Application

01968-2014 Roadway Reconstruction/Modernization
02011 - CSAH 3 (Excelsior Boulevard) Reconstruction
Regional Solicitation - Roadways Including Multimodal Elements

Status:
Submitted Date:

Submitted
11/26/2014 1:26 PM

## Primary Contact

| Name:* |  | Carla |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Salutation | First Name | Middle Name | Last Name |
| Title: | Transportation Engineer |  |  |  |
| Department: |  |  |  |  |
| Email: | Carla.Stueve@hennepin.us |  |  |  |
| Address: | 1600 Prairie Drive |  |  |  |
| * | Medina | Minnesota |  | 55340 |
|  | City | State/Province |  | Postal Code/Zip |
| Phone:* | 612-596-0356 |  |  |  |
|  | Phone |  | Ext. |  |
| Fax: |  |  |  |  |
| What Grant Programs are you most interested in? | Regional Solicitation - Roadways Including Multimodal Elements |  |  |  |

## Organization Information

Name:

Jurisdictional Agency (if different):
Organization Type: County Government

Organization Website:

| Address: | DPT OF PUBLIC WORKS |
| :--- | :--- |
|  | 1600 PRAIRIE DR |


| * | MEDINA | Minnesota |
| :--- | :--- | :--- |
| County: | City | State/Province |
| Phonnepin |  |  |
| Postal Code/Zip |  |  |
| Fax: | $763-745-7600$ | Ext. |
| PeopleSoft Vendor Number | $0000028004 A 9$ |  |

## Project Information

Project Name
Primary County where the Project is Located
Jurisdictional Agency (If Different than the Applicant):

CSAH 3 (Excelsior Boulevard) Reconstruction
Hennepin

Brief Project Description (Limit 2,800 characters; approximately 400 words)

The CSAH 3 (Excelsior Boulevard) Reconstruction Project extends from approximately 300 feet west of Meadowbrook Road to approximately 150 feet west of Louisiana Avenue in Hopkins and St. Louis Park. Recently, Hennepin County completed reconstruction projects along Excelsior Boulevard both west and east of this proposed project; with the end goal of implementing a reconstructed corridor from CSAH 61 (Shady Oak Road) to Trunk Highway 100. The cross-section of this project would generally match the cross-sections of the reconstructed roadway to the east and west.

The Excelsior Boulevard Reconstruction Project would reconstruct 0.57 miles of the existing 4-lane divided urban section. The project objectives are to improve safety and operations, and facilitate transit, bicycle, and pedestrian movements through the area. This would include the following elements:
-10-ton pavement design
-Intersection improvements at Meadowbrook Road - traffic signal, median, ADA compliant ramps, turn lanes, and lighting
-Raised concrete medians with vegetation

- Replacement of curb and gutter, sidewalks, storm sewer, and lighting
- Fencing and retaining walls to define parking areas and land formations

Excelsior Boulevard is classified as a "A" Minor Arterial that functions as a Reliever.

Connection to Local Planning:
Reference the name of the appropriate comprehensive plan, regional/statewide plan, capital improvement program, corridor study document [studies on trunk highway must be approved by MnDOT and the Metropolitan Council], or other official plan or program of the applicant agency [includes Safe Routes to School Plans] that the project is included in and/or a transportation problem/need that the project addresses. List the applicable documents and pages.

This project implements a solution to a transportation problem addressed in Hennepin County's adopted 2014-2018 Transportation Capital Improvement Program.

Connection to Local Planning
Both the City of Hopkins and St. Louis Park include a statement of acknowledgement in their respective comprehensive plans regarding the county's plans of reconstructing CSAH 3 (Excelsior Boulevard) in the future.

## Project Funding

| Are you applying for funds from another source(s) to implement this project? | No |
| :---: | :---: |
| If yes, please identify the source(s) |  |
| Federal Amount | \$5,520,000.00 |
| Match Amount | \$1,380,000.00 |
| Minimum of 20\% of project total |  |
| Project Total | \$6,900,000.00 |
| Match Percentage | 20.0\% |
| Minimum of 20\% |  |
| Compute the match percentage by dividing the match amount by the project total |  |
| Source of Match Funds | Hennepin County |
| Preferred Program Year |  |
| Select one: | 2019 |

## MnDOT State Aid Project Information: Roadway Projects

County, City, or Lead Agency

Functional Class of Road

Road System

Hennepin County
CSAH 3 (Excelsior Boulevard) is classified as an "A" Minor Arterial that functions as an Reliever.

CSAH - County State Aid Highway

| Name of Road | Excelsior Boulevard |
| :---: | :---: |
| Example; 1st ST., MAIN AVE |  |
| Zip Code where Majority of Work is Being Performed | 55343 |
| (Approximate) Begin Construction Date | 05/01/2019 |
| (Approximate) End Construction Date | 11/29/2019 |
| LOCATION |  |
| From: <br> (Intersection or Address) | 300' west of Meadowbrook Road |
| Do not include legal description; Include name of roadway if majority of facility runs adjacent to a single corridor. |  |
| To: <br> (Intersection or Address) | 150' west of Louisiana Avenue |
| Type of Work | Grading, aggregate base, bituminous base and surfacing, and gutter, sidewalks, lighting, pedestrian ramps, storm sew and traffic signals. |
| Examples: grading, aggregate base, bituminous base, bituminous surface, sidewalk, signals, lighting, guardrail, bicycle path, ped ramps, bridge, Park \& Ride, etc.) |  |
| Old Bridge/Culvert? | No |
| New Bridge/Culvert? | No |
| Structure is Over/Under <br> (Bridge or culvert name): | N/A |
| Specific Roadway Elements |  |
| CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES | Cost |
| Mobilization (approx. 5\% of total cost) | \$297,000.00 |
| Removals (approx. 5\% of total cost) | \$297,000.00 |
| Roadway (grading, borrow, etc.) | \$594,000.00 |
| Roadway (aggregates and paving) | \$1,485,000.00 |
| Subgrade Correction (muck) | \$0.00 |
| Storm Sewer | \$891,000.00 |
| Ponds | \$0.00 |
| Concrete Items (curb \& gutter, sidewalks, median barriers) | \$118,800.00 |
| Traffic Control | \$297,000.00 |
| Striping | \$59,400.00 |
| Signing | \$29,700.00 |

Lighting ..... \$594,000.00
Turf - Erosion \& Landscaping ..... \$237,600.00
Bridge ..... $\$ 0.00$
Retaining Walls ..... \$175,000.00
Noise Wall ..... $\$ 0.00$
Traffic Signals ..... \$237,600.00
Wetland Mitigation ..... \$125,000.00
Other Natural and Cultural Resource Protection ..... $\$ 0.00$
RR Crossing ..... $\$ 0.00$
Roadway Contingencies ..... \$660,000.00
Other Roadway Elements ..... \$267,300.00
Totals ..... \$6,365,400.00
Specific Bicycle and Pedestrian Elements
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES
Cost
Path/Trail Construction ..... $\$ 0.00$
Sidewalk Construction ..... \$237,600.00
On-Street Bicycle Facility Construction ..... $\$ 0.00$
Right-of-Way ..... $\$ 0.00$
Pedestrian Curb Ramps (ADA) ..... $\$ 0.00$
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK) ..... $\$ 0.00$
Pedestrian-scale Lighting ..... $\$ 0.00$
Streetscaping ..... \$297,000.00
Wayfinding ..... $\$ 0.00$
Bicycle and Pedestrian Contingencies ..... $\$ 0.00$
Other Bicycle and Pedestrian Elements ..... $\$ 0.00$
Totals ..... \$534,600.00
Specific Transit and TDM Elements
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES Cost
Fixed Guideway Elements ..... $\$ 0.00$
Stations, Stops, and Terminals ..... $\$ 0.00$
Support Facilities ..... $\$ 0.00$
Transit Systems (e.g. communications, signals, controls, fare collection, etc.) ..... $\$ 0.00$
Vehicles ..... $\$ 0.00$
Transit and TDM Contingencies ..... $\$ 0.00$
Other Transit and TDM Elements ..... $\$ 0.00$
Totals ..... $\$ 0.00$
Transit Operating Costs
OPERATING COSTSTransit Operating Costs$\$ 0.00$
Totals ..... $\$ 0.00$

## Totals

| Total Cost | $\$ 6,900,000.00$ |
| :--- | :--- |
| Construction Cost Total | $\$ 6,900,000.00$ |
| Transit Operating Cost Total | $\$ 0.00$ |

## Requirements - All Projects

## All Projects

1.The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 2030 Transportation Policy Plan (amended 2013), the 2030 Regional Parks Policy Plan (amended 2013), and the 2030 Water Resources Management Policy Plan (2005).

Check the box to indicate that the project meets this requirement. Yes
2.Applicants that are not cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.

Check the box to indicate that the project meets this requirement. Yes
3.Applicants must not submit an application for the same project in more than one funding sub-category.

Check the box to indicate that the project meets this requirement. Yes
4.The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Expansion, reconstruction/modernization, and bridges must be between \$1,000,000 and \$7,000,000. Roadway system management must be between \$250,000 and \$7,000,000.

Check the box to indicate that the project meets this requirement. Yes
5.The project must comply with the Americans with Disabilities Act.

Check the box to indicate that the project meets this requirement. Yes
6. The project must be accessible and open to the general public.

Check the box to indicate that the project meets this requirement. Yes
7. The owner/operator of the facility must operate and maintain the project for the useful life of the improvement.

Check the box to indicate that the project meets this requirement. Yes
8. The project must represent a permanent improvement with independent utility. The term independent utility means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match. Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

Check the box to indicate that the project meets this requirement. Yes
9.The project must not be a temporary construction project. A temporary construction project is defined as work that must be replaced within five years and is ineligible for funding. The project must also not be staged construction where the project will be replaced as part of future stages. Staged construction is eligible for funding as long as future stages build on, rather than replace, previous work.

Check the box to indicate that the project meets this requirement. Yes
10. The project applicant must send written notification regarding the proposed projected to all affected communities and other levels and units of government prior to submitting the application.

Check the box to indicate that the project meets this requirement. Yes

## Requirements - Roadways Including Multimodal Elements

## Expansion and Reconstruction/Modernization Projects Only

1.The project must be designed to meet 10-ton load limit standards.

Check the box to indicate that the project meets this requirement. Yes
2.Federal funds are available for roadway construction and reconstruction on new alignments or within existing right-of-way, including associated construction and excavation, bridges, or installation of traffic signals, signs, utilities, bikeway or walkway components and transit components.
The project must exclude costs for right-of-way, studies, preliminary engineering, design, or construction engineering. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding unless included as part of a larger project, which is otherwise eligible.

Check the box to indicate that the project meets this requirement. Yes

## Bridge Projects Only

3. The bridge project must be identified as a Principal Arterial (Non-Freeway facilities only) or A Minor Arterial as shown on the latest TAB approved roadway functional classification map.

Check the box to indicate that the project meets this requirement.
4.Bridges selected in previous Bridge Improvement and Replacement solicitations (1994 2011) are not eligible. A previously selected project is not eligible unless it has been withdrawn or sunset prior to the deadline for proposals in this solicitation.

Check the box to indicate that the project meets this requirement.
5.Projects requiring a grade-separated crossing of a Principal Arterial of freeway design must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using MnDOTs Cost Participation for Cooperative Construction Projects and Maintenance Responsibilities manual. In the case of a federally funded trunk highway project, the policy guidelines should be read as if the funded trunk highway route is under local jurisdiction.

Check the box to indicate that the project meets this requirement.
6. The bridge must carry vehicular traffic. Bridges can carry traffic from multiple modes. However, bridges that are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities sub-categories. Rail-only bridges are ineligible for funding.

Check the box to indicate that the project meets this requirement.
7.The length of the bridge must equal or exceed 20 feet.

Check the box to indicate that the project meets this requirement.
8.Project limits for bridge projects are limited from abutment to abutment.

Check the box to indicate that the project meets this requirement.
9. The project must exclude costs for studies, preliminary engineering, design, construction engineering, and right-of-way.

Check the box to indicate that the project meets this requirement.

## Bridge Replacement Projects Only

10.The bridge must have a sufficienty rating less than 50. Additionally, it must also be classified as structurally deficient or functionally obsolete.

Check the box to indicate that the project meets this requirement.

## Bridge Rehabilitiation Projects Only

11.The bridge must have a sufficienty rating less than 80. Additionally, it must also be classified as structurally deficient or functionally obsolete.

Check the box to indicate that the project meets this requirement.

## Other Attachments

| File Name | Description | File Size |
| :---: | :---: | :---: |
| Attachment 01 - Letters of Support.pdf | Letters of Support | 295 KB |
| Attachment 02 - Local Comprehensive Plans - Connection to Local Planning.pdf | Connection to Local Planning | 227 KB |
| Attachment 03 - Local Comprehensive Plans - Neighborhood Plan.pdf | Neighborhood Plan | 2.9 MB |
| Attachment 04 - SWLRT Corridor Investment Framework - Blake LRT Station.pdf | Blake LRT Station | 6.5 MB |
| Attachment 05 - Hennepin County - <br> Traffic Volume Count.pdf | Traffic Volume Count | 102 KB |
| Attachment 06 - MnDOT - Parallel Route Traffic Volume Count.pdf | Parallel Route Traffic Volume Count | 33 KB |
| Attachment 07 - Hennepin County Turning Movement Count.pdf | Turning Movement Count | 81 KB |
| Attachment 08 - Hennepin County Heavy Commercial Count.pdf | Heavy Commercial Count | 70 KB |
| Attachment 09-MnDOT - Crash History.pdf | Crash History | 120 KB |
| Figure 01 - Project Basemap.pdf | Project Basemap | 265 KB |
| Figure 02 - Project Aerials.pdf | Project Aerials | 842 KB |
| Figure 03 - Existing Roadway Elements.pdf | Existing Roadway Elements | 301 KB |
| Figure 04 - Proposed Roadway Elements.pdf | Proposed Roadway Elements | 253 KB |
| Figure 05 - Proposed Layout.pdf | Proposed Layout | 7.4 MB |
| Figure 06 - Proposed Typical Section.pdf | Proposed Typical Section | 40 KB |
| Figure 07 - Local Comprehensive Plans Existing Land Use Features.pdf | Existing Land Use Features | 631 KB |
| Figure 08 - Local Comprehensive Plans 2030 Land Use Features.pdf | 2030 Land Use Features | 2.0 MB |
| Figure 09 - Local Comprehensive Plans 2030 Traffic Analysis Zones.pdf | 2030 Traffic Analysis Zones | 467 KB |
| Figure 10 - St. Louis Park |  |  |
| Comprehensive Plan - Citywide Sidewalks and Trails.pdf | Existing Sidewalk and Trail Network | 67 KB |
| Figure 11 - St. Louis Park <br> Comprehensive Plan - Pedestrian Plan.pdf | Potential Sidewalk Network | 64 KB |
| Figure 12 - St. Louis Park Comprehensive Plan - Bicycle Plan.pdf | Potential Trail Network | 63 KB |

Figure 13 - Local Comprehensive Plans -
Existing Transit Services and Existing Transit Services and Facilities 484 KB
Facilities.pdf
Figure 14 - Metro Transit Green Line

Extension - Proposed LRT Stations.pdf
Proposed LRT Stations
65 KB

Figure 15 - Southwest Corridor
Investment Framework - Bicycle and
Pedestrian Facilities.pdf

Figure 16 - Hennepin County CIP -
CSAH 3 (Excelsior Boulevard)
2014 Hennepin County CIP
198 KB
Reconstruction.pdf

## Reliever: Freeway Facility or

Facility being relieved
Number of hours per day volume exceeds capacity (based on the Congestion Report)

## Reliever: Non-Freeway Facility or

Facility being relieved
Number of hours per day volume exceeds capacity (based on the table below)

Trunk Highway 7 (Expressway)
4.0

Non-Freeway Facility Volume/Capacity Table

| Hour | NB/EB Volume | SB/WB Volume | Capacity | Volume exceeds capacity |
| :---: | :---: | :---: | :---: | :---: |
| 12:00am - 1:00am | 82 | 96 | 1600 | No |
| 1:00am-2:00am | 45 | 58 | 1600 | No |
| 2:00am-3:00am | 36 | 40 | 1600 | No |
| 3:00am-4:00am | 37 | 30 | 1600 | No |
| 4:00am-5:00am | 78 | 65 | 1600 | No |
| 5:00am-6:00am | 227 | 179 | 1600 | No |
| 6:00am-7:00am | 854 | 562 | 1600 | No |
| 7:00am - 8:00am | 1791 | 1460 | 1600 | Yes |
| 8:00am-9:00am | 1586 | 1352 | 1600 | No |
| 9:00am-10:00am | 1053 | 902 | 1600 | No |
| 10:00am - 11:00am | 944 | 906 | 1600 | No |


| 11:00am-12:00pm | 1024 | 1142 | 1600 | No |
| :---: | :---: | :---: | :---: | :---: |
| 12:00pm - 1:00pm | 1102 | 1254 | 1600 | No |
| 1:00pm-2:00pm | 1067 | 1158 | 1600 | No |
| 2:00pm-3:00pm | 1143 | 1255 | 1600 | No |
| 3:00pm - 4:00pm | 1401 | 1607 | 1600 | Yes |
| 4:00pm - 5:00pm | 2053 | 1694 | 1600 | Yes |
| 5:00pm-6:00pm | 2188 | 1724 | 1600 | Yes |
| 6:00pm-7:00pm | 1367 | 1285 | 1600 | No |
| 7:00pm - 8:00pm | 765 | 929 | 1600 | No |
| 8:00pm-9:00pm | 562 | 714 | 1600 | No |
| 9:00pm - 10:00pm | 454 | 513 | 1600 | No |
| 10:00pm - 11:00pm | 273 | 324 | 1600 | No |
| 11:00pm-12:00am | 161 | 218 | 1600 | No |

## Expander/Connector/Augmentor/Non-Freeway Principal Arterial

Select one:
Area 0
Project Length 0
Average Distance 0
Upload Map

## Measure B: Current Heavy Commercial Traffic

| Location | East of Meadowbrook Lane |
| :--- | :--- |
| Current daily heavy commercial traffic volume | 1400.0 |

## Measure C: Project Location Relative to Jobs, Manufacturing, and Education

Select all that apply

Direct connection to or within a mile of a Job Concentration
Yes
Direct connection to or within a mile of a Manufacturing/Distribution Location Yes

Direct connection to or within a mile of an Educational Institution Yes

Project provides a direct connection to or within a mile of an existing local activity center identified in an adopted county or Yes

The City of St. Louis Park's Comprehensive Plan identifies the following local activity centers that are either in or within one mile of the CSAH 3 (Excelsior Boulevard) Reconstruction Project Area:

- West Excelsior Boulevard Commercial Corridor
- Meadowbrook Golf Course

County or City Plan Reference (Limit 700 characters; approximately 100 words)

Upload Map

- Commercial node at the intersection of Excelsior Boulevard / Brookside Avenue

The City of Hopkins' Comprehensive Plan identifies the following local activity center that is within one mile of the Excelsior Boulevard Reconstruction Project Area:

- Blake Road Corridor (future location of a Southwest Light Rail Transit Station)

04 - Regional Economy - CSAH 3 (Excelsior Boulevard) Reconstruction.pdf

## Measure A: Current Daily Person Throughput

Location
Current AADT Volume
Existing Transit Routes on the Project

East of CSAH 20 (Blake Rd)
17900.0

12, 664

## Response: Current Daily Person Throughput

| Average Annual Daily Transit Ridership | 1414.0 |
| :--- | :--- |
| Current Daily Person Throughput | 24684.0 |

## Measure B: $\mathbf{2 0 3 0}$ Forecast ADT

Use Metropolitan Council model to determine forecast (2030) ADT volume

## OR

Approved county or city travel demand model to determine forecast (2030) ADT volume

Forecast (2030) ADT volume 0

## Measure A: Project Location and Impact to Disadvantaged Populations

Select one:
Project located in Racially Concentrated Area of Poverty
Project located in Concentrated Area of Poverty
Projects census tracts are above the regional average for population in poverty or population of color

Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly.

