

**Oregon Department of Transportation  
Bridge Inspection Report**

<b>District :</b> 10	<b>Structure :</b> COI Canal, Gribbling Rd	<b>Bridge ID :</b> 17C30
<b>Fac Crossed :</b> COI CANAL	<b>Owner :</b> County Hwy Agency	<b>Fac Carried :</b> GRIBBLING ROAD
<b>Suff Rating :</b> 17.0	<b>County :</b> Deschutes	<b>Mile Point :</b> 1.00 mi
<b>AC Depth :</b> 0.00	<b>Record Type :</b> 1	<b>Insp Date :</b> 02/27/2021
<b>Bridge Length :</b> 40.00 ft	<b>Insp Freq :</b> 12	<b>Inspector 1 :</b> JOHN HARMS (C0079)
	<b>Bridge Width :</b> 13.00 ft	<b>Inspector 2 :</b>

Signature: \_\_\_\_\_



**Element Condition States (New AASHTO report)**

Element	Structure Unit	Environment	Quantity	Units	CS 1	CS 2	CS 3	CS 4	Temp
<b>31-Timber Deck</b>	<b>1</b>	<b>2</b>	<b>1000</b>	<b>(SF)</b>	<b>450</b>	<b>350</b>	<b>180</b>	<b>20</b>	<b>T</b>
1140-Decay/Section Loss	1	2	100	(SF)	0	0	80	20	
1150-Check/Shake	1	2	350	(SF)	0	350	0	0	
1170-Split/Delamination (Timber)	1	2	100	(SF)	0	0	100	0	
<b>107-Steel Opn Girder/Beam</b>	<b>1</b>	<b>2</b>	<b>200</b>	<b>(LF)</b>	<b>0</b>	<b>200</b>	<b>0</b>	<b>0</b>	
1000-Corrosion	1	2	200	(LF)	0	200	0	0	
516-Weathering Steel	1	2	1400	(SF)	0	1400	0	0	
<b>111-Timber Open Girder</b>	<b>1</b>	<b>2</b>	<b>240</b>	<b>(LF)</b>	<b>0</b>	<b>120</b>	<b>40</b>	<b>80</b>	<b>T</b>
1150-Check/Shake	1	2	120	(LF)	0	120	0	0	
1160-Crack (Timber)	1	2	80	(LF)	0	0	0	80	
1170-Split/Delamination (Timber)	1	2	40	(LF)	0	0	40	0	
<b>215-Re Conc Abutment</b>	<b>1</b>	<b>3</b>	<b>52</b>	<b>(LF)</b>	<b>26</b>	<b>13</b>	<b>0</b>	<b>13</b>	<b>T</b>
1130-Cracking (RC and Other)	1	3	4	(LF)	0	4	0	0	
1190-Abrasion(PSC/RC)	1	3	9	(LF)	0	9	0	0	
4000-Settlement	1	3	13	(LF)	0	0	0	13	
<b>330-Metal Bridge Railing</b>	<b>1</b>	<b>2</b>	<b>80</b>	<b>(LF)</b>	<b>80</b>	<b>0</b>	<b>0</b>	<b>0</b>	
515-Steel Protective Coating	1	2	160	(SF)	160	0	0	0	
<b>980-Approach Roadway Embank</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>(EA)</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	
<b>998-Adv. Warning Sign</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>(EA)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	

999-Roadway Impact 1 2 1 (EA) 1 0 0 0

Appraisal			NBI Category		
Appraisal	NBI #	Rating	Category	NBI #	Rating
Scour	113	3 SC - Unstable	Deck Condition	58	2 Critical
Bridge Rail	36A	0 Substandard	Superstructure	59	1 Imminent Failure
Transitions	36B	0 Substandard	Substructure	60	3 Serious
Approach Rail	36C	0 Substandard	Channel	61	7 Minor Damage
Rail Ends	36D	0 Substandard	Culvert/Retaining Walls	62	N N/A (NBI)
Structural	67	0 Closed			
Deck	68	3 Intolerable - Correct			
Clearance	69	N Not applicable (NBI)			
Waterway	71	8 Equal Desirable			
Approach Alignment	72	6 Equal Min Criteria			

**Remarks**

**31-Timber Deck**

(DETOUR STRUCTURE -New Timber Deck 2013-50% OF THE PLANKS HAVE BEEN INSTALLED UPSIDEDOWN-SEE ODOT DECKING SPEC 00570 FOR PROPER INSTALLATION OF TIMBER DECKING.) (ORIGINAL STRUCTURE-TIMBER DECK IS IN NEAR FAILURE CONDITION)

**1140-Decay/Section Loss**

(ORIGINAL STRUCTURE - AREAS OF COMPLETE DECAY, WITH LOCAL FAILURES. DECAY THROUGHOUT STRUCTURE.)

