

TOWN OF BURLINGTON

INTERSECTION IMPROVEMENT OF
WINN STREET AT MOUNTAIN ROAD

IN THE TOWN OF

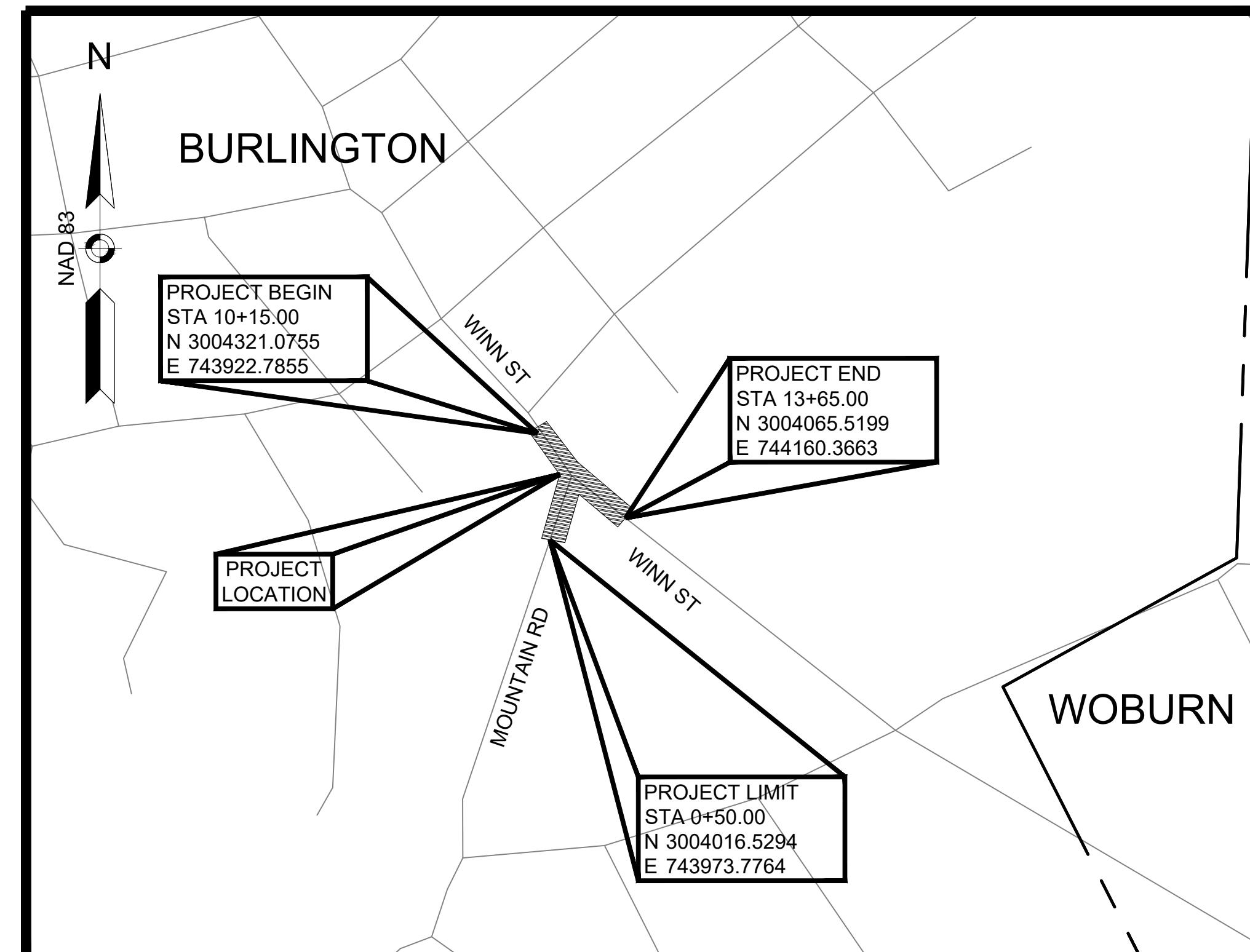
BURLINGTON
MIDDLESEX COUNTY

THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

FINAL DESIGN

INDEX

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0 250 500 750 1000
SCALE: 1" = 250'

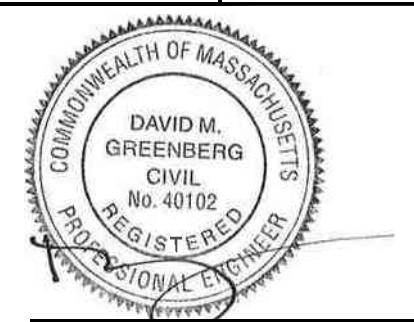
LENGTH OF PROJECT = 350 FEET = 0.066 MILES

JANUARY 10, 2025

DESIGN DESIGNATION (WINN STREET)

DESIGN SPEED	30 MPH
FUNCTIONAL CLASSIFICATION	URBAN MINOR ARTERIAL
ADT (2024)	23,200 VPD

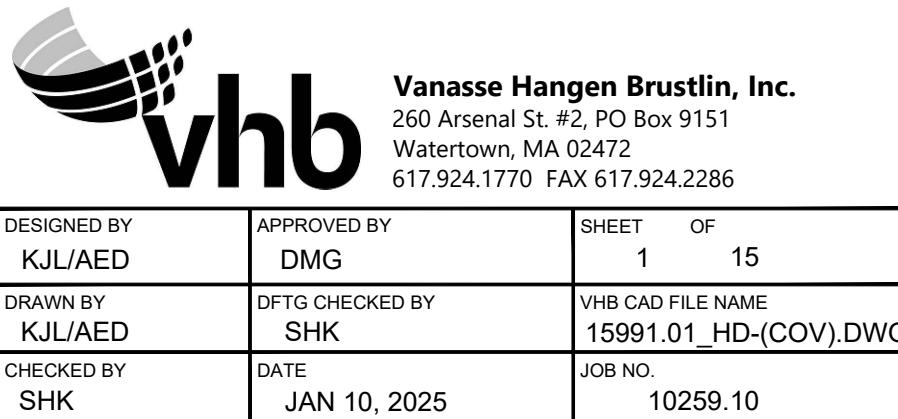
DATE	DESCRIPTION	REV #



1-30-25

ENGINEER DATE

DESIGNED BY KJL/AED	APPROVED BY DMG	SHEET OF 1 15
DRAWN BY KJL/AED	DTG CHECKED BY SHK	VHB CAD FILE NAME 15991.01 HD-(COV).DWG
CHECKED BY SHK	DATE JAN 10, 2025	JOB NO. 10259.10



GENERAL ABBREVIATIONS	
ABAN	ABANDON
ADJ	ADJUST
APPROX	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS / CONTINUED
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DIA	DIAMETER
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EXIST (or EX)	EXISTING
EXC	EXCAVATION
FDN.	FOUNDATION
FDP	FULL DEPTH PAVEMENT
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HES	HIGH ENERGY STRENGTH
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HWY	HIGHWAY
JCT	JUNCTION
LOAM	LOAM BORROW
LSA	LANDSCAPED AREA
LT	LEFT
MAHWL	MEAN AVERAGE HIGH WATER LINE
MAX	MAXIMUM
MB	MAILBOX
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
MOD	MODIFIED
MSE	MECHANICALLY STABILIZED EARTH
NERR	NEW ENGLAND RAILROAD
NIC	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
P.G.L.	PROFILE GRADE LINE
PREV	PREVIOUS/PREVIOUSLY
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PVMT	PAVEMENT
R&D	REMOVE AND DISCARD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RD	ROAD
RDWY	ROADWAY
REB	REBUILD
REM	REMOVE
REMOD	REMODEL
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SHLO/S.H.L.O.	STATE HIGHWAY LAYOUT LINE

GENERAL ABBREVIATIONS (CONT)

ST	STREET
STA	STATION
STD	STANDARD
SW	SIDEWALK
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TRANS	TRANSITION
TRM	TURF REINFORCING MAT
TYP	TYPICAL
VAR	VARIABLE
VERT	VERTICAL
WALK	SIDEWALK
WCR	WHEEL CHAIR RAMP
WP	WORKING POINT
X-SECT	CROSS SECTION

PROFILE ABBREVIATIONS

AD	ALGEBRAIC DIFFERENCE IN RATES OF GRADE
HSD	HORIZONTAL SIGHT DISTANCE
K	RATE OF VERTICAL CURVATURE
L	LENGTH OF CURVE
PVC	POINT OF VERTICAL CURVATURE
PVCC	POINT OF VERTICAL COMPOUND CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVRC	POINT OF VERTICAL REVERSE CURVATURE
PVT	POINT OF VERTICAL TANGENCY
SSD	STOPPING SIGHT DISTANCE
VC	VERTICAL CURVE

UTILITY ABBREVIATIONS

CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
DI	DROP INLET
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HDW	HEADWALL
HYD	HYDRANT
INV	INVERT
LB	LEACH BASIN
LP	LIGHT POLE
MH	MANHOLE
MW	MONITORING WELL
OHW	OVERHEAD WIRE
PVC	POLYVINYLCHLORIDE PIPE
PWW	PAVED WATER WAY
RCP	REINFORCED CONCRETE PIPE
SMH	SEWER MANHOLE
TSV&B	TAPPING SLEEVE VALVE & BOX
UP	UTILITY POLE
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN

TRAFFIC & SIGNAL ABBREVIATIONS

AADT	ANNUAL AVERAGE DAILY TRAFFIC
CAB.	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
COND	CONDUIT
CW	CROSS WALK
DW	STEADY DON'T WALK - PORTLAND ORANGE
DHV	DESIGN HOURLY VOLUME
FDW	FLASHING DON'T WALK
FR	FLASHING CIRCULAR RED
FRL	FLASHING RED LEFT ARROW
FRR	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR AMBER
FYL	FLASHING AMBER LEFT ARROW
FYR	FLASHING AMBER RIGHT ARROW
G	STEADY CIRCULAR GREEN
GL	STEADY GREEN LEFT ARROW
GR	STEADY GREEN RIGHT ARROW
GSL	STEADY GREEN SLASH LEFT ARROW
GSR	STEADY GREEN SLASH RIGHT ARROW
GV	STEADY GREEN VERTICAL ARROW
HH	HAND HOLE
OL	OVERLAP
PB	PULL BOX
PED	PEDESTRIAN
PTZ	PAN, TILE, ZOOM
R	STEADY CIRCULAR RED
RL	STEADY RED LEFT ARROW
RR	STEADY RED RIGHT ARROW
SL	STOP LINE
T	TRUCK %
TS OR TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALK
Y	STEADY CIRCULAR AMBER
YL	STEADY AMBER LEFT ARROW

ALIGNMENT & GRADING ABBREVIATIONS

CC	CENTER OF CURVE
HP	HIGH POINT
I.T.	INTERSECTION OF TANGENT
LP	LOW POINT
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PNT	POINT
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
LPT	ANGLE POINT
R	RADIUS OF CURVATURE
T	TANGENT DISTANCE OF CURVE
TAN	TANGENT
25.45	SPOT ELEVATION

GENERAL NOTES:

- EXISTING CONDITIONS AND TOPOGRAPHICAL INFORMATION FROM A SURVEY CONDUCTED BY VANASSE HANGEN BRUSTLIN, INC., WATERTOWN, MASSACHUSETTS IN SEPTEMBER 2023.
- HORIZONTAL DATUM IS BASED ON MASS GRID SYSTEM, NAD 1983. ELEVATIONS SHOWN REFER TO NAVD OF 1988.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AND PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE TOWN OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH PROPOSED CONDUIT AND SIGNAL EQUIPMENT. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK CONFORMING TO M4.05.2.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
- TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE TOWN.
- THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
- JOINTS BETWEEN NEW ASPHALT CONCRETE ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HMA JOINT ADHESIVE AND BACKSANDED.
- EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
- IF SUITABLE, EXISTING GRANITE CURB & EDGING SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
- EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
- THE CONTRACTOR SHALL EXERCISE DUE CARE WHEN WORKING AROUND ALL PROPERTY BOUNDS WHICH ARE TO REMAIN. SHOULD ANY DAMAGE TO A BOUND RESULT FROM THE ACTIONS OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE THE BOUND REPLACED AND/OR REALIGNED BY A LICENSED PROFESSIONAL SURVEYOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.
- DISPOSAL OF ALL SURPLUS MATERIAL SHALL BE AS APPROVED BY THE ENGINEER AND TOWN.

GENERAL SYMBOLS

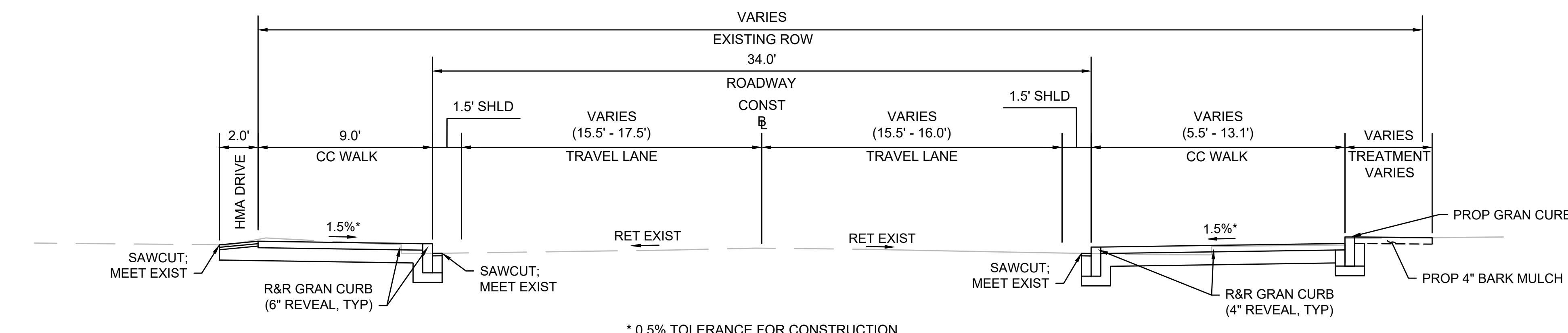
EXISTING	PROPOSED	DESCRIPTION
JB	JB	JERSEY BARRIER
CB	CB	CATCH BASIN
		CATCH BASIN CURB INLET
FP	FP	FLAG POLE
GP	GP	GAS PUMP
MB	MB	MAIL BOX
		POST SQUARE
		POST CIRCULAR
WELL	WELL	WELL
EHH	EHH	ELECTRIC HANDHOLE
	O	FENCE GATE POST
GG	GG	GAS GATE
BHL #	BHL #	BORING HOLE
MW #	MW #	MONITORING WELL
TP #	TP #	TEST PIT
		HYDRANT
		LIGHT POLE
CO.BD.		COUNTY BOUND
		GPS POINT
	C	CABLE MANHOLE
	D	DRAINAGE MANHOLE
	E	ELECTRIC MANHOLE
	G	GAS MANHOLE
	M	MISC MANHOLE
	S	SEWER MANHOLE
	T	TELEPHONE MANHOLE
	W	WATER MANHOLE
MHB	MHB	MASSACHUSETTS HIGHWAY BOUND
MON		MONUMENT
SB		STONE BOUND
TB		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
TPL or GUY	TPL or GUY	TROLLEY POLE OR GUY POLE
HTP		TRANSMISSION POLE
UFB	UFB	UTILITY POLE W/ FIREBOX
UPDL	UPDL	UTILITY POLE WITH DOUBLE LIGHT
ULT	ULT	UTILITY POLE W/ 1 LIGHT
UPL	UPL	UTILITY POLE
		BUSH
SIZE & TYPE		TREE
	O	STUMP
		SWAMP / MARSH
WG	WG	WATER GATE
PM	PM	PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
100-99-		CONTOURS (ON-THE-GROUND SURVEY DATA)
100-99-		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		EROSION CONTROL BARRIER
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		EDGE OF PAVEMENT
		LIMIT OF MICROMILLING AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

