



**REQUEST FOR EXPRESSIONS OF INTEREST  
AND STATEMENTS OF QUALIFICATIONS**

**Title:** Disaster Mitigation and Adaptation Fund (DMAF) Projects:  
Nicomekl & Serpentine Sea Dams; and  
King George Boulevard (KGB) Nicomekl Bridge Replacement Design Services

**Reference No.:** 1220-050-2019-015

**FOR PROFESSIONAL SERVICES**

(General Services)

ISSUE DATE: September 26, 2019

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## 1. INTRODUCTION

### 1.1 Purpose

The purpose of this request for expressions of interest / statements of qualifications (the “RFEI/SOQ”) is to:

- (a) invite submissions (the “Submission”) from respondents (the “Respondent”) that describe the desire, relevant expertise, capability, reputation and resources of the Respondent to undertake the project as generally set out in Schedule A – Scope of Services; and
- (b) to select a Respondent or Respondents who may be invited to participate in the next stage of the competitive selection process, when called.

This RFEI/SOQ is not a solicitation of proposals; rather it is a non-binding invitation to qualified Respondents to make themselves known to the City by providing information and by demonstrating to the City their desire, relevant expertise, capability, reputation and available resources.

All interested parties should respond to this RFEI/SOQ as the City does not guarantee that a more formal procurement process (as determined at the City’s discretion) will be issued following this RFEI/SOQ and may elect to directly negotiate with one or more interested parties, or the City may at any time and at its sole discretion decide to cancel this process for any reason.

### 1.2 Definitions

In this RFEI/SOQ the following definitions shall apply:

“**BC Bid Website**” means [www.bcbid.gov.bc.ca](http://www.bcbid.gov.bc.ca);

“**City**” means the City of Surrey;

“**City Representative**” has the meaning set out in section 2.3;

“**City Website**” means [www.surrey.ca](http://www.surrey.ca);

“**Date**” has the meaning set out in section 2.2;

“**Evaluation Team**” means the team appointed by the City;

“**Preferred Respondent(s)**” means the Respondent(s) selected by the Evaluation Team;

“**Respondent**” means an entity that submits a Submission;

“**RFEI/SOQ**” means this Request for Expressions of Interest and Statements of Qualifications;

“**Services**” has the meaning set out in Schedule A; and

“**Submission**” means a submission submitted in response to this RFEI/SOQ.

## 2. INSTRUCTIONS TO RESPONDENTS

### 2.1 Address for Submission Delivery

A Submission should be labelled with the Respondent's name, RFEOI/SOQ title and number. A Submission should be submitted in the form as described in Section 3.2 – Form of Submission.

The Respondent may submit a Submission either by email or in a hard copy, as follows:

#### (a) E-mail

If the Respondent chooses to submit by email, the Respondent should submit the Submission electronically in a single pdf file which must be delivered to the City by email at: [purchasing@surrey.ca](mailto:purchasing@surrey.ca)

**PDF emailed Submissions are preferred** and the City will confirm receipt of emails. Note that the maximum file size the City can receive is 10Mb. If sending large email attachments, Respondents should phone 604-590-7274 to confirm receipt. A Respondent bears all risk that the City's computer equipment functions properly so that the City receives the Submission.

#### (b) Hard Copy

If the Respondent chooses NOT to submit by email, the Respondent should submit one (1) original unbound Submission and one (1) copy (two (2) in total) which must be delivered to the City at the office of:

Name: Richard D. Oppelt, Manager, Procurement Services  
at the following location:

Address: Surrey City Hall  
Finance Department – Procurement Services Section  
Reception Counter, 5<sup>th</sup> Floor West  
13450 – 104 Avenue, Surrey, B.C., Canada V3T 1V8

### 2.2 Date

The City would prefer to receive Submissions on or before **October 25, 2019**. The City's office hours are 8:30 am to 4:00 pm, except holidays.

### 2.3 Inquiries

All inquiries related to this RFEOI/SOQ should be directed, by email, to the person named below (the "**City Representative**"). Information obtained from any person or source other than the City Representative may not be relied upon.

Name: Richard D. Oppelt, Manager, Procurement Services  
Email: [purchasing@surrey.ca](mailto:purchasing@surrey.ca)  
Reference: # 1220-050-2019-015

Inquiries should be made no later than seven (7) business days before the closing Date. The City reserves the right not to respond to inquiries made within seven (7) business days of the closing Date. Inquiries and responses will be recorded and may be distributed to all Respondents at the discretion of the City.

Respondents finding discrepancies or omissions in the RFEI/SOQ documentation or having doubts as to the meaning or intent of any provision should immediately notify the City Representative. If the City determines that an amendment is required to this RFEI/SOQ, the City Representative will issue an addendum in accordance with section 2.4. No oral conversation will affect or modify the terms of this RFEI/SOQ nor be relied upon by any Respondent.

## **2.4 Addenda**

If the City determines that an amendment is required to this RFEI/SOQ, the City Representative will issue a written addendum by posting it on the BC Bid Website at [www.bcbid.gov.bc.ca](http://www.bcbid.gov.bc.ca) (the "BC Bid Website") and the City Website at [www.surrey.ca](http://www.surrey.ca) (the "City Website") that will form part of this RFEI/SOQ. No amendment of any kind to the RFEI/SOQ is effective unless it is posted in a formal written addendum on the City Website. Upon submitting a Submission, Respondents will be deemed to have received notice of all addenda that are posted on the City Website.

## **2.5 Status Inquiries**

All inquiries related to the status of this RFEI/SOQ, including whether a Respondent has been selected, should be directed to the City Website and not to the City Representative.

# **3. SUBMISSION FORM AND CONTENTS**

## **3.1 Package (Hard Copy)**

If the Respondent chooses NOT to submit by email, the Respondent should submit a Submission in a particular submittal format, to reduce paper, encourage our recycled product expectations, and reduce package bulk. Bulk from binders and large packages are unwanted. Vinyl plastic products are unwanted. The City also has an environmentally-preferable purchasing commitment and seeks a package format to support the green expectations and initiatives of the City.

Please do not use any plastic or vinyl binders or folders. The City prefers simple, stapled paper copies. If a binder or folder is essential due to the size of your Submission, they should be fully 100% recycled stock.

The City seeks and prefers submittals on 100% Post Consumer Fibre (PCF) paper, consistent with the City's policy and the City environmental practices.

Please double side your Submission.

Submissions should be in a sealed envelope/package, marked on the outside with the Respondent's name, title of the Submission and reference number.

### 3.2 Form of Submission

The proponents should provide a team submission that meets all the professional disciplines identified in this RFEOI/SOQ. Respondents should provide the following.

**(a) Transmittal letter with the following items (*two (2) pages recommended*):**

- Show the RFEOI/SOQ title and reference number, Submission date, Respondent's full legal name and contact information, and the name, address, telephone number, email address of the Respondent's designated contact person; and
- Identify the information for all consultants that are included as part of the team for the professional disciplines identified in this RFEOI/SOQ; and
- Provide a short summary of the key features of the Submission. Indicate your understanding of the City's requirements and Services under this RFEOI/SOQ.

**(b) Prequalification Form in the format as set out in Schedule B**

All Respondents making a Submission to this RFEOI/SOQ consent to allow the City and their representatives to check and verify the information provided. The City reserves the right to request Respondents to submit additional information as may be required to complete or evaluate the Submissions.

### 3.3 Signature

The Submission should be signed by a person authorized to sign on behalf of the Respondent and include the following:

- (a) If the Respondent is a corporation then the full name of the corporation should be included, together with the names of authorized signatories. The Submission should be executed by all authorized signatories or by one or more of them provided that a copy of the corporate resolution authorizing those persons to execute the Submission on behalf of the corporation is submitted;
- (b) If the Respondent is a partnership or joint venture then the name of the partnership or joint venture and the name of each partner or co-venturer should be included, and each partner or co-venturer should sign personally (or, if one or more person(s) have signing authority for the partnership or joint venture, the partnership or joint venture should provide evidence to the satisfaction of the City that the person(s) signing have signing authority for the partnership or joint venture). If a partner or co-venturer is a corporation then such corporation should sign as indicated in subsection (a) above; or
- (c) If the Respondent is an individual, including a sole proprietorship, the name of the individual should be included.

