



December 4, 2003

P.O. BOX 431
BEND, OR 97709
[541] 388-5570 TEL
[541] 388-5544 FAX
www.ci.bend.or.us

Bob Thompson
ODOT Bridge Section
355 Capitol St. NE. Room 301
Salem OR 97301

RE: OTIA III Bridge Funding

ORAN TEATER
Mayor

Dear Mr. Thompson:

I have already reapplied for the American Lane Bridge replacement and you should have received this documentation sometime ago.

BILL FRIEDMAN
Mayor Pro Tem

I understand you need additional information for the Deschutes River Bridge # 17B004 (Newport Avenue). Please find this information attached.

JOHN HUMMEL
City Councilor

Thank you for your consideration.

BRUCE ABERNETHY
City Councilor

Sincerely,

Robert O'Neal
Construction Services Manager
ro/ps

R. DAVID MALKIN
City Councilor

CHRIS TELFER
City Councilor

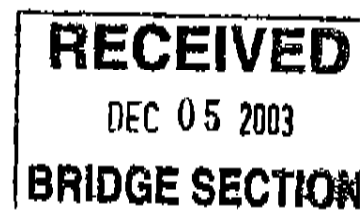
LINDA S. JOHNSON
City Councilor

DAVID A. HALE\$
City Manager

JAMES R. KRUEGER
Finance Director

ANDREW JORDAN
Police Chief

LARRY LANGSTON
Fire Chief





PROJECT PROSPECTUS

Project Name: Newport Avenue Bridge

City Number: _____

State Number: _____

Location: Clatskanie River (Newport Avenue) Bridge

Route: _____

Area: _____

District: _____

Project Justification

This bridge was identified in 2001 to be replaced with HBR funding. This project was cut because of shortages to the HBR funding. This bridge has had ongoing rehabilitation work in the past couple of years. With the number of vehicles using the bridge rehabilitation measures have not been able to keep up with the deterioration of the bridge. This bridge is used by emergency services for many of their calls to the west side of Bend. Many large vehicles use this route because a rock source exists on the west side of Bend and this is their haul route. There is also many new developments that are being constructed or are slated to be constructed on this side of town. Central Oregon Community College is situated on Awbrey Butte and this is the main route to the college. As can be seen with the above statements Newport Avenue carries many diversified trips to the west side of Bend. This bridge is vital to all of these trips. With the condition of the bridge it is vital that this bridge be replaced. It should also be stated that if this bridge ever failed or was to be taken out of service, or load rated, the detour to another bridge is approximately 1 mile.

Additional Information For Project Requested By Local Jurisdictions

Responsible Local Office To Be Contacted For The Following Activities:

- | | | |
|---|---------------|--------------|
| 1. Public Hearing / Citizen Involvement | Office: _____ | Phone: _____ |
| 2. Environmental Planning | Office: _____ | Phone: _____ |
| 3. Pre-Engineering | Office: _____ | Phone: _____ |

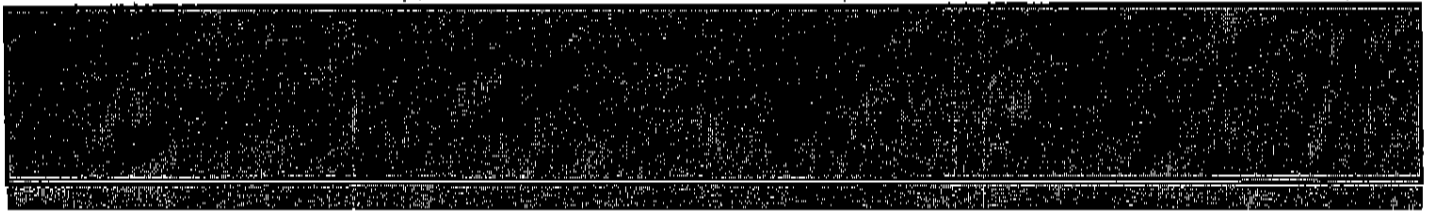
This Official Request is From:

City of	<u>Bend</u>	Mayor	_____	County	_____
By	<u>Public Works Department</u>	By	<u>Robert O'Neal</u>		
By	_____	By	_____		
		By	_____		

Applicable Intergovernmental Agreements:

IGA Number	Jurisdiction Name	Agreement Date
_____	_____	_____
_____	_____	_____
_____	_____	_____

Administrative Recommendation



Bridge Prospectus Cost Estimate

Application Project / Section	Class of Work Description / Bridge #	Bridge No.	Area	Structure
		18B004		
New Bridge / Roadway Construction				
Left Side Rail	150 feet	Existing Bridge	Bridge Length	110 feet
Left Sidewalk	1200 feet	Bridge Width	42 feet	
Shoulder	1200 feet	Area	4620 square feet	
Lane 1	1200 feet	New AC Top Width	48 feet	
OTL	0 feet	New AC Depth	4 inches	
Lane 2	1200 feet	New Base Depth	10 inches	
Shoulder	1200 feet	Project Length	1200 feet	
Right Sidewalk	1200 feet	Net Road Work Length	1050 feet	
Right Side Rail	150 feet	X-Side Slope		
Bridge Length	150 feet	AC Avg Width	48 feet	
Bridge Width	76 feet	Base Avg Width	48 feet	
New Area	11400 square feet	Asphalt Density	140 pounds/cu yd	
		Base Density	140 pounds/cu yd	
		New AC Required	tons	
		New Base Required	tons	
COST ESTIMATE				
Right-of-Way	3 Acre	Price per unit	\$ 654,000	Cost (\$1000s) 962
==Roadway==				
Clear & Grub	\$ 50,000	lump sum		\$50
General Excavation	-	cubic yards		30
Embankment in Place	27,000	cubic yards	\$ 10.00	\$270
Pavement Removal	-	square feet		30
Aggregate Base	5,000	tons	\$ 14.00	\$70
Asphalt Concrete	1,302	tons	\$ 33.00	\$430
Riprap	-	cubic yards		30
Guardrail Type 2A	-	feet		30
Guardrail Type 3	-	feet		30
Guardrail Posts	-	feet		30
Flared Terminals	-	Each		50
		Subtotal Roadway		\$483
Structures	11,400 square feet	\$ 110.00		\$1,254
Signals	\$ 150,000	lump sum		\$150
Illumination	\$ 10,000	lump sum		\$10
Temporary Protection	\$ 10,000	lump sum		\$10
Remove Existing Bridge	\$ 4,620	square feet	40	\$185
Permitting	\$ 60,000	lump sum		\$60
Other	-	lump sum		30
		Subtotal Structures		\$1,669
		Subtotal Construction		\$2,102
==Engineering==				
Construction Engineering	3 percent of construction			\$63
Contingency	20 percent of construction			\$420
		Subtotal Const. Eng		\$483
Primary Engineering Consultant	10 percent of construction			\$210
State	- percent of construction			30
County	- percent of construction			30
		Subtotal PE		\$270
		Total Estimate		\$4,757

Bridge Project Prospectus Additional Bridge Information

Applicant: City of Bend		NBS Bridge Number:	
Project Name/Description: Newport Avenue Bridge Project		Region:	District:
Funding:	Priority:	Newly Vehicle Usage:	Detour:
Reference Source: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> State <input checked="" type="checkbox"/> Federal HRRP 	Priority:	Priority:	Detour Route:
Acceptable Source: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> OTRAIL <input checked="" type="checkbox"/> Federal HRRP 	Priority:	Priority:	Length: 1 mile Map: Please attach map
Regional Freight Corridor Analysis:		Priority:	Priority:

The west side of Bend is fed from 5 bridges including the newly constructed Southern River Crossing. This constricts traffic to and from the west side of Bend to these bridges. All freight to and from the west side of Bend has to use one of these bridges. Newport Avenue is one of Bend's arterial streets and is used as a freight route for the west side. With the amount of development and the industry that is located on the west side. This bridge is crucial to freight hauls within and out of the City. A large fill and gravel operation exists on the west side of Bend. This is the main route for those trucks to access this site. COCC is located on the west side of Bend. Newport Avenue is the main route for students and faculty to the college. Emergency Services within Bend also use Newport Avenue as one of their main routes to the west side.

