Manitoba Hydro

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3/17/2020

MH Gas File # 2020-0050

Rebecca Hewett-East
Transportation
Stantec Consulting Ltd.
500-311 Portage Avenue
Winnipeg, Manitoba R3B 2B9

Dear Rebecca Hewett-East:

Re: 2020-2021 Roblin Blvd. Pavement Renewal – Windmill Way to Dieppe Rd

Manitoba Hydro (Gas) has reviewed the design submitted by Stantec for the road and sewer renewals along Roblin Boulevard. The following parameters shall be followed when working in proximity to all natural gas mains. Please ensure that all requirements are communicated to your contractor.

1. **Natural Gas Record Drawings**
   - During the review it was noted that Manitoba Hydro's natural gas plant is incorrectly represented. Please update your records in accordance with the attached as-built drawings.
   - Yellow lines represent gas mains.
   - Note: Services not shown and must be traced for location.

2. **Special Concerns – Road and Sewer Works**

   Upon review, it was noted that proposed road and sewer construction along Roblin Boulevard cross and run parallel to a high pressure 355.6 mm steel gas main. A Manitoba Hydro High Pressure Safety Watch is required for all construction activities within 3.0 m of this gas main. Additionally, road and sewer work cross and run parallel with a large diameter 219.1 mm steel distribution pressure main. A Manitoba Hydro Safety Watch may be required for all construction activities within 1.0 m of these large diameter mains. All excavations within 1.0 m of any natural gas main must be completed by hand or Hydro-excavation. During construction, gas mains should not be undermined or exposed past the 3 o'clock and 9 o'clock positions on the cross section of the pipe.

   Please note the presence of a gas regulating station at the corner of Berkley St and Roblin Blvd. This station is outside of the proposed work area however is considered critical infrastructure and crews should be made aware of it.

Please locate any mains within 1.0 m or underneath the proposed road and sewer reconstruction, and investigate by hand or soft-digging to determine depth of cover in relation to both existing and proposed grades. Note that all locating and soft-digging requirements listed below are to be upheld.

If it is determined that a final minimum depth of cover of 600 mm for the 60.3 mm and 114.3 mm distribution mains cannot be maintained, or if 900 mm depth of cover cannot be maintained for 323.9 mm and 219.1 mm mains, then relocations or lowerings may be required. Under normal circumstances, the amount of time required to mobilize for small diameter distribution lowerings (60.3 mm and 114.3 mm) is approximately 3-5 months. Large diameter and high pressure distribution main lowerings (323.9 mm and 219.1 mm) would require approximately 6-12 months to complete due to engineering, approvals, and construction. Contact Andrew Greaves at agreaves@hydro.mb.ca or (204) 360-4170 to discuss options pertaining to lowerings or relocations as soon as possible for scheduling.

3. **Special Concerns – Fitting Replacement**

During the review, it was noted that Manitoba Hydro has a below grade flanged fitting requiring replacement in the project area. The flange exists under the proposed sidewalk reconstruction shown on Sheet 29 of your submitted plans (Lot 5031 on Roblin Boulevard). See the attached as-built drawing depicting the location of the Insulated Flange.

Manitoba Hydro will replace the below grade flange at no cost to your project, however it should be coordinated during construction to avoid additional impacts on the area. Please update us with an accurate schedule of the work in the area where the fitting is. For updates from Manitoba Hydro please contact:

Construction Updates and Coordination
Larry Tole
P: 204-360-5220
E: ltole@hydro.mb.ca

Under normal circumstances, the amount of time required to mobilize for this work is approximately 2-3 weeks.

4. **High Pressure Natural Gas Main**
   - Proposed road and sewer construction cross an existing 355.6 mm high pressure natural gas main. A Manitoba Hydro High Pressure Safety Watch is required for all construction activities within 3.0 m of the high pressure natural gas main.
   - Contact "Click before you dig" a minimum of 2 weeks prior to any work commencing within 3.0 m of the high pressure natural gas main to arrange for the pipeline to be properly located and marked by Manitoba Hydro personnel at **ClickBeforeYouDigMB.com or Call 1-800-940-3447.** Upon receiving clearances, the

excavator will be provided with the phone number of the appropriate District in order to coordinate a Manitoba Hydro High Pressure Safety Watch.

- Prior to construction at this location, please expose the main by hand or hydro-excavation every 25 m (or the distance set by the Manitoba Hydro safety watch) in order to confirm elevation of the pipe. The elevations & corresponding locations shall be forwarded back to Andrew Greaves at agreaves@hydro.mb.ca.
- Once the pipeline depth and location has been confirmed by hand or hydro-excavation, the safety watcher may authorize the limited use of mechanical excavation. A smooth edged bucket must be used for excavations within 3.0 m of the main.
- A minimum 900 mm of cover shall be maintained in all areas where highway rated equipment will be crossing, traveling or compacting over the 355.6 mm gas main. Vibratory compaction cannot be used over or within 3.0 m of a high pressure main.
- If highway rated equipment must cross, travel, or compact over the gas main with less than the minimum depth of cover, or if equipment heavier than highway rated load cross the main then submit construction plans to GasDesign@hydro.mb.ca.
- When working with less than minimum cover, a minimum 300 mm of granular material shall be bladed into place with tracked equipment offset from the pipeline. Then static compaction equipment would be allowed and built up in layers until minimum cover is achieved.
- Subbase material shall be bladed into place as opposed to being end dumped over the 355.6 mm gas main in areas with less than the minimum cover.
- 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.
- 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.

