

## PERMIT TO CONSTRUCT

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Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 37

Date: **AUGUST 09, 2023**

File No: **844.118.001**  
Permit No: **WS13225-2023**

Permit Holder: **Town of Grand Bank**  
**PO Box 640**  
**Grand Bank NL A0E 1W0**  
**townofgrandbank@townofgrandbank.net**  
**terryfleming@townofgrandbank.net**

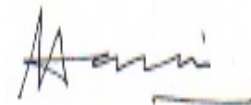
Attention: **Terry Fleming**

Re: **Grand Bank - Riverside Drive East Phase 2 Fish Plant Watermain**

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Permission is hereby given for : **the installation of 450 m of 350 mm HDPE watermain and related appurtenances as described in the drawings titled, "Town of Grand Bank Riverside Drive East Phase 2 Fish Plant Watermain" as received from Meridian Engineering Inc. on July 12, 2023; 17-GI-23-00086.**

- This Permit does not release the Permit Holder from the obligation to obtain appropriate approvals from other concerned municipal, provincial and federal agencies.
- The Permit Holder must obtain the approval of the Crown Lands Administration Division if the project is being carried out on Crown Land.
- This Permit is subject to the terms and conditions indicated in Appendices A and B (attached).
- It should be noted that prior to any significant changes in the design or installation of the proposed works, or in event of changes in ownership or management of the project, an amendment to this Permit must be obtained from the Department of Environment and Climate Change under Section 49 of the *Water Resources Act*.



(for) MINISTER

**APPENDIX A**  
**Terms and Conditions for Permit**

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**Water & Sewer General**

1. Water pumped from excavations or work areas, or any runoff or effluent directed out of work sites, must have silt and turbidity removed by settling ponds, filtration, or other suitable treatment before discharging to a body of water. Effluent discharged into receiving waters must comply with the *Environmental Control Water and Sewage Regulations, 2003*.
2. All operations must be carried out in a manner that prevents damage to land, vegetation, and watercourses, and which prevents pollution of bodies of water.
3. Any areas adversely affected by this project must be restored to a state that resembles local natural conditions. Further remedial measures to mitigate environmental impacts on water resources can and will be specified, if considered necessary in the opinion of this Department.
4. All waste materials resulting from this project must be disposed of at a site approved by the Department of Digital Government and Service NL.
5. The works proposed must satisfy the requirements of the latest applicable codes and standards, and be consistent with or otherwise address the design criteria set out in this Department's publication *Guidelines for the Design, Construction, and Operation of Water and Sewerage Systems, 2005*, and as amended from time to time.
6. The work must be undertaken in strict compliance with the submitted documents and the latest version of the *Municipal Water, Sewer and Roads Master Construction Specifications*. A copy of all documents, including the *Municipal Water, Sewer and Roads Master Construction Specifications* must be available for viewing at the construction site office at all times.
7. Liaison is to be maintained with the Environmental Scientist representing the Drinking Water and Wastewater Section of this Department, during the construction and operation of the project. They shall be notified of the pre-construction and post-construction meetings so that they may attend, if deemed necessary. They can be reached at telephone (709) 729-2558.
8. Officials of this Department may visit the project from time to time to ensure that work is carried out within the provisions of this Permit, and is not creating any environmental hazard.
9. Any changes in the approved works, or works other than those specified in the application, must be submitted, in writing, to this Department, and approved, in the form of an Amendment to this Permit, prior to any work.
10. Copies of this Permit, as well as any subsequent Amendments, must be provided to the contractor(s) who will be carrying out these works, and to the engineer's site representative.
11. The attached Completion Report (Appendix C) for Permit No. 13225 must be completed and returned to this Department upon completion of the approved works. Pictures must be submitted along with the completion report, showing the project site prior to and after development.

12. This Permit is valid for two years from the date of issue. Work must be completed by that date or the application and approval procedure must be repeated.
13. The drinking water and wastewater system shall be operated and maintained in accordance with the Permit to Operate issued by this Department.
14. Management of stormwater is the responsibility of the municipality or LSD. Stormwater management should focus on ensuring that the post-development stormwater runoff rate will be equal to or less than the pre-development runoff rate. Any stormwater runoff has the potential to contribute to flooding downstream which may have liability issues for the municipality or LSD if not managed properly.
15. The Owner must update any drawings maintained of the drinking water or wastewater system to reflect the modification or replacement of the works, where applicable.

