

**Part 1 General****1.1 RELATED SECTIONS**

- .1 Division 01- General Requirements.
- .2 Section 04 05 00 - Common Work Results for Masonry.
- .3 Section 04 05 12 - Masonry Mortar and Grout.
- .4 Section 04 05 19 - Masonry Anchorage and Reinforcing.

**1.2 REFERENCES**

- .1 Canadian Standards Association (CSA International)
  - .1 CAN/CSA-A165 SERIES-04 (R2009), CSA Standards on Concrete Masonry Units.

**1.3 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate and recycle waste materials in accordance with Section 01 00 10 – General Instructions.
- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.

**1.4 SUBMITTALS**

- .1 Product Data:
  - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 00 10 – General Instructions and include product characteristics, performance criteria, physical size, weight, finish and limitations.
  - .2 Submit two copies of WHMIS MSDS - Material Safety Data Sheets in accordance with 01 35 29.06 – Health & Safety. Indicate VOC's insulation products and adhesives.
- .2 Manufacturer's Instructions: Submit manufacturer's installation instructions.

**Part 2 Products****2.1 MATERIALS**

- .1 Standard concrete block units Type as indicated on structural drawings: to CAN3-A165 and as indicated below:
  - .1 Classification: H/15/A/M. Minimum compressive strength 15 MPa. If differences in specifications and drawings, structural drawings over ride specification.
  - .2 Size: modular.
  - .3 Special shapes: provide square units for exposed corners. Provide additional special shapes as indicated.

- .2 Special fire resistant concrete block units-Structural to CAN3-A165 Series (CAN3-A165.1-04 (R2009)) as indicated on architectural drawings and as modified below. If there are differences in specifications and drawings, structural drawings over ride the specification.
  - .1 Classification: S/20/B/M except as modified by fire resistance requirements specified below. Minimum compressive strength of 15 MPa.
  - .2 Fire resistant characteristics: aggregate used in units and equivalent thickness of units to the Supplement to the National Building Code of Canada 2005 for fire-resistance ratings indicated.
  - .3 Size: modular.
  - .4 Fire Resistance Rating of infill to match existing and be no less than 2 hours.

### **Part 3 Execution**

#### **3.1 LINES AND LEVELS**

- .1 Provide general lines and levels. Be responsible for accurate dimensions, lines and levels of work of this section. Make work plumb and true.

#### **3.2 CUTTING AND PATCHING**

- .1 Do all cutting, fitting and patching of masonry to receive work of other trades, to make work properly come together and make good to match adjacent masonry.
- .2 When working with existing masonry wall, remove cut blocks where possible and replace with solid uncut masonry unit to tie infill portion into existing wall construction.

#### **3.3 PROVISIONS FOR OTHER TRADES**

- .1 Provide openings in masonry walls where required or indicated.
- .2 Accurately locate chases and opening and neatly finish to required size.
- .3 Where masonry encloses conduit or piping, bring to proper level indicated and as directed. Do not cover any pipe or conduit chases or enclosures until advised that work has been reviewed by Departmental representative.

#### **3.4 INSTALLATION**

- .1 Concrete block units.
  - .1 Bond: running.
  - .2 Coursing height: To match existing.
  - .3 Jointing: concave where exposed or where paint or other finish coating is specified.
- .2 Erect masonry to correct dimensions, plumb, true and with level courses.
- .3 Maintain joints vertical in alternate courses or as broken by bond pattern in line, throughout the entire height.

- .4 Reinforce masonry as required to support wall mounted equipment, building components, and fixtures provided under other Sections.
- .5 Verify the loads to be supported and the arrangement and type of fastenings with the appropriate Sections.
- .6 Lay masonry exposed to view or to receive paint finish carefully with each joint width and with exposed faces flush and even throughout. Broken corners and spoiled units are not acceptable. Do not use units which are too contrasting in appearance. Lay masonry units with a blend of tones and textures.
- .7 Completely fill joints in solid block masonry with mortar. Fully cover the end areas and bearing areas of the face shells of hollow units with mortar.
- .8 Completely fill and tool head and bed joints.
- .9 Build in anchors, nailers, accessories, flashings and other items required as the masonry work progresses. Solidly fill with non-shrink grout all voids in masonry into which anchor bolts or other connection materials are built.
- .10 Determine the location and size of openings to be left in masonry walls for heating, ventilation, plumbing, electrical fixtures, hollow cells of blocks or build around them and split blocks. Build chases and openings as required accurately located and neatly finished, as the work progresses. Cut block for electrical boxes and recessed equipment accurately using carborundum saw. Provide square clean edges.
- .11 Tool joints in exposed masonry to a neat concave finish using 15mm diameter non-staining tool. Before tooling, ensure that surface of mortar is thumb print hard and has lost water sheen. Strike joints flush in concealed locations.
- .12 Where walls and partitions are pierced by structural members, ducts, pipes, fill voids with mortar to within 25mm of such members flush with wall face. Fill spaces between partition and structural members, ducts and pipes with glass fibre or mineral wool insulation compressed 50% completely from one side of wall to the other.
- .13 Fire and Smoke Separation:
  - .1 Supply and install masonry walls to provide fire and smoke separation to the minimum time resistance ratings shown on Drawings, if none are indicated provide a Fire and Smoke separation of 0 hours.
  - .2 Ensure materials employed, construction methods and seals to junctions to adjacent surfaces complement the fire and smoke separation requirements to approval of Authorities having jurisdiction.

### 3.5 CLEANING

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

**END OF SECTION**