

**GROUNDWATER DEVELOPMENT PROJECT
FOR THE VILLAGE OF LYTTON**

PAGE 1 OF 7
ADDENDUM # 3

Issued: OCTOBER 17, 2017

1.0 PRECEDENCE

- .1 This addendum, Addendum #3, shall be read in conjunction with all “Groundwater Development Project For The Village Of Lytton” Tender and Contract Documents. Where conflicts or discrepancies between those, or other documents, and this addendum arise, this addendum shall take precedence.

2.0 SCOPE

- .1 Addendum #3 is issued to answer Contractor questions, update the Bidders List, add two subsurface monitoring points for CP monitoring program to provide for the possibility of rock, adjust requirements for the casing thickness on the MOTI crossing and to update relevant specifications.
- .2 Addendum #3 comprises of 7 pages and 14 pages of Attachments.

3.0 INSTRUCTIONS

- .1 Sign and date the last page of this addendum where indicated.
- .2 Return the last signed page of this addendum with the tender submission.

**4.0 TENDER
CLOSING**

- .1 The tender closing date and time remains un-changed by this Addendum. See Addendum #2.

**5.0 SECTION 01200
PAYMENT**

- .1 To the Measurement and Payment Section, Add Item 6.10:

6.10 Subsurface Monitoring Points

.1 This item shall include the provision of all costs for labour, equipment, material to install two subsurface monitoring points as per the Drawings and Contract Documents.

.2 Payment shall be made on a per each basis for the completed work as per prices quoted in the Schedule of Quantities and Prices.

- .2 Add Item 13.0 Excavation In Rock

.1 .1 This item will apply to excavation in rock and shall include all costs for labour, equipment, excavation, breaking up, re-use or trucking off-site and replacement of trench material shortage. This item will be extra-over the pipe measurement item. Provide unit prices as indicated in the Schedule of Quantities and Prices (Appendix 1) for the ranges of probable rock volumes which will be encountered, each as an indeterminate item.

.2 Measurement: cubic metres (m3).

**GROUNDWATER DEVELOPMENT PROJECT
FOR THE VILLAGE OF LYTTON**

Issued: OCTOBER 17, 2017

PAGE 2 OF 7
ADDENDUM # 3

For boulders, the volume calculation for each qualifying boulder shall be determined by multiplying its 3 dimensions in the x, y and z planes, where x is its greatest dimension. The total volume will be the addition of the volumes of each boulder so calculated.

For ledge rock, the volume shall be calculated from survey shots taken and provided to the Engineer before excavation, superimposed on the theoretical trench section shown in MMCD Standard Drawing G4 and then multiplying the area of the trench below the rock surface by the length for which rock is encountered taken at 5 m sections along the centre-line of the pipe i.e., the 'end-area method' but using Civil 3D software.

.3 Payment: at the Unit Price per cubic metre quoted in the schedule of Quantities and Prices for the completed item.

**6.0 SECTION 02501
WATERWORKS**

- .1 Item 2.11 Combination Air Release and Vacuum Valves
Delete item .1.i) and replace with the following:

.1.i) Buried air valves shall be supplied with integral housing which will permit the air valve portion of the assembly to be removed for service without having to access the housing. The isolation valve which permits the air valve removal shall be a gear-box driven, horizontal sliding, disc valve. The outlet diameter shall be a minimum of DN75. The outlet housing shall be made of ductile iron and shall have a DN38 flushing outlet, c/w appropriate length of tube. Supply a stainless steel "T" handle operating rod with each housing. The disc valve unit shall be A.R.I. SD-10GB, or equal.

- .2 Add to item .1.l) following:

The insulated housing shall be A.R.I with the HF SB adder to the air valve and disc valve, or equal.

- .3 Delete item m) and replace with the following:

m). Air valves shall be ARI D-060-C on nominated pressure Class 150 pipe and D-062 with 300# flange on nominated pressure Class350 pipe. Both types shall be supplied with an adjustable, ARI 50 mm non-slam (NS) feature, effectively making them 50mm valves. As the valve is only available in

**GROUNDWATER DEVELOPMENT PROJECT
FOR THE VILLAGE OF LYTTON**

Issued: OCTOBER 17, 2017

PAGE 3 OF 7
ADDENDUM # 3

75mm flange the connection should be undersized to 50mm necked up to 75mm.

**7.0 02315 EXCAVATING
TRENCHING, AND
BACKFILLING**

.1 Add to Section 1. General

1.5 Rock Rock is defined as boulders with a dimension in any plane greater than 7500mm or monolithic, ledge rock. Hardpan, or friable material which can be ripped with a dozer or the tines on a bucket attached to a 350 Excavator is not defined as rock but native material.

.2 Add to Section 3. Execution:

.1 Blasting, for the excavation of rock, or any other reason, is not permitted.

