

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

Highway Number (ON) 5D: 470A

Mile Post (ON)11: 17.367 mi

Bridge Name: F-16-KL Inspection Date: 2/27/2013 Sufficiency Rating: 95.2 Not Eligible

NBI Reporting ID:	F-16-KL	Hist Signif 37:	5	UW Inspection Date 93B:	
Rgn/Sectn 2E/2M:	68	Posting status 41:	A	SI Date 93C:	
Trans Region 2T:	02	Service on/un 42A/B:	1 1	Bridge Cost 94:	\$ 0
County Code 3:	035	Main Mat/Desgn 43A/B:	5 2	Roadway Cost 95:	\$ 0
DOUGLAS		Aprr Mat/Desgn 44A/B:	0 0	Total Cost 96:	\$ 0
Place Code 4:	45255	Main Spans Unit 45:	1	Year of Cost Estimate 97:	
LITTLETON		Approach Spans 46:	0	Brdr Brdg Code/% 98A/B:	
Rte.(On/Under)5A:	1	Horiz Clr 47:	47.3 ft	Border Bridge Number 99:	
Signing Prefix 5B:	3	Max Span 48:	98.4 ft	Defense Highway 100:	0
Level of Service 5C:	1	Str Length 49:	101.0 ft	Parallel Structure 101:	R
Directional Suffix 5E:	0	Curb Wdth L/R 50A/B:	0.0 ft 0.0 ft	Direction of Traffic 102:	1
Feature Intersected 6:		Width Curb to Curb 51:	47.3 ft	Temporary Structure 103:	
S. ERICKSON BLVD.		Width Out to Out 52:	50.8 ft	Highway System 104:	1
Facility Carried 7:		Deck Area:	5,131. sq. ft	Fed Lands Hiway 105:	0
SH 470 ML EBND		Min Clr Ovr Brdg 53:	99.99	Year Reconstructed 106:	0000
Alias Str No.8A:		Min Undrclr Ref 54A:	H	Deck Type 107:	1
		Min Undrclr 54B:	14.7 ft	Wearing Surface 108A:	6
Pril Str No. 8P		Min Lat Clrnce Ref R 55A:	H	Membrane 108B:	2
F-16-KM		Min Lat Undrclr R 55B:	8.4 ft	Deck Protection 108C:	1
Location 9:		Min Lat Undrclr L 56:	4.4 ft	Truck ADT 109:	5 %
.3 M EAST OF JCT US 85		Deck 58:	7	Trk Net 110:	1
Max Clr 10:	328.1 ft	Super 59:	7	Pier Protection 111:	
BaseHiway Net12:	1	Sub 60:	7	NBIS Length 112:	Y
IrsinvRout 13A	000000470A	Channel/Protection 61:	N	Scour Critical 113:	N
IrrsubRout No13B:	00	Culvert 62:	N	Scour Watch 113M:	
Latitude 16:	39d 33' 50"	Oprrtg Rtg Method 63:	1 LF Load Factr	Future ADT 114:	55,279
Longitude 17:	105d 01' 36"	Operating Rating 64:	60.1	Year of Future ADT 115:	2027
Range18A:	68 W	Inv Rtg Method 65:	1	CDOT Str Type 120A:	CPG
Township18B:	68	Inventory Rating 66:	36.0	CDOT Constr Type 120B:	32
Section18C:	5	Asph/Fill Thick 66T:	004 "in"	Inspection Indic 122A:	
Detour Length 19:	0.6 mi	Str. Evaluation 67:	7	Inspection Trip 122AA:	
Toll Facility 20:	3	Deck Geometry 68:	4	Inspection Schedule ID:	ODD MAY E14
Custodian 21:	1	Undrclr Vert/Hor 69:	5	Maintenance Patrol 123:	30
Owner 22:	1	Posting 70:	5	Expansion Dev/Type124:	C
Functional Class 26:	12	Waterway Adequacy 7:	N	Brdg Rail Type/Mod 125A/B:	R 1
Year Built 27:	1984	Approach Alignment 72:	8	Posting Trucks 129A/B/C:	0 0 0
Lanes on 28A:	3	Type of Work 75A:		Str Rating Date 130:	2/5/1998
Lanes Under 28B:	4	Work Done By 75B:		Special Equip 133:	
ADT 29:	37,100	Length of Improvment 76:	0.0 ft	Vert Clr N/E 134A/B/C:	X 99.99 0
Year of ADT 30:	2007	Insp Team Indicator 90B:	WHITE TEAM	Vert Clr S/W 135A/B/C:	X 99.99 0
Design Load 31:	6	Inspector Name 90C:	STADIGM	Vertical Clr Date:	5/5/1905
Apr Rdwy Width 32:	38.0 ft	Frequency 91:	24 months	Weight Limit Color: 139:	0
Median 33:	1	FC Frequency 92A:		Str Billing Type:	U
Skew 34:	2.00 °	UW Frequency 92B:		Userkey 1 - System:	ONSYS
Structure Flared 35:	1	SI Frequency 92C:		Userkey 7-Update Indic:	
Sfty Rail 36a/b/c/d:	1 1 1 1	FC Inspection Date 93A:			
Rail ht36h:	34 "in"				