TRAFFIC SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
Ø1	Ø1	CONTROLLER PHASE
		VIDEO DETECTION ZONE, SIZE VARIES
		VIDEO DETECTION CAMERA
		PEDESTRIAN PUSH BUTTON, SIGN AND SADDLE
		EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
→	→	VEHICULAR SIGNAL HEAD, WITH/WITHOUT BACKPLATE
→	→	PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
○	●	SIGNAL POST AND BASE
○	—	MAST ARM, SHAFT AND BASE
○	—	LUMINAIRE W/ARM, MOUNTED ON MAST ARM SHAFT
○	●	SIGN AND POST
○	—	OVERHEAD SIGN
○	—	OPTICAL PRE-EMPTION DETECTOR
○	—	CONTROL CABINET, GROUND MOUNTED
○	—	PULL BOX 12"x12" (OR AS NOTED)
○	—	ELECTRIC HANDHOLE - SD2.022 (OR AS NOTED)
—	—	TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
ONLY	ONLY	PAVEMENT ARROW - WHITE
	SL	LEGEND "ONLY" - WHITE
	CW	STOP LINE - 12" WIDE
	SWL	CROSSWALK (WIDTH AS NOTED)
	SYL	SOLID WHITE LINE - 4" WIDE (UNLESS OTHERWISE NOTED)
	BWL	SOLID YELLOW LINE - 4" WIDE (UNLESS OTHERWISE NOTED)
	BYL	BROKEN WHITE LINE - 4" WIDE (UNLESS OTHERWISE NOTED)
	DWL	BROKEN YELLOW LINE - 4" WIDE (UNLESS OTHERWISE NOTED)
	DYL	DOTTED WHITE LINE - 4" WIDE (UNLESS OTHERWISE NOTED)
	DWLEX	DOTTED YELLOW LINE - 4" WIDE (UNLESS OTHERWISE NOTED)
	DYLEX	DOTTED WHITE LINE EXTENSION - 4" WIDE (UNLESS OTHERWISE NOTED)
	DBWL	DOTTED YELLOW LINE EXTENSION - 4" WIDE (UNLESS OTHERWISE NOTED)
	DYCL	DOUBLE WHITE LINE - 4" WIDE (UNLESS OTHERWISE NOTED)
		DOUBLE YELLOW LINE - 4" WIDE (UNLESS OTHERWISE NOTED)



WINN STREET

STATION 11+29± TO 12+75±
NTS

PAVEMENT NOTES

PROPOSED CEMENT CONCRETE SIDEWALK, DRIVEWAY, AND PEDESTRIAN CURB RAMP

SURFACE: 4" CEMENT CONCRETE AIR ENTRAINED 4000 PSI, $\frac{3}{4}$ ", 610 (6.0" AT DRIVEWAY)

SUBBASE: 8" GRAVEL BORROW, TYPE B

PROPOSED HOT MIX ASPHALT DRIVEWAY

SURFACE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
2.5" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER

SUBBASE: 8" GRAVEL BORROW, TYPE b

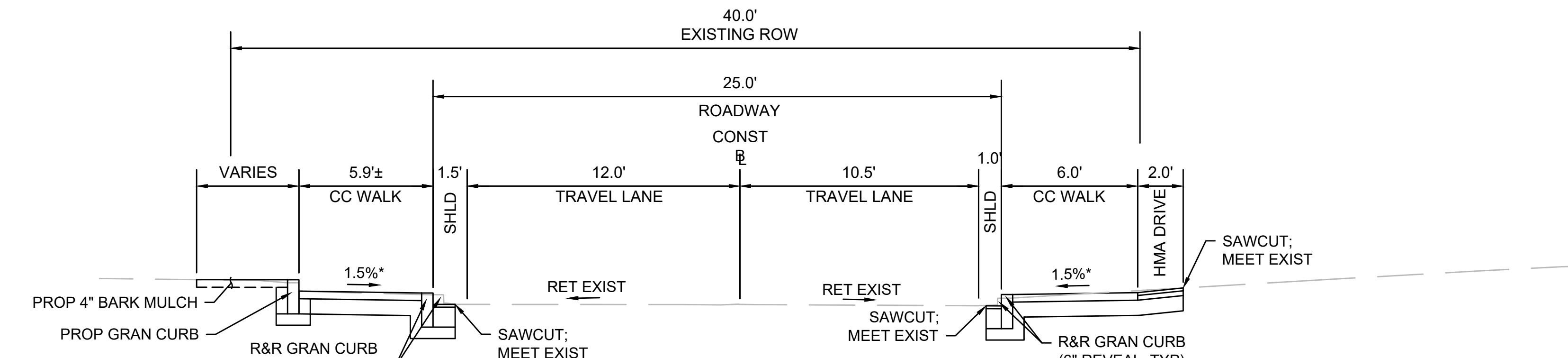
PROPOSED HOT MIX ASPHALT SIDEWALK

SURFACE: 1.25" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
1.75" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER

SUBBASE: 8" GRAVEL BORROW, TYPE b

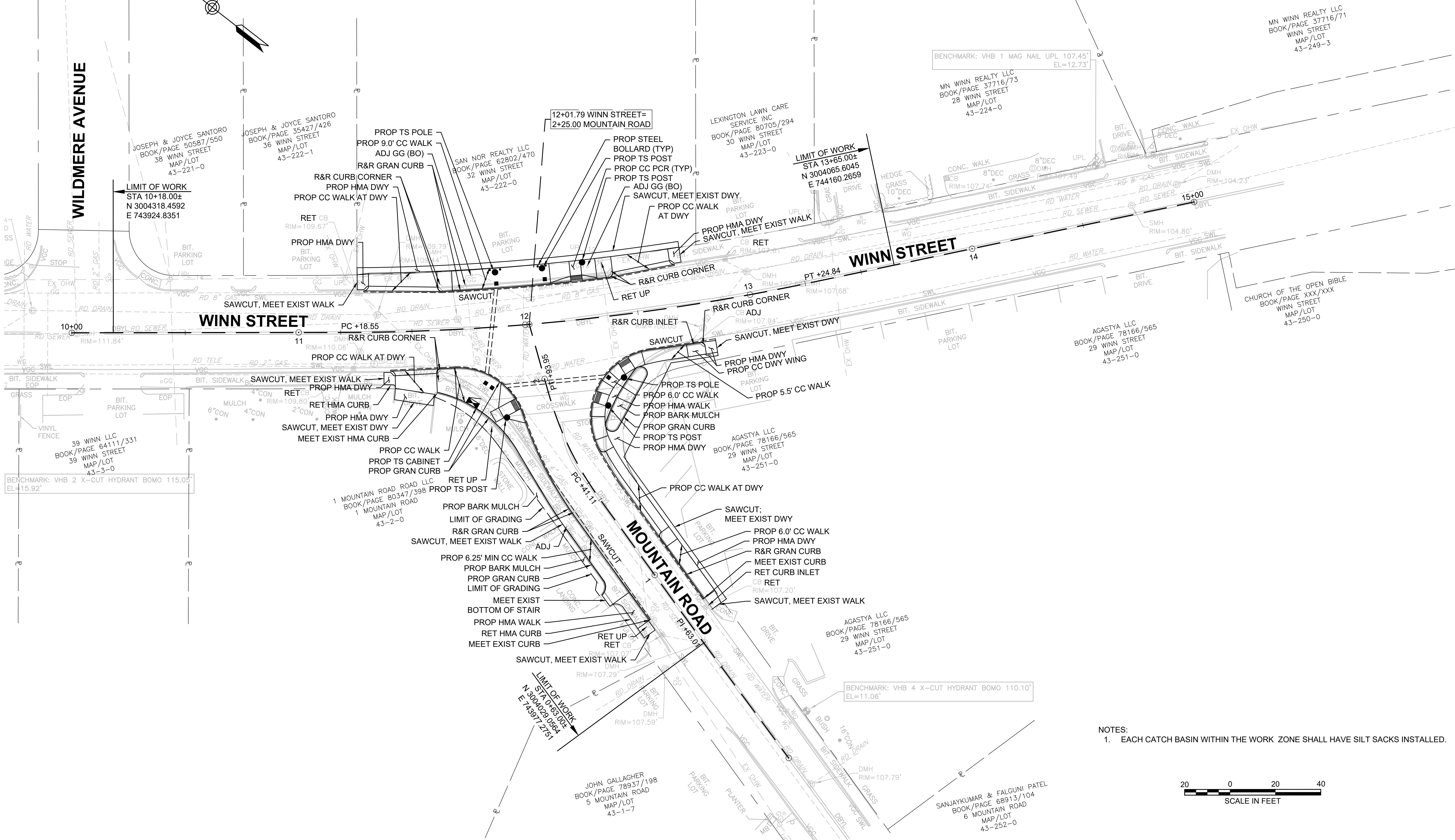
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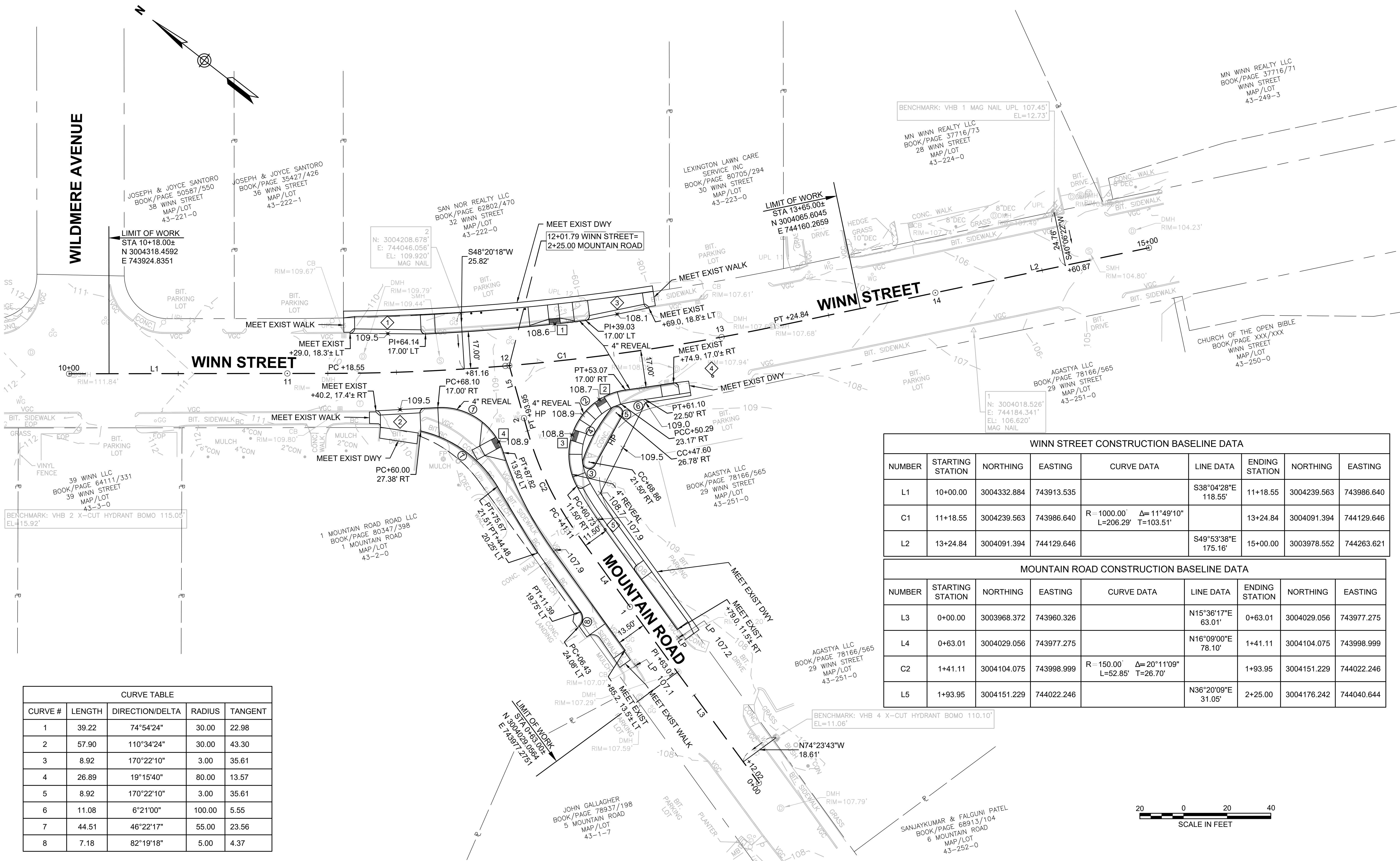
1. ALL HOT MIX ASPHALT PAVEMENTS SHALL BE CONSTRUCTED AND PRODUCED IN ACCORDANCE WITH SECTION 450 HOT MIX ASPHALT PAVEMENT AND SECTION M-3 ASPHALTIC MATERIALS.
2. HMA JOINT ADHESIVE (ITEM 453.) SHALL BE APPLIED IN SURFACE COURSE AT ALL VERTICAL COLD JOINTS PRIOR TO HMA PAVING.
3. ALL HOT MIX ASPHALT WALKS AND DRIVEWAYS SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 702. OF STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
4. EXISTING SUBBASE MATERIAL AT SIDEWALKS AND DRIVEWAYS THAT MEETS THE REQUIREMENTS FOR GRAVEL BORROW TYPE b SHALL REMAIN IN PLACE.
5. ALL TEMPORARY ASPHALT PATCHING SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 472. OF STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.

