



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 Sewage Lagoon Rehabilitation	
Solicitation No. - N° de l'invitation EZ899-161731/A	Amendment No. - N° modif. 002
Client Reference No. - N° de référence du client	Date 2015-12-23
GETS Reference No. - N° de référence de SEAG PW-\$PWY-019-7688	
File No. - N° de dossier PWY-5-38302 (019)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2016-01-05	
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) 658-2755 ()	FAX No. - N° de FAX (604) 775-6633
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Parks Canada - 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
EZ899-161731/A
Client Ref. No. - N° de réf. du client

Amd. No. - N° de la modif.
002
File No. - N° du dossier
pwy-5-38302

Buyer ID - Id de l'acheteur
pwy019
CCC No./N° CCC - FMS No/ N° VME

Please find following Addendum #1.

All other terms and conditions remain unchanged.

GENERAL

The following changes / clarifications in the tender documents are effective immediately. This Addendum will form part of the Contract Documents.

SPECIFICATIONS

1. Section – 01 13 82 – Sludge Management

Part 2.1.9 - Revise to read:

*The Geotube dewatering system shall be installed on a pad (gravel, sand, and sheet as per Manufacturer's Recommendations) in the **dedicated Geotube laydown area as shown on Contract Drawings**. Contractor shall furnish the Geotube container with maximum slope 1% for the first 33m not to exceed 0.5% in the overall length direction of the Geotube.*

2. Section – 32 31 26 – Wire Fences and Gates

Part 3.4.2.3 – Revise to read:

*Space line posts **5.0 m** apart, measured parallel to ground surface.*

DRAWINGS

1. Sheet C-9, Fencing Details

Delete: "100x100 Treated Wood Compression Member" between line posts.

100x100 Treated Wood Compression Members to be installed at end post panels and intermediate brace panels per Section 32 31 26, Part 2.8 and Part 3.4.2

CLARIFICATIONS

Questions Received by PWGSC to December 22, 2015

1. *There is no place listed on specs as to the quantity of sludge. Could you please advise.*

Refer to: Section 01 11 05, Part 1.2; Section 01 13 82, Part 1.1; Appendix B – Pacific Rim National Park – 2015 Lagoon survey results.

2. *a) What is the anticipated time frame for completion of this work?*

b) Is it to begin shortly after award, or later in the winter/early spring?

a) Refer to: Section 01 11 05, Part 1.12; Section 01 11 05, Part 1.2.3

b) It is anticipated that a substantial amount of the project can be completed prior to March 31, 2016.

3. *The laydown area shown on the drawings will accommodate 4 – 60' x 100' Geotubes. From the volume derived from the sludge survey conducted, and the percent solids of the sludge, it would appear that there could be need for up to 6 Geotubes. Is there allowance to extend the proposed laydown area to accommodate additional tubes, or is it to be confined to the area shown on the drawings?*

Contractors to allow for the modification of the proposed laydown area from 40m x 35m to 38m x 39m in bids. Geotube sizes and alignment may be adjusted to enable all removed sludge to be retained within this area. Clearing & Grubbing limits and fence alignment to be adjusted as

required. Contractor to submit proposed layout prior to construction for approval. No additional payment will be made for these revisions.

4. a) *During our site visit we noticed the exfiltration cell has a very large amount of water in it and will need to be pumped down to allow grading and works inside of cell.*
b) *As well the sewage lagoon itself will need to be dewatered to a level that will allow install of dosing siphon structure.*

Where will these large amount of water to go?

- a) **Rainwater ponding in the Exfiltration Lagoon may be pumped out and allowed to naturally dissipate. Adequate sediment control measures are required to be in place.**
- b) **Refer to: Contract Drawing Sheet C-2 "Bottom of exfiltration cell to be tilled, raked, and graded prior to transferring fluid from the facultative lagoon."**

Refer to: Section 01 13 82, Part 2.1.4 – Any freeboard and/or excess water is to be pumped to the adjacent Exfiltration Lagoon.

