



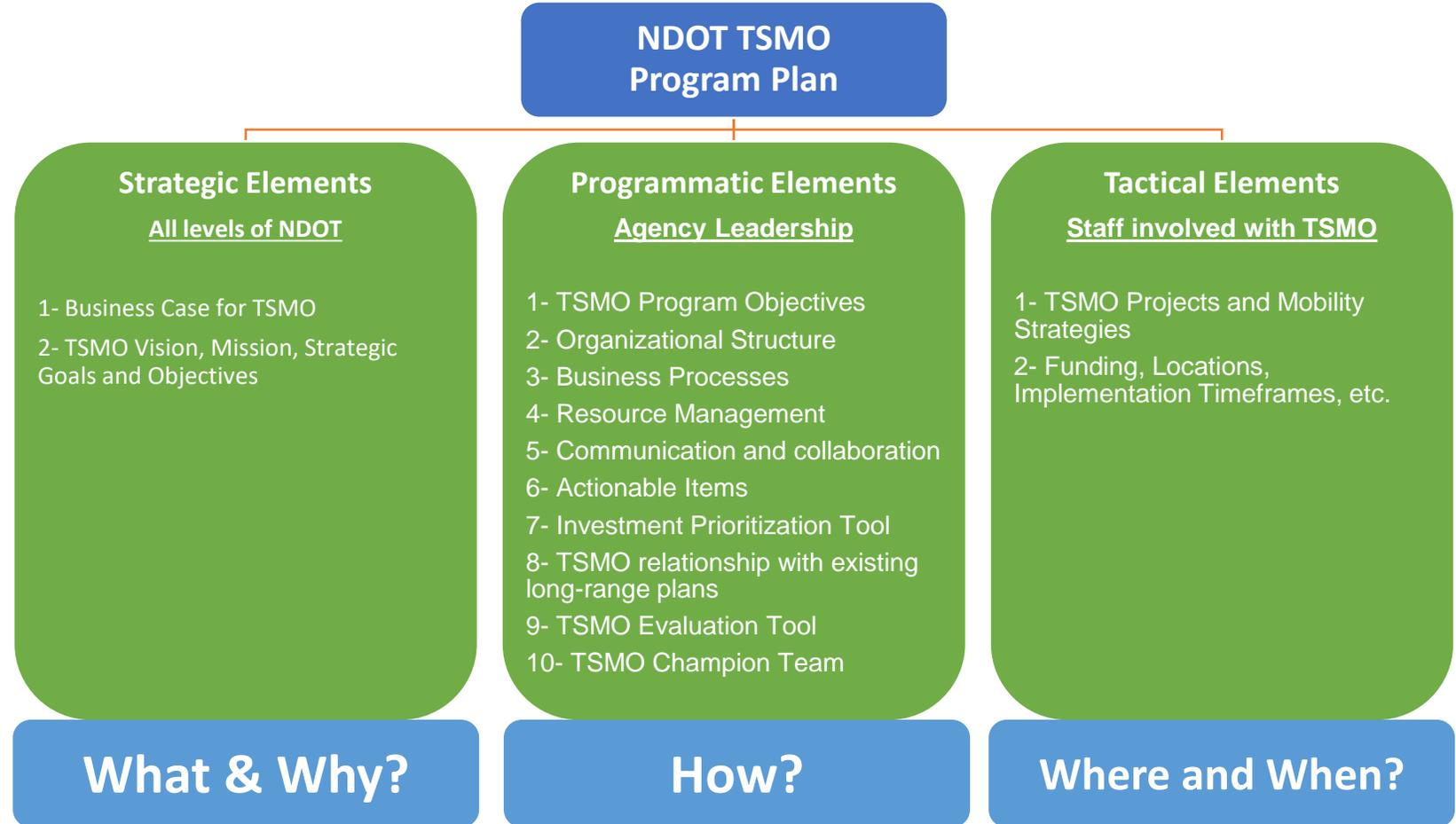
NOCoe Virtual Peer Exchange
NDOT TSMO Evaluation Tool

LaShonn Ford, Senior ITS Project Manager

May 21, 2021



NDOT TSMO Program Plan Components



TSMO Strategic Goals and Objectives



Enhance Safety

Reduce crashes, injuries, and fatalities.



Preserve Infrastructure

Maintain transportation assets to preserve investments.



Optimize Mobility

Maximize system efficiency by reducing congestion and/or promoting multi-modal transportation.



