

Part 1 General

1.1 REFERENCES

- .1 Canadian Standards Association (CSA International).
 - .1 CSA A179-94(R1999), Mortar and Grout for Unit Masonry.
 - .2 CSA-A371-94 (R1999), Masonry Construction for Buildings.

1.2 SUBMITTALS

- .1 Product Data.
 - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00.
- .2 Samples.
 - .1 Submit samples in accordance with Section 01 33 00.
 - .2 Submit samples of each type of masonry unit specified.
 - .3 Submit samples of each type of masonry accessory specified.
 - .4 Submit samples of each type of masonry reinforcement, tie and connector proposed for use.
 - .5 Submit samples as required for testing purposes.
- .3 Manufacturer's Instructions.
 - .1 Submit manufacturer's installation instructions.

1.3 QUALITY ASSURANCE

- .1 Pre-Installation Meetings: conduct pre-installation meeting to verify project requirements, manufacturer's installation instructions and manufacturer's warranty requirements.

1.4 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, store, handle and protect materials in accordance with Section 01 61 00.
- .2 Deliver materials to job site in dry condition.
- .3 Storage and Protection.
 - .1 Keep materials dry until use.
 - .2 Store under waterproof cover on pallets or plank platforms held off ground by means of plank or timber skids.

1.5 SITE CONDITIONS

- .1 Site Environmental Requirements.
 - .1 Cold weather requirements.
 - .1 Supplement Clause 5.15.2 of CSA-A371 with following requirements.

- .1 Maintain temperature of mortar between 5 degrees C and 50 degrees C until batch is used or becomes stable.
- .2 Maintain ambient temperature between 5 degrees C and 50 degrees C and protect site from windchill.
- .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.

Part 2 Products

2.1 MATERIALS

- .1 Masonry materials are specified in Related Sections.

Part 3 Execution

3.1 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.

3.2 PREPARATION

- .1 Provide temporary bracing of masonry work during and after erection until permanent lateral support is in place.
- .2 Bracing approved by Contract Administrator.

3.3 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.
- .3 Layout coursing and bond to achieve correct coursing heights, and continuity of bond above and below openings, with minimum of cutting.

3.4 CONSTRUCTION

- .1 Exposed masonry: Remove chipped, cracked, and otherwise damaged units, in accordance with CSA A-165, Clause 82.1, 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.
- .2 Strike flush joints concealed in walls and joints in walls to receive plaster, tile, insulation, or other applied material except paint or similar thin finish coating.
- .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 Support of loads.
 - .1 Use 30 MPa concrete, where concrete fill is used in lieu of solid units.
 - .2 Use grout to CSA A179 where grout is used in lieu of solid units.
 - .3 Install building paper below voids to be filled with concrete grout; keep paper 25 mm back from faces of units.
- .6 Provision for movement.
 - .1 Leave 6 mm space between top of non-load bearing walls and partitions and structural elements. Do not use wedges.
 - .2 Built masonry to tie in with stabilizers, with provision for vertical movement.
- .7 Control joints: Construct continuous control joints as indicated.
- .8 Expansion joints: Build-in continuous expansion joints as indicated.
- .9 Interface with other work.
 - .1 Cut openings in existing work as indicated.
 - .2 Make good existing work. Use materials to match existing.

3.5 SITE TOLERANCES

- .1 Tolerances in notes to Clause 5.3 of CSA-A371 apply.

3.6 CLEANING

- .1 Perform cleaning after installation to remove construction and accumulated environmental dirt.
- .2 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

3.7 PROTECTION

- .1 Protect masonry and other work from marking and other damage. Protect completed work from mortar droppings. Use non-staining coverings.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Canadian Standards Association (CSA International).
 - .1 CSA A179-94(R1999), Mortar and Grout for Unit Masonry.

1.2 SUBMITTALS

- .1 Product Data.: Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00.
- .2 Samples
 - .1 Submit samples in accordance with Section 01 33 00.
 - .2 Submit two samples of mortar.
- .3 Manufacturer's Instructions: Submit manufacturer's installation instructions.

1.3 QUALITY ASSURANCE

- .1 Pre-Installation Meetings: conduct pre-installation meeting to verify project requirements, manufacturer's installation instructions and manufacturer's warranty requirements.

