

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

HINGHAM
ROUTE 3A RECONSTRUCTION

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	1	269
PROJECT FILE NO.		605168	

TITLE SHEET & INDEX

PLAN AND PROFILE OF ROUTE 3A / SUMMER STREET / ROCKLAND STREET

IN THE TOWN OF
HINGHAM
PLYMOUTH COUNTY

FEDERAL AID PROJECT NO.

75% SUBMITTAL

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.

DESIGN DESIGNATION (STA 1000+00 TO STA 1012+00)

DESIGN SPEED	25 MPH
ADT (2023)	20,513
ADT (2043)	22,664
K	11%
D	55% EB
T (PEAK HOUR)	1.0%
T (AVERAGE DAY)	2.5%
DHV	2,745
DDHV	1,510 EB
FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL

DESIGN DESIGNATION (STA 1012+00 TO STA 1030+00)

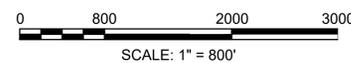
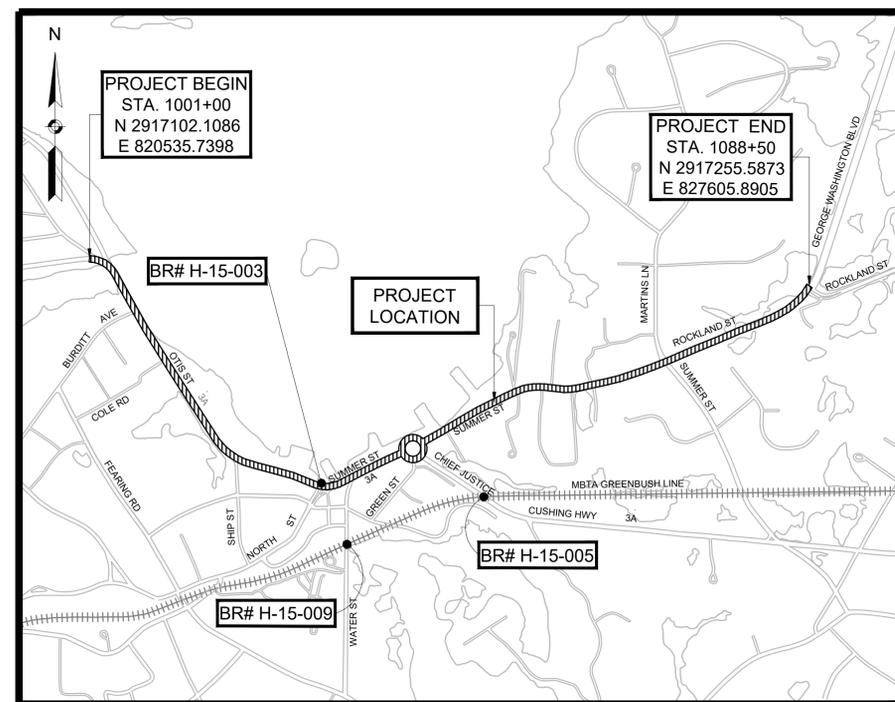
DESIGN SPEED	40 MPH
ADT (2023)	22,585
ADT (2043)	24,954
K	11%
D	55% EB
T (PEAK HOUR)	1.0%
T (AVERAGE DAY)	2.5%
DHV	2,745
DDHV	1,510 EB
FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL

DESIGN DESIGNATION (STA 1030+00 TO STA 1048+00)

DESIGN SPEED	25 MPH
ADT (2023)	29,938
ADT (2043)	33,078
K	8%
D	51% EB
T (PEAK HOUR)	2.3%
T (AVERAGE DAY)	4.0%
DHV	2,770
DDHV	1,415 EB
FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL

DESIGN DESIGNATION (STA 1048+00 TO STA 1077+25)

DESIGN SPEED	35 MPH
ADT (2023)	19,436
ADT (2043)	21,474
K	9%
D	52% EB
T (PEAK HOUR)	2.3%
T (AVERAGE DAY)	4.0%
DHV	1,945
DDHV	1,010 EB
FUNCTIONAL CLASSIFICATION	URBAN MINOR ARTERIAL



