

BEARING DESIGN TABLE												
BEARING BESION TABLE												
						VERTIC	AL	LONGITUDINAL	TRANSVERSE	LONGITUDINAL	TRANSVERSE	
LIMIT					LIMIT	PERMANENT	TOTAL	TOTAL	TOTAL	MOVEMENT	MOVEMENT	ROTATION
	MK.	DESCRIPTION	TYPE	QUANTITY	STATE	[KN]	[KN]	[KN]	[KN]	[MM]	[MM]	[RADIANS]
	А	STEEL REINFORCED ELASTOMERIC	MULTI DIRECTIONAL	4	SLS	700	845	85	-	100	10	0.01
				7	ULS	840	1125	115	-	100	10	
ABUTMENTS	В	STEEL REINFORCED ELASTOMERIC	MULTI DIRECTIONAL	20	SLS	310	615	65	-	100	10	0.01
ADOTIVILINIS			WIGETI BINECTIONAL	20	ULS	375	950	95	-	100		
	c	STEEL REINFORCED ELASTOMERIC	MULTI DIRECTIONAL	4	SLS 440 660 65 -	100	10	0.01				
		STEEL REINT ONCED ELASTOWERIC		4	ULS	530	790	80	-	100	10	0.01
	D	DISC	MULTI DIRECTIONAL	4	SLS	3470	4860	485	-	80	10	0.02
PIER 1 AND PIER 3				7	ULS	4165	6800	680	-	00		
PIER LAND PIER 5	E	DISC	MULTI DIRECTIONAL	4	SLS	2830	3870	390	-	80	10	0.02
			WIDETT DIRECTIONAL	-	ULS	3395	5565	560	-	80	10	0.02
PIER 2	F	DISC	FIXED	2	SLS	2980	4020	405	920	0	0	0.02
					ULS	3575	5740	575	1480			0.02
	G	DISC	MULTI DIRECTIONAL	2	SLS	3470	4860	485	-	0	10	0.02
	6	DISC			ULS	4165	6800	680	_	"	10	0.02

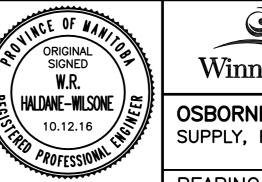
BEARING NOTES

- 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
- 2. FABRICATION AND DESIGN OF THE BEARINGS SHALL MEET THE REQUIREMENTS OF THE CANADIAN HIGHWAY BRIDGE DESIGN CODE, CAN/CSA-S6-06.
- 3. DESIGN THE BEARINGS FOR THE SLS AND ULS LOADS AND MOVEMENTS SHOWN IN THE BEARING DESIGN TABLE. MOVEMENTS INCLUDE FOR ADDITIONAL REQUIREMENTS AND ARE THE MINIMUM TO BE PROVIDED BY THE BEARING SUPPLIER.
- 4. DESIGN BEARINGS FOR A MINIMUM ROTATION AS NOTED IN THE BEARING DESIGN TABLE.
- 5. DESIGN THE BEARINGS FOR AN OPERATING RANGE OF -40 DEGREES CELCIUS TO +40 DEGREES CELCIUS.
- 6. STEEL FOR BEARINGS SHALL CONFORM TO CSA G40.21 GRADE 300W. ALL EXPOSED STEEL SURFACES FOR THE BEARINGS SHALL BE HOT DIP GALVANIZED OR ZINC METALIZED. GALVANIZING TO MEET THE REQUIREMENTS OF CSA G164.
- 7. INTERNAL STEEL REINFORCING PLATES FOR ELASTOMERIC BEARINGS SHALL CONFORM TO CSA G40.21 GRADE 230.
- 8. STAINLESS STEEL MATING SURFACE SHALL CONFORM TO ASTM STANDARD A240 AND SHALL HAVE A MINIMUM THICKNESS OF 3MM. THE ROUGHNESS OF THE CONTACT SURFACE SHALL BE NO GREATER THAN 0.26 MICROMETERS ARITHMETIC AVERAGE FOR PLANE SURFACES.
- 9. WELDING OF STAINLESS STEEL PLATES SHALL BE CONTINUOUS WITH STAINLESS STEEL WELDING RODS.
- 10. PTFE SHALL BE MADE FROM VIRGIN RESIN SATISFYING THE REQUIREMENTS OF ASTM D4895. PTFE FOR ELASTOMERIC BEARINGS SHALL BE DIMPLED AND LUBRICATED.
- 11. PROVIDE PROTECTION TO THE STAINLESS AND PTFE SURFACES DURING SHIPPING, HANDLING, AND INSTALLATION.
- 12. ELASTOMER SHALL BE NATURAL RUBBER, LOW TEMPERATURE GRADE 4 OR 5, AND A 60 DUROMETER SHORE A HARDNESS.
- 13. BEARING FIXING BOLTS SHALL BE A325, TYPE 1.

14. BEARING DESIGN SHALL ALLOW REMOVAL/REPLACEMENT OF BEARINGS BY JACKING THE BRIDGE TO A MAXIMUM OF 6mm.

	APEGIN
Certif	icate of Authorization
Wardr	op Engineering Inc.
No. 195	Date: April 30, 2011

	B.M. ELEV. F.B.			WARDROP ATETRATECH COMPANY ORIGINAL SIGNED W.R.				
				DESIGNED R.H.W.	CHECKED R.H.W.	HALDANE-WILSONE		
F				DRAWN BY G.I.	APPROVED C.D.S.	PROFESSION		
	O ISSUED FOR TENDER	10 10 16	DUW	HOR. SCALE: AS NOTED VERTICAL:	RELEASED FOR DATE CONSTRUCTION ORIGINAL SIGNED 10.12.17	CONSULTANT DRAWING NO.		
O(10.12.16 DATE	RHW BY	DATE 10.12.13	MATT CHISLETT, P.ENG BRIDGE PROJECTS ENGINEER	0900070502-DWG-S1002		



Winnipeg	PUBLIC	CITY WORKS	DEP	ARTN			EG
					CITY	DRAWING	NUMBER

1 8 2 2					
ACDADNE CIDEET DDIDAE	CITY DRAWING NUMBER				
OSBORNE STREET BRIDGE SUPPLY, FABRICATION, & DELIVERY OF BEARINGS	B109-11-002				
SOFFLI, FABRICATION, & DELIVERT OF BEARINGS	SHEET 2 OF 5				
BEARING SUPPLY OVERALL LAYOUT AND BEARING DATA	2				