

**STATE OF VERMONT  
AGENCY OF TRANSPORTATION**

**Traffic Management Plan**

**FOR**

**Berlin Deck IM Deck (42), (43), (44), and (45)**

**Interstate I-89 over Crosstown Road (TH40) and VT Route 62, Berlin, VT**

**Bridges 37N, 37S, 38N, and 38S**

August 30, 2018



Bridge 38S and 38N



Bridge 37S and 37N

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## 1.0 Project Description

This section provides an overview of the projects, which generally includes:

The project is located in the Town of Berlin, in Washington County on Interstate 89. It includes Bridges 37 North and 37 South, which crosses over Crosstown Road (Town Highway 40) and Bridges 38 North & 38 South which crosses over VT Route 62, at the Exit 7 Interchange.

This project replaces the existing decks and approach slabs of all four Bridges. The following work will occur with the project:

- During the first construction season removal and replacement of Bridge 37N and 38N concrete deck and associated bridge approach work will be done with both bridges closed to traffic. Northbound traffic will be diverted to temporary crossovers onto the southbound barrel. A temporary ramp crossover from the southbound barrel will be provided for northbound Exit 7 traffic.
- During the second construction season removal and replacement of Bridge 37S and 38S concrete deck and associated bridge approach work will be constructed in phases while maintaining the southbound on-ramp traffic and slow speed traffic across the bridge. Southbound Interstate 89 through traffic will be diverted to a temporary crossover onto the northbound barrel utilizing the finished Bridge 37N and 38N.
- Traffic management for Crosstown Road and VT Route 62 will be needed during the time frame that bridge demolition takes place over the roadways and during construction activities over the roadways. Contractor is to determine their preferred means of traffic management based on the following options:
  - Alternating one-way traffic with the use of flaggers.
  - Maintain two-way traffic using shielding.
  - For Crosstown Road, maintain two-way traffic by widening the shoulders. It should be noted that the bridge vertical clearance over Crosstown Road is 13 feet 3 inches, so an additional option for Crosstown Road is roadway closure for 4 consecutive -10 hour periods from 7 AM to 5 PM, opening the roadway each night.

This project is currently scheduled for construction during the 2019 and 2020 construction season. Also currently scheduled for construction during the 2020 construction season is Bridges 26N and 26S at Exit 3, on Interstate 89, and Bridges 17N and 17S on Interstate 89 in Sharron.

## 2.0 TMP Team—Roles and Responsibilities

### Additional Considerations

- Some TMPs may not have all the information at the early stages of the project. Information can be added as the project progresses.
- When multiple sections of an agency or different agencies, consultants, or contractors are involved, this would be a good place to include their contact information to help with coordination

Defining roles and responsibilities from the initial stages of a project helps to coordinate all the activities related to TMP development, implementation, and monitoring. This section includes contact information and roles and responsibilities for major personnel involved in the project, such as:

across agencies/projects.

- TMP Development Managers—Agency/Contractor personnel with the primary responsibility for developing the TMP.
- TMP Implementation Managers—Agency/Contractor personnel primarily responsible for implementing the TMP.
- TMP Implementation Task Leaders—Agency personnel/Contractor personnel who manage, complete, oversee, or assist in specific transportation management tasks (examples include TTC inspection/supervision, PI Officer, etc.) during the work.
- Construction Engineering—Agency personnel who have primary responsibility for overseeing the construction of the project, including the traffic control plan
- Public Information Officer—Agency personnel who provide real-time public awareness of the work zone, including detection, prevention, and response to incidents.
- Emergency Contacts—Public or semi-public agencies (e.g., hospitals, schools) that need to be kept informed about work zone activities, especially in case of a road closures.
- Contractor—Primary Contractor responsible for construction of the project. (to be completed after contract award)

The following tables can be used to list contact information and roles and responsibilities of major personnel involved in the project. The tables can be modified to meet agency needs.

