



FEASIBILITY STUDY

FRANCE AVENUE INTERSECTION ENHANCEMENTS

IMPROVEMENT NO. BA 404

Revised July 27, 2012

**ENGINEERING DEPARTMENT
CITY OF EDINA**

I hereby certify that this feasibility study was prepared by me or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Charles T. Rickart

Charles Rickart, PE 26082 07/27/12
Reg. No. Date

Approved _____
Wayne D. Houle, PE Date
City Engineer



FEASIBILITY STUDY – BA 404

(Revised July 27, 2012)
ENGINEERING DEPARTMENT
CITY OF EDINA

FRANCE AVENUE INTERSECTION ENHANCEMENTS

76th Street, 70th Street and 66th Street

Federal Transportation Enhancement Project – S.P. 120-020-37

Revised July 27, 2012

1. EXECUTIVE SUMMARY

The City of Edina was successful in securing Federal Transportation Enhancement funding and a subsequent Scope Change and Sunset Date extension for the construction of Pedestrian / Intersection Enhancements at 76th Street, 70th Street and 66th Street. In addition the project will provide missing sidewalk connection on the east side of France Avenue insuring that all areas on both sides of France Avenue have an opportunity to access one of the planned crossing locations.

The primary goal of the project is to provide safe, efficient and aesthetically pleasing crossings of France Avenue for pedestrian and bicycles. In order to achieve these goals, direction was provided by; previous studies for the France Avenue/Southdale area; Federal and State design guidelines; the City's 2008 Comprehensive Plan; two Stakeholders meetings, and; input from the Edina Transportation Commission.

Based on the review of the existing conditions and the project goals, three (3) intersection design concepts were developed, reviewed and analyzed. The options included:

- Option 1 – Separated Bike/Pedestrian Lanes with Boulevard
- Option 2 – Separated Bike/Pedestrian Lanes with no Boulevard
- Option 3 – Sidewalk with Boulevard

Each option was evaluated and included specific corridor, pedestrian, bike, transit, intersection and traffic signals elements. Based on the evaluation of these options and input from the Stakeholders, Option 1 was selected as the initial preferred concept. However, following preparation of the project cost estimates and input from the Edina Transportation Commission, Option 3 – Sidewalk with boulevard (on-street bike lanes, side streets only), was the concept recommended to bring forward for further review and approval by the City Council.

The estimated permanent right of way needed for Option 3 is 44,700sf compared to 82,000sf for Option 1.

The estimated cost included with approved Scope Change and Sunset Date extension was \$2,045,000, which included no right of way cost and minimal landscaping (urban design) and lighting costs. The comparable cost for Option 3 is \$2,309,600 and \$3,624,000 for Option 1. The total estimated cost including right of way and urban design elements for Option 3 is \$5,799,100 compared with \$9,145,500 for Option 1.

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2. LOCATION

The intersection improvements are located along France Avenue at 76th Street, 70th Street and 66th Street as shown in **Figure 1** below.

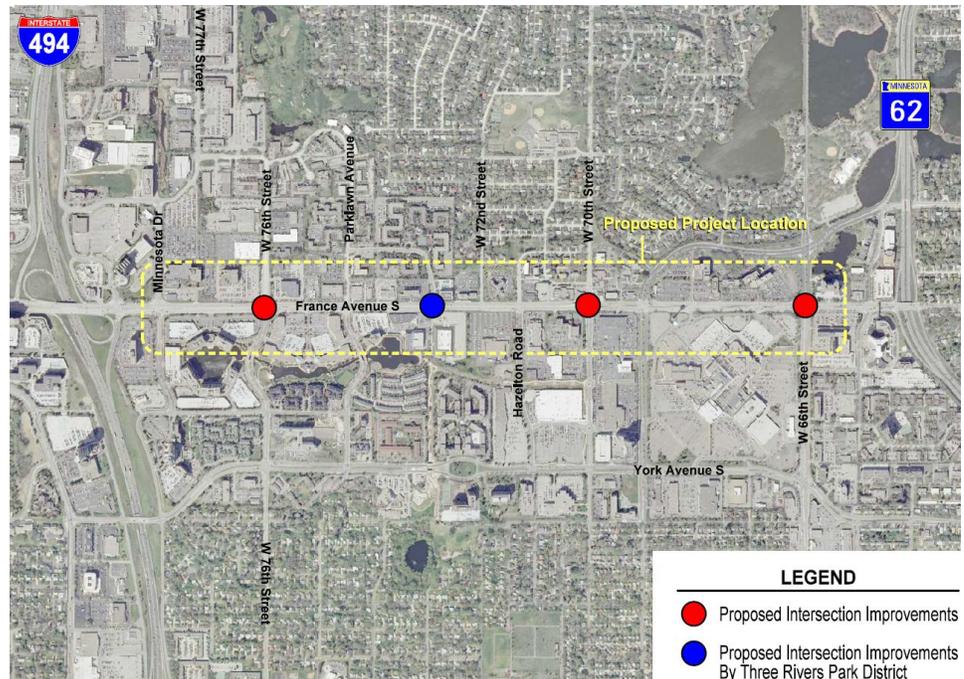


Figure 1. Project Location Map

3. INITIATION & ISSUES

Background / History

The City of Edina was successful in 2007 in securing Federal Transportation Enhancement funding for the 72nd Street Pedestrian Bridge over France Avenue. As a result of several studies, change in policy direction and new leadership at the City the concept of a bridge over France Avenue was deemed no longer practical. The City then requested and was granted a Scope Change and a one year Sunset Date extension from the Metropolitan Council for the project.

The re-scoped project will accomplish the same goals, safely and efficiently for less overall cost, in partnership with the other agencies and with greater community support. The vision for the re-scoped project stems from the County's "France Avenue Corridor Study" completed in 2009.

Intersection enhancements such as; median refuge islands, accessible pedestrian signals, pedestrian warning signs, enhanced pedestrian corner treatments, etc, will be provided at three primary intersections.

66th Street: This proposed crossing would provide access to; medical buildings, Southdale Mall, Aquatic Center, Rosland Park, TLC Bike Boulevard, and access to transit.

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70th Street: This proposed crossing would continue the complete street project recently constructed west of France Avenue. It would serve primarily single family neighborhood, The Galleria, Target, Promenade, Southdale Library, Hennepin County Government Center, and access to transit.

76th Street: This proposed crossing would serve primarily multi-family housing and connect to Centennial Lakes Park, Promenade, Three Rivers Park District Nine mile trail in Richfield, Edinborough Park, medical facilities, and access to transit.

Three Rivers Park District (TRPD) is also planning improvements to Gallagher Drive. Although this intersection will be improved by TRPD the proposed crossing will serve the future planned regional trail, Promenade, multi-family housing, and access to transit.

In addition to the intersection enhancements the proposed project will provide missing sidewalk connections insuring that all areas on both sides of France Avenue have an opportunity to access one of the planned crossing locations.

The final approved Scope Change project included the following elements.

- Median refuge islands with landscaping at intersections
- Intersection improvements including-
 - Narrowing of existing lanes at intersections
 - Removing free right turn islands
 - Enhanced corner treatments
 - ADA compliant pedestrian accommodations
 - Pedestrian level lighting
- Signal Improvements including-
 - APS signals
 - Countdown timers
 - Vehicle and bike detection
- East/West bike accommodations
- Eastside missing sidewalk connections with in the existing R/W
- Improved better accessibility to transit
- Minimal R/W acquisition only at intersections

Included in the Scope Change request was a construction cost estimate for the proposed project based on the above typical improvements. Detailed survey and quantities were not calculated. The following outlines the estimated costs from the Scope Change request.

Intersection improvements	\$ 1,005,000
Revised signal systems	\$ 600,000
Signing and striping	\$ 36,000
Trail / sidewalk	\$ 54,000
Retaining walls	\$ 150,000
Guard rails	\$ 50,000
Lighting	\$ 80,000
Traffic control	\$ 20,000
Landscaping	\$ 50,000
Total Cost	\$ 2,045,000

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A copy of the approved Scope Change and Sunset Date extension request is included in the **Appendix**.

Following the approval of the Scope Change request a topographic survey was completed that better defined the impacts and costs of the proposed plan. Based on the updated information it was determined that some right of way would be needed to complete the project. The following shows the updated cost to complete the plan approved with the Scope Change.

Approved Scope Change Revised Cost

76th Street:

R/W = \$194,200
Construction = \$545,300
Urban design = \$16,000

70th Street:

R/W = \$163,500
Construction = \$521,000
Urban design = \$16,000

66th Street:

R/W = \$73,100
Construction = \$503,400
Urban design = \$16,000

Total Intersection:

R/W = \$430,800
Construction = \$1,569,200
Urban design = \$48,000

Sidewalk Connections:

R/W = \$72,500
Construction = \$181,900
Urban design = \$0

Total Cost:

R/W = \$503,300
Construction = \$1,751,100
Urban design = \$48,000

Total Project Cost = \$2,302,400

The City has worked with several agencies during the preliminary studies, concept development and the proposed re-scoping of the project since the original TE application was submitted and approved. These agencies have included:

- Hennepin County Community Works
- Hennepin County Transportation
- Three Rivers Park District
- Transit for Livable Communities
- Metro Transit
- Minnesota Department of Transportation

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Project Goals / Objectives / Direction

The proposed improvements are anticipated to provide a catalyst for France Avenue that will:

- Encourage pedestrians to use enhanced intersections by creating inviting passages from surrounding areas, development along France Avenue, and buildings at the enhanced intersections.
- Create inviting and comfortable parallel corridors leading to enhanced intersections with patterns and details that reflect the France Avenue corridor.
- Orient buildings with primary entrances at corners to encourage pedestrian activity.
- Discourage crossings at locations other than enhanced intersections.
- Create inviting and safe waiting spaces at enhanced intersections.
- Ensure safe and comfortable space is available at medians in the event a pedestrian cannot cross the entire street.
- Establish continuity in design among enhanced intersections.
- Create, to the degree possible, designs oriented to pedestrians within the street crossing zones that are related to, but still distinct from, the waiting spaces.
- Improve transit accessibility

City of Edina 2008 Comprehensive Plan

The proposed project is consistent with the direction outlined in the City's 2008 Comprehensive Plan.

Land Use and Community Design

Chapter 4 of the plan addresses the relationship between Land Use and the function of roadway corridors. As shown below in **Figure 2** France Avenue is identified as a primary thoroughfare where as 66th Street, 70th Street and 76th Street are residential and/or business thoroughfares. The Comprehensive Plan outlines that the residential and business thoroughfares should provide for non-motorized connections.

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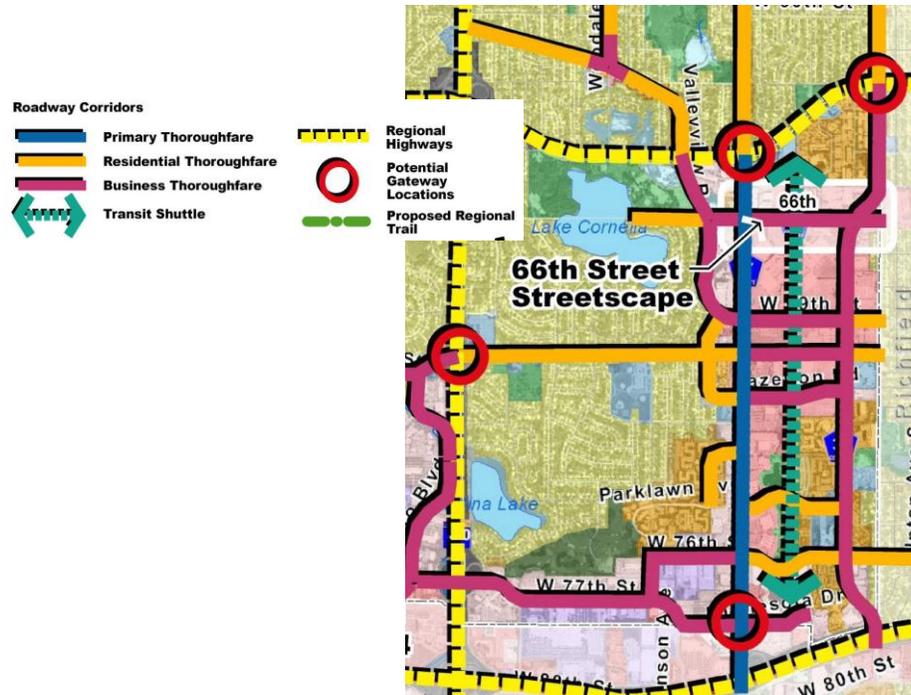


Figure 2. Community Design Roadway Corridors

Sidewalk / Bicycle Facilities

Chapter 7 of the plan addresses locations of proposed sidewalk and bicycle facilities and funding options within the City. Figures 7.10, Sidewalk Facilities and 7.11, Bicycle Facilities from the Comprehensive Plan are included in the **Appendix**. Both indicate a need for additional facilities along France Avenue and the primary cross streets. **Figure 3**, below shows the relationship and need to provide improved safe and efficient connections between the residential land uses west of France and the commercial land uses east of France Avenue.

