

Work Zone Traffic Control Devices



Date Last Edited: MARCH 2024

Catergory 1

Drums

42-Inch Cones

Flexible Tubular Markers

Traffic Channelizing Curb System

Category 2

Type I Barricades

Type II Barricades

Type III Barricades

Sign Stands

Verical Panels

Pedestrian Barricade

Category 3

Truck & Trailer Mounted Attenuator

Category 4

Arrow Board

Connected Arrow Board

Portable Changeable Message Sign

Speed Radar Trailers

Digital Speed Limit Trailer

<u>Other</u>

Type A Lights

Type B Lights

Type C Lights

Pedestrian Surface

Temporary Detectable Warning Field

Automated Flagger Assistance Device

Temporary Portable Rumble Strips

Retro-fit Kits for Connected Arrow Boards

Connected Work Zone Location Markers

^{**}Please see the Temporary Traffic Control Device Application at the end of this

	Category 1		
	Drums		
Manufacturer	Product	Approval Date	Bid Item #
_akeside Plastics	<u>Director Drum</u>	OCTOBER 2017	
FrafFix Devices	18000 Series Drum	OCTOBER 2017	
PSS Innovations	<u>LifeGuard II</u>	OCTOBER 2017	
	<u>Commander Drum</u>	OCTOBER 2017	642.0200
<u>Plasticade</u>	Econocade II Drum	SEPTEMBER 2019	643.0300
	Lane Changer Traffic Drum - B500 LC	OCTOBER 2017	
Bent Manufacturing Company	Superdome Drum	JULY 2018	
The Cortina Companies	Cortina TrailBoss Drum	APRIL 2021	
	42-Inch Cones		
Manufacturer	Product	Approval Date	Bid Item #
akeside Plastics	<u>Diverter Channelizer</u>	OCTOBER 2017	
PSS Innovations	Navigator, 42" Slimline Channelizer	OCTOBER 2017	
	42" Channelizer C-42	DECEMBER 2017	
<u>Plasticade</u>	Navigade Channelizer Cone	JANUARY 2018	
	T-Top Channelizers	JULY 2018	643.1070
Bent Manufacturing Company			043.1070
	Tear Drop Channleizers	JULY 2018	
TrafFix Devices	Looper Cone (42") 16 lb & 30 lb Bases	JULY 2018	
<u>JAT</u>	NG Gorilla Grip 42" Channelizer	JULY 2020	
The Cortina Companies	Grip N Go 42" Channelizerizer Cone	APRIL 2021	
	Flexible Tubular Marker		
Manufacturer	Product	Approval Date	Bid Item #
	FG 300 Series Posts	OCTOBER 2017	
	<u>CityPost Bolt Down</u>	OCTOBER 2017	
	CityPost SM Surface Mount	OCTOBER 2017	
Pexco	<u>CityPost GD Glue Down</u>	OCTOBER 2017	
	Davidson FG 300 UR Series	OCTOBER 2017	
•	Flexi-Guide FG 300 Model PE Series	OCTOBER 2017	
•	Flexi-Guide FG 300 Model EFX Series	OCTOBER 2017	
the contract of	DP 200 Channelizer Post	OCTOBER 2017	
<u>FlexStake</u>	FlexStake TM750 Series	OCTOBER 2017	643.0500
/altir, LLC	<u>Dura-Post</u>	OCTOBER 2017	643.0600
Don't Manufacturing Co	Safe-Hit	OCTOBER 2017	
Bent Manufacturing Co.	Masterflex Post-EX Series 350 Surface Mount	OCTOBER 2017 OCTOBER 2017	
New Direction Manufacturing Shur-Tite	Shur-Flex Surface Mount	OCTOBER 2017	
akeside Plastics	Divider - Surface Mount Post	OCTOBER 2017	
akeside Plastics	MP2 Post	MARCH 2018	
mpact Recovery Systems	OMEGA POST - OP2	JULY 2020	
Safe-Hit	 Dura-Post	OCTOBER 2017	
mpact Traffic	Tuff Post (SPEC-TP3)	OCTOBER 2017	
•	be used for Work Zone or Permanent Application	GCTOBER 2017	
	Traffic Channelizing Curb Sys	tem	
Manufacturer	Product	Approval Date	Bid Item #
Shur-Tite	Shur-Curb Traffic Separator	OCTOBER 2017	Did itelii #
	Qwick Kurb	OCTOBER 2017	
Qwick Kurb, Inc.	FG 300 Turnpike Grade Curb System	OCTOBER 2017	
<u>Pexco</u>	FG 300 Turnpike Grade Curb System FG 300 Interstate Grade Curb System	OCTOBER 2017	
	ra 300 interstate draue Curb System	OCTOBER 2017	
	Tuff Curb	MARCH 2018	