### TMP Development Managers

Department of Transportation (DOT)	Consultant
Name/Title: Mahendra Thilliyar Unit: Structures Phone: Email: <a href="mailto:Mahendra.Thilliyar@vermont.gov">Mahendra.Thilliyar@vermont.gov</a>	Name/Title: John Byatt Unit: Bridge Phone: 603-668-8223 Email: <a href="mailto:johnb@cldengineers.com">johnb@cldengineers.com</a>
<b>Roles and Responsibilities:</b>	

### TMP Implementation/Monitoring Managers

DOT	Consultant
Name/Title: Unit: Phone: Email:	Name/Title: Unit: Phone: Email:
<b>Roles and Responsibilities:</b>	

### TMP Implementation Task Leaders

DOT	Consultant
Name/Title: Unit: Phone: Email:	Name/Title: Unit: Phone: Email:
<b>Roles and Responsibilities:</b>	

### Construction Engineering

Resident Engineer	Regional Construction Engineer
Name/Title: Unit: Phone: Email:	Name/Title: Unit: Phone: Email:
<b>Roles and Responsibilities:</b>	

## Public Information Officer

DOT	Consultant
Name/Title:	Name/Title:
Unit:	Unit:
Phone:	Phone:
Email:	Email:
<b>Roles and Responsibilities:</b>	

## Emergency Service Contacts

Fire and Emergency Medical Services (FEMS)	Berlin Police Department (PD)
Name/Title: Miles Silk Jr./Fire Chief – Chris LaMonda	Name/Title: William H. Wolfe/Chief
Unit: Fire Dept. & Barre Town EMS	Unit: Berlin Police Dept.
Address: 338 Paine Turnpike N, Berlin, VT 05602	Address: 108 Shed Road, Berlin, VT 05602
Phone: 802-223-5531 Fire 802-476-3147 EMS	Phone: 802-223-4401
Email:	Email:
<b>Roles and Responsibilities:</b>	
Emergency Service Contacts	
Vermont State Police	County Sheriff
Name/Title: Lieutenant Matthew Nally Sr.	Name/Title: Sheriff W. Samuel Hill
Unit: Middlesex Barracks	Unit: Washington County Sheriff's Department
Address: 1080 US Route 2, Middlesex, VT 05602	Address: 10 Elm Street, P.O. Box 678, Montpelier, VT 05601
Phone: 802-229-9191	Phone: 802-223-3001
Email:	Email:
<b>Roles and Responsibilities:</b>	

## Contractor

Contractor	Superintendent
Name/Title:	Name/Title:
Address:	Unit:
	Phone:

Phone:	Email:
Email:	
<b>Roles and Responsibilities:</b>	
<b>Contractors Competent Person</b>	<b>Contractors Safety Officer</b>
Name/Title:	Name/Title:
Unit:	Unit:
Phone:	Phone:
Email:	Email:
<b>Roles and Responsibilities:</b>	

### 3.0 Preliminary Work Zone Impact Assessment

A preliminary assessment of work zone impacts was developed in the early planning stages of this project. A Traffic Assessment Report analyzed traffic volumes through the work zone and presented 8 traffic management alternatives. The chosen alternative is presented in the project plan set.

Does the project includes a long-term closure and/or extended weekend closure?

If Yes, what is/are the applicable type of facility(ies)?

- This project does not include a closure. Crossovers will be the primary method of maintaining traffic during construction.

Can traffic be detoured?

- There are no reasonable detours for this project.
- **Is the local alternate detour route in good condition?**

A detour for northbound traffic is to take Paine Turnpike North to Route 2 Memorial Drive to access Exit 8. This detour would take a driver about 10 minutes.

For Southbound traffic a detour would be to stay on Interstate 89 to Exit 6 and re-enter the highway headed northbound to access the northbound Exit 7 ramps. This would take approximately 14 minutes.