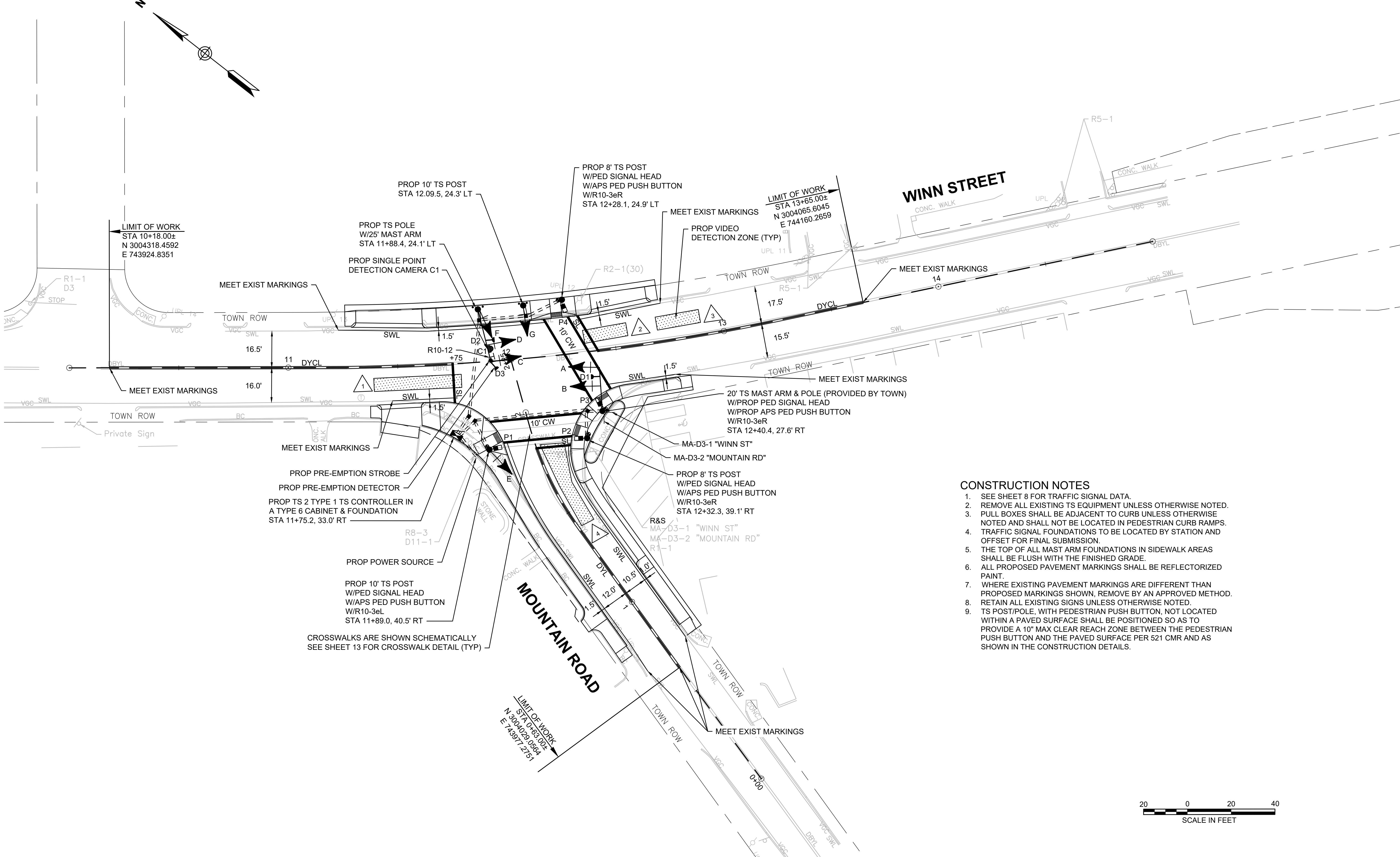


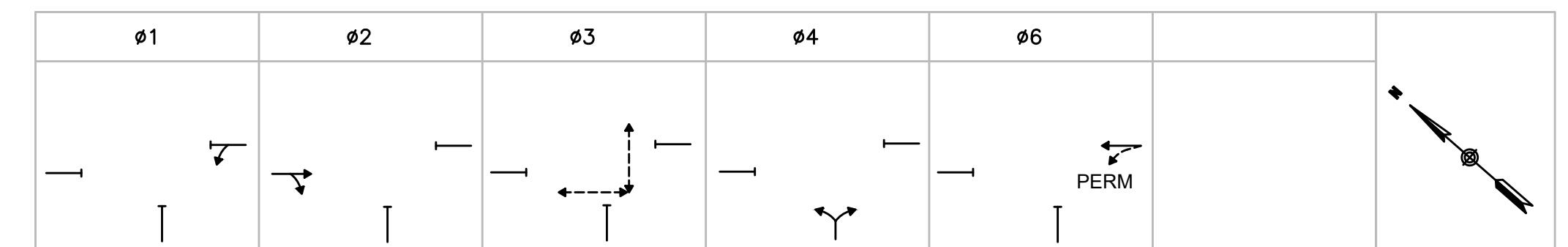
MOUNTAIN ROAD

STATION 0+73± TO 1+94±
NTS









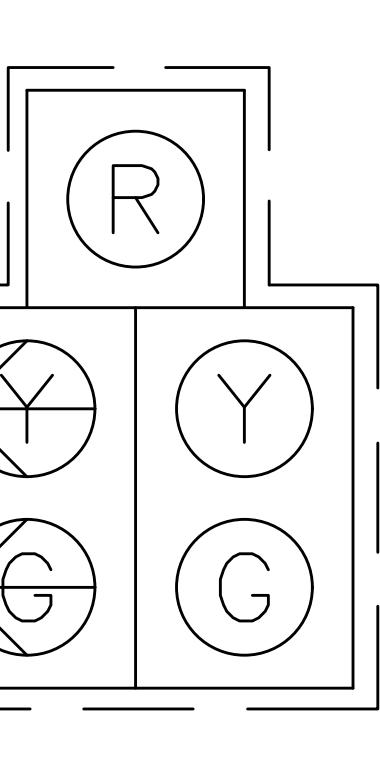
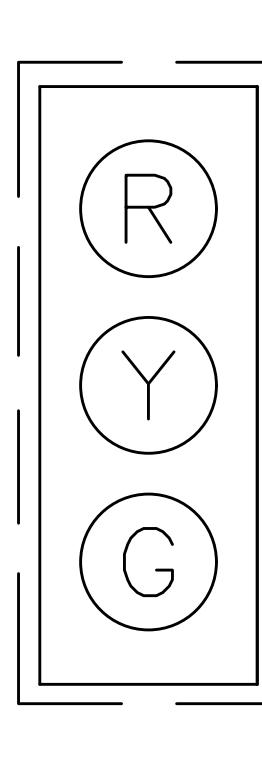
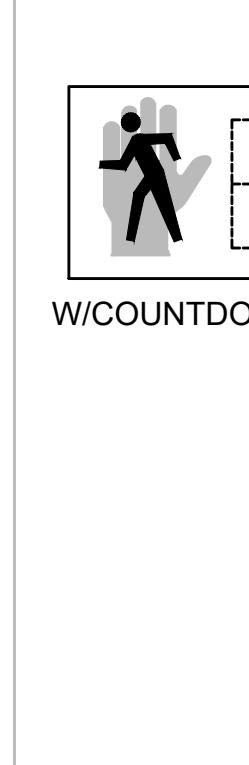
SEQUENCE AND TIMING FOR FULLY ACTUATED CONTROL (ISOLATED)

TIMING IN SECONDS										CONFLICT FLASH OPERATION ONLY		
MINIMUM GREEN (INITIAL)	6		10				6		10			
PASSAGE TIME (VEHICLE)	2		2				2		2			
MAXIMUM 1	10		30				30		15			
MAXIMUM 2	10		30				30		15			
YELLOW CLEARANCE		3		4			3		4			
RED CLEARANCE			1.5		1		4		1.5			
PEDESTRIAN WALK					7							
PEDESTRIAN CLEARANCE					8							
DETECTOR MEMORY	NON-LOCK		NON-LOCK		LOCK		NON-LOCK		NON-LOCK			
RECALL	OFF		MIN		OFF		OFF		MIN			

NOTES:

1. AUTOMATIC FLASHING OPERATION PER 2009 M.U.T.C.D., AS AMENDED.
2. * UPON PEDESTRIAN PUSH BUTTON ACTUATION
3. PERM = PERMISSIVE
4. MAXIMUM 1 = NORMAL OPERATION
5. MAXIMUM 2 = NOT USED
6. STOP AND GO OPERATION FOR 24 HOURS PER DAY. FLASHING OPERATION FOR EMERGENCY OR
7. DURING PEDESTRIAN INTERVAL, FDW THROUGH YELLOW OPERATION SHALL NOT BE IN EFFECT
8. PHASE 2 SHALL OMIT PHASE 1

SIGNAL HEAD DATA

C	A,B,D,E,F,G	P1-P4
		 W/COUNTDOWN TIME
ALL 12" LENS		

NOTES:

1. ALL SIGNAL HEADS SHALL BE RIGID MOUNTED.
2. ALL SIGNAL HEADS SHALL BE EQUIPPED WITH 5"± NON- LOUVERED BACKPLATES. ALL BACKPLATES SHALL CONTAIN A 3" WIDE YELLOW REFLECTIVE BORDER.
3. ALL SIGNAL HEADS SHALL BE EQUIPPED WITH TUNNEL VISORS.
4. ALL SIGNAL DISPLAYS SHALL BE EQUIPPED WITH L E D. MODULES

LIST OF MAJOR ITEMS REQUIRED

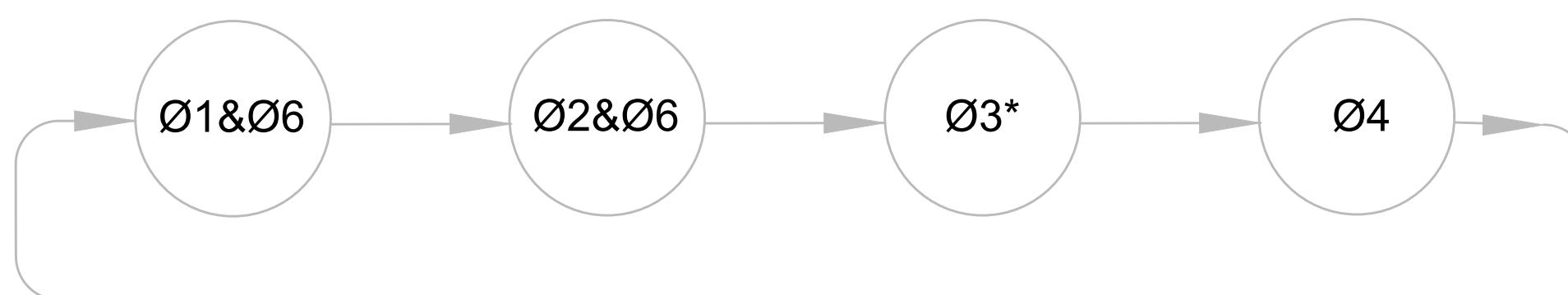
WINN STREET AT MOUNTAIN STREET

PAY ITEM	QUANTITY	DESCRIPTION
815.1	1	8Ø TS 2 TYPE 1 CONTROLLER IN A TYPE 6 BASE MOUNTED CABINET INCLUDING FOUNDATION
	1	FIELD MONITORING UNIT
	1	ATMS.NOW SYSTEM LICENSE
	1	TS 25' MAST ARM TYPE 2, STEEL, INCL. FOUNDATION
	1	MAST ARM FOUNDATION (FOR 20' MAST ARM FROM TOWN, SEE NOTE 1)
	2	TS POST 8' STANDARD INCL. FOUNDATION
	1	TS POST 10' STANDARD INCL. FOUNDATION
	6	SIGNAL HEAD, 3-SECTION, 12" LENSES
	1	SIGNAL HEAD, 5-SECTION, 12" LENSES
	4	PEDESTRIAN SIGNAL HEAD W/COUNTDOWN TIMER
	1	APS PEDESTRIAN PUSH BUTTON W/R10-3e(L) AND SIGN SADDLE
	3	APS PEDESTRIAN PUSH BUTTON W/R10-3e(R) AND SIGN SADDLE
	1	SINGLE POINT DETECTION SYSTEM (1 CAMERA W/ CABLES)
	3	EMERGENCY PRE-EMPTION OPTICAL DETECTORS & DETECTOR CABLE
	2	EMERGENCY PRE-EMPTION 2 CHANNEL PHASE SELECTOR
	1	EMERGENCY PRE-EMPTION SYSTEM CHASSIS
	1	EMERGENCY PRE-EMPTION STROBE (WHITE LENS)
	1	SERVICE CONNECTION (OVERHEAD)
	1	SINGLE POINT DETECTION SYSTEM (1 CAMERA W/ CABLES) (SPARE)
	1	8Ø TS 2 TYPE 1 CONTROLLER (SPARE)
804.3	225'±	3" CONDUIT, SCHEDULE 80, TYPE NM
814.3	5	EMUL. POLYURETHANE

811.31 5 PULL BOX-12"X12"
US NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND
EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING
TRAFFIC CONTROL SIGNAL

OTE:
THE TOWN WILL SUPPLY THE 20' MAST ARM FROM STORAGE. THE CONTRACTOR SHALL COORDINATE WITH THE TOWN AND MAKE ARRANGEMENTS TO PICK-UP AND TRANSPORT THE MAST ARM TO THE SITE. THE CONTRACTOR SHALL INSTALL THE MAST ARM ON A PROP FOUNDATION (WITH ANCHOR BOLTS).

PREFERENTIAL PHASE SEQUENCE



* UPRIGHT PEDESTRIAN PUSH BUTTON ACTUATION

PRE-EMPTION PHASING & PRIORITY

PRE-EMPTION PHASING & PRIORITY				
(D1) CE CES ART	DETECTOR & PRIORITY	PRE-EMPT PHASE ASSIGNMENT	MOVEMENT	VEHICLE PHASE ASSIGNMENT
	D1	1	→ ↘	Ø2
	D2	2	← ↗	Ø1 & Ø6
	D3	3	↑ ↗ ↘	Ø4

EMERGENCY VEHICLE PRE-EMPTION OPERATION

1. EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE OPTICALLY TRANSMITTED BY OPTICAL EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY OPTICAL DETECTORS LOCATED AT EACH INTERSECTION.
2. PRE-EMPTION SIGNALS SHALL BE SERVICED ON A PRIORITY BASIS WITH DETECTORS D1, D2, OR D3 ASSIGNED DESCENDING PRIORITIES AS FOLLOWS: (D1 HIGHEST AND D3 LOWEST)
3. IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY OPTICAL DETECTOR D1 (OR D2, D3) THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD IN EMERGENCY VEHICLE PRE-EMPTION PHASE #1 (OR #2, #3) GREEN FOR A MINIMUM OF TEN (10) SECONDS OR UNTIL PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCES FOR THE ASSOCIATED PHASE(S) AS SHOWN IN THE SEQUENCE AND TIMING CHART AND SERVICE SUBSEQUENT EMERGENCY VEHICLE PRE-EMPTION PHASES AS NECESSARY.
4. MINIMUM GREEN, NORMAL VEHICLE CLEARANCE, AND PEDESTRIAN CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.
5. PRE-EMPTION STROBE SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PRE-EMPTION GREEN IS ACTIVE

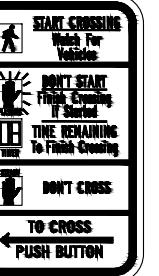
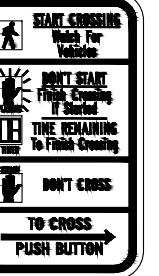
VIDEO DETECTION DATA

VIDEO DETECTION DATA				
DETECTION ZONE	APPROACH/LANE	CAMERA	DELAY /EXT	CALL PHASE
	WINN STREET EB	C1	0	Ø2
	WINN STREET WB FRONT ZONE	C1	0	Ø1
	WINN STREET WB BACK ZONE	C1	0	Ø6
	MOUNTAIN ROAD NB	C1	0	Ø4

NOTES:

1. DELAY AND EXTENSION TIMINGS SHALL BE PROGRAMMED IN THE CONTROLLER ONLY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING PROPOSED DETECTION ZONES AS SHOWN ON THE PLANS, AND ADJUSTING/RE-ADJUSTING DETECTION ZONES IN THE PRESENCE OF THE ENGINEER.

TRAFFIC SIGN SUMMARY

IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET	
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND	BORDER				
R10-3e(L)	9"	15"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			1	WHITE	WHITE/BLACK/ORANGE	BLACK	1 MTD ON TS POST	INCLUDED UNDER ITEM 815.1		
R10-3e(R)	9"	15"					3	WHITE	WHITE/BLACK/ORANGE	BLACK	3 MTD ON TS POST	INCLUDED UNDER ITEM 815.1		
R10-12	24"	30"					1	WHITE	BLACK/GREEN	BLACK	1 MTD ON MAST ARM	5.00	5.00	
MA-D3-1	VARIABLES	12"		6D/4.5D	3"	3"	N/A	1	GREEN	WHITE	1 MTD ON TS POLE	INCLUDED UNDER ITEM 874		
MA-D3-2	VARIABLES	12"		6D/4.5D	3"	3"	N/A	1	GREEN	WHITE	1 MTD ON TS POLE	INCLUDED UNDER ITEM 874		

N

NOTES:

1. RETROREFLECTIVE SHEETING CONFORMING TO SECTION M9.30.0 OF THE 2022 MASSDOT STANDARD SPECIFICATIONS SHALL BE USED FOR ALL SIGNS.
2. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" AND 2012 SUPPLEMENT; AND THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. CONTRACTOR SHALL COORDINATE WITH THE TOWN FOR APPROPRIATE TOWN SEAL. CONTRACTOR TO PROVIDE REQUIRED TOWN SEAL.

GENERAL NOTES

- ALL CONSTRUCTION SIGNING, TEMPORARY TRAFFIC CONTROL DEVICES, AND ROADSIDE ELEMENTS SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED, THE MASSDOT STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS, THE LATEST REVISIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, (AASHTO) ROADSIDE DESIGN GUIDE, AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, AND THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
- WORK HOURS SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS UNLESS APPROVED BY THE TOWN. NO WORK IMPACTING THE TRAVEL WAY WILL BE ALLOWED DURING PEAK TRAFFIC PERIODS. PEAK PERIODS ARE DEFINED AS MONDAY THRU FRIDAY, 6:00AM TO 9:00AM AND 3:00PM TO 6:00PM.
- ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) REQUIREMENTS AND PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).
- ALL DRUMS OUTSIDE TAPERS SHALL BE SET AT 20' ON CENTER MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
- ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN SAFE AND REASONABLE ABUTTER ACCESS. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
- REFLECTORIZED CONES SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.
- CONES MAY BE USED IN LIEU OF DRUMS OUTSIDE OF TAPER AREAS.
- THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 48 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OR RESTRICTION OF ACCESS.
- FOR DROP-OFFS 3" OR LESS WITHIN THE CLEAR ZONE, CONDITION MAY BE MITIGATED WITH W8-9 (LOW SHOULDER) SIGN OR TEMPORARY CHANNELIZATION DEVICES. FOR DROP-OFFS GREATER THAN 3" BUT NO MORE THAN 36", DETERMINE WHETHER IT IS MORE COST EFFECTIVE TO INSTALL BOTH W8-9 SIGN AND TEMPORARY CHANNELIZATION DEVICES IN ACCORDANCE WITH MASSDOT WORK ZONE SAFETY GUIDE OR W8-9 SIGN WITH A 2H:1V (MIN) WEDGE OR TO REMOVE THE HAZARD.
- CONSTRUCTION CLEAR ZONE SHALL BE IN ACCORDANCE WITH MASSDOT BOSTON TRAFFIC GUIDELINES AS FOLLOWS:
4' IF POSTED SPEED IS LESS THAN 35 MPH
- 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED UNLESS OTHERWISE NOTED.
- TEMPORARY TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS WHEN NOT IN USE.
- SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
- SIGNS MOUNTED ON POSTS REQUIRE A MINIMUM 84 INCH MOUNTING HEIGHT FROM THE ROADWAY OR SIDEWALK SURFACE TO THE BOTTOM OF THE SIGN. CONTRACTOR SHALL MAINTAIN A MINIMUM SIDEWALK HORIZONTAL CLEAR WIDTH OF 36" AT ALL TIMES.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN MASH CRASH TESTED SIGN SUPPORTS AND INSTALLED IN ACCORDANCE WITH THE MUTCD. SIGNS SHALL NOT BE MOUNTED TO OR LEANED AGAINST DRUMS OR CONES.
- CONTRACTOR SHALL SECURE WORK AREAS BY APPROPRIATE MEANS, TO PREVENT UNAUTHORIZED ACCESS AT ALL TIMES.
- THERE IS NO DESIGNATED BICYCLE LANE ON THE ROADWAY WITHIN THE PROJECT LIMITS. BICYCLES ARE EXPECTED TO SHARE THE ROAD WITH GENERAL VEHICULAR TRAFFIC.

