Resolution 110-2019

Business of the Board of County Commissioners County of Okanogan, Washington

Date: August 21, 2019

Agenda Title: 2020 through 2025 Six Year Transportation Improvement Program.

Proposed Commission Action:

Motion from the floor and vote by the County Commissioners to approve the attached 2020 through 2025 Six Year Transportation Improvement Program. Agenda Item No: N/A Agenda Bill No: N/A Exhibits:

2020 - 2025 Six Year
 Transportation Improvement
 Program Project Array.

- 2020 2025 Revenue and Expenditure Analysis.
- 2018 Bridge Inspection Report.

Approvals: No other county contingencies. Agenda Bill Author: Jo Ann Stansbury County Engineer: Josh Thomson P.E. Clerk / Board: Lalena Johns

REQUEST/DISCUSSION:

BACKGROUND INFORMATION: RCW 36.81.121 requires adoption of a comprehensive transportation program for the ensuing six calendar years.

RECOMMENDATIONS: The Board of Okanogan County Commissioners to approve and sign the attached 2020 through 2025 Six Year Transportation Improvement Program.

FISCAL IMPACT: None for this action. Fiscal impacts are identified as establishing resolutions are executed for each individual project.

Signature of Elected Official/Department Head

OKANOGAN COUNTY COMMISSIONERS

RESOLUTION 110-2019

WHEREAS, pursuant to RCW 36.81.121, the Legislative Authority of each County, with the advice and assistance of the County Road Engineer, and pursuant to one or more public hearings thereon, shall prepare and adopt a comprehensive program including proposed road, bridge, path and trail construction projects, and any other specified capital outlays for the following six year period, and;

WHEREAS, the current Priority Programming Array and Bridge Inspection Report have been provided along with the proposed Six-Year Transportation Improvement Program to aid in its evaluation, and:

WHEREAS, the proposed program is based on a realistic assessment of available funding for the program period, and;

WHEREAS, the proposed program is consistent with the goals and objectives of the Transportation Element of the Okanogan County Comprehensive Plan and the Transportation Element is hereby updated to reflect this current adopted Six Year Transportation Improvement Program, and;

WHEREAS, a public hearing has been held to provide input to the proposed program;

NOW, THEREFORE BE IT RESOLVED, that the attached Six-Year Transportation Improvement Program for the years 2020 to 2025 is hereby adopted by Okanogan County as required by R.C.W. 36.81.121.

DATED at Okanogan, Washington this 27^{th} day of A_{ta} ust 2019.



BOARD OF COUNTY COMMISSIONERS **OKANOGAN, WASHINGTON**

Jim DeTro, Chairman

Chris Branch, Vice Chairman

Andy Hover, Member

ATTEST:

Lalena Johns, Clerk of the Board



Six Year Transportation Improvement Program From 2020 to 2025

c	ounty: Okar	nogan														
MPO	(RTPO : 0C0	G RTPO		N Inside			Y Outs	ide								
Functional Class	Priority Number	A. PIN/Pi C. Projec D. Road E. Begin F. Projec	roject No. :t Title Name or Number & End Termini t Description		B. G. Struc	STIP ID	Hearing	Adopted	Amendment	Resolution No.		Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
07	1				S	TP Pres						05			CE	No
		Okanoga	n County Wide Pavement Pres	servation Project												
		Varies														
		varies to	varies													
		Crack Se	al as needed, Pre-Level as ne	eded, Chip Seal												
Fundi	ng															
S	tatus	Phase	Phase Start Year (Y	YYY) Federal Fund Cod	e Federal Funds	5	State Fund Cod	le	State Funds	Lo	cal Funds		To	tal Funds		
	Р	PE	2020	STP(R)	25,00	00				0		3,902	2	28,9	02	
	P	CN	2021	STP(R)	500,00	00				0	7	8,035	1	578,0	35	
				Тс	otals 525,00	0				0	8	81,937	1	606,9	37	
Exper	diture Sched	tule														
	Phase		1st	2nd	3rd		4th		5th & 6th							
	PE		28,902	0	0			0		0						
	CN		0	578,035	0			0		0						
		Totais	28,902	578,035	0			0		0						

Page 1



Six Year Transportation Improvement Program From 2020 to 2025

C	ounty: Oka	nogan																
MPO	RTPO: 000	OG RTPO			N Inside				Y Outsid	e								
Functional Class	Priority Number	A. PIN/P C. Projec D. Road E. Begin F. Projec	roject No. ct Title Name or Number & End Termini ct Description				B. S G. Struc	STIP ture	ID Hearing	Adopted	Amendment		Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
08	2	2					9	221-0	04					06		0.150	CE	No
		Salmon (Creek Road Drainage															
		9221 2.950 to	3 10															
		Replace	existing culvert															i i
	l	1																
Fundi	ng																	
S	atus	Phase	Phase Star	Year (Y)	YYY) Federal Fund	Code	Federal Funds		State Fund Code		State Fund	ls	Local Fund	is	То	tal Funds		
	s	PE	2	020				0	CRAB			54,000		6,000	D I	60,	000	
	s	CN	2	024				이	CRAB			695,700		77,300	0	773,	000	
						Totals	:	0				749,700		83,300)	833,	000	
Exper	diture Sche	dule											٦					
<u> </u>	Phase		1st		2nd		3rd		4th		5th & 6t	h	1					
—	PE			60,000		0	0		da 10	0			2					
	CN			0		0	0			0		773.00	7					

0

0

773,000

Report Date: August 21, 2019

Totals

60,000

0

Page 2



Six Year Transportation Improvement Program From 2020 to 2025

	County: Oka	nogan														
MP	O/RTPO: OC	OG RTPO			N Inside			Y Outsi	de							
Functional Class	Priority Number	A. PIN/P C. Proje D. Road E. Begin F. Projec	roject N ct Title Name o & End ct Desc	lo. or Number Termini ription		B G. Stri	. STIP I	ID Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
07		3 / E241(0)11) Driskel F	d to Verestar Rd)			9155((1)				06	PTW	2.250	CE	Yes
		9155	SHOKEIT													
		MP 1.91	to MP 4	.16												
		Minor rea BST. Gu	alignmei ardrail n	nt, widening, grading, d nay be necessary on sl	Irainage, ballast, top course an hort grade section.	nd HMA or										
Fun	ling														٦	
	Status	Phase	•	Phase Start Year (Y	YYY) Federal Fund Cod	le Federal Funds		State Fund Cod	9	State Funds	Local Fund	ls	To	tal Funds		
	S	CN		2021	STP(R)	978,0	000	CRAB		1,350,000			0	2,328,0	00	
					Тс	otals 978,0	00			1,350,000			0	2,328,0	00	
Exp	enditure Sche	dule									٦					
	Phase			1st	2nd	3rd	Τ	4th		5th & 6th	-					
	CN			0	2,328,000	(2		0	· · · · · · · · · · · · · · · · · · ·	0					
		Totals		0	2,328,000				0		0					



Six Year Transportation Improvement Program From 2020 to 2025

	County: Okar	nogan												
MPC	0/RTPO: 0C0	G RTPO		N Inside		YOL	Itside							
Functional Class	Priority Number	A. PIN/P C. Projec D. Road E. Begin F. Projec	roject No. ct Title Name or Number & End Termini ct Description		B. : G. Struc	STIP ID	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
07	4	Okanoga varies to Crack Se	n County Wide Pavement Pres varies ral as needed, Pre-Level as ne	servation eded, Chip Seal.	s	TP - P2				05			CE	No
Fund	ing					-								•
5	itatus	Phase	Phase Start Year (Y	YYY) Federal Fund Coc	de Federal Funds	State Fund C	ode	State Funds	Local Fund	ts –	то	otal Funds		
	Р	PE	2022	STP(R)	25,00	00		0		3,902	2	28,	902	
	Р	CN	2023	STP(R)	500,00	00		0		78,035	5	578,	035	
				Т	otals 525,00	00		0		81,937	7	606,	937	
Expe	nditure Scheo	tule							7					
	Phase		1st	2nd	3rd	4th		5th & 6th						
	PE		0	0	28,902		0		0					
	CN		0	0) 0		578,035		0					
		Totals	0	0	28,902		578,035		0					

Page 4



Six Year Transportation Improvement Program From 2020 to 2025

(county: Okan	logan													
MPO	(RTPO: 0C0	G RTPO		N Inside			Y Outs	ide							
Functional Class	Priority Number	A. PIN/Pr C. Projec D. Road I E. Begin F. Project	oject No. t Title Vame or Number & End Termini t Description		B G. Stru	STIP	ID Hearing ID	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
08	5	Omak Riv 3735 0.000 to 1 Pre-level,	erside Eastside Rd. 2R .500 HMA overlay with safety and d	drainage improvements.		3735-(06				05 P	т	1.500	CE	No
Fundi	ng														
S	tatus	Phase	Phase Start Year (Y	(YY) Federal Fund Cod	le Federal Funds		State Fund Cod	e	State Funds	Local Fun	ds	Tot	al Funds		
	S	CN	2020			0	CRAB		677,700		75,300		753,0	00	
				Тс	otals	0			677,700		75,300		753,0	00	
Exper	diture Sched	lule			····					7					
	Phase		1st	2nd	3rd		4th		5th & 6th						
	CN		753,000	0	(0		0					
		Totals	753,000	0	(0		0					

