

MINNESOTA COMMITTEE ON UNIFORM TRAFFIC CONTROL DEVICES
JUNE 14, 2017 MEETING MINUTES
WATERS EDGE ROOM 403

Members				Guests	
Janelle Anderson	x	Mark Sehr	x	Ken Johnson	
Chris Byrd		Tom Sohrweide	x	Jeff Morey	
Diane Colton	x	Will Stein	x	Ron Rauchle	
Joe Gustafson	x	Josie Tayse		Ted Ulven	
Jon Krieg	x	Scott Thompson	x		
Heather Lott	x				
Tim Plath					
Scott Poska	x				
Howard Preston					

Explained Absence:

Howard Preston
 Tim Plath
 Josie Tayse

Unexplained Absence:

cc: Kristi Sebastian

Announcements

None

Business from the Floor

None

Corrections to the Minutes

None

Old Business

1. FHWA UpdatesWill Stein

Marine signing memo
 Notice – closed in May
 Requests to Experiment

Reminder that requesting jurisdictions need to provide semi-annual reports and a final report to the FHWA. Janelle sent an email to requesters reminding them about reporting requirements. Will stated that there are currently 163 experiments going on.

2. Requests for Experimentation UpdateJanelle Anderson

No update – no new requests.

New Business

1. Does [Minn. Stat. 169.85](#) prohibit MnDOT from using signs to direct drivers to weight stations that are more than two miles away?.....Janelle Anderson

Tabled for another meeting.

2. **BUMPS/ROUGH ROAD Signs**.....Ken Johnson

Field Manual does not match the MN MUTCD description on how to use signs.

[MN MUTCD Section 6F-50.1](#)

Field Manual – Layouts 73 & 74 (attached)

The Field Manual committee is modifying the bump layouts to match the MN MUTCD language.

Questions to consider include:

Should advance warning signs be optional (depending on severity of bump)?

How important is the advisory speed plaque?

Layout 74 Re-Surfacing Operation

Sign clutter

Do we need all the signs? Especially the Rough Road signs together with Bump Ahead signs?

Should replace the XX MPH plaques with down arrows at bump location.

Action: The Field Manual committee will discuss further. Tabled for another meeting.

3. **6F.50.2 One-Direction Large Arrow Sign (W1-6)**Ken Johnson

Draft language for new section of MN MUTCD - see attached

There was much discussion about what the arrow means.

The arrow on a Type 3 barricade in a work zone has a different meaning than the permanent use of the arrow.

Work zones have used the Large Arrow w/Type 3 barricades for years.

- This is not compliant with the text in the MN MUTCD.
- The draft language is a write up for the MN MUTCD to cover what is currently being done.

Comments:

Text is confusing

Need to keep Chapter 2 language out of Chapter 6.

Possibly write up something specific to tapers?

- MN MUTCD Chapter 2 (2C.12) says the arrow is to be used to delineate a change in horizontal alignment.
- If we stop using it what are some alternatives?
 - Merge sign at start of the taper?
 - Merge w/arrow – could upsize to make it a rectangle.

Question to the MCUTCD Committee: Are you okay with what Work Zones has been doing or do you want to see a change. Need to decide quickly as the new manual is coming out.

MUTCD Committee: Let's see some options/drawings

Action Item: Field Manual Committee will draw something up and send to MUTCD members.

4. Road closures for low volume residential applications.....Ken Johnson
[MN MUTCD 6F.8](#) ROAD (STREET) CLOSED - see attached

There is no definition for a low volume road closure.
"Parade Boards" are easy – just as effective as Type II barricades.
Turning off of a high speed high volume road to a low volumes road – Type II ok?
No one is MUTCD compliant

Ken – it would be useful to have a layout in the Field Manual (update- new Layout 5 ROAD CLOSURE – SPECIAL EVENTS is now in the Field Manual).

Committee agreed that Type I barricade is okay – include in language.

Action Item: Ken will modify language, Diane will send to send to Committee for approval.

5. R11-3a "Road Closed/XX Miles Ahead/Local Traffic Only SignJoe Gustafson

Language the County started inserting into project specs in an effort to clamp down on contractor misuse of "road closed" signage.
See 2 attachments.

Washington County Special Provisions SP2014 Book – Section 15.4: USE OF ROAD CLOSURE SIGNAGE
Maybe add something like this to the MN MUTCD?
Have had problems in the past – now they write this into their specs.

Discussion

- Contractors put of road closed signs then let residents go by them.
- Maybe need to educate local road authorities?
- There may be something about it in Chapter 6 (6F.08).
- The MN MUTCD isn't wrong.
- Don't need more "shalls".

Committee: Leave MN MUTCD as is.

