TOWN OF ARLINGTON

PLAN AND PROFILE OF

APPLETON STREET & MASSACHUSETTS AVENUE

IN THE TOWN OF

ARLINGTON

MIDDLESEX COUNTY

FINAL DESIGN SUBMISSION

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	1	100
	STANTEC FILE NO. 179411056		

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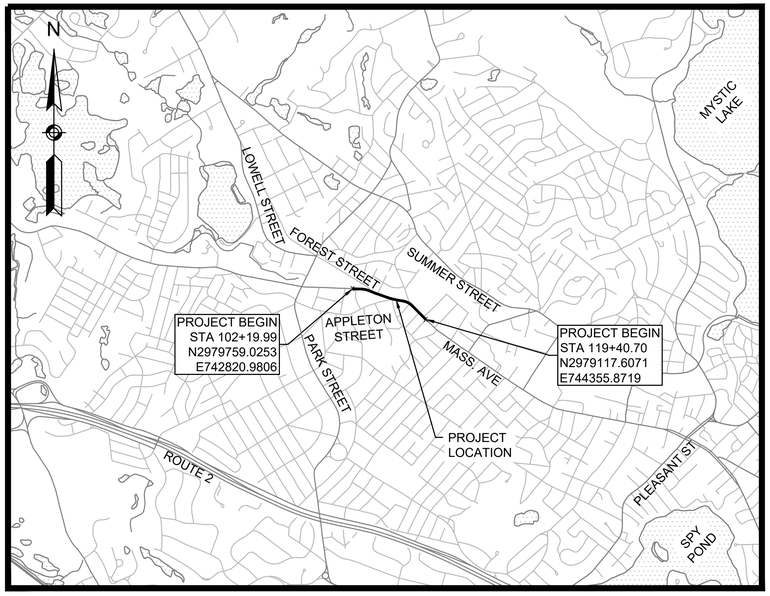

0 1500 3000 4500 6000

SCALE: 1" = 1500'

LENGTH OF PROJECT = 1,720.71 FEET = 0.33 MILES

THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 MASSDOT 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 #
5-10-2024	FINAL DESIGN SUBMISSION	1
12-22-2023	PRELIMINARY DESIGN SUBMISSION	0

Stantec
45 NETWORK DRIVE | BURLINGTON, MA 01803

APPLETON_ST_TITLE.DWG Plotted on 10-May-2024 1:23 PM

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
HHE	HHE	HANDHOLE ELECTRIC
		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
		DECIDUOUS TREE
		EVERGREEN TREE
		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
x		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		COMPOST FILTER TUBES
		BRUSH/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
1	1	CONTROLLER PHASE ACTUATED
		TRAFFIC SIGNAL HEAD (SIZE AS NOTED)
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		VIDEO DETECTION CAMERA
		MICROWAVE DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
	*	EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
RRSG	RRSG	RAILROAD SIGNAL
OR		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
	20'	MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
	20'	MAST ARM WITH LUMINAIRE
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		CONTROL CABINET, POLE MOUNTED
		FLASHING BEACON CONTROL AND METER PEDESTAL
		LOAD CENTER ASSEMBLY
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE THERMOPLASTIC
ONLY	ONLY	LEGEND "ONLY" - WHITE THERMOPLASTIC
	SL	STOP LINE - 12" WHITE THERMOPLASTIC
	CW	CROSSWALK - WHITE THERMOPLASTIC
	SWL	SOLID WHITE LINE - 6" THERMOPLASTIC
	SWL(12)	SOLID WHITE LINE - 12" THERMOPLASTIC
	SYL	SOLID YELLOW LINE - 6" THERMOPLASTIC
	BWL	BROKEN WHITE LINE - 6" THERMOPLASTIC
	BYL	BROKEN YELLOW LINE - 6" THERMOPLASTIC
	DWL	DOTTED WHITE LINE - 6" THERMOPLASTIC
	DYL	DOTTED YELLOW LINE - 6" THERMOPLASTIC
	DWLEx	DOTTED WHITE LINE EXTENSION - 6" THERMOPLASTIC
	DYLEx	DOTTED YELLOW LINE EXTENSION - 6" THERMOPLASTIC
	DBWL	DOUBLE WHITE LINE - 6" THERMOPLASTIC
	DBYL	DOUBLE YELLOW LINE - 6" THERMOPLASTIC

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
CBDB	CATCH BASIN WITH DOUBLE GRATE
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
MRW	MASONRY RETAINING WALL
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCR	PEDESTRIAN CURB RAMP
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

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	2	100
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LEGEND & ABBREVIATIONS

ABBREVIATIONS (cont.)

GENERAL

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
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
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

APPLETON_ST_TITLE.DWG Plotted on 10-May-2024 1:23 PM

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. ALL GAS GATES, ELECTRIC MANHOLES, AND TELEPHONE MANHOLES WITHIN THE LIMITS OF WORK SHALL BE ADJUSTED BY THE OWNING AGENCY. 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.
4. ANY DRAINAGE / SEWER / WATER CASTINGS BROKEN THROUGH NO FAULT OF THE CONTRACTOR SHALL BE SUPPLIED BY THE RESPECTIVE MUNICIPALITY FOR ADJUSTMENT UNDER THE CONTRACT ITEMS.
5. THE CONTRACTOR SHALL COORDINATE WORK WITH ANY 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 WITHIN TOWN / STATE OWNED STREETS AND EASEMENTS.
6. CURB SHALL BE FURNISHED AND SET AT LOCATIONS SHOWN ON THE PLANS AND/OR AS REQUIRED BY THE ENGINEER.
7. CONSTRUCT DRIVEWAYS AND WALKS AS SHOWN ON THE PLANS AND/OR AS REQUIRED BY THE ENGINEER.
8. EXISTING GRANITE CURB AND EDGING SUITABLE FOR REUSE WITHIN THE PROJECT SITE SHALL BE REMOVED AND RESET IN ACCORDANCE WITH THE PLANS AND/OR AS REQUIRED BY THE ENGINEER.
9. SAW CUT EXISTING BITUMINOUS CONCRETE ROADWAYS, CEMENT CONCRETE SIDEWALKS AND BITUMINOUS CONCRETE DRIVEWAYS AS SHOWN ON THE PLANS AND AT THE PROPOSED MATCH LINE.
10. 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.
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 THE CONTRACTOR'S EXPENSE.
12. ALL ACCESSIBLE ROUTES, WALKWAYS, CURB CUTS, RAMPS, SIDEWALKS, DRIVEWAY OPENINGS, CLEARANCES AND SLOPE TOLERANCES SHALL CONFORM WITH THE ARCHITECTURAL ACCESS BOARD (AAB), 521 CMR AND MASSHIGHWAY CONSTRUCTION AND TRAFFIC STANDARD DRAWINGS.
13. ITEMS LABELED "REM" SHALL BE REMOVED AND DISCARDED BY CONTRACTOR.
14. THE CONTRACTOR SHALL PROTECT EXISTING SURVEY MONUMENTS AND SHALL RESET ANY MONUMENTATION DISTURBED BY THEIR OPERATIONS.
15. THE CONTRACTOR SHALL INSTALL OTHER NECESSARY TEMPORARY REGULATORY AND WARNING SIGNS DURING CONSTRUCTION AS REQUIRED BY THE ENGINEER FOR OTHER INCIDENTAL CONSTRUCTION ACTIVITIES. ALL SIGNAGE AND TRAFFIC CONTROL DEVICES USED MUST CONFORM TO THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE MASSACHUSETTS AMENDMENTS.
16. THE CONTRACTOR SHALL PERFORM 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.
17. THE CONTRACTOR SHALL NOT BE ALLOWED TO PARK EQUIPMENT OR STOCKPILE EQUIPMENT OR MATERIAL ON THE TRAVELED WAYS OVERNIGHT OR WHEN NOT IN USE.
18. 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.
19. ALL DETECTABLE WARNING PANELS SHALL BE MOUNTED IN CEMENT CONCRETE AND INSTALLED IN ACCORDANCE WITH MASSDOT CONSTRUCTION STANDARD DETAIL E107.6.5.

SURVEY NOTES:

1. COORDINATES, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (2011) Epoch 2010.00, BASED ON THE KeyNetGPS VIRTUAL REFERENCE SYSTEM (VRS) NETWORK.
2. ELEVATIONS, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) BASED ON THE KeyNetGPS VIRTUAL REFERENCE SYSTEM (VRS) NETWORK.
3. SUBSURFACE UTILITY LINES AND FEATURES, AS SHOWN HEREON, WERE COMPILED FROM OBSERVED SURFACE EVIDENCE AND/OR AVAILABLE RECORD INFORMATION (SEE REFERENCES), AND THEIR LOCATIONS ARE ONLY APPROXIMATE. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD.

   DAWOOD ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.

   BEFORE DESIGNING FUTURE CONNECTIONS, THE APPROPRIATE UTILITIES MUST BE CONSULTED.

   BEFORE CONSTRUCTION, ALL UTILITIES, PUBLIC AND PRIVATE, MUST BE NOTIFIED (SEE MASSACHUSETTS GENERAL LAWS, CHAPTER 82 SECTION 40). CALL “DIG SAFE” 1-888-DIG-SAFE. (888-344-7233).
4. THIS SURVEY HAS BEEN COMPILED FROM MOBILE LiDAR POINT CLOUD DATA AND IMAGERY CAPTURED WITH SMC'S TRIMBLE MX50 MOBILE LiDAR AND SPATIAL IMAGING SYSTEM, SUPPLEMENTED WITH FIELD SURVEY TO LOCATE UTILITIES AND FEATURES NOT CAPTURED IN LiDAR POINT CLOUD DATA IN JULY 2022.
5. ABUTTING PROPERTY LINES ARE SHOWN APPROXIMATELY HEREON FROM TOWN ASSESSORS' GIS INFORMATION.

PLAN REFERENCES:

MIDDLESEX SOUTH REGISTRY OF DEEDS

1. 1880 COUNTY LAYOUT OF LOWELL STREET
2. 1884 COUNTY LAYOUT OF FOREST STREET
3. 1892 COUNTY LAYOUT OF APPLETON STREET
4. 1892 COUNTY LAYOUT OF MASSACHUSETTS AVENUE
5. 1893 COUNTY LAYOUT OF MASSACHUSETTS AVENUE
6. 1925 PLAN AND PROFILE OF BURTON STREET ON FILE AT THE TOWN OF ARLINGTON
7. 1929 PLAN AND PROFILE OF RICHARDSON AVENUE ON FILE AT THE TOWN OF ARLINGTON
8. 1930 PLAN AND PROFILE OF MASSACHUSETTS AVENUE ON FILE AT THE TOWN OF ARLINGTON
9. 1933 PLAN AND PROFILE OF APPLETON PLACE ON FILE AT THE TOWN OF ARLINGTON
10. LCP 13906-A
11. PLAN BOOK 121, PLAN 19
12. PLAN BOOK 185, PLAN 11
13. PLAN BOOK 216, PLAN 13
14. PLAN BOOK 339, PLAN 10
15. PLAN BOOK 358, PLAN 11
16. PLAN BOOK 374, PLAN 20
17. PLAN BOOK 399, PLAN 22
18. PLAN 829 OF 1983
19. PLAN 535 OF 1993
20. PLAN 83 OF 2003
21. PLAN 1072 OF 2007

UTILITY REFERENCES:

1. COMCAST PLAN OF CABLE FACILITIES DATED JUNE 21, 2022.
2. EVERSOURCE PLAN OF ELECTRIC FACILITIES DATED JUNE 6, 2022.
3. SEWER PLANS 2241, 2371, 2372, 2373, 2381, 2665, 3468 AND 4528 PROVIDED BY THE TOWN OF ARLINGTON ENGINEERING DEPARTMENT.
4. DRAINAGE PLANS 1992, 1994, 2089, 3098, 3423, 3468, 4528, 5522 AND 7464 PROVIDED BY THE TOWN OF ARLINGTON ENGINEERING DEPARTMENT.
5. WATER PLANS OF MEDFORD STREET, MYSTIC STREET AND CHESTNUT STREET REVISED 1932 PROVIDED BY THE TOWN OF ARLINGTON ENGINEERING DEPARTMENT.
6. LUMEN PLAN OF FIBER OPTIC FACILITIES DATED JUNE 7, 2022
7. MWRA SEWER PLANS 3013, 3014, 3015, 3023, 3024, 3025, 3812, 7603, 8892-1, 8892-2, 10654-1 AND 10657-3.
8. MWRA WATER PLANS 500165, B5756 AND B5757.
9. NATIONAL GRID GAS PLAN OF FACILITIES DATED JUNE 9, 2022.
10. RCN PLANS OF CABLE FACILITIES DATED JUNE 6, 2022.
11. NO RECORD PLANS PROVIDED BY VERIZON.
12. ZAYO TELECOM PLANS OF FACILITIES DATED JUNE 20, 2022.

ARLINGTON
APPLETON STREET & MASS AVE

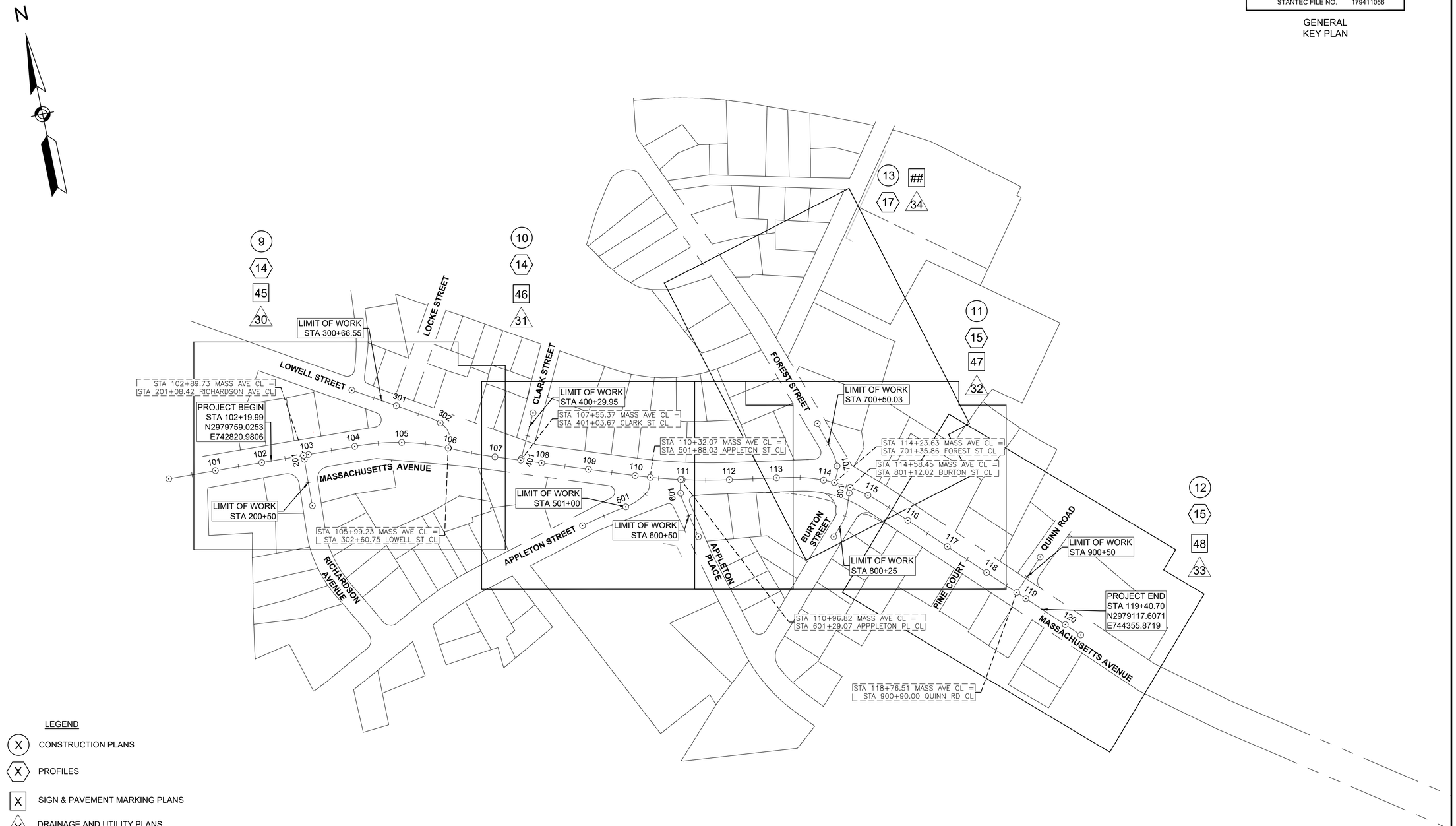
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	3	100
	STANTEC FILE NO. 179411056		

GENERAL NOTES

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	4	100
	STANTEC FILE NO. 179411056		

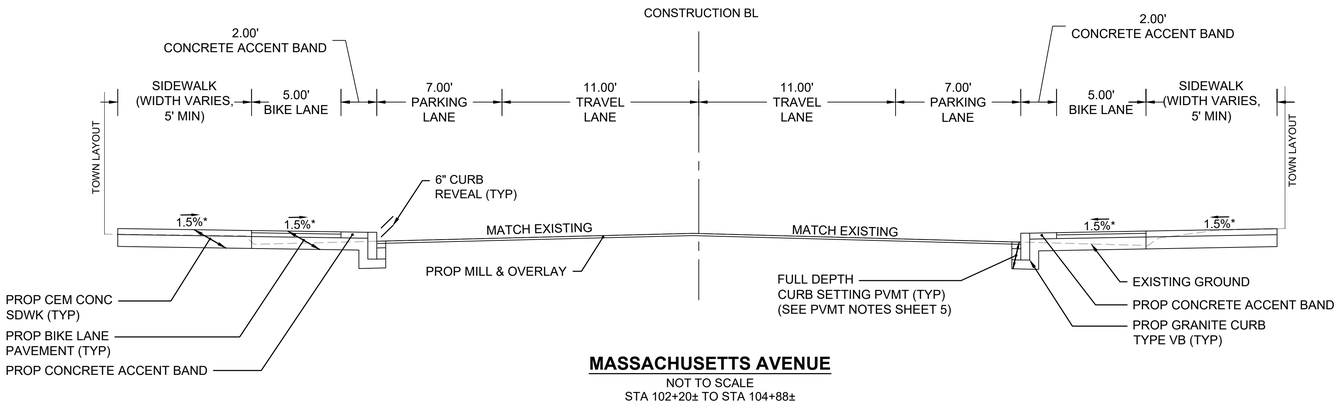
GENERAL
KEY PLAN



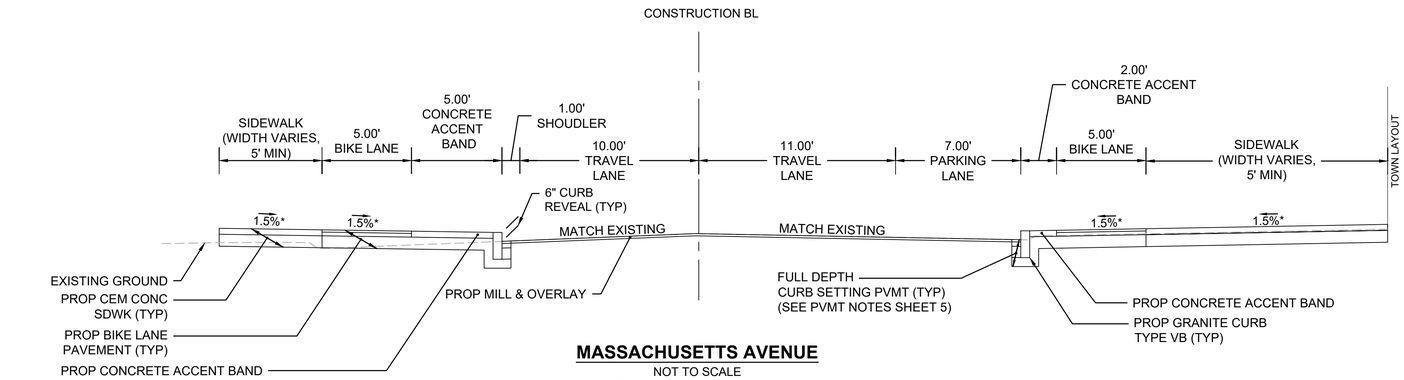
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	5	100
	STANTEC FILE NO. 179411056		

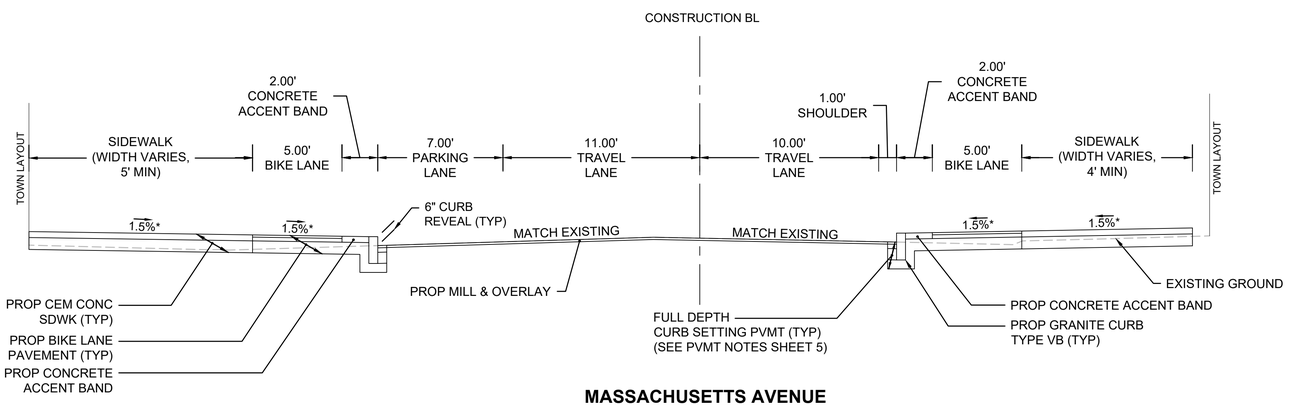
TYPICAL SECTIONS
PART 1 OF 4



MASSACHUSETTS AVENUE
NOT TO SCALE
STA 102+20± TO STA 104+88±



MASSACHUSETTS AVENUE
NOT TO SCALE
STA 104+88± TO STA 106+59±



MASSACHUSETTS AVENUE
NOT TO SCALE
STA 106+59± TO STA 111+19±

PAVEMENT NOTES

PROPOSED FULL DEPTH BIKE LANE

SURFACE: 1-1/2" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER

INTERMEDIATE: 2-1/2" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0) OVER

BASE: 8" (MIN) GRAVEL BORROW, TYPE b

CEMENT CONCRETE SIDEWALK AND PEDESTRIAN CURB RAMP

SURFACE: 4" CEMENT CONCRETE OVER (4000psi, ¾", 610 lbs. AIR ENTRAINED)

BASE: 8" (MIN) GRAVEL BORROW, TYPE b

CEMENT CONCRETE DRIVEWAY

SURFACE: 6" CEMENT CONCRETE OVER (4000psi, ¾", 610 lbs. AIR ENTRAINED)

BASE: 8" (MIN) GRAVEL BORROW, TYPE b

PROPOSED MILL AND OVERLAY PAVEMENT

SURFACE: 1-1/2" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5)

PAVEMENT MILLING: 1-1/2" FINE MILLING

PROPOSED FULL DEPTH CURB SETTING PAVEMENT & FULL DEPTH ROADWAY AREAS LESS THAN 6 FT

SEE METHOD OF SETTING VERTICAL GRANITE CURB DETAIL ON SHEET 70

SURFACE: 1-1/2" HOT MIX ASPHALT FOR PATCHING

INTERMEDIATE: 3" HOT MIX ASPHALT FOR PATCHING

BASE: 7.5"± CEMENT CONCRETE OVER (4000psi, ¾", 610 lbs. AIR ENTRAINED)

SUBBASE: 6" (MIN) GRAVEL BORROW, TYPE b

PROPOSED FULL DEPTH PAVEMENT

SURFACE: 1-1/2" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5)

INTERMEDIATE: 2" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5)

BASE: 4-1/2" SUPERPAVE BASE COURSE - 37.5 (SBC-37.5)

SUBBASE: 4" DENSE GRADED CRUSHED STONE, OVER 8" GRAVEL BORROW, TYPE b

* TOLERANCE FOR CONSTRUCTION ±0.5% (TYP)

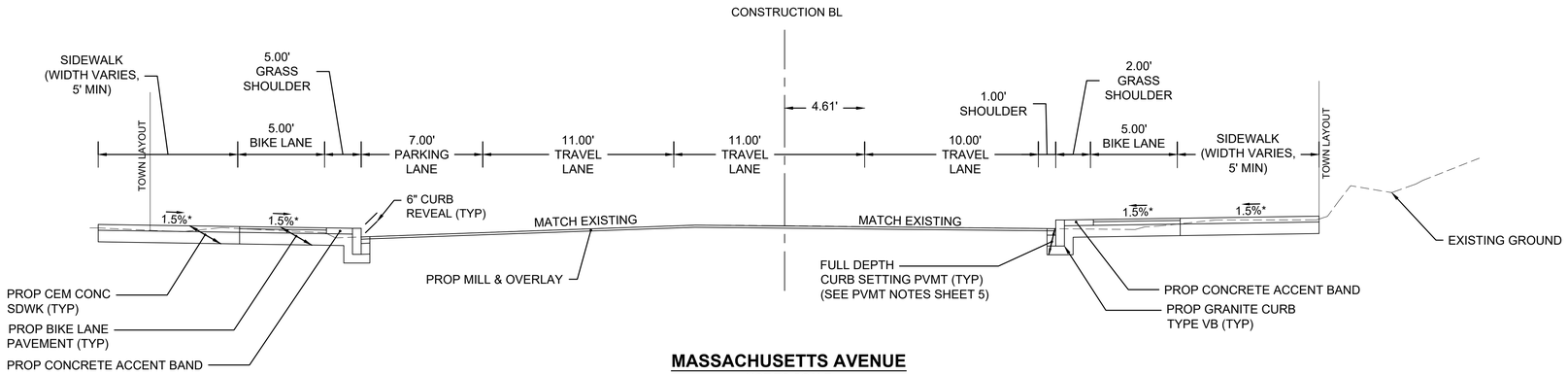
NOTE:

1. BITUMEN FOR TACK COAT SHALL BE SPRAY APPLIED FOR DOUBLE OVERLAP COVERAGE AT 0.08 GAL/SY OVER MILLED SURFACES AND 0.09 GAL/SY OVER SMOOTH SURFACES.
2. SEE CONSTRUCTION PLANS FOR LOCATIONS OF PROPOSED EASEMENTS.

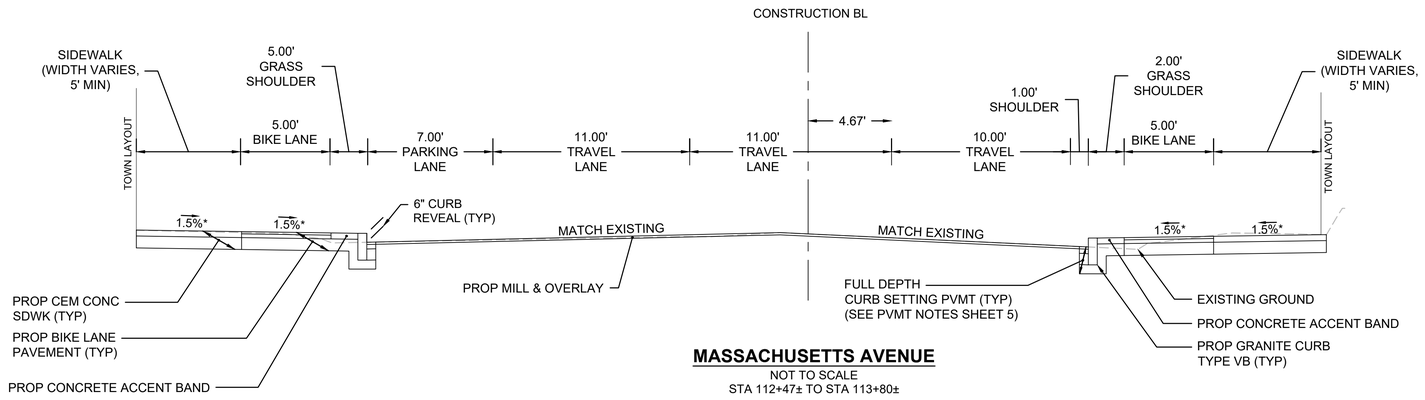
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	6	100
STANTEC FILE NO. 179411056			

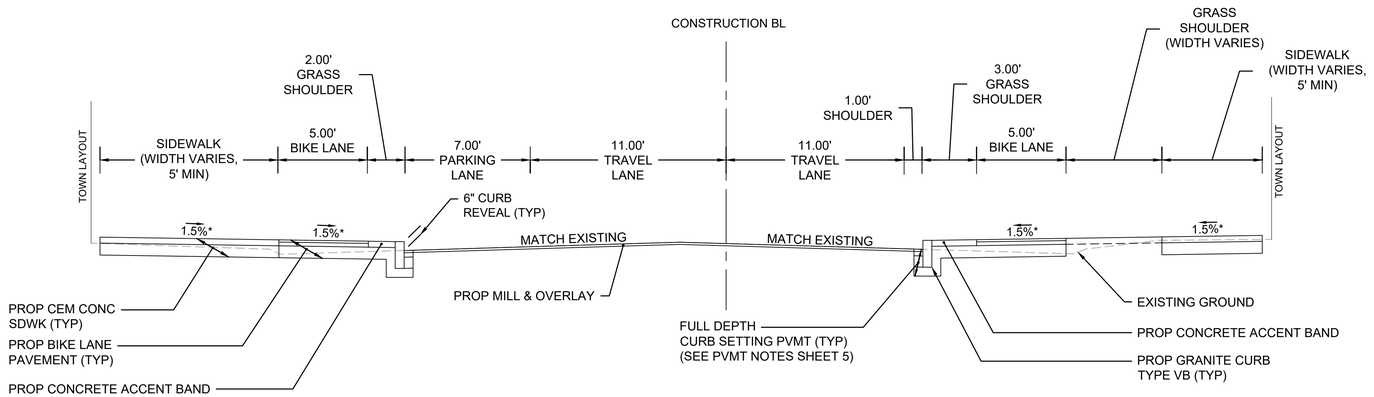
TYPICAL SECTIONS
PART 2 OF 4



MASSACHUSETTS AVENUE
NOT TO SCALE
STA 111+19± TO STA 112+47±



MASSACHUSETTS AVENUE
NOT TO SCALE
STA 112+47± TO STA 113+80±



MASSACHUSETTS AVENUE
NOT TO SCALE
STA 113+80± TO STA 119+40±

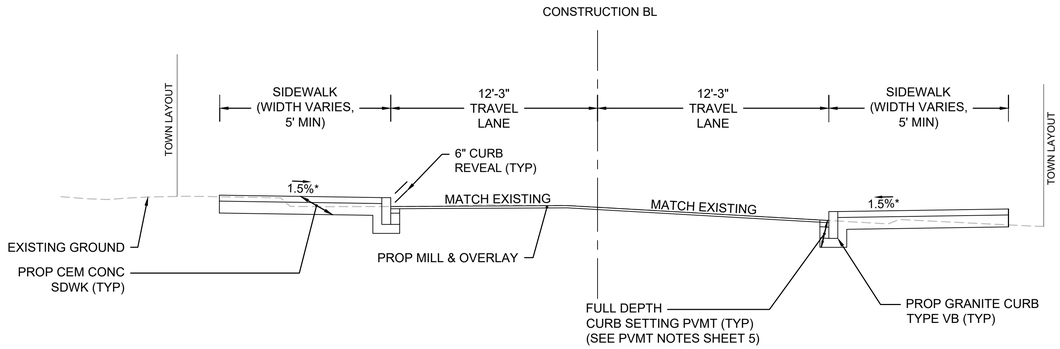
APPLETON_ST_TYPICAL_SECTIONS.DWG Plotted on 10-May-2024 1:26 PM

ARLINGTON
APPLETON STREET & MASS AVE

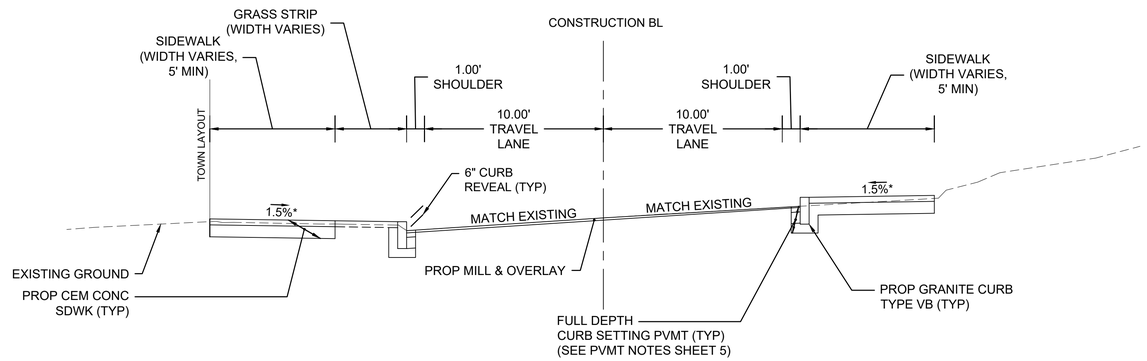
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	7	100
	STANTEC FILE NO. 179411056		

TYPICAL SECTIONS
PART 3 OF 4

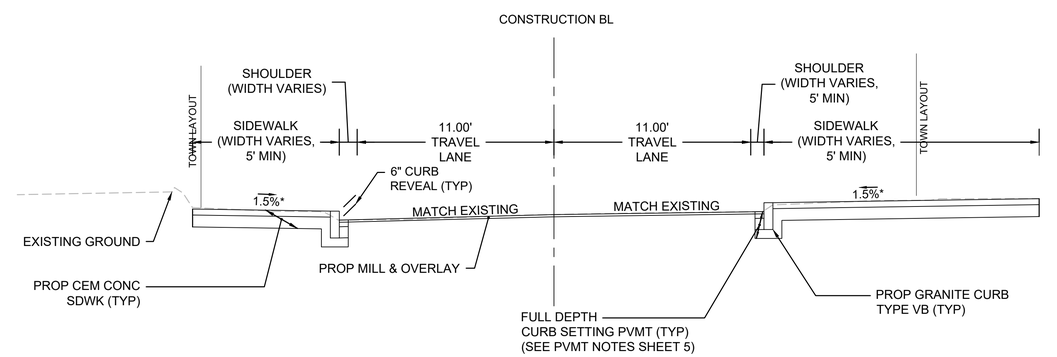
APPLETON_ST_TYPICAL_SECTIONS.DWG Plotted on 10-May-2024 1:26 PM



RICHARDSON STREET
NOT TO SCALE
STA 200+55± TO STA 201+08±



LOWELL STREET
NOT TO SCALE
STA 300+61± TO STA 302+61±

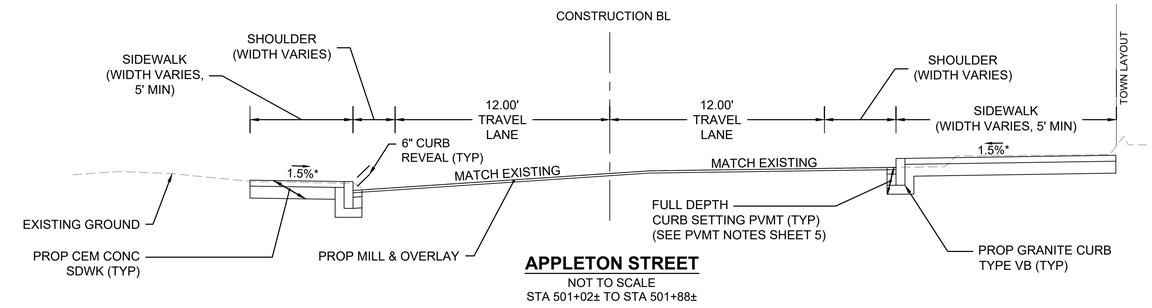


CLARK STREET
NOT TO SCALE
STA 400+46± TO STA 401+04±

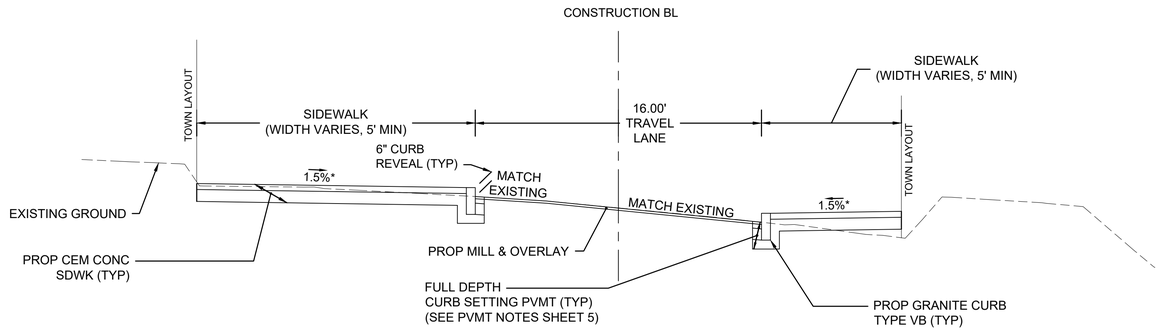
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	8	100
STANTEC FILE NO. 179411056			

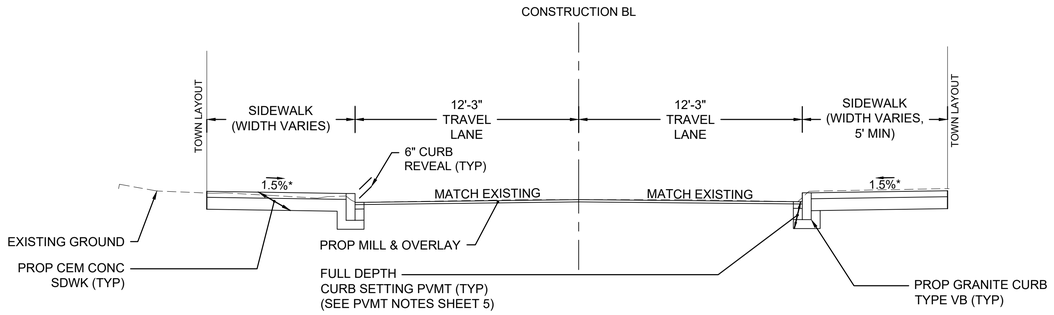
TYPICAL SECTIONS
PART 4 OF 4



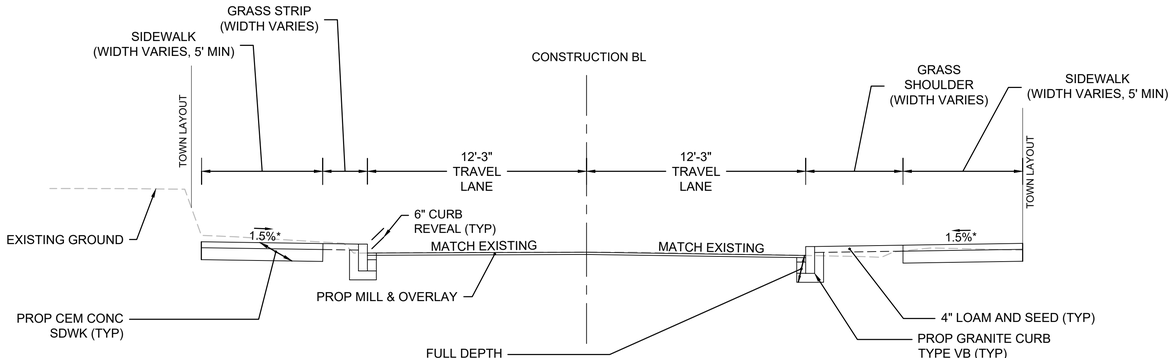
APPLETON STREET
NOT TO SCALE
STA 501+02± TO STA 501+88±



APPLETON PLACE
NOT TO SCALE
STA 600+54± TO STA 601+29±



FOREST STREET
NOT TO SCALE
STA 700+46± TO STA 701+36±



BURTON STREET
NOT TO SCALE
STA 800+29± TO STA 801+12±

APPLETON_ST_TYPICAL_SECTIONS.DWG Plotted on 10-May-2024 1:27 PM

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
NONE

DRAINAGE DETAILS
SEE SHEET 30

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	9	100
	STANTEC FILE NO. 179411056		

CONSTRUCTION PLANS
PART 1 OF 5

N

LOWELL STREET

LIMIT OF WORK
STA 300+66.55
N2979836.4225
E743076.0511

SEE FOOT OF ROCKS PROJECT FOR PROPOSED WORK

300+00

PERRY JOSEPH S & MARY L
BK/PG 50966/513
0 LOT LOWELL ST
MAP/LOT 058.0-0007-0007.0

PERRY JOSEPH S & MARY L
BK/PG 50966/513
21 -23 LOWELL ST
MAP/LOT 058.0-0007-0006.0

ROSIER-EDNER ELOISE
BK/PG 36587/288
15 -17 LOWELL ST
MAP/LOT 058.0-0010-0010.0

11-13 LOWELL REALTY LLC
BK/PG 76476/368
11 -13 LOWELL ST
MAP/LOT 058.0-0010-0009.0

PATEL TUSHAR K & RUPAL &
BK/PG 62929/33
5 -7 LOWELL ST
MAP/LOT 058.0-0010-0008.0

CITY OF ARLINGTON PARK
0 LOT MASS AVE
MAP/LOT 165.0-0006-0004.0

CARBONELL PABLO F ETAL / TRS
BK/PG 981/3
1241 -1245 MASS AVE
MAP/LOT 165.0-0006-0003.0

1253 MASSACHUSETTS AVENUE
BK/PG 77089/241
1253 MASS AVE
MAP/LOT 165.0-0006-0007.0

SHEN YALING
BK/PG 49523/536
1249 MASS AVE
MAP/LOT 165.0-0006-0006.0

3 STORY WOOD #1241-1245

MEET EXISTING

PROP GRAN CURB, TYPE VB (TYP)
PROP CONCRETE ACCENT BAND (TYP)
PROP SAWCUT LINE (TYP)
PROP 5' HMA BIKE LANE (TYP)
R&R CURB CORNERS (TYP)
PROP CEM CONC DRIVEWAY (TYP)
PROP CEM CONC SIDEWALK (TYP)
PROP CEM CONC PCR (TYP)
PROP 2' CURB CORNER
MEET EXISTING
RET

PROJECT BEGIN
STA 102+19.99
N2979759.0253
E742820.9806

102+89.73 MASS AVE CL=
201+08.42 RICHARDSON AVE CL

MASSACHUSETTS AVENUE

CONCRETE ACCENT BAND (TYP)

MEET EXISTING

REM EXIST CURB
PROP 5' HMA BIKE LANE (TYP)
RET
PROP CEM CONC PCR
PROP CEM CONC PCR (TYP)
PROP LOAM AND SEED
PROP RAISED CROSSWALK (SEE DETAIL SHEET 70)
PROP LOAM AND SEED
MEET EXISTING

PROP MILL AND HMA OVERLAY

PROP LOAM AND SEED
MEET EXISTING

PROP SAWCUT LINE (TYP)
PROP 2' CURB CORNER (TYP)
PROP CEM CONC SIDEWALK AT DRIVEWAY (TYP)
PROP HMA DRIVEWAY (TYP)
PROP GRAN CURB, TYPE VB (TYP)
RET
RET STEPS
PROP CEM CONC SIDEWALK (TYP)
PROP 5' HMA BIKE LANE (TYP)
PROP CONCRETE ACCENT BAND
RET STEPS

TOULOPOULOS JOHN W/TRS/ETAL
BK/PG 32550/343
1234 MASS AVE
MAP/LOT 165.0-0007-0005.A

MEET EXISTING
PROP LOAM AND SEED
RET STEPS
PROP CEM CONC DRIVEWAY (TYP)
RET
REMOVE PAVEMENT AND FOUNDATION
PROP LANDSCAPE AREA - SEE SHEET 59
MATCH LINE STA 107+00

PROP MILL AND HMA OVERLAY
R&R BOULDERS
RET
R&S STEPS
PCC +00.70
PC +74.30
PCC +24.13

104 PC +04.89
105
PT +48.48
106
PRC +10.07
PT +93.12
107

105+99.23 MASS AVE CL=
302+60.75 LOWELL ST CL

TOULOPOULOS JOHN W/TRS-ETAL
BK/PG 32550/343
1226 -1230 MASS AVE
MAP/LOT 165.0-0007-0006.0

MATCH LINE STA 107+00

CONTINUED ON SHEET NO. 10

RICHARDSON AVENUE

200+00

LIMIT OF WORK
STA 200+50
N2979698.3309
E742888.7434

PROP MILL AND HMA OVERLAY

ARENBERG JULIE
BK/PG 71781/322
10 -12 RICHARDSON AVE
MAP/LOT 165.0-0007-0004.0

DASILVA PATRICIA A & LUIS H/ TRS
BK/PG 77326/106
11 RICHARDSON AVE
MAP/LOT 165.0-0005-0011.0

VOLK MARY ANN/ TRUSTEE
BK/PG 77019/215
14 -16 RICHARDSON AVE
MAP/LOT 165.0-0007-0003.A

DAS DEEPANJAN
BK/PG 71756/160
33 -A APPLETON ST
MAP/LOT 165.0-0007-0008.0

SHU TI-YUAN D & LEE SHIN/TRS
BK/PG 64968/406
27 -27A APPLETON ST
MAP/LOT 164.0-0001-0005.0

TOWN OF ARLINGTON TA
0 LOT/PC 8548/17
MAP/LOT 164.0-000

DAY LENORA
BK/PG 53954/374
APPLETON ST
-0001-0007.0

LEGEND:
- (X) — PEDESTRIAN CURB RAMP NUMBER
- (X) — DRIVEWAY NUMBER

NOTES:

1. ALL EXISTING CURB IN REUSABLE CONDITION SHALL BE REUSED, AS APPROVED BY THE ENGINEER.

FOR PROFILE SEE SHEET NO. 13 - 14

0 20 50 100
SCALE: 1" = 20'

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
NONE

DRAINAGE DETAILS
SEE SHEET 29

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	10	100
	STANTEC FILE NO. 179411056		

