LAST REVISED

11/19/2019

NOTES & GUIDELINES

GENERAL INFORMATION:

ALL DISTANCES ARE APPROXIMATE.

SIGNING:

- 1. BARRICADES SHALL BE FABRICATED WITH SIGN SHEETING MATERIAL AS LISTED ON STANDARD PLATE 8000.
- 2. LONGITUDINAL DROPOFFS SHALL BE SIGNED AS SHOWN IN THE "MINNESOTA TEMPORARY TRAFFIC CONTROL FIELD MANUAL" PAGES (6K-aj) THRU (6K-al) UNLESS OTHERWISE SPECIFIED IN THESE PLANS.
- 3. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE FINAL SIGNS TO ASSURE THAT THE FINAL SIGNS ARE PLACED AS NEEDED, OR PROVIDE TEMPORARY SIGNING UNTIL THE FINAL SIGNING IS PLACED.
- 4. THIS WORK IS INCLUDED IN THE TRAFFIC CONTROL LUMP SUM PAY ITEM.
- 5. WHEN A SIGN OR BARRICADE IS ORIENTED SUCH THAT VISIBILITY TO ROAD USERS INCLUDING BIKES AND PEDESTRIANS IS REDUCED ENOUGH TO CAUSE A HAZARD, DELINEATE THE SIGN/BARRICADE WITH APPROPRIATE DEVICES.

PAVEMENT MARKING:

- 1. MASK OR REMOVE ANY CONFLICTING PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.
- 2. ALL TEMPORARY PAVEMENT MARKINGS SHALL BE A WET REFLECTIVE MATERIAL FROM THE WET REFLECTIVE MARKING MATERIALS QUALIFIED PRODUCTS LIST. ALL PAVEMENT MARKINGS IN TAPERS AND TRANSITIONS SHALL BE 6" IN WIDTH.
- 3. SEE 2582 IN THE SPECIAL PROVISIONS FOR PAVEMENT MARKING SPOTTING RESPONSIBILITIES.

BARRIER & DELINEATION:

1. PLACE AND MAINTAIN TEMPORARY BARRIER DELINEATORS ANY TIME TRAFFIC IS WITHIN 10'OF BARRIER. DELINEATORS WILL EACH HAVE A MINIMUM OF 24 SQ IN. OF RETROREFLECTIVE SURFACE ON BOTH SIDES PLACED AT 25'SPACING ON TOP OF THE BARRIER. IF THE ENGINEER OR PLAN REQUIRES SIDE MOUNTED TEMPORARY BARRIER DELINEATORS, THEY WILL HAVE A MINIMUM OF 12 SQ. IN. OF RETROREFLECTIVE SURFACE AREA AND BE PLACED AT 12.5' SPACING, IF A SMALLER APPROVED BARRIER DELINEATOR IS USED IT SHALL BE A MINIMUM OF 6 SQ IN. OF RETROREFLECTIVE SURFACE AREA AND BE PLACED ON BOTH SIDES AT 6.25' SPACING. TEMPORARY BARRIER DELINEATOR COLOR SHALL MATCH APPLICABLE PAVEMENT MARKING.

CONSTRUCTION INFORMATION SIGNING:

1. THE CONTRACTOR SHALL USE CONSTRUCTION INFORMATION SIGNING AS SHOWN IN THE PLAN WHICH ARE TO BE USED AS FOLLOWS:

PLACE THE G20-X1 ADVANCE CLOSURE NOTICE SIGN(S) 5 DAYS PRIOR TO THE PLANNED CLOSURE DATE.

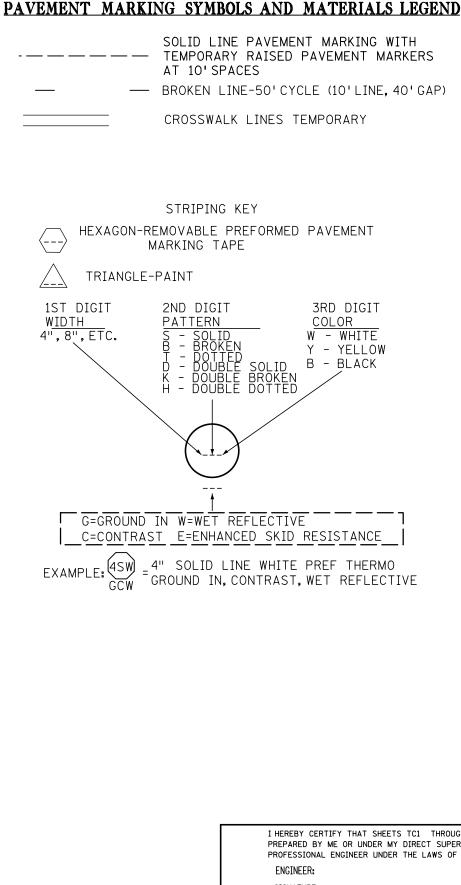
PLACE G20-X2 ADVANCE NOTICE SIGNS 14 DAYS PRIOR TO THE WORK STARTING DATE, ONCE WORK BEGINS. COVER THE START DATE LEGEND WITH SUGGESTED PLAQUE CONTAINED IN THIS PLAN. IF NO ALTERNATE MESSAGE IS SUGGESTED OR IF DIRECTED BY THE ENGINEER, DISPLAY THE CORRECT ESTIMATED FINISH DATE, MONTH, OR SEASON

IF CONSTRUCTION INFORMATION SIGNING IS NO LONGER VISIBLE TO THE MOTORING PUBLIC ONCE WORK BEGINS, MOVE SAID SIGNING TO A SITE IN ADVANCE OF THE WORK ZONE OR CLOSURE AS DIRECTED BY THE PLAN OR ENGINEER.

2. THIS WORK IS INCLUDED IN THE TRAFFIC CONTROL LUMP SUM PAY ITEM.

TRAFFIC CONTROL DEVICES & SYMBOLS LEGEND

SYMBOL DESCRIPTION AREA CLOSED TO TRAFFIC / WORK AREA TRAFFIC CONTROL SIGN TYPE III BARRICADE = Δ TYPE III BARRICADE = 0 DRUM-LIKE CHANNELIZER (TYPE B) = Ð TYPE A FLASHING WARNING LIGHT PORTABLE PRECAST CONC BARRIER DES 8337 WITH DELINEATORS AT 25'SPACES TEMPORARY IMPACT ATTENUATOR



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TRAFFIC CONTROL TITLE SHEET

S.A.P.

