

# STATE OF UTAH MSE WALL INSPECTION FORM

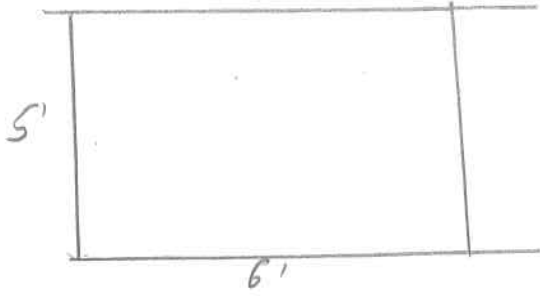
Compiled As Part of Research By The Utah Department of Transportation

**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

<b>Region</b>	4	<b>Identifying Road/Intersection</b>	I-15, Washington interchange, St. George

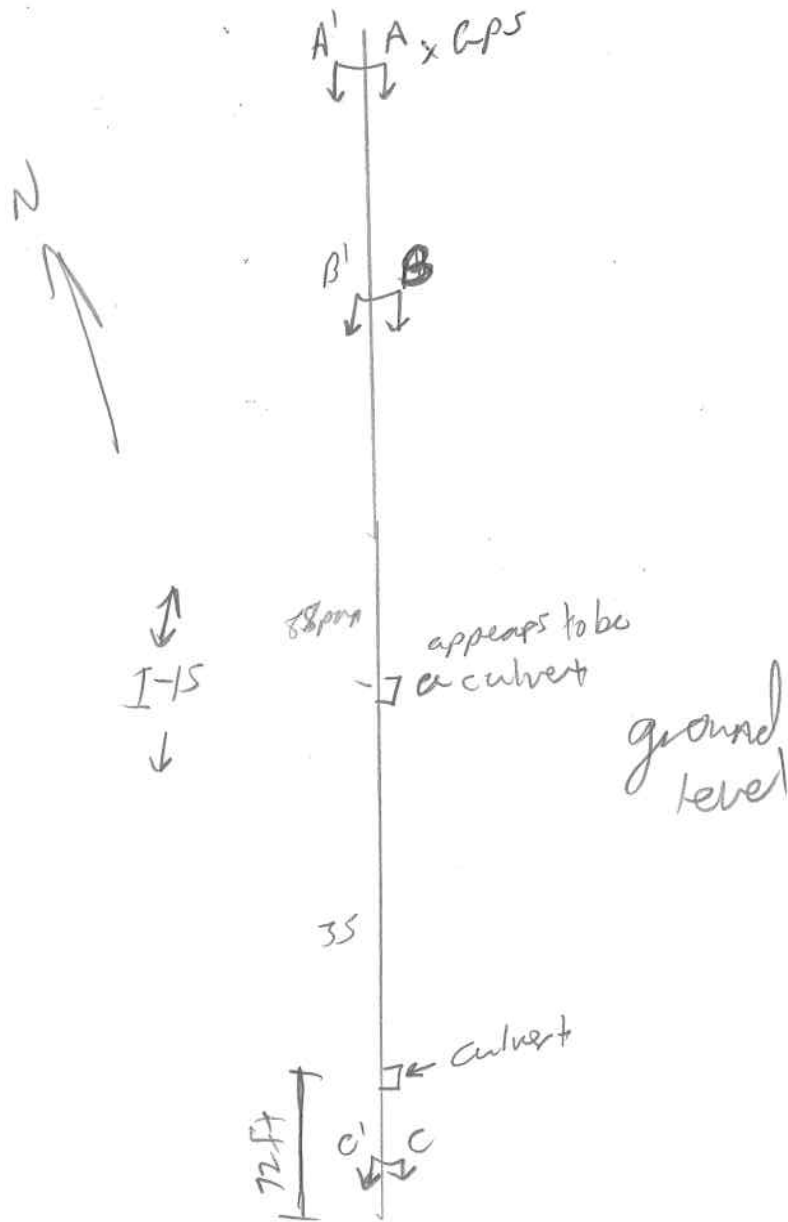
## MSE WALL CHARACTERISTICS

MSE Wall at Bridge	Y	(N)	Bridge Number if applicable:		Wall Number	R-3P3-A
Surrounding Structures					Maximum Height of Wall (ft)	13 Ft
Distance to Each Structure					One Stage, Two Stage or Block Wall	1-stage
State Route Number					Estimated Max Length of Wall Abutment:	730 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:	0
MSE Wall GPS Coordinates (Location of Measurement shown on plan view)	37° 7' 36.74" N 103° 31' 37.81" W			Please draw rough layout of panel with approximate dimensions in space provided below:		
If known, Panel or System Manufacturer						

**Summary of Key Observations:**

possible flood detention @ toe  
 horizontal cracking along top of 50% of wall (0-0.4mm)  
 approx 3-6in below coping @ south half where wall height is less than 10 Ft. (might be from construction)