The CSAH 3 (Excelsior Boulevard) Reconstruction Project will provide the following benefits for pedestrians, bicyclists, and transit users:

- Installation of a sidewalk segment along the south side of Excelsior Boulevard to partially fill an identified gap
- Replacement of aged sidewalk, pedestrian ramps, and street lighting
- Removal of identified sidewalk obstructions that are currently located within the pedestrian access route
- Installation of streetscaping elements that includes trees, pedestrian lighting, and enhanced transit shelters
- Improvements to the existing pedestrian crossing at Meadowbrook Lane that includes an ADA compliant median refuge island and pedestrian ramps
- Installation of the required ADA compliant crossing elements at the intersection of Meadowbrook Road. Examples of crossing elements include: pedestrian ramps, countdown timers, median islands, accessible pedestrian signals, and crosswalk markings.

During construction there will be impacts to individuals that rely on this corridor as a transportation route, including travel lane and sidewalk closures. However, proper temporary traffic control and means of project notification will be implemented throughout the entirety of the project.


## Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles)
0.572

Total Housing Score
75.343

## Measure A: Year of Roadway Construction

Year of Original
Roadway Construction or Most Recent

Roadway Segment Length (Miles)

Calculation
Calculation 2 Reconstruction

| 1957.0 | 0.572 | 1119.404 | 1957.0 |
| ---: | ---: | ---: | ---: |
|  | $\mathbf{1}$ | 1119 | 1957 |

Average Construction Year

## Total Segment Length (Miles)

Total Segment Length 0.572

Measure B: Geometric, Structural, or Infrastructure Improvements

This project will continue the county's implementation of a 4-lane divided urban roadway from CSAH 61 to Highway 100.

The existing pavement has reached the end of its serviceable life. The existing storm sewer structures and curb and gutter no longer provide satisfactory drainage. The existing concrete median

Response (Limit 1,400 characters; approximately 200 words)
is narrow and exhibits severe deterioration.

The intersection at Meadowbrook Lane is in need of improvements. The existing traffic signal is obsolete; with outdated handholes and signal pole bases obstructing the pedestrian's access route. The pedestrian ramps are poorly oriented and do not contain truncated domes. A median on one intersection approache obstructs the crosswalk because it doesn't provide a cut-through.

There are 3 large driveways with access on Excelsior Boulevard that provide parking for 10 small apartment complexes. These parking areas are located directly outside the ROW and warrant additional means of exclusion. Also, there are 2 wooden retaining walls that need replacement.

Currently, there is no sidewalk along the south side of the project. This gap has been identified in Hopkins' Comprehensive Plan. Along the north side of the project there is no buffer space between the sidewalk and curb. Also, the project will include pedestrian crossing improvements since the daily traffic volume exceeds 20,000 vehicles.

## Measure A: Cost Effectiveness of Vehicle Delay Reduction

Total Project Cost from Cost Sheet
Total Peak Hour Vehicle Delay Without The Project
Total Peak Hour Vehicle Delay With The Project
Total Peak Hour Vehicle Delay Reduced by Project
Cost Effectiveness

Synchro or HCM Reports
\$6,900,000.00
9.0
6.0
3.0
\$2,300,000.00
CSAH 3 (Excelsior Boulevard) Reconstruction - Synchro Report.pdf

## Measure B: Cost Effectiveness of Emissions Reduction

Total Project Cost from Cost Sheet
Total Peak Hour Kilograms Reduced by Project
Cost Effectiveness

Synchro or HCM Reports
\$6,900,000.00
0.27
\$25,555,555.56
CSAH 3 (Excelsior Boulevard) Reconstruction - Synchro
Report.pdf

## Measure A: Benefit/Cost of Crash Reduction

| Project Benefit/Cost Ratio | 0.51 |
| :--- | :--- |
| Worksheet Attachment | MnDOT HSIP - BC Worksheet - CSAH 3 (Excelsior Bouleva <br> Reconstruction.pdf |
| Measure A: Transit Connections | 12, 664 |
| Existing Routes Directly Connected to the Project | Southwest LRT (METRO Green Line Extension) |
| Planned Transitways directly connected to the project (alignment <br> and mode determined and identified in the 2030 TPP) | $03-$ Transit Connections - CSAH 3 (Excelsior Boulevard) <br> Reconstruction.pdf |
| Upload Map |  |

## Response

Met Council Staff Data Entry Only
Route Ridership
Transitway Ridership

## Measure B: Bicycle and Pedestrian Connections

The CSAH 3 (Excelsior Boulevard) Reconstruction Project includes replacement of existing sidewalk on the north side, and installation of a new sidewalk on the south side. This will partially fill an existing gap within the pedestrian network. This project is directly connected to existing sidewalk facilities on Meadowbrook Lane, Meadowbrook Boulevard, and Louisiana Avenue. This is especially important, since there is an existing transit stop located on the south side of Excelsior Boulevard.

The segment of Excelsior Boulevard included with this project has not been designated as a bike route in the county's Bicycle Transportation Plan. The Cedar Lake Trail is located approximately 0.5 mile to the north and serves as an important bicycle facility for eastbound/westbound movements.

An LRT Station for the Green Line Extension is proposed along CSAH 20 which is within walking distance of the project. The City of Hopkins expresses an interest in its Comprehensive Plan to modify the existing land use at this location to mixed use. St. Louis Park identifies a commercial node at Brookside Avenue and a commercial corridor along Excelsior Boulevard within its Comprehensive Plan; both are within walking distance of this project. Furthermore, the Plan identifies Jackley Park, Minnehaha Creek, Meadowbrook Lake and Marsh, and the Meadowbrook Golf Course as open space areas.

## Measure C: Multimodal Facilities

The CSAH 3 (Excelsior Boulevard) Reconstruction Project includes the following pedestrian elements:

- Sidewalks on both sides of the road and relocation of obstructing utilities
- Signal improvements: including ADA complaint pedestrian ramps, concrete medians with cut throughs, Accessible Pedestrian Signals (APS), and countdown timers. The existing pedestrian facilities were poorly designed and warrant replacement.
- Pedestrian crossing improvements at Meadowbrook Lane (existing T-intersection with minor street stop control)

This segment of Excelsior Boulevard is not designated as a bicycle corridor in the county Bicycle Transportation Plan or in the St. Louis Park Comprehensive Plan. The Cedar Lake Trail is located approximately 0.5 mile to the north and serves as an important east/west bicycle facility.

There are 2 bus routes along the project corridor that include 7 transit stops. Enhanced transit shelters will be provided where ridership warrants them. Also, pedestrian elements such as benches, waste receptacles, and open space areas will be included where warranted.

The CSAH 3 project will include the following roadway and streetscaping improvements for all transportation modes:

- Raised concrete median with trees and vegetation
- Street and pedestrian lighting


# - Fencing and retaining walls to define parking areas and land formations 

## Transit Projects Not Requiring Construction

If the applicant is completing a transit or TDM application, only Park-and-Ride and other construction projects require completion of the Risk Assessment below. Check the box below if the project does not require the Risk Assessment fields, and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.

Check Here if Your Transit Project Does Not Require Construction

## Measure A: Risk Assessment

1)Project Scope (5 Percent of Points)

Meetings or contacts with stakeholders have occurred
100\%

| Stakeholders have been identified | Yes |
| :--- | :--- |
| $40 \%$ |  |
| Stakeholders have not been identified or contacted |  |
| $0 \%$ |  |
| 2)Layout or Preliminary Plan (5 Percent of Points) |  |
| Layout or Preliminary Plan completed | Yes |
| 100\% |  |
| Layout or Preliminary Plan started | $02 / 28 / 2017$ |
| 50\% |  |
| Layout or Preliminary Plan has not been started |  |
| 0\% |  |
| Anticipated date or date of completion |  |
| 3)Environmental Documentation (10 Percent of Points) |  |
| EIS | Yes |
| Document Status: |  |
| EA |  |

Document approved (include copy of signed cover sheet)
100\%

Document submitted to State Aid for review

Document in progress; environmental impacts identified
50\%
Document not started Yes
$0 \%$
Anticipated date or date of completion/approval
10/31/2017

## 4)Review of Section 106 Historic Resources (15 Percent of Points)

No known potential for archaeological resources, no historic resources known to be eligible for/listed on the National Register of Historic Places located in the project area, and project is not located on an identified historic bridge

100\%
Historic/archeological review under way; determination of no historic properties affected or no adverse effect anticipated

80\%
Historic/archaeological review under way; determination of adverse effect anticipated

40\%
Unknown impacts to historic/archaeological resources
Yes
0\%
Anticipated date or date of completion of historic/archeological
review:
04/28/2017

Project is located on an identified historic bridge
5)Review of Section 4f/6f Resources (15 Percent of Points)
(4f is publicly owned parks, recreation areas, historic sites, wildlife or waterfowl refuges; $6 f$ is outdoor recreation lands where Land and Water
Conservation Funds were used for planning, acquisition, or development of the property)
No Section 4f/6f resources located in the project area
100\%
Project is an independent bikeway/walkway project covered by the bikeway/walkway Negative Declaration statement; letter of support received

100\%
Section $4 f$ resources present within the project area, but no known adverse effects

80\%
Adverse effects (land conversion) to Section 4f/6f resources likely Yes

30\%
Unknown impacts to Section 4f/6f resources in the project area
0\%
6)Right-of-Way (15 Percent of Points)

Right-of-way or easements not required

Right-of-way or easements has/have been acquired
100\%
Right-of-way or easements required, offers made
75\%
Right-of-way or easements required, appraisals made
50\%
Right-of-way or easements required, parcels identified
25\%

Right-of-way or easements required, parcels not identified
0\%
Right-of-way or easements identification has not been completed
0\%
Anticipated date or date of acquisition
10/31/2018
Yes
10/31/2018
7)Railroad Involvement (25 Percent of Points)

No railroad involvement on project

$$
2
$$

Yes
100\%
Railroad Right-of-Way Agreement is executed (include signature page)
$100 \%$
Railroad Right-of-Way Agreement required; Agreement has been initiated

60\%
Railroad Right-of-Way Agreement required; negotiations have begun

40\%
Railroad Right-of-Way Agreement required; negotiations not begun

0\%
Anticipated date or date of executed Agreement
8)Construction Documents/Plan (10 Percent of Points)

Construction plans completed/approved (include signed title sheet)

100\%
Construction plans submitted to State Aid for review
75\%
Construction plans in progress; at least $30 \%$ completion
50\%
Construction plans have not been started
Yes
9)Letting

Anticipated Letting Date
02/05/2019

November 21, 2014
James N. Grube, P.E.
Director of Transportation and County Engineer
Transportation Department
1600 Prairie Drive
Medina, Minnesota 55340
Re: Letter of Support for Hennepin County's Regional Solicitation Application and Project
CSAH 3 (Excelsior Boulevard) Roadway Reconstruction/Modernization Meadowbrook Road to West of Louisiana Avenue

Dear Mr. Grube:
The City of Hopkins supports Hennepin County's federal funding application through the Regional Solicitation for the proposed CSAH 3 (Excelsior Boulevard) roadway reconstruction/modernization project between Meadowbrook Road and Louisiana Avenue, which will include the following improvements:

- Roadway reconstruction
- Traffic signal replacement/upgrades
- Trail/sidewalk facilities
- Streetscaping elements

The city supports the county in its efforts to improve this section of Excelsior Boulevard by providing additional capacity and safety for multiple traffic modes while supporting transit services. However, we would also like to see pedestrian and streetscape improvements, as soon as possible, along the segment between Blake Road and Meadowbrook Road. The need for these additional improvements is intensified by the upcoming Green Line Extension light rail station at Blake \& Excelsior. The proposed improvements between Meadowbrook Road and Louisiana Avenue and similar improvements continuing west to Blake Road are needed to enhance the livability and quality of life for Hopkins and Hennepin County residents.

Thank you for making us aware of this application effort and the opportunity to provide support. Additionally, the city looks forward to working with you to find a way to fund additional Excelsior Boulevard improvements going west to Blake Road.


Steven J. Stadler
Director of Public Works

## // St. Louis Park <br> MINNESOTA

Experience LIFE in the Park
November 21, 2014
James N. Grube, P.E.
Director of Transportation and County Engineer
Transportation Department
1600 Prairie Drive
Medina, Minnesota 55340
Re: Letter of Support for Hennepin County's Regional Solicitation Application and Project CSAH 3 (Excelsior Boulevard) Roadway Reconstruction/Modernization Meadowbrook Road to west of Louisiana Avenue

Dear Mr. Grube:
The City of St. Louis Park supports Hennepin County's federal funding application through the Regional Solicitation for the proposed CSAH 3 (Excelsior Boulevard) roadway reconstruction/ modernization project between Meadowbrook Road and Louisiana Avenue, which will include the following improvements:

- Roadway reconstruction
- Traffic signal replacement/upgrades
- Trail/sidewalk facilities
- Streetscaping elements

The city supports the county in its efforts to improve this section of Excelsior Boulevard by providing additional capacity and safety for multiple traffic modes while supporting transit services.
Improvements along this corridor will enhance the livability and quality of life for St. Louis Park and Hennepin County residents.

Thank you for making us aware of this application effort and the opportunity to provide support. The city looks forward to working with you on this project.


Debra Heiser, P.E.
Engineering Director
dheiser@stlouispark.org
952-924-2551

Businesses, civic groups and residents will benefit from an improved image and exposure. This can be accomplished through implementing the "Think Hopkins" marketing plan.

All comprehensive plan elements address this goal.

## Maintain Fiscal Health and An Acceptable Balance Between Service Quality and Property Tax Rates

Residents and business people have traditionally supported this aim. Demonstrating responsibility in fiscal matters, while having obvious local benefits, would also aid the City in its public relations with prospective residents and business owners. The methods to maintain fiscal health and an acceptable balance among City service provided, quality of life and property tax rates are as follows:

- Pursuit of redevelopment, which adds to the tax base, should be continued.
- Efforts should be made to continue to foster stability and growth of existing businesses, while encouraging new businesses to locate in Hopkins.
- Investment in infrastructure should continue.

All comprehensive plan elements address this goal.

## Influence Transportation

Transportation in the 21 st century does not include just building and improving roads. The Southwest LRT is becoming more of a reality for Hopkins. The Alternative Analysis has been completed, and the environmental study is underway. The most optimistic date for construction of this line is 2015.

Since the last Comprehensive Plan update, Excelsior Boulevard has been improved with landscaped medians, signage, and lighting. Upkeep of this road is important for the image of Hopkins. The elements to influence transportation are as follows:

- Efforts among Hopkins, Minnetonka and Hennepin County should continue for the improvement of Shady Oak Road between Excelsior Boulevard and State Highway 7. This road is scheduled for upgrading in 2014.
- Efforts should be made to improve Blake Road from Excelsior

Boulevard to Highway 7. These improvements should include signage, special paving, landscaping, lighting and sidewalks.

- Efforts should continue to support the Southwest Light Rail Transit (LRT).
- Three LRT stations are proposed for Hopkins. One at Shady Oak Road, a second at Eighth Avenue along Excelsior Boulevard and a third near Blake Road. Redevelopment around all three stations will occur. The Station Study supports these stations and the redevelopment around the stations.
- The link between Mainstreet and Excelsior Boulevard along Eighth Avenue from the regional trail (now) and proposed LRT station (future) should be improved.
- Efforts should be made in cooperation with the County to finish the improvement of Excelsior Boulevard from Blake Road to Meadowbrook Road.

All comprehensive plan elements address this goal.

## Involve and Inform Residents, Employees and Business Owners

- Communication tools, including the newsletter, City website and e-newsletter should be expanded and improved.
- All residents and business owners, including those underrepresented groups such as renters and new residents, should be encouraged to be engaged.


## Protect and Enhance Green Space, Park Environments and Sustainability

- Our natural environmental assets should be protected.
- Green development should be encouraged. Work should continue on trail connections and updating parks. Developers should be encouraged to incorporate more green space in projects. Additional revenue sources to support this goal should be identified.


## V. Connecting Our Community

## A. Highways and Streets

- Cedar Lake Road from Zarthan Avenue to Park Place Boulevard is recommended to be changed from an "A" Minor Arterial Reliever to an "A" Minor Arterial Augmenter. Cedar Lake Road more closely supports principal arterials rather than directly relieving them.
- West 16th Street from Zarthan Avenue to Park Place Boulevard is recommended to be changed from a local street to an "A" Minor Arterial Reliever. This section of roadway serves as the frontage road continuation parallel to I-394.
- Park Place Boulevard from I-394 to Cedar Lake Road is recommended to be upgraded from a major collector to an " A " Minor Arterial Reliever.
- Wayzata Boulevard from Park Place Boulevard to the Eastern City limits/TH 100 is recommended to be upgraded from a major collector to an "A" Minor Arterial Reliever. This section of roadway serves as the frontage road continuation parallel to I-394.


## Major Collectors

- Zarthan Avenue from West 16th Street to Cedar Lake Road is recommended to be changed from an "A" Minor Arterial Reliever to a major collector. Circulation patterns no longer support the "A" Minor Arterial Reliever classification.


## Minor Collectors

No changes to the City's existing minor collector system. The classification changes noted above are incorporated into on following page.

## Programmed or Planned Improvements

Various roadway projects are either currently under construction, programmed for completion in the next few years, or proceeding through the planning process. From the standpoint of identification of future need, roadways that are programmed are considered part of the future roadway system because they will likely be in place during the 2030 planning horizon.

## Mn/DOT

The Mn/DOT Metro District 2008 to 2030 Transportation System Plan (TSP) and the Metropolitan Council 2030 Transportation Policy Plan was reviewed to identify regional roadway improvements. Several regional roadway system improvements were included in the regional forecasts developed for the City and have received funding since the Mn/DOT Metro District 2008 to 2030 Transportation System Plan (TSP) was published.

- TH 7 - Interchange at Wooddale Avenue
- TH 7 - Interchange at Louisiana Avenue
- TH 100 - Reconstruct TH 100 from Cedar Lake Road to West 36th Street (six-lane facility). This includes bridge replacement and interchanges.
In addition to the regional roadway improvements from $\mathrm{Mn} /$ DOT's TSP identified above, the City of St. Louis Park and $\mathrm{Mn} / \mathrm{DOT}$ have identified the need for improvement to the I-394 collector-distributor (C-D) road system from Park Place Boulevard to the east terminus of the I-394/TH 100 interchange. While this improvement is not currently funded, it is important to note since a need has been identified before year 2030.


## Hennepin County

In addition, the following roadway improvements are identified in the 2008-2012 Hennepin County Capital Improvement Plan and/or the 2025 Hennepin County Transportation Plan.

- Excelsior Boulevard (CSAH 3) - Reconstruct roadway from Louisiana Avenue to west of Dakota Avenue (year 2009)
- Excelsior Boulevard (CSAH 3) - Reconstruct roadway from Louisiana Avenue to west City limits (this is a provisional project and therefore listed as potential here)-(year 2010)


## Planning District \#5 - East Hopkins

The majority of the district consists of low-density residential along with the presence of significant institutional uses. One of the focal points of the district is The Blake School. To the east of the school is the Interlachen neighborhood and to the west, the Presidents neighborhood. Each is a neighborhood of strong single family residential units, and existing uses will continue to be supported in the land use plan. It is highly unlikely that the land use pattern in Planning District \#5 will change over the next 20-30 years. It is expected that property owners will continue their efforts to address ongoing maintenance needs along with more substantial renovations and additions.

## Summary of Planned Land Use Changes:

- No changes are being proposed at this time.


