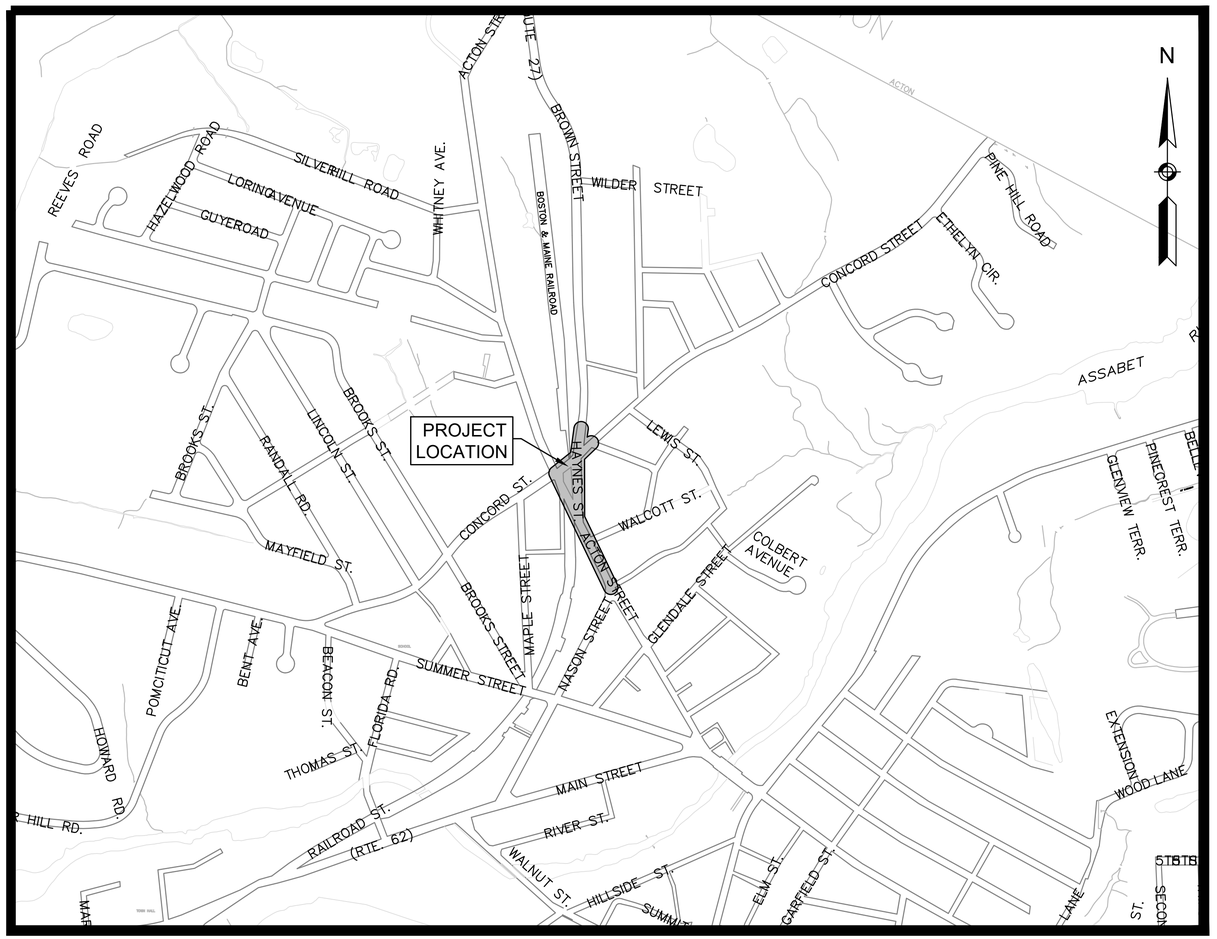
MAYNARD
CONCORD ST AT ROUTE 27
TITLE SHEET & INDEX
SHEET 01 OF 21

EXHIBIT 7

CONCORD STREET AT ROUTE 27
TRAFFIC SIGNAL INTERSECTION IMPROVEMENTS

MAYNARD, MASSACHUSETTS

INDEX



0 400 800 1200 1600

SCALE: 1" = 400'

Digitally Signed by
Wayne P. Amico, PE
February 12, 2024

4/18/2024	PCR/CURB REVISIONS. PAGES 1,4,5,7,19, & 20	2
3/12/2024	BIDDING QUESTIONS. PAGES 1,5,9,12, & 16	1
	DESCRIPTION	REV #

COMMONWEALTH OF MASSACHUSETTS
WAYNE PHILLIP AMICO
CIVIL
No. 38724
REGISTERED PROFESSIONAL ENGINEER

ENGINEER DATE

Vanasse Hangen Brustlin, Inc.
101 Walnut St., PO Box 9151
Watertown, MA 02472
617.924.1770 FAX 617.924.2286

DESIGNED BY GPM	APPROVED BY -	SHEET 1 OF 21
DRAWN BY GPM	DFTG CHECKED BY -	VHB CAD FILE NAME 1229364 - COV.dwg
CHECKED BY WPA	DATE January 10, 2024	JOB NO. 12293.00

MAYNARD
CONCORD ST AT ROUTE 27
LEGEND & GENERAL NOTES
SHEET 02 OF 21

ABBREVIATIONS

AADT	ANNUAL AVERAGE DAILY TRAFFIC
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
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY

ABBREVIATIONS (cont.)

R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WCR	WHEEL CHAIR RAMP
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

TRAFFIC SIGNAL ABBREVIATIONS

CAB	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
DW	STEADY UPRAISED HAND
FDW	FLASHING UPRAISED HAND
FR	FLASHING CIRCULAR RED
FRL	FLASHING RED LEFT ARROW
FRR	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR YELLOW
FYL	FLASHING YELLOW LEFT ARROW
FYR	FLASHING YELLOW 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
OL	OVERLAP
PED	PEDESTRIAN
PTZ	PAN, TILT, ZOOM
R	STEADY CIRCULAR RED
RL	STEADY RED LEFT ARROW
RR	STEADY RED RIGHT ARROW
TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALKING PERSON
Y	STEADY CIRCULAR YELLOW
YL	STEADY YELLOW LEFT ARROW

GENERAL NOTES:

1. EXISTING CONDITIONS AND TOPOGRAPHICAL SURVEY PROVIDED BY THOMAS LAND SURVEYORS & ENGINEERING CONSULTANTS, INC., 2006, AN AERIAL MAPPING SURVEY BASE PREPARED BY SANBORN MAP COMPANY INC. 2010, AND SUPPLEMENTED WITH RECORD INFORMATION AND GROUND SURVEY BY VHB.
2. THE HORIZONTAL CONTROL IS BASED ON THE MASSACHUSETTS MAINLAND STATE PLANE COORDINATE SYSTEM AND THE NATIONAL GEODETIC SURVEY (NAD83). ALL ELEVATION IS US FEET, REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD88).
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AND PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
4. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER 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.
5. 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.
6. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE AND SEWER 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.
7. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
8. TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
9. 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 OWNER.
10. 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).
11. JOINTS BETWEEN NEW ASPHALT CONCRETE ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HMA JOINT ADHESIVE IN ACCORDANCE WITH SUBSECTION 450 OF THE MASSDOT STANDARD SPECIFICATIONS.
12. AFTER MILLING OPERATIONS AND PRIOR TO PAVING THE SUPERPAVE INTERMEDIATE OR SURFACES COURSES THE ENGINEER SHALL EVALUATE THE MILLED SURFACE AND SHALL APPLY THE APPROPRIATE REPAIR METHOD IF REQUIRED.
13. EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
14. IF SUITABLE, EXISTING GRANITE CURB & EDGING SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
15. 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.
16. 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.
17. DISPOSAL OF ALL SURPLUS MATERIAL SHALL BE AS APPROVED BY THE ENGINEER AND OWNER.

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
		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	C	CABLE MANHOLE
D	D	DRAINAGE MANHOLE
E	E	ELECTRIC MANHOLE
G	G	GAS MANHOLE
M	M	MISC MANHOLE
S	S	SEWER MANHOLE
T	T	TELEPHONE MANHOLE
W	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
		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
		GUARD RAIL - DOUBLE FACE - STEEL POSTS
		GUARD RAIL - DOUBLE FACE - WOOD POSTS
x	x	CHAIN LINK OR METAL FENCE
		WOOD FENCE
		HAY BALES/SILT FENCE
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE 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
1	1	CONTROLLER PHASE ACTUATED
		TRAFFIC SIGNAL HEAD (SIZE AS NOTED)
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		VIDEO DETECTION CAMERA
		MICROWAVE DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
	*	EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
RRSG	RRSG	RAILROAD SIGNAL
OR		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
20'	20'	MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
	20'	MAST ARM WITH LUMINAIRE
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		CONTROL CABINET, POLE MOUNTED
		FLASHING BEACON CONTROL AND METER PEDESTAL
		LOAD CENTER ASSEMBLY
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
ONLY	ONLY	LEGEND "ONLY" - WHITE
		BICYCLE LANE WORD, SYMBOL AND/OR ARROW - WHITE
		BICYCLE DETECTOR - WHITE
		SHARED LANE - WHITE
		BICYCLE BOX - WHITE
SL	SL	STOP LINE -WHITE, 12" WIDTH UNLESS OTHERWISE NOTED
	CW	CROSSWALK-WHITE, 12" WIDTH UNLESS OTHERWISE NOTED
SWL	SWL	SOLID WHITE LINE, 4" WIDTH
SYL	SYL	SOLID YELLOW LINE, 4" WIDTH
BWL	BWL	BROKEN WHITE LINE, 10' LINE W/30' SPACING, 4" WIDTH
BYL	BYL	BROKEN YELLOW LINE, 10' LINE W/30' SPACING, 4" WIDTH
DWLEx	DWLEx	DOTTED WHITE LINE, 2' LINE W/6' SPACING, 4" WIDTH
DYLEx	DYLEx	DOTTED YELLOW LINE, 2' LINE W/6' SPACING, 4" WIDTH
LDWLEx	LDWLEx	LONG DASHED WHITE LINE EXTENSION, 3' LINE W/9' SPACING, 4" WIDTH
DBYL	DBYL	DOUBLE YELLOW LINE, 4" WIDTH
SWCHL	SWCHL	SOLID WHITE CHANNELIZATION LINE, 12" WIDTH UNLESS OTHERWISE NOTED
SYCHL	SYCHL	SOLID YELLOW CHANNELIZATION LINE, 12" WIDTH UNLESS OTHERWISE NOTED
		SLOTTED PAVEMENT MARKER ONE-WAY WHITE
		SLOTTED PAVEMENT MARKER TWO-WAY WHITE/RED
		SLOTTED PAVEMENT MARKER TWO-WAY YELLOW

MAYNARD
CONCORD ST AT ROUTE 27
LEGEND & GENERAL NOTES
SHEET 03 OF 21

1229364 - LEG.DWG Plotted on 12-Feb-2024 11:45 AM

MAYNARD
CONCORD ST AT ROUTE 27
CONSTRUCTION PLANS
SHEET 04 OF 21

1229364 - CONST.DWG Plotted on 18-Apr-2024 3:22 PM

N/F
THE TOWN OF MAYNARD
36411/333
OFF ACTON STREET
PB 88 1036

N/F
Richard N Martin Irrevocable Trust
9-1/2 Maple St
Book/Page:47945/331

N/F
174/014.0-0000-0239.0
Richard N. Martin Irrevocable Trust
11 Maple St.
Book/Page:34702/112

N/F
13 Maple Street
Condominium
34764-458

N/F
174/009.0-0000-0354.0
Steinberg Edward A &
Keefe Patricia M
15 Maple St
Book/Page:23703/53

N/F
174/009.0-0000-0353.0
Olsen Peter J & Down M
6 Maple Ct
Book/Page:32581/531

N/F
MAPLE COURT CONDOMINIUM
MASTER DEED
BK/PG 45462/324
3,5,7 MAPLE CT.

N/F
GERALD D PENDERGAST &
MARY C. PENDERGAST
BK/PG 11459/377
9 MAPLE CT.

N/F
LAURA KRUETZER
& CLAY E. PARKER
BK/PG 59555-289
11 MAPLE CT.

N/F
MARC C. UBALDINO &
JENNIFER L. COOPER
BK/PG 35088/514
13 MAPLE CT.

