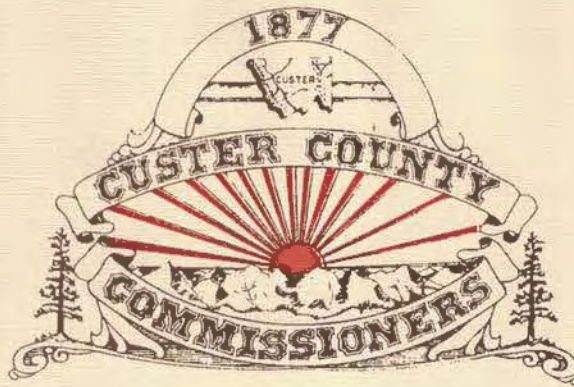


DONNA L. HOOD
ROBERT (BOB) KATTNIG
JAY D. PRINTZ

CUSTER COUNTY COURTHOUSE
205 SOUTH 6th STREET
P. O. BOX 150
WESTCLIFFE, COLORADO 81252
(719) 783-2552
FAX (719) 783-2885



Date: May 12, 2017

RE: Request for Proposals – Hermit/Grape Creek Crossing Project, County of Custer
Road & Bridge Department.

Dear: Prospective Consulting Firm

A Request for Proposals (RFP) to provide engineering services for the Hermit/Grape
Creek Crossing project is enclosed. This RFP includes the following:

Proposal Submittals - Attachment I
Anticipated Project Schedule - Attachment II
Scope of Work - Attachment III
Selection Criteria - Attachment IV
Vicinity Map, pictures and Bridge Report

Any firm submitting a response to the RFP must be a Professional Engineering firm with
at least one principal being a resident and a registered Professional Engineer in the State
of Colorado. Proposals should be presented in accordance with the specified
requirements in Attachment I. Supplementary material may also be submitted separately
bound from the proposal.

The proposal must be submitted to the Custer County Commissioner's Office no later
than 4:00 PM on June 2, 2017. Proposals will be evaluated by County staff in accordance
with the selection criteria in Attachment IV.

Questions concerning this RFP should be directed to the Custer County BOCC c/o
Brenda Gaide at (719) 783-2552 or brenda@custercountygov.com.

Respectfully yours,

Brenda Gaide
Administrative Assistant on behalf
Of the BOCC

HERMIT/GRAPE CREEK CROSSING PROJECT
COUNTY OF CUSTER
REQUEST FOR PROPOSALS

Proposals will be received by the County of Custer, 205 S. 6th, PO Box 150, Westcliffe, CO 81252, until 4:00 PM June 2, 2017 for providing engineering services for the Hermit/Grape Creek Crossing Project. Design services shall include engineering plans, specifications and construction cost estimates. Proposals may be submitted as hard copies or via email to brenda@custercountygov.com.

This Request for Proposals (RFP) includes the following: Proposal Submittals - Attachment I, Anticipated Project Schedule - Attachment II, Scope of Work - Attachment III, Selection Criteria - Attachment IV, and Vicinity Map, pictures and bridge report.

Any firm submitting a response to the RFP must be a Professional Engineering firm with at least one principal being a registered Professional Engineer in the State of Colorado. Proposals should be presented in accordance with the specified requirements in Attachment I. Supplementary material may also be submitted separately bound from the proposal.

The proposal must be submitted to the County Commissioner's office no later than 4:00 PM on June 2, 2017. Proposals will be evaluated by County staff in accordance with the selection criteria in Attachment IV.

Questions concerning this RFP should be directed to: Brenda Gaide at (719) 783-2552 or via email to brenda@custercountygov.com.

**COUNTY OF CUSTER
HERMIT/GRAPE CREEK CROSSING PROJECT**

**ATTACHMENT I
PROPOSAL SUBMITTALS**

The proposal is required to contain the following information and should be limited to the least number of pages needed to present the information clearly and concisely.

SECTION 1 – LETTER OF INTEREST

Please provide a letter expressing interest in providing design for the Hermit/Grape Creek Crossing.

SECTION 2 – FIRM ORGANIZATION

Please provide the name, address, telephone number, name of responsible corporate officer, location of principal office and the location of office where the work will be performed.

SECTION 3 – WORK EXPERIENCE

Experience with CDOT off-system crossing projects. Please provide a list of former and current clients, description of past and current work along with locations. Also provide the name, address and telephone number of references for each of the projects described above.

SECTION 4 – APPROACH

Provide your approach for completing the Scope of Work for this project. Do you have any concerns with meeting the anticipated project schedule or can the work be expedited to be completed before the proposed schedule.

**COUNTY OF CUSTER
HERMIT/GRAPE CREEK CROSSING PROJECT
ENGINEERING DESIGN**

**ATTACHMENT II
ANTICIPATED PROJECT SCHEDULE**

ANTICIPATED SCHEDULE

Proposed Submittal Deadline	June 2, 2017
Interviews	June 7, 2017
Designer Selection	June 21, 2017
Fee Negotiation	June 22, 2017
Presentation of Selected Designer To Custer County Commissioners for Approval	July 5, 2017
Date for design information to Custer County	February 1, 2018

**COUNTY OF CUSTER
HERMIT/GRAPE CREEK CROSSING PROJECT
ENGINEERING DESIGN**

**ATTACHMENT III
SCOPE OF WORK**

The proposed scope of work shall be as described below.

1. The designer shall provide construction drawings stamped by a registered professional engineer in the State of Colorado.
2. The designer shall prepare final plans and specifications for the Hermit/Grape Creek Crossing Project stamped by a registered professional engineer in the State of Colorado.
3. Scope of Work:

Custer County is soliciting proposals from qualified firms to provide engineering and design services for the replacement of 3-6' diameter CMP that are on County Road 160 over Grape Creek. The anticipated design shall meet CDOT standards. The project design shall accommodate for the current roadway configuration and for the ultimate ROW while providing for safety and configuration for the local traffic.