## **4. EVALUATION AND SELECTION**

### **4.1 Evaluation Team**

The evaluation of Submissions will be undertaken on behalf of the City by an Evaluation Team. The Evaluation Team may consult with others including City staff members, third party consultants and references, as the Evaluation Team may in its discretion decide is required. The Evaluation Team will give a written recommendation for the selection of a Preferred Respondent or Preferred Respondents to the City.

### **4.2 Evaluation Criteria**

The Evaluation Team will compare and evaluate all Submissions to determine the Respondent's strength and ability to provide the Services to the City in order to determine the Submission(s) is most advantageous to the City, using the following criteria:

- a) Respondent's experience, reputation and resources; and
- b) Technical (including approach method and understanding of Services required)

The Evaluation Team will not be limited to the criteria referred to above, and the Evaluation Team may consider other criteria that the team identifies as relevant during the evaluation process. The Evaluation Team may apply the evaluation criteria on a comparative basis, evaluating the Submissions by comparing one Respondent's Submission to another Respondent's Submission. All criteria considered will be applied evenly and fairly to all Submissions. The City currently anticipates that it may carry out a more formal procurement process for release to multiple qualified Respondents

A clear and concise presentation of information is encouraged. No assumption should be made that any information regarding a Respondent is known to the Evaluation Team except as provided in Response to this RFEOI/SOQ.

### **4.3 Litigation**

In addition to any other provision of this RFEOI/SOQ, the City may, in its absolute discretion, reject a Submission if the Respondent, or any officer or director of the Respondent submitting the Submission, is or has been engaged directly or indirectly in a legal action against the City, its elected or appointed officers, representatives or employees in relation to any matter, or if the City has initiated legal action against any officers or directors of the Respondent.

In determining whether or not to reject a Submission under this section, the City will consider whether the litigation is likely to affect the Respondent's ability to work with the City, its consultants and representatives and whether the City's experience with the Respondent indicates that there is a risk the City will incur increased staff and legal costs in the administration of an agreement if it is awarded to the Respondent.

#### **4.4 Additional Information**

The Evaluation Team may, at its discretion, request clarifications or additional information from a Respondent with respect to any RFEI/SOQ, and the Evaluation Team may make such requests to only selected Respondents. The Evaluation Team may consider such clarifications or additional information in evaluating a Submission.

#### **4.5 Interviews**

The Evaluation Team may, at its discretion, invite some or all the Respondents to appear before the Evaluation Team to provide clarifications of their Submissions. In such event, the Evaluation Team will be entitled to consider the answers received in evaluating Submissions.

### **5. GENERAL CONDITIONS**

#### **5.1 No City Obligation**

This RFEI/SOQ is not a tender and does not commit the City in any way to select a Preferred Respondent(s), or to proceed to negotiations for an agreement, or to award any agreement, and the City reserves the complete right to at any time reject all Submissions, and to terminate this RFEI/SOQ process.

#### **5.2 Respondent's Expenses**

Respondents are solely responsible for their own expenses in preparing, and submitting a Submission, and for any meetings, negotiations or discussions with the City or its representatives and consultants, relating to or arising from this RFEI/SOQ. The City and its representatives, agents, consultants and advisors will not be liable to any Respondent for any claims, whether for costs, expenses, losses or damages, or loss of anticipated profits, or for any other matter whatsoever, incurred by the Respondent in preparing and submitting a Submission, or participating in subsequent proposal requests, negotiations for an agreement, or other activity related to or arising out of this RFEI/SOQ.

#### **5.3 No Contract**

By submitting a Submission and participating in the process as outlined in this RFEI/SOQ, Respondents expressly agree that no contract of any kind is formed under, or arises from this RFEI/SOQ, prior to the signing of a formal written Contract.

#### **5.4 Conflict of Interest**

A Respondent shall disclose in its Submission any actual or potential conflicts of interest and existing business relationships it may have with the City, its elected or appointed officials or employees. The City may rely on such disclosure.



## **5.5 Solicitation of Council Members and City Staff**

Respondents and their agents will not contact any member of the City Council or City staff with respect to this RFEI/SOQ, other than the City Representative named in section 2.3, at any time prior to the award of an agreement or the cancellation of this RFEI/SOQ.

## **5.6 Confidentiality**

All Submissions become the property of the City and will not be returned to the Respondent. All Submissions will be held in confidence by the City unless otherwise required by law. Respondents should be aware the City is a "public body" defined by and subject to the *Freedom of Information and Protection of Privacy Act* of British Columbia.

## **6. CITY DISCLAIMER**

- a. The information in this RFEI/SOQ and any further supporting documentation is provided for reference purposes only. It is the responsibility of interested parties to confirm the accuracy and applicability of this information. All costs related to updating or acquiring additional information shall be born solely by the Respondent. The information contained in this RFEI/SOQ has been prepared, in part, on information provided by others, and such information is believed to be accurate and reliable. However, by its receipt of this RFEI/SOQ, each Respondent remises, releases, and forever discharges the City and its representatives (including staff and consultants and other professional advisors) from any and all claims which such person has, have, or may hereafter have arising out of any information contained herein. Any party who intends to submit a response to this RFEI/SOQ is specifically invited to independently verify the accuracy of the information contained herein.
- b. The City shall not be obligated to review or accept any Submission and may reject any or all Submissions without giving reasons therefore.
- c. All negotiations and discussions with Respondents are on a "without prejudice" basis and cannot be construed as an agreement, and/or otherwise unless expressly approved by City Council and a written agreement is signed by the City.
- d. The City may negotiate with any one or more of the Respondents without having any duty or obligation to advise or allow any other Respondents to vary their Submission or otherwise negotiate with the City.
- e. The City may enter into discussions to clarify issues related to any Submission. If at any time the City reasonably forms the opinion that a mutually acceptable agreement is not likely to be reached, the City may give notice terminating discussions, but is under no obligation to do so.
- f. The City does not authorize any other person or agency to represent the project on its behalf without the prior written approval of the City.
- g. By submitting a Submission and participating in the process as outlined in this RFEI/SOQ, Proponents expressly agree that no contract of any kind is formed under, or arises from, this RFEI/SOQ process.

## **7. DISCLAIMER**

Notwithstanding anything contained herein, the Respondent agrees that he shall take all necessary steps to confirm the accuracy of this RFEI/SOQ and agrees that the City shall have no liability whatsoever in respect of any losses or damages of any kind howsoever arising in relation to this RFEI/SOQ.

## **SCHEDULE A : SCOPE OF SERVICES**

**Project Title: DMAF Nicomekl & Serpentine Sea Dams and KGB Nicomekl Bridge Replacement**

### **1. GENERAL PROJECT INFORMATION**

The City is seeking pre-qualification Submissions from interested Respondents to provide multidisciplinary Engineering design and analysis, Environmental permitting, Architectural design, Landscape Architectural services, Public Art specialists, Survey, Project Management, and Construction Support for the Nicomekl & Serpentine Sea Dams and KGB Nicomekl Bridge replacement in support of Coastal Climate Adaptation Works within the City, as further described in this RFEOI/SOQ. This project is part of the Disaster Mitigation and Adaptation Fund (DMAF) program and is funded in part by the Government of Canada.

The Coastal Climate Adaptation Works planned within the City consist of 13 individual infrastructure improvements, all focused on reducing Surrey's vulnerability to coastal flooding and sea level rise. The individual improvements range from dyke and road upgrades, Sea dam and bridge replacements, to storm sewer upgrades, nature-based solutions and other infrastructure investments. Two (2) of these improvements are included as part of this RFEOI/SOQ and have been identified as major projects.

The two major projects included as part of this RFEOI/SOQ consist of (Refer to schedule C for project details):

- Serpentine Sea Dam Replacement,
- King George Boulevard Bridge (KGB) and Nicomekl Sea Dam Replacement,

Due to the similar nature and proximity of these two major projects, the design process will be completed as one comprehensive assignment for both projects, as described herein. A separate RFEOI/SOQ was prepared and posted for the environmental assessment services of these major DMAF projects.

The design life of the asset is to be 100 years.

### **Project Background**

In Surrey, a large portion of the land—approximately 20%—is located within a coastal floodplain. That area includes residential communities, agricultural land, environmental and recreational areas, and regionally important infrastructure, such as highways, railways, power, water and sewer lines. In order to proactively identify long-term options for adapting to sea level rise that are supported by the community, the City developed a Coastal Flood Adaptation Strategy (CFAS).