.2 Excavated rock may be re-used in the trench above the pipe surround but 1000mm below finished ground, provided it is broken into pieces with a dimension no greater than 300mm in any plane.

.3 If the rock is not re-used in the trench, it shall be removed off-site and any deficiency in material in the trench replaced with Engineer approved material similar to a pit-run.

**8.0 02915 ENCASED
RIGHT OF WAY
CROSSINGS**

.1 Delete Item 1.1.3 and replace with the following:

The Contractor shall take note of utilities which might be in the area. A fibre optic cable and CP signal cable exist in the track area. Contractor shall be responsible for locating all utilities prior to work.

.2 Add to 1.1.4 the following:

Contractor to provide Installation Monitoring Program as per the Drawings and Section 01571 CP Monitoring Program. Contractor to co-ordinate with the Owners' Geotechnical Engineer during monitoring program.

.3 Add to 1.1.7 the following:

Comply with all CP Safety Standards and CP Installation Standards.

**9.0 01720 FIELD
ENGINEERING**

.1 Add To 1.1 the following:

.3 Establish sub-surface and surface monitoring points for CP Crossing, and;

**GROUNDWATER DEVELOPMENT PROJECT
FOR THE VILLAGE OF LYTTON**

PAGE 4 OF 7
ADDENDUM # 3

Issued: OCTOBER 17, 2017

.4 Comply with Section 01571 CP Monitoring Program survey requirements.

10.0 INFORMATION

- .1 The last day for Contractors to Submit Questions shall be Tuesday October 17th at 5:00 pm.
- .2 An updated Schedule of Quantities will be Issued in Addendum #4 to reflect new Payment Item 6.10 and the possibility of rock.

QUESTIONS & ANSWERS:

Q1: Are the pitless adaptors for the well heads threaded?

A1: Yes.

Q2: At the end of the Schedule of Quantities, Indeterminate items are stated. What are these?

A2: The Indeterminate item is Item 8.4. See also Addendum #4 when it is issued.

Q3: The Contract states that work is not to be completed on weekends. If required, can the Contractor complete work on weekends?

A3: If required the Contractor can complete work on weekends for all work outside IR18 (Main St work from Well #3 to Well#2). Work within the IR18 area must be approved before work is undertaken on weekends.

Q4: Schedule 80 pipe is not available in the DN750 Casing, Please advise.

A4: Refer to the pipe specification table on the left hand side of the Drawing C111. Adjust wall thickness as follows:

Casing Pipe may be 12.6 mm or thicker instead of 21.4 mm as indicated. A thicker wall thickness may be required, subject to the casing drive loading which is dependent on the sub-contractor performing the boring and jacking.

Q5: Will the proposed watermain be installed down 6th street and Alonzo Way?

A5: No, This is possible future work.

Q6: Are there MoTI and CP permits available for pay Items 6.1 & 9.1 as it is difficult to price without knowing their requirements?

A6: Please find attached the MOTI permit in Appendix C. For the CP permit, the Village is still in the application process. This Addenda captures all CP requirements as far as they are known at the time of Tender.

The CP Flagging requirements are listed below:

**GROUNDWATER DEVELOPMENT PROJECT
FOR THE VILLAGE OF LYTTON**

Issued: OCTOBER 17, 2017

PAGE 6 OF 7
ADDENDUM # 3

The list of interested tenders has been updated based on those who have contacted Opus.

Section 01571 CP Monitoring Program is Issued.

MOTI Permit Documents are provided for information.

The following is a list of Attachments which is part of Addendum #3.

ATTACHMENTS

- .1 Appendix A - List of Tenderer's
- .2 Appendix B – Section 01571 CP Monitoring Program
- .3 Appendix C – MOTI Permit Documents

**GROUNDWATER DEVELOPMENT PROJECT
FOR THE VILLAGE OF LYTTON**

Issued: OCTOBER 17, 2017

PAGE 7 OF 7
ADDENDUM # 3

Addendum No. 3 received.

Name of Tenderer (please print)

