with the light rail line, will exponentially impair access further. We see no possible way to mitigate this impact even beyond the measures that are mentioned in the SDEIS.

3.4.4.3 Parking

Comment: LRT Done Right is concerned that there is complete disregard in the SDEIS for the impairment of on street parking availability in its neighborhoods for residents and their guests, as well as emergency access to those homes, especially in winter when streets are narrowed. LRTDR strongly opposes any park and ride lots as that would significantly impair the parklands and would not be compliant with Minneapolis city policy.

3.4.4.4 Freight Rail

A. Existing Conditions

Comment: It is very troubling that, contrary to all previous planning, the SDEIS now claims that the need "to develop and maintain a balanced economically competitive multimodal freight rail system" as a justification for the Southwest light rail project (page 1-1). With little public awareness of this new "need," the project has morphed so that approximately \$200 million in local and federal *transit* dollars will be used to improve *freight* rail.

In 1998, when freight was reintroduced to the Kenilworth Corridor, freight was to be a temporary alignment until light rail could be built. All along, this promise was made to the City of Minneapolis, the Cedar Isles Dean neighborhood, the Kenwood neighborhood, and others as a basis for agreement to the project. That none of the responsible parties, including elected officials who are still deeply involved in the SWLRT planning process, secured appropriate legal documentation of this agreement at the time is beyond disturbing.

The 2005-2007 Alternatives Analysis assumed that “freight would be relocated to make way for light rail.” Since freight was not taken into account at this stage, neither Hennepin County nor the Met Council conducted an honest and realistic analysis of alternative ways to serve the southwest suburbs’ transit needs. The financial, political, and environmental costs of addressing freight rail in the Kenilworth Corridor were not considered.

When the Locally Preferred Alternative (LPA) was selected in 2009-2010 under the assumption that freight rail would be relocated and that LRT would run at-grade in Kenilworth, the costs and concerns of freight relocation were again not addressed.

The Project Scoping Report for the 2012 Draft Environmental Impact Statement said clearly, “Freight Rail is independent of the Study.” Although the Federal Transit Administration (FTA) noted this erroneous assumption when it approved preliminary engineering, neither Hennepin County nor Met Council ever amended the project scope to include freight rail.

The Municipal Consent process was designed so that once a project’s elements and impacts are known, public officials can make informed decisions. However, since freight co-location with LRT and tunneling were never part of the original LPA and subsequent DEIS, the City of Minneapolis was pushed in 2014, under threat of project cancellation, to grant municipal consent without foreknowledge of the risks to both community and environmental safety.

Now this SDEIS is similarly devoid of important human and environmental safety information around co-location of freight and SWLRT. It is remarkable more for what is **not** included than what is included. Substantive issues remain unexamined, especially in Sections 3.4.4.4 (Freight Rail) and 3.4.4.6 (Safety and Security). The SDEIS only addresses the effects of LRT on freight rail (mostly economic impacts to minimize time lags on freight during construction), not the environmental and safety effects of co-location of freight and light rail through the corridor. It says nothing about substantive safety concerns of co-locating high-hazard freight feet from LRT construction and LRT trains in operation.

Kenilworth — and the SWLRT with co-location — is in the “Blast Zone.”



Nationwide, communities are becoming increasingly aware of high hazard freight – often referred to as “bomb trains” — operating in their midst. High-hazard trains have long run through our towns and cities, but never with the frequency nor the amount of dangerous materials now being hauled. Running such trains through any populous areas is undesirable and puts many human lives within a “blast zone,” running 1/4-1/2 mile on either side of the track.

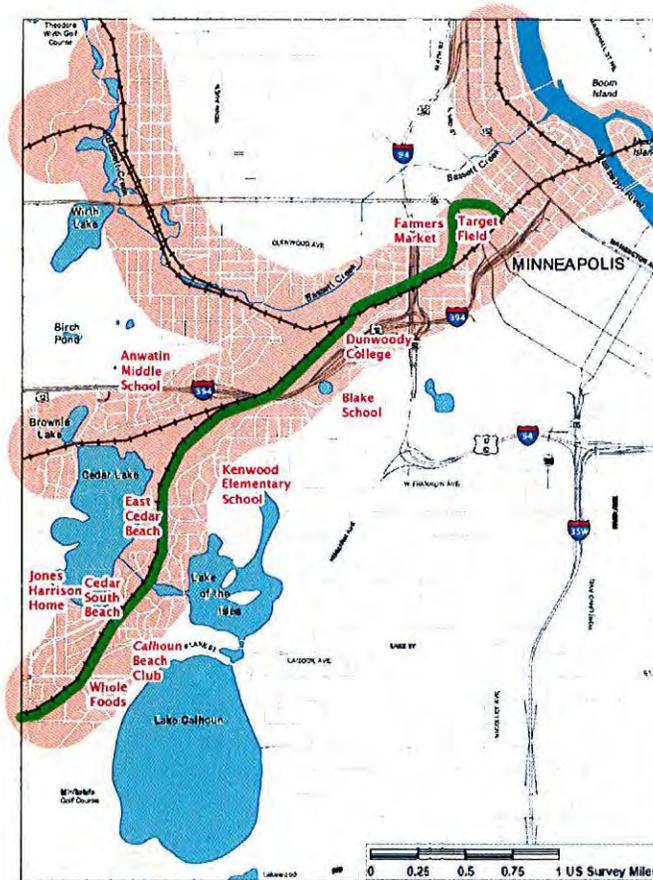
The Kenilworth corridor is a high-risk evacuation blast zone.



Below are two representations of the Blast Zone. The map applies the definition of the Blast Zone, as commonly defined by many national groups with interest in the issue, and the chart depicts the number of residents in the blast zone. Each green circle represents 100 residents.

- THIS IS THE BLAST ZONE -

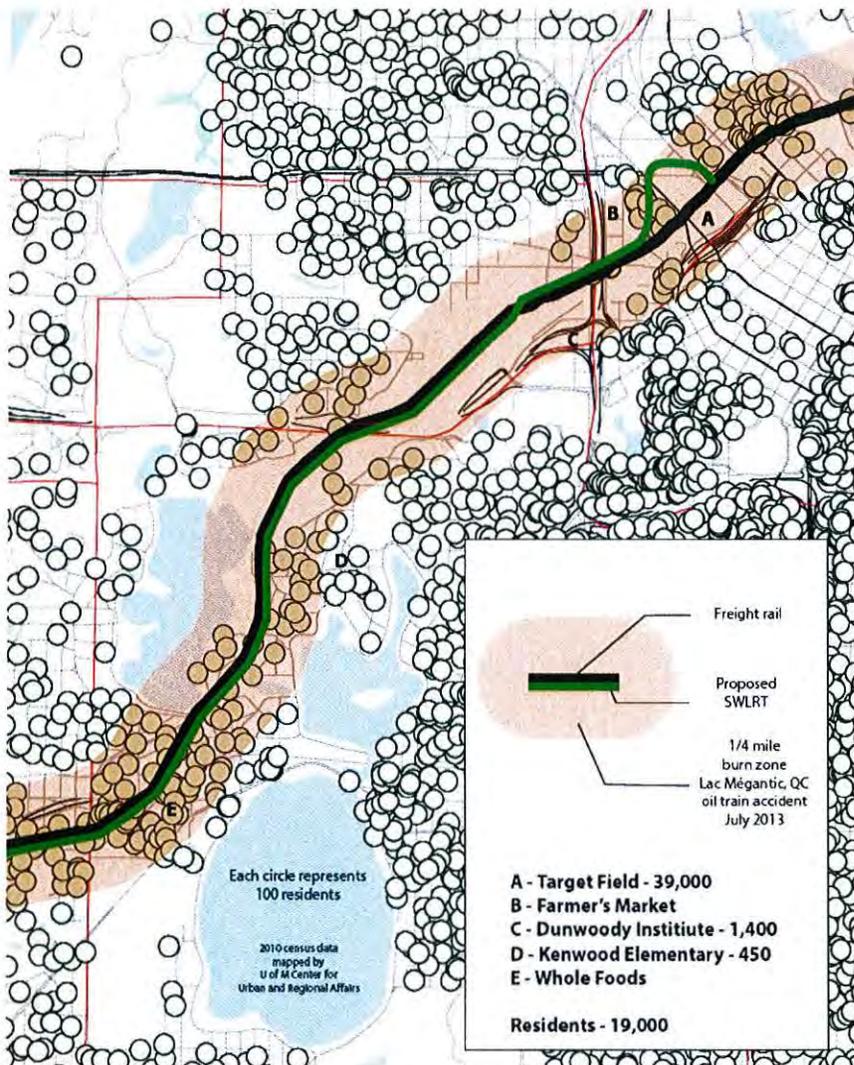
**SWLRT co-location with high hazard freight trains
in the Kenilworth corridor**



Ethanol and Oil Train Disasters:



Population density map of the Blast Zone – Kenilworth Corridor. Please note that the blast zone includes Target Field.



Comment: Freight railroads have radically changed since the reintroduction of freight into the Kenilworth Corridor. The federal mandates on ethanol, the running of unit trains carrying single high-hazard products, and the use of much longer trains have increased freight safety concerns. The privately owned TC&W is currently the only freight company that is allowed to take trains through the corridor, but it can connect to any other carrier and currently partners with Canadian Pacific to carry its products through Kenilworth. Federal rail policy requires that the interests of freight rail operators and shippers be considered in the development of passenger rail service.

In order to provide elected officials, policy makers, and members of the public with current, factual, and supportable information about the impact of TC&W and its operations, TC&W commissioned a study in 2013. According to this report by Klas Robinson,¹² "TC&W provides rail service to numerous companies in Minnesota and neighboring South Dakota, hauling such diverse products as corn, soybeans, wheat, sugar, vegetables, ethanol, crushed rock, metals, plastics, potash, fuel oil, distillers oil, machinery, lumber, manufactured goods, propane and fertilizer, including anhydrous ammonia." Ethanol, propane, fuel oil and fertilizers are all high-hazard products. Distiller's oil and potash are also *flammables*. Exposure to even small amounts of anhydrous ammonia

¹² *Economic Impact of TC&W Railroad's Freight Operations*, September 2013; <http://tcwr.net/wp-content/uploads/2013/10/TCW-Impact-Final>.

can cause serious burning of the eyes, nose, and throat. Exposure to higher levels causes coughing or choking and can cause death from a swollen throat or from chemical burns to the lungs. A single tanker car of anhydrous ammonia can put hundreds or even thousands of area residents at risk in case of derailment and breach.

Through 2012, the report says, "customers of Twin Cities & Western Railroad Company and its affiliates shipped more than 23,400 cars, including almost 17,700 cars on TC&W and over another 5,700 cars on a short line railroad that uses TC&W to reach the Twin Cities." That number continues to expand annually, with "the number of monthly cars shipped on TC&W during the first four months of 2013 significantly higher than for the same periods in each of the three prior years — almost twice that of first quarter 2012 (94.0 percent greater), almost 40.0 percent higher than first quarter 2011 and 70.0 percent greater than first quarter 2010." As the economy continues to improve since the recession of 2008, we can expect that the number of train cars and the frequency of trains will increase. According to the Minnesota Department of Agriculture, between 2000 and 2011, ethanol production in Minnesota increased by over 5 times and each subsequent year has continued this trend. With the nation-wide federal mandate to increase ethanol in gas to 20 percent, we can also expect the production and transport of these high-hazard products through the corridor to increase dramatically. It is clear that the TC&W that was temporarily reintroduced in the corridor in 1998 is not the TC&W that runs through the corridor now.

According to TC&W, they "have Class I rail connections to Canadian Pacific, Union Pacific, BNSF Railway and Canadian National, reaching markets in 39 U.S. states, seven Canadian provinces and four Mexican states." Their network would potentially allow them to carry anything including nuclear products, Bakken Oil, anhydrous ammonia, chlorine, and other hazardous freight. Common Carrier freight legislation requires that shippers (currently TC&W and CP) carry anything that their customers demand. Additionally, *at any point TC&W could sell their company to one of the major railroads, such as BNSF, which could generate 10 times as much traffic and introduce exponentially more hazardous materials into the corridor. Making freight rail permanent in Kenilworth increases the chance that this will happen.*

The Pipeline Hazardous Materials Safety Administration (PHMSA) controls the safety of freight trains. Historically, PHMSA standards have been lax, prioritizing commerce over safety and the environment. Recently, after public pressure, PHMSA has toughened safety standards for most railroads. ***Please see LRT Done Right's prior correspondence on this matter at the end of this response, starting on page 38.***

However, TC&W, which is a Class III rail carrier (a short line with lower revenues), has been and continues to be exempted from certain safety standards that guide more profitable and larger Class I and II railroads. Ethanol is carried in DOT-111s and this type of car will not be banned, according to PHMSA for another 5-7 years. Railroads have lobbied heavily to remove current and future regulations on them to maximize their profits, including recently passed braking mechanisms on the hazardous cars. They have lobbied to go from two-person crews to one- or two-person crews. A single-person crew would reduce safety due to overload, fatigue, etc. And railroads have fought to delay the introduction of safer double-hulled tanker cars and to continue to carry their hazardous cargo in dangerous substandard DOT-111 freight tanker cars. Freight infrastructure has suffered, and nearly all derailments are due to substandard equipment, track failure or operator error. Some new PHMSA standards that attempt to improve safety of hazardous freight *may not even apply to TC&W due to their Class III status.* Class III railroads also have less money to invest in infrastructure, and it is clear that this railroad has infrastructure issues, experiencing a derailment in 2010. Despite replacement of rails to single-weld track in 2012, TC&W still suffers from infrastructure issues, like rotting cross ties, missing rail plates and the missing rail spikes that hold the rails in place. From May 2015 to July 2015, deep potholes have bordered the track at the Cedar Lake Parkway crossing, and have gone unfixed despite calls to TC&W and MNDOT.

The mix of commodities that TC&W carries has changed over time, with approximately 30 percent of TC&W's freight being ethanol. It has only been in the last 5 to 10 years that unit trains of a single commodity have been a common occurrence. Prior to that, manifest trains, carrying a variety of commodities were much more common. *Unit trains of 100 cars of ethanol*, a highly flammable product, now frequently traverse the corridor. Through the planning process, the Met Council repeatedly told members of the public that the primary products carried by freight through Kenilworth were agricultural — which sounds innocuous enough. But while ethanol may be an agricultural product, it is hardly innocuous. According to Karl Alexy of the FRA, ethanol is more dangerous than most crude oils, with a lower ignition point, and higher explosive potential. Its Hazard Packing Group rating (II) is higher than most crude oil (because of its explosive potential). With respect to oil, only Bakken Crude matches its danger due to the high level of byproducts added to Bakken oil and its consequent instability. Ethanol burns hot enough (3,488 degrees F) to melt steel structures. The freight through Kenilworth currently runs only feet from bridges and mere inches from a high-rise condominium that would be vulnerable in the case of a derailment.

The Freight Rail Administration (FRA) estimates that there will be at least 10 to 20 oil or ethanol derailments per year going forward. Nationwide, we had over 7,000 train derailments of some kind in 2014. *These concerns are not just theoretical.*

Further, we strongly object to the Met Council requesting that the FRA abdicate its jurisdiction over freight rail in the Kenilworth Corridor and elsewhere along the SWLRT line. The Met Council has requested waivers from the FRA to put jurisdiction of the co-located corridor under FTA. We have no evidence that the Met Council or the FTA are qualified to oversee the combination of LRT and freight rail in the same corridor, particularly in such close proximity. We are extremely concerned that the FRA may be relinquishing its jurisdiction, except for five named at-grade crossings where both freight and LRT cross together, and even here the Met Council could apply for a crossing waiver.

The existence of freight alone is of great concern to residents and users of the Kenilworth Corridor. The construction of SWLRT running right next to high hazard freight is alarming. *None of these facts or concerns is reflected in the current SDEIS.*

B. Potential Freight Rail Impacts

Long-term direct and Indirect Freight Rail Impacts

For reference to LRT Done Right's commitment to freight safety in the Kenilworth Corridor, please see the addendum at the end of this response.

Comment: Hazardous freight has become a nationwide problem. By choosing to co-locate freight and light rail, despite all previous planning, the Met Council is choosing to exacerbate this problem in the Kenilworth Corridor. The addition of LRT to a corridor that does not meet the minimum American Railway Engineering and Maintenance-of-Way Association (AREMA) safety guidelines of a 25-foot separation center-to-center rail is shockingly unsound. In fact, AREMA now recommends a 200-foot separation as optimal. Although narrow corridors that contain both freight and passenger trains and do not meet minimum safety standards currently exist in parts of our country, an increasing awareness of freight dangers has meant that going forward, communities are much more exacting with regard to safety standards and meeting minimum AREMA guidelines. In fact, we can find no other project currently under construction that won't meet at least the minimum 25-foot grade separations. *The SWLRT project does not meet current AREMA best practices.*

The many risks of running freight next to LRT are unmentioned in the SDEIS, even though we know that the majority of freight or LRT derailments are either track failures or operator error. There is nothing in the SDEIS that deals with an *evaluation of risk or readiness of dealing with a derailment*, especially of a high-hazard product.

LRT catenary wires that regularly spark off the pantographs will run in some places 10 to 15 feet from freight trains. In 2014 alone, FRA reported 43 "accidents" in the United States related to pantographs. There was one in St. Paul within the last few months. Even with the eventual placement of crash walls, catenary electrification would run immediately adjacent to highly flammable unit trains (80 to 125 tanker cars) of ethanol. Ethanol is vulnerable to ignition by electrostatic charges and has a higher ignitability than most forms of crude oil. Vents at the top of ethanol tanker cars will run close to those electric wires.

TC&W and C&P trains use DOT-111 tanker cars. These trains regularly traverse the Kenilworth Corridor carrying ethanol, fuel oil, propane, fertilizers (including anhydrous ammonia), distillers' oil, and potash. These old-generation tanker cars have single hulls prone to thermal tears and punctures, and leaky valves. They are more likely to tear or puncture than newer generation replacements like the double-hulled DOT 117s. The National Transportation Safety Board (NTSB) discovered problems 24 years ago with DOT-111 tankers but USDOT did nothing. In 2012, the NTSB called for an immediate ban on using these tank cars to ship high-hazard products like ethanol and crude oil because they are prone to punctures, spills, fires, and explosions in train derailments. Two in three tank cars used to transport crude oil and ethanol in the U.S. are DOT-111s, yet the DOT has taken no action beyond issuing a safety advisory urging shippers to use the safest tank cars in their fleets to the extent feasible. Only recently has PHMSA come out with new regulations to replace these dangerous tankers over a six-year time period. Loopholes exist in the regulations, however, making it all but certain that single-hulled DOT-111s trains will continue through Kenilworth for years to come.

Another serious concern with freight is the misclassification of rail cars. PHMSA first launched Operation Classification in the summer of 2013, in response to increased activity in the Bakken region. Initial testing has revealed that 61 percent of high-

hazard oil was misclassified. Sometimes the train manifest may not actually reflect what being transported by the freight. The extent of misclassification of TC&W's rail cars is not currently known.

According to the Department of Homeland Security, high-hazard train tankers are vulnerable to terroristic threats. The proposed electrically-powered SWLRT would run adjacent to ethanol-bearing freight through St. Louis Park and the Kenilworth Corridor all the way into downtown. Around the area of Dunwoody, the TC&W tracks merge with those of BNSF tracks, which have been documented as carrying crude oil.¹³ Farther on, the freight trains (some carrying ethanol and some carrying Bakken crude oil) join LRT and Northstar Commuter rail in tri-location, until they stop at the Target Station. Thus, while ethanol and crude oil trains already represent risks to Twins Stadium and Target Station, the addition of LRT would expose even more people to potential danger.

The Department of Homeland Security identifies places like the Twins Stadium and the Target Station as high-value targets vulnerable to terrorism. The co-location of freight and passenger trains carrying 10,000 thousand tons of highly combustible products underneath the Twins Stadium and to the Target station is a disaster that can and should be prevented. Were high-hazard freight not running through this corridor, as was originally envisioned with relocation of freight, then the concerns of terrorism would be diminished. However, tri-location of high hazard freight, Northstar commuter trains and SWLRT near to and underneath the Twins Stadium to the Target Station is planning gone awry. If we believe that terror groups are unaware of these high value target vulnerabilities in our system, we are likely sadly mistaken. Regarding the multiplicative risks and risk readiness related to tri-location of high-hazard freight, Northstar, and SWLRT under the Twins Stadium and to the Target Station, the SDEIS contains no acknowledgement.

In fact, even after a multitude of concerns were raised by the City of St. Louis Park and its residents in response to the relocation of freight proposed the 2012 DEIS, *the current SDEIS does not contain one word acknowledging high-hazard freight through Kenilworth*. There is evidently no safety plan should an ethanol or other hazardous materials freight derailment to occur, and no containment and recovery planning should a disaster encroach on the tunnel and/or spill in to the Minneapolis Chain of Lakes.

Hennepin County, the Met Council and the State of Minnesota have little power going forward in determining whether or not TC&W's model of business changes in ways that would increase risk. They also have no ability to intervene if TC&W should choose to sell. These risks to the Kenilworth area are only likely to increase as federal mandates to increase the mix of ethanol from 10 percent to 20 percent in gasoline mixtures are initiated. TC&W could choose to sell, likely to BNSF, likely increasing the frequency and length of trains in this corridor and transportation of an even greater mix of hazardous chemicals.

Currently, TC&W reports that trains go 10 miles per hour through the Kenilworth Corridor, but this is voluntary, not mandated. Going forward, the company may choose to sell to a company that does not respect this speed limit or TC&W may decide to increase speeds. The necessity of slow freight (even beyond the LRT construction period) is critical in an urban recreational corridor and a *long-term enforceable agreement with the freight operator and the Hennepin County Regional Rail Authority should be considered as part of this project*.

Further, heavy freight causes vibrations that travel through the ground. The ground substructures affect vibrations, with waterlogged soils tending to increase those vibrations. We see no evidence that the potential for long-term damage to LRT structures from vibrations of heavy freight – and the related long-term costs in terms of maintenance dollars and human safety – have been considered. Potential damage to residences and other buildings from freight vibrations is also ignored in this SDEIS.

Finally, the SDEIS does not explore Met Council liability if SWLRT or freight derail or otherwise cause damage or harm. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. In light of the catastrophic potential of any accident in the Kenilworth Corridor, *this insurance liability assessment should be done* prior to building SWLRT, then made public and included in construction and operating cost estimates.

Short-Term Freight Rail Impacts

Comment: During construction, the dangers to the community will be exacerbated due to the fact that freight, particularly freight carrying hazardous materials, will continue through the corridor.

¹³ Photos taken on 7/21/15 of a BNSF train in this segment of the route, before and after it merges with the TC&W route, show cars bearing 1267 petroleum crude oil DOT placards; presumably these cars are carrying Bakken crude.

First, it's not clear that there is room in corridor for the construction plan as described. While we've seen various calculations of the corridor's narrowest point, our understanding is that it measures 59 feet. This point is located between the historic grain elevators – the Calhoun Isles Condominiums – on the east and the Cedar Shores town homes to the west. The SDEIS states that the freight tracks will be moved 2 to 3 feet closer to the town homes. The tunnel trench (35 feet wide) will be dug at the base of the Calhoun Isles Condominiums about 18 inches from its footings. There will be a buffer between town homes to the east of 22 to 24 feet; the freight train is about eight feet wide. Thus: 35 feet trench + 2 feet from condos + 24 feet from town homes + 8-foot wide freight train = 69 feet — to fit into a 59-foot pinch-point. This math does not inspire confidence in the safety of the construction plan.

During construction, freight will run through a construction zone with construction workers and debris with **no crash walls** at the edge of a 35-foot construction trench. It will continue to carry high-hazard freight including ethanol, fuel oil, and fertilizer. (Under common carrier obligation, TC&W or CP must carry whatever else their shippers ask them to carry and we may or may not know what these trains are actually hauling.) “Bomb trains” will travel at the edge of a construction pit that will take two years to complete. Even with the precautions suggested in the SDEIS, a derailment is far from unimaginable in this scenario. The proximity of the condominiums and town homes puts hundreds of people at risk for devastating consequences.

It is also important to note that the current poor condition of freight rail infrastructure increases the risk for a short-term freight derailment both during and after construction. A recent obvious example: From late May through July 2015, two pot holes immediately next to the rail at the Cedar Lake Parkway freight crossing measuring as deep as 6 inches have remained unfilled despite being reported to DOT and to TC&W. In 2010, there was a derailment in the neighborhood of a TC&W train; Hennepin County replaced the track through Kenilworth with a safer single-weld track. However, rotted freight ties were not replaced at that time, nor were rail plates and spikes uniformly repaired. Currently, there are rail ties that are completely rotted out, missing rail plates that hold the ties to the rails and many missing rail spikes. That these were not repaired when the rail was replaced indicates poor maintenance and raises concerns about the competence that Hennepin County and the Met Council will bring to the co-location element of the SWLRT project.

Construction debris in the corridor will heighten the risk of derailments. Derailments are caused by operator error or track failures, including track impediments. Construction can displace the supporting structures that bolster rail, and although engineers can try to bolster the structures through shoring, there will be nothing to stop a train if it begins to tip into the construction pit. Tip guardrails have been suggested as a solution (not in this SDEIS), but these can build up with snow and actually cause derailments.

Nighttime running of freight (also not considered in the SDEIS) will be perhaps even more dangerous than daytime. Construction debris may be left near or on tracks and may not be visible to the freight engineer at night. Final day inspection of track is imperfect and human error could easily miss track impediments.

Inclement weather like snow may mask destabilization of freight infrastructure, and rain could wash out the surrounding already disturbed soils, increasing the derailment risk during construction. While this is true under any construction scenario, the risk multiplies with freight running next to the tunnel construction pit.

If a derailment were to occur during construction, access to fire safety equipment is extremely limited because of the nature of the corridor: in some places, the only access is between people's homes and/or through their driveways. In the event of a derailment occurring during construction, the only access for fire trucks may be from West Lake Station, 21st Street or Cedar Lake Parkway. Fire equipment must be accessible in case of a derailment emergency, and in-depth coordination among the fire department, the Met Council, and the citizens has not been attempted or even mentioned in this SDEIS.

In case of any chemical freight derailment, chemical fires must be fought with specialized foam products, usually foam specific to the chemical spill. These fires cannot be fought with water, which can actually spread a chemical fire. Water can be used to cool rail cars that have not ignited, but foam is necessary to put them out. Limited foam is available at local fire stations, but our understanding is that it can take 2 hours or longer to access the necessary quantity of foam to fight a chemical derailment fire.

Currently, TC&W reports that trains go 10 miles per hour through the Kenilworth Corridor, but this is voluntary, not mandated. Going forward, the company may choose to sell their company or increase that speed. The necessity of slow freight even without LRT construction is critical, but with construction the danger becomes critical at any speed.

According to TC&W president Mark Wegman, there had only been one meeting as of June 2015 (i.e., in preparation for the SDEIS) with SWLRT project staff to discuss issues of joint construction concern. This seems shortsighted. Our community expects more than superficial consideration of these serious construction-related concerns prior to decisions about the feasibility of moving forward with the SWLRT project.

Finally, the SDEIS does not explore Met Council liability either during or following construction if SWLRT or freight derails causing a train catastrophe. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. This assessment should be completed and made public prior to SWLRT construction.

C. Mitigation Measures

Comment: It is difficult to respond to this section surrounding freight since no problems with co-location have even been acknowledged in the SDEIS. There is no real analysis of the effects of co-location and the danger of running high-hazard freight through the Kenilworth Corridor both during and after construction, and in an area that does not meet minimum AREMA guidelines, let alone best practices. This SDEIS is astounding more for what it does not contain than what it does. The mitigation proposed concerns only making sure that the freight schedule is unimpeded; it ignores concerns about the safety of neighborhood residents, construction and freight personnel, park and trail users, or future SWLRT riders.

Minimally, during construction, high-hazard freight **MUST** be diverted from the corridor. Long term, crash walls between freight and LRT are critical. In the short term, without crash walls, **ALL** hazardous or flammable freight should be rerouted out of the corridor until proper safety crash walls are present. The idea of running high hazard freight during construction at the edge of a construction trench without crash walls is extremely concerning.

The treatment of freight rail in this SDEIS indicates that the Met Council is not even aware of the danger to area residents, waterways, parks, trails, or SWLRT passengers. The many issues related to making freight rail permanent in the Kenilworth Corridor and co-locating freight and light rail need much greater study and consideration before this project advances.

3.4.4.5 Bicycle and Pedestrian

Because there would be no long-term adverse impacts from the LPA on bicycle and pedestrian facilities, no long-term mitigation measures have been identified. Short-term effects on pedestrian and bicycle routes will be mitigated through signage, information fliers, website postings with maps of construction areas/detours, and notices placed at bicycle shops, for example.

Comment: At last measure, our understanding is the trails receive 600,000 discrete unique visits per year and those visits to current parkland are enhanced by the current “north woods” feel of the area, and that experience would be significantly impaired by the addition of light rail. This includes an expectation of natural quiet conditions. Pedestrians do not pass quickly through the park-like environment and will therefore be significantly impacted by added noise, movement and infrastructure of the LRT and freight rail. The speed joined with the noise at close proximity greatly detracts from the trail experience for both bicyclists and pedestrians, and can even be frightening to users.



3.4.4.6 Safety and Security

LONG-TERM IMPACTS

Comment: The current plan to co-locate freight and LRT within the same corridor — within a dozen feet of each other in certain places — creates new, potentially catastrophic hazards. It is currently proposed that the freight train (which carries volatile and explosive ethanol on a daily basis, and several unit trains of ethanol per month) remain permanently in the Kenilworth Corridor. The addition of the SWLRT with its electrical power wires only a few feet away exacerbates the existing danger of ethanol in the corridor. Current safety standards recommend against co-location in such close proximity when there are alternatives; other alternatives for this SWLRT alignment must be explored.

Furthermore, in the event of an explosion of ethanol trains along this corridor, we understand that the foam retardant required to extinguish the fire is “within a 3 hour distance” of the corridor. We believe that the potential harm during that “3 hour window” along with permanent damage to residences and residents should be quantified. Should an explosion occur during the passing of an LRT train, the potential exists for loss of life or harm to those exposed to the hazardous fumes.

Please note that the Minneapolis Park Police also provide service within the study area. KIAA requests that the MPRB Police be consulted on security issues related to the impact of a proposed station at 21st Street on East Cedar Lake Beach (Hidden Beach) and their input be incorporated into final design plans. In the summer of 2012, Hidden Beach generated more police actions than any other park in the MPRB system. For the last five years, KIAA has provided supplementary funding to the Park Police to allow

for increased patrols in this area. The neighborhood has expressed grave concern that an inadequately managed station would increase opportunities for illegal behavior.

SHORT-TERM IMPACTS

Currently, rush hour traffic produces daily gridlock that sometimes extends from Lake Street, along Dean Parkway, Cedar Lake Parkway, Wirth Parkway, and Wayzata Boulevard (frontage road along I-394) all the way to the Penn Avenue Bridge. (This situation existed even before the construction at Highway 100 in St. Louis Park.) The closing of a critical crossing (Cedar Lake Parkway at the Kenilworth Trail) would be necessary during the construction of the proposed tunnel from West Lake Street to just past Cedar Lake Parkway. Affected neighborhoods already have limited entry and exit points.

The SDEIS does not address the need to ensure reasonable transportation options during this period, including routes for emergency vehicle access. There must be plans for fire and ambulance routes in the affected neighborhoods. Travel time for emergency vehicles would be increased during that closing. The SDEIS describes such delays as "minor"; we take vigorous issue with such a demotion of safety concerns, as even two minutes could be the difference between life and death, or a home being saved from fire or destroyed. (On June 11, 2015, an accident at Dean Parkway and Lake Street slowed traffic on Dean Parkway to a crawl for over an hour.)

Also missing is information on what measures, including evacuation plans, would be necessary to protect the Cedar Shores townhomes when the TC&W trains, with their explosive freight, are moved several feet closer to them during construction. Our neighborhoods were recently impacted for upwards of a year by a Met Council sewer-replacement project, with road closures (of which we were frequently not informed) and detours. As noted earlier, we understand that the sewer project would need to be re-done as part of the SWLRT tunnel-construction.

3.5 Draft Section Evaluation Update

Comment: The SDEIS is almost incomprehensibly dense and convoluted as it discusses the application of Section 4(f) to the LPA. For the benefit of the reader, the Section 4(f) statutory mandate is clear:

"Section 4(f) protects publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance and historic sites of national, state, or local significance from use by transportation projects. These properties may only be used if there is no prudent or feasible alternative for their use and the program or project encompasses all possible planning to minimize harm resulting from its use. If transportation use of a Section 4(f) property results in a *de minimis* impact, analysis of avoidance alternatives is not required."

Conversely, if there is more than a *de minimis* impact, an analysis of avoidance alternatives is required. Thoughtful analysis of avoidance alternatives is absent from the SDEIS.

A cursory reading of the SDEIS will reveal that there is not a good-faith analysis of prudent or feasible alternatives. "No Build" and "Enhanced Bus Service" were the only two alternatives considered, and only superficially; they were presented to the public in a cursory manner and without documentation. Not surprisingly, neither of them is considered feasible or prudent. Alternatives that *would* likely be considered feasible and prudent, such as a deep tunnel or rerouting, were not considered. Consequently, the bulk of the 4(f) analysis is used to contend that any adverse impact on 4(f) property will be *de minimis*.

These comments will focus almost entirely upon the Kenilworth Channel/Lagoon section of the LPA but are equally applicable to other section 4(f) properties identified by the SDEIS. The FTA, although identifying property subject to Section 4(f), fails throughout to adequately analyze or identify specific mitigation steps that would render impacts *de minimis*.

The Kenilworth Channel/Lagoon

At page 3-259, referencing the Kenilworth Channel/Lagoon, the SDEIS concludes:

"Through coordination with MPRB to date and based on the design and analysis to date as described in this section, FTA has preliminarily determined that the proposed permanent and temporary uses by the LPA would not adversely affect

the features, attributes or activities that qualify the Kenilworth Channel/Lagoon for Section 4(f) protection. Consistent with the requirements of 23 CFR 774.5(b), FTA is, therefore, proposing a *de minimis* use determination for the LPA at the Kenilworth Channel/Lagoon.

To understand the absurdity of this conclusion, one first should acknowledge that the Kenilworth Channel/Lagoon is one of the most important elements in the Minneapolis Park Board's Chain of Lakes (and also identified as subject to Section 106 because of its historic character). It is primarily appreciated for its pastoral quality and is used by walkers, bikers, kayakers, cross country skiers, ice skaters, fishermen, picnickers, and visual artists.

The FTA's own analysis identifies these activities and elements and acknowledges that the LPA would constitute 4(f) use but then, after an evaluation of the impacts, concludes that the use of the protected land will be *de minimis*. This of course means that there need not be a feasible and prudent alternative analysis.

Visual Impact

Per the SDEIS, visual impacts to the Kenilworth Channel/Lagoon will be:

1. Removal of two existing and potentially historic wooden bridges
2. Construction of massively larger bridges
3. Modification to topographical features, vegetation and WPA-era retaining walls.

Particularly astonishing is the statement at page 3-254 that the

"horizontal clearances between the banks and the new [bridge] piers would be of sufficient width to accommodate recreational activities that occur within the channel lagoon"!

The same thing could be said about an 8-lane super highway bridge spanning the channel. The point is that the altered scale of the proposed bridges will in fact be jarringly disproportionate to the channel's features. Not a *de minimis* impact by any stretch of the imagination.

The SDEIS goes on to note that the vegetation clearing necessitated by the new bridges would cause some reduction to the "visual quality of the view". But, the document goes on to reassure -

"[T]he bridges as currently conceived would have an attractive design that would become a positive focal point in the view. The overall change to the view's level of visual quality would be low. Because of the recreational activity in the channel, this view is visually sensitive. Even though the view is visually sensitive, because the potential level of change to visual quality will be low the potential visual impact will not be substantial."

Thus the reader is simultaneously warned and reassured that everything will be visually pleasing because a planner's aesthetic judgment about the visual quality of yet-to-be-designed bridges will be "attractive."

Noise Impact

It gets worse as the FTA pursues *de minimis* findings. The SDEIS acknowledges that two separate areas of the Kenilworth Channel/Lagoon are noise receptors and would be subjected to moderate noise impacts. There is a non-specific undertaking to utilize mitigation measures to reduce the area of Moderate noise impacts closest to the new bridges.

No such undertaking is offered with respect to the northern bank of the lagoon. Instead the SDEIS states:

"The northern bank of the lagoon [section 4(f) property], generally between West Lake of the Isles Parkway and South Upton Avenue (termed the Kenilworth Lagoon Bank in the noise analysis), was classified as a Category 1 land use, with stricter noise impact standards than the Category 3 land use. However, because of the distance between the light rail

tracks and the western point of the Category 1 land use, *noise levels under the LPA at that location would not exceed FTA's Severe or Moderate criteria.*"

Apparently there is not an intent to mitigate noise in this area as legally required.

Not Mentioned

Completely missing from the 4(f) analysis of the Kenilworth Channel/Lagoon is an analysis of the impacts of vibration and safety.

Minneapolis Park and Recreation Board

The SDEIS fails to address the previous objections of the MPRB: Instead it attempts to portray the MPRB as a willing partner:

"Through coordination with MPRB to date and based on the design and analysis to date as described in this section, FTA has preliminarily determined that the proposed permanent and temporary uses by the LPA would not adversely affect the features, attributes or activities that qualify the Kenilworth Channel/Lagoon for Section 4(f) protection. Consistent with the requirements of 23 CFR 774.5(b), FTA is, therefore, proposing a *de minimis* use determination for the LPA at the Kenilworth Channel/Lagoon. Supporting this preliminary determination is FTA's expectation that mitigation measures will be incorporated into the project that will avoid adverse effects to the protected activities, features, and attributes of the property. Those measures will be identified through continued coordination with the MPRB, which will continue through preparation of the project's Final Section 4(f) Evaluation. The MPRB must concur in writing with the *de minimis* impact determination after the opportunity for public comment on the preliminary Section 4(f) determination."

Even if the MPRB were to concur with a *de minimis* impact determination, such concurrence would hardly be credible given MPRB's earlier official statements on the topic. For instance, in November of 2012 the MPRB clearly itemized a series of concerns with respect to the selection of the Kenilworth Corridor as the LPA and, specifically, with respect to co-location stated:

"The MPRB opposes the co-location alternative and supports the findings presented in the DEIS regarding Section 4(f) impacts for the co-location alternative. In review of the documents, the loss of parkland described for the co-location alternative *cannot be mitigated within the corridor.*" (emphasis added)

Although the MPRB ultimately entered into a Memorandum of Understanding with the Met Council providing for a consultative role in the design process (March 12, 2015) ("MOU") the MPRB has never agreed that adequate mitigation is possible. Most recently in a letter to the Met Council summarizing its most recent comments about the SDEIS, the MPRB unequivocally concluded:

"Visual quality and noise are key areas of concern for the MPRB. The introduction of LRT in combination with freight rail *poses the potential for significant disturbance* to a corridor that, once disturbed, may [not] realize a restored look for decades."

Although these Park Board statements are encouraging, the objectivity and independence of the MPRB with respect to its "consulting" role is in serious doubt, given the enormous political pressure applied by the Governor and the Met Council via real and documented threats of massive budget retaliation. The Park Board's abdication of protection of 4(f) status followed Governor Mark Dayton's threat to cut \$3 million from its budget — this in retribution for the Park Board's legitimate attempt to protect the channel. The Park Board desperately needed the funds and, to date, has acquiesced to the governor's threat, despite its belief that:

"Visual quality and noise are key areas of concern for the MPRB. The introduction of LRT in combination with freight rail poses the potential for significant disturbance to a corridor that, once disturbed, may [not] realize a restored look for decades."

No-Build or Bus Rapid Transit Alternative

Although repeated throughout the SDEIS, the following statement is representative of its treatment of 4(f) property:

“No Build Alternative and Enhanced Bus Alternative as evaluated in the Draft EIS are the only full Section 4(f) avoidance alternatives identified to date and neither of them would be prudent because they would not meet the project’s purpose and need.”

This facile and conclusory assertion is entirely inconsistent with well-understood precedent. This analysis falls short of what is required under the law. If the proposed use is not *de minimis*, then alternatives must be evaluated — presumably in good faith.

The Kenilworth Channel/Lagoon is comprised unquestionably by Section 4(f) lands and “are “...not to be lost unless there are truly unusual factors present...or...the cost of community disruption resulting from alternative routes reaches extraordinary magnitudes.” (Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1972))

Given the impact on 4(f) property, planners are required to evaluate alternatives – alternatives beyond the two choices proffered in the SDEIS – No Build or Bus Rapid Transit. For example there has not been a good faith determination that an adjustment to the proposed SWLRT alignment wouldn’t have the same beneficial purpose, outcome or cost as the current LPA. The law requires a deeper analysis. That such an analysis would result in a delay of the project is not sufficient justification to fail to undertake it. The following guidance from the Department of the Interior *Handbook on Departmental Review of Section 4(f) Evaluations* is instructive:

CEQ regulations, as well as DOT Section 4(f) regulations, require rigorous exploration and objective evaluation of alternative actions that would avoid all use of Section 4(f) areas and that would avoid some or all adverse environmental effects. Analysis of such alternatives, their costs, and the impacts on the 4(f) area should be included in draft NEPA documents.

It is clear that the SDEIS falls far short of this standard and that additional analysis is essential for meaningful public participation.

The Tunnel

The SDEIS contains a lengthy discussion of the shallow tunnel under the Kenilworth lagoon/channel versus a tunnel with a bridge over the channel. The conclusion, not surprisingly is that there will be a non-de minimis use of the Kenilworth Lagoon/Grand Rounds property. The document promises that “all possible planning to minimize harm will be conducted and implemented”

In order to reach this conclusion the analysis first had to reject the No Build Alternative and the Enhanced Bus Alternative. The latter was rejected because it would be “inconsistent with local and regional comprehensive plans.” Again, no other avoidance options were considered.

Conclusion

The Section 4(f) property identified in the SDEIS has received inadequate review and in many cases incorrect findings of *de minimis* impact. There is glaringly inadequate identification of specific mitigation and avoidance strategies and resulting outcomes as required by Section 4(f). The following statement from the Department of the Interior, which has consultative jurisdiction over this project, is clarifying:

Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable. Also not acceptable is a statement that all planning to minimize harm has been done because there is no feasible and prudent alternative. Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable. Also not acceptable is a statement that all planning to minimize harm has been done because there is no feasible and prudent alternative. *Reviewers should make sure that all possible site-specific planning has been done to identify and list the measures which will be undertaken, at project expense, to minimize harm to Section 4(f) properties. (emphasis added)*

**Addendum: Kenwood Isles Area Association
Position Statement on Freight Relocation for SWLRT**

Adopted July 1, 2013

Nearly a mile of the proposed SWLRT runs through the Kenwood Isles Area Association neighborhood. **We vehemently oppose the idea of maintaining freight rail along with light rail at grade in the Kenilworth Corridor, known as “co-location.”**

Relocation of freight out of the Kenilworth Corridor has been promised for years. While the corridor was long used for transporting goods, freight use of Kenilworth was halted in 1993 when the Midtown Greenway was established. When freight was later re-introduced into the Kenilworth Corridor, Hennepin County assured residents this use of the corridor was temporary.

Meanwhile, over 20 years of citizen efforts to build and maintain Cedar Lake Park and the Kenilworth Trail have resulted in a more beautiful and complete Grand Rounds and Chain of Lakes. Traffic on federally funded commuter and recreational bicycle trails in the Kenilworth Corridor grew to at least 620,000, perhaps approaching one million, visits in 2012.

When the Hennepin County Regional Railroad Authority began looking at using the Kenilworth Corridor for LRT, several key studies and decisions reiterated the expectation that if Kenilworth is to be used for transit, then the freight line must be relocated. (See notes below.) Trails were to be preserved. Freight rail was to be considered a separate project with a separate funding stream, according to Hennepin County. This position was stated publicly on many occasions, including Community Advisory Committee meetings and Policy Advisory Committee meetings.

Minneapolis residents have positively contributed to the SWLRT process based on the information that freight and light rail would not co-exist in the Kenilworth Corridor. Although many of us think that Kenilworth is not the best route, most have participated in the spirit of cooperation and compromise to make the SWLRT the best it can be.

Despite numerous engineering studies on rerouting the freight rail, it was not until December 2012 that the current freight operator in the Kenilworth Corridor, TC&W, decided to weigh in publicly on the location of its freight rail route. TC&W rejected the proposed reroute.

The Met Council has responded by advancing new proposals for both rerouting the freight and keeping it in the Kenilworth Corridor. For either option, these proposals range from the hugely impactful to the very expensive – or both. Six of the eight proposals call for “co-location” despite the temporary status of freight in Kenilworth. The Kenilworth proposals include the destruction of homes, trails, parkland, and green space. Most of the proposals would significantly add to the noise, safety issues, visual impacts, traffic backups, and other environmental impacts identified in the DEIS.

This is not a NIMBY issue. The Kenilworth Trail provides safe, healthy recreational and commuter options for the city and region. It is functionally part of our park system. The Kenilworth Corridor is priceless green space that cannot be replaced.

For over a decade public agencies have stated that freight rail must be relocated to make way for LRT through the Kenilworth Corridor. If this position were reversed midway through the design process for SWLRT, the residents of Kenwood Isles would find this a significant breach of the public trust.

Simply stated, none of the co-location proposals are in keeping with the project goals of preserving the environment, protecting the quality of life, and creating a safe transit mode compatible with existing trails.

This has been a deeply flawed process, and we **reject any recommendation for at-grade co-location in the Kenilworth Corridor. If freight doesn’t work in St. Louis Park, perhaps it’s time to rethink the Locally Preferred Alternative.**

Notes

1) The 29th Street and Southwest Corridor Vintage Trolley Study (2000) noted that, “To implement transit service in the Southwest Corridor, either a rail swap with Canadian Pacific Rail or a southern interconnect must occur.”

2) The FTA-compliant Alternatives Analysis (2005-2007) defines the Kenilworth section of route 3A for the proposed Southwest Light Rail in this way: “Just north of West Lake Street the route enters **an exclusive (LRT) guideway in the HCRRA’s Kenilworth Corridor to Penn Avenue**” (page 25). This study goes on to say that “to construct and operate an exclusive transit-only guideway in the HCRRA’s Kenilworth Corridor the **existing freight rail service must be relocated**” (page 26).

3) The “Locally Preferred Alternative” (LPA) recommended by HCRRA (10/29/2009) to participating municipalities and the Metropolitan Council included a recommendation that freight rail relocation be considered as a separate “parallel process.”

4) In adopting HCRRA’s recommended Locally Preferred Alternative based on treating relocation of the freight rail as a separate process, the City of Minneapolis’ Resolution (January 2010) stated:

“Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained.”

5) The Draft Environmental Impact Statement supports the Locally Preferred Alternative, which includes relocation of freight out of the Kenilworth Corridor. (December 2012)

6) The southwesttransitway.org has stated since its inception that:

Hennepin County and its partners are committed to ensuring that a connected system of trails is retained throughout the southwest metro area. Currently, there are four trails that may be affected by a Southwest LRT line. They are the Southwest LRT trail, the Kenilworth trail, the Cedar Lake Park trail, and the Midtown Greenway. These trails are all located on property owned by the HCRRA. The existing walking and biking trails will be maintained; **there is plenty of**

space for light rail and the existing trails. Currently, rails and trails safely coexist in more than 60 areas of the United States.

LRT Done Right Addendum on previous communication concerning freight and safety

Date: September 30, 2014

To: Pipeline and Hazardous Materials Safety Administration and Federal Railroad Administration

From: LRT-Done Right

Re: **Docket No. PHMSA-2012-0082 (HM-251) – Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains**

INTRODUCTION AND BACKGROUND

LRT-Done Right is a grass roots organization that has done much research and advocacy regarding the effects of light rail transit and freight lines on community well being. Limited resources typically prevent community organizations from having the same access to federal regulators that industry representatives do. This opportunity to contribute a meaningful comment is greatly appreciated, as is the Pipeline and Hazardous Materials Safety Administration's (PHMSA) earnest consideration of our comments.

It is noted that relative to the importance of the PHMSA standards, very few parties comment on these proposed rules. At the time of this submission, elected officials have not submitted a comment on behalf of the interest/protection of Minneapolis/St Paul or generally on behalf of Minnesota (i.e. mayor, city council, state legislators, Governor, etc.) and only a few federal politicians have made comment. This is concerning because communities rely on elected officials to serve the best interest of the community residents. Most comments, related to Docket No. PHMSA-2012-0082 (HM251), were generated by individual citizens, small communities or cities, or by industry representatives. As citizens, we have expended great care and effort to learn about the issues of freight safety, and have had to do it quickly.

The large-scale shipment of crude oil and ethanol by rail simply didn't exist ten years ago, and safety regulations need to catch up with this new reality. While this energy boom is good for business, the people and the environment along rail corridors must be protected from harm. Crude oil shipments by rail have increased by over 40-fold since 2005, according to the Association of American Railroad's Annual Report of Hazardous Materials. In fact, more crude oil was transported by rail in North America in 2013 than in the past five years combined, most of it extracted from the Bakken shale of North Dakota and Montana (Stockman).

The National Transportation Safety Board (NTSB) noted their concern to PHMSA, that major loss of life, property damage and environmental consequences can occur when large volumes of crude oil or other flammable liquids are transported on a single train involved in an incident, as seen in the Lac Megantic, Quebec, disaster, as well as several disasters that the NTSB has investigated in the United States. The NTSB recommendations to the Federal Railroad Administration and the Pipeline and Hazardous Materials Safety Administration include reroutes of trains carrying hazardous cargo around populated and environmental sensitive corridors, development of an

audit program to ensure rail carriers that carry petroleum products have adequate response capabilities to address worst-case discharges of the entire quantity of product carried on a train and an audit of shippers and rail carriers to ensure that they are properly classifying hazardous materials in transportation and that they have adequate safety and security plans in place (NTSB).

RULE ANALYSIS

LRT-Done Right commends PHMSA and FRA for the effort to improve rail safety with the development of this proposed rule. While understanding the need to balance community safety with the needs of railroads as a profitable enterprise, there are several omissions in the proposed standards that we wish to address. It is clear that PHMSA standards for too long have been overly influenced by industry (Straw R), but as recent rail disasters have shown, the necessity to protect the public's interest is imperative. Because we are citizens with limited rail engineering expertise, we will use our own experiences with a small short line railroad called Twin City & Western (TC&W) to illustrate issues with PHMSA standards. TC&W is a Class III railroad with connections to Canadian Pacific, Union Pacific, Burlington Northern and Canadian National. Under current PHMSA guidelines, which apply to Class I railroads, these enhanced tank car standards and operational controls for High-Hazard Flammable Trains (HHFT) would not apply. This is gravely concerning. Our comments will cover issues of rail routing, notification to State Emergency Response Commissions, tank car specifications, and additional requirements for HHFTs.

Rail Routing -

Missing from standards are guidelines on construction of new transit lines in an active freight rail corridors. Increasingly, light rail transit (LRT) through suburban and urban areas is being run through established freight corridors, which were designed in a different era of rail safety (Sela, et al). LRT routes are planned by local and regional public officials who typically are not adequately addressing the safety of these transit routes, leaving it to affected neighborhoods to advocate for community safety. The trend toward locating LRT adjacent to freight must be addressed in these PHMSA standards. We understand this to be complicated by issues of governance; the Federal Railroad Administration (FRA) regulates freight trains while the Federal Transit Administration (FTA) guides LRT lines. However FRA has ultimate authority and PHMSA writes rules for safety. This particular comment regarding rail routing may be currently beyond the purview of these particular proposed PHMSA standards, never the less we submit these comments to stress their importance to freight safety in shared use corridors, and for immediate consideration and inclusion in this joint PHMSA and FRA rule.

Shared FRA/FTA guidelines are written with respect to Amtrak, and give responsibility to the freight companies for managing shared track (Federal Register, Part VII). Currently, there are no specific safety requirements for either existing or yet to be constructed commuter lines in shared corridors, where track is not shared (Resor R). When track is shared, then commuter lines must meet strict safety guidelines, but when track-separated right of way (ROW) is shared, there are no regulations whatsoever, and localities must police themselves. No guidelines exist that guide either the construction phase of adding LRT lines through an existing freight corridor, or corridor minimum level safety standards. Hence, there are many co-location projects nationwide moving forward, which do not meet minimum American Railroad Engineering and Maintenance-of-way Association (AREMA) guidelines. AREMA guidelines recommend minimum standards for grade separation of 25 feet center rail to center rail. The Rail Safety Improvement Act of 1988 gives the FRA jurisdiction over most types of railroad including shared track LRT (Pub. L. No 100-342), however the FRA has historically not chosen to exercise this authority. This has left shared ROW LRT in a netherworld of un-regulation, which we believe seriously compromises the safety of people, property and environment along these types of corridors.

A case in point is Southwest Light Rail Transit (SWLRT), currently in the early engineering phase and being

considered for construction by the FTA through the Kenilworth corridor in the Minneapolis, MN area. If constructed, LRT will run less than 12 feet from freight rail at a point along the Kenilworth Corridor that regularly carries Class 3 flammable liquids, including long unit trains of ethanol. During the construction phase of a proposed tunnel in an area that can not accommodate both LRT, a freight line, and an existing heavily used bike trail, the freight line, which will continue full service throughout the construction will run just 11 feet from a 35 foot construction pit in an populated area of Minneapolis. In no other instance, could we find current plans to co-locate LRT next to a freight rail line that carries Class 3 flammable liquids. There are other lines that exist where co-location occurs, but these were built many years ago prior to the awareness of the danger existent with oil and ethanol trains. The TC&W freight regularly runs unit trains of 60-100 ethanol train cars through the Kenilworth corridor within feet of the proposed LRT line. Ethanol is highly combustible, which may form explosive mixtures with air and where exposure to electrostatic charges should be avoided (ODN). Yet these electrified LRT lines will literally be next to tanker cars carrying ethanol and other chemicals.

Over the 20-year interval from 1993 to 2012, there were 1,631 mainline passenger train disasters, including 886 grade crossing accidents, 395 obstruction accidents, 263 derailments, 71 collisions. During the same time period, there were 13,563 freight derailments and 851 collisions (Lin et al). Derailments and collisions were identified as the most potentially significant train accident types while human factors accidents and track failures, including obstructions were the primary causes of those accidents (Lin et al). Adjacent tracks, occupied by freight and passenger rail - refers to train disaster scenarios where derailed equipment intrudes adjacent tracks, causing operational disturbance and potential subsequent train collisions on the adjacent tracks (Lin and Saat). Lin and Saat created probability models assessing risk along adjacent tracks to determine risk and severity of a crash leading to a collision or derailment. Identified risk factors included distance between track centers, train speeds, train densities, different train control systems, and level of hazardous train cargo. In the case of SWLRT, this model assessed Kenilworth to be a high-risk rail corridor, yet due to a lack of regulation of co-location, this project progresses.

For transit located on adjacent track to active freight, FRA's concern is that operations of a freight railroad in close proximity to LRT could present safety risks for both. In considering our SWLRT case study, track centers distances are as narrow as 12 feet (11 feet during construction), with 220 LRT trains proposed daily. A derailment of either freight or LRT could be disastrous. With distances of 11-12 feet between SWLRT and freight, if either were to encroach and cause intrusion upon the other, this would likely bring death and destruction, and depending upon the cargo carried, could mean broad evacuation of 1000s of area residents. AREMA's 25 foot standard would be more likely to prevent intrusion onto the adjacent track, and would keep electrified lines away from highly flammable fuel carrying tankers.

None of this accounts for issues related to trains as targets of terrorism or using those trains for terrorist purposes (Brodsky), using chemicals such as chlorine or fossil fuels to create 'bomb trains' or mayhem. Minneapolis is a high threat urban area as determined by the Transportation Safety Administration (TSA); our case study SWLRT parallels freight up to and past the Target Center and the Twins Stadium, two large venues for sports and entertainment. This is another scenario that begs for a solution that would set safety rules for co-location of freight and passenger rail through shared ROW near sites at high risk for terrorism.

The safety requirements for HHFT should apply to Class I, Class II, and Class III railroads. There are short line railroads that are shipping ethanol, and due to common carrier obligations, may be called upon to ship oil, chlorine or other Class 3 flammable liquids. Due to entity size and revenues, these short line railroads typically are Class III railroads. The revenue generating capacity of a railroad should not govern the safety standards to which it is held. If a railroad or shipper does not have the capacity to adhere to the HHFT tank car standards and operational controls, it is dangerous for that entity to be in the business of conveying Class 3 flammable liquids. The relevance of these standards only to Class I railroads, to trains of 20 or more rail cars of hazardous cargo, and to only population areas of 100,00 or more, leave many communities endangered. The safety requirements for HHFT should apply to Class I, Class II, and Class III railroads. The revenue generating capacity of a railroad should not govern the safety standards to which it is held. If a railroad or shipper does not have the capacity to adhere to the HHFT tank car standards and operational controls, it is dangerous for that entity to be in the business of

conveying Class 3 flammable liquids. Additionally, the absence of regulation guiding construction of adjacent rail lines through shared ROW carrying tanker chemicals pose danger to residents along these corridors. Regulatory action must be more broadly addressed to all railroads, on any trains carrying any hazardous materials through any community of any population size.

PHMSA standards are proposed only for communities with population greater than 100,000. We understand the necessity of setting population density standards, but suggest that the threshold of 100,000 is too high. It is discriminatory to penalize a small community and to put them at greater risk due to safe guards not being applicable. Further, it is those communities that would be least likely to absorb the cost of disaster. Railroads must be accountable for safety and exercise due diligence for one tank car or 100 tank cars, in urban and on rural routes. Many of the rail disasters that have occurred happened in areas where populations were less than 100,000 (e.g. Lac Megantic). These communities deserve to be protected too.

Notification to State Emergency Response Commissions (SERCs)-

The proposed PHMSA rule would require notification to SERCs only if trains containing one million gallons of Bakken crude are operating in their States. The requirement ignores the dangers ethanol and does not acknowledge that as little as one carload of oil or ethanol can trigger disaster, as is evidenced by the summary of selected major oil and ethanol train disasters shown in Table 3 provided in the Docket No. PHMSA-2012-0082 (HM-251).

Ethanol is a Class 3 flammable liquid and is considered as dangerous as oil by the National Transportation Safety Board. Ethanol is appropriately classified as a Class 3 flammable and should not be referred to simply as an agricultural product. Ethanol is caustic to the skin, harmful if breathed, highly flammable and very difficult to clean up especially if released in bodies of water. The reason for this clean up challenge is that ethanol is soluble in water. Unlike petroleum, which can be extracted from the top of the water, concentrated ethanol would require full liquid removal (i.e., in the event of an ethanol spill in a lake, the affected would need to be drained). In groundwater, ethanol does not respond to typical remediation techniques, like air stripping and filtration.

To achieve the best protection for our communities, emergency responders and railroad workers – SERCs must have advance notice that oil and ethanol is being shipped through their states. Further all railroads/shippers of oil or ethanol must design and implement a comprehensive spill response plans. These response plans must be provided in advance to the relevant SERCs, Tribal Emergency Response Commissions, Fusion Centers and any other State designated agencies.

These safety preparedness requirements must apply to all railroads/shippers of Class 3 flammable liquids, regardless of their classification (i.e., Class I, Class II or Class III). Without this requirement there will not be adequate training and incentive to minimize collateral damage to communities.

If a railroad or shipper does not have the manpower and fiscal capacity to develop and execute a Class 3 flammable liquid spill response plan, it is not prudent for that entity to be in the business of conveying Class 3 flammable liquids. Spill response plans should take in to account the terrain, natural geography and municipal development along the route used for transport. Specifically if lakes and rivers are present, the plan must provide for containment to prevent water contamination and plan for the de-contamination of bodies of water. Additionally the presence of other freight and/or public transit modes in the same ROW corridor, along with the proximity to residential and school areas, must be addressed in developing the appropriate spill response plan.

Tank Car Specifications -

PHMSA recognizes that DOT-111 tank cars can almost always be expected to breach in the event of a train crash and resulting in spills, explosions and destruction, yet the proposed new rule on train operation and tank car

design would fail to take a single DOT-111 car off the rails. New designs for DOT-111s include increased minimum head and shell thickness, top and bottom fitting protection, a thicker head shield, and head and shells constructed of normalized steel. The guidelines recommend that new DOT-111s ordered after October 1, 2011, be built to this standard. We appreciate these new standards. However, the type of crude involved in the Lac Megantic disaster could be carried on the least safe DOT-111 tank cars until Oct. 1, 2018. An immediate ban on shipping volatile crude and ethanol in the DOT-111 tank cars is in order.

Short line railroads like TC&W in Minnesota are small and often unable or unwilling to purchase these new tanker cars because their ability to invest capital in new cars is limited. They instead tend to purchase used tanker cars from other larger railroads that are retiring those for newer tank cars, and they retrofit older used cars to meet minimum safety standards. It is ironic that these short line railroads which are often run through heavily populated urban corridors have the worst quality tank cars in all the fleets, yet run through the most densely populated corridors. Of the 94,178 cars in flammable service, currently only 14,150, or 5 percent of the total DOT-111 fleet (15 percent of the flammable service fleet), have been manufactured to comply with new standards (Pumphrey et al).

Additionally, as the amount of oil being shipped by rail has increased, train companies have moved to using unit trains for shipping higher volumes (Pumphrey et al). Unlike a manifest train, which might carry a variety of different commodities, a unit train carries only one commodity (e.g., ethanol or crude oil). Unit trains consist of between 50 and 120 tank cars, the equivalent of 50,000 to 90,000 barrels of oil, becoming a "virtual pipeline" or a potential bomb train. Unit trains may increase efficiency but also increase risk. According to the American Association of

Railroads (AAR), "a single large unit train might carry 85,000 barrels of oil". There is no publicly available data on how much oil or ethanol is being shipped in unit trains versus non-unit trains (Pumphreys et al). Shippers of crude oil currently are not required to prepare a comprehensive oil spill response plan (OSRP). Shippers should be required to report even one tanker car of oil or ethanol. And limits should be placed on the number of tanker cars in any single train, especially through high population density areas.

In the case of SWLRT, nearly all ethanol trains that run on the freight track are unit trains. Substandard tank cars combined with the fact of unit trains and a high number of tanker cars means that the Kenilworth Corridor is at high risk. The proximity of an electrified LRT a mere 12 feet from tanker cars could mean that this neighborhood could become ground zero in case of derailment.

The next generation tank cars should exceed the previous 2011 standards, and that should be phased in at a quicker pace than proposed. It is clear that rail company lobbyists are actively trying to minimize PHMSA regulatory tanker car standards (Straw). You must steal your resolve and demand improvements for public safety, and for short line railroads demand similar standards with no waivers.

Small short line railroads are often not given the attention or training of larger railroads, yet they often utilize the worst tanker cars and have the least emergency training. Short Line Railroad Safety training for short line railroads transporting crude and ethanol must be a greater priority, because they often run through high-density urban corridors.

Additional Requirements for High-Hazard Flammable Trains (HHFTs)-

The proposed rule defines a HHFT as a single train carrying 20 or more carloads of Class 3 flammable liquid. The definition does not serve the safety interests of the United States. It is documented that one carload of Class 3 flammable liquid can trigger a disaster and devastation. For that reason, a HHFT should mean a single train carrying one or more carloads of Class 3 flammable liquids.

Further the proposed rule applies only to trains operated by Class I railroads. The PHMSA and FRA safety rules related to Class 3 flammable liquids should be in effect for all railroads/shippers that convey Class 3 flammable

liquids. The class (i.e., Class I, II or III) of a railroad is determined by its revenue generation. It is not reasonable to exempt a railroad from important safety requirements based on its revenue generating capacity. If a railroad/shipper does not have the capacity to adhere to relevant HHFT and Class 3 flammable liquid safety standards, it is not prudent for that entity to be in the business of conveying Class 3 flammable liquids. These important safety rules must apply to all classes of railroads, otherwise there are opportunities to circumvent necessary precautions and responsibilities.

Further the proposed rule does not address the liability insurance requirements for railroads/shippers of Class 3 flammable liquids. This is a complicated topic especially when the condition of a share ROW exists. Goals of insurance requirements should address:

1. Allocating the liability from risks between the freight railroad and the transit agency
2. Managing the additional risk by developing a prudent insurance strategy
3. Ensuring the safety of passengers in mixed freight and transit operations
4. The willingness of freight railroads to grant access to their ROW for transit operations
5. Providing satisfactory conditions for continuing service to freight customers. Without adequate insurance requirements, the public will be exposed to uncompensated losses when freight and transit disasters occur.

RECOMMENDATIONS

These proposed PHMSA rules are a beginning toward building a safer rail industry. However, the more we investigated the rules, the clearer it became that the rules do not go far enough to protect the public. The current standards are remarkable more for what they do not regulate than for what they do. Much more needs to be done to ensure public and environmental safety. We recommend that PHMSA immediately incorporate the recommendations listed below to expand this rule on safety standards to better protect the public and the environment:

1. Modify the definition of a high-hazard flammable train provided in Section 171.8 to read as follows: High hazard flammable train means a single train carrying 1 or more carloads of a Class 3 flammable liquid.
2. The PHMSA and FRA rules must apply to all trains conveying Class 3 flammable liquid regardless of railroad classification (i.e., includes Class I, Class II and Class III railroads). This would extend PHMSA regulatory actions to all railroads regardless of Class.
3. The PHMSA and FRA safety rules should apply equally to HHFTs that are conveying oil and/or ethanol. The NTSB views ethanol as dangerous as oil. Having safety rules that address the conveyance of oil but do not apply to ethanol carriers is flawed, as both are Class 3 flammable liquids.
4. Ban the use of DOT-111 tank cars now for transporting any amount of hazardous materials, instead of focusing solely on trains with more than 20 railcars of crude oil. The proposal to allow continued use of DOT-111 cars on trains of fewer than 20 cars would fail to protect public safety and the environment.
5. DOT-111 cars should not be used for the transport of any crude oils or fossil fuels, regardless of classification.
6. Retrofitted cars that fail to meet every standard of the most protective new tank car design should be barred from use for all shipments of hazardous materials, regardless of class and have regular safety

inspections to assess their continued safety.

7. Require that any and all railroads/shippers conveying one car load or more of Class 3 flammable liquids are required to notify SERCs about the operation of these trains through their States. Further it is recommended that comprehensive spill response plans be submitted for review and approval by relevant federal agencies under the National Contingency Plan, along with PHMSA. Given the relatively few number of railroad entities, it is not anticipated for this to be an undue burden. To minimize risks due to outdated comprehensive spill response plans, it is strongly recommended that plans be updated at least on a 3-year cycle and whenever there is a change of ownership in the railroad or shipper.
8. Enforcement of PHMSA/FRA/FRA rules and inspections do not happen regularly due to minimal federal staffing. An increase in the frequency of inspections is recommended, with funding provided by railroad fees.
9. Implement federal standards and rules that would minimize the occurrence of the key causes of train derailments resulting in spills; namely, the size of trains, state of infrastructure and human error. The proposed rule enumerates the most common causes of hazardous train derailments but fails to propose meaningful solutions such as limits on the number of cars permitted in each train, the use of unit trains, requirements for new build outs in shared row, infrastructure and inspection improvements, and management and oversight.
10. Derailments and spills can happen everywhere. Instead of selectively protecting only the most densely populated cities, apply these standards everywhere. As written, the proposed rules are designed to reduce risk to communities of greater than 100,000 people, but protections should be afforded all communities. These standards specifically acknowledge that it is putting people at risk solely because of where they live. This is immoral.
11. Sensitive environments including but not limited to areas near water, drinking water supplies, parks and animal habitat should be protected by all available safety standards.
12. Require full public disclosure to first responders of all hazardous rail shipments. There should be no exemptions for trains with fewer than 35 cars. Even one car of hazardous cargo should be disclosed so that emergency responders can act appropriately in the case of a disaster.
13. Uniform federal level guidelines should be developed to guide all future construction and management of LRT/commuter rail lines in shared freight/transit corridors, in particular along corridors that carry Class 3 flammable liquids.
14. A comprehensive study of derailment probability in shared ROW should be undertaken to understand the effect of track spacing, electrification of LRT adjacent to gas/oil/ethanol bearing trains, train speeds, train cargo, and train ownership (long range vs. short line railroads).
15. Minimum standards should be set for co-location of passenger and freight co-location, including that ROW should meet the AREMA minimum safety standard of 25 feet center rail to center rail (Caughron B et al). Immediately institute a moratorium on the building of LRT lines adjacent to freight lines that are conveying any amount of Class 3 flammable liquids in corridors that do not meet AREMA's 25 feet center rail to center rail standard.
16. All trains conveying Class 3 flammable liquids should be re-routed outside of high risk urban areas and away from areas at high risk for derailment or terrorism including urban neighborhoods, downtown areas, malls and major sports and entertainment complexes.

CONCLUSION

Given the exponential increase in shipments of oil and ethanol, the need to upgrade and implement relevant freight rail safety standards is urgent and necessary to the well being of our communities and environment. The coordination of oversight authority for all railroads (i.e., Class I-III) and public transit projects safety must also

improve. The proposed rule along with the aforementioned recommendations will serve to protect our nation and place the responsibility for safety precautions with the appropriate entities and not place undue burden on communities and residents.

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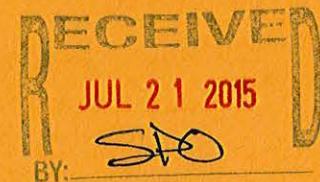
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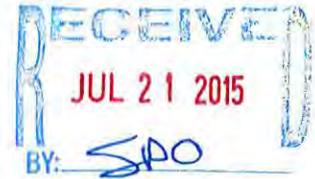
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July 21, 2015

Via electronic mail and messenger

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Re: Public Comments – Southwest Light Rail Transit Supplemental Draft Environmental Impact Statement

Dear Ms. Jacobson:

I am writing on behalf of our client, AGNL Health, L.L.C. ("AGNL Health"), regarding the Southwest Light Rail Transit Project ("SWLRT") Supplemental Draft Environmental Impact Statement ("SDEIS"). AGNL Health is the owner of the office campus located at 13625 and 13675 Technology Drive in Eden Prairie, Minnesota (the "Campus"), which is located immediately adjacent to the Eden Prairie Segment of the SWLRT (as modified and evaluated in the SDEIS) between Mitchell Road and the Southwest Station.¹ As an owner of property immediately adjacent to and in part included in the the preferred route for the Eden Prairie Segment, AGNL Health is concerned with the potential for significant impacts to the carefully-designed atmosphere of the Campus. AGNL Health's concerns with the SWLRT Project and the analysis presented in the SDEIS can be summarized as follows, and are discussed in further detail in these comments.

- The Campus is a unique receptor along the Eden Prairie Segment, and requires specific attention to its many unique features for consideration of potential impacts.
- The SWLRT Project development and environmental review processes have been disjointed and procedurally-flawed, and there continues to be significant uncertainty regarding the SWLRT Project scope and design, creating gaps in the environmental analysis.
- The SWLRT Project Scope included in the SDEIS and Final Environmental Impact Statement ("FEIS") should be modified to align with the recent decisions of the Metropolitan Council to reduce the project scope to match budget constraints.
- The SDEIS identifies multiple significant environmental issues that have yet to be analyzed, and notes that the impacts will be detailed for the first time in the FEIS. Some of these unresolved issues relate directly to the potential impacts to the Campus, and are of significant concern to AGNL Health.

¹ The Campus is referred to in the SDEIS in its entirety as the "Optum Health Services headquarters" and in reference to potential impacts to specific auditorium facilities within the Campus as the "Optum Auditorium."

- As a result, the evaluation of potential impacts of the SWLRT Project and the necessary measures to mitigate those impacts is incomplete, particularly with respect to the Campus.
- A more thorough identification and analysis of unresolved environmental impacts and potential mitigation for those impacts is necessary.
- The Metropolitan Council should not wait to address these significant issues until publication of the FEIS, and should provide AGNL Health, other members of the public, and agencies with clarity on these issues as soon as possible to facilitate an informed public participation process.

I. The AGNL Health Campus was Designed to Create a Specific Atmosphere, Which Will be Jeopardized by the Location of the SWLRT Eden Prairie Segment.

The Campus, owned by AGNL Health, consists of multiple coordinated and connected buildings with office spaces, a 300 seat auditorium that is used for broadcasting important company meetings across the country, a structured parking facility with capacity for more than 1200 vehicles, and preserved wetlands areas. The Campus is currently leased to a major Minnesota health care company, with over 1300 of its employees, including executive management, currently working at the Campus. The Campus was designed to create an atmosphere that supports connectivity and collaboration by emphasizing naturally lit open spaces and by diffusing the boundary between the buildings and the natural beauty of the Campus site. This design and atmosphere is fundamental to the Campus. The potential location of the SWLRT Project along Technology Drive threatens this fundamental character of the Campus, and would significantly diminish the quality of the experience at the Campus for employees and visitors, as further described below. Indeed, the Campus atmosphere stands to be impacted by air-borne and ground-borne noise, vibration, encroachment on buffer areas, and visual infiltration of sight-lines. Any one of these impacts would be disruptive to the Campus, and the combination of all of these factors poses a serious threat to the Campus atmosphere.

II. The SWLRT Project Design Continues to Be a Moving Target, and the Environmental Review Process Continues to Track Separately from Project Development Efforts, Thereby Creating Uncertainty and Significant Impediments to Public Participation.

The SDEIS was prepared to evaluate within the environmental review process various significant changes to the SWLRT Project design, including changes to the alignment of the Eden Prairie Segment. AGNL Health first became concerned with the potential impacts of the SWLRT when a modified alignment for the West Segment 1A was developed, relocating the SWLRT to Technology Drive. The alignment analyzed in the Draft Environmental Impact Statement ("Draft EIS"), however, identified that portion of the SWLRT as being aligned along Highway 212, not Technology Drive. As these design changes occurred following preparation of the Draft EIS, the changes "needed to be evaluated for environmental impacts that were not documented in the Project's Draft EIS and had the potential to result in new adverse impacts."²

² SDEIS at ES-3.

Despite not having evaluated at that time any of the potential impacts of the realignment along Technology Drive as part of the Draft EIS, the Metropolitan Council proceeded with the municipal consent process required pursuant to Minnesota Statutes §473.9994 for the modified alignment along Technology Drive. This created significant confusion with the public, as the municipal consent process was the first public forum in which the modified Eden Prairie Segment was presented, and ran afoul of the fundamental principal of environmental review that governmental actions be informed by the environmental review process.³

This confusion still continues with publication of the SDEIS. On April 27, 2015, the Metropolitan Council released a revised cost estimate for the SWLRT project of approximately \$1.994 billion, a \$341 million increase from the cost estimates analyzed in the SDEIS.⁴ This significant increase in cost estimate triggered discussions regarding potential modifications to the SWLRT Project scope to address the budget shortfall. Yet, despite these ongoing discussions, the Metropolitan Council published and made available for public comment the SDEIS in May of 2015. Since publication of the SDEIS, and while the public comment period was still ongoing, the Metropolitan Council on July 8, 2015 approved a revised SWLRT Project plan eliminating certain features from the SWLRT Project scope to achieve necessary cost reductions.

AGNL Health supports the modifications to the SWLRT Project approved by the Metropolitan Council on July 8, 2015, as the modifications to the Eden Prairie Segment eliminate the potential for impacts to the AGNL Health Campus. It remains unclear, however, whether the scope of the SWLRT Project for the purposes of environmental review will be similarly revised, as it should be, or if environmental review will be conducted for the broader project scope identified in the SDEIS despite the clear decision by the Metropolitan Council.⁵ Such uncertainty significantly jeopardizes the effectiveness of the public participation process. Furthermore, the SWLRT Project design presented in the SDEIS is characterized as "more advanced development" but still "conceptual" and impacts are "subject to change as design proceeds."⁶

The FEIS should clarify the project scope being evaluated in the environmental review process (including any design features that are considered potential future developments⁷) so that the project

³ MEPA expressly prohibits a final governmental decision approving a project such as the SWLRT until *after* a FEIS is published and determined to be adequate. See Minn. Stat. § 116D.04, subd. 2a; Minn. R. 4410.3100, subp. 1. AGNL Health notes that the Metropolitan Council plans to initiate a second municipal consent process in light of the changes in the project scope, and that it will vote to initiate this process one day after the SDEIS comment period closes, July 22, 2015. See <http://metrocouncil.org/Transportation/Projects/Current-Projects/Southwest-LRT/municipal.aspx> (last visited July 21, 2015). As is discussed further in these comments, the municipal consent process should include consideration of a number of potential impacts of the SWLRT that have yet to be fully evaluated for the Eden Prairie Segment.

⁴ SDEIS at 5-4, Table 5.4-1, n. a.

⁵ At the June 17, 2015 SDEIS public hearing held in Eden Prairie, a representative of the SWLRT Project indicated that any changes in the SWLRT Project design would not impact the environmental review process.

⁶ SDEIS at 3-35.

⁷ The SDEIS further states that the Metropolitan Council also "developed a design adjustment that would *initially* implement a western terminus of the proposed light rail line at the Southwest Station," and that "design plans for this western terminus would not preclude a later extension of LRT further to the west." SDEIS at 2-47, n. 25. This language in

scope evaluated in the environmental review process aligns with the project scope approved by the Metropolitan Council on July 8, 2015. The Metropolitan Council should further inform relevant agencies and the public as soon as possible that a corresponding scale-back of the project scope will be made in the FEIS to avoid confusion in other processes, such as the municipal consent process.

III. The SDEIS Analysis of the Potential Impacts of the SWLRT Eden Prairie Segment is Incomplete and Additional Analysis of the Potential Impacts of the Eden Prairie Segment and Identification of Required Mitigation Measures is Necessary.

The SDEIS identifies many significant unresolved environmental issues and notes that the impacts and mitigation will be analyzed and detailed for the first time in the FEIS. Because of the uncertainty regarding the scope of the SWLRT Project moving forward, and in particular the scope of the Eden Prairie Segment that will be included in the FEIS, it is unclear to what extent additional assessment and consideration of these unresolved issues will be completed. As is described in this section, however, many of these unresolved environmental issues relate directly to the AGNL Health Campus, and cause AGNL Health great concern about the potential impacts to its property. Accordingly, AGNL Health provides the comments below on these unresolved environmental issues for consideration if the portion of the Eden Prairie Segment between Mitchell Station and the Southwest Station is to be included in the FEIS. Given that the purpose of the SDEIS is to identify new potential significant adverse impacts associated with the SWLRT Project design adjustment, and to allow for public and agency comment on the design adjustments and associated impacts, the Metropolitan Council should address these unresolved issues and provide opportunities for public participation in advance of publication of the FEIS.

A. The SDEIS Does Not Evaluate the Noise and Vibration Impacts at the AGNL Health Campus, and Such Impacts are Likely to be Significant.

AGNL Health is concerned about the potential for noise and vibration from the SWLRT to invade the ambience of health, peace, and quietude that is a central focus of the carefully-planned atmosphere of the Campus. Generally, the noise analysis in the SDEIS is incomplete, and has yet to provide site-specific data and analysis of the AGNL Health Campus. Thus, the noise analysis for the Eden Prairie Segment will need to be corrected and supplemented, and the AGNL Health Campus evaluated, for inclusion in the FEIS. To enhance public participation in the environmental review process, AGNL Health recommends that the Metropolitan Council make these adjustments to the noise and vibration impacts analysis available to the public prior to publication in the FEIS.

The Noise and Vibration Analyses for the Eden Prairie Segment are Incomplete

The noise and vibration analyses in the SDEIS are incomplete for the Eden Prairie Segment as a whole. Table 3.1-1 indicates that, for the Eden Prairie Segment, Noise and Vibration impacts were addressed in the SDEIS,⁸ but this is contrary to the detailed discussion of these impacts in Section 3.2.

the SDEIS is contrary to the recent Metropolitan Council decision, which did not include a western extension to Mitchell Station at a future date.

⁸ SDEIS at 3-3.

Indeed, the SDEIS specifically acknowledges that the noise impacts analysis is not complete, and further development of the analysis is required in the FEIS. For instance, the SDEIS recognizes that "noise mitigation measures to be incorporated into the project will be made in a noise mitigation plan and documented in the project's Final EIS."⁹ Additionally, the SDEIS notes that an approach for addressing Minnesota noise pollution rules and statutes is yet to be developed with the Minnesota Pollution Control Agency ("MPCA"), and that this approach will be developed for presentation in the FEIS.¹⁰ The SDEIS also indicates that the FEIS "will contain a comprehensive technical appendix with detailed information regarding all inputs, measurements, an impact assessment, and mitigation."¹¹

The analysis of potential vibration impacts along the Eden Prairie Segment is also incomplete. The SDEIS presents analysis of long- and short-term vibration impacts at various receptors along the Eden Prairie Segment.¹² Notably absent from this analysis, however, is any discussion of short- or long-term ground-borne noise in conjunction with the vibration analysis, other than identifying that the AGNL Health Campus as a "ground-borne noise sensitive receptor."¹³ The SDEIS also makes the conclusory assertion that "[t]here are no projected long-term vibration impacts in the Eden Prairie Segment, therefore no mitigation is identified"¹⁴ but then acknowledges in a footnote that assessment of vibration and ground-borne noise at the AGNL Health Campus has yet to be completed, and "the potential for impacts and the corresponding need for any mitigation" will be presented in the Final EIS.¹⁵ How can this conclusion regarding vibration impacts be reached when the analysis is not complete?

Finally, the SDEIS includes only a cursory mention of short-term vibration impacts, without any analysis of the potential for impacts at particular receptors, or any description of the level of such impacts. The SDEIS simply concludes that such impacts "are expected to be localized, temporary, and transient."¹⁶ The SDEIS goes on to state that "final determinations of short-term vibration mitigation measures to be incorporated into the project for this segment will be made in a vibration mitigation plan and documented in the project's Final EIS."¹⁷ Because of the sensitivity of Campus facilities, the close proximity of the SWLRT to the Campus, and the nature of the soils in the vicinity of the Campus, these short-term vibration and ground-borne noise impacts have the potential to be at the Campus for extended periods of time, and could also lead to major structural impacts to Campus buildings. Without any site-specific testing or analysis of the potential for these impacts, it should not be assumed that practical mitigation measures will effectively mitigate the impacts, and a detailed analysis of this issue should be completed and made available prior to the FEIS.

⁹ SDEIS at 3-14.

¹⁰ SDEIS. at 3-15.

¹¹ SDEIS at 3-73.

¹² SDEIS at 3-74.

¹³ *Id.*

¹⁴ *Id.*

¹⁵ SDEIS at 3-74, n. 17.

¹⁶ SDEIS at 3-74.

¹⁷ SDEIS at 3-75.

These additional assessments of noise and vibration mitigation measures, compliance with Minnesota noise standards, analysis of long-term ground-borne noise impacts, analysis of short-term vibration and ground-borne noise impacts, and comprehensive technical information underlying the analyses are essential to a complete understanding of the potential for noise and vibration impacts on the Eden Prairie Segment, including the AGNL Health Campus, and should be made available to the public and agencies in advance of the FEIS to allow for robust public and agency involvement on these issues.

The Analyses of the AGNL Health Campus Are Deferred

The SDEIS also defers until the FEIS evaluation of potential noise and vibration impacts specific to the AGNL Health Campus. As noted above, the Campus contains several areas that are highly-sensitive acoustical environments, including an auditorium and a broadcasting facility. The SDEIS recognizes this fact, noting that the auditorium at the AGNL Health Campus is a noise- and vibration-sensitive receptor.¹⁸ The SDEIS indicates that analysis of noise and vibration impacts to the AGNL Health auditorium will be completed for the first time in the FEIS.¹⁹ The SDEIS also indicates, however, that vibration measurements taken at the Southwest Station Condos "can be applied to the entire Eden Prairie Segment," and that there are "no vibration impacts" in the Eden Prairie Segment.²⁰ The Southwest Station Condos do not, however, serve as an adequate proxy for the unique conditions at the Campus, including the soil conditions and the sensitive auditorium facilities. Thus, site-specific measurements and analysis of both noise and vibration impacts at the Campus are required.

Based on the results of the noise analysis presented in the SDEIS, AGNL Health is concerned that the noise and vibration impacts to the Campus will be Moderate or Severe. The noise analysis data presented in the SDEIS are summarized in the following table.

Location	Distance from near LRT Track Centerline (feet)	Existing Noise Level (dBA)	Project Noise Levels (dBA)	Impact?
Lincoln Park Apartments	138	62	57	No
Water Tower Apartments	113	62	58	No
Southwest Station Condos	95	71	64	No
Purgatory Creek Park	269	54	53	No
Residence Inn	44	61	65	Severe
Baymont Inn	69	61	62	Moderate

¹⁸ SDEIS at 3-72, 3-74.

¹⁹ *Id.*

²⁰ SDEIS at 3-24; SDEIS, Appendix H at H-3, H-6.

As this data from the SDEIS shows, the two measurement locations where Moderate (Baymont Inn) and Severe (Residence Inn) noise impacts are predicted are also the measurement locations within the shortest distance of the SWLRT.²¹ These receptors are identified as being located 69 feet and 44 feet from the SWLRT alignment, respectively.²² Using preliminary information available from the Metropolitan Council, AGNL Health estimates that *the proposed alignment will be located within a mere 38 feet of AGNL Health Campus offices and only 48 feet to the noise-sensitive auditorium facility at the Campus*. These distances make the AGNL Health Campus the closest of the sensitive receptors on the Eden Prairie Segment, which alone is cause for concern. Furthermore, these distances suggest that Project Noise Levels at the Campus are likely to be similar to those modeled for the Residence Inn and Baymont Inn.

The existing noise levels measured at the Residence Inn and Baymont Inn, however, likely are *not* representative of the existing noise level at the Campus, as both the Residence Inn and Baymont Inn are located in closer proximity to existing noise sources such as major roadways than the AGNL Health Campus. Of the measurement locations included in the SDEIS, the measurement location that is closest in location and surrounding environment to that of the AGNL Health Campus (and thus most likely to be representative of the existing noise level at the Campus) is the Purgatory Creek Park location, which had the lowest existing noise levels of measured locations. Applying Federal Transit Authority guidance to an existing noise level equivalent to that at Purgatory Creek Park, the Project Noise Level for the AGNL Health Campus will result in Moderate or Severe impacts depending on the receptor category assigned to the Campus.²³

Furthermore, AGNL Health conducted its own preliminary analysis of the potential noise and vibration impacts to the Campus. This analysis found that airborne noise, ground-borne noise, and vibration criteria are exceeded under certain circumstances at the Campus auditorium, and that a more comprehensive investigation of these potential impacts is warranted.

Given the close proximity of the AGNL Health Campus to the SWLRT Project alignment, the data provided in the SDEIS for similar receptors, and the findings of AGNL Health's preliminary evaluation of noise and vibration impacts, it is evident that there will likely be noise and vibration impacts to the AGNL Health Campus. Thus, it is imperative that a detailed analysis of these long-term and short-term (construction) noise and vibration (including ground-borne noise) impacts be completed at the AGNL Health Campus as contemplated by the SDEIS. It is equally imperative to evaluate the potential of available mitigation measures to eliminate these noise and vibration impacts, as well as the viability of re-locating the alignment to avoid the impacts altogether. As noted in the SDEIS, FTA mitigation policy requires that "before mitigation measures are considered, the project sponsor should first evaluate alternative locations/alignments to determine whether it is feasible to avoid Severe impacts altogether."²⁴ This modeling and evaluation should be completed prior to publication in the

²¹ SDEIS at 3-72.

²² SDEIS at 3-71 to 3-72.

²³ FTA, "Transit Noise and Vibration Impact Assessment (May 2006) at 3-3. Moderate impacts would be experienced starting at 55 dBA and 60 dBA for Category 1 and Category 3 receptors, respectively, while Severe impacts would be experienced at 61 dBA and 66 dBA for Category 1 and Category 3 receptors, respectively. *Id.*

²⁴ SDEIS, Appendix H at H-13.

FEIS to allow for adequate participation by AGNL Health and the public on these important issues that have yet to be addressed.

B. The Visual Impacts Analysis Failed to Adequately Characterize the Impacts to the AGNL Health Campus.

Visual connectivity is an essential component of the AGNL Health Campus. As noted above, the Campus was designed to create an atmosphere of peace, quietude, and health throughout. Key to this atmosphere is a connectivity between indoor and outdoor spaces accomplished through sightlines within buildings, from one building to the next, and to the natural environment. Campus buildings have large, open spaces filled with natural light, and also offer outdoor spaces for meetings and relaxation. This sense of connectivity between the indoor and outdoor environments and overall atmosphere of the AGNL Health Campus will be significantly altered by the presence of the SWLRT Project along Technology Drive.

The SDEIS contains in Section 3.2.1.5 an assessment of visual impacts to the Eden Prairie Segment, and includes the view looking southwest along Technology Drive from the front of the AGNL Health Campus as one of the ten identified viewpoints on the segment analyzed.²⁵ This analysis, however, is inadequate in many respects, and fails to capture the true scope of the impacts to the visual aesthetics at the AGNL Health Campus.

The Current Visual Character of the Campus is Narrowly Characterized

As an initial matter, the viewpoint identified and analyzed in the SDEIS – the view looking southwest along Technology Drive in front of the AGNL Health Campus – is too narrowly-defined to adequately characterize the visual character of the Campus that serves as the baseline for evaluating the extent of potential visual impacts. The view from the front of the Campus and looking southwest is only one of the many viewpoints within the Campus that stand to be influenced by the addition of the SWLRT Project. Views from various vantage points and height levels from within buildings on the Campus, views from outdoor spaces, and the connectivity between these various vantage points are all essential to the Campus, and are susceptible to disturbance from the SWLRT Project. The lack of appreciation for this connectivity is evident in the SDEIS, which characterizes the AGNL Health Campus as having "moderately low visual intactness" and "moderately low overall visual unity" and having "no unifying features."²⁶ This characterization is far from accurate, and shows the need to reevaluate the visual character of the Campus as a whole (not from a single vantage point), and the visual impacts to that character that the SWLRT Project threatens.

The Visual Impacts Analysis Was Not Specific to the Campus

Furthermore, the SDEIS process for assessing the potential for visual impacts to the AGNL Health Campus did not specifically evaluate the AGNL Health Campus or its associated viewpoint. The SDEIS indicates that the visual impacts were assessed by comparing a current photograph of the

²⁵ SDEIS at 3-46.

²⁶ SDEIS at 3-47.

viewpoint to preliminary renderings depicting the view as it would appear with the project elements in place.²⁷ These renderings, however, were not prepared for all ten viewpoints. For viewpoints that did not have a rendering, "the assessments of the visual changes were made based on review of project plans and drawings, and of the visualizations that had been prepared for *other views* in which similar changes were proposed."²⁸ Appendix J to the SDEIS contains the photos and renderings for the various viewpoints, and no rendering was completed for the viewpoint from the AGNL Health Campus. Thus, the assessment of the visual impacts to the AGNL Health Campus was based on the comparison of the rendering for some other location, compared to the photograph of the overly-limited viewpoint associated with the Campus. Such an assessment is not adequate to evaluate visual impacts, particularly when considering the unique features of the AGNL Health Campus.

The SWLRT Project Will Not Enhance or Maintain the Visual Character of the Campus

Finally, the conclusions reached in the SDEIS regarding the visual impacts of the SWLRT Project are similarly flawed. The SDEIS concludes that the overall visual quality at the AGNL Health Campus will remain unchanged by the SWLRT Project, asserting that the SWLRT "would be integrated into the landscaping" and even going so far as to suggest that visual unity "may be enhanced through integrating the LRT to unify the infrastructure with the landscaping."²⁹ No information is provided to clarify what landscaping features will be used, or how those landscaping features will effectively alleviate all visual impacts to the AGNL Health Campus and even integrate the SWLRT Project into the Campus. Put quite simply, an unobtrusive trail and landscaped area owned and managed as part of the Campus would be converted into two sets of railroad tracks and associated infrastructure. How can this be found to have no overall impact to the visual quality of this site?

As state above, the visual impacts analysis needs to be reevaluated to take into consideration the various viewpoints within the Campus environment, and, if mitigation measures are to be used to alleviate these impacts, such measures need to be presented in detail to support the conclusions reached in the impacts analysis.

C. The SDEIS Fails to Identify and Evaluate the Potential Impacts Associated with the Unique Geologic Conditions at the Campus Site.

The SDEIS evaluation of the geologic conditions along the Eden Prairie Segment identifies that in certain locations soil conditions will not support installation of the SWLRT Project. Further evaluation, however, is necessary to fully understand and evaluate the locations in which such soil conditions exist along the proposed alignment, the potential implications of such soil conditions that are specific to each location, and the feasibility of mitigation and remediation measures. The AGNL Health Campus is one such location that requires additional, site-specific evaluation.

²⁷ SDEIS at 3-49.

²⁸ *Id.*

²⁹ SDIES at 3-50.

Geotechnical evaluations completed at the site before the construction of the Campus indicate that the particular combination of soils is unique to the Twin Cities area, and the nature of these soils could present significant engineering challenges (and associated cost increases) for the SWLRT Project. Soil conditions across the Campus site are highly variable, and include the highly-plastic, fine-grained clay soils known as “fat clays.” The amount of fat clay soils present at the site is particularly unusual. In addition to presenting challenges to the SWLRT Project design, these flat clays could also cause issues with settlement for nearby structures during construction of the SWLRT Project. Indeed, the Campus has previously experienced issues with settlement directly as a result of these fat clays, and the Campus could be susceptible to additional, more significant settlement, caused by vibration and changing groundwater conditions from SWLRT Project development and operations.

Finally, the SDEIS indicates that to address these soil conditions, the soils will be removed and/or deep foundations such as pilings will be used to support the SWLRT Project. Of note in this regard is that the SDEIS indicates that bedrock is expected to be at depths of around 50 feet or more.³⁰ AGNL Health has information, however, that indicates the bedrock at the Campus site is much deeper – approximately 130 feet deep. A discrepancy of that magnitude can create significant challenges to, and substantial additional cost for, the use of deep foundations such as pilings.

Because of the potential challenges posed by these soil conditions, it is imperative to the safe and economic construction and operation of the SWLRT Project that (1) additional technical evaluation of the suitability of this soil environment along Technology Drive (as contemplated in the SDEIS) be completed, (2) a site-specific evaluation of the AGNL Health Campus soil conditions be completed, (3) consideration of alignment modifications be explored to assess opportunities for avoidance, and (4) a monitoring plan, including contingency actions, be developed with specificity for all locations identified as having these low-bearing soils.

D. The Proposed Property Acquisition Will Intrude on the Campus Atmosphere, and Analysis of Scenarios Involving No Acquisition of Campus Property Should be Completed.

AGNL Health opposes the proposed acquisition of a portion of the Campus property for completion of the SWLRT alignment. The SDEIS indicates that the Eden Prairie Segment alone will require acquisition of 2 full parcels and 33 partial parcels of land, including 0.7 acres of the AGNL Health Campus, and additional acquisitions may be necessary to accommodate final design plans.³¹ As the SDEIS notes, property acquisitions along this portion of the Eden Prairie Segment will change the nature and appeal of the commercial properties on Technology Drive.³² The AGNL Health Campus is no exception. In fact, in many ways the AGNL Health Campus will be subject to a more profound impact from encroachment of the SWLRT than other properties along Technology Drive.

As described above, the AGNL Health Campus is a carefully-planned site designed to create a specific atmosphere of health, peace, and quietude to cater to current and future tenants of the AGNL

³⁰ SDEIS at 3-56.

³¹ SDEIS at 3-35, 3-37.

³² SDEIS at 3-30.

Health Campus. The proposed acquisition of property will greatly impact and detract from the atmosphere of the Campus by intruding on buffer zones and view sheds incorporated into the Campus design, evidenced by the fact that the alignment will be located within as close as 38 feet from Campus offices. As described above, the AGNL Health Campus includes facilities that are sensitive noise and vibration receptors, and the AGNL Health property is a known location of low-bearing soils. As the noise and vibration impacts on AGNL Health's sensitive facilities have yet to be evaluated, and given the potential presence of low-bearing soils in the area targeted for acquisition, the FEIS should consider relocation of the SWLRT along Technology Drive such that acquisition of AGNL Health property is not required.

E. Traffic Impacts Are Projected to Impede Access to the Campus, and Further Analysis of Alternative Alignments, Intersection Designs, and Mitigation Measures is Necessary.

Also of concern to AGNL Health's continued and uninterrupted enjoyment of the Campus is the significant disruption that the SWLRT will cause to traffic flow between Technology Drive and the Campus for the more than 1000 employees that work at the Campus and their guests. The SDEIS and supporting documentation (AECOM, 2013)³³ indicate that the two AGNL Health Campus access driveways will, in the 2018 and 2030 Build scenarios, have Level of Service (LOS) ratings of either B or C for both A.M and P.M. peak conditions in 2018, and C for all conditions in 2030.³⁴ The SDEIS concludes that these LOS ratings are "acceptable," despite representing a double or even tripling of the access time to the Campus during peak hours.

AGNL Health is concerned that this decline in the LOS to the Campus will interfere with AGNL Health's fundamental rights to enjoyment of, ingress to, and egress from its property, and its reasonable expectations created by years of existing use.³⁵ Accordingly, additional information regarding these impacts is necessary to fully evaluate the impact potential. This additional information should include (1) design plans for the modified Campus access points under the Build scenario,³⁶ (2) potential modifications to the design plans, including alternative layouts, alternative signaling methods, and mitigation measures, and (3) available adaptation measures under the various layouts to provide flexibility in the event the modeling proves to be inaccurate in the future.³⁷ Without this level of detail in the analysis, the traffic analysis presented in the SDEIS does not provide the certainty necessary to adequately evaluate these traffic impacts.

³³ AGNL Health notes that the supporting document referenced is Section 3.1.2.12.B of the SDEIS – the "Supplemental Draft EIS Traffic Modeling Technical Memorandum (March, 2014)" – is not referenced in Appendix C to the SDEIS, and is not available in the project documentation on the Metropolitan Council's website.

³⁴ SDEIS at 3-83 to 3-84.

³⁵ As noted above, the Campus contains a structured parking facility for more than 1200 cars that is utilized by the more than 1000 employees who work at the Campus and their guests.

³⁶ AGNL Health notes that the traffic analysis "anticipates" signaling will be used at the access points to the Campus, but does not commit to the installation of signals or otherwise define the anticipated layout for these access points.

³⁷ The Metropolitan Council should also be in the position to provide lessons-learned on modeling, design, and mitigation measures from the other LRT lines in the metro area, which would further inform the analysis and support its accuracy.

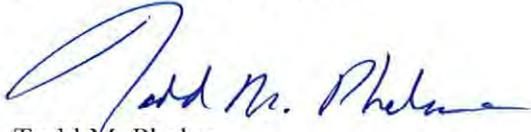
IV. Conclusion

AGNL Health appreciates the opportunity to provide these comments on the SWLRT Project SDEIS. As described in these comments, AGNL Health continues to have significant concerns regarding the lack of clarity in the environmental review process and the substantial potential for adverse impacts to the AGNL Health Campus. The environmental review process would be greatly simplified and clarified if the scope of review was changed to eliminate the portion of the Eden Prairie Segment between Mitchell Station and Southwest Station, consistent with the recent Metropolitan Council decision. This would eliminate any need to consider the detailed comments provided in this letter.

AGNL Health strongly recommends that the Metropolitan Council address these concerns regarding process clarity and evaluation of impacts prior to publication of the FEIS to provide for additional public and agency involvement. AGNL Health looks forward to working with the Metropolitan Council to develop a robust analysis of the Technology Drive Alignment and to developing a mutually-agreeable path forward for the SWLRT Project.

Respectfully Submitted,

Stinson Leonard Street LLP



Todd M. Phelps



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July 20, 2015

Ms. Nani Jacobson
Assistant Director, Environmental and Agreements Metro Transit –
Southwest LRT Project Office
6465 Wayzata Blvd., Suite 500
St. Louis Park, MN 55426

RE: Possible Rerouting of TCW Trains to Accommodate Twin Cities Light Rail Project

Dear Ms. Jacobson:

This is to make you aware that Granite Falls Energy, LLC almost exclusively relies on TCW to transport its ethanol.

If the light rail project causes any rerouting of the TWCW operations, it will cause significant problems for Granite Falls Energy. Specifically, Granite Falls Energy would not be able to move its ethanol on a timely fashion and would need to either slow down operations or actually shut down its plant.

Any rerouting of the TCW operations would cause significant delays not only for the TCW customers, but for the customers of the other rail lines on which TCW would be directed. Rerouting of the TCW would cause Significant capacity problems on the other lines and would cause a ripple effect throughout southern and southwest Minnesota – with all sorts of facilities stymied in their attempt to ship products.

Accordingly, Granite Falls Energy objects to any attempt to reroute TCW operations. If Granite Falls Energy can be of any help in explaining the problem such rerouting would cause, please contact me.

Thank you.

Sincerely,

GRANITE FALLS ENERGY, LLC

A handwritten signature in blue ink that reads "Steve Christensen".

Steve Christensen, General Manager



Granite Falls Energy, LLC

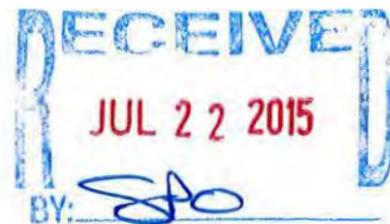
15045 Highway 23 SE
P.O. Box 216
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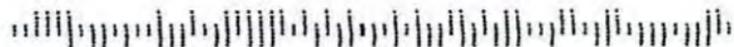
20 JUL 2015 PM 4 7



Ms. Nani Jacobson
SW LRT Project Office
6465 Wayzata Blvd., Suite 500
St. Louis Park MN 55426



55426+1724



Lebold, BillieJo

From: Susu
Sent: Thursday, July 23, 2015 9:30 AM
To: swlrt
Subject: Fw: Comments on the Southwest LRT SDEIS
Attachments: SWLRT Comments on the SDEIS 7-21-15.docx

Dear Ms. Jacobson,
I have not yet received a read receipt from this July 21st email.
Kindly acknowledge receipt of this message and the attachment sent in before the deadline expired.
Sincerely,
Susu Jeffrey

From: [Susu](#)
Sent: Tuesday, July 21, 2015 8:09 PM
To: [Nani Jacobson](#)
Subject: Comments on the Southwest LRT SDEIS

FRIENDS OF COLDWATER

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www.friendsofcoldwater.org info@friendsofcoldwater.org

July 21, 2015

Nani Jacobson, Assistant Director
Environmental and Agreements
Metro Transit—Southwest Light Rail Transit Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park MN 55426
SWLRT@metrotransit.org

Dear Ms. Jacobson,

Please see the attached Comments on the Southwest LRT SDEIS.

Friends of Coldwater is a Minnesota non-profit, non-governmental organization founded in 2001 to educate citizens to protect our water commons.

Sincerely,
Susu Jeffrey

Attachment: Comments on the Southwest LRT SDEIS

FRIENDS OF COLDWATER

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July 21, 2015

Nani Jacobson, Assistant Director
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Comments on the Southwest Light Rail Transit Project SDEIS

The Southwest Light Rail Transit (SWLRT) public process by Hennepin County Commission and Metropolitan Council has been an exercise in pretend democracy. From the beginning the LRT was presented by elected and appointed government officials as a fait accompli.

Although design plans have morphed since 2014 no new municipal consent procedure appears to be planned. With an estimated cost approaching \$2-billion, half the funds from federal sources, SWLRT is the most expensive tax-payer program ever imagined for Minnesota.

Co-Location

The off and on again co-location of heavy and light rail traffic was a bait-&-switch tactic. To illustrate the intent to deceive the public about the safety of co-location no "blast zone" map of ethanol rail cars next to the SWLRT was produced for citizen inspection and comment.

From St. Louis Park to the baseball stadium, through the Chain of Lakes, the half mile wide residential and park land remains menaced. The manipulation of promises and threats reifies citizen mistrust of government powers.

The "Equity Train"

The "equity" argument for the SWLRT was a brilliant public relations maneuver to silence guilt-prone white people. Equity is P.C. The pitch was that underserved black

Northsiders would get transportation to jobs in the southwest suburbs. Like the promise to move heavy freight with dangerous ethanol traffic out of the urban zone, the equity promise lapsed.

SWLRT was never planned to move the densely populated Minneapolis black Northside or white Uptown populations. In addition to being a construction jobs program the SWLRT was apparently designed as infrastructure for workers to get to suburban cubical factories.

Urban vs. Suburban

The wealthy southwest suburbs pitted their financial clout against urban public parklands and people—and money won. Furthermore the outcome was assured ahead of time since the elected Hennepin County Commission and the appointed Metropolitan Council are dominated by white suburbanites. Apparently black economic lives do not matter here.

Reducing Cars and Auto Emissions

The Draft EIS predicted no reduction in automobile greenhouse gas emissions with SWLRT until after 2050.

Water

Destruction of parkland is the hallmark of recent transportation development in Minneapolis. Our famous parks, the only undeveloped urban land, are actually lakes, creeks and wetlands previously too wet for development

The Great Medicine Spring and Glenwood Spring

The Interstate-394 corridor is dewatered daily at the rate of 2.5-million gallons. Plastic drain tile pipes with little holes where groundwater infiltrates funnel the water into a series of ponds from the Highway 394/100 intersection to Sweeney Lake and out Bassett Creek, under downtown Minneapolis, to the Mississippi. A sign at the mouth of Bassett Creek used to warn pregnant women and children under six not to eat fish caught there.

Two springs dried up with Highway 394 permanent dewatering: Glenwood Spring, formerly sold as commercial spring (now well) water and the Great Medicine Spring in Theodore Wirth Park. Indian people "came hundreds of miles to get the benefit of its medicinal qualities" Col. John H. Stevens, first white Minneapolis resident, said of the Great Medicine Spring in 1874.

The place is still there but no water runs. Treated city water is now piped into Wirth Park. The Minneapolis Park and Recreation Board waited 10-years for the spring to recharge. In 1999 a 150-foot well was drilled with negligible results.

Coldwater Springs

The Hiawatha LRT project reduced the flow to Coldwater by more than 35-percent. Coldwater is the last natural spring in Hennepin County, is a federally recognized Dakota sacred site, it furnished water to Fort Snelling 1820-1920, and is considered the birthplace of Minnesota where the first Euro-American community developed to service the fort.

MnDOT offered to pump treated city water into the Coldwater reservoir before it was forced to redesign the Hwy 55/62 interchange. Nevertheless Hiawatha LRT and Highway 55 reroute construction resulted in the loss of 46,000 gal/day—from 130,000 down to 84,000. The Hwy 55/62 interchange pipes out 27,500 gal/day but a mysterious 18,500 gallons is simply gone.

“How could your professionals be so far off in their hydrology? What facts were not available to you,” Judge Franklin Knoll asked MnDOT attorneys in Hennepin County court 9/13/01. “MnDOT is one of the largest and most well-staffed departments in Minnesota. Your engineers, geologists and water specialists all signed off on this design,” Knoll said.

MnDOT attorney Lisa Crum said “MnDOT (design) standards were based on reasonable estimates.” Coldwater supporters were repeatedly told that the groundwater would “just flow around” sunken highways built into the water table. The inference was that the water would just flow around and return to its former paths. It did not.

Removing groundwater results in dirty water and dry land. The land dries out when groundwater is prohibited from running through nature's slower filtration system. The water gets dumped into the lakes, creeks and the Mississippi with contaminants adhering to dirt particles. Think of mercury poisoning from fish taken in our northern lakes far from the coal-fired power plants that vented into the air.

Dry soil does not easily absorb the increasingly heavy storms events experienced with climate change. Storm water runs off quickly with top soil, fertilizers, air and road impurities, and goose and duck poop.

Tunnel Through the Chain of Lakes

A half-mile tunnel would be inserted (after tree removal) between Cedar, Lake of the Isles and Calhoun. Solid steel walls would be sunken 55-feet down for the length of the tunnel to anchor the 35-foot wide structure. Otherwise it would float up or down with fluctuating underground water levels.

According to the Burns and McDonnell Engineering Company water study for the Metropolitan Council as much as 24,000 gallons per day from inside and around the tunnel would be pumped out. Less groundwater flow into and out of the lakes would

allow more contaminants and particulate matter to fill in and remain in our public waters, our water commons.

Again citizens are being assured that the groundwater will "just flow around" a half mile long "shallow" tunnel—built into the already saturated land between the lakes. In fact the very same expert consultants in hydrology and geology are employing the very same language to assure Metropolitan Council appointees, Hennepin County Commissioners, Minnehaha Creek Watershed District staff and managers, and concerned citizens that groundwater will "just flow around" a huge underground tunnel in the land between the Minneapolis Chain of Lakes.

The idea that people can "manage" water is being sold like comfort food. Hydrologists, geologists, architects and engineers are hired to plan waterproof structures. Sure—in a virtual world. In our world infrastructure is I-35W falling into the Mississippi or a brain-eating amoeba in Lake Minnewaska.

The US business model did not evolve to plan sustainably. Public works programs are funded on a formula of minimum cost because cost is somehow limited to the cost of construction.

Although SWLRT is the most expensive public works program ever proposed in Minnesota wet soil conditions along the proposed route would multiply costs. "Reasonable estimates" versus digging down into a saturated landscape will become obvious if this project makes it through the legal hurdles set up to protect citizens from government-business collusion.

Conflict of Interest

The last hurdle before golden shovels break the soil is normally a permit from the Minnehaha Creek Watershed District (MCWD). The district purchased 17-acres of land across the street from the proposed SWLRT station at Blake Road with a \$15-million tax payer bond.

Odds are the appointed MCWD Board of Managers would vote to permit SWLRT.

When developers take over a watershed the mandate to protect the water commons is compromised. So ownership of a \$15-million parcel of land at the proposed SWLRT Blake station appears to have influenced MCWD's favorable study of the proposed shallow tunnel plan.

Below are transcribed legal audio minutes of the May 8, 2014 regular meeting of the Minnehaha Creek Watershed District Board of Managers (appointed by the Hennepin and Carver County Board of Commissioners).

The discussion centers on the SWLRT and 17-acres at Blake Road and West Lake Street, south of Knollwood Mall, in Hopkins, across the street from the proposed Blake

SWLRT station. The station location is now part of a strip mall, just south of the railroad tracks and Pizza Luce at 210 North Blake Road.

The parcel includes a large cold food storage warehouse, and borders Minnehaha Creek and the Cedar Lake bike trail which is next to the RR tracks. The land was purchased about four years ago for \$15-million for redevelopment investment, for storm water ponds (water storage) and Minnehaha Creek restoration.

At a MCWD Board of Managers meeting the question of interest payments on the \$15-million bond was posed by SWLRT opponent Bob Carney. Managers skirted the question. Approximately \$100,000 per year in interest payments would be expected.

The players in this 2014 audio transcription include MCWD Board of Managers:

--Sherry Davis White, president, Orono, term expired 3/15 (wife of former Orono mayor, Jim White who organizes housing developments), reappointed until 3/18

--Brian Shekleton, vice president, St. Louis Park, term expires 3//16 (works for Hennepin County Commissioner Peter McLaughlin)

--Richard Miller, treasurer, Edina, 3/17 (former Wells Fargo employee who arranged bonding, government finance)

--Jeff Casale, secretary., Shorewood, 3/15 (realtor) Kurt Rogness of Minneapolis, architect, was appointed for a three-year term replacing Casale. Minor felony charges against Casale for using MCWD staff in his private real estate business were dropped because "the alleged embezzlement occurred outside the statute of limitations."

Three managers were absent:

--Jim Calkins, Minnetonka, 3/16 (PhD, professor Horticultural Science UMN)

--Pamela Blixt, Minneapolis, 3/17 (MA public administration, City of Minneapolis emergency services)

--Bill Olson, Victoria, 3/16 (engineer Rockwell International)

--Richard Miller "...the worst could be that LRT didn't get approved...we've got to do a quiet plan if LRT doesn't go through and it (the land) doesn't have its commercial value at its highest and best use as a train station site....We've got to build in our budget someplace (for) the losses we're going to absorb on disposing of that site, because we always know [sic] we've got more in it than we'll get from it but the benefits of the (Minnehaha) creek frontage, and the (storm water) storage capacity, etc. you know it had certain value to us and so that could cover the, but you know, if we do have a problem in 2 or 3 years or 4 years you know let's not have it in a situation where we're in a disaster with no plan. And I don't think it would take much of an effort to plan it out, you know, how we're going to pay for the costs.

[The bonding loan to be paid back with tax money comes due in 2017]

--James Wisker, MCWD staff Director of Planning, Projects & Land Conservation: "By the end of July we should have a lot more clarity...worst case scenario planning we should revisit like, July 24th by then all municipal consent should have occurred."

[In a 6/16/14 email Wisker wrote to the author: "Regarding (SWLRT) dewatering. I referenced that there would be no system in place to perpetually dewater following construction completion."

--Richard Miller: "We can't be naked when that \$15-million comes due (in) 2017....We're planning for the best but we're ready for the worst".

--unidentified male voice: "When we started on this...we had very strong interest in senior housing...there's no question it's going to be more valuable with light rail..."

--Brian Shekleton: "And I will offer that light rail will happen..."

--Jeff Casale: (interrupts) "That's going in the minutes I think."

-- (laugh)

--Brian Shekleton continues: "and by every indication I get that commitment from (Minneapolis) city council members."

Jeff Casale: If we're going to have this on the record...disaster is nothing like I would have considered it as. I think the property has been improved significantly from the work that we've done surrounding it...whether or not LRT goes in that property will have significant real estate value and I would not characterize it at all as disaster planning.

Richard Miller: "Well, you can call it what you want but it will be (a disaster) when the note comes due and we got a third of the value of the note."

The rhetorical questions are: who's watching out for the water and is this land purchase a conflict of interest for MCWD managers who would be voting to permit the SWLRT?

It appears that citizens, not officials or paid experts or politicians or white suburban developers, care about the sustainability of keeping Minneapolis waters clean enough for human recreation.

Clearly the voting managers of a permitting agency should be leery of the appearance of a conflict of interest regarding public money and political power. It certainly appears to be conflict of interest, legally actionable or not.

The Minnehaha Creek Watershed District deciders have violated public trust with their ambitious financial scheme that supersedes the preservation and protection of the water commons.

