

REGIONAL DISTRICT OF NANAIMO

**REGIONAL PARKS AND TRAILS SELECT COMMITTEE
REGULAR MEETING
TUESDAY, OCTOBER 21, 2014
12:00pm**

(RDN Committee Room, 6300 Hammond Bay Road, Nanaimo)

A G E N D A

PAGES

CALL TO ORDER

DELEGATIONS

Motion to receive late delegation.

MINUTES

3-5 Minutes of the Regular Regional Parks and Trails Advisory Committee meeting held June 11, 2014.

Motion to approve Minutes.

BUSINESS ARISING FROM THE MINUTES

COMMUNICATIONS/CORRESPONDENCE

6 L & K Mason to Regional District of Nanaimo, **RE: Installation of posts – Horne Lake Regional Park**

7 T. Osborne, RDN to T. Hickey, City of Nanaimo, **RE: Downtown to Seventh Street E&N Trail Project Funding.**

8 D. Banman, RDN to S. Zupenec, Islands Trust, **RE: Gabriola Island Draft Bylaws 271 & 272 Referral to Zone Parks**

9 W. Marshall, RDN to L. Kingston, Tourism Vancouver Island, **RE: Request for Hiking Trails Strategy Funding Contribution**

10-12 L. Krog, MLA, to A. McPherson, RDN EA 'A' Director, **RE: Morden Colliery Historic Provincial Park**

13-14 D. Chapman, Ministry of Environment, to T. Osborne, RDN, **RE: Rathrevor Beach Park - Shoreline Restoration Project**

Motion to receive Communications/Correspondence

UNFINISHED BUSINESS

REPORTS

- 15-24 Monthly Update of Community and Regional Parks and Trails Projects – June- August 2014
- 25-31 Monthly Update of Community and Regional Parks and Trails Projects – Sept 2014
- E & N Rail Trail Project Update (verbal)
- 32-64 Morden Colliery Regional Trail Bridge Report

Motion to receive Reports.

BUSINESS ARISING FROM DELEGATIONS OR COMMUNICATIONS

NEW BUSINESS

Fairwinds Management Plan Committee

IN CAMERA

That pursuant to Section 90(1) (e) of the Community Charter the Committee proceed to an In Camera Committee meeting to consider items related to land and legal issues.

ADJOURNMENT

Motion to adjourn.

NEXT MEETING

TBD

REGIONAL DISTRICT OF NANAIMO

**MINUTES OF THE
REGIONAL PARKS AND TRAILS SELECT COMMITTEE MEETING
HELD ON WEDNESDAY JUNE 11, 2014 AT 1:00 PM
IN THE RDN COMMITTEE ROOM**

Attendance: Director Diane Brennan, Chair, City of Nanaimo
Director Howard Houle, Electoral Area 'B'
Director Maureen Young, Electoral Area 'C'
Director Dave Willie, Town of Qualicum Beach
Director Jack de Jong, District of Lantzville
Director Julian Fell, Electoral Area 'F'
Director Marc Lefebvre, City of Parksville

Staff: Tom Osborne, General Manager of Recreation and Parks
Paul Thorkelsson, Chief Administrative Officer
Wendy Marshall, Manager of Park Services
Kelsey Cramer, Regional Parks Planner
Ann-Marie Harvey, Recording Secretary

Regrets: Director Joe Stanhope, Electoral Area 'G'

Also in Attendance: Director Alec McPherson, Electoral Area 'A'

CALL TO ORDER

Chair Brennan called the meeting to order at 1:04 PM.

MINUTES

MOVED Director Houle, SECONDED Director Lefebvre that the minutes of the Regular Regional Parks and Trails Select Committee meeting held March 4, 2014 be approved.

CARRIED

COMMUNICATIONS/CORRESPONDENCE

MOVED Director Willie, SECONDED Director Lefebvre that the following correspondence be received:

J. Daly, The Nature Conservancy to T. Osborne, RDN **Re: Moorecroft Covenant Monitoring**

F. Pattje, Acting Mayor, City of Nanaimo to J. Stanhope, RDN **Re: Application for E&N Rail Trail Reserve Funding**

J. Daly, The Nature Conservancy to T. Osborne, RDN **Re: Moorecroft Covenant Monitoring Visit Results**

CARRIED

REPORTS

Monthly Update of Community and Regional Parks and Trails Projects - Feb –March 2014

Monthly Update of Community and Regional Parks and Trails Projects - April 2014

Ms. Marshall gave a summary of the update on current Regional Parks and Trail Projects.

MOVED Director de Jong, SECONDED Director Lefebvre that the monthly update be received.

CARRIED

E & N Rail Trail Project Update

Ms. Marshall gave an update as on the E & N Trail project. She said that the consultation survey has been done and staff have had discussion with some of the land owners about some of the issues with the trail corridor including parking for a trail head and solutions for a cattle crossing.

Morden Colliery Regional Trail – Project Update

Mr. Osborne gave an update of the Morden Colliery Regional Trail bridge project that is using the Community Works fund from Electoral Area A. A hand out of the updated bridge feasibility study was distributed to the Committee. Mr. Osborne noted there will be need to be some refinements to the study to reflect potential design and related costs for equestrian and wheelchair use. The current pedestrian / cycling cost estimate for cable suspension option is \$1,137,000 and for the steel truss option is \$1,473,000. Both estimates have a contingency built in at 30% which can be refined further at the detailed design stage. It is estimated and additional 25% cost increase in each of two options to accommodate equestrian and wheelchair use.

Staff will update the Committee on the revised cost estimates prior to advancing the project to the detailed bridge design stage in the fall.

Little Qualicum River Regional Park – Ozero Bridge Status

Ms. Marshall explained that the Ozero bridge had been damaged so the property owner has now closed the gate to the bridge access. The owner expressed wanting to turn over the bridge to the RDN per the easement agreement on the lands. Ms. Marshall will speak to the RDN's solicitor about the transfer of the bridge and related easement and what it will entail.

Nanaimo Region Trail Partnership Funding Agreement Report

MOVED Director Lefebvre, SECONDED Director Willie that the Funding Agreement with the Nanaimo Region Rail Trail Partnership be approved as presented in Appendix I.

MOVED Director Houle, SECONDED Director Fell that the reports be received.

CARRIED

BUSINESS ARISING FROM DELEGATIONS OR COMMUNICATIONS

Application for E&N Rail Trail Reserve Funding – City of Nanaimo

The Committee discussed the letter from the City of Nanaimo requesting contribution to the E & N Municipal Rail Trail Reserve fund.

MOVED Director Willie, SECONDED Director Lefebvre that the Regional District of Nanaimo partner on the City of Nanaimo's Downtown to Seventh Street E&N Rail Trail Project by allocating in 2014 \$150,000 from the Regional Parks and Trails Acquisition and Capital Budget - E & N Municipal Rail Trail Reserve as a contribution for detailed design costs and \$150,000 in 2015 as a contribution for construction costs.

CARRIED

NEW BUSINESS

Incorporation of First Nations Information on Park Signage

Mr. Osborne explained the request from a Director to incorporate of First Nations information onto park signage along the Big Qualicum Regional Trail corridor and through the RDN park system. He noted staff will be adding this project to the work plan and will need to consider further the implementation as it will involve at minimum the three First Nations that are located within the Regional District of Nanaimo.

IN CAMERA

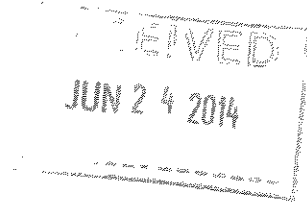
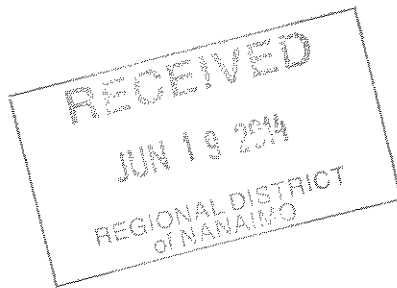
MOVED Director Lefebvre, SECONDED Director de Jong, that pursuant to Section 90(1) (e) of the Community Charter the Committee proceed to an In Camera Committee meeting to consider items related to land issues.

Time: 2:00pm

CARRIED

Chairperson

4232 Briardale Rd.
Courtenay, BC V9N 9R6
June 12, 2014.



Nanaimo Regional District
6300 Hammond Bay Rd. Nanaimo V9T 6N2

Dear Sir/Madam:

We wish to lodge a complaint regarding the installation of posts in the center of the roadway at Horne Lake Regional Park. These prevent those who wish to picnic from driving to the site and unloading their coolers and chairs.

As seniors, this effectively prevents us from enjoying a time-honoured family pastime. It would be onerous if not impossible for my husband and myself to carry chairs and coolers to the site. Until now, we have been permitted to off-load and move the car to the parking lot and just walk back.

One member of our party has a handicapped placard and uses portable oxygen. There should be access for people with such limitations to park in the picnic area. Our group ended up using the table right at the dusty entrance in the glaring sun with no shade in order to have the picnic we had planned.

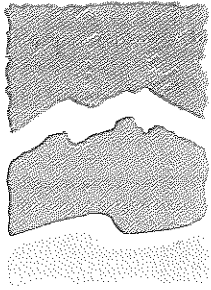
We also have concerns how emergency personnel would be able to access the picnic area, should the need arise, as the posts are permanently set in place. Moreover, we believe that preventing access is not legally permissible. All persons, regardless of age or infirmity should be allowed to use public facilities.

We look forward to your response, either by mail or by email (lenkat4232@gmail.com) to explain your position on this matter.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Len and Kathy Mason". The signature is written in a cursive style.

Len and Kathy Mason



REGIONAL
DISTRICT
OF NANAIMO

June 25, 2014

City of Nanaimo
455 Wallace Road
Nanaimo, BC
V9R 5J6

Attention: Tom Hickey, General Manager of Community Services

Dear Mr. Hickey:

Re: Downtown to Seventh Street E&N Rail Trail Project Funding

I am pleased to inform you that at the Regional District of Nanaimo Board Meeting on June 24, 2014 the following resolution was approved:

"That the Regional District of Nanaimo partner on the City of Nanaimo's Downtown to Seventh Street E&N Rail Trail Project by allocating in 2014 \$150,000 from the Regional Parks and Trails Acquisition and Capital Budget - E & N Municipal Rail Trail Reserve as a contribution for detailed design costs and \$150,000 in 2015 as a contribution for construction costs."

If you could inform the Regional District when the City commences with the detailed design stage for the *Downtown to Seventh Street E&N Rail Trail Project* and \$150,000 will be transferred to the City accordingly. In 2015, the Regional District will transfer \$150,000 to the City once the construction phase is ready to begin.

Should you have any questions in regards to the above, I can be contacted at 1-888-828-2069.

The Regional District looks forward to partnering with the City of Nanaimo on this important section of the E&N Rail Trail.

Sincerely,

Tom Osborne
General Manager, Recreation and Parks Services

RECREATION AND PARKS DEPARTMENT

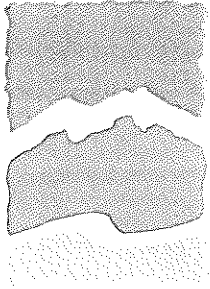
HEAD OFFICE:

Oceanside Place
830 West Island Highway
Parksville, BC
V9P 2X4
Tel: (250) 248-3252
Fax: (250) 248-3159
Toll Free: 1-888-828-2069

Ravensong Aquatic Centre
737 Jones Street
Qualicum Beach, BC
V9K 1S4
Tel: (250) 752-5014
Fax: (250) 752-5019

RDN Website: www.rdn.bc.ca

cc P. Thorkeisson, CAO
Regional Parks and Trails Select Committee
W. Idema, Director of Finance
W. Marshall, Manager Parks Services



REGIONAL
DISTRICT
OF NANAIMO

July 9, 2014

Islands Trust Northern Office
700 North Road
Gabriola Island, BC
V0R 1X3

Attn: Sonja Zupanec, Island Planner, Islands Trust

Dear Ms. Zupanec:

Re: Gabriola Island Draft Bylaws 271 and 272 Referral to Zone Parks

This letter is in reference to your correspondence dated January 22, 2014 requesting comments from the Regional District on Gabriola Island Draft Bylaws 271 and 272 Referral to Zone Parks that are under consideration by the Islands Trust.

At the March 25, 2014 Regional District of Nanaimo Board Meeting, the attached staff report was reviewed along with recommendations from the Electoral Area 'B' Parks and Open Space Advisory Committee and the following resolutions were approved:

1. *that the Regional District Board recommends to the Islands Trust that Bylaw No. 272 be amended to include a new permitted use to specifically allow special events in all park zones.*
2. *that the Regional District Board recommends to the Islands Trust that Bylaw No. 272 be amended to provide Active Recreation Community Park (P3) zoning for Paisley Place Community Park.*

Should you have any questions pertaining to the above resolution, please contact Wendy Marshall, Manager of Parks Services or Elaine McCulloch, Community Parks Planner at 1-888-828-2069

Sincerely,



Dean Banman
Acting General Manager, Recreation and Parks Services

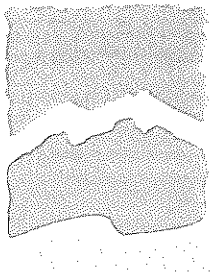
CC: T. Osborne, General Manager, Recreation and Parks
W. Marshall, Manager of Parks
H. Houle, RDN Director, Electoral Area 'B'
Electoral Area "B" Parks and Open Space Advisory Committee
Regional Parks and Trails Select Committee

RECREATION AND PARKS DEPARTMENT

HEAD OFFICE:
Oceanside Place
830 West Island Highway
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Tel: (250) 248-3252
Fax: (250) 248-3159
Toll Free: 1-888-828-2069

Ravensong Aquatic Centre
737 Jones Street
Qualicum Beach, BC
V9K 1S4
Tel: (250)752-5014
Fax: (250)752-5019

RDN Website: www.rdn.bc.ca



REGIONAL
DISTRICT
OF NANAIMO

July 29, 2014

Tourism Vancouver Island
501 – 65 Front Street
Nanaimo, BC
V9R 5H9

Attn: Lana Kingston, Corporate Services Manager

Dear Ms. Kingston:

Re: Request for Hiking Trails Strategy Phase 1 Funding Contribution.

At the July 22, 2014 Regional District of Nanaimo Board Meeting, the attached staff report was reviewed along with recommendations and the following resolution was approved:

“That up to \$2,500 be funded from the 2014 Regional Parks Operations Budget for contribution to Tourism Vancouver Island for Phase 1 of the Vancouver Island and the Sunshine Coast Hiking Trails Strategy.”

As part of the approval, the Board asked that Regional District staff be kept apprised of the progress of the Strategy and that RDN staff be included in the stakeholder consultations and receive a copy of the final report.

Enclosed is a cheque for \$2,500 for the contribution towards Phase One of the Vancouver Island and the Sunshine Coast Hiking Trails Strategy.