Special Consideration:
 Emergency vehicles are a special consideration for this bridge replacement. Again 5 bridges feed the west side of Bend. This leaves a limited number of routes for emergency vehicles to use. Newport is a crucial link for the homes on Awbray Butte, and other neighborhoods on the west side. Central Oregon Community College is located on Awbray Butte. This is the main route for students and faculty to access the college.

Bridge Project Prospectus

Requested Changes to National Bridge Inventory System (NBIS) Data

(Form Optional)

Project Name: _____	Project Number: _____
County: _____	Area: _____
Bridge #: _____	State: _____

This form must be completed by the agency responsible for the data in the existing National Bridge Inventory System data. The information provided in this form will be recorded and used for the Structure Inventory and Repair (SIR) Bridges Report No. HWY/ST/BRIDGE/01, December 1993.

Changes proposed to the data in this form will be required to be supported by a report or other application and each of the proposed Federal Surveys will be included in the calculation of the Technical Ranking Score.

The data listed below are used in the calculation of the Technical Ranking Score and proposed changes will be considered for any change proposed. Attach backup data as the reason for the change.

Item 26	Effective Classification	16
Item 28	MA Lanes or Structure	2
Item 32	Approach Roadway Width	40
Item 42	Structural System	204 CONC CON
Item 51	Bridge Roadway Width	27
Item 53	Vertical Clearance	99
Item 54	Underclearance	0
Item 55	Minimum Len	0
Item 56	Minimum Width	99.9
Item 60	Bridge Highway Designation	0

Items 38, 59, 60, 62, 67, 68, 69, 71, and 72 are used in the calculation of the Federal Survey Ranking. These data elements are supplied by DOT and are not subject to corrections at this time.

For Inventory Rating, Item 56 must be provided by a licensed Professional Engineer based on calculations for wind, ODOT's Load Rating Guidelines. The engineer's calculations must be included.

Item 66	Inventory Rating	220
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Bridge Project Prospectus

Required Data For Bridges Not Listed In The National Bridge Inventory System (NBIS)

(Form 01000)

Applicant: City or State:	Bridge Number: (ABCC)
Project Name: District Area: New Date: Agency:	Region: Area: District:

This form must be completed for all bridges submitted that are not on the current National Bridge Inventory System (NBIS). The information must be in compliance with the Recording and Coding Guide found in the Inventory and Appraisal of the Nations Bridges, Report No. FHWA/RD-96-001, December, 1995.

Item 10	Basic Length	1 MILE
Item 26	Functional Classification	16
Item 28	Approach Structure	2
Item 32	Approach Roadway Width	40
Item 33	Traffic Safety Features	0
Item 34	Structure Type / Material	CONC / TEE BEAM
Item 37	Bridge Roadway Width	27
Item 39	Vertical Clearance over Deck	99
Item 51	Underclearance	0
Item 55	Minimum Height	0
Item 56	Minimum Right	99
Item 60	Design Highway Designation	0

Items 34, 39, 40, 62, 67, 68, 69, 71, and 72 must be provided by a Certified Bridge Inspector or a Licensed Professional Engineer. The inspection evaluation must be included.

