

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

Highway Number (ON) 5D: 006G
 Mile Post (ON)11: 284.477 mi

Bridge Key: F-16-DU Inspection Date: 12/19/2011 Sufficiency Rating: 54.2 FO

| | |
|------------------------|---------------|
| Rgn/Sectn 2E/2M: | 68 |
| Trans Region 2T: | 02 |
| County Code 3: | 031 |
| DENVER | |
| Place Code 4: | 20000 |
| DENVER | |
| Rte.(On/Under)5A: | 1 |
| Signing Prefix 5B: | 2 |
| Level of Service 5C: | 1 |
| Directional Suffix 5E: | 0 |
| Feature Intersected 6: | |
| I 25 ML | |
| Facility Carried 7: | |
| US 6 ML | |
| Alias Str No.8A: | |
| #F-16-DY | |
| Pril Str No. 8P | |
| F-16-DY | |
| Location 9: | 18.421915259 |
| IN DENVER | |
| Max Clr 10: | 5.61 |
| BaseHiway Net12: | 1 |
| IrsinvRout 13A | 000000006G |
| IrssubRout No13B: | 00 |
| Latitude 16: | 39d 43' 35" |
| Longitude 17: | 105d 00' 46" |
| Range18A: | 68 W |
| Township18B: | 68 |
| Section18C: | 9 |
| Detour Length 19: | 5.0 mi |
| Toll Facility 20: | 3 |
| Custodian 21: | 1 |
| Owner 22: | 1 |
| Functional Class 26: | 02 |
| Year Built 27: | 1958 |
| Lanes on 28A: | 8 |
| Lanes Under 28B: | 10 |
| ADT 29: | 137,000 |
| Year of ADT 30: | 2008 |
| Design Load 31: | 6 |
| Apr Rdwy Width 32: | 164.0 ft |
| Median 33: | 2 |
| Skew 34: | 23.00 ° |
| 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: | 1 7 |
| Appr Mat/Desgn 44A/B: | 0 0 |
| Main Spans Unit 45: | 2 |
| Approach Spans 46: | 0 |
| Horiz Clr 47: | 68.0 ft |
| Max Span 48: | 75.5 ft |
| Str Length 49: | 170.0 ft |
| Curb Wdth L/R 50A/B: | 0.0 ft 0.0 ft |
| Width Curb to Curb 51: | 139.5 ft |
| Width Out to Out 52: | 148.0 ft |
| Deck Area: | 25,160. sq. ft |
| Min Clr Ovr Brdg 53: | 16.59 |
| Min Undrclr Ref 54A: | H |
| Min Undrclr 54B: | 15.0 ft |
| Min Lat Clrnce Ref R 55A: | H |
| Min Lat Undrclr R 55B: | 3.5 ft |
| Min Lat Undrclr L 56: | 2.700000062 |
| Deck 58: | 5 |
| Super 59: | 5 |
| Sub 60: | 6 |
| Channel/Protection 61: | N |
| Culvert 62: | N |
| Oprtg Rtg Method 63: | 5 No rating |
| Operating Rating 64: | 42.0 |
| Inv Rtg Method 65: | 5 |
| Inventory Rating 66: | 25.0 |
| Asph/Fill Thick 66T: | 004 "in" |
| Str. Evaluation 67: | 5 |
| Deck Geometry 68: | 9 |
| Undrclr Vert/Hor 69: | 2 |
| Posting 70: | 5 |
| Waterway Adequacy 7: | N |
| Approach Alignment 72: | 8 |
| Type of Work 75A: | 31 |
| Work Done By 75B: | 1 |
| Length of Improvment 76: | 169.9 ft |
| Insp Team Indicator 90B: | WHITE TEAM |
| Inspector Name 90C: | STADIGM |
| Frequency 91: | 24 months |
| FC Frequency 92A: | -1 |
| UW Frequency 92B: | -1 |
| SI Frequency 92C: | -1 |
| FC Inspection Date 93A: | |

