

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 04 05 12 – Masonry mortar and grout
- .2 Masonry connection and reinforcing – Engineer’s drawings and specifications
- .3 Section 04 05 19.01 – Masonry anchorage
- .4 Section 04 05 23 – Masonry accessories
- .5 Section 04 22 00 – Concrete unit masonry
- .6 Section 07 92 00 – Joint sealants
- .7 Electrical and mechanical installations - Engineers’ drawings and specifications

1.2 REFERENCES

- .1 Canadian Standards Association (CSA International)
 - .1 CAN/CSA A165 Series-04, Standards on Concrete Masonry Units.
 - .2 CAN/CSA A179-04, Mortar and Grout for Unit Masonry.
 - .3 CAN/CSA A371-04, Masonry Construction for Buildings.

1.3 ACTION 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 datasheet and include product characteristics, performance criteria, limitations and colours.
 - .3 Samples:
 - .1 Provide samples as follows:
 - .1 Two (2) of each type of masonry unit specified, including special shapes.
 - .2 Two (2) coloured samples of mortar illustrating mortar colour and colour range, supplemented with specific requirements in Section 04 05 12 - Masonry Mortar and Grout.
 - .3 Two (2) of each type of masonry accessory and flashing specified, supplemented by specific requirements in Section 04 05 23 - Masonry Accessories.
 - .4 Two (2) of each type of masonry anchorage proposed for use, supplemented by specific requirements in Section 04 05 19 - Masonry Anchorage.
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1.4 INFORMATION SUBMITTALS

- .1 Certificates: provide manufacturer's product certificates certifying materials comply with specified requirements.

1.5 QUALITY ASSURANCE

- .1 Qualifications:
 - .1 Manufacturer: capable of providing field service representation during construction and approving application method.
 - .2 Masons: company or person specializing in masonry installations with five (5) years, references experience with masonry work similar to this project.
 - .1 Masons working in the present project must be able to construct

1.6 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .3 Storage and Handling Protection:
 - .1 Keep materials dry until use except where wetting of bricks is specified.
 - .2 Store under waterproof cover on pallets or plank platforms held off ground by means of plank or timber skids.
 - .3 Packaging Waste Management
 - .1 Remove for recycling and packaging materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

1.7 SITE CONDITIONS

- .1 Ambient Conditions: assemble and erect components when temperatures are above five (5) degrees C.
 - .2 Weather Requirements (warm or cold): to CSA A371.
 - .3 Cold weather requirements:
 - .1 To CSA A371 with following requirements.
 - .1 Maintain temperature of mortar between 5 and 50 degrees C until batch is used or becomes stable.
 - .2 Maintain ambient temperature of masonry work and it's constituent materials between 5 and 50 degrees C and protect site from windchill.
 - .3 Maintain temperature of masonry above freezing point for a minimum of 7 days, after mortar is installed.
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- .4 Preheat unheated wall sections in enclosure for minimum 72 hours above 10 degrees C, before applying mortar.
- .2 Hot weather requirements:
 - .1 Protect freshly laid masonry from drying too rapidly, by means of waterproof, non-staining coverings.
 - .2 Keep masonry dry using waterproof, non-staining coverings that extend over walls and down sides sufficient to protect walls from wind driven rain, until masonry work is completed and protected by flashings or other permanent construction.
 - .3 Spray mortar surface at intervals and keep moist for maximum of three days after installation.

1.8 WARRANTY

- .1 In regards with the work of the present section 04 05 00 – Common work results for masonry, the 12 months warrantee period is extended to 60 months.

Part 2 Products

2.1 MANUFACTURERS

- .1 Ensure manufacturer has minimum 10 years experience in manufacturing components similar to or exceeding requirements of project.

2.2 MATERIALS

- .1 Masonry materials are specified elsewhere in related Sections article 1.1.

Part 3 Execution

3.1 INSTALLERS

- .1 Experienced and qualified masons to carry out erection, assembly and installation of masonry work.