Inspector Name: STADIGM

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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)	5,131	100 %	5,131	0 %	0	0 %	0	0 %	0	0 %	0
109/4	P/S Conc Open Girder	(LF)	594	100 %	592	0 %	2	0 %	0	0 %	0	0 %	0
215/4	R/Conc Abutment	(LF)	104	100 %	104	0 %	0	0 %	0	0 %	0	0 %	0
300/1	Strip Seal Exp Joint	(LF)	104	100 %	104	0 %	0	0 %	0	0 %	0	0 %	0
302/4	Compressn Joint Seal	(LF)	104	100 %	104	0 %	0	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	50 %	1	50 %	1	0 %	0	0 %	0	0 %	0
326/4	Bridge Wingwalls	(EA)	4	0 %	0	100 %	4	0 %	0	0 %	0	0 %	0
331/4	Conc Bridge Railing	(LF)	202	100 %	202	0 %	0	0 %	0	0 %	0	0 %	0
340/4	Superstr Cnc Coating	(EA)	1	0 %	0	100 %	1	0 %	0	0 %	0	0 %	0
341/4	Substr Conc Coating	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
359/4	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	Four inches of SMA asphalt. A newer overlay. Looks OK.
109/4	P/S Conc Open Girder	Girder F has been gouged on the bottom flange, located about 12 feet out from the the #1 Right retaining wall, about 1 foot in length; no exposed reinforcement during the 2013 inspection; (see 2007 PHOTO).
215/4	R/Conc Abutment	Good condition.
300/1	Strip Seal Exp Joint	At ends of the approach slabs. Polymer end dams in good condition. Both are sand filled and appear to be sealed. Open approximately 1.5 inches at the Rear, open 1 inch to 1.75 inches at the Forward.
302/4	Compressn Joint Seal	Covered with asphalt. Good condition.
321/4	R/Conc Approach Slab	A newer surface that looks good. Both approaches have previously settled. Measured at the top of the concrete railing: 1.75 inches at the Left Rear side, 2.0 inches at the Right Rear, 1/2 inch at the Left Forward, and 1 inch at the Right Forward; (see 03/13/07 PHOTO).
325/4	Slope Prot/Berms	Concrete paved slopes at both with retaining walls at toes of the slopes. Light horizontal cracks in both. The #2 slope pavement is separated at the top by 2 inches. Concrete retaining walls are in good condition. Control joints in walls have vertical cracks (normal). Expansion joints on the Right side in both walls are missing most of the joint filler, and may have some fill coming through.
326/4	Bridge Wingwalls	U-shaped abutment wing walls with integral wings, and sub-wings. Integral wings have vertical and horizontal cracks with efflor. Sub approach wing walls have moderate to heavy vertical, diagonal, and horizontal cracks; with some spalling and exposed rebar below the deck overhangs, (see 2007 PHOTOS).
331/4	Conc Bridge Railing	Typical vertical cracks. The Class 5 coating has peeled off along the bottom, and some other areas. Scale and minor gouges along the bottom areas.
340/4	Superstr Cnc Coating	On railing, overhangs, and outside faces of exterior girders. Peeling badly on the interior faces of the concrete railing.
341/4	Substr Conc Coating	On abutment walls, and wing walls. Looks OK.

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359/4	Soffit Smart Flag	A few transverse and diagonal cracks with efflor., primarily near the corners.

Bridge Notes

A 1 inch metal conduit is mounted to Abutment 1, Girders C and E.
The bridge is posted at 14 feet 6 inches clearance, on both sides.
Monitor the wing walls; approach areas might need to have soil stabilization if further settlement occurs;
(appears to be stable in 2013).

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Inspection Notes

TIME: 11:00 TEMP: 25 WEATHER: Clear

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: 02/27/2013

Inspector: STADIGM

Inspector (Team Leader)