SOUTHWEST

Green Line LRT Extension

Corridor Management Committee

February 4, 2015

METROPOLITAN COUNCIL | Metro Transit | FTA | Counties Transit Improvement Board | Minnesota Department of Transportation | Hennepin

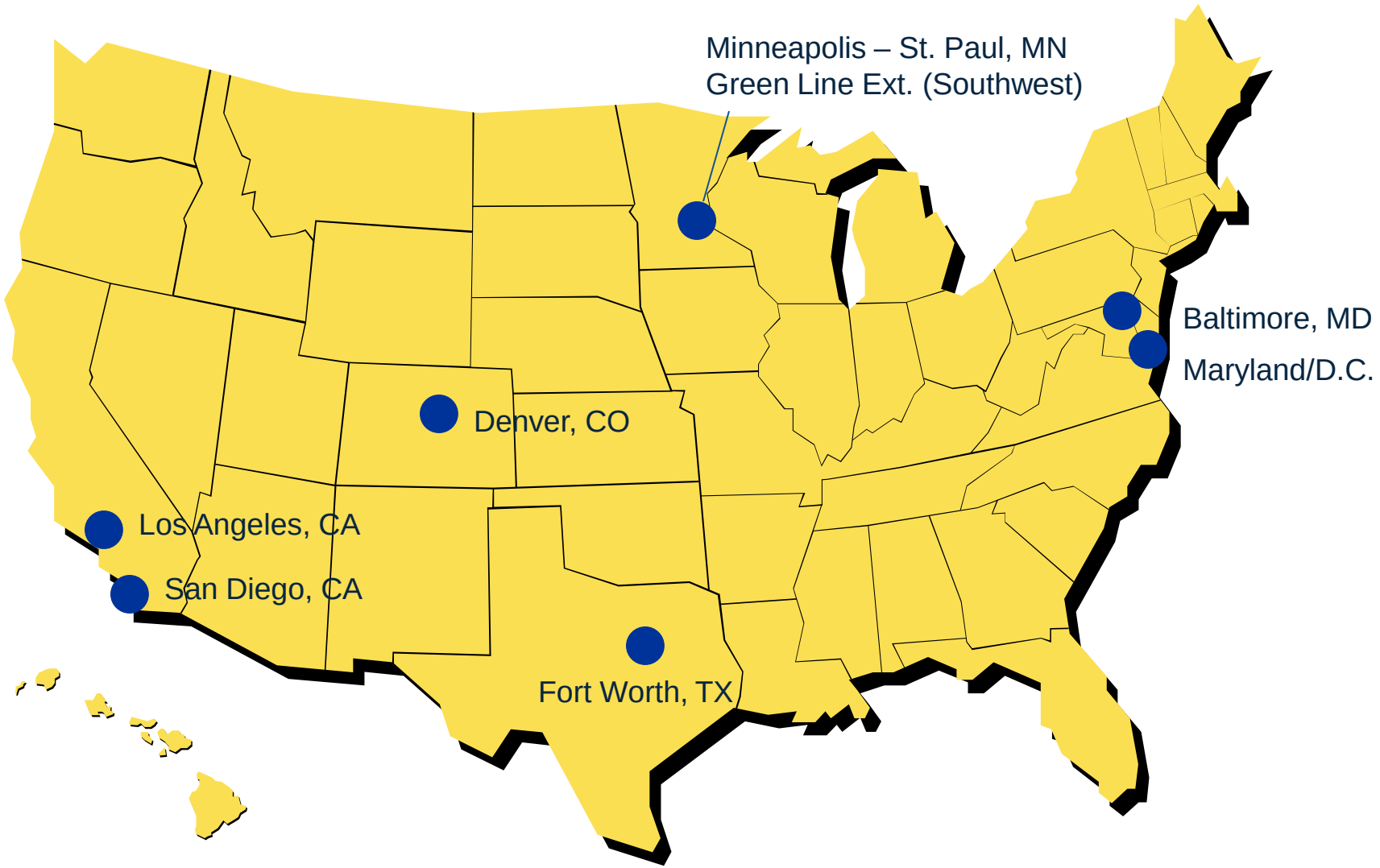
EDEN PRAIRIE | MINNETONKA | EDINA | HOPKINS | ST. LOUIS PARK | MINNEAPOLIS

Today's Topics

- 2015 Look Ahead
  - Design and Engineering
  - Environmental
  - Joint Development
  - Public Involvement
- BAC/CAC Update
- Executive Change Control Board Update
- Noise and Vibration Overview

Peer “New Starts” Projects Recommended for FFGA

February 2015 Status



New Starts Project Rating

	SWLRT (Sept. 2011)	SWLRT (Nov. 2014)
Project Justification Rating	Medium	Medium
Local Commitment Financial Rating	Medium	High
Overall Project Rating	**Medium**	**Medium-High**

Advancing the Design Process

Advancing Design from 30% to 60% Engineering

- Corridor-wide:
  - Station architecture/integrated public art
  - Streetscape/landscape design
  - LRT track features
  - Roadway and trail details
  - Bridges and tunnels
  - Systems elements
  - Freight rail features
  - ADA features
  - Incorporate changes developed through environmental review process
- Unique elements:
  - Operations and Maintenance Facility (OMF) in Hopkins
  - Park and ride facilities

Station Design

Station Design Scope/Vision

- Provide architectural consistency with the Green Line and tie the SWLRT corridor together with a corridor-wide design approach
- Control construction and maintenance costs and learn from past projects
- Acknowledge the different communities and station sites along the SWLRT corridor
- Apply one of four identified station types based on previous public input and site observations

Four Station Types

- Landscape Station
- Neighborhood Station
- Town Square Station
- Landmark Station

