

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>
E1	Upgrade of lighting system in paint booths # 1, # 2, # 3 – existing lighting system
E1.1	Upgrade of lighting system in paint booth # 1 – existing lighting system (Alternative B)
E3	Air line solenoid lockout upgrade in paint booths
E4	Electrical schematics for air line solenoid lockout upgrade in paint booths
E5	Layout of paint booth with expected average amount of footcandles on work area

E2. DAMAGE TO EXISTING STRUCTURES AND PROPERTY

- E2.1 Further to GC:17, all necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any 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, which ever may be deemed necessary in the opinion of, and acceptable to, the Contract Administrator and the owners thereof. The cost of which shall be born entirely by the Contractor.
- E2.2 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.
- E2.3 Any damage caused by the negligence of the Contractor or his Sub-contractor to the adjacent work or properties shall be promptly repaired by him at his own expense to the satisfaction of the Contract Administrator.

E3. CSA APPROVED ELECTRICAL EQUIPMENT

- E3.1 All electrical equipment shall be CSA certified and rated for Class 1, Division 1 installations to meet Canadian Standards and / or approved by the Manitoba Department of Labour. There shall be a label on each piece of equipment indicating this.

E4. OPENINGS IN FIRE SEPARATIONS

- E4.1 Electrical trades having openings in fire separations for the passage of conduit, duct, cable tray, etc. shall be responsible for fire and smoke stopping around such holes in order to maintain the integrity of the fire separations. All wire ways, bus duct or equivalent shall have fire barriers located within the fire separation.

E5. VENTILATION AND SPRAYING EQUIPMENT INTERLOCK

- E5.1 The spraying equipment for paint booths # 1, # 2, # 3 shall be interlocked to shut down in the event of failure of the ventilation system or failure of the circulating water pump of a water – wash system. (see drawings E3 and E4)

E6. WIRING AND EQUIPMENT IN PAINT BOOTHS

- E6.1 The Contractor shall be responsible for the supply, complete installation and connection into existing electrical infrastructure of lighting fixtures as shown on the drawings and according to the specifications, National Fire Code of Canada, Canadian Electrical Code (CEC), as well as any other Provincial or Municipal codes and regulations that apply.
- E6.2 The paint booths at Winnipeg Transit Department should be considered to be Class 1, Zone 1 location.
- E6.3 All electrical wiring and equipment within the paint booths shall conform to the requirements of CEC and to be approved by CSA.
- E6.4 Illumination of readily ignitable ignitable areas through panels of glass or other transparent or translucent materials is permissible only where:
- (a) Fixed lighting units are used as the sours of illumination;
 - (b) The panel is non-combustible and effectively isolates the hazardous area;
 - (c) The panel is of a material or is so protected that breakage will be unlikely;
 - (d) The arrangement is such that normal accumulations of hazardous residue on the surface of the panel or light fixture will not be raised to a dangerous temperature by radiation or conduction from the source of illumination.
- E6.5 Grounding shall be done in accordance with the latest addition of the Canadian Electrical Code.
- E6.6 All fixtures shall be installed to the manufactures specifications
- E6.7 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.

E7. QUALITY CONTROL

- E7.1 Shop Drawings:
- (a) Shop drawings, "As build" drawings and wiring diagrams shall be submitted to the Contract Administrator after completion of the project.