

Colorado Department of Transportation
Structure Inspection and Inventory Report (English Units)

Highway Number (ON) 5D: 025A 1

Mile Post (ON)11: 156.936 mi

Bridge Key: H-17-M Inspection Date: 12/14/2010 Sufficiency Rating: 43.0 SD

Rgn/Sectn 2E/2M:	24	Hist Signif 37:	5	UW Inspection Date 93B:	
Trans Region 2T:	01	Posting status 41:	A	SI Date 93C:	
County Code 3:	041	Service on/un 42A/B:	1 5	Bridge Cost 94:	\$ 0
EL PASO		Main Mat/Desgn 43A/B:	1 19	Roadway Cost 95:	\$ 0
Place Code 4:	00000	Appr Mat/Desgn 44A/B:	0 0	Total Cost 96:	\$ 0
non-city		Main Spans Unit 45:	2	Year of Cost Estimate 97:	
Rte.(On/Under)5A:	1	Approach Spans 46:	0	Brdr Brdg Code/% 98A/B:	
Signing Prefix 5B:	1	Horiz Clr 47:	38.0 ft	Border Bridge Number 99:	
Level of Service 5C:	1	Max Span 48:	10.0 ft	Defense Highway 100:	1
Directional Suffix 5E:	0	Str Length 49:	21.0 ft	Parallel Structure 101:	N
Feature Intersected 6:		Curb Wdth L/R 50A/B:	0.0 ft 0.0 ft	Direction of Traffic 102:	2
DRAW		Width Curb to Curb 51:	0.0 ft	Temporary Structure 103:	
Facility Carried 7:		Width Out to Out 52:	143.0 ft	Highway System 104:	1
25 ML		Deck Area:	3,003.1 sq. ft	Fed Lands Hiway 105:	0
Alias Str No.8A:		Min Clr Ovr Brdg 53:	99.99	Year Reconstructed 106:	1953
		Min Undrclr Ref 54A:	N	Deck Type 107:	N
Prll Str No. 8P		Min Undrclr 54B:	0.0 ft	Wearing Surface 108A:	N
		Min Lat Clrnce Ref R 55A:	N	Membrane 108B:	N
Location 9:		Min Lat Undrclr R 55B:	0.0 ft	Deck Protection 108C:	N
6.7 MI N OF JCT SH 83 ML		Min Lat Undrclr L 56:	0	Truck ADT 109:	12 %
Max Clr 10:	99.99	Deck 58:	N	Trk Net 110:	1
BaseHiway Net12:	1	Super 59:	N	Pier Protection 111:	#
IrsinvRout 13A:	000000025A	Sub 60:	N	NBIS Length 112:	Y
IrsSubRout No13B:	00	Channel/Protection 61:	7	Scour Critical 113:	8
Latitude 16:	39d 02' 26"	Culvert 62:	4	Scour Watch 113M:	0
Longitude 17:	104d 50' 29"	Optprtng Rtg Method 63:	5 No rating	Future ADT 114:	100,951
Range18A:	67 W	Operating Rating 64:	36.0	Year of Future ADT 115:	2028
Township18B:	67	Inv Rtgng Method 65:	5	CDOT Str Type 120A:	CBC
Section18C:	1	Inventory Rating 66:	36.0	CDOT Constr Type 120B:	0.
Detour Length 19:	7.0 mi	Asph/Fill Thick 66T:	146 "in"	Inspection Indic 122A:	
Toll Facility 20:	3	Str. Evaluation 67:	4	Inspection Trip 122AA:	
Custodian 21:	1	Deck Geometry 68:	N	Scheduling Status 122B:	
Owner 22:	1	Undrclr Vert/Hor 69:	N	Maintenance Patrol 123:	8
Functional Class 26:	11	Posting 70:	5	Expansion Dev/Type124:	O
Year Built 27:	1926	Waterway Adequacy 7:	7	Brdg Rail Type/Mod 125A/B:	FB 0
Lanes on 28A:	4	Approach Alignment 72:	8	Posting Trucks 129A/B/C:	0 0 0
Lanes Under 28B:	0	Type of Work 75A:		Str Rating Date 130:	1/1/1901
ADT 29:	64,300	Work Done By 75B:		Special Equip 133:	-1
Year of ADT 30:	2008	Length of Improvment 76:	0.0 ft	Vert Clr N/E 134A/B/C:	X 99.99 0.00
Design Load 31:	2	Insp Team Indicator 90B:	RED TEAM	Vert Clr S/W 135A/B/C:	X 99.99 0.00
Apr Rdwy Width 32:	76.0 ft	Inspector Name 90C:	TATALASKIT	Vertical Clr Date:	1/1/1901
Median 33:	0	Frequency 91:	24 months	Weight Limit Color: 139:	0
Skew 34:	0.00 °	FC Frequency 92A:	-1	Str Billing Type:	U
Structure Flared 35:	0	UW Frequency 92B:	-1	Userkey 1 - System:	ONSYS
Sfty Rail 36a/b/c/d:	1 1 1 1	SI Frequency 92C:	-1	Userkey 7-Update Indic:	
Rail ht36h:	27 "in"	FC Inspection Date 93A:			