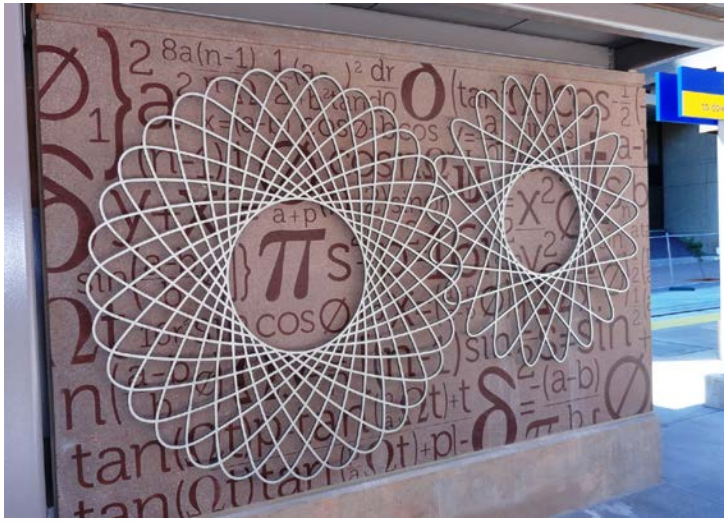
Understated

Bold

Integrated Public Art

Integrated Public Art Scope

- Incorporate public art concepts into ongoing station design process
- Enhance unique identity of stations, aid in passenger wayfinding, promote transit use and community pride
- Reflect community values and histories



***Green Line** East Bank Station*

Kenilworth Corridor Landscaping

Kenilworth Landscape Design Scope/Vision

- Reflect existing setting of the Kenilworth corridor
- Design vegetation and landscape with trails, freight rail and light rail
- Ensure quality user experience

Design: Next Steps

- Seek appointments to advisory committees
  - Station Art Committees (SAC)
  - Kenilworth Landscape Design/Station Art Committee (KDLC/SAC)
- Initiate community engagement
  - Hold kick-off meeting with KDLC/SAC
  - Hold open houses on station prototype location and site elements
- Refine station prototype designs to reflect site and public input
- Select artists and hold kick-off meeting with the SACs
- Host public events seeking input on station design and public art design concepts

Kenilworth Channel
Bridge Design Concepts

Kenilworth Channel Bridge Design Scope

- Incorporate Section 106 process for historic properties, considerations coordinated with design process
- Reflect input received from consulting parties
  - Maximize natural light between bridges
  - Create more space for skiers and kayakers
  - Use natural materials/dark colors
- Consider vegetation and bridge abutments along embankments
- Meet functional requirements that is tested with structural engineering

Kenilworth Channel Bridge Design
Next Steps

- Continue review with State Historic Preservation Office (SHPO) and consulting parties
- Seek public comments at open houses Q2 2015

Advancing the Environmental Process

National Environmental Policy Act and Minnesota Environmental Policy Act

Supplemental Draft Environmental Impact Statement

- SDEIS will evaluate adjustments that may result in significant adverse impact from the proposed project since publication of the DEIS, including:
  - Eden Prairie alignment adjustments
  - Proposed location of the operations and maintenance facility
  - Kenilworth corridor/freight rail alignment

Next Steps

- SDEIS publication (conferring with FTA)
- Notice of Availability starts the 45 day public comment period
  - Document will be made available online and at public locations
  - Open House & Hearings will be held no earlier than 15 days after publication date
- Comments from DEIS and SDEIS will be responded to in FEIS and through engineering design refinement
- Mitigation will be included in the FEIS and Record of Decision (ROD)

Section 4(f) of the Department of Transportation Act

Section 4(f) Overview

- Requires consideration of publically owned parks, recreation areas and wildlife refuges and publically or privately owned historic sites during transportation project development
- Includes coordination with officials with jurisdiction
- Supplemental draft 4(f) analysis included in SDEIS
  - Updates draft analysis included in DEIS
  - Addresses adjustments made during preliminary engineering

Section 4(f) Next Steps

- Coordination with officials with jurisdiction
- Publish supplemental draft 4(f) evaluation (conferring with FTA)
- Publish final 4(f) evaluation in Final EIS

Section 106 of the National Historic Preservation Act

Section 106 Overview

- Requires federal agencies to consider effects of project on historic properties
- Includes consultation with Section 106 consulting parties
  - MN State Historic Preservation Office
  - Cities of Eden Prairie, Minnetonka, Hopkins, St. Louis Park, Minneapolis
  - Hennepin County
  - Minneapolis Park and Recreation Board
  - Three Rivers Park District
  - Kenwood Isles Area Association
  - Cedar-Isles-Dean Neighborhood Association

Section 106 Next Steps

- Continue consultation with Section 106 Consulting Parties
- Make determinations of adverse effects on historic properties impacted by the project
- Develop Section 106 Agreement
  - Identify measures to avoid, minimize, or mitigate adverse effects

Joint Development

Joint Development Overview

- Joint Development integrates transit elements with private development
- Funded with 50% federal funds and 50% local funds
- Revenue from ground/air rights or other leases helps pay for transit operations and maintenance costs
- FTA supportive of SWLRT Joint Development efforts
- Two potential SWLRT Joint Development opportunities
  - Blake Station
  - Beltline Station

Joint Development: Next Steps

Activity	2015 Timeframe
Define and Commence Due Diligence Activities	Q1
Seek input from real estate community and the public (Station design open houses)	Q1-Q2
Secure City, local funding partners and Met Council Approval	Q3
Release Request for Interest (RFI) for Real Estate Developers	Q4