	Category 2 Type I Barricades			
Manufacturer	Product	Approval Date	Expiration Date	Bid Item #
Rent-A-Flash	T1 Wood Barricade (WZ-54)	OCTOBER 2017	Expiration bate	Dia item #
Plasticade	Combocade Type I	OCTOBER 2017	-	
Warning Lites of Mn	Aluminum Barricades	OCTOBER 2017	1/1/2025	643.0405
Traffic Control & Protection Inc	Type 1 Barricade	MAY 2018		
	Type II Barricades			
Manufacturer	Product	Approval Date	Expiration Date	Bid Item #
	WZ-54	OCTOBER 2017	ZAPITATION DATE	210.11011111
Bent Manufacturing Company	Universal Plastic Barricade	JULY 2018		
TrafFix Devices	35000 Series	OCTOBER 2017		
Rent-A-Flash	T2 Wood Barricade (WZ-54)	OCTOBER 2017		
Plasticade	Combocade Type II	OCTOBER 2017		
Warning Lites of Mn	Aluminum Barricades	OCTOBER 2017	1/1/2025	643.0410
Traffic Control & Protection Inc	Type 2 Barricade	MAY 2018		
	Type II Barricade with Wooden Panes & Steel Angle			
United Rentals Highway Technology	Uprights	JULY 2018		
g,	Lo-Pro 350 Sign Stand	JULY 2018		
	Type III Barricades			
Manufacturer	Product	Approval Date	Expiration Date	Bid Item #
Manadata	WZ-380	SEPTEMBER 2019	Expiration Date	Dia item ii
<u>Pexco</u>	WZ-381	SEPTEMBER 2019		
Warning Lites of Mn	Aluminum Barricades	OCTOBER 2017		
Q3	Aluminum Type III Barricade	OCTOBER 2017		
Rent-A-Flash	T3 Wood/Plastic (WZ-40)	OCTOBER 2017		
Rent-A-Flash	Anchor Mast Barricade System	OCTOBER 2017	1 /1 /2025	643.0420
PSS Innovations		OCTOBER 2017 OCTOBER 2017	1/1/2025	643.0420
	LaneGuard 3, Callapsible Barricade System			
Di-sti-s-d-	Plasticade Telespar Type III Barricade	OCTOBER 2017		
<u>Plasticade</u>	PowerPost Type III with Volcano Base	DECEMBER 2017		
	Angle Iron Type III Barricade - 3900 Series	MARCH 2018	-	
Bent Manufacturing Company	Type III Barricade	OCTOBER 2019		
	Sign Stands			
Manufacturer	Product	Approval Date	Expiration Date	Bid Item #
	<u>Little Buster 24000 Series (WZ-108)</u>	OCTOBER 2017	_	
<u>TrafFix Devices</u>	Big Buster Part #60060 - BRU (with Roll-Up)	MARCH 2018		
	Big Buster Part #60060 - RSB (with Rigid Sign Bracket)	MARCH 2018		
	TwinFlex (TF-18)	OCTOBER 2017		
Dickie Tool	TF60-RUB or RGB	FEBRURARY 2017		
	<u>UF2000W</u>	MARCH 2021		
	<u>5018K</u>	OCTOBER 2017		
<u>MDI</u>	<u>4860K</u>	JANUARY 2018		
	<u>4818K</u>	JANUARY 2018		
Bone Safety Signs	<u>SZ-484-2S</u>	OCTOBER 2017		
Quality Restoration Services Inc.	QRS Vertical Sign Stand	OCTOBER 2017		
Mathy Construstion Company	Mathy Work Zone A-Frame Sign Stand	MAY 2018		
United Rental Highway Technologies	Lo-Pro 350 Sign Stand	JULY 2018		
omica nemaring.may recimelegies	Hi-Pro 350 Stand	AUGUST 2019	1/1/2025	
Telespar	Temporary Sign Skid	OCTOBER 2019		
<u>released</u>	SSRB800 Sign Stand	JULY 2020		
	SS520A Sign Stand	JULY 2020		
	SS410A Sign Stand	JULY 2020		
	SS420A Sign Stand	JULY 2020		
	SS340A Sign Stand	JULY 2020		
	SS310A Sign Stand	JULY 2020 JULY 2020	⊣	
Plasticade		JULI ZUZU	 	
<u>Plasticade</u>		11 II V 2020		
<u>Plasticade</u>	SS310 Sign Stand	JULY 2020	- I	
<u>Plasticade</u>	SS310 Sign Stand SS300A Sign Stand	JULY 2020		
<u>Plasticade</u>	SS310 Sign Stand SS300A Sign Stand SS300 Sign Stand	JULY 2020 JULY 2020		
<u>Plasticade</u>	SS310 Sign Stand SS300A Sign Stand SS300 Sign Stand SS105 Sign Stand	JULY 2020 JULY 2020 JULY 2020		
<u>Plasticade</u>	SS310 Sign Stand SS300A Sign Stand SS300 Sign Stand SS105 Sign Stand SS100 Sign Stand	JULY 2020 JULY 2020 JULY 2020 JULY 2020		
	SS310 Sign Stand SS300A Sign Stand SS300 Sign Stand SS105 Sign Stand SS105 Sign Stand Quadraflex VI Single Spring Sign Stand (#07-816-1)	JULY 2020 JULY 2020 JULY 2020	-	
The Cortina Companies	SS310 Sign Stand SS300A Sign Stand SS300 Sign Stand SS105 Sign Stand SS105 Sign Stand Quadraflex VI Single Spring Sign Stand (#07-816-1) Vertical Panels	JULY 2020 JULY 2020 JULY 2020 JULY 2020 MARCH 2023		
	SS310 Sign Stand SS300A Sign Stand SS300 Sign Stand SS105 Sign Stand SS105 Sign Stand SS100 Sign Stand Quadraflex VI Single Spring Sign Stand (#07-816-1) Vertical Panels Product	JULY 2020 JULY 2020 JULY 2020 JULY 2020 MARCH 2023 Approval Date	Expiration Date	Bid Item #
The Cortina Companies	SS310 Sign Stand SS300A Sign Stand SS300 Sign Stand SS105 Sign Stand SS105 Sign Stand Quadraflex VI Single Spring Sign Stand (#07-816-1) Vertical Panels	JULY 2020 JULY 2020 JULY 2020 JULY 2020 MARCH 2023	Expiration Date 1/1/2025	Bid Item #