While Contractors are required to submit individual proposed work plans, the following is provided for general guidance:

Following tilling and raking of the exfiltration lagoon, effluent from the facultative lagoon can be pumped to the exfiltration lagoon until the water level is low enough to enable a pontoon style dredge to be utilized. Based on previous geotechnical investigations, it is estimated that the facultative lagoon could be lowered at a rate of 125mm per day using this process (hydraulic conductivity of 1.3×10^{-5} m/sec). Once sludge removal is complete, water transfer from the facultative lagoon to the exfiltration lagoon can be conducted as required to allow for construction works. The operating level of the facultative lagoon is to be established following construction – pumping of water through the forcemain will be permitted.

5. a) Wick RD that leads to Ocean Terrace RD was closed due to construction making it impossible to see the end of clearing area. Will it be open soon and before construction starts?
b) Is there access to right of way for heavy equipment and material to load/unload?

a) Wick Rd was re-opened on Thursday November 17th.

b) Yes

6. Can we reuse the material from the site activities to build berm around geo bags? Or are we to import material? If so what type of material?

Refer to: Contract Drawing Sheet C-3 "Contractor to construct temporary 20m x 35m pads for Geotubes. c/w 1m high berm and 12mm poly liner (Contractor to submit shop drawings conforming to Manufacturer's Recommendations). Pad layouts may be adjusted as required."

It is expected that material generated from onsite activities will conform to Manufacturer's Recommendations as long as it is void of substantial organics and adequately compacted.

7. Can you confirm that if steel posts are used that they are spaces at 5 meter like the wood posts?

Steel posts are to be spaced at 5m. Posts to meet requirements of Section 32 31 26, Part 3.4.6.6.

8. Can you confirm that if steel posts are used that there would not be a top rail?

Top rails to be installed at end post panels and intermediate brace panels. Top rails are not required between line posts. Posts to meet requirements of Section 32 31 26, Part 3.4.6.6.

9. On the drawings the gate footing is shown at 1050 x 350 which is a standard DND size footing and a very good footing but in the specs there is something in the range of 1.500 to 1.800. Can you confirm if we use steel posts and concrete can the footings all be the size as depicted on the gate drawing detail?

The steel post details shown on Sheet C-9 are for use in sound ground. Embedment lengths of 1800mm are required for conditions outlined in Section 32 31 26, Part 3.4.6.2 and Part 3.4.6.3. Posts to meet requirements of Section 32 31 26, Part 3.4.6.6.

10. Is the existing force main Asbestos Concrete pipe?

No. The existing forcemain is 75mm Series 160 PVC.

11. We need a clearly defined scope of work concerning the clearing and grubbing for the force main. There are conflicting descriptions in the tender, one recommendation is to cut at ground level and another is to dig out to a minimum of 200 mm under surface.

Clearing & Grubbing to be per Section 31 11 00. Trees to be cleared and roots grubbed to 200 mm below surface. Brush to be cleared at surface level.

12. As for clearing around the main lagoon site, we are using the clear and grub definition, stumps will be pulled with a tub grinder on site to manage biomass.

This approach is acceptable.

13. Are stumps to be cut at ground level or pulled from the ground to a minimum of 200mm over the pressure pipe R.O.W?

Stumps are to be grubbed to a depth of 200mm. See response to Question #14 for additional information.

14. If stumps are to be pulled on the force main with an estimated depth of pipe at 50 mm who is responsible for breakage due to root entanglement?

Care should be taken if roots are being pulled in areas where forcemain is under shallow cover. In general, the forcemain is expected to be buried deeper than grubbed roots. The Contractor will not be required to pay for incidental forcemain breakage as long as due care is taken.

15. Can the work at the riparian zones at the creek crossings (30 m red zone) be billed by the hour as the Construction Sediment Management Plan suggests that the procedure is to be defined/approved on site by the environmental representative.

No. See response to Question #24 and Additional Question #2 for more information.

16. If we use geotextile covered by puncheon, does this have to be removed after grubbing and clearing is complete, or can it stay in place – for bog areas on force main?

Geotextile and puncheon to be removed post construction.

17. Are the organics removed from the bottom of the exfiltration cell deemed inert, can the organics removed from the bottom of the exfiltration cell for disposal be taken to the landfill as clean fill?

It is not expected that special disposal methods for the organics removed from the exfiltration lagoon will be required.