- **Will the detour route have a detrimental impact on emergency vehicles, school buses, or other sensitive traffic?**

With the hospital located off Exit 7 this additional traffic time could be a potential problem.

- **Are there load limit restrictions on the detour?**

There is no load restriction on either detour.

- **Are there bridge/culvert height or width**

The deck width is not proposed to be changed.

Is the existing shoulder sufficient to support traffic during construction?

- The shoulders are too narrow to support traffic.

Is additional width required on culverts or bridges to maintain traffic?

- There is no bridge widening proposed.

Is there a pedestrian/bicycle facility that must be maintained?

- The only location within the project which has limited pedestrian and bicycle use is Crosstown Road. The rest of the project is limited access, as it is Interstate and interchange ramps.

Would a temporary structure(s) be required?

- Temporary structures are not anticipated.

Would a median crossover be needed?

- Crossovers are the preferred method of traffic maintenance.

Would there be a need to maintain railroad traffic?



- No.

Could maintenance of traffic have an impact on existing or proposed utilities?

- There are no utilities on I-93.
- There are no utilities on VT-62
- There are overhead power lines that run along the north side of Crosstown Road that run over Bridges 27N and 27S with the lowest line having 27'0" vertical clearance over the southbound roadway surface and 26'8" vertical clearance over the northbound roadway.

Does it appear that maintenance of traffic will require additional right-of-way?

- Additional right-of-way not anticipated.

Can the contractor restrict the roadway during the time periods listed?

- a.m. peak hours, one direction – Yes.
- p.m. peak hours, one direction – Yes.
- a.m. peak hours, both directions – One lane each direction minimum must remain open at all times.
- p.m. peak hours, both directions – One lane each direction minimum must remain open at all times.
- Overnight – One lane each direction minimum must remain open at all times.
- Local celebrations – One lane each direction minimum must remain open at all times.
- Holidays or weekends – One lane each direction minimum must remain open at all times.
- Sporting events/other special events – One lane each direction minimum must remain open at all times.

Will project timing (for example, start or end date) be affected by special events:

- There are no restrictions on the closure period other than permitting and construction conditions.

Are there any projects to be considered along the corridor or in the region?

- Roadwork in the immediate area that may affect traffic or the contractor's operations?
  - None known of at this time
- Roadwork on other roads that may affect the use of alternate routes?
  - None known of at this time
- Are there other maintenance of traffic issues? If so, specify.
  - None known of at this time

## 4.0 Existing Conditions

This section provides an overview of the existing conditions within the study area. The existing conditions generally include:

- **Roadway characteristics (history, roadway classification, number of lanes, geometrics, urban/suburban/rural).**
  - Roadway Classification: Rural Principal Arterial Interstate Highway
    - Two twelve foot lanes, on each barrel with a four foot inside shoulder and a ten foot outside shoulder.
- **Historical traffic data (volumes, speed, capacity, volume/capacity, percent trucks, queue length, peak traffic hours).**

Location	Average Daily Vehicles	Average AM Peak Hourly Volume	Average PM Peak Hourly Volume	Average Saturday Peak Volume	Average Sunday Peak Volume
Bridge 38 North	7817	588	694	828	772
Bridge 38 South	9809	541	1043	1000	1081
Bridge 37 North	10118	858	910	933	918
Bridge 37 South	9809	541	1043	1000	1081

- Posted/Design Speed: 65 mph
- **Traffic operations (signal timing, traffic controls).**
  - There are no signals located in the project area
- **Crash data.**

During the time period of 2010 to 2014, there were 16 accidents on Interstate 89 in the Berlin area. Most of the accidents happened during rain or snow events and were classified as rear end accidents or single vehicle crash.
- **Pedestrian/bicycle facilities.**
  - There are currently no bicycle or pedestrian facilities through the project area. The only area that may need to accommodate bicycle or pedestrian traffic would be Crosstown Road, during the deck demolition over this roadway.
- **Transit facilities.**

