

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

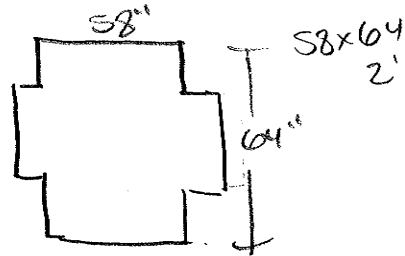
Inspector Information

Inspection Date	7/25/07	Names Of Inspectors	Ryan Maw / Holly Griffin
Region	1	Identifying Road/Intersection	SR 91-890

MSE WALL CHARACTERISTICS

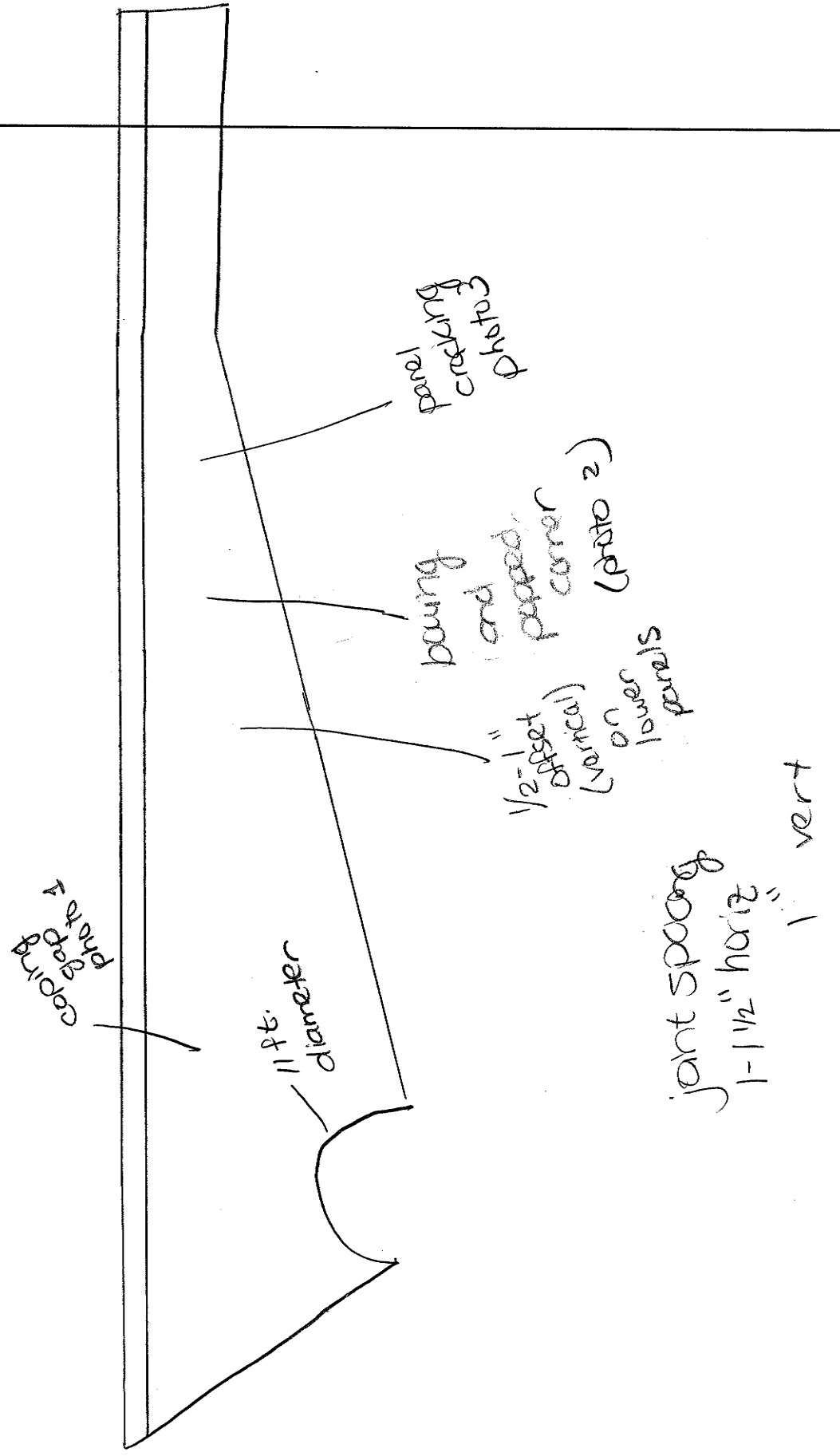
MSE Wall at Bridge	Y <input checked="" type="radio"/> N	Bridge Number if applicable:		Wall Number	R-280
Surrounding Structures	N/A			Maximum Height of Wall (ft)	198"
Distance to Each Structure	N/A			One Stage, Two Stage or Block Wall	one stage
State Route Number	SR-91/89			Estimated Max Length of Wall Abutment:	366 @ 2.17
Approximate Mile Marker				Max Slope of Ground in front of wall:	38% run x 20" rise
GPS Datum	(WGS/84) NAD/83, or NAD/27			Max Height of wall burial line above surrounding level ground:	10 ft
MSE Wall GPS Coordinates (Location of Measurement shown on plan view)	N 41° 29.752 W 111° 57.661				
If known, Panel or System Manufacturer	VSL				