N/F
MARLON KUZMICK
570/8 /283
80 NASON STREET

N/F
JASON C. CAMPBELL &
MATTHEW E. GENO
33575/156
82 NASON STREET

N/F
DAEMCO, LLC
30830/307
88-90 NASON STREET

N/F
BARBARA L. MORTIMER
6238/164
86 NASON STREET

N/F
174/009.0-0000-0338.0
V. S. H. Realty, Inc.
54 Acton St.
Book/Page: 12829/527

N/F
174/009.0-0000-0337.0
Donna Rodrigue
50 Acton St.
Book/Page: 28729/557

1903 COUNTY LAYOUT

1911 COUNTY LAYOUT

MULCH PATH

TREES

6' CLF W/ BARB WIRE

4' CLF

BLDG

SHED

GRASS

BIT CONC DRIVE

LANDSCAPE

GRANITE CURB

2'G

OHW

UP#58-2

UP#58/5

UP#3

UP#715

BENCH ON STONE PAVERS

STONE PAVERS

WOODED AREA

ROLLAND HYD

EXIST RR SIDELINE

ABANDONED TRACKS

ASSABET RIVER RAIL TRIAL

"STOP"

"DO NOT ENTER"

BIT CONC PARKING

GAS STATION

CEM CONC

EOP

WG

6"CI W

5' WOOD FENCE

FENCE GATE

BASE BID

ADD ALT #2

ADD ALT #3

NASON STREET

ACTON STREET

PROSPECT STREET

WALCOTT STREET

100+00

PROP CEM CONC WALK

SAWCUT, MEET EXIST

PROP PEDESTRIAN CURB RAMPS

PROP CEM CONC ISLAND

R&R CURB CORNER

PROP TRANSITION CURB

PROP CEM CONC DRIVE

R&R CURB AND CURB CORNER

PROP HMA DRIVE

PROP CEM CONC ISLAND

PROP 5.5' HMA WALK W/ GRAN CURB (TYP)

ADJ

PROP HMA DRIVE (TYP)

FLAGSTONE WALK

BIT CONC DRIVE

NOTES:

1) FINAL PEDESTRIAN CURB RAMP ALIGNMENT AND GRADING WILL BE APPROVED BY THE ENGINEER ON SITE PROVIDED BY THE TOWN OF MAYNARD.

2) ALL BASELINES ARE FOR CONSTRUCTION REFERENCE ONLY AND SHALL NOT BE USED TO TIE DOWN DESIGN ELEMENTS.

3) ALL TRAFFIC SIGNAL FOUNDATIONS ARE TO BE LOCATED IN THE PRESENCE OF THE RESIDENT ENGINEER.

4) EXISTING GRANITE CURB THAT IS DETERMINED BY THE RESIDENT ENGINEER TO BE IN GOOD CONDITION SHALL BE RE-USED AS PART OF THE PROPOSED WORK.

MAYNARD
CONCORD ST AT ROUTE 27
CONSTRUCTION PLANS
SHEET 05 OF 21

1229364 - CONST DWG Plotted on 18-Apr-2024 3:23 PM

CONCORD STREET
ACTON STREET
HAYNES STREET (ROUTE 27)
BROWN STREET (ROUTE 27)
PARMENTER AVE
ASSABET RIVER RAIL TRIAL

SAWCUT, MEET EXIST
PROP 4.5'- 5.5' HMA WALK, SAWCUT TO MEET EXISTING (TYP)
PROP 4.5' - 5.5' HMA WALK W/ GRAN CURB TYPE VB
PROP LOAM & SEED
PROP MILL AND OVERLAY W/ FULL DEPTH PATCHING
PROP PEDESTRIAN CURB RAMPS
PROP MILL AND OVERLAY
PROP GRAN TRANS CURB
PROP HMA WEDGE
PROP GRAN CURB TYPE VB (TYP)
REM CB
PROP DMH
PROP 6', 12" RCP
PROP CB OR GI TBD IN FIELD
REBUILD CB
PROP 5.5' HMA WALK W/ GRAN CURB
PROP HMA DRIVE
PROP GI & 6', 12" RCP
PVM'T MILLING
MULCH
R&R WOOD POST FENCE (AS REQUIRED)
REMOD CB
PROP 5.5' HMA WALK (RET CURB AS DETERMINED BY RESIDENT ENGINEER)
PROP PEDESTRIAN CURB RAMP
PROP HMA DRIVE (TYP)
SAWCUT, MEET EXIST (TYP)
PROP 5.5' HMA WALK W/ GRAN CURB TYPE VB(TYP)
ADJ
SAWCUT
1904 COUNTY LAYOUT
1903 COUNTY LAYOUT
1911 COUNTY LAYOUT
1785 COUNTY LAYOUT
1925 COUNTY LAYOUT
1906 COUNTY LAYOUT LINE PER 1925 COUNTY LAYOUT
EXIST RR SIDELINE
LAND SUBJECT TO INUNDATION
BIT CONC PARKING
AUTO SHOP BUILDING
5' WIDE PUBLIC EASEMENT FOR TOWN OF MAYNARD BOOK/PAGE: 19735/518

N/F
LAURA KRUETZER & CLAY E. PARKER
BK/PG 59555-289
11 MAPLE CT.

N/F
MARC C. UBALDINO & JENNIFER L. COOPER
BK/PG 35088/514
13 MAPLE CT.

N/F
THE PEPIN-LIU REVOCABLE TRUST
BK/PG 46377/581
15 MAPLE CT.

N/F
KENNETH J. HOGAN & MAUREEN A. MENTON-HOGAN
BK/PG 44771/107
17 MAPLE CT.

N/F
BRIAN F. FALCUCCI AND JACQUELINE E. BARCLAY
REGISTERED LAND
CERT# 257226
BK/PG 1457-29
62 ACTON ST

N/F
LANDOIL REALTY TRUST
BK/PG 12497/53
63-65 ACTON ST

N/F
SHALEBRIDGE CRADLE CONDOMINIUM
71A ACTON ST
CORTNEY A. DESY AND KIETH DESY
BK/PG 65102/216
71B ACTON ST
MICHAEL K. BACUS
BK/PG 56648/523

N/F
73 ACTON STREET CONDO
73A ACTON ST
JOSEPH M. FERRARA
JON J. MANCINI
BK/PG 44569/449
73B ACTON ST
CHESTER PAWLOWS
BK/PG 63886/54

N/F
174/009.0-0000-0285.0
Boeske Bros Inc
13 Brown St
Book/Page:9961/477

NOTES:
1) FINAL PEDESTRIAN CURB RAMP ALIGNMENT AND GRADING WILL BE APPROVED BY THE ENGINEER ON SITE PROVIDED BY THE TOWN OF MAYNARD.
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MAYNARD
CONCORD ST AT ROUTE 27
ALIGNMENT PLANS
SHEET 06 OF 21

1226364 -ALGN.DWG Plotted on 12-Feb-2024 11:47 AM

N/F
THE TOWN OF MAYNARD
36411/333
OFF ACTON STREET
PB 88 1036

N/F
Richard N Martin &
9-1/2 Maple St
Book/Page:47945/331

N/F
174/014.0-0000-0239.0
Richard N. Martin Irrevocable Trust
11 Maple St.
Book/Page:34702/112

N/F
13 Maple Street
Condominium
34764-458

N/F
174/009.0-0000-0354.0
Steinberg Edward A &
Keefe Patricia M
15 Maple St
Book/Page:23703/53

N/F
174/009.0-0000-0353.0
Olsen Peter J & Down M
6 Maple Ct
Book/Page:32581/531

N/F
MAPLE COURT CONDOMINIUM
MASTER DEED
BK/PG 45462/324
3,5,7 MAPLE CT.

N/F
GERALD D PENDERGAST &
MARY C. PENDERGAST
BK/PG 11459/377
9 MAPLE CT.

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LAURA KRUETZER
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BK/PG 59555-289
11 MAPLE CT.

N/F
MARC C. UBALDINO &
JENNIFER L. COOPER
BK/PG 35088/514
13 MAPLE CT.

N/F
MARLON KUZMICK
57078/285
80 NASON STREET

N/F
JASON C. CAMPBELL &
MATTHEW E. GENO
33575/156
82 NASON STREET

N/F
DAEMCO, LLC
30830/307
88-90 NASON STREET

N/F
BARBARA L. MORTIMER
62386/164
86 NASON STREET

N/F
174/009.0-0000-0338.0
V. S. H. Realty, Inc.
54 Acton St.
Book/Page: 12829/527

N/F
174/009.0-0000-0337.0
Donna Rodrigue
50 Acton St.
Book/Page: 28729/557

N/F
174/009.0-0000-0339.0
Robertson, LLC
48 Acton St.
Book/Page: 30859/307

MULCH PATH
TREES
6' CLF W/ BARB WIRE
4' CLF
BLDG
SHED
GRASS
BIT CONC DRIVE
LANDSCAPED
2'G
GRANITE CURB
OHW
1'-3'G
5' WOOD FENCE
UPL#58-2
1903 COUNTY LAYOUT
UPL#3
EXIST RR SIDELINE
BOLLARD
HYD
UP#58/5
BENCH ON STONE PAVERS
STONE PAVERS
WOODED AREA
ABANDONED TRACKS
ASSABET RIVER RAIL TRIAL
"STOP"
R15.1
"DO NOT ENTER"
R5.1
BIT CONC PARKING
GAS STATION
UP#1715
100+00
R=120.00'
FOLLOW EX
CURBLINE (TYP)
10'
FOR
S
WG
6"CI W
CONC CURB
BIT CONC
CONC DRIVE
FLAGSTONE WALK
BASE BID
ADD ALT #2
ADD ALT #3
1911 COUNTY LAYOUT
NASON STREET
ACTON STREET
WALCOTT STREET
PROSPECT STREET
R=5.00'
R=10.00'
20'
19.5'
GEM
1
2
3
4
5
6
7
8

NOTES:
1) FINAL PEDESTRIAN CURB RAMP ALIGNMENT AND GRADING WILL BE APPROVED BY THE ENGINEER ON SITE PROVIDED BY THE TOWN OF MAYNARD.
2) ALL BASELINES ARE FOR CONSTRUCTION REFERENCE ONLY AND SHALL NOT BE USED TO TIE DOWN DESIGN ELEMENTS.
3) ALL TRAFFIC SIGNAL FOUNDATIONS ARE TO BE LOCATED IN THE PRESENCE OF THE RESIDENT ENGINEER.

MAYNARD
CONCORD ST AT ROUTE 27
ALIGNMENT PLANS
SHEET 07 OF 21

1226384 -ALGN.DWG Plotted on 18-Apr-2024 3:24 PM

CONCORD STREET
ACTON STREET
HAYNES STREET (ROUTE 27)
BROWN STREET (ROUTE 27)
PARMENTER AVE
CONCORD STREET
ASSABET RIVER RAIL TRIAL

N/F
LAURA KRUETZER
& CLAY E. PARKER
K/PG 59555-289
11 MAPLE CT.

N/F
MARC C. UBALDINO &
JENNIFER L. COOPER
BK/PG 35088/514
13 MAPLE CT.

N/F
THE PEPIN-LIU
REVOCABLE TRUST
BK/PG 46377/581
15 MAPLE CT.

N/F
KENNETH J. HOGAN &
MAUREEN A. MENTON-HOGAN
BK/PG 44771/107
17 MAPLE CT.

N/F
BRIAN F. FALCUCCI AND
JACQUELINE E. BARCLAY
REGISTERED LAND
CERT# 257226
BK/PG 1457-29
62 ACTON ST

N/F
LANDOIL REALTY TRUST
BK/PG 12497/53
63-65 ACTON ST

5' WIDE PUBLIC EASEMENT
FOR TOWN OF MAYNARD
BOOK/PAGE: 19735/518

N/F
SHALEBRIDGE CRADLE CONDOMINIUM
71A ACTON ST
CORTNEY A. DESY AND
KIETH DESY
BK/PG 65102/216
71B ACTON ST
MICHAEL K. BACUS
BK/PG 56648/523

N/F
73 ACTON STREET CONDOMIN
73A ACTON ST
JOSEPH M. FERRARA AN
JON J. MANCINI
BK/PG 44569/449
73B ACTON ST
CHESTER PAWLOWSKI
BK/PG 63886/545

N/F
OWNER UNKNOWN

N/F
174/009.0-0000-0265.0
Bosse Bros Inc
13 Brown St
Book/Page:9961/477

AUTO SHOP BUILDING

FOLLOW EX CURBLINE
FOLLOW EX EOP
TRANS END AT PT/PC
TRANS START AT STOP LINE
PT/PC
R=30.00'
R=20.00'
R=15.00'
R=4.00'
R=5.00'
R=10.00'
R=120.00'
R=100.00'
R=40.00'
R=12.00'
START TRANS AFTER WALKWAY FROM HOUSE
SAWCUT, MEET EXIST
PROP PEDESTRIAN CURB RAMP
MEET AT EX CEM CONC RAMP
1906 COUNTY LAYOUT LINE PER 1925 COUNTY LAYOUT
1906 COUNTY LAYOUT LINE PER 1925 COUNTY LAYOUT
1906 COUNTY LAYOUT LINE PER 1925 COUNTY LAYOUT
1904 COUNTY LAYOUT
1903 COUNTY LAYOUT
1917 COUNTY LAYOUT
1911 COUNTY LAYOUT
1785 COUNTY LAYOUT
1925 COUNTY LAYOUT
EXIST RR SIDELINE
LAND SUBJECT TO INUNDATION
12+60.98
100+00

NOTES:
1) FINAL PEDESTRIAN CURB RAMP ALIGNMENT AND GRADING WILL BE APPROVED BY THE ENGINEER ON SITE PROVIDED BY THE TOWN OF MAYNARD.
2) ALL BASELINES ARE FOR CONSTRUCTION REFERENCE ONLY AND SHALL NOT BE USED TO TIE DOWN DESIGN ELEMENTS.
3) ALL TRAFFIC SIGNAL FOUNDATIONS ARE TO BE LOCATED IN THE PRESENCE OF THE RESIDENT ENGINEER.

