

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Motion to Authorize the City Manager to Execute the Construction, Operation, and Maintenance Agreement for the 27 th Avenue NW Overpass with Burlington Northern Santa Fe Railway Company for the Richmond Beach Overcrossing Bridge Replacement Project
DEPARTMENT:	Public Works
PRESENTED BY:	Mark Relph, P.E., Public Works Director Tricia Juhnke, P.E., Capital Projects Administrator Jon Jordan, P.E., Capital Projects Manager

PROBLEM/ISSUE STATEMENT: Staff is requesting that Council authorize the City Manager to execute the Construction, Operation, and Maintenance Agreement for the 27th Avenue NW Overpass with Burlington Northern Santa Fe (BNSF) Railway Company.

The agreement is required by BNSF for work within their right-of-way on the Richmond Beach Overcrossing Bridge Replacement Project. The agreement will supersede and replace the previous agreement dated September 25, 1922 and supplemental agreement dated June 13, 1955.

The agreement spells out the terms of the Temporary Construction License that allows the City to work in BNSF right-of-way, BNSF obligations including their financial contribution to the project, City obligations including conformance to plans and specifications, Joint obligations such as maintenance and inspection, and Contractor insurance requirements and responsibilities.

The agreement includes exhibits for a temporary construction license, permanent easement, contractor requirements, an agreement between contractor and BNSF, cost for railroad work, bridge requirements, and an estimated project cost.

The City will be responsible for maintenance and repair of the bridge, the approaches and appurtenances including surface drainage, fencing, paint, walkways and handrails incorporated into this project within the limits of the bridge.

BNSF will be responsible for maintenance and repair of the earth retention components, embankment slopes, erosion control, landscaping, and other improvements associated with the project outside the limits of the bridge.

FINANCIAL IMPACT: The estimated project costs and revenues are shown below. Under the terms of the agreement, BNSF will contribute 10% of the total project cost. The Preliminary Engineering (Design) phase of this project is funded 80% through the

Highways Bridge Replacement and Rehabilitation Program (HBRRP) and 20% through the Roads Capital Fund. This Project is a Federal "TEA-21" bridge project and meets the requirements to be funded at 100% for eligible construction costs.

Engineering:

Contracted Services	\$ 928,674
Direct City Costs	\$ 209,204
Subtotal Engineering	\$1,137,878

Construction:

Construction	\$ 2,570,507
Contingency (15%)	\$ 358,192
Subtotal Construction	\$2,928,699

1% for the Arts	\$25,705
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Total Project Costs	\$4,092,282
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Project Revenue:

HBRRP (Federal Grant)	\$3,354,925
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BNSF (10% of total project cost)	\$409,228
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Roads Capital Fund	\$328,129
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Total Project Revenue	\$4,092,282
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RECOMMENDATION

Staff recommends that Council authorize the City Manager to execute the Construction, Operation, and Maintenance Agreement for the 27th Avenue NW Overpass with Burlington Northern Santa Fe Railway Company for the Richmond Beach Overcrossing Bridge Replacement Project.

Approved By: City Manager  City Attorney ____

BACKGROUND: The Richmond Beach Overcrossing Bridge was originally built in 1923 and rebuilt in 1956. The normal life span of a timber bridge is 45 to 50 years. This bridge provides sole access to 35 homes on 27th Avenue NW.

Agreement – The existing bridge was constructed under Agreement dated September 25, 1922 and reconstructed under Supplemental Agreement dated June 13, 1955 between Great Northern Railway Company (now BNSF) and King County (now City of Shoreline), with the original Agreement remaining in full force and effect between parties. Under the original agreement, the City is responsible for the maintenance of the roadway over and approaches to the bridge. The Burlington Northern Santa Fe Railway Company (BNSF) is responsible for maintenance of the bridge superstructure.

Inspection – The bridge is inspected annually by the King County Bridge Unit. An inspection in November 1997 and structural analysis conducted by King County in April 1998 determined that the bridge was at risk for accelerated weakening due to aging deterioration and extensive use by vehicles carrying heavy loads. To minimize the risk, the City adopted an ordinance in November 1999, for the purpose of specifying a weight limit on the bridge that the structure can safely carry on a routine basis. A detailed inspection and load rating analysis in September 2003 recommended further measures to preserve the bridge and improve safety. In November 2003, a median was installed as an interim solution to keep wheel loads off the weaker structural members until the bridge is replaced.