Should you have any questions pertaining to the above resolution, please contact:

Wendy Marshall, Manager, Park Services
Email: wmarshall@rdn.bc.ca
Phone: 250-248-3252
Toll free: 1-888-828-2069

Kelsey Cramer, RDN Parks Planner
Email: kcramer@rdn.bc.ca
Phone: 250-248-3252
Toll free: 1-888-828-2069

RECREATION AND PARKS DEPARTMENT

HEAD OFFICE:
Oceanside Place
830 West Island Highway
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Qualicum Beach, BC
V9K 1S4
Tel: (250) 752-5014
Fax: (250) 752-5019

RDN Website: www.rdn.bc.ca

Sincerely,

Wendy Marshall
Manager of Park Services

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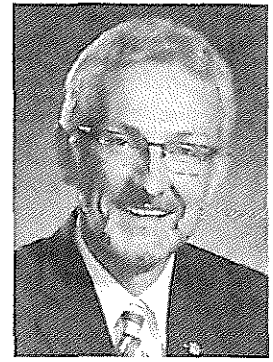
Encl. 1

CC: T. Osborne, General Manager, Recreation and Parks
M. O'Halloran, Legislative Coordinator
Regional Parks and Trails Select Committee

Leonard Krog, MLA
(Nanaimo)
Room 201
Parliament Buildings
Victoria, BC V8V 1X4
Phone: 250 953-4698
Fax: 250 387-4680



RECEIVED
OCT 06 2014



Leonard Krog, MLA
(Nanaimo)

Community Office:
4 - 77 Victoria Crescent
Nanaimo, BC V9R 5B9
Phone: 250 714-0630
Fax: 250 714-0859
e-mail: leonard.krog.mla@leg.bc.ca
website: www.leonardkrog-mla.ca

Province of
British Columbia
Legislative Assembly

RDN CAO'S OFFICE			
CAO	<input checked="" type="checkbox"/>	GM R&P	<input checked="" type="checkbox"/>
GMS&CD	<input checked="" type="checkbox"/>	GM T&SW	
GM R&CU	<input checked="" type="checkbox"/>	DF	
SEP 30 2014			
DCS		BOARD	<input checked="" type="checkbox"/>
CHAIR	<input checked="" type="checkbox"/>		

September 22, 2014

Dear Sirs:

You all received a copy of my letter of June 17, 2014 addressed to the Minister, and I received her reply recently which I attach for your information. It does not appear to have been copied to each of you, and in the off chance it wasn't, I am enclosing a copy for your records. We all need to keep the pressure up. The concrete continues to erode and a chance to preserve this amazing part of our community's history, indeed our country's history, disappears before our very eyes daily. I really appreciate the efforts of all of you.

Yours very truly,

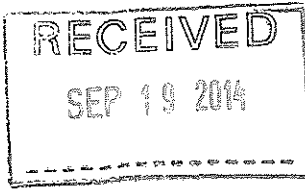
Leonard Eugene Krog, MLA
New Democrat Official Opposition
Nanaimo

LK/sl

cc: Mr. Doug Routley, MLA, Nanaimo-North Cowichan
Mayor Rob Hutchins, Ladysmith
Mayor John Ruttan, Nanaimo
Mr. Joe Stanhope, Board Chair, Regional District of Nanaimo
Mr. Alec McPherson, Director, Electoral Area A, Regional District of Nanaimo

Encl: 1





Reference: 207704

SEP 17 2014

Leonard Krog, MLA
Nanaimo
4 – 77 Victoria Crescent
Nanaimo BC V9R 5B9

Dear Mr. Krog:

Thank you for your letter of June 17, 2014, regarding Morden Colliery Historic Provincial Park. I apologize for the delay in responding.

I do appreciate the ongoing efforts and support of the Friends of the Morden Mine and I recently responded to Dr. Eric Ricker’s letter of April 30, 2014. Ministry staff remain in contact with the Friends of the Morden Mine through meetings and email correspondence and have kept me informed on the work and interests associated with the park.

Over the past several years, BC Parks has been providing funding towards the management and protection of Morden Colliery Historic Provincial Park. This includes ongoing operation and maintenance through a Park Facility Operator contract and additional funding for some specific projects.

During the past eighteen months, BC Parks funded two independent studies. The first was the *Morden Colliery Park Visitor Safety Risk Assessment*, completed in November 2012, and the second was the *Morden Mine Condition Assessment Update*, which was completed by Herold Engineering Ltd. in March 2013. Should you wish to have a copy of these reports, I would be pleased to send them to you.

Following these two studies, BC Parks completed several of the recommendations:

- Installation of split-rail fence and directional signage to keep park visitors on the trail network;
- Repairs to the fenced compound where the historic structures are contained to better prevent unauthorized access;
- Limbing of trees and placement of rock barriers at the parking lot to improve viewing of park signage and prevent the ongoing occurrence of unauthorized activities;
- Grading of park access road; and
- Construction of a viewing area along the park trail to allow for better viewing of the historic features.

...2

Additionally, over the past year, BC Parks provided a letter of support to the Friends of the Morden Mine to assist with their application for the area to be designated as a National Historic Site. This support is in keeping with BC Parks' approach to divest itself of parks whose principal focus is the preservation of historical structures such as Fort Steele and Barkerville.

Given the fiscal challenges and pressing needs of BC Parks infrastructure across the province, BC Parks does not have funding available for an additional engineering study at this time.

Thank you again for taking the time to share with me your support of Morden Colliery Historic Provincial Park and the ongoing, valuable work of the Friends of the Morden Mine.

Sincerely,

A handwritten signature in black ink that reads "Mary Polak". The signature is written in a cursive, flowing style.

Mary Polak
Minister

From: Chapman, Drew ENV:EX [<mailto:Drew.Chapman@gov.bc.ca>]
Sent: Monday, September 22, 2014 8:30 AM
To: Osborne, Tom; Marshall, Wendy
Cc: Macdonald, Andy M ENV:EX
Subject: FW: Rathtrever Beach Shoreline Restoration Project

File: 98000-90/ Rathtrever Beach

Regional District of Nanaimo
Tom Osbourne
General Manager of Parks and Recreation
Regional and Community Parks
830 W Island Highway
Parksville B.C.
V9P2X4

Dear Tom;

Re: Rathtrever Beach Park - Shoreline Restoration Project

BC Parks is planning on removing the concrete seawall in Rathtrever Beach Provincial Park day use area and restoring this very popular beach area to its natural environment. BC Parks would like to notify you of this project to determine if you have any potential concerns or questions regarding the proposed works.

PROPOSAL: The seawall in Rathtrever Beach Park has now deteriorated to a condition where extensive repairs or removal is needed in order to address public safety concerns and, enhance restoration of the natural shoreline. B.C. Parks is proposing removal of the existing 650 metre long concrete seawall and restore the beach to its natural profile. The seawall was originally built in 1971 to help keep drift wood and debris off the beach for the purpose of enhancing recreational use in the park.

The project will consist of accessing portions of the shoreline with large excavators and dump trucks to remove the concrete seawall and transport the concrete to an appropriate recycling centre. There exists a 300 metre section of the seawall where the vertical distance from the top of the seawall to the beach is higher due to shoreline erosion and therefore the proposed works include refilling the shoreline with a sand and coble mixture similar to what is found on the existing beach. The new filled area will be graded to a 1:10 slope to match the existing beach gradient. Logs secured to rocks will be added in strategic locations where there is higher wave action and increased shoreline movement to better maintain the new sand/cobble materials until the beach has stabilized.

Monitoring of use and potential erosion will be done throughout the first year to establish both public use patterns and beach movement. Once these patterns are established the non-impacted sites will be replanted with native beach dune, plant communities and include the installation of split rail fencing to protect the restored areas.

The removal of the seawall and the sand/cobble fill is scheduled to be completed in October 2015 over a two to three week period. Monitoring of the beach will continue for a 5 to 10 year period to evaluate how the shoreline has responded to the removal of the seawall and determine if further works are required.

BC Parks hired two independent shoreline engineering companies to determine the best course of action and recommended procedures for how best to manage the seawall. The first consultant hired in 2008(Worley Parsons Komex) proposed five options to address the concerns with the seawall. These options ranged from taking no action, too removal of the seawall and adding beach nourishment. BC Parks believes the most appropriate action to take is to remove the seawall, restore the natural shoreline through beach nourishment and planting of native vegetation. Northwest Hydraulic Consultants were hired in 2013 to review the Worley Parsons Komex report and determine the best practices required to achieve the objective of removing the seawall and restoring the beach ecosystem while maintaining a safe, public access.

The available information we have gathered from an impact assessment (which included information from the provincial government's Archaeology Branch) indicates the location of a culturally sensitive site (DhSb-38) near the proposed project however this site will not be impacted by the works. BC Parks is aware of First Nation interests in this area and has hired an archeologist to conduct an Archeological Impact Assessment (AIA) of the site to ensure the protection of First Nation's values in this area. We have also been consulting with First Nations on this project. Further, our impact assessment concluded that the park's beach dune ecosystem will be enhanced by the project and important habitat for bird life would not be negatively impacted.

Copies of the impact assessment, the engineer studies, the seawall removal construction plan and re-vegetation are available if you wish to review them. If you would like to meet to further discuss this project or review the plans please contact me at 250-954-4607 or through my email at Drew.Chapman@gov.bc.ca.

Drew Chapman
Arrowsmith Area Supervisor
B.C. Parks
Ministry of Environment
Ph: 250-954-4607
Fx: 250-954-4610



Parks Functions Report

TO: Tom Osborne
General Manager of Recreation and Parks

DATE: September 17, 2014

FROM: Wendy Marshall
Manager of Parks Services

FILE:

SUBJECT: Monthly Update of Community Parks and Regional Parks and Trails Projects

During June, July and August staff have been involved with the following projects and issues.

Electoral Area Community Parks

Area A

A bronze recognition plaque was installed at the park as per the requirements of the Skate Park construction Provincial grant funding. Staff also completed and submitted the April-June 2014 periodic progress report to the Province. Staff worked with the North Cedar Improvement District Fire Department to water the newly seeded areas of the park. Staff continued with site inspections, maintenance work and garbage collection at the Cedar Skate Park.

Staff prepared and distributed the June 18th PRCC meeting agenda package, attended the meeting and prepared the meeting minutes.

Staff repaired a viewing area landing and removed trees and brushed the trail at Woodridge Place Community Park.

Maintenance work was carried out, and maintenance planning work was begun for the Morden Colliery Trail plaza/trailhead.

Staff continued to provide support to an in-camera land acquisition for potential park and attended meetings on the subject.

Staff attended a SD68 Playfield Pre-construction meeting at the new Cedar Elementary School site.

Staff provided a planning report regarding a request for acceptance of park land dedication as part of a subdivision at 1965 Walsh Rd. The applicant proposed to dedicate 0.4 hectare (1.0 acre) of park land. The dedication consists of wetland located along Macmillan Rd. and would accomplish many of the Electoral Area A Official Community Plan parks objectives.

Area B

At Rollo McClay Community Park water delivery was continued throughout the summer due to siltation issues with the water well on site. Garbage collection was also continued, along with service to several beach access sites on the island. Additional areas at the park were also cleared/brushed and are now being mowed regularly.

Road brushing work was completed at 707 Community Park, along with a park inspection to assess signage needs.

Park maintenance and brushing was completed at Joyce Lockwood Community Park.

Staff liaised with community members regarding the use of a water well at Clamshell Community Park, where several fruit trees were also planted by community volunteers.

A site visit with community volunteers was conducted to approve a section of newly laid out trail at Cox Community Park.

Staff provided information and support to a community member who was interested in asking the POSAC to consider developing a dog-off leash park in one of the existing community parks on the island.

Staff provided information and support to the Gabriola Softball Association regarding the process of requesting permission and funding for a kids playground at Rollo McClay Community Park.

Staff continued to work with the consultant to develop the Huxley Park Master Plan.

Staff prepared and distributed the June 3rd POSAC meeting agenda package, attended the meeting, reviewed and edited the meeting minutes.

Staff attended a Gabriola Local Trust Committee and RDN Protocol Meeting in June.

Area C – Extension

A new bridge was constructed at Extension Miners Community Park. Planning work for upcoming stair and sign work is also underway.

Forest fire signage was posted at Nanaimo River Canyon Community Park.

Area C - East Wellington/Pleasant Valley

In June, staff completed an assessment and report for the vacant Olesen residence in Anders and Dorrit's Community Park in consideration of future park development. The report was presented to the POSAC. Site inspections and garbage clean-up work were carried out at Anders and Dorrit's Community Park. Staff met on site with a contractor to order new gate work at the park. Contracted mowing services also continued for this site.

Staff contacted the Nanaimo Horticultural Association and the Vancouver Island University (VIU) Horticultural Program to inquire if either group were interested in working with the RDN to renovate and maintain the existing residential gardens at Anders and Dorrit's Community Park. Staff met with a VIU horticultural instructor to discuss their potential involvement with the project. VIU students will be undertaking a plant identification and design project during the 2014 fall semester and will also be providing some pruning and plant clean-up on site.

Staff prepared and distributed the June 23rd POSAC meeting agenda package, attended the meeting, reviewed and edited the meeting minutes.

Area E

In June, a planning referral and planting plan was completed by park staff for a residential development application impacting vegetation along the south boundary of Stone Lake Drive Community Park.

Staff continued to work with the consultant to develop Blueback Park Master Plan. Staff met with a local kayaking company to review the draft plan and to discuss design and management issues and opportunities. Staff also investigated the possibility of using goats to remove the existing blackberries in the park. However, the site is too large and the blackberries too tall for goats to be effective at this time.

New signage was posted at Brickyard Community Park.

Trail brushing was carried out along the Schooner Ridge Trail and at Stone Lake Drive Community Park.

Staff prepared and distributed the June 2nd POSAC meeting agenda package, attended the meeting and reviewed the meeting minutes.

Area F

At Errington Community Park additional trail brushing and clearing work was carried out. Staff met on site with park stewards to discuss upcoming park improvements scheduled for the fall. A new bike rack was also installed at the park. Hazard tree removal work was also carried out.

A Permit to Construct Works was received from Ministry of Transportation and Infrastructure for vehicle barricade placement at Price Road, scheduled for September.

A trail counter was installed at Carrothers Road trail.

Staff developed a draft signage plan for Malcolm Community Park.

Meadowood Community Park Phase 1 construction was underway over the summer, with completion of fencing, playground installation, gravel paths, asphalt play court and tree planting. Remaining work includes hydroseeding, and RDN-installed amenities (signs, garbage can, toilet surround, bike rack, wheelstops) and volunteer construction of the picnic pavilion. Pro bono services were coordinated with Sorenson Engineering and Pickles TimberWorks toward construction of the pavilion. A building permit was taken out for the project by staff. Monthly update meetings have taken place with the CMRA parks group. Park opening is anticipated for Spring 2015.

Staff prepared and distributed the July 9th POSAC meeting agenda package, attended the meeting and reviewed the meeting minutes.

Area G

Staff responded to illegal dumping call at Riley Road Community Park. New signage was posted and a letter sent to area residents.

Local volunteers painted portions of the Women's Institute Hall at Dashwood Community Hall. Park brushing and trail maintenance work was also carried out.

Playground equipment at picnic tables were pressure washed at Neden and Maple Lane Community Parks.

New signage was posted at Miller Road Community Park. Hogweed removal was also carried out by staff and area volunteers.

Staff worked with the developer to complete the MOTI pathway that connects Sanika Close to the new Oceanside Elementary School.

Staff met with the developer to discuss trail construction through the future community park which will be dedicated through subdivision at 691 Wembley Rd (near the old Yellowbrick Rd and Wembley Rd. intersection).

Staff provided Parks comments regarding a rezoning application at 1032 Robertson Blvd.

Area H

Directional signs were posted throughout Oakdowne Community Park.

Improvements were made to the MOTI beach access at Shoreline Drive.

Park maintenance work was carried out at Dunsmuir Community Park.

Following permission from MOTI, directional trail signage was posted along Esary Road, directing visitors to Henry Morgan Community Park.

Brushing and trail improvements were completed at Leon Road Community Park and Deep Bay Creek Community Park.

Staff attended a meeting with MOTI staff and the Area Director regarding widening road shoulders for cyclists and pedestrians along 19A. MOTI staff are doing a table top study and will report back in September.

Staff developed a site layout plan and ordered a new Oogle swing and play surfacing for Henry Morgan Community Park.