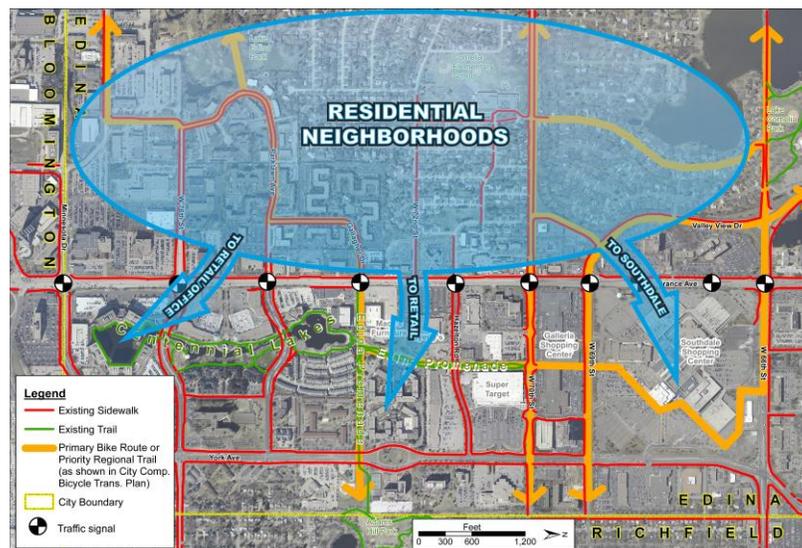


Figure 3. Existing Pedestrian / Bike Network

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Stakeholder Meeting Input

In order to insure that all interests in the area were addressed a Stakeholders group was established. The Stakeholders included:

- Edina Transportation Commission
- Edina Planning Commission
- Hennepin County Public Works
- Hennepin County Housing, Community Works and Transit
- MnDOT
- Three Rivers Park District
- Metro Transit
- Bike Edina Task Force
- Transit for Livable Communities
- Local Businesses
- Local Residents

This group has had two meetings. The first meeting was held at the City of Edina Public Works Facility on May 31st, 2012 at 7:00 PM. There were approximately 18 people in attendance, including city staff, project consultant team members, and representatives from various agencies and organizations, including the Edina Transportation Commission, Bike Edina Task Force, do.town, Hennepin County, Three Rivers Park District, and the City of Bloomington. A presentation was given by the project consultant team, and discussion was encouraged. Several major themes emerged from the discussion. All stakeholders agreed that the existing France Avenue design could be improved for cyclists and pedestrians. Stakeholders proposed several ideas and themes for improvement, including the need for France Avenue to be a Gateway to Edina, a need to improve transit access, a need to improve conditions for corridor residents, the importance of encouraging vibrant street life, and the importance of improving pedestrian and cyclist safety.

Several specific strategies were discussed, including a “Dutch style” bicycle and pedestrian intersection design strategy, the importance of vertical elements in the design, and the importance of providing varying textures and colors to provide visual cues. The meeting was concluded with direction to staff and the consultant team to further develop and evaluate several concepts.

The second stakeholders meeting were held at the City of Edina Public Works Facility on June 26th, 2012 at 7:00 PM. There were approximately 21 people in attendance, including city staff, project consultant team members, and representatives from various agencies and organizations, including the Edina Transportation Commission, Edina Planning Commission, Edina City Council, Hennepin County, Three Rivers Park District, the City of Bloomington, and several persons active in the local business community. A presentation was given by the project consultant team, and discussion was encouraged. The consultant team presented three conceptual alternatives for the identified intersections and requested feedback from the stakeholders.

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The three options included two variants of the “Dutch style” intersection design and one option with traditional bike lanes. The stakeholders discussed the strengths and weaknesses of each option, and the group agreed that Option 1 was the preferred option because it provided the greatest degree of separation between motorists, cyclists, and pedestrians. Further discussion reinforced the need for strong vertical elements in the design to ensure a top-quality experience for pedestrians as well as cyclists. The meeting was concluded with direction to staff and the consultant team to focus on Option 1, while enhancing the design with additional vertical elements. Minutes from each meeting are included in the **Appendix**.

Edina Transportation Commission Review

A special Edina Transportation Commission (ETC) meeting was held on July 9th, 2012 to discuss the proposed improvements and Option 1 as the recommended alternative. Based on the high cost of Option 1 and a rethinking of the need for bike facilities on France Avenue, the consensus at the meeting was to move forward with a modified Option 3 that would include an 8 foot sidewalk with an 8 to 10 foot boulevard between the roadway and the sidewalk. A copy of the meeting minutes is included in the **Appendix**.

A regularly scheduled ETC meeting was held on July 19th, 2012 to further discuss the proposed improvements and the revised Option 3 based on their comments from the July 9th meeting. Concerns were raised again with the cost of the improvements proposed with the revised Option 3. The meeting included a discussion of what elements of the project could be removed to reduce the cost. The recommendation of the ETC at the meeting was to move forward with Option 3 and to work with the City Council on what elements could be removed to get to an acceptable budget for the project. A City Council Workshop to discuss the project with the ETC is planned for August 6th. A copy of the draft meeting minutes is included in the **Appendix**.

Agency Meetings/Comments

Hennepin County

The project development team met with Hennepin County Staff on June 25th, 2012 to discuss the proposed improvements and options for France Avenue. Their primary concerns/comments included:

- Raised planters/curbs along the median curb or in the boulevard. Due to a potential safety problem for vehicles leaving the roadway.
- They wanted to ensure appropriate truck turning movements were maintained at the corners. They have had some issues at intersections with tight radii where large vehicles track on the sidewalk where pedestrians may be standing.
- Narrowing of lanes is fine, but during final design we will need to be cognizant of the joints and especially the crown lines.
- They were less enthused about a pedestrian push button station in the median. They would like the signal timing to allow pedestrians to cross in one cycle.
- They would like to see a detail plan once a concept is selected.
- A concern raised was the use of the average PM peak hour as the analysis period vs. a holiday peak.

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Metropolitan Council

Informal comments were received from Metropolitan Council staff via email following the first Stakeholders meeting. The comments and responses to those comments are included in the **Appendix**.

Metro Transit

The project design team met with Kristin Thompson, Brad Smith and Cindy Harper of Metro Transit on July 5th, 2012. We discussed the project and shared the proposed improvements. The members of Metro Transit were supportive of the proposed improvements including removing cyclists from the travel portion of the roadway, and did not foresee any issues with the existing bus routes and stops, and agreed that the improvements would be a major upgrade for Metro Transit.

We discussed the desire to possibly add bus shelters. They provided details on their standard bus shelters and the standard concrete pad. They informed the design team that bus shelters are added only if there are 25 boarding's at the bus stop. If the ridership numbers were not up to the set amount, they would not maintain or construct the shelter. However, the City could put up a shelter of their choosing at the City's cost.

It was not anticipated that any of the bus stop locations or routes would change in the future. Given the current northbound condition near Hazelton and 72nd Street, where the bus stop is at a location without a sidewalk, they would consider relocating these to a location that has more room, possibly on Hazelton Avenue. It is proposed to add a sidewalk in this location, but a problem with snow removal still exists given the proximity to the existing retaining wall. One option to provide additional space for the bus stop would be removing the dedicated right turn lane. They do not like to place bus stops adjacent to right turn lanes given the difficulty of entering back into traffic.

4. EXISTING CONDITIONS

France Ave Corridor

France Avenue is a north / south Hennepin County Road (CSAH 17), "A" Minor Arterial roadway. In general, in the area south between TH 62 (Crosstown) and I-494, it is a 6 lane (3 lanes in each direction) roadway with left and right turn lanes at the primary intersections. A 40 mph speed is posted on the roadway.

Sidewalks

Sidewalks are currently provided on the west side of France Avenue the entire length from 66th Street to 76th Street. The width is approximately 6', for most of the sidewalks, with no boulevard. The only exception is near 66th Street where the sidewalk is 5' with a 5' boulevard. On the east side a 5' sidewalk is provided from 76th Street to Parklawn Avenue (on private property) with a boulevard that varies in width. Mid-block between Parklawn and Gallagher (430' N. of Parklawn) a 6' sidewalk is provided. A 5' sidewalk is also provided on the east side from 175' south of 66th Street to the north.

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Transit

Transit service is provided along France Avenue with 5 primary routes each is discussed below and summarized in **Table 1**. The location of the existing transit stops are shown in **Figures 4a – 4c**.

Route 6 provides local bus service throughout the Edina Southdale Area and parts of Minneapolis. The route provides local stops along France Avenue between Minnesota Drive and Hazleton Road before accessing the Southdale Transit Center.

Route 578 provides express bus service throughout several Edina neighborhoods including the Southdale area with downtown Minneapolis. This route travels along France Avenue between 69th and 70th Street before accessing the Southdale Transit Center and downtown Minneapolis via TH-62 and I-35W.

Route 579 provides express bus service between the Southdale Transit Center and the University of Minnesota. The route uses 66th Street, 69th Street, France Avenue, and York Avenue to access the Southdale Transit Center before using TH-62 and I-35W to access the University.

Route 587 provides express bus service between the Edina Southdale area and downtown Minneapolis. This route travels along France Avenue between 69th Street and Gallagher Drive. It also serves Valley View Drive and Normandale Road before accessing downtown Minneapolis via TH-100 and I-394.

Route 684 provides express bus service between Eden Prairie, the Southdale Transit Center, and downtown Minneapolis. The route passes through Edina on TH-62, and using Valley View Drive, 66th Street and 69th Street, and York Avenue to access the Southdale Transit Center before continuing to downtown Minneapolis. Operated by Southwest Transit.

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Route	Project Area Service	Destinations	Frequency Headway				
			Rush Hour	Midday	Evening	Saturday	Sunday/Holiday
6	76th Street, as well as France Avenue between Minnesota Drive and Hazleton Road	U of M Dinkytown SE Minneapolis Downtown Minneapolis Hennepin Avenue S Uptown Transit Station France Avenue S Xerxes Avenue S Southdale Transit Center Edina Industrial Park	4-10	10-15	15	15	15
578 Express	66th Street, 69th Street, as well as France Avenue between 69th Street and 70th Street	70th Street Tracy Avenue Benton Avenue 77th Street Bush Lake Road Highwood Drive France Avenue Southdale Transit Center York Avenue Downtown Minneapolis	30	--	--	--	--
579 Express	66th Street, 69th Street, as well as France Avenue between 66th Street and 69th Street	Southdale Transit Center U of M	60	--	--	--	--
587 Express	69th Street, as well as France Avenue between 69th Street and Gallagher Drive	France Avenue Valley View Road Normandale Road Downtown Minneapolis	30-40	--	30-40	--	--
684 Express	66th Street, 69th Street	Eden Prairie (various) Southdale Transit Center Downtown Minneapolis	30	--	--	--	--

Table 1. Existing Transit Route Summary

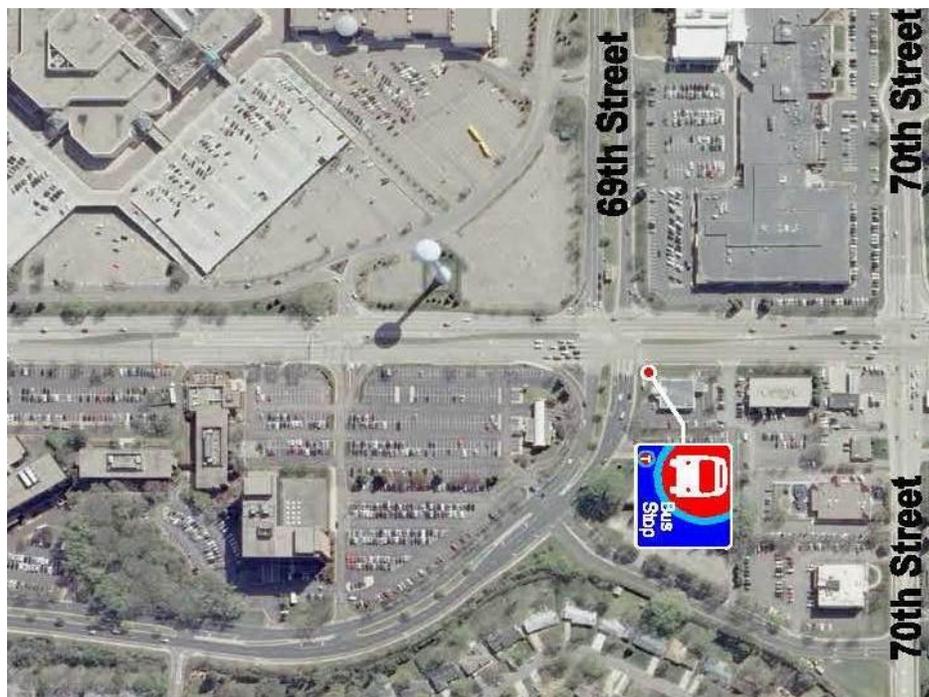


Figure 4a. France Ave Existing Transit Stop Locations

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Figure 4b. France Ave Existing Transit Stop Locations