Figure 4.7 - Planning District: \#5

## IV. Why We Are A Livable Community

F. Plan By Neighborhood - Creekside Neighborhood

## Creekside Neighborhood

## History and Character

The Creekside neighborhood is located at the southern edge of the city, south of Excelsior Boulevard/Cty Rd 3 and on the east side of Meadowbrook Golf Course. Like most St. Louis Park neighborhoods south of Excelsior Boulevard/Cty Rd 3, Creekside is one of the city's oldest neighborhoods. Meadowbrook Golf Course, which includes Meadowbrook Lake, occupies 65\% of the neighborhood. Minnehaha Creek, for which the neighborhood is named, runs through the center of the neighborhood and Meadowbrook Golf Course. The neighborhood's boundaries are Excelsior Boulevard/Cty Rd 3 (north); Brookside Avenue (eas


## IV. Why We Are A Livable Community

## F. Plan By Neighborhood - Creekside Neighborhood

Minnehaha Creek / city's border (south); and Meadowbrook Golf Course / city's border (west). The Creekside neighborhood shares its southern border with Edina neighborhoods located along the southside of Minnehaha Creek and Meadowbrook Golf Course.

Creekside is primarily a residential neighborhood of singlefamily homes, which was subdivided prior to WWI with half of the homes constructed prior to 1940. The neighborhood is rich in natural open spaces, including Minnehaha Creek, Meadowbrook Lake and marsh area, and Meadowbrook Golf Course. On the south side of Minnehaha Creek, in Edina, is Todd Park. The neighborhood is within walking distance of the Excelsior Boulevard West commercial corridor as well as (via Excelsior Blvd/Cty Rd 3 or the MN Hwy 100 pedestrian bridge) Susan Lindgren Elementary School, and the commercial areas along Excelsior Boulevard/Cty Rd 3, which includes the Park Commons area and Miracle Mile.

Meadowbrook Golf Course is a public golf course developed and opened in 1926 and leased to the Minneapolis Park Board. The golf course was sold to the City of Minneapolis in 1945 and continues to be operated as a public golf course by the Minneapolis Park \& Recreation Board.

The neighborhood also includes a small commercial node at the intersection of Excelsior Boulevard/Cty Rd 3 \& Brookside Avenue and higher density residential buildings along Excelsior Boulevard/Cty Rd 3. Brookside Avenue is the only street in the community west of MN Hwy 100 that connects south to Edina. In addition, a number of older historic buildings remain along Brookside Avenue. The CP Rail/MN \& S Spur line runs north-south just east of the neighborhood between Brookside Avenue and Yosemite Avenue.

Neighborhood Features Information

| Neighborhood Name: | Creekside |
| :--- | :--- |
| Institutions: | Meadowbrook Golf Course |
| Parks (active): | Jackley Park (just east of the neighborhood) |
| Open spaces (passive): | Minnehaha Creek, Meadowbrook Lake \& Marsh, Meadowbrook Golf Course |
| Major streets: | Excelsior Blvd/Cty Rd 3, Louisiana Avenue (Minor Arterials) <br> Brookside Ave (Minor Collector) |
| Transit corridors: | Excelsior Blvd/Cty Rd 3, Louisiana Ave |
| Walkways: | Excelsior Blvd/Cty Rd 3, Brookside Ave, Brunswick Ave, Colorado Ave |
| Bikeways: | None |
|  <br> nodes: | West Excelsior Blvd (Commercial Corridor) |
| Industrial areas: | None |

## IV. Why We Are A Livable Community

## F. Plan By Neighborhood - Creekside Neighborhood

## Neighborhood Analysis Information

| Neighborhood Name: | Creekside |
| :--- | :--- |
| Neighborhood spatial size: | 218.9 acres or 0.34 square miles |
| Total number of housing units <br> (2009): | 188 |
| Housing units occupied / <br> occupancy rate: | 187 (99.5\%) |
| Housing ownership / rental mix: | $89.8 \%$ homestead / 10.2\% non-homestead |
| Housing annualized turnover <br> rate 2004-2009: | $4.1 \%$ homestead, 15.8\% non-homestead |
| Average age of housing (single- <br> family detached): | 1939 |
| Connectivity of neighborhood <br> streets: | Street connectivity in/out of neighborhood is significantly <br> limited due to MN Hwy 100 (east), Minnehaha Creek <br> (south \& west), Meadowbrook Lake/Golf Course (west), <br> railroad corridors, hospital, industrial park (north). |
| Proximity/access to retail/ <br> services: | Convenient access to West Excelsior Blvd commercial <br> corridor at north end of neighborhood. Access to retail <br> and services at community-scale commercial areas approx. <br> one mile northeast of the neighborhood - Park Commons, <br> Miracle Mile, and East Excelsior Blvd. |
| Proximity/access to transit: | Convenient access to bus routes on Excelsior Blvd/Cty Rd <br> 3, transit shelters along Excelsior Blvd. |
| Proximity/access to parks/open <br> space: | Neighborhood parks: Jackley Park <br> Community parks: Wolfe Park (approx. one mile northeast <br> of neighborhood) |
| Vehicle traffic volumes of streets <br> and intersections: | Traffic volumes on MN Hwy 100 and Excelsior Blvd/Cty <br> Rd 3 (west of MN Hwy 100) are anticipated to continue |
| exceeding the design capacity of the highway; Excelsior |  |
| Blvd/Cty Rd 3 \& MN Hwy 100 interchange is anticipated |  |
| to continue exceeding its design capacity. |  |$|$| Pedestrian / bicycle facilities: |
| :--- |
| Strengths: Sidewalks along arterial and collector streets <br> (Excelsior Blvd, Brookside Ave and Louisiana Ave); <br> pedestrian bridge over Highway 100 at 41st St. <br> Weaknesses: Lack of designated bikeways within the <br> neighborhood that connect to surrounding destinations, <br> such as Park Commons, Wolfe Park, Cedar Lake LRT <br> Regional Trail, and Hopkins. Lack of neighborhood <br> sidewalks, connections to Jackley Park, and connections to <br> Meadowbrook Lake. |

## 2030 Planned land use mix:



Refer to 2030 Plan Land Use Map in
Section IV-B for land use code abbreviations

Mix of housing types:

$\square$ Single Family Detached $\square$ Duplex/Triplex $\square$ Multi-Family
Age mix of households:

$\square$ Under Age $35 \quad \square$ Age 35 to 54 $\square$ Age 55 to $74 \quad \square$ Age 75 or more

## IV. Why We Are A Livable Community

F. Plan By Neizhborhood - Creekside Neighborhood


Recent Plans and Studies - Directly Relevant to Creekside Neighborhood Planning

- Active Living: Sidewalks \& Trails Plan



## IV. Why We Are A Livable Community

## F. Plan By Neighborhood - Creekside Neighborhood

## 2030 Comprehensive Plan Improvement Priorities

- Land Use / Economic Development \& Redevelopment
» Commercial corridor study area - Excelsior Boulevard West
» Neighborhood commercial node study area - None
- Housing
» Potential housing growth area - Excelsior Boulevard West
- Transportation
» Transportation corridor study areas - None
» Future bikeways - Brookside Ave, Louisiana Ave
» Future sidewalk gaps to be constructed - Excelsior Blvd/Cty Rd 3, Louisiana Ave, Brookside Ave
» Future City trails - Minnehaha Creek (Excelsior Blvd/ Cty Rd 3 to Meadowbrook Rd), CP Rail line (potential regional trail)
» Future pedestrian bridge - None
» Future walk/bike street crossing improvements Excelsior Blvd/Cty Rd 3 \& Yosemite Ave
» Future transit improvements - Louisiana Ave LRT station
" North-south regional trail feasibility study - Three Rivers Park District

Creekside Neighborhood Improvement Opportunities (Identified by Neighborhood Process)

- Explore potential for nature trails, including the Meadowbrook Lake marsh area and access via bridge to Todd Park in Edina
- Explore potential for regional trail in the CP Rail line
- Improve environmental quality and sustainability of Meadowbrook Lake area
- Add park amenities to neighborhood, e.g. pocket park, small park with playground, hockey rink in Jackley Park, more public access to Minnehaha Creek, indoor neighborhood gathering place
- Attract small neighborhood retail and restaurant businesses to Excelsior Boulevard/Cty Rd 3 commercial buildings
- Fill in sidewalk gaps, including connections to Jackley Park, Meadowbrook Lake, and Minnehaha Creek
- Add bikeways and bike access across MN Hwy 100
- Improve transit access, including city-wide circulator and better access to transit stops on Excelsior Blvd/Cty Rd 3
- Calm traffic on neighborhood through-streets


Photo: Kitty Rogers / SLP Friends of the Arts

## IV. Why We Are A Livable Community

F. Plan By Neighborhood - Creekside Neighborhood


## Legend

Neighborhood Boundary
Corridor Study Areas
Land Use and Redevelopment Study AI
Major Transportation Improvements
City Parks
Community Destinations

## IV. Why We Are A Livable Community

F. Plan By Neighborhood - Meadowbrook Neighborhood

## Meadowbrook Neighborhood

## History and Character

The Meadowbrook neighborhood is located in the southern portion of the city, northwest of the intersection of Excelsior Boulevard/Cty Rd 3 and Louisiana Avenue. The neighborhood consists of the Meadowbrook Manor residential area along Excelsior Boulevard/Cty Rd 3 and the Oxford/Louisiana Industrial Park. Minnehaha Creek runs east-west through the center of the neighborhood and separates the neighborhood's residential and industrial areas. The neighborhood overlooks Meadowbrook Lake and Golf Course to the south, for which the neighborhood is named. The neighborhood's boundaries are


Neighborhood Features Map:


## IV. Why We Are A Livable Community

## F. Plan By Neighborhood - Meadowbrook Neighborhood

Excelsior Boulevard/Cty Rd 3 (south); Louisiana Avenue (east); CP Rail/Bass Lake Spur line and Cedar Lake LRT Regional Trail (north); and Powell Road / city's border (west). The neighborhood shares its western and southern borders with the City of Hopkins.

Meadowbrook Manor, which is located between Minnehaha Creek (north) and Excelsior Boulevard/Cty Rd 3 (south), consists of 560 apartments in 64 buildings on approximately 25 acres and was completed in 1953. At the time, it was the largest apartment housing complex constructed in the Midwest. Many improvements were made to the buildings in the 1990s and the Meadowbrook Collaborative was formed in 1993. The Meadowbrook Collaborative is a partnership among the City of St. Louis Park, St. Louis Park School District, Park Nicollet Health Services and the Ridgedale Branch of the YMCA. The collaborative works with the Meadowbrook property owner and residents to offer services and activities aimed at ensuring that residents' health, education and safety needs are met. In 2000, the Excelsior Townhomes development was completed on Excelsior Way on the west side of Meadowbrook Manor, which consists of 38 rental townhomes.

The Oxford/Louisiana Industrial Park occupies the northern and western portions of the neighborhood and contains approximately 1.2 million square feet of general industrial development. This industrial park, which also extends east of Louisiana Avenue, is one of the largest employment centers within the City and by far the largest industrial employment center. In addition, the Park-Nicollet medical facilities have expanded to the west side of Louisiana Ave.

The residential and industrial areas are separated by Minnehaha Creek and the large wetland area west of Meadowbrook Manor. The Municipal Service Center and Creekside Park, a neighborhood park, are both located on Oxford Street within the industrial park on the north side of Minnehaha Creek. Creekside Park connects to the creek and a trail is planned along the creek.

## Neighborhood Features Information

| Neighborhood Name: | Meadowbrook |
| :--- | :--- |
| Institutions: | Municipal Service Center, Meadowbrook Cop Shop, Methodist Hospital, Park Nicollet Clinic <br> - Creekside, Meadowbrook Golf Course |
| Parks (active): | Creekside Park |
| Open spaces (passive): | Minnehaha Creek, Meadowbrook Lake \& Marsh, Meadowbrook Golf Course |
| Major streets: | Excelsior Blvd/Cty Rd 3, Louisiana Avenue (Minor Arterials) <br> Oxford St/Meadowbrook Rd (Minor Collectors) |
| Transit corridors: | Excelsior Blvd/Cty Rd 3, Louisiana Ave |
| Walkways: | Excelsior Blvd/Cty Rd 3, Louisiana Ave, Meadowbrook Blvd |
| Bikeways: | Cedar Lake LRT Regional Trail |
|  <br> nodes: | West Excelsior Blvd (Commercial Corridor) |
| Industrial areas: | Oxford/Louisiana Industrial Park, CP Rail line (Bass Lake Spur) |

## IV. Why We Are A Livable Community

## F. Plan By Neighborhood - Meadowbrook Neighborhood

## Neighborhood Analysis Information

| Neighborhood Name: | Meadowbrook |
| :--- | :--- |
| Neighborhood spatial size: | 172.8 acres or 0.27 square miles |
| Total number of housing units <br> $(2009):$ | 587 |
| Housing units occupied / <br> occupancy rate: | 568 (96.8\%) |
| Housing ownership / rental mix: | $0.0 \%$ homestead / 100.0\% non-homestead |
| Housing annualized turnover <br> rate 2004-2009: | 0.0\% homestead, 22.4\% non-homestead |
| Average age of housing (single- <br> family detached): | No single family housing. |
| Connectivity of neighborhood <br> streets: | Due to Minnehaha Creek running through the center of <br> the neighborhood, street connectivity in and out of the <br> neighborhood is significantly limited; other barriers are the <br> CP Rail line (west \& north), Meadowbrook Golf Course <br> (south), Minnehaha Creek \& hospital campus (east). The <br> industrial park and the residential areas are not connected by <br> streets within the neighborhood. A connection between the <br> future Louisiana LRT station and the hospital is desired. |
| Proximity/access to retail/ <br> services: | Convenient access to West Excelsior Blvd commercial corridor <br> at south end of neighborhood. Access to retail and services at <br> community-scale commercial areas approx. l.5 miles east of <br> space: <br> the neighborhood (Park Commons, Miracle Mile, and East <br> Excelsior Blvd) and to the north (Walker-Lake Streets Area). |
| Vehicle traffic volumes of streets to parks/open <br> and intersections: | Neighborhood parks: Creekside Park <br> Community parks: Oak Hill Park \& Louisiana Oaks Park <br> (approx. one half mile north of neighborhood) |
| Pedestrian / bicycle facilities: | Streng anths: Sidewalks along arterial and collector streets <br> and Lonenic congestion issues anticipated on nearby <br> (Excelsior Blvd/Cty Rd 3 and Louisiana Ave); Cedar Lake <br> LRT Regional Trail runs through the neighborhood. <br> Weaknesses: Lack of designated north-south bikeway within <br> the neighborhood that connects to surrounding destinations; <br> gaps in sidewalks, including connections to parks and open <br> spaces. |

Refer to 2030 Plan Land Use Map in Section IV-B for land use code abbreviations

$\square$ Multi-Family $\square$ Unknown
Age mix of households:

$\square$ Under Age $35 \quad \square$ Age 35 to 54
$\square$ Age 55 to $74 \square$ Age 75 or more

## IV. Why We Are A Livable Community

F. Plan By Neighborhood - Meadowbrook Neighborhood


Recent Plans and Studies - Directly Relevant to Meadowbrook Neighborhood Planning

- Active Living: Sidewalks \& Trails Plan
- Southwest Transitway (LRT) Study
- Southwest Transitway Station Area Plan (Louisiana Station)



## IV. Why We Are A Livable Community

## F. Plan By Neighborhood - Meadowbrook Neighborhood

## 2030 Comprehensive Plan Improvement Priorities

- Land Use / Economic Development \& Redevelopment
» Commercial corridor study area - None
» Neighborhood commercial node study area - None
» Southwest Transitway station area - Louisiana
- Housing
» Potential housing growth area - Louisiana LRT station area
- Transportation
» Transportation corridor study areas - MN Hwy 7 \& Louisiana Ave interchange
» Future bikeways - Louisiana Ave
» Future sidewalk gaps to be constructed - Excelsior Blvd/Cty Rd 3, Louisiana Ave
» Future City trails - Minnehaha Creek (Excelsior Blvd/ Cty Rd 3 to Meadowbrook Rd)
» Future pedestrian bridge - None
» Future walk/bike street crossing improvements Louisiana Ave \& MN Hwy 7
» Future transit improvements - Louisiana Ave LRT station

Meadowbrook Neighborhood Improvement Opportunities (Identified by Neighborhood Process)

- Explore potential for nature trails, including the Minnehaha Creek and Meadowbrook Lake marsh areas
- Improve environmental quality and sustainability of Minnehaha Creek
- Fill in sidewalk gaps on arterial and collector streets
- Add a designated north-south bikeway in the neighborhood
- Improve Cedar Lake LRT Regional Trail crossings of Wooddale Ave and Belt Line Blvd
- Improve commercial areas on Excelsior Blvd West, including parking, streetscape, street lighting, and potential redevelopment sites for residential
- Improve compatibility between the residential neighborhood and the industrial park and railroad tracks



# IV. Why We Are A Livable Community 

F. Plan By Neighborhood - Meadowbrook Neighborhood

Neighborhood Improvement Priorities Map:


## Legend

|  | Neighborhood Boundary | Community Commercial Center | $\cdots$ | LRT Station |
| :---: | :---: | :---: | :---: | :---: |
| $112$ | Corridor Study Areas | Neighborhood Commercial Node | H | LRT Route |
|  | Land Use and Redevelopment Study AI |  |  | LRT Station Planning Area |
|  | Major Transportation Improvements | Town Center |  | Future Trails |
|  | City Parks | Commercial Corridor | - ! | Future Sidewalks |
|  | Community Destinations |  | - 】 | Future Bikeways |



SOUTHWEST CORRIDOR INVESTMENT FRAMEWORK
Transitional Station Area Action Plan

SherthzT 1

## ABOUT THIS CHAPTER:

The Transitional Station Area Action Plans are the product of a Hennepin County led effort to help communities along the Southwest LRT corridor prepare for SW LRT's opening day in 2018 and beyond.

An individualized plan has been created for each of the 17 stations in the Southwest corridor, each plan comprising a chapter in the larger Southwest Corridor Investment Framework. The station area action plans suggest ways to build on local assets, enhance mobility, identify infrastructure needs, and capitalize on promising opportunities for development and redevelopment near each station.

## Plan Components:

## INTRODUCTION

A brief overview of the station location and its surroundings

## WHERE ARE WE TODAY? 10-4

A description of existing conditions in the station area, including:
" Land Use
» Transit Connections
» Access + Circulation Issues (Bike, Ped, and Auto)
» Infrastructure Needs

## WHERE ARE WE GOING? 10-8

This section presents a number of recommendations for the station area in anticipation of opening day needs and the long-term TOD environment. This includes:
» Access + Circulation Plan
» Station Area Site Plan
» Infrastructure Plan
» Development Potential
» Summary of Key Initiatives


## BLAKE STATION WITHIN THE CORRIDOR:

An important employment center with a growing mix of uses providing access to key destinations and residential neighborhoods along the Blake Road corridor.

EMPLOYMENT The Blake station a significant Employment station (see Place Types discussion beginning on p. 1-19). Businesses in the area are located primarily along the rail corridor and oriented towards a network of local streets. The largest employment cluster within the station area is the Cargill corporate offices located to the west of the station along 2nd Street. The offices are home to several thousand employees and have the potential to be a significant generator of transit ridership.
NEIGHBORHOODS In addition to employment, the area contains a sizable residential component. While these residential neighborhoods are proximate to the station, they are not walkable, transit-supportive places. In some cases, neighborhoods lack pedestrian facilities and safe crossings, orient away from the station, or are set back from the street, creating an inhospitable environment for pedestrians. The property owned by the Minnehaha Creek Watershed District to the northeast of the station is a significant redevelopment site that will provide added residential units as well as some commercial space.
EDUCATIONThe station will be the primary point of access for students traveling to and from The Blake School's Hopkins campus. Located south of the station along Blake Avenue, the campus is home to Blake's lower and middle schools students, as well as athletic facilities for all three of the school's campuses, making it a regional destination for all Blake students.
TRAIL CONNECTIONS The Cedar Lake LRT Regional Trail and Minnehaha Creek Greenway, popular biking and walking trails that connect downtown Minneapolis to the western suburbs, pass through the station area.

OTHER DESTINATIONS Minnehaha Creek and Cottageville Park are local park and open space destinations. A half-mile north of the station is Knollwood Mall, a regional shopping center that may attract visitors transferring from the station to local buses.


NOTE: 10-minute walkshed approximates the area accessible within a 10-minute walk from the station platform using only the existing sidewalk/trail network. See Glossary for walkshed assumptions and methodology.

