

PART 1 **GENERAL**

1.1 **RELATED REQUIREMENTS**

- .1 Section 01 33 00 – Submittal Procedures.
- .2 Section 01 74 21 – Construction/Demolition Waste Management and Disposal.
- .3 Section 04 05 00 – Common work Results for Masonry.
- .4 Section 04 05 12 – Masonry Mortar and Grout.
- .5 Section 04 05 19 – Masonry Anchorage.
- .6 Section 04 05 23 – Masonry Accessories.

1.2 **REFERENCES**

- .1 ASTM International Inc.
 - .1 ASTM C216-13, Standard Specification for, Facing Brick (Solid Masonry Units Made of Clay or Shale).
- .2 Brick Industry Association (BIA)
 - .1 Technical Note No. 20-2006, Cleaning Brick Work.
- .3 Canadian Standards Association (CSA International)
 - .1 CAN/CSA A82-06, Fired Masonry Brick Made From Clay or Shale).
 - .2 CAN/CSA-A165 Series-2004, CSA Standards on Concrete Masonry Units.
 - .3 CAN/CSA A371-04, Masonry Construction for Buildings.

1.3 **ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Product Data:
 - .1 Provide manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 - Submittal Procedures.
 - .3 Manufacturer's Instructions:
 - .1 Provide manufacturer's installation instructions in accordance with Section 04 05 00 - Common Work Results for Masonry.
 - .4 Samples:
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- .1 Provide unit samples in accordance with Section 01 33 00 - Submittal Procedures.

1.4 QUALITY ASSURANCE SUBMITTALS

- .1 Provide Certificates: in accordance with Section 04 05 00 - Common Work Results for Masonry.
- .2 Pre-Installation Meetings: conduct pre-installation meeting in accordance with Section 04 05 00 - Common Work Results for Masonry to verify project requirements, manufacturer's installation instructions and manufacturer's warranty requirements.
- .3 Mock-ups:
 - .1 Construct mock-ups in accordance with Section 01 45 00 – Testing and Quality Control and requirements of Section 04 05 00 - Common Work Results for Masonry supplemented as follows:
 - .1 Construct mock-up panel of exterior brick construction 1200 x 1800 mm.
- .4 Delivery, Storage, and Handling:
 - .1 Deliver, store and handle brick unit masonry in accordance with Section 01 61 00 - Common Product Requirements.
- .5 Packaging Waste Management:
 - .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

1.5 SITE CONDITIONS

- .1 Ambient Conditions: assemble and erect components only when temperature is above 4 degrees C.

PART 2 PRODUCTS

2.1 MANUFACTURED UNITS

- .1 Face brick:
 - .1 Fired clay brick: to CAN/CSA A82.
 - .1 Type: 5.
 - .2 Grade: EG.
 - .3 Size: modular.
 - .4 Colour and texture:
 - .1 Primary colour: red range, smooth texture.

- .2 Soldier course accent bands: buff range, smooth texture.
- .3 Colour and texture to the approval of the Departmental Representative.
- .5 Solid/hollow.
- .2 Reinforcement:
 - .1 Reinforcement in accordance with Section 04 05 19 - Masonry Anchorage and Reinforcing.
- .3 Connectors:
 - .1 Connectors in accordance with Section 04 05 19 - Masonry Anchorage and Reinforcing.
- .4 Flashings:
 - .1 Flashing: in accordance with Section 04 05 23 - Masonry Accessories.
- .5 Mortar Mixes:
 - .1 Mortar and mortar mixes in accordance with Section 04 05 12 - Masonry Mortar and Grout.
- .6 Grout Mixes:
 - .1 Grout and grout mixes in accordance with Section 04 05 12 - Masonry Mortar and Grout.
- .7 Cleaning Compounds:
 - .1 Compatible with substrate and acceptable to masonry manufacturer for use on products.
 - .2 Cleaning compounds compatible with brick masonry units and in accordance with manufacturer's written recommendations and instructions.

PART 3 EXECUTION

3.1 EXAMINATION

- .1 Verify surfaces and conditions are ready to accept work of this Section.
- .2 Commencing installation means acceptance of existing substrates.

3.2 PREPARATION

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

- .1 Manufacturer's Instructions: comply with manufacturer's written recommendations, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.4 INSTALLATION

- .1 Construction to conform to CAN/CSA A371.
- .2 Bond: stretcher.
- .3 Coursing height: 200 mm for three/two bricks and three/two joints.
- .4 Jointing: concave where exposed or where paint or similar thin finish coating is specified.
 - .1 Mixing and blending: mix units within each pallet and with other pallets to ensure uniform blend of colour and texture.
 - .2 Clean unglazed clay masonry as work progresses.
 - .3 Reinforcement:
 - .1 Install reinforcing in accordance with Section 04 05 19 - Masonry Anchorage and Reinforcing.
 - .4 Connectors:
 - .1 Install connectors in accordance with Section 04 05 19 - Masonry Anchorage and Reinforcing.
 - .5 Flashings:
 - .1 Install flashings in accordance with Section 04 05 23 - Masonry Accessories.
 - .6 Mortar Placement:
 - .1 Place mortar in accordance with Section 04 05 12 - Masonry Mortar and Grout.
 - .7 Grout Placement:
 - .1 Place grout in accordance with Section 04 05 12 - Masonry Mortar and Grout.
 - .8 Tolerances:
 - .1 To CAN/CSA A371 unless noted below.

3.5 CLEANING

- .1 Clean in accordance with Section 01 74 11 - Cleaning.
 - .2 Perform cleaning as soon as possible after installation to remove construction and accumulated environmental dirt.
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- .3 Clean unglazed clay masonry: 10 m² area of wall designated by Departmental Representative mock up panel specified in Section 04 05 00 - Common Work Results for Masonry as directed below and leave for one week. If no harmful effects appear and after mortar has set and cured, protect windows, sills, doors, trim and other work, and clean brick masonry as follows.
 - .1 Remove large particles with wood paddles without damaging surface. Saturate masonry with clean water and flush off loose mortar and dirt.
 - .2 Scrub with solution of 25 mL trisodium phosphate and 25 mL household detergent dissolved in 1 L of clean water using stiff fibre brushes, then clean off immediately with clean water using hose. Alternatively, use proprietary compound recommended by brick masonry manufacturer in accordance with manufacturer's directions.
 - .3 Repeat cleaning process as often as necessary to remove mortar and other stains.
 - .4 Use acid solution treatment for difficult to clean masonry as described in Technical Note No.20 by the Brick Industry Association.
- .4 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.
- .5 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.
- .6 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

3.6 PROTECTION

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