**1150-Check/Shake**

(DETOUR STRUCTURE - MINOR CHECKS THROUGHOUT DECK PLANKS) (ORIGINAL STRUCTURE - CHECKS THROUGHOUT)

**1170-Split/Delamination (Timber)**

(ORIGINAL STRUCTURE - SPLITS THROUGHOUT TIMBER DECK)

**107-Steel Opn Girder/Beam**

STEEL SUPERSTRUCTURE BRIDGE PLACED OVER EXISTING FAILED TIMBER STRUCTURE. LOAD-SIGNS-5 TON LIMIT SIGNS ARE UP, IN BOTH DIRECTIONS "ONE LANE BRIDGE AHEAD SIGN IS UP" ON WEST SIDE. SURFACE RUST THRU-OUT EXTERIOR STEEL GIRDERS. UNABLE TO INSPECT INTERIOR STEEL GIRDERS DUE TO OLD TIMBER BRIDGE BEING LEFT IN PLACE. THE STEEL SUPERSTRUCTURE IS CONSIDERED A TEMPORARY REPAIR UNTIL THE BRIDGE CAN BE REPLACED.

**111-Timber Open Girder**

ORIGINAL TIMBER STRUCTURE. SEVERAL TIMBER GIRDERS ARE IN A FAILED CONDITION. TIMBER GIRDERS ARE KEEPING THE ORIGINAL SUBSTRUCTURE ELEMENTS FROM TIPPING IN. THE ORIGINAL SUBSTRUCTURE ELEMENTS ARE ACTING AS RETAINING WALLS HOLDING UP THE FILL FOR THE FOOTINGS OF THE DETOUR STRUCTURE.

**1150-Check/Shake**

GIRDERS #1, #2, & #6 ARE CHECKED.

**1160-Crack (Timber)**

GIRDERS #3 AND #5 ARE CRACKED AND IN A FAILED CONDITION.

**1170-Split/Delamination (Timber)**

GIRDER #4 HAS A COMPLETE THROUGH SPLIT

**215-Re Conc Abutment**

(ORIGINAL STRUCTURE - END BENTS ARE ROTATING INWARD AND APPEAR TO BE UNSTABLE. 4 DEGREE

ROTATION AT NE; 2 DEGREE ROTATION AT SE. THESE HOLD BACK THE EMBANKMENT UNDER THE NEW FTG.) (DETOUR STRUCTURE - STEEL GIRDERS ARE NOT SUPPORTED ON THE RC ABUTMENTS. THE GIRDERS BEAR ON 2.5'X15' FTG'S. AND CANNOT BE COMPLETELY INSPECTED.) KEEP ON 12 MONTH SCHED. TO MONITOR SUBSTRUCTURE PROBLEMS. ALL DEFECTS BELOW ARE FROM THE ORIGINAL STRUCTURE.

**1130-Cracking (RC and Other)**  
VERTICAL CRACKS.

**1190-Abrasion(PSC/RC)**  
ABRASION BELOW HIGHWATER LINE.

**4000-Settlement**  
ABUTMENT WALLS ARE ROTATING INWARD.

**330-Metal Bridge Railing**  
METAL RAIL ON DETOUR STRUCTURE ONLY

**980-Approach Roadway Embank**  
STEEP AND SLOUGHING AT CORNERS. UPPER FOOTINGS STARTING TO UNDERMINE AT BRIDGE CORNERS.

**999-Roadway Impact**  
NEW AC APPROACHES INSTALLED 2015

**Notes**

**Inspection Notes**

THIS BRIDGE IS CODED USING CASE 2b IN THE ODOT BRIDGE INSPECTION CODING GUIDE. THE ELEMENT LIST CONTAINS ELEMENTS FROM BOTH THE DETOUR BRIDGE AND THE ORIGINAL BRIDGE. field visit 8-18-09. Steel bridge was constructed over the existing old timber bridge. The old abutments are serving as a retaining wall. The concrete pedestal, new footing, has minor slumping. Monitor until the bridge is no longer in use. The scour code item 113 changes from 2 to 3. Scheduled to be replaced. HMW. NBI Item 60 changed from 2 to 4 due to NBI Item 113 changed from 2 to 3 G.S. (02030) on 9/30/2009.

