

Welcome!

Blake Road Corridor Study **Open House #2**

October 9, 2014

Study Partners:



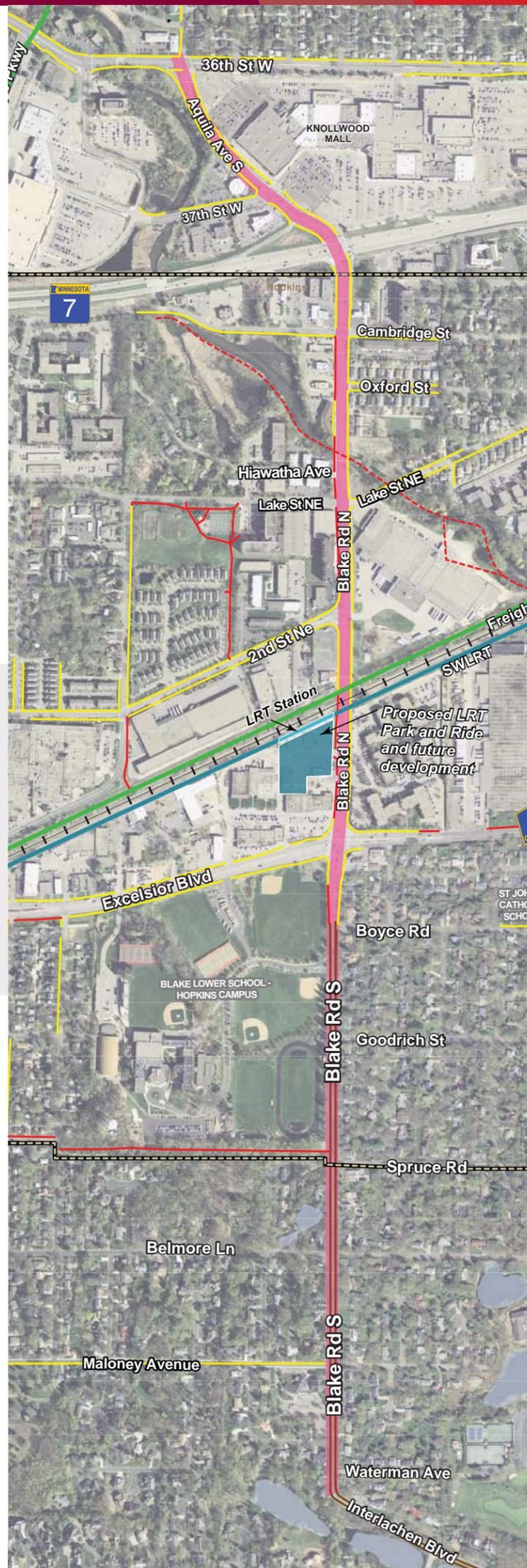
In coordination with the Southwest Light Rail Project Office

Project Background

The Blake Road area is expected to significantly change over the next 20 years. The Southwest Light Rail Transit (LRT) is planned to open in 2019 and will include a station on Blake Road. Redevelopment is also expected along Blake Road. This study will address existing and future issues as the corridor changes.

The purpose of this open house is to get feedback on alternatives developed to address transportation needs on Blake Road/Aquila Ave between 36th Street and Interlachen Boulevard.

Study recommendations will be used to seek funding from local, state, and federal sources.



Study Partners:



In coordination with the Southwest Light Rail Project Office

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Study Goals

These goals will be used for developing and evaluating alternatives:



- Facilitate access to the future Southwest LRT Blake Road station.
- Create a roadway that is comfortable, safe, and functional for all transportation modes: pedestrian, bicycle, motor vehicle, freight, and transit
- Support redevelopment and make the roadway a place that is comfortable and active
- Improve access to and connectivity across TH 7
- Protect and enhance natural resources near the roadway including Minnehaha Creek
- Improve connections between the roadway and nearby neighborhoods, parks, and trails
- Improve connections to Minnehaha Creek and nearby trails

Level of Service Intersections

36th St:

AM Level of Service			PM Level of Service		
	Existing	Future		Existing	Future
Overall	A	A	Overall	A	A
North Bound	A	A	North Bound	A	A
South Bound	A	A	South Bound	A	A
East Bound	A	A	East Bound	A	A
West Bound	B	B	West Bound	B	B

37th St:

AM Level of Service			PM Level of Service		
	Existing	Future		Existing	Future
Overall	A	B	Overall	B	B
North Bound	A	A	North Bound	A	A
South Bound	A	A	South Bound	C	C
East Bound	B	B	East Bound	B	B
West Bound	C	D	West Bound	E	E

Highway 7:

AM Level of Service			PM Level of Service		
	Existing	Future		Existing	Future
Overall	C	D	Overall	E	F
North Bound	D	E	North Bound	E	F
South Bound	D	F	South Bound	F	F
East Bound	C	D	East Bound	D	F
West Bound	C	D	West Bound	D	E

Cambridge St:

AM Level of Service			PM Level of Service		
	Existing	Future		Existing	Future
Overall	B	B	Overall	B	B
North Bound	B	A	North Bound	B	B
South Bound	B	B	South Bound	C	C
East Bound	C	C	East Bound	B	D
West Bound	C	C	West Bound	E	B

Lake St:

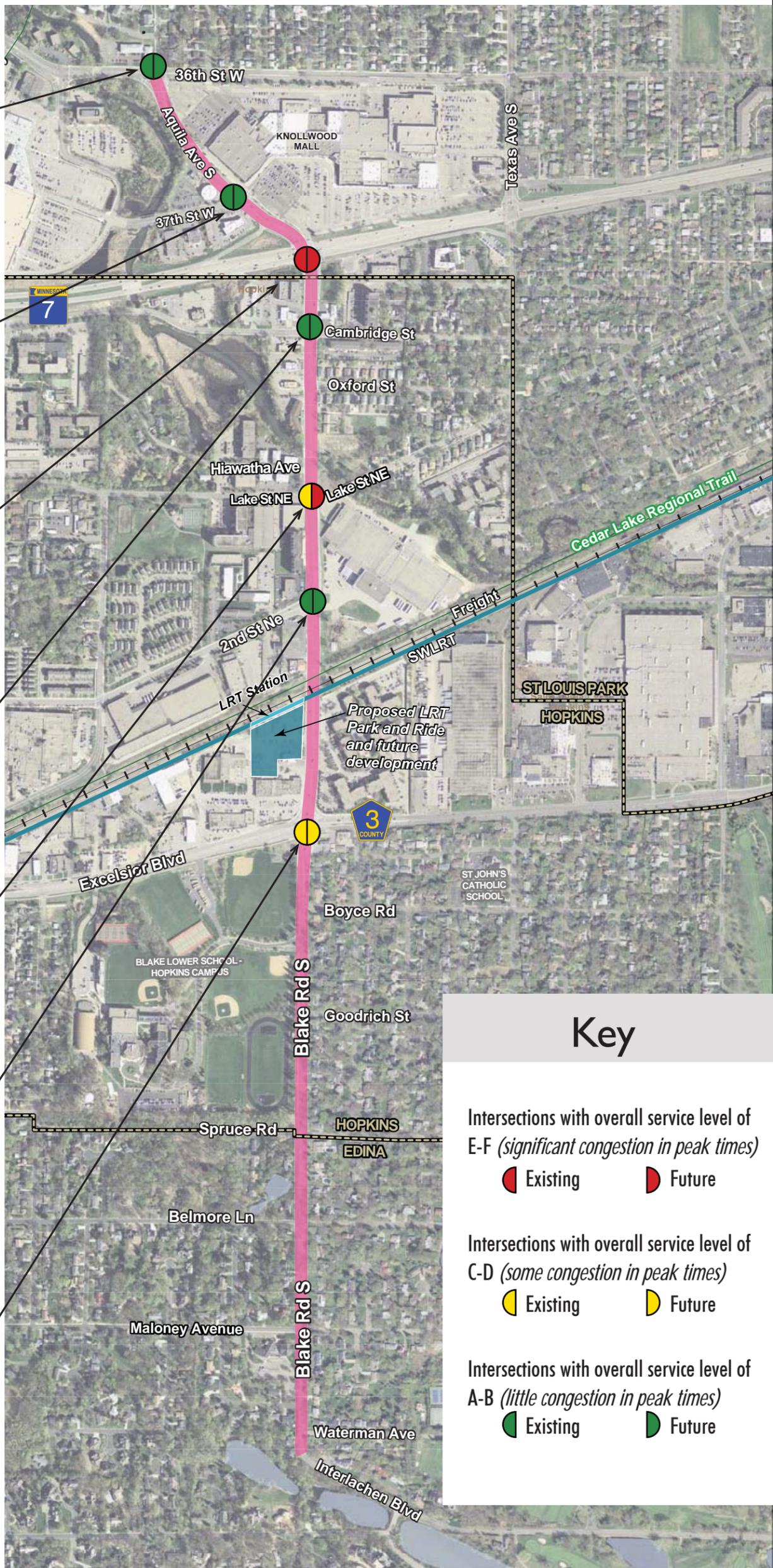
AM Level of Service			PM Level of Service		
	Existing	Future		Existing	Future
East Bound	C	C	East Bound	B	F
West Bound	C	C	West Bound	E	F

2nd St:

AM Level of Service			PM Level of Service		
	Existing	Future		Existing	Future
Overall	B	B	Overall	B	C
North Bound	B	B	North Bound	A	B
South Bound	A	A	South Bound	B	C
East Bound	C	C	East Bound	C	C
West Bound	C	C	West Bound	E	B

Excelsior Boulevard:

AM Level of Service			PM Level of Service		
	Existing	Future		Existing	Future
Overall	C	C	Overall	C	C
North Bound	D	D	North Bound	D	D
South Bound	C	C	South Bound	C	C
East Bound	C	C	East Bound	C	C
West Bound	C	C	West Bound	C	C



Key

Intersections with overall service level of E-F (significant congestion in peak times)

◐ Existing ◑ Future

Intersections with overall service level of C-D (some congestion in peak times)

◒ Existing ◓ Future

Intersections with overall service level of A-B (little congestion in peak times)

◔ Existing ◕ Future

*Future level of service assumes no changes in roadway

Level of Service Segments

36th St - 37th St:

4-lane divided with turn lanes

Existing	Future
A	A

37th St - Highway 7:

4-lane divided with turn lanes

Existing	Future
B	B

Due to the proximity of traffic signals, intersection level of service is more representative of this operation of this segment.