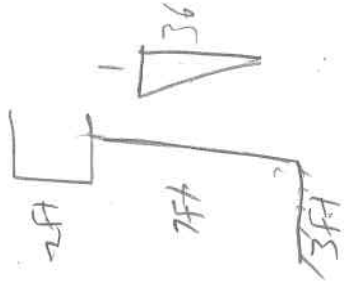
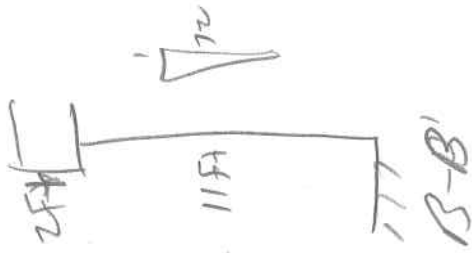
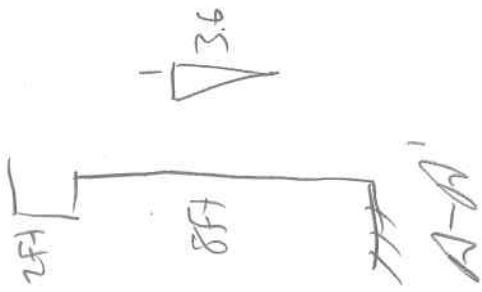
Plan View/Drainage:



58  
35  
72

1  
123  
738

Cross Sections:



Cross Sections:

RISE WALL DRAINAGE

Required Item	Yes	No	N/A	UNKN	Measurement/Extent of Problem/Location/Photo Numbers
1-Is there an active water source near the toe of the wall (in the wall near a body of water with some potential)?	Y	N	N/A	UNKN	0-Nb 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	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
3-Are there culverts protruding through the wall?	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
4-Are there vertical drains that travel through the backfill?	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
5-4-1-Is there evidence at the base of the wall of leveling sand? (Photo 12)	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
6-4-1-Is there evidence along the wing wall?	Y	N	N/A	UNKN	0-Nb 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	UNKN	0-Nb 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	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
9-Does the backfill or joint fabric appear to be saturated?	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
10-Is there vegetation growing in joint joints (Photo 8)?	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
11-Are the deck, drain and outlet at the top of the wall blocked? (Photo 14)	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
12-Can water enter the wall between coping and slab (i.e. Drains appropriately)?	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
13-14-Is there evidence of discharge points of fill washing through drain pipes?	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /

RISE WALL JOINTS

Required Item	Yes	No	N/A	UNKN	Measurement/Extent of Problem/Location/Photo Numbers
1-Is backfill coming out of joints or are there piles of backfill at the base of the wall? (Pictures 2 & 3)	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
2-Are the joints wide enough to see fabric or backfill behind panels when looking (see photo 5) If yes, record the approximate maximum joint width in inches.	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
3-Is exposed backfill visible in the horizontal joint? (Photo 4)	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
4-For each joint, is there evidence of backfill or water backing through joint? (Do not include drainage in joints)	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
5-Is the fabric loose or nonuniformly vertical spacing? Are some horizontal joints larger than others? (Photo 6)	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
6-Do the joints have a nonuniform vertical spacing? Are some vertical joints larger than others? (Photo 6)	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
7-Are the panels offset at the joint either in or out of the wall? (Photo 7) If yes, record the approximate maximum offset.	Y	N	N/A	UNKN	0-Nb 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	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /

RISE WALL FACING

Required Item	Yes	No	N/A	UNKN	Measurement/Extent of Problem/Location/Photo Numbers
1-Does the wall exhibit any cracking in the panels?	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
2-Are there cracks that originate through adjacent panels? (Photo 9 & 10) If yes, record the approximate number of panels in the wall with cracking.	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
3-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	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
4-Are the panel corners making contact with each other? If yes, record the approximate number in the wall.	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
5-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	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
6-Does the existing coping exhibit Vertical Offsets?	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
7-Are the coping and parapets loose or detaching? If yes, it may be appropriate to contact UDOT if detachment occurs.	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
8-Are the panels in danger of falling off? If permitted, do in contact appropriate (DOT) sign(s).	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
9-Is there punch bulging (bowing horizontally)? If so, record maximum deformation from acceptable coping to leveling pad. (Photo 11)	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
10-Is there "flipping" at the top or bottom of the wall? (Record maximum degree of flipping from vertical to horizontal.)	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /

RISE TOP OF WALL OBSERVATIONS

Required Item	Yes	No	N/A	UNKN	Measurement/Extent of Problem/Location/Photo Numbers
1-Is there evidence of settlement at the top of the wall? (settlement cracking, etc)	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
2-Are there any open cracks in the concrete coping (not horizontal)? If yes record the approximate maximum crack width.	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /
3-Is there the continuation joints in the connecting coping (reced up)? (Photo 6). If yes, record the maximum joint width.	Y	N	N/A	UNKN	0-Nb 1% 5% 10% 25% 50% 75% 90% 95% 100% /

South end

2-30