Report Date: August 21, 2019



Six Year Transportation Improvement Program From 2020 to 2025

Ċ	County: Okar	nogan											
MPO	/RTPO: 0CC	OG RTPO		N Inside		Y Outs	ide						
Functional Class	Priority Number	A. PIN/Pr C. Projec D. Road E. Begin F. Projec	roject No. :t Title Name or Number & End Termini t Description		B. : G. Struc	STIP ID Tean sture ID g	Adopted	Amendment	Resolution No.	Utility Codes Improvement Type	Total Length	Environmental Type	RW Required
07	6	 J 9437(0) Highway 9437 MP 13.40 Minor rea Guardrail 	01) 7 (Grillo Section) 9 to MP 14.69 Ilignment, widening, grading, d installed where warranted.	rainage, ballast, top course ar	nd BST.	9437(1)				06 PT	W 1.290	CE	Yes
Fundi	ng												
S	tatus	Phase	Phase Start Year (Y	YYY) Federal Fund Cod	ie Federal Funds	State Fund Coo	e	State Funds	Local Funds		Total Funds		
	Р	PE	2023			0 CRAB		231,750	2	25,750	257,5	600	
	Р	RW	2024			0 CRAB		154,125	1	7,125	171,2	250	
	Р	CN	2025			0 CRAB		1,117,125	12	4,125	1,241,2	:50	
L				T(otals	0		1,503,000	16	57,000	1,670,0	00	
Exper	diture Schee	dule							٦				
	Phase		1st	2nd	3rd	4th		5th & 6th					
	PE		0	0	0	2!	7,500		0				
	RW		0	0	0		0	171,25	0				
	CN		0	0	0		0	1,241,250	0				



Six Year Transportation Improvement Program From 2020 to 2025

0

0

0	County: Oka	nogan														
MPO	RTPO: 0CC	GRIPO			N Inside			Y Outsi	de							
Functional Class	Priority Number	A. PIN/Pr C. Projec D. Road E. Begin F. Projec	roject N ct Title Name o & End ct Descr	io. pr Number Termini ription		B. G. Stru	STIP II	D Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
07	7	Robinson 2781 MP 1.60 Minor Re HMA.	to MP 3	n (Nichols Rd to Omak .09 ent, widening, grading, (: Airport) drainage, ballast, top course a	and BST or	278	31				06	СРТW	1.490	CE	Yes
Fundi	ng							· · · · · ·								
S	tatus	Phase	•	Phase Start Year (Y	YYY) Federal Fund Co	de Federal Funds		State Fund Code	,	State Funds	Local Fund	ls	Tot	al Funds		
	Р	PE		2021			0	CRAB		180,000		20,000		200,0	20	
	P	RW		2022			0	CRAB		108,000		12,000)	120,0	00	
	P	CN		2023			0	CRAB		1,350,000		150,000)	1,500,0	00	
					Т	otals	0			1,638,000		182,000	2	1,820,0	00	
Expen	diture Schee	lule									7					
	Phase			1st	2nd	3rd		4th		5th & 6th	-					
	PE			0	200,000	0			0		0					
	RW			0	0	120,000			0		0					

0

120,000

1,500,000

1,500,000

CN

Totals

0

0

0

200,000

1



Six Year Transportation Improvement Program From 2020 to 2025

c	County: Oka	nogan													
MPO	/RTPO: 000	OG RTPO		N Inside			Y Outs	ide							
Functional Class	Priority Number	A. PIN/P C. Projec D. Road E. Begin F. Projec	roject No. ct Title Name or Number & End Termini tt Description		B. G. Stru	STIP ID	Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
07	8	Old River 2867 MP 0.23 Minor rea	rside Hwy (Omak City Limits to , to MP 2.50 Ilignment, widening, grading, dr	Airport Rd) ainage, ballast, top course an	id BST.	2867					06	CPTW	2.270	CE	Yes
Fundi	ng			· · · · · · · · · · · · · · · · · · ·											
S	tatus	Phase	Phase Start Year (YY	YY) Federal Fund Cod	e Federal Funds		State Fund Cod	e	State Funds	Local Fund	is	Tot	al Funds		
	Р	PE	2020			0	CRAB		324,000		51,000	2	375,0	00	
	Р	RW	2021			0	CRAB		216,000		34,000)	250,0	00	
	P	CN	2022			0	CRAB		1,622,000		253,000)	1,875,0	00	
		-		Тс	otals	0			2,162,000		338,000		2,500,0	00	
Expen	diture Sche	dule								۲					
	Phase		1st	2nd	3rd		4th		5th & 6th	-					
	PE		375,000	0	0			0		0					
	RW		0	250,000	0			0	····	0					
	CN		0	0	1,875,000	<u> </u>		0		D					
		Totals	375,000	250,000	1,875,000			0		0					



Six Year Transportation Improvement Program From 2020 to 2025

MPO/	RTPO: OCC	nogan)G RTPO		N Inside			Y Outsi	ide								
Functional Class	Priority Number	A. PIN/Pi C. Projec D. Road E. Begin F. Projec	roject No. t Title Name or Number & End Termini t Description		B. G. Struc	STIP ID	Hearing	Adopted		Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
07	9	/ 2856(0) Omak Air 2856 MP 0.00 Minor rea need gua	00) port Rd (Airport to Old Riversid to MP 1.01 Ilignment, widening, grading, d rdrail on short grade section.	te Hwy) rainage, ballast, top course an	nd BST. May	2856						06	PTW	1.010	CE	Yes
Fundi	ng		· · · · · ·	· · · · · · · · · · · · · · · · · · ·												
St	atus	Phase	Phase Start Year (Y	YYY) Federal Fund Cod	le Federal Funds	5	State Fund Cod	e	State	Funds	Local Fun	ds	To	tal Funds		
	P	PE	2020			0	CRAB			135,000		15,000	D	150,0	00	
	P	RW	2021			0	CRAB			90,000		10,000	D	100,0	00	
	Р	CN	2022			0	CRAB			990,000		110,000	D	1,100,0	00	
				T	otals	0				1,215,000		135,000	0	1,350,0	00	
Expen	diture Scheo	lule														
-	Phase		1st	2nd	3rd		4th	Т	51	n & 6th	_					
	PE		150,000	0	0			0			0					
	RW		0	100,000	0			0			0					
	CN		0	0	1,100,000			0			0					
		Totals	150,000	100,000	1,100,000			0			0					

Report Date: August 21, 2019



Six Year Transportation Improvement Program From 2020 to 2025

0

	County: Oka	nogan													
MP	O/RTPO: OCO	OG RTPO		N Inside			Y Outs	ide							
Functional Class	Priority Number	A. PIN/P C. Proje D. Road E. Begir F. Proje	Project No. ct Title Name or Number & End Termini ct Description		B. G. Struc	STIP ID cture ID	Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
07	10	0 / STPR(Highway 9437 MP 0.00 Minor re	(000) 77 (SR 97 to MP 2.15) to MP 1.70 alignment, widening, gradeing,	drainage, ballast, top course a	ind BST.	9437(2)					06	ΡΤW	1.700	CE	Yes
Fun	ding				· · · · · · · · · · · · · · · · · · ·										
	Status	Phase	e Phase Start Year (Y	YYY) Federal Fund Cod	le Federal Funds	s	State Fund Cod	le	State Funds	Local Fund	ds	To	tal Funds		
	Р	PE	2021			0	CRAB		225,000		25,00	0	250,0	00	
	Р	RW	2022			0	CRAB		118,800		13,20	0	132,0	00	
	Р	CN	2023			0	CRAB		2,070,000		230,00	0	2,300,0	00	
				Тс	otals	0			2,413,800		268,20	0	2,682,0	00	
Exp	enditure Sche	dule								7					
	Phase		1st	2nd	3rd		4th	1	5th & 6th	-1					
	PE		0	250,000	0			0		0					
	RW		0	0	132,000			0		2					
	CN		0	0	0		2,30	0,000		5					
		Totals	0	250,000	132,000		2,30	0,000		5					

Report Date: August 21, 2019



Functional 7 Class

Six Year Transportation Improvement Program From 2020 to 2025

Agency: Okanogan Co. County: Okanogan MPO/RTPO: OCOG RTPO N Ins

		Y Outs	side							
. PIN/Project No. . Project Title . Road Name or Number . Begin & End Termini . Project Description	B. STIP ID G. Structure ID	Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
	9309-13					04	PT	1.200	CE	Yes
ameron Lake Road 3R										
309										
30 to 4.50										
ealigned and widen road with HMA or BST, drainage and safety improvements.										
	PIN/Project No. Project Title Road Name or Number Begin & End Termini Project Description ameron Lake Road 3R 09 30 to 4.50 ealigned and widen road with HMA or BST, drainage and safety improvements.	PIN/Project No. B. STIP ID Project Title Road Name or Number Begin & End Termini Project Description G. Structure ID 9309-13 ameron Lake Road 3R 09 30 to 4.50 ealigned and widen road with HMA or BST, drainage and safety improvements.	PIN/Project No. B. STIP ID Project Title Road Name or Number Begin & End Termini Project Description G. Structure ID 9309-13 ameron Lake Road 3R 09 30 to 4.50 ealigned and widen road with HMA or BST, drainage and safety improvements.	PIN/Project No. B. STIP ID Project Title Road Name or Number Begin & End Termini Project Description 9309-13 9309-13 ameron Lake Road 3R 9309-13 09 30 to 4.50 ealigned and widen road with HMA or BST, drainage and safety improvements.	PIN/Project No. Project Title Road Name or Number Begin & End Termini Project Description ameron Lake Road 3R 09 30 to 4.50 bealigned and widen road with HMA or BST, drainage and safety improvements.	PIN/Project No. Project Title Road Name or Number Begin & End Termini Project Description ameron Lake Road 3R 09 30 to 4.50 bealigned and widen road with HMA or BST, drainage and safety improvements.	PIN/Project No. Project Title Road Name or Number Begin & End Termini Project Description B. STIP ID G. Structure ID H annon Signed Si	PIN/Project No. B. STIP ID A A A B A B </td <td>PIN/Project No. B. STIP ID A do project Title A do project Title A do project No. Project Title A do project No. Project No.<td>PIN/Project No. B. STIP ID Adop Adop Improve Improve<!--</td--></td></td>	PIN/Project No. B. STIP ID A do project Title A do project Title A do project No. Project Title A do project No. Project No. <td>PIN/Project No. B. STIP ID Adop Adop Improve Improve<!--</td--></td>	PIN/Project No. B. STIP ID Adop Adop Improve Improve </td

