

STATE OF UTAH MSE WALL INSPECTION FORM

Compiled As Part of Research By The Utah Department of Transportation

Instructions:

- 1-Fill out required sections for MSE Wall Inspector and Wall Characteristics.
- 2-Inspect the wall using the attached form. Questions that require a 'Yes' answer should be documented by noting the extent of the problem in the right most column and photo documentation. Photo documentation should consist of wall or bridge number, nature of problem, date, photo number for wall, and a size reference, which should be indicated in the photo (white board/paper). Photos taken should be placed on the Top View layout and indicated with the appropriate number. Note should be taken by the inspector that often anomalies are due to construction and should be distinguished from those that are a result of post-construction. If it is observable that they existed at the time of construction note should be taken in the space provided for drawings.
- 3- Shoot digital photos of the entire wall. This may require the use of a variety of shots and angles on each wall to cover the wall in its entirety.
- 4- Indicate Layout of MSE Wall in respect to major intersections, roadways, potential hazards, irrigation, vegetation, locations of conditions for which 'Yes' was marked, etc. in space provided below. Also Indicate approximate GPS Coordinates of Site of Interest in space provided below

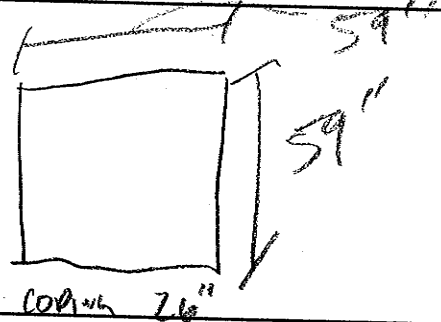
Inspector Information

Inspection Date	7/30/2007	Names Of Inspectors	HOLLY & RYAN
Region	REGION 2	Identifying Road/Intersection	I-80 & SR 189

MSE WALL CHARACTERISTICS

MSE Wall at Bridge	<input checked="" type="radio"/> Y <input type="radio"/> N	Bridge Number if applicable:	C-89B	Wall Number	R-409
Surrounding Structures					
Distance to Each Structure					
State Route Number	I-80 / SR 189				
Approximate Mile Marker	147				
GPS Datum	WGS/84, NAD/83, or NAD/27				
MSE Wall GPS Coordinates (Location of Measurement shown on plan view)	N. 40° 43.832'				
	W. 111° 21.892'				
If known, Panel or System Manufacturer					

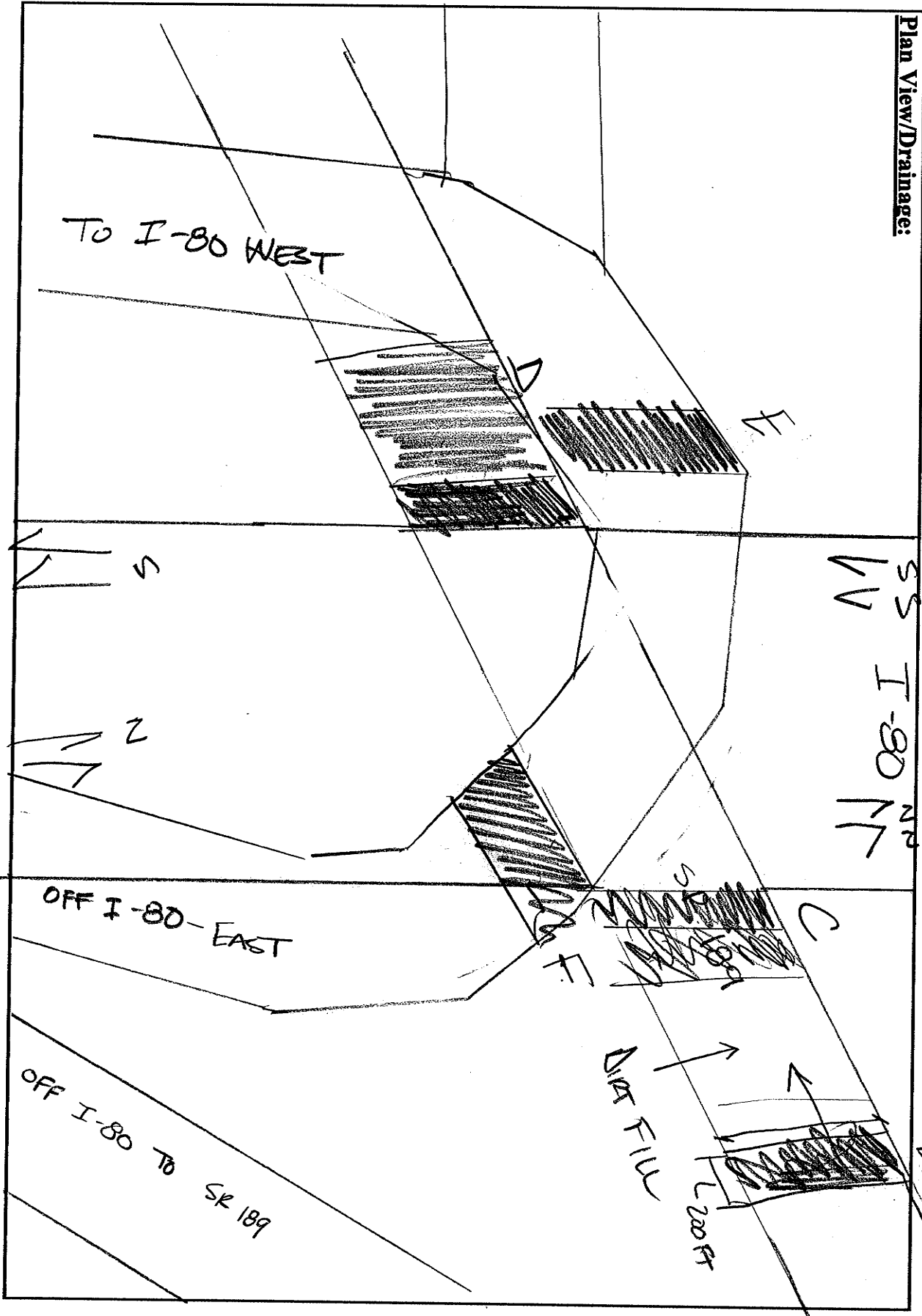
Please draw rough layout of panel with approximate dimensions in space provided below.