MAYNARD
CONCORD ST AT ROUTE 27
TRAFFIC SIGNAL PLANS
SHEET 08 OF 21

1226384 - TSIG.DWG Plotted on 12-Feb-2024 11:48 AM

N/F
THE TOWN OF MAYNARD
3641 1/333
OFF ACTON STREET
PB '88 1036

N/F
Richard N Martin &
9-1/2 Maple St
Book/Page:47945/331

N/F
174/014.0-0020-0239.0
Richard N Martin Irrevocable Trust
11 Maple St
Book/Page:54702/112

N/F
13 Maple Street
Condominium
34764-458

N/F
174/009.0-0000-0354.0
Steinberg Edward A &
Keefe Patricia M
15 Maple St
Book/Page:23703/53

N/F
174/009.0-0000-0353.0
Olsen Peter J & Down M
4 Maple Ct
Book/Page:32581/531

N/F
MAPLE COURT CONDOMINIUM
MASTER DEED
BK/PG 45462/324
3,5,7 MAPLE CT.

N/F
GERALD D PENDERGAST &
MARY C. PENDERGAST
BK/PG 11459/377
9 MAPLE CT.

N/F
LAURA KRUETZER
& CLAY E. PARKER
BK/PG 59555-289
11 MAPLE CT.

N/F
MARC C. UBALDINO &
JENNIFER L. COOPER
BK/PG 35088/514
13 MAPLE CT.

N/F
THE TOWN OF MAYNARD
3641 1/333
OFF ACTON STREET
PB '88 1036

N/F
MARLON KUZMICK
10181/283
79 NASON STREET

N/F
DAEMCO, LLC
30830/307
88-90 NASON STREET

N/F
JASON C. CAMPBELL &
MATTHEW E. GENO
33575/561
82 NASON STREET

N/F
BARBARA L. MORTIMER
8386/464
86 NASON STREET

N/F
174/009.0-0000-0338.0
V. S. H. Realty, Inc.
54 Acton St.
Book/Page: 12829/527

N/F
174/009.0-0000-0337.0
Donna Rodrigue
50 Acton St.
Book/Page: 28729/557

N/F
174/009.0-0000-0336.0
Gelinas, LLC
48 Acton St.
Book/Page: 30830/267

NASON STREET

ACTON STREET

PROSPECT STREET

WALCOTT STREET

PROP TS POST & FOUNDATION
W/SIDE-OF-POST CONTROL CABINET
W/SOLAR PANEL
W/RADIO ANTENNA
W/TWO RRFB (1-SIDED)
W/APS PED PUSH BUTTON
W/R10-25
W/SP-1
W/W11-2(L), W11-2(R), W16-7p(L), W16-17p(R)

BASE BID

ADD ALT #2

ADD ALT #3

R&S
W11-2
W16-7PL

W11-2
W16-7pL

SEE CONSTRUCTION
DETAIL ON SHEET 17

8' CW

6' CW

D3-1
W11-2
W16-7pL

PROP TS POST & FOUNDATION
W/SIDE-OF-POST CONTROL CABINET
W/SOLAR PANEL
W/RADIO ANTENNA
W/TWO RRFB (1-SIDED)
W/APS PED PUSH BUTTON
W/R10-25
W/SP-1
W/W11-2(L), W11-2(R), W16-7p(L), W16-17p(R)

R&R'ed SPEED FEEDBACK SIGN & SOLAR PANEL
FROM APPROX. 400' NORTH
ON NEW FOUNDATION

R&S R1-1

R&R'ed D6-1

D3-1
R2-1(25)

R&R
D3-1
R2-1(25)

12" SWCHL

CONT. ON
SHEET 02

100+00

1903 COUNTY LAYOUT

1911 COUNTY LAYOUT

EXIST RR SIDELINE

ABANDONED TRACKS

MULCH PATH

TREES

6' CLF W/ BARB WIRE

4' CLF

5' WOOD FENCE

BLDG

SHED

GRASS

BIT CONC DRIVE

BENCH ON
STONE PAVERS

STONE PAVERS

WOODED AREA

BIT CONC PARKING

GAS STATION

CEM CONC

CONC CURB

BIT CONC

EOP

BLACKSTONE WALK

UP#58-2

UP#3

UP#58/5

UP#1/15

R5-3

R6-1

R5-1

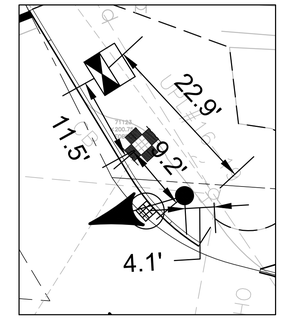
R1-1

CONSTRUCTION NOTES

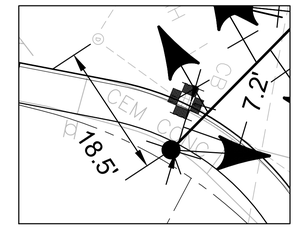
1. TRAFFIC SIGNAL FOUNDATIONS TO BE LOCATED BY IN THE PRESENCE OF THE RESIDENT ENGINEER UNLESS TIES ARE PROVIDED.
2. ALL PAVEMENT MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC UNLESS OTHERWISE NOTED.
3. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
4. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
5. TS POST/POLE, WITH PEDESTRIAN PUSH BUTTON, NOT LOCATED WITHIN A PAVED SURFACE SHALL BE POSITIONED SO AS TO PROVIDE A 10" MAX CLEAR REACH ZONE BETWEEN THE PEDESTRIAN PUSH BUTTON AND THE PAVED SURFACE PER 521 CMR AND AS SHOWN IN THE CONSTRUCTION DETAILS.

20 0 20 40
SCALE IN FEET

MAYNARD
CONCORD ST AT ROUTE 27
TRAFFIC SIGNAL PLANS
SHEET 09 OF 21



SIGNAL TIE-DOWN VIEW



SIGNAL TIE-DOWN VIEW

1226364 - TSIG.DWG Plotted on 12-Mar-2024 4:23 PM

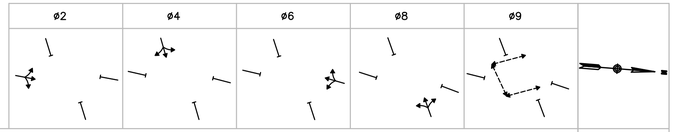
CONT. ON SHEET 01

CONSTRUCTION NOTES

1. SEE SHEET 10 FOR TRAFFIC SIGNAL DATA.
2. PULL BOXES SHALL BE ADJACENT TO CURB UNLESS OTHERWISE NOTED AND SHALL NOT BE LOCATED IN WHEELCHAIR RAMPS.
3. TRAFFIC SIGNAL FOUNDATIONS TO BE LOCATED BY IN THE PRESENCE OF THE RESIDENT ENGINEER UNLESS TIES ARE PROVIDED.
4. THE TOP OF ALL MAST ARM FOUNDATIONS IN SIDEWALK AREAS SHALL BE LOCATED FLUSH WITH FINISH GRADE.
5. THE TOP OF ALL MAST ARM FOUNDATIONS IN GRASSY AREAS SHALL BE LOCATED 3"± ABOVE FINISHED GRADE.
6. ALL PAVEMENT MARKINGS SHALL BE REFLECTORIZED THERMOPLASTIC UNLESS OTHERWISE NOTED.
7. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
8. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
9. TS POST/POLE, WITH PEDESTRIAN PUSH BUTTON, NOT LOCATED WITHIN A PAVED SURFACE SHALL BE POSITIONED SO AS TO PROVIDE A 10" MAX CLEAR REACH ZONE BETWEEN THE PEDESTRIAN PUSH BUTTON AND THE PAVED SURFACE PER 521 CMR AND AS SHOWN IN THE CONSTRUCTION DETAILS.
10. THE PROPOSED LOCATION OF THE DETECTION CAMERA IS FOR ILLUSTRATIVE PURPOSES ONLY. THE CONTRACTOR SHALL INSTALL THESE DEVICES IN THE OPTIMAL LOCATION PER MANUFACTURER'S RECOMMENDATIONS AND SITE-SPECIFIC CONSTRAINTS.

20 0 20 40
SCALE IN FEET

1229364 - TSIG.DWG Plotted on 12-Feb-2024 11:46 AM



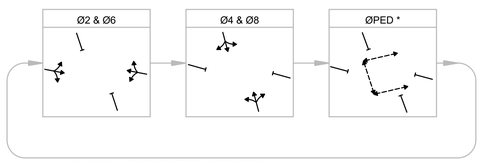
SEQUENCE AND TIMING FOR FULLY ACTUATED CONTROL (ISOLATED)

APPROACH	DIRECTION	HOUSING	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	FLASH
HAYNES STREET (RTE 27)	NB	A,B	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	FY
BROWN STREET (RTE 27)	SB	C,D	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
CONCORD STREET	EB	E,F	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	FR
CONCORD STREET	WB	G,H	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	FR
PEDESTRIAN X–ING	ALL	P1–P6	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	OUT
TIMING IN SECONDS																		CONFLICT FLASH OPERATION ONLY
MINIMUM GREEN (INITIAL)			10			6			10			6						
PASSAGE TIME (VEHICLE)			3			3			3			3						
MAXIMUM 1			35			25			35			25						
MAXIMUM 2			35			20			35			20						
DYNAMIC MAXIMUM LIMIT			50			35			50			35						
YELLOW CLEARANCE				3			3			3			3					
RED CLEARANCE					2			2			2			2			3	
PEDESTRIAN WALK															7			
PEDESTRIAN CLEARANCE																12		
DETECTOR MEMORY			NON–LOCK			NON–LOCK			NON–LOCK			NON–LOCK			–			
RECALL			MIN			OFF			MIN			OFF			–			

COORDINATION DATA			COORDINATION PHASE SPLIT TIMES				
TIMING PLAN	CYCLE	OFFSET	ø2	ø4	ø6	ø8	ø9

NOTES:
1. AUTOMATIC FLASHING OPERATION PER 2009 M.U.T.C.D., AS AMENDED.
2. * UPON PEDESTRIAN PUSH BUTTON ACTUATION
3. PERM = PERMISSIVE
4. Ø4 & Ø8 DUAL ENTRY
5. MAXIMUM 1 = NORMAL OPERATION
6. MAXIMUM 2 = 4 PM TO 6 PM MON-FRI
7. DYNAMIC (MAX) STEP SHALL BE 5 SECONDS.
8. DYNAMIC (MAX) SHALL BE USED FOR ALL TIMES OF THE DAY.
9. STOP AND GO OPERATION FOR 24 HOURS PER DAY. FLASHING OPERATION FOR EMERGENCY ONLY.
10. DURING PEDESTRIAN INTERVAL, FDW THROUGH YELLOW OPERATION SHALL NOT BE IN EFFECT.
11. "RED" ON ADVANCE WARNING SIGN (W3-3A) FLASHES, STEADY BURNS RED IN ALL INTERVALS EXCEPT WHEN PHASE 2 GREEN IS ON.

PREFERENTIAL PHASE SEQUENCE



* UPON PEDESTRIAN PUSH BUTTON ACTUATION

SEQUENCE & TIMING NOTES:

1. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT WILL NOT CHANGE DURING THE CLEARANCE INTERVAL.
2. THE RIGHT OF WAY MAY BE ASSIGNED TO ANY PHASE OR ANY COMBINATION OF NON-CONFLICTING PHASES.
3. IF CALLS EXIST ON ALL PHASES, THE ASSIGNMENT OF RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE PREFERENTIAL PHASE SEQUENCE.
4. IF THE ASSIGNED RIGHT-OF-WAY FOR ANY TRAFFIC MOVEMENT IS TO CHANGE DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATION FOR THAT MOVEMENT WILL DISPLAY THE APPROPRIATE CLEARANCE INTERVALS.

