

The deliverable is a range of options, perhaps narrowed to a preferred direction. Whether a range or a singular direction, the intention is to frame a solution that falls within accepted boundaries and to provide assurance that the project can be developed and implemented. This is largely an internally focused exercise, with engagement directed to entities that have jurisdiction over the project and the adjacent development interests. At this point in a project development sequence, the work should be considered both iterative and comparative—that any solutions posed will have been cycled through several disciplines and that any potential direction can be examined in contrast to others through some readily understood set of metrics.

The work focuses on feasibility, using an engineering focused evaluation of the assumptions underlying the cross France Avenue connection, and experience, demonstrating the passage under and over the connection can be made safe, attractive, and compelling for pedestrians and bicyclists. The engineering rigor of an intensive and iterative process combined with a sense of how the connection functions for people offers great insights about how an eventual project aligns with valued community assets like Centennial Lakes Park and the Promenade.

Geography of the work is important to note at this point: the team assumes the project will extend from The Promenade north of Centennial Lakes and aligned with the easterly extension of the Three Rivers Regional Trail, under France Avenue and through two redevelopment sites, landing along an alignment anticipated as the West Promenade in the Greater Southdale Area Plan. The study area will include the stormwater “park” space at the west side of the 7200 France Avenue parcel (Diagram 1).

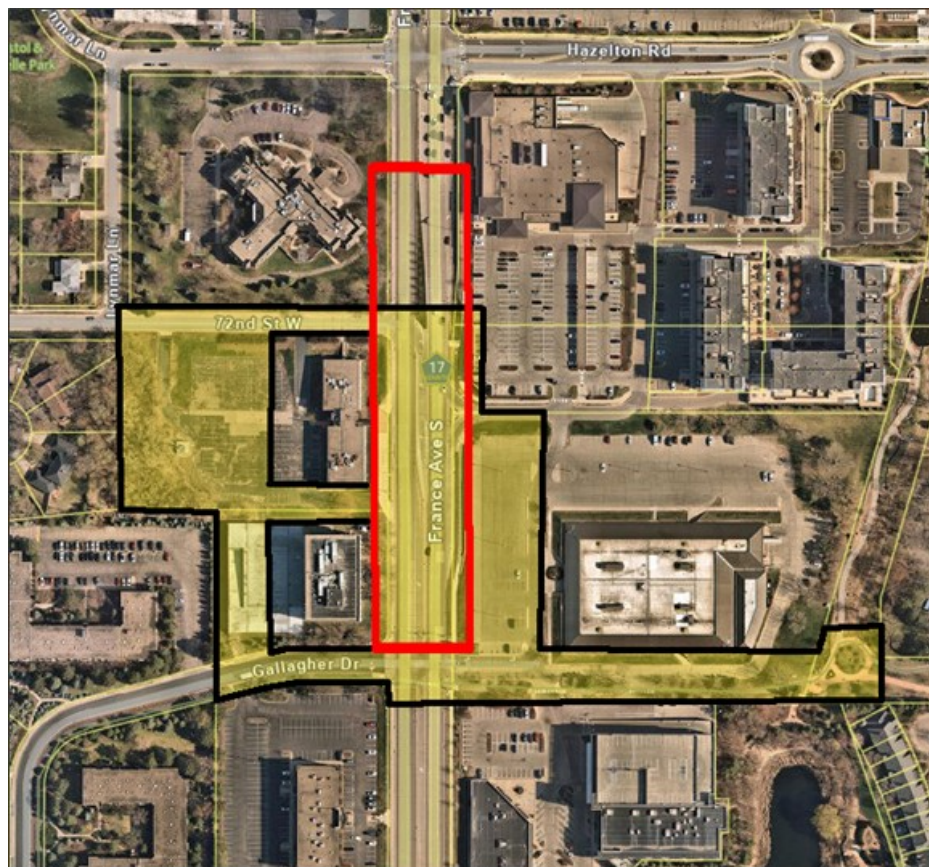


Diagram 1

The black outline is the overall study area. The red outline is the limit to France Avenue re-design.