Signature of Tenderer

****** END ADDENDUM #3 ******

**GROUNDWATER DEVELOPMENT PROJECT
FOR THE VILLAGE OF LYTTON**

Issued: OCTOBER 17, 2017

ADDENDUM # 3

**APPENDIX A
LIST OF TENDERERS'**

List of Tenderers

File: D-99404.00	Sheet: 1	Date: October 12 th 2017		
Contact Kendrick Carnes if you are Interested in Bidding on this Tender and would like to be added to this list: Kendrick.Carnes@opusinternational.ca or at 250-562-0038				
General or Sub Contractor	Name	Company	Phone	Email
General	Scot Brydon	The Industria Group	604-527-8850	sbrydon@industria.ca
General	Tom Falladown	Big Rock Construction Company	778-469-0020	Tom Falladown
General	Duc Hong	ONEC Group	780-440-0999	Duc.Hong@onecgroup.com
General	Kelly Mackenzie	Carver Construction	778-753-3800	kmackenzie@carverconstruction.ca
General	Darryl Lauridsen	Lb Chapman Construction	250-308-6332	kmackenzie@carverconstruction.ca
Subtrade	Matt Jordan	Harrison Industrial	250-828-1996	matt.jordan@harrisonindustrial.ca
Subtrade	Lance Turner	Jewel Welding Pipe-Fab and Coatings	604-467-4741 ext. 606	lturner@jewelholdings.com
Subtrade	David Loucks	Interior Instruments	250-717-8813	DavidL@iitsltd.com
Subtrade	Steve Gubeli	Western System Controls	250-491-5000	sgubeli@wsc.ca
Subtrade	John Braun	US Pipe Canada	604-370-3200	johnbraun@uspipecanada.com
Subtrade	Rak Ramachandra	BFL Fabricators Ltd.	780-955-3465 ext. 8590	Rakshith.Ramachandra@bflfabricators.ca>
Subtrade	Darrell Moore	Precision Service and Pumps Inc.	604-850-7010	darrell@precision-pumps.com
Subtrade	Brent Williamson	Canada Pipe	604-360-0960	Brent.williamson@canadapipe.com

**GROUNDWATER DEVELOPMENT PROJECT
FOR THE VILLAGE OF LYTTON**

Issued: OCTOBER 17, 2017

ADDENDUM # 3

**APPENDIX B
Section 01571 CP Monitoring Program**

Section 01571 CP Monitoring Program

1. General

1.1 Description

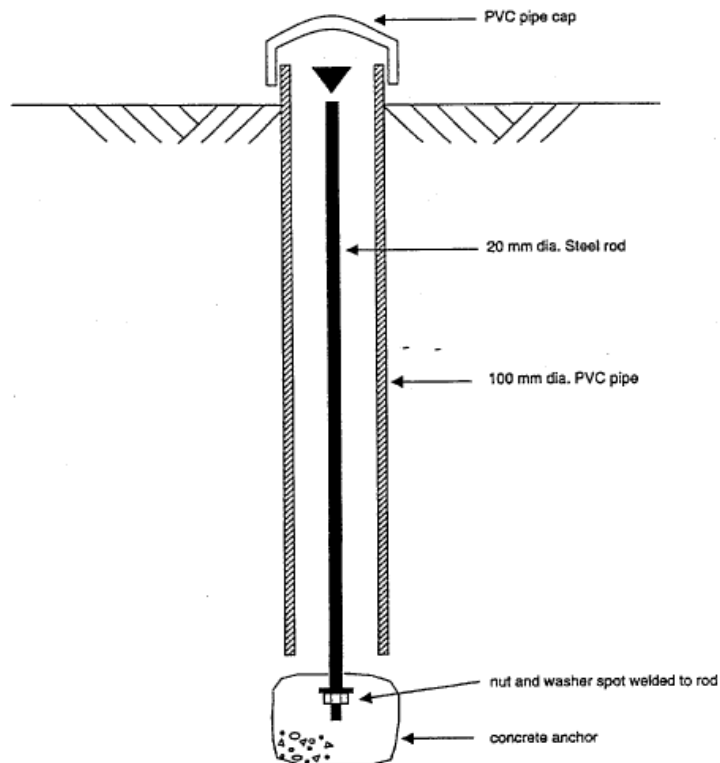
- .1 This Section describes the Installation Monitoring program that CP requires during the installation of the watermain crossing. The Monitoring program includes the installation of two sub-surface monitoring holes and the establishment of a series of surface monitoring points as shown on Drawing C111.

1.2 Standards

- .1 CPR's Track Monitoring Requirements for Third Party Projects.

1.3 Sub-Surface Monitoring Hole

- .1 The sub-surface monitoring holes as shown in the sketch below shall be installed such that the bottom of the hole is 1 m above the crown of the casing profile.



- .2 A 20 mm diameter steel rod shall be placed in a concrete anchor at the bottom of each hole. The concrete must be below the casing as to let the concrete and rod move freely and independently, if the ground settles or heaves.
- .3 The casing shall be 100 mm diameter PVC pipe complete with PVC cap.