## Station Location

The Blake station is located along Blake Road, just north of Excelsior Boulevard. The mix of land uses nearby includes retail/commercial, light industrial, office, residential, institutional, parks and open spaces. Local destinations in the station area include The Blake School, Excelsior Crossings office campus (Cargill), retail businesses along Excelsior Boulevard, Minnehaha Creek, and Cottageville Park. The Blake station is anticipated to serve these destinations as well as the residents in the Parkside, Presidents North and South, Minnehaha Oaks, Cottageville, and Interlachen neighborhoods, including many nearby apartment buildings.

The City has identified several potential development sites in the area, including a Hennepin County-owned property northwest of the station which houses 43 Hoops, a basketball training facility; and the existing Cold Storage site northeast of the station, recently purchased by the Minnehaha Creek Watershed District. The City has also long-identified the potential for redevelopment along Excelsior Boulevard, near Blake Road.

BLAKE STATION AREA TODAY:


Existing high intensity office


Cedar Lake LRT Regional Trail


43 Hoops/County-owned development site


Rail and trail corridor


Existing low-intensity retail


Blake Road

## Where Are We Today?

The following section describes the station area's EXISTING CONDITIONS, including the local context, land uses, transit and transportation systems, pedestrian and bicycle facilities, assets, destinations, and barriers to accessing the station. This analysis of current conditions presents key issues and opportunities in the station area and informs the recommendations for future station area improvements.

NOTE: Existing conditions maps are based on data provided by Hennepin County and local municipalities. The data used to create each map is collected to varying degrees of accuracy and represents infrastructure and conditions at varying points in time. Actual conditions may vary slightly from what is shown.

## Land Use

The mix of land uses in the Blake station area includes industrial, light industrial, office, retail/commercial, institutional, and a variety of housing types and densities (single-family detached, single-family attached, and multi-family), including affordable housing options. Primary land uses anticipated to generate transit ridership at the Blake station are the employment uses and the proximity of high-density residential neighborhoods. The Blake station has the highest numbers of households located near a station within the Southwest LRT Corridor.



## Roadway Network

The roadway network in the Blake station area is inconsistent. In the area immediately adjacent to the station, (commercial and employment areas), the roadway network is limited and the area is characterized by large block sizes. Further from the station, in the residential areas, the roadway network is more fine-grained and gridded. Blake Road is an important north-south route through the area and runs adjacent to the proposed station platform. The pedestrian and bicycle environment on Blake Road is poor today. The City of Hopkins has completed a small area plan for the area which recommends Blake Road streetscape improvements that would enhance pedestrian and bicycle facilities along the street. Excelsior Boulevard is an important east-west commercial corridor in the City of Hopkins and located one block south of the proposed station. Highways 7 and 169 are located just outside the station area but will influence traffic in the station area, particularly at peak travel times.

## Transit

The Blake station area is currently served by several local and express bus routes, with stops located on Excelsior Boulevard at Blake Road, on 2nd Street, and on Blake Road, north of the proposed station platform. Route \#615, a local route, runs along 2nd Street, turning north at Tyler Avenue. Route \#668, an express route, runs along 2nd Avenue, turning north at Blake Road. Routes \#12 and \#664 run along Excelsior Boulevard, eventually delivering transit riders to downtown Minneapolis. Route \#664 is an express route, turning north at Highway 100.

## Sidewalk, Trails and Bikeways

The existing sidewalk system in the Blake station area is limited and inconsistent, with many gaps existing in key areas where riders are expected to originate from - the residential neighborhoods and employments centers. The Cedar Lake LRT Regional Trail runs alongside the LRT and freight lines. The Cedar Lake LRT Regional Trail will connect and interface with Minnehaha Creek Greenway. This trail will connect with and interface with transit riders at the Blake station. Blake Road has been identified for streetscape improvements with the goal of making Blake Road a Complete Street, with accommodations for pedestrians and bicyclists.

## Sanitary Sewer

Sanitary sewer infrastructure consists of a collection of gravity flow sewer mains, lift stations, and pressurized forcemains that transport sewage to a wastewater treatment plant (WWTP). An efficient collection system has the capacity to accommodate all of the existing land uses within its particular sewershed. Beyond capacity, the material and age of pipes within a system can also impact a system's effectiveness.
Sanitary sewer infrastructure within the project area is typically maintained by either by the City of Hopkins or by the Metropolitan Council Environmental Services (MCES) Division. MCES maintains a series of interceptor trunk sewers which collect sewage at key locations and convey sewage across community boundaries to regional WWTPs. Wastewater from the station area is treated by the MCES Metro WWTP located in St. Paul.



## Water Main

Water main distribution systems serve to supply potable water to individual properties and to support fire suppression throughout the community. A welldesigned system can maintain adequate pressure to support demand of individual properties and provide high flow rates to fire hydrants/fire suppression systems in emergency situations. Because of the complexity of water distribution networks and the importance of pressure, flow, and water quality, City water system models are used to evaluate a system's adequacy. The material and age of the system's water mains can also be factors in system breaks, leaks, and pressure and flow degradations.

Water pressure and flow rates can be influenced by: the size of water main serving an area, proximity and elevation relative to a water tower, proximity to a trunk water main with high flow capacity, if the main creates a loop, the demand of adjacent land uses, and the condition of the main.

## Where Are We Going?

The plans and diagrams on the following pages illustrate a range of recommendations for infrastructure improvements, station amenities, and potential redevelopment opportunities within the station area.

The ACCESS AND CIRCULATION PLAN shown in Figure 10-8 provides a high level view of how future transit, automobile, bike, and pedestrian systems will connect to the station area and its surroundings.

Figure 10-9 illustrates the STATION AREA IMPROVEMENTS that will facilitate access to and from the station and catalyze redevelopment in the station area. This includes opening day and long-term station area improvements

Figure 10-10 focuses on OPENING DAY STATION AREA IMPROVEMENTS only. These recommendations represent the improvements necessary to enhance the efficient function of the transit station, roadways, pedestrian and bicycle connections, and transit connections on opening day in 2018.

## Station Area Improvements

The discussion below outlines a range of future station area improvements. While some of the identified improvements may be constructed as part of the LRT project itself, other improvements must be funded, designed and constructed by other entities and will require coordination between the City, County, and Metro Transit as well as local stakeholder and community groups.

## ROADWAYS

## Opening Day Improvements:

» Build phase one of a new east-west road that would run along the south edge of the LRT line and connect Blake Road to Pierce Avenue. This road will provide access to the parking ramp and frontage onto the LRT station for future development sites.
" Provide new signalized intersections at Excelsior Boulevard and Pierce Avenue to improve pedestrian connections across Excelsior Boulevard and resolve traffic movements into and out of the proposed park and ride facility.

## Long-Term Improvements:

» Promote the extension of Tyler Avenue to the north and connect with the new road running along the LRT line.
» Provide a new signalized intersection at Tyler Avenue.

## PEDESTRIAN CONNECTIONS

## Opening Day Improvements:

" Focus sidewalk and streetscape enhancements along Blake Road, Excelsior Boulevard, 2nd Street, and a new road that would run along the south side of the LRT line.
» Blake Road streetscape improvement should include Complete Street design concepts with pedestrian-friendly design elements such as sidewalks, planted boulevards, bike lanes, pedestrian lighting, and streetscape furnishings.
" Provide safe and convenient pedestrian connections to the Cedar Lake LRT Regional Trail, and safe pedestrian crossings of Blake Road.
» Reconstruct Cedar Lake LRT Regional Trail under Blake Road (Betterment)
» Improve pedestrian crossings along Blake Road at Excelsior Boulevard and 2nd Street. Add new pedestrian crossings and a traffic signal at Excelsior Boulevard and Pierce Avenue.
» Enhance pedestrian connections by completing sidewalk and trail systems to adjacent neighborhoods to the north of 2nd Street and south of Excelsior Boulevard, across the 43 Hoops site.
» Provide lighting along the regional trail from the station platform to the Cargill corporate campus.

## Long-Term Improvements:

» Add new pedestrian crossing and a traffic signal at Tyler Avenue.
» Enhance the streetscape on extended Tyler Avenue.

## TRANSIT CONNECTIONS

## Opening Day Improvements:

» Provide new bus facilities near station platform for connecting bus routes.
» Enhance connections to other bus stops in the area Excelsior Boulevard, Blake Road, and 2nd Avenue.

## BIKE CONNECTIONS

## Opening Day Improvements:

» Provide on-street bike lanes on Blake Road to better connect the station to nearby neighborhoods, businesses, amenities, and destinations to the north and south of the station.


Bike parking
» Provide bike connections to the Cedar Lake LRT Regional Trail and Minnehaha Creek Greenway.
» Provide a multi-use trail connection to the north (across the 43 Hoops site) to connect to the existing trail that connects neighborhoods to the north of the station.

## PARK AND RIDE

Opening Day Improvements:
» Provide a park and ride ramp south of the station platform with right in/right out access off Blake Road and full access off Excelsior Boulevard via Pierce Avenue.

## KISS AND RIDE

## Opening Day Improvements:

» Provide a designated kiss and ride area on Blake Road.
STATION AMENITIES (Beyond SW LRT Base Project Scope) Opening Day Improvements:
» Wayfinding - include signage and wayfinding near the station area platform, the park and ride facility, the kiss and ride dropoff, and along sidewalks and trails near the station.
» Seating - provide comfortable and durable seating near the station platform.
" Lighting - provide adequate lighting for the safety of transit users near the station platform, in the park and ride facility, and near the kiss and ride dropoff.
» Plaza - provide a small public plaza area near the station platform to provide transit users with a paved area to gather, queue for trains, and move about the station area.
» Bike Facilities - provide bicycle parking, lockers, and bike sharing facilities in a highly visible area near the station platform.
» Public Art - Incorporate public art in the station area.


Example public plaza

## DEVELOPMENT POTENTIAL

## Opening Day Improvements:

» The property just south of the proposed station platform should be developed for opening day as a park and ride ramp with a wrap of street-fronted, mixed-use development on Blake Road and facing the station platform. This is a joint development opportunity.
» The Cold Storage site represents a major opening day redevelopment potential site that can capitalize on greenway improvements and the LRT investments.
» The Hennepin County property (43 Hoops) represents another potential opening day development site.
» The property located east of Blake Road between Excelsior Boulevard and the Cedar Lake LRT Regional Trail is also viewed as a potential opening day development site.

## Long-Term Improvements:

" See the "Development Potential" discussion on page 10-18 for more on long-term development opportunities.

## UTILITIES

" See the "Station Area Utility Plan" beginning on page 10-20 for all utility recommendations.


[^0]Potential
Redevelopment Site（16．51 Acres）
Faded symbology indicates existing facilities and infrastructure．
Boyce
Potential
Redevelopment
KISS AND RIDE
Potential Redevelopment Site（5．96 Acres）

|  | ［） |
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|  |  |
|  | （1）Bus Stop |
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SIDEWALK IMPROVEMENT
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on street bike
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OOO
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－WAYFINDING
A publcart opportunity
NEW CROSSING／
CROSSING IMPROVEMENT
－NEW LIGHTING

『・ー・글 POTENTIAL
ㄴ．．．．．DEVELOPMENT SITE
$\square$ PLAZA SPACE／BUILDING
SETBACK AREA


| LRT PLATFORM | 車视ص | NEW SIDEWALK／ <br> SIDEWALKIMPROVEMENT | ーーーロ | NEW ROADWAY | $\square$ | BIKE PARKING |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| －fremble fine |  | ON STREET BIKE infrastructure | $\mathrm{P}=0-\mathrm{O}$ | STREETSCAPE | $\bigcirc$ | WAYFINDING |
| （1）BUSSTOP | $\left[\begin{array}{c} \infty \\ i \end{array}\right.$ | MULTI－USE PATH | $[\infty$ | PARK AND RIDE | A | PUBLIC ART OPPORTUNITY |
| $\square$ BUS SHELTER |  | NEW CROSSING／ CROSSING IMPROVEMENT | $(6 \%)$ | KISS AND RIDE |  | POTENTIAL <br> DEVELOPMENT SITE |
|  | － | NEW LIGHTING | $0$ | NEW SIGNALIZED INTERSECTION |  | PLAZA SPACE／BUILDING SETBACK AREA |

## Conceptual Street Sections

The street cross section illustrated below is conceptual and represents a potential future streetscape condition, addressing facilities for a variety of transportation modes, streetscape amenities, and the relationship between buildings and the street edge. Further design and engineering work will be required to ensure the streetscape is in compliance with City and/or County design standards and needs.

## NEW ROAD SEGMENT

## Dimensional Criteria:

» 66 feet Right-of-Way Width
» 32 feet Pavement Width (2-way)
» $20^{\prime}-30^{\prime}$ o/c Street Tree Spacing
" $6^{\prime}-0^{\prime \prime}$
Sidewalk Width (both sides of street)

## Design Features:

» Sidewalks
» Street Trees/Plantings/Raingardens
» Streetscape Furnishings (seating, planters, trash receptacles, bicycle racks)
» Signage
» Street and Pedestrian Lighting
» Pedestrian-Friendly Crossings (countdown signals, markings, and ADA features)

FIGURE 10-11. CONCEPTUAL STREET SECTION - NEW ROAD SEGMENT


## Opening Day Improvements

The following tables and diagrams outline the proposed improvements to be implemented in advance of SW LRT's opening day in 2018. Table 10-1 and Figure 10-12 show opening day improvements that are part of the SW LRT anticipated base project scope; these improvements will be part of the overall project cost for construction of the LRT line. Table 10-2 and Figure 10-13 include opening day improvements that are recommended as part of the Southwest Corridor Investment Framework and are beyond the SW LRT base project scope. Table 10-3 (also shown in Figure 10-13) includes locally requested "betterments"- or improvements that cities have requested to be included in the base project scope pending funding availability.
TABLE 10-1. SOUTHWEST LRT ANTICIPATED BASE PROJECT SCOPE - OPENING DAY STATION AREA IMPROVEMENTS

| PLAN <br> KEY | IMPROVEMENT | PROJECT LOCATION | PROJECT NOTES |
| :---: | :---: | :---: | :---: |
| A | LRT Platform | North of Excelsior Blvd, west of Blake Road | Includes related LRT infrastructure |
| B | Park and Ride | South of station platform, west of Blake Road | 445 stall park and ride ramp, incl. lighting and signage |
| C | Kiss and Ride | South of station platform, along Blake Road | Dropoff area |
| D | Bus Facilities | New road adjacent to LRT station | Bus stop |
| E | Roadway | New street- between Blake Road and the west side of <br> the Park and Ride | Along south edge of LRT line |
| F | Access Roadway | New access roadway- Pierce Ave | Extend north from Excelsior Blve to Park and Ride along south edge of LRT line |
| G | Sidewalk/Trail | Along new access road, between Blake Road and the <br> west side of the Park and Ride | Both sides of road |
| H | Sidewalk/Trail | Along Blake Road- park and ride north to regional trail | Both sides of road |
| I | Intersection Enhancement | Pierce Ave and Excelsior Blvd | New traffic signals and crosswalks |
| J | Intersection Enhancement | Blake Road and trail crossing | Trail crosswalk |
| K | Bike Facilities | Near station platform | Allowance for bike storage |
| L | Wayfinding | Station platform | Allowance |
| M | Landscaping | Near station platform | Allowance |
| N | Stormwater Management* | Varies | New water, sanitary sewer and fire hydrant |
| O | Utilities* | Varies |  |

Note: Anticipated Southwest LRT Base Project Scope as of December 2013 (subject to change)

* Improvement not symbolized on opening day figures (exact location to be determined as part of the base project scope)

TABLE 10-2. SOUTHWEST CORRIDOR INVESTMENT FRAMEWORK (TSAAP) - OPENING DAY STATION AREA IMPROVEMENTS

| $\begin{aligned} & \text { PLAN } \\ & \text { KEY } \end{aligned}$ | IMPROVEMENT | PROJECT LOCATION | PROJECT NOTES | PRIORITY |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Streetscape | Blake Road- SH 7 to Interlachen Road (City of Edina) | Includes roadway, sidewalk, bike lanes, tree plantings, streetscape furnishings, lighting and ped crossing improvements | Primary |
| 2 | Streetscape | Excelsior Blvd- Blake Road east to Powell Road | Includes sidewalk, tree plantings, streetscape furnishings, lighting improvements | Secondary |
| 3 | Sidewalk/Trail | Along west edge of HCRRA site (43 Hoops) | trail connection between 2nd St. NE and the regional trail | Secondary |
| 4 | Sidewalk/Trail | Along Pierce Ave- Excelsior Blvd to new road | Both sides of road | Secondary |
| 5 | Pedestrian crossing | on 2nd Street NE near HCRRA site | Pedestrian crossing markings | Secondary |
| 6 | Lighting | Along regional trail- between station platform and Excelsior Crossing | Lighting for safety along trail | Secondary |
| 7 | Public Art | Station area | Include public art (beyond SPO improvements) | Secondary |
| 8 | Public Plaza | Near station platform | Includes paving, plantings, seating, and lighting (beyond SPO improvements) | Primary |
| 9 | Wayfinding | At Excelsior Blvd and Pierce Ave | Include wayfinding at intersection (beyond SPO improvements) | Primary |
| 10 | Stormwater <br> Management | Along Blake Road | Include green infrastructure along Blake Road- tree trenches, raingardens (beyond SPO improvements) | Primary |
| 11 | Storm Sewer | Along Blake Road | Replace trunk line | Primary |
| 12 | Traffic signals | Blake Road- TH 7 to Interlachen Road (City of Edina) | Signals at 2nd, Cambridge and Excelsior | Primary |
| 13 | Pedestrian crossing | Tyler Street / Excelsior Blvd | Pedestrian crossing markings and ramps | Secondary |
| 14 | Sanitary Sewer | Pierce Avenue North | Construct 8-inch minimum sanitary sewer with roadway construction | Primary |
| 15 | Water | New road connecting platform to Excelsior Boulevard via Pierce Avenue North | Construct 8-inch minimum water main with roadway reconstruction/ construction | Primary |

TABLE 10-3. SOUTHWEST LRT LOCALLY REQUESTED BETTERMENTS - OPENING DAY STATION AREA IMPROVEMENTS

| PLAN <br> KEY | IMPROVEMENT | PROJECT LOCATION | PROJECT NOTES |
| :---: | :---: | :---: | :---: |
| B1 | Sidewalk/Trail | North of freight rail line | Realign regional trail and grade separate trail under Blake Road |
| B2 | Joint Development | Northwest corner of Blake and Excelsior | Site and access improvements |



FIGURE 10-13. SW CORRIDOR INVESTMENT FRAMEWORK (TSAAP) - OPENING DAY STATION AREA IMPROVEMENTS + BETTERMENTS


## Development Potential

## OVERVIEW

The Blake station area has strong redevelopment potential. Factors supporting redevelopment in the Blake station area include a diverse population base, good station access, several strategic sites available for redevelopment, a number of underutilized properties, and open space amenities such as Minnehaha Creek and Cottageville Park.

Near the proposed station platform, the Hennepin Countyowned 43 Hoops site presents a near-term redevelopment opportunity for transit supportive uses. The Cold Storage site, now owned by the Minnehaha Creek Watershed District, and several underutilized sites along Excelsior Boulevard offer additional redevelopment opportunities near the station. A potential joint development project includes a park and ride ramp with a wrapper of mixed-use facing Blake Road and the station platform, located just south of the station. Other potential development sites could include mixed-use, highdensity residential and employment uses. Development is expected to occur short to long-term in the area.
Key challenges that should be addressed to facilitate long-term development potential include station connectivity. Near term, development can be catalyzed by introducing a new park and
ride ramp/mixed-use development along Excelsior Boulevard, near the station platform. Streetscape improvements should be introduced, connecting the station to nearby businesses and neighborhoods, particularly along Blake Road.

## LAND USES

High-density, mixed-use, transit-oriented development is likely to occur near the Blake station. Future land uses in the Blake station area should consist of high-density residential, office, and retail uses.