Scope: Feasibility and Experience

As a prelude to this proposal, the City explored a range of possible means of establishing a connection across France Avenue. While that exercise might be viewed as aspirational, it did not deeply explore feasibility. Now, with a more refined direction to pursue, it makes sense that a more rigorous review of feasibility occurs.

While Centennial Lakes and The Promenade certainly have their technical underpinnings, it's not the technical side that makes them attractive as public spaces. They work—the team will establish the same for this project, encouraging a design that builds upon the experience of Centennial Lakes and The Promenade—and one espoused the in the Greater Southdale Area's Design Experience Guidelines.

This stage of the work begins with “what is possible” and starts to describe “what will be experienced.” It's not a final design but rather it is a tool that the City can employ to assure stakeholders the project can be realized. And importantly, it includes points of both feasibility (F) and experience (E).

- E.01 *Articulate the project basis (need, scope, and intent).*** Certainly, the connective opportunities are apparent but other aspects may deserve attention to make certain the effort engages aspirations that might lie beyond the immediately apparent boundaries of the project. This task will also consider, broadly, major opportunities for separated crossings of France Avenue, demonstrating this site as key in the pedestrian and bicyclist network as well as a narrative statement identifying the project basis.
- F.01 *Assemble project base mapping.*** Using existing mapping sources and data, the team will create a project base map suitable for the feasibility study and experience diagrams. Where data is missing, the team will work with the city to 1) understand the need to fill the gap and 2) determine the best methods of filling critical data gaps.
- E.02 *Distill the experience of Centennial Lakes and The Promenade.*** As the underpass intends to build from the experience of those valued Edina spaces, it's worth demonstrating the fundamental design assumptions evident in those spaces so that additions can be reasonably evaluated and a consistent and coherent experience results. This doesn't mean the patterns of Centennial Lakes or The Promenade will be copied; rather, it means the beginnings of the design resonate with the original.
- F.02 *Gain information related to geotechnical conditions.*** Building a bridge over an underpass requires a thorough understanding of the soils and water conditions in its general geography. The team will use existing soil boring information from the adjacent development sites and previous work on France Avenue to gain a general idea of soil conditions appropriate for this early feasibility work.
- F.03 *Incorporate public utilities.*** Working with public utility information provided by the City, the team will incorporate public above and below grade utilities, a key feature in framing how bridge/underpass structure(s) might be configured to limit impacts on those facilities.
- E.03 *Articulate initial bounds of feasibility.*** The team will meet to explore the range of investigations that would be considered, recognizing that these investigations may reveal new possibilities. An initial list demonstrating this range is included in scope F.04 through F.07. Our intent is to start with the most ideal horizontal layout option, which will then be evaluated from a vertical layout, bridge/underpass type, and stormwater scenario, moving to the next most ideal horizontal layout and so on if the first one(s) prove infeasible. We believe this is the most efficient way to get to the best potential layout. Importantly, this meeting should occur with involvement of City staff.

F.04 Study horizontal layouts for France Avenue. As the favored direction anticipates “splitting” France Avenue to allow light to reach an underpass, the team will study alignments for northbound and southbound lanes meeting that need without compromising best practices for roadway design, recognizing that unique contexts of France Avenue might be necessary as support. It’s important to recognize, from the outset, that France Avenue does not follow a consistent and unvarying centerline. In fact, northbound and southbound lanes move significantly east and west.

Iterations of some of the points of feasibility might initially include:

Horizontal alignment

- a. Lane widths reduced and lanes shifted east and west to create the greatest practicable opening between two France Avenue bridge/underpass structures.
- b. Lanes shifted east and west to create an opening between two France Avenue bridge/underpass structures;
- c. Lane widths reduced to create a France Avenue bridge/underpass with the shortest practicable undercrossing length;
- d. No demonstrable change in lane alignments and the creation of a single France Avenue Bridge/underpass;

F.05 Study vertical layouts for France Avenue. Because of the changing elevations of abutting development and the desire to get new development properly positioned relative to France Avenue, the team will look at the opportunity to adjust the profile of the road. Moving it upwards, especially, may demonstrate a better relationship with adjacent development AND provide for an under passing trail to occur at somewhat lesser grades.