1.4 Surface Monitoring Points

- .1 Set three permanent, rigid bench marks, close but away from the tracks and work area from which to monitor possible track movement.
- .2 Establish surface monitoring points in a 2.36 m spacing on the tracks, as shown on the Drawings.
- .3 Mark the monitoring points on the rail with a permanent marker and on the railway tie beneath.
- .4 Monitor surface monitoring points in pairs at the base of rails perpendicular to the centre - line of the track. Locate the first pair of surface monitoring points at the intersection of the proposed center line of the pipe crossing and the existing center line of track. Locate the next pair of surface monitoring points at a distance of 2.36 m along the center line of track on each side of the first surface monitoring point. All additional surface monitoring pairs shall be spaced with the same measurement of 2.36 m from the last monitored pairs up to a distance of 11.8m from the first monitoring point, on both the north and south sides and on the 3 sets of tracks.
- .5 Monitor and record differential transversal elevation between both rails over the projected settlement trough.
- .6 Monitor elevations to the closest 1mm (+/- 1mm)

1.5 Monitoring

- .1 Monitor surface and sub-surface monitoring points as close to ‘simultaneously’ as possible, while pipe casing installation is on-going.
- .2 Start the monitoring before the excavation of the pits and pipe installation and at least twice per day for no less than two days, prior to commencing. This is required to establish a reliable methodology and demonstrate that accuracy is achievable.
- .3 Monitor through the construction period and at least twice daily and continue for at least 3 days after the completion of the casing pipe.
- .4 If there is any loss of ground, or heaving, during pipe installation, any reason to believe settlement may be delayed or any settlement is identified during the installation of pipe or subsequent monitoring period, the monitoring must be continued until the proponent's geotechnical engineer deems it is safe to discontinue such monitoring.

1.6 Monitoring Frequency

- .1 Monitoring measurements should be taken with sufficient frequency to capture the unexpected performance at the earliest possible stage and be evaluated in a timely

manner. Additional measures will be proposed should this monitoring protocol be considered insufficient based on the ground conditions or installation process.

1.7 Alarm Levels

- .1 Two alarm levels are required if unforeseeable track settlement or heave occurs or is expected.
- .2 Each warning shall be communicated to the CP Roadmaster, Manager Structures and Director Geotechnical Engineering, and the Geotechnical Engineer.
- .3 The two alarm levels are the following;
 - a) Level 1 “Warning” will be communicated should 10 mm of settlement or heave occur on any of the three tracks or sub-surface monitoring points. A survey of the surface points will then be conducted and work will be authorized to continue if no movement has been measured from the previous reading. If movement of the rails is recorded, monitoring will be continued until movement is stopped at which time the boring work will then be authorized to continue.
 - b) Level 2 “Critical” will be communicated should 19 mm of settlement or heave occur on any of the three tracks or sub-surface monitoring points. A survey of the surface points will then be conducted and work will be authorized to continue if no movement is measured for at least two (2) readings taken 12 hours apart. If movement of the rails is recorded, monitoring will be continued until movement is stopped.

2. Products

- .1 Not Used

3. Execution

- .1 The Contractor is responsible for ensuring that track settlement does not occur and notifying CP Roadmaster should unforeseeable track settlement occur or be expected.
- .2 The contractor shall provide the settlement information and their interpretation of the data (no track settlement, deep settlement, etc. and how much track settlement has occurred, is likely to occur and when it is likely to occur) in terms that CP Roadmaster can easily understand. This information should be directed to Local CP Roadmaster, Manager structures, Director Geotechnical Engineering, and the Owner’s Engineer.

End Of Section

**GROUNDWATER DEVELOPMENT PROJECT
FOR THE VILLAGE OF LYTTON**

Issued: OCTOBER 17, 2017

ADDENDUM # 3

**APPENDIX C
MOTI Permit Documents**



PERMIT TO CONSTRUCT, USE, AND MAINTAIN WORKS WITHIN THE RIGHT-OF-WAY OF A PROVINCIAL PUBLIC HIGHWAY

PURSUANT TO TRANSPORTATION ACT AND/OR THE INDUSTRIAL ROADS ACT AND/OR THE MOTOR VEHICLE ACT AND/OR AS DEFINED IN THE NISGA'A FINAL AGREEMENT AND THE NISGA'A FINAL AGREEMENT ACT.

BETWEEN:

The Minister of Transportation and Infrastructure

Thompson Nicola District
127-447 Columbia Street
Kamloops, British Columbia V2C 2T3
Canada

("The Minister")

AND:

Village of Lytton Rebecca Anderson, CAO

("The Permittee")

WHEREAS:

A. The Minister has the authority to grant permits for the auxiliary use of highway right of way, which authority is pursuant to both the Transportation Act and the Industrial Roads Act, the Motor Vehicle Act, as defined in the Nisga'a Final Agreement and the Nisga'a Final Agreement Act;

B. The Permittee has requested the Minister to issue a permit pursuant to this authority for the following purpose:

The installation, operation, and maintenance of Two (2) DN200mm Ductile Iron water mains encased in DN750 Steel Casing Pipe crossing the Trans Canada Highway #1 via pipe ramming and 160 meters of water line running along the western edge of Main Street through IR #18 in Lytton.

All works to be in accordance with the Application submitted June 15, 2017, Design Drawing D-99404.00 LCOMB1-PLAN/PROFILE submitted June 15, 2017, Design Drawing D-94404.00 Raw Water Pipeline Plan & Profile 0+000 to 0+276 (Main St) submitted August 12, 2017 all prepared by Opus and Additional Clauses.