Staff attended the Rural Economic Development discussions held in Deep Bay on June 3rd.

Staff prepared and distributed the June 25th POSAC meeting agenda package, attended the meeting and prepared the meeting minutes.

Staff completed and submitted the Final 2014 progress report, financial summary and metrics spreadsheets to the Province as per the requirements of the Henry Morgan Park construction grant funding.

Miscellaneous

Numerous park inspection visits and maintenance projects were conducted throughout the district including garbage removal, brushing and trail maintenance, new sign layouts and installations, and sign maintenance, and numerous information requests were received from the public.

Staff provided information regarding the planning and construction process of Cedar Skate Park to the Village of Cumberland.

Staff provided some large Regional District Parks maps to the SD69 Aboriginal Studies Instructor to use as a base map for a “Aboriginal Place Naming” class project.

Community Works Projects

Area B

Staff, the Area Director and Consultants met on site with the Ministry of Transportation in early June to hear the Ministry’s input on the concept of a separated trail along North Rd. Input they provided will influence the trail design. Consultants are revisiting some options along the new and future Madrona developments and will be preparing 85% complete design drawings once the options have been narrowed down based on anticipated cost, expected impact to the existing conditions (e.g. trees), and trail comfort and experience. Parks Staff will submit a package to the Ministry of Transportation for permit approval and review prior to completion of the design drawings and project tender.

Area C - East Wellington/Pleasant Valley

Staff and the Area Director met on site with the Ministry of Transportation in early June to discuss options for improving pedestrian safety along sections of Jingle Pot Rd. Narrow conditions at stream crossings and where there is a steep embankment next to the shoulder limit the possibility of widening the shoulder continuously along the road. Staff will be reviewing options prior to proceeding.

Area G

Parks and Planning staff met with MoTI in mid-June to discuss community pedestrian connections along and around the Wembley Rd area. Parks staff subsequently met with Ministry of Transportation Staff to walk Wembley and Lowry’s Rd and assess the possibility of separated trail or widened shoulder. Parks Staff met to discuss the options further with the Area Director. Because roads are outside the management of the RDN, more discussion with MoTI is required to formulate a plan for how to improve pedestrian connectivity in rural areas and who will be responsible for these improvements.

Morden Colliery Bridge

In June and August, staff reviewed and edited drafts of the feasibility study for a pedestrian bridge crossing within an undeveloped portion of the Morden Colliery Regional Trail and over the Nanaimo River. A final report will be submitted by Harold Engineering in the September.

Regional Significant Gas Tax Project – E&N Rail Trail

Survey work within the corridor is complete and preliminary design work for the Rail Trail is underway. Parks staff and Consultants have participated in several consultations with neighbours to the proposed trail and with other community groups or agencies with an interest in the project.

A meeting with two neighbouring landowners was held to discuss options for locating the trail on their property due to constraints within the adjacent narrow railway corridor. Consultants are looking at preliminary cost estimates to keep the trail within the corridor and if needed (due to high cost) the option of moving the trail outside the corridor will be examined further.

Parks staff and Consultants met with the Ministry of Environment to discuss permit approval requirements at Romney Creek – a watercourse along the trail route that may require culvert extension. Conversations with the neighbouring landowner are also underway to secure a statutory right-of-way for the culvert extension on the private property.

Parks Staff & Area F Director met over the phone with the E&N Division of the Canadian Historical Railway Association, who have interest in utilizing the railway corridor in Coombs for storing and displaying several railway cars. There is a long-term vision to develop a railway and community interpretation centre at this location and this vision was considered in relation to the current trail planning underway.

Parks staff met with the City of Parksville staff to discuss a connection to the trail through Springwood Park. When a plan is prepared, it will be provided to Council for review. Formal submissions have been made to the Island Corridor Foundation and the Agricultural Land Commission for the proposed trail development.

Over the fall design work will be on-going. Staff are beginning to prepare for a community Open House, planned for October.

Regional Parks and Trails

Arboretum

Park staff conducted park inspections, park maintenance and garbage removal.

Beachcomber Regional Park

Park Staff conducted trail maintenance and park inspections. Trail counter data was collected and the park was GPS'd by the GIS department.

In July and August, staff completed research, photography, graphic design, mapping and site design work for a future park info kiosk in Beachcomber Regional Park. Kiosk installation is scheduled for early October, 2014.

Benson Creek Falls

Park staff conducted park inspections and maintained trails.

Big Qualicum River Regional Trail

Park staff met with DFO staff to discuss signage along the regional trail. Plans are for a September install.

Coats Marsh Regional Park

Park staff conducted park inspections, maintained trails, monitored the berm and the pond leveler.

Descanso Regional Park

Park staff conducted site inspections. Park operator continues to work with the RDN on the Descanso Bay park improvement plan. Hazard trees were removed for public safety.

Horne Lake Regional Park

Parks Staff developed a park information sign for installation in the kiosk at the adjacent Horne Lake Caves Provincial Park. The sign will be installed later this summer.

Park staff with Park Operators continues with the campground improvement project.

Englishman River Regional Park

Park Staff carried out routine inspections of Englishman River Regional Park and Top Bridge Park. Staff responded to maintenance issues identified by the Volunteer Park Warden including; garbage issues, ATV trespass, vandalism, graffiti and suspect hazardous trees. Staff met with the adjacent land owner regarding ATV trespass. The kiosk, garbage's and gates were power washed. Signs were removed from trees and new posts were installed. Park staff inspected trees with the Volunteer Warden and removed or recorded wildlife trees. A boulder was moved at the Allsbrook Kiosk to allow for wheelchair accessibility.

Lighthouse Country Regional Trail

Park staff conducted park inspections, maintained trails and collected trail counter data. The North Loop Signs at the McColl road trail head were removed from trees and installed on posts.

Interpretive sign locations were marked and signposts were fabricated (black powder coated steel posts).

Little Qualicum River Regional Park

Parks Staff met with the RDN's solicitor to seek guidance on the process for transferring management of the private bridge over the LQR to the RDN. The bridge over the river is within the regional park, but has been managed privately through easement by a gravel company. The road to the bridge on both sides of the river is private land and not managed by the RDN. The solicitor is reviewing the legal requirements for transferring the bridge given that the gravel company no longer intends to use the bridge.

Park staff conducted park inspections and maintained trails.

Little Qualicum River Estuary Regional Conservation Area

Park staff conducted park inspections monitoring the conservation area.

Park staff participated in the CAGO forum on the development of a goose management strategy for the Englishman and Little Qualicum estuaries. The annual meeting with DUC took place in June with discussion of projects and upcoming priorities. A proposal from BCCF for woody debris goose enclosures was reviewed in consultation with DUC, with a high priority being placed on development of an ecological monitoring program. The Qualicum Streamkeepers workplan for the estuary was reviewed.

Mount Benson Regional Park

Park staff and N.A.L.T. removed trees blocking the trail on Rafe's Way. Other trail maintenance was conducted throughout the park.

Morden Colliery Regional Trail

Park staff conducted park inspections and maintained trails. The two Thatcher Bridges were re-decked as per the recommendation of an Engineer inspection.

Moorecroft Regional Park

Park staff conducted park inspections and maintained trails. Trail counter data was collected. Park Staff met with an Architect and Structural Engineers to discuss what renovations are required to bring Kennedy Lodge up to code.

The Snaw-Naw-As First Nation was assisted with collection of driftwood for their healing garden.

Arrangements were made within the current RDN Coastal Animal Services contract for weekly patrols at the park for dog on leash compliance (no ticketing).

The Moorecroft Stewards volunteer group was assisted with presentation materials for their fundraising booth at the Art in the Garden weekend in Nanoose.

Nanaimo River Regional Park

Park staff conducted park inspections and maintained trails. Staff met with a project manager from the airport to conduct a site visit where tree topping was to occur. A boulder was moved at the Frey Road trailhead to allow for wheelchair accessibility.

Parks staff have begun to look at improving the interpretive signage program in the park and have received a quote for the graphic design of interpretive signage in the research forest area. Staff have also looked at potential locations and preliminary design for benches in the park.

Top Bridge Regional Trail

Park staff conducted park inspections, maintained trails.

Trans Canada Trail

Parks and GIS staff GPS'ed proposed changes to the trail alignment heading south from the kiosk at the end of Spruston Rd. The new alignment improves accessibility for equestrians. An application was submitted to the private land owner and the Province (crown land) that are affected by the realignment.

A 2-year licence renewal was granted by the private landowner for all sections of the TCT that pass over their land.

Park staff conducted trail inspections and maintained trails.

Witchcraft Regional Trail

Park staff conducted trail inspections and maintained trails.

Fairwinds Lakes District - Regional Park Management Plan

In August, a Request for Proposals was issued to prospective consultants for the development of a 20-year management plan for the future Regional Park within the Fairwinds Lakes District. Approximately 100 ha of parkland will be dedicated within 4 or 5 separate development phases over the next 20 years. The planning process for the management plan will run from September 2014- June 2015.

Miscellaneous

An MOTI permit amendment was completed for Nanaimo Mountain Bike Club to develop a multi-use trail on the Harrow Road ROW that will connect from Westwood Lake to Benson Creek Falls Regional Park.

Parks staff met with Recreation Program staff to discuss Parks Programming and the direction to take. Recreation staff have now issued an RFP for Parks Programming.

Staff met with representatives of Tourism Vancouver Island (TVI) regarding the Hiking Trails Strategy – Phase I. TVI is looking for grants towards the project from local governments. A report was forwarded to the board to provide \$2,500 in funding in 2014.

Staff had the annual meeting at the Coastal Fire centre to review the Cost Sharing Fire Agreement.

Asset Management

Staff have participated in meetings and provided information and feedback to consultants for an asset management program for the RDN. The draft report is expected by fall.

2015 Budget

Preparation of the 2015 budget is underway. Staff have completed the 2014 projections and work continues on the 2015 Operational and Capital budgets. Staff received training in the FMW Capital module.

Parks Building

Staff have worked with a lawyer and the landlord to draft a lease for the new parks operations utility building. Construction has begun and staff are monitoring the progress. The expected move in date is December 1.

Provincial Land Tenures

In June, staff submitted an application to the Province for an early lease renewal for Crown Lands that constitute Benson Creek Falls Regional Park. Geotechnical assessment for future bridge and stairs is tentatively scheduled for October pending application approval.

In July and August, park staff continued research and mapping work for a 30-year Crown Land lease application for Morden Colliery Regional Trail in consultation with survey consultants and the Province.

Trail Counter Data

Month	BRP #1	BRP #2	Carrothers Trail	E&N Trail #2	E&N Trail Lowery Rd.	Moorecroft La Selva Place
2014-06-01	3,375	727	1,530	85	1,168	1,113
2014-07-01	593	442	1,174	73	63	1,010
2014-08-01	2,413	619	114	109	22	1,020

Operational and Efficiency Review

Parks Staff continue to be involved with inter-departmental meetings.

Park Use Permits and Events

- 4 park event:
 - Kindergarten field trip to Moorecroft Park (June)
 - CMRA Canada Day celebration at Meadowood CP (July)
 - Teddy Bear Picnic at Jack Bagley Field (July)
 - Cancer Ride at ERRP Silver Spur Riding Club (August)
 - Gabriola Tennis Club Tournament (August)
- 5 inquiries/future bookings

Inter-departmental Meetings

Parks and GIS staff continue working on the production of mapping standards for RDN Parks and Trails maps. Progress has been made in moving towards the production of more park maps by the mapping department.

Staff participated in the RDN Interdepartmental Meeting in June.

Staff Training

Staff participated in the Vancouver Island Trails Network Conference in Courtenay in June.

Recommendations

That the Parks Update Report for June, July and August 2014 be received as information.



Manager of Parks Services



General Manager Concurrence

Parks Functions Report

TO: Tom Osborne
General Manager of Recreation and Parks

DATE: October 14, 2014

FROM: Wendy Marshall
Manager of Parks Services

FILE:

SUBJECT: Monthly Update of Community Parks and Regional Parks and Trails Projects

During September staff have been involved with the following projects and issues.

Electoral Area Community Parks

Area A

Staff continued to work with the contractor to complete the outstanding deficiencies at the Cedar Skate Park. A bronze plaque was installed and ongoing and regular garbage collection and maintenance visits were conducted.

Staff attended a site meeting with School District 68 staff regarding their field and playground upgrades at Cedar Elementary School. The purpose of the meeting was to inform the Regional District of the planned works. The contractor for the works used the Cedar Skate Park overflow parking area as a staging site for their works; this was done under agreement with the Regional District. The contractor agreed to return the site to as was or better condition once they were complete. The contractor also re-graded the Skate Park parking lot at no cost to the community.

Staff attended a site meeting with School District 68 and Ministry of Transportation and Infrastructure staff regarding Safer Walk Route planning for the new Cedar Elementary School.

Staff prepared and distributed the September 17th PRCC meeting agenda package, attended the meeting and prepared the meeting minutes.

Staff worked with the Nanaimo Skateboard Association to plan a Skate Jam event held on September 14th at the Cedar Skate Park. Along with issuing a Park Use Permit for the event an event map was developed by staff to provide information on parking and site set up for park events.

Staff met on site with the maintenance contractor to examine weeding and brushing maintenance plans for the Morden Colliery Trail plaza/trailhead.

Area B

Staff continued to work with the consultant to develop a Preferred Concept Plan for Huxley Park.

Staff provided park information and advice to a community member interested in developing a dog park on Gabriola Island.

At Rollo McClay Community Park water delivery continued due to siltation issues with the water well on site.

A secure, temporary cap was placed on the water well at Clamshell Community Park.

Lumber from downed hazard trees was milled into materials required for stair and landing repair work at Hummingbird Community Park.

Area C – Extension

Following completion of a new bridge at Extension Miners Community Park, park staff met on site to plan additional planting and site development work. Staff completed the site plan in consultation with community members. Park upgrades, which include fencing, bench and picnic table installation, and new trees and shrubs, will be completed by park staff in October. Stairs and a memorial plaque are scheduled for installation in Spring 2015.

Staff attended a site meeting with Planning staff and a developer regarding a potential OCP amendment /rezoning application which involves potential park land dedication.

Area C - East Wellington/Pleasant Valley

Staff continued to implement the first steps of the Anders and Dorrit's Community Park Master Plan: a land survey of the area surrounding the existing house; working with VIU students to identify the existing ornamental vegetation and to develop design options for the park; and investigating house removal options.

Ongoing site inspections and garbage clean up work were carried out at Anders and Dorrit's Community Park. An existing gate was re-hung, and a pedestrian access added at the north entrance to the park. Contracted mowing services also continued for this site.

Tree inspections and garbage removal work was completed at Meadow Drive Community Park.

Area E

Staff responded to a neighbour's complaint regarding the lack of toilet facilities at Blueback Community Park.

Trail pruning and garbage removal work was completed at Brickyard Community Park.

Area F

Milestone Contracting completed their final contract obligations of tree planting and hydro seeding of Meadowood CP. Park Operations hired a contractor to build toilet surround and install bollards. Planning staff are working with pro bono professionals and CMRA volunteers to build the picnic pavilion.

Staff met on site at Errington Community Park to discuss ditch clearing. This work is scheduled for October. Trail brushing and widening work was also carried out.

Staff met on site to examine plans for barricade placement at Price Road. This work has now been rescheduled for November.

Trail counter information was collected for Carrothers Trail.

Area G

Staff provided a final inspection for a trail through a community park which is to be dedicated as a result of the subdivision at 691 Wembley Rd (near Yellowbrick Rd.) The trail was built by the developer as part of their rezoning requirements.

Staff met with community members regarding potential improvements to the Admiral Tryon Rd. (Damion Rd.) water access. Staff provided advice as to how to make a request to the POSAC should the community members want to ask for community park funding and/or ongoing maintenance for the site.

