**OM-RI-04 0121.00-SUP.docx**

**UNIT MASONRY REPOINTING**

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| **SECTION USAGE MATRIX** | | |
| C | NA | Seminary and Small Institute Standard Plan (CHURCH EDUCATION SYSTEM) - New Project |
| SM | NA | Standard MEETINGHOUSE and PHASED MEETINGHOUSE Standard Plan - New Project |
| R | SUP | OM/RI (REPLACEMENT & IMPROVEMENT) for Existing Meetinghouse / Seminary and Institute Project |
| CM | NA | Meetinghouse and Phased Meetinghouse Standard Plan with S&I MODULE ADDITION - New Project |
| SI | NA | S&I MODULE Addition to Existing Meetinghouse Building |
| MO | NA | MISSION OFFICE MODULE Addition to Existing Meetinghouse Building |
| UM | NA | URBAN MEETINGHOUSE for Custom Meetinghouse - New or Addition Project |
| FM | NA | Small Maintenance Project specification for FACILITY MANAGER |
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| **MODIFICATION LOG** | | |
| DATE | SOURCE | DESCRIPTION |
|  |  |  |
| 16 Feb 19 | Gail Olsen | Updated Reference Standards. |
| 24 Aug 16 | Gail Olsen | Updated Reference Standards. |
| 12 Aug 12 | Gail Olsen | General Upgrade. Reference Standard Updated. |
| 29 Mar 10 | Gail Olsen | General Upgrade. Reference Standard Updated. |
| 21 Mar 09 | Gail Olsen | Reference Standards Updated. |

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| PROCEDURAL NOTES |
| COORDINATION GENERAL:   1. The area to be repointed should either be very clearly described under 1.1 SUMMARY, or shown graphically on building elevations. 2. If the area to be repointed is not clearly definable, consider bidding the work using unit pricing. |
| **DESIGN INFORMATION AND BACKGROUND** |

SECTION 04 0121

UNIT MASONRY REPOINTING

1. GENERAL
   * + 1. SUMMARY
          1. Includes But Not Limited To:

Remove existing mortar to specified depth, clean joints, and tuck-point as described in Contract Documents.

Remove, clean, and reinstall existing masonry units as described in Contract Documents.

Remove existing masonry units and replace with new masonry units as described in Contract Documents.

* + - * 1. Related Requirements:

Section 04 0513: 'Cement and Lime Masonry Mortaring'.

* + - 1. REFERENCES
         1. Reference Standards:

ASTM International:

ASTM C150/C150M-22, 'Standard Specification for Portland Cement'.

ASTM C207-18, 'Standard Specification for Hydrated Lime for Masonry Purposes'.

1. PRODUCTS
   * + 1. SYSTEM
          1. Materials:

Design Criteria:

Hydrated Lime: Meet requirements of ASTM C207, Type S.

Portland Cement: Meet requirements of ASTM C150/C150M, Type II, White (non-staining).

Aggregate:

Match existing as much as possible.

Generally, sand with rounded edges is preferred.

Color:

Match existing mortar color unless otherwise agreed to.

This will generally require fresh mortar to be slightly darker than existing to compensate for natural bleaching with age.

Water: Clean, drinkable.

* + - * 1. Mixes:

Pointing mortar shall be softer or no harder than existing mortar. Unless agreed to otherwise, mix may be one part lime and 2 parts sand. Portland cement may be added up to twenty (20) percent of total lime and sand. Use no admixtures.

Mix dry ingredients, then add about half water and mix for five minutes. Add additional water slowly until proper consistency is reached. Use mortar within 30 minutes. Do not re-temper.

1. EXECUTION
   * + 1. PERFORMANCE
          1. Interface With Other Work: Coordinate work of this Section with general masonry cleaning so all, except final pointing, is completed before general masonry cleaning, if any.
          2. Remove mortar from joint 2-1**/**2 times deeper than joint width or one inch, whichever is greater, with hammer and cold chisel or other suitable hand tools. Do not use power tools unless it can be demonstrated to Architect's satisfaction that masonry surfaces will not be damaged.
          3. Remove masonry from designated areas, if any, and clean mortar from salvageable removed units and from surrounding units in wall. Re-lay masonry units in wall leaving raked joint to approximate depth of existing joints prepared for repointing. Mortar for re-laying shall be as specified in Section 04 0513.
          4. Clean joints with combination of water flushing and brushing with bristle brush.
          5. Work fresh mortar from 'hawk' to joint with jointing tool. First fill recessed areas, which are deeper than standard chiseled depth, and then proceed to fill raked joint using several layers of mortar and working tool in one direction only. Each layer of mortar shall be thumbprint hard before succeeding layer is applied. Where corners of face brick have eroded, it may be necessary to recess mortar to some degree in order to maintain consistent visual width of joints.
          6. Perform final tooling when mortar is thumbprint hard.
       2. CLEANING
          1. Clean face of masonry one to two hours after mortar has set.

Use plain stiff bristle brush.

If mortar has become too hard, use brush and plain water and wooden paddle or, if necessary, a chisel.

If harsher cleaning methods are required, allow mortar to cure thirty (30) days before commencing.

END OF SECTION