Pedestrian Barricade				
Manufacturer	Product	Approval Date	Expiration Date	Bid Item #
<u>Pexco</u>	Temporary Pedestrian Access Rout (TPAR)	OCTOBER 2016		
<u>Plasticade</u>	ADA Pathcade Barricade System	DECEMBER 2021		
PSS Innovations	<u>Safety Rail</u>	OCTOBER 2017	1/1/2025	644.1810.S
	<u>SafetyWall</u>	OCTOBER 2017		I
<u>TrafFix Devices</u>	<u>TrafFix ADA Wall - Series 57000-A</u>	MAY 2018		

Category 3			
	Truck & Trailer Mounted Attenu	uators	
Manufacturer	Product	Approval Date	Bid Item #
<u>Lindsey</u>	<u>U-MAD</u>	OCTOBER 2017	
	Scorpion Towable Attenuator	OCTOBER 2017	
TrafFix Devices	Scoprion Truck Mounted Attenuator	OCTOBER 2017	
Trairix Devices	Scorpion II TL-3 Truck Mounted Attenuator	DECEMBER 2021	
	Scoprion II TL-3 Towable Attenuator	DECEMBER 2021	
Gregory Industries	<u>TTMA - 200</u>	AUGUST 2019	
Gregory muustries	TTMA - 100	OCTOBER 2017	
	<u>Vorteg M</u>	OCTOBER 2023	
	<u>SST</u>	JANUARY 2018	
	<u>SS180*</u>	JANUARY 2018	
Valtir, LLC.	SS90 HD	JANUARY 2018	
	SS90	JANUARY 2018	
	<u>SS180 M</u>	OCTOBER 2020	
	<u>SMT</u>	OCTOBER 2020	
<u>Verdegro USA, LLC</u>	BLADE TMA, MASH TL-3 100K	MARCH 2018	

*Indicate MASH-16 TL-3 Approved P	roducts		
	Category 4		
	Arrow Board		
Manufacturer	Product	Approval Date	Bid Item #
Work Area Protection	<u>Arrow Master Proline</u>	OCTOBER 2017	
(A Hill & Smith Brand)	ArrowMasterV	OCTOBER 2017	
Wanco	WTSP W ECO Folding Arrow-Board Trailer	OCTOBER 2017	
	<u>WFB8-LSA</u>	JANUARY 2022	
Ver-Mac	ST-4815 Trailer Mounted Arrowboard	OCTOBER 2017	643.0800
	<u>VM - 4815 TRUCK MOUNTED ARROW BOARD</u>	JANUARY 2022	
<u>Trafcon Industries, Inc.</u>	<u>TC1</u>	OCTOBER 2017	
<u>Allmand</u>	Eclipse AB2400	OCTOBER 2017	
Solar Technoloy, Inc.	Silent Sentinel/ AB-0515	JANUARY 2018	
<u>ADDCO</u>	15-Lamp Arrow Board (AB-15)	OCTOBER 2019	
	Connected Arrow Board***		D: 11:
Manufacturer	Product	Approval Date	Bid Item #
<u>Ver-Mac</u>	<u>ST-4815 CAB</u>	FEBRUARY 2024	
	Portable Changeable Message Sign		
Manufacturer	Product	Approval Date	Bid Item #
	<u>SMC-1000 ST</u>	OCTOBER 2017	
Work Area Protection	<u>SMC 2000 ST</u>	OCTOBER 2017	
(A Hill & Smith Brand)	<u>SMC 4000</u>	OCTOBER 2017	
	<u>SMC 5000</u>	OCTOBER 2017	
Mar Man	PCMS-1500 LP	DECEMBER 2017	
<u>Ver-Mac</u>	PCMS-1210 Full-Size, 3-Line Portable Changeable Message Sign	OCTOBER 2017	643.1050
ADDCO	2017 DH1000	OCTOBER 2017	643.1051
<u>ADDCO</u>	DH1000-ALS	OCTOBER 2017	043.1031
Wanco	WTMMB (A) FULL MATRIX MESSAGE BOARD	DECEMBER 2017	
<u>wanco</u>	WTLMB (A) THREE LINE MESSAGE BOARD	DECEMBER 2017	
	Silent Messenger/MB-1548	JANUARY 2018	
Solar Technology, Inc	Silent Messenger 2/MB-1548 (fold-n-go)	JANUARY 2018	
	Silent Messenger 2 L&R / MB2-1548 (Lift and Rotate)	JANUARY 2018	
	Speed Radar Trailers		
Manufacturer	Product	Approval Date	Bid Item #
14/	Compact Radar-speed Trailer Model WSDT3	OCTOBER 2017	
<u>Wanco</u>	Folding Frame Speed Trailer DT3 F60	JULY 2020	
<u>Ver-Mac</u>	SP-710V Trailer Mounted Speed Feedback Sign	OCTOBER 2017	
5.1 = 1.1	Silent Advisor/RST-1000 (Low Speed Applications)	MARCH 2018	
<u>Solar Technology</u>	Silent Advisor/RST-2000 (High Speed Applications)	MARCH 2018	
<u>JTI</u>	Speed Safe 20/20 Trailer	JULY 2021	
	Digital Speed Limit Trailer		
Manufacturer	Product	Approval Date	Bid Item #
Ver-Mac	710-DSL Trailer Mounted Work Zone Digital Speed Limit Sign	AUGUST 2023	
Wanco	WVSL-48-12	JANUARY 2024	