6. PE Signature on TTC Plan for Work on State Highways.....Ken Johnson

See attached

This is still being discussed with MnDOT legal personnel.

Comments:

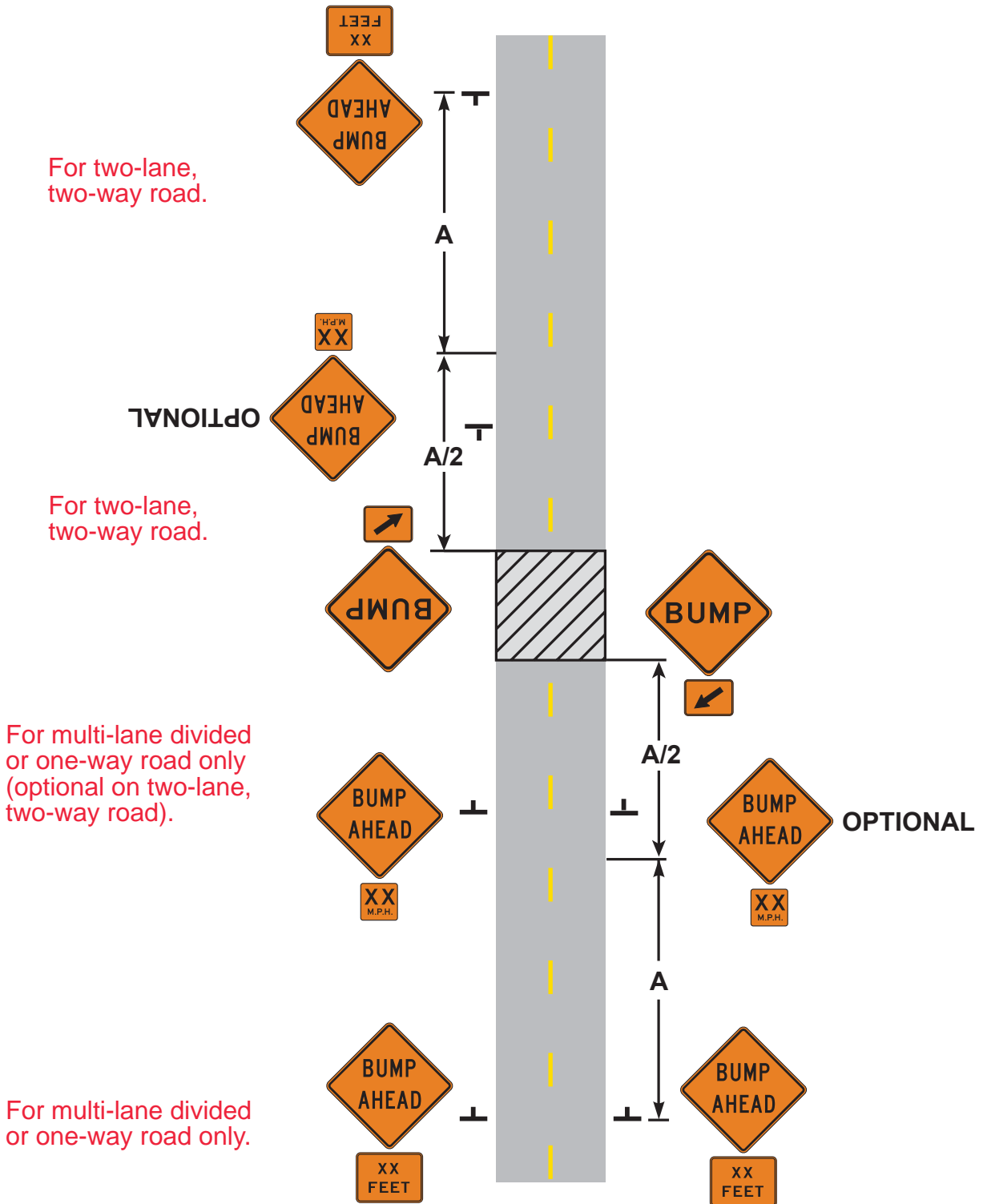
- Good opportunity to capitalize on safety.
- How do you define "Under supervision of an Engineer"
- There are a lot of plans put out by cities – 90% don't have TTC plans – they just say "follow the MUTCD".

