13982.01_HD(COV).DWG Plotted on 26-Mar-2020 5:53 PM

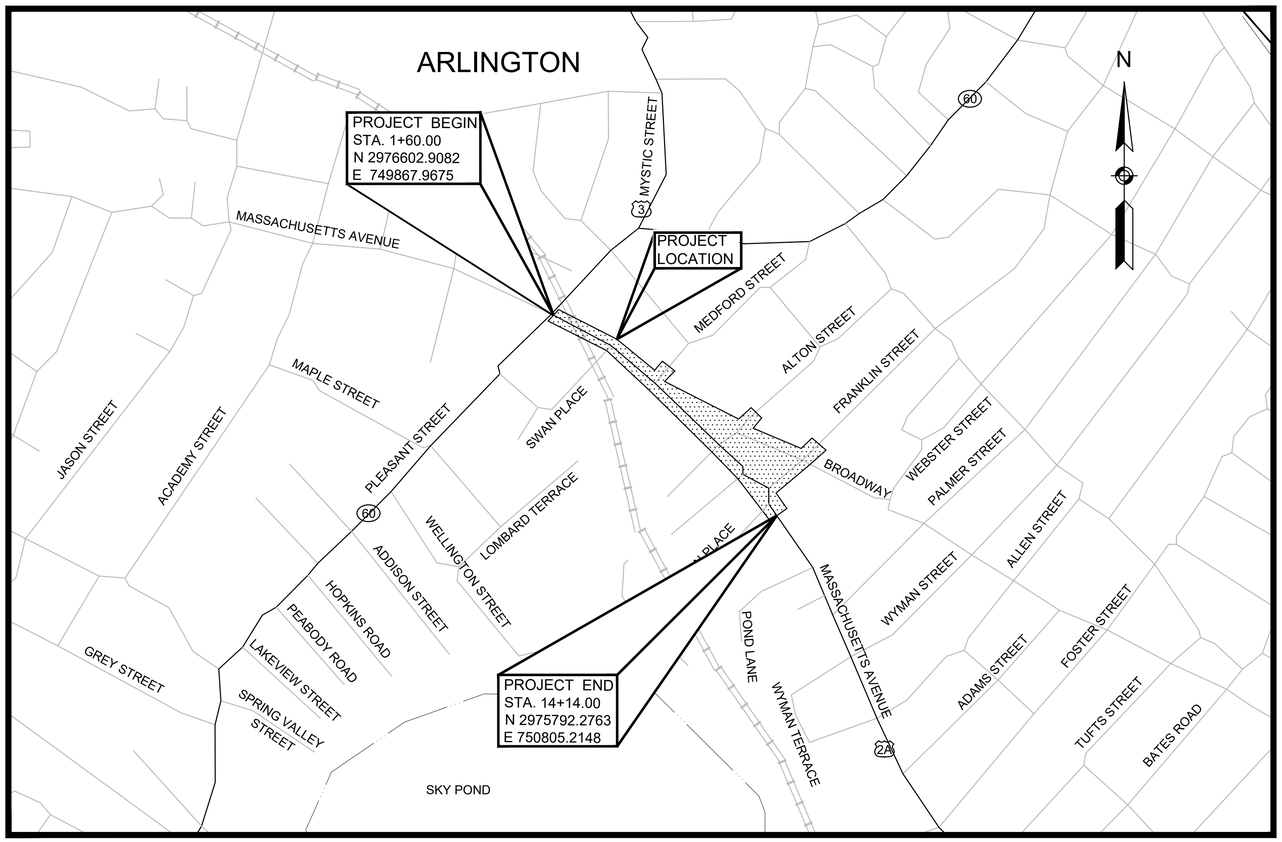
TRANSPORTATION IMPROVEMENT PROJECT

MASSACHUSETTS AVENUE SIDEWALK RECONSTRUCTION

IN THE TOWN OF

ARLINGTON
MIDDLESEX COUNTY

INDEX



LENGTH OF PROJECT = 2725 FEET = 0.52 MILES

0 300 600 900 1,200

SCALE: 1" = 300'

REFERENCE MANUALS
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.

DATE	DESCRIPTION	REV #

COMMONWEALTH OF MASSACHUSETTS
WAYNE PHILLIP AMICO
CIVIL
No. 36724
REGISTERED PROFESSIONAL ENGINEER

3/27/20
ENGINEER DATE

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

DESIGNED BY BCS	APPROVED BY WPA	SHEET 1 OF 28
DRAWN BY BCS	DITG CHECKED BY MES	VHB CAD FILE NAME 13982.01_HD(COV).dwg
CHECKED BY SHK	DATE 03/27/2020	JOB NO. 13982.01

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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
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		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
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
o	o	WOOD FENCE
		EROSION CONTROL BARRIER
		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

ABBREVIATIONS

GENERAL

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

ABBREVIATIONS (cont.)

GENERAL

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
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
TS	TRAFFIC SIGNAL
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

GENERAL NOTES:

1. THE STREET RIGHT OF WAY LINES SHOWN ON THIS PLAN ARE BASED UPON AN ACTUAL FIELD SURVEY CONDUCTED BY VHB, INC. BETWEEN AUGUST 2017 AND OCTOBER 2019 AND COMPILED FROM DEEDS AND PLANS OF RECORD.
2. THE EXISTING CONDITIONS SHOWN ON THIS PLAN ARE BASED UPON AN ACTUAL ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY VHB, INC. IN BETWEEN AUGUST 2017 AND OCTOBER 2019 AND JANUARY 2020.
3. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD OBSERVATIONS AND INFORMATION OF RECORD. THEY ARE NOT WARRANTED TO BE EXACTLY LOCATED NOR IS IT WARRANTED THAT ALL UNDERGROUND UTILITIES OR OTHER STRUCTURES ARE SHOWN ON THIS PLAN.
4. 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).
5. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AND PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
6. 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.
7. 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.
8. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
9. EXISTING UTILITY POLES WILL BE RELOCATED BY OTHERS IF REQUIRED.
10. TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
11. 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.
12. 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).
13. EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
14. EXISTING STREET FURNITURE WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND RESET UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
15. IF IN SUITABLE CONDITION, EXISTING GRANITE CURB SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
16. 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.
17. 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.
18. DISPOSAL OF ALL SURPLUS MATERIAL SHALL BE AS APPROVED BY THE ENGINEER AND OWNER.
19. THE CONTRACTOR SHALL PERFORM THE SIDEWALK WORK ON THIS PROJECT IN ONE BLOCK INTERVALS. WORK ON THE SIDEWALK BLOCK UNDER CONSTRUCTION SHALL BE SUBSTANTIALLY COMPLETED PRIOR TO THE CONTRACTOR BEGINNING WORK ON THE NEXT SEQUENTIAL SIDEWALK BLOCK. THE CONTRACTOR SHALL COORDINATE WITH THE TOWN DEPARTMENT OF PUBLIC WORKS PRIOR TO THE START OF ANY CONSTRUCTION TO OUTLINE THEIR WORK PLAN AND WHERE WORK WILL START AND TO WHERE WORK WILL SEQUENTIALLY PROGRESS.

ARLINGTON
MASSACHUSETTS AVENUE
KEY PLAN
SHEET 03 OF 28

13982.01_HD(KEY).DWG Plotted on 26-Mar-2020 5:57 PM

N

MYSTIC STREET (ROUTE 2A,3, 60)

MEDFORD STREET

ALTON STREET

FRANKLIN STREET

BROADWAY

PLEASANT STREET (ROUTE 60)

SWAN PLACE

WHITTEMORE STREET

AVON PLACE

POND LANE

MASSACHUSETTS AVENUE (ROUTE 3)

BEGIN PROJECT
STA 1+60.00
N: 2976603.0138
E: 749867.7715

6+88.16 MASSACHUSETTS AVENUE=
50+00.00 MEDFORD STREET

LIMIT OF WORK
STA 52+78.23
N: 2976530.4299
E: 750513.2326

LIMIT OF WORK
STA 41+37.60
N: 2976281.2560
E: 750741.1586

25+15.99 BROADWAY=
32+33.94 FRANKLIN STREET

LIMIT OF WORK
STA 34+34.03
N: 2976182.6320
E: 751039.2815

22+32.60 BROADWAY=
40+00.00 ALTON STREET

8+56.27 MASSACHUSETTS AVENUE=
20+00.00 BROADWAY

LIMIT OF WORK
STA 26+22.13
N: 2975983.6684
E: 750996.2975

13+40.91 MASSACHUSETTS AVENUE=
30+00.00 FRANKLIN STREET

END PROJECT
STA 14+14.00
N: 2976792.2763
E: 750805.2148

07 12
08 13
09 14
10 15
11 16

LEGEND

XX CONSTRUCTION PLANS

(XX) ALIGNMENT & GRADING PLANS

0 60 100 200 300
SCALE: 1" = 60'

PAVEMENT NOTES

PROPOSED CEMENT CONCRETE SIDEWALK AND ACCENT BAND

SURFACE:	4"	CEMENT CONCRETE AIR ENTRAINED (4000 PSI ¾", 610 LB).
SUBBASE:	8"	GRAVEL BORROW (TYPE B) ++

PROPOSED CEMENT CONCRETE SIDEWALK WITH WELDED WIRE MESH REINFORMENT

SURFACE:	10"	CEMENT CONCRETE AIR ENTRAINED WITH 6"X6" - 6 GAUGE WELDED WIRE MESH (4000 PSI ¾", 610 LB) TO BE INSTALLED 3" FROM BOTTOM OF SURFACE COURSE.
SUBBASE:	8"	GRAVEL BORROW (TYPE B) ++

PROPOSED HOT MIX ASPHALT DRIVEWAY

SURFACE:	1 ¾"	SUPERPAVE SURFACE COURSE - 12.5 (SSC - 12.5)
INTERMEDIATE:	1 ¾"	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC - 12.5)
SUBBASE:	8"	GRAVEL BORROW (TYPE B) ++

PROPOSED CEMENT CONCRETE DRIVEWAY AND WHEELCHAIR RAMP

SURFACE:	6"	CEMENT CONCRETE AIR ENTRAINED (4000 PSI ¾", 610 LB).
SUBBASE:	8"	GRAVEL BORROW (TYPE B) ++

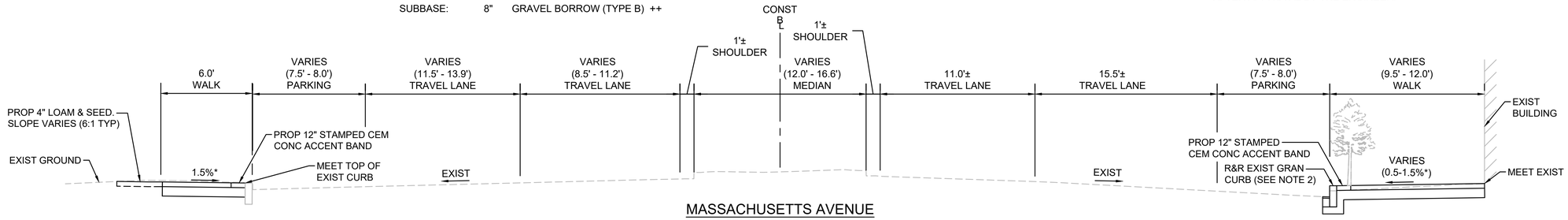
PROPOSED FULL DEPTH PAVEMENT

SURFACE:	1 ¾"	SUPERPAVE SURFACE COURSE - 12.5 (SSC - 12.5)
INTERMEDIATE:	1 ¾"	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC - 12.5)
BASE:	3 ½"	SUPERPAVE BASE COURSE - 25.0 (SBC - 25.0)
SUBBASE:	8"	GRAVEL BORROW (TYPE B) ++

++ WHERE EXISTING GRAVEL IS FOUND TO BE SUITABLE,THE EXISTING GRAVEL MAY BE USED IN PROPOSED SUBBASE, AFTER APPROVAL BY THE ENGINEER.

ARLINGTON
MASSACHUSETTS AVENUE
TYPICAL SECTIONS
SHEET 04 OF 28

13962.01-HD(TYP).DWG Plotted on 26-Mar-2020 5:58 PM



NOTE: RET EXIST BRICK WALK AT BROADWAY PLAZA FROM STA 7+00 TO STA 8+88

MASSACHUSETTS AVENUE

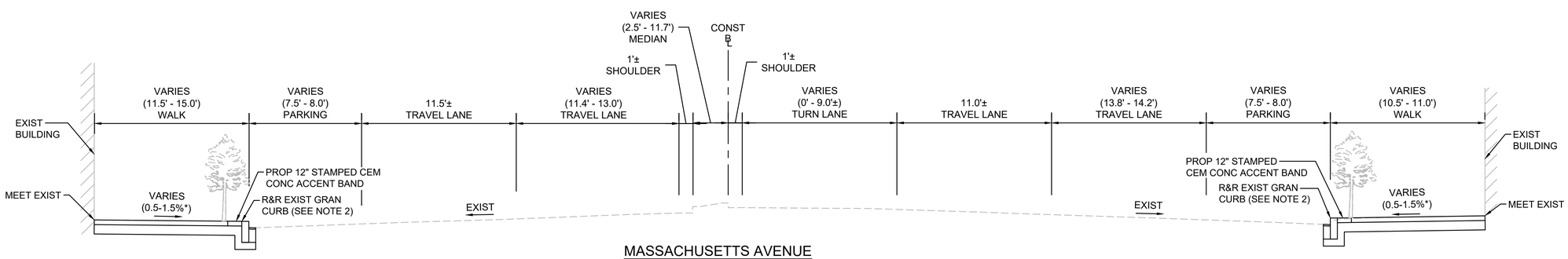
STA 6+72 TO STA 11+10

NTS

* TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:

1. ALL HOT MIX ASPHALT PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 450 QUALITY ASSURANCE FOR HMA AND SECTION M3 ASPHALTIC MATERIALS.
2. REVEAL VARIES FROM 2" TO 8". CONTRACTOR TO USE SPOT ELEVATIONS ON ALIGNMENT AND GRADING PLANS TO DETERMINE CURB REVEAL.