**COUNTY OF CUSTER
HERMIT/GRAPE CREEK CROSSING PROJECT
ENGINEERING DESIGN**

**ATTACHMENT IV
SELECTION CRITERIA**

Selection of the designer will be based upon the written proposals.

PROPOSAL EVALUATION CRITERIA FOR SHORT-LIST

1. Qualifications
2. Approach to the Work
3. Ability to furnish professional services.
4. Anticipated design concepts
5. Alternative methods of approach for furnishing the professional services.

PROPOSAL EVALUATION CRITERIA FOR FINAL SELECTION

1. Abilities of personnel 15 Points
2. Past performance 15 Points
3. Willingness to meet the time and budget requirement 20 Points
4. Location 10 Points
5. Current and projected work load 10 Points
6. Volume of previously awarded contracts 15 Points
7. Involvement of local and minority consultants 15 Points

Bridge Project

Hermit Rd - CR 160

N Adams Blvd

Alpha Ct

Main St

First St

Rosita Ave

Edwards Ave

Powell Ave

S Adams Blvd

S Second St

Macey Ln - CR 129



DECK LOOKING EAST



ELEVATION LOOKING NORTHEAST



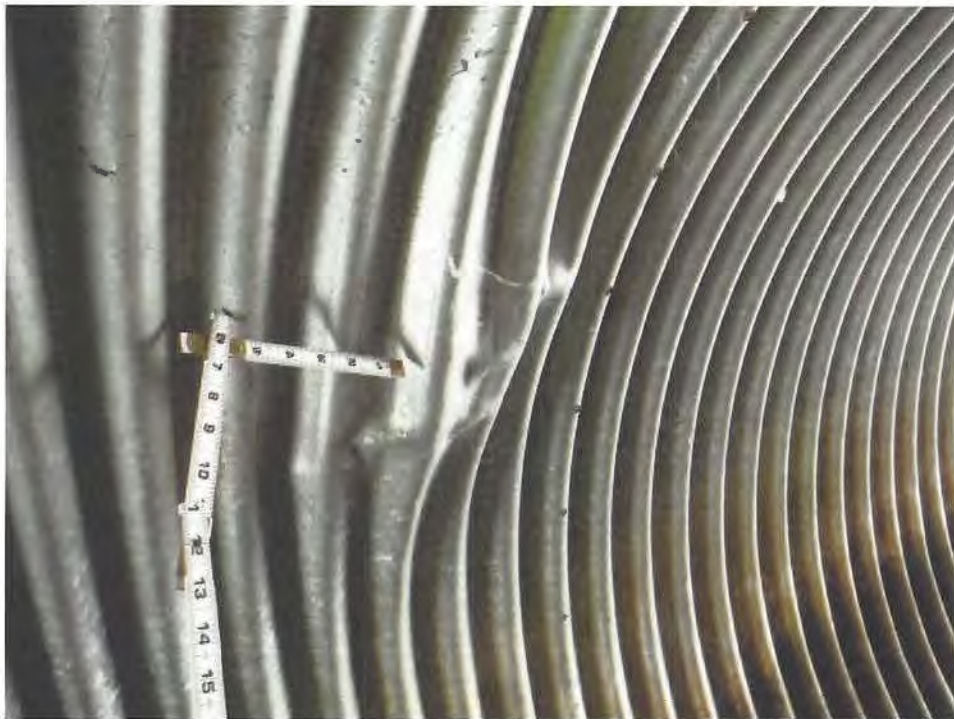
DEBRIS AND ICE AT INLET OF PIPE 1



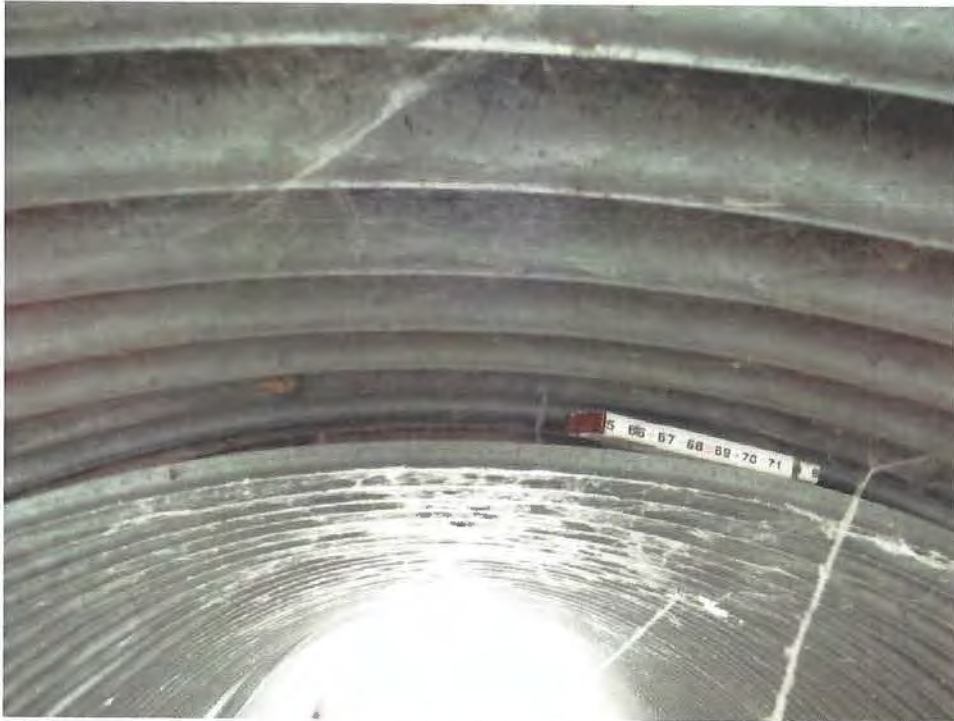
DEBRIS AND ICE AT INLET OF PIPE 2



DEBRIS AND ICE AT INLET OF PIPE 3



BULGE IN EAST SIDE OF PIPE 3 NEAR INLET



SEAM IN PIPE 3



UNDERCUTTING OF PIER 3, DOWNSTREAM SIDE



UNDERSIDE VIEW LOOKING SOUTH, PIPE 1



UNDERSIDE VIEW LOOKING SOUTH, PIPE 2



UNDERSIDE VIEW LOOKING SOUTH, PIPE 3



CHANNEL LOOKING UPSTREAM



CHANNEL LOOKING DOWNSTREAM



Alfred Benesch & Company
 7979 E. Tufts Ave., Suite 800
 Denver, CO 80237
 www.benesch.com
 303-771-6868
 303-741-6745

Transmittal Form

To: Mr. Dave Trujillo, Road Supervisor Custer County Public Works 213 N. 4 th Street P.O. Box 1669 Westcliffe, CO 81252	Date: 10/8/2015	Job No. 151017.00
	Subject: CDOT BRIDGE INSPECTION REPORTS	

- Mail
 Messenger
 Next Day Delivery
 UPS Ground
 Other:

WE ARE SENDING YOU: Attached Under separate cover:

COPIES	DATE	DESCRIPTION
1	10/8/2015	(1) CD Disc with Bridge Inspection Reports

THESE ARE TRANSMITTED as checked below:

- | | | | |
|--|---|-----------------------------------|-------------------------|
| <input type="checkbox"/> For approval | <input type="checkbox"/> Approved as submitted | <input type="checkbox"/> Resubmit | copies for approval |
| <input type="checkbox"/> For your use | <input type="checkbox"/> Approved as noted | <input type="checkbox"/> Submit | copies for distribution |