TITLE:

STATE PROJ. NO. SHEET NO. TC1

OF TC31 SHEETS

	TRAFFIC CONTROL TABULATION CHART		TC
ТАВ	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
	PORTABLE PRECAST CONC BARRIER DES 8337	LIN FT	3552
	PORTABLE CONCRETE BARRIER DELINEATOR (5)	EACH	143
	TRAFFIC CONTROL	LUMP SUM	1
	ALTERNATE PEDESTRIAN ROUTE	LUMP SUM	1
	TEMPORARY PEDESTRIAN RAMP	EACH	3
	PORTABLE CHANGEABLE MESSAGE SIGN (1)	UNIT DAY	120
	AUDIBLE MESSAGE DEVICE	UNIT DAY	500
TC-C	TEMPORARY IMPACT ATTENUATOR (2)	ASSEMBLY	16
	TEMPORARY WALKWAY SURFACE (3)	SQ FT	250
	REMOVABLE PREFORMED PLASTIC MASK (BLACK)	LIN FT	220
тс-в	PAVEMENT MARKING REMOVAL	LIN FT	1100
	FLAGGER	HOUR	440
	REMOVABLE PREFORM PAVEMENT MARKING TAPE (4)	LIN FT	5700
тс-в	4" SOLID LINE PAINT (WR)	LIN FT	2400
тс-в	4" DBLE SOLID LINE PAINT (WR)	LIN FT	4625

SPECIFIC NOTE:

- (1) USAGE AS DIRECTED BY PROJECT ENGINEER
- (2) TEMPORARY IMPACT ATTENUATOR (TL) AS NOTED IN PLAN
- (3) REFER TO DESIGN PLAN FOR TYPE OF TEMPORARY WALKWAY
- (4) 12" WHITE FOR CROSSWALKS
- (5) CONCRETE BARRIER DELINEATORS (WHITE) ONEWAY DIRECTION

PAVEMENT LINE MARKING		TC-A
ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
4" DBLE SOLID LINE PAINT (WR)	LIN FT	2400
4" SOLID LINE PAINT (WR)	LIN FT	4625

	PAVEMENT MARKING REM	MOVAL-LINE (TH61 BRID	GE OVER TH 35)	тс-в
ITEM DESCRIPTION	UNIT	LENGTH		TOTAL QUANTITY
TIEM DESCRIPTION	UNII		4" EQUIVALENCY FACTOR	TOTAL QUANTITY
4" DBLE SOLID LINE	LIN FT	300	2	600
4" SOLID LINE	LIN FT	500	1	500

TEMPORARY IMPACT ATTENUATOR		TC-C
ITEM DESCRIPTION	UNIT	TOTAL
TEMPORARY IMPACT ATTENUATOR TL2	ASSEMBLY	QUANTITY 6
TEMPORARY IMPACT ATTENUATOR TL3	ASSEMBLY	10

	PAY ITEM	TABULATION	
S.A.P.			
 STATE PROJ. NO.		SHEET NO. TC2	OF TC31 SHEETS

		TYP	ICAL ASS	EMBLY M	OUNT DE	ETAILS
	SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.)	ASSEMBLY (W×H)	NUMBER OF POST
HB1021	ТО	M4-5	BLACK ON WHITE	CR 24" X12"		
8Eathce9eAllyG	61	M1-4	BLACK ON WHITE	24" X 24"	24" X 44"	1
SamplePRIATTE ITAR ErefSEAnce96AUyCHGR021		M6-1 L/R	BLACK ON WHITE	CR 24"X18"		
SamplePPLOT						
- TPAR	ТО	M4-5	BLACK ON WHITE	CR 24" X12"		
)2/0602\AP,	61	M1-4	BLACK ON WHITE	24" X 24"	24" X 44"	1
20191230 APAR\APR-TPAR Sample Plan 20210602\APR		M5-1 L/R	BLACK ON WHITE	CR 21" X15"		
R-TPAR Sai						
) APAR\APF	TO	M4-5	BLACK ON WHITE	CR 24"X12"		
-	61	M1-4	BLACK ON WHITE	24" X 24"	24" X 44"	1
OTST\WorkZone\Templates\2020\new	Û	M6-3	BLACK ON WHITE	CR 21" X15"		
:Zone\Templ		M6-X2	BLACK ON WHITE	CR 21"X15"		
OTST\Work		W16-8P	BLACK ON YELLOW	VAR. X 8"		
& FILENAME:		W20-1 W20-2 W20-3	BLACK ON ORANGE	48" X48"	VAR. X 54"	1
PATH		W16-8aP	BLACK ON YELLOW	VAR. X 15"	VAR. X 61"	
		W20-1 W20-2 W20-3	BLACK ON ORANGE	48" X48"	AHI/* V ØI.	1

CHECKED BY:

CERTIFIED BY

DRAWN BY:

TEMPORARY SIGN TABULATION

TY	PICAL AS	SEMBLY	MOUNT I	<u>DETAILS</u>	
	M1-4	BLACK ON WHITE	24" X 24"		
	W20-1 W20-2 W20-3	BLACK ON ORANGE	36" X 36"	60" X 60"	1
					1

"M" SERIES SINGLE SIGN MOUNTS						
SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.)	NUMBER OF POST	POST SPACING	
For Independent Use	M1-4	BLACK ON WHITE	24" X 24" * 30" X 24" 36" X 36" * 45" X 36" * 3 Digit Sign	1		
TO	M4-5	BLACK ON WHITE WHITE ON BLUE	CR 24"X12" E,F,O 36" X 18"	1		
DETOUR	M4-8	BLACK ON ORANGE	CR 24" X 12" EFO 36" X 18"	1		
END DETOUR	M4-8a	BLACK ON ORANGE	CR 24" X 18" EFO 36" X 24	1		
DETOUR	M4-9M (R,L,ATR,ATL R45,L45, R90, L90)	BLACK ON ORANGE	CR 30" X 24" EFO 42" X 36"	1		
があれ DETOUR 公	M4-9aM (R,L,or T)	BLACK ON ORANGE	CR 30" X 24"	1		
	M5-1L (L or R)	BLACK ON WHITE WHITE ON BLUE	CR 21" X15" E, F 30" X 21"	1		
	M6-1 (L or R)	BLACK ON WHITE WHITE ON BLUE	CR 21" X15" E, F 30" X 21"	1		
	M6-3	BLACK ON WHITE WHITE ON BLUE	CR 21" X15" E, F 30" X 21"	1		
	M6-X2	BLACK ON WHITE	CR 21" X15"	1		

GENERAL NOTES;