Other

	Other Tune A Lights			
Manufacturer	Type A Lights Product	Approval Date		Bid Item #
	Model 2006	OCTOBER 2017		
5	Toughlite 2000	OCTOBER 2017		
Empco-Lite	Empco Y2K Barricade Light	MARCH 2018		
	Empco 6V 400 LED	SEPTEMBER 2019		
<u>Dicke Tool</u>	AC4D-NL	OCTOBER 2017	_	643.0705
	BR3.AC.D3/D4 BR6.AC.D3/D4	OCTOBER 2017 OCTOBER 2017		043.0703
B: We delided the	BC3.AC.D3/D4	OCTOBER 2017		
Pi-Variables, Inc	BC6.AC.D3/D4	OCTOBER 2017		
	BS.AC.D1/D2	OCTOBER 2017		
	Type A Lights Type B Lights	JULY 2018		
Manufacturer	Product	Approval Date		Bid Item #
	BR3.B.D3/D4	OCTOBER 2017		
Checkers Industrial Safety Products	BS.B.D1/D2	OCTOBER 2017		
	Toughtlite 2000	OCTOBER 2017		643.0710
Empco-Lite	Empco Y2K Barricade Light	MARCH 2018 SEPTEMBER 2019		
	Empco 6V 400 LED Type C Lights	SEPTEMBER 2019		
Manufacturer	Product	Approval Date		Bid Item #
	Model 2006	OCTOBER 2017		
Empco-Lite	Toughlite 2000	AUGUST 2019		
	Empco Y2K Barricade Light	MARCH 2018	_	
Diele Teel	Empco 6V 400 LED	SEPTEMBER 2019	-	
<u>Dicke Tool</u>	AC4D-NL BR3.AC.D3/D4	OCTOBER 2017 OCTOBER 2017		
	BR6.AC.D3/D4 BR6.AC.D3/D4	OCTOBER 2017	_	643.0715
Checkers Industrial Safety Products	BC3.AC.D3/D4	OCTOBER 2017		
l '	BC6.AC.D3/D4	OCTOBER 2017		
	BS.AC.D1/D2	OCTOBER 2017		
C & C Lights (now owned by Checkers Industrial	Type C Lights	JULY 2018		
Safety Products)	Pedestrian Surface (Pedestrian Walkway	Systems		
Manufacturer	Product	Approval Date	Expiration Date	Bid Item #
	BoardWalk Temporary Pedestrian Modular Ramp	OCTOBER 2017		
PSS Innovations	Boardwalk Platform 2	OCTOBER 2017		
	<u>RapidRamp</u>	MARCH 2023		
<u>Diamond Discs Inter</u>	Ped Utility Trench Cover	JULY 2020		
Central State Construction	CSC Ramp 1	JANUARY 2021		
Checkers Safety Industrial Products	Versamat Ground Protection Mat	JUNE 2021	1/1/2025	
<u>Greatmats</u>	Greatmats Ground Protection Mat 1/2 Inch x 4x8	MAY 2022	4	
Chippewa Concrete Services Blue Gator	CCS-JF-WI Blue Gator Ground Protection Mats	MAY 2022 JULY 2022	-	
FODS	GPM Ground Protection Mat, Model #1200 AM	JULY 2022	1	
Spartan Composites	Scout Mat	MARCH 2023		
James Peterson Sons, Inc	JPS Curb Ramp	AUGUST 2023		
	Temporary Detectable Warning Fig.	eld		
Manufacturer	Product	Approval Date	Expiration Date	Bid Item #
ADA Solutions	<u>ADA - SA2448-1</u>	MAY 2022		644.1605
<u>Detectable Warning Systems</u>	AlertTile Truncated Domes	AUGUST 2023		
2000-5	Automated Flagger Assistance Dev			D: d 14 a "
Manufacturer	Product DTI 2 4LD Portable Florger Light	Approval Date		Bid Item #
North America Traffic Inc.	PTL2.4LD Portable Flagger Light PTL2.4LD Portable Flagger Signal	JUNE 2019 JUNE 2019		
	RCF2.4 Automated Flagger Assistance Device	JUNE 2019		
<u>ITI</u>	Sentinel AFAD	JULY 2021		
Wanco	WAFAD	JULY 2022		
Synergy Technology Ver-Mac	Automated Flagger AF-100 Flagger-Mac Automated Flagger Assistance Device	APRIL 2022 FEBRUARY 2023		
■ V C1=IVIGC				
	Temporary Portable Rumble Strip	U		
Manufacturer	Temporary Portable Rumble Strip Product			Bid Item #
Manufacturer	Product	Approval Date JANUARY 2020		Bid Item #
	, , ,	Approval Date		Bid Item #
Manufacturer	Product RoadQuake 2	Approval Date JANUARY 2020		Bid Item #
Manufacturer PSS Innovations	Product RoadQuake 2 RoadQuake 2F	Approval Date JANUARY 2020 JANUARY 2020		Bid Item #
Manufacturer PSS Innovations	Product RoadQuake 2 RoadQuake 2F Alert High Speed Rumble Strip	Approval Date JANUARY 2020 JANUARY 2020 JANUARY 2020 Approval Date		Bid Item #
Manufacturer PSS Innovations Traffix Devices	Product RoadQuake 2 RoadQuake 2F Alert High Speed Rumble Strip Temporary Traffic Signals	Approval Date JANUARY 2020 JANUARY 2020 JANUARY 2020		

