

# STATE OF UTAH MSE WALL INSPECTION FORM

Compiled As Part of Research By The Utah Department of Transportation

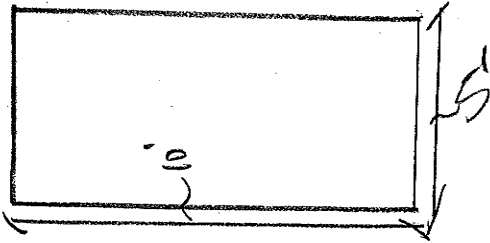
**Instructions:**

- 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	8/1/2009	Names Of Inspectors	RYAN MAN & HOLLY GRIFFIN
Region	Z	Identifying Road/Intersection	SR 48 'T-15'

**MSE WALL CHARACTERISTICS**

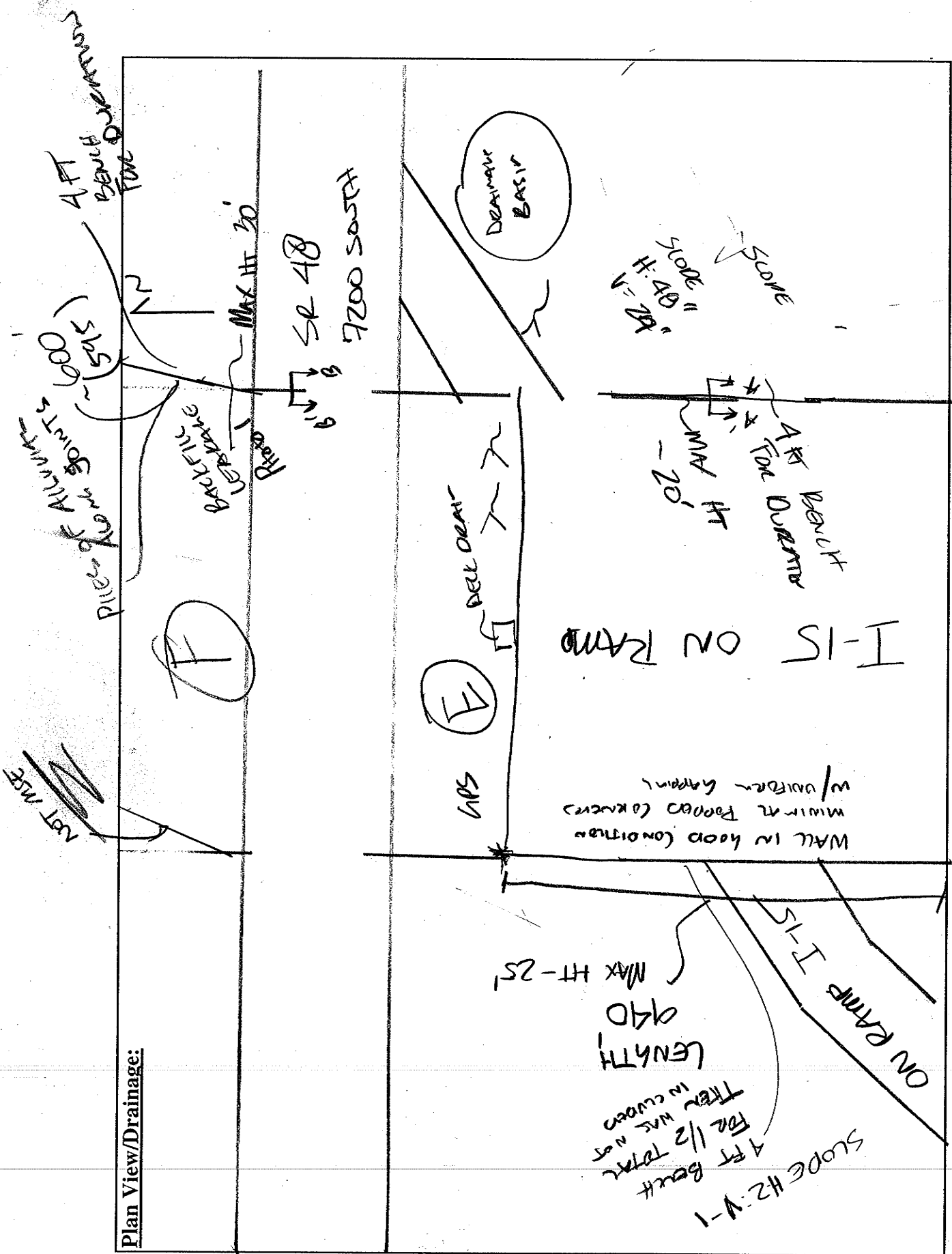
MSE Wall at Bridge	(Y) N	Bridge Number if applicable:	SEE UDOT'S LIST	Wall Number	325 E F F
Surrounding Structures	2 OTHER OVERPASSES / CAUTION		Maximum Height of Wall (ft)	30' FT	
Distance to Each Structure	100 FT / 200 FT / 100 FT		One Stage, Two Stage or Block Wall	TWO STAGE	
State Route Number	I-15 / SR 48		Estimated Max Length of Wall Abutment:	940 FT	
Approximate Mile Marker	MP 299		Max Slope of Ground in front of wall:	H: 40" V: 27"	
GPS Datum	WGS/84 NAD/83, or NAD/27		Max Height of wall burial line above surrounding level ground:	15'	
MSE Wall GPS Coordinates (Location of Measurement shown on plan view)	N 40° 37.200'		Please draw rough layout of panel with approximate dimensions in space provided below:		
	N 111° 54.305'				
If known, Panel or System Manufacturer					