Water Standards Enforcement

Neither the MCWD nor the state Department of Natural Resources (DNR) has enforcement powers. The state legislature did not grant permitting agencies police powers.

It took the DNR three years to win a court order to stop illegal pumping of groundwater from 1800 West Lake Street into the lagoon. Some 240,000 gallons per day of water from a sub-sub basement parking garage was piped into a city sewer emptying into the lagoon between Lake of the Isles and Calhoun.

Two kinds of pollution flowed into the lagoon and Calhoun and down the chain: a temperature differential and garage drippings including grains of heavy metals from cars mixed with oil products. The temperature change was noticed by Loppett organizers when parts of the lagoon failed to freeze which could have allowed skiers to fall through rotten ice.

The problem was "solved" by moving the discharge pipe. Before the 1800 West Lake Street upscale apartment construction the Minneapolis Park Board spent a quarter million dollars on Lake Calhoun clean up.

Calhoun and Cedar lakes have six of the city's dozen swimming beaches. Lake Hiawatha at the butt end of Minnehaha Creek accumulates all the flowing pollutants from much of Hennepin County and most of Minneapolis since water obeys gravity.

The Park Board plans to close the beach at Hiawatha, remove the sand and build an "open pavilion." While the beach is a neighborhood treasure the shallow lake is a pollution catch basin. A new \$7-million natural filtration public swimming pool at Webber Park in north Minneapolis seems to be the future of safe swimming.

Small Scale Flexibility

Nobody is disputing the need for transportation.

LRT is 20th century technology—big, clunky, really pricey and fixed. We need to have smaller, more numerous and flexible transport choices. The greater Twin Cities are growing in an expanding circumference with multiple "centers." People commute from a 27-county radius.

The push to build big rather than to decentralize is less efficient in both time and money, does not provide jobs and sabotages our water. The current SWLRT proposal is a dinosaur.

Sincerely,
Susu Jeffrey
for Friends of Coldwater

From: [Joan Vanhala](#)
To: [swlrt](#)
Cc: Marisol.simon@fta.dot.gov
Subject: AMS SWLRT SDEIS comments July 21 2015
Date: Tuesday, July 21, 2015 2:31:47 PM
Attachments: [AMS SWLRT SDEIS comments July 21 2015 2.pdf](#)

Please accept the Alliance for Metropolitan Stability's comments to the Southwest Light Rail Transit Supplemental Draft Environmental Impact Statement.

Joan Vanhala, Coalition Organizer
Alliance for Metropolitan Stability
2525 E. Franklin Avenue #200
Minneapolis, MN 55406
612-332-4471; <http://www.metrostability.org/>

"If you think you are too small to make a difference, try sleeping with a mosquito." — Dalai Lama

TO: Nani Jacobson
Assistant Director, Environmental and Agreements
Metro Transit – Southwest LRT Project Office
6465 Wayzata Blvd., Suite 500
St. Louis Park, MN 55426

From: Alliance for Metropolitan Stability
2525 E. Franklin Avenue
Minneapolis, MN 55406

Contact: Joan Vanhala, Coalition Organizer
612-332-4471; joan@metrostability.org

Public Comment for the Southwest Light Rail Transit Supplemental Draft Environmental Impact Statement

July 21, 2015

The Alliance for Metropolitan Stability (AMS <http://www.metrostability.org/>) is a coalition of grassroots organizations that advances racial, economic and environmental justice in growth and development patterns in the Twin Cities region. Our 33 member groups (http://www.metrostability.org/about_us/member_list.php) represent communities of color, low-income communities, housing advocates, faith-based organizations, research and policy organizations, economic developers and environmental, transit and land-use policy advocates.

For the past 8 years AMS has been providing technical and organizing support to Environmental Justice communities along our metropolitan region's planned transitways to ensure that they are included in the decision making and receive community benefits from these major infrastructure investments.

Specific to these comments AMS has been working closely with New American Academy (<http://www.newamericanacademy.org/>) that serves the primarily Somali immigrant community in Eden Prairie. New American Academy has been active partners with the Southwest LRT Project Office in engaging their community members (<http://www.newamericanacademy.org/community.html>) in decisions related to alignment, station area planning, and developing the Eden Prairie Town Center development guidelines.

Eden Prairie Alignment:

AMS supports the Eden Prairie alignment: Adjustments to the proposed light rail alignment and LRT stations, generally from the intersection of Technology Drive and Mitchell Road to the intersection of Flying Cloud Drive and Valley View Road.

Yet with the July 8th, 2015 Metropolitan Council Southwest LRT budget decision to defer the Eden Prairie Town Center Station, on opening day a significant environmental justice community in Eden Prairie will be delayed the benefits of this \$1.7 billion public infrastructure investment.

Using EJView, the mapping tool of the Environmental Protection Agency, AMS found that within a 3 square mile area at the Eden Prairie Town Center Station:

- 40% minority
- 42% households under \$50,000
- 65% renters
- 23% under 17 years of age
- 10% 65 years and older*

* American Community Survey 2006 - 2010

We chose to look at a broader area than the ½ mile station area circumference to include residential areas south because of the medium density in this suburban city.

Equitable Development:

New American Academy in partnership with Twin Cities Local Initiatives Support Corporation as a Corridors of Opportunity Initiative funded by FTA/EPA/HUD Sustainable Communities developed Eden Prairie Town Center Development Guidelines. See <http://www.corridorsofopportunity.org/activities/LIC/CDI-Plus> for a description of this project. These development guidelines represent the economic opportunities and potential of the Southwest LRT station at Eden Prairie Town Center that would provide great benefits to the significant communities of color in this station area.

New American Academy presented these Eden Prairie Town Center Development Guidelines March 2014 to city council. The city of Eden Prairie has yet to respond or endorse these development guidelines. Without a station at Eden Prairie Town Center the opportunities to increase affordable housing and jobs for the communities of color will not be realized.

Attachments:

1. Eden Prairie Town Center Station map 3 square miles
2. Eden Prairie Town Center Station stats 3 square miles
3. Eden Prairie Town Center Development Guidelines 2013



Location: -93.447132,44.862622,-93.447132,44.839986,-93.407478,44.839986,-93.407478,44.862622,-93.447132,44.862622

Study Area: 0.0 mile around the polygonal location

Summary of ACS Estimates	2006 - 2010
Population	9,833
Population Density (per sq. mile)	2,936
Minority Population	3,955
% Minority	40%
Households	4,280
Housing Units	4,552
Housing Units Built Before 1950	52
Per Capita Income	45,303
Land Area (sq. miles) (Source: SF1)	3.35
% Land Area	92%
Water Area (sq. miles) (Source: SF1)	0.31
% Water Area	8%

	2006 - 2010 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	9,833	100%	632
Population Reporting One Race	9,647	98%	1,866
White	6,193	63%	514
Black	1,109	11%	388
American Indian	31	0%	93
Asian	1,839	19%	369
Pacific Islander	0	0%	93
Some Other Race	475	5%	409
Population Reporting Two or More Races	186	2%	93
Total Hispanic Population	787	8%	600
Total Non-Hispanic Population	9,046		
White Alone	5,678	60%	410
Black Alone	1,109	11%	388
American Indian Alone	31	0%	93
Non-Hispanic Asian Alone	1,839	19%	369
Pacific Islander Alone	0	0%	93
Other Race Alone	4	0%	93
Two or More Races Alone	186	2%	93
Population by Sex			
Male	4,983	51%	454
Female	4,850	49%	334
Population by Age			
Age 0-4	772	8%	157
Age 0-17	2,289	23%	308
Age 18+	7,544	77%	516
Age 65+	1,032	10%	216

Data Note: Detail may not sum to totals dues to rounding. Hispanic population can be of any race. N/A means not available.

Source: U.S. Census Bureau, American Community Survey (ACS) 2006 - 2010.



EJView ACS Summary Report



Location: -93.447132,44.862622,-93.447132,44.839986,-93.407478,44.839986,-93.407478,44.862622,-93.447132,44.862622

Study Area: 0.0 mile around the polygonal location

	2006 - 2010 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	6,549	100%	429
Less than 9th Grade	209	3%	144
9th - 12th Grade, No Diploma	356	5%	264
High School Graduate	784	12%	208
Some College, No Degree	1,728	26%	230
Associate Degree	660	10%	182
Bachelor's Degree or more	3,473	53%	287
POPULATION AGE 5+ YEARS BY ABILITY TO SPEAK ENGLISH			
Total	9,061	100%	577
Speak only English	5,962	66%	335
Non-English at Home ¹⁺²⁺³⁺⁴	3,099	34%	603
¹ Speak English "very well"	1,905	21%	407
² Speak English "well"	734	8%	279
³ Speak English "not well"	339	4%	260
⁴ Speak English "not at all"	122	1%	115
³⁺⁴ Speak English "less than well"	460	5%	268
²⁺³⁺⁴ Speak English "less than very well"	1,194	13%	375
POPULATION AGE 5+ YEARS BY LANGUAGE SPOKEN AT HOME			
Total	N/A	N/A	N/A
Speak only English	N/A	N/A	N/A
Non-English Speaking	N/A	N/A	N/A
Population by Place of Birth for the Foreign-Born			
Total	N/A	N/A	N/A
Europe	N/A	N/A	N/A
Asia	N/A	N/A	N/A
Africa	N/A	N/A	N/A
Oceania	N/A	N/A	N/A
Americas	N/A	N/A	N/A
Households by Household Income in 1999			
Household Income Base	4,280	100%	186
< \$15,000	283	7%	95
\$15,000 - \$25,000	345	8%	106
\$25,000 - \$50,000	1,139	27%	126
\$50,000 - \$75,000	921	22%	212
\$75,000 +	1,592	37%	199
Occupied Housing Units by Tenure			
Total	4,280	100%	186
Owner Occupied	1,510	35%	93
Renter Occupied	2,770	65%	186

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available.

2006-2010 ACS 5-year Estimates: The American Community Survey (ACS) summary files provide nation-wide population and housing characteristic data at all Census summary levels down to the Block Group level. This data was collected between January 1, 2006 and December 31, 2010. ACS replaces the decennial census sample data, and is not the 2010 Census population counts data. (<http://www.census.gov/acs/www/#fragment-3>)

Margin of error (MOE): The MOE provides a measure of the uncertainty in the estimate due to sampling error in the ACS survey. Applying the MOE value yields the confidence interval for the estimate. For example, an estimate value of 50 and +/- MOE of 5 means the true value is between 45 and 55 with a 90 percent certainty (http://www.census.gov/acs/www/Downloads/data_documentation/Accuracy/MultiyearACSAccuracyofData2010.pdf). Maximum MOE is shown for each value within study area.

Source: U.S. Census Bureau, American Community Survey (ACS) 2006 - 2010.

EDEN PRAIRIE TOWN CENTER DEVELOPMENT GUIDELINES

August, 2013



INTRODUCTION

Eden Prairie is a vibrant city known for its desirable housing, excellent business climate, quality schools and outstanding parks. It has been named one of Money Magazine's "Best Places to Live" in America since 2006; the city earned a first place ranking in the 2010 survey. Comprising many large lakes and ponds, the city has more than 170 miles (270 km) of multi-use trails, 2,250 acres (9 km²) of parks, and 1,300 acres (5 km²) of open space. Previously a bedroom suburb in the 1960s, the city is now home to more than 2,200 businesses and corporate headquarters. Regionally known for the Eden Prairie Center, it is also the hub for the proposed Southwest Light Rail Transit line. The population has increased 13.4% since 2000, with 62,258 residents in 2012. Part of that growth stems from an increase of East African families (2010 census data indicates 5.6% black or African American).

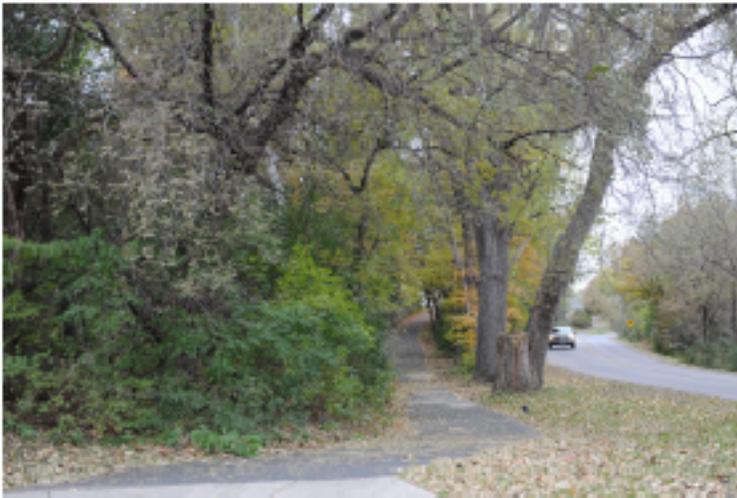
One of the proposed Southwest Light Rail Transit stations will be located in the Town Center area, a primarily commercial district that offers a mix of higher density housing, office and retail space, in close proximity to the Eden Prairie Center. The Town Center area is bordered by Regional Center Road to the south, Flying Cloud Drive to the east, Technology Drive to the north, and a proposed north/south roadway to the west between Costco and Emerson Rosemount. In 2005 - 06 the City of Eden Prairie commissioned a Major Center Area (MCA) study to examine and plan for the future of the area surrounding the Eden Prairie Center. The study was approved by the City Council in as an advisory tool for future redevelopment and public improvements, which recommended developing detailed design guidelines for future buildings, parking ramps, streetscape amenities, pedestrian/bicycle connections and other public spaces for the Town Center area.

Academy, a community-based organization of Somali and East Africans, and the Twin Cities LISC / Corridor Development Initiative to lead a series of community workshops to explore development options and scenarios to enhance the area, and to elevate the potential for a more transit-oriented and walkable neighborhood. Although the CDI community workshops were open to the general public, special recruitment was made to engage the Somali community, many of whom live in the Town Center vicinity. These development objectives are the result of the community workshops, and serve to inform the future development of the Town Center area.

ASSETS

The City of Eden Prairie:

- Maintains and enjoys a strong residential market;
- Is home to many businesses that provide quality jobs;
- Offers renowned regional and municipal parks, conservation areas, trails, and recreational facilities that are community centerpieces that attract people of all ages and abilities
- Provides a great place to raise a family, run a business, age in place, and recreate;
- Maintains a strong and diversified tax base, a healthy and vibrant local business climate with high-quality jobs that provide families with economic security;
- Values diversity and opportunity for its residents; and
- Takes pride in its strong school district.



Above: Examples of the housing, trails, and green space in Eden Prairie.

GUIDELINES: TOWN CENTER NEIGHBORHOOD

As a future station area along the Southwest Light Rail Transit corridor, the Town Center area is ideal to explore how transit-oriented development could enhance the area by addressing accessibility, livability, and strengthening the pedestrian environment. It will take a strong will by the City of Eden Prairie to set principles for sustainable redevelopment going forward, to guide investment, and measure every project against these principles.

The redevelopment of the area must complement the existing uses in the area, that are largely commercial, residential, and office space. Because there is a large population of Somali families that have located in the area, there is strong interest in the preservation of affordable housing that can accommodate larger families, and to offer economic opportunities for small business entrepreneurs, as well as access to jobs and opportunities throughout the region through close proximity to the regional light rail transit system. The Eden Prairie Major Center Area Study calls for a retail and housing core with a walkable mainstreet, which could incorporate affordable housing for families, seniors, and the growing need for multi-generational housing (<http://www.edenprairie.org/modules/showdocument.aspx?documentid=359>).

There is a shared value around the preservation of young families to preserve the high quality of the Eden Prairie schools, and to offer housing options to accommodate all stages of life. The Town Center area offers an important opportunity to create a more concentrated development pattern that would allow for a mix of uses, a mix of incomes, and greater pedestrian access to transit, goods, and services.

Town Center District - Block Exercise Site



RECOMMENDATIONS FOR REDEVELOPMENT INCLUDE:

I. Enhance Opportunities for Mixed-Use and Mixed-Income Projects

- A. Promote mixed-use development that incorporates retail, office, and residential uses;
- B. Provide for a mix of housing options that could accommodate different household sizes (e. g. 3 – 5 bedroom units), configurations, incomes, homeownership and rental, as well as generational diversity;
- C. Incorporate affordable workforce and family housing and affordable commercial space where ever possible to create opportunities for diversity and local small business entrepreneurs.
- D. If government resources are required to fill financial gaps, focus on affordable housing that serves a mix of housing needs (e.g. size of family, seniors), and supports local multi-cultural businesses.
- E. Identify and address existing housing gaps through development opportunities presented through investments along the Southwest LRT corridor (e.g. age, mix of owner and rental, family size, income level, etc.)
- F. Blend into and complement the existing neighborhood.
- G. Consider elements that enhance “indoor-outdoor” experience, such as balconies and screened porches, and courtyards to create open spaces;
- H. Encourage underground parking or structured parking to enhance pedestrian experience;
- I. Ensure economic development opportunities including home ownership opportunities that are culturally appropriate



II. Create a destination as a light-rail transit district or area

- J. Enhance the livability of the area for residential uses by strengthening the pedestrian orientation to create greater access to transit, goods, services, and regional amenities (e.g. create a pedestrian overlay to enhance walkable connections throughout the area);
- K. Strengthen or link to natural amenities and places for outdoor recreation;
- L. Include opportunities for youth and family recreation, such as centers that attend to gender specific needs and opportunities;
- M. Incorporate green spaces;
- N. Consider and minimize the ecological impact;
- O. Utilize CPTED (Crime Prevention Through



- P. Prioritize transit and housing accessibility to accommodate people with disabilities;
- Q. Seek to create alternative education and job training opportunities (e.g. alternative schools, job training for public sector employment, etc.) for young people, families, and adults;
- R. Provide opportunities for intercultural interaction to build stronger community ties;
- S. Incorporate signage and way-finding in multiple languages;

III. Create commercial spaces for small business entrepreneurs to build assets and job opportunities for the local community

- T. Explore ideas like the Midtown Global Market, Suuqa Karmel, and Urban Bazaar (in San Francisco) to provide opportunities for small business entrepreneurs to locate in the area, serving the local community with culturally specific goods and services.
- U. Consider locations for a farmers market or grocery store that would provide access to healthy foods for people that live in the area.
- V. Encourage a mix of commercial spaces that include small, mid, and large scale commercial users.



For further information, contact:

Molly Koivumaki

Housing & Community Services Manager

City of Eden Prairie

952-949-8439

Mkoivumaki@edenprairie.org

From: [Cherie](#)
To: [sw/rt](#)
Subject: FW: Calhoun Isles Conominium Association Response SDEIS
Date: Tuesday, July 21, 2015 9:30:10 PM
Attachments: [Calhoun Isles response to SDEIS 07212015.pdf](#)

This is being submitted on behalf of the Calhoun Isles Condominium Association by Cherie Hamilton, President of the Board of Directors

From:
To:
Subject: FW: Calhoun Isles Conominium Association Response SDEIS
Date: Wed, 22 Jul 2015 02:25:33 +0000

Whereas in response to requests for comments to SDEIS; therefore, we the Board of Calhoun-Isles Condominium Association representing 144 living units submit the following document expressing our concerns on the engineering methods proposed for construction of the shallow tunnel.

Cherie Hamilton

President

Calhoun-Isles

Condominium Association

3141 Dean Court, Minneapolis, Minnesota 55416

July 21, 2015

Executive Summary:

Calhoun-Isles Condominiums are converted 90 year old grain silos located at the narrowest point, commonly called the "pinch-point", along the proposed Southwest LRT route. To accommodate the passage of two LRT rails, the Kenilworth Bike Trail, and the single TC&W heavy railroad track through this narrow gap, a shallow or "cut-and-cover" tunnel is proposed to be constructed for the LRT tracks, with the TC&W line and bike path to be above the tunnel at grade. Construction of the proposed tunnel comes within two feet of the Calhoun-Isles footings.

In April 2015, a high frequency vibratory hammer driving technique was used to install sheet piling at a six-story apartment site located at 3118 West Lake Street. Heavy vibrations were felt and structural damage occurred at the adjacent site of Loop Calhoun Condominiums, 3104 W Lake St., and at Calhoun-Isles Condominiums, located 180 feet away at its closest point. These damages and vibrations resulted in the cessation of construction and the implementation of a different method for installing pilings, namely an "H" pile structural piling system.

Seismic readings recorded at Calhoun-Isles by engineering firms contracted by the construction companies' engineers did not correlate to vibrations and damages incurred. Whether these inconsistencies were the result of the unique structure of Calhoun-Isles concrete silo construction or unknown environmental conditions is unknown.

Furthermore, it has been learned that a hydraulic "press-in" technique is typical to an installation more common to a harbor, waterway or soft soils conditions. This condition does NOT exist in the 3118 Lake Street environs.

Therefore, we feel the Met Council's two stated techniques for driving the needed sheet pilings for the construction of the shallow tunnel are not suited for the conditions found in the Kenilworth Corridor. The hydraulic, high-frequency vibratory hammer method presents a unique risk to residents and structure at Calhoun-Isles. The hydraulic "press-in" method is not feasible given the soil conditions that exist.

We urge the Met Council to suspend the SDEIS process, to develop a viable method for installing sheet piles or its facsimile, and to demonstrate the feasibility of this yet-to-be-developed method at the "pinch-point". If this rigorous, but necessary process is not accomplished successfully, there is concern that the construction of the shallow tunnel will not be able to go forward, that private residences will need to be expropriated, and that the two LRT rails, the Kenilworth Bike Trail, and the railroad track will all wind up at grade at the south end of the Kenilworth Corridor.

Findings:

Trammell Crow acquired the 1.89-acre site at 3118 Lake Street to develop a six-story apartment building with 164 units. Trammell Crow hired Big D to construct the apartment complex. Big D hired AET (American

Engineering Testing) to do monitoring and engineering work and Trammell Crow hired Braun Intertec to do replicate monitoring and engineering work.

The construction phase of the project began in early 2nd quarter 2015. Two types of piling were installed at 3118 Lake Street, driven "H" piles and Sheet Piles. The driven "H" piling that was installed in mid-April caused initial neighborhood concerns and damage to both Loop Calhoun and Calhoun Isles Condominium Associations. Only a limited number of driven "H" piles were installed, and this phase of the project is complete. In late April and early May, Dig D conducted various trials using vibratory hammers to install sheet piles.

On April 30th, the Calhoun Isles Condominium Association Team met with Big D, American Engineering Testing, and Braun Intertec personnel on the 10th floor of the Calhoun Isles High Rise to discuss the status of the construction project and to help gain further insights on its impact on the High Rise. During the meeting, we learned that no pre-existing condition surveys were recommended for our Association because it is ~180 feet away from the nearest point of the construction site. It was thought that our Association buildings were too far away from the construction site to be damaged.

This situation was quickly addressed by installing monitoring devices in the High Rise to obtain vibration measurements. The results of these measurements are pending. The preliminary indications from the monitors supported the initial assumption. The readings were at the low end of scale; in fact, the monitors had to be adjusted, in order to obtain any readings at all. It was also agreed that American Engineering Testing would conduct pre-existing condition surveys at Calhoun Isles.

This meeting was held while trials using vibratory hammers to install sheet piles were occurring. The High Rise is ~180 feet from the construction site. The vibrations that were felt in the 10th floor conference surprised Big D, American Engineering Testing, and Braun Intertec.

Despite the low readings on the monitors, seven High Rise and three Lateral units have since reported damage as a result of the construction activities. A number of home owners reported feeling high levels of noise and vibration during the April/early May construction activities. Vibrations were felt in the elevators.

Given the fact that the shallow tunnel construction is to occur within 2 to 3 feet (not 180 feet) of the High Rise, our Calhoun Isles Condominium Association Team had a number of follow-up discussions about the impact that the SWLRT would have on our Association Buildings. The vibratory sheet piling installation is one of the options that the Met Council is considering for the construction of the shallow tunnel.

The speed of sound through concrete is as much as 3600 m/s; it is a very effective vibration transmitter. The High Rise was constructed from a series of grain silos. The concrete footings that support the silos go well below ground level. It is a unique building not only when compared to other local structures, many of which are wood construction atop concrete foundations (wood will not transfer vibration energy nearly as well as concrete will). It is also unique compared to other tall concrete structures in the area as its walls are ultra-thick. The entire structure is great at transmitting sound and vibration.

The High Rise has a number of features, which are susceptible to vibration. The underground garage was built when the silos were converted to residences. Three elevators were installed in the High Rise. The silos have an exterior stucco coating; it is a high-maintenance exterior. Balconies have been installed on nearly all High Rise units.

Based on discussions with a number of civil engineers and physicists, the impact on the High Rise from vibratory hammers to install sheet piles at a distance of 2 to 3 feet could be catastrophic. The possible consequences include:

1. Damage to nearly all the resident units in the 3151 Building (the structure closest to the proposed SWLRT line).
2. The elevator service in the High Rise would probably need to be shut down because of safety concerns.
3. The stucco could fall down in sheets due to resonance effects. This situation could result in injury or worse to residents.
4. The integrity of balconies could be compromised. This situation could result in injury or worse to residents.
5. The integrity of the garage could be compromised. This situation could result in injury or worse to residents.

On May 18th, Big D announced that the vibratory sheet piling installation was halted, that any installed sheet piling will be removed, and that an alternate foundation system will be developed. We since learned that the damage that the vibratory sheet piling installation caused to Loop Calhoun (primarily) and Calhoun Isles (secondarily) during the trial period was instrumental in the abandonment of this approach at the 3118 Lake Street Site. All the sheeting piling that had been installed has since been removed.

On July 6th, Trammell Crow/Big D announced the revised foundation plan that will be installed. This system will be an "H" pile structural piling system. It will involve these operations: 1) a hole, approximately 24" in diameter is drilled with an auger and filled with structural concrete as the drill bit is removed; 2) the "H" pile will then be pressed into the structural concrete hydraulically and allowed to cure. This process repeats approximately every 8' on center; 3) once structural "H" piles are complete, an additional drilling process will occur between all "H" piles to install a 24" concrete slurry piling as the structural piles to serve as the structural site retention component.

Big D will conduct trials to install this "H" pile structural piling system starting the week of July 20th. The drilling will not be vibratory or driven in methods and while not particularly quiet, the level of noise and movement of equipment will be heard and occasionally felt but remain significantly below industry standards and city ordinances.

Discussion:

The Met Council provides limited reference to the construction methods that they propose employing in the SDEIS. These construction methods are referenced in their attachment, "Kenilworth Shallow LRT Tunnel Basis of Design Technical Report (Council, 2014d)". This document describes two methods for installing the required sheet piling for the shallow tunnel: "Sheet pile installation is anticipated to be performed by a method that avoids hydraulic drop hammers. Methods such as a high frequency vibratory hammer or a hydraulic "press-in" device would minimize vibration and noise created by the sheet pile installation. Actual construction means and methods will be determined prior to construction in coordination between the contractor and the SPO (page 4)".

The vibratory driving technique for installing sheet piling has caused too much damage to the neighborhood based on the experiences at 3118 Lake Street and has been eliminated as a means for installing sheet piling by the contractor in the CIDNA neighborhood.

The hydraulic "press-in" methodology was discussed at some length with Big D, American Engineering Testing, and Braun Intertec to determine its feasibility. Based on their feedback, it was learned that a "press" technique is "typical" to an installation more common to a harbor, waterway or soft soils conditions. This condition does NOT exist in the 3118 Lake Street environs. It should also be noted that the current proposal for installing sheet piling (drilled "H" piling) at this site will be substantially more expensive to install than employing a hydraulic pressing technique.

Met Council personnel were questioned about these two proposed methods for installing sheet piling for the shallow tunnel. In one response, a Met Council spokesperson informed the public that the vibratory hammers that Dig D employed to install the sheet piling at the 3118 Lake Street site were of inferior quality and this factor resulted in the damage to the two neighborhood associations. It was further reported that the Met Council would be using higher quality vibratory hammers and no problems would occur.

This matter was brought to Big D's attention; they reported it is unreasonable to label the equipment that they used as "inferior", but would be more appropriately labeled as "typical" in the industry.

In another instance, a Met Council Engineer was questioned about the proposed hydraulic "press-in" methodology. He insisted that this approach was valid and that it was the preferred route, despite the feedback that has been received from Big D, American Engineering Testing, and Braun Intertec.

An attempt was made to discuss these sheet piling methods directly with American Engineering Testing (AET) to gain additional information and insights. AET personnel informed me that they were under contract to the SWLRT and could not talk to me because of a conflict of interest. They told me to contact Met Council personnel directly.

Given this feedback from Big D, American Engineering Testing, and Braun Intertec, there is sufficient documented information available that demonstrates that the Met Council will not be able to use either a vibratory hammer or a hydraulic press to install the sheet piling for the shallow tunnel. These constraints will force the Met Council to employ alternate methods for installing sheet piling for the shallow tunnel.

The only other known method known for installing sheet piling is to employ the drilled H-pile Lagged System that will be attempted at the 3118 Lake Street site. The engineering company (AET) that is working on this site developed this recommendation. This very same engineering company is now under contract to the Met Council. One would logically conclude that they will make the same recommendation to the Met Council.

This installation method will be complicated by several factors:

1. This drilled H-pile Lagged System approach will be substantially more expensive than what is advertised in the SDEIS.
2. The concrete to stabilize the drilled H piles will need to be installed below the water table. This factor will complicate the installation. In addition, it may compromise integrity of the installation.
3. The drilling operation will occur within one to two feet of the Calhoun Isles Condominium Association and within close proximity of the Cedar Lake Shores Condominium Association and to many private residences along the Kenilworth Corridor. This drilling operation is anticipated to be noisy. The Met Council may need to find temporary housing for residents who live in proximity to the shallow tunnel construction site.

4. The size of the holes to install the drilled "H" piling raises additional concerns. As noted, holes approximately 24" in diameter will be drilled with an auger at the 3118 Lake Street site. This system will support a piling system that is 25 feet below grade. The shallow tunnel will require a piling system that will be 50 feet below grade. The holes for the drilled "H" piles may need to be larger for the shallow tunnel. There is limited space at the pinch point, ie the short distance between Calhoun Isles and Cedar Lake Shores Condominium Associations. It may not be possible to install this drilled "H" structural piling system without infringing upon and/or taking private property (including homes) at this point.

Conclusion and Recommendations:

The experiences at the 3118 Lake Street site raise a number of serious questions about the proposed methods that the Met Council intends to employ when constructing the shallow tunnel. The proposed methods include using a high frequency vibratory hammer or a hydraulic "press-in" device to accomplish the sheet pile installation.

The high frequency vibratory hammer driving technique for installing sheet piling caused too much damage to the CIDNA neighborhood based on the experiences at 3118 Lake Street and has been eliminated as a means for installing sheet piling by the contractor. It has also been learned that the hydraulic "press-in" is typical to an installation more common to a harbor, waterway or soft soils conditions. This condition does NOT exist in the 3118 Lake Street environs.

The information about sheet piling installations that has been gathered during the past 12 weeks is based actual field experience and expert opinion from quality engineering companies. It has also been learned that American Engineering Testing, a company that acted as a primary consultant in developing an alternate sheet piling system for the 3118 Lake Street project, is under contract to the Met Council.

It is imperative that the SDEIS process be suspended until a viable construction method for installing a sheet piling like system for the shallow tunnel is properly developed with input from a quality engineering company such as American Engineering Testing. Once this alternate (and most likely more expensive) system is developed, its feasibility must be successfully demonstrated.

If this rigorous, but necessary process is not accomplished successfully, there is concern that the construction of the shallow tunnel will not be able to go forward, that private residences will need to be expropriated, and that the two LRT rails, the Kenilworth Bike Trail, and the railroad track will all wind up at grade at the south end of the Kenilworth Corridor.

I wish to thank Trammell Crow, Big D, American Engineering Testing, and Braun Intertec for the rigorous process that they employed at the 3118 West Lake Street construction site. While the noise and vibration from the initial sheet piling installation methods were below industry standards and city ordinances, they realized the problems that were being caused to the neighborhood in short order. They had the integrity to go back to the drawing board and to develop a system that would conform to the neighborhood requirements, despite the added cost. They should be commended for their willingness to share their findings and their process with the public.

Submitted By: Calhoun Isles Homeowners association Board of Directors

Barbara Dorset

Mark Haller

Cherie Hamilton

Nina Katzung

Paul Olson

Paul Petzschke

Carol Shorrock

Peter Stegner

Nick Shuraleff

From: [CIDNA Neighborhood](#)
To: [swlrt](#)
Cc: [Craig Westgate](#); [Ginis. Sophia](#)
Subject: Comments for Southwest LRT Supplemental Draft EIS
Date: Tuesday, July 21, 2015 4:44:22 PM
Attachments: [CIDNA SDEIS.pdf](#)

Hello,

The Cedar Isles Dean Neighborhood Association (CIDNA) Board of Directors approved the attached comments in response to the Southwest LRT Supplemental Draft Environmental Impact Statement on July 21, 2015.

Thank you,

Monica Smith
Coordinator
CIDNA

info@cidna.org



Cedar Isles Dean Neighborhood Association (CIDNA) Comments for the Southwest LRT Supplemental Draft Environmental Impact Statement

The CIDNA Board of Directors approved the following comments in response to the Southwest LRT Supplemental Draft Environmental Impact Statement on July 21, 2015.

3.4.1.2 Acquisitions and Displacements

B. Potential Acquisitions and Displacements Impacts

This section identifies the potential long-term and short-term impacts that would result from the need to acquire land to implement the LPA in the St. Louis Park/Minneapolis Segment. The numbers of parcels that would need to be acquired and the potential for relocation of existing businesses are discussed in this section.

Long-Term Direct and Indirect Acquisitions and Displacements Impacts This section addresses how businesses and other land uses could be affected by the proposed LPA in the long term. Implementation of the LPA in the St. Louis Park/Minneapolis Segment would result in full acquisition of 23 parcels and partial acquisition of 29 parcels, including those with industrial, commercial, railroad, and residential land uses, as summarized in Table 3.4-3 and illustrated on Exhibit 3.4-1. All potential acquisitions within the segment will be within the cities of St. Louis Park and Minneapolis. The full acquisition of the 11 parcels with industrial and commercial uses could potentially result in the relocation of up to nine businesses that currently operate on or use these parcels. The acquisition of three parcels owned by a construction company and used for storage could result in the displacement of that business if the storage area needs to be in close proximity to the company's operation that is not affected by acquisition. Depending on the preferences of the owner, the project would work to relocate displaced businesses. A combined total of approximately one acre of land would be acquired from a total of seven residential parcels occupied by multiple condominiums and apartments, and would result in no displacements or relocations.

We request more information about 3400 Cedar Lake Parkway. On the Hennepin County property tax website, this parkland is listed as being owned by the Minneapolis Park and Recreation Board. What evidence does the Council have that it is owned by BNSF railroad? This ownership question is of critical importance in the analysis of compliance with federal Section 106 and 4(f) laws. Also, how does the Council determine a fair acquisition price to pay a private railroad company for a property that is indicated in public records as being owned by a public entity?

In Short-Term Acquisition and Displacement Impacts, the Council states that “[s]hort-term occupancies of parcels for construction would...change existing land uses” including “potential increases in noise

levels, dust traffic congestion, visual changes, and increased difficulty accessing residential, commercial and other uses.” The Council should say what the plans are to mitigate these effects for residents and businesses. Most important, how will prompt emergency fire, medical and police access be maintained?

In Short-Term Acquisition and Displacement Impacts, the Council discusses plans for remnant parcels without acknowledging its commitment with the City of Minneapolis in the Memorandum of Understanding. The MOU documents the Council’s agreement to convey property they own or acquire from BNSF or HCRRA in the Kenilworth Corridor that is not needed for the Project or freight rail to the Minneapolis Park and Recreation Board for use as parkland. Please see:

<http://metro council.org/METC/files/f7/f7d41cfb-a062-46c7-942d-0785989da8a0.pdf>

Using figures listed on the Hennepin County property tax website, annual property taxes payable just for the St. Louis Park properties listed as potential FULL parcel acquisitions in Table 3.4-3 total approximately [\$240,000] but Section 3.4.3, Economic Effects, states that the annual reduction in property tax revenue to the City of St. Louis Park for all full AND partial acquisitions is only \$35,940. The SDEIS lists plans for partial acquisition of properties owned by Calhoun Towers, Calhoun Isles Condo Assn and Cedar Lake Shores Townhomes and other private property in Minneapolis but no property tax loss is listed for Minneapolis. The Council should explain its calculations that the property tax losses are that low or nonexistent. Although we anticipate that the Council will not release dollar figures for specific property acquisitions, how can the public be assured that the Council is minimizing the cost of acquiring these properties, which will be borne by taxpayers as part of the Project cost?

3.4.1.3 Cultural Resources

B. Potential Cultural Resources Impacts

This section identifies the potential long-term and short-term impacts to the archaeological and architecture/history resources listed in or eligible for the NRHP.

Long-Term Direct and Indirect Cultural Resources Impacts.

This section describes long-term direct and indirect impacts on cultural resources within the segment’s APEs. Tables 3.4-4 and 3.4-5 provide preliminary determinations of effect that the LPA could have on the architecture/history and archaeological resources in the St. Louis Park/Minneapolis Segment and, identifies areas for continued consultation. Long-term direct and indirect effects include changes to historic properties and their settings, including visual effects, resulting from the construction of the project and new development and redevelopment around transit stations. Long-term indirect effects include noise effects and changes in traffic and parking patterns associated with operation of the project, as well as new development and redevelopment around transit stations. Final determinations of effects (i.e., whether they would be adverse or not) will be made by FTA, in consultation with MnDOT CRU, MnSHPO, and other consulting parties, in the forthcoming Final EIS.

Minneapolis residents have continually expressed concern with the impact the project will have, both during construction and after operation of SWLRT, on cultural resources in the City.

As stated by the Minnesota State Historic Preservation Office, an adverse effect on one contributing feature is an adverse effect on an entire historic district. Therefore, the conclusion that the project will

have an adverse effect on the Lagoon means that there will be an adverse effect on the Grand Rounds Historic District as a whole, as indicated in the SDEIS.

Section 3.1.2.3 of the SDEIS lists possible mitigation measures that may be included in the Section 106 agreement:

- Consultation with MNSHPO and other consulting parties during the development of project design and engineering activities for locations within and/or near historic properties
- Integration of information about historic properties into station area planning efforts
- Recovering data from eligible archaeological properties before construction
- Consultation with MNSHPO and other consulting parties during construction to minimize impacts on historic properties
- Preparation of NRHP nominations to facilitate preservation of historic properties
- Public education about historic properties in the project area

These items will not avoid, minimize or mitigate the long term adverse effects of the project on the Grand Rounds Historic District in a meaningful way. The noise impacts, including bells and horns, will be audible from distances within and beyond the Area of Potential Effect, and include not only the Lagoon area but also Lake of the Isles and Cedar Lake as well as the other parts of the Grand Rounds Historic District. Noise and vibration impact studies should be done from a baseline assuming no freight, as HCRRA had committed to do and as was contemplated in the DEIS. Despite the requirement that such impacts be minimized, co-locating both freight and light rail in the Kenilworth Corridor results in the opposite outcome.

The bridges over the Lagoon will have an adverse impact because of their the size and scale, inconsistency with the historic cultural landscape of the channel, the noise and vibrations caused by the light rail vehicles traveling the bridge and the fact that it may not be possible to mitigate the impacts of the new bridges, as stated by the MPRB earlier in the 106 process. The appearance of the new bridge structures and the sounds associated with modern rail infrastructure will alter the characteristics of “community planning and development,” “entertainment and recreation,” and “landscape architecture” that make the Lagoon eligible for NRHP designation, and will adversely affect the character and feeling of the Lagoon and how people use the historic resource, including the experience of using the waterway under the new structures. Given that the Council is proceeding with this project in spite of this adverse effect, we hope that designers will continue to be vigilant about minimizing the impact on the setting and feeling of the historic channel, including audible and visual intrusions that will alter the park-like setting of the Lagoon, a vital element of its historic character. These concerns extend to Cedar Lake and the beaches on it nearest to SWLRT, as well as the visual impact on Park Board Bridge #4, Lake of the Isles, Lake of the Isles Parkway and Lake of the Isles Historic District.

Table 3.4-5 lists cultural resources that have been preliminarily considered to have no adverse effect from the Project, because of continued consultation and avoidance/minimization/mitigation measures to be identified. The possible mitigation measures listed above would also not significantly address impacts on the cultural resources listed in this table. The Council must be responsible for ensuring that “continued consultation” is meaningful by conducting assessments and proposing specific mitigation solutions before the 106 agreement is written and finalized, as it is impossible to avoid adverse effects after SWLRT construction and operations commence.

Cultural resources covered in table 3.4-5 include Lake of the Isles Residential Historic District, Kenwood Parkway Residential Historic District, Lake Calhoun, Cedar Lake Parkway, Cedar Lake, Park Bridge #4, Lake of the Isles Parkway, Lake of the Isles, Kenwood Parkway, Kenwood Park, Kenwood Water Tower and four NRHP listed or eligible homes in the Area of Potential Effect. Station activity will change

traffic and parking patterns in the neighborhood and introduce long-term visual and audible intrusions that adversely impact these historic resources. Concerns about the long term Project impact on some or all of these cultural resources include the following:

- Long-term visual and audible intrusion from changes in traffic patterns related to station access: We are concerned that auditory impacts and changes in traffic and parking patterns will adversely affect the integrity of setting and feeling that make Kenwood Park, Kenwood Parkway, Lake of the Isles Parkway, Cedar Lake Parkway and the related residential historic districts, and the four individual homes listed on or eligible for the NRHP. A traffic analysis must be conducted and a plan to mitigate adverse impacts proposed and discussed before the 106 agreement is drafted.
- Noise effects from LRT operations: Audible intrusion from train operations, including bells and horns and the impact of trains going in and out of the tunnel, will alter the environment of the historic resources and the characteristics that make certain of these resources eligible for the NRHP. It seems unlikely that a few homes in the Kenwood Parkway Residential Historic District are the only cultural resources that will be adversely affected by noise from train operations.
- Infrastructure surrounding the tunnel and the massive tunnel portals could adversely affect the historic integrity of the resources. Signage along the historic parkways could also have an adverse effect. Specific design elements should be proposed to minimize these impacts and should be reviewed as part of the 106 process.

The degree of concern regarding the short term impact of SWLRT construction on all of these cultural resources cannot be overstated. Noise and vibration sensitive resources need to be identified. The public needs to see a comprehensive noise and vibration study and analysis for the Project during construction including the impact of increased truck and construction equipment traffic. We would like details on what will be included in the “project wide construction plan.” It should identify measures to be taken during construction to protect all historic properties from project-related activity including construction related traffic. We need to ensure that plans are in place to prevent or repair damage resulting project activities, incorporating guidance offered by the National Park Service in Preservation Tech Note #3: Protecting a Historic Structure during Adjacent Construction as well as an agreement that specifies how these potential impacts will be monitored. The Council previously communicated to a neighborhood group whose residents experienced damage from a Council project that “[c]ontinuing with future projects, our goal is to ensure that claims are promptly and appropriately investigated to determine whether or not they may be related to the project. Depending on the facts of the claim, this may involve independent experts.” We request that the Council communicate with owners of historic homes in the APE prior to construction.

The SDEIS also lists “station area development” as an item to be addressed through continued consultation. Numerous statements have been made that development is not anticipated at the 21st Street Station. For example, the Southwest Community Works website and documents state: “Future development is not envisioned around this station...”

<http://www.swlrtcommunityworks.org/explore-corridor/stations/21st-street-station>

The discussion of development potential at the Penn Station does not relate to the Kenwood Parkway side:

<http://www.swlrtcommunityworks.org/~media/SW%20Corridor/Document%20Archive/investment-framework/ch-4-penn.pdf>

The Council must explain what development is being referred to in Table 3.4-5.

3.4.1.4 Source: MnDOT CRU, 2014. Parklands, Recreation Areas, and Open Spaces

This section identifies parklands, recreation areas, and open spaces in the St. Louis Park/Minneapolis Segment, along with potential long-term direct and indirect, and short-term impacts that would occur as a result of the LPA. Some potential effects of the LPA on parklands, recreation areas, and open spaces in the segment have changed since publication of the Draft EIS; these are also identified and addressed in this section. As summarized in Table 3.4-1, there would be no long-term direct impacts (defined as the permanent incorporation of parklands, recreation areas, or open spaces into the project) from the LPA on parklands, recreation areas, and open spaces in the segment. Long-term indirect and short-term temporary construction impacts (i.e., visual, noise, and access) from the LPA would occur at four parks that would be directly adjacent to the proposed light rail extension.

Long-Term Direct and Indirect Parklands, Recreation Areas, and Open Spaces Impacts

We request more information about 3400 Cedar Lake Parkway. This parkland has long been listed as Minneapolis Park and Recreation Board property on the Hennepin County property tax website. What evidence does the Council have that it is owned by BNSF railroad? Does the conclusion of no long-term direct impact of the Project on Cedar Lake Park depend on the Met Council taking advantage of a loophole: that documentation conveying this Cedar Lake Park property to the Park Board many years ago may be lacking, even though the intent that it be parkland was understood?

The SDEIS states: “None of the indirect impacts on parklands, recreation areas, and open spaces from the LPA in the St. Louis Park/Minneapolis Segment would substantially impair the recreational activities, features, or attributes of those parklands, recreation areas, and open spaces.” We dispute this conclusion. The permanent installation of freight rail and light rail in the Kenilworth Corridor that is too narrow to permit separation in accordance with AREMA and FTA guidelines creates a safety risk that would directly impair park activities in the event of a derailment and/or explosion of flammable materials.

For comment on the indirect impacts of the LPA in the form of visual, noise, and/or access impacts, please see comments to sections 3.4.1.5, 3.4.2.3, and 3.4.4.4 of this Supplemental Draft EIS.

Short-Term Parklands, Recreation Areas, and Open Spaces Impacts

This section describes the potential short-term impacts to parklands, recreation areas, and open spaces that would occur during construction of the LPA.

Construction activities could result in short-term indirect impacts to parklands, recreation areas, and open spaces that would be located directly adjacent to the project’s construction zones (i.e., Jorvig Park, Lilac Park, Park Siding Park, Cedar Lake Park, and Lake of the Isles Park). These short-term indirect impacts could include temporary generation of dust, noise, and increased truck traffic (see Sections 4.6.5 and 4.6.6 of the Draft EIS for further information on short-term air quality impacts and mitigation measures; and see Section 3.4.2.3 of this Supplemental Draft EIS for additional information on short-term noise impacts and mitigation measures, including noise generated by increased truck traffic). These impacts would be of short duration and will be minimized through the implementation of standard related construction BMPs, such as dust control, erosion control, and proper mufflers.

Please specify the extent to which the stated “standard” measures would be sufficient to protect this environmentally sensitive parkland.

During construction, how can the safety of park and trail users (Park Siding Park, Cedar Lake Park, Lake of the Isles Park, and nearby trails and lakes) be assured, given that unit freight trains of 100 or more cars containing Class III flammable liquids, especially ethanol, travel through this narrow corridor in close proximity to a construction pit and materials, without whatever protective walls will later be installed?

Section 3.4.1.5 Visual Quality and Aesthetics

Excerpt from City of Minneapolis RESOLUTION 2010R-008 by Colvin Roy:

Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained.

While we appreciate and agree that the visual impact from Viewpoints 2, 3, and 4 are recognized as being substantial, we strongly disagree and contest the idea that the level of visual impact north of the Kenilworth Channel crossing (including Viewpoints 5 and 6) will be “not substantial.” (pages 3-167, 168). The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be substantial throughout the corridor.

Throughout this area, the SWLRT project will remove a large amount of green space and trees, and replace them with an overhead catenary system, tracks and ballast. The park-like environment will be permanently degraded by this infrastructure, as well as by the approximately 220 daily trains traveling over the historic Kenilworth Lagoon and through the corridor.

Clearly, the degree of change in the visual resource will be great, and, with well over 600,000 annual visitors to the Kenilworth Trail, the exposure to viewers will be high. Over the past 7 to 10 years, neighbors and trail users have clearly expressed to Hennepin County and the Met Council the very high value they place on the green space, wildlife and bird habitat, trees and other vegetation in the Kenilworth Corridor.

The visual impact to the park-like environment is exacerbated by the continuing presence of freight rail, which was expected to be removed from the Kenilworth corridor at the time of the Alternatives Analysis, the Locally Preferred Alternative decision, and the 2012 DEIS.

It appears that the consultant determining the visual qualities of the corridor relied entirely on Google Earth, files of the revised project layout, and selected “photographically documented” views (Appendix J,

section 2B). If this is true, it is very discouraging that the area was not visited in person by the evaluator, nor were any stakeholders consulted.

At **Viewpoint 5**, we support all efforts to create an “attractive design” for the bridges crossing the Kenilworth Channel. The three new bridges will certainly become a “focal point,” adding large cement structures and heavily impacting the setting and feeling of this element of the Historic Chain of Lakes and the Kenilworth Trail. An attractive design for these bridges does not compensate for the vegetative clearing. The character of the City of Lakes’ signature canoe, kayak and skiing route from Lake of the Isles through the Kenilworth Channel to Cedar Lake will be fundamentally and permanently degraded. There will be a substantial negative visual impact from the level of the water as well as the level of the trail.

At **Viewpoint 6**, the SWLRT project plans to remove a significant amount of vegetation along the edge of Cedar Lake Park, as well as trees, plants, and restored prairie currently along the bicycle and pedestrian trails. The claim that removing trees and replacing them with overhead power lines would create a positive visual experience for trail users (“open up the view, making it more expansive”) is absurd on its face and contradicts the clearly expressed will of the Minneapolis City Council and the adjacent neighborhood. The 21st Street Station – a slab of concrete and metal with fencing and catenaries – will certainly “create a focal point,” but it is not credible to assert that this will positively impact the visual qualities of a place that is now adjacent to an urban forest and is itself in a “park-like environment.”

The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be substantial throughout the corridor. **We assert that the Council must recognize this and identify robust and meaningful mitigation measures for incorporation into the project.**

3.4.2.1, 3.4.2.2 Geology and Groundwater, Water Resources

The Section 404 permit application will identify compensatory mitigation for unavoidable impacts to wetlands and other aquatic resources. A Compensatory Mitigation Plan will be developed by the Council, and reviewed by USACE, prior to the submittal of the Section 404 permit application.

CIDNA demands that there be a much more significant and transparent discussion regarding the compensatory mitigation for damage to wetlands and aquatic resources in the Minneapolis segment, especially the Kenilworth Channel and Cedar Lake. While a permit application is required, the SDEIS identifies that there will be damage done to aquatic resources but does not specify the level of damage done during construction and then during operation of the line. The further impairment of these resources is a direct violation of the EPA Clean Water Act and will degrade one of the crown jewels of the Minneapolis “City of Lakes” water resources. Residents swim, paddle, and recreate in those resources, and to callously suggest that a section 404 permit will just address those concerns is alarming. Further, CIDNA is not convinced that sufficient analysis has been done on existing contamination in the Kenilworth Corridor. Southwest Project Office has already stated that additional contamination is

likely to be found, and while the additional contamination is stated to be covered by the contingency fund, CIDNA finds this approach to be irresponsible budgeting without fully knowing what contamination exists and if enough is actually budgeted in the fund. The Kenilworth Corridor north of 21st St is a former rail yard that housed up to 58 rail lines during its peak, and was in service for decades. The SDEIS itself specifies the numerous toxic contamination in such soil due to its former use. CIDNA strongly opposes disturbing the land and releasing contamination into the water and air.

Southwest LRT Supplemental Draft EIS - Supporting Documents and Technical Reports: SWLRT Kenilworth Shallow LRT Tunnel Basis of Design Technical Report (Met Council, 2014d):

An Existing Sewer Force Main Crosses the Proposed Location of the SWLRT South Tunnel in the Kenilworth Corridor. The removal and relocation of recently installed dual force mains, running beneath the freight tracks and Kenilworth Trail (between Depot Street and W. 28th Street) at the site of the proposed south tunnel, will be necessary to accommodate co-location of LRT with freight in the Kenilworth Corridor. The presence of the existing dual sewer force mains has design and construction implications on the shallow tunnel, which have not been addressed in the SDEIS. The SDEIS technical drawings for the shallow tunnel do not indicate the existing force sewer main or the sewer relocation plan. Although Metropolitan Council has indicated replacing 200' of the dual 18" sanitary sewer force mains at Depot Street in its 9/19/14 CTIB capital grant application, the design impacts and costs associated with relocating the force main are not appropriately addressed in the SDEIS or identified in the Kenilworth Shallow Tunnel Design Technical Report.

In 2013 the Metropolitan Council Environmental Services (MCES) installed replacement sewer force mains between France Avenue and Dean Parkway. The force mains follow Sunset Boulevard to Depot Street and then cross under active freight railroad tracks and the Kenilworth Trail to West 28th Street. The force mains installation at this location was completed by tunneling under, and placed perpendicular to, the railroad tracks and Kenilworth Trail so as not to disrupt active rail operations. The tunneling process required construction of two tunneling (jacking) pits on either side of the tracks. One pit was located at Depot Street and the other was located at the end of West 28th Street adjacent to Park Siding Park. The tunneling pit near Park Siding Park measured 16 by 34 feet and was approximately 27 feet deep. The excavation of these pits required the use of a crane and an excavator.

The SWLRT south tunnel construction plan indicates a pit to be dug to a depth of approximately 35 feet in this same location. The existing force main crossing consists of a 60-inch diameter tunneled steel "casing" pipe. The depth to the top of the casing pipe is approximately 17 feet and the bottom depth is 22 feet. The dual 18-inch force main pipes pass through this tunneled casing. The current placement of the force main interferes with the proposed location of the tunnel construction pit. The force main will need to be removed and relocated either above the proposed tunnel or below the tunnel to a depth greater than approximately 45 feet below ground level. See diagrams A through C below. If the force main is relocated above the shallow tunnel, the tunnel will need to be dug deeper in order to accommodate the force main above. This will result in an increased steepness in the incline of descent and ascent of the entrance and exit to the tunnel respectively. If LRT trains cannot navigate said increased grade change

then it may require building a longer tunnel in order to safely allow trains to exit and enter at a lesser incline/decline, adding to the cost and impact.

Risks associated with possible stray electrical current traveling in the ground from the LRT power lines to the sewer force mains have not been identified or addressed in the SDEIS.

The removal and re-installation of the dual force mains will have Economic, Social, and Environmental impacts.

Economic:

Cost:

Long term impact - Increase in cost of the SWLRT project of an undetermined amount as a result of co-locating freight and LRT, including:

1. Cost of removing and relocating the sewer force main located under the freight tracks and the Kenilworth Trail.
2. Cost of possible redesign of the south tunnel to accommodate force main relocation if it is reinstalled above the south tunnel.
3. Costs associated with re-engineering or lift station(s) that may be required to ensure adequate force is maintained in the sewer main if the main is re-located to a deeper position (i.e., from approximately 22 feet to more than 45 feet below ground level).
4. Cost of remediation of any portions of Park Siding Park that may be affected during removal/relocation of the force sewer main.
5. Cost of roadwork at Depot Street to remove/relocate force main.
6. Cost of damages to walls, ceilings and foundations of neighboring residences as a result of construction to remove/relocate the force sewer main.
7. Costs to remediate noise and vibrations impacts on the community that may be experienced during the construction period and post construction period should lift station(s) be required.

Social:

Parkland, Recreation, Open Spaces and Safety Impact:

Short term construction impact - Portions of Park Siding Park (a Section 4 (f) property) may again be affected in order to accommodate the removal and reinstallation of this force sewer main and construction of tunneling (jacking) pits. The original construction resulted in closure of the park to users for an extended period, installation of a temporary detour through the park to accommodate the closure of Dean Court, destruction of park vegetation, gardens and lighting, and the removal of playground equipment. Some of these same impacts may again occur during the removal/relocation of the force main and construction of associated jacking pits. In addition, the construction of the south tunnel is expected to take 2-3 years and requires a deep open pit adjacent to Park Siding Park. The access and enjoyment of this park will be affected by the tunnel construction during this extended time frame and presents a dangerous environment for nearby park users and freight rail operations. The mitigation and cost of remediation of the parkland have not been addressed in the SDEIS.

Environmental:

Noise:

Short term noise impacts - Removal and reinstallation of the force line will result in noise impacts of an undetermined level to both neighboring residents and Park Siding Park users as a result of both construction activities and construction vehicles. Mitigation plans/cost are not included in the SDEIS and need to be addressed.

Vibration :

Short term vibration impacts – Effects of construction activities and, to a lesser extent, construction vehicles will have an impact on park users, neighbors and their residences. Vibration and associated ground-borne noise impacts may damage walls, ceilings and foundations of nearby residences, as was experienced in the original construction of this force line. Mitigation plans/cost are not included in the SDEIS and need to be addressed.

Diagram A – Existing sewer force main at approximately 22 feet below grade obstructs planned location of SWLRT south tunnel in the Kenilworth Corridor, which requires an estimated 45 feet below ground level for construction pit and helical piles.

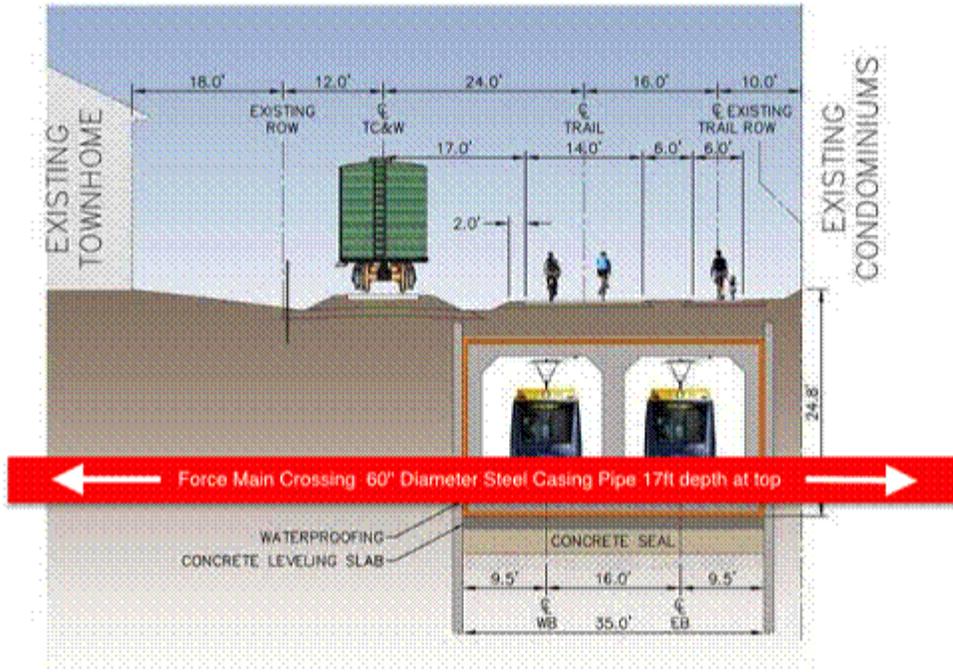


Diagram B – Typical Kenilworth Shallow LRT Tunnel Section per SDEIS

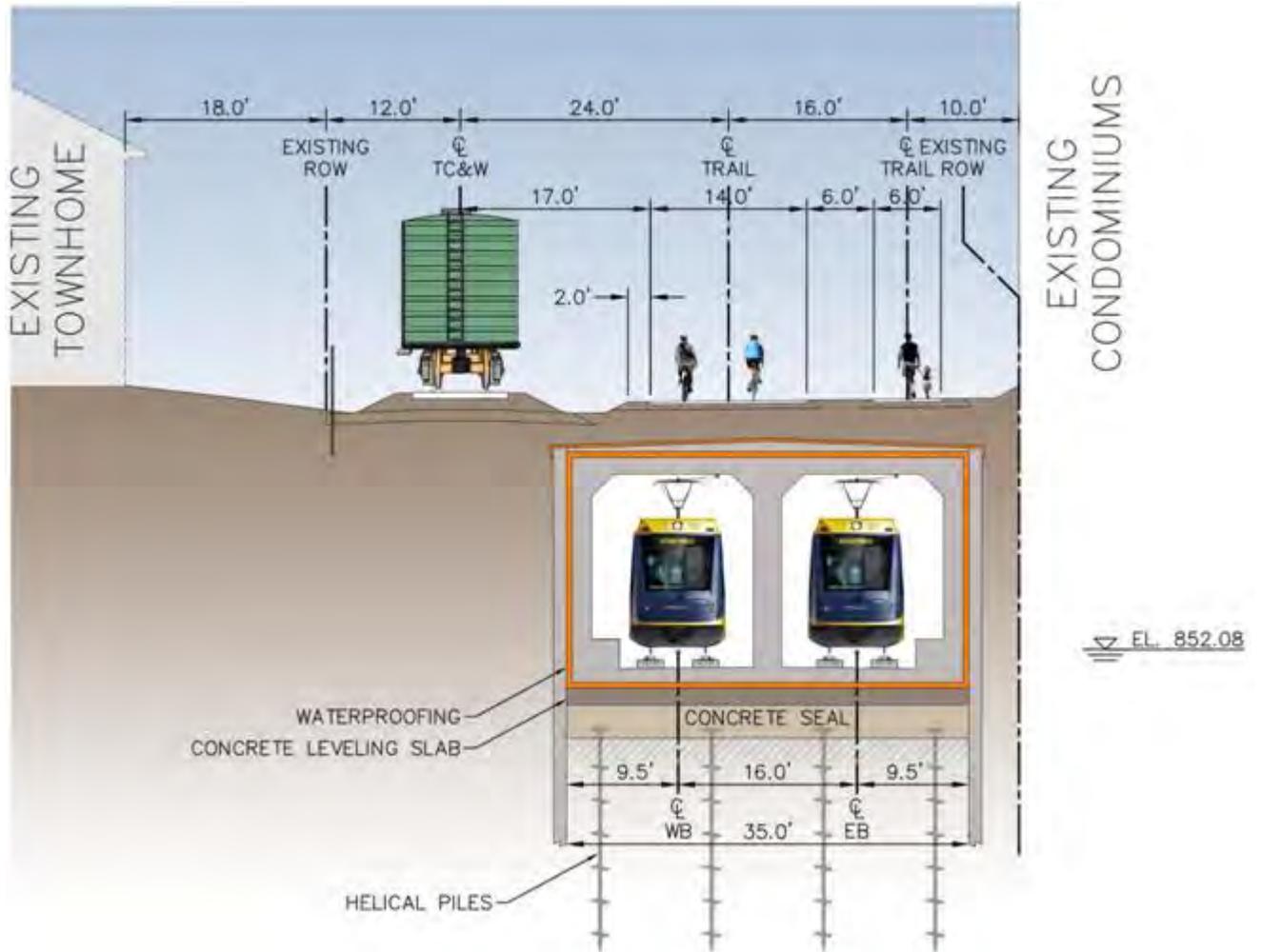
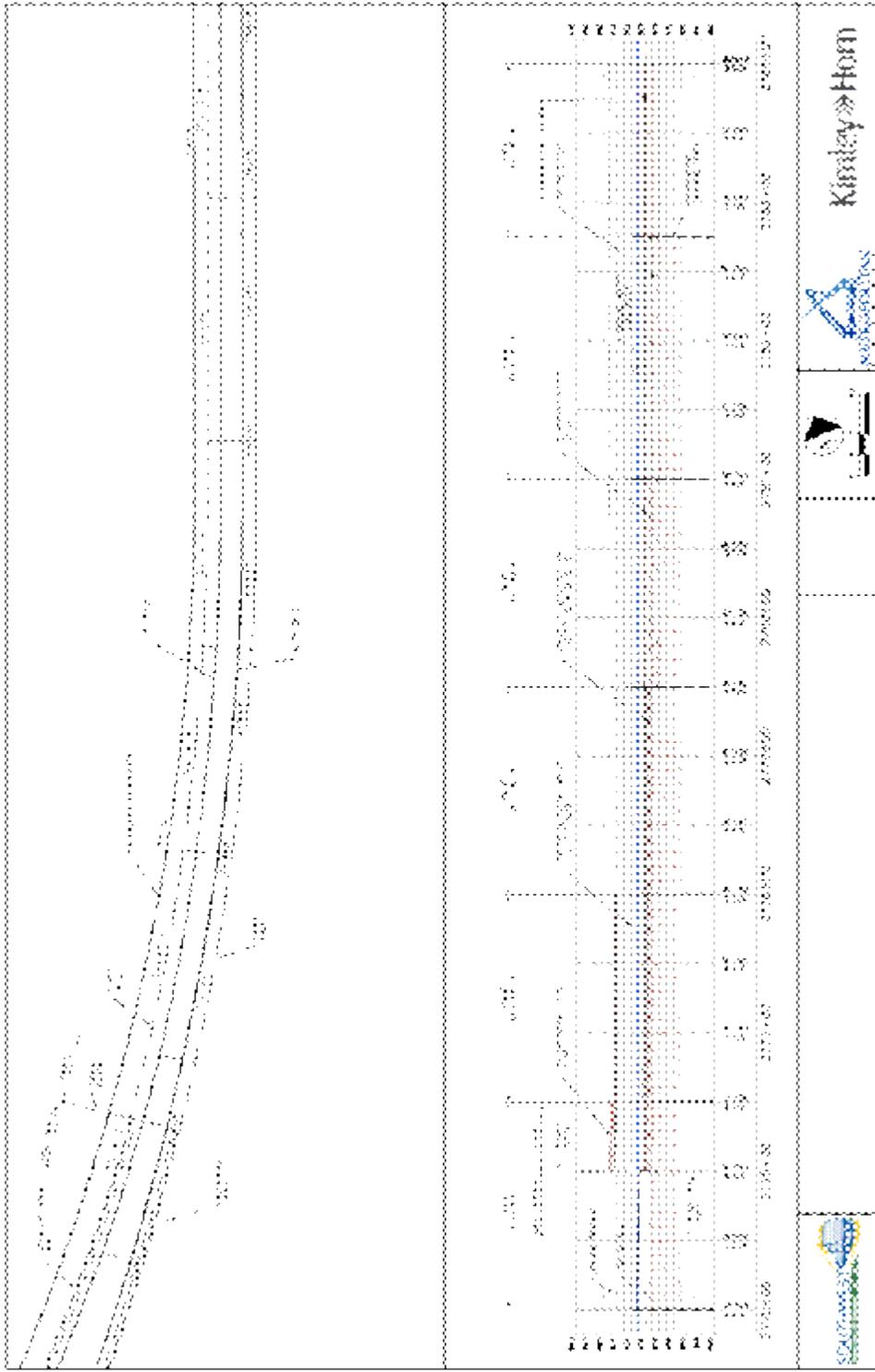


Diagram C - SWLRT South Tunnel Typical Cell Sequencing per SDEIS Note: the helical piles are shown at approximately 820 feet above sea level which is approximately 45 feet below the ground level.



3.4.2.3 and 3.4.2.3 Noise and Vibration

The SDEIS greatly understates both noise and vibration impacts of SWLRT.

- It uses wrong data as the fundamental framework for noise and vibration analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise and vibration data on a scenario that *does* include a freight train, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the [Draft EIS](#) in 2012.”¹ ***This defect renders the noise and vibration sections of the SDEIS fundamentally flawed and misleading. They need to be reworked with appropriate and correct data.***
- The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporated into the SDEIS.
- The SDEIS effectively ignores the impacts of construction. See more below.

Noise 3.4.2.3

This section provides a summary of the existing noise levels around noise-sensitive properties with the St. Louis Park/Minneapolis Segment; an assessment of how those properties would be impacted by the LPA; and how those impacts will be mitigated. As summarized in Table 3.4-1, there would be 67 moderate noise impacts and three severe noise impacts without mitigation.

Background information on how noise is defined, the noise generated by LRT and freight rail, and FTA noise impact guidelines can be found in the Noise Fact Sheet in Appendix H of this Supplemental Draft EIS. Appendix H of the Draft EIS also contains background information on noise and FTA evaluation criteria. In addition, detailed information regarding noise measurements, impact methodology, and the impact assessment can be found in Appendix H of this Supplemental Draft EIS.

When the Met Council chose the present route for SWLRT between the Chain of Lakes through the Kenilworth Corridor, and included “co-location” which will make the existing freight rail permanent, the project implicitly accepted the responsibility to respect the natural and built environments that it travels through as well as the people who bike, walk, recreate, and live there. We believe that this responsibility has not been taken seriously and the following describes why.

¹ <http://metro council.org/swlrt/sdeis>

SWLRT noise impacts substantially minimized

We believe that the SDEIS substantially minimizes the noise impacts associated with the proposed SWLRT. The noise impact of SWLRT in this area of Minneapolis will be highly significant for a number of reasons, but most notably because of the tranquility, recreational, park, and residential use currently existing in and bordering the Corridor. This proposed SWLRT route is not comparable to the Blue Line (Hiawatha) and the Green Line (Central Corridor down University Avenue), which are immediately adjacent to commercial thoroughfares or four-lane roads that carry cars and heavy trucks around the clock. By contrast, the Kenilworth area is a quiet environment, and is part of the **Grand Rounds National Scenic Byway**.

A National Scenic Byway is a road recognized by the [United States Department of Transportation](#) for one or more of six "intrinsic qualities": archeological, cultural, historic, natural, recreational, and scenic. The program was established by Congress in 1991 to preserve and protect the nation's scenic but often less-traveled roads and promote [tourism](#) and economic development. The National Scenic Byways Program (NSBP) is administered by the [Federal Highway Administration](#) (FHWA).

The Kenilworth Corridor accommodates pedestrian and bike traffic, along with a slow moving freight train – two to five times per 24 hour period – which was intended to occupy the corridor only on a temporary basis.

Now let's take a look at how this reality is compatible with the LPA of the SWLRT:

The SDEIS coolly states that 24 residences would suffer Severe or Moderate noise impact; translated, this means the noise of 220 light-rail trains running daily from 4 a.m. to 2 a.m. would fundamentally transform the adjacent neighborhood with near-constant noise and vibration. As noted in Appendix H (SDEIS Noise and Vibrations Memoranda), residences are considered Category 2 buildings, with the expectation that sleep occurs there.

The noise levels given in Noise Fact Sheet (Appendix H p. 19) state the following: LRT trains traveling at 45 mph generate maximum typical noise levels of 76 dBA at 50 feet, 71 dBA at 100 feet, and 66 dBA at 200 feet. Adding 211-220 LRT 3 - car trains to the Kenilworth Corridor day and night, each producing such elevated noise levels, would be a severe and overwhelming intrusion, critically increasing the noise generated. This holds true even if the only noise increase resulted from the LRT trains traveling at their stated speed, per the SDEIS, of 45 mph. The conclusion of overwhelming intrusion is further evidenced by the analysis below combining LRT frequency, time of day or night of LRT, and LRT bell noise intensity and frequency found in Appendix H, SDEIS p.3-13 and p.3-18.

CIDNA's Analysis of SDEIS Appendix H Table 1 & p. H-4 Data

- Bells are sounded for 5 seconds prior to grade crossings, as vehicles approach grade crossings, such as the 21st Street in the Kenilworth Corridor
- Grade crossing bells are used at grade crossings for 20 seconds for each train - 21st Street is also a grade crossing.

- Bells are sounded twice at stations - 1x entering and 1x exiting station platforms, such as the 21st Station (SDEIS gives no duration). *
- Total bell time (not counting the brief pause between entering and exiting the station) is known or given as more than 25 seconds per train. It is unknown how much longer than 25 seconds the bells will sound, as exit/enter bell duration is not given in the SDEIS.

* We request the duration of bells sounding when entering and exiting station platforms be made public. This information is needed for accurate noise impacts to be known.

WEEKDAYS

Early morning 4:00 AM – 5:30 AM

- 6-8 trains per hour = 9-12 trains per day 4:00 AM – 5:30 AM
- 1 SWLRT train at 66-76 dBA every 7.5 – 10 minutes
- 25 + seconds of bell noise (5 seconds 88 dBA + 20 seconds 106 dBA + unspecified seconds of bell noise as train enters and exits the station) every 7.5 – 10 minutes

Early morning to evening 5:30 AM – 9:00 PM

- 12 SWLRT trains per hour = 186 trains per day 5:30 AM – 9:00 PM
- 1 SWLRT train at every 5 minutes
- 25 + seconds of bell noise (5 seconds 88 dBA + 20 seconds 106A dBA + unspecified seconds of bell noise as train enters and exits the station) every 5 minutes.
- At least 10% of every 5 minute period in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise
- At least 6 minutes of every hour from early morning to 9 PM in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise

Evening to early morning 9 PM - 2 AM

9 PM – 11 PM

- 6-8 trains per hour = 12-16 trains per day 9 PM – 11 PM
- 1 SWLRT train at every 7.5 - 10 minutes
- 25 + seconds of bell noise (5 seconds 88 dBA + 20 seconds 106 dBA + unspecified seconds of bell noise as train enters and exits the station) every 7.5 --10 minutes

11 PM – 12AM

- 2 trains per hour = 2 trains per day 11 PM – 12 AM
- 1 SWLRT train every 30 minutes
- 25 + seconds of bells ((5 seconds 88 dBA + 20 seconds 106 dBA + unspecified seconds of bell noise as train enters and exits the station) every 30 minutes

Very early morning 12 AM – 2 AM

- 1-2 trains per hour = 2-4 trains per day 12 AM – 2 AM
- 1 SWLRT train every 30– 60 minutes
- 25 + seconds of bell noise (5 seconds 88 dBA + 20 seconds 106 dBA + unspecified seconds of bell noise as train enters and exits the station) every 30 – 60 minutes

Very early morning 2 AM – 4 AM

- 2 hours of no LRT trains = baseline, current noise levels

Total = 211-220 SWLRT 3-car trains per weekday

WEEKENDS

Early morning 4:30 AM – 9 AM

- 6-8 trains per hour = 26- 36 trains per day 4:30 AM – 9 AM
- 1 SWLRT train every 7.5 – 10 minutes
- 25 + seconds of bell noise (5 seconds 88 dBA + 20 seconds 106 dBA + unspecified seconds of bell noise as train enters and exits the station) every 7.5 – 10 minutes

Morning to evening 9 AM – 7 PM

- 12 trains per hour = 120 trains per day 9 AM – 7 PM
- 1 SWLRT train every 5 minutes
- At least 25 seconds of bell noise (5 seconds 88 dBA + 20 seconds 106A dBA + unspecified seconds of bell noise as train enters and exits the station) every 5 minutes.
- At least 10% of every 5 minute period in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise
- At least 6 minutes of every hour from early morning to evening in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise

Evening 7 PM to 9 PM

- 8 trains per hour = 16 trains per day 7 PM – 9 PM
- 1 SWLRT train every 7.5 minutes
- 25 + seconds of bell noise (5 seconds 88 dBA + 20 seconds 106 dBA + unspecified seconds of bell noise as train enters and exits the station) every 7.5 minutes

Late evening 9 PM – 11 PM

- 6 – 8 trains per hour = 12 – 16 trains per day 9 PM – 11 PM
- 1 SWLRT train every 7.5 – 10 minutes
- 25 + seconds of bell noise (5 seconds 88 dBA + 20 seconds 106 dBA + unspecified seconds of bell noise as train enters and exits the station) every 7.5 -10 minutes

Late evening 11 PM – 12 AM

- 4 trains per hour = 4 trains per day 11 PM – 12 AM
- 1 SWLRT train every 15 minutes
- 11 PM – 12 AM weekend train frequency is double weekday frequency 11 AM – 12 AM
- 25 + seconds of bell noise (5 seconds 88 dBA + 20 seconds 106 dBA + unspecified seconds of bell noise as train enters and exits the station) every 15 minutes

Very early morning 12 AM – 2 AM

- 2-4 trains per hour = 4-8 trains per day 12 AM – 2 AM
- 1 SWLRT train every 15 – 30 minutes
- 12 AM – 2 AM the weekend train frequency is double weekday frequency 12 AM – 2 AM

- 25 + seconds of bell noise (5 seconds 88 dBA + 20 seconds 106 dBA + unspecified seconds of bell noise as train enters and exits the station) every 15 – 30 minutes

Very early morning 2 AM – 4 AM

- No trains = current existing conditions

Total = 180 -195 SWLRT 3- car trains every weekend day

The result of LRT noise is the corridor will be permanently changed from a quiet, tranquil area sought by pedestrians, cyclists, and outdoor enthusiasts, to a severely noise disrupted, highly mechanized transit route.

Beyond permanently degrading the area, there will be multiple public health consequences of SWLRT noise in the corridor. The impact of repetitive noise intrusion on neighborhood public health will be significant. For example, regarding the obvious potential for sleep interruption caused by SWLRT noise (and there will be more trains during the late evening and early morning weekend hours) a research review published in the December 2014 edition of *Sleep Science*, summarizes:

emerging evidence that these short-term effects of environmental noise, particularly when the exposure is nocturnal, may be followed by long-term adverse cardio metabolic outcomes.

Nocturnal environmental noise may be the most worrying form of noise pollution in terms of its health consequences because of its synergistic direct and indirect (through sleep disturbances acting as a mediator) influence on biological systems. Duration and quality of sleep should thus be regarded as risk factors or markers significantly influenced by the environment. One of the means that should be proposed is avoidance at all costs of sleep disruptions caused by environmental noise.”

The article goes on to review that:

The World Health Organization (WHO) has documented seven categories of adverse health and social effects of noise pollution, whether occupational, social or environmental. The latter [sleep disturbance] is considered the most deleterious non-auditory effect because of its impact on quality of life and daytime performance. Environmental noise, especially that caused by transportation means, is a growing problem in our modern cities. A number of cardiovascular risk factors and cardiovascular outcomes have been associated with disturbed sleep: coronary artery calcifications, atherogenic lipid profiles, atherosclerosis, obesity, type 2 diabetes, hypertension, cardiovascular events and increased mortality....during the past year, the relationship between insomnia and psychiatric disorders has come to be considered synergistic, including bi-directional causation.”²

In the area of mental health, there is growing evidence that the opportunity for ‘soft fascination’ experienced in greenspace supports social and psychological resources and recovery from stress.³ The perpetual and repetitive noise from SWLRT would interrupt the soft fascination currently experienced in the Kenilworth Corridor, nearby beaches, parks, the Kenilworth Channel and general environs of Lake of

² *Sleep Science*, Volume 7, Issue 4, December 2014, Pages 209-212).

³ *British Journal of Sports Medicine* 2012, “The Urban Brain: Analyzing Outdoor Physical Activity with Mobile EEG.”

the Isles and Cedar Lake. Opportunities for ‘soft fascination’, though often taken for granted by suburban dwellers, are extremely limited in urban areas, yet equally if not more critical for the mental health of urban residents.

With healthcare costs and disease prevention being prominent national and local priorities, the economic value of the public health benefit of the Chain of Lakes and Kenilworth Corridor cannot be simply ignored. Therefore, we request a study of the physical and mental health impacts of the noisy, hyper-mechanization of this currently placid area.

A. Existing Conditions (p. 3-180)

This section describes existing noise-sensitive land uses in the St. Louis Park/Minneapolis Segment and existing noise levels.

Fundamental defect with baseline noise measurements

The SDEIS uses wrong data as the fundamental framework for noise and vibration analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise and vibration data on a scenario that *does* include a freight train, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the Draft EIS in 2012.”⁴ ***This defect renders the noise and vibration sections of the SDEIS fundamentally flawed and misleading. They need to be reworked with appropriate and correct data.***

The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporated into the SDEIS.

Further, since aircraft overflights are generally scarce, the average current noise level per hour is extremely low when averaged over a 24-hour period.

Additionally, there are significant seasonal and weather-related variations in noise levels, which cannot be captured when sound is measured during one 24-hour period in the summer.

Finally, in Appendix H, p.2, it is noted that “noise monitoring was performed at other locations not listed in the table. Those sites will either be addressed in the forthcoming Final EIS or no longer fall within the area where they would be potentially impacted by project noise due to design refinements during Project Development.” Since the purpose of the SDEIS is to inform the public and decision makers, and provide opportunity for comment on all areas of concern, in order to fulfill that NEPA mandate, all measurements there were made and publicly financed should be made public.

⁴ <http://metro council.org/swlrt/sdeis>

B. Potential Noise Impacts

This section identifies and evaluates the potential long-term and short-term noise impacts that would occur in the St. Louis Park/Minneapolis Section. The long-term noise impact evaluation considers the potential increase in noise levels for sensitive receptors closest to the proposed LRT stations and track as a result of operation of light rail and freight rail.

Noise Impacts Measurement Tables (Table 3.4-11, 3.4-12)

Following FTA noise assessment guidelines, the 76 dBA LRT noise every 5 minutes is measured as having a lower impact than actual dBA of 76 because the LRT noise is not continuous. Thus, though this quiet urban area will be exposed to an actual repetitive noise of 76-80 dBA day and night, the rating of the impact is lower and measured as 51 – 64 dBA in Tables **3.4-11, 3.4-12**. The significantly lower measurement lessens the determination of findings of impacts, and therefore, whether impacts are determined as non-existent, moderate or severe. This engineering methodology covers up the actual impact on people of loud repetitive noise in a peaceful setting.

The 25 + seconds of repetitive bell noise described in the **CIDNA's Analysis of SDEIS Appendix H Table 1 & p. H-4 Data** above does not appear to be included in the SDEIS noise analysis in Tables 3.4-11, 3.4-12, which would clearly increase the severity of noise impact at all locations. The SDEIS also neglects to report and measure the cumulative effect of LRT and freight train noise. This information would likely show that more than 24 residences would be affected; more of them would be impacted at the severe level, and a greater impact on the Kenilworth Channel and Kenilworth Lagoon Bank. Furthermore, future projected noise levels of LRT and freight will be higher than the projection inputs used by the SDEIS after the clear cutting of trees and vegetation in the corridor, increasing the impact of noise generated by both SWLRT and the freight rail. When utilizing the Source – Path – Receptor FTA noise impact assessment framework, it is clear that the inputs for each of the three parameters are critical and control the outcomes determining the severity of noise impact. Removal of the trees and vegetation eliminates a significant and well established noise barrier currently in the path of noise from freight and future SWLRT. The SDEIS does not address the impact of clear cutting the trees and vegetation in the Kenilworth Corridor on Moderate versus Severe LRT noise impacts.

Tunnel Swaps Noise for Vibration

As stated in the SDEIS, the tunnel section of the SWLRT is supposed to eliminate “almost all noise impacts within that segment of the corridor.” It must be noted, however, that these noise impacts will be replaced by vibration impacts; see the Vibration Section below.

Analysis of Table 3.4-12

Inaccurate land use designation for the Kenilworth Channel

We strongly question the land use designation of the Kenilworth Channel as Category 3. As defined in Appendix H, Category 3 is:

Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, and churches where it is important to avoid interference with such activities as speech and concentration on reading material...”

The SDEIS designates the banks of the Kenilworth Channel as falling within the most noise sensitive Category 1. However, as stated above, the Channel itself is not included in that most highly sensitive designation, but instead is classified as “institutional land use. “ Category 1 is defined in Appendix H as:

Tracts of land where quiet is an essential element in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheaters and concert pavilions, as well as National Historic Landmarks with significant outdoor use.

The SDEIS states the “grassy area on the banks of the Lagoon” falls within Category 1 due to the “passive and noise sensitive recreational activities that occur there (where quietude is an essential feature of the park).” The designation of Category 1 versus 3 for the Kenilworth Channel appears to hinge excessively on one word -- the term “passive” to describe the activities for which the Channel banks are used. However, quietude is equally and very clearly an essential feature of the Kenilworth Channel itself, whose peaceful though not “passive” activities include canoers and cross country skiers gliding serenely on the water or ice while those on the grassy banks look on. The quietude of the Kenilworth Channel is inseparable from the quietude of its grassy banks; therefore both should be Category 1.

Most significantly, that the consequence of placing the Kenilworth Channel in Category 3 is that both the obligation to mitigate impacts is lowered, and the threshold to establish severe impact is higher and harder to reach. Had the Kenilworth Channel been accurately designated a Category 1, then the Channel would have been only 1 dBA below “Severe impact.”

Even with the lowering of the land use category of the Kenilworth Channel to a Category 3, the SDEIS finds a moderate impact of the addition of LRT noise. The footnote to SDEIS Table 3.4-12, states that the noise impact increases as one approaches the LRT line and becomes severe when the channel falls within the HCRRA right of way.

While the SDEIS states that the land use categories were made in consultation with the MPRB and MN SHPO, we strongly dispute their coherence and accuracy. If the intention of the SPO is to preserve the character and experience of the Channel, then it must designate it as a Category 1 and then make public the mitigation plans and costs well in advance of the final FEIS.

SWLRT Breaks the *System* of Minneapolis Parks.

Horace Cleveland’s visionary masterplan, Suggestions for a System of Parks and Parkways for the City of Minneapolis, proposed a park *system* of connecting sites of beauty and natural interest throughout the city, rather than a series of detached open areas or public squares. The vision of a park “system” has guided the Park Board ever since and is one of the primary reasons for the success and national prestige of the Minneapolis Parks. The SDEIS procedure of singling out specific pieces of park for analysis such as Lilac Park, the Kenilworth Channel and its grassy banks runs fundamentally contrary to the underlying vision of a Minneapolis Park System.

The scenario of perpetual, repetitive LRT noise over the Kenilworth Lagoon and throughout the interconnecting parks and lakes woven throughout this area breaks the larger *system* of the Minneapolis Parks.

Site N 17 (p. 3-182)

21st Street Station Noise Impacts

At the proposed 21st Street Station, crossing and station bells generating a noise level of 106 dBA and LRT bells generating 88 dBA will seriously add to the overall noise levels for 22 hours a day; only between 2:00 a.m. and 4:00 a.m. will neighborhood residents in this area be able to sleep uninterrupted.

The **CIDNA's Analysis of the SDEIS Appendix H Table 1 & p. H-4** given above shows the impact throughout the day and night.

Further, freight trains may need to use their horns to safely cross 21st Street, as is the current case with the "temporary" freight operations.

We thus strongly disagree with the characterization of the noise impacts in the 21st Street station area as moderate and limited. "Sensitive receptors" in this area will be subject to train arrivals, departures, signal bells and perhaps horns, seriously eroding the quality of life in the neighborhood and reducing the enjoyment of the recreational trail and Cedar Lake Park for users of these regional amenities.

We believe that the residences with noise impacts deemed "moderate" in the SDEIS will likely experience severe noise impacts without proper mitigation, and that in addition to the residences identified, residences along 21st Street, 22nd Street, and Sheridan Avenues will also experience at least a moderate noise impacts. We further believe that there will be an impact on more residences than the 24 cited in the SDEIS.

Note: The SDEIS misidentifies some of the homes deemed to have a "moderate impact without mitigation" as being on Thomas Avenue South; some of the addresses are actually on Sheridan Avenue South.

LRT Horns are Likely

According to the federal Train Horn Rule⁵, locomotive engineers must sound horns at a minimum of 96 decibels for at least 15 seconds at public highway rail grade crossings. Appendix H indicates that LRT Horns are 99 decibels and are sounded for 20 seconds. The SDEIS states that LRT horns would only be sounded at crossings where speeds exceed 45 mph. Since LRT and freight trains may not reach that speed in the Kenilworth Corridor, presumably no horns would be sounded when LRT vehicles cross 21st Street. Given the volume of pedestrian, bicycle, and car traffic at this crossing, it is not safe to silence LRT horns at this crossing. The noise created by horns sounding for LRT trains at least 96 decibels for a minimum of 15 (or 99dBA for 20) seconds represents a "severe" noise impact and is therefore prohibitively detrimental to quality of life in a residential neighborhood.

Issues Not Addressed in SDEIS Noise 3.4.2.3

Not addressed: Impacts near Portals

Two areas of potential noise impacts do not appear to be adequately addressed by the SDEIS.

First, table 3.4-11 does not appear to cover noise that will be experienced by the homes directly behind the SWLRT tracks after it emerges from the tunnel and crosses the Kenilworth Channel. Since LRT on ballast and tie track produces noise at 81 dBA, we believe that those residences will experience noise at the same level as homes on Burnham Road and Thomas Avenue South. Further, Appendix H notes that noise will increase by 1 dBA for homes within 100 feet of the tunnel entrance/exits. We strongly request that noise impacts be determined for those residences and that they be included in consideration for noise mitigation. We further request that the cost of that additional mitigation be included in the costs of the Final DEIS.

Not addressed: Tunnel Ventilation System

Second, noise from the tunnel ventilation systems does not appear to have been considered. The SDEIS states that the tunnel section of the SWLRT is supposed to eliminate “almost all noise impacts within that segment of the corridor.” However, we understand that there will be ventilation fans connected to the tunnels as well as a ventilation “building” planned near Cedar Lake Parkway. The SDEIS neglects assessment of the noise impacts from such a ventilation system, and this information is critical to determining whether the proposed tunnel would have a positive or negative environmental impact. Policy-makers and citizens need adequate information on the noise impacts of both the vents and the ventilation building before proceeding with tunnel construction. Appendix H indicates that the fans will operate only on an emergency basis, but we do not see any mention of the ventilation building in the SDEIS. We request clarity on the amount of time each day that they will be operational and creating noise impacts, and the dBA of each.

Not addressed: Freight Operations

The existing freight operations, intended to be temporary, are being made permanent. The noise generated by these trains, which often have three or four engines, must be measured and considered in the overall assessment of noise impacts of the SWLRT project.

The SDEIS simply states that the noise issues described above will be addressed in the Final EIS and that they will be mitigated. We take the strong view that now is the critical and only time to prove that mitigating the noise issues we have described is possible and that the cost of such mitigation is in the budget.

3.4.2.4 Vibration

Long-Term Direct and Indirect Vibration Impacts

The SDEIS states, “There are no vibration impacts in this segment [of the SWLRT route]” This claim is not credible in view of advice provided in *Transit Noise and Vibration Impact Assessment*, the FTA’s own guidance manual presenting procedures for predicting and assessing noise and vibration impacts of proposed mass transit projects:

Vibration from freight trains can be a consideration for FTA-assisted projects when a new transit line will share an existing freight train right-of-way. Relocating the freight tracks within the right-of-way to make room for the transit tracks must be considered a direct impact of the transit

system which must be evaluated as part of the proposed project. However, vibration mitigation is very difficult to implement on tracks where trains with heavy axle loads will be operating.”⁶

The SDEIS says that 54 residences⁷ in the “St. Louis Park/Minneapolis” segment (note that all of them are within Minneapolis) will be impacted by the ground-borne noise. This is an unacceptable level of impact on those 54 families.

According to Appendix H, which addresses both noise and vibration, the table titled Typical Maximum Noise Levels(dBA) on page H-19 quantifies the dBA for LRT, freight and then lawnmowers and buses idling. The dBA for freight rail in that same table is shown for a speed of 20 MPH. The freight in the Kenilworth Corridor travels at a maximum of 10 MPH. For comparison purposes, the assessment should use the dBA of freight trains traveling at 10 mph. Use of the sound impact from a train travelling twice as fast (20 mph) as the current speed in the corridor understates the current noise level (from freight), thereby minimizing the impact and differential from the LRT trains.

Regardless of whether the residences are impacted by vibration from the tunnels or from the noise which is flagged as a “Residential Annoyance” in the tables in Appendix H, the fact that these “annoyances” will occur incessantly — 220 times per day starting at 4 a.m. and continuing to 2 a.m. — means the impact on those residents will be significant and should be considered “severe”. This is very unlike the impact of the freight trains: they may in some cases may be louder than the LRT, but there are only one or two of them per day — often not during the night hours — and then they are gone.

Regarding ground-borne vibration and noise, it should be noted that the impacts projected may underestimate real-world impacts, which could be more annoying than assumed. The FDA manual states:
8

...the degree of [ground-borne vibration and noise] annoyance can not always be explained by the magnitude of the vibration alone. In some cases the complaints are associated with measured vibration that is lower than the perception threshold.

Short term vibration impacts

The SDEIS all but ignores construction-related ground-borne noise (vibration) — except for a single, dismissive comment: “Short-term vibration impacts are those that might occur during construction of the LPA while jackhammers, rock drills, and impact pile-drivers are being used.” Within a month of this writing, impact pile-driving on the former Tryg’s restaurant site in the West Lake Station area caused serious damage to the Loop Calhoun condominiums, as well as some level of damage to the Cedar-Isles Condominiums. The project had to be halted (the piles were extracted), since going forward was deemed to be catastrophic. The pile-driving entailed in building the SWLRT tunnel would take place much closer to these and other condominiums, duplexes and apartment houses. The Tryg’s site incident seems to strongly predict a risk of significant construction-related damage to the homes of hundreds of people who live along the corridor where impact pile-driving for SWLRT is planned.

Furthermore, the recent Met Council sewer project completed in this area caused damage to homes located beyond the “expected” range of distance from construction. Residents who attempted to get compensation for the damage were often told by the Met Council to take the matter up with their own insurance companies rather than through the contractors whose work caused the damage. A specific

⁶ Chapter 7: Basic Ground-Borne Vibration Concepts, 7-9

⁷ All of them are Category 2 receivers: “residences and buildings where people normally sleep.”

⁸ Chapter 7: Basic Ground-Borne Vibration Concepts, 7-6

liability plan and budget should be included in the project cost estimates. There is a “contingency” line item in the budget, but it should be used for truly “unpredictable” costs that arise during the construction, and not for costs that could be, should be, and even are anticipated.

Construction-related vibration impacts could well extend beyond the construction period itself. Damage incurred during construction may not be initially apparent, and could show up months or even years later. Further study is needed of:

- 1) The effects of various pile-driving alternatives on the many at-risk structures
- 2) The costs involved with each of those alternatives;
- 3) The geology of the area, and its ability to support the construction process.

Mitigation

The SDEIS promises mitigation of a number of vibration problems. However, the failure of Met Council mitigation measures taken to address LRT problems experienced by the University of Minnesota and Minnesota Public Radio cast abundant doubt on whether they will be effective here.

With respect to the vibration mitigation (to be further detailed in the Final DEIS), the measures suggested in Appendix H appear to be inapplicable to the many residences that would be affected. The SDEIS describes isolated tables and floating floors. It’s hard to imagine a retrofit of the residences impacted by the vibration affects utilizing “floating floors.” If this is the intent of the mitigation planned for the SWLRT, a cost estimate of the retrofit of all the residences should be included in the Final DEIS.

3.4.2.5 Hazardous and Contaminated Materials

Long-term Direct and Indirect Hazardous and Contaminated Materials Impacts

- Permanent pumping of contaminated groundwater
- Impacts of disturbance of dangers in soils that may have long term health impacts on children and vulnerable adults
- Not covered in the SDEIS is the co-location of SWLRT in close proximity to hazardous and explosive materials being carried by the railroad.

Short term

The DEIS called for Phase I ESA to be completed, and it was completed in August 2013. It was not made public by the Met Council until May 19, 2015, and indicates many potentially hazardous and contaminated sites along the alignment. It is reasonable to expect to encounter extensive contamination in the Kenilworth Corridor. In addition to being home to several railroad tracks, the Kenilworth Corridor was home to a maintenance yard, blacksmith and boiler shops, a diesel shop and a 90,000-gallon fuel storage facility. In addition, the land was used as a dump — a common practice of the time, and it is likely that arsenic will be among the dangers encountered, requiring special remediation.

The Phase II Environmental Site Assessment (ESA) is said to be near completion; the report must be made available for public review and comment as soon as it is available. The SDEIS says it is “reasonable to expect that previously undocumented soil or groundwater contamination may be encountered during construction.” It is unclear if any findings in the Phase II ESA have been incorporated into the cost increase recently made public.

The cost of such remediation is unknown and has not been included in the cost estimates. Several sections of the alignment have been designated part of the MPCA Brownfields Program. In the best-case scenario,

they will not require much remediation; in the worst case, they will become a Superfund site, requiring significant and expensive remediation.

We attempted to receive budget information that would indicate what amount of the increase in the budget from \$1.65 billion to \$1.99 billion was earmarked for remediation in this corridor. The SW Project Office provided only the highest level of information, and indicated that they do not track the line items for things like soil remediation on a segment by segment basis, but only in total for the project. We believe that remediation will require a Construction Contingency Plan above and beyond the general Contingency budget line item. The cost of such a Contingency Plan for Remediation should be included in the project budget.

3.4.3 Economic Effects Long-Term Direct and Indirect Economic Impacts

Further, the loss in property tax revenue due to the acquisition of privately-held land has the potential to be offset with increased property tax revenues, if the station areas within the affected city result in higher property values due to improved access and other benefits associated with the proposed light rail stations within the city limits. The loss of property tax revenue could also be reduced if the affected businesses relocate elsewhere within the affected city. Depending on the preferences of the owner, the project would work to relocate the five displaced businesses in this segment. All acquisitions made for the St. Louis Park/ Minneapolis Segment and all potential displacements and relocations of businesses resulting from those acquisitions would conform to the applicable federal and state laws. Businesses displaced by the project would receive compensation and relocation assistance, as discussed in Section 3.1.2.2 of this Supplemental Draft EIS.

As an indirect economic impact, there is also the potential for increased property tax revenues from the potential redevelopment of property around the proposed light rail stations within the Cities of St. Louis Park and Minneapolis. Improved transit access can increase the convenience and desirability of surrounding residential, commercial, and office properties. Light rail transit can contribute to existing market forces that can increase the potential for transit-oriented development or redevelopment.

Comment: CIDNA disputes the statement that SWLRT will positively impact property values, especially around the 21st St station and Channel. The current freight alignment in the Kenilworth Corridor is already a negative and permanent defect on property values, and this becomes magnified as a negative and permanent defect on properties along the line with co-location of SWLRT, which is precisely why some residents expressed this as a reason against co-location. The threat of a collision and derailment as such incidents gain increased attention in the news media will in all likelihood increase the scrutiny of buyers as they evaluate the Kenilworth area as an investment and home for their families. Further, the increased noise, vibration, and light without the previously promised removal of freight rail is an exponential increase on aesthetic disturbance in the neighborhood, that in the past was well known for its park like feel and up north atmosphere and a truly special neighborhood in the city. The increased adverse effects of co-location will be a forever permanent defect to homes within earshot and sight of the line; auditory adverse effects would reach as far as Lake of the Isles Parkway based on the audible sounds of the current freight line, but as a much more disruptive cacophony of bells and horns versus the current “low rumble” of freight.

Further, while studies such as rtd-fastracks.com and others show that the access to light rail increase property values in high density, transient (apartment-filled), younger, urban neighborhoods, the area around the Kenilworth corridor is not representative of those attributes. The study mentioned, among others, shows that higher income and low density neighborhoods do not see the positive impact on property values and rentals, which are minimal in the area, as they do in lower to middle income neighborhoods that more regularly use public transit.

While the 1600 ride/day numbers has not been substantiated and is unrealistic, there will nonetheless be an adverse impact from those who do park in the neighborhood to access the station, resulting in residents closest to the station losing on street parking in front of their homes. This will create a parking lot feel to the low density neighborhood and be a detractor from potential buyers, negatively impacting home values.

Finally we do not support denser development in the area (with the exception of the W Lake Station area if land is available) nor would it be feasible on any meaningful scale due to the mature and stable nature of the neighborhood and any free space available. Any development would further denigrate the existing green space in the corridor, especially around the 21st St station which is the access point for the beach and trail access for the neighborhood.

Additionally, the negative economic impact on the entire “brand” of the City of Minneapolis by running a divisive, noisy, and environmentally unsound line through the crown jewel of “The City of Lakes” park area will forever cause a negative impact on tourism as the former serenity of the channel, lagoon and lake are disturbed with the imposition of Light Rail. The larger, more oppressive bridge will denigrate the current experience enjoyed by kayakers, walkers, bikers, etc. and cause tourists to leave the city to get that natural experience they currently enjoy.

We therefore dispute and challenge the SDEIS statement that mitigation for economic impacts is not warranted for the Kenilworth Corridor, particularly in the absence of any plausible property impact study.

3.4.4.2 Roadway and Traffic

As summarized in Table 3.4-1, there would be three new at-grade light rail crossings of roadways within the segment (Wooddale Avenue, Beltline Boulevard, and West 21st Street). At each crossing, light rail operations would impede vehicular traffic for approximately 50 seconds approximately 12 times per hour (six times per hour in both directions).

CIDNA is concerned about emergency access being reduced 12 times per hour to East Cedar Lake Beach and the residences on Upton Avenue S. The freight train which was originally to be removed, coupled with the light rail line, will exponentially impair access further. We see no possible way to mitigate this impact even beyond the measures that are mentioned in the SDEIS.

3.4.4.3 Parking

Indirectly, the LPA could affect the supply of and demand for off-street parking in the St. Louis Park/ Minneapolis Segment due to development new light rail station areas. Any development occurring within the segment would, however, be required to comply with the City of St. Louis Park's and the City of Minneapolis' parking requirements, which would tend to ensure a long-term balance of parking supply and demand.

CIDNA is concerned that there is complete disregard in the SDEIS for the impairment of on street parking availability in its neighborhoods for residents and their guests., as well as emergency access to those homes, especially in winter when streets are narrowed. CIDNA strongly opposes any park and ride lots as that would significantly impair the parklands and would not be compliant with Minneapolis city policy.

3.4.4.4 Freight Rail

Freight Rail Summary

- **Light rail/freight rail Swap and Southerly Connection with some modified freight rail operations**
- **Remove approximately 11,771 feet of freight rail siding track segments in the Bass Lake Spur**
- **Temporary movement of the freight rail tracks during construction in the Kenilworth Corridor**

This section provides a summary of existing freight rail operations in the St. Louis Park/Minneapolis Segment and how the proposed LPA could impact those operations in the long term and short term. In addition, mitigation measures addressing adverse impacts to freight rail operations are identified.

As summarized in Table 3.4-1, the LPA would result in the light rail/freight rail Swap and Southerly Connection, with some modified freight rail operations; the removal of approximately 10,375 feet of freight rail siding track segments in the Bass Lake Spur; and temporary movement of the freight rail tracks during construction in the Kenilworth Corridor.

A. Existing Conditions

This section describes the existing freight rail ownership and operators in the St. Louis Park/Minneapolis Segment.

Exhibit 2.3-4 illustrates the existing freight rail ownership and operators in the St. Louis Park/Minneapolis Segment. In summary, CP owns the Bass Lake Spur, on which TC&W currently operates freight rail service. The Bass Lake Spur directly connects to the HCRRA-owned Kenilworth Corridor, on which TC&W trains operate, before connecting to the BNSF-owned Wayzata Subdivision. The Bass Lake Spur also connects to the MN&S Spur via the Skunk Hollow switching wye (illustrated on Exhibit 2.5-5). The switching wye provides freight rail access to the Robert B. Hill Company salt facility at the west end of the switching wye, which is the only business in the St. Louis Park/Minneapolis Segment that receives direct rail service. The switching wye also allows CP and TC&W trains to connect between the Bass Lake Spur and the MN&S Spur, which is also owned by CP.

TC&W railroad operations have changed since the Draft EIS (refer to the Freight Alignment – Traffic Impact Evaluation Memorandum; Kimley-Horn and Associates, Inc., 2013; see Appendix C for instructions on how to access this report). Currently, TC&W typically operates 14 weekly trains (about two per day) with 65 to 75 cars and 5 to 6 unit trains (currently no more than one per day) with approximately 80 to 125 cars per train. CP operations remain unchanged from the Draft EIS, with 10 weekly trains with one to two locomotives and 10 to 25 trains per car.

Response:

The SDEIS states the need to develop and maintain a balanced and economically competitive multimodal FREIGHT rail system as justification of the project. However freight was never supposed to be included in the LPA, and why does colocation further justify this project when it was to be a LRT only project. The SDEIS never looked at alternative transit modes for serving the southwest suburbs with the consideration of colocation, but only under the consideration of both the location of SWLRT to Kenilworth and the relocation of freight to some other corridor. From the beginning, the project's process was flawed. All of the Met Council's environmental studies assumed freight rail would be relocated out of Kenilworth. Now the Met Council is proposing freight rail remain in Kenilworth and be co-located with LRT. We are taking a temporary situation that was supposed to go away (freight) and making it permanent.

Historically, the Original Project Scoping Report stated that "Freight Rail is independent of the Study." Although the Federal Transit Administration (FTA) noted this erroneous assumption when it approved preliminary engineering, neither Hennepin County nor Met Council ever amended the Scoping Report to include freight rail. When the Locally Preferred Alternative (LPA) was selected in 2009-2010, under the assumption that freight rail would be re-located and that LRT would run at-grade in Kenilworth, the costs and concerns of relocation were not addressed in either the scoping report or the later DEIS. In 1998, when freight was reintroduced to the Kenilworth Corridor, freight was to be a temporary alignment until SWLRT came. All along, this promise was made to Minneapolis and the Cedar Isles Dean and Kenwood neighborhoods. Now, the proposal would make this permanent. Hence, SWLRT DEIS or SDEIS never did a true alternatives analysis using the assumption of colocation.

Prior to colocation, there was no active community groups fighting SWLRT, until colocation was forced upon the SWLRT design. The Kenilworth community, has actively fought against the colocation of freight and LRT since the summer of 2013 when it was introduced. Since then, our education on the risks of colocation have been eye opening.

The Municipal Consent process has been designed so that once a project's elements and impacts are known, public officials can make informed decisions. However, since freight COLOCATION with LRT and tunneling was never part of the original LPA and subsequent DEIS, municipal consent was given without foreknowledge of the risks to both community and environmental safety. Now the SDEIS is similarly devoid of important human and environmental safety information around colocation of freight and SWLRT.

The SDEIS, triggered by the addition of colocation and the necessity of building a tunnel through the Kenilworth Corridor, is remarkable more for what is **not** included than what is included. The absence of substance is reflective of a long process of well intentions that have been poorly planned and executed and which does not bode well for the long term success of this process. These sins of omission, where substantive real issues remain unexamined is especially present in the environmental section dealing with freight and the later section dealing with safety. The SDEIS, appears to be largely a rehash of the DEIS with no additional substantive issues around colocation dangers and safety, and its absence in the SDEIS contains a silence that is deafening. The SDEIS never answers the most important question, which is 'why colocation?' The SDEIS contains nothing about routing alternatives, or the reasons why this route

was chosen with colocation. It contains nothing about substantive safety concerns of colocating high hazard freight feet from LRT construction and later LRT trains. The story of colocation is important to the process because it reflects planning that has been and continues to be haphazard and blind.

The history of SWLRT colocation has resulted in many community members becoming expert activists. Nationwide, there has been a radical change that is occurring in high hazard freight, with community awareness of these ‘bomb trains’ running through our towns and cities. High hazard trains have long run through our communities, but never with the frequency nor the amount of dangerous materials being hauled, and Kenilworth corridor is a high risk evacuation blast zone were a high hazard freight derailment to occur. Running these trains through any populous areas is undesirable and puts many in the “blast zone”, running 1/4-1/2 mile on either side of the track, and Kenilworth has this problem as well. (See Claire and Dave’s Map).

The original DEIS did not recommend colocation because of adverse environmental and safety impacts. In fact, the recently released SDEIS only talks about the effects of LRT on freight rail (mostly economic impacts to minimize time lags on freight during construction), not on the environmental and safety effects of colocation of freight and light rail through the corridor.

Freight railroads have radically changed since the reintroduction of freight into the Kenilworth Corridor. The federal mandates on ethanol, the running of unit trains carrying single high hazard products, and the use of much longer trains has increased freight safety concerns. TC&W currently is the only engineer that is allowed to take trains through the corridor, but can connect to any other carriers to take those trains through, and currently partners with Canadian Pacific to carry their products through Kenilworth. Federal rail policy requires that the interests of freight rail operators and shippers be considered in the development of passenger rail service. In order to provide elected officials, policy makers and members of the public with current, factual and supportable information about the impact of TC&W and its operations, TC&W commissioned a study in 2013. According to this report by Klas Robinson, ‘in 2012, TC&W hauled over 2.4 million net tons of goods, traveling more than 2.1 million net ton miles on behalf of its customers. ‘TC&W provides rail service to numerous companies in Minnesota and neighboring South Dakota, hauling such diverse products as corn, soybeans, wheat, sugar, vegetables, ethanol, crushed rock, metals, plastics, potash, fuel oil, distillers oil, machinery, lumber, manufactured goods, propane and fertilizer, including anhydrous ammonia’. Ethanol, propane, fuel oil and fertilizers are all high hazard products. Distiller’s oil, and potash are also flammables. Exposure to even small amounts of anhydrous ammonia can cause serious burning of the eyes, nose, and throat. Exposure to higher levels causes coughing or choking to occur and can cause death from a swollen throat or from chemical burns to the lungs. A single tanker car of anhydrous ammonia can put hundreds or even thousands of area residents at risk in case of derailment and breach. When the eyes are exposed to concentrated gas or liquid anhydrous ammonia, serious corneal burns or blindness can occur. In general, the severity of symptoms depends on the degree of exposure.

Through 2012, ‘customers of Twin Cities & Western Railroad Company and its affiliates shipped more than 23,400 cars, including almost 17,700 cars on TC&W and over another 5,700 cars on a short line railroad that uses TC&W to reach the Twin Cities’. That number continues to expand annually, with ‘the number of monthly cars shipped on TC&W during the first four months of 2013 significantly higher than for the same periods in each of the three prior years – almost twice that of first quarter 2012 (94.0 percent greater), almost 40.0 percent higher than first quarter 2011 and 70.0 percent greater than first quarter 2010’. ‘Annual sales for the 20 largest TC&W clients range from almost \$3.0 million to more than \$400.0 million with estimated combined annual sales of almost \$4.0 billion, more than 37.0 percent of which are shipped via Twin Cities & Western Railroad Company – which equates to almost \$1.5 billion in client goods shipped via TC&W annually’. As the economy has improved since the recession of 2008, we can expect that the number of train cars and the frequency of trains will increase. According to the Minnesota

Department of Agriculture, between 2000 and 2011, ethanol production in Minnesota increased by over 5 times and each subsequent year has continued this trend. With the nation-wide federal mandate to double (increase ethanol in gas to 20%), we can also expect the production and transport of these high hazard products through the corridor to radically increase. It is clear that the TC&W that was temporarily reintroduced in the corridor in 1998 is not the TC&W that runs through the corridor now.

According to TC&W, they 'have Class I rail connections to Canadian Pacific, Union Pacific, BNSF Railway and Canadian National, reaching markets in 39 U.S. states, seven Canadian provinces and four Mexican states'. Their network would potentially allow them to carry anything including nuclear products, Bakken Oil, anhydrous ammonia, chlorine, etc..... Common Carrier freight legislation requires that shippers (currently TC&W and CP) carry anything that their customers demand. Additionally, at any point, TC&W could sell their company to one of the major railroads, like BNSF, which could generate 10 times as much traffic and hazardous materials into the corridor.

Safety of freight trains is controlled by the Pipeline Hazardous Materials Safety Administration (PHMSA). Historically, standards have been lax, prioritizing commerce over safety and the environment. Recently, after public pressure, PHMSA has toughened safety standards for most railroads. However, TC&W, which is a Class III rail carrier (short lines with lower revenues), has been and continues to be exempted from certain safety standards that guide more profitable and larger Class I and II railroads. Ethanol is carried in the now infamous DOT-111s and will not be banned, according to PHMSA for another 5-7 years. Railroads have lobbied heavily to remove current and future regulations on them to maximize their profits, including recently passed breaking mechanisms on the hazardous cars. They have lobbied to go from two person crews to one or two person crews. The push of freight railroads to migrate from two person crews to one person operators (pending legislation in US House mandating two operators was introduced last year but went nowhere due to strong RR lobbying). A single point of freight operator would reduce safety due to overload, fatigue, etc. And railroads have fought to delay the introduction of safer double hulled tanker cars and to continue to carry their hazardous cargo in dangerous substandard DOT-111 freight tanker cars. Freight infrastructure has suffered, and nearly all derailments are due to substandard equipment, track failure or operator error. Some new PHMSA standards that attempt to improve safety of hazmat freight may not even apply to TC&W due to their small Class III status. Class III railroads also have less money to invest in infrastructure, and it is clear that this railroad has infrastructure issues, experiencing a derailment in 2010. Despite replacement of rails to single weld track in 2012, TC&W still suffers from infrastructure issues, like rotting cross ties, missing rail plates and missing rail spikes which hold the rails in place. From May 2015 to July 2015, potholes have bordered the track at Kenilworth crossing, and have went unfixed despite calls to TC&W and MNDOT.

The FRA estimates that there will be at least 10-20 oil or ethanol derailments per year going forward. Nationwide, we had over 7000 train derailments of some kind in 2014. These concerns are not just theoretical.

The mix of commodities that TC&W carries has changed over time, with approximately 30% of TC&W's freight being ethanol. It has only been in the last 5-10 years that unit trains of a single commodity have been a common occurrence. Prior to that, manifest trains, carrying a variety of commodities was much more common. Unit trains of 100 cars of ethanol, a highly flammable product, daily traverse the corridor. Through the planning process, the Met Council repeatedly told us that the primary products in Kenilworth were agricultural, which sounds innocuous. While ethanol may be an agricultural byproduct, it is highly dangerous. According to Karl Alexy of the FRA, ethanol is more dangerous than most crude oils, with a lower ignition point, and higher explosivity potential. Its Hazard Packing Group rating (II) is higher than most crude oil (because of its explosivity potential). For oil, only Bakken Crude matches its danger due to a high level of byproducts added to Bakken oil and its consequent instability. Ethanol burns hot enough to

melt steel structures (3488 °F). The melting point of steel is 2795 °F. The freight through Kenilworth currently runs feet from bridges and high rises that would be vulnerable in the case of a derailment.

Of great concern are the waivers requested by the Met Council from the FRA to put jurisdiction of the colocated corridor under FTA with the FRA abdicating jurisdiction. The combination of placing both modes of transport which have radically different missions in the same corridor is highly problematic, particularly with such close proximity. The FRA seems to be abdicating jurisdiction, except for five named at-grade crossings where both freight and LRT cross together, and even here the Met Council could apply for a crossing waiver.

The existence of freight alone is of great concern to residents along the Kenilworth Corridor. But the construction of SWLRT running right next to high hazard freight is of particularly alarming concern to residents.

B. Potential Freight Rail Impacts

This section identifies the potential long-term and short-term impacts that would result from the changes to how the LPA would change the freight rail movements within the St. Louis Park/Minneapolis Segment.