Funding						·····		
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
S	RW	2020		0	CRAB	55,800	6,200	62,000
S	CN	2022		0	CRAB	1,269,200	141,022	1,410,222
			Totals	0		1,325,000	147,222	1,472,222

xpenditure Schedule												
Phase	1st	2nd	3rd	4th	5th & 6th							
RW	62,000	0	0	0	0							
CN	0	0	1,410,222	0	0							
Totals	62,000	0	1,410,222	0	0							

Report Date: August 21, 2019



Six Year Transportation Improvement Program From 2020 to 2025

0

Ċ	county: Okar	nogan													
MPO	/RTPO: 0C0	G RTPO		N Inside		١	/ Outside								
Functional Class	Priority Number	A. PIN/Pi C. Projec D. Road E. Begin F. Projec	roject No. :t Title Name or Number & End Termini t Description		B. G. Stru	STIP ID Hearing cture ID		Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
08	12				W	A-11443					04	OPT	1.340	CE	Yes
		Rodeo Ir	ail (Fairgrounds Section)												
		3175													
		0.960 to 2	2.3U												
L		Reconsul	uct surface lanes and shoulde	widths to limit seasonal weigh	nt restrictions.										
Fundi	ng													_	
S	tatus	Phase	Phase Start Year (Y	YYY) Federal Fund Cod	le Federal Funds	State Fun	id Code	Sta	ate Funds	Local Fund	ts	Tot	tal Funds		
	Р	PE	2021	STP(R)	142,72	25			0		22,275	5	165,0	00	
	Р	RW	2022	STP(R)	86,50	00			0		13,500	D	100,0	000	
	P	CN	2023	STP(R)	1,427,2	50			0		222,750	0	1,650,0	00	
				То	otals 1,656,47	75			0		258,525	5	1,915,0	00	
Exper	diture Sched	tule								ר					
	Phase		1st	2nd	3rd	4th			5th & 6th	1					
	PE		0	165,000	0		0			5					
	RW		0	0	100,000		0 0								
	CN		0	0	0		1.650.000	650,000 0							

100,000

1,650,000

165,000

0

Totals



Six Year Transportation Improvement Program From 2020 to 2025

0

County:	: Okanoga	an														
MPO/RTPO: OCOG RTPO N Inside Y Outside								e								
Functional Class	A. PIN/Project No. C. Project Title D. Road Name or Number E. Begin & End Termini F. Project Description				B. G. Stru	STIP ID	Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required	
00	13					G	DRAIL B	3				21	PT		CE	No
	Co	ounty Wide (Guardrail Safety Project B													
	va	ries														
	va	ries to varie	5													ĺ
	Co en ins	ounty wide s nbankment l stallation.	afety project for guardrail hazard. Work will include	installation at key locations to shoulder stabilization and gua	protect over Indrail											
Funding																
Status		Phase	Phase Start Year (Y	YYY) Federal Fund Cod	le Fe	ederal Funds		State Fund Code		State Funds	Local Fur	ıds	То	tal Funds		
P		PE	2020	HSIP		30,4	48			0		4,75	2	35,2	00	
P		CN	2021	HSIP		527,9	15			0			0	527,9	15	
				Τα	otals	558,3	63			0		4,75	2	563,1	15	
Expenditure	Schedule	•									7					
Ph	hase		1st	2nd		3rd		4th		5th & 6th						
I	PE	35,200 0 0					0		0							
(CN 0 527,915 (0		0						

0

0

527,915

35,200

Report Date: August 21, 2019

Totals

Page 13



Six Year Transportation Improvement Program From 2020 to 2025

(County: Okar	nogan													
MPO	RTPO: 000	OG RTPO		N Inside			Y Outsi	ide							
Functional Class	Priority Number	A. PIN/P C. Proje D. Road E. Begin F. Proje	roject No. ct Title Name or Number & End Termini ct Description		B. G. Struc	STIP ID cture ID	Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
00	14				BGF	RAIL FIT					21	PT		CE	No
		Bridge R	ail Retrofit												
		Varies	Varias												
		Petrofit I	vanes Ridos Pail			\/ories									
	1	I COLONICI				Valies	<u>'l</u>		1						
Fundi	ng			· · · · · · · · · · · · · · · · · · ·											
s	tatus	Phase	e Phase Start Year (Y	(YYY) Federal Fund Cod	e Federal Funds		State Fund Cod	e	State Funds	Local Fun	lds	T	otal Funds		
	Р	PE	2020	HSIP	51,9	00			0		8,100	0	60,0	00	
	Р	CN	2021	HSIP	651,14	46			0		(כ	651,1	46	
L				Тс	otals 703,04	46			0		8,100	0	711,1	46	
Exper	diture Scheo	lule	<u>.</u>							٦					
<u> </u>	Phase		1st	2nd	3rd		4th		5th & 6th	-					
	PE		30,059	0	0			0		0					
	CN 0 550,978 0 0					0									
Totals 30,059 550,978								0		0					

Report Date: August 21, 2019



Six Year Transportation Improvement Program From 2020 to 2025

1	County: Okar	nogan													
MPC	/ RTPO: 000	G RTPO		N Inside		ΥC	utside								
Functional Class	Product A. PIN/Project No. Function C. Project Title D. Road Name or Number E. Begin & End Termini F. Project Description 08 15			B. G. Stru	STIP ID	batdopv	Amendment		Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required	
08	15	Mazama	Intersection			9140-07					03	PT	0.150	CE	Yes
		Lost Rive	er Rd												
		0.35 to 0	50 It Base Course Top Course	HMA or BST Asphalt String or	d Sign										i i
						I		l							
Fund	ng								-			-			
S	tatus	Phase	Phase Start Year ()	YYY) Federal Fund Cod	le Federal Funds	State Fund (Code	State Funds		Local Fund	S	Tot	al Funds		
	Р	PE	2021	STP(R)	47,5	75			D		7,42	5	55,0	000	
	P	RW	2022	STP(R)	12,9	75			0		2,02	5	15,0	000	
	Р	CN	2023	STP(R)	173,0	00			0		27,000	D	200,0	00	
				T	otals 233,5	50			D		36,450	D	270,0	00	
Expe	nditure Scheo	tule			· ·····										
	Phase		1st	2nd	3rd	4th		5th & 6th							
	PE		0	55,000	0		0		0						
	RW		0	0	15,000		0		0						
	CN		0	0	0		20,000 0								
·					1				-						



Six Year Transportation Improvement Program From 2020 to 2025

C MPO	ounty: Ok (RTPO: OC	anogan COG RTPO		1	V Inside				Y Outs	side							
Functional Class	Priority Number	A. PIN/Pr C. Projec D. Road I E. Begin F. Projec	oject No. t Title Vame or Number & End Termini Description		B. S G. Struct	TIP ID	Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required		
07	1	16 Highway 7 (Early Sunrise Section) 9437						437-07	7				06	PTW	1.280	CE	No
		2.15 to 3. Minor wid	43 ening, prelevel, chipseal and	some safety im	provements.												
Fundi	ng																
S	tatus	Phase	Phase Start Year ()	(YYY) Fed	leral Fund Code	Feder	ral Funds		State Fund Coo	de 🛛	State Funds	Local Fun	ds	То	tal Funds		
	Ρ	PE	2020				(0	CRAB		30,000		3,00	0	33,(000	
P CN 2022					(0	CRAB		510,000		51,00	0	561,0	000			
					Tot	tais		0			540,000		54,00	0	594,0	000	
Expen	diture Sch	edule										7					
	Phaea		1et	2	nd	3rd			Ath		5th & 5th						

Phase	1st	2nd	3rd	4th	5th & 6th
PE	80,000	0	0	0	0
CN	0	0	753,000	0	0
Totals	80,000	0	753,000	0	0

Report Date: August 21, 2019



Six Year Transportation Improvement Program From 2020 to 2025

MPC	County: Okanogan MPO/RTPO: OCOG RTPO N Inside Y Outside														
Functional Class	A. PIN/Project No. C. Project Title D. Road Name or Number E. Begin & End Termini F. Project Description 17 Loomis Oroville Road				B. G. Stru	STIP ID	Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
07	17	Loomis (9425 6.00 to 7 Minor rea	Droville Road .25 Ilignment, widening, grading, b	ballast, top course, and HMA o	r BST.	9425-26					04	PTW	1.250	CE	Yes
Fund	ng													_	
S	tatus	Phase	Phase Start Year (Y	YYY) Federal Fund Cod	le Federal Funds		State Fund Code		State Funds	Local Fun	ds	To	tal Funds	-	
	P	PE	2021			0	CRAB		126,000		14,000	0	140,0	юо	
	Р	RW	2022			0	CRAB		22,500		2,50	0	25,0	00	
	Р	CN	2024			0	CRAB		1,651,500		183,500	0	1,835,0	00	
	Totals 0 1,800,0							1,800,000		200,000	0	2,000,0	00		
Expe	nditure Sched	lule								Г					
	Phase		1st	2nd	3rd		4th		5th & 6th	1					
	PE		0	140,000	0	0				0					
	RW		0	0	25,000	0 0 0				0					
	CN		0	0	0	0 0 1,835			1,835,00	0					

