

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

Highway Number (ON) 5D: 470A

Mile Post (ON)11: 13.899 mi

Bridge Name: F-16-MG Inspection Date: 3/6/2012 Sufficiency Rating: 97.6 Not Eligible

NBI Reporting ID:	F-16-MG
Rgn/Sectn 2E/2M:	68
Trans Region 2T	02
County Code 3:	059
JEFFERSON	
Place Code 4:	00000
non-city	
Rte.(On/Under)5A:	1
Signing Prefix 5B:	3
Level of Service 5C:	1
Directional Suffix 5E:	0
Feature Intersected 6:	
SH 121-WADSWORTH BLVD	
Facility Carried 7:	
SH 470 ML EBND	
Alias Str No.8A:	
Prll Str No. 8P	
F-16-MH	
Location 9:	
13.9 MI E - JCT SH 470 +	
Max Clr 10:	328.1 ft
BaseHiway Net12:	1
IrsinvRout 13A	000000470A
IrrsubRout No13B:	00
Latitude 16:	39d 33' 14"
Longitude 17:	105d 05' 09"
Range18A:	69 W
Township18B:	69
Section18C:	2
Detour Length 19:	0.6 mi
Toll Facility 20:	3
Custodian 21:	1
Owner 22:	1
Functional Class 26:	12
Year Built 27:	1987
Lanes on 28A:	2
Lanes Under 28B:	8
ADT 29:	28,600
Year of ADT 30:	2007
Design Load 31:	6
Apr Rdwy Width 32:	38.0 ft
Median 33:	1
Skew 34:	41.00 °
Structure Flared 35:	0
Sfty Rail 36a/b/c/d:	1 1 1 1
Rail ht36h:	36 "in"

Hist Signif 37:	5
Posting status 41:	A
Service on/un 42A/B:	6 1
Main Mat/Desgn 43A/B:	6 5
Aprr Mat/Desgn 44A/B:	0 0
Main Spans Unit 45:	2
Approach Spans 46:	0
Horiz Clr 47:	38.0 ft
Max Span 48:	150.0 ft
Str Length 49:	303.0 ft
Curb Wdth L/R 50A/B:	0.0 ft 0.0 ft
Width Curb to Curb 51:	38.0 ft
Width Out to Out 52:	41.5 ft
Deck Area:	12,572.2 sq. ft
Min Clr Ovr Brdg 53:	99.99
Min Undrclr Ref 54A:	H
Min Undrclr 54B:	21.3 ft
Min Lat Clrnce Ref R 55A:	H
Min Lat Undrclr R 55B:	20.0 ft
Min Lat Undrclr L 56:	5.0 ft
Deck 58:	8
Super 59:	8
Sub 60:	7
Channel/Protection 61:	N
Culvert 62:	N
Optrng Rtg Method 63:	5 No rating
Operating Rating 64:	60.1
Inv Rtn Method 65:	5
Inventory Rating 66:	36.0
Asph/Fill Thick 66T:	002 "in"
Str. Evaluation 67:	7
Deck Geometry 68:	6
Undrclr Vert/Hor 69:	5
Posting 70:	5
Waterway Adequacy 71:	N
Approach Alignment 72:	8
Type of Work 75A:	
Work Done By 75B:	
Length of Improvment 76:	0.0 ft
Insp Team Indicator 90B:	GREEN TEAM
Inspector Name 90C:	ROSSARTB
Frequency 91:	24 months
FC Frequency 92A:	
UW Frequency 92B:	
SI Frequency 92C:	
FC Inspection Date 93A:	

UW Inspection Date 93B:	
SI Date 93C:	
Bridge Cost 94:	\$ 0
Roadway Cost 95:	\$ 0
Total Cost 96:	\$ 0
Year of Cost Estimate 97:	
Brdr Brdg Code/% 98A/B:	
Border Bridge Number 99:	
Defense Highway 100:	0
Parallel Structure 101:	R
Direction of Traffic 102:	1
Temporary Structure 103:	
Highway System 104:	1
Fed Lands Hiway 105:	0
Year Reconstructed 106:	0000
Deck Type 107:	1
Wearing Surface 108A:	6
Membrane 108B:	2
Deck Protection 108C:	1
Truck ADT 109:	5 %
Trk Net 110:	1
Pier Protection 111:	#
NBIS Length 112:	Y
Scour Critical 113:	N
Scour Watch 113M:	
Future ADT 114:	42,328
Year of Future ADT 115:	2027
CDOT Str Type 120A:	CBGC
CDOT Constr Type 120B:	10
Inspection Indic 122A:	
Inspection Trip 122AA:	
Inspection Schedule ID:	EVN DEC H13
Maintenance Patrol 123:	17
Expansion Dev/Type124:	O
Brdg Rail Type/Mod 125A/B:	R 0
Posting Trucks 129A/B/C:	0 0 0
Str Rating Date 130:	6/15/1998
Special Equip 133:	-1
Vert Clr N/E 134A/B/C:	X 99.99 0
Vert Clr S/W 135A/B/C:	X 99.99 0
Vertical Clr Date:	3/6/2012
Weight Limit Color: 139:	0
Str Billing Type:	U
Userkey 1 - System:	ONSYS
Userkey 7-Update Indic:	