- 1. ALL TEMPORARY SIGNS ARE REQUIRED TO BE CRASHWORTHY PER THE AASTHO MANUAL FOR ASSESSING SAFETY HARDWARE 2016 (MASH-2016). TEMPORARY SIGN STRUCTURES THAT ARE CRASHWORTHY UNDER THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT 350 (NCHRP-350) MAY BE USED PROVIDED THE DEVICES WERE ACQUIRED BY THE CONTRACTOR PRIOR TO DECEMBER 31, 2019. THE MINNESOTA TYPE "C" AND "D" BRACED LEG U-CHANNEL (KNEE BRACE) SIGN SUPPORT IS NOT ALLOWED.
- 2. SIGN STRUCTURE TABULATIONS INDICATE GROUND MOUNTED SIGN STRUCTURES UTILIZING SQUARE TUBE RISER POSTS THAT ARE MASH-16 COMPLAINT. COMPLAINT.
- 3. UNLESS OTHERWISE INDICATED, USE 2-1/2 INCH RISER POSTS FOR GROUND MOUNTED SIGN STRUCTURES.
- 4. USE SIGN BASE PRODUCTS FROM THE SIGN STRUCTURE APPROVED/QUALIFIED PRODUCTS LIST FOR THE INDICATED SQUARE TUBE RISER POST SIZE. INSTALL PER THE MANUFACTURER'S SPECIFICATIONS.
- 5. FOR 2 INCH RISER POST, USE A 12 GAUGE, 2" X 2" PRE-PUNCHED, GALVANIZED, SQUARE TUBE RISER POST.
- 6. FOR 2-1/2 INCH RISER POST, USE 10 GAUGE, 2-1/2" X 2-1/2" PRE-PUNCHED, GALVANIZED STEEL, SQUARE TUBE POST WITH A 10 GAGE, 2-3/16" X 2-3/16" X 8' PRE-PUNCHED, GALVANIZED STEEL, SQUARE TUBE INTERNAL INSERT.
- 7. FOR GROUND MOUNTED SQUARE TUBE STRUCTURES, USE ALUMINUM STRINGERS FOR SIGNS WIDER THAN 24 INCHES. PLACE PER MANUFACTURE'S SPECIFICATIONS.
- 8. ANY SIGN STRUCTURE PLACED WITHIN 50' OF THE RADIUS END OF AN INTERSECTION SHALL BE PLACED ON ONE (2" OR 2 1/2" POST).
- 9. WHEN MULTIPLE SIGN STRUCTURES ARE PLACED ADJACENT TO EACH OTHER THERE SHOULD BE NO MORE THEN 2 POST WITHIN 84" OF EACH OTHER. WHEN THIS SPACING CAN NOT BE MAINTAIN, THEN SIGN STRUCTURES SHALL BE OFFSET, AND STAGGERED WITH A MINIMUM OF 4' BETWEEN SIGN STRUCTURES.
- 10. MOUNTING HEIGHT TO BOTTOM OF SIGN, (RURAL 5' MINIMUM ABOVE NEAR EDGE OF PAVEMENT), (URBAN 7' MINIMUM ABOVE THE TOP OF CURB, IF NO CURB PRESENT - 7' MINIMUM ABOVE NEAR EDGE OF PAVEMENT). WIND LOAD CHART IS BASED ON A MAXIMUM MOUNTING HEIGHT OF 8'.

TEMPORARY SIGN TABULATION S.A.P. STATE PROJ. NO. SHEET NO. TC3R

LIC. NO. DATE __\$IDATE1\$

OF TC31 SHEETS

	<u>"W" SE</u>	RIES SING	ELE SIGN	MOUNT	S
SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.)	NUMBER OF POST	POST SPACING
	W1-4 (L/R)	BLACK ON ORANGE	36" X 36" 48" X48"	1	
THE	W3-5	BLACK ON YELLOW	48" X48"	1	
	W6-3	BLACK ON YELLOW	36" X 36" 48" X48"	1	
ONO CENTER LINE	W8-12	BLACK ON YELLOW	36" X 36" 48" X48"	1	
oto A	W11-15	BLACK on FLUORESCENT YELLOW-GREEN	36" X 36" 48" X48"	1	
N O PASSING ZONE	W14-3	BLACK ON YELLOW	64" X64" X48"	2	
	W 16-8P	BLACK ON YELLOW	VARIES"X 8"		
	W16-8aP	YELLOW	VARIES" X 15"		
ROAD WORK AHEAD	W 20-1	BLACK ON ORANGE	36" X 36" 48" X48"	1	
DETOUR AHEAD 1000 FT 1/2 MILE	W20-2	BLACK ON ORANGE	36" X 36" 48" X48"	1	
ROAD STREET CLOSED AHEAD 1000 FT 1/2 MILE	W20-3	BLACK ON ORANGE	36" X 36" 48" X48"	1	
	W20-7	BLACK ON YELLOW	36" X 36" 48" X48"	1	
LEFT CENTER CLOSED TURN BIKE	W20-X5	BLACK ON	36" X 36" 48" X48"	1	
	W24-1 (L/R)	BLACK ON ORANGE	36" X 36" 48" X48"	1	

TEMPORARY SIGN TABULATION

"R" SERIES SINGLE SIGN MOUNTS							
SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.)	NUMBER OF POST	POST SPACING		
SPEED	R2-1	BLACK ON WHITE	30" X 36" 36" X 48" 48" X 60"	1			
	R3-1	BLACK and RED on WHITE	24" X 24" 36" X 36" 48" X 48"	1			
	R3-2	BLACK and RED on WHITE	24" X 24" 36" X 36" 48" X 48"	1			
Vŷ	R4-7c	BLACK ON WHITE	18" X 30"	1			
SIDEWALK CLOSED	R9-9	BLACK ON WHITE	24" X 12" 30" X 18"	1			
TURNING VEHICLES TURNING FOR	R10-15M	BLACK, RED FLUORESENT YELLOW on	30" x 30"	1			
FOR	(2/11/	WHITE					
ROAD LANE BIKE LANE BRIDGE OUT STREET	R11-2M	BLACK ON WHITE	48" X 30"	1			

BARRICADE MOUNTED SIGNS							
SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.)				
SIDEWALK CLOSED DETOUR	R9-9	BLACK ON WHITE	30" X 18"				
	M4-9MAL/R						
SIDEWALK CLOSED ULU DOWN ARE OF STREET SIDEWALK CLOSED ULU OWN ARE OF STREET SIDEWALK CLOSED ULU OWN ARE OF STREET	R9-11B	BLACK ON WHITE	48" X 18"				
RAMP LANE BIKE LANE (F) CLOSED (F) STREET	R11-2M	BLACK ON WHITE	48" X 30"				
	R3-1	BLACK ON WHITE	36" X 36"				

