

Northgate Pedestrian Bridge

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Mayor

Samuel Assefa
Director, OPCD

Ross Tilghman, Chair

John Savo, Vice Chair

Lee Copeland

Ben de Rubertis

Thaddeus Egging

Rachel Gleeson

Laura Haddad

Brianna Holan

Rick Krochalis

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Commissioners Present

Ross Tilghman, Chair

John Savo, Vice Chair

Lee Copeland

Ben de Rubertis

Rachel Gleeson

Laura Haddad

Brianna Holan

Rick Krochalis

Commissioners Excused

Thaddeus Egging

Jescelle Major

Project Description

Seattle Department of Transportation (SDOT) is proposing to design and construct a pedestrian and bicycle bridge across I-5 connecting North Seattle College and the Licton Springs neighborhood to the west with Northgate Mall, the future Sound Transit light rail station, and the eastern portion of the Northgate Urban Center. The west end of the bridge would be located on the North Seattle College Campus near N 100th St. The east end of the bridge would land adjacent to the future light rail station along 1st Ave NE at NE 100th St and include a spur linking directly to the mezzanine level of the light rail station.

The Seattle Design Commission (SDC) originally reviewed the project in 2014-15. Originally, the project had an estimated cost of \$60 million to be funded through local, regional, state, and federal organizations. The project did not obtain a Federal TIGER grant, resulting in a loss of \$25 million in potential funding. Accordingly, the project was placed on hold in early 2016 and reactivated in fall 2016 with a revised budget of \$35 million. The current bridge plan reflects design updates to reduce overall costs.

Meeting Summary

This was the SDC's third review of the concept design phase for the Northgate Pedestrian Bridge. The purpose of this meeting was to review the concept design phase, which has undergone significant design changes since the SDC's previous review in September 2015. After the presentation and discussion, the SDC voted 6-2, to approve the concept design phase for the Northgate Pedestrian Bridge with several recommendations.

Recusals and Disclosures

Thaddeus Egging excused himself as his employer, KPFF, is working on the project.

Brianna Holan disclosed that her employer, LMN Architects, previously worked on this project up to 30% concept design. The team or members of the public did not object to her participation in the review.

May 18, 2017

1:00 – 3:30 pm

Type

CIP

Phase

Schematic Design

Previous Reviews

[9/17/15, 8/7/14](#)

Presenters

Eric Birkhauser
VIA Architecture

Amanda Tse
SDOT

Attendees

Ellen Blair
Sound Transit

Guy de Lijster
VIA Architecture

Jason Huff
OAC

Rachel McCaffrey
SDOT

Sally Turner
King County Metro

Ken Wilson
ISE, PLLC

Summary of Presentation

Amanda Tse of SDOT and Eric Birkhauser of VIA Architecture presented the concept design phase for the Northgate Pedestrian Bridge project. Amanda Tse provided an overview of the project including significant design updates that have been made since the last presentation held in September 2015. The project was placed on hold in early 2016 due to budget constraints. The project was reactivated in late 2016 with a new design team and reduced budget. The design team has maintained the intent, goals, and character of the initial design proposal while modifying designs to both approaches, main span, and proposed alignment in order to meet the current budget.