Long term direct and Indirect Freight Rail Impacts

This section describes the long-term direct and indirect freight rail operation impacts in the St. Louis Park/ Minneapolis Segment. Proposed modifications to existing freight rail facilities within the St. Louis Park/ Minneapolis Segment are described in Section 2.5.3 of this Supplemental Draft EIS. The proposed LPA would generally result in no changes to existing freight rail operations because all segments of existing mainline freight rail track would remain unchanged, except for relatively minor modifications to some track to accommodate the construction of the proposed light rail line. This includes construction of the Southerly Connection between the CP Bass Lake and the MN&S spurs (see Section 2.5.3 and Exhibit 2.5-5 of this Supplemental Draft EIS for additional detail) to replace the existing Skunk Hollow switching wye to allow continuation of freight in that section of the corridor. While this would change the geometry of the freight rail alignment for the movement of freight rail between the Bass Lake Spur and the MN&S Spur, it would not result in substantial long-term impacts to freight rail operations.

In addition, the LPA would result in the removal of 11,771 feet of siding along the CP Bass Lake Spur, eliminating the backing of freight trains at the Woodpile Avenue crossing that occurs under existing conditions. The removal of the siding tracks would be negotiated with the freight rail owner and operators, which could include negotiated compensation for adverse effects to their operations. No indirect effects to freight rail transportation are anticipated.

Long term freight Response

Hazardous freight is a nationwide problem seeking a solution. Throughout the planning process Kenilworth was chosen as the LPA with the intention to move the freight out of the corridor. The existing situation in the Kenilworth with freight only is already problematic. The addition of LRT in a corridor that does not meet the minimum AREMA safety guidelines of 25 feet separation center to center rail is untenable. In fact AREMA recommends a 200 foot separation as optimal. Many will say that across the nation, we have corridors that contain both freight and passenger trains that are in narrow corridors that do not meet minimum safety standards. However, our increasing awareness of freight danger has meant

that going forward, communities are much more exacting on safety standards and meeting those minimum AREMA guidelines. In fact, in no other project currently under construction can we find a project that won't meet at least the minimum 25 foot grade separations that this project long term will not meet.

The multiplicative risks of running freight next to LRT are unmentioned in the SDEIS, even though we know that the majority of freight or LRT derailments are either track failures or operator error. There is absolutely nothing in the SDEIS that deals with an evaluation of risk or readiness of dealing with a derailment, especially of a high hazard product.

LRT catenary wires that regularly spark off the pantographs will run, in some places 10-15 feet from freight. In 2014 alone, FRA reported 43 'accidents' in the US related to pantographs. Even with the eventual placement of crash walls, catenary electrification runs immediately adjacent to highly flammable unit trains (80-125 tanker cars) of ethanol. Ethanol is vulnerable to ignition by electrostatic charges and has a higher ignitability than most forms of crude oil. It burns hot enough to melt steel structures and substructures. Ethanol vents at the top of trains will run closest to those electric wires.

TC&W and C&P trains use DOT-111 tanker cars. These trains carry ethanol, fuel oil, propane, fertilizers (including anhydrous ammonia), distillers oil, and potash regularly traversing the Kenilworth Corridor. These old generation tanker cars have single hulls prone to thermal tears and punctures, and leaky valves. They are more likely to tear or puncture than newer generation replacements like the double hulled DOT 117s. The National Transportation Safety Board (NTSB) discovered problems 24 years ago with DOT-111 tankers but USDOT did nothing. In 2012, the NTSB called for an immediate ban on using these tank cars to ship high hazard products like ethanol and crude oil because they are prone to punctures, spills, fires and explosions in train derailments. Two in three tank cars used to transport crude oil and ethanol in the U.S. are DOT-111s, yet the DOT has taken no action beyond issuing a safety advisory urging shippers to use the safest tank cars in their fleets to the extent feasible. Only recently has PHMSA come out with new regulations to replace these dangerous tankers over a 6 year time period. However, the rule defines and applies to "high-hazard flammable trains" (HHFTs) as a continuous block of 20 or more tank cars loaded with a flammable liquid or 35 or more tank cars loaded with a flammable liquid dispersed through a train, making it certain that single hulled DOT-111s trains will continue through Kenilworth for years to come.

Another serious concern with freight is the misclassification of rail car. PHMSA first launched Operation Classification in the summer of 2013, in response to increased activity in the Bakken region. Initial testing has revealed that 61% of high hazard oil was misclassified. Sometimes the train manifest may not actually reflect what is being transported by the freight.

According to the Department of Homeland Security, high hazard train tankers are vulnerable to terroristic threats. The proposed SWLRT will run adjacent to freight through St. Louis Park and Kenilworth Corridor all the way into downtown where it will join Northstar Commuter rail in tri-location, until it stops at the Target Station. HHFTs have been coined 'bomb trains' by many, and this tri-location terminating at the Target Station is concerning. The Department of Homeland Security identifies places like the Twins Stadium and the Target Station as high value targets vulnerable to terrorism. The colocation of freight and passenger trains carrying 10,000 thousand tons of highly combustible products underneath the Twins Stadium and to the Target station is a disaster waiting to be prevented. Were high hazard freight not running through this corridor as was originally envisioned with relocation of freight, then the concerns of terrorism would be diminished. However, tri-location of high hazard freight, Northstar commuter trains and SWLRT near to and underneath the Twins Stadium to the Target Station is planning gone awry. If we believe that terror groups are unaware of these high value target vulnerabilities in our system, we are likely sadly mistaken. Where tri-location of high hazard freight, Northstar and

SWLRT will run under the Twins Stadium and to the Target Station, the SDEIS contains no acknowledgement of these multiplicative risks or of risk readiness.

In fact, the SDEIS does not contain one word acknowledging high hazard freight through Kenilworth. There is evidently no safety plan should an ethanol or other hazmat freight derailment to occur, and no containment and recovery planning should a disaster encroach on the tunnel and/or spill in to the Minneapolis Chain of Lakes.

Hennepin County, the Met Council and the State of Minnesota have little power going forward in determining whether or not TC&W's model of business increases. They also have no ability to stop TC&W should they choose to sell. These risks to this corridor are likely to only increase as federal mandates to increase the mix of ethanol from 10% to 20% in gasoline mixtures are initiated. TC&W could choose to sell, likely to BNSF, who could make this an extremely busy corridor which would transport an even more numerous mix of hazardous chemicals. Common carrier obligations mean that TC&W must carry whatever their shippers desire (for example anhydrous ammonia, chlorine..., where a single car derailment could kill hundreds or even thousands).

Heavy freight causes vibrations that can travel through the ground. Long term damage from vibrations of heavy freight to LRT structures and vice versa raise concerns long term, and going forward. As a nation, we prefer new projects to taking care of existing infrastructure, where the state of our current freight rail infrastructure is poor, even along the Kenilworth Corridor. Vibrations are also affected by the ground substructures where water logged soil tends to increase those vibrations. Problems with ground – borne vibration and noise are common when there is less than 150 m between the railway track and building foundations, and here the LRT will run within 1.5 feet of the Grain Silo Condos. Long term damage to LRT infrastructure from heavy freight vibration within feet of buildings is highly problematic for both noise, vibration and for property damage. This will be multiplied by the addition of LRT, running adjacent. Whether the problem will be perceptible vibration or audible noise is strongly dependent on local geology and the structure details of the building.

The SDEIS does not explore Met Council liability if SWLRT or freight derails causing a train catastrophe. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. This insurance liability assessment should be done prior to building SWLRT. Who will pay for life lost and or property damage?

Short-Term Freight Rail Impacts

This section describes potential short-term freight rail operation impacts caused by construction of the LPA. Constructing the LPA would have some effects on freight movements in the corridor that would be temporary in nature.

Construction of the proposed south light rail tunnel in the Kenilworth Corridor would require the temporary movement of the freight rail alignment at various locations along the Kenilworth Corridor. The shift would be about 2 to 3 feet to the northwest and would facilitate construction of the proposed light rail tunnel. During the time when the freight rail tracks are shifted to a temporary location, freight rail operations would not be obstructed, discontinued, or slowed. Instead, light rail construction would be stopped by a flagger, and the workers and machines would be moved away from the track whenever a freight train comes through the work area. The cost of the flagging operation for labor and equipment delay would be borne by the project. Despite this, the freight rail operator might choose to continue to travel through the corridor at lower speeds based on its operating procedures. During this reconstruction period, the freight track would be

maintained for a maximum 25-mph track speed, which is the existing condition. However, the TC&W has agreed to hold speed to 10 mph within the Kenilworth Corridor, their existing operating speed at that location (see Section 3.4.3.B of this Supplemental Draft DEIS for additional detail).

Short term freight comments

Similar comments to long term safety exist for short term safety issues, but multiplied many times. Tracks are separated by less than 25 foot AREMA guidelines, as close as 11-12 feet. During construction, the dangers to the community will be much higher due to the fact that freight, particularly hazmat freight, will continue through the corridor. The plan to use flaggers will mean that freight, which will get priority during construction, will stop LRT construction workers while freight passes. During construction a 35 foot wide (upon completion) and 25-35 foot deep trench with pilings to around 50 feet will be constructed. The freight will run right next to this construction pit at a time when the corridor will be filled with construction workers and construction debris. The freight will be allowed to pass and the construction will resume. At this point, there will be no crash walls.

The track geometry at the narrow points through the corridor do not seem to align with any kind of safety standards that are logical. The corridor at the narrowest point is 59 feet at the pinch point. This point runs between the historic grain condos on the east and the red town homes to the west side. The SDEIS states that they will move the freight tracks 2-3 feet closer to the red condos. The tunnel trench will be dug at the base of the grain tunnel within about 1-2 feet of the footings of that building. There will be a buffer between the red condos to the east of around 22-24 feet and the freight train is about eight feet wide (35 feet wide + 2 feet + 24 feet + 8 foot wide freight train = 69 feet). This math does not inspire confidence in the safety of the construction zone. This will mean that during construction, freight will run through a construction zone with construction workers and debris with **no crash walls** at literally the edge of a 35+ foot construction trench carrying high hazard freight including ethanol, fuel oil, and fertilizer with NO crash walls. Plus under common carrier obligation, TC&W or CP must carry whatever else their shippers ask them to carry and we may or may not know what these trains are actually hauling. That train is literally, at the edge of that construction pit, and construction will take two years to complete. Two years with no crash walls to prevent that train from falling into that construction trench. If there were a derailment, that freight train would fall into that construction pit one after the next in a spectacular domino type fashion that would certainly lead to an explosion at the foot of the oldest most historic 12 story grain tower condo in Minneapolis filled with residents, and next to town homes whose beds may be less than 20 feet away. High Hazard ethanol freight can melt steel structures. People live their lives in those condos every day, and people are put into harm's way because of colocation.

Construction by its nature disturbs the safety of freight by disturbing those freight tracks and infrastructure. When soil is disturbed, its composition will effect its stability. The composition of the soil along the Kenilworth is between the chain of Lakes and where the water table is high. The geometry of constructing a tunnel in boggy soil immediately adjacent to active hazmat freight raises the risk of derailment.

It is also important to point to the poor condition of freight rail infrastructure currently which increases risk for a short term freight derailment both during and after construction. From late May through July, two pot holes painted pink at Cedar Lake Parkway freight crossing measuring as deep as 6 inches have remained unfilled despite being reported to DOT and to TCW. In 2010, there was a derailment by a TC&W train and the track through Kenilworth was replaced with a single weld safer track. However, rotted freight ties were not replaced at that time, nor were rail plates and spikes uniformly repaired. Currently, there are rail ties that are completely rotted out, missing rail plates that hold the ties to the rails and many missing rail spikes. Why these were not replaced when the single weld rail was replaced is an

indication of poor maintenance and concern of both short and long standing freight infrastructure problems.

The construction corridor will be littered with construction debris which will heighten the risk of derailments. Derailments are caused by operator error or track failures, including track impediments. Construction can displace the supporting structures that bolster rail, and although engineers can try to bolster the structures through shoring, there will be nothing to stop a train once it begins to tip into that construction pit. Tip guard rails have been suggested as a solution (not in SDEIS), but can build up with snow and actually cause derailments. With snow build up, the snow pack buildup can launch the train right off the rail.

Nighttime running of freight (also not in the DEIS, but mentioned to Mark Wegner by the SWLRT staff) will be perhaps even more dangerous than day time. People will be asleep in their beds as these trains run only feet from a construction trench. Construction debris may be left near or on tracks and may not be visible to the freight engineer conductor at nighttime. Final day inspection of track is an imperfect science and human error could easily miss track impediments.

Inclement weather like snow may mask destabilization of freight infrastructure and rain can washout surrounding already disturbed soils, increasing the derailment risk during construction.

Additionally, if a derailment were to occur during construction, access to fire safety equipment is extremely limited because of the geometry of the corridor - in some places, the only access is between people's homes and/or through their driveways. In the event of a derailment occurring during construction, the only access for fire trucks may be from West Lake Station, 21st or Cedar Lake Pkwy. Fire equipment must be accessible in case of a derailment emergency, and an in depth coordination between the fire department, Met Council engineers, and the citizens has not been done. It is not even addressed in the SDEIS.

In case of any chemical freight derailment, chemical fires must be fought with specialized foam products, usually some sort of foam specific to the chemical spill. These fires can not be fought with water, which can actually worsen a fire. Water can be used to cool rail cars that have not ignited, but foam is necessary to put them out. Limited foam is available at stations, but for many freight derailment fires, it can take 2 hours or longer to access the necessary quantity of foam to fight a chemical derailment fire. As an aside, Dave Christiansen, an expert advisor to the SWLRT project misinformed a group of concerned residents, saying the ethanol can be fought with water and that ethanol does not burn hot enough to melt steel, both of which are patently false. Dave Christianson has been an adviser to the SWLRT project.

According to TC&W freight president Mark Wegman, there had only been one planning meeting as of June 2015 with SWLRT project staff to discuss issues of joint construction concern. This seems short-sighted. These are issues of such great import to our community and the community has repeatedly been told that the Met Council and SWLRT project staff have everything in control.

The SDEIS does not explore Met Council liability either during or following construction if SWLRT or freight derails causing a train catastrophe. Construction may put insurance waivers in place requiring specific insurance to be purchased guarding against life or property loss to the community. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. This assessment should be done prior to building SWLRT.

Currently, TC&W reports that they go 10 miles/hour through the Kenilworth Corridor, but this is voluntary, and not mandated. Residents believe they often go faster than the speed they claim, and during construction, any speed may have devastating consequences. Derailments can happen at any speed. Going

forward, the company may choose to sell their company or increase that speed. The necessity of slow freight even without LRT construction is critical, but with construction the danger becomes critical at any speed.

C. Mitigation Measures

No long-term impacts to freight rail transportation in the St. Louis Park/Minneapolis Segment are anticipated. Therefore, no long-term mitigation measures have been identified.

In order to mitigate short-term impacts to freight rail operations related to construction activities, the Council will develop and update a freight rail operations coordination plan. The purpose of this plan is to facilitate coordination between the project and the freight railroads throughout the construction period in order to minimize impacts on freight owners and operators without creating unreasonable constraints during construction of the LPA. Freight rail owners and operators in the project area will approve the coordination plan, prior to the start of construction. As part of the effort, Council staff will also work with the freight railroads to provide provisions in the construction contract to identify how the contractor will interact with the railroads. Further Council staff will work with the freight railroads to sequence construction to minimize effects on freight movements and to identify optimal periods for closing the rail service and reducing speeds.

During construction activities, flaggers will be used to allow freight rail operations to continue without interruption, except for the following proposed activities and durations:

- **Four- to eight-hour stoppage when completing the freight rail track swap**
- **Two-day (likely over a weekend) stoppage for MN&S and TC&W trains for turnout construction for the new southerly connection to MN&S tracks**
- **One-day stoppage to shift the bridge over Highway 100 from its location along the current alignment to a location north of the light rail mainline**

Dates and times for all stoppages will be determined by CP, the owning railroad for the Bass Lake Spur, and HCRRA for the Kenilworth Corridor. TC&W will also be coordinated with, as the freight rail operator on the Bass Lake Spur and Kenilworth Corridor. The use of flaggers will require construction activities to halt while freight trains traverse the construction area at regular speeds. Other construction activities will include shifting the existing track into a temporary location (two to three feet to the north/west) to allow for construction of the proposed light rail tunnel. This shift would be gradual, and is estimated to take approximately a week to shift the tracks and another week to shift the tracks back after the light rail tunnel is complete. Coordination between the contractor and the railroads will assist in minimizing disruptions and planning for the expected shutdowns to occur at times that would cause the least impact on freight rail operations. More detailed information on the impacts on freight rail carriers will be identified as construction plans are developed. The Final EIS and freight rail operations coordination plan will include details regarding construction sequencing, schedule, means, and methods.

Response to mitigation measures

It is difficult to respond to this section surrounding freight since no problems with colocation have even been acknowledged in the DEIS. There is no real analysis of the effects of colocation and the danger of running high hazard freight through the Kenilworth Corridor both during and after construction, and in an area that does not meet minimum AREMA guidelines of 25 feet grade separation. This SDEIS is astounding more for what it does not contain than what it does. The mitigation discussed is more concerned for making sure that the freight schedule is unimpeded than for assessing the safety of

neighborhood residents, construction and freight personnel, or future SWLRT riders. The only solution to mitigate this problem completely is to do what was promised for the residents of Minneapolis. That is to go back and relocate freight trains out of this corridor. Minimally, during construction, high hazard freight MUST be diverted from the corridor. The wisdom of running high hazard freight both during construction at the edge of a potentially unstable water logged construction trench without crash walls, and after when potentially leaky ethanol or other hazmat tanker cars will run adjacent to sparking pantographs is extremely concerning.

No-tip guard rails for freight have been proposed for the Kenilworth Corridor, although not in the SDEIS. In a meeting with Mark Wegner of TC&W, he shared his concerns with community members about the build up of snow that can actually lead to freight derailments. They tend to build up snow increasing risk of freight literally sliding off the rails. However the importance of no tip technology in a corridor where trains run for significant times less than 25 feet apart and during construction of a tunnel 25-35 feet deep running immediately adjacent to high hazard freight leaves us in a bind. We both need it to protect us from freight falling into a construction tunnel but also are concerned that it may actually promote a derailment.

Long term, mitigation of crash walls is important between freight LRT is important, but short term, without crash wall, ALL hazardous or flammable freight should be rerouted out of the corridor until proper safety crash walls are present.

With the recent budget shortfalls for SWLRT, we are concerned that mitigation around freight and freight safety will occur. The SDEIS states the need to develop and maintain a balanced and economically competitive multimodal FREIGHT rail system as justification of the project. That the SWLRT project is now intended to further develop a freight rail system, needs further explanation. It is not in the original scope of the project and has been snuck in to the SDEIS, but is confusing and unclear. The DEIS specifically did not recommend Colocation of freight and LRT. The bottom line is that there should be no COLOCATION as was recommended and promised in the first DEIS.

We have been told that these issues will be dealt with as they arise but the freight section of the SDEIS indicates that there is not even an awareness of the danger and concern to area residents or long term to SWLRT passengers.

3.4.4.5 Bicycle and Pedestrian

Because there would be no long-term adverse impacts from the LPA on bicycle and pedestrian facilities, no long-term mitigation measures have been identified. Short-term effects on pedestrian and bicycle routes will be mitigated through signage, information fliers, website postings with maps of construction areas/detours, and notices placed at bicycle shops, for example.

At last measure, our understanding is the trails receive 600,000 discrete unique visits per year and those visits to current parkland are enhanced by the current “north woods” feel of the area, and that experience would be significantly impaired by the addition of light rail. This includes an expectation of natural quiet conditions. Pedestrians do not pass quickly through the park like environment and will therefore be significantly impacted by added noise, movement and infrastructure of the LRT and freight rail. The speed joined with the noise at close proximity greatly detracts from the trail experience for both bicyclists and pedestrians, and can even be frightening to users.

3.4.4.6 Safety and Security

Long-Term Impacts

The current plan to co-locate freight and LRT within the same corridor — within a dozen feet of each other in certain places — creates new, potentially catastrophic hazards. It is currently proposed that the freight train (which carries volatile and explosive ethanol on a daily basis, and several unit trains of ethanol per month) remain permanently in the Kenilworth Corridor. The addition of the SWLRT with its electrical power wires only a few feet away exacerbates the existing danger of ethanol in the corridor. Current safety standards recommend against co-location in such close proximity when there are alternatives; other alternatives for this SWLRT alignment must be explored.

Furthermore, in the event of an explosion of ethanol trains along this corridor, we understand that the foam retardant required to extinguish the fire is “within a 3 hour distance” of the corridor. We believe that the potential harm during that “3 hour window” along with permanent damage to residences and residents should be quantified. Should an explosion occur during the passing of an LRT train, the potential exists for loss of life or harm to those exposed to the hazardous fumes.

Short-Term Impacts

Currently, rush hour traffic produces daily gridlock that sometimes extends from Lake Street, along Dean Parkway, Cedar Lake Parkway, Wirth Parkway, and Wayzata Boulevard (frontage road along I-394) all the way to the Penn Avenue bridge. The closing of a critical crossing (Cedar Lake Parkway at the Kenilworth Trail) would be necessary during the construction of the proposed tunnel from West Lake Street to just past Cedar Lake Parkway. Affected neighborhoods already have limited entry and exit points.

The SDEIS does not address the need to ensure reasonable transportation options during this period, including routes for emergency vehicle access. There must be plans for fire and ambulance routes in the affected neighborhoods. Travel time for emergency vehicles would be increased during that closing. The SDEIS describes such delays as “minor”; we take vigorous issue with such a demotion of safety concerns, as even two minutes could be the difference between life and death, or a home being saved from fire or destroyed. (On June 11, 2015, an accident at Dean Parkway and Lake Street slowed traffic on Dean Parkway to a crawl for over an hour.)

Also missing is information on what measures, including evacuation plans, would be necessary to protect the Cedar Shores townhomes when the TC&W trains, with their explosive freight, are moved several feet closer to them during construction.

Our neighborhoods were recently impacted for upwards of a year by a Met Council sewer-replacement project, with road closures (of which we were frequently not informed) and detours. Now we understand that the sewer project would need to be completely re-done as part of the SWLRT tunnel-building.

3.7 Safety and Security

3.7.2 Existing Conditions, page 3-129

Public safety and security within the study area is provided by the police departments, fire departments, and emergency response units of the cities of Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and Minneapolis. Emergency medical services are located in each city.

Primary safety concerns associated with the freight rail relocation segment of the proposed project, as expressed by the community, are derailments, chemical spills, the accessibility and safety of pedestrians (particularly near schools), and vehicular and traffic safety at grade crossings.

Comment : Please note that residents near the Kenilworth Corridor are equally concerned about such issues as derailments, chemical spills, pedestrian and cyclist safety, and traffic safety.

3.7.3.3 Safety – Long Term Effects - Build Alternatives, page 3-131

The project would be designed in a manner that would not compromise the access to buildings, neighborhoods, or roadways, and would not compromise access to the transitway in the event of an emergency.

Addendum: CIDNA's Position Statement on Freight Relocation for SWLRT

The following resolution, passed by the CIDNA Board of Directors on February 8, 2012, concerns the co-location of the freight rail and SWLRT which is currently under study by the Minnesota Department of Transportation, HCRRA and the Metropolitan Council and asks that co-location be denied on behalf of the adjoining neighborhood.

Resolution

Whereas, this request on behalf of the adjoining neighborhood is based on the earlier assessment prepared by R.L. Banks and Associates issued December 2010 which includes a letter of Dec. 3, 2010 to Ms. Katie Walker, Transit Project Engineer. It states the minimum space requirements for co-location of the freight rail and SWLRT. It concludes that there is insufficient space within the existing ROW to accommodate both freight and LRT at grade in the Kenilworth Corridor. To have freight rail and LRT co-locate at grade, it would be necessary to take property on either the west side or the east side of the existing ROW (right of way) even if the LRT alignment is shifted from its planned location.

Whereas, that report also contains a listing of seven scenarios that are injurious to the bicycle path, requirement of the acquisition of 33 to 57 housing units which would disrupt an entire townhouse community or acquisition of 117 housing units as well as other alternatives that would create noise and aesthetic impacts and other environmental impacts.

Whereas, the overall negative effect on the adjoining neighborhoods and park system would be detrimental to the environment.

Now Therefore, the CIDNA Board requests that the co-location of the freight rail SWLRT on the Kenilworth Corridor be denied.

From: [Susu](#)
To: [swlrt](#)
Subject: Comments on the Southwest LRT SDEIS
Date: Tuesday, July 21, 2015 8:09:53 PM
Attachments: [SWLRT Comments on the SDEIS 7-21-15.docx](#)

FRIENDS OF COLDWATER

1063 Antoinette Avenue Minneapolis MN 55405-2102 612-396-6966
www.friendsofcoldwater.org info@friendsofcoldwater.org

July 21, 2015

Nani Jacobson, Assistant Director
Environmental and Agreements
Metro Transit—Southwest Light Rail Transit Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park MN 55426
SWLRT@metrotransit.org

Dear Ms. Jacobson,

Please see the attached Comments on the Southwest LRT SDEIS.

Friends of Coldwater is a Minnesota non-profit, non-governmental organization founded in 2001 to educate citizens to protect our water commons.

Sincerely,
Susu Jeffrey

Attachment: Comments on the Southwest LRT SDEIS

FRIENDS OF COLDWATER

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July 21, 2015

Nani Jacobson, Assistant Director
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Comments on the Southwest Light Rail Transit Project SDEIS

The Southwest Light Rail Transit (SWLRT) public process by Hennepin County Commission and Metropolitan Council has been an exercise in pretend democracy. From the beginning the LRT was presented by elected and appointed government officials as a fait accompli.

Although design plans have morphed since 2014 no new municipal consent procedure appears to be planned. With an estimated cost approaching \$2-billion, half the funds from federal sources, SWLRT is the most expensive tax-payer program ever imagined for Minnesota.

Co-Location

The off and on again co-location of heavy and light rail traffic was a bait-&-switch tactic. To illustrate the intent to deceive the public about the safety of co-location no "blast zone" map of ethanol rail cars next to the SWLRT was produced for citizen inspection and comment.

From St. Louis Park to the baseball stadium, through the Chain of Lakes, the half mile wide residential and park land remains menaced. The manipulation of promises and threats reifies citizen mistrust of government powers.

The "Equity Train"

The "equity" argument for the SWLRT was a brilliant public relations maneuver to silence guilt-prone white people. Equity is P.C. The pitch was that underserved black

Northsiders would get transportation to jobs in the southwest suburbs. Like the promise to move heavy freight with dangerous ethanol traffic out of the urban zone, the equity promise lapsed.

SWLRT was never planned to move the densely populated Minneapolis black Northside or white Uptown populations. In addition to being a construction jobs program the SWLRT was apparently designed as infrastructure for workers to get to suburban cubical factories.

Urban vs. Suburban

The wealthy southwest suburbs pitted their financial clout against urban public parklands and people—and money won. Furthermore the outcome was assured ahead of time since the elected Hennepin County Commission and the appointed Metropolitan Council are dominated by white suburbanites. Apparently black economic lives do not matter here.

Reducing Cars and Auto Emissions

The Draft EIS predicted no reduction in automobile greenhouse gas emissions with SWLRT until after 2050.

Water

Destruction of parkland is the hallmark of recent transportation development in Minneapolis. Our famous parks, the only undeveloped urban land, are actually lakes, creeks and wetlands previously too wet for development

The Great Medicine Spring and Glenwood Spring

The Interstate-394 corridor is dewatered daily at the rate of 2.5-million gallons. Plastic drain tile pipes with little holes where groundwater infiltrates funnel the water into a series of ponds from the Highway 394/100 intersection to Sweeney Lake and out Bassett Creek, under downtown Minneapolis, to the Mississippi. A sign at the mouth of Bassett Creek used to warn pregnant women and children under six not to eat fish caught there.

Two springs dried up with Highway 394 permanent dewatering: Glenwood Spring, formerly sold as commercial spring (now well) water and the Great Medicine Spring in Theodore Wirth Park. Indian people "came hundreds of miles to get the benefit of its medicinal qualities" Col. John H. Stevens, first white Minneapolis resident, said of the Great Medicine Spring in 1874.

The place is still there but no water runs. Treated city water is now piped into Wirth Park. The Minneapolis Park and Recreation Board waited 10-years for the spring to recharge. In 1999 a 150-foot well was drilled with negligible results.

Coldwater Springs

The Hiawatha LRT project reduced the flow to Coldwater by more than 35-percent. Coldwater is the last natural spring in Hennepin County, is a federally recognized Dakota sacred site, it furnished water to Fort Snelling 1820-1920, and is considered the birthplace of Minnesota where the first Euro-American community developed to service the fort.

MnDOT offered to pump treated city water into the Coldwater reservoir before it was forced to redesign the Hwy 55/62 interchange. Nevertheless Hiawatha LRT and Highway 55 reroute construction resulted in the loss of 46,000 gal/day—from 130,000 down to 84,000. The Hwy 55/62 interchange pipes out 27,500 gal/day but a mysterious 18,500 gallons is simply gone.

“How could your professionals be so far off in their hydrology? What facts were not available to you,” Judge Franklin Knoll asked MnDOT attorneys in Hennepin County court 9/13/01. “MnDOT is one of the largest and most well-staffed departments in Minnesota. Your engineers, geologists and water specialists all signed off on this design,” Knoll said.

MnDOT attorney Lisa Crum said “MnDOT (design) standards were based on reasonable estimates.” Coldwater supporters were repeatedly told that the groundwater would “just flow around” sunken highways built into the water table. The inference was that the water would just flow around and return to its former paths. It did not.

Removing groundwater results in dirty water and dry land. The land dries out when groundwater is prohibited from running through nature's slower filtration system. The water gets dumped into the lakes, creeks and the Mississippi with contaminants adhering to dirt particles. Think of mercury poisoning from fish taken in our northern lakes far from the coal-fired power plants that vented into the air.

Dry soil does not easily absorb the increasingly heavy storms events experienced with climate change. Storm water runs off quickly with top soil, fertilizers, air and road impurities, and goose and duck poop.

Tunnel Through the Chain of Lakes

A half-mile tunnel would be inserted (after tree removal) between Cedar, Lake of the Isles and Calhoun. Solid steel walls would be sunken 55-feet down for the length of the tunnel to anchor the 35-foot wide structure. Otherwise it would float up or down with fluctuating underground water levels.

According to the Burns and McDonnell Engineering Company water study for the Metropolitan Council as much as 24,000 gallons per day from inside and around the tunnel would be pumped out. Less groundwater flow into and out of the lakes would

allow more contaminants and particulate matter to fill in and remain in our public waters, our water commons.

Again citizens are being assured that the groundwater will "just flow around" a half mile long "shallow" tunnel—built into the already saturated land between the lakes. In fact the very same expert consultants in hydrology and geology are employing the very same language to assure Metropolitan Council appointees, Hennepin County Commissioners, Minnehaha Creek Watershed District staff and managers, and concerned citizens that groundwater will "just flow around" a huge underground tunnel in the land between the Minneapolis Chain of Lakes.

The idea that people can "manage" water is being sold like comfort food. Hydrologists, geologists, architects and engineers are hired to plan waterproof structures. Sure—in a virtual world. In our world infrastructure is I-35W falling into the Mississippi or a brain-eating amoeba in Lake Minnewaska.

The US business model did not evolve to plan sustainably. Public works programs are funded on a formula of minimum cost because cost is somehow limited to the cost of construction.

Although SWLRT is the most expensive public works program ever proposed in Minnesota wet soil conditions along the proposed route would multiply costs. "Reasonable estimates" versus digging down into a saturated landscape will become obvious if this project makes it through the legal hurdles set up to protect citizens from government-business collusion.

Conflict of Interest

The last hurdle before golden shovels break the soil is normally a permit from the Minnehaha Creek Watershed District (MCWD). The district purchased 17-acres of land across the street from the proposed SWLRT station at Blake Road with a \$15-million tax payer bond.

Odds are the appointed MCWD Board of Managers would vote to permit SWLRT.

When developers take over a watershed the mandate to protect the water commons is compromised. So ownership of a \$15-million parcel of land at the proposed SWLRT Blake station appears to have influenced MCWD's favorable study of the proposed shallow tunnel plan.

Below are transcribed legal audio minutes of the May 8, 2014 regular meeting of the Minnehaha Creek Watershed District Board of Managers (appointed by the Hennepin and Carver County Board of Commissioners).

The discussion centers on the SWLRT and 17-acres at Blake Road and West Lake Street, south of Knollwood Mall, in Hopkins, across the street from the proposed Blake

SWLRT station. The station location is now part of a strip mall, just south of the railroad tracks and Pizza Luce at 210 North Blake Road.

The parcel includes a large cold food storage warehouse, and borders Minnehaha Creek and the Cedar Lake bike trail which is next to the RR tracks. The land was purchased about four years ago for \$15-million for redevelopment investment, for storm water ponds (water storage) and Minnehaha Creek restoration.

At a MCWD Board of Managers meeting the question of interest payments on the \$15-million bond was posed by SWLRT opponent Bob Carney. Managers skirted the question. Approximately \$100,000 per year in interest payments would be expected.

The players in this 2014 audio transcription include MCWD Board of Managers:

--Sherry Davis White, president, Orono, term expired 3/15 (wife of former Orono mayor, Jim White who organizes housing developments), reappointed until 3/18

--Brian Shekleton, vice president, St. Louis Park, term expires 3//16 (works for Hennepin County Commissioner Peter McLaughlin)

--Richard Miller, treasurer, Edina, 3/17 (former Wells Fargo employee who arranged bonding, government finance)

--Jeff Casale, secretary., Shorewood, 3/15 (realtor) Kurt Rogness of Minneapolis, architect, was appointed for a three-year term replacing Casale. Minor felony charges against Casale for using MCWD staff in his private real estate business were dropped because "the alleged embezzlement occurred outside the statute of limitations."

Three managers were absent:

--Jim Calkins, Minnetonka, 3/16 (PhD, professor Horticultural Science UMN)

--Pamela Blixt, Minneapolis, 3/17 (MA public administration, City of Minneapolis emergency services)

--Bill Olson, Victoria, 3/16 (engineer Rockwell International)

--Richard Miller "...the worst could be that LRT didn't get approved...we've got to do a quiet plan if LRT doesn't go through and it (the land) doesn't have its commercial value at its highest and best use as a train station site....We've got to build in our budget someplace (for) the losses we're going to absorb on disposing of that site, because we always know [sic] we've got more in it than we'll get from it but the benefits of the (Minnehaha) creek frontage, and the (storm water) storage capacity, etc. you know it had certain value to us and so that could cover the, but you know, if we do have a problem in 2 or 3 years or 4 years you know let's not have it in a situation where we're in a disaster with no plan. And I don't think it would take much of an effort to plan it out, you know, how we're going to pay for the costs.

[The bonding loan to be paid back with tax money comes due in 2017]

--James Wisker, MCWD staff Director of Planning, Projects & Land Conservation: "By the end of July we should have a lot more clarity...worst case scenario planning we should revisit like, July 24th by then all municipal consent should have occurred."

[In a 6/16/14 email Wisker wrote to the author: "Regarding (SWLRT) dewatering. I referenced that there would be no system in place to perpetually dewater following construction completion."

--Richard Miller: "We can't be naked when that \$15-million comes due (in) 2017....We're planning for the best but we're ready for the worst".

--unidentified male voice: "When we started on this...we had very strong interest in senior housing...there's no question it's going to be more valuable with light rail..."

--Brian Shekleton: "And I will offer that light rail will happen..."

--Jeff Casale: (interrupts) "That's going in the minutes I think."

-- (laugh)

--Brian Shekleton continues: "and by every indication I get that commitment from (Minneapolis) city council members."

Jeff Casale: If we're going to have this on the record...disaster is nothing like I would have considered it as. I think the property has been improved significantly from the work that we've done surrounding it...whether or not LRT goes in that property will have significant real estate value and I would not characterize it at all as disaster planning.

Richard Miller: "Well, you can call it what you want but it will be (a disaster) when the note comes due and we got a third of the value of the note."

The rhetorical questions are: who's watching out for the water and is this land purchase a conflict of interest for MCWD managers who would be voting to permit the SWLRT?

It appears that citizens, not officials or paid experts or politicians or white suburban developers, care about the sustainability of keeping Minneapolis waters clean enough for human recreation.

Clearly the voting managers of a permitting agency should be leery of the appearance of a conflict of interest regarding public money and political power. It certainly appears to be conflict of interest, legally actionable or not.

The Minnehaha Creek Watershed District deciders have violated public trust with their ambitious financial scheme that supersedes the preservation and protection of the water commons.

Water Standards Enforcement

Neither the MCWD nor the state Department of Natural Resources (DNR) has enforcement powers. The state legislature did not grant permitting agencies police powers.

It took the DNR three years to win a court order to stop illegal pumping of groundwater from 1800 West Lake Street into the lagoon. Some 240,000 gallons per day of water from a sub-sub basement parking garage was piped into a city sewer emptying into the lagoon between Lake of the Isles and Calhoun.

Two kinds of pollution flowed into the lagoon and Calhoun and down the chain: a temperature differential and garage drippings including grains of heavy metals from cars mixed with oil products. The temperature change was noticed by Loppett organizers when parts of the lagoon failed to freeze which could have allowed skiers to fall through rotten ice.

The problem was "solved" by moving the discharge pipe. Before the 1800 West Lake Street upscale apartment construction the Minneapolis Park Board spent a quarter million dollars on Lake Calhoun clean up.

Calhoun and Cedar lakes have six of the city's dozen swimming beaches. Lake Hiawatha at the butt end of Minnehaha Creek accumulates all the flowing pollutants from much of Hennepin County and most of Minneapolis since water obeys gravity.

The Park Board plans to close the beach at Hiawatha, remove the sand and build an "open pavilion." While the beach is a neighborhood treasure the shallow lake is a pollution catch basin. A new \$7-million natural filtration public swimming pool at Webber Park in north Minneapolis seems to be the future of safe swimming.

Small Scale Flexibility

Nobody is disputing the need for transportation.

LRT is 20th century technology—big, clunky, really pricey and fixed. We need to have smaller, more numerous and flexible transport choices. The greater Twin Cities are growing in an expanding circumference with multiple "centers." People commute from a 27-county radius.

The push to build big rather than to decentralize is less efficient in both time and money, does not provide jobs and sabotages our water. The current SWLRT proposal is a dinosaur.

Sincerely,
Susu Jeffrey
for Friends of Coldwater
susujeffrey@msn.com

From: [Asad Aliweyd](mailto:Asad.Aliweyd@swlrt.com)
To: swlrt
Subject: Environmental Comment from New American Academy
Date: Tuesday, July 21, 2015 10:34:30 PM
Attachments: [EP_DevGuide102913-2-3-3.pdf](#)

New American Academy (<http://www.newamericanacademy.org/>) is a community organization that serves the primarily Somali immigrant community in Eden Prairie and other southwest suburbs. New American Academy has been active partners with the Southwest LRT Project Office in engaging their community members (<http://www.newamericanacademy.org/community.html>) in decisions related to alignment, station area planning, and developing the Eden Prairie Town Center development guidelines.

Eden Prairie Alignment:

AMS supports the Eden Prairie alignment: Adjustments to the proposed light rail alignment and LRT stations, generally from the intersection of Technology Drive and Mitchell Road to the intersection of Flying Cloud Drive and Valley View Road.

Yet with the July 8th, 2015 Metropolitan Council Southwest LRT budget decision to defer the Eden Prairie Town Center Station, on opening day a significant environmental justice community in Eden Prairie will be delayed the benefits of this \$1.7 billion public infrastructure investment.

Using EJView, the mapping tool of the Environmental Protection Agency, AMS found that within a 3 square mile area at the Eden Prairie Town Center Station:

- 40% minority
- 42% households under \$50,000
- 65% renters
- 23% under 17 years of age
- 10% 65 years and older*

* American Community Survey 2006 - 2010

We chose to look at a broader area than the ½ mile station area circumference to include residential areas south because of the medium density in this suburban city.

Equitable Development:

New American Academy in partnership with Twin Cities Local Initiatives Support Corporation as a Corridors of Opportunity Initiative funded by FTA/EPA/HUD Sustainable Communities developed Eden Prairie Town Center Development Guidelines. See <http://www.corridorsofopportunity.org/activities/LIC/CDI-Plus> for a description of this project. These development guidelines represent the economic opportunities and potential of the Southwest LRT station at Eden Prairie Town Center that would provide great benefits to the significant communities of color in this station area.

New American Academy presented these Eden Prairie Town Center Development Guidelines March 2014 to city council. This guideline was endorsed by the city staff as well as other community developers such Twin cities Lisc. It took almost 6 months to plan, execute and print the final guidelines for the Town Center housing development. The city of Eden Prairie has yet to respond or endorse these development guidelines. Without a station at Eden Prairie Town Center the opportunities to increase affordable housing and jobs for the communities of color will not be realized.

Finally, the RFP of Southwest LRT project include to have affordable housing, jobs and economic development for low-income and people of color. unfortunately, We don't see the possibility of that here in the Southwest.

Sincerely
Asad Aliweyd, MBA
Executive Director

New American Academy
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https://www.facebook.com/NewAmericanAcademy?bookmark_t=page
Building better and sustainable future for our communities

EDEN PRAIRIE TOWN CENTER DEVELOPMENT GUIDELINES

August, 2013



INTRODUCTION

Eden Prairie is a vibrant city known for its desirable housing, excellent business climate, quality schools and outstanding parks. It has been named one of Money Magazine's "Best Places to Live" in America since 2006; the city earned a first place ranking in the 2010 survey. Comprising many large lakes and ponds, the city has more than 170 miles (270 km) of multi-use trails, 2,250 acres (9 km²) of parks, and 1,300 acres (5 km²) of open space. Previously a bedroom suburb in the 1960s, the city is now home to more than 2,200 businesses and the corporate headquarters. Regionally known for the Eden Prairie Center, it is also the hub for the proposed Southwest Transit corridor. Population has increased 13.4% since 2000, with 62,258 residents in 2012. Part of that growth stems from an increase of Somali and East African families (2010 census data indicates 5.6% black or African American).

One of the proposed Southwest light-rail transit stations will be located in the Town Center area, a primarily commercial district that offers a mix of higher density housing, office and retail space, in close proximity to the Eden Prairie Center. The Town Center area is bordered by Regional Center Road to the south, Flying Cloud Drive to the east, Technology Drive to the north, and a proposed north/south roadway to the west between Costco and Emerson Rosemount. In 2005 - 06 the City of Eden Prairie commissioned a Major Center Area (MCA) study to examine and plan for the future of the area surrounding the Eden Prairie Center. The study was approved by the City Council in as an advisory tool for future redevelopment and public improvements, which recommended developing detailed design guidelines for future buildings, parking ramps, streetscape amenities, pedestrian/bicycle connections and other public spaces for the Town Center area.

With the advent of the light-rail transit investment, the City of Eden Prairie partnered with New American Academy, a community-based organization of Somali and East Africans, and the Twin Cities LISC / Corridor Development Initiative to lead a series of community workshops to explore development options and scenarios to enhance the area, and to elevate the potential for a more transit-oriented and walkable neighborhood. Although the CDI community workshops were open to the general public, special recruitment was made to engage the Somali community, many of whom live in the Town Center vicinity. These development objectives are the result of the community workshops, and serve to inform the future development of the Town Center area.

ASSETS

The City of Eden Prairie:

- Maintains and enjoys a strong residential market;
- Is home to many businesses that provide quality jobs;
- Offers renowned regional and municipal parks, conservation areas, trails, and recreational facilities that are community centerpieces that attract people of all ages and abilities
- Provides a great place to raise a family, run a business, age in place, and recreate;
- Maintains a strong and diversified tax base, a healthy by a vibrant local business climate with high-quality jobs that provide families with economic security;
- Values diversity and opportunity for its residents; and
- Takes pride in its strong school district.



Above: Examples of the housing, trails, and green space in Eden Prairie.

GUIDELINES: TOWN CENTER NEIGHBORHOOD

As a future station area along the Southwest Light Rail Transit corridor, the Town Center area is ideal to explore how transit-oriented development could enhance the area by addressing accessibility, livability, and strengthening the pedestrian environment. It will take a strong will by the City of Eden Prairie to set principles for sustainable redevelopment going forward, to guide investment, and measure every project against these principles.

The redevelopment of the area must complement the existing uses in the area, that are largely commercial, residential, and office space. Because there is a large population of Somali families that have located in the area, there was strong interest in the preservation of affordable housing that can accommodate larger families, and to offer economic opportunities for small business entrepreneurs, as well as access to jobs and opportunities throughout the region through close proximity to the regional light rail transit system. The Eden Prairie Major Center Area Study calls for a retail and housing core with a walkable mainstreet, which could incorporate affordable housing for families, seniors, and the growing need for multi-generational housing (<http://www.eden-prairie.org/modules/showdocument.aspx?documentid=359>).

There is a shared value around the preservation of young families to preserve the high quality of the Eden Prairie schools, and to offer housing options to accommodate all stages of life. The Town Center area offers an important opportunity to create a more concentrated development pattern that would allow for a mix of uses, a mix of incomes, and greater pedestrian access to transit, goods, and services.

Town Center District - Block Exercise Site



RECOMMENDATION FOR REDEVELOPMENT INCLUDE:

I. Enhance Opportunities for Mixed-Use and Mixed-Income Projects

- A. Promote mixed-use development that incorporates retail, office, and residential uses;
- B. Provide for a mix of housing options that could accommodate different household sizes (e. g. 3 – 5 bedroom units), configurations, incomes, homeownership and rental, as well as generational diversity;
- C. Incorporate affordable workforce and family housing and affordable commercial space where ever possible to create opportunities for diversity and local small business entrepreneurs.
- D. If government resources are required to fill financial gaps, focus on affordable housing that serves a mix of housing needs (e.g. size of family, seniors), and supports local multi-cultural businesses.
- E. Identify and address existing housing gaps through development opportunities presented through investments along the Southwest LRT corridor (e.g. age, mix of owner and rental, family size, income level, etc.)
- F. Blend into and complement the existing neighborhood.
- G. Consider elements that enhance “indoor-outdoor” experience, such as balconies and screened porches, and courtyards to create open spaces;
- H. Encourage underground parking or structured parking to enhance pedestrian experience;
- I. Ensure economic development opportunities including home ownership opportunities that are culturally appropriate



II. Create a destination

- J. Enhance the livability of the area for residential uses by strengthening the pedestrian orientation to create greater access to transit, goods, services, and regional amenities (e.g. create a pedestrian overlay to enhance walkable connections throughout the area);
- K. Strengthen or link to natural amenities and places for outdoor recreation;
- L. Include opportunities for youth and family recreation, such as centers that attend to gender specific needs and opportunities;
- M. Incorporate green spaces;
- N. Consider and minimize the ecological impact;
- O. Utilize CPTED (Crime Prevention Through Environmental Design)

principles to promote safety through design of building and public spaces, and engage the community to inform strategies for greater safety and other design features;

- P. Prioritize transit and housing accessibility to accommodate people with disabilities;
- Q. Seek to create alternative education and job training opportunities (e.g. alternative schools, job training for public sector employment, etc.) for young people, families, and adults;
- R. Provide opportunities for intercultural interaction to build stronger community ties;
- S. Incorporate signage and way-finding in multiple languages;
- T. Attract a variety of food and entertainment options;

III. Create commercial spaces for small business entrepreneurs to build assets and job opportunities for the local community

- U. Explore ideas like the Midtown Global Market, Suuqa Karmel, and Urban Bazaar (in San Francisco) to provide opportunities for small business entrepreneurs to locate in the area, serving the local community with culturally specific goods and services.
- V. Consider locations for a farmers market or grocery store that would provide access to healthy foods for people that live in the area.
- W. Encourage a mix of commercial spaces that include small, mid, and large scale commercial users.



From: [Susu](#)
To: [swlrt](#)
Cc: [STUART CHAZIN](#); [Mary \(LRTDR\) Pattock](#); [George Puzak](#)
Subject: Letter supporting LRTDR comments on SDEIS
Date: Tuesday, July 21, 2015 6:30:18 PM

FRIENDS OF COLDWATER

10,000-year-old Sacred Spring—GREEN MUSEUM—Birthplace of Minnesota

1063 Antoinette Avenue Minneapolis MN 55405-2102 612-396-6966
www.friendsofcoldwater.org info@friendsofcoldwater.org

July 21, 2015

Ms. Nani Jacobson, Project Manager
Southwest Light Rail Transit Project Office
6465 Wayzata Blvd., Suite 500
St. Louis Park, MN 55426
SWLRT@metrotransit.org

Dear Ms. Jacobson,

I am contacting you as a spokesperson for Friends of Coldwater, a Minnesota non-profit NGO dedicated to educating citizens to protect our water commons.

In addition to the Friends of Coldwater comments on the SWLRT SDEIS we endorse and support the comments submitted by Light Rail Transit Done Right (LRTDR).

Please add this letter to the record of comments on the Southwest Light Rail Supplemental DEIS.

Sincerely,
Susu Jeffrey

Before it was a historic site, Coldwater was a sacred site.
Friends of Coldwater is a Minnesota Non-Profit Organization

From: [Mary Pattock](#)
To: [swlrt](#)
Subject: SDEIS comments from LRT-Done Right
Date: Tuesday, July 21, 2015 1:28:14 PM
Attachments: [LRT Done Right SDEIS Response .pdf](#)
[KPG endorsement-LRTDR SDEIS comments.pdf](#)
[LPA endorsement-LRTDR SDEIS comments.pdf](#)

Dear Ms Jacobson:

Attached are LRT-Done Right's comments on the Southwest LRT SDEIS.

LRT-Done Right is a grassroots organization of some 500 Minneapolis residents and taxpayers who have conducted exhaustive research and advocacy on the effects of light rail transit and freight lines on community well being.

Our comments are the product of thousands of volunteer hours of research, analysis, and writing. As citizens of Minneapolis and the Metro area, we hope and expect that they will receive appropriate respect, attention, and response.

Also attached are letters from the Lakes and Parks Alliance of Minneapolis and the Kenilworth Preservation Group in support of the LRT-Done Right comments.

We request that you acknowledge receipt of this document by return email.

Thank you.

Mary Pattock
2782 Dean Parkway
Minneapolis, MN 55416

LRT-Done Right

2782 Dean Parkway
Minneapolis, MN 55416

July 21, 2015

Nani Jacobson
Assistant Director, Environmental and Agreements
Metro Transit — Southwest LRT Project Office
6465 Wayzata Blvd, Suite 500
St. Louis Park, MN 55426

Dear Ms. Jacobson:

LRT-Done Right is a grassroots organization of some 500 Minneapolis residents and taxpayers who have conducted exhaustive research and advocacy on the effects of light rail transit and freight lines on community well being. We hereby submit to you our comments on the Southwest LRT Supplemental Draft EIS. They are the product of literally thousands of volunteer hours of research, analysis, and writing. As citizens of Minneapolis and the Metro area, we hope and expect that they will receive appropriate respect, attention, and response.

The 2012 Draft Environmental Impact Statement clearly recommended that the best course of action was to relocate freight out of the Kenilworth Corridor.

This position was reversed in 2013, and the Metropolitan Council's recommendation is now to "co-locate" freight and light rail in the Kenilworth Corridor. We consider this a significant breach of public trust and the low point of a deeply flawed planning process. We are an organization that seeks to represent concerns of those most impacted by this unfortunate decision.

The current Supplementary Draft Environmental Impact Statement is partly intended to assess the impact of co-location in the Kenilworth Corridor. It fails to do so on many levels, summarized in the following points:

First, it considers the *temporary* freight rail part of the existing condition. Freight rail service that runs through the corridor would be both upgraded and made permanent; this is a *new* project that needs a full analysis. Because new *permanent* freight infrastructure is being added to the corridor, all visual, noise, vibration, safety and other environmental impacts should be measured *from a basis of no freight and no light rail*.

Second, this SDEIS is silent on the safety implications of locating freight trains carrying hazardous materials through an urban environment within feet of homes, parks, trails, passenger trains, and live overhead electrical wires. The new and serious impacts created by this situation would continue to grow as transport of ethanol and other volatile materials expands and freight trains grow longer.

Third, this SDEIS is significantly flawed in its findings regarding environmental impact, safety concerns, and disturbance of livability, if not outright danger, to those living within a half mile of the route, which we will refer to as the "Blast Zone." This is a real issue that was not as prevalent in the news when the alignment was first proposed. In the context of current discussions regarding the increased number of freight accidents across the United States and Minnesota, we are seriously concerned about the safety of families and loved ones who would live in a Blast Zone zone surrounding ethanol trains and sparking LRT wires.

Fourth, we are disturbed by the promises of unspecified remediation activities found throughout the SDEIS. As the Department of the Interior says in its *Handbook on Departmental Review of Section 4(f) Evaluations*: “Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable.... Reviewers should make sure that all possible site-specific planning has been done to identify and list the measures which will be undertaken, at project expense, to minimize harm to Section 4(f) properties.” Such general promises are not acceptable to the federal government. Nor are they acceptable to us.

Finally, the SDEIS fails to address the significant costs associated with the many design and construction, safety, and environmental remedies that it will, based on our assessment, be required to implement — the relocation of a sewer force main that the Met Council installed only months ago, and sound and vibration remediation measures for area residents are but two. Nor does it recognize long-term costs of lost property tax revenue that would erode the tax base of the City of Minneapolis in perpetuity. We estimate that these combined costs would initially total at least \$13 million to \$24 million, and much more over the years.

When Hennepin County and the Met Council chose the present route for SWLRT between the Chain of Lakes through the Kenilworth Corridor — including “co-location,” thus making the temporary freight rail permanent — they accepted the responsibility to respect the natural and built environments that it travels through as well as the people who bicycle, walk, recreate, and live there. LRTDR does not see evidence that this responsibility has been taken as seriously as necessary and the following pages, which respond to specific elements of the SDEIS, articulate some of the reasons why.

Mary Pattock
On behalf of LRT-Done Right

LRT-Done Right response to Southwest Light Rail Supplemental DEIS

3.4.1.2 Acquisitions and Displacements

B. Potential Acquisitions and Displacements Impacts

Comment: We request more information about 3400 Cedar Lake Parkway, a strip of land valued by the City of Minneapolis \$2.1 million.¹ For years, the Hennepin County property tax website listed this parkland as owned by the Minneapolis Park and Recreation Board. Meanwhile, in discussions concerning SWLRT, the Met Council disputed this information, maintaining that the property belongs to BNSF. Recently, however, Hennepin County changed its website to say the property belongs to BNSF.² What is the basis of the change? What evidence does the Council have that the land is owned by BNSF railroad? Where are the supporting documents, or what was the process by which this change was made? Did the property change hands via a gift of public property? If so, when and why did that happen? If the property is indeed owned by the Park Board, then a compliance analysis will need to be conducted to comply with both Section 106 and 4(f).

In Short-Term Acquisition and Displacement Impacts, the Council states that “[s]hort-term occupancies of parcels for construction would...change existing land uses” including “potential increases in noise levels, dust traffic congestion, visual changes, and increased difficulty accessing residential, commercial and other uses.” The Council should say what the plans are to mitigate these effects for residents and businesses. Most important, how will prompt emergency fire, medical and police access be maintained?

In Short-Term Acquisition and Displacement Impacts, the Council discusses plans for remnant parcels without acknowledging its commitment with the City of Minneapolis in the Memorandum of Understanding. The MOU documents the Council’s agreement to convey property they own or acquire from BNSF or HCRRA in the Kenilworth Corridor that is not needed for the Project or freight rail to the Minneapolis Park and Recreation Board for use as parkland. Please see: <http://metro council.org/METC/files/f7/f7d41cfb-a062-46c7-942d-0785989da8a0.pdf>

Based on figures listed on the Hennepin County property tax website, annual property taxes payable just for the St. Louis Park properties listed as potential FULL parcel acquisitions in Table 3.4-3 total approximately \$240,000. Yet Section 3.4.3, Economic Effects, states that the annual reduction in property tax revenue to the City of St. Louis Park for all full AND partial acquisitions is only \$35,940. The SDEIS lists plans for partial acquisition of properties owned by Calhoun Towers, Calhoun Isles Condo Association, Cedar Lake Shores Townhomes, and other private property in Minneapolis, but identifies no property tax loss for Minneapolis. The Council should explain the calculations it used to conclude that that the property tax losses are so low or even nonexistent. Although we understand that the Council may not wish to release dollar figures for specific property acquisitions at this time, the public must nevertheless be assured that the Council is not both minimizing the costs of acquiring these properties and ignoring the fact that taxpayers will need to compensate for a shrunken property-tax base, which we estimate would exceed \$4 million annually (based on an estimated 5 percent decline in property value for private homes and commercial buildings most impacted by SWLRT).

3.4.1.3 Cultural Resources

B. Potential Cultural Resources Impacts

This section identifies the potential long-term and short-term impacts to the archaeological and architecture/history resources listed in or eligible for the NRHP.

Long-Term Direct and Indirect Cultural Resources Impacts.

Comment: Minneapolis residents have continually expressed concern with the impact the project will have, both during construction and after operation of SWLRT, on cultural resources in the City.

As stated by the Minnesota State Historic Preservation Office (MnSHPO), an adverse effect on one contributing feature is an adverse effect on an entire historic district. Therefore, the conclusion that the project will have an adverse effect on the Lagoon means that there will be an adverse effect on the Grand Rounds Historic District as a whole, as indicated in the SDEIS.

¹ See <http://apps.ci.minneapolis.mn.us/PIApp/ValuationRpt.aspx?pid=3202924120001> and <http://apps.ci.minneapolis.mn.us/PIApp/GeneralInfoRpt.aspx?pid=3202924120001>

² See <https://gis.hennepin.us/property/map/default.aspx>

Section 3.1.2.3 of the SDEIS lists possible mitigation measures that *may* be included in the Section 106 agreement:

- Consultation with MNSHPO and other consulting parties during the development of project design and engineering activities for locations within and/or near historic properties
- Integration of information about historic properties into station area planning efforts
- Recovering data from eligible archaeological properties before construction
- Consultation with MNSHPO and other consulting parties during construction to minimize impacts on historic properties
- Preparation of NRHP nominations to facilitate preservation of historic properties
- Public education about historic properties in the project area

None of these measures can avoid, minimize or mitigate the long-term adverse effects of the project on the Grand Rounds Historic District in a meaningful way. The noise impacts, including bells and horns, will be audible from distances within and beyond the Area of Potential Effect, and include not only the Lagoon area but also Lake of the Isles and Cedar Lake as well as the other parts of the Grand Rounds Historic District. *Noise and vibration impact studies should be done from a baseline assuming no freight, as HCRRA had committed to do and as was contemplated in the DEIS.* Despite the requirement that such impacts be minimized, co-locating both freight and light rail in the Kenilworth Corridor results in the opposite outcome.

The proposed bridges over the Lagoon would have an adverse impact because of their size and scale, inconsistency with the historic cultural landscape of the channel, the noise and vibrations caused by the light rail vehicles traveling the bridge and the fact that it may not be possible to mitigate the impacts of the new bridges, as stated by the MPRB earlier in the 106 process. The appearance of the new bridge structures and the sounds associated with modern rail infrastructure would alter the characteristics of “community planning and development,” “entertainment and recreation,” and “landscape architecture” that make the Lagoon eligible for NRHP designation, and will adversely affect the character and feeling of the Lagoon and how people use the historic resource, including the experience of using the waterway under the new structures. Given that the Council is proceeding with this project in spite of this adverse effect, we hope that designers will continue to be vigilant about minimizing the impact on the setting and feeling of the historic channel, including audible and visual intrusions that will alter the park-like setting of the Lagoon, a vital element of its historic character. These concerns extend to Cedar Lake and the beaches on it nearest to SWLRT, as well as the visual impact on Park Board Bridge #4, Lake of the Isles, Lake of the Isles Parkway and Lake of the Isles Historic District.

Table 3.4-5 lists cultural resources that have been preliminarily considered to have no adverse effect from the Project, because of continued consultation with MnSHPO and certain unidentified avoidance/minimization/mitigation measures. Throughout this table, “consultation” is offered as mitigation. But “consultation” is not the same as “mitigation.” Consulting means talking; mitigation means doing something. The SDEIS does not identify what it could do that would mitigate negative impacts. In any event, the possible mitigation measures listed above would also not significantly address impacts on the cultural resources listed in this table. *The Council must be responsible for ensuring that “continued consultation” is meaningful by conducting assessments and proposing specific mitigation solutions before the 106 agreement is written and finalized, as it is impossible to avoid adverse effects after SWLRT construction and operations commence.* See also our comments below on 3.5 Draft 4(f) Section Evaluation Update.

Cultural resources covered in table 3.4-5 include Lake of the Isles Residential Historic District, Kenwood Parkway Residential Historic District, Lake Calhoun, Cedar Lake Parkway, Cedar Lake, Park Bridge #4, Lake of the Isles Parkway, Lake of the Isles, Kenwood Parkway, Kenwood Park, Kenwood Water Tower and four NRHP listed or eligible homes in the Area of Potential Effect. Station activity will change traffic and parking patterns in the neighborhood and introduce long-term visual and audible intrusions that adversely impact these historic resources. Concerns about the long term Project impact on some or all of these cultural resources include the following:

- Long-term visual and audible intrusion from changes in traffic patterns related to station access: We are concerned that auditory impacts and changes in traffic and parking patterns will adversely affect the integrity of setting and feeling that make Kenwood Park, Kenwood Parkway, Lake of the Isles Parkway, Cedar Lake Parkway and the related residential historic districts, and the four individual homes listed on or eligible for the NRHP. A traffic analysis must be conducted and a plan to mitigate adverse impacts proposed and discussed before the 106 agreement is drafted.
- Noise effects from LRT operations: Audible intrusion from train operations, including bells and horns and the impact of trains going in and out of the tunnel, will alter the environment of the historic resources and the characteristics that make certain of these resources eligible for the NRHP. It seems unlikely that a few homes in the Kenwood Parkway Residential Historic District are the only cultural resources that will be adversely affected by noise from train operations.
- Infrastructure surrounding the tunnel and the massive tunnel portals could adversely affect the historic integrity of the resources. Signage along the historic parkways could also have an adverse effect. Specific design elements should be proposed to minimize these impacts and should be reviewed as part of the 106 process.

The degree of concern regarding the short-term impact of SWLRT construction on all of these cultural resources cannot be overstated. Noise and vibration sensitive resources need to be identified. The public needs to see a comprehensive noise and vibration study and analysis for the Project during construction including the impact of increased truck and construction equipment traffic. We would like details on what will be included in the “project wide construction plan.” It should identify measures to be taken during construction to protect all historic properties from project-related activity including construction related traffic. We need real plans to prevent or repair damage resulting project activities, incorporating guidance offered by the National Park Service in Preservation Tech Note #3: Protecting a Historic Structure during Adjacent Construction, as well as an agreement that specifies how these potential impacts will be monitored and mitigated. The Council previously communicated to a neighborhood group whose residents experienced damage from a Council project that “[c]ontinuing with future projects, our goal is to ensure that claims are promptly and appropriately investigated to determine whether or not they may be related to the project. Depending on the facts of the claim, this may involve independent experts.” We request that the Council communicate with owners of historic homes in the APE prior to construction to establish baselines and mitigation commitments.

Table 3.4-5 is confusing in that it lists station area development as a possible effect on the Kenwood Parkway Residential Historical District that will require continued consultation. The Met Council needs to explain what development it is referring to, because none is anticipated in this district. For example, the Southwest Community Works website and documents state: “Future development is not envisioned around this station....”

<http://www.swlrtccommunityworks.org/explore-corridor/stations/21st-street-station>

See also

<http://www.swlrtccommunityworks.org/~ /media/SW%20Corridor/Document%20Archive/investment-framework/ch-4-penn.pdf>

3.4.1.4 Source: MnDOT CRU, 2014.Parklands, Recreation Areas, and Open Spaces

Long-Term Direct and Indirect Parklands, Recreation Areas, and Open Spaces Impacts

Comment: As noted in our comments on 3.4.1.2 above, we request more information about 3400 Cedar Lake Parkway. This parkland has long been listed on the Hennepin County property tax website as belonging to the Minneapolis Park and Recreation Board. What evidence has the Council or Hennepin County discovered to recently change the website to indicate that this \$2.1 million property is owned by BNSF railroad? Does the conclusion of “no long-term direct impact” of the Project on Cedar Lake Park depend on the Met Council taking advantage of a loophole: that documentation conveying this Cedar Lake Park property to the Park Board many years ago may be lacking, even though the intent that it be parkland was understood? Is the conclusion a way to avoid conducting a compliance analysis as would be required under Section 106 and 4(f) if the property belonged to the Park Board?

The SDEIS states: “None of the indirect impacts on parklands, recreation areas, and open spaces from the LPA in the St. Louis Park/Minneapolis Segment would substantially impair the recreational activities, features, or attributes of those parklands, recreation areas, and open spaces.” We dispute this conclusion. The permanent installation of freight rail and light rail in the Kenilworth Corridor that is too narrow to permit separation in accordance with AREMA and FTA guidelines creates a safety risk that would directly impair park activities in the event of a derailment and/or explosion of flammable materials.

For comment on the indirect impacts of the LPA in the form of visual, noise, and/or access impacts, please see comments to sections 3.4.1.5, 3.4.2.3, and 3.4.4.4 of this Supplemental Draft EIS.

Short-Term Parklands, Recreation Areas, and Open Spaces Impacts

Comment: Please specify the extent to which the stated “standard” measures would be sufficient to protect this environmentally sensitive parkland.

During construction, how can the safety of park and trail users (Park Siding Park, Cedar Lake Park, Lake of the Isles Park, and nearby trails and lakes) be assured, given that unit freight trains of 100 or more cars containing Class III flammable liquids, especially ethanol, travel through this narrow corridor in close proximity to a construction pit and materials, without whatever protective walls will later be installed?

Section 3.4.1.5 Visual Quality and Aesthetics

Excerpt from City of Minneapolis RESOLUTION 2010R-008 by Colvin Roy:

Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained.

While we appreciate and agree that the visual impact from Viewpoints 2, 3, and 4 are recognized as being substantial, we strongly disagree and contest the idea that the level of visual impact north of the Kenilworth Channel crossing (including Viewpoints 5 and 6) will be “not substantial” (pages 3-167, 168). The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be *substantial throughout the corridor*.

The SWLRT plan proposes clear-cutting in the Kenilworth Corridor, a rare urban natural resource. It would remove a large amount of green space and thousands of trees, replacing them with an overhead catenary system, tracks and ballast. The park-like environment will be permanently degraded by this infrastructure, as well as by the approximately 220 daily trains traveling over the historic Kenilworth Lagoon and through the corridor.

Clearly, the visual impact of deforestation of this area will be great, especially given that the Kenilworth Trail is used by well over 600,000 annually. Over the past 7 to 10 years, neighbors and trail users have clearly expressed to Hennepin County and the Met Council the very high value they place on the green space, wildlife and bird habitat, trees and other vegetation in the Kenilworth Corridor.

The visual impact to the park-like environment is exacerbated by the continuing presence of freight rail, which was expected to be removed from the Kenilworth corridor at the time of the Alternatives Analysis, the Locally Preferred Alternative decision, and the 2012 DEIS.

The SDEIS says the consultant determining the *visual qualities* of the corridor relied on Google Earth, files of the revised project layout, and selected “photographically documented” views (Appendix J, section 2B). It does not say the consultant actually set foot in the area, or consulted any stakeholders. Assuming that is the case, we are most discouraged at the slipshod research methods used in this important document, and find it even less credible.

At **Viewpoint 5**, we support all efforts to create an “attractive design” for the bridges crossing the Kenilworth Channel. The three new bridges will certainly become a “focal point,” adding large cement structures and heavily impacting the setting and feeling of this element of the Historic Chain of Lakes and the Kenilworth Trail. An attractive design for these bridges does not compensate for the vegetative clearing. The character of the City of Lakes’ signature canoe, kayak and skiing route from Lake of the Isles through the Kenilworth Channel to Cedar Lake will be fundamentally and permanently degraded. There will be a substantial negative visual impact from the level of the water as well as the level of the trail.

At **Viewpoint 6**, the SWLRT project plans to remove a significant amount of vegetation along the edge of Cedar Lake Park, as well as trees, plants, and restored prairie currently along the bicycle and pedestrian trails. The claim that removing trees and replacing them with overhead power lines would create a positive visual experience for trail users (“open up the view, making it more expansive”) is absurd on its face and contradicts the clearly expressed will of the Minneapolis City Council and the adjacent neighborhood. The 21st Street Station, a slab of concrete and metal with fencing and catenaries, will indeed “create a focal point” — that is to say, a negative one. It is not credible, and it is even laughable, to assert that a concrete slab will positively impact the visual qualities of a spot immediately adjacent to an urban forest and is itself in a “park-like environment.”

The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be substantial throughout the corridor. We find it absurd and disingenuous for the Council to claim otherwise. The Council must stop pretending that this problem does not exist, and get serious about identifying robust and meaningful mitigation measures for incorporation into the project.

3.4.2.1, 3.4.2.2 Geology and Groundwater, Water Resources

Comment: LRT Done Right demands that there be a much more significant and transparent discussion regarding the compensatory mitigation for damage to wetlands and aquatic resources in the Minneapolis segment, especially the Kenilworth Channel and Cedar Lake. While a permit application is required, the SDEIS identifies that there will be damage done to aquatic resources but does not specify the level of damage done during construction and then during operation of the line. The further impairment of these resources is a direct violation of the EPA Clean Water Act and will degrade one of the crown jewels of the Minneapolis "City of Lakes" water resources. Residents swim, paddle, and recreate in those resources, and to callously suggest that a section 404 permit will just address those concerns is alarming.

Further, LRTDR is not convinced that sufficient analysis has been done on existing contamination in the Kenilworth Corridor. Southwest Project Office has already stated that additional contamination is likely to be found, and while the additional contamination is stated to be covered by the contingency fund, LRTDR finds this approach to be irresponsible budgeting without fully knowing what contamination exists and if enough is actually budgeted in the fund. The Kenilworth Corridor north of 21st St is a former rail yard that housed up to 58 rail lines during its peak, and was in service for decades. The SDEIS itself specifies the numerous toxic contaminations in such soil due to its former use. LRTDR strongly opposes disturbing the land and releasing contamination into the water and air.

Southwest LRT Supplemental Draft EIS - Supporting Documents and Technical Reports: SWLRT Kenilworth Shallow LRT Tunnel Basis of Design Technical Report (Met Council, 2014d):

An Existing Sewer Force Main Crosses the Proposed Location of the SWLRT South Tunnel in the Kenilworth Corridor.

The removal and relocation of recently installed dual force mains, running beneath the freight tracks and Kenilworth Trail (between Depot Street and W. 28th Street) at the site of the proposed south tunnel, will be necessary to accommodate co-location of LRT with freight in the Kenilworth Corridor. The presence of the existing dual sewer force mains has design, construction, and cost implications on the shallow tunnel, which are not addressed in the SDEIS. The SDEIS technical drawings for the shallow tunnel do not indicate the existing force sewer main or the sewer relocation plan. Although Metropolitan Council is clearly aware of this complication, since it refers to replacing 200 feet of the dual 18-inch sanitary sewer force mains at Depot Street in its 9/19/14 CTIB capital grant application, it nevertheless does not address its design impacts and costs in the SDEIS in the Kenilworth Shallow Tunnel Design Technical Report.

In 2013 the Metropolitan Council Environmental Services (MCES) installed replacement sewer force mains between France Avenue and Dean Parkway. The force mains follow Sunset Boulevard to Depot Street and then crosses under active freight railroad tracks and the Kenilworth Trail to West 28th Street. The force mains installation at this location was completed by tunneling under, and placed perpendicular to, the railroad tracks and Kenilworth Trail so as not to disrupt active rail operations. The tunneling process required construction of two tunneling (jacking) pits on either side of the tracks. One pit was located at Depot Street and the other was located at the end of West 28th Street adjacent to Park Siding Park. The tunneling pit near Park Siding Park measured 16 by 34 feet and was approximately 27 feet deep. The excavation of these pits required the use of a crane and an excavator.

The SWLRT south tunnel construction plan says a pit would be dug to a depth of approximately 35 feet in this same location. The existing force main crossing consists of a 60-inch diameter tunneled steel "casing" pipe. The distance to the top of the casing pipe is approximately 17 feet and the distance to the bottom is 22 feet. The dual 18-inch force main pipes pass through this tunneled casing. The current placement of the force main interferes with the proposed location of the tunnel construction pit. The force main will need to be removed and relocated either above the proposed tunnel or below the tunnel to a depth greater than approximately 45 feet below ground level. See diagrams A through C below. If the force main is relocated above the shallow tunnel, the tunnel will need to be dug deeper in order to accommodate the force main above. This will result in an increased steepness in the incline of descent and ascent of the entrance and exit to the tunnel respectively. If LRT trains cannot navigate said increased grade change then it may require building a longer tunnel in order to safely allow trains to exit and enter at a lesser incline/decline, adding to the cost and impact.

Risks associated with possible stray electrical current traveling in the ground from the LRT power lines to the sewer force mains have not been identified or addressed in the SDEIS.

The removal and re-installation of the dual force mains will have Economic, Social, and Environmental impacts:

Economic costs:

Long term increase in cost of the SWLRT project of an undetermined amount as a result of co-locating freight and LRT, including:

1. Cost of removing and relocating the sewer force main located under the freight tracks and the Kenilworth Trail.
2. Cost of possible redesign of the south tunnel to accommodate force main relocation if it is reinstalled above the south tunnel.
3. Costs associated with re-engineering or lift station(s) that may be required to ensure adequate force is maintained in the sewer main if the main is re-located to a deeper position (i.e., from approximately 22 feet to more than 45 feet below ground level).
4. Cost of remediation of any portions of Park Siding Park that may be affected during removal/relocation of the force sewer main.
5. Cost of roadwork at Depot Street to remove/relocate force main.
6. Cost of damages to walls, ceilings and foundations of neighboring residences as a result of construction to remove/relocate the force sewer main.
7. Costs to remediate noise and vibrations impacts on the community that may be experienced during the construction period and post construction period should lift station(s) be required.

Social:

Parkland, Recreation, Open Spaces and Safety Impact:

Short-term construction impact - Portions of Park Siding Park (a Section 4 (f) property) may again be affected in order to accommodate the removal and reinstallation of this force sewer main and construction of tunneling (jacking) pits. The original construction resulted in closure of the park to users for an extended period, installation of a temporary detour through the park to accommodate the closure of Dean Court, destruction of park vegetation, gardens and lighting, and the removal of playground equipment. Some of these same impacts may again occur during the removal/relocation of the force main and construction of associated jacking pits. In addition, the construction of the south tunnel is expected to take 2-3 years and requires a deep open pit adjacent to Park Siding Park. The access and enjoyment of this park will be affected by the tunnel construction during this extended time frame and presents a dangerous environment for nearby park users and freight rail operations. The mitigation and cost of remediation of the parkland have not been addressed in the SDEIS.

Environmental:

Noise:

Short-term noise impacts - Removal and reinstallation of the force line will result in noise impacts of an undetermined level to both neighboring residents and Park Siding Park users as a result of both construction activities and construction vehicles. Mitigation plans/cost are not included in the SDEIS and need to be addressed.

Vibration:

Short-term vibration impacts – Effects of construction activities and, to a lesser extent, construction vehicles will have an impact on park users, neighbors and their residences. Vibration and associated ground-borne noise impacts may damage walls, ceilings and foundations of nearby residences, as was experienced in the original construction of this force line. Mitigation plans/cost are not included in the SDEIS and need to be addressed.

Diagram A – Existing sewer force main at approximately 22 feet below grade obstructs planned location of SWLRT south tunnel in the Kenilworth Corridor, which requires an estimated 45 feet below ground level for construction pit and helical piles.

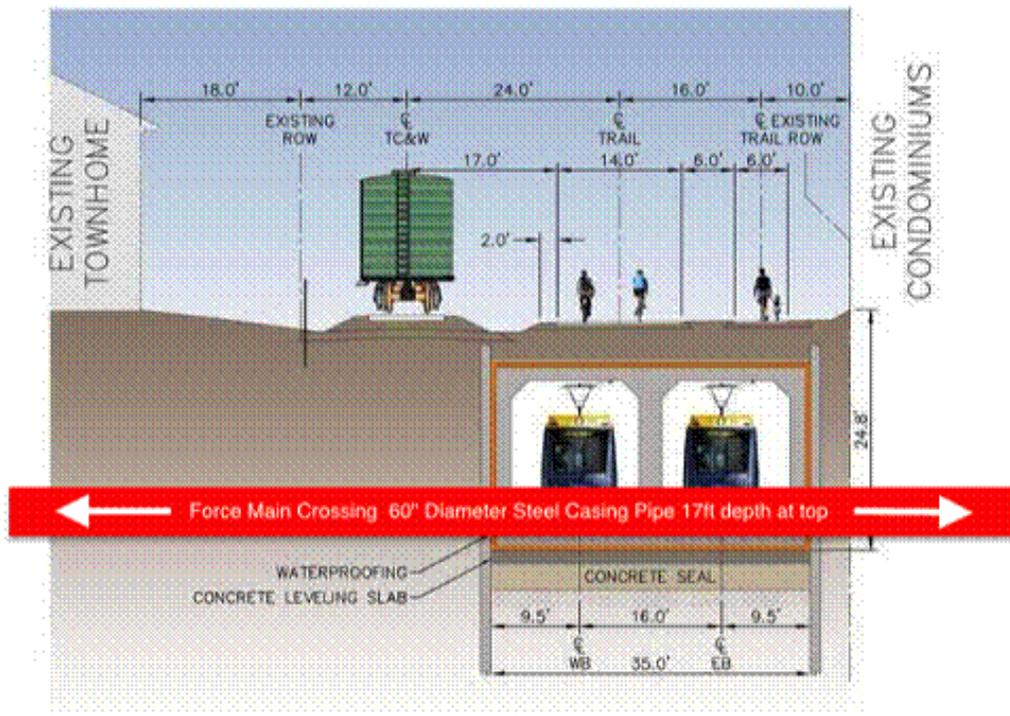


Diagram B – Typical Kenilworth Shallow LRT Tunnel Section per SDEIS

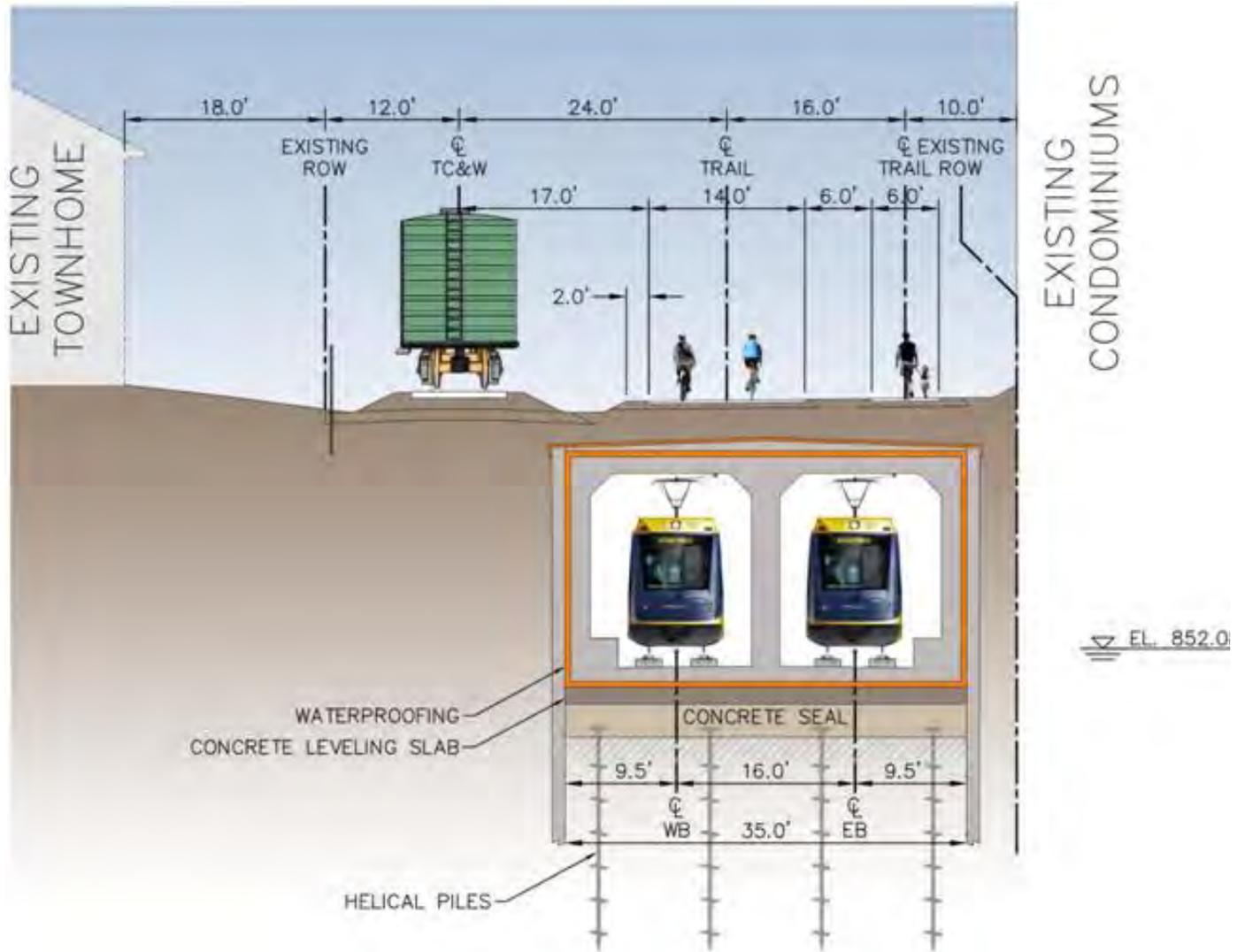
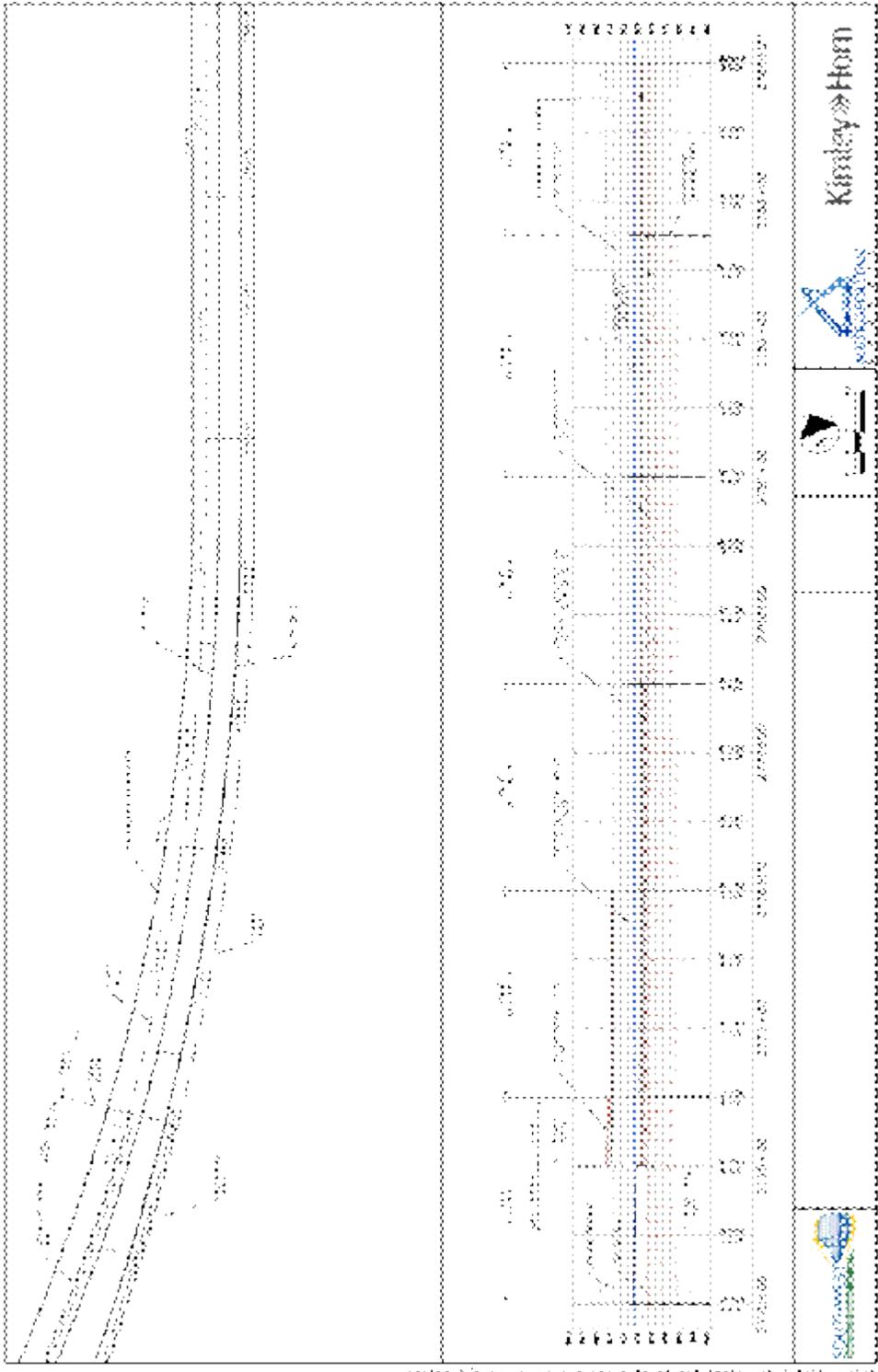


Diagram C - SWLRT South Tunnel Typical Cell Sequencing per SDEIS Note: the helical piles are shown at approximately 820 feet above sea level which is approximately 45 feet below the ground level.



3.4.2.3 AND 3.4.2.3 NOISE AND VIBRATION

Comment: The SDEIS greatly understates both noise and vibration impacts of SWLRT.

- It uses wrong data as the fundamental framework for noise and vibration analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise and vibration data on a scenario that *does* include a freight train, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the [Draft EIS](#) in 2012.”³ *This defect renders the noise and vibration sections of the SDEIS fundamentally flawed and misleading. They need to be reworked with appropriate and correct data.*
- The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporating into the SDEIS.
- The SDEIS effectively ignores the impacts of construction. See more below.

Noise 3.4.2.3

Comment: When the Met Council chose the present route for SWLRT between the Chain of Lakes through the Kenilworth Corridor, and included “co-location” which will make the existing freight rail permanent, the project implicitly accepted the responsibility to respect the natural and built environments that it travels through as well as the people who bike, walk, recreate, and live there. We believe that this responsibility has not been taken seriously and the following describes why.

SWLRT noise impacts substantially minimized: We believe that the SDEIS substantially minimizes the noise impacts associated with the proposed SWLRT. The noise impact of SWLRT in this area of Minneapolis will be highly significant for a number of reasons, but most notably because of the tranquility, recreational, park, and residential use currently existing in and bordering the Corridor. Some have compared the proposed SWLRT route with the Blue Line (Hiawatha) and the Green Line (Central Corridor down University Avenue). But such comparison is inappropriate, since the Blue and Green lines run immediately adjacent to commercial thoroughfares or four-lane roads that carry cars and heavy trucks around the clock. By contrast, the Kenilworth area is a quiet environment, and is part of the **Grand Rounds National Scenic Byway**.⁴ By contrast, the Kenilworth Corridor is a unique, quiet environment, part of the Grand Rounds National Scenic Byway.

The SDEIS coolly states that 24 residences would suffer Severe or Moderate noise impact. Translated, this means the noise of 220 light-rail trains running daily from 4 a.m. to 2 a.m. would fundamentally transform the adjacent neighborhood with near-constant noise and vibration at sound levels up to 106 dBA (the sound of warning bells — equal to the sound of a jet take-off 1,000 feet away). As noted in Appendix H (SDEIS Noise and Vibrations Memoranda), residences are considered Category 2 buildings, with the expectation that sleep occurs there.

The noise levels given in Noise Fact Sheet (Appendix H p. 19) state the following: LRT trains traveling at 45 mph generate maximum typical noise levels of 76 dBA at 50 feet (equivalent to freeway noise at 50 feet), 71 dBA at 100 feet, and 66 dBA at 200 feet. Adding 211-220 LRT three-car trains to the Kenilworth Corridor day and night, each producing such elevated noise levels, would be a severe and overwhelming intrusion, drastically increasing the noise generated. This would hold true even if the only noise increase were from the LRT trains traveling at their stated speed, per the SDEIS, of 45 mph.

³ <http://metro council.org/swlrt/sdeis>

⁴ A National Scenic Byway is a road recognized by the [United States Department of Transportation](#) for one or more of six “intrinsic qualities”: archeological, cultural, historic, natural, recreational, and scenic. Congress established the program in 1991 to preserve and protect the nation’s scenic but often less-traveled roads and promote [tourism](#) and economic development. The National Scenic Byways Program (NSBP) is administered by the [Federal Highway Administration](#) (FHWA).

Our conclusion that the LRT trains in the midst of a residential and recreational area would be an overwhelming intrusion is supported by the analysis below, which assesses the combined impacts of LRT frequency, time of day or night of LRT, and LRT bell noise intensity and frequency identified in Appendix H, SDEIS p.3-13 and p.3-18.

LRTDR Analysis of SDEIS Appendix H Table 1 & p. H-4 Data

- Bells are sounded for 5 seconds prior to grade crossings, as vehicles approach grade crossings, such as the 21st Street in the Kenilworth Corridor
- Grade crossing bells are used at grade crossings for 20 seconds for each train; 21st Street is also a grade crossing.
- Bells are sounded twice at stations — once entering and once exiting station platforms, such as the 21st Station (SDEIS gives no duration. We request the duration of bells sounding when entering and exiting station platforms be made public. This information is needed for accurate noise impacts to be known.
- Total bell time (not counting the brief pause between entering and exiting the station) is known or given as more than 25 seconds per train. It is unknown how much longer than 25 seconds the bells will sound, as exit/enter bell duration is not given in the SDEIS.

WEEKDAYS

Early morning 4:00 AM – 5:30 AM

- 6 to 8 trains per hour equals 9 to 12 trains per day between 4:00 AM and 5:30 AM
- This means 1 SWLRT train at 66 to 76 dBA every 7.5 to 10 minutes
- Would produce 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

Early morning to evening 5:30 AM – 9:00 PM

- 12 SWLRT trains per hour equals 186 trains per day between 5:30 AM and 9:00 PM
- This means 1 SWLRT train every 5 minutes
- Would produce 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 5 minutes.
- At least 10% of every 5 minute period in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise
- *At least 6 minutes of every hour from early morning to 9 PM in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise.*

Evening to early morning 9 PM to 2 AM

9 PM to 11 PM

- 6 to 8 trains per hour equals 12 to 16 trains per evening between 9 PM and 11 PM
- This means 1 SWLRT train every 7.5 to 10 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

11 PM – 12AM

- 2 trains per hour equals 2 trains per night between 11 PM and 12 AM
- This means 1 SWLRT train every 30 minutes
- Would entail 25-plus seconds of bells ((5 seconds 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 30 minutes

Very early morning 12 AM – 2 AM

- 1 to 2 trains per hour equals 2 to 4 trains per day, between 12 AM and 2 AM

- This means 1 SWLRT train every 30 to 60 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 30 to 60 minutes

Very early morning 2 AM – 4 AM

- 2 hours of no LRT trains equals baseline — current noise levels

Total equals 211-220 SWLRT three-car trains per weekday

WEEKENDS

Early morning 4:30 AM to 9 AM

- 6-8 trains per hour equals 26 to 36 trains per day between 4:30 AM and 9 AM
- This means 1 SWLRT train every 7.5 to 10 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

Morning to evening 9 AM – 7 PM

- 12 trains per hour equals 120 trains per day between 9 AM and 7 PM
- This means 1 SWLRT train every 5 minutes
- Would entail at least 25 seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106A dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 5 minutes.
- At least 10% of every 5 minute period in the Kenilworth Corridor would consist of bell noise at 88dBA and 106 dBA
- At least 6 minutes of every hour from early morning to evening in the Kenilworth Corridor will consist of bell noise at 88dBA and 106 dBA

Evening 7 PM to 9 PM

- 8 trains per hour equals 16 trains per day between 7 PM and 9 PM
- This means 1 SWLRT train every 7.5 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 minutes

Late evening 9 PM – 11 PM

- 6 – 8 trains per hour equals 12 to 16 trains per day, 9 PM – 11 PM
- 1 SWLRT train every 7.5 – 10 minutes
- 25-plus seconds of bell noise (5 seconds 88 dBA, plus 20 seconds 106 dBA, unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

Late evening 11 PM – 12 AM

- 4 trains per hour equals 4 trains per day between 11 PM and 12 AM
- This means 1 SWLRT train every 15 minutes
- 11 PM to 12 AM weekend train frequency is double the weekday frequency of 11 AM to 12 AM
- Would entail 25-plus seconds of bell noise (5 seconds 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 15 minutes

Very early morning 12 AM to 2 AM

- 2 to 4 trains per hour equals 4-8 trains per day between 12 AM and 2 AM
- This means 1 SWLRT train every 15 to 30 minutes
- 12 AM to 2 AM weekend train frequency is double the weekday frequency of 12 AM to 2 AM
- 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 15 to 30 minutes

Very early morning 2 AM – 4 AM

- No trains — equals current existing conditions

Total equals 180 -195 SWLRT three-car trains every weekend day.

The result of LRT noise would be that the corridor will be permanently changed from a quiet, tranquil area sought by pedestrians, cyclists, and outdoor enthusiasts, and a highly desirable residential area to an area severely disrupted by the noise of a highly mechanized transit route.

Beyond permanently degrading the area, there will be multiple public health consequences of SWLRT noise in the corridor. The impact of repetitive noise intrusion on neighborhood public health will be significant. For example, regarding the obvious potential for sleep interruption caused by SWLRT noise (and there will be more trains during the late evening and early morning weekend hours) a research review published in the December 2014 edition of *Sleep Science*, summarizes:

Emerging evidence that these short-term effects of environmental noise, particularly when the exposure is nocturnal, may be followed by long-term adverse cardio metabolic outcomes. Nocturnal environmental noise may be the most worrying form of noise pollution in terms of its health consequences because of its synergistic direct and indirect (through sleep disturbances acting as a mediator) influence on biological systems. Duration and quality of sleep should thus be regarded as risk factors or markers significantly influenced by the environment. One of the means that should be proposed is avoidance at all costs of sleep disruptions caused by environmental noise.”

The article continues:

The World Health Organization (WHO) has documented seven categories of adverse health and social effects of noise pollution, whether occupational, social or environmental. The latter [sleep disturbance] is considered the most deleterious non-auditory effect because of its impact on quality of life and daytime performance. Environmental noise, especially that caused by transportation means, is a growing problem in our modern cities. A number of cardiovascular risk factors and cardiovascular outcomes have been associated with disturbed sleep: coronary artery calcifications, atherogenic lipid profiles, atherosclerosis, obesity, type 2 diabetes, hypertension, cardiovascular events and increased mortality....during the past year, the relationship between insomnia and psychiatric disorders has come to be considered synergistic, including bi-directional causation.”⁵

There is growing evidence that the opportunity to benefit from greenspace — what some mental health experts have referred to as “soft fascination”⁶— supports social and psychological resources and recovery from stress. The perpetual and repetitive noise from SWLRT would interrupt the restful and restorative experience enjoyed by tens of thousands of people in the Kenilworth Corridor, at nearby beaches, parks, in the Kenilworth Channel and general environs of Lake of the Isles and Cedar Lake. Such opportunities to enjoy nature and relieve stress, though often taken for granted by suburban dwellers, are extremely limited in urban areas, yet equally critical for their mental health.

With healthcare costs and disease prevention being prominent national and local priorities, the economic value of the public health benefit of the Chain of Lakes and Kenilworth Corridor cannot be ignored. *We request a study of the physical and mental*

⁵ *Sleep Science*, Volume 7, Issue 4, December 2014, Pages 209-212

⁶ British Journal of *Sports Medicine* 2012, “The Urban Brain: Analyzing Outdoor Physical Activity with Mobile EEG”

health impacts of the noisy, hyper-mechanization of this currently placid area, which plays a key role in the life and character of our neighborhood and the entire City of Minneapolis.

A. Existing Conditions (p. 3-180)

This section describes existing noise-sensitive land uses in the St. Louis Park/Minneapolis Segment and existing noise levels.

Fundamental defect with baseline noise measurements

Comment: As noted above, the SDEIS uses wrong data as the fundamental framework for noise analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise data on a scenario that *does* include a freight train, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the Draft EIS in 2012.”⁷ *This defect renders the noise section of the SDEIS fundamentally flawed and misleading. It needs to be reworked with appropriate and correct data.*

The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporated into the SDEIS.

Further, since aircraft overflights are generally scarce, the average current noise level per hour is extremely low when averaged over a 24-hour period.

Additionally, there are significant seasonal and weather-related variations in noise levels, which cannot be captured when sound is measured during one 24-hour period in the summer.

Finally, in Appendix H, p.2, it is noted, “noise monitoring was performed at other locations not listed in the table. Those sites will either be addressed in the forthcoming Final EIS or no longer fall within the area where they would be potentially impacted by project noise due to design refinements during Project Development.” Since the purpose of the SDEIS is to inform the public and decision makers, and provide opportunity for comment on all areas of concern, in order to fulfill that NEPA mandate, all measurements that were made and publicly financed should be made public.

B. Potential Noise Impacts

Noise Impacts Measurement Tables (Table 3.4-11, 3.4-12)

Comment: Following FTA noise assessment guidelines, the 76 dBA LRT noise occurring every 5 minutes is measured as having a lower impact than that actual dBA of 76 because the LRT noise is not continuous. Thus, though this quiet urban area will be exposed to an actual repetitive noise of 76-80 dBA day and night, the rating of the impact is lower and measured as only 51 – 64 dBA in Tables 3.4-11, 3.4-12. The significantly lower measurement lessens the determination of findings of impacts, and therefore, whether impacts are determined as non-existent, Moderate or Severe. *This engineering methodology covers up the actual impact on people of loud repetitive noise in a peaceful setting.*

The 25-plus seconds of repetitive bell noise described in the LRTDR Analysis of SDEIS Appendix H Table 1 & p. H-4 Data above does not appear to be included in the SDEIS noise analysis in Tables 3.4-11, 3.4-12, which would clearly increase the severity of noise impact at all locations. The SDEIS also neglects to report and measure the cumulative effect of LRT and freight train noise. This information would likely show that more than 24 residences would be affected; more of them would be impacted at the severe level, and a greater impact on the Kenilworth Channel and Kenilworth Lagoon Bank.

⁷ <http://metro council.org/swlrt/sdeis>

Furthermore, future projected noise levels of LRT and freight will be higher than the projection inputs used by the SDEIS after the clear cutting of trees and vegetation in the corridor, increasing the impact of noise generated by both SWLRT and the freight rail. When utilizing the Source – Path – Receptor FTA noise impact assessment framework, it is clear that the inputs for each of the three parameters are critical and control the outcomes determining the severity of noise impact. Removal of the trees and vegetation eliminates a significant and well-established noise barrier currently in the path of noise from freight and future SWLRT. *The SDEIS does not address the impact of clear-cutting the trees and vegetation in the Kenilworth Corridor on Moderate versus Severe LRT noise impacts.*

Tunnel Swaps Noise for Vibration

As stated in the SDEIS, the tunnel section of the SWLRT is supposed to eliminate “almost all noise impacts within that segment of the corridor.” It must be noted, however, that these noise impacts will be replaced by vibration impacts; see the Vibration Section below.

Analysis of Table 3.4-12

Inaccurate land use designation for the Kenilworth Channel: We strongly challenge the land use designation of the Kenilworth Channel as Category 3. As defined in Appendix H, Category 3 is:

Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, and churches where it is important to avoid interference with such activities as speech and concentration on reading material...

The SDEIS designates the banks of the Kenilworth Channel as falling within the most noise sensitive Category 1. However, as stated above, the Channel itself is not included in that most highly sensitive designation, but instead is classified as “institutional land use.” Category 1 is defined in Appendix H as:

Tracts of land where quiet is an essential element in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheatres and concert pavilions, as well as National Historic Landmarks with significant outdoor use.

The SDEIS states the “grassy area on the banks of the Lagoon” falls within Category 1 due to the “passive and noise sensitive recreational activities that occur there (where quietude is an essential feature of the park).” The designation of Category 1 versus 3 for the Kenilworth Channel appears to hinge excessively on one word — the term “passive” — to describe the activities for which the Channel banks are used. However, quietude is equally and very clearly an essential feature of the Kenilworth Channel itself, whose peaceful though not “passive” activities include canoers and cross country skiers gliding serenely on the water or ice while those on the grassy banks look on. The quietude of the Kenilworth Channel is inseparable from the quietude of its grassy banks; therefore both should be Category 1.

Significantly, the consequences of placing the Kenilworth Channel in Category 3 are 1) that the obligation to mitigate impacts is lowered, and 2) that the threshold to establish severe impact is higher and harder to reach. Had the Kenilworth Channel been accurately designated a Category 1, then the Channel would have been only 1 dBA below “Severe impact.”

Even with the lowering of the land use category of the Kenilworth Channel to a Category 3, the SDEIS finds a moderate impact of the addition of LRT noise. The footnote to SDEIS Table 3.4-12, states that the noise impact increases as one approaches the LRT line and becomes severe when the channel falls within the HCRRA right of way.

While the SDEIS states that the land use categories were made in consultation with the MPRB and MN SHPO, we strongly dispute their coherence and accuracy. If the intention of the SPO is to preserve the character and experience of the Channel, then it must designate it as a Category 1 and then make public the mitigation plans and costs well in advance of the final FEIS.

SWLRT Violates the System of Minneapolis Parks: Horace Cleveland’s visionary master plan, *Suggestions for a System of Parks and Parkways for the City of Minneapolis*, proposed a park system of connecting sites of beauty and natural interest throughout the city, rather than a series of detached open areas or public squares. The vision of a park “system” has guided the Park Board ever since and is one of the primary reasons for the success and national prestige of the Minneapolis Parks. The SDEIS procedure of singling out specific pieces of park for analysis such as Lilac Park, the Kenilworth Channel and its grassy banks runs fundamentally contrary to the underlying vision of a coherent Minneapolis Park System.

*The presence of perpetual, repetitive LRT noise over the Kenilworth Lagoon and throughout the interconnecting parks and lakes woven throughout this area violates the larger system of the Minneapolis Parks.
Site N 17 (p. 3-182)*

21st Street Station Noise Impacts: At the proposed 21st Street Station, crossing and station bells generating a noise level of 106 dBA and LRT bells generating 88 dBA will seriously add to the overall noise levels for 22 hours a day; only between 2:00 a.m. and 4:00 a.m. will neighborhood residents in this area be able to sleep uninterrupted. The LRTDR Analysis of the SDEIS Appendix H Table 1 & p. H-4 given above shows the impact throughout the day and night.

Further, freight trains may need to use their horns to safely cross 21st Street, as is the current case with the “temporary” freight operations. We thus strongly disagree with the characterization of the noise impacts in the 21st Street station area as moderate and limited. “Sensitive receptors” in this area will be subject to train arrivals, departures, signal bells and perhaps horns, seriously eroding the quality of life in the neighborhood and reducing the enjoyment of the recreational trail and Cedar Lake Park for users of these regional amenities.

We believe that the residences with noise impacts deemed “moderate” in the SDEIS will likely experience severe noise impacts without proper mitigation, and that in addition to the residences identified, residences along 21st Street, 22nd Street, and Sheridan Avenues will also experience at least a moderate noise impacts. We further believe that there will be an impact on more residences than the 24 cited in the SDEIS.

Note: The SDEIS misidentifies some of the homes deemed to have a “moderate impact without mitigation” as being on Thomas Avenue South; some of the addresses are actually on Sheridan Avenue South.

LRT Horns are Likely: According to the federal Train Horn Rule⁸, locomotive engineers must sound horns at a minimum of 96 decibels for at least 15 seconds at public highway rail grade crossings. Appendix H indicates that LRT Horns are 99 decibels and are sounded for 20 seconds. The SDEIS states that LRT horns would only be sounded at crossings where speeds exceed 45 mph. Since LRT and freight trains may not reach that speed in the Kenilworth Corridor, presumably no horns would be sounded when LRT vehicles cross 21st Street. Given the volume of pedestrian, bicycle, and car traffic at this crossing, it is not safe to silence LRT horns at this crossing. The noise created by horns sounding for LRT trains at least 96 decibels for a minimum of 15 (or 99dBA for 20) seconds represents a “severe” noise impact and is therefore prohibitively detrimental to quality of life in a residential neighborhood.

Issues Not Addressed in SDEIS Noise 3.4.2.3

Not addressed: Impacts near Portals: Two areas of potential noise impacts do not appear to be adequately addressed by the SDEIS. First, table 3.4-11 does not appear to cover noise that will be experienced by the homes directly behind the SWLRT tracks after it emerges from the tunnel and crosses the Kenilworth Channel. Since LRT on ballast and tie track produces noise at 81 dBA, we believe that those residences will experience noise at the same level as homes on Burnham Road and Thomas Avenue South. Further, Appendix H notes that noise will increase by 1 dBA for homes within 100 feet of the tunnel entrance/exits. We strongly request that noise impacts be determined for those residences and that they be included in consideration for noise mitigation. We further request that the cost of that additional mitigation be included in the costs of the Final DEIS.

Not addressed: Tunnel Ventilation System: Second, noise from the tunnel ventilation systems does not appear to have been considered. The SDEIS states that the tunnel section of the SWLRT is supposed to eliminate “almost all noise impacts within that segment of the corridor.” However, we understand that there will be ventilation fans connected to the tunnels as well as a ventilation “building” planned near Cedar Lake Parkway. The SDEIS neglects assessment of the noise impacts from such a ventilation system, and this information is critical to determining whether the proposed tunnel would have a positive or negative environmental impact.

Policy-makers and citizens need adequate information on the noise impacts of both the vents and the ventilation building before proceeding with tunnel construction. Appendix H indicates that the fans will operate only on an emergency basis, but we do not see any mention of the ventilation building in the SDEIS. We request clarity on the amount of time each day that they will be operational and creating noise impacts, and the dBA of each.

Not addressed: Freight Operations: The existing freight operations, intended to be temporary, are being made permanent. The noise generated by these trains, which often have three or four engines, must be measured and considered in the overall assessment of noise impacts of the SWLRT project.

The SDEIS simply states that the noise issues described above will be addressed in the Final EIS and that they will be mitigated. *We take the strong view that now is the critical and only time to prove that mitigating the noise issues we have described is possible and that the cost of such mitigation is in the budget.*

3.4.2.4 Vibration

LONG-TERM DIRECT AND INDIRECT VIBRATION IMPACTS

Comment: The SDEIS states, “There are no vibration impacts in this segment [of the SWLRT route]” This claim is not credible in view of advice provided in *Transit Noise and Vibration Impact Assessment*, the FTA’s own guidance manual presenting procedures for predicting and assessing noise and vibration impacts of proposed mass transit projects:

Vibration from freight trains can be a consideration for FTA-assisted projects when a new transit line will share an existing freight train right-of-way. Relocating the freight tracks within the right-of-way to make room for the transit tracks must be considered a direct impact of the transit system, which must be evaluated as part of the proposed project. However, vibration mitigation is very difficult to implement on tracks where trains with heavy axle loads will be operating.”⁹

The SDEIS says that 54 residences¹⁰ in the “St. Louis Park/Minneapolis” segment (note that all of them are within Minneapolis) will be impacted by the ground-borne noise. This is an unacceptable level of impact on those 54 families.

According to Appendix H, which addresses both noise and vibration, the table titled Typical Maximum Noise Levels (dBA) on page H-19 quantifies the dBA for LRT, freight and then lawnmowers and buses idling. The dBA for freight rail in that same table is shown for a speed of 20 MPH. The freight in the Kenilworth Corridor travels at a maximum of 10 MPH. For comparison purposes, the assessment should use the dBA of freight trains traveling at 10 mph. Use of the sound impact from a train travelling twice as fast (20 mph) as the current speed in the corridor understates the current noise level (from freight), thereby minimizing the impact and differential from the LRT trains.

Regardless of whether the residences are impacted by vibration from the tunnels or from the noise which is flagged as a “Residential Annoyance” in the tables in Appendix H, the fact that these “annoyances” will occur incessantly — 220 times per day starting at 4 a.m. and continuing to 2 a.m. — means the impact on those residents will be significant and should be considered “severe”. This is very unlike the impact of the freight trains: they may in some cases may be louder than the LRT, but there are only one or two of them per day — often not during the night hours — and then they are gone.

Regarding ground-borne vibration and noise, it should be noted that the impacts projected might underestimate real-world impacts, which could be more annoying than assumed. The FDA manual states: ¹¹

...the degree of [ground-borne vibration and noise] annoyance cannot always be explained by the magnitude of the vibration alone. In some cases the complaints are associated with measured vibration that is lower than the perception threshold.

⁹ Chapter 7: *Basic Ground-Borne Vibration Concepts*, 7-9

¹⁰ All of them are Category 2 receivers: “residences and buildings where people normally sleep.”

¹¹ Chapter 7: *Basic Ground-Borne Vibration Concepts*, 7-6

SHORT-TERM VIBRATION IMPACTS

The SDEIS all but ignores construction-related ground-borne noise (vibration) — except for a single, dismissive comment: “Short-term vibration impacts are those that might occur during construction of the LPA while jackhammers, rock drills, and impact pile-drivers are being used.” Within weeks of this writing, impact pile-driving on the former Tryg’s restaurant site in the West Lake Station area caused serious damage to the Loop Calhoun condominiums, as well as some level of damage to the Cedar-Isles Condominiums. The contractor, Trammel Crow, had to halt the project and extract the piles, since going forward was deemed to be catastrophic. Yet, the pile driving entailed in building the SWLRT tunnel would take place much closer to these and other condominiums, duplexes and apartment houses. The Trammel Crow incident seems to strongly predict a risk of significant construction-related damage to the homes of hundreds of people who live along the corridor where impact pile driving for SWLRT is planned. The SDEIS does not address this problem.

Furthermore, the recent Met Council sewer project completed in this area caused damage to homes located beyond the “expected” range of distance from construction. Residents who attempted to get compensation for the damage were often told by the Met Council to take the matter up with their own insurance companies rather than through the contractors whose work caused the damage. A specific liability plan and budget should be included in the SWLRT project cost estimates. There is a “contingency” line item in the budget, but it should be reserved for genuinely unpredictable costs that arise during the construction, and not for costs that could be, should be, and even are anticipated.

Construction-related vibration impacts could well extend beyond the construction period itself. Damage incurred during construction may not be initially apparent, and could show up months or even years later.

Further study is needed of:

- 1) The effects of various pile-driving alternatives on the many at-risk structures
- 2) The costs involved with each of those alternatives;
- 3) The geology of the area, and its ability to support the construction process.

MITIGATION

The SDEIS promises mitigation of a number of vibration problems. However, the failure of Met Council mitigation measures taken to address LRT problems experienced by the University of Minnesota and Minnesota Public Radio cast abundant doubt on whether they will be effective here.

With respect to the vibration mitigation (to be further detailed in the Final DEIS), the measures suggested in Appendix H appear to be inapplicable to the many residences that would be affected. The SDEIS describes isolated tables and floating floors. It’s hard to imagine a retrofit of the residences impacted by the vibration affects utilizing “floating floors.” If this is the intent of the mitigation planned for the SWLRT, a cost estimate of the retrofit of all the residences should be included in the Final DEIS.

3.4.2.5 Hazardous and Contaminated Materials

Long-term Direct and Indirect Hazardous and Contaminated Materials Impacts

- Permanent pumping of contaminated groundwater
- Impacts of disturbance of dangers in soils that may have long term health impacts on children and vulnerable adults
- Not covered in the SDEIS is the co-location of SWLRT in close proximity to hazardous and explosive materials being carried by the railroad.

SHORT TERM

The DEIS called for Phase I ESA to be completed, and it was completed in August 2013. It was not made public by the Met Council until May 19, 2015, and indicates many potentially hazardous and contaminated sites along the alignment. It is reasonable to expect to encounter extensive contamination in the Kenilworth Corridor. In addition to being home to several railroad tracks, the Kenilworth Corridor was home to a maintenance yard, blacksmith and boiler shops, a diesel shop and a 90,000-gallon fuel storage facility. In addition, the land was used as a dump — a common practice of the time, and it is likely that arsenic will be among the dangers encountered, requiring special remediation.

The Phase II Environmental Site Assessment (ESA) is said to be near completion; the report must be made available for public review and comment as soon as it is available. The SDEIS says it is “reasonable to expect that previously undocumented soil or

groundwater contamination may be encountered during construction.” It is unclear if any findings in the Phase II ESA have been incorporated into the cost increase recently made public.

The cost of such remediation is unknown and has not been included in the cost estimates. Several sections of the alignment have been designated part of the MPCA Brownfields Program. In the best-case scenario, they will not require much remediation; in the worst case, they will become a Superfund site, requiring significant and expensive remediation.

We attempted to receive budget information that would indicate what amount of the increase in the budget from \$1.65 billion to \$1.99 billion was earmarked for remediation in this corridor. However, the SW Project Office provided only the highest, most general, level of information, claiming that they do not track the line items for things like soil remediation on a segment-by-segment basis, but only in total for the project.

We believe that remediation will require a Construction Contingency Plan above and beyond the general Contingency budget line item. The cost of such a Contingency Plan for Remediation should be included in the project budget.

3.4.3 Economic Effects

Long-Term Direct and Indirect Economic Impacts

Comment: LRT Done Right disputes the statement that SWLRT will positively impact property values, especially around the 21st Street station and Channel. The current freight alignment in the Kenilworth Corridor is already a negative and permanent defect affecting the value of properties along the line, one that would only be magnified by co-location of SWLRT. This is precisely why some residents argued against co-location. The threat of a collision and derailment — such incidents are gaining increased attention in the news media — will in all likelihood increase the scrutiny of buyers as they evaluate the Kenilworth area as an investment and home for their families. Further, the increased noise, vibration, and (nighttime) light from SWLRT, without the previously promised removal of freight rail, would exponentially increase aesthetic disturbance in a neighborhood that until now has been desirable for its park-like feel and up-north atmosphere. The increased adverse effects of co-location will represent a permanent defect to homes within earshot and sight of the line; based on the audible sounds of the current freight line, auditory adverse effects would reach as far as Lake of the Isles Parkway, but those sounds would no longer be the low rumble of freight, but a much more disruptive cacophony of bells and horns.