CFAS was prepared over three (3) years by employing a participatory planning approach. Substantial consultation materials, including records of communication and issues raised by the public and Indigenous groups, have been generated through the process. As a result, the City has a good understanding of community values and perspectives related to coastal

adaptation approaches in Surrey. Community input, along with the results of technical engineering analyses, informed the identification of a preferred adaptation strategy.

Based on a widely accepted long-term adaptation strategy, the City identified a suite of 13 large-scale infrastructure investments to address the largest infrastructure vulnerabilities within the study area, while reducing socio-economic damages and providing other community benefits. These investments were awarded funding through Infrastructure Canada's Disaster Mitigation and Adaptation Fund (DMAF), which is a national merit-based program.

An overview of the overall City's DMAF Project is provided in Schedule C. Two (2) out of the 13 infrastructure improvements are subject to this RFEI/SOQ.

### **History of Structures and Their Classification**

"Sea dams" is a colloquial name that was adopted by the original structure owner, (Surrey Dyking District) and remains in common use now. However, the structures are not regulated dams under former B.C. Dam Safety Regulations (2000), rather they are regulated as a "Dike" under the Dike Maintenance Act, being an integral part of a system of low consequence flood control works to minimize flooding that could result during high tide and coastal storms. It is also an integral structure to support numerous authorized irrigation license holders under the Water Sustainability Act access to freshwater that would otherwise be unsuitable due to natural brackish conditions.

### **Natural Hazards**

The proposed structure locations are susceptible to liquefaction and failure due to ground movement. Failure of the structures could be a complex, costly and lengthy process to replace. The existing structures were not designed for sea level rise or ground subsidence. Drought is increasingly a concern for the service area of the Sea dams and the new structures will be resilient to all natural hazards.

## **2. SCOPE OF SERVICES**

The Scope of Work will include services throughout the following phases: Preliminary Design, Detailed Design, Tendering, Construction and Post-Construction. The scope of Services will generally consist of activities and deliverables relative to the following:

### **1. Project Management**

- a. Actively and diligently progress the work, leading to timely completion of the project. Use best Project Management Practices to manage project schedule during design and construction, manage and report on budget and work streams.
- b. Proactively identify, quantify and manage risks throughout the duration of the project.
- c. Collaborate with all required City departments and project stakeholders throughout the design and construction phases of the project.
- d. Manage sub-consultants with respect to time and budget.

## **2. Preliminary Design**

Provide all design, environmental, geotechnical, and safety factors considered with the project and must bear the seal and signature of the project engineer. This report confirms that the proposed designs are functional. It ensures that the design can be practically constructed and maintained, while still achieving the design goals and objectives within budget and on time. It will comprise of the following as a minimum;

- a. Project purpose description
- b. Site conditions that includes geology, seismicity and geotechnical considerations
- c. Exploration of multiple integral design concepts including addressing the contributions of the projects to urban design in the vicinity of the projects
- d. Consideration of long-term risk and cost implications of a range of natural hazards (earthquake, sea level rise, drought) and development of multi criteria evaluation of the multiple integrated design concepts
- e. Conduct a high-level climate risk assessment on the preferred option in accordance with Federal Climate Lens Assessment Guidelines.
- f. Develop conceptual cofferdam and construction phasing approach and temporary traffic detour approach.
- g. Develop design for Nicomekl Riverfront Park overflow flood channel in collaboration with design of Nicomekl Sea dam.
- h. Traffic impact assessment and mitigation approach for impacts of closing Elgin Road crossing.
- i. Design features and Public Art Plan
- j. Fishway\ fish passage approach, instrumentation and pumping operation.
- k. High flow pump conceptual design in phases (electrical, civil and mechanical concepts).
- l. Assessment of the potential impacts.
- m. High-level cost estimate.

## **3. Project Design and Specifications**

Complete preliminary and detailed designs for the Nicomekl & Serpentine Sea Dams and King George Boulevard Bridge replacement at Nicomekl river based on site constraints and established requirements. Extensive modeling analysis have been done to establish some of the requirements. Additional modelling to confirm design function will be required. The proposed Sea dams must be in conformity with seismic design requirements. Moreover, decommissioning of the existing Sea dams and phasing of the project should be considered in the design process. The design will also look at climate change and future works that maybe required at the site ie. Allowance for a future pump station on the Nicomekl River.

## **4. Property Impact Assessments**

Identify property impacts and liaise with City's staff in assessing the most economic and practical approach in dealing with encroachments, construction access, temporary workspace provisions, or damage to lands and properties adjacent to the proposed works. All Right-of-Ways on ALR would require ALC's consent. Impacts and Improvements to any Mud Bay dykes will require Inspector of Dykes and Mud Bay Dyking District approvals.) Impacts to adjacent parkland must be reviewed with Parks staff and generally be in accordance to the Nicomekl Riverfront Park Management Plan.

## **5. Contract and Construction Administration**

Provide specification writing, evaluation support of the construction proposals/tenders, contract administration during construction, site inspection during construction, environmental monitoring during construction, cost control and overall management during construction.

## **6. Project Coordination and Management**

Lead overall coordination and management of project's engineering design process and related permitting works as described herein; coordinate meetings among project's communications, environmental and archeological consultant teams, sub-consultants, City staff, Provincial staff, stakeholders and others; liaise with the technical advisory committee, once established. Design to incorporate FortisBC Distribution Pressure pipeline and Metro Vancouver Feeder main through the Sea dams. Road works, including integration with the existing park and ride and highway system to be coordinated with Translink, Coast Mountain Bus Company and MoTI.

## **7. Construction Supervision Plan and Schedule**

Identify impacts and risks associated with the project. Include a schedule to illustrate major milestones, identify permits, and coordination with external agencies. A plan shall be submitted to the Dam Safety Officer describing how adequate and competent construction supervision will be provided.

## **8. Environmental Management Plan**

Align and coordinate the design with the environmental assessments which will get executed as a separate project (Project Reference No: 1220-050-2019-013). Assist with the process of preparing applications for permits and approvals from appropriate provincial and federal government offices. Prepare an environmental impact assessment based on the proposed design and how the impacts to the environment will be monitored. Outcome of the underway general environmental assessment for this project will be provided to guide the impact assessment. This project may require compensation for construction for the associated works. The removal of the existing bridge and Sea dams will require environmental plans and monitoring during the decommissioning. The consultant team will be responsible for the development of these plans.

## **9. Regulatory Permitting and Approval**

Assist in obtaining and/or acquire all necessary permits and approvals from appropriate provincial and federal government offices, as guided by relevant provincial and federal laws and regulations, such as and not limited to *Fisheries Act* [RSC 1985, c. F-14], *Dike Maintenance Act* [RSBC 1996, c. 95], *Agricultural Land Commission Act* [SBC 2002, c. 36], and *Water Sustainability Act* [SBC 2014, c. 15]. Obtain MoTI's consent and approvals under *Transportation Act*. Acquire all necessary approvals from Metro Vancouver. The Comptroller of Water Rights or a Water Manager must grant authorization prior to the construction of any new dam under authority of the *Water Sustainability Act*.

## **10. Archeological Services**

- a. Align and coordinate the design with the Archeological Impact Assessment which will be executed as a separate project (Project Reference No: 1220-050-2019-013).

The City is currently undertaking the Archaeological Overview Assessment(AOA) within the project limits. The City anticipates making the assessments available during the RFP stage.

- b. Apply for Site Alteration Permit for areas that have been identified in the AIA.
- c. Provide archaeological monitoring during construction.

#### **11. Operation Maintenance and Surveillance Manual**

Draft an Operation Maintenance and Surveillance (OMS) manual which provides all the information and instructions needed to allow an individual to perform all the actions necessary to provide safe operation, routine maintenance and regular inspection of the constructed facilities.

#### **12. Dam Emergency Plan**

Draft a Dam Emergency Plan (DEP) that includes all the information and instruction needed to allow an individual to respond to an emergency related to the dam. This could be as a section within the OMS manual.

#### **13. Indigenous Consultation**

Assist the environmental consultant to plan and execute all consultation activities and early engagement. The potential socio-economic benefits pertaining to the infrastructure improvement for this project to be realized and conveyed to the stakeholders including Indigenous groups.

