

Engineering Capital Projects

SEPTEMBER 2017



- 2017 Projects
- 2018 Projects
- 2019 Projects
- Other Projects

Millstone Trunk Sewer

Scope:

- Upgrade approximately 1km of the millstone trunk sewer

Budget: \$3,024,000

Schedule:

- 2016 project
- Delayed due to weather
- Completion Sept 2017



Millstone Trunk Sewer



Terminal Avenue Utility Upgrade

Scope:

- Utility Upgrades (2017)
- Paving & Surface (2018)

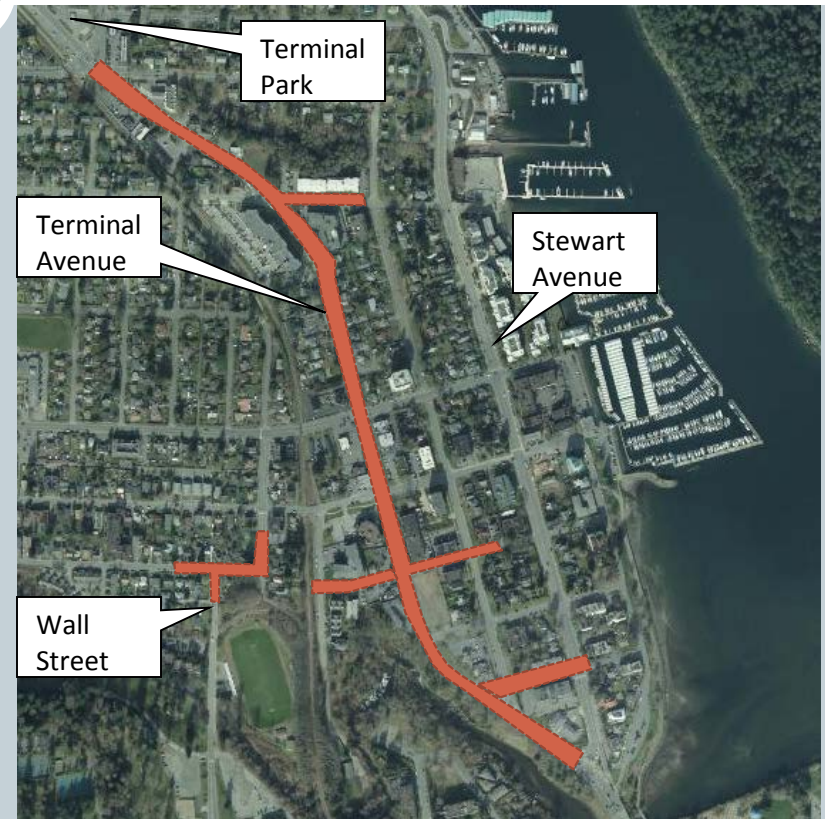
2017 Budget: \$2,645,278

2018 Budget: \$2,145,621

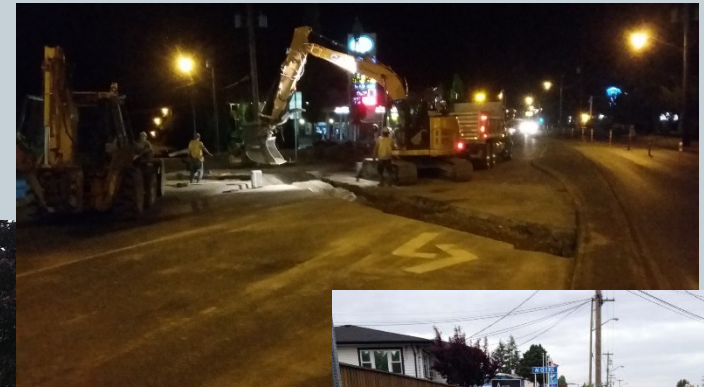
Schedule:

Utility Upgrades - to be complete by the end of 2017.

Paving & Surface - Spring/Summer 2018 construction



Terminal Avenue Utility Upgrade



Linley Valley West Roundabout

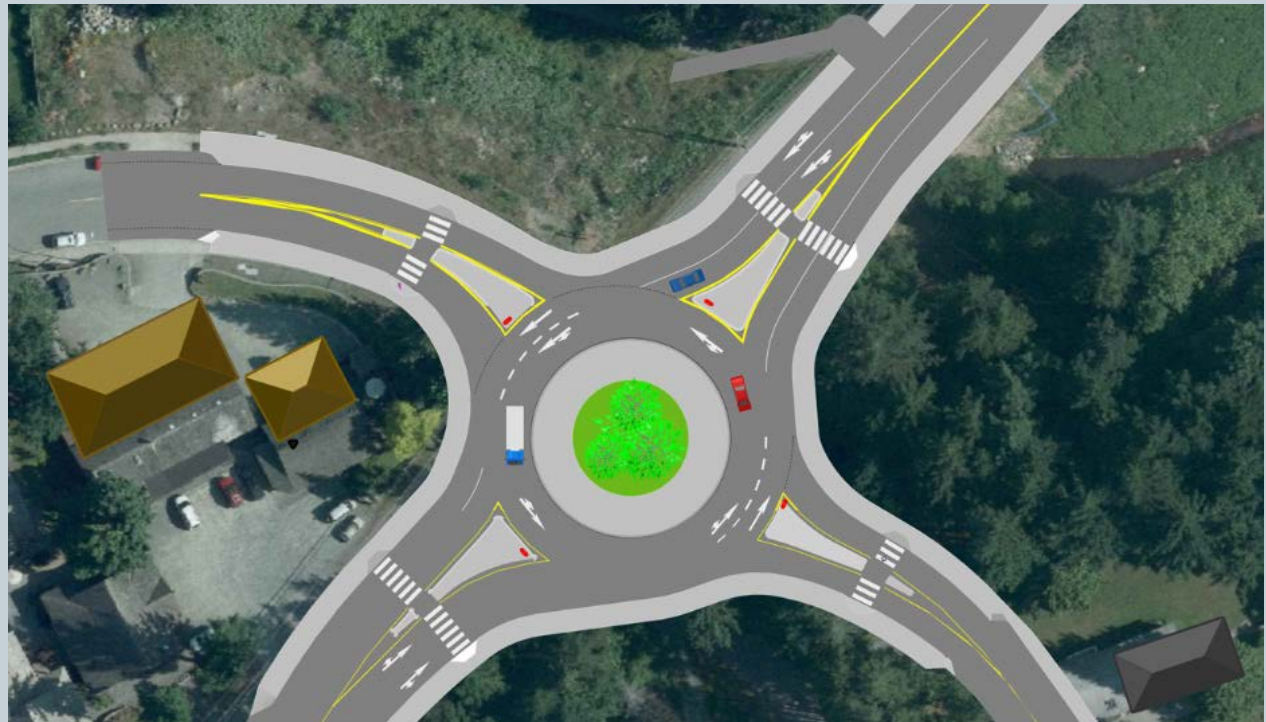
Scope:

- Dual lane Roundabout
- Access Road
- Multi use trail

Budget: \$2,193,686

Schedule:

- Construction to be complete by end of 2017.
- Roundabout to be open September 17th.



