

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.
- E1.1.16 *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>.
- E1.1.17 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.1.18 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>
E-1	West Parking Lot – Site Electrical

E2. SOILS INVESTIGATION REPORT

- E2.1 Further to GC:3.1, no Soils Investigation has been done. Should conditions warrant, the contractor is responsible for conducting and supplying Soils Investigation Report.

GENERAL REQUIREMENTS

E3. OFFICE FACILITIES

- E3.1 The Contractor shall not be required to supply office facilities for this project.

E4. LOCATION OF WORK

Kilcona Park, North East corner of Springfield Road and Lagimodiere Blvd.

E5. PROTECTION OF THE SURVEY INFRASTRUCTURE

- E5.1 Notwithstanding Clause 4 'Protection of Survey Bars' of the Standard Provisions, current legislation, The Surveys Act, places the onus on those undertaking construction to protect the Survey Infrastructure from damage as a result of their activity.
- E5.2 Further to GC:6.28(g), at least 72 hours prior to the commencement of the On-Site Work the Contractor shall contact the City of Winnipeg, Geomatics Services Branch at 986-4826 (8:00 a.m. to 4:00 pm Monday to Friday excluding holidays) to obtain clearance. Geomatics Services will locate and mark all known outline survey monuments and geodetic control monuments and confirm the physical condition of those monuments upon completion of construction, at no cost to the Contractor.
- E5.3 Where a survey post, bar, or control monument lies in the line of proposed work and must be disturbed, the Contractor shall provide the Contract Administrator with 48 hours notice to permit referencing for future replacement, at no cost to the Contractor. Failure to provide the specified

notice shall result in the Contractor paying for all costs associated with replacing or relocating the disturbed outline survey monuments and geodetic control monuments.

- E5.4 Outline survey monuments and geodetic control monuments at or adjacent to the Site, not in line of the proposed construction that are damaged or disturbed by the contractor shall be replaced or relocated by the City or its agent and all associated costs shall be paid for by the Contractor. An approximate estimate of the costs involved to restore a legal survey monument is \$1000 per bar and \$3000 per control monument. Contractors must ensure their landscaping and other subcontractors are aware of this clearance procedure and the potential restoration costs.
- E5.5 Where possible, amounts owed to the City in accordance with the above will be deducted from any payments to be made by the City to the Contractor.

E6. PERMITS, NOTICES, LICENSES, CERTIFICATES, LAWS AND RULES

- E6.1 Further to GC:6.12 the contractor shall give all necessary notices, obtain all necessary permits, and pay all fees in order that the work may be carried out. The Contractor shall submit all plans required by any inspection authority and obtain approval of same before proceeding with the Work, and pay any cost attached to the inspection and approval of such plans.
- E6.2 All notices, consents, approvals, statements, authorizations, documents, or other communications to the City shall be submitted to the Contract Administrator.
- E6.3 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the work.
- E6.4 All work shall be performed in a manner compliant with the Manitoba Workplace Health and Safety act.
- E6.5 All work shall be performed in a manner compliant with the Manitoba Workplace Health and Safety Fall Protection Guidelines
- E6.6 The Contractor and Subcontractors must be fully aware of all Work involving hazardous materials. All Work must be performed in compliance with the Manitoba Department of Labour Workplace Safety and Health Guidelines and all other applicable codes. The Contractor is responsible for the immediate notification to the Contract Administrator or his/her encountering of suspected hazardous material during the course of Work.

E7. DAMAGE TO EXISTING STRUCTURES AND PROPERTY

- E7.1 Further to GC:17, all necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing trees, shrub, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers, or other existing facilities and equipment at the Site of Work. For all damage incurred thereto in the performance of the Work, the Contractor shall upon instructions from and to the satisfaction of the Contract Administrator and the owners thereof, either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to, the Contract Administrator and the owners thereof. The cost of which shall be borne entirely by the contractor.
- E7.2 The Contractor shall also indemnify and save harmless the City and the Contract Administrator, from all claims made directly or indirectly against it in respect to such damage.
- E7.3 The Contractors operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his work on private property.