| | |
|----------------------------|-------------------|
| UW Inspection Date 93B: | |
| SI Date 93C: | |
| Bridge Cost 94: | \$ 3,987,995 |
| Roadway Cost 95: | \$ 398,800 |
| Total Cost 96: | \$ 5,981,993 |
| Year of Cost Estimate 97: | 2006 |
| 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: | 1966 |
| Deck Type 107: | 1 |
| Wearing Surface 108A: | 6 |
| Membrane 108B: | 0 |
| Deck Protection 108C: | 0 |
| Truck ADT 109: | 2 % |
| Trk Net 110: | 1 |
| Pier Protection 111: | # |
| NBIS Length 112: | Y |
| Scour Critical 113: | N |
| Scour Watch 113M: | 0 |
| Future ADT 114: | 154,810 |
| Year of Future ADT 115: | 2028 |
| CDOT Str Type 120A: | CRF |
| CDOT Constr Type 120B: | 0. |
| Inspection Indic 122A: | |
| Inspection Trip 122AA: | |
| Scheduling Status 122B: | |
| Maintenance Patrol 123: | 7 |
| Expansion Dev/Type124: | O |
| Brdg Rail Type/Mod 125A/B: | R 0 |
| Posting Trucks 129A/B/C: | 0 0 0 |
| Str Rating Date 130: | 12/23/1998 |
| Special Equip 133: | -1 |
| Vert Clr N/E 134A/B/C: | N 19.41 17.00 |
| Vert Clr S/W 135A/B/C: | S 17.83 15.00 |
| Vertical Clr Date: | 10/20/2005 |
| Weight Limit Color: 139: | 0 |
| Str Billing Type: | U |
| Userkey 1 - System: | ONSYS |
| Userkey 7-Update Indic: | |

Inspector Name: STADIGM

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

Highway Number (ON) 5D: 006G _

Mile Post (ON)11: **284.477 mi**

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 |
|--------|----------------------|-------|-----------|--------|-------|--------|--------|--------|------|--------|------|--------|------|
| 13/4 | Unp Conc Deck/AC Ovl | (SF) | 25,160 | 0 % | 0 | 100 % | 25,160 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 110/4 | R/Conc Open Girder | (LF) | 3,234 | 85 % | 2,759 | 3 % | 102 | 12 % | 373 | 0 % | 0 | 0 % | 0 |
| 205/4 | R/Conc Column | (EA) | 14 | 36 % | 5 | 43 % | 6 | 21 % | 3 | 0 % | 0 | 0 % | 0 |
| 215/4 | R/Conc Abutment | (LF) | 369 | 99 % | 365 | 1 % | 2 | 1 % | 2 | 0 % | 0 | 0 % | 0 |
| 234/4 | R/Conc Cap | (LF) | 350 | 100 % | 350 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 301/4 | Pourable Joint Seal | (LF) | 283 | 100 % | 283 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 308/4 | Constr Non Exp Jt | (LF) | 1,001 | 13 % | 135 | 18 % | 184 | 68 % | 682 | 0 % | 0 | 0 % | 0 |
| 321/4 | R/Conc Approach Slab | (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) | 170 | 100 % | 170 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 333/4 | Other Bridge Railing | (LF) | 340 | 100 % | 340 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 342/4 | Sign Attachment | (EA) | 1 | 100 % | 1 | 0 % | 0 | 0 % | 0 | 0 % | 0 | 0 % | 0 |
| 359/4 | Soffit Smart Flag | (EA) | 1 | 0 % | 0 | 100 % | 1 | 0 % | 0 | 0 % | 0 | 0 % | 0 |