LENGTH OF PROJECT = 8,794.07 FEET = 1.666 MILES

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GM2 ASSOCIATES, INC.
10 CABOT ROAD, STE. 101B
MEDFORD, MA 02155



APPROVED

CHIEF ENGINEER

DATE

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

APPROVED

DIVISION ADMINISTRATOR

DATE

HIGHWAY ADMINISTRATOR

DATE

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SURVEY & GENERAL NOTES

SURVEY NOTES

1. TOPOGRAPHY AND DETAIL ARE BASED ON AN ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY GM2 ASSOCIATES IN APRIL OF 2016, AND REVISED THROUGH NOVEMBER OF 2016.
2. AN OVERHEAD/SUBSURFACE UTILITY ENGINEERING INVESTIGATION (SUE) WAS PERFORMED BY OVERLAND ENGINEERING, LLC AND COMPLETED ON 12/23/2021 FOR THIS PROJECT.
3. COORDINATES ARE IN US SURVEY FEET, REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD '83). ELEVATION ARE IN US SURVEY FEET, REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88) BASED ON GPS OBSERVATIONS.
4. NO EASEMENT RESEARCH WAS COMPLETED FOR THIS PROJECT. EASEMENTS SHOWN HEREON ARE FROM PLANS WHICH WERE FOUND WHILE COMPILING PROPERTY LINES.
5. ALL 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.
6. WETLAND FLAGS IDENTIFYING THE RESOURCE ARE DELINEATIONS SHOWN ON THE PLAN SET WERE PERFORMED BY GM2 ASSOCIATES ON SEPTEMBER 5, 2023 AND SEPTEMBER 6, 2023. FOR ADDITIONAL INFORMATION REGARDING THE RESOURCES AREAS, PLEASE REFER TO THE WETLAND DELINEATION REPORT.

