

# SPECIFICATIONS

## MODERRA CONCRETE SIDING WITH H-CHANNEL

### PART 1: GENERAL

#### 1.01 Section Includes

- A. Product description and definitions.
- B. Constructing base ledge for concrete wall units.
- C. Installing modular concrete units.

#### 1.02 Applicable Standards for Specifications

##### **American Society for Testing and Material (ASTM)**

- |                |   |
|----------------|---|
| ASTM: C-90-90  | Hollow Load-bearing Masonry Units           |
| ASTM: C-140-75 | Sampling and Testing Concrete Masonry Units |
| ASTM: C-145-85 | Solid Load-Bearing Concrete Masonry Units   |

##### **American Society for Testing and Materials (ASTM)**

- |             |   |
|-------------|---|
| ASTM: A-525 | Standard Specification for Zinc-Colored Sheet |
| ASTM: A-36  | Standard Specification for Structural Steel   |

##### **American Society for Testing and Materials (ASTM)**

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|------------|--|
| ASTM B-221 | Aluminum Alloy Extrusion Bars                  |
| ASTM B-136 | Stain Resistance of Anodic Coating on Aluminum |

##### **American Society for Testing and Materials (ASTM)**

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|------------|
| ASTM D 698 |
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#### 1.03 Delivery, Storage and Handling

- A. Moderra concrete unit
  - 1. Contractor shall check the units upon delivery to ensure proper materials have been received.
  - 2. Contractor shall prevent excessive mud, wet cement, epoxy, and like materials from coming in contact with and affixing to the units.
  - 3. Contractor shall protect the units from damage (i.e. cracks, chips, and spalls.) Damaged units shall be evaluated for usage in the wall according to ASTM: C-90-75 (1981 Rev.) and ASTM: C-145-75 (1981 Rev.)

## B. Aluminum Material

1. Contractor shall check proper material and quantities have been received.
2. Contractor shall check for bent, warping, or scratching of the H-Channel or face of material.

## **PART 2: Products**

### **2.01 Definitions**

- A. Moderra Concrete Unit – a concrete siding unit, as manufactured by a licensed Moderra producer, machined from Portland cement, water, and aggregates.
- B. Corner-Block – For perfect 90 degree corners, manufactured by a licensed Moderra producer, machined from Portland cement, water and aggregates.
- C. Sill Block – a concrete sill sloped at 8 degrees to shed moisture to the outside of the wall, manufactured by a licensed Moderra producer, machined from Portland cement, water and aggregates.
- D. H-Channel
  1. H-Channel – Interlocks to the vertical side of Moderra unit. H-Channel provides an interlock into the unit.
  2. Aluminum H-Channel – Interlocks to the vertical side of Moderra unit.
  3. H-Channel – Ensure for proper alignment and provide a  $\frac{3}{4}$ " airspace.
  4. H-Channel – Attaches the Moderra unit to the wall.
- E. Trim Beam – Aluminum beam, used to finish at doors and windows, provides a  $\frac{3}{4}$ " airspace.
- F. Atmospheric Gasket – Designed into the concrete Moderra units to provide a moisture seal.
- G. Screws – Screws attach H-Channel to wall. Screw size to meet minimum requirement of local building codes. For suggested fasteners details consult the Moderra installation instructions.

### **2.02 Moderra concrete Units**

- A. Standard Unit - exterior dimension .88 square feet and a minimum of 2.25" thickness.
- B. Corner Unit – exterior dimension is .88 square feet and a minimum of 2.25" thickness.
- C. Sill Unit – exterior dimension is .44 square feet and a minimum of 3½" thickness.
- D. The Moderra standard units, corner units and sill units will conform to the following aesthetic requirements:
  - 1. Color – color should be specified by the Owner or Designer
  - 2. Face Surface – fractured rock face with a scored design – STRI pattern with a scored design
- E. Moderra standard units, corner units and sill units shall conform to the Requirements of ASTM: C-90-90 Hollow Load-bearing Masonry Units, ASTM: C-140-75 Sampling and Testing Concrete Masonry Units, ASTM: C-145-85 Solid Load-Bearing Concrete Masonry Units, standard specifications for load bearing concrete masonry units.
- F. Moderra standard units, corner units, and sill units shall conform to the structural and unit measurement tolerances in accordance with the following Moderra specification.
  - 1. Compressive strength minimum of 4.000 PSI
  - 2. Absorption minimum of 6%
  - 3. Unit height of variance of plus or minus 1/32 inch
- G. Sill units will be attached using an adhesive meeting the manufacturers specifications.

### **2.03 Base Pad Material**

- A. Consult engineer for proper foundation design or for placement of the base ledge to support the Moderra wall.
  - 1. Steel Angle – should be a minimum of 2" wide and 3" high. The angle should be approximately ¼" thick.
  - 2. Timber Ledge – should be a minimum of two 2" x 6" treated lumber.

3. Brick Ledge – should be a traditional brick ledge, ensure the ledge is level.

## **PART 3 EXECUTION**

### **3.01 Examination**

- A. The area and conditions where the concrete siding is to be constructed needs to be examined and documented. If conditions exist that seem detrimental to the construction, design or lifetime performance of the concrete siding after installation, the General Contractor or owner should be notified.

### **3.02 Back Wall Preparation**

- A. Back wall surface that is non-waterproof should be covered with a weather resistant moisture proof barrier. The moisture barrier should be lap so that moisture wicks from top to bottom without penetrating to the back wall sheathing.

### **3.03 Base Ledge**

- A. The Base Ledge is constructed out of steel angle or timber ledge. It should be attached with proper fasteners every 2 feet using fasteners capable of holding the desired weight.
- B. Brick Ledge leveling pad must be constructed to the specification and design of a traditional brick ledge with regard to depth and width of the foundation in different temperature zones.
- C. Base Ledge shall be prepared to ensure full contact to the base surface of the Moderra concrete unit.
- D. Proper flushing and/or building paper over or around the angle iron, timber ledge and brick ledge to prevent moisture damage.

### **3.04 Moderra Unit Installation**

- A. Place Moderra directly on the leveling pad, made up of steel angle, timber or brick ledge. Block alignment and levels, parallel and perpendicular to the building, should be checked to ensure all units are in full alignment with the wall. Moderra units must also be inline horizontally, or side to side, with adjacent units.

- B. The H-Channel is installed on each completed unit column – the units shall be positively interlocked by an Aluminum H-Channel inserted into the vertical side of the block.
- C. When H-Channel splicing is required, the splices shall be staggered so that no H-Channel within thirty-two inches of each other is spliced in the same horizontal course of Moderra units.
- D. For corner applications, please follow the installation instructions.

### **3.05 Sill Installation**

- A. Sill units shall be adhered to underlying Moderra units with the Alliance SSA adhesive or an all-weather adhesive recommended by the manufacturer. Sill will need to be cut for corner applications.
- B. For more detailed Sill instruction, consult the Moderra installation instructions.

### **3.06 Field Quality Control**

- A. The Owner or General Contractor should inspect or enlist the assistance of a qualified third party to provide quality assurance, services during constructions and/or a final inspections for the project. The presents of this third party does not alleviate the installer from fault.