CONSTRUCTION PLANS
PART 2 OF 5

APPLETON_ST_CONST_PLANS.DWG Plotted on 10-May-2024 1:28 PM

CONTINUED ON SHEET NO. 9

CONTINUED ON SHEET NO. 11

CLARK STREET

APPLETON STREET

APPLETON PLACE

MASS AVE

MATCH LINE STA 107+00

MATCH LINE STA 112+10

LIMIT OF WORK
STA 400+25
N2979722.8531
E743374.1468

LIMIT OF WORK
STA 501+00
N2979510.2163
E743536.7532

LIMIT OF WORK
STA 600+50
N2979465.5350
E743664.5772

107+55.38 MASS AVE CL=
401+03.57 CLARK ST CL

110+32.07 MASS AVE CL=
501+88.03 APPLETON ST CL

110+96.84 MASS AVE CL=
601+28.90 APPPLETON PL CL

PROP FULL DEPTH PAVEMENT
MEET EXISTING
PROP RAISED CROSSWALK (SEE DETAIL SHEET 70)
PROP HMA DRIVEWAY
PROP CEM CONC DRIVEWAY
PROP 5' HMA BIKE LANE (TYP)
PROP CONCRETE ACCENT BAND (TYP)
PROP HMA DRIVEWAY (TYP)
PROP CEM CONC DRIVEWAY (TYP)
PROP SAWCUT LINE (TYP)
PROP 2' CURB CORNER
PROP CEM CONC SIDEWALK (TYP)
PROP CEM CONC BUFFER (TYP)
PROP SAWCUT LINE (TYP)
PROP CEM CONC PCR (TYP)
PROP FULL DEPTH PAVEMENT
PROP PAVERS
PROP HARDSCAPE BUFFER (TYP)
PROP 5' HMA BIKE LANE (TYP)
RET
REM
RET SHRUBS
RET STEPS
RET SHRUBS (4)
RET SHRUBS (3)
RET SHRUBS (11)
RET CONCRETE CURB
MEET EXISTING
PROP SAWCUT LINE (TYP)
R&R CURB CORNERS (TYP)
PROP MILL AND HMA OVERLAY
RET PROP BUS STOP SHELTER (TYP)
R&S
RET MEMORIAL PROVIDE PROTECTION
PROP FULL DEPTH CONSRUCTION
MEET EXISTING
REMOVE PAVEMETN AND FOUNDATION
PROP LANDSCAPE AREA - SEE SHEET 60
PROP CEM CONC DRIVEWAY (TYP)
PROP HMA DRIVEWAY (TYP)
PROP 2' CURB CORNER
PROP CONCRETE ACCENT BAND (TYP)
PROP 5' HMA BIKE LANE (TYP)
PC +88.90
PT +68.97
PC +83.11
PT +12.79
PT +00.28
PCC +52.57
PRC +00.00
500+00
600+00

DOHERTY JAMES F/TRUSTEE
BK/PG 60543/438
1211 MASS AVE
MAP/LOT 058.0-0011-0001.0

DAVPOST1207 LLC
BK/PG 77997/32
1207 MASS AVE
MAP/LOT 057.0-0004-0014.0

VIGLAS JAMES C & STEPHEN J
BK/PG 46815/331
1205 MASS AVE
MAP/LOT 057.0-0004-0013.0

NEXT GENERATION LLC
BK/PG 66591/411
1201 -1203 MASS AVE
MAP/LOT 057.0-0004-0012.0

LOCKE PLACE LLC
BK/PG 56192/23
1189 -1195 MASS AVE
MAP/LOT 057.0-0004-0011.0

GALVIN SEAN D/TRUSTEE
BK/PG 53925/374
1183 -1187 MASS AVE
MAP/LOT 057.0-0004-0010.0

NIRMALA & NIRMALA LLC
BK/PG 61725/353
1215 MASS AVE
MAP/LOT 058.0-0010-0007.0

VARALLO DANIEL C/EUGENIO M
BK/PG 43242/54
1218 -1222 MASS AVE
MAP/LOT 164.0-0001-0010.0

THE CHILDRENS CENTER
BK/PG 41339/46
1210 MASS AVE
MAP/LOT 164.0-0001-0009.0

COLOSIMO MARC
BK/PG 41920/274
21 APPLETON ST
MAP/LOT 164.0-0001-0008.0

LENORA
BK/PG 53934/374
APPLETON ST
164.0-0001-0007.0

LAM KELVIN/ETAL
BK/PG 1234/151
1188 MASS AVE
MAP/LOT 164.0-0005-0006.0

MCDONALD CAROL H & ERIN
BK/PG 64590/152
1192 MASS AVE
MAP/LOT 164.0-0005-0005.A

VLAMAKIS HERA
BK/PG 68609/26
6 APPLETON PL
MAP/LOT 164.0-0005-0004.A

SANTORELLI MICHAEL A &
BK/PG 38304/137
10 APPLETON PL
MAP/LOT 164.0-0005-000

THE GREEK ORTHODOX CHURCH
BK/PG 41643/55
4 APPLETON ST
MAP/LOT 164.0-0004-0003.A

TIERNEY THOMAS E
BK/PG 72110/
15 BURTON ST
MAP/LOT 164.0-0005-

RICHTER SALLY P
BK/PG 233/
19
MAP/LOT 1

TREMBLAY
BK/PG
1180
MAP/LOT 16

1 STORY CONCRETE #1207
1 STORY CONCRETE #1205
1 STORY CONCRETE #1201
1 STORY CONCRETE #1193B-1189B
2 STORY BRICK #1183-1187
2 STORY WOOD #1188
2 STORY WOOD #1184
#1210
#194

NOTES:

1. ALL EXISTING CURB IN REUSABLE CONDITION SHALL BE REUSED, AS APPROVED BY THE ENGINEER.

LEGEND:
- (X) — PEDESTRIAN CURB RAMP NUMBER
- (X) — DRIVEWAY NUMBER

FOR PROFILE SEE SHEET NO. 13 - 14

0 20 50 100
SCALE: 1" = 20'

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
NONE

DRAINAGE DETAILS
SEE SHEET 32

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	11	100
	STANTEC FILE NO. 179411056		

CONSTRUCTION PLANS
PART 3 OF 5

LEGEND:
- PEDESTRIAN CURB RAMP NUMBER
- DRIVEWAY NUMBER

N

FOREST STREET

BURTON STREET

MATCH LINE STA 700+25

MATCH LINE STA 112+10

MATCH LINE STA 117+00

LIMIT OF WORK
STA 700+50
N2979552.2494
E743984.1529

LIMIT OF WORK
STA 800+25
N2979376.1227
E743972.5013

114+58.47 MASS AVE CL=
801+11.92 BURTON ST CL

114+23.63 MASS AVE CL=
701+35.86 FOREST ST CL

PROP LOAM AND SEED
PROP CEM CONC SDWK (TYP)
PROP MILL AND HMA OVERLAY
PROP CONCRETE ACCENT BAND (TYP)
PROP HMA DRIVEWAY (TYP)
PROP CEM CONC DRIVEWAY (TYP)
PROP SAWCUT LINE (TYP)
PROP 2' HARDSCAPE BUFFER (TYP)
PROP 5' HMA BIKE LANE (TYP)
PROP CEM CONC SDWK
PROP FULL DEPTH ROADWAY AREAS LESS THAN 6'
PROP CEM CONC PCR (TYP)
MEET EXISTING
RET
RET STEPS
REM
PC +63.87
PCC +00.53
PC +21.84
PT +00.28
PT +17.15
PT +67.15
PC +31.07
PT +40.19

COOPER ARTHUR E & MARY T
BK/PG 12744/88
16 FOREST ST
MAP/LOT 057.0-0004-0008.0

NEIL J CROWLEY LLC
BK/PG 74219/246
5 FOREST ST
MAP/LOT 057.0-0002-0013.0

ABIDIAN LLC
BK/PG 73036/45
1177 -1181 MASS AVE
MAP/LOT 057.0-0004-0009.0

CKE PLACE LLC
BK/PG 56192/23
1189 -1195 MASS AVE
MAP/LOT 057.0-0004-0011.0

GALVIN SEAN D/TRUSTEE
BK/PG 53925/374
1183 -1187 MASS AVE
MAP/LOT 057.0-0004-0010.0

HOUSING CORPORATION OF
BK/PG 8423/289
1171 MASS AVE
MAP/LOT 057.0-0002-0015.B

ANNESE ROBERT J TR/ J-JUDITH
BK/PG 10038/145
1171 MASS AVE
MAP/LOT 057.0-0002-0015.A

YUKON REALTY LLC
BK/PG 37850/613
1155 R MASS AVE
MAP/LOT 057.0-0002-0016.A

YUKON REALTY LLC
BK/PG 37850/613
1165 MASS AVE
MAP/LOT 057.0-0002-0016.0

YUKON REALTY LLC
BK/PG 37850/613
0 LOT MASS AVE
MAP/LOT 057.0-0002-0017.0

LAM KELVIN/ETAL
BK/PG 1234/151
1188 MASS AVE
MAP/LOT 164.0-0005-0006.0

TREMBLAY MARY C/MARK R
BK/PG 46397/128
1180 MASS AVE
MAP/LOT 164.E-0001-0001.0

MCDONALD CAROL H & ERIN
BK/PG 64590/152
1192 MASS AVE
MAP/LOT 164.0-0005-0005.A

VLAMAKIS HERA
BK/PG 68599/26
6 APPLETON PL
MAP/LOT 164.0-0005-0004.A

TIERNEY THOMAS E ETAL/ TRS
BK/PG 17211/209
15 BURTON ST
MAP/LOT 164.0-0005-0010.0

RICHTER SALLY P --ETAL
BK/PG 23313/39
19 BURTON ST
MAP/LOT 164.0-0005-0012.0

HOUSING CORP OF ARLINGTON
BK/PG 48281/42
1166 MASS AVE
MAP/LOT 148.0-0001-0013.A

HOUSING CORP OF ARLINGTON
BK/PG 48281/42
6 BURTON ST
MAP/LOT 148.0-0001-0012.A

ARLINGTON-BURTON REALTY LLC
BK/PG 63479/389
12 - 12 BURTON ST
MAP/LOT 148.0-0001-0011.0

BUGLIO MICHEAL S & WENDY L
BK/PG 1415/65
1152 MASS AVE
MAP/LOT 148.0-0001-0002.0

NOTES:

1. ALL EXISTING CURB IN REUSABLE CONDITION SHALL BE REUSED, AS APPROVED BY THE ENGINEER.

FOR PROFILE SEE SHEET NO. 13 - 14

0 20 50 100
SCALE: 1" = 20'

CONTINUED ON SHEET NO. 10

CONTINUED ON SHEET NO. 12

APPLETON_ST_CONST_PLANS.DWG Plotted on 10-May-2024 1:28 PM

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
NONE

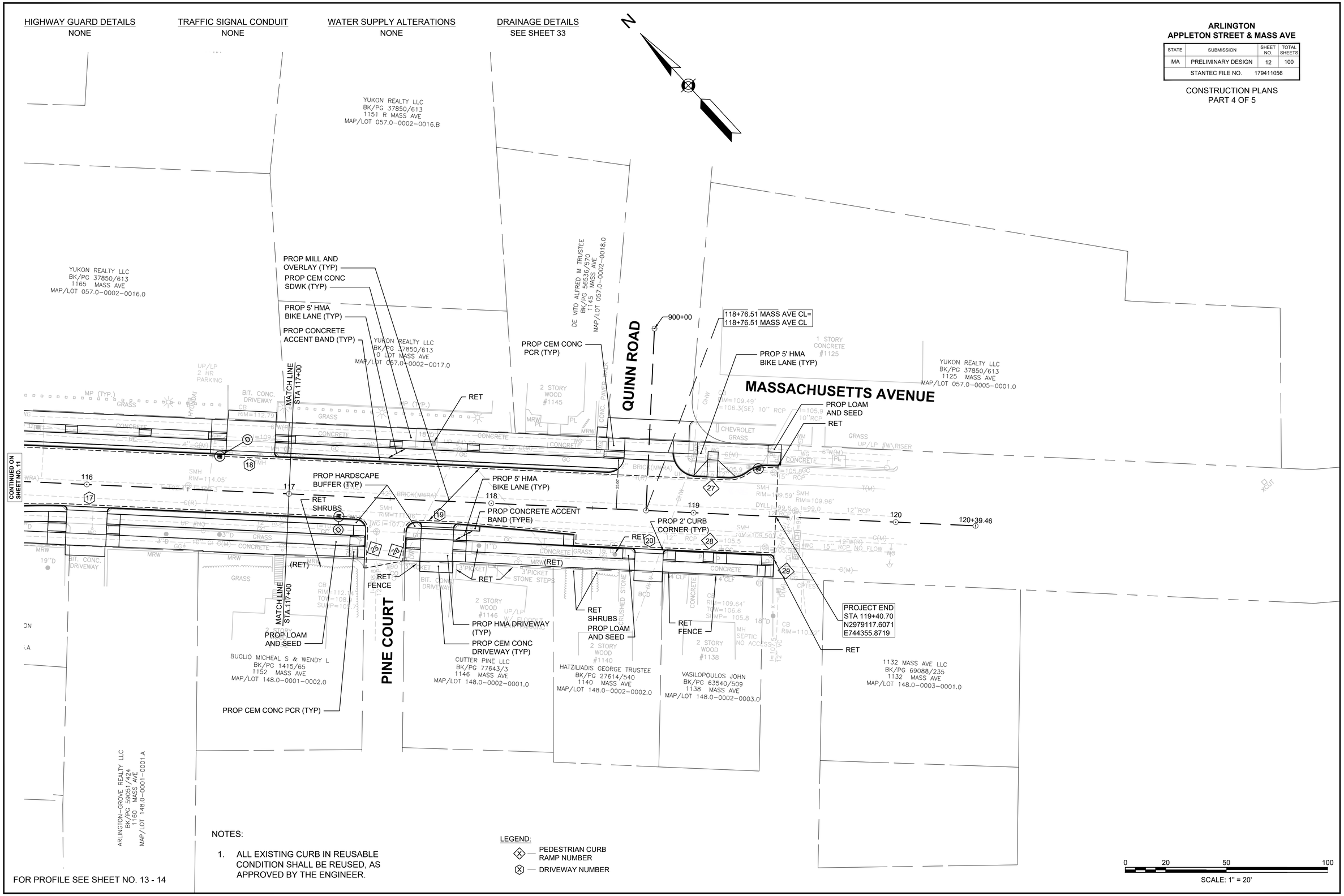
DRAINAGE DETAILS
SEE SHEET 33

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	12	100
STANTEC FILE NO.	179411056		

CONSTRUCTION PLANS
PART 4 OF 5

APPLETON_ST_CONST_PLANS.DWG Plotted on 10-May-2024 1:29 PM



NOTES:

1. ALL EXISTING CURB IN REUSABLE CONDITION SHALL BE REUSED, AS APPROVED BY THE ENGINEER.

LEGEND:

- PEDESTRIAN CURB RAMP NUMBER
- DRIVEWAY NUMBER

FOR PROFILE SEE SHEET NO. 13 - 14

0 20 50 100
SCALE: 1" = 20'

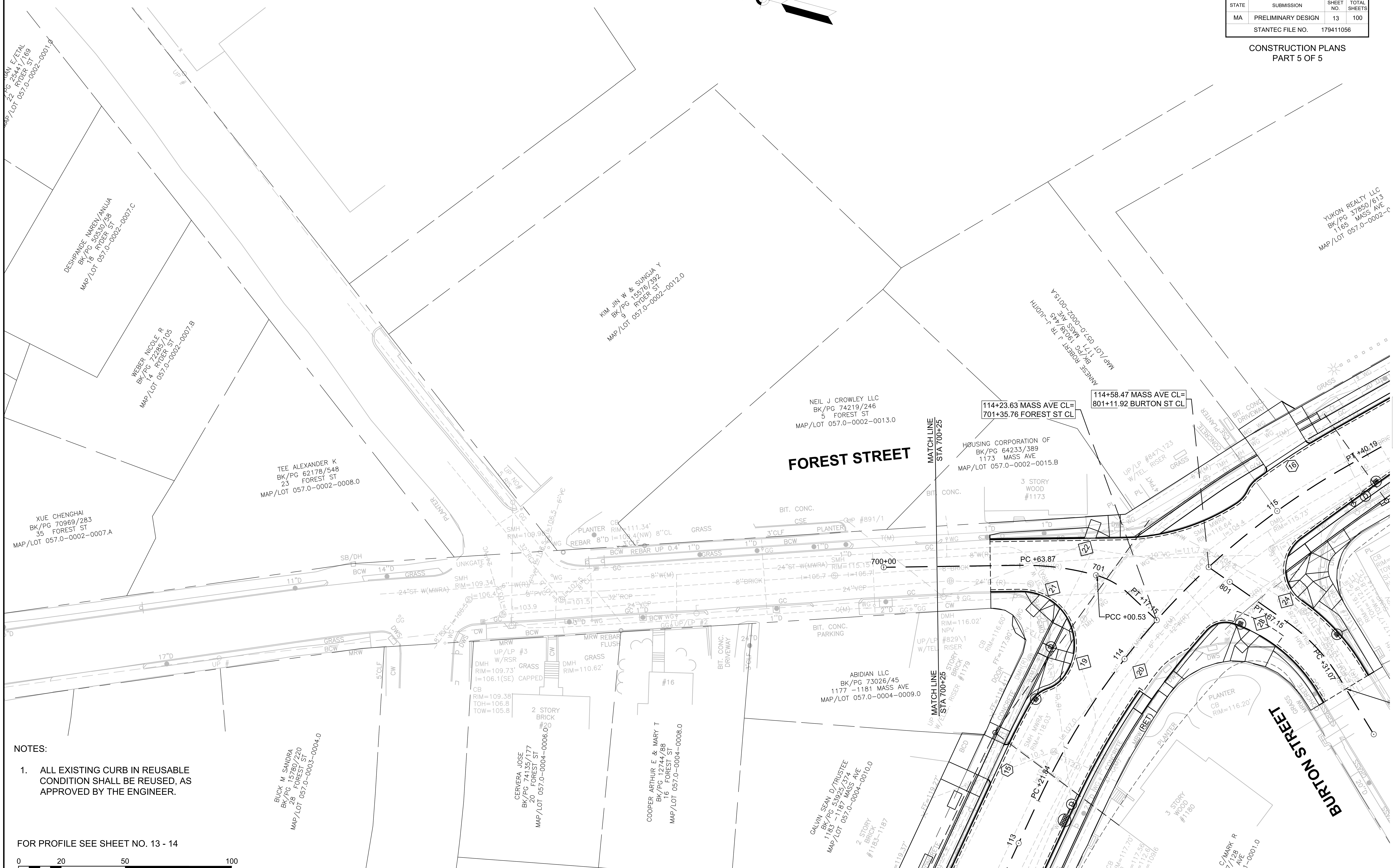
HIGHWAY GUARD DETAILS	TRAFFIC SIGNAL CONDUIT	WATER SUPPLY ALTERATIONS	DRAINAGE DETAILS
NONE	NONE	NONE	SEE SHEET 34

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	13	100
	STANTEC FILE NO. 179411056		

CONSTRUCTION PLANS
PART 5 OF 5

Plotted on 10-May-2024 1:29 PM
APPLETON_ST_CONST_PLANS.DWG



CONTINUED ON SHEET NO. 14

CONTINUED ON SHEET NO. 12

NOTES:

1. ALL EXISTING CURB IN REUSABLE CONDITION SHALL BE REUSED, AS APPROVED BY THE ENGINEER.

FOR PROFILE SEE SHEET NO. 13 - 14

0 20 50 100
SCALE: 1" = 20'

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	14	100
STANTEC FILE NO.	179411056		

PROFILES
PART 1 OF 4

APPLETON_ST_PROFILES.DWG Plotted on 10-May-2024 1:30 PM

MASS AVE CL

PROJECT BEGIN
STA 102+19.99
N 2979759.0253
E 742820.9806

PVI STA = 103+34.58
PVI ELEV = 147.36
A.D. = -1.55%
K = 135.48
210' VC
801.2' SSD

PVC: 102+29.58
ELEV: 150.04

PVT: 104+39.58
ELEV: 143.05

2.55%

GRADE BREAK STA = 102+19.99
ELEV = 150.28

EXIST GRADE ALONG CONST BL
PROP GRADE ALONG CONST BL

-4.10%

PVI STA = 106+93.16
PVI ELEV = 132.66
A.D. = 1.60%
K = 62.47
100' VC

PVC: 106+43.16
ELEV: 134.71

PVT: 107+43.16
ELEV: 131.41

CONTINUED BELOW

NAVD 88
BASE ELEV
125.00

102+00	103+00	104+00	105+00	106+00	107+00	108+00
149.50	148.06 / 148.0	146.43 / 146.4	144.62 / 144.7	142.63 / 142.6	140.58 / 140.5	138.53 / 138.6
136.48 / 136.5	134.43 / 134.4	132.63 / 132.6	131.24 / 131.2	129.99 / 129.9		

MASS AVE CL

CONTINUED ABOVE

-2.50%

GRADE BREAK STA = 109+96.47
ELEV = 125.08

-2.30%

GRADE BREAK STA = 110+76.20
ELEV = 123.24

-3.00%

PVC: 111+10.13
ELEV: 122.22

PVI STA = 112+35.13
PVI ELEV = 118.47
A.D. = 2.20%
K = 113.64
250' VC
1045.1' HSD

EXIST GRADE ALONG CONST BL
PROP GRADE ALONG CONST BL

CONTINUED ON SHEET NO. 15

NAVD 88
BASE ELEV
115.00

107+50	108+00	109+00	110+00	111+00	112+00	113+00	113+50
131.24 / 131.2	129.99 / 129.9	128.74 / 128.8	127.49 / 127.5	126.24 / 126.3	124.99 / 125.0	123.84 / 123.9	122.53 / 122.7
121.10 / 121.2	119.88 / 120.0	118.89 / 118.9	118.11 / 118.2	117.56 / 117.8			

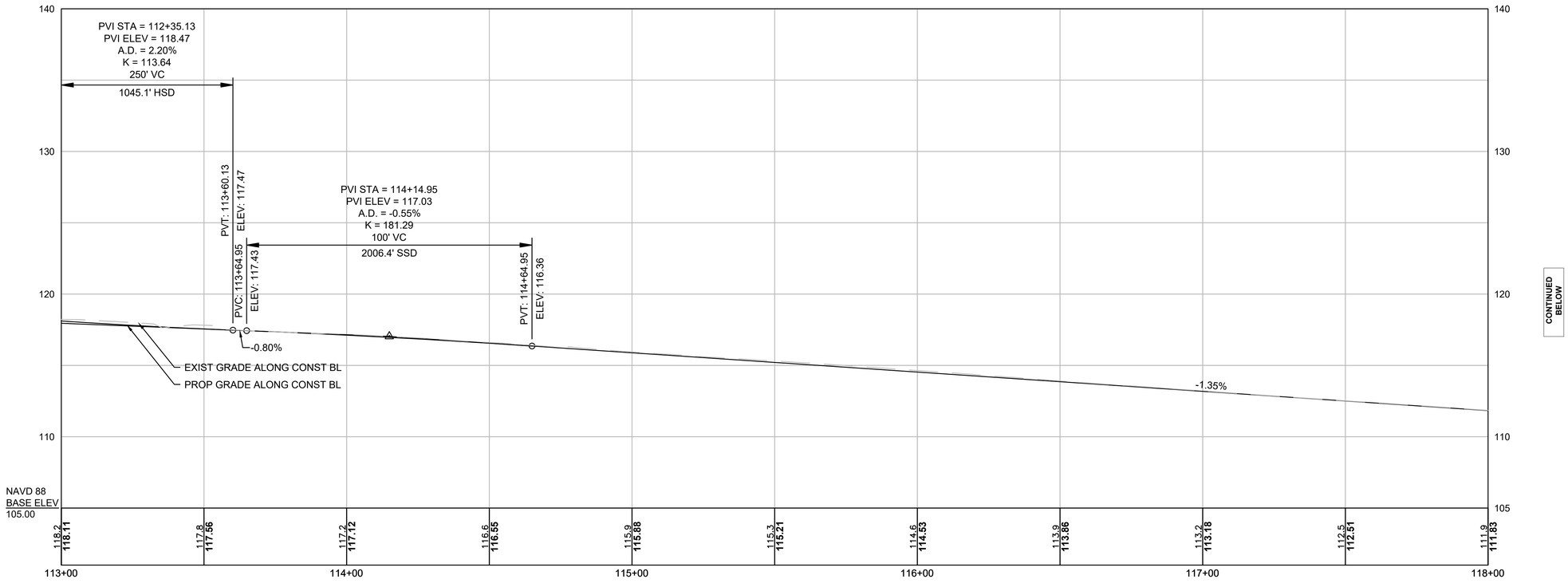
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	15	100
STANTEC FILE NO.	179411056		

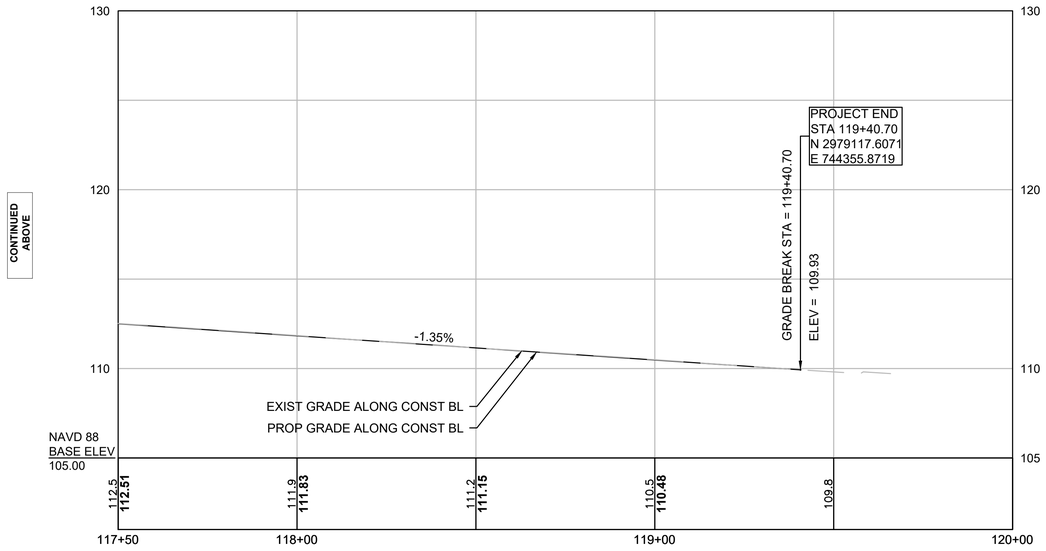
PROFILES
PART 2 OF 4

APPLETON_ST_PROFILES.DWG Plotted on 10-May-2024 1:31 PM

MASS AVE CL



MASS AVE CL



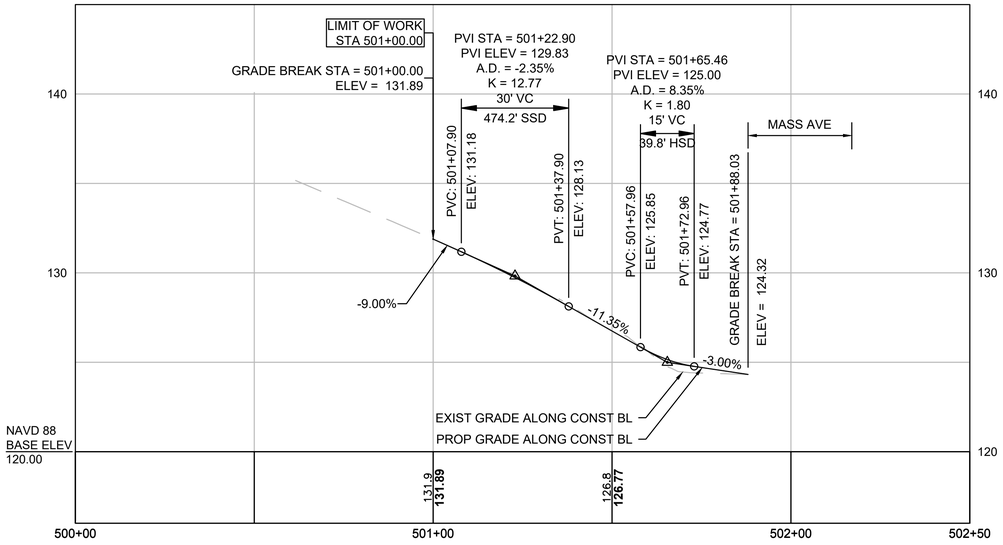
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	16	100
STANTEC FILE NO.	179411056		

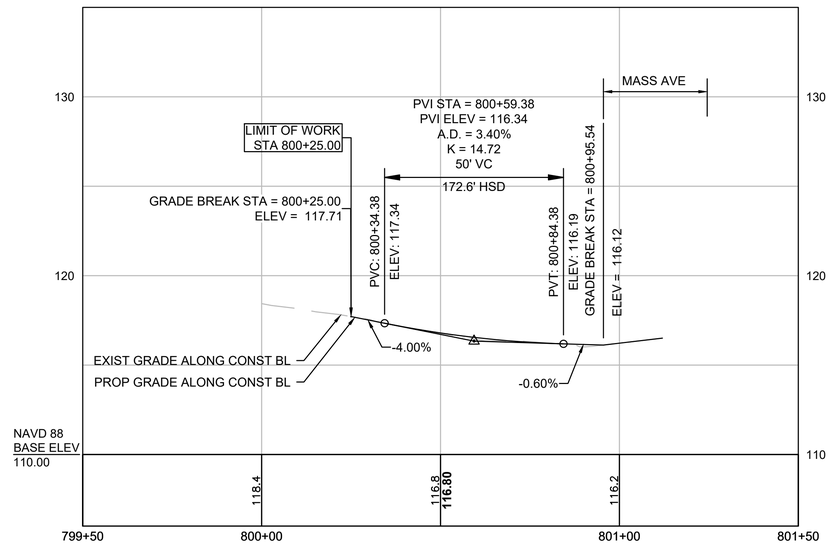
PROFILES
PART 3 OF 4

APPLETON_ST_PROFILES.DWG Plotted on 10-May-2024 1:31 PM

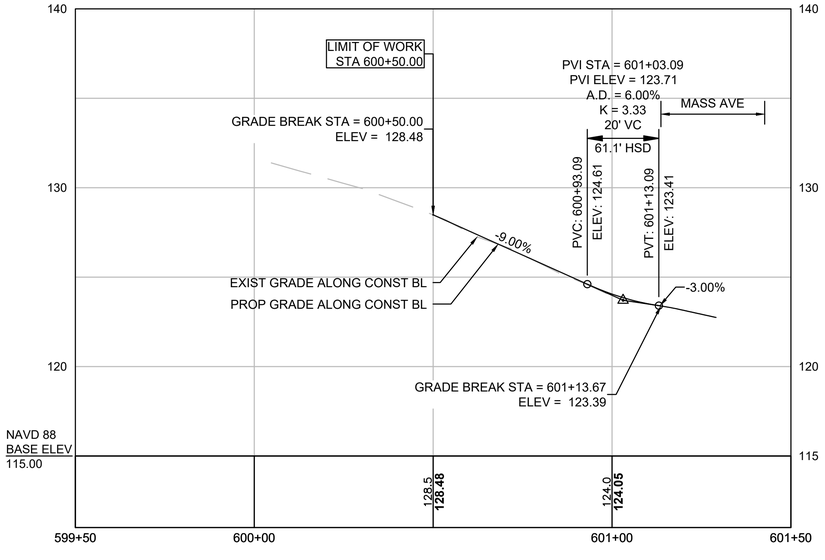
APPLETON ST CL



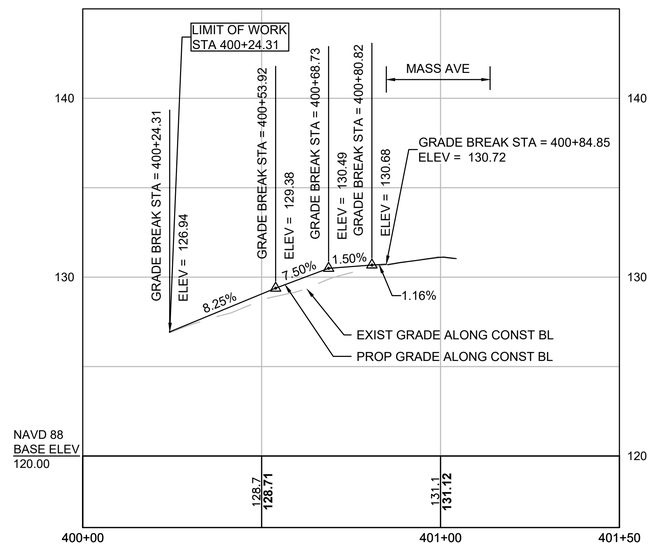
BURTON ST CL



APPPLETON PL CL



CLARK ST CL



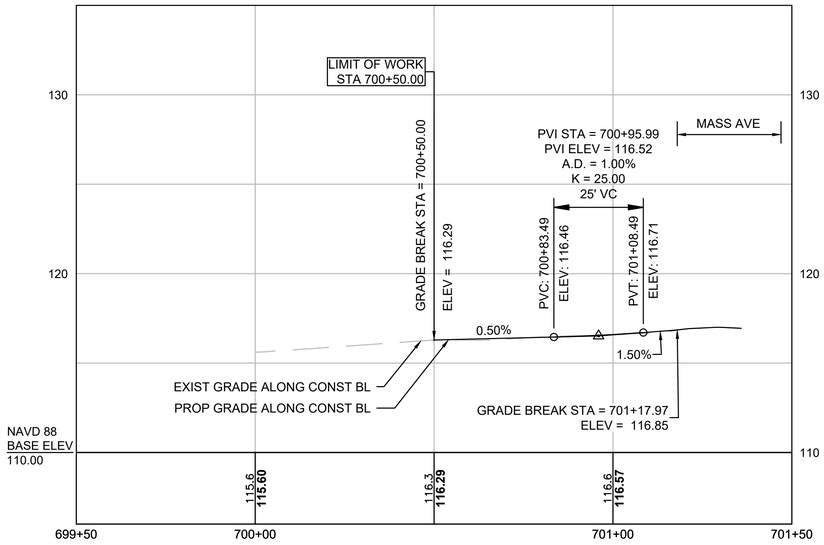
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	17	100
	STANTEC FILE NO. 179411056		

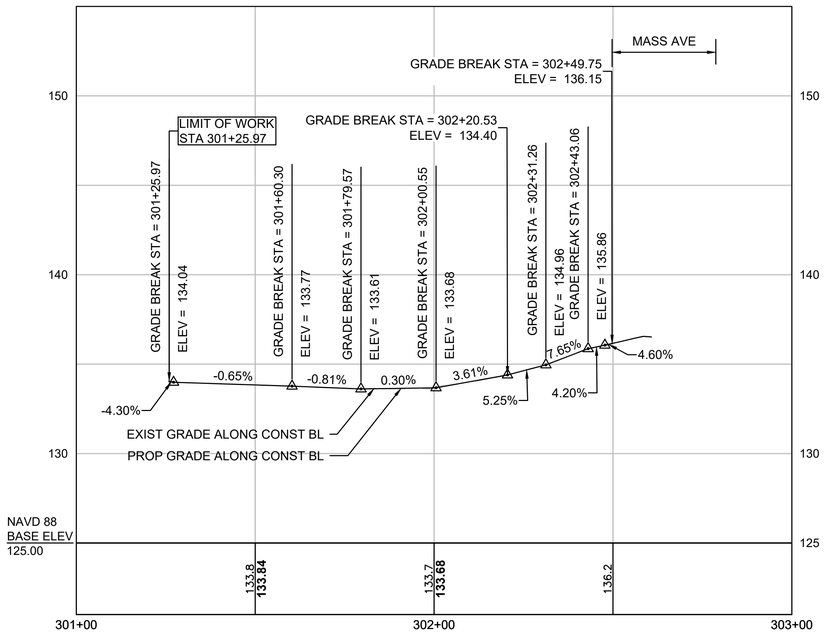
PROFILES
PART 4 OF 4

APPLETON_ST_PROFILES.DWG Plotted on 10-May-2024 1:32 PM

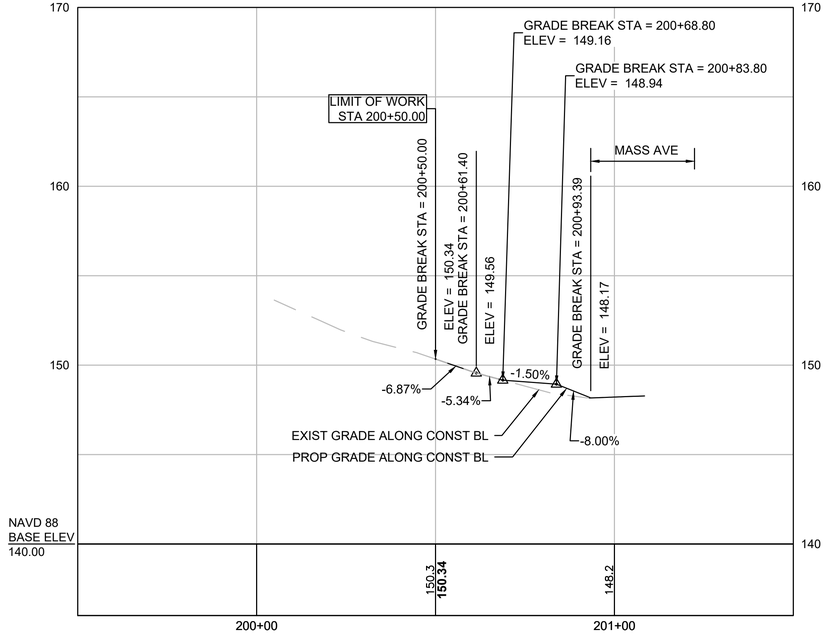
FOREST ST CL



LOWELL ST CL



RICHARDSON AVE CL



ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	18	100
STANTEC FILE NO.	179411056		

CURB TIE PLAN
PART 1 OF 5

CURVE TABLE				
CURVE NO.	RADIUS (FT)	LENGTH (FT)	TANGENT (FT)	DELTA (△)
C1	15.00	14.93	8.15	57°01'41"
C2	15.00	15.01	8.20	57°20'22"
C3	25.00	39.27	25.00	90°00'00"
C4	5.00	4.64	2.50	53°07'48"
C5	25.00	39.49	25.22	90°30'00"
C6	482.00	147.75	74.46	17°33'47"
C7	518.00	67.16	33.63	7°25'44"
C9	15.00	10.74	5.61	41°01'46"
C10	15.00	10.18	5.29	38°53'01"
C11	511.00	84.45	42.32	9°28'08"
C12	12.00	30.25	37.44	144°27'20"
C13	75.00	32.96	16.75	25°10'49"
C14	15.00	11.25	5.91	42°59'13"
C15	15.00	11.38	5.98	43°29'04"
C16	10.00	15.60	9.89	89°23'37"
C17	10.00	16.12	10.42	92°20'49"
C18	125.00	33.83	17.02	15°30'21"
C20	75.00	55.00	28.80	42°01'01"
C21	15.00	17.06	9.58	65°09'04"
C22	789.00	25.04	12.52	1°49'06"
C23	15.00	10.64	5.56	40°39'08"
C24	15.00	10.27	5.35	39°14'49"
C25	782.00	14.31	7.15	1°02'54"

APPLETON_ST_CURB_TIE_PLANS.DWG Plotted on 10-May-2024 1:54 PM

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	19	100
	STANTEC FILE NO. 179411056		

CURB TIE PLAN
PART 2 OF 5

CONTINUED ON SHEET NO. 18

CONTINUED ON SHEET NO. 20

SEE INSET A THIS SHEET

APPLETON_ST_CURB_TIE_PLANS.DWG Plotted on 10-May-2024 1:54 PM

CURVE TABLE				
CURVE NO.	RADIUS (FT)	LENGTH (FT)	TANGENT (FT)	DELTA (°)
C24	15.00	10.27	5.35	39°14'49"
C25	782.00	14.31	7.15	1°02'54"
C26	12.00	17.40	10.63	83°04'47"
C27	12.00	20.30	13.54	96°55'13"
C29	350.00	29.59	14.80	4°50'36"
C30	350.00	29.26	14.64	4°47'21"
C31	1238.50	13.11	6.55	0°36'23"
C32	12.00	26.80	24.59	127°58'36"
C33	60.00	24.98	12.67	23°51'11"
C34	132.00	81.26	41.96	35°16'10"
C35	5.00	5.43	3.02	62°15'10"
C36	809.00	26.95	13.47	1°54'31"
C37	5.00	5.43	3.02	62°12'54"
C38	15.00	10.09	5.24	38°31'21"
C39	15.00	9.66	5.01	36°54'45"
C40	1207.50	46.32	23.16	2°11'52"
C41	15.00	10.58	5.52	40°23'39"
C42	15.00	10.35	5.39	39°32'22"
C43	15.00	10.94	5.73	41°47'34"
C44	15.00	11.44	6.01	43°41'22"
C45	15.00	30.13	23.59	115°05'47"
C46	1533.00	100.96	50.50	3°46'24"
C47	1493.00	100.39	50.22	3°51'10"
C81	804.00	15.99	8.00	1°08'23"
C82	15.00	11.12	5.83	42°28'25"
C83	800.00	6.69	3.35	0°28'46"
C84	15.00	4.90	2.47	18°41'54"
C85	804.00	4.66	2.33	0°19'56"

INSET A
SCALE: 1"=10'

SCALE: 1" = 20'

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	20	100
STANTEC FILE NO. 179411056			

CURB TIE PLAN
PART 3 OF 5

CONTINUED ON SHEET NO. 19

N

FOREST STREET

700+00

MATCH LINE STA 700+25

MATCH LINE STA 700+25

LIMIT OF WORK STA 700+50

S 16° 08' 47" E 63.87'

L=36.66' R=125.00' Δ=16° 48' 15"

L=16.62' R=35.00' Δ=27° 12' 49"

S 27° 52' 16" W 18.71'

MATCH LINE STA 112+10

PT +42.45 23.75' LT

PC +63.87 12.25' RT

AP +44.98 26.44' LT

PC +63.87

PC +04.88 20.90' LT

L=218.36' R=350.00' Δ=35° 44' 43"

AP +79.32 24.04' LT

PRC +94.62 16.00' LT

PCC +01.42 17.77' LT

5.00'

PT +21.24 23.75' LT

PT +58.45 23.75' LT

PT +19.04 23.75' LT

PC +40.07 24.24' LT

PCC +00.53

PT +17.15

PC +79.34 15.85' RT

PT +00.28

S 80° 25' 28" E 121.56'

PC +21.84

PC +08.72 16.20' RT

PT +21.24 16.25' RT

PC +30.84 16.14' RT

PC +92.35 21.62' RT

PCC +36.13 20.54' RT

PCC +86.98 14.43' LT

PT +05.41 17.79' LT

PC +31.92 17.95' LT

PT +42.25 18.00' LT

PT +30.54 17.94' LT

PCC +01.59 17.01' RT

PT +40.19

PCC +87.01 14.93' LT

L=36.08' R=87.25' Δ=23° 41' 36"

PT +67.15

N 19° 42' 16" E 44.87'

801+12.02

801+35.86

PRC +67.15 12.25' RT

PC +31.07 12.25' RT

PT +31.08 12.25' LT

PC +31.07

+44.12 24.36' RT

PT +88.79 11.00' RT

PT +12.79 11.00' RT

PCC +72.07 11.70' RT

PT +65.99 18.00' LT

S 44° 40' 45" E 499.27'

PT +93.99 18.00' LT

MATCH LINE STA 117+00

MATCH LINE STA 117+00

PC +33.65 11.00' RT

PT +64.08 11.00' RT

PT +84.08 11.00' RT

PT +38.65 16.00' RT

PC +58.66 16.00' RT

BURTON STREET

PINE COURT

800+00

N 43° 23' 52" E 31.07'

LIMIT OF WORK STA 800+25

CURVE TABLE				
CURVE NO.	RADIUS (FT)	LENGTH (FT)	TANGENT (FT)	DELTA (°)
C46	1533.00	100.96	50.50	3°46'24"
C47	1493.00	100.39	50.22	3°51'10"
C48	335.00	58.64	29.40	10°01'48"
C49	293.00	20.67	10.34	4°02'29"
C50	15.00	10.97	5.74	41°53'25"
C52	100.00	56.01	28.76	32°05'36"
C53	328.00	41.15	20.60	7°11'19"
C54	12.00	14.15	8.03	67°33'08"
C55	75.00	51.11	26.59	39°02'45"
C56	99.50	41.18	20.89	23°42'44"
C57	18.00	33.99	24.86	108°11'18"
C58	1500.00	68.92	34.47	2°37'58"
C59	15.00	8.16	4.18	31°10'37"
C60	15.00	7.41	3.78	28°19'09"
C61	368.00	4.19	2.10	0°39'09"
C62	368.00	10.75	5.38	1°40'25"
C63	5.00	7.85	5.00	90°00'00"
C71	25.00	42.31	28.24	96°57'55"
C73	5.00	7.85	5.00	90°00'00"
C74	200.00	16.74	8.37	4°47'43"

0 20 50 100

SCALE: 1" = 20'

CONTINUED ON SHEET NO. 21

APPLETON_ST_CURB_TIE_PLANS.DWG Plotted on 10-May-2024 1:54 PM

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	21	100
STANTEC FILE NO.	179411056		

CURB TIE PLAN
PART 4 OF 5

CURVE TABLE				
CURVE NO.	RADIUS (FT)	LENGTH (FT)	TANGENT (FT)	DELTA (°)
C63	5.00	7.85	5.00	90°00'00"
C65	8.00	12.57	8.00	90°00'00"
C66	12.00	16.84	10.14	80°24'21"
C67	15.00	10.46	5.45	39°56'40"
C68	15.00	10.21	5.31	38°58'59"
C73	5.00	7.85	5.00	90°00'00"
C74	200.00	16.74	8.37	4°47'43"

N

QUINN ROAD

MASSACHUSETTS AVENUE

PINE COURT

S 45° 19' 15" W 90.00'

900+00

LIMIT OF WORK
STA 900+50

PT +64.51
26.00' LT

PC +88.68
28.00' LT

PRC +25.77
21.50' LT

PT +35.15
25.00' LT

PROJECT END
STA 119+40.70
N2979117.6071
E744355.8719

PC +56.51
18.00' LT

PT +00.51
18.00' LT

PC +16.14
18.00' LT

MATCH LINE
STA 117+00

PT +88.79
11.00' RT

PT +12.79
11.00' RT

PT +65.99
18.00' LT

PT +93.99
18.00' LT

S 44° 40' 45" E 499.27'

PC +33.65
11.00' RT

PT +64.08
11.00' RT

PT +84.08
11.00' RT

AP +41.56
13.50' RT

PT +70.07
19.00' RT

PT +88.07
19.00' RT

PT +38.70
19.00' RT

PT +38.65
16.00' RT

AP +36.56
19.00' RT

PC +58.66
16.00' RT

PCC +72.07
11.70' RT

120+39.46

CONTINUED ON SHEET NO. 20

0 20 50 100
SCALE: 1" = 20'

APPLETON_ST_CURB_TIE_PLANS.DWG Plotted on 10-May-2024 1:55 PM

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	22	100
STANTEC FILE NO.	179411056		

CURB TIE PLAN
PART 5 OF 5

CURVE TABLE				
CURVE NO.	RADIUS (FT)	LENGTH (FT)	TANGENT (FT)	DELTA (°)
C48	335.00	58.64	29.40	10°01'48"
C49	293.00	20.67	10.34	4°02'29"
C50	15.00	10.97	5.74	41°53'25"
C52	100.00	56.01	28.76	32°05'36"
C53	328.00	41.15	20.60	7°11'19"
C54	12.00	14.15	8.03	67°33'08"
C55	75.00	51.11	26.59	39°02'45"
C56	99.50	41.18	20.89	23°42'44"
C57	18.00	33.99	24.86	108°11'18"
C58	1500.00	68.92	34.47	2°37'58"
C59	15.00	8.16	4.18	31°10'37"
C60	15.00	7.41	3.78	28°19'09"
C61	368.00	4.19	2.10	0°39'09"
C71	25.00	42.31	28.24	96°57'55"