Item 58	Deck Condition	5
Item 59	Superstructure Rating	4
Item 60	Substructure Rating	5
Item 62	Culverts	N
Item 67	Structural Evaluation	3
Item 68	Deck Geometry	
Item 69	Under Clearance	
Item 71	Waterway Adequacy	7
Item 72	Approach Road Alignment	6

The Inventory Rating (Item 70) must be provided by a Licensed Professional Engineer, based on calculations following ODOT's Load Rating Guidelines. The engineering calculations must be included.

Item 70	Inventory Rating	70
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Newport Avenue Bridge

		<p>DISCLAIMER:</p> <p>The information on this map was derived from digital databases on Deschutes County's GIS. Care was taken in the creation of this map, but it is provided "as is". The City of Bend cannot accept any responsibility for errors, omissions, or positional accuracy in the digital data or the underlying records.</p>
<p>1" = 200'</p>	<p>Created by City of Bend Engineering/GIS October 9, 2003 V:\6.1\WP\Newport Bridge</p>	



Newport Avenue Bridge Area

	<p>1" = 500'</p>		<p>DISCLAIMER: The information on this map was derived from digital data from Deschutes County's GIS. Care was taken in the creation of this map, but it is provided "as is". The City of Bend cannot accept any responsibility for errors, omissions, or positional accuracy in the digital data or the underlying records.</p>
<p>Created by City of Bend Engineering/GIS October 8, 2003 W&J/N Newport Detail</p>			

Routine Bridge Inspection Report

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OREGON DEPT OF TRANSPORTATION BRIDGE INSPECTION REPORT

District	District 10	Owner	City or Municipal Highway Agency	Bridge ID	17B004
Bridge Name	DESCHUTES RIVER	County	Deschutes	Fac Carried	NEWPORT AVENUE
Local Name	NEWPORT AVE.	Record Type	1	Mile Post	0.00
Local ID		Insp Freq	12 Months	Inspector 1	Brown, Tim (C0022)
Suff Rating	21.50	Insp Date	11/20/02	Inspector 2	
AC Depth	6.0 in	Bridge Length	110.0 ft	Bridge Width	42.0 ft

Signature: 

ELEMENT CONDITION STATES

Elem	Description	Env	Qty	Units	Element Condition States					Temp
					1	2	3	4	5	
13	Conc Deck Unprt w/AC Olay	Moderate	4700	sqft	0%	0%	100%	0%	0%	N
110	Conc Open Girder	Moderate	448	ft	0%	90%	10%	0%	0%	N
205	Conc Column/Pile Extn	Moderate	2	ea	0%	100%	0%	0%	0%	N
215	Conc Abutment	Moderate	2	ea	50%	40%	5%	5%	0%	N
234	Conc Cap	Moderate	1	ea	60%	40%	0%	0%	0%	N
311	Move Brg (Roller, Slider, Etc)	Low	4	ea	0%	0%	100%	0%	0%	N
334	Coated Metal Bridge Railing	Moderate	220	ft	0%	100%	0%	0%	0%	N
359	SF - Deck Soffit	Moderate	1	ea	50%	40%	5%	5%	0%	N
361	SF - Scour	Low	1	ea	0%	100%	0%	0%	0%	N

APPRAISAL

Appraisal	NBI #	Rating
Scour	113	7 Corrective measures installed
Bridge Rail	36A	0 Does not meet standards
Transitions	36B	0 Does not meet standards
Approach Rail	36C	0 Does not meet standards
Rail Ends	36D	0 Does not meet standards
Structural	67	3 Basically intolerable requiring high priority of corrective action
Waterway	71	7 Better than present minimum criteria
Approach Alignment	72	6 Equal to present minimum criteria

NBI CATEGORY

Category	NBI #	Rating
Approach Condition	8	Very good
Deck Wearing Surface	6	Satisfactory
Deck	58	5 Fair
Superstructure	59	4 Poor
Substructure	60	5 Fair
Channel	61	8 Bank well vegetated
Culvert/Retaining Walls	62	N Not Applicable

REMARKS

Element #	Bent/Span	Member ID	Deficiency Description
13	DECK	CURBS	LARGE SPALLS ALONG CURB EDGES AND BASE OF RAILS, HEAVY CORR. AND EFFLOR.