Further to a request from RDN Water Services, staff met on site with consultants at Lee Road Community Park to GPS and examine the location of two water wells.

Area H

Staff prepared a site plan for the Henry Morgan Community Phase 2 construction which includes a swing and a porta potty with surround.

Trail maintenance work was carried out at McColl Road, Islewood Drive, Thompson Clarke and Shoreline Drive.

Miscellaneous

Numerous park inspection visits and maintenance projects were conducted throughout the district including garbage removal, brushing and trail maintenance, new sign layouts and installations, and sign maintenance, and numerous information requests were received from the public. Project forecasting/costing work was completed.

Community Works Projects

Rec and Parks staff and management are researching costs and logistics of moving SD69 portables to the Meadowood area for use as community hall. Report to the Board will be prepared to determine if project will go forward under Community Works funding.

Area B

Parks Staff met on site with Consultants and the adjacent landowner at Intrascapè Developments to review a specific culvert location along the trail route that requires coordination. Consultants are finalizing the 85% design package which will be submitted to MOTI in early October.

Regional Significant Gas Tax Project

Preliminary design work for the Rail Trail is on-going. Engineering design is currently focussing on water management and culvert design at various points along the trail route. Parks staff and Consultants have been preparing for the upcoming Open House on Oct. 9th. Newspaper ads, email and mail-out invitations and social media will advertise the event. Poster boards being prepared highlight sections along the trail route, the three main access points in Coombs, at Lowry's Rd and at Springwood Park. Example images of typical site amenities will be provided as well as an overview of the project timeline. A point-point slide show will run in the background.

Parks staff met with the City of Parksville to discuss the trailhead at Springwood Park in more detail. In advance of the upcoming Open House, Parks staff will present to City of Parksville Council in early October.

Parks staff also met with both the Qualicum and the Nanoose First Nations Chiefs (separately) to introduce and discuss the rail trail project in more detail.

Packages are being prepared for submission to MOTI to further explore the requirements and options for the road crossings along the trail route.

Regional Parks

Arrowsmith CPR Regional Trail

Park staff conducted trail inspections and maintained trails.

Beachcomber Regional Park

Preparations for the installation of a new entrance kiosk were completed by staff, including final design review and revision, permit application submission to the Ministry of Transportation and Infrastructure, and coordination of contractors. The kiosk is scheduled for installation in early October, 2014.

Park Staff conducted trail maintenance and park inspections. Trail counter data was collected.

Benson Creek Falls Regional Park

Staff checked trails for hazard trees, removed debris from trails, removed garbage. Staff removed alders for visibility of “No Parking” signage (Creekside). Staff removed garbage from parking lot and trail. Staff also seeded berms at the Creekside parking lot. ‘No parking’ flyers were provided to the Volunteer Park Warden and the Neighbourhood Watch group for use as friendly reminders to vehicles still parking at Jameson Rd. The parking situation at Jameson Rd will continue to be monitored and staff will respond to public inquiries. Geotechnical study terms of reference were developed for stairs project.

Coats Marsh Regional Park

Park staff conducted park inspections, maintained trails, monitored the berm and the pond leveler. Park staff investigated proposed new trail.

Descanso Bay Regional Park

Park staff conducted site inspections. Capital works were completed for 2014.

E&N Regional Trail

Trail counter data was collected.

Englishman River Regional Park

Park Staff carried out routine inspections of Englishman River Regional Park and Top Bridge Park. Staff responded to maintenance issues identified by the Volunteer Park Warden including; garbage issues, ATV trespass, vandalism, graffiti and suspect hazardous trees.

Park Staff also moved two cedar tables from hatchery to Top Bridge for a “Watershed Stewardship Tour”. Park staff installed a picnic table at Long Run.

Horne Lake Regional Park

Park staff continue to work with Park Operators on campground improvement projects.

Lighthouse Country Regional Trail

Park staff conducted park inspections, maintained trails and collected trail counter data. Staff brushed/cleared Lioness crossing as per agreement. Staff also installed new interpretive signage.

Capital works have started at the Lighthouse Lioness Parking Lot.

Little Qualicum River Estuary Regional Conservation Area

Park staff conducted park inspections monitoring the conservation area.

Staff met on site with Ducks Unlimited staff and BCCF staff to review proposed restoration planting project. Information was provided for the Mid-Island Guardians goose survey. Staff have liaised with the Qualicum Streamkeepers in support of their volunteer projects at the Spit, e.g. invasives removal.

Little Qualicum River Regional Park

Park staff conducted park inspections and maintained trails.

Moorecroft Regional Park

Park staff conducted park inspections and maintained trails. Trail counter data was collected. Staff removed garbage. Staff picked up six cedar picnic tables from Brannen Lake and distributed in park, also anchored/locked tables in place. A draft 'Dogs in Moorecroft Park' brochure has been produced and is now being reviewed by staff and operators. Routine leash patrols are being conducted by Coastal Animal Services.

Morden Colliery Regional Trail

Park staff conducted park inspections and maintained trails. Staff removed old signage and installed new post/signage along property boundary.

Mount Arrowsmith Massif Regional Park

Park Staff conducted trail maintenance and park inspections.

Mount Benson Regional Park

Park staff vacuumed glass debris from summit and conducted trail inspections.

Nanaimo River Regional Park

Park staff conducted park inspections and maintained trails. Staff removed "Tree work" signage, cleared invasive holly in research forest and pruned trails.

Top Bridge

Park staff conducted park inspections, maintained trails.

Trans Canada Trail

Park staff conducted trail inspections and maintained trails. Staff cleared trail at Haslam Bridge entrance. Staff measured wire rope and ordered for a replacement.

Witchcraft Lake Regional Trail

Park staff conducted trail inspections and maintained trails. Staff are working with the Nanaimo Mountain Bike Club with plans to develop a non-motorized trail on the undeveloped Harrow Rd ROW, which will connect from Westwood Lake, Witchcraft Lake RT to Benson Creek Falls RP. The MOTI permit was amended to include trail development along the whole length of Harrow Rd ROW.

Fairwinds Lakes District - Regional Park Management Plan

Staff organized the review of proposals, selection of consultants, transfer of mapping data, photos and reference documents, and the booking of meeting times and venues. An introductory meeting and Fairwinds site tour were held with chosen consultants, Urban Systems, on Sept 23. An Advisory Committee Meeting is scheduled for November 5 followed by the first Open House on November, 18.

Trail Counter Information

Month	BRP #1	BRP #2	Carrothers Trail	E&N Trail #2	E&N Trail Lowery Rd.	Moorecroft La Selva Place
2014-05-01	3,204	529	1,228	81	154	459
2014-06-01	3,375	727	1,530	85	1,168	1,113
2014-07-01	593	442	1,174	73	63	1,010
2014-08-01	2,341	558	99	114	20	1,017
2014-09-01	1,258	211	44	210	48	890

Miscellaneous

2015 Budget Development

Staff continued to work on the 2015 Operational and Capital Budgets.

Park Use Permits and Events

2 events: Watershed Field Trip at Top Bridge and Cedar Skate Event (over 300 kids)
4 PUPs inquiries/in process

Operational and Efficiency Review

Parks staff attended a meeting to resume work on the O&E Review and review draft recommendations prepared to date.

Website

Parks staff created a new page on the Parks website to provide quick access to General Information and Regulations.

Recommendations

That the Parks Update Report for September 2014 be received as information.



Manager of Parks Services



General Manager Concurrence



RDN REPORT		FILE
CAO APPROVAL		
EAP		
COW		
OCT 14 2014		
RHD		
BOARD		

MEMORANDUM

TO: Wendy Marshall
Manager of Parks Services

DATE: October 8, 2014

FROM: Lesya Fesiak
Parks Planner

FILE:

SUBJECT: Nanaimo River Pedestrian Crossing at Morden Colliery Regional Trail Feasibility Study

PURPOSE

To provide information and recommendations regarding the updated Feasibility Study for the Nanaimo River Pedestrian Crossing at the Morden Colliery Regional Trail.

BACKGROUND

In March, 2014, Harold Engineering was retained by the Regional District of Nanaimo (RDN) to evaluate and update a 1999 report by Graeme and Murray Engineering which assessed the feasibility of constructing a pedestrian bridge over the Nanaimo River within the Morden Colliery Regional Trail corridor (Appendix I - Project Location).

The updated study, completed in September 2014 (Appendix III), involved preliminary geo-technical and hydro-technical assessment, as well as topographic surveys of the proposed bridge location and an undeveloped portion of trail corridor (a 1km stretch from the west bank of the river and eastward to Cedar Road). Detailed bridge and trail design, along with final geo-technical and hydro-technical analysis, will be carried out by Harold Engineering as a second phase of project development.

The Regional District currently holds a non-exclusive, 20-year License of Occupation (1995-2015) for the six Crown parcels that constitute the Morden Colliery Regional Trail; an application to the Province for an exclusive, 30-year Lease (2015-2045) is currently in progress. Future bridge development and trail expansion, which would provide an important active transportation link between the communities of South Wellington and Cedar, would proceed only once the Crown Lease is secured.

A pedestrian crossing over the Nanaimo River within the historical Morden Colliery rail corridor (now the Morden Colliery Regional Trail) has been noted as a priority item in several RDN planning documents and studies, including the Area 'A' Community Trails Study (2001), the Regional Parks and Trails Plan (2005), and the Area 'A' Active Transportation Plan (2009).

DISCUSSION

The purpose of the 2014 feasibility study was to provide the RDN with updated bridge design options, information on required bridge spans and current cost estimates. Project parameters for both studies included “front country” trail conditions, accessibility for multiple user groups, and two separate steel bridge spans over the west and east channels of the Nanaimo River (a single span over both channels and the central island would be structurally and financially impractical). Aluminum structures were not deemed appropriate for the site because of longer span requirements and increased costs.

Conceptual bridge design drawings from the updated study are included as Appendix II. An overview and comparison of the 1999 and 2014 studies is provided below:

	1999 FEASIBILITY STUDY	2014 FEASIBILITY STUDY
Bridge Options	Steel Truss or Cable Suspension	Steel Truss or Cable Suspension
Bridge Accessibility	pedestrian, cyclist, equestrian	pedestrian, cyclist, equestrian, wheelchair
Span Lengths	70m - west span 50m - east span	90m - west span 84m - east span
Deck Width	1.2 m	2.1m
Deck Elevation	200 year flood level (Q200) = 10.75m bridge deck 2m above Q200 levels	200 year flood level (Q200) =10.75m bridge deck 1.5m above Q200 levels
Total Cost - Suspension (two bridges)	\$412,000 pedestrian, cyclist, equestrian	\$1,137,000 pedestrian, cyclist \$1,277,000 pedestrian, cyclist, wheelchair \$1,417,000 pedestrian, cyclist, wheelchair, equestrian
Total Cost - Truss (two bridges)	\$486,000 pedestrian, cyclist, equestrian	\$1,473,000 pedestrian and cyclist \$1,473,000 (no difference) pedestrian, cyclist, wheelchair \$1,623,000 pedestrian, cyclist, wheelchair, equestrian
Study Recommendation (Truss vs Suspension)	Steel Truss: rigid, durable, less maintenance and long-term costs, reminiscent of rail bridges	Cable Suspension: lower construction costs, design aesthetics

The sizable cost increase from the 1999 study (even with inflation taken into account) is explained in the updated study as being partially due to longer bridge spans (as a result of probable bank erosion and wider river channels), and partially due to a larger contingency (30% in 2014 vs 10% 1999). However, each study also employed different design standards for trail and bridge development, which would have significant impact on the overall length of both the bridge structures and the approaches.

Although the 2014 study provides three separate cost estimates for bridge accessibility type, Harold Engineering developed the overall conceptual bridge design based on an assumption of wheelchair accessibility. Bridge approaches and deck would therefore need to be longer in order to accommodate a gentler slope (max 8%). The 1999 study, which did not take wheelchair access into account, proposed steeper “timber construction ramping” at the bridge approaches.

ALTERNATIVES

1. That the updated Nanaimo River Pedestrian Crossing at the MCRT Feasibility Study be received to use as a guiding document for the future development of a bridge crossing within the Morden Colliery Regional Trail corridor and subsequent design and assessment work proceed under the Steel Truss Bridge option.
2. That the updated Nanaimo River Pedestrian Crossing at the MCRT Feasibility Study be received to use as a guiding document for the future development of a bridge crossing within the Morden Colliery Regional Trail corridor and subsequent design and assessment work proceed under the Cable Suspension option.
3. That the updated Nanaimo River Pedestrian Crossing at the MCRT Feasibility Study be received and alternative direction be provided.

FINANCIAL IMPLICATIONS

The estimated costs for bridge construction range from \$1,137,000 for a Cable Suspension bridge option (pedestrian and cyclist only), to \$1,623,000 for the Steel Truss bridge option (pedestrian, cyclist, wheelchair and equestrian). Additional trail improvement costs are estimated at roughly \$250,000. Approximately \$1,200,000 has been set aside within the Regional Parks and Trails Capital Budget with the assumption that grant funding will help finance the project.

Although a Steel Truss Bridge is more expensive than a Cable Suspension Bridge when considering initial construction costs, both studies note that the truss structure has several advantages: a rigid bridge deck with less bounce, a durable surface that is less vulnerable to vandalism, and lower maintenance costs. The truss form, as noted in the 1999 study, is also common in rail bridge design, which reflects the historical use of the bridge site and trail corridor. It is therefore recommended that the Truss Bridge option be favoured over the Cable Suspension option for subsequent project development.

Although there is a nominal construction cost difference between the bridge accessibility types, an equestrian accessible option has implications for higher long-term maintenance costs. The updated study recommends thick, wood decking, which is necessary for an equestrian crossing. The wood decking, which is estimated at \$80,000 for two bridge spans, needs to be replaced every 10 years, on average. Several RDN bridges, however, use metal mesh surfacing (not wood decking) and these require minimal maintenance and repair. The Millennium Bridge over French Creek has needed no major repairs or replacements in almost 15 years. It is unclear without further consultation what level of equestrian use the bridge and new trail would receive. While there are many equestrians in the area, it is unclear whether this route is popular with equestrians and whether the crossing would be draw as an equestrian route.

STATEGIC PLAN IMPLICATIONS

A bridge over the Morden Colliery was identified in the 2005 Regional Parks and Trails Plan and in the Area 'A' Active Transportation Plan (2009). With the development of a bridge crossing over the Nanaimo River, and a trail connector between the communities of South Wellington and Cedar, the Morden Colliery Regional Trail will function as a true green highway, helping to reduce greenhouse gas emissions from automobile use while promoting active transportation in the local community. It also will enhance recreational opportunities for a variety of users. The location of the trail staging area next to the Morden Colliery tipple could provide a tourism draw with opportunity to view the historic structure then take the trail to downtown Cedar and Hemer Provincial Park.

SUMMARY

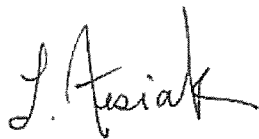
An updated feasibility study for a future crossing over the Nanaimo River, and within the Morden Colliery Regional Trail corridor, was completed by Harold Engineering in September 2014. The study outlines current cost estimates, information on required bridge spans and updated bridge design options.

Construction costs are estimated between \$1,137,000 and \$1,623,000, depending on bridge accessibility and structural type. The Cable Suspension Bridge option, when compared to the Steel Truss Bridge option, has lower construction costs, but higher long-term maintenance costs. Similarly, an equestrian accessible bridge has only nominally higher construction costs when compared with other design types but significantly higher long-term costs associated with bridge and trail maintenance. It is unclear what level of equestrian use the bridge would receive.