#### **14. Public Consultation**

Produce clear, concise and compelling written and visual/graphic materials necessary for a range of audiences, including City staff, City advisory committees, stakeholders and general public (e.g., professionally designed information boards and presentations).

#### **Project Description**

The two major infrastructure improvement projects which have been supported by DMAF program and included in this RFEOI/SOQ are described in detail in Schedule C. In short, they are as follows:

- **Serpentine Sea Dam Replacement**

construction of a new Sea dam—a flood-control and irrigation structure—downstream from its current location on the Serpentine River at King George Boulevard; the new Sea dam will incorporate improved fish passage and tie-ins to existing Mud Bay and Colebrook diking systems. The old Sea dam is to be decommissioned/removed once the new one is functional. A scalable, modular, high capacity drainage pump is to be designed as well to be built in future phases. The work includes pre-building section of a new large diameter (1050mm or greater) steel Greater Vancouver Water District (GVWD) watermain into the proposed Sea dam including all required appurtenances. This large diameter watermain will tie-in to a proposed GVWD main in the future.

- **King George Boulevard Bridge and Nicomekl Sea Dam Replacement**



replacement and integration of three (3) aged structures—a Sea dam and two (2) bridges—into one (1) resilient structure consisting of a Sea dam and a 6-lane bridge, which will effectively move the existing Sea dam located on the Elgin Road bridge, slightly up the Nicomekl River (approx. 175m east), thus expanding the brackish/estuarine habitat; the new structure will incorporate improved fish passage and a pedestrian underpass. The old Sea dam is to be decommissioned/removed once the new facility is functional. The work includes the relocation of an existing 762mm GVWD steel GVWD watermain to be built into the proposed Sea dam, including tie-in to the existing GVWD South Surrey Main No. 1, and will include a pre-build section of new large diameter (1050mm or greater) steel GVWD watermain and all associated appurtenances. Moreover, this dam should accommodate an overflow channel that will go through the newly acquired city park land (Nicomekl Riverfront Park). Hydrologic changes and/or habitat compensation related to this project that impact upstream and downstream parkland must be planned and accounted for through this project. Multi-use pathway for pedestrian and cycling connectivity is an important consideration for this project.

### **Special Requirements**

- Provision of community employment benefits should be included in the project delivery where practical.
- A multi-use pathway is required to connect the park and ride area north of Nicomekl river to the Nicomekl Riverfront Park which is located to the south of Nicomekl river.
- Development of a hydrodynamic modelling is required to model and design an overflow channel that diverts the excess flow in the river through a newly acquired city park land (Nicomekl Riverfront Park). Civil and Water Resources Engineer should collaborate closely with their Qualified Environmental Professional (QEP) and Landscape Architect subconsultants to ensure overflow flood channel benefits species/habitat and aligns with the Nicomekl Riverfront Park Management Plan and Concept Plan.
- At times, the dams inhibit the movement of salmonids both upstream and downstream of the structure, particularly during dry periods (when the river becomes lower than the tide for extended periods). The barrier caused by the sea dams is of greatest concern in later summer/early fall, as salmon begin to migrate upstream to spawn and have become blocked by the dams. Therefore, incorporation of fish passage through and/or over the sea dam must be considered in the design of both dams. Again, the Civil and Water Resources Engineer(s) should collaborate closely with their Qualified Environmental Professional (QEP) to determine a viable design to achieve fish passage.
- Greater Vancouver Water District (GVWD) is currently completing the conceptual design of the South Surrey Main No. 2 (SOSM2). The preferred alignment is planned to be selected by the end of 2020. The preliminary design of SOSM2 is not planned to start until 2024. The designer will need to incorporate a corridor for a pre-build of 1050mm or greater main on both the Nicomekl and Serpentine River Sea dams.
- A monitoring plan should be developed as part of the process to provide performance and quality assurance after the completion of the project.



### 3. RESPONDENT'S QUALIFICATIONS

3.1. The consultant team should have the following but not limited to:

- 3.1.1. Solid knowledge and relevant professional experience and qualifications to undertake all the deliverables noted under the "Scope of Services" and display their ability to deliver a project with similar scope and complexity on time and within budget.
- 3.1.2. Advanced performance based seismic design and modelling experience including demonstrated inter-disciplinary experience involving civil, structural, environmental and geotechnical design to optimize design efficiency.
- 3.1.3. Qualified Professional Engineers (P. Eng.) with a minimum of 10 years of experience and in good standing with Engineers and Geoscientists of British Columbia (EGBC) and have the authority to stamp and sign all documentations required for completion of this project.
- 3.1.4. Personnel with expertise in urban design and architecture to ensure the design is a positive addition to the City and serves as a gateway to South Surrey.
- 3.1.5. Qualified Urban Landscape Architect with a minimum of 10 years of experience and in good standing with British Columbia Society of Landscape Architects (BCSLA) as part of the team to incorporate innovative solutions in the design. Landscape Architect personnel to work collaboratively with the Civil and QEP on the design of the overflow flood channel in the Nicomekl Riverfront Park and coordinate with the City personnel and the park design consultant team. The team will work closely with the City Lead Public Art coordinator and will have significant experience in developing public art plans, as well experience working within multidisciplinary consulting teams to seamlessly integrate public art within park and open space master plans.
- 3.1.6. The consultant team should include qualified professionals that are experienced in adaptive management with regards to coastal and freshwater environments.
- 3.1.7. An Envision Sustainable professional(ENV SP) to support compilation, filing and application to support possible Envision certification, is desirable.
- 3.1.8. Qualified professionals that are experienced in stakeholder engagement and consultation, and in communication of scientific concepts and facilitation of discussions based on scientific and technical information to a diverse range of stakeholders including the indigenous groups.
- 3.1.9. Qualified Archaeologist that has significant experience in site protection measures and impact mitigation and has established robust working relationship with the First Nations and other indigenous groups of British Columbia.
- 3.1.10. The lead Qualified Environmental Professional must have a minimum of 10 years of experience and be in good standing with the College of Applied Biology and have the authority to stamp and sign environmental permit requests and related documentation. The environment professionals must be selected from the City's prequalification list below:

**Prequalified List of Environmental Consultants:**

<b>ENVIRONMENTAL CONSULTANT</b>	<b>CONTACT</b>	<b>T</b>	<b>E</b>
<b>ENKON</b>	Glenn Stewart (President)	604 574 4477	<a href="mailto:enkon@env.enkon.com">enkon@env.enkon.com</a>
<b>AECOM</b>	Christine Patterson	604 444 6400	<a href="mailto:christine/patterson@aecom.com">christine/patterson@aecom.com</a>
<b>McElhanney</b>	Patty Burt	604 424 4838	<a href="mailto:pburt@mcelhanney.com">pburt@mcelhanney.com</a>
<b>ISL</b>	David Neufeld	604 371 0091	<a href="mailto:dneufeld@islengineering.com">dneufeld@islengineering.com</a>
<b>AquaTerra</b>	Chris Lee	604 765 2993	<a href="mailto:chris@aquaterra.ca">chris@aquaterra.ca</a>
<b>Associated Environmental</b>	Jennifer Prive	604 293 1411	<a href="mailto:privej@ae.ca">privej@ae.ca</a>
<b>EcoScape</b>	Mary Ann Olson- Russello	250 491 7337 (205)	<a href="mailto:mao@ecoscapeltd.com">mao@ecoscapeltd.com</a>
<b>Pinchin</b>	Jeremy Nilson	604 425 1927	<a href="mailto:jnilson@pinchin.com">jnilson@pinchin.com</a>
<b>SNC Lavalin</b>	Shawn Hilton	604 515 5151	<a href="mailto:Shawn.hilton@snclavalin.com">Shawn.hilton@snclavalin.com</a>
<b>Hatfield Consultants</b>	Angus Johnston	604 926 3261	<a href="mailto:hcp@htfieldgroup.com">hcp@htfieldgroup.com</a>
<b>Green Bank Environmental</b>	Jeff Greenbank	604 802 4299	<a href="mailto:jeff@greenbankenvironmental.com">jeff@greenbankenvironmental.com</a>
<b>Pottinger Gaharty (PGL)</b>	Stewart Brown	604 895 7612	<a href="mailto:sbrown@pggroup.com">sbrown@pggroup.com</a>
<b>Phoenix Environmental</b>	Ken Lambersten	604 689 3888	<a href="mailto:info@phoenixenvironmental.com">info@phoenixenvironmental.com</a>
<b>Kerr Wood Leidal</b>	Patrick Lilley	604 294 2088	<a href="mailto:plilley@kwl.ca">plilley@kwl.ca</a>
<b>Hemmera</b>	Trevor Welton	604 669 0424 (272)	<a href="mailto:twelton@hemmera.com">twelton@hemmera.com</a>
<b>McTavish</b>	Bruce McTavish	604 323 4881	
<b>Dillon Consulting</b>	Stacie Kalyn	604-278- 7847	<a href="mailto:skalyn@dillon.ca">skalyn@dillon.ca</a>
<b>WSP</b>	Sandra Baker	604 631 9597	<a href="mailto:sandra.baker@wsp.com">sandra.baker@wsp.com</a>