Public Involvement

2015 Public Involvement Overview*

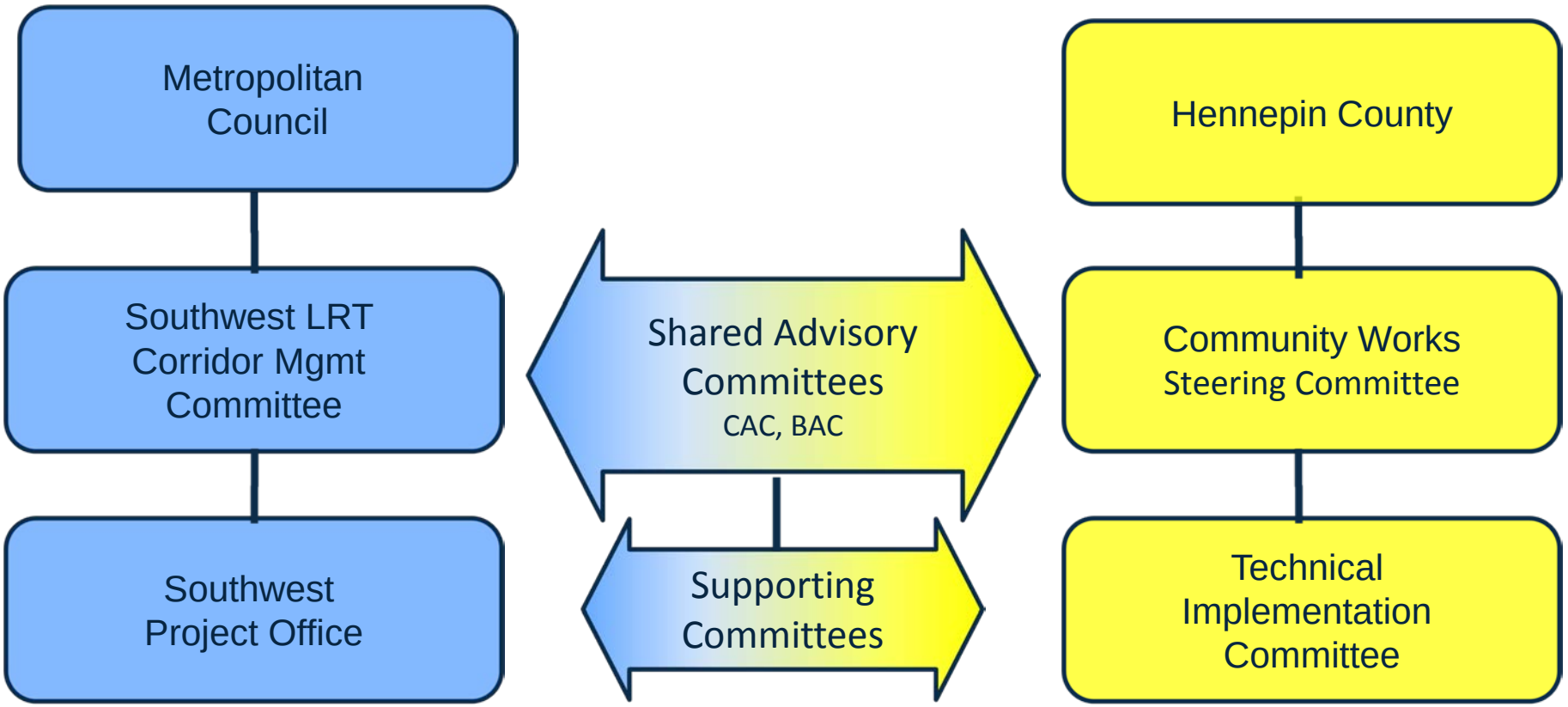
Activities	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Station Design												
Integrated Public Art												
Landscape Design												
Kenilworth Bridge Design												
Historic Properties (Section 106)												
Joint Development												

Advisory Committees	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
BAC/CAC Meetings												
Station Art Committees												

*All schedules are subject to change

BAC/CAC Update

Southwest LRT Committee Structure



Advisory Committee Leadership

- CAC Co-Chairs:
  - Jennifer Munt, Metropolitan Council
  - Russ Adams, Alliance for Metropolitan Sustainability

- BAC Co-Chairs:
  - Daniel Duffy, TwinWest Chamber
  - Will Roach, Minneapolis Regional Chamber

Advisory Committee Next Steps

- Feb 12: Hold joint BAC/CAC kick-off
- Week of Feb 23: Resume regular meetings

Executive Change Control Board Update

Executive Change Control Board (ECCB)

- Purpose:
  - Ensure compliance with the contingency management process called for in the CTIB and HCRRA full funding commitment resolutions
    - Approve change orders, project requirements, contracts and contract cost increases > $250,000
    - Approve scope deferrals and LRCI > $75,000
    - Review at regular intervals all change orders < $250,000

Locally Requested Capital Investment Criteria for Local Funding*

- Improve benefits to the regional system
- Improve connectivity to the community by increasing ridership
- Increase safety and security for patrons
- Reduce operating costs

**LRCI must meet one or more criteria*

Locally Requested Capital Investment

- LRCIs being funded locally for both design and construction
- ECCB identified 14 of those LRCIs as eligible for funding if FTA allows use of project contingency
  - Requires ECCB approval

