



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Bid Receiving Public Works and Government
Services Canada/Réception des soumissions Travaux
publics et Services gouvernementaux Canada
800 Burrard Street, Room 219
800, rue Burrard, pièce 219
Vancouver
British Columbia
V6Z 0B9
Bid Fax: (604) 775-9381

**SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise
indicated, all other terms and conditions of the Solicitation
remain the same.

Ce document est par la présente révisé; sauf indication contraire,
les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Public Works and Government Services Canada - Pacific
Region
800 Burrard Street, Room 219
800, rue Burrard, pièce 219
Vancouver
British C
V6Z 0B9

Title - Sujet Upscheek Tashee Trail Construction	
Solicitation No. - N° de l'invitation 5P437-190013/B	Amendment No. - N° modif. 001
Client Reference No. - N° de référence du client 5P437-190013	Date 2019-03-08
GETS Reference No. - N° de référence de SEAG PW-\$PWY-019-8566	
File No. - N° de dossier PWY-8-41204 (019)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2019-04-03	Time Zone Fuseau horaire Pacific Daylight Saving Time PDT
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Ngan, Ken (PWY)	Buyer Id - Id de l'acheteur pwy019
Telephone No. - N° de téléphone (604) 671-0219 ()	FAX No. - N° de FAX (604) 775-6633
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Parks Canada (PCA) - Upscheek Tashee Trail - Pacific Rim National Park - Ucluelet, BC	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

Solicitation No. - N° de l'invitation
5P437-190013/B
Client Ref. No. - N° de réf. du client

Amd. No. - N° de la modif
001
File No. - N° du dossier
PWY-8-41204

Buyer ID - Id de l'acheteur
PWY019
CCC No./N° CCC - FMS No./N° VME

Les documents français seront disponibles sur demande.

This Solicitation Amendment 001 is raised to incorporate the Bidders' Conference and Site Visit Attendee List, to incorporate Addendum 1, and the associated revised Unit Price Table.

Please find following the Bidders' Conference and Site Visit Attendee List, Addendum 1, and revised Unit Price Table.

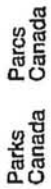
This revised Unit Price Table supersedes any previous versions. Failure to complete and submit this revised Unit Price Table along with the bid submission will rendered the bid submission NON-COMPLIANT and will be given NO further consideration.

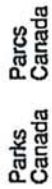
All other terms and conditions remain unchanged.

SITE VISIT ATTENDANCE SHEET

Solicitation No: 5P437-190013/B		Project: ᑕᐱᓂᓕᓕᓕᓕ ᓂᐱᓕᓕ (ups-cheek ta-shee) Trail Bed Construction		Date & Time: March 6th at 11am
Contracting Office or Project Manager: Ken Ngan, PSPC		Representative's Name		Location: Ucluelet Community Centre
Date	Vendor / Firm Name	Telephone No.	Signature	
March 6	NCL	740.7720		
"	SHR	202 2492		
"	Copean Civil Ltd.	250-754-7260		
"	TestuCaron	604 314 9162		
"	IWC	250-585-0719		
"	BBIP Consulting	250-816-5358		
March 8	Roc-Star	250-205-0336		
March 19	Black White	250-384-8032		
March 20	Tillers Trucking LTD	250-735-8787		
"	SuperSign	604 3546219		
"	TAIEX	778-995-4907		
Mar 6	Canlex	250 550 8214		
Mar 6	Canlex	250.809.2008		
"	TestuCaron	250-818-9155		

Brian Sweet
 Katherine PARKIN
 Chris Buchholz

[illegible]

[illegible]

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

1.0 REQUEST FOR PROPOSAL document, APPENDIX 1 – COMBINED PRICE FORM, Unit Price Table:

The “Specification Reference” is corrected for the following items in the Unit Price Table:

- Items 21, 22, and 23 Reference Specification 03 41 00 is deleted and replaced with 03 30 00 – Cast-in-place Concrete;
- Items 24, 25, 26, and 27 Reference Specification 03 20 01 is deleted and replaced with 03 41 01 – Erection and Installation of Bridge and Boardwalk;
- Item 30 Reference Specification 05 12 33 is deleted and replaced with 05 51 00 – Metal Fabrication and Installation for Gates and Handrails;
- Item 87 Reference Specification 32 01 16.7 is deleted and replaced with 32 01 16.9 – Asphalt Saw Cutting and Removal.

An updated Unit Price Table is included in this addendum with revisions in red text.

2.0 SECTION 01 35 00 SPECIAL PROCEDURES FOR TRAFFIC CONTROL - CLAUSE 1.2.5:

Delete the following: “The Contractor shall notify the DR and Parks Administration 14 days in advance of any lane or road closures”.

