

PUBLIC SERVICES AND PROCUREMENT CANADA

Professional and Technical Services, Real Property Services Branch, Pacific Region

Erosion Repairs	Addendum 001	September 29, 2021
Racing River km 641.1		Page 1
Project No. R.122128.002		
Liard River km 780		
Project No. R.117668.001		

The following changes/clarifications in the tender and tender documents are effective immediately. This addendum will form part of the contract documents.

Questions form Bidders and Responses:

Question 1:

Drawing C04 indicates that the embankment is to be excavated as shown on the different sections. It appears that the amount of material to be excavated is significant and should have its own line item. Can you please quantify the amount of embankment material and separate it from the placement of riprap?

Response 1:

Excavation requirements have been modified as part of Addendum 001. Excavation quantities will depend on the Contractors Work Plan and construction methodology.

Question 2:

The work is to be completed by November 15, 2021. With the bid closing on Sept 29 and award likely taking 5 days this will be difficult to achieve considering the submittals required to complete the project (fish salvage permits are >30 days right now). Is there flexibility in the completion date?

Response 2:

The contract completion date has been revised as part of Addendum 001.

Question 3:

The work is to be completed in-water. Are all permits in place or should we expect that additional time will be needed?

Response 3:

Work at the Racing River Bridge requires instream work, and a Letter of Advice has been received from Fisheries and Oceans Canada which is included in the updated Appendix as part of Amendment 001. Other permitting for the project is pending receipt. Refer to Section 01 35 43 Environmental Protection, Item 1.5.1 for further information.

Question 4:

As the work is going to be completed within the wet zone of the Liard River, will additional measures be needed to ensure safety working near water or sedimentation into the river?

Response 4:

The Contractor will be responsible for safety as described in Section 01 35 33 Health and Safety, and for Environmental protection is required as described in Section 01 35 43 Environmental Protection.

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Changes to the Tender Closing Date:

The closing date for the bid will be extended to October 21, 2021 Pacific Daylight Time (PDT)

Changes to the Specifications:

Explanation of Addendum Presentation: Changes to the Specifications and Changes to the Contract Drawings sections of this Addendum have been presented as follows:

- New text has been underlined for ease of identification.

1. Section: List of Contents

Delete:

List of Drawings Table

Insert:

List of Drawings Table

Drawing Number	<u>Revision Number</u>	Drawing Title
C01	<u>0</u>	Cover Sheet
C02	<u>0</u>	Racing River Bridge km 641.1 – General Arrangement and Riprap Details
C03	<u>1</u>	Liard River km 780 – General Arrangement
C04	<u>1</u>	Liard River km 780 – Sections 1 of 2
C05	<u>1</u>	Liard River km 780 – Sections 2 of 2

Delete:

Appendices Table

Insert:

Appendices Table

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Appendix	Description
A	Document Management
B	Project Specific Health and Safety Plan Template <i>Note: The Project Specific Health and Safety Plan Template is provided to assist the Contractor. PSPC takes no responsibility for the completeness of this template. The Contractor is responsible for verifying that all required information is provided in their Project Specific Health and Safety Plan.</i>
C	Category 2 Traffic Management Plan Template <i>Note: The Category 2 Traffic Management Plan Template is provided to assist the Contractor. PSPC takes no responsibility for the completeness of this template. The Contractor is responsible for verifying that all required information is provided in their Traffic Management Plan.</i>
D	On-site Construction Start-up Form
E	Progress Payment Submittal Form
F	Measurement for Payment Survey Details Form
G	General Contractor & Sub-Contractor Construction Equipment List
H	Environmental Protection Plan (EPP) – Checklist
I	Relevant Environmental Publications
J	Environmental Overview Assessment – Racing River Bridge Pier Erosion Repair KM 641.1, Alaska Highway, British Columbia
K	Environmental Overview Assessment – Liard River Erosion Control Work KM 780 Alaska Highway, British Columbia
<u>L</u>	<u>Environmental Permits</u>
<u>M</u>	<u>Site Photos – Racing River</u>
<u>N</u>	<u>Site Photos – Liard River</u>

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2. Section 01 11 55 - General Instructions

Delete:

Section 1.5 - Time of Completion, Item .1.1

Insert:

Section 1.5 - Time of Completion Item .1.1

.1.1 All Work under this Contract shall be complete by March 15, 2022.

