

DIVISION 04 - MASONRY

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04 00 00. MASONRY

04 00 03. GENERAL PROVISIONS

- .1 SPLIT COURSING: Only full coursing will be permitted at the head of any type of opening.
- .2 OVERHUNG MASONRY: Construction where the masonry units are suspended using mechanical devices, or where the units extend beyond lower courses and mechanical support devices are required, are not to be used. Buildings being renovated/restored, which have such overhung structures, shall be examined for safety and a report of condition provided.
- .3 USE OF INK MARKING PENS ON SURFACES of any kind of material is prohibited. Experience has shown that such marks bleed through paint and other finishes.
- .4 ACID FOR MASONRY CLEANING: The cleaning solution must be included in applicable sections of the Specifications. Type of solution shall be approved by the University Architect's Office.
- .5 BRICK SURFACE TREATMENT: Treating of brick surface with stain or other surface treatment or simulation to obtain a color blend is prohibited.

04 01 20. MASONRY RESTORATION AND CLEANING

- .1 EXPERIENCE CLAUSE: A 10-year experience record of the subcontractor is required. Include the following paragraph in the specifications.

CERTIFICATION OF EXPERIENCE: Work shall be performed by experienced and skilled mechanics. The General Contractor shall furnish evidence that the subcontractor for restoration work has been engaged in the business of masonry restoration for a period of at least 10 consecutive years prior to the date of these specifications. Evidence or certification of experience shall be in letter form which, in addition to statement of experience, shall contain a list of at least five projects of comparable size and complexity which have been satisfactorily completed, a statement that proper equipment is available for use, and a statement that the work will be under the direct supervision of skilled mechanics only.

04 05 13. MORTAR

- .1 MORTAR FOR LAYING MASONRY: May be ready-mixed or job mixed. Specify by types listed in ASTM C-270. Do not specify mortar, which may corrode steel reinforcement or structure.
- .2 POINTING MORTAR: Pointing mortar for clay facing tile masonry shall be made with white silica sand and white portland cement. Also see 04 40 20.1.3.

04 05 19. MASONRY ANCHORAGE AND REINFORCING

- .1 WALL TIES for masonry veneer or facing to metal stud wall back-up may be stainless steel bolts and nuts and stainless steel washers. Sheet metal screws and similar attachments are not acceptable. Verify the need for seismic clips and anchoring for masonry veneer.

04 05 19. MASONRY ANCHORAGE AND REINFORCING (Cont'd)

- .2 JOINT REINFORCEMENT: Wire mesh type is prohibited. Trussed type is preferred over ladder type. Provide ladder type joint reinforcement at vertically reinforced masonry walls and truss type in non-reinforced walls. Also see 04 21 00.1.

04 05 23. MASONRY ACCESSORIES

- .1 WEEP HOLES: Stamped aluminum louvered vents of size to fit head joints in brickwork are preferred over treated sash cord or rope. If cord or rope is specified, they shall be cotton cord or rope, and the material shall be left in place and cut off flush with the joint. Artificial fiber ropes, such as nylon or polypropylene, are prohibited.

Mortar Net or a comparable mortar collection product shall be added at the base of the veneer and single wythe concrete masonry walls to prevent clogged weep holes.

- .2 MISCELLANEOUS: Also see 04 40 20.1.4.

- .3 PLUG ANCHORAGE by use of wood or plastic is prohibited.

04 20 00. UNIT MASONRY

- 04 21 13. BRICK MASONRY: Color and blend of face brick shall generally be specified to match brickwork in a specific adjacent building. Consult the University Architect regarding this requirement.

- .1 EFFLORESCENCE TEST FOR FACE BRICK: Submit to the University Architect manufacturer's certification that bricks show no efflorescence when tested in accordance with ASTM Method C67.

- .2 SAMPLE PANEL: Include the following paragraph in the specifications:

SAMPLE PANEL: Before starting work, build one sample panel for inspection and approval. Build panel on a firm foundation, in location indicated by the Associate. Panel shall be F-shaped, with long side a minimum of 5 feet 4 inches long by 3 feet 4 inches high, with one corner return at least 2 feet long and with one intersecting 6 inch thick concrete block wall 2 feet long. Construct long side and return of 8 inch concrete block and face brick. Panel shall show color range and texture of masonry units, bond, mortar joints, and workmanship. Completed masonry work in the building shall be equal to that shown in the approved panel. Do not remove panel until masonry work is completed or until removal is authorized.

- .3 COURSING: Brick shall be laid with modular coursing, three courses to 8 inches, unless otherwise required to match existing coursing.

- .4 DESIGN: Face brick elevations shall include structural considerations for division of such elevations into panels to accomplish structural support of the brick face and expansion joints for control of thermal expansion damage. Designs, which include brick roof construction, shall not be used.

- .5 NON-STANDARD BRICK is prohibited.

04 20 00. UNIT MASONRY (Cont'd)

04 21 00. CLAY FACING TILE: Select quality ceramic glaze, 8 W series.

.1 REINFORCEMENT: Structural facing tile partitions shall be reinforced every second course with approved joint reinforcement.

04 22 00. CONCRETE UNIT MASONRY: Concrete block shall be used wherever feasible for interior wall finish. ASTM tests shall be indicated on all materials used below per Ohio Building Code requirements.

.1 CINDER BLOCK: The use of cinder block is prohibited.

.2 CONCRETE BLOCK, TYPES AND USES:

.2.1 LOAD-BEARING - normal weight, standard size.

.2.2 NON-LOAD-BEARING - lightweight, made with expanded shale aggregate and of standard size.

.2.3 EXPOSED EXTERIOR - washed crushed limestone coarse aggregate and washed limestone sand, only, shall be used.

04 40 00. STONE

04 40 20. CUT STONE:

.1 LIMESTONE: Buff Indiana Oolitic limestone shall be used, except where other types might be required to match existing stone.

.1.1 BACKS AND BONDING FACES shall be damp proofed with a water barrier as recommended by the Indiana Limestone Institute of America, Inc.

.1.2 LIMESTONE SHALL BE NO CLOSER THAN 4-INCHES TO GRADE, when adjacent to lawns and planting areas.

.1.3 SEALANT: Use a two-component, non-staining urethane elastomeric joint sealant for pointing stonework. Specify products that do not require priming of joint surfaces.

.1.4 ANCHORS, DOWELS, AND OTHER ACCESSORIES used in setting stone shall be stainless steel.

.1.5 HANDLING, PROTECTION, AND INSTALLATION shall comply with the recommendations of the Indiana Limestone Institute.

.2 MARBLE: Marble shall be domestic. Edges of marble window stools shall be eased.

.3 GRANITE: Granite shall be domestic. Granite may be specified for exterior stair treads when heavy traffic is anticipated.

END OF DIVISION 04 - MASONRY