An accepted Traffic Management Plan is required prior to the works commencing.

C. The Minister is prepared to issue a permit on certain terms and conditions;

ACCORDINGLY, the Minister hereby grants to the Permittee a permit for the Use (as hereinafter defined) of highway right of way on the following terms and conditions:

- 1. That the construction and maintenance of the said works is carried out to the satisfaction of the Regional Director, Transportation.
2. That, before opening up any highway or interfering with any public work, intimation in writing of the intention to do so must be given to the District Official at least seven days before the work is begun.
3. That any person appointed by the Regional Director, Transportation, for the purpose shall have free access to all parts of the works for the purpose of inspecting the same.
4. That the construction of the said works shall not be commenced on or before the 11th of October, 2017 and shall be prosecuted with due diligence and to the satisfaction of the Regional Director, Transportation, and shall be completed on or before the 31st of October, 2018.



5. (a) The highway must at all times be kept open to traffic. The roadway must be completely restored for traffic as soon as possible. At all times the permittee must safeguard the traveling public.
- (b) That, unless with the consent of the Regional Director, Transportation, no more than forty-five (45) metres of pipe-track or other excavation in any public highway is to be kept open at one time.
- (c) All excavation work must be carried out in accordance with the BC Occupational Health and Safety Regulation. Care shall be taken to protect adjacent property.
- (d) That all excavations shall be carefully back-filled with suitable material, which is to be tamped into place, and that the permittee shall restore the surface of the road and shoulders and ditches at his own expense. All surplus material is to be removed from the Provincial Crown lands, or deposited where and as required by the District Official of the Ministry of Transportation and Infrastructure. The permittee is financially responsible for any maintenance works required on said ditch for a period of one year. The Ministry will carry out the necessary remedial work and invoice the permittee monthly.
- (e) The pipeline crossing installation is to be placed by drilling and (or) jacking in such a manner as to afford minimum grade settlement. No water jetting will be permitted. That where, in the opinion of the District Official, an excavation or opening for a pipeline crossing installation could be made which would not be detrimental to the highway or its users, permission will be granted for said works. On throughways, freeways, and main highways no open cuts will be allowed.
- (f) That all pipelines in excess of a nominal diameter of 5 cm., whether gas, oil, water, pressure sewers, conduits, etc., shall be installed where indicated by the District Official, encased in a steel casing-pipe or conduit-pipe of sufficient strength to withstand all stresses and strains resulting from the location, such casing to extend the full width of the highway right-of-way if deemed necessary to the District Official. The ends of the casing-pipe shall be suitably sealed and, if required, properly vented above the ground with vent-pipes not less than 5 cm. in diameter, and extending not less than 1.2 metres above ground surface. Vent-pipes shall be connected 30 cm. from the ends of the casing-pipe, and the top of each vent shall be fitted with a turn-down elbow, properly screened and equipped with identification markers.
- All pipelines of non-rigid material, i.e., plastic or copper, of any diameter, shall be cased, or embedded in sand.
- The inside diameter of the casing-pipe shall be at least 25 percent larger than the outside diameter of the pipeline. The casing-pipe shall be installed with an even bearing throughout its length, and in such a manner so as to prevent leakage, except through the vents.
- The top of the casing-pipe, or the pipeline where casing is not required, shall be located as directed by the District Official, and shall in no case be less than 1.2 metres below the surface of the highway and not less than 75 cm below the highway ditches. Pipelines must not obstruct drainage structures or ditches or interfere with traffic on the highway or with highway maintenance.
6. That where the work for which permission is hereby granted comes in contact with any bridge, culvert, ditch, or other existing work, such existing work must be properly maintained and supported in such manner as not to interfere with its proper function during the construction of the new work, and on the completion of the new work the bridge, culvert, ditch, or other existing work interfered with shall be completely restored to its original good condition.
7. That when necessary all excavations, materials, or other obstructions are to be efficiently fenced, lit, and watched, and at all times every possible precaution is to be taken to ensure the safety of the public.
8. That the person or persons for whom these works are being constructed, or by whom these works are maintained, shall at all times accept full responsibility for any accident that may occur or damage that may be done to any person or property whatsoever caused directly or indirectly by these works, and shall save harmless and keep indemnified the Crown from all claims and demands whatsoever in respect of the works.
9. That the permission herein granted to use and maintain the works is only granted for such times as the land or public work in, upon, or over which the said works are constructed is under the jurisdiction of the Minister of Transportation and Infrastructure. This permission is not to be construed as being granted for all time, and shall not be deemed to vest in the permittee any right, title or interest whatsoever in or to the lands upon which the works are constructed. Should the lands affected at any time be included within that of an incorporated municipality or city, this permission shall become void, unless the works are on a highway duly classified as an arterial highway pursuant to Section 45 of the Transportation Act.
10. That after receiving notice in writing of the intention on the part of the Provincial Government to construct, extend, alter, or improve any public work, the person or persons responsible for the maintenance of the works for which permission is hereby granted shall within six weeks move or alter such work at his or their own expense to such new positions or in such manner as may be necessitated by the construction, extension, alteration, or improvement proposed to be carried out by the Provincial Government.
11. That while reasonable care will be taken on the part of the Provincial Government to do as little damage as possible to any private work in the carrying-out of the construction, extension, alterations, improvement, repair, or maintenance of any public work adjacent thereto, the Provincial Government can accept no responsibility for any kind of such damage.
12. That the permission hereby granted to construct, use, and maintain work is granted without prejudice to the provisions of the