- 3.2. Proven record for design of municipal infrastructure, highways, and large diameter steel potable water main.
- 3.3. The consultant team should possess solid knowledge of the rules, regulations and codes governing dam design, construction, maintenance and environmental issues in British Columbia such as the Dike Maintenance Act and the Canadian Bridge Code.
- 3.4. The consultant team should be conversant with policies, specification, standards and guidelines to be followed in the development of bridges and related structures in B.C.
- 3.5. The consultant team should have solid knowledge in the field of water resources, Sea dam and water retaining structures (e.g., hydrology, hydraulics, river and coastal morphology, structural, and geotechnical engineering).
- 3.6. The consultant team should be able to produce clear, concise and compelling written and visual materials and activities related to the two infrastructure improvement projects, by working closely with the City DMAF communications Lead. This is especially important since the Nicomekl project is a major gateway to South Surrey and has significant public profile.
- 3.7. The consultant team should be familiar with seismic design of pipelines in respect to preventing static and seismic induced stresses in the new GVWD watermain. In addition, the team should be familiar with design of bridges in areas of high seismicity and poor soil conditions.
- 3.8. Experience in projects that integrate operations, maintenance, and rehabilitation considerations and optimize life cycle performance particularly those projects designed for service lives of 100 years or longer.
- 3.9. Experience in conducting environmental impact assessments in environmentally sensitive areas of coastal and brackish environments in the region, including archaeological sites.
- 3.10. The consultant team should have experience in leading Crown land tenure processes.
- 3.11. The consultant team should be familiar with corrosion and cathodic protection.
- 3.12. Respondents may include other professional disciplines on their consulting team as deemed appropriate to deliver the Services.
- 3.13. The City will conduct Independent review of designs at conceptual, preliminary and detailed designs.

## SCHEDULE B: PREQUALIFICATION FORM

### 1. Lead Respondent Profile

a) Legal structure of Respondent \_\_\_\_\_ Year established \_\_\_\_\_

Names and titles of authorized signatory(ies)

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

b) Number of years the Respondent has been in business  
of providing consulting services \_\_\_\_\_

c) Reputation & past performance:

○ Has the Respondent within the last 5 years failed to complete a contract, or been terminated by the client? *(If yes, then provide a list of assignments the firm has been terminated from along with the key personnel involved)* Yes. \_\_\_\_\_ No. \_\_\_\_\_

○ Has the Respondent within the last 5 years been in a lawsuit regarding assignment performance, payments or scheduling? *(If yes, then provide a list of assignments)* Yes. \_\_\_\_\_ No. \_\_\_\_\_

○ Within the last five years, has any officer or principal of the Respondent been an officer or principal of another organization when it failed to complete a contract? *(If yes, then provide a list of assignment, along with the Respondent's officer or principal involved)* Yes. \_\_\_\_\_ No. \_\_\_\_\_

d) If the Respondent does not have an office within 100km of the City, as part of Submission, please include a memo (*maximum two pages*) outlining the strategy of operating in the Lower Mainland and the arrangements that will be made or have been made to work around the distant challenge.

e) Provide three overall references for the Respondent, with preference to long-term clients, as opposed to project-specific. Provide name, organization and contact information for each reference.

f) Please provide a complete matrix of Respondent consultant team structure. As an example see Table 3 (Respondent's Consultant Team Matrix) provided in Appendix A.

## **2. Key Personnel**

Please complete Table 4 provided in Appendix A, demonstrating the key project personnel clearly identifying their roles & responsibility on this assignment. Include resumes, to identify relevant experience, separately as an appendix (a maximum 2-page resume per person) along with a project organization chart of all key personnel.

## **3. Demonstrated Ability Provide the Services on Time and Within Budget**

- a) Please, complete Table 5 (Demonstrated Project Experience) provided in Appendix A.
- b) Include a summary of past relevant infrastructure projects over the past ten (10) years of similar complexity and provide information on the Respondent's demonstrated strength, experience and capability to provide the services similar to those required by this RFEOI/SOQ and to meet the required qualifications. In your summary, include description of each referenced work; reference; scope of work; year completed; project team and sub-consultants; key challenges; opportunities and successes; size of the project; and provide explanations to why the example is relevant and if there were any deviations from approved budget and schedule; and provide any relevant project awards and certifications, if any.
- a) For Greater Vancouver Water District (GVWD) related works, the consultant team should provide examples of projects of similar size, scope and nature completed over the past ten (10) years. The experience should encompass preparation of preliminary design, detailed design and tender documents of large (762mm or greater) steel water main, and trenchless technology.

**Limit to 5 pages.**

## **4. Project Understanding, Capability and General Approach and Methodology**

Provide a well organized and comprehensive narrative that includes:

- Include a description of understanding of project objectives, requirements and desired project outcomes outlined the general approach and methodology that the Respondent would take in performing the Services, including a narrative that illustrates how the Respondent will:
  - Develop and implement quality management systems; environment management programs; project implementation plans; and Community and stakeholder relations programs.
  - Successfully manage a large multidisciplinary consulting team.
  - Identify and Manage risks throughout the design process.
- A choice of a conceptual sketch, infographic or diagram to visually represent the team's vision for this assignment on an 8.5" x 11" sheet of paper.
- A high-level timeline should be included.

**Limit to 5 pages.**

**5. Value-added Information**

What other information is not requested here but you think the City should consider for inclusion in the Terms of Reference ( RFP stage) and evaluating your submission?

**Limit to 2 pages**

**6. Submitted By:**

Full Legal Name of Respondent \_\_\_\_\_

Business Address \_\_\_\_\_

Contact Person for Respondent \_\_\_\_\_

Business Phone No. \_\_\_\_\_ Business Fax No. \_\_\_\_\_ Business Email: \_\_\_\_\_

**I/We confirm** that this Submission is accurate and true to best of my/our knowledge.

This Submission is submitted on \_\_\_\_\_ day of \_\_\_\_\_, 2019.

I/We have the authority to bind the Respondent.

\_\_\_\_\_  
(Name of Respondent)

\_\_\_\_\_  
(Name of Respondent)

\_\_\_\_\_  
(Signature of Authorized Signatory)

\_\_\_\_\_  
(Signature of Authorized Signatory)

\_\_\_\_\_  
(Print Name and Position of Authorized Signatory)

\_\_\_\_\_  
(Print Name and Position of Authorized Signatory)

**ATTACHMENT – 1: Table 1 and Table 2 - Project Schedule**

**ATTACHMENT – 2: Table 3 – Respondent’s Consultant Team Matrix Example**

**ATTACHMENT – 3: Table 4 – Key Project Personnel**

**ATTACHMENT – 4: Table 5 – Demonstrated Project Experience**

## **ATTACHMENT – 1: Project Schedule**

### **Estimated submission and review timeline (Table 1)**

The City anticipates that project review and award will proceed along the following timeline:

<b>Activity</b>	<b>Date</b>
Release of RFEI/SOQ	September 26, 2019
Responses to RFEI/SOQ Due	October 25 2019
Announcement of Preferred Respondents	November 25, 2019

### **Estimated project timeline after announcement of Preferred Respondents (Table 2)**

<b>Activity</b>	<b>Date</b>
RFP Issued	December 9, 2019
Responses to RFP Due	January 16, 2020
Announcement of Successful Applicant	February 2020
Conceptual Design workshop with key stakeholders	March 2020
Preliminary Design workshop with internal stakeholder	March 2020
Submission of Project Description to FLNRORD	Early 2021
Project Completion	Late 2025