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

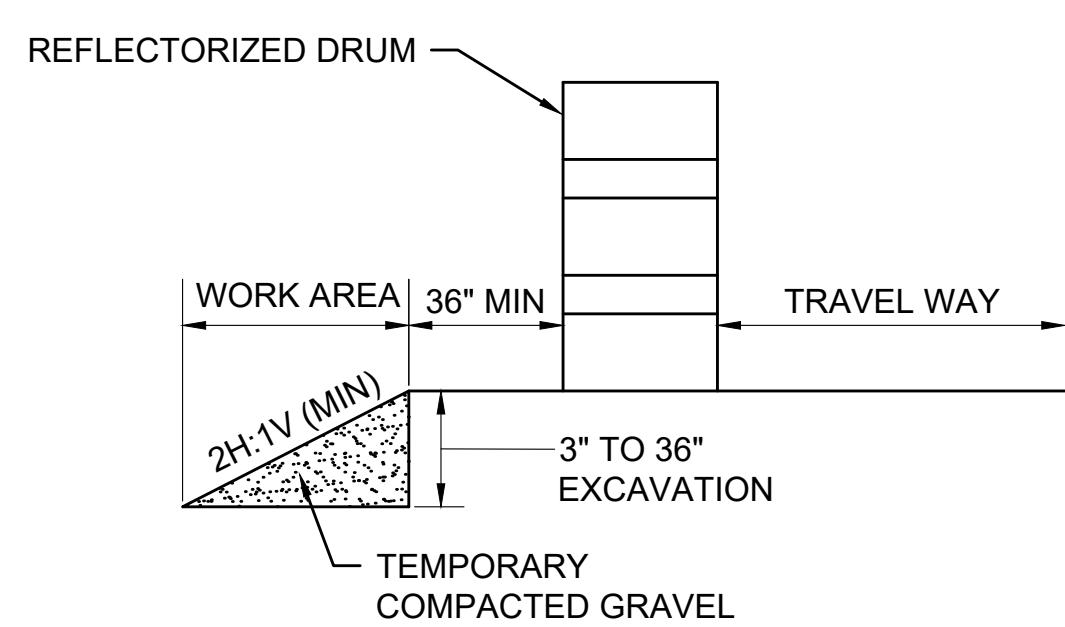
IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		UNIT AREA (S.F.)	
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND		
R9-9	24"	12"	SIDEWALK CLOSED	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK	2.00
R9-11L	24"	18"	SIDEWALK CLOSED AHEAD CROSS HERE				WHITE	BLACK	BLACK	3.00
R9-11R	24"	18"	SIDEWALK CLOSED AHEAD CROSS HERE				WHITE	BLACK	BLACK	3.00
W8-9	36"	36"	LOW SHOULDER				FLUORESCENT ORANGE	BLACK	BLACK	9.00
W20-1c	36"	36"	ROAD WORK AHEAD				FLUORESCENT ORANGE	BLACK	BLACK	9.00
W20-4c	36"	36"	ONE LANE ROAD AHEAD				FLUORESCENT ORANGE	BLACK	BLACK	9.00
MA-W20-7b	36"	36"	POLICE OFFICER AHEAD	AS PER MASSDOT STANDARD			FLUORESCENT ORANGE	BLACK	BLACK	9.00
M4-9bL	30"	24"	DETOUR	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUORESCENT ORANGE	BLACK	BLACK	5.00
M4-9bR	30"	24"	DETOUR				FLUORESCENT ORANGE	BLACK	BLACK	5.00
G20-2	36"	18"	END ROAD WORK				FLUORESCENT ORANGE	BLACK	BLACK	4.50

LEGEND

	POLICE OFFICER
	REFLECTORIZED DRUM
	TEMPORARY CONSTRUCTION SIGN
	TYPE III BARRICADE
	WORK AREA (PUBLIC ACCESS RESTRICTED)
	TRAFFIC FLOW
	PEDESTRIAN ROUTE
	TEMPORARY PEDESTRIAN BARRICADE
NTS	NOT TO SCALE

ADVANCE SIGN SPACING

ROADWAY	DISTANCE BETWEEN SIGNS (FEET)		
	A	B	C
ALL ROADWAYS	100	100	100

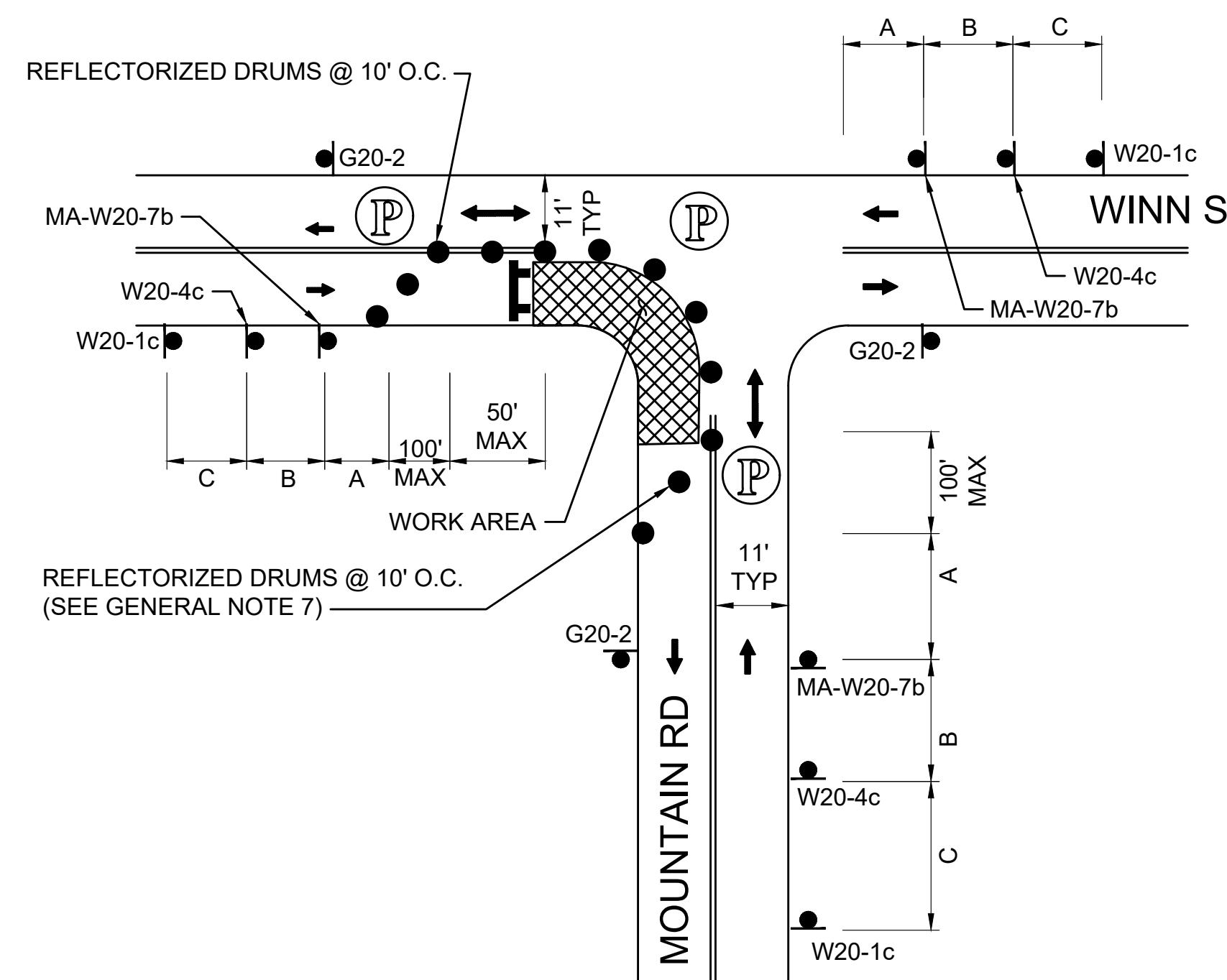


NOTE:

- CONTRACTOR SHALL INSTALL W8-9 SIGN ON ALL ROADWAYS 350 FT IN ADVANCE OF THE START OF DROP-OFF CONDITION.

TYPICAL ROADWAY DROP-OFF PROTECTION

SCALE: NTS

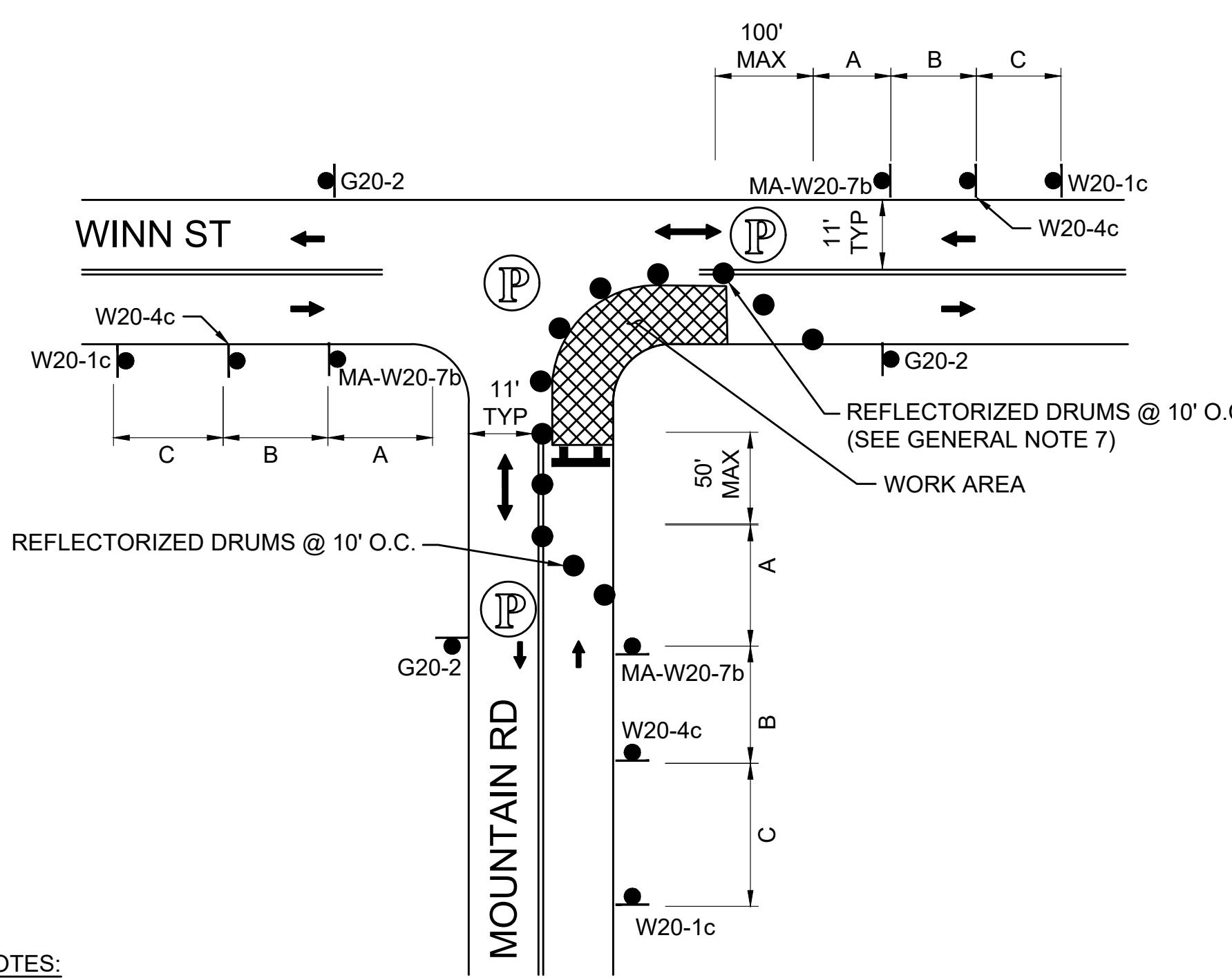


NOTES:

1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 10.
3. AT END OF WORK SHIFT, CONTRACTOR TO RESTORE TRAFFIC BACK TO ORIGINAL CONDITION.

ONE LANE BI-DIRECTIONAL TRAFFIC AT-INTERSECTIONS - NEAR SIDE

SCALE: NTS

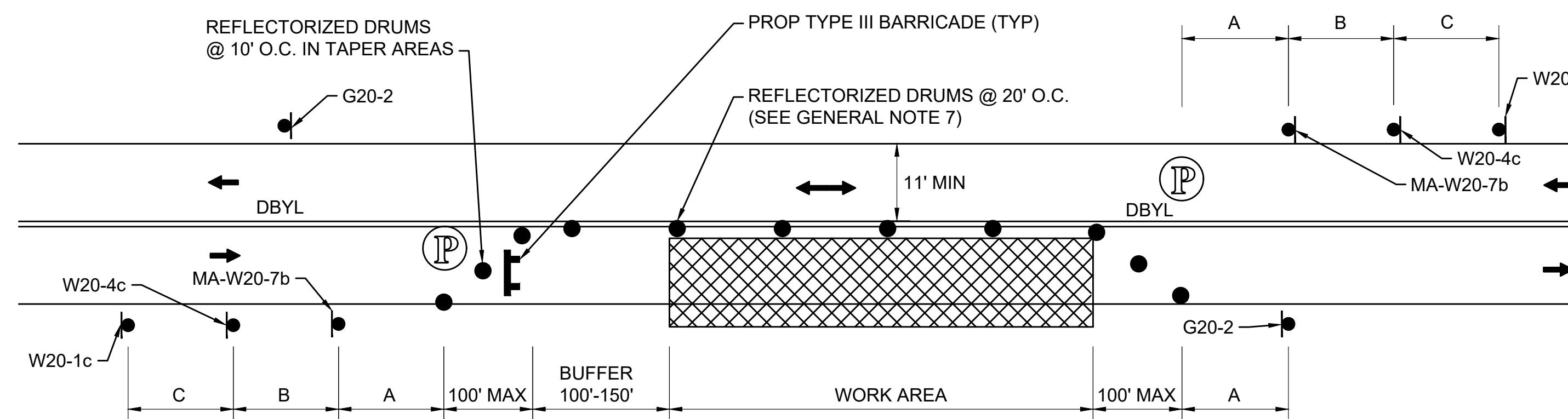


NOTES:

1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 10.
3. AT END OF WORK SHIFT, CONTRACTOR TO RESTORE TRAFFIC BACK TO ORIGINAL CONDITION.

ONE LANE BI-DIRECTIONAL TRAFFIC AT INTERSECTIONS - FAR SIDE

SCALE: NTS



NOTES:

1. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 10.
2. AT END OF WORK SHIFT, CONTRACTOR TO RESTORE TRAFFIC BACK TO ORIGINAL CONDITION.

