

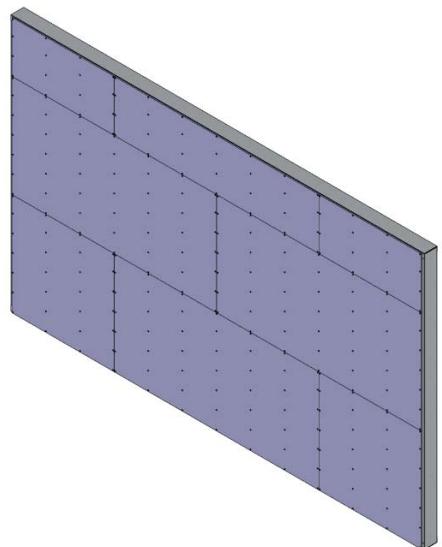
## Installation Guide for Adhered Masonry Veneer over Drainage Mat (Steel or Wood Stud Substrates)

**Step 1: Inspect Framed Walls**

Studs (wood or steel) shall be installed plumb and level. Steel studs should be 18-gauge minimum (16 gauge is preferred). Deflection criteria for substrate should be L/600 (L/720 preferred).

**Step 2: Install Sheathing**

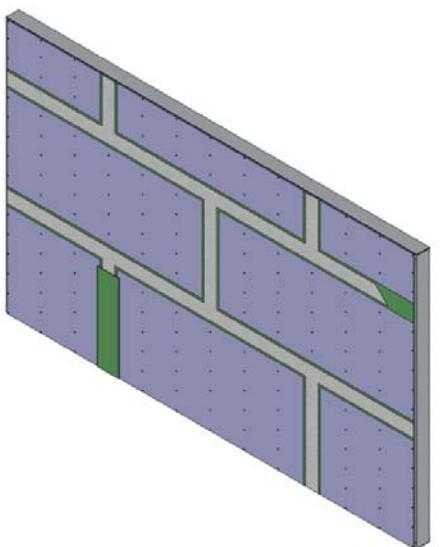
Install exterior grade sheathing (glass-mat reinforced gypsum board or plywood) per manufacturer's recommendations with proper screw placement and attachment.

**Step 3: Waterproof Joints in Exterior Grade Sheathing**

Apply a liberal coat of Laticrete Air & Water Barrier (Vapor Retarder Material) to the joints between the exterior grade sheathing boards and then embed the Laticrete Waterproofing/Anti-Fracture Fabric into it. Once the Anti-Fracture Fabric is applied, apply another liberal coat of Laticrete Air & Water Barrier over the Anti-Fracture Fabric and allow it all to cure per Laticrete's recommendations.

Alternatively, apply a liberal coat of ProGUARD DP® Water Armor Air and Water Barrier (Air Barrier Material that is vapor permeable) to the joints between the exterior grade sheathing boards and then embed the ProGUARD DP® Water Armor Flashing Tape into it. Once the tape is applied, apply another liberal coat of PROGUARD DP® Water Armor Air and Water Barrier over the flashing tape and allow it all to cure per T-Clear's recommendations.

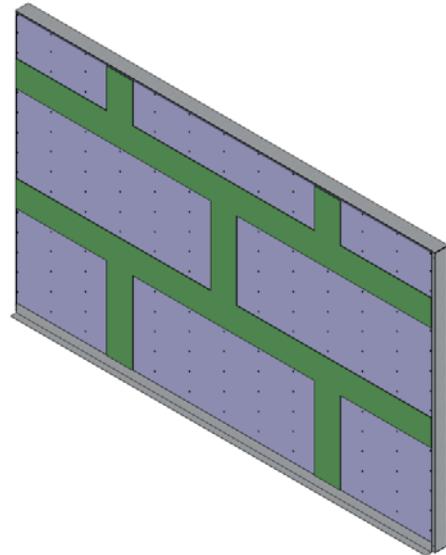
In either case, properly seal around any penetrations or openings such as recesses, chases, pipes, door and window openings etc... Refer to the respective waterproofing membrane instructions for methods to achieve proper seals.