Linley Valley West Roundabout



Hammond Bay Road Widening & Utilities

Scope:

- Road Widening
- Sidewalk
- Street lighting
- Slope improvements
- Water replacement
- Storm sewer replacement

Budget:

\$2,208,322

Schedule:

Delayed to 2018



Bastion Bridge

Scope:

- Bridge Rehabilitation
- Seismic Retrofit
- Gateway Feature

Budget:

\$1,850,000

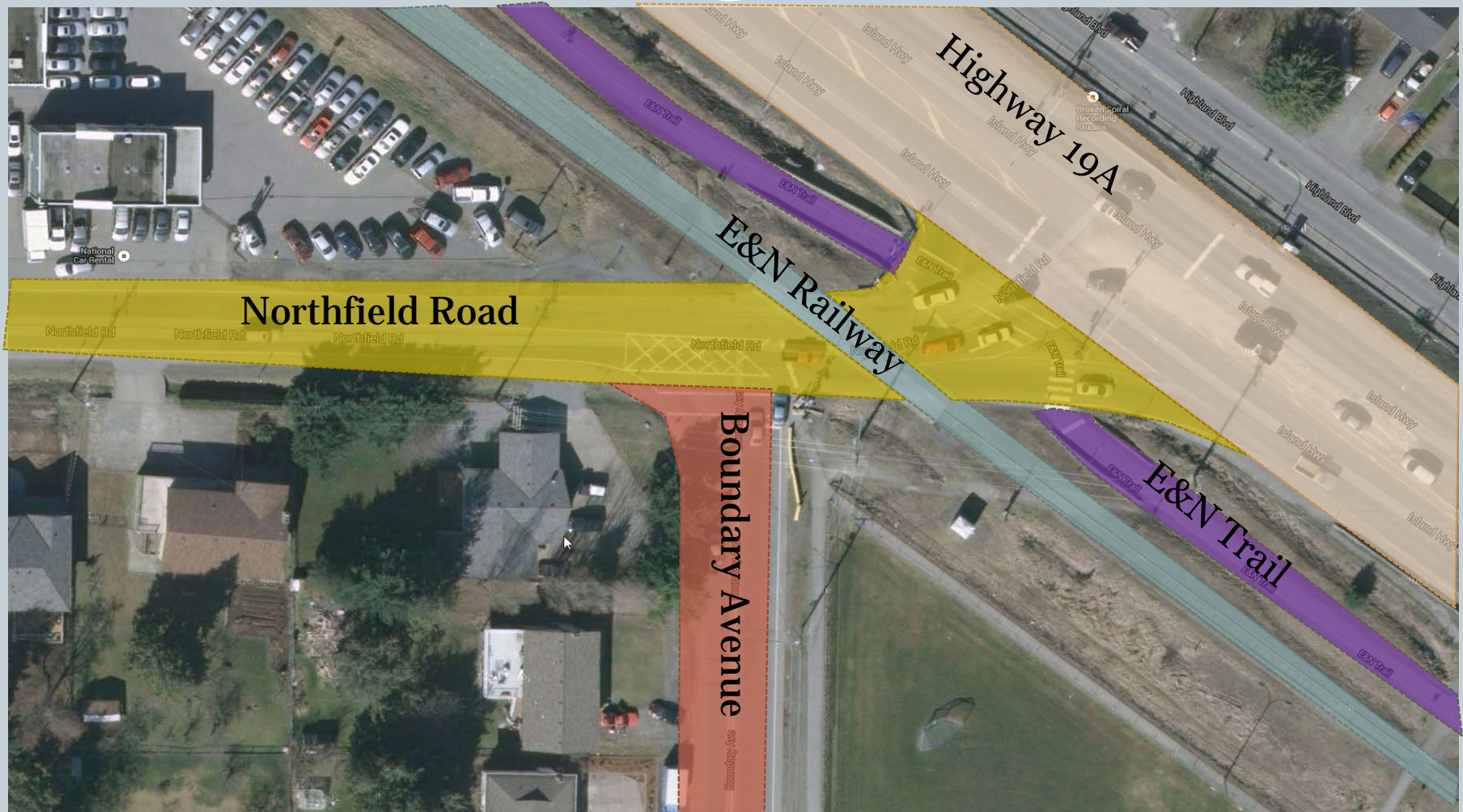
Schedule:

On hold

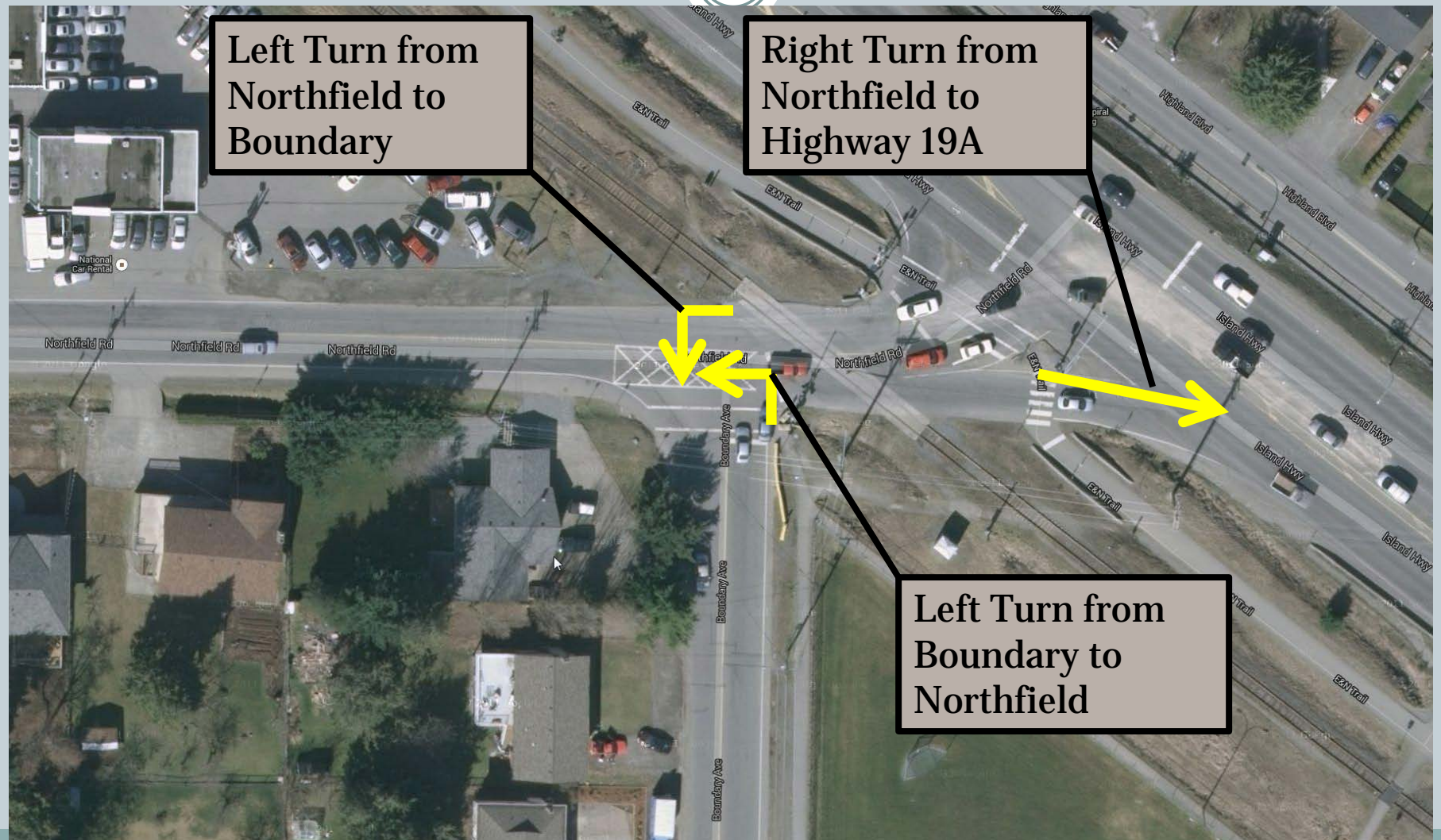


Northfield /Boundary /Hwy 19A

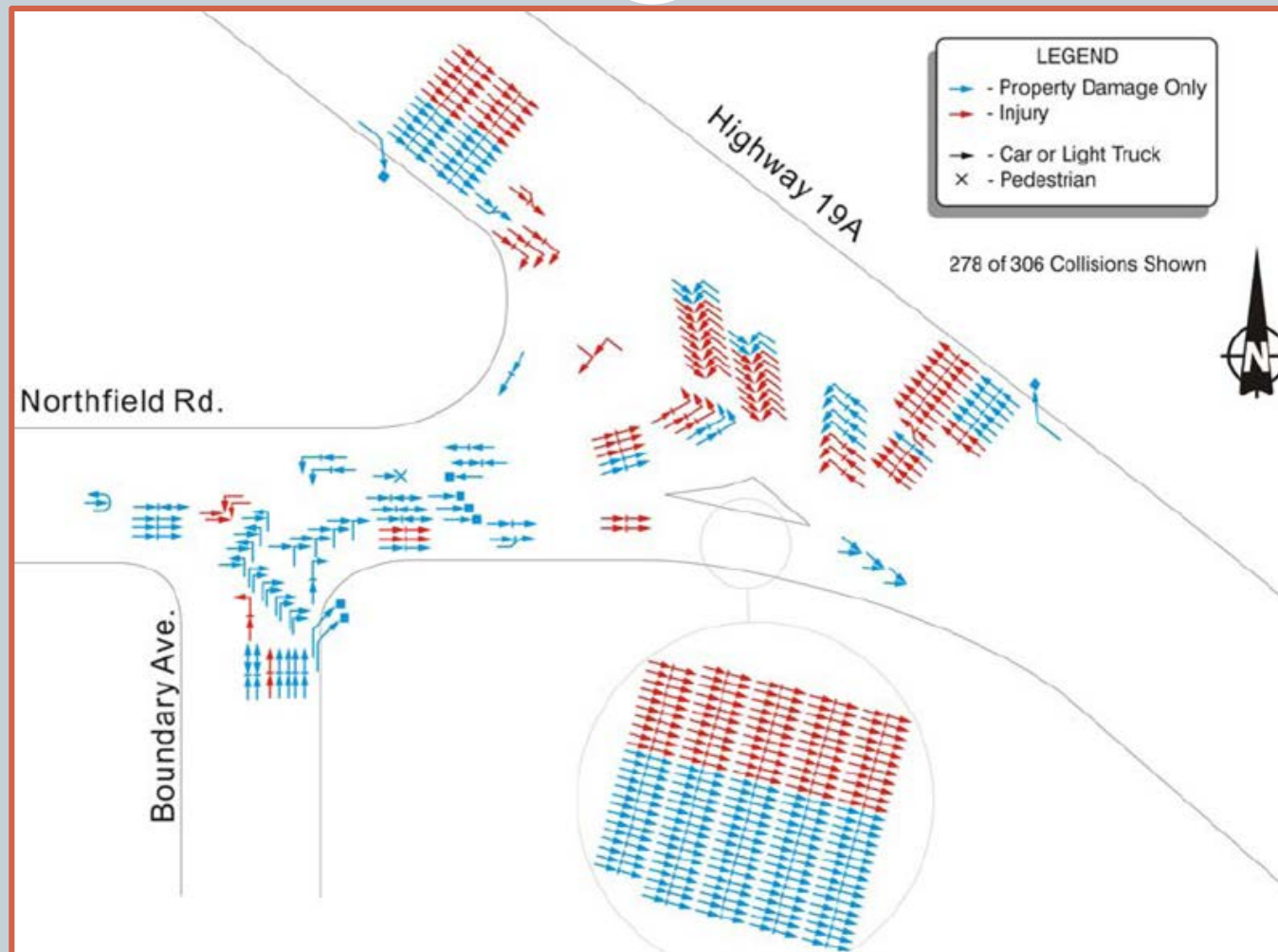
Site Plan



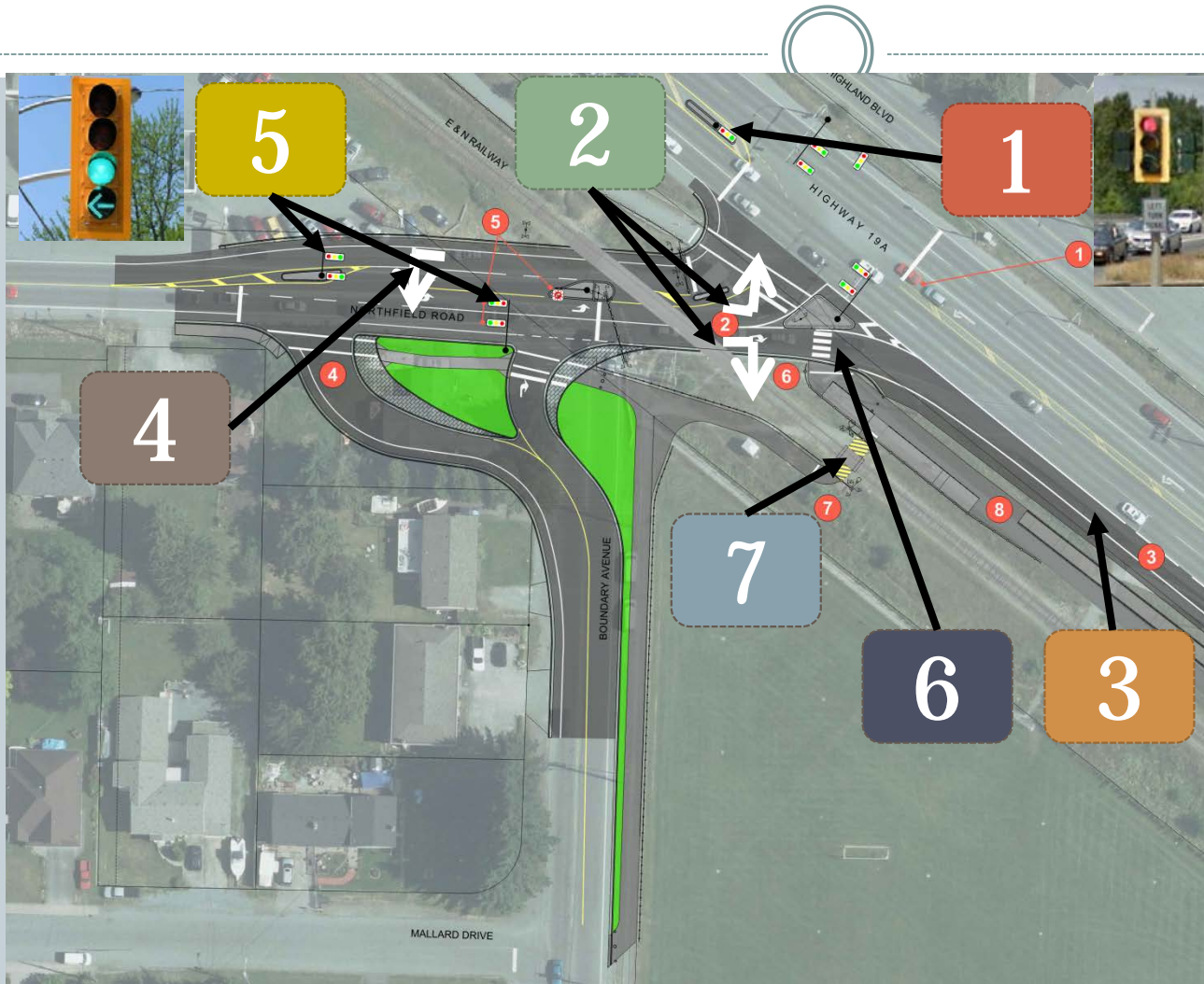
Current Issues



Collision Mapping



Proposed Upgrades



1

- Protected only left turn signal

2

- Dedicated right and left turn lanes

3

- Acceleration Lane

4

- Dedicated Left Turn Lane

5

- New Signal for rail clearance

6

- Pedestrian and cyclist improvements

7

- Improved Pedestrian crossing

Project Timeline

Intersection Studies

2006-2010

Preliminary Design

2011-2013

Value Analysis

2014

Finalize Design

Summer 2015

Project Paused

Spring 2016

Project Restarted

May 15, 2017

Tender

Fall 2017

Construction Begins

Winter 2018

Roadwork Completed

June 2018

Final Completion

Fall 2018

Partners & Stakeholders

\$3,000,000 project cost share between Nanaimo and MOTI



Island Corridor Foundation



School District 68



Nanaimo Hospital

RDN Transit



Emergency Services



2018 Projects



Chase River Pump Station

Wellcox Access

Georgia Greenway

Waterfront Walkway

Emergency Water Supply

Chase River Diversion Pumpstation

Scope:

- New pump station at 7th Street and Park Avenue
- New forcemain between 7th Avenue and RDN sewer @ Woodhouse & Eaton

