



859 Cleveland Avenue Box 692
Chambersburg, PA 17201-0692

NMP HANDCRAFTED STONE MASONRY VENEER SPECIFICATION

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Portland cement based manufactured stone veneer and trim.

Manufactured Masonry Veneer Stone

B. Related Sections:

1. **07 60 00–Flashing and Sheet Metal.**
2. **07 92 00–Joint Sealants.**
3. **09 24 00–Portland Cement Plastering.**
4. **10 30 00–Fireplaces and Stoves.**

C. Alternates:

1. Reference Section 01 23 00 Alternates.

1.02 REFERENCES

A. American National Standards Institute (ANSI):

1. ANSI A118.4 Specifications for Latex-Portland Cement Mortar.

B. American Society for Testing and Materials (ASTM):

1. [ASTM C 39](#) – Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.

2. [ASTM C 67](#) Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.

3. [ASTM C 144](#) Standard Specification for Aggregate for Masonry Mortar.

4. [ASTM C 177](#) Standard Test Method for Steady-State Head Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.

5. [ASTM C 207](#) Standard Specification for Hydrated Lime for Masonry Purposes.

6. [ASTM C 270](#) Standard Specification for Mortar for Unit Masonry.

7. [ASTM C 482](#) Standard Test Method for Bond Strength of Ceramic Tile to Portland Cement.

8. [ASTM C 567](#) Standard Test Method for Determining Density of Structural Lightweight Concrete.

9. [ASTM C 847](#) Standard Specification for Metal Lath.

10. [ASTM C 932](#) – Standard Specification for Surface-Applied Bonding Compounds for Exterior Plastering.

11. [ASTM C 979](#) Standard Specification for Pigments for Integrally Colored Concrete.

12. [ASTM C 1032](#) Standard Specification for Woven Wire Plaster Base.

13. [ASTM C 1059](#) – Standard Specification for Latex Agents for Bonding Fresh To Hardened Concrete.

14. [ASTM D 226](#) – Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.

Manufactured Masonry Veneer

1.03 SUBMITTALS

A. Reference Section 01 33 00 Submittal Procedures; submit following items:

1. Product Data.
2. Samples:
 - a. Sample board consisting of pieces of veneer units showing full range of textures and colors.
 - b. Full range of mortar colors.
3. Mock up: Lay up a sample panel: 3 by 3 feet (1 by 1 m) using the selected stone and mortar showing the full range of colors expected in the finished Work;
4. Quality Assurance/Control Submittals:
 - a. Qualifications:
 1. Manufacturer qualifications – Minimum of 2 years experience in manufactured veneer production.
 2. Installer qualifications – Minimum of 2 years experience in manufactured veneer installation.
 - b. Veneer manufacturer's installation instructions.
 - c. Installation instructions for other materials.
 - d. Maintenance Instructions.
5. Warranties. warranty information to be provide upon completion.

Field Sample:

1. Prepare 3 by 3 foot sample panel at job location on the structure as selected by the Architect. Approved sample materials and colors to be _____.
2. Sample panel to be approved by Architect prior to construction.
3. Approved sample panel shall remain on sites as a basis for of completed manufactured stone work. Approved sample may be incorporated into completed work.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Product Storage and Handling Requirements.
- B. Follow manufacturer's instructions.

1.06 PROJECT/SITE CONDITIONS

A. Environmental Requirements: When air temperature is 40 degrees F (4.5 degrees C) or below, consult local building code for Cold-Weather Construction requirements.

1.07 WARRANTY

A. Special Warranty: Manufacturer's standard warranty coverage against defects in materials when installed in accordance with manufacturer's installation instructions.

PART 2 - PRODUCTS

2.01 MANUFACTURER

- A. NITTERHOUSE MASONRY PRODUCTS LLC\
859 Cleveland Ave.
Chambersburg, PA 17201
717-267-4500
www.nitterhouse.com

2.02 MATERIALS

- B. Stone Veneer: Style _____ (Cutstone, Fieldstone, Ledgestone, French Country Limestone, Stackstone, Field ledge stone) Include matching corners
2. Stone Accents: _____ (Sills, light switch boxes, mantels, mantel brackets, hearth stone, soldier pieces).
- a. Color: _____ (Refer to literature for color selection.)

1. Compressive Strength: ASTM C 192 and ASTM C 39, Average 1,800 psi
2. Shear Bond: ASTM C 482: 50 psi
3. Water Absorption: UBC Standard 15-5: Less than 22 percent.
4. Freeze-Thaw Test: ASTM C 67: Less than 3 percent weight loss and no disintegration.
5. Thermal Resistance: ASTM C 177: 0.473 at 1.387 inches thick

D. Moisture Barrier: [ASTM D 226, Type 1, No. 15, non-perforated asphalt-saturated felt paper]

E. Reinforcing: [ASTM C 847, 2.5lb/yd² (1.4kg/m²) galvanized expanded metal lath] [ASTM C 847, 3.4lb (1.8 kg/m²) galvanized 3/8" rib lath] [ASTM C 1032, 18 gauge (1.3 mm) woven wire mesh] complying with code agency requirements for the type of substrate over which stone veneer is installed.

F. Mortar:

1. Cement: Must comply with ASTM C 270.
2. Lime: ASTM C 207.
3. Sand: ASTM C 144, natural or manufactured sand.
4. Color Pigment: ASTM C 979, mineral oxide pigments.
5. Water: Potable.
6. Pre-Packaged Latex-Portland Cement Mortar: ANSI A118.4.

G. Bonding Agent: Exterior integral bonding agent meeting [ASTM C 932] [ASTM C 1059 TypeII]

H. Sealer: Water based silane or siloxane masonry sealer, [clear].

2.03 MORTAR MIXES

A. Standard Installation (Grouted Joints):

1. Mix mortar in accordance with (ASTM C 270, Type N or S)
 - a. Add color pigment in grout joint mortar in accordance with pigment manufacturer's instructions.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates upon which work will be installed.
- B. Coordinate with responsible entity to perform corrective work on unsatisfactory substrates.
- C. Commencement of work by installer is acceptance of substrate.

3.02 PREPARATION

- A. Protection: Protect adjacent work from contact with mortar.
- B. Surface Preparation: Prepare substrate in accordance with manufacturer's installation instructions for the type of substrate being covered.

3.03 INSTALLATION

A. Install and clean stone in accordance with manufacturer's installation instructions for Standard Installation (Grouted Joint) or Joint less/Dry-Stacked installation as specified above.

B. Apply sealer in accordance with sealer manufacturer's installation instructions.

3.04 FIELD QUALITY CONTROL

A. Manufacturer's Field Service Representative shall make site visits for installation consultation as requested by Owner.

3.05 CLEANING IF NECESSARY

A. Reference Section 01 74 00 (CSI SPEC).

B. Protect adjacent work during cleaning of veneer.

C. Cleaning Veneer Units:

1. Wash with soft bristle brush and water/granulated detergent solution.
2. Rinse immediately with clean water.

D. Removing Efflorescence:

1. Allow veneer to dry thoroughly.
2. Scrub with soft bristle brush and clean water.
3. Rinse immediately with clean water; allow drying
4. If efflorescence is still visible, repeat above procedure using a solution of 1 part Household vinegar and 5 parts water.
5. Rinse immediately with clean water.

END OF SECTION