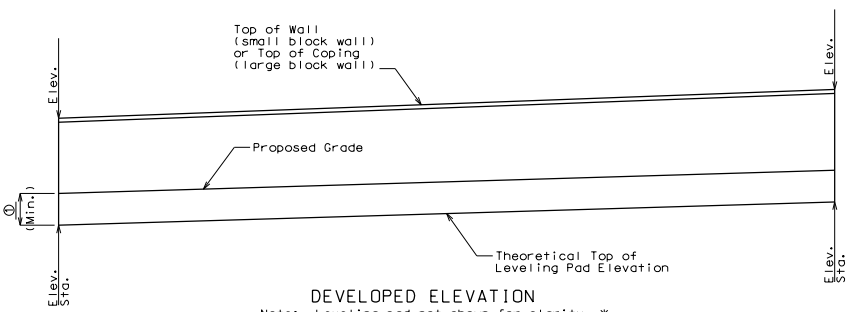


MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SEC/SUR * TWP * RGE *



DEVELOPED ELEVATION
Note: Leveling pad not shown for clarity. *

* Wall contractor shall show the following items on the design drawings and/or on the fabricator shop drawings.

1. Leveling pad horizontal.
2. Leveling pad length and step elevations shall be based on wall manufacturer's recommendation. Top of leveling pad elevations shall not be higher than theoretical top of leveling pad elevations shown on these plans.

Standard Drawing Guidance (do not shown on plans):

Proposed grade & theoretical top of leveling pad elevation shall be shown in constant slope. Slope line shall be adjusted per project. Top of wall or coping elevation & stationing shall be shown in the developed elevation per project. Sample wall shown. Draw actual wall in elevation and plan per project.

- ① Show the minimum embedment = maximum (2 feet, embedment based on Geotechnical Report and global stability requirements).
- ② Show theoretical top of leveling pad elevation on the plan based on minimum embedment requirements. Minimum embedment shall be provided in accordance with AASHTO 5.8.1 & Geotechnical Report.

General notes shown shall be reviewed/ revised per project.

- ③ Use for MSE Walls when there may be contact between dissimilar metals.
- ④ Use for MSE Walls when there may be vertical and/or horizontal obstructions in reinforced soil mass.
- ⑤ (The allowable bearing pressure shall be determined by the Geotechnical Section and reported on the Foundation Investigation Geotechnical Report.)

LOCATION SKETCH

PLAN

Estimated Quantities for MSE Wall		
Item		Total
Mechanically Stabilized Earth Wall Systems	sq. foot	

MSE Wall Systems Data Table					
Proprietary Wall Systems		Combination Wall Systems			
Manufacturer	System	Facing Unit Manufacturer	Facing Unit	Geogrid Manufacturer	Geogrid

MSE Wall Systems Data Table is to be completed by MoDOT construction personnel to record the manufacturer of the proprietary wall system or the manufacturers of the combination wall system that was used for constructing the MSE wall.

Note: This drawing is not to scale. Follow dimensions. Sheet No. of

GENERAL NOTES:
Design Specifications:
2002 - AASHTO 17th Edition
Load Factor Design
Seismic Performance Category
Acceleration Coefficient =

All concrete for leveling pad and coping shall be Class B or B-1 with $f'c = 4000$ psi.
The MSE wall system shall be built vertical.
The MSE wall system shall be built in accordance with Sec 720.
The MSE wall system shall be a small large block wall system.
Factor of safety shall be 2.0 for overturning, 1.5 for sliding and 2.0 for bearing.
⑤ The allowable bearing pressure shall be _____ ksf.

The cost of joint filler and joint seal, complete-in-place, will be considered completely covered by the contract unit price for Concrete Traffic Barrier (Type A D). See Roadway Plans.
For seismic design the factor of safety shall be 1.5 for overturning and 1.1 for sliding.

$\phi =$ * for backfill material to be retained by the mechanically stabilized earth wall system.
 $\phi =$ * for foundation material the wall is to rest on.
 $\phi \geq 34^\circ$ for the select granular backfill for structural systems.
Design $\phi = 34^\circ$ for the select granular backfill for structural systems.

The boring logs or other factual records of subsurface data and investigations performed by the department for the design of this project will be provided in the bridge electronic deliverable file or will be available from the Project Contact upon written request.

Panel reinforcement shall be epoxy coated.
Anchorage reinforcement shall be spaced to avoid roadway drop inlet behind wall.

A filter cloth meeting the requirements for a Separation Geotextile material shall be placed between the select granular backfill for structural systems and the backfill being retained by the mechanically stabilized earth wall system.

Coping shall be required on this structure unless a small block system is used. Bond breaker (roofing felt or other approved alternate) between wall panel and coping required if coping is cast in place.

The top and bottom elevations are given for a vertical wall. If a battered small block wall system is used, the height of the wall shall be adjusted as necessary to fit the ground slope and the concrete leveling pad shall be adjusted as necessary to account for the wall batter. If a fence is built on an extended gutter, then the height of the wall shall be adjusted further.

The baseline of the wall shown is for a vertical wall. If a battered wall system is used, this baseline shall correspond to Elevation

The contractor shall be solely responsible to coordinate construction of the wall with bridge and roadway construction and ensure that the bridge and roadway construction, resulting or existing obstructions, shall not impact the construction or performance of the wall. Soil reinforcement shall be designed and placed to avoid damage by pile driving, guardrail post installation, utility and sign foundations. (See Roadway and Bridge plans.)

- ③ All steel soil reinforcements shall be separated from other metallic elements by at least 3 inches.
- The splay angle should be less than 15° and tensile capacity of splayed reinforcement shall be reduced by the cosine of the splay angle.
No reinforcement shall be left unconnected to the wall face or arbitrarily cut/bent in the field to avoid the obstruction.
- ④ Where interference between the vertical obstruction and the soil reinforcement is unavoidable, the design of the wall near the obstruction may be modified using one of the alternatives in FHWA-NHI-10-24, Section 5.4.2. Show detail layout on the drawings. For wall designs with horizontal obstructions in reinforced soil mass, see FHWA-NHI-10-024, Section 5.4.3.

B.M.

GENERIC DETAILS FOR MSE WALL

STATE ROAD	STD.
ABOUT	STD.
STA.	STD.

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED: 11/10/2011

ROUTE * MO	STATE
DISTRICT BR	SHEET NO. *

COUNTY *
JOB NO. *
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

Designed
Detailed
Checked