

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 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:

Drawing Title	Drawing No.	File Name	Size
Mandalay Dr., Talbot Ave., Alverstone St., Dufferin Ave.	SK01	282-2004 Drawing 01.pdf	11x17
Kirkfield St., Greenway Cres., Bruce Ave., Park Blvd East, Folkestone Blvd., Grandmont Blvd.	SK02	282-2004 Drawing 02.pdf	11x17
Greendell Ave., Greenwood Cres., Wakopa St., Charring Cross Cres.	SK03	282-2004 Drawing 03.pdf	11x17

E2. PROTECTION OF EXISTING TREES

- E2.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing boulevard trees within the limits of the construction area:
- The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of trees.
 - Trees identified to be at risk by the Contract Administrator are to be strapped with 25 x 100 x 2400mm wood planks, or suitably protected as approved by the Contract Administrator.
 - Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
 - Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of trees. The dripline of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor

shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.

- e) Work on-site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to branches does occur, they shall be neatly pruned.

E2.2 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his designate.

E2.3 No separate measurement or payment will be made for the protection of trees.

E2.4 Elm trees cannot be trimmed between April 1 and July 31, inclusive.

E3. TRAFFIC CONTROL

E3.1 Further to clauses 3.6 and 3.7 of CW 1130-R1:

- (a) Where directed, the Contractor shall construct and maintain temporary asphalt ramps to alleviate vertical pavement obstructions such as manholes and planing drop-offs to the satisfaction of the Contract Administrator. No measurement for payment will be made for this work.
- (b) In accordance with the Manual of Temporary Traffic Control, the Contractor ("Agency" in the manual) shall make arrangements with the Traffic Services Section of the City of Winnipeg to place all temporary regulatory signs. The Contractor shall bear all costs associated with the placement of temporary traffic control devices by the Traffic Services Section of the City of Winnipeg in connection with the works undertaken by the Contractor.

E4. TRAFFIC MANAGEMENT

E4.1 Further to clause 3.7 of CW 1130:

- E4.1.1 Maintain a minimum of one lane of traffic at all times.
- E4.1.2 Where a street in the program affects all access to an area such as a bay, at least one intersection shall be open at all times.
- E4.1.3 Local access and/or bus traffic shall be maintained when possible as determined by the Contract Administrator.
- E4.1.4 The Contractor shall take reasonable measures to minimize the impact of not maintaining pedestrian or vehicular access to residences and businesses. The Contractor shall provide a minimum of 24 hours notification to affected residences or businesses and the Contract Administrator, prior to disruption of access.
- E4.1.5 Roads shall be closed to traffic only with the approval of the Contract Administrator.
- E4.1.6 Pedestrian and ambulance/emergency vehicle access must be maintained at all times.

E5. WATER USED BY CONTRACTOR

E5.1 Further to clause 3.7 of CW 1120-R1, the Contractor shall pay for all costs associated with obtaining water in accordance with the Waterworks By-law. Sewer charges will not be assessed for water obtained from a hydrant.

E6. SURFACE RESTORATIONS

- E6.1 Further to clause 3.3 of CW 1130-R1, when Total Performance is not achieved in the year the Contract is commenced, the Contractor shall temporarily repair any Work commenced and not completed to the satisfaction of the Contract Administrator. The Contractor shall maintain the temporary repairs in a safe condition as determined by the Contract Administrator until permanent repairs are completed. The Contractor shall bear all costs associated with temporary repairs and their maintenance.

E7. SUPPLY AND INSTALLATION OF PAVEMENT REPAIR FABRIC

DESCRIPTION

- E7.1 General
- E7.1.1 This specification covers the supply and installation of pavement repair fabric.
- E7.1.2 Referenced Standard Construction
- (a) CW 3130 – Supply and Installation of Geotextile Fabrics.

MATERIALS

- E7.2 Storage and Handling
- E7.2.1 Store and handle material in accordance with Section 2 of CW 3130.
- E7.3 Pavement Repair Fabric
- E7.3.1 Pavement repair fabric will be Glass Grid Road Reinforcement Mesh - Style 8501 or approved equal.