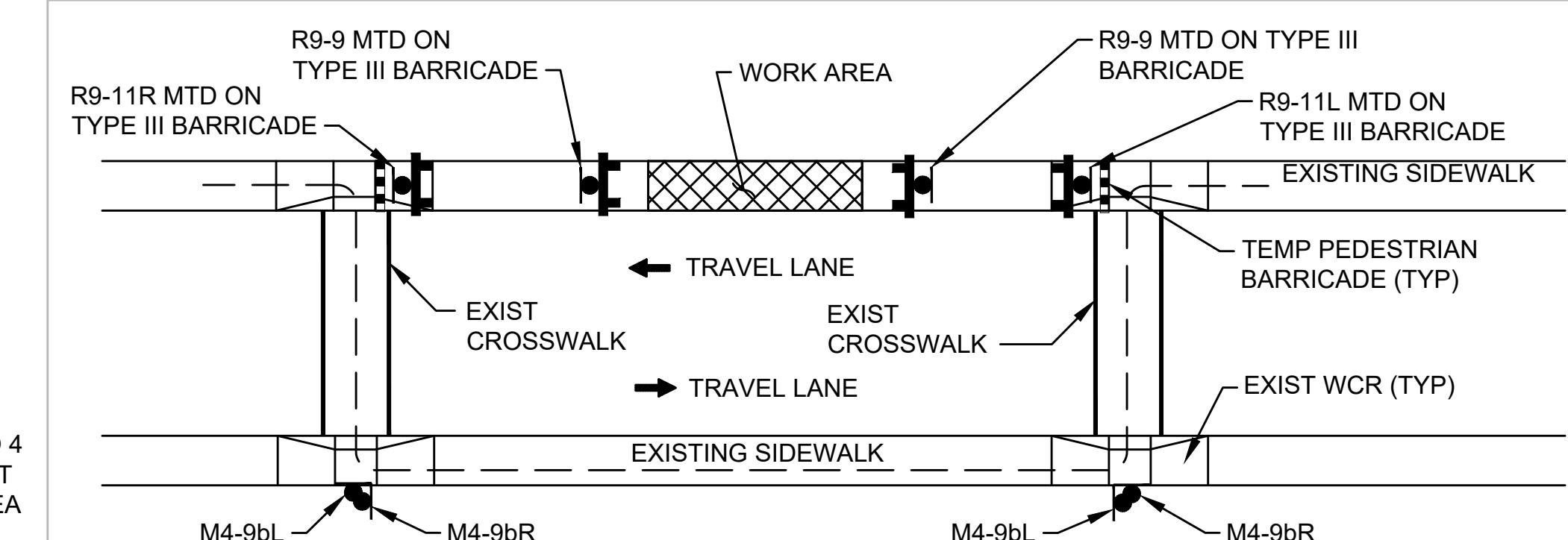
TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC

SCALE: NTS

NOTES:

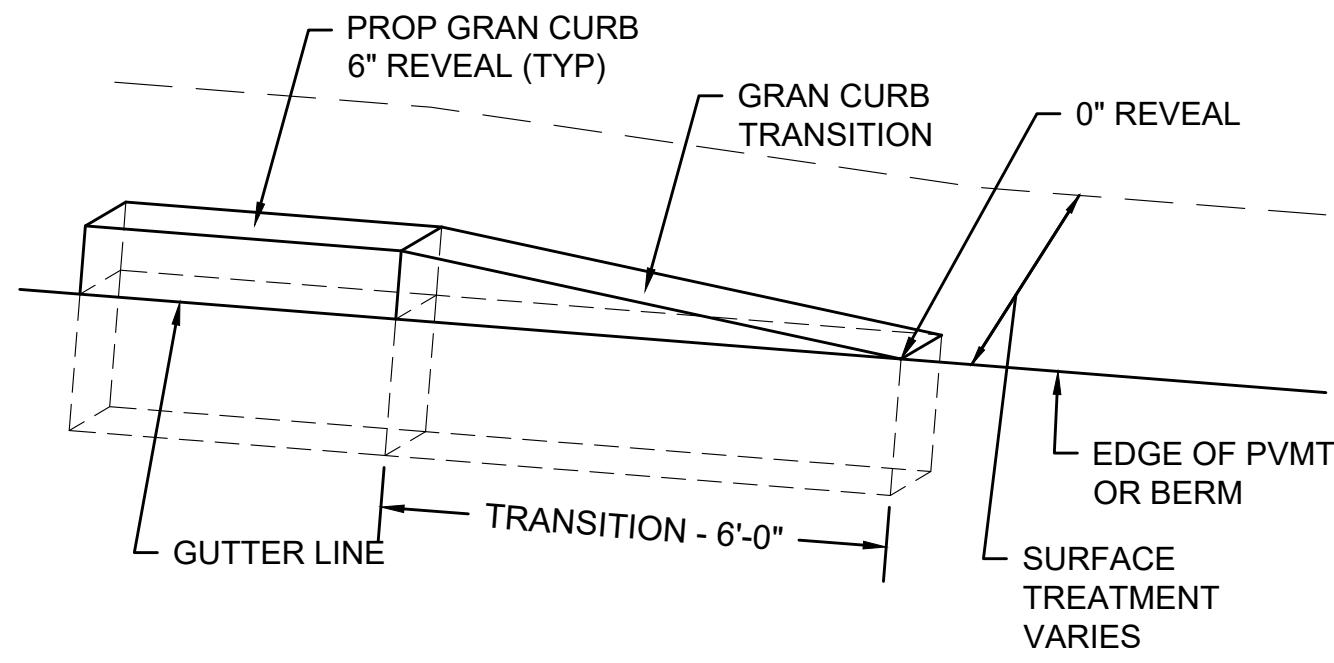
1. ADDITIONAL ADVANCE WARNING SIGNS MAY BE NECESSARY AS DETERMINED BY THE ENGINEER.
2. CONTROLS FOR PEDESTRIAN TRAFFIC ONLY, ARE SHOWN. VEHICULAR TRAFFIC SHALL BE MAINTAINED AS SHOWN ELSEWHERE.
3. STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
4. $\leftarrow \rightarrow$ INDICATES DIRECTION OF PEDESTRIAN TRAVEL.
5. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MAAB AND ADAAG REQUIREMENTS AND INCLUDE THE USE OF A COMPLIANT TEMPORARY PEDESTRIAN MANAGEMENT GUIDANCE SYSTEM AT ALL TIMES.
6. CONTRACTOR SHALL MAINTAIN AS WIDE OF A PEDESTRIAN ACCESS AS POSSIBLE AT ALL TIMES. EXCEPT WHERE NECESSARY, THE CONTRACTOR MAY TEMPORARILY REDUCE PEDESTRIAN PATHWAYS TO 4 FEET IN WIDTH (EXCLUDING CURB) FOR NO MORE THAN 200 LINEAR FEET AT A TIME IN ACCORDANCE WITH ALL STANDARDS. A 5' x 5' PASSING AREA SHALL BE PROVIDED IN INTERVALS NOT EXCEEDING 200 FEET.

PEDESTRIAN BYPASS



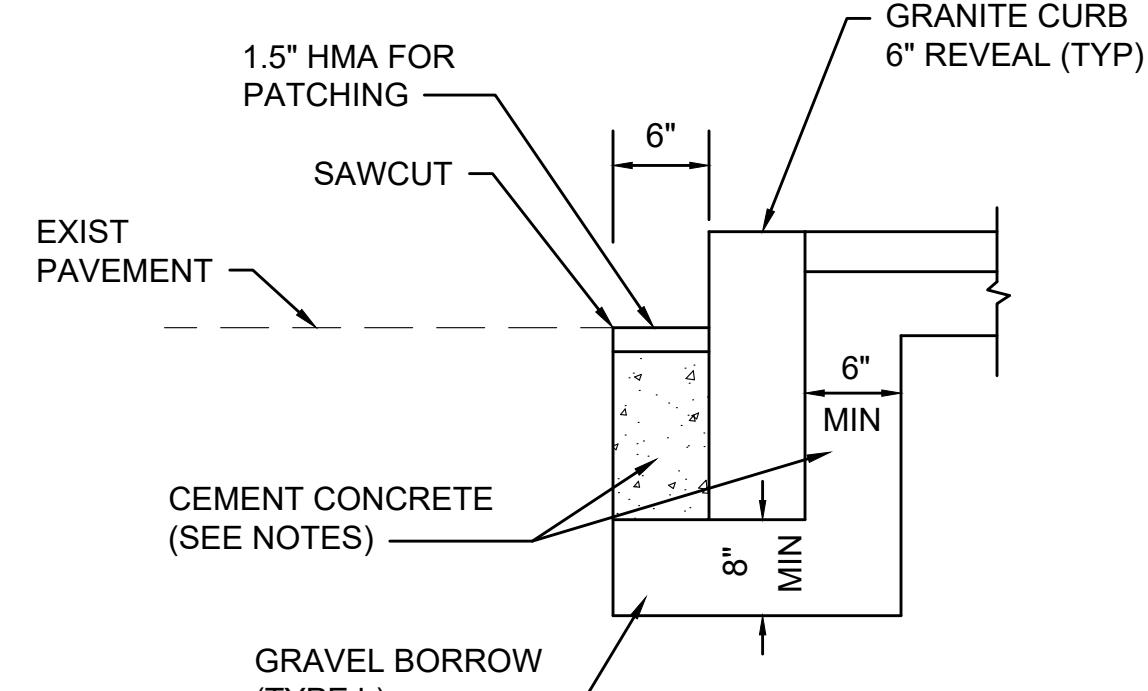
PEDESTRIAN BYPASS DETAIL

SCALE: NTS



GRANITE CURB TRANSITION PIECE

SCALE: N.T.S.

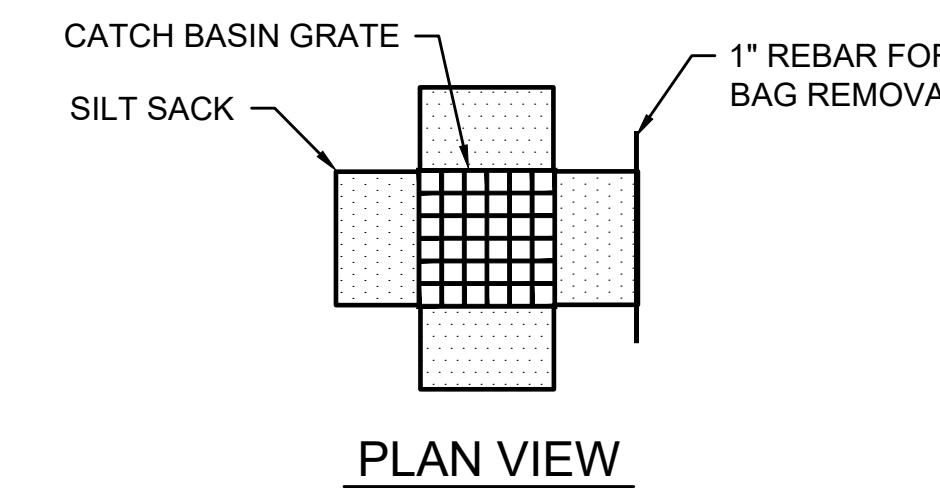


NOTES:

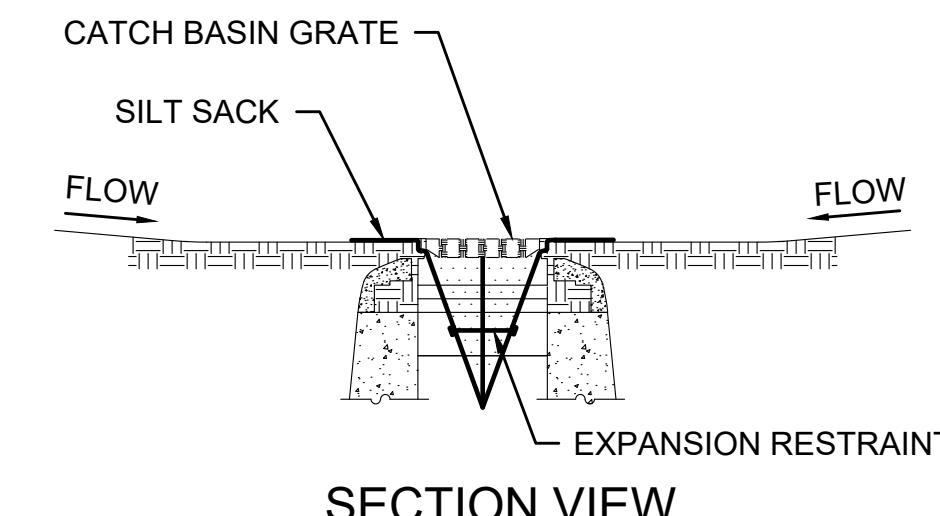
1. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER SECTION M4 OF THE STANDARD SPECIFICATIONS MAY BE USED. ALL TEST REQUIREMENTS ARE WAIVED. HOT MIX ASPHALT SHALL NOT BE USED AS A SUBSTITUTE.
2. CEMENT CONCRETE SHALL BE PLACED BEHIND THE CURB (APPROX. 6"X12") WHERE MULCHED OR LANDSCAPED AREAS ARE SHOWN PER PLAN.

GRANITE CURB IN EXISTING PAVEMENT

SCALE: N.T.S.



PLAN VIEW



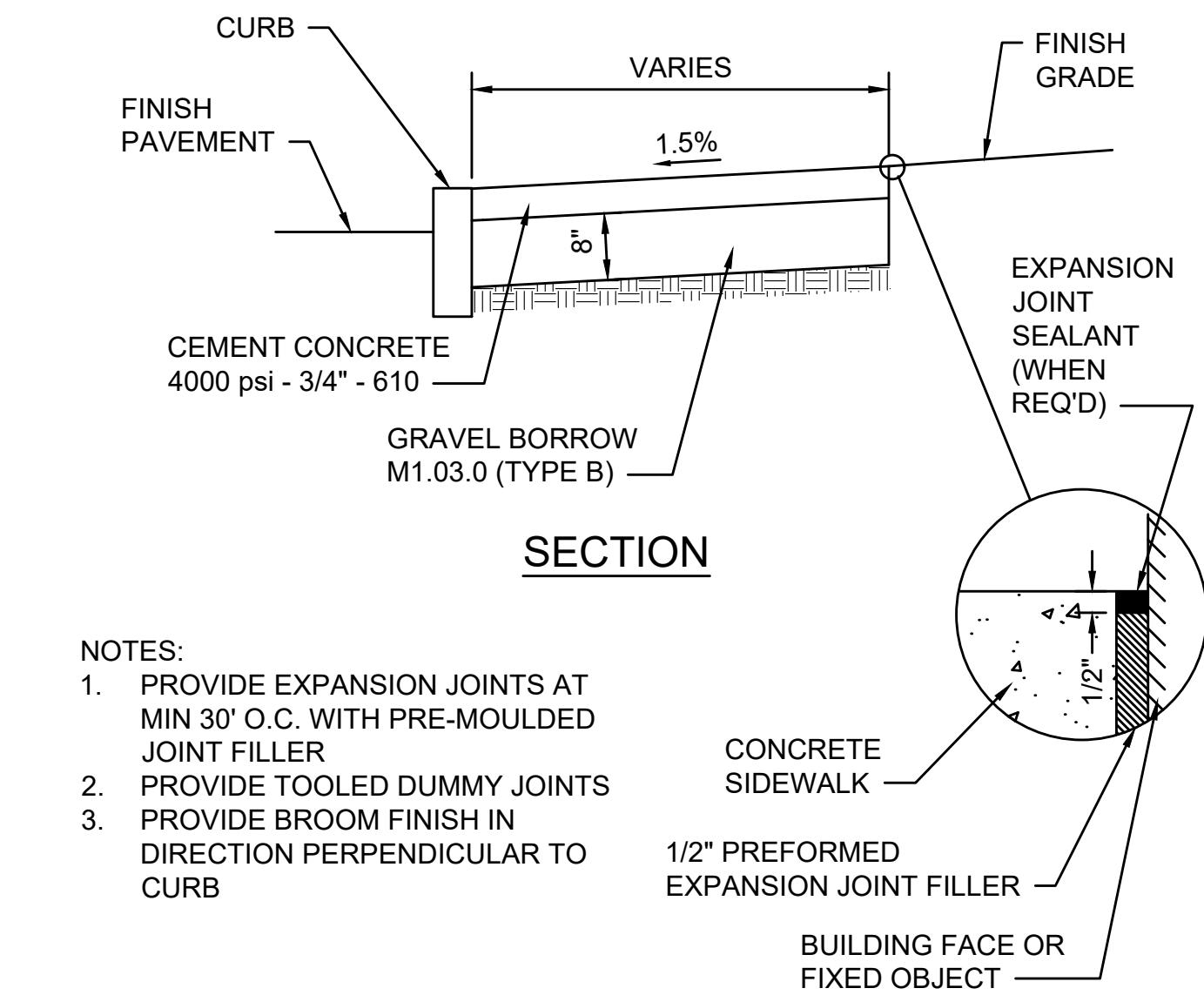
SECTION VIEW

NOTES:

1. INSTALL SILT SACK IN EXISTING CATCH BASINS, BEFORE COMMENCING WORK. MAINTAIN UNTIL PROJECT IS COMPLETE.
2. GRATE TO BE PLACED OVER SILT SACK.
3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED

**INLET PROTECTION - SILT SACK
IN CATCH BASIN**

SCALE: N.T.S.