**Bridge Notes**

AMENDED INSPECTION FOR ITEM 60 BY G.S.(02030) ON 9/30/2009. Maintain 12 month inspection cycle due to load rating and substructure. ADVANCED WARNING SIGNS NOT IN PLACE

**Bridge Hydraulics Notes**

**Maintenance Recommendations**  
As of: 5/12/2021

Priority	Crew	Wrk Cnd	Notes	Est.cost	Status	Rec Date
Monitor	Local Agency	31 Timber Deck Replace	MONITOR ORIGINAL DECK FOR FURTHER DETERIORATION. DETOUR BRIDGE DECK CONSIDERED TEMPORARY.	0	Temporary	02/27/2021
Urgent	Local Agency	107 Steel Open Girder/Beam Replace	consider for replacement	0	Under Review	03/24/2005
Monitor	Local Agency	111 Timber Open Girder/Beam Replace	MONITOR TIMBERGIRDERS FOR FUTURE DETERIORATION. DETOUR BRIDGE IS CONSIDERED TEMPORARY	0	Temporary	02/27/2021
Urgent	Local Agency	215 RC Abutment Other	MONITOR ORIGINAL SUBSTRUCTURE FOR MOVEMENT		Temporary	03/24/2005

Priority	Crew	Wrk Cnd	Notes	Est.cost	Status	Rec Date
Urgent	Local Agency	Bridge Other	install advanced warning load capacity signs approaching from each direction to the bridge	1500	Under Review	03/15/2012

\*Completed items not included on default search

#### Load Rating

<b>Rating Date :</b>	01/25/2018	<b>Posting Req :</b>	0 >39.9% below
<b>Design Load :</b>	1 M 9 (H 10)	<b>Posting Status :</b>	E Open, temp struct
<b>Operating Load :</b>	0 ton	<b>OR Method :</b>	8 LRFR RF HL93
<b>Inventory Rating :</b>	0 ton	<b>IR Method :</b>	8 LRFR RF HL93

Truck	Rating Factor	% Below	Posting Required	Controlling Member	Actual Posting	Posting Date
Type 3	0.08	0 >39.9% below	Yes	Int. Stringer, span 1 of 1 +M at 0.5L	5.0	09/01/2009
Type 3S-2	0.07	0 >39.9% below	Yes	Int. Stringer, span 1 of 1 +M at 0.5L		
Type 3-3	0.10	0 >39.9% below	Yes	Int. Stringer, span 1 of 1 +M at 0.5L		
SU4	0.07	0 >39.9% below	Yes	Int. Stringer, span 1 of 1 +M at 0.5L		
SU5	0.06	0 >39.9% below	Yes	Int. Stringer, span 1 of 1 +M at 0.5L		
SU6	0.06	0 >39.9% below	Yes	Int. Stringer, span 1 of 1 +M at 0.5L		
SU7	0.06	0 >39.9% below	Yes	Int. Stringer, span 1 of 1 +M at 0.5L		
EV2			No			
EV3			No			

#### Load Rating Notes

9/15/2009 -- Contacted County. Bridge is now posted at 5 Tons. Entered Actual Posting Data and Posting Date. JDT  
There's a temporary structure in place to carry the posted loads while original structure is awaiting replacement or rehabilitation.

#### Load Rating Condition Comparison Chart

Category	NBI #	Rating Condition	Current Condition
Traffic Impact		CS1 Condition State 1	CS1
Deck Condition	58	7	2
Superstructure	59	5	1

Category	NBI #	Rating Condition	Current Condition
Substructure	60	3	3
Temporary Repairs	103		T
Wearing Surface Thickness		0.00	0.00

### Inspection Schedule

Activity	Conducted On	Frequency	Next Inspection
Routine Inspection	02/27/2021	12	02/01/2022
X-Channel	02/27/2021	48	02/01/2025