Routine Bridge Inspection Report

13	B3	DECK	DECK REPAIRED AT B3 8/00 BY D-9 CREW. CORES TAKEN OF DECK, IN RBI OFFICE
13	DECK	ENDS	SEVERE DETER. @ DECK EDGES&BACKWALLS HEAVY EFF @ EDGES CONCRETE HAS EXPOSED REBAR-VERY LOOSE AT SW
13	DECK	WALK	SPALLING ALONG EDGES OF SIDEWALKS-HEAVED UP@ NE CORNER
110	ALL	GIRDER	FLEX. AND SHEAR CRACKS THROUGHOUT .030+ SHEAR CR. AT BRG. AREAS B1+B3
205	B3	ABUTMENT	CRACK. W/ CORR + DELAM IN ABUT. WORST IN UNDER EXT GIRDERS
205	B2	COLS	MODERATE ABRASION
215	B1,3	ABUTMENT	ABRASION @ BASE OF ABUTMENTS, SOME CRACKING W/ EFFLOR.
215	B1	BRGS	CRACKING ABOVE ALL BEARINGS, SOME DELAM, MONITOR CLOSELY
215	SE	WINGS	SPALL W/EXPOSED REBAR/MODERATE ABRASION @ BASE
331	ALL	RAIL	SEVERE DELAM. @ EXT. RAILS//SEVERE SPALLING AT TOPS OF RAIL CURBS-STEEL RAIL & CONC. POSTS IN OK CONDITION
361	SCOUR	SCOUR	SCOUR EXISTS @ BRIDGE-SEE UNDERWATER REPORT

MAINTENANCE RECOMMENDATIONS

Work Crew #	Order	Priority	Bent/ Elem #	Span	Member	Work	Est Cost	Comp Date
		Routine/Schedule	B3	END		MORE DISTRESS IN DECK NEXT TO 8/2000 REPAIRS. REPAIR AS NEEDED.	4000	
		Routine/Schedule	110	S1,2		ON STIP FOR 2004, DESIGN BY SCOTT L. TEAM	0	
		Monitor	110	ALL	GIRDERS	MONITOR STRUCTURAL CRACKS AT ALL CONCRETE GIRDERS	0	
		Routine/Schedule	215	B1	BRGS	MONITOR CAP AND GIRD ABOVE AND BELOW BRGS	0	
		Monitor	361	SCOUR	SCOUR	MONITOR SCOUR AROUND INTERIOR PIERS	0	

LOAD RATING

Rating Date	03/15/94	Posting Req	(5) = or > legal
Design Load	H15	OR Method	Load Factor (LF)
Operating Rating	22.0 ton	IR Method	Load Factor (LF)
Inventory Rating	15.0 ton		

Truck	Operating Rating	Inventory Rating	% Below	Posting Required	Controlling Member	Actual Posting	Posting Date
Type 3		36.0	(5) = or > legal	No	CONC BEAM BENDING	ton	
Type 3S-2	47.200000000000003		(5) = or > legal	No	CONC BEAM		

Routine Bridge Inspection Report

Type 3-3

70.0

(5) = or >
legal

No

BENDING ton
CONC
BEAM
BENDING ton**LOAD RATING CONDITION COMPARISON CHART**

Category	NBI #	Rating Condition	Current Condition
Approach Condition			8 Very good
Deck Wearing Surface			6 Satisfactory
Deck	58		5 Fair
Superstructure	59		4 Poor
Substructure	60		5 Fair
Temporary Repairs	103	No	No
Wearing Surface Thickness		0 in	6.0 in

