

**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 The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing</u>
D-8526	Polson Avenue - Radford Street to 175m East of Airlies: Radford Street to Station 1+90
D-8527	Polson Avenue - Radford Street to 175m East of Airlies: Station 1+90 to Station 3+40
D-8528	Polson Avenue - Radford Street to 175m East of Airlies: Station 3+40 to Station 4+80
D-8529	Polson Avenue - Radford Street to 175m East of Airlies: Station 4+80 to Station 6+95
D-8530	Polson Avenue: First Bay East of Airlies
D-8531	Airlies Street: Carruthers Avenue to Aster Avenue
D-8532	Daffodil Street: Bluebell Avenue to Teakwood Avenue
D-8533	Teakwood Avenue: Daffodil Street to 75m East of Daffodil Street
D-8534	Partridge Avenue: 92m West of Main Street to Main Street
D-8535	Church Avenue: Charles Street to Main Street
D-8536	Church Avenue: Main Street to O'Meara Street
D-8537	Andrews Street: Aberdeen Avenue to Redwood Avenue
D-8538	Andrews Street: Redwood Avenue to Boyd Avenue
D-8539	Boyd Avenue - Andrews Street to Powers Street: Andrews Street to Station 1+90
D-8540	Boyd Avenue - Andrews Street to Powers Street: Station 1+90 to Powers Street
D-8541	Munroe Avenue: 160m West of Roch Street to Roch Street
D-8542	Irving Place - 53m West of Grandview Street to Henderson Hwy.: Station 0+22 to Station 1+70
D-8543	Irving Place - 53m West of Grandview Street to Henderson Hwy.: Station 1+70 to Henderson Hwy.
D-8544	Greene Avenue: 137m West of Raleigh Street to Raleigh Street

#### E2. PROVISIONAL ITEMS

- E2.1 The Provisional Items listed in the Schedule of Prices are a part of the Contract.
- E2.2 The Contractor shall not perform Work included in the Provisional Items without prior authorization from the Contract Administrator. All Work included in the Provisional Items will be carried out within the construction areas shown on the drawings.
- E2.3 Notwithstanding GC: 7, the City reserves the right to diminish all or any portion of the Items of Work listed in the Provisional Items and no claim shall be made for damages on grounds of loss of anticipated profit or for any other reason.

### **E3. PROTECTION OF EXISTING TREES**

- E3.1 The Contractor shall take the following precautionary steps to avoid damage from his construction activities to existing boulevard trees within and adjacent to the limits of construction:
- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of any tree.
  - (b) Mature tree trunks shall be strapped with 25 x 150 x 2400 (1" x 6" x 8') wood planks. Smaller trees shall be similarly protected using appropriately sized wood planks.
    - (i) Excavations shall be carried out in such a manner so as to minimize damage to existing root systems. Roots over 50mm in diameter which must be cut to facilitate and excavation shall be neatly pruned with a saw prior to excavation and coated with an appropriate wound dressing to prevent infection.
    - (ii) Work on site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to tree branches does occur, the Contractor shall neatly prune the damaged branch.
  - (c) American elm trees are not to be pruned between April 1st and August 1st and Siberian elm trees between April 1st and July 1st of any year under provisions of The Dutch Elm Disease Act.
- E3.2 All damages to existing trees caused by the Contractor's construction activities shall be repaired to the requirements and satisfaction of the City of Winnipeg, Parks and Recreation Department, Forestry Branch.
- E3.3 No separate measurement or payment will be made for protection of trees. It shall be considered incidental to the Contract Work.

### **E4. STREET LIGHT CABLE**

#### **E4.1 Construction Methods**

- E4.1.1 At locations where street lighting cable is to be replaced as directed by the Contract Administrator, the Contractor shall, after completion of backfilling and grading of watermain trenches, construct a trench suitable for the placement of street lighting cable or install a 50mm HDPE conduit by coring methods. The HDPE conduit will be supplied by the street lighting utility at no cost to the Contractor.
- E4.1.2 The trench or cored pipe shall be constructed on the same alignment as the street light bases or as directed by the Contract Administrator. The bottom of the trench shall be between 600mm and 750mm below the top of curb and shall be no more than 150mm in width. The invert of cored pipe shall be 600mm to 750mm below the top of the curb.
- E4.1.3 The Contractor shall provide 48 hours notice to the Contract Administrator prior to the commencement of trenching or coring operations in order to allow coordination of the cable installation by the street lighting utility.
- E4.1.4 Upon completion of cable installation by the street lighting utility the Contractor shall backfill, compact and grade the boulevard sections disturbed. Backfill shall be Class 4 Backfill in accordance with CW 2030-R5.

#### **E4.2 Method of Measurement and Payment**

##### **E4.2.1 Street Light Cable Trenching**

- (a) Trenching for the installation of street lighting cable shall be measured on a linear metre basis based on measurements taken by the Contract Administrator. Payment shall be made at the Contract Unit Price for "Street Light Cable – Trenching",

measured as specified herein which price shall be payment in full for performing all operations and supply all materials and all other items incidental to the Work included in this specification.

**E4.2.2**      Coring of HDPE Conduit

- (a) The coring and installation of HDPE conduit shall be measured on a linear metre basis from shaft face to shaft face based on measurements taken by the Contract Administrator. Payment shall be made at the Contract Unit Price for "Street Light Cable – Coring of HDPE Conduit", measured as a specified herein which price shall be payment in full for performing all operations and supplying all materials and all other items incidental to the Work included in this specification.

**E5.      HYDRANT PROTECTION BOLLARDS**

E5.1      Install bollards as shown on Drawing No. D-8534 at the locations shown.

E5.2      Installation of bollards will be included with the hydrant assembly and will not be measured for separate payment.

**E6.      OIL AND GAS RESISTANT GASKETS**

E6.1      Further to CW 2110-R7, where indicated on the construction drawings the contractor shall install watermains with oil and gas resistant gaskets. Within the limits shown all pipe, fittings, and couplings shall be installed with oil and gas resistant gaskets.

E6.2      Oil and gas resistant gaskets shall be installed on all watermain pipe and fittings shown on Drawing D-8534.

E6.3      Gaskets shall be oil and gas resistant Nitrile conforming to ASTM F477 and shall be supplied by the pipe manufacturer.

E6.4      No separate measurement or payment shall be made for the supply and installation of oil and gas resistant gaskets. Include in the cost of the bid price for watermain renewals.

**E7.      RESTORATION**

E7.1      General

E7.1.1      This specification shall apply to the restoration requirements of the watermain renewals on Polson Avenue from Radford Street to Airlies Street, west of the west gutter line of Airlies Street.

E7.2      Scope

E7.2.1      Boulevard and sidewalk restorations in the south boulevard of Polson Avenue and pavement cuts for tie-ins, will be completed under a separate contract by the Public Works Department.

E7.3      Construction Methods

E7.3.1      The contractor will be required to backfill excavations to the elevation of the existing ground surface with the specified backfill material.

E7.3.2      The contractor shall be required to maintain the excavated areas, to the satisfaction of the Engineer, until commencement of work by the Public Works Department.

E7.4      Measurement and Payment

E7.4.1 No separate measurement or payment will be made for work specified herein.