## Installation Guide for Adhered Masonry Veneer over Drainage Mat (Steel or Wood Stud Substrates)

### Step 4: Base Wall Flashing/Panel Support

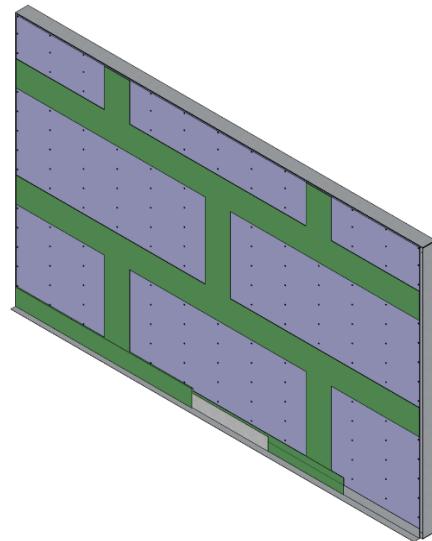
Install prefinished bent metal flashing at the base of walls, above wall openings, and at deflection joints in the stud assembly. Attach the flashing at 16" O.C. back to the studs or solid substrate behind. The flashing should extend 4" up the wall and the horizontal leg should project approximately  $\frac{1}{2}$ " beyond the face of the concrete board face (i.e. depth of the horizontal leg is based on the thickness of the Delta®-Dry Drainage Mat (3/8" thickness) plus the  $\frac{1}{2}$ " thick concrete board plus a  $\frac{1}{2}$ " to extend past the concrete board surface for a total of 1-3/8" in depth).



### Step 5: Base Wall Flashing

Apply a liberal coat of Laticrete Air & Water Barrier (Vapor Retarder Material) up the vertical leg of the flashing and up the wall a few inches and then embed the Laticrete Waterproofing/Anti-Fracture Fabric into it ensuring to cover the top edge of the flashing. Once the Anti-Fracture Fabric is applied, apply another liberal coat of Laticrete Air & Water Barrier over the Anti-Fracture Fabric and flashing and allow it all to cure per Laticrete's recommendations.

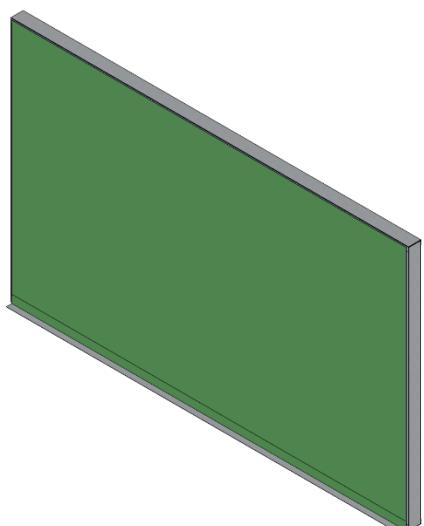
Alternatively, apply a liberal coat of the T-Clear Water Armor Air and Water Barrier (Air Barrier Material that is vapor permeable) up the vertical leg of the flashing and up the wall a few inches and then embed the T-Clear Water Armor Flashing Tape into it ensuring to cover the top edge of the flashing. Once the tape is applied, apply another liberal coat of T-Clear Water Armor Air and Water Barrier over the flashing tape and flashing and allow it all to cure per T-Clear's recommendations.



### Step 6: Install Air & Water Barrier

Apply two coats of Laticrete Air and Water Barrier (Vapor Retarder Material) over the entire surface of the sheathing and flashing. Follow manufacturer's instructions for proper application.