Part 2 Products

2.1 MATERIALS

- .1 Use same brands of materials and source of aggregate for entire project.
- .2 Mortar and grout: CSA A179.
- .3 Use aggregate passing 1.18 mm sieve where 6 mm thick joints are indicated.
- .4 Colour: ground natural aggregates.
- .5 Mortar for exterior masonry above grade:
 - .1 Loadbearing: type S based on Proportion specifications.
 - .2 Non-Loadbearing: type S based on Proportion specifications.
- .6 Mortar for foundation walls, manholes, sewers, pavements, walks, patios and other exterior masonry at or below grade: type M based on Proportion specifications.
- .7 Mortar for interior masonry:
 - .1 Loadbearing: Type S based on Proportion specifications.
 - .2 Non-loadbearing: Type N based on Proportion specifications.
- .8 Non-Staining mortar: use non-staining masonry cement for cementitious portion of specified mortar type.

- .9 Grout: to CSA A179, Table 3.

Part 3 Execution

3.1 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.

3.2 CONSTRUCTION

- .1 Do masonry mortar work in accordance with CSA A179 except where specified otherwise.
- .2 Grout masonry in accordance with CSA-S304.1, CSA-A371 and CSA-A179 and as indicated.

3.3 SCHEDULE

- .1 Grout following masonry components:
- .1 All reinforced cores in block walls full height.
 - .2 All lintel courses, bond beams, etc.

3.4 CLEANING

- .1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Canadian Standards Association (CSA International).
 - .1 CAN/CSA-A23.1/A23.2-00, Concrete Materials and Methods of Concrete Construction/Methods of Test for Concrete.
 - .2 CSA-A370-94(R1999), Connectors for Masonry.
 - .3 CSA-A371-94(R1999), Masonry Construction for Buildings.
 - .4 CSA G30.14-M1983(R1998), Deformed Steel Wire For Concrete Reinforcement.
 - .5 CAN/CSA G30.18-M92, Billet-Steel Bars for Concrete Reinforcement.
 - .6 CSA-S304.1-94(R2001), Masonry Design for Buildings.
 - .7 CSA W186-M1990(R1998), Welding of Reinforcing Bars in Reinforced Concrete Construction.
 - .8 CSA A179-94, Mortar and Grout For Unit Masonry.
 - .9 CAN/CSA-G164-M92(R1998), Hot Dip Galvanizing of Irregularly Shaped Articles.

1.2 SUBMITTALS

- .1 Product Data:
 - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00.
 - .2 Submit two copies of WHMIS MSDS - Material Safety Data Sheets in accordance with Section 01 33 00 - Submittal Procedures. Indicate VOC's for epoxy coatings and galvanized protective coatings and touch-up products.
- .2 Shop Drawings :
 - .1 Submit shop drawings in accordance with Section 01 33 00.
 - .2 Shop drawings consist of bar bending details, lists and placing drawings.
 - .3 On placing drawings, indicate sizes, spacing, location and quantities of reinforcement and connectors.

Part 2 Products

2.1 MATERIALS

- .1 Bar reinforcement: to CSA-A371 and CSA G30.18.
- .2 Wire reinforcement: to CSA-A371 and CSA G30.14.
- .3 Connectors: to CSA-A370 and CSA-S304.
 - .1 Slotted block type: designed for application, submit shop drawings.
 - .2 Acceptable material: Ferro Ties.

- .4 Vertical supports: Dur-o-wall as indicated.
- .4 Corrosion protection: to CAN/CSA-G164-M92(R1998), Hot Dip Galvanizing of Irregularly Shaped Articles.

2.2 FABRICATION

- .1 Fabricate reinforcing in accordance with CSA-A23.1 and ANSI/ACI 315-94, Details and Detailing of Concrete Reinforcement.
- .2 Fabricate connectors in accordance with CSA-A370.
- .3 Obtain Contract Administrator's approval for locations of reinforcement splices other than shown on placing drawings.
- .4 Upon approval of Contract Administer, weld reinforcement in accordance with CSA W186.
- .5 Ship reinforcement and connectors, clearly identified in accordance with drawings.

Part 3 Execution

3.1 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.

3.2 GENERAL

- .1 Supply and install masonry connectors and reinforcement in accordance with CSA-A370, CSA-A371, CAN/CSA-A23.1 and CSA-S304.1 unless indicated otherwise.
- .2 Prior to placing mortar, grout, obtain Contract Administrator's approval of placement of reinforcement and connectors.
- .3 Supply and install additional reinforcement to masonry as indicated.

3.3 BONDING AND TYING

- .1 Tie masonry veneer to backing in accordance with NBC, CSA-S304.1, CSA-A371 and as indicated.

3.4 REINFORCED LINTELS AND BOND BEAMS

- .1 Reinforce masonry lintels and bond beams as indicated.
- .2 Place and grout reinforcement in accordance with CSA-S304.1, CSA-A371, and CSA-A179.