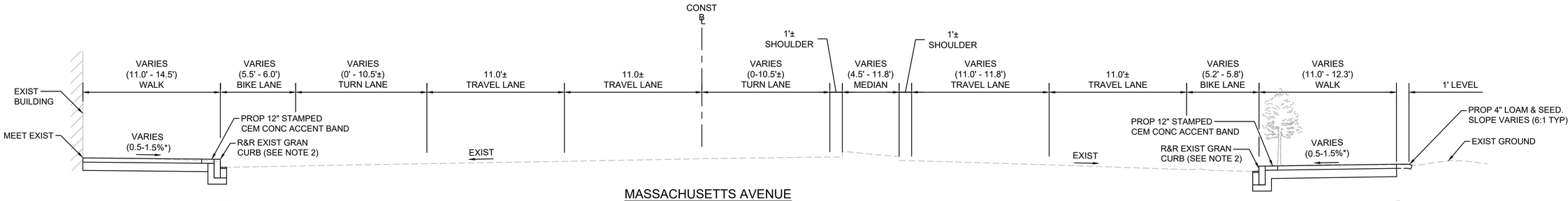


MASSACHUSETTS AVENUE

STA 4+06 TO STA 6+72

NTS

* TOLERANCE FOR CONSTRUCTION ±0.5%

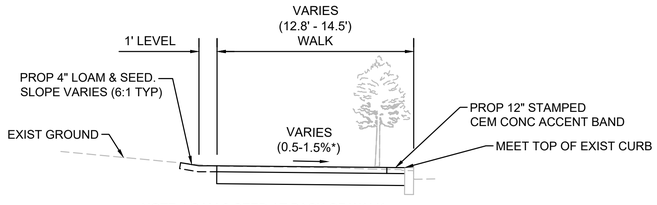


MASSACHUSETTS AVENUE

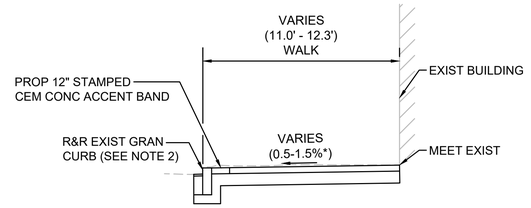
STA 1+60 TO STA 4+05

NTS

* TOLERANCE FOR CONSTRUCTION ± 0.5%

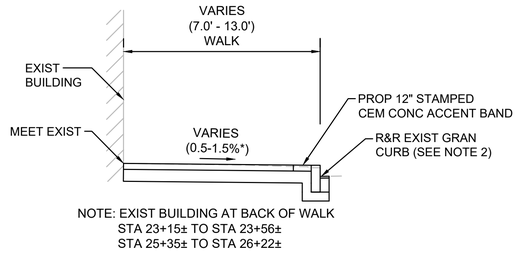


NOTE: LOAM & SEED AT BACK OF WALK STA 2+13± TO STA 3+00±

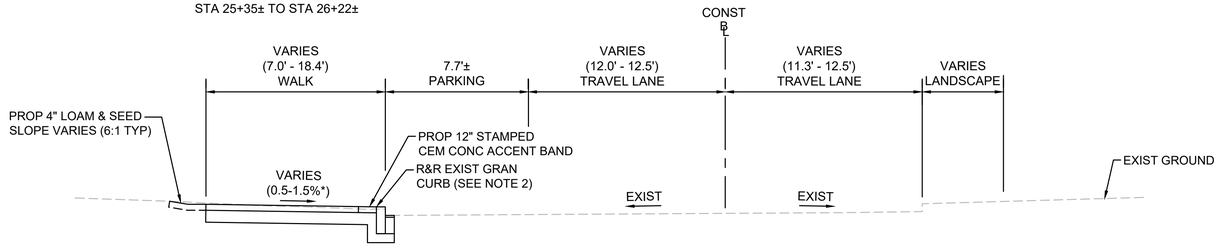


NOTE: EXIST BUILDING AT BACK OF WALK STA 1+60± TO STA 2+28±

13982.01-HD(TYP).DWG Plotted on 26-Mar-2020 5:58 PM



NOTE: EXIST BUILDING AT BACK OF WALK
STA 23+15± TO STA 23+56±
STA 25+35± TO STA 26+22±

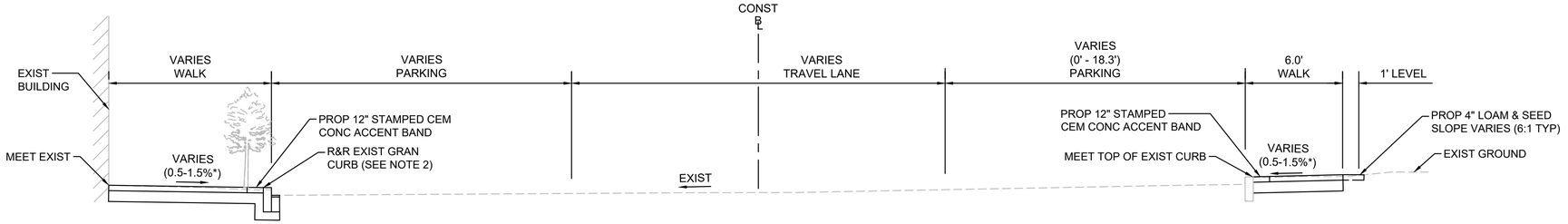


** RET EXIST CURB FROM STA 24+20 TO 25+03

BROADWAY
STA 23+15 TO STA 26+22
NTS

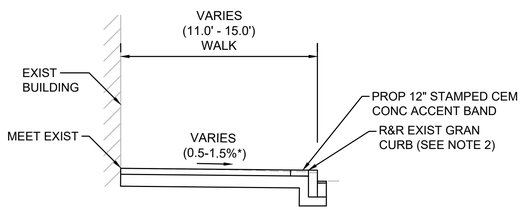
* TOLERANCE FOR CONSTRUCTION ±0.5%

FOR PAVEMENT NOTES, SEE SHEET 04

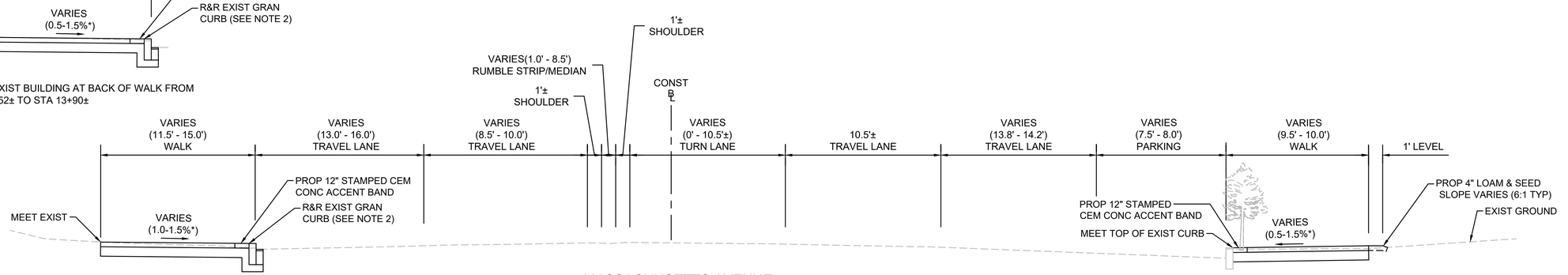


BROADWAY
STA 20+50 TO STA 23+15
NTS

* TOLERANCE FOR CONSTRUCTION ±0.5%



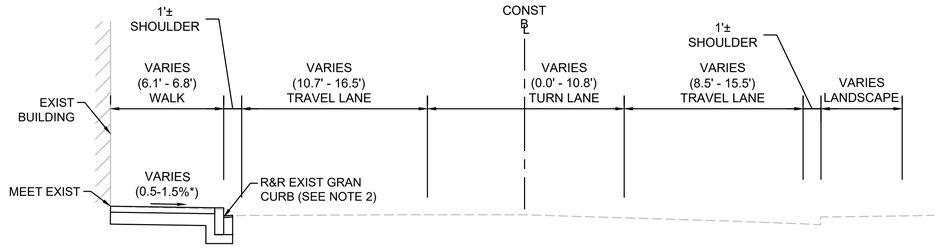
NOTE: EXIST BUILDING AT BACK OF WALK FROM
STA 13+52± TO STA 13+90±



MASSACHUSETTS AVENUE
STA 11+10 TO STA 14+14
NTS

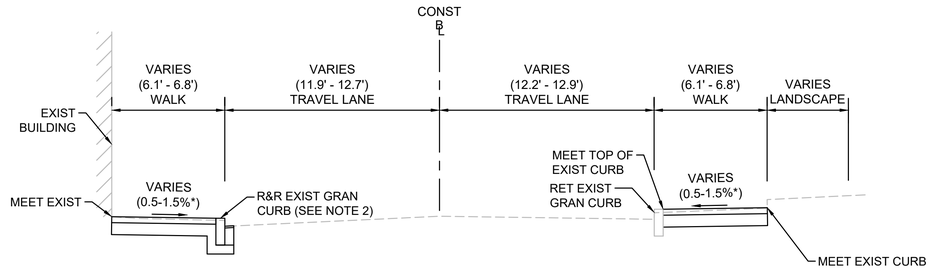
* TOLERANCE FOR CONSTRUCTION ±0.5%

ARLINGTON
MASSACHUSETTS AVENUE
TYPICAL SECTIONS
SHEET 06 OF 28



FRANKLIN STREET
STA 32+00 TO STA 34+34
NTS

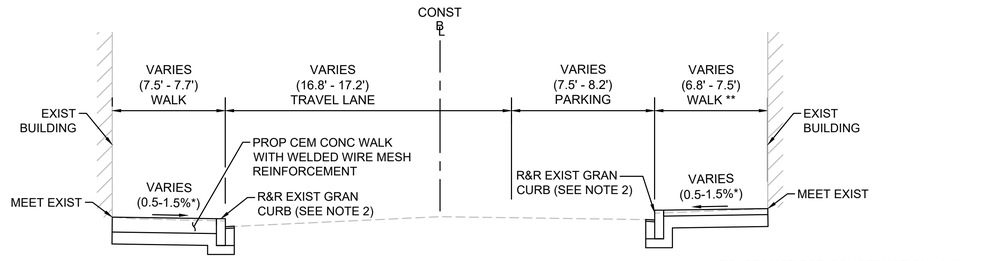
* TOLERANCE FOR CONSTRUCTION ±0.5%



FRANKLIN STREET
STA 30+15 TO STA 32+00
NTS

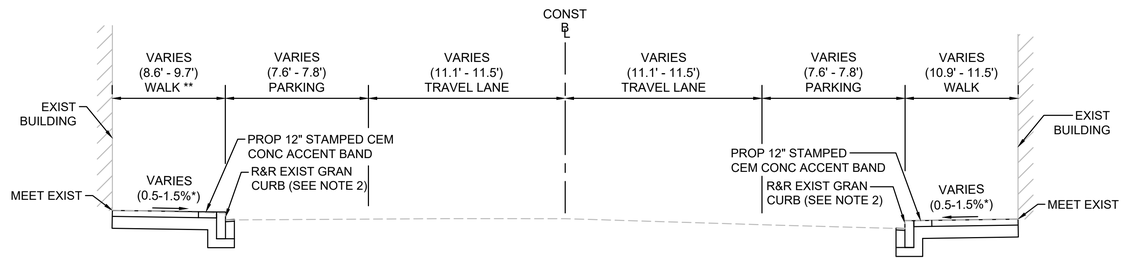
* TOLERANCE FOR CONSTRUCTION ±0.5%

FOR PAVEMENT NOTES, SEE SHEET 04



* TOLERANCE FOR CONSTRUCTION ±0.5%
** RET EXIST WALK ON RIGHT SIDE
STA. 40+10± TO STA. 40+60±

ALTON STREET
STA 40+10 TO STA 41+38
NTS



MEDFORD STREET
STA 50+60 TO STA 52+78
NTS

* TOLERANCE FOR CONSTRUCTION ±0.5%
** RET EXIST WALK ON LEFT SIDE
STA. 50+30± TO STA. 50+80±

ARLINGTON
MASSACHUSETTS AVENUE
CONSTRUCTION PLANS
SHEET 07 OF 28

13862.01_HD(GEN).DWG Plotted on 27-Mar-2020 8:30 AM

NOTES:
1. GRAN CURB BEING REMOVED & RESET WILL NOT HAVE A STANDARD 6" REVEAL. SEE ALIGNMENT PLANS FOR FURTHER INFORMATION.
2. CONTRACTOR TO COORDINATE WITH TOWN AND/OR ENGINEER WHEN REMOVING AND RESETTING LIGHT POLES.
3. INDIVIDUAL TREE PROTECTION TO BE PROVIDED FOR EXISTING TREES TO REMAIN.
4. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES FOR ADJUSTMENT OF ANY HANDHOLES NOT CONNECTING TO TRAFFIC SIGNAL OR STREET LIGHTING EQUIPMENT.

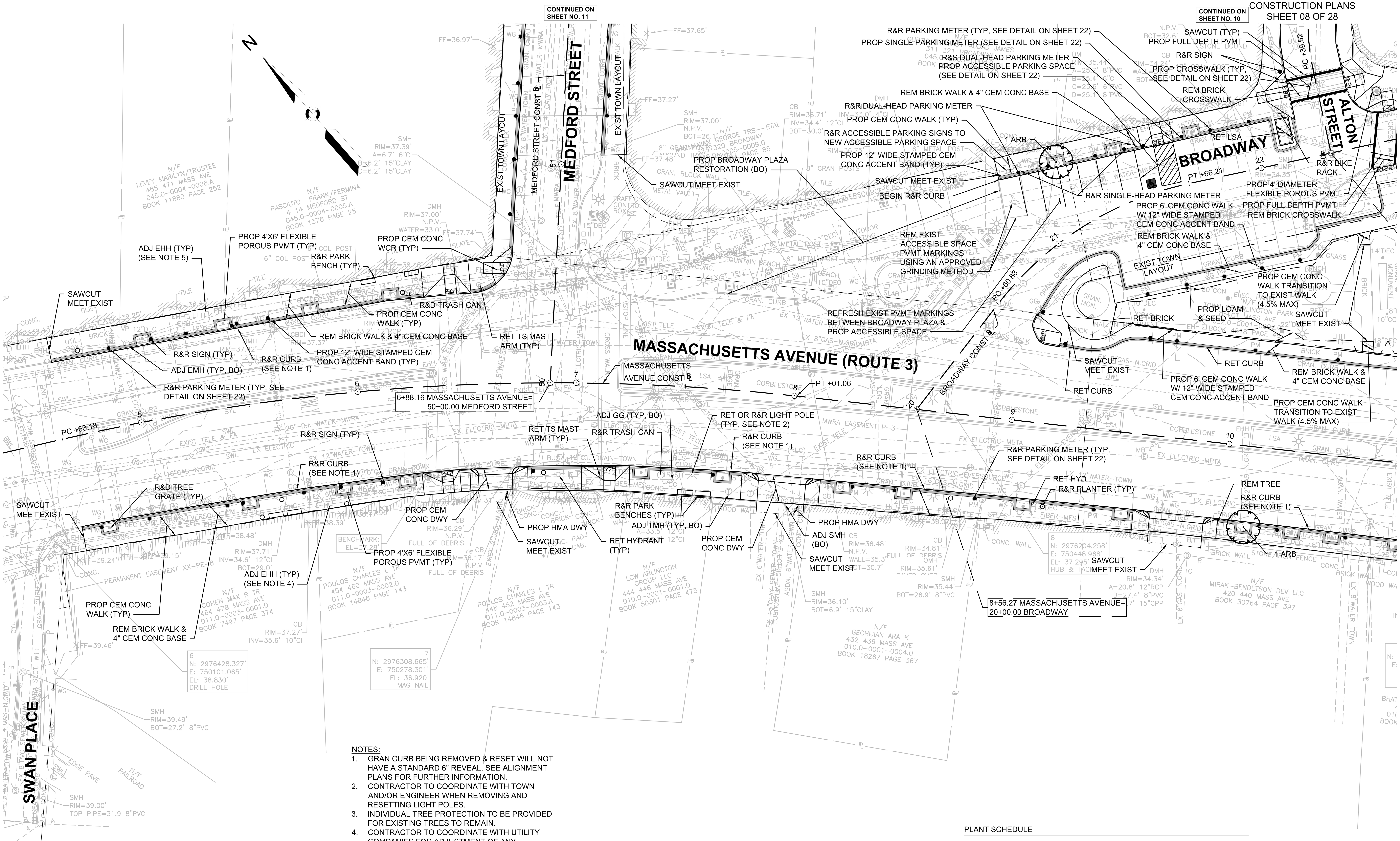
CONTINUED ON SHEET NO. 08

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
ARB	2	Acer rubrum `Bowhall`	Bowhall Red Maple	2 1/2 - 3" CAL.

SCALE: 1" = 20'

ARLINGTON
MASSACHUSETTS AVENUE
CONSTRUCTION PLANS
SHEET 08 OF 28



NOTES:
1. GRAN CURB BEING REMOVED & RESET WILL NOT HAVE A STANDARD 6" REVEAL. SEE ALIGNMENT PLANS FOR FURTHER INFORMATION.
2. CONTRACTOR TO COORDINATE WITH TOWN AND/OR ENGINEER WHEN REMOVING AND RESETTING LIGHT POLES.
3. INDIVIDUAL TREE PROTECTION TO BE PROVIDED FOR EXISTING TREES TO REMAIN.
4. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES FOR ADJUSTMENT OF ANY HANDHOLES NOT CONNECTING TO TRAFFIC SIGNAL OR STREET LIGHTING EQUIPMENT.

0 20 50 100
SCALE: 1" = 20'

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
ARB	1	Acer rubrum `Bowhall`	Bowhall Red Maple	2 1/2 - 3" CAL.

13982.01_HD(GEN).DWG Plotted on 27-Mar-2020 1:34 PM

ARLINGTON
MASSACHUSETTS AVENUE
CONSTRUCTION PLANS
SHEET 09 OF 28

13862.01_HD(GEN).DWG Plotted on 27-Mar-2020 8:35 AM

CONTINUED ON SHEET NO. 10

CONTINUED ON SHEET NO. 08

BROADWAY

ALTON STREET

FRANKLIN STREET

MASSACHUSETTS AVENUE (ROUTE 3)

WHITTEMORE STREET

AVON PLACE

BROADWAY CONST ℄

FRANKLIN STREET CONST ℄

MASSACHUSETTS AVENUE CONST ℄

EXIST TOWN LAYOUT

R&R SIGN

REM BRICK CROSSWALK

PC +39.62

PROP CROSSWALK (TYP,SEE DETAIL ON SHEET 22)

PROP FULL-DEPTH PVMT

PROP CROSSWALK (TYP) SEE DETAIL ON SHEET 22

REM BRICK CROSSWALK

R&R BIKE RACK

PROP FULL DEPTH PVMT

SAWCUT MEET EXIST

PROP LOAM & SEED

22+32.60 BROADWAY= 40+00.00 ALTON STREET

PROP CEM CONC WALK (TYP)

REM BRICK WALK & 4" CEM CONC BASE (TYP)

PROP CEM CONC WALK (TYP)

PROP LOAM & SEED

PROP CEM CONC WALK TRANSITION TO EXIST WALK (4.5% MAX)

RET LIGHT POLE

SAWCUT MEET EXIST

SAWCUT MEET EXIST

RET CURB

REM BRICK WALK & 4" CEM CONC BASE

PROP CEM CONC WALK TRANSITION TO EXIST WALK (4.5% MAX)

R&R PARKING METER (TYP, SEE DETAIL ON SHEET 22)

PROP HMA DWY

REM BRICK WALK & 4" CEM CONC BASE

PROP CEM CONC WALK

SAWCUT MEET EXIST

PROP LOAM & SEED

REM BRICK WALK & 4" CEM CONC BASE

REM BRICK WALK & 4" CEM CONC BASE PROP CEM CONC WALK

PROP HMA DWY

PROP HMA DWY

PROP CEM CONC WALK

REM CROSSWALK PVMT MARKING BY APPROVED METHOD

RET TS (TYP)

TOWN TO COORDINATE RELOCATION AND/OR REMOVAL OF GUY POLE DURING CONSTRUCTION

SAWCUT (TYP)

MASSACHUSETTS AVENUE CONST ℄ PC +27.69

13+40.91 MASSACHUSETTS AVENUE= 30+00.00 FRANKLIN STREET

R&R MB

RET EXIST CURB

RET OR R&R LIGHT POLE (TYP, SEE NOTE 2)

PROP CEM CONC WCR (TYP)

REM BRICK WALK & 4" CEM CONC BASE

PROP 12" WIDE STAMPED CEM CONC ACCENT BAND (TYP)

PROP CEM CONC DWY

RET TS MAST ARM (TYP)

RET TS POST (TYP)

SAWCUT MEET EXIST

PROP HMA DWY

ADJ WG (TYP)

PROP 4'X6' FLEXIBLE POROUS PVMT (TYP)

PROP CEM CONC WALK (TYP)

SAWCUT MEET EXIST

PROP LOAM & SEED

PROP 18" X 4' FLEXIBLE POROUS PVMT

R&R PARKING METER (TYP, SEE DETAIL ON SHEET 22)

SAWCUT MEET EXIST

PROP HMA DWY

RET HYDRANT (TYP)

ADJ EHH (TYP) (SEE NOTE 5)

1 ARB

REM TREE

PROP CEM CONC DWY

R&R SIGN (TYP)

R&R CURB (SEE NOTE 1)

REM BRICK WALK & 4" CEM CONC BASE

R&R PARKING METER (TYP, SEE DETAIL ON SHEET 22)

PROP CEM CONC WALK (TYP)

R&R CURB (SEE NOTE 1)

PROP LOAM & SEED

SAWCUT MEET EXIST

PROP HMA DWY

SAWCUT MEET EXIST

ADJ SMH (TYP)

ADJ GG (TYP, BO)

PROP CEM CONC DWY

SAWCUT MEET EXIST

EXIST TOWN LAYOUT

RET UTILITY POLE (TYP)

REM COBBLE STONE PROP FULL DEPTH PVMT (SEE NOTE 5)

PROP CROSSWALK (TYP, SEE DETAIL ON SHEET 22)

RET LIGHT POLE

PROP LOAM & SEED

SAWCUT MEET EXIST

END PROJECT
STA 14+14.00
N: 2975792.2763
E: 750805.2148

EXIST TOWN LAYOUT

EXIST TOWN LAYOUT

STONE BOUND w/ DRILL HOLE

9
N: 2975970.809'
E: 750605.482'
EL: 31.950'
#DHS

10
N: 2975776.524'
E: 750758.583'
EL: 26.950'
DRILL HOLE

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
ARB	1	Acer rubrum `Bowhall`	Bowhall Red Maple	2 1/2 - 3" CAL.