Although the Herold study recommends the Cable Suspension Bridge option, when considering initial construction costs, both studies note that the truss structure has several advantages: a rigid bridge deck with less bounce, a durable surface that is less vulnerable to vandalism, and lower maintenance costs. The truss form, as noted in the 1999 study, is also common in rail bridge design, which reflects the historical use of the bridge site and trail corridor. It is therefore recommended by staff that the Truss Bridge option be favoured over the Cable Suspension option for subsequent project development.

RECOMMENDATIONS

1. That the updated Nanaimo River Pedestrian Crossing at the MCRT Feasibility Study be received to use as a guiding document for the future development of a bridge crossing within the Morden Colliery Regional Trail corridor.
2. That subsequent design and assessment work proceed under the Steel Truss Bridge option.
3. That the equestrian accessible bridge option be vetted through local residents and equestrian groups prior to subsequent design work in order to ensure public support and user demand in consideration of higher construction and maintenance costs.



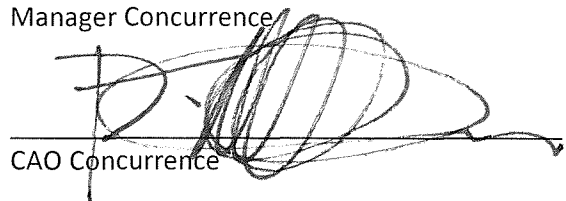
Report Writer



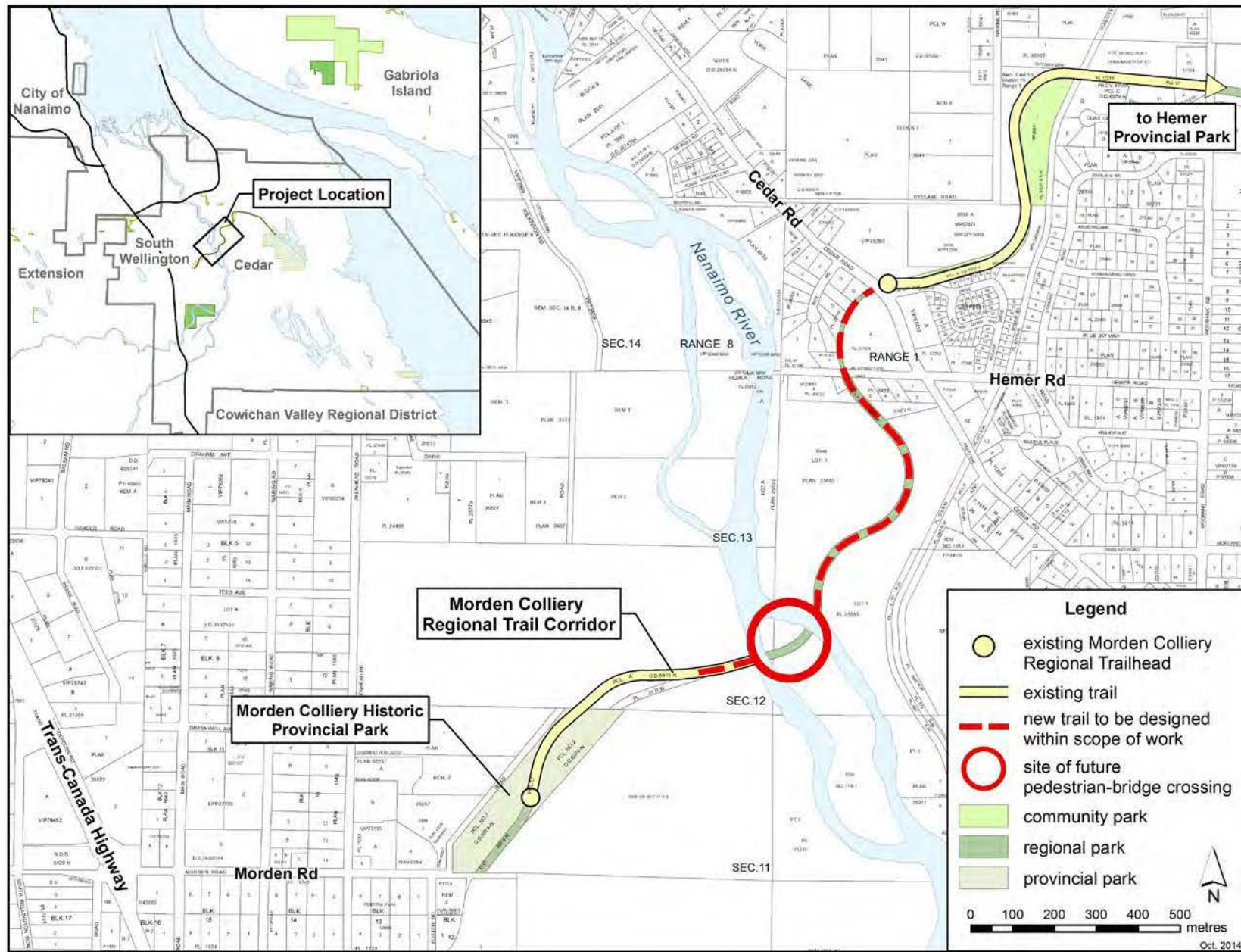
General Manager Concurrence



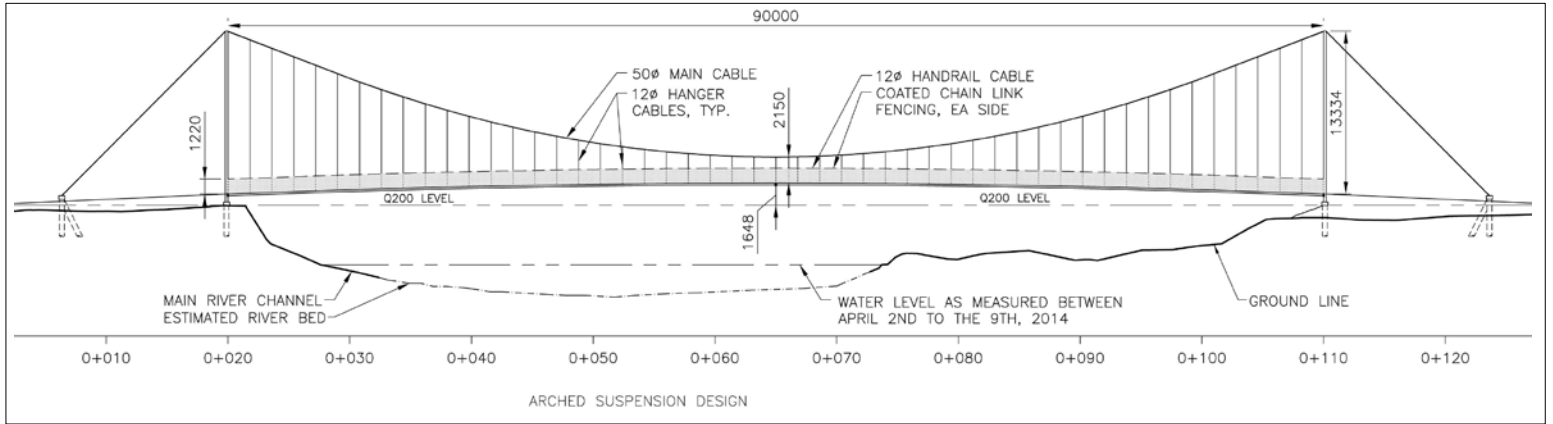
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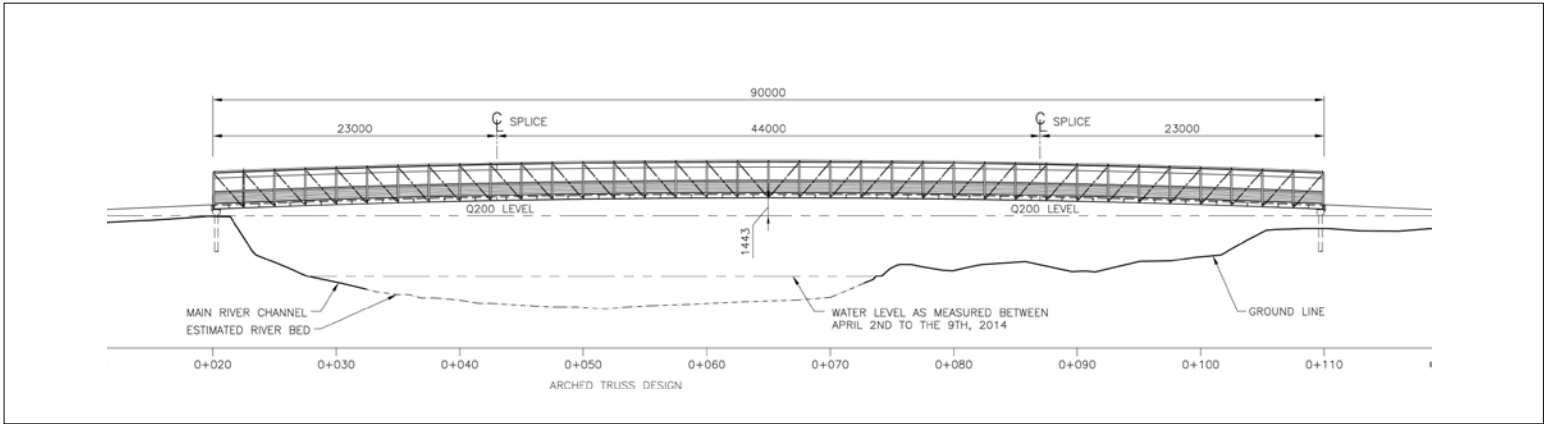
CAO Concurrence



Appendix II – Bridge Design Options



Suspension Bridge Option: conceptual design drawing depicting potential river crossing at the MCRT (Harold Engineering).



Steel Truss Bridge Option: conceptual design drawing depicting potential river crossing at the MCRT (Harold Engineering).



Example of completed Steel Truss Bridge
(photo: Harold Engineering)



Example of completed Suspension Bridge
(photo: Harold Engineering)

Appendix III –

**Nanaimo River Pedestrian Crossing
at Morden Colliery Regional Trail
Feasibility Study**



FEASIBILITY STUDY

Nanaimo River Pedestrian Crossing at Morden Colliery Regional Trail

submitted to



The Regional District of Nanaimo
Recreation & Parks Department

830 West Island Highway
Parksville, BC V9P 2X4

September 12 2014

Morden Colliery Regional Trail Bridges

Feasibility Study

The Regional District of Nanaimo

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Appendix A - Drawings

Appendix B - Site Photos

Appendix C - Cost Estimates

Appendix D - Satellite Images and Project Location

Appendix E - Hydro-technical Report

1 PROJECT SUMMARY

For this project, Herold Engineering was retained by the Regional District of Nanaimo's Recreation and Parks Department (RDN) to review the site at the Nanaimo River and Morden Colliery Regional Trail in order to determine the feasibility of constructing a pedestrian crossing.

In order to prepare the feasibility report, Herold Engineering conducted a topographic survey of the trail and proposed bridge location within the RDN's right-of-way and visited the site to review potential placement of bridges. Additionally, we visited the site with representatives from Lewkovich Geotechnical Engineering and Northwest Hydraulics Consultants Ltd to conduct a preliminary feasibility review of the ground conditions, slope stability and potential flood issues.

The intent of this study was to re-visit the 1999 feasibility report, obtain current topographic information and generate two design concepts along with order of magnitude cost estimates for each concept.

2 SITE DESCRIPTION AND HISTORY

2.1 Previous Bridges

It is our understanding that the site was used previously as a rail bridge crossing in order to carry coal from the Morden site to waterfront barges in Boat Harbour. Signs of coal deposits are evident in the centre bank of the river crossing and previous abutments are still partially visible.

2.2 Trail Design and Bridge Approaches

As related work, the RDN is undertaking the planning of a trail that would re-connect the communities of South Wellington and Cedar which are currently separated by the Nanaimo River. The RDN's "Parks and Trails Guidelines, January 2014" is being used as the design basis for the trail and the proposed bridges. Should detailed design of the bridges go ahead, Herold Engineering would include design of the approach trails as part of the scope of work. No costing information for the trails is included in this study as it deals only with the river crossing.

2.3 1999 Feasibility Study

A 1999 feasibility study prepared by Graeme & Murray engineering consultants along with EBA engineering consultants and J.E. Anderson (Surveyors) indicated that either a cable suspension bridge or a steel truss bridge would be feasible in this location. For funding reasons the project was not implemented at that time but is now being re-visited.

The 1999 feasibility study anticipated spans of 70m on the west channel and 50m on the east channel. Either the river has widened by erosion in the past 15 years or the proposed location for bridges in 1999 was different. Our survey within the right-of-way indicates that a 90m span would be required on the West channel and an 84m span would be required on the secondary East channel.

3 PRELIMINARY GEOTECHNICAL ASSESSMENT

3.1 Bridge Foundation Feasibility

For this assignment, Herold Engineering retained Lewkowich Geotechnical to visit the site and provide preliminary comments on the feasibility and design constraints for bridge foundations

Based on the site review, it is expected that the most cost-effective and practical means to support the bridge structures would be driven piles. Given the presence of fill materials within the abandoned railway berm, typical spread footings are not recommended.

It is anticipated that the naturally deposited subgrade conditions will be favourable, and will provide competent bearing conditions at relatively shallow depths. It is also anticipated that the subgrade will consist of a layer of coarse, dense, sand, gravel, and cobbles overlying bedrock. The depth to bedrock could be determined through a series of bore holes, if required during the detailed design phase.

4 PRELIMINARY HYDRO-TECHNICAL ASSESSMENT

4.1 Previous Flood Elevation Data

The 1999 feasibility study indicated that the Q200 flood level elevation would be 10.75m geodetic. The May 15 site visit by Herold Engineering and NHC as well as an initial desktop study for this report indicate that 10.75m is an appropriate estimate of the 200 year flood level. It is therefore likely that a 200 year flood event would overtop the banks of the river at the location of the proposed crossing structures. For this reason, foundations will have to be on piles. It is not recommended that spread footing be used based on Hydro-technical constraints.

The trail that approaches the bridge will be subject to washout in large flood events. Trail maintenance plans should take this into consideration. This constraint applies to both conceptual designs. It should be noted that to maintain 1.5m above the Q200 for the entire length of the bridges would require significant amounts of trail fill at each end of the bridge; for this reason final designs would incorporate a significant camber to minimize approach fills.

4.2 Potential Hydro-Technical constraints

As part of the detailed bridge design process, hydrotechnical input will be required to assess key components such as the channel reach stability, localized bank stability and scour risk, construction levels above the design flood, as well as provide input to the bridge design (e.g. abutment locations, flood proofing). In addition, the proposed crossing which is located on an island significantly increases the complexity of the hydrotechnical engineering. Issues include longer bridge segments, increased protection works to maintain flows in two separate channels, and stability concerns at the island that are difficult to predict. Deep pilings set back from the current channel banks with reduce the hydrotechnical risks at the site to some degree.

5 CONCEPTUAL DESIGNS

5.1 Design Alternatives

Two conceptual design options were considered for this report

- A steel truss bridge
- A steel cable suspension bridge with a semi-rigid deck and steel towers

It should be noted that an Aluminum structure, while offering better corrosion resistance and possibly better Aesthetics, was not considered for this report because the spans required would make an Aluminum structure costly compared to the other two options. Additionally, an aluminum structure would have to be sizeable. Aluminum has roughly ½ the strength of steel when welded and therefore requires that design stresses be halved to achieve the same span.

Upon reviewing the site conditions, right-of-way alignment and topography Herold Engineering concluded that two separate spans would be most appropriate for this site, rather than a single structure as indicated in the 1999 feasibility report. Two span designs are feasible with either the suspension bridge option or the steel truss option.