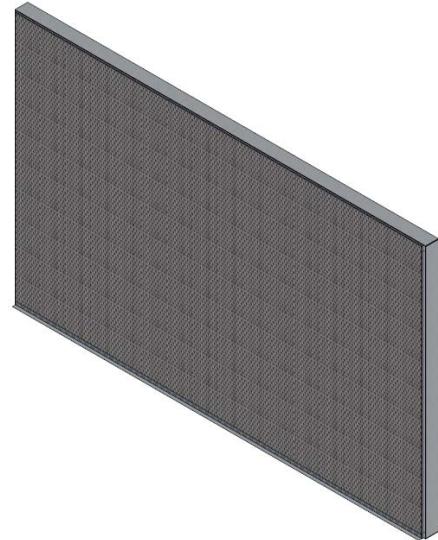
Alternatively, if using T-Clear Water Armor Air and Water Barrier (Air Barrier Material) apply two coats of the Water Armor Air and Water Barrier over the entire surface of the sheathing and flashing. Follow manufacturer's instructions for proper application.



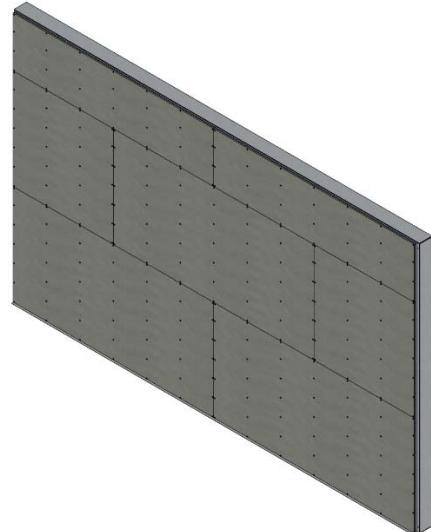
## Installation Guide for Adhered Masonry Veneer over Drainage Mat (Steel or Wood Stud Substrates)

 **Step 7: Install Delta-Dry Drainage Mat**

Install the Delta®-Dry Drainage Mat. Follow manufacturer's instructions for proper installation and application.

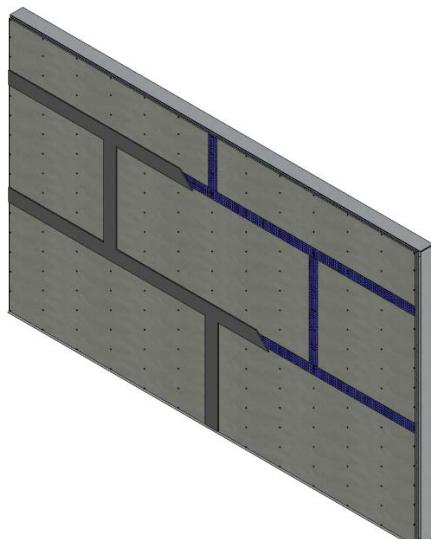
 **Step 8: Install Concrete Board Panels**

Install  $\frac{1}{2}$ " thick concrete board panels. Follow manufacturer's instructions for proper installation and application, as well as screw spacing requirements. The concrete board should be installed  $\frac{3}{8}$ " above the flashing/base of wall to ensure the Delta®-Dry Drainage Mat is exposed at the base of the wall.

 **Step 9: Concrete Board Panel Joint Treatment**

Once all concrete board panels are installed, treat all joints between panels with the self-adhering 4" wide alkali-resistant mesh tape. Apply tape across all joints (2" on either side of joint), pressing firmly to ensure adhesion to substrate. Spread a thin coat of Laticrete Bonding Mortar over the alkali resistant mesh tape. Allow Laticrete Bonding Mortar to fully cure.

Continue this process until all the joints between concrete board panels have been treated, including at corners, opening jambs, sills, and headers etc... Allow Laticrete Bonding Mortar to fully cure.