7. Round Robin – no comments

<p style="text-align: center;">Next Meeting: July 12, 2017 Water's Edge Video Conf Rm 403</p>

NOTES:

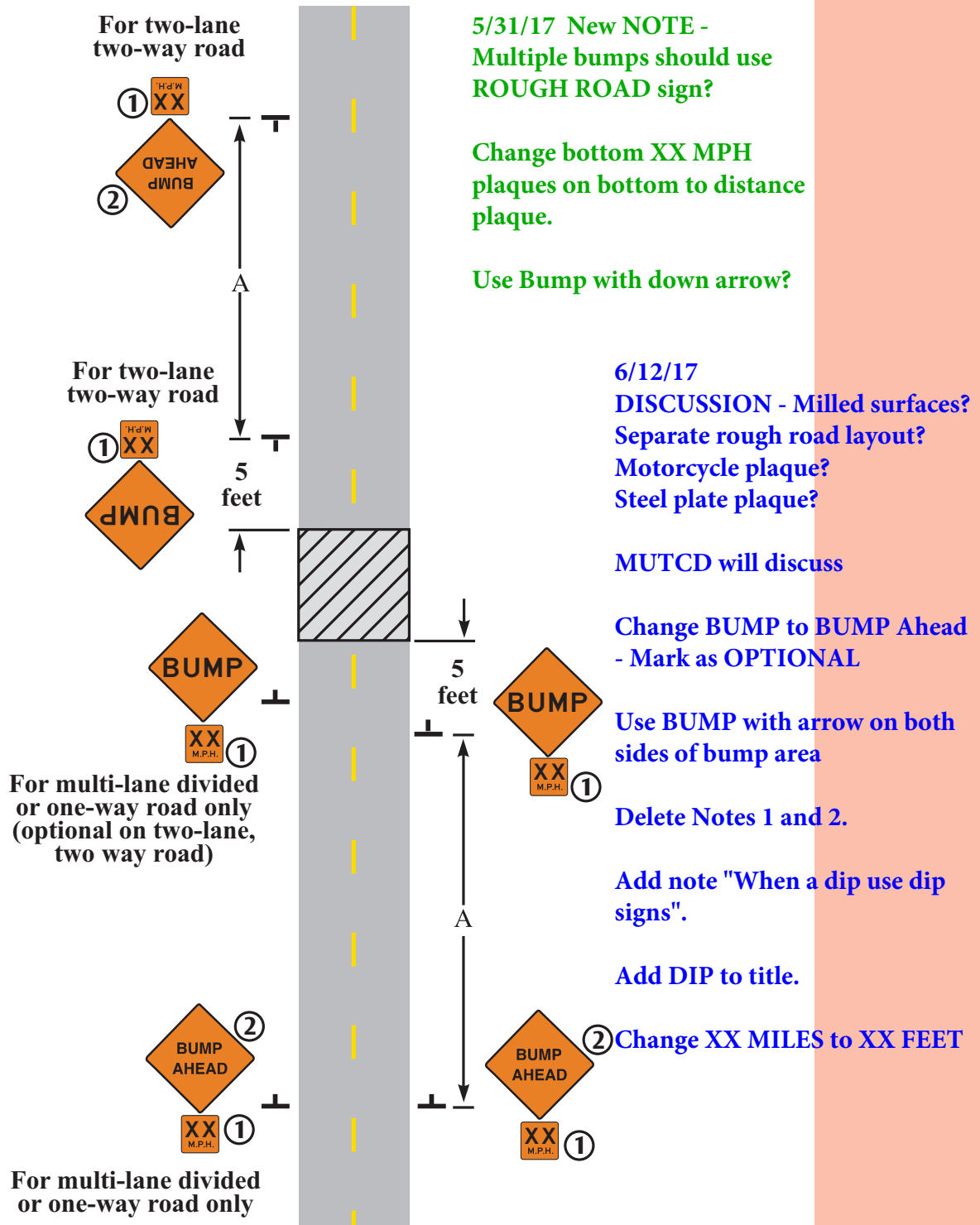
1. Multiple bumps should use ROUGH ROAD sign.
2. When a dip use DIP signs.



TYPICAL BUMP SIGNING

NOTES:

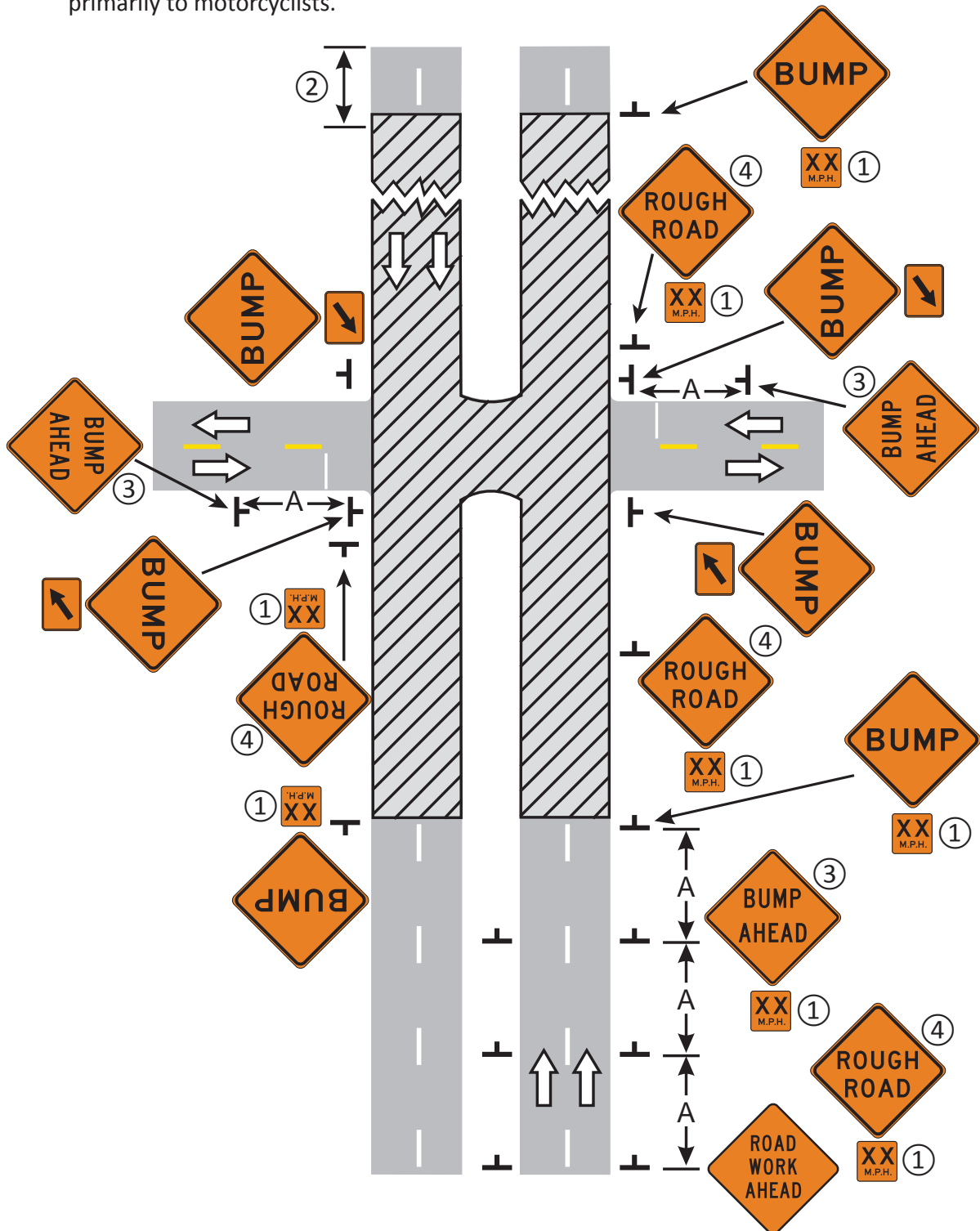
1. When used, Advisory Speed plaques shall be installed below the appropriate warnings.
2. These devices may be omitted when the posted speed limit is 40 mph or less.



TYPICAL BUMP SIGNING

NOTES:

- ① When used, Advisory Speed plaques shall be installed below the appropriate warnings.
- ② Use the same advance warning signs and spacings for the other approach to the milled roadway surface area.
- ③ The BUMP AHEAD and Advisory Speed plaque may be omitted when the posted speed is 40 mph or less.
- ④ Use the appropriate advance warning sign for the roadway condition, i.e. GROOVED PAVEMENT, LOOSE GRAVEL, ROUGH ROAD, STEEL PLATE AHEAD. A Motorcycle plaque may be installed below the appropriate advance warning sign if the warning is directed primarily to motorcyclists.