Summary of Key Observations:

Plan View/Drainage:

TO I-80 WEST



SS I-80 RT

OFF I-80 EAST

OFF I-80 TO SR 189

DIRT FILL
200 FT

400 FT CLEAR

Cross Sections:

Cross Sections:

MSF WALL DRAINAGE

Required Item	Yes	No	NA	UNK	Drainage	Measurement/Extent of Problem/Location/Photo Numbers
1. Is there an exterior water source near the base of the wall (i.e. the wall is in the path of water with source potential)?	Y	N	N/A	UNK	1.1. Are there any exterior water sources near the base of the wall (i.e. the wall is in the path of water with source potential)?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
2. If applicable, are the catch basins at the base of the wall blocked?	Y	N	N/A	UNK	2. If applicable, are the catch basins at the base of the wall blocked?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
3. Are there exterior penetrations through the wall?	Y	N	N/A	UNK	3. Are there exterior penetrations through the wall?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
4. Are there vertical drains that extend through the headfill?	Y	N	N/A	UNK	4. Are there vertical drains that extend through the headfill?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
5. Is there evidence at the base of the wall of cracking (per Photo 12)?	Y	N	N/A	UNK	5. Is there evidence at the base of the wall of cracking (per Photo 12)?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
6. Is there evidence along the wall of water?	Y	N	N/A	UNK	6. Is there evidence along the wall of water?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
7. Are there any signs of water flow along the base of the wall?	Y	N	N/A	UNK	7. Are there any signs of water flow along the base of the wall?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
8. Is there less than 14 feet between longitudinal girders and walls?	Y	N	N/A	UNK	8. Is there less than 14 feet between longitudinal girders and walls?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
9. Does the headfill or joint fabric appear to be saturated?	Y	N	N/A	UNK	9. Does the headfill or joint fabric appear to be saturated?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
10. Is there vegetation growing in joint fabric (Photo 8)?	Y	N	N/A	UNK	10. Is there vegetation growing in joint fabric (Photo 8)?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
11. Are the deck drains and outlets at the top of the wall blocked? (Photo 4)	Y	N	N/A	UNK	11. Are the deck drains and outlets at the top of the wall blocked? (Photo 4)	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
12. Can water enter the wall between coping and deck (i.e. Drain appropriately)?	Y	N	N/A	UNK	12. Can water enter the wall between coping and deck (i.e. Drain appropriately)?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
13. Is there evidence of discharge point of fill washing through drain pipe?	Y	N	N/A	UNK	13. Is there evidence of discharge point of fill washing through drain pipe?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MSF WALL JOINTS

Required Item	Yes	No	NA	UNK	Admits	Measurement/Extent of Problem/Location/Photo Numbers
14. Is headfill coming out of joints or are there piles of headfill at the base of the wall? (Photos 2 & 3)	Y	N	N/A	UNK	14. Is headfill coming out of joints or are there piles of headfill at the base of the wall? (Photos 2 & 3)	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
15. Are the joints wide enough to see fabric or headfill behind panels when looking into joint? (Photo 5) If yes, record the approximate maximum joint width in inches.	Y	N	N/A	UNK	15. Are the joints wide enough to see fabric or headfill behind panels when looking into joint? (Photo 5) If yes, record the approximate maximum joint width in inches.	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
16. Is there evidence of water leaking through headfill? (Do not include water leaking from the deck.)	Y	N	N/A	UNK	16. Is there evidence of water leaking through headfill? (Do not include water leaking from the deck.)	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
17. Are there any signs of water flow along the base of the wall? (Photo 12)	Y	N	N/A	UNK	17. Are there any signs of water flow along the base of the wall? (Photo 12)	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
18. Do the joints have any visible vertical separation? Are some horizontal joints larger than others? (Photo 6)	Y	N	N/A	UNK	18. Do the joints have any visible vertical separation? Are some horizontal joints larger than others? (Photo 6)	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
19. Do the joints have a non-saturated, vertical appearance? Are some vertical joints larger than others? (Photo 6)	Y	N	N/A	UNK	19. Do the joints have a non-saturated, vertical appearance? Are some vertical joints larger than others? (Photo 6)	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
20. Are the panels offset at the joints either in or out of the wall? (Photo 7) If yes, record the approximate maximum offset.	Y	N	N/A	UNK	20. Are the panels offset at the joints either in or out of the wall? (Photo 7) If yes, record the approximate maximum offset.	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
21. Does the fabric appear fabric or appear as if it has undergone excessive UV exposure?	Y	N	N/A	UNK	21. Does the fabric appear fabric or appear as if it has undergone excessive UV exposure?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MSF WALL FINISH

