

# **PART E**

# **SPECIFICATIONS**

## PART E - SPECIFICATIONS

### GENERAL

#### E1. APPLICABLE SPECIFICATIONS, STANDARD DETAILS AND DRAWINGS

- E1.1 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.1.1 *The City of Winnipeg Standard Construction Specifications* is available in Adobe Acrobat (.pdf) format on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.
- E1.1.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.1.3 Further to GC:2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.2 Appendix A and Appendix B are applicable to the work.
- E1.3 The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing</u>
1	Hart Combined Sewer District
2	Linden Combined Sewer District
D-8211	Water Supply Hose Traffic Ramp

#### E2. CONFINED SPACE ENTRY

- E2.1 The Contractor's attention is drawn to the Province of Manitoba Workplace Safety and Health Act ("the Act"), and the Regulations and Guidelines there-under pertaining to Confined Entry Work and in particular the requirements for conducting hazard/risk assessments and providing personal protective equipment (PPE).
- E2.2 Provide Supplied Air Breathing Apparatus conforming to the requirements of the Act, Regulations and Guidelines where confined entry is required to allow for completion or inspection the Work.

#### E3. SEWER AND MANHOLE CLEANING

- E3.1 Further to clause 3.13.9 of CW 2140, construct ramps as shown on attached drawing D-8211.
- E3.2 Further to clause 3.14 of CW 2140, water supply for the Work may be taken from City of Winnipeg hydrants in accordance with the following procedure:
- Before the Work starts the Contractor shall advise the Contract Administrator of the total number of hydrants anticipated to be used at any one time during the Work. The Contract Administrator will then arrange for an equal number of hydrant use permits to be obtained for the contract. The number of hydrants used for water supply shall not exceed the number of permits taken out.
  - The Contractor shall submit a list of proposed hydrant locations to the Contract Administrator who will submit the locations to the City of Winnipeg Water Services Division (WSD) for approval. If a proposed hydrant location is not approved, the Contractor shall submit an alternate hydrant location for approval.
  - Only hydrants approved by WSD shall be used for water supply.

- (d) The Contractor is permitted to turn approved hydrants on and off provided the Contractor has received training by Water Services Division and the turn-ons and turn-offs are done in the presence of the Contract Administrator.
- (e) WSD may at their discretion, instruct the Contractor to make the following arrangements for hydrant turn-ons and turn-offs:
  - (i) Contact WSD for hydrant turn-ons and turn-offs required between 0800 hours and 1500 hours Monday to Friday. Notice for turn-ons and turn-offs shall be provided on the previous business day.
  - (ii) Contact Emergency Services Branch (986-2626) with a minimum of 2 hours notice for hydrant turn-ons and turn-offs required outside of the above hours.
  - (iii) The Contractor shall wait at the hydrant from the requested turn-on or turn-off time until the City arrives to turn on or turn off the hydrant.
- (f) Hydrants approved for use shall be considered to be "in the Contractor's control" from the time the City has turned the hydrant on until the City has turned the hydrant off.
- (g) Between November 1 and April 30 of any year the Contractor shall take all necessary precautions to prevent freezing of hydrants and related appurtenances for hydrants in their control and shall be responsible to pump out hydrants turned off by Emergency Services.
- (h) If a hydrant or appurtenance is damaged due to freezing or improper turn on or turn off procedures while in the Contractor's control, WSD will assess the damage and determine if WSD will repair the damage or if the Contractor will be responsible to repair the damage. Costs for repairs completed by WSD will be deducted from payments owing the Contractor. Repairs completed by the Contractor will be at the Contractor's expense.
- (i) Erect and maintain signage (bump signs) warning oncoming traffic of hose crossings to the satisfaction of the Contract Administrator and the Manual of Temporary Traffic Control.

E3.3 Further to CW 2140, clauses 3.1, 3.2, 3.5 and 3.11, the complete removal of all grease shall be considered part of "Sewer Cleaning" and will not be considered for payment under "Solid Debris Removal".

E3.4 Further to clause 3.1.1 of CW 2140, the Contractor shall have nozzles capable of removing grease deposits from along the sewer walls.

E3.5 Revise clause 3.5.2 of CW 2140 to read "Clean sewers and manholes completely of all debris including; sludge, dirt, sand, gravel, rocks, bricks, grease and all other loose and semi-solid materials capable of being removed from the sewer by the equipment identified in clause 3.1 of CW 2140.

#### **E4. SEWER AND MANHOLE INSPECTION**

E4.1 Further to CW 2145, clause 3.4, provide inspection and condition coding operators conforming to the following conditions:

- (a) Revise clause .1 to read "Provide a minimum of one operator on site at all times with each inspection unit who holds a valid certificate from the North American Pipeline Inspectors confirming NAAPI Level of Qualification for WRc Operators or an acceptable alternate training program. Ensure each operator is fully trained in all aspects of sewer inspection and capable of making accurate observations and recording all conditions that may be encountered in the sewers."
- (b) Revise clause .3 to read "Perform condition coding using operators who hold a valid certificate from the North American Pipeline Inspectors confirming NAAPI Level of Qualification for WRc Operators or an acceptable alternate training program."

- (c) Revise clause .4 to read “Submit a valid copy of the NAAPI WRc Operators Certificate for each operator to the Contract Administrator at least 10 working days before starting the inspection work.