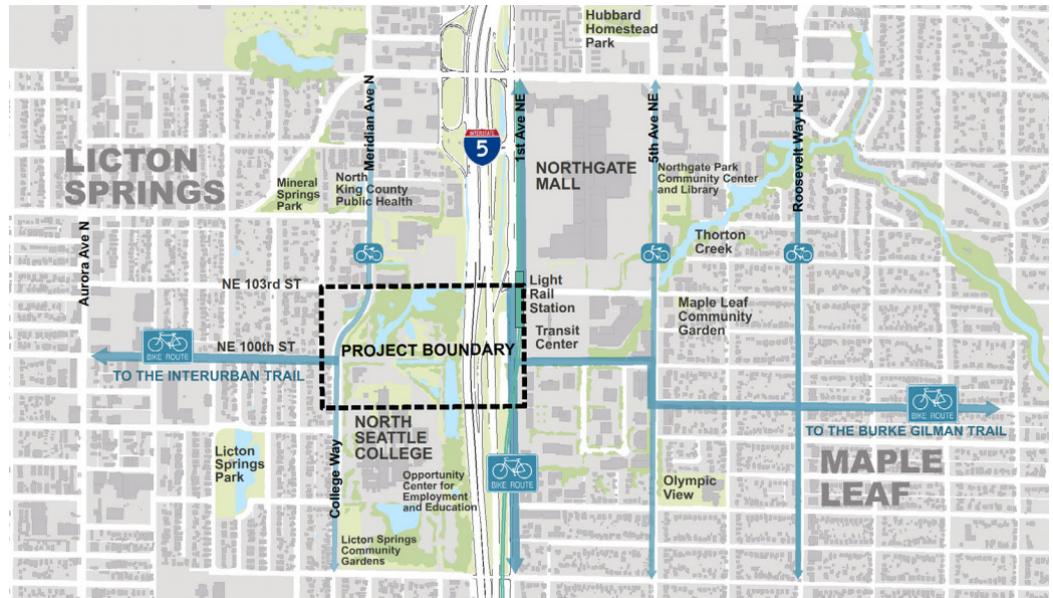


Figure 1. Site context map

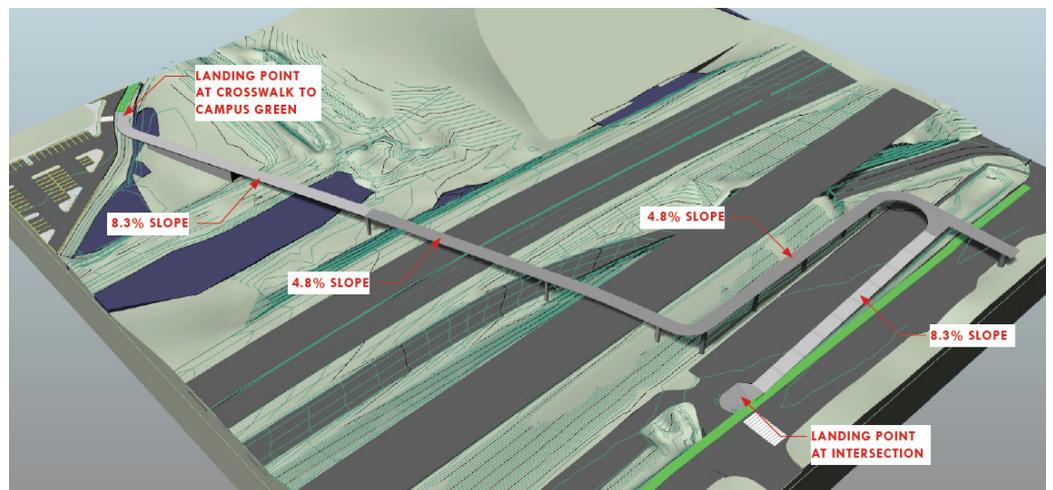


Figure 2. Proposed alignment and slope modification

The updated concept design included several cost saving strategies such as using a simpler girder system on both the east and west approach, reducing the length of the truss system, using precast elements, elimination of stair connections, as well as an overall reduction of the bridge length and width. The initial design included a 1,056-foot-long tube-like truss system extending from the connection to Sound Transit’s Northgate Station across I5, and to the west approach near the North Seattle College east parking lots. The updated design eliminates the tube-like truss system in favor of a more traditional open truss system with a fanned-out arch at the apex of the bridge over I5. This change results in a truss structure that is reduced to 235 feet in length.



Figure 3. Initial tube truss design across I5 compared to revised open truss design

The bridge will terminate at the intersection of NE 100th St and 1st Ave NE on the east end and to the west at North Seattle College’s eastern parking lots. There are at-grade landings on both ends of the bridge, providing potential pedestrian and bicyclist mixing zones. An additional connection is proposed at the mezzanine level of Northgate Station. The updated design eliminates the need to obtain the WSDOT parking lot at NE 100th and 1st Ave NE for the ramping system. The design includes an 8.3% slope on the west and east approach in order to accommodate the at-grade connection and direct pedestrian access. The updated design also includes a geofore wall, 240 feet in length, along the west approach. The proposed wall will include a textured concrete finish with vining plants attached.



