



ITS Project Evaluation and Scoring Criteria

Alaska Department of Transportation
and Public Facilities

Jack Stickel



ITS Project Evaluation and Scoring Criteria

- Background
- Scoring and Performance Measures
- Evaluation and Scoring Example
- Incorporation of Project Evaluation in the State Transportation Improvement Program (STIP)



Need For Evaluation & Benchmarking

- \$5.8 million in 1998-2001 ITS earmarks
- ITS Policy Committee Uncertainty
- ITS Statewide Deployment Strategy
- Concern for long-term costs for maintenance and operations



Scoring and Performance Criteria Development

- Difficult to score ITS projects against standard highway construction projects
- The new Scoring and Performance Criteria modeled after existing Performance Evaluation process for non-NHS construction projects.
- ITS Projects scored against new set of criteria; final weighted score then judged against scores of all other projects.



Prescreening Criteria

<p>A. Clear and complete project and operational plan definition? Yes/No</p>	<p>Project implementation and operation plan clearly defined. (Yes; project may proceed to B.)</p>	<p>Project implementation and operation plan inadequate. (No; project not eligible for consideration.)</p>
<p>B. Project fulfills Alaska and National ITS Architecture? Yes/No</p>	<p>Project is clearly defined to fully conform to Alaska and National ITS architecture. (Yes; project may proceed to C.)</p>	<p>Project not defined to meet Alaska and National ITS architecture. (No; project not eligible for consideration.)</p>
<p>C. Project will adhere to NTCIP* requirements? (unless legacy systems prevent such requirement). Yes/No</p>	<p>Project documentation clearly identifies all NTCIP requirements and is designed to meet them. (Yes; project may proceed to scoring.)</p>	<p>Vague identification of NTCIP requirements or no indication that they will be conformed to. (No; project not eligible for consideration.)</p>

*NTCIP is the "National Transportation Communications for ITS Protocols"



Scoring Criteria

1. Fosters Department's mission and goals:
Efficiency and Reliability; Safety; Quality of Life;
and Multimodal Mobility.

Strongly supports
three or more of
the key goals.

5 points

Strongly supports
two of the key
goals.

3 points

Support of key goals
is minimal,
speculative, or
temporary. Veto of
project, do not score
further.

0 points

Weighting: 10



Scoring Criteria

2. Enhances the Department's operating budget.

Provides a significant contribution: (>\$250,000)	Provides a moderate contribution: (\$50,000 - \$150,000)	Will have no or minimal effect: (< \$50,000)	Will cause significant new costs not offset by savings, revenue, or avoided costs:
5 points	3 points	0 points	-3 points

Weighting: 5



Scoring Criteria

3. Integration within Department

Strongly integrated with other activities or ITS strategies within Department. 5 points	Moderately integrated with other activities or ITS strategies within Department. 3 points	Minimally integrated with other activities or ITS strategies within Department. 0 points
--	--	---

Weighting: 3



Scoring Criteria

4. Integration external to Department including other agencies and / or private sector

Strongly integrated with other activities or ITS strategies external to Department. 5 points	Moderately integrated with other activities or ITS strategies external to Department. 3 points	Minimally integrated with other activities or ITS strategies external to Department. 0 points
---	---	--

Weighting: 3



Scoring Criteria

5. Local, other agency or user contribution to fund project development.

Contribution of state match, design, right-of-way, and/or materials: 1 point per each 5% of project cost. Maximum=20 5 points	Contribution of state match, design, right-of-way, and/or materials: 1 point per each 5% of project cost. 3 points	Contribution covers no capital costs. 0 points
---	---	---

Weighting: 3



Scoring Criteria

6. Local, other agency, or user contribution to fund M&O costs.

<p>Sponsor will assume ownership of DOT&PF facility or another DOT&PF facility of similar M&O cost.</p> <p>5 points</p>	<p>Sponsor will assume full M&O responsibility of DOT&PF facility or another M&O facility of similar M&O cost.</p> <p>3 points</p>	<p>Sponsor contributes nothing = 0 points</p> <p>Continued sponsor ownership & operation facility = 1 point</p> <p>Significant local maintenance savings = 2 points</p>
---	--	---

Weighting: 3



Scoring Criteria

7. Magnitude of project costs for both capital and operating for 5 years.

Less than \$1 million.	Less than \$3 million.	Less than 5 million.	5 million or more.	\$10 million or more.
5 points	3 points	0 points	-3 points	-5 points

Weighting: 5



Scoring Criteria

8. Sustainability of technology involved.

<p>Project relies on technology proven sustainable in Alaska. Change of long-term success is very high.</p> <p>5 points</p>	<p>Project relies on technology used but not considered proven sustainable in Alaska. Change of long-term success is moderately high.</p> <p>3 points</p>	<p>Project relies on technology yet unproven in Alaska. Chance of success is unknown.</p> <p>0 points</p>
---	---	---

Weighting: 5



Scoring Criteria

9. Multi-use potential.

Project technology expands ITS potential beyond this project significantly. 5 points	Project technology expands ITS potential beyond this project moderately. 3 points	Little or no ITS expansion potential offered by this project. 0 points
---	--	---

Weighting: 5



Scoring Criteria

10. Time to completion.

Project implementation likely < 18 months. 5 points	Project implementation > 18 months but < 36 months. 3 points	Project implementation > 36 months. 0 points
--	---	---

Weighting: 3



Scoring Criteria

11. Geographic benefit.

Project beneficiaries in all three DOT&PF regions of the state. 5 points	Project beneficiaries in at least two DOT&PF regions of the state. 3 points	Project beneficiaries in only one region or community. 0 points
---	--	--

Weighting: 2



Project Scoring

ITS Policy Committee - 2 July, 2001

AMHS Marine Vessel Tracking and Display													
PC	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Wtd	Ave wtd
	10	5	3	3	3	3	5	5	5	3	2	Score	Score
DC												0.0	
Admin	4	1	2	5	0	1	5	5	2	5	5	154.0	
EOS	4	3	1	4	0	1	5	5	3	5	5	163.0	
M&O	4	2	1	3	0	0	5	5	3	5	5	152.0	
MSCVE	4	2	1	4	0	0	5	5	2	5	5	150.0	
Planning	5	2	2	4	0	1	5	5	3	5	5	171.0	
	4.2	2.0	1.4	4.0	0.0	0.6	5.0	5.0	2.6	5.0	5.0		158.0



Project Scoring

ITS Policy Committee - 2 July, 2001

Road Weather Information Systems Phase II & AURORA Membership													
PC	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Wtd	Ave wtd
	10	5	3	3	3	3	5	5	5	3	2	Score	Score
DC												0.0	
Admin	5	3	5	5	0	0	4	4	5	3	5	179.0	
EOS	5	3	5	5	0	0	4	4	5	3	5	179.0	
M&O	5	3	5	5	0	0	4	5	5	4	5	187.0	
MSCVE	5	3	5	5	0	0	4	4	5	3	5	179.0	
Planning	5	3	5	5	0	0	4	4	5	3	5	179.0	
	5.0	3.0	5.0	5.0	0.0	0.0	4.0	4.2	5.0	3.2	5.0		180.6



State Transportation Improvement Program (STIP)

- ITS Criteria being established in regulation
- ITS Criteria will be used to score ITS projects in the Community Transportation Program (CTP) and the Trails and Recreation Access For Alaskans (TRAAK) portion of the STIP (2004-2006)
- Significant effort to mainstream ITS into these and other projects (NHS, STP)



Future Applications

- Bench Marking and Performance Measures for particular projects that have been installed to be addressed by ITS Policy Committee
- Sources for maintenance and operations still is an issue

