



**Project/Program Management Phase 2**

**Project Action Plan – Traffic Operations Infrastructure Plan (TOIP)**

<b>Project Sponsor(s)</b>	Rory Rhinesmith & Dewayne Johnson	<b>Team Lead</b>	Anne Reshadi
<b>Responsible division/area</b>	DTSD/BTO	<b>Anticipated cost savings</b>	Currently compiling construction, materials, integration, operating, utility and maintenance costs for TOIP infrastructure , TOIP related costs delivered 5/9/2014
<b>Coordinate with</b>	DTIM, Regional OPS, DSP, OPBF	<b>Team members</b>	Regional Traffic Supervisors, Regional Operations Managers, Anne Reshadi, Bill McNary, Don Schell, Paul Keltner, Cody White, Jeremy Iwen, DTIM Asset Management Representation
<b>Implementation folder location</b>	[SharePoint location]	<b>Date initiated</b>	4/21/2014
<b>Action and strategy</b>	TOIP Review; Redirect TSM&O Infrastructure Plan Activities	<b>Status date</b>	4/21/2014
<b>Description of project</b>	Review and streamline TOIP investments; perform comprehensive review of traffic operations strategies from need, value, expenditure and maintenance perspectives	<b>Estimated project Completion Date</b>	7/31/2015

<b>Status</b>			<b>Green</b>	<b>Yellow</b>	<b>Red</b>
<b>Project status (overall)</b>			X		
<b>Project issues/Risks</b> <ol style="list-style-type: none"> <li>1. Lack of resources (personnel to perform updates)</li> <li>2. Potential lost opportunities for deployment with more conservative approach</li> <li>3. Potential over deployment of ITS under current TOIP</li> <li>4. Qualitative nature of TOIP as it currently stands allows for multiple interpretations (proposed project will decrease flexibility in decision making)</li> </ol>		<b>Possible mitigating strategies</b> <ol style="list-style-type: none"> <li>1. Building more comprehensive planning (Arterial TOIP, ICM)</li> <li>2. Adopting federal guidance for ITS warrants.</li> <li>3. Investigate external technologies to leverage lower cost options</li> <li>4. Adjust ITS deployment plans, eliminate unnecessary work and update TOIP based on opportunities to partner with private industry (e.g., WAZE, Google, connected vehicle technology and supplemental traffic data)</li> <li>5. Develop Mega-Project specific TOIP</li> <li>6. Planning activity to begin decommissioning of under leveraged or unnecessary ITS devices</li> <li>7. Annual review &amp; update of ITS design policies and procurement contracts to ensure efficiencies by deploying state of the art equipment</li> </ol>			



**Accomplishments, action items and timeline**

**Accomplishments to date/History of TOIP to date (including completion dates):**

1. Development of TOIP Methodology & Final Report – May 2008
2. First generation TOIP implementation Plan & B/C for each region – August 2009
3. TOIP implementation plan update – March 2010
4. TOIP Communication System Layer (CSL) development – March 2011
5. TOIP data update in progress – August 2014 (completion date)
6. Arterial TOIP initiative in progress – October 2014 (completion date)
7. Initial estimates include annual capital program ranges between \$10-20 M (firm number being developed in short-term).
8. Compile construction, materials, integration, operating, utility and maintenance costs for TOIP infrastructure. TOIP related costs delivered 5/9/2014 (see Short-term action item #1 below)
9. Recognize TOIP PPM effort and expected efficiencies/cost savings in Traffic Operations budget issue paper (May, 2014) (see Short-term action item #2 below)
10. Develop ITS maintenance activity and snapshot report (i.e. ITS budget). Additional efforts relevant to ITS maintenance reporting included in Long-term action items below. (7/1/2014) (see Short-term action item #5 below)