Appendix B provides conceptual designs for each type of bridge and each span. For the purposes of this feasibility report, a 90m west channel span and an 84m side-channel span were used. Final Hydro-Technical design may dictate that other spans are required, but for the purpose of comparing the two options, these spans were deemed appropriate and likely to be close to the final design requirements.

5.2 Design Assumptions and Constraints

The conceptual designs are based on the assumption that access by the general public is required. The conceptual design approach assumes “front country” trail access by pedestrians, cyclists as well as horses or wheelchairs (the latter 2 being optional costs that the RDN is considering). It should be noted that more economical structures are possible but would require stairs or ladders that would be more applicable to “back-country” trail access (such as would be found on the West Coast trail for example). A cable suspension bridge with a “sag-deck” or flexible deck would be most economical but due to the relatively shallow river structure at this site, would require towers and stairs at each end.

Required bridge widths were not specified by the RDN for the feasibility stage of this project, so we have designed to minimum widths required for structural strength. Because the suspension bridge option uses sway cables, a slightly narrower deck width is possible (this advantage is lost however for the wheelchair or equestrian option, since a wider bridge would be required than the minimum structural requirement).

The global design loading used for both conceptual options is 2.4 kPa (50 psf), which slightly exceeds what is required by the Canadian Highway Bridge Design code for pedestrian areas on spans of this size. Local bridge components would be designed to carry up to 4.8 kPa (100 psf), or larger point loads if the Equestrian option is pursued.

It should be noted that the final design of either type of structure may be governed to a large degree by limiting the dynamic movement (or “bounce”) of the structure to within tolerable limits. The limits will depend on the type of access desired. A fully accessible structure would require much more stringent dynamic design criteria, whereas a back-country type of structure aimed at providing some “adventure” appeal would allow for more bounce and therefore lower cost. The costs presented in this report are aimed at a moderate level of bounce or “front-country” type of trail design for use by the general public. Further discussions would be required to determine the final design criteria before starting detailed design.

6 INDICATIVE COST ESTIMATES

The following cost estimate has been prepared for Bridge work only. We understand that the RDN is contemplating trail upgrades as well; however this study does not include an assessment of trail costs.

6.1 Cable Suspension Bridges

The order of magnitude cost estimate for the cable suspension bridge option (90m span + 84m span) is **\$1,137,000.00**. Details of our estimate are provided in Appendix C.

The additional costs for the Wheelchair access option are estimated at **\$140,000.00** (roughly 10% for a wider deck)

The additional costs for the Equestrian + Wheelchair option are estimated at **\$280,000.00** (roughly 20% for a wider deck and thicker deck boards)

6.2 Steel Truss Bridges

The order of magnitude cost estimate for the steel truss bridge option (90m span + 84m span) is **\$1,473,000.00**. Details of our estimate are provided in Appendix C.

The additional costs for the Wheelchair access option are estimated at **\$0.00** (base design can be made to accommodate Wheelchair traffic)

The additional costs for the Equestrian + Wheelchair option are estimated at **\$150,000.00** (roughly 10% for thicker deck boards and additional deck stringers)

6.3 Cost Comparison to 1999 report

The estimates are considerably higher than the 1999 feasibility study indicated (even if inflation is taken into account). The extra costs are partially attributed to the longer spans required under this study versus the 1999 study. It is also possible that the trail right of way was planned for a different location in 1999.

6.4 Limitations and Cost Risks

The cost estimates provided in this study are intended to be order of magnitude only and are based on preliminary design and site data. Any project planning, budgeting or funding requests that are undertaken based upon this report should carry adequate contingencies to allow for unforeseen circumstances that may occur as the project proceeds. Based on the preliminary data and site conditions, we recommend a 30% project contingency at this stage (on top of the estimates given in section 6), which could be reviewed as detailed design proceeds

The main area of cost risk for this project is the geotechnical subsurface conditions. While some of this risk is mitigated by using piled foundations, the elevation of bedrock in Nanaimo can vary significantly in a single project site. It is possible that piles could be driven a relatively short distance and then founded in bedrock, it is also possible that the bedrock could slope significantly and piles on the centre island could be driven a significant depth. Access to drive piles on the West banks should be relatively straight forward, access onto the centre island is feasible at low water levels (channel was nearly dry at the time of our last site visit). Access onto the East bank (Morden Colliery side) may be difficult and also represents a cost risk to the project.

7 RECOMMENDATIONS

7.1 Cost-Benefit Analysis

In order to evaluate the benefits of each concept, the following matrix is used, each dot represents that the listed design option is preferred for the criteria being considered:

	Suspension Bridge	Truss Bridge
Initial Construction Cost (40%)	•	
Aesthetics (20%)	•	
Maintenance (15%)		•
User Comfort (15%)		•
Resistance to Vandalism (10%)		•

The evaluation matrix indicates a slight preference of 60 points to the Suspension bridge.

7.2 Recommended Design

Because of the significant difference in initial construction cost between the two concepts studied and the relatively similar performance characteristics of the options, **we recommend that the suspension bridge option be adopted as the preferred design**, should the RDN elect to proceed further with the project.

Signed,

Steve Scott, P.Eng., P.E.
 Principal
 Herold Engineering Limited

APPENDIX A – Site Photos



View Looking towards West bank from centre island



Log jamb on centre island



View from East bank towards centre island



Upstream View of West Channel



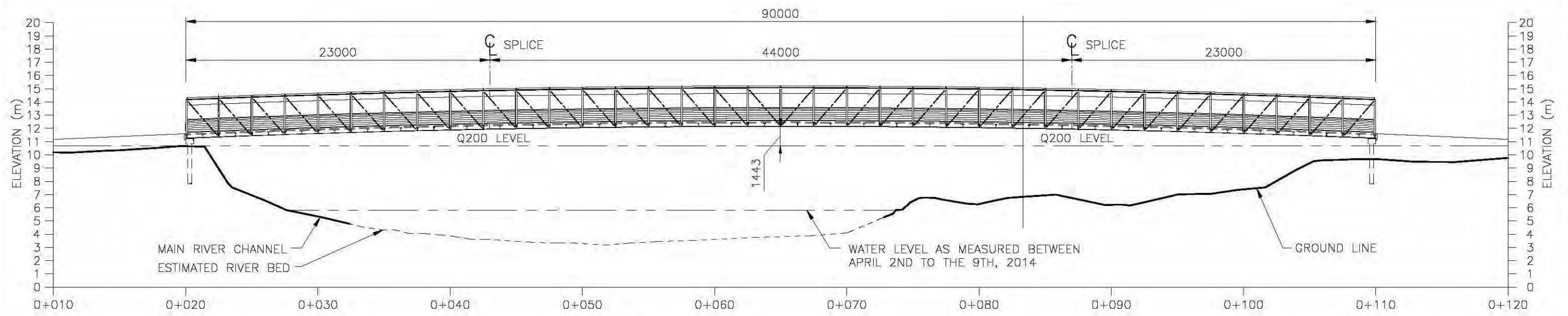
View of centre island from West bank



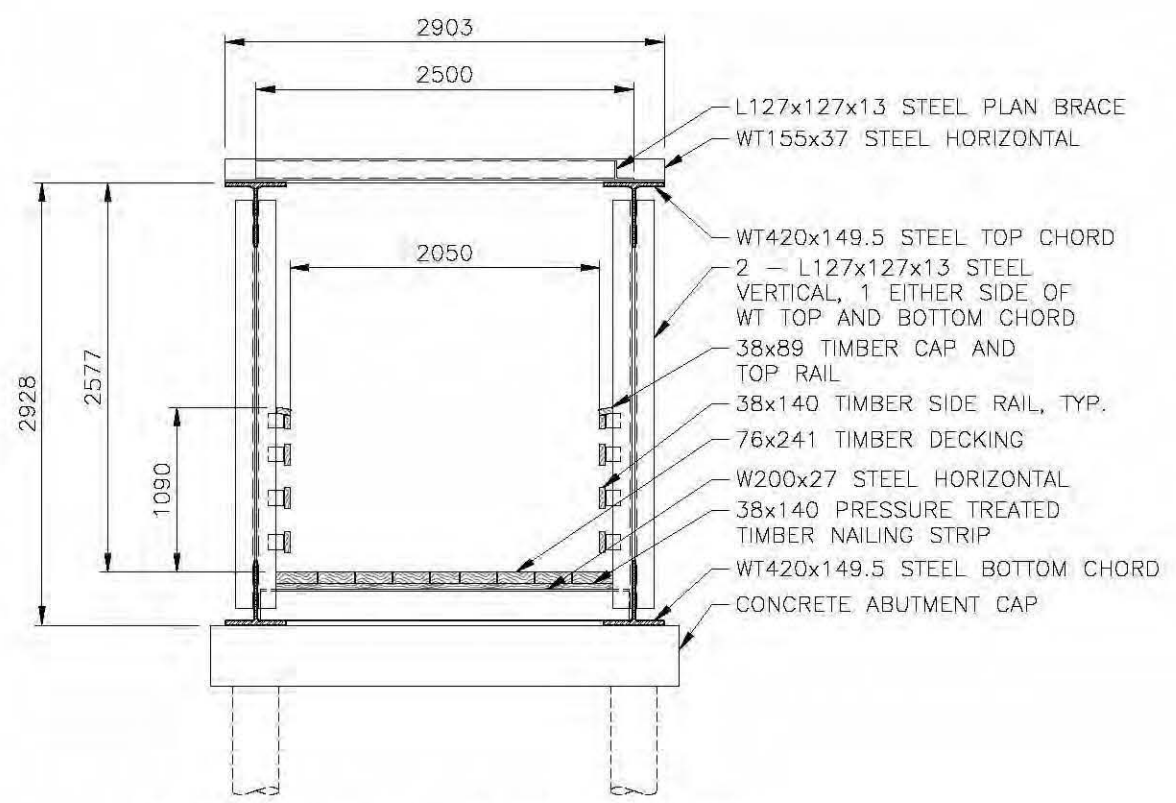
Upstream view from West bank

APPENDIX B – Drawings

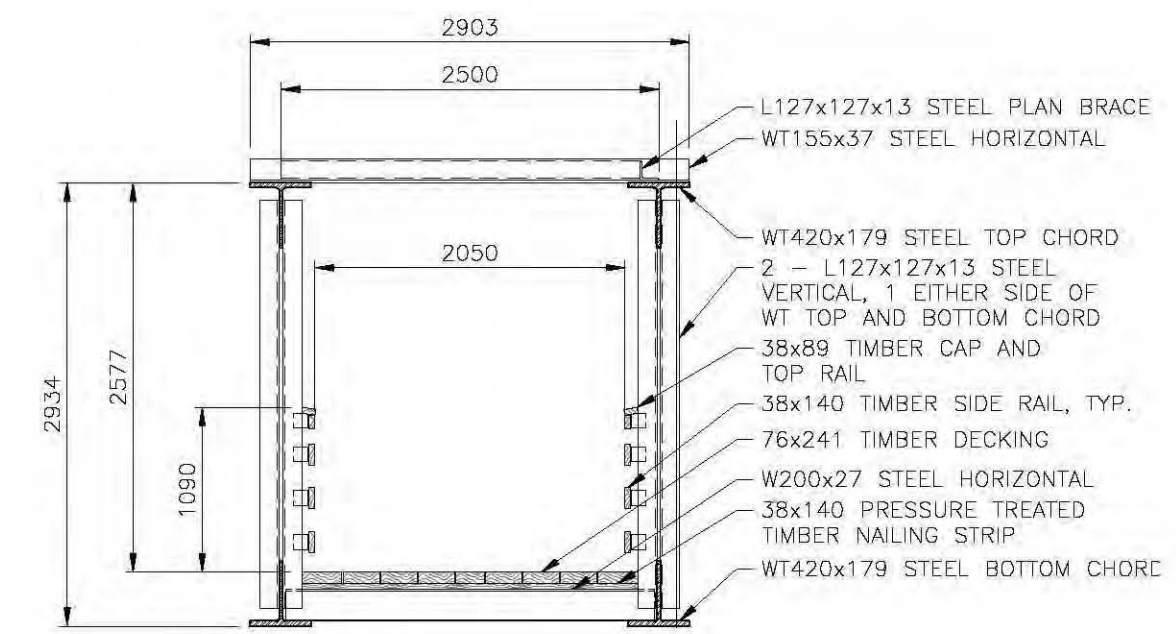
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ARCHED TRUSS DESIGN
ELEVATION – WEST CHANNEL BRIDGE
 1:300



AT ENDS (BALLAST WALL NOT SHOWN FOR CLARITY)
TYPICAL SECTION
 1:50



AT MIDSPAN
TYPICAL SECTION
 1:50

FEASIBILITY STUDY

NOT FOR CONSTRUCTION

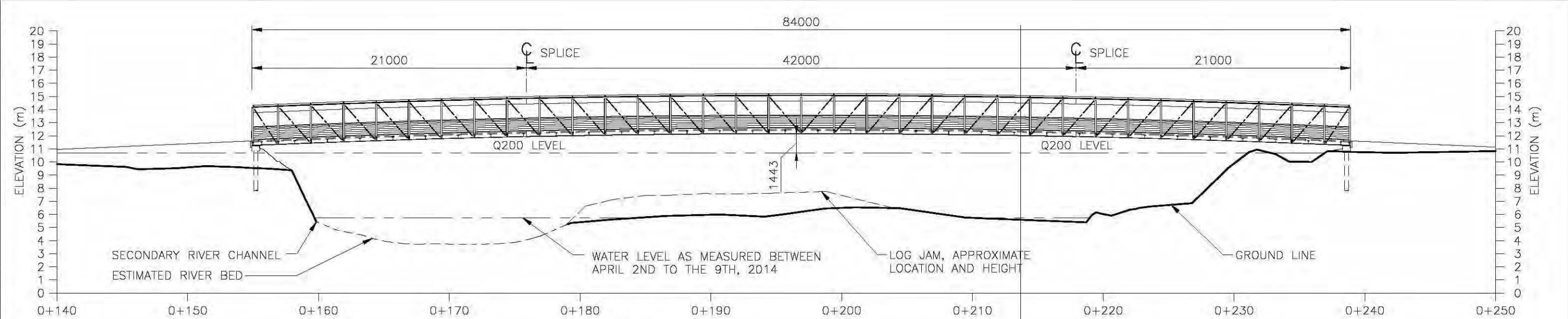
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No.	DATE	ISSUED FOR
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B	2014.08.22	REVISED
C	2014.09.12	REVISED

HEROLD ENGINEERING
 3701 Shenton Rd, Nanaimo, BC V9T 2H1
 Tel: 250-751-8558 Fax: 250-751-8559
 Email: mail@heroldengineering.com