Transportation Act, or other Acts governing Crown lands and public works or their use by the public.

13. That this permission shall be in force only during such time as the said works are operated and maintained by the applicants, to the entire satisfaction of the Regional Director, Transportation.
14. That the Ministry will not be responsible for grade changes on accesses caused by reconstruction of any Provincial highway.
15. This permit is valid only for the specific works stated herein. Any alterations or additions must be covered by a separate permit.
16. This permit may be canceled, at the discretion of the Minister, without recourse, should the permittee fail to comply with all the terms of the permit. Thirty days' notice will be given before cancellation.
17. When the requirements of the Ministry necessitate use of the said lands for Provincial purposes, at the discretion of the Minister, this permit may be canceled.
18. That these works shall be identified with this permit number in a manner satisfactory to the District Official of the Ministry of Transportation and Infrastructure.
19. As a condition of this permit, the permittee unconditionally agrees with the Ministry of Transportation and Infrastructure that the permittee is the prime contractor or will appoint a qualified prime contractor, as described in Section 118 of the Workers Compensation Act, for the purposes of the work described by this permit, at the work location described in this permit, and that the permittee or designated prime contractor will observe and perform all of the duties and obligations which fall to be discharged by the prime contractor pursuant to the Workers Compensation Act and the Occupational Health and Safety Regulation.
20. The permittee is advised and acknowledges that the following hazards may be present at the work location and need to be considered in co-ordinating site safety: overhead hazards, particularly electrical or telecommunications lines; buried utilities, particularly electrical, telecommunication, and gas lines; traffic, danger trees, falling rocks, and sharp or infectious litter.
21. Any works within the Ministry right-of-way that fall within the scope of "engineering" under the Engineers and Geoscientists Act will be performed by a Professional Engineer, and shall comply with this Ministry's "Engineer of Record and Field Review Guidelines". The Guidelines can be viewed on the Ministry's website at <http://www2.gov.bc.ca/assets/gov/driving-and-transportation/transportation-infrastructure/engineering-standards-and-guidelines/technical-circulars/2009/t06-09.pdf>
22. The permittee is responsible for preventing the introduction and spread of noxious weeds on the highway right-of-way as defined by the British Columbia Weed Control Act and Weed Control Regulation.
23. Any area of Right of Way disturbed during the permitted Works including road shoulders, fill slopes, cut slopes, ditch, and the utility corridor is to be restored to their original grade and compaction and left in a neat, tidy and free draining condition. All slash, logs or brushing debris is to be burned or hauled clear of the right of way. All rocks or debris greater than 5 cm in size are to be disposed of clear of the right of way and areas where the soil has been disturbed are to be restored and re-seeded with a Ministry of Forests approved range grass mixture to reduce the potential of erosion and the growth of noxious weeds.

ADDITIONAL CLAUSES

24. The field supervisor for the Permittee and Contractor is to have a copy of this Permit on site during field operations and be aware of all Permittee conditions.
25. Applicant to notify the Ministry District Official one week prior to starting construction.
26. Except where trenching is well clear of the road shoulder, all excavated material must be removed from the site immediately.
Stockpiling of native material adjacent to the trench is not permitted.
Trenches must be backfilled or adequately covered at the end of the work day.
Trench shoring must conform to WorkSafe BC standards and is to be used where soil conditions warrant. Extreme care must be taken to avoid sloughing of the trench sides to minimize damage to the subgrade beyond the limits of excavation.
27. The Permittee is to ensure the construction area is properly signed in accordance with the current Ministry of Transportation and Infrastructure - Traffic Control Manual for Works on Roadways and certified traffic control persons provided during construction, where warranted.