| <input checked="" type="checkbox"/> As requested | <input type="checkbox"/> Returned for corrections | <input type="checkbox"/> Return | corrected prints |
| <input checked="" type="checkbox"/> For review and comment | | | |

Remarks:

cc: _____

Signature: Bill Dietrick, P.E.
 Deborah A. Risch, Technologist II



Alfred Benesch & Company
7979 East Tufts Avenue, Suite 800
Denver, CO 80237
303-620-0098

October 8, 2015

Dave Trujillo, Road Supervisor
Custer County Public Works
213 N. 4th Street/PO Box 1669
Westcliffe, Colorado, 81252
O 1-719-783-2281

RE: Bridge Inspection Report
Benesch Ref# 151017.00

Dear Dave;

Benesch was retained by Colorado Department of Transportation (CDOT), to update and prepare 2015 bridge inspections for Custer County. To date, there are 7 bridges within the County's jurisdiction. Benesch has submitted these completed reports to CDOT for final review. A copy of the completed CDOT approved reports and summaries are being furnished for your use.

Each bridge report consists of:

- ◆ Rating Summary Sheet
- ◆ PONTIS Report
- ◆ Electronically prepared sketch
- ◆ Channel Cross Section Plot (where applicable)
- ◆ Photographs
- ◆ Rating Calculations (where applicable)

Benesch appreciates the assistance and cooperation you and your staff have offered during this year's inspection. Should you have any questions or comments please do not hesitate to contact us concerning the bridge evaluation reports.

Sincerely,

Bill A. Dietrick, P.E.
Benesch
Bridge Inspection Manager

Summary of 2015 Bridge Inventory Changes

Custer County

I. Structure Numbers Removed from Inventory

<u>Structure Number</u>	<u>Feature Carried / Crossed</u>	<u>Reason</u>
None		

II. Structure Numbers Added to Inventory

<u>Structure Number</u>	<u>Feature Carried / Crossed</u>	<u>Reason</u>
None		

III. Structure Numbers Included in Rating

<u>Structure Number</u>	<u>Feature Carried / Crossed</u>	<u>Reason</u>
None		

IV. Structure Numbers Not Inspected But Remain in Inventory

<u>Structure Number</u>	<u>Feature Carried / Crossed</u>	<u>Reason</u>
CUCO 3.30-4A	CR 387/S HARDSCRABBLE CREEK	48 MONTH/LAST INSPECTION 1/21/13

Executive Summary Index

Custer County

I. Final Report

Section

- 1.1 Summary of Bridge Inventory
- 1.2 Load Posting Summary and Recommendations
- 1.3 Load Posting Certificate
- 1.4 2015/Prior Sufficiency Rating
- 1.5 Maintenance Summary