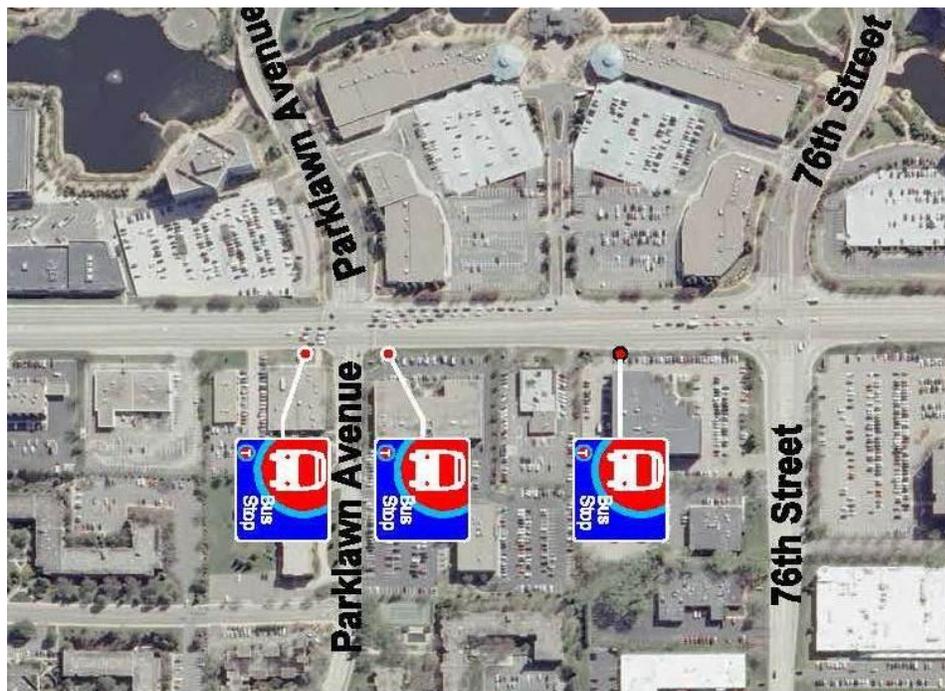


Figure 4c. France Ave Existing Transit Stop Locations

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France Ave at 76th Street

76th Street is an east / west city street providing access between the commercial / residential areas east and west of France Avenue. It was identified in the City's Comprehensive plan as a component of the east / west reliever roadway to I-494. 76th Street is classified as an "A" Minor Arterial with a posted speed of 30 mph. **Figure 5** below shows the existing roadway typical sections at France Avenue and 76th Street.

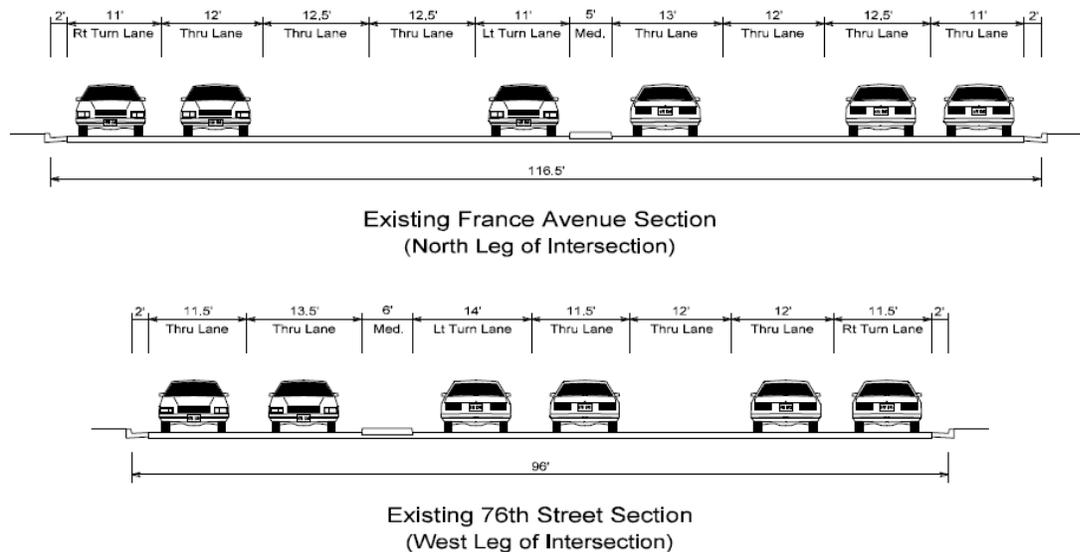


Figure 5. France Ave at 76th Street Typical Sections

France Ave at 70th Street

70th Street is an east / west city street providing access between the residential areas west of France Avenue and the commercial areas to the east of France Avenue. In 2010 70th Street was reconstructed east of France Avenue to include three single lane roundabouts. West of France Avenue, 70th Street was reconstructed in 2011 as a "complete street" including a single lane in each direction, bike lanes, parking lanes, a roundabout and a traffic signal system to help control speed. 70th Street is classified as a Collector Roadway in the City's Comprehensive Plan a posted speed of 30 mph east of France Avenue and 25 mph west of France Avenue. **Figure 6** below shows the existing roadway typical sections at France Avenue and 70th Street.

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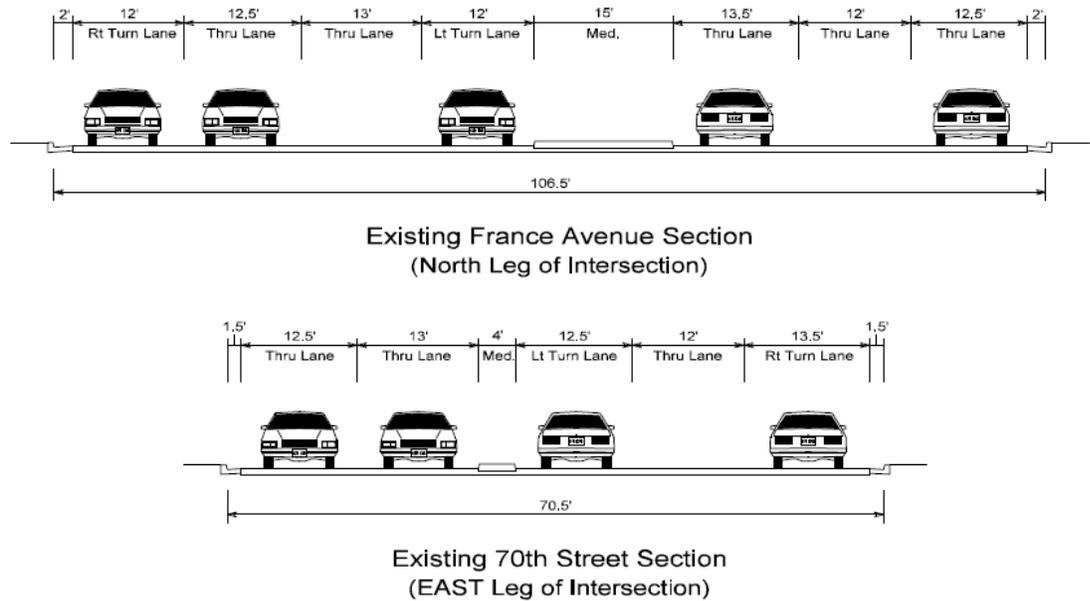


Figure 6. France Ave at 70th Street Typical Sections

France Ave at 66th Street

66th Street is an east / west city street west of France Avenue and a Hennepin County Road (CSAH 53) east of France Avenue. This roadway provides access between the residential areas west of France Avenue and the Commercial areas to the east of France Avenue primarily Southdale Center. 66th Street is classified as an "A" Minor Arterial with a posted speed of 30 mph. **Figure 7** below shows the existing roadway typical sections at France Avenue and 66th Street.

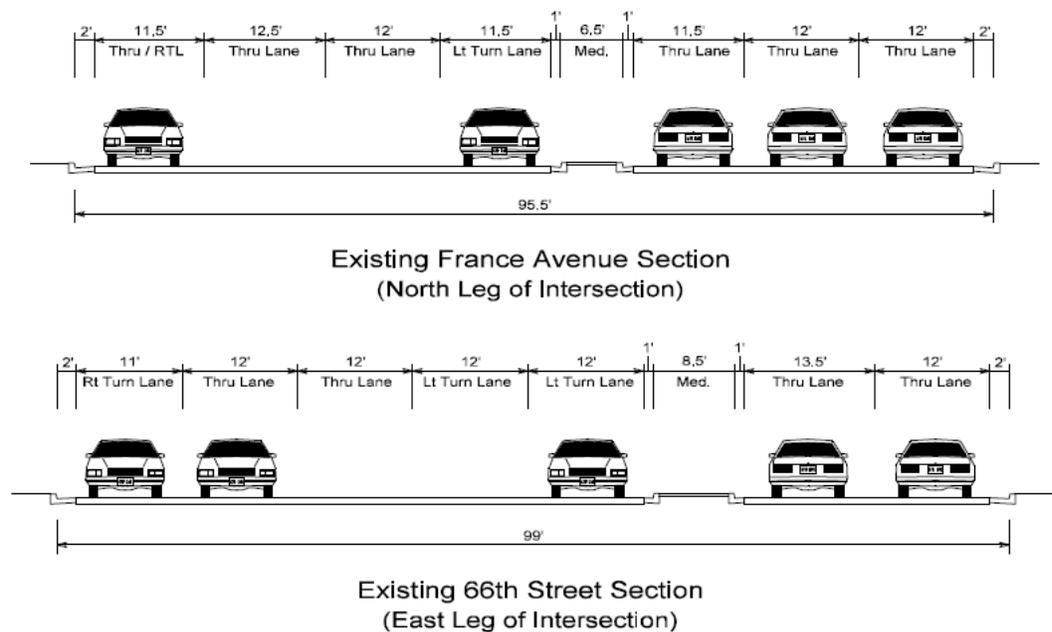


Figure 7. France Ave at 66th Street Typical Sections

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5. CORRIDOR ANALYSIS

Traffic Analysis

Traffic volume data was collected for France Avenue and the adjacent side streets in comparing the past two counting years (2009 and 2011) traffic has actually decreased slightly on France Avenue below is a summary of the traffic volume data used in for the analysis.

France Avenue

2009 Count – 26,000 vpd to 28,500 vpd

2011 Count – 24,300 vpd to 27,800 vpd

76th Street

2009 Count – 8,000 vpd to 9,100 vpd

70th Street

2009 Count – 9,300 vpd to 10,600 vpd

66th Street

2009 Count – 10,000 vpd to 16,100 vpd

Traffic operations were evaluated for the France Avenue Corridor in order to evaluate lane configuration alternatives using 2009 traffic volume data. This section describes the methodology used to assess the operations and provides a summary of traffic operations.

Analysis Methodology

The traffic operations analysis is derived from established methodologies documented the *Highway Capacity Manual 2000* (HCM). The HCM provides a series of analysis techniques that are used to evaluate traffic operations.

Intersections are given a Level of Service (LOS) grade from “A” to “F” to describe the average amount of control delay per vehicle as defined in the HCM. The LOS is primarily a function of peak traffic hour turning movement volumes, intersection lane configuration, and the traffic controls at the intersection. LOS A is the best traffic operating condition, and drivers experience minimal delay at an intersection operating at that level. LOS E represents the condition where the intersection is at capacity, and some drivers may have to wait through more than one green phase to make it through an intersection controlled by traffic signals. LOS F represents a condition where there is more traffic than can be handled by the intersection, and many vehicle operators may have to wait through more than one green phase to make it through the intersection. At a stop sign-controlled intersection, LOS F would be characterized by exceptionally long vehicle queues on each approach at an all-way stop, or long queues and/or great difficulty in finding an acceptable gap for drivers on the minor legs at a through-street intersection.