Further, while studies such as rtd-fastracks.com and others show that access to light rail can increase property values in areas of high density, especially in transient (apartment-filled), younger, urban neighborhoods, the area around the Kenilworth corridor does not wholly represent those attributes. The study mentioned, among others, shows that higher income and low-density neighborhoods, which also comprise this neighborhood, do not experience the same positive impact on property values and rentals as do lower-to-middle-income neighborhoods where public transit is more generally used.

While the Met Council’s 1,600 rides-per-day estimate is unrealistic and unsubstantiated, there will nonetheless be an adverse impact from those who do park in the neighborhood to access the station, resulting in residents closest to the station losing street parking in front of their homes. This would be a disincentive to potential buyers, and negatively impact home values.

We do not support changing the character of the neighborhood with dense development (with the exception of the West Lake Station area, assuming that land is available). Such development would not be feasible on any meaningful scale due to the mature and stable nature of the neighborhood and minimal available free space. Development would denigrate the existing green space in the corridor, especially around the 21st Street station, which is the access point for the beach and trail access for the neighborhood.

We believe the negative economic impact on the entire “brand” of the City of Minneapolis incurred by running a divisive, noisy, and environmentally unsound line through one of the crown jewels of “The City of Lakes” park area will forever have a negative impact on tourism as LRT will disturb the current serenity of the channel, lagoon and lake. The larger, oppressive, industrial-scale bridge will downgrade the experience currently enjoyed by kayakers, walkers, bikers, etc., and cause tourists to leave the city to obtain that natural experience they once enjoyed in Minneapolis.

Finally, we have identified a number of issues not recognized in the SDEIS that will require, by our calculation, initially at least \$13 million to \$24 million of investment above and beyond the projected \$1.65 billion budget goal, and additional costs in perpetuity.

- *\$1 million to \$5 million* — For permanent dewatering of contaminated soils; this will require an extra sewer line in Kenilworth. The City of Minneapolis will need to approve this, since it owns the sewer. The city did not approve this for the 1800 Lake building and went to court over it; would they approve it, on a much larger scale, for SWLRT?
- *\$5 million to \$10 million*: For polluted soil removals. Known polluted soil conditions will require mitigation of thousands of tons of soil, but since the extent of pollution is unknown, the cost may be much higher. This cost will likely be in the millions for Kenilworth section alone; MPCA will need to approve and may add scope/cost.
- *Unknown millions*: For construction-related damage to existing buildings, including possible buy-out of impacted buildings. We understand that there is no way to guarantee that the Calhoun Isles Condominium towers will not be damaged by construction beneath their foundations. What is the current value of these condos?
- *\$3 million to \$5 million*: For relocation of existing sewer force main, pump station, ongoing operational costs of a new pump station.
- *\$4 million annually*: In lost property tax revenues. Approximately \$2 billion of the City of Minneapolis' net \$35 billion tax base is located within 1,000 feet of the Kenilworth Corridor. Most of this \$2 billion is commercial property taxed at 4 percent of value and some is from some of the city's highest-priced homes. Annual taxes from these properties are about \$80,000,000. A decline of just 5 percent in property tax value in this area would equate to an annual loss of \$4,000,000 per year to the City of Minneapolis. Forever. The Met Council would be clobbering one of the golden geese that currently supports Minneapolis Equity Transfer Payments. This area is built out already and limited by zoning from growing further, so there is no net benefit to the city if there is no new growth.

We therefore dispute and challenge the SDEIS statement that mitigation for economic impacts is not warranted for the Kenilworth Corridor, particularly in the absence of any plausible property impact study.

3.4.4.2 Roadway and Traffic

Comment: LRT Done Right is concerned about emergency access being reduced 12 times per hour to East Cedar Lake Beach and the residences on Upton Avenue S. The freight train, which was originally to be removed, coupled with the light rail line, will exponentially impair access further. We see no possible way to mitigate this impact even beyond the measures that are mentioned in the SDEIS.

3.4.4.3 Parking

Comment: LRT Done Right is concerned that there is complete disregard in the SDEIS for the impairment of on street parking availability in its neighborhoods for residents and their guests. as well as emergency access to those homes, especially in winter when streets are narrowed. LRTDR strongly opposes any park and ride lots as that would significantly impair the parklands and would not be compliant with Minneapolis city policy.

3.4.4.4 Freight Rail

A. Existing Conditions

Comment: It is very troubling that, contrary to all previous planning, the SDEIS now claims that the need "to develop and maintain a balanced economically competitive multimodal freight rail system" as a justification for the Southwest light rail project (page 1-1). With little public awareness of this new "need," the project has morphed so that approximately \$200 million in local and federal *transit* dollars will be used to improve *freight* rail.

In 1998, when freight was reintroduced to the Kenilworth Corridor, freight was to be a temporary alignment until light rail could be built. All along, this promise was made to the City of Minneapolis, the Cedar Isles Dean neighborhood, the Kenwood neighborhood, and others as a basis for agreement to the project. That none of the responsible parties, including elected officials who are still deeply involved in the SWLRT planning process, secured appropriate legal documentation of this agreement at the time is beyond disturbing.

The 2005-2007 Alternatives Analysis assumed that “freight would be relocated to make way for light rail.” Since freight was not taken into account at this stage, neither Hennepin County nor the Met Council conducted an honest and realistic analysis of alternative ways to serve the southwest suburbs’ transit needs. The financial, political, and environmental costs of addressing freight rail in the Kenilworth Corridor were not considered.

When the Locally Preferred Alternative (LPA) was selected in 2009-2010 under the assumption that freight rail would be relocated and that LRT would run at-grade in Kenilworth, the costs and concerns of freight relocation were again not addressed.

The Project Scoping Report for the 2012 Draft Environmental Impact Statement said clearly, “Freight Rail is independent of the Study.” Although the Federal Transit Administration (FTA) noted this erroneous assumption when it approved preliminary engineering, neither Hennepin County nor Met Council ever amended the project scope to include freight rail.

The Municipal Consent process was designed so that once a project’s elements and impacts are known, public officials can make informed decisions. However, since freight co-location with LRT and tunneling were never part of the original LPA and subsequent DEIS, the City of Minneapolis was pushed in 2014, under threat of project cancellation, to grant municipal consent without foreknowledge of the risks to both community and environmental safety.

Now this SDEIS is similarly devoid of important human and environmental safety information around co-location of freight and SWLRT. It is remarkable more for what is **not** included than what is included. Substantive issues remain unexamined, especially in Sections 3.4.4.4 (Freight Rail) and 3.4.4.6 (Safety and Security). The SDEIS only addresses the effects of LRT on freight rail (mostly economic impacts to minimize time lags on freight during construction), not the environmental and safety effects of co-location of freight and light rail through the corridor. It says nothing about substantive safety concerns of co-locating high-hazard freight feet from LRT construction and LRT trains in operation.

Kenilworth — and the SWLRT with co-location — is in the “Blast Zone.”



Nationwide, communities are becoming increasingly aware of high hazard freight – often referred to as “bomb trains” — operating in their midst. High-hazard trains have long run through our towns and cities, but never with the frequency nor the amount of dangerous materials now being hauled. Running such trains through any populous areas is undesirable and puts many human lives within a “blast zone,” running 1/4-1/2 mile on either side of the track.

The Kenilworth corridor is a high-risk evacuation blast zone.



Below are two representations of the Blast Zone. The map applies the definition of the Blast Zone, as commonly defined by many national groups with interest in the issue, and the chart depicts the number of residents in the blast zone. Each green circle represents 100 residents.

- THIS IS THE BLAST ZONE -

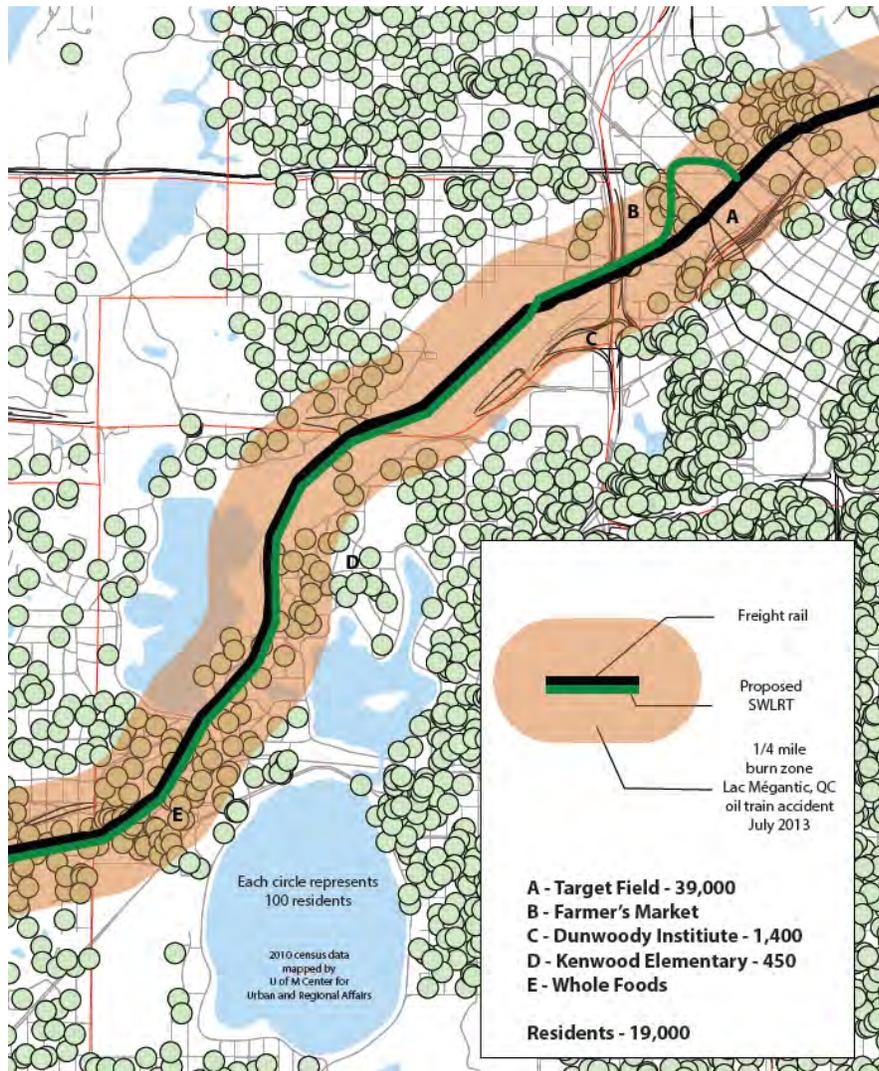
**SWLRT co-location with high hazard freight trains
in the Kenilworth corridor**



Ethanol and Oil Train Disasters:



Population density map of the Blast Zone – Kenilworth Corridor. Please note that the blast zone includes Target Field.



Comment: Freight railroads have radically changed since the reintroduction of freight into the Kenilworth Corridor. The federal mandates on ethanol, the running of unit trains carrying single high-hazard products, and the use of much longer trains have increased freight safety concerns. The privately owned TC&W is currently the only freight company that is allowed to take trains through the corridor, but it can connect to any other carrier and currently partners with Canadian Pacific to carry its products through Kenilworth. Federal rail policy requires that the interests of freight rail operators and shippers be considered in the development of passenger rail service.

In order to provide elected officials, policy makers, and members of the public with current, factual, and supportable information about the impact of TC&W and its operations, TC&W commissioned a study in 2013. According to this report by Klas Robinson,¹² "TC&W provides rail service to numerous companies in Minnesota and neighboring South Dakota, hauling such diverse products as corn, soybeans, wheat, sugar, vegetables, ethanol, crushed rock, metals, plastics, potash, fuel oil, distillers oil, machinery, lumber, manufactured goods, propane and fertilizer, including anhydrous ammonia." Ethanol, propane, fuel oil and fertilizers are all high-hazard products. Distiller's oil and potash are also *flammables*. Exposure to even small amounts of anhydrous ammonia

¹² *Economic Impact of TC&W Railroad's Freight Operations*, September 2013; <http://tcwr.net/wp-content/uploads/2013/10/TCW-Impact-Final>.

can cause serious burning of the eyes, nose, and throat. Exposure to higher levels causes coughing or choking and can cause death from a swollen throat or from chemical burns to the lungs. A single tanker car of anhydrous ammonia can put hundreds or even thousands of area residents at risk in case of derailment and breach.

Through 2012, the report says, “customers of Twin Cities & Western Railroad Company and its affiliates shipped more than 23,400 cars, including almost 17,700 cars on TC&W and over another 5,700 cars on a short line railroad that uses TC&W to reach the Twin Cities.” That number continues to expand annually, with “the number of monthly cars shipped on TC&W during the first four months of 2013 significantly higher than for the same periods in each of the three prior years — almost twice that of first quarter 2012 (94.0 percent greater), almost 40.0 percent higher than first quarter 2011 and 70.0 percent greater than first quarter 2010.” As the economy continues to improve since the recession of 2008, we can expect that the number of train cars and the frequency of trains will increase. According to the Minnesota Department of Agriculture, between 2000 and 2011, ethanol production in Minnesota increased by over 5 times and each subsequent year has continued this trend. With the nation-wide federal mandate to increase ethanol in gas to 20 percent, we can also expect the production and transport of these high-hazard products through the corridor to increase dramatically. It is clear that the TC&W that was temporarily reintroduced in the corridor in 1998 is not the TC&W that runs through the corridor now.

According to TC&W, they “have Class I rail connections to Canadian Pacific, Union Pacific, BNSF Railway and Canadian National, reaching markets in 39 U.S. states, seven Canadian provinces and four Mexican states.” Their network would potentially allow them to carry anything including nuclear products, Bakken Oil, anhydrous ammonia, chlorine, and other hazardous freight. Common Carrier freight legislation requires that shippers (currently TC&W and CP) carry anything that their customers demand. Additionally, *at any point TC&W could sell their company to one of the major railroads*, such as BNSF, which could generate 10 times as much traffic and introduce exponentially more hazardous materials into the corridor. *Making freight rail permanent in Kenilworth increases the chance that this will happen.*

The Pipeline Hazardous Materials Safety Administration (PHMSA) controls the safety of freight trains. Historically, PHMSA standards have been lax, prioritizing commerce over safety and the environment. Recently, after public pressure, PHMSA has toughened safety standards for most railroads. ***Please see LRT Done Right’s prior correspondence on this matter at the end of this response, starting on page 38.***

However, TC&W, which is a Class III rail carrier (a short line with lower revenues), has been and continues to be exempted from certain safety standards that guide more profitable and larger Class I and II railroads. Ethanol is carried in DOT-111s and this type of car will not be banned, according to PHMSA for another 5-7 years. Railroads have lobbied heavily to remove current and future regulations on them to maximize their profits, including recently passed braking mechanisms on the hazardous cars. They have lobbied to go from two-person crews to one- or two-person crews. A single-person crew would reduce safety due to overload, fatigue, etc. And railroads have fought to delay the introduction of safer double-hulled tanker cars and to continue to carry their hazardous cargo in dangerous substandard DOT-111 freight tanker cars. Freight infrastructure has suffered, and nearly all derailments are due to substandard equipment, track failure or operator error. Some new PHMSA standards that attempt to improve safety of hazardous freight *may not even apply to TC&W due to their Class III status*. Class III railroads also have less money to invest in infrastructure, and it is clear that this railroad has infrastructure issues, experiencing a derailment in 2010. Despite replacement of rails to single-weld track in 2012, TC&W still suffers from infrastructure issues, like rotting cross ties, missing rail plates and the missing rail spikes that hold the rails in place. From May 2015 to July 2015, deep potholes have bordered the track at the Cedar Lake Parkway crossing, and have gone unfixed despite calls to TC&W and MNDOT.

The mix of commodities that TC&W carries has changed over time, with approximately 30 percent of TC&W’s freight being ethanol. It has only been in the last 5 to 10 years that unit trains of a single commodity have been a common occurrence. Prior to that, manifest trains, carrying a variety of commodities were much more common. *Unit trains of 100 cars of ethanol*, a highly flammable product, now frequently traverse the corridor. Through the planning process, the Met Council repeatedly told members of the public that the primary products carried by freight through Kenilworth were agricultural — which sounds innocuous enough. But while ethanol may be an agricultural product, it is hardly innocuous. According to Karl Alexy of the FRA, ethanol is more dangerous than most crude oils, with a lower ignition point, and higher explosive potential. Its Hazard Packing Group rating (II) is higher than most crude oil (because of its explosive potential). With respect to oil, only Bakken Crude matches its danger due to the high level of byproducts added to Bakken oil and its consequent instability. Ethanol burns hot enough (3,488 degrees F) to melt steel structures. The freight through Kenilworth currently runs only feet from bridges and mere inches from a high-rise condominium that would be vulnerable in the case of a derailment.

The Freight Rail Administration (FRA) estimates that there will be at least 10 to 20 oil or ethanol derailments per year going forward. Nationwide, we had over 7,000 train derailments of some kind in 2014. *These concerns are not just theoretical.*

Further, *we strongly object to the Met Council requesting that the FRA abdicate its jurisdiction over freight rail* in the Kenilworth Corridor and elsewhere along the SWLRT line. The Met Council has requested waivers from the FRA to put jurisdiction of the co-located corridor under FTA. We have no evidence that the Met Council or the FTA are qualified to oversee the combination of LRT and freight rail in the same corridor, particularly in such close proximity. We are extremely concerned that the FRA may be relinquishing its jurisdiction, except for five named at-grade crossings where both freight and LRT cross together, and even here the Met Council could apply for a crossing waiver.

The existence of freight alone is of great concern to residents and users of the Kenilworth Corridor. The construction of SWLRT running right next to high hazard freight is alarming. *None of these facts or concerns is reflected in the current SDEIS.*

B. Potential Freight Rail Impacts

Long-term direct and Indirect Freight Rail Impacts

For reference to LRT Done Right's commitment to freight safety in the Kenilworth Corridor, please see the addendum at the end of this response.

Comment: Hazardous freight has become a nationwide problem. By choosing to co-locate freight and light rail, despite all previous planning, the Met Council is choosing to exacerbate this problem in the Kenilworth Corridor. The addition of LRT to a corridor that does not meet the minimum American Railway Engineering and Maintenance-of-Way Association (AREMA) safety guidelines of a 25-foot separation center-to-center rail is shockingly unsound. In fact, AREMA now recommends a 200-foot separation as optimal. Although narrow corridors that contain both freight and passenger trains and do not meet minimum safety standards currently exist in parts of our country, an increasing awareness of freight dangers has meant that going forward, communities are much more exacting with regard to safety standards and meeting minimum AREMA guidelines. In fact, we can find no other project currently under construction that won't meet at least the minimum 25-foot grade separations. *The SWLRT project does not meet current AREMA best practices.*

The many risks of running freight next to LRT are unmentioned in the SDEIS, even though we know that the majority of freight or LRT derailments are either track failures or operator error. There is nothing in the SDEIS that deals with an *evaluation of risk or readiness of dealing with a derailment*, especially of a high-hazard product.

LRT catenary wires that regularly spark off the pantographs will run in some places 10 to 15 feet from freight trains. In 2014 alone, FRA reported 43 "accidents" in the United States related to pantographs. There was one in St. Paul within the last few months. Even with the eventual placement of crash walls, catenary electrification would run immediately adjacent to highly flammable unit trains (80 to 125 tanker cars) of ethanol. Ethanol is vulnerable to ignition by electrostatic charges and has a higher ignitability than most forms of crude oil. Vents at the top of ethanol tanker cars will run close to those electric wires.

TC&W and C&P trains use DOT-111 tanker cars. These trains regularly traverse the Kenilworth Corridor carrying ethanol, fuel oil, propane, fertilizers (including anhydrous ammonia), distillers' oil, and potash. These old-generation tanker cars have single hulls prone to thermal tears and punctures, and leaky valves. They are more likely to tear or puncture than newer generation replacements like the double-hulled DOT 117s. The National Transportation Safety Board (NTSB) discovered problems 24 years ago with DOT-111 tankers but USDOT did nothing. In 2012, the NTSB called for an immediate ban on using these tank cars to ship high-hazard products like ethanol and crude oil because they are prone to punctures, spills, fires, and explosions in train derailments. Two in three tank cars used to transport crude oil and ethanol in the U.S. are DOT-111s, yet the DOT has taken no action beyond issuing a safety advisory urging shippers to use the safest tank cars in their fleets to the extent feasible. Only recently has PHMSA come out with new regulations to replace these dangerous tankers over a six-year time period. Loopholes exist in the regulations, however, making it all but certain that single-hulled DOT-111s trains will continue through Kenilworth for years to come.

Another serious concern with freight is the misclassification of rail cars. PHMSA first launched Operation Classification in the summer of 2013, in response to increased activity in the Bakken region. Initial testing has revealed that 61 percent of high-

hazard oil was misclassified. Sometimes the train manifest may not actually reflect what being transported by the freight. The extent of misclassification of TC&W's rail cars is not currently known.

According to the Department of Homeland Security, high-hazard train tankers are vulnerable to terroristic threats. The proposed electrically-powered SWLRT would run adjacent to ethanol-bearing freight through St. Louis Park and the Kenilworth Corridor all the way into downtown. Around the area of Dunwoody, the TC&W tracks merge with those of BNSF tracks, which have been documented as carrying crude oil.¹³ Farther on, the freight trains (some carrying ethanol and some carrying Bakken crude oil) join LRT and Northstar Commuter rail in tri-location, until they stop at the Target Station. Thus, while ethanol and crude oil trains already represent risks to Twins Stadium and Target Station, the addition of LRT would expose even more people to potential danger.

The Department of Homeland Security identifies places like the Twins Stadium and the Target Station as high-value targets vulnerable to terrorism. The co-location of freight and passenger trains carrying 10,000 thousand tons of highly combustible products underneath the Twins Stadium and to the Target station is a disaster that can and should be prevented. Were high-hazard freight not running through this corridor, as was originally envisioned with relocation of freight, then the concerns of terrorism would be diminished. However, tri-location of high hazard freight, Northstar commuter trains and SWLRT near to and underneath the Twins Stadium to the Target Station is planning gone awry. If we believe that terror groups are unaware of these high value target vulnerabilities in our system, we are likely sadly mistaken. Regarding the multiplicative risks and risk readiness related to tri-location of high-hazard freight, Northstar, and SWLRT under the Twins Stadium and to the Target Station, the SDEIS contains no acknowledgement.

In fact, even after a multitude of concerns were raised by the City of St. Louis Park and its residents in response to the relocation of freight proposed the 2012 DEIS, *the current SDEIS does not contain one word acknowledging high-hazard freight through Kenilworth*. There is evidently no safety plan should an ethanol or other hazardous materials freight derailment to occur, and no containment and recovery planning should a disaster encroach on the tunnel and/or spill in to the Minneapolis Chain of Lakes.

Hennepin County, the Met Council and the State of Minnesota have little power going forward in determining whether or not TC&W's model of business changes in ways that would increase risk. They also have no ability to intervene if TC&W should choose to sell. These risks to the Kenilworth area are only likely to increase as federal mandates to increase the mix of ethanol from 10 percent to 20 percent in gasoline mixtures are initiated. TC&W could choose to sell, likely to BNSF, likely increasing the frequency and length of trains in this corridor and transportation of an even greater mix of hazardous chemicals.

Currently, TC&W reports that trains go 10 miles per hour through the Kenilworth Corridor, but this is voluntary, not mandated. Going forward, the company may choose to sell to a company that does not respect this speed limit or TC&W may decide to increase speeds. The necessity of slow freight (even beyond the LRT construction period) is critical in an urban recreational corridor and a *long-term enforceable agreement with the freight operator and the Hennepin County Regional Rail Authority should be considered as part of this project*.

Further, heavy freight causes vibrations that travel through the ground. The ground substructures affect vibrations, with waterlogged soils tending to increase those vibrations. We see no evidence that the potential for long-term damage to LRT structures from vibrations of heavy freight – and the related long-term costs in terms of maintenance dollars and human safety – have been considered. Potential damage to residences and other buildings from freight vibrations is also ignored in this SDEIS.

Finally, the SDEIS does not explore Met Council liability if SWLRT or freight derail or otherwise cause damage or harm. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. In light of the catastrophic potential of any accident in the Kenilworth Corridor, *this insurance liability assessment should be done* prior to building SWLRT, then made public and included in construction and operating cost estimates.

Short-Term Freight Rail Impacts

Comment: During construction, the dangers to the community will be exacerbated due to the fact that freight, particularly freight carrying hazardous materials, will continue through the corridor.

¹³ Photos taken on 7/21/15 of a BNSF train in this segment of the route, before and after it merges with the TC&W route, show cars bearing 1267 petroleum crude oil DOT placards; presumably these cars are carrying Bakken crude.

First, it's not clear that there is room in corridor for the construction plan as described. While we've seen various calculations of the corridor's narrowest point, our understanding is that it measures 59 feet. This point is located between the historic grain elevators – the Calhoun Isles Condominiums – on the east and the Cedar Shores town homes to the west. The SDEIS states that the freight tracks will be moved 2 to 3 feet closer to the town homes. The tunnel trench (35 feet wide) will be dug at the base of the Calhoun Isles Condominiums about 18 inches from its footings. There will be a buffer between town homes to the east of 22 to 24 feet; the freight train is about eight feet wide. Thus: 35 feet trench + 2 feet from condos + 24 feet from town homes + 8-foot wide freight train = 69 feet — to fit into a 59-foot pinch-point. This math does not inspire confidence in the safety of the construction plan.

During construction, freight will run through a construction zone with construction workers and debris with **no crash walls** at the edge of a 35-foot construction trench. It will continue to carry high-hazard freight including ethanol, fuel oil, and fertilizer. (Under common carrier obligation, TC&W or CP must carry whatever else their shippers ask them to carry and we may or may not know what these trains are actually hauling.) "Bomb trains" will travel at the edge of a construction pit that will take two years to complete. Even with the precautions suggested in the SDEIS, a derailment is far from unimaginable in this scenario. The proximity of the condominiums and town homes puts hundreds of people at risk for devastating consequences.

It is also important to note that the current poor condition of freight rail infrastructure increases the risk for a short-term freight derailment both during and after construction. A recent obvious example: From late May through July 2015, two pot holes immediately next to the rail at the Cedar Lake Parkway freight crossing measuring as deep as 6 inches have remained unfilled despite being reported to DOT and to TC&W. In 2010, there was a derailment in the neighborhood of a TC&W train; Hennepin County replaced the track through Kenilworth with a safer single-weld track. However, rotted freight ties were not replaced at that time, nor were rail plates and spikes uniformly repaired. Currently, there are rail ties that are completely rotted out, missing rail plates that hold the ties to the rails and many missing rail spikes. That these were not repaired when the rail was replaced indicates poor maintenance and raises concerns about the competence that Hennepin County and the Met Council will bring to the co-location element of the SWLRT project.

Construction debris in the corridor will heighten the risk of derailments. Derailments are caused by operator error or track failures, including track impediments. Construction can displace the supporting structures that bolster rail, and although engineers can try to bolster the structures through shoring, there will be nothing to stop a train if it begins to tip into the construction pit. Tip guardrails have been suggested as a solution (not in this SDEIS), but these can build up with snow and actually cause derailments.

Nighttime running of freight (also not considered in the SDEIS) will be perhaps even more dangerous than daytime. Construction debris may be left near or on tracks and may not be visible to the freight engineer at night. Final day inspection of track is imperfect and human error could easily miss track impediments.

Inclement weather like snow may mask destabilization of freight infrastructure, and rain could wash out the surrounding already disturbed soils, increasing the derailment risk during construction. While this is true under any construction scenario, the risk multiplies with freight running next to the tunnel construction pit.

If a derailment were to occur during construction, access to fire safety equipment is extremely limited because of the nature of the corridor: in some places, the only access is between people's homes and/or through their driveways. In the event of a derailment occurring during construction, the only access for fire trucks may be from West Lake Station, 21st Street or Cedar Lake Parkway. Fire equipment must be accessible in case of a derailment emergency, and in-depth coordination among the fire department, the Met Council, and the citizens has not been attempted or even mentioned in this SDEIS.

In case of any chemical freight derailment, chemical fires must be fought with specialized foam products, usually foam specific to the chemical spill. These fires cannot be fought with water, which can actually spread a chemical fire. Water can be used to cool rail cars that have not ignited, but foam is necessary to put them out. Limited foam is available at local fire stations, but our understanding is that it can take 2 hours or longer to access the necessary quantity of foam to fight a chemical derailment fire.

Currently, TC&W reports that trains go 10 miles per hour through the Kenilworth Corridor, but this is voluntary, not mandated. Going forward, the company may choose to sell their company or increase that speed. The necessity of slow freight even without LRT construction is critical, but with construction the danger becomes critical at any speed.

According to TC&W president Mark Wegman, there had only been one meeting as of June 2015 (i.e., in preparation for the SDEIS) with SWLRT project staff to discuss issues of joint construction concern. This seems shortsighted. Our community expects more than superficial consideration of these serious construction-related concerns prior to decisions about the feasibility of moving forward with the SWLRT project.

Finally, the SDEIS does not explore Met Council liability either during or following construction if SWLRT or freight derails causing a train catastrophe. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. This assessment should be completed and made public prior to SWLRT construction.

C. Mitigation Measures

Comment: It is difficult to respond to this section surrounding freight since no problems with co-location have even been acknowledged in the SDEIS. There is no real analysis of the effects of co-location and the danger of running high-hazard freight through the Kenilworth Corridor both during and after construction, and in an area that does not meet minimum AREMA guidelines, let alone best practices. This SDEIS is astounding more for what it does not contain than what it does. The mitigation proposed concerns only making sure that the freight schedule is unimpeded; it ignores concerns about the safety of neighborhood residents, construction and freight personnel, park and trail users, or future SWLRT riders.

Minimally, during construction, high-hazard freight MUST be diverted from the corridor. Long term, crash walls between freight and LRT are critical. In the short term, without crash walls, ALL hazardous or flammable freight should be rerouted out of the corridor until proper safety crash walls are present. The idea of running high hazard freight during construction at the edge of a construction trench without crash walls is extremely concerning.

The treatment of freight rail in this SDEIS indicates that the Met Council is not even aware of the danger to area residents, waterways, parks, trails, or SWLRT passengers. The many issues related to making freight rail permanent in the Kenilworth Corridor and co-locating freight and light rail need much greater study and consideration before this project advances.

3.4.4.5 Bicycle and Pedestrian

Because there would be no long-term adverse impacts from the LPA on bicycle and pedestrian facilities, no long-term mitigation measures have been identified. Short-term effects on pedestrian and bicycle routes will be mitigated through signage, information fliers, website postings with maps of construction areas/detours, and notices placed at bicycle shops, for example.

Comment: At last measure, our understanding is the trails receive 600,000 discrete unique visits per year and those visits to current parkland are enhanced by the current “north woods” feel of the area, and that experience would be significantly impaired by the addition of light rail. This includes an expectation of natural quiet conditions. Pedestrians do not pass quickly through the park-like environment and will therefore be significantly impacted by added noise, movement and infrastructure of the LRT and freight rail. The speed joined with the noise at close proximity greatly detracts from the trail experience for both bicyclists and pedestrians, and can even be frightening to users.



3.4.4.6 Safety and Security

LONG-TERM IMPACTS

Comment: The current plan to co-locate freight and LRT within the same corridor — within a dozen feet of each other in certain places — creates new, potentially catastrophic hazards. It is currently proposed that the freight train (which carries volatile and explosive ethanol on a daily basis, and several unit trains of ethanol per month) remain permanently in the Kenilworth Corridor. The addition of the SWLRT with its electrical power wires only a few feet away exacerbates the existing danger of ethanol in the corridor. Current safety standards recommend against co-location in such close proximity when there are alternatives; other alternatives for this SWLRT alignment must be explored.

Furthermore, in the event of an explosion of ethanol trains along this corridor, we understand that the foam retardant required to extinguish the fire is “within a 3 hour distance” of the corridor. We believe that the potential harm during that “3 hour window” along with permanent damage to residences and residents should be quantified. Should an explosion occur during the passing of an LRT train, the potential exists for loss of life or harm to those exposed to the hazardous fumes.

Please note that the Minneapolis Park Police also provide service within the study area. KIAA requests that the MPRB Police be consulted on security issues related to the impact of a proposed station at 21st Street on East Cedar Lake Beach (Hidden Beach) and their input be incorporated into final design plans. In the summer of 2012, Hidden Beach generated more police actions than any other park in the MPRB system. For the last five years, KIAA has provided supplementary funding to the Park Police to allow

for increased patrols in this area. The neighborhood has expressed grave concern that an inadequately managed station would increase opportunities for illegal behavior.

SHORT-TERM IMPACTS

Currently, rush hour traffic produces daily gridlock that sometimes extends from Lake Street, along Dean Parkway, Cedar Lake Parkway, Wirth Parkway, and Wayzata Boulevard (frontage road along I-394) all the way to the Penn Avenue Bridge. (This situation existed even before the construction at Highway 100 in St. Louis Park.) The closing of a critical crossing (Cedar Lake Parkway at the Kenilworth Trail) would be necessary during the construction of the proposed tunnel from West Lake Street to just past Cedar Lake Parkway. Affected neighborhoods already have limited entry and exit points.

The SDEIS does not address the need to ensure reasonable transportation options during this period, including routes for emergency vehicle access. There must be plans for fire and ambulance routes in the affected neighborhoods. Travel time for emergency vehicles would be increased during that closing. The SDEIS describes such delays as “minor”; we take vigorous issue with such a demotion of safety concerns, as even two minutes could be the difference between life and death, or a home being saved from fire or destroyed. (On June 11, 2015, an accident at Dean Parkway and Lake Street slowed traffic on Dean Parkway to a crawl for over an hour.)

Also missing is information on what measures, including evacuation plans, would be necessary to protect the Cedar Shores townhomes when the TC&W trains, with their explosive freight, are moved several feet closer to them during construction. Our neighborhoods were recently impacted for upwards of a year by a Met Council sewer-replacement project, with road closures (of which we were frequently not informed) and detours. As noted earlier, we understand that the sewer project would need to be re-done as part of the SWLRT tunnel-construction.

3.5 Draft Section Evaluation Update

Comment: The SDEIS is almost incomprehensibly dense and convoluted as it discusses the application of Section 4(f) to the LPA. For the benefit of the reader, the Section 4(f) statutory mandate is clear:

“Section 4(f) protects publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance and historic sites of national state, or local significance from use by transportation projects. These properties may only be used if there is no prudent or feasible alternative for their use and the program or project encompasses all possible planning to minimize harm resulting from its use. If transportation use of a Section 4(f) property results in a *de minimis* impact, analysis of avoidance alternatives is not required.”

Conversely, if there is more than a *de minimis* impact, an analysis of avoidance alternatives is required. Thoughtful analysis of avoidance alternatives is absent from the SDEIS.

A cursory reading of the SDEIS will reveal that there is not a good-faith analysis of prudent or feasible alternatives. “No Build” and “Enhanced Bus Service” were the only two alternatives considered, and only superficially; they were presented to the public in a cursory manner and without documentation. Not surprisingly, neither of them is considered feasible or prudent. Alternatives that *would* likely be considered feasible and prudent, such as a deep tunnel or rerouting, were not considered. Consequently, the bulk of the 4(f) analysis is used to contend that any adverse impact on 4(f) property will be *de minimis*.

These comments will focus almost entirely upon the Kenilworth Channel/Lagoon section of the LPA but are equally applicable to other section 4(f) properties identified by the SDEIS. The FTA, although identifying property subject to Section 4(f), fails throughout to adequately analyze or identify specific mitigation steps that would render impacts *de minimis*.

The Kenilworth Channel/Lagoon

At page 3-259, referencing the Kenilworth Channel/Lagoon, the SDEIS concludes:

“Through coordination with MPRB to date and based on the design and analysis to date as described in this section, FTA has preliminarily determined that the proposed permanent and temporary uses by the LPA would not adversely affect

the features, attributes or activities that qualify the Kenilworth Channel/Lagoon for Section 4(f) protection. Consistent with the requirements of 23 CFR 774.5(b), FTA is, therefore, proposing a *de minimis* use determination for the LPA at the Kenilworth Channel/Lagoon.

To understand the absurdity of this conclusion, one first should acknowledge that the Kenilworth Channel/Lagoon is one of the most important elements in the Minneapolis Park Board's Chain of Lakes (and also identified as subject to Section 106 because of its historic character). It is primarily appreciated for its pastoral quality and is used by walkers, bikers, kayakers, cross country skiers, ice skaters, fishermen, picnickers, and visual artists.

The FTA's own analysis identifies these activities and elements and acknowledges that the LPA would constitute 4(f) use but then, after an evaluation of the impacts, concludes that the use of the protected land will be *de minimis*. This of course means that there need not be a feasible and prudent alternative analysis.

Visual Impact

Per the SDEIS, visual impacts to the Kenilworth Channel/Lagoon will be:

1. Removal of two existing and potentially historic wooden bridges
2. Construction of massively larger bridges
3. Modification to topographical features, vegetation and WPA-era retaining walls.

Particularly astonishing is the statement at page 3-254 that the

"horizontal clearances between the banks and the new [bridge] piers would be of sufficient width to accommodate recreational activities that occur within the channel lagoon"!

The same thing could be said about an 8-lane super highway bridge spanning the channel. The point is that the altered scale of the proposed bridges will in fact be jarringly disproportionate to the channel's features. Not a *de minimis* impact by any stretch of the imagination.

The SDEIS goes on to note that the vegetation clearing necessitated by the new bridges would cause some reduction to the "visual quality of the view". But, the document goes on to reassure –

"[T]he bridges as currently conceived would have an attractive design that would become a positive focal point in the view. The overall change to the view's level of visual quality would be low. Because of the recreational activity in the channel, this view is visually sensitive. Even though the view is visually sensitive, because the potential level of change to visual quality will be low the potential visual impact will not be substantial."

Thus the reader is simultaneously warned and reassured that everything will be visually pleasing because a planner's aesthetic judgment about the visual quality of yet-to-be-designed bridges will be "attractive."

Noise Impact

It gets worse as the FTA pursues *de minimis* findings. The SDEIS acknowledges that two separate areas of the Kenilworth Channel/Lagoon are noise receptors and would be subjected to moderate noise impacts. There is a non-specific undertaking to utilize mitigation measures to reduce the area of Moderate noise impacts closest to the new bridges.

No such undertaking is offered with respect to the northern bank of the lagoon. Instead the SDEIS states:

"The northern bank of the lagoon [section 4(f) property], generally between West Lake of the Isles Parkway and South Upton Avenue (termed the Kenilworth Lagoon Bank in the noise analysis), was classified as a Category 1 land use, with stricter noise impact standards than the Category 3 land use. However, because of the distance between the light rail

tracks and the western point of the Category 1 land use, *noise levels under the LPA at that location would not exceed FTA's Severe or Moderate criteria.*"

Apparently there is not an intent to mitigate noise in this area as legally required.

Not Mentioned

Completely missing from the 4(f) analysis of the Kenilworth Channel/Lagoon is an analysis of the impacts of vibration and safety.

Minneapolis Park and Recreation Board

The SDEIS fails to address the previous objections of the MPRB: Instead it attempts to portray the MPRB as a willing partner:

"Through coordination with MPRB to date and based on the design and analysis to date as described in this section, FTA has preliminarily determined that the proposed permanent and temporary uses by the LPA would not adversely affect the features, attributes or activities that qualify the Kenilworth Channel/Lagoon for Section 4(f) protection. Consistent with the requirements of 23 CFR 774.5(b), FTA is, therefore, proposing a *de minimis* use determination for the LPA at the Kenilworth Channel/Lagoon. Supporting this preliminary determination is FTA's expectation that mitigation measures will be incorporated into the project that will avoid adverse effects to the protected activities, features, and attributes of the property. Those measures will be identified through continued coordination with the MPRB, which will continue through preparation of the project's Final Section 4(f) Evaluation. The MPRB must concur in writing with the *de minimis* impact determination after the opportunity for public comment on the preliminary Section 4(f) determination."

Even if the MPRB were to concur with a *de minimis* impact determination, such concurrence would hardly be credible given MPRB's earlier official statements on the topic. For instance, in November of 2012 the MPRB clearly itemized a series of concerns with respect to the selection of the Kenilworth Corridor as the LPA and, specifically, with respect to co-location stated:

"The MPRB opposes the co-location alternative and supports the findings presented in the DEIS regarding Section 4(f) impacts for the co-location alternative. In review of the documents, the loss of parkland described for the co-location alternative *cannot be mitigated within the corridor.*" (emphasis added)

Although the MPRB ultimately entered into a Memorandum of Understanding with the Met Council providing for a consultative role in the design process (March 12, 2015) ("MOU") the MPRB has never agreed that adequate mitigation is possible. Most recently in a letter to the Met Council summarizing its most recent comments about the SDEIS, the MPRB unequivocally concluded:

"Visual quality and noise are key areas of concern for the MPRB. The introduction of LRT in combination with freight rail *poses the potential for significant disturbance* to a corridor that, once disturbed, may [not] realize a restored look for decades."

Although these Park Board statements are encouraging, the objectivity and independence of the MPRB with respect to its "consulting" role is in serious doubt, given the enormous political pressure applied by the Governor and the Met Council via real and documented threats of massive budget retaliation. The Park Board's abdication of protection of 4(f) status followed Governor Mark Dayton's threat to cut \$3 million from its budget — this in retribution for the Park Board's legitimate attempt to protect the channel. The Park Board desperately needed the funds and, to date, has acquiesced to the governor's threat, despite its belief that:

"Visual quality and noise are key areas of concern for the MPRB. The introduction of LRT in combination with freight rail poses the potential for significant disturbance to a corridor that, once disturbed, may [not] realize a restored look for decades."

No-Build or Bus Rapid Transit Alternative

Although repeated throughout the SDEIS, the following statement is representative of its treatment of 4(f) property:

“No Build Alternative and Enhanced Bus Alternative as evaluated in the Draft EIS are the only full Section 4(f) avoidance alternatives identified to date and neither of them would be prudent because they would not meet the project’s purpose and need.”

This facile and conclusory assertion is entirely inconsistent with well-understood precedent. This analysis falls short of what is required under the law. If the proposed use is not *de minimis*, then alternatives must be evaluated — presumably in good faith.

The Kenilworth Channel/Lagoon is comprised unquestionably by Section 4(f) lands and “are “...not to be lost unless there are truly unusual factors present...or...the cost of community disruption resulting from alternative routes reaches extraordinary magnitudes.” (Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1972))

Given the impact on 4(f) property, planners are required to evaluate alternatives – alternatives beyond the two choices proffered in the SDEIS – No Build or Bus Rapid Transit. For example there has not been a good faith determination that an adjustment to the proposed SWLRT alignment wouldn’t have the same beneficial purpose, outcome or cost as the current LPA. The law requires a deeper analysis. That such an analysis would result in a delay of the project is not sufficient justification to fail to undertake it. The following guidance from the Department of the Interior *Handbook on Departmental Review of Section 4(f) Evaluations* is instructive:

CEQ regulations, as well as DOT Section 4(f) regulations, require rigorous exploration and objective evaluation of alternative actions that would avoid all use of Section 4(f) areas and that would avoid some or all adverse environmental effects. Analysis of such alternatives, their costs, and the impacts on the 4(f) area should be included in draft NEPA documents.

It is clear that the SDEIS falls far short of this standard and that additional analysis is essential for meaningful public participation.

The Tunnel

The SDEIS contains a lengthy discussion of the shallow tunnel under the Kenilworth lagoon/channel versus a tunnel with a bridge over the channel. The conclusion, not surprisingly is that there will be a non-de minimis use of the Kenilworth Lagoon/Grand Rounds property. The document promises that “all possible planning to minimize harm will be conducted and implemented”

In order to reach this conclusion the analysis first had to reject the No Build Alternative and the Enhanced Bus Alternative. The latter was rejected because it would be “inconsistent with local and regional comprehensive plans.” Again, no other avoidance options were considered.

Conclusion

The Section 4(f) property identified in the SDEIS has received inadequate review and in many cases incorrect findings of *de minimis* impact. There is glaringly inadequate identification of specific mitigation and avoidance strategies and resulting outcomes as required by Section 4(f). The following statement from the Department of the Interior, which has consultative jurisdiction over this project, is clarifying:

Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable. Also not acceptable is a statement that all planning to minimize harm has been done because there is no feasible and prudent alternative. Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable. Also not acceptable is a statement that all planning to minimize harm has been done because there is no feasible and prudent alternative. *Reviewers should make sure that all possible site-specific planning has been done to identify and list the measures which will be undertaken, at project expense, to minimize harm to Section 4(f) properties. [emphasis added]*

Addendum: Kenwood Isles Area Association
Position Statement on Freight Relocation for SWLRT

Adopted July 1, 2013

Nearly a mile of the proposed SWLRT runs through the Kenwood Isles Area Association neighborhood. **We vehemently oppose the idea of maintaining freight rail along with light rail at grade in the Kenilworth Corridor, known as “co-location.”**

Relocation of freight out of the Kenilworth Corridor has been promised for years. While the corridor was long used for transporting goods, freight use of Kenilworth was halted in 1993 when the Midtown Greenway was established. When freight was later re-introduced into the Kenilworth Corridor, Hennepin County assured residents this use of the corridor was temporary.

Meanwhile, over 20 years of citizen efforts to build and maintain Cedar Lake Park and the Kenilworth Trail have resulted in a more beautiful and complete Grand Rounds and Chain of Lakes. Traffic on federally funded commuter and recreational bicycle trails in the Kenilworth Corridor grew to at least 620,000, perhaps approaching one million, visits in 2012.

When the Hennepin County Regional Railroad Authority began looking at using the Kenilworth Corridor for LRT, several key studies and decisions reiterated the expectation that if Kenilworth is to be used for transit, then the freight line must be relocated. (See notes below.) Trails were to be preserved. Freight rail was to be considered a separate project with a separate funding stream, according to Hennepin County. This position was stated publicly on many occasions, including Community Advisory Committee meetings and Policy Advisory Committee meetings.

Minneapolis residents have positively contributed to the SWLRT process based on the information that freight and light rail would not co-exist in the Kenilworth Corridor. Although many of us think that Kenilworth is not the best route, most have participated in the spirit of cooperation and compromise to make the SWLRT the best it can be.

Despite numerous engineering studies on rerouting the freight rail, it was not until December 2012 that the current freight operator in the Kenilworth Corridor, TC&W, decided to weigh in publicly on the location of its freight rail route. TC&W rejected the proposed reroute.

The Met Council has responded by advancing new proposals for both rerouting the freight and keeping it in the Kenilworth Corridor. For either option, these proposals range from the hugely impactful to the very expensive – or both. Six of the eight proposals call for “co-location” despite the temporary status of freight in Kenilworth. The Kenilworth proposals include the destruction of homes, trails, parkland, and green space. Most of the proposals would significantly add to the noise, safety issues, visual impacts, traffic backups, and other environmental impacts identified in the DEIS.

This is not a NIMBY issue. The Kenilworth Trail provides safe, healthy recreational and commuter options for the city and region. It is functionally part of our park system. The Kenilworth Corridor is priceless green space that cannot be replaced.

For over a decade public agencies have stated that freight rail must be relocated to make way for LRT through the Kenilworth Corridor. If this position were reversed midway through the design process for SWLRT, the residents of Kenwood Isles would find this a significant breach of the public trust.

Simply stated, none of the co-location proposals are in keeping with the project goals of preserving the environment, protecting the quality of life, and creating a safe transit mode compatible with existing trails.

This has been a deeply flawed process, and we **reject any recommendation for at-grade co-location in the Kenilworth Corridor. If freight doesn't work in St. Louis Park, perhaps it's time to rethink the Locally Preferred Alternative.**

Notes

1) The 29th Street and Southwest Corridor Vintage Trolley Study (2000) noted that, "To implement transit service in the Southwest Corridor, either a rail swap with Canadian Pacific Rail or a southern interconnect must occur."

2) The FTA-compliant Alternatives Analysis (2005-2007) defines the Kenilworth section of route 3A for the proposed Southwest Light Rail in this way: "Just north of West Lake Street the route enters **an exclusive (LRT) guideway in the HCRRA's Kenilworth Corridor to Penn Avenue**" (page 25). This study goes on to say that "to construct and operate an exclusive transit-only guideway in the HCRRA's Kenilworth Corridor the **existing freight rail service must be relocated**" (page 26).

3) The "Locally Preferred Alternative" (LPA) recommended by HCRRA (10/29/2009) to participating municipalities and the Metropolitan Council included a recommendation that freight rail relocation be considered as a separate "parallel process."

4) In adopting HCRRA's recommended Locally Preferred Alternative based on treating relocation of the freight rail as a separate process, the City of Minneapolis' Resolution (January 2010) stated:

"Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained."

5) The Draft Environmental Impact Statement supports the Locally Preferred Alternative, which includes relocation of freight out of the Kenilworth Corridor. (December 2012)

6) The southwesttransitway.org has stated since its inception that:

Hennepin County and its partners are committed to ensuring that a connected system of trails is retained throughout the southwest metro area. Currently, there are four trails that may be affected by a Southwest LRT line. They are the Southwest LRT trail, the Kenilworth trail, the Cedar Lake Park trail, and the Midtown Greenway. These trails are all located on property owned by the HCRRA. The existing walking and biking trails will be maintained; **there is plenty of**

space for light rail and the existing trails. Currently, rails and trails safely coexist in more than 60 areas of the United States.

LRT Done Right Addendum on previous communication concerning freight and safety

Date: September 30, 2014

To: Pipeline and Hazardous Materials Safety Administration and Federal Railroad Administration

From: LRT-Done Right

Re: **Docket No. PHMSA-2012-0082 (HM-251) – Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains**

INTRODUCTION AND BACKGROUND

LRT-Done Right is a grass roots organization that has done much research and advocacy regarding the effects of light rail transit and freight lines on community well being. Limited resources typically prevent community organizations from having the same access to federal regulators that industry representatives do. This opportunity to contribute a meaningful comment is greatly appreciated, as is the Pipeline and Hazardous Materials Safety Administration's (PHMSA) earnest consideration of our comments.

It is noted that relative to the importance of the PHMSA standards, very few parties comment on these proposed rules. At the time of this submission, elected officials have not submitted a comment on behalf of the interest/protection of Minneapolis/St Paul or generally on behalf of Minnesota (i.e. mayor, city council, state legislators, Governor, etc.) and only a few federal politicians have made comment. This is concerning because communities rely on elected officials to serve the best interest of the community residents. Most comments, related to Docket No. PHMSA-2012-0082 (HM251), were generated by individual citizens, small communities or cities, or by industry representatives. As citizens, we have expended great care and effort to learn about the issues of freight safety, and have had to do it quickly.

The large-scale shipment of crude oil and ethanol by rail simply didn't exist ten years ago, and safety regulations need to catch up with this new reality. While this energy boom is good for business, the people and the environment along rail corridors must be protected from harm. Crude oil shipments by rail have increased by over 40-fold since 2005, according to the Association of American Railroad's Annual Report of Hazardous Materials. In fact, more crude oil was transported by rail in North America in 2013 than in the past five years combined, most of it extracted from the Bakken shale of North Dakota and Montana (Stockman).

The National Transportation Safety Board (NTSB) noted their concern to PHMSA, that major loss of life, property damage and environmental consequences can occur when large volumes of crude oil or other flammable liquids are transported on a single train involved in an incident, as seen in the Lac Megantic, Quebec, disaster, as well as several disasters that the NTSB has investigated in the United States. The NTSB recommendations to the Federal Railroad Administration and the Pipeline and Hazardous Materials Safety Administration include reroutes of trains carrying hazardous cargo around populated and environmental sensitive corridors, development of an

audit program to ensure rail carriers that carry petroleum products have adequate response capabilities to address worst-case discharges of the entire quantity of product carried on a train and an audit of shippers and rail carriers to ensure that they are properly classifying hazardous materials in transportation and that they have adequate safety and security plans in place (NTSB).

RULE ANALYSIS

LRT-Done Right commends PHMSA and FRA for the effort to improve rail safety with the development of this proposed rule. While understanding the need to balance community safety with the needs of railroads as a profitable enterprise, there are several omissions in the proposed standards that we wish to address. It is clear that PHMSA standards for too long have been overly influenced by industry (Straw R), but as recent rail disasters have shown, the necessity to protect the public's interest is imperative. Because we are citizens with limited rail engineering expertise, we will use our own experiences with a small short line railroad called Twin City & Western (TC&W) to illustrate issues with PHMSA standards. TC&W is a Class III railroad with connections to Canadian Pacific, Union Pacific, Burlington Northern and Canadian National. Under current PHMSA guidelines, which apply to Class I railroads, these enhanced tank car standards and operational controls for High-Hazard Flammable Trains (HHFT) would not apply. This is gravely concerning. Our comments will cover issues of rail routing, notification to State Emergency Response Commissions, tank car specifications, and additional requirements for HHFTs.

Rail Routing -

Missing from standards are guidelines on construction of new transit lines in an active freight rail corridors. Increasingly, light rail transit (LRT) through suburban and urban areas is being run through established freight corridors, which were designed in a different era of rail safety (Sela, et al). LRT routes are planned by local and regional public officials who typically are not adequately addressing the safety of these transit routes, leaving it to affected neighborhoods to advocate for community safety. The trend toward locating LRT adjacent to freight must be addressed in these PHMSA standards. We understand this to be complicated by issues of governance; the Federal Railroad Administration (FRA) regulates freight trains while the Federal Transit Administration (FTA) guides LRT lines. However FRA has ultimate authority and PHMSA writes rules for safety. This particular comment regarding rail routing may be currently beyond the purview of these particular proposed PHMSA standards, never the less we submit these comments to stress their importance to freight safety in shared use corridors, and for immediate consideration and inclusion in this joint PHMSA and FRA rule.

Shared FRA/FTA guidelines are written with respect to Amtrak, and give responsibility to the freight companies for managing shared track (Federal Register, Part VII). Currently, there are no specific safety requirements for either existing or yet to be constructed commuter lines in shared corridors, where track is not shared (Resor R). When track is shared, then commuter lines must meet strict safety guidelines, but when track-separated right of way (ROW) is shared, there are no regulations whatsoever, and localities must police themselves. No guidelines exist that guide either the construction phase of adding LRT lines through an existing freight corridor, or corridor minimum level safety standards. Hence, there are many co-location projects nationwide moving forward, which do not meet minimum American Railroad Engineering and Maintenance-of-way Association (AREMA) guidelines. AREMA guidelines recommend minimum standards for grade separation of 25 feet center rail to center rail. The Rail Safety Improvement Act of 1988 gives the FRA jurisdiction over most types of railroad including shared track LRT (Pub. L. No 100-342), however the FRA has historically not chosen to exercise this authority. This has left shared ROW LRT in a netherworld of un-regulation, which we believe seriously compromises the safety of people, property and environment along these types of corridors.

A case in point is Southwest Light Rail Transit (SWLRT), currently in the early engineering phase and being

considered for construction by the FTA through the Kenilworth corridor in the Minneapolis, MN area. If constructed, LRT will run less than 12 feet from freight rail at a point along the Kenilworth Corridor that regularly carries Class 3 flammable liquids, including long unit trains of ethanol. During the construction phase of a proposed tunnel in an area that can not accommodate both LRT, a freight line, and an existing heavily used bike trail, the freight line, which will continue full service throughout the construction will run just 11 feet from a 35 foot construction pit in an populated area of Minneapolis. In no other instance, could we find current plans to co-locate LRT next to a freight rail line that carries Class 3 flammable liquids. There are other lines that exist where co-location occurs, but these were built many years ago prior to the awareness of the danger existent with oil and ethanol trains. The TC&W freight regularly runs unit trains of 60-100 ethanol train cars through the Kenilworth corridor within feet of the proposed LRT line. Ethanol is highly combustible, which may form explosive mixtures with air and where exposure to electrostatic charges should be avoided (ODN). Yet these electrified LRT lines will literally be next to tanker cars carrying ethanol and other chemicals.

Over the 20-year interval from 1993 to 2012, there were 1,631 mainline passenger train disasters, including 886 grade crossing accidents, 395 obstruction accidents, 263 derailments, 71 collisions. During the same time period, there were 13,563 freight derailments and 851 collisions (Lin et al). Derailments and collisions were identified as the most potentially significant train accident types while human factors accidents and track failures, including obstructions were the primary causes of those accidents (Lin et al). Adjacent tracks, occupied by freight and passenger rail - refers to train disaster scenarios where derailed equipment intrudes adjacent tracks, causing operational disturbance and potential subsequent train collisions on the adjacent tracks (Lin and Saat). Lin and Saat created probability models assessing risk along adjacent tracks to determine risk and severity of a crash leading to a collision or derailment. Identified risk factors included distance between track centers, train speeds, train densities, different train control systems, and level of hazardous train cargo. In the case of SWLRT, this model assessed Kenilworth to be a high-risk rail corridor, yet due to a lack of regulation of co-location, this project progresses.

For transit located on adjacent track to active freight, FRA's concern is that operations of a freight railroad in close proximity to LRT could present safety risks for both. In considering our SWLRT case study, track centers distances are as narrow as 12 feet (11 feet during construction), with 220 LRT trains proposed daily. A derailment of either freight or LRT could be disastrous. With distances of 11-12 feet between SWLRT and freight, if either were to encroach and cause intrusion upon the other, this would likely bring death and destruction, and depending upon the cargo carried, could mean broad evacuation of 1000s of area residents. AREMA's 25 foot standard would be more likely to prevent intrusion onto the adjacent track, and would keep electrified lines away from highly flammable fuel carrying tankers.

None of this accounts for issues related to trains as targets of terrorism or using those trains for terrorist purposes (Brodsky), using chemicals such as chlorine or fossil fuels to create 'bomb trains' or mayhem. Minneapolis is a high threat urban area as determined by the Transportation Safety Administration (TSA); our case study SWLRT parallels freight up to and past the Target Center and the Twins Stadium, two large venues for sports and entertainment. This is another scenario that begs for a solution that would set safety rules for co-location of freight and passenger rail through shared ROW near sites at high risk for terrorism.

The safety requirements for HHFT should apply to Class I, Class II, and Class III railroads. There are short line railroads that are shipping ethanol, and due to common carrier obligations, may be called upon to ship oil, chlorine or other Class 3 flammable liquids. Due to entity size and revenues, these short line railroads typically are Class III railroads. The revenue generating capacity of a railroad should not govern the safety standards to which it is held. If a railroad or shipper does not have the capacity to adhere to the HHFT tank car standards and operational controls, it is dangerous for that entity to be in the business of conveying Class 3 flammable liquids. The relevance of these standards only to Class I railroads, to trains of 20 or more rail cars of hazardous cargo, and to only population areas of 100,00 or more, leave many communities endangered. The safety requirements for HHFT should apply to Class I, Class II, and Class III railroads. The revenue generating capacity of a railroad should not govern the safety standards to which it is held. If a railroad or shipper does not have the capacity to adhere to the HHFT tank car standards and operational controls, it is dangerous for that entity to be in the business of

conveying Class 3 flammable liquids. Additionally, the absence of regulation guiding construction of adjacent rail lines through shared ROW carrying tanker chemicals pose danger to residents along these corridors. Regulatory action must be more broadly addressed to all railroads, on any trains carrying any hazardous materials through any community of any population size.

PHMSA standards are proposed only for communities with population greater than 100,000. We understand the necessity of setting population density standards, but suggest that the threshold of 100,000 is too high. It is discriminatory to penalize a small community and to put them at greater risk due to safe guards not being applicable. Further, it is those communities that would be least likely to absorb the cost of disaster. Railroads must be accountable for safety and exercise due diligence for one tank car or 100 tank cars, in urban and on rural routes. Many of the rail disasters that have occurred happened in areas where populations were less than 100,000 (e.g. Lac Megantic). These communities deserve to be protected too.

Notification to State Emergency Response Commissions (SERCs)-

The proposed PHMSA rule would require notification to SERCs only if trains containing one million gallons of Bakken crude are operating in their States. The requirement ignores the dangers ethanol and does not acknowledge that as little as one carload of oil or ethanol can trigger disaster, as is evidenced by the summary of selected major oil and ethanol train disasters shown in Table 3 provided in the Docket No. PHMSA-2012-0082 (HM-251).

Ethanol is a Class 3 flammable liquid and is considered as dangerous as oil by the National Transportation Safety Board. Ethanol is appropriately classified as a Class 3 flammable and should not be referred to simply as an agricultural product. Ethanol is caustic to the skin, harmful if breathed, highly flammable and very difficult to clean up especially if released in bodies of water. The reason for this clean up challenge is that ethanol is soluble in water. Unlike petroleum, which can be extracted from the top of the water, concentrated ethanol would require full liquid removal (i.e., in the event of an ethanol spill in a lake, the affected would need to be drained). In groundwater, ethanol does not respond to typical remediation techniques, like air stripping and filtration.

To achieve the best protection for our communities, emergency responders and railroad workers – SERCs must have advance notice that oil and ethanol is being shipped through their states. Further all railroads/shippers of oil or ethanol must design and implement a comprehensive spill response plans. These response plans must be provided in advance to the relevant SERCs, Tribal Emergency Response Commissions, Fusion Centers and any other State designated agencies.

These safety preparedness requirements must apply to all railroads/shippers of Class 3 flammable liquids, regardless of their classification (i.e., Class I, Class II or Class III). Without this requirement there will not be adequate training and incentive to minimize collateral damage to communities.

If a railroad or shipper does not have the manpower and fiscal capacity to develop and execute a Class 3 flammable liquid spill response plan, it is not prudent for that entity to be in the business of conveying Class 3 flammable liquids. Spill response plans should take in to account the terrain, natural geography and municipal development along the route used for transport. Specifically if lakes and rivers are present, the plan must provide for containment to prevent water contamination and plan for the de-contamination of bodies of water. Additionally the presence of other freight and/or public transit modes in the same ROW corridor, along with the proximity to residential and school areas, must be addressed in developing the appropriate spill response plan.

Tank Car Specifications -

PHMSA recognizes that DOT-111 tank cars can almost always be expected to breach in the event of a train crash and resulting in spills, explosions and destruction, yet the proposed new rule on train operation and tank car

design would fail to take a single DOT-111 car off the rails. New designs for DOT-111s include increased minimum head and shell thickness, top and bottom fitting protection, a thicker head shield, and head and shells constructed of normalized steel. The guidelines recommend that new DOT-111s ordered after October 1, 2011, be built to this standard. We appreciate these new standards. However, the type of crude involved in the Lac Megantic disaster could be carried on the least safe DOT-111 tank cars until Oct. 1, 2018. An immediate ban on shipping volatile crude and ethanol in the DOT-111 tank cars is in order.

Short line railroads like TC&W in Minnesota are small and often unable or unwilling to purchase these new tanker cars because their ability to invest capital in new cars is limited. They instead tend to purchase used tanker cars from other larger railroads that are retiring those for newer tank cars, and they retrofit older used cars to meet minimum safety standards. It is ironic that these short line railroads which are often run through heavily populated urban corridors have the worst quality tank cars in all the fleets, yet run through the most densely populated corridors. Of the 94,178 cars in flammable service, currently only 14,150, or 5 percent of the total DOT-111 fleet (15 percent of the flammable service fleet), have been manufactured to comply with new standards (Pumphrey et al).

Additionally, as the amount of oil being shipped by rail has increased, train companies have moved to using unit trains for shipping higher volumes (Pumphrey et al). Unlike a manifest train, which might carry a variety of different commodities, a unit train carries only one commodity (e.g., ethanol or crude oil). Unit trains consist of between 50 and 120 tank cars, the equivalent of 50,000 to 90,000 barrels of oil, becoming a "virtual pipeline" or a potential bomb train. Unit trains may increase efficiency but also increase risk. According to the American Association of

Railroads (AAR), "a single large unit train might carry 85,000 barrels of oil". There is no publicly available data on how much oil or ethanol is being shipped in unit trains versus non-unit trains (Pumphreys et al). Shippers of crude oil currently are not required to prepare a comprehensive oil spill response plan (OSRP). Shippers should be required to report even one tanker car of oil or ethanol. And limits should be placed on the number of tanker cars in any single train, especially through high population density areas.

In the case of SWLRT, nearly all ethanol trains that run on the freight track are unit trains. Substandard tank cars combined with the fact of unit trains and a high number of tanker cars means that the Kenilworth Corridor is at high risk. The proximity of an electrified LRT a mere 12 feet from tanker cars could mean that this neighborhood could become ground zero in case of derailment.

The next generation tank cars should exceed the previous 2011 standards, and that should be phased in at a quicker pace than proposed. It is clear that rail company lobbyists are actively trying to minimize PHMSA regulatory tanker car standards (Straw). You must steal your resolve and demand improvements for public safety, and for short line railroads demand similar standards with no waivers.

Small short line railroads are often not given the attention or training of larger railroads, yet they often utilize the worst tanker cars and have the least emergency training. Short Line Railroad Safety training for short line railroads transporting crude and ethanol must be a greater priority, because they often run through high-density urban corridors.

Additional Requirements for High-Hazard Flammable Trains (HHFTs)-

The proposed rule defines a HHFT as a single train carrying 20 or more carloads of Class 3 flammable liquid. The definition does not serve the safety interests of the United States. It is documented that one carload of Class 3 flammable liquid can trigger a disaster and devastation. For that reason, a HHFT should mean a single train carrying one or more carloads of Class 3 flammable liquids.

Further the proposed rule applies only to trains operated by Class I railroads. The PHMSA and FRA safety rules related to Class 3 flammable liquids should be in effect for all railroads/shippers that convey Class 3 flammable

liquids. The class (i.e., Class I, II or III) of a railroad is determined by its revenue generation. It is not reasonable to exempt a railroad from important safety requirements based on its revenue generating capacity. If a railroad/shipper does not have the capacity to adhere to relevant HHFT and Class 3 flammable liquid safety standards, it is not prudent for that entity to be in the business of conveying Class 3 flammable liquids. These important safety rules must apply to all classes of railroads, otherwise there are opportunities to circumvent necessary precautions and responsibilities.

Further the proposed rule does not address the liability insurance requirements for railroads/shippers of Class 3 flammable liquids. This is a complicated topic especially when the condition of a share ROW exists. Goals of insurance requirements should address:

1. Allocating the liability from risks between the freight railroad and the transit agency
2. Managing the additional risk by developing a prudent insurance strategy
3. Ensuring the safety of passengers in mixed freight and transit operations
4. The willingness of freight railroads to grant access to their ROW for transit operations
5. Providing satisfactory conditions for continuing service to freight customers. Without adequate insurance requirements, the public will be exposed to uncompensated losses when freight and transit disasters occur.

RECOMMENDATIONS

These proposed PHMSA rules are a beginning toward building a safer rail industry. However, the more we investigated the rules, the clearer it became that the rules do not go far enough to protect the public. The current standards are remarkable more for what they do not regulate than for what they do. Much more needs to be done to ensure public and environmental safety. We recommend that PHMSA immediately incorporate the recommendations listed below to expand this rule on safety standards to better protect the public and the environment:

1. Modify the definition of a high-hazard flammable train provided in Section 171.8 to read as follows: High hazard flammable train means a single train carrying 1 or more carloads of a Class 3 flammable liquid.
2. The PHMSA and FRA rules must apply to all trains conveying Class 3 flammable liquid regardless of railroad classification (i.e., includes Class I, Class II and Class III railroads). This would extend PHMSA regulatory actions to all railroads regardless of Class.
3. The PHMSA and FRA safety rules should apply equally to HHFTs that are conveying oil and/or ethanol. The NTSB views ethanol as dangerous as oil. Having safety rules that address the conveyance of oil but do not apply to ethanol carriers is flawed, as both are Class 3 flammable liquids.
4. Ban the use of DOT-111 tank cars now for transporting any amount of hazardous materials, instead of focusing solely on trains with more than 20 railcars of crude oil. The proposal to allow continued use of DOT-111 cars on trains of fewer than 20 cars would fail to protect public safety and the environment.
5. DOT-111 cars should not be used for the transport of any crude oils or fossil fuels, regardless of classification.
6. Retrofitted cars that fail to meet every standard of the most protective new tank car design should be barred from use for all shipments of hazardous materials, regardless of class and have regular safety

inspections to assess their continued safety.

7. Require that any and all railroads/shippers conveying one car load or more of Class 3 flammable liquids are required to notify SERCs about the operation of these trains through their States. Further it is recommended that comprehensive spill response plans be submitted for review and approval by relevant federal agencies under the National Contingency Plan, along with PHMSA. Given the relatively few number of railroad entities, it is not anticipated for this to be an undue burden. To minimize risks due to outdated comprehensive spill response plans, it is strongly recommended that plans be updated at least on a 3-year cycle and whenever there is a change of ownership in the railroad or shipper.
8. Enforcement of PHMSA/FRA/FRA rules and inspections do not happen regularly due to minimal federal staffing. An increase in the frequency of inspections is recommended, with funding provided by railroad fees.
9. Implement federal standards and rules that would minimize the occurrence of the key causes of train derailments resulting in spills; namely, the size of trains, state of infrastructure and human error. The proposed rule enumerates the most common causes of hazardous train derailments but fails to propose meaningful solutions such as limits on the number of cars permitted in each train, the use of unit trains, requirements for new build outs in shared row, infrastructure and inspection improvements, and management and oversight.
10. Derailments and spills can happen everywhere. Instead of selectively protecting only the most densely populated cities, apply these standards everywhere. As written, the proposed rules are designed to reduce risk to communities of greater than 100,000 people, but protections should be afforded all communities. These standards specifically acknowledge that it is putting people at risk solely because of where they live. This is immoral.
11. Sensitive environments including but not limited to areas near water, drinking water supplies, parks and animal habitat should be protected by all available safety standards.
12. Require full public disclosure to first responders of all hazardous rail shipments. There should be no exemptions for trains with fewer than 35 cars. Even one car of hazardous cargo should be disclosed so that emergency responders can act appropriately in the case of a disaster.
13. Uniform federal level guidelines should be developed to guide all future construction and management of LRT/commuter rail lines in shared freight/transit corridors, in particular along corridors that carry Class 3 flammable liquids.
14. A comprehensive study of derailment probability in shared ROW should be undertaken to understand the effect of track spacing, electrification of LRT adjacent to gas/oil/ethanol bearing trains, train speeds, train cargo, and train ownership (long range vs. short line railroads).
15. Minimum standards should be set for co-location of passenger and freight co-location, including that ROW should meet the AREMA minimum safety standard of 25 feet center rail to center rail (Caughron B et al). Immediately institute a moratorium on the building of LRT lines adjacent to freight lines that are conveying any amount of Class 3 flammable liquids in corridors that do not meet AREMA's 25 feet center rail to center rail standard.
16. All trains conveying Class 3 flammable liquids should be re-routed outside of high risk urban areas and away from areas at high risk for derailment or terrorism including urban neighborhoods, downtown areas, malls and major sports and entertainment complexes.

CONCLUSION

Given the exponential increase in shipments of oil and ethanol, the need to upgrade and implement relevant freight rail safety standards is urgent and necessary to the well being of our communities and environment. The coordination of oversight authority for all railroads (i.e., Class I-III) and public transit projects safety must also

improve. The proposed rule along with the aforementioned recommendations will serve to protect our nation and place the responsibility for safety precautions with the appropriate entities and not place undue burden on communities and residents.

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Lakes and Parks Alliance of Minneapolis, Inc.
c/o The Chazin Group
Lake Point Corporate Centre
3100 West Lake Street, Suite 230
Minneapolis, MN 55416

July 20, 2015

Ms. Nani Jacobson, Project Manager
Southwest Light Rail Transit Project Office
6465 Wayzata Blvd., Suite 500
St. Louis Park, MN 55426

Via email: swlrt@metrotransit.org

Dear Ms. Jacobson,

I am contacting you as a board member of the Lakes and Parks Alliance of Minneapolis, Inc. Our organization endorses and supports the comments submitted by Light Rail Transit Done Right (LRTDR).

Please add this letter to the record of comments on the Southwest Light Rail Supplemental DEIS.

Sincerely,

George Puzak
Lakes and Parks Alliance of Minneapolis, Inc., board member

Kenilworth Preservation Group (KPG)
c/o The Chazin Group
Lake Point Corporate Centre
3100 West Lake Street, Suite 230
Minneapolis, Minnesota 55416-5392

Via email: swlrt@metrotransit.org

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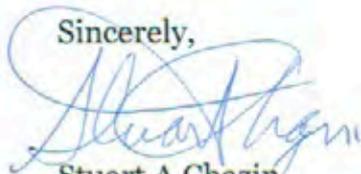
RE: Supplemental DEIS

Dear Ms. Jacobson,

I am contacting you as chair of the Kenilworth Preservation Group (KPG). KPG endorses and supports the comments submitted by LRT Done Right.

Please add this letter to the record of comments on the Southwest Light Rail Supplemental DEIS.

Sincerely,



Stuart A Chazin
Chair - Kenilworth Preservation Group

From: [Ken Rafowitz](#)
To: [swlrt](#)
Subject: Fwd: SDEIS Comments to the Met Council
Date: Tuesday, July 21, 2015 4:40:43 PM
Attachments: [Executed - SDEIS Response .pdf](#)
[KPG endorsement-LRTDR SDEIS comments.pdf](#)
[LPA endorsement-LRTDR SDEIS comments.pdf](#)

Dear Met Council,
I am writing you to express my
support and endorse the comments of LRT-Done Right.
I hope you will endorse them also.
Ken Rafowitz

Minneapolis, Mn. 55416

[Lakes & Parks Alliance of Minneapolis, Inc.](#)
[C/O The Chazin Group, Inc.](#)
Lake Pointe Corporate Centre
3100 West Lake Street, Suite 230
Minneapolis, Minnesota 55416-5392

email: lakesparksalliance@gmail.com

Website: www.lakesandparks.com

GO GREEN.

Lakes and Parks Alliance of Minneapolis, Inc.
c/o The Chazin Group
Lake Point Corporate Centre
3100 West Lake Street, Suite 230
Minneapolis, MN 55416

July 20, 2015

Ms. Nani Jacobson, Project Manager
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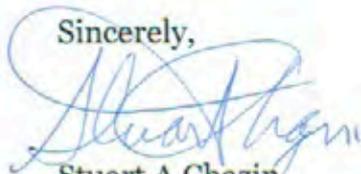
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Please add this letter to the record of comments on the Southwest Light Rail Supplemental DEIS.

Sincerely,



Stuart A Chazin
Chair - Kenilworth Preservation Group

LRT-Done Right

2782 Dean Parkway
Minneapolis, MN 55416

July 21, 2015

Nani Jacobson
Assistant Director, Environmental and Agreements
Metro Transit — Southwest LRT Project Office
6465 Wayzata Blvd, Suite 500
St. Louis Park, MN 55426

Dear Ms. Jacobson:

LRT-Done Right is a grassroots organization of some 500 Minneapolis residents and taxpayers who have conducted exhaustive research and advocacy on the effects of light rail transit and freight lines on community well being. We hereby submit to you our comments on the Southwest LRT Supplemental Draft EIS. They are the product of literally thousands of volunteer hours of research, analysis, and writing. As citizens of Minneapolis and the Metro area, we hope and expect that they will receive appropriate respect, attention, and response.

The 2012 Draft Environmental Impact Statement clearly recommended that the best course of action was to relocate freight out of the Kenilworth Corridor.

This position was reversed in 2013, and the Metropolitan Council's recommendation is now to "co-locate" freight and light rail in the Kenilworth Corridor. We consider this a significant breach of public trust and the low point of a deeply flawed planning process. We are an organization that seeks to represent concerns of those most impacted by this unfortunate decision.

The current Supplementary Draft Environmental Impact Statement is partly intended to assess the impact of co-location in the Kenilworth Corridor. It fails to do so on many levels, summarized in the following points:

First, it considers the *temporary* freight rail part of the existing condition. Freight rail service that runs through the corridor would be both upgraded and made permanent; this is a *new* project that needs a full analysis. Because new *permanent* freight infrastructure is being added to the corridor, all visual, noise, vibration, safety and other environmental impacts should be measured *from a basis of no freight and no light rail*.

Second, this SDEIS is silent on the safety implications of locating freight trains carrying hazardous materials through an urban environment within feet of homes, parks, trails, passenger trains, and live overhead electrical wires. The new and serious impacts created by this situation would continue to grow as transport of ethanol and other volatile materials expands and freight trains grow longer.

Third, this SDEIS is significantly flawed in its findings regarding environmental impact, safety concerns, and disturbance of livability, if not outright danger, to those living within a half mile of the route, which we will refer to as the "Blast Zone." This is a real issue that was not as prevalent in the news when the alignment was first proposed. In the context of current discussions regarding the increased number of freight accidents across the United States and Minnesota, we are seriously concerned about the safety of families and loved ones who would live in a Blast Zone zone surrounding ethanol trains and sparking LRT wires.

Fourth, we are disturbed by the promises of unspecified remediation activities found throughout the SDEIS. As the Department of the Interior says in its *Handbook on Departmental Review of Section 4(f) Evaluations*: “Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable.... Reviewers should make sure that all possible site-specific planning has been done to identify and list the measures which will be undertaken, at project expense, to minimize harm to Section 4(f) properties.” Such general promises are not acceptable to the federal government. Nor are they acceptable to us.

Finally, the SDEIS fails to address the significant costs associated with the many design and construction, safety, and environmental remedies that it will, based on our assessment, be required to implement — the relocation of a sewer force main that the Met Council installed only months ago, and sound and vibration remediation measures for area residents are but two. Nor does it recognize long-term costs of lost property tax revenue that would erode the tax base of the City of Minneapolis in perpetuity. We estimate that these combined costs would initially total at least \$13 million to \$24 million, and much more over the years.

When Hennepin County and the Met Council chose the present route for SWLRT between the Chain of Lakes through the Kenilworth Corridor — including “co-location,” thus making the temporary freight rail permanent — they accepted the responsibility to respect the natural and built environments that it travels through as well as the people who bicycle, walk, recreate, and live there. LRTDR does not see evidence that this responsibility has been taken as seriously as necessary and the following pages, which respond to specific elements of the SDEIS, articulate some of the reasons why.

Mary Pattock
On behalf of LRT-Done Right

LRT-Done Right response to Southwest Light Rail Supplemental DEIS

3.4.1.2 Acquisitions and Displacements

B. Potential Acquisitions and Displacements Impacts

Comment: We request more information about 3400 Cedar Lake Parkway, a strip of land valued by the City of Minneapolis \$2.1 million.¹ For years, the Hennepin County property tax website listed this parkland as owned by the Minneapolis Park and Recreation Board. Meanwhile, in discussions concerning SWLRT, the Met Council disputed this information, maintaining that the property belongs to BNSF. Recently, however, Hennepin County changed its website to say the property belongs to BNSF.² What is the basis of the change? What evidence does the Council have that the land is owned by BNSF railroad? Where are the supporting documents, or what was the process by which this change was made? Did the property change hands via a gift of public property? If so, when and why did that happen? If the property is indeed owned by the Park Board, then a compliance analysis will need to be conducted to comply with both Section 106 and 4(f).

In Short-Term Acquisition and Displacement Impacts, the Council states that “[s]hort-term occupancies of parcels for construction would...change existing land uses” including “potential increases in noise levels, dust traffic congestion, visual changes, and increased difficulty accessing residential, commercial and other uses.” The Council should say what the plans are to mitigate these effects for residents and businesses. Most important, how will prompt emergency fire, medical and police access be maintained?

In Short-Term Acquisition and Displacement Impacts, the Council discusses plans for remnant parcels without acknowledging its commitment with the City of Minneapolis in the Memorandum of Understanding. The MOU documents the Council’s agreement to convey property they own or acquire from BNSF or HCRRA in the Kenilworth Corridor that is not needed for the Project or freight rail to the Minneapolis Park and Recreation Board for use as parkland. Please see: <http://metro council.org/METC/files/f7/f7d41cfb-a062-46c7-942d-0785989da8a0.pdf>

Based on figures listed on the Hennepin County property tax website, annual property taxes payable just for the St. Louis Park properties listed as potential FULL parcel acquisitions in Table 3.4-3 total approximately \$240,000. Yet Section 3.4.3, Economic Effects, states that the annual reduction in property tax revenue to the City of St. Louis Park for all full AND partial acquisitions is only \$35,940. The SDEIS lists plans for partial acquisition of properties owned by Calhoun Towers, Calhoun Isles Condo Association, Cedar Lake Shores Townhomes, and other private property in Minneapolis, but identifies no property tax loss for Minneapolis. The Council should explain the calculations it used to conclude that that the property tax losses are so low or even nonexistent. Although we understand that the Council may not wish to release dollar figures for specific property acquisitions at this time, the public must nevertheless be assured that the Council is not both minimizing the costs of acquiring these properties and ignoring the fact that taxpayers will need to compensate for a shrunken property-tax base, which we estimate would exceed \$4 million annually (based on an estimated 5 percent decline in property value for private homes and commercial buildings most impacted by SWLRT).

3.4.1.3 Cultural Resources

B. Potential Cultural Resources Impacts

This section identifies the potential long-term and short-term impacts to the archaeological and architecture/history resources listed in or eligible for the NRHP.

Long-Term Direct and Indirect Cultural Resources Impacts.

Comment: Minneapolis residents have continually expressed concern with the impact the project will have, both during construction and after operation of SWLRT, on cultural resources in the City.

As stated by the Minnesota State Historic Preservation Office (MnSHPO), an adverse effect on one contributing feature is an adverse effect on an entire historic district. Therefore, the conclusion that the project will have an adverse effect on the Lagoon means that there will be an adverse effect on the Grand Rounds Historic District as a whole, as indicated in the SDEIS.

¹ See <http://apps.ci.minneapolis.mn.us/PIApp/ValuationRpt.aspx?pid=3202924120001> and <http://apps.ci.minneapolis.mn.us/PIApp/GeneralInfoRpt.aspx?pid=3202924120001>

² See <https://gis.hennepin.us/property/map/default.aspx>

Section 3.1.2.3 of the SDEIS lists possible mitigation measures that *may* be included in the Section 106 agreement:

- Consultation with MNSHPO and other consulting parties during the development of project design and engineering activities for locations within and/or near historic properties
- Integration of information about historic properties into station area planning efforts
- Recovering data from eligible archaeological properties before construction
- Consultation with MNSHPO and other consulting parties during construction to minimize impacts on historic properties
- Preparation of NRHP nominations to facilitate preservation of historic properties
- Public education about historic properties in the project area

None of these measures can avoid, minimize or mitigate the long-term adverse effects of the project on the Grand Rounds Historic District in a meaningful way. The noise impacts, including bells and horns, will be audible from distances within and beyond the Area of Potential Effect, and include not only the Lagoon area but also Lake of the Isles and Cedar Lake as well as the other parts of the Grand Rounds Historic District. *Noise and vibration impact studies should be done from a baseline assuming no freight, as HCRRA had committed to do and as was contemplated in the DEIS.* Despite the requirement that such impacts be minimized, co-locating both freight and light rail in the Kenilworth Corridor results in the opposite outcome.

The proposed bridges over the Lagoon would have an adverse impact because of their size and scale, inconsistency with the historic cultural landscape of the channel, the noise and vibrations caused by the light rail vehicles traveling the bridge and the fact that it may not be possible to mitigate the impacts of the new bridges, as stated by the MPRB earlier in the 106 process. The appearance of the new bridge structures and the sounds associated with modern rail infrastructure would alter the characteristics of “community planning and development,” “entertainment and recreation,” and “landscape architecture” that make the Lagoon eligible for NRHP designation, and will adversely affect the character and feeling of the Lagoon and how people use the historic resource, including the experience of using the waterway under the new structures. Given that the Council is proceeding with this project in spite of this adverse effect, we hope that designers will continue to be vigilant about minimizing the impact on the setting and feeling of the historic channel, including audible and visual intrusions that will alter the park-like setting of the Lagoon, a vital element of its historic character. These concerns extend to Cedar Lake and the beaches on it nearest to SWLRT, as well as the visual impact on Park Board Bridge #4, Lake of the Isles, Lake of the Isles Parkway and Lake of the Isles Historic District.

Table 3.4-5 lists cultural resources that have been preliminarily considered to have no adverse effect from the Project, because of continued consultation with MnSHPO and certain unidentified avoidance/minimization/mitigation measures. Throughout this table, “consultation” is offered as mitigation. But “consultation” is not the same as “mitigation.” Consulting means talking; mitigation means doing something. The SDEIS does not identify what it could do that would mitigate negative impacts. In any event, the possible mitigation measures listed above would also not significantly address impacts on the cultural resources listed in this table. *The Council must be responsible for ensuring that “continued consultation” is meaningful by conducting assessments and proposing specific mitigation solutions before the 106 agreement is written and finalized, as it is impossible to avoid adverse effects after SWLRT construction and operations commence.* See also our comments below on 3.5 Draft 4(f) Section Evaluation Update.

Cultural resources covered in table 3.4-5 include Lake of the Isles Residential Historic District, Kenwood Parkway Residential Historic District, Lake Calhoun, Cedar Lake Parkway, Cedar Lake, Park Bridge #4, Lake of the Isles Parkway, Lake of the Isles, Kenwood Parkway, Kenwood Park, Kenwood Water Tower and four NRHP listed or eligible homes in the Area of Potential Effect. Station activity will change traffic and parking patterns in the neighborhood and introduce long-term visual and audible intrusions that adversely impact these historic resources. Concerns about the long term Project impact on some or all of these cultural resources include the following:

- Long-term visual and audible intrusion from changes in traffic patterns related to station access: We are concerned that auditory impacts and changes in traffic and parking patterns will adversely affect the integrity of setting and feeling that make Kenwood Park, Kenwood Parkway, Lake of the Isles Parkway, Cedar Lake Parkway and the related residential historic districts, and the four individual homes listed on or eligible for the NRHP. A traffic analysis must be conducted and a plan to mitigate adverse impacts proposed and discussed before the 106 agreement is drafted.
- Noise effects from LRT operations: Audible intrusion from train operations, including bells and horns and the impact of trains going in and out of the tunnel, will alter the environment of the historic resources and the characteristics that make certain of these resources eligible for the NRHP. It seems unlikely that a few homes in the Kenwood Parkway Residential Historic District are the only cultural resources that will be adversely affected by noise from train operations.
- Infrastructure surrounding the tunnel and the massive tunnel portals could adversely affect the historic integrity of the resources. Signage along the historic parkways could also have an adverse effect. Specific design elements should be proposed to minimize these impacts and should be reviewed as part of the 106 process.

The degree of concern regarding the short-term impact of SWLRT construction on all of these cultural resources cannot be overstated. Noise and vibration sensitive resources need to be identified. The public needs to see a comprehensive noise and vibration study and analysis for the Project during construction including the impact of increased truck and construction equipment traffic. We would like details on what will be included in the “project wide construction plan.” It should identify measures to be taken during construction to protect all historic properties from project-related activity including construction related traffic. We need real plans to prevent or repair damage resulting project activities, incorporating guidance offered by the National Park Service in Preservation Tech Note #3: Protecting a Historic Structure during Adjacent Construction, as well as an agreement that specifies how these potential impacts will be monitored and mitigated. The Council previously communicated to a neighborhood group whose residents experienced damage from a Council project that “[c]ontinuing with future projects, our goal is to ensure that claims are promptly and appropriately investigated to determine whether or not they may be related to the project. Depending on the facts of the claim, this may involve independent experts.” We request that the Council communicate with owners of historic homes in the APE prior to construction to establish baselines and mitigation commitments.

Table 3.4-5 is confusing in that it lists station area development as a possible effect on the Kenwood Parkway Residential Historical District that will require continued consultation. The Met Council needs to explain what development it is referring to, because none is anticipated in this district. For example, the Southwest Community Works website and documents state: “Future development is not envisioned around this station....”

<http://www.swlrtccommunityworks.org/explore-corridor/stations/21st-street-station>

See also

<http://www.swlrtccommunityworks.org/~ /media/SW%20Corridor/Document%20Archive/investment-framework/ch-4-penn.pdf>

3.4.1.4 Source: MnDOT CRU, 2014.Parklands, Recreation Areas, and Open Spaces

Long-Term Direct and Indirect Parklands, Recreation Areas, and Open Spaces Impacts

Comment: As noted in our comments on 3.4.1.2 above, we request more information about 3400 Cedar Lake Parkway. This parkland has long been listed on the Hennepin County property tax website as belonging to the Minneapolis Park and Recreation Board. What evidence has the Council or Hennepin County discovered to recently change the website to indicate that this \$2.1 million property is owned by BNSF railroad? Does the conclusion of “no long-term direct impact” of the Project on Cedar Lake Park depend on the Met Council taking advantage of a loophole: that documentation conveying this Cedar Lake Park property to the Park Board many years ago may be lacking, even though the intent that it be parkland was understood? Is the conclusion a way to avoid conducting a compliance analysis as would be required under Section 106 and 4(f) if the property belonged to the Park Board?

The SDEIS states: “None of the indirect impacts on parklands, recreation areas, and open spaces from the LPA in the St. Louis Park/Minneapolis Segment would substantially impair the recreational activities, features, or attributes of those parklands, recreation areas, and open spaces.” We dispute this conclusion. The permanent installation of freight rail and light rail in the Kenilworth Corridor that is too narrow to permit separation in accordance with AREMA and FTA guidelines creates a safety risk that would directly impair park activities in the event of a derailment and/or explosion of flammable materials.

For comment on the indirect impacts of the LPA in the form of visual, noise, and/or access impacts, please see comments to sections 3.4.1.5, 3.4.2.3, and 3.4.4.4 of this Supplemental Draft EIS.

Short-Term Parklands, Recreation Areas, and Open Spaces Impacts

Comment: Please specify the extent to which the stated “standard” measures would be sufficient to protect this environmentally sensitive parkland.

During construction, how can the safety of park and trail users (Park Siding Park, Cedar Lake Park, Lake of the Isles Park, and nearby trails and lakes) be assured, given that unit freight trains of 100 or more cars containing Class III flammable liquids, especially ethanol, travel through this narrow corridor in close proximity to a construction pit and materials, without whatever protective walls will later be installed?

Section 3.4.1.5 Visual Quality and Aesthetics

Excerpt from City of Minneapolis RESOLUTION 2010R-008 by Colvin Roy:

Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained.

While we appreciate and agree that the visual impact from Viewpoints 2, 3, and 4 are recognized as being substantial, we strongly disagree and contest the idea that the level of visual impact north of the Kenilworth Channel crossing (including Viewpoints 5 and 6) will be “not substantial” (pages 3-167, 168). The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be *substantial throughout the corridor*.

The SWLRT plan proposes clear-cutting in the Kenilworth Corridor, a rare urban natural resource. It would remove a large amount of green space and thousands of trees, replacing them with an overhead catenary system, tracks and ballast. The park-like environment will be permanently degraded by this infrastructure, as well as by the approximately 220 daily trains traveling over the historic Kenilworth Lagoon and through the corridor.

Clearly, the visual impact of deforestation of this area will be great, especially given that the Kenilworth Trail is used by well over 600,000 annually. Over the past 7 to 10 years, neighbors and trail users have clearly expressed to Hennepin County and the Met Council the very high value they place on the green space, wildlife and bird habitat, trees and other vegetation in the Kenilworth Corridor.

The visual impact to the park-like environment is exacerbated by the continuing presence of freight rail, which was expected to be removed from the Kenilworth corridor at the time of the Alternatives Analysis, the Locally Preferred Alternative decision, and the 2012 DEIS.

The SDEIS says the consultant determining the *visual qualities* of the corridor relied on Google Earth, files of the revised project layout, and selected “photographically documented” views (Appendix J, section 2B). It does not say the consultant actually set foot in the area, or consulted any stakeholders. Assuming that is the case, we are most discouraged at the slipshod research methods used in this important document, and find it even less credible.

At **Viewpoint 5**, we support all efforts to create an “attractive design” for the bridges crossing the Kenilworth Channel. The three new bridges will certainly become a “focal point,” adding large cement structures and heavily impacting the setting and feeling of this element of the Historic Chain of Lakes and the Kenilworth Trail. An attractive design for these bridges does not compensate for the vegetative clearing. The character of the City of Lakes’ signature canoe, kayak and skiing route from Lake of the Isles through the Kenilworth Channel to Cedar Lake will be fundamentally and permanently degraded. There will be a substantial negative visual impact from the level of the water as well as the level of the trail.

At **Viewpoint 6**, the SWLRT project plans to remove a significant amount of vegetation along the edge of Cedar Lake Park, as well as trees, plants, and restored prairie currently along the bicycle and pedestrian trails. The claim that removing trees and replacing them with overhead power lines would create a positive visual experience for trail users (“open up the view, making it more expansive”) is absurd on its face and contradicts the clearly expressed will of the Minneapolis City Council and the adjacent neighborhood. The 21st Street Station, a slab of concrete and metal with fencing and catenaries, will indeed “create a focal point” — that is to say, a negative one. It is not credible, and it is even laughable, to assert that a concrete slab will positively impact the visual qualities of a spot immediately adjacent to an urban forest and is itself in a “park-like environment.”

The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be substantial throughout the corridor. We find it absurd and disingenuous for the Council to claim otherwise. The Council must stop pretending that this problem does not exist, and get serious about identifying robust and meaningful mitigation measures for incorporation into the project.

3.4.2.1, 3.4.2.2 Geology and Groundwater, Water Resources

Comment: LRT Done Right demands that there be a much more significant and transparent discussion regarding the compensatory mitigation for damage to wetlands and aquatic resources in the Minneapolis segment, especially the Kenilworth Channel and Cedar Lake. While a permit application is required, the SDEIS identifies that there will be damage done to aquatic resources but does not specify the level of damage done during construction and then during operation of the line. The further impairment of these resources is a direct violation of the EPA Clean Water Act and will degrade one of the crown jewels of the Minneapolis "City of Lakes" water resources. Residents swim, paddle, and recreate in those resources, and to callously suggest that a section 404 permit will just address those concerns is alarming.

Further, LRTDR is not convinced that sufficient analysis has been done on existing contamination in the Kenilworth Corridor. Southwest Project Office has already stated that additional contamination is likely to be found, and while the additional contamination is stated to be covered by the contingency fund, LRTDR finds this approach to be irresponsible budgeting without fully knowing what contamination exists and if enough is actually budgeted in the fund. The Kenilworth Corridor north of 21st St is a former rail yard that housed up to 58 rail lines during its peak, and was in service for decades. The SDEIS itself specifies the numerous toxic contaminations in such soil due to its former use. LRTDR strongly opposes disturbing the land and releasing contamination into the water and air.

Southwest LRT Supplemental Draft EIS - Supporting Documents and Technical Reports: SWLRT Kenilworth Shallow LRT Tunnel Basis of Design Technical Report (Met Council, 2014d):

An Existing Sewer Force Main Crosses the Proposed Location of the SWLRT South Tunnel in the Kenilworth Corridor.

The removal and relocation of recently installed dual force mains, running beneath the freight tracks and Kenilworth Trail (between Depot Street and W. 28th Street) at the site of the proposed south tunnel, will be necessary to accommodate co-location of LRT with freight in the Kenilworth Corridor. The presence of the existing dual sewer force mains has design, construction, and cost implications on the shallow tunnel, which are not addressed in the SDEIS. The SDEIS technical drawings for the shallow tunnel do not indicate the existing force sewer main or the sewer relocation plan. Although Metropolitan Council is clearly aware of this complication, since it refers to replacing 200 feet of the dual 18-inch sanitary sewer force mains at Depot Street in its 9/19/14 CTIB capital grant application, it nevertheless does not address its design impacts and costs in the SDEIS in the Kenilworth Shallow Tunnel Design Technical Report.

In 2013 the Metropolitan Council Environmental Services (MCES) installed replacement sewer force mains between France Avenue and Dean Parkway. The force mains follow Sunset Boulevard to Depot Street and then crosses under active freight railroad tracks and the Kenilworth Trail to West 28th Street. The force mains installation at this location was completed by tunneling under, and placed perpendicular to, the railroad tracks and Kenilworth Trail so as not to disrupt active rail operations. The tunneling process required construction of two tunneling (jacking) pits on either side of the tracks. One pit was located at Depot Street and the other was located at the end of West 28th Street adjacent to Park Siding Park. The tunneling pit near Park Siding Park measured 16 by 34 feet and was approximately 27 feet deep. The excavation of these pits required the use of a crane and an excavator.

The SWLRT south tunnel construction plan says a pit would be dug to a depth of approximately 35 feet in this same location. The existing force main crossing consists of a 60-inch diameter tunneled steel "casing" pipe. The distance to the top of the casing pipe is approximately 17 feet and the distance to the bottom is 22 feet. The dual 18-inch force main pipes pass through this tunneled casing. The current placement of the force main interferes with the proposed location of the tunnel construction pit. The force main will need to be removed and relocated either above the proposed tunnel or below the tunnel to a depth greater than approximately 45 feet below ground level. See diagrams A through C below. If the force main is relocated above the shallow tunnel, the tunnel will need to be dug deeper in order to accommodate the force main above. This will result in an increased steepness in the incline of descent and ascent of the entrance and exit to the tunnel respectively. If LRT trains cannot navigate said increased grade change then it may require building a longer tunnel in order to safely allow trains to exit and enter at a lesser incline/decline, adding to the cost and impact.

Risks associated with possible stray electrical current traveling in the ground from the LRT power lines to the sewer force mains have not been identified or addressed in the SDEIS.

The removal and re-installation of the dual force mains will have Economic, Social, and Environmental impacts:

Economic costs:

Long term increase in cost of the SWLRT project of an undetermined amount as a result of co-locating freight and LRT, including:

1. Cost of removing and relocating the sewer force main located under the freight tracks and the Kenilworth Trail.
2. Cost of possible redesign of the south tunnel to accommodate force main relocation if it is reinstalled above the south tunnel.
3. Costs associated with re-engineering or lift station(s) that may be required to ensure adequate force is maintained in the sewer main if the main is re-located to a deeper position (i.e., from approximately 22 feet to more than 45 feet below ground level).
4. Cost of remediation of any portions of Park Siding Park that may be affected during removal/relocation of the force sewer main.
5. Cost of roadwork at Depot Street to remove/relocate force main.
6. Cost of damages to walls, ceilings and foundations of neighboring residences as a result of construction to remove/relocate the force sewer main.
7. Costs to remediate noise and vibrations impacts on the community that may be experienced during the construction period and post construction period should lift station(s) be required.

Social:

Parkland, Recreation, Open Spaces and Safety Impact:

Short-term construction impact - Portions of Park Siding Park (a Section 4 (f) property) may again be affected in order to accommodate the removal and reinstallation of this force sewer main and construction of tunneling (jacking) pits. The original construction resulted in closure of the park to users for an extended period, installation of a temporary detour through the park to accommodate the closure of Dean Court, destruction of park vegetation, gardens and lighting, and the removal of playground equipment. Some of these same impacts may again occur during the removal/relocation of the force main and construction of associated jacking pits. In addition, the construction of the south tunnel is expected to take 2-3 years and requires a deep open pit adjacent to Park Siding Park. The access and enjoyment of this park will be affected by the tunnel construction during this extended time frame and presents a dangerous environment for nearby park users and freight rail operations. The mitigation and cost of remediation of the parkland have not been addressed in the SDEIS.

Environmental:

Noise:

Short-term noise impacts - Removal and reinstallation of the force line will result in noise impacts of an undetermined level to both neighboring residents and Park Siding Park users as a result of both construction activities and construction vehicles. Mitigation plans/cost are not included in the SDEIS and need to be addressed.

Vibration:

Short-term vibration impacts – Effects of construction activities and, to a lesser extent, construction vehicles will have an impact on park users, neighbors and their residences. Vibration and associated ground-borne noise impacts may damage walls, ceilings and foundations of nearby residences, as was experienced in the original construction of this force line. Mitigation plans/cost are not included in the SDEIS and need to be addressed.

Diagram A – Existing sewer force main at approximately 22 feet below grade obstructs planned location of SWLRT south tunnel in the Kenilworth Corridor, which requires an estimated 45 feet below ground level for construction pit and helical piles.

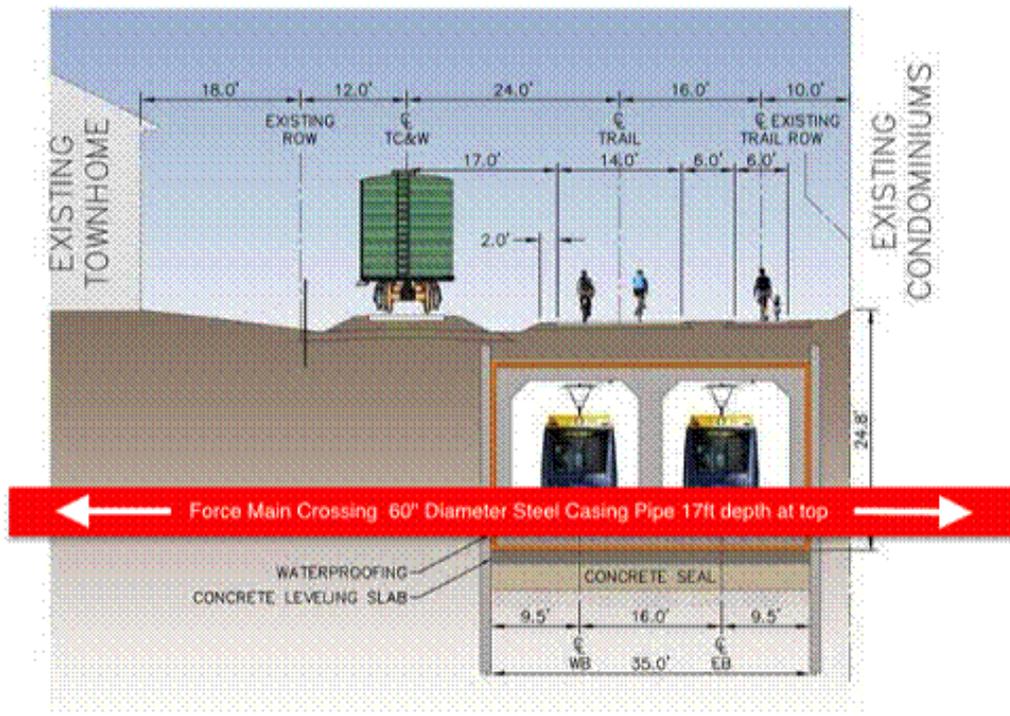


Diagram B – Typical Kenilworth Shallow LRT Tunnel Section per SDEIS

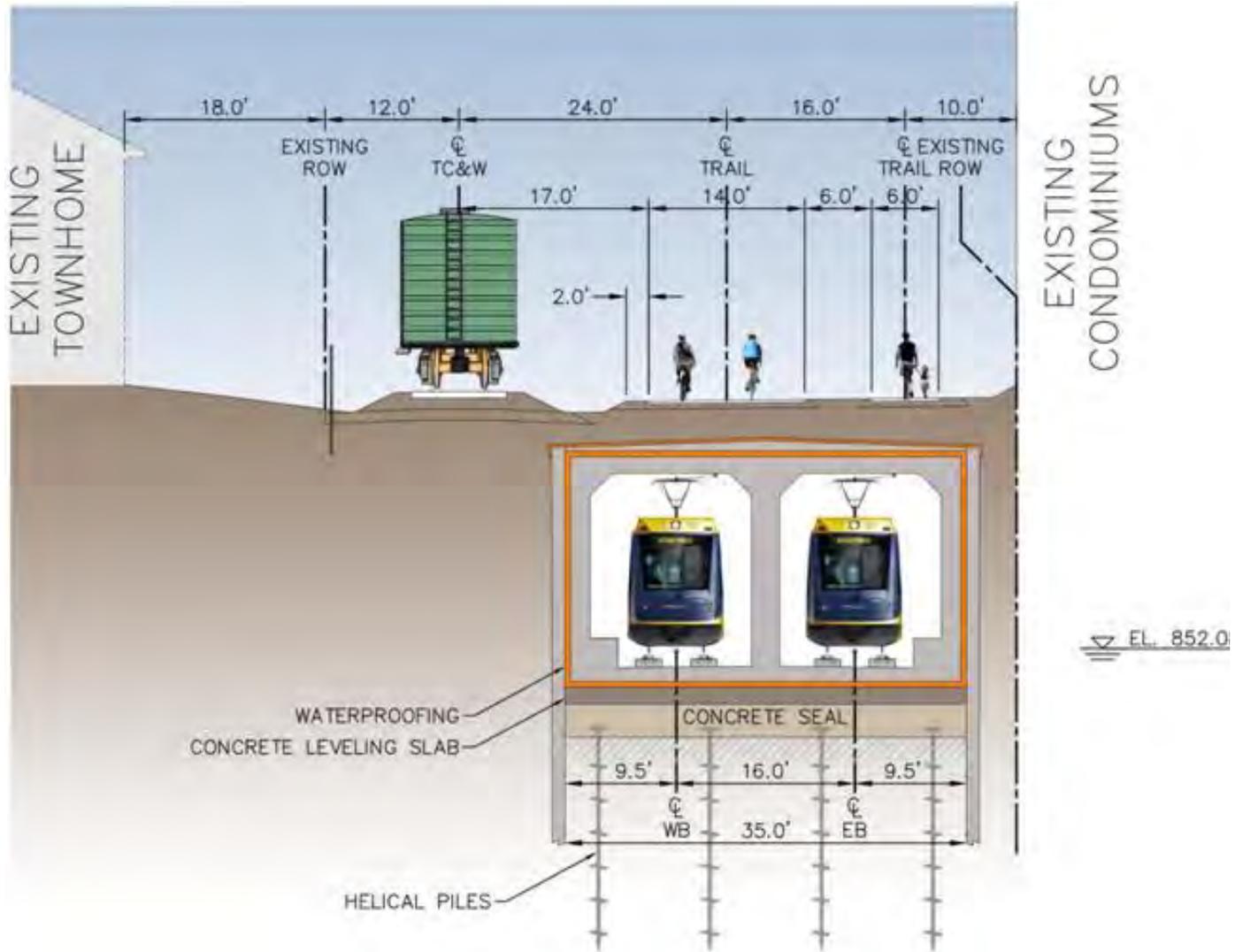
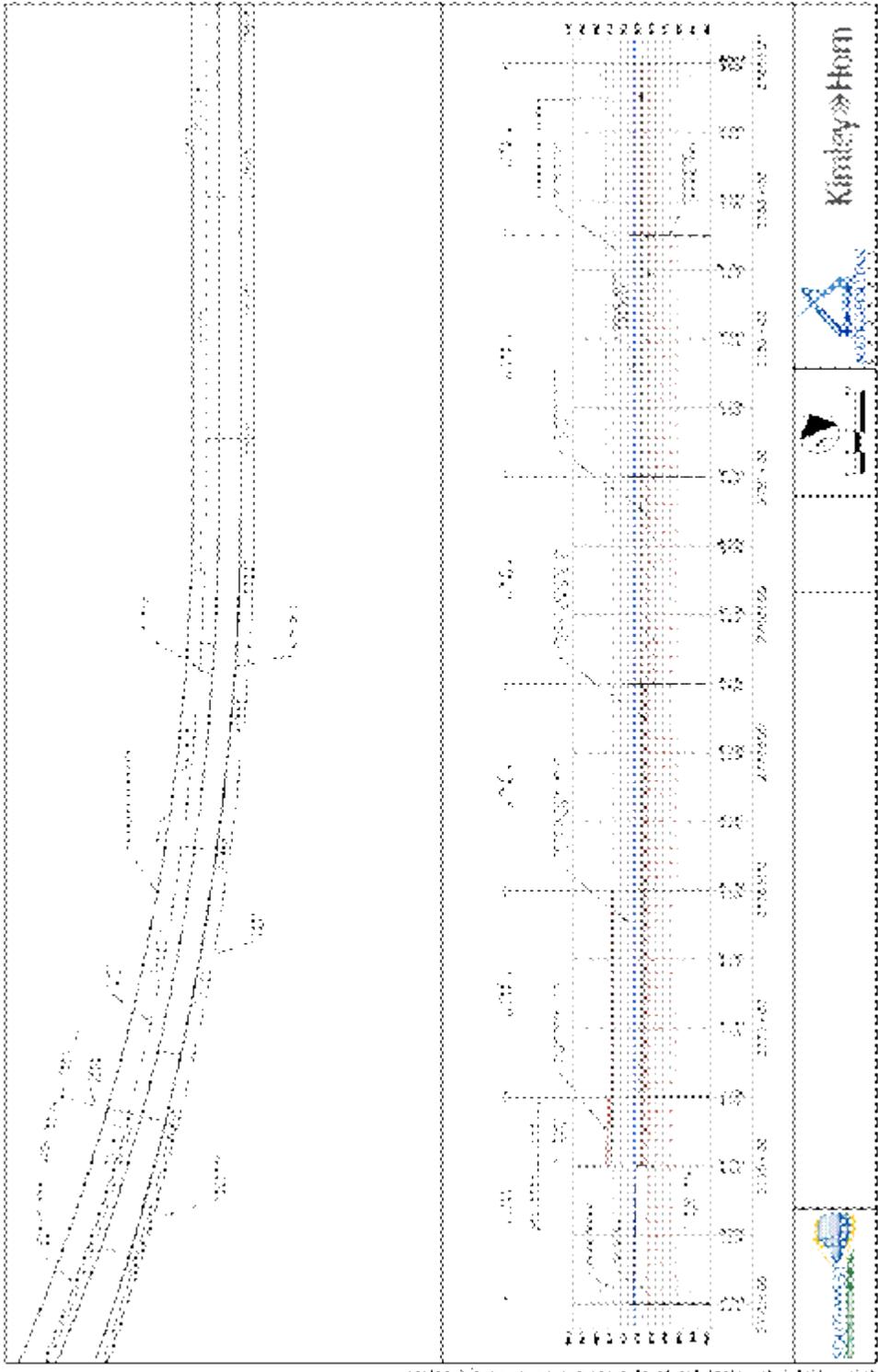


Diagram C - SWLRT South Tunnel Typical Cell Sequencing per SDEIS Note: the helical piles are shown at approximately 820 feet above sea level which is approximately 45 feet below the ground level.



3.4.2.3 AND 3.4.2.3 NOISE AND VIBRATION

Comment: The SDEIS greatly understates both noise and vibration impacts of SWLRT.

- It uses wrong data as the fundamental framework for noise and vibration analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise and vibration data on a scenario that *does* include a freight train, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the [Draft EIS](#) in 2012.”³ *This defect renders the noise and vibration sections of the SDEIS fundamentally flawed and misleading. They need to be reworked with appropriate and correct data.*
- The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporating into the SDEIS.
- The SDEIS effectively ignores the impacts of construction. See more below.

Noise 3.4.2.3

Comment: When the Met Council chose the present route for SWLRT between the Chain of Lakes through the Kenilworth Corridor, and included “co-location” which will make the existing freight rail permanent, the project implicitly accepted the responsibility to respect the natural and built environments that it travels through as well as the people who bike, walk, recreate, and live there. We believe that this responsibility has not been taken seriously and the following describes why.

SWLRT noise impacts substantially minimized: We believe that the SDEIS substantially minimizes the noise impacts associated with the proposed SWLRT. The noise impact of SWLRT in this area of Minneapolis will be highly significant for a number of reasons, but most notably because of the tranquility, recreational, park, and residential use currently existing in and bordering the Corridor. Some have compared the proposed SWLRT route with the Blue Line (Hiawatha) and the Green Line (Central Corridor down University Avenue). But such comparison is inappropriate, since the Blue and Green lines run immediately adjacent to commercial thoroughfares or four-lane roads that carry cars and heavy trucks around the clock. By contrast, the Kenilworth area is a quiet environment, and is part of the **Grand Rounds National Scenic Byway**.⁴ By contrast, the Kenilworth Corridor is a unique, quiet environment, part of the Grand Rounds National Scenic Byway.

The SDEIS coolly states that 24 residences would suffer Severe or Moderate noise impact. Translated, this means the noise of 220 light-rail trains running daily from 4 a.m. to 2 a.m. would fundamentally transform the adjacent neighborhood with near-constant noise and vibration at sound levels up to 106 dBA (the sound of warning bells — equal to the sound of a jet take-off 1,000 feet away). As noted in Appendix H (SDEIS Noise and Vibrations Memoranda), residences are considered Category 2 buildings, with the expectation that sleep occurs there.

The noise levels given in Noise Fact Sheet (Appendix H p. 19) state the following: LRT trains traveling at 45 mph generate maximum typical noise levels of 76 dBA at 50 feet (equivalent to freeway noise at 50 feet), 71 dBA at 100 feet, and 66 dBA at 200 feet. Adding 211-220 LRT three-car trains to the Kenilworth Corridor day and night, each producing such elevated noise levels, would be a severe and overwhelming intrusion, drastically increasing the noise generated. This would hold true even if the only noise increase were from the LRT trains traveling at their stated speed, per the SDEIS, of 45 mph.

³ <http://metro council.org/swlrt/sdeis>

⁴ A National Scenic Byway is a road recognized by the [United States Department of Transportation](#) for one or more of six “intrinsic qualities”: archeological, cultural, historic, natural, recreational, and scenic. Congress established the program in 1991 to preserve and protect the nation’s scenic but often less-traveled roads and promote [tourism](#) and economic development. The National Scenic Byways Program (NSBP) is administered by the [Federal Highway Administration](#) (FHWA).

Our conclusion that the LRT trains in the midst of a residential and recreational area would be an overwhelming intrusion is supported by the analysis below, which assesses the combined impacts of LRT frequency, time of day or night of LRT, and LRT bell noise intensity and frequency identified in Appendix H, SDEIS p.3-13 and p.3-18.

LRTDR Analysis of SDEIS Appendix H Table 1 & p. H-4 Data

- Bells are sounded for 5 seconds prior to grade crossings, as vehicles approach grade crossings, such as the 21st Street in the Kenilworth Corridor
- Grade crossing bells are used at grade crossings for 20 seconds for each train; 21st Street is also a grade crossing.
- Bells are sounded twice at stations — once entering and once exiting station platforms, such as the 21st Station (SDEIS gives no duration. We request the duration of bells sounding when entering and exiting station platforms be made public. This information is needed for accurate noise impacts to be known.
- Total bell time (not counting the brief pause between entering and exiting the station) is known or given as more than 25 seconds per train. It is unknown how much longer than 25 seconds the bells will sound, as exit/enter bell duration is not given in the SDEIS.

