

# 1. Bridge Rating Summary

Bridge Name: SW Spokane St. Bridge – Swing  
 Bridge Number: BRG-0025  
 SID Numbers: 08594400  
 Span Types: Post-tensioned Box Girder  
 Bridge Length: 836'  
 Design Load: HS20-44  
 Rated By: Adrian Corella PE, Connie Kuney-Pitts  
 Checked By: Sung Cheung, PE  
 Date: 06/17/2020



Inspection Report Date	04/2020	Substructure Condition	6
Rating Method	LRFR	Deck Condition	6
Overlay Thickness	2"	Superstructure Condition	5

Truck	RF	$\gamma_{LL}$	Controlling Point/Cause
Type 3	0.77	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Type 3-3	0.54	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Type 3S2	0.49	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Lane	0.28	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
NRL	0.48	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
SU4	0.71	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
SU5	0.62	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
SU6	0.55	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
SU7	0.50	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Type EV2	0.63	1.3	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Type EV3	0.52	1.3	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
OL-1	0.46	1.2	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
OL-2	0.30	1.2	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
UBIT	0.53	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Heavy Haul Truck	0.44	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)

NBI Rating	RF	$\gamma_{LL}$	Controlling Point
Inventory (HL-93)	0.12	1.75	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Operating (HL-93)	0.21	1.35	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)

**Remarks:** Longitudinal analysis uses the following parameters:

Resal effect factor = 0.9

Impact factor = 0.4

Condition factor = 0.9

System factor = 0.9

## 2. Bridge Rating Summary

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Inspection Report Date	04/2020	Substructure Condition	6
Rating Method	LRFR	Deck Condition	6
Overlay Thickness	2"	Superstructure Condition	5

Truck	RF	$\gamma_{LL}$	Controlling Point/Cause
Type 3	1.99	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Type 3-3	1.40	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Type 3S2	1.26	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Lane	0.72	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
NRL	1.25	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
SU4	1.84	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
SU5	1.61	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
SU6	1.44	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
SU7	1.29	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Type EV2	1.63	1.3	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Type EV3	1.35	1.3	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
OL-1	1.19	1.2	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
OL-2	0.78	1.2	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
UBIT	1.38	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Heavy Haul Truck	1.14	1.45	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)

NBI Rating	RF	$\gamma_{LL}$	Controlling Point
Inventory (HL-93)	0.32	1.75	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)
Operating (HL-93)	0.54	1.35	Joint 19 at main span, 45.5 ft from Pier 6 (Web shear)

**Remarks:** Longitudinal analysis uses the following parameters:

Resal effect factor = 1.0

Impact factor = 0.4

Condition factor = 0.9

System factor = 0.9