"G" SERIES SINGLE SIGN MOUNTS							
SIGN	SIGN NO.	COLOR	SIZE (IN. X IN.)	NUMBER OF POST	POST SPACING		
TRAIL STREET BRIDGE RAMP ROAD CLOSED DETOUR BEGINNING MONTH DY	G20-X1	BLACK ON ORANGE	36" X 30" 54" X 48" 72" X 60" 90" X 78"	1 1 2 2			
BUSINESS ACCESS	G20-X6 (R,L OR T)	BLACK ON ORANGE	36" X 24" 48" X 36" 66" X 48"	1 2			

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- 6. FOR 2-1/2 INCH RISER POST, USE 10 GAUGE, 2-1/2" X 2-1/2" PRE-PUNCHED, GALVANIZED STEEL, SQUARE TUBE POST WITH A 10 GAGE, 2-3/16" X 8' PRE-PUNCHED, GALVANIZED STEEL, SQUARE TUBE INTERNAL INSERT.
- 7. FOR GROUND MOUNTED SQUARE TUBE STRUCTURES, USE ALUMINUM STRINGERS FOR SIGNS WIDER THAN 24 INCHES. PLACE PER MANUFACTURE'S

- 8. ANY SIGN STRUCTURE PLACED WITHIN 50' OF THE RADIUS END OF AN INTERSECTION SHALL BE PLACED ON ONE (2" OR 2 1/2" POST).
- 9. WHEN MULTIPLE SIGN STRUCTURES ARE PLACED ADJACENT TO EACH OTHER THERE SHOULD BE NO MORE THEN 2 POST WITHIN 84" OF EACH OTHER. WHEN THIS SPACING CAN NOT BE MAINTAIN, THEN SIGN STRUCTURES SHALL BE OFFSET, AND STAGGERED WITH A MINIMUM OF 4' BETWEEN SIGN STRUCTURES.
- 10. MOUNTING HEIGHT TO BOTTOM OF SIGN, (RURAL 5' MINIMUM ABOVE NEAR EDGE OF PAVEMENT), (URBAN - 7' MINIMUM ABOVE THE TOP OF CURB, IF NO CURB PRESENT - 7' MINIMUM ABOVE NEAR EDGE OF PAVEMENT). WIND LOAD CHART IS BASED ON A MAXIMUM MOUNTING HEIGHT OF 8'.

TEMPORARY SIGN TABULATION

S.A.P.

STATE PROJ. NO.

SHEET NO. TC4

OF TC31 SHEETS

DRAWN BY: CHECKED BY: CERTIFIED BY LIC. NO. DATE __\$IDATE1\$

SEE CONSTRUCTION PLAN SHEETS FOR TEMPORARY WALKWAY SEE CONSTRUCTION PLAN SHEETS FOR TEMPORARY WALKWAY 를 크 12 (12SW 100 100 SCALE IN FEET SCALE IN FEET DATE \$IDATEI\$ CERTIFIED BY DRAWN BY: CHECKED BY: LIC. NO.

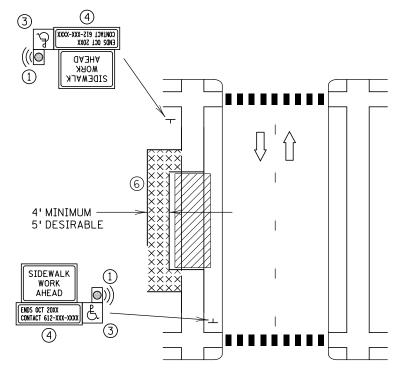
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TEMPORARY PEDESTRAN WALK WAYS

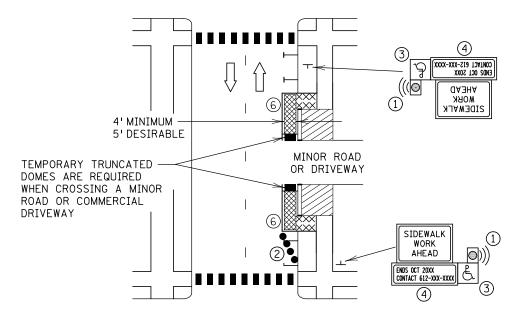
S.A.P. XXX-XXX-XXX

STATE PROJ. NO. XXXX-XX (TH XX) SHEET NO. TC14

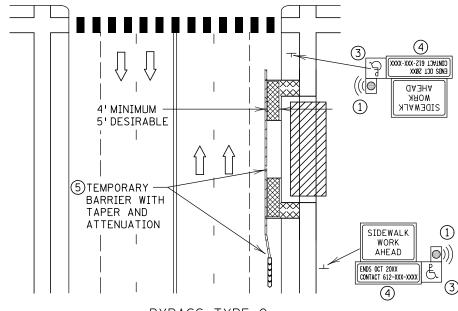
O. TC14 OF TC31 SHEETS



BYPASS TYPE A BYPASS ON ADJACENT AVAILABLE RIGHT OF WAY



BYPASS TYPE B SIDEWALK BYPASS USING PARKING OR SHOULDER ON LOW-SPEED ROADWAY



BYPASS TYPE C SIDEWALK BYPASS USING SHOULDER OR PARKING LANE ON A MULTI-LANE OR HIGH-SPEED ROADWAY

NOTES:

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES. THE ALTERNATE PEDESTRIAN ROUTE (APR) MUST REMAIN OPEN AT ALL TIMES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY TO PROVIDE AN APR AT ALL TIMES FOR ROADWAYS WITH NO AVAILABLE DETOURS. PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR.

PROVIDE A FIRM, STABLE, FREE-DRAINING, NON-SLIP, TEMPORARY WALKWAY SURFACE REGARDLESS OF WEATHER CONDITIONS. SUPPORT THE TEMPORARY WALKWAY SURFACE WITH A SOLID BASE TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND. THE TEMPORARY WALKWAY SURFACE WILL ALLOW NORMAL USAGE OF WHEELCHAIRS, WALKERS, STROLLERS, AND OTHER MOBILITY DEVICES. CONCRETE, BITUMINOUS, STEEL, RUBBER, WOOD (3/4" OR THICKER), AND PLASTIC ARE ACCEPTABLE SURFACE MATERIALS FOR THE TEMPORARY WALKWAY SURFACE. GRAVEL, MILLINGS, AND OTHER UNEVEN SURFACES ARE NOT ACCEPTABLE SURFACE MATERIALS. IF NEEDED, PROVIDE SOIL STABILIZATION TO PREVENT EROSION AROUND TEMPORARY SURFACES, IF NEEDED, PROVIDE SOIL STABILIZATION TO PREVENT EROSION AROUND TEMPORARY SURFACES.