The Contractor shall take such measures as are necessary to ensure safe and convenient pedestrian ingress and egress is maintained to private properties while he is working near them.

- E7.4 Any damage caused by the negligence of the Contractor or his Sub-contractors to the adjacent works or properties, shall be promptly repaired by him at his own expense, to the satisfaction of the Contract Administrator.

E8. TEMPORARY UTILITIES

- E8.1 Further to GC:6.12, the Contractor shall make his own arrangements in connection with the temporary use of lighting, power, gas, sewer, water or other utilities, and pay all costs in connection therewith.

- E8.2 All necessary permits, fees, and other like expenses as well as the cost of temporary connections to existing facilities shall be arranged and paid for by the contractor.

E9. LAYOUT OF WORK

- E9.1 The Contractor will set control lines and bench marks by means of stakes, buoys or marks and the Contractor shall make the completed works conform to the lines and marks thus indicated. The Contractor shall furnish all other lines and levels required. The Contractor shall be responsible for the careful preservation of all stakes and marks so set whether relating to his own or to the work of others. Care must be taken that the Contract Administrator be notified immediately of the disturbance of any such stakes or marks. The cost of correcting any errors arising out of the neglect of the Contractor or his agent or his employees, to so notify the Contract Administrator, shall be borne entirely by the Contractor, as well as the cost of replacing any disturbed stakes or marks.

- E9.2 All layout work shall be inspected and approved by the Contract Administrator prior to construction.

- E9.3 Before commencing work the contractor shall satisfy himself as to the meaning and correctness of all stakes and marks and no claims shall be entertained by the City of Winnipeg or the Contract Administrator on account of any alleged inaccuracies. If any error is suspected in the plans, specifications, or the directions of the Contract Administrator, Work shall be discontinued until the errors are rectified, but no claims shall be made on account of any delay occasioned thereby.

E10. SITE CLEANUP AND RESTORATION

- E10.1 All pathways, streets, approaches, driveways, and properties near the Work Site shall be kept clean at all times by the Contractor.

- E10.2 Upon completion of the Work the Contractor shall immediately remove all excess materials and debris from the work site.

- E10.3 Total performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all plant, tools, equipment, waste, debris, and surplus earth, to the satisfaction of the Contract Administrator. Unless otherwise specified, the Contractor shall restore all areas of the Site which have been disturbed by the Contractor's operations to as good or better than the original condition to the satisfaction of the Contract Administrator. The Contractor shall pay all costs associated with this work.

E11. SAFETY

- E11.1 The contractor shall comply with the following:

- (a) The City of Winnipeg's Safety in the Workplace Policy for Alcohol or any Mood or Mind Altering Drug in the Workplace.
 - (b) The City of Winnipeg Safety Manual
 - (c) The Public Works Department's Safety Regulations
 - (d) The Province of Manitoba Workplace, Safety and Health Act.
- E11.2 The Contract Administrator and the City of Winnipeg, Public Works Department's Safety Officer has the authority to enforce all the above listed safety and/or health regulations.
- E11.3 Notwithstanding E11.2 the Contractor shall be solely responsible for construction and public safety at the Site and for securing the Site at all times to prevent public access.
- E11.4 The Contractor shall, at his own expense, do whatever is necessary to ensure that when work is stopped, and the Contractor leaves the Site for whatever reason, the Site and Work is made safe, including but not limited to:
- (a) The removal and/or safe storage of all construction equipment and materials.
 - (b) The equipment installed and/or in the process of installation be completed or secured to ensure that no public hazards exist.
 - (c) That all open excavations be filled; and
 - (d) That all construction debris and surplus excavation material be removed from the Site.