LIST OF MAJOR ITEMS REQUIRED

BROWN STREET AND HAYNES STREET AT CONCORD STREET

PAY ITEM	QUANTITY	DESCRIPTION
815.1	1	8Ø TS 2 TYPE 1 CONTROLLER IN A TYPE 6 BASE MOUNTED CABINET INCLUDING FOUNDATION AND CONCRETE PAD
	1	TS 30' MAST ARM TYPE 2, STEEL, INCL. FOUNDATION
	5	TS POST 8' STANDARD INCL. FOUNDATION
	2	TS POST 12' STANDARD INCL. FOUNDATION
	8	SIGNAL HEAD, 3-SECTION, 12" LENSES
	6	PEDESTRIAN SIGNAL HEAD W/COUNTDOWN TIMER
	4	APS PEDESTRIAN PUSH BUTTON W/R10-3e(L) AND SIGN SADDLE
	2	APS PEDESTRIAN PUSH BUTTON W/R10-3e(R) AND SIGN SADDLE
	4	VIDEO DETECTION SYSTEM (1 SINGLE-POINT CAMERA. VDP & CABLES)
	1	EMERGENCY PRE-EMPTION OPTICAL DETECTORS & DETECTOR CABLE
	1	EMERGENCY PRE-EMPTION 4 CHANNEL PHASE SELECTOR
	1	EMERGENCY PRE-EMPTION SYSTEM CHASSIS
	1	EMERGENCY PRE-EMPTION STROBE (WHITE LENS)
	1	36"x36" LED BLANK-OUT SIGN (RED SIGNAL AHEAD)
804.3	600'±	3" CONDUIT, SCHEDULE 80, TYPE NM
811.31	9	PULL BOX-12"x12"

PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING TRAFFIC CONTROL SIGNAL.

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, D3 OR D4 ASSIGNED DESCENDING PRIORITIES AS FOLLOWS: (D1 HIGHEST AND D4 LOWEST)
3. IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY OPTICAL DETECTOR D1 (OR D2, D3, D4) THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD IN EMERGENCY VEHICLE PRE-EMPTION PHASE #1 (OR #2, #3, #4) 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.

PRE-EMPTION PHASING & PRIORITY

DETECTOR & PRIORITY	PRE-EMPT PHASE ASSIGNMENT	MOVEMENT	VEHICLE PHASE ASSIGNMENT
D1	1		Ø2
D2	2		Ø6
D3	3		Ø4
D4	4		Ø8

SIGNAL HEAD DATA

A,B,C,E,F,G,H	P1-P6
R Y G	W/COUNTDOWN TIMER
ALL 12" LENS	

NOTES:
1. ALL SIGNAL HEADS SHALL BE RIGID MOUNTED.
2. SIGNAL HEADS B,C,E,F,G,H 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.

VIDEO DETECTION DATA

DETECTION ZONE	APPROACH/LANE	CAMERA	DELAY /EXT	CALL PHASE
1	HAYNES STREET (ROUTE 27) NB	C1	0	Ø2
2	BROWN STREET (ROUTE 27) SB	C1	0	Ø6
3	CONCORD STREET EB	C1	0	Ø4
4	CONCORD STREET WB	C1	0	Ø8

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.

MAYNARD
CONCORD ST AT ROUTE 27
TRAFFIC SIGN SUMMARY
SHEET 11 OF 21

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			
R1-1 (LED)	30"	30"	STOP	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			2	RED	WHITE	WHITE	P5-2	PAID UNDER ITEM 824.601	
R5-1a	36"	24"	WRONG WAY				2	RED	WHITE	WHITE	P5-2	6.00	12.00
R10-3e(L)	9"	15"	START CROSSING Watch For Vehicles / DON'T START Unless Crossing / 3 Second TIME REMAINING To Finish Crossing / DON'T CROSS / PUSH BUTTON TO CROSS				4	WHITE	WHITE/ BLACK/ ORANGE	BLACK	4 MTD ON TS POST	PAID UNDER ITEM 815.1	
R10-3e(R)	9"	15"	START CROSSING Watch For Vehicles / DON'T START Unless Crossing / 3 Second TIME REMAINING To Finish Crossing / DON'T CROSS / PUSH BUTTON TO CROSS				2	WHITE	WHITE/ BLACK ORANGE	BLACK	2 MTD ON TS POST	PAID UNDER ITEM 815.1	
R10-6L	24"	36"	STOP HERE ON RED				1	WHITE	BLACK	BLACK	P5-1	6.00	6.00
R10-11b	24"	24"	NO TURN ON RED				1	WHITE	BLACK	BLACK	P5-1	4.00	4.00
	36"	36"					1	WHITE	BLACK	BLACK	1 MTD ON MAST ARM	9.00	9.00
R10-25	9"	12"	PUSH BUTTON TO TURN ON WARNING LIGHTS				2	WHITE	BLACK	BLACK	2 MTD ON RRFB	PAID UNDER ITEM 824.211	
W3-5A	36"	36"	RED SIGNAL AHEAD				1	YELLOW	ORANGE LED	BLACK	1 MTD ON TS POST	PAID FOR UNDER ITEM 815.1	
W11-2(L)	30"	30"					2	FLUOR-ESCENT YELLOW GREEN	BLACK	BLACK	2 MTD ON TS POST	6.25	12.50
W11-2(R)	30"	30"					2	FLUOR-ESCENT YELLOW GREEN	BLACK	BLACK	2 MTD ON TS POST	6.25	12.50
W16-7p(L)	24"	12"					2	FLUOR-ESCENT YELLOW/ GREEN	BLACK	BLACK	2 MTD ON TS POST	2.00	4.00
W16-7p(R)	24"	12"					2	FLUOR-ESCENT YELLOW/ GREEN	BLACK	BLACK	2 MTD ON TS POST	2.00	4.00

TRAFFIC SIGN SUMMARY

IDENTIFI–CATION NUMBER	SIZE OF SIGN			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			
SP-1	9"	12"	WAIT FOR VEHICLES TO STOP BEFORE CROSSING	1"C 1"C 1"C 1"C 1"C	1.5" 1" 1" 1" 1" 1.5"	N/A	2	YELLOW	BLACK	BLACK	2 MTD ON RRFB	0.75	1.50
MA-D3-1	48"	12"	QACTON ST / 6" CITY SEAL (TYP)	6"/4"D	3" 3"	N/A	1	GREEN	WHITE	WHITE	P5-1	INCLUDED UNDER ITEM 874.01	
MA-D3-2	60"	12"	QCONCORD ST / 6" CITY SEAL (TYP)	6"/4"D	3" 3"	N/A	3	GREEN	WHITE	WHITE	1 MTD W/OTHER 2 MTD ON TS POST	INCLUDED UNDER ITEM 874.01	
MA-D3-3	54"	12"	QHAYNES ST / 6" CITY SEAL (TYP)	6"/4"D	3" 3"	N/A	1	GREEN	WHITE	WHITE	1 MTD ON TS POST	INCLUDED UNDER ITEM 874.01	
MA-D3-4	48"	12"	QBROWN ST / 6" CITY SEAL (TYP)	6"/4"D	3" 3"	N/A	1	GREEN	WHITE	WHITE	1 MTD ON TS POST	INCLUDED UNDER ITEM 874.01	

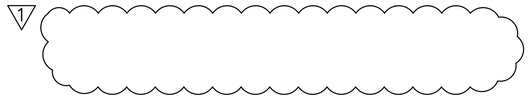
NOTES:
1. RETROREFLECTIVE SHEETING CONFORMING TO SECTION M9.30.0 OF THE 2023 MASSDOT STANDARD SPECIFICATIONS SHALL BE USED FOR ALL SIGNS.
2. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" AND 2012 SUPPLEMENT; THE 1990 MASSDPW STANDARD DRAWINGS FOR SIGNS AND SUPPORTS; THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR MOUNTING REQUIREMENTS; AND THE MASSDOT STANDARD SIGNS, LATEST EDITION.
3. ALL SIGNS SHOWN GRAPHICALLY FOR INFORMATION ONLY. SIGN VENDOR SHALL FABRICATE ALL SIGNS IN ACCORDANCE WITH THE APPLICABLE STANDARDS.

1229364 - SS.DWG Plotted on 12-Feb-2024 11:49 AM

1229364 - TTCP.DWG Plotted on 12-Mar-2024 4:25 PM

GENERAL NOTES

1. 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 NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).



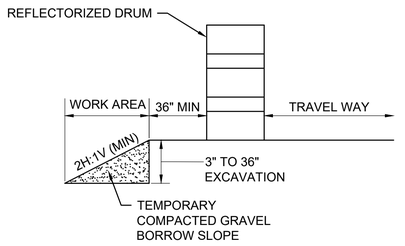
3. NO WORK SHALL OCCUR WITHIN THE PUBLIC WAY THE DAY BEFORE, AFTER OR ON A STATE RECOGNIZED HOLIDAY UNLESS OTHERWISE APPROVED BY THE ENGINEER.
4. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) REQUIREMENTS AND PUBLIC RIGHTS-OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. ALL DRUMS OUTSIDE TAPERS SHALL BE SET AT 20' ON CENTER MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
6. 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.
7. REFLECTORIZED CONES SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.
8. CONES MAY BE USED IN LIEU OF DRUMS OUTSIDE OF TAPER AREAS.
9. 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.
10. 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.
11. CONTRACTOR SHALL STAGE WORK SUCH THAT A DROP-OFF OF NO MORE THAN 3" AT THE END OF EACH WORK DAY EXISTS WITHIN THE CLEAR ZONE AT ANY TIME AND ENSURE DROP-OFF IS MITIGATED WITHOUT BARRIER PER NOTE 10.
12. CONSTRUCTION CLEAR ZONE SHALL BE IN ACCORDANCE WITH MASSDOT BOSTON TRAFFIC GUIDELINES AS FOLLOWS:
    - 4' IF POSTED SPEED IS LESS THAN 35 MPH
    - 8' IF POSTED SPEED IS 35 MPH
    - 15' IF POSTED SPEED IS 40 MPH
13. 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED UNLESS OTHERWISE NOTED.
14. TEMPORARY TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS WHEN NOT IN USE.
15. SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
16. SIGNS INSTALLED ON PORTABLE STANDS PLACED AMONG CHANNELIZATION DEVICES REQUIRE A 36 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
17. 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.
18. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN NCHRP 350 AND/OR MASH CRASH TESTED SIGN SUPPORTS AND INSTALLED IN ACCORDANCE WITH THE MUTCD.SIGNS SHALL NOT BE MOUNTED TO OR LEANED AGAINST DRUMS OR CONES.
19. W21-7 SIGNS SHALL BE INSTALLED IN ADVANCE (100' MIN) OF AREAS WHERE UTILITY CASTINGS HAVE BEEN RAISED IN ADVANCE OF PAVING OPERATIONS OR AS REQUESTED BY THE ENGINEER.
20. W8-15 SIGNS SHALL BE INSTALLED IN ADVANCE (100' MIN) OF PAVEMENT MILLING AREAS OR AS REQUESTED BY THE ENGINEER.
21. CONTRACTOR SHALL SECURE WORK AREAS BY APPROPRIATE MEANS, TO PREVENT UNAUTHORIZED ACCESS AT ALL TIMES.
22. THERE IS NO DESIGNATED BICYCLE LANE ON THE ROADWAY WITHIN THE PROJECT LIMITS. BICYCLES ARE EXPECTED TO SHARE THE ROAD WITH GENERAL VEHICULAR TRAFFIC.
23. CONTRACTOR SHALL PROVIDE 5 PORTABLE CHANGE MESSAGE SIGN (PCMS) A MINIMUM OF 14 DAYS PRIOR TO AND POST START OF CONSTRUCTION.
24. CONTRACTOR SHALL NOT ALLOW PUBLIC ACCESS ON PORTIONS OF NEWLY BUILT SIDEWALK UNTIL ALL SIDEWALKS WITHIN THE PROJECT LIMITS ARE FULLY CONSTRUCTED AND ADAAG COMPLIANT OR AS DIRECTED BY THE ENGINEER.

LEGEND	
F	FLAGGER
P	POLICE OFFICER
S	TRAFFIC SIGNAL
●	REFLECTORIZED DRUM
	TEMPORARY CONSTRUCTION SIGN
▲	TRAFFIC CONE
	TYPE III BARRICADE
	ARROW BOARD (AB) (RIGHT OR LEFT)
	ARROW BOARD (AB) (CAUTION)
	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
	WORK AREA (PUBLIC ACCESS RESTRICTED)
	TRAFFIC FLOW
	PEDESTRIAN ROUTE
	CONSTRUCTION FENCE
	TEMPORARY PEDESTRIAN BARRICADE
NTS	NOT TO SCALE
TTCP	TEMPORARY TRAFFIC CONTROL PLAN

ADVANCE SIGN SPACING			
	DISTANCE BETWEEN SIGNS (FEET)		
ROADWAY	A	B	C
ACTON STREET, CONCORD STREET, BROWN STREET, HAYNES STREET	100	100	100

LANE TAPER LENGTH FORMULAS
L= TAPER LENGTH IN FEET
W= WIDTH OF ROADWAY TO BE SHIFTED OR REDIRECTED IN FEET
S= POSTED SPEED LIMIT IN MPH
POSTED SPEED
40 MPH OR LESS
$L = \frac{WS^2}{60}$

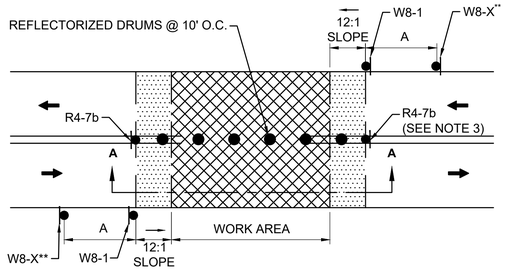
BUFFER SPACING	
SPEED (MPH)	DISTANCE (FEET)
15	80
20	115
25	155
30	200

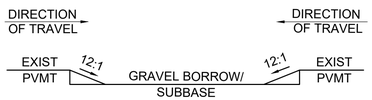


NOTE:
1. CONTRACTOR SHALL INSTALL W8-9 SIGN ON ALL ROADWAYS 350 FEET IN ADVANCE OF THE START OF DROP-OFF CONDITION.