25,000

0

1,835,000

140,000

0

Report Date: August 21, 2019

Totals



Six Year Transportation Improvement Program From 2020 to 2025

C MPO/	ounty: Okar RTPO: OCC	nogan)G RTPO		N Inside		Y Outsid	ie							
Functional Class	Priority Number	A. PIN/Project C. Project Title D. Road Name E. Begin & En F. Project Des	No. 9 or Number d Termini cription		B. STIF G. Structure	PID Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
00	18	Countywide Sp various various to vario Study Speed lii accidents.	eed Limit and Striping Study us nits and see where striping the r	oad would reduce run off the	WA-12	029				21	PTW		CE	No
Fundir	g												٦	
St	atus	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code		State Funds	Local Funds	S	Tot	al Funds		
	Р	PE	2020	HSIP	123,263			0		19,237		142,5	00	
				Totals	123,263			0		19,237		142,5	00	

Experiditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	142,500	0	0	0	0
Totals	142,500	0	0	0	0



Six Year Transportation Improvement Program From 2020 to 2025

c	ounty: Okar	nogan													
MPO	RTPO: 000	G RTPO		N Inside			Y Outsid	e							
Functional Class	Top A. PIN/Project No. C. Project Title D. Road Name or Number D. Road Name or Number E. Begin & End Termini F. Project Description F. Project Description				B. S G. Struc	STIP ID	Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
07	19	Old 97 (V 9155 4.15 to 5. Minor Alig	erestar to Plata Road) 35 gnment Changes, rebuild, rest	9 nstall guardrail.	9155-20					04	PTW	1.200	CE	No	
Fundi	ng										_				
St	atus	Phase	Phase Start Year (Y	YYY) Federal Fund Cod	e Federal Funds	Sta	ate Fund Code		State Funds	Local Funds	;	Tot	tal Funds		
	s	PE	2021			0	CRAB		126,000		14,000		140,0	00	
	S	CN	2024			0	CRAB		1,674,000	1	86,000		1,860,0	00	
				Тс	tals	0			1,800,000	2	00,000		2,000,0	00	
Expen	diture Sched	lule								7					
	Phase		1st	2nd	3rd		4th		5th & 6th	-					
	PE		0	140,000	0			0		0					
	CN		0	0	0			0	1,860,00	00					
		Totals	0	140,000	0			0	1,860,00	00					
					Federal Funds				State Funds	Local Funds		Tot	al Funds		
			Co. 5,302,69	07			17,174,200	2,34	40,960		24,817,8	57			

Report Date: August 21, 2019



MEMORANDUM

Date:	August 21, 2019
То:	Board of Okanogan County Commissioners
From:	Josh Thomson P.E., County Engineer
Subject:	2020-2025 Revenue and Expenditure Analysis

The attached Revenue and Expenditure Analysis is a required component of the 6-year Transportation Improvement Program, and is a good tool to assess trends and options for capital expenditures.

Revenues assume no levy shift and a 1.5% road levy increase per year. Motor Vehicle Fuel Tax, County Arterial Preservation Program funds and SRS are projected at a flat rate.

Revenues and expenditures for large construction projects include all of the funded projects in the TIP plus two safety projects I expect will be funded this fall. This leaves both the revenues and expenditures for engineering low in 2022-2025, but I anticipate more projects will be funded in the next two years to bring them more in line with the 2020 and 2021 figures. Revenues are about 88% of the expenditures, so this will have little impact on the projected fund balance.

Expenditures for normal maintenance and administration activities assume a 3% annual escalation to account for labor and benefit increases, construction materials and equipment inflation, and fuel price increases. 3% may be a bit low to account for all of these factors. Chip seal costs are assumed to increase 7% per year because they are more heavily influenced by construction cost inflation, which always outpaces the CPI-based inflation rate.

Construction of new shops at Winthrop and Tonasket are budgeted in 2020 and 2021 for analysis purposes, assuming half of the investment comes from another source such as the capital improvement fund.

Revenue and Expenditure Analysis

OKANOGAN County SIX-YEAR TRANSPORTATION IMPROVEMENT PROGRAM REVENUE AND EXPENDITURE ANALYSIS

Co Rd/Co Rd Construction:	2020	2021	2022	2023 - 2025	
REVENUES:					
BEGINNING FUND BALANCE	3,200,000	2,992,512	2 602 440	2 121 980	
REAL & PERSONAL PROPERTY TAX				2,121,000	
LESS CO ROAD DIVERSION	4,835,400	4,907,931	4.981.550	15,392,990	
LEVY SHIFT (enter as negative)					
MOTOR VEHICLE FUEL TAX	3,950,000	3,950,000	3,950,000	11,850,000	
CO ARTERIAL PRES PROGRAM	624,862	624,862	624,862	1.874.586	
RURAL ARTERIAL PROGRAM	830,700	1,494,000	1,379,000	2,414,700	
TRANSPORTATION IMPROVEMENT BOARD					
UATA			· · · · · · · · · · · · · · · · · · ·	1	
IAC-SALMON RECOVERY FUND			······································		
FEDERAL - HSIP	82,200	599,400	0	0	
FEDERAL - BRIDGE REPLACEMENT				······································	
FEDERAL - STP REGIONAL	11,000	978,000	0	0	
FEDERAL - FOREST YIELD	750,000	750,000	750,000	2,250,000	
FEDERAL - OTHER					
WSDOT PARTICIPATION			·····		
BRIDGE REPLACEMENT PROGRAM				······································	
HAZARD ELIMINATION PROGRAM				1.41	
OTHER INTERGOVERNMENT & STATE SHARED	36,000	36,000	36,000	108.000	
CHARGES FOR SERVICES	22,000	24,000	25,000	75.000	
LICENSES & PERMITS	18,000	18,000	18,000	54.000	
OTHER MISCELLANEOUS REVENUES	34,000	34,000	34,000	102.000	
GENERAL OBLIGATION BOND PROCEEDS					
PROCEEDS FROM SALE OF FIXED ASSETS			700,000		
SPECIAL PURPOSE PATH				·····	
PUBLIC WORKS TRUST FUND				Milling and a second	
CRIDS				······	
SEPA			······································		
OPERATING TRANSFER	16,000	16,000	16,000	48,000	
IMPACT FEES					
TOTAL REVENUES & FUND BALANCES:	\$14,410,162	\$16,424,705	\$15,116,852	\$36,291,256	

Revenue and Expenditure Analysis

OKANOGAN County SIX-YEAR TRANSPORTATION IMPROVEMENT PROGRAM REVENUE AND EXPENDITURE ANALYSIS

Co Rd/Co Rd Construction:	2020	2021	2022	2023 - 2025	
EXPENDITURES:					
CONSTRUCTION PROJECT ENGINEERING	315,000	242,700	60.000	50.000	
ROAD SURFACES MAINTENANCE	2,200,000	2,266,000	2,334,000	7.422.000	
ROAD PREVENTATIVE MAINTENANCE (CHIP SEAL)	1,750,000	1,873,000	2,004,000	6.854.000	
STORM DRAINAGE	575,000	592,000	610,000	1,940,000	
STRUCTURES	50,000	52,000	54,000	172.000	
TRAFFIC SAFETY DEVICES	425,000	438,000	451,000	1,434,000	
STREET CLEANING	100,000	103,000	106,000	337,000	
SNOW & ICE CONTROL	1,580,000	1,627,000	1,676,000	5,330,000	
ROADSIDE	375,000	386,000	398,000	1,266,000	
PITS & QUARRIES	200,000	206,000	212,000	674,000	
PIT PURCHASES			600,000	· · · · · · · · · · · · · · · · · · ·	
MAINTENANCE ADMINISTRATION	740,000	762,000	785,000	2,496,000	
FACILITIES	200,000	206,000	212,000	674,000	
FACILITIES CONSTRUCTION	250,000	250,000			
SUPPORT SERVICES	850,000	876,000	902,000	2,868,000	
GENERAL SERVICES (331)	1,050,000	1,082,000	1,114,000	3,543,000	
LONG TERM DEBT	4,650	4,650	4,650	13,950	
CONSTRUCTION IN HOUSE SERVICES			······································		
ENDING FUND BALANCE					
SUBTOTAL OPERATIONS:	\$10,664,650	\$10,966,350	\$11,522,650	\$35,073,950	
CONSTRUCTION:					
ROADWAY SAFETY	0	527,915	0	0	
ROADWAY IMPROVEMENT (CONSTRUCTION)	753,000	2,328,000	1.472.222	2.633.000	
ENVIRONMENTAL RETROFIT	<u> </u>	<u> </u>			
GREENWAY PROGRAM				15.4.00	
SUBTOTAL CONSTRUCTION:	\$753,000	\$2,855,915	\$1,472,222	\$2,633,000	
TOTAL EXPENDITURES	\$11,417,650	\$13,822,265	\$12,994,872	\$37,706,950	
FUND BALANCE:	\$2,992,512	\$2,602,440	\$2,121,980	-\$1,415,694	

Print Date: 8/21/2019

Page 2 of 3

Revenue and Expenditure Analysis

OKANOGAN County SIX-YEAR TRANSPORTATION IMPROVEMENT PROGRAM REVENUE AND EXPENDITURE ANALYSIS

Co Rd/Co Rd Construction:	2020	2021	2022	2023 - 2025
NET FOR YEAR	(\$207,488)	(\$390,072)	(\$480,460)	(\$3,537,674)



OKANOGAN COUNTY DEPARTMENT OF PUBLIC WORKS

2018 BRIDGE CONDITION INSPECTION REPORT



Josh Thomson, P.E. County Engineer Bridge Inspection Team Leader, G1614

June 10, 2019

Date

Table of Contents

- I. Introduction
- II. Bridge Inspections
- III. Inspection Findings
- IV. Scour Evaluations
- V. Bridge Restrictions
- VI. Emergency Repairs
- VII. Maintenance Activities
- VIII. Completed Projects
- IX. Current Projects
- X. Recommended Projects

Appendix A - Okanogan County NBIS Bridge Listing

Appendix B - Load Rating Summary Sheets

I. INTRODUCTION

The 2018 Bridge Condition Inspection Report summarizes the status of bridges owned, operated and maintained by Okanogan County, and is prepared under the direction of the County Engineer in accordance with WAC 136-20-060. This Report is for your use during preparation of the Six Year Transportation Improvement Program. This report is based upon the most current data available in our bridge files.