WEEKDAYS

Early morning 4:00 AM – 5:30 AM

- 6 to 8 trains per hour equals 9 to 12 trains per day between 4:00 AM and 5:30 AM
- This means 1 SWLRT train at 66 to 76 dBA every 7.5 to 10 minutes
- Would produce 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

Early morning to evening 5:30 AM – 9:00 PM

- 12 SWLRT trains per hour equals 186 trains per day between 5:30 AM and 9:00 PM
- This means 1 SWLRT train every 5 minutes
- Would produce 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 5 minutes.
- At least 10% of every 5 minute period in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise
- *At least 6 minutes of every hour from early morning to 9 PM in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise.*

Evening to early morning 9 PM to 2 AM

9 PM to 11 PM

- 6 to 8 trains per hour equals 12 to 16 trains per evening between 9 PM and 11 PM
- This means 1 SWLRT train every 7.5 to 10 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

11 PM – 12AM

- 2 trains per hour equals 2 trains per night between 11 PM and 12 AM
- This means 1 SWLRT train every 30 minutes
- Would entail 25-plus seconds of bells ((5 seconds 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 30 minutes

Very early morning 12 AM – 2 AM

- 1 to 2 trains per hour equals 2 to 4 trains per day, between 12 AM and 2 AM

- This means 1 SWLRT train every 30 to 60 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 30 to 60 minutes

Very early morning 2 AM – 4 AM

- 2 hours of no LRT trains equals baseline — current noise levels

Total equals 211-220 SWLRT three-car trains per weekday

WEEKENDS

Early morning 4:30 AM to 9 AM

- 6-8 trains per hour equals 26 to 36 trains per day between 4:30 AM and 9 AM
- This means 1 SWLRT train every 7.5 to 10 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

Morning to evening 9 AM – 7 PM

- 12 trains per hour equals 120 trains per day between 9 AM and 7 PM
- This means 1 SWLRT train every 5 minutes
- Would entail at least 25 seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106A dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 5 minutes.
- At least 10% of every 5 minute period in the Kenilworth Corridor would consist of bell noise at 88dBA and 106 dBA
- At least 6 minutes of every hour from early morning to evening in the Kenilworth Corridor will consist of bell noise at 88dBA and 106 dBA

Evening 7 PM to 9 PM

- 8 trains per hour equals 16 trains per day between 7 PM and 9 PM
- This means 1 SWLRT train every 7.5 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 minutes

Late evening 9 PM – 11 PM

- 6 – 8 trains per hour equals 12 to 16 trains per day, 9 PM – 11 PM
- 1 SWLRT train every 7.5 – 10 minutes
- 25-plus seconds of bell noise (5 seconds 88 dBA, plus 20 seconds 106 dBA, unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

Late evening 11 PM – 12 AM

- 4 trains per hour equals 4 trains per day between 11 PM and 12 AM
- This means 1 SWLRT train every 15 minutes
- 11 PM to 12 AM weekend train frequency is double the weekday frequency of 11 AM to 12 AM
- Would entail 25-plus seconds of bell noise (5 seconds 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 15 minutes

Very early morning 12 AM to 2 AM

- 2 to 4 trains per hour equals 4-8 trains per day between 12 AM and 2 AM
- This means 1 SWLRT train every 15 to 30 minutes
- 12 AM to 2 AM weekend train frequency is double the weekday frequency of 12 AM to 2 AM
- 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 15 to 30 minutes

Very early morning 2 AM – 4 AM

- No trains — equals current existing conditions

Total equals 180 -195 SWLRT three-car trains every weekend day.

The result of LRT noise would be that the corridor will be permanently changed from a quiet, tranquil area sought by pedestrians, cyclists, and outdoor enthusiasts, and a highly desirable residential area to an area severely disrupted by the noise of a highly mechanized transit route.

Beyond permanently degrading the area, there will be multiple public health consequences of SWLRT noise in the corridor. The impact of repetitive noise intrusion on neighborhood public health will be significant. For example, regarding the obvious potential for sleep interruption caused by SWLRT noise (and there will be more trains during the late evening and early morning weekend hours) a research review published in the December 2014 edition of *Sleep Science*, summarizes:

Emerging evidence that these short-term effects of environmental noise, particularly when the exposure is nocturnal, may be followed by long-term adverse cardio metabolic outcomes. Nocturnal environmental noise may be the most worrying form of noise pollution in terms of its health consequences because of its synergistic direct and indirect (through sleep disturbances acting as a mediator) influence on biological systems. Duration and quality of sleep should thus be regarded as risk factors or markers significantly influenced by the environment. One of the means that should be proposed is avoidance at all costs of sleep disruptions caused by environmental noise.”

The article continues:

The World Health Organization (WHO) has documented seven categories of adverse health and social effects of noise pollution, whether occupational, social or environmental. The latter [sleep disturbance] is considered the most deleterious non-auditory effect because of its impact on quality of life and daytime performance. Environmental noise, especially that caused by transportation means, is a growing problem in our modern cities. A number of cardiovascular risk factors and cardiovascular outcomes have been associated with disturbed sleep: coronary artery calcifications, atherogenic lipid profiles, atherosclerosis, obesity, type 2 diabetes, hypertension, cardiovascular events and increased mortality....during the past year, the relationship between insomnia and psychiatric disorders has come to be considered synergistic, including bi-directional causation.”⁵

There is growing evidence that the opportunity to benefit from greenspace — what some mental health experts have referred to as “soft fascination”⁶— supports social and psychological resources and recovery from stress. The perpetual and repetitive noise from SWLRT would interrupt the restful and restorative experience enjoyed by tens of thousands of people in the Kenilworth Corridor, at nearby beaches, parks, in the Kenilworth Channel and general environs of Lake of the Isles and Cedar Lake. Such opportunities to enjoy nature and relieve stress, though often taken for granted by suburban dwellers, are extremely limited in urban areas, yet equally critical for their mental health.

With healthcare costs and disease prevention being prominent national and local priorities, the economic value of the public health benefit of the Chain of Lakes and Kenilworth Corridor cannot be ignored. *We request a study of the physical and mental*

⁵ *Sleep Science*, Volume 7, Issue 4, December 2014, Pages 209-212

⁶ British Journal of *Sports Medicine* 2012, “The Urban Brain: Analyzing Outdoor Physical Activity with Mobile EEG”

health impacts of the noisy, hyper-mechanization of this currently placid area, which plays a key role in the life and character of our neighborhood and the entire City of Minneapolis.

A. Existing Conditions (p. 3-180)

This section describes existing noise-sensitive land uses in the St. Louis Park/Minneapolis Segment and existing noise levels.

Fundamental defect with baseline noise measurements

Comment: As noted above, the SDEIS uses wrong data as the fundamental framework for noise analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise data on a scenario that *does* include a freight train, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the Draft EIS in 2012.”⁷ *This defect renders the noise section of the SDEIS fundamentally flawed and misleading. It needs to be reworked with appropriate and correct data.*

The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporated into the SDEIS.

Further, since aircraft overflights are generally scarce, the average current noise level per hour is extremely low when averaged over a 24-hour period.

Additionally, there are significant seasonal and weather-related variations in noise levels, which cannot be captured when sound is measured during one 24-hour period in the summer.

Finally, in Appendix H, p.2, it is noted, “noise monitoring was performed at other locations not listed in the table. Those sites will either be addressed in the forthcoming Final EIS or no longer fall within the area where they would be potentially impacted by project noise due to design refinements during Project Development.” Since the purpose of the SDEIS is to inform the public and decision makers, and provide opportunity for comment on all areas of concern, in order to fulfill that NEPA mandate, all measurements that were made and publicly financed should be made public.

B. Potential Noise Impacts

Noise Impacts Measurement Tables (Table 3.4-11, 3.4-12)

Comment: Following FTA noise assessment guidelines, the 76 dBA LRT noise occurring every 5 minutes is measured as having a lower impact than that actual dBA of 76 because the LRT noise is not continuous. Thus, though this quiet urban area will be exposed to an actual repetitive noise of 76-80 dBA day and night, the rating of the impact is lower and measured as only 51 – 64 dBA in Tables 3.4-11, 3.4-12. The significantly lower measurement lessens the determination of findings of impacts, and therefore, whether impacts are determined as non-existent, Moderate or Severe. *This engineering methodology covers up the actual impact on people of loud repetitive noise in a peaceful setting.*

The 25-plus seconds of repetitive bell noise described in the LRTDR Analysis of SDEIS Appendix H Table 1 & p. H-4 Data above does not appear to be included in the SDEIS noise analysis in Tables 3.4-11, 3.4-12, which would clearly increase the severity of noise impact at all locations. The SDEIS also neglects to report and measure the cumulative effect of LRT and freight train noise. This information would likely show that more than 24 residences would be affected; more of them would be impacted at the severe level, and a greater impact on the Kenilworth Channel and Kenilworth Lagoon Bank.

⁷ <http://metro council.org/swlrt/sdeis>

Furthermore, future projected noise levels of LRT and freight will be higher than the projection inputs used by the SDEIS after the clear cutting of trees and vegetation in the corridor, increasing the impact of noise generated by both SWLRT and the freight rail. When utilizing the Source – Path – Receptor FTA noise impact assessment framework, it is clear that the inputs for each of the three parameters are critical and control the outcomes determining the severity of noise impact. Removal of the trees and vegetation eliminates a significant and well-established noise barrier currently in the path of noise from freight and future SWLRT. *The SDEIS does not address the impact of clear-cutting the trees and vegetation in the Kenilworth Corridor on Moderate versus Severe LRT noise impacts.*

Tunnel Swaps Noise for Vibration

As stated in the SDEIS, the tunnel section of the SWLRT is supposed to eliminate “almost all noise impacts within that segment of the corridor.” It must be noted, however, that these noise impacts will be replaced by vibration impacts; see the Vibration Section below.

Analysis of Table 3.4-12

Inaccurate land use designation for the Kenilworth Channel: We strongly challenge the land use designation of the Kenilworth Channel as Category 3. As defined in Appendix H, Category 3 is:

Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, and churches where it is important to avoid interference with such activities as speech and concentration on reading material...

The SDEIS designates the banks of the Kenilworth Channel as falling within the most noise sensitive Category 1. However, as stated above, the Channel itself is not included in that most highly sensitive designation, but instead is classified as “institutional land use.” Category 1 is defined in Appendix H as:

Tracts of land where quiet is an essential element in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheaters and concert pavilions, as well as National Historic Landmarks with significant outdoor use.

The SDEIS states the “grassy area on the banks of the Lagoon” falls within Category 1 due to the “passive and noise sensitive recreational activities that occur there (where quietude is an essential feature of the park).” The designation of Category 1 versus 3 for the Kenilworth Channel appears to hinge excessively on one word — the term “passive” — to describe the activities for which the Channel banks are used. However, quietude is equally and very clearly an essential feature of the Kenilworth Channel itself, whose peaceful though not “passive” activities include canoers and cross country skiers gliding serenely on the water or ice while those on the grassy banks look on. The quietude of the Kenilworth Channel is inseparable from the quietude of its grassy banks; therefore both should be Category 1.

Significantly, the consequences of placing the Kenilworth Channel in Category 3 are 1) that the obligation to mitigate impacts is lowered, and 2) that the threshold to establish severe impact is higher and harder to reach. Had the Kenilworth Channel been accurately designated a Category 1, then the Channel would have been only 1 dBA below “Severe impact.”

Even with the lowering of the land use category of the Kenilworth Channel to a Category 3, the SDEIS finds a moderate impact of the addition of LRT noise. The footnote to SDEIS Table 3.4-12, states that the noise impact increases as one approaches the LRT line and becomes severe when the channel falls within the HCRRA right of way.

While the SDEIS states that the land use categories were made in consultation with the MPRB and MN SHPO, we strongly dispute their coherence and accuracy. If the intention of the SPO is to preserve the character and experience of the Channel, then it must designate it as a Category 1 and then make public the mitigation plans and costs well in advance of the final FEIS.

SWLRT Violates the System of Minneapolis Parks: Horace Cleveland’s visionary master plan, *Suggestions for a System of Parks and Parkways for the City of Minneapolis*, proposed a park system of connecting sites of beauty and natural interest throughout the city, rather than a series of detached open areas or public squares. The vision of a park “system” has guided the Park Board ever since and is one of the primary reasons for the success and national prestige of the Minneapolis Parks. The SDEIS procedure of singling out specific pieces of park for analysis such as Lilac Park, the Kenilworth Channel and its grassy banks runs fundamentally contrary to the underlying vision of a coherent Minneapolis Park System.

*The presence of perpetual, repetitive LRT noise over the Kenilworth Lagoon and throughout the interconnecting parks and lakes woven throughout this area violates the larger system of the Minneapolis Parks.
Site N 17 (p. 3-182)*

21st Street Station Noise Impacts: At the proposed 21st Street Station, crossing and station bells generating a noise level of 106 dBA and LRT bells generating 88 dBA will seriously add to the overall noise levels for 22 hours a day; only between 2:00 a.m. and 4:00 a.m. will neighborhood residents in this area be able to sleep uninterrupted. The LRTDR Analysis of the SDEIS Appendix H Table 1 & p. H-4 given above shows the impact throughout the day and night.

Further, freight trains may need to use their horns to safely cross 21st Street, as is the current case with the “temporary” freight operations. We thus strongly disagree with the characterization of the noise impacts in the 21st Street station area as moderate and limited. “Sensitive receptors” in this area will be subject to train arrivals, departures, signal bells and perhaps horns, seriously eroding the quality of life in the neighborhood and reducing the enjoyment of the recreational trail and Cedar Lake Park for users of these regional amenities.

We believe that the residences with noise impacts deemed “moderate” in the SDEIS will likely experience severe noise impacts without proper mitigation, and that in addition to the residences identified, residences along 21st Street, 22nd Street, and Sheridan Avenues will also experience at least a moderate noise impacts. We further believe that there will be an impact on more residences than the 24 cited in the SDEIS.

Note: The SDEIS misidentifies some of the homes deemed to have a “moderate impact without mitigation” as being on Thomas Avenue South; some of the addresses are actually on Sheridan Avenue South.

LRT Horns are Likely: According to the federal Train Horn Rule⁸, locomotive engineers must sound horns at a minimum of 96 decibels for at least 15 seconds at public highway rail grade crossings. Appendix H indicates that LRT Horns are 99 decibels and are sounded for 20 seconds. The SDEIS states that LRT horns would only be sounded at crossings where speeds exceed 45 mph. Since LRT and freight trains may not reach that speed in the Kenilworth Corridor, presumably no horns would be sounded when LRT vehicles cross 21st Street. Given the volume of pedestrian, bicycle, and car traffic at this crossing, it is not safe to silence LRT horns at this crossing. The noise created by horns sounding for LRT trains at least 96 decibels for a minimum of 15 (or 99dBA for 20) seconds represents a “severe” noise impact and is therefore prohibitively detrimental to quality of life in a residential neighborhood.

Issues Not Addressed in SDEIS Noise 3.4.2.3

Not addressed: Impacts near Portals: Two areas of potential noise impacts do not appear to be adequately addressed by the SDEIS. First, table 3.4-11 does not appear to cover noise that will be experienced by the homes directly behind the SWLRT tracks after it emerges from the tunnel and crosses the Kenilworth Channel. Since LRT on ballast and tie track produces noise at 81 dBA, we believe that those residences will experience noise at the same level as homes on Burnham Road and Thomas Avenue South. Further, Appendix H notes that noise will increase by 1 dBA for homes within 100 feet of the tunnel entrance/exits. We strongly request that noise impacts be determined for those residences and that they be included in consideration for noise mitigation. We further request that the cost of that additional mitigation be included in the costs of the Final DEIS.

Not addressed: Tunnel Ventilation System: Second, noise from the tunnel ventilation systems does not appear to have been considered. The SDEIS states that the tunnel section of the SWLRT is supposed to eliminate “almost all noise impacts within that segment of the corridor.” However, we understand that there will be ventilation fans connected to the tunnels as well as a ventilation “building” planned near Cedar Lake Parkway. The SDEIS neglects assessment of the noise impacts from such a ventilation system, and this information is critical to determining whether the proposed tunnel would have a positive or negative environmental impact.

Policy-makers and citizens need adequate information on the noise impacts of both the vents and the ventilation building before proceeding with tunnel construction. Appendix H indicates that the fans will operate only on an emergency basis, but we do not see any mention of the ventilation building in the SDEIS. We request clarity on the amount of time each day that they will be operational and creating noise impacts, and the dBA of each.

Not addressed: Freight Operations: The existing freight operations, intended to be temporary, are being made permanent. The noise generated by these trains, which often have three or four engines, must be measured and considered in the overall assessment of noise impacts of the SWLRT project.

The SDEIS simply states that the noise issues described above will be addressed in the Final EIS and that they will be mitigated. *We take the strong view that now is the critical and only time to prove that mitigating the noise issues we have described is possible and that the cost of such mitigation is in the budget.*

3.4.2.4 Vibration

LONG-TERM DIRECT AND INDIRECT VIBRATION IMPACTS

Comment: The SDEIS states, “There are no vibration impacts in this segment [of the SWLRT route]” This claim is not credible in view of advice provided in *Transit Noise and Vibration Impact Assessment*, the FTA’s own guidance manual presenting procedures for predicting and assessing noise and vibration impacts of proposed mass transit projects:

Vibration from freight trains can be a consideration for FTA-assisted projects when a new transit line will share an existing freight train right-of-way. Relocating the freight tracks within the right-of-way to make room for the transit tracks must be considered a direct impact of the transit system, which must be evaluated as part of the proposed project. However, vibration mitigation is very difficult to implement on tracks where trains with heavy axle loads will be operating.”⁹

The SDEIS says that 54 residences¹⁰ in the “St. Louis Park/Minneapolis” segment (note that all of them are within Minneapolis) will be impacted by the ground-borne noise. This is an unacceptable level of impact on those 54 families.

According to Appendix H, which addresses both noise and vibration, the table titled Typical Maximum Noise Levels (dBA) on page H-19 quantifies the dBA for LRT, freight and then lawnmowers and buses idling. The dBA for freight rail in that same table is shown for a speed of 20 MPH. The freight in the Kenilworth Corridor travels at a maximum of 10 MPH. For comparison purposes, the assessment should use the dBA of freight trains traveling at 10 mph. Use of the sound impact from a train travelling twice as fast (20 mph) as the current speed in the corridor understates the current noise level (from freight), thereby minimizing the impact and differential from the LRT trains.

Regardless of whether the residences are impacted by vibration from the tunnels or from the noise which is flagged as a “Residential Annoyance” in the tables in Appendix H, the fact that these “annoyances” will occur incessantly — 220 times per day starting at 4 a.m. and continuing to 2 a.m. — means the impact on those residents will be significant and should be considered “severe”. This is very unlike the impact of the freight trains: they may in some cases may be louder than the LRT, but there are only one or two of them per day — often not during the night hours — and then they are gone.

Regarding ground-borne vibration and noise, it should be noted that the impacts projected might underestimate real-world impacts, which could be more annoying than assumed. The FDA manual states: ¹¹

...the degree of [ground-borne vibration and noise] annoyance cannot always be explained by the magnitude of the vibration alone. In some cases the complaints are associated with measured vibration that is lower than the perception threshold.

⁹ Chapter 7: *Basic Ground-Borne Vibration Concepts*, 7-9

¹⁰ All of them are Category 2 receivers: “residences and buildings where people normally sleep.”

¹¹ Chapter 7: *Basic Ground-Borne Vibration Concepts*, 7-6

SHORT-TERM VIBRATION IMPACTS

The SDEIS all but ignores construction-related ground-borne noise (vibration) — except for a single, dismissive comment: “Short-term vibration impacts are those that might occur during construction of the LPA while jackhammers, rock drills, and impact pile-drivers are being used.” Within weeks of this writing, impact pile-driving on the former Tryg’s restaurant site in the West Lake Station area caused serious damage to the Loop Calhoun condominiums, as well as some level of damage to the Cedar-Isles Condominiums. The contractor, Trammel Crow, had to halt the project and extract the piles, since going forward was deemed to be catastrophic. Yet, the pile driving entailed in building the SWLRT tunnel would take place much closer to these and other condominiums, duplexes and apartment houses. The Trammel Crow incident seems to strongly predict a risk of significant construction-related damage to the homes of hundreds of people who live along the corridor where impact pile driving for SWLRT is planned. The SDEIS does not address this problem.

Furthermore, the recent Met Council sewer project completed in this area caused damage to homes located beyond the “expected” range of distance from construction. Residents who attempted to get compensation for the damage were often told by the Met Council to take the matter up with their own insurance companies rather than through the contractors whose work caused the damage. A specific liability plan and budget should be included in the SWLRT project cost estimates. There is a “contingency” line item in the budget, but it should be reserved for genuinely unpredictable costs that arise during the construction, and not for costs that could be, should be, and even are anticipated.

Construction-related vibration impacts could well extend beyond the construction period itself. Damage incurred during construction may not be initially apparent, and could show up months or even years later.

Further study is needed of:

- 1) The effects of various pile-driving alternatives on the many at-risk structures
- 2) The costs involved with each of those alternatives;
- 3) The geology of the area, and its ability to support the construction process.

MITIGATION

The SDEIS promises mitigation of a number of vibration problems. However, the failure of Met Council mitigation measures taken to address LRT problems experienced by the University of Minnesota and Minnesota Public Radio cast abundant doubt on whether they will be effective here.

With respect to the vibration mitigation (to be further detailed in the Final DEIS), the measures suggested in Appendix H appear to be inapplicable to the many residences that would be affected. The SDEIS describes isolated tables and floating floors. It’s hard to imagine a retrofit of the residences impacted by the vibration affects utilizing “floating floors.” If this is the intent of the mitigation planned for the SWLRT, a cost estimate of the retrofit of all the residences should be included in the Final DEIS.

3.4.2.5 Hazardous and Contaminated Materials

Long-term Direct and Indirect Hazardous and Contaminated Materials Impacts

- Permanent pumping of contaminated groundwater
- Impacts of disturbance of dangers in soils that may have long term health impacts on children and vulnerable adults
- Not covered in the SDEIS is the co-location of SWLRT in close proximity to hazardous and explosive materials being carried by the railroad.

SHORT TERM

The DEIS called for Phase I ESA to be completed, and it was completed in August 2013. It was not made public by the Met Council until May 19, 2015, and indicates many potentially hazardous and contaminated sites along the alignment. It is reasonable to expect to encounter extensive contamination in the Kenilworth Corridor. In addition to being home to several railroad tracks, the Kenilworth Corridor was home to a maintenance yard, blacksmith and boiler shops, a diesel shop and a 90,000-gallon fuel storage facility. In addition, the land was used as a dump — a common practice of the time, and it is likely that arsenic will be among the dangers encountered, requiring special remediation.

The Phase II Environmental Site Assessment (ESA) is said to be near completion; the report must be made available for public review and comment as soon as it is available. The SDEIS says it is “reasonable to expect that previously undocumented soil or

groundwater contamination may be encountered during construction.” It is unclear if any findings in the Phase II ESA have been incorporated into the cost increase recently made public.

The cost of such remediation is unknown and has not been included in the cost estimates. Several sections of the alignment have been designated part of the MPCA Brownfields Program. In the best-case scenario, they will not require much remediation; in the worst case, they will become a Superfund site, requiring significant and expensive remediation.

We attempted to receive budget information that would indicate what amount of the increase in the budget from \$1.65 billion to \$1.99 billion was earmarked for remediation in this corridor. However, the SW Project Office provided only the highest, most general, level of information, claiming that they do not track the line items for things like soil remediation on a segment-by-segment basis, but only in total for the project.

We believe that remediation will require a Construction Contingency Plan above and beyond the general Contingency budget line item. The cost of such a Contingency Plan for Remediation should be included in the project budget.

3.4.3 Economic Effects

Long-Term Direct and Indirect Economic Impacts

Comment: LRT Done Right disputes the statement that SWLRT will positively impact property values, especially around the 21st Street station and Channel. The current freight alignment in the Kenilworth Corridor is already a negative and permanent defect affecting the value of properties along the line, one that would only be magnified by co-location of SWLRT. This is precisely why some residents argued against co-location. The threat of a collision and derailment — such incidents are gaining increased attention in the news media — will in all likelihood increase the scrutiny of buyers as they evaluate the Kenilworth area as an investment and home for their families. Further, the increased noise, vibration, and (nighttime) light from SWLRT, without the previously promised removal of freight rail, would exponentially increase aesthetic disturbance in a neighborhood that until now has been desirable for its park-like feel and up-north atmosphere. The increased adverse effects of co-location will represent a permanent defect to homes within earshot and sight of the line; based on the audible sounds of the current freight line, auditory adverse effects would reach as far as Lake of the Isles Parkway, but those sounds would no longer be the low rumble of freight, but a much more disruptive cacophony of bells and horns.

Further, while studies such as rtd-fastracks.com and others show that access to light rail can increase property values in areas of high density, especially in transient (apartment-filled), younger, urban neighborhoods, the area around the Kenilworth corridor does not wholly represent those attributes. The study mentioned, among others, shows that higher income and low-density neighborhoods, which also comprise this neighborhood, do not experience the same positive impact on property values and rentals as do lower-to-middle-income neighborhoods where public transit is more generally used.

While the Met Council’s 1,600 rides-per-day estimate is unrealistic and unsubstantiated, there will nonetheless be an adverse impact from those who do park in the neighborhood to access the station, resulting in residents closest to the station losing street parking in front of their homes. This would be a disincentive to potential buyers, and negatively impact home values.

We do not support changing the character of the neighborhood with dense development (with the exception of the West Lake Station area, assuming that land is available). Such development would not be feasible on any meaningful scale due to the mature and stable nature of the neighborhood and minimal available free space. Development would denigrate the existing green space in the corridor, especially around the 21st Street station, which is the access point for the beach and trail access for the neighborhood.

We believe the negative economic impact on the entire “brand” of the City of Minneapolis incurred by running a divisive, noisy, and environmentally unsound line through one of the crown jewels of “The City of Lakes” park area will forever have a negative impact on tourism as LRT will disturb the current serenity of the channel, lagoon and lake. The larger, oppressive, industrial-scale bridge will downgrade the experience currently enjoyed by kayakers, walkers, bikers, etc., and cause tourists to leave the city to obtain that natural experience they once enjoyed in Minneapolis.

Finally, we have identified a number of issues not recognized in the SDEIS that will require, by our calculation, initially at least \$13 million to \$24 million of investment above and beyond the projected \$1.65 billion budget goal, and additional costs in perpetuity.

- *\$1 million to \$5 million* — For permanent dewatering of contaminated soils; this will require an extra sewer line in Kenilworth. The City of Minneapolis will need to approve this, since it owns the sewer. The city did not approve this for the 1800 Lake building and went to court over it; would they approve it, on a much larger scale, for SWLRT?
- *\$5 million to \$10 million*: For polluted soil removals. Known polluted soil conditions will require mitigation of thousands of tons of soil, but since the extent of pollution is unknown, the cost may be much higher. This cost will likely be in the millions for Kenilworth section alone; MPCA will need to approve and may add scope/cost.
- *Unknown millions*: For construction-related damage to existing buildings, including possible buy-out of impacted buildings. We understand that there is no way to guarantee that the Calhoun Isles Condominium towers will not be damaged by construction beneath their foundations. What is the current value of these condos?
- *\$3 million to \$5 million*: For relocation of existing sewer force main, pump station, ongoing operational costs of a new pump station.
- *\$4 million annually*: In lost property tax revenues. Approximately \$2 billion of the City of Minneapolis' net \$35 billion tax base is located within 1,000 feet of the Kenilworth Corridor. Most of this \$2 billion is commercial property taxed at 4 percent of value and some is from some of the city's highest-priced homes. Annual taxes from these properties are about \$80,000,000. A decline of just 5 percent in property tax value in this area would equate to an annual loss of \$4,000,000 per year to the City of Minneapolis. Forever. The Met Council would be clobbering one of the golden geese that currently supports Minneapolis Equity Transfer Payments. This area is built out already and limited by zoning from growing further, so there is no net benefit to the city if there is no new growth.

We therefore dispute and challenge the SDEIS statement that mitigation for economic impacts is not warranted for the Kenilworth Corridor, particularly in the absence of any plausible property impact study.

3.4.4.2 Roadway and Traffic

Comment: LRT Done Right is concerned about emergency access being reduced 12 times per hour to East Cedar Lake Beach and the residences on Upton Avenue S. The freight train, which was originally to be removed, coupled with the light rail line, will exponentially impair access further. We see no possible way to mitigate this impact even beyond the measures that are mentioned in the SDEIS.

3.4.4.3 Parking

Comment: LRT Done Right is concerned that there is complete disregard in the SDEIS for the impairment of on street parking availability in its neighborhoods for residents and their guests, as well as emergency access to those homes, especially in winter when streets are narrowed. LRTDR strongly opposes any park and ride lots as that would significantly impair the parklands and would not be compliant with Minneapolis city policy.

3.4.4.4 Freight Rail

A. Existing Conditions

Comment: It is very troubling that, contrary to all previous planning, the SDEIS now claims that the need "to develop and maintain a balanced economically competitive multimodal freight rail system" as a justification for the Southwest light rail project (page 1-1). With little public awareness of this new "need," the project has morphed so that approximately \$200 million in local and federal *transit* dollars will be used to improve *freight* rail.

In 1998, when freight was reintroduced to the Kenilworth Corridor, freight was to be a temporary alignment until light rail could be built. All along, this promise was made to the City of Minneapolis, the Cedar Isles Dean neighborhood, the Kenwood neighborhood, and others as a basis for agreement to the project. That none of the responsible parties, including elected officials who are still deeply involved in the SWLRT planning process, secured appropriate legal documentation of this agreement at the time is beyond disturbing.

The 2005-2007 Alternatives Analysis assumed that “freight would be relocated to make way for light rail.” Since freight was not taken into account at this stage, neither Hennepin County nor the Met Council conducted an honest and realistic analysis of alternative ways to serve the southwest suburbs’ transit needs. The financial, political, and environmental costs of addressing freight rail in the Kenilworth Corridor were not considered.

When the Locally Preferred Alternative (LPA) was selected in 2009-2010 under the assumption that freight rail would be relocated and that LRT would run at-grade in Kenilworth, the costs and concerns of freight relocation were again not addressed.

The Project Scoping Report for the 2012 Draft Environmental Impact Statement said clearly, “Freight Rail is independent of the Study.” Although the Federal Transit Administration (FTA) noted this erroneous assumption when it approved preliminary engineering, neither Hennepin County nor Met Council ever amended the project scope to include freight rail.

The Municipal Consent process was designed so that once a project’s elements and impacts are known, public officials can make informed decisions. However, since freight co-location with LRT and tunneling were never part of the original LPA and subsequent DEIS, the City of Minneapolis was pushed in 2014, under threat of project cancellation, to grant municipal consent without foreknowledge of the risks to both community and environmental safety.

Now this SDEIS is similarly devoid of important human and environmental safety information around co-location of freight and SWLRT. It is remarkable more for what is **not** included than what is included. Substantive issues remain unexamined, especially in Sections 3.4.4.4 (Freight Rail) and 3.4.4.6 (Safety and Security). The SDEIS only addresses the effects of LRT on freight rail (mostly economic impacts to minimize time lags on freight during construction), not the environmental and safety effects of co-location of freight and light rail through the corridor. It says nothing about substantive safety concerns of co-locating high-hazard freight feet from LRT construction and LRT trains in operation.

Kenilworth — and the SWLRT with co-location — is in the “Blast Zone.”



Nationwide, communities are becoming increasingly aware of high hazard freight – often referred to as “bomb trains” — operating in their midst. High-hazard trains have long run through our towns and cities, but never with the frequency nor the amount of dangerous materials now being hauled. Running such trains through any populous areas is undesirable and puts many human lives within a “blast zone,” running 1/4-1/2 mile on either side of the track.

The Kenilworth corridor is a high-risk evacuation blast zone.



Below are two representations of the Blast Zone. The map applies the definition of the Blast Zone, as commonly defined by many national groups with interest in the issue, and the chart depicts the number of residents in the blast zone. Each green circle represents 100 residents.

- THIS IS THE BLAST ZONE -

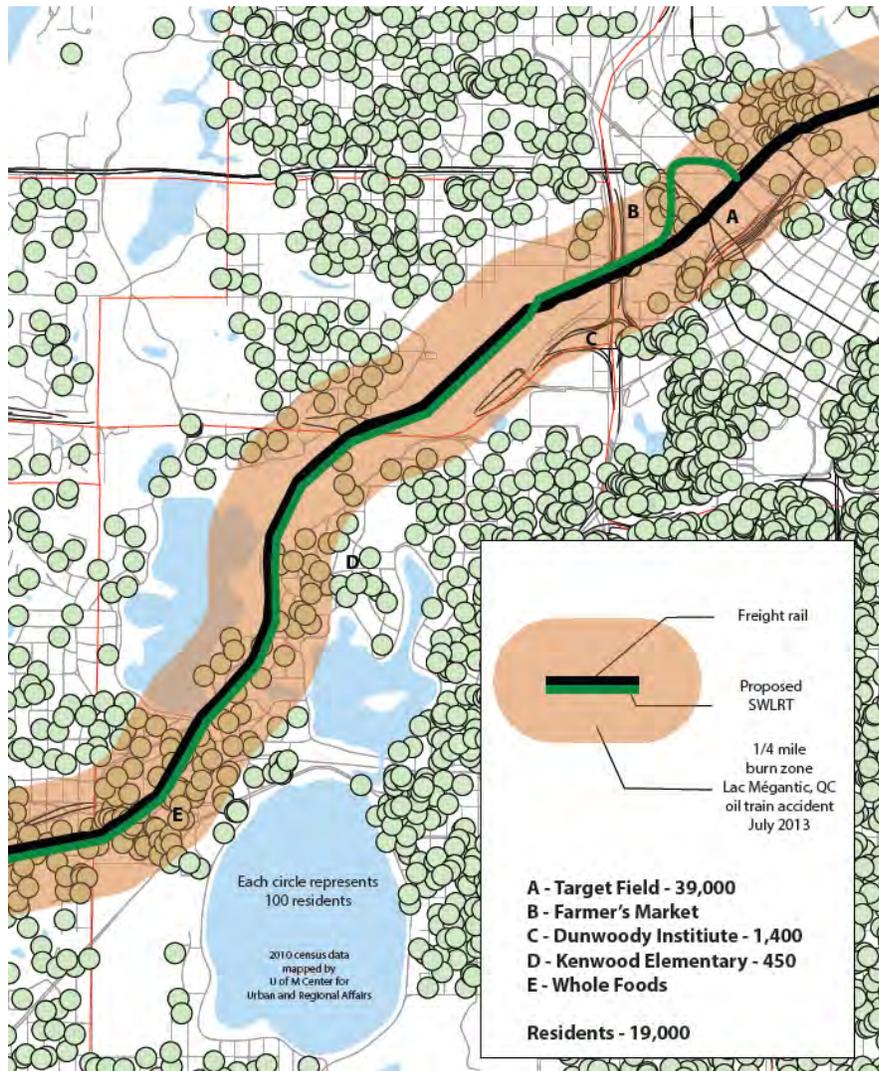
SWLRT co-location with high hazard freight trains in the Kenilworth corridor



Ethanol and Oil Train Disasters:



Population density map of the Blast Zone – Kenilworth Corridor. Please note that the blast zone includes Target Field.



Comment: Freight railroads have radically changed since the reintroduction of freight into the Kenilworth Corridor. The federal mandates on ethanol, the running of unit trains carrying single high-hazard products, and the use of much longer trains have increased freight safety concerns. The privately owned TC&W is currently the only freight company that is allowed to take trains through the corridor, but it can connect to any other carrier and currently partners with Canadian Pacific to carry its products through Kenilworth. Federal rail policy requires that the interests of freight rail operators and shippers be considered in the development of passenger rail service.

In order to provide elected officials, policy makers, and members of the public with current, factual, and supportable information about the impact of TC&W and its operations, TC&W commissioned a study in 2013. According to this report by Klas Robinson,¹² "TC&W provides rail service to numerous companies in Minnesota and neighboring South Dakota, hauling such diverse products as corn, soybeans, wheat, sugar, vegetables, ethanol, crushed rock, metals, plastics, potash, fuel oil, distillers oil, machinery, lumber, manufactured goods, propane and fertilizer, including anhydrous ammonia." Ethanol, propane, fuel oil and fertilizers are all high-hazard products. Distiller's oil and potash are also *flammables*. Exposure to even small amounts of anhydrous ammonia

¹² *Economic Impact of TC&W Railroad's Freight Operations*, September 2013; <http://tcwr.net/wp-content/uploads/2013/10/TCW-Impact-Final>.

can cause serious burning of the eyes, nose, and throat. Exposure to higher levels causes coughing or choking and can cause death from a swollen throat or from chemical burns to the lungs. A single tanker car of anhydrous ammonia can put hundreds or even thousands of area residents at risk in case of derailment and breach.

Through 2012, the report says, “customers of Twin Cities & Western Railroad Company and its affiliates shipped more than 23,400 cars, including almost 17,700 cars on TC&W and over another 5,700 cars on a short line railroad that uses TC&W to reach the Twin Cities.” That number continues to expand annually, with “the number of monthly cars shipped on TC&W during the first four months of 2013 significantly higher than for the same periods in each of the three prior years — almost twice that of first quarter 2012 (94.0 percent greater), almost 40.0 percent higher than first quarter 2011 and 70.0 percent greater than first quarter 2010.” As the economy continues to improve since the recession of 2008, we can expect that the number of train cars and the frequency of trains will increase. According to the Minnesota Department of Agriculture, between 2000 and 2011, ethanol production in Minnesota increased by over 5 times and each subsequent year has continued this trend. With the nation-wide federal mandate to increase ethanol in gas to 20 percent, we can also expect the production and transport of these high-hazard products through the corridor to increase dramatically. It is clear that the TC&W that was temporarily reintroduced in the corridor in 1998 is not the TC&W that runs through the corridor now.

According to TC&W, they “have Class I rail connections to Canadian Pacific, Union Pacific, BNSF Railway and Canadian National, reaching markets in 39 U.S. states, seven Canadian provinces and four Mexican states.” Their network would potentially allow them to carry anything including nuclear products, Bakken Oil, anhydrous ammonia, chlorine, and other hazardous freight. Common Carrier freight legislation requires that shippers (currently TC&W and CP) carry anything that their customers demand. Additionally, *at any point TC&W could sell their company to one of the major railroads*, such as BNSF, which could generate 10 times as much traffic and introduce exponentially more hazardous materials into the corridor. *Making freight rail permanent in Kenilworth increases the chance that this will happen.*

The Pipeline Hazardous Materials Safety Administration (PHMSA) controls the safety of freight trains. Historically, PHMSA standards have been lax, prioritizing commerce over safety and the environment. Recently, after public pressure, PHMSA has toughened safety standards for most railroads. ***Please see LRT Done Right’s prior correspondence on this matter at the end of this response, starting on page 38.***

However, TC&W, which is a Class III rail carrier (a short line with lower revenues), has been and continues to be exempted from certain safety standards that guide more profitable and larger Class I and II railroads. Ethanol is carried in DOT-111s and this type of car will not be banned, according to PHMSA for another 5-7 years. Railroads have lobbied heavily to remove current and future regulations on them to maximize their profits, including recently passed braking mechanisms on the hazardous cars. They have lobbied to go from two-person crews to one- or two-person crews. A single-person crew would reduce safety due to overload, fatigue, etc. And railroads have fought to delay the introduction of safer double-hulled tanker cars and to continue to carry their hazardous cargo in dangerous substandard DOT-111 freight tanker cars. Freight infrastructure has suffered, and nearly all derailments are due to substandard equipment, track failure or operator error. Some new PHMSA standards that attempt to improve safety of hazardous freight *may not even apply to TC&W due to their Class III status*. Class III railroads also have less money to invest in infrastructure, and it is clear that this railroad has infrastructure issues, experiencing a derailment in 2010. Despite replacement of rails to single-weld track in 2012, TC&W still suffers from infrastructure issues, like rotting cross ties, missing rail plates and the missing rail spikes that hold the rails in place. From May 2015 to July 2015, deep potholes have bordered the track at the Cedar Lake Parkway crossing, and have gone unfixed despite calls to TC&W and MNDOT.

The mix of commodities that TC&W carries has changed over time, with approximately 30 percent of TC&W’s freight being ethanol. It has only been in the last 5 to 10 years that unit trains of a single commodity have been a common occurrence. Prior to that, manifest trains, carrying a variety of commodities were much more common. *Unit trains of 100 cars of ethanol*, a highly flammable product, now frequently traverse the corridor. Through the planning process, the Met Council repeatedly told members of the public that the primary products carried by freight through Kenilworth were agricultural — which sounds innocuous enough. But while ethanol may be an agricultural product, it is hardly innocuous. According to Karl Alexy of the FRA, ethanol is more dangerous than most crude oils, with a lower ignition point, and higher explosive potential. Its Hazard Packing Group rating (II) is higher than most crude oil (because of its explosive potential). With respect to oil, only Bakken Crude matches its danger due to the high level of byproducts added to Bakken oil and its consequent instability. Ethanol burns hot enough (3,488 degrees F) to melt steel structures. The freight through Kenilworth currently runs only feet from bridges and mere inches from a high-rise condominium that would be vulnerable in the case of a derailment.

The Freight Rail Administration (FRA) estimates that there will be at least 10 to 20 oil or ethanol derailments per year going forward. Nationwide, we had over 7,000 train derailments of some kind in 2014. *These concerns are not just theoretical.*

Further, *we strongly object to the Met Council requesting that the FRA abdicate its jurisdiction over freight rail* in the Kenilworth Corridor and elsewhere along the SWLRT line. The Met Council has requested waivers from the FRA to put jurisdiction of the co-located corridor under FTA. We have no evidence that the Met Council or the FTA are qualified to oversee the combination of LRT and freight rail in the same corridor, particularly in such close proximity. We are extremely concerned that the FRA may be relinquishing its jurisdiction, except for five named at-grade crossings where both freight and LRT cross together, and even here the Met Council could apply for a crossing waiver.

The existence of freight alone is of great concern to residents and users of the Kenilworth Corridor. The construction of SWLRT running right next to high hazard freight is alarming. *None of these facts or concerns is reflected in the current SDEIS.*

B. Potential Freight Rail Impacts

Long-term direct and Indirect Freight Rail Impacts

For reference to LRT Done Right's commitment to freight safety in the Kenilworth Corridor, please see the addendum at the end of this response.

Comment: Hazardous freight has become a nationwide problem. By choosing to co-locate freight and light rail, despite all previous planning, the Met Council is choosing to exacerbate this problem in the Kenilworth Corridor. The addition of LRT to a corridor that does not meet the minimum American Railway Engineering and Maintenance-of-Way Association (AREMA) safety guidelines of a 25-foot separation center-to-center rail is shockingly unsound. In fact, AREMA now recommends a 200-foot separation as optimal. Although narrow corridors that contain both freight and passenger trains and do not meet minimum safety standards currently exist in parts of our country, an increasing awareness of freight dangers has meant that going forward, communities are much more exacting with regard to safety standards and meeting minimum AREMA guidelines. In fact, we can find no other project currently under construction that won't meet at least the minimum 25-foot grade separations. *The SWLRT project does not meet current AREMA best practices.*

The many risks of running freight next to LRT are unmentioned in the SDEIS, even though we know that the majority of freight or LRT derailments are either track failures or operator error. There is nothing in the SDEIS that deals with an *evaluation of risk or readiness of dealing with a derailment*, especially of a high-hazard product.

LRT catenary wires that regularly spark off the pantographs will run in some places 10 to 15 feet from freight trains. In 2014 alone, FRA reported 43 "accidents" in the United States related to pantographs. There was one in St. Paul within the last few months. Even with the eventual placement of crash walls, catenary electrification would run immediately adjacent to highly flammable unit trains (80 to 125 tanker cars) of ethanol. Ethanol is vulnerable to ignition by electrostatic charges and has a higher ignitability than most forms of crude oil. Vents at the top of ethanol tanker cars will run close to those electric wires.

TC&W and C&P trains use DOT-111 tanker cars. These trains regularly traverse the Kenilworth Corridor carrying ethanol, fuel oil, propane, fertilizers (including anhydrous ammonia), distillers' oil, and potash. These old-generation tanker cars have single hulls prone to thermal tears and punctures, and leaky valves. They are more likely to tear or puncture than newer generation replacements like the double-hulled DOT 117s. The National Transportation Safety Board (NTSB) discovered problems 24 years ago with DOT-111 tankers but USDOT did nothing. In 2012, the NTSB called for an immediate ban on using these tank cars to ship high-hazard products like ethanol and crude oil because they are prone to punctures, spills, fires, and explosions in train derailments. Two in three tank cars used to transport crude oil and ethanol in the U.S. are DOT-111s, yet the DOT has taken no action beyond issuing a safety advisory urging shippers to use the safest tank cars in their fleets to the extent feasible. Only recently has PHMSA come out with new regulations to replace these dangerous tankers over a six-year time period. Loopholes exist in the regulations, however, making it all but certain that single-hulled DOT-111s trains will continue through Kenilworth for years to come.

Another serious concern with freight is the misclassification of rail cars. PHMSA first launched Operation Classification in the summer of 2013, in response to increased activity in the Bakken region. Initial testing has revealed that 61 percent of high-

hazard oil was misclassified. Sometimes the train manifest may not actually reflect what being transported by the freight. The extent of misclassification of TC&W's rail cars is not currently known.

According to the Department of Homeland Security, high-hazard train tankers are vulnerable to terroristic threats. The proposed electrically-powered SWLRT would run adjacent to ethanol-bearing freight through St. Louis Park and the Kenilworth Corridor all the way into downtown. Around the area of Dunwoody, the TC&W tracks merge with those of BNSF tracks, which have been documented as carrying crude oil.¹³ Farther on, the freight trains (some carrying ethanol and some carrying Bakken crude oil) join LRT and Northstar Commuter rail in tri-location, until they stop at the Target Station. Thus, while ethanol and crude oil trains already represent risks to Twins Stadium and Target Station, the addition of LRT would expose even more people to potential danger.

The Department of Homeland Security identifies places like the Twins Stadium and the Target Station as high-value targets vulnerable to terrorism. The co-location of freight and passenger trains carrying 10,000 thousand tons of highly combustible products underneath the Twins Stadium and to the Target station is a disaster that can and should be prevented. Were high-hazard freight not running through this corridor, as was originally envisioned with relocation of freight, then the concerns of terrorism would be diminished. However, tri-location of high hazard freight, Northstar commuter trains and SWLRT near to and underneath the Twins Stadium to the Target Station is planning gone awry. If we believe that terror groups are unaware of these high value target vulnerabilities in our system, we are likely sadly mistaken. Regarding the multiplicative risks and risk readiness related to tri-location of high-hazard freight, Northstar, and SWLRT under the Twins Stadium and to the Target Station, the SDEIS contains no acknowledgement.

In fact, even after a multitude of concerns were raised by the City of St. Louis Park and its residents in response to the relocation of freight proposed the 2012 DEIS, *the current SDEIS does not contain one word acknowledging high-hazard freight through Kenilworth*. There is evidently no safety plan should an ethanol or other hazardous materials freight derailment to occur, and no containment and recovery planning should a disaster encroach on the tunnel and/or spill in to the Minneapolis Chain of Lakes.

Hennepin County, the Met Council and the State of Minnesota have little power going forward in determining whether or not TC&W's model of business changes in ways that would increase risk. They also have no ability to intervene if TC&W should choose to sell. These risks to the Kenilworth area are only likely to increase as federal mandates to increase the mix of ethanol from 10 percent to 20 percent in gasoline mixtures are initiated. TC&W could choose to sell, likely to BNSF, likely increasing the frequency and length of trains in this corridor and transportation of an even greater mix of hazardous chemicals.

Currently, TC&W reports that trains go 10 miles per hour through the Kenilworth Corridor, but this is voluntary, not mandated. Going forward, the company may choose to sell to a company that does not respect this speed limit or TC&W may decide to increase speeds. The necessity of slow freight (even beyond the LRT construction period) is critical in an urban recreational corridor and a *long-term enforceable agreement with the freight operator and the Hennepin County Regional Rail Authority should be considered as part of this project*.

Further, heavy freight causes vibrations that travel through the ground. The ground substructures affect vibrations, with waterlogged soils tending to increase those vibrations. We see no evidence that the potential for long-term damage to LRT structures from vibrations of heavy freight – and the related long-term costs in terms of maintenance dollars and human safety – have been considered. Potential damage to residences and other buildings from freight vibrations is also ignored in this SDEIS.

Finally, the SDEIS does not explore Met Council liability if SWLRT or freight derail or otherwise cause damage or harm. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. In light of the catastrophic potential of any accident in the Kenilworth Corridor, *this insurance liability assessment should be done* prior to building SWLRT, then made public and included in construction and operating cost estimates.

Short-Term Freight Rail Impacts

Comment: During construction, the dangers to the community will be exacerbated due to the fact that freight, particularly freight carrying hazardous materials, will continue through the corridor.

¹³ Photos taken on 7/21/15 of a BNSF train in this segment of the route, before and after it merges with the TC&W route, show cars bearing 1267 petroleum crude oil DOT placards; presumably these cars are carrying Bakken crude.

First, it's not clear that there is room in corridor for the construction plan as described. While we've seen various calculations of the corridor's narrowest point, our understanding is that it measures 59 feet. This point is located between the historic grain elevators – the Calhoun Isles Condominiums – on the east and the Cedar Shores town homes to the west. The SDEIS states that the freight tracks will be moved 2 to 3 feet closer to the town homes. The tunnel trench (35 feet wide) will be dug at the base of the Calhoun Isles Condominiums about 18 inches from its footings. There will be a buffer between town homes to the east of 22 to 24 feet; the freight train is about eight feet wide. Thus: 35 feet trench + 2 feet from condos + 24 feet from town homes + 8-foot wide freight train = 69 feet — to fit into a 59-foot pinch-point. This math does not inspire confidence in the safety of the construction plan.

During construction, freight will run through a construction zone with construction workers and debris with **no crash walls** at the edge of a 35-foot construction trench. It will continue to carry high-hazard freight including ethanol, fuel oil, and fertilizer. (Under common carrier obligation, TC&W or CP must carry whatever else their shippers ask them to carry and we may or may not know what these trains are actually hauling.) "Bomb trains" will travel at the edge of a construction pit that will take two years to complete. Even with the precautions suggested in the SDEIS, a derailment is far from unimaginable in this scenario. The proximity of the condominiums and town homes puts hundreds of people at risk for devastating consequences.

It is also important to note that the current poor condition of freight rail infrastructure increases the risk for a short-term freight derailment both during and after construction. A recent obvious example: From late May through July 2015, two pot holes immediately next to the rail at the Cedar Lake Parkway freight crossing measuring as deep as 6 inches have remained unfilled despite being reported to DOT and to TC&W. In 2010, there was a derailment in the neighborhood of a TC&W train; Hennepin County replaced the track through Kenilworth with a safer single-weld track. However, rotted freight ties were not replaced at that time, nor were rail plates and spikes uniformly repaired. Currently, there are rail ties that are completely rotted out, missing rail plates that hold the ties to the rails and many missing rail spikes. That these were not repaired when the rail was replaced indicates poor maintenance and raises concerns about the competence that Hennepin County and the Met Council will bring to the co-location element of the SWLRT project.

Construction debris in the corridor will heighten the risk of derailments. Derailments are caused by operator error or track failures, including track impediments. Construction can displace the supporting structures that bolster rail, and although engineers can try to bolster the structures through shoring, there will be nothing to stop a train if it begins to tip into the construction pit. Tip guardrails have been suggested as a solution (not in this SDEIS), but these can build up with snow and actually cause derailments.

Nighttime running of freight (also not considered in the SDEIS) will be perhaps even more dangerous than daytime. Construction debris may be left near or on tracks and may not be visible to the freight engineer at night. Final day inspection of track is imperfect and human error could easily miss track impediments.

Inclement weather like snow may mask destabilization of freight infrastructure, and rain could wash out the surrounding already disturbed soils, increasing the derailment risk during construction. While this is true under any construction scenario, the risk multiplies with freight running next to the tunnel construction pit.

If a derailment were to occur during construction, access to fire safety equipment is extremely limited because of the nature of the corridor: in some places, the only access is between people's homes and/or through their driveways. In the event of a derailment occurring during construction, the only access for fire trucks may be from West Lake Station, 21st Street or Cedar Lake Parkway. Fire equipment must be accessible in case of a derailment emergency, and in-depth coordination among the fire department, the Met Council, and the citizens has not been attempted or even mentioned in this SDEIS.

In case of any chemical freight derailment, chemical fires must be fought with specialized foam products, usually foam specific to the chemical spill. These fires cannot be fought with water, which can actually spread a chemical fire. Water can be used to cool rail cars that have not ignited, but foam is necessary to put them out. Limited foam is available at local fire stations, but our understanding is that it can take 2 hours or longer to access the necessary quantity of foam to fight a chemical derailment fire.

Currently, TC&W reports that trains go 10 miles per hour through the Kenilworth Corridor, but this is voluntary, not mandated. Going forward, the company may choose to sell their company or increase that speed. The necessity of slow freight even without LRT construction is critical, but with construction the danger becomes critical at any speed.

According to TC&W president Mark Wegman, there had only been one meeting as of June 2015 (i.e., in preparation for the SDEIS) with SWLRT project staff to discuss issues of joint construction concern. This seems shortsighted. Our community expects more than superficial consideration of these serious construction-related concerns prior to decisions about the feasibility of moving forward with the SWLRT project.

Finally, the SDEIS does not explore Met Council liability either during or following construction if SWLRT or freight derails causing a train catastrophe. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. This assessment should be completed and made public prior to SWLRT construction.

C. Mitigation Measures

Comment: It is difficult to respond to this section surrounding freight since no problems with co-location have even been acknowledged in the SDEIS. There is no real analysis of the effects of co-location and the danger of running high-hazard freight through the Kenilworth Corridor both during and after construction, and in an area that does not meet minimum AREMA guidelines, let alone best practices. This SDEIS is astounding more for what it does not contain than what it does. The mitigation proposed concerns only making sure that the freight schedule is unimpeded; it ignores concerns about the safety of neighborhood residents, construction and freight personnel, park and trail users, or future SWLRT riders.

Minimally, during construction, high-hazard freight MUST be diverted from the corridor. Long term, crash walls between freight and LRT are critical. In the short term, without crash walls, ALL hazardous or flammable freight should be rerouted out of the corridor until proper safety crash walls are present. The idea of running high hazard freight during construction at the edge of a construction trench without crash walls is extremely concerning.

The treatment of freight rail in this SDEIS indicates that the Met Council is not even aware of the danger to area residents, waterways, parks, trails, or SWLRT passengers. The many issues related to making freight rail permanent in the Kenilworth Corridor and co-locating freight and light rail need much greater study and consideration before this project advances.

3.4.4.5 Bicycle and Pedestrian

Because there would be no long-term adverse impacts from the LPA on bicycle and pedestrian facilities, no long-term mitigation measures have been identified. Short-term effects on pedestrian and bicycle routes will be mitigated through signage, information fliers, website postings with maps of construction areas/detours, and notices placed at bicycle shops, for example.

Comment: At last measure, our understanding is the trails receive 600,000 discrete unique visits per year and those visits to current parkland are enhanced by the current “north woods” feel of the area, and that experience would be significantly impaired by the addition of light rail. This includes an expectation of natural quiet conditions. Pedestrians do not pass quickly through the park-like environment and will therefore be significantly impacted by added noise, movement and infrastructure of the LRT and freight rail. The speed joined with the noise at close proximity greatly detracts from the trail experience for both bicyclists and pedestrians, and can even be frightening to users.



3.4.4.6 Safety and Security

LONG-TERM IMPACTS

Comment: The current plan to co-locate freight and LRT within the same corridor — within a dozen feet of each other in certain places — creates new, potentially catastrophic hazards. It is currently proposed that the freight train (which carries volatile and explosive ethanol on a daily basis, and several unit trains of ethanol per month) remain permanently in the Kenilworth Corridor. The addition of the SWLRT with its electrical power wires only a few feet away exacerbates the existing danger of ethanol in the corridor. Current safety standards recommend against co-location in such close proximity when there are alternatives; other alternatives for this SWLRT alignment must be explored.

Furthermore, in the event of an explosion of ethanol trains along this corridor, we understand that the foam retardant required to extinguish the fire is “within a 3 hour distance” of the corridor. We believe that the potential harm during that “3 hour window” along with permanent damage to residences and residents should be quantified. Should an explosion occur during the passing of an LRT train, the potential exists for loss of life or harm to those exposed to the hazardous fumes.

Please note that the Minneapolis Park Police also provide service within the study area. KIAA requests that the MPRB Police be consulted on security issues related to the impact of a proposed station at 21st Street on East Cedar Lake Beach (Hidden Beach) and their input be incorporated into final design plans. In the summer of 2012, Hidden Beach generated more police actions than any other park in the MPRB system. For the last five years, KIAA has provided supplementary funding to the Park Police to allow

for increased patrols in this area. The neighborhood has expressed grave concern that an inadequately managed station would increase opportunities for illegal behavior.

SHORT-TERM IMPACTS

Currently, rush hour traffic produces daily gridlock that sometimes extends from Lake Street, along Dean Parkway, Cedar Lake Parkway, Wirth Parkway, and Wayzata Boulevard (frontage road along I-394) all the way to the Penn Avenue Bridge. (This situation existed even before the construction at Highway 100 in St. Louis Park.) The closing of a critical crossing (Cedar Lake Parkway at the Kenilworth Trail) would be necessary during the construction of the proposed tunnel from West Lake Street to just past Cedar Lake Parkway. Affected neighborhoods already have limited entry and exit points.

The SDEIS does not address the need to ensure reasonable transportation options during this period, including routes for emergency vehicle access. There must be plans for fire and ambulance routes in the affected neighborhoods. Travel time for emergency vehicles would be increased during that closing. The SDEIS describes such delays as “minor”; we take vigorous issue with such a demotion of safety concerns, as even two minutes could be the difference between life and death, or a home being saved from fire or destroyed. (On June 11, 2015, an accident at Dean Parkway and Lake Street slowed traffic on Dean Parkway to a crawl for over an hour.)

Also missing is information on what measures, including evacuation plans, would be necessary to protect the Cedar Shores townhomes when the TC&W trains, with their explosive freight, are moved several feet closer to them during construction. Our neighborhoods were recently impacted for upwards of a year by a Met Council sewer-replacement project, with road closures (of which we were frequently not informed) and detours. As noted earlier, we understand that the sewer project would need to be re-done as part of the SWLRT tunnel-construction.

3.5 Draft Section Evaluation Update

Comment: The SDEIS is almost incomprehensibly dense and convoluted as it discusses the application of Section 4(f) to the LPA. For the benefit of the reader, the Section 4(f) statutory mandate is clear:

“Section 4(f) protects publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance and historic sites of national state, or local significance from use by transportation projects. These properties may only be used if there is no prudent or feasible alternative for their use and the program or project encompasses all possible planning to minimize harm resulting from its use. If transportation use of a Section 4(f) property results in a *de minimis* impact, analysis of avoidance alternatives is not required.”

Conversely, if there is more than a *de minimis* impact, an analysis of avoidance alternatives is required. Thoughtful analysis of avoidance alternatives is absent from the SDEIS.

A cursory reading of the SDEIS will reveal that there is not a good-faith analysis of prudent or feasible alternatives. “No Build” and “Enhanced Bus Service” were the only two alternatives considered, and only superficially; they were presented to the public in a cursory manner and without documentation. Not surprisingly, neither of them is considered feasible or prudent. Alternatives that *would* likely be considered feasible and prudent, such as a deep tunnel or rerouting, were not considered. Consequently, the bulk of the 4(f) analysis is used to contend that any adverse impact on 4(f) property will be *de minimis*.

These comments will focus almost entirely upon the Kenilworth Channel/Lagoon section of the LPA but are equally applicable to other section 4(f) properties identified by the SDEIS. The FTA, although identifying property subject to Section 4(f), fails throughout to adequately analyze or identify specific mitigation steps that would render impacts *de minimis*.

The Kenilworth Channel/Lagoon

At page 3-259, referencing the Kenilworth Channel/Lagoon, the SDEIS concludes:

“Through coordination with MPRB to date and based on the design and analysis to date as described in this section, FTA has preliminarily determined that the proposed permanent and temporary uses by the LPA would not adversely affect

the features, attributes or activities that qualify the Kenilworth Channel/Lagoon for Section 4(f) protection. Consistent with the requirements of 23 CFR 774.5(b), FTA is, therefore, proposing a *de minimis* use determination for the LPA at the Kenilworth Channel/Lagoon.

To understand the absurdity of this conclusion, one first should acknowledge that the Kenilworth Channel/Lagoon is one of the most important elements in the Minneapolis Park Board's Chain of Lakes (and also identified as subject to Section 106 because of its historic character). It is primarily appreciated for its pastoral quality and is used by walkers, bikers, kayakers, cross country skiers, ice skaters, fishermen, picnickers, and visual artists.

The FTA's own analysis identifies these activities and elements and acknowledges that the LPA would constitute 4(f) use but then, after an evaluation of the impacts, concludes that the use of the protected land will be *de minimis*. This of course means that there need not be a feasible and prudent alternative analysis.

Visual Impact

Per the SDEIS, visual impacts to the Kenilworth Channel/Lagoon will be:

1. Removal of two existing and potentially historic wooden bridges
2. Construction of massively larger bridges
3. Modification to topographical features, vegetation and WPA-era retaining walls.

Particularly astonishing is the statement at page 3-254 that the

"horizontal clearances between the banks and the new [bridge] piers would be of sufficient width to accommodate recreational activities that occur within the channel lagoon"!

The same thing could be said about an 8-lane super highway bridge spanning the channel. The point is that the altered scale of the proposed bridges will in fact be jarringly disproportionate to the channel's features. Not a *de minimis* impact by any stretch of the imagination.

The SDEIS goes on to note that the vegetation clearing necessitated by the new bridges would cause some reduction to the "visual quality of the view". But, the document goes on to reassure –

"[T]he bridges as currently conceived would have an attractive design that would become a positive focal point in the view. The overall change to the view's level of visual quality would be low. Because of the recreational activity in the channel, this view is visually sensitive. Even though the view is visually sensitive, because the potential level of change to visual quality will be low the potential visual impact will not be substantial."

Thus the reader is simultaneously warned and reassured that everything will be visually pleasing because a planner's aesthetic judgment about the visual quality of yet-to-be-designed bridges will be "attractive."

Noise Impact

It gets worse as the FTA pursues *de minimis* findings. The SDEIS acknowledges that two separate areas of the Kenilworth Channel/Lagoon are noise receptors and would be subjected to moderate noise impacts. There is a non-specific undertaking to utilize mitigation measures to reduce the area of Moderate noise impacts closest to the new bridges.

No such undertaking is offered with respect to the northern bank of the lagoon. Instead the SDEIS states:

"The northern bank of the lagoon [section 4(f) property], generally between West Lake of the Isles Parkway and South Upton Avenue (termed the Kenilworth Lagoon Bank in the noise analysis), was classified as a Category 1 land use, with stricter noise impact standards than the Category 3 land use. However, because of the distance between the light rail

tracks and the western point of the Category 1 land use, *noise levels under the LPA at that location would not exceed FTA's Severe or Moderate criteria.*"

Apparently there is not an intent to mitigate noise in this area as legally required.

Not Mentioned

Completely missing from the 4(f) analysis of the Kenilworth Channel/Lagoon is an analysis of the impacts of vibration and safety.

Minneapolis Park and Recreation Board

The SDEIS fails to address the previous objections of the MPRB: Instead it attempts to portray the MPRB as a willing partner:

"Through coordination with MPRB to date and based on the design and analysis to date as described in this section, FTA has preliminarily determined that the proposed permanent and temporary uses by the LPA would not adversely affect the features, attributes or activities that qualify the Kenilworth Channel/Lagoon for Section 4(f) protection. Consistent with the requirements of 23 CFR 774.5(b), FTA is, therefore, proposing a *de minimis* use determination for the LPA at the Kenilworth Channel/Lagoon. Supporting this preliminary determination is FTA's expectation that mitigation measures will be incorporated into the project that will avoid adverse effects to the protected activities, features, and attributes of the property. Those measures will be identified through continued coordination with the MPRB, which will continue through preparation of the project's Final Section 4(f) Evaluation. The MPRB must concur in writing with the *de minimis* impact determination after the opportunity for public comment on the preliminary Section 4(f) determination."

Even if the MPRB were to concur with a *de minimis* impact determination, such concurrence would hardly be credible given MPRB's earlier official statements on the topic. For instance, in November of 2012 the MPRB clearly itemized a series of concerns with respect to the selection of the Kenilworth Corridor as the LPA and, specifically, with respect to co-location stated:

"The MPRB opposes the co-location alternative and supports the findings presented in the DEIS regarding Section 4(f) impacts for the co-location alternative. In review of the documents, the loss of parkland described for the co-location alternative *cannot be mitigated within the corridor.*" (emphasis added)

Although the MPRB ultimately entered into a Memorandum of Understanding with the Met Council providing for a consultative role in the design process (March 12, 2015) ("MOU") the MPRB has never agreed that adequate mitigation is possible. Most recently in a letter to the Met Council summarizing its most recent comments about the SDEIS, the MPRB unequivocally concluded:

"Visual quality and noise are key areas of concern for the MPRB. The introduction of LRT in combination with freight rail *poses the potential for significant disturbance* to a corridor that, once disturbed, may [not] realize a restored look for decades."

Although these Park Board statements are encouraging, the objectivity and independence of the MPRB with respect to its "consulting" role is in serious doubt, given the enormous political pressure applied by the Governor and the Met Council via real and documented threats of massive budget retaliation. The Park Board's abdication of protection of 4(f) status followed Governor Mark Dayton's threat to cut \$3 million from its budget — this in retribution for the Park Board's legitimate attempt to protect the channel. The Park Board desperately needed the funds and, to date, has acquiesced to the governor's threat, despite its belief that:

"Visual quality and noise are key areas of concern for the MPRB. The introduction of LRT in combination with freight rail poses the potential for significant disturbance to a corridor that, once disturbed, may [not] realize a restored look for decades."

No-Build or Bus Rapid Transit Alternative

Although repeated throughout the SDEIS, the following statement is representative of its treatment of 4(f) property:

“No Build Alternative and Enhanced Bus Alternative as evaluated in the Draft EIS are the only full Section 4(f) avoidance alternatives identified to date and neither of them would be prudent because they would not meet the project’s purpose and need.”

This facile and conclusory assertion is entirely inconsistent with well-understood precedent. This analysis falls short of what is required under the law. If the proposed use is not *de minimus*, then alternatives must be evaluated — presumably in good faith.

The Kenilworth Channel/Lagoon is comprised unquestionably by Section 4(f) lands and “are “...not to be lost unless there are truly unusual factors present...or...the cost of community disruption resulting from alternative routes reaches extraordinary magnitudes.” (Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1972))

Given the impact on 4(f) property, planners are required to evaluate alternatives – alternatives beyond the two choices proffered in the SDEIS – No Build or Bus Rapid Transit. For example there has not been a good faith determination that an adjustment to the proposed SWLRT alignment wouldn’t have the same beneficial purpose, outcome or cost as the current LPA. The law requires a deeper analysis. That such an analysis would result in a delay of the project is not sufficient justification to fail to undertake it. The following guidance from the Department of the Interior *Handbook on Departmental Review of Section 4(f) Evaluations* is instructive:

CEQ regulations, as well as DOT Section 4(f) regulations, require rigorous exploration and objective evaluation of alternative actions that would avoid all use of Section 4(f) areas and that would avoid some or all adverse environmental effects. Analysis of such alternatives, their costs, and the impacts on the 4(f) area should be included in draft NEPA documents.

It is clear that the SDEIS falls far short of this standard and that additional analysis is essential for meaningful public participation.

The Tunnel

The SDEIS contains a lengthy discussion of the shallow tunnel under the Kenilworth lagoon/channel versus a tunnel with a bridge over the channel. The conclusion, not surprisingly is that there will be a non-de minimis use of the Kenilworth Lagoon/Grand Rounds property. The document promises that “all possible planning to minimize harm will be conducted and implemented”

In order to reach this conclusion the analysis first had to reject the No Build Alternative and the Enhanced Bus Alternative. The latter was rejected because it would be “inconsistent with local and regional comprehensive plans.” Again, no other avoidance options were considered.

Conclusion

The Section 4(f) property identified in the SDEIS has received inadequate review and in many cases incorrect findings of *de minimis* impact. There is glaringly inadequate identification of specific mitigation and avoidance strategies and resulting outcomes as required by Section 4(f). The following statement from the Department of the Interior, which has consultative jurisdiction over this project, is clarifying:

Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable. Also not acceptable is a statement that all planning to minimize harm has been done because there is no feasible and prudent alternative. Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable. Also not acceptable is a statement that all planning to minimize harm has been done because there is no feasible and prudent alternative. *Reviewers should make sure that all possible site-specific planning has been done to identify and list the measures which will be undertaken, at project expense, to minimize harm to Section 4(f) properties. [emphasis added]*

Addendum: Kenwood Isles Area Association
Position Statement on Freight Relocation for SWLRT

Adopted July 1, 2013

Nearly a mile of the proposed SWLRT runs through the Kenwood Isles Area Association neighborhood. **We vehemently oppose the idea of maintaining freight rail along with light rail at grade in the Kenilworth Corridor, known as “co-location.”**

Relocation of freight out of the Kenilworth Corridor has been promised for years. While the corridor was long used for transporting goods, freight use of Kenilworth was halted in 1993 when the Midtown Greenway was established. When freight was later re-introduced into the Kenilworth Corridor, Hennepin County assured residents this use of the corridor was temporary.

Meanwhile, over 20 years of citizen efforts to build and maintain Cedar Lake Park and the Kenilworth Trail have resulted in a more beautiful and complete Grand Rounds and Chain of Lakes. Traffic on federally funded commuter and recreational bicycle trails in the Kenilworth Corridor grew to at least 620,000, perhaps approaching one million, visits in 2012.

When the Hennepin County Regional Railroad Authority began looking at using the Kenilworth Corridor for LRT, several key studies and decisions reiterated the expectation that if Kenilworth is to be used for transit, then the freight line must be relocated. (See notes below.) Trails were to be preserved. Freight rail was to be considered a separate project with a separate funding stream, according to Hennepin County. This position was stated publicly on many occasions, including Community Advisory Committee meetings and Policy Advisory Committee meetings.

Minneapolis residents have positively contributed to the SWLRT process based on the information that freight and light rail would not co-exist in the Kenilworth Corridor. Although many of us think that Kenilworth is not the best route, most have participated in the spirit of cooperation and compromise to make the SWLRT the best it can be.

Despite numerous engineering studies on rerouting the freight rail, it was not until December 2012 that the current freight operator in the Kenilworth Corridor, TC&W, decided to weigh in publicly on the location of its freight rail route. TC&W rejected the proposed reroute.

The Met Council has responded by advancing new proposals for both rerouting the freight and keeping it in the Kenilworth Corridor. For either option, these proposals range from the hugely impactful to the very expensive – or both. Six of the eight proposals call for “co-location” despite the temporary status of freight in Kenilworth. The Kenilworth proposals include the destruction of homes, trails, parkland, and green space. Most of the proposals would significantly add to the noise, safety issues, visual impacts, traffic backups, and other environmental impacts identified in the DEIS.

This is not a NIMBY issue. The Kenilworth Trail provides safe, healthy recreational and commuter options for the city and region. It is functionally part of our park system. The Kenilworth Corridor is priceless green space that cannot be replaced.

For over a decade public agencies have stated that freight rail must be relocated to make way for LRT through the Kenilworth Corridor. If this position were reversed midway through the design process for SWLRT, the residents of Kenwood Isles would find this a significant breach of the public trust.

Simply stated, none of the co-location proposals are in keeping with the project goals of preserving the environment, protecting the quality of life, and creating a safe transit mode compatible with existing trails.

This has been a deeply flawed process, and we **reject any recommendation for at-grade co-location in the Kenilworth Corridor. If freight doesn't work in St. Louis Park, perhaps it's time to rethink the Locally Preferred Alternative.**

Notes

1) The 29th Street and Southwest Corridor Vintage Trolley Study (2000) noted that, "To implement transit service in the Southwest Corridor, either a rail swap with Canadian Pacific Rail or a southern interconnect must occur."

2) The FTA-compliant Alternatives Analysis (2005-2007) defines the Kenilworth section of route 3A for the proposed Southwest Light Rail in this way: "Just north of West Lake Street the route enters **an exclusive (LRT) guideway in the HCRRA's Kenilworth Corridor to Penn Avenue**" (page 25). This study goes on to say that "to construct and operate an exclusive transit-only guideway in the HCRRA's Kenilworth Corridor the **existing freight rail service must be relocated**" (page 26).

3) The "Locally Preferred Alternative" (LPA) recommended by HCRRA (10/29/2009) to participating municipalities and the Metropolitan Council included a recommendation that freight rail relocation be considered as a separate "parallel process."

4) In adopting HCRRA's recommended Locally Preferred Alternative based on treating relocation of the freight rail as a separate process, the City of Minneapolis' Resolution (January 2010) stated:

"Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained."

5) The Draft Environmental Impact Statement supports the Locally Preferred Alternative, which includes relocation of freight out of the Kenilworth Corridor. (December 2012)

6) The southwesttransitway.org has stated since its inception that:

Hennepin County and its partners are committed to ensuring that a connected system of trails is retained throughout the southwest metro area. Currently, there are four trails that may be affected by a Southwest LRT line. They are the Southwest LRT trail, the Kenilworth trail, the Cedar Lake Park trail, and the Midtown Greenway. These trails are all located on property owned by the HCRRA. The existing walking and biking trails will be maintained; **there is plenty of**

space for light rail and the existing trails. Currently, rails and trails safely coexist in more than 60 areas of the United States.

LRT Done Right Addendum on previous communication concerning freight and safety

Date: September 30, 2014

To: Pipeline and Hazardous Materials Safety Administration and Federal Railroad Administration

From: LRT-Done Right

Re: **Docket No. PHMSA-2012-0082 (HM-251) – Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains**

INTRODUCTION AND BACKGROUND

LRT-Done Right is a grass roots organization that has done much research and advocacy regarding the effects of light rail transit and freight lines on community well being. Limited resources typically prevent community organizations from having the same access to federal regulators that industry representatives do. This opportunity to contribute a meaningful comment is greatly appreciated, as is the Pipeline and Hazardous Materials Safety Administration's (PHMSA) earnest consideration of our comments.

It is noted that relative to the importance of the PHMSA standards, very few parties comment on these proposed rules. At the time of this submission, elected officials have not submitted a comment on behalf of the interest/protection of Minneapolis/St Paul or generally on behalf of Minnesota (i.e. mayor, city council, state legislators, Governor, etc.) and only a few federal politicians have made comment. This is concerning because communities rely on elected officials to serve the best interest of the community residents. Most comments, related to Docket No. PHMSA-2012-0082 (HM251), were generated by individual citizens, small communities or cities, or by industry representatives. As citizens, we have expended great care and effort to learn about the issues of freight safety, and have had to do it quickly.

The large-scale shipment of crude oil and ethanol by rail simply didn't exist ten years ago, and safety regulations need to catch up with this new reality. While this energy boom is good for business, the people and the environment along rail corridors must be protected from harm. Crude oil shipments by rail have increased by over 40-fold since 2005, according to the Association of American Railroad's Annual Report of Hazardous Materials. In fact, more crude oil was transported by rail in North America in 2013 than in the past five years combined, most of it extracted from the Bakken shale of North Dakota and Montana (Stockman).

The National Transportation Safety Board (NTSB) noted their concern to PHMSA, that major loss of life, property damage and environmental consequences can occur when large volumes of crude oil or other flammable liquids are transported on a single train involved in an incident, as seen in the Lac Megantic, Quebec, disaster, as well as several disasters that the NTSB has investigated in the United States. The NTSB recommendations to the Federal Railroad Administration and the Pipeline and Hazardous Materials Safety Administration include reroutes of trains carrying hazardous cargo around populated and environmental sensitive corridors, development of an

audit program to ensure rail carriers that carry petroleum products have adequate response capabilities to address worst-case discharges of the entire quantity of product carried on a train and an audit of shippers and rail carriers to ensure that they are properly classifying hazardous materials in transportation and that they have adequate safety and security plans in place (NTSB).

RULE ANALYSIS

LRT-Done Right commends PHMSA and FRA for the effort to improve rail safety with the development of this proposed rule. While understanding the need to balance community safety with the needs of railroads as a profitable enterprise, there are several omissions in the proposed standards that we wish to address. It is clear that PHMSA standards for too long have been overly influenced by industry (Straw R), but as recent rail disasters have shown, the necessity to protect the public's interest is imperative. Because we are citizens with limited rail engineering expertise, we will use our own experiences with a small short line railroad called Twin City & Western (TC&W) to illustrate issues with PHMSA standards. TC&W is a Class III railroad with connections to Canadian Pacific, Union Pacific, Burlington Northern and Canadian National. Under current PHMSA guidelines, which apply to Class I railroads, these enhanced tank car standards and operational controls for High-Hazard Flammable Trains (HHFT) would not apply. This is gravely concerning. Our comments will cover issues of rail routing, notification to State Emergency Response Commissions, tank car specifications, and additional requirements for HHFTs.

Rail Routing -

Missing from standards are guidelines on construction of new transit lines in an active freight rail corridors. Increasingly, light rail transit (LRT) through suburban and urban areas is being run through established freight corridors, which were designed in a different era of rail safety (Sela, et al). LRT routes are planned by local and regional public officials who typically are not adequately addressing the safety of these transit routes, leaving it to affected neighborhoods to advocate for community safety. The trend toward locating LRT adjacent to freight must be addressed in these PHMSA standards. We understand this to be complicated by issues of governance; the Federal Railroad Administration (FRA) regulates freight trains while the Federal Transit Administration (FTA) guides LRT lines. However FRA has ultimate authority and PHMSA writes rules for safety. This particular comment regarding rail routing may be currently beyond the purview of these particular proposed PHMSA standards, never the less we submit these comments to stress their importance to freight safety in shared use corridors, and for immediate consideration and inclusion in this joint PHMSA and FRA rule.

Shared FRA/FTA guidelines are written with respect to Amtrak, and give responsibility to the freight companies for managing shared track (Federal Register, Part VII). Currently, there are no specific safety requirements for either existing or yet to be constructed commuter lines in shared corridors, where track is not shared (Resor R). When track is shared, then commuter lines must meet strict safety guidelines, but when track-separated right of way (ROW) is shared, there are no regulations whatsoever, and localities must police themselves. No guidelines exist that guide either the construction phase of adding LRT lines through an existing freight corridor, or corridor minimum level safety standards. Hence, there are many co-location projects nationwide moving forward, which do not meet minimum American Railroad Engineering and Maintenance-of-way Association (AREMA) guidelines. AREMA guidelines recommend minimum standards for grade separation of 25 feet center rail to center rail. The Rail Safety Improvement Act of 1988 gives the FRA jurisdiction over most types of railroad including shared track LRT (Pub. L. No 100-342), however the FRA has historically not chosen to exercise this authority. This has left shared ROW LRT in a netherworld of un-regulation, which we believe seriously compromises the safety of people, property and environment along these types of corridors.

A case in point is Southwest Light Rail Transit (SWLRT), currently in the early engineering phase and being

considered for construction by the FTA through the Kenilworth corridor in the Minneapolis, MN area. If constructed, LRT will run less than 12 feet from freight rail at a point along the Kenilworth Corridor that regularly carries Class 3 flammable liquids, including long unit trains of ethanol. During the construction phase of a proposed tunnel in an area that can not accommodate both LRT, a freight line, and an existing heavily used bike trail, the freight line, which will continue full service throughout the construction will run just 11 feet from a 35 foot construction pit in an populated area of Minneapolis. In no other instance, could we find current plans to co-locate LRT next to a freight rail line that carries Class 3 flammable liquids. There are other lines that exist where co-location occurs, but these were built many years ago prior to the awareness of the danger existent with oil and ethanol trains. The TC&W freight regularly runs unit trains of 60-100 ethanol train cars through the Kenilworth corridor within feet of the proposed LRT line. Ethanol is highly combustible, which may form explosive mixtures with air and where exposure to electrostatic charges should be avoided (ODN). Yet these electrified LRT lines will literally be next to tanker cars carrying ethanol and other chemicals.

Over the 20-year interval from 1993 to 2012, there were 1,631 mainline passenger train disasters, including 886 grade crossing accidents, 395 obstruction accidents, 263 derailments, 71 collisions. During the same time period, there were 13,563 freight derailments and 851 collisions (Lin et al). Derailments and collisions were identified as the most potentially significant train accident types while human factors accidents and track failures, including obstructions were the primary causes of those accidents (Lin et al). Adjacent tracks, occupied by freight and passenger rail - refers to train disaster scenarios where derailed equipment intrudes adjacent tracks, causing operational disturbance and potential subsequent train collisions on the adjacent tracks (Lin and Saat). Lin and Saat created probability models assessing risk along adjacent tracks to determine risk and severity of a crash leading to a collision or derailment. Identified risk factors included distance between track centers, train speeds, train densities, different train control systems, and level of hazardous train cargo. In the case of SWLRT, this model assessed Kenilworth to be a high-risk rail corridor, yet due to a lack of regulation of co-location, this project progresses.

For transit located on adjacent track to active freight, FRA's concern is that operations of a freight railroad in close proximity to LRT could present safety risks for both. In considering our SWLRT case study, track centers distances are as narrow as 12 feet (11 feet during construction), with 220 LRT trains proposed daily. A derailment of either freight or LRT could be disastrous. With distances of 11-12 feet between SWLRT and freight, if either were to encroach and cause intrusion upon the other, this would likely bring death and destruction, and depending upon the cargo carried, could mean broad evacuation of 1000s of area residents. AREMA's 25 foot standard would be more likely to prevent intrusion onto the adjacent track, and would keep electrified lines away from highly flammable fuel carrying tankers.

None of this accounts for issues related to trains as targets of terrorism or using those trains for terrorist purposes (Brodsky), using chemicals such as chlorine or fossil fuels to create 'bomb trains' or mayhem. Minneapolis is a high threat urban area as determined by the Transportation Safety Administration (TSA); our case study SWLRT parallels freight up to and past the Target Center and the Twins Stadium, two large venues for sports and entertainment. This is another scenario that begs for a solution that would set safety rules for co-location of freight and passenger rail through shared ROW near sites at high risk for terrorism.

The safety requirements for HHFT should apply to Class I, Class II, and Class III railroads. There are short line railroads that are shipping ethanol, and due to common carrier obligations, may be called upon to ship oil, chlorine or other Class 3 flammable liquids. Due to entity size and revenues, these short line railroads typically are Class III railroads. The revenue generating capacity of a railroad should not govern the safety standards to which it is held. If a railroad or shipper does not have the capacity to adhere to the HHFT tank car standards and operational controls, it is dangerous for that entity to be in the business of conveying Class 3 flammable liquids. The relevance of these standards only to Class I railroads, to trains of 20 or more rail cars of hazardous cargo, and to only population areas of 100,00 or more, leave many communities endangered. The safety requirements for HHFT should apply to Class I, Class II, and Class III railroads. The revenue generating capacity of a railroad should not govern the safety standards to which it is held. If a railroad or shipper does not have the capacity to adhere to the HHFT tank car standards and operational controls, it is dangerous for that entity to be in the business of

conveying Class 3 flammable liquids. Additionally, the absence of regulation guiding construction of adjacent rail lines through shared ROW carrying tanker chemicals pose danger to residents along these corridors. Regulatory action must be more broadly addressed to all railroads, on any trains carrying any hazardous materials through any community of any population size.

PHMSA standards are proposed only for communities with population greater than 100,000. We understand the necessity of setting population density standards, but suggest that the threshold of 100,000 is too high. It is discriminatory to penalize a small community and to put them at greater risk due to safe guards not being applicable. Further, it is those communities that would be least likely to absorb the cost of disaster. Railroads must be accountable for safety and exercise due diligence for one tank car or 100 tank cars, in urban and on rural routes. Many of the rail disasters that have occurred happened in areas where populations were less than 100,000 (e.g. Lac Megantic). These communities deserve to be protected too.

Notification to State Emergency Response Commissions (SERCs)-

The proposed PHMSA rule would require notification to SERCs only if trains containing one million gallons of Bakken crude are operating in their States. The requirement ignores the dangers ethanol and does not acknowledge that as little as one carload of oil or ethanol can trigger disaster, as is evidenced by the summary of selected major oil and ethanol train disasters shown in Table 3 provided in the Docket No. PHMSA-2012-0082 (HM-251).

Ethanol is a Class 3 flammable liquid and is considered as dangerous as oil by the National Transportation Safety Board. Ethanol is appropriately classified as a Class 3 flammable and should not be referred to simply as an agricultural product. Ethanol is caustic to the skin, harmful if breathed, highly flammable and very difficult to clean up especially if released in bodies of water. The reason for this clean up challenge is that ethanol is soluble in water. Unlike petroleum, which can be extracted from the top of the water, concentrated ethanol would require full liquid removal (i.e., in the event of an ethanol spill in a lake, the affected would need to be drained). In groundwater, ethanol does not respond to typical remediation techniques, like air stripping and filtration.

To achieve the best protection for our communities, emergency responders and railroad workers – SERCs must have advance notice that oil and ethanol is being shipped through their states. Further all railroads/shippers of oil or ethanol must design and implement a comprehensive spill response plans. These response plans must be provided in advance to the relevant SERCs, Tribal Emergency Response Commissions, Fusion Centers and any other State designated agencies.

These safety preparedness requirements must apply to all railroads/shippers of Class 3 flammable liquids, regardless of their classification (i.e., Class I, Class II or Class III). Without this requirement there will not be adequate training and incentive to minimize collateral damage to communities.

If a railroad or shipper does not have the manpower and fiscal capacity to develop and execute a Class 3 flammable liquid spill response plan, it is not prudent for that entity to be in the business of conveying Class 3 flammable liquids. Spill response plans should take in to account the terrain, natural geography and municipal development along the route used for transport. Specifically if lakes and rivers are present, the plan must provide for containment to prevent water contamination and plan for the de-contamination of bodies of water. Additionally the presence of other freight and/or public transit modes in the same ROW corridor, along with the proximity to residential and school areas, must be addressed in developing the appropriate spill response plan.

Tank Car Specifications -

PHMSA recognizes that DOT-111 tank cars can almost always be expected to breach in the event of a train crash and resulting in spills, explosions and destruction, yet the proposed new rule on train operation and tank car

design would fail to take a single DOT-111 car off the rails. New designs for DOT-111s include increased minimum head and shell thickness, top and bottom fitting protection, a thicker head shield, and head and shells constructed of normalized steel. The guidelines recommend that new DOT-111s ordered after October 1, 2011, be built to this standard. We appreciate these new standards. However, the type of crude involved in the Lac Megantic disaster could be carried on the least safe DOT-111 tank cars until Oct. 1, 2018. An immediate ban on shipping volatile crude and ethanol in the DOT-111 tank cars is in order.

Short line railroads like TC&W in Minnesota are small and often unable or unwilling to purchase these new tanker cars because their ability to invest capital in new cars is limited. They instead tend to purchase used tanker cars from other larger railroads that are retiring those for newer tank cars, and they retrofit older used cars to meet minimum safety standards. It is ironic that these short line railroads which are often run through heavily populated urban corridors have the worst quality tank cars in all the fleets, yet run through the most densely populated corridors. Of the 94,178 cars in flammable service, currently only 14,150, or 5 percent of the total DOT-111 fleet (15 percent of the flammable service fleet), have been manufactured to comply with new standards (Pumphrey et al).

Additionally, as the amount of oil being shipped by rail has increased, train companies have moved to using unit trains for shipping higher volumes (Pumphrey et al). Unlike a manifest train, which might carry a variety of different commodities, a unit train carries only one commodity (e.g., ethanol or crude oil). Unit trains consist of between 50 and 120 tank cars, the equivalent of 50,000 to 90,000 barrels of oil, becoming a "virtual pipeline" or a potential bomb train. Unit trains may increase efficiency but also increase risk. According to the American Association of

Railroads (AAR), "a single large unit train might carry 85,000 barrels of oil". There is no publicly available data on how much oil or ethanol is being shipped in unit trains versus non-unit trains (Pumphreys et al). Shippers of crude oil currently are not required to prepare a comprehensive oil spill response plan (OSRP). Shippers should be required to report even one tanker car of oil or ethanol. And limits should be placed on the number of tanker cars in any single train, especially through high population density areas.

In the case of SWLRT, nearly all ethanol trains that run on the freight track are unit trains. Substandard tank cars combined with the fact of unit trains and a high number of tanker cars means that the Kenilworth Corridor is at high risk. The proximity of an electrified LRT a mere 12 feet from tanker cars could mean that this neighborhood could become ground zero in case of derailment.

The next generation tank cars should exceed the previous 2011 standards, and that should be phased in at a quicker pace than proposed. It is clear that rail company lobbyists are actively trying to minimize PHMSA regulatory tanker car standards (Straw). You must steal your resolve and demand improvements for public safety, and for short line railroads demand similar standards with no waivers.

Small short line railroads are often not given the attention or training of larger railroads, yet they often utilize the worst tanker cars and have the least emergency training. Short Line Railroad Safety training for short line railroads transporting crude and ethanol must be a greater priority, because they often run through high-density urban corridors.

Additional Requirements for High-Hazard Flammable Trains (HHFTs)-

The proposed rule defines a HHFT as a single train carrying 20 or more carloads of Class 3 flammable liquid. The definition does not serve the safety interests of the United States. It is documented that one carload of Class 3 flammable liquid can trigger a disaster and devastation. For that reason, a HHFT should mean a single train carrying one or more carloads of Class 3 flammable liquids.

Further the proposed rule applies only to trains operated by Class I railroads. The PHMSA and FRA safety rules related to Class 3 flammable liquids should be in effect for all railroads/shippers that convey Class 3 flammable

liquids. The class (i.e., Class I, II or III) of a railroad is determined by its revenue generation. It is not reasonable to exempt a railroad from important safety requirements based on its revenue generating capacity. If a railroad/shipper does not have the capacity to adhere to relevant HHFT and Class 3 flammable liquid safety standards, it is not prudent for that entity to be in the business of conveying Class 3 flammable liquids. These important safety rules must apply to all classes of railroads, otherwise there are opportunities to circumvent necessary precautions and responsibilities.

Further the proposed rule does not address the liability insurance requirements for railroads/shippers of Class 3 flammable liquids. This is a complicated topic especially when the condition of a share ROW exists. Goals of insurance requirements should address:

1. Allocating the liability from risks between the freight railroad and the transit agency
2. Managing the additional risk by developing a prudent insurance strategy
3. Ensuring the safety of passengers in mixed freight and transit operations
4. The willingness of freight railroads to grant access to their ROW for transit operations
5. Providing satisfactory conditions for continuing service to freight customers. Without adequate insurance requirements, the public will be exposed to uncompensated losses when freight and transit disasters occur.

RECOMMENDATIONS

These proposed PHMSA rules are a beginning toward building a safer rail industry. However, the more we investigated the rules, the clearer it became that the rules do not go far enough to protect the public. The current standards are remarkable more for what they do not regulate than for what they do. Much more needs to be done to ensure public and environmental safety. We recommend that PHMSA immediately incorporate the recommendations listed below to expand this rule on safety standards to better protect the public and the environment:

1. Modify the definition of a high-hazard flammable train provided in Section 171.8 to read as follows: High hazard flammable train means a single train carrying 1 or more carloads of a Class 3 flammable liquid.
2. The PHMSA and FRA rules must apply to all trains conveying Class 3 flammable liquid regardless of railroad classification (i.e., includes Class I, Class II and Class III railroads). This would extend PHMSA regulatory actions to all railroads regardless of Class.
3. The PHMSA and FRA safety rules should apply equally to HHFTs that are conveying oil and/or ethanol. The NTSB views ethanol as dangerous as oil. Having safety rules that address the conveyance of oil but do not apply to ethanol carriers is flawed, as both are Class 3 flammable liquids.
4. Ban the use of DOT-111 tank cars now for transporting any amount of hazardous materials, instead of focusing solely on trains with more than 20 railcars of crude oil. The proposal to allow continued use of DOT-111 cars on trains of fewer than 20 cars would fail to protect public safety and the environment.
5. DOT-111 cars should not be used for the transport of any crude oils or fossil fuels, regardless of classification.
6. Retrofitted cars that fail to meet every standard of the most protective new tank car design should be barred from use for all shipments of hazardous materials, regardless of class and have regular safety

inspections to assess their continued safety.

7. Require that any and all railroads/shippers conveying one car load or more of Class 3 flammable liquids are required to notify SERCs about the operation of these trains through their States. Further it is recommended that comprehensive spill response plans be submitted for review and approval by relevant federal agencies under the National Contingency Plan, along with PHMSA. Given the relatively few number of railroad entities, it is not anticipated for this to be an undue burden. To minimize risks due to outdated comprehensive spill response plans, it is strongly recommended that plans be updated at least on a 3-year cycle and whenever there is a change of ownership in the railroad or shipper.
8. Enforcement of PHMSA/FRA/FRA rules and inspections do not happen regularly due to minimal federal staffing. An increase in the frequency of inspections is recommended, with funding provided by railroad fees.
9. Implement federal standards and rules that would minimize the occurrence of the key causes of train derailments resulting in spills; namely, the size of trains, state of infrastructure and human error. The proposed rule enumerates the most common causes of hazardous train derailments but fails to propose meaningful solutions such as limits on the number of cars permitted in each train, the use of unit trains, requirements for new build outs in shared row, infrastructure and inspection improvements, and management and oversight.
10. Derailments and spills can happen everywhere. Instead of selectively protecting only the most densely populated cities, apply these standards everywhere. As written, the proposed rules are designed to reduce risk to communities of greater than 100,000 people, but protections should be afforded all communities. These standards specifically acknowledge that it is putting people at risk solely because of where they live. This is immoral.
11. Sensitive environments including but not limited to areas near water, drinking water supplies, parks and animal habitat should be protected by all available safety standards.
12. Require full public disclosure to first responders of all hazardous rail shipments. There should be no exemptions for trains with fewer than 35 cars. Even one car of hazardous cargo should be disclosed so that emergency responders can act appropriately in the case of a disaster.
13. Uniform federal level guidelines should be developed to guide all future construction and management of LRT/commuter rail lines in shared freight/transit corridors, in particular along corridors that carry Class 3 flammable liquids.
14. A comprehensive study of derailment probability in shared ROW should be undertaken to understand the effect of track spacing, electrification of LRT adjacent to gas/oil/ethanol bearing trains, train speeds, train cargo, and train ownership (long range vs. short line railroads).
15. Minimum standards should be set for co-location of passenger and freight co-location, including that ROW should meet the AREMA minimum safety standard of 25 feet center rail to center rail (Caughron B et al). Immediately institute a moratorium on the building of LRT lines adjacent to freight lines that are conveying any amount of Class 3 flammable liquids in corridors that do not meet AREMA's 25 feet center rail to center rail standard.
16. All trains conveying Class 3 flammable liquids should be re-routed outside of high risk urban areas and away from areas at high risk for derailment or terrorism including urban neighborhoods, downtown areas, malls and major sports and entertainment complexes.

CONCLUSION

Given the exponential increase in shipments of oil and ethanol, the need to upgrade and implement relevant freight rail safety standards is urgent and necessary to the well being of our communities and environment. The coordination of oversight authority for all railroads (i.e., Class I-III) and public transit projects safety must also

improve. The proposed rule along with the aforementioned recommendations will serve to protect our nation and place the responsibility for safety precautions with the appropriate entities and not place undue burden on communities and residents.

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From: [Sally Dargis](#)
To: [swlrt](#)
Subject: SDEIS Comments to the Met Council
Date: Tuesday, July 21, 2015 9:36:51 PM
Attachments: [Executed - SDEIS Response .pdf](#)
[KPG endorsement-LRTDR SDEIS comments.pdf](#)
[LPA endorsement-LRTDR SDEIS comments.pdf](#)

I have very limited time tonight to write my own personal message. However, I want briefly tell you that I agree with LRT-Done Right's comments on the SDEIS.

This train through Kenilworth is an environmental disaster waiting to happen. Please use some common sense and re-route somewhere less disruptive, less costly, and where is actually some ridership that will USE it.

----- Original Message -----

Subject: SDEIS Comments to the Met Council
From: Stuart Chazin <lakesparksalliance@gmail.com>
Date: Tue, July 21, 2015 2:43 pm
To: undisclosed-recipients;

Attached are LRT-Done Right's comments on the SDEIS, which have just been submitted by email to the Met Council.

They are the product of thousands of hours of work by neighborhood volunteers!

Please help us capitalize on the power of these amazingly well-researched comments with your support: email your endorsement of them to the Met Council.

You must do so today in order to ensure that your comments will be part of the public record.

The correct email address to use is: SWLRT@metrotransit.org

Please pass the document and this request on to other supporters!

Thank you
SAC

Lakes & Parks Alliance of Minneapolis, Inc.
C/O The Chazin Group, Inc.
Lake Pointe Corporate Centre
3100 West Lake Street, Suite 230
Minneapolis, Minnesota 55416-5392

email: lakesparksalliance@gmail.com

Website: www.lakesandparks.com

GO GREEN.

Lakes and Parks Alliance of Minneapolis, Inc.
c/o The Chazin Group
Lake Point Corporate Centre
3100 West Lake Street, Suite 230
Minneapolis, MN 55416

July 20, 2015

Ms. Nani Jacobson, Project Manager
Southwest Light Rail Transit Project Office
6465 Wayzata Blvd., Suite 500
St. Louis Park, MN 55426

Via email: swlrt@metrotransit.org

Dear Ms. Jacobson,

I am contacting you as a board member of the Lakes and Parks Alliance of Minneapolis, Inc. Our organization endorses and supports the comments submitted by Light Rail Transit Done Right (LRTDR).

Please add this letter to the record of comments on the Southwest Light Rail Supplemental DEIS.

Sincerely,

George Puzak
Lakes and Parks Alliance of Minneapolis, Inc., board member

Kenilworth Preservation Group (KPG)
c/o The Chazin Group
Lake Point Corporate Centre
3100 West Lake Street, Suite 230
Minneapolis, Minnesota 55416-5392

Via email: swlrt@metrotransit.org

July 20, 2015

Ms. Nani Jacobson, Project Manager
Southwest Light Rail Transit Project Office
6465 Wayzata Blvd., Suite 500
St. Louis Park, MN 55426

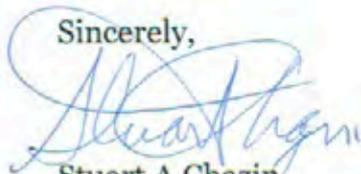
RE: Supplemental DEIS

Dear Ms. Jacobson,

I am contacting you as chair of the Kenilworth Preservation Group (KPG). KPG endorses and supports the comments submitted by LRT Done Right.

Please add this letter to the record of comments on the Southwest Light Rail Supplemental DEIS.

Sincerely,



Stuart A Chazin
Chair - Kenilworth Preservation Group

LRT-Done Right

2782 Dean Parkway
Minneapolis, MN 55416

July 21, 2015

Nani Jacobson
Assistant Director, Environmental and Agreements
Metro Transit — Southwest LRT Project Office
6465 Wayzata Blvd, Suite 500
St. Louis Park, MN 55426

Dear Ms. Jacobson:

LRT-Done Right is a grassroots organization of some 500 Minneapolis residents and taxpayers who have conducted exhaustive research and advocacy on the effects of light rail transit and freight lines on community well being. We hereby submit to you our comments on the Southwest LRT Supplemental Draft EIS. They are the product of literally thousands of volunteer hours of research, analysis, and writing. As citizens of Minneapolis and the Metro area, we hope and expect that they will receive appropriate respect, attention, and response.

The 2012 Draft Environmental Impact Statement clearly recommended that the best course of action was to relocate freight out of the Kenilworth Corridor.

This position was reversed in 2013, and the Metropolitan Council's recommendation is now to "co-locate" freight and light rail in the Kenilworth Corridor. We consider this a significant breach of public trust and the low point of a deeply flawed planning process. We are an organization that seeks to represent concerns of those most impacted by this unfortunate decision.

The current Supplementary Draft Environmental Impact Statement is partly intended to assess the impact of co-location in the Kenilworth Corridor. It fails to do so on many levels, summarized in the following points:

First, it considers the *temporary* freight rail part of the existing condition. Freight rail service that runs through the corridor would be both upgraded and made permanent; this is a *new* project that needs a full analysis. Because new *permanent* freight infrastructure is being added to the corridor, all visual, noise, vibration, safety and other environmental impacts should be measured *from a basis of no freight and no light rail*.

Second, this SDEIS is silent on the safety implications of locating freight trains carrying hazardous materials through an urban environment within feet of homes, parks, trails, passenger trains, and live overhead electrical wires. The new and serious impacts created by this situation would continue to grow as transport of ethanol and other volatile materials expands and freight trains grow longer.

Third, this SDEIS is significantly flawed in its findings regarding environmental impact, safety concerns, and disturbance of livability, if not outright danger, to those living within a half mile of the route, which we will refer to as the "Blast Zone." This is a real issue that was not as prevalent in the news when the alignment was first proposed. In the context of current discussions regarding the increased number of freight accidents across the United States and Minnesota, we are seriously concerned about the safety of families and loved ones who would live in a Blast Zone zone surrounding ethanol trains and sparking LRT wires.

Fourth, we are disturbed by the promises of unspecified remediation activities found throughout the SDEIS. As the Department of the Interior says in its *Handbook on Departmental Review of Section 4(f) Evaluations*: “Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable.... Reviewers should make sure that all possible site-specific planning has been done to identify and list the measures which will be undertaken, at project expense, to minimize harm to Section 4(f) properties.” Such general promises are not acceptable to the federal government. Nor are they acceptable to us.

Finally, the SDEIS fails to address the significant costs associated with the many design and construction, safety, and environmental remedies that it will, based on our assessment, be required to implement — the relocation of a sewer force main that the Met Council installed only months ago, and sound and vibration remediation measures for area residents are but two. Nor does it recognize long-term costs of lost property tax revenue that would erode the tax base of the City of Minneapolis in perpetuity. We estimate that these combined costs would initially total at least \$13 million to \$24 million, and much more over the years.

When Hennepin County and the Met Council chose the present route for SWLRT between the Chain of Lakes through the Kenilworth Corridor — including “co-location,” thus making the temporary freight rail permanent — they accepted the responsibility to respect the natural and built environments that it travels through as well as the people who bicycle, walk, recreate, and live there. LRTDR does not see evidence that this responsibility has been taken as seriously as necessary and the following pages, which respond to specific elements of the SDEIS, articulate some of the reasons why.

Mary Pattock
On behalf of LRT-Done Right

LRT-Done Right response to Southwest Light Rail Supplemental DEIS

3.4.1.2 Acquisitions and Displacements

B. Potential Acquisitions and Displacements Impacts

Comment: We request more information about 3400 Cedar Lake Parkway, a strip of land valued by the City of Minneapolis \$2.1 million.¹ For years, the Hennepin County property tax website listed this parkland as owned by the Minneapolis Park and Recreation Board. Meanwhile, in discussions concerning SWLRT, the Met Council disputed this information, maintaining that the property belongs to BNSF. Recently, however, Hennepin County changed its website to say the property belongs to BNSF.² What is the basis of the change? What evidence does the Council have that the land is owned by BNSF railroad? Where are the supporting documents, or what was the process by which this change was made? Did the property change hands via a gift of public property? If so, when and why did that happen? If the property is indeed owned by the Park Board, then a compliance analysis will need to be conducted to comply with both Section 106 and 4(f).

In Short-Term Acquisition and Displacement Impacts, the Council states that “[s]hort-term occupancies of parcels for construction would...change existing land uses” including “potential increases in noise levels, dust traffic congestion, visual changes, and increased difficulty accessing residential, commercial and other uses.” The Council should say what the plans are to mitigate these effects for residents and businesses. Most important, how will prompt emergency fire, medical and police access be maintained?

In Short-Term Acquisition and Displacement Impacts, the Council discusses plans for remnant parcels without acknowledging its commitment with the City of Minneapolis in the Memorandum of Understanding. The MOU documents the Council’s agreement to convey property they own or acquire from BNSF or HCRRA in the Kenilworth Corridor that is not needed for the Project or freight rail to the Minneapolis Park and Recreation Board for use as parkland. Please see: <http://metro council.org/METC/files/f7/f7d41cfb-a062-46c7-942d-0785989da8a0.pdf>

Based on figures listed on the Hennepin County property tax website, annual property taxes payable just for the St. Louis Park properties listed as potential FULL parcel acquisitions in Table 3.4-3 total approximately \$240,000. Yet Section 3.4.3, Economic Effects, states that the annual reduction in property tax revenue to the City of St. Louis Park for all full AND partial acquisitions is only \$35,940. The SDEIS lists plans for partial acquisition of properties owned by Calhoun Towers, Calhoun Isles Condo Association, Cedar Lake Shores Townhomes, and other private property in Minneapolis, but identifies no property tax loss for Minneapolis. The Council should explain the calculations it used to conclude that that the property tax losses are so low or even nonexistent. Although we understand that the Council may not wish to release dollar figures for specific property acquisitions at this time, the public must nevertheless be assured that the Council is not both minimizing the costs of acquiring these properties and ignoring the fact that taxpayers will need to compensate for a shrunken property-tax base, which we estimate would exceed \$4 million annually (based on an estimated 5 percent decline in property value for private homes and commercial buildings most impacted by SWLRT).

3.4.1.3 Cultural Resources

B. Potential Cultural Resources Impacts

This section identifies the potential long-term and short-term impacts to the archaeological and architecture/history resources listed in or eligible for the NRHP.

Long-Term Direct and Indirect Cultural Resources Impacts.

Comment: Minneapolis residents have continually expressed concern with the impact the project will have, both during construction and after operation of SWLRT, on cultural resources in the City.

As stated by the Minnesota State Historic Preservation Office (MnSHPO), an adverse effect on one contributing feature is an adverse effect on an entire historic district. Therefore, the conclusion that the project will have an adverse effect on the Lagoon means that there will be an adverse effect on the Grand Rounds Historic District as a whole, as indicated in the SDEIS.

¹ See <http://apps.ci.minneapolis.mn.us/PIApp/ValuationRpt.aspx?pid=3202924120001> and <http://apps.ci.minneapolis.mn.us/PIApp/GeneralInfoRpt.aspx?pid=3202924120001>

² See <https://gis.hennepin.us/property/map/default.aspx>

Section 3.1.2.3 of the SDEIS lists possible mitigation measures that *may* be included in the Section 106 agreement:

- Consultation with MNSHPO and other consulting parties during the development of project design and engineering activities for locations within and/or near historic properties
- Integration of information about historic properties into station area planning efforts
- Recovering data from eligible archaeological properties before construction
- Consultation with MNSHPO and other consulting parties during construction to minimize impacts on historic properties
- Preparation of NRHP nominations to facilitate preservation of historic properties
- Public education about historic properties in the project area

None of these measures can avoid, minimize or mitigate the long-term adverse effects of the project on the Grand Rounds Historic District in a meaningful way. The noise impacts, including bells and horns, will be audible from distances within and beyond the Area of Potential Effect, and include not only the Lagoon area but also Lake of the Isles and Cedar Lake as well as the other parts of the Grand Rounds Historic District. *Noise and vibration impact studies should be done from a baseline assuming no freight, as HCRRA had committed to do and as was contemplated in the DEIS.* Despite the requirement that such impacts be minimized, co-locating both freight and light rail in the Kenilworth Corridor results in the opposite outcome.

The proposed bridges over the Lagoon would have an adverse impact because of their size and scale, inconsistency with the historic cultural landscape of the channel, the noise and vibrations caused by the light rail vehicles traveling the bridge and the fact that it may not be possible to mitigate the impacts of the new bridges, as stated by the MPRB earlier in the 106 process. The appearance of the new bridge structures and the sounds associated with modern rail infrastructure would alter the characteristics of “community planning and development,” “entertainment and recreation,” and “landscape architecture” that make the Lagoon eligible for NRHP designation, and will adversely affect the character and feeling of the Lagoon and how people use the historic resource, including the experience of using the waterway under the new structures. Given that the Council is proceeding with this project in spite of this adverse effect, we hope that designers will continue to be vigilant about minimizing the impact on the setting and feeling of the historic channel, including audible and visual intrusions that will alter the park-like setting of the Lagoon, a vital element of its historic character. These concerns extend to Cedar Lake and the beaches on it nearest to SWLRT, as well as the visual impact on Park Board Bridge #4, Lake of the Isles, Lake of the Isles Parkway and Lake of the Isles Historic District.

Table 3.4-5 lists cultural resources that have been preliminarily considered to have no adverse effect from the Project, because of continued consultation with MnSHPO and certain unidentified avoidance/minimization/mitigation measures. Throughout this table, “consultation” is offered as mitigation. But “consultation” is not the same as “mitigation.” Consulting means talking; mitigation means doing something. The SDEIS does not identify what it could do that would mitigate negative impacts. In any event, the possible mitigation measures listed above would also not significantly address impacts on the cultural resources listed in this table. *The Council must be responsible for ensuring that “continued consultation” is meaningful by conducting assessments and proposing specific mitigation solutions before the 106 agreement is written and finalized, as it is impossible to avoid adverse effects after SWLRT construction and operations commence.* See also our comments below on 3.5 Draft 4(f) Section Evaluation Update.

Cultural resources covered in table 3.4-5 include Lake of the Isles Residential Historic District, Kenwood Parkway Residential Historic District, Lake Calhoun, Cedar Lake Parkway, Cedar Lake, Park Bridge #4, Lake of the Isles Parkway, Lake of the Isles, Kenwood Parkway, Kenwood Park, Kenwood Water Tower and four NRHP listed or eligible homes in the Area of Potential Effect. Station activity will change traffic and parking patterns in the neighborhood and introduce long-term visual and audible intrusions that adversely impact these historic resources. Concerns about the long term Project impact on some or all of these cultural resources include the following:

- Long-term visual and audible intrusion from changes in traffic patterns related to station access: We are concerned that auditory impacts and changes in traffic and parking patterns will adversely affect the integrity of setting and feeling that make Kenwood Park, Kenwood Parkway, Lake of the Isles Parkway, Cedar Lake Parkway and the related residential historic districts, and the four individual homes listed on or eligible for the NRHP. A traffic analysis must be conducted and a plan to mitigate adverse impacts proposed and discussed before the 106 agreement is drafted.
- Noise effects from LRT operations: Audible intrusion from train operations, including bells and horns and the impact of trains going in and out of the tunnel, will alter the environment of the historic resources and the characteristics that make certain of these resources eligible for the NRHP. It seems unlikely that a few homes in the Kenwood Parkway Residential Historic District are the only cultural resources that will be adversely affected by noise from train operations.
- Infrastructure surrounding the tunnel and the massive tunnel portals could adversely affect the historic integrity of the resources. Signage along the historic parkways could also have an adverse effect. Specific design elements should be proposed to minimize these impacts and should be reviewed as part of the 106 process.

The degree of concern regarding the short-term impact of SWLRT construction on all of these cultural resources cannot be overstated. Noise and vibration sensitive resources need to be identified. The public needs to see a comprehensive noise and vibration study and analysis for the Project during construction including the impact of increased truck and construction equipment traffic. We would like details on what will be included in the “project wide construction plan.” It should identify measures to be taken during construction to protect all historic properties from project-related activity including construction related traffic. We need real plans to prevent or repair damage resulting project activities, incorporating guidance offered by the National Park Service in Preservation Tech Note #3: Protecting a Historic Structure during Adjacent Construction, as well as an agreement that specifies how these potential impacts will be monitored and mitigated. The Council previously communicated to a neighborhood group whose residents experienced damage from a Council project that “[c]ontinuing with future projects, our goal is to ensure that claims are promptly and appropriately investigated to determine whether or not they may be related to the project. Depending on the facts of the claim, this may involve independent experts.” We request that the Council communicate with owners of historic homes in the APE prior to construction to establish baselines and mitigation commitments.

Table 3.4-5 is confusing in that it lists station area development as a possible effect on the Kenwood Parkway Residential Historical District that will require continued consultation. The Met Council needs to explain what development it is referring to, because none is anticipated in this district. For example, the Southwest Community Works website and documents state: “Future development is not envisioned around this station....”

<http://www.swlrtccommunityworks.org/explore-corridor/stations/21st-street-station>

See also

<http://www.swlrtccommunityworks.org/~ /media/SW%20Corridor/Document%20Archive/investment-framework/ch-4-penn.pdf>

3.4.1.4 Source: MnDOT CRU, 2014.Parklands, Recreation Areas, and Open Spaces

Long-Term Direct and Indirect Parklands, Recreation Areas, and Open Spaces Impacts

Comment: As noted in our comments on 3.4.1.2 above, we request more information about 3400 Cedar Lake Parkway. This parkland has long been listed on the Hennepin County property tax website as belonging to the Minneapolis Park and Recreation Board. What evidence has the Council or Hennepin County discovered to recently change the website to indicate that this \$2.1 million property is owned by BNSF railroad? Does the conclusion of “no long-term direct impact” of the Project on Cedar Lake Park depend on the Met Council taking advantage of a loophole: that documentation conveying this Cedar Lake Park property to the Park Board many years ago may be lacking, even though the intent that it be parkland was understood? Is the conclusion a way to avoid conducting a compliance analysis as would be required under Section 106 and 4(f) if the property belonged to the Park Board?

The SDEIS states: “None of the indirect impacts on parklands, recreation areas, and open spaces from the LPA in the St. Louis Park/Minneapolis Segment would substantially impair the recreational activities, features, or attributes of those parklands, recreation areas, and open spaces.” We dispute this conclusion. The permanent installation of freight rail and light rail in the Kenilworth Corridor that is too narrow to permit separation in accordance with AREMA and FTA guidelines creates a safety risk that would directly impair park activities in the event of a derailment and/or explosion of flammable materials.