II. Reports

- Bridge Reports
- Reference

Structure Number	Estimated Cost	Maintenance Recommendation
CUCO 0.01-3A	\$1,000	Replace damaged southeast rail end.
CUCO 0.01-3A	\$15,500	Modify transitions, approach rails and rail ends to meet current AASHTO/CDOT standards.
CUCO 0.01-3A	\$100	Remove gravel accumulation on deck beside curb on normal grading operation.
CUCO 0.10-7	\$500	Fill erosion hole at the southwest corner.
CUCO 0.10-7	\$17,500	Install Type 3 guardrails to meet current AASHTO/CDOT standards.
CUCO 0.10-7	\$200	Remove tumbleweed pile from under the structure.
CUCO 0.10-7	\$600	Install slash panels on all corners.
CUCO 0.10-8	\$3,500	Realign low flow approach swale to be in center of arch, push graded fill to be along south footing.
CUCO 0.10-8	\$3,000	Install 20 Cubic Yards of aggregate bedding along south footing to fill sour hole then install 40 Cubic Yards of riprap along both footings after realigning low flow approach swale.
CUCO 0.10-8	\$17,600	Install Type 3 guardrails to meet current AASHTO/CDOT standards.
CUCO 0.10-8	\$600	Install slash panels on all corners.
CUCO 0.50-2A	\$17,500	Replace bridge rails to meet current AASHTO/CDOT standards.
CUCO 0.50-2A	\$100	Remove tree branches encroaching roadway, see photo.
CUCO 0.50-2A	\$31,000	Replace transitions, approach rails, and rail ends to meet current AASHTO/CDOT standards.
CUCO 0.50-2A	\$200	Seal cracks at end of structure.
CUCO 0.50-6	\$600	Install slash panels on all corners.
CUCO 0.50-6	\$17,200	Install Type 3 guardrails to meet current AASHTO/CDOT standards.
CUCO 0.50-6	\$300	Remove the debris from all of the pipes that are blocking the inlet.
CUCO 0.60-1	\$500	Remove debris and dirt at bearing areas.
CUCO 0.60-1	\$31,000	Install transitions, approach rails and rail ends to meet current AASHTO/CDOT standards.
CUCO 0.60-1	\$2,500	Install riprap at end of concrete apron.
CUCO 0.60-1	\$5,000	If bridge is not scheduled for replacement, replace bridge rail to meet current AASHTO/CDOT standards.
CUCO 0.60-1	\$100	Remove vegetation at southwest wingwall.
CUCO 0.60-1	\$1,000	Seal cracks and fill pothole at abutment backwalls, see photo.
CUCO 3.30-4A	\$100	Remove gravel from bridge deck.
CUCO 3.30-4A	\$7,000	Pave roadway 100 feet at each approach.
CUCO 3.30-4A	\$750	Place well graded riprap in channel at downstream side of check dam at edge of bridge.
CUCO 3.30-4A	\$600	Install slash panels at all corners.
CUCO 3.30-4A	\$4,000	Modify bridge rails to meet current AASHTO/CDOT standards.
CUCO 3.30-4A	\$13,250	Modify transitions, approach rails and rail ends to meet current AASHTO/CDOT standards.

2015 Load Posting Certificate

Custer County

The bridge/bridges listed below cannot accept the weight of Colorado Legal Trucks at the operating stress levels per AASHTO specifications and are recommended for weight restrictions as indicated.

Load Posting Recommendations

Field Conditions				Recommended Posting			
Structure Number	Inspection Date	Feature Carried	Crossing	Existing Posting	Type 3 (27 Ton)	Type 3S2 (42.5 Ton)	Type 3-2 (42.5 Ton)
None							

10/8/2015

Date of Entity Notification



Benesch

7979 East Tufts Ave, Suite 800
Denver, CO. 80209

I certify the structures listed above have been Load Posted with the weight limits recommended by the above Engineer or have been repaired so that a weight restriction is no longer necessary, or closed.

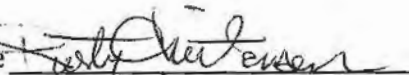
SENT

10-29-15

Date of Compliance

Signature

Title



Supervisor

This document is required to maintain eligibility for Federal Highway Bridge Replacement and Rehabilitation Program

PLEASE RETURN COMPLETED DOCUMENT WITHIN 90 DAYS OF NOTIFICATION ALONG WITH PHOTOS OF THE LOAD POSTING AND LABEL WITH STRUCTURE NUMBER, AS REQUIRED BY CDOT

Mail To:

Anthony (Tony) Macias CEPM I
Off System Bridge Inspection Manager
Colorado Department of Transportation
4201 East Arkansas Avenue, Room 107

2015 Load Posting Summary & Recommendations

Custer County

Field Conditions				Recommended Posting			
Structure Number	Inspection Date	Feature Carried	Crossing	Existing Posting	Type 3 (27 Ton)	Type 3S2 (42.5 Ton)	Type 3-2 (42.5 Ton)
CUCO 0.01-3A	1/12/2015	COUNTY ROAD 387	HARDSCRABBLE CK	A	0	0	0
CUCO 0.10-7	1/12/2015	CO RD CLUBHOUSE	LAPIN CREEK	A	0	0	0
CUCO 0.10-8	1/12/2015	WYKAGYL RD	LAPIN CREEK	A	0	0	0
CUCO 0.50-2A	1/12/2015	COUNTY ROAD 389	HARDSCRABBLE CK	A	0	0	0
CUCO 0.50-6	1/12/2015	COUNTY ROAD 160	GRAPE CREEK	A	0	0	0
CUCO 0.60-1	1/12/2015	COUNTY ROAD 395	HARDSCRABBLE CK	A	0	0	0
CUCO 3.30-4A	1/21/2013	COUNTY ROAD 387	S HARDSCRABBLE CK	A	0	0	0

A = Open, No Restriction
 B = Not Posted
 K = Closed to all Traffic
 P = Posted
 R = Restricted

**2015 Sufficiency Rating Report
Custer County**

Structure Number	Inspection Date	Feature Carried	Crossing	Suff Rating 2013	Prior Suff Rating	SD / FO Indicator	Diff	Remarks
CUCO 0.50-6	1/12/2015	COUNTY ROAD 160	GRAPE CREEK	65.1	85.5	NO	-20.4	ITEM 62 = 4
CUCO 0.60-1	1/12/2015	COUNTY ROAD 395	HARDSCRABBLE CK	59.7	67.2	FO	-7.5	
CUCO 0.50-2A	1/12/2015	COUNTY ROAD 389	HARDSCRABBLE CK	88.4	97	NO	-8.6	
CUCO 0.10-7	1/12/2015	CO RD CLUBHOUSE WY	LAPIN CREEK	89	90.6	NO	-1.6	
CUCO 0.10-8	1/12/2015	WYKAGYL RD	LAPIN CREEK	84.8	85.8	NO	-1.0	
CUCO 0.01-3A	1/12/2015	COUNTY ROAD 387	HARDSCRABBLE CK	96.4	96.9	NO	-0.5	
CUCO 3.30-4A	1/21/2013	COUNTY ROAD 387	S HARDSCRABBLE CK	91.8	91.8	NO	0.0	48 month