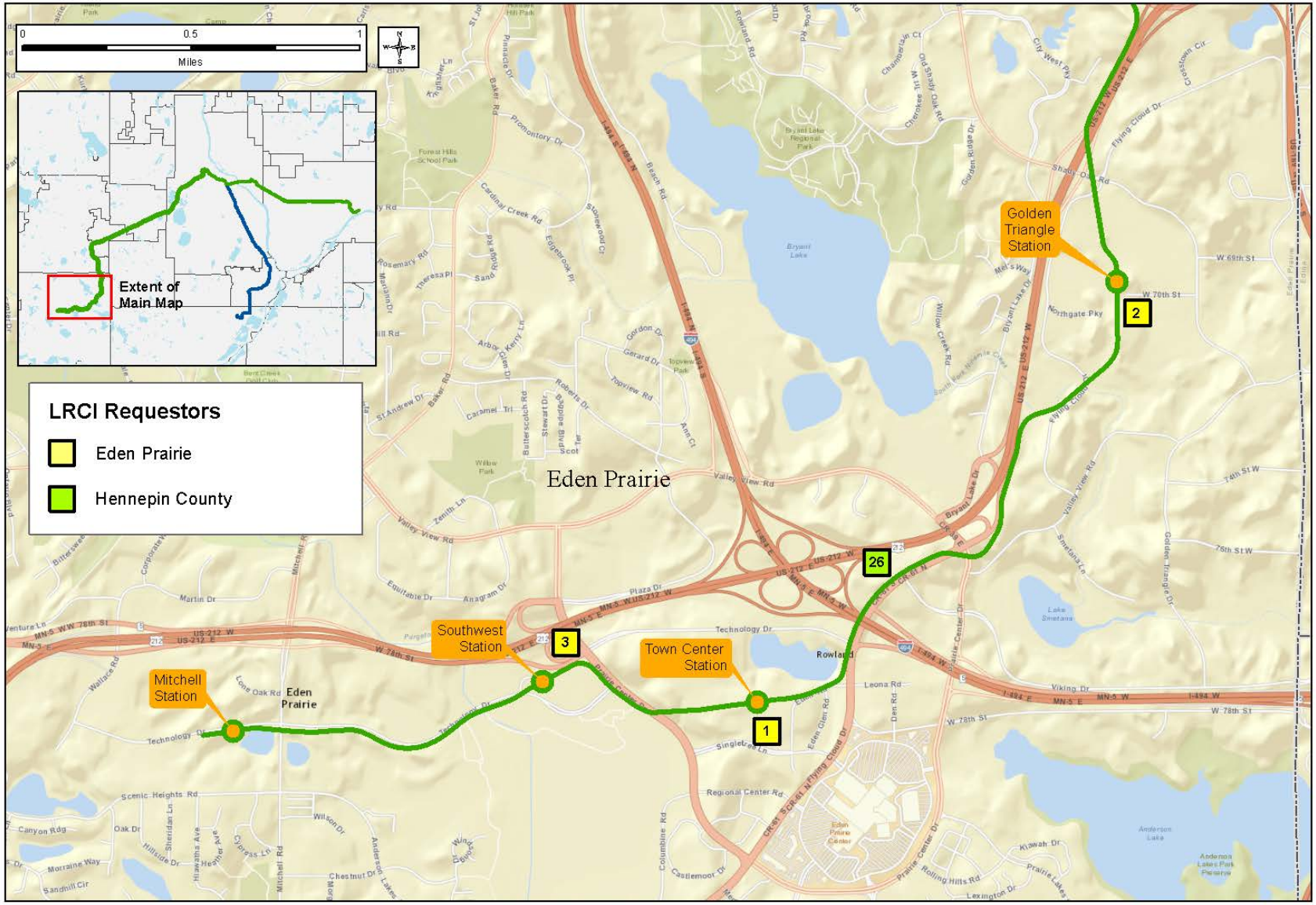
Locally Requested Capital Investment

Improvement Type	Eden Prairie	Minne-tonka	Hopkins	St. Louis Park	Mpls.	Hennepin Co.	Total
Roadway Improvements	1	1	--	3	--	--	5
Streetscape/Landscape/ Aesthetic Improvements	--	--	1	--	--	--	1
Pedestrian/Bicycle Improvements	2	--	--	1	--	4	7
Utility Improvements	--	--	--	--	--	--	0
Grading and Retaining Walls		1					1
Total	3	2	1	4	0	4	14