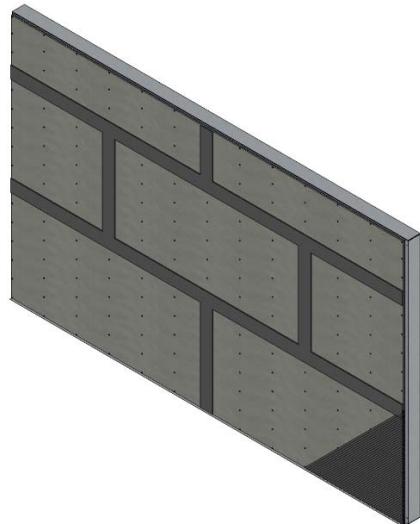


## Installation Guide for Adhered Masonry Veneer over Drainage Mat (Steel or Wood Stud Substrates)

### Step 10: Adhered Veneer Substrate Preparation

Ensure installed concrete boards panels are free of dust and debris. Using a notched trowel, spread Laticrete Bonding Mortar across concrete board panels and ensuring to burn the mortar into the concrete board surface. Pull notched side of the trowel across mortar to create a grooved surface and to gauge the mortar thickness. Notched trowel selection is dependent on the material being installed and the tolerances on the substrate. Apply only a workable area of mortar that will allow stone to be properly set before surface drying occurs. This area will vary depending on site environmental conditions.

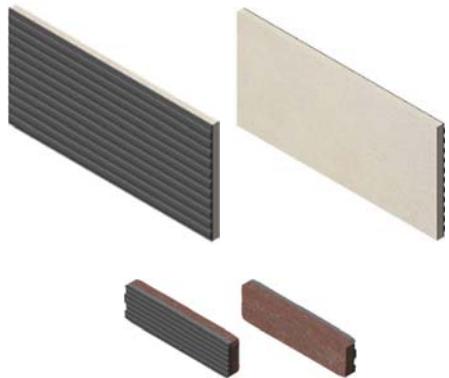
**NOTE: Do not substitute Laticrete Bonding Mortars with any other product or material unless Arriscraft Technical Services has been consulted.**



### Step 11: Prepare Thin Adhered Masonry Veneer

Clean unit backs of any dust, laitance, loose material and any excess film that could impede bond. With the point trowel “back-butter” the thin-adhered units with Laticrete Bonding Mortar (select appropriate bonding mortar for the application, refer to checklists below), ensuring to burn the mortar into the back of the units and filling any surface irregularities. Pull notched side of the trowel across mortar to create a grooved surface and to gauge the mortar thickness. Notched trowel selection is dependent on the material being installed and the tolerances of the substrate. Be sure to achieve 100% coverage with the mortar.

**NOTE: Do not substitute Laticrete Bonding Mortars with any other product or material unless Arriscraft Technical Services has been consulted.**



### Step 12: Install Thin Adhered Masonry Veneer

Begin with the corner pieces and bring the two still wet mortar surfaces together (back buttered units and mortar on the wall as this is in part what creates the incredible bond strengths). Press the corner piece onto the wall, rotating back and forth slightly. This process should force some of the mortar to “squeeze out” and work out any air gaps in the mortar. Remove any excess mortar with a square flat trowel and use the excess on the next piece of thin-adhered masonry. Leave a 3/8" gap at the bottom to allow air flow to the drainage mat.

After the corner pieces are installed, apply flat stretcher pieces starting at an outside corner unit and working your way in. Set the stretcher units by placing it on the ledger, steel flashing/panel support, or the units that were installed below. Once set on the wall push the unit into the mortar and up and at an angle and then return it back to the desired position. This process should force some of the mortar to “squeeze out” and work out any air gaps in the mortar. Remove any excess mortar with a square flat trowel and use the excess on the next unit. Remove excess mortar droppings from the veneer face with a clean wet sponge and a stiff fibre brush. Check for 100% mortar coverage by removing ten brick units, 4 ARRIS-tile, natural stone, or porcelain tile units, 8 manufactured stone units from the wall per bag of mortar used to check that no voids exist. Reinstall removed units.

Once the Laticrete Bonding Mortar has cured then use the Laticrete Pointing Mortar to point the joints between the individual units as required. Place pointing mortar into a grout bag or grout gun and squeeze the grout into the joints between the thin-adhered masonry units. Once the mortar is thumbprint hard, tool the joints to a concave or raked finish depending on the desired joint finish ensuring to push the mortar into the joint during this process to force the mortar against the adhered veneer units. Allow the wall to cure.



