Transportation System Management and Operations - Traffic Infrastructure Process

Project Benefits - ITS DMS Warrants

New DMS deployment.

Region:	
Proposed Project Name:	
Requested By:	

1 What is the anticipated cost of the project (total design, construction, and communication cost)?

Estimated cost based on data provided in RITA's clearinghouse.

2 Please complete the Warrant Analysis below to determine which warrant best aligns to the project. The summary of your results is listed here:

summary of warrant results below

W1, Weather Conditions	NOT WARRANTED
W2, Traffic Conditions	WARRANTED
W3, Traffic Control	NOT WARRANTED
W4, Special Events	NOT WARRANTED
W5, Parking Availability	NOT WARRANTED
W6, Public Transportation	NOT WARRANTED

answer based on specific location

DMS Warrant Analysis:

DMS Warrant #1 - To Inform Travelers of Weather Conditions

Consideration		Response
1	If the location is prone to weather situations that travelers would not otherwise be forewarned about (e.g. spots where fog regularly forms, bridges that ice early, mountain passes with weather that differs from approaches).	NO
2	If there is available road weather information for the area downstream of the candidate DMS location.	NO
3	If there is the capability (either manually by staff members or automated through a condition reporting system) to create event specific descriptions of weather conditions to be displayed on the DMS.	NO
4	If there is a need to disseminate event specific descriptions (rather than simply activating a flashing warning sign that says "Weather Alert When Flashing").	NO
5	If there are options for either alternate routes or services, that might be described on the DMS, where travelers may wait out conditions.	NO
6	If flashing beacon signs have been tried and not proven to generate responses from travelers.	NO
7	If weather events contribute to a significant number of crashes or road closures which have major impacts to travelers.	NO

DMS Warrant #1 is: NOT WARRANTED

DMS Warrant #2 - To Inform Travelers of Traffic Conditions

Consideration		Response
1	If the target area is monitored by CCTV cameras, traffic detectors, or another method of monitoring the conditions, or has travel times for the downstream stretch of road.	YES
2	Events occurring in the area unexpectedly impact or impede traffic (e.g. close a lane, encounter slow traffic in one or more lanes, or events on the shoulder) an average of at least two times per month.	YES
3	If there are acceptable alternate routes with capacity to accept vehicles that may deviate based upon the information.	YES
4	If the location is a stretch of road where no alternate route are possible and travelers would benefit from information describing the cause and/or extent of delays in order to relieve driver anxiety or confusion.	NO
5	If there are horizontal or vertical curves that create safety issues when traffic is stopped unexpectedly.	NO
6	The route being considered for the DMS has on average at least 2 hours per day of peak period travel where traffic flow exceeds 1,100 veh/hr/lane.	YES
7	The route being considered for the DMS has on average experienced conditions considered Level of Service C.	YES
8	The route being considered for the DMS experiences average annual daily traffic (AADT) of 16,800 for a 2 lane road; 33,600 for a 4 lane road; 50,400 for a 6 lane road, 67,200 for an 8 lane road.	YES

DMS Warrant #2 is: WARRANTED

DMS Warrant #3 - Changing Traffic Control or Conditions (Work

Consideration		Response
1	The candidate location is upstream of an area with construction or maintenance activities that are expected to cause at least 15 minutes of delay to the mainline traffic.	NO
2	If the candidate location is upstream of traffic control or construction/maintenance activities that are expected to change more frequently than once every 60 days.	NO
3	If the posted work zone speed limit is greater than 45 MPH.	NO

DMS Warrant #3 is: NOT WARRANTED

DMS Warrant #4 - Special Events

Consideration		Response
1	If the location contains a venue that houses ticketed events (typically with rapid and tight arrival patterns for a specified start time).	NO
2	If the event venue typically houses at least two weekday (M-F) ticketed event per week (including seasonal sporting events that only occur during the season).	NO
3	If the event venue typically houses at least 10 events per year attracting 30,000 visitors or more.	NO
4	If the setting of the venue is such that mainline traffic (not attending the event) is impacted by the conditions.	NO
5	If there are alternate parking or traffic options that could be displayed on signs to direct visitors to more preferred options.	NO

DMS Warrant #4 is: NOT WARRANTED

3 Using each of the following Needs Analysis Tool presets, provide the anticipated level of need in the vicinity of the proposed project:

Needs Tool. →

Default TIP	
Safety	
Mobility (Present)	
Mobility (Future)	
Service	
Freight Performance	

4 Estimate the average number of traffic/weather/special events that occur per year that will be positively affected by use of the proposed DMS.

events per year

Estimated based on crash data from Needs Analysis Tool.

5 Estimate the average duration (minutes) of traffic events (due to weather or incidents) that occur and will be positively affected by use of the proposed DMS.

minutes

General estimate based on knowledge of the area.

6 Estimate the average travel time savings from adjusting one's route based on direction given on the proposed DMS.

minutes

General estimate based on knowledge of the area.

7 Provide the current AADT along the corridor where the proposed DMS will be deployed (the Needs Analysis Tool may be used to obtain the value).

veh per day

Based on Needs Analysis Tool.

Estimated Annual Mobility Benefit:	$0
Estimated Annual Energy and Environment Benefit:	$0
Estimated Annual Benefit:	$0
Estimated Benefit/Cost Ratio:	#DIV/0!