0 20 50 100

SCALE: 1" = 20'

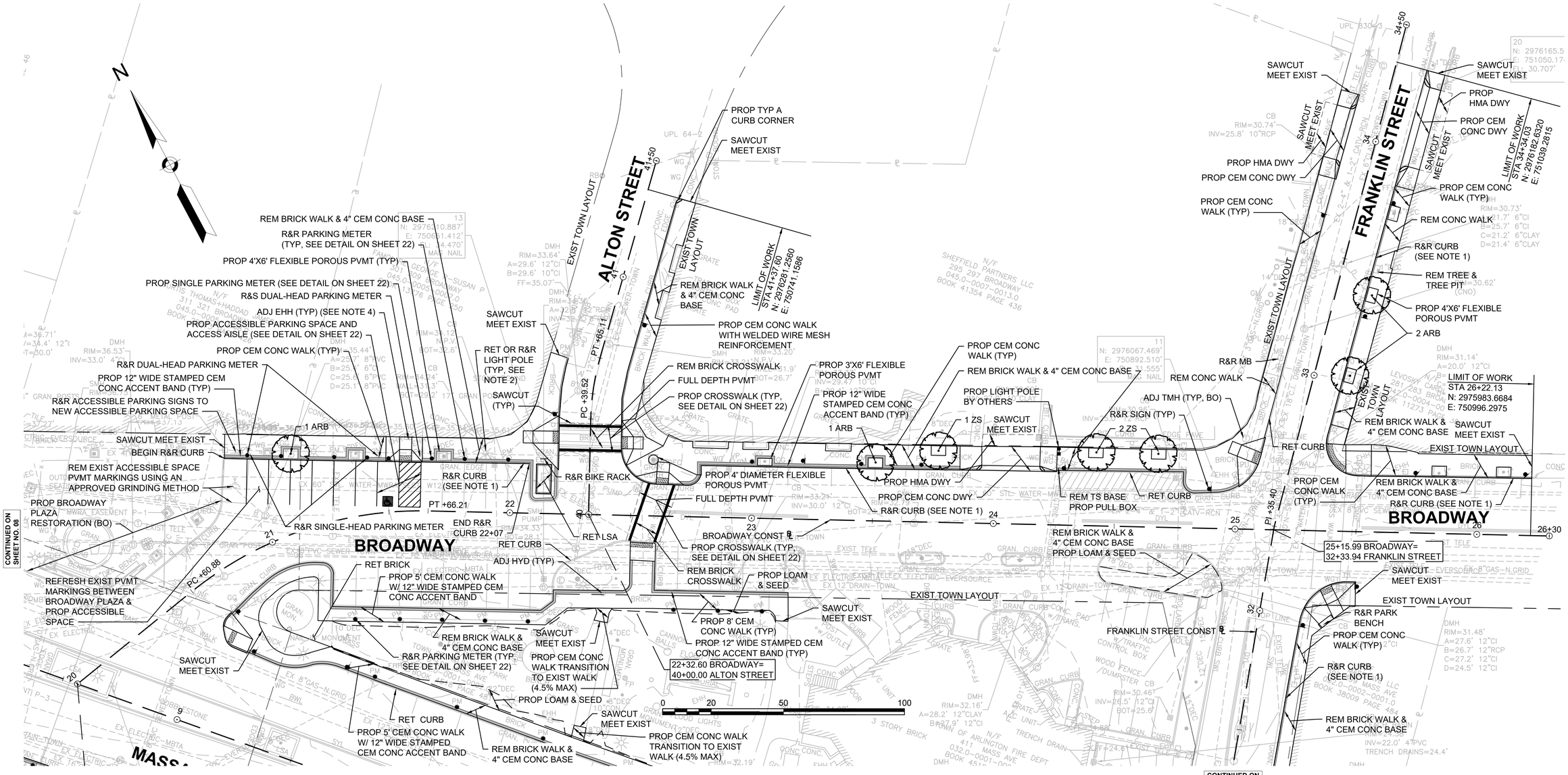
NOTES:

1. GRAN CURB BEING REMOVED & RESET WILL NOT HAVE A STANDARD 6" REVEAL. SEE ALIGNMENT PLANS FOR FURTHER INFORMATION.
2. CONTRACTOR TO COORDINATE WITH TOWN AND/OR ENGINEER WHEN REMOVING AND RESETTING LIGHT POLES.
3. INDIVIDUAL TREE PROTECTION TO BE PROVIDED FOR EXISTING TREES TO REMAIN.
4. CONTRACTOR TO BE AWARE THAT EXISTING RAILROAD TRACKS MAY EXIST UNDER COBBLESTONE ISLAND AREA. IF DISCOVERED, CONTRACTOR SHALL LEAVE RAILS IN PLACE AND CONSTRUCT FULL DEPTH PAVEMENT AROUND EXISTING RAILS
5. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES FOR ADJUSTMENT OF ANY HANDHOLES NOT CONNECTING TO TRAFFIC SIGNAL OR STREET LIGHTING EQUIPMENT.

ARLINGTON
MASSACHUSETTS AVENUE
CONSTRUCTION PLANS
SHEET 10 OF 28

13962.01_HD(GEN).DWG Plotted on 27-Mar-2020 1:30 PM

NOTES:
1. GRAN CURB BEING REMOVED & RESET WILL NOT HAVE A STANDARD 6" REVEAL. SEE ALIGNMENT PLANS FOR FURTHER INFORMATION.
2. CONTRACTOR TO COORDINATE WITH TOWN AND/OR ENGINEER WHEN REMOVING AND RESETTING LIGHT POLES.
3. INDIVIDUAL TREE PROTECTION TO BE PROVIDED FOR EXISTING TREES TO REMAIN.
4. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES FOR ADJUSTMENT OF ANY HANDHOLES NOT CONNECTING TO TRAFFIC SIGNAL OR STREET LIGHTING EQUIPMENT.

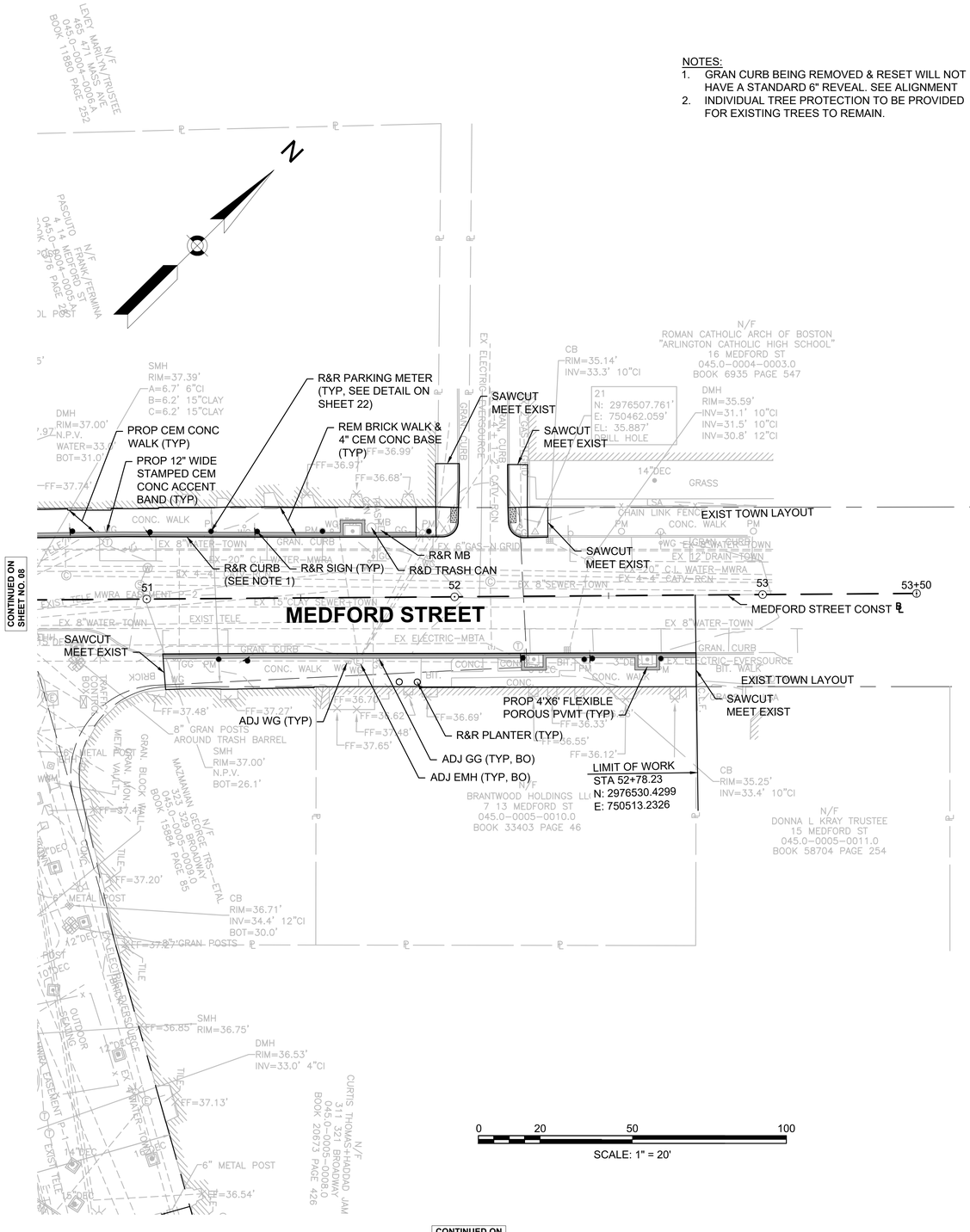


PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
ARB	4	Acer rubrum `Bowhall`	Bowhall Red Maple	2 1/2 - 3" CAL.
ZS	3	Zelkova serrata `Green Vase`	Green Vase Zelkova	2 1/2 - 3" CAL.

13962.01_HD(GEN).DWG Plotted on 27-Mar-2020 8:30 AM

NOTES:
1. GRAN CURB BEING REMOVED & RESET WILL NOT HAVE A STANDARD 6" REVEAL. SEE ALIGNMENT
2. INDIVIDUAL TREE PROTECTION TO BE PROVIDED FOR EXISTING TREES TO REMAIN.



CONTINUED ON SHEET NO. 10

ARLINGTON
MASSACHUSETTS AVENUE
ALIGNMENT AND GRADING PLANS
SHEET 12 OF 28

13982.01_HD(ALGN).DWG Plotted on 27-Mar-2020 9:04 AM

LEGEND:

- [X] WCR NUMBER
- (X) DRIVEWAY NUMBER
- TC XX.XX — PROP TOP OF CURB ELEVATION
- TC XX.X — EXIST TOP OF CURB ELEVATION
- BC XX.X — EXIST BOTTOM OF CURB ELEVATION
- XX.XX — PROP BACK OF WALK ELEVATION (WHERE MATCHING EXISTING)
- XX.XX — PROP BACK OF WALK ELEVATION

NOTES:
1. SPOT GRADES ARE PROVIDED EVERY 25' AT EXISTING FACE OF CURB, PROPOSED OR EXISTING TOP OF CURB, AND PROP BACK OF WALK.
2. ALTHOUGH 0.5% TOLERANCE FOR CONSTRUCTION IS TYPICALLY PROVIDED FOR SIDEWALKS, CONTRACTOR MUST MATCH SPOT ELEVATIONS PROVIDED AS CLOSELY AS POSSIBLE TO ENSURE ADEQUATE DRAINAGE GIVEN THE RELATIVELY FLAT SLOPES PROPOSED IN SOME LOCATIONS TO MEET STOREFRONT ELEVATIONS.

N

MYSTIC STREET (ROUTE 2, 3A, 60)

PLEASANT STREET (ROUTE 60)

SWAN PLACE

MASSACHUSETTS AVENUE (ROUTE 3)

MASSACHUSETTS AVENUE

EXIST TOWN LAYOUT

BEGIN PROJECT
STA 1+60.00
N: 2976603.0138
E: 749867.7715

MEET EXIST +13±, 40'± LT

MEET EXIST +99±, 56'± LT

MEET EXIST +55±, 51'± LT

MEET EXIST +34±, 37'± LT

MEET EXIST +66±, 35'± LT

MEET EXIST +87±, 39'± RT

MEET EXIST +60±, 44'± RT

MEET EXIST +30±, 60'± RT

MEET EXIST +55±, 59'± RT

MEET EXIST +32±, 57'± RT

MEET EXIST +62±, 56'± RT

MEET EXIST +63±, 41'± RT

PC +63.18

CONTINUED ON SHEET NO. 14

2
N: 2976605.074'
E: 749732.225'
EL: 45.270'
DRILL HOLE

4
N: 2976523.738'
E: 749994.199'
EL: 42.785'
DRILL HOLE

6
N: 2976428.327'
E: 750101.065'
EL: 38.830'
DRILL HOLE

BENCHMARK:
EL=42.00'

N/F MEQUERDITCHIAN RICHARD 633 MASS AVE 050.0-0007-0003.0 BOOK 16489 PAGE 534

N/F TOWN OF ARLINGTON SELECTMEN 0 LOT MASS AVE 050.0-0007-0001.0 BOOK 6648 PAGE 128

N/F AKBARIAN MOHAMMED MD 473 503 MASS AVE 045.0-0004-0007.A BOOK 14650 PAGE 40

N/F CAMBRIDGE SAVINGS BANK 602 MASS AVE 011.0-0002-0004.0 BOOK 12738 PAGE 640

N/F CAMBRIDGE SAVINGS BANK 616 626 MASS AVE 011.0-0002-0001.A BOOK 1095 PAGE 35

N/F JOHNS SON LLC 590 MASS AVE 011.0-0002-0006.A BOOK 1199 PAGE 117

N/F JOHNS SON LLC 0 LOT MASS AVE 011.0-0002-0008.A BOOK 29662 PAGE 351

N/F COHEN MAX R TR 464 478 MASS AVE 011.0-0003-0001.

N/F FIRST CONGREGATIONAL PARISH 630 MASS AVE 011.0-0001-0002.0 BOOK 613 PAGE 80

N/F BRIDGE SAVINGS 0 PLEASANT 1.0-0002-001. 10112 PAGE

N/F RAILROAD

LEVEY I 465 045.C BOOK

MASSACHUSETTS AVENUE CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	0+00.00	2976678.9268	749726.9268		S61°40'34"E 463.18'	4+63.18	2976459.168	750134.655
C1	4+63.18	2976459.1683	750134.6547	R=1000.00' Δ=19°21'32" L=337.88' T=170.56'		8+01.06	2976252.123	750399.628

SURVEY TRAVERSE TABLE

POINT #	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION	STATION	OFFSET
2	2976605.074	749732.225	45.270	MTRV DRILL HOLE	0+39.18	62.50
4	2976523.738	749994.199	42.785	MTRV DRILL HOLE	3+08.41	9.80
6	2976428.327	750101.065	38.830	MTRV DRILL HOLE	4+47.72	43.11

0 20 50 100
SCALE: 1" = 20'

ARLINGTON
MASSACHUSETTS AVENUE
ALIGNMENT AND GRADING PLANS
SHEET 13 OF 28

13862.01_HD(ALGN).DWG Plotted on 27-Mar-2020 9:04 AM

NOTES:
1. SPOT GRADES ARE PROVIDED EVERY 25' AT EXISTING FACE OF CURB, PROPOSED OR EXISTING TOP OF CURB, AND PROP BACK OF WALK.
2. ALTHOUGH 0.5% TOLERANCE FOR CONSTRUCTION IS TYPICALLY PROVIDED FOR SIDEWALKS, CONTRACTOR MUST MATCH SPOT ELEVATIONS PROVIDED AS CLOSELY AS POSSIBLE TO ENSURE ADEQUATE DRAINAGE GIVEN THE RELATIVELY FLAT SLOPES PROPOSED IN SOME LOCATIONS TO MEET STOREFRONT ELEVATIONS.

Curve Table			
Curve #	Delta	Radius	Length
C4	62°00'20"	17.00	18.40
C6	33°26'32"	6.00	3.50
C7	43°29'48"	6.00	4.55

LEGEND:

- [X] WCR NUMBER
- (X) DRIVEWAY NUMBER
- TC XX.XX PROP TOP OF CURB ELEVATION
- TC XX.X EXIST TOP OF CURB ELEVATION
- BC XX.X EXIST BOTTOM OF CURB ELEVATION
- XX.XX PROP BACK OF WALK ELEVATION (WHERE MATCHING EXISTING)
- XX.XX PROP BACK OF WALK ELEVATION

CONTINUED ON SHEET NO. 16
CONTINUED ON SHEET NO. 15
CONTINUED ON SHEET NO. 12
CONTINUED ON SHEET NO. 14

MEDFORD STREET
EXIST TOWN LAYOUT
MEET EXIST +04±, 185'± LT
MEET EXIST +97±, 40'± LT
BROADWAY
ALTON STREET
22+32.60 BROADWAY= 40+00.00 ALTON STREET
6+88.16 MASSACHUSETTS AVENUE= 50+00.00 MEDFORD STREET
MASSACHUSETTS AVENUE (ROUTE 3)
Δ=19° 21' 32" L=337.88' R=1000.00'
PT +01.06
S 42° 19' 02" E 426.64'
8+56.27 MASSACHUSETTS AVENUE= 20+00.00 BROADWAY
SWAN PLACE
MEET EXIST +66±, 35'± LT
MEET EXIST +63±, 41'± RT
MEET EXIST +52±, 53'± RT
MEET EXIST +70±, 54'± RT
MEET EXIST +88±, 55'± RT
MEET EXIST +10±, 54'± RT
MEET EXIST +68±, 49'± RT
MEET EXIST +92±, 49'± RT
MEET EXIST +36±, 44'± RT
MEET EXIST +41±, 45'± RT
MEET EXIST +60±, 54'± LT
MEET EXIST +55±, 53'± LT
PC +60.88
PC +39.52
PT +66.21
PC +63.18
3" REVEAL
BENCHMARK: EL=37.28'

6
N: 2976428.327'
E: 750101.065'
EL: 38.830'
DRILL HOLE

7
N: 2976308.665'
E: 750278.301'
EL: 36.920'
MAG NAIL

8
N: 2976204.258'
E: 750448.968'
EL: 37.295'
HUB & TACK

MEDFORD STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L10	50+00.00	2976331.1362	750319.0798		N44°15'05"E 350.00'	53+50.00	2976581.836	750563.313

SURVEY TRAVERSE TABLE						
POINT #	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION	STATION	OFFSET
6	2976428.327	750101.065	38.830	MTRV DRILL HOLE	4+47.72	43.11
7	2976308.665	750278.301	36.920	MTRV MAG NAIL	6+71.05	43.64
8	2976204.258	750448.968	37.295	MTRV HUB & TACK	8+69.14	4.25
13	2976210.887	750651.412	34.470	MTRV MAG NAIL	22+10.30	29.73

BROADWAY CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L4	20+00.00	2976211.2985	750436.7982		N79°01'15"E 60.88'	20+60.88	2976222.894	750496.568
C3	20+60.88	2976222.8939	750496.5679	R=150.00' Δ=40°13'56" L=105.33' T=54.94'		21+66.21	2976206.510	750598.436
L5	21+66.21	2976206.5099	750598.4358		S60°44'49"E 463.79'	26+30.00	2975979.871	751003.077

MASSACHUSETTS AVENUE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	0+00.00	2976678.9268	749726.9268		S61°40'34"E 463.18'	4+63.18	2976459.168	750134.655
C1	4+63.18	2976459.1683	750134.6547	R=1000.00' Δ=19°21'32" L=337.88' T=170.56'		8+01.06	2976252.123	750399.628
L2	8+01.06	2976252.1231	750399.6283		S42°19'02"E 426.64'	12+27.69	2975936.657	750686.854

NOTES:
1. SPOT GRADES ARE PROVIDED EVERY 25' AT EXISTING FACE OF CURB, PROPOSED OR EXISTING TOP OF CURB, AND PROP BACK OF WALK.
2. ALTHOUGH 0.5% TOLERANCE FOR CONSTRUCTION IS TYPICALLY PROVIDED FOR SIDEWALKS, CONTRACTOR MUST MATCH SPOT ELEVATIONS PROVIDED AS CLOSELY AS POSSIBLE TO ENSURE ADEQUATE DRAINAGE GIVEN THE RELATIVELY FLAT SLOPES PROPOSED IN SOME LOCATIONS TO MEET STOREFRONT ELEVATIONS.