Colors identify LRCI requestor on following maps

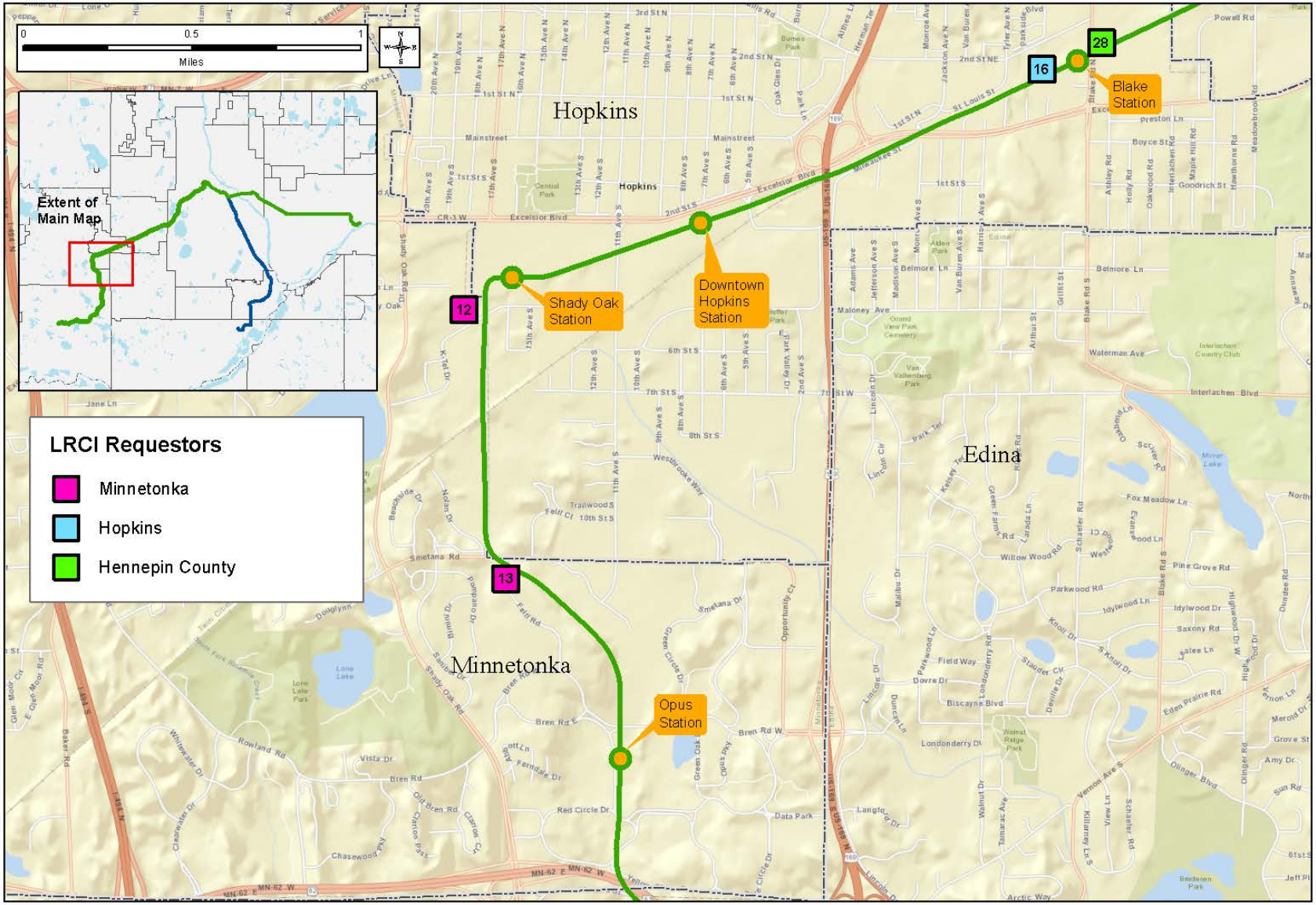
Southwest LRT Locally Requested Capital Investments (LRCIs): Eden Prairie

29 Jan. 2015



Southwest LRT Locally Requested Capital Investments (LRCIs): Minnetonka & Hopkins

29 Jan. 2015



Southwest LRT Locally Requested Capital Investments (LRCIs): St. Louis Park

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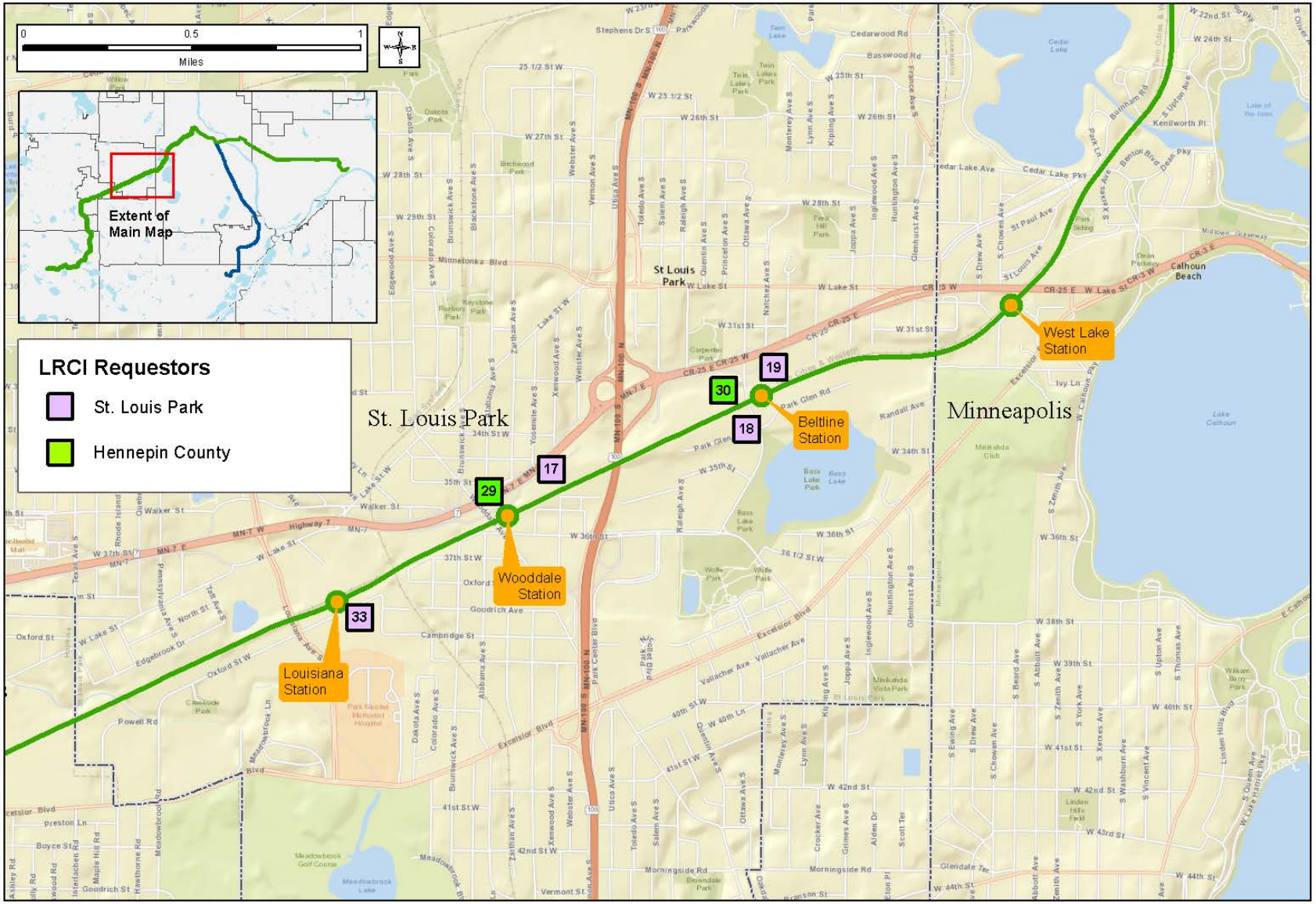