Highway 7 - 2nd St:

Highway 7 - Cambridge St.:
4-lane undivided with turn lanes

Cambridge St. - 2nd St. :
5-lane undivided with turn lanes

Existing	Future
C	D

2nd St - Excelsior:

4-lane divided with turn lanes

Existing	Future
A	A

Segment level does not consider at-grade railroad crossing.

Excelsior - Interlachen Blvd:

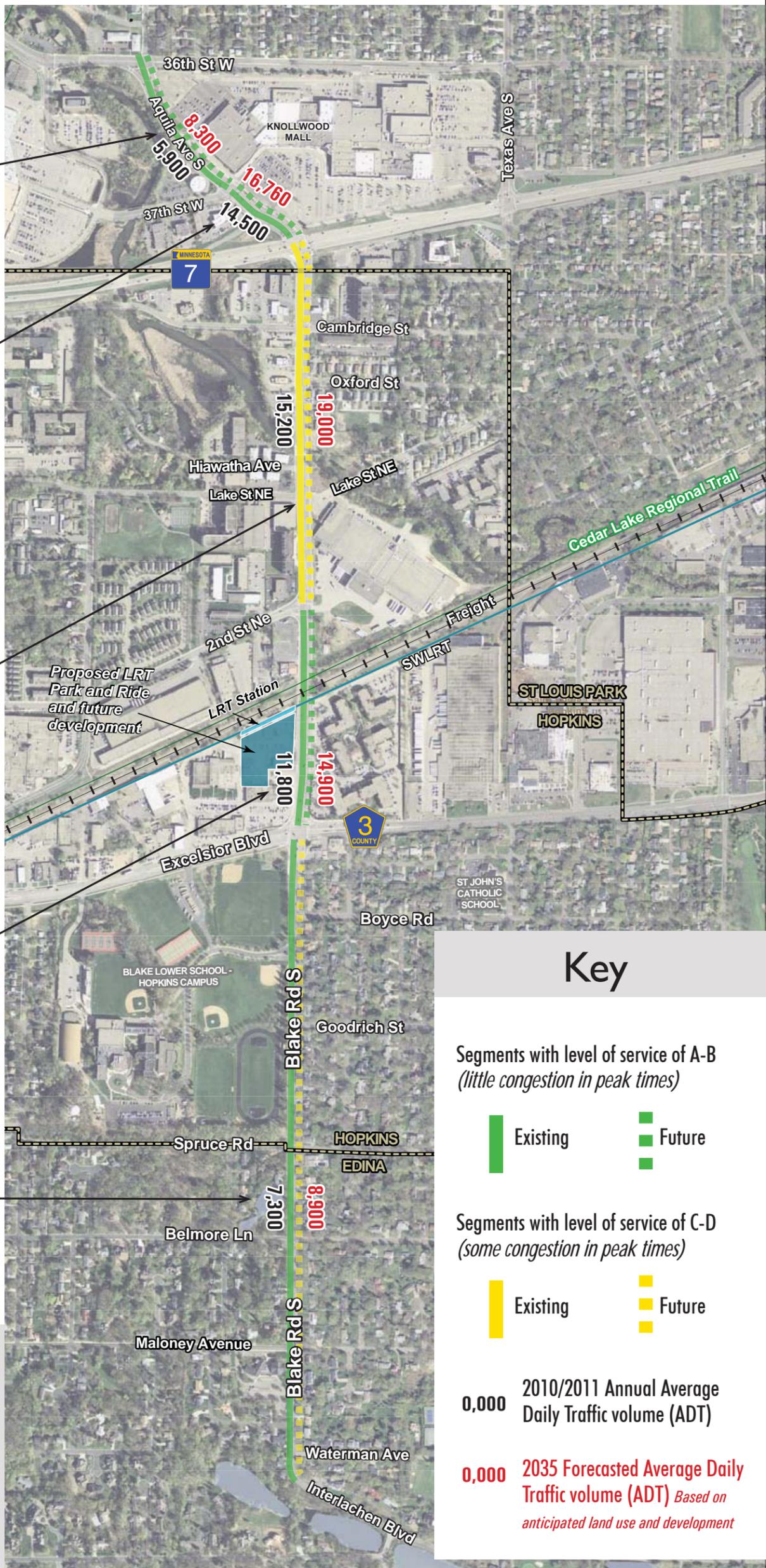
2-lane without turn lanes

Existing	Future
B	C

Corridor Capacity:

Type of roadway	Annual Average Daily Traffic (AADT)
2-lane without turn lanes	8,000 - 10,000
2-lane with turn lanes/3 lane	14,000 - 17,000
4-lane undivided with turn lanes	18,000 - 22,000
4-lane divided with turn lanes	28,000 - 32,000

*Future level of service assumes no changes in roadway



Key

Segments with level of service of A-B
(little congestion in peak times)

█	Existing	█	Future
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Segments with level of service of C-D
(some congestion in peak times)

█	Existing	█	Future
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0,000 2010/2011 Annual Average Daily Traffic volume (ADT)

0,000 2035 Forecasted Average Daily Traffic volume (ADT) Based on anticipated land use and development

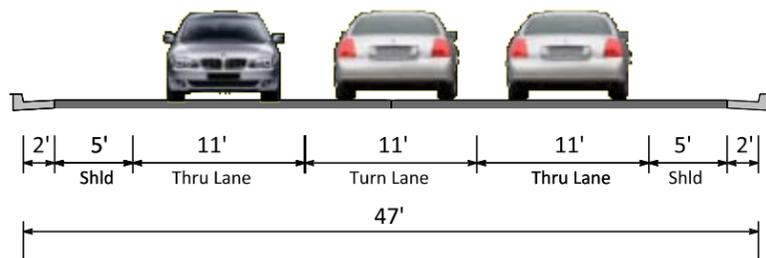
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Roadway Alternatives

Between CSAH 3 and TH 7

Three-lane Roadway



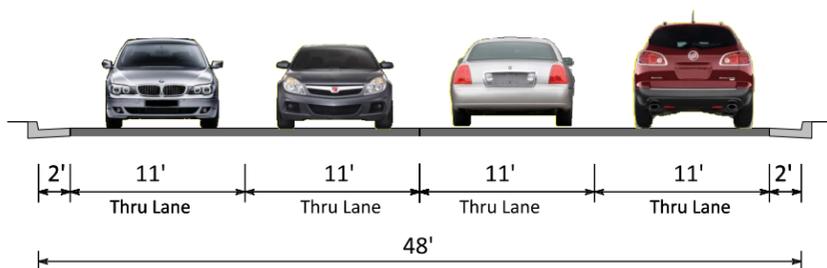
Benefits

- Roadway can be narrowed slightly – fewer property impacts
- Provides space in some locations for additional landscaping
- Slightly shorter crossing for pedestrians and bicyclists – however, there are no refuge locations
- Compatible with multiple bicycle facility options
- Less right-of-way required from future development

Drawbacks

- Congestion is likely to occur
- Not preferred from a safety point of view

Four-lane Roadway



Benefits

- Roadway can be narrowed slightly – fewer property impacts
- Provides space in some locations for additional landscaping
- Slightly shorter crossing for pedestrians and bicyclists – however, there are no refuge locations
- Compatible with multiple bicycle facility options
- Less right-of-way required from future development

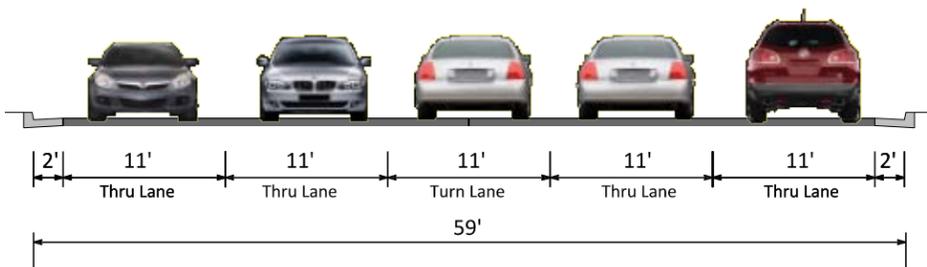
Drawbacks

- Lack of turn lanes decreases intersection operations
- Roadway design tends to have higher crash rates than other roadway designs because motorized vehicles cannot pull out of the lane to turn.