Connected Arrow Board Retro-Fit Kit***			
Manufacturer	Product	Approval Date	Bid Item #
<u>iCone</u>	ConnectedTech Arrow Board Kit (CTD-AB)	FEBRUARY 2024	
<u>Ver-Mac</u>	Connected Arrow Board Retro-Fit Kit	FEBRUARY 2024	
	Connected Work Zone Location Ma	rkers***	
Manufacturer	Product	Approval Date	Bid Item #
<u>iCone</u>	<u>iPin (CTD-IP)</u>	FEBRUARY 2024	
<u>Ver-Mac</u>	Work Zone Location Marker	MARCH 2024	

^{***}Items are provisionally approved for 2024 Construction Season.

Temporary Traffic Control Device Approval Process

1. INTRODUCTION

The temporary traffic control devices are covered by this approval process.

QUALIFICATION METHODS

The Wisconsin Department of Transportation provides manufacturers, vendors, traffic control contractors and county forces two options to apply for addition to the approved products list in Wisconsin. To be considered, the manufacturers, vendors, traffic control contractors and county forces must initiate the evaluation of their temporary traffic control device.

Qualification Option A – Immediate Approval

The Wisconsin Department of Transportation provides manufacturers, vendors, traffic control contractors and county forces with the process to apply for addition to the approved products list in Wisconsin. To be considered, the traffic control contractor and county forces must initiate the evaluation of their temporary traffic control device.

- 1. The subject device will require a letter of self-certification or FHWA eligibility letter. Refer to Appendices for requirements. Devices that do not meet MASH requirements but meet NCHRP 350 may be considered for addition to the list.
- 2. Submit the required Application Form, Self-Certification Letter or FHWA Eligibility Letter, Installation Specifications, Product Specifications and Report as follows:
 - Application Form
 - Self-Certification Letter or FHWA Eligibility Letter:
 - o Self-Certification Letter should contain at a minimum:
 - *A title, e.g., "Certificate of Crashworthiness"*;
 - *Name and address of vendor making the certification.*
 - Unique identification of the certificate (such as serial number) and of each page and the total number of pages;
 - (iv) Description and unambiguous identification of the item tested;
 - Identification of the basis for the self-certification process used and to what Test Level of NCHRP Report 350. This basis as listed in the July 25, 1997-memo as crash test experience with similar devices or years of demonstrably safe operational performance. (Simplified crash testing showing that a device poses no risk to vehicle occupants may be used to support the manufacturer's certification. This simplified testing must, as a minimum, be documented by a written report, observed by an independent, impartial observer, recorded on videotape, and include a means, other than the test vehicle's speedometer, for determining the vehicle speed at time of impact.)

- A signature and title, or an equivalent identification of the person(s) accepting responsibility for the content of the certificate (however produced), and date of issue;
- A statement that the certificate shall not be reproduced except in full.
- **Installation Specifications:** Submit proper product installation instructions along with a website address where the installation specifications can be located.
- **Report:** Submit a written report containing all the following information and a statement agreeing to the provisions of the application and review process.
 - o <u>Technical Assistance</u>: The name(s), telephone number(s) and email addresses for the vendor or manufacturer representatives.
 - Manufacturer Quality Control Program: A written submission of a quality control program that monitors the manufacturer's production for WisDOT approval.

Bureau of Traffic Operations: Work Zone Program Department of Transportation 3609 Pierstorff St. Madison, WI 53704

Email: DOTSignMarkWZMaterials@dot.wi.gov

- 3. After all required applicable documents have been received, the Work Zone Products Evaluation Team will meet and review all submitted items. The team meets every 30 days. After the evaluation process is completed, WisDOT will notify the manufacturer or vendor of the results of the evaluation via letter. If the product is accepted, it will be included on the Temporary Traffic Control Device Approved Products List, which is updated quarterly.
- 4. It is the responsibility of the traffic control contractor or county force to submit all changes to WisDOT BTO to remain in good standing on the approved products list once the product has been added to the approved products list. If the product begins to show signs of failure before the end of its lifecycle, the traffic control contractor or country force will be notified and will have 1 month to correct the problem or provide a resolution plan. If the problem is corrected, the product will remain on the approved products list. If the problem is not corrected, the product will be removed from the approved products list.