28. Pipe bedding must conform to industry standards.
- Trenches must be backfilled with granular material that meets Ministry standards as set out in Section 202.02 (Table 202-C), 2012 Standard Specifications for Highway Construction and all subsequent interim revisions and updates, in accordance with the following minimum requirements:
- (a) Sub-base material must meet or exceed specified requirements for Select Granular Sub Base aggregates.
- (b) Crushed Base Course depth is to match existing depth, but must not be less than 300 mm compacted thickness and consist of "25 mm minus" WGB (or IGB) crushed aggregate.
- Backfill must be placed in layers not exceeding 150 mm compacted thickness and shall be compacted with approved tamping equipment to a minimum of 95 percent Proctor density to within 300 mm of the surface and 100 percent for the final 300 mm.
29. Properly equipped trained and experienced traffic control person(s) are required to control traffic during periods of alternating traffic or at any time where equipment, work crews, or materials interfere with the traffic flow.
30. The Permittee is to ensure that no damage is done to any existing underground or overhead services and must contact the electrical, telephone, and natural gas utility and any private landowner having works under Permit to verify the location of utility works that may be affected prior to opening up any portion of the public road allowance.
31. All debris, slash and refuse created by these works to be cleaned up to the satisfaction of the District Official, Ministry of Transportation and Infrastructure.
32. Permittee to be responsible for the supply of all labour, equipment, materials in connection with these works.
33. Permittee to be responsible for all future maintenance of said works for the duration of permit. This permit is not transferable and valid only for the Permittee.
34. No dirt, sand or waste materials to be stored on the road, road shoulder or ditch. Any road debris shall be removed, washed/swept from the road daily and to Ministry standards.
35. Permittee is responsible for ensuring that all works are contained to the highway right of way. Any works located within private property must have the owner's permission.
36. The Minister may order the removal or alteration of utility installations, if necessary, for the protection of the highway or highway users. If the utility owner does not respond to an order to remove or alter a utility installation, the Minister may carry out that work and recover costs from the utility.
37. All highway drainage works are to be restored to their original, or better condition.
38. The Permittee shall be responsible for the preservation during construction of all geodetic benchmarks, survey monuments and property markers on the right-of-way. The Permittee shall use, at no expense to the Ministry, a British Columbia Land Surveyor to replace any survey monuments destroyed or damaged as a result of the Permittee's negligence. At locations where construction work will cover or destroy such markers, the Permittee shall not move or remove them until written direction is received from the Ministry Representative.
39. The Permittee shall take all reasonable precautions to attempt to ensure the safety of the public in connection with the Use. In particular, but not so as to limit this obligation, the Permittee shall, if so required by the Designated Ministry Official on reasonable grounds, prepare and implement a traffic control plan. The contents of the plan and the manner in which it is implemented must meet the reasonable satisfaction of the Designated Ministry Official.
40. The Permittee shall, at his cost, supply, erect, and maintain standard traffic control devices in accordance with the Ministry of Transportation and Infrastructure Traffic Control Manual for Works on Roadways and Occupational Health and Safety Regulation.
41. Unless specifically addressed elsewhere in this permit all utilities shall be installed in accordance with the BC Supplement to TAC Geometric Design Guide and Utility Policy Manual, available at <https://www.th.gov.bc.ca/permits/utility%20permit%20manual.pdf>.
- The use of trenchless technology (which includes boring, tunneling and jacking) under the highway structure must be carried out in accordance with Section 13 of the Utility Policy Manual.
- The top of any water or sewer line or casing must be at least 1.2 metres below the top of the road surface and have sufficient cover to avoid freezing.
- The top of water or sewer lines or their casings must be at least 1.0 metre below design ditch bottoms (as indicated by the District Highways Manager or their designate), and have sufficient cover to avoid freezing.



- 42. All work is to be carried out to the satisfaction of the District Manager, Ministry of Transportation and Infrastructure. The Ministry reserves the right to have repairs carried out (if the permittee fails to comply with the clauses above) and to bill the applicant for the full cost of any such repairs or cleanup, if found necessary.
- 43. The Permittee will at all times indemnify and save harmless Her Majesty the Queen in Right of the Province of British Columbia, as represented by the Minister of Transportation, and the employees, servants, and agents of the Minister from and against all claims, demands, losses, damages, costs, liabilities, expenses, fines, fees, penalties, assessments and levies, made against or incurred, suffered or sustained by any of them, at any time or times (whether before or after the expiration or termination of this permit) where the same or any of them are sustained in any way as a result of the Use, which indemnity will survive the expiration or sooner termination of this permit.
- 44. Permittee will be responsible to notify and gain approval of utility companies in advance of works.
- 45. Where existing codes and statutes indicate a more conservative design than the above permit conditions, those codes and statutes shall govern.
- 46. The Permittee shall be held responsible for necessary pavement repair resulting from settlement within the excavated area and crossing for a period of two (2) years. Any conditions deemed substandard by the representative must be repaired within 30 days of written notification. In cases of an emergency or hazardous condition or where the Permittee fails to comply within 30 days, the Ministry may effect repairs and invoice the Permittee for all related costs.

This permit cancels and replaces 2017-02424.

The rights granted to the Permittee in this permit are to be exercised only for the purpose as defined in Recital B on page 1.

