

# CAD Detail Installation Instructions

## Single Wythe

Highlighted below are guidelines for installation of the Grace Masonry Products System. Not all sections are appropriate for all projects. For detailed information on installation, refer to specific product literature, Grace Masonry Products specifications or your Grace Masonry Products representative.

### General

Review ACI 530.1, mandatory specification checklist, for additional requirements necessary for a specific project.

### CMU Erection

1. Comply with ACI 530.1 and NCMA TEK Bulletins.
2. Review and comply with specific detail drawings for DRY-BLOCK® water-repellent wall systems from W. R. Grace & Co. - Conn.

### Laying Masonry Walls

1. Lay up walls to comply with specified construction tolerances, with courses accurately spaced and coordinated with other work.
2. Provide a solid surface at flashing areas using inverted lintel CMU, solid CMU, or filled CMU, per Grace detail drawings.

### Mortar Bedding and Jointing

1. Lay DRY-BLOCK CMU units with mortar containing specific recommended addition rates of DRY-BLOCK Water-Repellent Mortar Admixture.
2. At courses with flashing, use face shell mortar beds only to allow for drainage.

3. Flash at all breaks in wall face with Perm-A-Barrier® Wall Flashing and coordinate with weeps per Grace detail drawings.
4. If using cotton weep cords or tubular weeps, place them at the cores of CMUs, not at head joints.
5. Lay CMU with full mortar coverage on head and bed joints taking care not to block cores to be filled with Zonolite® Masonry Insulation.
6. Tool all mortar joints when thumbprint hard into a concave configuration.
7. Care should be taken to remove mortar containing DRY-BLOCK Mortar Admixture from the face of masonry units before it sets.
8. Cover top courses at the end of the work day to protect from precipitation or other environmental conditions, and follow other industry recommendations for proper protection and curing of the wall.

### Flexible Wall Flashing

1. Clean loose dust or dirt from the surface wherever wall flashing is to be applied by wiping with a clean dry cloth or brush.
2. It is recommended that Perm-A-Barrier Surface Conditioner or Bituthene® PRIMER B2 be used if the surface is too dirty or dusty, or if it becomes difficult to adhere the flashing to the substrate.
3. Cut Perm-A-Barrier Wall Flashing into appropriate lengths [2 - 3 m (7 - 10 ft)] for each location.

4. Peel release paper from roll to expose rubberized asphalt and position flashing carefully against substrate.
5. Press firmly into place with an extension-handle countertop roller as soon as possible, fully adhering the flashing to the substrate to prevent water from migrating underneath.
6. Form end dams at horizontal flashing terminations to prevent water entry.
7. Overlap adjacent pieces 51 mm (2 in.) and roll over lap with a steel hand roller.
8. Apply a bead of Bituthene Mastic along all seams, top edges, cuts and penetrations and trowel into place.
9. Lay or trim edges of Perm-A-Barrier Wall Flashing 13 mm (½ in.) back from face of masonry.
10. If significant wrinkles develop, carefully cut out affected area and replace in similar procedure outlined above. The repair piece must be pressed into place with a hand roller as soon as possible to ensure continuous and intimate contact with the substrate. Repairs must be made using Perm-A-Barrier Wall Flashing sized to extend 152 mm (6 in.) in all directions from the perimeter of the affected area.
11. Apply Perm-A-Barrier Wall Flashing only in fair weather when air and surface temperatures are above -4°C (25°F).
12. Apply Perm-A-Barrier Wall Flashing to dry surfaces only.

### **Weeps**

1. If cotton weep cords are used, cut cord into sufficient lengths to extend up into CMU core and produce a 51 mm (2 in.) exposure on the exterior face of the wall.
2. Space weeps 0.41 m (16 in.) on center at all flashing courses.

### **Insulation Inserts**

1. Ensure that inserts are properly positioned in each CMU prior to installation.
2. Inserts will remain in place in grouted and reinforced core to maintain desired insulation value unless specifically noted in specification or detail drawing.

### **Loose Fill Insulation**


1. Use copper or coated fiberglass screen at weeps to prevent subsequent leakage.
2. Pour the masonry insulation directly from the bag into the cores of the CMU or via a hopper placed on top of the wall.
3. Make pours at convenient intervals at heights limited to 6.1 m (20 ft).
4. Rodding or tamping is not necessary.
5. Block joints at pilasters or other vertical members shall be mortared-in to prevent leakage.
6. Cover filled cores to protect from precipitation or other environmental conditions.
7. If cutting of completed wall is required after placement of loose fill insulation, seal hole resulting from cutting to prevent leakage of loose fill insulation.

### **Movement Control and Expansion Joints**

1. Provide vertical and horizontal expansion, control and isolation joints in masonry sufficient to accommodate shrinkage of CMU and mortar per ACI 530.1 and NCMA TEK 10-2A "Control Joints for Concrete Masonry Walls".

### **Cleaning**

1. Clean all masonry prior to building occupancy in accordance with Grace Masonry Products Technical Bulletin "Cleaning New Masonry Containing DRY-BLOCK".

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