## Oregon Department of Transportation Structure Inventory and Appraisal Report

Suff Rating: 17.0

Bridge NO: 17C30  
Insp Date: 02/27/2021

(2) Highway District	District 10	(42A) Type Service On	1	(75) Type of Work	311
(3) County	Deschutes	(42B) Type Service Under	5	(76) Improvement Length	52.49 ft
(4) City	00000	<b>(43) Struct Main</b>	<b>3 Steel 02 Stringer/Girder</b>	(90) Inspection Date	02/27/2021
(5) Inventory Route	141031840	(44) Struct Appr	0 Not Applicable 00 Not Applicable	(91) Inspection Frequency	12
(6) Feature INT	COI CANAL	(45) Number Main Spans	1	(92) Critical Feat Insp (A) Fracture Critical (B) Underwater Insp	
(7) Facility Carried	GRIBBLING ROAD	(46) Number Appr Spans	0	(94) Cost of Improvement	165988
(8) Structure Number	17C30 035 00100	(47) Horizontal Clearance	12.00 ft	(95) Roadway Improvement	16599
(9) Location	1 MI SOUTH OF HWY 20	(48) Maximum Span Length	40.00 ft	(96) Project Improvement	265581
(10) Vert Clearance	99.98 ft	(49) Structure Length	40.00 ft	(97) Year of Improvement	2011
(11) Mile Post	1.00 mi	(50A) Sidewalk Width LT	0.00 ft	(98) Border BRST-Code	
(12) Base Highway Network	0	(50B) Sidewalk Width RT	0.00 ft	<b>(100) Defense Highway</b>	<b>0</b>
(13) LRS Inventory Route	000000000000	<b>(51) Bridge Roadway Width</b>	<b>12.00 ft</b>	(101) Parallel Structure	N
(16) Latitude	44° 2' 5.28"	(52) Deck Width	13.00 ft	(102) Direction of Traffic	3
(17) Longitude	121° 10' 25.25"	<b>(53) Vert Clear Over Deck</b>	<b>99.99 ft</b>	(103) Temporary Structure	T
<b>(19) Bypass Detour</b>	<b>0.46 mi</b>	(54) Vert Clear Under Deck	N 0.00 ft	(104) Highway System	0
(20) TOLL	3 On free road	(55) Min Lat Underclear CD	N 0.00 ft	(105) Federal Lands HWY	0
(21) Custodian	County Highway Agency	(56) Min Lat Underclear	L 0.00 ft	(106) Year Reconstructed	
(22) Owner	County Highway Agency	<b>(58) Deck</b>	<b>2</b>	(107) Deck Structure	<b>8</b>

(26) Func Class	09 Rural Local	(59) SuperStructure	1	(108) Wearing Surface	700
(27) Year Built	1958	(60) SubStructure	3	(109) Truck ADT	0%
(28) Lanes	on: 1 / under: 0	(61) Channel	7	(110) Designated National Network	0
(29) Average Daily Traffic	7	(62) Culvert	N	(111) Pier Protection	
(30) Year of ADT	2020	(63) Oper Rating Method	8	(112) NBIS Bridge Length	Y
(31) Design Load	1 M 9 (H 10)	(64) Operating Rating	0.00 ton	(113) Scour Critical Bridge	3
(32) Approach Roadway	14.00 ft	(65) Inv Rating Method	8	(114) Future ADT	8
(33) Bridge Median	0 No median	(66) Inventory Rating	0.00 ton	(115) Year of Future ADT	2025
(34) Skew	0°	(67) Structure Condition	0	(116) Vert-Lift Clearance	
(35) Structure Flared	0 No flare	(68) Deck Geometry	3	(117) Est Maint Cost	
(36) Traffic Safety Feature	0000	(69) Underclearance	N	(118) Culvert Length	
(37) Historical Significance	5	(70) Posting	0	(119) Culvert Inside Height	
(38) Navigation Control	0	(71) Waterway Adequacy	8	(120) Inspector	JOHN HARMS (C0079)
(39) Navigation Vert Clear	0.00 ft	(72) APPR RDWY Alignment	6	(122) Highway/CO RD	318401
(40) Navigation Horz Clear	0.00 ft			(125) Embankment Erosion	4
(41) Open Status	E				

