Work Zone
Transportation Management Plan Development Course

Session 3
TMP Types
Transportation Management Plan: So Far...

- Which projects cause delay?
- How much delay?
- Extent of impacts
- Opportunity to coordinate
- Cost estimation
Transportation Management Plan: Choosing TMP Type

- Remaining question...
  - What Type of TMP should we prepare?
- Most often Type 1, 2 and 3
- Easier to consider impacts early than late
- Easier to lower TMP intensity than to increase
Transportation Management Plan Process

START

1. Develop and/or Update WisDOT Policies, Procedures and Practices

Program Level Scoping
(SPO Program Level Engineer)

2. Perform work zone impacts assessment

3. Establish TMT (PDS and other Stakeholders)

4. What Kind of TMP is Required?

Type 1 & 2

Document in DSR

Type 3

Include TMP Components and Estimate in PMP for approval
(PDS Project Manager)

No

Refine TMP (Perform work zone impacts assessment at Preliminary Plan Review – FDM Guidance)

Yes

Work zone impacts exceed WisDOT Policies?
(Delay Analysis, Loss Count Policy, etc.)

Project Exception Required?

Project Level Scope, Initial TMP
(SPO-Program Scope Engineer & PDS Project Manager, TMT for TMP Project Type 4)

Update TMP Strategies, Cost
(Document in DSR)

Review TMP during PS&E (start early TMP elements)

Prepare Post-Construction Evaluation Report

Modify TMP Strategies as needed

Monitor during construction

Implement TMP

Begin construction

END

TMP is Required on all WisDOT projects.
Transportation Management Plan: Typical TYPE 1 TMP

- Transportation Management Plan (TMP) Project Type 1
  - Work expected to cause minimal or no impacts
    - Mobile operation or Short duration work
    - Work outside of travel lanes
    - AADT less than 1,500 / work performed off-peak
  - Most local bridge projects
- Traffic Control Plan
- Media Release for some projects
Transportation Management Plan: Typical TYPE 1 TMP Examples

- Two-lane conversion to four-lane where no side roads are closed
- Local bridge projects that do not require posted detour
- Off-peak hours so delays are minimal.
- Pavement marking
- Signing, sign repairs, replacements.
- Maintenance operations, e.g. mowing, patching
- Survey work
- Utility work e.g. placement, maintenance
- Bridge work e.g. inspection, painting
Transportation Management Plan: Typical TYPE 1 TMP Elements

- Traffic Control Plan Required
  - Standard Detail Drawings

- Public Information and Outreach
  - Media release if any delay
  - Communicate to nearby residents
Transportation Management Plan: Typical TYPE 2 TMP

- Transportation Management Plan (TMP) Project Type 2
- Work expected to cause minimal impacts/delays
- May involve lane or road closure
- **Less than 5 days of** exceeding delay criteria
- May require positive protection or shielding of hazards
- Resurfacing, pavement or bridge repairs, reconstructions or intersection improvements with minor impacts, construction on new alignment
- Traffic Control Plan
- Some elements of Transportation Operations, Public Information, and Incident Management Plans
Transportation Management Plan: Typical TYPE 2 TMP Examples

- Resurfacing projects
- Pavement repairs
- Bridge deck overlays
- Bridge replacement (conventional highway requiring detour)
- Bridge painting on freeways
- Reconstructions with minimal delays
- Intersection improvement
Transportation Management Plan: Typical TYPE 2 TMP Elements

- Incident Management
- Traffic Control Plan
- Transportation Operations
- Public Information and Outreach
Transportation Management Plan: Typical TYPE 2 TMP Elements

Traffic Control Plan

- SDD
- Project specific traffic control plan
- Off peak, night or weekend work
- Reduced speed zones
- Variable lanes (narrow lane width or use of shoulder during peak periods)
- Project staging
- Traffic control improvements (e.g. supplemental/enhanced TTC devices)
- Truck traffic/permit restrictions,
- Incentive/Disincentive contract clauses,
- Crossover,
- Bicycle and pedestrian information, e.g., detour routes, barricade signs.
Transportation Management Plan: Typical TYPE 2 TMP Elements

PUBLIC INFORMATION & OUTREACH

- Media releases,
- Notification to targeted groups, e.g. bicycle organizations, schools, organizations representing people with disabilities, motorcycles, snowmobiles, ATV, businesses, chamber of commerce.
Transportation Management Plan: Typical TYPE 2 TMP Elements

TRANSPORTATION OPERATIONS
- Fixed message signs,
- Changeable message signs,
- Radar speed message sign,
- Coordination of adjacent or parallel construction projects.