## PLANNING STRATEGIES

Strategies that should be considered to facilitate future development in the station area include new roadways, streetscape improvements, Minnehaha Creek and Cottageville Park imrovements, and pedestrian crossings along roadways connecting the station with potential development sites, local destinations, and neighborhoods, particularly on Blake Road.

The Blake station park and ride should be provided in a parking ramp, located between Excelsior Boulevard and the proposed LRT station platform. The park and ride ramp should be a joint development with mixed-use development.


FUTURE LAND USE:
$\square$ MULTI-FAMILY
$\square$ RETAIL \& OTHER COMMERCIAL
$\square$ MIXED-USE COMMERCIAL \& OTHER
$\square$ MIXED-USE RESIDENTIAL
$\square$ OPENING DAY
DEVELOPMENT POTENTIAL

## Key Considerations for Change and Development Over Time

The station area should remain an employment destination with a focus on establishing a mix of new residential and neighborhood serving retail uses and improving connectivity to key destinations along Blake Road and 2nd Street. Key considerations should include:

## BUILT FORM AND LAND USE

» Introduce a mix of higher density employment and residential uses along Excelsior Blvd, Blake Road, and 2nd Street that can help to increase transit ridership and increase activity levels in and around the station area.
» Designing new buildings to enhance pedestrian access by orienting them towards the street and locating them as close to the street line as possible.
» Minimize the impact of parking and circulation on pedestrians by locating parking to the rear or side of new buildings in structures or below grade.
» Incorporate active ground level uses on buildings adjacent to the station and facing onto Blake Road and Excelsior Blvd.
» Integrate park and ride facilities with new uses and/or development that can actively address both Blake Road and the station to improve safety and provide convenient access to services for transit riders, residents and area employees.

## PUBLIC REALM

» Introduce a public plaza near the station at the corner of Blake Road and the new road to provide spill-out space for active uses facing the station and act as a receiving point for passengers walking to the station or transferring to the LRT by bus, bike, or car.
» Improve connections between the station and area destinations such as The Blake School and Cargill corporate offices through enhanced streetscaping along Blake Road and 2nd Street. This should include sidewalk improvements to increase path widths, provide consistent curb cuts, develop a new boulevard separating pedestrians from vehicular traffic, new tree planting to enhance the street image and improve pedestrian comfort, and new pedestrian-oriented lighting to increase safety for students and employees walking to and from the station at night.
" Remove channelized turning lanes, reduce curb radii, and initiate intersection improvements at Excelsior Boulevard and Blake Road to improve safety for students walking or cycling from the station to The Blake School.
" Enhance greenway, open space, and park areas, as well as Minnehaha Creek access and visibility for the benfit of transit users and to attract new development interest in the area.

## MOBILITY

" Develop a new walkable street and block pattern in the area between Excelsior Blvd. and the rail corridor including a new street running parallel to the rail corridor to provide access for buses and create an address for development facing the station.
» Ensure redevelopment of the Cold Storage site that results
in the establishment of a new street and block network that improves access to Minnehaha Creek for area residents and transit users.
» Accommodate retail and short-term parking on-street or in shared parking facilities to minimize the construction of singleuse parking areas.
» Consolidate access and servicing between adjacent developments and minimize vehicular access points along key routes leading to and from the station including Blake Road, 2nd Street, and Excelsior Boulevard.
» Incorporate signed on-street bike facilities to improve access for cyclists traveling to destinations along the Blake Road corridor.


Mixed-use development with active street level uses

Higher density office and light industrial uses

Live / work development


# Station Area Utility Plan 

## OVERVIEW

The station area utility plan and strategies recommended below were developed by considering future transit-oriented development within the station area, as depicted by the Station Area Site Plan (Figure 10-9). Hopkins will need to apply these localized recommendations to the city-wide system to ensure that the potential development/redevelopment will not be limited by larger system constraints. Existing models or other methods each can be used to check for system constraints in the station areas.
Hopkins should also consider reviewing the condition of the existing utilities in each station development area. The station construction would provide Hopkins an opportunity to address any utilities needing repairs. Once the larger system has been reviewed for system constraints, Hopkins will be able to accurately plan for necessary utility improvements in their city Capital Improvement Program (CIP). All utilities located beneath the proposed LRT rail or station platform should be encased prior to the construction of these facilities. Costs associated with encasing these facilities is assumed to be a project cost and are not included in potential improvements identified for the City of Hopkins CIP.

## APPROACH

Utility improvement strategies are outlined in this report for the ultimate station area development (2030), as well as improvements which should be considered prior to opening day anticipated in 2018. Although recommendations are categorized in one of these two timeframes, Hopkins should weigh the benefits of completing more or less of these improvements as land becomes available for future development. Hopkins should take the utility analysis a level further and model future utilities in their city utility system models.
The proposed development and redevelopment areas were evaluated based on Metropolitan Commission Sewer Availability Charge (SAC) usage rates and estimated flows. Estimated flows for one possible development scenario in this area indicate that internal to the station area, no more than eight inch pipe are necessary to serve the mix of proposed and existing development. Each utility system should still be reviewed to identify capacity and demand constraints to the larger system associated with increase in flows from the proposed developments and existing developments in the area. Hopkins should anticipate the construction of new municipal utilities in conjunction with new or realigned roadways.

GENERAL RECOMMENDATIONS - SANITARY SEWER
Sanitary sewer recommendations for station area improvements include opportunities for Hopkins to improve the existing sanitary sewer network, without necessarily replacing existing sanitary sewers. When recommendations for "improving" existing sanitary sewer are noted, Hopkins should consider the level to which each specific sewer should be improved. Methods of improvement could include: lining the existing sewer, pipe joint repair, sewer manhole repair, relocation, and complete replacement.
The following items should be evaluated prior to opening day of the station, although action may not be required until necessary for development:
" Televising existing sewer mains in the station area and proposed development area to determine the condition of the sewer mains, susceptibility for backups or other issues and evaluate for Infiltration and Inflow (I\&I).
» Locations of known I\&I. If previous sewer televising records, city maintenance records, or an I\&I study have shown problems, the city should consider taking measures to address the problem.
" The age and material of existing gravity and/or forcemain sanitary sewer in the identified station area. If the lines are older than the material's typical design life or materials which are susceptible to corrosion relative to soils in the area, the city should consider repairing, lining or replacing the mains.
" Locations of known capacity constraints or areas where city sewer models indicate capacity issues. If there are known limitations, the city should further evaluate the benefit of increasing pipe sizes.
» City sewer system models (existing and future). A review of these models with future development would assist Hopkins in determining if sewers in the project area should be increased to meet existing or future city system needs.
» Existing sewer pipes should be relocated or encased in areas where they cross or are immediately adjacent to the LRT line/station.

## GENERAL RECOMMENDATIONS - WATER MAIN

Water main recommendations for station area improvements also include opportunities for Hopkins to improve the existing water system network. Creating loops in the network can help prevent stagnant water from accumulating along water main stubs, and creating loops of similar sized water main provides the city a level of redundancy in their water network. Redundancy helps reduce the impacts to the community during system repairs, and also helps stabilize the pressure in the network.
The following items should be evaluated prior to opening day of the station, although action may not be required until necessary for development:
» The age and material of the existing mains in the identified station area. If the mains are older than the materials typical design life or materials which are susceptible to corrosion relative to soils in the area, the city should consider replacing the main.
" Locations of previous water main breaks. If water main breaks repeatedly occur in specific areas, the city should consider replacing or repairing the main.
» Locations with known water pressure issues or areas where city model indicate low pressure. If there are known limitations (for either fire suppression or domestic uses), the city should further evaluate the benefit of increasing main sizes.
" Locations with known or potential water quality issues. If there are mains known to be affecting the water quality (color, taste, odor, etc.) of their system, Hopkins should consider taking measures to address the problem affecting water quality.
" City water system models (existing and future). A review of these models with future development would assist Hopkins in determining if mains in the project area should be improved to meet existing or future city system needs based on demand constraints.
» Existing water main pipes should be relocated or encased in areas where they cross or are immediately adjacent to the LRT line/station.

## GENERAL RECOMMENDATIONS - STORM SEWER

Local storm sewer improvements are recommended to be completed in conjunction with other improvements in the station area. Improvements which will likely require storm sewer modifications include: roadway realignments, roadway extensions, and pedestrian sidewalk/street scape improvements. Storm sewer improvements may consist of: storm sewer construction, manhole reconstruction, drain tile extensions, storm sewer relocation, and complete replacement. These local storm sewer improvements are included as part of the overall cost of roadway and streetscape improvements recommended in this plan. Where roadway/streetscape improvements are part of the SW LRT anticipated base project scope, associated storm sewer improvements are assumed to be a project cost. Hopkins should also consider coordinating with the local watershed district and other agencies to review the condition of and capacity of existing trunk storm sewer systems serving more regional surface water needs.

Currently MCWD has plans to divert stormwater from existing Blake Road, Lake Street, and Powell Road storm sewer systems to Cottageville Park and/or the Cold Storage Site. Stormwater from the proposed Blake station area may also be routed to the Cold Storage site upon redevelopment.

## STORMWATER BEST MANAGEMENT PRACTICES

There are numerous stormwater best management practices (BMPs) that can be used to address stormwater quality and quantity. As part of this project, BMP guides were developed for four stations (Royalston, Blake, Shady Oak, and Mitchell) which exemplify the range of development intensity and character in the urbanized environment along the Southwest LRT Corridor. The recommendations and practices identified in each of the four BMP guides are applicable to various stations along the corridor.
The following section (starting on p. 10-22) includes a detailed stormwater analysis and BMP guide for Blake station. These BMPs may also be applicable to the station areas at Belt Line, Wooddale, Louisiana, Downtown Hopkins, Eden Prairie Town Center, and Southwest. Cities should consider incorporating these practices where appropriate as development/ redevelopment occurs.


## Station Area Utility Plan (Continued)

## STATION AREA UTILITY RECOMMENDATIONS

The following discussion covers station-specific utility recommendations for both opening day improvements and long-term recommendations. Utility recommendations (illustrated in Figure 10-16) are based on a localized analysis of proposed development. It is recommended that the City of Hopkins take this analysis a step further and review system constraints to the existing and future sanitary sewer and water main systems using existing sewer CAD or water CAD models, or other methods of modeling these systems.

## Opening Day Recommendations:

1. Encase existing water main crossing LRT rail construction.
2. Construct 8 -inch minimum sanitary sewer in conjunction with roadway construction on Pierce Avenue N .
3. Construct 8 -inch minimum water main in conjunction with roadway reconstruction/construction on new road connecting platform to Excelsior Boulevard via Pierce Avenue N .

Long-Term Recommendations:

1. Construct 8 -inch minimum water main in conjunction with new roadway construction connecting Pierce Avenue to Tyler Avenue; tie to existing main on Tyler Avenue.

FIGURE 10-15. STATION AREA UTILITY PLAN

\# opening day recommendation \# long-term recommendation


## Stormwater Management Recommendations

## INVENTORY

The Blake Road station area is within the Minnehaha Creek Watershed District (MWCD). The proposed station location lies about 0.3 miles west of the creek and is tributary to the creek through shallow ditches adjacent to the regional trail.
The MPCA lists Minnehaha Creek as impaired for chloride, fecal coliform, fish bioassessments, and dissolved oxygen. Chloride arrives from road salting, fecal coliform from animal waste, and low dissolved oxygen makes it difficult for fish to survive.
CONSTRAINTS:
Impaired Waters
Discharging within one mile of an impaired water may trigger additional Minnesota Pollution Control Agency NPDES (National Pollution Discharge Elimination System) requirements which require more capacity for stormwater management. For impaired waters where a TMDL (Total Maximum Daily Load) has been approved, these requirements may increase further.
THe MCWD and MPCA have neared completion on the Minnehaha Creek Lake Hiawatha TMDL which considers impairments due to nutrients (eutrophication), biota, dissolved oxygen, chloride, and fecal coliform bacteria. The TMDL implementation plan will have substantial impact on stormwater management within the station impact area as redevelopment activity will be looked at as the primary means to implement water quality improvements - perhaps above what MCWD would normally require. Cost-sharing may occur when redevelopment exceeds standards normally applied.

## Floodplain

MCWD shows extensive mapped floodplain upstream (west) of Blake Road, evidence that Blake Road restricts creek flow. This floodplain and floodway covers the Target parking lot and other urban uses so redevelopment will need to consider floodplain management and mitigation. Specifically, floodplain may need to be integrated into redevelopment through open space and stormwater management features. MCWD regulates floodplain base on approved FEMA maps. Flood maps for this station area are currently in the process of being revised by FEMA.

## Contamination

Three contaminated properties are identified in the EIS: one agricultural chemical spill, one leaking underground storage tank site, and a third unspecified contamination. Remediating soil contamination may be necessary prior to constructing infiltration practices.

## Soils

The majority of the soils within the 10-minute walk zone have been identified as hydrologic group B or Urban. B soils typically allow for infiltration. Urban soils are highly variable as significant development and/or fill has occurred in these areas.

## Stormwater Management

MCWD stormwater rules exempt redevelopment sites less than five acres where redevelopment results in at least a ten percent reduction of impervious surface. Another exemption is available for sites five acres or greater where the proposed activity disturbs less than 40 percent of the site and results in at least a ten percent reduction in impervious surface.
Discounting exemptions, MCWD requires volume control for the runoff from the first inch of rainfall off impervious surface for redevelopment. When the volume control requirement cannot be met due to soils or contamination then a phosphorus standard must be met where the amount is equivalent to what would have been removed if the one-inch volume standard were met. In many respects, the MCWD rules are similar to the requirements contained in the construction stormwater permit.
Peak rates of discharge for the 1,10 and 100-year rainfalls must be maintained at current conditions. It is anticipated that maintaining and significantly reducing existing discharge rates may easily be achieved due to the water quality and volume features that will be required.

## STORMWATER MANAGEMENT CALCULATION

Total redevelopment area is approximately 61 acres. The 61 acres can be categorized into 3 groups; station improvements, ROW improvements, and individual site redevelopment. The following shows the area breakdown by category. Note this breakdown is highly variable depending on the timeline of ROW and individual site redevelopment.
» Station improvements (park and ride, LRT Platform) - 4 acres
» ROW improvements - 11 acres
» Individual Site Redevelopment - 46 acres
Based on Minnehaha Creek Watershed District Rules (June 2011) and MPCA NPDES requirements outline above, these areas will likely need to provide stormwater management to meet volume control, rate control, and pollutant removal requirements.

## Volume Control

Volume control will need to be provided for the majority of the 61 acres estimated to redevelop. The one exception being, approximately 7 acres of ROW on Blake Road is anticipated to qualify as a linear project. Assuming there is less than 10,000 square feet of new impervious, Blake Road would qualify for exemption from the volume control requirement. If there is more than 10,000 square feet of new impervious surface, volume control-rate control-phosphorus control will be required for the new impervious surface.

The following impervious coverages are assumed for the different types of redevelopment. These impervious estimates are highly variable depending on the type and configuration of development that occurs.


## Stormwater Management Recommendations (Continued)

» Station improvements (park and ride, LRT platform, OMF site) - 75\% (3 acres)
» ROW improvements $-55 \%$ ( 6.1 acres)
» Individual site redevelopment - 65\% (29.9 acres)
Using the assumed impervious coverages the following volume control is anticipated to be required:
3 acres $\times \frac{1 \text { inch }}{12 \text { in/tt }}+6.1$ acres $\frac{1 \text { inch }}{12 \text { in/tt }}+29.9$ acres $\times \frac{1 \text { inch }}{12 \text { in/tt }}=3.3$. Acre

## Pollutant Removal

If volume reduction is achieved in accordance with the standard, then phosphorus requirements are likely to be met. If volume control is unattainable due to site constraints, then an equivalent phosphorus reduction would be required equivalent to which would be achieved through abstraction of one inch of rainfall from the site's impervious surfaces.
Based on redevelopment of 61 acres and providing volume control for the first inch of rainfall, it is estimated that 60-80\% reduction of total phosphorus would be required (depending on the site) to result in an annual reduction of $36-48$ pounds of phosphorus. Volume control is likely to be a viable option in most locations, however some areas may have high groundwater, poor soils, or require contamination remediation to allow for infiltration. If one of these conditions is present, filtration BMPs may be needed to treat stormwater.

## Rate Control

Rate control is not anticipated to be a controlling requirement given the high amount of existing impervious coverage on redevelopment areas (approximately $90 \%$ ) and the need to provide volume control and/or pollutant removal. As a result, proposed discharge rates are anticipated to be significantly less than existing discharge rates.

## EXAMPLE STORMWATER MANAGEMENT SCENARIO:

Figure 10-18 shows a possible stormwater management scenario for meeting the Minnehaha Creek Watershed District and MPCA NPDES redevelopment requirements. The scenario below has been developed to meet the stormwater volume control requirement of 3.3 acre feet. This scenario has been developed with the knowledge that regional stormwater
management will be constructed in the near future on the Cottageville Park and Cold Storage sites. Development and future projects will need to develop stormwater management plans considering these regional systems.
The following BMPs are considered in this scenario:
Enhanced Media Filter: One enhanced media filter is shown on the Cold Storage site and one is shown near the park and ride. It is anticipated that these systems will be regional stormwater treatment facilities and treat approximately 1.5 acre feet of stormwater runoff volume. Additional capacity may be constructed in the Cold Storage system by MCWD to address regional stormwater needs.

Landscape Filters: Landscape filters are currently shown throughout the redeveloping area. These stormwater filters will be used to collect and treat stormwater prior to discharge downstream into additional stormwater facilities. These systems will be used primarily as pretreatment to the other best management practices.

Storage \& Reuse: A large detention basin is shown on the Cold Storage site. This regional basin may be combined with an enhanced media filter as well as a reuse system to irrigate vegetated areas and landscape features on/near the Cold Storage site. It is anticipated that this reuse system will treat approximately one acre foot of stormwater runoff volume.
Permeable Pavement: Permeable pavement is shown adjacent to the park and ride structure. This will reduce the impervious footprint by approximately 1 acre. This BMP will likely be constructed in conjunction with an underground storage/ filtration/infiltration system. This system will reduce the required stormwater management treatment volume by approximately 0.2 acre feet.
Streetside Treatment Swale: A streetside treatment swale is shown just south of the tracks, between Tyler Avenue and the LRT platform. It is anticipated that this BMP will treat approximately one-third of an acre foot of stormwater runoff volume.
Biofiltration Cells: Biofiltration cells are shown to treat localized runoff on individual redevelopment sites. It is anticipated that the majority of stormwater treatment can be provided through

TABLE 10-4. STORMWATER MANAGEMENT SCENARIO - COST SUMMARY

| BEST MANAGEMENT <br> PRACTICE (BMP) | DRAINAGE AREA <br> (ACRES) | VOLUME <br> RESTRICTION <br> (AF) | ANNUAL TOTAL <br> PHOSPHORUS <br> REDUCTION (LBS) | SIZE OF BMP | COST OF BMP <br> (\$/UNIT) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Enhanced Media Filter | 44 | 1.5 | 7 | $2,000 \mathrm{CY}$ | TOTAL COST (\$) |

[^1]

STORMWATER BEST MANAGEMENT PRACTICES：
ENHANCED MEDIA FILTER BIOFILTRATION CELLS
LANDSCAPE FILTERS
STORAGE AND REUSE
Table 10－4 opposite summarizes the costs and stormwater management information related to each BMP shown in this example
scenario．These numbers are highly variable based on conditions at the time of redevelopment，some of which include ultimate
BMP location，size，elevation，soil type，development features，and other unknown conditions at this time．It is important to note
that storm sewer to collect and convey stormwater is included in the cost estimate for street improvements and therefore is not
included in the cost estimates Table 10－4 to avoid duplication．

## Stormwater Management Recommendations (Continued)

regional systems, however these systems may be necessary to help meet requirements or provide enhanced treatment. It is anticipated that the biofiltration cells will treat approximately half an acre foot of stormwater runoff volume.