Replace with the following (Revisions shown in **RED**): “The Contractor shall notify the DR and Parks Administration **and submit the TMP 3 weeks in** advance of any lane or road closures.”

3.0 SECTION 01 35 43 ENVIRONMENTAL PROCEDURES - CLAUSE 1.9 AMPHIBIAN HABITAT PROTECTION AND SLAVAGE:

In Clause 1.9.1 Delete the following: “Amphibians and their habitat are widespread within PRNPR and could be present throughout the entire area of the trail, road ditch and bridge works. There are 7 amphibian species that may breed or migrating in the Project area including 3 that are Species At Risk. The timing of amphibian breeding and migrations are known in a broad sense, but the exact onset and ending of each breeding and migratory period varies from year to year (i.e., can be difficult to predict) as they are largely weather dependent. Pulses of migrating amphibians could come into direct conflict with machinery and crews during trail construction, putting a relatively large proportion of amphibians at risk. Work is restricted to the month of August when weather is forecast to be dry at the locations listed in Table 4 to help safeguard amphibians. All works, including the placement of any barrier, are prohibited in months other than August for locations listed in Table 4, inclusive in all years. At the discretion and authorization of the DR and OEM, the Contractor may undertake works at other times of the year in some or all of the areas listed in Table 4 if amphibian migration or breeding is not active, however such authorization may be rescinded without advance notice and the Contractor shall stop all work immediately in these areas and remove all equipment and materials. No consideration for additional payment or claims will be considered for rescinding such authorization.”

Replace with the following (Revisions shown in **RED**): “Amphibians and their habitat are widespread within PRNPR and could be present throughout the entire area of the trail, road ditch and bridge works. There are 7 amphibian species that may breed or migrating in the Project area including 3 that are Species At Risk. The timing of amphibian breeding and migrations are known in a broad sense, but the exact onset and ending of each breeding and migratory period varies from year to year **and are** difficult to predict as they are largely weather dependent. Pulses of migrating amphibians could come into direct conflict with machinery and crews during trail construction, putting a relatively large proportion of amphibians at risk. Work is restricted to **occur between July 1 and September 15** when weather is forecast to be dry at the locations listed in Table 4 to help safeguard amphibians. **A forecast of rain, or rain will require the Contractor to temporarily shut down in the areas listed in Table 4.** All works, including the placement of any barrier, are prohibited in months other than August for locations listed in Table 4, inclusive in all years. At the discretion and authorization of the DR and OEM, the Contractor may undertake works at other times of the year in some or all of the areas listed in Table 4 if amphibian migration or breeding is not active, however such authorization may be rescinded without advance notice and the Contractor shall stop all work immediately in these areas and remove all equipment and materials. No consideration for additional payment or claims will be considered for rescinding such authorization.”

In Clause 1.9.5 Delete the following: “The Contractor shall make allowances (ie. reduced work speed) during construction activities for the OEM to visually monitor for amphibians during the removal of stumps and large woody debris (LWD). This is anticipated to require approximately 10 minutes per stump or LWD.”

Replace with the following (Revisions shown in **RED**): “The Contractor shall make allowances (ie. reduced work speed) during construction activities for the OEM to visually monitor for amphibians during the removal of stumps and large woody debris (LWD). This is anticipated to require approximately 10 minutes **on average** per stump or LWD. **This will be required for the entire length of the trail. However, longest durations would be expected in areas noted in Table 4 and for large/decaying stumps and LWD. OEM will flag stumps/LWD requiring visually monitoring in advance of construction activities.**”

4.0 QUESTIONS RECEIVED FROM PROSPECTIVE BIDDERS:

- | | |
|---------------------|---|
| 1. Question: | Will the OEM be able to support/monitor multiple construction sites to match the contractor's operations? |
| Answer: | Yes. |
| 2. Question: | Are there spoil/quarry location already identified? |
| Answer: | Organic and mineral soils excavated from archeological sites shall be taken to either the Tofino Airport or the Grice Bay parking lot site, as directed by the Departmental Representative. Surplus organic excavation not contaminated with invasive species of plants can be disposed of at the Tofino Airport. Surplus contaminated organics, generally roadside materials, and surplus mineral excavation shall be disposed of outside of the park at sites arranged and paid for by the Contractor. Quarries and gravel supplies shall be arranged and paid for by the Contractor. |
| 3. Question: | Who will be the Departmental Representative (DR)? |
| Answer: | The DR will be a Parsons employee with construction and administrative experience acceptable to Parks Canada. The Owners Environmental Monitor (OEM) and Owners |
-

Archeological Monitor (OAM) will be appointed and paid by Parks Canada and work through the DR to provide direction to the Contractor.