For comment on the indirect impacts of the LPA in the form of visual, noise, and/or access impacts, please see comments to sections 3.4.1.5, 3.4.2.3, and 3.4.4.4 of this Supplemental Draft EIS.

Short-Term Parklands, Recreation Areas, and Open Spaces Impacts

Comment: Please specify the extent to which the stated “standard” measures would be sufficient to protect this environmentally sensitive parkland.

During construction, how can the safety of park and trail users (Park Siding Park, Cedar Lake Park, Lake of the Isles Park, and nearby trails and lakes) be assured, given that unit freight trains of 100 or more cars containing Class III flammable liquids, especially ethanol, travel through this narrow corridor in close proximity to a construction pit and materials, without whatever protective walls will later be installed?

Section 3.4.1.5 Visual Quality and Aesthetics

Excerpt from City of Minneapolis RESOLUTION 2010R-008 by Colvin Roy:

Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained.

While we appreciate and agree that the visual impact from Viewpoints 2, 3, and 4 are recognized as being substantial, we strongly disagree and contest the idea that the level of visual impact north of the Kenilworth Channel crossing (including Viewpoints 5 and 6) will be “not substantial” (pages 3-167, 168). The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be *substantial throughout the corridor*.

The SWLRT plan proposes clear-cutting in the Kenilworth Corridor, a rare urban natural resource. It would remove a large amount of green space and thousands of trees, replacing them with an overhead catenary system, tracks and ballast. The park-like environment will be permanently degraded by this infrastructure, as well as by the approximately 220 daily trains traveling over the historic Kenilworth Lagoon and through the corridor.

Clearly, the visual impact of deforestation of this area will be great, especially given that the Kenilworth Trail is used by well over 600,000 annually. Over the past 7 to 10 years, neighbors and trail users have clearly expressed to Hennepin County and the Met Council the very high value they place on the green space, wildlife and bird habitat, trees and other vegetation in the Kenilworth Corridor.

The visual impact to the park-like environment is exacerbated by the continuing presence of freight rail, which was expected to be removed from the Kenilworth corridor at the time of the Alternatives Analysis, the Locally Preferred Alternative decision, and the 2012 DEIS.

The SDEIS says the consultant determining the *visual qualities* of the corridor relied on Google Earth, files of the revised project layout, and selected “photographically documented” views (Appendix J, section 2B). It does not say the consultant actually set foot in the area, or consulted any stakeholders. Assuming that is the case, we are most discouraged at the slipshod research methods used in this important document, and find it even less credible.

At **Viewpoint 5**, we support all efforts to create an “attractive design” for the bridges crossing the Kenilworth Channel. The three new bridges will certainly become a “focal point,” adding large cement structures and heavily impacting the setting and feeling of this element of the Historic Chain of Lakes and the Kenilworth Trail. An attractive design for these bridges does not compensate for the vegetative clearing. The character of the City of Lakes’ signature canoe, kayak and skiing route from Lake of the Isles through the Kenilworth Channel to Cedar Lake will be fundamentally and permanently degraded. There will be a substantial negative visual impact from the level of the water as well as the level of the trail.

At **Viewpoint 6**, the SWLRT project plans to remove a significant amount of vegetation along the edge of Cedar Lake Park, as well as trees, plants, and restored prairie currently along the bicycle and pedestrian trails. The claim that removing trees and replacing them with overhead power lines would create a positive visual experience for trail users (“open up the view, making it more expansive”) is absurd on its face and contradicts the clearly expressed will of the Minneapolis City Council and the adjacent neighborhood. The 21st Street Station, a slab of concrete and metal with fencing and catenaries, will indeed “create a focal point” — that is to say, a negative one. It is not credible, and it is even laughable, to assert that a concrete slab will positively impact the visual qualities of a spot immediately adjacent to an urban forest and is itself in a “park-like environment.”

The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be substantial throughout the corridor. We find it absurd and disingenuous for the Council to claim otherwise. The Council must stop pretending that this problem does not exist, and get serious about identifying robust and meaningful mitigation measures for incorporation into the project.

3.4.2.1, 3.4.2.2 Geology and Groundwater, Water Resources

Comment: LRT Done Right demands that there be a much more significant and transparent discussion regarding the compensatory mitigation for damage to wetlands and aquatic resources in the Minneapolis segment, especially the Kenilworth Channel and Cedar Lake. While a permit application is required, the SDEIS identifies that there will be damage done to aquatic resources but does not specify the level of damage done during construction and then during operation of the line. The further impairment of these resources is a direct violation of the EPA Clean Water Act and will degrade one of the crown jewels of the Minneapolis "City of Lakes" water resources. Residents swim, paddle, and recreate in those resources, and to callously suggest that a section 404 permit will just address those concerns is alarming.

Further, LRTDR is not convinced that sufficient analysis has been done on existing contamination in the Kenilworth Corridor. Southwest Project Office has already stated that additional contamination is likely to be found, and while the additional contamination is stated to be covered by the contingency fund, LRTDR finds this approach to be irresponsible budgeting without fully knowing what contamination exists and if enough is actually budgeted in the fund. The Kenilworth Corridor north of 21st St is a former rail yard that housed up to 58 rail lines during its peak, and was in service for decades. The SDEIS itself specifies the numerous toxic contaminations in such soil due to its former use. LRTDR strongly opposes disturbing the land and releasing contamination into the water and air.

Southwest LRT Supplemental Draft EIS - Supporting Documents and Technical Reports: SWLRT Kenilworth Shallow LRT Tunnel Basis of Design Technical Report (Met Council, 2014d):

An Existing Sewer Force Main Crosses the Proposed Location of the SWLRT South Tunnel in the Kenilworth Corridor.

The removal and relocation of recently installed dual force mains, running beneath the freight tracks and Kenilworth Trail (between Depot Street and W. 28th Street) at the site of the proposed south tunnel, will be necessary to accommodate co-location of LRT with freight in the Kenilworth Corridor. The presence of the existing dual sewer force mains has design, construction, and cost implications on the shallow tunnel, which are not addressed in the SDEIS. The SDEIS technical drawings for the shallow tunnel do not indicate the existing force sewer main or the sewer relocation plan. Although Metropolitan Council is clearly aware of this complication, since it refers to replacing 200 feet of the dual 18-inch sanitary sewer force mains at Depot Street in its 9/19/14 CTIB capital grant application, it nevertheless does not address its design impacts and costs in the SDEIS in the Kenilworth Shallow Tunnel Design Technical Report.

In 2013 the Metropolitan Council Environmental Services (MCES) installed replacement sewer force mains between France Avenue and Dean Parkway. The force mains follow Sunset Boulevard to Depot Street and then crosses under active freight railroad tracks and the Kenilworth Trail to West 28th Street. The force mains installation at this location was completed by tunneling under, and placed perpendicular to, the railroad tracks and Kenilworth Trail so as not to disrupt active rail operations. The tunneling process required construction of two tunneling (jacking) pits on either side of the tracks. One pit was located at Depot Street and the other was located at the end of West 28th Street adjacent to Park Siding Park. The tunneling pit near Park Siding Park measured 16 by 34 feet and was approximately 27 feet deep. The excavation of these pits required the use of a crane and an excavator.

The SWLRT south tunnel construction plan says a pit would be dug to a depth of approximately 35 feet in this same location. The existing force main crossing consists of a 60-inch diameter tunneled steel "casing" pipe. The distance to the top of the casing pipe is approximately 17 feet and the distance to the bottom is 22 feet. The dual 18-inch force main pipes pass through this tunneled casing. The current placement of the force main interferes with the proposed location of the tunnel construction pit. The force main will need to be removed and relocated either above the proposed tunnel or below the tunnel to a depth greater than approximately 45 feet below ground level. See diagrams A through C below. If the force main is relocated above the shallow tunnel, the tunnel will need to be dug deeper in order to accommodate the force main above. This will result in an increased steepness in the incline of descent and ascent of the entrance and exit to the tunnel respectively. If LRT trains cannot navigate said increased grade change then it may require building a longer tunnel in order to safely allow trains to exit and enter at a lesser incline/decline, adding to the cost and impact.

Risks associated with possible stray electrical current traveling in the ground from the LRT power lines to the sewer force mains have not been identified or addressed in the SDEIS.

The removal and re-installation of the dual force mains will have Economic, Social, and Environmental impacts:

Economic costs:

Long term increase in cost of the SWLRT project of an undetermined amount as a result of co-locating freight and LRT, including:

1. Cost of removing and relocating the sewer force main located under the freight tracks and the Kenilworth Trail.
2. Cost of possible redesign of the south tunnel to accommodate force main relocation if it is reinstalled above the south tunnel.
3. Costs associated with re-engineering or lift station(s) that may be required to ensure adequate force is maintained in the sewer main if the main is re-located to a deeper position (i.e., from approximately 22 feet to more than 45 feet below ground level).
4. Cost of remediation of any portions of Park Siding Park that may be affected during removal/relocation of the force sewer main.
5. Cost of roadwork at Depot Street to remove/relocate force main.
6. Cost of damages to walls, ceilings and foundations of neighboring residences as a result of construction to remove/relocate the force sewer main.
7. Costs to remediate noise and vibrations impacts on the community that may be experienced during the construction period and post construction period should lift station(s) be required.

Social:

Parkland, Recreation, Open Spaces and Safety Impact:

Short-term construction impact - Portions of Park Siding Park (a Section 4 (f) property) may again be affected in order to accommodate the removal and reinstallation of this force sewer main and construction of tunneling (jacking) pits. The original construction resulted in closure of the park to users for an extended period, installation of a temporary detour through the park to accommodate the closure of Dean Court, destruction of park vegetation, gardens and lighting, and the removal of playground equipment. Some of these same impacts may again occur during the removal/relocation of the force main and construction of associated jacking pits. In addition, the construction of the south tunnel is expected to take 2-3 years and requires a deep open pit adjacent to Park Siding Park. The access and enjoyment of this park will be affected by the tunnel construction during this extended time frame and presents a dangerous environment for nearby park users and freight rail operations. The mitigation and cost of remediation of the parkland have not been addressed in the SDEIS.

Environmental:

Noise:

Short-term noise impacts - Removal and reinstallation of the force line will result in noise impacts of an undetermined level to both neighboring residents and Park Siding Park users as a result of both construction activities and construction vehicles. Mitigation plans/cost are not included in the SDEIS and need to be addressed.

Vibration:

Short-term vibration impacts – Effects of construction activities and, to a lesser extent, construction vehicles will have an impact on park users, neighbors and their residences. Vibration and associated ground-borne noise impacts may damage walls, ceilings and foundations of nearby residences, as was experienced in the original construction of this force line. Mitigation plans/cost are not included in the SDEIS and need to be addressed.

Diagram A – Existing sewer force main at approximately 22 feet below grade obstructs planned location of SWLRT south tunnel in the Kenilworth Corridor, which requires an estimated 45 feet below ground level for construction pit and helical piles.

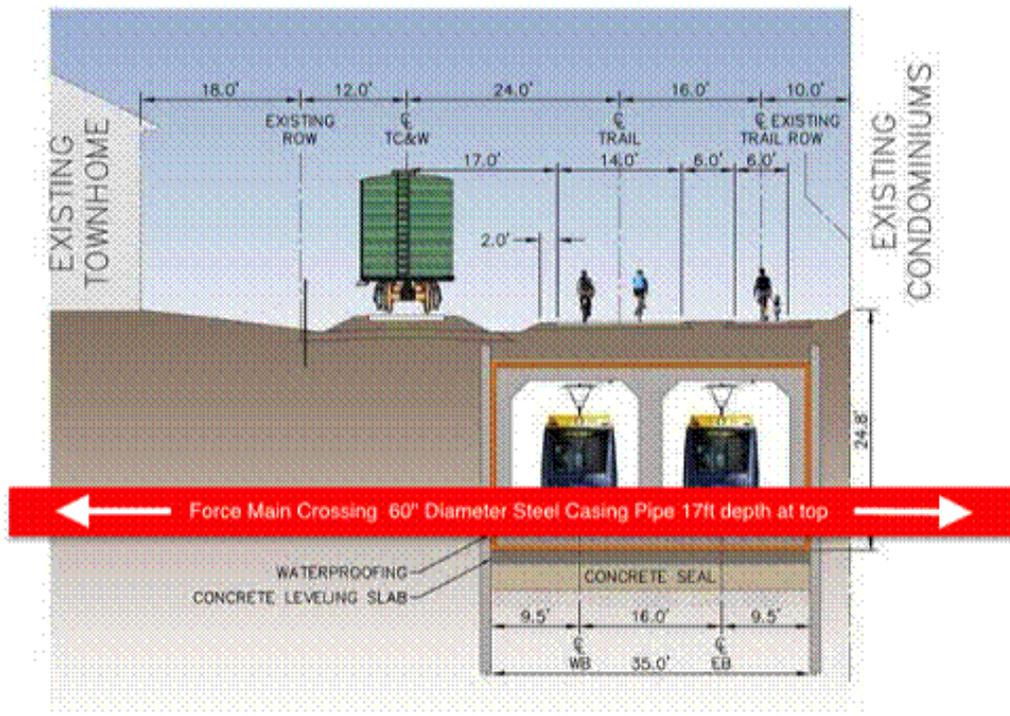


Diagram B – Typical Kenilworth Shallow LRT Tunnel Section per SDEIS

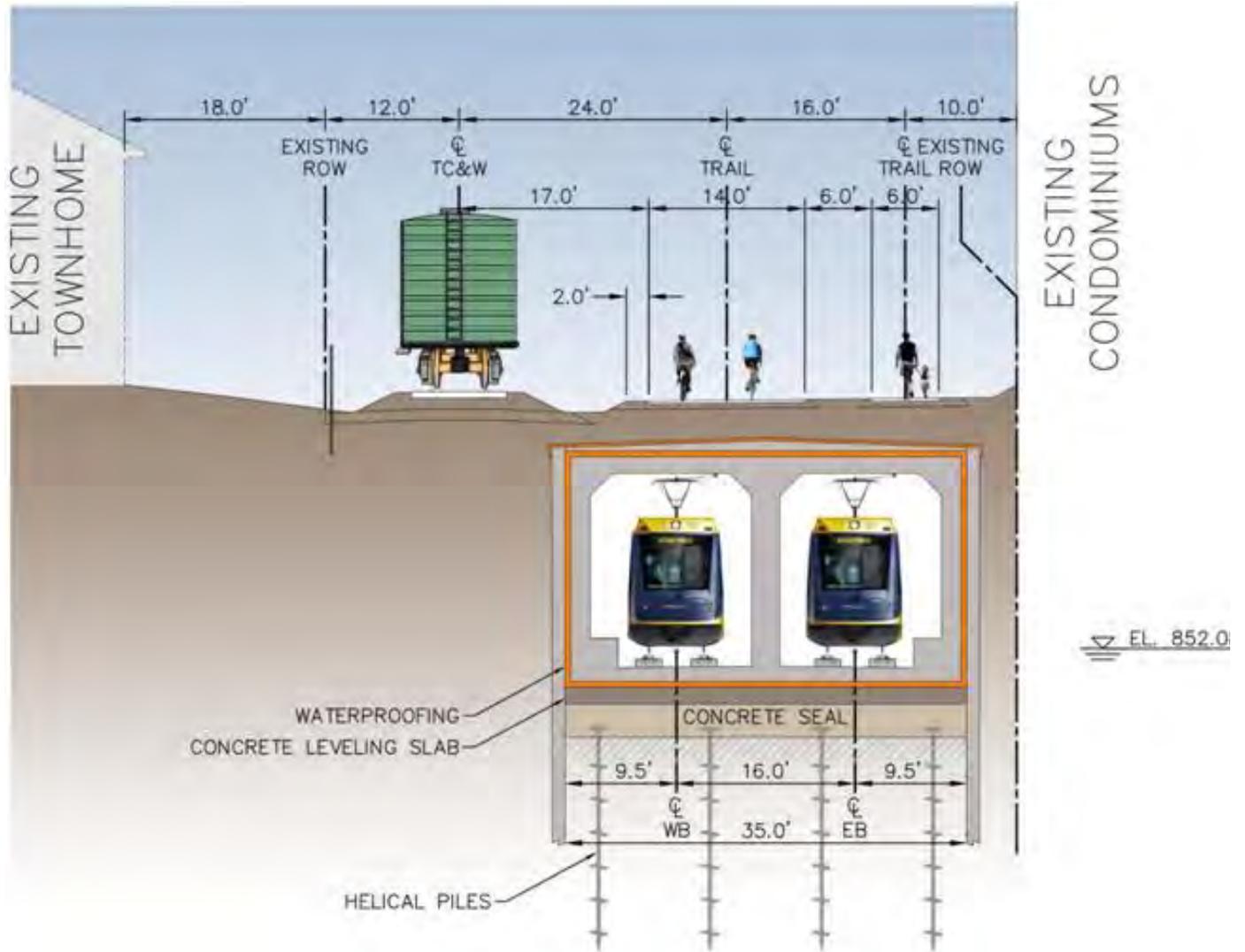
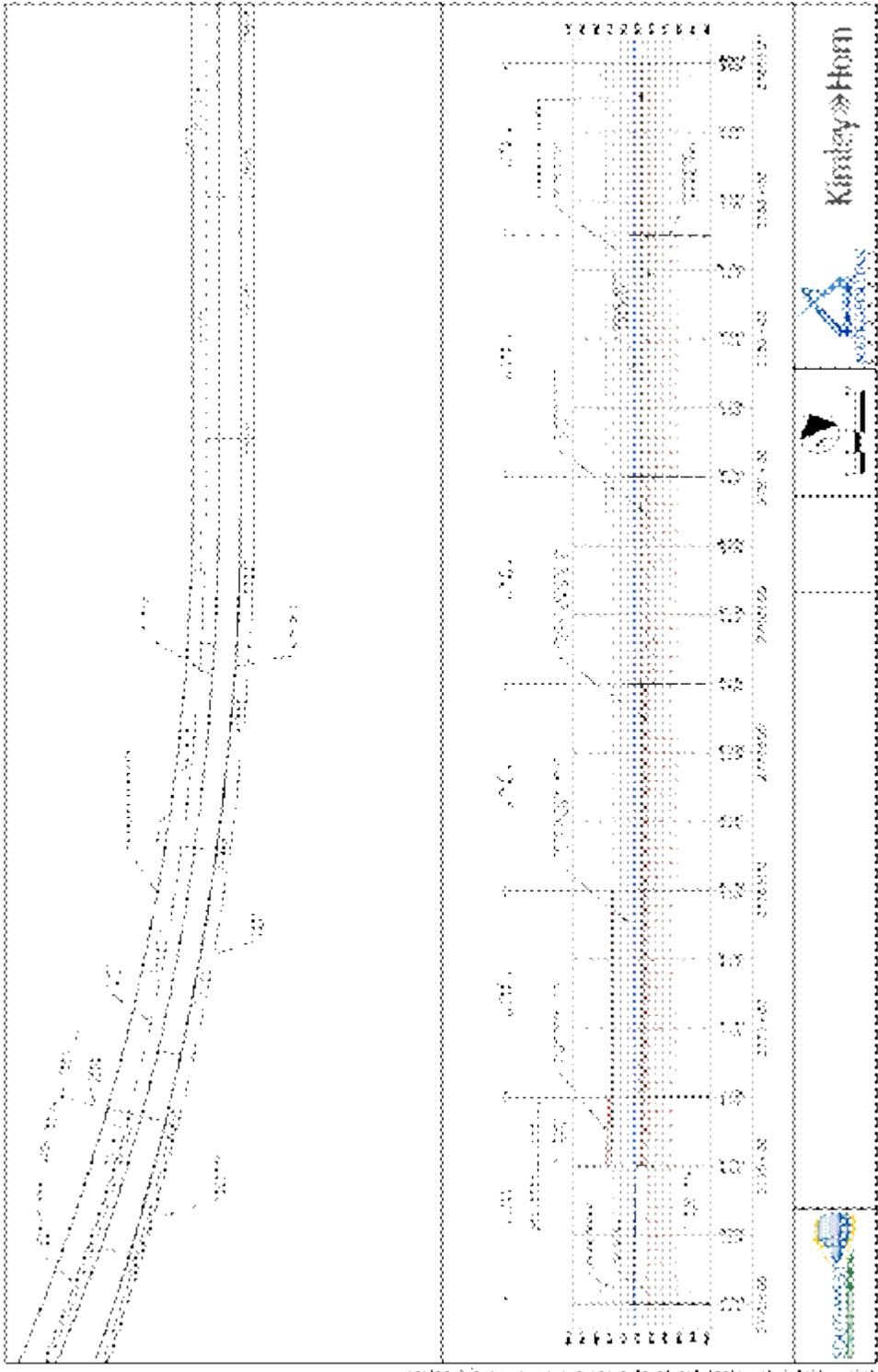


Diagram C - SWLRT South Tunnel Typical Cell Sequencing per SDEIS Note: the helical piles are shown at approximately 820 feet above sea level which is approximately 45 feet below the ground level.



3.4.2.3 AND 3.4.2.3 NOISE AND VIBRATION

Comment: The SDEIS greatly understates both noise and vibration impacts of SWLRT.

- It uses wrong data as the fundamental framework for noise and vibration analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise and vibration data on a scenario that *does* include a freight train, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the [Draft EIS](#) in 2012.”³ *This defect renders the noise and vibration sections of the SDEIS fundamentally flawed and misleading. They need to be reworked with appropriate and correct data.*
- The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporating into the SDEIS.
- The SDEIS effectively ignores the impacts of construction. See more below.

Noise 3.4.2.3

Comment: When the Met Council chose the present route for SWLRT between the Chain of Lakes through the Kenilworth Corridor, and included “co-location” which will make the existing freight rail permanent, the project implicitly accepted the responsibility to respect the natural and built environments that it travels through as well as the people who bike, walk, recreate, and live there. We believe that this responsibility has not been taken seriously and the following describes why.

SWLRT noise impacts substantially minimized: We believe that the SDEIS substantially minimizes the noise impacts associated with the proposed SWLRT. The noise impact of SWLRT in this area of Minneapolis will be highly significant for a number of reasons, but most notably because of the tranquility, recreational, park, and residential use currently existing in and bordering the Corridor. Some have compared the proposed SWLRT route with the Blue Line (Hiawatha) and the Green Line (Central Corridor down University Avenue). But such comparison is inappropriate, since the Blue and Green lines run immediately adjacent to commercial thoroughfares or four-lane roads that carry cars and heavy trucks around the clock. By contrast, the Kenilworth area is a quiet environment, and is part of the **Grand Rounds National Scenic Byway**.⁴ By contrast, the Kenilworth Corridor is a unique, quiet environment, part of the Grand Rounds National Scenic Byway.

The SDEIS coolly states that 24 residences would suffer Severe or Moderate noise impact. Translated, this means the noise of 220 light-rail trains running daily from 4 a.m. to 2 a.m. would fundamentally transform the adjacent neighborhood with near-constant noise and vibration at sound levels up to 106 dBA (the sound of warning bells — equal to the sound of a jet take-off 1,000 feet away). As noted in Appendix H (SDEIS Noise and Vibrations Memoranda), residences are considered Category 2 buildings, with the expectation that sleep occurs there.

The noise levels given in Noise Fact Sheet (Appendix H p. 19) state the following: LRT trains traveling at 45 mph generate maximum typical noise levels of 76 dBA at 50 feet (equivalent to freeway noise at 50 feet), 71 dBA at 100 feet, and 66 dBA at 200 feet. Adding 211-220 LRT three-car trains to the Kenilworth Corridor day and night, each producing such elevated noise levels, would be a severe and overwhelming intrusion, drastically increasing the noise generated. This would hold true even if the only noise increase were from the LRT trains traveling at their stated speed, per the SDEIS, of 45 mph.

³ <http://metro council.org/swlrt/sdeis>

⁴ A National Scenic Byway is a road recognized by the [United States Department of Transportation](#) for one or more of six “intrinsic qualities”: archeological, cultural, historic, natural, recreational, and scenic. Congress established the program in 1991 to preserve and protect the nation’s scenic but often less-traveled roads and promote [tourism](#) and economic development. The National Scenic Byways Program (NSBP) is administered by the [Federal Highway Administration](#) (FHWA).

Our conclusion that the LRT trains in the midst of a residential and recreational area would be an overwhelming intrusion is supported by the analysis below, which assesses the combined impacts of LRT frequency, time of day or night of LRT, and LRT bell noise intensity and frequency identified in Appendix H, SDEIS p.3-13 and p.3-18.

LRTDR Analysis of SDEIS Appendix H Table 1 & p. H-4 Data

- Bells are sounded for 5 seconds prior to grade crossings, as vehicles approach grade crossings, such as the 21st Street in the Kenilworth Corridor
- Grade crossing bells are used at grade crossings for 20 seconds for each train; 21st Street is also a grade crossing.
- Bells are sounded twice at stations — once entering and once exiting station platforms, such as the 21st Station (SDEIS gives no duration. We request the duration of bells sounding when entering and exiting station platforms be made public. This information is needed for accurate noise impacts to be known.
- Total bell time (not counting the brief pause between entering and exiting the station) is known or given as more than 25 seconds per train. It is unknown how much longer than 25 seconds the bells will sound, as exit/enter bell duration is not given in the SDEIS.

WEEKDAYS

Early morning 4:00 AM – 5:30 AM

- 6 to 8 trains per hour equals 9 to 12 trains per day between 4:00 AM and 5:30 AM
- This means 1 SWLRT train at 66 to 76 dBA every 7.5 to 10 minutes
- Would produce 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

Early morning to evening 5:30 AM – 9:00 PM

- 12 SWLRT trains per hour equals 186 trains per day between 5:30 AM and 9:00 PM
- This means 1 SWLRT train every 5 minutes
- Would produce 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA , plus unspecified seconds of bell noise as train enters and exits the station) every 5 minutes.
- At least 10% of every 5 minute period in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise
- *At least 6 minutes of every hour from early morning to 9 PM in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise.*

Evening to early morning 9 PM to 2 AM

9 PM to 11 PM

- 6 to 8 trains per hour equals 12 to 16 trains per evening between 9 PM and 11 PM
- This means 1 SWLRT train every 7.5 to 10 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

11 PM – 12AM

- 2 trains per hour equals 2 trains per night between 11 PM and 12 AM
- This means 1 SWLRT train every 30 minutes
- Would entail 25-plus seconds of bells ((5 seconds 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 30 minutes

Very early morning 12 AM – 2 AM

- 1 to 2 trains per hour equals 2 to 4 trains per day, between 12 AM and 2 AM

- This means 1 SWLRT train every 30 to 60 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 30 to 60 minutes

Very early morning 2 AM – 4 AM

- 2 hours of no LRT trains equals baseline — current noise levels

Total equals 211-220 SWLRT three-car trains per weekday

WEEKENDS

Early morning 4:30 AM to 9 AM

- 6-8 trains per hour equals 26 to 36 trains per day between 4:30 AM and 9 AM
- This means 1 SWLRT train every 7.5 to 10 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

Morning to evening 9 AM – 7 PM

- 12 trains per hour equals 120 trains per day between 9 AM and 7 PM
- This means 1 SWLRT train every 5 minutes
- Would entail at least 25 seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106A dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 5 minutes.
- At least 10% of every 5 minute period in the Kenilworth Corridor would consist of bell noise at 88dBA and 106 dBA
- At least 6 minutes of every hour from early morning to evening in the Kenilworth Corridor will consist of bell noise at 88dBA and 106 dBA

Evening 7 PM to 9 PM

- 8 trains per hour equals 16 trains per day between 7 PM and 9 PM
- This means 1 SWLRT train every 7.5 minutes
- Would entail 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 7.5 minutes

Late evening 9 PM – 11 PM

- 6 – 8 trains per hour equals 12 to 16 trains per day, 9 PM – 11 PM
- 1 SWLRT train every 7.5 – 10 minutes
- 25-plus seconds of bell noise (5 seconds 88 dBA, plus 20 seconds 106 dBA, unspecified seconds of bell noise as train enters and exits the station) every 7.5 to 10 minutes

Late evening 11 PM – 12 AM

- 4 trains per hour equals 4 trains per day between 11 PM and 12 AM
- This means 1 SWLRT train every 15 minutes
- 11 PM to 12 AM weekend train frequency is double the weekday frequency of 11 AM to 12 AM
- Would entail 25-plus seconds of bell noise (5 seconds 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 15 minutes

Very early morning 12 AM to 2 AM

- 2 to 4 trains per hour equals 4-8 trains per day between 12 AM and 2 AM
- This means 1 SWLRT train every 15 to 30 minutes
- 12 AM to 2 AM weekend train frequency is double the weekday frequency of 12 AM to 2 AM
- 25-plus seconds of bell noise (5 seconds at 88 dBA, plus 20 seconds at 106 dBA, plus unspecified seconds of bell noise as train enters and exits the station) every 15 to 30 minutes

Very early morning 2 AM – 4 AM

- No trains — equals current existing conditions

Total equals 180 -195 SWLRT three-car trains every weekend day.

The result of LRT noise would be that the corridor will be permanently changed from a quiet, tranquil area sought by pedestrians, cyclists, and outdoor enthusiasts, and a highly desirable residential area to an area severely disrupted by the noise of a highly mechanized transit route.

Beyond permanently degrading the area, there will be multiple public health consequences of SWLRT noise in the corridor. The impact of repetitive noise intrusion on neighborhood public health will be significant. For example, regarding the obvious potential for sleep interruption caused by SWLRT noise (and there will be more trains during the late evening and early morning weekend hours) a research review published in the December 2014 edition of *Sleep Science*, summarizes:

Emerging evidence that these short-term effects of environmental noise, particularly when the exposure is nocturnal, may be followed by long-term adverse cardio metabolic outcomes. Nocturnal environmental noise may be the most worrying form of noise pollution in terms of its health consequences because of its synergistic direct and indirect (through sleep disturbances acting as a mediator) influence on biological systems. Duration and quality of sleep should thus be regarded as risk factors or markers significantly influenced by the environment. One of the means that should be proposed is avoidance at all costs of sleep disruptions caused by environmental noise.”

The article continues:

The World Health Organization (WHO) has documented seven categories of adverse health and social effects of noise pollution, whether occupational, social or environmental. The latter [sleep disturbance] is considered the most deleterious non-auditory effect because of its impact on quality of life and daytime performance. Environmental noise, especially that caused by transportation means, is a growing problem in our modern cities. A number of cardiovascular risk factors and cardiovascular outcomes have been associated with disturbed sleep: coronary artery calcifications, atherogenic lipid profiles, atherosclerosis, obesity, type 2 diabetes, hypertension, cardiovascular events and increased mortality....during the past year, the relationship between insomnia and psychiatric disorders has come to be considered synergistic, including bi-directional causation.”⁵

There is growing evidence that the opportunity to benefit from greenspace — what some mental health experts have referred to as “soft fascination”⁶— supports social and psychological resources and recovery from stress. The perpetual and repetitive noise from SWLRT would interrupt the restful and restorative experience enjoyed by tens of thousands of people in the Kenilworth Corridor, at nearby beaches, parks, in the Kenilworth Channel and general environs of Lake of the Isles and Cedar Lake. Such opportunities to enjoy nature and relieve stress, though often taken for granted by suburban dwellers, are extremely limited in urban areas, yet equally critical for their mental health.

With healthcare costs and disease prevention being prominent national and local priorities, the economic value of the public health benefit of the Chain of Lakes and Kenilworth Corridor cannot be ignored. *We request a study of the physical and mental*

⁵ *Sleep Science*, Volume 7, Issue 4, December 2014, Pages 209-212

⁶ British Journal of *Sports Medicine* 2012, “The Urban Brain: Analyzing Outdoor Physical Activity with Mobile EEG”

health impacts of the noisy, hyper-mechanization of this currently placid area, which plays a key role in the life and character of our neighborhood and the entire City of Minneapolis.

A. Existing Conditions (p. 3-180)

This section describes existing noise-sensitive land uses in the St. Louis Park/Minneapolis Segment and existing noise levels.

Fundamental defect with baseline noise measurements

Comment: As noted above, the SDEIS uses wrong data as the fundamental framework for noise analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise data on a scenario that *does* include a freight train, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the Draft EIS in 2012.”⁷ *This defect renders the noise section of the SDEIS fundamentally flawed and misleading. It needs to be reworked with appropriate and correct data.*

The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporated into the SDEIS.

Further, since aircraft overflights are generally scarce, the average current noise level per hour is extremely low when averaged over a 24-hour period.

Additionally, there are significant seasonal and weather-related variations in noise levels, which cannot be captured when sound is measured during one 24-hour period in the summer.

Finally, in Appendix H, p.2, it is noted, “noise monitoring was performed at other locations not listed in the table. Those sites will either be addressed in the forthcoming Final EIS or no longer fall within the area where they would be potentially impacted by project noise due to design refinements during Project Development.” Since the purpose of the SDEIS is to inform the public and decision makers, and provide opportunity for comment on all areas of concern, in order to fulfill that NEPA mandate, all measurements that were made and publicly financed should be made public.

B. Potential Noise Impacts

Noise Impacts Measurement Tables (Table 3.4-11, 3.4-12)

Comment: Following FTA noise assessment guidelines, the 76 dBA LRT noise occurring every 5 minutes is measured as having a lower impact than that actual dBA of 76 because the LRT noise is not continuous. Thus, though this quiet urban area will be exposed to an actual repetitive noise of 76-80 dBA day and night, the rating of the impact is lower and measured as only 51 – 64 dBA in Tables 3.4-11, 3.4-12. The significantly lower measurement lessens the determination of findings of impacts, and therefore, whether impacts are determined as non-existent, Moderate or Severe. *This engineering methodology covers up the actual impact on people of loud repetitive noise in a peaceful setting.*

The 25-plus seconds of repetitive bell noise described in the LRTDR Analysis of SDEIS Appendix H Table 1 & p. H-4 Data above does not appear to be included in the SDEIS noise analysis in Tables 3.4-11, 3.4-12, which would clearly increase the severity of noise impact at all locations. The SDEIS also neglects to report and measure the cumulative effect of LRT and freight train noise. This information would likely show that more than 24 residences would be affected; more of them would be impacted at the severe level, and a greater impact on the Kenilworth Channel and Kenilworth Lagoon Bank.

⁷ <http://metro council.org/swlrt/sdeis>

Furthermore, future projected noise levels of LRT and freight will be higher than the projection inputs used by the SDEIS after the clear cutting of trees and vegetation in the corridor, increasing the impact of noise generated by both SWLRT and the freight rail. When utilizing the Source – Path – Receptor FTA noise impact assessment framework, it is clear that the inputs for each of the three parameters are critical and control the outcomes determining the severity of noise impact. Removal of the trees and vegetation eliminates a significant and well-established noise barrier currently in the path of noise from freight and future SWLRT. *The SDEIS does not address the impact of clear-cutting the trees and vegetation in the Kenilworth Corridor on Moderate versus Severe LRT noise impacts.*

Tunnel Swaps Noise for Vibration

As stated in the SDEIS, the tunnel section of the SWLRT is supposed to eliminate “almost all noise impacts within that segment of the corridor.” It must be noted, however, that these noise impacts will be replaced by vibration impacts; see the Vibration Section below.

Analysis of Table 3.4-12

Inaccurate land use designation for the Kenilworth Channel: We strongly challenge the land use designation of the Kenilworth Channel as Category 3. As defined in Appendix H, Category 3 is:

Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, and churches where it is important to avoid interference with such activities as speech and concentration on reading material...

The SDEIS designates the banks of the Kenilworth Channel as falling within the most noise sensitive Category 1. However, as stated above, the Channel itself is not included in that most highly sensitive designation, but instead is classified as “institutional land use.” Category 1 is defined in Appendix H as:

Tracts of land where quiet is an essential element in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheatres and concert pavilions, as well as National Historic Landmarks with significant outdoor use.

The SDEIS states the “grassy area on the banks of the Lagoon” falls within Category 1 due to the “passive and noise sensitive recreational activities that occur there (where quietude is an essential feature of the park).” The designation of Category 1 versus 3 for the Kenilworth Channel appears to hinge excessively on one word — the term “passive” — to describe the activities for which the Channel banks are used. However, quietude is equally and very clearly an essential feature of the Kenilworth Channel itself, whose peaceful though not “passive” activities include canoers and cross country skiers gliding serenely on the water or ice while those on the grassy banks look on. The quietude of the Kenilworth Channel is inseparable from the quietude of its grassy banks; therefore both should be Category 1.

Significantly, the consequences of placing the Kenilworth Channel in Category 3 are 1) that the obligation to mitigate impacts is lowered, and 2) that the threshold to establish severe impact is higher and harder to reach. Had the Kenilworth Channel been accurately designated a Category 1, then the Channel would have been only 1 dBA below “Severe impact.”

Even with the lowering of the land use category of the Kenilworth Channel to a Category 3, the SDEIS finds a moderate impact of the addition of LRT noise. The footnote to SDEIS Table 3.4-12, states that the noise impact increases as one approaches the LRT line and becomes severe when the channel falls within the HCRRA right of way.

While the SDEIS states that the land use categories were made in consultation with the MPRB and MN SHPO, we strongly dispute their coherence and accuracy. If the intention of the SPO is to preserve the character and experience of the Channel, then it must designate it as a Category 1 and then make public the mitigation plans and costs well in advance of the final FEIS.

SWLRT Violates the System of Minneapolis Parks: Horace Cleveland’s visionary master plan, *Suggestions for a System of Parks and Parkways for the City of Minneapolis*, proposed a park system of connecting sites of beauty and natural interest throughout the city, rather than a series of detached open areas or public squares. The vision of a park “system” has guided the Park Board ever since and is one of the primary reasons for the success and national prestige of the Minneapolis Parks. The SDEIS procedure of singling out specific pieces of park for analysis such as Lilac Park, the Kenilworth Channel and its grassy banks runs fundamentally contrary to the underlying vision of a coherent Minneapolis Park System.

*The presence of perpetual, repetitive LRT noise over the Kenilworth Lagoon and throughout the interconnecting parks and lakes woven throughout this area violates the larger system of the Minneapolis Parks.
Site N 17 (p. 3-182)*

21st Street Station Noise Impacts: At the proposed 21st Street Station, crossing and station bells generating a noise level of 106 dBA and LRT bells generating 88 dBA will seriously add to the overall noise levels for 22 hours a day; only between 2:00 a.m. and 4:00 a.m. will neighborhood residents in this area be able to sleep uninterrupted. The LRTDR Analysis of the SDEIS Appendix H Table 1 & p. H-4 given above shows the impact throughout the day and night.

Further, freight trains may need to use their horns to safely cross 21st Street, as is the current case with the “temporary” freight operations. We thus strongly disagree with the characterization of the noise impacts in the 21st Street station area as moderate and limited. “Sensitive receptors” in this area will be subject to train arrivals, departures, signal bells and perhaps horns, seriously eroding the quality of life in the neighborhood and reducing the enjoyment of the recreational trail and Cedar Lake Park for users of these regional amenities.

We believe that the residences with noise impacts deemed “moderate” in the SDEIS will likely experience severe noise impacts without proper mitigation, and that in addition to the residences identified, residences along 21st Street, 22nd Street, and Sheridan Avenues will also experience at least a moderate noise impacts. We further believe that there will be an impact on more residences than the 24 cited in the SDEIS.

Note: The SDEIS misidentifies some of the homes deemed to have a “moderate impact without mitigation” as being on Thomas Avenue South; some of the addresses are actually on Sheridan Avenue South.

LRT Horns are Likely: According to the federal Train Horn Rule⁸, locomotive engineers must sound horns at a minimum of 96 decibels for at least 15 seconds at public highway rail grade crossings. Appendix H indicates that LRT Horns are 99 decibels and are sounded for 20 seconds. The SDEIS states that LRT horns would only be sounded at crossings where speeds exceed 45 mph. Since LRT and freight trains may not reach that speed in the Kenilworth Corridor, presumably no horns would be sounded when LRT vehicles cross 21st Street. Given the volume of pedestrian, bicycle, and car traffic at this crossing, it is not safe to silence LRT horns at this crossing. The noise created by horns sounding for LRT trains at least 96 decibels for a minimum of 15 (or 99dBA for 20) seconds represents a “severe” noise impact and is therefore prohibitively detrimental to quality of life in a residential neighborhood.

Issues Not Addressed in SDEIS Noise 3.4.2.3

Not addressed: Impacts near Portals: Two areas of potential noise impacts do not appear to be adequately addressed by the SDEIS. First, table 3.4-11 does not appear to cover noise that will be experienced by the homes directly behind the SWLRT tracks after it emerges from the tunnel and crosses the Kenilworth Channel. Since LRT on ballast and tie track produces noise at 81 dBA, we believe that those residences will experience noise at the same level as homes on Burnham Road and Thomas Avenue South. Further, Appendix H notes that noise will increase by 1 dBA for homes within 100 feet of the tunnel entrance/exits. We strongly request that noise impacts be determined for those residences and that they be included in consideration for noise mitigation. We further request that the cost of that additional mitigation be included in the costs of the Final DEIS.

Not addressed: Tunnel Ventilation System: Second, noise from the tunnel ventilation systems does not appear to have been considered. The SDEIS states that the tunnel section of the SWLRT is supposed to eliminate “almost all noise impacts within that segment of the corridor.” However, we understand that there will be ventilation fans connected to the tunnels as well as a ventilation “building” planned near Cedar Lake Parkway. The SDEIS neglects assessment of the noise impacts from such a ventilation system, and this information is critical to determining whether the proposed tunnel would have a positive or negative environmental impact.

Policy-makers and citizens need adequate information on the noise impacts of both the vents and the ventilation building before proceeding with tunnel construction. Appendix H indicates that the fans will operate only on an emergency basis, but we do not see any mention of the ventilation building in the SDEIS. We request clarity on the amount of time each day that they will be operational and creating noise impacts, and the dBA of each.

Not addressed: Freight Operations: The existing freight operations, intended to be temporary, are being made permanent. The noise generated by these trains, which often have three or four engines, must be measured and considered in the overall assessment of noise impacts of the SWLRT project.

The SDEIS simply states that the noise issues described above will be addressed in the Final EIS and that they will be mitigated. *We take the strong view that now is the critical and only time to prove that mitigating the noise issues we have described is possible and that the cost of such mitigation is in the budget.*

3.4.2.4 Vibration

LONG-TERM DIRECT AND INDIRECT VIBRATION IMPACTS

Comment: The SDEIS states, “There are no vibration impacts in this segment [of the SWLRT route]” This claim is not credible in view of advice provided in *Transit Noise and Vibration Impact Assessment*, the FTA’s own guidance manual presenting procedures for predicting and assessing noise and vibration impacts of proposed mass transit projects:

Vibration from freight trains can be a consideration for FTA-assisted projects when a new transit line will share an existing freight train right-of-way. Relocating the freight tracks within the right-of-way to make room for the transit tracks must be considered a direct impact of the transit system, which must be evaluated as part of the proposed project. However, vibration mitigation is very difficult to implement on tracks where trains with heavy axle loads will be operating.”⁹

The SDEIS says that 54 residences¹⁰ in the “St. Louis Park/Minneapolis” segment (note that all of them are within Minneapolis) will be impacted by the ground-borne noise. This is an unacceptable level of impact on those 54 families.

According to Appendix H, which addresses both noise and vibration, the table titled Typical Maximum Noise Levels (dBA) on page H-19 quantifies the dBA for LRT, freight and then lawnmowers and buses idling. The dBA for freight rail in that same table is shown for a speed of 20 MPH. The freight in the Kenilworth Corridor travels at a maximum of 10 MPH. For comparison purposes, the assessment should use the dBA of freight trains traveling at 10 mph. Use of the sound impact from a train travelling twice as fast (20 mph) as the current speed in the corridor understates the current noise level (from freight), thereby minimizing the impact and differential from the LRT trains.

Regardless of whether the residences are impacted by vibration from the tunnels or from the noise which is flagged as a “Residential Annoyance” in the tables in Appendix H, the fact that these “annoyances” will occur incessantly — 220 times per day starting at 4 a.m. and continuing to 2 a.m. — means the impact on those residents will be significant and should be considered “severe”. This is very unlike the impact of the freight trains: they may in some cases may be louder than the LRT, but there are only one or two of them per day — often not during the night hours — and then they are gone.

Regarding ground-borne vibration and noise, it should be noted that the impacts projected might underestimate real-world impacts, which could be more annoying than assumed. The FDA manual states: ¹¹

...the degree of [ground-borne vibration and noise] annoyance cannot always be explained by the magnitude of the vibration alone. In some cases the complaints are associated with measured vibration that is lower than the perception threshold.

⁹ Chapter 7: *Basic Ground-Borne Vibration Concepts*, 7-9

¹⁰ All of them are Category 2 receivers: “residences and buildings where people normally sleep.”

¹¹ Chapter 7: *Basic Ground-Borne Vibration Concepts*, 7-6

SHORT-TERM VIBRATION IMPACTS

The SDEIS all but ignores construction-related ground-borne noise (vibration) — except for a single, dismissive comment: “Short-term vibration impacts are those that might occur during construction of the LPA while jackhammers, rock drills, and impact pile-drivers are being used.” Within weeks of this writing, impact pile-driving on the former Tryg’s restaurant site in the West Lake Station area caused serious damage to the Loop Calhoun condominiums, as well as some level of damage to the Cedar-Isles Condominiums. The contractor, Trammel Crow, had to halt the project and extract the piles, since going forward was deemed to be catastrophic. Yet, the pile driving entailed in building the SWLRT tunnel would take place much closer to these and other condominiums, duplexes and apartment houses. The Trammel Crow incident seems to strongly predict a risk of significant construction-related damage to the homes of hundreds of people who live along the corridor where impact pile driving for SWLRT is planned. The SDEIS does not address this problem.

Furthermore, the recent Met Council sewer project completed in this area caused damage to homes located beyond the “expected” range of distance from construction. Residents who attempted to get compensation for the damage were often told by the Met Council to take the matter up with their own insurance companies rather than through the contractors whose work caused the damage. A specific liability plan and budget should be included in the SWLRT project cost estimates. There is a “contingency” line item in the budget, but it should be reserved for genuinely unpredictable costs that arise during the construction, and not for costs that could be, should be, and even are anticipated.

Construction-related vibration impacts could well extend beyond the construction period itself. Damage incurred during construction may not be initially apparent, and could show up months or even years later.

Further study is needed of:

- 1) The effects of various pile-driving alternatives on the many at-risk structures
- 2) The costs involved with each of those alternatives;
- 3) The geology of the area, and its ability to support the construction process.

MITIGATION

The SDEIS promises mitigation of a number of vibration problems. However, the failure of Met Council mitigation measures taken to address LRT problems experienced by the University of Minnesota and Minnesota Public Radio cast abundant doubt on whether they will be effective here.

With respect to the vibration mitigation (to be further detailed in the Final DEIS), the measures suggested in Appendix H appear to be inapplicable to the many residences that would be affected. The SDEIS describes isolated tables and floating floors. It’s hard to imagine a retrofit of the residences impacted by the vibration affects utilizing “floating floors.” If this is the intent of the mitigation planned for the SWLRT, a cost estimate of the retrofit of all the residences should be included in the Final DEIS.

3.4.2.5 Hazardous and Contaminated Materials

Long-term Direct and Indirect Hazardous and Contaminated Materials Impacts

- Permanent pumping of contaminated groundwater
- Impacts of disturbance of dangers in soils that may have long term health impacts on children and vulnerable adults
- Not covered in the SDEIS is the co-location of SWLRT in close proximity to hazardous and explosive materials being carried by the railroad.

SHORT TERM

The DEIS called for Phase I ESA to be completed, and it was completed in August 2013. It was not made public by the Met Council until May 19, 2015, and indicates many potentially hazardous and contaminated sites along the alignment. It is reasonable to expect to encounter extensive contamination in the Kenilworth Corridor. In addition to being home to several railroad tracks, the Kenilworth Corridor was home to a maintenance yard, blacksmith and boiler shops, a diesel shop and a 90,000-gallon fuel storage facility. In addition, the land was used as a dump — a common practice of the time, and it is likely that arsenic will be among the dangers encountered, requiring special remediation.

The Phase II Environmental Site Assessment (ESA) is said to be near completion; the report must be made available for public review and comment as soon as it is available. The SDEIS says it is “reasonable to expect that previously undocumented soil or

groundwater contamination may be encountered during construction.” It is unclear if any findings in the Phase II ESA have been incorporated into the cost increase recently made public.

The cost of such remediation is unknown and has not been included in the cost estimates. Several sections of the alignment have been designated part of the MPCA Brownfields Program. In the best-case scenario, they will not require much remediation; in the worst case, they will become a Superfund site, requiring significant and expensive remediation.

We attempted to receive budget information that would indicate what amount of the increase in the budget from \$1.65 billion to \$1.99 billion was earmarked for remediation in this corridor. However, the SW Project Office provided only the highest, most general, level of information, claiming that they do not track the line items for things like soil remediation on a segment-by-segment basis, but only in total for the project.

We believe that remediation will require a Construction Contingency Plan above and beyond the general Contingency budget line item. The cost of such a Contingency Plan for Remediation should be included in the project budget.

3.4.3 Economic Effects

Long-Term Direct and Indirect Economic Impacts

Comment: LRT Done Right disputes the statement that SWLRT will positively impact property values, especially around the 21st Street station and Channel. The current freight alignment in the Kenilworth Corridor is already a negative and permanent defect affecting the value of properties along the line, one that would only be magnified by co-location of SWLRT. This is precisely why some residents argued against co-location. The threat of a collision and derailment — such incidents are gaining increased attention in the news media — will in all likelihood increase the scrutiny of buyers as they evaluate the Kenilworth area as an investment and home for their families. Further, the increased noise, vibration, and (nighttime) light from SWLRT, without the previously promised removal of freight rail, would exponentially increase aesthetic disturbance in a neighborhood that until now has been desirable for its park-like feel and up-north atmosphere. The increased adverse effects of co-location will represent a permanent defect to homes within earshot and sight of the line; based on the audible sounds of the current freight line, auditory adverse effects would reach as far as Lake of the Isles Parkway, but those sounds would no longer be the low rumble of freight, but a much more disruptive cacophony of bells and horns.

Further, while studies such as rtd-fastracks.com and others show that access to light rail can increase property values in areas of high density, especially in transient (apartment-filled), younger, urban neighborhoods, the area around the Kenilworth corridor does not wholly represent those attributes. The study mentioned, among others, shows that higher income and low-density neighborhoods, which also comprise this neighborhood, do not experience the same positive impact on property values and rentals as do lower-to-middle-income neighborhoods where public transit is more generally used.

While the Met Council’s 1,600 rides-per-day estimate is unrealistic and unsubstantiated, there will nonetheless be an adverse impact from those who do park in the neighborhood to access the station, resulting in residents closest to the station losing street parking in front of their homes. This would be a disincentive to potential buyers, and negatively impact home values.

We do not support changing the character of the neighborhood with dense development (with the exception of the West Lake Station area, assuming that land is available). Such development would not be feasible on any meaningful scale due to the mature and stable nature of the neighborhood and minimal available free space. Development would denigrate the existing green space in the corridor, especially around the 21st Street station, which is the access point for the beach and trail access for the neighborhood.

We believe the negative economic impact on the entire “brand” of the City of Minneapolis incurred by running a divisive, noisy, and environmentally unsound line through one of the crown jewels of “The City of Lakes” park area will forever have a negative impact on tourism as LRT will disturb the current serenity of the channel, lagoon and lake. The larger, oppressive, industrial-scale bridge will downgrade the experience currently enjoyed by kayakers, walkers, bikers, etc., and cause tourists to leave the city to obtain that natural experience they once enjoyed in Minneapolis.

Finally, we have identified a number of issues not recognized in the SDEIS that will require, by our calculation, initially at least \$13 million to \$24 million of investment above and beyond the projected \$1.65 billion budget goal, and additional costs in perpetuity.

- *\$1 million to \$5 million* — For permanent dewatering of contaminated soils; this will require an extra sewer line in Kenilworth. The City of Minneapolis will need to approve this, since it owns the sewer. The city did not approve this for the 1800 Lake building and went to court over it; would they approve it, on a much larger scale, for SWLRT?
- *\$5 million to \$10 million*: For polluted soil removals. Known polluted soil conditions will require mitigation of thousands of tons of soil, but since the extent of pollution is unknown, the cost may be much higher. This cost will likely be in the millions for Kenilworth section alone; MPCA will need to approve and may add scope/cost.
- *Unknown millions*: For construction-related damage to existing buildings, including possible buy-out of impacted buildings. We understand that there is no way to guarantee that the Calhoun Isles Condominium towers will not be damaged by construction beneath their foundations. What is the current value of these condos?
- *\$3 million to \$5 million*: For relocation of existing sewer force main, pump station, ongoing operational costs of a new pump station.
- *\$4 million annually*: In lost property tax revenues. Approximately \$2 billion of the City of Minneapolis' net \$35 billion tax base is located within 1,000 feet of the Kenilworth Corridor. Most of this \$2 billion is commercial property taxed at 4 percent of value and some is from some of the city's highest-priced homes. Annual taxes from these properties are about \$80,000,000. A decline of just 5 percent in property tax value in this area would equate to an annual loss of \$4,000,000 per year to the City of Minneapolis. Forever. The Met Council would be clobbering one of the golden geese that currently supports Minneapolis Equity Transfer Payments. This area is built out already and limited by zoning from growing further, so there is no net benefit to the city if there is no new growth.

We therefore dispute and challenge the SDEIS statement that mitigation for economic impacts is not warranted for the Kenilworth Corridor, particularly in the absence of any plausible property impact study.

3.4.4.2 Roadway and Traffic

Comment: LRT Done Right is concerned about emergency access being reduced 12 times per hour to East Cedar Lake Beach and the residences on Upton Avenue S. The freight train, which was originally to be removed, coupled with the light rail line, will exponentially impair access further. We see no possible way to mitigate this impact even beyond the measures that are mentioned in the SDEIS.

3.4.4.3 Parking

Comment: LRT Done Right is concerned that there is complete disregard in the SDEIS for the impairment of on street parking availability in its neighborhoods for residents and their guests. as well as emergency access to those homes, especially in winter when streets are narrowed. LRTDR strongly opposes any park and ride lots as that would significantly impair the parklands and would not be compliant with Minneapolis city policy.

3.4.4.4 Freight Rail

A. Existing Conditions

Comment: It is very troubling that, contrary to all previous planning, the SDEIS now claims that the need "to develop and maintain a balanced economically competitive multimodal freight rail system" as a justification for the Southwest light rail project (page 1-1). With little public awareness of this new "need," the project has morphed so that approximately \$200 million in local and federal *transit* dollars will be used to improve *freight* rail.

In 1998, when freight was reintroduced to the Kenilworth Corridor, freight was to be a temporary alignment until light rail could be built. All along, this promise was made to the City of Minneapolis, the Cedar Isles Dean neighborhood, the Kenwood neighborhood, and others as a basis for agreement to the project. That none of the responsible parties, including elected officials who are still deeply involved in the SWLRT planning process, secured appropriate legal documentation of this agreement at the time is beyond disturbing.

The 2005-2007 Alternatives Analysis assumed that “freight would be relocated to make way for light rail.” Since freight was not taken into account at this stage, neither Hennepin County nor the Met Council conducted an honest and realistic analysis of alternative ways to serve the southwest suburbs’ transit needs. The financial, political, and environmental costs of addressing freight rail in the Kenilworth Corridor were not considered.

When the Locally Preferred Alternative (LPA) was selected in 2009-2010 under the assumption that freight rail would be relocated and that LRT would run at-grade in Kenilworth, the costs and concerns of freight relocation were again not addressed.

The Project Scoping Report for the 2012 Draft Environmental Impact Statement said clearly, “Freight Rail is independent of the Study.” Although the Federal Transit Administration (FTA) noted this erroneous assumption when it approved preliminary engineering, neither Hennepin County nor Met Council ever amended the project scope to include freight rail.

The Municipal Consent process was designed so that once a project’s elements and impacts are known, public officials can make informed decisions. However, since freight co-location with LRT and tunneling were never part of the original LPA and subsequent DEIS, the City of Minneapolis was pushed in 2014, under threat of project cancellation, to grant municipal consent without foreknowledge of the risks to both community and environmental safety.

Now this SDEIS is similarly devoid of important human and environmental safety information around co-location of freight and SWLRT. It is remarkable more for what is **not** included than what is included. Substantive issues remain unexamined, especially in Sections 3.4.4.4 (Freight Rail) and 3.4.4.6 (Safety and Security). The SDEIS only addresses the effects of LRT on freight rail (mostly economic impacts to minimize time lags on freight during construction), not the environmental and safety effects of co-location of freight and light rail through the corridor. It says nothing about substantive safety concerns of co-locating high-hazard freight feet from LRT construction and LRT trains in operation.

Kenilworth — and the SWLRT with co-location — is in the “Blast Zone.”



Nationwide, communities are becoming increasingly aware of high hazard freight – often referred to as “bomb trains” — operating in their midst. High-hazard trains have long run through our towns and cities, but never with the frequency nor the amount of dangerous materials now being hauled. Running such trains through any populous areas is undesirable and puts many human lives within a “blast zone,” running 1/4-1/2 mile on either side of the track.

The Kenilworth corridor is a high-risk evacuation blast zone.



Below are two representations of the Blast Zone. The map applies the definition of the Blast Zone, as commonly defined by many national groups with interest in the issue, and the chart depicts the number of residents in the blast zone. Each green circle represents 100 residents.

- THIS IS THE BLAST ZONE -

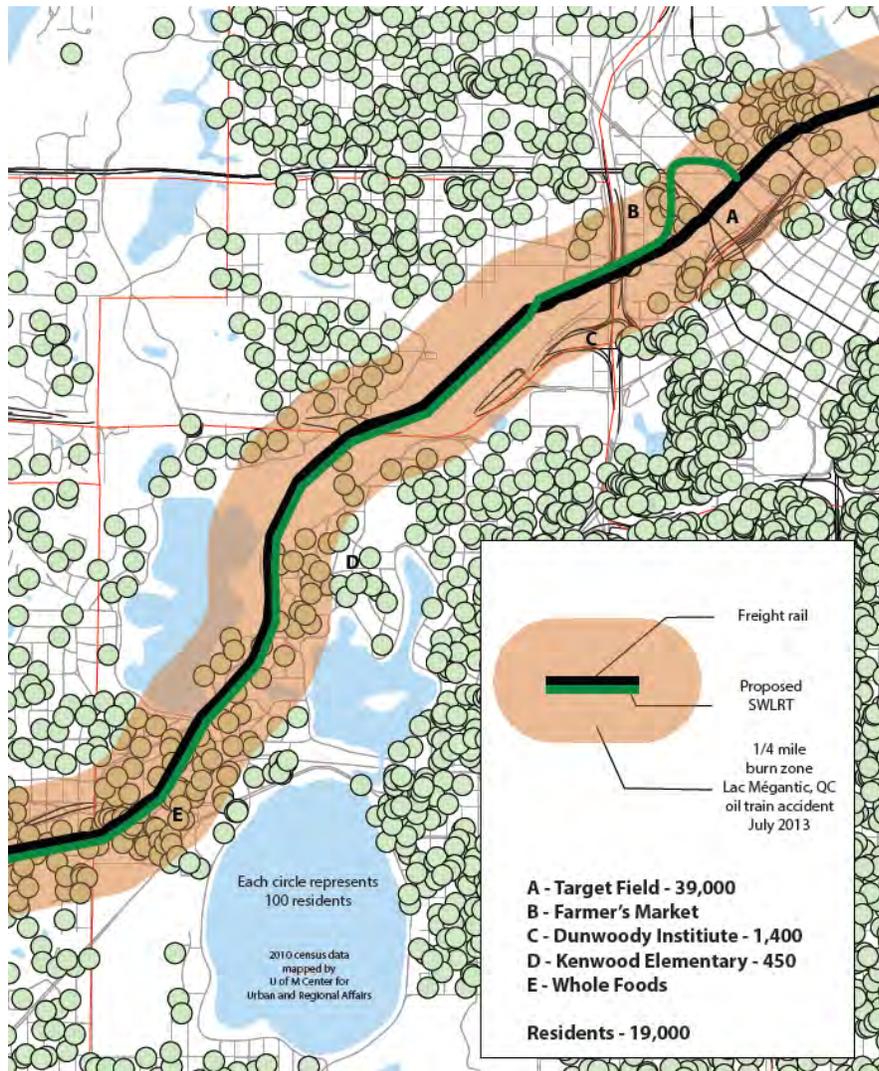
SWLRT co-location with high hazard freight trains in the Kenilworth corridor



Ethanol and Oil Train Disasters:



Population density map of the Blast Zone – Kenilworth Corridor. Please note that the blast zone includes Target Field.



Comment: Freight railroads have radically changed since the reintroduction of freight into the Kenilworth Corridor. The federal mandates on ethanol, the running of unit trains carrying single high-hazard products, and the use of much longer trains have increased freight safety concerns. The privately owned TC&W is currently the only freight company that is allowed to take trains through the corridor, but it can connect to any other carrier and currently partners with Canadian Pacific to carry its products through Kenilworth. Federal rail policy requires that the interests of freight rail operators and shippers be considered in the development of passenger rail service.

In order to provide elected officials, policy makers, and members of the public with current, factual, and supportable information about the impact of TC&W and its operations, TC&W commissioned a study in 2013. According to this report by Klas Robinson,¹² "TC&W provides rail service to numerous companies in Minnesota and neighboring South Dakota, hauling such diverse products as corn, soybeans, wheat, sugar, vegetables, ethanol, crushed rock, metals, plastics, potash, fuel oil, distillers oil, machinery, lumber, manufactured goods, propane and fertilizer, including anhydrous ammonia." Ethanol, propane, fuel oil and fertilizers are all high-hazard products. Distiller's oil and potash are also *flammables*. Exposure to even small amounts of anhydrous ammonia

¹² *Economic Impact of TC&W Railroad's Freight Operations*, September 2013; <http://tcwr.net/wp-content/uploads/2013/10/TCW-Impact-Final>.

can cause serious burning of the eyes, nose, and throat. Exposure to higher levels causes coughing or choking and can cause death from a swollen throat or from chemical burns to the lungs. A single tanker car of anhydrous ammonia can put hundreds or even thousands of area residents at risk in case of derailment and breach.

Through 2012, the report says, “customers of Twin Cities & Western Railroad Company and its affiliates shipped more than 23,400 cars, including almost 17,700 cars on TC&W and over another 5,700 cars on a short line railroad that uses TC&W to reach the Twin Cities.” That number continues to expand annually, with “the number of monthly cars shipped on TC&W during the first four months of 2013 significantly higher than for the same periods in each of the three prior years — almost twice that of first quarter 2012 (94.0 percent greater), almost 40.0 percent higher than first quarter 2011 and 70.0 percent greater than first quarter 2010.” As the economy continues to improve since the recession of 2008, we can expect that the number of train cars and the frequency of trains will increase. According to the Minnesota Department of Agriculture, between 2000 and 2011, ethanol production in Minnesota increased by over 5 times and each subsequent year has continued this trend. With the nation-wide federal mandate to increase ethanol in gas to 20 percent, we can also expect the production and transport of these high-hazard products through the corridor to increase dramatically. It is clear that the TC&W that was temporarily reintroduced in the corridor in 1998 is not the TC&W that runs through the corridor now.

According to TC&W, they “have Class I rail connections to Canadian Pacific, Union Pacific, BNSF Railway and Canadian National, reaching markets in 39 U.S. states, seven Canadian provinces and four Mexican states.” Their network would potentially allow them to carry anything including nuclear products, Bakken Oil, anhydrous ammonia, chlorine, and other hazardous freight. Common Carrier freight legislation requires that shippers (currently TC&W and CP) carry anything that their customers demand. Additionally, *at any point TC&W could sell their company to one of the major railroads*, such as BNSF, which could generate 10 times as much traffic and introduce exponentially more hazardous materials into the corridor. *Making freight rail permanent in Kenilworth increases the chance that this will happen.*

The Pipeline Hazardous Materials Safety Administration (PHMSA) controls the safety of freight trains. Historically, PHMSA standards have been lax, prioritizing commerce over safety and the environment. Recently, after public pressure, PHMSA has toughened safety standards for most railroads. ***Please see LRT Done Right’s prior correspondence on this matter at the end of this response, starting on page 38.***

However, TC&W, which is a Class III rail carrier (a short line with lower revenues), has been and continues to be exempted from certain safety standards that guide more profitable and larger Class I and II railroads. Ethanol is carried in DOT-111s and this type of car will not be banned, according to PHMSA for another 5-7 years. Railroads have lobbied heavily to remove current and future regulations on them to maximize their profits, including recently passed braking mechanisms on the hazardous cars. They have lobbied to go from two-person crews to one- or two-person crews. A single-person crew would reduce safety due to overload, fatigue, etc. And railroads have fought to delay the introduction of safer double-hulled tanker cars and to continue to carry their hazardous cargo in dangerous substandard DOT-111 freight tanker cars. Freight infrastructure has suffered, and nearly all derailments are due to substandard equipment, track failure or operator error. Some new PHMSA standards that attempt to improve safety of hazardous freight *may not even apply to TC&W due to their Class III status*. Class III railroads also have less money to invest in infrastructure, and it is clear that this railroad has infrastructure issues, experiencing a derailment in 2010. Despite replacement of rails to single-weld track in 2012, TC&W still suffers from infrastructure issues, like rotting cross ties, missing rail plates and the missing rail spikes that hold the rails in place. From May 2015 to July 2015, deep potholes have bordered the track at the Cedar Lake Parkway crossing, and have gone unfixed despite calls to TC&W and MNDOT.

The mix of commodities that TC&W carries has changed over time, with approximately 30 percent of TC&W’s freight being ethanol. It has only been in the last 5 to 10 years that unit trains of a single commodity have been a common occurrence. Prior to that, manifest trains, carrying a variety of commodities were much more common. *Unit trains of 100 cars of ethanol*, a highly flammable product, now frequently traverse the corridor. Through the planning process, the Met Council repeatedly told members of the public that the primary products carried by freight through Kenilworth were agricultural — which sounds innocuous enough. But while ethanol may be an agricultural product, it is hardly innocuous. According to Karl Alexy of the FRA, ethanol is more dangerous than most crude oils, with a lower ignition point, and higher explosive potential. Its Hazard Packing Group rating (II) is higher than most crude oil (because of its explosive potential). With respect to oil, only Bakken Crude matches its danger due to the high level of byproducts added to Bakken oil and its consequent instability. Ethanol burns hot enough (3,488 degrees F) to melt steel structures. The freight through Kenilworth currently runs only feet from bridges and mere inches from a high-rise condominium that would be vulnerable in the case of a derailment.

The Freight Rail Administration (FRA) estimates that there will be at least 10 to 20 oil or ethanol derailments per year going forward. Nationwide, we had over 7,000 train derailments of some kind in 2014. *These concerns are not just theoretical.*

Further, *we strongly object to the Met Council requesting that the FRA abdicate its jurisdiction over freight rail* in the Kenilworth Corridor and elsewhere along the SWLRT line. The Met Council has requested waivers from the FRA to put jurisdiction of the co-located corridor under FTA. We have no evidence that the Met Council or the FTA are qualified to oversee the combination of LRT and freight rail in the same corridor, particularly in such close proximity. We are extremely concerned that the FRA may be relinquishing its jurisdiction, except for five named at-grade crossings where both freight and LRT cross together, and even here the Met Council could apply for a crossing waiver.

The existence of freight alone is of great concern to residents and users of the Kenilworth Corridor. The construction of SWLRT running right next to high hazard freight is alarming. *None of these facts or concerns is reflected in the current SDEIS.*

B. Potential Freight Rail Impacts

Long-term direct and Indirect Freight Rail Impacts

For reference to LRT Done Right's commitment to freight safety in the Kenilworth Corridor, please see the addendum at the end of this response.

Comment: Hazardous freight has become a nationwide problem. By choosing to co-locate freight and light rail, despite all previous planning, the Met Council is choosing to exacerbate this problem in the Kenilworth Corridor. The addition of LRT to a corridor that does not meet the minimum American Railway Engineering and Maintenance-of-Way Association (AREMA) safety guidelines of a 25-foot separation center-to-center rail is shockingly unsound. In fact, AREMA now recommends a 200-foot separation as optimal. Although narrow corridors that contain both freight and passenger trains and do not meet minimum safety standards currently exist in parts of our country, an increasing awareness of freight dangers has meant that going forward, communities are much more exacting with regard to safety standards and meeting minimum AREMA guidelines. In fact, we can find no other project currently under construction that won't meet at least the minimum 25-foot grade separations. *The SWLRT project does not meet current AREMA best practices.*

The many risks of running freight next to LRT are unmentioned in the SDEIS, even though we know that the majority of freight or LRT derailments are either track failures or operator error. There is nothing in the SDEIS that deals with an *evaluation of risk or readiness of dealing with a derailment*, especially of a high-hazard product.

LRT catenary wires that regularly spark off the pantographs will run in some places 10 to 15 feet from freight trains. In 2014 alone, FRA reported 43 "accidents" in the United States related to pantographs. There was one in St. Paul within the last few months. Even with the eventual placement of crash walls, catenary electrification would run immediately adjacent to highly flammable unit trains (80 to 125 tanker cars) of ethanol. Ethanol is vulnerable to ignition by electrostatic charges and has a higher ignitability than most forms of crude oil. Vents at the top of ethanol tanker cars will run close to those electric wires.

TC&W and C&P trains use DOT-111 tanker cars. These trains regularly traverse the Kenilworth Corridor carrying ethanol, fuel oil, propane, fertilizers (including anhydrous ammonia), distillers' oil, and potash. These old-generation tanker cars have single hulls prone to thermal tears and punctures, and leaky valves. They are more likely to tear or puncture than newer generation replacements like the double-hulled DOT 117s. The National Transportation Safety Board (NTSB) discovered problems 24 years ago with DOT-111 tankers but USDOT did nothing. In 2012, the NTSB called for an immediate ban on using these tank cars to ship high-hazard products like ethanol and crude oil because they are prone to punctures, spills, fires, and explosions in train derailments. Two in three tank cars used to transport crude oil and ethanol in the U.S. are DOT-111s, yet the DOT has taken no action beyond issuing a safety advisory urging shippers to use the safest tank cars in their fleets to the extent feasible. Only recently has PHMSA come out with new regulations to replace these dangerous tankers over a six-year time period. Loopholes exist in the regulations, however, making it all but certain that single-hulled DOT-111s trains will continue through Kenilworth for years to come.

Another serious concern with freight is the misclassification of rail cars. PHMSA first launched Operation Classification in the summer of 2013, in response to increased activity in the Bakken region. Initial testing has revealed that 61 percent of high-

hazard oil was misclassified. Sometimes the train manifest may not actually reflect what being transported by the freight. The extent of misclassification of TC&W's rail cars is not currently known.

According to the Department of Homeland Security, high-hazard train tankers are vulnerable to terroristic threats. The proposed electrically-powered SWLRT would run adjacent to ethanol-bearing freight through St. Louis Park and the Kenilworth Corridor all the way into downtown. Around the area of Dunwoody, the TC&W tracks merge with those of BNSF tracks, which have been documented as carrying crude oil.¹³ Farther on, the freight trains (some carrying ethanol and some carrying Bakken crude oil) join LRT and Northstar Commuter rail in tri-location, until they stop at the Target Station. Thus, while ethanol and crude oil trains already represent risks to Twins Stadium and Target Station, the addition of LRT would expose even more people to potential danger.

The Department of Homeland Security identifies places like the Twins Stadium and the Target Station as high-value targets vulnerable to terrorism. The co-location of freight and passenger trains carrying 10,000 thousand tons of highly combustible products underneath the Twins Stadium and to the Target station is a disaster that can and should be prevented. Were high-hazard freight not running through this corridor, as was originally envisioned with relocation of freight, then the concerns of terrorism would be diminished. However, tri-location of high hazard freight, Northstar commuter trains and SWLRT near to and underneath the Twins Stadium to the Target Station is planning gone awry. If we believe that terror groups are unaware of these high value target vulnerabilities in our system, we are likely sadly mistaken. Regarding the multiplicative risks and risk readiness related to tri-location of high-hazard freight, Northstar, and SWLRT under the Twins Stadium and to the Target Station, the SDEIS contains no acknowledgement.

In fact, even after a multitude of concerns were raised by the City of St. Louis Park and its residents in response to the relocation of freight proposed the 2012 DEIS, *the current SDEIS does not contain one word acknowledging high-hazard freight through Kenilworth*. There is evidently no safety plan should an ethanol or other hazardous materials freight derailment to occur, and no containment and recovery planning should a disaster encroach on the tunnel and/or spill in to the Minneapolis Chain of Lakes.

Hennepin County, the Met Council and the State of Minnesota have little power going forward in determining whether or not TC&W's model of business changes in ways that would increase risk. They also have no ability to intervene if TC&W should choose to sell. These risks to the Kenilworth area are only likely to increase as federal mandates to increase the mix of ethanol from 10 percent to 20 percent in gasoline mixtures are initiated. TC&W could choose to sell, likely to BNSF, likely increasing the frequency and length of trains in this corridor and transportation of an even greater mix of hazardous chemicals.

Currently, TC&W reports that trains go 10 miles per hour through the Kenilworth Corridor, but this is voluntary, not mandated. Going forward, the company may choose to sell to a company that does not respect this speed limit or TC&W may decide to increase speeds. The necessity of slow freight (even beyond the LRT construction period) is critical in an urban recreational corridor and a *long-term enforceable agreement with the freight operator and the Hennepin County Regional Rail Authority should be considered as part of this project*.

Further, heavy freight causes vibrations that travel through the ground. The ground substructures affect vibrations, with waterlogged soils tending to increase those vibrations. We see no evidence that the potential for long-term damage to LRT structures from vibrations of heavy freight – and the related long-term costs in terms of maintenance dollars and human safety – have been considered. Potential damage to residences and other buildings from freight vibrations is also ignored in this SDEIS.

Finally, the SDEIS does not explore Met Council liability if SWLRT or freight derail or otherwise cause damage or harm. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. In light of the catastrophic potential of any accident in the Kenilworth Corridor, *this insurance liability assessment should be done* prior to building SWLRT, then made public and included in construction and operating cost estimates.

Short-Term Freight Rail Impacts

Comment: During construction, the dangers to the community will be exacerbated due to the fact that freight, particularly freight carrying hazardous materials, will continue through the corridor.

¹³ Photos taken on 7/21/15 of a BNSF train in this segment of the route, before and after it merges with the TC&W route, show cars bearing 1267 petroleum crude oil DOT placards; presumably these cars are carrying Bakken crude.

First, it's not clear that there is room in corridor for the construction plan as described. While we've seen various calculations of the corridor's narrowest point, our understanding is that it measures 59 feet. This point is located between the historic grain elevators – the Calhoun Isles Condominiums – on the east and the Cedar Shores town homes to the west. The SDEIS states that the freight tracks will be moved 2 to 3 feet closer to the town homes. The tunnel trench (35 feet wide) will be dug at the base of the Calhoun Isles Condominiums about 18 inches from its footings. There will be a buffer between town homes to the east of 22 to 24 feet; the freight train is about eight feet wide. Thus: 35 feet trench + 2 feet from condos + 24 feet from town homes + 8-foot wide freight train = 69 feet — to fit into a 59-foot pinch-point. This math does not inspire confidence in the safety of the construction plan.

During construction, freight will run through a construction zone with construction workers and debris with **no crash walls** at the edge of a 35-foot construction trench. It will continue to carry high-hazard freight including ethanol, fuel oil, and fertilizer. (Under common carrier obligation, TC&W or CP must carry whatever else their shippers ask them to carry and we may or may not know what these trains are actually hauling.) "Bomb trains" will travel at the edge of a construction pit that will take two years to complete. Even with the precautions suggested in the SDEIS, a derailment is far from unimaginable in this scenario. The proximity of the condominiums and town homes puts hundreds of people at risk for devastating consequences.

It is also important to note that the current poor condition of freight rail infrastructure increases the risk for a short-term freight derailment both during and after construction. A recent obvious example: From late May through July 2015, two pot holes immediately next to the rail at the Cedar Lake Parkway freight crossing measuring as deep as 6 inches have remained unfilled despite being reported to DOT and to TC&W. In 2010, there was a derailment in the neighborhood of a TC&W train; Hennepin County replaced the track through Kenilworth with a safer single-weld track. However, rotted freight ties were not replaced at that time, nor were rail plates and spikes uniformly repaired. Currently, there are rail ties that are completely rotted out, missing rail plates that hold the ties to the rails and many missing rail spikes. That these were not repaired when the rail was replaced indicates poor maintenance and raises concerns about the competence that Hennepin County and the Met Council will bring to the co-location element of the SWLRT project.

Construction debris in the corridor will heighten the risk of derailments. Derailments are caused by operator error or track failures, including track impediments. Construction can displace the supporting structures that bolster rail, and although engineers can try to bolster the structures through shoring, there will be nothing to stop a train if it begins to tip into the construction pit. Tip guardrails have been suggested as a solution (not in this SDEIS), but these can build up with snow and actually cause derailments.

Nighttime running of freight (also not considered in the SDEIS) will be perhaps even more dangerous than daytime. Construction debris may be left near or on tracks and may not be visible to the freight engineer at night. Final day inspection of track is imperfect and human error could easily miss track impediments.

Inclement weather like snow may mask destabilization of freight infrastructure, and rain could wash out the surrounding already disturbed soils, increasing the derailment risk during construction. While this is true under any construction scenario, the risk multiplies with freight running next to the tunnel construction pit.

If a derailment were to occur during construction, access to fire safety equipment is extremely limited because of the nature of the corridor: in some places, the only access is between people's homes and/or through their driveways. In the event of a derailment occurring during construction, the only access for fire trucks may be from West Lake Station, 21st Street or Cedar Lake Parkway. Fire equipment must be accessible in case of a derailment emergency, and in-depth coordination among the fire department, the Met Council, and the citizens has not been attempted or even mentioned in this SDEIS.

In case of any chemical freight derailment, chemical fires must be fought with specialized foam products, usually foam specific to the chemical spill. These fires cannot be fought with water, which can actually spread a chemical fire. Water can be used to cool rail cars that have not ignited, but foam is necessary to put them out. Limited foam is available at local fire stations, but our understanding is that it can take 2 hours or longer to access the necessary quantity of foam to fight a chemical derailment fire.

Currently, TC&W reports that trains go 10 miles per hour through the Kenilworth Corridor, but this is voluntary, not mandated. Going forward, the company may choose to sell their company or increase that speed. The necessity of slow freight even without LRT construction is critical, but with construction the danger becomes critical at any speed.

According to TC&W president Mark Wegman, there had only been one meeting as of June 2015 (i.e., in preparation for the SDEIS) with SWLRT project staff to discuss issues of joint construction concern. This seems shortsighted. Our community expects more than superficial consideration of these serious construction-related concerns prior to decisions about the feasibility of moving forward with the SWLRT project.

Finally, the SDEIS does not explore Met Council liability either during or following construction if SWLRT or freight derails causing a train catastrophe. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. This assessment should be completed and made public prior to SWLRT construction.

C. Mitigation Measures

Comment: It is difficult to respond to this section surrounding freight since no problems with co-location have even been acknowledged in the SDEIS. There is no real analysis of the effects of co-location and the danger of running high-hazard freight through the Kenilworth Corridor both during and after construction, and in an area that does not meet minimum AREMA guidelines, let alone best practices. This SDEIS is astounding more for what it does not contain than what it does. The mitigation proposed concerns only making sure that the freight schedule is unimpeded; it ignores concerns about the safety of neighborhood residents, construction and freight personnel, park and trail users, or future SWLRT riders.

Minimally, during construction, high-hazard freight MUST be diverted from the corridor. Long term, crash walls between freight and LRT are critical. In the short term, without crash walls, ALL hazardous or flammable freight should be rerouted out of the corridor until proper safety crash walls are present. The idea of running high hazard freight during construction at the edge of a construction trench without crash walls is extremely concerning.

The treatment of freight rail in this SDEIS indicates that the Met Council is not even aware of the danger to area residents, waterways, parks, trails, or SWLRT passengers. The many issues related to making freight rail permanent in the Kenilworth Corridor and co-locating freight and light rail need much greater study and consideration before this project advances.

3.4.4.5 Bicycle and Pedestrian

Because there would be no long-term adverse impacts from the LPA on bicycle and pedestrian facilities, no long-term mitigation measures have been identified. Short-term effects on pedestrian and bicycle routes will be mitigated through signage, information fliers, website postings with maps of construction areas/detours, and notices placed at bicycle shops, for example.

Comment: At last measure, our understanding is the trails receive 600,000 discrete unique visits per year and those visits to current parkland are enhanced by the current “north woods” feel of the area, and that experience would be significantly impaired by the addition of light rail. This includes an expectation of natural quiet conditions. Pedestrians do not pass quickly through the park-like environment and will therefore be significantly impacted by added noise, movement and infrastructure of the LRT and freight rail. The speed joined with the noise at close proximity greatly detracts from the trail experience for both bicyclists and pedestrians, and can even be frightening to users.



3.4.4.6 Safety and Security

LONG-TERM IMPACTS

Comment: The current plan to co-locate freight and LRT within the same corridor — within a dozen feet of each other in certain places — creates new, potentially catastrophic hazards. It is currently proposed that the freight train (which carries volatile and explosive ethanol on a daily basis, and several unit trains of ethanol per month) remain permanently in the Kenilworth Corridor. The addition of the SWLRT with its electrical power wires only a few feet away exacerbates the existing danger of ethanol in the corridor. Current safety standards recommend against co-location in such close proximity when there are alternatives; other alternatives for this SWLRT alignment must be explored.

Furthermore, in the event of an explosion of ethanol trains along this corridor, we understand that the foam retardant required to extinguish the fire is “within a 3 hour distance” of the corridor. We believe that the potential harm during that “3 hour window” along with permanent damage to residences and residents should be quantified. Should an explosion occur during the passing of an LRT train, the potential exists for loss of life or harm to those exposed to the hazardous fumes.

Please note that the Minneapolis Park Police also provide service within the study area. KIAA requests that the MPRB Police be consulted on security issues related to the impact of a proposed station at 21st Street on East Cedar Lake Beach (Hidden Beach) and their input be incorporated into final design plans. In the summer of 2012, Hidden Beach generated more police actions than any other park in the MPRB system. For the last five years, KIAA has provided supplementary funding to the Park Police to allow

for increased patrols in this area. The neighborhood has expressed grave concern that an inadequately managed station would increase opportunities for illegal behavior.

SHORT-TERM IMPACTS

Currently, rush hour traffic produces daily gridlock that sometimes extends from Lake Street, along Dean Parkway, Cedar Lake Parkway, Wirth Parkway, and Wayzata Boulevard (frontage road along I-394) all the way to the Penn Avenue Bridge. (This situation existed even before the construction at Highway 100 in St. Louis Park.) The closing of a critical crossing (Cedar Lake Parkway at the Kenilworth Trail) would be necessary during the construction of the proposed tunnel from West Lake Street to just past Cedar Lake Parkway. Affected neighborhoods already have limited entry and exit points.

The SDEIS does not address the need to ensure reasonable transportation options during this period, including routes for emergency vehicle access. There must be plans for fire and ambulance routes in the affected neighborhoods. Travel time for emergency vehicles would be increased during that closing. The SDEIS describes such delays as “minor”; we take vigorous issue with such a demotion of safety concerns, as even two minutes could be the difference between life and death, or a home being saved from fire or destroyed. (On June 11, 2015, an accident at Dean Parkway and Lake Street slowed traffic on Dean Parkway to a crawl for over an hour.)

Also missing is information on what measures, including evacuation plans, would be necessary to protect the Cedar Shores townhomes when the TC&W trains, with their explosive freight, are moved several feet closer to them during construction. Our neighborhoods were recently impacted for upwards of a year by a Met Council sewer-replacement project, with road closures (of which we were frequently not informed) and detours. As noted earlier, we understand that the sewer project would need to be re-done as part of the SWLRT tunnel-construction.

3.5 Draft Section Evaluation Update

Comment: The SDEIS is almost incomprehensibly dense and convoluted as it discusses the application of Section 4(f) to the LPA. For the benefit of the reader, the Section 4(f) statutory mandate is clear:

“Section 4(f) protects publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance and historic sites of national state, or local significance from use by transportation projects. These properties may only be used if there is no prudent or feasible alternative for their use and the program or project encompasses all possible planning to minimize harm resulting from its use. If transportation use of a Section 4(f) property results in a *de minimis* impact, analysis of avoidance alternatives is not required.”

Conversely, if there is more than a *de minimis* impact, an analysis of avoidance alternatives is required. Thoughtful analysis of avoidance alternatives is absent from the SDEIS.

A cursory reading of the SDEIS will reveal that there is not a good-faith analysis of prudent or feasible alternatives. “No Build” and “Enhanced Bus Service” were the only two alternatives considered, and only superficially; they were presented to the public in a cursory manner and without documentation. Not surprisingly, neither of them is considered feasible or prudent. Alternatives that *would* likely be considered feasible and prudent, such as a deep tunnel or rerouting, were not considered. Consequently, the bulk of the 4(f) analysis is used to contend that any adverse impact on 4(f) property will be *de minimis*.

These comments will focus almost entirely upon the Kenilworth Channel/Lagoon section of the LPA but are equally applicable to other section 4(f) properties identified by the SDEIS. The FTA, although identifying property subject to Section 4(f), fails throughout to adequately analyze or identify specific mitigation steps that would render impacts *de minimis*.

The Kenilworth Channel/Lagoon

At page 3-259, referencing the Kenilworth Channel/Lagoon, the SDEIS concludes:

“Through coordination with MPRB to date and based on the design and analysis to date as described in this section, FTA has preliminarily determined that the proposed permanent and temporary uses by the LPA would not adversely affect

the features, attributes or activities that qualify the Kenilworth Channel/Lagoon for Section 4(f) protection. Consistent with the requirements of 23 CFR 774.5(b), FTA is, therefore, proposing a *de minimis* use determination for the LPA at the Kenilworth Channel/Lagoon.

To understand the absurdity of this conclusion, one first should acknowledge that the Kenilworth Channel/Lagoon is one of the most important elements in the Minneapolis Park Board's Chain of Lakes (and also identified as subject to Section 106 because of its historic character). It is primarily appreciated for its pastoral quality and is used by walkers, bikers, kayakers, cross country skiers, ice skaters, fishermen, picnickers, and visual artists.

The FTA's own analysis identifies these activities and elements and acknowledges that the LPA would constitute 4(f) use but then, after an evaluation of the impacts, concludes that the use of the protected land will be *de minimis*. This of course means that there need not be a feasible and prudent alternative analysis.

Visual Impact

Per the SDEIS, visual impacts to the Kenilworth Channel/Lagoon will be:

1. Removal of two existing and potentially historic wooden bridges
2. Construction of massively larger bridges
3. Modification to topographical features, vegetation and WPA-era retaining walls.

Particularly astonishing is the statement at page 3-254 that the

"horizontal clearances between the banks and the new [bridge] piers would be of sufficient width to accommodate recreational activities that occur within the channel lagoon"!

The same thing could be said about an 8-lane super highway bridge spanning the channel. The point is that the altered scale of the proposed bridges will in fact be jarringly disproportionate to the channel's features. Not a *de minimis* impact by any stretch of the imagination.

The SDEIS goes on to note that the vegetation clearing necessitated by the new bridges would cause some reduction to the "visual quality of the view". But, the document goes on to reassure –

"[T]he bridges as currently conceived would have an attractive design that would become a positive focal point in the view. The overall change to the view's level of visual quality would be low. Because of the recreational activity in the channel, this view is visually sensitive. Even though the view is visually sensitive, because the potential level of change to visual quality will be low the potential visual impact will not be substantial."

Thus the reader is simultaneously warned and reassured that everything will be visually pleasing because a planner's aesthetic judgment about the visual quality of yet-to-be-designed bridges will be "attractive."

Noise Impact

It gets worse as the FTA pursues *de minimis* findings. The SDEIS acknowledges that two separate areas of the Kenilworth Channel/Lagoon are noise receptors and would be subjected to moderate noise impacts. There is a non-specific undertaking to utilize mitigation measures to reduce the area of Moderate noise impacts closest to the new bridges.

No such undertaking is offered with respect to the northern bank of the lagoon. Instead the SDEIS states:

"The northern bank of the lagoon [section 4(f) property], generally between West Lake of the Isles Parkway and South Upton Avenue (termed the Kenilworth Lagoon Bank in the noise analysis), was classified as a Category 1 land use, with stricter noise impact standards than the Category 3 land use. However, because of the distance between the light rail

tracks and the western point of the Category 1 land use, *noise levels under the LPA at that location would not exceed FTA's Severe or Moderate criteria.*"

Apparently there is not an intent to mitigate noise in this area as legally required.

Not Mentioned

Completely missing from the 4(f) analysis of the Kenilworth Channel/Lagoon is an analysis of the impacts of vibration and safety.

Minneapolis Park and Recreation Board

The SDEIS fails to address the previous objections of the MPRB: Instead it attempts to portray the MPRB as a willing partner:

"Through coordination with MPRB to date and based on the design and analysis to date as described in this section, FTA has preliminarily determined that the proposed permanent and temporary uses by the LPA would not adversely affect the features, attributes or activities that qualify the Kenilworth Channel/Lagoon for Section 4(f) protection. Consistent with the requirements of 23 CFR 774.5(b), FTA is, therefore, proposing a *de minimis* use determination for the LPA at the Kenilworth Channel/Lagoon. Supporting this preliminary determination is FTA's expectation that mitigation measures will be incorporated into the project that will avoid adverse effects to the protected activities, features, and attributes of the property. Those measures will be identified through continued coordination with the MPRB, which will continue through preparation of the project's Final Section 4(f) Evaluation. The MPRB must concur in writing with the *de minimis* impact determination after the opportunity for public comment on the preliminary Section 4(f) determination."

Even if the MPRB were to concur with a *de minimis* impact determination, such concurrence would hardly be credible given MPRB's earlier official statements on the topic. For instance, in November of 2012 the MPRB clearly itemized a series of concerns with respect to the selection of the Kenilworth Corridor as the LPA and, specifically, with respect to co-location stated:

"The MPRB opposes the co-location alternative and supports the findings presented in the DEIS regarding Section 4(f) impacts for the co-location alternative. In review of the documents, the loss of parkland described for the co-location alternative *cannot be mitigated within the corridor.*" (emphasis added)

Although the MPRB ultimately entered into a Memorandum of Understanding with the Met Council providing for a consultative role in the design process (March 12, 2015) ("MOU") the MPRB has never agreed that adequate mitigation is possible. Most recently in a letter to the Met Council summarizing its most recent comments about the SDEIS, the MPRB unequivocally concluded:

"Visual quality and noise are key areas of concern for the MPRB. The introduction of LRT in combination with freight rail *poses the potential for significant disturbance* to a corridor that, once disturbed, may [not] realize a restored look for decades."

Although these Park Board statements are encouraging, the objectivity and independence of the MPRB with respect to its "consulting" role is in serious doubt, given the enormous political pressure applied by the Governor and the Met Council via real and documented threats of massive budget retaliation. The Park Board's abdication of protection of 4(f) status followed Governor Mark Dayton's threat to cut \$3 million from its budget — this in retribution for the Park Board's legitimate attempt to protect the channel. The Park Board desperately needed the funds and, to date, has acquiesced to the governor's threat, despite its belief that:

"Visual quality and noise are key areas of concern for the MPRB. The introduction of LRT in combination with freight rail poses the potential for significant disturbance to a corridor that, once disturbed, may [not] realize a restored look for decades."

No-Build or Bus Rapid Transit Alternative

Although repeated throughout the SDEIS, the following statement is representative of its treatment of 4(f) property:

“No Build Alternative and Enhanced Bus Alternative as evaluated in the Draft EIS are the only full Section 4(f) avoidance alternatives identified to date and neither of them would be prudent because they would not meet the project’s purpose and need.”

This facile and conclusory assertion is entirely inconsistent with well-understood precedent. This analysis falls short of what is required under the law. If the proposed use is not *de minimus*, then alternatives must be evaluated — presumably in good faith.

The Kenilworth Channel/Lagoon is comprised unquestionably by Section 4(f) lands and “are “...not to be lost unless there are truly unusual factors present...or...the cost of community disruption resulting from alternative routes reaches extraordinary magnitudes.” (Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1972))

Given the impact on 4(f) property, planners are required to evaluate alternatives – alternatives beyond the two choices proffered in the SDEIS – No Build or Bus Rapid Transit. For example there has not been a good faith determination that an adjustment to the proposed SWLRT alignment wouldn’t have the same beneficial purpose, outcome or cost as the current LPA. The law requires a deeper analysis. That such an analysis would result in a delay of the project is not sufficient justification to fail to undertake it. The following guidance from the Department of the Interior *Handbook on Departmental Review of Section 4(f) Evaluations* is instructive:

CEQ regulations, as well as DOT Section 4(f) regulations, require rigorous exploration and objective evaluation of alternative actions that would avoid all use of Section 4(f) areas and that would avoid some or all adverse environmental effects. Analysis of such alternatives, their costs, and the impacts on the 4(f) area should be included in draft NEPA documents.

It is clear that the SDEIS falls far short of this standard and that additional analysis is essential for meaningful public participation.

The Tunnel

The SDEIS contains a lengthy discussion of the shallow tunnel under the Kenilworth lagoon/channel versus a tunnel with a bridge over the channel. The conclusion, not surprisingly is that there will be a non-de minimis use of the Kenilworth Lagoon/Grand Rounds property. The document promises that “all possible planning to minimize harm will be conducted and implemented”

In order to reach this conclusion the analysis first had to reject the No Build Alternative and the Enhanced Bus Alternative. The latter was rejected because it would be “inconsistent with local and regional comprehensive plans.” Again, no other avoidance options were considered.

Conclusion

The Section 4(f) property identified in the SDEIS has received inadequate review and in many cases incorrect findings of *de minimis* impact. There is glaringly inadequate identification of specific mitigation and avoidance strategies and resulting outcomes as required by Section 4(f). The following statement from the Department of the Interior, which has consultative jurisdiction over this project, is clarifying:

Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable. Also not acceptable is a statement that all planning to minimize harm has been done because there is no feasible and prudent alternative. Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable. Also not acceptable is a statement that all planning to minimize harm has been done because there is no feasible and prudent alternative. *Reviewers should make sure that all possible site-specific planning has been done to identify and list the measures which will be undertaken, at project expense, to minimize harm to Section 4(f) properties. [emphasis added]*

Addendum: Kenwood Isles Area Association
Position Statement on Freight Relocation for SWLRT

Adopted July 1, 2013

Nearly a mile of the proposed SWLRT runs through the Kenwood Isles Area Association neighborhood. **We vehemently oppose the idea of maintaining freight rail along with light rail at grade in the Kenilworth Corridor, known as “co-location.”**

Relocation of freight out of the Kenilworth Corridor has been promised for years. While the corridor was long used for transporting goods, freight use of Kenilworth was halted in 1993 when the Midtown Greenway was established. When freight was later re-introduced into the Kenilworth Corridor, Hennepin County assured residents this use of the corridor was temporary.

Meanwhile, over 20 years of citizen efforts to build and maintain Cedar Lake Park and the Kenilworth Trail have resulted in a more beautiful and complete Grand Rounds and Chain of Lakes. Traffic on federally funded commuter and recreational bicycle trails in the Kenilworth Corridor grew to at least 620,000, perhaps approaching one million, visits in 2012.

When the Hennepin County Regional Railroad Authority began looking at using the Kenilworth Corridor for LRT, several key studies and decisions reiterated the expectation that if Kenilworth is to be used for transit, then the freight line must be relocated. (See notes below.) Trails were to be preserved. Freight rail was to be considered a separate project with a separate funding stream, according to Hennepin County. This position was stated publicly on many occasions, including Community Advisory Committee meetings and Policy Advisory Committee meetings.

Minneapolis residents have positively contributed to the SWLRT process based on the information that freight and light rail would not co-exist in the Kenilworth Corridor. Although many of us think that Kenilworth is not the best route, most have participated in the spirit of cooperation and compromise to make the SWLRT the best it can be.

Despite numerous engineering studies on rerouting the freight rail, it was not until December 2012 that the current freight operator in the Kenilworth Corridor, TC&W, decided to weigh in publicly on the location of its freight rail route. TC&W rejected the proposed reroute.

The Met Council has responded by advancing new proposals for both rerouting the freight and keeping it in the Kenilworth Corridor. For either option, these proposals range from the hugely impactful to the very expensive – or both. Six of the eight proposals call for “co-location” despite the temporary status of freight in Kenilworth. The Kenilworth proposals include the destruction of homes, trails, parkland, and green space. Most of the proposals would significantly add to the noise, safety issues, visual impacts, traffic backups, and other environmental impacts identified in the DEIS.

This is not a NIMBY issue. The Kenilworth Trail provides safe, healthy recreational and commuter options for the city and region. It is functionally part of our park system. The Kenilworth Corridor is priceless green space that cannot be replaced.

For over a decade public agencies have stated that freight rail must be relocated to make way for LRT through the Kenilworth Corridor. If this position were reversed midway through the design process for SWLRT, the residents of Kenwood Isles would find this a significant breach of the public trust.

Simply stated, none of the co-location proposals are in keeping with the project goals of preserving the environment, protecting the quality of life, and creating a safe transit mode compatible with existing trails.

This has been a deeply flawed process, and we **reject any recommendation for at-grade co-location in the Kenilworth Corridor. If freight doesn't work in St. Louis Park, perhaps it's time to rethink the Locally Preferred Alternative.**

Notes

1) The 29th Street and Southwest Corridor Vintage Trolley Study (2000) noted that, "To implement transit service in the Southwest Corridor, either a rail swap with Canadian Pacific Rail or a southern interconnect must occur."

2) The FTA-compliant Alternatives Analysis (2005-2007) defines the Kenilworth section of route 3A for the proposed Southwest Light Rail in this way: "Just north of West Lake Street the route enters **an exclusive (LRT) guideway in the HCRRA's Kenilworth Corridor to Penn Avenue**" (page 25). This study goes on to say that "to construct and operate an exclusive transit-only guideway in the HCRRA's Kenilworth Corridor the **existing freight rail service must be relocated**" (page 26).

3) The "Locally Preferred Alternative" (LPA) recommended by HCRRA (10/29/2009) to participating municipalities and the Metropolitan Council included a recommendation that freight rail relocation be considered as a separate "parallel process."

4) In adopting HCRRA's recommended Locally Preferred Alternative based on treating relocation of the freight rail as a separate process, the City of Minneapolis' Resolution (January 2010) stated:

"Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained."

5) The Draft Environmental Impact Statement supports the Locally Preferred Alternative, which includes relocation of freight out of the Kenilworth Corridor. (December 2012)

6) The southwesttransitway.org has stated since its inception that:

Hennepin County and its partners are committed to ensuring that a connected system of trails is retained throughout the southwest metro area. Currently, there are four trails that may be affected by a Southwest LRT line. They are the Southwest LRT trail, the Kenilworth trail, the Cedar Lake Park trail, and the Midtown Greenway. These trails are all located on property owned by the HCRRA. The existing walking and biking trails will be maintained; **there is plenty of**

space for light rail and the existing trails. Currently, rails and trails safely coexist in more than 60 areas of the United States.

LRT Done Right Addendum on previous communication concerning freight and safety

Date: September 30, 2014

To: Pipeline and Hazardous Materials Safety Administration and Federal Railroad Administration

From: LRT-Done Right

Re: **Docket No. PHMSA-2012-0082 (HM-251) – Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains**

INTRODUCTION AND BACKGROUND

LRT-Done Right is a grass roots organization that has done much research and advocacy regarding the effects of light rail transit and freight lines on community well being. Limited resources typically prevent community organizations from having the same access to federal regulators that industry representatives do. This opportunity to contribute a meaningful comment is greatly appreciated, as is the Pipeline and Hazardous Materials Safety Administration's (PHMSA) earnest consideration of our comments.

It is noted that relative to the importance of the PHMSA standards, very few parties comment on these proposed rules. At the time of this submission, elected officials have not submitted a comment on behalf of the interest/protection of Minneapolis/St Paul or generally on behalf of Minnesota (i.e. mayor, city council, state legislators, Governor, etc.) and only a few federal politicians have made comment. This is concerning because communities rely on elected officials to serve the best interest of the community residents. Most comments, related to Docket No. PHMSA-2012-0082 (HM251), were generated by individual citizens, small communities or cities, or by industry representatives. As citizens, we have expended great care and effort to learn about the issues of freight safety, and have had to do it quickly.

The large-scale shipment of crude oil and ethanol by rail simply didn't exist ten years ago, and safety regulations need to catch up with this new reality. While this energy boom is good for business, the people and the environment along rail corridors must be protected from harm. Crude oil shipments by rail have increased by over 40-fold since 2005, according to the Association of American Railroad's Annual Report of Hazardous Materials. In fact, more crude oil was transported by rail in North America in 2013 than in the past five years combined, most of it extracted from the Bakken shale of North Dakota and Montana (Stockman).

The National Transportation Safety Board (NTSB) noted their concern to PHMSA, that major loss of life, property damage and environmental consequences can occur when large volumes of crude oil or other flammable liquids are transported on a single train involved in an incident, as seen in the Lac Megantic, Quebec, disaster, as well as several disasters that the NTSB has investigated in the United States. The NTSB recommendations to the Federal Railroad Administration and the Pipeline and Hazardous Materials Safety Administration include reroutes of trains carrying hazardous cargo around populated and environmental sensitive corridors, development of an

audit program to ensure rail carriers that carry petroleum products have adequate response capabilities to address worst-case discharges of the entire quantity of product carried on a train and an audit of shippers and rail carriers to ensure that they are properly classifying hazardous materials in transportation and that they have adequate safety and security plans in place (NTSB).

RULE ANALYSIS

LRT-Done Right commends PHMSA and FRA for the effort to improve rail safety with the development of this proposed rule. While understanding the need to balance community safety with the needs of railroads as a profitable enterprise, there are several omissions in the proposed standards that we wish to address. It is clear that PHMSA standards for too long have been overly influenced by industry (Straw R), but as recent rail disasters have shown, the necessity to protect the public's interest is imperative. Because we are citizens with limited rail engineering expertise, we will use our own experiences with a small short line railroad called Twin City & Western (TC&W) to illustrate issues with PHMSA standards. TC&W is a Class III railroad with connections to Canadian Pacific, Union Pacific, Burlington Northern and Canadian National. Under current PHMSA guidelines, which apply to Class I railroads, these enhanced tank car standards and operational controls for High-Hazard Flammable Trains (HHFT) would not apply. This is gravely concerning. Our comments will cover issues of rail routing, notification to State Emergency Response Commissions, tank car specifications, and additional requirements for HHFTs.

Rail Routing -

Missing from standards are guidelines on construction of new transit lines in an active freight rail corridors. Increasingly, light rail transit (LRT) through suburban and urban areas is being run through established freight corridors, which were designed in a different era of rail safety (Sela, et al). LRT routes are planned by local and regional public officials who typically are not adequately addressing the safety of these transit routes, leaving it to affected neighborhoods to advocate for community safety. The trend toward locating LRT adjacent to freight must be addressed in these PHMSA standards. We understand this to be complicated by issues of governance; the Federal Railroad Administration (FRA) regulates freight trains while the Federal Transit Administration (FTA) guides LRT lines. However FRA has ultimate authority and PHMSA writes rules for safety. This particular comment regarding rail routing may be currently beyond the purview of these particular proposed PHMSA standards, never the less we submit these comments to stress their importance to freight safety in shared use corridors, and for immediate consideration and inclusion in this joint PHMSA and FRA rule.

Shared FRA/FTA guidelines are written with respect to Amtrak, and give responsibility to the freight companies for managing shared track (Federal Register, Part VII). Currently, there are no specific safety requirements for either existing or yet to be constructed commuter lines in shared corridors, where track is not shared (Resor R). When track is shared, then commuter lines must meet strict safety guidelines, but when track-separated right of way (ROW) is shared, there are no regulations whatsoever, and localities must police themselves. No guidelines exist that guide either the construction phase of adding LRT lines through an existing freight corridor, or corridor minimum level safety standards. Hence, there are many co-location projects nationwide moving forward, which do not meet minimum American Railroad Engineering and Maintenance-of-way Association (AREMA) guidelines. AREMA guidelines recommend minimum standards for grade separation of 25 feet center rail to center rail. The Rail Safety Improvement Act of 1988 gives the FRA jurisdiction over most types of railroad including shared track LRT (Pub. L. No 100-342), however the FRA has historically not chosen to exercise this authority. This has left shared ROW LRT in a netherworld of un-regulation, which we believe seriously compromises the safety of people, property and environment along these types of corridors.

A case in point is Southwest Light Rail Transit (SWLRT), currently in the early engineering phase and being

considered for construction by the FTA through the Kenilworth corridor in the Minneapolis, MN area. If constructed, LRT will run less than 12 feet from freight rail at a point along the Kenilworth Corridor that regularly carries Class 3 flammable liquids, including long unit trains of ethanol. During the construction phase of a proposed tunnel in an area that can not accommodate both LRT, a freight line, and an existing heavily used bike trail, the freight line, which will continue full service throughout the construction will run just 11 feet from a 35 foot construction pit in an populated area of Minneapolis. In no other instance, could we find current plans to co-locate LRT next to a freight rail line that carries Class 3 flammable liquids. There are other lines that exist where co-location occurs, but these were built many years ago prior to the awareness of the danger existent with oil and ethanol trains. The TC&W freight regularly runs unit trains of 60-100 ethanol train cars through the Kenilworth corridor within feet of the proposed LRT line. Ethanol is highly combustible, which may form explosive mixtures with air and where exposure to electrostatic charges should be avoided (ODN). Yet these electrified LRT lines will literally be next to tanker cars carrying ethanol and other chemicals.

Over the 20-year interval from 1993 to 2012, there were 1,631 mainline passenger train disasters, including 886 grade crossing accidents, 395 obstruction accidents, 263 derailments, 71 collisions. During the same time period, there were 13,563 freight derailments and 851 collisions (Lin et al). Derailments and collisions were identified as the most potentially significant train accident types while human factors accidents and track failures, including obstructions were the primary causes of those accidents (Lin et al). Adjacent tracks, occupied by freight and passenger rail - refers to train disaster scenarios where derailed equipment intrudes adjacent tracks, causing operational disturbance and potential subsequent train collisions on the adjacent tracks (Lin and Saat). Lin and Saat created probability models assessing risk along adjacent tracks to determine risk and severity of a crash leading to a collision or derailment. Identified risk factors included distance between track centers, train speeds, train densities, different train control systems, and level of hazardous train cargo. In the case of SWLRT, this model assessed Kenilworth to be a high-risk rail corridor, yet due to a lack of regulation of co-location, this project progresses.

For transit located on adjacent track to active freight, FRA's concern is that operations of a freight railroad in close proximity to LRT could present safety risks for both. In considering our SWLRT case study, track centers distances are as narrow as 12 feet (11 feet during construction), with 220 LRT trains proposed daily. A derailment of either freight or LRT could be disastrous. With distances of 11-12 feet between SWLRT and freight, if either were to encroach and cause intrusion upon the other, this would likely bring death and destruction, and depending upon the cargo carried, could mean broad evacuation of 1000s of area residents. AREMA's 25 foot standard would be more likely to prevent intrusion onto the adjacent track, and would keep electrified lines away from highly flammable fuel carrying tankers.

None of this accounts for issues related to trains as targets of terrorism or using those trains for terrorist purposes (Brodsky), using chemicals such as chlorine or fossil fuels to create 'bomb trains' or mayhem. Minneapolis is a high threat urban area as determined by the Transportation Safety Administration (TSA); our case study SWLRT parallels freight up to and past the Target Center and the Twins Stadium, two large venues for sports and entertainment. This is another scenario that begs for a solution that would set safety rules for co-location of freight and passenger rail through shared ROW near sites at high risk for terrorism.

The safety requirements for HHFT should apply to Class I, Class II, and Class III railroads. There are short line railroads that are shipping ethanol, and due to common carrier obligations, may be called upon to ship oil, chlorine or other Class 3 flammable liquids. Due to entity size and revenues, these short line railroads typically are Class III railroads. The revenue generating capacity of a railroad should not govern the safety standards to which it is held. If a railroad or shipper does not have the capacity to adhere to the HHFT tank car standards and operational controls, it is dangerous for that entity to be in the business of conveying Class 3 flammable liquids. The relevance of these standards only to Class I railroads, to trains of 20 or more rail cars of hazardous cargo, and to only population areas of 100,00 or more, leave many communities endangered. The safety requirements for HHFT should apply to Class I, Class II, and Class III railroads. The revenue generating capacity of a railroad should not govern the safety standards to which it is held. If a railroad or shipper does not have the capacity to adhere to the HHFT tank car standards and operational controls, it is dangerous for that entity to be in the business of

conveying Class 3 flammable liquids. Additionally, the absence of regulation guiding construction of adjacent rail lines through shared ROW carrying tanker chemicals pose danger to residents along these corridors. Regulatory action must be more broadly addressed to all railroads, on any trains carrying any hazardous materials through any community of any population size.

PHMSA standards are proposed only for communities with population greater than 100,000. We understand the necessity of setting population density standards, but suggest that the threshold of 100,000 is too high. It is discriminatory to penalize a small community and to put them at greater risk due to safe guards not being applicable. Further, it is those communities that would be least likely to absorb the cost of disaster. Railroads must be accountable for safety and exercise due diligence for one tank car or 100 tank cars, in urban and on rural routes. Many of the rail disasters that have occurred happened in areas where populations were less than 100,000 (e.g. Lac Megantic). These communities deserve to be protected too.

Notification to State Emergency Response Commissions (SERCs)-

The proposed PHMSA rule would require notification to SERCs only if trains containing one million gallons of Bakken crude are operating in their States. The requirement ignores the dangers ethanol and does not acknowledge that as little as one carload of oil or ethanol can trigger disaster, as is evidenced by the summary of selected major oil and ethanol train disasters shown in Table 3 provided in the Docket No. PHMSA-2012-0082 (HM-251).

Ethanol is a Class 3 flammable liquid and is considered as dangerous as oil by the National Transportation Safety Board. Ethanol is appropriately classified as a Class 3 flammable and should not be referred to simply as an agricultural product. Ethanol is caustic to the skin, harmful if breathed, highly flammable and very difficult to clean up especially if released in bodies of water. The reason for this clean up challenge is that ethanol is soluble in water. Unlike petroleum, which can be extracted from the top of the water, concentrated ethanol would require full liquid removal (i.e., in the event of an ethanol spill in a lake, the affected would need to be drained). In groundwater, ethanol does not respond to typical remediation techniques, like air stripping and filtration.

To achieve the best protection for our communities, emergency responders and railroad workers – SERCs must have advance notice that oil and ethanol is being shipped through their states. Further all railroads/shippers of oil or ethanol must design and implement a comprehensive spill response plans. These response plans must be provided in advance to the relevant SERCs, Tribal Emergency Response Commissions, Fusion Centers and any other State designated agencies.

These safety preparedness requirements must apply to all railroads/shippers of Class 3 flammable liquids, regardless of their classification (i.e., Class I, Class II or Class III). Without this requirement there will not be adequate training and incentive to minimize collateral damage to communities.

If a railroad or shipper does not have the manpower and fiscal capacity to develop and execute a Class 3 flammable liquid spill response plan, it is not prudent for that entity to be in the business of conveying Class 3 flammable liquids. Spill response plans should take in to account the terrain, natural geography and municipal development along the route used for transport. Specifically if lakes and rivers are present, the plan must provide for containment to prevent water contamination and plan for the de-contamination of bodies of water. Additionally the presence of other freight and/or public transit modes in the same ROW corridor, along with the proximity to residential and school areas, must be addressed in developing the appropriate spill response plan.

Tank Car Specifications -

PHMSA recognizes that DOT-111 tank cars can almost always be expected to breach in the event of a train crash and resulting in spills, explosions and destruction, yet the proposed new rule on train operation and tank car

design would fail to take a single DOT-111 car off the rails. New designs for DOT-111s include increased minimum head and shell thickness, top and bottom fitting protection, a thicker head shield, and head and shells constructed of normalized steel. The guidelines recommend that new DOT-111s ordered after October 1, 2011, be built to this standard. We appreciate these new standards. However, the type of crude involved in the Lac Megantic disaster could be carried on the least safe DOT-111 tank cars until Oct. 1, 2018. An immediate ban on shipping volatile crude and ethanol in the DOT-111 tank cars is in order.

Short line railroads like TC&W in Minnesota are small and often unable or unwilling to purchase these new tanker cars because their ability to invest capital in new cars is limited. They instead tend to purchase used tanker cars from other larger railroads that are retiring those for newer tank cars, and they retrofit older used cars to meet minimum safety standards. It is ironic that these short line railroads which are often run through heavily populated urban corridors have the worst quality tank cars in all the fleets, yet run through the most densely populated corridors. Of the 94,178 cars in flammable service, currently only 14,150, or 5 percent of the total DOT-111 fleet (15 percent of the flammable service fleet), have been manufactured to comply with new standards (Pumphrey et al).

Additionally, as the amount of oil being shipped by rail has increased, train companies have moved to using unit trains for shipping higher volumes (Pumphrey et al). Unlike a manifest train, which might carry a variety of different commodities, a unit train carries only one commodity (e.g., ethanol or crude oil). Unit trains consist of between 50 and 120 tank cars, the equivalent of 50,000 to 90,000 barrels of oil, becoming a "virtual pipeline" or a potential bomb train. Unit trains may increase efficiency but also increase risk. According to the American Association of

Railroads (AAR), "a single large unit train might carry 85,000 barrels of oil". There is no publicly available data on how much oil or ethanol is being shipped in unit trains versus non-unit trains (Pumphreys et al). Shippers of crude oil currently are not required to prepare a comprehensive oil spill response plan (OSRP). Shippers should be required to report even one tanker car of oil or ethanol. And limits should be placed on the number of tanker cars in any single train, especially through high population density areas.

In the case of SWLRT, nearly all ethanol trains that run on the freight track are unit trains. Substandard tank cars combined with the fact of unit trains and a high number of tanker cars means that the Kenilworth Corridor is at high risk. The proximity of an electrified LRT a mere 12 feet from tanker cars could mean that this neighborhood could become ground zero in case of derailment.