FOREST STREET

BURTON STREET

SB/DH

REBAR

REBAR UP 0.4'

REBAR FLUSH

MATCH LINE STA 700+25

MATCH LINE STA 700+25

700+00

800+00

S 16° 08' 47" E 63.87'

S 27° 52' 16" W 18.71'

L=218.36' R=350.00' Δ=35° 44' 43"

L=16.62' R=35.00' Δ=27° 12' 49"

L=36.66' R=125.00' Δ=16° 48' 15"

L=36.08' R=87.25' Δ=23° 41' 36"

N 19° 42' 16" E 12.02'

N 43° 23' 52" E 31.07'

AP +79.32
24.04' LT

AP +79.64
29.03' LT

PT +42.25
18.00' LT

PC +31.92
17.95' LT

PT +05.41
17.79' LT

PCC +40.39
37.84' LT

PCC +01.42
17.77' LT

PT +40.19

PC +30.54
17.94' LT

PCC +01.59
17.01' RT

PC +63.87

PCC +00.53

PT +17.15

PCC +86.98
14.43' LT

PCC +48.37
27.47' RT

PRC +67.15
12.25' RT

PC +63.87
12.25' RT

PC +36.13
20.54' RT

PC +31.07
12.25' RT

PRC +68.89
21.48' LT

PCC +59.36
24.92' LT

PC +31.07

PT +55.56
77.23' RT

PC +92.35
21.62' RT

AP +44.81
31.44' LT

PC +40.07
24.24' LT

5.00'

PT +92.16
14.64' RT

PT +19.04
23.75' LT

PC +21.84

PC +30.84
16.14' RT

0 20 50 100

SCALE: 1" = 20'

CONTINUED ON SHEET NO. 23

CONTINUED ON SHEET NO. 21

APPLETON_ST_CURB_TIE_PLANS.DWG Plotted on 10-May-2024 1:55 PM

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	23	100
	STANTEC FILE NO. 179411056		

GRADING PLANS
PART 1 OF 7

PROJECT BEGIN
STA 102+19.99
N2979759.0253
E742820.9806

LIMIT OF WORK
STA 300+66.55

LIMIT OF WORK
STA 200+50

MEET EXIST

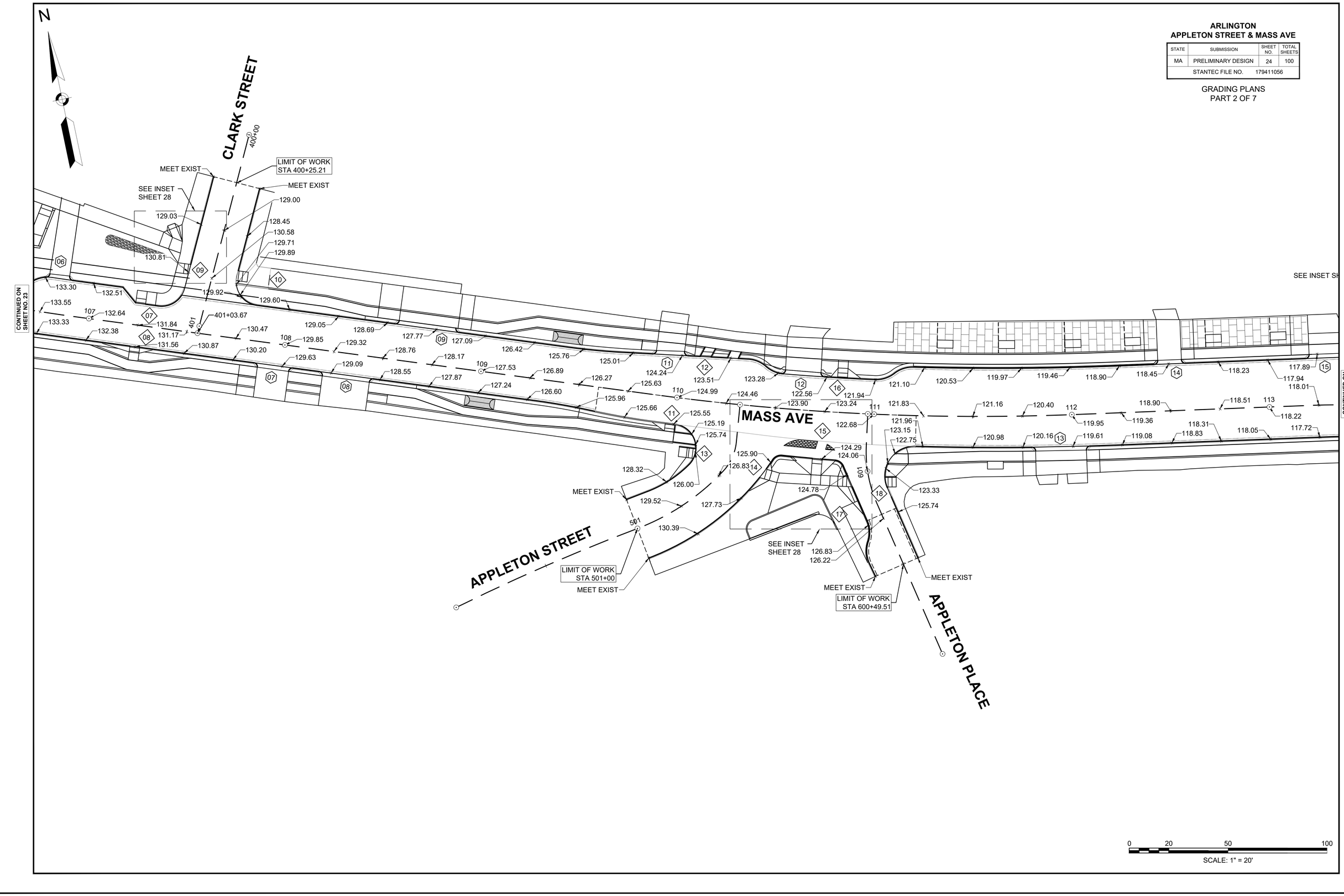
CONTINUED ON SHEET NO. 24

0 20 50 100
SCALE: 1" = 20'

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	24	100
	STANTEC FILE NO. 179411056		

GRADING PLANS
PART 2 OF 7



APPLETON_ST_GRADING_PLANS.DWG Plotted on 10-May-2024 2:33 PM

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	25	100
STANTEC FILE NO.	179411056		

GRADING PLANS
PART 3 OF 7

N

FOREST STREET

MASS AVE

BURTON STREET

LIMIT OF WORK STA 700+50

LIMIT OF WORK STA 800+25

MEET EXIST

SEE INSET SHEET 29

SEE INSET SHEET 29

MEET EXIST

MEET EXIST

MEET EXIST

MEET EXIST

800+00

701

801

CONTINUED ON SHEET NO. 24

CONTINUED ON SHEET NO. 26

0 20 50 100

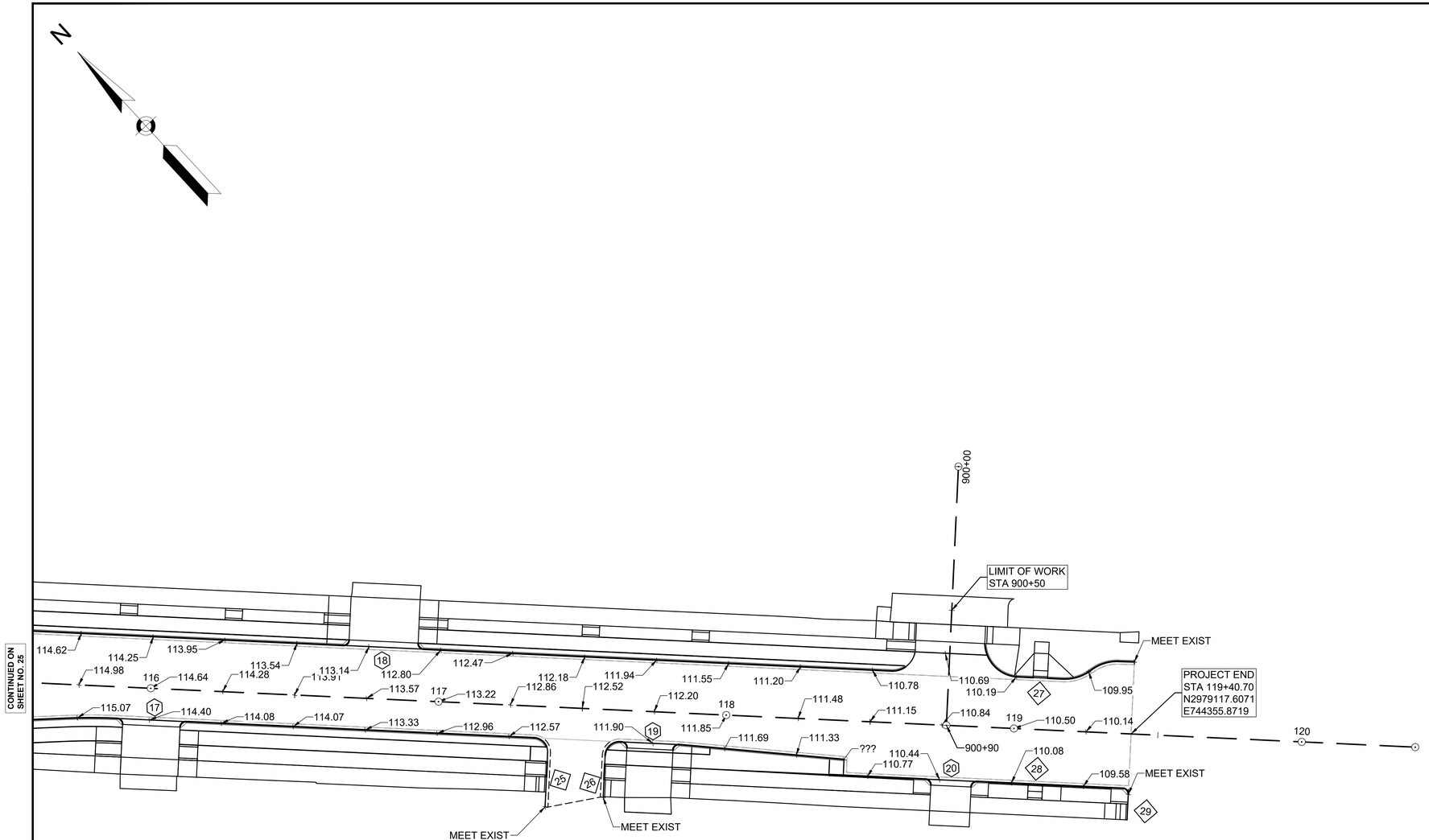
SCALE: 1" = 20'

APPLETON_ST_GRADING_PLANS.DWG Plotted on 10-May-2024 2:33 PM

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	26	100
	STANTEC FILE NO. 179411056		

GRADING PLANS
PART 4 OF 7



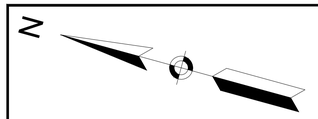
CONTINUED ON SHEET NO. 25

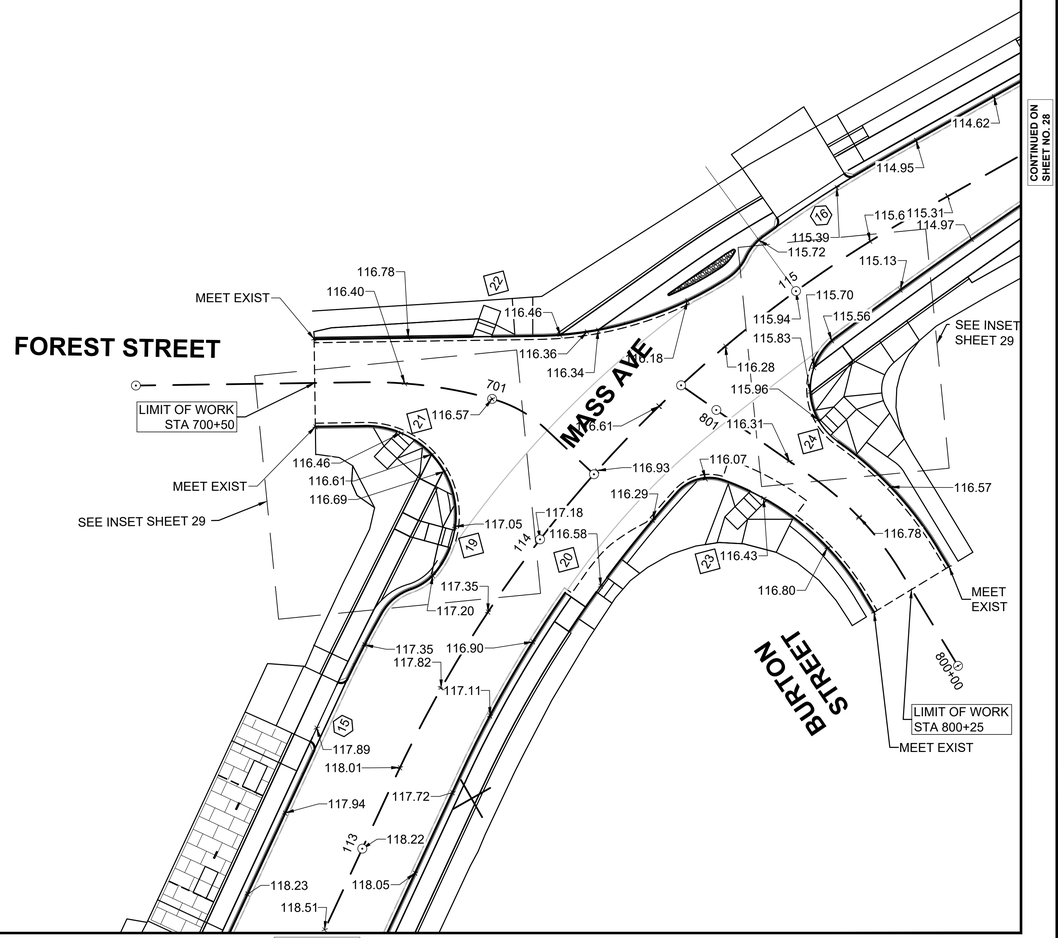
0 20 50 100
SCALE: 1" = 20'

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	27	100
STANTEC FILE NO.	179411056		

GRADING PLANS
PART 5 OF 7





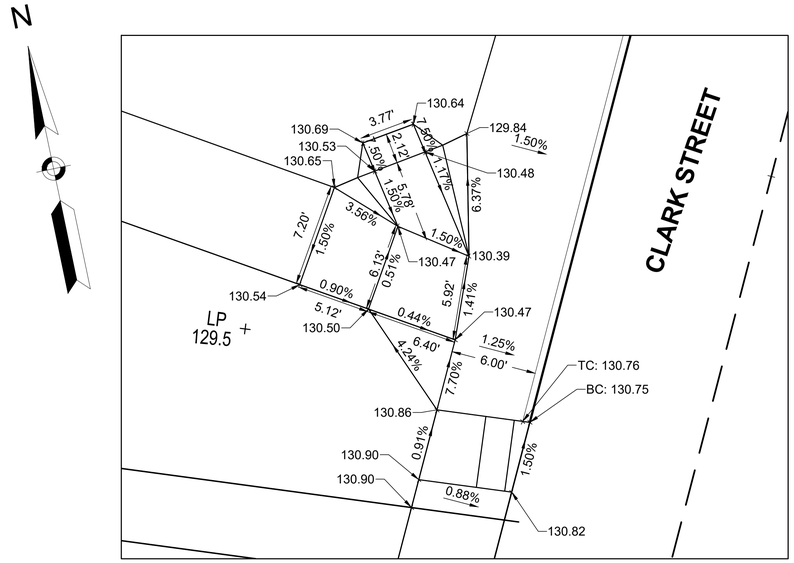
0 20 50 100
SCALE: 1" = 20'

APPLETON_ST_GRADING_PLANS.DWG Plotted on 10-May-2024 2:33 PM

ARLINGTON
APPLETON STREET & MASS AVE

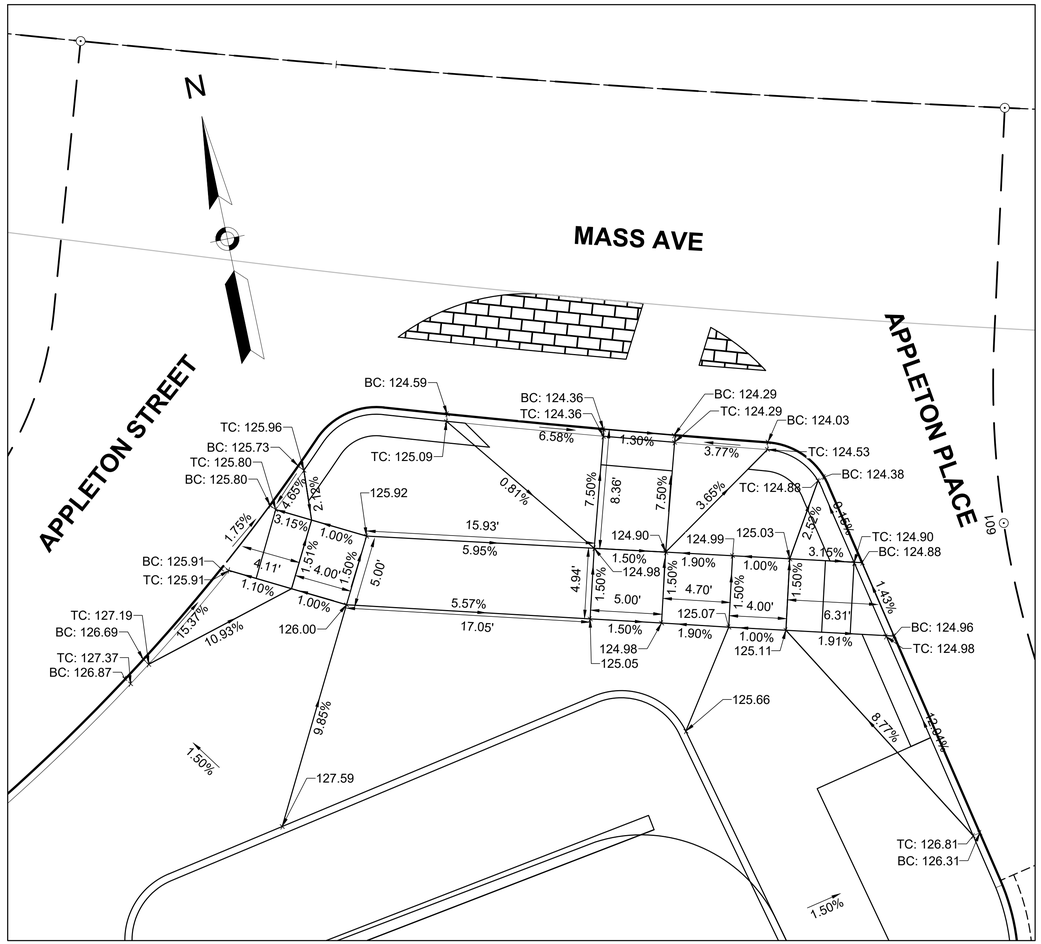
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	28	100
STANTEC FILE NO.	179411056		

GRADING PLANS
PART 6 OF 7



CLARK STREET SIDEWALK GRADING INSET

0 5 10 15 20
SCALE: 1" = 5'



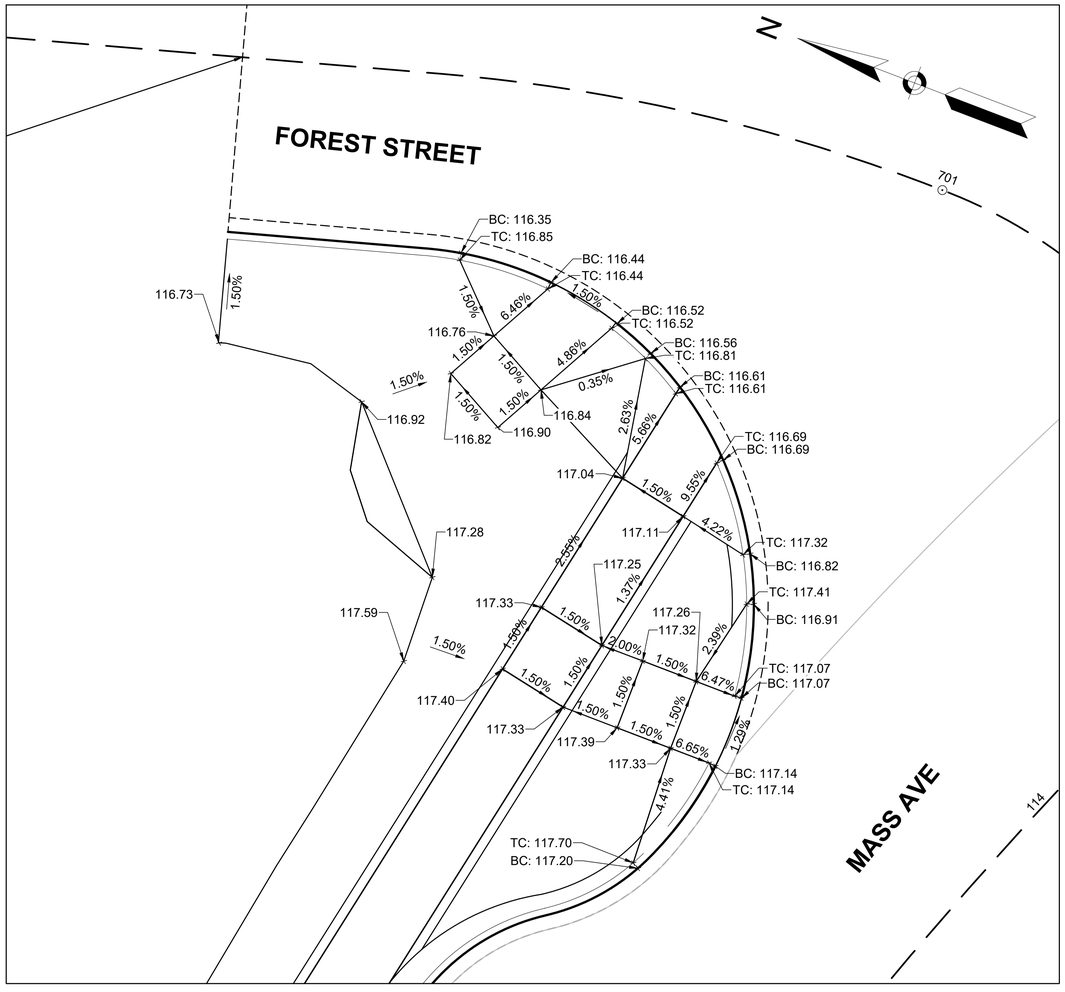
APPLETON STREET PLAZA GRADING INSET

0 5 10 15 20
SCALE: 1" = 5'

ARLINGTON
APPLETON STREET & MASS AVE

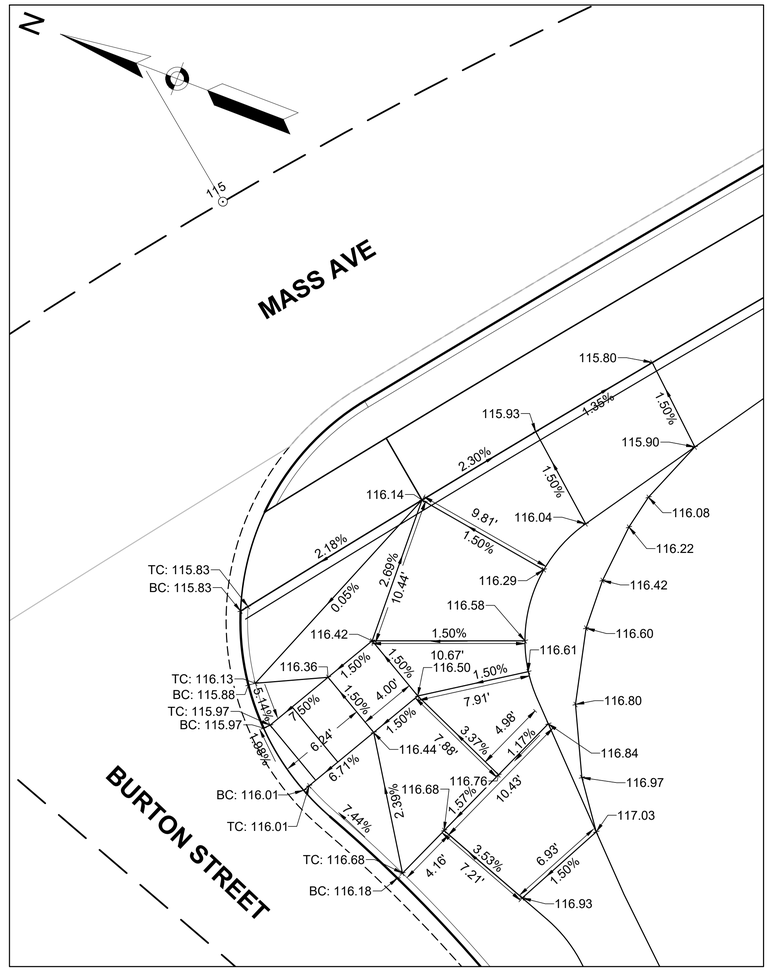
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	29	100
STANTEC FILE NO. 179411056			

GRADING PLANS
PART 7 OF 7



FOREST STREET / MASS AVE GRADING INSET

0 5 10 15 20
SCALE: 1" = 5'



BURTON STREET / MASS AVE GRADING INSET

0 5 10 15 20
SCALE: 1" = 5'

DRAINAGE & UTILITY PLANS
PART 1 OF 5

N
LOWELL STREET
MASSACHUSETTS AVENUE
LIMIT OF WORK
STA 300+66.55
N2979836.4225
E743076.0511
PROJECT BEGIN
STA 102+19.99
N2979759.0253
E742820.9806
LIMIT OF WORK
STA 200+50
N2979698.3309
E742888.7434
44 LF - 12" RCP
71 LF - 12" RCP
6 LF - 12" RCP
21 LF - 12" RCP
42 LF - 12" RCP
11 LF - 12" RCP
24 LF - 12" RCP
75 LF - 12" RCP
29 LF - 8" HDPE SUBDRAIN
PROP SUBDRAIN CLEANOUT
CB-1
CB-2
CB-3
CB-4
CB-5
CB-6
CB-7
CB-8
CB-9
DMH-1
DMH-2
MATCH LINE STA 107+00
CONTINUED ON SHEET NO. 31
TOWN OF ARLINGTON PARK BK/PG /1 0 LOT MASS AVE MAP/LOT 165.0-0006-0004.0
CARBONELL PABLO F ETAL / TRS BK/PG 981/3 1241 -1245 MASS AVE MAP/LOT 165.0-0006-0003.0
SHEN YALING BK/PG 49523/536 1249 MASS AVE MAP/LOT 165.0-0006-0006.0
1253 MASSACHUSETTS AVENUE BK/PG 77089/241 1253 MASS AVE MAP/LOT 165.0-0006-0007.0
PERRY JOSEPH S & MARY L BK/PG 50966/513 0 LOT LOWELL ST MAP/LOT 058.0-0007-0007.0
PERRY JOSEPH S & MARY L BK/PG 50966/513 21 -23 LOWELL ST MAP/LOT 058.0-0007-0006.0
ROSIER-EDNER ELOISE BK/PG 56587/588 15 -17 LOWELL ST MAP/LOT 058.0-0010-0010.0
11-13 LOWELL REALTY LLC BK/PG 76476/368 11 -13 LOWELL ST MAP/LOT 058.0-0010-0009.0
PATEL TUSHAR K & RUPAL & BK/PG 62929/133 5 -7 LOWELL ST MAP/LOT 058.0-0010-0008.0
TOULOPOULOS JOHN W/TRS/ETAL BK/PG 32550/343 1234 MASS AVE MAP/LOT 165.0-0007-0005.A
TOULOPOULOS JOHN W/TRS-ETAL BK/PG 32550/343 1226 -1230 MASS AVE MAP/LOT 165.0-0007-0006.0
SHU TI-YUAN D & LEE SHIN/TRS BK/PG 64968/406 27 -27A APPLETON ST MAP/LOT 164.0-0001-0005.0
DAS DEEPANJAN BK/PG 71756/160 33 -A APPLETON ST MAP/LOT 165.0-0007-0008.0
0 20 50 100
SCALE: 1" = 20'

DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CB-1	CB	102+55 10.0' RT	149.16		I=145.40' ()	CB
CB-2	CB	102+73.2 -24.0' LT	148.37		I=144.70' ()	CB
CB-3	CB	103+28.2 17.0' RT	146.96		I=143.00' (DMH-1)	CB
CB-4	CB	104+54.8 17.0' RT	142.20		I=139.62' ()	CB
CB-5	CB	104+47.2 -78.5' LT	134.55		I=130.88' (DMH-2)	CB
CB-6	CB	104+74.8 -15.9' LT	140.98		I=137.60' ()	CB
CB-7	CB	105+54.4 -66.4' LT	132.95		I=128.78' (DMH-2)	CB
CB-8	CB	106+62.4 -16.4' LT	133.80	I=131.50' ()	I=129.70' (DMH-3)	CB
DMH-1	DMH	103+13.5 19.0' RT	147.63	I=142.75' (CB-3)		DMH
DMH-2	DMH	104+88.3 -69.1' LT	134.88	I=130.55' (CB-5) I=128.40' (CB-7)		DMH

DRAINAGE PIPE DATA

PIPE	PIPE LOCATION	SIZE & TYPE	LENGTH	SLOPE	REMARKS
D-2	CB-6 TO STA 104+75 TO 104+68	12" RCP	6 LF	3.69%	12" RCP
D-5	CB-3 TO DMH-1 STA 103+28 TO 103+13	12" RCP	11 LF	1.69%	12" RCP
D-6	CB-1 TO STA 102+55 TO 102+69	12" RCP	24 LF	1.53%	12" RCP
D-7	CB-4 TO STA 104+55 TO 104+32	12" RCP	21 LF	0.99%	12" RCP
D-21	CB-2 TO STA 102+73 TO 102+81	12" RCP	42 LF	1.14%	12" RCP
D-26	TO CB-8 STA 106+31 TO 106+62	8" HDPE SUBDRAIN	29 LF	3.29%	8" HDPE SUBDRAIN
D-27	CB-5 TO DMH-2 STA 104+47 TO 104+88	12" RCP	44 LF	0.69%	12" RCP
D-28	CB-7 TO DMH-2 STA 105+54 TO 104+88	12" RCP	71 LF	0.50%	12" RCP

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	31	100
STANTEC FILE NO. 179411056			

DRAINAGE & UTILITY PLANS
PART 2 OF 5

CONTINUED ON SHEET NO. 30
CONTINUED ON SHEET NO. 32

DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CB-9	CB	107+17.4 -14.3' LT	132.01		I=127.00' (DMH-3)	CB
CB-10	CB	107+29.1 -36.9' LT	130.20	I=129.67' ()	I=125.83' (DMH-3)	CB
CB-11	CB	108+10.7 9.9' RT	129.41		I=125.65' (DMH-4)	CB
CB-12	CB	109+69.8 12.0' RT	125.68		I=122.00' (DMH-5)	CB
CB-13	CB	110+07.5 -20.9' LT	124.03		I=121.05' ()	CB
CB-14	DI-TYPE CF (DOUBLE)	110+09.4 37.5' RT	127.20		I=122.70' (DMH-6)	DI-Type CF (Double)
CB-15	DI-TYPE CF (DOUBLE)	110+37.7 42.4' RT	126.78		I=122.20' (DMH-6)	DI-Type CF (Double)
CB-16	CB	111+01.7 75.0' RT	128.55		I=124.25' ()	CB
CB-17	CB	110+99.6 -16.4' LT	121.98		I=116.45' (DMH-62)	CB
DMH-3	DMH	107+39.9 -36.2' LT	130.71	I=126.00' (CB-9) I=125.80' (CB-10) I=126.74' (CB-8)		DMH
DMH-4	DMH	108+09.5 16.6' RT	129.95	I=125.55' (CB-11)		DMH
DMH-5	DMH	110+13.1 16.6' RT	125.44	I=121.50' (CB-12)		DMH
DMH-6	DMH	110+38.6 30.8' RT	125.69	I=121.70' (CB-14) I=121.70' (CB-15)		DMH
DMH-62	DMH	111+06.6 -17.7' LT	121.78	I=116.31' (CB-17)		DMH

DRAINAGE PIPE DATA

PIPE	PIPE LOCATION	SIZE & TYPE	LENGTH	SLOPE	REMARKS
D-1	CB-17 TO DMH-62 STA 111+00 TO 111+07	12" RCP	3 LF	2.00%	12" RCP
D-3	CB-13 TO STA 110+08 TO 110+20	12" RCP	13 LF	1.01%	12" RCP
D-4	CB-9 TO DMH-3 STA 107+17 TO 107+40	12" RCP	27 LF	3.18%	12" RCP
D-8	CB-11 TO DMH-4 STA 108+11 TO 108+09	12" RCP	3 LF	1.46%	12" RCP
D-9	CB-12 TO DMH-5 STA 109+70 TO 110+13	12" RCP	40 LF	1.14%	12" RCP
D-10	CB-14 TO DMH-6 STA 110+09 TO 110+39	12" RCP	26 LF	3.25%	12" RCP
D-11	CB-16 TO STA 111+02 TO 110+75	12" RCP	43 LF	3.93%	12" RCP
D-12	CB-15 TO DMH-6 STA 110+38 TO 110+39	12" RCP	7 LF	4.31%	12" RCP
D-22	CB-10 TO DMH-3 STA 107+29 TO 107+40	12" RCP	7 LF	0.35%	12" RCP
D-25	CB-8 TO DMH-3 STA 106+62 TO 107+40	12" RCP	75 LF	3.74%	12" RCP

Plotted on 10-May-2024 2:40 PM
APPLETON_ST_DRAIN_UTILITY_PLANS.DWG

DRAINAGE PIPE DATA

PIPE	PIPE LOCATION	SIZE & TYPE	LENGTH	SLOPE	REMARKS
D-14	CB-19 TO DMH-8 STA 113+62 TO 113+85	12" RCP	22 LF	2.35%	12" RCP
D-15	CB-18 TO DMH-7 STA 113+19 TO 113+27	12" RCP	4 LF	1.82%	12" RCP
D-17	CB-21 TO STA 114+86 TO 114+92	12" RCP	3 LF	1.93%	12" RCP
D-18	CB-23 TO DMH-10 STA 116+65 TO 116+78	12" RCP	12 LF	0.94%	12" RCP
D-20	CB-22 TO DMH-9 STA 115+47 TO 115+40	12" RCP	5 LF	1.76%	12" RCP

DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CB-18	DI-TYPE CF (DOUBLE)	113+18.8 15.0' RT	117.77		I=114.05' (DMH-7)	DI-Type CF (Double)
CB-19	CB	113+62.1 -23.7' LT	117.22		I=113.00' (DMH-8)	CB
CB-20	CB	114+50.7 29.6' RT	116.17			CB
CB-21	CB	114+86.3 63.1' RT	116.62		I=111.90' ()	CB
CB-22	CB	115+47.3 13.0' RT	114.93		I=110.85' (DMH-9)	CB
CB-23	CB	116+65 -17.0' LT	113.32		I=109.65' (DMH-10)	CB
DMH-7	DMH	113+27.3 14.8' RT	117.70	I=113.90' (CB-18)		DMH
DMH-8	DMH	113+84.7 -31.2' LT	117.26	I=112.40' (CB-19)		DMH
DMH-9	DMH	115+39.6 16.6' RT	115.47	I=110.70' (CB-22)		DMH
DMH-10	DMH	116+78.3 -25.8' LT	113.29	I=109.50' (CB-23)		DMH

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	32	100
	STANTEC FILE NO. 179411056		

DRAINAGE & UTILITY PLANS
PART 3 OF 5

CONTINUED ON SHEET NO. 31

CONTINUED ON SHEET NO. 33

N

SCALE: 1" = 20'

APPLETON_ST_DRAIN_UTILITY_PLANS.DWG Plotted on 10-May-2024 2:40 PM

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	33	100
STANTEC FILE NO.	179411056		

DRAINAGE & UTILITY PLANS
PART 4 OF 5

APPLETON_ST_DRAIN_UTILITY_PLANS.DWG Plotted on 10-May-2024 2:40 PM

CONTINUED ON SHEET NO. 32

N

YUKON REALTY LLC
BK/PG 37850/613
1151 R MASS AVE
MAP/LOT 057.0-0002-0016.B

YUKON REALTY LLC
BK/PG 37850/613
1165 MASS AVE
MAP/LOT 057.0-0002-0016.0

YUKON REALTY LLC
BK/PG 37850/613
0 LOT MASS AVE
MAP/LOT 057.0-0002-0017.0

DE VITO ALFRED M TRUSTEE
BK/PG 56536/570
1145 MASS AVE
MAP/LOT 057.0-0002-0018.0

YUKON REALTY LLC
BK/PG 37850/613
1125 MASS AVE
MAP/LOT 057.0-0005-0001.0

QUINN ROAD

MASSACHUSETTS AVENUE

PINE COURT

MATCH LINE STA 117+00

MATCH LINE STA 117+00

UP/LP 2 HR PARKING

UP/LP W/ FLOODLT 2HR PARKING

CB RIM=112.79'

CB RIM=112.14' TOW=108.9 SUMP=105.7

CB RIM=109.49' I=106.3(SE) 10" RCP

I=105.9 10"RCP

CB RIM=109.64' TOW=106.6 SUMP= 105.8

CB RIM=110.52'

MH SEPTIC NO ACCESS

SMH RIM=114.05'

SMH RIM=111.95'

SMH RIM=109.59'

SMH RIM=109.96'

SMH RIM=109.50'

116 117 118 119 120

CB-24

3 LF - 12" RCP

DMH-11

RET

ADJ

REM

ADJ (BO)

RET CB-25

PROJECT END
STA 119+40.70
N2979117.6071
E744355.8719

BUGLIO MICHEAL S & WENDY L
BK/PG 1415/65
1152 MASS AVE
MAP/LOT 148.0-0001-0002.0

CUTTER PINE LLC
BK/PG 77643/3
1146 MASS AVE
MAP/LOT 148.0-0002-0001.0

HATZILIADIS GEORGE TRUSTEE
BK/PG 27614/540
1140 MASS AVE
MAP/LOT 148.0-0002-0002.0

VASILOPOULOS JOHN
BK/PG 63540/509
1138 MASS AVE
MAP/LOT 148.0-0002-0003.0

1132 MASS AVE LLC
BK/PG 69088/235
1132 MASS AVE
MAP/LOT 148.0-0003-0001.0

ARLINGTON-GROVE REALTY LLC
BK/PG 59051/424
1160 MASS AVE
MAP/LOT 148.0-0001-0001.A

DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CB-24	CB	117+25.1 10.0' RT	112.52		I=107.90' (DMH-11)	CB
CB-25	CB	119+31 -23.2' LT	109.58			CB
DMH-11	DMH	117+25.1 16.6' RT	113.08	I=107.80' (CB-24)		DMH

DRAINAGE PIPE DATA

PIPE	PIPE LOCATION	SIZE & TYPE	LENGTH	SLOPE	REMARKS
D-19	CB-24 TO DMH-11 STA 117+25 TO 117+25	12" RCP	3 LF	1.51%	12" RCP

0 20 50 100
SCALE: 1" = 20'

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	34	100
	STANTEC FILE NO. 179411056		

DRAINAGE & UTILITY PLANS
PART 5 OF 5

N

0 20 50 100
SCALE: 1" = 20'

DESHPANDE NAREN/ANUJA
BK/PG 50530/58
18 RYDER ST
MAP/LOT 057.0-0002-0007.C

WEBER NICOLE R
BK/PG 72285/105
14 RYDER ST
MAP/LOT 057.0-0002-0007.B

TEE ALEXANDER K
BK/PG 62178/548
23 FOREST ST
MAP/LOT 057.0-0002-0008.0

XUE CHENGHAI
BK/PG 70969/283
35 FOREST ST
MAP/LOT 057.0-0002-0007.A

KIM JIN W & SUNGJA Y
BK/PG 13576/392
9 RYDER ST
MAP/LOT 057.0-0002-0012.0

NEIL J CROWLEY LLC
BK/PG 74219/246
5 FOREST ST
MAP/LOT 057.0-0002-0013.0

ANNESE ROBERT J TR J-JUDITH
BK/PG 19038/445
1171 MASS AVE
MAP/LOT 057.0-0002-0015.A

YUKON REALTY LLC
BK/PG 37850/613
1165 MASS AVE
MAP/LOT 057.0-0002-0016.0

HOUSING CORPORATION OF
BK/PG 64233/389
1173 MASS AVE
MAP/LOT 057.0-0002-0015.B

ABIDIAN LLC
BK/PG 73026/45
1177 -1181 MASS AVE
MAP/LOT 057.0-0004-0009.0

SING CORP OF ARLINGTON
BK/PG 52180/288
34 FOREST ST
OT 057.0-0003-0003.0

BUCK M SANDRA
BK/PG 15780/220
28 FOREST ST
MAP/LOT 057.0-0003-0004.0

CERVERA JOSE
BK/PG 74135/177
20 FOREST ST
MAP/LOT 057.0-0004-0006.0

COOPER ARTHUR E & MARY T
BK/PG 12744/88
16 FOREST ST
MAP/LOT 057.0-0004-0008.0

GALVIN SEAN D/TRUSTEE
BK/PG 53925/374
1183 -1187 MASS AVE
MAP/LOT 057.0-0004-0010.0

FOREST STREET

BURTON STREET

MATCH LINE STA 700+25

MATCH LINE STA 700+25

CONTINUED ON SHEET NO. 35

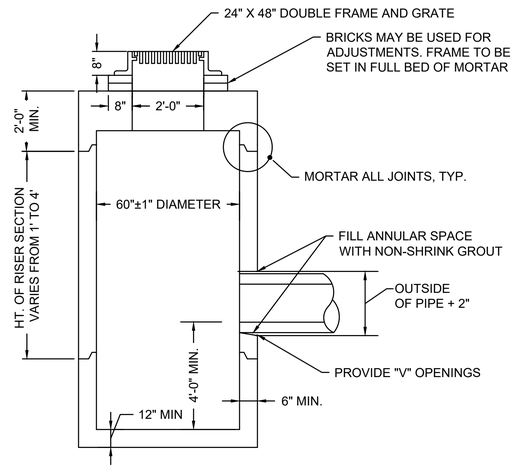
CONTINUED ON SHEET NO. 33

APPLETON_ST_DRAIN_UTILITY_PLANS.DWG Plotted on 10-May-2024 2:40 PM

ARLINGTON
APPLETON STREET & MASS AVE

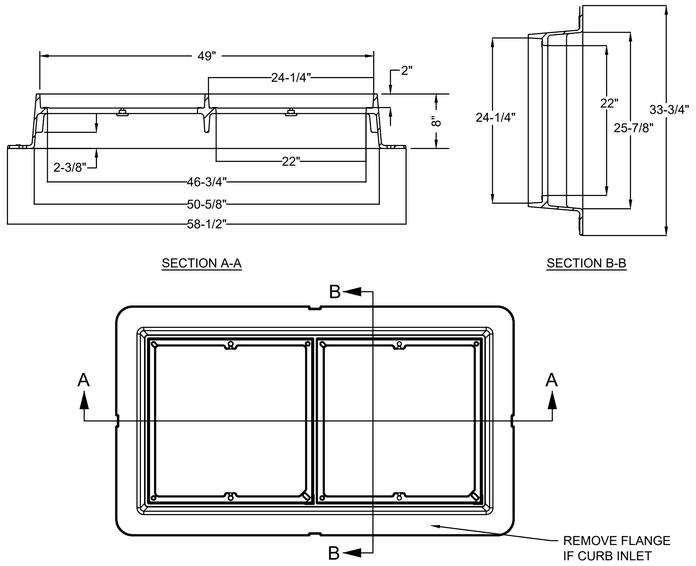
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	35	100
	STANTEC FILE NO. 179411056		

DRAINAGE & UTILITY DETAILS
PART 1 OF 2



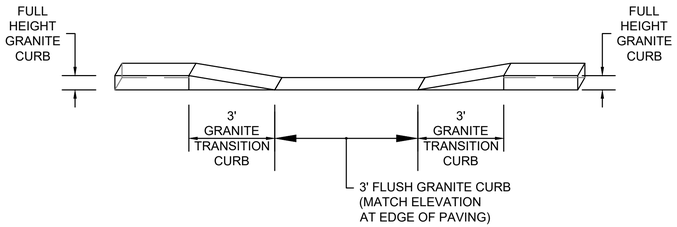
NOTE:
1. MIN 0.12 SQ. IN STEEL PER VERTICAL FOOT, PLACED ACCORDING TO AASHTO DESIGNATION M199, TYPICAL ALL SIDES
2. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING
3. ALL GRATES SHALL BE ADA COMPLIANT.

SPECIAL CATCH BASIN - DOUBLE GRATE
NOT TO SCALE

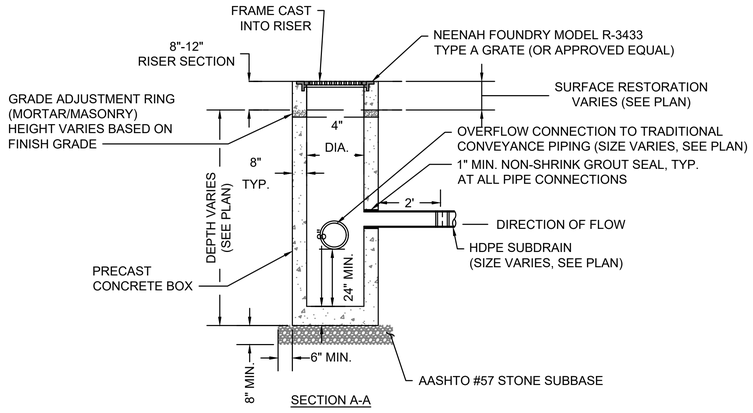


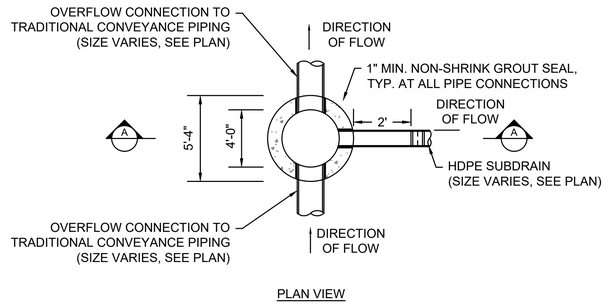
NOTE: DOUBLE FRAME AND GRATE SHALL BE DESIGNED FOR HS-20 LOADING

DOUBLE FRAME
NOT TO SCALE



CURB CUT DETAIL
N.T.S.