IF A 60" PEDESTRIAN WALKWAY WIDTH ISN'T PROVIDED FOR THE ROUTE, THEN A 60" BY 60" PASSING SPACE IS REQUIRED EVERY 200'. THE MINIMUM WIDTH OF THE WALKWAY IS 48".

COVER OR DEACTIVATE ANY PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS.

POST-MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7'MINIMUM CLEARANCE FROM THE BOTTOM OF THE LOWEST SIGN TO THE SIDEWALK SURFACE. SHARED-USE PATH SHALL HAVE 8'MINIMUM CLEARANCE FROM THE BOTTOM OF THE LOWEST SIGN TO THE SHARED USE PATH SURFACE.

APR SHOULD BE KEPT FREE OF TRASH, SEDIMENT, AND DEBRIS.

ANY PORTABLE SIGN OR BARRICADE PLACED OR STORED IN A PEDESTRIAN WALKWAY THAT COULD POSE A HAZARD TO A VISUALLY-IMPAIRED PEDESTRIAN SHALL HAVE A DETECTABLE EDGE TO GUIDE THE PEDESTRIAN AROUND THE HAZARD, FOR ADDITIONAL GUIDANCE, SEE THE "DETECTABLE EDGE FOR SIGN ON PORTABLE STAND" DETAIL ON STADARD PLAN 5-297.813.

MINIMIZE DISRUPTION TO PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE BY PROVIDING AN APR IN THE FOLLOWING ORDER OF PREFERENCE:

- PROVIDE THE APR ON THE SAME SIDE OF THE ROADWAY AS THE DISRUPTED ROUTE UTILIZING 2. BYPASSES.
- WHERE NOT FEASIBLE TO PROVIDE A SAME-SIDE APR, PROVIDE AN APR DETOUR ON THE OTHER SIDE 3. OF THE ROADWAY.

WHERE NOT FEASIBLE TO PROVIDE AN APR ON EITHER SIDE OF THE ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS.

- (1) CONSIDER PROVIDING AN APPROVED AUDIBLE MESSAGE DEVICE OR TACTILE MESSAGE FOR PEDESTRIANS WITH VISUAL DISABILITIES.
- (2) RECOMMENDED TAPER WHEN THE CLOSED AREA WAS PREVIOUSLY USED AS AN INTERMITTENT TRAFFIC LANE OR BYPASS LANE IS 25'LONG USING FIVE EQUALLY-SPACED CHANNELIZING DEVICES.
- (3) FOR FULLY-ACCESSIBLE WALKWAYS THROUGH WORKZONES, CONSIDER DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.
- (4) INCLUDE INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24/7 QUESTIONS OR REPORTING HAZARDS ON SIGNS FOR TEMPORARY PEDESTRIAN DETOURS.
- (5) SEE THE MOST CURRENT EDTION OF THE MNDOT TEMPORARY BARRIER GUIDANCE MANUAL FOR GUIDANCE ON PLACEMENT AND USAGE OF TEMPORARY BARRIER.

(6) PROVIDE SOIL STABILIZATION AROUND TEMPORARY

LEGEND

SURFACES TO PREVENT EROSION, IF NEEDED.

SIGN WORK AREA

PEDESTRIAN CHANNELIZATION DEVICE

TEMPORARY BARRIER

DIRECTION OF TRAFFIC

CHANNELIZER

AUDIBLE MESSAGE DEVICE (AMD)

TEMPORARY CURB RAMP WITH DETECTABLE EDGES

TEMPORARY WALKWAY SURFACE

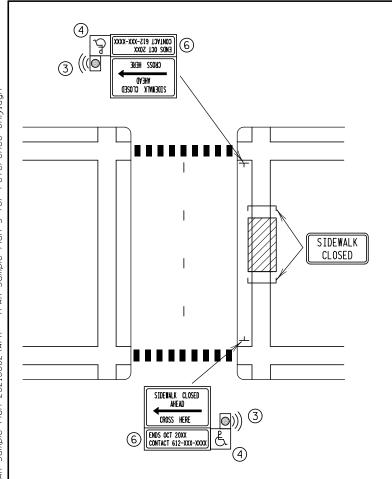


STANDARD PLAN 5-297.811 1 OF 2 APPROVED: 03-18-2021 REVISED: 1 OM STATE PROJ. NO. THOMAS STYRBICKI STATE DESIGN ENGINEER

ALTERNATE PEDESTRIAN ROUTE (APR) LAYOUTS

(TH SHEET NO. 0F SHEETS

REVISION: APPROVED: 03-18-2021 STATE TRAFFIC ENGINEER



OTHER SIDE OF ROADWAY DETOUR FOR MID-BLOCK CLOSURE

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES. THE MINIMUM TEMPORARY WALKWAY WIDTH SHOULD BE THE WIDTH OF THE EXISTING FACILITY. IF THE EXISTING FACILITY HAS A WIDTH GREATER THAN 60". THE WIDTH OF THE TEMPORARY FACILITY MAY BE 60". IF THE WIDTH OF THE DETOUR IS LESS THAN 60", A 60"-WIDE PASSING SPACE IS REQUIRED EVERY 200'.

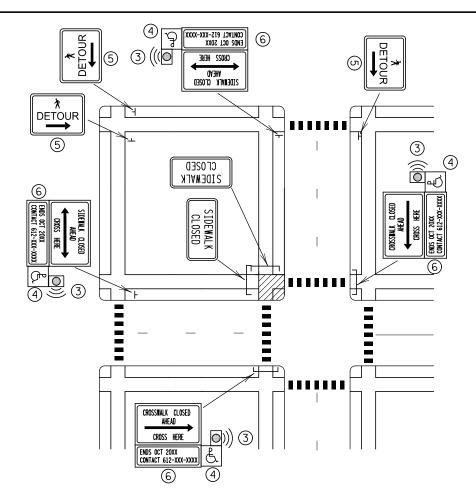
TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER TRAILBLAZING SIGNS OR DEVICES MAY BE NEEDED FOR ADEQUATE ROUTING. STAGE WORK AS NECESSARY TO PROVIDE AN ALTERNATE PEDESTRIAN ROUTE (APR) AT ALL TIMES.

PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR. PROVIDE A FIRM, STABLE, FREE-DRAINING, NON-SLIP, TEMPORARY WALKWAY SURFACE REGARDLESS OF WEATHER CONDITIONS. SUPPORT THE TEMPORARY WALKWAY SURFACE WITH A SOLID BASE TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND. THE TEMPORARY WALKWAY SURFACE WILL ALLOW NORMAL USAGE OF WHEELCHAIRS, WALKERS, STROLLERS, AND OTHER MOBILITY DEVICES. CONCRETE, BITUMINOUS, STEEL RUBBER, WOOD (3/4" OR THICKER), AND PLASTIC ARE ACCEPTABLE SURFACE MATERIALS FOR THE TEMPORARY WALKWAY SURFACE. GRAVEL, MILLINGS, OR OTHER UNEVEN SURFACES ARE NOT ACCEPTABLE SURFACE MATERIALS. IF NEEDED, PROVIDE SOIL STABILIZATION TO PREVENT EROSION AROUND TEMPORARY SURFACES.

COVER OR DEACTIVATE ANY PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS.

APR SHOULD BE KEPT FREE OF TRASH, SEDIMENT, AND DEBRIS.





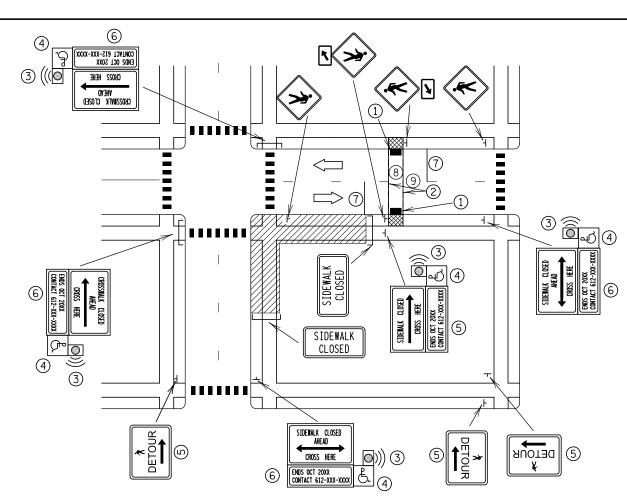
ONE QUADRANT CLOSED

POST-MOUNTED SIGNS ADJACENT TO SIDEWALKS SHALL HAVE 7'MINIMUM CLEARANCE FROM THE BOTTOM OF THE LOWEST SIGN TO THE SIDEWALK SURFACE, SHARED-USE PATHS SHALL HAVE 8'MINIMUM CLEARANCE FROM THE BOTTOM OF THE LOWEST SIGN TO THE SHARED-USE PATH SURFACE.

ANY PORTABLE SIGN OR BARRICADE PLACED OR STORED IN A PEDESTRIAN WALKWAY THAT COULD BE A HAZARD TO A VISUALLY-IMPAIRED PEDESTRIAN SHALL HAVE A DETECTABLE EDGE TO GUIDE THE PEDESTRIAN AROUND THE HAZARD. FOR ADDITIONAL GUIDANCE SEE THE "TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) DEVICES" STANDARD PLAN, "DETECTABLE EDGE FOR SIGN ON PORTABLE STAND" DETAIL.

MINIMIZE DISRUPTION TO PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE BY PROVIDING AN APR IN THE FOLLOWING ORDER OF PREFERENCE:

- 1. PROVIDE THE APR ON THE SAME SIDE OF THE ROADWAY AS THE DISRUPTED ROUTE UTILIZING BYPASSES.
- 2. WHERE IT IS NOT FEASIBLE TO PROVIDE A SAME-SIDE APR, PROVIDE AN APR DETOUR ON THE OTHER SIDE OF THE ROADWAY.
- 3. WHERE IT IS NOT FEASIBLE TO PROVIDE AN APR ON EITHER SIDE OF THE ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS.
- (1) TEMPORARY CURB RAMPS WITH DETECTABLE WARNINGS.
- ② TEMPORARY PAVEMENT MARKINGS FOR CROSSWALKS MAY USE CROSSWALK BLOCKS, TWO TRANSVERSE LINES OR TWO STRIPS OF 18" PREFORMED MARKING MATERIAL TO FORM 36" WIDE CROSSWALK BLOCKS.
- (3) PROVIDE AN APPROVED AUDIBLE MESSAGE DEVICE OR TACTILE MESSAGE FOR PEDESTRIANS WITH VISUAL DISABILITIES.



OTHER SIDE OF STREET DETOUR OR DETOUR WITH TRAILBLAZING SIGNS FOR CORNER SIDEWALK CLOSURE WITH OPTIONAL TEMPORARY CROSSWALK

- (4) FOR FULLY ACCESSIBLE WALKWAYS THROUGH WORKZONES, CONSIDER DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.
- (5) USE PEDESTRIAN DETOUR TRAILBLAZING SIGNS IF THE PEDESTRIAN DETOUR IS NOT LOCATED ACROSS THE ROADWAY FROM THE SIDEWALK CLOSURE.
- TYPICAL SIGN MESSAGE FOR AN ALTERNATE PEDESTRIAN ROUTE SHOULD INCLUDE INFORMATION SUCH AS THE DURATION OF THE WALKWAY RESTRICTIONS (BEGINNING AND/OR END DATES) AND A PROJECT CONTACT NUMBER FOR 24/7 QUESTIONS OR REPORTING HAZARDS. TYPICAL INFORMATION INCLUDED IN AN AUDIBLE MESSAGE CAN BE FOUND IN "TPAR - AUDIBLE MESSAGE CONTENT GUIDELINES" AVAILABLE ON THE MNDOT TRAFFIC ENGINEERING WEBSITE ON THE PEDESTRIAN ACCOMMODATIONS THROUGH WORK ZONES WEB PAGE. ADDITIONALLY, A SUMMARY OF THE MESSAGE CONTENT GUIDELINES CAN BE FOUND WITHIN THE PEDESTRIAN ACCOMMODATIONS THROUGH WORK ZONES DESIGN GUIDANCE DOCUMENT.
- (7) LOCATE STOP BAR 20'TO 50'BEFORE THE CROSSWALK, RESTRICT PARKING BETWEEN THE STOP BAR AND THE CROSSWALK. ON TWO-WAY ROADWAYS, RESTRICT PARKING BOTH BEFORE AND AFTER THE CROSSWALK FOR BOTH DIRECTIONS.
- CONSIDER LIGHTING AT MID-BLOCK CROSSINGS IN ORDER TO ILLUMINATE PEDESTRIANS, IF NOT ALREADY LIT.
- (9) CONSIDER THE ADDITION OF R1-6a SIGNS AS MOTORISTS ARE NOT EXPECTING MID-BLOCK CROSSING.

