

Specification - General

- For all specification sections containing the article “References”, delete the sentence “Codes and standards referenced in this section refer to the latest edition thereof” from all sections.

Section 01 35 29.06 – Health and Safety Requirements

- Add the following sentence 1.3.1.2:

 .2 If work entails blasting, submit the following:
 - Renumber 1.3.1.2 to 1.3.1.2.1
 - Renumber 1.3.1.3 to 1.3.1.2.2
 - Renumber 1.3.1.4 to 1.3.1.2.3
 - Renumber 1.3.1.5 to 1.3.1.2.4
 - Delete sentence 1.3.1.6.
 - Renumber 1.3.1.7 to 1.3.1.2.5
 - Renumber 1.3.1.7.1 to 1.3.1.2.5.1
 - Renumber 1.3.1.7.2 to 1.3.1.2.5.2
- Add the following sentence 1.3.1.3:

 .3 If work entails diving, submit the following:
 - Renumber 1.3.1.8 to 1.3.1.3.1
 - Renumber 1.3.1.8.1 to 1.3.1.3.1.1
 - Renumber 1.3.1.8.2 to 1.3.1.3.1.2
 - Renumber 1.3.1.8.3 to 1.3.1.3.1.3
 - Renumber 1.3.1.9 to 1.3.1.3.2
 - Renumber 1.3.1.10 to 1.3.1.3.3

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- Renumber 1.3.1.11 to 1.3.1.3.4
- Renumber 1.3.1.12 to 1.3.1.3.5
- Renumber 1.3.1.13 to 1.3.1.3.6
- Renumber 1.3.1.13.1 to 1.3.1.3.6.1
- Delete sentence 1.3.1.14
- Add the following sentence 1.3.1.4:
 - .4 If work entails confined space, submit copies of confined space entry training certificates.
- Delete sentence 1.7.1 and replace with the following:
 - .1 The contractor shall employ a Safety Officer who will be solely responsible for the implementation and monitoring of the Project Health and Safety Risk Assessment and Management Plan, and will have the authority to implement health and safety changes as directed by the Owner’s Representative. The Safety Officer shall have as a minimum:
- Add the following sentence 1.7.9:
 - .9 Prior to mobilization on-site, the Contractor’s Safety Officer shall hold an orientation meeting (in conjunction with Owner’s Representative) with the construction team to review project occupational health and safety. Include a review of:
 - .1 Health and Safety Risk Assessment and Management Plan.
 - .2 Construction Safety Measures.
 - .3 Supervision and Emergency Rescue Procedures.
- Renumber 1.7.9 to 1.7.10.
- Newly renumbered 1.7.10, delete the words “Be on site during execution of Work and”.

Section 01 74 21 – Construction/Demolition Waste Management and Disposal

- Delete sentence 3.3.2 and replace with the following:
 - .2 On-site sale or distribution of salvaged materials to third parties is not permitted.

Section 02 41 13 – Selective Site Demolition

- Sentence 1.3.1.2, delete words “registered or”.

Section 02 41 16 – Structure Demolition

- Sentence 1.7.2, delete words “registered or”.

Section 03 10 00 – Concrete Forming and Accessories

- Sentence 1.3.4, delete words “registered or”.

Section 03 11 19 – Insulating Concrete Forms

- Sentence 1.4.4, delete words “registered or”.

Section 04 05 00 – Common Work Results for Masonry

- Delete sentence 1.2.1.
- Renumber 1.2.2 to 1.2.1
- Add the following sentence 1.2.2:
 - .2 International Masonry Industry All-Weather Council (IMIAC)
 - .1 Recommended Practices and Guide Specification for Hot and Cold Weather Masonry Construction.
- Add the following to sentence 1.3.1.1:

“including product characteristics, performance criteria, limitations and colors.”
- Add the following sentence 1.3.1.2:
 - .2 Submit two copies of Workplace Hazardous Materials Information System (WHMIS) - Material Safety Data Sheets (MSDS).
- Add the following to sentence 1.3.3.1.1:

“including special shapes.”
- Add the following sentence 1.3.3.1.2:
 - .2 One of each cured and colored samples of mortar and grout, illustrating mortar color and color range.

- Renumber 1.3.3.1.2 to 1.3.3.1.3.
- Renumber 1.3.3.1.3 to 1.3.3.1.4.
- Add the following sentence 1.3.3.3:
 - .3 Samples used for testing, when accepted, become standard for material used.
- Add the following sentence 1.3.4:
 - .4 Shop drawings.
 - .1 Provide drawings stamped and signed by professional engineer registered or licensed in Province of Newfoundland and Labrador, Canada.
 - .2 Provide confirmation to Owner's Representative that temporary bracing and support has been designed by professional engineer.
- Add the following sentence 1.4.4:
 - .4 Qualifications:
 - .1 Manufacturer: minimum five (5) years experience in manufacturing components similar to or exceeding requirements of project.
 - .2 Installer: experienced in performing work of this section who has specialized in installation of work similar to that required for this project.
 - .3 Masons: company or person specializing in masonry installations with minimum five (5) years documented experience with masonry work similar to this project.
 - .1 Masons employed on this project must demonstrate ability to reproduce mock-up standards.
- Delete sentence 1.5.5 and replace with the following:
 - .5 Provide written notice of mock-up completion and allow 48 hrs after completion of mock-up for Owner's Representative review. Commence work only upon receipt of approval of mock-up by Owner's Representative.
- Delete sentence 1.7.1.1.2 and replace with the following:

- .2 Maintain ambient temperature of masonry work and it's constituent materials between 5°C and 50°C and protect site from exposure to wind.
- Delete sentence 3.2.1 and replace with the following:
 - .1 Provide temporary bracing and support of masonry work during and after erection until permanent lateral support is in place.
- Add the following sentence 3.2.3:
 - .3 Protect adjacent materials from damage and disfiguration.
- Sentence 3.5.1, delete words "Clause 5.3 of".
- Delete sentence 3.8 and replace with the following:
 - 3.8 Protection
 - .1 Temporary Bracing and Supports:
 - .1 Provide temporary bracing and supports of masonry work during and after erection until permanent lateral support is in place.
 - .2 Provide confirmation to Owner's Representative that temporary bracing and support has been designed by professional engineer.
 - .3 Brace masonry walls as necessary to resist wind pressure and lateral forces during construction.
 - .2 Moisture Protection:
 - .1 Keep masonry dry using waterproof, nonstaining coverings that extend over walls and down sides sufficient to protect walls from wind driven rain, until completed and protected by flashing or other permanent construction.
 - .2 Cover completed and partially completed work not enclosed or sheltered with waterproof covering at end of each work day. Anchor securely in position.
 - .3 Air Temperature Protection: protect completed masonry as per Part 1 article Site Conditions.