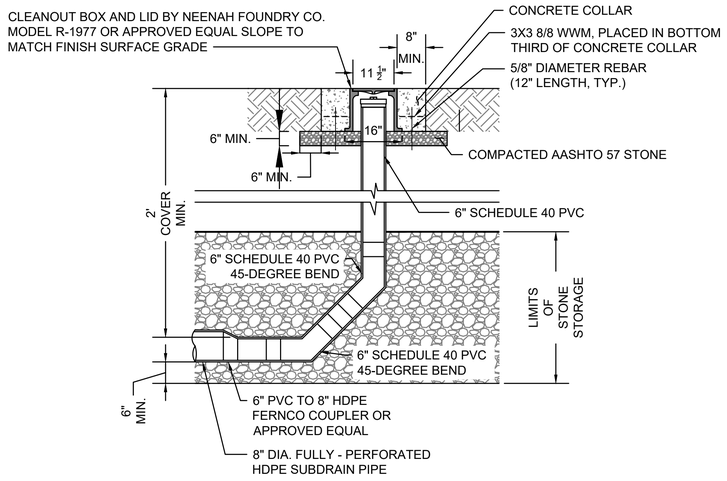




NOTES:

1. THIS DETAIL IS INTENDED FOR USE IN THE DRY SWALES ONLY.
2. SEE PLANS FOR ALL PERTINENT ELEVATIONS, PIPE SIZE, AND PIPE ORIENTATION.
3. ALL JOINTS, GRADE ADJUSTMENTS, AND CONNECTIONS SHALL BE WATERTIGHT.
4. SUBGRADE BELOW DRAINAGE STRUCTURE SHALL BE COMPACTED EARTH.

WATER QUALITY DRY SWALE OVERFLOW STRUCTURE DETAIL
N.T.S.



NOTES:

1. CLEANOUTS SHALL BE AT LEAST SIX (6) INCHES IN DIAMETER AND CONSTRUCTED OF RIGID SCHEDULE 40 PVC PIPE.
2. ALL JOINTS, GRADE ADJUSTMENTS, AND CONNECTIONS SHALL BE WATERTIGHT.
3. SOIL SHALL BE COMPACTED AROUND RISER PIPE AS NEEDED TO PREVENT LATERAL MOVEMENT.
4. CONCRETE COLLAR TO BE PLACED SINGULARLY IN SOIL/GRASS. THE CONCRETE COLLAR MUST HAVE STONE FOOTING. EXPANSION JOINT OR CAULK MAY BE USED.
5. PLACE THREE (3) LENGTHS OF REBAR EVENLY SPACED AROUND COLLAR, AND 3" FROM OUTER EDGE.

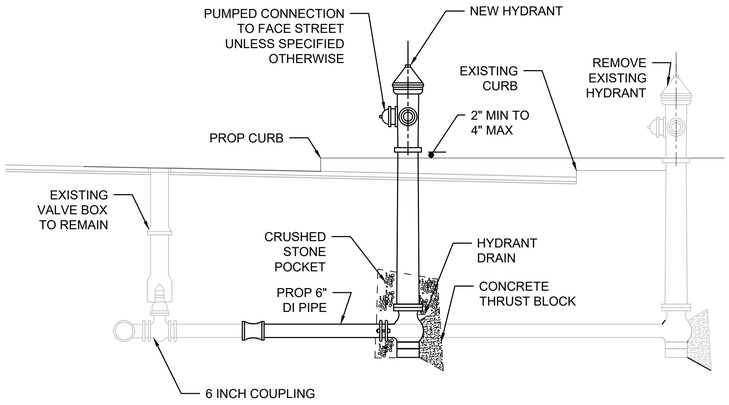
CLEANOUT DETAIL
N.T.S.

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	36	100
	STANTEC FILE NO. 179411056		

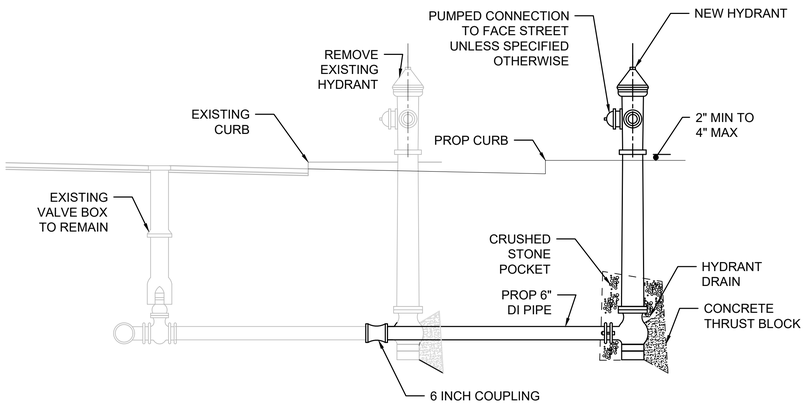
DRAINAGE & UTILITY DETAILS
PART 2 OF 2

APPLETON_ST_DRAIN_UTILITY_DETAILS.DWG Plotted on 10-May-2024 2:49 PM



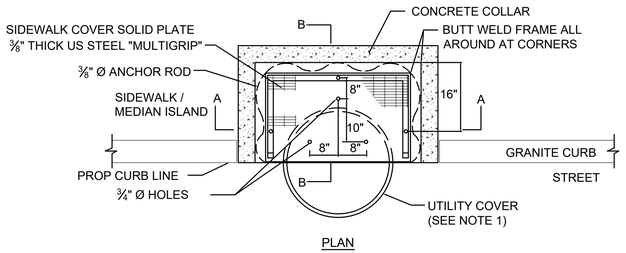
FIRE HYDRANT RELOCATION AT EXISTING CONNECTION - REDUCTION

NOT TO SCALE

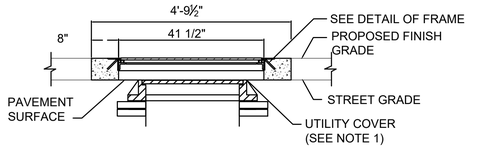


FIRE HYDRANT RELOCATION AT EXISTING CONNECTION - EXTENSION

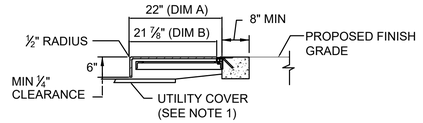
NOT TO SCALE



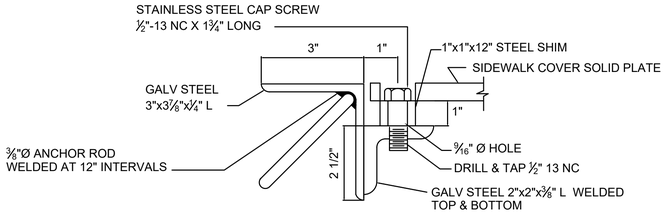
PLAN



SECTION A-A



SECTION B-B



DETAIL OF FRAME

NOTES:

1. UTILITY COVERS INCLUDE MANHOLES AND GATE BOXES. REFERENCE CONSTRUCTION PLANS (SHEETS 9 - 13) & DRAINAGE & UTILITY PLANS (SHEETS 30 - 34) FOR SPECIFIC UTILITY TYPE. A MANHOLE IS DEPICTED ON THIS DETAIL FOR CLARITY.
2. PLATE SECTION TO BE GALVANIZED AFTER DRILLING AND WELDING.
3. USE PLATE SECTION AS A TEMPLATE FOR SPOT LOCATIONS FOR BOLT HOLES IN ANGLES.
4. FABRICATE FRAME FROM STEEL L'S AFTER WELDING, REMOVE SLAG & MILL SCALE AND GALVANIZE.
5. 4000 PSI, 1.5 IN., 565 CEMENT CONCRETE SHALL BE USED FOR CONCRETE COLLAR

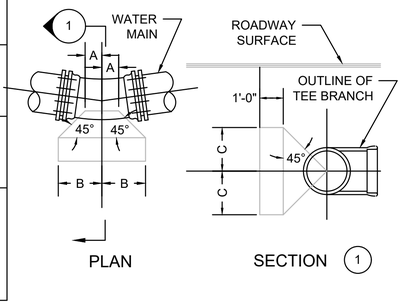
MATERIALS PER LOCATION

CONCRETE: 0.11 CUBIC YARDS MIN
STEEL: 1- 3" X 3⅜" X ¼" L - 8 FT LONG
1- 2" X 2" X ⅜" L - 7 FT LONG
1- ⅜" DIAM BAR - 10 FT LONG ANCHOR ROD
3- ½" - 13 N.C. X 1¾" LONG, STAINLESS STEEL CAP SCREWS
3- 1" X 1" X 12" STEEL SHIMS GALVANIZED
1- 41 ¼" X 31½" FLOOR PLATE ⅜" THICK. U.S. STEEL "MULTIGRIP" GALVANIZED.

CURB OPENING AT UTILITY COVER

NOT TO SCALE

HORIZONTAL THRUST BLOCK SCHEDULE TABLE OF DIMENSIONS IN INCHES			
	A	B	C
6" BEND			
1/32, 1/16	6	10	10
1/8	6	14	14
1/4	9	19	19
10" BEND			
1/32, 1/16	6	14	14
1/8	6	20	20
1/4	9	27	27
12" BEND			
1/32, 1/16	6	13	13
1/8	6	18	18
1/4	9	26	26
20" BEND			
1/32, 1/16	12	22	22
1/8	12	32	32
1/4	12	42	42
PLUG, TEE (BRANCH)			
6"	6	15	15
8"	9	16	16
12"	9	23	23
16"	12	30	27
20"	12	36	36



PLAN SECTION 1

NOTES:
1. REFER TO SPECIFICATIONS FOR MATERIAL REQUIREMENTS
2. SUBJECT TO FIELD MODIFICATION BY ENGINEER

THRUST BLOCK DETAIL

NOT TO SCALE

LIGHTING NOTES

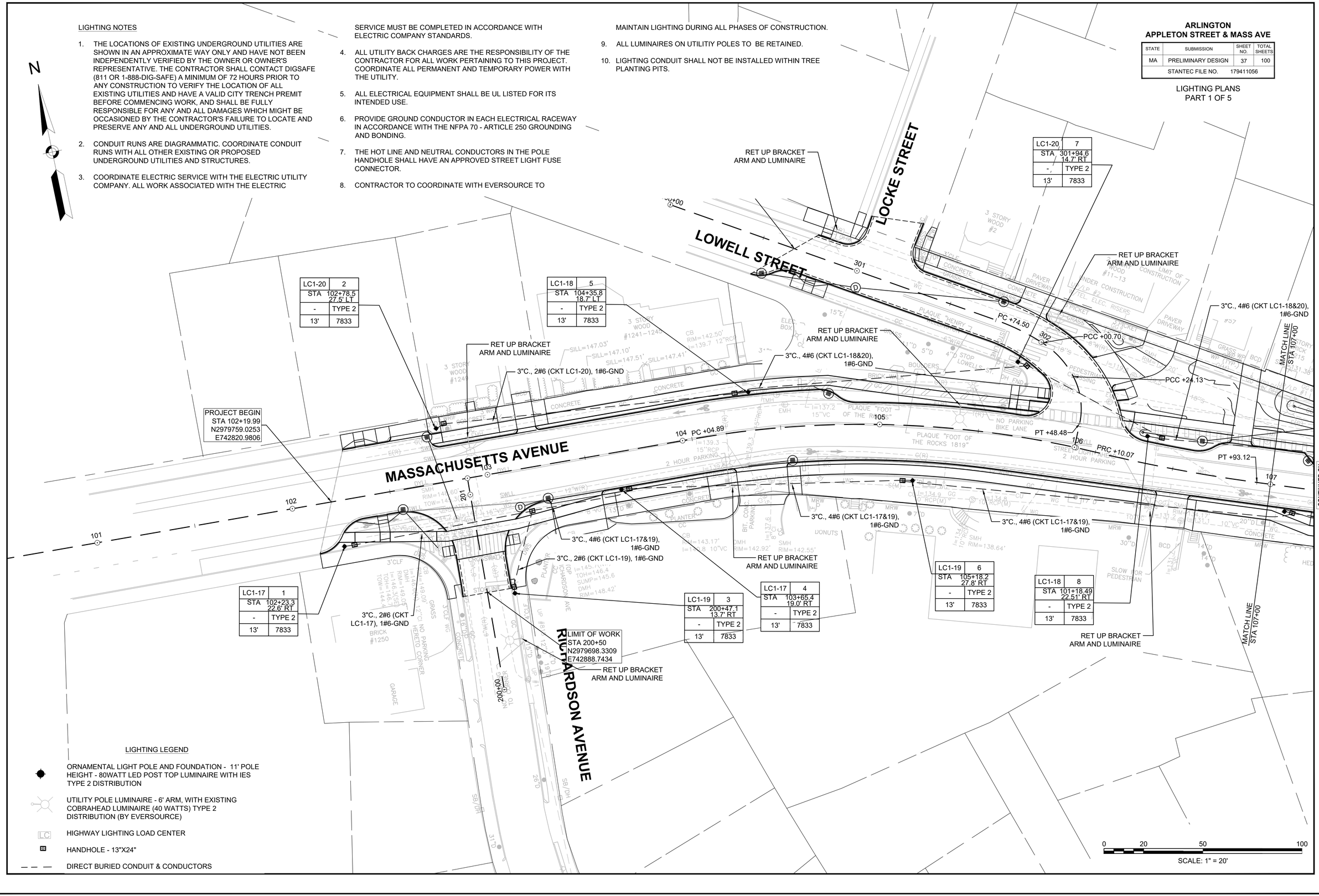
1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL CONTACT DIGSAFE (811 OR 1-888-DIG-SAFE) A MINIMUM OF 72 HOURS PRIOR TO ANY CONSTRUCTION TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND HAVE A VALID CITY TRENCH PREMIT BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
2. CONDUIT RUNS ARE DIAGRAMMATIC. COORDINATE CONDUIT RUNS WITH ALL OTHER EXISTING OR PROPOSED UNDERGROUND UTILITIES AND STRUCTURES.
3. COORDINATE ELECTRIC SERVICE WITH THE ELECTRIC UTILITY COMPANY. ALL WORK ASSOCIATED WITH THE ELECTRIC SERVICE MUST BE COMPLETED IN ACCORDANCE WITH ELECTRIC COMPANY STANDARDS.
4. ALL UTILITY BACK CHARGES ARE THE RESPONSIBILITY OF THE CONTRACTOR FOR ALL WORK PERTAINING TO THIS PROJECT. COORDINATE ALL PERMANENT AND TEMPORARY POWER WITH THE UTILITY.
5. ALL ELECTRICAL EQUIPMENT SHALL BE UL LISTED FOR ITS INTENDED USE.
6. PROVIDE GROUND CONDUCTOR IN EACH ELECTRICAL RACEWAY IN ACCORDANCE WITH THE NFPA 70 - ARTICLE 250 GROUNDING AND BONDING.
7. THE HOT LINE AND NEUTRAL CONDUCTORS IN THE POLE HANDHOLE SHALL HAVE AN APPROVED STREET LIGHT FUSE CONNECTOR.
8. CONTRACTOR TO COORDINATE WITH EVERSOURCE TO MAINTAIN LIGHTING DURING ALL PHASES OF CONSTRUCTION.
9. ALL LUMINAIRES ON UTILITIY POLES TO BE RETAINED.
10. LIGHTING CONDUIT SHALL NOT BE INSTALLED WITHIN TREE PLANTING PITS.

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	37	100
	STANTEC FILE NO. 179411056		

LIGHTING PLANS
PART 1 OF 5

APPLETON_ST_LIGHTING_PLANS.DWG Plotted on 10-May-2024 9:44 AM



LC1-20	2
STA	102+78.5 27.5' LT
-	TYPE 2
13'	7833

LC1-18	5
STA	104+35.8 18.7' LT
-	TYPE 2
13'	7833

LC1-20	7
STA	301+94.6 14.7' RT
-	TYPE 2
13'	7833

LC1-17	1
STA	102+23.3 22.6' RT
-	TYPE 2
13'	7833

LC1-19	3
STA	200+47.1 13.7' RT
-	TYPE 2
13'	7833

LC1-17	4
STA	103+65.4 19.0' RT
-	TYPE 2
13'	7833

LC1-19	6
STA	105+18.2 27.8' RT
-	TYPE 2
13'	7833

LC1-18	8
STA	101+18.49 22.51' RT
-	TYPE 2
13'	7833

LIGHTING LEGEND

- ORNAMENTAL LIGHT POLE AND FOUNDATION - 11' POLE HEIGHT - 80WATT LED POST TOP LUMINAIRE WITH IES TYPE 2 DISTRIBUTION
- UTILITY POLE LUMINAIRE - 6' ARM, WITH EXISTING COBRAHEAD LUMINAIRE (40 WATTS) TYPE 2 DISTRIBUTION (BY EVERSOURCE)
- LC — HIGHWAY LIGHTING LOAD CENTER
- HANDHOLE - 13"X24"
- DIRECT BURIED CONDUIT & CONDUCTORS

SCALE: 1" = 20'

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	38	100
STANTEC FILE NO.	179411056		

LIGHTING PLANS
PART 2 OF 5

APPLETON_ST_LIGHTING_PLANS.DWG Plotted on 10-May-2024 9:44 AM

CONTINUED ON SHEET NO. 37

CONTINUED ON SHEET NO. 39

CLARK STREET

APPLETON STREET

APPLETON PLACE

LC1-18	10
STA	400+26.0 14.4' RT
-	TYPE 2
13'	7833

LIMIT OF WORK
STA 400+25
N2979722.8531
E743374.1468

LC1-20	11
STA	107+79.3 21.0' LT
-	TYPE 2
13'	7833

LC1-26	14
STA	110+30.0 26.1' LT
-	TYPE 2
13'	7833

LC1-24	16
STA	111+08.0 23.7' LT
-	TYPE 2
13'	7833

LC1-17	9
STA	103+04.66 46.13' RT
-	TYPE 2
13'	7833

LC1-19	12
STA	108+87.2 13.7' RT
-	TYPE 2
13'	7833

LC1-17	13
STA	109+68.6 15.2' RT
-	TYPE 2
13'	7833

LC1-25	15
STA	501+32.2 19.1' RT
-	TYPE 2
13'	7833

LC1-25	18
STA	111+17.4 17.2' RT
-	TYPE 2
13'	7833

LC1-23	17
STA	111+11.3 27.5' RT
-	TYPE 2
13'	7833

3"C., 2#6 (CKT LC1-18), 1#6-GND

RET UP BRACKET ARM AND LUMINAIRE

3"C., 4#6 (CKT LC1-18&20), 1#6-GND

3"C., 6#6 (CKT LC1-22,24&26), 1#6-GND

RET UP BRACKET ARM AND LUMINAIRE

PROP LOAD CENTER AND CONC. WORK PAD

RET UP BRACKET ARM AND LUMINAIRE PROP. SERVICE 3-#2 &1-#2 GND

3"C., 4#6 (CKT LC1-17&19), 1#6-GND

2-3"C., 4#6 (CKT LC1-17&19), 6-#6 (CKT LC1- 21,23&25 1#6-GND

RET UP BRACKET ARM AND LUMINAIRE

RET UP BRACKET ARM AND LUMINAIRE

1-3"C., 6-#6 (CKT LC1- 21,23&25 1#6-GND

RET UP BRACKET ARM AND LUMINAIRE

LIMIT OF WORK
STA 501+00
N2979510.2163
E743536.7532

RET UP BRACKET ARM AND LUMINAIRE

1-3"C., 6-#6 (CKT LC1- 21,23&25 1#6-GND

LIMIT OF WORK
STA 600+50
N2979465.5350
E743664.5772

RET UP BRACKET ARM AND LUMINAIRE

1-3"C., 6-#6 (CKT LC1-21,23&25 1#6-GND

RET UP BRACKET ARM AND LUMINAIRE

MEET EXISTING

RET UP BRACKET ARM AND LUMINAIRE

MATCH LINE STA 107+00

MATCH LINE STA 112+10

PT +93.12

PC +88.90

PT +68.97

PC +83.11

PCC +52.57

PRC +00.00

PT +12.79

PT +00.28

PC +21.

400+00

500+00

600+00

0 20 50 100

SCALE: 1" = 20'

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	39	100
	STANTEC FILE NO. 179411056		

LIGHTING PLANS
PART 3 OF 5

APPLETON_ST_LIGHTING_PLANS.DWG Plotted on 10-May-2024 9:45 AM

CONTINUED ON SHEET NO. 38

CONTINUED ON SHEET NO. 40

N

FOREST STREET

BURTON STREET

LC1-26	19
STA	112+67.2 24.9' LT
-	TYPE 2
13'	7833

LC1-26	22
STA	700+50.7 14.3' RT
-	TYPE 2
13'	7833

LC1-24	21
STA	113+92.6 30.3' LT
-	TYPE 2
13'	7833

LC1-22	24
STA	114+45.0 37.0' LT
-	TYPE 2
13'	7833

LC1-24	27
STA	115+66.5 19.2' LT
-	TYPE 2
13'	7833

LC1-23	20
STA	113+67.1 16.7' RT
-	TYPE 2
13'	7833

LC1-25	23
STA	114+42.68 25.8' RT
-	TYPE 2
13'	7833

LC1-23	26
STA	114+89.8 27.3' RT
-	TYPE 2
13'	7833

LC1-21	25
STA	800+34.3 14.6' RT
-	TYPE 2
13'	7833

LC1-21	28
STA	116+35.2 21.9' RT
-	TYPE 2
13'	7833

3"C., 4#6 (CKT LC1-22&24), 1#6-GND

RET UP BRACKET ARM AND LUMINAIRE

MATCH LINE STA 700+25

3"C., 6#6 (CKT LC1-22,24&26), 1#6-GND

MATCH LIN STA 112+1

3"C., 2#6 (CKT LC1-26), 1#6-GND

LIMIT OF WORK
STA 700+50
N2979552.2494
E743984.1529

PC +63.87

PCC +00.53

PC +21.84

PT +00.28

PT +17.15

PT +67.15

PC +31.07

PT +40.19

1-3"C., 6-#6 (CKT LC1-21,23&25 1#6-GND

MATCH LINE STA 112+10

1-3"C., 4-#6 (CKT LC1-21&23) 1#6-GND

1-3"C., 2-#6 (CKT LC1-21 1#6-GND

LIMIT OF WORK
STA 800+25
N2979376.1227
E743972.5013

MATCH LINE STA 117+00

1-3"C., 4-#6 (CKT LC1-21&23) 1#6-GND

0 20 50 100

SCALE: 1" = 20'

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	40	100
	STANTEC FILE NO. 179411056		

LIGHTING PLANS
PART 4 OF 5

APPLETON_ST_LIGHTING_PLANS.DWG Plotted on 10-May-2024 9:45 AM

CONTINUED ON SHEET NO. 39

N

QUINN ROAD

PINE COURT

MASSACHUSETTS AVENUE

3"C., 4#6 (CKT LC1-22&24), 1#6-GND

LC1-22	30
STA	117+71.1 18.9' LT
-	TYPE 2
13'	7833

RET UP BRACKET ARM AND LUMINAIRE

MATCH LINE STA 117+00

3"C., 4#6 (CKT LC1-22&24), 1#6-GND

LC1-24	31
STA	900+54.5 15.0' RT
-	TYPE 2
13'	7833

3"C., 2#6 (CKT LC1-22), 1#6-GND

LC1-22	33
STA	119+20.2 23.0' LT
-	TYPE 2
13'	7833

RET UP BRACKET ARM AND LUMINAIRE

1-3"C., 4-#6 (CKT LC1-21&23) 1#6-GND

LC1-23	29
STA	117+29.8 21.8' RT
-	TYPE 2
13'	7833

MATCH LINE STA 117+00

MEET EXISTING

1-3"C., 4-#6 (CKT LC1-21&23) 1#6-GND

MEET EXISTING

RET UP BRACKET ARM AND LUMINAIRE

1-3"C., 2-#6 (CKT LC1-21 1#6-GND

LC1-21	32
STA	118+93.3 22.2' RT
-	TYPE 2
13'	7833

PROJECT END
STA 119+40.70
N2979117.6071
E744355.8719

0 20 50 100
SCALE: 1" = 20'

ARLINGTON
APPLETON STREET & MASS AVE

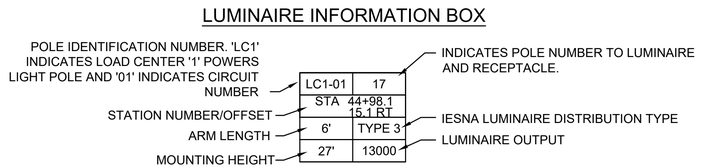
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	41	100
	STANTEC FILE NO. 179411056		

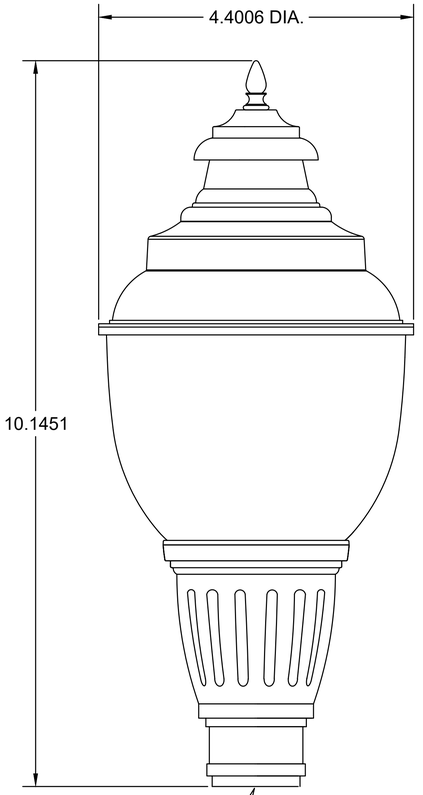
LIGHTING DETAILS
PART 1 OF 4

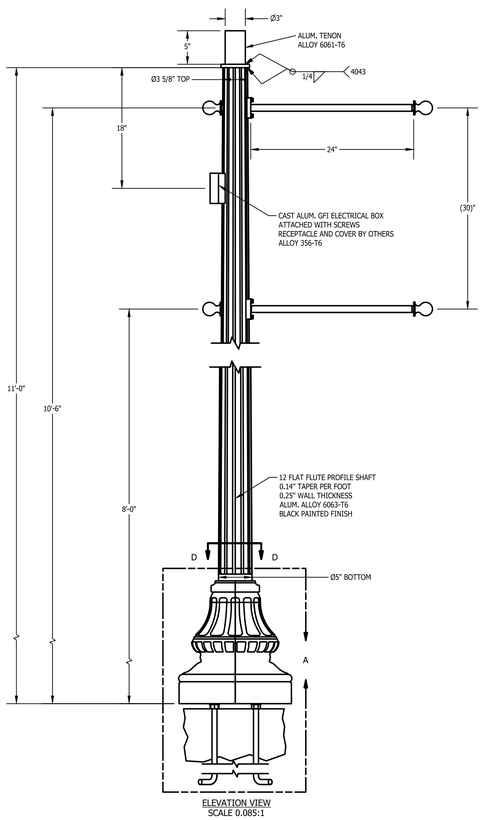
ABBREVIATIONS:

A	AMPERES
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CM	CIRCULAR MIL
FBO	FURNISHED BY OTHERS
Fc	FOOT CANDLES
GAL	GALVANIZED
GND	GROUND
GFI	GROUND FAULT INTERRUPTER
IESNA	ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA
KVA	KILO VOLT AMPERES
LL	"L" LEFT
LT	LEFT
LTG	LIGHTING
NIC	NOT IN CONTRACT
PVC	POLYVINYL CHLORIDE
RCPT	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RNC	RIGID NON-METALLIC CONDUIT
RT	RIGHT
SCH	SCHEDULE
SW	SIDEWALK
UF	UNFUSED
V	VOLTS
W	WATTS
WP	WEATHERPROOF

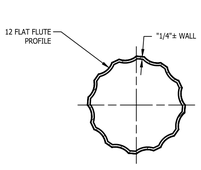
LUMINAIRE INFORMATION BOX







ELEVATION VIEW
SCALE 0.085:1



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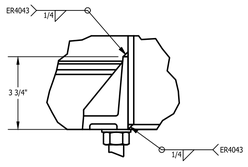
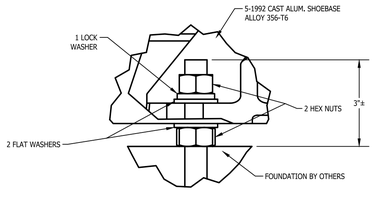
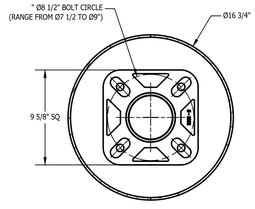
SCALE 0.25:1



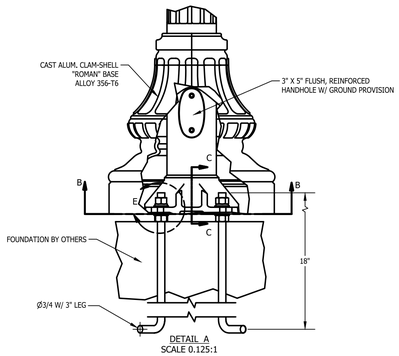
SECTION C-C
SCALE 0.25:1



DETAIL E
SCALE 0.375:1



SECTION B-B
SCALE 0.125:1



DETAIL A
SCALE 0.125:1

ASTM F1554GR55, TOP 10" GALVANIZED (MIN) PER ASTM A153
WITH ALL NUTS, FLATWASHERS, AND LOCKWASHERS

LUMINAIRE SPECIFICATIONS

STYLE:	KEY WEST
HEIGHT:	40 5/8"
WIDTH:	17 5/8" DIAMETER
MATERIAL:	CAST ALUMINUM ALLOY A.N.S.I. 356, PER A.S.T.M. B26-95
GLOBE:	⚠SMOOTH BOROSILICATE GLASS - RIBBED INTERIO
FINISH:	POWDER COAT - GLOSS BLACK
LAMPING:	80 WATT CREE LED SYSTEM
VOLTAGE:	ELECTRONIC WIRED AT 120-277 VOLTS
COLOR TEMPERATURE:	3000K (MEDIUM)
DISTRIBUTION:	TYPE II DISTRIBUTION
CATALOG NO.:	ALMKYW-LE080/EVX/X2-40-CR2-GR18-FDL-CU TYPE 2 WITH BOROSILICATE GLASS LENS

PANELBOARD LC1-UNSWITCHED

UNSWITCHED LOADS ONLY

BUS: 120/240V, 1PH, 3W, 60HZ
MAIN LUGS ONLY : 100A
FEEDER SIZE: 3#2, 1#2-GND

SHORT CIRCUIT BRACING: 10-KAIC
CABINET: SURFACE
PANEL LOCATION: Massachusetts Avenue Sta 109+64 LT

GROUND BAR

LOAD SERVED	HP	VA A	VA B	CKT. NO.	NEUTRAL	CKT. NO.	VA A	VA B	HP	LOAD SERVED
MAIN		-		1	A B	2	50			CONTROL CKT
MAIN			-	3	100A 15A	4		180		GFI RECEPTACLE
SPARE		-		5	100A 15A	6	-			SWITCHED LOAD CENTER (BELOW)
SPARE			-	7	100A 100A	8		-		SWITCHED LOAD CENTER (BELOW)
SPARE		-		9		10	-			SPARE
SPACE			-	11		12		-		SPACE
SPACE		-		13		14	-			SPACE
SPACE			-	15		16		-		SPACE

PANELBOARD LC1-SWITCHED

SWITCHED LOADS ONLY

GROUND BAR

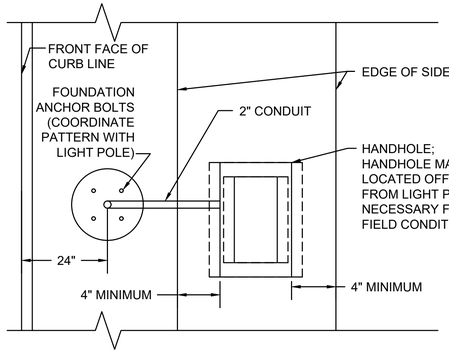
LOAD SERVED	HP	VA A	VA B	CKT. NO.	NEUTRAL	CKT. NO.	VA A	VA B	HP	LOAD SERVED
LUMINIARES/GFCI - LIGHT POLES 1, 4, 9, & 13		620		17	A B	18	465			LUMINAIRES/GFCI - LIGHT POLES 5, 8 & 10
LUMINAIRES/GFCI - LIGHT POLES 3, 6, & 12			620	19		20		465		LUMINAIRES/GFCI - LIGHT POLES 2, 7 & 11
LUMINAIRES/GFCI - LIGHT POLES 25, 28 & 32		465		21		22	465			LUMINIARES/GFCI - LIGHT POLES 24, 30 & 33
LUMINIARES/GFCI - LIGHT POLES 17, 20, 26 & 29			620	23		24		620		LUMINAIRES/GFCI - LIGHT POLES 16, 21, 27 & 31
LUMINIARES/GFCI - LIGHT POLES 15, 18 & 23		465		25		26	465			LUMINIARES/GFCI - LIGHT POLES 14, 19 & 22
SPARE			-	27		28		-		SPARE
SPACE		-		29		30	-			SPACE
SPACE			-	31		32		-		SPACE

VA A: 2995 VA B: 2505
TOTAL CONNECTED LOAD: 5500 + 1.25% = 6875 VA

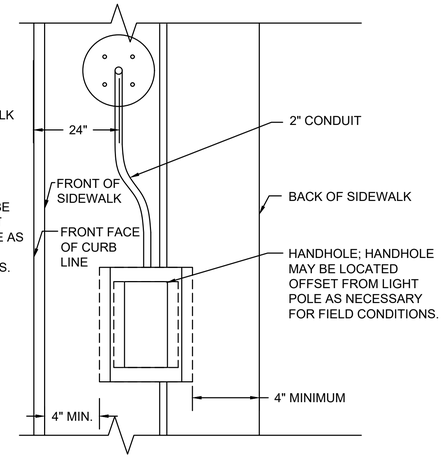
ALL BRANCH C/B: 20 AMP TRIP
UNLESS OTHERWISE NOTED

PHOTOMETRIC CALCULATIONS

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Appleton Mass Burton	Illuminance	Fc	1.53	3.8	0.5	3.06	7.60
Burton Mass Quinn	Illuminance	Fc	1.72	2.8	0.9	1.91	3.11
Clark Mass Appleton	Illuminance	Fc	1.95	3.9	0.6	3.25	6.50
CW Burton NB	Illuminance	Fc	1.66	1.8	1.4	1.19	1.29
CW Burton SB	Illuminance	Fc	3.81	5.9	1.9	2.01	3.11
CW Forest St NB	Illuminance	Fc	3.30	4.9	1.9	1.74	2.58
CW Forest St SB	Illuminance	Fc	2.84	3.2	2.2	1.29	1.45
CW at Appleton PL SB	Illuminance	Fc	2.00	2.6	1.6	1.25	1.63
CW at Appleton ST NB	Illuminance	Fc	2.65	3.0	1.9	1.39	1.58
CW at Appleton ST SB	Illuminance	Fc	0.45	0.6	0.4	1.13	1.50
CW at Clark NB	Illuminance	Fc	1.30	1.6	1.0	1.30	1.60
CW at Clark SB	Illuminance	Fc	1.36	1.6	1.1	1.24	1.45
CW at Lowell NB	Illuminance	Fc	1.62	2.0	1.2	1.35	1.67
CW at Lowell SB	Illuminance	Fc	2.42	3.2	1.6	1.51	2.00
CW at Mass Ave Appleton EB W	Illuminance	Fc	4.12	4.8	2.9	1.42	1.66
CW at Mass Ave Appleton WB W	Illuminance	Fc	2.49	3.2	1.5	1.66	2.13
CW at Mass Ave_Clark EB	Illuminance	Fc	6.64	7.7	4.9	1.36	1.57
CW at Mass Ave_Clark WB	Illuminance	Fc	1.37	1.4	1.3	1.05	1.08
CW at Richrardson NB	Illuminance	Fc	4.49	5.0	3.4	1.32	1.47
CW at Richrardson SB	Illuminance	Fc	0.20	0.2	0.2	1.00	1.00
CW Mass Ave Appleton EB E	Illuminance	Fc	1.48	2.0	1.1	1.35	1.82
CW Mass Ave Appleton WB E	Illuminance	Fc	3.78	5.2	2.1	1.80	2.48
CW Mass Ave at Burton WB	Illuminance	Fc	1.32	1.5	1.1	1.20	1.36
CW Mass Ave at Quinn Rd EB	Illuminance	Fc	4.39	7.5	1.3	3.38	5.77
CW Mass Ave at Quinn Rd WB	Illuminance	Fc	0.97	2.1	0.3	3.23	7.00
CW Mass Ave at Richrardson EB	Illuminance	Fc	2.59	4.3	1.3	1.99	3.31
CW Mass Ave at Richrardson WB	Illuminance	Fc	2.80	3.5	1.6	1.75	2.19
CW Mass Ave Burton EB	Illuminance	Fc	3.28	4.8	1.1	2.98	4.36
CW Pine Ct NB	Illuminance	Fc	1.39	1.7	1.3	1.07	1.31
CW Pine Ct SB	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.
CW Quinn Rd NB	Illuminance	Fc	0.53	0.8	0.3	1.77	2.67
CW Quinn Rd SB	Illuminance	Fc	1.73	2.0	1.4	1.24	1.43
INT Lowell Lock St	Illuminance	Fc	0.99	3.0	0.3	3.30	10.00
INT Mass Appleton	Illuminance	Fc	2.09	3.9	0.4	5.23	9.75
INT Mass Burton Forest	Illuminance	Fc	2.17	4.0	0.8	2.71	5.00
INT Mass Clark	Illuminance	Fc	2.03	3.0	1.3	1.56	2.31
INT Mass Lowell	Illuminance	Fc	1.85	3.1	0.7	2.64	4.43
INT Mass Quinn	Illuminance	Fc	1.55	2.6	0.5	3.10	5.20
INT Mass Richardson	Illuminance	Fc	1.80	3.1	1.0	1.80	3.10
Rich Mass Lowell	Illuminance	Fc	1.73	3.1	0.6	2.88	5.17
Richardson Ave	Illuminance	Fc	1.48	3.6	0.3	4.93	12.00



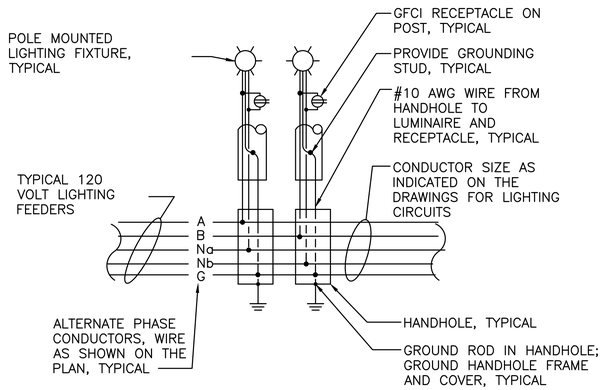
LAYOUT 'STREETSIDE'



LAYOUT 'BACK OF SW'

TYPICAL LIGHT POLE AND PULLBOX LAYOUT DETAILS

NOT TO SCALE



TYPICAL LIGHT POLE CIRCUITING ONE-LINE DIAGRAM

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	42	100
	STANTEC FILE NO. 179411056		

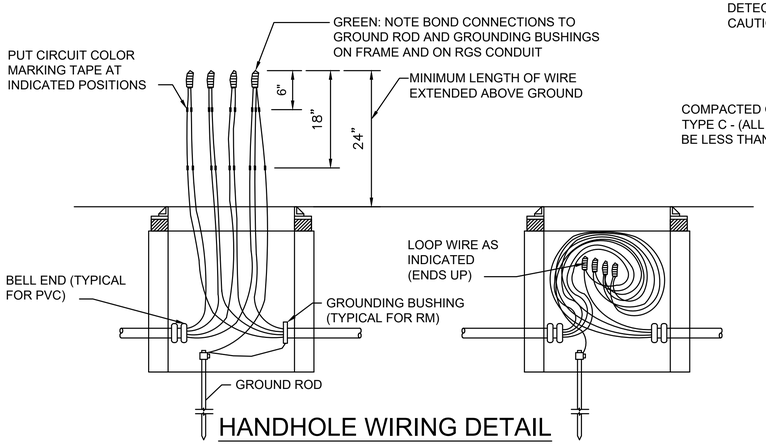
LIGHTING DETAILS
2 OF 4

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	43	100
	STANTEC FILE NO. 179411056		

LIGHTING DETAILS
PART 3 OF 4

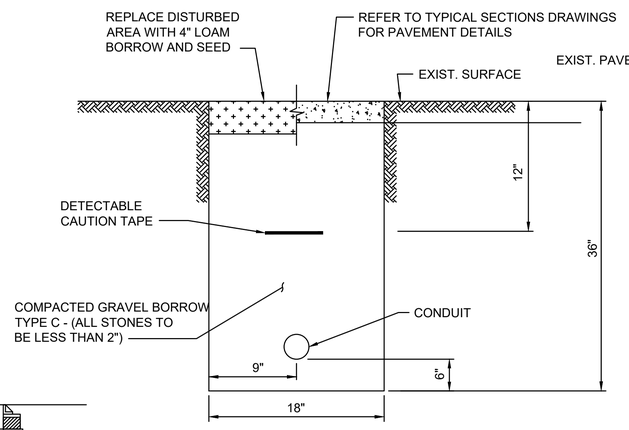
APPLETON_ST_LIGHTING_DETAILS.DWG Plotted on 10-May-2024 9:48 AM



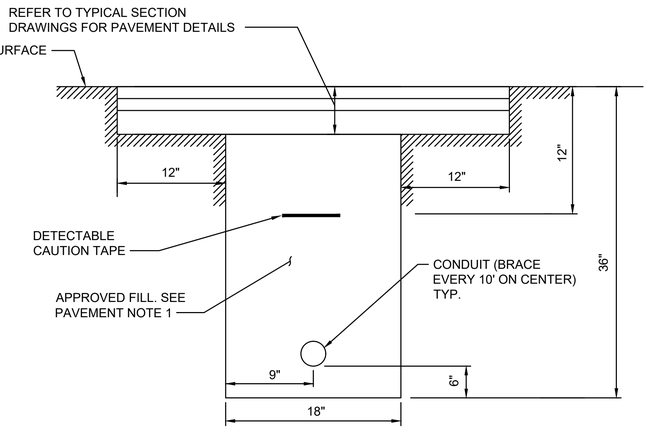
HANDHOLE WIRING DETAIL

NOT TO SCALE

NOT TO SCALE



SINGLE CONDUIT (UNDER GRASS AREA, OR SIDEWALK)



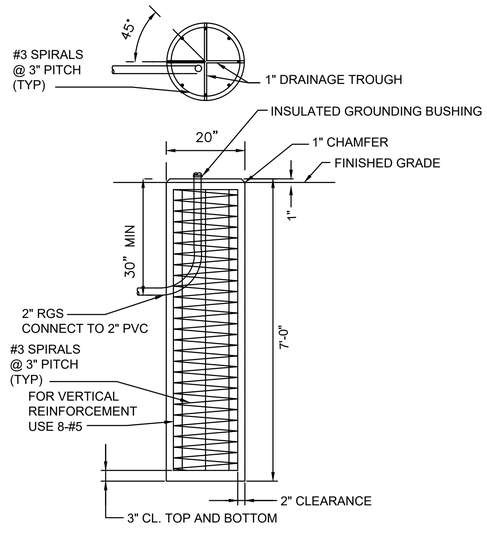
CONDUIT UNDER ROADWAY

TYPICAL TRENCH DETAILS FOR CONDUIT

NOT TO SCALE

PAVEMENT NOTES FOR TRENCH PATCHING:

1. FOR TRENCH CUTS WITHIN PAVED SURFACES, (MAINLINE AND LOCAL ROADS) WHERE SUCH TRENCH CUTS HAVE A DEPTH OF 4' OR LESS, CONTROLLED DENSITY FILL (CDF) FOR BACKFILL IS MANDATORY. CONTROLLED DENSITY FILL TYPE 2E, (FLOWABLE-EXCAVATABLE)SHALL MEET THE REQUIREMENTS OF SECTION M4.08.0.



LIGHT STANDARD FOUNDATION NOTES:

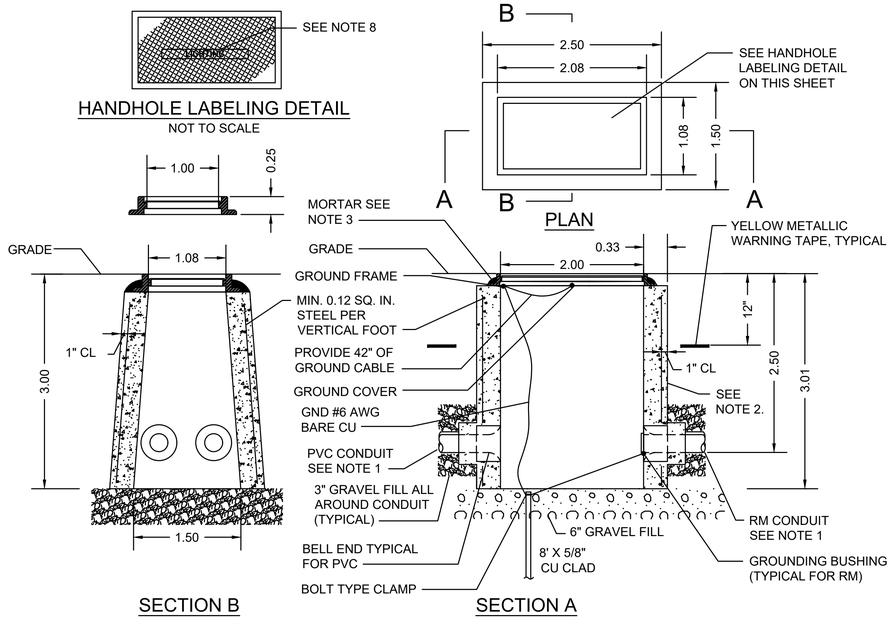
1. CEMENT CONCRETE FOR FOUNDATIONS TO BE 4000 PSI, 1.5", 565 CEMENT CONCRETE. REINFORCING STEEL: SEE M4.03.05 OF THE STANDARD SPECIFICATIONS AND LISTED ON THE MASSDOT QCML.
2. A MINIMUM SLOPE OF 1/8" PER FOOT FROM EDGE OF BASE PLATE TO FACE OF CONCRETE.
3. THE ANCHOR BOLTS SHALL BE SUPPLIED BY THE LIGHT STANDARD MANUFACTURER. THE MANUFACTURER SHALL ALSO SUPPLY A TEMPLATE FOR SETTING THE BOLTS AND SHALL INDICATE THE NECESSARY PROJECTION.

