

# DISTRICT 2 CONSTRUCTION QC/QA PLAN

## QUALITY ASSESSMENT GUIDE

EFFECTIVE DATE: April 17, 1998  
Revised as of 12/21/10

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### MECHANICALLY STABILIZED EARTH WALLS (MSE)

#### (SPECIFICATIONS)

Number 18		CRITERIA USED
1.	Confirm receipt of Certificate of Compliance of all materials including fill, panels, soil reinforcement, filter fabric, etc.	Spec. 548-8
2.	Ensure geosynthetic is covered and protected from sunlight prior to placement and is properly stored to prevent damage.	Spec. 548-2.3
3.	Ensure all components (panels, reinforcement) are handled, stored and shipped in a manner that prevents chipping, cracks, fractures, excessive bending stresses, etc.	Spec. 548-5
4.	Select backfill certification has been submitted and fill material has been tested and approved prior to placement.	Spec. 548-2.6
5.	Confirm foundation has been prepared and compacted properly and that foundation pad is provided per Contract Documents.	Spec. 548-6.3
6.	Inspect precast panels and accept/reject based on the inspection results.	Spec. 548-4
7.	Review the installation of the panels including tolerances in accordance to Contract Documents.	Spec. 548-6.4
8.	Inspect soil reinforcement for compliance with design drawings and/or shop drawings (i.e. size, length, type of material).	Spec. 548-2.3
9.	Inspect the proper placement of soil reinforcement.	Spec. 548-6.4
10.	Review the filter fabric and the joint materials to determine if it is acceptable.	Spec. 548-2.5
11.	Ensure all piles in the reinforced fill are wrapped with two independent layers of 6 mil plastic with lubricating oil between the layers.	Proc. 625-010-003
12.	Inspect the fill for proper placement and test the compaction of the fill in accordance with plans and specifications.	Spec. 548-6.5
13.	Examine if the water used for soil compaction is in compliance with Section 923. No saltwater or brackish water is to be used.	Spec. 548-6.5

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---

Page 2  
MSE Walls

14. Thick fill lifts shall not be used. Fill lifts thicker than 6 " require more energy to compact and may move the panels out of alignment. Spec. 548-6.5
15. Corner panels shall be used at all corners. If corner panels are not indicated on the plans, notify the designer. Proc. 625-010-003
16. Measure the batter of the panels often. The vertical alignment of the panels below the panels being installed may be affected by the compaction of the soil behind the panels being installed. Measure the overall batter regularly. Spec. 548-6
17. Soil reinforcement should not be skewed more than 15 degrees from normal. If reinforcement needs to be skewed more than 15 degrees, notify the designer. Proc. 625-010-003
18. When attaching filter fabric to the back of the panels, the adhesive shall be applied to the panel, not the filter fabric. Proc. 625-010-003
19. Wooden wedges should be removed as soon as the panel above the wedged panel is completely erected and backfilled. Spec. 548-6.4
20. If precast coping is used, ensure top panels have dowels that will extend into the cast-in-place leveling fillet. Proc. 625-010-003
21. Do not allow excavations in close proximity in front of the wall once construction has started. If excavations are required in front of the wall, the designer ' s approval will be obtained before the excavation is started. Also, excavations in front of the wall should not be allowed without protection to the wall (i.e. sheet piles, etc.). Proc. 625-010-003
22. Soil reinforcement near the top of the wall shall be parallel to the lifts of fill. Soil reinforcement shall not extend into the sub-base that may require mechanical mixing. Proc. 625-010-003
23. Soil reinforcement shall not be cut unless shown in the Contract Documents or approved by the Engineer. Proc. 625-010-003
24. Ensure the placement of one-half inch minimum preformed expansion material between wall panels and cast-in-place concrete. Proc. 625-010-003

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Page 3  
MSE Walls

25. Apply properly the above guidelines for both temporary and permanent walls. Spec. 548-1