Contained within this report are descriptions of the ongoing bridge inspection efforts and current findings, bridge load restrictions and emergency repairs undertaken during the reporting period. Any maintenance accomplished by local forces and recommended replacement or rehabilitation projects will be described within.

II. BRIDGE INSPECTIONS

Federal Highway Administration (FHWA) requirements mandate that public agencies inspect and report on all bridges (vehicle carrying structures with a span length of greater than twenty feet) at least once every twenty-four months. The purpose of routine inspections is to evaluate and record the current condition of the bridge, determine the degree of wear and deterioration, and recommend repairs or needed services. The inspections are also to ensure and maintain public safety and confidence and to protect the traveling public's investments.

The County Engineer is a licensed Civil Professional Engineer and became certified as a bridge inspector/team leader in 2016.

1. Routine Bridge Inspections

Okanogan County has a total of 50 bridges subject to the National Bridge Inspection Standards (NBIS). Okanogan County also performs NBIS inspections on 8 small structure with spans less than 20 feet. Of those 58 county-owned bridges, inspections were performed on 29 bridges including two small structures during the 2018 inspection season. The Similkameen Trail structure is being added to the bridge inventory and will be inspected in 2019. Because this is a non-highway structure, it is not subject to NBIS. Inspections are also performed on nine city bridges for the towns of Okanogan, Tonasket and Conconully when scheduled; four were inspected for the Town of Conconully and one for Tonasket in 2018. Riverside's two bridges are inspected by WSDOT. Federal regulations require that NBIS bridges receive a routine safety inspection once every 24 months. Some of Okanogan County's bridges are inspected every 12 months due to deficiencies or damage that justify more frequent inspection.

2. Special Inspections

Special inspections are usually performed by WSDOT personnel under a reimbursable agreement with the WSDOT Bridge Preservation Office.

UBIT Inspection: An Under Bridge Inspection Truck (UBIT) is needed to perform inspections if the underside of the bridge is inaccessible. The UBIT inspection is required every 72 months or sooner if conditions dictate more frequent scheduling. Okanogan County has 2 bridges that require a UBIT inspection.

Underwater Inspection: Inspection of the underwater elements of a bridge is required by the NBIS at least once every 60 months or sooner if conditions dictate. Okanogan County has 3 bridges that were inspected underwater in 2015 by WSDOT personnel.

Fracture Critical Inspections: Okanogan County does not have any fracture critical bridges.

III. INSPECTION FINDINGS

When new damage or conditions are found during inspections that warrant repairs, maintenance is scheduled to be performed by county personnel or specialty contractors.

The Sufficiency Rating (SR) of each bridge is an indication of the overall health of the structure. The SR is a score calculated for each bridge based on the condition of the various elements of each bridge. It is a numeric value that ranges from 0 to 100 and is generated in the bridge management software. The value is a summation of four calculated values: Structural Adequacy and Safety, Serviceability and Functional Obsolescence, Essentiality for Public Use, and Special Reductions. The lower the SR is, the higher the priority for rehabilitation or replacement. To qualify for replacement funding, a bridge must have a sufficiency rating of less than 50. The SR for each bridge is included in Appendix A.

IV. SCOUR EVALUATIONS

A scour evaluation is required for all bridges over water. The purpose of a scour evaluation is to determine susceptibility of the bridge's foundation to the erosive actions of flowing water removing material from the bridge's foundation. A bridge is considered scour critical if its foundation is determined to be unstable for observed or calculated scour conditions.

When a bridge inspector identifies an actual or potential problem, the bridge must be further evaluated to determine whether or not it should be considered scour critical.

All of Okanogan County's bridges have been evaluated and none of them are scour critical at this time.

V. BRIDGE RESTRICTIONS

A load rating is performed for each bridge in the NBIS inventory by a professional structural engineer in accordance with federal and state regulations. A bridge load rating is the measure of the bridge's load carrying capacity. There are two capacity levels that bracket this ability, the Inventory Rating and the Operating Rating. The Inventory Rating is the load that a bridge can carry for an indefinite number of load cycles without detriment to the bridge. The Operating Rating is the maximum load that can be carried on an infrequent basis without detriment to the bridge.

The NBIS requires the posting of load limits or restrictions on a bridge when the load rating factor for the legal load is less than 1. Load ratings have historically been calculated using six standard truck configurations to check the capacity levels. Three of the truck configurations represent common legal loads, the forth is a national standard truck and the fifth and sixth represent overload vehicles.

Recently the Federal Highway Administration has added truck configurations that must be calculated for bridge load ratings. "Group 1" bridges were required to be load rated for Special Hauling Vehicles (SHVs) by the end of 2017, and "Group 2" bridges must be load rated by the end of 2022. Okanogan County has 14 group 1 bridges that were load rated in 2017, Okanogan has 3, and Tonasket has one. Conconully has three group 1 bridges that should have been load rated in 2017, but the town elected not to have the load ratings performed. SHVs are closely spaced multi-axle single unit trucks introduced by the trucking industry in the last decade, and are designated as SU4, SU5, SU6, and SU7 corresponding to the number of axles on the truck. Examples include dump trucks, construction vehicles, solid waste trucks and other hauling trucks with more than two drive axles and/or multiple drop axles not represented in the original six configurations.

Six bridges in Okanogan County and two in the City of Okanogan were posted with load restrictions in 2017 due to the load ratings required by FHWA. You will note in Appendix A that the Keystone bridge has a sufficiency rating of 58.75, Gate Creek is at 70.47 and the rest are 75 or higher. The reduced load ratings are not necessarily an indication of poor condition, but of loads imposed that the structures were not designed for. The load rating cover sheets for bridges requiring load restrictions are included as Appendix B for reference.

Bridge No.	Bridge Name	Status	Legal Load Restricted for:
B-14	Keystone	Posted	Type 3, 3-S2, SU4-SU7
C-6	Gold Creek Lower	Posted	SU4-SU7
C-11	Balky Hill	Posted	SU5-SU7
C-18	Gate Creek	Posted	SU5-SU7
E-5	Sinlahekin Cr	Posted	SU4-SU7
F-8	Nine Mile Cr	Posted	SU5-SU7
Okanogan2	Salmon Cr – 1 st Ave	Posted	SU4-SU7
Okanogan3	Salmon Cr – 5 th Ave	Posted	SU4-SU7
A-2	Statler, Salmon Cr	Posted	15 tons, all vehicles (non-NBIS)

The ASSHTO Type 3 truck is a standard 3-axle single unit truck, a type 3-S2 is a standard 3-axle tractor with a 2-axle semi-trailer, and a type 3-3 is a 3-axle truck with a 3-axle trailer.

Configuration	Tonnage
AASHTO Type 3	25 Tons
AASHTO Type 3-S2	36 Tons
AASHTO Type 3-3	40 Tons
SU4	27 Tons
SU5	31 Tons
SU6	34.7 Tons
SU7	38.7 Tons

Legal loads are as follows:

VI. EMERGENCY REPAIRS

No emergency repairs beyond ordinary maintenance were required on NBIS reportable structures in 2018. The Statler Bridge on Salmon Creek, which is less than 20', required emergency footing stabilization, and is currently posted with a 15 ton weight limit. This bridge will be replaced before the end of 2019.

VII. MAINTENANCE ACTIVITIES

Proper maintenance and repairs are necessary to prevent further deterioration of structures, to extend their useful life, and to prevent or reduce major repair costs in the future. During inspections, maintenance needs are documented. Repairs are scheduled for completion by county crews or project contract. Typical annual maintenance includes guardrail repairs, deck and drain cleaning, signing and brush cutting.

This year county personnel installed rip rap on one structure based on inspection findings.

Future maintenance will be more of the same as above and deck preservation products are currently being studied for cost and performance.

VIII. COMPLETED PROJECTS

No bridge construction projects occurred in 2018.

IX. CURRENT PROJECTS

Design of a 68' span structure on Salmon Creek Rd at milepost 2.24 over Salmon Creek is nearing completion, and construction will occur later in 2019.

RAP funding was secured in 2019 to replace an undersized box culvert on Salmon Creek Rd at milepost 3.05. Construction will likely occur in 4-5 years, with design beginning late this year. The current structure is a concrete box culvert with approximate 11' span and 6' height.

X. RECOMMENDED PROJECTS

Deck surface preservation and expansion joint repair are the focus of the county's bridge preservation efforts based on field observations. Deck sealing products are being studied for cost and performance. Two bridges are in line for the initial trials. Bridge C-5, Buttermilk Creek Lower, and bridge C-8, Twisp River, are both in need of deck surface sealing.

Three temporary culverts were placed under Hosheit Rd in 2017 to reopen the road after Tunk Creek washed out the previous culvert. This temporary situation needs to be remedied with a larger structure which will likely exceed 20' span. This project is likely to cost \$600,000 to \$800,000 based on current WDFW requirements, though there is a possibility a structure costing half that could be permitted.