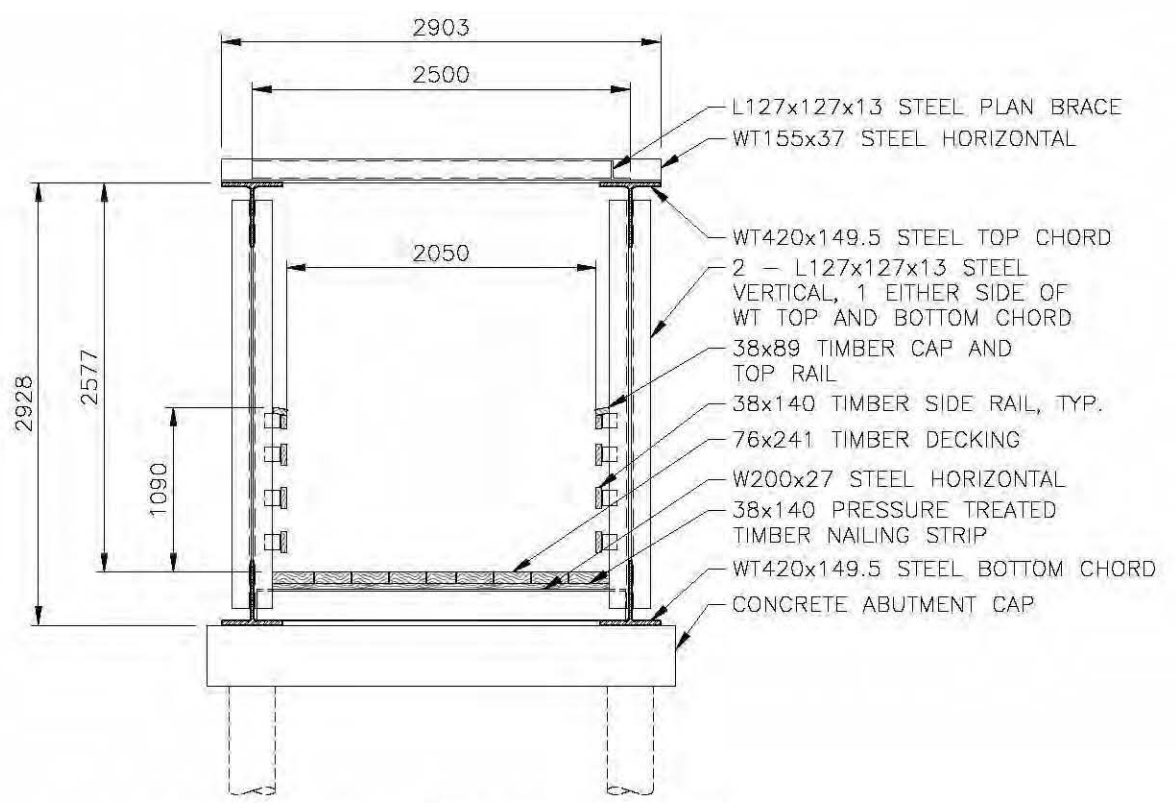
MORDEN COLLIERY TRAIL AND BRIDGES
 CONCEPT OPTION 1
 ARCHED TRUSS
 BRIDGE 1 90m SPAN

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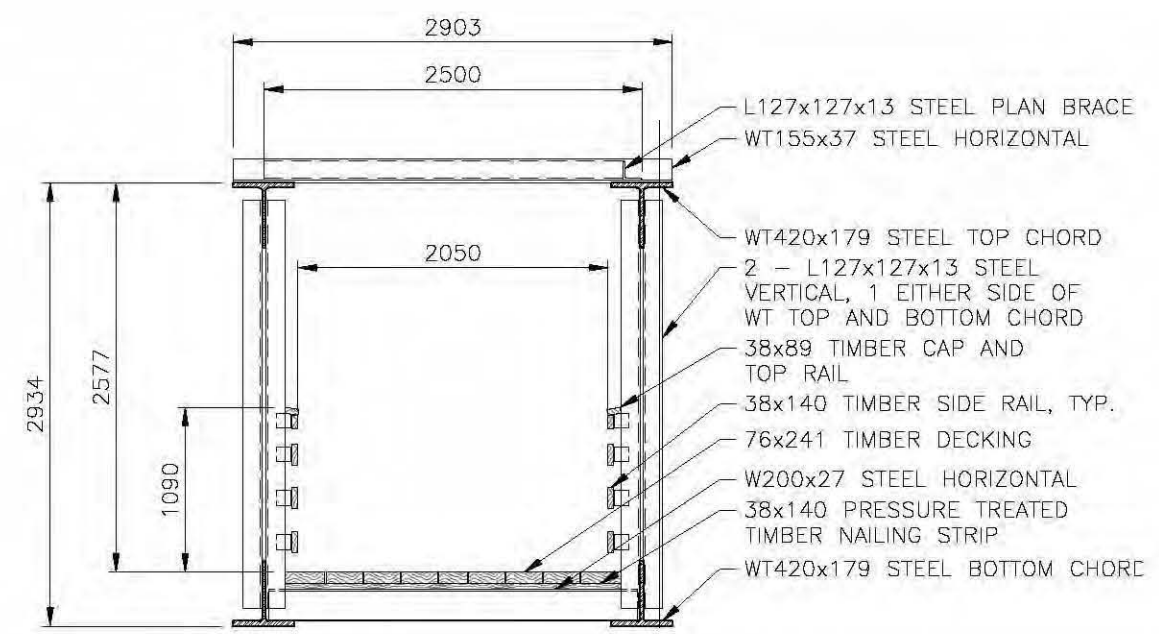
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ARCHED TRUSS DESIGN
ELEVATION – EAST CHANNEL BRIDGE
 1:300



AT ENDS (BALLAST WALL NOT SHOWN FOR CLARITY)
TYPICAL SECTION
 1:50



AT MIDSPAN
TYPICAL SECTION
 1:50

FEASIBILITY STUDY

NOT FOR CONSTRUCTION

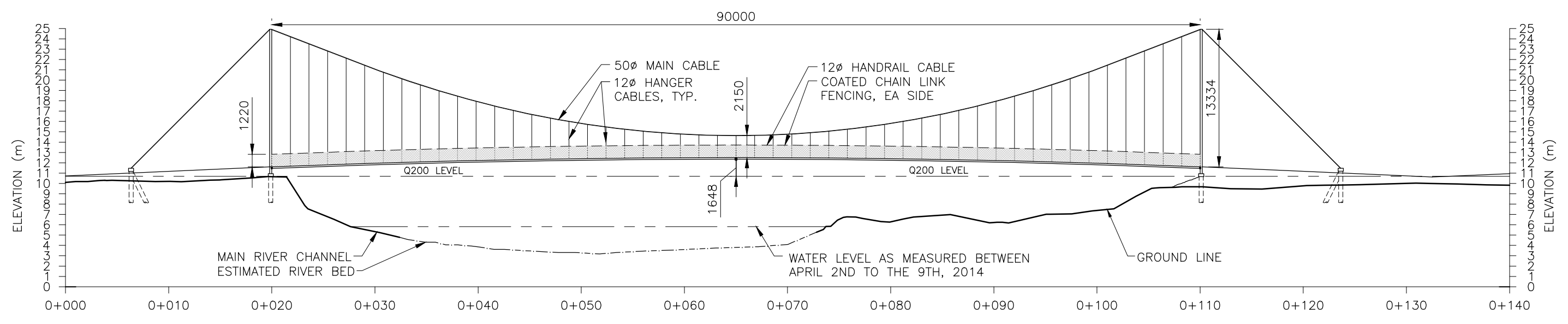
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B	2014.08.22	REVISED
C	2014.09.12	REVISED

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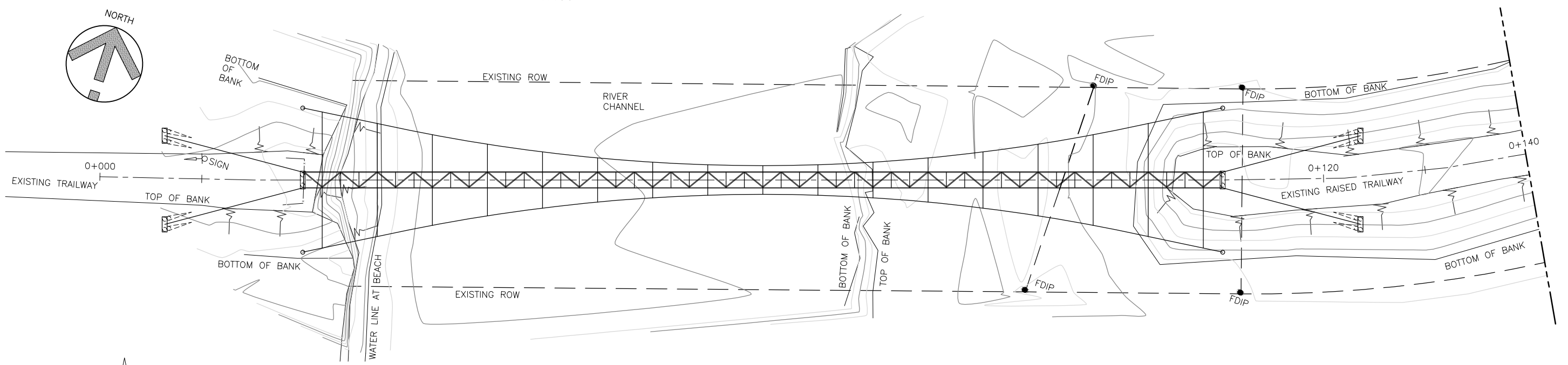
MORDEN COLLIERY TRAIL AND BRIDGES
 CONCEPT OPTION 1
ARCHED TRUSS BRIDGE 2 84m SPAN

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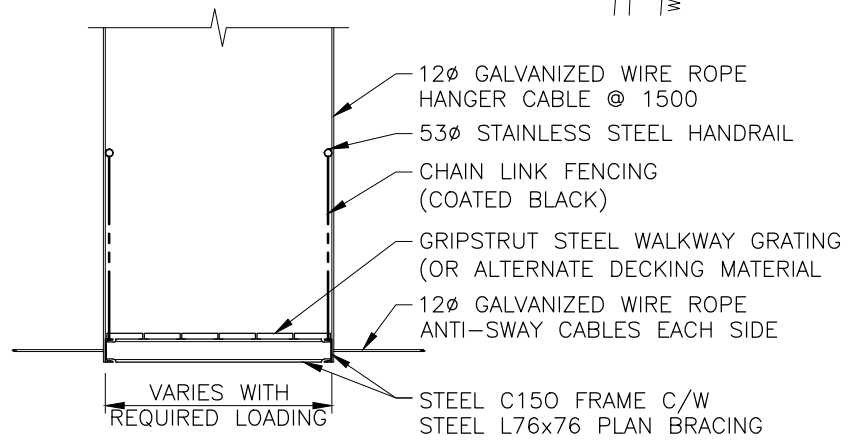
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ARCHED SUSPENSION DESIGN
ELEVATION – WEST CHANNEL BRIDGE
 1:400



PLAN – WEST CHANNEL BRIDGE
 1:400



FEASIBILITY STUDY

NOT FOR CONSTRUCTION

ISSUES		
No.	DATE	ISSUED FOR
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B	2014.08.22	REVISED
C	2014.09.12	REVISED

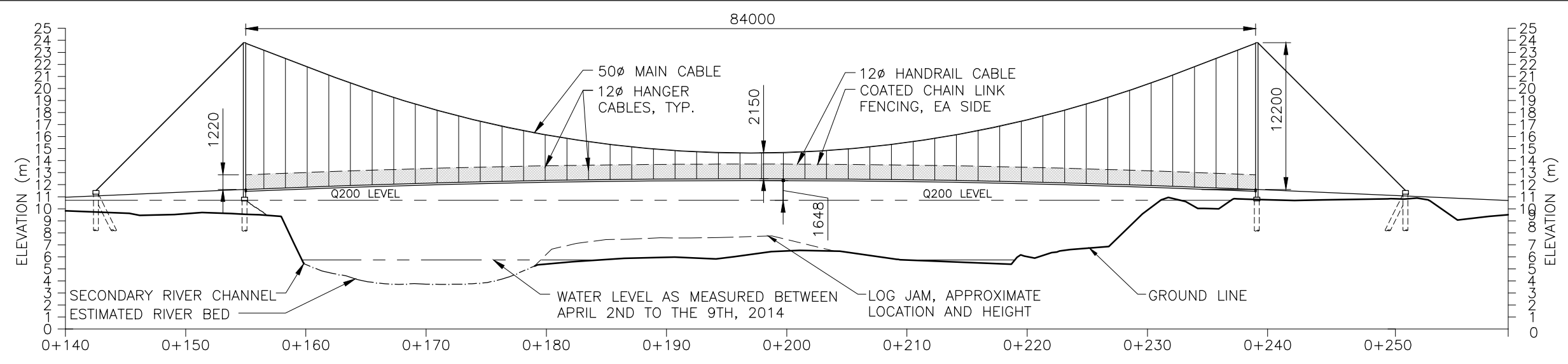
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MORDEN COLLIERY TRAIL AND BRIDGES CONCEPT OPTION 2 ARCHED SUSPENSION BRIDGE 1 90m SPAN

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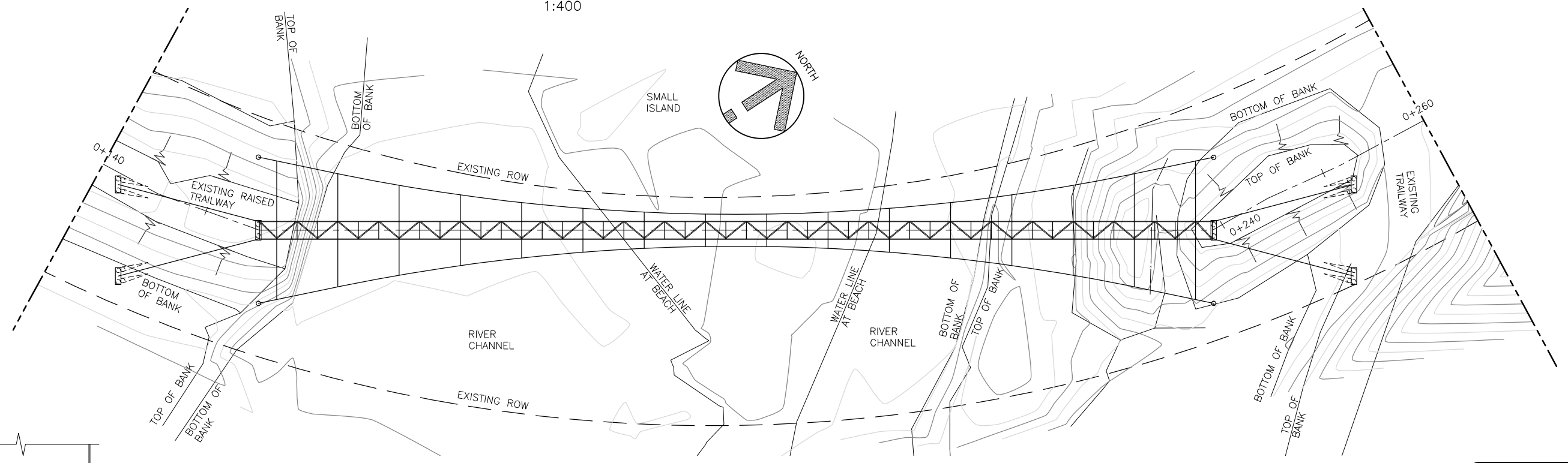
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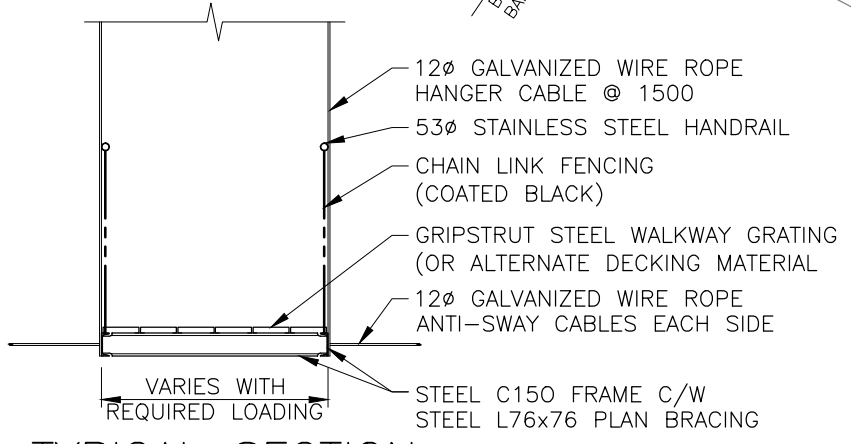
ARCHED SUSPENSION DESIGN
ELEVATION – EAST CHANNEL BRIDGE