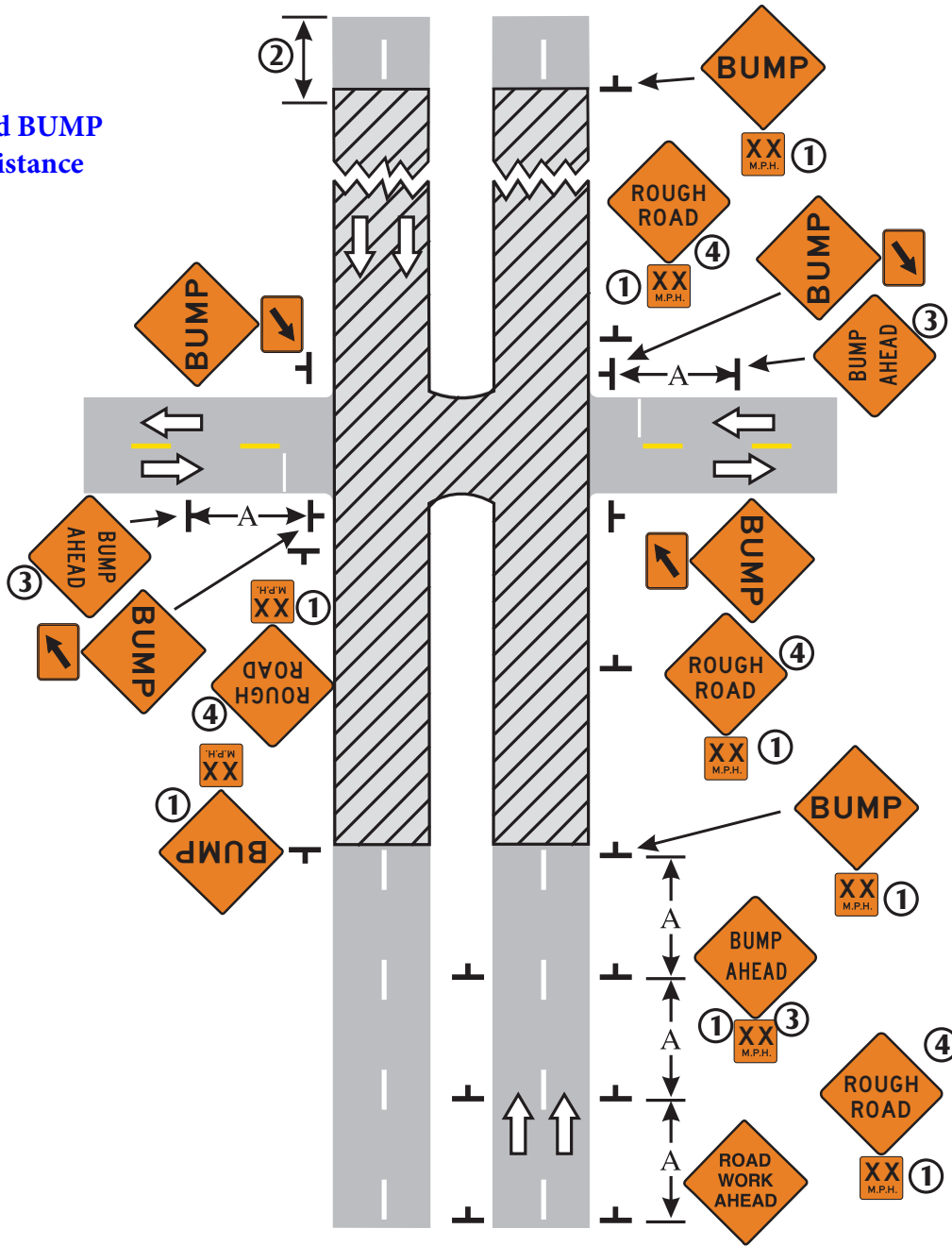
RE-SURFACING OPERATION
 Work Space Before and Thru Intersection
 MULTI-LANE DIVIDED ROAD

NOTES:

1. When used, Advisory Speed plaques shall be installed below the appropriate warnings.
2. Use the same advance warning signs and spacings for the other approach to the milled roadway surface area.
3. The BUMP AHEAD and Advisory Speed plaque may be omitted when the posted speed is 40 mph or less.
4. Use the appropriate advance warning sign for the roadway condition, i.e. GROOVED PAVEMENT, LOOSE GRAVEL, ROUGH ROAD, STEEL PLATE AHEAD. A Motorcycle plaque may be installed below the appropriate advance warning sign if the warning is directed primarily to motorcyclists.

6/12/17

Discuss - Should BUMP AHEAD have distance plaques?



**RE-SURFACING OPERATION
WORK SPACE BEFORE AND THRU INTERSECTION
MULTI-LANE DIVIDED ROAD**

6F.50.3 One-Direction Large Arrow Sign (W1-6)

SUPPORT:

For temporary traffic control applications, the One-Direction Large Arrow sign (W1-6) is intended to indicate horizontal alignment changes and to identify tapers.

OPTION:

A One-Direction Large Arrow (W1-6) sign may be used either as a supplement or alternative to Chevron Alignment signs in order to delineate a change in horizontal alignment.

A One-Direction Large Arrow (W1-6) sign may be used to supplement a Turn or Reverse Turn sign to emphasize the abrupt curvature.

STANDARD:

For temporary traffic control applications, the One-Direction Large Arrow sign (W1-6) shall be black on orange background.

If used to indicate a horizontal alignment change in temporary traffic control applications, the One-Direction Large Arrow sign shall be installed on the outside of a turn or curve in line with and at approximately a right angle to approaching traffic.

GUIDANCE:

One-Direction Large Arrow signs (W1-6) should be used to identify shifting and merging tapers in temporary traffic control applications.

To identify shifting tapers, a One-Direction Large Arrow sign (W1-6) should be placed on or above a Type III barricade at the end of the shifting taper.