Section 04 05 12 – Masonry Mortar and Grout

- Delete sentence 1.2.1.
- Renumber 1.2.2 to 1.2.1.
- Add the following sentence 1.2.1.1:

.1 CAN/CSA-A23.1/A23.2, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.

- Renumber 1.2.1.1 to 1.2.1.2.
- Add the following sentence 1.2.1.3:

.3 CAN/CSA A371, Masonry Construction for Buildings.

- Add the following sentence 1.2.1.4:

.4 CAN/CSA-A3000, Cementitious Materials Compendium; CAN/CSA-A3002, Masonry and Mortar Cement.

- Add the following to sentence 1.3.1.1:

“including product characteristics, performance criteria, and limitations.”

- Add the following to sentence 1.3.1.2:

“expressed as grams per litre (g/L).”

- Add the following sentence 1.5:

1.5 Delivery, Storage and Handling

.1 Deliver, store and handles masonry mortar and grout materials in accordance with Section 01 61 00 - Common Product Requirements, supplemented as follows:

- .1 Deliver prepackaged, dry-blended mortar mix to project site in labelled plastic-lined bags each bearing name and address of manufacturer, production codes or batch numbers, and color or formula numbers.
- .2 Maintain mortar, grout and packaged materials clean, dry, and protected against dampness, freezing, traffic and contamination by foreign materials.

- Add the following sentence 1.6:

1.6 Site Conditions

.1 Ambient Conditions: maintain materials and surrounding air temperature to:

- .1 Minimum 5 degrees C prior to, during, and 48 hours after completion of masonry work.

- .2 Maximum 32 degrees C prior to, during, and 48 hours after completion of masonry work.

- Delete sentence 2.1
- Delete sentence 2.2
- Add the following sentence 2.1:

2.1 Materials

- .1 Use same brands of materials and source of aggregate for entire project.
- .2 Cement:
- .1 Portland Cement: to CAN/CSA-A3000. Use VOC products to limits listed in Section 01 35 21 - LEED[®] Requirements.
- .2 Masonry Cement: to CAN/CSA-A3002 and CAN/CSA A179.
- .3 Mortar Cement: to CAN/CSA-A3002 and CAN/CSA A179.
- .4 Packaged Dry Combined Materials for mortar: to CAN/CSA A179, using gray color cement.
- .3 Aggregate: supplied by one supplier.
- .1 Fine Aggregate: to CAN/CSA A179, natural sand.
- .2 Course Aggregate: to CAN/CSA A179.
- .4 Water: clean and potable.

- Add the following sentence 2.2:

2.2 Color Additives

- .1 Use coloring admixture not exceeding 10% of cement content by mass, or integrally colored masonry cement, to produce colored mortar to match approved sample. Admixtures to be approved prior to use. Use in accordance with the specific manufacturer's recommendations. Mortar color sample as selected from manufacturer's standard color range.
- .2 White mortar: use white masonry cement to produce mortar type specified.

- Add the following sentence 2.3:

2.3 Mortar Mixes

- .1 Mortar for exterior masonry above grade:
- .1 Loadbearing: Type S based on proportion specifications.

- .2 Non-Loadbearing: Type N based on proportion specifications.
- .2 Mortar for interior masonry:
 - .1 Loadbearing: Type S based on proportion specifications.
 - .2 Non-Loadbearing: Type O based on proportion specifications.
- .3 Mortar for Parapet walls, chimneys, unprotected walls: Type S based on proportion specifications.
- .4 Pointing Mortar: CAN/CSA A179, Type N using property specification with maximum 2 percent ammonium stearate or calcium stearate per cement weight.
- .5 Stain Resistant Pointing Mortar: one part Portland cement, 1/8 part hydrated lime, and two parts graded (80 mesh) aggregate, proportioned by volume. Add aluminum tristearate, calcium stearate, or ammonium stearate to 2 percent of Portland cement by weight.
- .6 Mortar for Glass Block Masonry: CAN/CSA A179, Type S, using the property specification.
- .7 Pointing Mortar For Glass Block Masonry: CAN/CSA A179, Type S, using the property specification; with maximum 2 percent ammonium stearate or calcium stearate per cement weight.
- .8 Parging mortar: Type N to CAN/CSA A179.
- .9 Mortar for foundation walls, manholes, sewers, pavements, walks, patios and other exterior masonry at or below grade: Type M based on proportion specifications.
- .10 Following applies regardless of mortar types and uses specified above:
 - .1 Mortar for calcium silicate brick and concrete brick: Type O based on proportion specifications.
 - .2 Mortar for stonework: Type N based on proportion specifications.
 - .3 Mortar for grouted reinforced masonry: Type S based on proportion specifications.

- Add the following sentence 2.4:

2.4 Mortar Mixing

- .1 Add mortar color in accordance with manufacturer's instructions. Provide uniformity of mix and coloration.
- .2 Use a batch type mixer in accordance with CAN/CSA A179.
- .3 Pointing mortar: prehydrate pointing mortar by mixing ingredients dry, then mix again adding just enough water to produce damp unworkable mix that will retain its form when pressed into ball. Allow to stand for not less than 1 hour no more than 2 hours then

remix with sufficient water to produce mortar of proper consistency for pointing.

- .4 Re-temper mortar only within two hours of mixing, when water is lost by evaporation.
- .5 Use mortar within 2 hours after mixing at temperatures of 32 degrees C, or 2-1/2 hours at temperatures under 5 degrees C.

- Add the following sentence 2.5:

2.5 Grout Mixes

- .1 Bond Beams: minimum grout mix 10 to 12.5 MPa strength at 28 days or as otherwise indicated on drawings; 200-250 mm slump; mixed in accordance with CAN/CSA A179.
- .2 Lintels: minimum grout mix 10 to 12.5 MPa strength at 28 days or as otherwise indicated on drawings; 200-250 mm slump; mixed in accordance with CAN/CSA A179.
- .3 Grout: minimum compressive strength of 12.5 MPa at 28 days or as otherwise indicated on drawings. Maximum aggregate size and grout slump: CAN/CSA A179.

- Add the following sentence 2.6:

2.6 Grout Mixing

- .1 Mix grout ingredients in quantities needed for immediate use in accordance with CAN/CSA A179.
- .2 Add admixtures in accordance with manufacturer's instructions; mix uniformly.
- .3 Do not use calcium chloride or chloride based admixtures.

- Add the following sentence 3.2.2:

- .2 Apply parging in uniform coating of thickness indicated.

- Add the following sentence 3.3:

3.3 Mixing

- .1 All pointing mortar can be mixed using a regular paddle mixer. Only electric motor mixers are permissible. Mixers run on hydrocarbons are not permitted, due to fumes. Mixing by hand must be pre-approved by the Owner's Representative.
- .2 Clean all mixing boards and mechanical mixing machine between batches.
- .3 Mortar must be weaker than the units it is binding.

- .4 Contractor to appoint one individual to mix mortar, for duration of project. In the event that this individual must be changed, mortar mixing must cease until the new individual is trained, and mortar mix is tested.