There are no transit facilities in the project area, although transit busses use the corridor on a regular schedule.
- **Truck routes.**

Interstate 89 is a major truck corridor. The current truck volume through the project is 1400 trucks per day.
- **Local community and business concerns/issues.**
  - The route would be used to respond to incidents on Route 89 or to go to Exit 6. Ambulances traveling north would be impacted which is a factor to consider as Central Vermont Medical Center is accessed by Exit 7.
  - If AOT is planning to close TH-40 that will impact municipal operations.
  - Stewart Road and Hill Street could be affected in this case as well as residents having to drive a long way around the construction site. Additional traffic on these roads would create a problem.

- The community's main concern is how this work will impact Crosstown Road.
- Stage Coach Transportation Service out of Randolph offers a two times daily commuter bus to Berlin-Montpelier.

The sample table below summarizes pertinent project information.

Roadways Affected By MOT Plans—Summary				
Roadway/Street Name	Classification	ADT	Capacity	Peak Hour Volume
Crosstown Road	TH 40	2400	4400 vph	350
VT Route 62 – SB on ramp	Ramps	2287	2200 vph	300
VT Route 62 – SB off Ramp	Ramps	4175	2200 vph	620

## 5.0 Operational Analysis

*This section is intended to provide information on safety and mobility aspects within the project influence area, including traffic safety, data collection and modeling approach, traffic analysis, and other issues and concerns. This operational analysis will help identify potential work zone impacts and guide selection of TMP strategies.*

### 5.1. Safety Analysis

*A safety analysis will help identify the potential locations for monitoring and/or other strategy deployments during construction to help manage work zone safety. Ongoing monitoring of the potential locations for any increase in crashes is important while the TTC, TOP, and PI&O are implemented.*

This section of Interstate 89 is not a high crash location. A safety analysis was not done for this project.

### 5.2. Traffic Analysis

#### 5.2.1. Data Collection and Traffic Modeling

Existing VTrans data was used to model the impacts of various Maintenance of Traffic alternatives that could be used during construction. The traffic analysis included such methods as closing one lane in each barrel utilizing two phased bridge construction or constructing crossovers to remove traffic from each barrel utilizing single phased construction. The approach used to analyze the work zone for all four bridges is the methodology for a freeway facility composed of connected segments, as presented in Chapter 10 of the 2010 Highway Capacity Manual. This chapter provides equations to calculate freeway capacity of a travel lane through a work zone due to construction activities, which is based on numerous

studies. The calculated work zone capacity is compared to the actual peak month (August 2015) peak hour demand volumes developed for each work zone segment to determine a demand-to-capacity ratio. A ratio equal to 1.0 or greater indicates an oversaturated condition that could result in traffic backups. Using this procedure, it was determined that a single lane on the mainline through the bridge work zone would not result in a ratio greater than 1.0 for the Alternatives presented.

The only location that presented a demand-to-capacity ratio greater than 1.0 is at the VT Route 62 southbound on-ramp. This occurs if the full mainline traffic is merged into one single lane and the ramp traffic needs to merge into the single through lane, and occurred during 3 hours of the week day PM peak. This is due to the tight geometric constraint of the southbound on ramp acceleration lane that extends onto Bridge 38S. It was determined that in the condition of a demand-to-capacity ratio greater and 1.0 the ramp may operate more like a Stop/Yield condition, therefore the ramp was evaluated in HCS as a stop condition, which resulted in an average delay of 47 seconds and a queue length of approximately 7 vehicles during the weekday PM peak. To mitigate against potential queueing and stop condition traffic the southbound bridges will be constructed under two phase construction utilizing a crossover for the majority of the mainline southbound traffic. The only phase that requires the southbound of ramp to merge with through southbound traffic at the gore is during the construction of the east side of Bridge 38S, and the through traffic volume should in reduced to truck or slow speed traffic only.