To identify merging tapers, a One-Direction Large Arrow sign (W1-6) should be placed on or above a Type III barricade at the beginning and end of the merging taper.

OPTION:

For low speed temporary traffic control applications, the One-Direction Large Arrow sign (W1-6) and Type III barricade may be omitted at the beginning of a merging taper.

Road Closures for Low Volume Residential Applications (Road Work, Block Parties, etc)

The MN MUTCD is pretty definitive on closing roads – see below (from [MN MUTCD 6F.8](#)):

6F.8 ROAD (STREET) CLOSED Sign

GUIDANCE:

The ROAD (STREET) CLOSED (R11-2) sign should be used when the roadway is closed to all road users except contractors' equipment or officially authorized vehicles. The R11-2 sign should be accompanied by appropriate warning and detour signing.

The ROAD (STREET) CLOSED sign should be installed at or near the center of the roadway on or above a Type III barricade that closes the roadway (see [Section 6F.68](#)).

However, some may consider this excessive for work on a low volume residential street or even a block party for which vehicular traffic is prohibited. There may also be a concern for block parties or other situations where the road is only closed to vehicular traffic, for which this language is too prohibitive (**all road users**). A couple thoughts:

- Should other channelization options (suggested: Type II barricades) be allowed for low volume residential streets?
- Should an option be added for which the sign is used to close the road to only vehicular traffic?

Possible language for consideration by the committee:

Add to [6F.8](#)

OPTION:

The ROAD (STREET) CLOSED (R11-2) sign may be used to close a roadway to vehicular traffic except for officially authorized vehicles.

On low volume residential streets, the ROAD (STREET) CLOSED (R11-2) sign may be installed on a Type II barricade.

[In 6F.68](#) (on page 6F-38)

After

GUIDANCE:

Type II or Type III Barricades should be used on freeways and expressways or other high-speed roadways. Type III Barricades should be used to close or partially close a road.

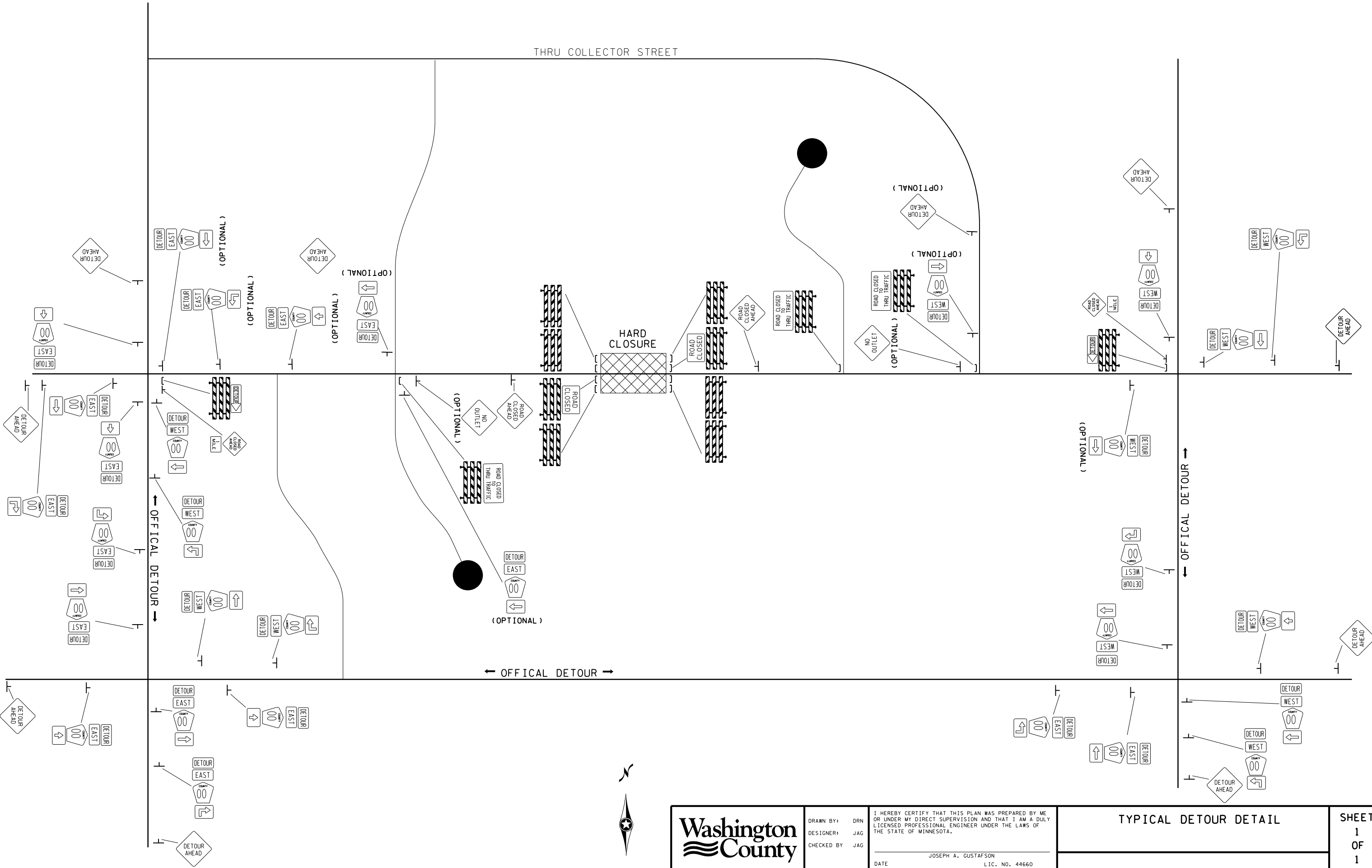
Add the highlighted language to the following **OPTION:**