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The LOS ranges for both signalized and un-signalized intersections are shown in **Table 2**. The threshold LOS values for un-signalized intersections are slightly less than for signalized intersections. This variance was instituted because drivers' expectations at intersections differ with the type of traffic control. A given LOS can be altered by increasing (or decreasing) the number of lanes, changing traffic control arrangements, adjusting the timing at signalized intersections, or other lesser geometric improvements. LOS also changes as traffic volumes increase or decrease.

	Control Delay (Seconds)	
	Signalized	Un-Signalized
A	≤ 10	≤ 10
B	10 – 20	10 – 15
C	20 – 35	15 – 25
D	35 – 55	25 – 35
E	55 – 80	35 – 50
F	> 80	> 50

Source: HCM

Table 2 - Intersection Level of Service Ranges

LOS, as described above, can also be determined for the individual legs (sometimes referred to as “approaches”) or lanes (turn lanes in particular) of an intersection. It should be noted that a LOS E or F might be acceptable or justified in those cases where a leg(s) or lane(s) has a very low traffic volume as compared to the volume on the other legs. For example, improving LOS on such low-volume legs by converting a two-way stop condition to an all-way stop, or adjusting timing at a signalized intersection, could result in a significant penalty for the many drivers on the major road while benefiting the few on the minor road. Also, geometric improvements on minor legs, such as additional lanes or longer turn lanes, could have limited positive effects and might be prohibitive in terms of benefit to cost.

Although LOS A represents the best possible level of traffic flow, the cost to construct roadways and intersection to such a high standard often exceeds the benefit to the user. Funding availability might also lead to acceptance of intersection or roadway designs with a lower LOS. LOS D is generally accepted as the lowest acceptable level in urban areas. LOS C is often considered to be the desirable minimum level for rural areas. LOS D or E may be acceptable for limited durations or distances, or for very low-volume legs of some intersections.

The LOS analysis was performed using Synchro/SimTraffic:

Synchro, a software package that implements Highway Capacity Manual (HCM) methodologies, was used to build each signalized intersection and provide an input database for turning-movement volumes, lane geometrics, and signal design and timing. In addition, Synchro was used to optimize signal timing parameters for future conditions.

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SimTraffic is a micro-simulation computer modeling software that simulates each individual vehicle's characteristics and driver behavior in response to traffic volumes, intersection configuration, and signal operations. The model simulates drivers' behaviors and responses to surrounding traffic flow as well as different vehicle types and speeds. It outputs estimated vehicle delay and queue lengths at each intersection being analyzed.

Corridor Analysis

The traffic operations analysis was completed for several lane configuration alternatives along France Avenue. The PM peak hour traffic conditions from 2009 were used for the analysis. Each alternative including the results of the analysis is discussed below. A summary table of each analysis alternative is included in the **Appendix**.

1. Existing Lane Configuration – This analysis provided the base line condition that was used to compare the results of the other lane configuration alternatives. The results of the existing analysis found that several movements are at Level of Service (LOS) E or F. In addition some of the existing max vehicle queues exceed the available turn lane storage.
2. Removing Free Right Turn Lanes – By removing the free right turn lanes it was found that there was very little impact to the overall operations and that there would be a minimal increase in vehicle delays.
3. Removing One Through Lane on France Avenue – Removing one of the through lanes increased the number of intersection movements that are at LOS E or F. Average vehicle delays increased by 10 to 20 sec per vehicle at the intersections.
4. Removing Additional Left Turn Lanes – This alternative removed one left turn lane at locations where there were dual left turn lanes. The results of the analysis found that at every location where the lane was removed the left turn queues exceed the available storage. In addition, the overall intersection average intersection delays increased by an additional 5 to 10 secs per vehicle.

One concern that was raised by Hennepin County was the use of the average PM peak hour as the analysis period. The concern is that even though we don't typically design for a holiday peak, this area of France Avenue with Southdale and the other retail uses, tend to have a more extended holiday timeframe and that the level of traffic on France Avenue is actually higher on an average.

Based on the traffic operations analysis results it was determined that the final concepts would be developed based on only eliminating the free right turn lanes and no other lane reductions.

Crash Analysis

A crash investigation of the past 5 years (2007 – 2011) was completed for the corridor. The results indicate that there were 258 crashes in the corridor from 66th Street to 76th Street with 95 of those crashes at the intersections proposed to be improved with this project. The results also conclude that the overall crash rate and severity rate in the corridor is below the state wide average for the same type of roadways. The investigation found that there were 4 pedestrian or bicycle crashes in the corridor. Three of the four were with vehicles turning right failing to yield to bicycles. These crashes are listed below.

- 66th Street – Northbound right-turn vehicle failed to yield to bike (2011)
- 69th Street – Southbound right turn vehicles struck bike (2011)
- 69th Street – Northbound through vehicle struck pedestrian (2011)
- Gallagher Drive – Westbound right turn vehicle failed to yield to bike (2011)

A table showing the results of the intersection analysis is included in the **Appendix**.

6. IMPROVEMENT OPTIONS

Urban Design Context

Any improvements to selected intersections along France Avenue must be made in the context of the City's other plans for the corridor, including its Comprehensive Plan, transportation plans, and plans for economic development. In general these plans have suggested a gradual transformation of France Avenue from a vehicular-oriented street to one that offers a "living street" experience for not only people in motorized vehicles but also to pedestrians, bicyclists, and transit users. Such a reorientation will affect not only the design of France Avenue and the streets that intersect it, but also the private property adjacent to France Avenue. The City, County, and the owners of private property will need to work together to achieve this goal.

The concept is to fully connect the public domain of the street with the private domain of buildings. This will create a realm for social interaction, a place that provides an opportunity for people to meet and congregate, purposefully or serendipitously, or simply move between locations. To achieve this goal, France Avenue will be transformed into a tree-lined boulevard with several distinct features will be added to France Avenue including new and additional street, pedestrian, bicycle, and transit elements, as discussed below.

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A generalized concept of one of the proposed intersections as envisioned under Option 1 illustrating a novel approach to moving bicyclists through the intersection by superimposing what is essentially a roundabout for bicycles over a standard vehicular intersection. Note that existing free-right turning movements have been eliminated and the median enhanced to improve pedestrian safety by decreasing crossing distance. This is true of all alternative options. Similarly all of the proposed options would significantly improve pedestrian comfort and enhance the identity of the corridor by increasing the number of trees providing an overstory canopy along streets, sidewalks, and in the median. Although it would be preferred to have new structures about the street, particularly at corners, some existing buildings will remain removed from the street, requiring that sidewalks be extended from the street to those more distant structures. This concept for locating new buildings near sidewalks or improving the sidewalk connection for existing buildings would be applied in all alternative options.

Corridor Elements

The stated goal of the City to transform France Avenue between TH 62 Crosstown and I-494 into an attractive and distinct tree-lined living street with its own distinguishing identity that not only differentiates it from other corridors but also from other segments of France Avenue. To do this, the primary change will be the relationship between buildings and the street. In general, buildings will move closer to the street. At intersections, buildings will be adjacent to both France Avenue and the intersecting street. In locations where streets and existing buildings will remain distant, connecting plazas and generous sidewalks will encourage better pedestrian connectivity. Eventually intervening parking lots will be eliminated or at least become less common; a landscaped buffer will separate the street from pedestrians; doorways to buildings will open to intersections or sidewalks parallel to the street.

The cross section of the corridor would also change. Lane width would be reduced to 11 feet with opposing traffic separated by a substantial planted median of 10 or more feet. For Option 1, bicycles would be accommodated on France Avenue with a 5 foot bike lane in each direction. In that option, planters or a 20-foot planted buffer would separate France Avenue from the sidewalk.

Feasibility Study FRANCE AVENUE INTERSECTION ENHANCEMENTS

For Option 2 the bike lane would be separated only by a curb. For Option 3, bicycles would simply share the road with traffic. Sharrows for assisting the turning movements of bicyclists would be included at certain cross streets in some options. Inexperienced bicyclists may prefer to ride on the sidewalk but that is contrary to the city's existing public policy although it may be allowed under state standards if the sidewalk's layout meets state criteria.

The sidewalk would be a least seven feet wide under the first two options, running parallel to the street. For Option 3, the walk would be 8 feet wide. Under all options the sidewalk placed adjacent to buildings may actually be wider to accommodate outdoor civic or commercial activities.

The roadway median (between opposing lanes of traffic) and the sidewalk median (between the sidewalk and the street) would be slightly bermed to reduce headlight glare and planted with, as appropriate, flowers, shrubs, and trees. Plantings would be unique and contribute to creating a unique identity to the corridor.

Street and pedestrian lighting will be installed along the roadways and sidewalks. The roadway lighting will be standardized yet unique to the corridor. The pedestrian lighting will be identical to the pedestrian lighting with an "E" emblem as used recently elsewhere in the City. Both street and pedestrian lighting will be placed uniformly along the edge of the roadway or sidewalk to emphasize the linearity of the corridor. It is anticipated that street lights may become necessary as trees mature and ambient light shining on the roadway is reduced. The lighting of the roadway will not be immediately installed as part of the currently proposed improvements to intersections and sidewalks, although conduit for future installation may be included. However, some intersection and pedestrian level lighting is included with the project. Lighting of buildings, signs, and places of outdoor gathering will be coordinated to establish an overarching architectural identity for the corridor.

Gateway monuments would demarcate the entrances to this segment of France Avenue, announcing its distinct identity as a uniquely designed and managed destination. Similar, although less pronounced identifying markers would occur where cross streets intersect France Avenue. Wayfinding for motorists, pedestrians, and bicyclists will need to be installed to facilitate active-transportation. For motorists, this may include active messages, particularly for events, seasonal information, and directions to and the availability of parking facilities. For bicyclists, it may be providing direction to major nearby destinations and for pedestrians, kiosk bulletin boards providing room for announcements of public events.

Feasibility Study FRANCE AVENUE INTERSECTION ENHANCEMENTS



Distinctive gateway monuments not only define the entrances to a corridor but presage the character of the whole district, inviting participation and providing an identity to an iconic street in a vibrant community. Such monuments can be destinations themselves, provide community and historical information, and must be attractive throughout the day and year.

Pedestrian Elements

The primary attribute of the pedestrian realm will be the sidewalk itself. The walk will be concrete with a scoring pattern unique to the corridor. The preference will be to have buildings abut the sidewalk. It will be a standard seven to eight foot width depending on the option selected with an additional 18-inch shy distance next to buildings to allow for façade projections and fenestrations. The walk may be widened to accommodate future commercial uses, such as restaurant patios and sidewalk cafes, or even developed into small plazas or pocket parks in coordination with future private development. The concept is to create opportunities for people to interact. Additional pedestrian amenities, such as benches, tables, arbors, or drinking fountains may be included. Some of these amenities may be installed in coordination with private development that is anticipated to occur along the corridor in the upcoming years and decades.

The boulevard buffer between the sidewalk and the street is critical for developing the pedestrian realm. The buffer will provide an area for trees, shrubs, and flowers. At a minimum, there will be an 8 foot bio-swale boulevard buffer planted with trees between the sidewalk and street. Flowers will be planted near cross streets to emphasize the intersections. To provide for plant health and vigorous growth, irrigation and soils designed for compact urban locations are assumed for all boulevard and median plantings. For Option 1, planter boxes filled with shrubs and flowers will provide separation between bicyclists and pedestrians.

The scale of the plantings will be massive and perfuse to visually complement the width of the street, the height of adjacent buildings, and the vibrancy of activity. In particular, large distinctive street trees, primarily deciduous, will enclose the sidewalk and street while providing a pedestrian scale space and detailing beneath the canopy, creating a safe enclosure for people moving through the corridor on foot. Shrubs and flowers will provide interesting details to pedestrians.

Feasibility Study FRANCE AVENUE INTERSECTION ENHANCEMENTS



By working with private developers, the pedestrian realm can become a place for social interaction. Providing amenities that make it comfortable for people to walk and congregate is essential. Explicitly marking where pedestrians are located and providing a wayfinding system increases pedestrian safety and encourages people to walk. Pedestrian activated crossing signals and video activated signals for bicycles will enhance the safety for active transportation while improving the systems' responsiveness to the needs of pedestrians and bicyclists.