HIGHWAY LIGHT STANDARD FOUNDATION

NOT TO SCALE

HANDHOLE LABELING DETAIL

NOT TO SCALE



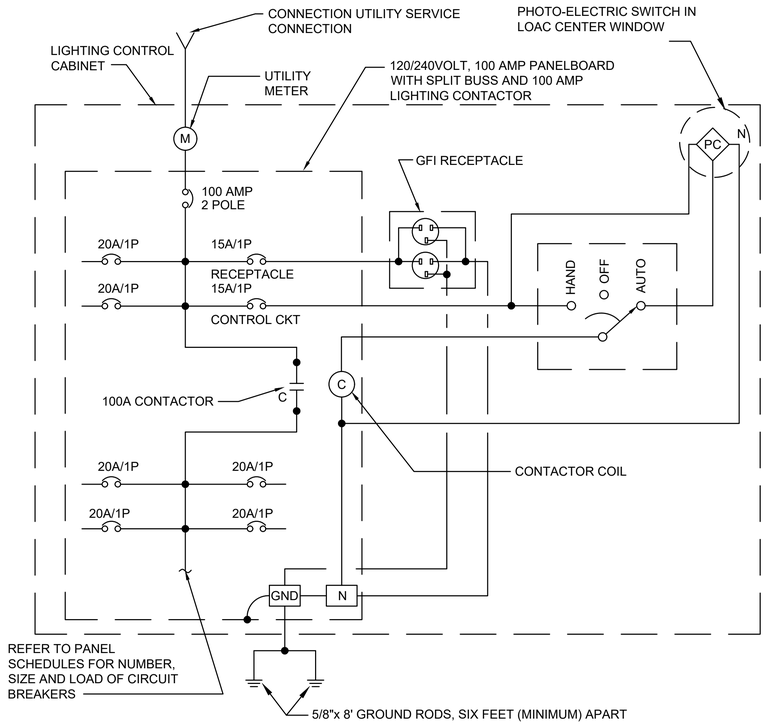
PRECAST CONCRETE ELECTRIC HANDHOLE SIZE 24 X 13 X 36 (SD2-022)

NOT TO SCALE

HANDHOLE NOTES:

1. ALL CONDUIT ENTERING HANDHOLES SHALL EXTEND INTO THE HANDHOLE CAVITY BY AT LEAST 2".
2. ALL HANDHOLES SHALL BE PRECAST CONCRETE REINFORCED WITH STEEL, AND SHALL BE FREE OF CRACKS OR OTHER DEFECTS. CONCRETE FOR PRECAST CONCRETE HANDHOLES SHALL BE 5000 PSI, 3/8 IN., 660 CEMENT CONCRETE MASONRY. REINFORCING BARS SHALL CONFORM TO AASHTO DESIGNATION M31 (ASTM DESIGNATION A 615) GRADE 60. AND SHALL BE EPOXY COATED.
3. CAST IRON FRAME SHALL BE MORTARED TO THE SURFACE OF THE PRECAST HANDHOLE.
4. ALL CONDUIT INSTALLED IN HANDHOLES SHALL BE INSTALLED IN KNOCKOUTS PROVIDED IN THE BOX AND NO EXCESS KNOCKOUTS SHALL BE MADE. THE KNOCKOUTS ARE DESIGNED TO BE MADE PRIOR TO BACKFILLING AROUND THE HANDHOLES. AFTER THE CONDUIT HAS BEEN INSTALLED IN THE HANDHOLE, THE OPEN SPACE BETWEEN THE BOX AND THE CONDUIT WILL BE SEALED WITH CLASS B CEMENT CONCRETE MASONRY. ANY CONDUIT INSTALLED IN SUCH A MANNER AS TO BLOCK COMPLETE ACCESS TO ANY OTHER CONDUIT SHALL BE REMOVED AND RESET.
5. FOR THE EXACT NUMBER, SIZE, AND ORIENTATION OF THE CONDUITS ENTERING THE HANDHOLE, SEE PLAN SHEETS.
6. CAST IRON HANDHOLE COVERS AND FRAMES SHALL BE PRODUCED BY THE SAME MANUFACTURER AND IN ACCORDANCE WITH MASSDOT SPECIFICATIONS.
7. METAL HANDHOLE COVER AND FRAME ARE TO BE BONDED (GROUNDED). DRILL AND TAP FRAME FOR MECHANICAL GROUND LUG CONNECTION. INSTALL A SERVIT POST GROUNDING CONNECTOR SUITABLE TO ACCOMMODATE ONE BARE #6 CONDUCTOR. EXTEND #6 GROUND CONDUCTOR THROUGH FRAME LUG TO BOND COVER. PROVIDE 42" OF SLACK FROM FRAME LUG TO BOND COVER. EXOTHERMICALLY WELD GROUND CONDUCTOR TO COVER.
8. FUNCTION DESIGNATION ON THE HANDHOLE SHALL BE LABELED AS FOLLOWS PER NEC ARTICLE 314.30D:

"LIGHTING" FOR LIGHTING CONDUIT



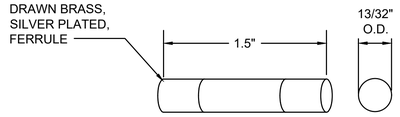
ONE LINE DIAGRAM

RATING: 600 VOLTS - 20 AMPS.	
FUSE SIZE: 1 1/2" x 13/32" O.D. - FERRULE 3/8"	
CONNECTOR SIZE: 8 1/2" x 7/8" O.D.	
CONNECTOR TYPE:	FUSE - QUICK DISCONNECT SET SCREW TYPE CONNECTION
CONNECTOR MATERIAL:	MOLDED PLASTIC BODY WITH RUBBER INSULATING BOOTS.
CONDUCTOR SIZE:	LINE AND LOAD #2 AWG THROUGH #12 AWG
REQUIRED FEATURES:	WATERTIGHT NO TAPING OR SEALANT REQUIRED
-FUSE HELD IN LOAD SIDE WHEN CONNECTOR IS DISCONNECTED. AASHTO COMPLIENT BREAKAWAY FUSE HOLDER. -PROVIDE APPROVED FUSE HOLDER WITH "DUMMY" ROD BLANK FUSE FOR NEUTRALS	

FUSE HELD IN LOAD SIDE WHEN CONNECTOR IS DISCONNECTED.

STRAIGHT THRU CONNECTOR

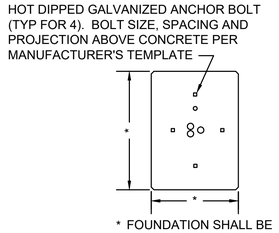
NOT TO SCALE



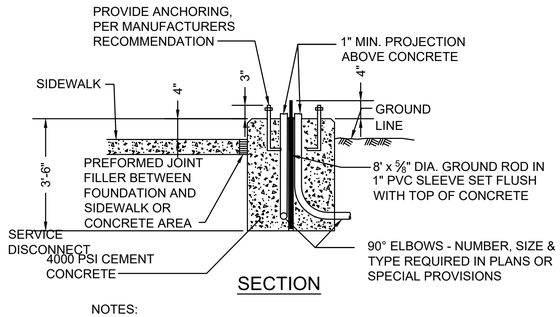
SIZE: MIDGET
TYPE: CURRENT LIMITING FUSE
VOLTAGE RATING: 120/240 VOLTS
USE: PROTECTION OF AREA LIGHTING EQUIPMENT

FUSES

NOT TO SCALE



PLAN



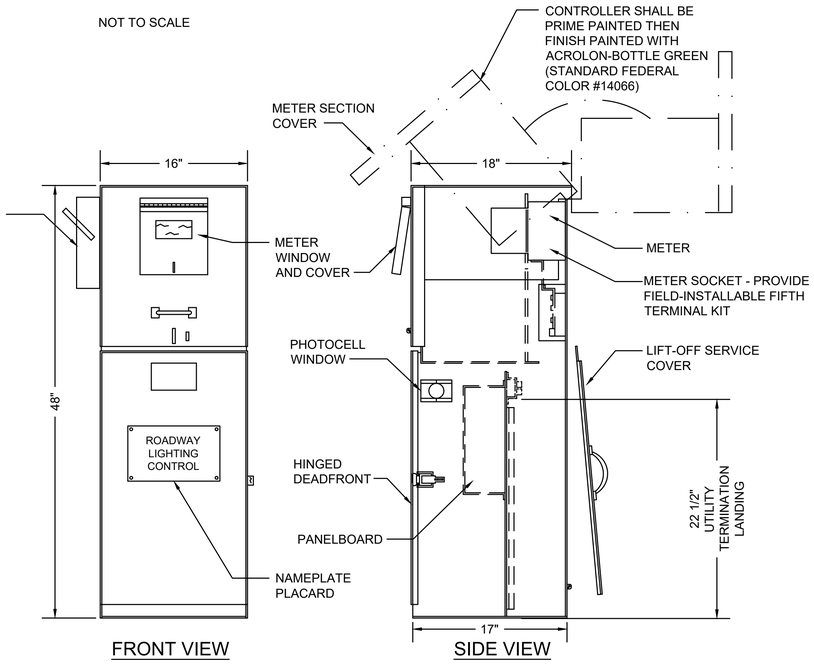
SECTION

NOTES:

1. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾".
2. CONTRACTOR SHALL MAINTAIN ACCESS TO BOTH SIDES OF LOAD CENTER. FRONT FOR CUSTOMER ACCESS, BACK FOR UTILITY ACCESS. CONTRACTOR MAY ROTATE LOAD CENTER 90 DEGREES IF NECESSARY TO MAINTAIN ACCESS.
3. CONTRACTOR MUST MAINTAIN SIDEWALK CLEARANCE OF 3' MINIMUM AROUND CONCRETE FOUNDATION

CONCRETE FOUNDATION FOR LIGHTING CONTROL CABINET

NOT TO SCALE



FRONT VIEW

SIDE VIEW

NOTES:

1. PROVIDE MILBANK CP3B51110A22SL1 MODIFIED WITH 100 AMP CONTACTOR, PHOTOCELL TERMINALS, FIFTH TERMINAL KIT FOR USE WITH RINGLESS METER SOCKETS (COORDINATE WITH ELECTRIC UTILITY FOR METER SOCKET REQUIREMENTS), MOUNTING BASE, ANCHOR BOLT KIT, GFCI RECEPTACLE, AND INTERNAL LIGHT FIXTURE OR EQUIVALENT BY MYERS POWER PRODUCTS, OR VIT STRONG BOX. ALTERNATE MANUFACTURERS ARE LISTED IN THE SPECIAL PROVISIONS.

LIGHTING CONTROL CABINET DETAIL

NOT TO SCALE

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	44	100
	STANTEC FILE NO. 179411056		

LIGHTING DETAILS
PART4 OF 4

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	45	100
STANTEC FILE NO.	179411056		

TRAFFIC SIGN & PAVEMENT MARKING PLANS
PART 1 OF 4

Plotted on 10-May-2024 9:30 AM
APPLETON_ST_SIGN_PVMT_PLANS.DWG


N
LOCKE STREET
LOWELL STREET
MASSACHUSETTS AVENUE
RICHARDSON AVENUE
LIMIT OF PAVEMENT MARKINGS
W11-2
W16-7p
MA-D3-1B (2)
MA-D3-1L (2)
CW-10'
301
SCHOOL CROSSING (R&D)
W3-1
SWL
DYBL
302
STOP (R&D)
SCHOOL CROSSING (R&D)
R1-1
SL
CW-8'
MA-D3-1A (2)
MA-D3-1B (2)
DWLEx
R7-5 (2 HOUR)
NO PARKING BIKE LANE(R&D)
105
106
107
104
103
102
101
201
DBYL
WTL
7'
11'
10'
5'
1'
CW-10'
DWLEx
HIGH FRICTION GREEN SURFACE (TYP)
MA-D3-1A (2)
MA-D3-1C (2)
R1-1
STOP (R&D)
2 HOUR PARKING (R&D)
DUNKIN' DONUTS (RET)
W3-3
2 HOUR PARKING SIGNAL WARNING AHEAD (R&D)
R3-17
R3-17aP
DBYL
NO PARKING HERE TO CORNER (RET)
NO PARKING HERE TO CORNER (RET)
200+00
4' CLF
0 20 50 100
SCALE: 1" = 20'

CONTINUED ON SHEET NO. 46

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	46	100
	STANTEC FILE NO. 179411056		

TRAFFIC SIGN & PAVEMENT MARKING PLANS
PART 2 OF 4

N
CLARK STREET
LIMIT OF PAVEMENT MARKINGS
R1-1
MA-D3-1A (2)
MA-D3-1D (2)
W11-2
W16-7p
PRIVATE CLARK ST (R&D)
HIGH FRICTION GREEN SURFACE (TYP)
R7-5 (2 HOUR)
TURNING VEHICLES YIELD TO BIKES (R&D)
DWLEx
SWL
DBYL
SL
CW-10'
107
401
108
109
110
111
112
113
501
GRASS
R7-107aR
BIKE LANE BEGIN (R&D)
R7-107aL
R10-15bR
R3-2
CW-5'
BUS STOP (R&D)
R10-11b
NO LEFT TURN (R&D)
MA-D3-1A (ON MA POLE)
R10-15bR
R10-6a
BUS STOP (R&D)
TURNING VEHICLES YIELD TO BIKES (R&D)
R3-7L
PARKING 2 HOUR LIMIT (R&D)
R7-5 (2 HOUR)
HANDICAPPED PARKING (R&D)
R7-8
YTL
R10-6a
BUS
NO TURN ON RED (R&D)
MA-D3-1K (ON MA POLE)
R10-11b
MA-D3-1A (2)
MA-D3-1E (2)
ONLY
W11-2
W16-7p
BUS STOP (R&D)
NO PARKING (R&D)
R7-1
BUS STOP (R&D)
CHILDREN'S ROOM (RET)
NO TURN ON RED (R&D)
YIELD TO BIKES (R&D)
BURKE REAL STATE (RET)
NO PARKING (RET)
R10-15bR
R6-2R
ONE WAY (2) (R&D)
R7-1
NO PARKING (R&D)
R8-3a
R5-1
NO PARKING HERE TO CORNER (R&D)
R3-7L
BIKE MAY USE FULL LANE (R&D)
R7-1
STOP
NO LEFT TURN (R&D)
APPLETON ST (ON UP) (R&D)
ST. ATHANASIUS THE GREAT (RET)
NO PARKING HERE TO CORNER (R&D)
DO NOT ENTER (R&D)
R8-3a
R5-1
HANDICAP PARKING 200$ FINE (RET)
NO PARKING (RET)
APPLETON STREET
LIMIT OF PAVEMENT MARKINGS
ONE WAY
APPLETON PLACE
DO NOT PARK OPPOSITE DRIVEWAY (RET)
NO PARKING HERE TO CORNER (RET)
DH FND

CONTINUED ON SHEET NO. 45

CONTINUED ON SHEET NO. 47

0 20 50 100
SCALE: 1" = 20'

Plotted on 10-May-2024 9:30 AM
APPLETON_ST_SIGN_PVMT_PLANS.DWG

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	47	100
	STANTEC FILE NO. 179411056		

TRAFFIC SIGN & PAVEMENT MARKING PLANS
PART 3 OF 4

N
FOREST STREET
BURTON STREET
APPLETON PLACE
PINE COURT
W3-3
PRIVATE DRIVEWAY NO PARKING NO TURN AROUND (RET)
R7-1
LIMIT OF PAVEMENT MARKINGS
NO PARKING HERE TO CORNER (RET)
NO PARKING ANYTIME (R&D)
TO WORKBAR (R&R)
FOREST ST CHEVRON (R&D)
MA-D3-1A (2) MA-D3-1G (2)
R10-11b
R10-11b R10-15bR
R10-6a
YTL
R7-5 (2 HOUR)
BUS STOP (R&D)
TURNING VEHICLES YIELD TO BIKES (R&D)
R3-7L
PARKING 2 HOUR LIMIT (R&D)
R7-5 (2 HOUR)
HANDICAPPED PARKING (R&D)
R7-8
STOP (R&D)
2 HOUR PARKING (R&D)
DWLEx
SWL
DBYL
DYLEx
SL
CW-10'
CW-5'
ONLY
112
113
114
115
116
117
118
101
801
NO PARKING HERE TO CORNER (R&D)
BIKE MAY USE FULL LANE (R&D)
R10-6a
R10-11b
R10-15bR
HIGH FRICTION GREEN SURFACE (TYP)
MA-D3-1A (2) MA-D3-1F (2)
STOP BURTON ST (R&D)
2 HOUR PARKING CHEVRON (R&D)
2 HOUR PARKING (R&D)
R1-1
MA-D3-1A (2) MA-D3-1H (2)
SCALE: 1" = 20'
0 20 50 100

CONTINUED ON SHEET NO. 46

CONTINUED ON SHEET NO. 48

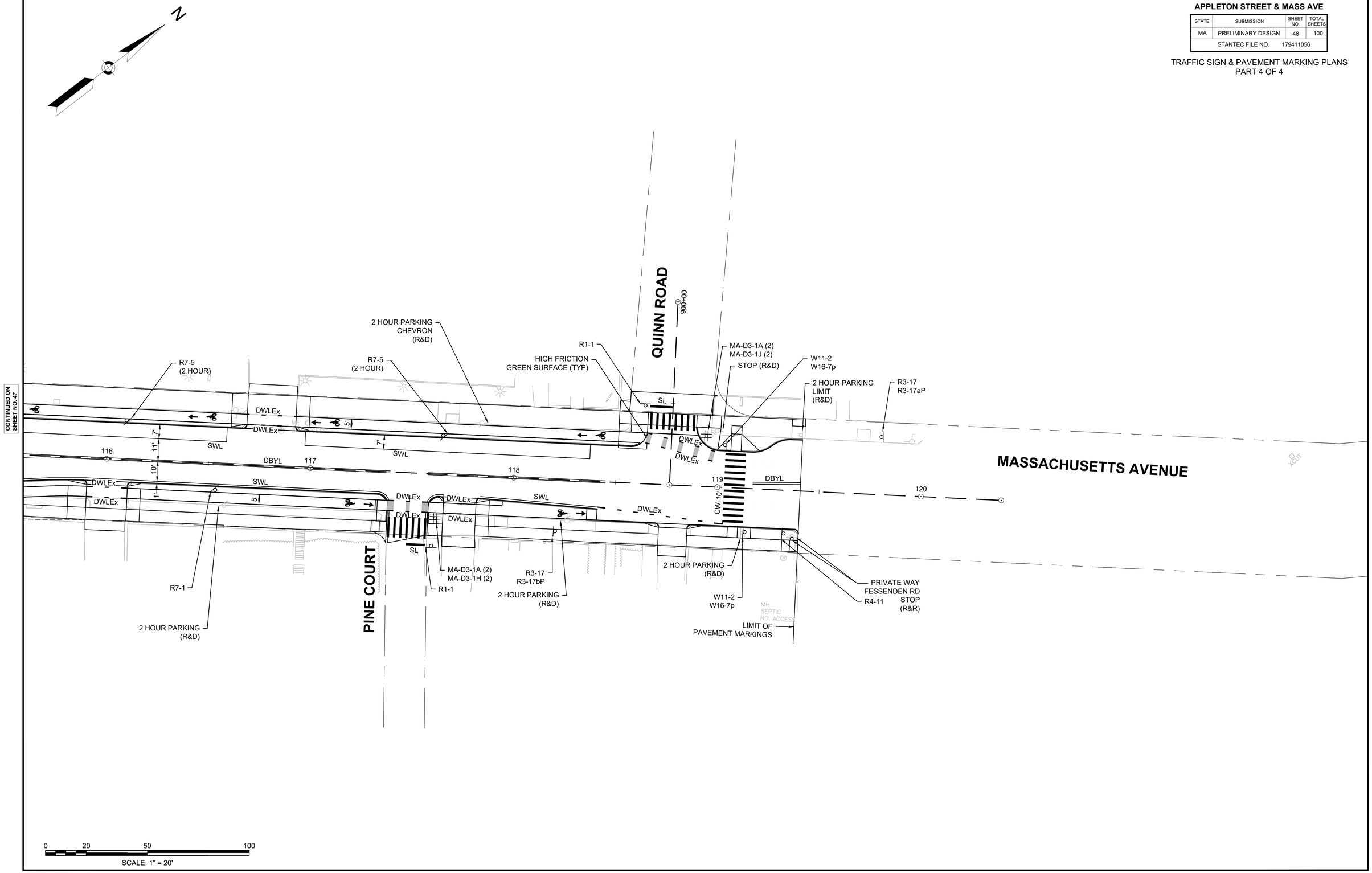
APPLETON_ST_SIGN_PVMT_PLANS.DWG Plotted on 10-May-2024 9:30 AM

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	48	100
	STANTEC FILE NO. 179411056		

TRAFFIC SIGN & PAVEMENT MARKING PLANS
PART 4 OF 4

CONTINUED ON SHEET NO. 47



TRAFFIC SIGN SUMMARY

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	49	100
STANTEC FILE NO.	179411056		

TRAFFIC SIGN SUMMARY
PART 1 OF 1

NOTES:

1. FLUOR. - FLUORESCENT
2. THE MINIMUM MOUNTING HEIGHT OF POST-MOUNTED SIGNS MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE TOP OF THE CURB OR SIDEWALK OR TO THE ELEVATION OF THE NEAR EDGE OF THE TRAVELED WAY SHALL BE 7 FEET UNLESS OTHERWISE SPECIFIED ON THE PLANS.
3. R7-SERIES SIGNS SHALL BE MOUNTED AT AN ANGLE OF APPROXIMATELY 45 DEGREES.
4. R7-108 SIGNS ARE TO BE PROVIDED BY THE MBTA. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING. THE CONTRACTOR SHALL PROVIDE MBTA WITH 8 WEEKS NOTICE PRIOR TO INSTALLATION. ALL SIGN POSTS SHALL BE INSTALLED 18" (12" MIN) FROM THE FACE OF CURB OR EDGE OF ROADWAY. FRONT OR HEADER SIGN FACE SHALL BE SET AT A 90 DEGREE ANGLE (PERPENDICULAR) TO THE CURB, FACING ONCOMING TRAFFIC. REAR SIGNS SHALL BE SET AT A 60 DEGREE ANGLE TO THE CURB.

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS			NUMBER OF SIGNS REQ'D	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (SF)	AREA (SF)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW		BACK GROUND	LEGEND	BORDER			
R1-1	30"	30"	STOP	SEE MUTCD	SEE MUTCD	SEE MUTCD	5	RED	WHITE	WHITE	1-P5 5	6.25	31.25
R3-2	24"	24"					1	WHITE	BLACK/ RED	BLACK	MOUNT ON SIGNAL POST	4.00	4.00
R3-7L	30"	30"	LEFT LANE MUST TURN LEFT				2	WHITE	BLACK	BLACK	1-P5 2	6.25	12.50
R3-17	24"	18"	BIKE LANE				3	WHITE	BLACK	BLACK	1-P5 3	3.00	9.00
R3-17aP	24"	9"	AHEAD				2	WHITE	BLACK	BLACK	MOUNT W/ R3-17	1.50	3.00
R3-17bP	24"	9"	ENDS				1	WHITE	BLACK	BLACK	MOUNT W/ R3-17	1.50	1.50
R4-11	30"	30"	MAY USE FULL LANE				1	WHITE	BLACK	BLACK	1-P5 1	6.25	6.25
R5-1	30"	30"	DO NOT ENTER				2	WHITE	RED	RED	1-P5 2	6.25	12.50
R6-2R	24"	30"	ONE WAY				1	WHITE	BLACK	BLACK	1-P5 1	6.25	6.25
R7-1	12"	18"	NO PARKING ANY TIME				6	WHITE	RED	RED	1-P5 6	1.50	9.00
R7-5 (2 HOUR)	12"	18"	TWO HOUR PARKING				8	WHITE	RED	RED	1-P5 8	1.50	12.00
R7-8	12"	18"	RESERVED PARKING				1	WHITE	GREEN/ BLUE	GREEN	1-P5 1	1.50	1.50
R7-108aL	12"	30"					1	WHITE	RED/ BLACK	RED	1-P5 2	2.50	2.50
R7-108aR							1						2.50
R8-3a	18"	24"	NO PARKING				2	WHITE	RED	RED	1-P5 2	3.00	6.00
R10-6a	24"	30"	STOP HERE ON RED				4	WHITE	BLACK	BLACK	1-P5 4	5.00	20.00
R10-11b	36"	36"	NO TURN ON RED				8	WHITE	BLACK	BLACK	MOUNT ON MAST ARM & SIGNAL POST	9.00	72.00
R10-15brR	30"	30"	TURNING VEHICLES TO				5	WHITE/ YELLOW (FLUOR.)	BLACK/ RED	BLACK	MOUNT ON MAST ARM	6.25	31.25
W3-1	30"	30"					1	YELLOW	BLACK/ RED	BLACK	1-P5 1	6.25	6.25
W3-3	30"	30"					2	YELLOW	BLACK	BLACK	1-P5 2	6.25	12.50

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS			NUMBER OF SIGNS REQ'D	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (SF)	AREA (SF)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW		BACK GROUND	LEGEND	BORDER			
W11-2	30"	30"		SEE MUTCD	SEE MUTCD	SEE MUTCD	8	GREEN (FLUOR.)	BLACK	BLACK	1-P5 8	6.25	50.00
W16-7p	24"	12"		SEE MUTCD	SEE MUTCD	SEE MUTCD	8	GREEN (FLUOR.)	BLACK	BLACK	MOUNT W/ W11-2	2.00	16.00

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS			NUMBER OF SIGNS REQ'D	COLOR			POST SIZE AND NUMBER REQUIRED	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW		BACK GROUND	LEGEND	BORDER		
MA-D3-1A	60"	12"	MA Massachusetts Ave	SEE TOWN STD	SEE TOWN STD	SEE TOWN STD	17	GREEN	WHITE	WHITE	1-P5 8 MOUNT 1 ON MAST ARM	EACH
MA-D3-1B	36"	12"	MA Lowell St				4	GREEN	WHITE	WHITE	1-P5 1 MOUNT 2 WITH MA-D3-1A	EACH
MA-D3-1C	51"	12"	MA Richardson Ave				2	GREEN	WHITE	WHITE	MOUNT 2 WITH MA-D3-1A	EACH
MA-D3-1D	33"	12"	MA Clark St				2	GREEN	WHITE	WHITE	MOUNT 2 WITH MA-D3-1A	EACH
MA-D3-1E	42"	12"	MA Appleton Pl				2	GREEN	WHITE	WHITE	MOUNT 2 WITH MA-D3-1A	EACH
MA-D3-1F	39"	12"	MA Burton St				2	GREEN	WHITE	WHITE	MOUNT 2 WITH MA-D3-1A	EACH
MA-D3-1G	36"	12"	MA Forest St				2	GREEN	WHITE	WHITE	MOUNT 2 WITH MA-D3-1A	EACH
MA-D3-1H	33"	12"	MA Pine Ct				2	GREEN	WHITE	WHITE	MOUNT 2 WITH MA-D3-1A	EACH
MA-D3-1J	36"	12"	MA Quinn Rd				2	GREEN	WHITE	WHITE	MOUNT 2 WITH MA-D3-1A	EACH
MA-D3-1K	42"	12"	MA Appleton St				1	GREEN	WHITE	WHITE	MOUNT 1 ON MAST ARM	EACH
MA-D3-1L	36"	12"	MA Locke St				2	GREEN	WHITE	WHITE	MOUNT 2 WITH MA-D3-1B	EACH

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	50	100
	STANTEC FILE NO. 179411056		

TRAFFIC SIGNAL PLAN
LOCATION 1
MASSACHUSETTS AVENUE
AT APPLETON STREET & APPLETON PLACE

N

PROP VIDEO DETECTION ZONE (TYP)
PROP CONFIRMATION STROBE (WHITE)
PROP 360 DEGREE VIDEO DETECTION CAMERA
PROP 40 FT TRAFFIC SIGNAL MAST ARM & FDN
PROP 8 FT TRAFFIC SIGNAL POST, & FDN
PROP TS2, TYPE 1 TRAFFIC SIGNAL CONTROLLER, FDN & WORK PAD
PROP ELECTRIC SERVICE CONNECTION (OVERHEAD) & EVERSOURCE APPROVED HANDHOLE
PROP 12 STRAND SINGLE MODE FIBEROPTIC INTERCONNECT CABLE
PROP 8 FT TRAFFIC SIGNAL POST, & FDN
PROP PULL BOX 12X12 INCHES (TYP)
PROP 8 FT TRAFFIC SIGNAL POST, & FDN
PROP 8 FT TRAFFIC SIGNAL POST, & FDN
PROP 10 FT TRAFFIC SIGNAL POST, & FDN
PROP 10 FT TRAFFIC SIGNAL POST, & FDN
PROP 8 FT TRAFFIC SIGNAL POST, & FDN
PROP 25 FT TRAFFIC MAST ARM & FDN
PROP 24"X13"X36" ELECTRIC HANDHOLE - SD2.022 (TYP)
PROP 3 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC (UL) (TYP)
PROP 10 FT TRAFFIC SIGNAL POST, & FDN

APPLETON STREET
APPLETON PLACE
ONE WAY
BUS
BUS
108
109
110
111
112
113
501
P1
P2
P3
P4
P5
P6
P7
P8
P9
P10
A
B
C
D
D1
D2
D3
E
F
G
H
J
K
L
M
1
2
3
4
5
6
7

0 20 50 100
SCALE: 1" = 20'

NOTES:

1. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED AND STACKED. ALL EXISTING TRAFFIC SIGNAL FOUNDATIONS SHALL BE REMOVED AND DISCARDED. ALL EXISTING TRAFFIC SIGNAL CONDUIT SHALL BE ABANDONED.
2. THIS INTERSECTION SHALL BE COORDINATED WITH THE INTERSECTION OF MASSACHUSETTS AVENUE AT FOREST STREET/BURTON STREET.

SEQUENCE AND TIMING FOR FULL ACTUATED TRAFFIC SIGNAL CONTROL (COORDINATED)

			Ø1			Ø2			Ø3			Ø4			Ø5			Ø6			Ø7			Ø8			Ø9			Ø10			FLASHING OPERATION
									NOT USED						NOT USED						NOT USED						UPON PED ACTIVATION ONLY			NOT USED			
STREET	DIR	HOUSING	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	
MASS. AVE	EB	A, B, L, M	R	R	R	G	Y	R				R	R	R				R	R	R				R	R	R	R	R	R				FY
MASS. AVE	WB L	E	GL	YL	RL	RL	RL	RL				RL	RL	RL				RL	RL	RL				RL	RL	RL	RL	RL	RL				FRL
MASS. AVE	WB	C, D, N	R	R	R	R	R	R				R	R	R				G	Y	R				R	R	R	R	R	R				FY
APPLETON ST	NB	F, G, H	R	R	R	R	R	R				R	R	R				R	R	R				G	Y	R	R	R	R				FR
DRIVEWAY	SB	J, K	R	R	R	R	R	R				G	Y	R				R	R	R				R	R	R	R	R	R				FR
PEDESTRIAN		P1-P8	DW	DW	DW	DW	DW	DW				DW	DW	DW				DW	DW	DW							W	FDW	DW				OUT
INTERVALS (IN SECONDS)	MINIMUM GREEN		8			10						8						10						8									
	EXTENSION INTERVAL		3			3						3						3						3									
	MAXIMUM I		-			-						-						-						-									
	MAXIMUM II		-			-						-						-						-									
	CLEARANCE INTERVAL			3.5	2		3.5	2					3	2.5					3.5	2					3	2.5							
	BIKE (G/Y/R)																																
	"WALK" INTERVAL																										7						
	PED CLEARANCE INTERVAL																											8	4				
DETECTOR MEMORY			NON-LOCK			NON-LOCK						NON-LOCK						NON-LOCK						NON-LOCK			LOCK (PED)						
RECALL SWITCH			OFF			SOFT						OFF						SOFT						OFF			OFF						

COORDINATION DATA
(ALL ENTRIES IN SECONDS)

D/S/O	TIME PERIOD	OFFSET	CYCLE LENGTH
1/1/1	6AM - 9AM M-F	81	100
2/1/1	1PM - 3PM M-F	67	100
3/1/1	3PM - 6PM M-F	63	100
-/-/-	FREE-ALL OTHER TIMES	-	-

D/S/O	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9
1/1/1	30	45	0	25	0	75	0	25	0
2/1/1	19	50	0	31	0	69	0	31	0
3/1/1	17	41	0	42	0	58	0	42	0
-/-/-									

D/S/O = DIAL/SPLIT/OFFSET

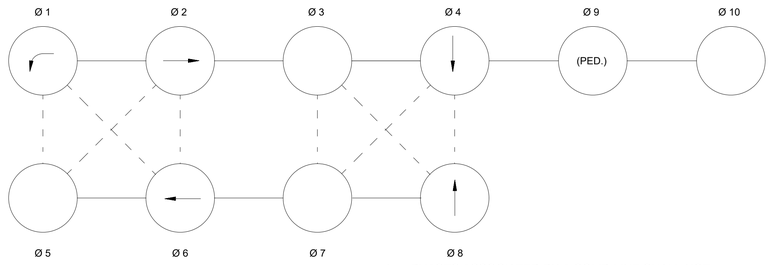
EMERGENCY VEHICLE PRE-EMPTION OPERATION:

1. EMERGENCY VEHICLE PRE-EMPTION SHALL BE ACTUATED BY AN OPTICAL SIGNAL FROM AN OPTICAL EMITTED MOUNTED ON AN EMERGENCY VEHICLE AND RECEIVED BY AN OPTICAL DETECTOR LOCATED AT INTERSECTION. A SEPARATE RECEIVING DETECTOR IS REQUIRED FOR EACH DETECTED APPROACH.
2. PRE-EMPTION SIGNALS FROM MULTIPLE APPROACHES SHALL BE SERVICED ON A FIRST DETECTED FIRST SERVED BASIS.
3. IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL TIME THE CLEARANCE INTERVALS OF THE ACTIVE PHASE (IF DIFFERENT THAN TO BE SERVICED) AND ADVANCE TO AND/OR HOLD EMERGENCY VEHICLE PRE-EMPTION PHASE UNTIL PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME CLEARANCES AND SIMILARLY SERVICE OTHER EMERGENCY VEHICLE PRE-EMPTION SEQUENCES IN THE ORDER RECEIVED (IF RECEIVED) OTHERWISE, RESUME NORMAL PREFERENTIAL PHASE SEQUENCE.
4. PRE-EMPTION MINIMUM GREENS SHALL BE 10 SECONDS AND MAXIMUM GREENS SHALL BE 60 SECONDS.
5. NORMAL CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TERMINATED BY PRE-EMPTION DEMAND.
6. ACTUAL TIMING FOR PRE-EMPTION SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FIRE DEPARTMENT AND SHALL BE APPROVED BY THE TOWN OF ARLINGTON PRIOR TO OPERATION.
7. THE CONFIRMATION STROBE SHALL ONLY BE ILLUMINATED WHILE THE PREEMPTED PHASE IS DISPLAYING A GREEN INDICATION.

TECHNICAL NOTES:

1. ANY PHASE NOT CALLED WILL BE SKIPPED. SIGNAL INDICATION WILL NOT CHANGE IF THE ASSIGNED RIGHT OF WAY DOES NOT CHANGE DURING THE NEXT PHASE CALLED.
2. THE RIGHT-OF-WAY MAY BE ASSIGNED TO ANY PHASE OR ANY COMBINATION OF NON-CONFLICTING PHASES. IF CALLS EXIST ON ALL PHASES, THE RIGHT-OF-WAY SHALL BE ASSIGNED IN ACCORDANCE WITH THE PREFERENTIAL PHASING SEQUENCE.
3. FLASHING OPERATION PER M.U.T.C.D. SECTION 4D.28 THROUGH SECTION 4D.31

NEMA DUAL RING PHASING



EMERGENCY PRE-EMPTION SCHEDULE

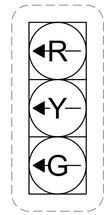
APPROACH	CHANNEL	PRE-EMPTION PHASE	NEXT PHASE CALLED
EASTBOUND	D1	2	2+6
WESTBOUND	D2	1+6	2+6
NORTHBOUND	D3	8	2+6

1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS RETAINED IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

DETECTOR OPERATION

DETECTION ZONE	ZONE SIZE (FT)	PROCESSOR NO.	CHANNEL NO.	Ø CALLED	Ø EXT.	MODE: A=PULSE B=PRES. C=CALLING	DELAY (SEC)	EXT. (SEC)
1	6X50	1	1	2	2	B	-	-
2	6X50	1	2	6	6	B	-	-
3	6X50	1	3	1	1 & 6	B	-	-
4	2-6X25	1	4	8	8	B	-	-
5	6X25	1	5	4	4	B	-	-
6	5X15	1	6	2	2	B	-	-
7	5X15	1	7	6	6	B	-	-

SIGNAL FACES



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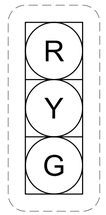


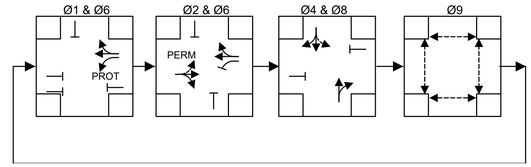
A, B, C, D, F, G, H, J, K L, M, N

P1,P2,P3,P4, P5,P6,P7,P8

16" L.E.D. COUNTDOWN

NOTE:
1. ALL PROPOSED VEHICLE & BICYCLE INDICATIONS SHALL BE 12" LED AND BE EQUIPPED WITH TUNNEL VISORS.
2. ALL PROPOSED VEHICLE & BICYCLE INDICATIONS SHALL BE EQUIPPED WITH 5" NON-LOUVERED BACKPLATES WITH 3" REFLECTORIZED YELLOW BORDER.

PREFERENTIAL PHASING SEQUENCE



VEHICLE MOVEMENT

PEDESTRIAN MOVEMENT - UPON PEDESTRIAN ACTUATION

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	51	100
	STANTEC FILE NO. 179411056		

TRAFFIC SIGNAL DATA
LOCATION 1
MASSACHUSETTS AVENUE
AT APPLETON STREET & APPLETON PLACE

MAJOR ITEM LIST		
ITEM	QTY.	DESCRIPTION
816.01	1	TRAFFIC SIGNAL CONTROLLER (TS-2, TYPE 1) TYPE 8DW W/ 8DW CABINET & CEM CONC FOUNDATION AND PAD
	1	40 FT MAST ARM (ORNAMENTAL) W/ R10-11b AND D3-1A SIGNS INCLUDE BASE AND CEM CONCRETE FOUNDATION
	1	25 FT MAST ARM (ORNAMENTAL) W/ R10-11b AND D3-1K SIGNS INCLUDE BASE AND CEM CONCRETE FOUNDATION
	3	10 FT TRAFFIC SIGNAL POST, BASE & CEM CONC FOUNDATION
	7	8 FT TRAFFIC SIGNAL POST, BASE & CEM CONC FOUNDATION
	5	1-WAY, 3 SECTION SIGNAL HEAD, 12" L.E.D. LENS (W/ VISORS)
	4	2-WAY, 3 SECTION SIGNAL HEAD, 12" L.E.D. LENS (W/ VISORS)
	13	5" NON-LOUVERED BACKPLATES WITH 3" RETROREFLECTIVE (YELLOW) BORDER
	8	PEDESTRIAN SIGNAL HEAD (L.E.D.) WITH COUNTDOWN DISPLAY
	8	ACCESSIBLE PEDESTRIAN SIGNAL PUSH BUTTON ASSSEMBLY (INCL. SIGN & SADDLE)
	1	360° VIDEO DETECTION SYSTEM
	1	SERVICE CONNECTION (OVERHEAD - ELECTRIC)
	1	PRE-EMPTION PHASE SELECTOR (4 CHANNEL)
	1	EMERGENCY PRE-EMPTION CONFIRMATION STROBE
	3	EMERGENCY PRE-EMPTION RECEIVERS (SINGLE CHANNEL)
	1	REMOVE AND STACK/DISCARD EXISTING TRAFFIC SIGNAL EQUIPMENT
811.22	2	13"x24"X36" HANDHOLE -SD2.022
811.31	9	12"x12" PULL BOX -SD2.031
804.3	500	FT - 3 INCH ELECTRICAL CONDUIT TYPE NM-PLASTIC - (UL)

PLUS ALL NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIALS AND EQUIPMENT TO COMPLETE THE INSTALLATION.

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	52	100
	STANTEC FILE NO. 179411056		

TRAFFIC SIGNAL PLAN
LOCATION 2
MASSACHUSETTS AVENUE
AT BURTON STREET & FOREST STREET

APPLETON_ST_TRAFFIC_SIGNAL_PLANS.DWG Plotted on 10-May-2024 9:31 AM

N

FOREST STREET

BURTON STREET

DRIVEWAY

COURT

PROP VIDEO DETECTION ZONE (TYP)

PROP 12 STRAND SINGLE MODE FIBEROPTIC INTERCONNECT CABLE

PROP 3 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC (UL) (TYP)

PROP PULL BOX 12X12 INCHES (TYP)

PROP 10 FT TRAFFIC SIGNAL POST, & FDN

PROP 8 FT TRAFFIC SIGNAL POST, & FDN

PROP ELECTRIC SERVICE CONNECTION (OVERHEAD) & EVERSOURCE APPROVED HANDHOLE

PROP EMERGENCY PRE-EMPTION RECEIVER(TYP)

PROP 360 DEGREE VIDEO DETECTION CAMERA

PROP EMERGENCY CONFIRMATION STROBE (WHITE)

PROP TS2, TYPE 1, 8DW TRAFFIC SIGNAL CONTROLLER, MASTER CONTROLLER, FDN & WORK PAD

PROP 20 FT TRAFFIC SIGNAL MAST ARM & FDN

PROP 3 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC (UL) (TYP)

PROP 8 FT TRAFFIC SIGNAL POST, & FDN

PROP 40 FT TRAFFIC SIGNAL MAST ARM & FDN

PROP 8 FT TRAFFIC SIGNAL POST, & FDN

PROP 10 FT TRAFFIC SIGNAL POST, & FDN

PROP 24"X13"X36" ELECTRIC HANDHOLE - SD2.022 (TYP)

PROP 10 FT TRAFFIC SIGNAL POST, & FDN

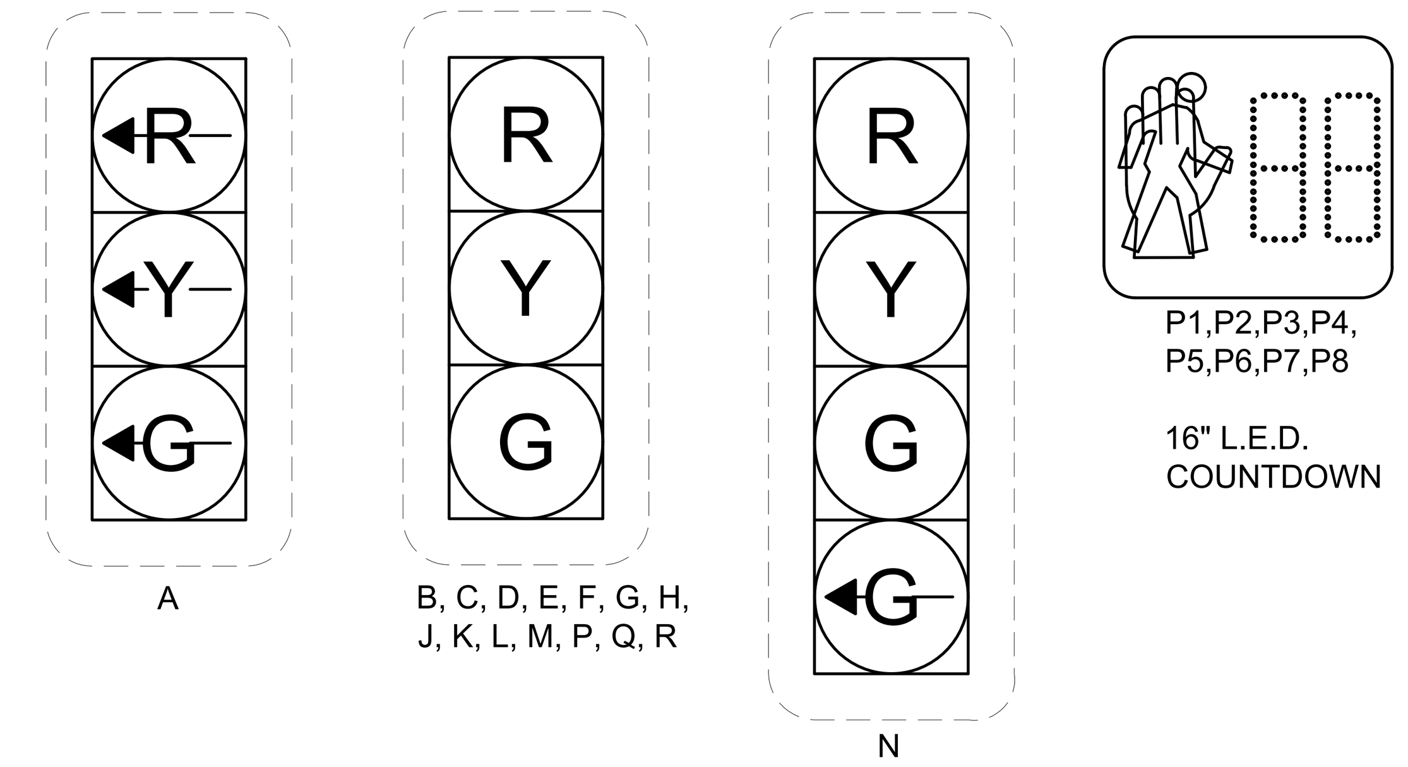
0 20 50 100

SCALE: 1" = 20'

SEQUENCE AND TIMING FOR FULL ACTUATED TRAFFIC SIGNAL CONTROL (COORDINATED)

			Ø1			Ø2			Ø3			Ø4			Ø5			Ø6			Ø7			Ø8			Ø9			Ø10 (MIRAK DWY)			FLASHING OPERATION
			NOT USED						NOT USED												NOT USED						UPON PED ACTIVATION ONLY						
STREET	DIR	HOUSING	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	
MASS. AVE	EB L	A				RL	RL	RL				RL	RL	RL	GL	YL	RL	RL	RL	RL				RL	RL	RL	RL	RL	RL	RL	RL	RL	FRL
MASS. AVE	EB	B, C, P				G	Y	R				R	R	R	R	R	R	R	R	R				R	R	R	R	R	R	R	R	R	FY
MASS. AVE	WB	D, E, Q, R				R	R	R				R	R	R	R	R	R	G	Y	R				R	R	R	R	R	R	R	R	R	FY
BURTON ST	NB	F, G, H				R	R	R				R	R	R	R	R	R	R	R	R				G	Y	R	R	R	R	R	R	R	FR
FOREST ST	SB	J, K, L				R	R	R				G	Y	R	R	R	R	R	R	R				R	R	R	R	R	R	R	R	R	FR
DRIVEWAY	SB	M, N				R	R	R				R	Y	R	R	R	R	R	R	R				R	R	R	R	R	R	G	Y	R	FR
PEDESTRIAN		P1-P8				DW	DW	DW				DW	DW	DW				DW	DW	DW				DW	DW	DW	W	FDW	DW	DW	DW	DW	OUT
INTERVALS (IN SECONDS)	MINIMUM GREEN					10						8			8			10						8						8			
	EXTENSION INTERVAL					3						3			3			3						3						3			
	MAXIMUM I					-						-			-			-						-						-			
	MAXIMUM II					-						-			-			-						-						-			
	CLEARANCE INTERVAL						3.5	3					3	4		3	4		3.5	3					3	4					3	4	
	BIKE (G/Y/R)																																
	"WALK" INTERVAL																										7						
	PED CLEARANCE INTERVAL																											10	4				
DETECTOR MEMORY						NON-LOCK						NON-LOCK			NON-LOCK			NON-LOCK						NON-LOCK			LOCK (PED)			NON-LOCK			
RECALL SWITCH						SOFT						OFF			OFF			SOFT						OFF			OFF			OFF			

SIGNAL FACES



ARLINGTON
APPLETON STREET & MASS AVE

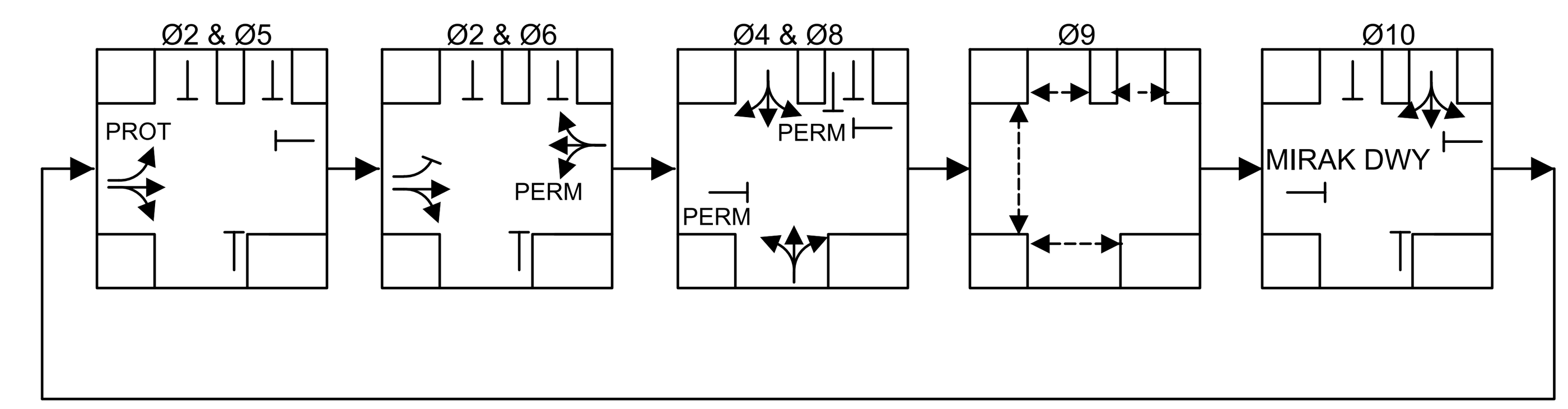
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	53	100
STANTEC FILE NO.	179411056		

TRAFFIC SIGNAL DATA
LOCATION 2
MASSACHUSETTS AVENUE
AT BURTON STREET & FOREST STREET

Plotted on 10-May-2024 9:31 AM
APPLETON_ST_TRAFFIC_SIGNAL_PLANS.DWG

NOTES:
1. ALL PROPOSED VEHICLE & BICYCLE INDICATIONS SHALL BE 12" LED AND BE EQUIPPED WITH TUNNEL VISORS.
2. ALL PROPOSED VEHICLE & BICYCLE INDICATIONS SHALL BE EQUIPPED WITH 5" NON-LOUVERED BACKPLATES WITH 3" REFLECTORIZED YELLOW BORDER.