3.2 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

3.3 EXAMINATION

- .1 Examine conditions, substrates and work to receive work of this Section.
 - .1 Co-ordinate with Section 01 71 00 - Examination and Preparation.

- .2 Examine openings to receive masonry units. Verify opening size, location, and that opening is square and plumb, and ready to receive work of this Section.
 - .1 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
 - .2 Proceed with installation after unacceptable conditions have been remedied and after receipt of written approval from Departmental Representative.
- .3 Verification of Conditions:
 - .1 Verify that:
 - .1 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 brick and concrete block.
 - .2 Field conditions are acceptable and are ready to receive work.
 - .3 Built-in items are in proper location, and ready for roughing into masonry work.
 - .2 Commencing installation means acceptance of existing substrates.

3.4 PREPARATION

- .1 Surface Preparation: prepare surface in accordance with manufacturer's written recommendations and co-ordinate with Section 01 71 00 - Examination and Preparation.
- .2 Establish and protect lines, levels, and coursing.
- .3 Protect adjacent materials from damage and disfiguration.

3.5 INSTALLATION

- .1 Do masonry work in accordance with CSA A371 except where specified otherwise.
- .2 Build masonry plumb, level, and true to line, with vertical joints in alignment, respecting construction tolerances permitted by CSA A371.
- .3 Layout coursing and bond to achieve correct coursing heights, and continuity of bond above and below openings, with minimum of cutting.

3.6 CONSTRUCTION

- .1 Exposed masonry:
 - .1 Remove chipped, cracked, and otherwise damaged units, in accordance with CSA A165, in exposed masonry and replace with undamaged units.
- .2 Jointing:

- .1 Allow joints to set just enough to remove excess water, then tool with round jointer to provide smooth, joints true to line, compressed, uniformly concave joints where concave joints are indicated.
- .3 Cutting:
 - .1 Cut out for electrical switches, outlet boxes, and other recessed or built-in objects.
 - .2 Make cuts straight, clean, and free from uneven edges.
- .4 Building-In:
 - .1 Build in items required to be built into masonry.
 - .2 Prevent displacement of built-in items during construction. Check plumb, location and alignment frequently, as work progresses.
 - .3 Brace door jambs to maintain plumb. Fill spaces between jambs and masonry with mortar.
- .5 Provision for movement:
 - .1 Leave 3 mm minimal space below shelf angles.
 - .2 Leave 6 mm space between top of non-load bearing walls and partitions and structural elements. Do not use wedges.
 - .3 Comply with deflection criteria used for design of the structural elements at floor and/or roof for this project.
 - .4 Seal with fireproof and finish sealants at fire-bricking partition.
- .6 Loose steel lintels:
 - .1 Install loose steel lintels. Centre over opening width making sure that it exceeds width by 150 mm to each ends.
- .7 Control joints:
 - .1 Construct continuous control joints as indicated.
- .8 Movement joints:
 - .1 Build-in continuous movement joints as indicated.
- .9 Interface with other work:
 - .1 Cut openings in existing work as indicated.
 - .2 All openings cut through walls must be examined by Departmental Representative.
 - .3 Openings in walls: approved reviewed by Departmental Representative. Make good existing work. Use materials to match existing.

3.7 SITE TOLERANCES

- .1 Tolerances in notes to CSA A371 apply.

3.8 CLEANING

- .1 Clean in accordance with Section 01 74 11 - Cleaning.
- .2 Progress Cleaning: in accordance with related masonry sections.
- .3 Final Cleaning:
 - .1 Perform cleaning after installation to remove construction and accumulated environmental dirt.
 - .2 Upon completion of installation and verification of performance of installation, remove surplus materials, rubbish, tools and equipment barriers.

3.9 PROTECTION OF COMPLETED WORK

- .1 Temporary Bracing:
 - .1 Provide temporary bracing of masonry work during and after erection until permanent lateral support is in place.
 - .2 Bracing approved by Departmental Representative.
 - .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 recommended in 1.8 - Site conditions.

END OF SECTION