Iterations of some of the points of feasibility might initially include:

Vertical alignment

- a. France Avenue bridge(s)/underpass elevation raised with more gradual profile extending northward to eliminate any “bump” in the profile.
- b. France Avenue bridge(s)/underpass elevation raised to create more accommodating slopes for undercrossing movements, with shortest practicable change to France Avenue profile;
- c. France Avenue bridge(s)/underpass fit into existing road profile;

F.06 Study bridge/underpass design options. Based on loading requirements, the team will assess several configurations for supportive bridge deck and columns. This isn’t the architectural design of the bridge but rather the necessary exercise to understand the type and complexity of bridge structure that will be required to allow an engaging underpass.

Iterations of some of the points of feasibility might initially include:

Bridge/underpass type

- a. France Avenue bridge(s) designed to enhance the undercrossing experience;
- b. France Avenue bridge(s) resulting in a substantial undercrossing space with no columns between abutments;

- c. France Avenue bridge(s) created with the shortest practicable length allowing undercrossing movements with no columns between abutments;
- d. France Avenue bridge(s) resulting in a substantial undercrossing space with columns between abutments;
- e. France Avenue bridge(s) designed to the least expensive structure type with no regard for undercrossing experience;

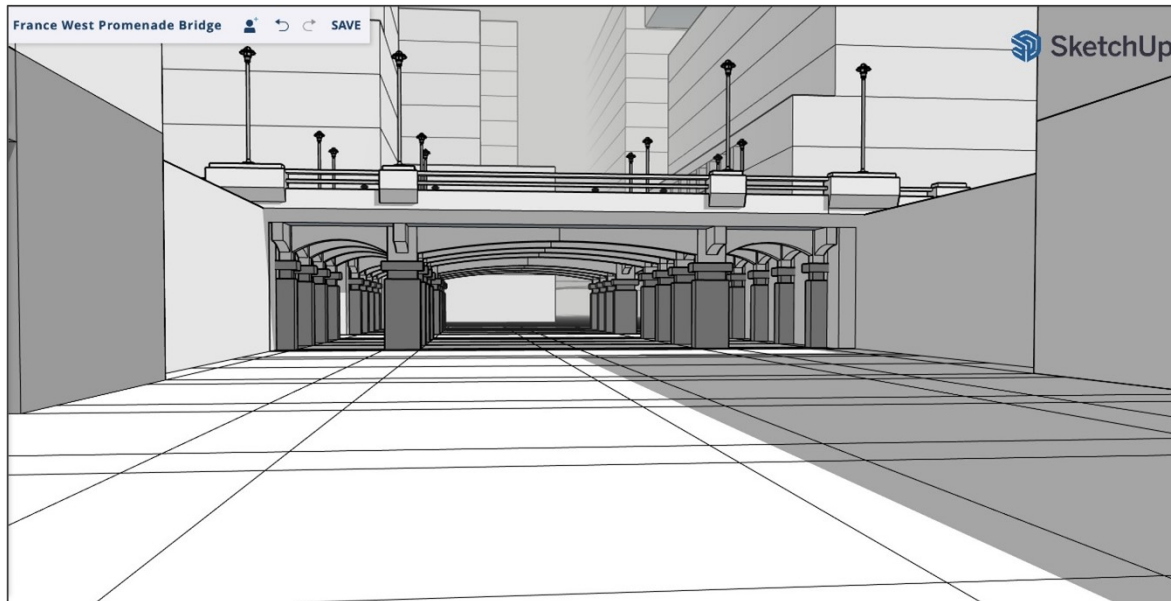


Diagram 2

An example of an early bridge type study showing underpass conditions

F.07 Understand the impacts of stormwater. The course of stormwater through this connection is an important consideration and needs to be framed before any real design effort can be started. Conveyance is one aspect of the study, but integration of stormwater with the eventual design might lead to a more sustainable or innovative solution that addresses management of stormwater within the landscape of the connecting features.