LEGEND

SIGN

WORK AREA

SIDEWALK BARRICADE

AUDIBLE MESSAGE DEVICE (AMD)

TEMPORARY CURB RAMP WITH DETECTABLE EDGES

PEOR CHOSSIVAL

R1-6a



STANDARD PLAN 5-297.811 2 OF 2 APPROVED: 03-18-2021 REVISED:

THOMAS STYRBICKI STATE DESIGN ENGINEER

ALTERNATE PEDESTRIAN ROUTE (APR) LAYOUTS

DIRECTION OF TRAFFIC

STATE PROJ. NO. (TH SHEET NO. OF SHEETS

NOTES:

TPAR SHOULD BE KEPT FREE OF TRASH, SEDIMENT, AND DEBRIS.

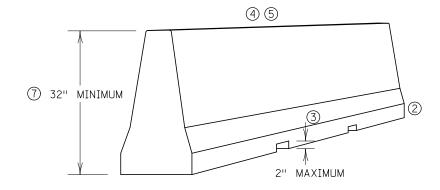
RAILINGS OR OTHER OBJECTS MAY PROTRUDE A MAXIMUM OF 4" INTO THE WALKWAY CLEAR SPACE WHEN LOCATED A MINIMUM OF 27" ABOVE THE WALKWAY SURFACE.

USE CRASHWORTHY TEMPORARY BARRIERS WHEN USED AS A PEDESTRIAN CHANNELIZERS.

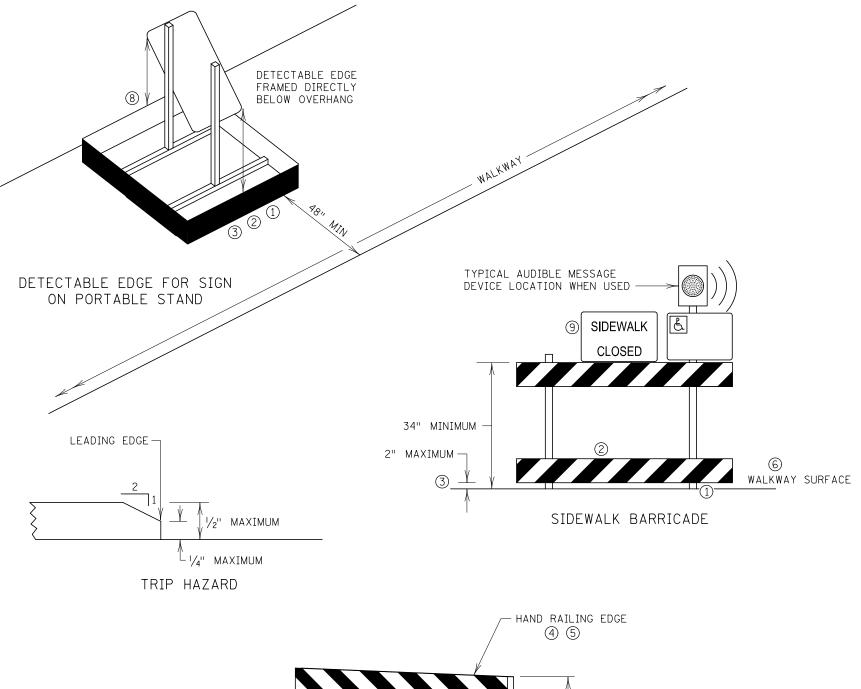
PLACE SIDEWALK BARRICADES ACROSS THE ENTIRE WIDTH OF THE WALKWAYSURFACE, WHEN USED.

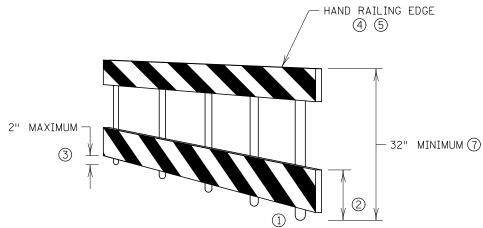
USE INTERLOCKING DEVICES TO CHANNELIZE PEDESTRIAN FLOW TO PREVENT GAPS THAT COULD ALLOW PEDESTRIANS TO STRAY FROM THE CHANNELIZED PATH.

- PROVIDE DETECTABLE EDGE TO ANY TRIPPING HAZARD IN THE WALKWAY.LOCATE BALLAST BEHIND THE DETECTABLE EDGE OR INTEGRAL TO THE DEVICE. ANY SUPPORT ON THE FRONT OF THE DEVICE SHOULD NOT EXTEND INTO THE 48" MINIMUM WALKWAY CLEAR SPACE. ANY SUPPORT THAT EXTENDS INTO THE WALKWAY SHALL NOT EXCEED \(\frac{1}{2} \)" HEIGHT ABOVE THE WALKWAY SURFACE; IF GREATER THAN \(\frac{1}{4} \)", BEVEL AS SHOWN IN THE TRIP HAZARD DETAIL.
- PROVIDE CONTINUOUS DETECTABLE EDGES EXTENDING AT LEAST 6" ABOVE THE WALKWAY SURFACE. MARK DETECTABLE EDGES WITH A COLOR THAT CONTRASTS WITH THE WALKWAY SURFACE. PLACE THE DETECTABLE EDGE AROUND ANY PORTABLE SIGN STAND IN THE WALKWAY AREA WHERE THE SIGN POSES A HAZARD TO A VISUALLY-IMPAIRED PEDESTRIAN.
- (3) DEVICES AND DETECTABLE EDGES SHALL NOT BLOCK WATER DRAINAGE FROM THE WALKWAY. A GAP HEIGHT OR OPENING FROM THE WALKWAY SURFACE UP TO A MAXIMUM OF 2" IS ALLOWED FOR DRAINAGE PURPOSES.
- USE HAND AND GUIDE RAILS WHEN REQUIRED. INSTALL TOP RAIL OR TOP SURFACE IN A VERTICAL PLANE PERPENDICULAR TO THE WALKWAY, ABOVE THE DETECTABLE EDGE. PROVIDE CONTINUOUS RAIL AT A HEIGHT OF 34" TO 38" ABOVE THE WALKWAY SURFACE. USE RAIL SUPPORTS THAT MINIMIZE CONTACT WITH PEDESTRIAN'S HANDS AND FINGERS. SEE "PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG) 2005" FOR ADDITIONAL GUIDANCE ON USE OF HAND AND GUIDE RAILS.
- (5) USE DEVICES FREE OF SHARP OR ROUGH EDGES, AND USE ROUNDED FASTENERS (BOLTS) TO PREVENT HARM TO A PEDESTRIAN'S HANDS, ARMS, AND CLOTHING.
- © REGARDLESS OF WEATHER CONDITIONS PROVIDE FIRM, STABLE, FREE-DRAINING, AND NON-SLIP TEMPORARY WALKWAY SURFACES. TEMPORARY WALKWAY SURFACES SHALL ALLOW NORMAL USAGE OF WHEELCHAIRS, WALKERS, STROLLERS, OR OTHER MOBILITY DEVICES. CONCRETE, BITUMINOUS, STEEL, RUBBER, WOOD (¾" OR THICKER), AND PLASTIC ARE ACCEPTABLE SURFACE MATERIALS FOR A TEMPORARY WALKWAY SURFACE. GRAVEL, MILLINGS, AND OTHER UNEVEN SURFACES ARE NOT ACCEPTABLE SURFACE MATERIALS.
- 7 PROVIDE 32" HIGH OR GREATER LONGITUDINAL CHANNELIZING DEVICES FOR PEDESTRIANS.
- (8) AN EDGE OF THE FRAMING MAY BE REMOVED IF IT IS NOT NEEDED FOR PEDESTRIAN GUIDANCE, STABILITY OF THE DETECTABLE EDGE SHOULD BE MAINTAINED.
- TYPICAL. SEE SIGNING PLAN FOR DETAILS.