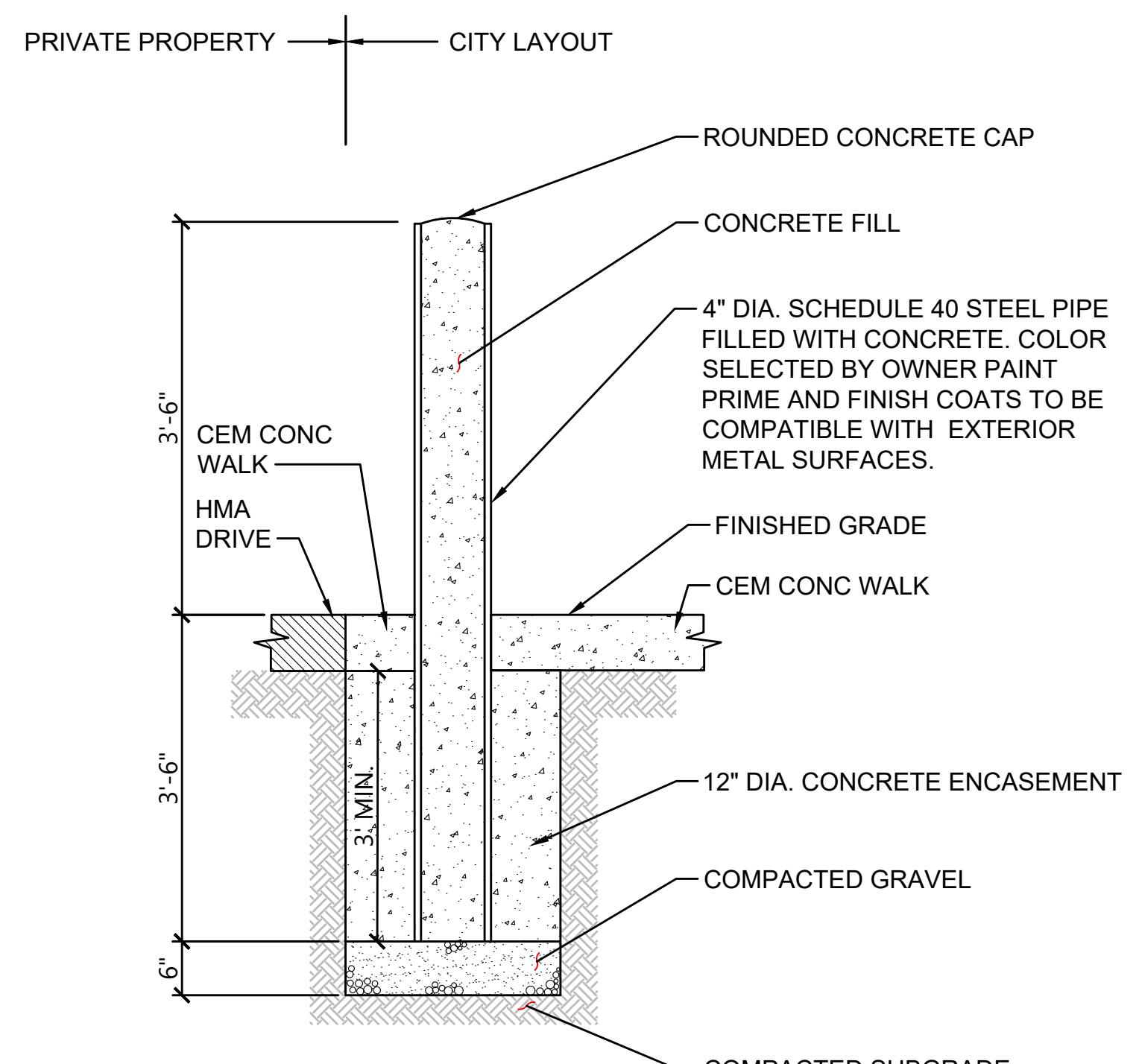


CEMENT CONCRETE SIDEWALK

SCALE: N.T.S.

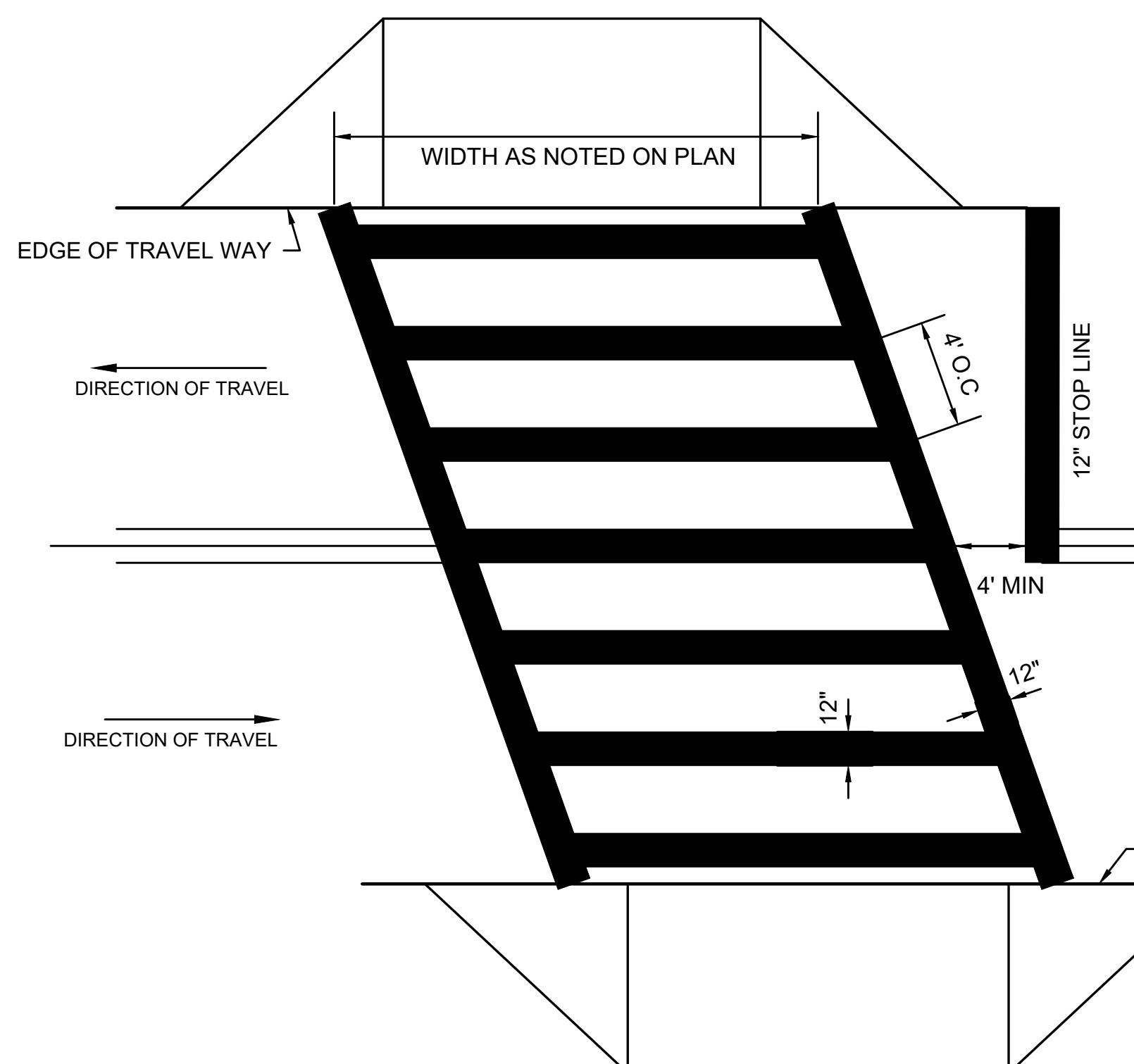
DWG: WALK-01

DATE: MARCH 2013



STEEL BOLLARD

SCALE: N.T.S.



CONTINENTAL-STYLE CROSSWALK - 12" WIDE LINES

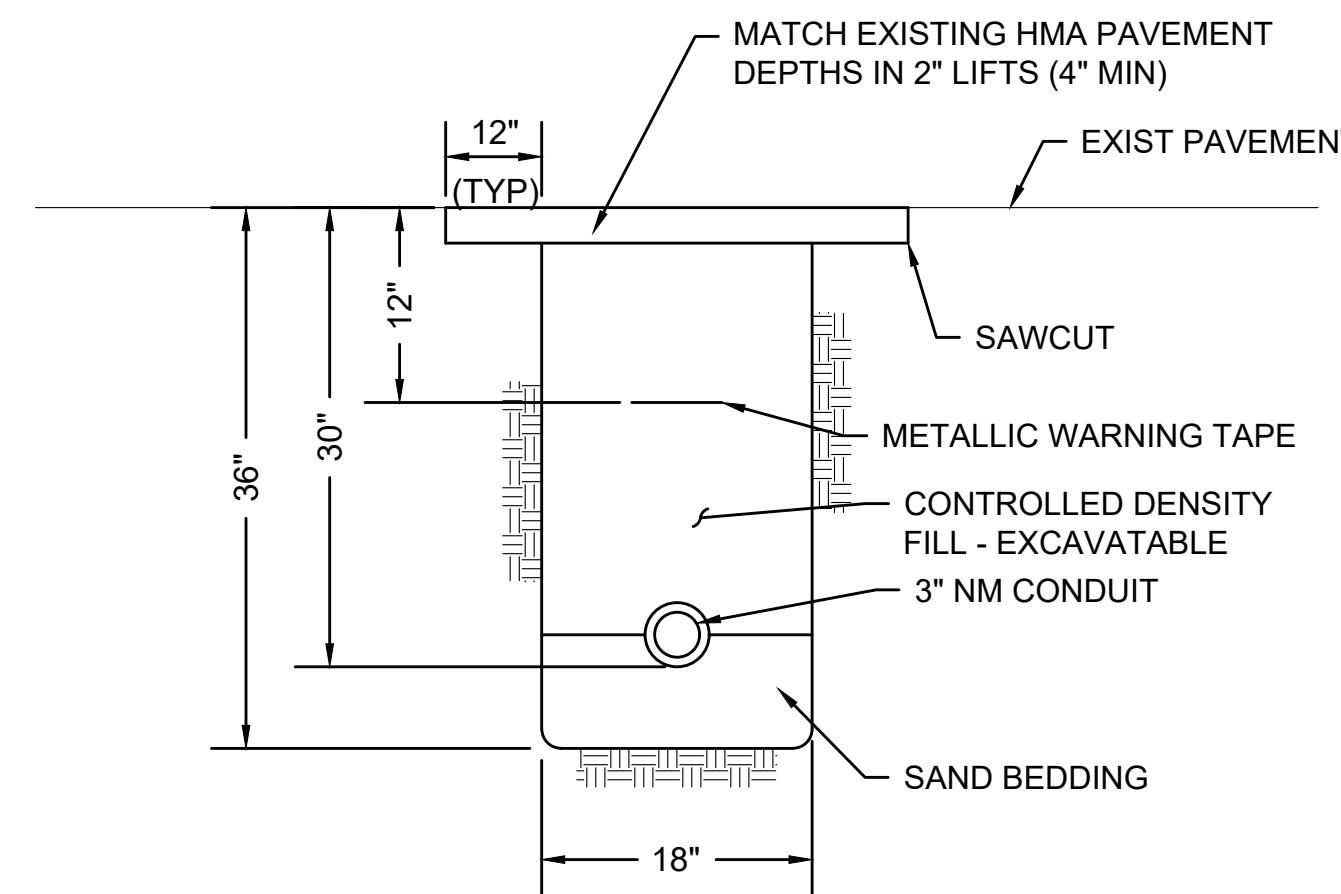
SCALE: N.T.S.

DWG: PM-27

DATE: NOVEMBER 2022

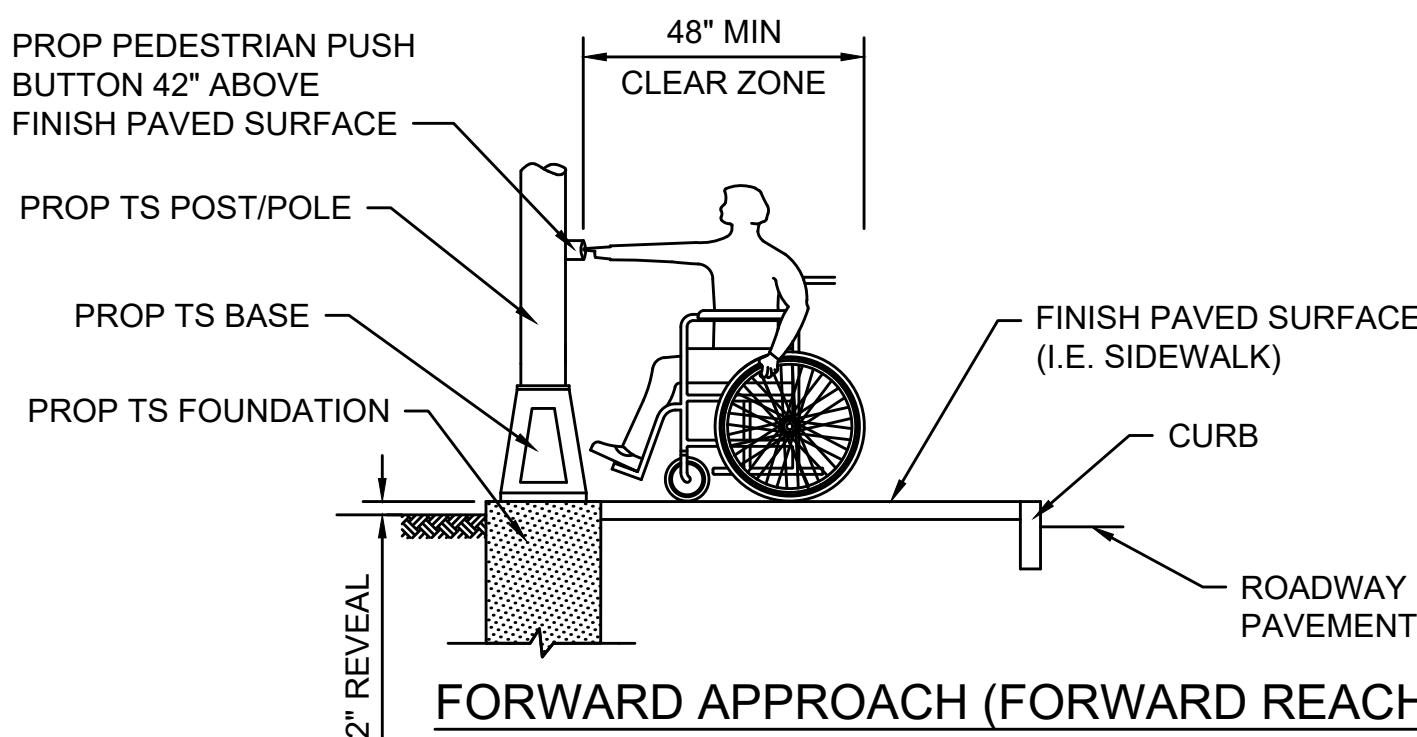
NOTES:

1. ALL EXISTING CROSSWALK MARKINGS SHALL BE FULLY ERADICATED BY APPROVED METHOD PRIOR TO THE APPLICATION OF PROPOSED MARKINGS.
2. ALL 12" LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (e.g., TWO - 6" LINES) WILL BE ACCEPTED.
3. LAYOUT OF CROSSWALKS SHALL BE ORIENTATED IN THE DIRECTION OF TRAVEL AND LOCATED OUTSIDE OF THE WHEEL PATH OF VEHICLES. LAYOUT SHALL BE APPROVED BY THE TOWN PRIOR TO APPLICATION OF THERMOPLASTIC.
4. ALL CROSSWALKS INSTALLED SHALL CONFORM TO THE RELEVANT PROVISIONS OF THE MASSACHUSETTS HIGHWAY DEPARTMENT "STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGES" DATED 2024, SECTION 860 FOR REFLECTORIZED LINE (PAINT) & MATERIAL M7.01.23, LATEST REVISIONS.