*SD Indicator
SD = Structurally Deficient
FO = Functionally Obsolete
NO = Neither SD or FO

COLORADO DEPARTMENT OF TRANSPORTATION LOAD FACTOR RATING SUMMARY	Structure # CUCO 0.50-6
	Abbr. Str. # CUCO-6
Rated Using: Asphalt Thickness: -0- mm (-0- in.) <input checked="" type="checkbox"/> Colorado Legal Loads <input type="checkbox"/> Interstate Legal Loads	Road or Street # County Road 160
	Batch I.D.
	Structure Type CMP
	Parallel Structure # N/A

Structural Member	CORRUGATED METAL PIPE							
	Metric Tons	(Tons)	Metric Tons	(Tons)	Metric Tons	(Tons)	Metric Tons	(Tons)
Inventory MS 18 (HS20)	32.6	(36.0)						
Operating MS 18 (HS20)	36.2	(40.0)						

Type 3 Truck				
Type 3S2 Truck				
Type 3-2 Truck				
Permit Truck				



Comments:

(3) 6'-0" diameter corrugated metal pipes.
The rating is empirical based on their condition.

NO POSTING REQUIRED

BRIDGE RE-INSPECTED BUT NOT RE-RATED
BY ALFRED BENESCH & CO. 2015
BRIDGE RE-INSPECTED BUT NOT RE-RATED BY ALFRED
BENESCH & CO. 2013

Rated By: Todd Stueve	Date: 6/27/96	Checked By: Jim Inglis	Date: 11/07/96
		By:	Date:

Colorado Department of Transportation

Highway Number (ON) 5D: 00160 V
Mile Post (ON) 11: 0.000 mi

Structure Inspection and Inventory Report (English Units)

Bridge Key: CUCO 0.50-6	Inspection Date: 01/12/2015	Sufficiency Rating: 65.1 SD
-------------------------	-----------------------------	-----------------------------

NBI Reporting ID:	CUCO 0.50-6	Hist Signif 37:	5	UW Inspection Date 93B:	
Rgn/Sect 2E/2M:	24	Posting status 41:	A	SJ Date 93C:	
Tran Region 2T:	14	Service on/un 42A/B:	1 5	Bridge Cost 94:	\$0
County Code 3:	027	Main Mat/Desgn 43A/B:	3 19	Roadway Cost 95:	\$0
CUSTER		Appr Mat/Desgn 44A/B:	0 0	Total Cost 96:	\$0
Place Code 4:	00000	Main Spans Unit 45:	3	Year of Cost Estimate 97:	0
non-city		Approach Spans 46:	0	Brdr Brdg Code/% 98A/B:	
Rte.(On/Under) 5A:	1	Horiz Clr 47:	22.2 ft	Border Bridge Number 99:	
Signing Prefix 5B:	4	Max Span 48:	6.0 ft	Defense Highway 100:	0
Level of Service 5C:	1	Str Length 49:	22.4 ft	Parallel Structure 101:	N
Direction Suffix 5E:	0	Curb Width L/R 50A/B:	0.0 ft 0.0 ft	Direction of Traffic 102:	2
Feature Intersected 6:		Width Curb to Curb 51:	0.0 ft	Temporary Structure 103:	-
GRAPE CREEK		Width Out to Out 52:	33.5 ft	Highway Systems 104:	0
Facility Carried 7:		Deck Area:	753.47	Fed Lands Hiway 105:	0
COUNTY ROAD 160		Min Clr Ovr Brdg 53:	99.99	Year Reconstructed 106:	
Alias Str No.8A:		Min Undrclr Ref 54A:	N	Deck Type 107:	N
CUCO-6		Min Underclr 54B:	0.0 ft	Wearing Surface 108A:	N
Pril Str No. 8P:		Min Lat Clrcnc Ref R 55A:	N	Membrane 108A:	N
N/A		Min Lat Undrclr R 55B:	0.0 ft	Deck Protection 108C:	N
Location 9:		Min Lat Undrclr L 56:	0.0 ft	Truck ADT 109:	2 %
WEST EDGE OF WESTCLIFFE		Deck 58:	N	Trk Net 110:	0
Max Clr 10:	99.99	Super 59:	N	Pier Protection 111:	1
BaseHiway Net12:	0	Sub 60:	N	NBIS Length 112:	Y
InsrvtRout 13A:	0000000000	Channel/Protection 61:	5	Scour Critical 113:	5
IrsubRout No13B:	00	Culvert 62:	4	Scour Watch 113M:	N
Latitude 16:	38d 07' 52"	Oprtg Rig Method 63:	0 Field Evaluatio	Future ADT 114:	10,853
Longitude 17:	105d 28' 22"	Operating Rating 64:	40.01	Year of Future ADT 115:	2034
Range 18A:	N	Inv Rtnng Method 65:	0	CDOT Str Type 120A:	CMP
Township 18B:	N	Inventory Rating 66:	36.05	CDOT Constr Type 120B:	00
Section 18C:	N	Asph/Fill Thick 66T:	31.00 in	Inspection Indic 122A:	-
Detour Length 19:	7.0 mi	Str. Evaluation 67:	4	Inspection Trip 122AA:	-1
Toll Facility 20:	3	Deck Geometry 68:	N	Scheduling Status 122B:	-
Custodian 21:	02	Undrclr Vert/Hor 69:	N	Maintenance Patrol 123:	0
Owner 22:	02	Posting 70:	5	Expansion Dev/Type 124:	O
Functional Class 26:	08	Waterway Adequacy 71:	7	Brdg Rail Type/Mod 125A/B:	X 0
Year Built 27:	1970	Approach Alignment 72:	8	Posting Trucks 129A/B/C:	0 0 0
Lanes on 28A:	2	Type Of Work 75A:		Str Rating Date 130:	06/27/1996
Lanes Under 28B:		Work Done By 75B:		Special Equip 133:	
ADT 29:	6,347	Length of Improvement 76:	0.00	Vert Clr N/E 134A/B/C:	X 99.99 0.00
Year of ADT 30:	2014	Insp Team Indicator 90B:	BENESCH	Vert Clr S/W 135A/B/C:	X 99.99 0.00
Design Load 31:	0	Inspector Name 90C:	Brown, Andy	Vertical Clr Date:	
Apr Rdwy Width 32:	24.0 ft	Frequency 91:	24.00 months	Weight Limit Color 139:	0
Median 33:	0	FC Frequency 92A:		Str Billing Type:	I
Skew 34:	0.00 °	UW Frequency 92B:		Userkey 1 - System:	OFFSYS
Structure Flared 35:	0	SI Frequency 92C:		Userkey 4 - OffSys Sched:	South FY ODD
Sfty Rail 36a/b/c/d:	0 0 0 0	FC Inspection Date 93A:		Userkey 5:	
Rail ht36h:	0.00 in			Userkey 7 - Update Ind.:	
				BridgeGroup	7