OPTION:

Type II Barricades may be used to close or partially close a low volume residential street.

Type II or Type III Barricades used at a road closure may be placed completely across a roadway or from curb to curb.

THRU COLLECTOR STREET



DRAWN BY: DRN
DESIGNER: JAG
CHECKED BY: JAG

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
JOSEPH A. GUSTAFSON
DATE: _____ LIC. NO. 44660

TYPICAL DETOUR DETAIL

SHEET
1
OF
1

S-15.3 VEHICLE WARNING LIGHT SPECIFICATION

All Contractors, subcontractors' and suppliers' mobile equipment, operating within the limits of the Project with potential exposure to passing traffic, shall be equipped with operable warning lights that meet the appropriate requirements of the SAE specifications. This would include closed roads that are open to local traffic only. This also includes any vehicle that enters the traveled roadway at any time. The SAE specification requirements are as follows:

360 Degree Rotating Lights - SAE Specification J845

Flashing Lights - SAE Specification J595

Flashing Strobe Lights - SAE Specification J1318

Lights shall be mounted so that at least one light is visible at all times from a height of 3.5 feet and from a 60 foot radius about the equipment. In order to meet the 360 degree at 60 foot [18 m] radius requirements supplemental lighting may be used in addition to the lights on the Approved Products List. All supplemental lights must be SAE Class 1 certified. This specification is to be used for both day and night time operations. All costs incurred to provide warning lights shall be at no cost to the Department. These warning lights shall also be operating and visible when a vehicle decelerates to enter a construction work zone and again when a vehicle leaves the work zone and enters the traveled traffic lane.

Any warning lights shall be on the Approved Products List for Vehicle Lighting which is found at the following weblink:
<http://www.dot.state.mn.us/products/vehiclelighting/vehiclesafetylights.html>. The list may also be obtained by contacting:

Vehicle Warning Lights
Office of Construction MS722
Transportation Bldg. OR by calling: (651)366-3585
395 John Ireland Blvd.
St. Paul, MN 55155

This list is updated periodically. Warning light suppliers and manufacturers may contact the above for information on adding new products to the list.

A \$100 penalty (per incident) will be assessed against the Contractor each time failure to comply with the above requirements is observed on the Project site.

S-15.4 USE OF ROAD CLOSURE SIGNAGE

All signing for road closures and restrictions shall conform to the requirements of the MN MUTCD and the following:

- (A) "ROAD CLOSED" (R10-2) signs shall be placed only at locations where all public traffic is prohibited beyond the location of the sign, including all local traffic and residents residing within the project area. Only project staff and authorized emergency responders shall be permitted beyond

- R10-2 sign locations.
- “ROAD CLOSED” (R10-2) signs shall not be installed at locations where traffic is shifted to the left side of an in-place median unless the median separating opposing directions of traffic is greater than 30 feet in width as measured from the edges of the lanes closest to the median.
- (B) “ROAD CLOSED TO THROUGH TRAFFIC” (R11-4) signs shall be placed only at locations in advance of properly placed “ROAD CLOSED” (R10-2) signs, to inform motorists that travel beyond the R11-4 sign is allowed but that no lawful outlet beyond the sign exists.
- (C) “ROAD CLOSED / XX MILES AHEAD / LOCAL TRAFFIC ONLY” (R11-3a) signs may be placed at locations in advance of properly placed “ROAD CLOSED” (R11-4) signs beyond which through traffic is possible via other public streets not affected by the downstream closure.
- (D) “ROAD CLOSED AHEAD” (W20-3) signs, when used, shall not be placed more than 700 feet in advance of properly placed “ROAD CLOSED” (R10-2) signs unless otherwise required by the project plans or as approved by the Engineer.
- (E) Black on Orange “NO OUTLET” (W14-2) signs may be installed beyond properly placed R11-4 or R11-3a signs as a supplementary warning to motorists that they are entering a road or road network from which there is no other exit.