- Add the following 3.4:

3.4 Mortar Placement

- .1 Install mortar to manufacturer's instructions.
- .2 Install mortar to requirements of CAN/CSA A179.
- .3 Remove excess mortar from grout spaces.

- Add the following sentence 3.5

3.5 Grout Placement

- .1 Install grout in accordance with manufacturer's instructions.
- .2 Install grout in accordance with CAN/CSA A179.
- .3 Work grout into masonry cores and cavities to eliminate voids.
- .4 Do not install grout in lifts greater than 400 mm, without consolidating grout by rodding.
- .5 Do not displace reinforcement while placing grout.

- Renumber 3.3 Cleaning to 3.6 Cleaning

- Add the following sentence 3.6.2:

- .2 Remove droppings and splashings using clean sponge and water.

- Add the following sentence 3.6.3:

- .3 Clean masonry with low pressure clean water and soft natural bristle brush.

Section 04 05 19 – Masonry Anchorage and Reinforcing

- Delete sentence 1.2.1
- Renumber 1.2.2 to 1.2.1
- Delete sentence 1.2.1.4
- Renumber 1.2.1.5 to 1.2.1.4
- Renumber 1.2.1.6 to 1.2.1.5

- Renumber 1.2.1.7 to 1.2.1.6
- Add the following sentence 1.2.1.7:
 - .7 CSA W186, Welding of Reinforcing Bars in Reinforced Concrete Construction.
- Add the following to sentence 1.3.1.2:

“illustrating products to be incorporated into project for specified products.”
- Delete sentence 1.3.2.1 and replace with the following:
 - .1 Provide shop drawings detailing bar bending details, anchorage details, lists and placing drawings.
- Add the following sentence 1.3.2.3
 - .3 Indicate on shop drawings, bar bending details, lists, quantities of reinforcement, sizes, spacings, locations of reinforcement and mechanical splices if approved by Owner’s Representative, with identifying code marks to permit correct placement without reference to structural drawings. Indicate sizes, spacings and locations of chairs, spacers and hangers. Prepare reinforcement drawings in accordance with Reinforcing Steel Manual of Standard Practice - by Reinforcing Steel Institute of Canada . ANSI/ACI 315 and ACI 315R, Manual of Engineering and Placing Drawings for Reinforced Concrete Structure.
- Add the following sentence 3.4.3:
 - .3 Support and position reinforcing bars in accordance with CAN/CSA A371.

Section 04 05 23 – Masonry Accessories

- Add the following to sentence 1.3.1.1:

“including product characteristics, performance criteria, and limitations.”
- Add the following sentence 1.4
 - 1.4 Delivery, Storage and Handling

- .1 Deliver, store and handle masonry accessories in accordance with, Section 01 61 00 - Common Product Requirements supplemented as follows:
 - .1 Keep fillers and adhesives dry, protected against dampness, and freezing.
 - .2 Store packaged materials off ground and in accordance with manufacturer's written instructions.
- Sentence 2.1.1, delete words “Latest Edition”.
- Add the following to sentence 2.1.1:

“Use VOC products to limits listed in Section 01 35 21 - LEED[®] Requirements.”
- Add the following to sentence 2.1.2:

“Use VOC products to limits listed in Section 01 35 21 - LEED[®] Requirements.”
- Add the following sentence 2.1.5:

.5 Trash mortar diverters: shaped and sized to suit cavity spaces.
- Renumber 3.2.2 to 3.2.4.
- Add the following sentence 3.2.2:

.2 Lap adhesive: apply adhesive to flashing lap joints.
- Add the following sentence 3.2.3:

.3 Reglets: install reglets at locations indicated on drawings.
- Add the following sentence 3.2.5:

.5 Trash mortar diverters: install purpose made diverters in cavities where indicated and as directed, size and shape to suit purpose and function.
- Add the following sentence 3.3.2:

.2 Form flashing (end dams) at lintels, sills and wall ends to prevent water from travelling horizontally past flashing ends.

Section 04 21 13 – Brick Masonry

- Delete sentence 1.2.1.

- Renumber 1.2.2 to 1.2.1.
- Renumber 1.2.3 to 1.2.2.
- Renumber 1.2.4 to 1.2.3.
- Delete sentence 1.2.3.1 and replace with the following:
 - .1 CAN/CSA A82, Fired Masonry Brick Made From Clay or Shale.
- Add the following sentence 1.2.3.3:
 - .3 CAN/CSA A371, Masonry Construction for Buildings.
- Sentence 2.1.1.1, delete word “A82.1” and replace with A82.
- Sentence 2.1.2.1, delete word “A82.1” and replace with A82.
- Sentence 2.2, delete words “Brick Ties” and replace with “Accessories”.
- Delete sentence 2.2.1 and replace with the following:
 - .1 Brick Ties: to Section 04 05 19 – Masonry Anchorage and Reinforcing.
- Add the following sentence 2.2.2:
 - .2 Reinforcement: to Section 04 05 19 – Masonry Anchorage and Reinforcing.
- Add the following sentence 2.2.3:
 - .3 Connectors: to Section 04 05 19 – Masonry Anchorage and Reinforcing.
- Add the following sentence 2.2.4:
 - .4 Flashing: to Section 04 05 23 - Masonry Accessories.
- Add the following sentence 2.2.5:
 - .5 Mortar and Mortar Mixes: to Section 04 05 12 - Masonry Mortar and Grout.
- Add the following 2.2.6:
 - .6 Grout and grout mixes: to Section 04 05 12 - Masonry Mortar and Grout.

- Add the following sentence 2.3:

2.3 Cleaning Compounds

- .1 Use VOC products to limits listed in Section 01 35 21 - LEED® Requirements.
- .2 Compatible with substrate and acceptable to masonry manufacturer for use on products.
- .3 Cleaning compounds compatible with brick masonry units and in accordance with manufacturer's written recommendations and instructions.

- Add the following sentence 3.2:

3.2 Preparation

- .1 Protect adjacent finished materials from damage due to masonry work.

- Renumber 3.2 to 3.3.

- Renumber 3.3 to 3.4.

- Add the following 3.4.3:

- .3 Clean concrete brick masonry as work progresses.

- .1 Allow mortar droppings on masonry to partially dry then remove by means of trowel, followed by rubbing lightly with small piece of brick and finally by brushing.

- Renumber 3.4.3 to 3.4.4.

Section 04 22 00 – Concrete Unit Masonry

- Delete sentence 1.2.1.

- Renumber 1.2.2 to 1.2.1.

- Sentence 1.2.1.1, delete word “CAN3” and replace with “CAN/CSA”.

- Add the following sentence 1.2.1.2:

- .2 CAN/CSA A371, Masonry Construction for Buildings.