Appendix A

Okanogan County NBIS Bridge Listing

Sufficienty Rating **Deficiency Status** Last Inspection Date Structure Length **Bridge Number** Reportable **Bridge Name** Inspection Frequency Year Rebuilt Traffic ADT Year Built NOTES Status NBI SALMON CR. RANDO MANOR OPEN 23 A-3 Yes 70.06 1949 1976 497 01-Oct-18 12 OPEN 90.93 22 A-4 SALMON CREEK HAPPY HILL 1969 41 01-Oct-18 24 Yes SALMON CREEK RUBY-LOWER OPEN 91.07 26 18 24 A-5 1969 01-Oct-18 Yes OPEN SALMON CREEK RUBY-UPPER 92.34 1969 24 23 01-Oct-18 24 A-6 Yes OPEN A-7 CONCONULLY SOUTHEND Yes 77.9 1949 60 639 01-Oct-18 24 A-8 SALMON CREEK WEST FORK OPEN Yes 85.24 1949 1979 70 53 01-Oct-18 24 B-1 LITTLE NESPELEM RIVER OPEN 94.32 2014 63 134 09-Oct-17 24 Yes 70 B-3 NO.STAR PARK CITY LOWER OPEN 99.97 2017 24 04-Oct-18 24 Yes B-4 NO.STAR PARK CITY UPPER OPEN 53.72 SD 1958 51 24 04-Oct-18 12 Yes PARK CITY MILL CREEK OPEN 26 B-5 Yes 80.68 1958 72 09-Oct-17 24 PARK CITY SMITH CREEK OPEN 26 24 B-6 Yes 82.09 1958 72 09-Oct-17 B-10 OPEN 81.99 50 09-Oct-17 24 OMAK-RIVERSIDE EAST SIDE FO 1968 2176 Yes BROOKS TRACT OPEN 84.45 1973 50 B-11 Yes 473 09-Oct-17 24 B-12 OMAK CREEK OPEN Yes 98.75 2006 31 298 09-Oct-17 24 B-14 KEYSTONE POSTED 58.75 FO 1973 32 12-Oct-17 24 Yes 82 B-15 MOSES ROAD OPEN Yes 99.94 2017 68 33 04-Oct-18 24 B-17 FIGLENSKI OPEN Yes 99 1976 25 15 12-Oct-17 24 B-18 MORGAN OPEN 89.37 1976 30 21 12-Oct-17 24 Yes LITTLE BRIDGE CREEK OPEN Yes 99.6 2008 41 237 04-Oct-17 24 C-2 1960 2007 C-4 **BUTTERMILK CREEK** OPEN Yes 84.98 66 17 03-Oct-18 24 03-Oct-18 24 C-5 TWISP R. AT BUTTERMILK CR RD OPEN Yes 70.26 1959 102 54 30 111 04-Oct-17 24 C-6 GOLD CREEK-LOWER POSTED Yes 80.75 1972 1949 108 634 04-Oct-17 24 C-8 TWISP RIVER WEST OPEN Yes 84.5 24 C-9 POORMAN CREEK OPEN Yes 80.02 1974 78 20 04-Oct-17 1960 120 73 04-Oct-17 24 C-10 COAL BANKS-TWISP RIVER OPEN Yes 76.17 88.2 1972 30 122 04-Oct-17 24 C-11 BALKY HILL POSTED Yes C-12 BEAVER CREEK-SOUTH OPEN Yes 81.91 1957 24 70 04-Oct-17 24 BEAVER CREEK-MIDDLE 72 C-13 OPEN Yes 81.89 1962 57 04-Oct-17 24 WOLF CREEK OPEN 71.37 FO 1963 30 476 10-Oct-18 24 C-14 Yes 95.9 120 93 10-Oct-18 24 C-15 CHEWUCH OPEN Yes 1953

2018 Bridge Condition Inspection Report

Appendix A

2018 Bridge Condition Inspection Report

Appendix A

Bridge Number	Bridge Name	Status	NBI Reportable	Sufficienty Rating	Deficiency Status	Year Built	Year Rebuilt	Structure Length	Traffic ADT	Last Inspection Date	Inspection Frequency	NOTES
C-16	GOAT CREEK	OPEN	Yes	82.37		1971		30	195	10-Oct-18	24	
C-18	GATE CREEK	POSTED	Yes	70.47		1971		32	225	10-Oct-18	12	
C-19	LOST RIVER U.S.F.S.	OPEN	Yes	91.63		1950		93	40	10-Oct-18	24	
C-20	MAZAMA	OPEN	Yes	92.3		1972		214	534	10-Oct-18	24	
D-2	EFFIE BR.	OPEN	Yes	99.98		1990		212	27	03-Oct-18	24	
D-3	MONSE	OPEN	Yes	91.25		1967		560	376	03-Oct-18	24	
D-4	LOUP LOUP CREEK	OPEN	Yes	99.6		2014		52	35	03-Oct-18	24	
D-5	CHILIWIST CREEK	OPEN	Yes	97.12		1944		22	1566	03-Oct-18	24	
D-6	MALOTT OLD 97	OPEN	No	93.84		2011		19	1566	03-Oct-18	24	Small structure (under 20')
D-7	BURDETT STREET	OPEN	No	99		2012		19	20	03-Oct-18	24	Small structure (under 20')
E-1	TONASKET	OPEN	Yes	97.43		1999		316	3042	29-Oct-18	24	
E-4	BLUE LAKE CULVERT	OPEN	Yes	99.46		2018		21	36	08-Mar-19	24	
E-5	SINLAHEKIN CREEK	POSTED	Yes	89.35		1973		30	36	29-Oct-18	24	
E-7	TOATS COULEE BERNARD	OPEN	Yes	79.84	FQ	1966		62	101	29-Oct-18	24	
E-8	СНОРАКА	OPEN	Yes	91.66		1980		79	26	29-Oct-18	24	
E-11	ELLISFORDE	OPEN	Yes	83.59		1961		339	921	29-Oct-18	24	
E-14	LOST CREEK	OPEN	Yes	80.79		1958		42	52	31-Oct-18	24	
F-2	SIMILKAMEEN AT OROVILLE	OPEN	Yes	75.19		1950		366	1282	26-Oct-17	24	
F-3	OROVILLE, EASTSIDE	OPEN	Yes	92.75		1971		180	2420	26-Oct-17	24	
F-7	NIGHTHAWK	OPEN	Yes	96.42		1973		306	74	26-Oct-17	24	
F-8	NINE MILE CREEK	POSTED	Yes	85.03		1980		28	504	26-Oct-17	24	
F-9	THORNDIKE LOOP	OPEN	Yes	96		1980		24	50	26-Oct-17	24	
A-9	MAIN ST CONCONULLY	OPEN	Yes	87.59		1976		38	123	10-Oct-18	24	Conconully
A-10	LAKE ST CONCONULLY	OPEN	Yes	82.32		1973		24	251	10-Oct-18	24	Conconully
A-11	BROADWAY ST CONCONULLY	OPEN	Yes	97		1982		26	22	01-Oct-18	24	Conconully
A-12	SILVER ST CONCONULLY	OPEN	Yes	99		1997		28	15	10-Oct-18	24	Conconully
B-13	RIVERSIDE	OPEN	Yes	79.32		1969		330	650	17-Oct-17	24	Riverside, WSDOT inspection
B-20	JOHNSON CREEK RIVERSIDE	OPEN	Yes	72.63		1976		26	521	17-Oct-17	24	Riverside, WSDOT inspection
E-2	BONAPARTE CREEK-TONASKET	OPEN	Yes	82.23		1972		24	84	29-Oct-18	24	Tonasket
OKAN1	OKANOGAN RIVER-OAK ST	OPEN	Yes	98.42		2003		340	4100	02-Oct-17	24	Okanogan

Bridge Number	Bridge Name	Status	NBI Reportable	Sufficienty Rating	Deficiency Status	Year Built	Year Rebuilt	Structure Length	Traffic ADT	Last Inspection Date	Inspection Frequency	NOTES
OKAN2	SALMON CR-FIRST AVE	POSTED	Yes	83.77		1970		38	260	02-Oct-17	24	Okanogan
OKAN3	SALMON CR-FIFTH AVE.	POSTED	Yes	75.44		1970		38	260	02-Oct-17	24	Okanogan
OKAN4	SALMON CR-MILL STREET	OPEN	Yes	89.45		2006		50	450	02-Oct-17	24	Okanogan
F-4	SIMILKAMEEN TRAIL	OPEN	No			1952	2009	366	2		24	Non-highway structure
5.8	HADEN AND FRACTO	009N	$\lambda_{\rm FC}^{\rm A}$	44.06	150	163		6.3	38	20-066-14	12	201, not espected by County

2018 Bridge Condition Inspection Report

Appendix A

Appendix B

Load Rating Summary Sheets

Bridge Name: Bridge Number: Agency: Structure ID: Bridge Type: Length: Skew: No. Spans: Designed By: Design Load: Keystone B-14 Okanogan County 08018700 Prestressed Concrete Rib Deck Girders 32'-0" Long Bridge 0 Degree Skew (1) 31'-6" Central Pre-Mix Prestress Co., 1973 HS-20-44

Ref. Inspection: Rating Date: Rating Method: Rated By:

1

10/05/2015 08/29/2017 LRFR Susan M. Kovich, WA License 39869 NICHOLLS KOVICH ENGINEERING, PLLC



RESULTS OF RATING

NBI RATING	Rating Factor	γL	Controlling Point
HL-93 Inventory	0.50	0.80	Service III – Moment
HL-93 Operating	1.09	1.35	Strength I - Moment

LEGAL LOADS	Rating Factor	γL	Allowable Load	Controlling Point
TYPE 3	0.80	1.00	20 Tons	Service III – Moment
TYPE 3-S2	0.83	1.00	30 Tons	Service III – Moment
TYPE 3-3	1.00	1.00	40 Tons	Service III – Moment
Notional Rating Load (NRL)	0.53	1.00	21 Tons	Service III –Moment
Single Unit SHV (SU4)	0.67	1.00	18 Tons	Service III – Moment
Single Unit SHV (SU5)	0.63	1.00	20 Tons	Service III – Moment
Single Unit SHV (SU6)	0.57	1.00	20 Tons	Service III – Moment
Single Unit SHV (SU7)	, 0.55	1.00	21 Tons	Service III –Moment

PERMIT LOADS				
WSDOT Overload 1	0.55	1.00	26 Tons	Service III - Moment
WSDOT Overload 2	0.47	1.00	49 Tons	Service III – Moment

REMARKS: BRIDGE SHOULD BE POSTED FOR TYPE 3, 3-S2, SU4, SU5, SU6 & SU7 RESTRICT BRIDGE FOR OL1 & OL2 DUE TO POSTING Rating based on 10% impact and 0.6" of BST overlay.