## OPPORTUNITIES:

" Naturalizing the creek corridor is a strong water resources theme and development strategy for this station area. This theme could be reinforced by utilizing overland drainage through treatment swales within the redevelopment areas and by restoring urban floodplain to a more natural condition.
» Cottageville Park Feasibility Study (2013) describes stormwater management improvements including ponding, biofiltration, filtration, stormwater reuse, and shoreline restoration.
" MCWD acquisition of the Cold Storage site as well as Cottageville Park property provides opportunity to enhance 1,000 feet of Minnehaha Creek as well as provide stormwater treatment adjacent to the creek. Redevelopment of these parcels using regional LID concepts and an integrated strategy among the various entities will be important to stormwater management in the area. Stormwater will likely be routed to Cold Storage through Blake Road and Powell Road storm sewer systems. Redevelopment on these properties also presents an opportunity to open the area to Minnehaha Creek. Once completed, these projects will connect to the trail system between Cottageville Park and Methodist Hospital. Implementation of Cottageville Park and Cold Storage improvements along the creek is part of a planning strategy to encourage private investment, redevelopment, pedestrian transit, walkable station areas, etc.
» The west side of Blake Road has fairly wide-spreading floodplain so floodplain mitigation will be important. Preserving floodplain tends to limit the density of building footprint and lends itself to restoring green space where floodplain occurs. The east side of Blake Road is not encumbered by wide spreading floodplain, so denser redevelopment could occur.
» MCWD has recently completed its Reach 20 Remeander Project immediately east of the station impact area and directly upstream of a similar, recently completed project at Methodist Hospital. This project resulted in 4,000 feet of realigned and restored stream banks along Minnehaha Creek, a looped trail system connecting Meadowbrook Manor, Excelsior Townhomes, Municipal Services Center, Creekside Park, and Methodist Hospital to the project (to be done in 2014), and access to over 30 acres of restored greenspace around Minnehaha Creek.

## Stormwater Best Management Practices (BMP) Guide

The following section summarizes the key features and design considerations related to each of the stormwater best management practices recommended for the Blake station area.

NOTE: These BMPs may also be applicable to the station areas at Belt Line, Wooddale, Louisiana, Downtown Hopkins, Eden Prairie Town Center, and Southwest. Cities should consider incorporating these practices where appropriate as development/redevelopment occurs.



STREETSIDE TREATMENT SWALE

## Features

» Volume control through infiltration and vegetative uptake
» Retains stormwater to reduce peak flows
» Reduces storm sewer needed to collect/convey stormwater

## Design Considerations

» In-situ soils determine infiltration potential
» Vegetation will need to tolerate both wet and dry conditions
» Periodic maintenance of vegetation will be required


## BIOFILTRATION CELLS

## Features

» Treats stormwater through filtration, vegetative uptake, and infiltration
" Retains stormwater to reduce peak flows
» Creates naturally vegetated green space adjacent to development

## Design Considerations

" Many different native vegetation options and combinations; trees, shrubs, grasses
» In-situ soils determine infiltration potential
» Noxious weeds will need to be managed to maintain native landscape
" Draintile can be added to help facilitate filtration


POSSIBLE AREAS FOR IMPLEMENTATION


PERMEABLE PAVEMENT

## Features

» Multiple types of permeable pavements; bituminous, concrete, and pavers
» Provides volume control by reducing impervious surface
» Treats stormwater using filtration and infiltration

## Design Considerations

» In-situ soils beneath pavement will control infiltration potential
» Special vacuum truck required to maintain pavement surface
» ADT criteria, low traffic preferred
» Parking bumpouts as pervious area


ENHANCED MEDIA FILTER

## Features

» Treatment provided by filtering stormwater
» Enhanced treatment, to target dissolved pollutants, can be achieved by adding iron filings or spent lime to the filtration media
» Allows for dissolved pollutant removal without infiltration (may be necessary in or near contaminated areas)

## Design Considerations

» Free draining system is necessary to achieve desired pollutant removal
» Plant with vegetation that tolerates enhanced media
» Regular maintenance will be needed to ensure functioning filter
» Valves can be incorporated to verify system functionality


POSSIBLE AREAS FOR IMPLEMENTATION


## STORAGE AND REUSE

## Features:

» Large basin to reduce stormwater discharge rates and serve as an irrigation reservoir
» Volume control through irrigation or circulating of stormwater
» Reduces potable water demand for irrigation

## Design Considerations:

» Large basin to reduce stormwater discharge rates and serve as an irrigation reservoir
» Volume control through irrigation or circulating of stormwater
» Reduces potable water demand for irrigation



LANDSCAPE FILTERS

## Features:

" Volume control through infiltration and vegetative uptake
» Treatment by filtration and infiltration
" Detention capacity to reduce peak flow rates
» Irrigation of aesthetic landscaping features
» Minimal footprint

## Design Considerations:

» In-situ soils determine infiltration potential
» Periodic maintenance of underground filter system will be required to ensure performance


POSSIBLE AREAS FOR IMPLEMENTATION

## HENNEPIN COUNTY

TRANSPORTATION PLANNING DIVISION

AREA 1 ZONE 5
Site: 51 CSAH 3 E. OF CSAH 20 1-5-1

Weekly Volume




| ROUTE \#: COUNTY: REF. PT.: <br> OPERATOR: <br> FOR COUNTS | H-7 EB, ENNEPI -10314 <br> R-6722 <br> GINNING | IINNES <br> TEXAS | OTA D MET | PARTM <br> O DIVIS <br> TRAF <br> 2012 | NT O <br> N - TR <br> COUN | TRA <br> FIC <br> DAT <br> COD | POR INEE <br> -27-103 | TION NG |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{ll}  & \text { DATE } \\ \text { HOUR DAY } \end{array}$ | $\begin{gathered} 12 \\ \text { MON. } \end{gathered}$ | $\begin{gathered} \hline 13 \\ \text { TUE. } \end{gathered}$ | $\begin{gathered} \hline 14 \\ \text { WED. } \end{gathered}$ | $\begin{gathered} \hline 15 \\ \text { THU. } \end{gathered}$ | $\begin{gathered} \hline 16 \\ \text { FRI. } \end{gathered}$ | $\begin{gathered} \hline 17 \\ \text { SAT. } \end{gathered}$ | $\begin{gathered} 18 \\ \text { SUN. } \end{gathered}$ | AVE. WK.DAY | AVE. WKEND |
| 0:00-1:00 |  |  | 68 | 70 | 110 |  |  | 82 |  |
| 1:00-2:00 |  |  | 52 | 45 | 39 |  |  | 45 |  |
| 2:00-3:00 |  |  | 40 | 25 | 45 |  |  | 36 |  |
| 3:00-4:00 |  |  | 29 | 46 | 38 |  |  | 37 |  |
| 4:00-5:00 |  |  | 77 | 72 | 85 |  |  | 78 |  |
| 5:00-6:00 |  |  | 216 | 246 | 219 |  |  | 227 |  |
| 6:00-7:00 |  |  | 827 | 866 | 870 |  |  | 854 |  |
| 7:00-8:00 |  |  | 1857 | 1772 | 1744 |  |  | 1791 |  |
| 8:00-9:00 |  |  | 1596 | 1683 | 1480 |  |  | 1586 |  |
| 9:00-10:00 |  |  | 1047 | 1060 | 1052 |  |  | 1053 |  |
| 10:00-11:00 |  |  | 999 | 890 |  |  |  | 944 |  |
| 11:00-12:00 |  |  | 991 | 1058 |  |  |  | 1024 |  |
| 12:00-13:00 |  | 1096 | 1138 | 1074 |  |  |  | 1102 |  |
| 13:00-14:00 |  | 1064 | 1039 | 1098 |  |  |  | 1067 |  |
| 14:00-15:00 |  | 1152 | 1127 | 1151 |  |  |  | 1143 |  |
| 15:00-16:00 |  | 1425 | 1333 | 1445 |  |  |  | 1401 |  |
| 16:00-17:00 |  | 1961 | 1981 | 2219 |  |  |  | 2053 |  |
| 17:00-18:00 |  | 2113 | 2188 | 2264 |  |  |  | 2188 |  |
| 18:00-19:00 |  | 1304 | 1384 | 1413 |  |  |  | 1367 |  |
| 19:00-20:00 |  | 722 | 799 | 774 |  |  |  | 765 |  |
| 20:00-21:00 |  | 533 | 575 | 580 |  |  |  | 562 |  |
| 21:00-22:00 |  | 450 | 453 | 460 |  |  |  | 454 |  |
| 22:00-23:00 |  | 243 | 300 | 278 |  |  |  | 273 |  |
| 23:00-24:00 |  | 148 | 158 | 178 |  |  |  | 161 |  |
| TOTAL |  | 12211 | 20274 | 20767 | 5682 |  |  | 20293 |  |
| 24 HOURS FACTOR: |  |  |  | FACTORED ADT: |  |  |  |  |  |
| REMARKS: |  |  |  | CORRECTED AADT: |  |  |  |  |  |
| IN PLACE CABINET COUNTING LOCATION |  |  |  | DATA FILE --> E:I27010314-1 |  |  |  |  |  |


| ROUTE \#: COUNTY: REF. PT.: <br> OPERATOR: <br> FOR COUNTS | H-7 WB, ENNEPI D-10314 <br> R-6722 <br> GINNING | IINNES <br> F TEXAS | OTA D MET <br> VE <br> ovember 1 | PARTM <br> O DIVIS <br> TRAF <br> 2012 | NT O <br> N - TR <br> COUN | TRA <br> FIC <br> DAT <br> COD | POR INEE <br> -27-103 | TION NG WB-LOOP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{ll}  & \text { DATE } \\ \text { HOUR DAY } \end{array}$ | $\begin{gathered} 12 \\ \text { MON. } \end{gathered}$ | $\begin{gathered} \hline 13 \\ \text { TUE. } \end{gathered}$ | $\begin{gathered} \hline 14 \\ \text { WED. } \end{gathered}$ | $\begin{gathered} \hline 15 \\ \text { THU. } \end{gathered}$ | $\begin{gathered} \hline 16 \\ \text { FRI. } \end{gathered}$ | $\begin{gathered} \hline 17 \\ \text { SAT. } \end{gathered}$ | $\begin{gathered} 18 \\ \text { SUN. } \end{gathered}$ | AVE. WK.DAY | AVE. WKEND |
| 0:00-1:00 |  |  | 99 | 76 | 113 |  |  | 96 |  |
| 1:00-2:00 |  |  | 53 | 55 | 67 |  |  | 58 |  |
| 2:00-3:00 |  |  | 49 | 31 | 41 |  |  | 40 |  |
| 3:00-4:00 |  |  | 30 | 33 | 27 |  |  | 30 |  |
| 4:00-5:00 |  |  | 58 | 69 | 68 |  |  | 65 |  |
| 5:00-6:00 |  |  | 168 | 189 | 180 |  |  | 179 |  |
| 6:00-7:00 |  |  | 539 | 619 | 528 |  |  | 562 |  |
| 7:00-8:00 |  |  | 1494 | 1485 | 1401 |  |  | 1460 |  |
| 8:00-9:00 |  |  | 1300 | 1399 | 1358 |  |  | 1352 |  |
| 9:00-10:00 |  |  | 876 | 903 | 928 |  |  | 902 |  |
| 10:00-11:00 |  |  | 863 | 949 |  |  |  | 906 |  |
| 11:00-12:00 |  |  | 1178 | 1106 |  |  |  | 1142 |  |
| 12:00-13:00 |  | 1197 | 1311 | 1254 |  |  |  | 1254 |  |
| 13:00-14:00 |  | 1137 | 1177 | 1162 |  |  |  | 1158 |  |
| 14:00-15:00 |  | 1257 | 1220 | 1290 |  |  |  | 1255 |  |
| 15:00-16:00 |  | 1610 | 1560 | 1653 |  |  |  | 1607 |  |
| 16:00-17:00 |  | 1698 | 1728 | 1657 |  |  |  | 1694 |  |
| 17:00-18:00 |  | 1770 | 1639 | 1763 |  |  |  | 1724 |  |
| 18:00-19:00 |  | 1197 | 1376 | 1282 |  |  |  | 1285 |  |
| 19:00-20:00 |  | 877 | 954 | 957 |  |  |  | 929 |  |
| 20:00-21:00 |  | 704 | 694 | 745 |  |  |  | 714 |  |
| 21:00-22:00 |  | 499 | 501 | 539 |  |  |  | 513 |  |
| 22:00-23:00 |  | 301 | 317 | 356 |  |  |  | 324 |  |
| 23:00-24:00 |  | 197 | 225 | 233 |  |  |  | 218 |  |
| TOTAL |  | 12444 | 19409 | 19805 | 4711 |  |  | 19467 |  |
| 24 HOURS FACTOR: |  |  |  | FACTORED ADT: |  |  |  |  |  |
| REMARKS: |  |  |  | CORRECTED AADT: |  |  |  |  |  |
| IN PLACE CABINET COUNTING LOCATION |  |  |  | DATA FILE --> E:I27010314-2 |  |  |  |  |  |

# H ennepin County 

Department of Public Works
Transportation Planning Division
Traffic Movement Study

Turning Movement Study
CSAH 003 \& Meadowbrook Rd Tuesday, October 21st 2014 AM, PM PEAK

File Name : 3581
Site Code : 3581
Start Date : 10/21/2014
Page No : 1

Groups Printed- Cars - Hvy Comm

|  | Meadowbrook Rd Southbound |  |  |  |  | CSAH 003 Westbound |  |  |  |  | Meadowbrook Rd Northbound |  |  |  |  | CSAH 003 Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 AM | 2 | 0 | 2 | 0 | 4 | 7 | 49 | 0 | 1 | 57 | 1 | 0 | 0 | 0 | 1 | 0 | 87 | 4 | 2 | 93 | 155 |
| 06:15 AM | 4 | 0 | 4 | 0 | 8 | 7 | 49 | 1 | 1 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 148 | 6 | 1 | 155 | 221 |
| 06:30 AM | 3 | 0 | 3 | 0 | 6 | 7 | 62 | 1 | 0 | 70 | 4 | 1 | 0 | 0 | 5 | 0 | 135 | 11 | 0 | 146 | 227 |
| 06:45 AM | 4 | 1 | 0 | 0 | 5 | 6 | 97 | 2 | 1 | 106 | 1 | 0 | 0 | 0 | 1 | 1 | 200 | 18 | 0 | 219 | 331 |
| Total | 13 | 1 | 9 | 0 | 23 | 27 | 257 | 4 | 3 | 291 | 6 | 1 | 0 | 0 | 7 | 1 | 570 | 39 | 3 | 613 | 934 |
| 07:00 AM | 4 | 0 | 0 | 0 | 4 | 5 | 98 | 1 | 0 | 104 | 0 | 1 | 0 | 0 | 1 | 0 | 147 | 12 | 0 | 159 | 268 |
| 07:15 AM | 7 | 0 | 2 | 0 | 9 | 8 | 123 | 2 | 0 | 133 | 2 | 2 | 0 | 0 | 4 | 0 | 195 | 10 | 0 | 205 | 351 |
| 07:30 AM | 9 | 0 | 3 | 0 | 12 | 6 | 138 | 3 | 0 | 147 | 5 | 3 | 0 | 1 | 9 | 0 | 227 | 8 | 0 | 235 | 403 |
| 07:45 AM | 16 | 0 | 1 | 0 | 17 | 2 | 188 | 1 | 0 | 191 | 6 | 1 | 2 | 1 | 10 | 0 | 257 | 11 | 0 | 268 | 486 |
| Total | 36 | 0 | 6 | 0 | 42 | 21 | 547 | 7 | 0 | 575 | 13 | 7 | 2 | 2 | 24 | 0 | 826 | 41 | 0 | 867 | 1508 |
| 08:00 AM | 16 | 0 | 4 | 0 | 20 | 6 | 156 | 3 | 0 | 165 | 4 | 0 | 1 | 0 | 5 | 0 | 223 | 13 | 0 | 236 | 426 |
| 08:15 AM | 13 | 0 | 3 | 0 | 16 | 6 | 152 | 2 | 0 | 160 | 3 | 1 | 1 | 0 | 5 | 1 | 213 | 13 | 0 | 227 | 408 |
| 08:30 AM | 6 | 0 | 1 | 0 | 7 | 8 | 124 | 5 | 0 | 137 | 3 | 0 | 0 | 0 | 3 | 1 | 210 | 18 | 0 | 229 | 376 |
| 08:45 AM | 8 | 0 | 6 | 0 | 14 | 6 | 125 | 1 | 0 | 132 | 5 | 1 | 0 | 0 | 6 | 0 | 192 | 8 | 0 | 200 | 352 |
| Total | 43 | 0 | 14 | 0 | 57 | 26 | 557 | 11 | 0 | 594 | 15 | 2 | 2 | 0 | 19 | 2 | 838 | 52 | 0 | 892 | 1562 |
| ******BREAK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 03:00 PM | 34 | 0 | 14 | 0 | 48 | 7 | 193 | 10 | 0 | 210 | 6 | 4 | 0 | 0 | 10 | 2 | 167 | 12 | 1 | 182 | 450 |
| 03:15 PM | 18 | 0 | 9 | 1 | 28 | 6 | 188 | 3 | 0 | 197 | 4 | 0 | 0 | 0 | 4 | 0 | 171 | 4 | 0 | 175 | 404 |
| 03:30 PM | 21 | 1 | 12 | 1 | 35 | 5 | 199 | 4 | 2 | 210 | 1 | 0 | 0 | 1 | 2 | 0 | 196 | 7 | 0 | 203 | 450 |
| 03:45 PM | 23 | 0 | 3 | 0 | 26 | 2 | 212 | 4 | 0 | 218 | 2 | 0 | 0 | 0 | 2 | 0 | 252 | 8 | 4 | 264 | 510 |
| Total | 96 | 1 | 38 | 2 | 137 | 20 | 792 | 21 | 2 | 835 | 13 | 4 | 0 | 1 | 18 | 2 | 786 | 31 | 5 | 824 | 1814 |
| 04:00 PM | 26 | 0 | 16 | 0 | 42 | 3 | 232 | 0 | 0 | 235 | 1 | 1 | 0 | 1 | 3 | 0 | 203 | 8 | 0 | 211 | 491 |
| 04:15 PM | 26 | 1 | 7 | 1 | 35 | 1 | 218 | 4 | 2 | 225 | 2 | 1 | 1 | 0 | 4 | 2 | 240 | 8 | 0 | 250 | 514 |
| 04:30 PM | 25 | 0 | 14 | 0 | 39 | 0 | 195 | 2 | 4 | 201 | 0 | 0 | 0 | 0 | 0 | 1 | 294 | 7 | 0 | 302 | 542 |
| 04:45 PM | 21 | 1 | 12 | 1 | 35 | 1 | 214 | 1 | 2 | 218 | 0 | 0 | 1 | 0 | 1 | 1 | 272 | 8 | 1 | 282 | 536 |
| Total | 98 | 2 | 49 | 2 | 151 | 5 | 859 | 7 | 8 | 879 | 3 | 2 | 2 | 1 | 8 | 4 | 1009 | 31 | 1 | 1045 | 2083 |
| 05:00 PM | 30 | 3 | 5 | 1 | 39 | 0 | 182 | 5 | 2 | 189 | 2 | 1 | 1 | 0 | 4 | 0 | 337 | 9 | 0 | 346 | 578 |
| 05:15 PM | 27 | 6 | 4 | 0 | 37 | 2 | 234 | 5 | 1 | 242 | 2 | 0 | 0 | 0 | 2 | 0 | 315 | 5 | 0 | 320 | 601 |
| 05:30 PM | 19 | 1 | 10 | 0 | 30 | 4 | 209 | 3 | 2 | 218 | 2 | 0 | 0 | 0 | 2 | 2 | 305 | 6 | 2 | 315 | 565 |
| 05:45 PM | 24 | 1 | 3 | 3 | 31 | 4 | 195 | 3 | 0 | 202 | 1 | 0 | 0 | 0 | 1 | 1 | 276 | 12 | 0 | 289 | 523 |
| Total | 100 | 11 | 22 | 4 | 137 | 10 | 820 | 16 | 5 | 851 | 7 | 1 | 1 | 0 | 9 | 3 | 1233 | 32 | 2 | 1270 | 2267 |
| Grand Total | 386 | 15 | 138 | 8 | 547 | 109 | 3832 | 66 | 18 | 4025 | 57 | 17 | 7 | 4 | 85 | 12 | 5262 | 226 | 11 | 5511 | 10168 |
| Apprch \% | 70.6 | 2.7 | 25.2 | 1.5 |  | 2.7 | 95.2 | 1.6 | 0.4 |  | 67.1 | 20 | 8.2 | 4.7 |  | 0.2 | 95.5 | 4.1 | 0.2 |  |  |
| Total \% | 3.8 | 0.1 | 1.4 | 0.1 | 5.4 | 1.1 | 37.7 | 0.6 | 0.2 | 39.6 | 0.6 | 0.2 | 0.1 | 0 | 0.8 | 0.1 | 51.8 | 2.2 | 0.1 | 54.2 |  |
| Cars | 354 | 15 | 117 | 3 | 489 | 91 | 3715 | 65 | 8 | 3879 | 57 | 16 | 5 | 2 | 80 | 12 | 5156 | 211 | 6 | 5385 | 9833 |
| \% Cars | 91.7 | 100 | 84.8 | 37.5 | 89.4 | 83.5 | 96.9 | 98.5 | 44.4 | 96.4 | 100 | 94.1 | 71.4 | 50 | 94.1 | 100 | 98 | 93.4 | 54.5 | 97.7 | 96.7 |
| Hvy Comm | 32 | 0 | 21 | 5 | 58 | 18 | 117 | 1 | 10 | 146 | 0 | 1 | 2 | 2 | 5 | 0 | 106 | 15 | 5 | 126 | 335 |