Roadway Alternatives

Between CSAH 3 and TH 7

Five-lane Roadway



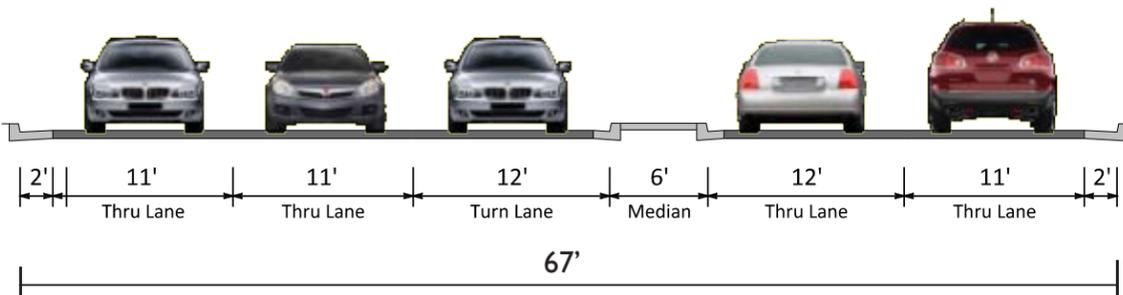
Benefits

- Allows for medians at high volume intersections and at the railroad crossing
- Roadway is wider – will require more right-of-way dedication from property owners
- Turn lane provides better operations at intersections
- Provides adequate capacity for the future for motorized vehicles

Drawbacks

- Longer crossing for pedestrians and bicyclist with no pedestrian refuge locations
- Crash rates are higher than on a four-lane divided roadway

Four-lane Divided Roadway



Benefits

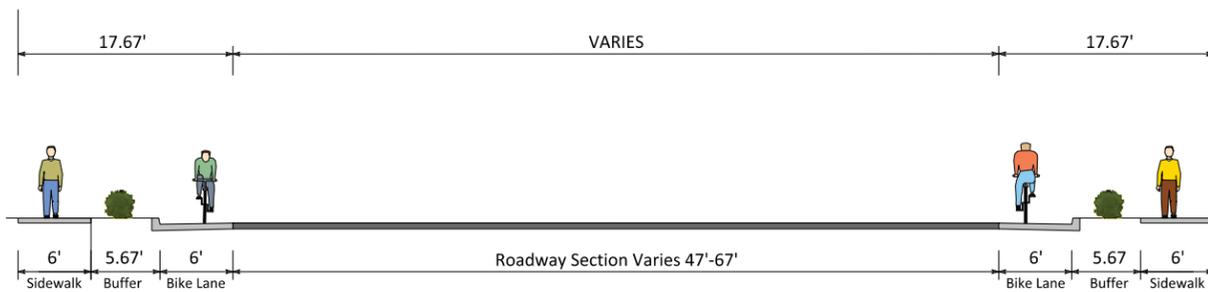
- Provides for better intersection operations
- Provides adequate capacity for the future
- Provides pedestrian refuge locations
- Safer than other roadway alternatives

Drawbacks

- Wider than all other alternatives – has the potential for the most property impacts
- Longer crossing for pedestrians- and bicyclists

Pedestrian & Bicycle Facilities

Bike Lane and Sidewalk



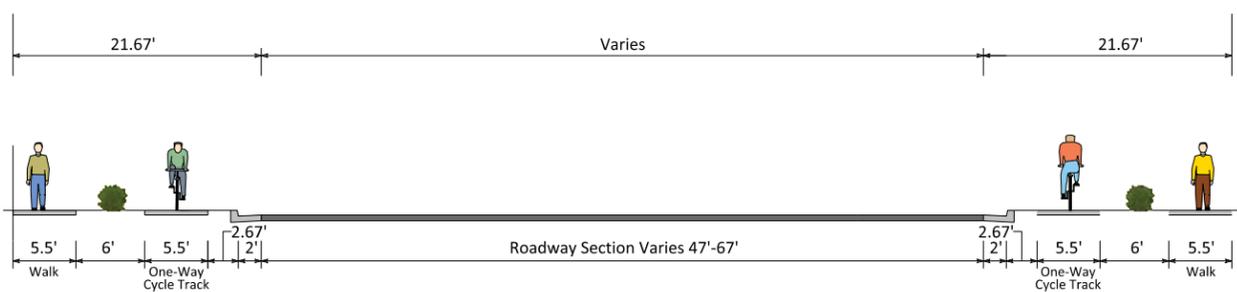
Benefits

- Provides a facility that is comfortable and fast for experienced cyclists
- Reduces conflicts between bicyclists, pedestrians, and motor vehicles by providing separate facilities
- Bike lane is consistent with conditions south of Excelsior Boulevard
- Allows utilities to be buried

Drawbacks

- Not as comfortable for less experienced bicyclists – potential conflicts with motorized vehicles
- Can be challenging to keep clear of snow and ice
- Requires additional attention to design at intersections

Cycle Track and Sidewalk



Benefits

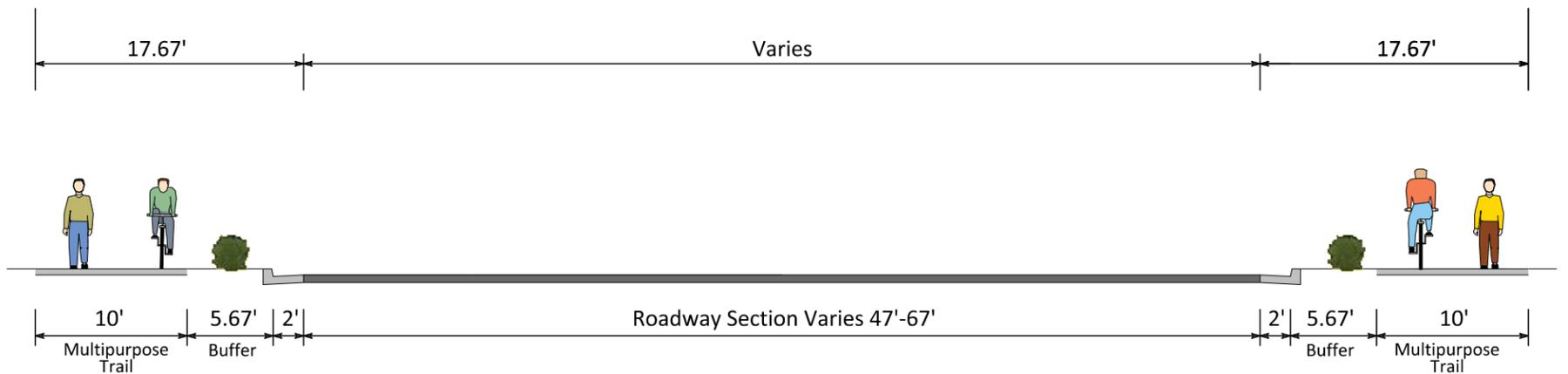
- Provides a facility that is comfortable for most users, but may be challenging for less experienced users or children
- Reduces conflicts between bicyclists, pedestrians, and motor vehicles by providing separate facilities
- Winter maintenance can be better than bike lanes
- Inconsistent with facilities south of Excelsior Boulevard
- Allows utilities to be buried

Drawbacks

- Short segment for cycle track design – usually a longer facility
- Requires more space than multiuse trail
- Potential confusion on how to use – cycle tracks are one-way (with traffic flow) facilities, but inexperienced users may go the wrong way
- One-way facilities mean that some bicyclists may have to cross Blake Road twice to reach destinations
- Requires additional attention to design at intersections

Pedestrian & Bicycle Facilities

Multiuse Trail



Benefits

- Provides a facility that is most comfortable for less experienced bicyclists
- Requires less space than a cycle track
- Winter maintenance can be better
- Reduces the need for bicyclists to cross Blake Road multiple times (two-way facility)
- Provides full separation between bicyclists and motorized vehicles except at intersections and driveways
- Allows utilities to be buried

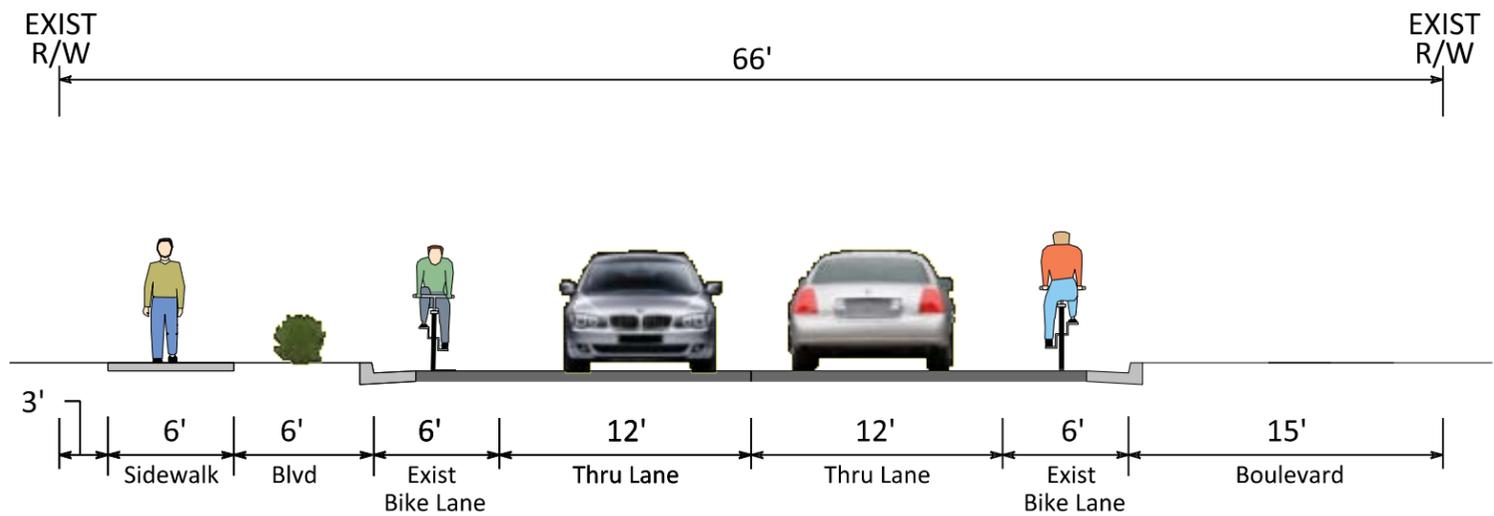
Drawbacks

- Experienced cyclists generally do not favor multiuse trails – may ride in traffic or have to ride slower
- Potential for conflicts between bicyclists and pedestrians with a combined facility
- Different pedestrian facilities south of Excelsior Boulevard
- Requires additional attention to design at intersections

