

APPENDIX 'J'

WORKING NEAR GAS MAINS

3/12/2020

MH Gas File # 2020-0034

Kelly Groff
Transportation Engineering, Manitoba
WSP
93 Lombard Avenue, Suite 111
Winnipeg, Manitoba R3B 3B1

Dear Kelly Groff:

Re: 1132-2019 - 2020 Watt Street Pavement Renewal for Review

Manitoba Hydro (Gas) has reviewed the design submitted by WSP for the pavement renewal project on Watt Street in Winnipeg. 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 on Sheet 7 of the submitted drawings. Please update your records in accordance with the attached as-built drawing.
- Yellow lines represent gas mains.
- Note: Services not shown and must be traced for location.

2. Special Concerns

Upon review, it was noted that proposed road construction and watermain installation occur over or within close proximity to 60.3 mm and 114.3 mm gas mains. 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.

Additionally, it was noted that the proposed watermain installation between Jamison Avenue and Washington Avenue on Watt Street runs parallel with a 60.3 mm gas main. Please note that natural gas alignment must maintain a minimum horizontal separation from the watermain of 1.25 m.

Please locate any mains within 1.0 m or underneath the proposed construction 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 gas mains cannot be maintained, then contact Phil Robertson at probertson@hydro.mb.ca or (204) 360-5709 to discuss options as soon as possible. The amount of time required to mobilize for small diameter distribution work is approximately 3-5 months.

3. 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.

4. Catch Basin, Manhole, Hydrant and Watermain Removal and Installation

- Proposed excavations for the removal and installation of catch basins, manholes, hydrants and watermains 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.

5. 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.

6. 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.

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

8. 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.

9. 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,



Phil Robertson, P.Eng.
Gas Design Engineer – Rural Area
Manitoba Hydro - Gas Design
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P: (204) 360-5709 C: (204) 990-1727
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PR/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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