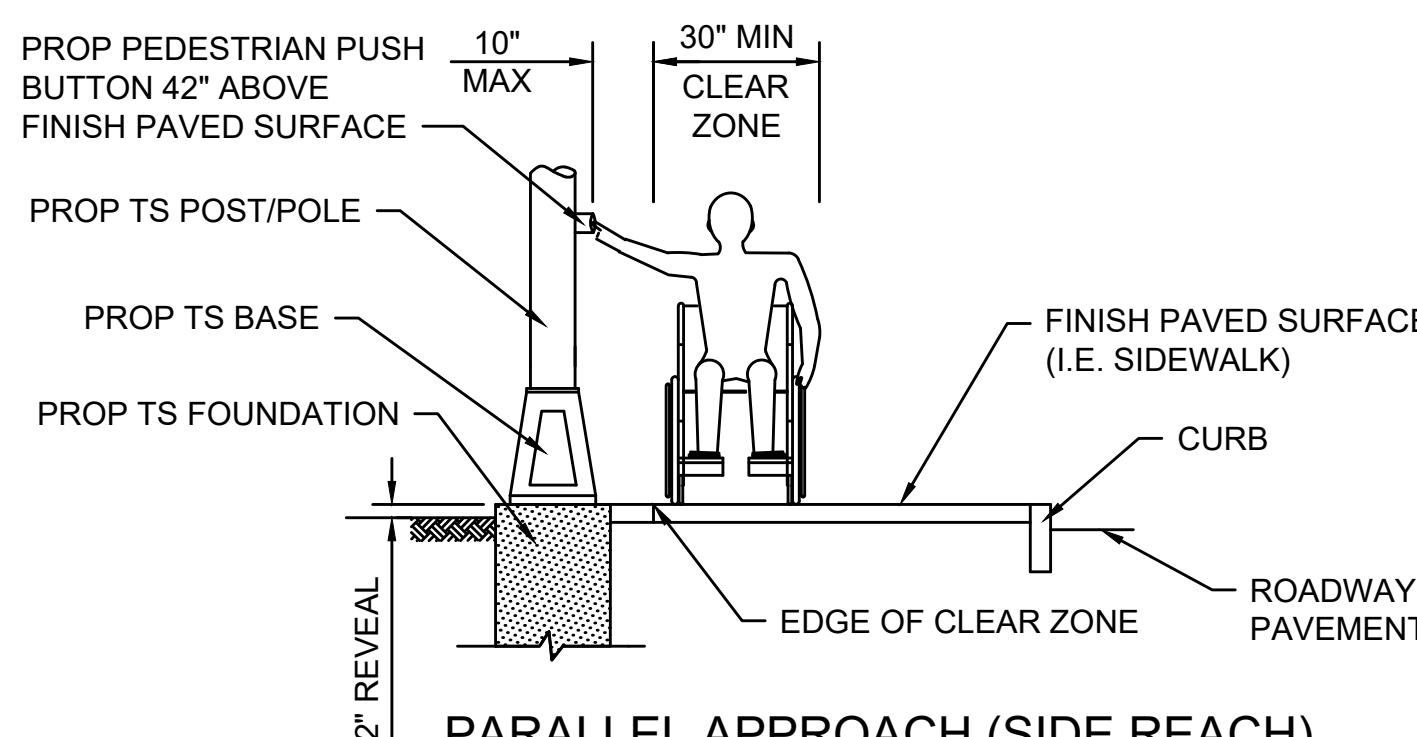


CONDUIT CROSSING ROADWAY

SCALE: N.T.S.



NOTE:
A CLEAR GROUND SPACE SHALL CONSIST OF A STABLE AND FIRM AREA COMPLYING WITH 521 CMR 6.5 (FORWARD REACH) OR 521 CMR 6.6 (SIDE REACH) AND SHALL BE PROVIDED AT EACH OF THE PEDESTRIAN PUSH BUTTONS.
a) WHERE A FORWARD APPROACH IS PROVIDED, PEDESTRIAN PUSH BUTTONS SHALL ABUT AND BE CENTERED ON THE CLEAR GROUND SPACE.
b) WHERE A PARALLEL APPROACH IS PROVIDED, PEDESTRIAN PUSH BUTTONS SHALL BE WITHIN TEN INCHES (10") HORIZONTALLY OF AND CENTERED ON THE CLEAR GROUND SPACE.

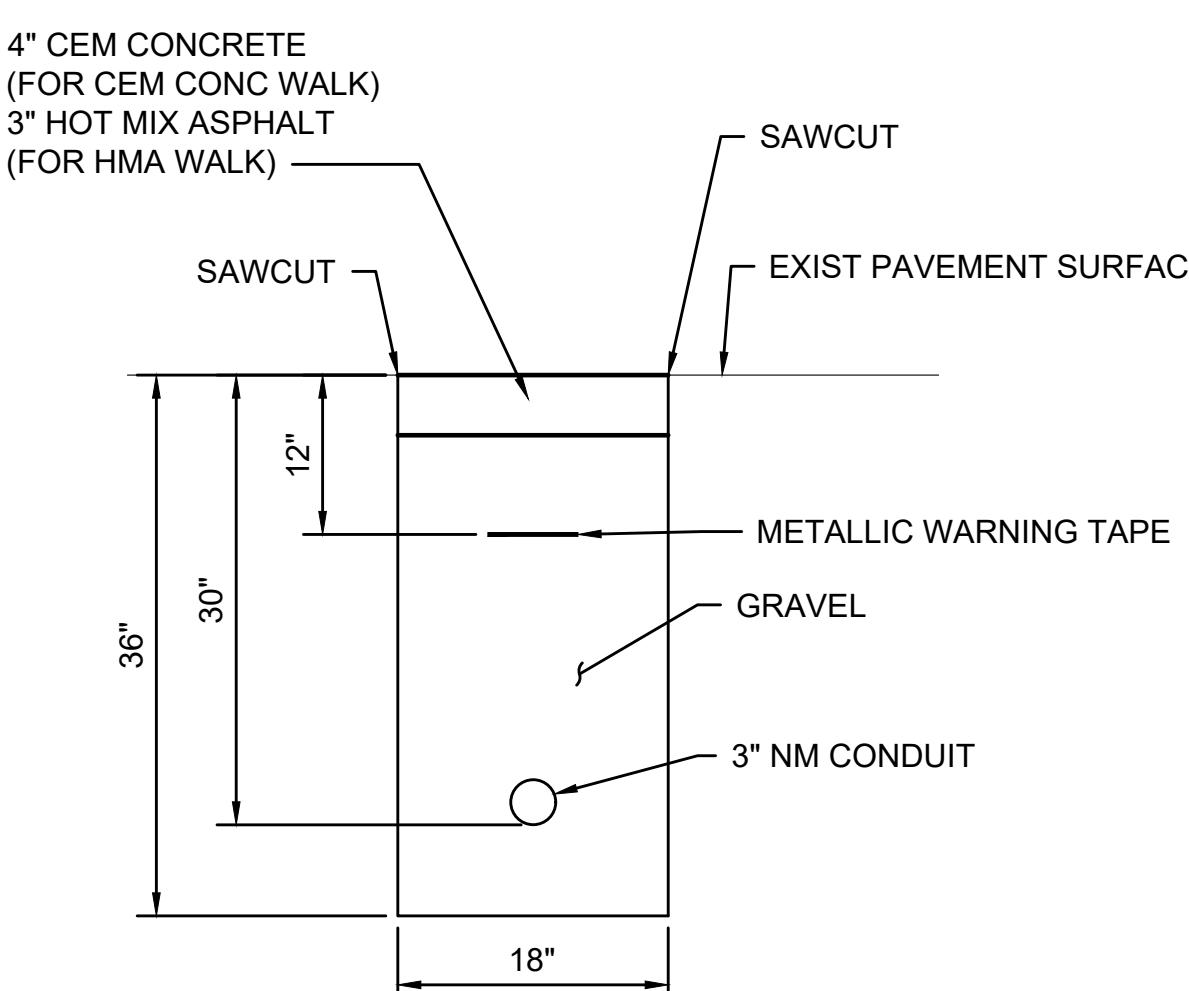


PEDESTRIAN PUSH BUTTON CLEAR ZONE

SCALE: N.T.S.

DWG: PM-10

DATE: APRIL 2013

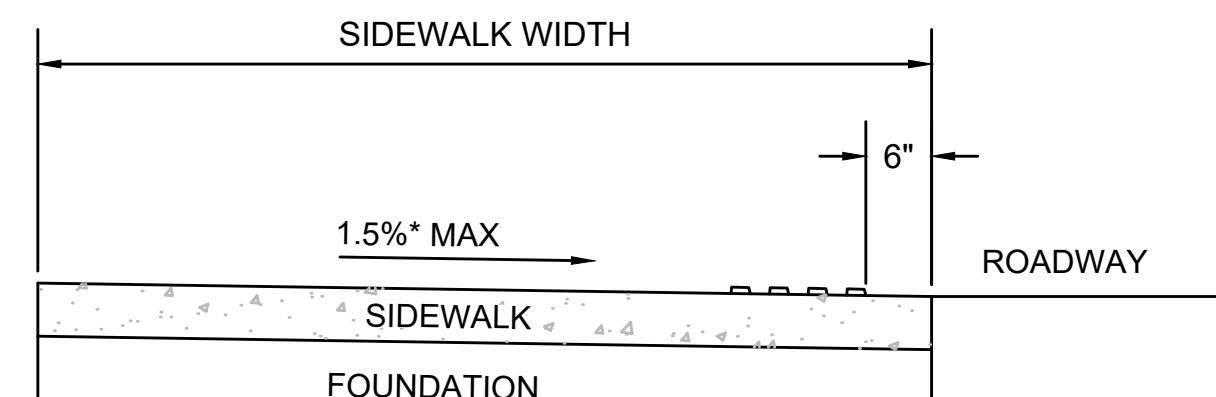


CONDUIT IN SIDEWALK

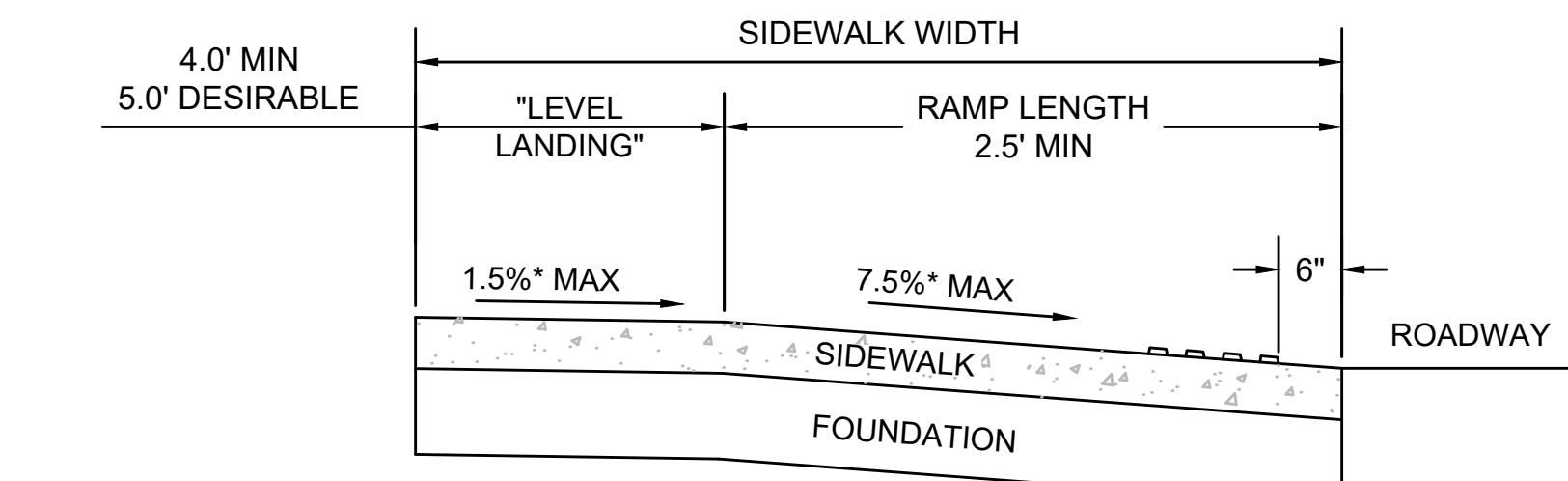
SCALE: N.T.S.

PEDESTRIAN CURB RAMP - LESS THAN 6.50' WIDTH DATA								
PCR NO.	LOCATION (REFERENCE POINT)	RAMP WIDTH	SIDEWALK WIDTH	LEFT SIDE		RIGHT SIDE		NOTES
				REVEAL	TRANS LENGTH	REVEAL	TRANS LENGTH	
2	WINN STREET 12+40.81, 19.81 RT	5'-0"	6'-0"	4"	6'-6"	4"	5'-5"	LT/RT TRANS CURVED
3	MOUNTAIN ROAD 1+85.60, 18.92 RT	5'-0"	6'-0"	4"	5'-5"	4"	6'-6"	LT/RT TRANS CURVED

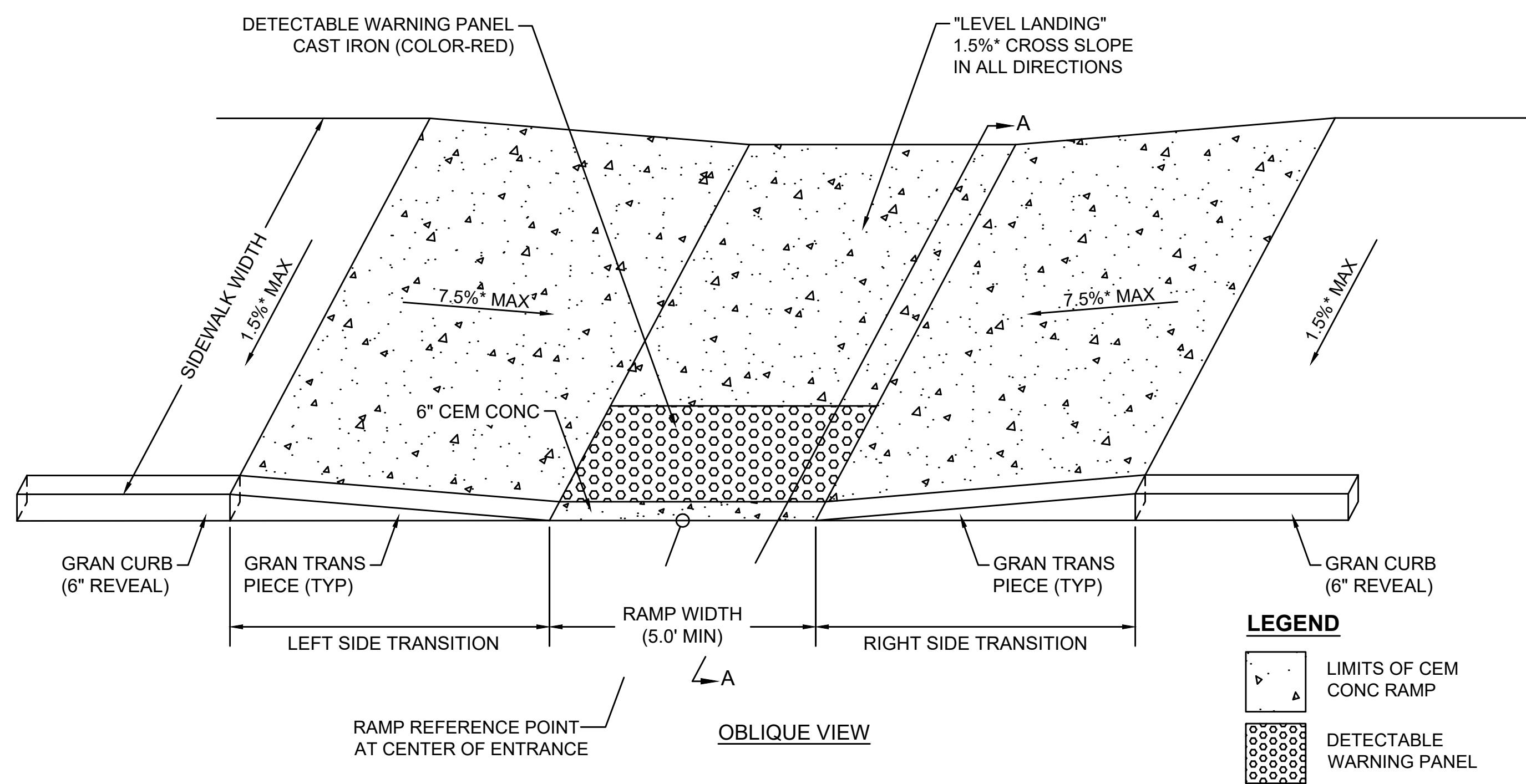
PEDESTRIAN CURB RAMP - 6.50' TO 12.50' WIDTH DATA									
PCR NO.	LOCATION (REFERENCE POINT)	RAMP WIDTH	RAMP LENGTH	SIDEWALK WIDTH	LEFT SIDE		RIGHT SIDE		NOTES
					REVEAL	TRANS LENGTH	REVEAL	TRANS LENGTH	
1	WINN STREET 12+24.62, 17.00 LT	5'-0"	2'-6"	9'-0"	6"	9'-0"	4"	6'-6"	