TYPICAL ROADWAY DROP-OFF PROTECTION

SCALE: NTS DWG: TTCP1f DATE: FEB 2022





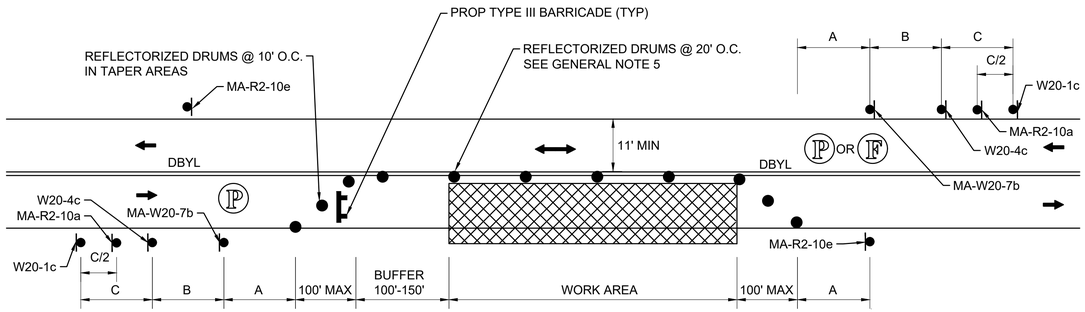
SECTION A-A

NOTES:
1. SQUARE OFF THE FULL WIDTH OF THE ROADWAY AT THE END OF WORK DAY.
2. ** CONTRACTOR SHALL INSTALL W8-1 AT LIMIT OF EXCAVATION AND A W8-3, W8-8, W8-15, OR W8-24 SIGN, AS APPROPRIATE, ON ALL ROADWAYS IN ADVANCE OF THE TRANSITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
3. R4-7b SIGNS AND DRUMS MAY BE OMITTED AT THE DISCRETION OF THE ENGINEER.

TEMPORARY PAVEMENT TRANSITION

SCALE: NTS DWG: TTCP1g DATE: FEB 2022

1229364 - TTCP.DWG Plotted on 12-Feb-2024 11:49 AM

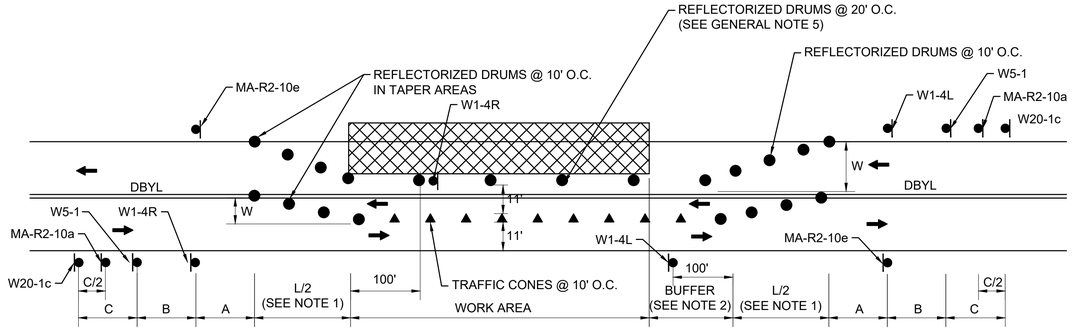


NOTES:

1. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.

TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC

SCALE: NTS DWG: TTCP2b DATE: FEB 2022

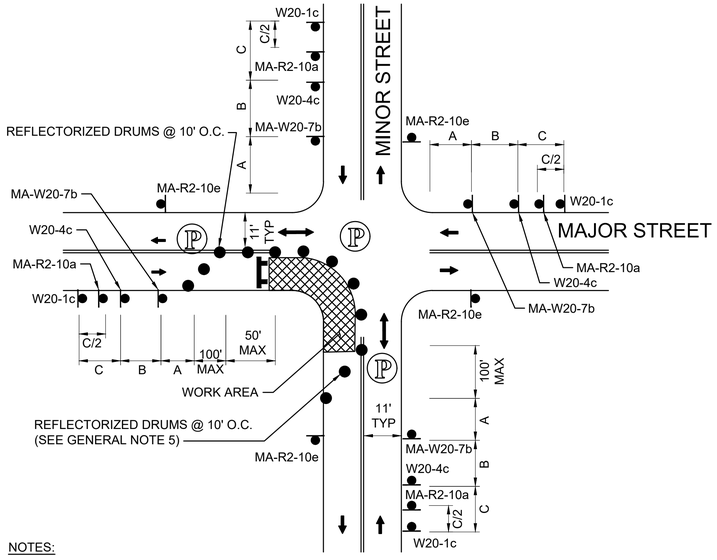


NOTES:

1. SEE TAPER LENGTH FORMULA ON TTCP GENERAL NOTES & LEGEND SHEET.
2. SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
3. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.

TYPICAL TWO-WAY STREET LANE SHIFT

SCALE: NTS DWG: TTCP2a DATE: FEB 2022

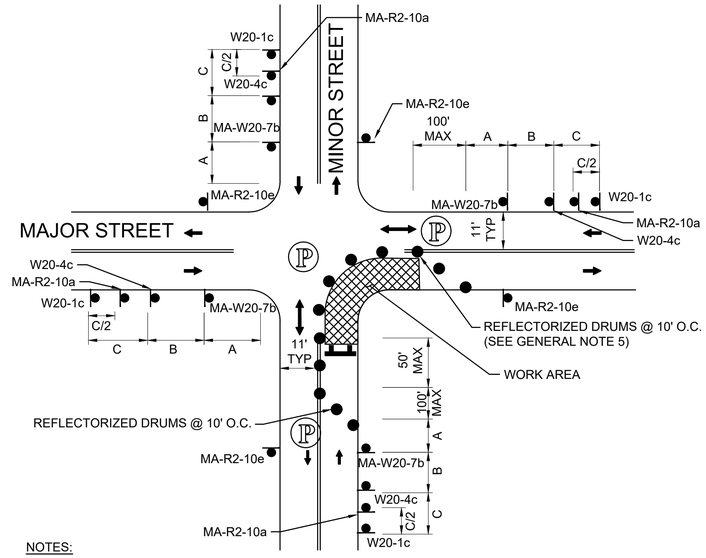


NOTES:

1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.

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

SCALE: NTS DWG: TTCP4d DATE: FEB 2022



NOTES:

1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP GENERAL NOTES & LEGEND SHEET.

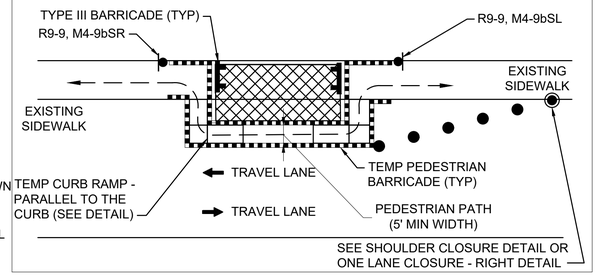
ONE LANE BI-DIRECTIONAL TRAFFIC AT INTERSECTIONS - FAR SIDE

SCALE: NTS DWG: TTCP4c DATE: FEB 2022

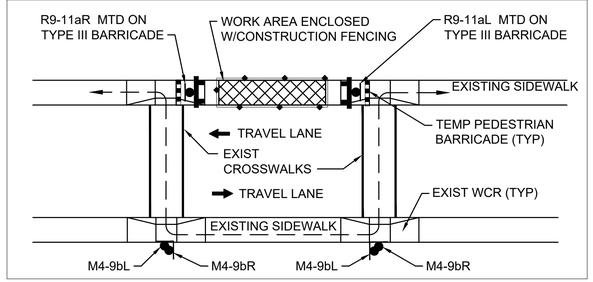
NOTES:

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. → — → INDICATES DIRECTION OF PEDESTRIAN TRAVEL.
5. IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT AS SHOWN IN PEDESTRIAN BYPASS TYPE I, THE APPROPRIATE SIGNS SHALL BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AT EXISTING CROSSWALKS AS SHOWN IN PEDESTRIAN BYPASS TYPE II, AND AS DIRECTED BY THE ENGINEER.
6. 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.
7. 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.
8. TEMPORARY PEDESTRIAN CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSDOT, MAAB, AND ADAAG REQUIREMENTS.
9. TEMPORARY PEDESTRIAN BARRICADE SHALL BE PAID FOR UNDER ITEM 852.11 TEMPORARY PEDESTRIAN BARRICADE.
10. TEMPORARY PEDESTRIAN CURB RAMPS SHALL BE PAID FOR UNDER ITEM 852.12 TEMPORARY PEDESTRIAN CURB RAMP.

PEDESTRIAN BYPASS TYPE I

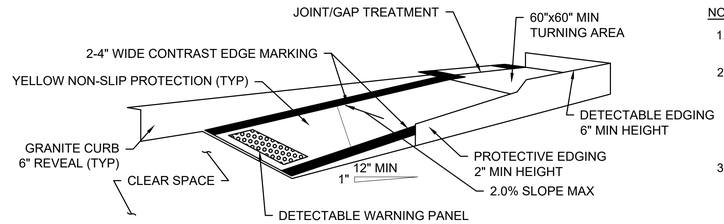


PEDESTRIAN BYPASS TYPE II

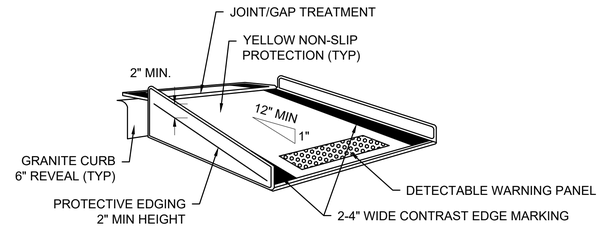


PEDESTRIAN BYPASS DETAIL

SCALE: NTS DWG: TTCP3a DATE: MAY 2023



TEMPORARY CURB RAMP-PARALLEL TO CURB



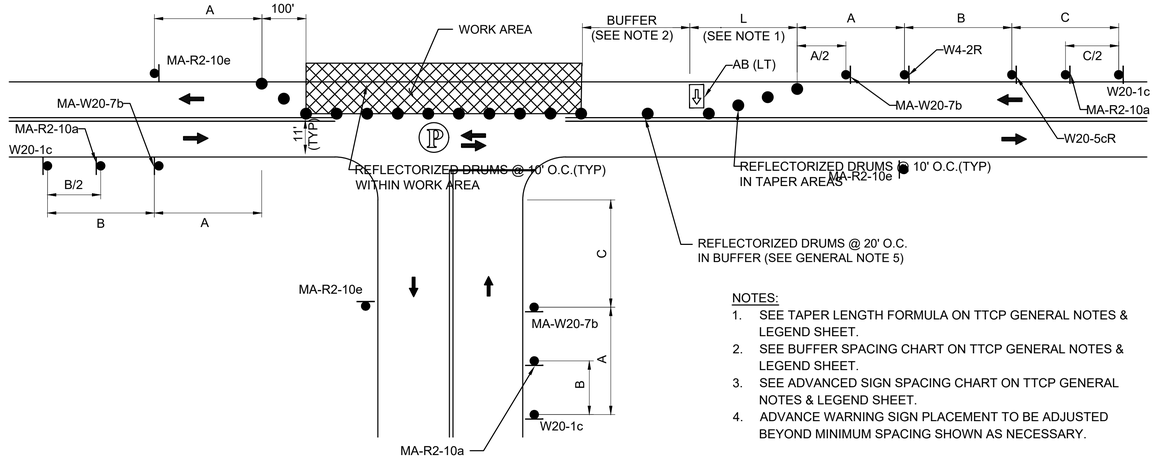
TEMPORARY CURB RAMP-PERPENDICULAR TO CURB

NOTES:

1. CURB RAMPS SHALL BE 60" MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2" MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
5. CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
6. CLEAR SPACE OF 48"x48" MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
7. WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5" LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25" HIGH, AND BEVELED AT 1:2 BETWEEN 0.25" AND 0.5" HEIGHT.
10. IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PAD MUST BE ADHERED TO THE BASE OF THE RAMP. IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A PAD SHALL NOT BE INSTALLED ON THE RAMP.

TEMPORARY CURB RAMPS

SCALE: NTS DWG: TTCP3b DATE: MAY 2023



NOTES:

1. SEE TAPER LENGTH FORMULA ON TTCP GENERAL NOTES & LEGEND SHEET.
2. SEE BUFFER SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
3. SEE ADVANCED SIGN SPACING CHART ON TTCP GENERAL NOTES & LEGEND SHEET.
4. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED BEYOND MINIMUM SPACING SHOWN AS NECESSARY.