Grant – In June of 2000, the City received approval of Federal Bridge Replacement funds following a C3R field review with WSDOT, FHWA, and City representatives. The Bridge Replacement Advisory Committee (BRAC) selected the bridge to receive grant monies for replacement with a concrete structure. The Preliminary Engineering (Design) phase of this project is funded 80% through the Federal Highways Bridge Replacement and Rehabilitation Program (HBRRP) and 20% through the City's Roads Capital Fund. As a TEA-21 bridge project eligible to receive toll credits funds dedicated to the Bridge Program, this project is funded at 100% of eligible costs through HBRRP for the construction phase.

Design – On April 28, 2003, Council authorized staff to execute a professional services contract with Andersen Bjornstad, Kane, Jacobs, Inc. Consulting Civil and Structural Engineers (ABKJ) for pre-design to determine the type, size and location of the bridge and to develop the Type, Size, and Location Report.

On December 13, 2004, Council authorized staff to execute a professional services contract supplement with ABKJ to develop the Plans, Specifications, and Estimate (PS&E) for the project and to execute a Local Agency Agreement Supplement to obligate additional federal grant funds for the required design work.

On October 10, 2005 Council authorized the City Manager to execute Local Agency Agreement Supplements to obligate additional federal grant funds for the construction phase of this project.

The PS&E was completed in January 2006. Over the past three years, the City has worked with five different BNSF Managers of Public Projects to draft a new agreement to replace the bridge.

The design is based on a reinforced concrete through-girder bridge on the same alignment as the existing bridge. This is the alternative recommended in the Type Size and Location (TS&L) report prepared during pre-design. The design has been accepted by BNSF for meeting clearance requirements and the ability to construct a potential third track, at some time in the future, to accommodate increasing rail traffic. The new bridge can be built without right-of-way acquisitions or changes to the profiles of 27th Ave NW and Richmond Beach Drive. Access during construction of the new bridge will be maintained via a one-lane temporary detour bridge equipped with automated traffic control. The detour bridge will be located fifteen feet to the north of the existing bridge and have geometry similar to the existing bridge.

Cost – The estimated project cost may be considered atypical for a project of this size and is attributable to several factors, including:

1. extensive alternative analysis and coordination with BNSF to achieve a design with little or no grade changes to existing roadways to minimize public inconvenience and ineligible grant related costs;
2. the need for a specific structure type that must be cast-in-place, rather than a less expensive pre-fabricated structure, to accommodate new bridge design criteria and railroad clearance requirements on an geographically constrained site with limited available right-of-way and limited distance between existing roadways;
3. replacing a bridge that provides sole access and the need for a temporary detour bridge to maintain access to homes on 27th Ave NW;
4. the working restrictions required by BNSF over their two existing and highly active railroad tracks resulting in added time and labor costs and requirements to accommodate one future track; and
5. an industry-wide increase in material and construction cost since the project was approved for funding.

Project & Schedule – The goal of this project, as identified in the 2009 –2014 Capital Improvement Program, is to design and construct a new concrete bridge to replace the existing, deteriorating timber bridge.

Benefits of the new bridge include:

- 80-year life expectancy;
- Seismic upgrades;
- Improved bridge geometry, sight safety, and vehicle access;
- Reduced maintenance cost and frequency of inspections and repairs;
- Increased load limit – new bridge will have a highway load rating and provide safe access for emergency vehicles, garbage trucks, dump trucks, fuel trucks, cement trucks, etc;
- Meet BNSF minimum horizontal and vertical clearance requirements; and
- Ability to accommodate a potential third track for BNSF/Sound Transit.

Staff anticipates advertising for bids in June 2009, and construction taking place from January to September 2010.

COMMUNICATION PLAN: Staff will meet with the community later this year prior to construction to share the final design plans, construction sequencing and detour plan, and discuss potential impacts and solutions for local residents.

RECOMMENDATION

Staff recommends that Council authorize the City Manager to execute the Construction, Operation and Maintenance Agreement for the 27th Avenue NW Overpass with Burlington Northern Santa Fe Railway Company for the Richmond Beach Overcrossing Bridge Replacement Project.