**Short-term (next three months) action items / milestones (including estimated timeline for completion):**

1. Compile construction, materials, integration, operating, utility and maintenance costs for TOIP infrastructure. TOIP related costs delivered 5/9/2014. (completed – see Accomplishments #8)
2. Recognize TOIP PPM effort and expected efficiencies/cost savings in Traffic Operations budget issue paper (May, 2014) (completed – see Accomplishments #9)
3. Review and clarify TOIP/Generate awareness of role of TOIP in ITS deployment process (Presentation to ITS TAG/Ops Managers by 8/13/2014)
4. Start to track costs for TOIP (ITS) to include operations, maintenance and lifecycle replacements. This item was integrated into Long-term action item #7 below.
5. Develop ITS maintenance activity and snapshot report (i.e. ITS budget). Additional efforts relevant to ITS maintenance reporting included in Long-term action items below. Include 2014 – 2015 estimated ITS device deployment costs (7/1/2014) (completed – see Accomplishments #10)
6. Hire ITS Planner/Engineer (CE Adv) (Position filled by 8/15/2014)
7. Develop a TSM&O Infrastructure Plan State of the State report (formerly TOIP) – captures status relative to broader plan and to the ITS deployment levels in other states. (8/30/2014)
8. ITS deployment plan check-in with Operations Managers, Administrator Office, State Patrol and DTIM - will redirect TSM&O infrastructure plan activities and reconfirm on an annual basis– meet annually in mid-Summer (First Meeting – 8/2014)

**Long-term action items / milestones (including estimated timeline for completion):**

1. Engage ITS Technical Advisory Group (ITSTAG) in categorizing the appropriate levels of technology for deployment (ex. DMS: overhead, side-mount, butterfly) (First generation categorization developed 12/31/2014)
2. Annual review & update of ITS design policies and procurement contracts to ensure efficiencies by deploying state of the art equipment (12/2014)
3. Identify gaps in existing TOIP by overlaying inventory & operational needs through integration of probe data. (2/2015)
4. Align TSM&O implementation plans with six year construction plan. (4/2015)
5. Develop life cycle replacement plan for ITS (4/2015)
6. Continue developing partnership opportunities with respect to the communication systems layer. (Ongoing)
7. Continue to clarify the role and limitations of the TSM&O infrastructure planning tool as a guidebook that feeds planning activities and guides project level decision making. (Ongoing)