- 4. Question:** Does the contractor do both fish & amphibian isolation and salvage work?
Answer: The OEM is responsible for both the isolation and the salvage work. Refer to Section 01 35 43 “Environmental Procedures” clause 1.8.
- 5. Question:** During construction, if the contractor comes across a cultural resource site (ex.CMT) and is required to stop work, is this cost recoverable?
Answer: As per Section 01 35 44 “Cultural Resource Procedures” in known Cultural Resource Site, standby times as described in Clause 1.6.5 shall be included in the unit rates for excavation of organic materials. It is estimated that standby time will not be needed for excavation of mineral soils so standby time would be an additional cost to this work. Where the Contractor comes upon a previously unidentified Cultural Resource Site, including previously unidentified CMT’s, and is ordered to stop work, the standby time costs are recoverable. As per section 1.9.4 of the “Cultural Resource Procedures” the costs associated with hand falling and hand sectioning of and around CMTs is incidental to the work.
- 6. Question:** Is it possible to email or fax a bid amendment?
Answer: Revision of proposals cannot be submitted by fax or email. Proposals, including revisions, submitted by fax or email will not be accepted, and will be deemed as NON-COMPLIANT and be given NO further consideration. Please refer to SI08 Submission of Proposal – Paragraph 7, and SI10 Revision of Proposal of the Request for Proposal document.
- 7. Question:** Is a bid and performance bond required?
Answer: Bid security is required with the bid in the form of a bid bond or a security. Please refer to GI08 – Bid Security Requirements of R2710T General Instructions to Bidders – Construction Services – Bid Security.
A performance bond is part of contract security and is only required from the winning bidder after contract award notification. Please refer to GC9 – Contract Security of Clause R2890D (2018-06-21).
- 8. Question:** Where can I find the information for the performance bond requirements, the link on buyandsell doesn’t seem to be right?
Answer: Please refer to GC9 - Contract Security of Clause R2890D (2018-06-21). The link in the Request for Proposal document on buyandsell.gc.ca is correct. Please refer to Page 14 of the Request for Proposal document, Contract Documents (CD), Paragraph 2.
- 9. Question:** Do we need a consent of surety letter from the bonding company?
Answer: No, a consent of surety letter is not required. Please refer to answer to Question 8 above.
- 10. Question:** Is it required for the contractor to hire an environmental manager?
Answer: It is recommended that the contractor have environmental personnel on their team to help prepare the required plans. Due to the significant environmental requirements of this
-

project, the environmental monitoring component will be provided directly by the Owner in the form of an Owner's Environmental Monitor (OEM).

- 11. Question:** Will the Owners Environmental Monitor (OEM) be selected prior to this tender closing?
Answer: The tenders are posted concurrently and scheduled to close within days of each other. Therefore, a contract for OEM will not be awarded before tenders close on this project.
- 12. Question:** Can we submit a bid ourselves and also be named as a subcontractor in another bid?
Answer: No. In accordance with SI11 of the Request for Proposal document, bidders cannot propose or otherwise include subcontractors in their bid that will be also participating in the solicitation as a Bidder. Any bid that lists another Bidder as subcontractor will be deemed non-compliant. In addition, if it is demonstrated that a Bidder was aware of and had granted permission to being listed as subcontractor on another bid, the Bidder's own bid will also be deemed non-compliant.
- 13. Question:** Is the 2% penalty for not fulfilling the IBP requirements on the entire contract value?
Answer: Yes.
- 14. Question:** If the exact amount of hours submitted within the IBP is not met due to reasons beyond the contractors control such as a labour shortage, will the contractor be penalized?
Answer: No, the holdback wouldn't be used if upon review the contractor can demonstrate that they submitted an achievable IBP and made efforts to fulfill it and there were reasons beyond their control that this couldn't be met.
- 15. Question:** What is the project budget?
Answer: The estimate range for the project is posted on buyandsell "To assist with bonding and insurance requirements, this project is estimated to cost between \$20,000,000 and \$30,000,000."

5.0 Page 29 of the REQUEST FOR PROPOSAL document, SRE 3 – INDIGENOUS BENEFITS PLANS (IBP) – MANDATORY, under Paragraph 1. Preamble, preceding the INDIGENOUS BENEFITS PLAN CRITERIA:

INSERT:

A finalized version of the IBP that was submitted for the purposes of evaluation should be submitted for Canada's approval within 60 days following contract award. The final IBP must elaborate on the benefits being provided to the Tla-o-qui-aht and Yuuthlu-ilth-ath/Ucluelet Nations after the successful bidder has had the opportunity to meaningfully consult and negotiate specific benefits with the two nations. The final IBP is intended to be a more thorough and detailed plan than the one submitted with the bid. Note that the final IBP must not present any fewer benefits than what was proposed with the bid, however the benefits can be improved upon. The contents of the final IBP will not result in a change to the IBP score.