PREFERENTIAL PHASING SEQUENCE



VEHICLE MOVEMENT
PEDESTRIAN MOVEMENT - UPON PEDESTRIAN ACTUATION

COORDINATION DATA
(ALL ENTRIES IN SECONDS)

D/S/O	TIME PERIOD	OFFSET	CYCLE LENGTH
1/1/1	6AM - 9AM M-F	0	100
2/1/1	1PM - 3PM M-F	0	100
3/1/1	3PM - 6PM M-F	0	100
-/-/-	FREE-ALL OTHER TIMES	-	-

D/S/O	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9
1/1/1	0	60	0	29	15	45	0	29	0
2/1/1	0	63	0	26	15	48	0	26	0
3/1/1	0	71	0	18	15	56	0	18	0
-/-/-									

D/S/O = DIAL/SPLIT/OFFSET

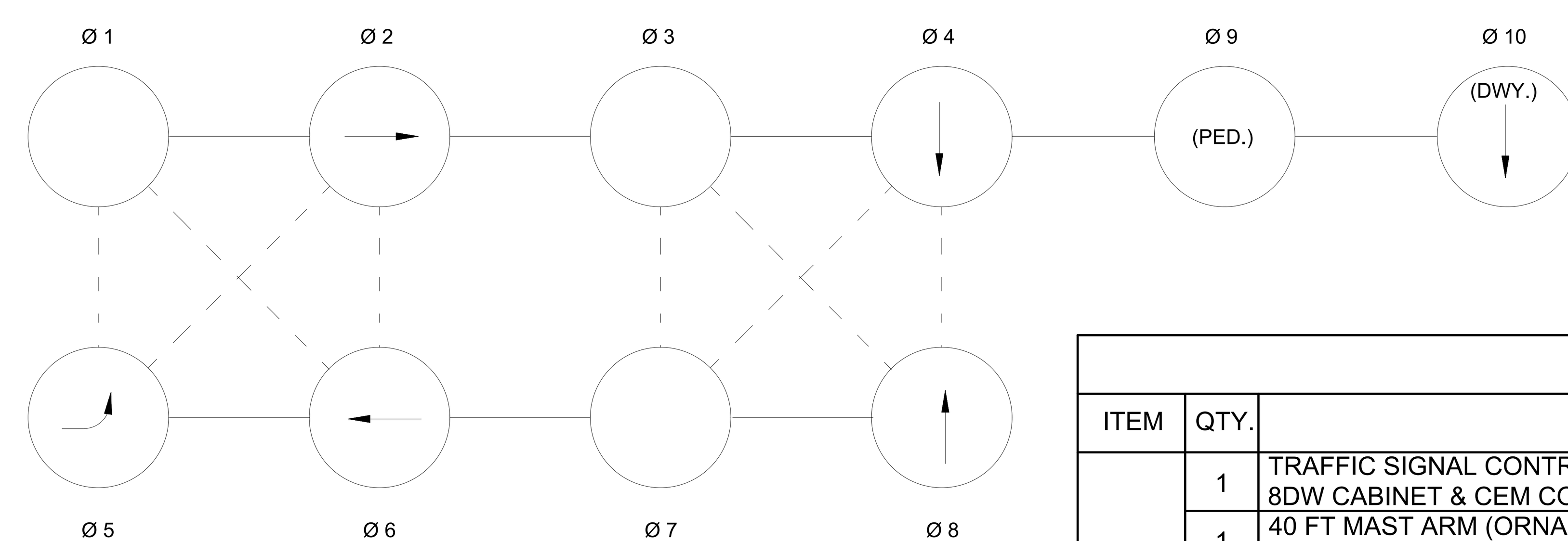
EMERGENCY VEHICLE PRE-EMPTION OPERATION:

1. EMERGENCY VEHICLE PRE-EMPTION SHALL BE ACTUATED BY AN OPTICAL SIGNAL FROM AN OPTICAL EMITTED MOUNTED ON AN EMERGENCY VEHICLE AND RECEIVED BY AN OPTICAL DETECTOR LOCATED AT INTERSECTION. A SEPARATE RECEIVING DETECTOR IS REQUIRED FOR EACH DETECTED APPROACH.
2. PRE-EMPTION SIGNALS FROM MULTIPLE APPROACHES SHALL BE SERVICED ON A FIRST DETECTED FIRST SERVED BASIS.
3. IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL TIME THE CLEARANCE INTERVALS OF THE ACTIVE PHASE (IF DIFFERENT THAN TO BE SERVICED) AND ADVANCE TO AND/OR HOLD EMERGENCY VEHICLE PRE-EMPTION PHASE UNTIL PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME CLEARANCES AND SIMILARLY SERVICE OTHER EMERGENCY VEHICLE PRE-EMPTION SEQUENCES IN THE ORDER RECEIVED (IF RECEIVED) OTHERWISE, RESUME NORMAL PREFERENTIAL PHASE SEQUENCE.
4. PRE-EMPTION MINIMUM GREENS SHALL BE 10 SECONDS AND MAXIMUM GREENS SHALL BE 60 SECONDS.
5. NORMAL CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TERMINATED BY PRE-EMPTION DEMAND.
6. ACTUAL TIMING FOR PRE-EMPTION SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FIRE DEPARTMENT AND SHALL BE APPROVED BY THE TOWN OF ARLINGTON PRIOR TO OPERATION.
7. THE CONFIRMATION STROBE SHALL ONLY BE ILLUMINATED WHILE THE PREEMPTED PHASE IS DISPLAYING A GREEN INDICATION.

TECHNICAL NOTES:

1. ANY PHASE NOT CALLED WILL BE SKIPPED. SIGNAL INDICATION WILL NOT CHANGE IF THE ASSIGNED RIGHT OF WAY DOES NOT CHANGE DURING THE NEXT PHASE CALLED.
2. THE RIGHT-OF-WAY MAY BE ASSIGNED TO ANY PHASE OR ANY COMBINATION OF NON-CONFLICTING PHASES. IF CALLS EXIST ON ALL PHASES, THE RIGHT-OF-WAY SHALL BE ASSIGNED IN ACCORDANCE WITH THE PREFERENTIAL PHASING SEQUENCE.
3. FLASHING OPERATION PER M.U.T.C.D. SECTION 4D.28 THROUGH SECTION 4D.31

NEMA DUAL RING PHASING



1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS RETAINED IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

EMERGENCY PRE-EMPTION SCHEDULE

APPROACH	CHANNEL	PRE-EMPTION PHASE	NEXT PHASE CALLED
EASTBOUND	D1	2 + 5	2+6
WESTBOUND	D2	6	2+6
NORTHBOUND	D3	8	2+6
SOUTHBOUND	D4	4	2+6

DETECTOR OPERATION

DETECTION ZONE	ZONE SIZE (FT)	PROCESSOR NO.	CHANNEL NO.	Ø CALLED	Ø EXT.	MODE: A=PULSE B=PRES. C=CALLING	DELAY (SEC)	EXT. (SEC)
1	6X50	1	1	6	6	B	-	-
2	2-6X25	1	2	8	8	B	-	-
3	6X50	1	3	2	2	B	-	-
4	6x50	1	4	5	2&5	B	-	-
5	6x50	1	5	4	4	B	-	-
6	6X25	1	6	10	10	B	5	-
7	5X15	1	7	2	2	B	-	-
8	5X15	1	8	6	2	B	-	-
9	5x15	1	9	6	6	B	-	-
10	5x15	1	10	8	8	B	-	-
11	5X15	1	11	4	4	B	-	-

MAJOR ITEM LIST

ITEM	QTY.	DESCRIPTION
815.2	1	TRAFFIC SIGNAL CONTROLLER (TS-2, TYPE 1) TYPE 8DW, MASTER CONTROLLER W/ 8DW CABINET & CEM CONC FOUNDATION AND PAD
	1	40 FT MAST ARM (ORNAMENTAL) INCLUDE BASE AND CEM CONCRETE FOUNDATION
	1	20 FT MAST ARM (ORNAMENTAL) INCLUDE BASE AND CEM CONCRETE FOUNDATION
	5	10 FT TRAFFIC SIGNAL POST, BASE & CEM CONC FOUNDATION
	5	8 FT TRAFFIC SIGNAL POST, BASE & CEM CONC FOUNDATION
	11	1-WAY, 3 SECTION SIGNAL HEAD, 12" L.E.D. LENS (W/ VISORS)
	1	1-WAY, 4 SECTION SIGNAL HEAD, 12" L.E.D. LENS (W/ VISORS)
	1	3-WAY, 3 SECTION SIGNAL HEAD, 12" L.E.D. LENS (W/ VISORS)
	1	2-WAY, 3 SECTION SIGNAL HEAD, 12" L.E.D. LENS (W/ VISORS)
	16	5" NON-LOUVERED BACKPLATES WITH 3" RETROREFLECTIVE (YELLOW) BORDER
	8	PEDESTRIAN SIGNAL HEAD (L.E.D.) WITH COUNTDOWN DISPLAY
	8	ACCESSIBLE PEDESTRIAN SIGNAL PUSH BUTTON ASSSEMBLY (INCL. SIGN & SADDLE)
	1	360° VIDEO DETECTION SYSTEM
	1	SERVICE CONNECTION (OVERHEAD - ELECTRIC)
	1	SERVICE CONNECTION (OVERHEAD - BROADBAND)
	1	PRE-EMPTION PHASE SELECTOR (4 CHANNEL)
	1	EMERGENCY PRE-EMPTION CONFIRMATION STROBE
	4	EMERGENCY PRE-EMPTION RECEIVERS (SINGLE CHANNEL)
811.22	1	13"x24"x36 HANDHOLE -SD2.022
811.31	10	12"x12" PULL BOX -SD2.031
804.3	525	FT - 3 INCH ELECTRICAL CONDUIT TYPE NM-PLASTIC - (UL)

PLUS ALL NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIALS AND EQUIPMENT TO COMPLETE THE INSTALLATION.

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS.
2. ALL SIGN LEGENDS, BORDERS AND MOUNTING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD.
3. TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
4. TEMPORARY CONSTRUCTION SIGNING, BARRICADES AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE ROADWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
5. SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, AND REFLECTORIZED PLASTIC DRUMS WITH LIGHTING DEVICES MOUNTED ON THEM, MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES."
6. CONTRACTORS SHALL NOTIFY EACH ABUTTER AT LEAST 48 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
7. THE FIRST TEN PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH SEQUENTIAL FLASHING LIGHTS.
8. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
9. MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
10. MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
11. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.
12. ALL TEMPORARY WALKWAYS SHALL MEET ADA/AAB GUIDELINES.
13. DETAILS SHOWN ON THIS PLAN ARE NOT TO SCALE.
14. ADA COMPLIANT PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES, INCLUDING PEDESTRIAN GUIDANCE SYSTEMS AT WORK ZONES.

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH (L)
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5L
SHOULDER TAPER	AT LEAST 0.33L
ONE-LANE, TW0-WAY TRAFFIC TAPER	100 FT MAXIMUM
DOWNSTREAM TAPER	100 FT PER LANE

FORMULAS FOR DETERMINING TAPER LENGTHS

SPEED LIMIT (S)	TAPER LENGTH (L)
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR MORE	L = WS

BUFFER LENGTHS

SPEED* (mph)	DISTANCE (ft)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730
75	820

SUGGESTED WORK ZONE WARNING SIGN SPACING

Road Type	Distance Between Signs**		
	A	B	C
LOCAL OR LOW VOLUME ROADWAYS*	350	350	350
MOST OTHER ROADWAYS*	500	500	500
FREEWAYS AND EXPRESSWAYS*	1,000	1,500	2,640

* SPEED CATEGORY TO BE DETERMINED BY HIGHWAY AGENCY

** DISTANCES ARE SHOWN IN FEET. THE COLUMN HEADINGS A, B, AND C ARE THE DIMENSIONS SHOWN IN THE DETAIL/ TYPICAL SETUP FIGURES. THE A DIMENSION IS THE DISTANCE FROM THE TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN. THE B DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGNS. THE C DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGNS. (THE "THIRD" SIGN IS THE FIRST ONE TYPICALLY ENCOUNTERED BY A DRIVER APPROACHING A TEMPORARY TRAFFIC CONTROL (TTC) ZONE.)

THE "THIRD" SIGN ABOVE IS TYPICALLY REFERRED TO AS AN "ADVANCE WARNING" SIGN ON THE TMP SETUPS. IT IS THE ONE WHICH MAY OFTEN HAVE THE "STANDARD RED OR RED-ORANGE FLAGS (16 in. X 16 in.)" MOUNTED ON IT. THESE ADVANCE WARNING SIGNS ARE LOCATED AT THE PROJECT LIMITS ON ALL APPROACHES (i.e. THE W20-1 SERIES (ROAD WORK XX FT) SIGNS), AND USUALLY REMAIN FOR THE DURATION OF THE PROJECT.

THE FIRST AND SECOND WARNING SIGNS ABOVE ARE REFERRED TO AS THE OPERATIONAL (DAY-TO-DAY) WORK ZONE SIGNS AND MAY BE MOVED DEPENDING ON WHERE THE SPECIFIC ROADWAY WORK FOR THAT DAY IS LOCATED.

MA-R2-10a SIGNS SHALL BE PLACED BETWEEN THE FIRST AND SECOND SIGNS.

MA-R2-10a AND W20-1 SERIES SIGNS ARE TO BE INCLUDED ON ALL DETAILS/TYPICAL SETUPS.

SUGGESTED PCMS MESSAGES

	PRIOR TO CONSTRUCTION	DURING CONSTRUCTION
PCMS #1	MASS AVE CONSTR BEGINS X/X/XX	MASS AVE CONSTR SEEK ALT ROUTE
PCMS #2	MASS AVE CONSTR BEGINS X/X/XX	MASS AVE CONSTR SEEK ALT ROUTE
PCMS #3	MASS AVE CONSTR BEGINS X/X/XX	MASS AVE CONSTR USE CAUTION

NOTE:
PCMS MESSAGES SUBJECT TO APPROVAL BY THE ENGINEER

ADVANCE SIGNING PLAN
NOT TO SCALE

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	54	100
	STANTEC FILE NO. 179411056		

TEMPORARY TRAFFIC CONTROL PLANS
TTCP GENERAL NOTES & DETAILS

LEGEND

- REFLECTORIZED PLASTIC DRUM OR 36" CONE
- P/F POLICE/FLAGGER DETAIL
- TYPE III BARRICADE
- CHANGEABLE MESSAGE SIGN
- ARROW BOARD
- WORK ZONE
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR
- WORK VEHICLE
- TRUCK MOUNTED ATTENUATOR
- SIGN

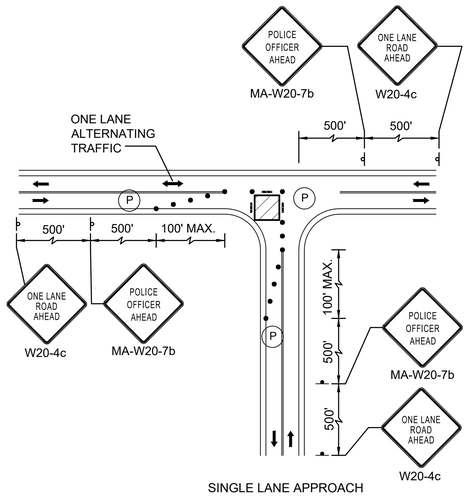
APPLETON_ST_TTCP.DWG Plotted on 10-May-2024 9:34 AM

ARLINGTON
APPLETON STREET & MASS AVE

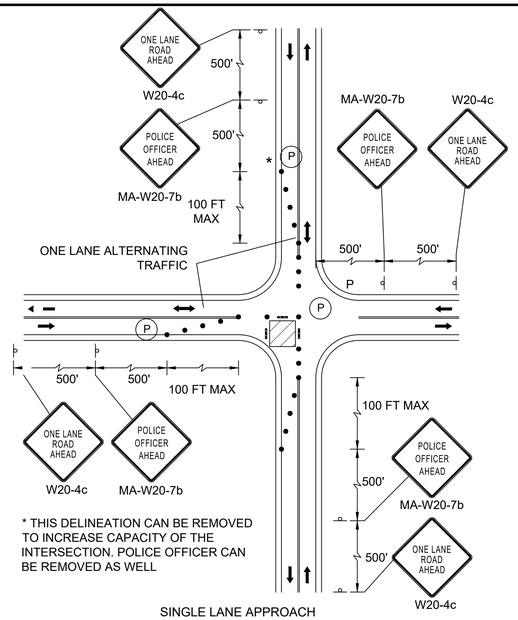
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	55	100
	STANTEC FILE NO. 179411056		

TEMPORARY TRAFFIC CONTROL PLANS
TTCP TYPICAL DETAILS

APPLETON_ST_TTCP.DWG Plotted on 10-May-2024 9:34 AM

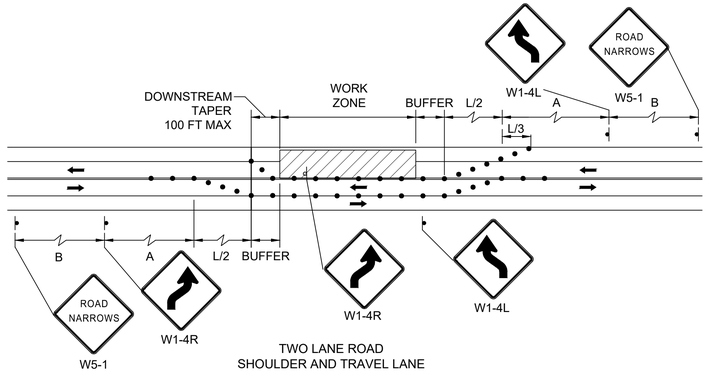


SINGLE LANE APPROACH
T-INTERSECTION

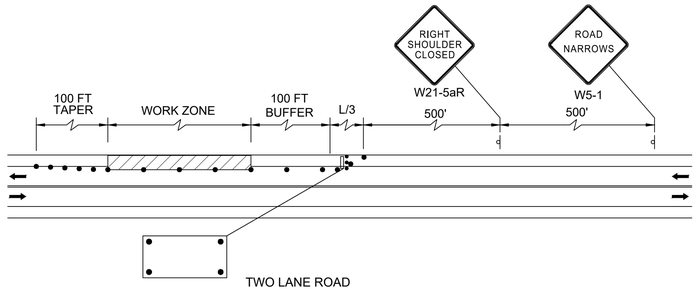


* THIS DELINEATION CAN BE REMOVED TO INCREASE CAPACITY OF THE INTERSECTION. POLICE OFFICER CAN BE REMOVED AS WELL

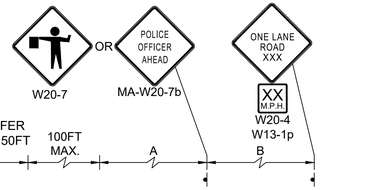
SINGLE LANE APPROACH
ONE QUADRANT CLOSURE



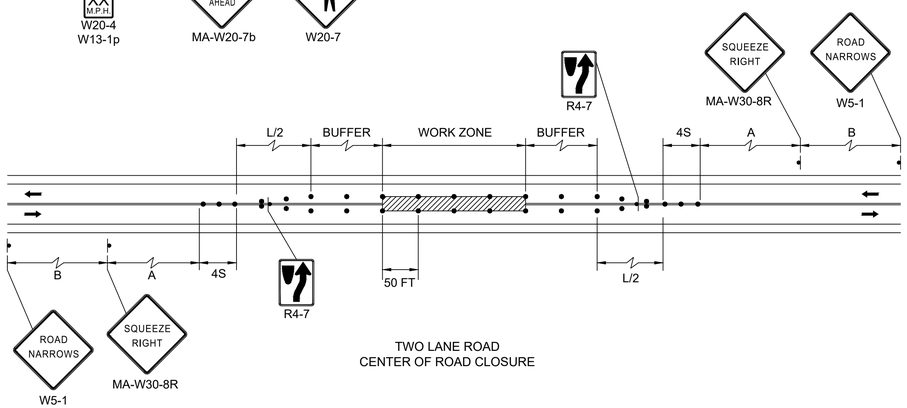
TWO LANE ROAD
SHOULDER AND TRAVEL LANE CLOSED



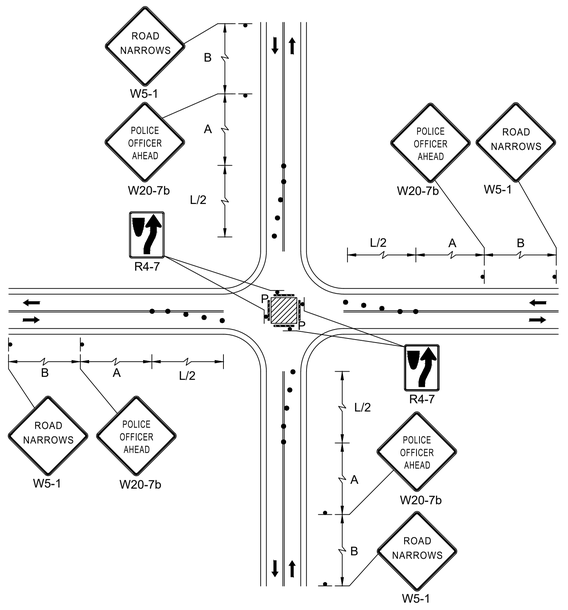
TWO LANE ROAD
SHOULDER CLOSED



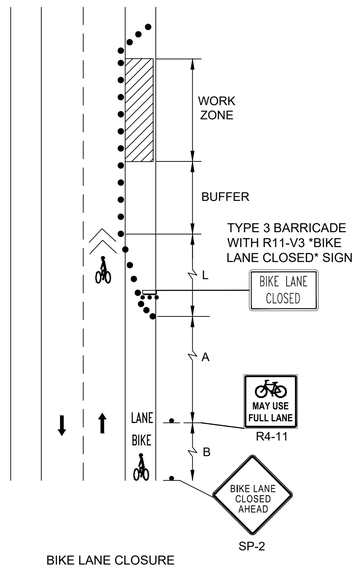
TWO LANE ROAD
ONE LANE ALTERNATING TRAFFIC



TWO LANE ROAD
CENTER OF ROAD CLOSURE



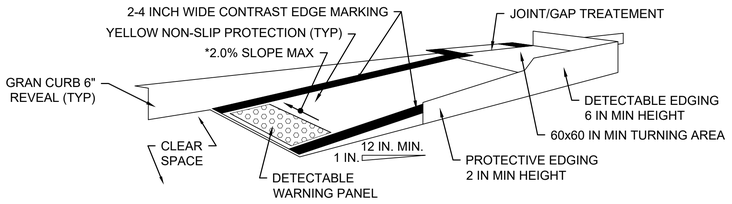
SINGLE LANE APPROACH
CENTER CLOSURE



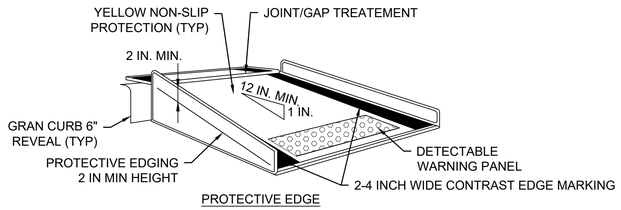
BIKE LANE CLOSURE

NOTES:

1. CURB RAMPS SHALL BE 60 IN. MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2 IN. MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6 IN. OR GREATER OR HAS A SIDE APRON SLOP STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3 IN. OR MORE.
3. DETECTABLE EDGING WITH 6 IN. 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 48x48 IN. 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 IN. WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5 IN. LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25 IN. HIGH, AND BEVELED AT 1:2 BETWEEN 0.25 IN. AND 0.5 IN. 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.

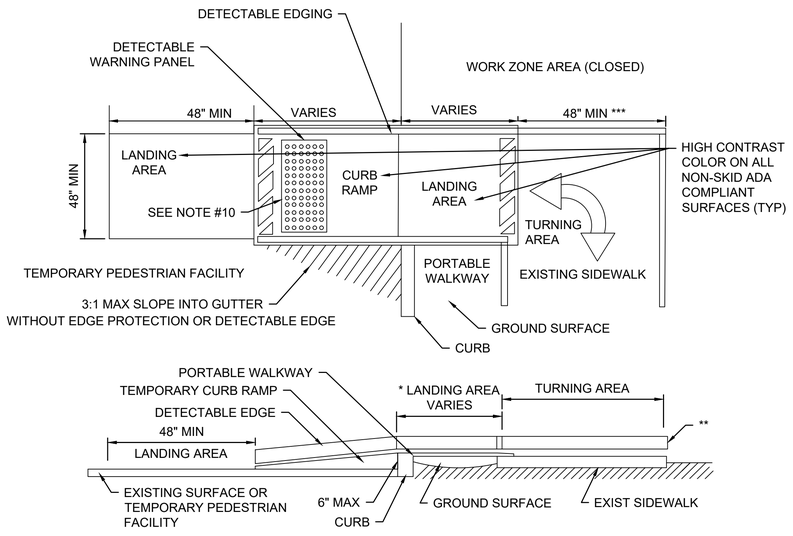


TEMPORARY CURB RAMP - PARALLEL TO CURB



TEMPORARY CURB RAMP - PERPENDICULAR TO CURB

NOT TO SCALE



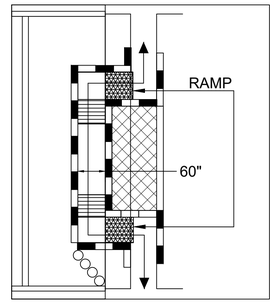
* LANDING AREA USED TO OVERLAP NON-ADA COMPLIANT SURFACES

** DETECTABLE EDGE REMOVED IF A CONTINUOUS SIDEWALK

*** 60" IF AN OBSTRUCTION IS AT BACK OF SIDEWALK

TEMPORARY CURB RAMP

NOT TO SCALE

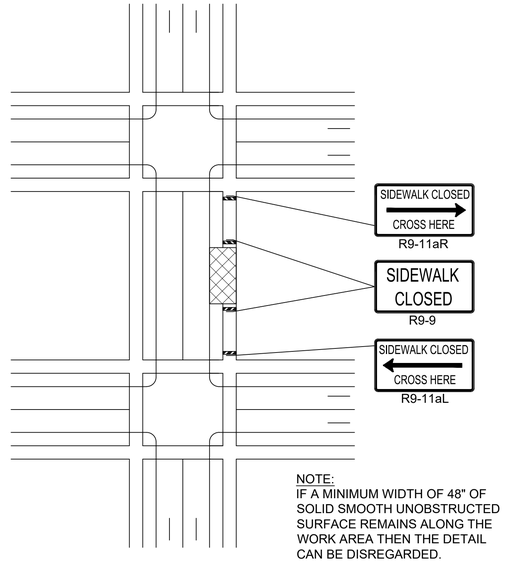


* PEDESTRIAN CHANNELIZING DEVICE

- When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, temporary facilities shall be provided and they shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.
- A pedestrian channelizing device that is detectable by a person with a visual disability traveling with the aid of a long cane shall be placed across the full width of the closed sidewalk.
- When used, temporary ramps shall comply with Americans with Disabilities Act (see Temporary Curb Ramp Detail, this sheet).
- The alternate pathway should have a smooth continuous hard surface for the entire length of the temporary pedestrian facility.
- The protective requirements of a TTC situation have priority in determining the need for temporary traffic barriers and their use in this situation should be based on engineering judgment.
- Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.

AUDIBLE DEVICES

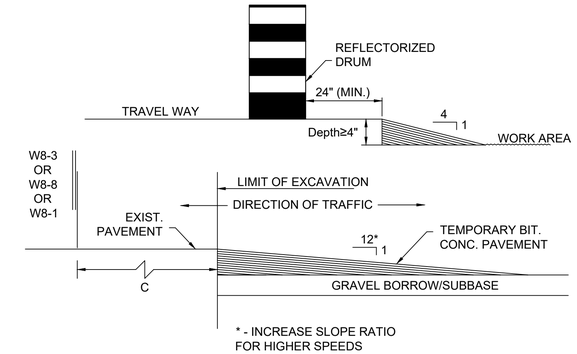
For long term sidewalk closures (at a minimum overnight) a form of speech messaging for pedestrians with visual disabilities shall be provided. Audible information devices such as detectable barriers or barricades and other passive pedestrian activation (motion activated) devices should be considered for these cases. These audible devices can be mountable or stand alone.



NOTE:
IF A MINIMUM WIDTH OF 48" OF SOLID SMOOTH UNOBSTRUCTED SURFACE REMAINS ALONG THE WORK AREA THEN THE DETAIL CAN BE DISREGARDED. DELINEATION OF THE WORK AREA WILL STILL BE REQUIRED. ALL PEDESTRIAN DETOUR ROUTES SHALL BE ADA/MAAB COMPLIANT IN THEIR ENTIRETY.

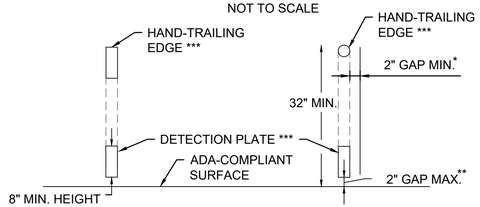
SIDEWALK CLOSURE

NOT TO SCALE



LATERAL AND LONGITUDINAL DROP OFF DETAILS

NOT TO SCALE

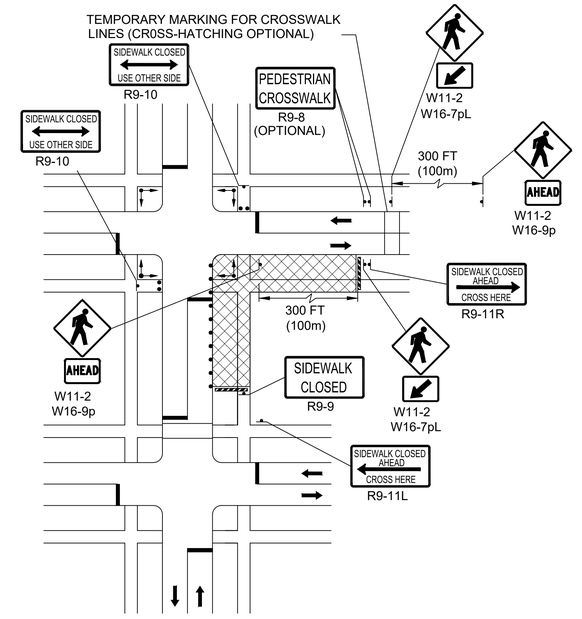


CROSS SECTION VIEW

NOTES:
* THERE SHALL BE A 2 INCH GAP BETWEEN THE HAND-TRAILING EDGE AND ITS SUPPORT.
** A MAXIMUM 2 INCH GAP BETWEEN THE BOTTOM OF THE BOTTOM RAIL AND THE SURFACE MAY BE USED TO PROVIDE DRAINAGE.
*** THE HAND-TRAILING EDGE AND DETECTION PLATE SHALL BE CONTINUOUS THROUGHOUT THE LENGTH OF THE PATH SUCH THAT A PEDESTRIAN USER WITH A LONG CANE CAN FOLLOW IT.

PEDESTRIAN CHANNELIZING DEVICE

NOT TO SCALE



NOTE:
FOR LONG-TERM STATIONARY WORK, THE DOUBLE YELLOW CENTERLINE AND/OR LANE LINES SHOULD BE REMOVED BETWEEN THE CROSSWALK LINES.

PEDESTRIAN DETOUR PLAN

NOT TO SCALE

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	56	100
	STANTEC FILE NO. 179411056		

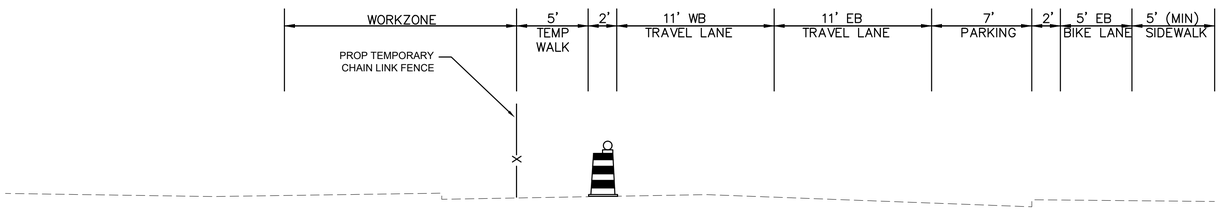
TEMPORARY TRAFFIC CONTROL PLANS
TTCP TYPICAL PEDESTRIAN DETAILS

APPLETON_ST_TTCP.DWG Plotted on 10-May-2024 9:34 AM

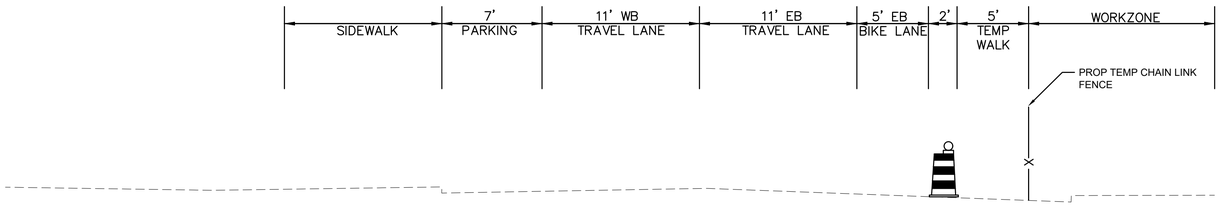
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	57	100
	STANTEC FILE NO. 179411056		

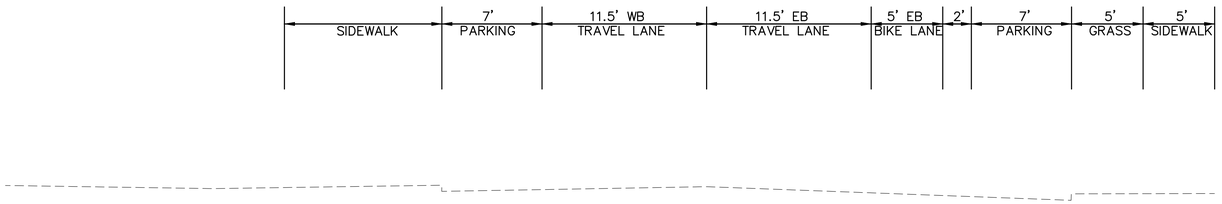
TEMPORARY TRAFFIC CONTROL PLANS
TTCP TYPICAL SECTIONS



MASSACHUSETTS AVENUE
WESTBOUND CONSTRUCTION



MASSACHUSETTS AVENUE
EASTBOUND CONSTRUCTION



MASSACHUSETTS AVENUE
EXISTING CONDITION

GENERAL NOTES

1. CONTRACTOR WILL PERFORM WORK AFFECTING THE TRAVELING PUBLIC ONLY BETWEEN 9:00 AM AND 3:00 PM. ALL PAVEMENT EDGES SHALL BE SLOPED, WITH NO SHARP DROP OFFS.
2. ACCESS TO ALL INTERSECTING STREETS AND BUSINESSES, DRIVEWAYS, AND WALKWAYS SHALL BE MAINTAINED AT ALL TIMES DURING ALL PHASES OF CONSTRUCTION, EXCEPT DURING SUCH LIMITED TIMES AS INDICATED IN NOTE 4 BELOW.
3. THE CONTRACTOR SHALL PROVIDE SAFE AND READY MEANS OF INGRESS AND EGRESS TO ALL STORES AND SHOPS, PUBLIC AND PRIVATE AND PROFESSIONAL OFFICES AND ANY OTHER BUSINESSES OR RESIDENCES IN THE PROJECT AREA, BOTH DAY AND NIGHT, FOR THE DURATION OF THE PROJECT.
4. CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 48 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING ROADWAY, DRIVEWAY OR SIDEWALK EXCAVATION, TEMPORARY OR PERMANENT DRIVEWAY PAVEMENT PLACEMENT, WALKWAY RECONSTRUCTION AND SIMILAR OPERATIONS.
5. TEMPORARY WALKWAYS SHALL INCLUDE ACCESSIBLE FEATURES.
6. IF PEDESTRIAN WALKWAY CANNOT BE MAINTAINED ADJACENT TO WORK AREA, PEDESTRIANS SHALL BE DETOURED TO THE OPPOSITE SIDE OF THE ROADWAY, SUBJECT TO APPROVAL BY THE TOWN.

0 5 10 15 20
SCALE: 1" = 5'

CONSTRUCTION SIGN SUMMARY

NOTE:
SUPER HIGH INTENSITY UNMETALIZED MICROPRISMATIC ELEMENT REFLECTIVE SHEETING M9.30.0 TYPE VII, VIII, IX, OR X SHALL BE USED FOR ALL SIGNS.

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	58	100
STANTEC FILE NO.	179411056		

TEMPORARY TRAFFIC CONTROL PLANS
CONSTRUCTION SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS LETTER HEIGHT	TEXT DIMENSIONS VERTICAL SPACING	TEXT DIMENSIONS ARROW	NUMBER OF SIGNS REQUIRED	COLOR BACKGROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND NUMBER REQUIRED	AREA IN SQUARE FEET
MA-R2-10a	48"	36"	WORK ZONE / $PEEDING FINE$ DOUBLED	PER MASSDOT STANDARDS			6	FLUORE-SCENT ORANGE / WHITE	BLACK	BLACK		72.00
MA-R2-10e	36"	48"	END ROAD WORK / DOUBLE FINES END				6	FLUORE-SCENT ORANGE / WHITE	BLACK	BLACK		72.00
R4-7	24"	30"		PER 2009 MUTCD			4	WHITE	BLACK	BLACK		20.00
R4-11	30"	30"	MAY USE FULL LANE				4	WHITE	BLACK	BLACK		25.00
R11-V3	30"	24"	BIKE LANE CLOSED				4	WHITE	BLACK	BLACK		20.00
R9-8	36"	18"	PEDESTRIAN CROSSWALK				2	WHITE	BLACK	BLACK		9.00
R9-9	24"	12"	SIDEWALK CLOSED				4	WHITE	BLACK	BLACK		8.00
R9-10	24"	12"	SIDEWALK CLOSED / USE OTHER SIDE				2	WHITE	BLACK	BLACK		4.00
R9-11L	24"	12"	SIDEWALK CLOSED AHEAD / CROSS HERE				2	WHITE	BLACK	BLACK		4.00
R9-11R	24"	12"	SIDEWALK CLOSED AHEAD / CROSS HERE				2	WHITE	BLACK	BLACK		4.00
R9-11aL	24"	12"	SIDEWALK CLOSED / CROSS HERE				2	WHITE	BLACK	BLACK		4.00
R9-11aR	24"	12"	SIDEWALK CLOSED / CROSS HERE				2	WHITE	BLACK	BLACK		4.00
W1-4L	36"	36"					2	FLUORE-SCENT ORANGE	BLACK	BLACK		18.00
W1-4R	36"	36"					2	FLUORE-SCENT ORANGE	BLACK	BLACK		18.00
W5-1	36"	36"	ROAD NARROWS				4	FLUORE-SCENT ORANGE	BLACK	BLACK		63.00
W8-1	36"	36"	BUMP				2	FLUORE-SCENT ORANGE	BLACK	BLACK		18.00
W8-3	36"	36"	PAVEMENT ENDS				2	FLUORE-SCENT ORANGE	BLACK	BLACK		18.00
W11-2	36"	36"					8	FLUORE-SCENT YELLOW GREEN	BLACK	BLACK		72.00
W13-1P	18"	18"	XX MPH				2	FLUORE-SCENT ORANGE	BLACK	BLACK		4.50
W16-7pR	24"	12"					4	FLUORE-SCENT YELLOW GREEN	BLACK	BLACK		8.00
W16-7pL	24"	12"					4	FLUORE-SCENT YELLOW GREEN	BLACK	BLACK		8.00
W16-9p	24"	12"	AHEAD				2	FLUORE-SCENT YELLOW GREEN	BLACK	BLACK		4.00
W20-1c	36"	36"	ROAD WORK AHEAD				10	FLUORE-SCENT ORANGE	BLACK	BLACK		90.00
W20-4	36"	36"	ONE LANE ROAD XXXXX				2	FLUORE-SCENT ORANGE	BLACK	BLACK		18.00

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS LETTER HEIGHT	TEXT DIMENSIONS VERTICAL SPACING	TEXT DIMENSIONS ARROW	NUMBER OF SIGNS REQUIRED	COLOR BACKGROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND NUMBER REQUIRED	AREA IN SQUARE FEET
W20-4	36"	36"	ONE LANE ROAD XXXXX	PER 2009 MUTCD			2	FLUORE-SCENT ORANGE	BLACK	BLACK		18.00
MA-W20-7b	36"	36"	POLICE OFFICER AHEAD /	PER MASSDOT STANDARDS			4	FLUORE-SCENT ORANGE	BLACK	BLACK		36.00
W20-7	36"	36"		PER 2009 MUTCD			4		BLACK	BLACK		36.00
W21-5aR	36"	36"	RIGHT SHOULDER CLOSED				2	FLUORE-SCENT ORANGE	BLACK	BLACK		18.00
MA-W30-8R	36"	36"	SQUEEZE RIGHT	PER MASSDOT STANDARDS			2	FLUORE-SCENT ORANGE	BLACK	BLACK		18.00

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	59	100
	STANTEC FILE NO. 179411056		

LANDSCAPE PLANS
PART 1 OF 8

179411056_LANDSCAPE.DWG Plotted on 10-May-2024 1:48 PM

N

LOWELL STREET

MASSACHUSETTS AVENUE

RIC

PROP CONCRETE ACCENT BAND, TYPE 1
PROP CONCRETE ACCENT BAND, TYPE 2
PROP SIDEWALK
PROP BIKE LANE
PROP POROUS RESIN BOUND AGGREGATE (TYP.)
EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)
1 HC
PROP SOIL CELL (TYP.)
1 HC
TRANSPLANTED TREE - PRINCETON ELM, REFER TO PART 2 FOR ORIGINAL TREE LOCATION
EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)
LANDSCAPE ENLARGEMENT REFER TO PART 6
PROP BIKE LANE
EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)
EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)
1 CK
PROP SOIL CELL (TYP.)
PROP SIDEWALK
PROP CONCRETE ACCENT BAND, TYPE 2
PROP CONCRETE ACCENT BAND, TYPE 1
1 CK
PROP SOIL CELL
EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)
PROP LOAM AND SEED (TYP.)
EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)

LEGEND

- PROPOSED DECIDUOUS TREE
- EXISTING TREE TO REMAIN AND BE PROTECTED
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO BE TRANSPLANTED
- TRANSPLANTED TREE
- BIORETENTION BASIN
- LOAM AND SEED
- SOIL CELL
- BENCH
- BIKE RACK
- CONCRETE ACCENT BAND TYPE 1
- CONCRETE ACCENT BAND TYPE 2
- POROUS RESIN BOUND AGGREGATE
- EXPANSION JOINT

PLANT SCHEDULE

QTY	ID	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
2	CK	CLADASTRIS KENTUCKEA	YELLOW WOOD	3.5" - 4" CAL.	
2	HC	HALESIA CAROLINA	CAROLINA SILVERBELL	3.5" - 4" CAL.	
1		ULMUS AMERICANA 'PRINCETON'	PRINCETON ELM		TRANSPLANTED

0 20 50 100
SCALE: 1" = 20'

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	60	100
	STANTEC FILE NO. 179411056		

LANDSCAPE PLANS
PART 2 OF 8

179411056_LANDSCAPE.DWG Plotted on 10-May-2024 1:48 PM

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REM EXIST TREE (TYP.)
REM EXIST HAWTHORN TREE, STOCKPILE FOR TRANSPLANT
PROP CONCRETE ACCENT BAND, TYPE 2
PROP BUS SHELTER
PROP LOAM AND SEED (TYP.)
1 CK
PROP CONCRETE ACCENT BAND, TYPE 1
PROP PAVEMENT PATTERN, TYPE 1
REM EXIST HAWTHORN TREE, STOCKPILE FOR TRANSPLANT
PROP SIDEWALK
PROP BIKE LANE
EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)
PROP BIKE RACK (TYP. FOR 2)
PROP CONCRETE WALK
PROP POROUS RESIN BOUND AGGREGATE (TYP.)
PROP SOIL CELL
PROP CONCRETE ACCENT BAND, TYPE 1
PROP BENCH (TYP. FOR 4)
1 AR
REM EXIST TREE (TYP.)
REM EXIST RED MAPLE TREE, STOCKPILE FOR TRANSPLANT
REM EXIST PRINCETON ELM TREE, STOCKPILE FOR TRANSPLANT
PROP CONCRETE ACCENT PATTERN, TYPE 2
PROP LOAM AND SEED (TYP.)
LANDSCAPE ENLARGEMENT REFER TO PART 7
APPLETON STREET
APPLETON PLACE

LEGEND

PROPOSED DECIDUOUS TREE
EXISTING TREE TO REMAIN AND BE PROTECTED
EXISTING TREE TO BE REMOVED
EXISTING TREE TO BE TRANSPLANTED
TRANSPLANTED TREE
BIORETENTION BASIN
LOAM AND SEED
SOIL CELL
BENCH
BIKE RACK
CONCRETE ACCENT BAND TYPE 1
CONCRETE ACCENT BAND TYPE 2
POROUS RESIN BOUND AGGREGATE
EXPANSION JOINT

PLANT SCHEDULE

QTY	ID	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
1	CK	CLADASTRIS KENTUCKEA	YELLOW WOOD	3.5" - 4" CAL.	
4	AR	ACER RUBRUM 'OCTOBER GLORY'	RED MAPLE	3.5" - 4" CAL.	