PEDESTRIAN CHANNELIZER DEVICE USING A PORTABLE CONCRETE BARRIER





PEDESTRIAN CHANNELIZER

(TH



STANDARD PLAN 5–297.813 1 OF 2

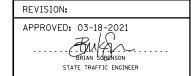
APPROVED: 03–18–2021 REVISED:

STATE ORGANISHED STATE PROJ. NO.

TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) DEVICES

CHANNELIZERS, SIDEWALK BARRICADES, AND PORTABLE STANDS

SHEET NO. OF SHEETS

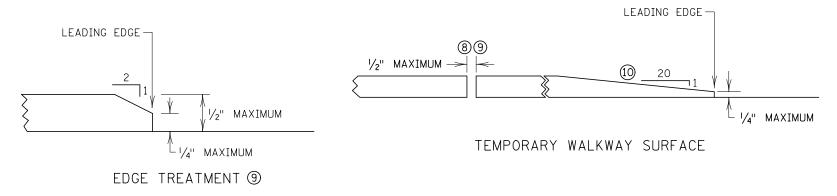


NOTES:

CONSTRUCT SLOPES AS INDICATED OR FLATTER, BUT NOT STEEPER.

TPAR SHOULD BE KEPT FREE OF TRASH, SEDIMENT, AND DEBRIS,

- (1) CONSTRUCT CURB RAMPS AT LEAST 48" WIDE WITH A FIRM, STABLE, AND SLIP-RESISTANT SURFACE.
- 2 PLACE PROTECTIVE EDGING WITH A 2" MINIMUM HEIGHT WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1V:3H. CONSIDER PROTECTIVE EDGING WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- 3 PLACE DETECTABLE EDGING WITH 6" MINIMUM HEIGHT AND CONTRASTING COLOR ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION.
- (4) CONSTRUCT CURB RAMPS AND LANDINGS WITH A 2% OR FLATTER CROSS SLOPE.
- (5) PROVIDE A CLEAR SPACE OF AT LEAST 48" X 48" ABOVE AND BELOW THE CURB RAMP.
- (6) MARK THE CURB RAMP WALKWAY EDGE WITH A 2" TO 4" WIDE MARKING OF CONTRASTING COLOR. THE MARKING IS OPTIONAL WHERE COLOR-CONTRASTING EDGING IS USED.
- (7) DO NOT IMPEDE WATER FLOW IN THE GUTTER SYSTEM.
- (8) NO LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL EXCEED 1/2" WIDTH.
- 9 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED $\frac{1}{2}$ ". USE VERTICAL LATERAL EDGES UP TO $\frac{1}{4}$ " HIGH, AND BEVELED AT 1V:2H FOR LATERAL EDGES BETWEEN $\frac{1}{4}$ " AND $\frac{1}{2}$ " HEIGHT.
- BEVEL THE EDGE OF TEMPORARY WALKWAY SURFACES 1/2" OR THINNER AT 1V:2H. FOR THICKER WALKWAY SURFACE BEVEL EDGE 1V:20H OR FLATTER.



9 EDGE TREATMENT

8 JOINT GAP TREATMENT

5 CLEAR SPACE

CURB FACE

2" TO 4" WIDE EDGE MARKING 6

PROTECTIVE EDGING
2" MINIMUM HEIGHT
ABOVE RAMP SURFACE

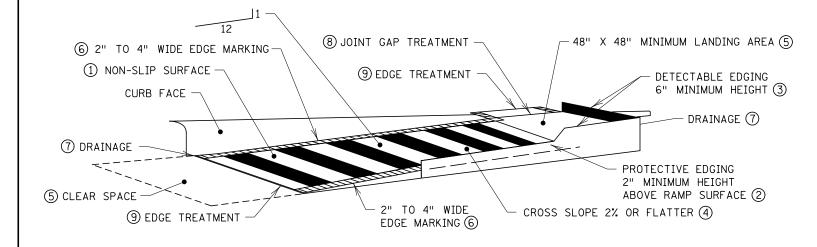
4 CROSS SLOPE 2% OR FLATTER

1 NON-SLIP SURFACE

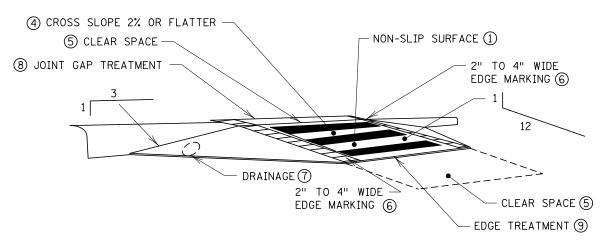
6 2" TO 4" WIDE EDGE MARKING

TEMPORARY CURB RAMP PERPENDICULAR TO CURB SHOWN WITH PROTECTIVE EDGE

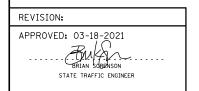
EDGE TREATMENT (9)



TEMPORARY CURB RAMP
PARALLEL TO CURB



TEMPORARY CURB RAMP PERPENDICULAR TO CURB SHOWN WITH SIDE APRON





TEMPORARY PEDESTRIAN ACCESS
ROUTE (TPAR) DEVICES
TEMPORARY CURB RAMPS AND WALKWAY SURFACES

SHEETS

STATE PROJ. NO. (TH) SHEET NO. OF