End of Addendum 1.

Ups-cheek Ta-shee
Pacific Rim National Park Reserve, British Columbia
Public Works and Government Services Canada
Project Number: R .081570.001

Rev 1: 2019-03-04

Unit Price Table

Trail, Road, and Bridge Works
South Park Boundary to North Park Boundary

Item	Specification Reference	Class of Labor, Plant or Material	Unit of Measurement	Estimated Quantity	Price per Unit applicable taxes extra (PU)	Extended amount (EQ x PU) applicable taxes extra
Division 1 General Requirements						
1	01 25 20	Mobilization and Demobilization	Lump Sum	1		
2	01 35 00	Special Procedures for Traffic Control	Lump Sum	1		
3	01 45 00	Quality Control	Lump Sum	1		
Environmental Procedures - Supply, Install, & Remove - above that required for incidental environmental work						
4	01 35 43	Light Duty Silt Fence Barrier (SI&R)	Lin.m	2,000		
5	01 35 43	Heavy Duty Silt Fence Barrier (SI&R)	Lin.m	500		
6	01 35 43	Erosion Control Blanket (SI&R)	sq.m	5,000		
7	01 35 43	Poly or Nylon Sand Bags (SI&R)	Each	1,000		
8	01 35 43	Poly Sheeting (6 mm) (SI&R)	sq.m	1,000		
9	01 35 43	Rock Check Dam (SI&R)	Each	100		
10	01 35 43	1.4 m high orange safety fence (SI&R)	Lin.m	200		
11	01 35 43	2.29 m X 2.29 m Small Wetland Filter Bag (SI&R)	Each	20		
12	01 35 43	4.57 m X 4.57 m Large Wetland Filter Bag (SI&R)	Each	20		
13	01 35 43	50mm trash pump + 61 m discharge hose	Daily	300		
14	01 35 43	75mm trash pump + 61 m discharge hose	Daily	150		
Environmental Procedures - Standby Equipment and Materials						
15	01 35 43	50mm trash pump + 61 m discharge hose	Lump Sum	2		
16	01 35 43	75mm trash pump + 61 m discharge hose	Lump Sum	2		
17	01 35 43	Standby Materials (Quantities in Table 2 - light and heavy duty silt barrier, stakes, erosion control blanket, sandbags, poly sheeting, crushed rock, pea gravel, safety fencing, filter bags, Sorbent booms)	Lump Sum	1		
18	01 35 43	Large Spill Kits (110% of equipment fluids)	Lump Sum	2		
Subtotal General Requirements						
Bridge and Elevated Trail Work						
Concrete Reinforced Precast Concrete Components						
19	03 41 00	Bridge 19 girders (30.6 m long)	Each	3		
20	03 41 00	Bridge 20 girders (30.6 m long)	Each	3		
Concrete Reinforced Cast in Place Concrete Components						
21	03 30 00	Bridge 3 - Abutments, wingwalls, approach slabs	L.S.	1		

