

STATE OF UTAH MSE WALL INSPECTION FORM

Compiled As Part of Research By The Utah Department of Transportation

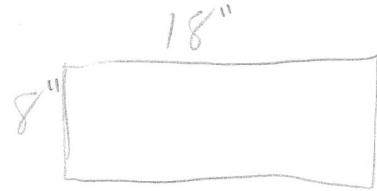
Instructions:

- 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

Region	3	Identifying Road/Intersection	86 corr IHS, PG. exit
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MSE WALL CHARACTERISTICS

MSE Wall at Bridge	Y <input checked="" type="radio"/> (N)	Bridge Number if applicable:		Wall Number	R-374-G
Surrounding Structures				Maximum Height of Wall (ft)	14 FT
Distance to Each Structure				One Stage, Two Stage or Block Wall	one stage
State Route Number				Estimated Max Length of Wall Abutment:	135 FT
Approximate Mile Marker				Max Slope of Ground in front of wall:	0
GPS Datum	WGS/84, NAD/83, or NAD/27			Max Height of wall burial line above surrounding level ground:	15 FT
MSE Wall GPS Coordinates (Location of Measurement shown on plan view)	40°21'1.41"N 111°46'3.74"W			Please draw rough layout of panel with approximate dimensions in space provided below:	
If known, Panel or System Manufacturer					

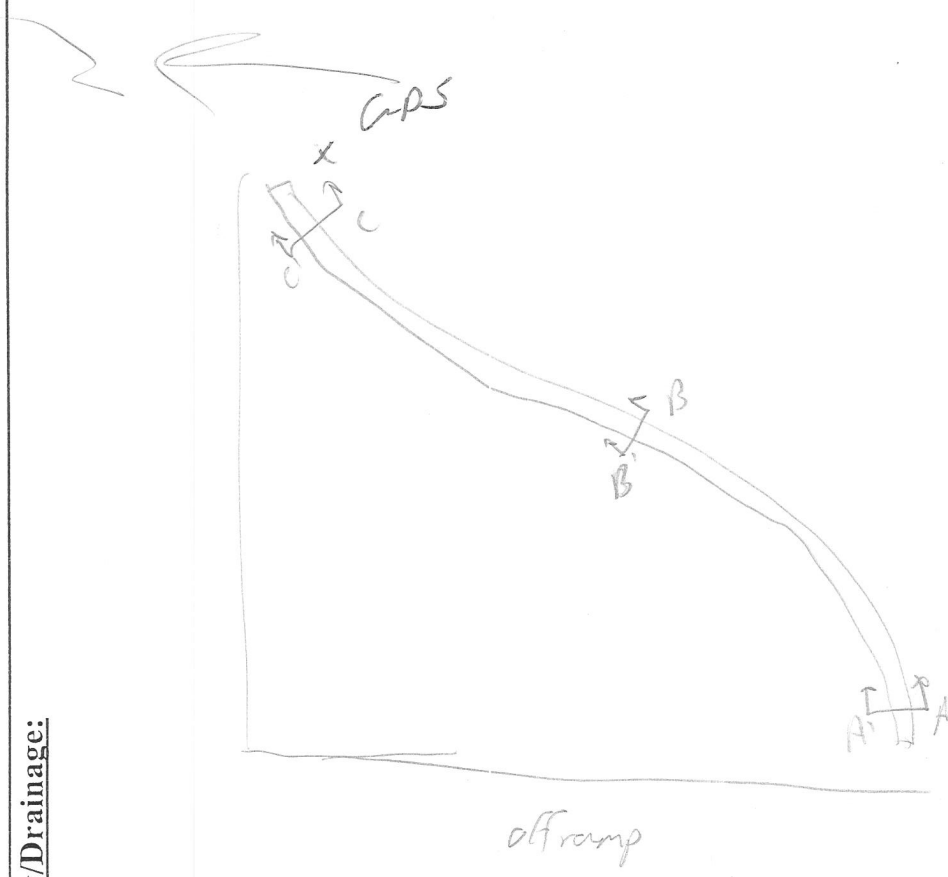


Summary of Key Observations:

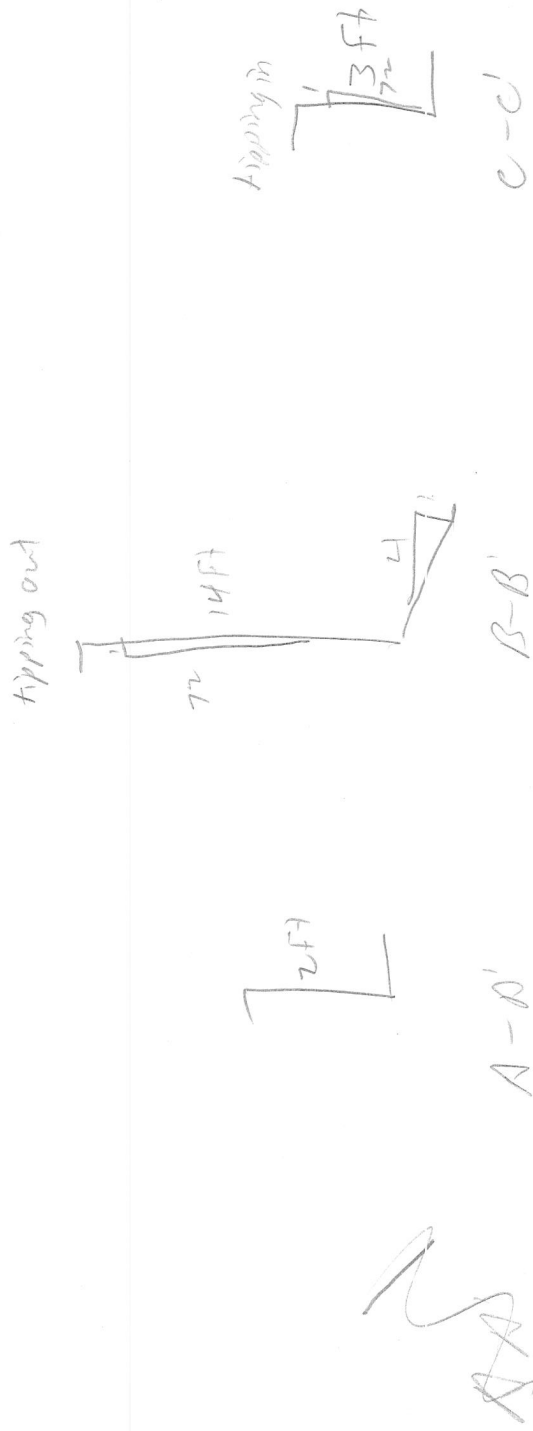
a few little plants growing through the block ~~spots~~ ^{gaps}. probably a result of a lot of watering.

21
8
168
127168
48

Plan View/Drainage:



Cross Sections:



Cross Sections:

BASE WALL DRAINAGE

Required Field:	Yes	No	NA	UNK	Measurement/Extent of Problem/Location/Photo Numbers
1-Is there an active water source near the toe of the wall (i.e. the wall near a body of water with seepage)?	Y	N	N/A	UNK	/ 0-No 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	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
3-Are there culverts protruding through the wall?	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
4-Are there vertical drains that travel through the backfill?	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
5-Is there erosion at the base of the wall or leveling pad? (Photo 12)	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
6-Is there erosion along the base of the wall?	Y	N	N/A	UNK	/ 0-No 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	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
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% /
9-Does the backfill or joint fabric appear to be saturated?	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
10-Is there vegetation growing in panel joints (Photo 8)?	Y	N	N/A	UNK	Partial / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
11-Are the deck drains and outlets 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% /
12-Can water enter the wall between coping and slab (i.e. Devin appropriately)?	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
13-Is there evidence at discharge points of fill washing through drain pipes?	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

Against wall

BASE WALL JOINTS

Required Field:	Yes	No	NA	UNK	Measurement/Extent of Problem/Location/Photo Numbers
1-Is backfill missing out of joints or are there piles of backfill at the base of the wall? (Pictures 2 & 3)	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
2-Are the joints wide enough to see fabric or backfill behind panels when looking into joint? (Photo 5) If so, is the fabric or backfill in good condition?	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
3-Is exposed backfill water in the horizontal joint? (Photo 4)	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
4-Are there visible tears in the fabric? Is there evidence of backfill or water leaking through tear? (Do not include additional damage to fabric)	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
5-Do the joints have a non-uniform horizontal spacing gap? 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% /
6-Do the joints have a non-uniform vertical spacing gap? 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% /
7-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	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
8-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% /