Inspector Name: ROSSARTB

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Element Inspection Report

Elm/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
26/4	Conc Deck/Coatd Bars	(SF)	12,575	100 %	12,575	0 %	0	0 %	0	0 %	0	0 %	0
104/4	P/S Conc Box Girder	(LF)	909	97 %	884	3 %	25	0 %	0	0 %	0	0 %	0
210/4	R/Conc Pier Wall	(LF)	28	100 %	28	0 %	0	0 %	0	0 %	0	0 %	0
215/4	R/Conc Abutment	(LF)	110	96 %	106	0 %	0	0 %	0	4 %	4	0 %	0
302/4	Compressn Joint Seal	(LF)	110	0 %	0	100 %	110	0 %	0	0 %	0	0 %	0
321/4	R/Conc Approach Slab	(EA)	2	100 %	2	0 %	0	0 %	0	0 %	0	0 %	0
325/4	Slope Prot/Berms	(EA)	2	100 %	2	0 %	0	0 %	0	0 %	0	0 %	0
326/4	Bridge Wingwalls	(EA)	4	100 %	4	0 %	0	0 %	0	0 %	0	0 %	0
331/4	Conc Bridge Railing	(LF)	606	100 %	606	0 %	0	0 %	0	0 %	0	0 %	0
340/4	Superstr Cnc Coating	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
341/4	Substr Conc Coating	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
359/1	Soffit Smart Flag	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0

Elem/Env	Description	Element Notes
26/4	Conc Deck/Coatd Bars	2 inches of asphalt. Crack along center seam has been sealed. Boxes are inaccessible, could not view underside of deck.
104/4	P/S Conc Box Girder	An approx. 25 ft. long hairline horiz. crack near the bottom flange of Girder A exterior. 9'-0" is cracked open 0.016 inch. See 2012 PHOTO. No other issues have been seen, otherwise good condition. No efflor. seen on bottom of box girder exterior. Interior is not accessible.
210/4	R/Conc Pier Wall	Good condition.
215/4	R/Conc Abutment	Hairline horiz. crack at Abut. 1 breast wall, just below right edge of box girder, extends 3 feet from right edge of girder.
302/4	Compressn Joint Seal	Evazote type seals at rear end of approach slabs. 1/2 inch cracks in asphalt at Abut. 1. D crack at Abut. 1 right shoulder. Abut. 3 asphalt cover peeled, mostly resealed. See 2012 PHOTO.
321/4	R/Conc Approach Slab	Asphalt covered but cracking along edges of both. No problems seen.
325/4	Slope Prot/Berms	Abut. 1 slope pave has settled 3 inches, spalled on left, and broken on right next to wingwall. Horiz. and diagonal cracks across upper sections of both. Abut. 3 slope pave has settled 2 inches. Horiz. cracks at a couple panels bottom of Abut. 3 slope pave which are starting to heave and buckle. Finish coming off of both.

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Elem/Env	Description	Element Notes
326/4	Bridge Wingwalls	Light horiz. and vert. cracks in all, some with minor efflor. Moderate spalls on both subwing closure walls at Abut. 1. See 2002 PHOTO. Large spalls at both subwing closure walls at Abut. 3. See 2002 PHOTOS. Maintenance has started to repair, but it is incomplete. See 2012 PHOTOS. Some reinf. is exposed at the closure wall spalls.
331/4	Conc Bridge Railing	Vert. trans. cracks, some with efflor. Shrinkage cracks at most of exterior base. Finish peeling off, mostly on right side.
340/4	Superstr Cnc Coating	On girders and bridge rail. Peeling off of rail. Otherwise, looks good.
341/4	Substr Conc Coating	Peeling off of slope paves. Wings, abutments, and pier wall looks good.
359/1	Soffit Smart Flag	Left overhang at Abut. 1 and Abut. 3 have trans. cracks with seepage, efflor, rust and water stains.

Maintenance Activity Summary

MMS Activity	Description	Recommended	Status	Target Year	Est Cost
**358.06	Substr	3/6/2012	<input type="checkbox"/>	2014	2500

Finish repairing Subwing closure walls at A1left, and A3 right.

360.03	App SI & S	3/6/2012	<input type="checkbox"/>	2014	1500
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Repair the slope pave at 3 locations at A1 right side.

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Bridge Notes

Utilities: Hangers for 3 inch pipe mounted to right web of Gir. 2D is coming loose / out.
Moderate spalls on both subwing closure walls at Abut. 1. See 2002 PHOTO.
Large spalls at both subwing closure walls at Abut. 3. See 2002 PHOTOS. Maintenance has started to repair, but it is incomplete. See 2012 PHOTOS.
Some reinf. is exposed at the subwing closure walls.

Inspection Notes

Time: 11:10 Temp: 66 Degrees F. Weather: Clear/Wind

Scope:

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

Team Leader Inspection Check-off:

- FCM's
- Posting Signs
- Essential Repair Verification
- Vertical Clearance
- Stream Bed Profile

Inspection Team:

Inspection Date: 03/06/2012

Inspector: ROSSARTB

Inspector (Team Leader)