The crossover design and phasing alternatives illustrated in the project Traffic Control Plans is the result of information presented in the Traffic Assessment Report for this project, developed during the project scoping phase. The full report is available upon request.

## 6.0 Work Zone Impact Management Strategies

This section provides an overview of various strategies deployed to improve the safety and mobility of work zones and reduce the work zone impacts on the road users, community, and businesses.

The strategies are grouped according to the following three categories.

1. Temporary Traffic Control (TTC)
2. Transportation Operations (TO)
3. Public Information and Outreach (PI&O).

In addition to traditional TTC strategies, TO and PI mitigation measures must be used for significant projects. Some examples of TO and PI strategies include:

- Motorist assist patrols.
- Enhanced sign and pavement markings.
- Increased police enforcement.
- Real-time traffic information and updates on project delays.

### Additional Considerations

*TMP Details*—For traditional design-bid-build project, many agencies have details of the proposed

work zone strategies in TTC plans (e.g., PCMS message content) and list of strategies in the TMP document. In such cases it is useful to include the TTC Plan as an attachment to the TMP. In case of design-build projects, work zone strategies based on preliminary TTC concept plans would be included in the TMP document.

*TMP Costs*—Agency guidelines apply on whether cost should be listed in the TMP document. When the TMP is a contract document, the cost items are typically not listed. However, estimating the work zone management strategy implementation costs and including these within the overall project budget is crucial, as it may be difficult to obtain additional funding at a later time for needed strategies. This potentially avoids under-allocation of funds. Where feasible, it is helpful to itemize the cost estimates for the various management strategies and document them in the TMP, with cost responsibilities, opportunities for sharing or coordinating with other projects, and funding sources specified. TMP components can be funded as part of the construction contract and/or in separate agreements.

*Contingency/Incident Management Plans*—Consider developing a contingency plan that addresses specific actions that will be taken to restore or minimize impacts on traffic when the congestion or delay exceeds original estimates due to unforeseen events. This includes work-zone crashes, traffic volumes higher than predicted traffic demand, delayed pick-up of lane closures, etc.

It is best to develop the Contingency/Incident Management plan as a collaborative effort with the emergency response and the public safety community. Development of such a plan is crucial in the early phases to properly integrate the concerns of the first responder personnel. It is recommended that agencies consider key components, such as the following six items, in developing the plan:

- (1) Incident Detection and Verification;
- (2) Incident Classification and Response;
- (3) Site Management;
- (4) Site Clearance;
- (5) Motorist Information;
- (6) Evaluation.

The sample tables below provide a summary of various work zone management strategies. The tables can be modified by agencies to suit their needs.

Temporary Traffic Control	✓	Cost
<b>Control Strategies</b>		
1. Construction phasing/staging	X	
2. Full roadway closures		
3. Lane shifts or closures	X	
4. One-lane, two-way controlled operation	X	
5. Two-way, one-lane traffic/reversible lanes		
6. Ramp closures/relocation		
7. Freeway-to-freeway interchange closures		
8. Night work	X	
9. Weekend work	X	
10. Work hour restrictions for peak travel		

11. Pedestrian/bicycle access improvements		
12. Business access improvements		
13. Off-site detours/use of alternate routes		
<b>Traffic Control Devices</b>		
14. Temporary signs	X	
15. Arrow boards	X	
16. Channelizing devices	X	
17. Temporary pavement markings	X	
18. Flaggers and uniformed traffic control officers	X	
19. Temporary traffic signals		
20. Lighting devices		
<b>Project Coordination Strategies</b>		
21. Other area projects		
22. Utilities	X	
23. Right-of-Way		
24. Other transportation infrastructure		
<b>Innovative Contracting Strategies</b>		
25. Design-Build		
26. A+B Bidding		
27. Incentive/Disincentive clauses		
28. Lane rental		
29. Performance specifications		
<b>Innovative or Accelerated Construction Techniques</b>		
30. Prefabricated/precast elements		
31. Rapid cure materials		