0 20 50 100
SCALE: 1" = 20'

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	61	100
	STANTEC FILE NO. 179411056		

LANDSCAPE PLANS
PART 3 OF 8

179411056_LANDSCAPE.DWG Plotted on 10-May-2024 1:49 PM

N

FOREST STREET

BURTON STREET

PROP CONCRETE ACCENT PATTERN, TYPE 2

PROP CONCRETE ACCENT BAND, TYPE 1

PROP BIKE LANE

EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)

PROP CONCRETE ACCENT BAND, TYPE 1

PROP BIORETENTION BASIN ENLARGEMENT 3, REFER TO PART 8

PROP CONCRETE ACCENT PATTERN, TYPE 2

EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)

PROP SOIL CELL

1 HC

PROP LOAM AND SEED (TYP.)

1 HC

PROP BIKE LANE

PROP SIDEWALK

1 HC

PROP BIKE LANE

PROP LOAM AND SEED (TYP.)

EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)

PROP SIDEWALK

PROP CONCRETE ACCENT PATTERN, TYPE 2

1 CK

1 CK

EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)

EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)

PROP LOAM AND SEED (TYP.)

PROP SOIL CELL

PROP BIKE LANE

PROP CONCRETE ACCENT PATTERN, TYPE 1

PROP CONCRETE ACCENT PATTERN, TYPE 2

EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)

PROP CONCRETE ACCENT PATTERN, TYPE 2

LEGEND

- PROPOSED DECIDUOUS TREE
- EXISTING TREE TO REMAIN AND BE PROTECTED
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO BE TRANSPLANTED
- TRANSPLANTED TREE
- BIORETENTION BASIN
- LOAM AND SEED
- SOIL CELL
- BENCH
- BIKE RACK
- CONCRETE ACCENT BAND TYPE 1
- CONCRETE ACCENT BAND TYPE 2
- POROUS RESIN BOUND AGGREGATE
- EXPANSION JOINT

PLANT SCHEDULE

QTY	ID	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
2	CK	CLADASTRIS KENTUCKEA	YELLOW WOOD	3.5" - 4" CAL.	
3	HC	HALESIA CAROLINA	CAROLINA SILVERBELL	3.5" - 4" CAL.	

0 20 50 100
SCALE: 1" = 20'

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	62	100
	STANTEC FILE NO. 179411056		

LANDSCAPE PLANS
PART 4 OF 8

179411056_LANDSCAPE.DWG Plotted on 10-May-2024 1:50 PM

N

QUINN ROAD

MASSACHUSETTS AVENUE

PINE COURT

PROP LOAM AND SEED (TYP.)
EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)
PROP SIDEWALK
PROP BIKE LANE
PROP SOIL CELL
1 HC
1 CK
EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)
PROPSOIL CELL
PROP BIKE LANE
EXIST TREES TO REMAIN AND BE PROTECTED (TYP.)
PROP CONCRETE ACCENT PATTERN, TYPE 2
PROP SIDEWALK
PROP LOAM AND SEED (TYP.)

STATION #6
MAG. NAIL SET
N 2979337.64
E 744187.84
ELEV=113.66

STATION #3
MAG. NAIL SET
N 2979157.53
E 744352.66
ELEV=110.23

DEVITO FUNERAL HOME

UP/LP 2 HR PARKING

CB RIM=112.79'

SMH RIM=114.05'

TMH

2 HOUR PARKING LEFT ARROW

2 HOUR PARKING LIMIT

CB RIM=112.14' TOW=108.9 SUMP=105.7

SMH RIM=111.98'

CB RIM=109.49' I=106.3(SE) 10" RCP

I=105.9 10"RCP

2 HOUR PARKING LIMIT

UP/LP #W\ RISER

SMH RIM=109.59'

SMH RIM=109.96'

STOP FESSENDEN ST. PRIVATE DRIVEWAY

SMH RIM=109.50'

CB RIM=109.64' TOW=109.6 SUMP=105.8

SEPTIC NO ACCESS

19"D

LEGEND

- PROPOSED DECIDUOUS TREE
- EXISTING TREE TO REMAIN AND BE PROTECTED
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO BE TRANSPLANTED
- TRANSPLANTED TREE
- BIORETENTION BASIN
- LOAM AND SEED
- SOIL CELL
- BENCH
- BIKE RACK
- CONCRETE ACCENT BAND TYPE 1
- CONCRETE ACCENT BAND TYPE 2
- POROUS RESIN BOUND AGGREGATE
- EXPANSION JOINT

PLANT SCHEDULE

QTY	ID	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
1	CK	CLADASTRIS KENTUCKEA	YELLOW WOOD	3.5" - 4" CAL.	
1	HC	HALESIA CAROLINA	CAROLINA SILVERBELL	3.5" - 4" CAL.	

0 20 50 100
SCALE: 1" = 20'

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	63	100
	STANTEC FILE NO. 179411056		

LANDSCAPE PLANS
PART 5 OF 8

Plotted on 10-May-2024 1:51 PM
179411056_LANDSCAPE.DWG

LEGEND

PROPOSED DECIDUOUS TREE	BIORETENTION BASIN
EXISTING TREE TO REMAIN AND BE PROTECTED	LOAM AND SEED
EXISTING TREE TO BE REMOVED	SOIL CELL
EXISTING TREE TO BE TRANSPLANTED	BENCH
TRANSPLANTED TREE	BIKE RACK
	CONCRETE ACCENT BAND TYPE 1
	CONCRETE ACCENT BAND TYPE 2
	POROUS RESIN BOUND AGGREGATE
	EXPANSION JOINT

PLANT SCHEDULE					
QTY	ID	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
5	AR	ACER RUBRUM 'OCTOBER GLORY'	RED MAPLE	3.5" - 4" CAL.	
3	AM	AMELANCHIER 'AUTUMN BRILLIANCE'	SERVICEBERRY	7' - 8' HT.	MULTI-STEM
1		ACER RUBRUM	RED MAPLE		TRANSPLANTED
DECIDUOUS SHRUBS					
7	CLH	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	SUMMERSWEET	2'-3' HT.	
5	FMA	FOTHERGILLA 'MT. AIRY'	FOTHERGILLA	3-4' HT.	
6	RHA	RHUS AROMATICA	FRAGRANT SUMAC	2'-3' HT.	
PERENNIALS					
175	CAP	CAREX PENSYLVANIA	PENSYLVANIA SEDGE	2" PLUGS	
145	SPH	SPOROBOLUS HETEROLEPSIS	PRAIRIE DROPSEED	2" PLUGS	
35	GMF	GERANIUM SANGUINEUM 'MAX FREI'	BLOODY CRANSBELL	1 GAL.	

BOULDER SCHEDULE		
QTY	SIZE	COMMENTS
32	24" x 36"	
1	24"x24"x42"	

LEGEND

PROPOSED DECIDUOUS TREE

PROPOSED ORNAMENTAL TREE

PROPOSED DECIDUOUS SHRUB

TRANSPLANTED TREE

BIORETENTION BASIN

LOAM AND SEED

PROPOSED PERENNIALS

BOULDER

132 PROPOSED CONTOUR LINE

+132 +TW133.81 TW131.61 PROPOSED SPOT ELEVATION

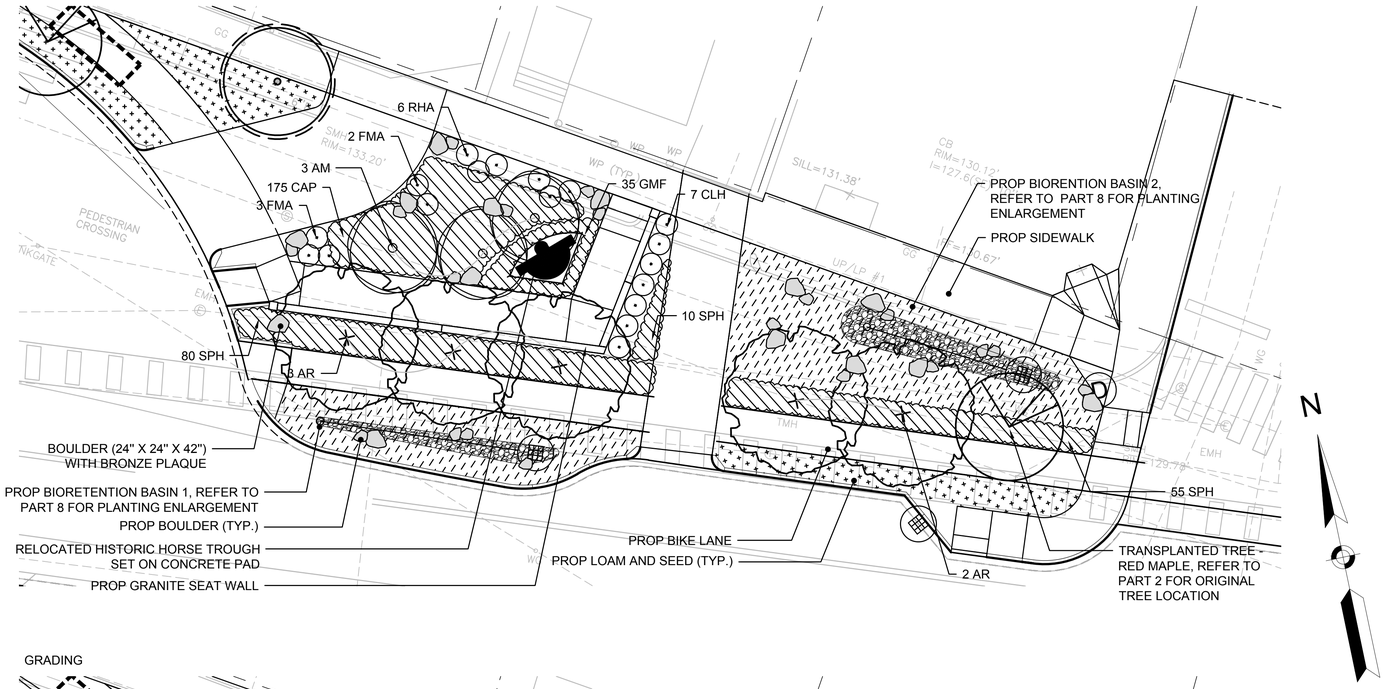
+(132) EXISTING SPOT ELEVATION

ARLINGTON
APPLETON STREET & MASS AVE

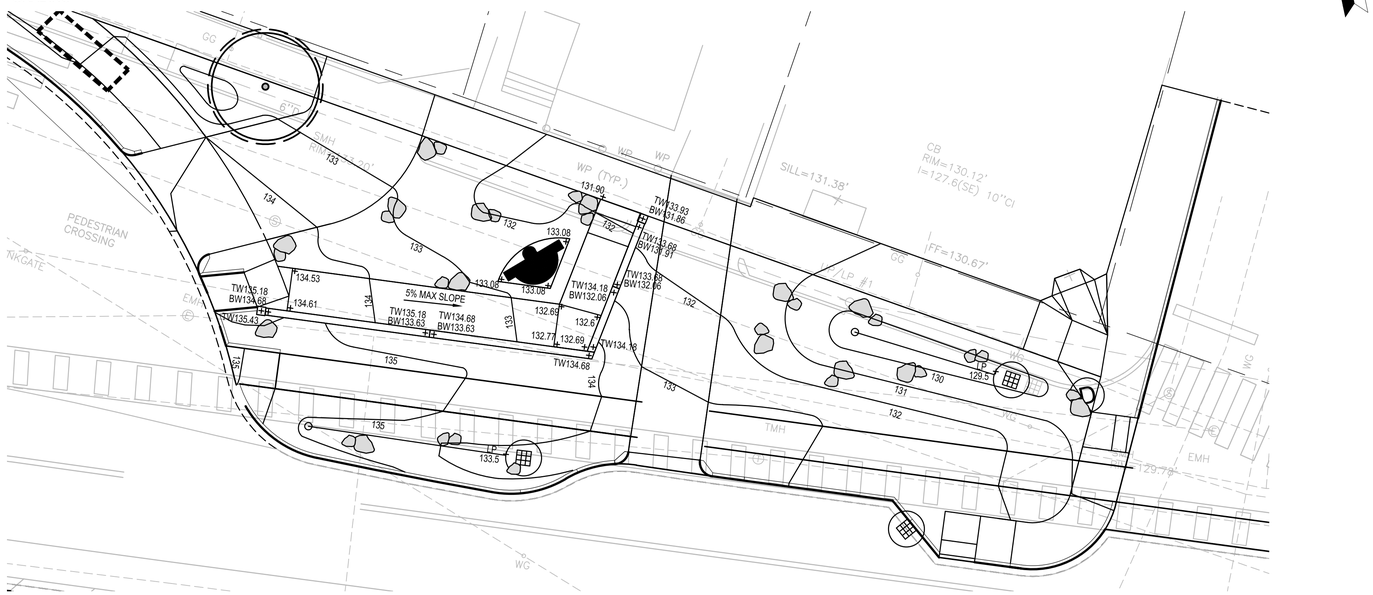
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	64	100
	STANTEC FILE NO. 179411056		

LANDSCAPE PLANS
PART 6 OF 8

PLANTING LAYOUT



GRADING



0 10 20 30 40
SCALE: 1" = 10'

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	65	100
	STANTEC FILE NO. 179411056		

LANDSCAPE PLANS
PART 7 OF 8

179411056_LANDSCAPE.DWG Plotted on 10-May-2024 1:53 PM

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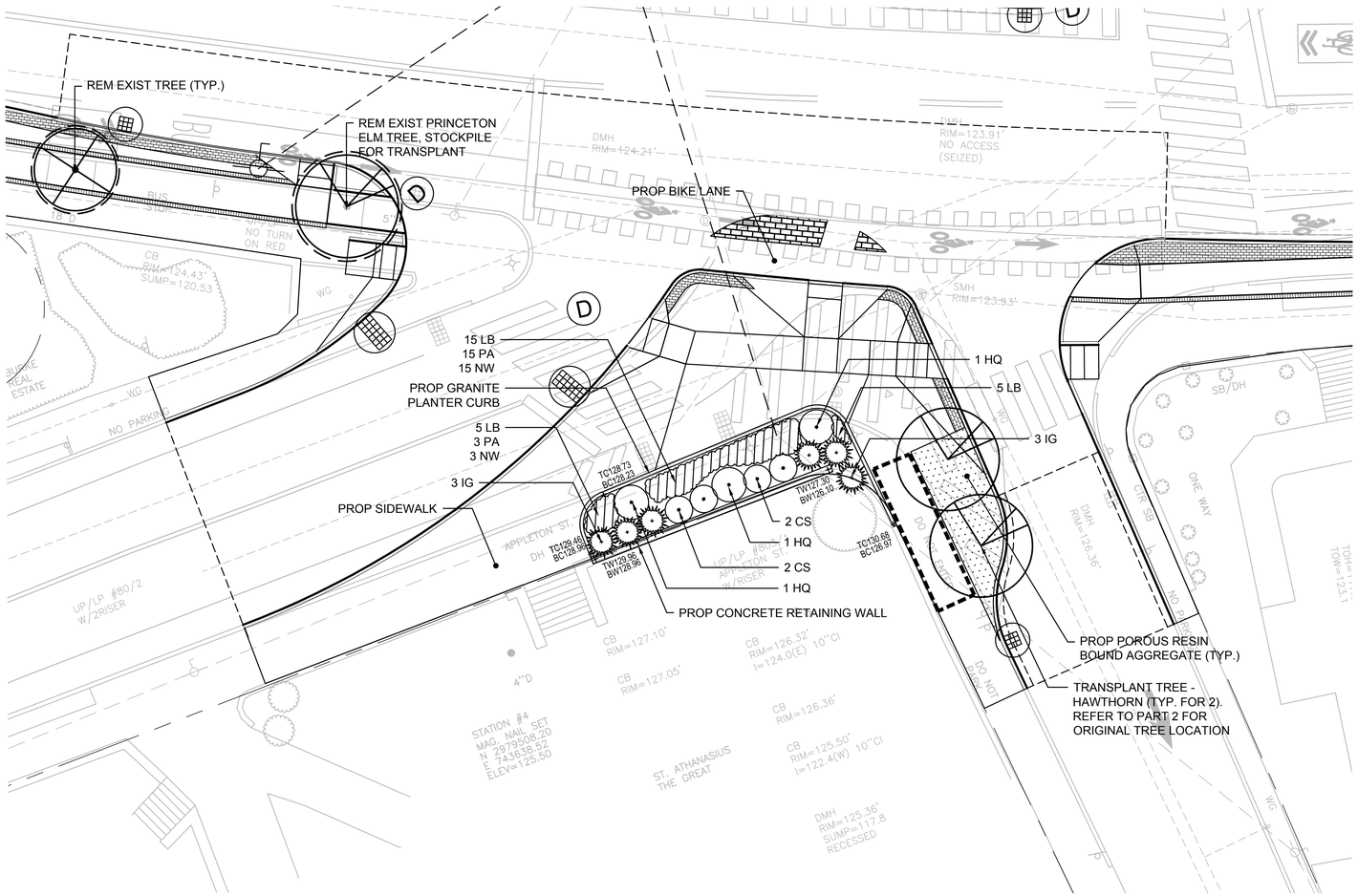


PLANT LEGEND

PROPOSED DECIDUOUS TREE

PROPOSED ORNAMENTAL TREE

PROPOSED SHRUBS

TRANSPLANTED TREE

EXISTING TREE TO BE TRANSPLATNED

EXISTING TREE TO REMAIN AND BE PROTECTED

PROPOSED PERENNIAL MIX

PLANT SCHEDULE					
QTY	ID	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
2		CRATAEGUS	HAWTHORN		TRANSPLANTED
DECIDUOUS SHRUB					
3	HQ	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	3-4' HT	
4	CS	CORNUS SERICEA	RED TWIG DOGWOOD	3-4' HT	
EVERGREEN SHRUB					
6	IG	ILEX GLABRA 'COMPACTA'	COMPACT INKBERRY	3-4' HT	
PERENNIALS					
25	LB	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 GAL.	
18	PA	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN FOUNTAIN GRASS	1 GAL.	
18	NW	NEPETA X FAASSENII 'WALKER'S LOW'	WALKER'S LOW CATMINT	1 GAL.	

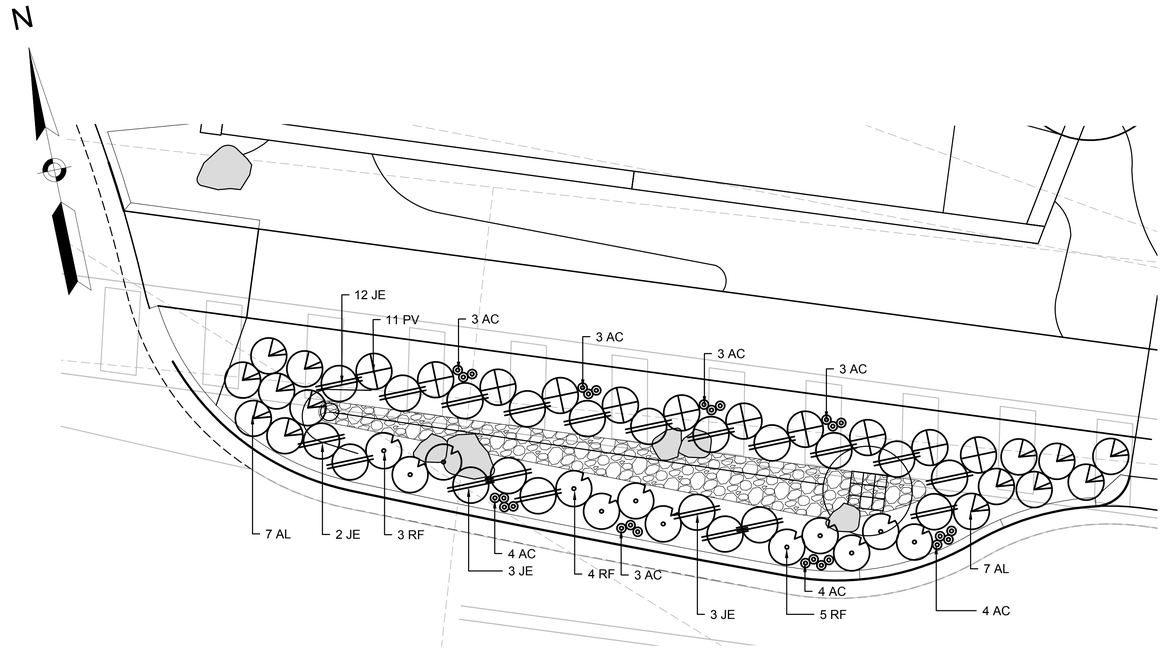
0 10 20 30 40
SCALE: 1" = 10'

ARLINGTON
APPLETON STREET & MASS AVE

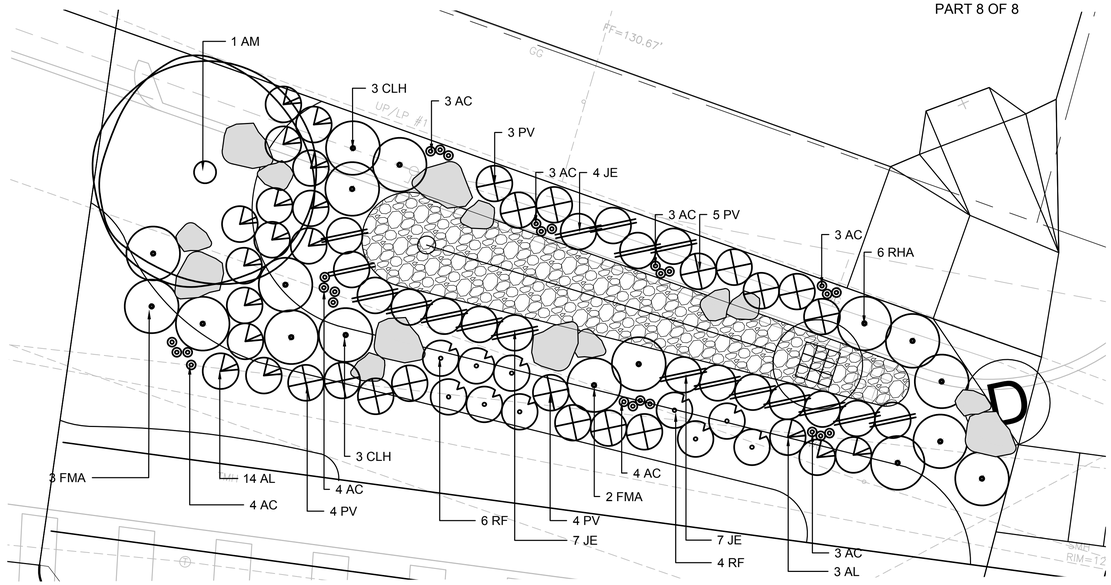
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	66	100
	STANTEC FILE NO. 179411056		

LANDSCAPE PLANS
PART 8 OF 8

179411056_LANDSCAPE.DWG Plotted on 10-May-2024 1:54 PM



BIORETENTION BASIN ENLARGEMENT 1



BIORETENTION BASIN ENLARGEMENT 2

PLANTING LEGEND

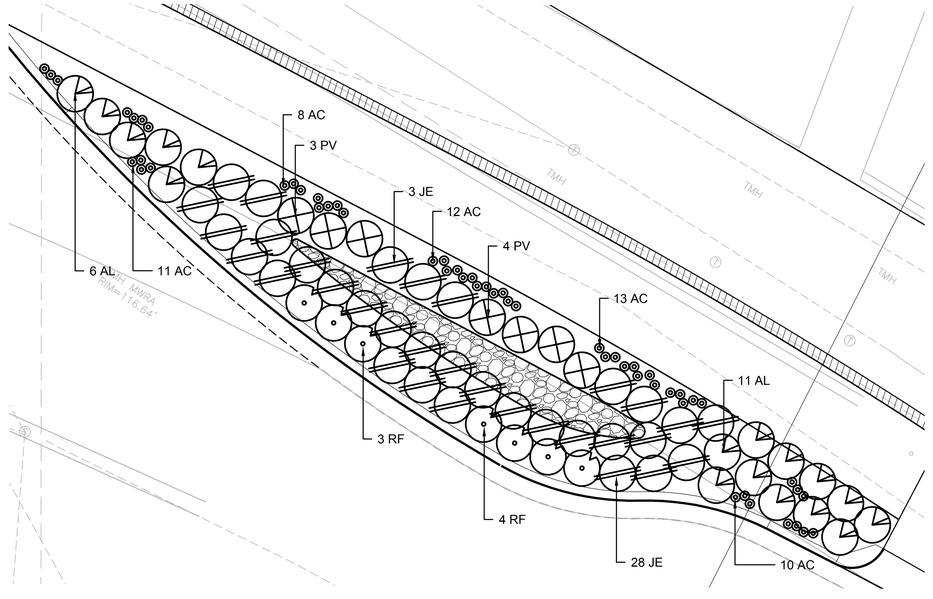
PROPOSED ORNAMENTAL TREE

PROPOSED GRASSES

PROPOSED SHRUBS

PROPOSED PERENNIALS

PLANT SCHEDULE					
QTY	ID	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
1	AM	AMELANCHIER 'AUTUMN BRILLIANCE'	SERVICEBERRY	7' - 8' HT.	MULTI-STEM
DECIDUOUS SHRUBS					
7	CLH	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	SUMMERSWEET	2'-3' HT.	
5	FMA	FOTHERGILLA 'MT. AIRY'	FOTHERGILLA	3-4' HT.	
6	RHA	RHUS AROMATICA	FRAGRANT SUMAC	2'-3' HT.	
GRASSES					
70	JE	JUNCUS EFFUSUS	SOFT RUSH	2" PLUG	
34	PV	PANICUM VIRGATUM	SWITCH GRASS	2" PLUG	
PERENNIALS					
108	AC	ALLIUM CERNUUM	NODDING ONION	2" PLUG	
29	RF	RUDBECKIA FULGIDA	BLACK-EYED SUSAN	2" PLUG	
48	AL	ACHILLEA MILLEFOLIUM	YARROW	2" PLUG	



BIORETENTION BASIN ENLARGEMENT 3

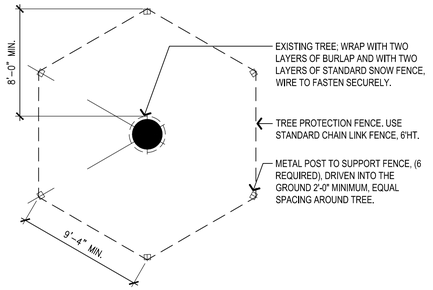
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	67	100
	STANTEC FILE NO. 179411056		

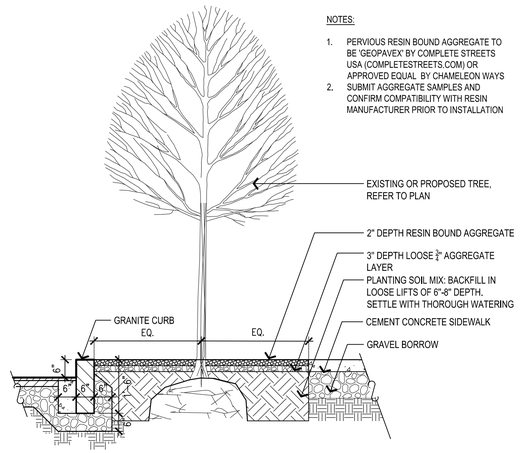
LANDSCAPE DETAILS
PART 1 OF 3

179411056_DETAILS.DWG Plotted on 10-May-2024 1:49 PM



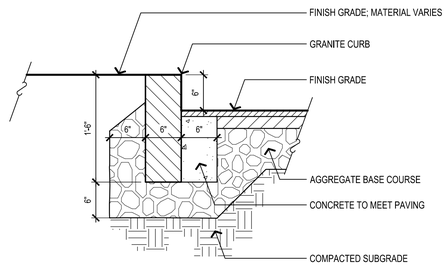
1 EXISTING TREE PROTECTION

3/16" = 1'-0" BC1794-11056-18



2 POROUS RESIN BOUND AGGREGATE PAVEMENT

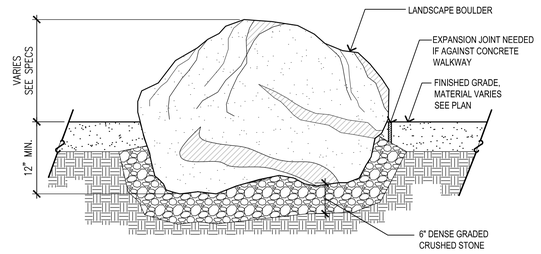
1/2" = 1'-0" BC1794-11056-77



3 GRANITE PLANTER CURB

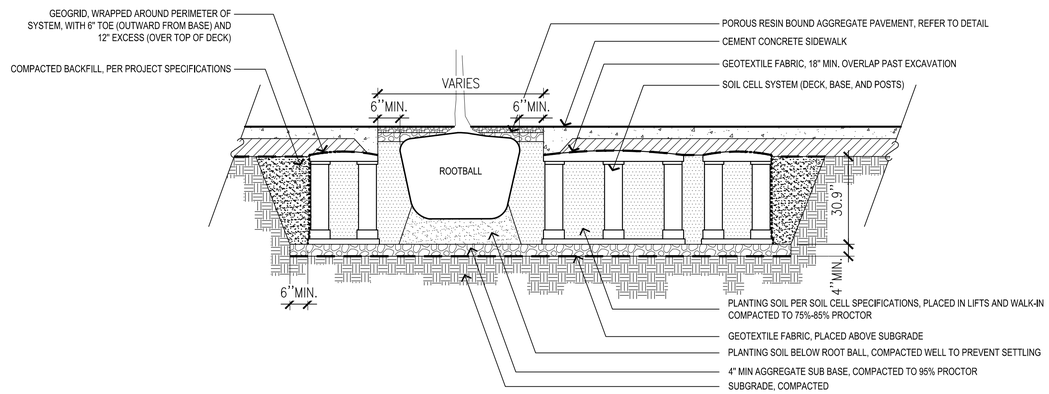
1" = 1'-0" BC1794-11056-24

NOTE:
1. BOULDERS SHALL HAVE APPROXIMATE MINIMUM DIMENSIONS OF 24"LX24"WX24"HT, AND SHALL BE MADE OF NATURAL STONE, UNLESS OTHERWISE APPROVED BY LANDSCAPE ARCHITECT. EXPANSION JOINTS ARE NEEDED WHEN BOULDERS ARE AGAINST CONCRETE WALKWAY.
2. SIZE, QUANTITY AND LOCATION TO BE APPROVED BY LANDSCAPE ARCHITECT; BOULDERS THAT ARE RECLAIMED FROM SITE MAY BE USED IF THEY ARE INTACT AND IN ACCEPTABLE CONDITION, CONFIRM IN THE FIELD



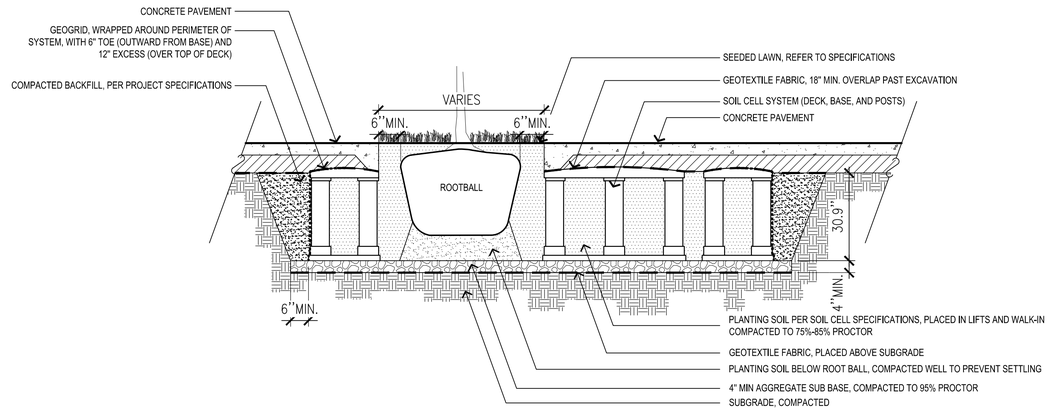
4 LANDSCAPE BOULDER

1" = 1'-0" BC1794-11056-29



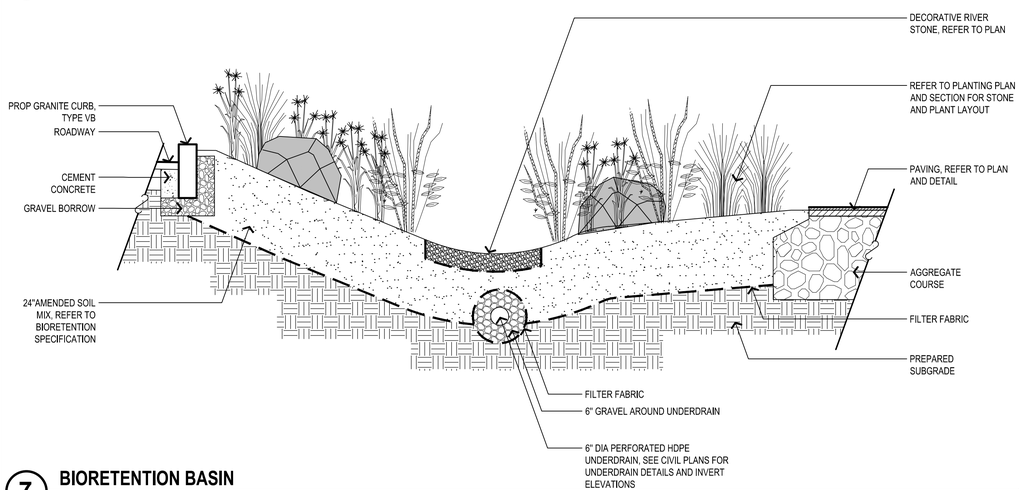
5 SOIL CELL SYSTEM WITH POROUS RESIN BOUND AGGREGATE PAVEMENT

1/2" = 1'-0"



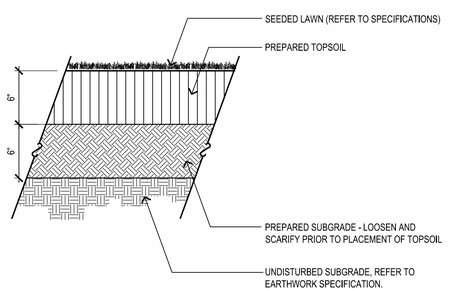
6 SOIL CELL SYSTEM WITH LAWN

1/2" = 1'-0"



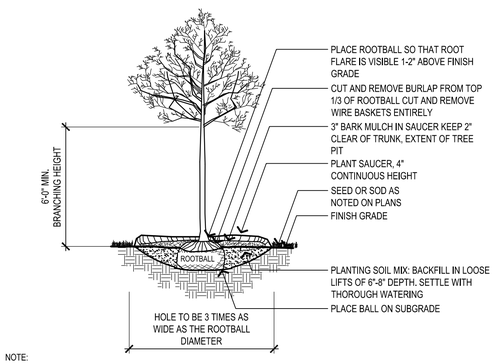
7 BIORETENTION BASIN

1/2" = 1'-0"



8 LOAM AND SEED

1 1/2" = 1'-0" BC1794-11056-17



NOTE:
1. TREE SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS IT BORE TO NURSERY OR FIELD GRADE

9 DECIDUOUS TREE PLANTING

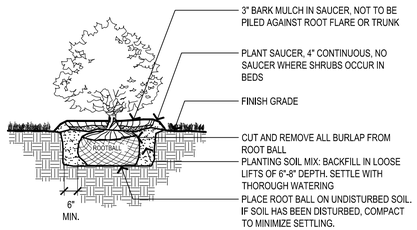
1/4" = 1'-0" BC1794-11056-01

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	68	100
	STANTEC FILE NO. 179411056		

LANDSCAPE DETAILS
PART 2 OF 3

179411056_DETAILS.DWG Plotted on 10-May-2024 1:51 PM

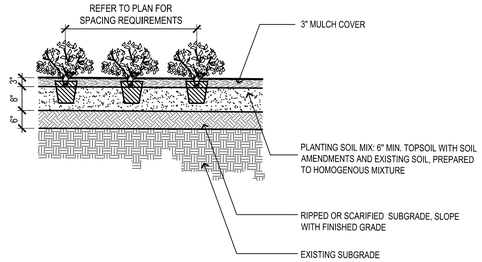


NOTES:

1. SHRUB SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS IT BORE TO NURSERY OR FIELD GRADE.
2. WHERE SHRUBS OCCUR IN GROUPINGS IN PLANT BEDS, PROVIDE 2 - FOOT DEEP CONTINUOUS LOAM BED.

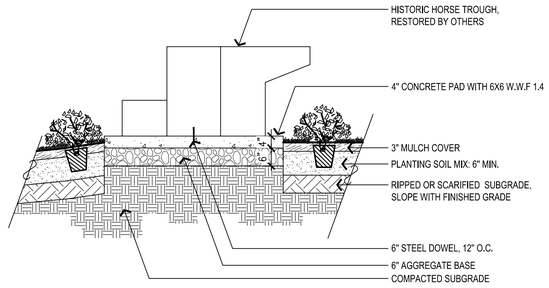
1 SHRUB PLANTING

3/8" = 1'-0" BC1794-11056-08



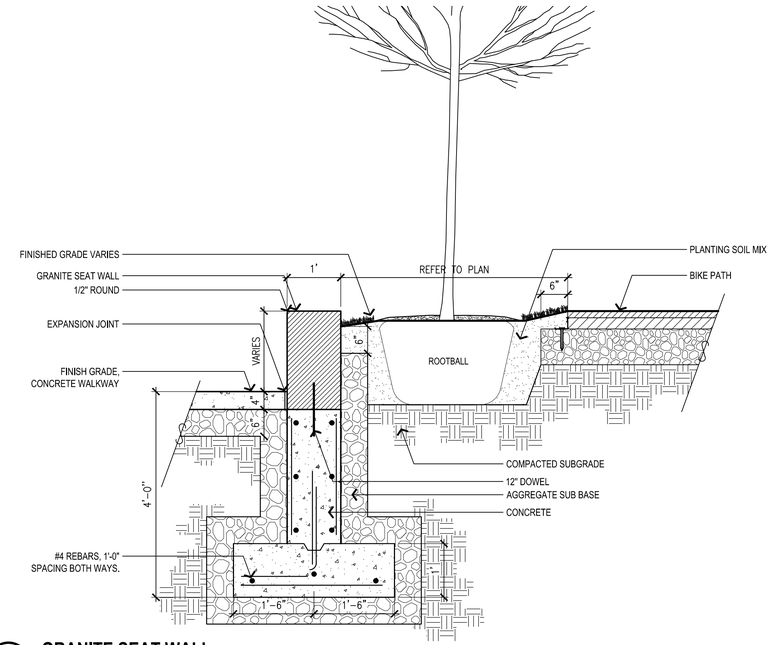
2 GROUND COVER PLANTING

1/2" = 1'-0" BC1794-11056-09



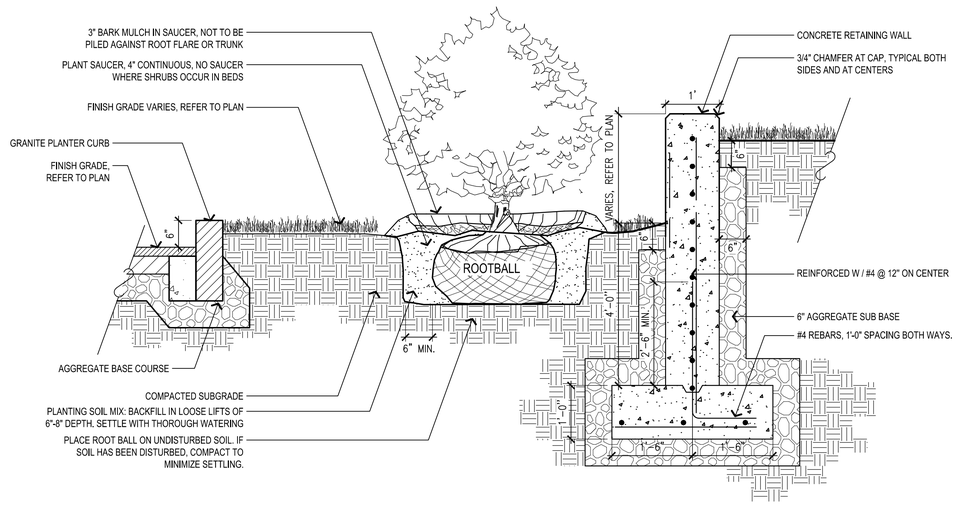
3 HORSE TROUGH PLATFORM

1/2" = 1'-0"



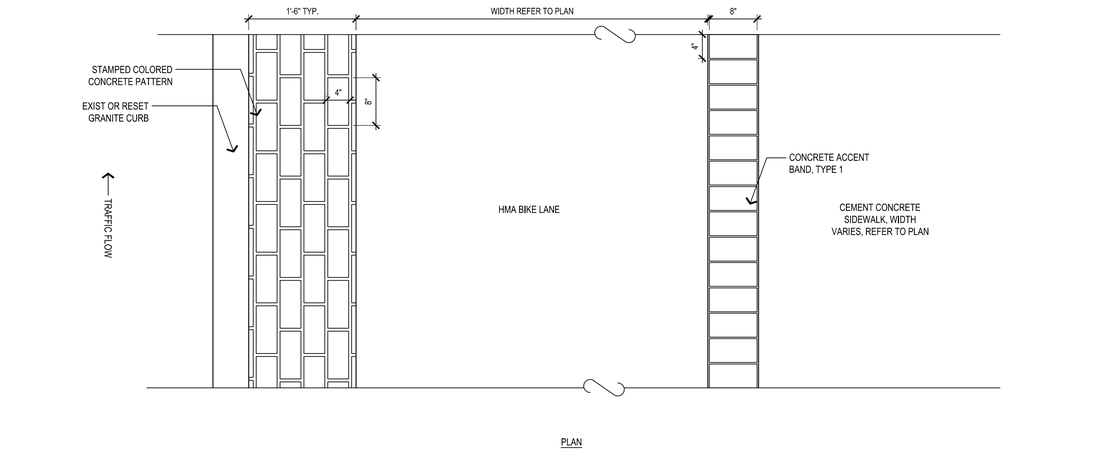
4 GRANITE SEAT WALL

3/4" = 1'-0"



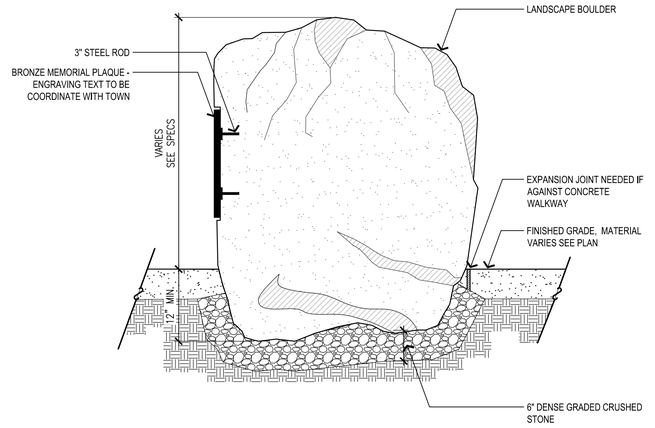
5 CONCRETE RETAINING WALL

3/4" = 1'-0"



1 CONCRETE BAND AND PATTERN, TYPE 1 AND TYPE 2

1" = 1'-0"



2 BRONZE MEMORIAL PLAQUE

1" = 1'-0"

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	69	100
	STANTEC FILE NO. 179411056		

LANDSCAPE DETAILS
PART 3 OF 3

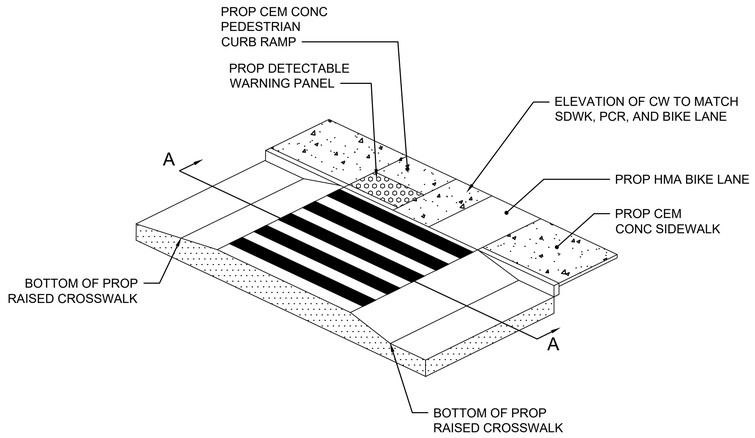
MASTER PLANT SCHEDULE

TOTAL QTY	PART 1	PART 2	PART 3	PART 4	PART 5	PART 6	PART 7	PART 8	ID	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
DECIDUOUS TREES													
9		4				5			AR	ACER RUBRUM 'OCTOBER GLORY'	RED MAPLE	3.5"-4" CAL.	
4						3		1	AM	AMELANCHIER 'ATUMN BRILLIANCE'	SERVICEBERRY	7'-8' HT	MULTI-STEM
6	2	1	2	1					CK	CLADASTRIS KENTUCKEA	YELLOW WOOD	3.5"-4" CAL.	
6	2		3	1					HC	HALESIA CAROLINA	CAROLINA SILVERBELL	3.5"-4" CAL.	
1	1									ULMUS AMERICANA 'PRINCETON'	PRINCETON ELM		TRANSPLANTED
1						1				ACER RUBRUM	RED MAPLE		TRANSPLANTED
2							2			CRATAEGUS	HAWTHORN		TRANSPLANTED
DECIDUOUS SHRUBS													
14						7		7	CLH	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	SUMMERSWEET	2-3' HT	
4							4		CS	CORNUS SERICEA	RED TWIG DOGWOOD	3-4' HT	
10						5		5	FMA	FOTHERGILLA 'MT.AIRY'	FOTHERGILLA	3-4' HT	
3							3		HQ	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	3-4' HT	
12						6		6	RHA	RHUS AROMATICA	FRAGMENT SUMAC	2-3' HT	
EVERGREEN SHRUBS													
6							6		IG	ILEX GLABRA 'COMPACTA'	COMPACT INKBERRY	3-4' HT	
GRASSES AND PERENNIALS													
175						175			CAP	CAREX PENSYLVANIA	PENSYLVANIA SEDGE	2" PLUG	
34								34	PV	PANICUM VIRGATUM	SWITCH GRASS	2" PLUG	
70								70	JE	JUNCUS EFFUSUS	SOFT RUSH	2" PLUG	
108								108	AC	ALLIUM CERNUUM	NODDING ONION	2" PLUG	
48								48	AL	ACHILLEA MILLEFOLIUM	YARROW	2" PLUG	
35						35			GMF	GERANIUM SANGUINEUM 'MAX FREI'	BLOODY CRANESBILL	1 GAL.	
25							25		LB	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 GAL.	
18							18		NW	NEPETA X FAASSENII 'WALKER'S LOW'	WALKER'S LOW CATMINT	1 GAL.	
18							18		PA	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN FOUNTAIN GRASS	1 GAL.	
29								29	RF	RUDBECKIA FULGIDA	BLACK-EYED SUSAN	2" PLUG	
145						145			SPH	SPOROBOLUS HETEROLEPSIS	PRAIRIE DROPSEED	2" PLUG	

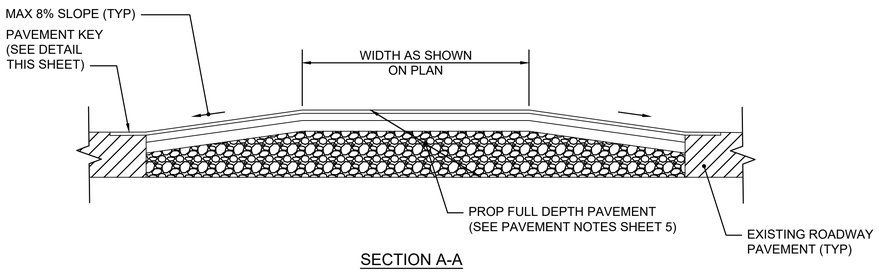
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	70	100
	STANTEC FILE NO. 179411056		

CONSTRUCTION DETAILS

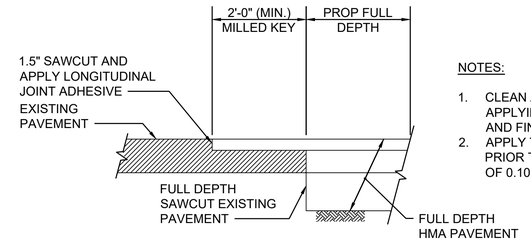


ISOMETRIC VIEW



SECTION A-A

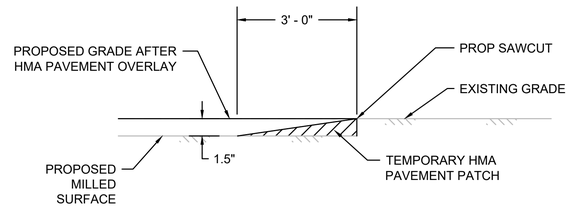
RAISED CROSSWALK DETAIL
NOT TO SCALE



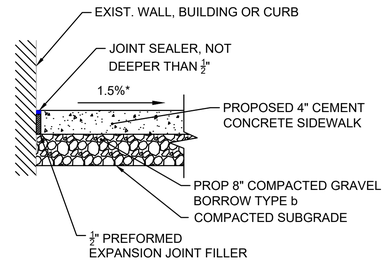
NOTES:

1. CLEAN ALL MILLED SYRFACES BEFORE APPLYING JOINT ADHESIVE, TACK COAT AND FINAL PAVEMENT.
2. APPLY TACK COAT TO MILLED SURFACES PRIOR TO BEING OVERLAID AT THE RATE OF 0.10 GALLONS PER SQUARE YARD.