INCIDENT MANAGEMENT
- Enhanced enforcement - State patrol & local law enforcement during construction, (freeways & expressways)
- Emergency pullouts,
- State Traffic Operations Center (STOC) on freeways and expressways.
Transportation Management Plan: Typical TYPE 3 TMP

- Lanes closed and delays expected to exceed criteria for more than 5 days during work
- May require detours, single or multi-lane closures, single-lane alternating traffic scheme
- May require staged construction, even if through traffic is detoured
- Detour or alternate route may require improvements (signing, pavement surface/width etc.)
- May require night work
- Expedited project schedule may be required to meet community needs
- Multiple closures required to high-volume side roads or ramps
- Pedestrian, bicycle disruptions may require temporary walkways or paths
- May impose width or weight restrictions
- May require positive protection and/or shielding of hazards
Transportation Management Plan: Typical TYPE 3 TMP Examples

In addition to TYPE 2 Examples:
- Urban reconstruction with unusual access needs or high traffic delays
- Bridge deck replacement
- Freeway ramp closures
Transportation Management Plan: Typical TYPE 3 TMP Elements

- Incident Management
- Traffic Control Plan
- Transportation Operations
- Public Information and Outreach
Transportation Management Plan: Typical TYPE 3 TMP Elements

TRAFFIC CONTROL PLAN
In addition to TYPE 2 TMP:
- Extended weekend closures/full closures
- Temporary Traffic Screens
- Moveable barriers
- Bicycle and pedestrian information, e.g., detour routes, temporary paths/walkways, etc.,
- Traffic Control Specialist/surveillance items.
Transportation Management Plan: Typical TYPE 3 TMP Elements

TRANSPORTATION OPERATIONS
In addition to TYPE 2 TMP Elements:
● Work Zone ITS

INCIDENT MANAGEMENT
In addition to TYPE 2 TMP Elements:
● Crash investigation sites
● STOC Coordination
● Traffic Incident Management Team
● Pre-planning for incidents
● Traffic detectors and surveillance
Transportation Management Plan: Typical TYPE 3 TMP Elements

PUBLIC INFORMATION & OUTREACH

In addition to TYPE 2 Elements

- Brochures, flyers, and newsletters,
- Newspaper articles,
- Public meetings/hearings, (videos, slide shows, etc.)
  Coordination with targeted groups: bicycle organizations, schools, organizations representing people with disabilities, motorcycle, snowmobiles, ATV, businesses, chamber of commerce
- Paid advertising
Transportation Management Plan: Typical TYPE 4 TMP

Similar to TYPE 3 Project with more severe impacts:
- Construction schedule is long term several months or years
- Work Zone impacts remote facilities
- Has regional effect
- May involve multiple contracts
Transportation Management Plan: Typical TYPE 4 TMP Examples

- Freeway/Expressway reconstruction
Transportation Management Plan: Typical TYPE 4 TMP Elements

- Incident Management
- Traffic Control Plan
- Transportation Operations
- Public Information and Outreach

TYPE 4 TMP
Transportation Management Plan: Typical TYPE 4 TMP Elements

TRAFFIC CONTROL PLAN
In addition to TYPE 3 TMP:
- Lane shifts, A+B bidding, lane rental
- Reversible lanes
- Innovative methods
- Temporary bicycle and pedestrian facilities
- Traffic Control Specialist/surveillance items.
Transportation Management Plan: Typical TYPE 4 TMP Elements

TRANSPORTATION OPERATIONS
In addition to TYPE 3 TMP Elements:
- Ramp metering
- Transit incentives
- Rideshare incentives

INCIDENT MANAGEMENT
Similar to TYPE 3 TMP Elements
Transportation Management Plan: Typical TYPE 4 TMP Elements

PUBLIC INFORMATION & OUTREACH
In addition to TYPE 3 Elements
- Traffic radio
- Variable work hours, park and ride lots, parking restrictions
- Hotline
- Web site
TMP – TMP Approval