- Add the following sentence 1.2.1.3:

- .3 CSA S304.1, Design of Masonry Structures.
- Add the following 1.2.2:
 - .3 Underwriters' Laboratories of Canada (ULC)
 - .1 CAN/ULC-S101, Standard Methods of Fire Endurance Tests of Building Construction and Materials.
- Add the following to sentence 1.3.1.1:

“illustrating products to be incorporated into project for specified products.”
- Sentence 2.1.1.3, delete word “square” and replace with “bull nosed”.
- Add the following sentence 2.2:
 - 2.2 Accessories
 - .1 Reinforcement: to Section 04 05 19 - Masonry Anchorage and Reinforcing.
 - .2 Connectors: to Section 04 05 19 - Masonry Anchorage and Reinforcing.
 - .3 Flashing: to Section 04 05 23 - Masonry Accessories.
 - .4 Mortar and mortar mixes: to Section 04 05 12 - Masonry Mortar and Grout.
 - .5 Grout and grout mixes: to Section 04 05 12 - Masonry Mortar and Grout.
- Add the following sentence 2.3:
 - 2.3 Cleaning Compounds
 - .1 Use VOC products to limits listed in Section 01 35 21 - LEED[®] Requirements.
 - .2 Compatible with substrate and acceptable to masonry manufacturer for use on products.
 - .3 Cleaning compounds compatible with concrete unit masonry and in accordance with manufacturer's written recommendations and instructions.
- Add the following sentence 2.4:
 - 2.4 Tolerances

- .1 Tolerances for standard concrete unit masonry tolerances in accordance with CAN/CSA A165.1, supplemented as follows:
 - .1 Maximum variation between units within specific job lot not to exceed 2.0 mm.
 - .2 No parallel edge length, width or height dimension for individual unit to differ by more than 2.0 mm.
 - .3 Out of square tolerance not to exceed 2.0 mm.

- Delete sentence 3.1.2 and replace with the following:
 - .2 Special Shapes:
 - .1 Install special units to form corners, returns, offsets, reveals and indents without cut ends being exposed and without losing bond or module.
 - .2 Install reinforced concrete block lintels over openings in masonry where steel or reinforced concrete lintels are not indicated.
 - .3 End bearing: not less than 200 mm.

- Add the following sentence 3.1.3:
 - .3 Acoustical Concrete Unit Masonry:
 - .1 Bond: running.
 - .2 Coursing height: 200 mm for one block and one joint.
 - .3 Jointing: concave where exposed or where paint or finish coating is specified.

- Renumber 3.2 to 3.3.

- Add the following sentence 3.2
 - 3.2 Construction
 - .1 Cull out masonry units, in accordance with CAN/CSA A165 and approved range of color samples, with chips, cracks, broken corners, excessive color and texture variation.
 - .2 Build in miscellaneous items such as bearing plates, steel angles, bolts, anchors, inserts, sleeves and conduits.
 - .3 Construct masonry walls using running bond unless otherwise noted.
 - .4 Fit masonry closely against electrical and plumbing outlets so collars, plates and covers overlap and conceal cuts.
 - .5 Install movement joints and keep free of mortar where indicated.

- .6 Hollow Units: spread mortar setting bed from outside edge of face shells. Gauge amount of mortar on top and end of unit to create full joints, equivalent to shell thickness. Avoid excess mortar.
- .7 Solid Units: apply mortar over entire vertical and horizontal surfaces. Avoid bridging of airspace between brick veneer and backup wall with mortar.
- .8 Ensure compacted head joints. Use full or face-shell joint as indicated.
- .9 Tamp units firmly into place.
- .10 Do not adjust masonry units after mortar has set. Where resetting of masonry is required, remove, clean and reset units in new mortar.
- .11 Tool exposed joints concave; strike concealed joints flush.
- .12 After mortar has achieved initial set up, tool joints.
- .13 Do not interrupt bond below or above openings.

- Add the following sentence 3.4:

3.4 Protection

- .1 Brace and protect concrete unit masonry in accordance with Section 04 05 00 - Common Work Results for Masonry.

Section 04 23 00 – Glass Unit Masonry

- Delete sentence 1.2.1.
- Renumber 1.2.2 to 1.2.1
- Renumber 1.2.3 to 1.2.2
- Renumber 1.2.4 to 1.2.3
- Renumber 1.2.5 to 1.2.4
- Delete sentence 1.2.1.2
- Delete sentence 1.2.3.1 and replace with the following:
 - .1 CAN/CSA-A3000, Consolidation - Cementitious Materials Compendium.
- Delete sentence 1.3.2.
- Renumber 1.3 to 1.4.
- Add the following sentence 1.3:

1.3 System Description

- .1 Glass block panels not to be designed to support structural loads.
- .2 Provide for expansion and movement at jambs and heads of panels. Do not bridge expansion spaces with mortar.
- .3 Design and install glass block projects by whole units only. Cutting of glass block units not recommended.

- Renumber 1.4 to 1.5.
- Renumber 1.5 to 1.6.
- Renumber 1.6 to 1.7.
- Renumber 1.7 to 1.8.
- Add the following sentence 1.9:

1.8 Site Conditions

- .1 Ambient Conditions: assemble and erect components when temperature is above 4 degrees C.
- .2 Field Measurements:
 - .1 Make field measurements necessary to ensure proper fit of all members.

- Sentence 2.2.7, delete word “A153” and replace with “A153/A153M”.
- Add the following sentence 2.3:

2.3 Source Quality Control

- .1 Ensure glass block and accessories are from single manufacturer. All other glass block materials acceptable to glass block manufacturer.

- Add the following sentence 3.1.1.1:

- .1 Inform Owner’s Representative of unacceptable conditions immediately upon discovery.
- .2 Proceed with installation only after unacceptable conditions have been remedied and after receipt of approval from Owner’s representative.

- Renumber 3.1.2 to 3.1.3.

- Add the following sentence 3.1.2:
 - .2 Verification of Conditions: verify that substrate conditions which have been previously installed under other sections or contracts, are acceptable for product installation in accordance with manufacturer's instructions prior to installation of glass block.
- Add the following sentence 3.2.1:
 - .1 Ensure structure or substrate is adequate to support glass block.
- Add the following sentence 3.2.2:
 - .2 Surface Preparation: prepare surface in accordance with manufacturer's written recommendations.
- Renumber 3.2.1 to 3.2.3.
- Renumber 3.2.2 to 3.2.4.
- Renumber 3.2.3 to 3.2.5.
- Add the following sentence 3.4.1:
 - .1 Mortar Placement:
 - .1 Place pointing mortar in accordance with Section 04 05 12 - Masonry Mortar and Grout.
 - .2 Set glass with full bond mortar joints. Furrowing not permitted. Remove excess mortar.
 - .3 Place units to maintain uniform joint width of 6.0 mm.
- Renumber 3.4.1 to 3.4.2.
- Renumber 3.4.2 to 3.4.3.
- Renumber 3.4.3 to 3.4.4.
- Add the following to sentence 3.4.4.1:
 - .2 Apply sealant 24 hours after glass unit masonry installation.
- Add the following sentence 3.6:
 - 3.6 Cleaning

- .1 Remove mortar particles using a clean, wet sponge or cloth. Rinse sponge or cloth frequently in clean water to remove abrasive particles that could scratch glass surfaces. Allow any remaining film on the block to dry to a powder.
- .2 Remove excess caulking materials with commercial solvents such as mineral spirits and follow with normal wash and rinse. Do not damage caulking by overgenerous application of strong solvents. Comply with solvent manufacturers' printed data for toxicity and flammability warnings.
- .3 When glass block panels are completely installed and are not exposed to direct sunlight, final cleaning may be carried out. Start at the top of the panel and wash with generous amounts of clean water. Dry all water from the glass block surface. Change cloth frequently to eliminate dried mortar particles that could scratch the glass surface. Use a clean, dry, soft cloth to remove the dry powder from the glass surfaces.