3.5 ANCHORS

- .1 Supply and install metal anchors as indicated.

3.6 LATERAL SUPPORT AND ANCHORAGE

- .1 Supply and install lateral support and anchorage in accordance with CSA-S304.1 and as indicated.

3.7 MOVEMENT JOINTS

- .1 Reinforcement will not be continuous across movement joints unless otherwise indicated.

3.8 FIELD BENDING

- .1 Do not field bend reinforcement and connectors except where indicated or authorized by Contract Administer.
- .2 When field bending is authorized, bend without heat, applying a slow and steady pressure.
- .3 Replace connectors which develop cracks or splits.

3.9 FIELD TOUCH-UP

- .1 Touch up damaged and cut ends of epoxy coated or galvanized reinforcement steel and connectors with compatible finish to provide continuous coating.

3.10 CLEANING

- .1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 American Society for Testing and Materials (ASTM)
 - .1 ASTM D 2240-97e1, Standard Test Method for Rubber Property - Durometer Hardness.
- .2 Canadian Standards Association (CSA International).
 - .1 CSA-A371-94(R1999), Masonry Construction for Buildings.

1.2 SUBMITTALS

- .1 Product Data: Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00.
- .2 Manufacturer's Instructions: Submit manufacturer's installation instructions.

Part 2 Products

2.1 MATERIALS

- .1 Control joint filler: purpose-made elastomer durometer hardness to ASTM D2240 of size and shape indicated.
- .2 Lap adhesive: recommended by masonry flashing manufacturer.
- .3 Weep hole vents: purpose-made PVC, polypropylene, or fibre filter.
- .4 Polyethylene flashings: Reinforced: two .75 mm thick polyethylene films bonded each side of asphalt treated creped kraft paper, reinforced with 12.7 x 12.7 mm fibreglass scrim.
- .5 Aluminum flashings: in accordance with Section 07 62 00.

Part 3 Execution

3.1 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.

3.2 INSTALLATION

- .1 Install continuous control joint fillers in control joints at locations indicated on drawings.

- .2 Install weep hole vents in vertical joints immediately over flashings, in exterior wythes of cavity wall and masonry veneer wall construction, at maximum horizontal spacing of 600 mm on centre.

3.3 CONSTRUCTION

- .1 Build in flashings in masonry in accordance with CSA-A371.
- .2 Install flashings under exterior masonry bearing on foundation walls, slabs, shelf angles, and steel angles over openings. Install flashings under weep hole courses and as indicated.
- .2 Lap joints 150 mm and seal with adhesive.

3.4 CLEANING

- .1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Canadian Standards Association (CSA International)
 - .1 CAN3 A165 SERIES-94(R2000), CSA Standards on Concrete Masonry Units covers: A165.1, A165.2, A165.3.

Part 2 Products

2.1 MATERIALS

- .1 Standard concrete block units: to CAN3-A165 Series (CAN3-A165.1)
 - .1 Classification: H / 15 / M.
 - .2 Size: as indicated.
 - .3 Special shapes: provide bull-nosed units for exposed corners. Provide purpose-made shapes for lintels and bond beams. Provide additional special shapes as indicated.
 - .4 Colour: allow for three colours, finishing and textures selected from manufacturer's standard range by Contract Administrator
- .2 Single score concrete block units: to CAN3-A165 Series (CAN3-A165.1)
 - .1 Classification: H / 15 / M.
 - .2 Size: as indicated.
 - .3 Special shapes: provide bull-nosed units for exposed corners. Provide purpose-made shapes for lintels and bond beams. Provide additional special shapes as indicated.
 - .4 Colour: allow for 3 colours as selected from manufacturer's standard range by Contract Administrator.
- .2 Prefaced: split faced as indicated: Full height split.
 - .1 Special shapes: provide bull-nosed units for exposed corners. Provide purpose-made shapes for lintels and bond beams. Provide additional special shapes as indicated.
 - .2 Colour: allow for three colours, selected from manufacturer's standard range by Contract Administrator.

Part 3 Execution

3.1 INSTALLATION

- .1 Concrete block units.
 - .1 Bond: as indicated.
 - .2 Coursing height: as indicated.
 - .3 Jointing: concave where exposed or where paint or other finish coating is specified.

- .3 Prefaced Block:
 - .1 Bond: as indicated.
 - .2 Coursing height: as indicated.

- .4 Concrete block lintels.
 - .1 Install reinforced concrete block lintels over openings in masonry where steel or reinforced concrete lintels are not indicated.
 - .2 End bearing: not less than 200 mm as indicated on drawings.

3.2 CLEANING

- .1 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