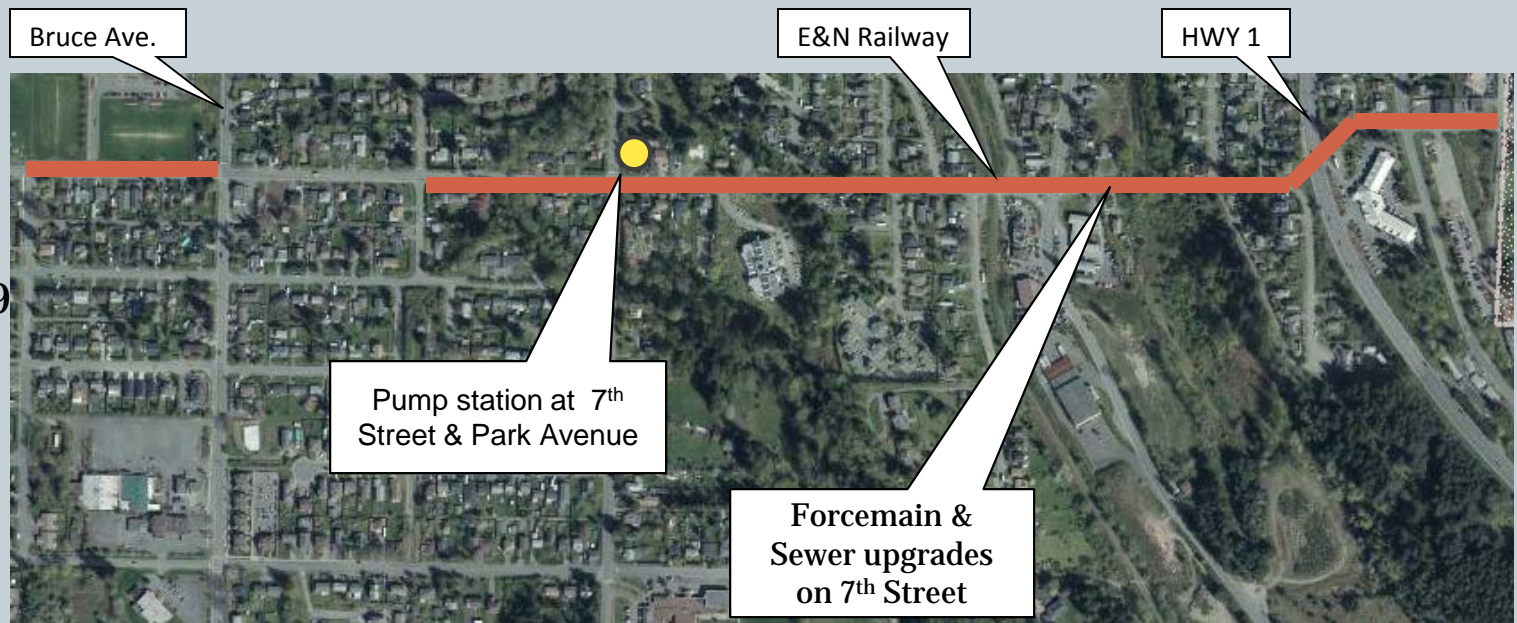
Budget:

\$5,764,000

Schedule:

Design 2017

Const. 2018/19



Georgia Greenway

Scope:

- Pedestrian/cyclist bridge
- Traffic calming
- Multi-use Trail through Centennial Park

Budget:

\$1,000,000

Schedule:

Design 2017

Construction Summer 2018



Waterfront Walkway

Scope:

- Work on Implementation Plan is underway
- Quick wins are being reviewed and design is starting on some sections
- Construction on some sections could start as early as 2018.



Wellcox Access

Scope:

- Interim Access – Front street to Cruise Ship Access – 2018
- Secondary Access Study – Choose a secondary access to the land

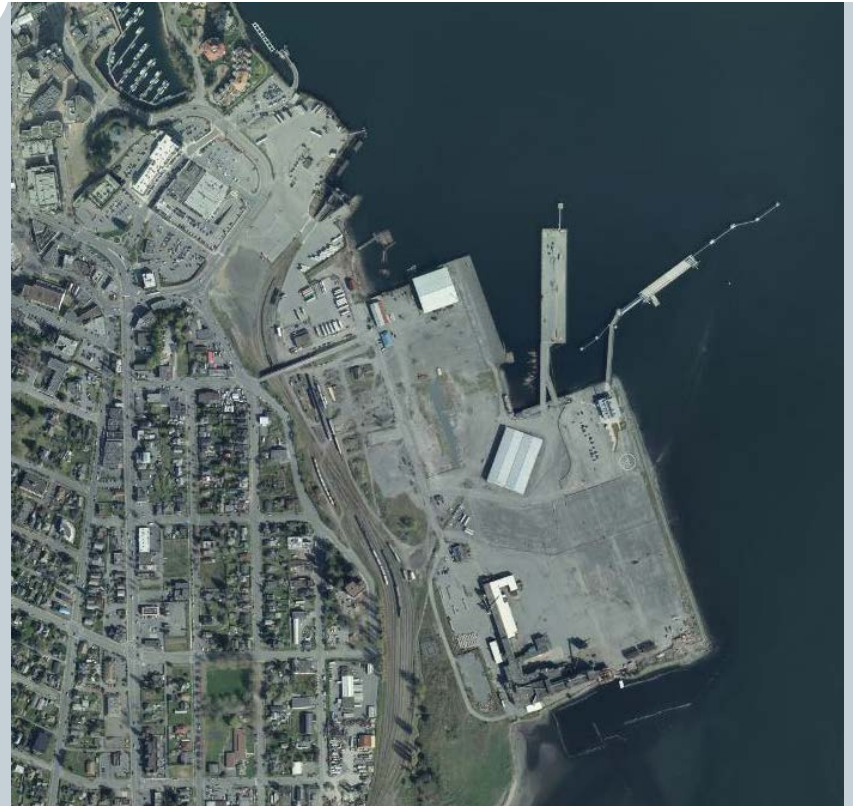
Budget:

\$1,800,000

Schedule:

Secondary Access Study complete by fall 2017

Interim Access –Construction 2018.



Wellcox Access

Interim Access



Wellcox Access

Secondary Access

Options Analysis

10-reduced to 3 or 4

Open House

October 2017

Final Report

November 2017



Emergency Water Supply

Scope:

New post disaster
Emergency Water
Supply Pump Station

Budget:

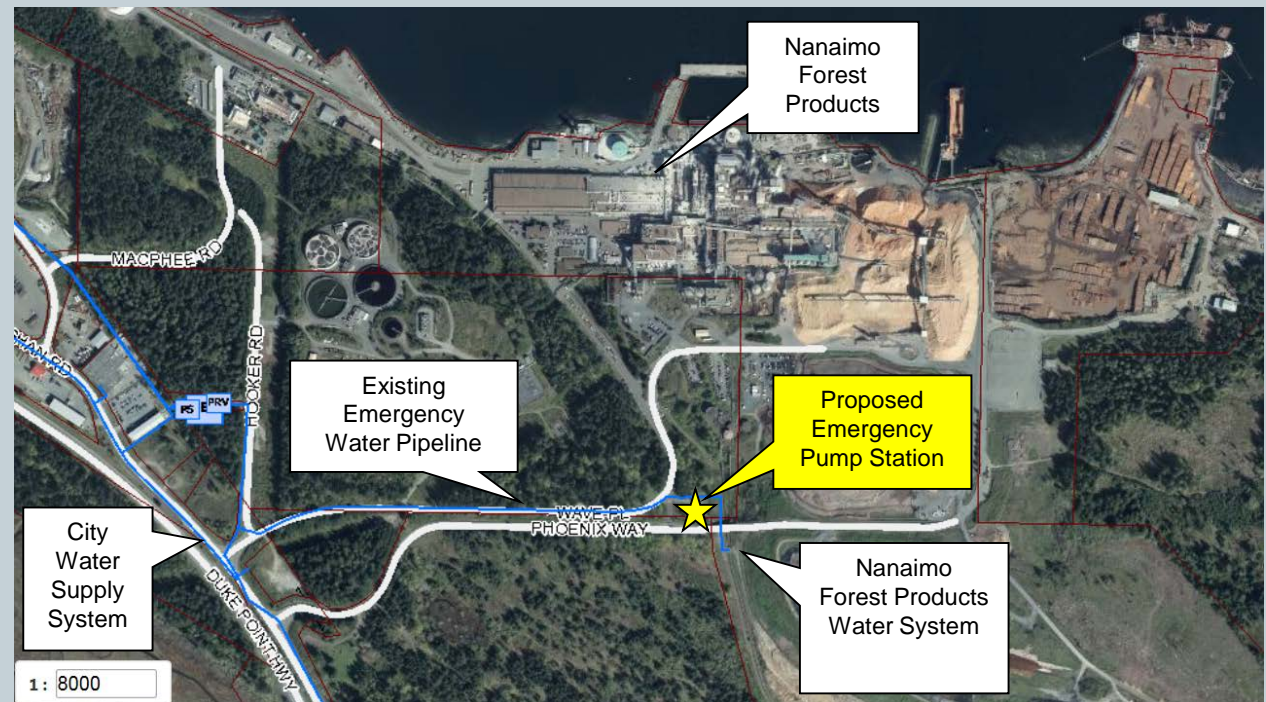
\$3,300,000

Possible Grant Funding

Schedule:

Design 2017-2018

Construction 2018



2019 Projects



Millstone Trunk Sewer (Bowen Park & Pearson Bridge)

Jingle Pot & Westwood Signalization

Millstone Trunk Sewer (Bowen Park & Pearson Bridge)

Scope:

- Replace Millstone Trunk Sewer through Bowen Park and under the Pearson Bridge

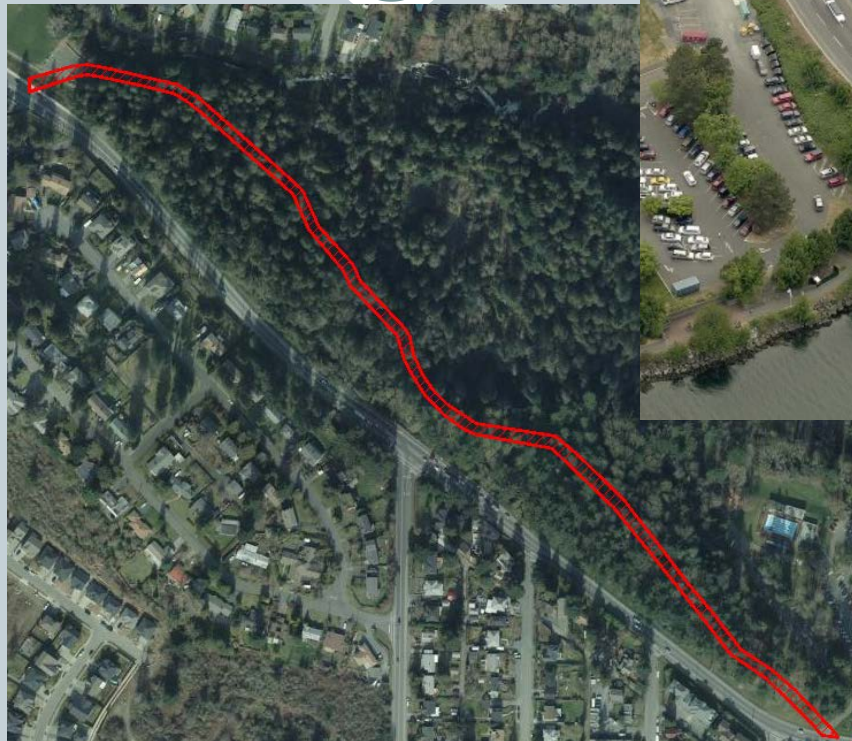
Budget:

\$2,600,000

Schedule:

Start planning and design in 2017

Construction in 2019



Westwood & Jingle Pot Signalization

Scope:

- New Signal at Westwood Road and Jingle Pot Road
- Replacement of aging utilities

Budget:

\$1,000,000

Schedule:

Design Fall 2017 to spring 2018
Construction in 2019



Other Projects



Boxwood

Terminal Trench

Madsen Road Upgrade

Boxwood Connector Project



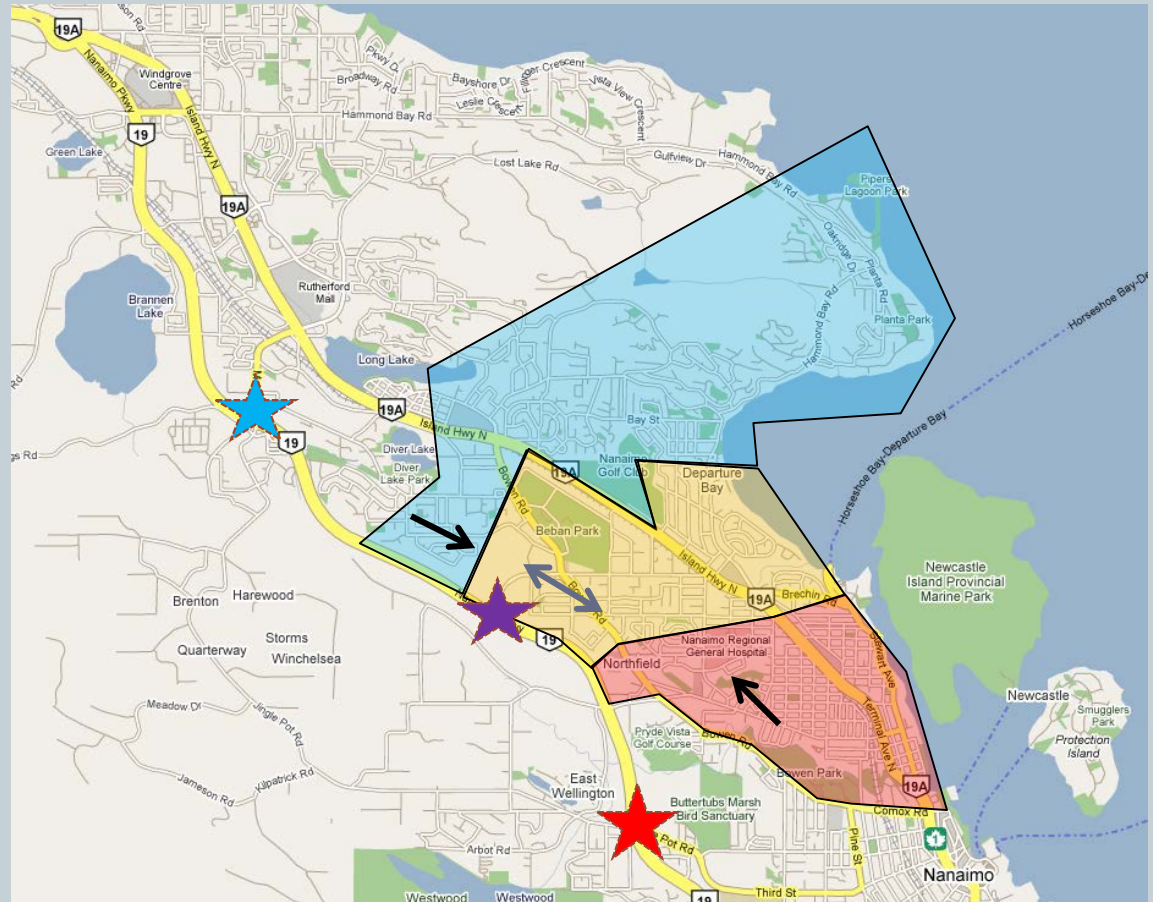
Project Background:

Demand on Bowen and Northfield

Limited access points
to the Parkway

- Mostar Rd. ★
- Northfield Rd. ★
- Third St. ★

For trips to/from the
Parkway, Northfield
is the best access
route for a large part
of Nanaimo



Project Background:

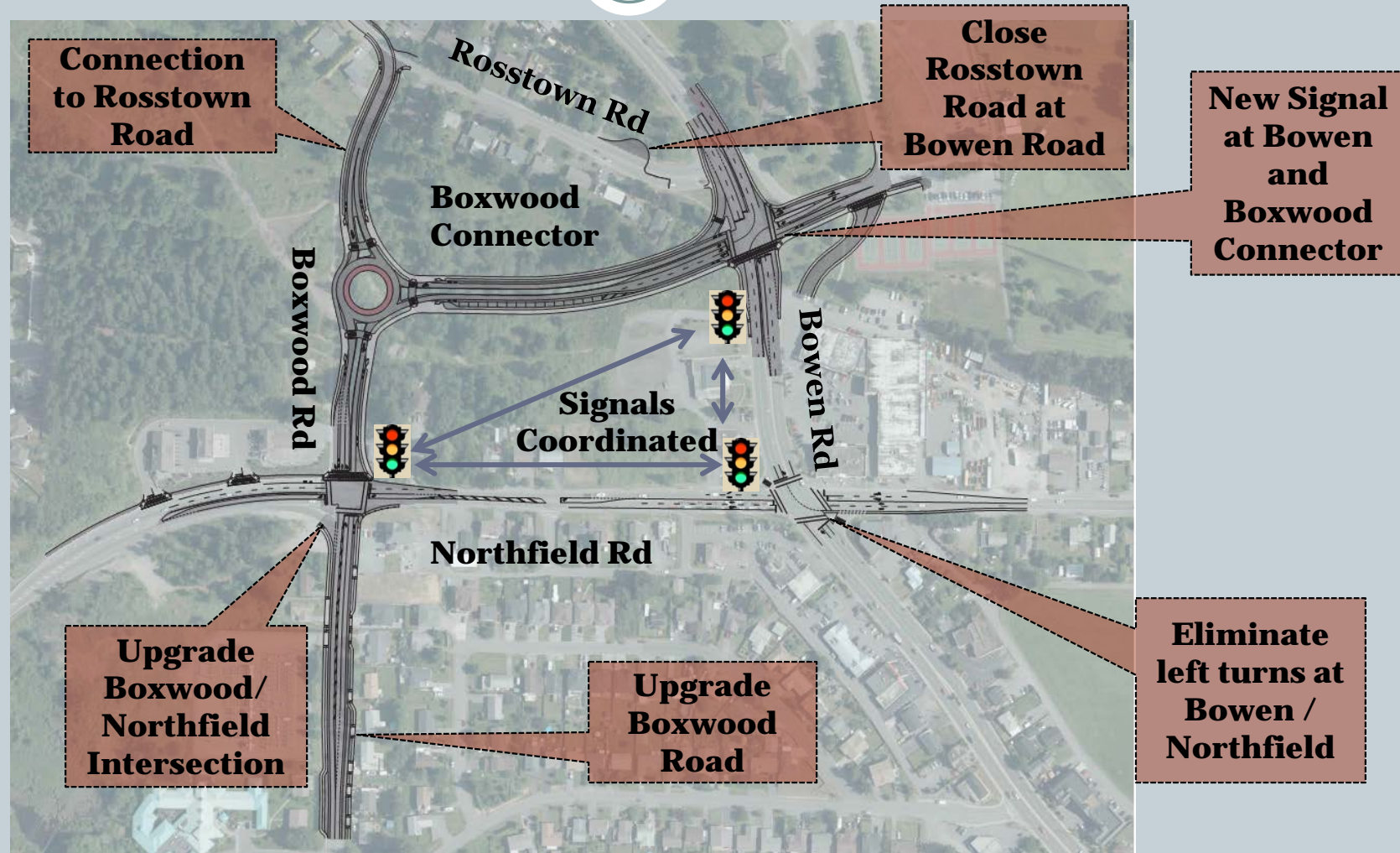
Area issues

- 1** Highest intersection collision rate of all City intersections (not including shared intersections with MOTI).
- 2** PM peak period is regularly congested, delay extends into other time periods. Increasing traffic volumes
- 3** Pedestrian, Bicycle and Transit facilities are limited
- 4** Poor access to Beban Park, Beban Plaza and surrounding properties.
- 5** Poor configuration of Rosstown at Bowen



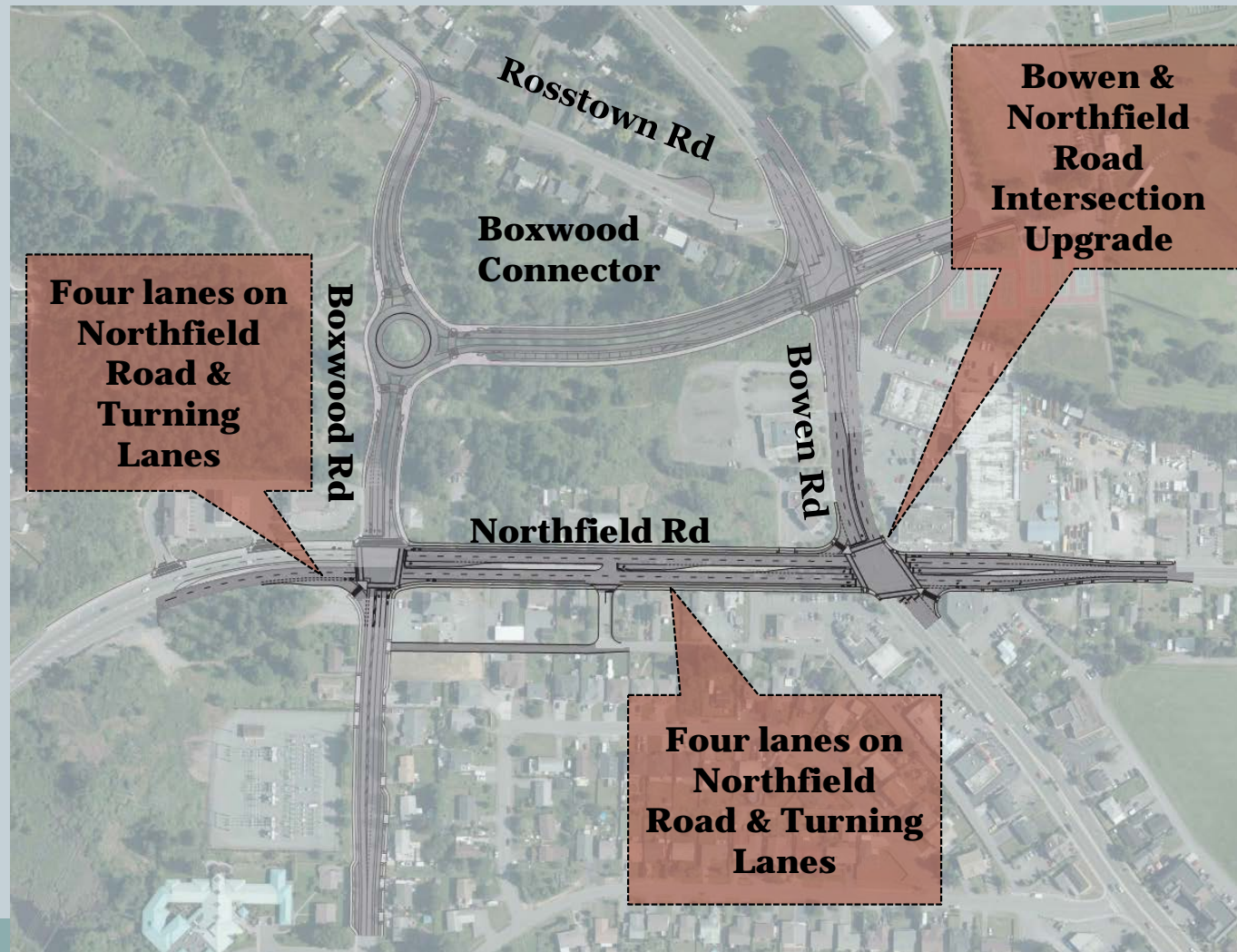
Project Concept:

Boxwood Connector



Project Concept:

Ultimate Road Network



Project Background:

Project Considerations



Project Delivery

- Considerable staff time and commitment for the project
- Long project timeline (first work started in 2006)

Technical

- Complex geotechnical conditions and remediation plan
- Contaminated site
- Signal coordination



Project Background:

Project Considerations



Public Consultation & Communication

- Change at Rosstown Road
- Impacts to adjacent property owners
- Area land use

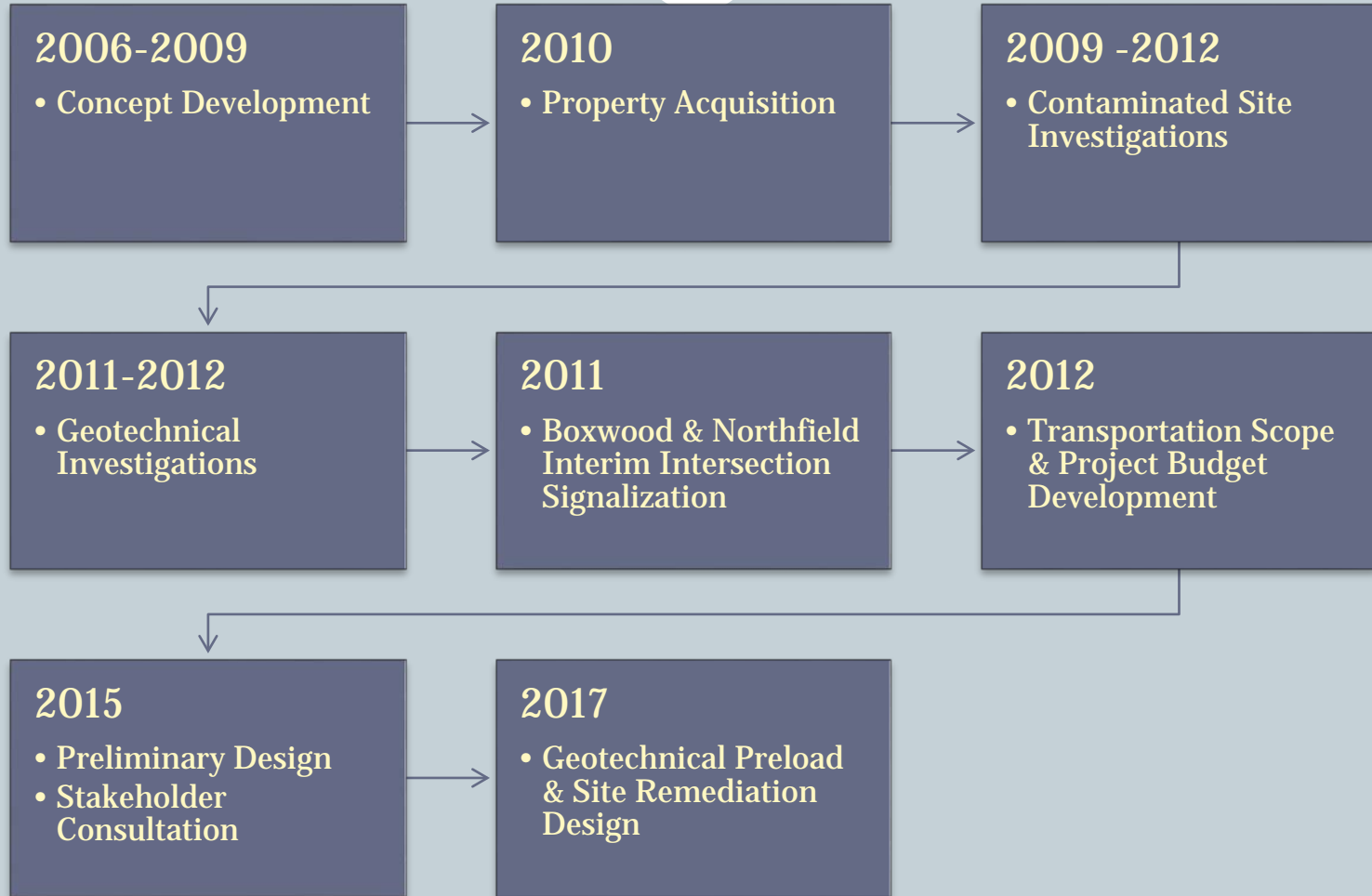


Financial

- Large Roads DCC Expenditure
- Long timeline \$2m spent to date, 12m in the budget.
- Aspects of the project have uncertain costs

Project Timeline:

Work to date



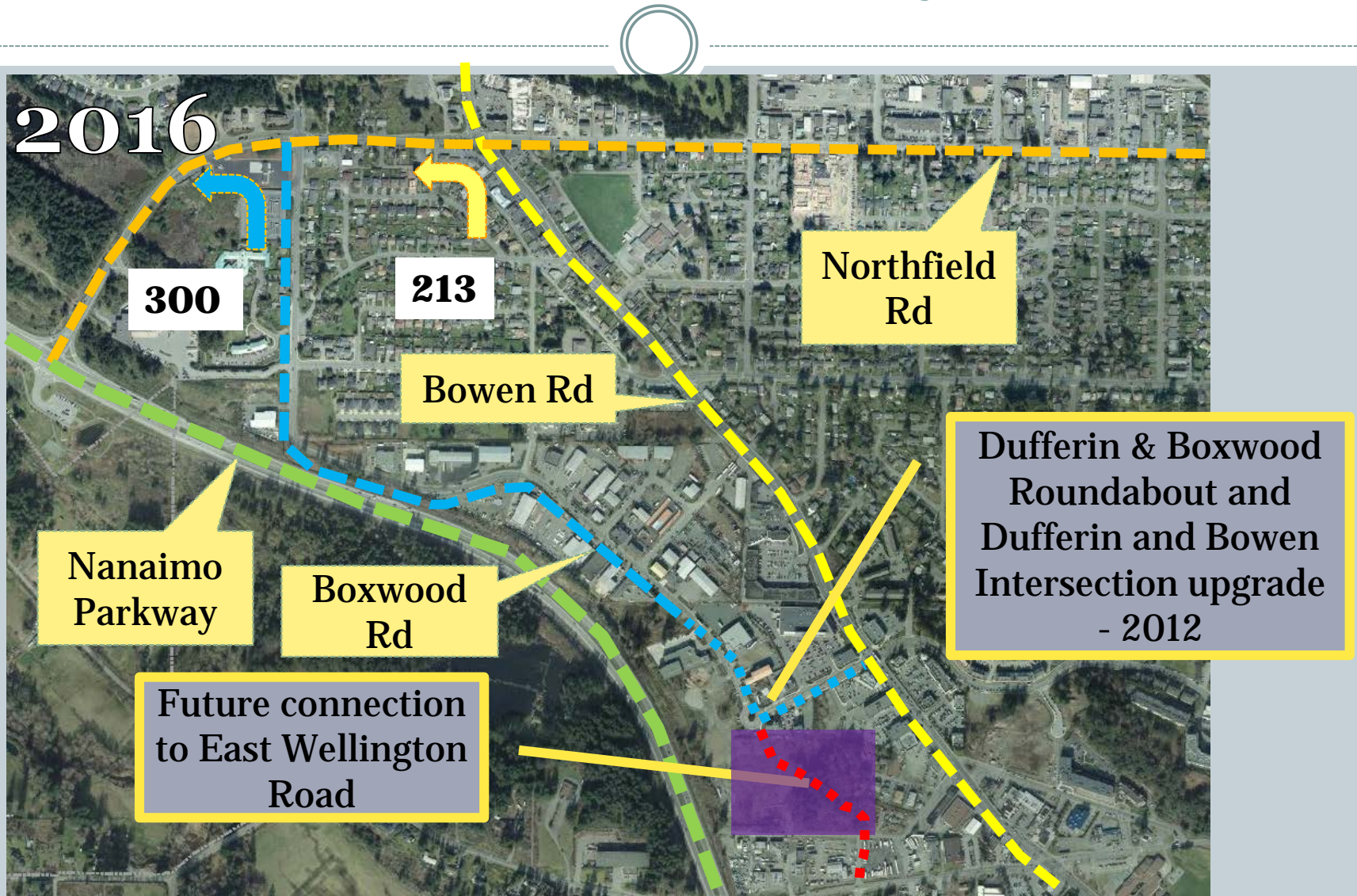
Project Timeline:

Road Network & Traffic Pattern Changes



Project Timeline:

Road Network & Traffic Pattern Changes



Project Timeline:

Future work



2018

- Site Grading & Remediation
- Preload
- Traffic Counts

2019

- Preload
- Traffic Counts

2020

- Preload
- Other Soil Remediation
- Traffic Counts

2021

- Detailed Design
- Tender

2022

- Construction – Boxwood Connector

2018 Work

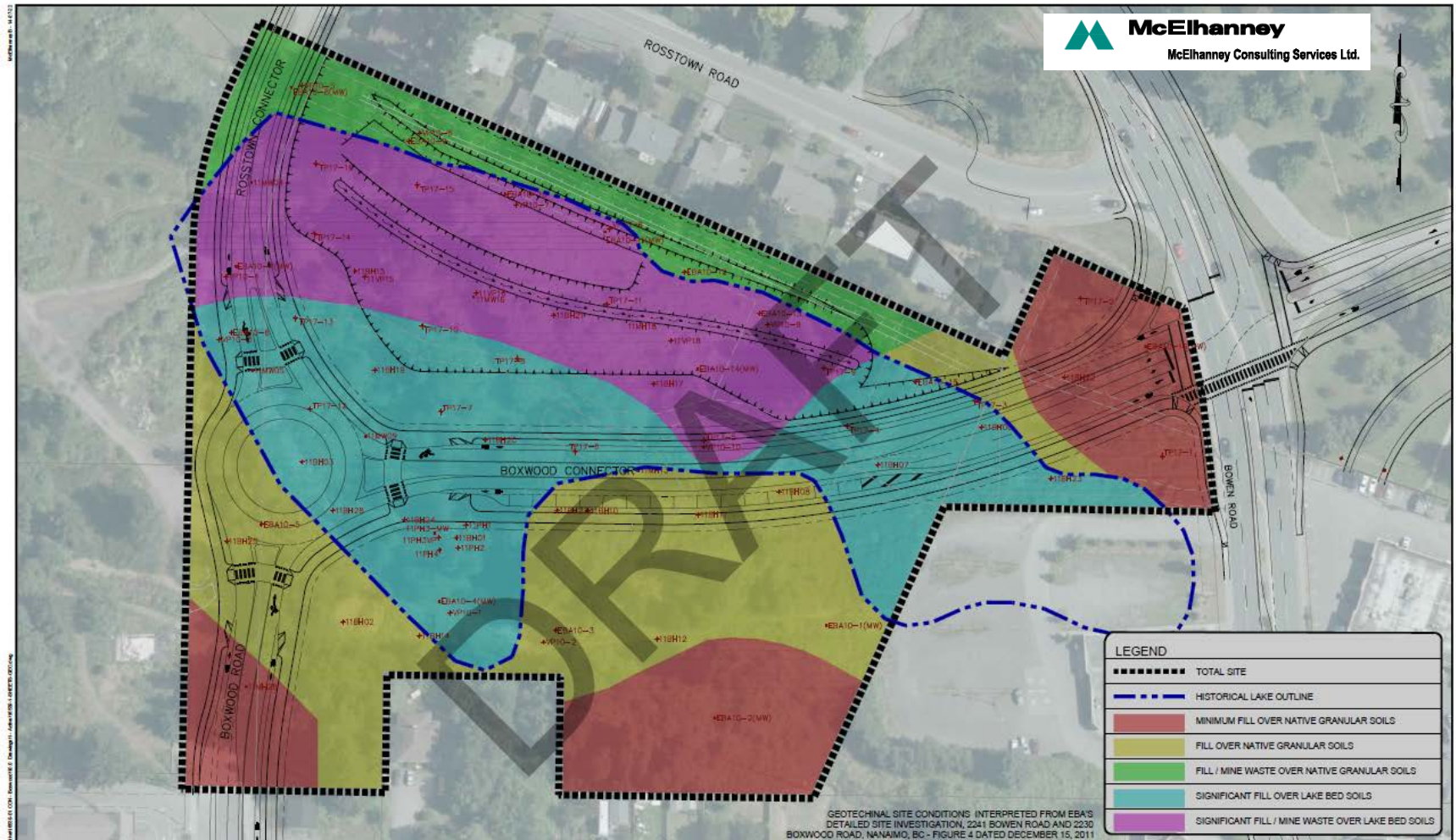
Site Grading, Remediation and Preloading

- Site Remediation
- Site Grading
- Soil Preloading



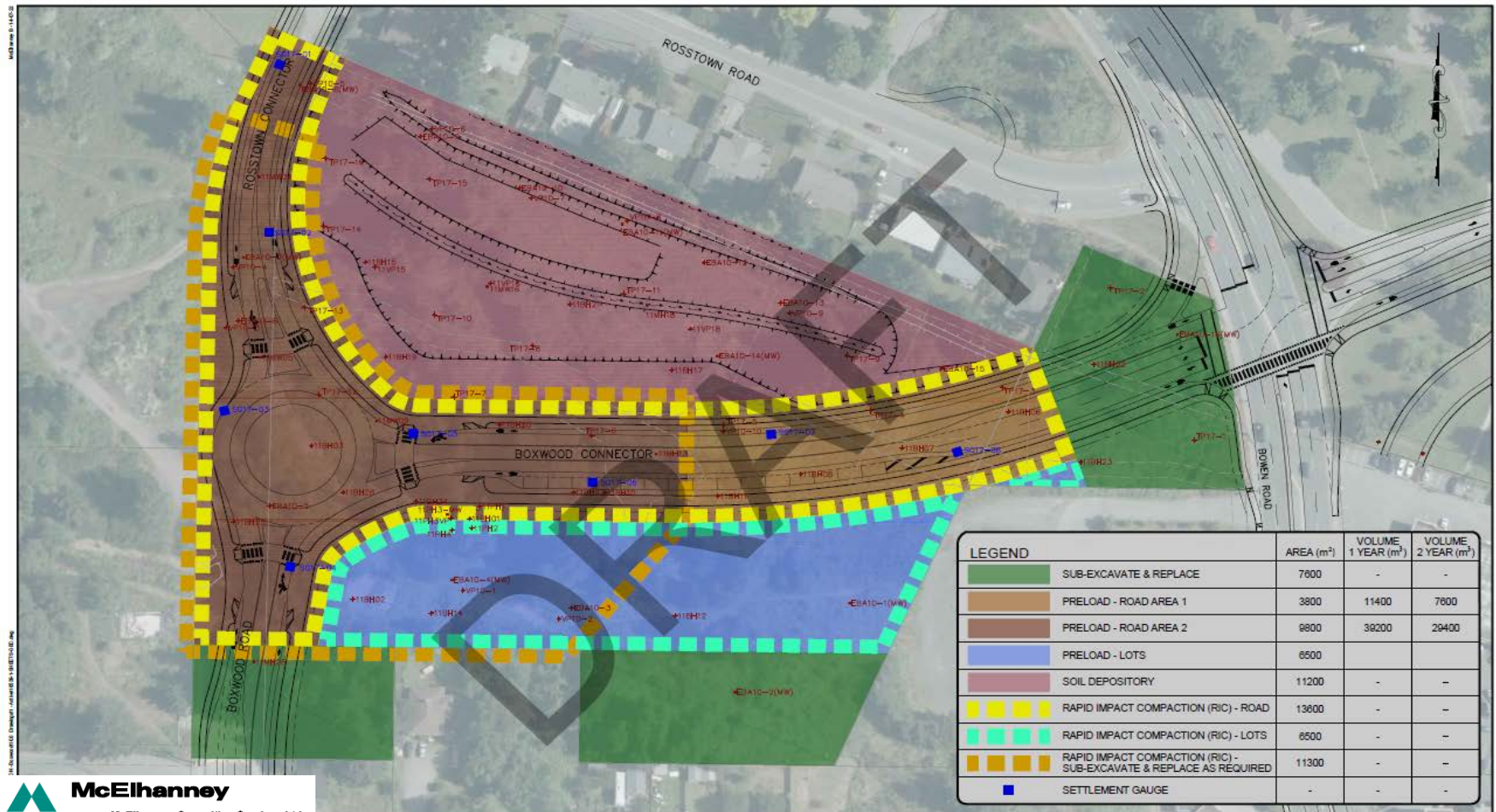
2018 Work

Geotechnical Site Conditions



2018 Work

Geotechnical Remediation



McElhanney

McElhanney Consulting Services Ltd.

Terminal Avenue Upgrades

Scope:

- Utility Upgrades
- Repaving
- Potential Street Upgrades

Budget:

- TBD

Schedule

- TBD
- MOTI may be paving in 2019



Terminal Avenue Upgrades



Terminal Avenue Upgrades



Madsen Road Upgrades

Scope:

- Street upgrade

Budget:

- ~\$3,000,000

Schedule

- 2021?