Pedestrian & Bicycle Facilities

South of Excelsior Boulevard

Bike Lane and Sidewalk

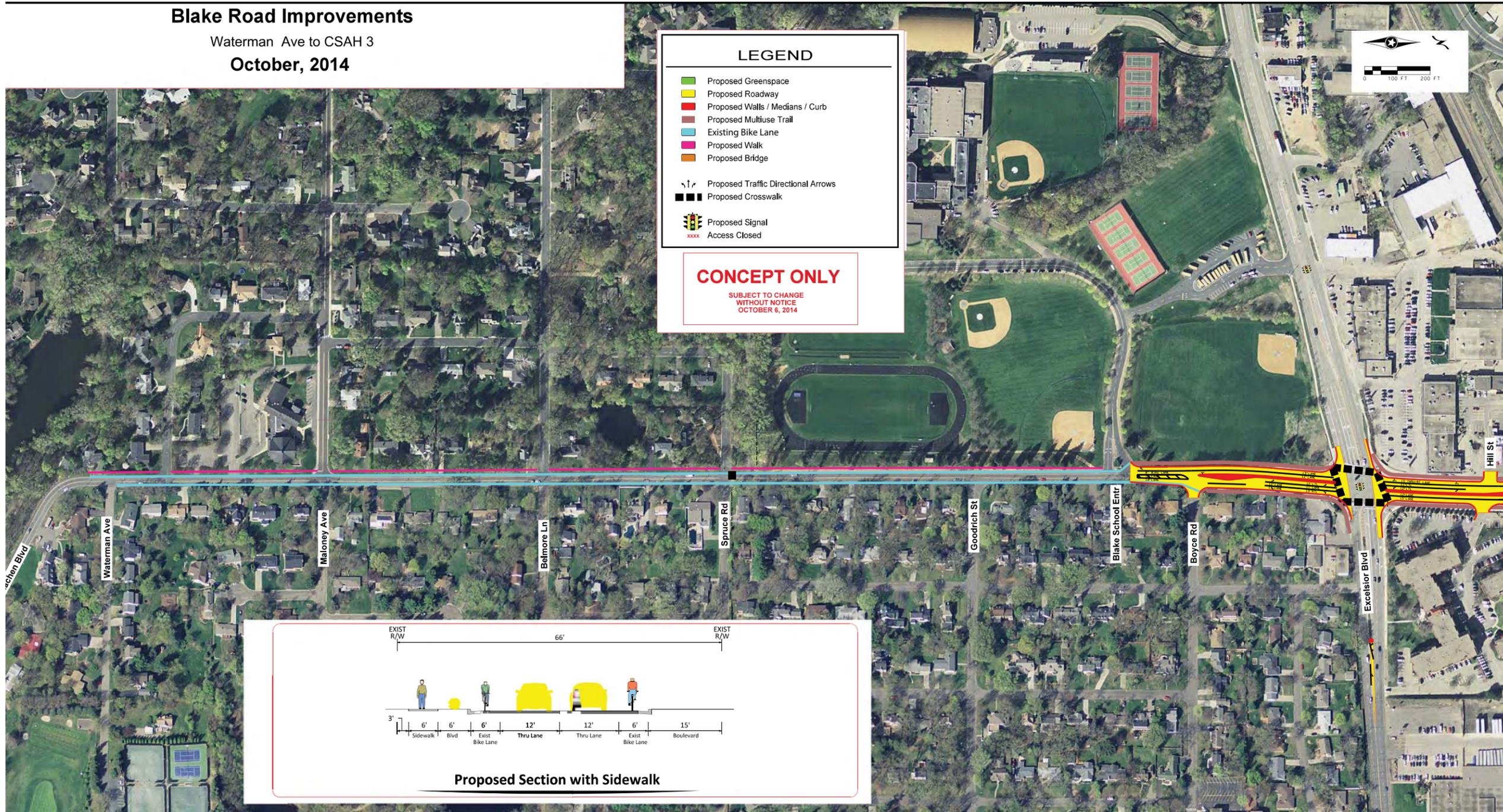


- Provides sidewalk to connect residents to Blake School and future SWLRT station
- Reduces conflicts between bicyclists, pedestrians, and motor vehicles by providing separate facilities
- Sidewalk and bike lanes can fit within existing right of way
- Traffic volumes south of CSAH 3 are lower than north of CSAH 3, which makes bike lanes a more appropriate facility for a wider range of bicyclists

Proposed Layout South of Excelsior Boulevard

Blake Road Improvements

Waterman Ave to CSAH 3
October, 2014



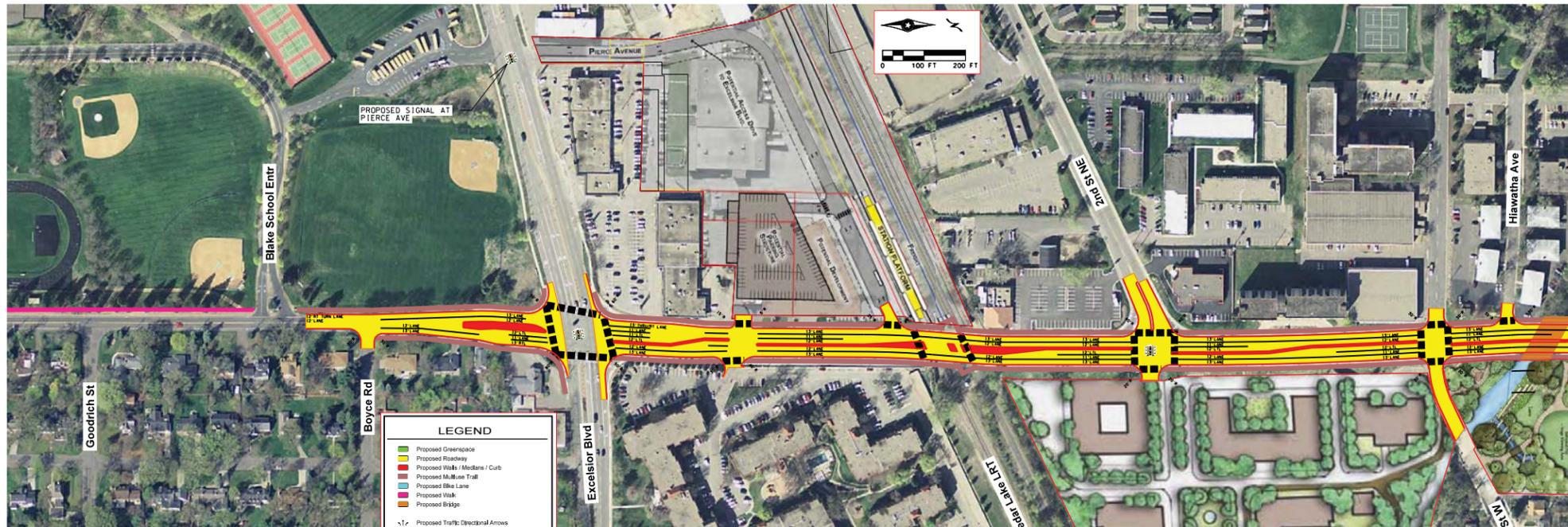
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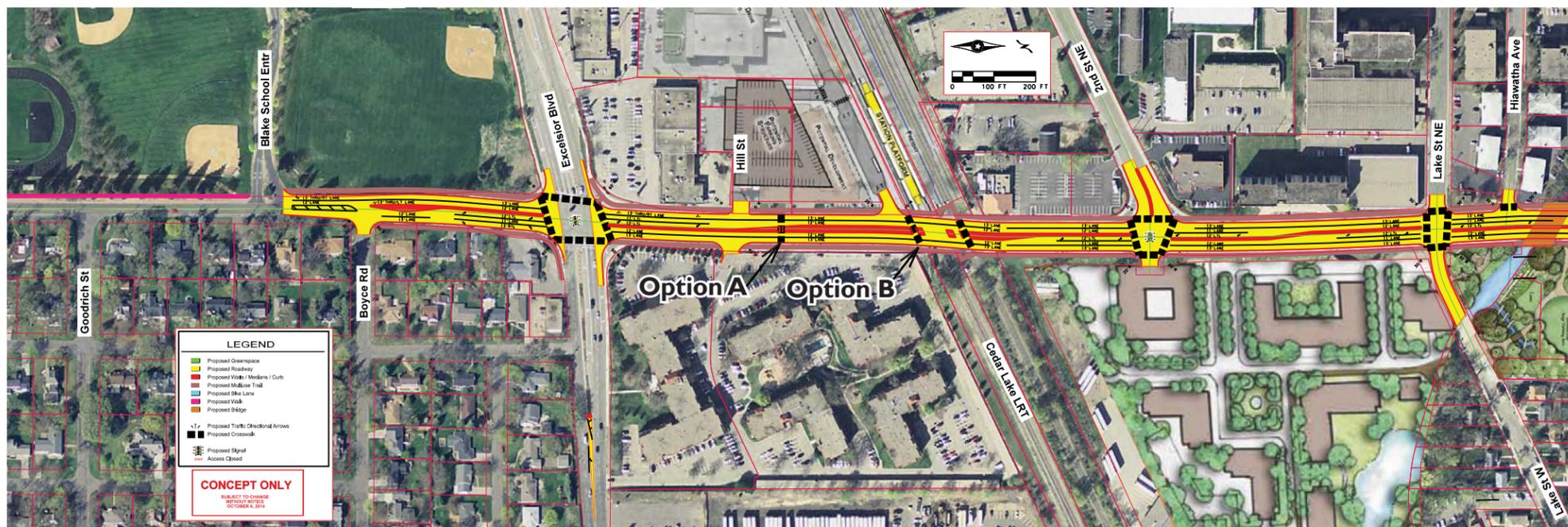
Pedestrian & Bicycle Crossing

Between Excelsior Boulevard and LRT Tracks



Median Break

- Improves access between east and west sides of the corridor for pedestrians and bicyclists
- Improves access to the LRT station
- Safety concerns about mid-block crossing at this location – even with potential treatments



Closed Median with Pedestrian Crossing

- Requires closing the median between CSAH 3 and the railroad tracks
- Restricts motor vehicle access to Westside Village Apartments on the east side of the road and businesses on the west side of the road
- Improves access to the LRT station
- Some options may increase the distance users have to travel to cross Blake Road