18. What is the expected volume or depth of organics to be removed from the exfiltration pond? This pond is currently flooded and therefore unable to have visual probing.

Photos taken in September 2015 of the Exfiltration Lagoon are attached. Contractors may use these to aid with estimates.

19. What is the geotube perimeter berm to be made from? Pit run, native spoil, etc.?

See response to Question #6.

20. a) What is the specified base material and the construction specs for said base of the geo tubes?
b) Is bank pit run appropriate throughout the fill column?

a) Contractor to provide shop drawing for approval. See Section 01 11 05, Part 1.2.2.5 for specialized sub-consultant requirements. See Section 01 13 82, Part 1.4.3 for shop drawing submittal requirements.

b) No significant amount of imported fill is anticipated. Pad elevation may be adjusted to existing conditions. Minimum elevation of pad to allow drainage pipe to run at 2% grade and enter the Exfiltration Lagoon at an elevation of 22.0m. If imported material is required, it is to be washed gravel.

21. In the geotech report it was recommended to excavate 2.4 meters of overburden from the entire area to acquire suitable base to support concrete and asphalt installation, this is a massive undertaking. Is this a specification or recommendation – please clarify?

See Contract Drawing C-4 & C-5 for expected deliverables. Removal of 2.4m of overburden from the entire area is not required.

22. Currently the exfiltration pond is filled with water. Can this water be pumped into the woods to enable the contractor to remove the vegetation.

See response to Question #4.

23. Are the Geo tubes to be left onsite after the contract?

Geotubes are to be left onsite following the Contract. Future hauling from site and disposal of material is NOT included under this contract.

24. In the construction sediment management plan under force main clearing (from Ocean trail to west bank of Sandhill main stem). It states to install sediment control (“at western Sandhill tributary and throughout wet land bog areas as required”) can you clarify what measures and materials needed are to be taken? It is unclear to us as to what measures would be acceptable for the entire clearing area’s and to what extent; during site visit area was very wet. (Drawing and distances of types of sediment control?)

No significant sediment control measures within the wet land bog itself are expected. Sediment control at each of the stream crossings as well as the eastern and western edges of the bog may include the use of silt fences installed at the top of bank as well as the high water mark. They will

be installed 1.0-2.0m greater than the width of the work area running parallel the watercourse. These structures may be accompanied by covering any erodible soils with straw.

A drawing of a typical silt fence is attached to this Addendum for reference.

25. In the environmental "checklist" it states if rainfall in the amounts of 90mm in a 48 hr period "should" stop and cover any erodible surfaces and that multiple days of delays can be expected. Being that this area gets that on a regular basis will there be any compensation for shut down in the event of prolonged storm activity. It is hard to predict how much time to allow for shut down this time of year as it is not uncommon to get this for weeks on end and does this apply for works to be done under clearing and grubbing?

Sewage Lagoon Rainfall levels for work stoppages are general guidelines. Actual work stoppages will be at the discretion of the PWGSC appointed Environmental Monitor. As long as adequate BMP methods are implemented, no shutdowns due to rainfall are expected for work within the Lagoon area.

The following criteria were expected to trigger a shutdown of work:

- **Rainfall shutdown limit of 100mm within a 24hour period for any works within 30m of a water course or bog.**
- **When suspended sediments have potential to reach a watercourse.**

There will not be any additional compensation for these work stoppages, however the project work schedule will be extended accordingly.

Additional Questions received to December 22, 2015

1. *Will the existing 75mm forcemain be active while work within the facultative lagoon is taking place?*

No. The existing forcemain will be inactive while work within the facultative lagoon is taking place.

2. *Have any restrictions on work windows in and around streams and bogs been established yet?*

Timing of works within the bog area should avoid March 15- June 15 due to Redlegged frog breeding.

