

Stage 1 - Selection of Accelerated Bridge Construction Projects

MnDOT Decision Making Tool (DMT) v9 07/22/2013

Score computed using Bridge Management Data (5 Criteria):

Daily Vehicle Operating Costs - Dependent on Bridge Length			30% Wt.
"On Bridge" AADT and HCAADT Only	<u>Distribution</u>	<u>Score</u>	<u>Criteria</u>
<i>Bridge Length Factor:</i>	16.0%	0	No user costs
<i>Total Length from 10'-100' = 1.0</i>	16.7%	1	Less than \$4,150
<i>Total Length from 100'-300' = 1.2</i>	16.9%	2	\$4,150 to \$9,250
<i>Total Length from 300'-500' = 1.6</i>	16.8%	3	\$9,251 to \$18,100
<i>Total Length greater than 500' = 2.0</i>	16.9%	4	\$18,101 to \$44,000
	16.7%	5	More than \$44,000
<i>User Cost Formula = (AADT x \$0.31/mile + HCAADT x \$0.64/mile) x Detour Length x Br Length Factor</i>			
Average Annual Daily Traffic (AADT)			20% Wt.
Combined "On and Under" Bridge	<u>Distribution</u>	<u>Score</u>	<u>Criteria</u>
	16.2%	0	Less than 2,400
	16.7%	1	2,401 to 6,650
	16.9%	2	6,651 to 13,500
	16.7%	3	13,501 to 31,000
	16.7%	4	31,001 to 75,000
	16.9%	5	More than 75,000
Heavy Commercial Average Annual Daily Traffic (HCAADT)			10% Wt.
Combined "On and Under" Bridge	<u>Distribution</u>	<u>Score</u>	<u>Criteria</u>
	16.0%	0	Less than 165
	16.7%	1	166 to 485
	16.7%	2	486 to 1,085
	16.9%	3	1,086 to 1,950
	16.7%	4	1,951 to 3,750
	16.9%	5	More than 3,750
Detour Length			30% Wt.
Detour Length on Similar Functional Class Rdwy	<u>Distribution</u>	<u>Score</u>	<u>Criteria</u>
	15.9%	0	No Detour
	9.8%	1	Less than 1 mile
	24.2%	2	1-2 miles
	17.9%	3	2-7 miles
	16.2%	4	7-14 miles
	15.9%	5	More than 14 miles
Traffic Density			10% Wt.
AADT "On" Bridge Vehicles per Day/Ft of Bridge Roadway Width	<u>Distribution</u>	<u>Score</u>	<u>Criteria</u>
	16.0%	0	Less than 35
	16.7%	1	36-78
	16.9%	2	79-138
	16.9%	3	139-240
	16.7%	4	241-470
	16.7%	5	More than 470

****Scores normalized to 100 point maximum. Bridges with score \geq 60 selected for Stage 2. ****