ATTACHMENTS

Attachment A – Existing Bridge Photo (south side – looking north)

Attachment B – Proposed Bridge (conceptual view – looking north)

Attachment C – Project Improvements (feature comparison of existing and new bridge)

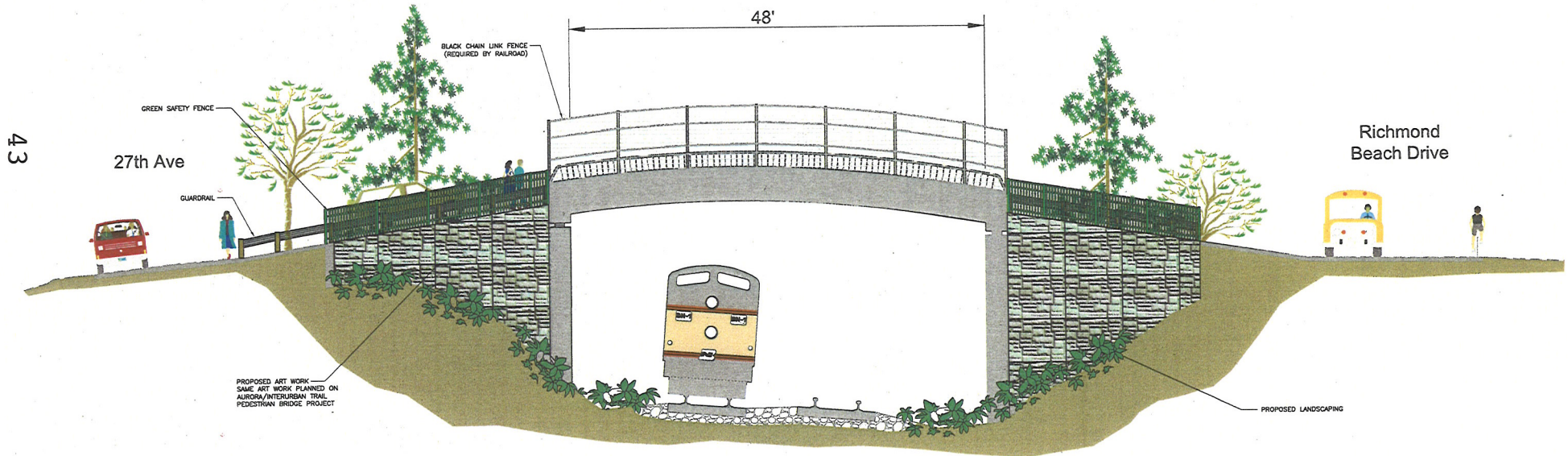


Richmond Beach Bridge

Replacement



Conceptual view of proposed bridge



Looking North

Attachment B

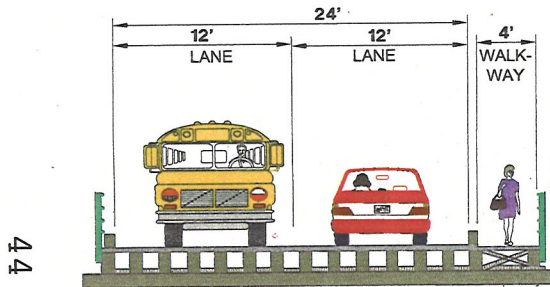


Richmond Beach Bridge

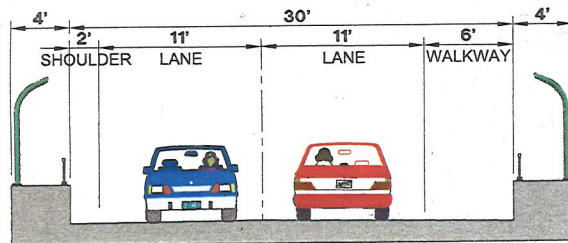
Replacement



Project improvements



Existing Bridge



Proposed Bridge

Features	Existing bridge	Proposed bridge
Lane width	12 feet	11 feet
Shoulder width	None / 4 feet	2 feet / 6 feet
Maintenance level	High	Low
Total bridge width	24 feet	30 feet
Load capacity	Restricted	Unrestricted

Attachment C