Delete:

Section 1.6 – Summary of Work, Item .2.3.1

Insert:

Section 1.6 – Summary of Work, Item .2.3.1

.2.3.1 Earthworks including minor clearing, topsoil stripping, excavation and trimming of slopes for site access, hauling and stockpiling of material off site (location provided by PSPC), topsoil placement, and seeding,

Insert:

Section 1.9 – Adverse Work Conditions, Item .4

.4 This contract will be completed in winter conditions and it is expected that work will continue through normal freezing temperatures or snowfall. Earthwork will require additional effort to complete to a satisfactory level of quality. The Departmental Representative will take winter conditions into consideration when reviewing quality of work given that topsoil work, slope trimming, and grading is done to the extent possible given the conditions.

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3. Section 01 29 01 – Method of Measurement and Payment

Delete:

Section 3.4 – Hydraulic Seeding

Insert:

Section 3.4 – Broadcast Seeding

.1 MEASUREMENT: Based on the surveyed in-place area of Broadcast Seeding accepted by the Departmental Representative. Payment will be made based on the surveyed area of Broadcast Seeding placed in square meters.

.2 PAYMENT: Based on the unit price per square meter of Broadcast Seeding placed. Payment shall include supply and installation of Broadcast Seeding, and any ancillary work.

4. Section 01 35 43 – Environmental Protection

Insert:

Section 1.5 – Regulatory Overview, Item .1.1

.1.1 A letter has been received from Fisheries and Oceans Canada for the proposed work at Racing River. Other permitting is pending review of the regulatory agencies.

Insert:

Section 1.8 – Site Access and Parking, Item .4

.4 At Racing River the Contractor shall access the site from the existing access road located on the south side of the highway, approximately 250 m west of the bridge. Disturbance to existing ground for site access will only be permitted upon approval from the Departmental Representative.

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Insert:

Section 1.8 – Site Access and Parking, Item .5

.5 At Liard River there are potential historical resources in the area. The Contractor shall not disturb the ground, trees, or vegetation in the treed areas north or south of the site, or on the opposite side of the highway without prior written approval from the Departmental Representative. Disturbance to the existing ground and embankment for site access shall be minimized.

5. Section 31 00 99 – Earthwork for Minor Works

Delete:

Section 1.4 – Protection, Item .1

Insert:

Section 1.5 – Detailed Work Plan. Re-number following sections.

.1 The Contractor shall prepare and submit a Detailed Work Plan for review prior to the pre-construction meeting.

.2 The Contractor's Work Plan shall include details to ensure safe, stable excavations and shall consider construction during freezing conditions. Details shall include, but are not limited to the following items:

- .1 the complete proposed methodology for stable excavation operations,
- .2 description of each work phase,
- .3 details of site access from the highway and across the embankment including sketches with excavation slopes and approximate elevations,
- .4 recommendations from a geotechnical engineer registered in the province of British Columbia if required by WorkSafeBC,
- .5 regular slope monitoring and procedures if slope instability is discovered,
- .6 stockpile locations for excavated material, riprap, and backfill material,
- .7 backfill placement operations,
- .8 methods to prevent soil and other materials from falling into the river,
- .9 use 'benched' excavation slopes where possible to facilitate backfill stability.

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.3 Excavation work shall not commence until the Contractor's Detailed Work Plan has been reviewed and accepted by the Departmental Representative.

Delete:

Section 3.2 – Excavation, Item .2.1

Delete:

Section 3.2 – Excavation, Item .2.4

Insert:

Section 3.2 – Excavation, Item .2.4

.2.4 Strip and separate topsoil to the extent possible given frozen working conditions.

Insert:

Section 3.2 – Excavation, Item .2.8

.2.8 The stockpile may be on-site for several seasons and shall be protected from erosion loss. Use silt fence to create a semi-permanent perimeter around the stockpile location to prevent loss of soil.

Re-Name:

Section 3.6 – “Shortage and Handling” to

Section 3.6 – “Storage and Handling”

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Delete:

Section 3.6 – Storage and Handling, Item .2

Insert:

Section 3.6 – Storage and Handling, Item .2

.2 At Liard River, dispose of surplus aggregate material and soils off site at the Mould Creek pit at a location designated by the Departmental Representative. The quantity of surplus material required for disposal will depend on the Contractors specific work plan and operations.