GENERAL NOTES

1. EXISTING GROUND SURFACES SHOWN ON PLANS, PROFILES AND CROSS SECTIONS ARE BASED UPON DATA OBTAINED BY FIELD SURVEYS.
2. THE LOCATIONS OF EXISTING SUBSURFACE STRUCTURES, SUCH AS SEWERS, WATER MAINS, DRAINS AND OTHER UTILITIES ARE APPROXIMATE ONLY AND THE ENGINEER DOES NOT GUARANTEE THEIR NUMBER OR LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES BEFORE EXCAVATING.
3. THE CONTRACTOR IS REQUIRED TO CONTACT DIGSAFE AND OBTAIN VALID DIGSAFE NUMBER A MINIMUM OF 72 HOURS PRIOR TO ANY GROUND DISTURBANCE, THE CITY OF HINGHAM AND/OR MASSDOT ARE NOT AFFILIATED WITH DIGSAFE AND MUST BE CONTACTED INDIVIDUALLY FOR PROVISION OF UTILITY MARK OUTS.
4. THE CONTRACTOR SHALL DIG TEST PITS AT EXISTING DRAINAGE STRUCTURES TO DETERMINE EXISTING INVERT ELEVATIONS INDICATED ON THE PLANS AS N/A (NOT AVAILABLE). PROPOSED DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE OR UTILITY DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR REQUIRED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTABILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED.
5. EXISTING WATER BOXES AND CURB STOPS, FIRE ALARM, SEWER AND SURFACE DRAIN MANHOLE FRAMES AND COVERS, CATCH BASIN FRAMES AND GRATES AND OTHER CASTINGS SHALL BE ADJUSTED TO LINE AND/OR GRADE AS SHOWN ON THE PLANS AND/OR AS REQUIRED BY THE ENGINEER.
6. OFFSETS TO CATCH BASINS ARE TO THE CENTER OF THE CASTING GRATE AT THE GUTTERLINE/FACE OF CURB.
7. OFFSETS TO MANHOLES ARE TO THE CENTER OF THE CASTING COVER.
8. ALL EXISTING BROKEN OR DAMAGED SERVICE BOXES AND GATE BOXES WITHIN THE PROJECT SITE SHALL BE REPLACED WITH NEW STRUCTURES IN ACCORDANCE WITH THE MUNICIPAL WATER DEPARTMENT STANDARDS AND AS REQUIRED BY THE ENGINEER.
9. ALL GAS GATES, ELECTRIC MANHOLES AND TELEPHONE MANHOLES WITHIN THE LIMITS OF WORK SHALL BE ADJUSTED BY THE OWNING AGENCY, UNLESS OTHERWISE INDICATED ON THE PLANS. ALL GAS, ELECTRIC, TELEPHONE AND CATV WORK SHALL BE DONE BY THE OWNING AGENCY. THE CONTRACTOR SHALL NOTIFY THE OWNING AGENCIES TO ADJUST AND/OR RELOCATE THESE STRUCTURES TO AVOID IMPACTING THE CONTRACTOR'S SCHEDULE OF OPERATIONS.
10. ALL EXISTING DRAINAGE STRUCTURES AND PIPE TO REMAIN IN SERVICE WITHIN THE PROJECT LIMITS SHALL BE CLEANED AND SEDIMENT DISPOSED OF UNDER PAY ITEMS 227.3 AND 227.31.
11. ALL PROPOSED DRAINAGE CONNECTIONS TO EXISTING STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE NEW PIPE.
12. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE UTILITY COMPANIES DOING WORK IN THE SAME AREA. THE CONTRACTOR SHALL ALLOW THE UTILITY COMPANIES AND THEIR REPRESENTATIVES TO ADJUST AND/OR INSTALL THEIR SYSTEMS AS REQUIRED IN THE CONTRACT DOCUMENTS.
13. NO EXISTING PUBLIC UTILITY STRUCTURES SHALL BE ABANDONED AND/OR DISMANTLED WITHOUT AUTHORIZATION FROM THE ENGINEER.
14. SIGNS TO BE REMOVED AND RESET SHALL BE FURNISHED WITH A NEW SIGN POST (P5) IF THE EXISTING POST IS OLD OR DAMAGE AS DETERMINED BY THE ENGINEER
15. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANIES WHEN THE INSTALLATION OF DRAINAGE LINES AND STRUCTURES ARE IN CLOSE PROXIMITY TO EXISTING UTILITY POLES.
16. EXISTING UTILITY POLES WILL BE RELOCATED BY OTHERS.
17. THE CONTRACTOR SHALL COORDINATE WORK WITH THE OWNERS OF UTILITY POLES AND SHALL BE RESPONSIBLE FOR TRIMMING TREES AS NECESSARY TO ACCOMMODATE NEW UTILITY POLE LOCATIONS, AS MAY BE REQUIRED.
18. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR TEMPORARY SUPPORT WHILE EXCAVATING IN CLOSE PROXIMITY OF UTILITY POLES, IF REQUIRED BY THE UTILITY, AT NO ADDITIONAL COST.
19. THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING SUITABLE EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
20. ITEMS LABELED "REM" SHALL BE REMOVED AND DISCARDED BY CONTRACTOR.
21. CURBING AND EDGING SHALL BE FURNISHED AND INSTALLED AT LOCATIONS SHOWN ON THE PLANS AND/OR AS REQUIRED BY THE ENGINEER.
22. ALL WHEELCHAIR RAMPS SHALL CONFORM TO THE MASSACHUSETTS ARCHITECTURAL ACCES BOARD (MAAB) RULES AN REGULATION AND THE AMERICANS WITH DISABILITIES ACT (ADA) GUIDELINES AND THE LATEST MASSDOT CONSTRUCTION STANDARDS.
23. DRIVEWAYS AND WALKS SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS AN/OR AS REQUIRED BY THE ENGINEER.
24. AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 3'-0" SHALL BE MAINTAINED PAST ALL OBSTRUCTIONS/STREET FURNITURE (I.E. UTILITY POLES, SIGNS, SIGNAL FOUNDATIONS, MAST ARMS, MAILBOXES, ETC.) WITHIN SIDEWALKS. WHEELCHAIR RAMPS, SIDEWALK THROUGH DRIVEWAY CROSSING, SHARED USED PATHS AND ALL OTHER WALKWAY AREAS WHERE PEDESTRIANS ARE ALLOWED.
25. EXISTING GRANITE CURB, EDGING, AND CURB CORNERS SUITABLE FOR REUSE WITHIN THE PROJECT SITE, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED, SHALL BE REMOVED AND RESET IN ACCORDANCE WITH THE PLANS AND/OR AS REQUIRED BY THE ENGINEER.
26. THE CONTRACTOR SHALL SAW CUT EXISTING BITUMINOUS CONCRETE ROADWAYS, BITUMINOUS CONCRETE SIDEWALKS AND BITUMINOUS CONCRETE DRIVEWAYS AS SHOWN ON THE PLANS AND AT THE PROPOSED LIMITS OF WORK.
27. WHERE THE NEW CONSTRUCTION COINCIDES WITH PRESENT TRAVELED WAYS.
 - 27.1. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH THE TEMPORARY TRAFFIC CONTROL PLANS AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" FOR WORK ZONES.
 - 27.2. THE CONTRACTOR SHALL PERFORM HIS WORK IN A MANNER ACCEPTABLE TO THE ENGINEER SO THAT INTERFERENCE WITH AND INCONVENIENCE TO BUSINESS CONCERNS AND ABUTTERS, ON ACCOUNT OF THE CONSTRUCTION WORK, IS KEPT TO A MINIMUM.
 - 27.3. THE CONTRACTOR SHALL NOT BE ALLOWED TO PARK EQUIPMENT OR STOCKPILE EQUIPMENT OR MATERIAL ON THE TRAVELED WAYS OVERNIGHT OR WHEN NOT IN USE.
 - 27.4. THE CONTRACTOR SHALL MAINTAIN SAFE AND RESPONSIBLE ACCESS TO AND FROM ABUTTING PROPERTY PRIVATE WAYS, DRIVEWAYS AND ALL ALLEYS AT ALL TIMES DURING THE CONSTRUCTION PERIOD.
28. 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.
29. THE CONTRACTOR SHALL DIG TEST PITS AS REQUIRED TO LOCATE EXISTING UTILITIES PRIOR TO TREE/SHRUB PLANTING. ROOT BALLS SHALL BE PLANTED A MINIMUM OF THREE (3) LATERAL FEET AWAY FROM GAS PIPES.
30. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE WITH NO ADDITIONAL COMPENSATION, AND SUBJECT TO THE APPROVAL OF THE ENGINEER AND ACCEPTANCE OF THE ASSOCIATED PROPERTY OWNER.
31. ALL PROPOSED PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
32. THE CONTRACTOR SHALL RESTORE ANY EXISTING SURFACE PAVEMENTS AND TURF WHICH IS TO REMAIN THAT IS DISTURBED BY THE PROPOSED WORK AND SHALL PATCH ALL HOLES RESULTING FROM THE REMOVAL OF FOUNDATIONS PER THE SPECIFICATIONS UNDER ITEM 451. HMA FOR PATCHING.
33. ALL ACCESSIBLE ROUTES, WALKWAYS, CURB CUTOUTS, RAMPS, SIDEWALKS, DRIVEWAY OPENINGS, CLEARANCES AND SLOPE TOLERANCES SHALL CONFORM WITH THE ARCHITECTURAL ACCESS BOARD (AAB), 521 CMR AND MASSDOT CONSTRUCTION AND TRAFFIC STANDARD DRAWINGS.
34. ALL UTILITY COVERS WITHIN ACCESSIBLE ROUTES SHALL BE REPLACED WITH SLIP-RESISTANT COVERS.
35. PRIOR TO COMMENCING ANY WORK ON THE SITE, PRECEDING THE ARRIVAL OF EQUIPMENT, MATERIALS, OR VEHICLES TO THE SITE, AND PRIOR TO THE COMMENCEMENT OF ANY CLEARING ON THE SITE, THE CONTRACTOR AND ARBORIST SHALL ARRANGE A PRECONSTRUCTION TREE INVENTORY CONFERENCE ON THE SITE WITH THE ENGINEER AND REPRESENTATIVE MUNICIPAL TREE WARDEN TO IDENTIFY TREES AND SHRUBS THAT ARE TO BE PROTECTED OR REMOVED AND REVIEW APPROVED PROTECTION MEASURES. NO CLEARING OR PRUNING SHALL BE DONE WITHOUT A CLEAR UNDERSTANDING OF EXISTING CONDITIONS TO BE PRESERVED.
36. THE CONTRACTOR SHALL PROTECT EXISTING SURVEY MONUMENTS AND SHALL RESET ANY MONUMENTATION DISTURBED BY HIS OPERATIONS.
37. ALL EXISTING PAVEMENT BELOW THE PROPOSED MILLING DEPTH DEEMED UNSATISFACTORY BY THE ENGINEER SHALL BE SAWCUT, REMOVED, AND REPAIRED PER THE SPECIFICATIONS UNDER ITEM 451. HMA FOR PATCHING.
38. THE CONTRACTOR SHALL DISPOSE OF ALL WASTE MATERIAL IN ACCORDANCE WITH ALL FEDERAL STATE AND MUNICIPAL REGULATION AT THEIR OWN EXPENSE, IF NOT OTHERWISE SPECIFIED, OUTSIDE OF THE PROJECT LIMITS.