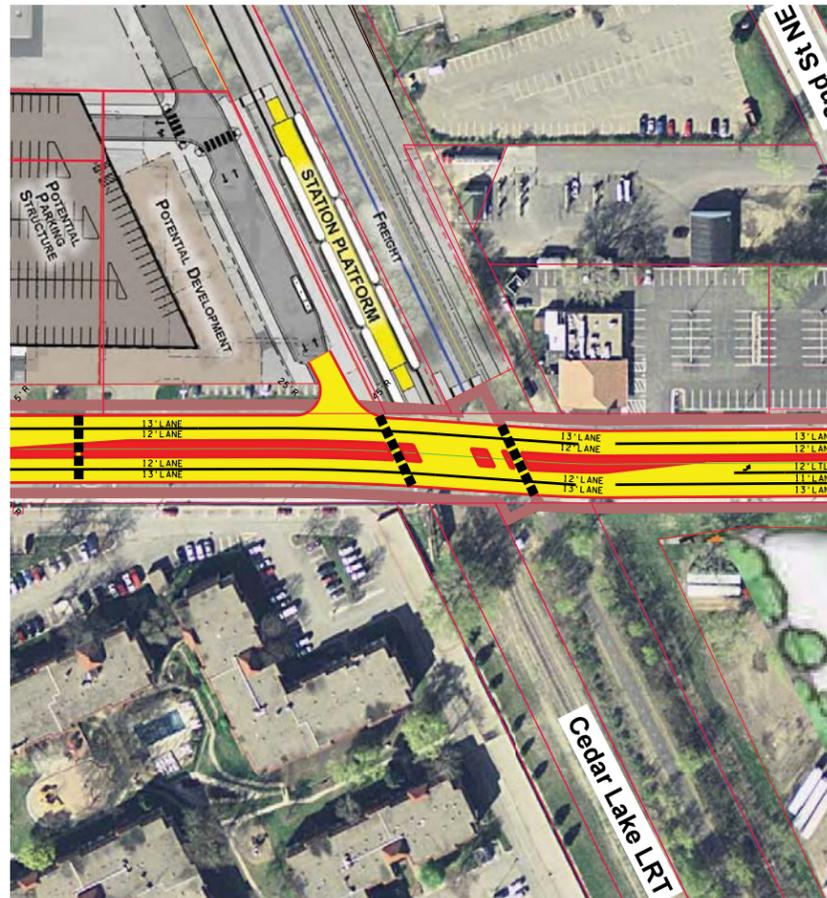
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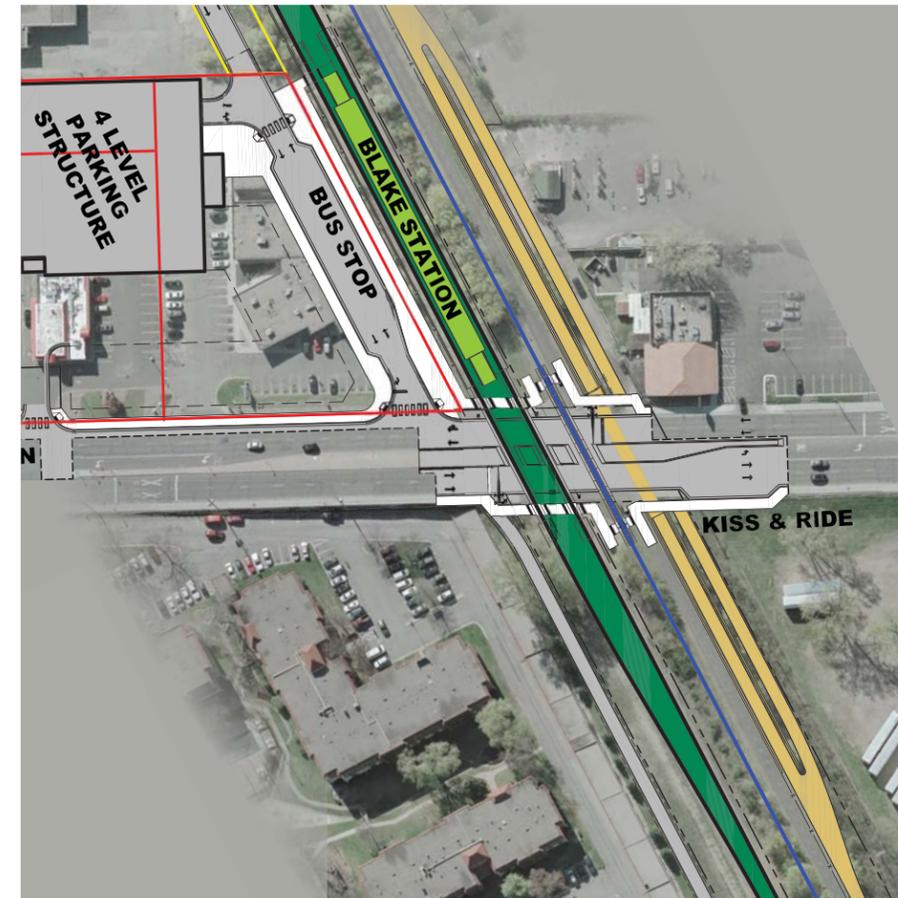
Pedestrian and Bicycle Crossings

Cedar Lake Regional Trail



At-grade Crossing

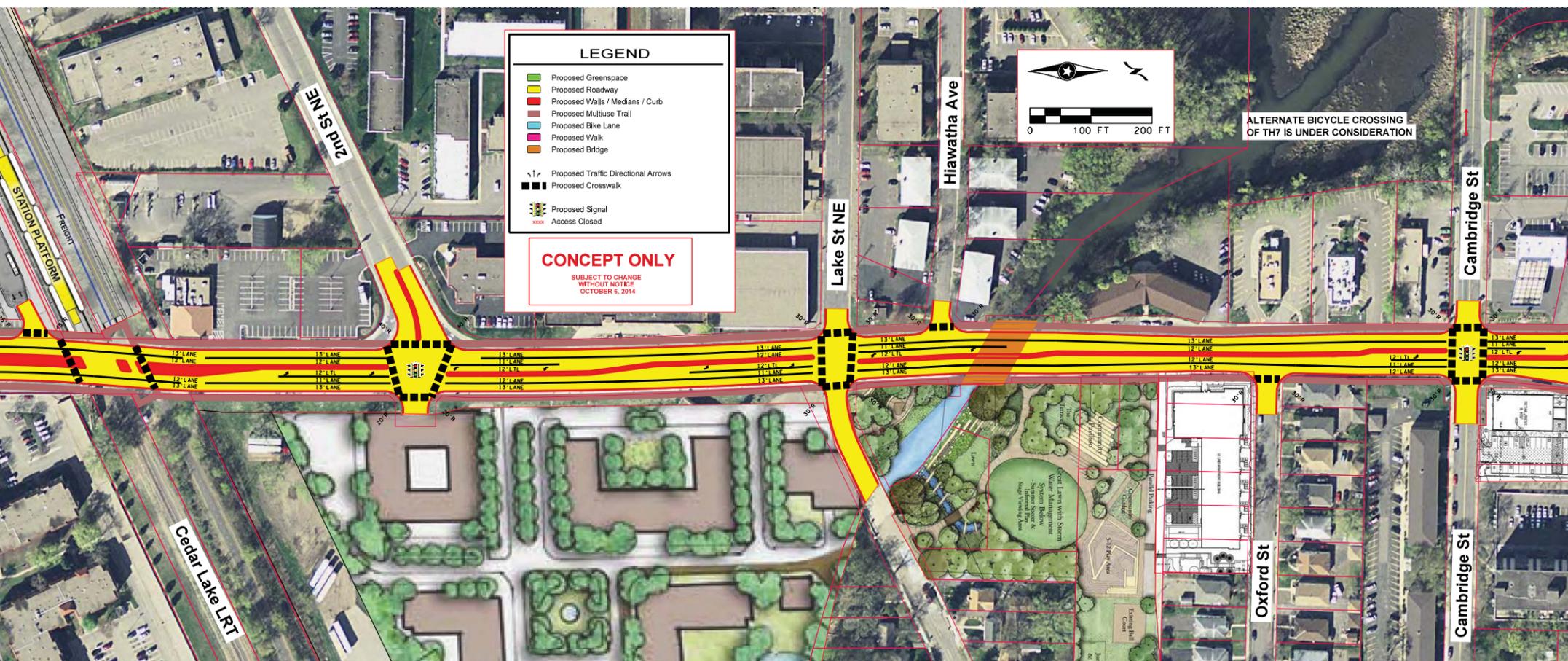
- As planned throughout the Southwest LRT project
- May be more difficult for less experienced riders
- Provides a more direct connection between trips



Grade Separated Crossing

- Additional funding required (costs are high)
- Provides a separate crossing of Blake Road for trail users and local residents (better for less experienced users)
- Additional travel distance/circuitry for local residents to access the grade separated crossing
- Decreases travel time for bicycle commuters on the Cedar Lake LRT Regional Trail