ARLINGTON
MASSACHUSETTS AVENUE
ALIGNMENT AND GRADING PLANS
SHEET 14 OF 28

CONTINUED ON SHEET NO. 13

CONTINUED ON SHEET NO. 14

LEGEND:

[X]	WCR NUMBER
(X)	DRIVEWAY NUMBER
TC XX.XX	PROP TOP OF CURB ELEVATION
TC XX.X	EXIST TOP OF CURB ELEVATION
BC XX.X	EXIST BOTTOM OF CURB ELEVATION
XX.XX	PROP BACK OF WALK ELEVATION (WHERE MATCHING EXISTING)
XX.XX	PROP BACK OF WALK ELEVATION

N

SCALE: 1" = 20'

22+32.60 BROADWAY= 40+00.00 ALTON STREET

13+40.91 MASSACHUSETTS AVENUE= 30+00.00 FRANKLIN STREET

END PROJECT STA 14+14.00 N: 2975792.2763 E: 750805.2148

9 N: 2975970.809' E: 750605.482' EL: 31.950' #DHS

10 N: 2975776.524' E: 750758.583' EL: 26.950' DRILL HOLE

PC +27.69 Δ=11° 51' 03" L=372.31' R=1800.00'

Curve Table			
Curve #	Delta	Radius	Length
C8	90°00'56"	14.00	21.99
C9	89°11'08"	14.00	21.79
C10	27°28'43"	12.00	5.76
C11	53°56'18"	25.00	23.53
C12	74°22'37"	20.00	25.96
C13	88°13'51"	15.00	23.10
C14	92°03'40"	15.00	24.10
C15	88°39'35"	15.00	23.21

MASSACHUSETTS AVENUE CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L2	8+01.06	2976252.1231	750399.6283		S42°19'02"E 426.64'	12+27.69	2975936.657	750686.854
C2	12+27.69	2975936.6565	750686.8537	R=1800.00' Δ=11°51'03" L=372.31' T=186.82'		16+00.00	2975637.490	750907.351

FRANKLIN STREET CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L6	32+35.40	2976036.7366	750904.4994		N42°43'57"E 214.60'	34+50.00	2976194.365	751050.121
L7	30+00.00	2975850.5988	750760.3935		N37°44'48"E 235.40'	32+35.40	2976036.737	750904.499

BROADWAY CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L5	21+66.21	2976206.5099	750598.4358		S60°44'49"E 463.79'	26+30.00	2975979.871	751003.077

SURVEY TRAVERSE TABLE

POINT #	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION	STATION	OFFSET
9	2975970.809	750605.482	31.950	MTRV #DHS	11+47.15	37.17
10	2975776.524	750758.583	26.950	MTRV DRILL HOLE	13+98.58	46.83
13	2976210.887	750651.412	34.470	MTRV MAG NAIL	22+10.03	29.73

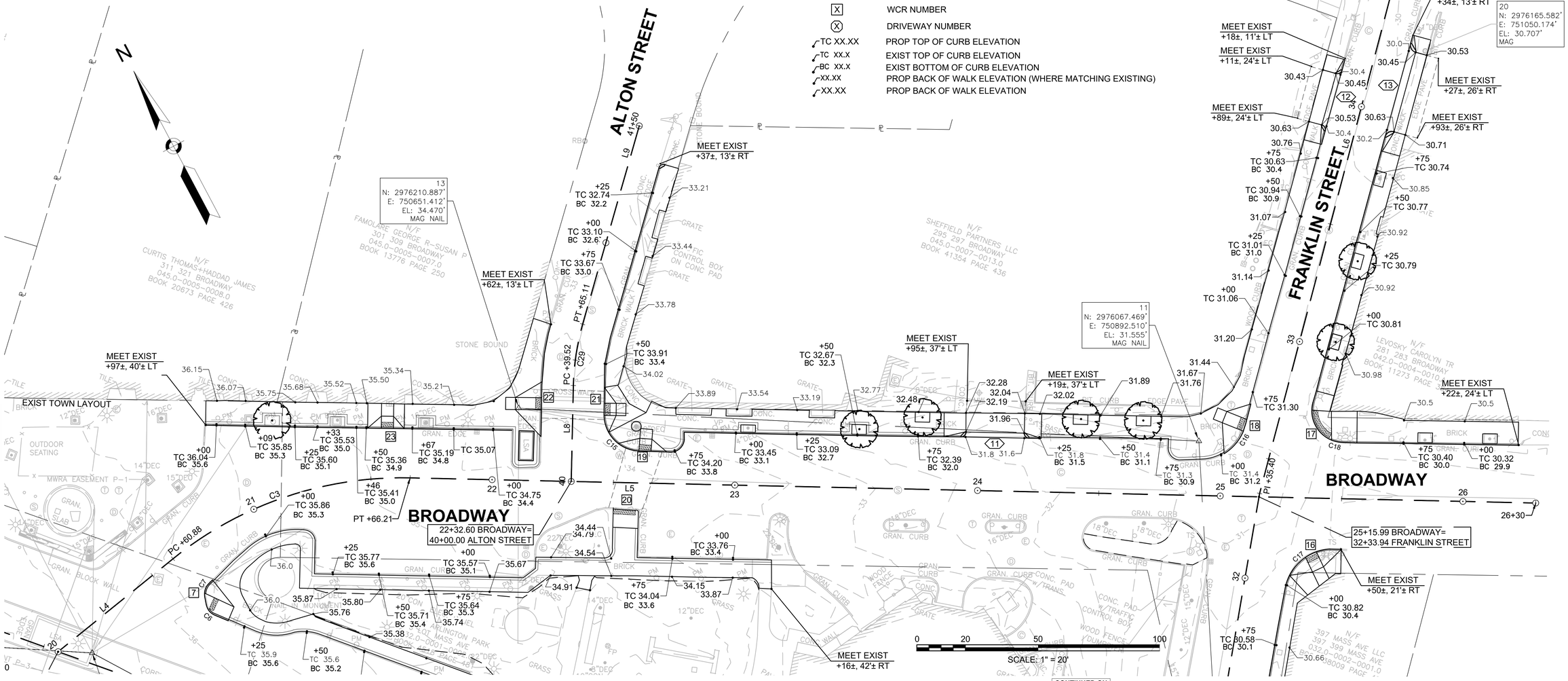
13862.01_HD(ALGN).DWG Plotted on 27-Mar-2020 9:04 AM

13862.01_HD(ALGN).DWG Plotted on 27-Mar-2020 10:59 AM

NOTES:
1. SPOT GRADES ARE PROVIDED EVERY 25' AT EXISTING FACE OF CURB, PROPOSED OR EXISTING TOP OF CURB, AND PROP BACK OF WALK.
2. ALTHOUGH 0.5% TOLERANCE FOR CONSTRUCTION IS TYPICALLY PROVIDED FOR SIDEWALKS, CONTRACTOR MUST MATCH SPOT ELEVATIONS PROVIDED AS CLOSELY AS POSSIBLE TO ENSURE ADEQUATE DRAINAGE GIVEN THE RELATIVELY FLAT SLOPES PROPOSED IN SOME LOCATIONS TO MEET STOREFRONT ELEVATIONS.

LEGEND:

[X]	WCR NUMBER
(X)	DRIVEWAY NUMBER
TC XX.XX	PROP TOP OF CURB ELEVATION
TC XX.X	EXIST TOP OF CURB ELEVATION
BC XX.X	EXIST BOTTOM OF CURB ELEVATION
XX.XX	PROP BACK OF WALK ELEVATION (WHERE MATCHING EXISTING)
XX.XX	PROP BACK OF WALK ELEVATION



BROADWAY CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L4	20+00.00	2976211.2985	750436.7982		N79°01'15"E 60.88'	20+60.88	2976222.894	750496.568
C3	20+60.88	2976222.8939	750496.5679	R=150.00' Δ=40°13'56" L=105.33' T=54.94'		21+66.21	2976206.510	750598.436
L5	21+66.21	2976206.5099	750598.4358		S60°44'49"E 463.79'	26+30.00	2975979.871	751003.077

ALTON STREET CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L8	40+00.00	2976174.0664	750656.3604		N29°15'11"E 39.52'	40+39.52	2976208.546	750675.673
C29	40+39.52	2976208.5465	750675.6726	R=100.00' Δ=14°39'43" L=25.59' T=12.87'		40+65.11	2976229.039	750690.883
L9	40+65.11	2976229.0386	750690.8825		N43°54'54"E 84.89'	41+50.00	2976290.191	750749.761

Curve Table

Curve #	Delta	Radius	Length
C15	88°39'35"	15.00	23.21
C16	35°23'40"	20.00	12.35
C17	73°06'00"	20.00	25.52
C18	104°05'01"	13.00	23.62

MASSACHUSETTS AVENUE CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L2	8+01.06	2976252.1231	750399.6283		S42°19'02"E 426.64'	12+27.69	2975936.657	750686.854
C2	12+27.69	2975936.6565	750686.8537	R=1800.00' Δ=11°51'03" L=372.31' T=186.82'		16+00.00	2975637.490	750907.351

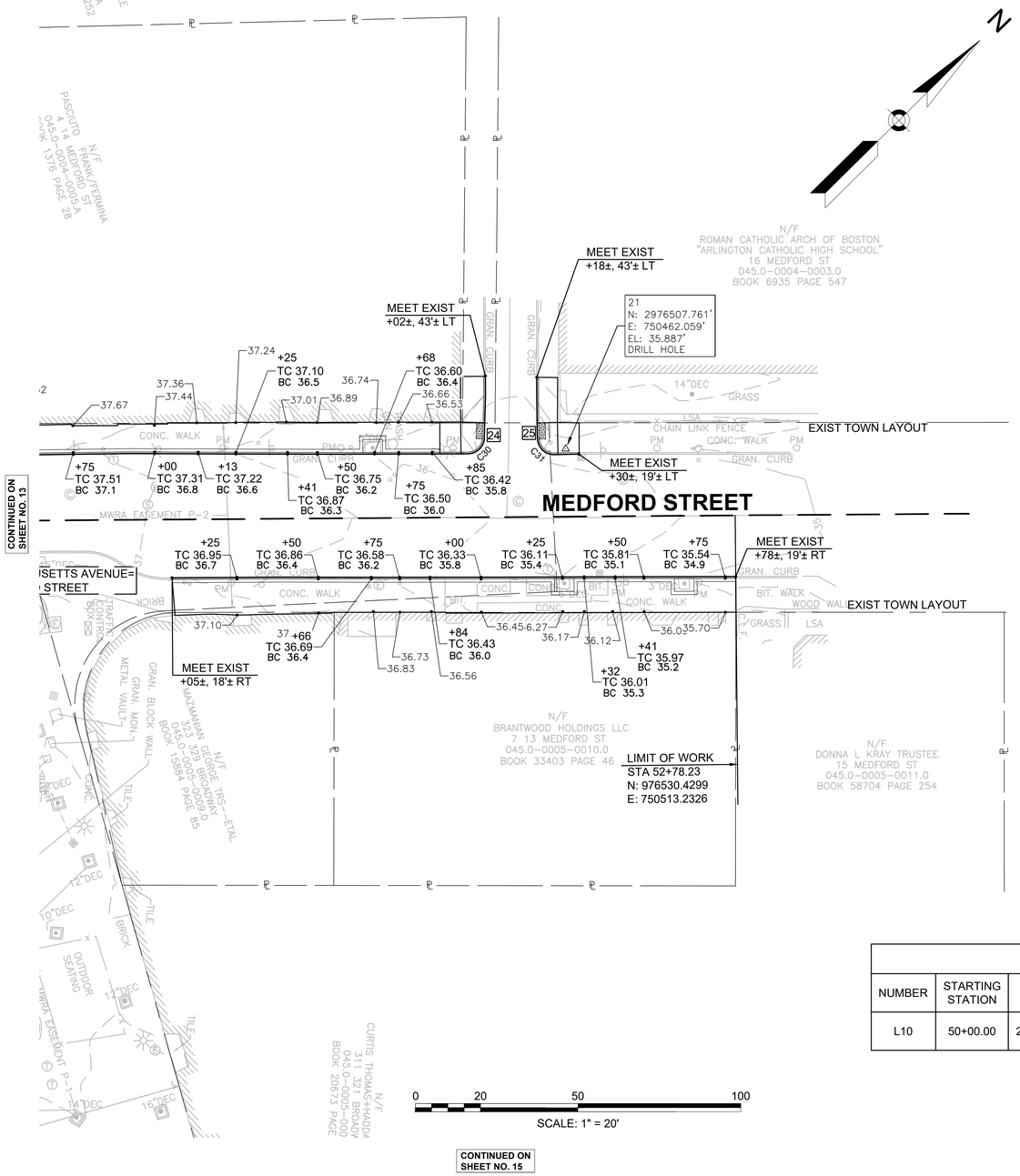
FRANKLIN STREET CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L7	30+00.00	2975850.5988	750760.3935		N37°44'48"E 235.40'	32+35.40	2976036.737	750904.499
L6	32+35.40	2976036.7366	750904.4994		N42°43'57"E 214.60'	34+50.00	2976194.365	751050.121

SURVEY TRAVERSE TABLE

POINT #	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION	STATION	OFFSET
8	2976204.258	750448.968	37.295	MTRV HUB & TACK	8+69.14	4.25
11	2976067.469	750892.510	31.555	MTRV MAG NAIL	24+90.73	22.40
13	2976210.887	750651.412	34.470	MTRV MAG NAIL	22+10.30	29.73

ARLINGTON
MASSACHUSETTS AVENUE
ALIGNMENT AND GRADING PLANS
SHEET 16 OF 28



LEGEND:

[X]	WCR NUMBER
(X)	DRIVEWAY NUMBER
TC XX.XX	PROP TOP OF CURB ELEVATION
TC XX.X	EXIST TOP OF CURB ELEVATION
BC XX.X	EXIST BOTTOM OF CURB ELEVATION
XX.XX	PROP BACK OF WALK ELEVATION (WHERE MATCHING EXISTING)
XX.XX	PROP BACK OF WALK ELEVATION

NOTES:
1. SPOT GRADES ARE PROVIDED EVERY 25' AT EXISTING FACE OF CURB, PROPOSED OR EXISTING TOP OF CURB, AND PROP BACK OF WALK.
2. ALTHOUGH 0.5% TOLERANCE FOR CONSTRUCTION IS TYPICALLY PROVIDED FOR SIDEWALKS, CONTRACTOR MUST MATCH SPOT ELEVATIONS PROVIDED AS CLOSELY AS POSSIBLE TO ENSURE ADEQUATE DRAINAGE GIVEN THE RELATIVELY FLAT SLOPES PROPOSED IN SOME LOCATIONS TO MEET STOREFRONT ELEVATIONS.