Item	Specification Reference	Class of Labor, Plant or Material	Unit of Measurement	Estimated Quantity	Price per Unit applicable taxes extra (PU)	Extended amount (EQ x PU) applicable taxes extra
22	03 30 00	Bridge 19 Abutments, wingwalls, approach slabs, deck, curbs	L.S.	1		
23	03 30 00	Bridge 20 Abutments, wingwalls, approach slabs, deck, curbs	L.S.	1		
		Site Preperation, Delivery, Bearings, Installation, Wood Deck, Miscellaneous				
24	03 41 01	Bridge 3 - 20 m Steel & Timber Bridge	Each Bridge	1		
25	03 41 01	Bridge 19 - 30 m Precast Concrete Girder Bridge	Each Bridge	1		
26	03 41 01	Bridge 20 - 30 m Precast Concrete Girder Bridge	Each Bridge	1		
27	03 41 01	Elevated trail - Install and Finish	Lin.m	370		
		Subtotal Bridge and Elevated Trail Concrete				
Division 05	Metal Work	Structural Steel Bridge Components				
28	05 12 33	Bridge 3 - 20 metre Supply and Fabricate Steel	Lump Sum	1		
		Railings - Metal and Wood				
29	32 31 14	20 metre Span Bridge Steel (50.5m of Wood Railing)	Lump Sum	1		
30	05 51 00	30 metre Span Bridge Steel (82.4 m of Metal Railing)	Lump Sum	2		
31	32 31 14	Elevated trail - Wood Railings	Lin.m	150		
		Subtotal Metal Work				
Division 31	Earthworks (Piling)					
32	31 66 13	Helical Piles - 114mm dia, 6.0m Long 8.6mm WT screw piles for elevated trail sections (Drawing S-2.5 - Type A)	Each	280		
33	31 66 13	Helical Piles - 114mm dia, 9.0m Long 8.6mm WT screw piles for elevated trail sections (Drawing S-2.5 - Type B)	Each	46		
34	31 62 16	Mobilize and demobilize for bridge piling 20 m span Bridge 3	Lump Sum	1		
35	31 62 16	Mobilize and demobilize for bridge piling 30 m span Bridge 19 Sandhill Creek on Wick Road	Lump Sum	1		
36	31 62 16	Mobilize and demobilize for bridge piling 30 m span Bridge 20 Lost Shoe Creek Bridge 20 on Highway 4	Lump Sum	1		
37	31 62 16	Piling -610mm dia 16mm WT driven steel piles for bridge # 3 structure	Lin.m	50.4		
38	31 62 16	Piling -610mm dia 19mm WT driven steel piles for bridge# 19 structure	Lin.m	94		
39	31 62 16	Piling -762mm dia 19mm WT driven steel piles for bridge# 20 structure	Lin.m	147.6		
40	31 62 16	Piling - Concrete fill and reinforcing steel in 610mm dia steel piles for bridge structures	Each	16		
		Subtotal Bridge and Elevated Trail Piling				
At Grade Trail Work						
Division 03	Concrete					
41	03 30 20	Concrete Wall Curb, 300 high (Cast in Place)	Lin.m	150		
42	03 48 00	280 X 150 X 2130 parking curb (Precast)	Each	205		
43	03 48 00	2.13 m high concrete fence (Precast)	Lin.m	166		
		Roadside Precast Concrete Barriers				
44	03 48 00	460 high bull-nose 1.2 m Long (Precast)	Each	17		
45	03 48 00	460 high concrete barrier 3.0 m Long (Precast)	Each	6		
46	03 48 00	690 high concrete barrier 2.5 m Long (Precast)	Each	163		
47	03 48 00	460 to 690 high transition barrier 2.5 m Long (Precast)	Each	29		
48	03 48 00	690 high drainage barrier 2.5 m Long (Precast)	Each	212		
49	03 48 00	Relocate 690 high conc. barrier 2.5 m Long	Each	22		
50	03 48 00	Install 2.5m L 690 conc. barrier Supplied by PCA	Each	95		

Item	Specification Reference	Class of Labor, Plant or Material	Unit of Measurement	Estimated Quantity	Price per Unit applicable taxes extra (PU)	Extended amount (EQ x PU) applicable taxes extra
		Subtotal Concrete				
Division 05	Metal Work					
51	05 51 00	Swing Bike Baffles	Each Pair	37		
52	05 51 00	8 m Wide Parking Lot Gate	Each	2		
53	05 51 00	5 m Wide Access Gate	Each	13		
54	05 51 00	Relocate and repaint existing forestry gate. Complete sets	Each set	2		
55	05 51 00	680 mm X 2400 mm galvanized rails on roadside concrete barriers	Each	440		
56	05 51 00	680 mm X 2400 mm galvanized rails on roadside concrete barriers with sign post	Each	20		
57	05 51 00	680 mm X 1800 mm galvanized rails on W-beam Guardrails	Each	212		
58	05 51 00	100 mm dia. Steel removable bollards	Each	6		
		Subtotal Metal Work				
Division 31	Earthworks					
		Clearing and Grubbing				
59	31 11 00	Tree and brush clearing and removal East side of Esowista Curve (Sta 15+400 to 15+880)	Hectare	0.30		
60	31 11 00	Tree and brush clearing for Trail	Hectare	1.40		
61	31 11 00	Grubbing	Hectare	15		
62	31 11 00	Stump Grinding	Cu. m	500		
		Topsoil, Organic Soil, and Wood Chips				
63	31 14 13	Organic soil side casting and respreading for shoulder dressing	Lin. m	47,000		
64	31 14 13	Supply and dress trail shoulders with wood chips on paved trail	Lin.m (Each side)	1,130		
65	31 14 13	Trail off site waste excavation - Organic Material	Cu. m	20,700		
		Mineral Soils Excavations and Fills				
66	31 14 13	Trail waste excavation - Non-organic material	Cu. m	14,100		
67	31 14 13	Trail embankment (Used on site)	Cu. m	2,800		
68	31 24 13	Highway off site waste excavation	Cu. m	7,500		
69	31 24 13	Highway embankment (Used on site)	Cu. m	1,000		
		Archaeological Site Excavations and Fills				
70	01 35 44	Organic Soils excavation and spreading in Archaeological site	Cu. m	10,400		
71	01 35 44	Organic Soils excavation - storage and recording at Grice Bay Parking Lot	Cu. m	1,900		
72	01 35 44	Mineral Soil excavation and fill in Archaeological Sites	Cu. m	2,600		
73	01 35 44	Mineral Soil excavation in Archaeological Sites - storage and recording at Grice Bay Parking Lot	Cu. m	3,000		
74	01 35 44	Mineral Soil excavation in Archaeological Sites - disposal at Tofino Airport	Cu. m	2,350		
		Geotextiles, Geogrids, Erosion Control Blankets				
75	31 32 19	Geotextiles - Woven high survivability	Sq. m	21,000		
76	31 32 19	Geotextiles - Install only -Woven Mirafi HP570 (71 rolls)	Sq. m	29,700		
77	31 32 19	Geogrid plus nonwoven or composite geotextile	Sq. m	53,400		
78	31 32 19	Erosion Control Blanket (Biodegradable)	Sq. m	62,000		
79	31 32 19	Erosion Control Blanket Install Only NAG C125BN (57 rolls)	Sq. m	4,200		
80	31 32 19	40 mil Root Barrier	Lin. m	40,000		
81	31 32 19	Buried Check Dam with LLPDE liner	Each	20		
82	31 37 00	Riprap Class 10 kg (350 mm thick)	Sq. m	3,000		
83	31 37 00	Riprap Class 25 kg (450 mm thick)	Sq. m	750		