Noise and Vibration Overview

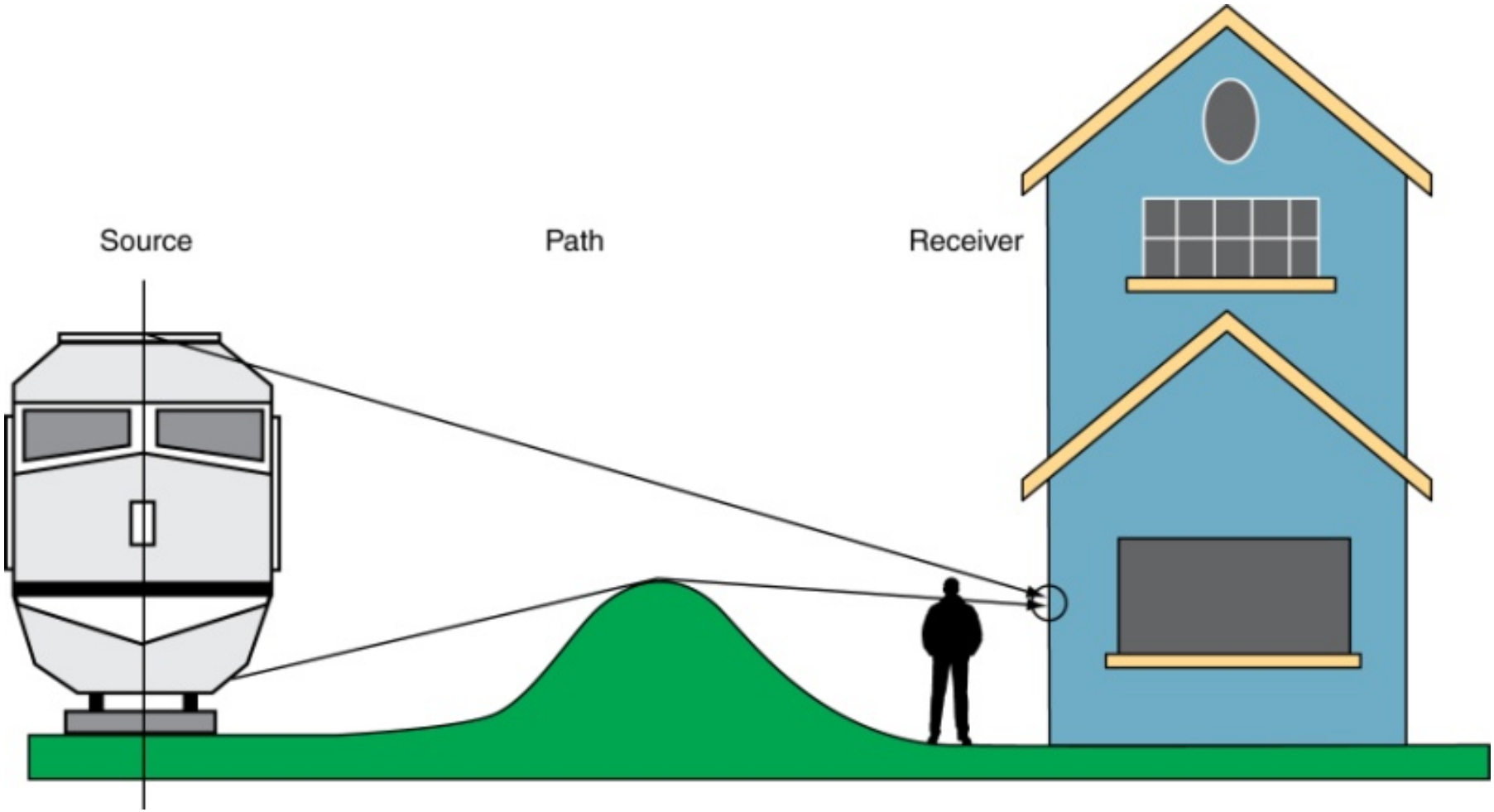
Background

- Conducted additional noise and vibration analysis for incorporation into the Supplemental Draft Environmental Impact Statement (SDEIS)
- Based on FTA Noise and Vibration Impact Assessment methodology and criteria
- Information in the 2012 DEIS still applies for areas without new impacts and/or not included in the SDEIS

How is Noise Assessed?

- Compares existing noise levels with predicted noise levels due to project
- Considers source, pathway and receiver
- Takes into account noise sensitivity of receiver by land use category, including:
  - Category 1: Quiet is an essential element for intended purpose. Includes outdoor amphitheaters, recording studios and concert halls.
  - Category 2: Residences and other places where people normally sleep. Includes homes, hospitals and hotels.
  - Category 3: Institutional land uses with primary daytime and evening use. Includes schools, churches & other places with daytime use.

How is Noise Assessed?