Curve Table			
Curve #	Delta	Radius	Length
C30	91°21'44"	4.97	7.92
C31	89°43'49"	5.00	7.83

SURVEY TRAVERSE TABLE						
POINT #	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION	STATION	OFFSET
21	2976507.761	750462.059	35.887	MTRV DRILL HOLE		

MEDFORD STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L10	50+00.00	2976331.1362	750319.0798		N44°15'05"E 350.00'	53+50.00	2976581.836	750563.313

13982.01_HD(TTCP).DWG Plotted on 26-Mar-2020 6:07 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).
2. WORK HOURS SHALL BE 7AM TO 6PM UNLESS OTHERWISE APPROVED BY MASSDOT AND THE TOWN. ANY WORK DURING PEAK PERIODS (MONDAY THRU FRIDAY, 7AM-9AM AND 4PM-6PM) SHALL BE COORDINATED IN ADVANCE WITH MASSDOT. LANE CLOSURES ON MASSACHUSETTS AVE, BROADWAY AVE, AND FRANKLIN ST ROAD WILL NOT BE PERMITTED FROM 5:30 AM TO 9PM, MONDAY THRU FRIDAY.
3. NO WORK SHALL OCCUR WITHIN THE PUBLIC WAY ON STATE RECOGNIZED HOLIDAYS 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 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OR RESTRICTION OF ACCESS.
10. FOR DROP-OFFS 4" 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 4" BUT NO MORE THAN 12", DETERMINE WHETHER IT IS MORE COST EFFECTIVE TO INSTALL BOTH TEMPORARY CHANNELIZATION DEVICES AND A 1V:4H (MIN) TO 1V:6H (DESIRED) WEDGE OR TO REMOVE THE HAZARD. FOR DROP-OFFS GREATER THAN 12" BUT NO MORE THAN 24", DETERMINE WHETHER IT IS MORE COST EFFECTIVE TO MAINTAIN AN ADDITIONAL 5' OF SHOULDER WIDTH AND INSTALL BOTH TEMPORARY CHANNELIZATION DEVICES AND A 1V:6H (DESIRE) WEDGE OR TO REMOVE THE HAZARD. FOR DROP-OFFS 24" OR GREATER USE BARRIER IN ACCORDANCE WITH MASSDOT WORK ZONE POSITIVE PROTECTION GUIDELINES.
11. CONTRACTOR SHALL STAGE WORK SUCH THAT A DROP-OFF OF NO MORE THAN 12" 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 12.
12. CONSTRUCTION CLEAR ZONE SHALL BE IN ACCORDANCE WITH MASSDOT BOSTON TRAFFIC GUIDELINES AS FOLLOWS:
    4' IF POSTED SPEED IS LESS THAN 35 MPH
13. ALL TEMP BARRIERS SHALL MEET OR EXCEED MASS TL-2 REQUIREMENTS WITH A MAXIMUM DYNAMIC DEFLECTION OF 3 FEET.
14. PROVIDE CLEAR ZONES AROUND TRUCK MOUNTED ATTENUATORS AS REQUIRED BY THE MANUFACTURER.
15. 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED UNLESS OTHERWISE NOTED.
16. TEMPORARY TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS WHEN NOT IN USE.
17. SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
18. 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.
19. SIGNS MOUNTED ON P5 POSTS REQUIRE A MINIMUM 84 INCH MOUNTING HEIGHT FROM THE ROADWAY OR SIDEWALK SURFACE TO THE BOTTOM OF THE SIGN.
20. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN NCHRP 350 AND/OR MASH CRASH TESTED SIGN SUPPORTS AND INSTALLED IN ACCORDANCE WITH THE MUTCD.
21. ADVISORY SPEED PLAQUES (W13-1p(XX)) SHALL BE USED AS SHOWN AND AS REQUESTED BY THE ENGINEER. POSTED ADVISORY SPEED SHALL BE AS APPROVED BY THE APPROPRIATE AGENCY WITH JURISDICTION OVER THE ROADWAY ON WHICH THE SIGN WILL BE MOUNTED.
22. MA-W20-7b SIGNS SHALL BE REPLACED BY W20-7 SIGNS WHEN FLAGGERS ARE USED IN LIEU OF POLICE OFFICER DETAILS.
23. ARROW BOARD FLASHING CAUTION SHALL FLASH IN FOUR-POINT CAUTION MODE ONLY.
24. 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.
25. WHEN UTILIZING TYPICAL TRAFFIC CONTROL DETAILS OR STAGING SETUPS, COVER EXISTING CONFLICTING ADVANCE WARNING SIGNS AS REQUIRED TO COMPLETE THE WORK.
26. CONTRACTOR SHALL SECURE WORK AREAS TO PREVENT UNAUTHORIZED ACCESS AT ALL TIMES.
27. THERE IS A DESIGNATED BICYCLE LANE ON THE ROADWAY WITHIN THE PROJECT LIMITS. SEE SHEET 18 FOR THE TYPICAL CYCLE AND SHOULDER CLOSURE TO BE APPLIED TO THE DESIGNATED BICYCLE LANE ON MASSACHUSETTS AVENUE FROM PLEASANT STREET TO SWAN PLACE.
28. THE CONTRACTOR SHALL PERFORM THE SIDEWALK WORK ON THIS PROJECT IN ONE BLOCK INTERVALS. WORK ON THE SIDEWALK BLOCK UNDER CONSTRUCTION SHALL BE SUBSTANTIALLY COMPLETED PRIOR TO THE CONTRACTOR BEGINNING WORK ON THE NEXT SEQUENTIAL SIDEWALK BLOCK. THE CONTRACTOR SHALL COORDINATE WITH THE TOWN DEPARTMENT OF PUBLIC WORKS PRIOR TO THE START OF ANY CONSTRUCTION TO OUTLINE THEIR WORK PLAN AND WHERE WORK WILL START AND TO WHERE WORK WILL SEQUENTIALLY PROGRESS.

LEGEND

F	FLAGGER
P	POLICE OFFICER
S	TRAFFIC SIGNAL
●	REFLECTORIZED DRUM
	TEMPORARY CONSTRUCTION SIGN
▲	TRAFFIC CONE
	TYPE III BARRICADE
	WORK AREA (PUBLIC ACCESS RESTRICTED)
	TRAFFIC FLOW
	PEDESTRIAN ROUTE
	CONSTRUCTION FENCE
	TEMPORARY PEDESTRIAN BARRICADE
NTS	NOT TO SCALE

ADVANCE SIGN SPACING

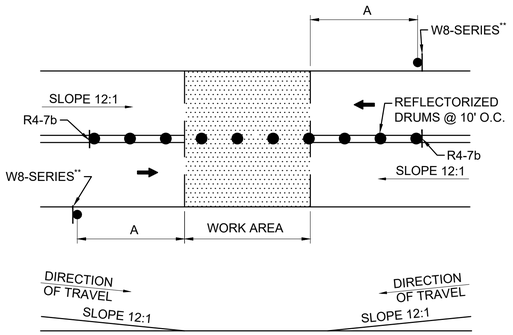
ROADWAY	DISTANCE BETWEEN SIGNS (FEET) A	B	C	D
MASSACHUSETTS AVENUE	100	50	100	100
BROADWAY STREET	100	50	100	100
MEDFORD STREET	100	50	100	100
ALTON STREET	100	50	100	100
FRANKLIN STREET	100	50	100	100

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	GREATER THAN 40 MPH
$L=\frac{WS^2}{60}$	L= WS

BUFFER SPACING

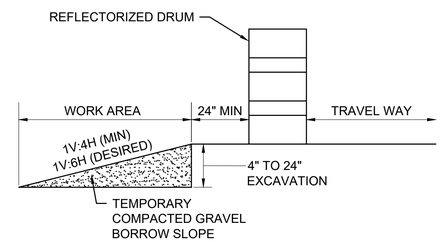
SPEED (MPH)	DISTANCE (FEET)
15	80
20	115
25	155
30	200
35	250
40	305
45	360
50	425



NOTES:
1. SQUARE OFF THE FULL WIDTH OF THE ROADWAY AT THE END OF WORK DAY
2. ** CONTRACTOR SHALL INSTALL W8-1, W8-3, OR W8-8 SIGN, AS APPROPRIATE, ON ALL ROADWAYS IN ADVANCE OF THE TRANSITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

TEMPORARY PAVEMENT TRANSITION

SCALE: NTS



NOTE:
1. 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

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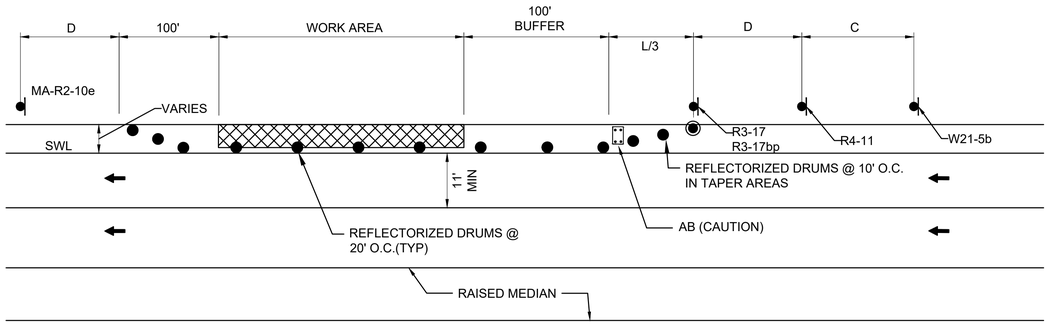
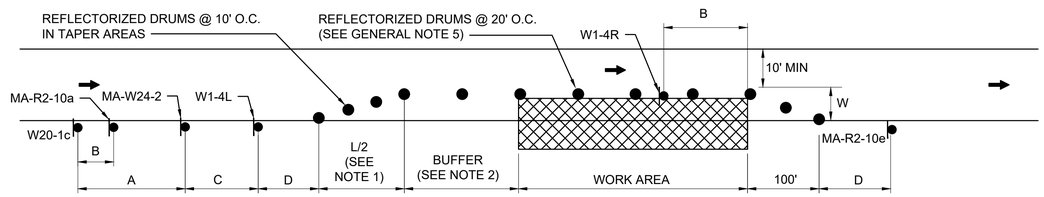


NOTES:
1. SEE TAPER LENGTH FORMULA ON TTCP SHEET 17.
2. SEE ADVANCE SIGN SPACING CHART ON TTCP SHEET 17.
3. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED BEYOND MINIMUM SPACING SHOWN AS NECESSARY.

TYPICAL BICYCLE AND SHOULDER CLOSURE - RIGHT

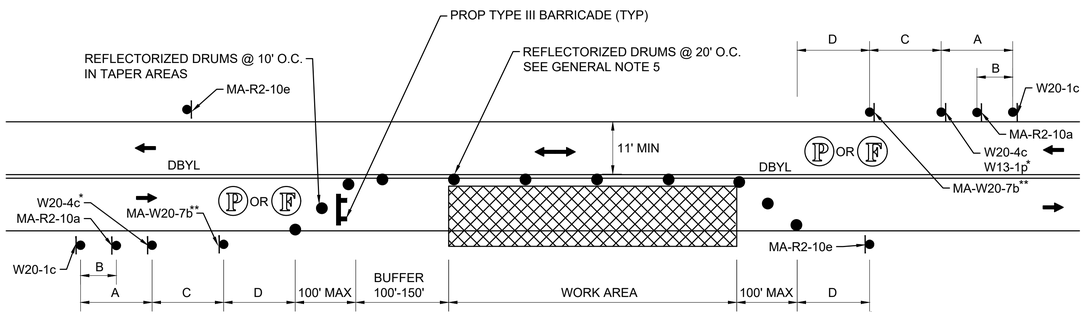
SCALE: NTS



NOTES:
1. SEE TAPER LENGTH FORMULA ON TTCP SHEET 17.
2. SEE BUFFER SPACING CHART ON TTCP SHEET 17.
3. SEE ADVANCE SIGN SPACING TABLE TTCP SHEET 17.

TYPICAL ONE-WAY STREET LANE SHIFT-LEFT

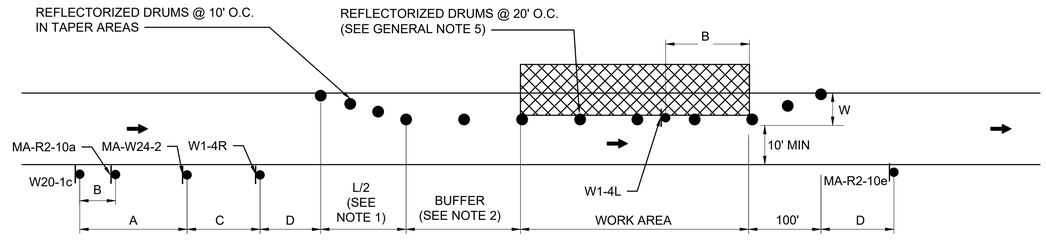
SCALE: NTS DWG: TTCP2d DATE: JULY 2019



NOTES:
1. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP SHEET 17.
2. ** SEE NOTE 22 ON TTCP SHEET 17.

TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC

SCALE: NTS DWG: TTCP2b DATE: JULY 2019

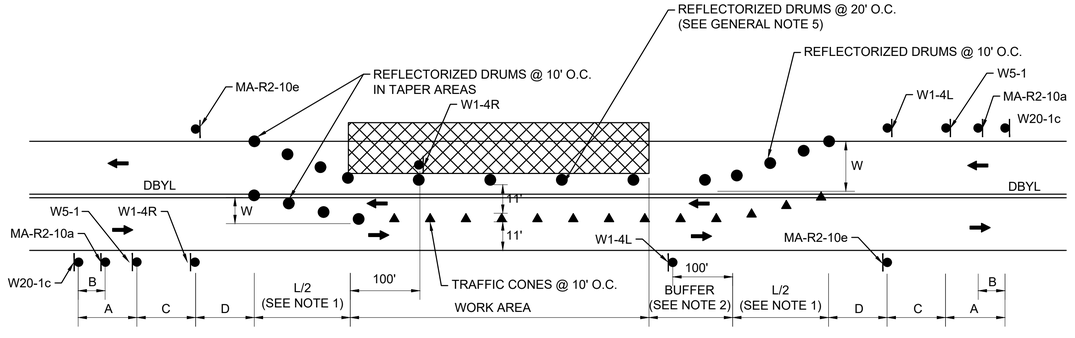


NOTES:

1. SEE TAPER LENGTH FORMULA ON TTCP SHEET 17.
2. SEE BUFFER SPACING CHART ON TTCP SHEET 17.
3. SEE ADVANCE SIGN SPACING TABLE TTCP SHEET 17.

TYPICAL ONE-WAY STREET LANE SHIFT-RIGHT

SCALE: NTS DWG: TTCP2d DATE: JULY 2019



NOTES:

1. SEE TAPER LENGTH FORMULA ON TTCP SHEET 17.
2. SEE BUFFER SPACING CHART ON TTCP SHEET 17.
3. REFER TO ADVANCE SIGN SPACING TABLE ON TTCP SHEET 17.

TYPICAL TWO-WAY STREET LANE SHIFT

SCALE: NTS DWG: TTCP2a DATE: JULY 2019

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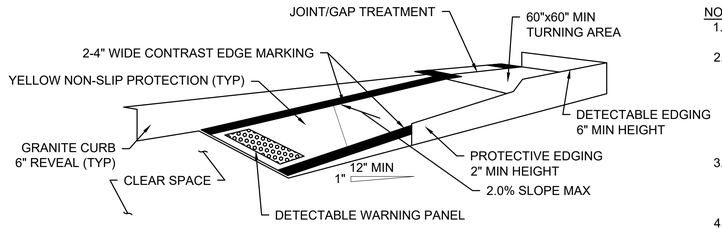
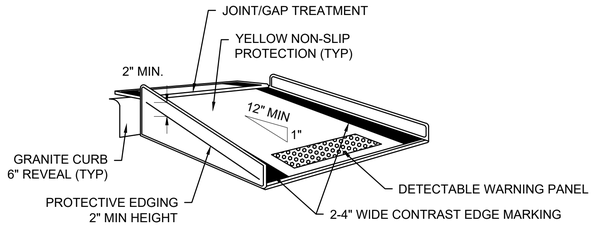


TEMPORARY CURB RAMP-PARALLEL TO CURB



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.

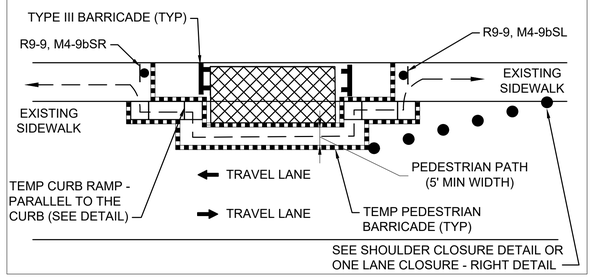
TEMPORARY CURB RAMPS

SCALE: NTS

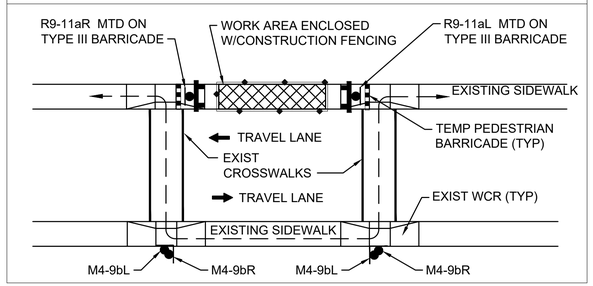
NOTES:

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 OR TEMPORARY 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 WHEELCHAIR 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.
11. * INDICATES SIGNS ARE NOT REQUIRED IF EXISTING CROSSWALKS ARE USED.