Bike Elements

For Option 1, bicycles will be accommodated along France Avenue with a dedicated lane for northbound bikes and a dedicated lane through the intersection of 66th Street, 70th Street and 76th Street for southbound bikes. The preferred width is six feet. At intersections, a specially adopted layout, essentially a roundabout for moving bicyclists safely through traffic will be accommodated. Left turns will be accommodated through the roundabout rather than crossing traffic over to a left turn lane. Bike lanes will be separated from lanes for motorized traffic by a wide curb. At intersections, bike lanes will be color-coded.

For Option 2, bicycles will be accommodated on the France Avenue but separated from traffic by a curb. For Option 3, bike lanes will only be provided on selected cross streets. No dedicated bike lanes will be placed on France Avenue for Option 3.

Feasibility Study FRANCE AVENUE INTERSECTION ENHANCEMENTS

Accommodating bicycle parking will be critical in the corridor. Parking by building entrances, outdoor public gathering spots, and at transit nodes will need to be coordinated with private development. In addition, “on-street” bicycle rental vending may become an option in the area and will need to be accommodated off of France Avenue and other intersecting streets. It will be critical that the location of bicycle lanes, parking, and rental not interfere with pedestrian movement. Coordination with private developers to accommodate bicycle parking, including the possibility of having bicycle lockers, may be necessary.



Edina has designated France Avenue as a secondary bike route. Although, given various alternative routes, it will probably be used only by more experienced riders. Under Option 1, the introduction of the bicycle roundabout superimposed over a standard intersection provides a safe way for bicyclists to negotiate the intersection. Signal detection methods for bicyclists will be improved under all options.

Transit Elements

Coordination with transit providers will be essential for transforming France Avenue into a living street. Linking the sidewalk's pedestrian system with the streets' transit system will require site-specific coordination. Providing a corridor-specific transit shelter at all transit stops will encourage use of the transit system. Coordinating vending machines for newspapers or at a minimum defining their locations will benefit the appearance of the corridor. The placement of transit shelters must not interfere with pedestrian or bicycle movement. Providing bicycle storage lockers at transit stops will encourage residential neighbors to use transit and provide an opportunity to reinforce France Avenue as a destination.

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A seamless transition from transit to bicycling and walking is critical for establishing a living street.



The location and design of transit shelters can provide an iconic element for the corridor. It is anticipated that a uniquely designed bus shelter that will be coordinated with other design elements in this corridor will reinforce the street's distinctiveness.

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Intersection Elements

Crosswalks will be marked with the proven safety improvement, a traditional zebra-striped crosswalk with stop bars. This will provide the best safety measures for pedestrians. A wide center median, at least 10 feet, will create a pedestrian refuge in the center of France Avenue. The median should extend beyond the crosswalk into the intersection to provide an additional buffer for stranded pedestrians. City and County standards will be applied to curb cut locations and design.

Traffic Signal Elements

The appearance of traffic signals, poles, and masts will be coordinated with lighting fixtures and standards. It is anticipated that the color of traffic semaphores will be bronze. American with Disabilities (ADA) standards will be applied to all traffic signal elements. Video detection or other detection methods will be used to identify if a pedestrian or bicyclist is approaching or in a crossing and the cycle times adjusted to allow sufficient time for crossing and turning movements. Turning movements for cars will be delayed if the presence of a pedestrian or bicyclist is detected. A manual override system will be provided for both pedestrians and bicyclists.



The design of the functional aspects of intersection and traffic signal elements will reinforce the aesthetic and urban design characteristics of the corridor by providing safety and comfort to pedestrians and bicyclists.

7. PROPOSED IMPROVEMENT ALTERNATIVES

Three primary intersection options were prepared and evaluated, taking into consideration of the design elements discussed in the previous section and input from the Stakeholders and Edina Transportation Commission. Each option is discussed below with their advantages and disadvantages,

Intersection Option 1 - Separated Bike/Pedestrian Lanes with Blvd

This option provides a one-way off-road bike lane separated by a boulevard and an elevated pedestrian sidewalk also separated from the bike lane, from 76th Street to 66th Street for northbound and at the intersections of 66th Street, 70th Street and 76th Street for southbound. At the intersections the bikes would be separated in their own crossing using a modification of the “Dutch” design. **Figures 8a – 8c** show Option 1 at each intersection.

Advantages:

- Aesthetically pleasing with more opportunity's to provide landscaping
- Provides buffer to pedestrians and bikes
- Biscuits allow for better sight distance for bikes and vehicles
- Widened Median allows for refuge island for pedestrians
- Increased buffer in corners for pedestrians
- Biscuits allow for signal pole placement
- Decreased distance for pedestrians and bikes to cross
- Safer crossing for pedestrian and bicyclists.

Disadvantages:

- Requires significant R/W
- High Cost
- Pedestrians need to wait further back behind bike lane
- Additional maintenance for snow removal

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FRANCE AVENUE INTERSECTION ENHANCEMENTS

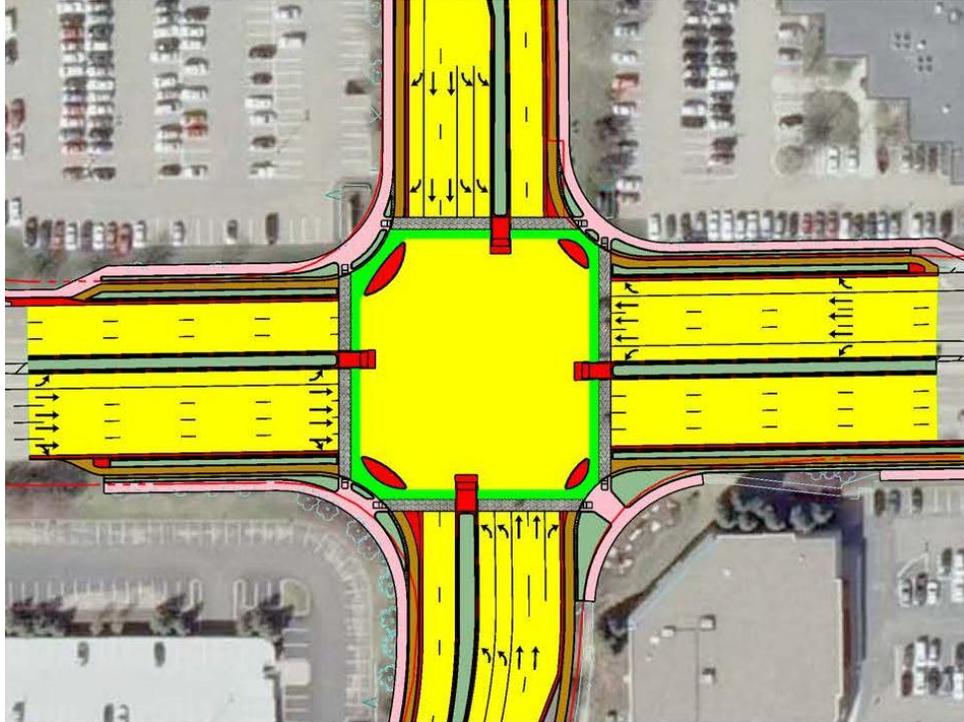


Figure 8a. France Ave at 76th Street Option 1

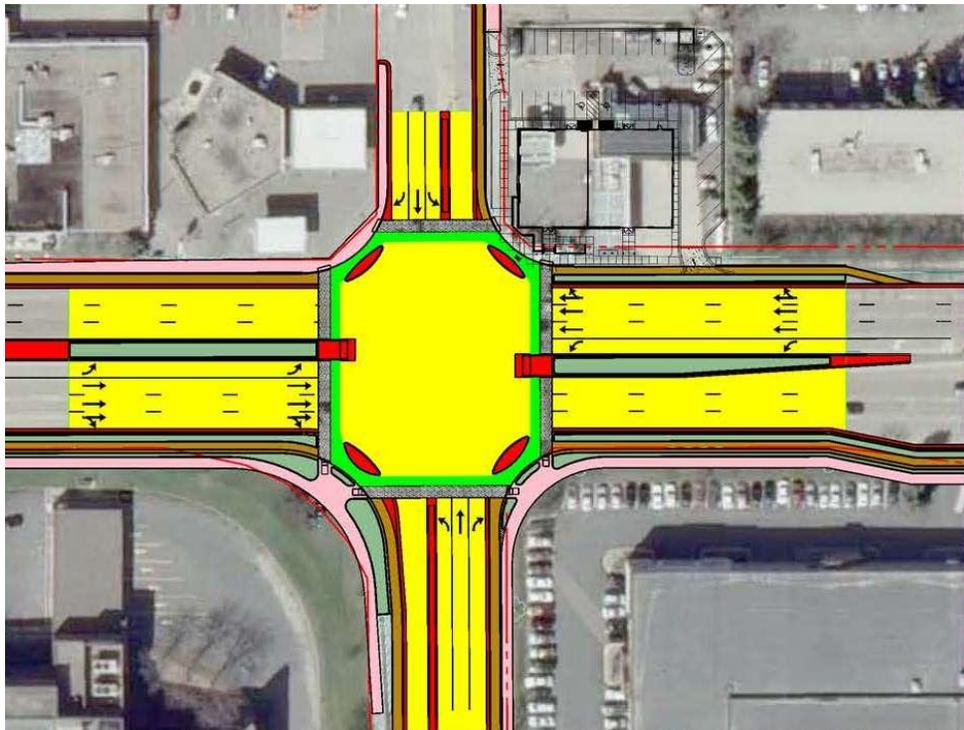


Figure 8b. France Ave at 70th Street Option 1

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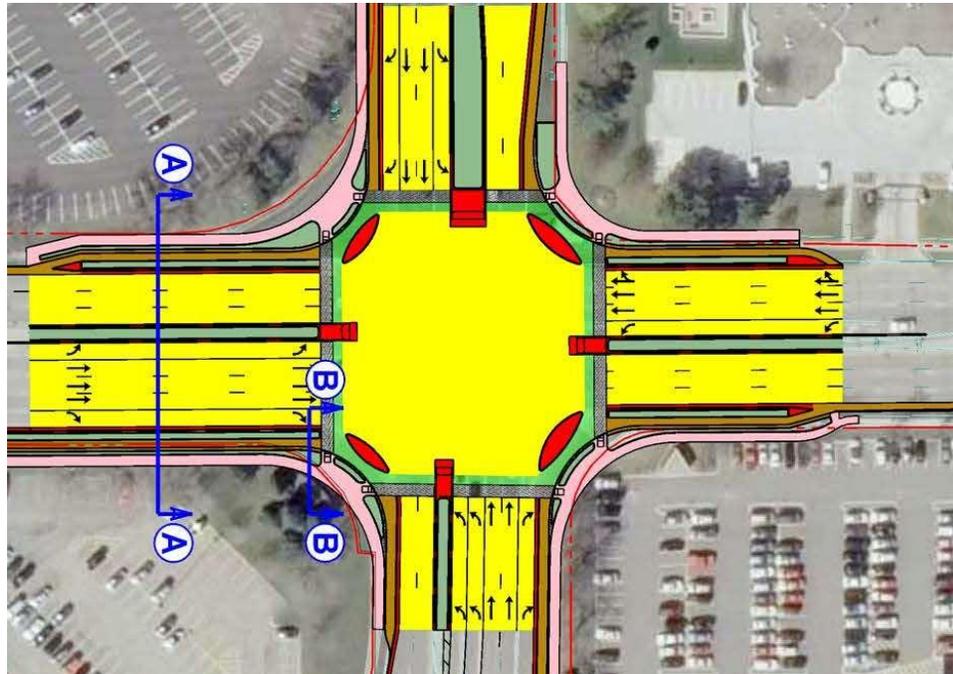


Figure 8c. France Ave at 66th Street Option 1

Intersection Option 2 – Separated Bike/Pedestrian Lanes with no Blvd

This option provides an off-road bike lane with no boulevard and an elevated pedestrian sidewalk separated from the bike lane from 76th Street to 66th Street for northbound and at the intersections of 66th Street, 70th Street and 76th Street for southbound.. At the intersections the bikes would be separated in their own crossing using a modification of the “Dutch” design. **Figures 9a – 9c** show Option 2 at each intersection.