Section 07 27 00.01 – Air Barriers – Descriptive or Proprietary

- Delete sentence 2.1 Sheet Materials and replace with the following:
 - 2.1 Sheet Membrane Air Barrier (Type 1)
- Sentence 2.2, delete words “(for Block Wall Construction)” and replace with “(Type 2)”.
- Sentence 2.3, delete words “(for Stud Wall Construction)” and replace with “(Type 3)”.
- Add the following sentence 2.6 Schedule
 - 2.6 Schedule
 - .1 Type 1 Air Barrier: for installation on any solid surface.
 - .2 Type 2 Air Barrier: for installation on masonry or concrete surfaces.
 - .3 Type 3 Air Barrier: for installation on wood/gypsum board surfaces.

Section 07 52 00 – Modified Bituminous Membrane Roofing

- Delete 1.2.1.
- Renumber 1.2.2 to 1.2.1.
- Renumber 1.2.3 to 1.2.2.

- Renumber 1.2.4 to 1.2.3.
- Renumber 1.2.5 to 1.2.4.
- Delete sentence 1.2.2.1.
- Delete sentence 1.2.2.3.
- Add the following sentence 1.2.4.2:
 - .2 CAN/ULC-S702.2, Standard for Mineral Fibre Thermal Insulation for Buildings.
- Renumber 1.2.4.2 to 1.2.4.3.
- Add the following sentence 1.5.7:
 - .7 Store insulation protected from daylight, weather and deleterious materials.
- Renumber 2.4.1.7 to 2.4.1.6.7.
- Sentence 2.4.3, delete words “light grey”.
- Add the following sentence 3.3.3:
 - .3 Do not install roofing materials during rain or snowfall.
- Sentence 3.6.1.2, delete words “concrete deck” and replace with “wood deck”.

Section 07 62 00 – Metal Flashing and Trim

- Sentence 2.1.1, delete “0.85 mm” and replace with “0.70”.

Section 09 65 16 – Resilient Sheet Flooring

- Delete sentence 1.2.1.
- Renumber 1.2.2 to 1.2.1.
- Sentence 1.10.1, delete “ten (10)” year warranty and replace with “five (5)” year warranty.
- Sentence 2.1.2.4, delete words “polyurethane-coated”.

- Delete sentence 2.1.7 and replace with the following:
 - .7 Primers and adhesives: waterproof, solvent-free, recommended by flooring manufacturer for specific material on applicable substrate, above, at or below grade.
- Delete sentence 3.5.2 and replace with the following:
 - .2 Clean floor and apply 2 coats of an approved floor finish plus one wear layer of floor finish to flooring and base surface in accordance with manufacturer's instructions.

Section 09 65 19 – Resilient Tile Flooring

- Delete sentence 1.2.1.
- Renumber 1.2.2 to 1.2.1.
- Renumber 1.2.3 to 1.2.2.
- Sentence 1.7.1, delete “ten (10)” year warranty and replace with “five (5)” year warranty.
- Sentence 2.1.2, delete “3.0mm thick x 305mm x 305mm size” and replace with “minimum 3.0 mm thick, minimum 305 mm x 305 mm unless otherwise indicated”.
- Sentence 2.1.3, delete “minimum 3.2”, and replace with “minimum 2.5 mm”.
- Sentence 2.1.3, delete “305 mm x 305 mm size”, and replace with “minimum 305 mm x 305 mm unless otherwise indicated”.
- Delete sentence 2.1.7 and replace with the following:
 - .7 Primers and adhesives: waterproof, solvent-free, recommended by flooring manufacturer for specific material on applicable substrate, above, at or below grade.
- Delete sentence 3.5.2 and replace with the following:
 - .2 Clean floor and apply 2 coats of an approved floor finish plus one wear layer of floor finish to flooring and base surface in accordance with manufacturer's instructions. In carpeted areas, clean base and apply finish to base surface before carpet installation.

Section 09 68 00 – Carpet

- Delete sentence 1.2.1.
- Renumber 1.2.2 to 1.2.1.
- Renumber 1.2.3 to 1.2.2
- Renumber 1.2.4 to 1.2.3
- Renumber 1.2.5 to 1.2.4
- Renumber 1.2.6 to 1.2.5
- Renumber 1.2.7 to 1.2.6
- Sentence 2.2.9, delete words “950g/m²” and replace with “minimum 880 g/m²”
- Sentence 2.3.2, delete words “500 x 500 mm” and replace with “minimum 500 x 500 mm”
- Sentence 2.3.10, delete words “576 g/m²” and replace with “minimum 576 g/m² unless otherwise indicated.”

Section 09 91 23 – Interior Painting

- Sentence 1.1.8, delete word “08 11 14” and replace with “08 11 00”.

Section 10 51 13 – Metal Lockers

- Delete sentence 1.2.1
- Renumber 1.2.2 to 1.2.1.
- Delete sentence 2.1.1.1 and replace with the following:
 - .1 Material Sizes: hinges 2.0 mm, frame 1.6 mm, door 1.0 mm, top 0.85 mm, top and sides 0.70 mm. Width, height and depth dimensions as indicated on drawings.
- Delete sentence 2.1.1.2 and replace with the following:
 - .2 Assembly types: knock down construction for onsite assembly using pop rivet fastening.

- Sentence 2.1.1.3, delete words “knockouts in top panels” and replace with “perforated tops”.

Section 11 10 00 – Domestic Equipment

- Sentence 2.1.1, delete words “3 cantilever wire shelves” and replace with “3 glass shelves”.