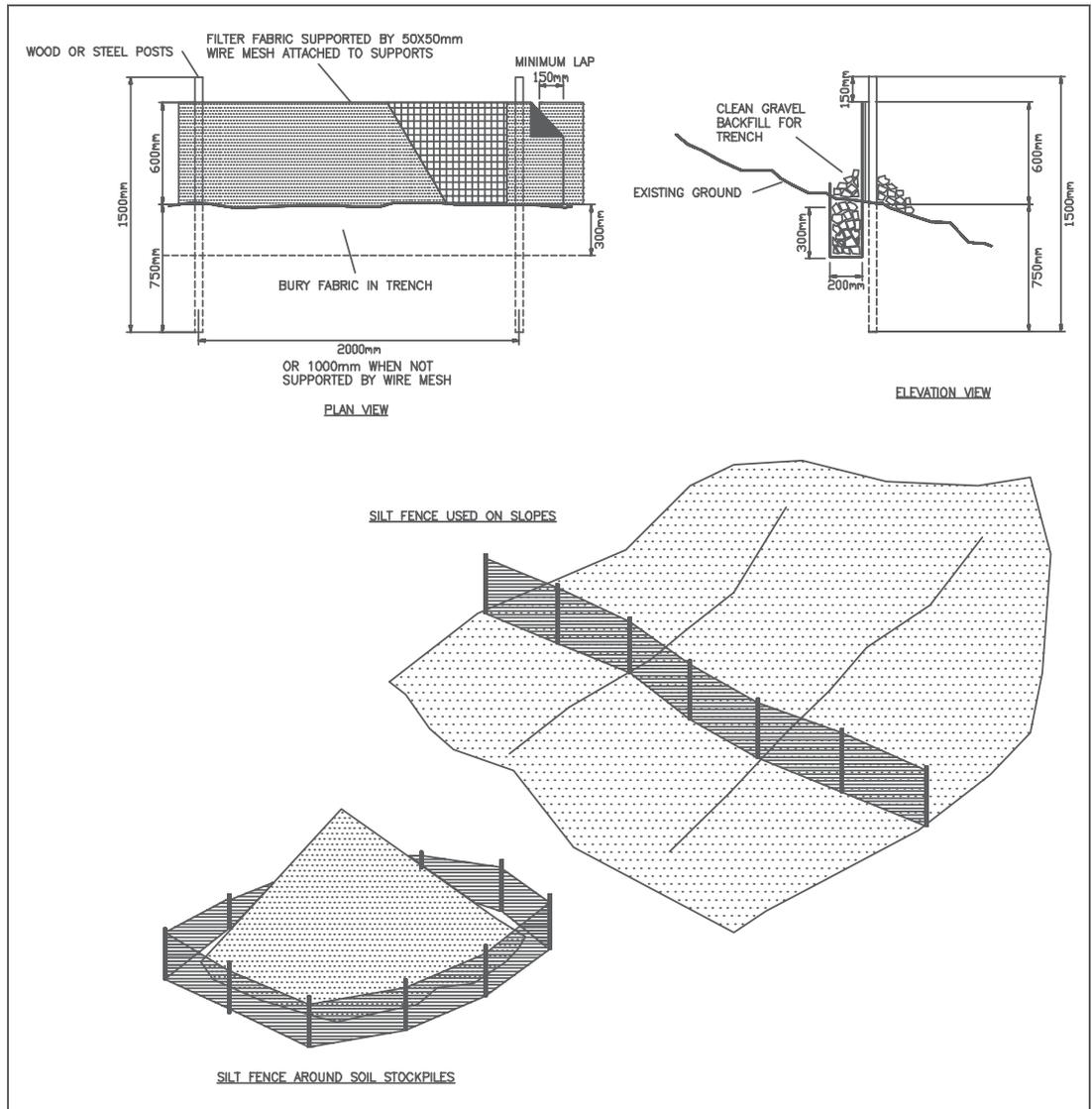
Timing of works near Sandhill Creek mainstem should be planned within the accepted work in stream window (June 15-September 15). See Section 01 11 05, Part 1.2.3 for additional information.

3. *The geotechnical report recommends the excavation below the dumpstation chamber extend "away in all directions from the edge of the chamber and vault a distance equal to the thickness of the fill placed." This differs from the detail shown in the Contract drawings (Sheet C-5). Which should be adhered to?*

The recommendations in the Geotechnical Report should be followed. No additional payment will be made for the imported fill needed to meet this requirement.