**Quality Assurance:**

WS Depth	0.00	(52) Deck Width	13.00 ft	(70) Posting	0
(28) Lanes	on: 1 / under: 0	(53) Vert Clear Over Deck	99.99 ft	(71) Waterway Adequacy	8
(32) Approach Roadway	14.00 ft	(58) Deck	2	(72) APPR RDWY Alignment	6
(41) Open Status	E	(59) SuperStructure	1	(95) Roadway Improvement	16599
(43) Struct Main	3 Steel	(60) SubStructure	3	(103) Temporary Structure	T
(44) Struct Appr	0 Not Applicable	(61) Channel	7	(108) Wearing Surface	700
(46) Number Appr Spans	0	(62) Culvert	N	(113) Scour Critical Bridge	3
(51) Bridge Roadway Width	12.00 ft			(125) Embankment Erosion	4

**Bridge Clearance Documents: Not Available**

**Bridge Detours Maps:** [17C30.tif](#)

**Bridge Images:** [IM17C30\\_A0.JPG](#) [IM17C30\\_A1.JPG](#) [IM17C30\\_A2.JPG](#) [IM17C30\\_A3.JPG](#) [IM17C30\\_A4.JPG](#) [IM17C30\\_A5.JPG](#) [IM17C30\\_A6.JPG](#) [IM17C30\\_A7.JPG](#) [IM17C30\\_A8.JPG](#) [IM17C30\\_A9.JPG](#) [IM17C30\\_B0.JPG](#) [IM17C30\\_B1.JPG](#) [IM17C30\\_B2.JPG](#) [IM17C30\\_B3.JPG](#) [IM17C30\\_B4.JPG](#) [IM17C30\\_B5.JPG](#) [IM17C30-A0.JPG](#) [IM17C30-A1.JPG](#) [IM17C30B1.JPG](#) [IM17C30B2.JPG](#) [IM17C30B3.JPG](#) [IM17C30B4.JPG](#) [IM17C30B5.JPG](#) [IM17C30\\_C1.JPG](#) [IM17C30\\_C2.JPG](#)

**Job Hazard Assessment: Not Available**

**Cross Channel Documents:** [XC17C30.pdf](#)

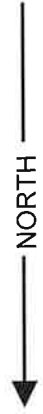
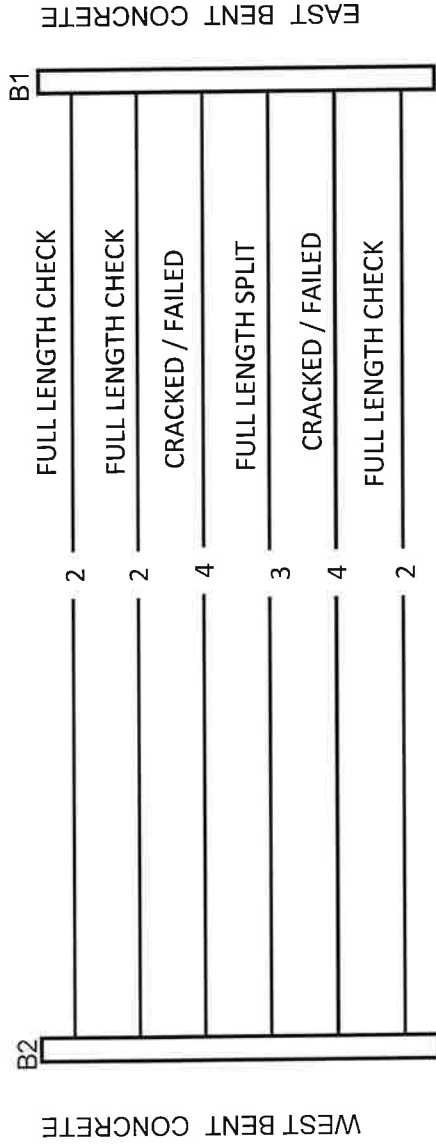
**Gusset Plate Documents: Not Available**

**Fracture Critical Inspection Documents: Not Available**

**Fatigue Prone Assessment:** [FP17C30.pdf](#)

**Under Water: Not Available**

# TIMBER BORING REPORT



COUNTY: DESCHUTES  
 BRIDGE NO.: 17C30  
 NAME: COI CANAL, GRIBBLING RD  
 OWNER: COUNTY  
 CONDUCTED: 2-27-2021    FREQUENCY: 2 YRS    NEXT: 2-1-2023

Br. No. 17C30  
Deschutes County

C.O.I. Canal-Upstream  
Measurements to Top of Felloe Guard

Gribbling Road