Foster Sustainability

Develop a sustainable transportation system through sustainable and balanced design, operations, and maintenance.

TSMO Strategic Goals and Objectives



Enhance Reliability

Improve economic competitiveness and enhance quality of life through consistent travel times.



Optimize Customer Service

Provide timely and accurate travel information to internal and external customers to enable informed decision-making.



Enhance Collaboration

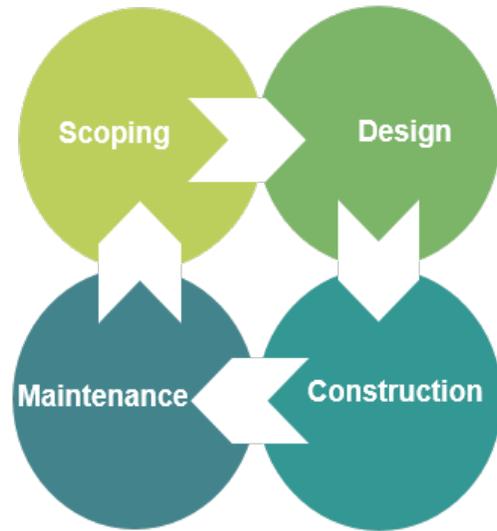
Maximize coordination and cooperation between NDOT divisions and partnering agencies to proactively manage and operate an integrated transportation system.



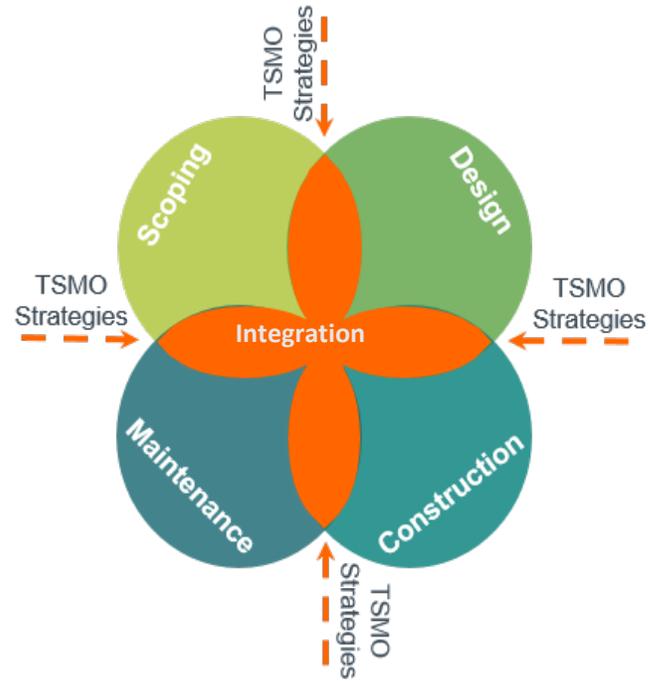
Strengthen TSMO Integration

Incorporate and prioritize TSMO as a core objective in NDOT's planning, design, construction, operations, and maintenance activities.

Why TSMO EVALUATION TOOL?



Typical



TSMO

vs

Projects will be evaluated at the scoping stage to identify opportunities to integrate TSMO strategies in a formalized manner.

NDOT TSMO Evaluation Tool

If you have any questions or concerns, contact:
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Ati Abad: atefeh.abad@atkinsglobal.com

ATKINS

Navigation tabs: Title, Instructions, **Project Information**, Enhance Safety, Preserve Infrastructure, Enhance Reliability, Optimize Mobility, Optimize Customer Service, Enhance Collaboration, Foster Sustainability

NDOT TSMO Evaluation Tool Instructions

Initializing TSMO Evaluation Tool:

- Step 1: Begin by filling out the Project Information Tab.
- Step 2: Fill out the Level 1 Analysis tab. If you answered "Yes" to any of the questions on the Level 1 Analysis tab, proceed by filling out the relevant L2 Analysis tab(s).
- If you answered "No" to all the questions on the Level 1 Analysis tab, proceed by completing the TSMO Waiver Form. Instructions for this task are presented below.
- Step 3: All representatives are required to update the Suggestions tab. Instructions for this task are presented below.