Noise Levels for LRT and Freight Trains

Distance	LRT @ 45 mph (dBA)	Freight Rail @ 20 mph (dBA)	Other Sources (dBA)
50 feet	76	88	Lawnmower: 72
100 feet	71	83	Bus Idling: 66
200 feet	66	78	Diesel Generator: 67

Table represents maximum noise level for a single event.

dBA = A-weighted decibel: Measurement taken during monitoring that describes a receivers noise at any moment in time

Eden Prairie Noise Analysis

~Mitchell Station to Town Center Station

- 2 moderate noise impacts and one severe noise impact without mitigation
  - Baymont Inn and Residence Inn on Flying Cloud Drive
  - Optum facility on Technology Drive – analysis pending results from monitoring
- Due to nearby at-grade crossing and proximity to LRT alignment

Minneapolis/St. Louis Park Noise Analysis

~ Louisiana Station to Van White Station

- 66 moderate noise impacts and 3 severe noise impacts without mitigation
  - Mostly due to proximity to LRT alignment
  - Impacts near Thomas Ave S, Upton Ave S and 21st St would also be due to noise from grade crossing and LRT bells and station activity

Minneapolis/St. Louis Park Noise Analysis

~ Louisiana Station to Van White Station

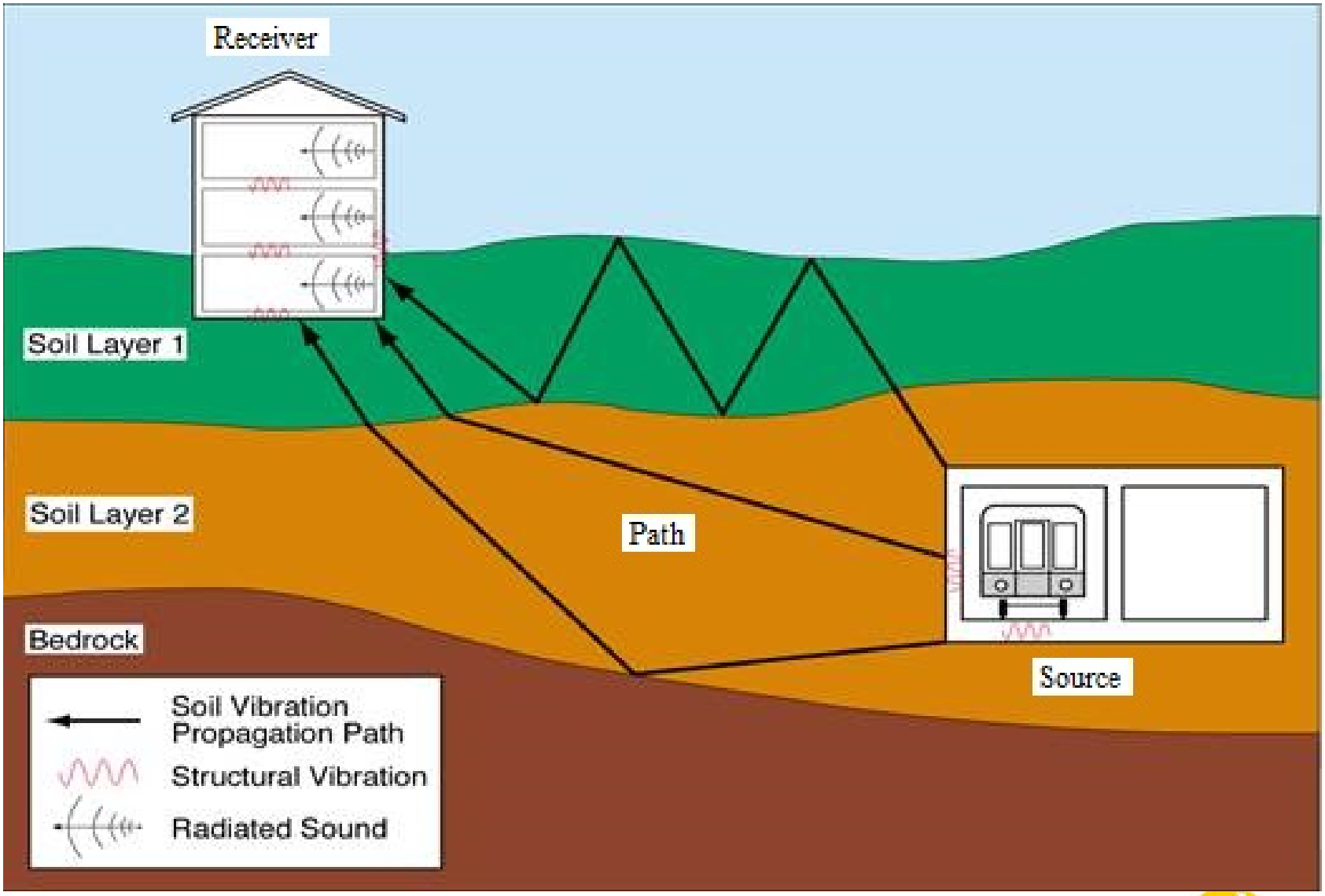
Location*	Distance from near LRT Track Centerline (feet)	LRT Speed (mph)	Existing Noise Level (dBA)	Project Noise Level for LRT	Criteria		Type and # of Impacts	
					Mod	Severe	Mod	Severe
Railroad Avenue	50	55	58	64	57	62	6	1
Camerata Way	50	55	64	64	60	66	32	0
Burnham Road N	50	45	61	64	58	64	6	1
Thomas Avenue S	50	35	56	66	56	62	16	1
Upton Avenue S	125	40	56	59	56	62	6	0
Total							66	3

Noise levels for each location are the highest levels projected for that location.

How is Vibration Assessed?