CONSTRUCTION METHODS

- E7.4 General
- E7.4.1 Install pavement repair fabric at random locations as directed by the Contract Administrator.
- E7.4.2 The extent of the placement limits and quantities required will be determined by the Contract Administrator and provided 48 hours prior to the placement of asphalt.
- E7.4.3 Proceed with installation upon completion and acceptance of the asphalt levelling course.
- E7.4.4 Install fabric in accordance with the manufacturer's specifications and recommendations.
- E7.4.5 Only construction equipment required to place the final asphalt surface course will be allowed to travel on the exposed fabric.
- E7.4.6 Replace damaged or improperly placed fabric.
- E7.4.7 Ensure temperature of the asphalt material does not exceed the melting point of the fabric.

MEASUREMENT AND PAYMENT

- E7.5 Pavement Repair Fabric
- E7.5.1 The supply and installation of the pavement repair fabric will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Pavement Repair Fabric". The area to be paid for will be the total number of square metres of pavement repair fabric

supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.

E8. SQUARE LIFTER RING RISERS

DESCRIPTION

E8.1 General

E8.1.1 This specification covers the construction, supply and installation of square lifter ring risers for square inlets.

E8.2 Referenced Standard Construction Specification

E8.2.1 CW 3210 – Adjustment or Abandonment of Existing Pavement and Boulevard Structures and Appurtenances

CONSTRUCTION METHODS

E8.3 General

E8.3.1 Install square gutter inlet risers at locations as directed by the Contract Administrator.

E8.3.2 Construct risers to suit dimensions of chosen inlet locations. All risers will be 38mm in height.

MEASUREMENT AND PAYMENT

E8.4 Square Lifter Ring Risers

E8.4.1 The supply and installation of the square inlet risers will be measured on a unit basis and paid for at the Contract Unit Price for "Supply and Installation of Square Lifter Ring Inserts". The number to be paid for will be the total number of square inlets supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.

E9. JOINT FILLING FOR CONSTRUCTION OF ASPHALT CONCRETE OVERLAY

DESCRIPTION

E9.1 General

E9.1.1 This specification covers the clearing and filling of joints during the construction of an asphalt concrete overlay.

E9.2 Referenced Standard Construction Specification

E9.2.1 CW 3410 - Asphaltic Concrete Pavement Works

E9.2.2 E7 - Supply and Installation of Pavement Repair Fabric

MATERIALS

E9.3 Asphaltic Concrete Filler

E9.3.1 Supply asphalt in accordance with Section 5 of CW 3410.

E9.4 Pavement Repair Fabric

E9.4.1 Supply Pavement Repair Fabric in accordance with E7.2 and E7.3.

CONSTRUCTION METHODS

- E9.5 Clean debris from joint using hand tools, air pressure or high pressure water hose.
- E9.6 Fill joint with asphalt to match top of existing concrete surface. If high pressure water hose is used to remove debris, sufficient time must be allotted to allow any collected water in joint to dry before asphalt is applied.
- E9.7 Along curbs, manholes and similar structures and at all places not accessible to the roller, thorough compaction must be secured by means of hot tampers and at all contacts of this character the joints between these structures and the mixture must be effectively sealed.
- E9.8 Prior to main line paving, place pavement repair fabric along joint.
- E9.9 Once the pavement repair fabric has been applied, main line paving may proceed.

MEASUREMENT AND PAYMENT

- E9.10 The clearing and filling of joints will be measured on a linear basis and paid for at the Contract Unit Price per linear metre for "Cleaning and Filling of Joints". The length paid for will be the total number of linear metres of joints cleaned and filled in acceptance with this specification, accepted and measured by the Contract Administrator.
- E9.11 Asphalt supplied and installed will be included in the payment for "Construction of Asphaltic Concrete Pavement – Main Line Paving".
- E9.12 Pavement Repair Fabric supply and installation will be included in the payment for Pavement Repair Fabric.