Iterations of some of the points of feasibility might initially include:

Stormwater

- a. Stormwater treatment requirements will be evaluated to accommodate the preferred alternative.
- b. Possible stormwater treatment concepts or ideas will be recommended to the City for further evaluation.

F.08 Consider grades for the Promenade. Given that the new pedestrian and bicyclist infrastructure has touch down points at each end of its corridor and a critical elevation to allow for a bridge to pass over it, with dimensional thresholds for the passage of bicyclists and maintenance vehicles, the team will look at various means of moving along the alignment, using ADA and PROWAG guidance to ensure conformance with regulations for a public trail connection. This part of the work will be iterative relative to F.03, finding the most opportune positioning for the bridge and the trail.

- E.04 *Demonstrate a baseline for the connection experience.*** The team will apply the principles found for the design of Centennial Lakes and The Promenade to the new connection. Interface opportunities with private development will be highlighted along with the types and general locations for various activities that might “fit” the connection. The experience, at this level of the design, will be demonstrated through diagrams and vignettes that characterize the experience and, once accepted, set a standard for the further development of the design.
- E.05 *Elaborate the design of the connection.*** This task is the first translation of a diagram to a sketch plan, allowing for reviewers to more clearly “see themselves in the design.” While more illustrative than diagrams developed in earlier tasks, it is only the first evolution of the design.
- F.09 *Provide an order of magnitude cost estimate.*** It’s important for the City to understand the consultant team is working within financial parameters. While an estimate of costs might be possible at this stage, so much more definition comes with the Preliminary Design. Still, a general understanding of the bridge/underpass components can be assembled, perhaps with ranges associated with varying assumptions, and the City can proceed with an understanding that a project can be realized.
- F.10 *Meetings as a means of gaining and exchanging information.*** Throughout the feasibility study, meetings will be conducted with the City (information gathering and progress reports), other agencies and public entities (engineering and design requirements, review and approval process, participation potential), and developers (design alignment, schedule, and construction coordination). We are assuming six virtual meetings during this phase.
- F.11 *Project sharing.*** Even as the information gained in this stage of the work will be highly technical, the project is one benefitting the Edina community. This might occur in project specific meetings and in an update to the City Council or HRA. In addition, we will provide updates regularly to be shared by City staff on the Better Together website.

The team will develop drawings, illustrations, diagrams, and other graphics necessary to describe the design. In some instances, they may be sketches or precedent images, while others may be more fully descriptive. Whatever the medium, the intention for these graphics is exploration of ideas and initiating compelling conversations about the built experience. Future stages of the work will offer refinements as the range of options narrows.

Proposed Fee

LHB will work on an hourly basis with a maximum budget of Eighty Thousand Dollars (\$80,000) plus reimbursable expenses, to complete the scope of work described as “Feasibility and Experience”.

Schedule

Our team will complete the feasibility scope within 2-3 months, with the full scope completed within 3-4 months.

Terms and Conditions

Upon your approval of this proposal, we will prepare an agreement consistent with the terms and conditions of our standard LHB agreement form.

We look forward to working with you, Bill Neuendorf, and other City stakeholders on the exciting exploration. Please contact me at 612.251.7197 or mike.fischer@lhbcorp.com if you have any questions about this proposal.

LHB, INC.

A handwritten signature in blue ink, appearing to read "MA Fischer", followed by a horizontal line.

MICHAEL A. FISCHER, VICE PRESIDENT

Accepted on this _____ day of _____, 2024.

City of Edina, Minnesota

By: _____

Title: _____

Attachments: None

c: LHB Project No. 230407

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