Advantages:

- Provides some opportunity to provide landscaping
- Provides buffer for pedestrians and bikes
- Biscuits allow for better sight distance for bikes and vehicles
- Widened median allows for refuge island for pedestrians
- Increased buffer at corners for pedestrians
- Biscuits allow for signal pole placement
- Decreased distance for pedestrians and bikes to cross
- Less R/W required than Option 1

Disadvantages:

- Requires more R/W than Option 3
- Higher Cost than Option 3
- Pedestrians need to wait further back behind bike lane
- Additional maintenance for snow removal
- Barrier curbs are susceptible to damage

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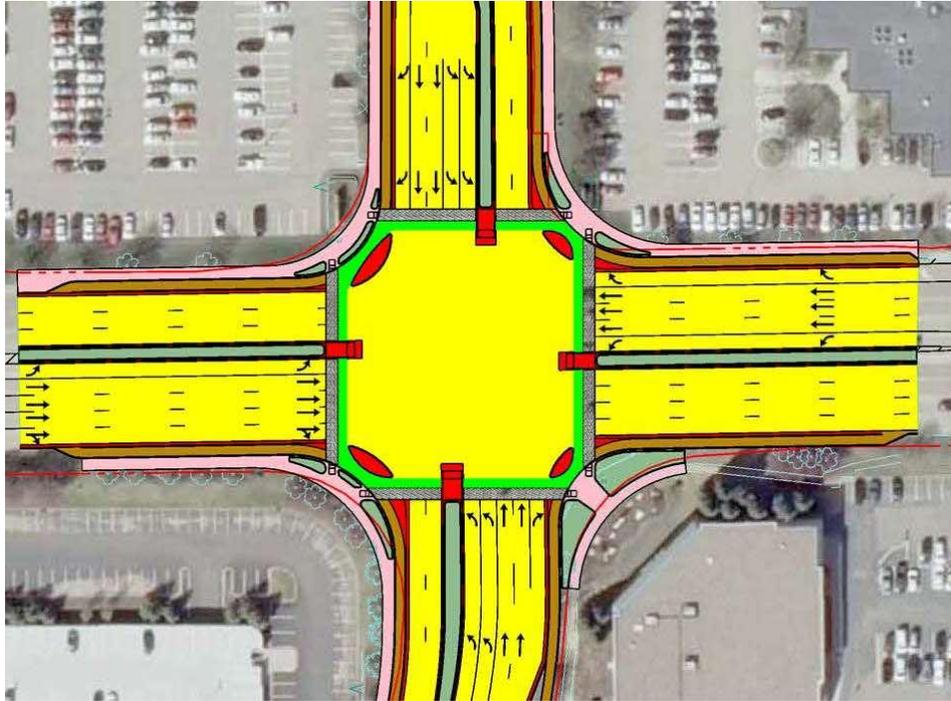


Figure 9a. France Ave at 76th Street Option 2

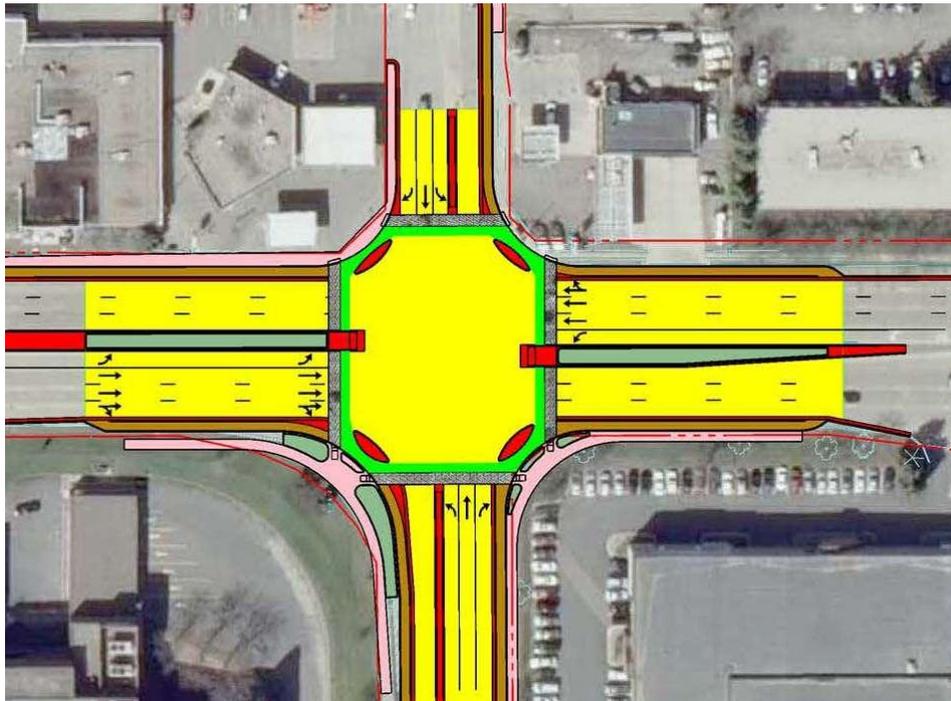


Figure 9b. France Ave at 70th Street Option 2

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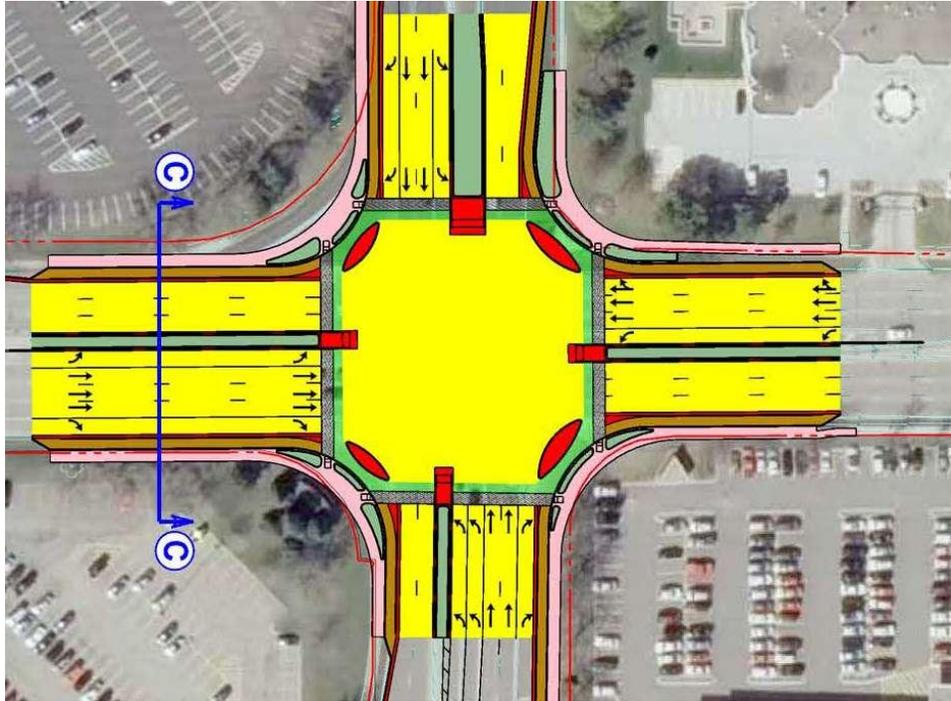


Figure 9c. France Ave at 66th Street Option 2

Intersection Option 3 – Sidewalk with Blvd (On-Street Bike Lanes, Side Streets Only)

This option provides a standard on-road bike lane only on the cross streets at 76th Street, 70th Street and 66th Street. No on-road or separated bike lanes would be provided on France Avenue. A sidewalk would be provided with a boulevard between the roadway and sidewalk on the eastside of France Avenue from 76th Street to 66th Street and on the westside only at the intersections. At the intersections the bikes and pedestrians would use the same crosswalk facility. **Figures 10a – 10c** show Option 3 at each intersection.

This option also provides for the possible future expansion to a project that would provide separated bike and pedestrian facilities (similar to Option 1). This would however require purchasing additional right of way or negotiations with adjacent property owner as the properties would develop.

Advantages:

- Provides some opportunity to provide landscaping
- Provides buffer for pedestrians
- Widened median allows for refuge island for pedestrians
- Would require minimal to no additional R/W
- Lower cost than any other option
- Is the accepted way to handle bike lanes at intersections
- Expandable to separated Bike/Ped facilities in the future.

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Disadvantages

- Increases the width to cross for pedestrians from options 1 and 2
- Pedestrians close to traffic in corners
- Signal Pole placement will require longer mast arm poles
- Would require widening along entire France corridor for future expansion of a bike lane