Inspector Name: Brown, Andy

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

Highway Number (ON) 5D: 00160 V
Mile Post (ON) 11: 0.000 mi

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
240/1	Steel Culvert	ft	101	1%	1	92%	93	7%	7	0%	0
515/1	Steel Protective Coating	sq.ft	101	0%	0	0%	0	100%	101	0%	0
6000/1	Scour	ft	1	100%	1	0%	0	0%	0	0%	0
9327/1	Culvert Wingwalls	(EA)	4	50%	2	50%	2	0%	0	0%	0
9335/1	Culvert Headwalls	(EA)	2	50%	1	50%	1	0%	0	0%	0
9501/1	Channel Cond	(EA)	1	100%	1	0%	0	0%	0	0%	0
9504/1	BankCond	(EA)	1	100%	1	0%	0	0%	0	0%	0
9505/1	Debris Smart Flag	(EA)	1	100%	1	0%	0	0%	0	0%	0
9510/1	Waterway Adequ.	(EA)	1	100%	1	0%	0	0%	0	0%	0
9520/1	AppRdAlign	(EA)	1	100%	1	0%	0	0%	0	0%	0
9530/1	Approach Guardrail A	(EA)	1	100%	1	0%	0	0%	0	0%	0

Elm/Env	Description	Element Notes
240/1	Steel Culvert	(3) 6 foot diameter galvanized corrugated metal pipes. Slightly bent and out of round, light to moderate R1 to R2 rusting at bottoms and at mid-height, insignificant section loss, galvanizing is gone. Zinc paint applied to invert and sides of barrels between 2009-2011 inspections to try and retard corrosion. Minor damage to inlets of west and east cells. R2 rusting formed and minor pitting below normal water level. West pipe has 2 feet of perforations in invert approximately 6 feet from inlet. East pipe has signs of crushing at invert and perforation approximately 5 feet from inlet. East and middle pipes are crushing at outlet causing pipe to be elliptical in shape 12 feet ± from outlet. Slope changes at last 10 feet at outlet ends. Previous undermining at end of pipes filled with rock between 2009 - 2011. East pipe is slightly undermined at south corner where stream hits southeast corner, possible piping at east pipe, west pipe settled 1 to 2 inches at outlet end. Cracking and spalling on concrete between pipes. Not verified in 2015 due to ice and debris. R4 rusting perforation not verified in 2015 due to ice and debris.
515/1	Steel Protective Coating	
6000/1	Scour	Previous undermining filled with rock between 2009 - 2011 inspections. Pier 3 is undermined 16 inches on downstream end, see photo.
9327/1	Culvert Wingwalls	Concrete at south, stone masonry at northeast, new gabion baskets installed at northwest between 2009 - 2011. Bottom portion missing at northwest wingwall with 2 feet of undermining covered with ice in 2015. Horizontal crack at base of northeast wingwall. Honeycomb at south.
9335/1	Culvert Headwalls	Concrete at south, stone masonry at north. Honeycomb int south. Previous cracking and separation around barrels patched and filled with mortar between 2009 - 2011.
9501/1	Channel Cond	Gravel and sand turns slightly at bridge. Ponding due to debris blocking 50% of inlet in 2015.
9504/1	BankCond	Low, grassy. Erosion on west bank upstream and downstream.
9505/1	Debris Smart Flag	In 2015 all pipes were +/- 50% blocked with debris at inlets, see photos. Blockage is causing the channel to pond on upstream side.
9510/1	Waterway Adequ.	No evidence of recent overtopping.
9520/1	AppRdAlign	Asphalt. Patched again over west pipe between 2004 and 2006 inspections. Dip in roadway just east of culverts. Roadway embankment eroding slightly at both sides over culvert.
9530/1	Approach Guardrail A	No guardrails.

Maintenance Activity Summary

MMS Activity	Description	Recommended	Status	Target Year	Est Cost
302.01	Misc-Install Sign	1/21/2013	-1	2015	600

Install slash panels at all corners.

Colorado Department of Transportation

Highway Number (ON) 5D: 00160 V

Mile Post (ON) 11: 0.000 mi

Structure Inspection and Inventory Report (English Units)

306.06	Approach Railing	12/8/2006	-1	2015	17200
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Install Type 3 guardrails to meet current AASHTO/CDOT standards.

358.04	Channel-Remove Debris	1/12/2015	-	2017	300
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Remove the debris from all pipes that is blocking the inlet.