	NBI CODING				CURRENT REFERENCE	1		
[70] [63] [64] [64] [65] [66]	Operating Level Oper. Rating Method Oper. Rating Tons Oper. Rating Factor Inv. Rating Method Inv. Rating Tons Inv. Rating Factor	(1660) (1551) (1552) (1553) (1554) (1555) (1556)	0 8 1.09 8 0.50	[29] [109] [58] [59] [60]	Avg. Daily Traffic Truck Percent Deck Overall Superstructure Substructure Approach Roadway	(1445) (1451) (1663) (1671) (1676) (7681)	82 13 7 8 7 8	

Bridge Name:	Gold Creek-Lower
Bridge Number:	C-6
Agency:	Okanogan County
Structure ID:	08201800
Bridge Type:	Prestressed Concrete Rib Deck Girders
Length:	30'-0" Long Bridge
Skew:	0° Skew
No. Spans:	(1) 29-5" Span
Designed By:	Central Pre-Mix Prestress Co., 1972
Design Load:	HS-20-44
Ref. Inspection:	10/07/2015

Ref. Inspection:10/07/2015Rating Date:10/30/2017Rating Method:LRFRRated By:Susan M. Kovich, WA License 39869NICHOLLS KOVICH ENGINEERING, PLLC



RESULTS OF RATING

NBI RATING	Rating Factor	YL	Controlling Point
HL-93 Inventory	0.73	0.80	Service III - Moment
HL-93 Operating	0.97	1.35	Strength I – Moment

LEGAL LOADS	Rating Factor	YL	Allowable Load	Controlling Point
ТҮРЕ З	1.20	1.00	30 Tons	Service III - Moment
TYPE 3-S2	1.21	1.00	44 Tons	Service III - Moment
ТҮРЕ 3-3	1.46	1.00	59 Tons	Service III - Moment
Notional Rating Load (NRL)	0.78	1.00	31 Tons	Service III - Moment
Single Unit SHV (SU4)	0.99	1.00	27 Tons	Service III - Moment
Single Unit SHV (SU5)	0.92	1.00	28 Tons	Service III - Moment
Single Unit SHV (SU6)	0.84	1.00	29 Tons	Service III - Moment
Single Unit SHV (SU7)	0.80	1.00	31 Tons	Service III - Moment

PERMIT LOADS				
WSDOT Overload 1	0.83	1.00	40 Tons	Service I – Moment
WSDOT Overload 2	0.70	1.00	72 Tons	Service I – Moment

REMARKS: BRIDGE SHOULD BE POSTED FOR SU4, SU5, SU6 & SU7 RESTRICT BRIDGE FOR OVERLOAD 1 & OVERLOAD 2 Rating based on 10% impact and ½" asphalt overlay.

	NBI CODING				CURRENT REFERENCE		
[70] [63] [64] [64] [65] [66]	Operating Level Oper. Rating Method Oper. Rating Tons Oper. Rating Factor Inv. Rating Method Inv. Rating Tons Inv. Rating Factor	(1660) (1551) (1552) (1553) (1554) (1555) (1556)	3 8 0.97 8 0.73	[29] [109] [58] [59] [60]	Avg. Daily Traffic Truck Percent Deck Overall Superstructure Substructure Approach Roadway	(1445) (1451) (1663) (1671) (1676) (7681)	111 14 8 8 8 8 8

Bridge Name: Bridge Number: Agency: Structure ID: Bridge Type: Length: Skew: No. Spans: Designed By: Design Load: Balky Hill C-11 Okanogan County 08023500 Prestressed Concrete Rib Deck Girders 30'-0" Long Bridge 0° Skew (1) 29'-5" Span Central Pre-Mix Prestress Co., 1972 HS-20-44

Ref. Inspection: Rating Date: Rating Method: Rated By:

ection: 10/26/2015 te: 10/30/2017 ethod: LRFR Susan M. Kovich, WA License 39869 NICHOLLS KOVICH ENGINEERING, PLLC



RESULTS OF RATING

NBI RATING	Rating Factor	γL	Controlling Point
HL-93 Inventory	0.74	0.80	Service III - Moment
HL-93 Operating	0.97	1.35	Strength 1 - Moment

LEGAL LOADS	Rating Factor	γL	Allowable Load	Controlling Point
TYPE 3	1.21	1.00	30 Tons	Service III - Moment
TYPE 3-S2	1.23	1.00	44 Tons	Service III - Moment
ТҮРЕ 3-3	1.48	1.00	59 Tons	Service III - Moment
Notional Rating Load (NRL)	0.79	1.00	32 Tons	Service III - Moment
Single Unit SHV (SU4)	1.00	1.00	27 Tons	Service III - Moment
Single Unit SHV (SU5)	0.93	1.00	29 Tons	Service III - Moment
Single Unit SHV (SU6)	0.85	1.00	29 Tons	Service III - Moment
Single Unit SHV (SU7)	0.81	1.00	32 Tons	Service III - Moment

PERMIT LOADS				
WSDOT Overload 1	0.84	1.00	40 Tons	Service I – Moment
WSDOT Overload 2	0.71	1.00	73 Tons	Service I – Moment

REMARKS: BRIDGE SHOULD BE POSTED FOR SU5, SU6 & SU7 RESTRICT BRIDGE FOR OVERLOAD 1 & OVERLOAD 2 Rating based on 10% impact and no asphalt overlay.

	NBI CODING				CURRENT REFERENCE		
[70] [63] [64] [64] [65] [66]	Operating Level Oper. Rating Method Oper. Rating Tons Oper. Rating Factor Inv. Rating Method Inv. Rating Tons Inv. Rating Factor	(1660) (1551) (1552) (1553) (1554) (1555) (1556)	3 8 0.97 8 0.74	[29] [109] [58] [59] [60]	Avg. Daily Traffic Truck Percent Deck Overall Superstructure Substructure Approach Roadway	(1445) (1451) (1663) (1671) (1676) (7681)	115 5 8 8 8 8 8

Bridge Name: Bridge Number: Agency: Structure ID: Bridge Type: Length: Skew: No. Spans: Designed By: Design Load: Gate Creek C-18 Okanogan County 08115000 Prestressed Concrete Rib Deck Girders 32'-0" Long Bridge 0 Degree Skew (1) 31'-2" Central Pre-Mix Concrete Co. Prestress Div., 1971 HS-20

Ref. Inspection: Rating Date: Rating Method: Rated By:

tion: 10/05/2016 e: 08/29/2017 hod: LRFR Susan M. Kovich, WA License 39869 NICHOLLS KOVICH ENGINEERING, PLLC



RESULTS OF RATING

NBI RATING	Rating Factor	γL	Controlling Point
HL-93 Inventory	0.76	0.80	Service III –Moment
HL-93 Operating	1.32	1.35	Strength I -Moment

LEGAL LOADS	Rating Factor	γL	Allowable Load	Controlling Point
TYPE 3	1.22	1.00	31 Tons	Service III –Moment
TYPE 3-S2	1.26	1.00	45 Tons	Service III – Moment
TYPE 3-3	1.52	1.00	61 Tons	Service III - Moment
Notional Rating Load (NRL)	0.80	1.00	32 Tons	Service III - Moment
Single Unit SHV (SU4)	1.02	1.00	27 Tons	Service III - Moment
Single Unit SHV (SUS)	0.96	1.00	30 Tons	Service III - Moment
Single Unit SHV (SU6)	0.87	1.00	30 Tons	Service III – Moment
Single Unit SHV (SU7)	0.83	1.00	32 Tons	Service III – Moment

PERMIT LOADS				
WSDOT Overload 1	0.84	1.00	40 Tons	Service III – Moment
WSDOT Overload 2	0.72	1.00	75 Tons	Service III –Moment

REMARKS: BRIDGE SHOULD BE POSTED FOR SU5, SU6 & SU7 RESTRICT OL1 & OL2 DUE TO POSTING

Rating based on 10% impact and 0.60" BST overlay.

