

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

Highway Number (ON) 5D: 016A

Mile Post (ON)11: 0.120 mi

Bridge Name: J-18-BN Inspection Date: 1/18/2013 Sufficiency Rating: 85.9 Not Eligible

| | |
|--------------------------|---------------|
| NBI Reporting ID: | J-18-BN |
| Rgn/Sectn 2E/2M: | 24 |
| Trans Region 2T | 01 |
| County Code 3: | 041 |
| EL PASO | |
| Place Code 4: | 27865 |
| FOUNTAIN | |
| Rte.(On/Under)5A: | 1 |
| Signing Prefix 5B: | 3 |
| Level of Service 5C: | 1 |
| Directional Suffix 5E: | 0 |
| Feature Intersected 6: | |
| FOUNTAIN CREEK | |
| Facility Carried 7: | |
| SH 16 ML | |
| Alias Str No.8A: | |
| | |
| Prll Str No. 8P | |
| | |
| Location 9: | |
| JUST E. OF SECURITY INT. | |
| Max Clr 10: | 328.1 ft |
| BaseHiway Net12: | 1 |
| IrsinvRout 13A | 000000016A |
| IrrsubRout No13B: | 00 |
| Latitude 16: | 38d 43' 32" |
| Longitude 17: | 104d 43' 52" |
| Range18A: | 66 W |
| Township18B: | 66 |
| Section18C: | 24 |
| Detour Length 19: | 9.0 mi |
| Toll Facility 20: | 3 |
| Custodian 21: | 1 |
| Owner 22: | 1 |
| Functional Class 26: | 14 |
| Year Built 27: | 2009 |
| Lanes on 28A: | 7 |
| Lanes Under 28B: | 0 |
| ADT 29: | 20,700 |
| Year of ADT 30: | 2008 |
| Design Load 31: | 9 |
| Apr Rdwy Width 32: | 120.0 ft |
| Median 33: | 2 |
| Skew 34: | 20.00 ° |
| Structure Flared 35: | 0 |
| Sfty Rail 36a/b/c/d: | 1 1 1 1 |
| Rail ht36h: | 35 "in" |

| | |
|---------------------------|-----------------|
| Hist Signif 37: | 5 |
| Posting status 41: | A |
| Service on/un 42A/B: | 1 5 |
| Main Mat/Desgn 43A/B: | 6 2 |
| Aprr Mat/Desgn 44A/B: | 0 0 |
| Main Spans Unit 45: | 3 |
| Approach Spans 46: | 0 |
| Horiz Clr 47: | 44.0 ft |
| Max Span 48: | 129.4 ft |
| Str Length 49: | 370.7 ft |
| Curb Wdth L/R 50A/B: | 0.0 ft 0.0 ft |
| Width Curb to Curb 51 | 131.0 ft |
| Width Out to Out 52: | 134.0 ft |
| Deck Area: | 18,008. sq. ft |
| Min Clr Ovr Brdg 53: | 99.99 |
| Min Undrclr Ref 54A: | N |
| Min Undrclr 54B: | 0.0 ft |
| Min Lat Clrnce Ref R 55A: | N |
| Min Lat Undrclr R 55B: | 0.0 ft |
| Min Lat Undrclr L 56: | 0.0 ft |
| Deck 58: | 8 |
| Super 59: | 8 |
| Sub 60: | 8 |
| Channel/Protection 61: | 8 |
| Culvert 62: | N |
| Optprtng Rtg Method 63: | 5 No rating |
| Operating Rating 64: | 40.0 |
| Inv Rtg Method 65: | 5 |
| Inventory Rating 66: | 36.0 |
| Asph/Fill Thick 66T: | 002 "in" |
| Str. Evaluation 67: | 8 |
| Deck Geometry 68: | 9 |
| Undrclr Vert/Hor 69: | N |
| Posting 70: | 5 |
| Waterway Adequacy 71 | 8 |
| Approach Alignment 72: | 8 |
| Type of Work 75A: | 33 |
| Work Done By 75B: | |
| Length of Improvment 76: | 387.1 ft |
| Insp Team Indicator 90B: | GREEN TEAM |
| Inspector Name 90C: | MOSST |
| 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: | \$ 836,500 |
| Roadway Cost 95: | \$ 83,650 |
| Total Cost 96: | \$ 1,254,750 |
| Year of Cost Estimate 97: | 2007 |
| Brdr Brdg Code/% 98A/B: | |
| Border Bridge Number 99: | |
| Defense Highway 100: | 0 |
| Parallel Structure 101: | N |
| Direction of Traffic 102: | 2 |
| 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: | 0 |
| Truck ADT 109: | 3 % |
| Trk Net 110: | 0 |
| Pier Protection 111: | |
| NBIS Length 112: | Y |
| Scour Critical 113: | 8 |
| Scour Watch 113M: | 0 |
| Future ADT 114: | 32,499 |
| Year of Future ADT 115: | 2028 |
| CDOT Str Type 120A: | CPGC |
| CDOT Constr Type 120B: | 33 |
| Inspection Indic 122A: | |
| Inspection Trip 122AA: | |
| Inspection Schedule ID: | ODD DEC D12 |
| Maintenance Patrol 123: | 53 |
| Expansion Dev/Type124: | D |
| Brdg Rail Type/Mod 125A/B: | Y 0 |
| Posting Trucks 129A/B/C: | 0 0 0 |
| Str Rating Date 130: | 1/1/2009 |
| 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: | 1/1/1901 |
| Weight Limit Color: 139: | 0 |
| Str Billing Type: | U |
| Userkey 1 - System: | ONSYS |
| Userkey 7-Update Indic: | |