Level 1 Analysis Instructions

- To complete the Level 1 Analysis, start by filling out your name and the date under "Name of representative filling out this form" and "Form start date."
- Answer each question by marking "Yes" or "No."
- Prior to completing the Level 1 Analysis, the following documentation should be obtained and reviewed to appropriate:

- 1- The last three years of crash data within the project area
 - 2- Current NDOT design standards
 - 3- As-built plans, field reconnaissance data, asset management database information within the project area
 - 4- Documented and validated operational concerns (internal to NDOT or received from the traveling public) within the project area
 - 5- List of relevant ITS SDP projects
 - 6- List of TSMO strategic goals and objectives
 - 7- List of TSMO CMM dimensions
- If you answered "Yes" to any of the questions on the Level 1 Analysis tab, proceed by completing the Level 2 Analysis tab(s).
 - If you have comments on the questions, add that information under the "Comments" column (Column B).
 - Add your suggestions under the "Suggestions" column (Column K).
 - The Level 1 Analysis should be completed before or by the project scoping meeting.
 - Revise the Analysis status on the top right of each tab to the appropriate status.

Level 2 Analysis Instructions

- To complete the Level 2 Analysis, start by filling out your name and the date under "Name of representative filling out this form" and "Form start date."
- Answer each question by marking "Yes," "No," "TBD," or "NA."
- If you have comments on the questions, add that information under the "Comments" column (Column F).
- For the questions with no predetermined suggestions, add your suggestions under the "Suggestions" column (Column G).
- Wherever you see a button that looks like this:
- you can click on it to add rows to include additional information for that question. If you add too many rows, click this button: to remove unnecessary rows.
- The Level 2 Analysis should be completed before or by the project scoping meeting.
- Revise the Analysis status on the top right of each tab to the appropriate status.

Suggestions Tab Instructions

- Any text in the "Comments" and "Suggestions" columns on Level 2 Analysis tabs will be pulled into this tab after you click the appropriate buttons. A PDF version of the comments and suggestions summary can be generated by clicking on the listed buttons on this tab.
- To pull comments and suggestions on the L2 Enhance Safety tab, click the button that says, "Insert all Enhance Safety Suggestions."
- To pull comments and suggestions on the L2 Preserve Infrastructure tab, click the button that says, "Insert all Preserve Infrastructure Suggestions."
- To pull comments and suggestions on the L2 Enhance Reliability tab, click the button that says, "Insert all Enhance Reliability Suggestions."
- To pull comments and suggestions on the L2 Optimize Mobility tab, click the button that says, "Insert all Optimize Mobility Suggestions."
- To pull comments and suggestions on the L2 Optimize Customer Service tab, click the button that says, "Insert all Optimize Customer Service Suggestions."
- To pull comments and suggestions on the L2 Enhance Collaboration tab, click the button that says, "Insert all Enhance Collaboration Suggestions."
- To pull comments and suggestions on the L2 Foster Sustainability tab, click the button that says, "Insert all Foster Sustainability Suggestions."
- To pull comments and suggestions on the L2 Strengthen TSMO Integration tab, click the button that says, "Insert all Strengthen TSMO Integration Suggestions."
- If you need to start over, click the "Click here to clear" button.

Final Report Instructions

- To create the final report by printing the yellow tabbed sheets: "Project Information" and "Suggestions."

TSMO Waiver Form Instructions

- If you answered "No" to all the questions on the Level 1 Analysis tab, proceed by filling out the TSMO Waiver Form. To create the final report, use the "Print" button on the TSMO Waiver Form tab to document the responses and attach a copy of the results of the Level 1 Analysis.

	A	B	C	D	E	F	G	H	I
1	Transportation Systems Management & Operations								
2	Evaluation Request Form								
3									
4	Request Date:								
5	District:								
6	Project Manager:								
7	Email Address:								
8	Phone:								
9	Project Description:								
10	Project Type:								
11	Expected Scoping Date:								
12	Project Area:								
13	Begin MP:								
14	Ending MP:								
15	District Representative:								
16	TSMO/TCT Representative:								
17	Provide project scope and any necessary notes:								
18	Primary funding sources/provider codes:								
19	Participating (federal) funds:								
20	Existing assets and ITS devices:								
21	Description of existing assets and ITS devices:								
22	New/replace assets and ITS devices:								
23	Description of new assets and ITS devices:								
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TSMO Evaluation Status Summary	
Enhance Safety	
Preserve Infrastructure	
Enhance Reliability	
Optimize Mobility	
Optimize Customer Service	
Enhance Collaboration	
Foster Sustainability	
Strengthen TSMO Integration	