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



Summary of Key Observations:

Plan View/Drainage:



copying photo 1

11 ft. diameter

panel buckling cracks photo 3

boring and packed corner (photo 2)

1/2" offset (vertical) on lower panels

joint spacing
1-1 1/2" horiz
1" vert

Cross Sections:

Cross Sections:

MSE WALL DRAINAGE

Required Items		Yes	No	N/A	UNK	Drainage	Measurement/Extent of Problem/Location/Photo Numbers
Y	1a. Is there an active water source near the line of the wall or the wall base (e.g., water with seepage, ponding)?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	2. If applicable, are the catch basins at the base of the wall blocked?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	3. Are there obstructions preventing drainage through the wall?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	4. Are there vertical drains that extend through the bedfill?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	5. Is there erosion at the base of the wall or leveling mat? (Photo 12)	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	6. Is there erosion along the wing walls?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	7. Are there any signs of water flow along the base of the wall?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	8. Is there less than 14 feet between irrigation sprinklers and wall?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	9. Does the bedfill or joint fabric appear to be saturated?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	10. Is there vegetation growing in joint fabric (Photo 8)?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	11. Are the deck fabric and surface at the top of the wall blocked? (Photo 14)	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	12. Can water enter the wall between coping and slab (i.e., drain appropriately)?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	13. Is there evidence at discharge point of fill washing through drain pipe?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

box eider creek
paracemic photo

MSE WALL JOINTS

Required Items		Yes	No	N/A	UNK	Joints	Measurement/Extent of Problem/Location/Photo Numbers
Y	14. Is bedfill coming out of joints or on the pile of bedfill at the base of the wall? (Photos 1 & 3)	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	15. Are the joints wide enough to see fabric or bedfill behind panels when looking into joints? (Photo 5) If so, is the fabric or bedfill behind panels in the horizontal plane? (Photo 4)	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	16. Is exposed bedfill visible in the horizontal plane? (Photo 4)	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	17. Are there visible tears in the fabric? Is there evidence of bedfill or water leaking through tears? (Do not include additional damage to fabric)	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	18. Do the joints have a non-uniform horizontal spacing/size? Are some horizontal joints larger/smaller than others? (Photo 6)	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	19. Do the joints have a non-uniform vertical spacing/size? Are some vertical joints larger/smaller than others? (Photo 6)	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	20. Are there any signs of water seepage or leaks in the joints either in or out of the wall? (Photo 7) If yes, record the approximate UV exposure?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	21. Does the fabric appear brittle, or appear as if it has undergone excessive UV exposure?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

1-1/2"
1"
1" max in center of wall

MSE WALL FINISH

Required Items		Yes	No	N/A	UNK	Wall Finishing	Measurement/Extent of Problem/Location/Photo Numbers
Y	22. Are the panels "flipped up"? Is there excessive cracking in the panels?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	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 cracking.	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	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 cracking.	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	25. Are the panels contact making contact with each other? If yes, record the approximate number in the wall.	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	26. Are the panel corners "popped-out" or chipped from contact with an adjacent panel? If yes record the number in the wall.	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	27. Does crack spacing suggest Differential Settlement?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	28. Does the overlying coping exhibit Vertical Offset?	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	29. Are the coping and parapets loose or dislodging? If yes, it may be appropriate to contact UDOT if detachment occurs imminent.	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	30. Are the panels in danger of falling out? If potential exists contact appropriate UDOT agency.	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	31. Is there any "backfill" (loose, horizontal) in the joints? If so, record maximum deformation (in accessible coping or leveling mat) (Photo 15) (Record maximum degree of tilting from vertical level and affected area).	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	32. Is there "rapping" at the top or bottom of the wall? (Record maximum degree of tilting from vertical level and affected area).	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MSE TOP OF WALL OBSERVATIONS

Required Items		Yes	No	N/A	UNK	Top of Wall	Measurement/Extent of Problem/Location/Photo Numbers
Y	33. Is there evidence of settlement at the top of the wall? (movement enclosure, etc)	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	34. Are there any pipe cracks in the concrete coping (not bedfill)? If yes record the approximate maximum crack width.	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	35. Is there any construction joints in the concrete coping spaced up? (Photo 6). If yes, record the maximum joint width.	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	36. Is there a large gap between the approach slab and the approach parapent? (Photo 13) (Other than produce a humping, settlement at the approach is caused). Record the approximate maximum gap size.	Y	N	N/A	UNK		/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