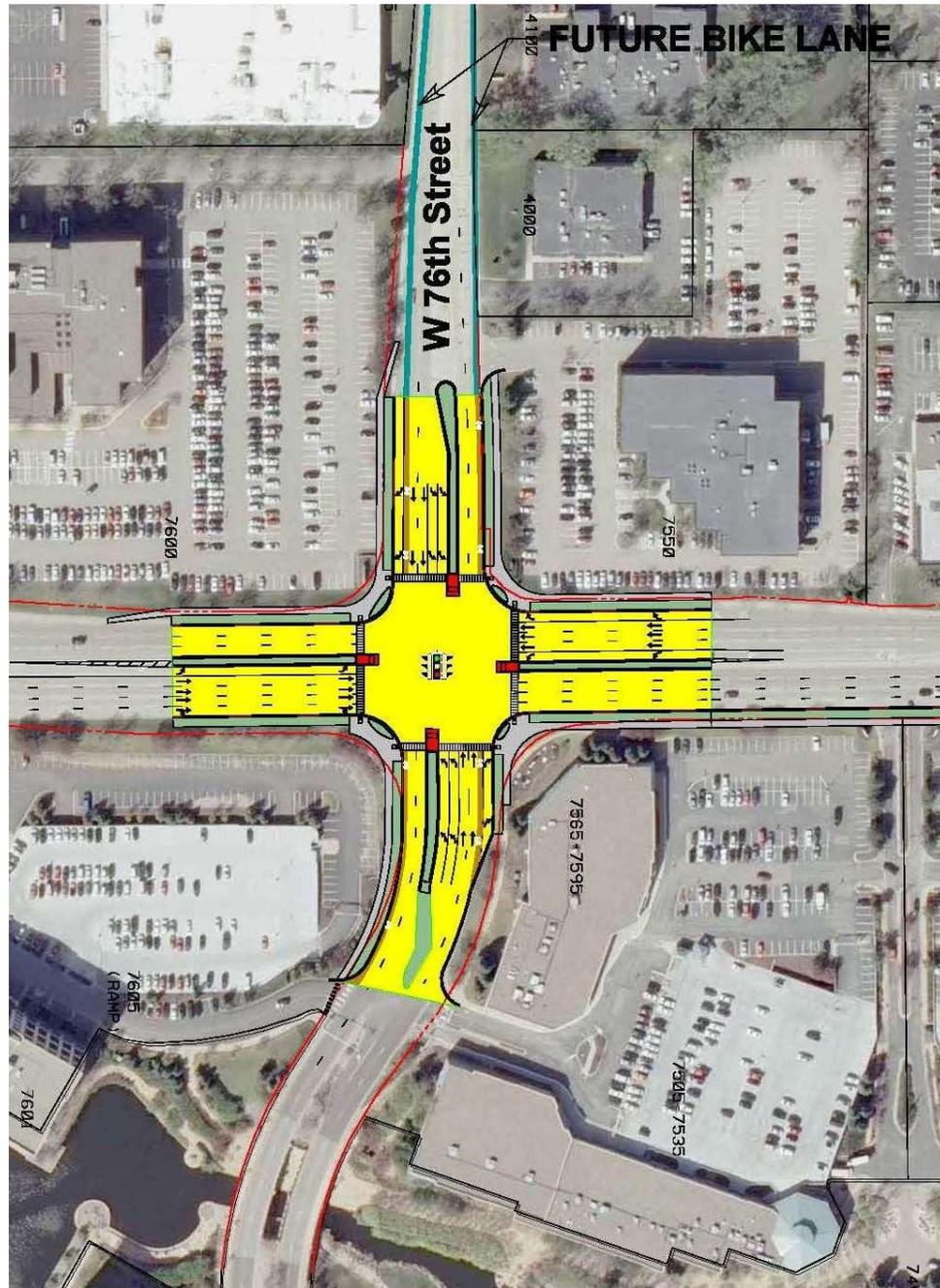


Figure 10a. France Ave at 76th Street Option 3

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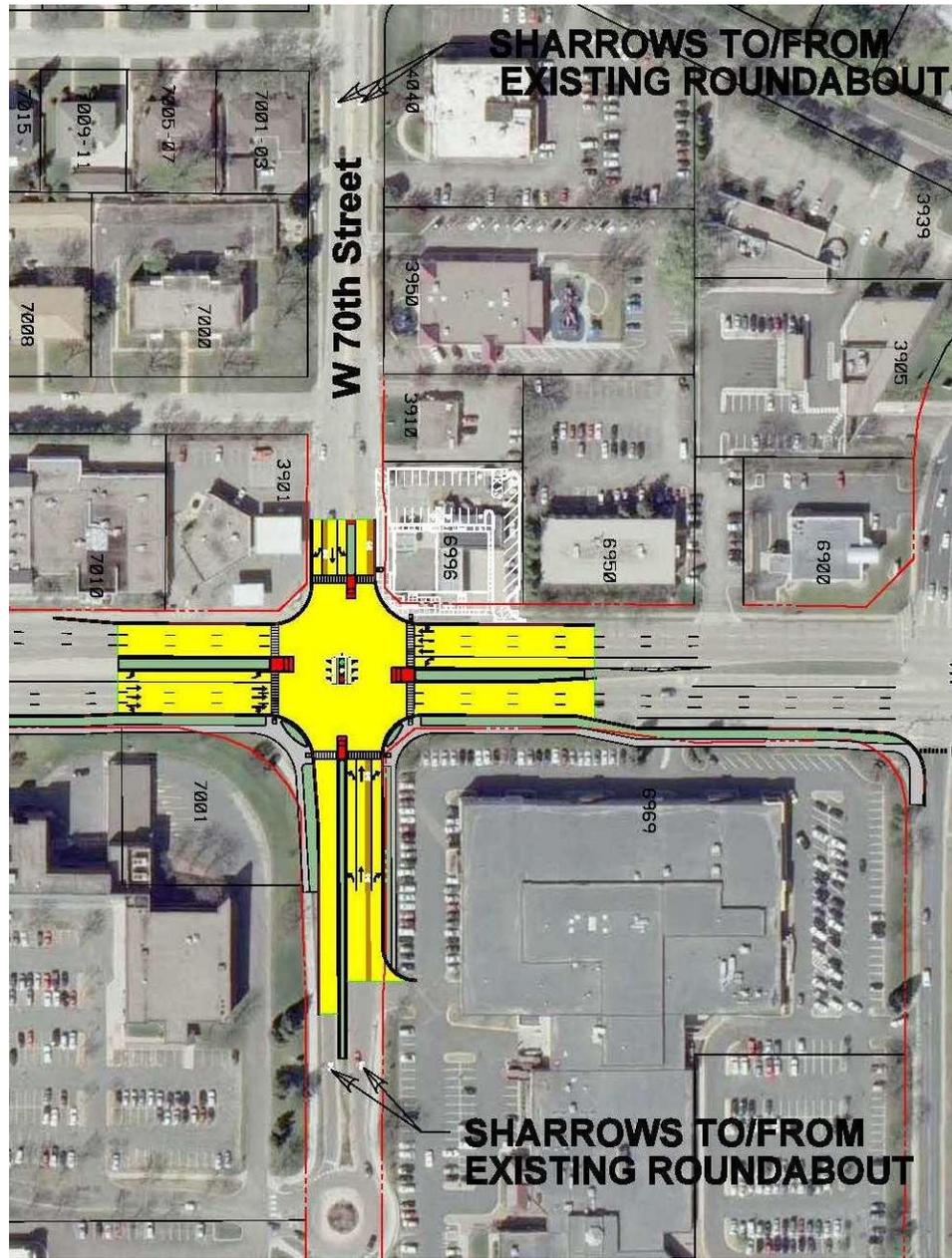


Figure 10b. France Ave at 70th Street Option 3

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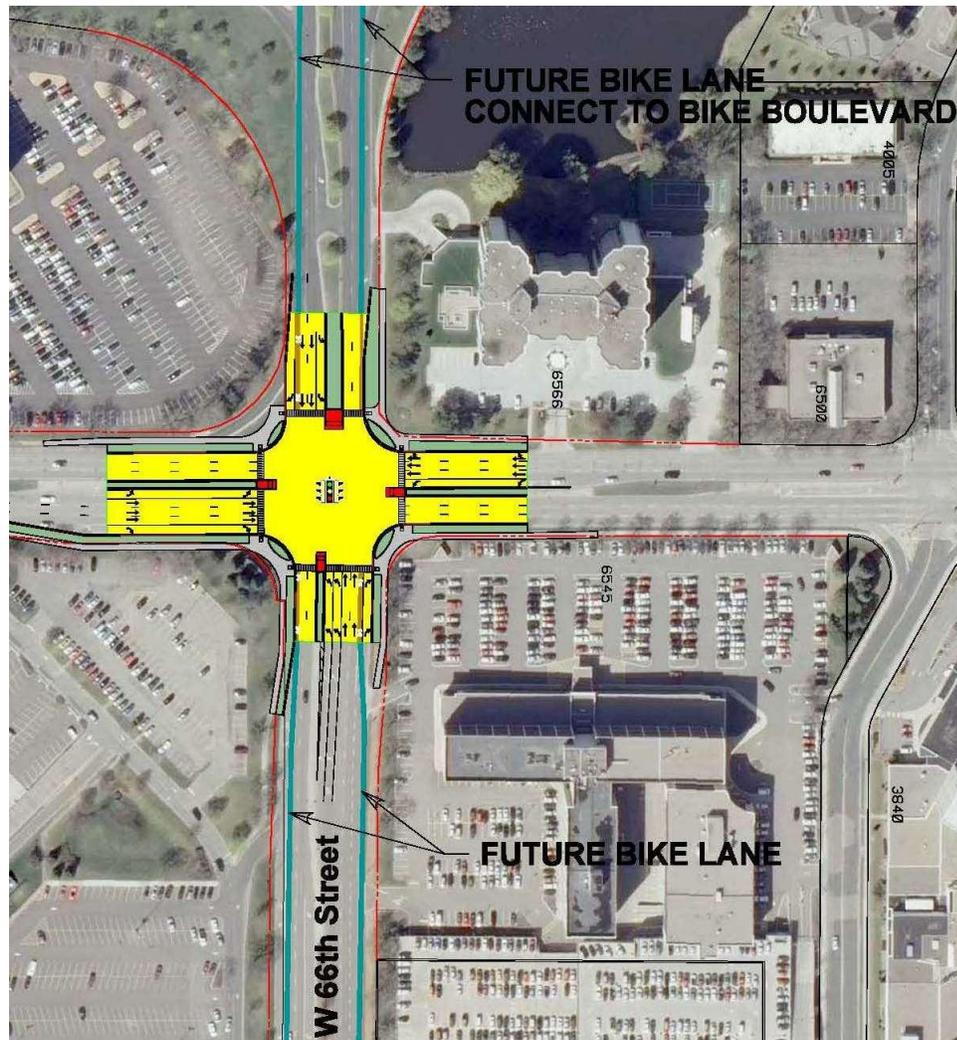


Figure 10c. France Ave at 66th Street Option 3

Other Intersection Design Options Considered

Other intersection design options were also considered but were determined to be not feasible because they would physically fit the France Avenue situation or would create a significant impact to adjacent property. These options included:

- Continuous flow intersection
- Michigan left turns
- Grade separated cross street

Corridor / Sidewalk Connection Options

Three sidewalk connection options were considered for completing the gaps in the sidewalks on the east side of France Avenue including:

- Continuing the preferred alternative the entire length with curb adjustments.
- Continuing the preferred alternative the entire length with curb adjustments except at locations where there were impacts to property other than just right of way.
- Making only sidewalk connections without any significant right of way impacts or curb impacts.

8. RECOMMENDED IMPROVEMENTS

Based on the evaluation of these options and input from the Stakeholders, Option 1 was selected as the initial preferred concept, however following preparation of the project cost estimates and input from the Edina Transportation Commission, Option 3 – Sidewalk with Boulevard (On-Street Bike Lanes on Side Streets Only), is the preferred and recommended concept. The proposed improvements will include the following:

- Reducing the vehicle lanes to the minimum State Aid requirements on northbound France Avenue the entire length from 76th Street to 66th Street and on southbound France Avenue and the side streets only through the intersections at 66th Street, 70th Street and 76th Street.
- Removing and relocation of the France Avenue northbound outside curb from 76th Street to 66th Street and southbound outside curb at the intersections of 66th Street, 70th Street and 76th Street.
- Removing free right turn islands in all quadrants at 76th Street, in the southeast quadrant at 70th Street, in the southeast quadrant at 69th Street, in the southeast quadrant of the Southdale entrance, in the northeast quadrant of the Southdale exit and in the southeast, southwest and northeast quadrants at 66th Street.
- Widening the center median on France Avenue and the side streets to a 10 foot width only at the intersections of 66th Street, 70th Street and 76th Street.
- Providing an 8 foot landscaped boulevard on the eastside of France Avenue from 76th Street to 66th Street.
- Providing an 8 foot sidewalk on the eastside of France Avenue from 76th Street to 66th Street and on the westside of France Avenue only at the intersections of 66th Street, 70th Street and 76th Street.
- Providing a minimum 6 foot landscaped boulevard on the side streets at 66th Street, 70th Street and 76th Street.

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- Providing a 6 foot sidewalk on the side streets where sidewalks currently exist at 66th Street, 70th Street and 76th Street.
- Either a 5 foot on-street bike lane or a shared lane with “Sharrow” eastbound and westbound on 66th Street, 70th Street and 76th Street through France Avenue.
- ADA compliant pedestrian ramps at all intersections and driveways on the eastside of France Avenue from 76th Street to 66th Street and on the west side of France Avenue at 66th Street, 70th Street and 76th Street.
- Revised traffic signal systems at 66th Street, 70th Street and 76th Street including APS pedestrian push buttons, countdown pedestrian signal timers, median refuge island pedestrian push buttons and new vehicle and bicycle detection systems.
- Urban design feature including, landscaping, monuments, planter boxes, bollards and colored or stamped concrete at the intersection of 66th Street, 70th Street and 76th Street.

Figures 11a – 11c show the recommended improvements. Detailed plan sheets for the corridor are included in the **Appendix**.



Figure 11a. France Ave Preferred Alternative

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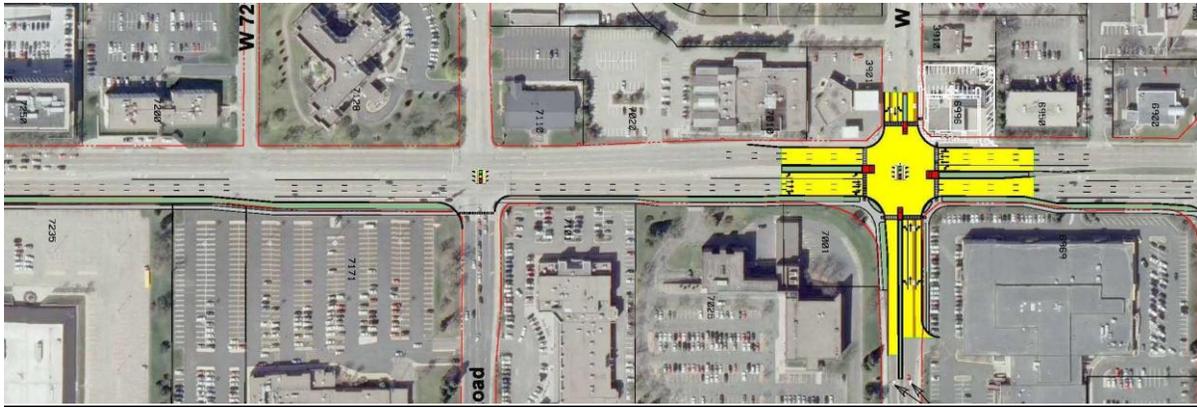


Figure 11b. France Ave Preferred Alternative

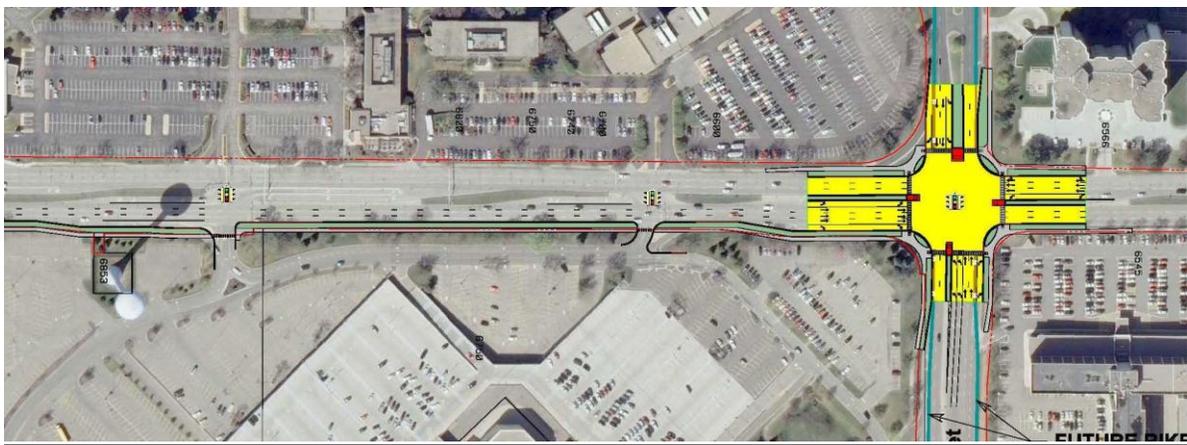
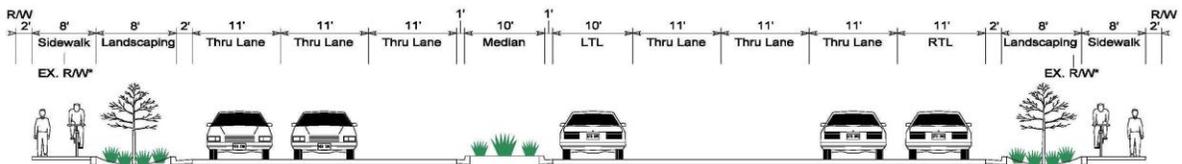


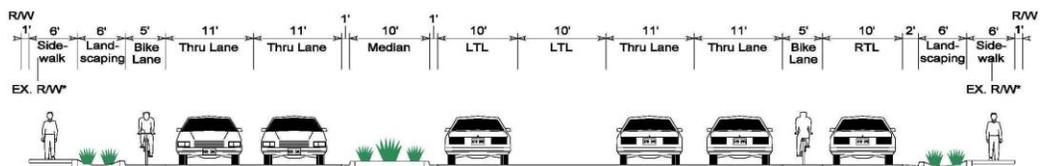
Figure 11c. France Ave Preferred Alternative

The proposed typical sections for France Avenue and the Side Streets are shown in **Figure 12**.