File Name : 3581
Site Code : 3581
Start Date : 10/21/2014
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# H ennepin County 

Department of Public Works
Transportation Planning Division
Traffic Movement Study
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Site Code : 3581
Start Date : 10/21/2014
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|  | Meadowbrook Rd Southbound |  |  |  |  | CSAH 003 <br> Westbound |  |  |  |  | Meadowbrook Rd Northbound |  |  |  |  | CSAH 003 Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 AM to 11:45 AM - Peak 1 of 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Peak Hour for Entire Intersection Begins at 07:30 AM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 07:30 AM | 9 | 0 | 3 | 0 | 12 | 6 | 138 | 3 | 0 | 147 | 5 | 3 | 0 | 1 | 9 | 0 | 227 | 8 | 0 | 235 | 403 |
| 07:45 AM | 16 | 0 | 1 | 0 | 17 | 2 | 188 | 1 | 0 | 191 | 6 | 1 | 2 | 1 | 10 | 0 | 257 | 11 | 0 | 268 | 486 |
| 08:00 AM | 16 | 0 | 4 | 0 | 20 | 6 | 156 | 3 | 0 | 165 | 4 | 0 | 1 | 0 | 5 | 0 | 223 | 13 | 0 | 236 | 426 |
| 08:15 AM | 13 | 0 | 3 | 0 | 16 | 6 | 152 | 2 | 0 | 160 | 3 | 1 | 1 | 0 | 5 | 1 | 213 | 13 | 0 | 227 | 408 |
| Total Volume | 54 | 0 | 11 | 0 | 65 | 20 | 634 | 9 | 0 | 663 | 18 | 5 | 4 | 2 | 29 | 1 | 920 | 45 | 0 | 966 | 1723 |
| \% App. Total | 83.1 | 0 | 16.9 | 0 |  | 3 | 95.6 | 1.4 | 0 |  | 62.1 | 17.2 | 13.8 | 6.9 |  | 0.1 | 95.2 | 4.7 | 0 |  |  |
| PHF | . 844 | . 000 | . 688 | . 000 | . 813 | . 833 | . 843 | . 750 | . 000 | . 868 | . 750 | . 417 | . 500 | . 500 | . 725 | . 250 | . 895 | . 865 | . 000 | . 901 | . 886 |



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# H ennepin County 

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Transportation Planning Division
Traffic Movement Study
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|  | Meadowbrook Rd Southbound |  |  |  |  | CSAH 003 Westbound |  |  |  |  | Meadowbrook Rd Northbound |  |  |  |  | CSAH 003 Eastbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Peak Hour for Entire Intersection Begins at 04:45 PM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 04:45 PM | 21 | 1 | 12 | 1 | 35 | 1 | 214 | 1 | 2 | 218 | 0 | 0 | 1 | 0 | 1 | 1 | 272 | 8 | 1 | 282 | 536 |
| 05:00 PM | 30 | 3 | 5 | 1 | 39 | 0 | 182 | 5 | 2 | 189 | 2 | 1 | 1 | 0 | 4 | 0 | 337 | 9 | 0 | 346 | 578 |
| 05:15 PM | 27 | 6 | 4 | 0 | 37 | 2 | 234 | 5 | 1 | 242 | 2 | 0 | 0 | 0 | 2 | 0 | 315 | 5 | 0 | 320 | 601 |
| 05:30 PM | 19 | 1 | 10 | 0 | 30 | 4 | 209 | 3 | 2 | 218 | 2 | 0 | 0 | 0 | 2 | 2 | 305 | 6 | 2 | 315 | 565 |
| Total Volume \% App. Total | 97 | 11 | 31 | 2 | 141 | 7 | 839 | 14 | 7 | 867 | 6 | 1 | 2 | 0 | 9 | 3 | 1229 | 28 | 3 | 1263 | 2280 |
| PHF | . 808 | . 458 | . 646 | . 500 | . 904 | 438 | . 896 | . 700 | 875 | 896 | 750 | . 250 | . 500 | . 000 | 563 | 375 | 912 | . 778 | . 375 | 913 | 948 |



## H ennepin County

Department of Public Works Transportation Planning Division

Traffic Movement Study
File Name : 3581
Site Code : 3581
Start Date : 10/21/2014 Page No : 6


## HENNEPIN COUNTY

TRANSPORTATION PLANNING DIVISION

CLASS COUNT DATA
CSAH 3 E. OF MEADOWBROOK LN. RD
Site: 03
Monday, 10/20/2014 12:00 PM Thursday, 10/23/2014 12:00 PM
Classification Grand Totals


## HENNEPIN COUNTY

## TRANSPORTATION PLANNING DIVISION

CLASS COUNT DATA
Site: 03
CSAH 3 E. OF MEADOWBROOK LN.RD.
Monday, 10/20/2014 12:00 PM Thursday, $10 / 23 / 2014$ 12:00 PM
Classification Grand Totals

| Hourly Averages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interval Start | Total | Motor Bikes | Cars \& Trailers | 2 Axle Long | Buses | $\begin{array}{r} 2 \text { Axle } 6 \\ \text { Tire } \end{array}$ | 3 Axle Single | 4 Axle Single | $<5$ Axle Double | 5 Axle Double | >6 Axle Double | <6 Axle Multi | 6 Axle Multi | $\begin{array}{r} >6 \text { Axle } \\ \text { Multi } \\ \hline \end{array}$ | Tailgating |
| 12:00 AM | 61.0 | 0.0 | 50.7 | 9.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 1:00 AM | 30.7 | 0.0 | 22.7 | 4.7 | 0.3 | 0.3 | 0.0 | 0.0 | 0.3 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2:00 AM | 26.0 | 0.0 | 19.0 | 4.3 | 0.0 | 0.7 | 0.0 | 0.0 | 1.7 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3:00 AM | 22.3 | 0.0 | 14.3 | 4.3 | 0.3 | 0.0 | 0.7 | 0.0 | 1.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4:00 AM | 61.3 | 0.0 | 46.0 | 8.7 | 0.0 | 3.0 | 0.0 | 0.0 | 0.3 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5:00 AM | 203.0 | 0.0 | 155.0 | 35.7 | 3.3 | 2.3 | 1.0 | 0.0 | 1.0 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6:00 AM | 261.7 | 0.3 | 189.3 | 52.3 | 7.7 | 4.7 | 1.7 | 0.0 | 2.0 | 3.3 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 |
| 7:00 AM | 532.0 | 3.0 | 392.7 | 90.7 | 16.0 | 12.0 | 0.3 | 0.0 | 9.0 | 5.3 | 0.3 | 2.7 | 0.0 | 0.0 | 0.0 |
| 8:00 AM | 550.7 | 2.3 | 401.0 | 101.0 | 18.7 | 9.3 | 1.0 | 0.0 | 10.7 | 4.0 | 0.3 | 2.0 | 0.3 | 0.0 | 0.0 |
| 9:00 AM | 498.0 | 1.7 | 345.3 | 106.7 | 13.0 | 15.7 | 0.7 | 0.0 | 8.0 | 6.3 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 |
| 10:00 AM | 494.0 | 1.0 | 348.3 | 100.0 | 10.0 | 16.0 | 2.0 | 0.0 | 8.0 | 6.3 | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 |
| 11:00 AM | 606.3 | 3.7 | 438.0 | 116.7 | 14.0 | 16.3 | 2.0 | 0.0 | 10.0 | 4.7 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 12:00 PM | 614.0 | 2.7 | 441.7 | 112.3 | 19.0 | 13.3 | 2.7 | 0.3 | 13.3 | 6.0 | 0.0 | 2.0 | 0.0 | 0.7 | 0.0 |
| 1:00 PM | 595.3 | 1.7 | 437.7 | 113.0 | 12.7 | 13.7 | 1.7 | 0.3 | 7.3 | 4.7 | 0.3 | 1.7 | 0.0 | 0.0 | 0.7 |
| 2:00 PM | 651.3 | 1.3 | 488.7 | 110.0 | 17.7 | 18.7 | 2.3 | 0.0 | 7.0 | 2.3 | 0.0 | 3.0 | 0.3 | 0.0 | 0.0 |
| 3:00 PM | 754.3 | 2.0 | 568.0 | 137.3 | 14.3 | 15.3 | 0.7 | 0.3 | 11.7 | 2.7 | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 4:00 PM | 820.0 | 3.3 | 639.3 | 127.7 | 17.0 | 12.7 | 0.7 | 0.7 | 15.7 | 0.3 | 0.7 | 2.0 | 0.0 | 0.0 | 0.0 |
| 5:00 PM | 819.3 | 5.0 | 648.3 | 122.0 | 19.3 | 9.3 | 0.0 | 0.3 | 10.3 | 1.0 | 0.0 | 3.3 | 0.0 | 0.3 | 0.0 |
| 6:00 PM | 574.3 | 2.0 | 468.7 | 80.3 | 11.0 | 5.3 | 0.0 | 0.0 | 6.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 7:00 PM | 414.3 | 1.7 | 341.7 | 60.0 | 4.0 | 5.0 | 0.0 | 0.0 | 0.3 | 1.0 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| 8:00 PM | 318.0 | 0.0 | 262.3 | 45.3 | 3.3 | 2.3 | 0.0 | 0.0 | 2.3 | 2.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 |
| 9:00 PM | 235.7 | 1.3 | 206.0 | 19.0 | 2.3 | 2.7 | 0.0 | 0.0 | 2.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10:00 PM | 139.7 | 0.0 | 119.7 | 14.3 | 2.3 | 1.7 | 0.3 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11:00 PM | 133.3 | 0.3 | 109.3 | 19.7 | 1.0 | 2.0 | 0.0 | 0.0 | 0.3 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Daily Average | 9416.7 | 33.3 | 7153.7 | 1595.0 | 207.3 | 182.7 | 17.7 | 2.0 | 128.3 | 67.7 | 2.0 | 24.7 | 0.7 | 1.0 | 0.7 |
| Study Grand Totals |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Total | Motor Bikes | Cars \& Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axle Double | 5 Axle Double | $>6$ Axle Double | <6 Axle Multi | 6 Axle Multi | >6 Axle Multi | Tailgating |
| W.B. | 28250 | 100 | 21461 | 4785 | 622 | 548 | 53 | 6 | 385 | 203 | 6 | 74 | 2 | 3 | 2 |
|  |  | 0.4 \% | 76.0 \% | 16.9 \% | 2.2 \% | 1.9 \% | 0.2 \% | 0.0 \% | 1.4 \% | 0.7 \% | 0.0 \% | 0.3 \% | 0.0 \% | 0.0 \% | 0.0 \% |


| CSAH (EXCelsior BLVD)@ Meadowbrook Road (201- 2013)- created on 10-31-2014 by rileeche |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (ed | Mile Pt | co | arr | dow | молт | day | vear | TIME | sev |  | NUM veh | junc | st | ${ }_{\text {TPEE }}$ | dag | loc1 | tco | ит | WтнR1 | WHR2 | SURF | char | DESGN | ACC Num | VTVPE | DIR | act | faci | ${ }_{\text {facz }}$ | PHYS | AGE | sex | vitpe | OIR | Act | Eac1 | ${ }_{\text {facz }}$ | PHYS | ${ }^{\text {AGE }}$ | sex |
| ${ }^{3}$ |  | 27 | 1835 | ${ }_{6}^{6 . f i}$ | 7 | 27 | 2012 | 0945 | N |  |  |  | 40 |  |  |  | 98 | 1 | 1 |  |  | 1 |  | 122090092 | ${ }^{3}$ | 3 | 1 | mat | ${ }_{90}$ | 1 | 74 | ${ }_{\text {f }}$ |  | 3 | 1 |  |  | 1 |  |  |
| ${ }_{3}^{3}$ |  | 27 | ${ }_{1835}^{1835}$ | ${ }_{\text {¢ }}^{\text {¢, Mif }}$ | ${ }^{12}$ | $\stackrel{2}{13}$ | ${ }_{2011}^{2013}$ | ${ }_{1}^{1012} 1$ | $\stackrel{\sim}{\text { n }}$ | 0 | 2 | $\stackrel{4}{90}$ | 35 <br> 35 <br>  | 1 | $\stackrel{2}{5}$ | 1 | ${ }^{1}$ | 1 | 1 | $\bigcirc$ | 1 | 1 | 5 | 11336092 <br> 131380122 | 3 <br> 1 | 7 | 1 | $\stackrel{2}{1}$ | 0 | 1 | ${ }_{70}^{27}$ | $\stackrel{M}{M}$ | ${ }^{15}$ | $\stackrel{7}{4}$ | 5 | 1 | ${ }^{15}$ | 1 | ${ }_{4}^{44}$ |  |
| ${ }^{3}$ |  | 27 | 1835 | 3 3.rue | 3 | ${ }_{5}$ | 2013 | 1091 | N | 0 | 2 | , | ${ }^{30}$ | 1 | 5 | 1 | 1 | 1 | 4 | 0 | 5 | 1 | 8 | ${ }_{130640107}$ | 3 | 5 | 1 | 1 | O | 1 | 22 | M | 1 | 3 | 1 | ${ }^{3}$ | ${ }_{2}$ | 1 | 54 | M |
| ${ }_{3}^{3}$ |  | ${ }_{27}^{27}$ | ${ }^{3805} 18$ | ${ }_{\substack{\text { S.thu } \\ 6 \text { fri }}}^{\text {den }}$ | ${ }_{1}^{6}$ | $\stackrel{2}{14}$ | ${ }_{2011}^{2011}$ | ${ }_{2039}^{1039}$ | $\stackrel{N}{N}$ | $\stackrel{0}{0}$ | $\stackrel{2}{1}$ | ${ }_{2}^{4}$ | ${ }_{30}^{30}$ | 1 <br>  <br> 51 <br> 1 | ${ }^{6}$ | $\stackrel{1}{1}$ | ${ }_{98}^{1}$ | ${ }_{4}^{1}$ | ${ }_{4}^{2}$ | $\bigcirc$ | ${ }_{3}^{1}$ | $\stackrel{1}{1}$ | 5 <br> 5 | ${ }_{\substack{11153015 \\ 110140483}}^{\text {a }}$ | +15 | 6 7 | ${ }^{5}$ | ${ }_{1}^{15}$ | $\bigcirc$ | 1 1 1 | 57 <br> 20 | $\stackrel{\text { m }}{\substack{\text { F }}}$ | 1 | 5 | ${ }^{10}$ | 8 | ${ }^{15}$ | 1 | ${ }^{61}$ |  |
| ${ }^{3}$ |  | 27 | 1835 | 4.wed | 7 | 3 | 2013 | 1304 | N | 0 | 1 | 1 | 30 | ${ }^{24}$ | ${ }_{90}$ | 4 | ${ }^{98}$ | 1 | 1 | 0 | 1 | 1 | 8 | 131860087 | 35 | 1 | 17 | 15 | 0 | 1 | 59 | M |  |  |  |  |  |  |  |  |

## CSAH 3 (Excelsior BLVD) from 150' east of Meadowbrook Rd. to 150' west of Louisiana Ave 2011-2013 - created on 11-04-2014 by rile1che