Dated at Kamloops, British Columbia, this 10 day of October, 2017

On Behalf of the Minister



WORK NOTIFICATION/LANE CLOSURE REQUEST AND APPROVAL

If you have a DriveBC account, you can enter this data directly into DriveBC through the Web Input Utility (WIU). Otherwise, please submit prior to 6:30 a.m. or 24 hours in advance to: Ministry of Transportation District Office, and cc the Regional Transportation Management Centre (RTMC) at RTMC@gov.bc.ca. The RTMC requires 24/7 emergency phone numbers for all projects.

NOTE: This form is to be submitted ten (10) working days prior to the work being scheduled.

To: District Highways Manager, District Office, Telephone, Fax
From: (Organization), (Contact Person), Telephone, Fax

I request approval to work within the Ministry right-of-way (check as may boxes below as required):
North Bound, South Bound, East Bound, West Bound

I request approval to close the Ministry right-of-way indicated below (check as may boxes below as required):
North Bound, South Bound, East Bound, West Bound

Indicate all lanes affected: Right Turn Lane, Middle Lane, Left Turn Lane, Work on Shoulder, Curb/Outside Lane, Centre/Inside Lane, All Lanes, No Lane Closure

on (Highway Name) between (Landmark) and (Landmark)

from a.m./ p.m. to a.m./ p.m. on the following dates (yyyy/mm/dd) 20 / /
to 20 / / ; for the purpose of constructing the following works:

In the above noted direction, the highway is one (1) / two (2) / three (3) lanes wide and zero (0) / one (1) / two (2) lanes of traffic will be maintained in the same directions as the closure.

PLEASE ATTACH THE FOLLOWING:

- a) Traffic control diagram figure number as per "Traffic Control Manual for Work on Roadways";
b) A detailed Traffic Management Plan (format available at the District Highways Office)

APPROVAL SECTION

Request denied, Request approved as submitted, Request approved with the following changes:

- This approval is granted subject to traffic queues being monitored continuously by the Ministry or Project Representative while lane closure or traffic diversions are under way. Delays are not to exceed minutes over the normal travel time.
This approval is granted subject to traffic queues being monitored continuously by the Ministry or Project Representative while lane closure or traffic diversions are under way. Standards will be set as to what delays are acceptable to the public in the Traffic Management Plan and then work will commence once these limits have been reached and the Traffic Management Plan will be adjusted and re-approved accordingly.

The Ministry's Regional Transportation Management Centre 1-866-707-7862, must be contacted as follows:

- At the installation of the lane closure,
Upon removal of the closure,
This approval must be kept on-hand at the work site.

District Highways Manager (or Designate)

Date (yyyy/mm/dd)



DRIVE BC ROAD REPORT INFORMATION

If you have a Drive BC account, you can enter this data directly into DriveBC through the Web Input Utility (WIU). Otherwise, please submit prior to 6:30 a.m. or 24 hours in advance to: Ministry of Transportation District Office and cc the Provincial Highways Condition Centre (PHCC) at TRAN SCR PHCC (trscrphc@victoria1.gov.bc.ca) or fax PHCC at 604 660-9470. The PHCC requires 24/7 emergency phone numbers for all projects.

PLEASE CHECK BOXES AND FILL IN BLANKS

LANE	
Closure	<input type="checkbox"/> Scheduled <input type="checkbox"/> Emergency
Direction Bound	<input type="checkbox"/> North <input type="checkbox"/> South <input type="checkbox"/> East <input type="checkbox"/> West
DELAYS	
Delay Length (Minutes)	<input type="checkbox"/> 5 <input type="checkbox"/> 10 <input type="checkbox"/> 15 <input type="checkbox"/> 20 <input type="checkbox"/> 30 OR _____
Delay Type	<input type="checkbox"/> Single Lane Alternating <input type="checkbox"/> Single Lane <input type="checkbox"/> Shoulder <input type="checkbox"/> Shadow Vehicle <input type="checkbox"/> Pilot Car Controlled <input type="checkbox"/> Lane Closure
LOCATION	
Highway	_____ Km <input type="checkbox"/> North <input type="checkbox"/> South <input type="checkbox"/> East <input type="checkbox"/> West of _____ (Town/Community)
DURATION	
Duration	Beginning at _____ Hours Ending at _____ Hours
Dates	Starting _____ (yyyy/mm/dd) Ending _____ (yyyy/mm/dd) <input type="checkbox"/> Monday <input type="checkbox"/> Tuesday <input type="checkbox"/> Wednesday <input type="checkbox"/> Thursday <input type="checkbox"/> Friday <input type="checkbox"/> Saturday <input type="checkbox"/> Sunday
WORK BEING DONE	
SUBMITTED BY	
Name	_____ Call Sign _____
Phone Numbers:	Work _____ Cell _____ After Hours _____