ATTACHMENT – 2: Respondent’s Consultant Team Matrix Example

Table 3 – Respondent’s Consultant Team Matrix Example														
<div>Professional field</div> <div>Consultant team</div>	High Consequence Dyke and Flood Box Experience	Structural	Civil	Archaeology	Landscape Architecture	Urban Design	Hydrodynamic Modelling	High Capacity Pump Station	Transportation Engineering And Bridge Design	Environment Impact Assessments	Constructability Review	Seismic Engineering	Steel Pipe Design Experience	... (add columns as needed matching requirements and qualifications)
Consultant team A	X						X							
Consultant team B							X							
Sub-consultant team A													X	
Sub-consultant team B	X												X	
... (add rows as needed)														

Notes:

### ATTACHMENT – 3: Key Project Personnel

**Table 4 – Key Project Personnel**

Table 4 – Key Project Personnel						
Name	Title or position	Project Role and Responsibility	Consultant team (as per Table 3)	Years with company	Discipline of experience and professional affiliation	Hourly fee

ATTACHMENT – 4: (Table 5) Demonstrated Project Experience

Project Title	Description or Scope of Work	Year initiated	Year completed	Consulting Team As per Table 3	Project Size	Project Team As Per Table 4	Project Team roles showing relevant experience as described in the Scope of Work

## **SCHEDULE C: DMAF PROJECT OVERVIEW AND SELECT DMAF PROJECT COMPONENTS**



#	Name	Asset Type	Hazard Mitigation (flood, seismic, drought)	Community Co-benefits	Values Protected (economy, infrastructure, environment, communities)
1	Colebrook Dyke Upgrades	Coastal Dyke		Recreation, bird watching, food security	
2	Colebrook Drainage Pump Station Replacement	Drainage Pump Station		Increased agricultural productivity and food security	
3	Sea Dam – Serpentine River	Sea Dam (drainage and irrigation)		Agriculture irrigation, fish passage, worker safety	
4	152 St Road Upgrades and Raising	Integrity of Transportation Network and Asset		Congestion relief, transportation safety, accommodate growth, cycling, pedestrian	
5	Nicomekl Riverfront Park - Phase 1	Flood storage alternative to riverine dyking		Recreation (blue way), nature trails, wetlands, culture, open space	
6	King George Boulevard Bridge and Nicomekl River Sea Dam Replacement	Arterial Bridge (integrated with one sea dam) Integrity of Transportation Network and Asset		Congestion relief, transportation safety, accommodate growth, cycling, pedestrian, integrated to Nicomekl Park, fish passage, agriculture irrigation	
7	Crescent Beach Storm Sewer System Upgrades - Perforated Piping	Flood Protection increases transportation resilience		Street beautification/ road improvements, transportation safety	
8	Dyking - Lower reaches of Nicomekl and Serpentine	Flood Protection (nuisance and extreme event)		Food security and transportation flood safety	
9	Serpentine SRY Rail Link Bridge Replacement and Dyking	Flood Protection (nuisance and extreme event)		Economy (freight and heritage railway), worker safety and goods movement	
10	Burrows Drainage Pump Station Flood-proofing	Drainage Pump Station		Increased agricultural productivity and food security	
11	Stewart Farm Sanitary Pump Station Coastal Flood Proofing	Integrity of Sanitary Sewer Network		Sanitation, worker safety and water quality	
12	Campbell River Pedestrian and Emergency Access Bridge Replacement	Integrity of Transportation Network		Emergency access, Multi Use Path	
13	Foreshore Enhancements	Structural and nature based flood control and environmental enhancements		Wetlands (birds, fish, clams) and food security	

## City of Surrey – Serpentine Sea Dam

Over one hundred years ago, early settlers constructed two dams to reclaim fertile land for agriculture, provide a source of irrigation and provide transportation crossings for the Semiahmoo Trail.

Throughout the hundred year service life of the dams, Surrey's population has increased by 500,000 and significant regional infrastructure has been built behind the dams in low-lying areas.

The Serpentine Sea dam will be over topped as a result of projected sea level rise from Climate Change and is a significant coastal flood vulnerability. The dam also poses the largest seismic vulnerability to the City's Drainage System. The complexity of rebuilding the dam after an earthquake would take many years and would be devastating for the community. It would damage the local and regional transportation network, impacting over 200,000 daily trips and billions of dollars of goods movement.

Serpentine Sea dam at high tide with gates closed



Preliminary design of the dam is complete and incorporates climate and seismic resilience with a higher crest elevation, adjustable flood gates to adapt to rising water levels and a robust foundation and dyke tie-in to resist an extreme earthquake. Community consultation on long-term coastal climate change has identified the preferred locations of the dams. The estimated budget required to replace the dams is \$18M. Discussion is underway with Ministry of Transportation and Infrastructure to integrate with Provincial plans.

Today, the dams support a number of important services to the community including:

- *Flood Control*: Keeps out storm surges and high tides from backing up the rivers and flooding 2,000 Ha upstream lands;
- *Irrigation*: Prevents brackish water from mixing with fresh water, supporting 38 authorized water licenses to extract up to 129.6 million cubic metres per year;
- *Transportation*: Provides water crossing for the King George Greenway and protects upstream bridges; and
- *Utility and Energy*: Protects upstream utilities.

Additional community benefits of replacement structures will be:

- Better fish passage to upstream habitat; and
- Improved drought management.