PEDESTRIAN BYPASS TYPE I

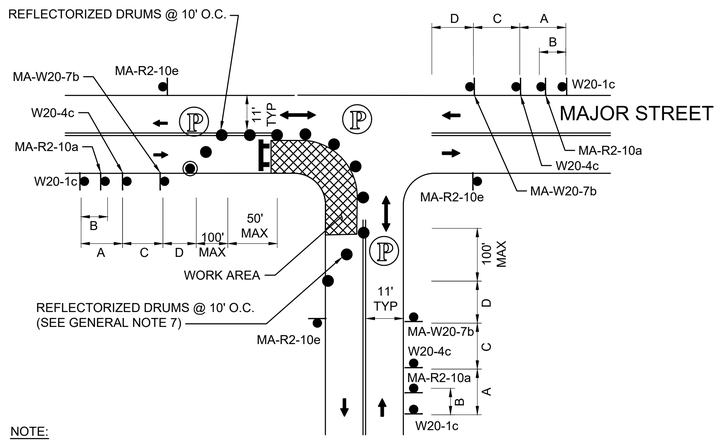


PEDESTRIAN BYPASS TYPE II



PEDESTRIAN BYPASS DETAIL

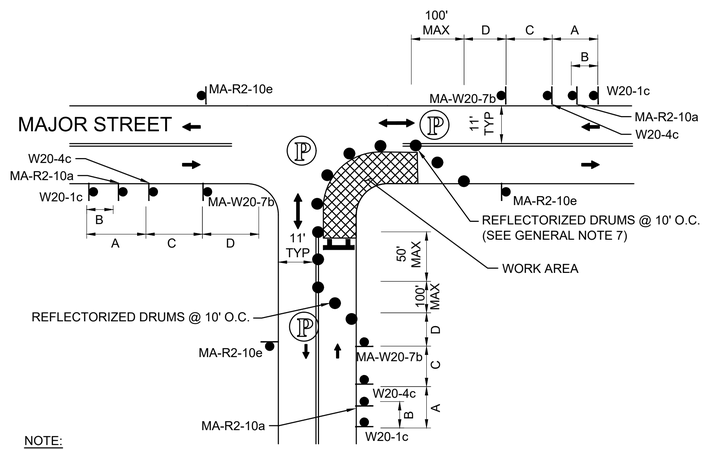
SCALE: NTS



NOTE:
1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 17

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

SCALE: NTS DWG: TTCP4d DATE: JULY 2019



NOTE:
1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 17

ONE LANE BI-DIRECTIONAL TRAFFIC AT INTERSECTIONS - FAR SIDE

SCALE: NTS DWG: TTCP4c DATE: JULY 2019

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND	BORDER
MA-R2-10a	48"	36"	WORK ZONE / SPEEDING FINES DOUBLED	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE / WHITE	BLACK	BLACK
MA-R2-10e	36"	48"	END ROAD WORK / DOUBLE FINES END				FLUOR-ESCENT ORANGE / WHITE	BLACK	BLACK
R3-17	30"	24"	BIKE LANE				WHITE	BLACK	BLACK
R3-17bp	30"	12"	ENDS				WHITE	BLACK	BLACK
R4-11	30"	30"	MAY USE FULL LANE	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK
R9-9	24"	12"	SIDEWALK CLOSED				WHITE	BLACK	BLACK
R9-11aL	24"	12"	SIDEWALK CLOSED ← CROSS HERE				WHITE	BLACK	BLACK
R9-11aR	24"	12"	SIDEWALK CLOSED → CROSS HERE				WHITE	BLACK	BLACK
W1-4L	36"	36"					FLUOR-ESCENT ORANGE	BLACK	BLACK
W1-4R	36"	36"					FLUOR-ESCENT ORANGE	BLACK	BLACK
W5-1	36"	36"	ROAD NARROWS				FLUOR-ESCENT ORANGE	BLACK	BLACK
W20-1c	36"	36"	ROAD WORK AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK
W20-4c	36"	36"	ONE LANE ROAD AHEAD	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK
W20-7	36"	36"					FLUOR-ESCENT ORANGE	BLACK	BLACK
W21-5b	36"	36"	SHOULDER WORK				FLUOR-ESCENT ORANGE	BLACK	BLACK
MA-W20-7b	36"	36"	POLICE OFFICER AHEAD	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE	BLACK	BLACK
MA-W24-2	36"	36"	LANES SHIFT AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND	BORDER
M4-9bL	30"	24"	DETOUR ←	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK
M4-9bR	30"	24"	DETOUR →				FLUOR-ESCENT ORANGE	BLACK	BLACK
M4-9bsL	30"	24"	DETOUR ↖				FLUOR-ESCENT ORANGE	BLACK	BLACK
M4-9bsR	30"	24"	DETOUR ↗				FLUOR-ESCENT ORANGE	BLACK	BLACK

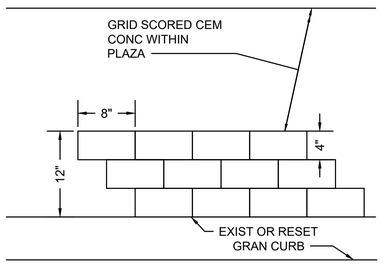
NOTES:
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 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.

ARLINGTON
MASSACHUSETTS AVENUE
TEMPORARY TRAFFIC CONTROL PLANS
SHEET 20 OF 28

13982.01_HD(TTCP).DWG Plotted on 26-Mar-2020 6:07 PM

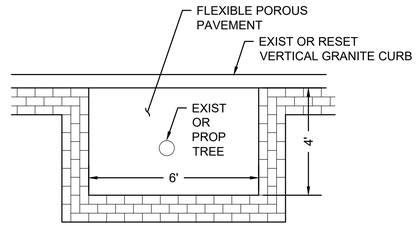
13982.01_HD(DET).DWG Plotted on 27-Mar-2020 9:30 AM

NOTE: WHERE STAMPED CEM CONC ACCENT BAND IS PROPOSED ALONG A CURVED CURB LINE, THE PATTERN SHALL BE CURVED SUCH THAT THE 8"-LONG EDGES OF THE BRICKS ARE PARALLEL TO THE CURB LINE.

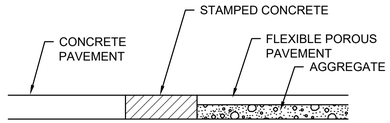


STAMPED CEMENT CONCRETE ACCENT BAND ALONG CURB LINE

SCALE: N.T.S.



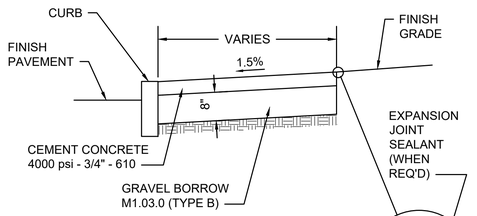
PLAN



STAMPED CONCRETE ACCENT BAND

STAMPED CEM CONC ACCENT BAND AT TREE WELL

SCALE: N.T.S.

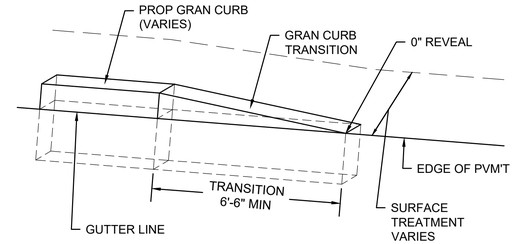


SECTION

NOTES:
1. PROVIDE EXPANSION JOINTS AT MAX 30' O.C. WITH PRE-MOULDED JOINT FILLER
2. PROVIDE TOOLED DUMMY JOINTS
3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB
4. CONTRACTOR TO MEASURE OUT EACH SECTION OF SIDEWALK BETWEEN DRIVEWAYS/WHEELCHAIR RAMPS AND CONSTRUCT EQUALLY SIZED PANELS WITH SCORE LINES SPACED 4' TO 6' APART.

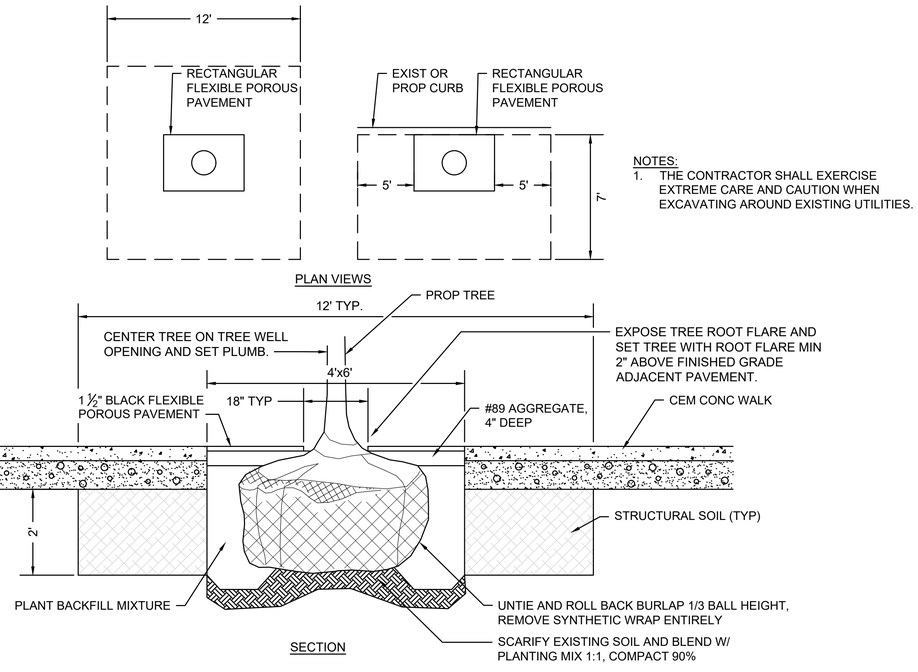
CEMENT CONCRETE SIDEWALK

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



GRANITE CURB TRANSITION PIECE

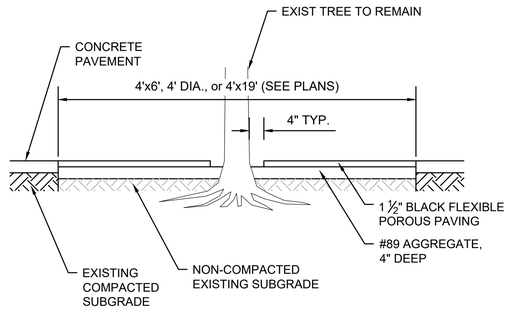
SCALE: N.T.S.



NOTES:
1. THE CONTRACTOR SHALL EXERCISE EXTREME CARE AND CAUTION WHEN EXCAVATING AROUND EXISTING UTILITIES.

PROP TREE PLANTING IN FLEXIBLE POROUS PAVEMENT

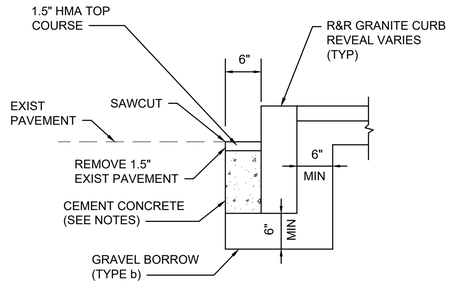
SCALE: NTS



NOTES:
1. PRIME EDGE WITH URETHANE PRIMER 15 MINUTES PRIOR TO INSTALLATION OF FLEXIBLE POROUS PAVEMENT.
2. PROVIDE 1/2" POLYETHELYENE FOAM EXPANSION JOINT MATERIAL WRAPPED AROUND TREE TRUNK.

PERMEABLE TREE WELL SURFACE

SCALE: N.T.S.

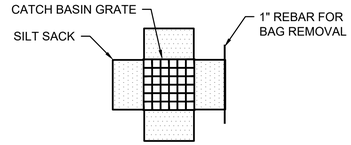


NOTES:
1. CONCRETE SHALL BE INCLUDED IN PRICE BID FOR GRANITE CURB.
2. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER SECTION M4 OF THE STANDARD SPECIFICATIONS MAY BE USED. ALL TEST REQUIREMENTS ARE WAIVED. HOT MIX ASPHALT SHALL NOT BE USED AS A SUBSTITUTE.

GRANITE CURB IN EXISTING PAVEMENT

SCALE: N.T.S.

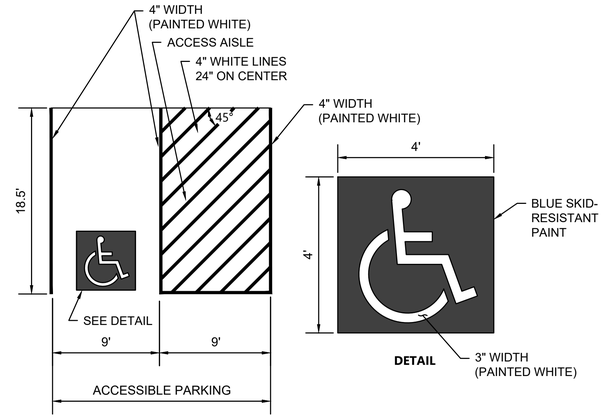
13982.01_HD(DET).DWG Plotted on 26-Mar-2020 6:08 PM



NOTES:
1. INSTALL SILT SACK IN EXISTING CATCH BASINS, BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL SIDEWALK RECONSTRUCTION HAS BEEN COMPLETED.
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

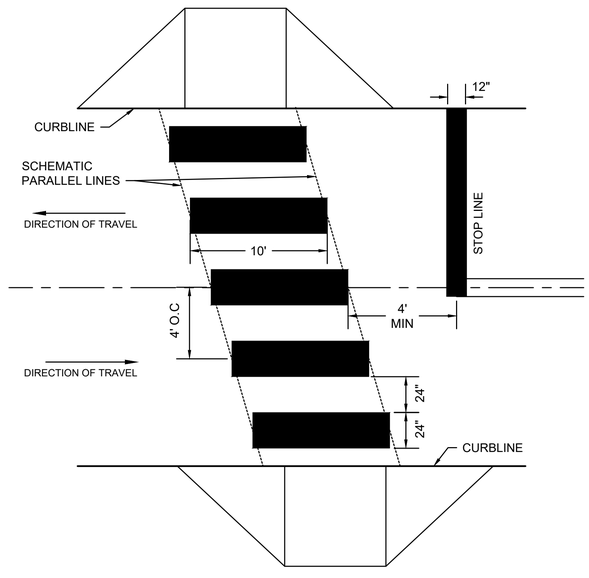
SCALE: N.T.S.



NOTES:
1. ALL DIMENSIONS TO EDGES OF 4" PAVEMENT STRIPING.
2. 9' STALL WIDTH REFERS TO 9' CLEAR BETWEEN INSIDE EDGES OF PAVEMENT MARKINGS.
3. ALL SLOPES THROUGHOUT THE ACCESSIBLE PARKING AND AISLE AREAS SHALL NOT EXCEED 1.5%.
4. ACCESS AISLE MEASURED BETWEEN OUTSIDE EDGES OF PAVEMENT MARKINGS.

ACCESSIBLE PARKING SPACE

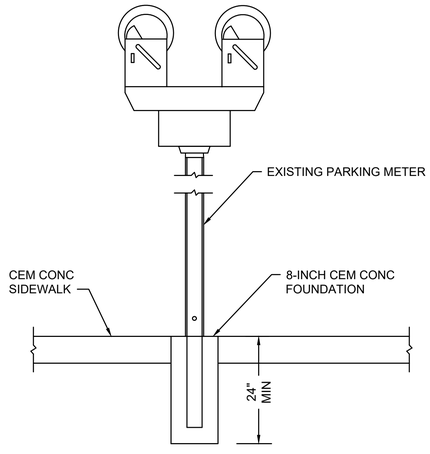
SCALE: N.T.S. DATE: JANUARY 2016



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 ARLINGTON DPW 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 1988, SECTION 860 FOR REFLECTORIZED LINE (THERMO-PLASTIC) & MATERIAL M7.01.20, LATEST REVISIONS.

CONTINENTAL-STYLE CROSSWALK - 2' WIDE LINES

SCALE: N.T.S. DWG: PM-28 DATE: MAY 2017



R&R PARKING METER

SCALE: N.T.S. DWG: PM-06 DATE: MARCH 2013

13962.01-HDWCR).DWG Plotted on 27-Mar-2020 10:02 AM

WHEELCHAIR RAMP DATA											
NO.	LOCATION (REF POINT)	SIDEWALK WIDTH	RAMP WIDTH	RAMP LENGTH	LEFT SIDE			RIGHT SIDE			OPENING ELEV
					ROADWAY GUTTER	REVEAL	TRANS	ROADWAY GUTTER	REVEAL	TRANS	
	MASSACHUSETTS AVENUE										
1	6+38.4 38.9' RT	10.1'	5.0'	5.1'	-1.2%	3"	3'-3"	1.7%	5"	9'-0"	36.5
5	7+16.0 37.4' RT	11.9'	5.0'	6.9'	-1.0%	8"	6'-6"	0.8%	8"	10'-3"	36.0
	BROADWAY										
21	22+45.5 31.6' LT	8.9'	5.0'	4.9'	-1.9%	4"	6'-6"	2.5%	4"	7'-4"	33.7
23	21+57.48 20.9' LT	10.2'	5.0'	5.0'	-0.9%	5"	5'-7"	0.9%	4"	4'-5"	34.9

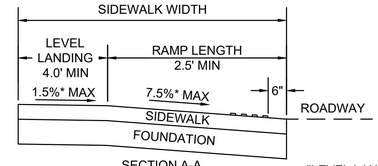
NOTES:
1. NEGATIVE (-) ROADWAY GUTTER MAX DENOTES A LOW SIDE TRANSITION.

LEGEND

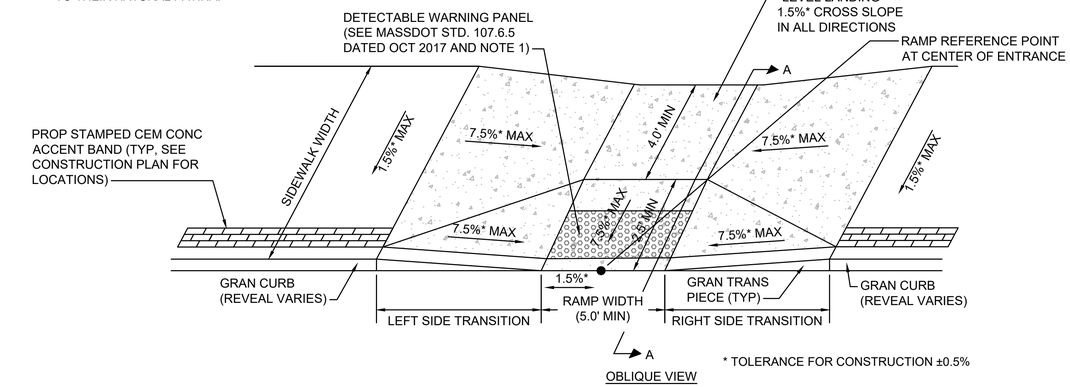
LIMITS OF CEM CONC RAMP

DETECTABLE WARNING PANEL

NOTE:
1. ALL DETECTABLE WARNING PANELS SHALL BE CAST IRON WITH NO SURFACE COATING AND SHALL BE ALLOWED TO TRANSITION TO THEIR NATURAL PATINA.



SECTION A-A



OBLIQUE VIEW

* TOLERANCE FOR CONSTRUCTION ±0.5%

WHEELCHAIR RAMP - 6.50' TO 12.50' WIDTH

SCALE: NTS

WHEELCHAIR RAMP DATA											
NO.	LOCATION (REF POINT)	SIDEWALK WIDTH	RAMP WIDTH	RAMP LENGTH	LEFT SIDE			RIGHT SIDE			OPENING ELEV
					ROADWAY GUTTER	REVEAL	TRANS	ROADWAY GUTTER	REVEAL	TRANS	
	MASSACHUSETTS AVENUE										
2	6+44.6 41.5' LT	13.9'	5.0'	9.1'	-0.6%	8"	6'-6"	0.6%	6"	7'-8"	36.9
11	13+69.3 30.2' LT	16.3'	5.0'	8.6'	2.1%	3"	5'-6"	-2.2%	6"	6'-6"	27.5
	BROADWAY										
18	25+09.7 29.3' LT	13.9'	5.0'	9.0'	2.4%	5"	11'-0"	-0.7%	5"	6'-6"	30.9
19	22+62.7 13.8' LT	20.5'	5.0'	5.0'	1.2%	4"	9'-0"	-0.1%	4"	6'-6"	33.8
22	22+19.2 31.7' LT	18.9'	5.0'	10.6'	2.6%	5"	11'-0"	-0.1%	6"	6'-6"	33.8

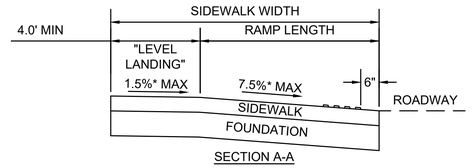
NOTES:
1. NEGATIVE (-) ROADWAY GUTTER MAX DENOTES A LOW SIDE TRANSITION.