Bridge Notes

Inspection Notes

Overcast-Calm 11:51 27 Degrees AWB/NTI

Scope:


NBI Element Underwater Fracture Critical Other Type: Regular NBI

Team Leader Inspection Check-off:

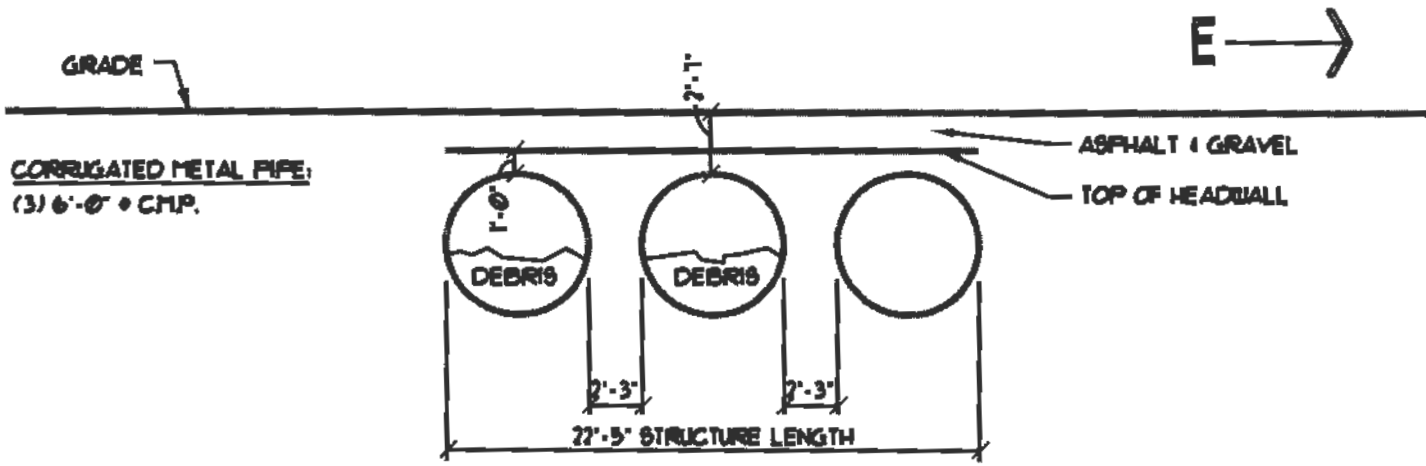
FCM's Vertical Clearance
 Posting Signs Stream Bed Profile
 Essential Repair Verification

Inspection Team:

Inspection Date: 01/12/2015


Inspector: Brown, Andy

Inspector (Team Leader)