Serpentine Sea dam at low tide with gates open





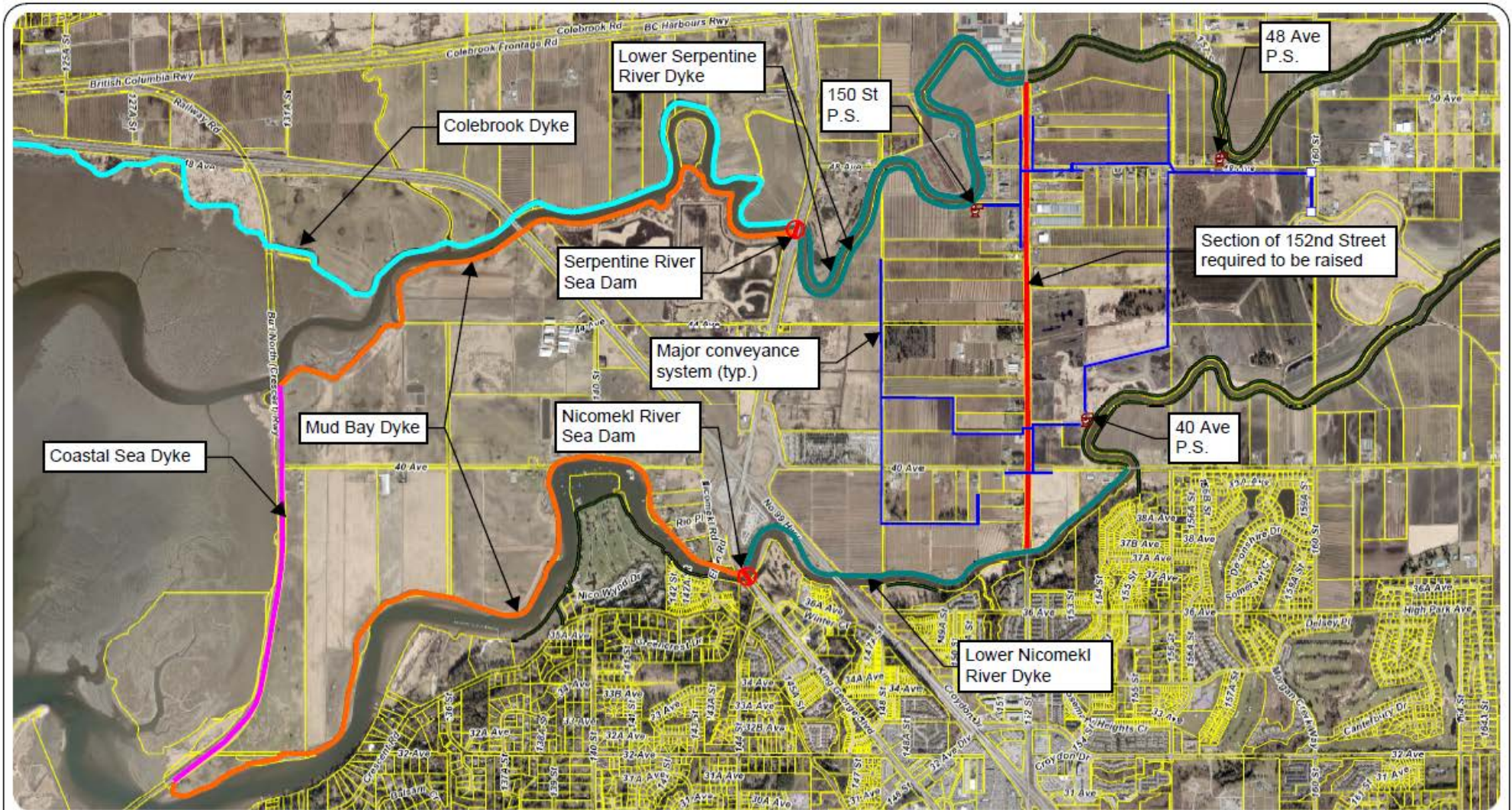


Figure-1

Scale: 1:20,000

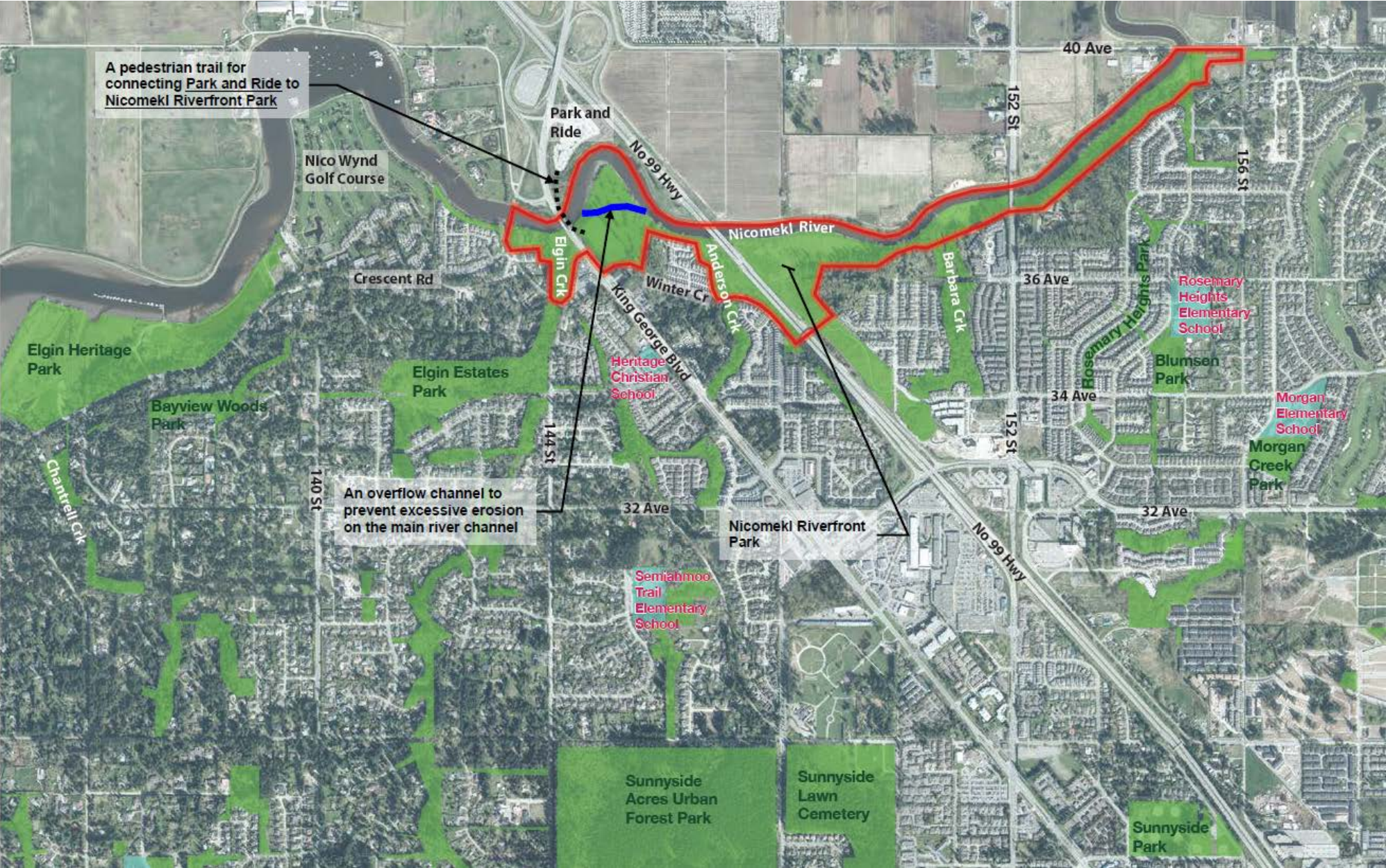
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0 0.2 0.4 0.6 1.2  
km

Map created on: 2019-07-22







## City of Surrey – Nicomekl King George Bridge & Sea Dam

The King George Boulevard Nicomekl River Bridge comprises of two separate structures south of the King George Boulevard and Highway 99 Interchange in Surrey, BC. The first structure carries two lanes of traffic (one southbound and one northbound) over the Nicomekl River. A bailey bridge is located immediately east (upstream) of the bridge and carries a second northbound lane of the King George Highway over the Nicomekl River. Built in 1939, the bridge is 56m long and comprises 11 timber trestle spans.

The Nicomekl Bridges provide a key link in the transportation network in Surrey and Metro Vancouver. King George Boulevard is one of only six north south connections between South Surrey and White Rock (total 114,000 pop.) and the rest of the Surrey (450,000 pop). It is a truck route for goods movement, emergency response corridor and forms part of TransLink's frequent transit network and Major Road Network.

The bridges are maintained by the Ministry of Transportation and Infrastructure (MoTI). MoTI have indicated that the life spans of the bridges are around 70 years old and that they are reaching the end of their serviceable life. The City has been working with MoTI to develop a plan to replace the existing bridges with a new modernized six lane structure that reserved transit vehicle lanes and multi-use path in each direction for pedestrians and cyclists.

Due to the ages of the bridges they are susceptible to multiple natural hazards. The existing bridges are projected to be overtopped due to sea level rise and challenging soil conditions making the bridges vulnerable in an earthquake. An adjacent Sea dam that mitigates coastal flooding is also increasingly becoming vulnerable to overtopping. Rebuilding the bridges and Sea dam after an earthquake would take years and interrupt an essential north-south connection in Surrey and White Rock.