WORK

E12. SITE LIGHTING

- E12.1 This specification shall cover the supply and installation of all items and materials necessary and incidental to the complete installation of the site lighting work shown on the drawings. This is understood to include:
- (a) conduit wiring, trenching, backfilling, surface repair,
 - (b) poles, lighting fixtures, photocell, mounting attachments, lamps, concrete base for same,
 - (c) connection into existing electrical infrastructure
 - (d) and any other items that are needed to provide working and fully functional lights in the parking lot as described in the drawings.
- E12.2 The Contractor shall supply and install the Site lighting as shown on the drawings and according to the specification noted below:
- (a) Light pole shall be a Martec 9.4 m (30') high, 5 sq, steel, Bronze. complete with anchor bolts.
 - (b) Luminairie shall be Lithonia KAD 400S R3 120 PE1 c.w. mounting Arm SPD04
 - (c) Photocell shall be twist lock photocell.
 - (d) Conduits in direct contact with the earth or in concrete shall be 50 mm low-density black polyethylene.
 - (e) Wire and cable shall be TECK 90, All wire to be copper. Minimum wire size shall be shall be such that the maximum voltage drop is not greater than 5%.
 - (f) Concrete base shall be as shown on the drawings. Materials to conform to applicable City of Winnipeg Standard Specification

- E12.3 Electrical contractor is to provide CSA approved wiring in accordance with the Canadian Electrical Code
- E12.4 Electrical installation shall comply with the current edition of the Canadian Electrical Code, as well as any other Provincial or Municipal codes and regulations that apply. Provincial and municipal codes are to be given precedence over other codes.
- E12.5 Grounding shall be done in accordance with the latest edition of the Canadian Electrical Code.
- E12.6 All fixtures or apparatus shall be installed to manufacturers specifications.
- E12.7 Photocell location shall be on light. Each light shall be controlled by an independent photocell.
- E12.8 Contractor is to provide connection to existing service as shown to drawings or to provide connection to alternative service with the approval of the contract administrator.
- E12.9 Contractor is responsible to make all submissions and to obtain and pay all fees with regard to necessary permits.
- E12.10 Upon completion and prior to final payment, Contractor must present to the Contract Administrator a Certificate of Approval issued by the appropriate department, for all electrical work.
- E12.11 The Contractor shall guarantee the satisfactory operation of all work and apparatus included and installed under this section of the Specification for a period of 12 months following total performance.
- E12.12 Measurement and Payment shall be;
- (a) each for supply and installation of Luminairie, post, lamp, and photocell.
 - (b) Each for supply and installation of concrete base c.w. reinforcement.
 - (c) Measure of trenching, conductor and conduit is by linear meter from electrical supply to the base of Luminairie and from base of luminaries to base of luminarie, as appropriate. This item will be paid for at the rate per linear meter at the contract unit price.
 - (d) Lump sum for connection to electrical service.

E13. RESODDING

- E13.1 This specification covers the excavation and disposal of unsuitable or excess material, the supply and installation of topsoil and sod, the topdressing and seeding of seem, edges in areas of minor site restoration.
- E13.2 This specification is supplemental to CW 3170-R3, CW 3540-R2, and CW 3510-R7.
- E13.3 Contractor is to restore all areas disturbed with trenching by installing topsoil and sod over the former trench.
- E13.4 Prior to excavation, the perimeter of the areas being sodded are to be cut with a sod cutter in straight lines.
- E13.5 Where new sod meets existing turf the transition shall be a uniform even surface that is consistent with existing grades. Such joints are to be topdressed and seeded at the discretion of the contract administrator. There shall be no additional measurement or payment for topdressing and seeding.

- E13.6 Excavate in-situ material and/or supply additional sub-base material to accommodate the topsoil and sod in a manner conforming to the existing drainage pattern. Dispose of excess material as directed by contract administrator.
- E13.7 Topsoil and sod are to be supplied and installed as per CW 3510-R7 and CW 3540-R2.
- E13.8 No separate measure for sodding will be done under this contract as the site restoration is considered to be incidental to the trenching and installation of conduit.