Item	Specification Reference	Class of Labor, Plant or Material	Unit of Measurement	Estimated Quantity	Price per Unit applicable taxes extra (PU)	Extended amount (EQ x PU) applicable taxes extra
84	31 37 00	Riprap Class 500 kg	Cu. m	340		
		Subtotal Earthworks				
Division 32 Road and Site Improvements						
85	32 01 11	Removal of pavement markings on Highway 4 at Esowista Curve	Lump Sum	1		
86	32 01 16.7	200 mm wide - edge cold milling	Lin. m	900		
87	32 01 16.9	200 mm wide - asphalt saw cut and removal	Lin. m	900		
88	32 01 16.9	Asphalt pavement removal	Sq. m	3,050		
		Aggregates for Highways and Roads (Free of invasive species)				
89	32 11 10	Select Granular Sub-grade fill (75 mm minus)	Cu.m.	600		
90	32 11 16	Crushed Granular Sub-base (450 mm thick Esowista Curve)	Sq. m	3,600		
91	32 11 16	Crushed Granular Sub-base (300 mm thick Roadside Barrier Widening)	Sq. m	4,000		
92	32 11 23	Granular Base (150 mm thick)	Sq. m	3,400		
93	32 11 23	Granular Base (100 mm thick)	Sq. m	4,000		
94	32 11 23	Granular base shoulder dressing	Lin. m	1,000		
		Aggregates for Parking Lots (Free of invasive species)				
95	32 11 16	Crushed Granular Sub-base at Incinerator Rock Parking Lot (600 mm thick)	Sq. m	1,000		
96	32 11 23	Granular Base at Incinerator Rock Parking Lot (100 mm thick)	Sq. m	3,050		
97	32 11 23	Granular Base at Radar Hill Road Parking Lot (100 mm thick)	Sq. m	5,600		
98	32 11 23	Gran. base shoulder 0.5 wide at Incinerator Rk P.L.	Lin. m	160		
		Aggregates for Trail (Free of invasive species)				
99	32 11 10	Select Granular Sub-grade fill (75mm minus)	Cu.m.	25,000		
100	32 11 16	Crushed Granular Sub-base (300 mm thick - 75mm minus)	Sq. m	45,800		
101	32 11 16	Open Graded Subbase (600 mm thick - 150 mm or 75mm minus)	Sq.m.	53,500		
102	32 11 16	Open Graded Sub-base (450 mm thick - 75 mm minus open graded crush)	Sq.m.	8,700		
103	32 11 16	Open Graded Subbase (150 mm or 75 mm minus for strengthening areas)	Cu. m	5,000		
104	32 11 23	Granular Base (100 mm thick)	Sq. m	84,500		
		Fill Existing Cisterns				
105	32 11 23	Fill existing cisterns with granular base	Each	4.00		
		Temporary Access				
106	32 11 24	Temporary Access Roads	Lump Sum	1.00		
107	32 11 24	Temporary Culvert at All Temp. Access Roads	Lump Sum	1.00		
		Asphalt Pavement				
108	32 12 13.16	Asphalt tack coat	Sq.m	7,150		
109	32 12 16	Incinerator Rock Parking Lot (50 mm thick)	Sq. m	2,900		
110	32 12 16	Trail Paving (50 mm thick X 3.2 m Wide)	Sq. m	2,950		
		Esowista Curve Paving				
111	32 12 16	Highway widening lower course (75 mm thick)	Sq. m	3,000		
112	32 12 16	Highway widening upper course (50 mm thick)	Sq. m	3,100		
		Painted Pavement Markings				
113	32 17 23	Highway 4 Widening 75+380 to 76+035	Lump Sum	1		
114	32 17 23	Long Beach Parking Lot	Lump Sum	1		
115	32 17 23	Incinerator Rock Parking Lot	Lump Sum	1		
		Traffic and Project Signs				