Transportation Operations	√	Cost
<b>Demand Management Strategies</b>		
1. Transit service improvements		
2. Transit incentives		
3. Shuttle services		
4. Parking supply management		
5. Variable work hours		

6. Telecommuting		
7. Ridesharing/carpooling incentives		
8. Park-and-Ride promotion		
<b>Corridor/Network Management Strategies</b>		
9. Signal timing/coordination improvements		
10. Temporary traffic signals		
11. Street/intersection improvements		
12. Bus turnouts		
13. Turn restrictions		
14. Parking restrictions		
15. Truck/heavy vehicle restrictions		
16. Reversible lanes		
17. Dynamic lane closure system		
18. Ramp closures		
19. Railroad crossing controls		
20. Coordination with adjacent construction site(s)		
<b>Work Zone ITS Strategies</b>		
21. Late lane merge	X	
22. PCMS with speed display	X	
23. Travel time estimation system		
24. Advanced speed information system		
25. Advanced congestion warning system		
26. Conflict warning system (e.g., construction vehicles entering roadway)		
27. Travel time monitor system		
28. Freeway queue monitor system		
29. CCTV monitoring		
30. Real-time detour		
<b>Work Zone Safety Management Strategies</b>		
31.Speed limit reduction/variable speed limits	X	
32.Temporary traffic signals		
33.Temporary traffic barrier	X	
34.Movable traffic barrier systems		

35. Crash cushions		
36. Temporary rumble strips		
37. Intrusion alarms		
38. Warning lights		
39. Automated flagger assistance devices (AFADs)		
40. Project task force/committee		
41. Construction safety supervisors/inspectors		
42. Road safety audits		
43. TMP monitor/inspection team		
<b>Incident Management and Enforcement Strategies</b>		
44. ITS for traffic monitoring/management		
45. TMC		
46. Surveillance (e.g., CCTV)		
47. Helicopter for aerial surveillance		
48. Traffic Screens		
49. Call boxes		
50. Mile-post markers		
51. Tow/freeway service patrol		
52. Total station units		
53. Photogrammetry		
54. Media coordination		
55. Local detour routes		
56. Contract support for incident management		
57. Incident/Emergency management coordination	X	
58. Incident/Emergency response plan		
59. Dedicated (paid) police enforcement		
60. Cooperative police enforcement		
61. Automated enforcement		
62. Increased penalties for work zone violations		
63. Emergency pull-offs		

Additional information can be acquired from the [“Workzone Safety and Mobility Guidelines”](#) and [“Appendix A”](#) to said document:



Public Information and Outreach	√	Cost
<b>Public Awareness Strategies</b>		
1. Branding		
2. Press kits		
3. Brochures and mailers		
4. Press releases/media alerts		
5. Mass media (earned and/or paid)		
6. Paid advertisements		
7. Project Information Center		
8. Telephone hotline		
9. Planned lane closure website		
10. Project website	X	
11. Public meetings/hearings, workshops	X	
12. Community task forces	X	
13. Coordination with media/schools/business/emergency services	X	
14. Work zone education and safety campaigns		
15. Work zone safety highway signs	X	
16. Rideshare promotions		
17. Visual information		
<b>Motorist Information Strategies</b>		
18. Radio traffic news		
19. Changeable message signs	X	
20. Temporary motorist information signs		
21. Dynamic speed message sign		
22. Highway Advisory Radio (HAR)		
23. Extinguishable Signs		
24. Highway information network (web-based)		
25. Traveler information systems(wireless, handheld)		
26. Transportation Management Center (TMC)		
27. Live traffic camera(s) on a website		
28. Project information hotline		
29. Email alerts		

## 7.0 Notes

Any additional notes on selected strategies, the TMP in general, or any item requiring special attention for the project can be provided in this section.