6. Section 32 91 19 – Topsoil Placement and Grading

Delete:

Section 32 91 19 – Topsoil Placement and Grading.

7. Section 32 92 19 – Hydraulic Seeding

Delete:

Section 32 92 19 – Hydraulic Seeding.

Insert

Section 32 92 19.14 – Broadcast Seeding

1 GENERAL

1.1 Related Requirements

.1 Section 31 00 99 Earthworks for Minor Works.

1.2 Measurement and Payment

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.1 Measurement and Payment for Broadcast Seeding will be made in accordance with Section 01 29 01 Method of Measurement and Payment.

1.3 Action and Informational Submittals

.1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:

.1 Submit manufacturer's instructions, printed product literature and data sheets for seed.

.3 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

.4 Test Reports: submit certified test reports showing compliance with specified performance characteristics and physical properties.

2 PRODUCTS

2.1 Grass Seed

.1 Canada "Certified" seed in accordance with Government of Canada "Seeds Act" and "Seeds Regulations".

.1 Mixture composition: 100% Annual Ryegrass

.1 In packages individually labelled in accordance with "Seeds Regulations" and indicating name of supplier.

3 EXECUTION

3.1 Examination

.1 Verification of Conditions: verify conditions of substrate previously installed under other Sections or Contracts are acceptable for seeding in accordance with manufacturer's written instructions.

.1 Visually inspect substrate in presence of Departmental Representative

.2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.

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- .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of approval to proceed from the Departmental Representative.

3.2 Seed Bed Preparation

- .1 Final grading and bed preparation shall be done to the extent possible in frozen conditions.
- .2 Remove and dispose of weeds; debris; stones 50 mm in diameter and larger; soil contaminated by oil, gasoline and other deleterious materials.
- 3 Verify that grades are correct. If discrepancies occur, notify the Departmental Representative and commence work when instructed by the Departmental Representative.

3.3 Seed Placement

- .1 For manual (broadcast) seeding:
 - .1 Use manually operated drop seeder ("Cyclone" type or equivalent).
 - .2 Use manually operated, water ballast, landscaping type, smooth steel drum roller. Ballast as directed by the Departmental Representative.
 - .3 Use equipment and method acceptable to the Departmental Representative.
- .2 On disturbed surfaces, sow seed uniformly at rate of:
 - .1 50 kg/hectare Annual Ryegrass

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Changes to the Contract Drawings

Delete:

Sheet C01 – Cover Sheet – Rev 0 – Issued for Tender – Dated: August 7, 2021

Sheet C03 – Cover Sheet – Rev 0 – Liard River km 780 – General Arrangement – Dated: August 7, 2021

Sheet C04 – Cover Sheet – Rev 0 – Liard River km 780 – Sections 1 of 2 – Dated: August 7, 2021

Sheet C05 – Cover Sheet – Rev 0 – Liard River km 780 – Sections 2 of 2 – Dated: August 7, 2021

Insert:

Sheet C03 – Cover Sheet – Rev 1 – Liard River km 780 – General Arrangement – Dated: September 29, 2021

Sheet C04 – Cover Sheet – Rev 1 – Liard River km 780 – Sections 1 of 2 – Dated: September 29, 2021

Sheet C05 – Cover Sheet – Rev 1 – Liard River km 780 – Sections 2 of 2 – Dated: September 29, 2021

Changes to the Appendix

Insert:

Appendix L: Environmental Permits

Appendix M: Site Photos – Racing River

Appendix N: Site Photos – Liard River

All other terms and conditions remain unchanged.