LEGEND

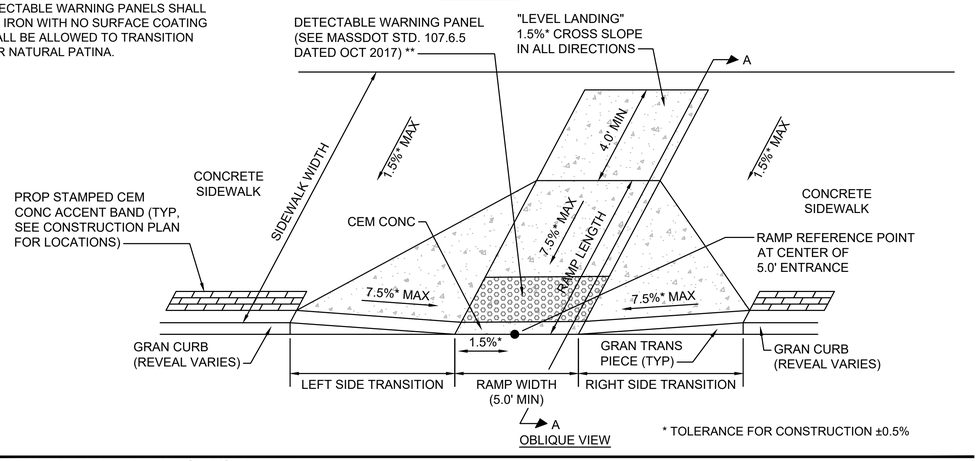
LIMITS OF CEM CONC RAMP

DETECTABLE WARNING PANEL

NOTE:
1. ALL DETECTABLE WARNING PANELS SHALL BE CAST IRON WITH NO SURFACE COATING AND SHALL BE ALLOWED TO TRANSITION TO THEIR NATURAL PATINA.



SECTION A-A



OBLIQUE VIEW

* TOLERANCE FOR CONSTRUCTION ±0.5%

WHEELCHAIR RAMP - 12.50' OR GREATER

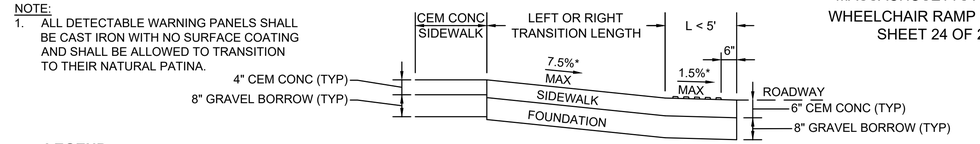
SCALE: NTS

13862.01-HDWCR).DWG Plotted on 27-Mar-2020 10:02 AM

WHEELCHAIR RAMP DATA										
NO.	LOCATION (REF POINT)	SIDEWALK WIDTH	RAMP WIDTH	LEFT SIDE			RIGHT SIDE			OPENING ELEV
				ROADWAY GUTTER	REVEAL	TRANS	ROADWAY GUTTER	REVEAL	TRANS	
	MASSACHUSETTS AVENUE									
8	11+53.1 42.0' RT	8.3' (LT) 9.2' (RT)	5.0'	-1.3%	6"	6'-6"	1.4%	6"	9'-0"	31.5
9	11+80.6 42.1' RT	9.7' (LT) 5.0' (RT)	5.0'	-1.6%	6"	6'-6"	0.2%	6"	7'-8"	30.9
14	13+47.4 43.6' LT	6.3' (LT) 15.8' (RT)	5.0'	-2.2%	6"	11'-0"	1.1%	3"	3'-3"	28.1
	MEDFORD STREET									
24	52+01.4 27.1' LT	9.8' (LT) 7.7' (RT)	5.0'	1.0%	4"	6'-6"	3.5%	5"	14'-0"	35.8
25	52+17.6 27.0' LT	6.4' (LT) 9.6' (RT)	5.0'	3.5%	6"	14'-0"	-1.5%	6"	6'-6"	35.7

NOTES:
1. NEGATIVE (-) ROADWAY GUTTER MAX DENOTES A LOW SIDE TRANSITION.

NOTE:
1. ALL DETECTABLE WARNING PANELS SHALL BE CAST IRON WITH NO SURFACE COATING AND SHALL BE ALLOWED TO TRANSITION TO THEIR NATURAL PATINA.

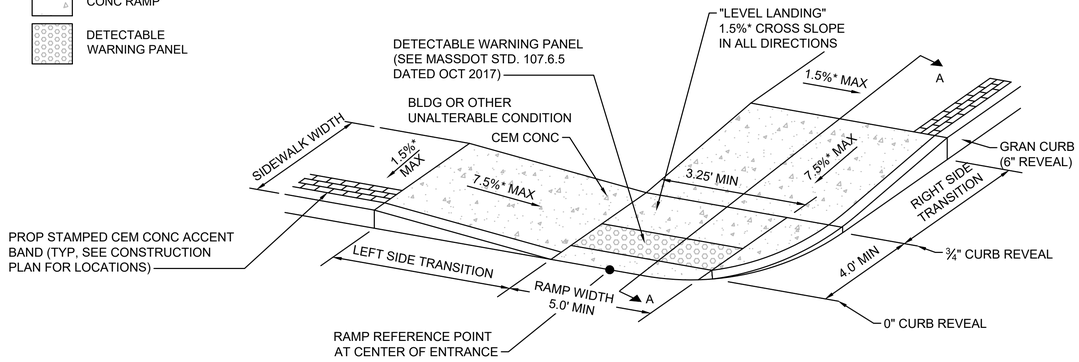


SECTION A-A

LEGEND

LIMITS OF CEM CONC RAMP

DETECTABLE WARNING PANEL

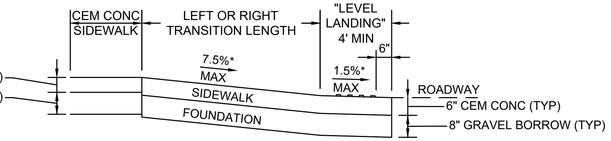


* TOLERANCE FOR CONSTRUCTION ±0.5%

WHEELCHAIR RAMP - SINGLE STREET CROSSING SERVING TWO SIDEWALK DIRECTIONS

SCALE: NTS

NOTE:
1. ALL DETECTABLE WARNING PANELS SHALL BE CAST IRON WITH NO SURFACE COATING AND SHALL BE ALLOWED TO TRANSITION TO THEIR NATURAL PATINA.

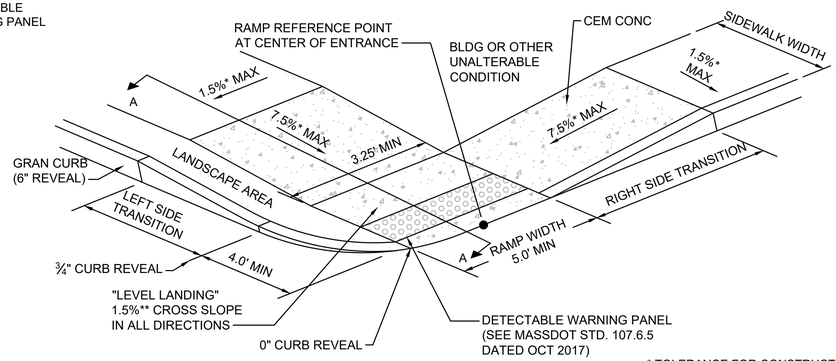


SECTION A-A

LEGEND

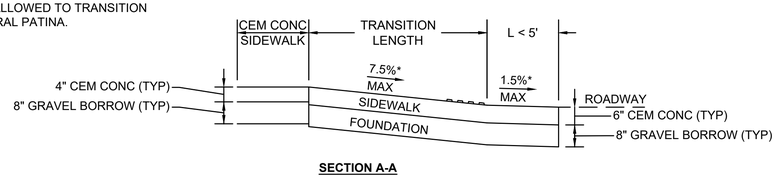
LIMITS OF CEM CONC RAMP

DETECTABLE WARNING PANEL



* TOLERANCE FOR CONSTRUCTION ±0.5%

NOTE:
1. ALL DETECTABLE WARNING PANELS SHALL BE CAST IRON WITH NO SURFACE COATING AND SHALL BE ALLOWED TO TRANSITION TO THEIR NATURAL PATINA.

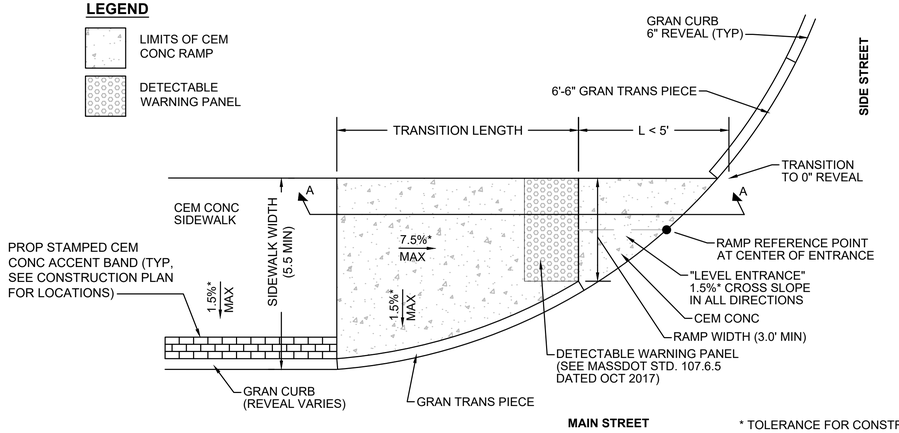


SECTION A-A

LEGEND

LIMITS OF CEM CONC RAMP

DETECTABLE WARNING PANEL



* TOLERANCE FOR CONSTRUCTION ±0.5%

WHEELCHAIR RAMP - 'L' IS LESS THAN 5'

SCALE: NTS

WHEELCHAIR RAMP DATA							
NO.	LOCATION (REF POINT)	SIDEWALK WIDTH	RAMP WIDTH	ROADWAY GUTTER	REVEAL	TRANS	OPENING ELEV
	MASSACHUSETTS AVENUE						
12	13+05.9 47.4' LT	9.6'	3.0'	0.6%	5"	6'-5"	29.2

NOTES:
1. NEGATIVE (-) ROADWAY GUTTER MAX DENOTES A LOW SIDE TRANSITION.

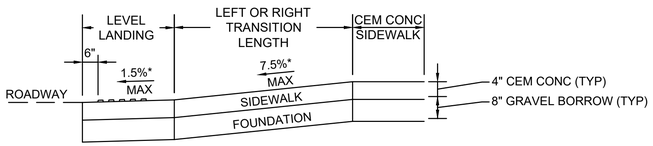
WHEELCHAIR RAMP - SINGLE STREET CROSSING SERVING TWO SIDEWALK DIRECTIONS WITH LANDSCAPE STRIP

SCALE: NTS

WHEELCHAIR RAMP DATA										
NO.	LOCATION (REF POINT)	SIDEWALK WIDTH	RAMP WIDTH	LEFT SIDE			RIGHT SIDE			OPENING ELEV
				ROADWAY GUTTER	REVEAL	TRANS	ROADWAY GUTTER	REVEAL	TRANS	
	MASSACHUSETTS AVENUE									
15	13+93.3 43.9' RT	7.5'	5.0'	1.5%	6"	6'-6"	-3.5%	6"	6'-6"	26.6

NOTES:
1. NEGATIVE (-) ROADWAY GUTTER MAX DENOTES A LOW SIDE TRANSITION.

13962.01-HDWCR).DWG Plotted on 27-Mar-2020 10:02 AM

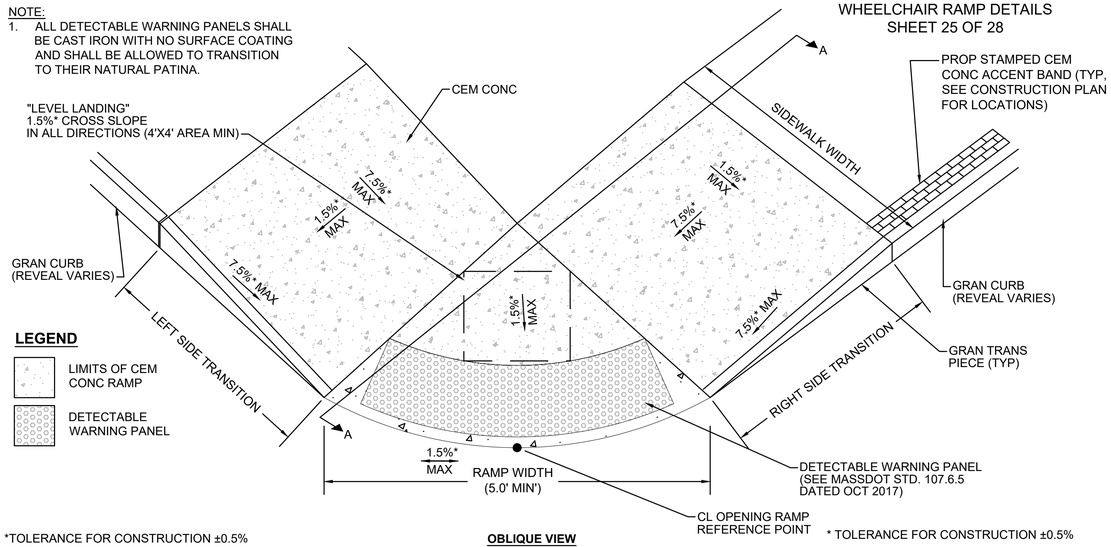


SECTION A-A

WHEELCHAIR RAMP DATA										
NO.	LOCATION (REF POINT)	SIDEWALK WIDTH	RAMP WIDTH	LEFT SIDE			RIGHT SIDE			OPENING ELEV
				ROADWAY GUTTER	REVEAL	TRANS	ROADWAY GUTTER	REVEAL	TRANS	
	MASSACHUSETTS AVENUE									
13	13+69.2 38.7' RT	12.8'	16.5'	-4.6%	6"	6'-6"	1.7%	6"	9'-0"	27.0
	BROADWAY									
17	25+41.0 26.8' LT	9.5'	14.9'	-0.53%	5"	7'-8"	-1.15%	6"	6'-6"	37.1

NOTES:
1. NEGATIVE (-) ROADWAY GUTTER MAX DENOTES A LOW SIDE TRANSITION.

NOTE:
1. ALL DETECTABLE WARNING PANELS SHALL BE CAST IRON WITH NO SURFACE COATING AND SHALL BE ALLOWED TO TRANSITION TO THEIR NATURAL PATINA.



LEGEND

LIMITS OF CEM CONC RAMP

DETECTABLE WARNING PANEL

*TOLERANCE FOR CONSTRUCTION ±0.5%

OBLIQUE VIEW

* TOLERANCE FOR CONSTRUCTION ±0.5%

WHEELCHAIR RAMP - LESS THAN 6.5 FEET - CURVED

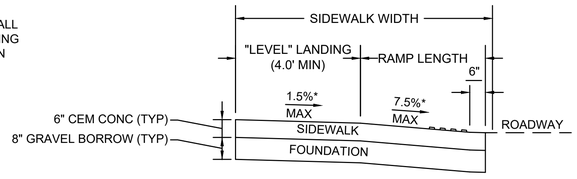
SCALE: NTS

NOTE:
1. ALL DETECTABLE WARNING PANELS SHALL BE CAST IRON WITH NO SURFACE COATING AND SHALL BE ALLOWED TO TRANSITION TO THEIR NATURAL PATINA.

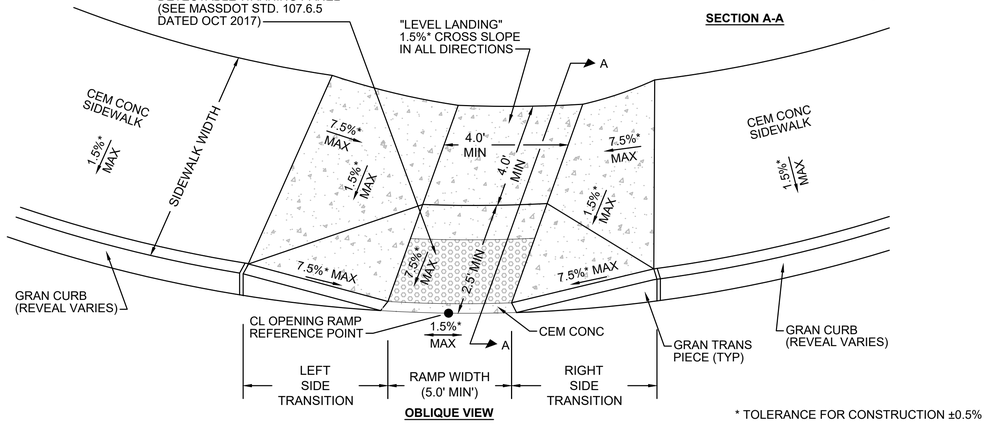
LEGEND

LIMITS OF CEM CONC RAMP

DETECTABLE WARNING PANEL



SECTION A-A



OBLIQUE VIEW

* TOLERANCE FOR CONSTRUCTION ±0.5%

WHEELCHAIR RAMP - GREATER THAN 6.5 FEET - CURVED

SCALE: NTS

WHEELCHAIR RAMP DATA												
NO.	LOCATION (REF POINT)	SIDEWALK WIDTH	RAMP WIDTH	RAMP LENGTH	LEFT SIDE			RIGHT SIDE			OPENING ELEV
					ROADWAY GUTTER	REVEAL	TRANS	ROADWAY GUTTER	REVEAL	TRANS	
	BROADWAY										
16	25+37.8 23.2' RT	9.8' (RT) 10.1' (LT)	5.0'	6.8'	1.6%	4"	6'-0"	-2.1%	5"	5'-5"	30.2

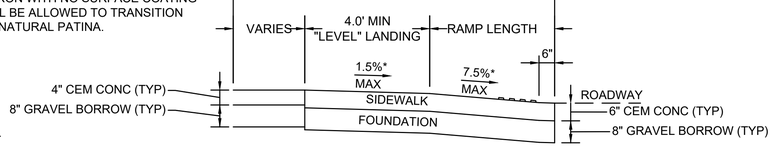
NOTES:
1. NEGATIVE (-) ROADWAY GUTTER MAX DENOTES A LOW SIDE TRANSITION.