Item	Specification Reference	Class of Labor, Plant or Material	Unit of Measurement	Estimated Quantity	Price per Unit applicable taxes extra (PU)	Extended amount (EQ x PU) applicable taxes extra
116	32 17 25	Temporary static project signs, 1220 X 2440 on timber posts, supply, install, maintain, and remove	Each	6		
117	32 17 25	Changeable message signs ,supply, install, maintain, and remove	Month	48		
118	32 17 25	Trail signs mounted on curved steel post and precast concrete base	Each	130		
119	32 17 25	Traffic signs mounted on W-channel steel post	Each	65		
120	32 17 25	Traffic signs mounted on concrete roadside barriers (sign face and mounting brackets)	Each	20		
121	32 17 25	Relocate existing signs at Highway 4 Widening 75+380 to 76+035	Lump sum	1		
122	32 17 25	Relocate existing sign at Highway 4 and south Park Boundary	Lump sum	1		
		Install Wood Fencing, Wood Railings, and Amphibian Fencing				
123	32 31 14	Wood safety railings conc. foundation, 1400 mm high (Timber supplied by PCA.)	Lin.m	1,210		
124	32 31 14	Wood safety railings, installed on Lockblock wall, 1400 mm high (Timber supplied by PCA.)	Lin.m	190		
125	32 31 14	Supply and Install Wood Log rails, 600 mm high	Lin.m	1,700		
126	32 31 14	Supply and Install Wood Log rails, 900 mm high	Lin.m	750		
127	32 31 14	Wood Fence - Solid plank, 1.83 mm high (Timber supplied by PCA.)	Lin.m	150		
128	32 31 14	Wood Fence - Solid plank, 1.83 mm high (Timber supplied by PCA.)	Lin.m	150		
129	32 31 15	Supply and Install Amphibian Fencing - Animex & Hilsperger's poly with plastic wood framework	Lin.m	300		
		Retaining Walls c/w sub-drains				
130	32 32 34	Envirogrid or equal retaining walls 1.2 Max. Height	Sq. m	400		
131	32 32 34	Envirogrid or equal retaining walls over 1.2 m Height with uniaxle geogrid reinforcement	Sq. m	1,900		
132	32 32 34	Concrete segmental block retaining walls	Sq. m	100		
133	32 32 34	Lock Block Wall - Standard Block	Block	121		
134	32 32 34	Lock Block Wall -Bench Block	Block	121		
135	32 32 34	Aluminum Amphibian Barrier Strip on Lock Blocks	Lin.m	190		
136	32 32 34	Dry stack rock walls	Sq. m	300		
137	31 32 19	Geogrid Uni-axial for MSE walls	Sq. m	9,500		
138	32 32 34	Light weight fill - Styrofoam SP 29	Cu.m.	1,300		
		Invasive Species Control Program				
139	31 93 02	Invasive Species Control Program	Lump Sum	1.00		
		Subtotal Road and Site Improvements				
Division 33	Utilities					
		Pipe Culverts				
140	33 42 13	200 mm dia HDPE	Lin. m	55		
141	33 42 13	250 mm dia HDPE	Lin. m	100		
142	33 42 13	300 mm dia HDPE	Lin. m	8		
143	33 42 13	400 mm dia HDPE	Lin. m	15		
144	33 42 13	450 mm dia HDPE	Lin. m	200		
145	33 42 13	600 mm dia HDPE	Lin. m	320		
146	33 42 13	600 mm dia HDPE 45 degree bend	Each	1		
		Pipe Culverts c/w 300mm Fisheries Gravel or Native Organics				
147	33 42 13	600 mm dia, 8 m long HDPE, complete	Each	87		
148	33 42 13	600 mm dia, 12 m long HDPE, complete	Each	8		
149	33 42 13	750 mm dia, 8 m long HDPE, complete	Each	15		
150	33 42 13	900 mm dia, 8 m long HDPE, complete	Each	7		