Section 21 07 16 – Thermal Insulation for Equipment

- Add the following sentence 1.1.2:
.2 Section 01 35 21 – LEED® Requirements.
- Renumber 1.1.2 to 1.2.3
- Renumber 1.2.3 to 1.2.4
- Renumber 1.2.4 to 1.2.5

Section 22 11 18 – Domestic Water Piping Copper

- Delete sentence 1.3.2 and replace with the following:
.2 Product Data:
.1 Provide manufacturer's printed product literature and datasheets for insulation and adhesives, and include product characteristics, performance criteria, physical size, finish and limitations.
- Delete sentence 1.3.4 and replace with the following:
.4 Closeout Submittals:
.1 Provide maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

Section 22 13 17 – Drainage Waste and Vent Piping – Cast Iron and Copper

- Sentence 1.3.2.2, delete word “B125”, and replace with “B125.3”.
- Add the following sentence 1.6:
1.6 Submittals

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Provide manufacturer's printed product literature and datasheets for adhesives, and include product characteristics, performance criteria, physical size, finish and limitations.

Section 22 13 18 – Drainage Waste and Vent Piping – Plastic

- Add the following sentence 1.5:

1.5 Submittals

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Provide manufacturer's printed product literature and datasheets for piping and adhesives, and include product characteristics, performance criteria, physical size, finish and limitations.

Section 22 42 00 – Commercial Plumbing Fixtures

- Section to be renumbered 22 42 16 and renamed Commercial Lavatories and Sinks.
- Sentence 2.3.1.1.1, delete word “LBS6800-1” and replace with “LBS6808-1”.
- Sentence 2.3.2.1, delete words “790 x 520 x 180 mm” and replace with “790 x 520 x 200 mm”.
- Sentence 2.3.3, delete word “ends” and replace with “sides and back”.
- Delete sentence 2.3.3.1 and replace with the following:
 - .1 From 1.2 mm thick, 0.18 gauge, Type 304 stainless steel, self-rimming, undercoated, clamps. Overall sizes: 790 x 550 x 200 mm.
- Sentence 2.3.3.1.1, delete words “LBS6408P-1” and replace with “LBLRS7008P-1”.
- Sentence 2.3.4.1.1, delete word “LBSJ6408P-1” and replace with “LBLS6408P-1”.

- Sentence 2.3.5.1.1, delete words “Kindred LBS 4607-3” and replace with “LBS4607-1”.
- Sentence 2.3.5.1.2.2, delete words “and 100 mm forged coverplate”.
- Sentence 2.3.5.1.2.7, delete word “1500T3478” and replace with “1500T3378”.

Section 22 42 03 – Washroom Fixtures

- Section renamed to Commercial Washroom Fixtures.
- Add the following sentence 2.2.2.1.16:
.16 Acceptable material: Cambridge Brass 81T201.
- Add the following sentence 2.3.4.1.17:
.17 Acceptable material: Cambridge Brass 81T231.
- Sentence 2.3.4.3.16, delete words “1600T6103RI and 1600T6103TR” and replace with “1600T6403RI and 1600T6403TR”.
- Sentence 2.4.4.2, delete word “041721R” and replace with “0V1821/6”.
- Sentence 2.4.7.20, delete word “591T1158” and replace with “590T0156”.
- Sentence 2.4.8.18, delete word “591T0266” and replace with “591T0256”.

Section 22 42 20 – Showers and Bathtubs

- Section renamed to Commercial Showers and Bathtubs.
- Sentence 2.2.1.3.23, delete words “T13H613-20 with 1R10700-UNWS” and replace with “T13H913-20 with R10700-UNWS”.
- Sentence 2.2.2.3.23, delete words “T13H613-20 with 1R10700-UNWS” and replace with “T13H913-20 with R10700-UNWS”.

Section 23 05 17 – Pipe Welding

- Delete sentence 1.2.1.
- Renumber 1.2.2 to 1.2.1.
- Renumber 1.2.3 to 1.2.2.

- Renumber 1.2.4 to 1.2.3.
- Renumber 1.2.5 to 1.2.4.
- Renumber 1.2.6 to 1.2.5.
- Renumber 1.2.7 to 1.2.6.
- Sentence 1.2.1.2, delete words “Addenda A”.
- Delete sentence 1.2.1.3.

Section 23 55 01 – Duct Heaters

- Delete sentence 1.3.1.
- Sentence 2.1.7.5, delete words “P.M. Wright”.

Section 23 73 10 – Air Handling – Built-Up

- Delete sentence 1.2.1.
- Renumber 1.2.2 to 1.2.1.
- Renumber 1.2.3 to 1.2.2.
- Renumber 1.2.4 to 1.2.3.
- Renumber 1.2.5 to 1.2.4.
- Renumber 1.2.6 to 1.2.5.
- Renumber 1.2.7 to 1.2.6.
- Renumber 1.2.8 to 1.2.7.
- Renumber 1.2.9 to 1.2.8.
- Renumber 1.2.10 to 1.2.9.
- Renumber 1.2.11 to 1.2.10.
- Add the following sentence 1.2.7.2:

.2 ANSI/ASHRAE 90.1, (I-P) Energy Standard for Buildings Except Low-Rise Residential Buildings.

- Add the following sentence 1.2.7.3:

.3 ANSI/ASHRAE 52.2, Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size.

Section 23 73 11 – Air Handling Units – Packaged

- Delete sentence 1.2.1.
- Renumber 1.2.2 to 1.2.1.
- Renumber 1.2.3 to 1.2.2.
- Renumber 1.2.4 to 1.2.3.
- Renumber 1.2.5 to 1.2.4.
- Renumber 1.2.6 to 1.2.5.
- Renumber 1.2.7 to 1.2.6.
- Renumber 1.2.8 to 1.2.7.
- Renumber 1.2.9 to 1.2.8.
- Renumber 1.2.10 to 1.2.9.
- Add the following sentence 1.2.7.2:

.2 ANSI/ASHRAE 90.1, (I-P) Energy Standard for Buildings Except Low-Rise Residential Buildings.

- Add the following sentence 1.2.7.3:

.3 ANSI/ASHRAE 52.2, Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size.

Section 25 05 01 – EMCS: General Requirements

- Add the following to sentence 2.1.1:

“Tridium/Distech”

Section 25 05 60 – EMCS: Field Installation

- Delete sentence 1.3.1.6 and replace with the following:
 - .6 All control wiring 50 V and less for equipment supplied by Division 25 will be the responsibility of Division 25- Integrated Automation Contractor. Conduit and wire associated with this is the responsibility of Division 25.

Section 26 05 21 – Wires and Cables (0-1000 V)

- Sentence 2.1.2, deletes words “Copper conductors:” and replace with “Copper and ACM alloy conductors:”
- Sentence 2.1.2, delete word “chemically”.
- Sentence 2.1.2, delete words “RW90” and RWU90” and replace with “RW90 XLPE” and “RWU90 XLPE” respectively.
- Delete sentence 2.1.4.
- Renumber sentence 2.1.5 to 2.1.4.
- Delete sentence 2.2.2.2 and replace with the following:
 - .2 Circuit conductors: copper and ACM alloy, size as indicated.
- Delete sentence 2.2.3.1.
- Delete sentence 2.2.3.2 and replace with the following:
 - .2 Cross-linked polyethylene XLPE, rating – 600 V.
- Add the following to sentence 2.2.5:
 - “aluminum”
- Add the following to sentence 2.2.5:
 - “compliant to applicable Building Code classification for this project”
- Add the following to sentence 2.2.8:
 - “as indicated”
- Sentence 2.3.3, delete word “250EC” and replace with “250°C”.

