

## **APPENDIX B**

### **Concept Evaluation Matrix**

**Northerly Crossings Study  
Concept Evaluation Matrix**

		No Build	Concept 1A 4-lane Full Sh.	Concept 1B 4-lane Mov. Barrier	Concept 2A 5-lane Mov. Barrier	Concept 2B 5-lane 3 lanes WB 2 lanes EB	Concept 3A 6-lane Exist. Align.	Concept 3B 6-lane Double Deck	Concept 3C 6-lane EB New Bridge	Concept 3D 6-lane Tunnel	Concept 3E Alt. Align. To South	Concept 3F Alt. Align. To North
<b>Mission Statement</b>												
Does the concept meet the mission statement of the study, which is to reduce congestion within DRJTBC jurisdiction?	No=Fail Yes=Pass	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>MISSION STATEMENT</b>		Fail	Fail	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
<b>Design</b>												
Feasibility of Design	1=High level of difficulty to design 3=Moderate level of difficulty to design	-	-	-	3	3	3	1	1	1	1	1
<b>TOTAL POINTS</b>		-	-	-	3	3	3	1	1	1	1	1
<b>AVERAGE SCORE FOR DESIGN</b>		-	-	-	3.0	3.0	3.0	1.0	1.0	1.0	1.0	1.0
<b>Construction</b>												
Feasibility of Construction	1=Extremely high level of difficulty to construct 2=High level of difficulty to construct 3=Moderately high level of difficulty to construct	-	-	-	2	2	2	1	1	1	1	1
<b>TOTAL POINTS</b>		-	-	-	2	2	2	1	1	1	1	1
<b>AVERAGE SCORE FOR CONSTRUCTION</b>		-	-	-	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
<b>Congestion/Mobility</b>												
Regional mobility	1=Little or no change in capacity 2=Add 1 lane of capacity 3=Add 2 or more lanes of capacity	-	-	-	2	2	3	3	3	3	3	3
Level of Service	1=LOS F 2=LOS E 3=LOS D or better	-	-	-	2	1	2	2	2	2	3	3
Travel Time and Speed	1=Travel time increases, Speed decreases 3=Travel time remains the same/decreases, Speed remains the same/increases	-	-	-	3	3	3	3	3	3	3	3
Vehicles Miles Traveled	1=Increase in VMT 2=No change in VMT 3=Decrease in VMT	-	-	-	2	2	2	2	2	2	2	3
<b>TOTAL POINTS</b>		-	-	-	9	8	10	10	10	10	11	12
<b>AVERAGE SCORE FOR CONGESTION/MOBILITY</b>		-	-	-	2.3	2.0	2.5	2.5	2.5	2.5	2.8	3.0
<b>Feasibility</b>												
Cross-Sectional Design Standards	1=Existing substandard cross-section remains 2=Improves existing cross-section but does not fully meet standards 3=Meets standards	-	-	-	2	2	3	3	3	3	3	3
Construction Cost	1= > \$150 M 2= \$50 M to \$150 M 3= < \$50 M	-	-	-	2	2	2	1	1	1	1	1
Operational Costs	1=Requires daily operation, maintenance and/or staff 2=Requires part-time operation, maintenance and/or staff 3=Requires little or no operation, maintenance and/or staff	-	-	-	1	2	3	2	3	1	2	2
Right-of-Way Acquisition	1=Extensive ROW 2=Moderate ROW 3=Little or no ROW	-	-	-	2	2	2	2	1	1	1	1
Time-consuming Environmental Permitting	1=Extensive process 2=Moderate process 3=Major permitting process not likely required	-	-	-	2	2	2	2	1	1	1	1
<b>TOTAL POINTS</b>		-	-	-	9	10	12	10	9	7	8	8
<b>AVERAGE SCORE FOR FEASIBILITY</b>		-	-	-	1.8	2.0	2.4	2.0	1.8	1.4	1.6	1.6

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		<b>No Build</b>	<b>Concept 1A</b> 4-lane Full Sh.	<b>Concept 1B</b> 4-lane Mov. Barrier	<b>Concept 2A</b> 5-lane Mov. Barrier	<b>Concept 2B</b> 5-lane 3 lanes WB 2 lanes EB	<b>Concept 3A</b> 6-lane Exist. Align.	<b>Concept 3B</b> 6-lane Double Deck	<b>Concept 3C</b> 6-lane EB New Bridge	<b>Concept 3D</b> 6-lane Tunnel	<b>Concept 3E</b> Alt. Align. To South	<b>Concept 3F</b> Alt. Align. To North
<b>Environmental</b>												
Wetlands and Surface Water Resources	1=Major impacts 2=Moderate impacts 3=Minor impacts	-	-	-	2	2	2	2	1	1	1	1
Wildlife and Vegetation (T & E)	1=Major impacts 2=Moderate impacts 3=Minor impacts	-	-	-	2	2	2	2	1	1	1	1
Noise	1=Major impacts 2=Moderate impacts 3=Minor impacts	-	-	-	2	2	2	2	2	2	1	1
Air Quality	1=Major impacts 2=Moderate impacts 3=Minor impacts	-	-	-	2	2	2	2	2	2	2	2
Public Recreational Facilities and Parklands	1=Major impacts 2=Moderate impacts 3=Minor impacts	-	-	-	1	1	1	1	1	1	1	1
Cultural/Historical Resources	1=Major impacts 2=Moderate impacts 3=Minor impacts	-	-	-	1	1	1	1	1	1	1	1
Visual Resources	1=Major impacts 2=Moderate impacts 3=Minor impacts	-	-	-	2	2	2	1	1	1	3	1
<b>TOTAL POINTS</b>		-	-	-	12	12	12	11	9	9	10	8
<b>AVERAGE SCORE FOR ENVIRONMENTAL</b>		-	-	-	1.7	1.7	1.7	1.6	1.3	1.3	1.4	1.1
<b>Public/Community Impact</b>												
Compatible with existing or proposed adjacent land use	1=Not compatible 3=Compatible	-	-	-	3	3	3	3	1	1	3	3
Environmental Justice Impacts	1=Significant impacts 2=Potential impacts 3=No potential impacts	-	-	-	3	3	3	3	3	3	2	2
Construction Traffic Impact	1=Significant impacts 2=Moderate impacts 3=Little or no impacts	-	-	-	1	1	1	1	1	1	1	1
Investment outside DRJTBC jurisdiction	1=Requires investment 2=May require investment 3=Will not require investment	-	-	-	2	2	2	2	2	1	1	1
<b>TOTAL POINTS</b>		-	-	-	9	9	9	9	7	6	7	7
<b>AVERAGE SCORE FOR PUBLIC/COMMUNITY IMPACT</b>		-	-	-	2.3	2.3	2.3	2.3	1.8	1.5	1.8	1.8
<b>TOTAL SCORE FOR CONCEPT (SUM OF AVERAGE SCORES)</b>		-	-	-	<b>13.1</b>	<b>13.0</b>	<b>13.9</b>	<b>10.4</b>	<b>9.4</b>	<b>8.7</b>	<b>9.6</b>	<b>9.5</b>