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		POST CIRCULAR
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		TRANSMISSION POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W / 1 LIGHT
		UTILITY POLE
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		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
		HAY BALES/SILT FENCE
		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
		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)
		RAILROAD SIGNAL
		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
		MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		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
		LEGEND "ONLY" - WHITE
		STOP LINE - 12"
		CROSSWALK - 12"
		SOLID WHITE LINE - 6"
		SOLID YELLOW LINE - 6" and 12"
		BROKEN WHITE LINE - 6" (10' LINE SEGMENT, 30' GAP)
		BROKEN YELLOW LINE - 6" (10' LINE SEGMENT, 30' GAP)
		DOTTED WHITE LINE - 6" (3' LINE SEGMENT, 9' GAP)
		DOTTED YELLOW LINE - 6" (3' LINE SEGMENT, 9' GAP)
		DOTTED WHITE LINE EXTENSION - 6" (2' LINE SEGMENT, 6' GAP)
		DOTTED YELLOW LINE EXTENSION - 6" (2' LINE SEGMENT, 6' GAP)
		DOUBLE WHITE LINE - 6"
		DOUBLE YELLOW LINE - 6"

ABBREVIATIONS

GENERAL	DESCRIPTION
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

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LEGEND & ABBREVIATIONS

ABBREVIATIONS (cont.)

GENERAL	DESCRIPTION
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