| Elem/Env | Description | Element Notes |
|----------|----------------------|---|
| 13/4 | Unp Conc Deck/AC Ovl | 4 Inches of asphalt. Moderate longitudinal cracking and raveling in wheel lines of ML #4, in both directions; (see 2009 PHOTO). D-cracking with impending pot holes along the westbound shoulder line. Longitudinal cracks with light raveling along asphalt seams. Scattered, mostly sealed transverse cracks throughout. Few small patches in raveled areas. |
| 110/4 | R/Conc Open Girder | Doubled girders beneath longitudinal construction joints are contaminated, delaminated, and spalled with exposed rebar. Moderate spalls with exposed corroded rebar, and moderate delam. cracking; (see Tally Sheet and PHOTOS). Girders 1A, 1B, 1C, 1T, 1U, and 2A, have been dinged from high loads, no structural damage. |
| 205/4 | R/Conc Column | Spalling with exposed rebar at Columns 2C, 2L and 2M, others have corner delam. cracking. Some delam. cracking at bases of Columns 2D, and 2E. A small spot of delam. cracking along the top of Column 2I. |
| 215/4 | R/Conc Abutment | Light vertical and diagonal cracks in both abutments. Many moderate vertical delam. cracks and spalls with exposed corroded rebar, along the vertical construction joints in both abutments; (see 2009 PHOTO). A diagonal crack in A1 at the construction joint below Girder L. |
| 234/4 | R/Conc Cap | No visible problems. |
| 301/4 | Pourable Joint Seal | Above abutments. Covered with asphalt. Light to moderate transverse cracking in most MLs. |

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

Highway Number (ON) 5D: 006G _

Mile Post (ON)11: **284.477 mi**

| Elem/Env | Description | Element Notes |
|----------|----------------------|---|
| 308/4 | Constr Non Exp Jt | Longitudinal construction joints along the widened sections, continue to heavily and actively leak. at ends of approach slabs. Light to moderate transverse cracks and some D-cracking in spots, at ends of approach slabs. Potholing (2 square feet) in ML #4 at the end of the #1 approach slab, in the westbound direction. |
| 321/4 | R/Conc Approach Slab | Covered with an asphalt overlay. In the same condition as the deck overlay. |
| 326/4 | Bridge Wingwalls | #1 Right and #3 Right have numerous horizontal and random cracks; (see 2009 PHOTO). #1 Right and #3 Right have several areas beginning to delam. and spall. #1 Left and #3 Left have a few light random cracks. |
| 331/4 | Conc Bridge Railing | In the median. Typical light vertical cracks. |
| 333/4 | Other Bridge Railing | 3 Foot tall wire mesh fencing mounted on modified Type R railing, at the Left and Right edges of the deck. Typical light vertical cracks in the concrete. |
| 342/4 | Sign Attachment | A sign attached to Girder 1A and the concrete Jersey barrier. Looks ok. |
| 359/4 | Soffit Smart Flag | A spall in Bay 2I, 16 feet from P2. Cracks with moderate efflor. on the deck bottom, some with rust, approximately 10% contaminated. Seepage with moderate efflor. along overhangs, especially near piers and abutments. Delam. cracking in spots along overhangs, but appears to be secure. |

Maintenance Activity Summary

| MMS Activity | Description | Recommended | Status | Target Year | Est Cost |
|--------------|-------------|-------------|--------|-------------|----------|
| 354.02 | Replace | 12/18/2003 | -1 | 2014 | 23000 |

Remove loose concrete from girders, especially along longitudinal cold joints (continuing process if girders not repaired).
Clean exposed rebar and spalled concrete and patch girders along longit. cold jts. See Tally Sheet and PHOTOS.

| | | | | | |
|--------|---------|------------|----|------|------|
| 353.08 | Replace | 12/18/2003 | -1 | 2014 | 1500 |
|--------|---------|------------|----|------|------|

Seal cracks in the deck surface..

| | | | | | |
|--------|------------|------------|----|------|-----|
| 358.00 | Cln & Wash | 12/22/2009 | -1 | 2011 | 250 |
|--------|------------|------------|----|------|-----|

Remove spalling and delaminated concrete along the vertical joint at Abutment 3; (see 2009 PHOTO).

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

Highway Number (ON) 5D: 006G _

Mile Post (ON)11: **284.477 mi**

Bridge Notes

Clearance posted on the Left side of the bridge is 15 feet - 0 inches.

Inspection Notes

TIME: 8:30 TEMP: 30 WEATHER: Overcast

Scope:

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

Inspector: STADIGM

Inspection Team:

Inspection Date: 12/19/2011

Inspector

Inspector