FARSIDE LANE CLOSURE AT T-INTERSECTION

SCALE: NTS DWG: TTCP4b DATE: FEB 2022

1229364 - TTCP.DWG Plotted on 12-Feb-2024 11:49 AM

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

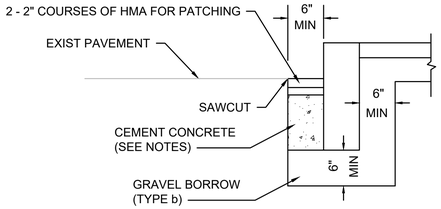
IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACKGROUND	LEGEND	BORDER
MA-R2-10a	48"	36"	WORK ZONE / SPEEDING FINES DOUBLED	AS PER MASSDOT STANDARD			FLUORESCENT ORANGE / WHITE	BLACK	BLACK
MA-R2-10e	36"	48"	END ROAD WORK / DOUBLE FINES END				FLUORESCENT ORANGE / WHITE	BLACK	BLACK
MA-W20-7b	36"	36"	POLICE OFFICER AHEAD				FLUORESCENT ORANGE	BLACK	BLACK
M4-9bL/R	30"	24"	DETOUR / DETOUR				FLUORESCENT ORANGE	BLACK	BLACK
M4-9bSL/R	30"	24"	DETOUR / DETOUR				FLUORESCENT ORANGE	BLACK	BLACK
R4-7b	24"	30"	KEEP RIGHT	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK
R9-9	24"	12"	SIDEWALK CLOSED				WHITE	BLACK	BLACK
R9-11aL/R	24"	12"	SIDEWALK CLOSED CROSS HERE / SIDEWALK CLOSED CROSS HERE				WHITE	BLACK	BLACK
W1-4L	36"	36"					FLUORESCENT ORANGE	BLACK	BLACK
W4-2R	36"	36"					FLUORESCENT ORANGE	BLACK	BLACK
W5-1	36"	36"	ROAD NARROWS				FLUORESCENT ORANGE	BLACK	BLACK
W8-1	36"	36"	BUMP				FLUORESCENT ORANGE	BLACK	BLACK
W8-3	36"	36"	PAVEMENT ENDS				FLUORESCENT ORANGE	BLACK	BLACK
W8-8	36"	36"	ROUGH ROAD				FLUORESCENT ORANGE	BLACK	BLACK
W8-15	36"	36"	GROOVED PAVEMENT				FLUORESCENT ORANGE	BLACK	BLACK
W8-24	36"	36"	STEEL PLATE AHEAD				FLUORESCENT ORANGE	BLACK	BLACK

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY (CONTINUED)

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACKGROUND	LEGEND	BORDER
W20-1	36"	36"	ROAD WORK AHEAD	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUORESCENT ORANGE	BLACK	BLACK
W20-4	36"	36"	ONE LANE ROAD AHEAD				FLUORESCENT ORANGE	BLACK	BLACK
W20-5R	36"	36"		RIGHT LANE CLOSED AHEAD			FLUORESCENT ORANGE	BLACK	BLACK

NOTES:
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED; THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR MOUNTING REQUIREMENTS; AND THE 2017 MassDOT STANDARD SIGNS BOOK, AS AMENDED.
2. ALL SIGNS SHOWN GRAPHICALLY FOR INFORMATION ONLY. SIGN VENDOR SHALL FABRICATE ALL SIGNS IN ACCORDANCE WITH THE APPLICABLE STANDARDS.

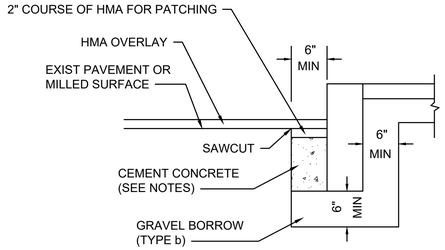
1229364 - DET.DWG Plotted on 12-Mar-2024 4:21 PM



NOTES:
1. SAWCUT 6" FROM CURB LINE AND REMOVE EXISTING PAVEMENT AND GRAVEL. REPLACE WITH CEMENT CONCRETE.
2. 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.

GRANITE CURB IN EXISTING PAVEMENT

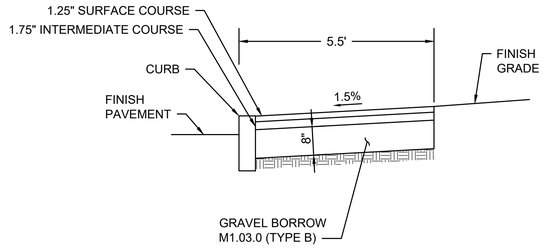
SCALE: N.T.S.



NOTES:
1. CONCRETE SHALL BE INCLUDED IN PRICE BID FOR GRANITE CURB.
2. SAWCUT 6" FROM CURB LINE AND REMOVE EXISTING PAVEMENT AND GRAVEL. REPLACE WITH CEMENT CONCRETE.
3. 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.

GRANITE CURB IN EXISTING PAVEMENT - WITH OVERLAY

SCALE: N.T.S.



SECTION

PAVEMENT NOTES:

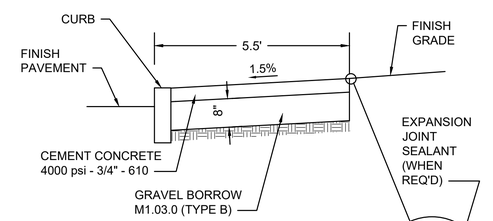
SURFACE: 1.25" SIDEWALK AND DRIVEWAY RECIPE MIX OR 1.25" SUPERPAVE SURFACE COURSE 9.5MM (SSC - 9.5)

INTERMEDIATE: 1.75" SIDEWALK AND DRIVEWAY RECIPE MIX OR 1.75" SUPERPAVE SURFACE COURSE 12.5MM (SSC - 12.5)

NOTES:
1. IF THERE ARE OBSTRUCTIONS IN THE WALKWAY IT MUST BE WIDENED TO PROVIDE A MINIMUM 3 FEET OF CLEARANCE.

HOT MIX ASPHALT SIDEWALK

SCALE: N.T.S.

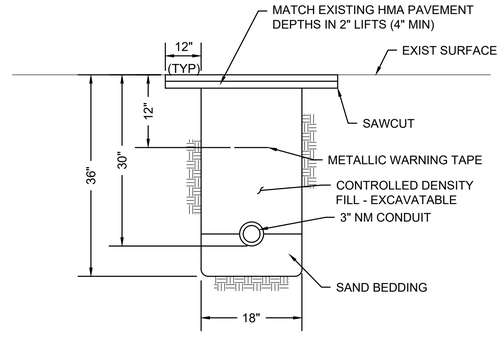


SECTION

NOTES:
1. PROVIDE EXPANSION JOINTS AT MIN 30' O.C. WITH PRE-MOULDED JOINT FILLER
2. PROVIDE TOOLED DUMMY JOINTS
3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB

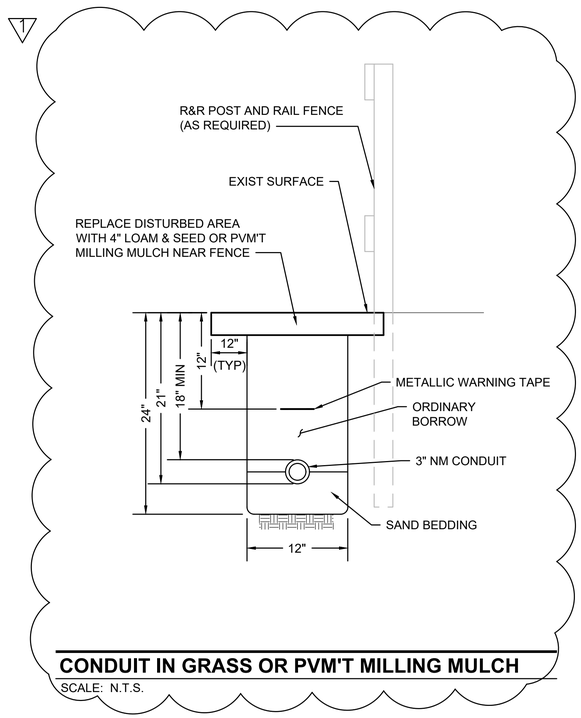
CEMENT CONCRETE SIDEWALK

SCALE: N.T.S. DWG: WALK-01 DATE: MARCH 2013



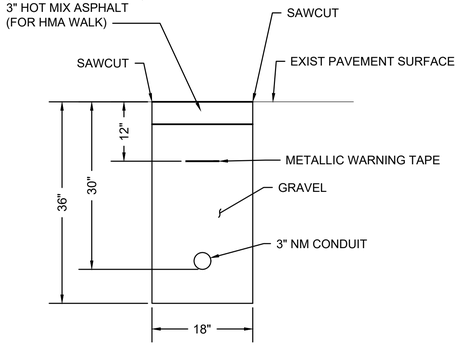
CONDUIT CROSSING ROADWAY/DRIVEWAY

SCALE: N.T.S.



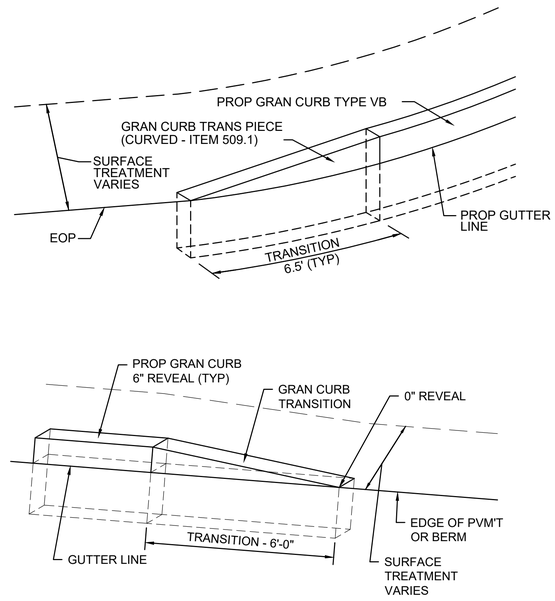
CONDUIT IN GRASS OR PVM'T MILLING MULCH

SCALE: N.T.S.



CONDUIT IN SIDEWALK

SCALE: N.T.S.



GRANITE CURB TRANSITION PIECE

SCALE: N.T.S.

PAVEMENT NOTES

PROPOSED FULL DEPTH PAVEMENT PATCHING

SURFACE:	2" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER ASPHALT EMULSION FOR TACK COAT OVER
INTERMEDIATE:	2.5" SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) OVER ASPHALT EMULSION FOR TACK COAT OVER
SUBBASE:	8" GRAVEL BORROW, TYPE b

PROPOSED PAVEMENT MILLING AND OVERLAY

SURFACE:	2" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER ASPHALT EMULSION FOR TACK COAT OVER
MILLING:	2" PAVEMENT FINE MILLING

PROPOSED HOT MIX ASPHALT DRIVEWAY

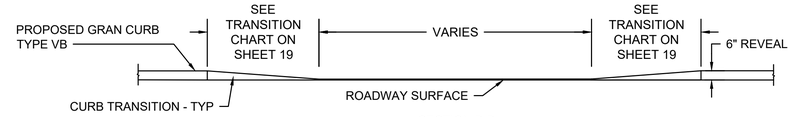
SURFACE:	1.5" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER
INTERMEDIATE:	2.5" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER
SUBBASE	8" GRAVEL BORROW, TYPE b

PROPOSED HOT MIX ASPHALT SIDEWALK

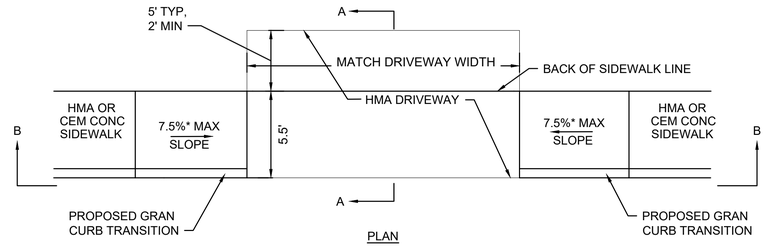
SURFACE:	1.25" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER
INTERMEDIATE:	1.75" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER
SUBBASE:	8" GRAVEL BORROW, TYPE b

PROPOSED CEMENT CONCRETE SIDEWALK/ ISALND

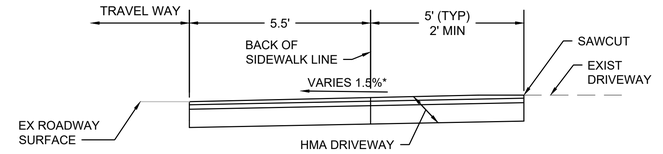
SURFACE:	4" CEMENT CONCRETE (4000 PSI, 3/4", 610 LBS) OVER
SUBBASE:	8" GRAVEL BORROW, TYPE b



SECTION B-B



PLAN



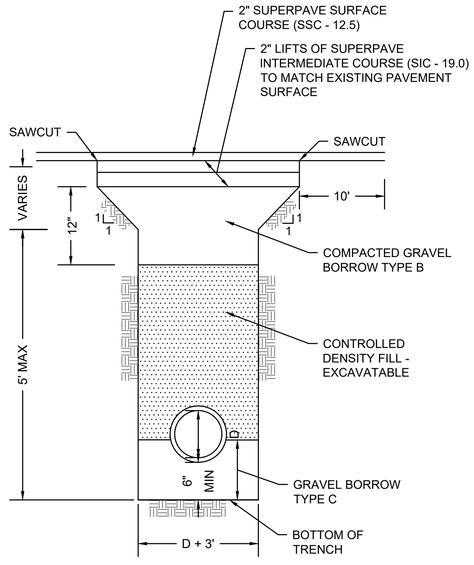
SECTION A-A

* DRIVEWAY AND SIDEWALK SLOPED TO MEET AT 1/2 OF THE CURB REVEAL

* 0.5% TOLERANCE FOR CONSTRUCTION

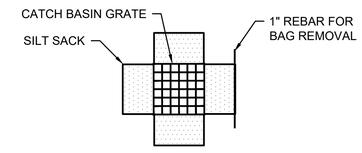
TYPICAL DRIVEWAY WITH SIDEWALK

SCALE: N.T.S.