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LEVEL 1 TSMO ANALYSIS											Level 1 Analysis Status					
Name of the representative filling out this form:																
Form start date:											9/2/2019					
The following questions are to be completed for Level 1 TSMO Analysis. Please answer these questions based on your review of the project. If you answer "Yes" to any of the questions, a Level 2 Analysis is required . If you answer "No" to all of the questions, the Level 1 TSMO Waiver should be requested.																
	Comments	L2 Enhance Safety Analysis	L2 Preserve Infrastructure	L2 Enhance Reliability	L2 Optimize Mobility	L2 Optimize Customer Service	L2 Enhance Collaboration	L2 Foster Sustainability	L2 Strengthen TSMO Integration	Suggestions						
5	Are there any documented safety concerns within the project area? (For example, does the crash data provide any details on number of fatalities and															
6	From a safety and sustainability perspective, does the project area meet current design standards?															
7	Does the project currently use, or are there opportunities to use, existing infrastructure, such as sign structures,															
8	Are there opportunities to include elements in the project that would help keep the roadway system in a good state of service? (For example, a switch from asphalt to concrete to increase the lifecycle of the pavement.)															
9	Does the project eliminate the need for the construction of additional lane															
10	Are there any design changes that may impact traffic operations in the project area?															
11	Are there any known mobility issues?															
12	Are there any documented operational or congestion concerns within the project area?															
13	Are there any validated concerns or complaints from the traveling public within the project area?															
14	Is there an ITS SDP project identified within the project area?															
15	Does the project enhance the performance of the transportation system while protecting and enhancing the natural environment?															
16	Are there opportunities for the project to help achieve any of the TSMO Strategic Goals?															
17	Does the project help improve TSMO maturity within NDOT? If yes, identify which CMM dimension the project is addressing?															
18																

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Print Tab



ENHANCE SAFETY ANALYSIS - General Information					Enhance Safety Analysis Status:
Name of the representative filling out this form:					
Form start date:		9/3/2019			
<p>Safety is an essential aspect of Quality of Life. Recognizing that, ideally NDOT identified Enhance Safety as a TSMO Goal to improve the safety of both residents and visitors. The following questions are designed to help identify potential areas to improve safety through TSMO integration.</p>					
Level 2 Enhance Safety Analysis	Select one	Location	Comments	Suggestions	
Are there any known safety issues in the project area? If yes, what are the safety issues and how are they proposed to be addressed?					1
Has a speed study been completed for the project? If yes, attach a copy of the speed study.					2
Does this project align with current/future statewide safety initiatives?					3
Is there safety funding set aside for this project? If yes, what is the source and the amount?					4
Are there any physical characteristics in the project area that could contribute to safety issues?					5
Are there opportunities to achieve a significant reduction in traffic fatalities and serious injuries within the project area?					6
Are there any physical characteristics that may need to be addressed? If yes, identify the characteristics and the applicable requirements.					7
Do the existing pavement markings, signing, and delineation need to be replaced or improved? For example, do advance warning signs for curves need to be installed?					8
Does the project include any specific TSMO strategies addressing safety? If yes, list the TSMO strategies that are being used.					9
Does the project include performance measures and performance measurement for safety improvements?					10
Use + or - to add or remove rows for Level 2 analysis.					
<input type="button" value="+"/> <input type="button" value="-"/> <input type="button" value="Print Tab"/>					

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		NDOT TSMO Evaluation Tool Waiver Form	
If you have any questions or concerns, contact: LaShonn Ford: lford@dot.nv.gov		2019 Version	
Project Information			
Request Date:		District:	
Project Manager:		District Representative:	
Project Type:		Beginning MP:	
Project Area:		End MP:	
Name of the representative filling out this form: Division: Date:			
I hereby acknowledge I have read and completed review of the Level 1 Analysis tab. Per my responses recorded on the Level 1 Analysis tab and to the best of my knowledge, a Level 2 Analysis is not required for this project at this stage.			
<h1>Page 1</h1>			_____ Signature

Print Tab

L2 Preserve Infrastructure	L2 Enhance Reliability	L2 Optimize Mobility	L2 Optimize Customer Service	L2 Enhance Collaboration	L2 Foster Sustainability	L2 Strengthen TSMO Integration	Suggestions	TSMO Waiver Form
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- Close coordination and collaboration during the development process.
- Recognizing the importance and benefits of integrating TSMO at the scoping level.
- Maximum possible contribution of each project towards achievement of TSMO goals and objectives.
- Transition into a web-based tool.
- The goal is for all NDOT Divisions to use this tool at the project scoping level.



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