Inspector Name: TATALASKIT

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Element Inspection Report

Elem/En	Description	Units	Total Qty	% in 1	CS 1	% in 2	CS 2	% in 3	CS 3	% in 4	CS 4	% in 5	CS 5
241/1	Concrete Culvert	(LF)	286	76 %	216	3 %	10	3 %	10	17 %	50	0 %	0
327/1	Culvert Wingwalls	(EA)	4	100 %	4	0 %	0	0 %	0	0 %	0	0 %	0
335/1	Culvert Headwalls	(EA)	2	100 %	2	0 %	0	0 %	0	0 %	0	0 %	0
501/1	Channel Cond	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
504/1	BankCond	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
510/1	Waterway Adequ.	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0

Elem/Env	Description	Element Notes
241/1	Concrete Culvert	<p>Base of divider wall in original 50 ft. long section badly spalled (cell 2 side) at & below groundline (6 ft. below topslab). Spalling as deep as 4 inches probably most or all of 50 ft. length but too extensive to dig out, it extended the 10 ft. we dug. Water ponding at deter. area from past higher flow, and continue to deteriorate wall #2, and seepage evident through wall in Cell #1 during 2010 inspection. See PHOTOS.</p> <p>We dug down 1.5 feet and continued to find friable concrete easily broken off. It may extend the 4 feet down to the bottom slab but water seepeing into digging hole prevented further investigation.</p> <p>Spalling was behind the vertical rebars, which are highly corroded, may have lost as much as 25% section.</p> <p>Similar spalling on cell 1 side of this 12 inch thick divider wall but not quite as deep, only about 2 inches from face of concrete.</p> <p>This makes depth of spalling as much as 50 % for possibly 50 feet along the base and the rebars lost up to 25% section too.</p> <p>This could easily be an Alkali Silica Reaction - ASR.</p> <p>Shallow spalling along these vertical bars above the serious spalling due to inadequate concrete cover.</p> <p>Widened portion of culvert looks OK (143-50=93 ft = 65%) 72 ft on the right, 21 feet on the left.</p> <p>Light scale on top slab around formed drop inlet near center of cell 2 (origianl section)</p>
327/1	Culvert Wingwalls	Joint material slightly loose in all wing joints.
335/1	Culvert Headwalls	Few light vertical cracks some with efflorescence.
501/1	Channel Cond	<p>Draw. Channel alignment OK, but is heavily overgrown with willows and bushes.</p> <p>24 Inch CMP just upstream to allow flow under pedestrian path. Ponds some at inlet of both cells.</p> <p>Most flow in Cell #2.</p> <p>Water flowing in December 2010.</p>
504/1	BankCond	Gentle slopes. Few trees, and grassy.
510/1	Waterway Adequ.	Up to 4.5 ft of silt / sediment in cell 1 and as high as 3.5 feet in cell 2.

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Maintenance Activity Summary

MMS Activity	Description	Recommended	Status	Target Year	Est Cost
**358.05	Substr	1/9/2009	-1	2012	10000

Repair badly spalled wall along base of divider wall. Spalled as deep as 4 inches for probably around 50 feet long probably 3 feet down, but needs to be dugout and water will need to be redirected to adjacent cell in this culvert. NOT REPAIRED AS OF 2010 INSPECTION.

Bridge Notes

Flex-beam flattening energy absorption devices on ends of approach rails, but not on exit rails, OK.

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Inspection Notes

Time :-> 3:10 Temperature :-> 60 degrees F. Weather :-> P/C

Scope:

NBI: Element: Underwater: Fracture Critical: Other: Type: Regular NBI

Inspector: TATALASKIT

Inspection Team:

Inspection Date: 12/14/2010

Inspector

Inspector