## 8.0 TMP Implementation/Monitoring

The TMP needs to be implemented in the field, as specified, unless any changes have been approved by the agency. To help ensure appropriate implementation, [23 CFR 630 Subpart J](#) §630.1012(e) requires that the State/Agency and the contractor each designate a trained person at the project level who has the primary responsibility and sufficient authority for implementing the TMP and other safety and mobility aspects of the project.

Monitoring the performance of the TMP during the construction phase is important to establish whether the predicted impacts closely resemble the actual conditions in the field, and whether the TMP strategies are effective in managing the impacts. TMP monitoring is needed for both oversight and evaluation purposes, such as:

- Monitoring and documenting TMP changes during construction.
- Preparing an evaluation of the TMP, including lessons learned.
- Refining work zone impact analysis processes and models based on outcomes.

TMP monitoring includes details of any specific observational, logging, and/or recording activities conducted during the project for work zone performance measurement purposes. Examples of possible performance measures for TMP monitoring include:

- Volume
- LOS
- Queue length
- Delay
- Travel time
- Number of crashes/incidents
- Incident response and clearance times
- Type and frequency of legitimate complaints received.

### Additional Considerations

Agencies use different methods to monitor and assess performance, such as portable sensors or floating car methods to measure queues and travel times, and video cameras with detection capabilities for real time measurements.

It is helpful for the TMP Implementation/Monitoring Managers to meet with the Project Manager on a regular basis to discuss and assess the safety and mobility impacts of the project work zone to date. This helps to assess how well the TMP is managing the project impacts, and can help identify and address issues before they become problems. It also provides the opportunity to verify that all key stakeholders and project officials have been receiving timely notifications where required.

## 9.0 TMP Review/Approvals

TMPs, and changes to TMPs, must be approved by the DOT before they are implemented. As part of this process, many agencies conduct a TMP review, either by a designated individual or a team. A TMP review is particularly important for higher impact projects, and will help with future revisions of the TMP and performance monitoring. The TMP approval is then based on the TMP review.

It is ideal to have a specific person, such as the Chief Engineer and/or a designate, approve the final TMP design document before implementation. It is recommended that major updates also be approved by Chief Engineer or designate.

### Additional Considerations

*Peer Review* – Some agencies have found it helpful to use a TMP peer review process for significant projects that involves a team not directly involved with the project (e.g., staff from DOT central office and other regions/districts). The TMP may go through peer review at various stages of the project, at which the TMP is assessed and comments are provided, including how to proceed.

### Additional Considerations

Following are some State/agency practices relating to TMP review and approval:

- Michigan—has a statewide Safety and Mobility Peer Review Team for projects exceeding thresholds set in the Michigan *Work Zone Safety and Mobility Manual*.
- Oregon—each region has its own TMP reviews.
- Montana—TMP approval is conducted as part of the PS&E checklist
- California—has a signature line for the TMP Manager on the project “ready to list” form so that the TMP is signed off right before the project is put to bid.
- Maryland—District/relevant central office managers and the Public Information Officer sign off on the TMP.
- Rhode Island—requires that the Chief Engineer, State Traffic Engineer, and Traffic Management Chief sign off on the TMP as part of the PS&E review and process.
- Wisconsin—has signoffs on the TMP worksheet checklist in the regions.

A sample TMP Approval Template is given below which can be modified by agencies according to their practice/needs.

Chief Engineer			Project Engineer		
<b>All approvals must be obtained prior to the start of work</b>					
Signature:			Signature:		
Name:			Name:		
Date:			Date:		
Revision#	Initials	Date	Revision#	Initials	Date
1					
2					

## 10.0 Appendices

Appendices may include:

- Traffic Counts
- Traffic Analysis (Existing compared with future)
- Temporary Traffic Control Plans
- Public Information and Outreach Plan
- TMP Review Notes
- Project Monitoring Form or Post-Project Evaluation Form.