SECTION A-A



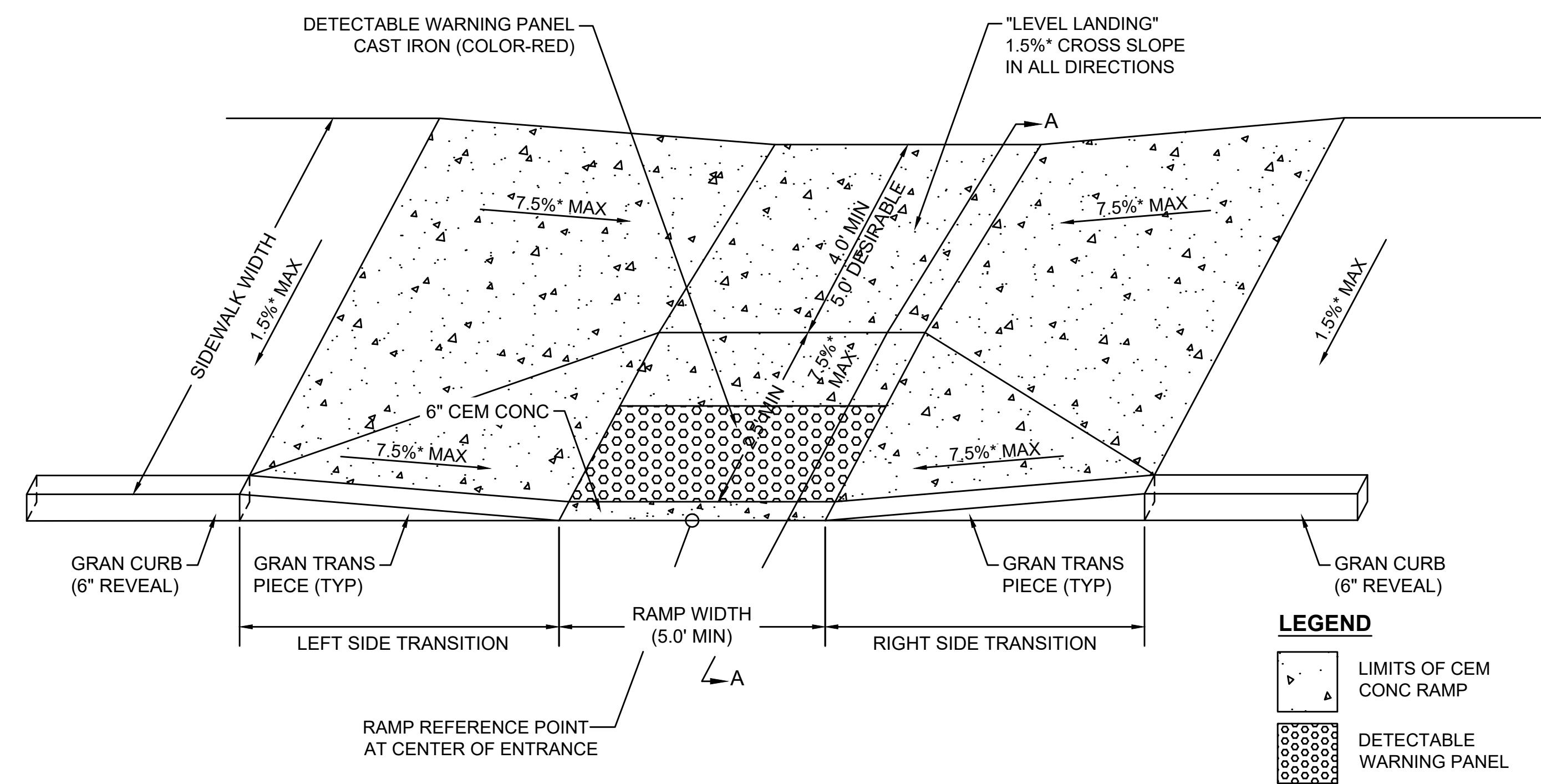
SECTION A-A



*TOLERANCE FOR CONSTRUCTION ±0.5%

PEDESTRIAN CURB RAMP IN SIDEWALK LESS THAN 6.50'

SCALE: NTS MassDOT STANDARD DETAIL REFERENCE: E 107.2.1



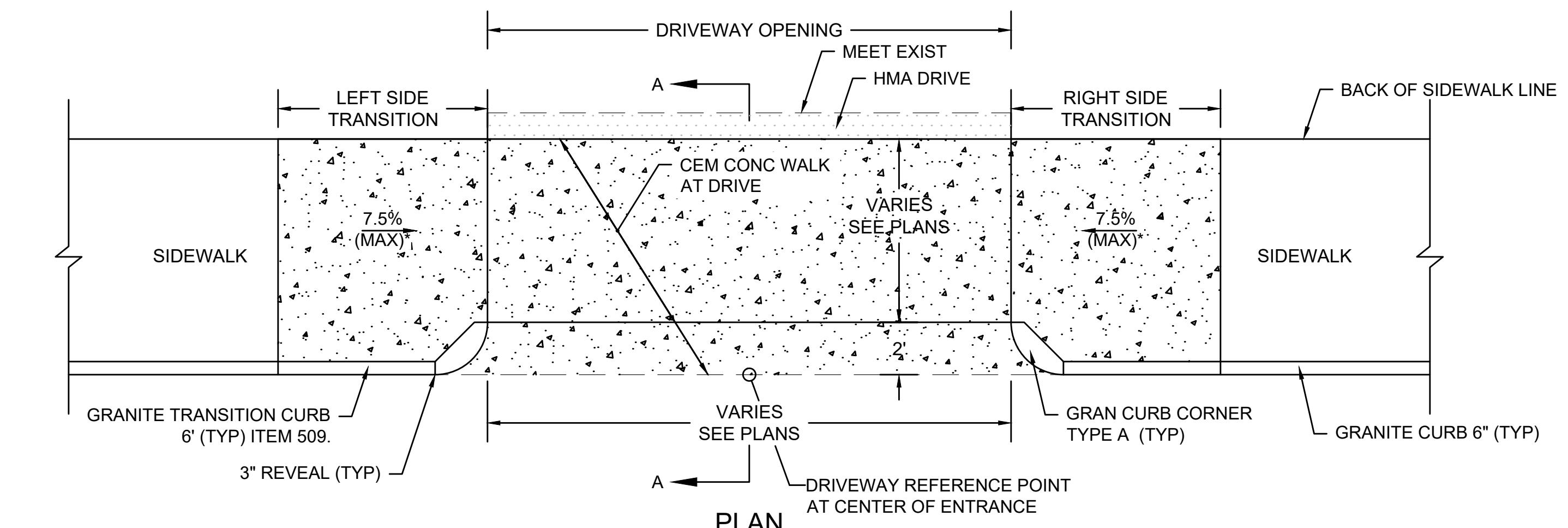
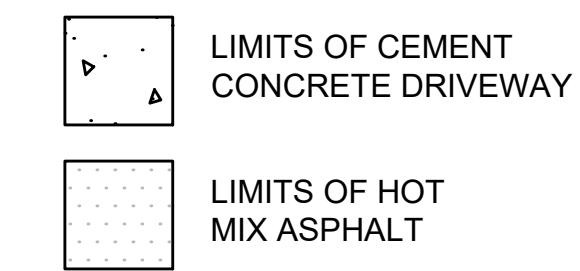
*TOLERANCE FOR CONSTRUCTION ±0.5%

PEDESTRIAN CURB RAMP - 6.50' TO 12.50' WIDTH

SCALE: NTS MassDOT STANDARD DETAIL REFERENCE: E 107.2.1

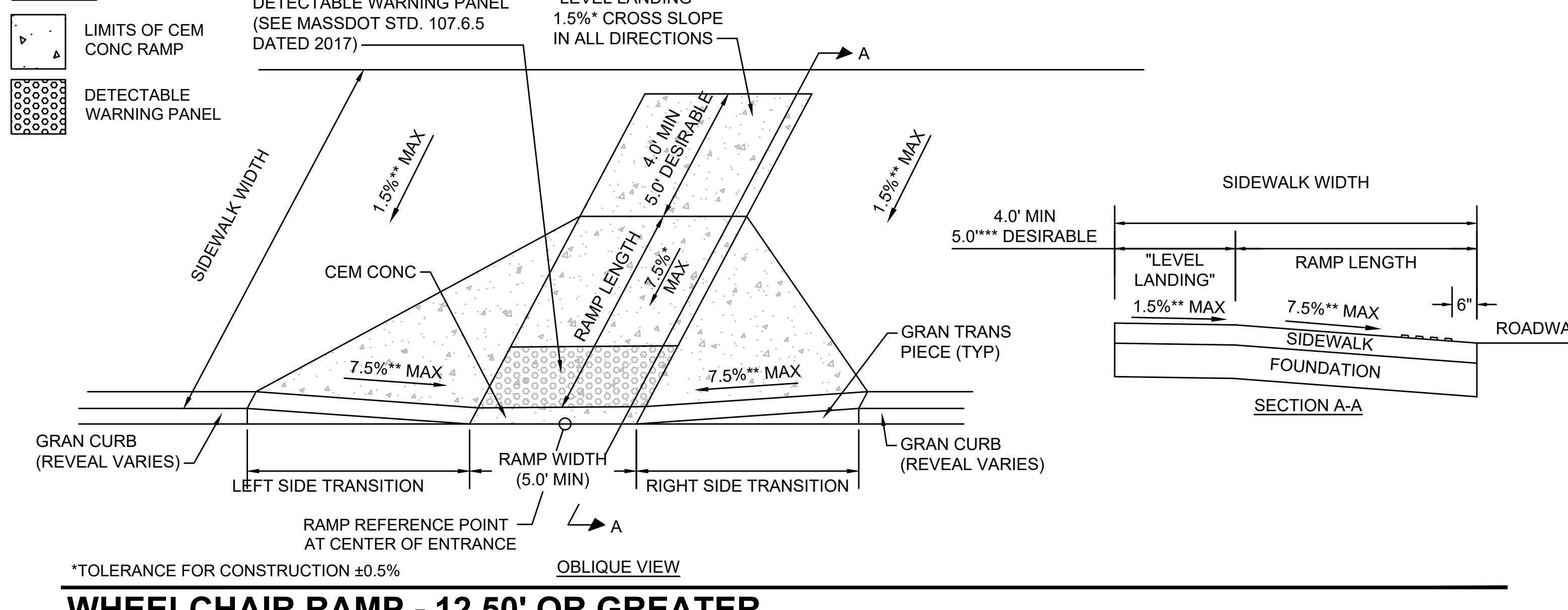
CEMENT CONCRETE DRIVEWAY DATA									
DWY NO.	LOCATION (REFERENCE POINT)	DWY OPENING	DWY RAMP LENGTH	DWY WALK WIDTH	LEFT SIDE		RIGHT SIDE		NOTES
					REVEAL	TRANS LENGTH	REVEAL	TRANS LENGTH	
1	WINN STREET 11+46.57, 17.80' LT	30'-2"	2'-0"	LT - 5'-8" RT - 7'-0"	-	-	6"	6'-6"	
2	WINN STREET 11+51.07, 17.14' RT	17'-6"	2'-0"	LT - 8'-4" RT - 5'-6"	4"	8'-3"	-	-	
3	WINN STREET 12+54.01, 17.99' LT	25'-4"	2'-0"	LT - 7'-0" RT - 5'-3"	4"	7'-2"	-	-	
4	WINN STREET 12+92.84, 16.92' RT	-	2'-0"	LT - --- RT - 3'-6"	-	-	4"	8'-0"	MATCH EXIST DWY EXCLUDE RT TRANS CURB R&R CI
5	MOUNTAIN ROAD 1+35.40, 11.50' RT	42'-10"	2'-0"	LT - 5'-8" RT - 7'-0"	4"	6'-6"	6"	6'-6"	LT TRANS CURVED

LEGEND



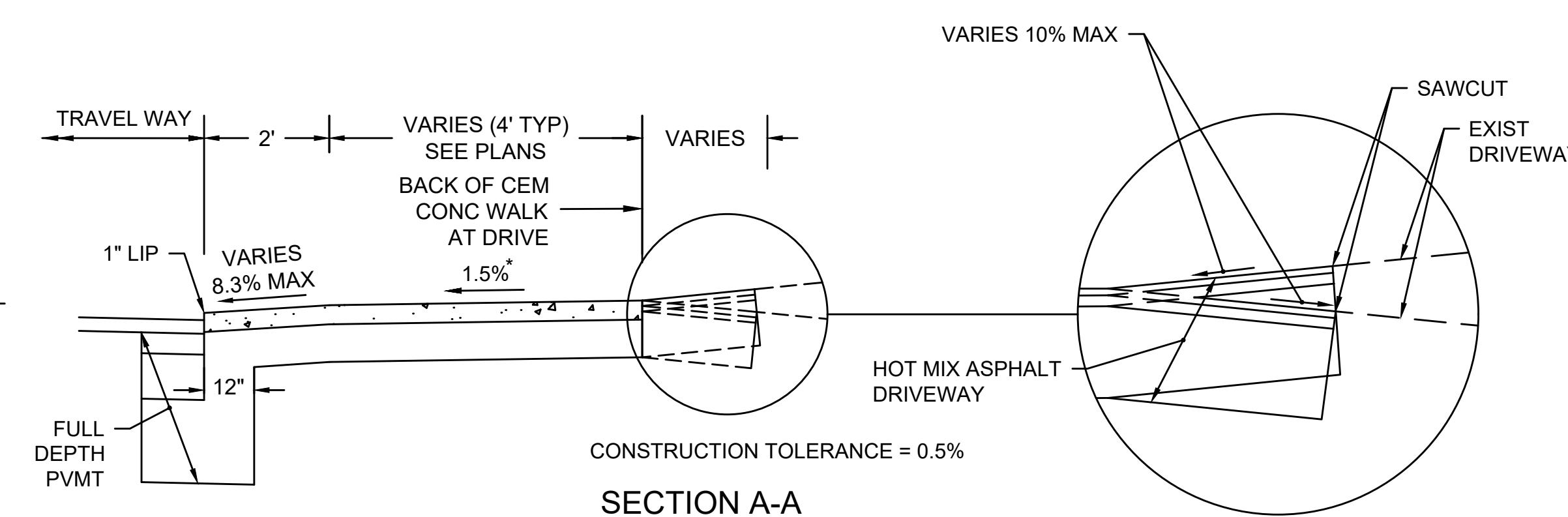
PEDESTRIAN CURB RAMP - 12.50' OR GREATER WIDTH DATA									
PCR NO.	LOCATION (REFERENCE POINT)	RAMP WIDTH	RAMP LENGTH	SIDEWALK WIDTH	LEFT SIDE		RIGHT SIDE		NOTES
					REVEAL	TRANS LENGTH	REVEAL	TRANS LENGTH	
4	MOUNTAIN ROAD 1+92.79, 14.09 LT	5'-0"	8'-6"	12'-6"	6"	6'-6"	4"	9'-0"	RT TRANS CURVED

LEGEND



WHEELCHAIR RAMP - 12.50' OR GREATER

SCALE: N.T.S.



* CONSTRUCTION TOLERANCE = 0.5%

CEMENT CONCRETE SIDEWALK AT DRIVEWAY WITH GRANITE CURB CORNER

SCALE: N.T.S.