- Types 1, 2 & 3 document on TMP Approval Form, with attachments as needed
- Type 4: Separate report, with Executive Summary provided on TMP Approval Form
- Submit to Bureau of Project Development or Regional Local Program Coordinator
- TMP approval occurs as part of Design Study Report (DSR) approval or sooner
- Federal Oversight projects require FHWA approval of TMP
TMP – Examples
# TMP Documentation

## TMP DOCUMENTATION & REQUEST FOR APPROVAL

<table>
<thead>
<tr>
<th>TMP/Project Type</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Project that requires a DSR and is TMP Type 1, 2 or 3.</td>
<td>Complete and submit this document and any attachments to BPD project services liaison.</td>
</tr>
<tr>
<td>B. Project that requires a DSR and is TMP Type 4.</td>
<td>Complete this document as the TMP Executive Summary and submit along with separate TMP report to BPD project services liaison.</td>
</tr>
<tr>
<td>C. Project does not require DSR and is TMP Type 1, 2 or 3.</td>
<td>Complete and submit this document and any attachments to BPD project services liaison.</td>
</tr>
</tbody>
</table>

For Federal Oversight projects, coordinate early in TMP development with BPD & FHWA project liaisons.
Initial TMP Outline for TYPE 4

1. Introductory Material
2. Executive Summary
3. TMP Roles and Responsibilities
4. Project Description
5. Existing and Future Conditions
6. Work Zone Impacts Assessment
7. Work Zone Impacts Management Strategies
8. TMP Monitoring Requirements
9. Contingency Plans
10. TMP Implementation Costs
11. Conclusions / Recommendations
12. Attachments / Appendices
WZ Mitigation Toolbox
Mitigation Objectives

- Safety
- Mobility
- Access
Project Website
Safety Campaigns

Work Zone Safety

Each year in Wisconsin, both highway workers and motorists are killed and injured in crashes that happen in highway construction zones. Over the last five years, there has been an average of 2,000 work zone crashes annually, with an average of 11 fatalities each year. Most of those killed in work zone crashes are the motorists.

To avoid work zone crashes:

- **Expect the Unexpected** - Normal speed limits may be reduced, traffic lanes may be changed, and people and vehicles may be working on or near the road.
- **Keep a Safe Distance** - Between your vehicle and traffic barriers, trucks, construction equipment and workers. Just like you, highway workers want to return home safely.
- **Stay alert** - Don’t be distracted by construction activity, using your cell phone, changing radio stations or by other goings on inside or outside your vehicle. Inattention often leads to crashes.
- **Watch for flaggers** - If you see a Flagger Ahead sign, stay alert and be prepared to obey the flagger’s directions. In a work zone, a flagger has the same authority as a road sign. You
Info Zone Article

Check out alternative transportation options during construction

With bridge, lane and ramp closures taking place on a continuous basis during the Marquette Interchange reconstruction, using alternate modes of transportation, like public transit, carpooling, biking or walking, can make travel easier. Listed below are Web sites that offer more information on commuting options during construction.

Milwaukee County Transit System - Complete fare and schedule information is available. MCTS also offers service to special events including Summerfest, the Wisconsin State Fair, lakefront festivals and Milwaukee Brewers home games. Call MCTS at (414) 344-6711 for information on special routes.

Rideshare Program - Rideshare has gone interactive! That means you can ridematch yourself from your desktop in minutes! This no obligation, free, and voluntary program serves commuters in the southern half of Wisconsin and northern Illinois. www.rideshare.wi.gov >How to Register. It's like on-line dating for your car!
Park & Ride

- Remote parking combined with local bus service.
- Useful for reducing special events traffic.
Law Enforcement
Service Patrols
Dynamic Speed Display Board
Speed Advisory Systems

- Display actual speeds
- NB US 41 in Green Bay
- 2 lanes merge to 1 lane
Travel Time / Delay Systems
Dynamic Lane Merge

Vs.
Dynamic Lane Merge System
Moveable Barrier
Designated Truck Lane
Temporary Re-usable Rumble Strips

- Self-adhesive
- Removable
- Reusable
Temporary Crash Cushions
WZ Signage Simplification
Portable CMS Messages

TGM 06-02-55

- Not a replacement for regular warning or regulatory signs.
- *May* supplement a required static sign.
Good Intentions, But...
Is this the right message?
Prohibited PCMS Text

- Alarmist Words & Phrases
  - Danger
  - Hazardous
  - Caution

- Generic Messages
  - Buckle Up
  - Drive Safely
  - Welcome to Wisconsin
Preferred Text