Required Item	Yes	No	NA	UNK	Wall Finish	Measurement/Extent of Problem/Location/Photo Numbers
22. Are the panels "Tilt-Up"? If there excessive cracking in the panels?	Y	N	N/A	UNK	22. Are the panels "Tilt-Up"? If there excessive cracking in the panels?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
23. Are there cracks that continue vertically through adjacent panels (Photos 9 & 10)? If yes, record the approximate number of panels in the wall with cracks.	Y	N	N/A	UNK	23. Are there cracks that continue vertically through adjacent panels (Photos 9 & 10)? If yes, record the approximate number of panels in the wall with cracks.	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
24. Are there cracks that continue horizontally through adjacent panels (Photos 9 & 10)? If yes, record the approximate number of panels in the wall with cracks.	Y	N	N/A	UNK	24. Are there cracks that continue horizontally through adjacent panels (Photos 9 & 10)? If yes, record the approximate number of panels in the wall with cracks.	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
25. Are the panel corners rounded or chipped? If yes, record the approximate number in the wall.	Y	N	N/A	UNK	25. Are the panel corners rounded or chipped? If yes, record the approximate number in the wall.	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
26. Are the panel corners "prepped" or chipped from contact with an adjacent panel? If yes, record the number in the wall.	Y	N	N/A	UNK	26. Are the panel corners "prepped" or chipped from contact with an adjacent panel? If yes, record the number in the wall.	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
27. Does crack spacing suggest Differential Settlement?	Y	N	N/A	UNK	27. Does crack spacing suggest Differential Settlement?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
28. Does the existing coping exhibit Vertical Offset?	Y	N	N/A	UNK	28. Does the existing coping exhibit Vertical Offset?	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
29. Are the coping and parapets lower or blocking? If yes, it may be appropriate to contact UDOT if development occurs on-site.	Y	N	N/A	UNK	29. Are the coping and parapets lower or blocking? If yes, it may be appropriate to contact UDOT if development occurs on-site.	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
30. Are the panels in danger of falling off? If potential exists contact appropriate UDOT regional development section on-site.	Y	N	N/A	UNK	30. Are the panels in danger of falling off? If potential exists contact appropriate UDOT regional development section on-site.	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
31. Are the panels bulging (bowing, laminating)? If yes, record maximum deflection from acceptable coping to backing pad. (Photo 11)	Y	N	N/A	UNK	31. Are the panels bulging (bowing, laminating)? If yes, record maximum deflection from acceptable coping to backing pad. (Photo 11)	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
32. Is there rapping at the top or bottom of the wall? Record maximum degree of rapping from azimuth using vertical steel rod attached to wall.	Y	N	N/A	UNK	32. Is there rapping at the top or bottom of the wall? Record maximum degree of rapping from azimuth using vertical steel rod attached to wall.	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MSF TOP OF WALL OBSERVATIONS

Required Item	Yes	No	NA	UNK	Top of Wall	Measurement/Extent of Problem/Location/Photo Numbers
33. Are there signs of settlement at the top of the wall? (movement, cracking, etc.)	Y	N	N/A	UNK	33. Are there signs of settlement at the top of the wall? (movement, cracking, etc.)	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
34. Are there any open cracks in the concrete coping (not headfill)? If yes, record the approximate maximum crack width.	Y	N	N/A	UNK	34. Are there any open cracks in the concrete coping (not headfill)? If yes, record the approximate maximum crack width.	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
35. Is the construction joint in the concrete coping opened up? (Photo 6) If yes, record the maximum opening.	Y	N	N/A	UNK	35. Is the construction joint in the concrete coping opened up? (Photo 6) If yes, record the maximum opening.	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /
36. Is there a linear gap between the parapet, deck and the adjacent panel? (Photo 11) If yes, record the approximate maximum gap width.	Y	N	N/A	UNK	36. Is there a linear gap between the parapet, deck and the adjacent panel? (Photo 11) If yes, record the approximate maximum gap width.	/ O-N0 1% 5% 10% 25% 50% 75% 90% 95% 100% /

See plan view

Co drains - 2 partial, 1 fully