- Delete sentence 2.3.4.
- Delete sentence 2.3.5 and replace with the following:
 - .5 Overall jacket: PVC applied over the sheath and compliant to applicable Building Code classification for this project for direct buried and wet locations, as indicated.
- Delete 2.3.7 and replace with the following:
 - .7 Connectors: watertight, field installed, approved for MI cable.
- Delete 2.3.8 and replace with the following:
 - .8 Termination kits: field installed approved for MI cable.
- Delete sentence 2.4.4.
- Renumber 2.4.5 to 2.4.4.
- Delete sentence 2.5 Aluminum Sheathed Cable
- Renumber 2.6 to 2.5
- Renumber 2.7 to 2.6
- Renumber 2.8 to 2.7
- Sentence 2.6.1, delete word “NMD-7” and replace with “NMD90”.
- Add the following sentence 3.1
 - 3.1 Field Quality Control
 - .1 Perform tests in accordance with Section 26 05 00 - Common Work Results for Electrical.
 - .2 Perform tests using method appropriate to site conditions and to approval of Owner’s Representative and local authority having jurisdiction over installation.
 - .3 Perform tests before energizing electrical system.
- Add the following sentence 3.2
 - 3.2 General Cable Installation

- .1 Install cable in trenches in accordance with Section 33 71 73.02 - Underground Electrical Service.
- .2 Lay cable in cable trays in accordance with Section 26 05 36 - Cable Trays for Electrical Systems.
- .3 Terminate cables in accordance with Section 26 05 20 - Wire and Box Connectors - (0-1000 V).
- .4 Cable Colour Coding: to Section 26 05 00 Common Work Results for Electrical.
- .5 Conductor length for parallel feeders to be identical.
- .6 Lace or clip groups of feeder cables at distribution centres, pull boxes, and termination points.
- .7 Wiring in walls: typically drop or loop vertically from above to better facilitate future renovations. Generally wiring from below and horizontal wiring in walls to be avoided unless indicated.
- .8 Branch circuit wiring for surge suppression receptacles and permanently wired computer and electronic equipment to be 2-wire circuits only, i.e. common neutrals not permitted.
- .9 Provide numbered wire collars for control wiring. Numbers to correspond to control shop drawing legend. Obtain wiring diagram for control wiring.

- Renumber 3.1 to 3.3
- Renumber 3.2 to 3.4
- Delete newly numbered 3.4.2 and replace with the following:
 - .2 Install cable concealed, securely supported by straps and hangers.
- Delete newly numbered 3.4.3
- Delete newly numbered 3.4.4
- Renumber 3.3 to 3.5
- Delete newly numbered 3.5.1
- Delete newly numbered 3.5.6
- Renumber 3.4 to 3.6
- Delete newly numbered 3.6.2
- Delete newly numbered 3.6.3
- Delete newly numbered 3.6.4

- Delete 3.5 Installation of Aluminum Sheathed Cable
- Renumber 3.6 to 3.7
- Delete newly numbered 3.7.1 and replace with the following:
 - .1 Install control cables in conduit as indicated.
- Renumber 3.7 to 3.8

Section 26 05 38 – Cellular Metal Floor Raceway Fittings

- Section rename to Cellular Metal Floor Raceway and Fittings

Section 26 12 16.01 – Dry type Transformers Up to 600V Primary

- Sentence 1.5.1.4.1, delete word “ST20” and replace with “TP-1”.
- Sentence 1.6.1, delete words “and that is acceptable to authorities having jurisdiction”.
- Delete sentence 1.6.4 and replace with the following:
 - .4 Electrical Components, Devices and Accessories: Listed and labelled as defined in NFPA 70, Article 100, and to Canadian Electrical Code (CEC), by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- Sentence 2.2.4.1, delete word “encapsulated” and replace with “impregnated”.
- Sentence 2.2.8, delete words “four 2.5 percent taps” and replace with “four 2.0 percent taps”.
- Sentence 2.2.12.3.2, delete words “120 dBA” and “65 dBA” and replace with “120 dB” and 65 dB” respectively.
- Sentence 2.2.12.3.3, delete words “52 dBA” and replace with “52 dB”.
- Sentence 3.1.2, delete words “NFPA 70” and replace with “CEC-2009”.

Section 26 29 10 – Motor Starters to 600V

- Add the following sentence 1.3.2:

- .2 Submit drawings stamped and signed by professional engineer registered or licensed in the Province of Newfoundland and Labrador.
- Delete sentence 2.2.1.2 and replace with the following:
 - .2 One and Three overload heaters, as indicated, manual reset, trip indicating handle.
- Delete sentence 2.3.3.1 and replace with the following:
 - .1 Pushbuttons and selector switches: heavy duty, oil tight, labelled as indicated.
- Delete sentence 2.3.3.2 and replace with the following:
 - .2 Indicating lights: heavy duty, oil tight type and color as indicated.
- Delete sentence 2.4.2.1 and replace with the following:
 - .1 Pushbuttons and selector switches: heavy duty, oil tight, labelled as indicated.
- Delete sentence 2.4.2.2 and replace with the following:
 - .2 Indicating lights: heavy duty, oil tight type and color as indicated.
- Delete sentence 2.5.2.1 and replace with the following:
 - .1 Pushbuttons and selector switches: heavy duty, oil tight, labelled as indicated.
- Delete sentence 2.5.2.2 and replace with the following:
 - .2 Indicating lights: heavy duty, oil tight type and color as indicated.
- Sentence 2.5.2.4, delete words “low speed compelling relay”, “accelerating” and “decelerating”.
- Delete sentence 2.6.2.1 and replace with the following:
 - .1 Pushbuttons and selector switches: heavy duty, oil tight, labelled as indicated.
- Delete sentence 2.6.2.1 and replace with the following:
 - .2 Indicating lights: heavy duty, oil tight type and color as indicated.