Qualification Option B – Provisional Approval

In the instance of Connected Devices, WisDOT Bureau of Traffic Operations (BTO) will evaluate the submitted product for one construction season to determine if the product performs and meets the needs required by BTO.

- 1. Submit the required Application Form and Self-Certification Letter or FHWA Eligibility Letter (as applicable), Installation Specifications, Product Specifications and Report as follows:
 - a. Application Form
 - b. Self-Certification Letter or FHWA Eligibility Letter (if applicable):
 - i. Self-Certification Letter should contain at a minimum:
 - 1. A title, e.g., "Certificate of Crashworthiness";
 - 2. Name and address of vendor making the certification.
 - 3. Unique identification of the certificate (such as serial number) and of each page and the total number of pages;
 - 4. Description and unambiguous identification of the item tested;
 - 5. Identification of the basis for the self-certification process used and to what Test Level of NCHRP Report 350. This basis as listed in the July 25, 1997-memo as crash test experience with similar devices or years of demonstrably safe operational performance. (Simplified crash testing showing that a device poses no risk to vehicle occupants may be used to support the manufacturer's certification. This simplified testing must, as a minimum, be documented by a written report, observed by an independent, impartial observer, recorded on videotape, and include a means, other than the test vehicle's speedometer, for determining the vehicle speed at time of impact.)
 - 6. A signature and title, or an equivalent identification of the person(s) accepting responsibility for the content of the certificate (however produced), and date of issue;
 - 7. A statement that the certificate shall not be reproduced except in full.
 - **c. Installation Specifications:** Submit proper product installation instructions along with a website address where the installation specifications can be located.
 - **d. Report:** Submit a written report containing all the following information and a statement agreeing to the provisions of the application and review process.
 - i. <u>Technical Assistance</u>: The name(s), telephone number(s) and email addresses for the vendor or manufacturer representatives.
 - **ii.** <u>Manufacturer Quality Control Program</u>: A written submission of a quality control program that monitors the manufacturer's production for WisDOT approval.
 - iii. <u>Performance Report</u>: Written report providing all data relating directly to the capabilities, performance and other applicable characteristics of the

device being submitted to the Department and how the device will meet the needs of the Department.

- 2. After all required applicable documents have been received, the Work Zone Products Evaluation Team will meet and review all submitted items and notify the submitter of provisional approval or if the product has been denied. If the product is denied for provisional approval, then the qualification process is concluded. WisDOT will notify the submitter the results of the evaluation via letter. If the product is accepted, it will be included on the Temporary Traffic Control Device Approved Products List listed as "Provisionally Approved".
- 3. Upon completion of the product provisional status evaluation, WisDOT will notify the submitter of the results in writing. If the product is accepted for permanent placement on the APL, the submitter with be notified in writing. If the product is rejected, then the qualification process is concluded. Once the product is on the Approved Products List, it is the responsibility of the manufacturers, vendors, traffic control contractors and county forces to submit any and all changes to WisDOT BTO in order to remain in good standing on the approved products list.

ON-GOING APPROVAL

To recertify products to be included on the approved products list, the traffic control contractor or county force is required to resubmit all the documents listed above in the instances of name change, device change or any other applicable change. Failure to recertify products will result in removal from the Approved Products List.

Wisconsin Department of Transportation Temporary Traffic Control Device: Approved Products Application

Traffic Control Contractor or County Info	ormation
•	Phone Number:
Email Address:	
Vendor Information	
Vendor Name:	Phone Number:
Address:	
Product Information	
Category 1	Category 4
Drums	Arrow Board
42" Cones	Connected Arrow Board (provisional approval only)
Flexible Tubular Markers	Portable Changeable Message Sign
Traffic Channelizing Curb System	Speed Radar Trailers
Category 2	Digital Speed Limit Trailer
Type I Barricades	<u>Other</u>
Type II Barricades	Type A Lights
Type III Barricades	Type B Lights
Sign Stands	Type C Lights
Vertical Panels	Pedestrian Surface
Pedestrian Barricade	Temporary Detectable Warning Field
Category 3	Automated Flagger Assistance Device
Truck & Trailer Mounter Attenuator	Temporary Portable Rumble Strips Connected Arrow Board Retro-fit Kits (provisional approval only) Connected Work Zone Location Marker (provisional approval only)
Product Name and Model:	
Has this product, or similar products been us	ed previously by WisDOT? LiYes Li No
If yes, please explain:	
Documents to Submit: Self-Certification Letter or FHWA Eligibili Installation Specifications Product Specifications Report MASH Compliance Letter	ty Letter
Signature	
_	Title:
Printed Name:	Date:
Submit this application and supporting do	icuments to:

Submit this application and supporting documents to:

Bureau of Traffic Operations: Work Zone Program

Department of Transportation

DOTSignMarkWZMaterials@dot.wi.gov

Wisconsin Department of Transportation Temporary Traffic Control Device: Approved Products Application

APPENDIX A

CATEGORY 1

• Category 1 devices are "self-certified" by each Manufacturer and no testing of these devices is required to meet MASH-16 requirements. These devices may be allowed for use based on the developer's self-certification subject to approval by the individual highway agencies.