Intersections at 2nd and Lake Streets



Signalized Intersections

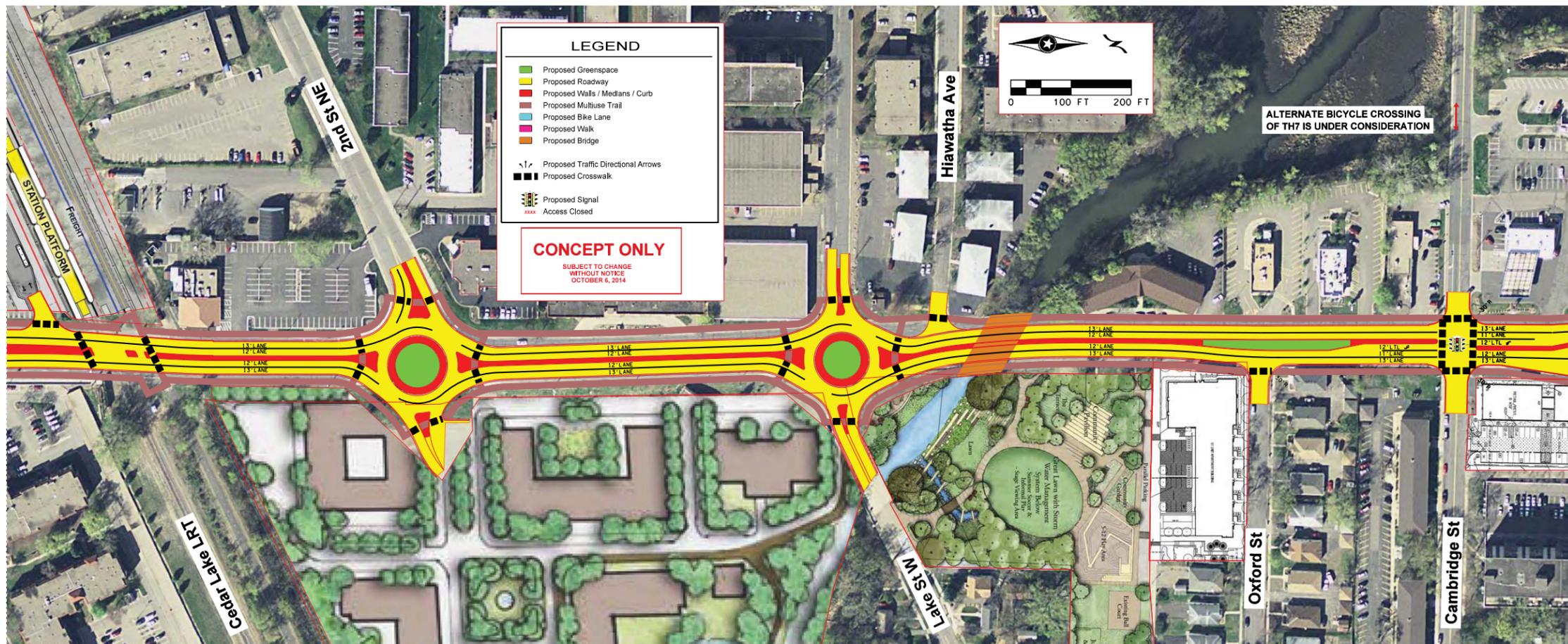
- Consistent with other traffic control on the corridor
- Can be easily coordinated with LRT operations to prevent queuing onto tracks
- Is more predictable to users
- Lake Street does not currently meet traffic signal warrants – would have to wait to install or would result in an unwarranted signal
- Turn lanes increase the distance pedestrians have to cross the corridor
- Turn lanes increase potential property impacts
- Intersection operations are acceptable

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Intersections at 2nd and Lake Streets



Roundabout Intersections

- Would likely calm traffic between 2nd and Lake Streets
- Does not require turn lanes
- Pedestrian crossing of Blake Road is shorter
- No warrants to meet
- Intersection operations are acceptable
- Property impacts would be more at intersections to accommodate the size of the roundabout
- Roundabouts are challenging for the vision impaired
- Treatments needed to prevent traffic from queuing on tracks
- Longer distance for pedestrians in crossing lake and 2nd Streets

Blake Road Corridor Study

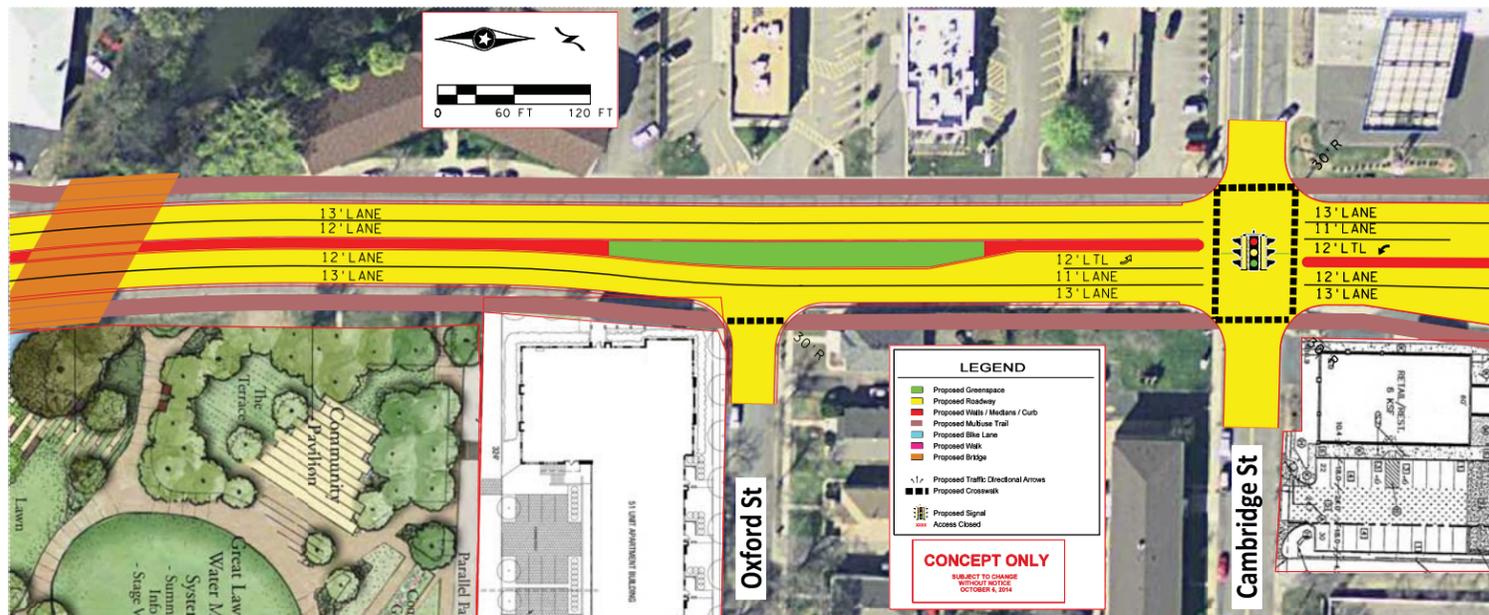
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St. Louis Park
MINNESOTA