1:400



PLAN – EAST CHANNEL BRIDGE

1:400



TYPICAL SECTION

1:50

FEASIBILITY STUDY

NOT FOR CONSTRUCTION

ISSUES		
No.	DATE	ISSUED FOR
A	2014.06.13	FEASIBILITY STUDY
B	2014.08.22	REVISED
C	2014.09.12	REVISED

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 3701 Shenton Rd, Nanaimo, BC V9T 2H1
 Tel: 250-751-8558 Fax: 250-751-8559
 Email: mail@heroldengineering.com

MORDEN COLLIERY TRAIL AND BRIDGES
 CONCEPT OPTION 2
 BRIDGE 2 84m SPAN

DRAFTED PHU	SCALE AS SHOWN	PROJECT No. 0837-029	HEL DRAWING No. SK4B	REVISION C
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DESTROY ALL DRAWINGS SHOWING PREVIOUS REVISION

APPENDIX C – Cost Estimates

BRIDGE ORDER OF MAGNITUDE COST ESTIMATE					
Item#	Description of Work	Unit of Measure	Approx. Quantity	Unit Price	Extended Amount
02.	SECTION 2 - BRIDGE				
02.01	Mobilization	L.S.	1	\$100,000.00	\$100,000.00
02.02	Foundation Excavation				
02.02.01		L.S.	1	\$16,000.00	\$16,000.00
02.03	Backfill				
02.03.01	Bridge End Fill	Cubic Meter	40	\$80.00	\$3,200.00
02.04	Steel Pipe Piling				
02.03.01	Mobilization	L.S.	1	\$50,000.00	\$50,000.00
02.03.02	Material Supply	Metre	132	\$75.00	\$9,900.00
02.03.03	Driving	Metre	120	\$400.00	\$48,000.00
02.03.04	Socketing	Metre	12	\$1,500.00	\$18,000.00
02.05	Reinforcing Steel				
02.05.01	Uncoated - Pile caps	Kilogram	800	\$4.00	\$3,200.00
02.05.03	Ballast walls	Kilogram	400	\$4.00	\$1,600.00
02.06	Concrete				
02.06.01	Cast-in-Place Concrete				
02.06.01.01	Pile caps	Cubic Meter	4	\$800.00	\$3,200.00
02.06.02	Precast Concrete				
02.06.02.01	Ballast walls	Cubic Meter	2	\$800.00	\$1,600.00
02.06.02.02	Shipping and Erection	Each	4	\$200.00	\$800.00
02.07	Steel				
02.07.01	Structural Steel				
02.07.01.01	Supply and Fabrication	Tonne	165	\$ 2,500.00	\$412,500.00
02.07.01.02	Shipping and Erection	Tonne	165	\$800.00	\$132,000.00

Item#	Description of Work	Unit of Measure	Approx. Quantity	Unit Price	Extended Amount
02.09	Miscellaneous Metalwork				
02.09.01	Supply and Install Guard Railings	Meter	350	\$140.00	\$49,000.00
02.10	Structural Bearings and Anchor bolts				
02.10.01	Supply and Install(Includes Testing)	L.S.	1	\$5,000.00	\$5,000.00
02.12	Timber Decking				
02.12.01	Supply & Install	Meter	1580	\$50.00	\$79,000.00
Part A	TENDER COST ESTIMATE				\$933,000.00
	Detailed Engineering				\$50,000.00
	Geotechnical Drilling				\$65,000.00
	Tender and Contract Management				\$85,000.00
	Contingencies (30%)	L.S.			\$ 340,000.00
901.00	TOTAL TENDER, SITE OCCUPANCY (if applicable) AND ASSOCIATED COST ESTIMATES				\$1,473,000.00

Project Name: MODERN COLLIERY TRAIL BRIDGES - SUSPENSION BRIDGE OPTION

BRIDGE ORDER OF MAGNITUDE COST ESTIMATE					
Item#	Description of Work	Unit of Measure	Approx. Quantity	Unit Price	Extended Amount
02.	SECTION 2 - BRIDGE				
02.01	Mobilization	<i>L.S.</i>	<i>1</i>	<i>\$100,000.00</i>	<i>\$100,000.00</i>
02.02	Foundation Excavation				
<i>02.02.01</i>		<i>L.S.</i>	<i>1</i>	<i>\$16,000.00</i>	<i>\$16,000.00</i>
02.03	Steel Pipe Piling				
<i>02.03.01</i>	<i>Mobilization</i>	<i>L.S.</i>	<i>1</i>	<i>\$50,000.00</i>	<i>\$50,000.00</i>
<i>02.03.02</i>	<i>Material Supply</i>	<i>Metre</i>	<i>240</i>	<i>\$75.00</i>	<i>\$18,000.00</i>
<i>02.03.03</i>	<i>Driving</i>	<i>Metre</i>	<i>216</i>	<i>\$400.00</i>	<i>\$86,400.00</i>
<i>02.03.04</i>	<i>Socketing</i>	<i>Metre</i>	<i>24</i>	<i>\$1,500.00</i>	<i>\$36,000.00</i>
02.04	Reinforcing Steel				
<i>02.04.01</i>	<i>Uncoated - Pile caps</i>	<i>Kilogram</i>	<i>4000</i>	<i>\$4.00</i>	<i>\$16,000.00</i>
02.05	Concrete				
02.05.01	Cast-in-Place Concrete				
<i>02.05.01.01</i>	<i>Pile caps</i>	<i>Cubic Meter</i>	<i>20</i>	<i>\$1,000.00</i>	<i>\$20,000.00</i>
02.06	Cable				
<i>02.06.01</i>	<i>Supply and Installation (50.8mm diameter)</i>	<i>Meter</i>	<i>520</i>	<i>\$ 100.00</i>	<i>\$52,000.00</i>
<i>02.06.02</i>	<i>Supply and Installation(12mm diameter)</i>	<i>Meter</i>	<i>1780</i>	<i>\$ 10.00</i>	<i>\$17,800.00</i>
02.07	Steel				
02.07.01	Structural Steel				
<i>02.07.01.01</i>	<i>Supply and Fabrication</i>	<i>Tonne</i>	<i>16</i>	<i>\$ 2,500.00</i>	<i>\$40,000.00</i>
<i>02.07.01.02</i>	<i>Shipping and Erection</i>	<i>Tonne</i>	<i>16</i>	<i>\$800.00</i>	<i>\$12,800.00</i>
02.08	Hanger and Sway cable connections				
<i>02.08.01</i>	<i>Supply and Installation</i>	<i>L.S.</i>	<i>1</i>	<i>\$100,000.00</i>	<i>\$100,000.00</i>
02.09	Guard				
<i>02.09.01</i>	<i>Supply and Installation of handrail cable</i>	<i>Meter</i>	<i>350</i>	<i>\$20.00</i>	<i>\$7,000.00</i>

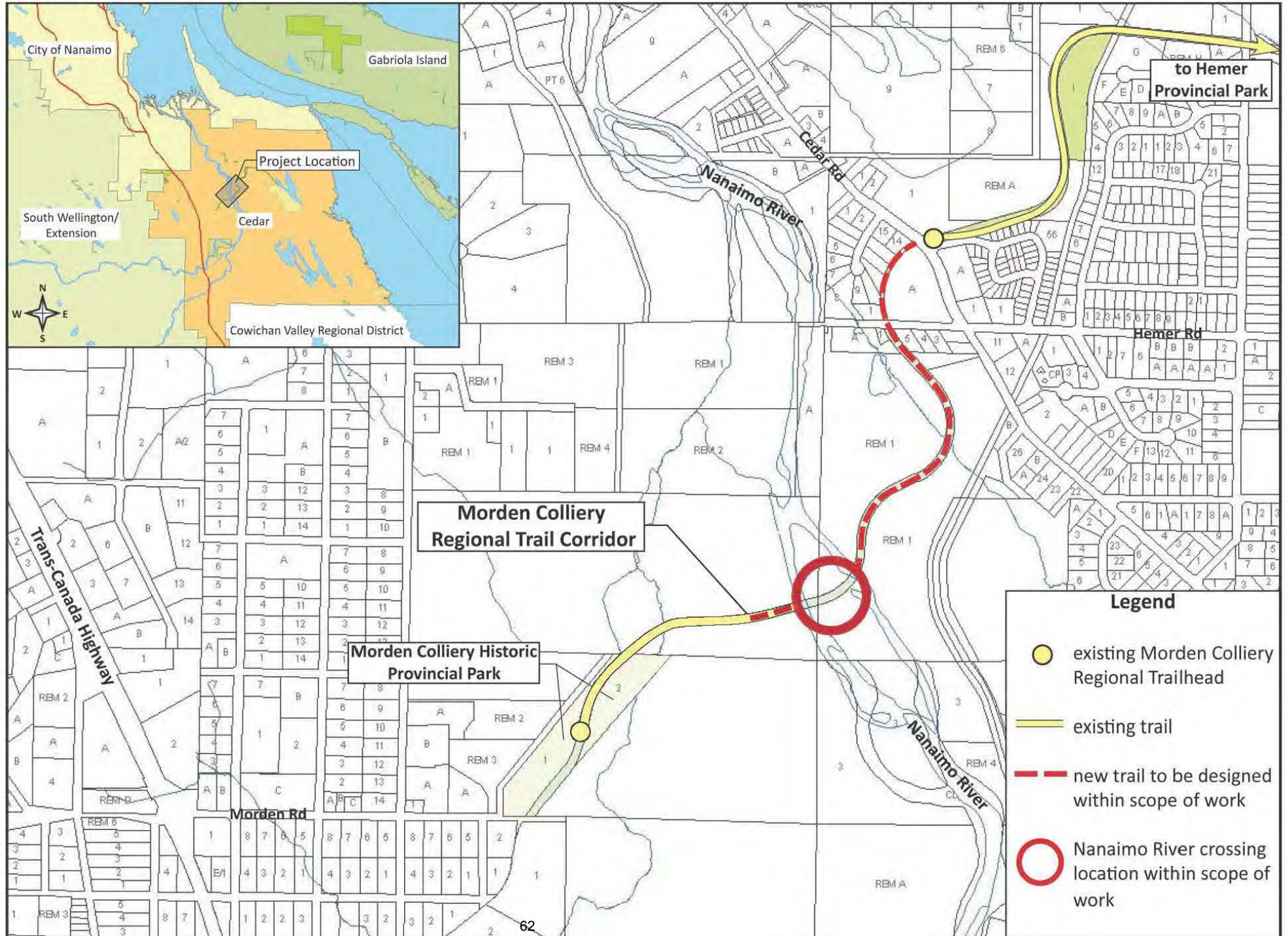
Item#	Description of Work	Unit of Measure	Approx. Quantity	Unit Price	Extended Amount
	<i>Fencing</i>	<i>Square Meter</i>	<i>425</i>	<i>\$50.00</i>	<i>\$21,250.00</i>
02.10	Timber Decking				
02.10.01	Supply & Install	<i>Meter</i>	<i>1575</i>	<i>\$50.00</i>	<i>\$78,750.00</i>
Part A	TENDER COST ESTIMATE				\$672,000.00
	Detailed Engineering				\$50,000.00
	Geotechnical Drilling				\$65,000.00
	Tender and Contract Management				\$85,000.00
	Contingencies (30%)	<i>L.S.</i>			\$ 265,000.00
901.00	TOTAL TENDER, SITE OCCUPANCY (if applicable) AND ASSOCIATED COST ESTIMATES				\$1,137,000.00

APPENDIX D – Satellite Images and Project Location

Morden Colliery Regional Trail: Nanaimo River Crossing and Trail Extension

Project Location

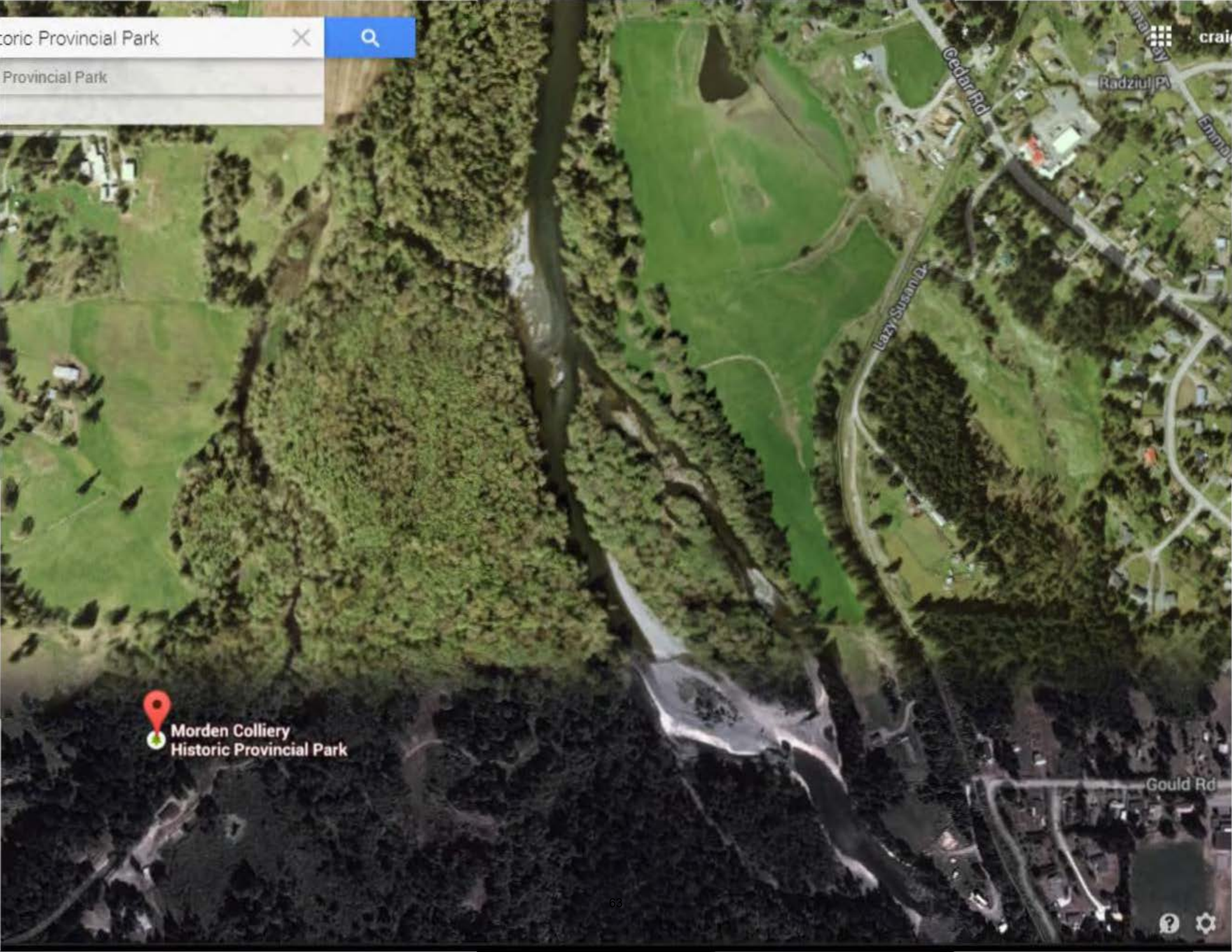
February 2014



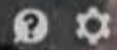
Historic Provincial Park



Provincial Park



Morden Colliery
Historic Provincial Park



APPENDIX E – Hydro-technical Report