Deviation from the requirements of this Section **S-11.4** is not permitted unless authorized in writing by the County Engineer, County Traffic Engineer, or County Assistant Traffic Engineer only. The Contractor will be subject to a non-compliance charge for failure to adhere to the requirements listed in this Section **S-11.4. Non-compliance charges, for each incident will be assessed at a rate of \$2000 per incident that the Engineer determines that the Contractor has not complied.** The charges may be assessed equally, separately, and may be assessed concurrently.

S-15.5 LANE CLOSURE REQUIREMENTS

(B) Temporary lane closures or other traffic restrictions by the Contractor, during work hours and consistent with the time restrictions, will be permitted only during those hours and at those locations approved by the Engineer. Requests for temporary lane closures shall be made at least 24 hours prior to such closures. When a temporary lane closure is used by the Contractor, the closure shall be incidental work.

(C) Driveway access restrictions will not be permitted between the hours of 6:00 P.M and 7:00 A.M. Work that will restrict or interfere with traffic shall not be performed between 12:00 noon on the day preceding and 9:00 A.M. on the day following any consecutive combination of a Saturday, Sunday and legal holiday. The Engineer will have the right to lengthen, shorten, or otherwise modify the foregoing periods of restrictions as actual traffic conditions may warrant. If the Contractor is negligent in adhering to the established time schedules, he shall be subject to an hourly charge assessed at a rate of \$500.00 per hour for each hour or any portion thereof with which the Engineer determines that the Contractor has not complied.

PE Signature on TTC Plans for Work on State Highway Right of Way

For consideration and discussion at the MCUTCD – June 2017 Meeting:

One of MnDOT's District Traffic Engineers (DTE) started asking that a Professional Engineer's signature be on any Temporary Traffic Control (TTC) plans for permit applications. The PE signature was not needed if the TTC plan submitted followed a layout from the Field Manual (part of the MN MUTCD); but if it was a more complicated TTC plan – then the DTE is asking for a signature. Following is the general reasoning:



Per the MN MUTCD (in different areas – see attachment for more detail):

- The design, selection, and placement of TTC devices for a TTC plan should be based on engineering judgment.
- Engineering judgement shall be exercised by an engineer, or by an individual working under the supervision of an engineer, through the application of procedures and criteria established by the engineer.

Per MN Statute (326.02, Subd. 3 – Practice of professional engineering)

- (a) Any person shall be deemed to be practicing professional engineering within the meaning of sections 326.02 to 326.15 who holds out as being able to perform or who does perform any technical professional service, such as planning, design or observation of construction for the purpose of assuring compliance with specifications and design, in connection with any public or private structures, buildings, utilities, machines, equipment, processes, works, or projects wherein the public welfare or the safeguarding of life, health, or property is concerned or involved, when such professional service requires the application of the principles of mathematics and the physical and applied engineering sciences, acquired by education or training, and by experience.

This was then brought to TEO's Temporary Traffic Control Committee for discussion. At the meeting, the Committee determined that the DTE had good reasoning behind this decision and the Committee developed a recommendation to the TEO Executive Committee that a PE signature would be required for Permits that have a TTC plan beyond 3 days, is a TTC plan not included in the Field Manual, or combines many of the layouts from the Field Manual. A signature would not be needed when applying a layout from the Field Manual as these are 'plans' approved by the MCUTCD, which includes Professional Engineers. In addition, the Field Manual is part of the MN MUTCD.

The TEO generally agrees with the recommendation. Following are some additional thoughts and possible concerns:

- There are some layouts in the Field Manual that are intended to be combined with others. When combining layouts, at which point is it required to have a PE signature?
- The Field Manual is intended to be used on applications with a duration of 3 days or less; however, the full MN MUTCD includes long term layouts in Chapter 6J. Guidance for this chapter includes, "*These layouts should be used during the*

PE Signature on TTC Plans for Work on State Highway Right of Way

development of detailed traffic control plans. They should only be used under the direction of a traffic engineering professional.”

- What happens when the Temporary Traffic Control is changed during a construction project? Would the contractor need to have a PE sign the modified plan? Currently the Project Engineer approves modifications – but any changes have not been made by personnel under the Project Engineer’s supervision.

There will be concerns by some in the Traffic Control Industry if we go forward with this. There are traffic control contractors that have experience in applying TTC, but they do not have Professional Engineers on staff. Up to this point, submitted permit applications have been reviewed by District staff (sometimes district traffic staff), but they have not been signed by a PE.