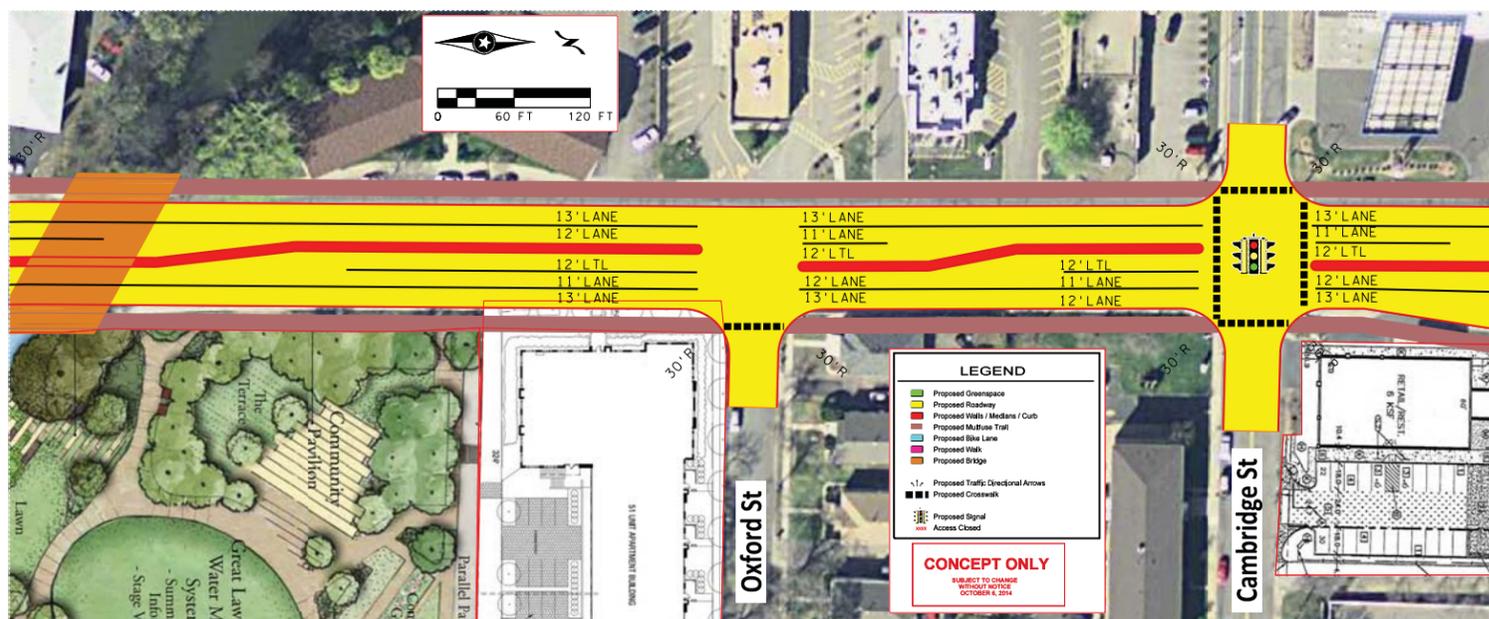


Oxford Street Alternatives



Closed Median

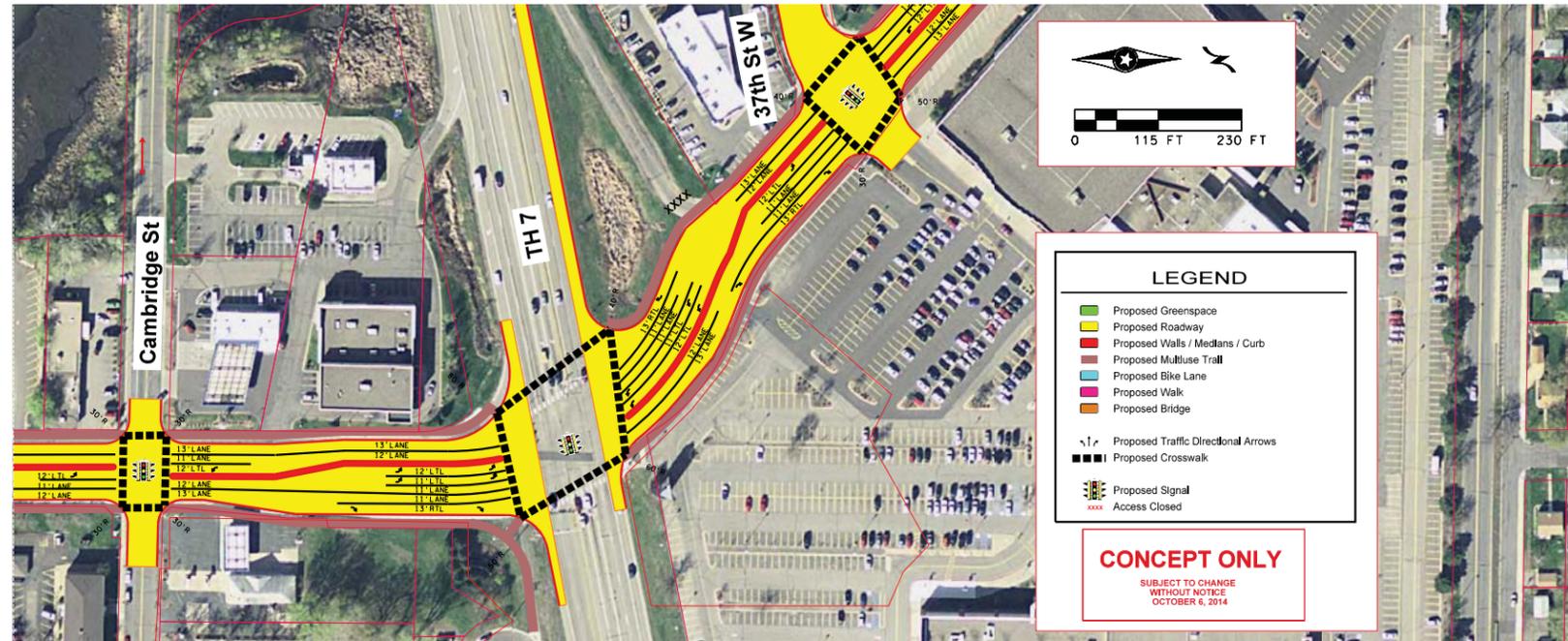
- Allows space for landscaping in the median
- Improves traffic operations and safety
- Restricts motor vehicle, pedestrian, and bicycle access to residences on the east side of the road and business on the west side.
- Requires less right of way from property owners



Full Access

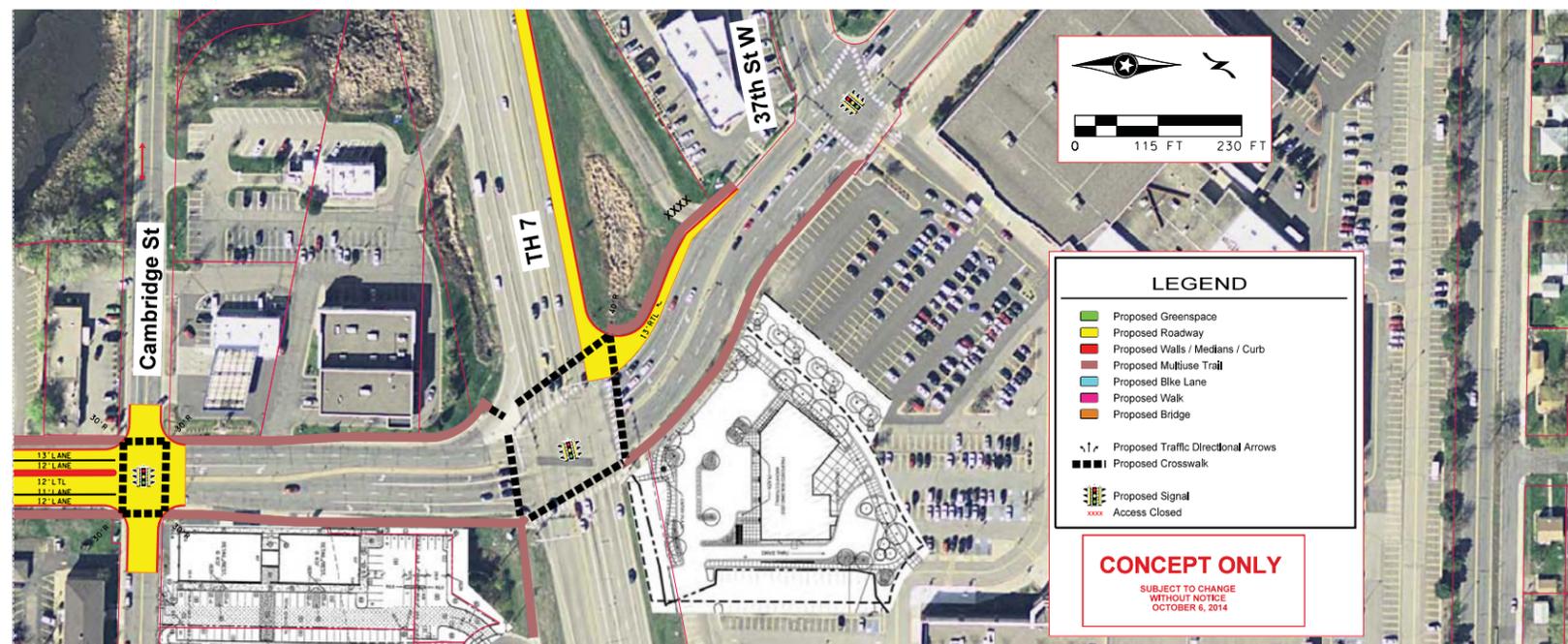
- Preserves full access to residences and businesses
- Requires more right of way from property owners

Intersection at Highway 7



At-Grade Intersection - Dual Left Turn Lanes

- Minor changes required
- Some property impacts
- Congestion still exists during peak periods – operational problems
- Pedestrian and bicycle crossings are challenging
- Other options for pedestrian and bicycle crossing may be needed - grade separation



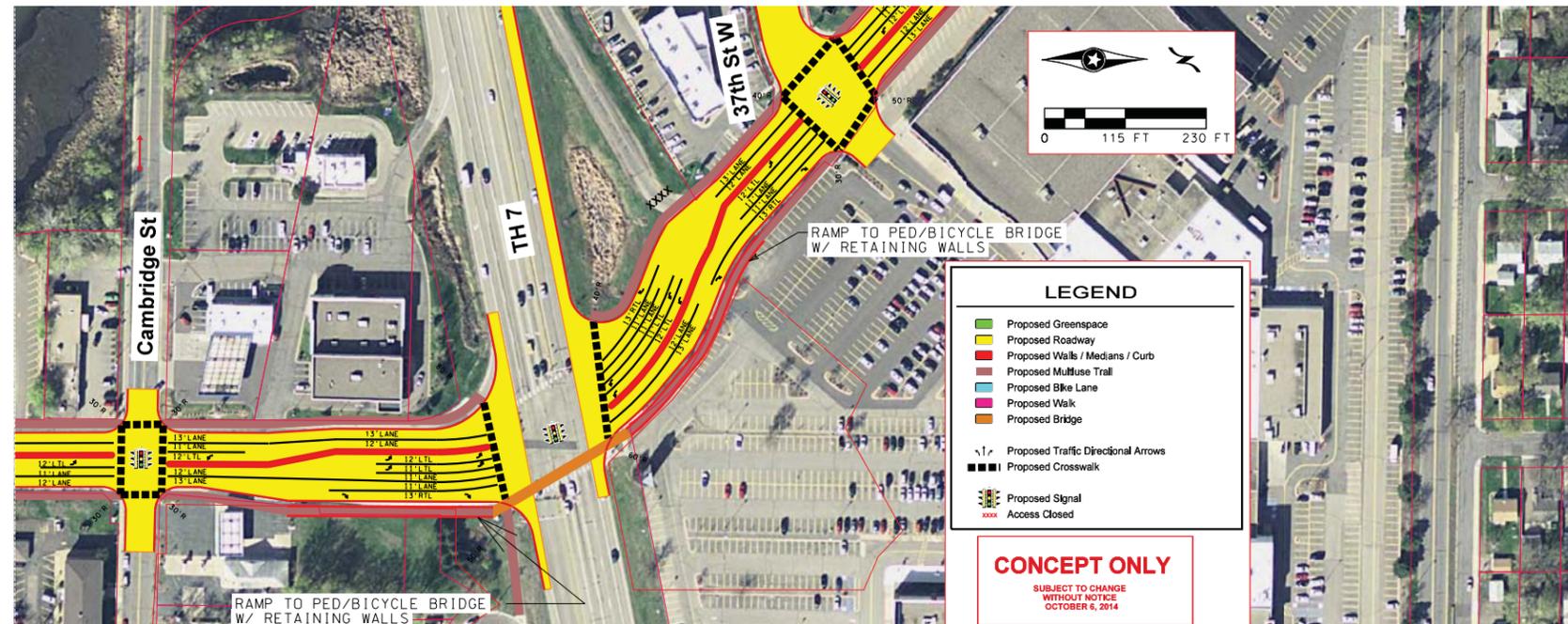
At-Grade Intersection - No Build

- Minimal changes required
- Fewer property impacts
- Shorter crossing for pedestrians and bicyclists
- Congestion will worsen in the future