End of Addendum 001

Erosion Repairs

Appendices

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Appendix L

Environmental Permits



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Pacific Region
Ecosystem Management Branch
200 – 401 Burrard Street
Vancouver, BC
V6C 3S4

Région du Pacifique
Direction de la gestion des écosystèmes
Pièce 200 – 401 rue Burrard
Vancouver (C.-B.)
V6C 3S4

September 2, 2021

Our file *Notre référence*
21-HPAC-01002

Public Services and Procurement Canada
Attention: Laurie Crawford, Environmental Coordinator
219 – 800 Burrard Street
Vancouver, BC
V6Z 0B9

Via email: laurie.crawford@pwgsc.gc.ca

Dear Laurie Crawford,

Subject: Pier Erosion Protection Repairs at Racing River Bridge on Alaska Highway (km 641.1) near Toad River, BC – Implementation of Measures to Avoid and Mitigate the Potential for Prohibited Effects to Fish and Fish Habitat

The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your proposal on August 26, 2021. We understand that you propose to conduct erosion protection repairs at the centre pier of the Racing River Bridge on Alaska Highway (km 641.1) near Toad River, BC. The works will mainly involve the following:

- A fish salvage followed by diverting water from the channel west of the centre pier into the channel east of the centre pier to dewater the equipment access route through the west channel and laying down of rig matting.
- Removal and salvage of existing riprap around the centre pier and stockpiling the riprap out of water.
- Excavate and salvage any existing material around the centre pier down to the bottom of the riprap elevation with a 1.5H:1V backslope and stockpiling the excavated material out of water.
- Laying down of non-woven geotextile on the excavated surface around the centre pier followed by placement of riprap armour layer 2.8 m thick at 1.5V:1V slope while filling the void underneath the concrete collar of the centre pier with salvaged channel material.
- Removal of rig matting and restoration of west channel substrate as necessary.
- Seeding of exposed soils along the riverbank with a native grass seed mix.

Our review considered the following information:

- The Fisheries and Oceans Canada Request for Review form completed and signed by Laurie Crawford dated August 24, 2021 and supporting documents.
- The WSP Canada Inc. document titled “Public Services and Procurement Canada Environmental Overview Assessment Racing River Bridge Pier Erosion Protection KM 641.1 Alaska Highway, British Columbia” dated July 12, 2021 and Appendices.
- The WSP Canada Inc. document titled “Racing River Bridge Pier Erosion Repairs, KM 641.1, Alaska Highway, BC Draft Options Report Public Services and Procurement Canada” Draft dated April 16, 2021.

We understand the following aquatic species listed under the *Species at Risk Act* may use the area in the vicinity of where your proposal is to be located:

Species at Risk Act Listed as Special Concern:

- Bull Trout

Your proposal has been reviewed to determine whether it is likely to result in:

- the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat which are prohibited under subsections 34.4(1) and 35(1) of the *Fisheries Act*; and
- effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the *Species at Risk Act*.

The aforementioned outcomes are prohibited unless authorized under their respective legislation and regulations.

To avoid and mitigate the potential for the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat, it is important that all proposed measures are implemented as set out in the information that was submitted to the Program in relation to your project. In addition, we recommend implementing the measures listed below to avoid and mitigate the potential for the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat. If there is a conflict between the proposed measures as set out in the information that was submitted to the Program and the following measures, the following measures shall prevail.

- The disturbance to riparian vegetation and aquatic habitat should be kept to a minimum during the works.
- Plan in-water works, undertakings and activities during appropriate times of the year to protect harm to fish, including their eggs, juveniles, and spawning adults.
- Works should be conducted when the work footprint in the watercourse channel is dry. If works cannot be conducted when the work footprint in the watercourse channel is dry, works should be conducted in isolation of flow in accordance with DFO's interim code of practice for Temporary cofferdams and diversion channels (<https://www.dfo-mpo.gc.ca/pnw-ppe/codes/cofferdams-batardeaux-eng.html>) and including implementation of the following measures:
 - An appropriately qualified professional is to conduct a fish salvage of the isolated work area. Choose low impact salvage methods such as minnow trapping and seining before opting for higher impact electrofishing. In the event that isolation is breached, stop work and repeat fish salvage efforts.
 - Dewater the isolated area gradually to reduce the potential for stranding fish.
 - Ensure any pumps are screened to prevent entrainment or impingement of fish in accordance with DFO's interim code of practice for End-of-pipe Fish Protection Screens for Small Water Intakes in Freshwater (<https://www.dfo-mpo.gc.ca/pnw-ppe/codes/screen-ecran-eng.html>).
 - When diverting creek flows, maintain an appropriate depth and flow (i.e., base flow) for the protection of fish and fish habitat, both upstream and downstream of the isolated work area.
- Complete the works as quickly as possible once they are started.
- Undertake works during dry weather and low water conditions.
- Equipment is to be situated in the dry stream channel within the footprint of the works or operated from the top of the bank.
- Fish passage is to be maintained upon completion of the works.
- Ensure that material such as rock, riprap, or other materials placed on the banks or within the active channel or floodplain of the watercourse is inert and free of silt, overburden, debris, or other substances deleterious to aquatic life.