- Delete sentence 2.7.3.1 and replace with the following:
 - .1 Pushbuttons and selector switches: heavy duty, oil tight, labelled as indicated.
- Delete sentence 2.7.3.2 and replace with the following:
 - .2 Indicating lights: heavy duty, oil tight type and color as indicated.
- Delete sentence 2.8.3.1 and replace with the following:
 - .1 Pushbuttons and selector switches: heavy duty, oil tight, labelled as indicated.
- Delete sentence 2.8.3.2 and replace with the following:
 - .2 Indicating lights: heavy duty, oil tight type and color as indicated.
- Delete sentence 2.9.2.1 and replace with the following:
 - .1 Pushbuttons and selector switches: heavy duty, oil tight, labelled as indicated.
- Delete sentence 2.9.2.2 and replace with the following:
 - .2 Indicating lights: heavy duty, oil tight type and color as indicated.
- Delete sentence 2.10.2.1 and replace with the following:
 - .1 Pushbuttons and selector switches: heavy duty, oil tight, labelled as indicated.
- Delete sentence 2.10.2.2 and replace with the following:
 - .2 Indicating lights: heavy duty, oil tight type and color as indicated.
- Delete sentence 2.11.2.1 and replace with the following:
 - .1 Pushbuttons: heavy duty, oil tight labelled as indicated.
- Delete sentence 2.11.2.2 and replace with the following:
 - .2 Selector switches: heavy duty, oil tight labelled as indicated.
- Delete sentence 2.11.2.3 and replace with the following:

- .3 Indicating lights: heavy duty type and colour as indicated.
- Delete sentence 2.12.2.1 and replace with the following:
 - .1 Pushbuttons and selector switches: heavy duty, oil tight, labelled as indicated.
- Delete sentence 2.12.2.2 and replace with the following:
 - .2 Indicating lights: heavy duty, oil tight type and color as indicated.
- Sentence 2.15.3, delete number “4” and replace with number “2”.
- Add the following sentence 3.1.3:
 - .3 Confirm motor nameplate and adjust overload device to suit.

Section 26 50 00 – Lighting

- Add the following to sentence 1.3.2:

“and luminaire coefficient of utilization (CU) tables”.
- Add the following sentence 1.3.3:
 - .3 Provide manufacturer's printed product literature, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.
- Add the following sentence 1.3.4:
 - .4 Quality assurance submittals: provide the following in accordance with Section 01 45 00 - Quality Control.
 - .1 Manufacturer's instructions: provide manufacturer's written installation instructions and special handling criteria, installation sequence, cleaning procedures and relamping schedule.
- Delete 1.4 Job Mock-ups and replace with 1.4 Delivery, Storage and Handling
 - 1.4 Delivery, Storage and Handling
 - .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
 - .2 Deliver materials to site in original factory packaging, labelled with manufacturer's name, address.

- .3 Divert unused metal materials from landfill to metal recycling facility.
- .4 Disposal and recycling of fluorescent lamps as per local regulations.
- .5 Disposal of old PCB filled ballasts.

- Sentence 1.5.2.5, delete words “bid depository”.
- Sentence 1.5.2.5, add word “date”.
- Delete 2.1 Lamps and replace with the following:

2.1 Lamps

- .1 Incandescent lamps to be - clear, A19, 100 Watt with 1000 hour lamp life, rough-service rated; or as indicated.
- .2 Tungsten halogen lamps to be - clear, T-3, 300 Watt, RSC base, 2000 hour lamp life, 5000 lumens; or as indicated.
- .3 Fluorescent lamps to be - T8, 32 Watt, medium bi-pin, rapid or instant start to suit application, 4100 K, 30,000 hour lamp life, 2950 initial lumens, CRI 80; or as indicated.
- .4 Metal halide lamps to be - clear, BT37, 400 Watt, mogul base, horizontal burn, 4100 K, 15,000 hour lamp life, 36,000 initial lumens, CRI65, open or enclosed type to suit the luminaire; or as indicated.
- .5 Low pressure sodium lamps to be - clear, T21, 135 Watt, BY22d base, horizontal burn, 16,000 hour lamp life, 22,000 initial lumens; or as indicated.
- .6 High pressure sodium lamps to be - clear, ED18, 400 Watt, mogul base, 30,000 hour lamp life, 54,000 initial lumens; or as indicated.
- .7 Compact fluorescent lamps to be - 18 Watt, G24q-2 base, 12,000 hour lamp life, 12,000 initial lumens, 4100 K, CRI 80; or as indicated.

- Sentence 2.2.1, delete words “instant start, electronic type, design A” and replace with “IC electronic”.
- Delete sentence 2.2.1.1 and replace with the following:
 - .1 Rating: 120 or 347 V, 60 Hz, as indicated, for use with 2-32W, T8 octron imperial lamps.
- Sentence 2.2.1.3, delete word “40 EC” and replace with “40°C”
- Sentence 2.2.1.5, delete words “current, 2.0 maximum voltage”

- Sentence 2.2.1.8, delete words “including 49th for electronic discrete and hybrid ballasts”
- Sentence 2.2.1.9, delete word “21 kHz” and replace with 20 kHz”
- Sentence 2.2.1.11, delete word “0.85” and replace with “0.90”
- Sentence 2.2.2.2, delete word “40EC” and replace with “40°C”
- Sentence 2.2.2.6, delete word “29 EC” and replace with “30°C”

- Delete sentence 2.2.2.8 and replace with the following:

.8 Current crest factor: 1.7 maximum current.

- Sentence 2.2.3.2, delete word “40 EC” and replace with “40°C”
- Sentence 2.2.3.6, delete word “34 EC” and replace with “40°C”
- Delete sentence 2.2.3.8 and replace with the following:

.8 Current crest factor: 1.7 maximum current.

- Sentence 2.2.4.2, delete word “40 EC” and replace with “40°C”
- Sentence 2.2.4.6, delete word “34 EC” and replace with “34°C”
- Delete sentence 2.3 Finishes and replace with the following:

2.3 Finishes

- .1 Light fixture finish and construction to meet ULC listings and CSA certifications related to intended installation.

- Delete 2.4 Luminaires and replace with the following:

2.4 Luminaires

- .1 As indicated in luminaire schedule on drawings. Provide 10% spare lamps of each type noted in luminaire schedule.

- Add the following sentence 2.5:

2.5 Optical Control Devices

- .1 As indicated in luminaire schedule on drawings.

- Add the following sentence 3.1.1.1:
 - .1 Provide adequate support to suit ceiling system.
- Sentence 3.2.1, delete words “using methods as detailed or described”
- Add the following sentence 3.2.1.1:
 - .1 Install flexible conduit for vertical power supply drop to luminaires as indicated. Horizontal wiring using flexible conduit is not permitted.
- Sentence 3.3.1, delete words “support luminaires independently of ceiling”
- Delete sentence 3.3.2
- Delete sentence 3.5
- Renumber 3.6 to 3.5

Section 33 65 76 – Direct Buried Underground Cable Ducts

- Add the following to sentence 2.1.1:

“Type DB2 (thinwall) PVC conduits unacceptable.
- Sentence 2.3.1, delete words “Rigid PVC or type DB2 (thinwall) PVC conduits are unacceptable”.

NEW SECTIONS TO BE ADDED TO MASTER SPECIFICATION GUIDE

- Section 01 42 00 - References
- Section 11 73 10 – Ceiling Lift
- Section 12 66 13 – Telescoping Bleachers.