### **Water Systems**

16. Under no circumstances shall sewage be permitted to enter the waterline trench during or after construction.
17. All new waterlines and appurtenances shall be hydrostatically tested in accordance with the *Municipal Water, Sewer and Roads Specifications*.
18. All components, lubricants and chemicals provided shall be compatible for use with drinking water and shall meet the requirements of ANSI/NSF 60 Drinking Water Treatment Chemical Standard and ANSI/NSF 61 Drinking Water and System Component Standard and any other standard applicable to potable water.
19. Backflow prevention devices should/must be installed on service connections where there is a high risk of contamination of the potable water supply.
20. Drains in valve chambers shall be equipped with a backwater valve and screening to prevent the entry of insects, birds, and rodents.
21. All new lines and appurtenances must be disinfected by an approved method described in the latest edition of the AWWA C651 Standard for Disinfecting Watermains and using only chlorine products that meet the NSF 60 standard.
22. After final flushing and before the new water main is commissioned into service, bacteriological sampling must be conducted as per the latest edition of the AWWA C651 Standard for Disinfecting Watermains. Two acceptable options are available: (1) two consecutive sets of bacteriological samples, taken at least 16 hours apart, must be collected and tested for bacteriological quality, or (2) following a 16 hour rest period two consecutive sets of samples, taken 15 minutes apart, must be collected and tested for bacteriological quality. Sets of samples shall be collected for every 366 m of new water main including the end of the main line and the end of each branch line. These sampling locations shall be determined by the engineer. **A copy of test results must be submitted to this Department (Water Resources Management Division) before the new watermain is placed into service.** In the event of any bacteria detected in the sample results, flushing and re-sampling may be attempted or the disinfection process will need to be repeated until results for two consecutive sets of samples are bacteria free. Where necessary, this Department should be contacted to determine provisions for the disposal of heavily chlorinated water.

23. For the purpose of disinfecting new or upgraded watermains, connection may only be made to the existing watermain provided a valve is installed that maintains a water tight seal. This valve may be operated to flush the new water extension before disinfection and post disinfection provided adequate measures and procedures are followed to avoid a backflow and contamination of the existing system.
24. The additional maximum demand for water exerted by consumers who are serviced by this project must not result in an exceedance of the available yield of the water source, maximum rated capacity of the water distribution system, or drinking water treatment plant as specified in the Permit to Operate.
25. Drain lines from air release/vacuum valves shall not discharge at the bottom of the chamber next to the floor drain unless there is an air gap on the line to prevent any possibility of backsiphonage of chamber water back into the potable water system. The air gap shall be located at a location on the line just above the crown of the watermain. If an air gap is not possible in this area, the drain line shall be shortened so it discharges higher than the crown of the watermain.
26. Additional water services resulting from this project will not adversely affect the distribution system's ability to maintain a minimum pressure of 140 kPa (20 psi) at ground level at all points in the distribution system under maximum day demand plus fire flow conditions.
27. The existing watermain that is being taken out of service must be permanently disconnected so as not to create a cross-connection with the town's water distribution system.
28. Wherever possible, water distribution system layouts should be designed to eliminate dead-end sections. Where dead-end mains cannot be avoided, they should be provided with a fire hydrant, blow off, or other acceptable measures taken to prevent problems associated with stagnation.

#### **Miscellaneous**

29. The Permit Holder must prevent erosion of drainage ditches, streams or other natural bodies of water by installing rip-rap and/or sodding.
30. This project involves the handling and/or dealing with asbestos cement pipe from certain portions of the work area. Any removal, handling or transport and disposal of asbestos must be carried out in accordance with the Asbestos Abatement Regulations 1998 under the Occupational Health and Safety Act. For further information, contact a Hazardous Materials Officer with the Department of Digital Government and Service NL, Occupational Health & Safety Division at (709) 729-5536 or 729-7037.

#### **Water & Sewer Installation**

31. Where the horizontal separation between watermains (including hydrant leads and drains) and gravity sanitary sewers is less than 3.0 metres, the watermain shall be laid in a separate trench, or on an undisturbed earth shelf located on one side of the sanitary sewer and at such an elevation that the invert of the watermain shall be a minimum of 450 mm above the crown of the sanitary sewer and 300 mm horizontally from the sanitary sewer measured edge to edge.
32. Watermains (including hydrant leads) crossing gravity sanitary sewers should be laid to provide a minimum vertical distance of 450 mm between the outside of the watermain and the outside of the sanitary sewer. This should be the case where the watermain is either above or below the sanitary sewer with preference to the watermain located above the sanitary sewer. At crossings, above or below, one full length of water pipe shall be located so both joints will be as far from the sanitary sewer as possible. Special structural support for the water and/or sewer pipes may be required.