## Installation Guide for Adhered Masonry Veneer over Drainage Mat (Steel or Wood Stud Substrates)

| Checklist for Placing an Order when Installing Thin Adhered Masonry Veneer over a CMU or Poured Concrete/Drainage Mat/Concrete Board Substrate |  |  |       |
|--|--|--|-------|
| Materials Required   |  | Approximate Coverage/Size<br>(if applicable)   | Notes |
| <input type="checkbox"/>   | Laticrete Waterproofing Anti-Fracture Fabric<br><br><u>or</u><br><br>ProGUARD DP® Water Armor Flashing Tape  | Laticrete - 6" x 75'-0" (covers the joints of approximately 6 full 4'-0" x 8'-0" sheathing panels)<br><br>Water Armor - 4", 6", or 9" x 180'-0" (covers the joints of approximately 15 full 4'-0" x 8'-0" sheathing panels)                                      |       |
| <input type="checkbox"/>   | Laticrete Air and Water Barrier (an Air and Water Barrier that is a Vapor Retarder with a perm rating of 0.157)<br><br><u>or</u><br><br>Water Armor Air and Water Barrier (an Air and Water Barrier that is Vapor Permeable with a perm rating of 30)  | 250 sq. ft. with 2 coats for either option   |       |
| <input type="checkbox"/>   | Bent Metal Flashing (supplied by others)   | N/A  |       |
| <input type="checkbox"/>   | Delta®-Dry Drainage Mat  | 150 sq. ft. (3'-3" x 50'-0")   |       |
| <input type="checkbox"/>   | ½" thick Concrete Board Panels (supplied by others):<br>a) Util-A-Crete by T-Clear<br>b) PermaBase by National Gypsum<br>c) Durock by USG  | 3'-0" x 8'-0" - 24 sq. ft.<br>4'-0" x 8'-0" - 32 sq. ft.<br>4'-0" x 8'-0" - 32 sq. ft.   |       |
| <input type="checkbox"/>   | Concrete Board Screws (supplied by concrete board suppliers)   | Dependent on required spacing. Sold in full box quantities<br><br>Screw length should ensure a minimum 1" embedment into studs (i.e. concrete board thickness plus exterior grade sheathing thickness plus 1" – select next longest standard fixed screw length) |       |
| <input type="checkbox"/>   | Alkali Resistant Mesh Tape Rolls   | 4" x 150'-0" - covers the joints of approximately<br>13 full 3'-0" x 8'-0" Util-A-Crete panels<br>12 full 3'-0" x 8'-0" PermaBase panels<br>13 full 3'-0" x 8'-0" Durock panels  |       |
| <input type="checkbox"/>   | Laticrete Bonding Mortar (select appropriate one):<br>1) Laticrete Hi-Bond Masonry Veneer Mortar for ARRIS-tile, Porcelain tile, ceramic tile natural stone tile, <u>or</u><br>2) Laticrete Masonry Veneer Mortar for manufactured stone and thin natural building stone, <u>or</u><br>3) Laticrete Thin-Brick Mortar for thin brick, Midtown, Coastal and Stack | 25 sq. ft.<br><br>25 sq. ft.<br><br>25 sq. ft.   |       |
| <input type="checkbox"/>   | Shims (to help with proper install and keep stone and joints level as material is installed and to maintain joint spacing):<br>1) 1/16" (100 per bag)<br>2) 1/8" (100 per bag)<br>3) 1/4" (100 per bag)<br>4) 3/8" (30 per bag)  | Order shim thickness that is appropriate for the joint widths for the masonry material being installed. Exception to that rule, we recommend 1/16" and 1/8" shims be used with Stack and Midtown when installing them with tight joints.                         |       |
| <input type="checkbox"/>   | Laticrete Pointing Mortar to point the joints (if required)  | Dependent on selected material   |       |
| <input type="checkbox"/>   | Laticrete Latasil Silicone Sealant for sealing movement joints and joints around openings such as windows and doors, as well as penetrations like pipes and fittings etc... (don't forget the backer rod in the joint prior to installing the silicone)  | Dependent on Joint width to be sealed  |       |