BASE WALL FINISH

Required Field:	Yes	No	NA	UNK	Measurement/Extent of Problem/Location/Photo Numbers
1-Long Level String or 1'S Center-Line Gauge	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
2-Are the panels "Tilt-Up"? Is there excessive cracking in the panels?	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
3-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% /
4-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% /
5-Are the panel corners 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% /
6-Do the panel corners "popped off" or clipped 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% /
7-Does crack splicing suggest Differential Settlement?	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
8-Does the coping exhibit "Vertical Offset" detachment some extent?	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
9-Are the coping and parapets low or detaching? If yes, it may be appropriate to contact LDOT if detachment seems eminent.	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
10-Are the panels in danger of falling off? (If potential exist contact appropriate LDOT region).	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
11-Are the panels bulging (bowing horizontally)? If so, record maximum deformation from accessible vertical level and affected area.	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
12-Is there blinding at the top of bottom of the wall? (Record maximum degree of blinding from minimum using vertical level and affected area).	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

BASE TOP OF WALL OBSERVATIONS

Required Field:	Yes	No	NA	UNK	Measurement/Extent of Problem/Location/Photo Numbers
1-Long Level String or 1'S Center-Line Gauge	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
2-Top Of Wall	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
3-Is there evidence of settlement at the top of the wall? (pavement cracking, etc)	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
4-Are there any open cracks in the concrete coping (not hairline)? If yes record the approximate maximum crack width.	Y	N	N/A	UNK	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
5-How the construction joint in the concrete coping opened 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	N	URS	16-Is there a large gap between the approach slab and the approach pavement? (Photo 15) Often this produces a bumping sensation as the vehicle is crossed. Record the approximate maximum gap size, record maximum distance.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	URS	17-At the abutment, has the joint between the wall coping and the abutment opened up significantly? If so record maximum distance.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	URS	18-Is the coping wall pulling away from pavement roads by section? Please record maximum displacement.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%

BASE STABILITY

Yes	No	N/A	URS	19-What is the location depth of leveling pad? Found One-Probe into wall located 2 inches from wall to a maximum depth of 24 inches (24 inches is the minimum depth for MSE Wall)	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	20-Is leveling pad exposed?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	21-Is there a four foot bench (six ft deep) directly along the wall before the slope changes? (Record width)	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	22-Is there a slope steeper than V:1.5 to H:1 in front of the wall? Please record slope and height of backfill above top of wall.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	23-Is there a slope greater than V:1.5 to H:1 below the wall? Please record slope and height of backfill below the wall.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	24-Is there excessive degradation of found face?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%

MSE METAL CORROSION

Yes	No	N/A	URS	25-What is the location depth of leveling pad? Found One-Probe into wall located 2 inches from wall to a maximum depth of 24 inches (24 inches is the minimum depth for MSE Wall)	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	26-Is leveling pad exposed?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	27-Is there a four foot bench (six ft deep) directly along the wall before the slope changes? (Record width)	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	28-Is there a slope steeper than V:1.5 to H:1 in front of the wall? Please record slope and height of backfill above top of wall.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	29-Is there a slope greater than V:1.5 to H:1 below the wall? Please record slope and height of backfill below the wall.	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	30-Is there excessive degradation of found face?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%

MSE IMPACT COLLISION PROTECTION

Yes	No	N/A	URS	31-Are guardrails wall protrusions in place at the base of the wall (to protect it from potential traffic impacts)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	32-Does it appear that the wall has been involved in an accident (replaced panel, recent dips in the wall)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	33-Does it appear the wall functionality and integrity has been compromised by a collision or accident?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%

MSE AS BUILT DIFFERENT FROM DESIGN

Yes	No	N/A	URS	34-Are there any obstructions in Reinforcement Geometry	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	35-Are there available drawings for the wall? Please indicate type (Situation and Layout, Design, As Built, etc.)	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	36-Is the layout in general accordance with drawings?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	37-Are the panels CIP (Cast in Place) Does there appear to be excessive cracking in the panels?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	38-Was GEOP used in the construction of the wall?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	39-Are there any structures on or near wall that were not included in initial drawings?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	40-Are there any infillings, utilities or inclusions that are not part of the initial drawings?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	41-Have there been any excavations or evidence of excavation near the wall?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	42-Have local property owners changed the dynamics of the wall (additional structures, irrigation, vegetation, etc.)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%
Y	N	N/A	URS	43-Are there piles located in the wall (bridge abutment)?	/	0-No	1%	5%	10%	25%	50%	75%	90%	95%	100%