**APPENDIX B**  
**Special Terms and Conditions for Permit**

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1. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall keep all systems and works in good condition and repair and in accordance with all laws, by-laws, directions, rules and regulations of any governmental authority. The Permit Holder or its agent(s), subcontractor(s), or consultant(s) shall immediately notify the Minister if any problem arises which may threaten the structural stability of the systems and works, endanger public safety and/or the environment or adversely affect others and/or any body of water either in or outside the said Project areas. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall be responsible for all damages suffered by the Minister and Government resulting from any defect in the systems and works, operational deficiencies/inadequacies, or structural failure.
2. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall operate the said Project and its systems and works in a manner which does not cause any water related and/or environmental problems, including but not limited to problems of erosion, deposition, flooding, and deterioration of water quality and groundwater depletion, in or outside the said Project areas. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall be responsible for any and all damages associated with these problems caused as a result of changes, deficiencies, and inadequacies in the operational procedures by the Permit Holder or its agent(s), subcontractor(s), or consultant(s).
3. If the Permit Holder or its agent(s), subcontractor(s), or consultant(s) fails to perform, fulfil, or observe any of the terms and conditions, or provisions of this Permit, as determined by this Department, the Minister may, without notice, amend, modify, suspend or cancel this Permit in accordance with the *Water Resources Act*.
4. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) indemnify and hold the Minister and Government harmless against any and all liabilities, losses, claims, demands, damages or expenses including legal expenses of any nature whatsoever whether arising in tort, contract, statute, trust or otherwise resulting directly or indirectly from granting this Permit, systems and works in or outside the said Project areas, or any act or omission of the Permit Holder or its agent(s), subcontractor(s), or consultant(s) in or outside the said Project areas, or arising out of a breach or non-performance of any of the terms and conditions, or provisions of this Permit by the Permit Holder or its agent(s), subcontractor(s), or consultant(s).
5. This Permit is subject to all provisions of the *Water Resources Act* and any regulations in effect either at the date of this Permit or hereafter made pursuant thereto or any other relevant legislation enacted by the Province of Newfoundland and Labrador in the future.
6. This Permit shall be construed and interpreted in accordance with the laws of the Province of Newfoundland and Labrador.

- cc: Mr. Kallan Fitzgerald  
Meridian Engineering Inc.  
10 Thompson Street  
Clarenville, NL A5A 1Y9  
kfitzgerald@meridianengineering.ca
- cc: Ms. Deneen Spracklin, P.Eng.  
Manager, Drinking Water and Wastewater Section  
Water Resources Management Division  
Department of Environment and Climate Change  
P.O. Box 8700  
4th Floor, West Block, Confederation Building  
St. John's, NL A1B 4J6  
dspracklin@gov.nl.ca
- cc: Mr. Inayat Rehman, P.Eng.  
Regional Engineer  
Department of Transportation and Infrastructure  
P.O. Box 8700  
St. John's, NL A1B 4J6  
inayatrehman@gov.nl.ca
- cc: Mr. Glenn Coates  
Occupational Health and Safety Officer  
Occupational Health & Safety, Service NL  
P.O. Box 8700  
St. John's, NL A1B 4J6  
GlennCoates@gov.nl.ca
- cc: Mr. Michael Duke (Clarenville - Eastern)  
Manager  
Digital Government and Service NL  
8 Myers Ave  
Clarenville, NL A5A 1T5  
michaelduke@gov.nl.ca



**Appendix C - Completion Report**

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 37

Date: **AUGUST 09, 2023**

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Attention: **Terry Fleming**

Re: **Grand Bank - Riverside Drive East Phase 2 Fish Plant Watermain**

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*I (the Permit Holder named above or agent authorized to represent the Permit Holder) do hereby certify that the project described above was completed in accordance with the plans and specifications submitted to the Department of Environment and Climate Change and that the work was carried out in strict compliance with the terms and conditions of the Permit issued for this project.*

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

This completion report must be completed and forwarded to the following address upon completion of the approved work.

Department of Environment and Climate Change  
Water Resources Management Division  
PO Box 8700  
St. John's NL A1B 4J6