Proposed France Avenue Section

*Existing R/W Varies



Proposed Side Street Section

Figure 12. France Ave Option 3 Typical Section

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FRANCE AVENUE INTERSECTION ENHANCEMENTS

The area from Gallagher Drive to north of Hazelton Road will require slight modifications from the typical section. From Gallagher Drive to Hazelton Road, adjacent to the Macy's and Byerly's property, it is proposed to construct the sidewalk with a railing, on top of the existing retaining wall. The area between the roadway and existing retaining wall will be a landscaped boulevard. This will require slight modifications to the existing parking lots. The area north of Hazelton Road will include a slightly narrower (4 to 6 foot) boulevard to avoid significant impacts to the existing parking lot. **Figure 13** shows a detail of this area.

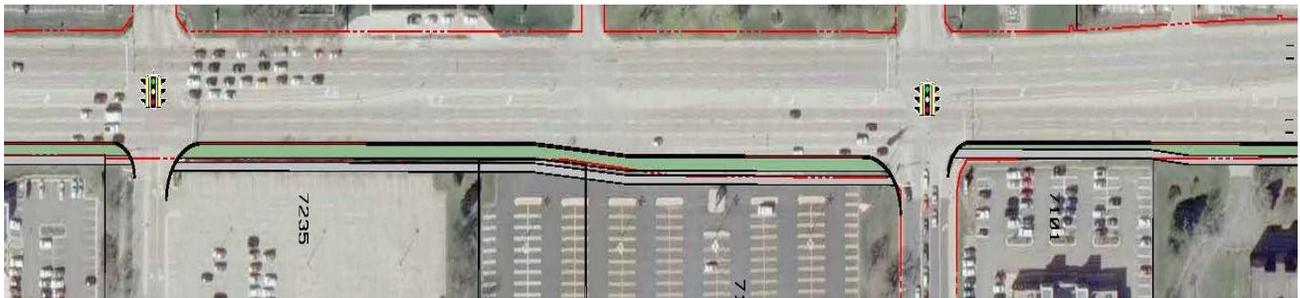


Figure 13. France Ave – Gallagher Dr to Hazelton Rd

A detail of a typical intersection corner showing the location of the interaction of the pedestrian, the location of the ADA ramps and location of areas where additional landscaping could occur is shown in **Figure 14**.



Figure 14. France Ave Concept 3 Intersection Detail

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Several urban design refinements are included as part of Option 3 based on Stakeholder input and discussions with Edina's Transportation Commission. The refinements include a focus on sidewalks with a row of trees along the median and sidewalks to enhance the pedestrian experience. Enhancements for pedestrians crossing France Avenue and other streets are also included with this option. Additional plantings, irrigation, engineered soils, gateway markers, lighting and other amenities would be included.

The cross section and plan view figures below for Option 3 illustrates several unique urban design elements including gateway monuments, boulevard and median tree plantings, pedestrian lighting, and paving patterns that together provide an identity and create a composition unique for France Avenue.

Distinctive corner with raised planters with shrubs and flowers, roadway identification markers and coordinated bollards will provide a buffer between pedestrians and motorized traffic. The planter, scoring patterns, markers and bollards will also clearly orient walkers, especially those with physical impairments to clearly marked crosswalks.

Figures 15a – 15f capture these suggested refinements for the corridor and a typical intersection.



Figure 15a. France Ave Corridor Urban Design Concept

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Figure 15b. France Ave Intersection Urban Design Concept



Figure 15c. France Ave Intersection Urban Design Concept

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Figure 15f. France Ave Urban Design Concept Corner Detail

9. RIGHT-OF-WAY & EASEMENTS

The estimated permanent right of way and temporary easements needed for Options 1 and 3 are outlined below. These areas represent the estimated worst case and best case for right of way needs.

Option 1

76th Street:
Perm R/W = 18,000sf
T/E = 15,000sf

70th Street:
Perm R/W = 8,500sf
T/E = 7,300sf

66th Street:
Perm R/W = 8,500sf
T/E = 7,600sf

Sidewalk Connection Areas
Perm R/W = 47,000sf
T/E = 35,200sf

Total Option 1:
Perm R/W = 82,000sf
T/E = 65,100sf

Option 3

76th Street:
Perm R/W = 7,100sf
T/E = 1,850sf

70th Street:
Perm R/W = 3,800sf
T/E = 3,800sf

66th Street:
Perm R/W = 1,800sf
T/E = 2,600sf

Sidewalk Connection Areas
Perm R/W = 32,000sf
T/E = 22,000sf

Total Option 3:
Perm R/W = 44,700sf
T/E = 30,250sf

Right of way acquisition will need to follow the Federal Right of Way Acquisition process. This is one of the critical elements in meeting the project sunset date timeline of March 31st, 2013. In order to meet this timeline the process will need to begin by September 1st, 2012. This process would also include potential condemnation if required.

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10. PROJECT COSTS

As part of the Scope Change and Sunset Date extension request the estimated project cost was **\$2,045,000**. This included minimal landscaping (\$50,000) and minimal lighting (\$80,000). The cost also did not include any additional right of way.

Estimated costs were developed for Option 1 and Option 3. These costs include estimated right of way, urban design elements and construction for each intersection as well as the sidewalk connection improvements. The estimated costs do not include indirect costs such as engineering, legal and administration, etc.

The costs are based on preliminary estimated quantities and current average bid prices per item. The right of way costs assume \$35/sf for permanent and \$20/sf for temporary easements, based on recent acquisition data.

A summary of the preliminary estimated cost is shown below. The detailed preliminary cost breakdown is included in the **Appendix**.

Option 1

76th Street:
R/W = \$1,005,000
Construction = \$755,000
Urban design = \$213,000

70th Street:
R/W = \$480,000
Construction = \$711,000
Urban design = \$201,000

66th Street:
R/W = \$487,500
Construction = \$730,000
Urban design = \$207,000

Total Intersection:
R/W = \$1,972,500
Construction = \$2,196,000
Urban design = \$621,000

Sidewalk Connections:
R/W = \$2,525,000
Construction = \$1,428,000
Urban design = \$403,000

Total Cost:
R/W = \$4,497,500
Construction = \$3,624,000
Urban design = \$1,024,000

Total Project Cost = \$9,145,500

Option 3

76th Street:
R/W = \$285,500
Construction = \$577,000
Urban design = \$367,000

70th Street:
R/W = \$209,000
Construction = \$550,000
Urban design = \$367,000

66th Street:
R/W = \$115,000
Construction = \$556,000
Urban design = \$367,000

Total Intersection:
R/W = \$609,500
Construction = \$1,683,000
Urban design = \$1,101,000

Sidewalk Connections:
R/W = \$1,560,000
Construction = \$626,600
Urban design = \$219,000

Total Cost:
R/W = \$2,169,500
Construction = \$2,309,600
Urban design = \$1,320,000

Total Project Cost = \$5,799,100

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FRANCE AVENUE INTERSECTION ENHANCEMENTS

The comparable cost to the Scope Change and Sunset Date extension estimated cost of **\$2,045,000** is **\$3,624,000** for Option 1 and **\$2,309,600** for Option 3.

It should be noted that the estimated cost of Option 1 does not include the bike lane and right of way acquisition adjacent to the Macy's/Byerly's site. The addition of these costs would increase the total cost to **\$10,308,000**.

The estimated costs for Option 3 do include the additional right of way and sidewalk connections adjacent to Macy's/Byerly's site. In addition the urban design cost does include additional urban design features such as monuments, additional landscaping, assuming the larger boulevard area, additional pedestrian level lighting and the additional boulevard area on the side streets.

As indicated previously, concern was raised over the cost of the recommended Option 3 compared to the original budget of \$2,000,000. Based on discussions with the ETC costs for specific plan elements were requested. Listed below are the elements and the associated cost savings should they be eliminated from the project.

- A. Locating the sidewalk adjacent to the Macy's and Byerly's sites behind the curb with no boulevard: R/W = \$350,000, Construction = \$50,000
- B. Not including the Urban Design Monuments: Construction = \$450,000
- C. Negotiating right of way cost with Southdale: R/W = \$498,400
- D. Negotiating right of way cost with Galleria: R/W = \$157,500
- E. Negotiating right of way cost with US Bank: R/W = \$93,100
- F. Not replacing the existing (narrow) sidewalk adjacent to Centennial Lakes and south of Gallagher Drive: R/W = \$250,000, Construction = \$38,040
- G. Not including trees outside of intersections: Construction = \$27,000
- H. Not including any street lighting: Construction = \$345,000

11. FUNDING

As indicated in the approved Metropolitan Council Scope Change request, the estimated project cost is \$2,045,000. Funding for the project is currently allocated using the following funding sources.

Federal TE funding	\$1,090,000
Southdale Area TIF funding	\$1,000,000
Total programed funding	\$2,090,000

Should the project be approved the remaining funding could be provided using additional Southdale Area TIF funding, State Aid funding or other local funding sources such as an area special assessment.

**Feasibility Study
FRANCE AVENUE INTERSECTION ENHANCEMENTS**

Any of the additional cost above the programmed funding could be included in the area special assessment. The area special assessment would require that the project follow the 429 process. In the project area from 66th Street to 76th adjacent to France Avenue there are 15 parcels on the eastside and 24 parcels on the westside that would benefit from the proposed improvements.

12. FEASIBILITY

The proposed improvements as outlined in this study are found to be necessary, cost effective, and feasible from an engineering standpoint.

13. PROJECT SCHEDULE

The project is on a very aggressive schedule to meet the sunset extension date of March 31st, 2013. The following general schedule is anticipated. A detail schedule is included in the **Appendix**.

Upcoming Meetings

Edina Transportation Commission (Special Meeting)	July 9 th , 2012
Edina Transportation Commission	July 19 th , 2012
Edina City Council Work Session	August 6 th , 2012
Edina City Council	August 6 th , 2012

MnDOT Federal Project Process

Project Development	April – December 2012
Project Memorandum	October 2012
Right of Way	
Begin Appraisals	September 1, 2012
Offer letters	November 1, 2012
Begin condemnation (if needed)	December 1, 2012
Title and position	March 2013
Detail Design	August 2012 – March 2013
Final Approval (City, County, MnDOT)	March 2013
Begin Construction	Summer 2013

APPENDIX

- Scope Change and Sunset Date Extension request
- Edina Comprehensive Plan Figure 7-10 Sidewalk Facilities
- Edina Comprehensive Plan Figure 7-11 Bike Facilities
- Stakeholders Meeting #1 minutes
- Stakeholders Meeting #2 minutes
- ETC July 9th Special Meeting approved minutes
- ETC July 20th Meeting draft minutes
- Met Council comment summary
- Level of Service summary tables
- Crash investigation summary table
- Estimated cost summary
- Detail project schedule
- Option 3 Detail Plan Sheets