DRUMS

- Weighted Rubber Base
 - Tire or molded base
 - Weight of base should follow manufacturer recommendations
- o Orange
- o Dimensions and Sheeting requirements meet SDD 15C11-b
- MASH Compliant

• 42" TRAFFIC CONTROL CONES

- Weighted Rubber Base
 - Molded
 - Weight of base should follow manufacturer recommendations
- o Orange
- o Dimensions and Sheeting requirements meet SDD 15C11-b
- Written submission of certification from manufacturer or distributor for compliance to MASH

• FLEXIBLE TUBULAR MARKERS

- o Plastic bases that hold tube with locking pin
- o Locking pin mechanism for securing device
- o Orange (work zone application)
- White (permanent application)
- Yellow (permanent application)
- Work Zone Application
 - Dimensions and sheeting requirements meet SDD 15C11-a
- o Permanent Application
 - Dimensions and sheeting requirements meet SDD 15A04-a
- MASH Compliant

• TRAFFIC CHANNELIZING CURB SYSTEM

- o Submit FHWA federal-aid reimbursement eligibility letters
- o Requirements meet MUTCD Section 3H.01 and 6F.72

APPENDIX B

CATEGORY 2

- Category 2 Temporary traffic control devices manufactured on or after January 1, 2020 must meet MASH-16 crash standards.
- Category 2 devices manufactured before January 1, 2020 may be used through January 1, 2025 provided they meet the requirements of the Standard Specifications and are approved and accepted for use by the Engineer.

• BARRICADES (TYPE I, II & III)

- o Corrugated Plastic Panels
- o Perforated Channel Supports or Angle Iron
- o Submitted FHWA federal-aid reimbursement eligibility letter
- o Dimensions and sheeting requirements meet SDD 15C11-b and MUTCD Section 6F.68

PORTABLE SIGN SUPPORTS

- o The sign face must be perpendicular to the ground
- o One Foot Mounting Height (collapsible & rigid)
- o Five Foot Mounting Height (collapsible & rigid)
- o Seven Foot Mounting Height (collapsible & rigid)
- o Submit FHWA federal-aid reimbursement eligibility letter

• VERTICAL PANELS

- o Submitted FHWA federal-aid reimbursement eligibility letter
- o Dimensions and sheeting requirements meet SDD 15C11-b and MUTCD Section 6F.66

PEDESTRIAN SAFETY BARRICADE

- o Submit FHWA federal-aid reimbursement eligibility letter
- o Dimensions and sheeting requirements meet SDD 15D30-c and conform to the recommendations of MUTCD Section 6F.63.04, 6F.63.05 and 6F.74

APPENDIX C

CATEGORY 3

• See WisDOT MASH Implementation Plan

APPENDIX D

CATEGORY 4

- See WisDOT MASH Implementation Plan
- FHWA previously exempted these devices from crash-testing under NCHRP Report 350 as the benefit of the use of these devices outweighs the risk exposure; however, the FHWA required that they should be shielded, when possible, should be removed when not needed, and must be delineated when deployed.

ARROW BOARD

- o Conform to the Wisconsin MUTCD requirement for type C arrow panel
 - 96 x 48 inches
 - 15 elements
 - Visible from minimum of 1 mile
- o Capable of operating towed or stationary
- o SAE PAR 46 lamps
- o Hood surrounds not less than 180 degrees of each individual lamps
- Capable of these mode selections: left or right flashing shaft with arrow point, flashing shaft with double arrow points, or caution. The engineer will not allow sequential operation of arrow or chevrons.
- Control System
 - Capable of at least 50 percent dimming from rated voltage
 - Flashing rate 25 to 40 flashes per minute
 - 50 percent lamp "on" time
 - Automatic dimming of lamps by reducing the voltage to 50 percent minimum for nighttime use and for the fail mode default setting.
 - Manual override backup switch
 - Is controlled by an onboard computer programmable via an onboard input device and, if the special provisions require, programmable remotely.
 - Has a secure cabinet and requires a username and password to access the computer interface.
 - Battery or Solar Powered

• CONNECTED ARROW BOARD (provisional only)

- o Meet requirements listed above for 'Arrow Board'
- The connected arrow board shall be connected to the cloud and provide a data feed compliant with latest the U.S Department of Transportation Work Zone Data Exchange (WZDx) Device Feed specification 4.2.
- o The property 'id' shall stay the same for the duration of the project. See picture below from WZDx Device Feed specification.

Properties *∂*

Name	Туре	Description	Conformance	Notes
id	String	A unique identifier issued by the data feed provider to identify the field device. It is recommended that this identifier is a Universally Unique IDentifier (UUID) as defined in RFC 4122 to guarantee uniqueness between feeds and over time.	Required	This is a GeoJSON property.