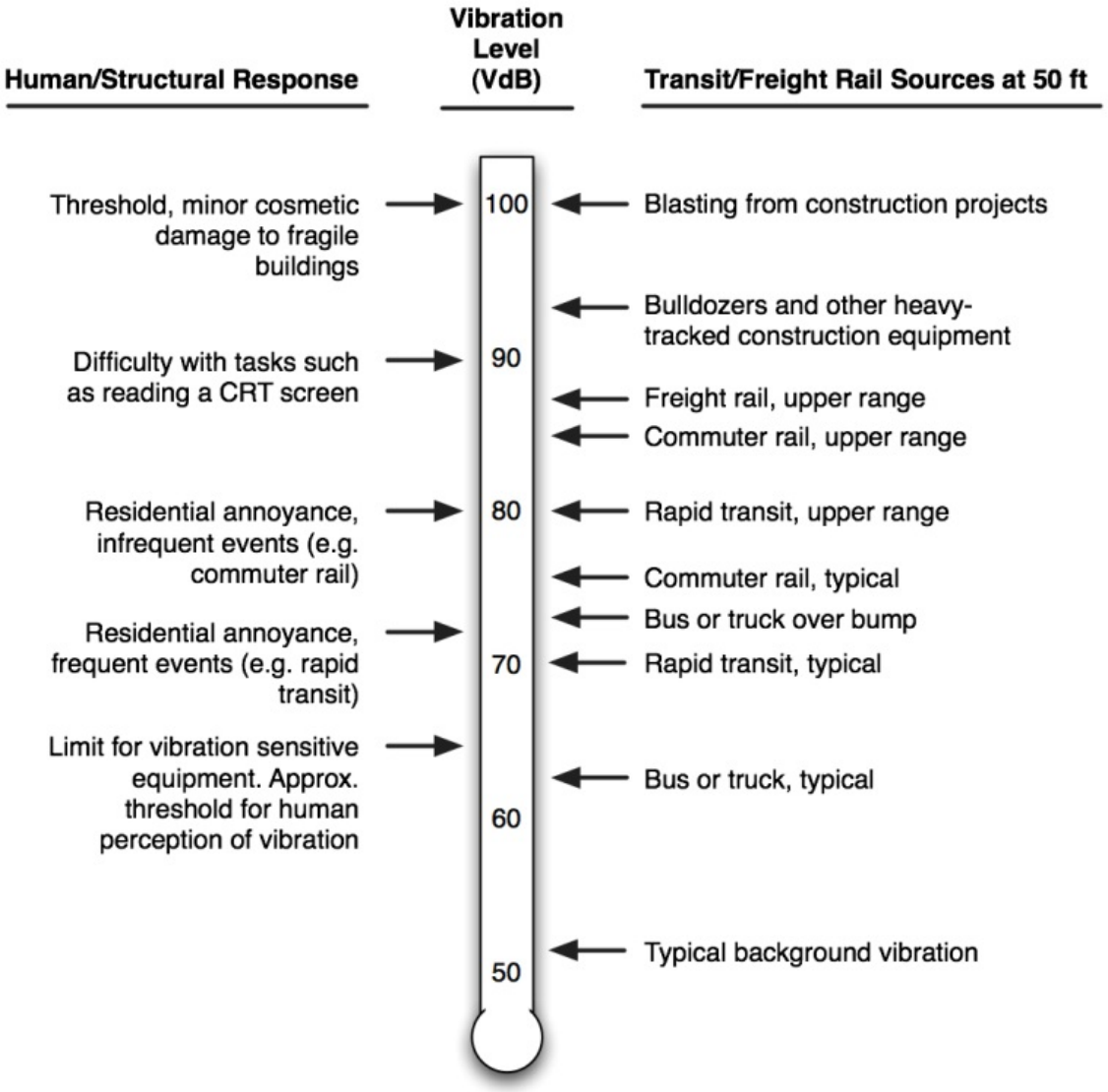
- Compares levels predicted to be generated by project with appropriate criteria
- Considers source, pathway and receiver
- Takes into account the vibration sensitivity of the receiver by land use category:
  - Category 1: Highly vibration sensitive, such as manufacturing facilities and hospitals
  - Category 2: Residences and other places where people sleep, such as hotels and hospitals
  - Category 3: Institutional, such as schools and churches

How is Vibration Assessed?



Typical Vibration Levels

- VdB = Vibration decibel
  - The maximum vibration level in terms of velocity – the standard measure of vibration for human response



Vibration Generated by LRT and Freight Trains

Distance	LRT		Freight Rail
	Vib (VdB)	GBN (VdB)	Vib (VdB)
50 feet	71	39	88
100 feet	66	34	82
200 feet	58	26	76

Vib = Vibration
VdB = Vibration decibel
GBN = Ground borne noise

Eden Prairie Vibration Analysis
~Mitchell Station to Town Center Station

- No vibration impacts
- Auditorium at the Optum facility on Technology Drive identified as sensitive receptor
  - Analysis pending results from monitoring

Minneapolis/St. Louis Park Vibration Analysis
~ Louisiana Station to Van White Station

- No vibration impacts
- 54 ground-borne noise impacts without mitigation in the area along the tunnel
  - Ground borne noise is low frequency noise that is radiated through the ground to adjacent buildings due to the train passing

Minneapolis/St. Louis Park Vibration Analysis
~ Louisiana Station to Van White Station

Location	Distance from near LRT Track Centerline (feet)	LRT Speed (mph)	Ground-Borne Noise Level (dBA)		# of Impacts
			Project Ground-Borne Level	Impact Criterion	
St. Louis Avenue	44	45	37	35	3
Calhoun Isle Condos	43	45	37	35	36
Dean Court	45	45	37	35	6
Xerxes Avenue South	45	45	37	35	8
Benton Boulevard	43	45	37	35	1
Total:					54

Noise and Vibration: Next Steps

- Include updated analysis in the SDEIS
- Complete noise and vibration impact analyses based on engineering design refinement
- Identify measures to avoid, minimize, or mitigate impacts through advancing design
- Consult with impacted parties on potential impacts and mitigation
- Include detailed analyses and committed mitigation measures in Final Environmental Impact Statement

More Information

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