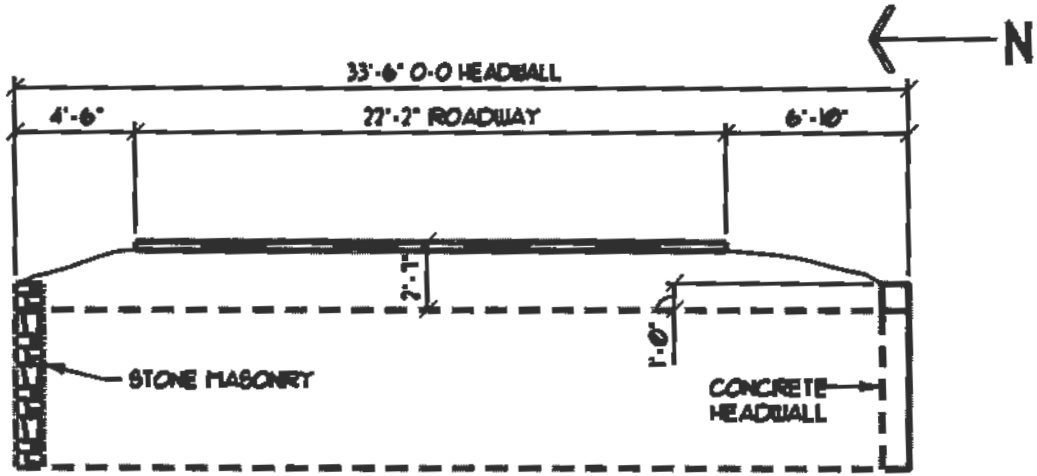


ELEVATION

BRIDGE RAILINGS:
NONE

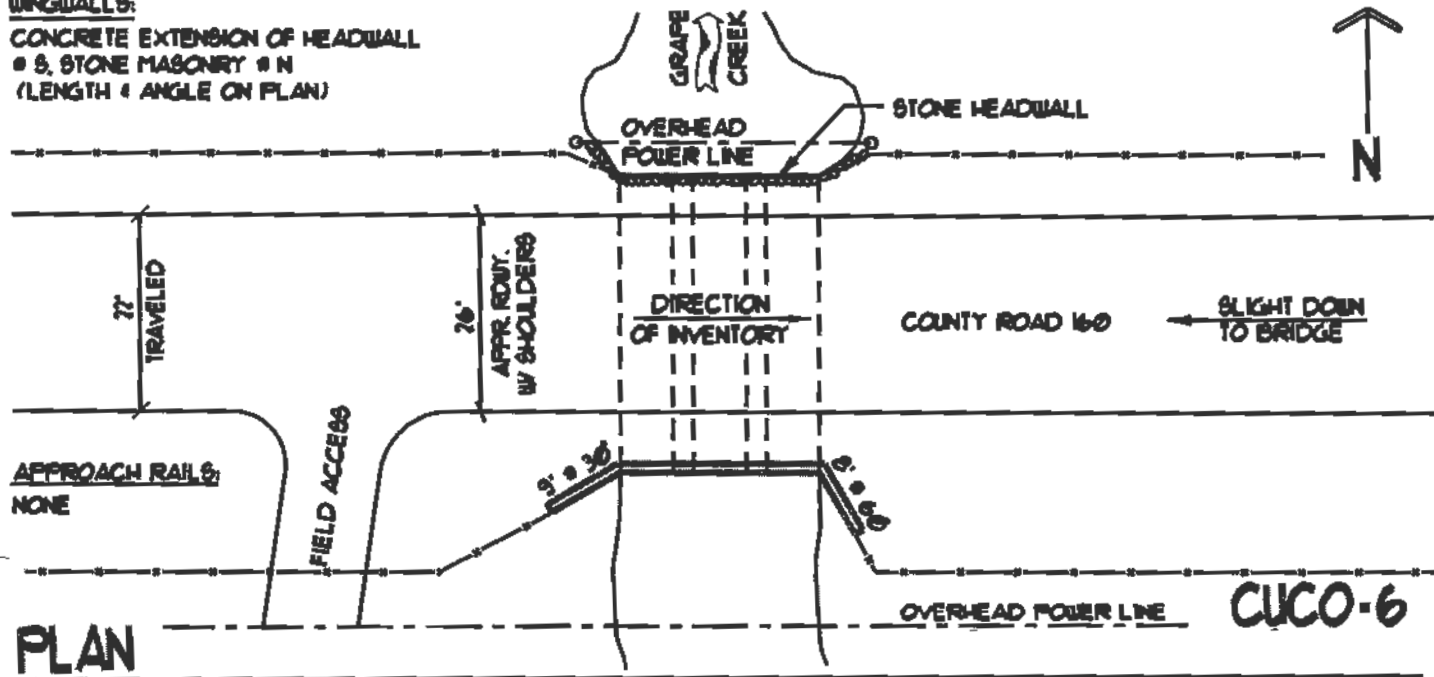
HEADWALL:
CONCRETE • SOUTH,
STONE MASONRY • NORTH

DECK:
2'-1" ASPHALT
& GRAVEL



SECTION

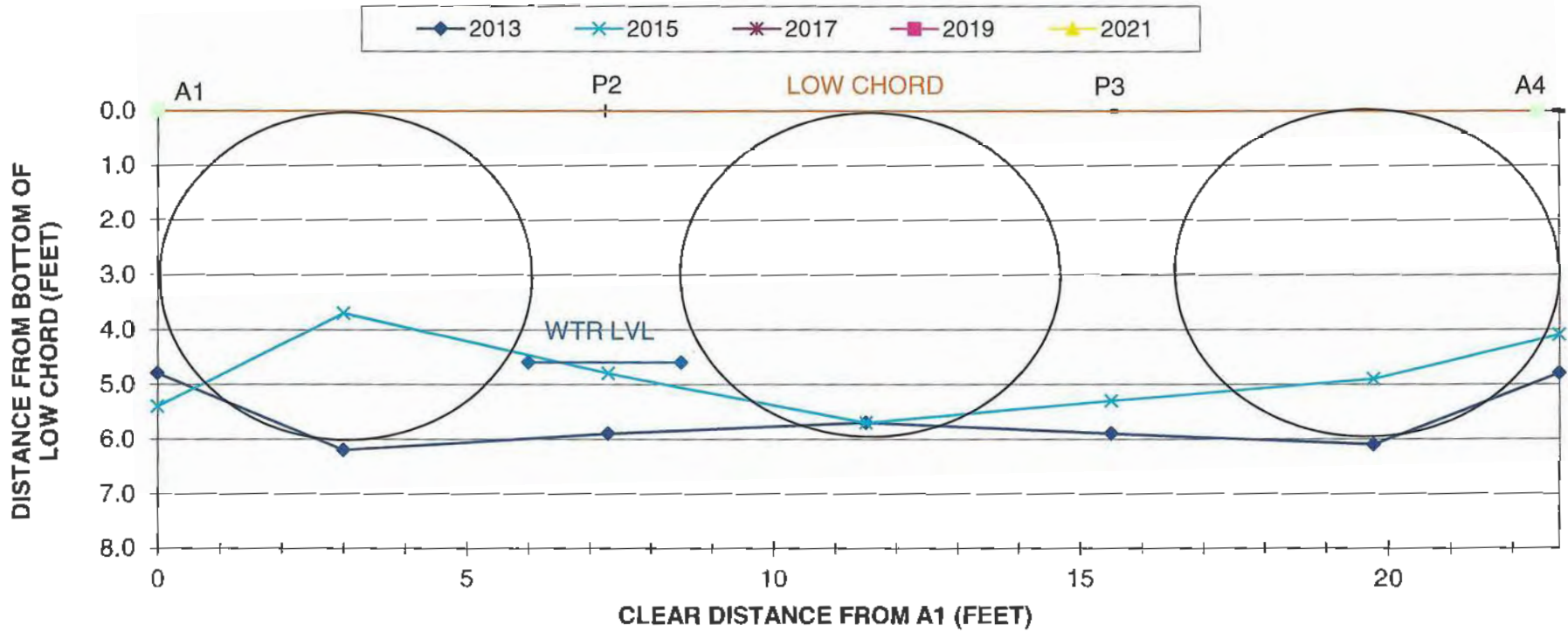
WINGWALLS:
CONCRETE EXTENSION OF HEADWALL
• S, STONE MASONRY • N
(LENGTH & ANGLE ON PLAN)



PLAN

CUCO-6

STREAMBED HISTORY



	0	3	7.3	11.5	15.5	19.75	22.75
2013	4.8	6.2	5.9	5.7	5.9	6.1	4.8
2015	5.4	3.7 *	4.8	5.7	5.3	4.9	4.1
2017							
2019							
2021							

* = Debris

WTR LVL
4.6
4.4

STRUCTURE NUMBER: CUCO 0.50-6
 INSPECTION DATE: 1/12/2015

PERFORMED BY: NTI/AWB
 For NTI