NOTE:
1. ALL DETECTABLE WARNING PANELS SHALL BE CAST IRON WITH NO SURFACE COATING AND SHALL BE ALLOWED TO TRANSITION TO THEIR NATURAL PATINA.

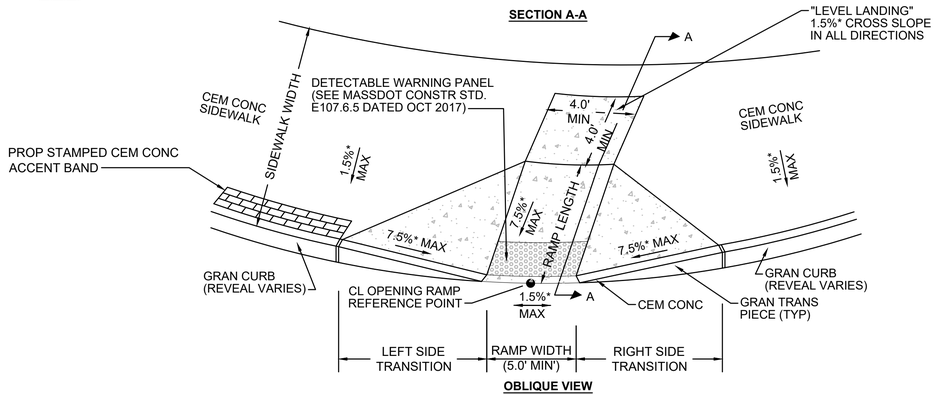
LEGEND

LIMITS OF CEM CONC RAMP

DETECTABLE WARNING PANEL



SECTION A-A



OBLIQUE VIEW

* TOLERANCE FOR CONSTRUCTION ±0.5%

WHEELCHAIR RAMP - 12.5' OR GREATER - CURVED

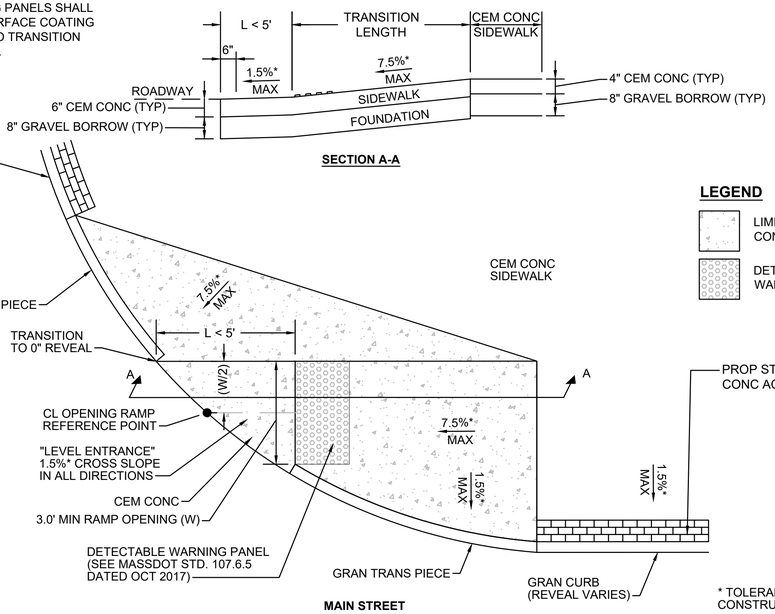
SCALE: NTS

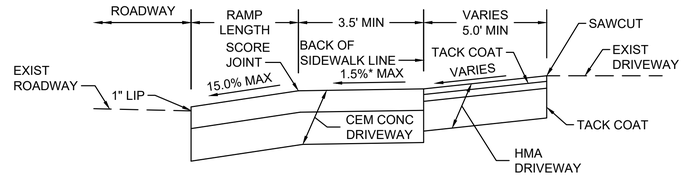
WHEELCHAIR RAMP DATA												
NO.	LOCATION (REF POINT)	SIDEWALK WIDTH	RAMP WIDTH	RAMP LENGTH	LEFT SIDE			RIGHT SIDE			OPENING ELEV
					ROADWAY GUTTER	REVEAL	TRANS	ROADWAY GUTTER	REVEAL	TRANS	
	MASSACHUSETTS AVENUE										
3	6+69.4, 54.0' LT	18.9'	5.0'	7.5'	-0.4%	6"	6'-6"	0.1%	4"	7'-8"	37.2

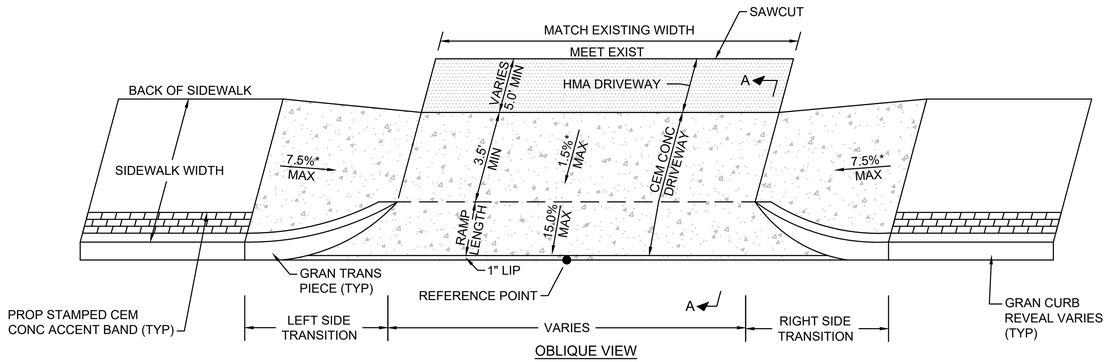
NOTES:
1. NEGATIVE (-) ROADWAY GUTTER MAX DENOTES A LOW SIDE TRANSITION.

13962.01-HD(WCR).DWG Plotted on 27-Mar-2020 10:02 AM

NOTE:
1. ALL DETECTABLE WARNING PANELS SHALL BE CAST IRON WITH NO SURFACE COATING AND SHALL BE ALLOWED TO TRANSITION TO THEIR NATURAL PATINA.







WHEELCHAIR RAMP ON CURVE - 'L' IS LESS THAN 5'

SCALE: NTS

WHEELCHAIR RAMP DATA									
NO.	LOCATION (REF POINT)	RAMP WIDTH	LEFT SIDE			RIGHT SIDE			OPENING ELEV
			ROADWAY GUTTER	REVEAL	TRANS	ROADWAY GUTTER	REVEAL	TRANS	
MASSACHUSETTS AVENUE									
7	9+06.6, 39.8' LT	5.0'	-0.2%	4"	6'-6"	1.5%	6"	9'-0"	35.8

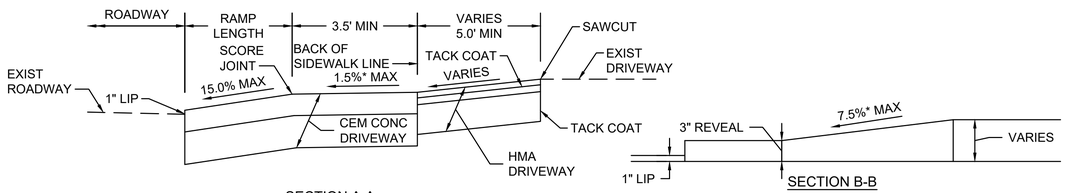
NOTES:
1. NEGATIVE (-) ROADWAY GUTTER MAX DENOTES A LOW SIDE TRANSITION.

DRIVEWAYS THROUGH SIDEWALK - WITH TRANSITION CURB

SCALE: N.T.S.

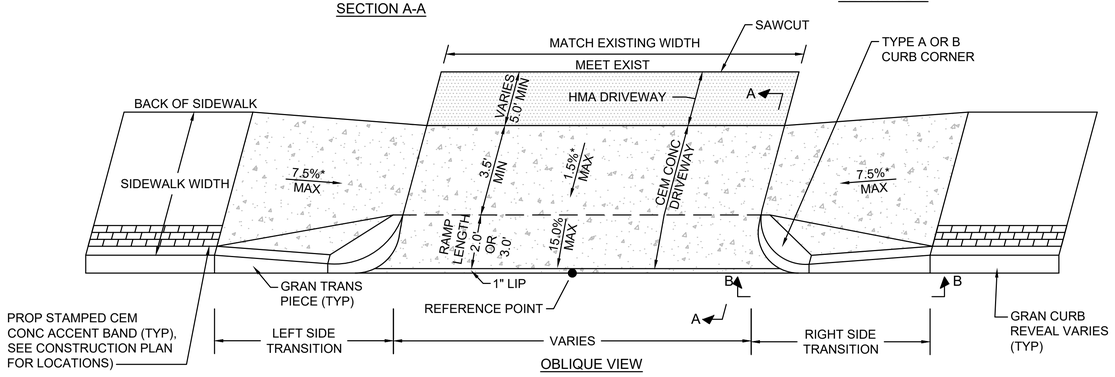
DRIVEWAY DATA										
NO.	LOCATION (REF POINT)	ROADWAY GUTTER	RAMP LENGTH	SIDEWALK WIDTH	LEFT		RIGHT		OPENING ELEVATION	COMMENTS
					TRANS	REVEAL	TRANS	REVEAL		
MASSACHUSETTS AVENUE										
1	STA. 2+43.1, 42.2' RT	-1.2%	5'-0"	11'-9" (LEFT) 12'-1" (RIGHT)	6'-6"	6"	9'-0"	6"	42.1	

13862.01-HDWCR).DWG Plotted on 27-Mar-2020 10:02 AM



SECTION A-A

SECTION B-B



OBLIQUE VIEW

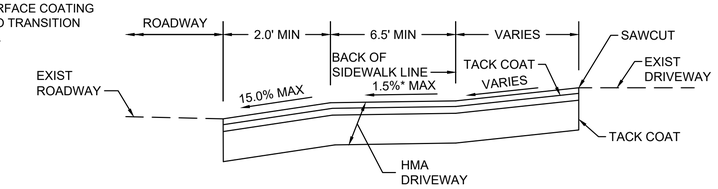
* 0.5% TOLERANCE FOR CONSTRUCTION

DRIVEWAYS THROUGH SIDEWALK - WITH 2' OR 3' CURB CORNERS

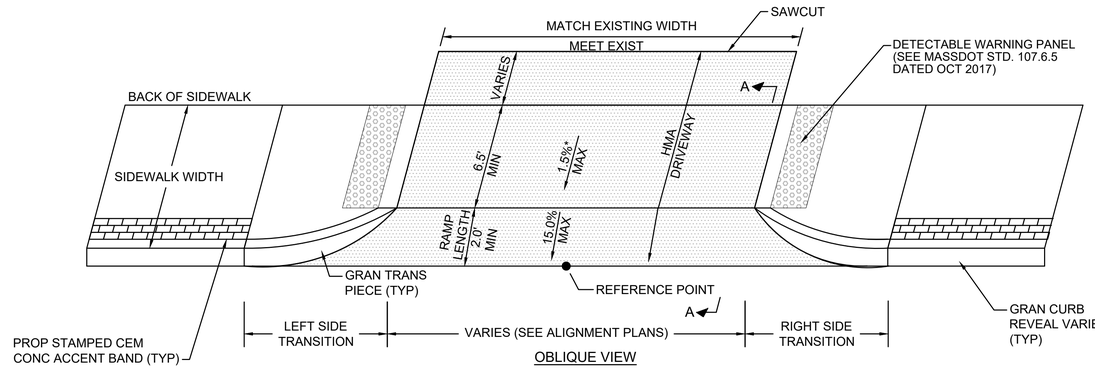
SCALE: N.T.S.

DRIVEWAY DATA										
NO.	LOCATION (REF POINT)	ROADWAY GUTTER	RAMP LENGTH	SIDEWALK WIDTH	LEFT		RIGHT		OPENING ELEVATION	COMMENTS
					TRANS	REVEAL	TRANS	REVEAL		
MASSACHUSETTS AVENUE										
2	STA. 3+46.8, 39.8' RT	-1.2%	3'-0"	11'-7" (LEFT) 11'-9" (RIGHT)	6'-6"	3"	9'-0"	5"	41.0	
3	STA. 6+61.9, 38.5' RT	-0.2%	3'-0"	10'-8" (LEFT) 9'-11" (RIGHT)	6'-6"	6"	3'-3"	3"	36.3	
4	STA. 7+98.6, 37.0' RT	-0.7%	3'-0"	12'-0" (LEFT) 12'-8" (RIGHT)	6'-6"	6"	7'-8"	7"	35.6	
5	STA. 9+79.9, 34.6' RT	-0.8%	3'-0"	9'-0" (LEFT) 10'-9" (RIGHT)	6'-6"	7"	7'-8"	8"	34.3	
6	STA. 12+93.9, 36.2' RT	-1.93%	3'-0"	10'-7" (LEFT) 10'-2" (RIGHT)	6'-6"	6"	9'-0"	7"	28.6	
10	STA. 14+01.7, 29.7' LT	-1.37%	3'-0"	16'-9" (LEFT) 8'-9" (RIGHT)	9'-0"	7"	-	EX	26.9	
BROADWAY										
11	STA. 24+06.8, 22.0' LT	-1.09%	2'-0"	9'-10" (LEFT) 10'-0" (RIGHT)	9'-0"	4"	6'-6"	EX	31.7	
FRANKLIN STREET										
12	STA. 33+99.6, 11.7' LT	-0.70%	2'-0"	7'-7" (LEFT) 7'-5" (RIGHT)	7'-8"	4"	6'-6"	EX	30.4	
13	STA. 34+10.9, 12.8' RT	1.06%	3'-0"	7'-10" (LEFT) 7'-8" (RIGHT)	6'-6"	EX	9'-0"	4"	30.1	

NOTE:
1. ALL DETECTABLE WARNING PANELS SHALL BE CAST IRON WITH NO SURFACE COATING AND SHALL BE ALLOWED TO TRANSITION TO THEIR NATURAL PATINA.



SECTION A-A



OBLIQUE VIEW

* TOLERANCE FOR CONSTRUCTION ±0.5%

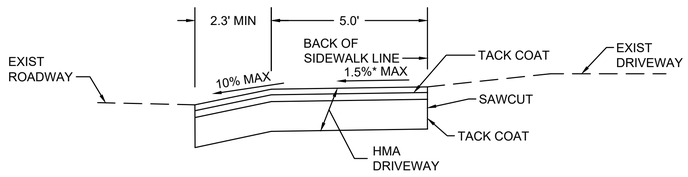
DRIVEWAYS THROUGH SIDEWALK - WITH TRANSITION CURB AND DETECTABLE WARNING PANELS

SCALE: N.T.S.

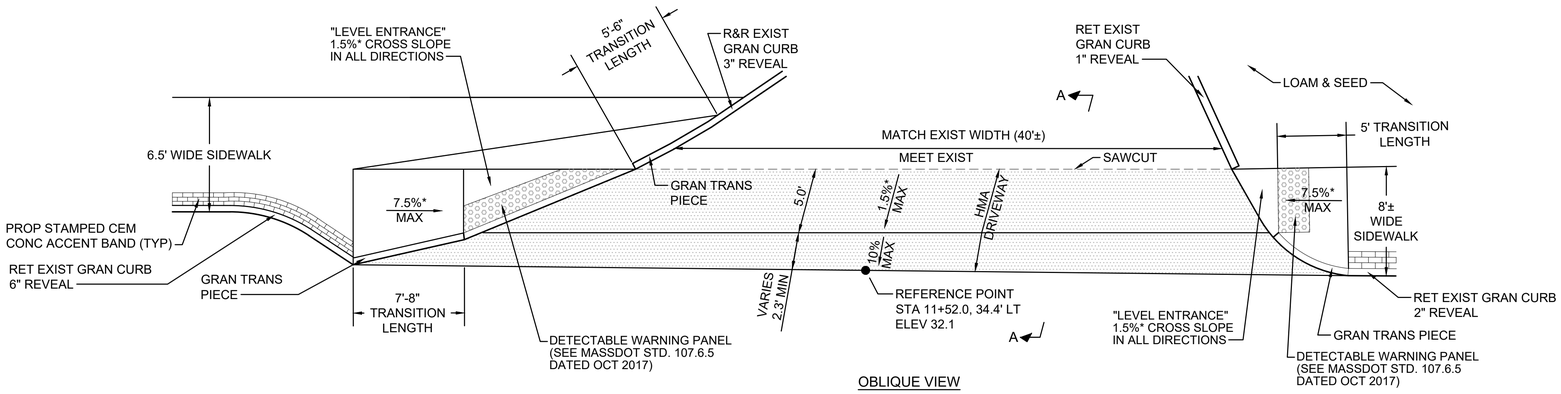
DRIVEWAY DATA										
NO.	LOCATION (REF POINT)	RAMP LENGTH	ROADWAY GUTTER	SIDEWALK WIDTH	LEFT		RIGHT		OPENING ELEVATION	COMMENTS
					TRANS	REVEAL	TRANS	REVEAL		
MASSACHUSETTS AVENUE										
8	STA. 12+10.3, 32.1' LT	3'-0"	-2.4%	8'-0" (LEFT) 8'-0" (RIGHT)	5'-0"	1"	5'-0"	1"	31.1	
9	STA. 12+60.2, 32.9' LT	VARIES	-2.2%	8'-0" (LEFT) 12'-2" (RIGHT)	5'-0"	1"	6'-6"	5"	30.0	

13962.01-HDWCR).DWG Plotted on 27-Mar-2020 10:02 AM

NOTE:
1. ALL DETECTABLE WARNING PANELS SHALL BE CAST IRON WITH NO SURFACE COATING AND SHALL BE ALLOWED TO TRANSITION TO THEIR NATURAL PATINA.



SECTION A-A



OBLIQUE VIEW

* TOLERANCE FOR CONSTRUCTION ±0.5%

DRIVEWAY #7 DETAIL

SCALE: N.T.S.