Item	Specification Reference	Class of Labor, Plant or Material	Unit of Measurement	Estimated Quantity	Price per Unit applicable taxes extra (PU)	Extended amount (EQ x PU) applicable taxes extra
151	33 42 13	1200 mm dia, 8 m long HDPE, complete	Each	1		
152	33 42 13	600 mm dia HDPE additional length to above	Lin. m	100		
		Temporary Pipe Culverts at Temporary Access Points				
153	33 42 13	450 mm diameter 8 m long	Each	51		
154	33 42 13	600 mm diameter 8 m long	Each	12		
		Concrete Box Culverts For Water Passage				
155	33 42 13	1800mm X 900 mm X 5 m long water passage culvert, complete	Each	3		
156	33 42 13	1800mm X 1200 mm X 5 m long water passage culvert, complete	Each	11		
157	33 42 13	2100mm X 900 mm X 5 m long water passage culvert, complete	Each	2		
158	33 42 13	2100mm X 1200 mm X 5 m long water passage culvert, complete	Each	1		
159	33 42 13	2400mm X 1200 mm X 5 m long water passage culvert, complete	Each	4		
		Concrete Box Culverts for Amphibians				
160	33 42 13	1800mm X 900 mm X 3.75 m long Amphibian underpass culvert, complete	Each	60		
161	33 42 13	1800mm X 900 mm X 17.5 m long Amphibian underpass culvert, complete with Pavement rehab	Each	3		
		Extend Existing Pipe Culverts				
162	33 42 13	H20+737 - 800 mm CSP, 1.5 m long extension	Lump Sum	1		
163	33 42 13	H18+221 - 1200 mm CSP, 2 m long extension	Lump Sum	1		
164	33 42 13	H17+929 - 800 mm CSP, 4.5 m long extension	Lump Sum	1		
165	33 42 13	H16+067 -1300 mm CSP 3 m long extension	Lump Sum	1		
166	33 42 13	H15+262 2X600 mm HDPE 5 m long extension	Lump Sum	1		
167	33 42 13	H15+097 600 mm CSP 5 m long extension	Lump Sum	1		
168	33 42 13	H9+110 -500 mm CSP 5 m long extension	Lump Sum	1		
169	33 42 13	H7+631 - 1200 mm HDPE, 2 m long extension	Lump Sum	1		
170	33 42 13	H0+119 - 600 mm CSP, 5 m long extension	Lump Sum	1		
171	33 42 13	H0+201 - 600 mm CSP, 5 m long extension	Lump Sum	1		
172	33 42 13	500 mm dia CSP additional length to above	Lin. m	5		
173	33 42 13	600 mm dia CSP additional length to above	Lin. m	5		
174	33 42 13	800 mm dia CSP additional length to above	Lin. m	10		
175	33 42 13	600 mm dia HDPE additional length to above	Lin. m	10		
176	33 42 13	1200 mm dia HDPE additional length to above	Lin. m	5		
177	31 23 33	Over excavation, backfill, and bedding	Cu.m	400		
		Fisheries Work				
178	33 42 15	Fisheries enhancement work detailed on sheet F-2	Lump Sum	1		
179	33 42 15	Fisheries enhancement work detailed on sheet F-3	Lump Sum	1		
180	33 42 15	Fisheries enhancement work detailed on sheet F-4	Lump Sum	1		
181	33 42 15	Fisheries enhancement work detailed on sheet F-5	Lump Sum	1		
182	33 42 15	Fisheries enhancement work detailed on sheet F-6	Lump Sum	1		
183	33 42 15	Fisheries enhancement work detailed on sheet F-7	Lump Sum	1		
184	33 42 15	Fisheries enhancement work detailed on sheet F-9	Lump Sum	1		
185	33 42 15	Fisheries enhancement work detailed on sheet F-10	Lump Sum	1		
186	33 42 15	Fisheries enhancement work detailed on sheet F-12	Lump Sum	1		
187	33 42 15	Fisheries enhancement work detailed on sheet F-13	Lump Sum	1		
188	33 42 15	Fisheries enhancement work detailed on sheet F-14	Lump Sum	1		
189	33 42 15	Fisheries enhancement work detailed on sheet F-15	Lump Sum	1		
		Manholes and Grates				
190	33 44 01	Man Hole Frame & Grates at 3 Amphibian Crossings	Each	6		
191	33 44 01	Adjust Existing Man Holes	Each	3		
192	33 44 01	200 diam. Lawn basin grate inlet	Each	8		
		Subtotal Utilities				

Item	Specification Reference	Class of Labor, Plant or Material	Unit of Measurement	Estimated Quantity	Price per Unit applicable taxes extra (PU)	Extended amount (EQ x PU) applicable taxes extra
Division 34	Transportation					
		Traffic Barriers				
193	34 71 13	Supply and Install Posts and W- beam guard rail	Lin. m	587		
194	34 71 13	Wood plank on guard rail (Timber supplied by PCA.)	Lin. m	587		
195	34 71 13	FLEAT 350 Barrier Terminal (or equal)	Each	6		
		Subtotal Transportation				
					TOTAL =	