- Minimize the introduction of sediments (e.g., silts, clays and sand) into the watercourse or downstream reaches of the watercourse.
- Develop and implement an erosion and sediment control plan to avoid and minimize the introduction of sediment into or induced sedimentation in the watercourse.
- Do not deposit any substances deleterious to fish or fish habitat directly or indirectly into the watercourse or downstream reaches of the watercourse.
- Develop and implement a response plan to avoid a spill of deleterious substances into the watercourse.
- It is recommended that a Qualified Environmental Professional (QEP) be on site for all sensitive and high risk works (i.e., site isolation, fish salvage, in-water works). The QEP should to monitor for compliance with the *Fisheries Act* and to ensure appropriate implementation of environmental best management practices during construction (e.g., DFO's Measures to Protect Fish Habitat: <https://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html>).

Provided that you incorporate these measures into your plans, the Program is of the view that your proposal is not likely to result in the contravention of the above mentioned prohibitions and requirements.

Should your plans change or if you have omitted some information in your proposal, further review by the Program may be required. Consult our website (<http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>) or consult with a qualified environmental consultant to determine if further review may be necessary. It remains your responsibility to remain in compliance with the *Fisheries Act*, the *Species at Risk Act* and the *Aquatic Invasive Species Regulations*.

It is also your Duty to Notify DFO if you have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat. Such notifications should be directed to the DFO-Pacific Observe, Record and Report phone line at 1-800-465-4336 or by email at DFO.ORR-ONS.MPO@dfo-mpo.gc.ca.

We recommend that you notify this office before starting your project and that a copy of this letter be kept on site while the work is in progress. It remains your responsibility to meet all other federal, territorial, provincial and municipal requirements that apply to your proposal.

Please note that the advice provided in this letter will remain valid for a period of 1 year from the date of issuance. If you plan to execute your proposal after the expiry of this letter, we recommend that you contact the Program to ensure that the advice remains up-to-date and accurate. Furthermore, the validity of the advice is also subject to there being no change in the relevant aquatic environment, including any legal protection orders or designations, during the 1 year period.

If you have any questions with the content of this letter, please contact the Fish and Fish Habitat Protection Program – Triage Unit by email at ReferralsPacific@dfo-mpo.gc.ca. **Please refer to the file number referenced above when corresponding with the Program.**

Sincerely,



Brian Naito
Senior Biologist
Fish and Fish Habitat Protection Program

cc: S. Blundell, WSP Canada Inc. (Susan.Blundell@wsp.com)

Erosion Repairs

Appendices

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Appendix M

Site Photos - Racing River



P01 - Looking downstream, square to bridge, taken from air 1



P02 - Looking downstream, square to bridge, taken from air 2



P03 - Looking downstream, parallel to River, taken from air 1



P04 - Looking downstream, parallel to River, taken from air 2



P05 - Existing central pier, looking downstream



P06 - Side view of existing pier nose (looking towards Watson Lake)



P07 - Side view of existing pier (looking towards Watson Lake)



P08 - Side view of existing pier, looking upstream (looking towards Watson Lake)



P09 - Side view of existing pier (looking towards Fort Nelson) 1



P10 - Side view of existing pier (looking towards Fort Nelson) 2



P11 - Side view of existing pier (looking towards Fort Nelson) 3



P12 - Side view of existing pier, looking upstream (looking towards Fort Nelson)

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Appendices

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Appendix N

Site Photos - Liard River



P01 - Looking upstream, taken from air



P02 - Zoomed in view of highway embankment 1



P03 - Zoomed in view of highway embankment 2



P04 - Zoomed in view of highway embankment 3



P05 - Looking downstream, taken from air



P06 - Looking downstream, taken from embankment



P07 - Existing vegetation on highway embankment, looking upstream



P08 - Eroded slope