|  |  | Crash d | a is ma | ged by the | noot oftic | fratic | Sev, and | erations. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ${ }^{\text {Personl }}$ | DIR |  |  |  |  |  | SEX | Personz | DIR |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{\text {Nam }}$ | mien | 27 | 305 | ${ }_{7}^{\text {-.sat }}$ | $\stackrel{\text { Month }}{11}$ | ${ }^{\text {Dar }}$ | vear 2011 | ${ }_{\text {HiME }}^{\text {O944 }}$ | $\stackrel{\text { sev }}{\mathrm{N}}$ | ¢ | Nomer | ${ }_{2}$ | ${ }_{30}$ | $\stackrel{1}{1}$ | diac | $\underline{10 c 1}$ | 4 | , | WтнR1 | Wтнкz | Sur | Ctar | Oso | 113370069 | ${ }^{\text {UPE }}$ | ${ }^{\text {DIR }}$ | ${ }^{11}$ | - |  | phrs | ${ }_{47}$ | $\stackrel{\text { S }}{\text { F }}$ | 1 | ${ }^{\text {DIR }}$ | 17 | 11 | ${ }_{15}$ | ${ }^{\text {Pris }}$ | ${ }_{\text {AGE }} 29$ | sex |
| ${ }^{3}$ |  | 27 | ${ }^{3005}$ | ${ }^{\text {6.fii }}$ | ${ }^{11}$ | ${ }^{18}$ |  | ${ }^{1450}$ | N | 0 |  | 7 | ${ }^{30}$ | 1 |  |  | 4 | 1 |  | 0 |  | 1 | 8 | ${ }_{113220117}$ |  |  | ${ }^{11}$ |  | 0 | 1 | 30 <br> 5 | M | 1 | ${ }_{5}^{5}$ | 10 | ${ }_{4}^{4}$ | 0 | 1 | ${ }^{900}$ |  |
| ${ }_{3}^{3}$ |  | 27 | ${ }_{3}^{3405}$ | ${ }_{\text {5 }}^{\text {5. } \mathrm{Thut}}$ | ${ }_{3}$ | ${ }_{24}^{29}$ | ${ }_{2011}^{2012}$ | ${ }_{2173}^{1713}$ | N | $\bigcirc$ | $\stackrel{2}{2}$ | 1 90 9 | 㐌 ${ }_{35}$ | $\stackrel{1}{1}$ | 1 | 1 | - ${ }_{98}^{98}$ | 4 | 1 | $\bigcirc$ | 1 1 1 | - | 3 90 9 | 112720190 <br> 120850031 | - | 3 <br> 7 | $\frac{11}{1}$ | -1 | $\bigcirc$ | $\stackrel{1}{1}$ | 55 <br> 31 | M | $\frac{1}{4}$ | 3 <br> 7 | ${ }^{10} 6$ | ${ }^{\circ}$ | $\bigcirc$ | ${ }^{1}$ | (34 <br> 900 | $\frac{M}{2}$ |
| ${ }^{3}$ |  | 27 | 3405 | 3-7ue | 3 | ${ }^{2}$ | 2012 | 1344 | N | 0 | 2 | $\stackrel{2}{2}$ | ${ }^{35}$ | 1 | 2 | 1 | ${ }_{98}^{98}$ | 1 | 1 | 0 | 1 | 1 | 3 | 120660085 | ${ }^{3}$ | 7 | 1 | 1 | 0 | 1 | ${ }_{71}$ | M | 2 | 7 | 90 | ${ }^{99}$ | 0 | 99 | 900 | 2 |
| 3 <br> 3 <br> 3 |  | 27 | ${ }_{3005}^{3405}$ |  | 6 | $\frac{21}{4}$ | ${ }_{2013}^{2013}$ | ${ }_{12083}^{1200}$ | N | $\bigcirc$ | $\stackrel{2}{2}$ | 1 | [30 | ${ }_{1}^{2}$ | $\frac{2}{2}$ | $\stackrel{4}{1}$ | ${ }_{98}^{98}$ | $\stackrel{4}{1}$ | 1 | $\bigcirc$ | 5 <br> 1 <br> 1 | 5 1 1 | 5 | (10880141 | $\frac{99}{1}$ | 5 <br> 5 | $\stackrel{99}{1}$ | $\frac{99}{1}$ | $\bigcirc$ | - | 901 <br> 71 <br> 1 | $\stackrel{\text { i }}{\text { F }}$ | ${ }_{38}$ | 5 | ${ }^{16}$ | 99 |  | 1 | ${ }_{50}$ | M |
| ${ }^{3}$ |  | 27 | 3305 | 1.5 un | 7 | 14 | 2013 | 2143 | A | 0 | 2 | 2 | ${ }^{45}$ | 1 | 3 | 1 | ${ }^{98}$ | 4 |  | 0 | 1 | , | 3 | ${ }^{131950127}$ | 1 | 3 | - | 2 | 15 | 1 | ${ }^{23}$ | M | 11 | 7 | 1 | 1 | 0 | 1 | 52 | M |
| ${ }_{-3}^{3}$ |  | 27 | ${ }_{3005}^{3405}$ | ${ }_{\text {l }}^{\text {2.ast }}$ | 3 <br> 10 <br> 10 | ${ }^{24}{ }_{18}$ | ${ }_{2012}^{2012}$ | ${ }_{0}^{0846}$ | ${ }_{\text {a }}$ | $\bigcirc$ | $\frac{1}{2}$ | $\frac{1}{4}$ | ${ }^{35}$ | ${ }^{13}$ | 5 | 1 <br> 1 <br> 1 | ${ }^{98}$ | $\frac{1}{1}$ | 2 | $\stackrel{0}{2}$ | $\stackrel{2}{2}$ | ¢ | 3 <br> 3 |  | ${ }^{\frac{12}{3}}$ | 3 | 1 | 46 10 10 | 10 <br> 10 | 7 | ${ }^{41}$ | F | 1 | 1 | 11 | 1 | 1 | 1 | 49 |  |
| ${ }^{3}$ |  | 27 | 3305 | 5.7hu | 6 | 9 | 2011 | 1736 | $c^{\circ}$ | 0 | 2 | 1 | 40 | 1 | 5 | 1 | ${ }^{98}$ | 1 | 1 | 0 | 1 | 1 | 5 | 111610035 | 1 | 7 | 1 | 1 | 0 | 1 | 46 | F | 1 | ${ }^{6}$ |  | ${ }^{8}$ | 10 | 1 | ${ }^{46}$ |  |
|  |  |  | 3405 |  |  |  | 2011 | ${ }^{0730}$ | $\stackrel{N}{\sim}$ | $\bigcirc$ |  |  | ${ }^{35}$ | 1 | ${ }^{6}$ |  | ${ }_{4}^{4}$ | 1 |  | 0 | ${ }^{3}$ | 1 | ${ }_{8}^{8}$ | ${ }^{110557175}$ | 1 | $\bigcirc$ | ${ }_{5}^{5}$ | 8 | ${ }^{15}$ |  | ${ }^{899}$ |  |  | 5 | ${ }_{11}$ |  |  |  |  |  |
| ${ }^{3}$ |  | 27 | ${ }^{3405}$ | $\stackrel{\text { i.sat }}{1.50 n}$ | 12 | ${ }^{15}$ | ${ }_{2012}^{2012}$ | 0336 | ${ }^{\text {c }}$ | 0 | $\stackrel{1}{1}$ | - | ${ }^{35}$ | ${ }_{38}^{12}$ | 7 | 1 | ${ }_{\text {98 }}^{98}$ | 4 | $\stackrel{2}{4}$ | $\stackrel{1}{0}$ | ${ }^{3}$ |  | 3 | ${ }_{123} 12400094$ | $\stackrel{1}{4}$ | 7 | 1 <br> 1 | ${ }^{18}$ | 46 | ${ }_{9}^{29}$ | ${ }^{37} 51$ | $\stackrel{\text { F }}{\text { F }}$ |  |  |  |  |  |  |  |  |
| ${ }_{3}^{3}$ |  | 27 | 1835 | 1. Sun | 2 | 3 | 2013 | 0207 | N | 0 | 1 | 1 | ${ }_{3} 3$ | 26 | 7 | 1 | ${ }_{98}$ | 4 | 4 | 0 | 3 | 1 | 3 | ${ }^{130340027}$ | 1 | 7 | ${ }_{1}^{1}$ | 18 | 3 | + | 28 | F |  |  |  |  |  |  |  |  |
| ${ }_{3}^{3}$ |  | 27 | ${ }_{3055}^{1835}$ | ${ }_{\text {I }}^{\text {I S.at }}$ | 11 <br> 12 <br> 1 | ${ }^{19}$ | ${ }_{2011}^{2012}$ | ${ }_{0}^{17885}$ | N | $\bigcirc$ | $\stackrel{1}{1}$ | $\stackrel{1}{2}$ | ${ }^{35}$ | ${ }^{24}$ | 7 | $\stackrel{4}{4}$ | ${ }^{98}$ | ${ }_{1}^{4}$ | 4 | $\bigcirc$ | ${ }^{5}$ | 5 5 5 | 5 | (11330289 | 1 | ${ }^{7}$ | 1 <br> 1 <br> 1 | 3 <br> 3 | ${ }_{61}^{61}$ | 1 | ${ }^{35}$ | $\stackrel{M}{\text { F }}$ |  |  |  |  |  |  |  |  |
| 3 |  | 27 | 3305 | 4.Wed | 12 | 4 | 2013 | 1215 | B | 0 | 2 | 1 | ${ }_{35}$ | 1 | 8 | 1 | ${ }_{98}$ | 1 | 4 | 0 | 3 |  | 3 | 133390129 | 3 | 7 | 1 | 1 | 0 | 1 | 54 | F |  |  |  |  |  |  |  |  |
| ${ }^{3}$ |  | 27 | 1835 | 1.5 un | 5 | ${ }^{22}$ | 2011 | 0815 | N | 0 | 2 | 1 | ${ }^{35}$ | 1 | 8 | I | 98 | 1 | 2 | 2 | 2 | 1 | 5 | 111430140 | 1 | 3 | ${ }^{34}$ | ${ }^{6}$ |  | 99 | 46 | F | 1 | 7 | 1 | 1 | 1 | 1 | 54 |  |
| ${ }^{3}$ |  | 27 | ${ }^{1835}$ | ${ }_{\text {l }}^{\text {r }}$ - 5 at | ${ }^{12}$ | 7 | ${ }^{2013}$ | 0755 | N | 0 | 2 | 1 | ${ }^{45}$ | 1 | 8 | 1 | ${ }^{98}$ | 1 | 1 | 0 | 3 | 5 | ${ }^{3}$ | ${ }^{133410127}$ | ${ }^{1}$ | 7 | 1 | ${ }^{3}$ | 18 | 2 | ${ }^{32}$ | M | ${ }^{8}$ | ${ }^{3}$ | ${ }^{1}$ | 1 | 0 | 1 | ${ }^{38}$ |  |
| 3 |  | 27 <br> 27 <br> 27 | ${ }_{1835}^{3305}$ | ${ }_{\text {4.wed }}^{1.50}$ | $\stackrel{2}{9}$ | ${ }_{30}^{29}$ | ${ }_{2012}^{2012}$ | ${ }^{0636}$ | ${ }^{\text {N }}$ | $\bigcirc$ | ${ }_{1}^{2}$ | 1 | ${ }_{40}^{40}$ | 1 |  | 1 | 98 <br> 98 <br> 98 | 1 | ${ }_{1}^{4}$ | 1 | ${ }^{3}$ | 1 | 3 5 | ${ }_{1}^{120620086}{ }_{1274017}$ | 1 1 1 | $\stackrel{7}{7}$ | 1 <br> 1 | 3 <br> 1 <br> 1 <br> 1 | ${ }^{61}$ | 1 | $\stackrel{24}{72}$ | M | ${ }_{51}$ | 98 <br> 9 | ${ }^{1}$ | ${ }_{21}^{1}$ | 0 | $\stackrel{9}{9}$ | 19 <br> 19 | $\stackrel{\text { F }}{\text { M }}$ |
| ${ }^{3}$ |  | 27 | 3405 | 2-Mon | 1 | ${ }^{31}$ | 2011 | ${ }^{1242}$ | c | 0 | 1 | 2 | 35 | 51 | ${ }^{90}$ | 4 | 4 | 1 | 4 | 7 | 5 | 1 | 5 | 110320395 | 3 | 7 | 1 | ${ }^{13}$ | ${ }^{46}$ | 1 | ${ }^{26}$ | F |  |  |  |  |  |  |  |  |
| 3 <br> 3 |  | ${ }_{27}^{27}$ | $\stackrel{1835}{1305}$ | ${ }_{\substack{\text { 3.ue } \\ 6 . \text { fri }}}$ | ${ }_{12}$ | ${ }^{27}$ | ${ }_{2012}^{2012}$ | ${ }_{1}^{1898}$ 1918 | N | $\stackrel{0}{0}$ | $\stackrel{2}{2}$ | 2 | ${ }^{35}$ | ${ }^{90}$ | $\stackrel{90}{90}$ | ${ }_{3}^{1}$ | $\begin{array}{r}98 \\ \hline 98 \\ \hline 98\end{array}$ | $\frac{1}{4}$ | 4 | $\stackrel{0}{7}$ | $\stackrel{1}{5}$ | $\stackrel{1}{1}$ | $\stackrel{90}{5}$ | ${ }^{\frac{1127202888}{1232397}}$ | $\stackrel{1}{1}$ | $\stackrel{3}{7}$ | 1 | $\frac{1}{61}$ | $\bigcirc$ | $\frac{1}{1}$ | ${ }_{34}^{25}$ | $\stackrel{\text { F }}{\text { F }}$ | ${ }_{1}^{4}$ | 7 | $\stackrel{1}{1}$ | ${ }_{\frac{42}{61}}$ | $\bigcirc$ | 1 | ${ }_{901}^{59}$ |  |
| Total $\mathrm{C}_{1}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Project Location Map - CSAH 3 (Excelsior Boulevard) Reconstruction
From 300' West of Meadowbrook Rd to 150' West of Louisiana Ave

Hennepin County Public Works


Aerial Maps - CSAH 3 (Excelsior Boulevard) Reconstruction $>$ Transportation
From 300' West of Meadowbrook Road to 150' West of Louisiana Avenue
Hennepin County Public Works


Aerial Maps - CSAH 3 (Excelsior Boulevard) Reconstruction
From 300' West of Meadowbrook Road to 150' West of Louisiana Avenue

Trans portation
Hennepin County Public Works


Aerial Maps - CSAH 3 (Excelsior Boulevard) Reconstruction
From 300' West of Meadowbrook Road to 150' West of Louisiana Avenue

Transportation
Hennepin County Public Works


Aerial Maps - CSAH 3 (Excelsior Boulevard) Reconstruction > Transportation
From 300' West of Meadowbrook Road to 150' West of Louisiana Avenue
Hennepin County Public Works


Aerial Maps - CSAH 3 (Excelsior Boulevard) Reconstruction
From 300' West of Meadowbrook Road to 150' West of Louisiana Avenue
Transportation
Hennepin County Public Works




## Proposed Traffic Signal and Pedestrian Ramps




## NOTE:

DIMENSIONS OF THE GEOMETRIC ELEMENTS ON THIS
TYPICAL SECTION HAVE NOT BEEN DETERMINED
AT THIS TIME. DURING THE PRELIMINARY AND
FINAL DESIGN OF THIS PROJECT WHEN THESE
DIMENSIONS ARE DETERMINED, HENNEPIN
COUNTY WILL FOLLOW ALL CURRENT AND APPLICABLE
STATE-AID RULES AND PROCEDURES

PROPOSED SECTION


| Hennepin | HENNEPIN COUNTY | PROPOSED TYPICALSECTION |
| :---: | :---: | :---: |
|  | CSAH 3 (EXCELSIOR BOULEVARD) RECONSTRUCTION PROJECT |  |



Figure 4.1 - Existing Land Use Map

Hopkins comprehensiveplan

## IV. Why We Are A Livable Community

B. Land Use Plan

## Existing Land Use - 2008




Figure 4.2 - Land Use Plan

Experience LIFE in the Park


Figure 8.4 - Hopkins Transportation Analysis Zones (TAZ)


Hopkins comprehensive plan

## V. Connecting Our Community

## Transportation Analysis Zones



## V. Connecting Our Community

C. Bicycles and Pedestrians

Existing Sidewalks and Trails


## V. Connecting Our Community

C. Bicycles and Pedestrians

Pedestrian Plan


## V. Connecting Our Community

C. Bicycles and Pedestrians

Bicycle Plan


Land Use Plan continues that pattern.

- Hopkins will support the Minnesota Department ofTransportation (MN/DOT) and the Metropolitan Council efforts regarding ongoing educational programs to encourage ride-sharing, staggered work hours, and off-peak travel. Such campaigns can be most effectively mounted at the metropolitan level.


## Transit Policies

Effective use of transit, which is defined as all forms of riding together, can make a significant difference in the level of congestion in certain corridors. Hopkins is currently served by MetroTransit regular bus routes (see figure 8.3), a 56-car MN/DOT park-and-ride lot along Excelsior Boulevard, de-

Figure 8.3 - Bus Map


## V. Connecting Our Community

B. Transit

Transit Service and Facilities


## V. Connecting Our Community

B. Transit

Southwest LRT Alternatives




[^2]Project Location
Project Number: 2974600 | CSAH 3 | Hopkins, St. Louis Park

Transportation
Hennepin County Public Works



Regional Economy Roadway Reconstruction/Modernization Project: CSAH 3 (Excelsior Boulevard) Reconstruction | Map ID: 1416258164370 Results

Project IN area of Job Concentration.
Project WITHIN ONE MI of area of Manufacturing and Distribution.

Project WITHIN ONE MI of area of Education Institutions.


Project
Project Area $\square$ PostSecondary Education Centers $\square$ Job Concentration Centers

Manfacturing/Distribution Centers

Socio-Economic Conditions Roadway Reconstruction/Modernization Project: CSAH 3 (Excelsior Boulevard) Reconstruction | Map ID: 1414070521082


## 2: Meadowbrook \& CSAH 3

| Direction | All |
| :--- | ---: |
| Volume (vph) | 2268 |
| Total Delay / Veh (s/v) | 9 |
| CO Emissions $(\mathrm{kg})$ | 1.53 |
| NOx Emissions $(\mathrm{kg})$ | 0.30 |
| VOC Emissions $(\mathrm{kg})$ | 0.35 |

## 2: Meadowbrook \& CSAH 3

| Direction | All |
| :--- | ---: |
| Volume (vph) | 2268 |
| Total Delay / Veh (s/v) | 6 |
| CO Emissions $(\mathrm{kg})$ | 1.34 |
| NOx Emissions $(\mathrm{kg})$ | 0.26 |
| VOC Emissions $(\mathrm{kg})$ | 0.31 |

## 2: Meadowbrook \& CSAH 3

| Direction | All |
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| CO Emissions $(\mathrm{kg})$ | 1.34 |
| NOx Emissions $(\mathrm{kg})$ | 0.26 |
| VOC Emissions $(\mathrm{kg})$ | 0.31 |



Amortizing...

year $(n)=1,2,3, \ldots$.
discount rate (i) $=7 \%$
Crash Benefits
$($ @ year $n)=(\text { Crash Benefits })_{n-1} \quad$ X $(1+$ Traffic Growth Factor $)$

Present Worth Benefits (@ year n) $=(\text { Crash Benefits })_{n}$

X $1 /(1+\text { Discount Rate })^{\mathrm{n}}$


Amortizing...

| Year | Crash Benefits |  | Present Worth Benetits |  | Present Worth Costs |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2019 | \$ | 213,989 | \$ | 213,989 | \$ | 6,900,000 |
| 2020 | \$ | 218,482 | \$ | 209,074 |  |  |
| 2021 | \$ | 223,071 | \$ | 204,272 |  |  |
| 2022 | \$ | 227,755 | \$ | 199,581 |  |  |
| 2023 | \$ | 232,538 | \$ | 194,997 |  |  |
| 2024 | \$ | 237,421 | \$ | 190,519 |  |  |
| 2025 | \$ | 242,407 | \$ | 186,143 |  |  |
| 2026 | \$ | 247,498 | \$ | 181,868 |  |  |
| 2027 | \$ | 252,695 | \$ | 177,691 |  |  |
| 2028 | \$ | 258,002 | \$ | 173,610 |  |  |
| 2029 | \$ | 263,420 | \$ | 169,623 |  |  |
| 2030 | \$ | 268,951 | \$ | 165,728 |  |  |
| 2031 | \$ | 274,599 | \$ | 161,921 |  |  |
| 2032 | \$ | 280,366 | \$ | 158,203 |  |  |
| 2033 | \$ | 286,254 | \$ | 154,569 |  |  |
| 2034 | \$ | 292,265 | \$ | 151,019 |  |  |
| 2035 | \$ | 298,403 | \$ | 147,551 |  |  |
| 2036 | \$ | 304,669 | \$ | 144,162 |  |  |
| 2037 | \$ | 311,067 | \$ | 140,851 |  |  |
| 2038 | \$ | 317,600 | \$ | 137,616 |  |  |
| 0 | \$ | - | \$ | - |  |  |
| 0 | \$ |  | \$ | - |  |  |
| 0 | \$ | - | \$ | - |  |  |
| 0 | \$ | - | \$ | - |  |  |
| 0 | \$ | - | \$ | - |  |  |
| 0 | \$ | - | \$ | - |  |  |
| 0 | \$ | - | \$ | - |  |  |
| 0 | \$ | - | \$ | - |  |  |
| 0 | \$ | - | \$ | - |  |  |
| 0 | \$ | - | \$ | - |  |  |
| 0 | \$ | - | \$ | - |  |  |
| Totals = |  |  | \$ | $\begin{aligned} & \text { 3,462,990 } \\ & \text { (B) } \end{aligned}$ | \$ | $\begin{aligned} & 900,000 \\ & (\mathrm{C}) \end{aligned}$ |

year $(n)=1,2,3, \ldots$.
discount rate (i) $=7 \%$
Crash Benefits
$(@$ year $n)=(\text { Crash Benefits })_{n-1} \quad$ X $\quad(1+$ Traffic Growth Factor $)$

Present Worth Benefits (@year n) $=($ Crash Benefits $)$ X $1 /(1+\text { Discount Rate })^{\mathrm{n}}$

Transit Connections Roadway Reconstruction/Modernization Project: CSAH 3 (Excelsior Boulevard) Reconstruction | Map ID: 1414070521082


For complete disclaimer of accuracy, please visit ttp://giswebsite.metc.state.mn.us/gissitenew/notice.aspx


[^0]:    NOTE: Existing walkshed approximates the area accessible within a 10-minute walk from the station platform using only the existing sidewalk/trail network. Future walkshed incorporates all proposed improvements to the sidewalk/trail network. Walksheds are based on GIS modeling and available sidewalk/trail information- and may not reflect exact on-the-ground conditions. See Glossary for detailed explanation of walkshed assumptions and methodology.

[^1]:    * More than standard parking lot section

[^2]:    NOTE: Existing walkshed approximates the area accessible within a 10-minute walk from the station platform using only the existing sidewalk/trail network. Future walkshed incorporates all proposed improvements to the sidewalk/trail network. Walksheds are based on GIS modeling and available sidewalk/trail information- and may not reflect exact on-the-ground conditions. See Glossary for detailed explanation of walkshed assumptions and methodology.