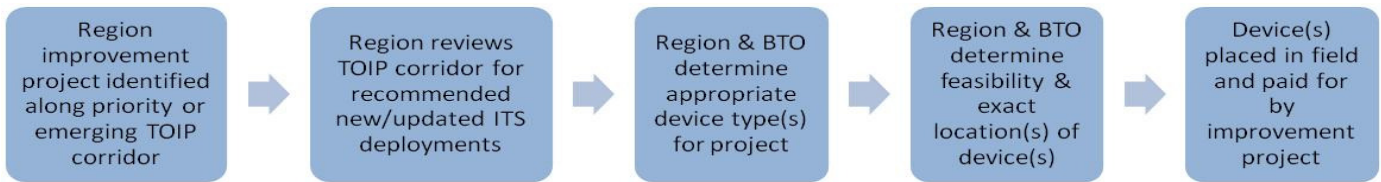
**Project/Program Management Phase 2**

**Project Action Plan – Traffic Operations Infrastructure Plan (TOIP)**

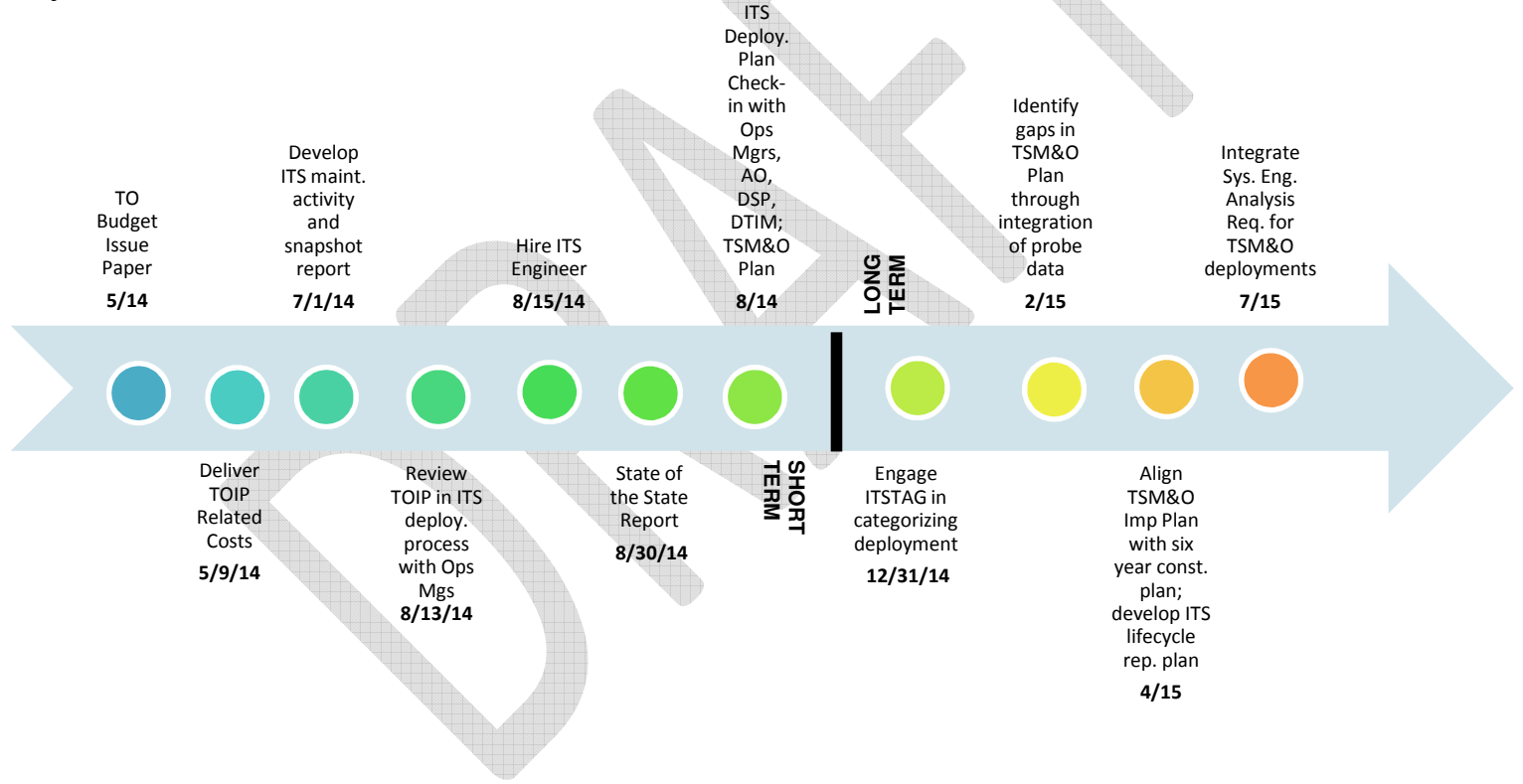
**Accomplishments, action items and timeline**

- 8. Require Systems Engineering Analysis for new TSM&O infrastructure deployments and infrastructure management. This will require additional systems management resources across the agency. (7/2015)
- 9. Identify opportunities to partner with private industry (e.g. WAZE, Google, connected vehicles). (Ongoing)
- 10. Rename WisDOT’s Traffic Operations Planning tool to reflect impacts from new appropriations and refocus on non-WisDOT owned infrastructure.

**How an ITS device is deployed via TOIP:**



**Project Timeline**



**Metrics**

**Proposed metrics [examples – please complete as appropriate to your project]**

- 1. Dollar amount savings for non-deployment
- 2. MAPSS Travel time reliability measure
- 3. MAPSS Vehicle delay measure