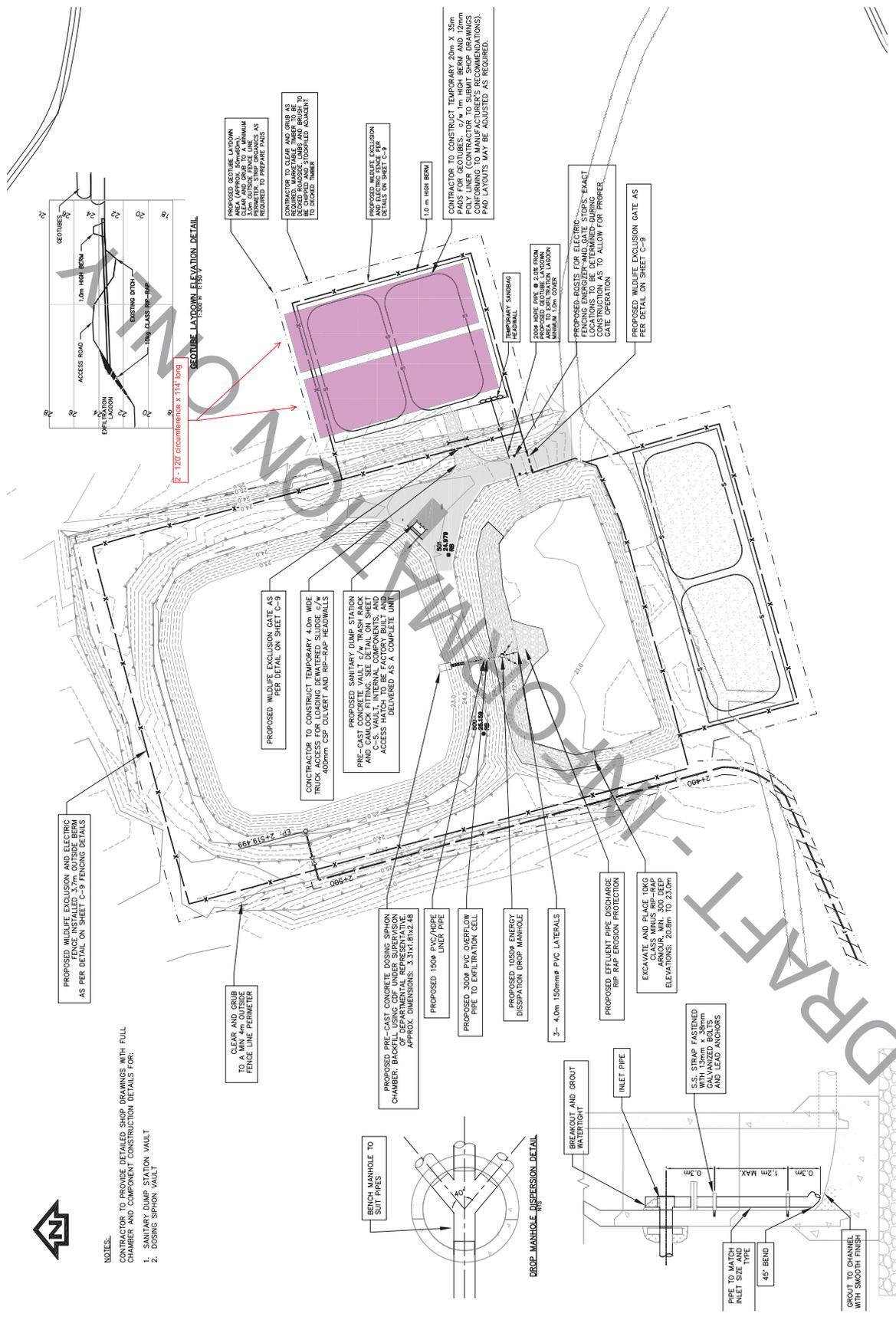
Figure 3.3 Typical Silt Fence Construction and Applications





NOTES:

- CONTRACTOR TO PROVIDE DETAILED SHOP DRAWINGS WITH FULL CHAMBER AND COMPONENT CONSTRUCTION DETAILS FOR:
 1. SANITARY DUMP STATION VAULT
 2. DIPPING SIPHON VAULT