INSPECTION SCHEDULE

Activity	Conducted On	Frequency	Next Inspection
Routine Inspection	11/20/02	Every 1 yr	11/20/03
Underwater Inspection	07/31/02	Every 1 yr	07/31/03
X-Channel Profile	08/14/96	Every 10 yr	08/14/06

Structure and Inventory Appraisal Report

21.5 SUFF Structurally Deficient
RATING

STRUCTURE AND INVENTORY APPRAISAL

BRIDGE NO 17B004
INSP DATE 11/02

(122) HIGHWAY/CO RD.	000000	(43) STRUCT MAIN	2 Concrete continuous	(92) CRITICAL FEAT	DATE	(93) DATE
(2) HIGHWAY DISTRICT	10		02 Stringer/Multi-beam	INSP		
			or Girder			
(3) COUNTY	17	(44) STRUCT APPR	0 Other 00 Not	(A) FRACTURE CRIT	n 00	2000
(4) CITY	5800	(45) NUMBER MAIN SPANS	Applicable	(B) UNDERWATER	y 12	2002
			2	INSP		
(5) INVENTORY ROUTE	150033400	(46) NUMBER APPR SPANS	0	(94) COST OF		370000.0
(6) FEATURES INT	DESCHUTES RIVER	(47) HORIZONTAL CLEARANCE	27.0	IMPROVEMENT		
(7) FACILITY CARRIED	NEWPORT AVENUE	(48) MAXIMUM SPAN LENGTH	55.0	(95) ROADWAY IMPROVEMENT		37000.0
(8) STRUCTURE NUMBER	17B00400000000	(49) STRUCTURE LENGTH	110.0	(96) PROJECT COST		592000.0
(9) LOCATION	0062 MI. WEST OF HWY 97	(50) SIDEWALK WIDTH	LT 6.0 RT 6.0	(97) YR OF IMPROVEMENT	2001-01-01	00:00:00
(10) VERT CLEARANCE	100.0 ft	(51) BRIDGE ROADWAY WIDTH	27.0	(98) BORDER BR ST-CODE		%
(11) MILEPOINT	0.00	(52) DECK WIDTH	42.0	(99) BORDER STRUCTURE NO		
(16) LATITUDE	44.0617 N	(53) VERT CLEAR OVER DECK	100.0 ft	(100) DEFENSE HIGHWAY		0
(17) LONGITUDE	121.3150 W	(54) VERT CLEAR UNDER DECK CD	0.00 ft	(101) PARALLEL STRUCTURE		N
(19) BYPASS DETOUR	1.0	(55) MIN LAT UNDERCLEAR CD	N RT 0.0	(102) DIRECTION OF TRAFFIC		2
(20) TOLL	3 On free road	(56) MIN LAT UNDERCLEAR	LT 0.0	(103) TEMPORARY STRUCTURE		0
(21) CUSTODIAN	04 City or Municipal Highway Agency			(104) HIGHWAY SYSTEM		0
		*** CONDITION ***				
(22) OWNER	04 City or Municipal Highway Agency			(106) YEAR RECONSTRUCTED		
(26) FUNC CLASS	16 Urban Minor Arterial	(58) DECK	5	(107) DECK STRUCTURE		1
(27) YEAR BUILT	1935	(59) SUPERSTRUCTURE	4	(108) WEARING SURFACE		600
(28) LANES ON	2 LANES UNDER 0	(60) SUBSTRUCTURE	5			
(29) AVERAGE DAILY TRAFFIC	11330	(61) CHANNEL	8	(109) TRUCK ADT		10.0%
(30) YEAR OF ADT	2001	(62) CULVERT	N	(110) DESIGNATED NATIONAL NETWORK		0
(31) DESIGN LOAD	2 H15	(64) OPERATING RATING	22.0	(111) PIER PROTECTION		
(32) APPROACH ROADWAY	40.0 ft	(65) INVENTORY RATING	15.0	(112) NBIS BRIDGE LENGTH		Y
(33) BRIDGE MEDIAN	0 None	*** APPRAISAL ***		(113) SCOUR CRITICAL BRIDGE		7
		(67) STRUCTURE CONDITION		(114) FUTURE ADT		20394.0
(34) SKEW	0	(68) DECK GEOMETRY				
(35) STRUCTURE FLARED	0	(69) UNDERCLEARANCE		(115) YEAR OF FUTURE ADT		2021
(36) TRAFFIC SAFETY FEATURE	0000	(70) POSTING		(116) VERT-LIFT CLEARANCE		
(37) HISTORICAL SIGNIFICANCE	4	(71) WATERWAY ADEQUACY				
(38) NAVIGATION CONTROL	0	(72) APPR RDWY ALIGNMENT		*** STATE INFORMATION ***		
(39) NAVIGATION VERT CLEAR	0.0	(75) TYPE OF WORK	1 Done by contract	(117) EST MAINT COST		3500.0
				(118) CULVERT LENGTH		ft
(40) NAVIGATION HORZ CLEAR	0.0	(76) IMPROVEMENT LENGTH	110.0	(119) CULVERT INSIDE HEIGHT		ft
(41) OPEN STATUS	A	(80) INSPECTION DATE	1102	(120) INSPECTOR NUMBER	Brown, Tim (C0022)	
(42) TYPE SERVICE	1 Highway 5 Waterway	(91) INSPECTION FREQUENCY	12 MO	(121) MAINTENANCE NOTES		
(12) BASE HIGHWAY NETWORK	0	(63) OPER RATING METHOD	1			
(13) LRS INVENTORY ROUTE		(65) INV RATING METHOD	1			
(105) FEDERAL LANDS HWY						