The next generation tank cars should exceed the previous 2011 standards, and that should be phased in at a quicker pace than proposed. It is clear that rail company lobbyists are actively trying to minimize PHMSA regulatory tanker car standards (Straw). You must steal your resolve and demand improvements for public safety, and for short line railroads demand similar standards with no waivers.

Small short line railroads are often not given the attention or training of larger railroads, yet they often utilize the worst tanker cars and have the least emergency training. Short Line Railroad Safety training for short line railroads transporting crude and ethanol must be a greater priority, because they often run through high-density urban corridors.

Additional Requirements for High-Hazard Flammable Trains (HHFTs)-

The proposed rule defines a HHFT as a single train carrying 20 or more carloads of Class 3 flammable liquid. The definition does not serve the safety interests of the United States. It is documented that one carload of Class 3 flammable liquid can trigger a disaster and devastation. For that reason, a HHFT should mean a single train carrying one or more carloads of Class 3 flammable liquids.

Further the proposed rule applies only to trains operated by Class I railroads. The PHMSA and FRA safety rules related to Class 3 flammable liquids should be in effect for all railroads/shippers that convey Class 3 flammable

liquids. The class (i.e., Class I, II or III) of a railroad is determined by its revenue generation. It is not reasonable to exempt a railroad from important safety requirements based on its revenue generating capacity. If a railroad/shipper does not have the capacity to adhere to relevant HHFT and Class 3 flammable liquid safety standards, it is not prudent for that entity to be in the business of conveying Class 3 flammable liquids. These important safety rules must apply to all classes of railroads, otherwise there are opportunities to circumvent necessary precautions and responsibilities.

Further the proposed rule does not address the liability insurance requirements for railroads/shippers of Class 3 flammable liquids. This is a complicated topic especially when the condition of a share ROW exists. Goals of insurance requirements should address:

1. Allocating the liability from risks between the freight railroad and the transit agency
2. Managing the additional risk by developing a prudent insurance strategy
3. Ensuring the safety of passengers in mixed freight and transit operations
4. The willingness of freight railroads to grant access to their ROW for transit operations
5. Providing satisfactory conditions for continuing service to freight customers. Without adequate insurance requirements, the public will be exposed to uncompensated losses when freight and transit disasters occur.

RECOMMENDATIONS

These proposed PHMSA rules are a beginning toward building a safer rail industry. However, the more we investigated the rules, the clearer it became that the rules do not go far enough to protect the public. The current standards are remarkable more for what they do not regulate than for what they do. Much more needs to be done to ensure public and environmental safety. We recommend that PHMSA immediately incorporate the recommendations listed below to expand this rule on safety standards to better protect the public and the environment:

1. Modify the definition of a high-hazard flammable train provided in Section 171.8 to read as follows: High hazard flammable train means a single train carrying 1 or more carloads of a Class 3 flammable liquid.
2. The PHMSA and FRA rules must apply to all trains conveying Class 3 flammable liquid regardless of railroad classification (i.e., includes Class I, Class II and Class III railroads). This would extend PHMSA regulatory actions to all railroads regardless of Class.
3. The PHMSA and FRA safety rules should apply equally to HHFTs that are conveying oil and/or ethanol. The NTSB views ethanol as dangerous as oil. Having safety rules that address the conveyance of oil but do not apply to ethanol carriers is flawed, as both are Class 3 flammable liquids.
4. Ban the use of DOT-111 tank cars now for transporting any amount of hazardous materials, instead of focusing solely on trains with more than 20 railcars of crude oil. The proposal to allow continued use of DOT-111 cars on trains of fewer than 20 cars would fail to protect public safety and the environment.
5. DOT-111 cars should not be used for the transport of any crude oils or fossil fuels, regardless of classification.
6. Retrofitted cars that fail to meet every standard of the most protective new tank car design should be barred from use for all shipments of hazardous materials, regardless of class and have regular safety

inspections to assess their continued safety.

7. Require that any and all railroads/shippers conveying one car load or more of Class 3 flammable liquids are required to notify SERCs about the operation of these trains through their States. Further it is recommended that comprehensive spill response plans be submitted for review and approval by relevant federal agencies under the National Contingency Plan, along with PHMSA. Given the relatively few number of railroad entities, it is not anticipated for this to be an undue burden. To minimize risks due to outdated comprehensive spill response plans, it is strongly recommended that plans be updated at least on a 3-year cycle and whenever there is a change of ownership in the railroad or shipper.
8. Enforcement of PHMSA/FRA/FRA rules and inspections do not happen regularly due to minimal federal staffing. An increase in the frequency of inspections is recommended, with funding provided by railroad fees.
9. Implement federal standards and rules that would minimize the occurrence of the key causes of train derailments resulting in spills; namely, the size of trains, state of infrastructure and human error. The proposed rule enumerates the most common causes of hazardous train derailments but fails to propose meaningful solutions such as limits on the number of cars permitted in each train, the use of unit trains, requirements for new build outs in shared row, infrastructure and inspection improvements, and management and oversight.
10. Derailments and spills can happen everywhere. Instead of selectively protecting only the most densely populated cities, apply these standards everywhere. As written, the proposed rules are designed to reduce risk to communities of greater than 100,000 people, but protections should be afforded all communities. These standards specifically acknowledge that it is putting people at risk solely because of where they live. This is immoral.
11. Sensitive environments including but not limited to areas near water, drinking water supplies, parks and animal habitat should be protected by all available safety standards.
12. Require full public disclosure to first responders of all hazardous rail shipments. There should be no exemptions for trains with fewer than 35 cars. Even one car of hazardous cargo should be disclosed so that emergency responders can act appropriately in the case of a disaster.
13. Uniform federal level guidelines should be developed to guide all future construction and management of LRT/commuter rail lines in shared freight/transit corridors, in particular along corridors that carry Class 3 flammable liquids.
14. A comprehensive study of derailment probability in shared ROW should be undertaken to understand the effect of track spacing, electrification of LRT adjacent to gas/oil/ethanol bearing trains, train speeds, train cargo, and train ownership (long range vs. short line railroads).
15. Minimum standards should be set for co-location of passenger and freight co-location, including that ROW should meet the AREMA minimum safety standard of 25 feet center rail to center rail (Caughron B et al). Immediately institute a moratorium on the building of LRT lines adjacent to freight lines that are conveying any amount of Class 3 flammable liquids in corridors that do not meet AREMA's 25 feet center rail to center rail standard.
16. All trains conveying Class 3 flammable liquids should be re-routed outside of high risk urban areas and away from areas at high risk for derailment or terrorism including urban neighborhoods, downtown areas, malls and major sports and entertainment complexes.

CONCLUSION

Given the exponential increase in shipments of oil and ethanol, the need to upgrade and implement relevant freight rail safety standards is urgent and necessary to the well being of our communities and environment. The coordination of oversight authority for all railroads (i.e., Class I-III) and public transit projects safety must also

improve. The proposed rule along with the aforementioned recommendations will serve to protect our nation and place the responsibility for safety precautions with the appropriate entities and not place undue burden on communities and residents.

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From: [Jacobson, Nani](mailto:Nani.Jacobson@metrotransit.org)
To: [swlrt](mailto:swlrt@metrotransit.org)
Subject: Fwd: Southwest Light Rail Transit Supplemental Draft Environmental Impact Statement
Date: Tuesday, July 21, 2015 3:36:18 PM
Attachments: [ATT00001.htm](#)
[SCAN-21072015-152154.pdf](#)
[ATT00002.htm](#)

Sent from my iPhone. Please excuse any typographical errors.

Begin forwarded message:

From: "Kulsrud, Geri M." <gkulsrud@larkinhoffman.com>
To: "Jacobson, Nani" <Nani.Jacobson@metrotransit.org>
Cc: "Lamb, Brian" <Brian.Lamb@metrotransit.org>, "Mueting, Donald" <Donald.Mueting@metc.state.mn.us>, "Fuhrmann, Mark" <Mark.Fuhrmann@metrotransit.org>, "Duininck, Adam" <Adam.Duininck@metc.state.mn.us>, "Rodriguez, Katie" <Katie.Rodriguez@metc.state.mn.us>, "Schreiber, Lona" <Lona.Schreiber@metc.state.mn.us>, "Barber, Deb" <Deb.Barber@metc.state.mn.us>, "Elkins, Steve" <Steve.Elkins@metc.state.mn.us>, "Dorfman, Gail" <Gail.Dorfman@metc.state.mn.us>, "Cunningham, Gary" <Gary.Cunningham@metc.state.mn.us>, "Letofsky, Cara" <Cara.Letofsky@metc.state.mn.us>, "Reynoso, Edward" <Edward.Reynoso@metc.state.mn.us>, "McCarthy, Marie" <Marie.McCarthy@metc.state.mn.us>, "Rummel, Sandy" <Sandy.Rummel@metc.state.mn.us>, "Melander, Harry" <Harry.Melander@metc.state.mn.us>, "Kramer, Richard" <Richard.Kramer@metc.state.mn.us>, "Commers, Jon" <Jon.Commers@metc.state.mn.us>, "Chavez, Steven" <Steven.Chavez@metc.state.mn.us>, "Wulff, Wendy" <Wendy.Wulff@metc.state.mn.us>, "Jerry Kavan" <jkavan@slosburg.com>, "rslosburg@richdalegroup.com" <rslosburg@richdalegroup.com>, "Griffith, William C." <wgriffith@larkinhoffman.com>
Subject: Southwest Light Rail Transit Supplemental Draft Environmental Impact Statement

Good afternoon:

Please disregard the earlier email sent and replace it with the attached. The hard copy you receive will contain the final version of this letter. Thank you.

Geri Kulsrud

Legal Administrative Assistant

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July 21, 2015

Nani Jacobson
Assistant Director, Environmental and Agreements
Metro Transit – Southwest LRT Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park, MN 55426

Re: Southwest Light Rail Transit (“SWLRT”) Supplemental Draft Environmental Impact Statement

Dear Ms. Jacobson:

This letter supplements our previous comment letters, dated December 28, 2012, and August 12, 2013, on behalf of SFI Partnership 54, the owner of the Claremont (the “Claremont”). In our meetings with officials of Metro Transit and project management, we have continued to express strong concerns that Segment 3 of the SW LRT-LPA severely and negatively impacts the Claremont Apartments and the public recreational trail (the “Public Trail”).

Introduction

The Southwest Light Rail Transit (SWLRT) Supplemental Draft Environmental Impact Statement (SDEIS) was released on May 22, 2015. Our comments summarize our review with respect to the anticipated impacts of the light rail project on the Claremont Apartments and the Public Trail, as well as public open space owned by the City of Minnetonka, immediately east and south of the Claremont (the “Open Space”). We have also summarized the relevant noise and vibration findings in the DEIS. Due to the narrow scope of the supplemental information provided in the SDEIS, there was limited supplemental information on any of the issues as they relate to the Claremont, the Public Trail, or Open Space, and in addition, the environmental review for the project once again failed to evaluate the Open Space as a Section 4(f) property.

Discussion

1. Section 4(f) Properties:

Section 4(f) of the US Department of Transportation Act of 1966, 49 USC 303(c) protects “publicly owned parks, recreation areas, wildlife and/or waterfowl refuges, as well as significant historic sites, whether publicly or privately owned.” The SDEIS discussion of Section 4(f) evaluations focused primarily on the areas of change in the LPA elsewhere along the route, but not near the Claremont, and did not include the Public Trail or Open Space. The discussion and analysis of Section 4(f) methodologies is described in far more detail in the SDEIS than that DEIS. However, the SDEIS Section 4(f) evaluation update is narrower in scope and addresses only the following issues:

- 1) design adjustments to the LPA identified by the Council in April and July 2014;
- 2) preliminary determinations of effect on historic properties on properties within the LPA made by FTA, in consultation with the Council, MnSHPO and consulting parties as part of the project’s Section 106 assessment of historical and archaeological resources;
- 3) provide opportunity for public comment in FTA’s intent to make a de minimis impact determination; and
- 4) revised preliminary determinations for Section 4(f) protected properties, including preliminary non-de minimis and de minimis use determinations and temporary occupancy exception determinations.

SDEIS 3-218. Because the SDEIS Section 4(f) discussion was narrow, it did not include any new information about the Public Trail, Open Space, or Opus Hill. Updated Tables 3.5-1 and 3.5-2 list the Section 4(f) properties that have been determined to be impacted, none of which are the Public Trail or Open Space. Table 3.5-3 also shows all potential Section 4(f) properties evaluated in the SDEIS Section 4(f) update, but focuses on newly impacted Section 4(f) properties that result from the alignment revisions; therefore, it does not include the Public Trail or Open Space.

It is worth noting that despite not classifying the Open Space as impacted Section 4(f) property, or potential Section 4(f) property, Exhibit 3.5-2 of the SDEIS does identify the Open Space as “Parklands, Recreation Areas, and Open Spaces,” within the Section 4(f) study area. *See Attached Exhibit 3.5-2.* No information or analysis is provided to explain why, despite being publicly-owned and classified as a “parkland, recreation area, and open space” in the SDEIS, the Open Space was not treated as a Section 4(f) property. Thus, the SDEIS has failed to provide the necessary and required analysis for permanent occupation and use of a Section 4(f) property.

2. Noise and Vibration

The Supplemental Draft EIS noise impact analysis is based on the same noise standards and methodology used for the Draft EIS, including the same FTA noise impact thresholds for severe and moderate noise impacts, which can be found in Transit Noise and Vibration Impact Assessment (FTA, 2006). *SDEIS 3-12*. The SDEIS does not revise or amend the calculations for noise or vibration levels for the Claremont, the Public Trail or Open Space, but it does provide further insight on methodology. Based on the additional information provided in the SDEIS, we believe the Council used flawed methodology in performing both the noise analysis and the vibration analysis. The issues with the methodology are described further below.

a. Noise Levels

For classification of noise impacts, the DEIS classifies affected properties as either “No Impact,” “Moderate Impact,” or “Severe Impact,” depending on the anticipated volume and frequency of noise. The anticipated noise levels qualify as a “Severe Impact” for the Claremont. The Claremont is identified as a Category 2 (residential) Noise Sensitive Land Use. *DEIS Figure 4.7-2*. The noise assessment table identifies properties only by a “cluster identifier,” and includes five Category 2 clusters without reference to an address or property. *Noise Assessment Table, Page 2 of 11*. However, using the FTA Noise Impact Assessment Spreadsheet and the assumptions used by the Council as described in the DEIS, we were able to reproduce the analysis with a result of “Severe Impact” classification for the Claremont. *See attached FTA Spreadsheet*. A Severe Impact classification is described as:

A significant percentage of people are highly annoyed by noise in this range. Noise mitigation would normally be specified for severe impact areas unless it is not feasible or reasonable (unless there is no practical method of mitigating the impact).

DEIS 4-77. Because the Claremont is identified as a Noise-Sensitive Land Use, **we request a copy of the Met Council’s FTA Noise Impact Assessment Spreadsheet specifically for the Claremont.** Of the five clusters shown in the Noise Assessment Table, it appears that the Claremont is located in the cluster identified as 3-F-EB-2-18, based on the SWT Noise Assessment Table. *DEIS Noise Assessment Table, Page 2 of 11*.

b. Vibration Levels

For classification of vibration impacts, the DEIS classifies affected properties as either “Impacted” or not impacted. While the DEIS does not identify the specific properties by name or address in the Vibration Assessment Table, the predicted noise levels appear to be 74 VdB for the Claremont, which exceeds the classification of “Residential Annoyance” and qualifies as an “Impacted” property. The DEIS identifies the Claremont as a Vibration-Sensitive Land Use; although, similar to the noise assessment, the vibration data does not indicate the specific properties by name. *DEIS Figure 4.8-2*. There appears to be a discrepancy with the number of properties identified as vibration sensitive land uses and reviewed under the vibration analysis in Segment 3F. The Vibration-Sensitive Land Use map in Figure 4.8-2 identifies three vibration-

sensitive Category 2 (residential) parcels in Segment 3F, including the Claremont; however, the data only lists one such Cluster ID. *DEIS 4-115*. That single Category 2 cluster shows a vibration level of 74 VdB. *DEIS Vibration Assessment Results by Segment, Table 2*. This means that two of the uses were either deemed to have “no impact,” were omitted, or all three uses were calculated as one single cluster. If all were calculated as a single cluster, it would likely yield an inaccurate result in light of the fact that the three parcels cover a distance of more than .80 miles. In addition, the single Category 2 cluster also indicates a distance of 133 feet from the track to the building for the 74 VdB forecast. However, the Claremont, which consists of five (5) buildings, includes two buildings at a distance of only 86 feet from the track, and the other three range from 100 to 110 feet to the tracks. A much greater vibration should be felt at a closer distance. **We request the underlying vibration analysis data on Segment 3F for further analysis.**

The DEIS also addresses soils in the LPA and describes the likelihood that soils will affect vibration. The Claremont is located in Segment 3 of the LPA. Given the geologic conditions and increased train speeds anticipated in Segment 3, the DEIS notes that “Segment 3 geologic conditions are predominantly characterized as having a high potential for efficient vibration propagation. There are few homogenous zones of ground with normal propagation characteristics.” *DEIS 4-115*. These geologic conditions should be adequately accounted for in the vibration assessment for the Claremont, as they are likely to result in vibration effects that exceed those projected.

c. Noise Methodology Discrepancy

The SDEIS and the DEIS both purport to analyze the noise impacts consistently with the methodology described in the FTA manual titled Transit Noise and Vibration Impact Assessment (FTA, 2006) (the “FTA Manual”). However, according to the methodology described in the DEIS for assessing the number of affected dwelling units, the Claremont was calculated as one dwelling unit, as opposed to the approximately 330 apartments with 600 residents that actually exist. The unit counts for the analysis were determined through Hennepin County GIS parcel data. In counting the number of dwelling units in each multi-family apartment building, the Met Council used the number of property owners to estimate the number of units. *DEIS 4-85*. This methodology is inconsistent with the methodology described in the FTA Manual, and results in a dramatic under-counting the dwellings affected by SWLRT noise and vibration.

The FTA Manual describes the importance of counting dwelling units for noise impacts and states that “In some cases it may be necessary to supplement the land-use information or determine the number of dwelling units within a multi-family building with a visual survey.” *FTA Manual, 5-17*. The steps for developing an assessment of noise impact are described as follows:

1. Construct tables for all the noise-sensitive land uses identified in the three land-use categories from Section 5.4.

2. Tabulate buildings and sites that lie between the impact contours and the project boundary. For residential buildings, an estimate of the number of dwelling units is satisfactory. This is done for each alternative being considered.

3. Prepare summary tables showing the number of buildings (and estimated dwelling units, if available) within each impact zone for each alternative. Various alternatives can be compared in this way, including those with and without noise mitigation measures.

4. Determine the need for mitigation based on the policy considerations discussed in Section 3.2.4 and the application guidelines provided in Section 6.8.

FTA Manual, 5-17 (emphasis added). Additionally, when establishing the noise-assessment inventory tables for rail and bus facilities, the FTA Manual states that the tables should include the following types of information:

- Receiver identification and location
- Land-use description
- Number of noise-sensitive sites represented (number of dwelling units in residences or acres of outdoor noise-sensitive land)
- Closest distance to the project
- Existing noise exposure
- Project noise exposure
- Level of noise impact (No Impact, Moderate Impact, or Severe Impact)

These tables should provide a sum of the total number of receivers, especially numbers of dwelling units, predicted to experience Moderate Impact or Severe Impact.

FTA Manual 6-34-6-35 (emphasis added). Despite the guidance in the FTA Manual to estimate dwelling units in multi-family units, it appears the Council simply based the calculation off of property owners listed on Hennepin County records. This means that the Council failed to adequately ascertain the number of dwelling units in non-owner-occupied multi-family dwellings, which results in a gross under-calculation of affected dwelling units that disproportionately affects renters.

3. Proposed Cost Reductions

In May and June of 2015, the Council proposed the elimination of two pedestrian underpasses near the Opus station that would result in increased risks and reduced access for the

approximately 600 residents of the Claremont who may attempt to use the pedestrian trails near the station. The reduction in access will make it more difficult and dangerous for Claremont residents to access Opus Station and use the SWLRT. While there are no details regarding which two of the four underpasses near the Opus station would be eliminated, any elimination would be detrimental to the residents of the Claremont and would not likely yield the anticipated \$1-2 million in savings. These underpasses were included in the original plan for safety to allow the existing trails to be used without disruption. While the details are yet to be revealed, the elimination of underpasses is unlikely to yield the \$1-2 million in capital cost savings because any alternative methods of pedestrian access must be constructed, whether it is to reroute existing trails or construct at-grade pedestrian crossings. Not only would any alternative plans be expensive, but they would result in increased risk and reduced access for the Claremont residents.

Conclusion

The SDEIS provides little new information about the evaluation of the impacts of the SWLRT on the Claremont, in terms of noise and vibration, or on the Public Trail, or on the Open Space as Section 4(f) land. It does, however, confirm that the Council has not revised its earlier analysis based on the Section 4(f) information that has been made available by SFI. In addition, the review of the methodology used in both the DEIS and the SDEIS indicates that the approach used for counting dwelling units for the purposes of noise assessments was inconsistent with the Federal guidelines. Similarly, the vibration assessments are not accurate as they pertain to the Claremont and the impact is grossly understated, with vibration levels that are likely significantly higher than the 72 VdB impact threshold and much higher than the 74 VdB represented. In addition, the recently announced elimination of pedestrian underpasses near the Opus station would cause the residents of the Claremont to bear even more of the burden of the SWLRT than previously proposed, by eliminating pedestrian access and decreasing safety.

Please include this comment letter in the official record for environmental review of the project. In addition, please provide the requested data which was highlighted within our comments contained in this letter.

Sincerely,



William C. Griffith, for
Larkin Hoffman

Direct Dial: 952-896-3290
Direct Fax: 952-842-1729
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cc: Brian Lamb, Metro Transit
Don Meuting, Metropolitan Council

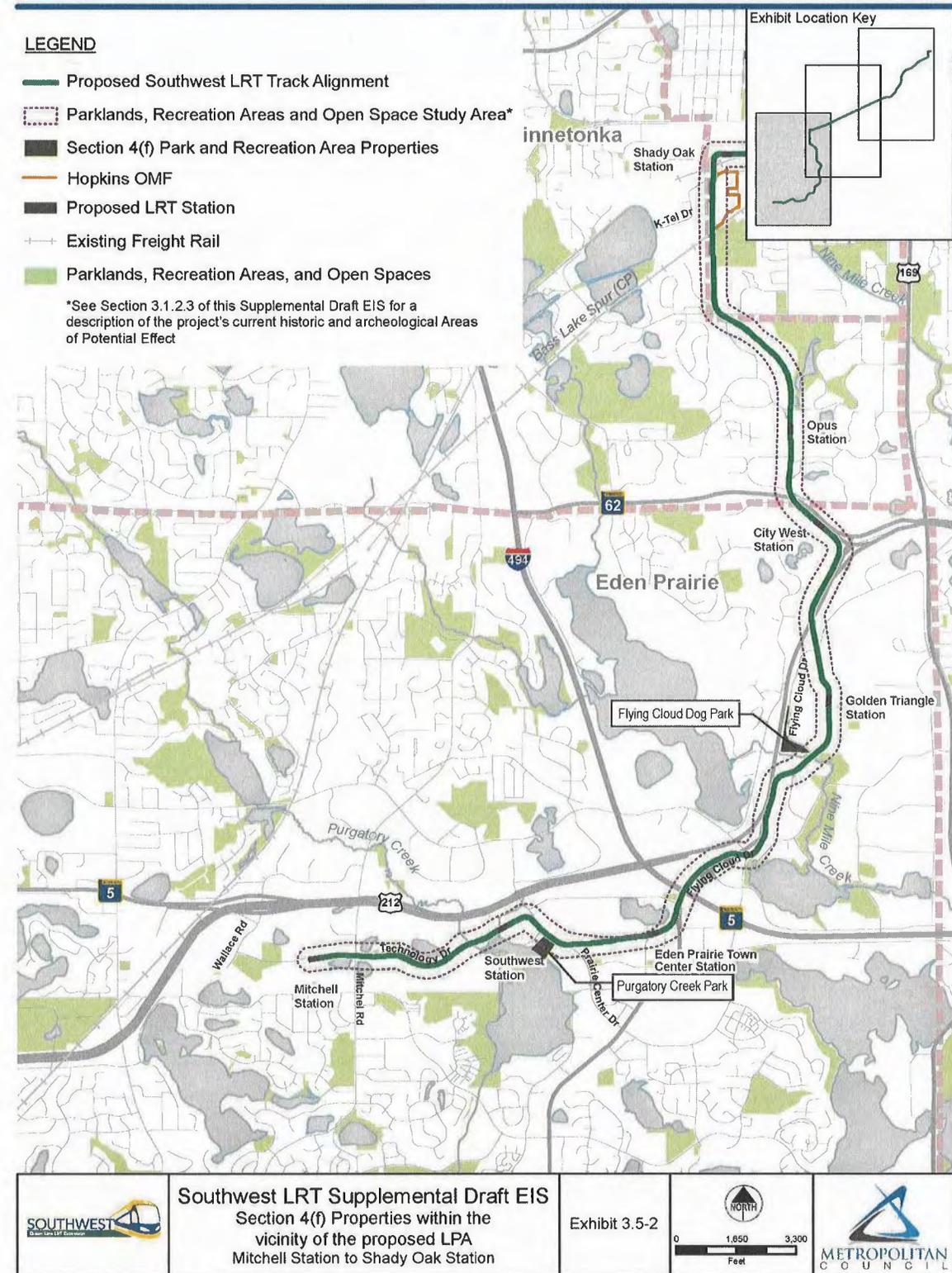
Nani Jacobson
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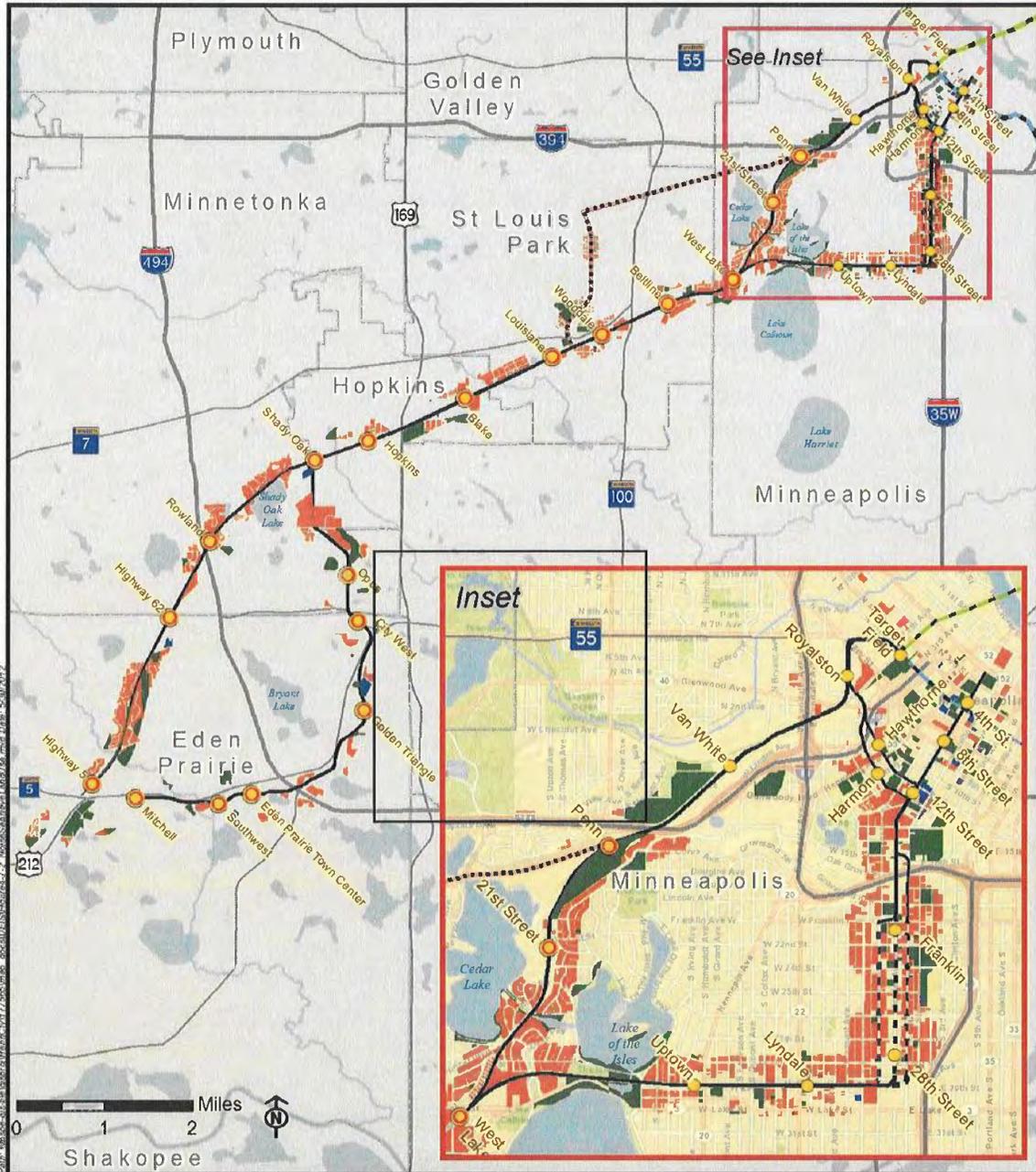
Mark Fuhrmann, Metro Transit
Members of the Metropolitan Council

4843-2146-2054, v. 2

EXHIBIT 3.5-2

Section 4(f) Properties within the vicinity of the proposed LPA – Mitchell Station to Shady Oak Station





<p>Legend</p> <ul style="list-style-type: none"> ● Station ● Park & Ride Station — LRT Alignment Alternatives — Freight Rail Relocation — Northstar Commuter Rail — Hiawatha Light Rail 		<p>Noise-sensitive land use categories</p> <ul style="list-style-type: none"> ■ Category 1 noise sensitive land use ■ Category 2 noise sensitive land use ■ Category 3 noise sensitive land use
<p>Figure 4.7-2 Noise Sensitive Land Use</p>		

Data: MnDOT, DNR, MetCouncil, Hennepin County

Noise Assessment Table

Alternatives with Representative Receptor/Cluster Identifier	Freight Count		Traffic Use Category (1,2 or 3)	Relocation Side of Guideway (EB/WB)	Distance to Track (feet)	Train Speed (mph)	Noise Assessment Metric (Leq/Ldn)	Existing Noise Level (dBA)	Impact Criteria		Project Related Noise (dBA)	Cumulative Noise Level (dBA)	Increase Over Existing (dBA)	Impact Level	Number of Impacted Receptors	
	Land (qty)	Unit (qty)							Moderate (dBA)	Severe (dBA)					Moderate (land [units])	Severe (land [units])
	Identifier															
1-C-EB-2-32	1	1	2	EB	663	40	Ldn	55	55	61	50	56	1	None	-	-
1-C-EB-2-38	6	6	2	EB	89	40	Ldn	55	55	61	60	61	6	Moderate	6 [6]	-
1-C-EB-2-39	8	8	2	EB	312	40	Ldn	55	55	61	51	56	1	None	-	-
1-C-EB-3-7	1	1	3	EB	1407	40	Leq	60	63	68	44	60	0	None	-	-
1-C-WB-2-24	13	13	2	WB	125	40	Ldn	64	60	66	62	66	2	Moderate	13 [13]	-
1-C-WB-2-25	17	17	2	WB	489	40	Ldn	64	60	66	53	64	0	None	-	-
1-C-WB-2-26	13	12	2	WB	443	40	Ldn	55	55	61	54	58	3	None	-	-
1-C-WB-2-33	10	10	2	WB	210	40	Ldn	55	55	61	60	61	6	Moderate	10 [10]	-
1-C-WB-2-34	6	6	2	WB	121	40	Ldn	55	55	61	60	61	6	Moderate	6 [6]	-
1-C-WB-2-35	26	26	2	WB	413	40	Ldn	55	55	61	53	57	2	None	-	-
1-C-WB-2-36	13	13	2	WB	115	40	Ldn	55	55	61	59	60	5	Moderate	13 [13]	-
1-C-WB-2-37	43	43	2	WB	305	40	Ldn	55	55	61	52	57	2	None	-	-
3-A-EB-2-1	1	91	2	EB	20	50	Ldn	63	60	65	71	72	9	Severe	-	1 [91]
3-A-EB-2-2	2	146	2	EB	125	50	Ldn	63	60	65	63	66	3	Moderate	2 [146]	-
3-A-EB-3-1	1	1	3	EB	154	50	Leq	62	64	69	58	63	1	None	-	-
3-A-WB-3-9	1	1	3	WB	1040	50	Leq	62	64	69	51	62	0	None	-	-
3-B-EB-1-1	1	1	1	EB	758	20	Leq	62	59	64	51	62	0	None	-	-
3-B-WB-3-2	1	1	3	WB	912	20	Leq	62	64	69	53	63	1	None	-	-
3-C-EB-2-3	4	4	2	EB	1293	30	Ldn	63	60	65	51	63	0	None	-	-
3-C-EB-2-4	2	2	2	EB	719	30	Ldn	61	58	64	54	62	1	None	-	-
3-C-EB-2-5	2	2	2	EB	702	30	Ldn	61	58	64	51	61	0	None	-	-
3-C-EB-2-6	2	2	2	EB	256	30	Ldn	61	58	64	57	62	1	None	-	-
3-C-EB-2-8	2	97	2	EB	653	30	Ldn	65	61	66	53	65	0	None	-	-
3-C-EB-3-3	1	1	3	EB	240	30	Leq	64	65	71	58	65	1	None	-	-
3-C-WB-2-23	4	4	2	WB	1112	30	Ldn	65	61	66	51	65	0	None	-	-
3-C-WB-2-7	2	2	2	WB	233	30	Ldn	61	58	64	58	63	2	None	-	-
3-D-EB-1-2	1	1	1	EB	213	30	Leq	58	57	62	55	60	2	None	-	-
3-D-EB-2-10	1	1	2	EB	627	30	Ldn	65	61	66	54	65	0	None	-	-
3-D-EB-2-9	1	1	2	EB	269	30	Ldn	65	61	66	56	66	1	None	-	-
3-D-WB-2-11	2	2	2	WB	791	30	Ldn	65	61	66	52	65	0	None	-	-
3-D-WB-3-4	1	1	3	WB	89	30	Leq	58	62	67	57	61	3	None	-	-
3-D-WB-3-5	1	1	3	WB	617	30	Leq	58	62	67	51	59	1	None	-	-
3-E-EB-3-6	1	1	3	EB	768	30	Leq	62	64	69	49	62	0	None	-	-
3-E-WB-2-12	1	1	2	WB	1237	30	Ldn	65	61	66	51	65	0	None	-	-
3-F-EB-2-13	3	99	2	EB	938	50	Ldn	62	59	64	55	63	1	None	-	-
3-F-EB-2-14	1	1	2	EB	187	50	Ldn	62	59	64	66	67	5	Severe	-	1 [1]
3-F-EB-2-15	1	1	2	EB	164	50	Ldn	62	59	64	71	72	10	Severe	-	1 [1]
3-F-EB-2-18	1	1	2	EB	230	50	Ldn	62	59	64	66	67	5	Severe	-	1 [1]
3-F-EB-2-19	3	3	2	EB	528	50	Ldn	62	59	64	63	66	4	Moderate	3 [3]	-
3-F-EB-3-8	1	1	3	EB	607	50	Leq	62	64	69	57	63	1	None	-	-

Project: **Claremont**

Receiver Parameters		
Receiver:	Claremont	
Land Use Category:	2. Residential	
Existing Noise (Measured or Generic Value):	62 dBA	

Number of Noise Sources: **4**

Noise Source Parameters			Source 1
	Source Type:	Fixed Guideway	
	Specific Source:	Electric Locomotive	
Daytime hrs	Avg. Number of Loco/train	1	
	Speed (mph)	50	
	Avg. Number of Events/hr	13.2	
Nighttime hrs	Avg. Number of Loco/train	1	
	Speed (mph)	50	
	Avg. Number of Events/hr	6.66	
Distance	Distance from Source to Receiver (ft)	500	
	Number of Intervening Rows of Buildings	0	
Adjustments			

Noise Source Parameters			Source 2
	Source Type:	Fixed Guideway	
	Specific Source:	Rail Car	
Daytime hrs	Avg. Number of Rail Car/train	3	
	Speed (mph)	50	
	Avg. Number of Events/hr	13.2	
Nighttime hrs	Avg. Number of Rail Car/train	3	
	Speed (mph)	50	
	Avg. Number of Events/hr	6.66	
Distance	Distance from Source to Receiver (ft)	500	
	Number of Intervening Rows of Buildings	0	
Adjustments			
	Noise Barrier?	No	
	Jointed Track?	No	
	Embedded Track?	No	
	Aerial Structure?	No	

Noise Source Parameters			Source 3
	Source Type:	Fixed Guideway	
	Specific Source:	Locomotive Warning Horn	
Daytime hrs	Speed	50	
	Avg. Number of Events/hr	13.2	
Nighttime hrs	Speed	50	
	Avg. Number of Events/hr	6.66	
Distance	Distance from Source to Receiver (ft)	500	
	Number of Intervening Rows of Buildings	0	
Adjustments			

Noise Source Parameters			Source 4
	Source Type:	Stationary Source	
	Specific Source:	Crossing Signals	
Daytime hrs	Signal Duration/hr (seconds)	5	
Nighttime hrs	Signal Duration/hr (seconds)	5	
Distance	Distance from Source to Receiver (ft)	1500	
	Number of Intervening Rows of Buildings	0	
Adjustments			
	Noise Barrier?	No	

Noise Source Parameters			Source 5
	Source Type:	Stationary Source	
	Specific Source:	Crossing Signals	
Daytime hrs	Signal Duration/hr (seconds)	5	
Nighttime hrs	Signal Duration/hr (seconds)	5	
Distance	Distance from Source to Receiver (ft)	1500	
	Number of Intervening Rows of Buildings	0	
Adjustments			
	Noise Barrier?	No	

Project Results Summary

Existing Ldn:	62 dBA
Total Project Ldn:	76 dBA
Total Noise Exposure:	75 dBA
Increase:	13 dB
Impact?:	Severe

Distance to Impact Contours

Dist to Mod. Impact Contour:	---
Dist to Sev. Impact Contour:	---

Source 1 Results

Leq(day):	50.6 dBA
Leq(night):	47.6 dBA
Ldn:	54.6 dBA

Source 2 Results

Leq(day):	47.4 dBA
Leq(night):	44.4 dBA
Ldn:	51.4 dBA
Incremental Ldn (Src 1-2):	59.3 dBA

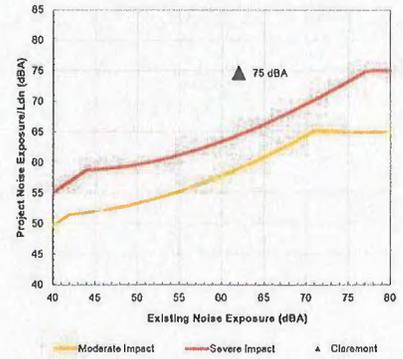
Source 3 Results

Leq(day):	70.6 dBA
Leq(night):	67.6 dBA
Ldn:	74.6 dBA
Incremental Ldn (Src 1-3):	74.7 dBA

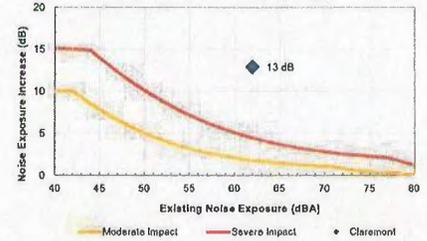
Source 4 Results

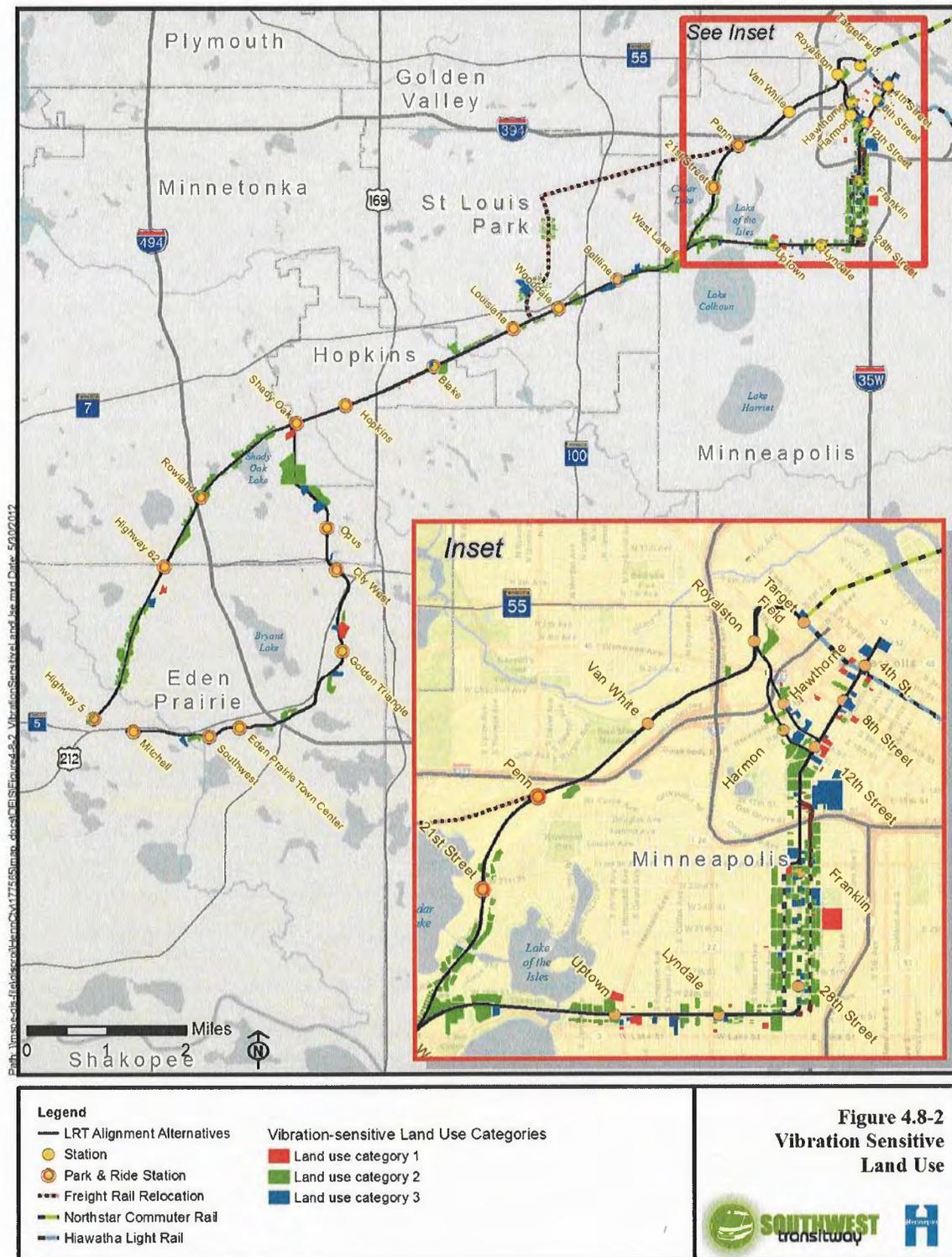
Leq(day):	7.0 dBA
Leq(night):	7.0 dBA
Ldn:	14.3 dBA
Incremental Ldn (Src 1-4):	74.7 dBA

Noise Impact Criteria
(FTA Manual, Fig 3-1)



Increase in Cumulative Noise Levels Allowed
(FTA Manual, Fig 3-2)





**Table 2. Segment 3 (LRT 3A, LRT 3C-1, and LRT 3C-2)
General Vibration Assessment Results**

Cluster ID	Land Use Category	Side of Track	Distance to Track (feet)	Speed (mph)	Predicted Vibration Level (VdB)	Impact Criterion (VdB)	Number of Impacts (No. of impacted units)
Segment 3 between Mitchell Station and Southwest Station							
3-A-EB-2-1	2	EB	38	50	85	72	1 (91)
3-A-EB-2-2	2	EB	124	50	75	72	2 (146)
Segment 3 between Southwest Station and Eden Prairie Town Center Station							
No Predicted Impacts							
Segment 3 between Eden Prairie Town Center Station and Golden Triangle Station							
No Predicted Impacts							
Segment 3 between Golden Triangle Station and City West Station							
3-D-EB-1-1	1	EB	160	30	68	65	1 (1)
Segment 3 between City West Station and Opus Station							
No Predicted Impacts							
Segment 3 between Opus Station and Shady Oak Station							
3-F-EB-2-7	2	EB	133	50	74	72	3 (3)
3-F-EB-3-3	3	EB	26	50	87	75	1 (1)
3-F-WB-1-2	1	WB	107	50	66	65	1 (1)
3-F-WB-3-4	3	WB	50	50	83	75	2 (2)
Total Number of Segment 3 Impacts							11 (245)

**Table 3. Segment 4 (LRT 1A, LRT 3A, LRT 3C-1, and LRT 3C-2)
General Vibration Assessment Results**

Cluster ID	Land Use Category	Side of Track	Distance to Track (feet)	Speed (mph)	Predicted Vibration Level (VdB)	Impact Criterion (VdB)	Number of Impacts (No. of impacted units)
Segment 4 between Shady Oak Station and Hopkins Station							
No Predicted Impacts							
Segment 4 between Hopkins Station and Blake Station							
4-B-EB-1-1	1	EB	111	50	76	65	1 (1)
4-B-WB-3-1	3	WB	104	50	77	75	1 (1)
Segment 4 between Blake Station and Louisiana Station							
4-C-EB-2-2	2	EB	162	50	72	72	1 (1)
Segment 4 between Louisiana Station and Wooddale Station							
No Predicted Impacts							
Segment 4 between Wooddale Station and Bellline Station							
No Predicted Impacts							
Segment 4 between Bellline Station and West Lake Station							
4-F-EB-2-11	2	EB	101	40	75	72	12 (12)
Total Number of Segment 4 Impacts							15 (15)

- Light Rail Vehicle horns are sounded at grade crossings and crosswalks where vehicle speeds exceed 45 mph (not including 45 mph).
- Stationary bells are used at preemptive grade crossings and crosswalks for five seconds at each passing of a train.
- This analysis modeled each segment-specific speed to accurately account for proposed operational conditions. Additionally, the acoustical shielding effects of intervening buildings were applied where more than one row of buildings existed. The analysis applied ground attenuation where applicable.

4.7.3.5 Assessment

The unit counts for this analysis were arrived at using Hennepin County GIS parcel data. These data identify multiple property owners for the same parcel of residential property. Using aerial photographs to verify the parcel data, these were determined to be multiunit residences. Each parcel was counted as one land-use, and the number of owners was used to estimate the number of units. This may have omitted from the unit count some multiunit housing where there is one owner with one or more tenants, but these properties would still be counted in the land-uses.

Ambient noise is measured by what is present in existing conditions. Low ambient noise levels cause the impact threshold (the point at which there is an impact) to be lower. Ambient noise levels were as low as 48 dBA on an Leq basis and 51 dBA on an Ldn basis for Segment 1, 55 dBA on an Leq basis and 56 dBA on an Ldn basis for Segment 3, 56 dBA on an Leq basis and 54 dBA on an Ldn basis for Segment 4, 44 dBA on an Leq basis and 52 dBA on an Ldn basis for Segment A, and 58 dBA on an Leq basis and 58 dBA on an Ldn basis for Segment C.

Table 4.7-3 summarizes the results of the noise impact assessment included category 1, 2 and 3 land uses for the four major alternatives. Both the land parcel and individual housing/business unit impacts are presented. Brief discussions of noise impacts along the corridor follow, separated by track segment. A complete list of representative receptors is provided Appendix H, Supporting Technical Reports and Memoranda. Each representative receptor was assessed for project-related noise and it is compared to the existing noise level. LRT 3A (LPA) and LRT 3A-1 (co-location alternative) include the fewest number of moderate and severe impacts overall. LRT 1A has a lower number of moderate and severe impacts than LRT 3C-1 (Nicollet Mall) and LRT 3C-2 (11th/12th Street) because it has a lower number of total units than these alternatives. LRT C-1 (Nicollet Mall) and LRT 3C-2 (11th/12th Street) are located in more densely populated urban areas with a greater number of units per residential parcel.

From: [Gibbons, Andrew](#)
To: [swlrt](#)
Subject: SWLRT - Comments on the Supplemental Draft EIS
Date: Tuesday, July 21, 2015 4:10:35 PM
Attachments: [2015 07 21 Letter to Nani Jacobson.pdf](#)

Ms. Jacobson:

Please find attached the comments of AGNL Health, L.L.C. to the Southwest Light Rail Transit ("LRT") Supplemental Draft Environmental Impact Statement. A hard copy of these comments is also being hand-delivered to the Southwest LRT project office today.

Respectfully Submitted,

Andrew J. Gibbons

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July 21, 2015

Via electronic mail and messenger

Nani Jacobson
Assistant Director, Environmental and Agreements
Metro Transit - Southwest LRT Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park, MN 55426

Re: Public Comments – Southwest Light Rail Transit Supplemental Draft Environmental Impact Statement

Dear Ms. Jacobson:

I am writing on behalf of our client, AGNL Health, L.L.C. ("AGNL Health"), regarding the Southwest Light Rail Transit Project ("SWLRT") Supplemental Draft Environmental Impact Statement ("SDEIS"). AGNL Health is the owner of the office campus located at 13625 and 13675 Technology Drive in Eden Prairie, Minnesota (the "Campus"), which is located immediately adjacent to the Eden Prairie Segment of the SWLRT (as modified and evaluated in the SDEIS) between Mitchell Road and the Southwest Station.¹ As an owner of property immediately adjacent to and in part included in the the preferred route for the Eden Prairie Segment, AGNL Health is concerned with the potential for significant impacts to the carefully-designed atmosphere of the Campus. AGNL Health's concerns with the SWLRT Project and the analysis presented in the SDEIS can be summarized as follows, and are discussed in further detail in these comments.

- The Campus is a unique receptor along the Eden Prairie Segment, and requires specific attention to its many unique features for consideration of potential impacts.
- The SWLRT Project development and environmental review processes have been disjointed and procedurally-flawed, and there continues to be significant uncertainty regarding the SWLRT Project scope and design, creating gaps in the environmental analysis.
- The SWLRT Project Scope included in the SDEIS and Final Environmental Impact Statement ("FEIS") should be modified to align with the recent decisions of the Metropolitan Council to reduce the project scope to match budget constraints.
- The SDEIS identifies multiple significant environmental issues that have yet to be analyzed, and notes that the impacts will be detailed for the first time in the FEIS. Some of these unresolved issues relate directly to the potential impacts to the Campus, and are of significant concern to AGNL Health.

¹ The Campus is referred to in the SDEIS in its entirety as the "Optum Health Services headquarters" and in reference to potential impacts to specific auditorium facilities within the Campus as the "Optum Auditorium."

- As a result, the evaluation of potential impacts of the SWLRT Project and the necessary measures to mitigate those impacts is incomplete, particularly with respect to the Campus.
- A more thorough identification and analysis of unresolved environmental impacts and potential mitigation for those impacts is necessary.
- The Metropolitan Council should not wait to address these significant issues until publication of the FEIS, and should provide AGNL Health, other members of the public, and agencies with clarity on these issues as soon as possible to facilitate an informed public participation process.

I. The AGNL Health Campus was Designed to Create a Specific Atmosphere, Which Will be Jeopardized by the Location of the SWLRT Eden Prairie Segment.

The Campus, owned by AGNL Health, consists of multiple coordinated and connected buildings with office spaces, a 300 seat auditorium that is used for broadcasting important company meetings across the country, a structured parking facility with capacity for more than 1200 vehicles, and preserved wetlands areas. The Campus is currently leased to a major Minnesota health care company, with over 1300 of its employees, including executive management, currently working at the Campus. The Campus was designed to create an atmosphere that supports connectivity and collaboration by emphasizing naturally lit open spaces and by diffusing the boundary between the buildings and the natural beauty of the Campus site. This design and atmosphere is fundamental to the Campus. The potential location of the SWLRT Project along Technology Drive threatens this fundamental character of the Campus, and would significantly diminish the quality of the experience at the Campus for employees and visitors, as further described below. Indeed, the Campus atmosphere stands to be impacted by air-borne and ground-borne noise, vibration, encroachment on buffer areas, and visual infiltration of sight-lines. Any one of these impacts would be disruptive to the Campus, and the combination of all of these factors poses a serious threat to the Campus atmosphere.

II. The SWLRT Project Design Continues to Be a Moving Target, and the Environmental Review Process Continues to Track Separately from Project Development Efforts, Thereby Creating Uncertainty and Significant Impediments to Public Participation.

The SDEIS was prepared to evaluate within the environmental review process various significant changes to the SWLRT Project design, including changes to the alignment of the Eden Prairie Segment. AGNL Health first became concerned with the potential impacts of the SWLRT when a modified alignment for the West Segment 1A was developed, relocating the SWLRT to Technology Drive. The alignment analyzed in the Draft Environmental Impact Statement ("Draft EIS"), however, identified that portion of the SWLRT as being aligned along Highway 212, not Technology Drive. As these design changes occurred following preparation of the Draft EIS, the changes "needed to be evaluated for environmental impacts that were not documented in the Project's Draft EIS and had the potential to result in new adverse impacts."²

² SDEIS at ES-3.

Despite not having evaluated at that time any of the potential impacts of the realignment along Technology Drive as part of the Draft EIS, the Metropolitan Council proceeded with the municipal consent process required pursuant to Minnesota Statutes §473.9994 for the modified alignment along Technology Drive. This created significant confusion with the public, as the municipal consent process was the first public forum in which the modified Eden Prairie Segment was presented, and ran afoul of the fundamental principal of environmental review that governmental actions be informed by the environmental review process.³

This confusion still continues with publication of the SDEIS. On April 27, 2015, the Metropolitan Council released a revised cost estimate for the SWLRT project of approximately \$1.994 billion, a \$341 million increase from the cost estimates analyzed in the SDEIS.⁴ This significant increase in cost estimate triggered discussions regarding potential modifications to the SWLRT Project scope to address the budget shortfall. Yet, despite these ongoing discussions, the Metropolitan Council published and made available for public comment the SDEIS in May of 2015. Since publication of the SDEIS, and while the public comment period was still ongoing, the Metropolitan Council on July 8, 2015 approved a revised SWLRT Project plan eliminating certain features from the SWLRT Project scope to achieve necessary cost reductions.

AGNL Health supports the modifications to the SWLRT Project approved by the Metropolitan Council on July 8, 2015, as the modifications to the Eden Prairie Segment eliminate the potential for impacts to the AGNL Health Campus. It remains unclear, however, whether the scope of the SWLRT Project for the purposes of environmental review will be similarly revised, as it should be, or if environmental review will be conducted for the broader project scope identified in the SDEIS despite the clear decision by the Metropolitan Council.⁵ Such uncertainty significantly jeopardizes the effectiveness of the public participation process. Furthermore, the SWLRT Project design presented in the SDEIS is characterized as "more advanced development" but still "conceptual" and impacts are "subject to change as design proceeds."⁶

The FEIS should clarify the project scope being evaluated in the environmental review process (including any design features that are considered potential future developments⁷) so that the project

³ MEPA expressly prohibits a final governmental decision approving a project such as the SWLRT until *after* a FEIS is published and determined to be adequate. See Minn. Stat. § 116D.04, subd. 2a; Minn. R. 4410.3100, subp. 1. AGNL Health notes that the Metropolitan Council plans to initiate a second municipal consent process in light of the changes in the project scope, and that it will vote to initiate this process one day after the SDEIS comment period closes, July 22, 2015. See <http://metro council.org/Transportation/Projects/Current-Projects/Southwest-LRT/municipal.aspx> (last visited July 21, 2015). As is discussed further in these comments, the municipal consent process should include consideration of a number of potential impacts of the SWLRT that have yet to be fully evaluated for the Eden Prairie Segment.

⁴ SDEIS at 5-4, Table 5.4-1, n. a.

⁵ At the June 17, 2015 SDEIS public hearing held in Eden Prairie, a representative of the SWLRT Project indicated that any changes in the SWLRT Project design would not impact the environmental review process.

⁶ SDEIS at 3-35.

⁷ The SDEIS further states that the Metropolitan Council also "developed a design adjustment that would *initially* implement a western terminus of the proposed light rail line at the Southwest Station," and that "design plans for this western terminus would not preclude a later extension of LRT further to the west." SDEIS at 2-47, n. 25. This language in

scope evaluated in the environmental review process aligns with the project scope approved by the Metropolitan Council on July 8, 2015. The Metropolitan Council should further inform relevant agencies and the public as soon as possible that a corresponding scale-back of the project scope will be made in the FEIS to avoid confusion in other processes, such as the municipal consent process.

III. The SDEIS Analysis of the Potential Impacts of the SWLRT Eden Prairie Segment is Incomplete and Additional Analysis of the Potential Impacts of the Eden Prairie Segment and Identification of Required Mitigation Measures is Necessary.

The SDEIS identifies many significant unresolved environmental issues and notes that the impacts and mitigation will be analyzed and detailed for the first time in the FEIS. Because of the uncertainty regarding the scope of the SWLRT Project moving forward, and in particular the scope of the Eden Prairie Segment that will be included in the FEIS, it is unclear to what extent additional assessment and consideration of these unresolved issues will be completed. As is described in this section, however, many of these unresolved environmental issues relate directly to the AGNL Health Campus, and cause AGNL Health great concern about the potential impacts to its property. Accordingly, AGNL Health provides the comments below on these unresolved environmental issues for consideration if the portion of the Eden Prairie Segment between Mitchell Station and the Southwest Station is to be included in the FEIS. Given that the purpose of the SDEIS is to identify new potential significant adverse impacts associated with the SWLRT Project design adjustment, and to allow for public and agency comment on the design adjustments and associated impacts, the Metropolitan Council should address these unresolved issues and provide opportunities for public participation in advance of publication of the FEIS.

A. The SDEIS Does Not Evaluate the Noise and Vibration Impacts at the AGNL Health Campus, and Such Impacts are Likely to be Significant.

AGNL Health is concerned about the potential for noise and vibration from the SWLRT to invade the ambience of health, peace, and quietude that is a central focus of the carefully-planned atmosphere of the Campus. Generally, the noise analysis in the SDEIS is incomplete, and has yet to provide site-specific data and analysis of the AGNL Health Campus. Thus, the noise analysis for the Eden Prairie Segment will need to be corrected and supplemented, and the AGNL Health Campus evaluated, for inclusion in the FEIS. To enhance public participation in the environmental review process, AGNL Health recommends that the Metropolitan Council make these adjustments to the noise and vibration impacts analysis available to the public prior to publication in the FEIS.

The Noise and Vibration Analyses for the Eden Prairie Segment are Incomplete

The noise and vibration analyses in the SDEIS are incomplete for the Eden Prairie Segment as a whole. Table 3.1-1 indicates that, for the Eden Prairie Segment, Noise and Vibration impacts were addressed in the SDEIS,⁸ but this is contrary to the detailed discussion of these impacts in Section 3.2.

the SDEIS is contrary to the recent Metropolitan Council decision, which did not include a western extension to Mitchell Station at a future date.

⁸ SDEIS at 3-3.

Indeed, the SDEIS specifically acknowledges that the noise impacts analysis is not complete, and further development of the analysis is required in the FEIS. For instance, the SDEIS recognizes that "noise mitigation measures to be incorporated into the project will be made in a noise mitigation plan and documented in the project's Final EIS."⁹ Additionally, the SDEIS notes that an approach for addressing Minnesota noise pollution rules and statutes is yet to be developed with the Minnesota Pollution Control Agency ("MPCA"), and that this approach will be developed for presentation in the FEIS.¹⁰ The SDEIS also indicates that the FEIS "will contain a comprehensive technical appendix with detailed information regarding all inputs, measurements, an impact assessment, and mitigation."¹¹

The analysis of potential vibration impacts along the Eden Prairie Segment is also incomplete. The SDEIS presents analysis of long- and short-term vibration impacts at various receptors along the Eden Prairie Segment.¹² Notably absent from this analysis, however, is any discussion of short- or long-term ground-borne noise in conjunction with the vibration analysis, other than identifying that the AGNL Health Campus as a "ground-borne noise sensitive receptor."¹³ The SDEIS also makes the conclusory assertion that "[t]here are no projected long-term vibration impacts in the Eden Prairie Segment, therefore no mitigation is identified"¹⁴ but then acknowledges in a footnote that assessment of vibration and ground-borne noise at the AGNL Health Campus has yet to be completed, and "the potential for impacts and the corresponding need for any mitigation" will be presented in the Final EIS.¹⁵ How can this conclusion regarding vibration impacts be reached when the analysis is not complete?

Finally, the SDEIS includes only a cursory mention of short-term vibration impacts, without any analysis of the potential for impacts at particular receptors, or any description of the level of such impacts. The SDEIS simply concludes that such impacts "are expected to be localized, temporary, and transient."¹⁶ The SDEIS goes on to state that "final determinations of short-term vibration mitigation measures to be incorporated into the project for this segment will be made in a vibration mitigation plan and documented in the project's Final EIS."¹⁷ Because of the sensitivity of Campus facilities, the close proximity of the SWLRT to the Campus, and the nature of the soils in the vicinity of the Campus, these short-term vibration and ground-borne noise impacts have the potential to be at the Campus for extended periods of time, and could also lead to major structural impacts to Campus buildings. Without any site-specific testing or analysis of the potential for these impacts, it should not be assumed that practical mitigation measures will effectively mitigate the impacts, and a detailed analysis of this issue should be completed and made available prior to the FEIS.

⁹ SDEIS at 3-14.

¹⁰ SDEIS. at 3-15.

¹¹ SDEIS at 3-73.

¹² SDEIS at 3-74.

¹³ *Id.*

¹⁴ *Id.*

¹⁵ SDEIS at 3-74, n. 17.

¹⁶ SDEIS at 3-74.

¹⁷ SDEIS at 3-75.

These additional assessments of noise and vibration mitigation measures, compliance with Minnesota noise standards, analysis of long-term ground-borne noise impacts, analysis of short-term vibration and ground-borne noise impacts, and comprehensive technical information underlying the analyses are essential to a complete understanding of the potential for noise and vibration impacts on the Eden Prairie Segment, including the AGNL Health Campus, and should be made available to the public and agencies in advance of the FEIS to allow for robust public and agency involvement on these issues.

The Analyses of the AGNL Health Campus Are Deferred

The SDEIS also defers until the FEIS evaluation of potential noise and vibration impacts specific to the AGNL Health Campus. As noted above, the Campus contains several areas that are highly-sensitive acoustical environments, including an auditorium and a broadcasting facility. The SDEIS recognizes this fact, noting that the auditorium at the AGNL Health Campus is a noise- and vibration-sensitive receptor.¹⁸ The SDEIS indicates that analysis of noise and vibration impacts to the AGNL Health auditorium will be completed for the first time in the FEIS.¹⁹ The SDEIS also indicates, however, that vibration measurements taken at the Southwest Station Condos "can be applied to the entire Eden Prairie Segment," and that there are "no vibration impacts" in the Eden Prairie Segment.²⁰ The Southwest Station Condos do not, however, serve as an adequate proxy for the unique conditions at the Campus, including the soil conditions and the sensitive auditorium facilities. Thus, site-specific measurements and analysis of both noise and vibration impacts at the Campus are required.

Based on the results of the noise analysis presented in the SDEIS, AGNL Health is concerned that the noise and vibration impacts to the Campus will be Moderate or Severe. The noise analysis data presented in the SDEIS are summarized in the following table.

Location	Distance from near LRT Track Centerline (feet)	Existing Noise Level (dBA)	Project Noise Levels (dBA)	Impact?
Lincoln Park Apartments	138	62	57	No
Water Tower Apartments	113	62	58	No
Southwest Station Condos	95	71	64	No
Purgatory Creek Park	269	54	53	No
Residence Inn	44	61	65	Severe
Baymont Inn	69	61	62	Moderate

¹⁸ SDEIS at 3-72, 3-74.

¹⁹ *Id.*

²⁰ SDEIS at 3-24; SDEIS, Appendix H at H-3, H-6.

As this data from the SDEIS shows, the two measurement locations where Moderate (Baymont Inn) and Severe (Residence Inn) noise impacts are predicted are also the measurement locations within the shortest distance of the SWLRT.²¹ These receptors are identified as being located 69 feet and 44 feet from the SWLRT alignment, respectively.²² Using preliminary information available from the Metropolitan Council, AGNL Health estimates that ***the proposed alignment will be located within a mere 38 feet of AGNL Health Campus offices and only 48 feet to the noise-sensitive auditorium facility at the Campus.*** These distances make the AGNL Health Campus the closest of the sensitive receptors on the Eden Prairie Segment, which alone is cause for concern. Furthermore, these distances suggest that Project Noise Levels at the Campus are likely to be similar to those modeled for the Residence Inn and Baymont Inn.

The existing noise levels measured at the Residence Inn and Baymont Inn, however, likely are *not* representative of the existing noise level at the Campus, as both the Residence Inn and Baymont Inn are located in closer proximity to existing noise sources such as major roadways than the AGNL Health Campus. Of the measurement locations included in the SDEIS, the measurement location that is closest in location and surrounding environment to that of the AGNL Health Campus (and thus most likely to be representative of the existing noise level at the Campus) is the Purgatory Creek Park location, which had the lowest existing noise levels of measured locations. Applying Federal Transit Authority guidance to an existing noise level equivalent to that at Purgatory Creek Park, the Project Noise Level for the AGNL Health Campus will result in Moderate or Severe impacts depending on the receptor category assigned to the Campus.²³

Furthermore, AGNL Health conducted its own preliminary analysis of the potential noise and vibration impacts to the Campus. This analysis found that airborne noise, ground-borne noise, and vibration criteria are exceeded under certain circumstances at the Campus auditorium, and that a more comprehensive investigation of these potential impacts is warranted.

Given the close proximity of the AGNL Health Campus to the SWLRT Project alignment, the data provided in the SDEIS for similar receptors, and the findings of AGNL Health's preliminary evaluation of noise and vibration impacts, it is evident that there will likely be noise and vibration impacts to the AGNL Health Campus. Thus, it is imperative that a detailed analysis of these long-term and short-term (construction) noise and vibration (including ground-borne noise) impacts be completed at the AGNL Health Campus as contemplated by the SDEIS. It is equally imperative to evaluate the potential of available mitigation measures to eliminate these noise and vibration impacts, as well as the viability of re-locating the alignment to avoid the impacts altogether. As noted in the SDEIS, FTA mitigation policy requires that "before mitigation measures are considered, the project sponsor should first evaluate alternative locations/alignments to determine whether it is feasible to avoid Severe impacts altogether."²⁴ This modeling and evaluation should be completed prior to publication in the

²¹ SDEIS at 3-72.

²² SDEIS at 3-71 to 3-72.

²³ FTA, "Transit Noise and Vibration Impact Assessment (May 2006) at 3-3. Moderate impacts would be experienced starting at 55 dBA and 60 dBA for Category 1 and Category 3 receptors, respectively, while Severe impacts would be experienced at 61 dBA and 66 dBA for Category 1 and Category 3 receptors, respectively. *Id.*

²⁴ SDEIS, Appendix H at H-13.

FEIS to allow for adequate participation by AGNL Health and the public on these important issues that have yet to be addressed.

B. The Visual Impacts Analysis Failed to Adequately Characterize the Impacts to the AGNL Health Campus.

Visual connectivity is an essential component of the AGNL Health Campus. As noted above, the Campus was designed to create an atmosphere of peace, quietude, and health throughout. Key to this atmosphere is a connectivity between indoor and outdoor spaces accomplished through sightlines within buildings, from one building to the next, and to the natural environment. Campus buildings have large, open spaces filled with natural light, and also offer outdoor spaces for meetings and relaxation. This sense of connectivity between the indoor and outdoor environments and overall atmosphere of the AGNL Health Campus will be significantly altered by the presence of the SWLRT Project along Technology Drive.

The SDEIS contains in Section 3.2.1.5 an assessment of visual impacts to the Eden Prairie Segment, and includes the view looking southwest along Technology Drive from the front of the AGNL Health Campus as one of the ten identified viewpoints on the segment analyzed.²⁵ This analysis, however, is inadequate in many respects, and fails to capture the true scope of the impacts to the visual aesthetics at the AGNL Health Campus.

The Current Visual Character of the Campus is Narrowly Characterized

As an initial matter, the viewpoint identified and analyzed in the SDEIS – the view looking southwest along Technology Drive in front of the AGNL Health Campus – is too narrowly-defined to adequately characterize the visual character of the Campus that serves as the baseline for evaluating the extent of potential visual impacts. The view from the front of the Campus and looking southwest is only one of the many viewpoints within the Campus that stand to be influenced by the addition of the SWLRT Project. Views from various vantage points and height levels from within buildings on the Campus, views from outdoor spaces, and the connectivity between these various vantage points are all essential to the Campus, and are susceptible to disturbance from the SWLRT Project. The lack of appreciation for this connectivity is evident in the SDEIS, which characterizes the AGNL Health Campus as having "moderately low visual intactness" and "moderately low overall visual unity" and having "no unifying features."²⁶ This characterization is far from accurate, and shows the need to reevaluate the visual character of the Campus as a whole (not from a single vantage point), and the visual impacts to that character that the SWLRT Project threatens.

The Visual Impacts Analysis Was Not Specific to the Campus

Furthermore, the SDEIS process for assessing the potential for visual impacts to the AGNL Health Campus did not specifically evaluate the AGNL Health Campus or its associated viewpoint. The SDEIS indicates that the visual impacts were assessed by comparing a current photograph of the

²⁵ SDEIS at 3-46.

²⁶ SDEIS at 3-47.

viewpoint to preliminary renderings depicting the view as it would appear with the project elements in place.²⁷ These renderings, however, were not prepared for all ten viewpoints. For viewpoints that did not have a rendering, "the assessments of the visual changes were made based on review of project plans and drawings, and of the visualizations that had been prepared for *other views* in which similar changes were proposed."²⁸ Appendix J to the SDEIS contains the photos and renderings for the various viewpoints, and no rendering was completed for the viewpoint from the AGNL Health Campus. Thus, the assessment of the visual impacts to the AGNL Health Campus was based on the comparison of the rendering for some other location, compared to the photograph of the overly-limited viewpoint associated with the Campus. Such an assessment is not adequate to evaluate visual impacts, particularly when considering the unique features of the AGNL Health Campus.

The SWLRT Project Will Not Enhance or Maintain the Visual Character of the Campus

Finally, the conclusions reached in the SDEIS regarding the visual impacts of the SWLRT Project are similarly flawed. The SDEIS concludes that the overall visual quality at the AGNL Health Campus will remain unchanged by the SWLRT Project, asserting that the SWLRT "would be integrated into the landscaping" and even going so far as to suggest that visual unity "may be enhanced through integrating the LRT to unify the infrastructure with the landscaping."²⁹ No information is provided to clarify what landscaping features will be used, or how those landscaping features will effectively alleviate all visual impacts to the AGNL Health Campus and even integrate the SWLRT Project into the Campus. Put quite simply, an unobtrusive trail and landscaped area owned and managed as part of the Campus would be converted into two sets of railroad tracks and associated infrastructure. How can this be found to have no overall impact to the visual quality of this site?

As state above, the visual impacts analysis needs to be reevaluated to take into consideration the various viewpoints within the Campus environment, and, if mitigation measures are to be used to alleviate these impacts, such measures need to be presented in detail to support the conclusions reached in the impacts analysis.

C. The SDEIS Fails to Identify and Evaluate the Potential Impacts Associated with the Unique Geologic Conditions at the Campus Site.

The SDEIS evaluation of the geologic conditions along the Eden Prairie Segment identifies that in certain locations soil conditions will not support installation of the SWLRT Project. Further evaluation, however, is necessary to fully understand and evaluate the locations in which such soil conditions exist along the proposed alignment, the potential implications of such soil conditions that are specific to each location, and the feasibility of mitigation and remediation measures. The AGNL Health Campus is one such location that requires additional, site-specific evaluation.

²⁷ SDEIS at 3-49.

²⁸ *Id.*

²⁹ SDIES at 3-50.

Geotechnical evaluations completed at the site before the construction of the Campus indicate that the particular combination of soils is unique to the Twin Cities area, and the nature of these soils could present significant engineering challenges (and associated cost increases) for the SWLRT Project. Soil conditions across the Campus site are highly variable, and include the highly-plastic, fine-grained clay soils known as “fat clays.” The amount of fat clay soils present at the site is particularly unusual. In addition to presenting challenges to the SWLRT Project design, these flat clays could also cause issues with settlement for nearby structures during construction of the SWLRT Project. Indeed, the Campus has previously experienced issues with settlement directly as a result of these fat clays, and the Campus could be susceptible to additional, more significant settlement, caused by vibration and changing groundwater conditions from SWLRT Project development and operations.

Finally, the SDEIS indicates that to address these soil conditions, the soils will be removed and/or deep foundations such as pilings will be used to support the SWLRT Project. Of note in this regard is that the SDEIS indicates that bedrock is expected to be at depths of around 50 feet or more.³⁰ AGNL Health has information, however, that indicates the bedrock at the Campus site is much deeper – approximately 130 feet deep. A discrepancy of that magnitude can create significant challenges to, and substantial additional cost for, the use of deep foundations such as pilings.

Because of the potential challenges posed by these soil conditions, it is imperative to the safe and economic construction and operation of the SWLRT Project that (1) additional technical evaluation of the suitability of this soil environment along Technology Drive (as contemplated in the SDEIS) be completed, (2) a site-specific evaluation of the AGNL Health Campus soil conditions be completed, (3) consideration of alignment modifications be explored to assess opportunities for avoidance, and (4) a monitoring plan, including contingency actions, be developed with specificity for all locations identified as having these low-bearing soils.

D. The Proposed Property Acquisition Will Intrude on the Campus Atmosphere, and Analysis of Scenarios Involving No Acquisition of Campus Property Should be Completed.

AGNL Health opposes the proposed acquisition of a portion of the Campus property for completion of the SWLRT alignment. The SDEIS indicates that the Eden Prairie Segment alone will require acquisition of 2 full parcels and 33 partial parcels of land, including 0.7 acres of the AGNL Health Campus, and additional acquisitions may be necessary to accommodate final design plans.³¹ As the SDEIS notes, property acquisitions along this portion of the Eden Prairie Segment will change the nature and appeal of the commercial properties on Technology Drive.³² The AGNL Health Campus is no exception. In fact, in many ways the AGNL Health Campus will be subject to a more profound impact from encroachment of the SWLRT than other properties along Technology Drive.

As described above, the AGNL Health Campus is a carefully-planned site designed to create a specific atmosphere of health, peace, and quietude to cater to current and future tenants of the AGNL

³⁰ SDEIS at 3-56.

³¹ SDEIS at 3-35, 3-37.

³² SDEIS at 3-30.

Health Campus. The proposed acquisition of property will greatly impact and detract from the atmosphere of the Campus by intruding on buffer zones and view sheds incorporated into the Campus design, evidenced by the fact that the alignment will be located within as close as 38 feet from Campus offices. As described above, the AGNL Health Campus includes facilities that are sensitive noise and vibration receptors, and the AGNL Health property is a known location of low-bearing soils. As the noise and vibration impacts on AGNL Health's sensitive facilities have yet to be evaluated, and given the potential presence of low-bearing soils in the area targeted for acquisition, the FEIS should consider relocation of the SWLRT along Technology Drive such that acquisition of AGNL Health property is not required.

E. Traffic Impacts Are Projected to Impede Access to the Campus, and Further Analysis of Alternative Alignments, Intersection Designs, and Mitigation Measures is Necessary.

Also of concern to AGNL Health's continued and uninterrupted enjoyment of the Campus is the significant disruption that the SWLRT will cause to traffic flow between Technology Drive and the Campus for the more than 1000 employees that work at the Campus and their guests. The SDEIS and supporting documentation (AECOM, 2013)³³ indicate that the two AGNL Health Campus access driveways will, in the 2018 and 2030 Build scenarios, have Level of Service (LOS) ratings of either B or C for both A.M and P.M. peak conditions in 2018, and C for all conditions in 2030.³⁴ The SDEIS concludes that these LOS ratings are "acceptable," despite representing a double or even tripling of the access time to the Campus during peak hours.

AGNL Health is concerned that this decline in the LOS to the Campus will interfere with AGNL Health's fundamental rights to enjoyment of, ingress to, and egress from its property, and its reasonable expectations created by years of existing use.³⁵ Accordingly, additional information regarding these impacts is necessary to fully evaluate the impact potential. This additional information should include (1) design plans for the modified Campus access points under the Build scenario,³⁶ (2) potential modifications to the design plans, including alternative layouts, alternative signaling methods, and mitigation measures, and (3) available adaptation measures under the various layouts to provide flexibility in the event the modeling proves to be inaccurate in the future.³⁷ Without this level of detail in the analysis, the traffic analysis presented in the SDEIS does not provide the certainty necessary to adequately evaluate these traffic impacts.

³³ AGNL Health notes that the supporting document referenced is Section 3.1.2.12.B of the SDEIS – the "Supplemental Draft EIS Traffic Modeling Technical Memorandum (March, 2014)" – is not referenced in Appendix C to the SDEIS, and is not available in the project documentation on the Metropolitan Council's website.

³⁴ SDEIS at 3-83 to 3-84.

³⁵ As noted above, the Campus contains a structured parking facility for more than 1200 cars that is utilized by the more than 1000 employees who work at the Campus and their guests.

³⁶ AGNL Health notes that the traffic analysis "anticipates" signaling will be used at the access points to the Campus, but does not commit to the installation of signals or otherwise define the anticipated layout for these access points.

³⁷ The Metropolitan Council should also be in the position to provide lessons-learned on modeling, design, and mitigation measures from the other LRT lines in the metro area, which would further inform the analysis and support its accuracy.

IV. Conclusion

AGNL Health appreciates the opportunity to provide these comments on the SWLRT Project SDEIS. As described in these comments, AGNL Health continues to have significant concerns regarding the lack of clarity in the environmental review process and the substantial potential for adverse impacts to the AGNL Health Campus. The environmental review process would be greatly simplified and clarified if the scope of review was changed to eliminate the portion of the Eden Prairie Segment between Mitchell Station and Southwest Station, consistent with the recent Metropolitan Council decision. This would eliminate any need to consider the detailed comments provided in this letter.

AGNL Health strongly recommends that the Metropolitan Council address these concerns regarding process clarity and evaluation of impacts prior to publication of the FEIS to provide for additional public and agency involvement. AGNL Health looks forward to working with the Metropolitan Council to develop a robust analysis of the Technology Drive Alignment and to developing a mutually-agreeable path forward for the SWLRT Project.

Respectfully Submitted,

Stinson Leonard Street LLP



Todd M. Phelps

From: [Peter Beck](#)
To: [swlrt](#)
Subject: SWLRT SDEIS Comment Letter
Date: Tuesday, July 21, 2015 1:40:49 PM
Attachments: [Scan0638.pdf](#)

Attached please find a written comment letter on the SWLRT SDEIS.

Thank you,

Peter Beck

2600 US Bancorp Center
800 Nicollet Mall
Minneapolis, MN 55402
(612) 991-1350

peter@peterbecklaw.com

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July 20, 2015

Mani Jacobson, Assistant Director
Environmental and Agreements
Metro Transit/Southwest LRT Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park, MN 55426

Re: Comments on SWLRT Supplemental DEIS

Dear Ms. Jacobson:

This comment letter is submitted on behalf of The Luther Company LLLP (“Luther”), owner of the Hopkins Honda property located at 250 5th Avenue South (the “Property”) in the City of Hopkins, Minnesota. The Property is located immediately south of the Southwest LRT (“SWLRT”) Downtown Hopkins Station.

Luther has recently been approached by representatives of SWLRT and MNDOT about the acquisition of a five-year “temporary” easement along the northerly 50 feet of the Property. This easement would: 1) take both entrances to the Property, leaving the Property with no access from a public street; 2) take the main drive aisle on the Property, leaving no way to reach the dealership building from 5th Street and no way for emergency vehicles or customers to access and circulate around the building; and 3) eliminate the most critical row of parking on the Property, the used car display row along the Northern edge of the Property that all customers drive by to reach the dealership from 5th Street. Losing these access points, the drive aisle and the parking row for up to five years would have a dramatic impact on Hopkins Honda and would, in fact, kill the business. This letter is to request that the Supplemental DEIS consider these impacts and consider alternatives to the acquisition of this temporary construction easement.

We believe there are several convenient, cost-effective alternatives to the potentially very costly acquisition of the proposed easement. Immediately to the north of the Property, across the SWLRT right-of-way, is publicly-owned property which could easily be used for the construction staging activities proposed on the Property. Alternatively, there are both public and privately-owned parcels to the east of the Property which could be used for construction staging, including a parcel owned by Luther. Luther would work with the City of Hopkins and SWLRT to make the Luther owned parcel available for SWLRT use.

Luther understands that construction of the SWLRT project will involve short-term closures of the at grade rail crossings at 5th Street and 8th Street. However, the potential for both of its access points to be taken for up to five years would have a devastating impact on the dealership and would render it impossible for Hopkins Honda to conduct business or to stay in

Mani Jacobson

July 20, 2015

Page 2

business during the term of the easement. This would result in a claim from Luther, as part of any condemnation process to acquire such a five-year easement, for the total value of the business.

Even litigating such a claim seems an unnecessary expense for the SWLRT project to bear when alternative staging areas are available in the immediate area of the proposed temporary easement on the Property. Therefore, we strongly suggest and request that the SDEIS consider alternatives to the acquisition of this "temporary" construction easement from the Property and that one or more of those alternatives be pursued in lieu of a taking which would put this thriving automobile dealership out of business.

Very truly yours,

PETER K. BECK ATTORNEY AT LAW PLLC

By: 
Peter K. Beck

PKB:tk

cc: Linda McGinty
Kyle Alison

From: [Peter Beck](#)
To: [swlrt](#)
Subject: SWLRT SDEIS Comment Letter
Date: Tuesday, July 21, 2015 1:43:57 PM
Attachments: [Scan0639.pdf](#)

Attached please find a written comment letter on the SWLRT SDEIS.

Thank you,

Peter Beck

2600 US Bancorp Center
800 Nicollet Mall
Minneapolis, MN 55402
(612) 991-1350

peter@peterbecklaw.com

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July 20, 2015

Mani Jacobson, Assistant Director
Environmental and Agreements
Metro Transit/Southwest LRT Project Office
6465 Wayzata Boulevard, Suite 500
St. Louis Park, MN 55426

Re: Comments on SWLRT Supplemental DEIS

Dear Ms. Jacobson:

This comment letter is submitted on behalf of St. Paul Fire and Marine Insurance Company ("SPFM"), owner of the property located at 11311 K-Tel Drive (the "SPFM Property") in the City of Minnetonka, Minnesota. The SPFM Property is located immediately west of and adjacent to the proposed Southwest Light Rail Transit ("SWLRT") Hopkins Operation and Maintenance Facility ("O&M Facility").

SPFM has been contacted by SWLRT and MNDOT representatives regarding two separate takings from the SPFM Property for the project: (1) a permanent taking of a strip of land on the eastern edge of the SPFM Property; and (2) a five-year "temporary" construction easement over virtually all that portion of SPFM Property located east of the Building on the SPFM Property. Neither of these takings is identified or discussed in the SDEIS. The purpose of this letter is to request that the impact of these takings on the SPFM Property be addressed and that measures to mitigate those impacts be considered.

The SPFM Property is a 6.26 acre parcel of property with an existing 124,000 square foot office industrial Building (the "Building") which includes 82,000 square feet of warehouse/industrial space and 42,000 square feet of office space. The Building has 10 loading docks on its southern side serving the warehouse/industrial space. The SPFM Property currently has a total of 273 parking spaces.

SPFM has had Westwood Professional Services analyze the impacts of the proposed takings on traffic and truck movements around the SPFM Property and parking for the SPFM Property. SPFM has also engaged Shenhon Company to analyze the impacts of these takings on the value of the SPFM Property. The conclusion of these consultants is that the permanent taking will result in the loss of at least 65 parking spaces, which will leave the Building short of the number of parking spaces required to support 42,000 square feet of office space and 82,000 square feet of warehouse/industrial space. More importantly, the five-year "temporary" taking will:

1. Take one of only two access points to the SPFM Property. This creates both practical and safety issues related to access in and out of the SPFM Property for employees, deliveries and public safety vehicles.
2. Eliminate circulation around the southeast corner of the Building. This creates a public safety issue with respect to emergency vehicle access around the Building and renders the ten loading docks on the southern side of the Building unusable for most trucks.
3. Restrict, if not cut off, access around the northeast corner of the Building. This creates a public safety issue in terms of emergency vehicle access around the Building. This restriction will also, in combination with the taking of the driveway access onto K-Tel Drive in this location, cut off access to all of the parking on the east side of the Building.
4. Even if access around the northeast corner of the Building is preserved, the "Temporary" easement will take virtually all of the parking spaces on the east side of the Building. This will leave the Building far short of the parking required for any potential tenant or occupant during the term of the construction easement.

The result of the proposed temporary taking is that the Building will be rendered virtually unusable and unmarketable from this point forward through the end of the "temporary" construction easement. During this period the SPFM Property will have virtually no value because it will have almost no parking and limited truck access to the loading docks. We are also uncertain as to whether the Building will be allowed to be occupied at all with no emergency vehicle access around its perimeter. The value of the SPFM Property will also be significantly impacted over the longer term by the significant loss of parking created by the permanent taking. It is our conclusion that the two takings come very close to effecting a total take of the SPFM Property.

The Supplemental DEIS fails to identify, discuss or propose mitigation measures for these impacts on the SPFM Property. We request that these impacts be identified, and that mitigation measures be considered. Mitigation measures which we request be considered include:

1. Moving the O&M Facility and SWLRT main line to the east to avoid or minimize the takings required from the SPFM Property. The SDEIS indicates that the eastern portion of the properties acquired for the O&M Facility will not be needed and will be subsequently disposed of as remnant parcels. The SDEIS does not discuss why the O&M Facility could not move further to the east on the properties being acquired, thus obviating the need for any permanent or temporary takings from the SPFM Property. Using property already acquired for the O&M Facility in order to avoid the need for a multi-million dollar acquisition of the SPFM Property seems only sensible, especially in light of the desire to cut costs from the SWLRT project budget.

2. Even if there is an unwillingness to move the O&M Facility to the east to avoid the SPFM Property, there should be some analysis of the possibility of conducting the staging activities proposed for the SPFM Property on the excess taking areas to the east of the O&M Facility. The most significant impacts to the SPFM Property relate to the five-year “temporary” construction easement. This easement will take virtually the entire portion of the SPFM Property located east of the Building; will take one of the SPFM Property’s two access points from K-Tel Drive; will eliminate access around the Building; and will eliminate access to the loading docks that serve the Building. If this construction easement can be eliminated by moving all staging activities to the apparent excess property acquisition areas to the east of the O&M Facility, many of the impacts on the SPFM Property could be eliminated.
3. If an analysis of the two options set forth above results in a decision that neither the O&M Facility nor the construction staging activities for the O&M Facility can move to the east to avoid impacts on the SPFM Property, then the SDEIS should consider taking the entire SPFM Property, as is being done with the properties to the east of the SPFM Property. The SWLRT project could then use the entire portion of the SPFM Property to the east of the existing Building, and potentially the indoor storage available in the Building itself, for construction activities. The remaining portion of the SPFM Property and the Building could then be disposed of following completion of the SWLRT project—as is proposed for the remnant parcels to the east of the SPFM Property.
4. Finally, if none of the options set forth above are to be considered or implemented, at a minimum the project must identify mitigation measures for the takings from the SPFM Property, including the significant loss of parking. The SDEIS states that no mitigation of the displacement of off-street parking spaces has been identified or discussed because all off-street parking that would be replaced is associated with businesses that will also be displaced by the O&M Facility. This is not the case. The O&M Facility will permanently displace at least 65 parking spaces on the SPFM Property, and many more than that during the temporary construction easement. These are parking spaces that the SPFM Property cannot afford to lose. If the SWLRT project cannot avoid this impact on the SPFM Property, it must consider, discuss and implement appropriate mitigation measures for the loss of these parking spaces.
5. Finally, in addition to mitigating the loss of parking spaces from the SPFM Property, the SDEIS should also consider, discuss, and identify mitigation measures for the loss of access to the loading docks that serve the Building on the SPFM Property. The SDEIS identifies the need to provide circulation to the loadings docks for the property located at 510 15th Avenue South, but contains no such discussion of the need to provide access to, or mitigate the loss of access to, the loading docks on the SPFM Property.

Mani Jacobson

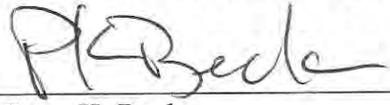
July 20, 2015

Page 4

The permanent and temporary takings identified for the SPFM Property located at 11311 K-Tel Drive will have, and already have had, a significant impact on the value of the SPFM Property, for which SPFM will seek full compensation. We have identified in this letter a number of options which could avoid or significantly reduce those impacts, which we request that the SDEIS consider, analyze and implement. If they are not, and the SWLRT project moves ahead with the proposed takings from the SPFM Property, SPFM will seek full compensation for the impact of those takings on the value of the SPFM Property which, in our analysis, will result in a nearly total take of the SPFM Property.

Very truly yours,

PETER K. BECK ATTORNEY AT LAW PLLC

By:  _____

Peter K. Beck

PKB:tk

cc: Cassandra Headrick
Mike Elnicky

Lebold, BillieJo

From: Richardson, Mary
Sent: Wednesday, July 29, 2015 5:39 AM
To: Pfeiffer, Daniel; O'Connell, Sam
Cc: Lebold, BillieJo
Subject: FW: LRT-Done Right comments, corrected
Attachments: LRTDR SDEIS Response_Corrected 7-23-15.doc

From: Mary Pattock
Sent: Tuesday, July 28, 2015 1:50 PM
To: swlrt
Subject: LRT-Done Right comments, corrected

Please see attached, corrected, version of LRT-Done Right's comments on the SDEIS.

The small corrections occur on page 27; they are highlighted for your ready reference.

Would you please use them instead of the previous version we sent you? Thanks you.

MP

Mary Pattock

LRT-Done Right

Corrected Release July 23, 2015

2782 Dean Parkway
Minneapolis, MN 55416

July 21, 2015

Nani Jacobson
Assistant Director, Environmental and Agreements
Metro Transit — Southwest LRT Project Office
6465 Wayzata Blvd, Suite 500
St. Louis Park, MN 55426

Dear Ms. Jacobson:

LRT-Done Right is a grassroots organization of some 500 Minneapolis residents and taxpayers who have conducted exhaustive research and advocacy on the effects of light rail transit and freight lines on community well being. We hereby submit to you our comments on the Southwest LRT Supplemental Draft EIS. They are the product of literally thousands of volunteer hours of research, analysis, and writing. As citizens of Minneapolis and the Metro area, we hope and expect that they will receive appropriate respect, attention, and response.

The 2012 Draft Environmental Impact Statement clearly recommended that the best course of action was to relocate freight out of the Kenilworth Corridor.

This position was reversed in 2013, and the Metropolitan Council's recommendation is now to "co-locate" freight and light rail in the Kenilworth Corridor. We consider this a significant breach of public trust and the low point of a deeply flawed planning process. We are an organization that seeks to represent concerns of those most impacted by this unfortunate decision.

The current Supplementary Draft Environmental Impact Statement is partly intended to assess the impact of co-location in the Kenilworth Corridor. It fails to do so on many levels, summarized in the following points:

First, it considers the *temporary* freight rail part of the existing condition. Freight rail service that runs through the corridor would be both upgraded and made permanent; this is a *new* project that needs a full analysis. Because new *permanent* freight infrastructure is being added to the corridor, all visual, noise, vibration, safety and other environmental impacts should be measured *from a basis of no freight and no light rail*.

Second, this SDEIS is silent on the safety implications of locating freight trains carrying hazardous materials through an urban environment within feet of homes, parks, trails, passenger trains, and live overhead electrical wires. The new and serious impacts created by this situation would continue to grow as transport of ethanol and other volatile materials expands and freight trains grow longer.

Third, this SDEIS is significantly flawed in its findings regarding environmental impact, safety concerns, and disturbance of livability, if not outright danger, to those living within a half mile of the route, which we will refer to as the "Blast Zone." This is a real issue that was not as prevalent in the news when the alignment was first proposed. In the context of current discussions regarding the increased number of freight accidents across the United States and Minnesota, we are seriously concerned about the safety of families and loved ones who would live in a Blast Zone zone surrounding ethanol trains and sparking LRT wires.

Fourth, we are disturbed by the promises of unspecified remediation activities found throughout the SDEIS. As the Department of the Interior says in its *Handbook on Departmental Review of Section 4(f) Evaluations*: "Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable.... Reviewers should make sure that all possible site-specific planning has been done to identify and list the measures which will be undertaken, at project expense, to minimize harm to Section 4(f) properties." Such general promises are not acceptable to the federal government. Nor are they acceptable to us.

Finally, the SDEIS fails to address the significant costs associated with the many design and construction, safety, and environmental remedies that it will, based on our assessment, be required to implement — the relocation of a sewer force main that the Met Council installed only months ago, and sound and vibration remediation measures for area residents are but two. Nor does it recognize long-term costs of lost property tax revenue that would erode the tax base of the City of Minneapolis in perpetuity. We estimate that these combined costs would initially total at least \$13 million to \$24 million, and much more over the years.

When Hennepin County and the Met Council chose the present route for SWLRT between the Chain of Lakes through the Kenilworth Corridor — including "co-location," thus making the temporary freight rail permanent — they accepted the responsibility to respect the natural and built environments that it travels through as well as the people who bicycle, walk, recreate, and live there. LRTDR does not see evidence that this responsibility has been taken as seriously as necessary and the following pages, which respond to specific elements of the SDEIS, articulate some of the reasons why.

Mary Pattock
On behalf of LRT-Done Right

LRT-Done Right response to Southwest Light Rail Supplemental DEIS

3.4.1.2 Acquisitions and Displacements

B. Potential Acquisitions and Displacements Impacts

Comment: We request more information about 3400 Cedar Lake Parkway, a strip of land valued by the City of Minneapolis \$2.1 million.¹ For years, the Hennepin County property tax website listed this parkland as owned by the Minneapolis Park and Recreation Board. Meanwhile, in discussions concerning SWLRT, the Met Council disputed this information, maintaining that the property belongs to BNSF. Recently, however, Hennepin County changed its website to say the property belongs to BNSF.² What is the basis of the change? What evidence does the Council have that the land is owned by BNSF railroad? Where are the supporting documents, or what was the process by which this change was made? Did the property change hands via a gift of public property? If so, when and why did that happen? If the property is indeed owned by the Park Board, then a compliance analysis will need to be conducted to comply with both Section 106 and 4(f).

In Short-Term Acquisition and Displacement Impacts, the Council states that “[s]hort-term occupancies of parcels for construction would...change existing land uses” including “potential increases in noise levels, dust traffic congestion, visual changes, and increased difficulty accessing residential, commercial and other uses.” The Council should say what the plans are to mitigate these effects for residents and businesses. Most important, how will prompt emergency fire, medical and police access be maintained?

In Short-Term Acquisition and Displacement Impacts, the Council discusses plans for remnant parcels without acknowledging its commitment with the City of Minneapolis in the Memorandum of Understanding. The MOU documents the Council’s agreement to convey property they own or acquire from BNSF or HCRRA in the Kenilworth Corridor that is not needed for the Project or freight rail to the Minneapolis Park and Recreation Board for use as parkland. Please see:
<http://metro council.org/METC/files/f7/f7d41cfb-a062-46c7-942d-0785989da8a0.pdf>

Based on figures listed on the Hennepin County property tax website, annual property taxes payable just for the St. Louis Park properties listed as potential FULL parcel acquisitions in Table 3.4-3 total approximately \$240,000. Yet Section 3.4.3, Economic Effects, states that the annual reduction in property tax revenue to the City of St. Louis Park for all full AND partial acquisitions is only \$35,940. The SDEIS lists plans for partial acquisition of properties owned by Calhoun Towers, Calhoun Isles Condo Association, Cedar Lake Shores Townhomes, and other private property in Minneapolis, but identifies no property tax loss for Minneapolis. The Council should explain the calculations it used to conclude that the property tax losses are so low or even nonexistent. Although we understand that the Council may not wish to release dollar figures for specific property acquisitions at this time, the public must nevertheless be assured that the Council is not both minimizing the costs of acquiring these properties and ignoring the fact that taxpayers will need to compensate for a shrunken property-tax base, which we estimate would exceed \$4 million annually (based on an estimated 5 percent decline in property value for private homes and commercial buildings most impacted by SWLRT).

3.4.1.3 Cultural Resources

B. Potential Cultural Resources Impacts

This section identifies the potential long-term and short-term impacts to the archaeological and architecture/history resources listed in or eligible for the NRHP.

Long-Term Direct and Indirect Cultural Resources Impacts.

Comment: Minneapolis residents have continually expressed concern with the impact the project will have, both during construction and after operation of SWLRT, on cultural resources in the City.

As stated by the Minnesota State Historic Preservation Office (MnSHPO), an adverse effect on one contributing feature is an adverse effect on an entire historic district. Therefore, the conclusion that the project will have an adverse effect on the Lagoon means that there will be an adverse effect on the Grand Rounds Historic District as a whole, as indicated in the SDEIS.

¹ See <http://apps.ci.minneapolis.mn.us/PIApp/ValuationRpt.aspx?pid=3202924120001> and <http://apps.ci.minneapolis.mn.us/PIApp/GeneralInfoRpt.aspx?pid=3202924120001>

² See <https://gis.hennepin.us/property/map/default.aspx>

Section 3.1.2.3 of the SDEIS lists possible mitigation measures that *may* be included in the Section 106 agreement:

- Consultation with MNSHPO and other consulting parties during the development of project design and engineering activities for locations within and/or near historic properties
- Integration of information about historic properties into station area planning efforts
- Recovering data from eligible archaeological properties before construction
- Consultation with MNSHPO and other consulting parties during construction to minimize impacts on historic properties
- Preparation of NRHP nominations to facilitate preservation of historic properties
- Public education about historic properties in the project area

None of these measures can avoid, minimize or mitigate the long-term adverse effects of the project on the Grand Rounds Historic District in a meaningful way. The noise impacts, including bells and horns, will be audible from distances within and beyond the Area of Potential Effect, and include not only the Lagoon area but also Lake of the Isles and Cedar Lake as well as the other parts of the Grand Rounds Historic District. *Noise and vibration impact studies should be done from a baseline assuming no freight, as HCRRA had committed to do and as was contemplated in the DEIS.* Despite the requirement that such impacts be minimized, co-locating both freight and light rail in the Kenilworth Corridor results in the opposite outcome.

The proposed bridges over the Lagoon would have an adverse impact because of their size and scale, inconsistency with the historic cultural landscape of the channel, the noise and vibrations caused by the light rail vehicles traveling the bridge and the fact that it may not be possible to mitigate the impacts of the new bridges, as stated by the MPRB earlier in the 106 process. The appearance of the new bridge structures and the sounds associated with modern rail infrastructure would alter the characteristics of “community planning and development,” “entertainment and recreation,” and “landscape architecture” that make the Lagoon eligible for NRHP designation, and will adversely affect the character and feeling of the Lagoon and how people use the historic resource, including the experience of using the waterway under the new structures. Given that the Council is proceeding with this project in spite of this adverse effect, we hope that designers will continue to be vigilant about minimizing the impact on the setting and feeling of the historic channel, including audible and visual intrusions that will alter the park-like setting of the Lagoon, a vital element of its historic character. These concerns extend to Cedar Lake and the beaches on it nearest to SWLRT, as well as the visual impact on Park Board Bridge #4, Lake of the Isles, Lake of the Isles Parkway and Lake of the Isles Historic District.

Table 3.4-5 lists cultural resources that have been preliminarily considered to have no adverse effect from the Project, because of continued consultation with MnSHPO and certain unidentified avoidance/minimization/mitigation measures. Throughout this table, “consultation” is offered as mitigation. But “consultation” is not the same as “mitigation.” Consulting means talking; mitigation means doing something. The SDEIS does not identify what it could do that would mitigate negative impacts. In any event, the possible mitigation measures listed above would also not significantly address impacts on the cultural resources listed in this table. *The Council must be responsible for ensuring that “continued consultation” is meaningful by conducting assessments and proposing specific mitigation solutions before the 106 agreement is written and finalized, as it is impossible to avoid adverse effects after SWLRT construction and operations commence.* See also our comments below on 3.5 Draft 4(f) Section Evaluation Update.

Cultural resources covered in table 3.4-5 include Lake of the Isles Residential Historic District, Kenwood Parkway Residential Historic District, Lake Calhoun, Cedar Lake Parkway, Cedar Lake, Park Bridge #4, Lake of the Isles Parkway, Lake of the Isles, Kenwood Parkway, Kenwood Park, Kenwood Water Tower and four NRHP listed or eligible homes in the Area of Potential Effect. Station activity will change traffic and parking patterns in the neighborhood and introduce long-term visual and audible intrusions that adversely impact these historic resources. Concerns about the long term Project impact on some or all of these cultural resources include the following:

- Long-term visual and audible intrusion from changes in traffic patterns related to station access: We are concerned that auditory impacts and changes in traffic and parking patterns will adversely affect the integrity of setting and feeling that make Kenwood Park, Kenwood Parkway, Lake of the Isles Parkway, Cedar Lake Parkway and the related residential historic districts, and the four individual homes listed on or eligible for the NRHP. A traffic analysis must be conducted and a plan to mitigate adverse impacts proposed and discussed before the 106 agreement is drafted.
- Noise effects from LRT operations: Audible intrusion from train operations, including bells and horns and the impact of trains going in and out of the tunnel, will alter the environment of the historic resources and the characteristics that make certain of these resources eligible for the NRHP. It seems unlikely that a few homes in the Kenwood Parkway Residential Historic District are the only cultural resources that will be adversely affected by noise from train operations.
- Infrastructure surrounding the tunnel and the massive tunnel portals could adversely affect the historic integrity of the resources. Signage along the historic parkways could also have an adverse effect. Specific design elements should be proposed to minimize these impacts and should be reviewed as part of the 106 process.

The degree of concern regarding the short-term impact of SWLRT construction on all of these cultural resources cannot be overstated. Noise and vibration sensitive resources need to be identified. The public needs to see a comprehensive noise and vibration study and analysis for the Project during construction including the impact of increased truck and construction equipment traffic. We would like details on what will be included in the "project wide construction plan." It should identify measures to be taken during construction to protect all historic properties from project-related activity including construction related traffic. We need real plans to prevent or repair damage resulting project activities, incorporating guidance offered by the National Park Service in Preservation Tech Note #3: Protecting a Historic Structure during Adjacent Construction, as well as an agreement that specifies how these potential impacts will be monitored and mitigated. The Council previously communicated to a neighborhood group whose residents experienced damage from a Council project that "[c]ontinuing with future projects, our goal is to ensure that claims are promptly and appropriately investigated to determine whether or not they may be related to the project. Depending on the facts of the claim, this may involve independent experts." We request that the Council communicate with owners of historic homes in the APE prior to construction to establish baselines and mitigation commitments.

Table 3.4-5 is confusing in that it lists station area development as a possible effect on the Kenwood Parkway Residential Historical District that will require continued consultation. The Met Council needs to explain what development it is referring to, because none is anticipated in this district. For example, the Southwest Community Works website and documents state: "Future development is not envisioned around this station...."
<http://www.swlrtccommunityworks.org/explore-corridor/stations/21st-street-station>

See also

http://www.swlrtccommunityworks.org/~/_media/SW%20Corridor/Document%20Archive/investment-framework/ch-4-penn.pdf

3.4.1.4 Source: MnDOT CRU, 2014. Parklands, Recreation Areas, and Open Spaces

Long-Term Direct and Indirect Parklands, Recreation Areas, and Open Spaces Impacts

Comment: As noted in our comments on 3.4.1.2 above, we request more information about 3400 Cedar Lake Parkway. This parkland has long been listed on the Hennepin County property tax website as belonging to the Minneapolis Park and Recreation Board. What evidence has the Council or Hennepin County discovered to recently change the website to indicate that this \$2.1 million property is owned by BNSF railroad? Does the conclusion of "no long-term direct impact" of the Project on Cedar Lake Park depend on the Met Council taking advantage of a loophole: that documentation conveying this Cedar Lake Park property to the Park Board many years ago may be lacking, even though the intent that it be parkland was understood? Is the conclusion a way to avoid conducting a compliance analysis as would be required under Section 106 and 4(f) if the property belonged to the Park Board?

The SDEIS states: "None of the indirect impacts on parklands, recreation areas, and open spaces from the LPA in the St. Louis Park/Minneapolis Segment would substantially impair the recreational activities, features, or attributes of those parklands, recreation areas, and open spaces." We dispute this conclusion. The permanent installation of freight rail and light rail in the Kenilworth Corridor that is too narrow to permit separation in accordance with AREMA and FTA guidelines creates a safety risk that would directly impair park activities in the event of a derailment and/or explosion of flammable materials.

For comment on the indirect impacts of the LPA in the form of visual, noise, and/or access impacts, please see comments to sections 3.4.1.5, 3.4.2.3, and 3.4.4.4 of this Supplemental Draft EIS.

Short-Term Parklands, Recreation Areas, and Open Spaces Impacts

Comment: Please specify the extent to which the stated "standard" measures would be sufficient to protect this environmentally sensitive parkland.

During construction, how can the safety of park and trail users (Park Siding Park, Cedar Lake Park, Lake of the Isles Park, and nearby trails and lakes) be assured, given that unit freight trains of 100 or more cars containing Class III flammable liquids, especially ethanol, travel through this narrow corridor in close proximity to a construction pit and materials, without whatever protective walls will later be installed?

Section 3.4.1.5 Visual Quality and Aesthetics

Excerpt from City of Minneapolis RESOLUTION 2010R-008 by Colvin Roy:

Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained.

While we appreciate and agree that the visual impact from Viewpoints 2, 3, and 4 are recognized as being substantial, we strongly disagree and contest the idea that the level of visual impact north of the Kenilworth Channel crossing (including Viewpoints 5 and 6) will be “not substantial” (pages 3-167, 168). The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be *substantial throughout the corridor*.

The SWLRT plan proposes clear-cutting in the Kenilworth Corridor, a rare urban natural resource. It would remove a large amount of green space and thousands of trees, replacing them with an overhead catenary system, tracks and ballast. The park-like environment will be permanently degraded by this infrastructure, as well as by the approximately 220 daily trains traveling over the historic Kenilworth Lagoon and through the corridor.

Clearly, the visual impact of deforestation of this area will be great, especially given that the Kenilworth Trail is used by well over 600,000 annually. Over the past 7 to 10 years, neighbors and trail users have clearly expressed to Hennepin County and the Met Council the very high value they place on the green space, wildlife and bird habitat, trees and other vegetation in the Kenilworth Corridor.

The visual impact to the park-like environment is exacerbated by the continuing presence of freight rail, which was expected to be removed from the Kenilworth corridor at the time of the Alternatives Analysis, the Locally Preferred Alternative decision, and the 2012 DEIS.

The SDEIS says the consultant determining the *visual qualities* of the corridor relied on Google Earth, files of the revised project layout, and selected “photographically documented” views (Appendix J, section 2B). It does not say the consultant actually set foot in the area, or consulted any stakeholders. Assuming that is the case, we are most discouraged at the slipshod research methods used in this important document, and find it even less credible.

At **Viewpoint 5**, we support all efforts to create an “attractive design” for the bridges crossing the Kenilworth Channel. The three new bridges will certainly become a “focal point,” adding large cement structures and heavily impacting the setting and feeling of this element of the Historic Chain of Lakes and the Kenilworth Trail. An attractive design for these bridges does not compensate for the vegetative clearing. The character of the City of Lakes’ signature canoe, kayak and skiing route from Lake of the Isles through the Kenilworth Channel to Cedar Lake will be fundamentally and permanently degraded. There will be a substantial negative visual impact from the level of the water as well as the level of the trail.

At **Viewpoint 6**, the SWLRT project plans to remove a significant amount of vegetation along the edge of Cedar Lake Park, as well as trees, plants, and restored prairie currently along the bicycle and pedestrian trails. The claim that removing trees and replacing them with overhead power lines would create a positive visual experience for trail users (“open up the view, making it more expansive”) is absurd on its face and contradicts the clearly expressed will of the Minneapolis City Council and the adjacent neighborhood. The 21st Street Station, a slab of concrete and metal with fencing and catenaries, will indeed “create a focal point” — that is to say, a negative one. It is not credible, and it is even laughable, to assert that a concrete slab will positively impact the visual qualities of a spot immediately adjacent to an urban forest and is itself in a “park-like environment.”

The negative visual impact of SWLRT in the Kenilworth Corridor, especially with freight rail remaining (contrary to all previous planning), will be substantial throughout the corridor. We find it absurd and disingenuous for the Council to claim otherwise. The Council must stop pretending that this problem does not exist, and get serious about identifying robust and meaningful mitigation measures for incorporation into the project.

3.4.2.1, 3.4.2.2 Geology and Groundwater, Water Resources

Comment: LRT Done Right demands that there be a much more significant and transparent discussion regarding the compensatory mitigation for damage to wetlands and aquatic resources in the Minneapolis segment, especially the Kenilworth Channel and Cedar Lake. While a permit application is required, the SDEIS identifies that there will be damage done to aquatic resources but does not specify the level of damage done during construction and then during operation of the line. The further impairment of these resources is a direct violation of the EPA Clean Water Act and will degrade one of the crown jewels of the Minneapolis "City of Lakes" water resources. Residents swim, paddle, and recreate in those resources, and to callously suggest that a section 404 permit will just address those concerns is alarming.

Further, LRTDR is not convinced that sufficient analysis has been done on existing contamination in the Kenilworth Corridor. Southwest Project Office has already stated that additional contamination is likely to be found, and while the additional contamination is stated to be covered by the contingency fund, LRTDR finds this approach to be irresponsible budgeting without fully knowing what contamination exists and if enough is actually budgeted in the fund. The Kenilworth Corridor north of 21st St is a former rail yard that housed up to 58 rail lines during its peak, and was in service for decades. The SDEIS itself specifies the numerous toxic contaminations in such soil due to its former use. LRTDR strongly opposes disturbing the land and releasing contamination into the water and air.

Southwest LRT Supplemental Draft EIS - Supporting Documents and Technical Reports: SWLRT Kenilworth Shallow LRT Tunnel Basis of Design Technical Report (Met Council, 2014d):

An Existing Sewer Force Main Crosses the Proposed Location of the SWLRT South Tunnel in the Kenilworth Corridor.

The removal and relocation of recently installed dual force mains, running beneath the freight tracks and Kenilworth Trail (between Depot Street and W. 28th Street) at the site of the proposed south tunnel, will be necessary to accommodate co-location of LRT with freight in the Kenilworth Corridor. The presence of the existing dual sewer force mains has design, construction, and cost implications on the shallow tunnel, which are not addressed in the SDEIS. The SDEIS technical drawings for the shallow tunnel do not indicate the existing force sewer main or the sewer relocation plan. Although Metropolitan Council is clearly aware of this complication, since it refers to replacing 200 feet of the dual 18-inch sanitary sewer force mains at Depot Street in its 9/19/14 CTIB capital grant application, it nevertheless does not address its design impacts and costs in the SDEIS in the Kenilworth Shallow Tunnel Design Technical Report.

In 2013 the Metropolitan Council Environmental Services (MCES) installed replacement sewer force mains between France Avenue and Dean Parkway. The force mains follow Sunset Boulevard to Depot Street and then crosses under active freight railroad tracks and the Kenilworth Trail to West 28th Street. The force mains installation at this location was completed by tunneling under, and placed perpendicular to, the railroad tracks and Kenilworth Trail so as not to disrupt active rail operations. The tunneling process required construction of two tunneling (jacking) pits on either side of the tracks. One pit was located at Depot Street and the other was located at the end of West 28th Street adjacent to Park Siding Park. The tunneling pit near Park Siding Park measured 16 by 34 feet and was approximately 27 feet deep. The excavation of these pits required the use of a crane and an excavator.

The SWLRT south tunnel construction plan says a pit would be dug to a depth of approximately 35 feet in this same location. The existing force main crossing consists of a 60-inch diameter tunneled steel "casing" pipe. The distance to the top of the casing pipe is approximately 17 feet and the distance to the bottom is 22 feet. The dual 18-inch force main pipes pass through this tunneled casing. The current placement of the force main interferes with the proposed location of the tunnel construction pit. The force main will need to be removed and relocated either above the proposed tunnel or below the tunnel to a depth greater than approximately 45 feet below ground level. See diagrams A through C below. If the force main is relocated above the shallow tunnel, the tunnel will need to be dug deeper in order to accommodate the force main above. This will result in an increased steepness in the incline of descent and ascent of the entrance and exit to the tunnel respectively. If LRT trains cannot navigate said increased grade change then it may require building a longer tunnel in order to safely allow trains to exit and enter at a lesser incline/decline, adding to the cost and impact.

Risks associated with possible stray electrical current traveling in the ground from the LRT power lines to the sewer force mains have not been identified or addressed in the SDEIS.

The removal and re-installation of the dual force mains will have Economic, Social, and Environmental impacts:

Economic costs:

Long term increase in cost of the SWLRT project of an undetermined amount as a result of co-locating freight and LRT, including:

1. Cost of removing and relocating the sewer force main located under the freight tracks and the Kenilworth Trail.
2. Cost of possible redesign of the south tunnel to accommodate force main relocation if it is reinstalled above the south tunnel.
3. Costs associated with re-engineering or lift station(s) that may be required to ensure adequate force is maintained in the sewer main if the main is re-located to a deeper position (i.e., from approximately 22 feet to more than 45 feet below ground level).
4. Cost of remediation of any portions of Park Siding Park that may be affected during removal/relocation of the force sewer main.
5. Cost of roadwork at Depot Street to remove/relocate force main.
6. Cost of damages to walls, ceilings and foundations of neighboring residences as a result of construction to remove/relocate the force sewer main.
7. Costs to remediate noise and vibrations impacts on the community that may be experienced during the construction period and post construction period should lift station(s) be required.