PROPOSED WILDLIFE EXCLUSION AND ELECTRIC FENCE INSTALLED 3.7m OUTSIDE BERM AS PER DETAIL ON SHEET C-9 FENCING DETAILS

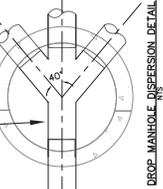
CLEAR AND GRUB TO FENCE LINE PERMETER

PROPOSED WILDLIFE EXCLUSION GATE AS PER DETAIL ON SHEET C-9

CONTRACTOR TO CONSTRUCT TEMPORARY 4.0m WIDE TRUCK ACCESS TO ALLOWING WILDLIFE EXCLUSION GATE TO BE OPENED AND CLOSED AS REQUIRED PER HEADWALLS

PROPOSED SANITARY DUMP STATION AND CAST CONCRETE WALL 6" TRASH RACK AND CAMLOCK FITTING SEE DETAIL ON SHEET C-10 FOR CONSTRUCTION DETAILS PER ACCESS HATCH TO BE FACTORY BUILT AND DELIVERED AS A COMPLETE UNIT

PROPOSED PRE-CAST CONCRETE DIPPING SIPHON CHAMBER, BACKFILL USING COP UNDER SUPERVISION PER DETAIL ON SHEET C-10 APPROX. DIMENSIONS: 2.31M DIA. x 2.45M



PROPOSED 1500 PVC/HDPE LINER PIPE

PROPOSED 3000 PVC OVERFLOW PIPE TO EXHAUSTION CELL

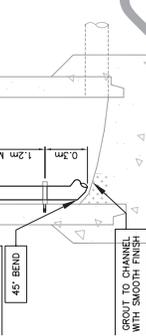
PROPOSED 1000mm ENERGY DISSIPATION DROP MANHOLE

3- 4.0m 150mm² PVC LATERALS

PROPOSED EFFLUENT PIPE DISCHARGE RIP RAP EROSION PROTECTION

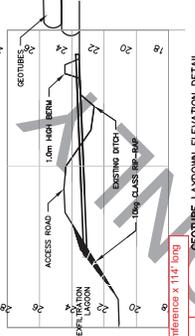
EXCAVATE AND PLACE 100g CLASS MINUS RIP-RAP AROUND, MIN. 300 DEEP ELEVATIONS: 2.05m TO 2.00m

U.S. STRAP FASTENED WITH 12mm x 38mm GALVANIZED BOLTS AND LEAD ANCHORS



MIN. 300mm GRANULAR FILL

DROP MANHOLE DETAIL



2 - 120 circumference x 11.4 long

GEOTUBE LAYOUT ELEVATION DETAIL

PROPOSED GEOTUBE LADDER AREA APPROX. 50m² MINIMUM 1.0m OUTSIDE BERM AS REQUIRED TO PREPARE PAD

CONTRACTOR TO CLEAR AND GRUB AS REQUIRED TO PREPARE PAD AND BRUSH TO BE EXPOSED. WILDLIFE EXCLUSION GATE TO BE ADJACENT TO EXPOSED PAD

PROPOSED WILDLIFE EXCLUSION GATE AS PER DETAIL ON SHEET C-9

1.0 m high BERM

CONTRACTOR TO CONSTRUCT TEMPORARY 4.0m x 3.0m PANS FOR GEOTUBE. THE HIGH BERM AND 100g POLY LINER (CONTRACTOR TO SUBMIT SHOP DRAWINGS CONFORMING TO MANUFACTURER'S RECOMMENDATIONS). PAD LAYOUTS MAY BE ADJUSTED AS REQUIRED.

TEMPORARY SANITARY HEADWALL

1500mm DIA. x 3.0m HIGH PROPOSED GEOTUBE LADDER MINIMUM 1.0m COVER

PROPOSED BASIS FOR ELECTRIC FENCE - EXACT LOCATIONS TO BE DETERMINED DURING CONSTRUCTION AS TO ALLOW FOR PROPER GATE OPERATION

PROPOSED WILDLIFE EXCLUSION GATE AS PER DETAIL ON SHEET C-9

GNSS CONTROL COORDINATES			
POINT	NORTHING	EASTING	ELEVATION
RE500	5433360.793	306965.449	251.59
RE501	5433370.248	306113.717	24.979

COORDINATES SHOWN ARE GROUND-LEVEL UTM NAD83 (CSRS).