E4.2 Include measured manhole riser diameters on the header screen of manhole inspections. Revise clause 3.6.1.1 of CW 2145, Manhole Condition Coding, to read:

Header Description:

Manhole Street:	e.g. Berry St. at Wellington Av.
Location Description:	e.g. Intersection
Manhole ID Number:	e.g. MH00005328
Measured Distance	e.g. 3.8 m
Measured Riser Diameter	e.g. 750 mm
12:00 Reference Position:	e.g. North

E4.3 Further to CW 2145, clause 3.6, use the following Naming Conventions when entering street and place names in sewer or manhole inspection records:

Term	Naming Convention	Term	Naming Convention
Street	ST	First	1ST
Avenue	AV	Second	2ND
Boulevard	BV	Third	3RD
Road	RD	Fourth	4TH
Bay	BY	Fifth	5TH
Crescent	CR	Sixth	6TH
Lane	LN	North of	N OF
Drive	DR	South of	S OF
Place	PL	East of	E OF
Way	WY	West of	W OF
Cove	CV	North Property Line	NPL
Highway	HW	South Property Line	SPL
		East Property Line	EPL
		West Property Line	WPL
		Centre Line	CL

E4.3.1 Use uppercase lettering for all street/place naming and location descriptions. Where possible reference street locations relative to the direction of flow. Reference sewer location using street name and start/end manhole locations as follows:

- (a) Street/Place
  - (i) Enter the street name, followed by a Naming Convention, if required, in brackets noting its location within the right of way, e.g. OAK ST (N OF CL).
- (b) Location Description

- (i) Enter location of start manhole relative to closest upstream Cross Street, followed by "TO", followed by location of end manhole relative to closest upstream Cross Street, e.g. 3RD MH N OF CORYDON AV TO 4TH MH N OF CORYDON AV.

E4.4 Further to CW 2145, clause 3.10, analog format video recordings (VHS) will not be required.

E4.5 Further to CW 2145, clause 3.11:

- (a) Only digital format video recordings will be required and shall be submitted on digital versatile discs, DVD-R format;
- (b) Revise CW 2145, clause 3.11.1 to read "Capture the inspections in digital format in colour from the live video source to the following requirements. (.1) XSVCD MPEG-2 Format (.2) Picture Size: NTSC 352 x 240 @ 29.97 frames per second (.3) Data/Bit Rate: MPEG-2 @ 3.0 M-bits/sec.";
- (c) Revise CW 2145, clause 3.11.3 to read "Digital video inspections can be saved to a hard-drive or other intermediary media and later transferred to DVD-R format recordable digital versatile disk media for submission.";
- (d) Revise CW 2145, clause 3.11.6 to read "Submit digital files of the original video inspections to the Contract Administrator on recordable digital versatile disks (DVD-R) in 5.2 millimetre slim-line clear "jewel cases" capable of securely displaying a summary sheet containing the information listed in Section 3.14 of this specification."

E4.6 Further to CW 2145, the Contractor will be required to fill out a "GIS Error Identification Form" in the event that the field verified configuration of the sewer plant differs from the information supplied in the Contract Documents.

E4.6.1 The contract drawings are based on information contained in the City's GIS database. If the Contractor has trouble interpreting the drawings, or if they believe them to be wrong, the on-site inspector should be approached for assistance/clarification.

E4.6.2 The Contractor shall note the exact details and measurements of any discrepancies on a "GIS Error Identification Form" which will be provided in MS Word or another format suitable to the Contractor along with a "PDF" map of the district for use in the Inspection Vehicle.

E4.6.3 Error forms should be submitted to the resident Inspector the same day that the error is discovered.

## **E5. TRAFFIC CONTROL AND MAINTENANCE OF ACCESS**

E5.1 Further to Section 3.7 of CW 1130 of the General Requirements the Contractor shall be responsible to redirect and maintain traffic with appropriate signing in accordance with The City of Winnipeg, "Manual of Temporary Traffic Control in Work Areas on City Streets" at all times.

E5.2 Work shall not be carried out on Regional Streets between 07:00 to 09:00 hours and 15:30 to 17:30 hours Monday to Friday and other hours as directed by the Contract Administrator.

E5.3 Should the City of Winnipeg require that work on Regional Streets be carried out at night, on Sundays or on public holidays, the Contractor shall comply without additional compensation being considered to meet these requirements.

E5.4 Further to Section 3.8 of CW 1130 of the General Requirements parking restriction signing on Regional Streets will be done by The City of Winnipeg, Traffic Services Branch.

E5.5 The following is a list of the Regional Streets in the Hart and Linden Sewer Districts:

- (a) Hart:
  - (i) Henderson Highway,
  - (ii) Hespler Avenue,
  - (iii) Talbot Avenue,
  - (iv) Nairn Avenue,
  - (v) Watt Street.
- (b) Linden:
  - (i) Henderson Highway.

- E5.6 The Contractor will be responsible for parking restriction signing required to perform the Work on non-regional and local residential streets. "No Parking" signs will be provided for the Contractor's use.
- E5.7 Erect signs no sooner than 24 hours before the work commences at a particular location.
- E5.8 Record the license plate numbers of vehicles already parked within the limits where the parking restriction signs are placed and fax the information to Winnipeg Police Services, Traffic Branch at 986-6998.
- E5.9 Promptly remove parking restriction signs once the Work at that location is completed. Signs shall not be left in place over a weekend if no work will be done at that location.
- E5.10 Return signs immediately upon completion of the Work.
- E5.11 Further to Section 3.6 of CW 1130 of the General Requirements, maintain safe pedestrian crossing at intersections at all times. Only one pedestrian crossing at an intersection is to be blocked at any one time. If more than one pedestrian crossing is blocked at an intersection at the same time the Contractor shall provide flag persons to safely escort pedestrians across the intersection.
- E5.12 Do not park company or private vehicles inside the signed work zone in a manner that will block sightlines for vehicles and pedestrians approaching and crossing intersections.
- E5.13 Further to E5.4 and E5.6 The City of Winnipeg, Traffic Services Branch may decide that the Contractor will also be responsible for parking restriction signing on Regional Streets, under the supervision of the Water and Waste Department or its representative.