5. 219.1 mm Distribution Pressure Natural Gas Main

- Proposed road and sewer reconstruction cross an existing 219.1 mm distribution pressure natural gas main. A Manitoba Hydro Safety Watch may be required if any excavations are within 1.0 m of the 219.1 mm natural gas main.
- Contact "Click before you dig" a minimum of 2 weeks prior to any work commencing within 1.0 m of the 219.1 mm distribution pressure natural gas main to arrange for the pipeline to be properly located and marked by Manitoba Hydro personnel at **ClickBeforeYouDigMB.com or Call 1-800-940-3447**. Upon receiving clearances, the excavator will be provided with the phone number of the appropriate District in order to coordinate a Manitoba Hydro Safety Watch, if required.
- A minimum 900 mm of cover shall be maintained in all areas where highway rated equipment will be crossing, traveling or compacting over the 219.1 mm gas main. Vibratory compaction cannot be used over or within 1.0 m of a main.

- If highway rated equipment must cross, travel, or compact over the gas main with less than the minimum depth of cover, or if equipment heavier than highway rated load cross the main then submit construction plans to GasDesign@hydro.mb.ca.
- When working with less than minimum cover, a minimum 300 mm of granular material shall be bladed into place with tracked equipment offset from the pipeline. Then static compaction equipment would be allowed and built up in layers until minimum cover is achieved.
- Once the pipeline depth and location has been confirmed by hand or hydro-excavation, the safety watcher may authorize the limited use of mechanical excavation. A smooth edged bucket must be used for excavations within 1.0 m of the main.
- Subbase material shall be bladed into place as opposed to being end dumped over the 219.1 mm gas main in areas with less than the minimum cover.
- 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.

6. **Insufficient Cover**
   - Absolutely no work including concrete cutting or pavement breaking may occur over the pipeline (regardless of size) until depth of cover is determined and a safety watch is on site.

7. **Catch Basin, Leads, and Sewer Removal and Installation**
   - Proposed excavations for the removal and installation of catch basins, catch basin leads and sewers appear to be within 1.0 m of a gas main in which case will require exposure to be completed by hand or Hydro-excavation. Caution must be used when working in the vicinity of the natural gas mains at these locations.
   - Natural gas shall maintain a minimum horizontal clearance from deep utilities of 1.25 m.
   - A minimum separation of 300 mm from gas mains and 100 mm from service lines must be maintained for any new underground structure installations. If an underground structure must be installed with less than the minimum separation, an underground rigid foam barrier shall be placed over the main for protection. Submit plans for barrier installation to GasDesign@hydro.mb.ca.

8. **Sidewalk Renewals**
   - Excavations shall be limited to removal of the existing concrete sidewalk. All further excavations within 1.0 m of any natural gas main or service must be completed by hand or soft dig methods.

9. **Asphalt Overlays and Road Reconstruction**
   - When excavations for concrete works are required within 1.0 m 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.

10. Please add a "Caution – Gas" note to your drawing set wherever gas mains are present

11. 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. < 100-150 mm or < 4-6").
- Manitoba Hydro is currently performing lowerings and rock wrapping free of charge to City Of Winnipeg works during normal working hours.
- Under normal circumstances, the amount of time required to mobilize for this work is approximately 2-3 weeks.
- Please contact Larry Tole at 204-360-5220 or ltole@hydro.mb.ca for any work required on site.

12. General:

- Please note that the requirements of Manitoba Hydro's Safe Excavation and Safety Watch guidelines shall apply. All natural gas pipelines and service lines must be properly located and marked by Manitoba Hydro personnel. This can be arranged by visiting **ClickBeforeYouDigMB.com or call 1-800-940-3447.** Construction operations are not to commence unless these conditions are adhered to.
- All excavations within 1.0 m of any natural gas main must be completed by hand or Hydro-excavation.
- A minimum separation of 300 mm from gas mains and 100 mm from service lines must be maintained for any new underground structure installations. If an underground structure must be installed with less than the minimum separation, an underground rigid foam barrier shall be placed over the main for protection. Submit plans for barrier installation to GasDesign@hydro.mb.ca.
- A minimum 600 mm of cover shall be maintained in all areas where highway rated equipment will be crossing, traveling or compacting over the 114.3 mm and 60.3 mm gas mains. Vibratory compaction cannot be used over or within 1.0 m of a main.
- A minimum 450 mm of cover shall be maintained in all areas where highway rated equipment will be crossing, traveling or compacting over the gas service lines. Vibratory compaction cannot be used over or within 1.0 m of a service.
- If highway rated 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 m on either side at each crossing location. If equipment heavier than highway rated load cross the main, then submit construction plans to GasDesign@hydro.mb.ca.
- 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. 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 Design, 360 Portage Ave (18) Winnipeg, Manitoba, R3C 0G8. If you wish to send construction drawings electronically, they may be sent to GasDesign@hydro.mb.ca.

If you have any questions or comments, please contact the undersigned.

Regards,

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Gas Design Engineer – City of Winnipeg
Manitoba Hydro - Gas Design
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Email: agreaves@hydro.mb.ca

AG/DF

Cc: Larry Tole, Gas Distribution MTCE – Sutherland Ave, Manitoba Hydro
Robert Morrison, Damage Prevention – Sutherland Ave, Manitoba Hydro
Aaron Dueck, District Service Worker – Henlow Bay, Manitoba Hydro
Brian Jensen, Gas Distribution MTCE – Sutherland Ave, Manitoba Hydro
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