

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	Mouth Jet

MSE WALL CHARACTERISTICS

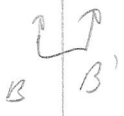
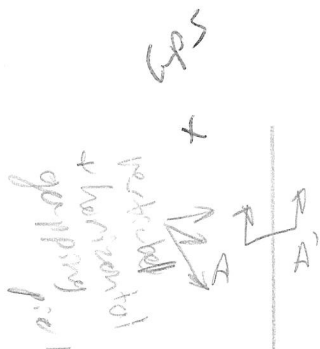
MSE Wall at Bridge	(Y) N	Bridge Number if applicable:		Wall Number	R-387-13 (NE)
Surrounding Structures				Maximum Height of Wall (ft)	29 ft
Distance to Each Structure				One Stage, Two Stage or Block Wall	one stage
State Route Number				Estimated Max Length of Wall Abutment:	45 ft
Approximate Mile Marker				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:	4 ft
MSE Wall GPS Coordinates (Location of Measurement shown on plan view)	40° 41' 53.60" N 111° 35' 9.58" W				Please draw rough layout of panel with approximate dimensions in space provided below:
If known, Panel or System Manufacturer	<div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> <div style="position: absolute; top: 10%; left: 10%; font-size: 2em;">5'</div> <div style="position: absolute; bottom: 10%; right: 10%; font-size: 2em;">6'</div> </div>				

Summary of Key Observations:

separating joints near the coping (2-3 in)

3
7.5
6
450

Plan View/Drainage:



Cross Sections:



Cross Sections:

RISE WALL DRAINAGE

Table with columns: Required Issue, No, N/A, UKS, Measurement/Extent of Problem, Location/Photo/Photo Numbers. Rows 1-13 cover drainage issues like water source, clogging, and leaks.

RISE WALL JOINTS

Table with columns: Required Issue, No, N/A, UKS, Measurement/Extent of Problem, Location/Photo/Photo Numbers. Rows 14-21 cover joint issues like cracking, mortar, and sealant.

RISE WALL FACING

Table with columns: Required Issue, No, N/A, UKS, Measurement/Extent of Problem, Location/Photo/Photo Numbers. Rows 22-33 cover facing issues like mortar, staining, and delamination.

RISE TOP OF WALL OBSERVATIONS

Table with columns: Required Issue, No, N/A, UKS, Measurement/Extent of Problem, Location/Photo/Photo Numbers. Rows 34-36 cover top of wall observations like cracking and mortar.

Y	N	NA	UNSN	16-Is there a large gap between the approach slab and the approach pavement? (Photo 13) Often this produces a bumping sensation as the vehicle is crossed. Record the approximate maximum gap size, record maximum distance.	100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
					100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
					100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
					100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /

MSE STABILITY

Required	Yes	No	NA	UNSN	Structural Integrity	Measurement/Extent of Problem/Location/Photo Numbers	100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					39-What is the location depth of existing crack? (Point One Probe into wall located 2 inches from wall to a maximum depth of 24 inches (24 inches in the minimum depth for MSE Wall))	24" +	100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					40-Is existing past exposure?		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					41-Is there cracking in the leveling mat? If so, record maximum crack size with edge	flat	100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					42-Is there a four foot bench level slope directly along the wall before the slope changes? (Record backfill above top of wall)		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					43-Is there a slope greater than V:1.3 to H:1 in front of the wall? Please record slope and height of backfill below the wall.		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					44-Is there a slope greater than V:1.3 to H:1 below the wall? Please record slope and height of backfill below the wall.		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					45-Is there excessive degradation of panel faces?		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /

MSE METAL CORROSION

Required	Yes	No	NA	UNSN	Metal Corrosion	Measurement/Extent of Problem/Location/Photo Numbers	100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					46-Is there excessive corrosion on guardrail or other exposed metal that might indicate composite conditions?		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					47-Are there major rust stains on the face panels? Along joints? If so, record total number.		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					48-Is there any internal rust exposure? Does rust appear on the corrosion on show marks? If repetitive please record the total number of areas affected.		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					49-Is there any evidence of exposed wall? If so, please indicate depth in inches.		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					50-Is there any indication of rebar corrosion (swelling, rust, exposed metal inside epoxy coating)? If so please record the total number of panels affected.		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /

MSE IMPACT/COLLISION PROTECTION

Required	Yes	No	NA	UNSN	Impact/Collision	Measurement/Extent of Problem/Location/Photo Numbers	100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					51-Are guardrails wall protrusions in place at the base of the wall (or present if from potential traffic hazards)?		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					52-Does it appear that the wall has been involved in an accident (e.g. splash panel, recent dig in the wall)?		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					53-Does it appear the wall functionally and integrity has been compromised by a collision or accident?		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /

MSE OBSTRUCTIONS IN REINFORCEMENT GEOMETRY

Required	Yes	No	NA	UNSN	Obstructions in Reinforcement Geometry	Measurement/Extent of Problem/Location/Photo Numbers	100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					54-Are there acute wall angles (60°)?		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /

MSE AS BUILT DIFFERENT FROM DESIGN

Required	Yes	No	NA	UNSN	Obstructions in Reinforcement Geometry	Measurement/Extent of Problem/Location/Photo Numbers	100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					55-Are there available drawings for the wall? Please indicate type (Situation and Layout, Design, As Built, etc.)	layout	100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					56-Is the layout in general accordance with drawing?		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					57-Are the panels CIP? (Cast in Place) Does there appear to be excessive cracking in the panels?		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					58-Is there any indication of rebar corrosion (swelling, rust, exposed metal inside epoxy coating)? If so please record the total number of panels affected.		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					59-Are there any irregularities, voids, or inclusions that are not part of the initial drawing?		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					60-Are there any irregularities, voids, or inclusions that are not part of the initial drawing?		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					61-Has there been any excavation or evidence of excavation near the wall?		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					62-Has local property owners changed the dimensions of the wall? (Additional structures, irrigation, vegetation, etc.)		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /
Y					63-Are there pits located in the wall (bridge abutment)?		100% /	95% /	90% /	75% /	50% /	25% /	10% /	5% /	0-No /