Figure 4. Geofore wall

Agency Comments

Lyle Bicknell, OPCD, mentioned that he is very excited to see this project become a reality. Mr. Bicknell then questioned the reasoning for eliminating the proposed staircase, specifically on the east end of the bridge. Mr. Bicknell stated that he understood the rationale for removing the staircases in order to reduce costs, but he questioned the design team using accessibility issues as a reason. Mr. Bicknell then stated that by eliminating the staircase on the east end of the bridge, the project team is eliminating a direct connection for pedestrians not going to the light rail station.

Public Comments

None

Summary of Discussion

The commission organized its discussion around the following issues:

- Circulation
- Views and aesthetics
- Materials
- Sustainability

Circulation (accessibility, pedestrian and bike safety, wayfinding)

The SDC is very concerned with the proposed 8.3% slope on the west and east approach. Commissioners agreed the proposed slope, while at the legal maximum, would limit accessibility and highly recommended the design team provide strategies for reducing the slope percentage.

The commission is also concerned with potential conflicts between pedestrians and bicyclists at mixing zones at either bridge approach. Commissioners highly recommended the design team return with strategies for reducing conflicts through the use of materials and signage. The commission also requested the dimension of the 1st Ave and 100th St intersection, turning radii, as well as vehicle volumes during peak hours. The commission also recommended the project team provide strategies for reducing bicyclists' speed as they move through the project.

The SDC recognized the importance of providing access to the mezzanine level of the future light rail station, which will provide an alternative to crossing the intersection at grade. Commissioners recommended mezzanine level accessibility 24 hours a day. The commission also recommended the project team continue to develop a comprehensive way-finding plan for pedestrians and cyclists.

Views and aesthetics

The SDC acknowledged the consistency and openness of the updated bridge design. The commission questioned the length and façade treatment proposal for the wall on the west side of the bridge. Commissioners are concerned with the potential long term maintenance issues associated with using plants on the wall façade. The Commission highly recommended the project team reduce the length of the proposed wall on the west side of the bridge in order to reduce potential long term maintenance issues and to increase visibility.

The SDC disagreed on the placement of a view point on the east side of the bridge. Several commissioners questioned the value added by providing a view point, while other commissioners disagreed. The commission mentioned the design team should distinguish the view point from the pathway through the use of different paving materials. The SDC also recommended the further integration of the mesh throw barrier with the steel truss system, specifically where the mesh throw barrier crosses the edges and joints of the truss system.

Materials

The SDC encouraged the design team to use durable materials. The commission specifically recommended the design team refine and develop materials for the proposed handrails and mesh throw barrier. Commissioners also recommended the design team consider the scale and connection of materials.

Sustainability

The SDC is very concerned with the absence of a sustainability strategy to help guide the project design. Commissioners stressed the importance of establishing sustainability goals above what is required by SDOT policies. The commission recommended the design team provide sustainability goals that at least address water treatment, drainage, and the landscape.

Action

The SDC thanked the project team for the presentation of the concept design phase for the Northgate Pedestrian Bridge. The SDC voted, 6-2, to approve the concept design for the Northgate Pedestrian Bridge with the following recommendations:

1. Address pedestrian and bicycle safety at the mixing zones, specifically at the east landing near 1st Ave NE and NE 100 St
2. Apply the principles of "universal accessibility" when designing bridge elements, especially when designing for the slope of the bridge. The lack of precedent is a concern for the proposed length and degree of slope
3. Articulate goals for sustainability and outline strategies to meet identified goals.
4. Explore minimizing the length of the wall on the west side in order to improve stormwater flow, enhance views, and to minimize the bulkiness of the bridge design.

The following are comments from commissioners who voted against the project:

Ben de Rubertis - Overall, this is an impressive effort to redesign a bridge to meet a much smaller budget. But, I have not seen a precedent where using 8.3% slopes allows a bridge to function well. I would have chosen to make a condition to design the bridge at a slope of 5%, at least on the west approach. I think all users will benefit from the continued study of reducing the slope.

Rachel Gleeson - I agree with what Ben de Rubertis said and I also take issue with the lack of a sustainability strategy. The design team needs to show how they are incorporating sustainability strategies. I support the goals of this project. I see this project as a very important piece of infrastructure that will help a lot of people travel across I-5, which is why I want to make sure the bridge functions well for all users.