- The connected arrow board shall distinguish whether it is active, displaying a pattern or blank/transport mode, symbolizing it is not active.
- o Submit Work Zone Data Exchange Device feed link to DOTBTOWorkzone@dot.wi.gov.

• PORTABLE CHANGEABLE MESSAGE SIGN

- o Conform to the Wisconsin MUTCD requirements
- o Trailer mounted
- o 4 leveling jacks
- o Battery power supply, solar powered charging system
- Control System
 - Has a screen for reviewing messages before being displayed on sign.
 - Is controlled by an onboard computer programmable via an onboard input device and, if the special provisions require, programmable remotely.
 - Ensure that the computer can store and recalling at least 150 programmed messages.
 - Has a secure cabinet and requires a username and password to access the computer interface.
 - Automatically adjusts the sign's intensity to maintain legibility under varying light conditions.
- Provide a line matrix, character matrix, or full matrix sign message display no greater than 11-1/2 feet wide and capable of displaying 3 lines sequentially with 8 or more 18-inch high by 11-inch wide characters per line
- o LED Display Only.
 - Must display amber or yellow message.
 - NO hybrid or flip disc

• SPEED RADAR TRAILERS

- o The legend shall read "YOUR SPEED" as a static message centered on the sign.
- Legend and background colors of this static sign shall match the regulatory or advisory speed sign it is paired with.
- The changeable portion of the sign shall have a black background with an amber (yellow) illuminated legend.
- o Display shall be two digits displayed in miles per hour.

- o Legibility, must be able to determine numbers from 1/4 mile.
- Visibility, must be able to determine if the sign is on from 1/2 mile.
- Display shall have the ability to:
 - Continuously show the speed of an approaching vehicle and not flash regardless of speed limit or preset thresholds.
- System shall use an LCD display, keyboard, Rotary switches or other means to set and view operating modes, matrix displayed speed, error codes and other system information.
- LED indicators (or similar) signify power is on, the solar charging system is active, activated alarms need for checking, battery charge is low, and power failure.
- o System shall include a regulatory speed limit sign

• DIGITAL SPEED LIMIT TRAILER

- o Trailer Mounted
- R2-1 Regulatory Speed Limit Sign
 - Conform to Wisconsin MUTCD Requirements and standard spec 643
 - 48 x 60 inches
 - Mounting Height: 7 feet
 - Speed Display Panel
 - The changeable portion of the sign shall have a black background with a white LED illuminated legend
 - Display shall be two digits displayed in miles per hour in multiples of 5 mph
 - Automatically adjusts the sign's intensity to maintain legibility under varying light conditions
 - Shall be programmable remotely
- Flashing Beacons shall conform to the Wisconsin MUTCD Section 4L and standard spec 658.2(2).
 - A minimum of one flashing beacon shall be used. If only one flashing beacon is used, flashing beacon should be mounted above the sign, and centered horizontally.
 - The flashing yellow circular yellow signal indication shall have a nominal diameter of 12-inches.

APPENDIX E

OTHER

- WARNING LIGHTS
 - o Type A, B & C
 - o Conform to MUTCD Section 6F.83 and Standard Specification
 - o ITE "Purchase Specification for Flashing and Steady-Burn Warning Lights"

• PEDESTRIAN SURFACE

o Requirements meet SDD 15D30-b & 15D30-c and conform to the recommendations of MUTCD Section 6F.74

• TEMPORARY DETECTABLE WARNING FIELD

o Requirements meet SDD 15D30-b & 15D30-c and conform to the recommendations of MUTCD Section 6F.74

AUTOMATED FLAGGER DEVICES

o Requirements meet MUTCD Section 6E.06.04

• CONNECTED ARROW BOARD RETRO-FIT KITS (provisional only)

- o The connected arrow board shall be connected to the cloud and provide a data feed compliant with latest the U.S Department of Transportation Work Zone Data Exchange (WZDx) Device Feed specification 4.2.
- o The property 'id' shall stay the same for the duration of the project. See picture below from WZDx Device Feed specification.

Properties *∂*

Name	Туре	Description	Conformance	Notes
id	String	A unique identifier issued by the data feed provider to identify the field device. It is recommended that this identifier is a Universally Unique IDentifier (UUID) as defined in <u>RFC 4122</u> to guarantee uniqueness between feeds and over time.	Required	This is a GeoJSON property.

- o Device should distinguish whether it is active, displaying a pattern or off, in transport mode or blank.
- Submit Work Zone Data Exchange Device feed link to DOTBTOWorkzone@dot.wi.gov.

• LOCATION MARKER (provisional only)

- The location marker shall be connected to the cloud and provide a data feed compliant with latest the U.S Department of Transportation Work Zone Data Exchange (WZDx) Device Feed specification 4.2.
- o Battery should hold single charge for duration of project
 - Accomplished through battery swapping or charging in the field to keep the 'id' the same for each location marker.

- o Clear distinguishability of the start location marker and set as 'work zone start'
- o Clear distinguishability of the end location marker and set as 'work zone end'
- o Ease of association in the WZDx Feed for 'work zone start' and 'work zone end'
- o Submit Work Zone Data Exchange Device feed link to <u>DOTBTOWorkzone@dot.wi.gov</u>.