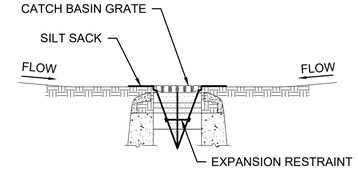


TRENCH DETAIL IN EXISTING HOT MIX ASPHALT

SCALE: N.T.S.



PLAN VIEW

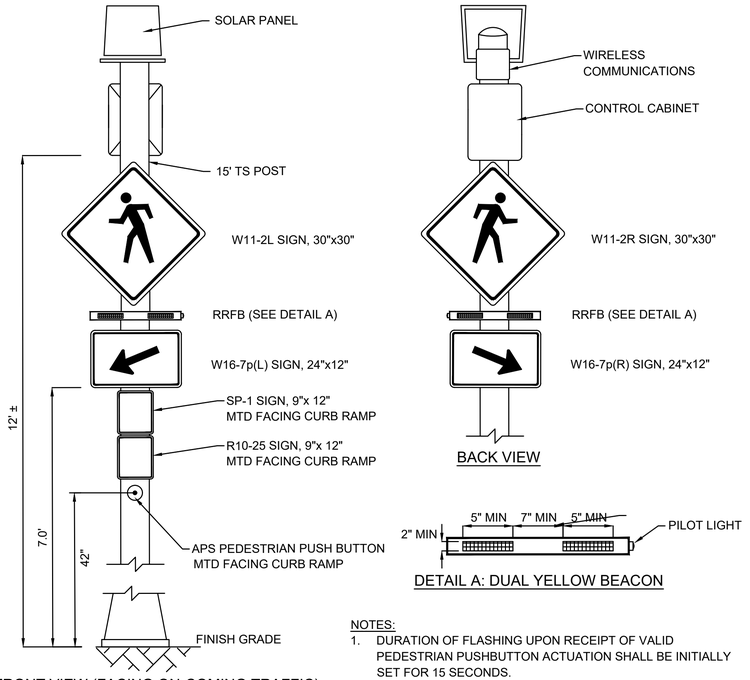


SECTION VIEW

NOTES:
1. INSTALL SILT SACK IN EXISTING CATCH BASINS, BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
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.



NOTES:
1. DURATION OF FLASHING UPON RECEIPT OF VALID PEDESTRIAN PUSHBUTTON ACTUATION SHALL BE INITIALLY SET FOR 15 SECONDS.
2. SEE SPECIAL PROVISIONS ITEM 824.211 FOR MORE DETAILS.

RECTANGULAR RAPID FLASHING BEACON (SOLAR)

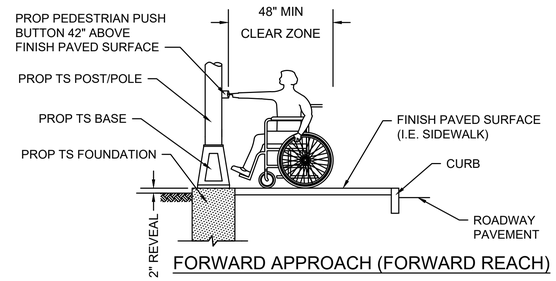
SCALE: NTS

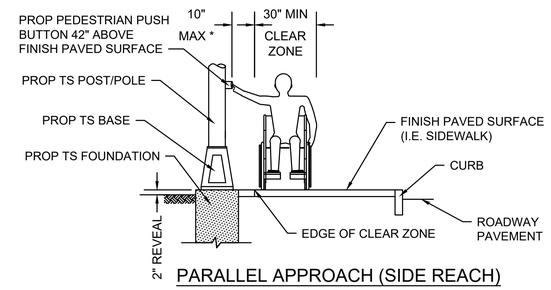
LIST OF MAJOR ITEMS REQUIRED

ACTON STREET AT NASON STREET

PAY ITEM	QUANTITY	DESCRIPTION
824.211	2	15' TS POST STANDARD INCL. FOUNDATION
	4	L.E.D. RECTANGULAR RAPID FLASHING BEACON (RRFB)
	2	SOLAR PANEL
	2	RADIO ANTENNA
	2	PEDESTRIAN PUSH BUTTON W/R10-25
	2	BATTERY SYSTEM
	2	SIDE-OF-POST CONTROL CABINET
832.	2	SP-1
	2	W11-2(L)
	2	W11-2(R)
	2	W16-7p(L)
	2	W16-7p(R)

PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING RECTANGULAR RAPID FLASHING BEACON SYSTEM





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.

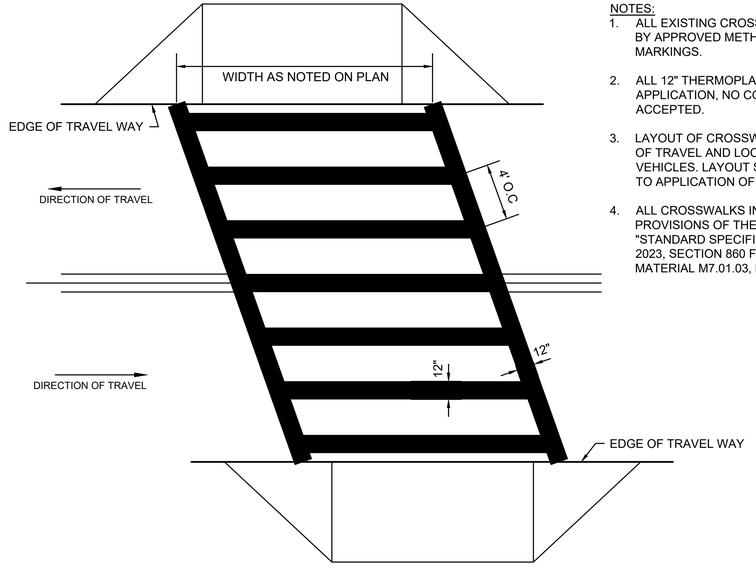
a) WHERE A FORWARD APPROACH IS PROVIDED, PEDESTRIAN PUSH BUTTONS SHALL ABUT AND BE CENTERED ON THE CLEAR GROUND SPACE.

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.

*CONTRACTOR SHALL PROVIDE EXTENSION BRACKET FOR PUSH BUTTOM WHERE REQUIRED TO OBTAIN A MAXIMUM 10" REACH.

PEDESTRIAN PUSH BUTTON CLEAR ZONE

SCALE: N.T.S. DWG: PM-10 DATE: APRIL 2013



NOTES:
1. ALL EXISTING CROSSWALK MARKINGS SHALL BE FULLY ERADICATED BY APPROVED METHOD PRIOR TO THE APPLICATION OF PROPOSED MARKINGS.
2. ALL 12" THERMOPLASTIC LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (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 ENGINEER 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 2023, SECTION 860 FOR REFLECTORIZED LINE (THERMO-PLASTIC) & MATERIAL M7.01.03, LATEST REVISIONS.

CONTINENTAL-STYLE CROSSWALK - 12" WIDE LINES

SCALE: N.T.S. DWG: PM-27 DATE: MAY 2017

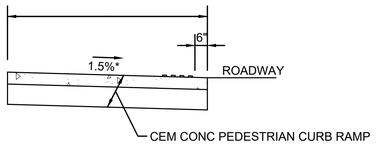
1229364 - PCR.DWG Plotted on 18-Apr-2024 4:05 PM

ROADWAY PROFILE GRADE	* HIGH SIDE TRASITION LENGTH
%	ENGLISH UNITS
=0%	6'-6"
>0% TO 1%	7'-8"
>1% TO 2%	9'-0"
>2% TO 3%	11'-0"
>3% TO 4%	14'-0"
>4% TO 5%	15'-0" MAX

PEDESTRIAN CURB RAMP DATA			
NO.	RAMP OPENING	SIDEWALK WIDTH	COMMENTS
3	STA 3+76±, 13'± RT	5'-6"	HIGH SIDE TRANSITION LENGTH TO BE DETERMINED IN THE FIELD BY THE TOWN OF MAYNARD FIELD REP
4	STA 3+76±, 13'± LT	6'-6"	HIGH SIDE TRANSITION LENGTH TO BE DETERMINED IN THE FIELD BY THE TOWN OF MAYNARD FIELD REP
7	STA 103+37±, 14'± RT	5'-6"	HIGH SIDE TRANSITION LENGTH TO BE DETERMINED IN THE FIELD BY THE TOWN OF MAYNARD FIELD REP
8	STA 104+20±, 50'± RT	5'-6"	HIGH SIDE TRANSITION LENGTH TO BE DETERMINED IN THE FIELD BY THE TOWN OF MAYNARD FIELD REP
9	STA 104+48±, 32'± RT	5'-6"	HIGH SIDE TRANSITION LENGTH TO BE DETERMINED IN THE FIELD BY THE TOWN OF MAYNARD FIELD REP
10	STA 103+08±, 15'± RT	5'-6"	HIGH SIDE TRANSITION LENGTH TO BE DETERMINED IN THE FIELD BY THE TOWN OF MAYNARD FIELD REP
12	STA 10+20±, 24'± LT	5'-6"	HIGH SIDE TRANSITION LENGTH TO BE DETERMINED IN THE FIELD BY THE TOWN OF MAYNARD FIELD REP
13	STA 10+50±, 31'± LT	5'-6"	HIGH SIDE TRANSITION LENGTH TO BE DETERMINED IN THE FIELD BY THE TOWN OF MAYNARD FIELD REP

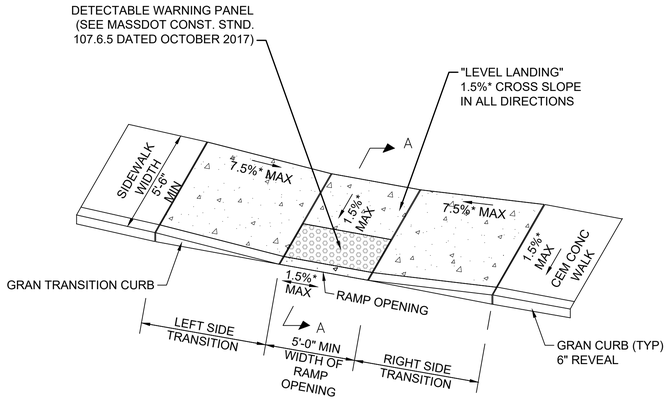
2

NOTE: TOLERANCE FOR CONSTRUCTION ± 0.5%



SECTION A-A

LEGEND
= LIMITS OF CEM CONC RAMP
= DETECTABLE WARNING PANEL



OBLIQUE VIEW

*TOLERANCE FOR CONSTRUCTION ±0.5%

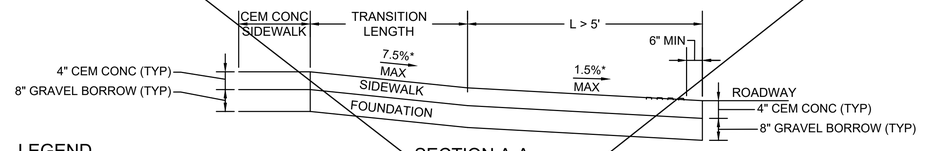
NARROW PEDESTRIAN RAMP IN SIDEWALK 6'-6" OR LESS