	NBI CODING				CURRENT REFERENCE		
[70] [63] [64] [64] [65] [66]	Operating Level Oper. Rating Method Oper. Rating Tons Oper. Rating Factor Inv. Rating Method Inv. Rating Tons	(1660) (1551) (1552) (1553) (1554) (1555)	3 8 1.32 8	[29] [109] [58] [59] [60]	Avg. Daily Traffic Truck Percent Deck Overall Superstructure Substructure Approach Roadway	(1445) (1451) (1663) (1671) (1676) (7681)	200 3 8 6 8 8
[66]	Inv. Rating Factor	(<u>1556</u>)	0.76				

Bridge Name:	Sinlahekin Creek
Bridge Number:	E-5
Agency:	Okanogan County
Structure ID:	08180900
Bridge Type:	Prestressed Concrete Rib Deck Girders
Length:	30'-0" Long Bridge
Skew:	0° Skew
No. Spans:	(1) 29-5" Span
Designed By:	Central Pre-Mix Prestress Co., 1972
Design Load:	HS-20-44
Ref. Inspection:	10/25/2016
Rating Date:	10/30/2017

Ref. Inspection:10/25/2016Rating Date:10/30/2017Rating Method:LRFRRated By:Susan M. Kovich, WA License 39869NICHOLLS KOVICH ENGINEERING, PLLC



RESULTS OF RATING

NBI RATING	Rating Factor	γL	Controlling Point
HL-93 Inventory	0.74	0.80	Service III - Moment
HL-93 Operating	0.97	1.35	Strength I – Moment

LEGAL LOADS	Rating Factor	γL	Allowable Load	Controlling Point
TYPE 3	1.21	1.00	30 Tons	Service III - Moment
TYPE 3-S2	1.22	1.00	44 Tons	Service III - Moment
TYPE 3-3	1.48	1.00	59 Tons	Service III - Moment
Notional Rating Load (NRL)	0.79	1.00	32 Tons	Service III - Moment
Single Unit SHV (SU4)	0.99	1.00	27 Tons	Service III - Moment
Single Unit SHV (SU5)	0.93	1.00	29 Tons	Service III - Moment
Single Unit SHV (SU6)	0.85	1.00	29 Tons	Service III - Moment
Single Unit SHV (SU7)	0.81	1.00	31 Tons	Service III - Moment

PERMIT LOADS				
WSDOT Overload 1	0.84	1.00	40 Tons	Service I – Moment
WSDOT Overload 2	0.71	1.00	73 Tons	Service I – Moment

REMARKS: BRIDGE SHOULD BE POSTED FOR SU4, SU5, SU6 & SU7 RESTRICT BRIDGE FOR OVERLOAD 1 & OVERLOAD 2 Rating based on 10% impact and no asphalt overlay.

	NBI CODING				CURRENT REFERENCE	3		
[70] [63] [64] [64] [65] [66]	Operating Level Oper. Rating Method Oper. Rating Tons Oper. Rating Factor Inv. Rating Method Inv. Rating Tons Inv. Rating Factor	(1660) (1551) (1552) (1553) (1554) (1555) (1556)	3 8 0.97 8 0.74	[29] [109] [58] [59] [60]	Avg. Daily Traffic Truck Percent Deck Overall Superstructure Substructure Approach Roadway	(1445) (1451) (1663) (1671) (1676) (7681)	36 8 7 8 8 8	

Bridge Name: Nine Mile Creek **Bridge Number: F-8 Okanogan** County Agency: Structure ID: 08188400 Bridge Type: 28'-0" Long Bridge Length: Skew: 0 Degree Skew (1) 27'-4" No. Spans: **Designed By:** HS20-44 + 25 psf Future Asphalt **Design Load:** 10/06/2015 **Ref. Inspection:**

Rating Date: Rating Method: Rated By:

Reinforced Concrete Rib Deck Girders Central Pre-Mix Prestress Co., 1979

10/30/2017 LRFR Susan M. Kovich, WA License 39869 NICHOLLS KOVICH ENGINEERING, PLLC



RESULTS OF RATING

NBI RATING	Rating Factor	γL	Controlling Point
HL-93 Inventory	0.77	0.80	Service III Moment
HL-93 Operating	1.44	1.35	Strength I Shear

LEGAL LOADS	Rating Factor	γL	Allowable Load	Controlling Point
ТҮРЕ З	1.26	1.00	32 Tons	Service III Moment
TYPE 3-S2	1.30	1.00	47 Tons	Service III Moment
ТҮРЕ 3-3	1.54	1.00	61 Tons	Service III Moment
Notional Rating Load (NRL)	0.85	1.00	34 Tons	Service III Moment
Single Unit SHV (SU4)	1.06	1.00	29 Tons	Service III Moment
Single Unit SHV (SU5)	0.97	1.00	30 Tons	Service III Moment
Single Unit SHV (SU6)	0.89	1.00	31 Tons	Service III Moment
Single Unit SHV (SU7)	0.87	1.00	34 Tons	Service III Moment

PERMIT LOADS				
WSDOT Overload 1	0.92	1.00	44 Tons	Service III Moment
WSDOT Overload 2	0.75	1.00	78 Tons	Service III Moment

REMARKS: BRIDGE SHOULD BE POSTED FOR SU5, SU6 & SU7 **RESTRICT BRIDGE FOR OVERLOAD 1 & OVERLOAD 2** Rating based on 10% impact and no asphalt overlay.

	NBI CODING				CURRENT REFERENCE		
[70] [63] [64] [64] [65] [66]	Operating Level Oper. Rating Method Oper. Rating Tons Oper. Rating Factor Inv. Rating Method Inv. Rating Tons Inv. Rating Factor	(1660) (1551) (1552) (1553) (1554) (1555) (1556)	3 8 1.44 8 0.77	[29] [109] [58] [59] [60]	Avg. Daily Traffic Truck Percent Deck Overall Superstructure Substructure Approach Roadway	(1445) (1451) (1663) (1671) (1676) (7681)	504 2 8 8 8 8 8

Salmon Cr-First Ave Okanogan2 City of Okanogan 08526000 Prestressed Concrete Rib Deck Girders 38'-0" Long Bridge 0° Skew (1) 37'-4" Span Central Pre-Mix Prestress Co., 1973 HS-20-44

Ref. Inspection: Rating Date: Rating Method: Rated By:

tion: 10/15/2015 e: 10/30/2017 hod: LRFR Susan M. Kovich, WA License 39869 NICHOLLS KOVICH ENGINEERING, PLLC



RESULTS OF RATING

NBI RATING	Rating Factor	γL	Controlling Point
HL-93 Inventory	0.73	0.80	Service III - Moment
HL-93 Operating	1.23	1.35	Strength I – Moment

LEGAL LOADS	Rating Factor	YL	Allowable Load	Controlling Point
ТҮРЕ З	1.02	1.00	26 Tons	Service III - Moment
TYPE 3-S2	1.09	1.00	39 Tons	Service III – Moment
ТҮРЕ 3-3	1.24	1.00	50 Tons	Service III - Moment
Notional Rating Load (NRL)	0.67	1.00	27 Tons	Service III - Moment
Single Unit SHV (SU4)	0.87	1.00	23 Tons	Service III – Moment
Single Unit SHV (SU5)	0.82	1.00	25 Tons	Service III - Moment
Single Unit SHV (SU6)	0.75	1.00	26 Tons	Service III - Moment
Single Unit SHV (SU7)	0.71	1.00	27 Tons	Service III - Moment

PERMIT LOADS						
WSDOT Overload 1	0.66	1.00	32 Tons	Service I – Moment		
WSDOT Overload 2	0.61	1.00	64 Tons	Service I – Moment		

REMARKS: BRIDGE SHOULD BE POSTED FOR SU4, SU5, SU6 & SU7 RESTRICT BRIDGE FOR OVERLOAD 1 & OVERLOAD 2 Rating based on 20% impact and 2" asphalt overlay.

	NBI CODING				CURRENT REFERENCE	1	
[70] [63] [64] [64] [65] [66]	Operating Level Oper. Rating Method Oper. Rating Tons Oper. Rating Factor Inv. Rating Method Inv. Rating Tons Inv. Rating Factor	(1660) (1551) (1552) (1553) (1554) (1555) (1556)	2 8 1.23 8 0.73	[29] [109] [58] [59] [60]	Avg. Daily Traffic Truck Percent Deck Overall Superstructure Substructure Approach Roadway	(1445) (1451) (1663) (1671) (1676) (7681)	260 5 7 7 7 6

Bridge Name: Bridge Number: Agency: Structure ID: Bridge Type: Length: Skew: No. Spans: Designed By: Design Load: Salmon Cr-Fifth Ave Okanogan3 City of Okanogan 08526500 Prestressed Concrete Rib Deck Girders 38'-0" Long Bridge 0° Skew (1) 37'-0" Span Unknown, 1971 HS-20

Ref. Inspection: Rating Date: Rating Method: Rated By:

n: 10/15/2015 10/30/2017 i: LRFR Susan M. Kovich, WA License 39869 NICHOLLS KOVICH ENGINEERING, PLLC



RESULTS OF RATING

NBI RATING	Rating Factor	γL	Controlling Point		
HL-93 Inventory	0.79	0.80	Service III – Moment		
HL-93 Operating	1.30	1.35	Strength I – Moment		

LEGAL LOADS	Rating Factor	γL	Allowable Load	Controlling Point
ТҮРЕ З	1.11	1.00	28 Tons	Service III - Moment
TYPE 3-S2	1.18	1.00	42 Tons	Service III - Moment
TYPE 3-3	1.35	1.00	54 Tons	Service [1] - Moment
Notional Rating Load (NRL)	0.72	1.00	29 Tons	Service III - Moment
Single Unit SHV (SU4)	0.94	1.00	25 Tons	Service III - Moment
Single Unit SHV (SU5)	0.89	1.00	28 Tons	Service III - Moment
Single Unit SHV (SU6)	0.81	1.00	28 Tons	Service III - Moment
Single Unit SHV (SU7)	0.77	1.00	30 Tons	Service III - Moment

PERMIT LOADS				
WSDOT Overload 1	0.71	1.00	34 Tons	Service I – Moment
WSDOT Overload 2	0.66	1.00	69 Tons	Service I – Moment

REMARKS: BRIDGE SHOULD BE POSTED FOR SU4, SU5, SU6 & SU7 RESTRICT BRIDGE FOR OVERLOAD 1 & OVERLOAD 2 Rating based on 20% impact and no asphalt overlay.

NBI CODING			CURRENT REFERENCE				
[70] [63] [64] [64] [65] [66]	Operating Level Oper. Rating Method Oper. Rating Tons Oper. Rating Factor Inv. Rating Method Inv. Rating Tons Inv. Rating Factor	(1660) (1551) (1552) (1553) (1554) (1555) (1556)	2 8 1.30 8 0.79	[29] [109] [58] [59] [60]	Avg. Daily Traffic Truck Percent Deck Overall Superstructure Substructure Approach Roadway	(1445) (1451) (1663) (1671) (1676) (7681)	260 5 7 7 5 6