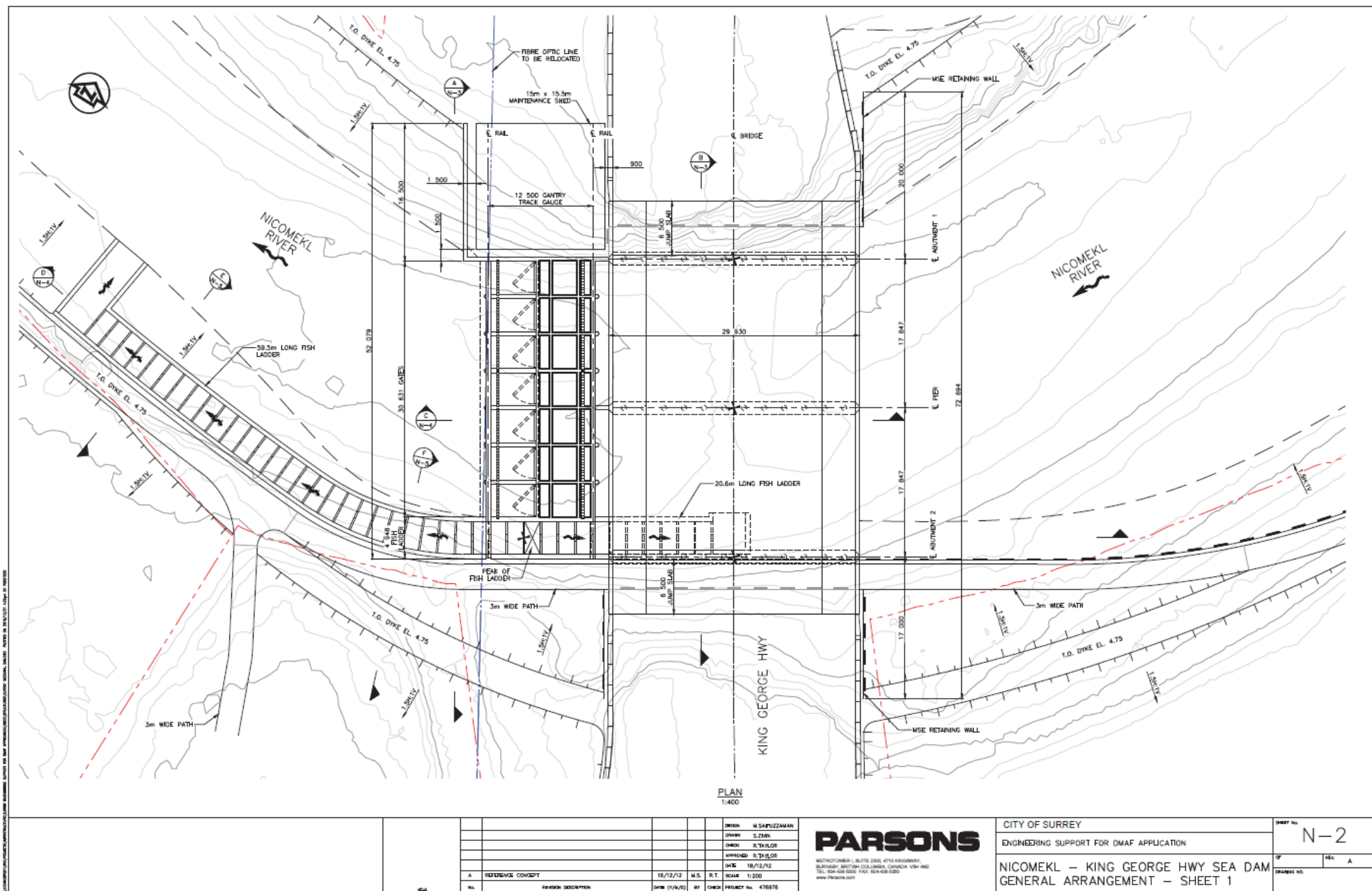
An innovative cost-saving solution that adapts multiple assets for a changing climate is proposed. A new resilient structure is proposed that combines the function of the Sea dam structure and needs for a King George Boulevard bridge with a robust foundation that will be fully functional after an extreme earthquake.

The combined replacement Sea Dam and bridges structure support a number of important services to the community including:

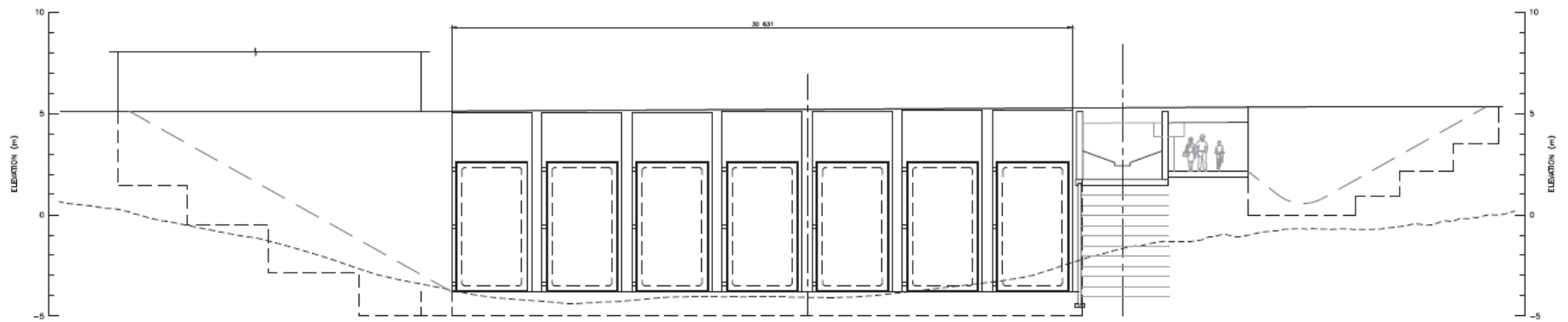
- *Flood Control:* Keeps out storm surges and high tides from backing up the rivers and flooding 2,000 Ha upstream lands;
- *Irrigation:* Prevents brackish water from mixing with fresh water, supporting 52 authorized water licenses to extract up to 4.6 million cubic metres per year; and
- *Essential Transportation:* Provides the King George and Elgin Road water crossings over the Nicomekl and Serpentine with an estimated traffic volume of 26,000 vehicles per day. Additional community benefits of replacement structures will be:
  - Enhanced wildlife and pedestrian access across transportation corridors. Supports connection to a planned 6 km continuous water path to offset reduced beach access from sea level rise and coastal flooding;
  - Better fish passage to over 100 km of habitat;
  - Improved drought management; and
  - Accessible design for cyclists and pedestrians.



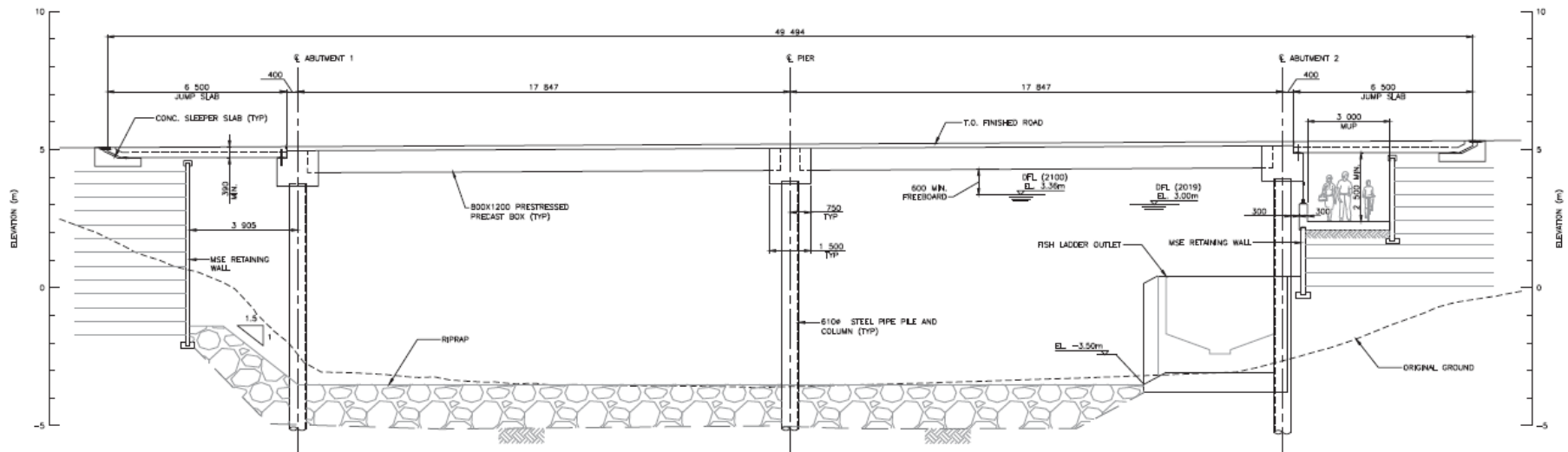
Existing Nicomekl Bridge







A ELEVATION  
N-3  
1:200



B SECTION  
N-3  
1:150

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										<div>DESIGN: M.SAPIZZAN</div> <div>DRAWN: S.TAM</div> <div>CHECKED: B.TAYLOR</div> <div>APPROVED: B.TAYLOR</div> <div>DATE: 18/12/12</div> <div>SCALE: 1:200</div> <div>PROJECT NO: 476976</div>		<div>CITY OF SURREY</div> <div>ENGINEERING SUPPORT FOR DMAF APPLICATION</div> <div>NICOMEKL – KING GEORGE HWY SEA DAM</div> <div>GENERAL ARRANGEMENT – SHEET 2</div>		<div>SHEET No.</div> <div>N-3</div> <div>OF</div> <div>15</div> <div>IN</div> <div>A</div> <div>DRAWING NO.</div>	
										<div>PROJECT OWNER: 1, BLVD 2000, 4715 KINGWAY,</div> <div>SURREY, BRITISH COLUMBIA, CANADA V3W 4R2</div> <div>TEL: 604-681-8000 FAX: 604-681-5500</div> <div>WWW.PARSONS.COM</div>					