Inspector Name: MOSST

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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 |
|--------|----------------------|-------|-----------|--------|--------|--------|------|--------|------|--------|------|--------|------|
| 35/4 | Pcst Pnl Cnc Dk Bare | (SF) | 49,680 | 100 % | 49,680 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 109/4 | P/S Conc Open Girder | (LF) | 5,110 | 100 % | 5,110 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 205/4 | R/Conc Column | (EA) | 14 | 100 % | 14 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 215/4 | R/Conc Abutment | (LF) | 285 | 100 % | 285 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 220/1 | R/C Sub Pile Cap/Ftg | (EA) | 1 | 100 % | 1 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 234/4 | R/Conc Cap | (LF) | 285 | 100 % | 285 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 300/4 | Strip Seal Exp Joint | (LF) | 297 | 100 % | 297 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 301/4 | Pourable Joint Seal | (LF) | 297 | 72 % | 213 | 28 % | 84 | 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 | 75 % | 3 | 25 % | 1 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 334/4 | Metal Rail Coated | (LF) | 742 | 100 % | 742 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 338/4 | Conc Curbs/SW | (LF) | 742 | 100 % | 742 | 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 |
| 501/4 | Channel Cond | (EA) | 1 | 100 % | 1 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 502/4 | ChannProtMatCond | (EA) | 1 | 100 % | 1 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 504/4 | BankCond | (EA) | 1 | 100 % | 1 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 505/1 | Debris Smart Flag | (EA) | 1 | 100 % | 1 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |

| Elem/Env | Description | Element Notes |
|----------|----------------------|--|
| 35/4 | Pcst Pnl Cnc Dk Bare | Longitudinally tined surface & mountable median; Light diag. cracking near abuts. Short trans cracks throughout, 2012 PHOTO. |
| 109/4 | P/S Conc Open Girder | 72-inch bulb tee girders; look good. |
| 205/4 | R/Conc Column | At P2, P3. (7) at each pier. Look good. P2 caisson exposed per 220. |
| 215/4 | R/Conc Abutment | A1 light diag. crack at right end. Several marked mod. diag. cracks at left end of A1. Couple minor spalls at ends of seat cold joints. |

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|----------|----------------------|--|
| 220/1 | R/C Sub Pile Cap/Ftg | Col 2A has 2 to 2.5 ft. of top of caisson exposed due to scour; 2B 0.5 to 2.2 ft.; (2012 PHOTOS) 2C, 2D & 2E each has 0 to 1 ft. exposed; 2F 0 to 0.5 ft., 2G to not seen yet. Top of P3 columns caissons exposed; 3C 0-3 inches, 3D & 3E 0 to 9 inches; and 3F has 0 to over 3 feet, 2012 PHOTOS. |
| 234/4 | R/Conc Cap | Coated; Look good. |
| 300/4 | Strip Seal Exp Joint | At ends of approach slabs; (#1 =144 feet & #4=153 feet). #1 open 2 inches. #4 open 1 inch. Sleeper slab end dam cracking right side. |
| 301/4 | Pourable Joint Seal | At abutments; #1 144 feet; #4 153 feet. A4 EBnd MLs #1-2 failed. A4 WBnd detached and failed full length except shoulders. |
| 321/4 | R/Conc Approach Slab | 2 Scupper drains in Rt. sides of appr. slabs. A few light diag. cracks in both slabs. #1 left approach roadway has settled 2 inches relative to approach slab (see 12/10 photo). Approach roadway appears to have 6-8 inches (visually estimated) deflection in WBnd MLs #2-4 relative to WBnd ML #1. #4 random cracking near median of WB traffic. |
| 325/4 | Slope Prot/Berms | Steep sand and clay slopes. |
| 326/4 | Bridge Wingwalls | #1 left and right has marked diag. cracks. #1 left is pushed several inches (see 12/10 photo), see Notes. Vertical cracks too. #4 looks good. |
| 334/4 | Metal Rail Coated | Galv. Type Y rail, looks good. |
| 338/4 | Conc Curbs/SW | Typical trans cracks, some with efflor. |
| 340/4 | Superstr Cnc Coating | Along outside of exterior girders, curbs, and median. |
| 341/4 | Substr Conc Coating | On abut. breastwalls, wings, columns, and caps, look good. |
| 501/4 | Channel Cond | Fountain Creek - Sand and rock lined channel; Flows through Span 2. Good alignment. |
| 502/4 | ChannProtMatCond | Rock riprap, (1 - 4 foot diam.) along the rear bank downstream. |
| 504/4 | BankCond | Grass and trees along banks. Mod. sloped banks near bridge but vertical cut bank 20 ft. high about 200 to 300 ft. upstream. Bank being cut back at col. 3F, 2012 PHOTOS. |
| 505/1 | Debris Smart Flag | Approx. 5 CY of debris collected on nose of Col 2A (see 2012 photo). |

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Bridge Notes

Storm drain pipe runs in Bay A towards A4.
Storm inlet in median at fwd. slab.
Dirt ped. path in Span 3.
Corr. storm pipes at rear corner for runoff.

Three signs; two on right side at A1 and Span 1; one on left side at Span 1.

Scupper ar at left side of spans 1 & 2 are both clogged about 50%.

There is a gap along the left rear wing opened 6.5 inches where able to measure, 3 inch diam. foam backing rod & sealant failed; flashing glued over joint, 2012 PHOTOS.

Inspection Notes

Time:) 1:15 Temp.): 40° deg. F. Weather:) Breezy & Partly Cloudy Team Leader:) TAM

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: 01/18/2013

Inspector: MOSST

Inspector (Team Leader)