Social:

Parkland, Recreation, Open Spaces and Safety Impact:

Short-term construction impact - Portions of Park Siding Park (a Section 4 (f) property) may again be affected in order to accommodate the removal and reinstallation of this force sewer main and construction of tunneling (jacking) pits. The original construction resulted in closure of the park to users for an extended period, installation of a temporary detour through the park to accommodate the closure of Dean Court, destruction of park vegetation, gardens and lighting, and the removal of playground equipment. Some of these same impacts may again occur during the removal/relocation of the force main and construction of associated jacking pits. In addition, the construction of the south tunnel is expected to take 2-3 years and requires a deep open pit adjacent to Park Siding Park. The access and enjoyment of this park will be affected by the tunnel construction during this extended time frame and presents a dangerous environment for nearby park users and freight rail operations. The mitigation and cost of remediation of the parkland have not been addressed in the SDEIS.

Environmental:

Noise:

Short-term noise impacts - Removal and reinstallation of the force line will result in noise impacts of an undetermined level to both neighboring residents and Park Siding Park users as a result of both construction activities and construction vehicles. Mitigation plans/cost are not included in the SDEIS and need to be addressed.

Vibration:

Short-term vibration impacts – Effects of construction activities and, to a lesser extent, construction vehicles will have an impact on park users, neighbors and their residences. Vibration and associated ground-borne noise impacts may damage walls, ceilings and foundations of nearby residences, as was experienced in the original construction of this force line. Mitigation plans/cost are not included in the SDEIS and need to be addressed.

Diagram A – Existing sewer force main at approximately 22 feet below grade obstructs planned location of SWLRT south tunnel in the Kenilworth Corridor, which requires an estimated 45 feet below ground level for construction pit and helical piles.

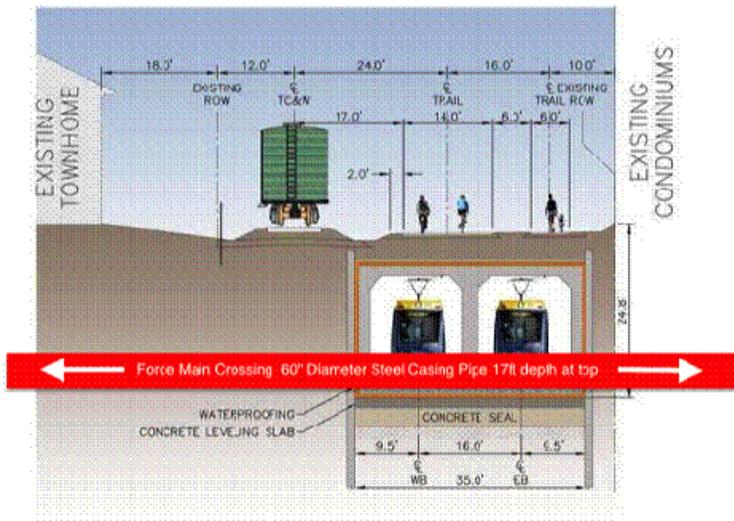


Diagram B - Typical Kenilworth Shallow LRT Tunnel Section per SDEIS

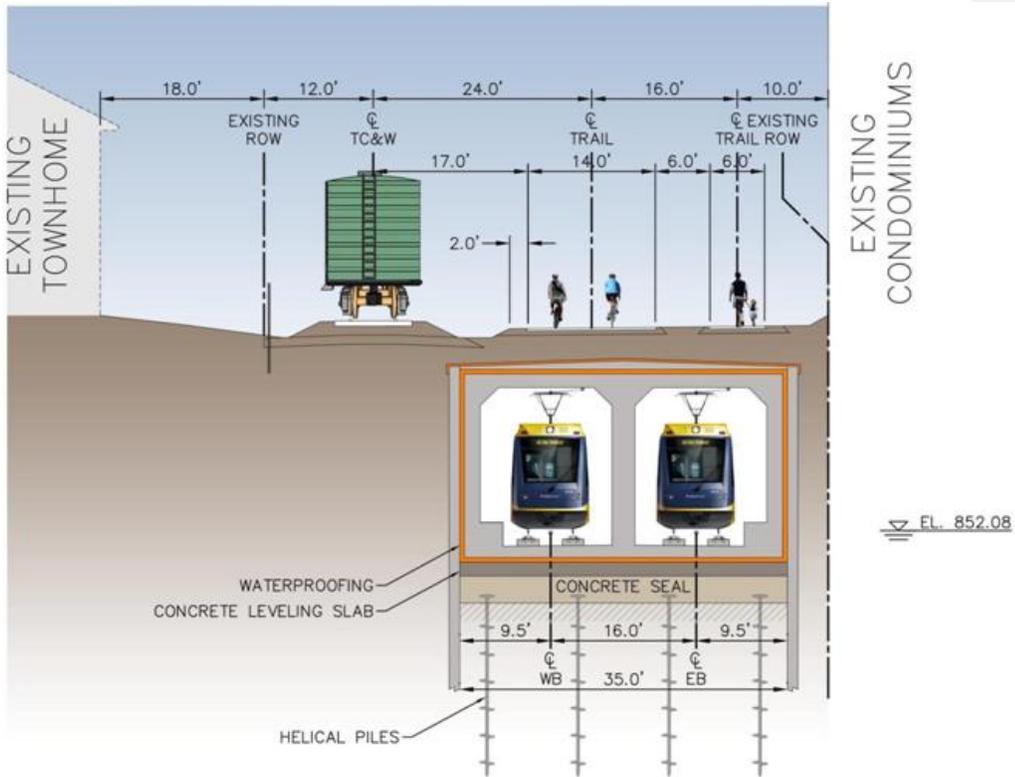
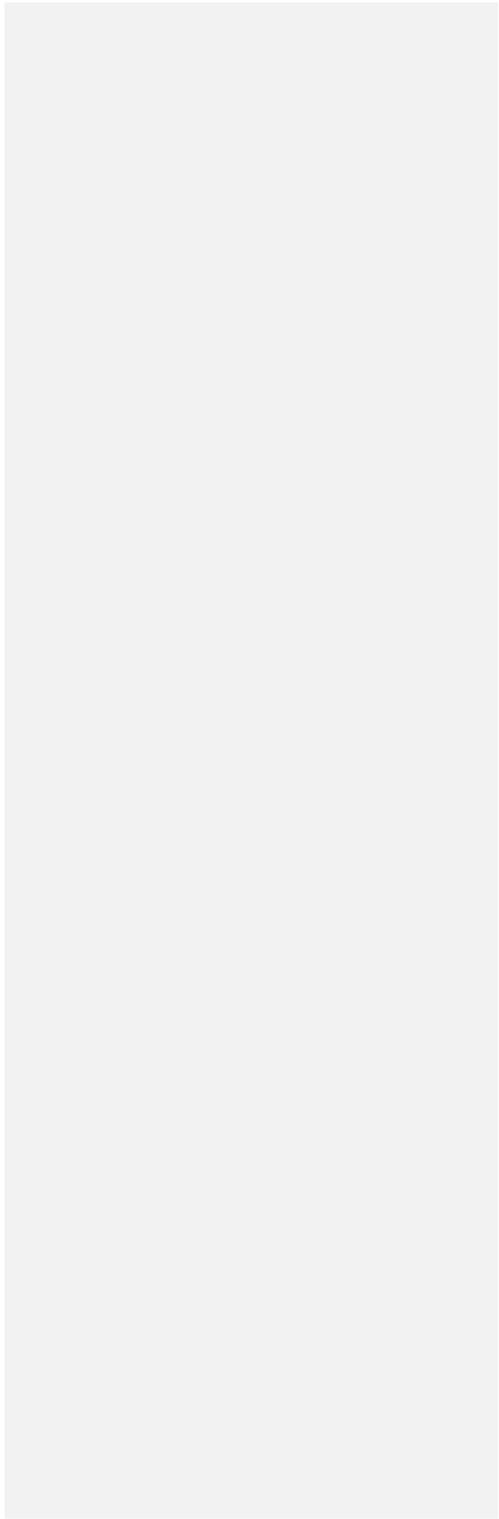
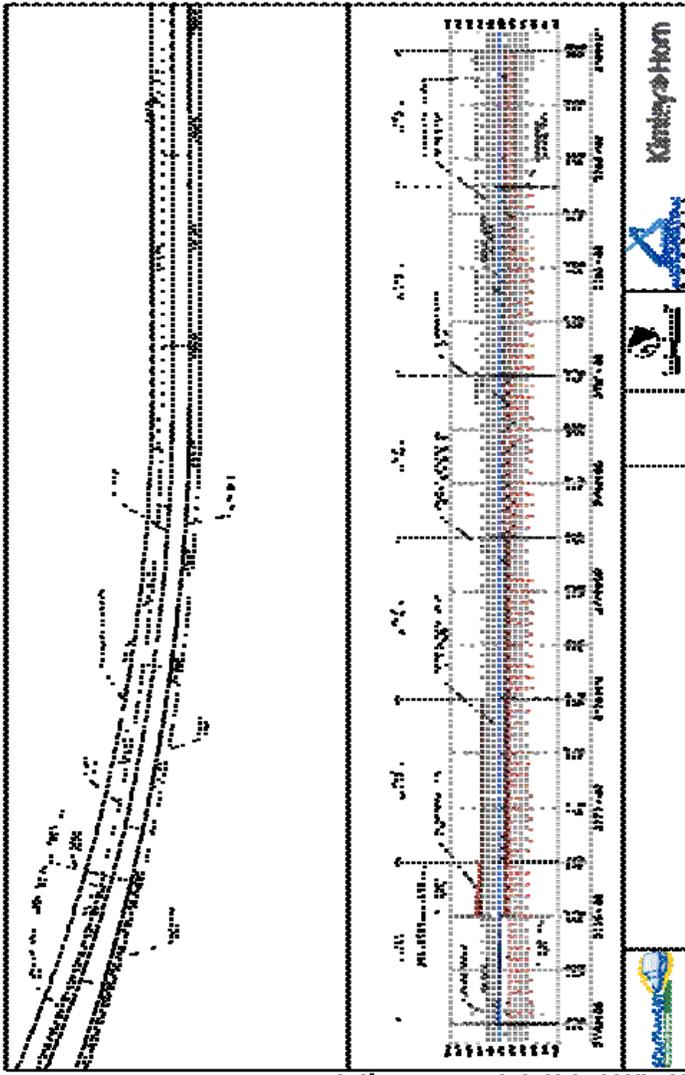


Diagram C - SWLRT South Tunnel Typical Cell Sequencing per SDEIS Note: the helical piles are shown at approximately 820 feet above sea level which is approximately 45 feet below the ground level.



3.4.2.3 AND 3.4.2.3 NOISE AND VIBRATION

Comment: The SDEIS greatly understates both noise and vibration impacts of SWLRT.

- It uses wrong data as the fundamental framework for noise and vibration analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise and vibration data on a scenario that *does* include a freight train, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the Draft EIS in 2012.”³ *This defect renders the noise and vibration sections of the SDEIS fundamentally flawed and misleading. They need to be reworked with appropriate and correct data.*
- The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporated into the SDEIS.
- The SDEIS effectively ignores the impacts of construction. See more below.

Noise 3.4.2.3

Comment: When the Met Council chose the present route for SWLRT between the Chain of Lakes through the Kenilworth Corridor, and included “co-location” which will make the existing freight rail permanent, the project implicitly accepted the responsibility to respect the natural and built environments that it travels through as well as the people who bike, walk, recreate, and live there. We believe that this responsibility has not been taken seriously and the following describes why.

SWLRT noise impacts substantially minimized: We believe that the SDEIS substantially minimizes the noise impacts associated with the proposed SWLRT. The noise impact of SWLRT in this area of Minneapolis will be highly significant for a number of reasons, but most notably because of the tranquility, recreational, park, and residential use currently existing in and bordering the Corridor. Some have compared the proposed SWLRT route with the Blue Line (Hiawatha) and the Green Line (Central Corridor down University Avenue). But such comparison is inappropriate, since the Blue and Green lines run immediately adjacent to commercial thoroughfares or four-lane roads that carry cars and heavy trucks around the clock. By contrast, the Kenilworth area is a quiet environment, and is part of the **Grand Rounds National Scenic Byway**.⁴ By contrast, the Kenilworth Corridor is a unique, quiet environment, part of the Grand Rounds National Scenic Byway.

The SDEIS coolly states that 24 residences would suffer Severe or Moderate noise impact. Translated, this means the noise of 220 light-rail trains running daily from 4 a.m. to 2 a.m. would fundamentally transform the adjacent neighborhood with near-constant noise and vibration at sound levels up to 106 dBA (the sound of warning bells — equal to the sound of a jet take-off 1,000 feet away). As noted in Appendix H (SDEIS Noise and Vibrations Memoranda), residences are considered Category 2 buildings, with the expectation that sleep occurs there.

The noise levels given in Noise Fact Sheet (Appendix H p. 19) state the following: LRT trains traveling at 45 mph generate maximum typical noise levels of 76 dBA at 50 feet (equivalent to freeway noise at 50 feet), 71 dBA at 100 feet, and 66 dBA at 200 feet. Adding 211-220 LRT three-car trains to the Kenilworth Corridor day and night, each producing such elevated noise levels, would be a severe and overwhelming intrusion, drastically increasing the noise generated. This would hold true even if the only noise increase were from the LRT trains traveling at their stated speed, per the SDEIS, of 45 mph.

³ <http://metrocouncil.org/swlrt/sdeis>

⁴ A National Scenic Byway is a road recognized by the [United States Department of Transportation](#) for one or more of six “intrinsic qualities”: archeological, cultural, historic, natural, recreational, and scenic. Congress established the program in 1991 to preserve and protect the nation’s scenic but often less-traveled roads and promote [tourism](#) and economic development. The National Scenic Byways Program (NSBP) is administered by the [Federal Highway Administration](#) (FHWA).

Our conclusion that the LRT trains in the midst of a residential and recreational area would be an overwhelming intrusion is supported by the analysis below, which assesses the combined impacts of LRT frequency, time of day or night of LRT, and LRT bell noise intensity and frequency identified in Appendix H, SDEIS p.3-13 and p.3-18.

LRTDR Analysis of SDEIS Appendix H Table 1 & p. H-4 Data

- Bells are sounded for 5 seconds prior to grade crossings, as vehicles approach grade crossings, such as the 21st Street in the Kenilworth Corridor
- Grade crossing bells are used at grade crossings for 20 seconds for each train; 21st Street is also a grade crossing.
- Bells are sounded twice at stations — once entering and once exiting station platforms, such as the 21st Station (SDEIS gives no duration. We request the duration of bells sounding when entering and exiting station platforms be made public. This information is needed for accurate noise impacts to be known.
- Total bell time (not counting the brief pause between entering and exiting the station) is known or given as more than 25 seconds per train. It is unknown how much longer than 25 seconds the bells will sound, as exit/enter bell duration is not given in the SDEIS.

WEEKDAYS

Early morning 4:00 AM - 5:30 AM

- ~~6 to 8~~ trains per hour ~~equals~~ ~~9 to 12~~ trains per day ~~between 4:00 AM and 5:30 AM~~
- ~~This means 1~~ SWLRT ~~train at 66 to 76~~ dBA every 7.5 ~~to 10~~ minutes
- ~~Would produce 25-plus~~ seconds of bell noise (5 seconds ~~at 88~~ dBA, ~~plus~~ 20 seconds ~~at 106~~ dBA, ~~plus~~ unspecified seconds of bell noise as train enters and exits the station) every 7.5 ~~to 10~~ minutes

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Early morning to evening 5:30 AM - 9:00 PM

- ~~12~~ SWLRT trains per hour ~~equals~~ 186 trains per day ~~between 5:30 AM and 9:00 PM~~
- ~~This means 1~~ SWLRT train ~~at every 5~~ minutes
- ~~Would produce 25-plus~~ seconds of bell noise (5 seconds ~~at 88~~ dBA, ~~plus~~ 20 seconds ~~at 106~~ dBA, ~~plus~~ unspecified seconds of bell noise as train enters and exits the station) every 5 minutes.
- ~~At least 10%~~ of every 5 minute period in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise
- ~~At least 6 minutes of every hour from early morning to 9 PM in the Kenilworth Corridor will consist of 88dBA and 106 dBA bell noise.~~

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Evening to early morning 9 PM to 2 AM

9 PM to 11 PM

- ~~6 to 8~~ trains per hour ~~equals~~ ~~12 to 16~~ trains per ~~day~~ ~~evening~~ ~~between 9 PM and 11 PM~~
- ~~This means 1~~ SWLRT train ~~at every 7.5 to 10~~ minutes
- ~~Would entail 25-plus~~ seconds of bell noise (5 seconds ~~at 88~~ dBA, ~~plus~~ 20 seconds ~~at 106~~ dBA, ~~plus~~ unspecified seconds of bell noise as train enters and exits the station) every 7.5 ~~to 10~~ minutes

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11 PM - 12AM

- ~~2~~ trains per hour ~~equals~~ 2 trains per ~~day~~ ~~night~~ ~~between 11 PM and 12 AM~~
- ~~This means 1~~ SWLRT train every 30 minutes
- ~~Would entail 25-plus~~ seconds of bells ((5 seconds 88 dBA, ~~plus~~ 20 seconds ~~at 106~~ dBA, ~~plus~~ unspecified seconds of bell noise as train enters and exits the station) every 30 minutes

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Very early morning 12 AM – 2 AM

- ~~1 to 2~~ trains per hour ~~equals~~ ~~2 to 4~~ trains per day ~~between 12 AM and 2 AM~~
- ~~This means 1~~ SWLRT train every ~~30 to 60~~ minutes
- ~~Would entail 25-plus~~ seconds of bell noise (5 seconds ~~at 88 dBA, plus~~ ~~+20~~ seconds ~~at 106 dBA, plus~~ ~~+~~ unspecified seconds of bell noise as train enters and exits the station) every ~~30 to 60~~ minutes

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Very early morning 2 AM – 4 AM

- ~~2~~ hours of no LRT trains ~~equals~~ baseline ~~—~~ current noise levels

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~~Total = equals 211-220 SWLRT three-3-car trains per weekday~~

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WEEKENDS

Early morning 4:30 AM to 9 AM

- ~~6-8~~ trains per hour ~~equals~~ ~~26 to 36~~ trains per day ~~between 4:30 AM and 9 AM~~
- ~~This means 1~~ SWLRT train every ~~7.5 to 10~~ minutes
- ~~Would entail 25-plus~~ seconds of bell noise (5 seconds ~~at 88 dBA, plus~~ ~~+20~~ seconds ~~at 106 dBA, plus~~ ~~+~~ unspecified seconds of bell noise as train enters and exits the station) every ~~7.5 to 10~~ minutes

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Morning to evening 9 AM – 7 PM

- ~~12~~ trains per hour ~~equals~~ ~~120~~ trains per day ~~between 9 AM and 7 PM~~
- ~~This means 1~~ SWLRT train every 5 minutes
- ~~Would entail At at least 25~~ seconds of bell noise (5 seconds ~~at 88 dBA, plus~~ ~~20~~ seconds ~~at 106A dBA, plus~~ ~~+~~ unspecified seconds of bell noise as train enters and exits the station) every 5 minutes.
- ~~At least 10% of every 5 minute period in the Kenilworth Corridor will would consist of bell noise at 88dBA and 106 dBA bell noise~~
- ~~At least 6 minutes of every hour from early morning to evening in the Kenilworth Corridor will consist of bell noise at 88dBA and 106 dBA bell noise~~

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Evening 7 PM to 9 PM

- ~~8~~ trains per hour ~~equals~~ ~~16~~ trains per day ~~between 7 PM and 9 PM~~
- ~~This means 1~~ SWLRT train every 7.5 minutes
- ~~Would entail 25-plus~~ seconds of bell noise (5 seconds ~~at 88 dBA, plus~~ ~~+20~~ seconds ~~at 106 dBA, plus~~ ~~+~~ unspecified seconds of bell noise as train enters and exits the station) every 7.5 minutes

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Late evening 9 PM – 11 PM

- ~~6 - 8~~ trains per hour ~~equals~~ ~~12 to 16~~ trains per day ~~9 PM – 11 PM~~
- ~~1~~ SWLRT train every 7.5 - 10 minutes
- ~~25-plus~~ seconds of bell noise (5 seconds ~~88 dBA, plus~~ ~~20~~ seconds ~~106 dBA, plus~~ ~~+~~ unspecified seconds of bell noise as train enters and exits the station) every ~~7.5 to 10~~ minutes

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Late evening 11 PM – 12 AM

- ~~4~~ trains per hour ~~equals~~ ~~4~~ trains per day ~~between 11 PM and 12 AM~~
- ~~This means 1~~ SWLRT train every 15 minutes
- ~~11 PM to 12 AM~~ weekend train frequency is double ~~the weekday frequency of 11 AM to 12 AM~~

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- ~~Would entail 25-plus~~ seconds of bell noise (5 seconds 88 dBA ~~plus~~ 20 seconds at 106 dBA ~~plus~~ unspecified seconds of bell noise as train enters and exits the station) every 15 minutes

~~Very early morning 12 AM to 2 AM~~

- ~~2 to 4~~ trains per hour ~~equals~~ 4-8 trains per day between 12 AM and 2 AM
- ~~This means 1~~ SWLRT train every 15 ~~to~~ 30 minutes
- 12 AM ~~to~~ 2 AM ~~the~~ weekend train frequency is double ~~the~~ weekday frequency ~~of~~ 12 AM ~~to~~ 2 AM
- ~~25-plus~~ seconds of bell noise (5 seconds at 88 dBA ~~plus~~ 20 seconds at 106 dBA ~~plus~~ unspecified seconds of bell noise as train enters and exits the station) every 15 ~~to~~ 30 minutes

~~Very early morning 2 AM - 4 AM~~

- ~~No~~ trains ~~—~~ ~~equals~~ current existing conditions

~~Total equals 180-195 SWLRT three-car trains every weekend day.~~

The result of LRT noise would be that the corridor will be permanently changed from a quiet, tranquil area sought by pedestrians, cyclists, and outdoor enthusiasts, and a highly desirable residential area to an area severely disrupted by the noise of a highly mechanized transit route.

Beyond permanently degrading the area, there will be multiple public health consequences of SWLRT noise in the corridor. The impact of repetitive noise intrusion on neighborhood public health will be significant. For example, regarding the obvious potential for sleep interruption caused by SWLRT noise (and there will be more trains during the late evening and early morning weekend hours) a research review published in the December 2014 edition of Sleep Science, summarizes:

Emerging evidence that these short-term effects of environmental noise, particularly when the exposure is nocturnal, may be followed by long-term adverse cardio metabolic outcomes. Nocturnal environmental noise may be the most worrying form of noise pollution in terms of its health consequences because of its synergistic direct and indirect (through sleep disturbances acting as a mediator) influence on biological systems. Duration and quality of sleep should thus be regarded as risk factors or markers significantly influenced by the environment. One of the means that should be proposed is avoidance at all costs of sleep disruptions caused by environmental noise.”

The article continues:

The World Health Organization (WHO) has documented seven categories of adverse health and social effects of noise pollution, whether occupational, social or environmental. The latter [sleep disturbance] is considered the most deleterious non-auditory effect because of its impact on quality of life and daytime performance. Environmental noise, especially that caused by transportation means, is a growing problem in our modern cities. A number of cardiovascular risk factors and cardiovascular outcomes have been associated with disturbed sleep: coronary artery calcifications, atherogenic lipid profiles, atherosclerosis, obesity, type 2 diabetes, hypertension, cardiovascular events and increased mortality....during the past year, the relationship between insomnia and psychiatric disorders has come to be considered synergistic, including bi-directional causation.”⁵

There is growing evidence that the opportunity to benefit from greenspace — what some mental health experts have referred to as “soft fascination”⁶— supports social and psychological resources and recovery from stress. The perpetual and repetitive noise from SWLRT would interrupt the restful and restorative experience enjoyed by tens of thousands of people in the Kenilworth Corridor, at nearby beaches, parks, in the Kenilworth Channel and general environs of Lake of the Isles and Cedar Lake. Such

⁵ Sleep Science, Volume 7, Issue 4, December 2014, Pages 209-212

⁶ British Journal of Sports Medicine 2012, “The Urban Brain: Analyzing Outdoor Physical Activity with Mobile EEG”

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opportunities to enjoy nature and relieve stress, though often taken for granted by suburban dwellers, are extremely limited in urban areas, yet equally critical for their mental health.

With healthcare costs and disease prevention being prominent national and local priorities, the economic value of the public health benefit of the Chain of Lakes and Kenilworth Corridor cannot be ignored. *We request a study of the physical and mental health impacts of the noisy, hyper-mechanization of this currently placid area, which plays a key role in the life and character of our neighborhood and the entire City of Minneapolis.*

A. Existing Conditions (p. 3-180)

This section describes existing noise-sensitive land uses in the St. Louis Park/Minneapolis Segment and existing noise levels.

Fundamental defect with baseline noise measurements

Comment: As noted above, the SDEIS uses wrong data as the fundamental framework for noise analyses. The sole purpose of this SDEIS is to assess the impact of changes made in the SWLRT plan since the 2012 DEIS; the baseline data used in this study should therefore have reflected that 2012 plan — which *did not include a freight train*. However, the SDEIS bases its noise data on a scenario that *does* include a freight train, thereby misleadingly minimizing the degree to which noise and vibration would be increased above what was indicated in the 2012 DEIS. Use of the wrong baseline data means that in this section the document fails to meet its goal of evaluating “the result of adjustments to the design of the Southwest LRT Project since the publication of the Draft EIS in 2012.”⁷ *This defect renders the noise section of the SDEIS fundamentally flawed and misleading. It needs to be reworked with appropriate and correct data.*

The SDEIS estimates noise and vibration impacts from points that would not be the most severely impacted. The SDEIS does not measure impacts on residences closer than 45 feet from the SWLRT tracks, whereas the closest homes to the LRT tracks are only 31 feet away. The CIDNA-sponsored study by ESI Engineering raised this problem with respect to the 2012 DEIS, but it has not been reflected and incorporated into the SDEIS.

Further, since aircraft overflights are generally scarce, the average current noise level per hour is extremely low when averaged over a 24-hour period.

Additionally, there are significant seasonal and weather-related variations in noise levels, which cannot be captured when sound is measured during one 24-hour period in the summer.

Finally, in Appendix H, p.2, it is noted, “noise monitoring was performed at other locations not listed in the table. Those sites will either be addressed in the forthcoming Final EIS or no longer fall within the area where they would be potentially impacted by project noise due to design refinements during Project Development.” Since the purpose of the SDEIS is to inform the public and decision makers, and provide opportunity for comment on all areas of concern, in order to fulfill that NEPA mandate, all measurements that were made and publicly financed should be made public.

B. Potential Noise Impacts

Noise Impacts Measurement Tables (Table 3.4-11, 3.4-12)

Comment: Following FTA noise assessment guidelines, the 76 dBA LRT noise occurring every 5 minutes is measured as having a lower impact than that actual dBA of 76 because the LRT noise is not continuous. Thus, though this quiet urban area will be exposed to an actual repetitive noise of 76-80 dBA day and night, the rating of the impact is lower and measured as only 51 – 64 dBA in Tables 3.4-11, 3.4-12. The significantly lower measurement lessens the determination of findings of impacts, and therefore, whether impacts are determined as non-existent, Moderate or Severe. *This engineering methodology covers up the actual impact on people of loud repetitive noise in a peaceful setting.*

The 25-plus seconds of repetitive bell noise described in the LRTDR Analysis of SDEIS Appendix H Table 1 & p. H-4 Data above does not appear to be included in the SDEIS noise analysis in Tables 3.4-11, 3.4-12, which would clearly increase the severity of

⁷ <http://metro council.org/swlrt/sdeis>

noise impact at all locations. The SDEIS also neglects to report and measure the cumulative effect of LRT and freight train noise. This information would likely show that more than 24 residences would be affected; more of them would be impacted at the severe level, and a greater impact on the Kenilworth Channel and Kenilworth Lagoon Bank.

Furthermore, future projected noise levels of LRT and freight will be higher than the projection inputs used by the SDEIS after the clear cutting of trees and vegetation in the corridor, increasing the impact of noise generated by both SWLRT and the freight rail. When utilizing the Source – Path – Receptor FTA noise impact assessment framework, it is clear that the inputs for each of the three parameters are critical and control the outcomes determining the severity of noise impact. Removal of the trees and vegetation eliminates a significant and well-established noise barrier currently in the path of noise from freight and future SWLRT. *The SDEIS does not address the impact of clear-cutting the trees and vegetation in the Kenilworth Corridor on Moderate versus Severe LRT noise impacts.*

Tunnel Swaps Noise for Vibration

As stated in the SDEIS, the tunnel section of the SWLRT is supposed to eliminate “almost all noise impacts within that segment of the corridor.” It must be noted, however, that these noise impacts will be replaced by vibration impacts; see the Vibration Section below.

Analysis of Table 3.4-12

Inaccurate land use designation for the Kenilworth Channel: We strongly challenge the land use designation of the Kenilworth Channel as Category 3. As defined in Appendix H, Category 3 is:

Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, and churches where it is important to avoid interference with such activities as speech and concentration on reading material...”

The SDEIS designates the banks of the Kenilworth Channel as falling within the most noise sensitive Category 1. However, as stated above, the Channel itself is not included in that most highly sensitive designation, but instead is classified as “institutional land use.” Category 1 is defined in Appendix H as:

Tracts of land where quiet is an essential element in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheaters and concert pavilions, as well as National Historic Landmarks with significant outdoor use.

The SDEIS states the “grassy area on the banks of the Lagoon” falls within Category 1 due to the “passive and noise sensitive recreational activities that occur there (where quietude is an essential feature of the park).” The designation of Category 1 versus 3 for the Kenilworth Channel appears to hinge excessively on one word — the term “passive” — to describe the activities for which the Channel banks are used. However, quietude is equally and very clearly an essential feature of the Kenilworth Channel itself, whose peaceful though not “passive” activities include canoers and cross country skiers gliding serenely on the water or ice while those on the grassy banks look on. The quietude of the Kenilworth Channel is inseparable from the quietude of its grassy banks; therefore both should be Category 1.

Significantly, the consequences of placing the Kenilworth Channel in Category 3 are 1) that the obligation to mitigate impacts is lowered, and 2) that the threshold to establish severe impact is higher and harder to reach. Had the Kenilworth Channel been accurately designated a Category 1, then the Channel would have been only 1 dBA below “Severe impact.”

Even with the lowering of the land use category of the Kenilworth Channel to a Category 3, the SDEIS finds a moderate impact of the addition of LRT noise. The footnote to SDEIS Table 3.4-12, states that the noise impact increases as one approaches the LRT line and becomes severe when the channel falls within the HCRRRA right of way.

While the SDEIS states that the land use categories were made in consultation with the MPRB and MN SHPO, we strongly dispute their coherence and accuracy. If the intention of the SPO is to preserve the character and experience of the Channel, then it must designate it as a Category 1 and then make public the mitigation plans and costs well in advance of the final FEIS.

SWLRT Violates the System of Minneapolis Parks: Horace Cleveland’s visionary master plan, *Suggestions for a System of Parks and Parkways for the City of Minneapolis*, proposed a park system of connecting sites of beauty and natural interest

throughout the city, rather than a series of detached open areas or public squares. The vision of a park “system” has guided the Park Board ever since and is one of the primary reasons for the success and national prestige of the Minneapolis Parks. The SDEIS procedure of singling out specific pieces of park for analysis such as Lilac Park, the Kenilworth Channel and its grassy banks runs fundamentally contrary to the underlying vision of a coherent Minneapolis Park System.

The presence of perpetual, repetitive LRT noise over the Kenilworth Lagoon and throughout the interconnecting parks and lakes woven throughout this area violates the larger system of the Minneapolis Parks.
Site N 17 (p. 3-182)

21st Street Station Noise Impacts: At the proposed 21st Street Station, crossing and station bells generating a noise level of 106 dBA and LRT bells generating 88 dBA will seriously add to the overall noise levels for 22 hours a day; only between 2:00 a.m. and 4:00 a.m. will neighborhood residents in this area be able to sleep uninterrupted. The LRTDR Analysis of the SDEIS Appendix H Table 1 & p. H-4 given above shows the impact throughout the day and night.

Further, freight trains may need to use their horns to safely cross 21st Street, as is the current case with the “temporary” freight operations. We thus strongly disagree with the characterization of the noise impacts in the 21st Street station area as moderate and limited. “Sensitive receptors” in this area will be subject to train arrivals, departures, signal bells and perhaps horns, seriously eroding the quality of life in the neighborhood and reducing the enjoyment of the recreational trail and Cedar Lake Park for users of these regional amenities.

We believe that the residences with noise impacts deemed “moderate” in the SDEIS will likely experience severe noise impacts without proper mitigation, and that in addition to the residences identified, residences along 21st Street, 22nd Street, and Sheridan Avenues will also experience at least a moderate noise impacts. We further believe that there will be an impact on more residences than the 24 cited in the SDEIS.

Note: The SDEIS misidentifies some of the homes deemed to have a “moderate impact without mitigation” as being on Thomas Avenue South; some of the addresses are actually on Sheridan Avenue South.

LRT Horns are Likely: According to the federal Train Horn Rule⁹, locomotive engineers must sound horns at a minimum of 96 decibels for at least 15 seconds at public highway rail grade crossings. Appendix H indicates that LRT Horns are 99 decibels and are sounded for 20 seconds. The SDEIS states that LRT horns would only be sounded at crossings where speeds exceed 45 mph. Since LRT and freight trains may not reach that speed in the Kenilworth Corridor, presumably no horns would be sounded when LRT vehicles cross 21st Street. Given the volume of pedestrian, bicycle, and car traffic at this crossing, it is not safe to silence LRT horns at this crossing. The noise created by horns sounding for LRT trains at least 96 decibels for a minimum of 15 (or 99dBA for 20) seconds represents a “severe” noise impact and is therefore prohibitively detrimental to quality of life in a residential neighborhood.

Issues Not Addressed in SDEIS Noise 3.4.2.3

Not addressed: Impacts near Portals: Two areas of potential noise impacts do not appear to be adequately addressed by the SDEIS. First, table 3.4-11 does not appear to cover noise that will be experienced by the homes directly behind the SWLRT tracks after it emerges from the tunnel and crosses the Kenilworth Channel. Since LRT on ballast and tie track produces noise at 81 dBA, we believe that those residences will experience noise at the same level as homes on Burnham Road and Thomas Avenue South. Further, Appendix H notes that noise will increase by 1 dBA for homes within 100 feet of the tunnel entrance/exits. We strongly request that noise impacts be determined for those residences and that they be included in consideration for noise mitigation. We further request that the cost of that additional mitigation be included in the costs of the Final DEIS.

Not addressed: Tunnel Ventilation System: Second, noise from the tunnel ventilation systems does not appear to have been considered. The SDEIS states that the tunnel section of the SWLRT is supposed to eliminate “almost all noise impacts within that segment of the corridor.” However, we understand that there will be ventilation fans connected to the tunnels as well as a ventilation “building” planned near Cedar Lake Parkway. The SDEIS neglects assessment of the noise impacts from such a

ventilation system, and this information is critical to determining whether the proposed tunnel would have a positive or negative environmental impact.

Policy-makers and citizens need adequate information on the noise impacts of both the vents and the ventilation building before proceeding with tunnel construction. Appendix H indicates that the fans will operate only on an emergency basis, but we do not see any mention of the ventilation building in the SDEIS. We request clarity on the amount of time each day that they will be operational and creating noise impacts, and the dBA of each.

Not addressed: Freight Operations: The existing freight operations, intended to be temporary, are being made permanent. The noise generated by these trains, which often have three or four engines, must be measured and considered in the overall assessment of noise impacts of the SWLRT project.

The SDEIS simply states that the noise issues described above will be addressed in the Final EIS and that they will be mitigated. *We take the strong view that now is the critical and only time to prove that mitigating the noise issues we have described is possible and that the cost of such mitigation is in the budget.*

3.4.2.4 Vibration

LONG-TERM DIRECT AND INDIRECT VIBRATION IMPACTS

Comment: The SDEIS states, "There are no vibration impacts in this segment [of the SWLRT route]" This claim is not credible in view of advice provided in *Transit Noise and Vibration Impact Assessment*, the FTA's own guidance manual presenting procedures for predicting and assessing noise and vibration impacts of proposed mass transit projects:

Vibration from freight trains can be a consideration for FTA-assisted projects when a new transit line will share an existing freight train right-of-way. Relocating the freight tracks within the right-of-way to make room for the transit tracks must be considered a direct impact of the transit system, which must be evaluated as part of the proposed project. However, vibration mitigation is very difficult to implement on tracks where trains with heavy axle loads will be operating.⁹

The SDEIS says that 54 residences¹⁰ in the "St. Louis Park/Minneapolis" segment (note that all of them are within Minneapolis) will be impacted by the ground-borne noise. This is an unacceptable level of impact on those 54 families.

According to Appendix H, which addresses both noise and vibration, the table titled Typical Maximum Noise Levels (dBA) on page H-19 quantifies the dBA for LRT, freight and then lawnmowers and buses idling. The dBA for freight rail in that same table is shown for a speed of 20 MPH. The freight in the Kenilworth Corridor travels at a maximum of 10 MPH. For comparison purposes, the assessment should use the dBA of freight trains traveling at 10 mph. Use of the sound impact from a train travelling twice as fast (20 mph) as the current speed in the corridor understates the current noise level (from freight), thereby minimizing the impact and differential from the LRT trains.

Regardless of whether the residences are impacted by vibration from the tunnels or from the noise which is flagged as a "Residential Annoyance" in the tables in Appendix H, the fact that these "annoyances" will occur incessantly — 220 times per day starting at 4 a.m. and continuing to 2 a.m. — means the impact on those residents will be significant and should be considered "severe". This is very unlike the impact of the freight trains: they may in some cases may be louder than the LRT, but there are only one or two of them per day — often not during the night hours — and then they are gone.

Regarding ground-borne vibration and noise, it should be noted that the impacts projected might underestimate real-world impacts, which could be more annoying than assumed. The FDA manual states:¹¹

⁹ Chapter 7: Basic Ground-Borne Vibration Concepts, 7-9

¹⁰ All of them are Category 2 receivers: "residences and buildings where people normally sleep."

¹¹ Chapter 7: Basic Ground-Borne Vibration Concepts, 7-6

...the degree of [ground-borne vibration and noise] annoyance cannot always be explained by the magnitude of the vibration alone. In some cases the complaints are associated with measured vibration that is lower than the perception threshold.

SHORT-TERM VIBRATION IMPACTS

The SDEIS all but ignores construction-related ground-borne noise (vibration) — except for a single, dismissive comment: “Short-term vibration impacts are those that might occur during construction of the LPA while jackhammers, rock drills, and impact pile-drivers are being used.” Within weeks of this writing, impact pile-driving on the former Tryg’s restaurant site in the West Lake Station area caused serious damage to the Loop Calhoun condominiums, as well as some level of damage to the Cedar-Isles Condominiums. The contractor, Trammel Crow, had to halt the project and extract the piles, since going forward was deemed to be catastrophic. Yet, the pile driving entailed in building the SWLRT tunnel would take place much closer to these and other condominiums, duplexes and apartment houses. The Trammel Crow incident seems to strongly predict a risk of significant construction-related damage to the homes of hundreds of people who live along the corridor where impact pile driving for SWLRT is planned. The SDEIS does not address this problem.

Furthermore, the recent Met Council sewer project completed in this area caused damage to homes located beyond the “expected” range of distance from construction. Residents who attempted to get compensation for the damage were often told by the Met Council to take the matter up with their own insurance companies rather than through the contractors whose work caused the damage. A specific liability plan and budget should be included in the SWLRT project cost estimates. There is a “contingency” line item in the budget, but it should be reserved for genuinely unpredictable costs that arise during the construction, and not for costs that could be, should be, and even are anticipated.

Construction-related vibration impacts could well extend beyond the construction period itself. Damage incurred during construction may not be initially apparent, and could show up months or even years later. Further study is needed of:

- 1) The effects of various pile-driving alternatives on the many at-risk structures
- 2) The costs involved with each of those alternatives;
- 3) The geology of the area, and its ability to support the construction process.

MITIGATION

The SDEIS promises mitigation of a number of vibration problems. However, the failure of Met Council mitigation measures taken to address LRT problems experienced by the University of Minnesota and Minnesota Public Radio cast abundant doubt on whether they will be effective here.

With respect to the vibration mitigation (to be further detailed in the Final DEIS), the measures suggested in Appendix H appear to be inapplicable to the many residences that would be affected. The SDEIS describes isolated tables and floating floors. It’s hard to imagine a retrofit of the residences impacted by the vibration affects utilizing “floating floors.” If this is the intent of the mitigation planned for the SWLRT, a cost estimate of the retrofit of all the residences should be included in the Final DEIS.

3.4.2.5 Hazardous and Contaminated Materials

Long-term Direct and Indirect Hazardous and Contaminated Materials Impacts

- Permanent pumping of contaminated groundwater
- Impacts of disturbance of dangers in soils that may have long term health impacts on children and vulnerable adults
- Not covered in the SDEIS is the co-location of SWLRT in close proximity to hazardous and explosive materials being carried by the railroad.

SHORT TERM

The DEIS called for Phase I ESA to be completed, and it was completed in August 2013. It was not made public by the Met Council until May 19, 2015, and indicates many potentially hazardous and contaminated sites along the alignment. It is reasonable to expect to encounter extensive contamination in the Kenilworth Corridor. In addition to being home to several railroad tracks, the Kenilworth Corridor was home to a maintenance yard, blacksmith and boiler shops, a diesel shop and a 90,000-gallon fuel

storage facility. In addition, the land was used as a dump — a common practice of the time, and it is likely that arsenic will be among the dangers encountered, requiring special remediation.

The Phase II Environmental Site Assessment (ESA) is said to be near completion; the report must be made available for public review and comment as soon as it is available. The SDEIS says it is “reasonable to expect that previously undocumented soil or groundwater contamination may be encountered during construction.” It is unclear if any findings in the Phase II ESA have been incorporated into the cost increase recently made public.

The cost of such remediation is unknown and has not been included in the cost estimates. Several sections of the alignment have been designated part of the MPCA Brownfields Program. In the best-case scenario, they will not require much remediation; in the worst case, they will become a Superfund site, requiring significant and expensive remediation.

We attempted to receive budget information that would indicate what amount of the increase in the budget from \$1.65 billion to \$1.99 billion was earmarked for remediation in this corridor. However, the SW Project Office provided only the highest, most general, level of information, claiming that they do not track the line items for things like soil remediation on a segment-by-segment basis, but only in total for the project.

We believe that remediation will require a Construction Contingency Plan above and beyond the general Contingency budget line item. The cost of such a Contingency Plan for Remediation should be included in the project budget.

3.4.3 Economic Effects

Long-Term Direct and Indirect Economic Impacts

Comment: LRT Done Right disputes the statement that SWLRT will positively impact property values, especially around the 21st Street station and Channel. The current freight alignment in the Kenilworth Corridor is already a negative and permanent defect affecting the value of properties along the line, one that would only be magnified by co-location of SWLRT. This is precisely why some residents argued against co-location. The threat of a collision and derailment — such incidents are gaining increased attention in the news media — will in all likelihood increase the scrutiny of buyers as they evaluate the Kenilworth area as an investment and home for their families. Further, the increased noise, vibration, and (nighttime) light from SWLRT, without the previously promised removal of freight rail, would exponentially increase aesthetic disturbance in a neighborhood that until now has been desirable for its park-like feel and up-north atmosphere. The increased adverse effects of co-location will represent a permanent defect to homes within earshot and sight of the line; based on the audible sounds of the current freight line, auditory adverse effects would reach as far as Lake of the Isles Parkway, but those sounds would no longer be the low rumble of freight, but a much more disruptive cacophony of bells and horns.

Further, while studies such as rtd-fastracks.com and others show that access to light rail can increase property values in areas of high density, especially in transient (apartment-filled), younger, urban neighborhoods, the area around the Kenilworth corridor does not wholly represent those attributes. The study mentioned, among others, shows that higher income and low-density neighborhoods, which also comprise this neighborhood, do not experience the same positive impact on property values and rentals as do lower-to-middle-income neighborhoods where public transit is more generally used.

While the Met Council’s 1,600 rides-per-day estimate is unrealistic and unsubstantiated, there will nonetheless be an adverse impact from those who do park in the neighborhood to access the station, resulting in residents closest to the station losing street parking in front of their homes. This would be a disincentive to potential buyers, and negatively impact home values.

We do not support changing the character of the neighborhood with dense development (with the exception of the West Lake Station area, assuming that land is available). Such development would not be feasible on any meaningful scale due to the mature and stable nature of the neighborhood and minimal available free space. Development would denigrate the existing green space in the corridor, especially around the 21st Street station, which is the access point for the beach and trail access for the neighborhood.

We believe the negative economic impact on the entire “brand” of the City of Minneapolis incurred by running a divisive, noisy, and environmentally unsound line through one of the crown jewels of “The City of Lakes” park area will forever have a negative

impact on tourism as LRT will disturb the current serenity of the channel, lagoon and lake. The larger, oppressive, industrial-scale bridge will downgrade the experience currently enjoyed by kayakers, walkers, bikers, etc., and cause tourists to leave the city to obtain that natural experience they once enjoyed in Minneapolis.

Finally, we have identified a number of issues not recognized in the SDEIS that will require, by our calculation, initially at least \$13 million to \$24 million of investment above and beyond the projected \$1.65 billion budget goal, and additional costs in perpetuity.

- *\$1 million to \$5 million* — For permanent dewatering of contaminated soils; this will require an extra sewer line in Kenilworth. The City of Minneapolis will need to approve this, since it owns the sewer. The city did not approve this for the 1800 Lake building and went to court over it; would they approve it, on a much larger scale, for SWLRT?
- *\$5 million to \$10 million*: For polluted soil removals. Known polluted soil conditions will require mitigation of thousands of tons of soil, but since the extent of pollution is unknown, the cost may be much higher. This cost will likely be in the millions for Kenilworth section alone; MPCA will need to approve and may add scope/cost.
- *Unknown millions*: For construction-related damage to existing buildings, including possible buy-out of impacted buildings. We understand that there is no way to guarantee that the Calhoun Isles Condominium towers will not be damaged by construction beneath their foundations. What is the current value of these condos?
- *\$3 million to \$5 million*: For relocation of existing sewer force main, pump station, ongoing operational costs of a new pump station.
- *\$4 million annually*: In lost property tax revenues. Approximately \$2 billion of the City of Minneapolis' net \$35 billion tax base is located within 1,000 feet of the Kenilworth Corridor. Most of this \$2 billion is commercial property taxed at 4 percent of value and some is from some of the city's highest-priced homes. Annual taxes from these properties are about \$80,000,000. A decline of just 5 percent in property tax value in this area would equate to an annual loss of \$4,000,000 per year to the City of Minneapolis. Forever. The Met Council would be clobbering one of the golden geese that currently supports Minneapolis Equity Transfer Payments. This area is built out already and limited by zoning from growing further, so there is no net benefit to the city if there is no new growth.

We therefore dispute and challenge the SDEIS statement that mitigation for economic impacts is not warranted for the Kenilworth Corridor, particularly in the absence of any plausible property impact study.

3.4.4.2 Roadway and Traffic

Comment: LRT Done Right is concerned about emergency access being reduced 12 times per hour to East Cedar Lake Beach and the residences on Upton Avenue S. The freight train, which was originally to be removed, coupled with the light rail line, will exponentially impair access further. We see no possible way to mitigate this impact even beyond the measures that are mentioned in the SDEIS.

3.4.4.3 Parking

Comment: LRT Done Right is concerned that there is complete disregard in the SDEIS for the impairment of on street parking availability in its neighborhoods for residents and their guests, as well as emergency access to those homes, especially in winter when streets are narrowed. LRTDR strongly opposes any park and ride lots as that would significantly impair the parklands and would not be compliant with Minneapolis city policy.

3.4.4.4 Freight Rail

A. Existing Conditions

Comment: It is very troubling that, contrary to all previous planning, the SDEIS now claims that the need "to develop and maintain a balanced economically competitive multimodal freight rail system" as a justification for the Southwest light rail project (page 1-1). With little public awareness of this new "need," the project has morphed so that approximately \$200 million in local and federal *transit* dollars will be used to improve *freight* rail.

In 1998, when freight was reintroduced to the Kenilworth Corridor, freight was to be a temporary alignment until light rail could be built. All along, this promise was made to the City of Minneapolis, the Cedar Isles Dean neighborhood, the Kenwood neighborhood, and others as a basis for agreement to the project. That none of the responsible parties, including elected officials who are still deeply involved in the SWLRT planning process, secured appropriate legal documentation of this agreement at the time is beyond disturbing.

The 2005-2007 Alternatives Analysis assumed that "freight would be relocated to make way for light rail." Since freight was not taken into account at this stage, neither Hennepin County nor the Met Council conducted an honest and realistic analysis of alternative ways to serve the southwest suburbs' transit needs. The financial, political, and environmental costs of addressing freight rail in the Kenilworth Corridor were not considered.

When the Locally Preferred Alternative (LPA) was selected in 2009-2010 under the assumption that freight rail would be relocated and that LRT would run at-grade in Kenilworth, the costs and concerns of freight relocation were again not addressed.

The Project Scoping Report for the 2012 Draft Environmental Impact Statement said clearly, "Freight Rail is independent of the Study." Although the Federal Transit Administration (FTA) noted this erroneous assumption when it approved preliminary engineering, neither Hennepin County nor Met Council ever amended the project scope to include freight rail.

The Municipal Consent process was designed so that once a project's elements and impacts are known, public officials can make informed decisions. However, since freight co-location with LRT and tunneling were never part of the original LPA and subsequent DEIS, the City of Minneapolis was pushed in 2014, under threat of project cancellation, to grant municipal consent without foreknowledge of the risks to both community and environmental safety.

Now this SDEIS is similarly devoid of important human and environmental safety information around co-location of freight and SWLRT. It is remarkable more for what is **not** included than what is included. Substantive issues remain unexamined, especially in Sections 3.4.4.4 (Freight Rail) and 3.4.4.6 (Safety and Security). The SDEIS only addresses the effects of LRT on freight rail (mostly economic impacts to minimize time lags on freight during construction), not the environmental and safety effects of co-location of freight and light rail through the corridor. It says nothing about substantive safety concerns of co-locating high-hazard freight feet from LRT construction and LRT trains in operation.

Kenilworth — and the SWLRT with co-location — is in the “Blast Zone.”



Nationwide, communities are becoming increasingly aware of high hazard freight – often referred to as “bomb trains” — operating in their midst. High-hazard trains have long run through our towns and cities, but never with the frequency nor the amount of dangerous materials now being hauled. Running such trains through any populous areas is undesirable and puts many human lives within a “blast zone,” running 1/4-1/2 mile on either side of the track.

The Kenilworth corridor is a high-risk evacuation blast zone.



Below are two representations of the Blast Zone. The map applies the definition of the Blast Zone, as commonly defined by many national groups with interest in the issue, and the chart depicts the number of residents in the blast zone. Each green circle represents 100 residents.

- THIS IS THE BLAST ZONE -

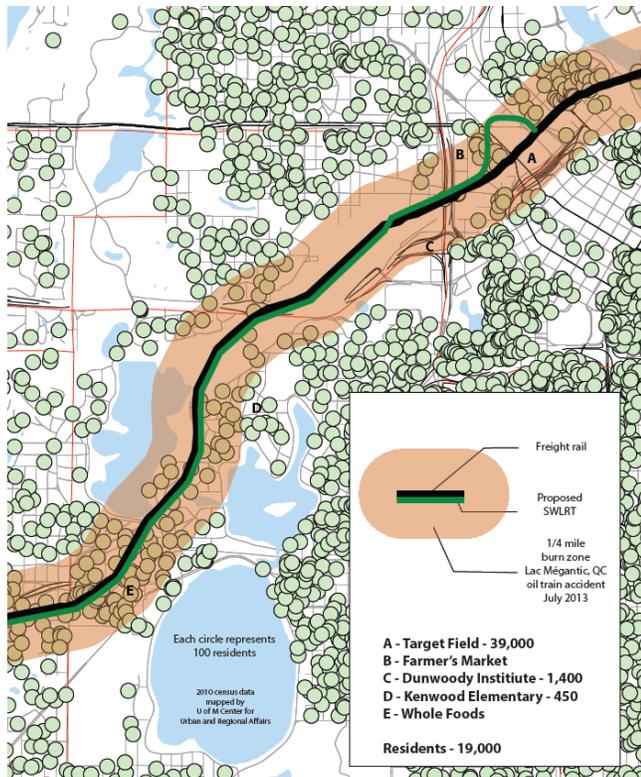
SWLRT co-location with high hazard freight trains in the Kenilworth corridor



Ethanol and Oil Train Disasters:



Population density map of the Blast Zone – Kenilworth Corridor. Please note that the blast zone includes Target Field.



Comment: Freight railroads have radically changed since the reintroduction of freight into the Kenilworth Corridor. The federal mandates on ethanol, the running of unit trains carrying single high-hazard products, and the use of much longer trains have increased freight safety concerns. The privately owned TC&W is currently the only freight company that is allowed to take trains through the corridor, but it can connect to any other carrier and currently partners with Canadian Pacific to carry its products through Kenilworth. Federal rail policy requires that the interests of freight rail operators and shippers be considered in the development of passenger rail service.

In order to provide elected officials, policy makers, and members of the public with current, factual, and supportable information about the impact of TC&W and its operations, TC&W commissioned a study in 2013. According to this report by Klas Robinson,¹² "TC&W provides rail service to numerous companies in Minnesota and neighboring South Dakota, hauling such diverse products as corn, soybeans, wheat, sugar, vegetables, ethanol, crushed rock, metals, plastics, potash, fuel oil, distillers oil, machinery, lumber, manufactured goods, propane and fertilizer, including anhydrous ammonia." Ethanol, propane, fuel oil and fertilizers are all high-hazard products. Distiller's oil and potash are also *flammables*. Exposure to even small amounts of anhydrous ammonia

¹² *Economic Impact of TC&W Railroad's Freight Operations*, September 2013; <http://tcwr.net/wp-content/uploads/2013/10/TCW-Impact-Final>.

can cause serious burning of the eyes, nose, and throat. Exposure to higher levels causes coughing or choking and can cause death from a swollen throat or from chemical burns to the lungs. A single tanker car of anhydrous ammonia can put hundreds or even thousands of area residents at risk in case of derailment and breach.

Through 2012, the report says, “customers of Twin Cities & Western Railroad Company and its affiliates shipped more than 23,400 cars, including almost 17,700 cars on TC&W and over another 5,700 cars on a short line railroad that uses TC&W to reach the Twin Cities.” That number continues to expand annually, with “the number of monthly cars shipped on TC&W during the first four months of 2013 significantly higher than for the same periods in each of the three prior years — almost twice that of first quarter 2012 (94.0 percent greater), almost 40.0 percent higher than first quarter 2011 and 70.0 percent greater than first quarter 2010.” As the economy continues to improve since the recession of 2008, we can expect that the number of train cars and the frequency of trains will increase. According to the Minnesota Department of Agriculture, between 2000 and 2011, ethanol production in Minnesota increased by over 5 times and each subsequent year has continued this trend. With the nation-wide federal mandate to increase ethanol in gas to 20 percent, we can also expect the production and transport of these high-hazard products through the corridor to increase dramatically. It is clear that the TC&W that was temporarily reintroduced in the corridor in 1998 is not the TC&W that runs through the corridor now.

According to TC&W, they “have Class I rail connections to Canadian Pacific, Union Pacific, BNSF Railway and Canadian National, reaching markets in 39 U.S. states, seven Canadian provinces and four Mexican states.” Their network would potentially allow them to carry anything including nuclear products, Bakken Oil, anhydrous ammonia, chlorine, and other hazardous freight. Common Carrier freight legislation requires that shippers (currently TC&W and CP) carry anything that their customers demand. Additionally, *at any point TC&W could sell their company to one of the major railroads*, such as BNSF, which could generate 10 times as much traffic and introduce exponentially more hazardous materials into the corridor. *Making freight rail permanent in Kenilworth increases the chance that this will happen.*

The Pipeline Hazardous Materials Safety Administration (PHMSA) controls the safety of freight trains. Historically, PHMSA standards have been lax, prioritizing commerce over safety and the environment. Recently, after public pressure, PHMSA has toughened **some** safety standards for **high hazard freight trains**. *Please see LRT Done Right's prior correspondence on this matter at the end of this response, starting on page 38.*

TC&W is a Class III rail carrier **with short lines and lower revenues, which means it has less ability to cover the liability of a catastrophic event such as a high hazard freight train derailment**. TC&W hauls ethanol in DOT-111 tanker cars and this type of car will not be banned, according to PHMSA for another 5-7 years. Railroads have lobbied heavily to remove current and future regulations on them to maximize their profits, including recently passed braking mechanisms on the hazardous cars. They have lobbied to go from mandated two-person crews to a one-**person/operator requirement**. A single-person crew would reduce safety due to overload, fatigue, etc. And railroads have fought to delay the introduction of safer double-hulled tanker cars and to continue to carry their hazardous cargo in dangerous substandard DOT-111 freight tanker cars. Freight infrastructure has suffered, and nearly all derailments are due to substandard equipment, track failure or operator error. Some new PHMSA standards that attempt to improve safety of hazardous freight **may not apply to TC&W, such as the braking requirement, and this increases the risks of riding the SWLRT Green Line Extension in the Kenilworth corridor**. Class III railroads typically have less money to invest in infrastructure, and it is clear that this railroad has infrastructure issues, experiencing a derailment in 2010. Despite replacement of rails to single-weld track in 2012, TC&W still suffers from infrastructure issues, like rotting cross ties, missing rail plates and the missing rail spikes that hold the rails in place. From May 2015 to July 2015, deep potholes have bordered the track at the Cedar Lake Parkway crossing, and have gone unfixed despite calls to TC&W and MNDOT.

The mix of commodities that TC&W carries has changed over time, with an estimated 30 percent of TC&W's freight being ethanol. It has only been in the last 5 to 10 years that unit trains of a single commodity have been a common occurrence. Prior to that, manifest trains, carrying a variety of commodities were much more common. *Unit trains of 100 cars of ethanol*, a highly flammable product, now frequently traverse the corridor. Through the planning process, the Met Council repeatedly told members of the public that the primary products carried by freight through Kenilworth were agricultural — which sounds innocuous enough. But while ethanol may be an agricultural product, it is hardly innocuous. According to Karl Alexy of the FRA, ethanol is more dangerous than most crude oils, with a lower ignition point, and higher explosive potential. Its Hazard Packing Group rating (II) is higher than most crude oil (because of its explosive potential). With respect to oil, only Bakken Crude matches its danger due to the high level of byproducts added to Bakken oil and its consequent instability. Ethanol burns hot enough (3,488 degrees F) to melt steel structures. The freight through Kenilworth currently runs only feet from bridges and mere inches from a high-rise condominium that would be vulnerable in the case of a derailment.

The Freight Rail Administration (FRA) estimates that there will be at least 10 to 20 oil or ethanol derailments per year going forward. Nationwide, we had over 7,000 train derailments of some kind in 2014. *These concerns are not just theoretical.*

Further, we strongly object to the Met Council requesting that the FRA abdicate its jurisdiction over freight rail in the Kenilworth Corridor and elsewhere along the SWLRT line. The Met Council has requested waivers from the FRA to put jurisdiction of the co-located corridor under FTA. We have no evidence that the Met Council or the FTA are qualified to oversee the combination of LRT and freight rail in the same corridor, particularly in such close proximity. We are extremely concerned that the FRA may be relinquishing its jurisdiction, except for five named at-grade crossings where both freight and LRT cross together, and even here the Met Council could apply for a crossing waiver.

The existence of freight alone is of great concern to residents and users of the Kenilworth Corridor. The construction of SWLRT running right next to high hazard freight is alarming. *None of these facts or concerns is reflected in the current SDEIS.*

B. Potential Freight Rail Impacts

Long-term direct and Indirect Freight Rail Impacts

For reference to LRT Done Right's commitment to freight safety in the Kenilworth Corridor, please see the addendum at the end of this response.

Comment: Hazardous freight has become a nationwide problem. By choosing to co-locate freight and light rail, despite all previous planning, the Met Council is choosing to exacerbate this problem in the Kenilworth Corridor. The addition of LRT to a corridor that does not meet the minimum American Railway Engineering and Maintenance-of-Way Association (AREMA) safety guidelines of a 25-foot separation center-to-center rail is shockingly unsound. In fact, AREMA now recommends a 200-foot separation as optimal. Although narrow corridors that contain both freight and passenger trains and do not meet minimum safety standards currently exist in parts of our country, an increasing awareness of freight dangers has meant that going forward, communities are much more exacting with regard to safety standards and meeting minimum AREMA guidelines. In fact, we can find no other project currently under construction that won't meet at least the minimum 25-foot grade separations. *The SWLRT project does not meet current AREMA best practices.*

The many risks of running freight next to LRT are unmentioned in the SDEIS, even though we know that the majority of freight or LRT derailments are either track failures or operator error. There is nothing in the SDEIS that deals with an *evaluation of risk or readiness of dealing with a derailment*, especially of a high-hazard product.

LRT catenary wires that regularly spark off the pantographs will run in some places 10 to 15 feet from freight trains. In 2014 alone, FRA reported 43 "accidents" in the United States related to pantographs. There was one in St. Paul within the last few months. Even with the eventual placement of crash walls, catenary electrification would run immediately adjacent to highly flammable unit trains (80 to 125 tanker cars) of ethanol. Ethanol is vulnerable to ignition by electrostatic charges and has a higher ignitability than most forms of crude oil. Vents at the top of ethanol tanker cars will run close to those electric wires.

TC&W and C&P trains use DOT-111 tanker cars. These trains regularly traverse the Kenilworth Corridor carrying ethanol, fuel oil, propane, fertilizers (including anhydrous ammonia), distillers' oil, and potash. These old-generation tanker cars have single hulls prone to thermal tears and punctures, and leaky valves. They are more likely to tear or puncture than newer generation replacements like the double-hulled DOT 117s. The National Transportation Safety Board (NTSB) discovered problems 24 years ago with DOT-111 tankers but USDOT did nothing. In 2012, the NTSB called for an immediate ban on using these tank cars to ship high-hazard products like ethanol and crude oil because they are prone to punctures, spills, fires, and explosions in train derailments. Two in three tank cars used to transport crude oil and ethanol in the U.S. are DOT-111s, yet the DOT has taken no action beyond issuing a safety advisory urging shippers to use the safest tank cars in their fleets to the extent feasible. Only recently has PHMSA come out with new regulations to replace these dangerous tankers over a six-year time period. Loopholes exist in the regulations, however, making it all but certain that single-hulled DOT-111s trains will continue through Kenilworth for years to come.

Another serious concern with freight is the misclassification of rail cars. PHMSA first launched Operation Classification in the

summer of 2013, in response to increased activity in the Bakken region. Initial testing has revealed that 61 percent of high-hazard oil was misclassified. Sometimes the train manifest may not actually reflect what being transported by the freight. The extent of misclassification of TC&W's rail cars is not currently known.

According to the Department of Homeland Security, high-hazard train tankers are vulnerable to terroristic threats. The proposed electrically-powered SWLRT would run adjacent to ethanol-bearing freight through St. Louis Park and the Kenilworth Corridor all the way into downtown. Around the area of Dunwoody, the TC&W tracks merge with those of BNSF tracks, which have been documented as carrying crude oil.¹³ Farther on, the freight trains (some carrying ethanol and some carrying Bakken crude oil) join LRT and Northstar Commuter rail in tri-location, until they stop at the Target Station. Thus, while ethanol and crude oil trains already represent risks to Twins Stadium and Target Station, the addition of LRT would expose even more people to potential danger.

The Department of Homeland Security identifies places like the Twins Stadium and the Target Station as high-value targets vulnerable to terrorism. The co-location of freight and passenger trains carrying 10,000 thousand tons of highly combustible products underneath the Twins Stadium and to the Target station is a disaster that can and should be prevented. Were high-hazard freight not running through this corridor, as was originally envisioned with relocation of freight, then the concerns of terrorism would be diminished. However, tri-location of high hazard freight, Northstar commuter trains and SWLRT near to and underneath the Twins Stadium to the Target Station is planning gone awry. If we believe that terror groups are unaware of these high value target vulnerabilities in our system, we are likely sadly mistaken. Regarding the multiplicative risks and risk readiness related to tri-location of high-hazard freight, Northstar, and SWLRT under the Twins Stadium and to the Target Station, the SDEIS contains no acknowledgement.

In fact, even after a multitude of concerns were raised by the City of St. Louis Park and its residents in response to the relocation of freight proposed the 2012 DEIS, *the current SDEIS does not contain one word acknowledging high-hazard freight through Kenilworth*. There is evidently no safety plan should an ethanol or other hazardous materials freight derailment to occur, and no containment and recovery planning should a disaster encroach on the tunnel and/or spill in to the Minneapolis Chain of Lakes.

Hennepin County, the Met Council and the State of Minnesota have little power going forward in determining whether or not TC&W's model of business changes in ways that would increase risk. They also have no ability to intervene if TC&W should choose to sell. These risks to the Kenilworth area are only likely to increase as federal mandates to increase the mix of ethanol from 10 percent to 20 percent in gasoline mixtures are initiated. TC&W could choose to sell, likely to BNSF, likely increasing the frequency and length of trains in this corridor and transportation of an even greater mix of hazardous chemicals.

Currently, TC&W reports that trains go 10 miles per hour through the Kenilworth Corridor, but this is voluntary, not mandated. Going forward, the company may choose to sell to a company that does not respect this speed limit or TC&W may decide to increase speeds. The necessity of slow freight (even beyond the LRT construction period) is critical in an urban recreational corridor and a *long-term enforceable agreement with the freight operator and the Hennepin County Regional Rail Authority should be considered as part of this project*.

Further, heavy freight causes vibrations that travel through the ground. The ground substructures affect vibrations, with waterlogged soils tending to increase those vibrations. We see no evidence that the potential for long-term damage to LRT structures from vibrations of heavy freight – and the related long-term costs in terms of maintenance dollars and human safety – have been considered. Potential damage to residences and other buildings from freight vibrations is also ignored in this SDEIS.

Finally, the SDEIS does not explore Met Council liability if SWLRT or freight derail or otherwise cause damage or harm. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. In light of the catastrophic potential of any accident in the Kenilworth Corridor, *this insurance liability assessment should be done* prior to building SWLRT, then made public and included in construction and operating cost estimates.

Short-Term Freight Rail Impacts

¹³ Photos taken on 7/21/15 of a BNSF train in this segment of the route, before and after it merges with the TC&W route, show cars bearing 1267 petroleum crude oil DOT placards; presumably these cars are carrying Bakken crude.

Comment: During construction, the dangers to the community will be exacerbated due to the fact that freight, particularly freight carrying hazardous materials, will continue through the corridor.

First, it's not clear that there is room in corridor for the construction plan as described. While we've seen various calculations of the corridor's narrowest point, our understanding is that it measures 59 feet. This point is located between the historic grain elevators – the Calhoun Isles Condominiums – on the east and the Cedar Shores town homes to the west. The SDEIS states that the freight tracks will be moved 2 to 3 feet closer to the town homes. The tunnel trench (35 feet wide) will be dug at the base of the Calhoun Isles Condominiums about 18 inches from its footings. There will be a buffer between town homes to the east of 22 to 24 feet; the freight train is about eight feet wide. Thus: 35 feet trench + 2 feet from condos + 24 feet from town homes + 8-foot wide freight train = 69 feet — to fit into a 59-foot pinch-point. This math does not inspire confidence in the safety of the construction plan.

During construction, freight will run through a construction zone with construction workers and debris with **no crash walls** at the edge of a 35-foot construction trench. It will continue to carry high-hazard freight including ethanol, fuel oil, and fertilizer. (Under common carrier obligation, TC&W or CP must carry whatever else their shippers ask them to carry and we may or may not know what these trains are actually hauling.) "Bomb trains" will travel at the edge of a construction pit that will take two years to complete. Even with the precautions suggested in the SDEIS, a derailment is far from unimaginable in this scenario. The proximity of the condominiums and town homes puts hundreds of people at risk for devastating consequences.

It is also important to note that the current poor condition of freight rail infrastructure increases the risk for a short-term freight derailment both during and after construction. A recent obvious example: From late May through July 2015, two pot holes immediately next to the rail at the Cedar Lake Parkway freight crossing measuring as deep as 6 inches have remained unfilled despite being reported to DOT and to TC&W. In 2010, there was a derailment in the neighborhood of a TC&W train; Hennepin County replaced the track through Kenilworth with a safer single-weld track. However, rotted freight ties were not replaced at that time, nor were rail plates and spikes uniformly repaired. Currently, there are rail ties that are completely rotted out, missing rail plates that hold the ties to the rails and many missing rail spikes. That these were not repaired when the rail was replaced indicates poor maintenance and raises concerns about the competence that Hennepin County and the Met Council will bring to the co-location element of the SWLRT project.

Construction debris in the corridor will heighten the risk of derailments. Derailments are caused by operator error or track failures, including track impediments. Construction can displace the supporting structures that bolster rail, and although engineers can try to bolster the structures through shoring, there will be nothing to stop a train if it begins to tip into the construction pit. Tip guardrails have been suggested as a solution (not in this SDEIS), but these can build up with snow and actually cause derailments.

Nighttime running of freight (also not considered in the SDEIS) will be perhaps even more dangerous than daytime. Construction debris may be left near or on tracks and may not be visible to the freight engineer at night. Final day inspection of track is imperfect and human error could easily miss track impediments.

Inclement weather like snow may mask destabilization of freight infrastructure, and rain could wash out the surrounding already disturbed soils, increasing the derailment risk during construction. While this is true under any construction scenario, the risk multiplies with freight running next to the tunnel construction pit.

If a derailment were to occur during construction, access to fire safety equipment is extremely limited because of the nature of the corridor: in some places, the only access is between people's homes and/or through their driveways. In the event of a derailment occurring during construction, the only access for fire trucks may be from West Lake Station, 21st Street or Cedar Lake Parkway. Fire equipment must be accessible in case of a derailment emergency, and in-depth coordination among the fire department, the Met Council, and the citizens has not been attempted or even mentioned in this SDEIS.

In case of any chemical freight derailment, chemical fires must be fought with specialized foam products, usually foam specific to the chemical spill. These fires cannot be fought with water, which can actually spread a chemical fire. Water can be used to cool rail cars that have not ignited, but foam is necessary to put them out. Limited foam is available at local fire stations, but our understanding is that it can take 2 hours or longer to access the necessary quantity of foam to fight a chemical derailment fire.

Currently, TC&W reports that trains go 10 miles per hour through the Kenilworth Corridor, but this is voluntary, not mandated.

Going forward, the company may choose to sell their company or increase that speed. The necessity of slow freight even without LRT construction is critical, but with construction the danger becomes critical at any speed.

According to TC&W president Mark Wegman, there has been one meeting as of June 2015 (i.e., in preparation for the SDEIS) with SWLRT project staff to discuss issues of joint construction concern. This seems shortsighted. Our community expects more than superficial consideration of these serious construction-related concerns prior to decisions about the feasibility of moving forward with the SWLRT project.

Finally, the SDEIS does not explore Met Council liability either during or following construction if SWLRT or freight derails causing a train catastrophe. Currently, freight companies carry limited liability that only covers their rolling stock and train infrastructure. This assessment should be completed and made public prior to SWLRT construction.

C. Mitigation Measures

Comment: It is difficult to respond to this section surrounding freight since no problems with co-location have even been acknowledged in the SDEIS. There is no real analysis of the effects of co-location and the danger of running high-hazard freight through the Kenilworth Corridor both during and after construction, and in an area that does not meet minimum AREMA guidelines, let alone best practices. This SDEIS is astounding more for what it does not contain than what it does. The mitigation proposed concerns only making sure that the freight schedule is unimpeded; it ignores concerns about the safety of neighborhood residents, construction and freight personnel, park and trail users, or future SWLRT riders.

Minimally, during construction, high-hazard freight MUST be diverted from the corridor. Long term, crash walls between freight and LRT are critical. In the short term, without crash walls, ALL hazardous or flammable freight should be rerouted out of the corridor until proper safety crash walls are present. The idea of running high hazard freight during construction at the edge of a construction trench without crash walls is extremely concerning.

The treatment of freight rail in this SDEIS indicates that the Met Council is not even aware of the danger to area residents, waterways, parks, trails, or SWLRT passengers. The many issues related to making freight rail permanent in the Kenilworth Corridor and co-locating freight and light rail need much greater study and consideration before this project advances.

3.4.4.5 Bicycle and Pedestrian

Because there would be no long-term adverse impacts from the LPA on bicycle and pedestrian facilities, no long-term mitigation measures have been identified. Short-term effects on pedestrian and bicycle routes will be mitigated through signage, information fliers, website postings with maps of construction areas/detours, and notices placed at bicycle shops, for example.

Comment: At last measure, our understanding is the trails receive 600,000 discrete unique visits per year and those visits to current parkland are enhanced by the current “north woods” feel of the area, and that experience would be significantly impaired by the addition of light rail. This includes an expectation of natural quiet conditions. Pedestrians do not pass quickly through the park-like environment and will therefore be significantly impacted by added noise, movement and infrastructure of the LRT and freight rail. The speed joined with the noise at close proximity greatly detracts from the trail experience for both bicyclists and pedestrians, and can even be frightening to users.



3.4.4.6 Safety and Security

LONG-TERM IMPACTS

Comment: The current plan to co-locate freight and LRT within the same corridor — within a dozen feet of each other in certain places — creates new, potentially catastrophic hazards. It is currently proposed that the freight train (which carries volatile and explosive ethanol on a daily basis, and several unit trains of ethanol per month) remain permanently in the Kenilworth Corridor. The addition of the SWLRT with its electrical power wires only a few feet away exacerbates the existing danger of ethanol in the corridor. Current safety standards recommend against co-location in such close proximity when there are alternatives; other alternatives for this SWLRT alignment must be explored.

Furthermore, in the event of an explosion of ethanol trains along this corridor, we understand that the foam retardant required to extinguish the fire is “within a 3 hour distance” of the corridor. We believe that the potential harm during that “3 hour window” along with permanent damage to residences and residents should be quantified. Should an explosion occur during the passing of an LRT train, the potential exists for loss of life or harm to those exposed to the hazardous fumes.

Please note that the Minneapolis Park Police also provide service within the study area. KIAA requests that the MPRB Police be consulted on security issues related to the impact of a proposed station at 21st Street on East Cedar Lake Beach (Hidden Beach) and their input be incorporated into final design plans. In the summer of 2012, Hidden Beach generated more police actions than any other park in the MPRB system. For the last five years, KIAA has provided supplementary funding to the Park Police to allow

for increased patrols in this area. The neighborhood has expressed grave concern that an inadequately managed station would increase opportunities for illegal behavior.

SHORT-TERM IMPACTS

Currently, rush hour traffic produces daily gridlock that sometimes extends from Lake Street, along Dean Parkway, Cedar Lake Parkway, Wirth Parkway, and Wayzata Boulevard (frontage road along I-394) all the way to the Penn Avenue Bridge. (This situation existed even before the construction at Highway 100 in St. Louis Park.) The closing of a critical crossing (Cedar Lake Parkway at the Kenilworth Trail) would be necessary during the construction of the proposed tunnel from West Lake Street to just past Cedar Lake Parkway. Affected neighborhoods already have limited entry and exit points.

The SDEIS does not address the need to ensure reasonable transportation options during this period, including routes for emergency vehicle access. There must be plans for fire and ambulance routes in the affected neighborhoods. Travel time for emergency vehicles would be increased during that closing. The SDEIS describes such delays as "minor"; we take vigorous issue with such a demotion of safety concerns, as even two minutes could be the difference between life and death, or a home being saved from fire or destroyed. (On June 11, 2015, an accident at Dean Parkway and Lake Street slowed traffic on Dean Parkway to a crawl for over an hour.)

Also missing is information on what measures, including evacuation plans, would be necessary to protect the Cedar Shores townhomes when the TC&W trains, with their explosive freight, are moved several feet closer to them during construction. Our neighborhoods were recently impacted for upwards of a year by a Met Council sewer-replacement project, with road closures (of which we were frequently not informed) and detours. As noted earlier, we understand that the sewer project would need to be re-done as part of the SWLRT tunnel-construction.

3.5 Draft Section Evaluation Update

Comment: The SDEIS is almost incomprehensibly dense and convoluted as it discusses the application of Section 4(f) to the LPA. For the benefit of the reader, the Section 4(f) statutory mandate is clear:

"Section 4(f) protects publicly owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance and historic sites of national state, or local significance from use by transportation projects. These properties may only be used if there is no prudent or feasible alternative for their use and the program or project encompasses all possible planning to minimize harm resulting from its use. If transportation use of a Section 4(f) property results in a *de minimis* impact, analysis of avoidance alternatives is not required."

Conversely, if there is more than a *de minimis* impact, an analysis of avoidance alternatives is required. Thoughtful analysis of avoidance alternatives is absent from the SDEIS.

A cursory reading of the SDEIS will reveal that there is not a good-faith analysis of prudent or feasible alternatives. "No Build" and "Enhanced Bus Service" were the only two alternatives considered, and only superficially; they were presented to the public in a cursory manner and without documentation. Not surprisingly, neither of them is considered feasible or prudent. Alternatives that *would* likely be considered feasible and prudent, such as a deep tunnel or rerouting, were not considered. Consequently, the bulk of the 4(f) analysis is used to contend that any adverse impact on 4(f) property will be *de minimis*.

These comments will focus almost entirely upon the Kenilworth Channel/Lagoon section of the LPA but are equally applicable to other section 4(f) properties identified by the SDEIS. The FTA, although identifying property subject to Section 4(f), fails throughout to adequately analyze or identify specific mitigation steps that would render impacts *de minimis*.

The Kenilworth Channel/Lagoon

At page 3-259, referencing the Kenilworth Channel/Lagoon, the SDEIS concludes:

"Through coordination with MPRB to date and based on the design and analysis to date as described in this section, FTA has preliminarily determined that the proposed permanent and temporary uses by the LPA would not adversely affect

the features, attributes or activities that qualify the Kenilworth Channel/Lagoon for Section 4(f) protection. Consistent with the requirements of 23 CFR 774.5(b), FTA is, therefore, proposing a *de minimis* use determination for the LPA at the Kenilworth Channel/Lagoon.

To understand the absurdity of this conclusion, one first should acknowledge that the Kenilworth Channel/Lagoon is one of the most important elements in the Minneapolis Park Board's Chain of Lakes (and also identified as subject to Section 106 because of its historic character). It is primarily appreciated for its pastoral quality and is used by walkers, bikers, kayakers, cross country skiers, ice skaters, fishermen, picnickers, and visual artists.

The FTA's own analysis identifies these activities and elements and acknowledges that the LPA would constitute 4(f) use but then, after an evaluation of the impacts, concludes that the use of the protected land will be *de minimis*. This of course means that there need not be a feasible and prudent alternative analysis.

Visual Impact

Per the SDEIS, visual impacts to the Kenilworth Channel/Lagoon will be:

1. Removal of two existing and potentially historic wooden bridges
2. Construction of massively larger bridges
3. Modification to topographical features, vegetation and WPA-era retaining walls.

Particularly astonishing is the statement at page 3-254 that the

"horizontal clearances between the banks and the new [bridge] piers would be of sufficient width to accommodate recreational activities that occur within the channel lagoon"!

The same thing could be said about an 8-lane super highway bridge spanning the channel. The point is that the altered scale of the proposed bridges will in fact be jarringly disproportionate to the channel's features. Not a *de minimis* impact by any stretch of the imagination.

The SDEIS goes on to note that the vegetation clearing necessitated by the new bridges would cause some reduction to the "visual quality of the view". But, the document goes on to reassure –

"[T]he bridges as currently conceived would have an attractive design that would become a positive focal point in the view. The overall change to the view's level of visual quality would be low. Because of the recreational activity in the channel, this view is visually sensitive. Even though the view is visually sensitive, because the potential level of change to visual quality will be low the potential visual impact will not be substantial."

Thus the reader is simultaneously warned and reassured that everything will be visually pleasing because a planner's aesthetic judgment about the visual quality of yet-to-be-designed bridges will be "attractive."

Noise Impact

It gets worse as the FTA pursues *de minimis* findings. The SDEIS acknowledges that two separate areas of the Kenilworth Channel/Lagoon are noise receptors and would be subjected to moderate noise impacts. There is a non-specific undertaking to utilize mitigation measures to reduce the area of Moderate noise impacts closest to the new bridges.

No such undertaking is offered with respect to the northern bank of the lagoon. Instead the SDEIS states:

"The northern bank of the lagoon [section 4(f) property], generally between West Lake of the Isles Parkway and South Upton Avenue (termed the Kenilworth Lagoon Bank in the noise analysis), was classified as a Category 1 land use, with stricter noise impact standards than the Category 3 land use. However, because of the distance between the light rail

tracks and the western point of the Category 1 land use, *noise levels under the LPA at that location would not exceed FTA's Severe or Moderate criteria.*"

Apparently there is not an intent to mitigate noise in this area as legally required.

Not Mentioned

Completely missing from the 4(f) analysis of the Kenilworth Channel/Lagoon is an analysis of the impacts of vibration and safety.

Minneapolis Park and Recreation Board

The SDEIS fails to address the previous objections of the MPRB: Instead it attempts to portray the MPRB as a willing partner:

"Through coordination with MPRB to date and based on the design and analysis to date as described in this section, FTA has preliminarily determined that the proposed permanent and temporary uses by the LPA would not adversely affect the features, attributes or activities that qualify the Kenilworth Channel/Lagoon for Section 4(f) protection. Consistent with the requirements of 23 CFR 774.5(b), FTA is, therefore, proposing a *de minimis* use determination for the LPA at the Kenilworth Channel/Lagoon. Supporting this preliminary determination is FTA's expectation that mitigation measures will be incorporated into the project that will avoid adverse effects to the protected activities, features, and attributes of the property. Those measures will be identified through continued coordination with the MPRB, which will continue through preparation of the project's Final Section 4(f) Evaluation. The MPRB must concur in writing with the *de minimis* impact determination after the opportunity for public comment on the preliminary Section 4(f) determination."

Even if the MPRB were to concur with a *de minimis* impact determination, such concurrence would hardly be credible given MPRB's earlier official statements on the topic. For instance, in November of 2012 the MPRB clearly itemized a series of concerns with respect to the selection of the Kenilworth Corridor as the LPA and, specifically, with respect to co-location stated:

"The MPRB opposes the co-location alternative and supports the findings presented in the DEIS regarding Section 4(f) impacts for the co-location alternative. In review of the documents, the loss of parkland described for the co-location alternative *cannot be mitigated within the corridor.*" (emphasis added)

Although the MPRB ultimately entered into a Memorandum of Understanding with the Met Council providing for a consultative role in the design process (March 12, 2015) ("MOU") the MPRB has never agreed that adequate mitigation is possible. Most recently in a letter to the Met Council summarizing its most recent comments about the SDEIS, the MPRB unequivocally concluded:

"Visual quality and noise are key areas of concern for the MPRB. The introduction of LRT in combination with freight rail *poses the potential for significant disturbance* to a corridor that, once disturbed, may [not] realize a restored look for decades."

Although these Park Board statements are encouraging, the objectivity and independence of the MPRB with respect to its "consulting" role is in serious doubt, given the enormous political pressure applied by the Governor and the Met Council via real and documented threats of massive budget retaliation. The Park Board's abdication of protection of 4(f) status followed Governor Mark Dayton's threat to cut \$3 million from its budget — this in retribution for the Park Board's legitimate attempt to protect the channel. The Park Board desperately needed the funds and, to date, has acquiesced to the governor's threat, despite its belief that:

"Visual quality and noise are key areas of concern for the MPRB. The introduction of LRT in combination with freight rail poses the potential for significant disturbance to a corridor that, once disturbed, may [not] realize a restored look for decades. "

No-Build or Bus Rapid Transit Alternative

Although repeated throughout the SDEIS, the following statement is representative of its treatment of 4(f) property:

“No Build Alternative and Enhanced Bus Alternative as evaluated in the Draft EIS are the only full Section 4(f) avoidance alternatives identified to date and neither of them would be prudent because they would not meet the project’s purpose and need.”

This facile and conclusory assertion is entirely inconsistent with well-understood precedent. This analysis falls short of what is required under the law. If the proposed use is not *de minimis*, then alternatives must be evaluated — presumably in good faith.

The Kenilworth Channel/Lagoon is comprised unquestionably by Section 4(f) lands and “are “...not to be lost unless there are truly unusual factors present...or...the cost of community disruption resulting from alternative routes reaches extraordinary magnitudes.” (Citizens to PreserveOverton Park v. Volpe, 401 U.S. 402 (1972))

Given the impact on 4(f) property, planners are required to evaluate alternatives – alternatives beyond the two choices proffered in the SDEIS – No Build or Bus Rapid Transit. For example there has not been a good faith determination that an adjustment to the proposed SWLRT alignment wouldn’t have the same beneficial purpose, outcome or cost as the current LPA. The law requires a deeper analysis. That such an analysis would result in a delay of the project is not sufficient justification to fail to undertake it. The following guidance from the Department of the Interior *Handbook on Departmental Review of Section 4(f) Evaluations* is instructive:

CEQ regulations, as well as DOT Section 4(f) regulations, require rigorous exploration and objective evaluation of alternative actions that would avoid all use of Section 4(f) areas and that would avoid some or all adverse environmental effects. Analysis of such alternatives, their costs, and the impacts on the 4(f) area should be included in draft NEPA documents.

It is clear that the SDEIS falls far short of this standard and that additional analysis is essential for meaningful public participation.

The Tunnel

The SDEIS contains a lengthy discussion of the shallow tunnel under the Kenilworth lagoon/channel versus a tunnel with a bridge over the channel. The conclusion, not surprisingly is that there will be a non-de minimis use of the Kenilworth Lagoon/Grand Rounds property. The document promises that “all possible planning to minimize harm will be conducted and implemented”

In order to reach this conclusion the analysis first had to reject the No Build Alternative and the Enhanced Bus Alternative. The latter was rejected because it would be “inconsistent with local and regional comprehensive plans.” Again, no other avoidance options were considered.

Conclusion

The Section 4(f) property identified in the SDEIS has received inadequate review and in many cases incorrect findings of *de minimis* impact. There is glaringly inadequate identification of specific mitigation and avoidance strategies and resulting outcomes as required by Section 4(f). The following statement from the Department of the Interior, which has consultative jurisdiction over this project, is clarifying:

Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable. Also not acceptable is a statement that all planning to minimize harm has been done because there is no feasible and prudent alternative. Reviewers are alerted that a general statement indicating that the sponsor will comply with all federal, state, and local standards and specifications to minimize harm is not acceptable. Also not acceptable is a statement that all planning to minimize harm has been done because there is no feasible and prudent alternative. *Reviewers should make sure that all possible site-specific planning has been done to identify and list the measures which will be undertaken, at project expense, to minimize harm to Section 4(f) properties. (emphasis added)*

Addendum: Kenwood Isles Area Association
Position Statement on Freight Relocation for SWLRT

Adopted July 1, 2013

Nearly a mile of the proposed SWLRT runs through the Kenwood Isles Area Association neighborhood. **We vehemently oppose the idea of maintaining freight rail along with light rail at grade in the Kenilworth Corridor, known as "co-location."**

Relocation of freight out of the Kenilworth Corridor has been promised for years. While the corridor was long used for transporting goods, freight use of Kenilworth was halted in 1993 when the Midtown Greenway was established. When freight was later re-introduced into the Kenilworth Corridor, Hennepin County assured residents this use of the corridor was temporary.

Meanwhile, over 20 years of citizen efforts to build and maintain Cedar Lake Park and the Kenilworth Trail have resulted in a more beautiful and complete Grand Rounds and Chain of Lakes. Traffic on federally funded commuter and recreational bicycle trails in the Kenilworth Corridor grew to at least 620,000, perhaps approaching one million, visits in 2012.

When the Hennepin County Regional Railroad Authority began looking at using the Kenilworth Corridor for LRT, several key studies and decisions reiterated the expectation that if Kenilworth is to be used for transit, then the freight line must be relocated. (See notes below.) Trails were to be preserved. Freight rail was to be considered a separate project with a separate funding stream, according to Hennepin County. This position was stated publicly on many occasions, including Community Advisory Committee meetings and Policy Advisory Committee meetings.

Minneapolis residents have positively contributed to the SWLRT process based on the information that freight and light rail would not co-exist in the Kenilworth Corridor. Although many of us think that Kenilworth is not the best route, most have participated in the spirit of cooperation and compromise to make the SWLRT the best it can be.

Despite numerous engineering studies on rerouting the freight rail, it was not until December 2012 that the current freight operator in the Kenilworth Corridor, TC&W, decided to weigh in publicly on the location of its freight rail route. TC&W rejected the proposed reroute.

The Met Council has responded by advancing new proposals for both rerouting the freight and keeping it in the Kenilworth Corridor. For either option, these proposals range from the hugely impactful to the very expensive – or both. Six of the eight proposals call for “co-location” despite the temporary status of freight in Kenilworth. The Kenilworth proposals include the destruction of homes, trails, parkland, and green space. Most of the proposals would significantly add to the noise, safety issues, visual impacts, traffic backups, and other environmental impacts identified in the DEIS.

This is not a NIMBY issue. The Kenilworth Trail provides safe, healthy recreational and commuter options for the city and region. It is functionally part of our park system. The Kenilworth Corridor is priceless green space that cannot be replaced.

For over a decade public agencies have stated that freight rail must be relocated to make way for LRT through the Kenilworth Corridor. If this position were reversed midway through the design process for SWLRT, the residents of Kenwood Isles would find this a significant breach of the public trust.

Simply stated, none of the co-location proposals are in keeping with the project goals of preserving the environment, protecting the quality of life, and creating a safe transit mode compatible with existing trails.

This has been a deeply flawed process, and we **reject any recommendation for at-grade co-location in the Kenilworth Corridor. If freight doesn't work in St. Louis Park, perhaps it's time to rethink the Locally Preferred Alternative.**

Notes

- 1) The 29th Street and Southwest Corridor Vintage Trolley Study (2000) noted that, “To implement transit service in the Southwest Corridor, either a rail swap with Canadian Pacific Rail or a southern interconnect must occur.”
- 2) The FTA-compliant Alternatives Analysis (2005-2007) defines the Kenilworth section of route 3A for the proposed Southwest Light Rail in this way: “Just north of West Lake Street the route enters **an exclusive (LRT) guideway in the HCRRA's Kenilworth Corridor to Penn Avenue**” (page 25). This study goes on to say that “to construct and operate an exclusive transit-only guideway in the HCRRA's Kenilworth Corridor the **existing freight rail service must be relocated**” (page 26).
- 3) The “Locally Preferred Alternative” (LPA) recommended by HCRRA (10/29/2009) to participating municipalities and the Metropolitan Council included a recommendation that freight rail relocation be considered as a separate “parallel process.”
- 4) In adopting HCRRA's recommended Locally Preferred Alternative based on treating relocation of the freight rail as a separate process, the City of Minneapolis' Resolution (January 2010) stated:

“Be It Further Resolved that the current environmental quality, natural conditions, wildlife, urban forest, and the walking and biking paths be preserved and protected during construction and operation of the proposed Southwest LRT line.

Be It Further Resolved that any negative impacts to the parks and park-like surrounding areas resulting from the Southwest LRT line are minimized and that access to Cedar Lake Park, Cedar Lake Regional Trail, Kenilworth Trail and the Midtown Greenway is retained.”
- 5) The Draft Environmental Impact Statement supports the Locally Preferred Alternative, which includes relocation of freight out of the Kenilworth Corridor. (December 2012)
- 6) The southwesttransitway.org has stated since its inception that:

Hennepin County and its partners are committed to ensuring that a connected system of trails is retained throughout the southwest metro area. Currently, there are four trails that may be affected by a Southwest LRT line. They are the Southwest LRT trail, the Kenilworth trail, the Cedar Lake Park trail, and the Midtown Greenway. These trails are all located on property owned by the HCRRA. The existing walking and biking trails will be maintained; **there is plenty of**

space for light rail and the existing trails. Currently, rails and trails safely coexist in more than 60 areas of the United States.

LRT Done Right Addendum on previous communication concerning freight and safety

Date: September 30, 2014

To: Pipeline and Hazardous Materials Safety Administration and Federal Railroad Administration

From: LRT-Done Right

Re: **Docket No. PHMSA-2012-0082 (HM-251) – Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains**

INTRODUCTION AND BACKGROUND

LRT-Done Right is a grass roots organization that has done much research and advocacy regarding the effects of light rail transit and freight lines on community well being. Limited resources typically prevent community organizations from having the same access to federal regulators that industry representatives do. This opportunity to contribute a meaningful comment is greatly appreciated, as is the Pipeline and Hazardous Materials Safety Administration's (PHMSA) earnest consideration of our comments.

It is noted that relative to the importance of the PHMSA standards, very few parties comment on these proposed rules. At the time of this submission, elected officials have not submitted a comment on behalf of the interest/protection of Minneapolis/St Paul or generally on behalf of Minnesota (i.e. mayor, city council, state legislators, Governor, etc.) and only a few federal politicians have made comment. This is concerning because communities rely on elected officials to serve the best interest of the community residents. Most comments, related to Docket No. PHMSA-2012-0082 (HM251), were generated by individual citizens, small communities or cities, or by industry representatives. As citizens, we have expended great care and effort to learn about the issues of freight safety, and have had to do it quickly.

The large-scale shipment of crude oil and ethanol by rail simply didn't exist ten years ago, and safety regulations need to catch up with this new reality. While this energy boom is good for business, the people and the environment along rail corridors must be protected from harm. Crude oil shipments by rail have increased by over 40-fold since 2005, according to the Association of American Railroad's Annual Report of Hazardous Materials. In fact, more crude oil was transported by rail in North America in 2013 than in the past five years combined, most of it extracted from the Bakken shale of North Dakota and Montana (Stockman).

The National Transportation Safety Board (NTSB) noted their concern to PHMSA, that major loss of life, property damage and environmental consequences can occur when large volumes of crude oil or other flammable liquids are transported on a single train involved in an incident, as seen in the Lac Megantic, Quebec, disaster, as well as several disasters that the NTSB has investigated in the United States. The NTSB recommendations to the Federal Railroad Administration and the Pipeline and Hazardous Materials Safety Administration include reroutes of trains carrying hazardous cargo around populated and environmental sensitive corridors, development of an

audit program to ensure rail carriers that carry petroleum products have adequate response capabilities to address worst-case discharges of the entire quantity of product carried on a train and an audit of shippers and rail carriers to ensure that they are properly classifying hazardous materials in transportation and that they have adequate safety and security plans in place (NTSB).

RULE ANALYSIS

LRT-Done Right commends PHMSA and FRA for the effort to improve rail safety with the development of this proposed rule. While understanding the need to balance community safety with the needs of railroads as a profitable enterprise, there are several omissions in the proposed standards that we wish to address. It is clear that PHMSA standards for too long have been overly influenced by industry (Straw R), but as recent rail disasters have shown, the necessity to protect the public's interest is imperative. Because we are citizens with limited rail engineering expertise, we will use our own experiences with a small short line railroad called Twin City & Western (TC&W) to illustrate issues with PHMSA standards. TC&W is a Class III railroad with connections to Canadian Pacific, Union Pacific, Burlington Northern and Canadian National. Under current PHMSA guidelines, which apply to Class I railroads, these enhanced tank car standards and operational controls for High-Hazard Flammable Trains (HHFT) would not apply. This is gravely concerning. Our comments will cover issues of rail routing, notification to State Emergency Response Commissions, tank car specifications, and additional requirements for HHFTs.

Rail Routing -

Missing from standards are guidelines on construction of new transit lines in an active freight rail corridors. Increasingly, light rail transit (LRT) through suburban and urban areas is being run through established freight corridors, which were designed in a different era of rail safety (Sela, et al). LRT routes are planned by local and regional public officials who typically are not adequately addressing the safety of these transit routes, leaving it to affected neighborhoods to advocate for community safety. The trend toward locating LRT adjacent to freight must be addressed in these PHMSA standards. We understand this to be complicated by issues of governance; the Federal Railroad Administration (FRA) regulates freight trains while the Federal Transit Administration (FTA) guides LRT lines. However FRA has ultimate authority and PHMSA writes rules for safety. This particular comment regarding rail routing may be currently beyond the purview of these particular proposed PHMSA standards, never the less we submit these comments to stress their importance to freight safety in shared use corridors, and for immediate consideration and inclusion in this joint PHMSA and FRA rule.

Shared FRA/FTA guidelines are written with respect to Amtrak, and give responsibility to the freight companies for managing shared track (Federal Register, Part VII). Currently, there are no specific safety requirements for either existing or yet to be constructed commuter lines in shared corridors, where track is not shared (Resor R). When track is shared, then commuter lines must meet strict safety guidelines, but when track-separated right of way (ROW) is shared, there are no regulations whatsoever, and localities must police themselves. No guidelines exist that guide either the construction phase of adding LRT lines through an existing freight corridor, or corridor minimum level safety standards. Hence, there are many co-location projects nationwide moving forward, which do not meet minimum American Railroad Engineering and Maintenance-of-way Association (AREMA) guidelines. AREMA guidelines recommend minimum standards for grade separation of 25 feet center rail to center rail. The Rail Safety Improvement Act of 1988 gives the FRA jurisdiction over most types of railroad including shared track LRT (Pub. L. No 100-342), however the FRA has historically not chosen to exercise this authority. This has left shared ROW LRT in a netherworld of un-regulation, which we believe seriously compromises the safety of people, property and environment along these types of corridors.

A case in point is Southwest Light Rail Transit (SWLRT), currently in the early engineering phase and being

considered for construction by the FTA through the Kenilworth corridor in the Minneapolis, MN area. If constructed, LRT will run less than 12 feet from freight rail at a point along the Kenilworth Corridor that regularly carries Class 3 flammable liquids, including long unit trains of ethanol. During the construction phase of a proposed tunnel in an area that can not accommodate both LRT, a freight line, and an existing heavily used bike trail, the freight line, which will continue full service throughout the construction will run just 11 feet from a 35 foot construction pit in an populated area of Minneapolis. In no other instance, could we find current plans to co-locate LRT next to a freight rail line that carries Class 3 flammable liquids. There are other lines that exist where co-location occurs, but these were built many years ago prior to the awareness of the danger existent with oil and ethanol trains. The TC&W freight regularly runs unit trains of 60-100 ethanol train cars through the Kenilworth corridor within feet of the proposed LRT line. Ethanol is highly combustible, which may form explosive mixtures with air and where exposure to electrostatic charges should be avoided (ODN). Yet these electrified LRT lines will literally be next to tanker cars carrying ethanol and other chemicals.

Over the 20-year interval from 1993 to 2012, there were 1,631 mainline passenger train disasters, including 886 grade crossing accidents, 395 obstruction accidents, 263 derailments, 71 collisions. During the same time period, there were 13,563 freight derailments and 851 collisions (Lin et al). Derailments and collisions were identified as the most potentially significant train accident types while human factors accidents and track failures, including obstructions were the primary causes of those accidents (Lin et al). Adjacent tracks, occupied by freight and passenger rail - refers to train disaster scenarios where derailed equipment intrudes adjacent tracks, causing operational disturbance and potential subsequent train collisions on the adjacent tracks (Lin and Saat). Lin and Saat created probability models assessing risk along adjacent tracks to determine risk and severity of a crash leading to a collision or derailment. Identified risk factors included distance between track centers, train speeds, train densities, different train control systems, and level of hazardous train cargo. In the case of SWLRT, this model assessed Kenilworth to be a high-risk rail corridor, yet due to a lack of regulation of co-location, this project progresses.

For transit located on adjacent track to active freight, FRA's concern is that operations of a freight railroad in close proximity to LRT could present safety risks for both. In considering our SWLRT case study, track centers distances are as narrow as 12 feet (11 feet during construction), with 220 LRT trains proposed daily. A derailment of either freight or LRT could be disastrous. With distances of 11-12 feet between SWLRT and freight, if either were to encroach and cause intrusion upon the other, this would likely bring death and destruction, and depending upon the cargo carried, could mean broad evacuation of 1000s of area residents. AREMA's 25 foot standard would be more likely to prevent intrusion onto the adjacent track, and would keep electrified lines away from highly flammable fuel carrying tankers.

None of this accounts for issues related to trains as targets of terrorism or using those trains for terrorist purposes (Brodsky), using chemicals such as chlorine or fossil fuels to create 'bomb trains' or mayhem. Minneapolis is a high threat urban area as determined by the Transportation Safety Administration (TSA); our case study SWLRT parallels freight up to and past the Target Center and the Twins Stadium, two large venues for sports and entertainment. This is another scenario that begs for a solution that would set safety rules for co-location of freight and passenger rail through shared ROW near sites at high risk for terrorism.

The safety requirements for HHFT should apply to Class I, Class II, and Class III railroads. There are short line railroads that are shipping ethanol, and due to common carrier obligations, may be called upon to ship oil, chlorine or other Class 3 flammable liquids. Due to entity size and revenues, these short line railroads typically are Class III railroads. The revenue generating capacity of a railroad should not govern the safety standards to which it is held. If a railroad or shipper does not have the capacity to adhere to the HHFT tank car standards and operational controls, it is dangerous for that entity to be in the business of conveying Class 3 flammable liquids. The relevance of these standards only to Class I railroads, to trains of 20 or more rail cars of hazardous cargo, and to only population areas of 100,00 or more, leave many communities endangered. The safety requirements for HHFT should apply to Class I, Class II, and Class III railroads. The revenue generating capacity of a railroad should not govern the safety standards to which it is held. If a railroad or shipper does not have the capacity to adhere to the HHFT tank car standards and operational controls, it is dangerous for that entity to be in the business of

conveying Class 3 flammable liquids. Additionally, the absence of regulation guiding construction of adjacent rail lines through shared ROW carrying tanker chemicals pose danger to residents along these corridors. Regulatory action must be more broadly addressed to all railroads, on any trains carrying any hazardous materials through any community of any population size.

PHMSA standards are proposed only for communities with population greater than 100,000. We understand the necessity of setting population density standards, but suggest that the threshold of 100,000 is too high. It is discriminatory to penalize a small community and to put them at greater risk due to safe guards not being applicable. Further, it is those communities that would be least likely to absorb the cost of disaster. Railroads must be accountable for safety and exercise due diligence for one tank car or 100 tank cars, in urban and on rural routes. Many of the rail disasters that have occurred happened in areas where populations were less than 100,000 (e.g. Lac Megantic). These communities deserve to be protected too.

Notification to State Emergency Response Commissions (SERCs)-

The proposed PHMSA rule would require notification to SERCs only if trains containing one million gallons of Bakken crude are operating in their States. The requirement ignores the dangers ethanol and does not acknowledge that as little as one carload of oil or ethanol can trigger disaster, as is evidenced by the summary of selected major oil and ethanol train disasters shown in Table 3 provided in the Docket No. PHMSA-2012-0082 (HM-251).

Ethanol is a Class 3 flammable liquid and is considered as dangerous as oil by the National Transportation Safety Board. Ethanol is appropriately classified as a Class 3 flammable and should not be referred to simply as an agricultural product. Ethanol is caustic to the skin, harmful if breathed, highly flammable and very difficult to clean up especially if released in bodies of water. The reason for this clean up challenge is that ethanol is soluble in water. Unlike petroleum, which can be extracted from the top of the water, concentrated ethanol would require full liquid removal (i.e., in the event of an ethanol spill in a lake, the affected would need to be drained). In groundwater, ethanol does not respond to typical remediation techniques, like air stripping and filtration.

To achieve the best protection for our communities, emergency responders and railroad workers – SERCs must have advance notice that oil and ethanol is being shipped through their states. Further all railroads/shippers of oil or ethanol must design and implement a comprehensive spill response plans. These response plans must be provided in advance to the relevant SERCs, Tribal Emergency Response Commissions, Fusion Centers and any other State designated agencies.

These safety preparedness requirements must apply to all railroads/shippers of Class 3 flammable liquids, regardless of their classification (i.e., Class I, Class II or Class III). Without this requirement there will not be adequate training and incentive to minimize collateral damage to communities.

If a railroad or shipper does not have the manpower and fiscal capacity to develop and execute a Class 3 flammable liquid spill response plan, it is not prudent for that entity to be in the business of conveying Class 3 flammable liquids. Spill response plans should take in to account the terrain, natural geography and municipal development along the route used for transport. Specifically if lakes and rivers are present, the plan must provide for containment to prevent water contamination and plan for the de-contamination of bodies of water. Additionally the presence of other freight and/or public transit modes in the same ROW corridor, along with the proximity to residential and school areas, must be addressed in developing the appropriate spill response plan.

Tank Car Specifications -

PHMSA recognizes that DOT-111 tank cars can almost always be expected to breach in the event of a train crash and resulting in spills, explosions and destruction, yet the proposed new rule on train operation and tank car

design would fail to take a single DOT-111 car off the rails. New designs for DOT-111s include increased minimum head and shell thickness, top and bottom fitting protection, a thicker head shield, and head and shells constructed of normalized steel. The guidelines recommend that new DOT-111s ordered after October 1, 2011, be built to this standard. We appreciate these new standards. However, the type of crude involved in the Lac Megantic disaster could be carried on the least safe DOT-111 tank cars until Oct. 1, 2018. An immediate ban on shipping volatile crude and ethanol in the DOT-111 tank cars is in order.

Short line railroads like TC&W in Minnesota are small and often unable or unwilling to purchase these new tanker cars because their ability to invest capital in new cars is limited. They instead tend to purchase used tanker cars from other larger railroads that are refitting those for newer tank cars, and they retrofit older used cars to meet minimum safety standards. It is ironic that these short line railroads which are often run through heavily populated urban corridors have the worst quality tank cars in all the fleets, yet run through the most densely populated corridors. Of the 94,178 cars in flammable service, currently only 14,150, or 5 percent of the total DOT-111 fleet (15 percent of the flammable service fleet), have been manufactured to comply with new standards (Pumphrey et al).

Additionally, as the amount of oil being shipped by rail has increased, train companies have moved to using unit trains for shipping higher volumes (Pumphrey et al). Unlike a manifest train, which might carry a variety of different commodities, a unit train carries only one commodity (e.g., ethanol or crude oil). Unit trains consist of between 50 and 120 tank cars, the equivalent of 50,000 to 90,000 barrels of oil, becoming a "virtual pipeline" or a potential bomb train. Unit trains may increase efficiency but also increase risk. According to the American Association of

Railroads (AAR), "a single large unit train might carry 85,000 barrels of oil". There is no publicly available data on how much oil or ethanol is being shipped in unit trains versus non-unit trains (Pumphreys et al). Shippers of crude oil currently are not required to prepare a comprehensive oil spill response plan (OSRP). Shippers should be required to report even one tanker car of oil or ethanol. And limits should be placed on the number of tanker cars in any single train, especially through high population density areas.

In the case of SWLRT, nearly all ethanol trains that run on the freight track are unit trains. Substandard tank cars combined with the fact of unit trains and a high number of tanker cars means that the Kenilworth Corridor is at high risk. The proximity of an electrified LRT a mere 12 feet from tanker cars could mean that this neighborhood could become ground zero in case of derailment.

The next generation tank cars should exceed the previous 2011 standards, and that should be phased in at a quicker pace than proposed. It is clear that rail company lobbyists are actively trying to minimize PHMSA regulatory tanker car standards (Straw). You must steal your resolve and demand improvements for public safety, and for short line railroads demand similar standards with no waivers.

Small short line railroads are often not given the attention or training of larger railroads, yet they often utilize the worst tanker cars and have the least emergency training. Short Line Railroad Safety training for short line railroads transporting crude and ethanol must be a greater priority, because they often run through high-density urban corridors.

Additional Requirements for High-Hazard Flammable Trains (HHFTs)-

The proposed rule defines a HHFT as a single train carrying 20 or more carloads of Class 3 flammable liquid. The definition does not serve the safety interests of the United States. It is documented that one carload of Class 3 flammable liquid can trigger a disaster and devastation. For that reason, a HHFT should mean a single train carrying one or more carloads of Class 3 flammable liquids.

Further the proposed rule applies only to trains operated by Class I railroads. The PHMSA and FRA safety rules related to Class 3 flammable liquids should be in effect for all railroads/shippers that convey Class 3 flammable

liquids. The class (i.e., Class I, II or III) of a railroad is determined by its revenue generation. It is not reasonable to exempt a railroad from important safety requirements based on its revenue generating capacity. If a railroad/shipper does not have the capacity to adhere to relevant HHFT and Class 3 flammable liquid safety standards, it is not prudent for that entity to be in the business of conveying Class 3 flammable liquids. These important safety rules must apply to all classes of railroads, otherwise there are opportunities to circumvent necessary precautions and responsibilities.

Further the proposed rule does not address the liability insurance requirements for railroads/shippers of Class 3 flammable liquids. This is a complicated topic especially when the condition of a share ROW exists. Goals of insurance requirements should address:

1. Allocating the liability from risks between the freight railroad and the transit agency
2. Managing the additional risk by developing a prudent insurance strategy
3. Ensuring the safety of passengers in mixed freight and transit operations
4. The willingness of freight railroads to grant access to their ROW for transit operations
5. Providing satisfactory conditions for continuing service to freight customers Without adequate insurance requirements, the public will be exposed to uncompensated losses when freight and transit disasters occur.

RECOMMENDATIONS

These proposed PHMSA rules are a beginning toward building a safer rail industry. However, the more we investigated the rules, the clearer it became that the rules do not go far enough to protect the public. The current standards are remarkable more for what they do not regulate than for what they do. Much more needs to be done to ensure public and environmental safety. We recommend that PHMSA immediately incorporate the recommendations listed below to expand this rule on safety standards to better protect the public and the environment:

1. Modify the definition of a high-hazard flammable train provided in Section 171.8 to read as follows: High hazard flammable train means a single train carrying 1 or more carloads of a Class 3 flammable liquid.
2. The PHMSA and FRA rules must apply to all trains conveying Class 3 flammable liquid regardless of railroad classification (i.e., includes Class I, Class II and Class III railroads). This would extend PHMSA regulatory actions to all railroads regardless of Class.
3. The PHMSA and FRA safety rules should apply equally to HHFTs that are conveying oil and/or ethanol. The NTSB views ethanol as dangerous as oil. Having safety rules that address the conveyance of oil but do not apply to ethanol carriers is flawed, as both are Class 3 flammable liquids.
4. Ban the use of DOT-111 tank cars now for transporting any amount of hazardous materials, instead of focusing solely on trains with more than 20 railcars of crude oil. The proposal to allow continued use of DOT-111 cars on trains of fewer than 20 cars would fail to protect public safety and the environment.
5. DOT-111 cars should not be used for the transport of any crude oils or fossil fuels, regardless of classification.
6. Retrofitting cars that fail to meet every standard of the most protective new tank car design should be barred from use for all shipments of hazardous materials, regardless of class and have regular safety

inspections to assess their continued safety.

7. Require that any and all railroads/shippers conveying one car load or more of Class 3 flammable liquids are required to notify SERCs about the operation of these trains through their States. Further it is recommended that comprehensive spill response plans be submitted for review and approval by relevant federal agencies under the National Contingency Plan, along with PHMSA. Given the relatively few number of railroad entities, it is not anticipated for this to be an undue burden. To minimize risks due to outdated comprehensive spill response plans, it is strongly recommended that plans be updated at least on a 3-year cycle and whenever there is a change of ownership in the railroad or shipper.
8. Enforcement of PHMSA/FRA/FRA rules and inspections do not happen regularly due to minimal federal staffing. An increase in the frequency of inspections is recommended, with funding provided by railroad fees.
9. Implement federal standards and rules that would minimize the occurrence of the key causes of train derailments resulting in spills; namely, the size of trains, state of infrastructure and human error. The proposed rule enumerates the most common causes of hazardous train derailments but fails to propose meaningful solutions such as limits on the number of cars permitted in each train, the use of unit trains, requirements for new build outs in shared row, infrastructure and inspection improvements, and management and oversight.
10. Derailments and spills can happen everywhere. Instead of selectively protecting only the most densely populated cities, apply these standards everywhere. As written, the proposed rules are designed to reduce risk to communities of greater than 100,000 people, but protections should be afforded all communities. These standards specifically acknowledge that it is putting people at risk solely because of where they live. This is immoral.
11. Sensitive environments including but not limited to areas near water, drinking water supplies, parks and animal habitat should be protected by all available safety standards.
12. Require full public disclosure to first responders of all hazardous rail shipments. There should be no exemptions for trains with fewer than 35 cars. Even one car of hazardous cargo should be disclosed so that emergency responders can act appropriately in the case of a disaster.
13. Uniform federal level guidelines should be developed to guide all future construction and management of LRT/commuter rail lines in shared freight/transit corridors, in particular along corridors that carry Class 3 flammable liquids.
14. A comprehensive study of derailment probability in shared ROW should be undertaken to understand the effect of track spacing, electrification of LRT adjacent to gas/oil/ethanol bearing trains, train speeds, train cargo, and train ownership (long range vs. short line railroads).
15. Minimum standards should be set for co-location of passenger and freight co-location, including that ROW should meet the AREMA minimum safety standard of 25 feet center rail to center rail (Caughron B et al). Immediately institute a moratorium on the building of LRT lines adjacent to freight lines that are conveying any amount of Class 3 flammable liquids in corridors that do not meet AREMA's 25 feet center rail to center rail standard.
16. All trains conveying Class 3 flammable liquids should be re-routed outside of high risk urban areas and away from areas at high risk for derailment or terrorism including urban neighborhoods, downtown areas, malls and major sports and entertainment complexes.

CONCLUSION

Given the exponential increase in shipments of oil and ethanol, the need to upgrade and implement relevant freight rail safety standards is urgent and necessary to the well being of our communities and environment. The coordination of oversight authority for all railroads (i.e., Class I-III) and public transit projects safety must also

improve. The proposed rule along with the aforementioned recommendations will serve to protect our nation and place the responsibility for safety precautions with the appropriate entities and not place undue burden on communities and residents.

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