

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

Highway Number (ON) 5D: 025A  
Mile Post (ON) 11: 165.930 mi  
Linear Ref. Sys. MP: 165.930 mi

Bridge Key: 025A165930BL Inspection Date: 03/16/2023 Suff Rating: 88.5 NA G/F/P Condition: Fair

NBI Reporting ID:	025A165930BL	Main Mat/Desgn 43A/B:	1	19	Bridge Cost 94:	-1.00
District (Region/Sect):	Reg 1 MSec 5	Appr Mat/Desgn 44A/B:	!	-2	Roadway Cost 95:	-1.00
Tran Region 2T:	02	Main Spans Unit 45:	1		Total Cost 96:	-1.00
County Code 3:	035	Approach Spans 46:	0		Year of Cost Estimate 97:	0
035 DOUGLAS		Horiz Clr 47:	99.9 ft		Brdr Brgd Code/% 98A/B:	-2
Place Code 4:	12815	Max Span 48:	6.0 ft		Border Bridge Number 99:	
CENTENNIAL		Str Length 49:	6.0 ft		Defense Highway 100:	1
Rte.(On/Under) 5A:	1	Curb Wdth L/R 50A/B:	0.0 ft	0.0 ft	Parallel Structure 101:	N
Signing Prefix 5B:	1	Width Curb to Curb 51:	0.00 ft		Direction of Traffic 102:	2
Level of Service 5C:	1	Width Out to Out 52:	194.0 ft		Temporary Structure 103:	N
Direction Suffix 5E:	0	Deck Area:	1164		Highway Systems 104:	1
Feature Intersected 6:		Min Clr Ovr Brgd 53:	99.99		Fed Lands Hiway 105:	0
UNNAMED DRAINAGE		Min Undrclr Ref 54A:	N		Year Reconstructed 106:	
Facility Carried 7:		Min Underclr 54B:	0.0 ft		Deck Type 107:	N
I 25 ML		Min Lat Clmce Ref R 55A:	N		Wearing Surface 108A:	N
Alias Str No.8A:		Min Lat Undrclr R 55B:	0.0 ft		Membrane 108B:	N
		Min Lat Undrclr L 56:	0.0 ft		Deck Protection 108C:	N
Prll Str No. 8P:		Deck 58:	N		Truck ADT 109:	0 %
N/A		Super 59:	N		Trk Net 110:	1
Location 9:		Sub 60:	N		Pier Protection 111:	
5.2 Mi North of Monument		Channel/Protection 61:	8		NBIS Length 112:	N
Max Clr 10:	99.99	Culvert 62:	6		Scour Critical 113:	
BaseHiway Net12:	1	Oprtg Rtg Method 63:			Scour Watch 113M:	N
IrsinvRout 13A:	00000025A	Operating Rating 64:	-		Future ADT 114:	
IrssubRout No13B:	00	Operating Factor 64:	-		Year of Future ADT 115:	
Latitude 16:	39d 09' 54.71"	Inv Rtg Method 65:			CDOT Str Type 120A:	CBC
Longitude 17:	104d 51' 12.62"	Inventory Rating 66:	-		CDOT Constr Type 120B:	00
Detour Length 19:	1 mi	Inventory Factor 66:	-		Expansion Dev/Type 124:	O
Toll Facility 20:	3	Asph/Fill Thick 66T:	36.0 in		Brdg Rail Type/Mod 125A/B:	FB 0
Custodian 21:	01	Str. Evaluation 67:	6		Posting Trucks 129A/B/C:	50.8 80.4 82.5
Owner 22:	01	Deck Geometry 68:	N		Str Rating Date 130:	12/19/2019
Functional Class 26:	11	Undrclr Vert/Hor 69:	N		Within 1 Mile:	NO
Year Built 27:	2020	Posting 70:	Unknown		Special Equip 133:	Unknown
Lanes On 28A:	8	Waterway Adequacy 71:	8		Vert Clr N/E 134A/B/C:	
Lanes Under 28B:	0	Approach Alignment 72:	8		Vert Clr S/W 135A/B/C:	
ADT 29:		Type Of Work 75A:	0		Vertical Clr Date:	
Year of ADT 30:		Work Done By 75B:			Weight Limit Color 139:	0, White
Design Load 31:	A HL 93	Length of Improvment 76:	0		Userkey 1, Insp System:	MINORSTR
Apr Rdwy Width 32:	120.00 ft	Insp Team Indicator 90B:			Userkey 4, Insp Sched:	TBD
Median 33:	3	Inspector Name 90C:			Userkey 5, UW Sched:	
Skew 34:	0 °	Frequency 91:	24 months		Userkey 6, Pin Sched:	
Structure Flared 35:		FC Frequency 92A:			FHWA Bridge Risk:	na
Sfty Rail 36a/b/c/d:	1 1 1 1	UW Frequency 92B:			FHWA UW Risk:	na
Rail ht36h:	31.0 in	SI Frequency (Pin) 92C:			FHWA Load Rating Risk:	na
Hist Signif 37:	5	FC Inspection Date 93A:			CBTE:	NA
Posting status 41:	A	UW Inspection Date 93B:			Inspection Key:	QUYC
Service on/un 42A/B:	1 5	SI Date (Pin) 93C:			Date Entered:	3/30/2023 11:11
Inspection Type:	Regular NBI				Entered By:	

EOR:

Data Responsibility: Asset Management Inspection Rating

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**Load Rating:**

Str Rating Date 130:	12/19/2019		
Posting status 41:	A Open, no restriction		
Posting 70:	Unknown		
Design Load 31:	A HL 93		
Posting Truck (Type 3):	50.8	Oprtnng Rtg Method (63):	Inv Rtnng Method (65):
Posting Truck (Type 3S2):	80.4	Operating Rating (64):	Inventory Rating (66):
Posting Truck (Type 3-2):	82.5	Operating Factor (64):	Inventory Factor (66):
Rating Package Review Date (066R):	01/21/2020	Asphalt Thickness (066T):	36.00
Rating Pack Reviewer (066RN):		Rating Asphalt Thickness (066TR):	12.00
Rating Date:	12/19/2019	Design Method (031D):	R, LRFD
Rating Company (066C):		Plans Available (500):	1, Avaliable
Rater Ini:		Girder Operating Rating (066A):	2.00
Raters Name (066N):		Controlling Inv. Rating Indicator (066SI):	S, Slab
Checked Date (130C):	12/19/2019	Controlling Opr. Rating Indicator (066S):	S, Slab
Checkers Initials (066J):		Overload Color Code (139):	0, White
Checkers Name (066I):		Overload Color Code (139OVLDDL):	3, Permit and Mod Tan
Entire Structure Rated (066ESR):	1, Entire structure	Permit Truck Opr. Rating (064PMT):	209.00
Rating Calculations Complete (066CC):	1, Complete	Modified Tandem Opr. Rating (064MTAN):	108.80
Rating Input Files Archived (066IFA):	1, Archived	Overload Critical Structure (139OVL):	0, Not overload critical
Rating Output Files Archived (066OFA):	1, Archived	SHV-SU4 (064LT01):	-
Rating Package Complete (066RPC):	1, Complete	SHV-SU5 (064LT02):	-
Rating Assigned To (066RA):		SHV-SU6 (064LT03):	-
Rating Software Used (066RS):		SHV-SU7 (064LT04):	-
Virtis Bid Number (066VB):		SHV-NRL (064LT05):	89.60
Virtis Structure Number (066VSTR):	025A165930BL	SHV-EV2 (064LT06):	38.60
Virtis Rating Runs (066VR):	1, Yes	SHV-EV3 (064LT07):	52.80
Virtis Rating Analysis (066VA):	1, Does match	Not Used (064LT08):	-
Virtis Rating System Based (066VSB):	1, System based	Not Used (064LT09):	-
Virtis Rating Linked To Pontis (066VL):	0, Not linked	Within 1 Mile (064LT10):	NO
Virtis Rating Checkout Privl. (066VCO):	N, Not checked		
Structure Comments (008COM):			

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## Element Inspection Report

Elm/Env	Description	Unit	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
241/1	Re Conc Culvert	ft	61	0%	0	82%	50	18%	11	0%	0
6 ft W x 7 ft H concrete box culvert, precast extensions 30 ft L at outlet and 20 ft L at inlet end with 3 ft cover on a 1.75% slope. 42 inch W x 44 inch L x 2 inch D spall with exposed and corroded rebar in bottom of top slab near midpoint. 1 ft diameter x 3 inch D spall with exposed and corroded rebar around previous drop structure in top slab near midpoint. 1st joint at inlet exhibits leakage with ice stalactite formations. Base of walls at inlet exhibit abrasion with exposed aggregate to 50 ft L x 2 ft H.											
326/1	Wingwalls	(EA)	4	100%	4	0%	0	0%	0	0%	0
Concrete. No significant deficiencies.											
335/1	Headwall	(EA)	2	100%	2	0%	0	0%	0	0%	0
Concrete at inlet and outlet. No significant deficiencies.											
600/1	General Notes	(EA)	1	100%	1	0%	0	0%	0	0%	0
Culvert can be accessed through a gate in the wildlife fence at the Northeast.											

## Inspection References and Definitions:

### Crack Width Descriptions for Reinforced Concrete:

Insignificant cracking (in.) = Less than 0.012" wide  
Medium cracking (in.) = 0.012" to 0.05" wide  
Wide cracking (in.) = Greater than 0.05" wide

### Crack Width Descriptions for Prestressed Concrete:

Insignificant cracking (in.) = Less than 0.004" wide  
Medium cracking (in.) = 0.004" to 0.009" wide  
Wide cracking (in.) = Greater than 0.009" wide

### Pattern Crack Spacing:

Medium pattern cracks = 1-3 feet  
Heavy pattern cracks = < 1 foot

### Rust Codes (R Codes):

R1 = Peeling of the paint, pitting, surface rust, etc., no measurable section loss.  
R2 = Flaking, minor section loss (< 10% thickness loss).  
R3 = Flaking, swelling, mod section loss (10% < thickness loss < 30%).  
R4 = Heavy section loss (> 30% thickness loss), may have holes through base metal.

### Concrete Scaling Codes (S Codes):

S1 = Scale up to 0.25" deep.  
S2 = Scale up to 0.5" deep or has exposed aggregate.  
S3 = Scale up to 1" deep or has loose or missing aggregate.  
S4 = Scale > 1" deep or has exposed reinforcing bars with section loss or general disintegration of the concrete.

## Bridge Notes (Inspection > Inventory > Admin)

CBC EXT. ON PROJ #NHPP 0252-476\_22590

## Inspection Notes (Inspection > Condition)

Time: 12:10 PM Temp: 24 Degrees Weather: Cloudy, Breezy, Snow

## Scour Item 113 Documentation (Inspection > CDOT Bridge)

## Bat Present At Bridge (Inspection > Inventory > Agency Items > userkey9)

No

## Inspection Access Requirements (Inspection > CDOT Bridge)

## Scheduling Notes (Inspection > Schedule)

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Scope:

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

Team Leader Inspection Check-off:

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

Inspection Team: [REDACTED]

Inspection Date: 03/16/2023

Inspector:

Inspector