SCALE: NTS MassDOT STANDARD DETAIL REFERENCE: E 107.2.1

2

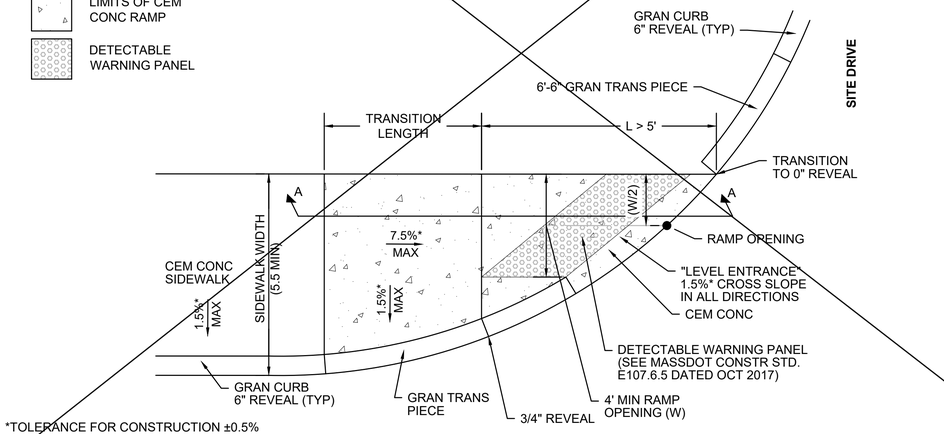
PEDESTRIAN CURB RAMP DATA			
NO.	RAMP OPENING	SIDEWALK WIDTH	COMMENTS

NOTE: TOLERANCE FOR CONSTRUCTION ± 0.5%



SECTION A-A

LEGEND
LIMITS OF CEM CONC RAMP
DETECTABLE WARNING PANEL



*TOLERANCE FOR CONSTRUCTION ±0.5%

PEDESTRIAN CURB RAMP - 'L' IS GREATER THAN 5'

SCALE: NTS

1229364 - PCR.DWG Plotted on 18-Apr-2024 3:30 PM

ROADWAY PROFILE GRADE	* HIGH SIDE TRASITION LENGTH
%	ENGLISH UNITS
=0%	6'-6"
>0% TO 1%	7'-8"
>1% TO 2%	9'-0"
>2% TO 3%	11'-0"
>3% TO 4%	14'-0"
>4% TO 5%	15'-0" MAX

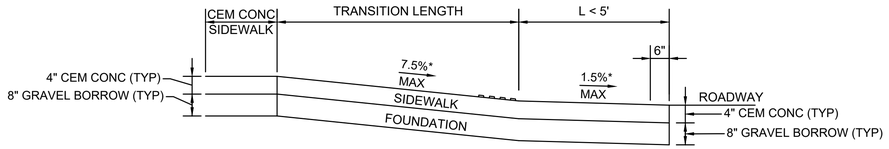
PEDESTRIAN CURB RAMP DATA			
NO.	RAMP OPENING	SIDEWALK WIDTH	COMMENTS
1	STA 3+31±, 18'± RT	10'-7"	HIGH SIDE TRANSITION LENGTH TO BE DETERMINED IN THE FIELD BY THE TOWN OF MAYNARD FIELD REP

NOTE: TOLERANCE FOR CONSTRUCTION ± 0.5%

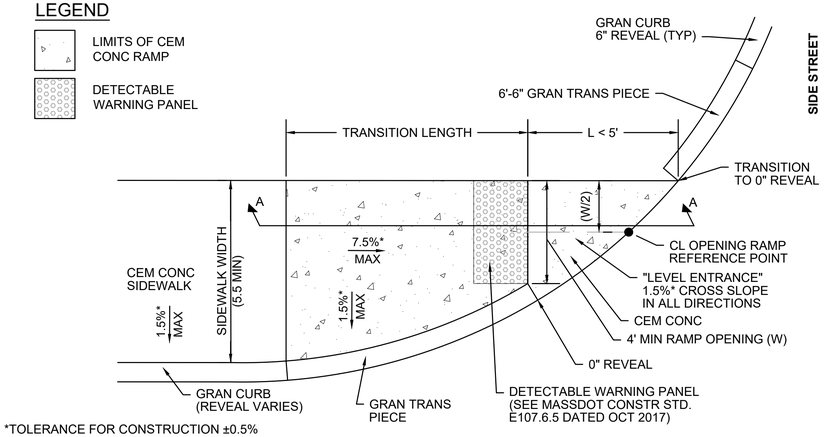
PEDESTRIAN CURB RAMP DATA			
NO.	RAMP OPENING	SIDEWALK WIDTH	COMMENTS
5	STA 6+10±, 14'± RT	5'	HIGH SIDE TRANSITION LENGTH TO BE DETERMINED IN THE FIELD BY THE TOWN OF MAYNARD FIELD REP
6	STA 6+30±, 13± RT	5'-6"	HIGH SIDE TRANSITION LENGTH TO BE DETERMINED IN THE FIELD BY THE TOWN OF MAYNARD FIELD REP
11	STA 10+25±, 15'± RT	5'-6"	HIGH SIDE TRANSITION LENGTH TO BE DETERMINED IN THE FIELD BY THE TOWN OF MAYNARD FIELD REP

2

NOTE: TOLERANCE FOR CONSTRUCTION ± 0.5%



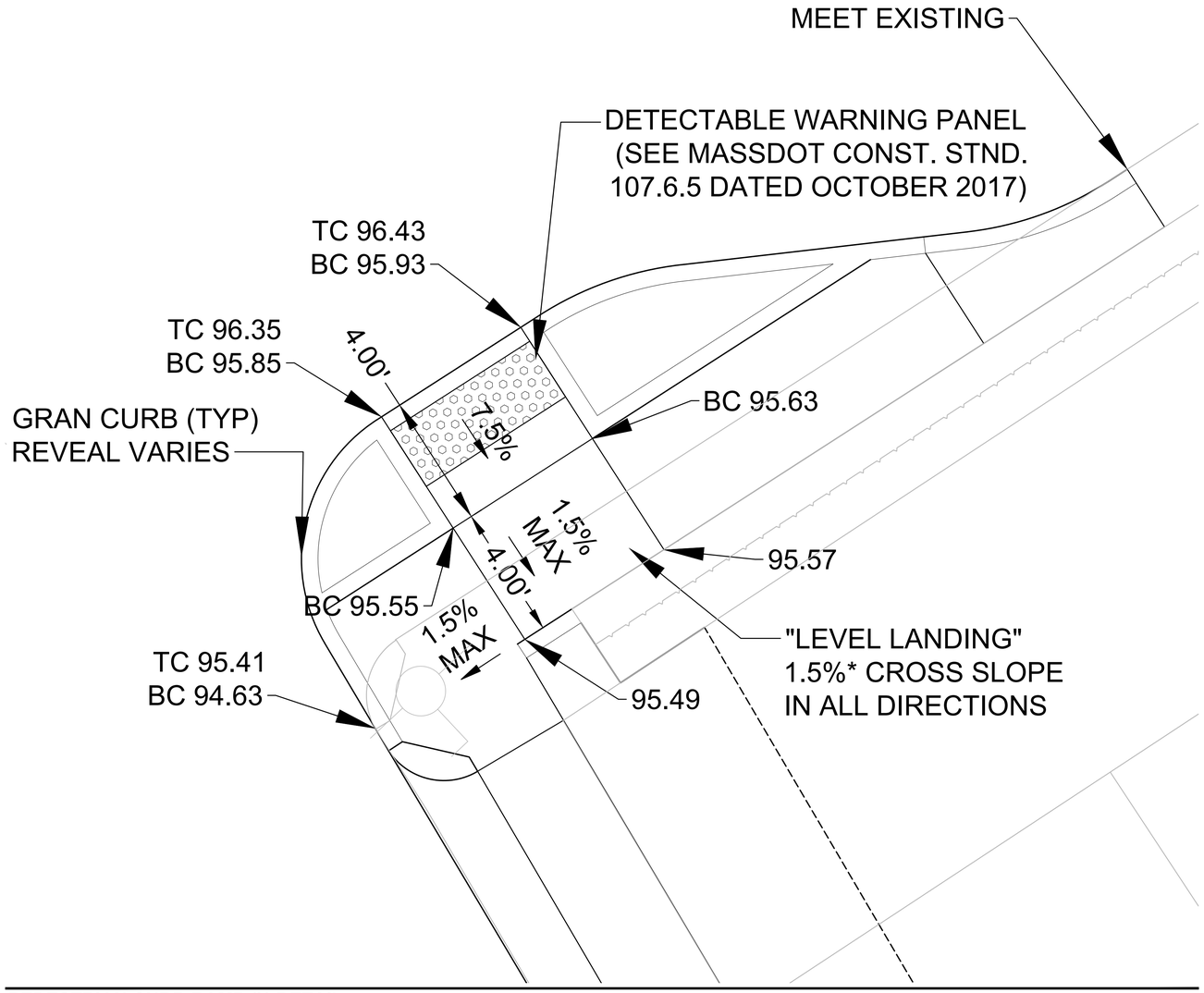
SECTION A-A



*TOLERANCE FOR CONSTRUCTION ±0.5%

PEDESTRIAN CURB RAMP - 'L' IS LESS THAN 5'

SCALE: NTS



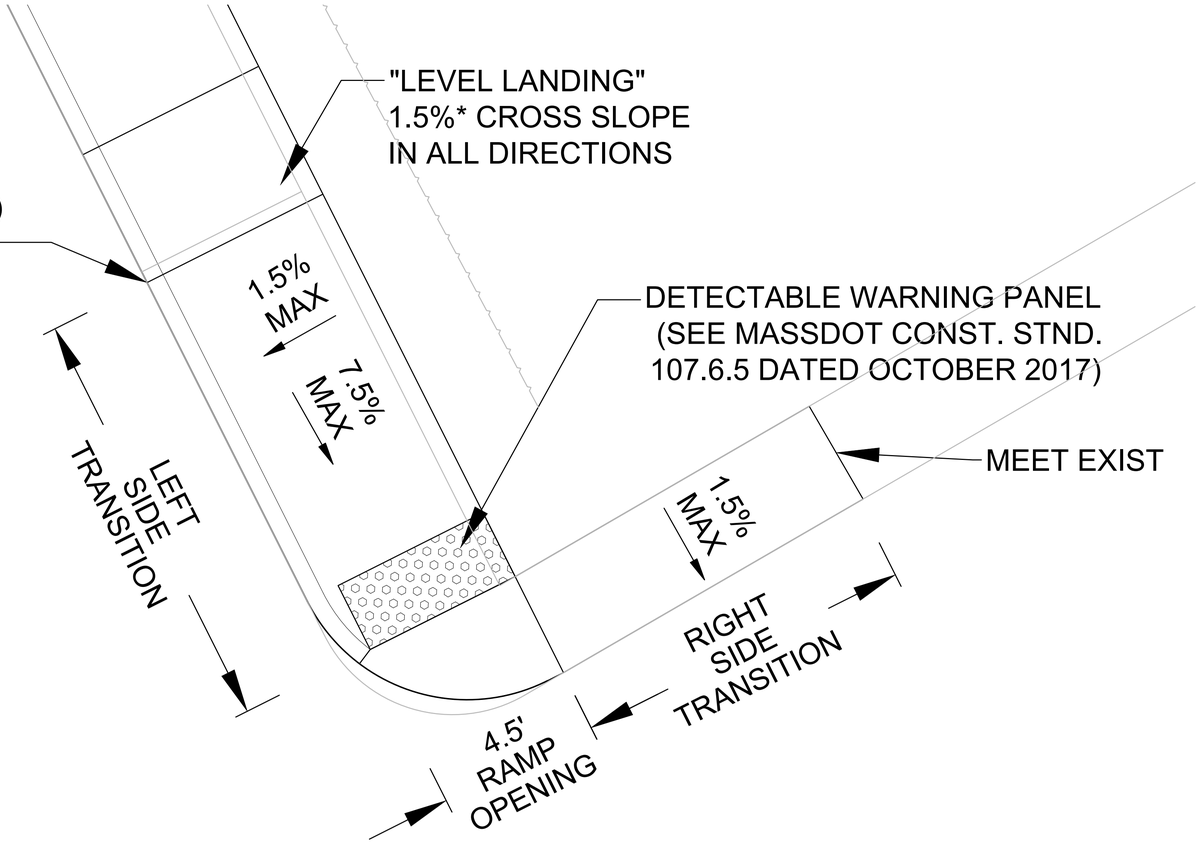
PEDESTRIAN CURB RAMP #1 DETAIL

1229364 - PCR.DWG Plotted on 12-Feb-2024 11:53 AM

ROADWAY PROFILE GRADE	* HIGH SIDE TRASITION LENGTH
%	ENGLISH UNITS
=0%	6'-6"
>0% TO 1%	7'-8"
>1% TO 2%	9'-0"
>2% TO 3%	11'-0"
>3% TO 4%	14'-0"
>4% TO 5%	15'-0" MAX

PEDESTRIAN CURB RAMP DATA			
NO.	RAMP OPENING	SIDEWALK WIDTH	COMMENTS
(2)	STA 3+48±, 17'± RT	3'	HIGH SIDE TRANSITION LENGTH TO BE DETERMINED IN THE FIELD BY THE TOWN OF MAYNARD FIELD REP

NOTE: TOLERANCE FOR CONSTRUCTION ± 0.5%



PEDESTRIAN CURB RAMP #2 DETAIL