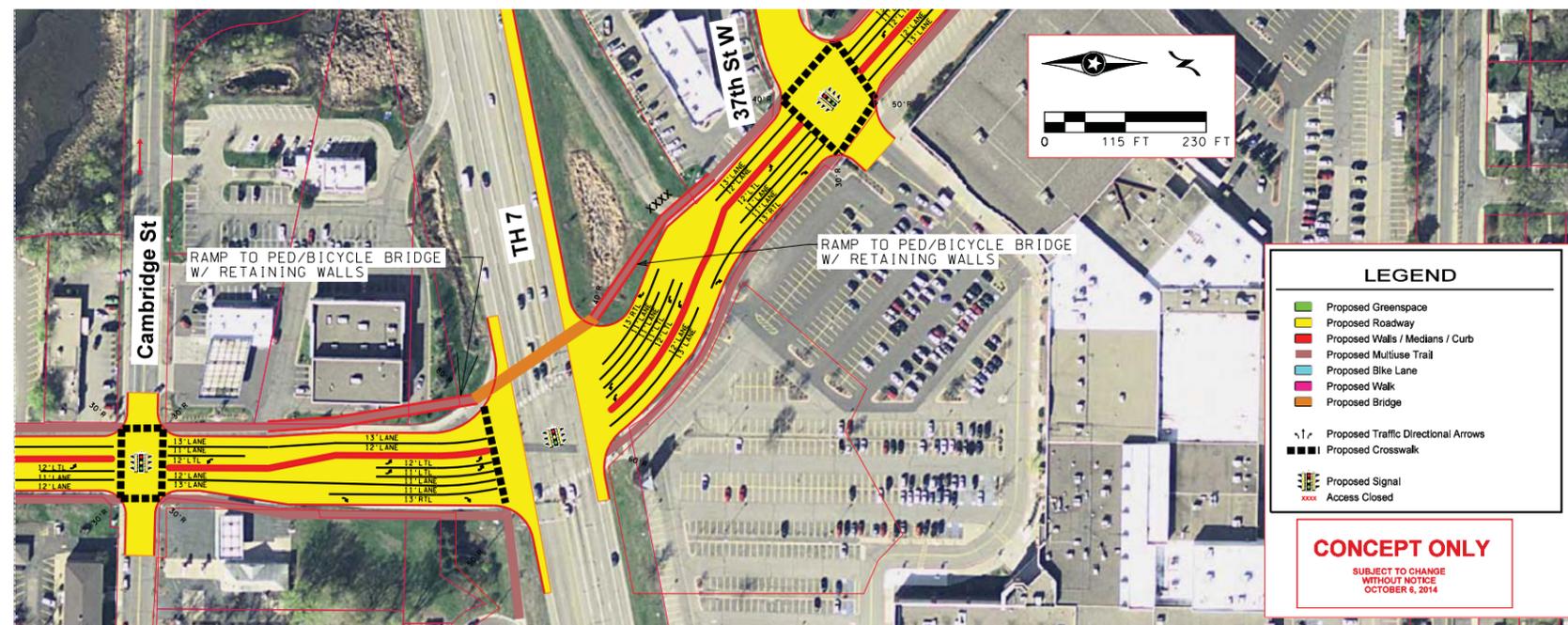
Intersection at Highway 7

Grade Separated Pedestrian and Bicycle Crossing

- Provides more comfortable crossing of Highway 7 for pedestrians and bicyclists
- Would require retaining walls along ramp to bridge - retaining walls would screen views of businesses



East Side



West Side

Study Schedule

Task	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
1 Project Management	[Bar]											
2 Public Involvement	[Bar]											
TAC Meetings	★	★	★	★	★	★	★	★			★	★
Public Meetings				★			★	★	★			
City Council							★			★		
Community Works Steering Committee												
Maintain Project Website	[Bar]											
Coordination with Blake Road Corridor Collaborative								★				
Coordination with Corridor Businesses								★				
3 Data Collection	[Bar]											
4 Document Existing and Future Traffic	[Bar]											
5 Identify Corridor Goals and Objectives	[Bar]											
6 Alternatives Development		[Bar]										
7 Evaluation and Selection of Preferred Alternative					[Bar]							
8 Implementation Plan									[Bar]			
9 Prepare Final Report											[Bar]	

Next Steps:

The Blake Road Corridor Study will continue through February 2015

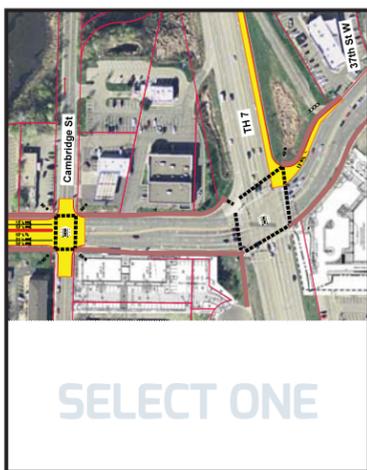
Next steps for the project include:

- Updating and refining alternatives based upon agency and public input
- Selecting a preferred alternative for future construction
- Preparing a report documenting technical analyses and recommended improvements
- Identifying funding for proposed improvements
- Presenting final recommendations to impacted agencies

Share your input!

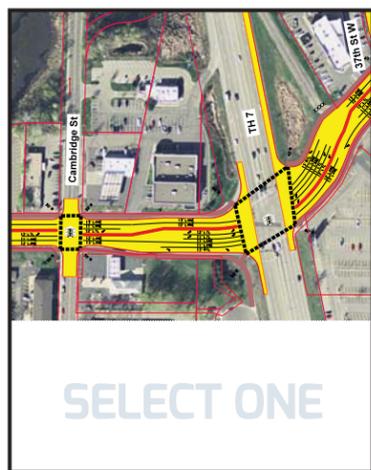
We would like your feedback on options for Blake Road. Please share your preferences below:

Which option do you prefer for a pedestrian and bicycle crossing of TH 7?



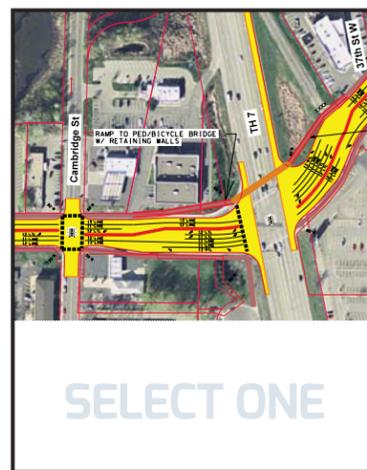
SELECT ONE

Signalized intersection with single left-turn lanes



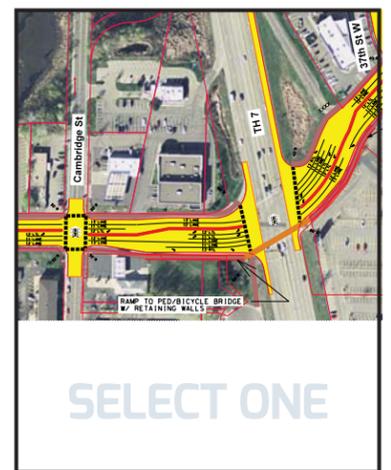
SELECT ONE

Intersection with dual left-turn lanes



SELECT ONE

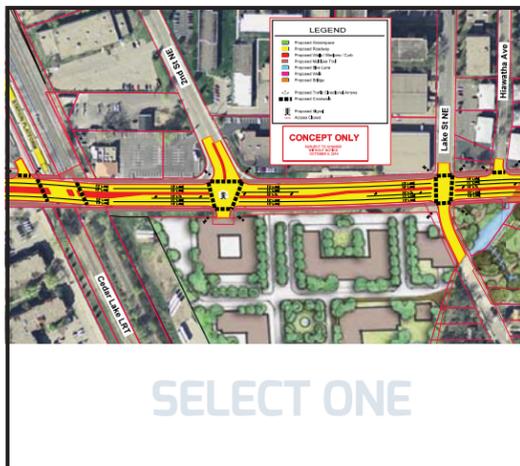
Pedestrian/bicycle bridge across TH 7 - West side



SELECT ONE

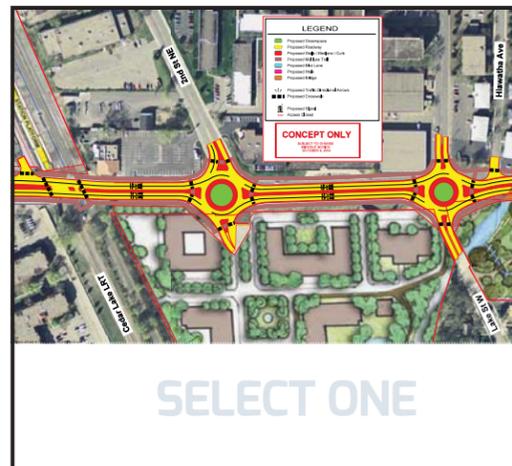
Pedestrian/bicycle bridge across TH 7 - East side

Which option do you prefer for the intersections at 2nd and Lake Streets?



SELECT ONE

Signalized intersection at 2nd Street, thru-stop controlled intersection at Lake Street



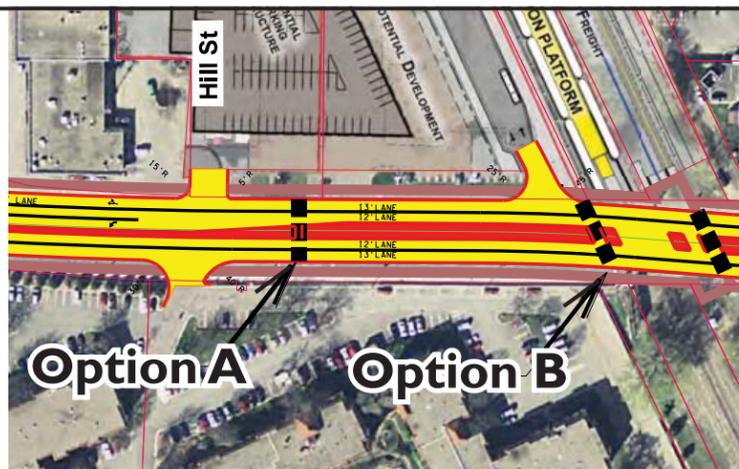
SELECT ONE

Roundabouts at 2nd and Lake Streets

If the preferred roadway alternative closes the median between Excelsior Boulevard and the railroad tracks, where would you prefer a pedestrian crossing to provide access between apartments, businesses, and the future light rail station?

Option A: Near existing access to apartments and businesses

SELECT ONE



Option A

Option B

Option B: Near the existing railroad tracks and future light rail tracks

SELECT ONE