CORRECTED REPORT

UNDERWATER INSPECTION REPORT		Report by Don Dean
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BRIDGE NAME	Newport St. (City of Bend)				BRIDGE NO.	17B004	
DATE INSP.	9/11/98	HWY	—	MP	—	RIVER	Deschutes
WATER CONDITIONS	Low flow moderate current 5' visibility						
DIVERS	Dean Shorb Marks		U/W RATING	6	INSP. INTERVAL	2	
FOUNDATION TYPE	Spread footing						

This is a poured-in-place concrete structure with one pier in the water and an abutment near each end.

EAST ABUTMENT

The wall is in good condition with no major spalling or cracking. Scattered riprap is exposed along the base. No footing is exposed.

Main Pier Upstream Column

The pier protection is in place and providing good protection to the upstream footing. The amount of footing exposed is: SE = 1' SW = 0.1' NE = 1.5' NW = 1.5'. There is a rock pocket at the NE corner of the column approximately 8" high by 6" wide. No reinforcing steel is exposed. The streambed has scoured along the sides of both footings down to natural gravels.

Downstream Column

The amount of footing exposed is: SE = 1' SW = 1.5' NE = 1' NW = 1.5'. The concrete appears in good condition and shows little spalling or deterioration. There is a small deteriorated area of the footing at the SE corner that extends 2-3" into the footing.

WEST ABUTMENT

A maximum of one foot of footing is exposed along the entire length of the base. Formwork is still around the footing.

RECOMMENDATION

There has been some degrading of the streambed around the downstream column of the center pier. The loose sand and gravel previously exposed around the footings has washed away exposing the consolidated natural gravel. No maintenance work is required at this time.


Underwater Operations Manager

cc: City of Bend Public Works
Region 4 Br. Insp.
Bridge Operations



Oregon Department of Transportation
Highway Division
Bridge Operations Section
Local Agency Bridge Photos

Bridge No. 17B004
Deschutes County
Date: November 2002



Approach Viewing East



Elevation Viewing North



Anderson Engineering & Surveying, Inc.
P.O. Box 28
17681 Hwy 395
Lakeview, Oregon 97630
P.O. Box 419
852 SW 15th Street
Redmond, Oregon 97756