The City of Winnipeg Bid Opportunity No. 210-2014 Template Version: C420131129 - RW

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APPENDIX 'B'

WORKING AROUND GAS LINES



PO Box 7950 Station Main ♦ Winnipeg, Manitoba Canada • R3C 0J1 Telephone / № de téléphone : (204) 360-4170 • Fax / № de télécopieur (204) 360-6172 agreaves@hydro.mb.ca

March 10, 2014

Wayne Jaworski Principal & Senior Project Manager, Transportation Morrison Hershfield Unit #1, 25 Scurfield Boulevard Winnipeg, MB R3Y 1G4

Dear Wayne Jaworski:

Re: St Matthew's Street Project

Below are Manitoba Hydro's general requirements for construction within the vicinity of natural gas mains and services. Once completed designs have been submitted to Manitoba Hydro those will be reviewed and further information and requirements shall be released, tailored specifically for this project. This may include requests that certain locations be excavated by hydrovac during construction, have rock wrap installed, or require the use of sand padding around the pipe.

1. Natural Gas Record Drawings

- Ensure all natural gas facilities are clearly marked on your drawings.
- At locations where work is likely to occur over gas mains, add the note "Caution, Gas".
- Please number all drawings and sheets in a consistent manner to allow ease of reference in further communication.

2. High Pressure Natural Gas Mains

- A Manitoba Hydro High Pressure Safety Watch is required for all construction activities within 3.0 m of a high pressure natural gas main.
- Contact "Call before you dig" 2 weeks prior to any work commencing within 3.0 m of the high pressure natural gas main to arrange for a Manitoba Hydro High Pressure Safety Watch at **204-480-1212**.
- Prior to construction at this location, please expose the main by hand or hydro-excavation in order to confirm elevation of the pipe. The elevations & corresponding locations shall be forwarded back to Greg Blazek at gblazek@bydro.mb.ca.
- The contractor and all site supervisory personnel and equipment operators shall be informed of the risks associated with working adjacent to and over this pipeline by the Resident Inspector. New site personnel during construction shall be orientated as to the significance and constraints associated with working over and around a high pressure natural gas main.

3. Distribution Pressure Natural Gas Mains over 219 mm diameter

• A Manitoba Hydro High Pressure Safety Watch may be required if any excavations are within 1.0 m of a 219.1mm natural gas main.

- A smooth edged bucket shall be used for any excavations within 1.0m of a large diameter distribution pressure main.
- Contact "Call before you dig" 2 weeks prior to any work commencing within 1.0 m of the 219.1mm distribution pressure natural gas main to arrange for a Manitoba Hydro Safety Watch at **204-480-1212**, if required.

4. Catch Basin/Man hole/other large excavations

• If proposed excavations for the removal and installation of catch basins or other large underground structures are to be within 1.0 meters a gas main, exposure of the main by hand or hydrovac is required.

5. Sidewalk Renewals

• Excavations shall be limited to removal of the existing concrete sidewalk. All further excavations within 1.0 meter of any natural gas main or service must be completed by hand or soft dig methods.

6. Asphalt Overlays and Road Reconstruction

- When excavations for concrete works are required within 1.0 meters of any natural gas main, the main must be exposed by hand or soft dig methods to verify the main elevation at intervals to be determined by the site inspector.
- Should a main be exposed to sub-base, the main requires rock wrap and may also require lowering.

7. Service Relocations (road reconstruction)

• This project may impact services. Services that are to be exposed in the subgrade must be rock wrapped and lowered during construction or replaced prior to construction. Manitoba Hydro will not be able to complete rock wrapping or lowering of any services unless the lowering is minimal (i.e. < 100-150mm or < 4-6").

8. General:

- Manitoba Hydro is NOT part of the ClickBeforeYouDigMB.com service and Hydro customers must continue to phone1-888-MBHYDRO (1-888-624-9376), or 204-480-1212 in Winnipeg, to arrange electric and natural gas line locates. Hydro is supportive of the ClickBeforeYouDigMB.com initiative but cannot participate at this time due to legislation which Hydro is lobbying to change.
- Please note that the requirements of Manitoba Hydro's Safe Excavation and Safety Watch guidelines shall apply. All construction operations within the vicinity of natural gas pipelines are to take place in a manner so as not to damage or cause detriment to the integrity of the natural gas pipeline. All natural gas pipelines and service lines must be properly located and marked by Manitoba Hydro personnel. Construction operations are not to commence unless these conditions are adhered to. **Call before you dig 480-1212.** (1-888-624-9376 outside of Winnipeg).
- All excavations within 1.0 meter of any natural gas main must be completed by hand or Hydro-excavation.
- A minimum vertical separation of 300 mm from gas mains and 100 mm from gas service lines must be maintained between any Manitoba Hydro facility and any new installations.
- A minimum 900 mm of cover shall be maintained in all areas where equipment will be crossing, traveling or compacting over the 168.3 mm, 219.1 mm, 273.1 mm, 323.9 mm,

355.6mm, and 406.4 mm gas mains. Vibratory compaction cannot be used over or within 3 m of a high pressure main or 1 m or a distribution pressure main.

- A minimum 600 mm of cover shall be maintained in all areas where equipment will be crossing, traveling or compacting over the 114.3 mm, 88.9 mm, 60.3 mm, and 33.4 mm gas mains. Vibratory compaction cannot be used over or within 3 m of a high pressure main or 1 m of a distribution pressure main.
- A minimum 450 mm of cover shall be maintained in all areas where equipment will be crossing, traveling or compacting over the gas service lines. Vibratory compaction cannot be used over or within 1 m of a service.
- If equipment must cross, travel, or compact over the gas main with less than the minimum depth of cover, earth bridging or steel plates shall be placed over the main and extend a minimum of 1.0 meter on either side at each crossing location.
- Caution must be used to ensure the integrity of the pipeline coating. Any damages to the coating must be reported to and repaired at no cost by Manitoba Hydro prior to backfilling.

Manitoba Hydro believes that there should be no problem with this work however; Manitoba Hydro makes no representations or warranties in that regard.

Please note that all construction drawings requiring review or approval must be mailed to Gas Pipeline Engineering, Box 7950 Station Main, Manitoba, R3C 0J1. If you wish to send construction drawings electronically, they may be sent to <u>GasDesign@hydro.mb.ca</u>.

If you have any questions or comments, please contact the undersigned at (204) 360-4170.

Regards, Andrew Greaves, P.Eng. Gas Design Engineer Gas Design Planning and Construction Dept.

AG/bc

Cc: Vern Los, Gas Supervisor - Notre Dame, Manitoba Hydro Shane Heiner, Gas Distribution MTCE - Notre Dame, Manitoba Hydro Larry Tole, Gas Program Advisor - Sutherland Ave, Manitoba Hydro