Two frames

1. Problem
2. Distance
3. Action
Tips

- Simple words.
- Recognizable places.
- Remember, with two frames half the drivers will see the “second” frame first.
Examples

- BRIDGE CLOSED
- 4 MILES AHEAD
- USE MAIN ST
Examples

4 MILES AHEAD

USE MAIN ST

BRIDGE CLOSED
Examples

- USE MAIN ST
- BRIDGE CLOSED
- 4 MILES AHEAD
Examples

BRIDGE CLOSED
4 MILES

USE MAIN ST
Examples

USE
MAIN ST

BRIDGE CLOSED
4 MILES
Examples

- ONE LANE ROAD 2 MILES
- WATCH FOR FLAGGER
Examples

WATCH FOR FLAGGER

ONE LANE ROAD 2 MILES
Examples

- TWO-WAY TRAFFIC AHEAD
- KEEP RIGHT
Examples

- KEEP RIGHT
- TWO-WAY TRAFFIC AHEAD
BREAK IN ROAD
Goals of Public Outreach Related to the TMP

1. Encourage the media to report on the project.
2. Use publicity generated by the project as part of the traffic management strategy.
3. Release info at the appropriate time.
4. Avoid inaccurate media coverage.
5. Respond to inaccurate coverage if it would damage the project.
Outreach Plan Toolbox

- WisDOT website.
- Press releases & info packs.
- News conferences.
- Project e-mail list.
- Direct mail.
- Letters, calls or direct contact with major generators.
  - Trucking companies
  - Large employers
  - Organizers of festivals & special events
- Public Information Meetings
Foreign Language Outreach

Kev Tsham Tawm rau Neeg Zejzog

Lug lwm txojkev mus, mus kom txog chaw.

Kev tshuam Marquette Interchange txojnum txw pib rau xyoo 2004 thiaj teem caij ua kom tiav rau xyoo 2008. Teg num no tsis yoo zo Milwaukee xwb; yeej zoo rau tagnhe Wisconsin. Vim tas muaj zoo kev loj, kev mus los yoojim thiaj nyob ruaj khov yuav ua rau kom muaj lagluaum los nxiv, muaj haujlmn ntaw, thiaj muaj neeg tuaj gig saib xeev Wisconsin coob.

Thawj caij tuav dejnum tau saib xyus kom muaj kev mus los zoo thiaj yoojim rau lub caij kho kev. Vim peb tsis xav kom kaj hloov qhov chaw kaj yuav mus, tsuas yog seb yuav mus li cas thiaj li txog xwb. Daim ntawv no yuav qhia me ntis txog teg dejnum thiaj lub caij nyooq teem cia, thiaj qhia kaj siv cov cuab yeej thswj xeex wsi li xovjtxoj thiaj web site los pab thiaj mus dhau lub caij kho kev. Kuj muaj qhia txog ntaw yam kev caij tsheb khiav mus los, lagluaum thiaj haujlmn rau neeg ua.

Ua kom tau haujlmn rau txhua tug

Peb sawdaws yuav tsum mus tau rau txhua qhov chaw peb xav mus. Nram no yoo qhia seb peb yuav ua li cas thiaj tau haujlmn rau peb:
Content of Press Release

- “For Immediate Release” or “Embargoed Until”
- Practical advice for dealing with construction traffic.
- Most important info up front, details follow.
- Written at 8th Grade level.

- See Handouts #FS 16 & 17
Typical Press Release
Traffic Advice

- Use alternate routes.
- Avoid traveling in peak hours.
- Inform visitors, guests, customers, suppliers.
- Consider carpool (or bus if locally relevant).
Typical Press Release
Safety Advice

- Observe WZ Speed Limits.
- Be alert for unexpected traffic patterns.
- Watch for trucks and equipment entering the traffic stream.
Dealing With the Media

- Identify your target audience.
- Use the media outlets that are most likely to reach the target audience.
- “All news is local.”
- Respect journalist deadlines.
- Don’t be too technical.
- Respond to real issues, but allow critics to blow off steam.
- Designate a spokesperson
You’re On the Air...

- For radio, info must be very concise.
- Jot down 2 or 3 key points and repeat them a couple of times during the interview.
- If interviewed by phone, go to the quietest possible location.
- Speak confidently.