**Summary of Key Observations:**

wall in good condition  
minimal popped corners  
w/uniform gaps

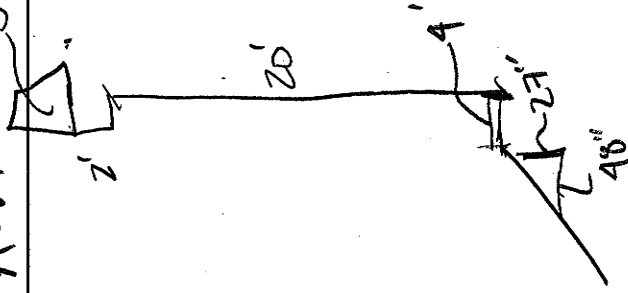
New R # :  
R = 343  
37, 33, 7, 11, 8, 36, 13

Plan View/Drainage:



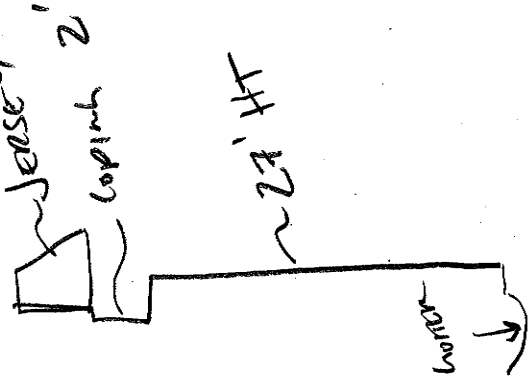
Cross Sections:

A'-A  
JOSEPH BRIDGE



Cross Sections:

B'-B  
JOSEPH BRIDGE





MSE WALL FACING

Required Tools:		Long Level-String-GPS-Camera-Crack Gauge	Wall Facing	Measurement/Extent of Problem/Location/Photo Numbers
Yes	No	N/A	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	22-Are the panels "tilt-up"? Is there excessive cracking in the panels? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	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. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	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. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
(Y)	(N)	N/A	UKN	25-Are the panel corners making contact with each other? If yes, record the approximate number in the wall. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
(Y)	(N)	N/A	UKN	26-Are the panel corners "popped-off" or chipped from contact with an adjacent panel? If yes record the number in the wall. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	27-Does crack spacing suggest Differential Settlement? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	28-Does the overlying coping exhibit Vertical Offset? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	29-Are the coping and parapets loose or detaching? If yes, it may be appropriate to contact UDOT if detachment seems eminent. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	30-Are the panels in danger of falling off? (If potential exists contact appropriate UDOT region). / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	31-Are the panels 'bulging' (bowing horizontally)? If so, record maximum deformation from accessible coping to leveling pad. (Photo 11) / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	32-Is there 'tipping' at the top or bottom of the wall? (Record maximum degree of tipping from azimuth using vertical level and affected area). / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

MSE TOP OF WALL OBSERVATIONS

Required Tools:		Long Level-Crack Gauge-GPS-Camera	Top Of Wall	Measurement/Extent of Problem/Location/Photo Numbers
Yes	No	N/A	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	33-Is there evidence of settlement at the top of the wall? (pavement cracking, etc) / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	34-Are there any open cracks in the concrete coping (not hairline)? If yes record the approximate maximum crack width. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	35-Have the construction joints in the concreting coping opened up? (Photo 6). If yes, record the maximum joint width. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	36-Is there a large gap between the approach slab and the approach pavement? (Photo 15) Often this produces a bumping sensation as the overpass is crossed. Record the approximate maximum gap size. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	37-At the abutments, 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)	N/A	UKN	38-Is the coping/wall pulling away from pavement/roadway section? Please record maximum displacement for wall. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

NO ACCESS  
NO ACCESS  
NO ACCESS

MSE STABILITY

Required Tools:		Shovel-Geo-Probe	Structural Integrity	Measurement/Extent of Problem/Location/Photo Numbers
Yes	No	N/A	UKN	/ 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	39-What is the location depth of Leveling pad? Pound Geo-Probe into soil 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	UKN	40-Is leveling pad exposed? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
Y	(N)	N/A	UKN	41-Is there cracking in the leveling pad? If so, record maximum crack size with gage. / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /
(Y)	(N)	N/A	UKN	42-Is there a four foot 'bench' (level slope) 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	UKN	43-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	UKN	44-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	UKN	45-Is there excessive degradation of panel faces? / 0-No 1% 5% 10% 25% 50% 75% 90% 95% 100% /

