Thank you for attending!

Welcome!

May 2014
The Project

History of the Keith Road Bridge

The current bridge is not the first bridge in this location. This photograph – taken in 1913 – is of one of the earlier bridges.

The existing bridge was designed by W.G. Swan, Consulting Engineering in 1946.

Blueprints for the existing Keith Road Bridge

Lower Lynn is changing...

- Identified as new centre in Official Community Plan
- Implementation Plan adopted by Council
- Seylynn development now in construction
- Keith Road extension underway
- New sanitary sewer being finished now
- Upgrade to Phibbs Exchange planned
- Planning for Highway 1 Interchanges
- Seylynn and Bridgman Parks Conceptual Master Plan underway

Current bridge location
Project Origin

Keith Road provides an important transportation connection for all modes in the District and City of North Vancouver.

This project was initiated because the Keith Road bridge is reaching the end of its lifespan. Replacing the bridge provides the opportunity to make transportation improvements in the area.

Why are we doing this project now?

- The current two-lane bridge prevents vehicles from accessing the Seymour area when Highway 1 queues back up
- Sidewalks are needed on both sides of this major arterial road
- A cycling route is needed across Lynn Creek
- The bridge is a gateway to the new Lower Lynn town centre and will provide a key link for the new residents of Lower Lynn
- If not replaced, the bridge would have been due for a multi-million dollar rehabilitation
New Bridge and Road

Features of New Bridge

- Clear span (no piers)
- No overhead structure
- Art incorporated into railings
- Barrier to protect pedestrians

Upgrades to East Keith Road by the Bridge

- Four through travel lanes for vehicles
- Additional turn lanes: westbound left turn lane and eastbound right turn lane
- Marked bike lanes
- Sidewalks (both sides)
- Lighting upgrades
Opening Day

Two-way left turn lane provided in centre section for improved Bridgman Park and residential access.

Long Term

Two-way left turn lane no longer provided as area redevelops and longer eastbound right turn lane provided.
Keith Road Extension
Seylynn Arrangement

New Keith Road Bridge
Keith Road Extension

Re-configured Keith Road Connection
New Traffic Light
Keith Road Extension

Fern St. Cul-de-sac
Re-configured Highway Interchange
Fern St. Cul-de-sac

Fern Street Post Development
Keith Road Extension Arrangement

Keith Road Connection to be adjusted after completion of Seylynn Project
How would it be built?

1. A new structure is built to the south of the existing bridge, traffic remains on existing bridge.
2. Traffic is diverted to the new structure, a second structure is built to replace the existing bridge.
3. The two new structures are joined, creating the completed bridge.

Trail detours would be provided in all phases.
Trail Improvements

Goals for Trails

- Improve connectivity and access points to the parks
- Improve the quality of trails
- Improve safety and accessibility
- Provide access to trails at all four corners of the bridge
- Reconfigure parking to maintain existing number of spaces with smaller footprint and to improve circulation
- Relocate trails out of riparian areas where feasible and designate areas where interpretive opportunities exist
- Rehabilitate decommissioned trails with planting of native trees and shrubs
- Establish view corridors to keep the character of the park
- Land needed for road improvements would need be removed as per the community charter process

Improved habitat protection fencing along stream corridors

Permeable rock dust pathway along western segments of upgraded trails

Paved multi-user surface with multi-use pathway surface on east side

Trail Alignment adjacent to Riparian Area

Part of future bike route network (Bicycle Master Plan)
Trail Improvements

- Upgraded or New Trails
- Upgraded Paved Trails
- Habitat Protection Fencing
- Stair Connections
- Rainwater Management Locations
- Parking Limits
- Retaining Walls

Keith Road Bridge Replacement Project
Tree Strategy

**Goals for Trees**

- Retain trees and stumps for large woody debris placement wherever possible
- Replace trees at a 3:1 ratio
- Improve riparian habitat as part of the tree restoration strategy
- Improve key habitat areas along Lynn Creek and Keith Creek
- Restore riparian area along Lynn Creek in Bridgman and Seylynn Parks
- Limit access to riparian areas and protect restored habitat with habitat protection fencing at key locations
Tree Strategy

Tree Planting Areas
Rainwater Management including tree planting
Riparian Habitat Improvement
Retained Trees
Trees to be Removed

Design coordinated with Seylynn and Bridgman Parks Conceptual Master Plan (underway)
Protecting the water quality of the creeks around Keith Road Bridge:

- Best Management Practice approach for Rainwater Management
- Improvement in rainwater quality and reducing the runoff volume to a more natural level
- Bridge, road and existing parking lot runoff directed into rainwater management infrastructure, e.g.
  - Rain Gardens
  - Infiltration Galleries
  - Drainage Swales
  - Engineered Wetlands
Environmental Goals

Goals to protect the environment:

• **Clear Span Bridge Best Choice for Stream**
  • Abutments and supporting structures out of the riparian area

• **Essential Salmonid and Fish Habitat Enhanced**
  • Protection and restoration of the spawning areas
  • Sediment and erosion control during construction
  • Abiding by all DFO and MoE construction windows and approvals

• **Wildlife Species Protected**
  • Raptor survey and construction sensitivity
  • Project clearing to be done outside breeding window.
  • Species identified and protected as much as feasible
    • Red-legged frog
    • Coastal tailed frog
    • Western toad

• **Habitat Protection Fencing**
  • Along riparian area and environmentally sensitive areas
  • Interpretive areas
How could it look?

The District is seeking artists to creatively integrate public art into the new components such as railings, lighting, sidewalks, and retaining walls.

All artistic enhancements to the bridge design will be subject to safety and transportation standards and must be accessible, durable, vandal-proof, weather-resistant, technically feasible, affordable, and site-specific.
Expected Timeline

- **Public Open House**
  - May 15, 2014

- **Design Completion**
  - August 2014

- **Construction Start**
  - Winter 2015

- **Construction Completion**
  - Mid-2016

**Scheduling**

- We expect that two lanes of traffic will be kept open most of the time.
- Although the contractor may propose an alternative way to build the bridge, currently we expect that there may be two to three full weekend closures.
Thank you for taking the time to attend!

You are invited to fill out a comment form here or online. Feedback may be submitted until May 30, 2014.

To find out more, visit [dnv.org/krbridge](http://dnv.org/krbridge)
- Up-to-date information
- Short video about the project

These display materials will be available on the District’s website starting May 15.

How can we improve this project?
For drivers, pedestrians, cyclists, transit users, dog walkers?

Would you like updates?
Please provide your contact information at the sign-in desk.

How can we minimize disruption?
Would you prefer longer construction hours in the day, but a shorter project duration?

How can we improve the natural environment?
Any suggestions or comments on how we can improve?

Would you like to be on the art selection committee?
A nearby resident can volunteer.