HOT MIX ASPHALT KEY DETAIL
NOT TO SCALE

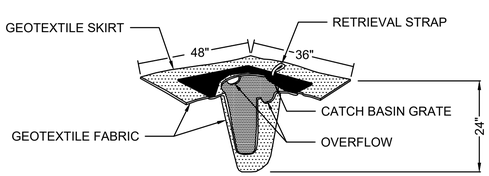


TEMPORARY PAVEMENT TRANSITION DETAIL
NOT TO SCALE

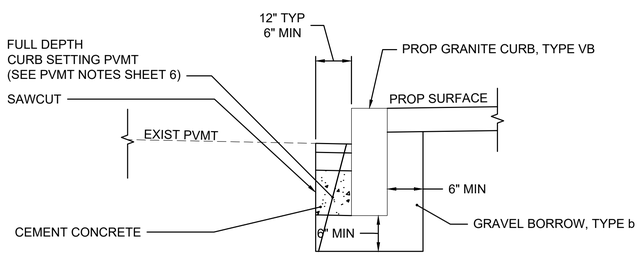


* TOLERANCE FOR CONSTRUCTION ±0.5%

BACK OF CEMENT CONCRETE SIDEWALK AT
BUILDING/WALL/CURB DETAIL
NOT TO SCALE

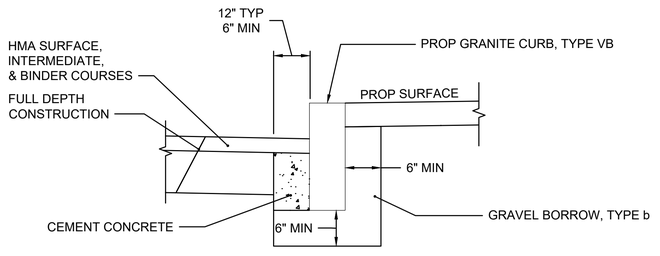


SILT SACK FOR SEDIMENT CONTROL
NOT TO SCALE



NOTES:
1. CURB SETTING SHALL CONFORM TO MASSDOT STANDARD DETAIL E106.3.0.

METHOD OF SETTING VERTICAL GRANITE CURB
(AGAINST EXISTING PAVEMENT)
NOT TO SCALE



NOTES:
1. CURB SETTING SHALL CONFORM TO MASSDOT STANDARD DETAIL E106.3.0.

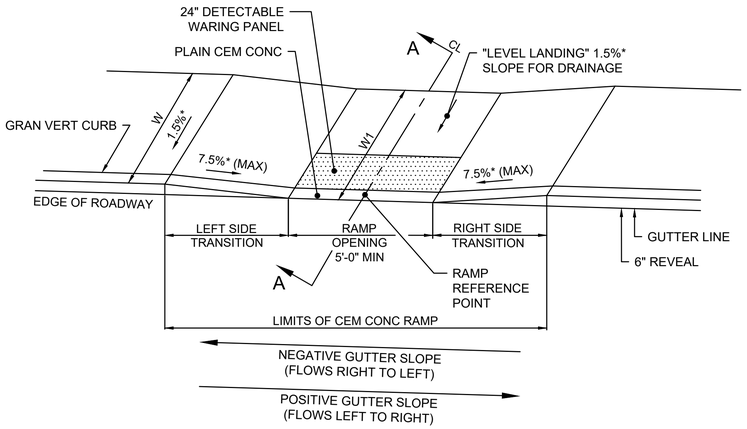
METHOD OF SETTING VERTICAL GRANITE CURB
(AGAINST FULL DEPTH HMA CONSTRUCTION)
NOT TO SCALE

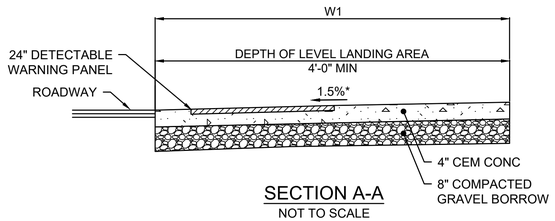
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	71	100
	STANTEC FILE NO. 179411056		

PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS
PART 1 OF 7

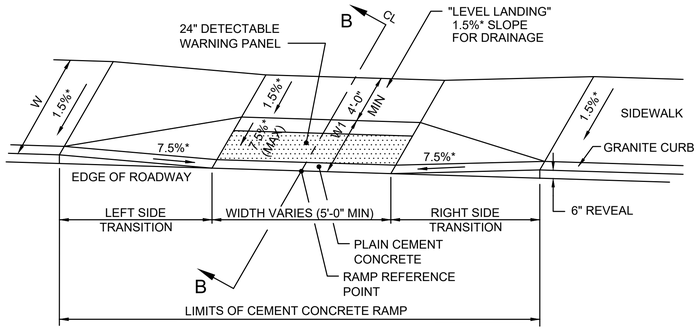
APPLETON_ST_PCR_DW_DETAILS.DWG Plotted on 10-May-2024 2:28 PM

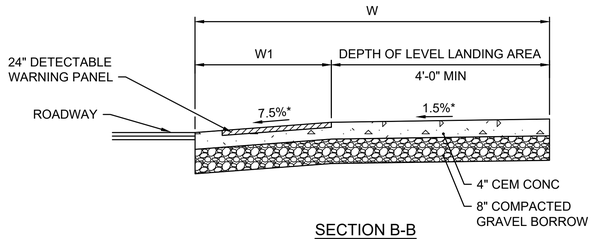




SECTION A-A
NOT TO SCALE

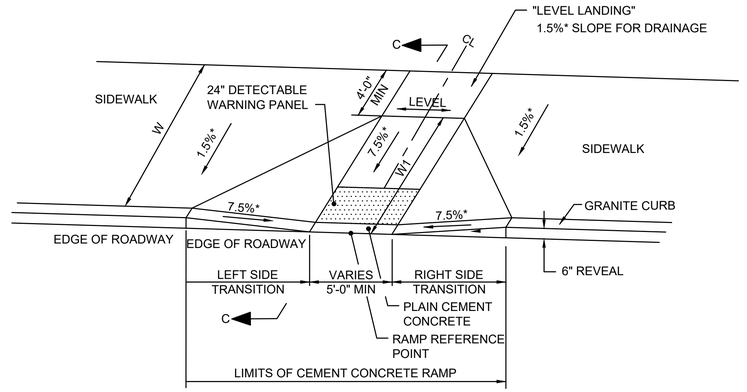
PEDESTRIAN RAMP DETAIL - TYPE A
NOT TO SCALE

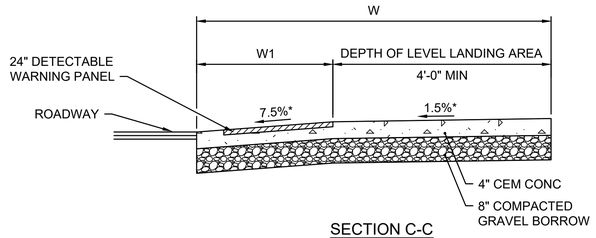




SECTION B-B
NOT TO SCALE

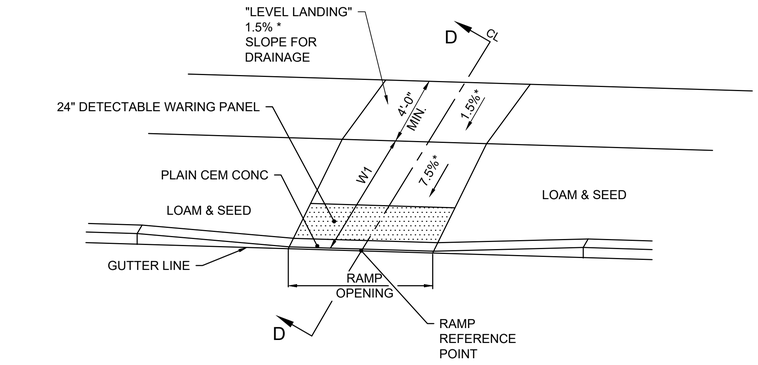
PEDESTRIAN RAMP DETAIL - TYPE B
NOT TO SCALE

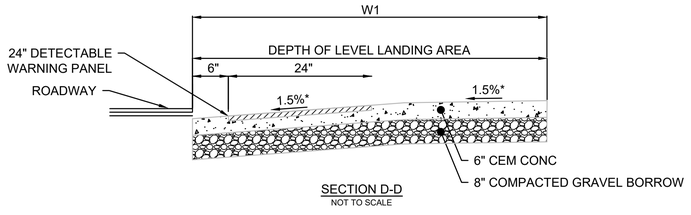




SECTION C-C
NOT TO SCALE

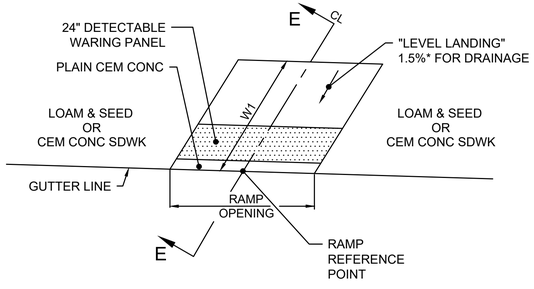
PEDESTRIAN RAMP DETAIL - TYPE C
NOT TO SCALE

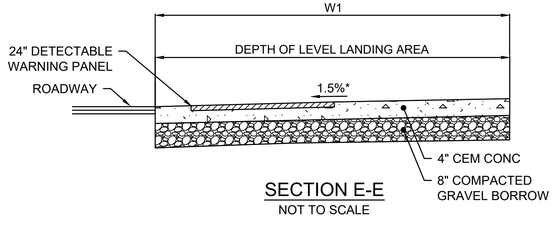




SECTION D-D
NOT TO SCALE

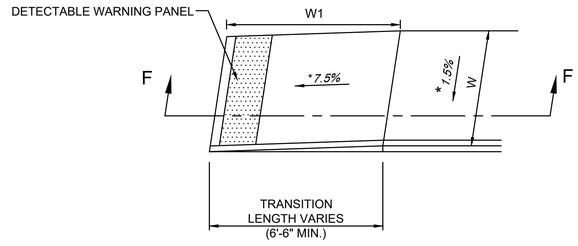
PEDESTRIAN RAMP DETAIL - TYPE D
NOT TO SCALE

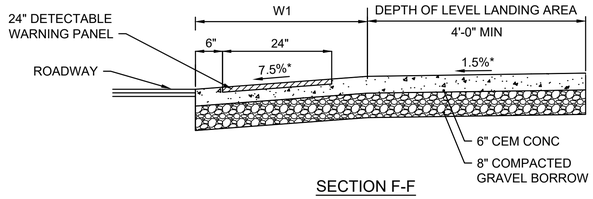




SECTION E-E
NOT TO SCALE

WHEELCHAIR RAMP DETAIL - TYPE E
NOT TO SCALE





SECTION F-F
NOT TO SCALE

PEDESTRIAN RAMP DETAIL - TYPE F
NOT TO SCALE

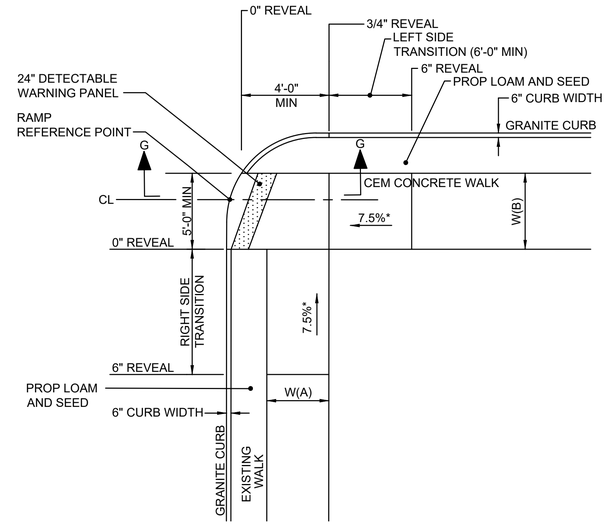
ARLINGTON
APPLETON STREET & MASS AVE

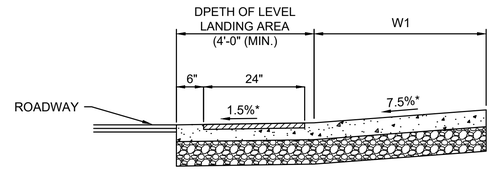
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	72	100
	STANTEC FILE NO. 179411056		

PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS
PART 2 OF 7

PEDESTRIAN CURB RAMPS

PCR #	TYPE	RAMP REFERENCE POINT			LENGTH OF PRIMARY RAMP (W1)	WIDTH OF SIDEWALK (W)	WIDTH OF RAMP OPENING	DEPTH OF LEVEL LANDING	ROADWAY GUTTER SLOPE	RAMP MATERIAL	TRANSITION LENGTH	
		STREET	STATION	OFFSET							LEFT SIDE	RIGHT SIDE
1	B	MASS AVE	102+65	25.00' LT	3.50'	4.00'	5.00'	4.00'	1.50%	CEM CONC	6.50'	6.50'
2	C	MASS AVE	102+44	11.00' RT	4.25'	VARIES	5.00'	4.00'	2.55%	CEM CONC	6.50'	11.00'
3	E	RICHARDSON STREET	200+73	12.28' LT	6.00'	VARIES	5.00'	4.00'	1.5%	CEM CONC	N/A	N/A
4	-	RICHARDSON STREET	200+74	13.72' RT	7.00'	VARIES	5.00'	4.00'	1.62%	CEM CONC	N/A	N/A
5	SEE CUSTOM DETAIL	LOWELL STREET	302+28	14.09' RT	SEE CUSTOM DETAIL	→	→	→	1.72%	CEM CONC	N/A	11.50'
6	SEE CUSTOM DETAIL	LOWELL STREET	302+37	17.45' LT	SEE CUSTOM DETAIL	→	→	→	-2.49%	CEM CONC	N/A	N/A
7	A	MASS AVE	107+25	11.00' LT	6.50'	6.50'	5.00'	6.50'	2.87%	CEM CONC	10.25'	5.00'
8	C	MASS AVE	107+25	11.00' LT	3.00'	7.00'	5.00'	4.00'	-3.23%	CEM CONC	6.50'	14.00'
9	E	CLARK STREET	400+73	12.00' RT	6.50'	6.50'	5.00'	6.50'	1.47%	CEM CONC	N/A	N/A
10	E	CLARK STREET	400+70	12.00' LT	5.50'	VARIES	5.00'	5.50'	2.84%	CEM CONC	N/A	N/A
11	SEE CUSTOM DETAIL	MASS AVE	100+98	13.50' RT	SEE CUSTOM DETAIL	→	→	→	-1.36%	CEM CONC	N/A	6.50'
12	SEE CUSTOM DETAIL	MASS AVE	110+12	22.25' LT	SEE CUSTOM DETAIL	→	→	→		CEM CONC	16.00'	N/A
13	SEE CUSTOM DETAIL	MASS AVE	110+12	22.25' LT	SEE CUSTOM DETAIL	→	→	→	2.36%	CEM CONC	16.00'	N/A
14	C	APPLETON STREET	501+61	17.46' RT	L: 3.14' R: 5.09'	VARIES	5.00'	4.00'	-2.12%	CEM CONC	3.35'	8.39'
15	C	MASS AVE	110+73	24.00' RT	4.20'	VARIES	5.00'	4.00'	1.71%	CEM CONC	6.50'	6.50'
16	C	MASS AVE	110+83	17.50' LT	3.50'	VARIES	5.00'	4.00'	2.52%	CEM CONC	6.50'	6.50'
17	C	APPLETON PLACE	600+97	9.59' LT	L: 7.00' R: 5.00'	VARIES	5.00'	4.00'	1.98%	CEM CONC	15.25'	6.50
18	SEE CUSTOM DETAIL	APPLETON PLACE	600+92'	7.73' RT	SEE CUSTOM DETAIL	→	→	→		CEM CONC	N/A	
19	C	MASS AVE	113+86	19.71' LT	3.37'	VARIES	5.00'	4.00'	1.41%	CEM CONC	9.00'	6.50'
20	A	MASS AVE	114+00	21.43' RT	L: 5.47' R: 5.31'	L: 5.47' R: 5.31'	L: 5.47' R: 5.31'	L: 5.47' R: 5.31'	-2.19%	CEM CONC	6.50'	13.50'
21	C	FOREST STREET	700+77	14.41' RT	L: 5.00' R: 3.54'	VARIES	5.00'	4.00'	2.03%	CEM CONC	3.14'	6.50'
22	C	FOREST STREET	700+93	16.19' LT	L: 5.36' R: 3.50'	VARIES	5.00'	4.00'	-0.10%	CEM CONC	N/A	7.667'
23	C	BURTON STREET	800+77	12.85' LT	L: 7.53' R: 6.00'	VARIES	5.00'	4.00'	1.09%	CEM CONC	9.00'	6.50'
24	C	BURTON STREET	800+72	12.98' RT	L: 5.36' R: 3.50'	VARIES	5.00'	4.00'	-1.71%	CEM CONC	3.25'	9.00'
25	F	MASS AVE	117+39	27.13' RT	3.50'	5.27'	5.27'	4.00'	1.50%	CEM CONC	N/A	N/A
26	F	MASS AVE	117+59	27.82' RT	7.42'	5.92'	5.92'	4.00'	1.50%	CEM CONC	N/A	N/A
27	C	MASS AVE	119+08	18.00' LT	2.50'	17.00'	5.00'	4.00'	1.12%	CEM CONC	9.00'	6.50'
28	C	MASS AVE	119+08	19.00' RT	5.39'	5.50'	5.50'	4.00'	-2.22%	CEM CONC	6.50'	11.00'
29	F	MASS AVE	119+41	27.40' RT	4.00'	5.50'	5.50'	4.00'	5.00%	CEM CONC	N/A	N/A
30	B	LOWELL STREET	300+85	11.00' RT	3.50'	7.50'	5.00'	4.00'	0.35%	CEM CONC	6.50'	7.67'
31	D	LOWELL STREET	300+85	10.57' LT	4.50'	7.00'	5.00'	7.00'	1.30%	CEM CONC	7.67'	N/A
32	G	LOWELL STREET	300+98	18.57' LT	7.00'	A: 4.00' B: 7.00'	7.00'	7.00'	2.15%	CEM CONC	N/A	6.50'
33	G	LOWELL STREET	301+24	18.05' LT	7.35'	A: 4.00' B: 7.00'	6.00'	7.35'	1.66%	CEM CONC	12.68'	N/A





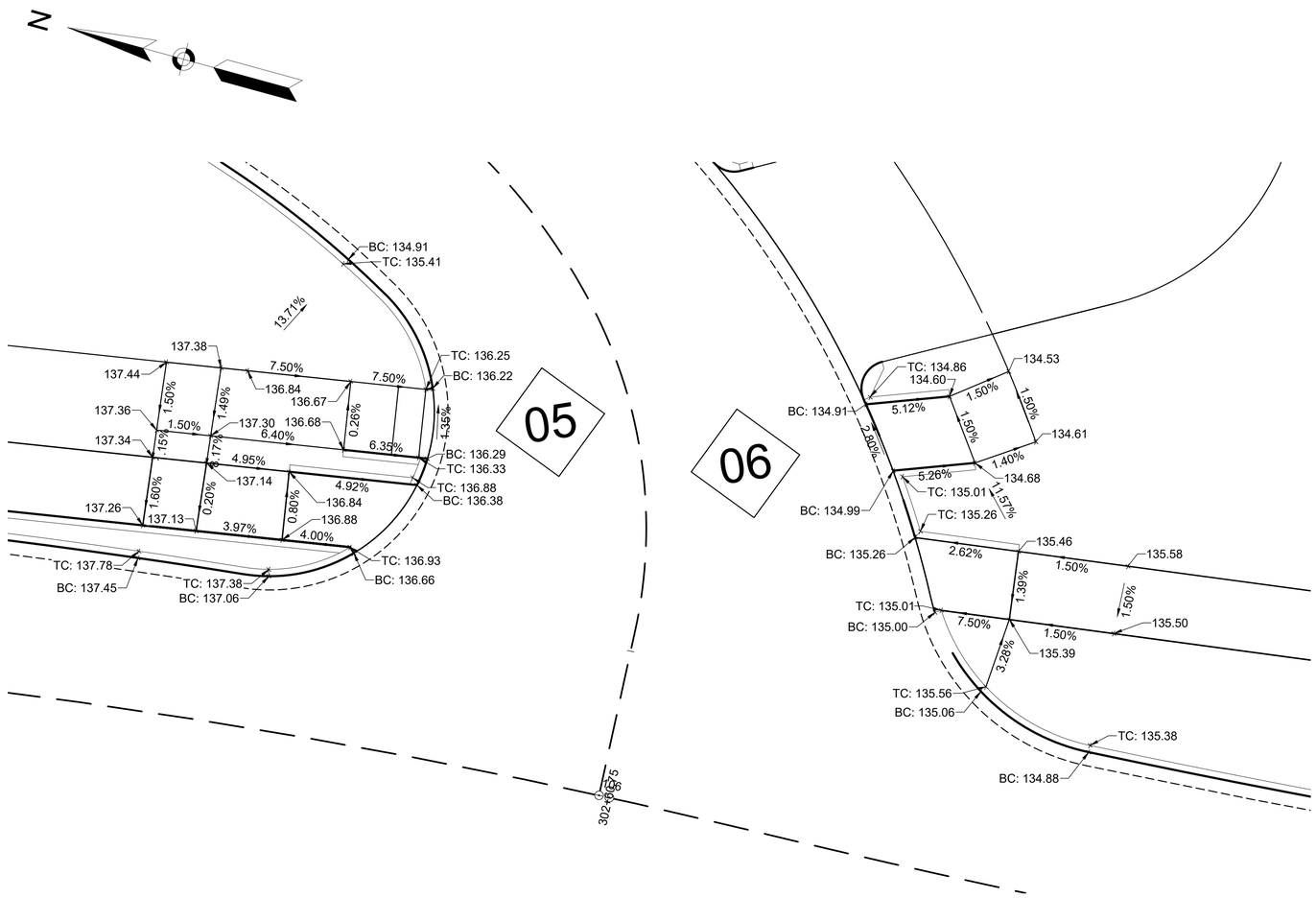
WHEELCHAIR RAMP DETAIL - TYPE G

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	73	100
	STANTEC FILE NO. 179411056		

PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS
PART 3 OF 7

APPLETON_ST_PCR_CUSTOM_DETAILS.DWG Plotted on 10-May-2024 3:04 PM



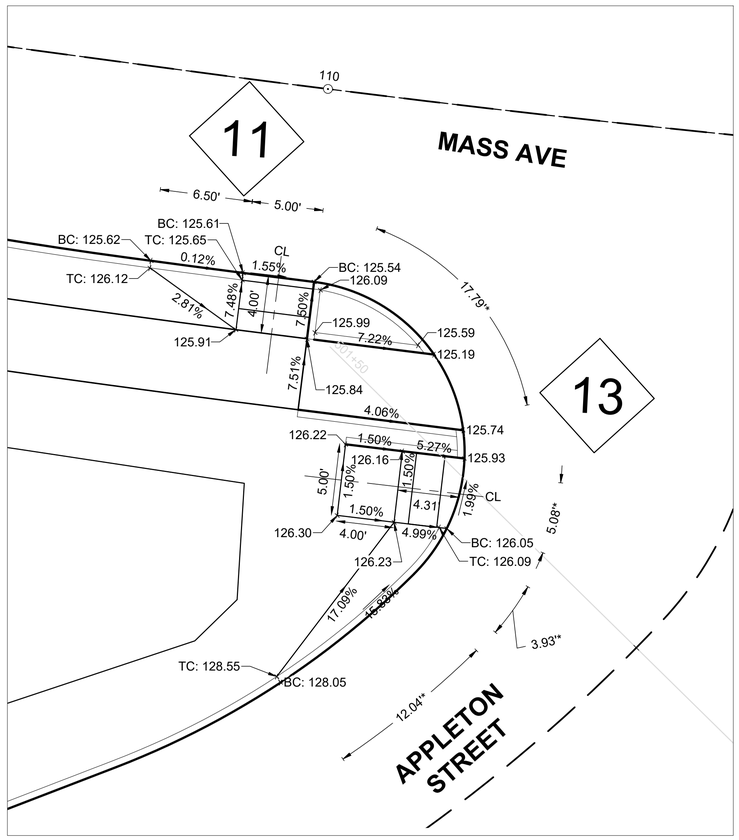
LOWELL ST PEDESTRIAN CURB RAMP DETAILS

0 5 10 15 20
SCALE: 1" = 5'

ARLINGTON
APPLETON STREET & MASS AVE

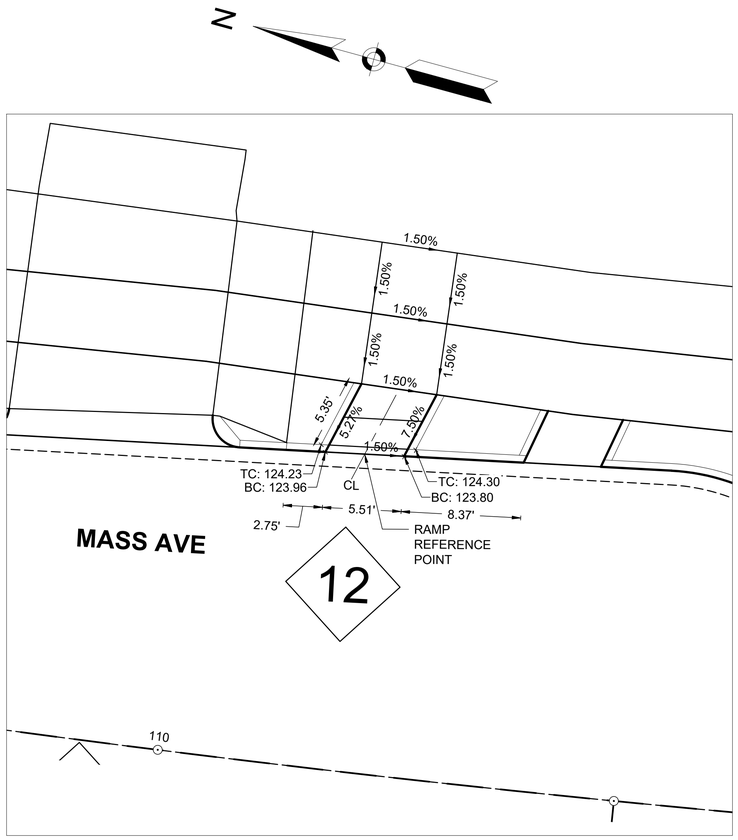
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	74	100
	STANTEC FILE NO. 179411056		

PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS
PART 4 OF 7



PEDESTRIAN CURB RAMP DETAILS 11 & 13

0 5 10 15 20
SCALE: 1" = 5'



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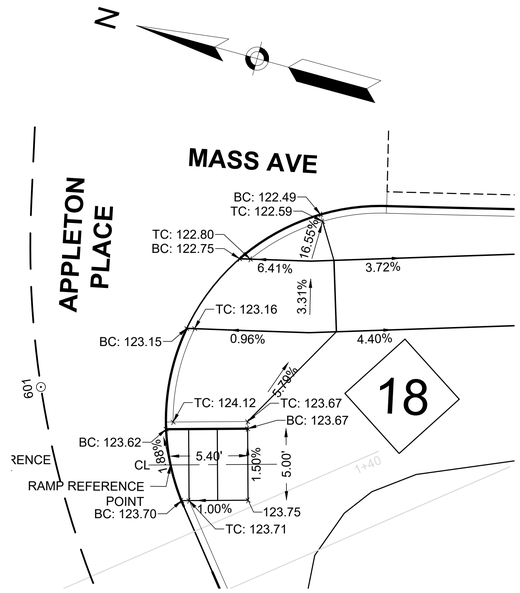


PEDESTRIAN CURB RAMP DETAIL 18

0 5 10 15 20
SCALE: 1" = 5'

APPLETON_ST_PCR_CUSTOM_DETAILS.DWG Plotted on 10-May-2024 3:04 PM

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	75	100
	STANTEC FILE NO. 179411056		

PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS
PART 5 OF 7

FOREST ST / BURTON ST / MASS AVE PEDESTRIAN CURB RAMP DETAILS

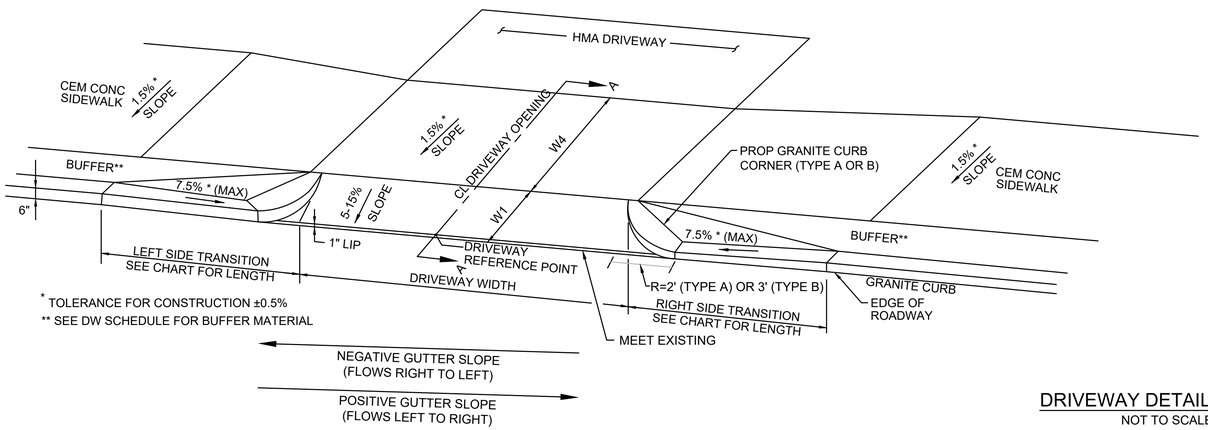
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	76	100
	STANTEC FILE NO. 179411056		

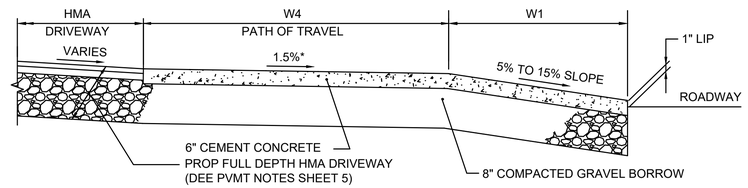
PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS
PART 6 OF 7

DRIVEWAYS

DW #	TYPE	RAMP REFERENCE POINT			WIDTH OF DRIVEWAY AT GUTTER	ROADWAY GUTTER SLOPE	WIDTHS				TRANSITION LENGTH		CURB TYPE	DRIVEWAY MATERIAL		
		STREET	STATION	OFFSET			W1	W2	W3	W4 (PATH OF TRAVEL)	LEFT SIDE	RIGHT SIDE		BUFFER	APRON	DRIVEWAY
1	A	MASS AVE	102+65	25.00' LT	19.19'	3.06%	2.00'	-	-	6.75'			A	CONC	CEM CONC	CEM CONC
2	B	MASS AVE	103+22	18.00' LT	9.36'	3.55%	2.00'	-	5.00'	7.80'	9.00'	6.50'	A	CONC	CEM CONC	CEM CONC
3	B	MASS AVE	103+42	18.00' RT	26.00'	-4.13%	2.00'	-	5.00'				A	CONC	CEM CONC	CEM CONC
4	B	MASS AVE	104+38	18.00' RT	25.80'	-3.64%	2.00'	-	5.00'	7.00'	6.50'	14.50'	A	CONC	CEM CONC	CEM CONC
5	B	MASS AVE	106+52	12.00' RT	16.00'	-3.33%	2.00'	-	5.00'	10.00'	4.50'	9.00'	A	CONC	CEM CONC	CEM CONC
6	C	MASS AVE	106+83	18.00' LT	9.50'	3.31%	2.00'	2.00'	5.00'	31.00'	N/A	N/A	A	CONC	CEM CONC	CEM CONC
7	B	MASS AVE	107+96	11.00' RT	16.00'	-2.45%	2.00'	-	5.00'	10.25'	3.25'	9.00'	A	CONC	CEM CONC	CEM CONC
8	B	MASS AVE	108+33	11.00' RT	24.00'	-2.18%	2.00'	-	5.00'	10.00'	6.50'	3.25'	A	CONC	CEM CONC	CEM CONC
9	B	MASS AVE	108+71	18.00' LT	30.00'	2.67%	2.00'	-	5.00'	12.50'			A	CONC	CEM CONC	CEM CONC
11	C	MASS AVE	109+94	21.00' LT	14.23'	3.09%	2.00'	L: 3.68' R: 4.67'	5.00'	5.50'	7.67'	5.50'	A	L: LANDSCAPED R: CONC	CEM CONC	CEM CONC
12	C	MASS AVE	110+63	17.50' LT	18.00'		2.00'	6.65'	5.00'	5.85'			A	CONC	CEM CONC	CEM CONC
13	B	MASS AVE	111+94	16.00' RT	25.70'	-2.14%	2.00'	-	5.00'	7.00'	6.50'	6.50'	A	CONC	CEM CONC	CEM CONC
14	B	MASS AVE	112+50	23.75' LT	12.00'	1.59%	2.00'	-	5.00'	15.60'	6.50'	-	A	CONC	CEM CONC	CEM CONC
15	B	MASS AVE	113+30	23.83' LT	18.31'		2.00'	-	5.00'	5.50'	6.50'	6.50'	A	CONC	CEM CONC	CEM CONC
16	C	MASS AVE	115+19	17.60' LT	24.00'	1.27%	2.00'	L: 1.85' R: 0.35'	5.00'	10.00'	N/A	6.50'	A	CONC	CEM CONC	CEM CONC
17	C	MASS AVE	116+00	11.00' RT	20.00'	-1.28%	2.00'	1.00'	5.00'	11.25'	6.50'	9.00'	A	CONC	CEM CONC	CEM CONC
18	B	MASS AVE	116+80	18.00' LT	24.00'	1.45%	2.00'	-	5.00'	10.00'	7.67'	6.50'	A	CONC	CEM CONC	CEM CONC
19	B	MASS AVE	117+74	11.00' RT	16.00'		2.00'	-	5.00'	11.25'			A	CONC	CEM CONC	CEM CONC
20	B	MASS AVE	118+79	19.00' RT	14.00'	-1.13%	2.00'	-	5.00'	8.90'	6.50'	6.50'	A	CONC	CEM CONC	CEM CONC
21	A	LOWELL STREET	301+89	11.00' LT	15.00'	-0.21%	2.00'	-	-	L: 7.27' R: 9.26'			B	LANDSCAPED	CEM CONC	CEM CONC
22	A	LOWELL STREET	302+27	14.50' LT	16.90'	-4.22%	3.00'	-	-	L: 26.03' R: 35.85'			A	L: LANDSCAPED R: CONC	CEM CONC	CEM CONC



DRIVEWAY DETAIL - TYPE A
NOT TO SCALE

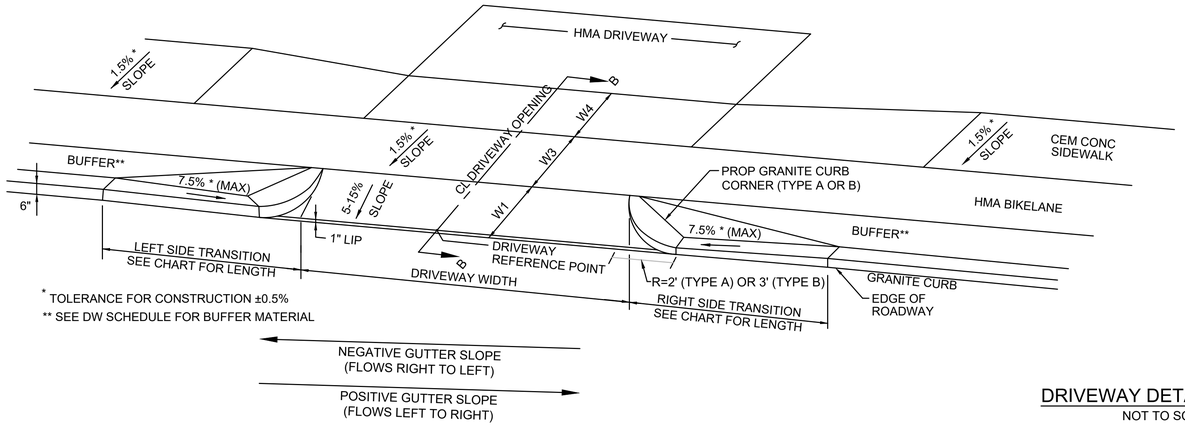


SECTION A-A
NOT TO SCALE

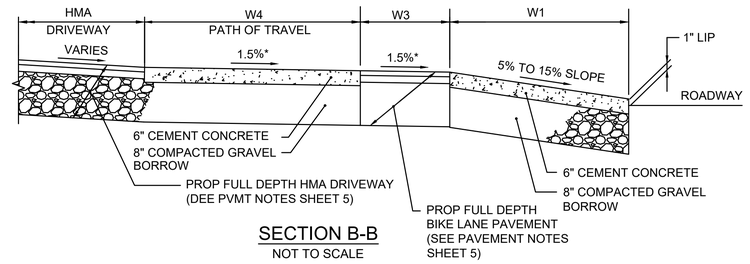
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	77	100
	STANTEC FILE NO. 179411056		

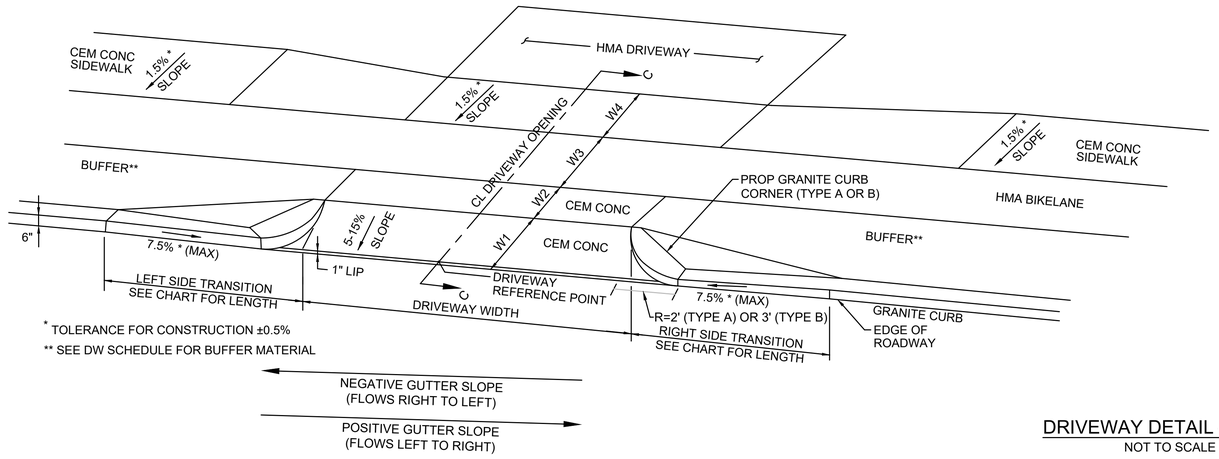
PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS
PART 7 OF 7



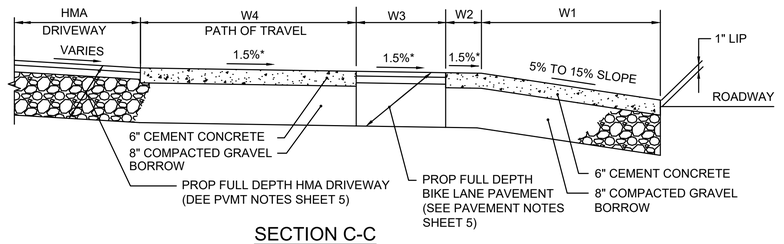
DRIVEWAY DETAIL - TYPE B
NOT TO SCALE



SECTION B-B
NOT TO SCALE



DRIVEWAY DETAIL - TYPE C
NOT TO SCALE

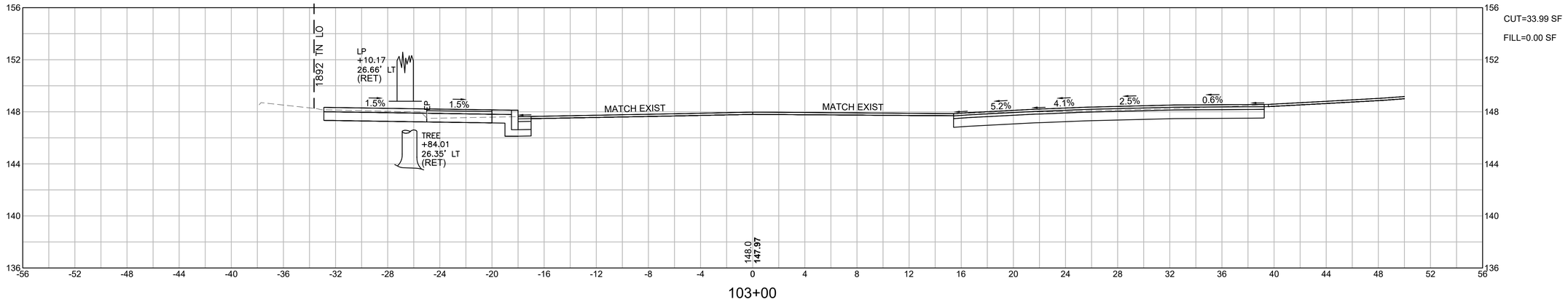


SECTION C-C
NOT TO SCALE

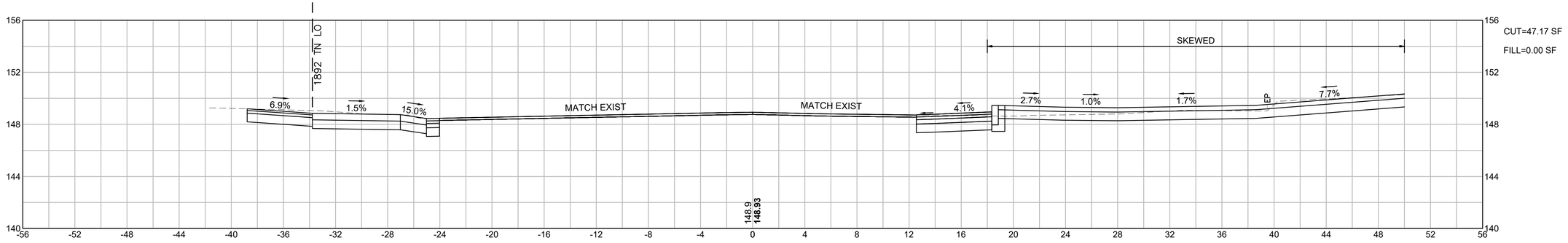
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	78	100
	STANTEC FILE NO. 179411056		

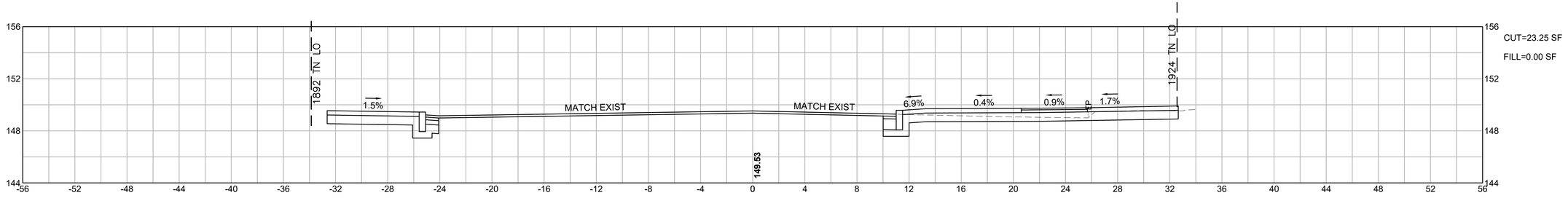
CROSS SECTIONS
PART 1 OF 23



103+00



102+70

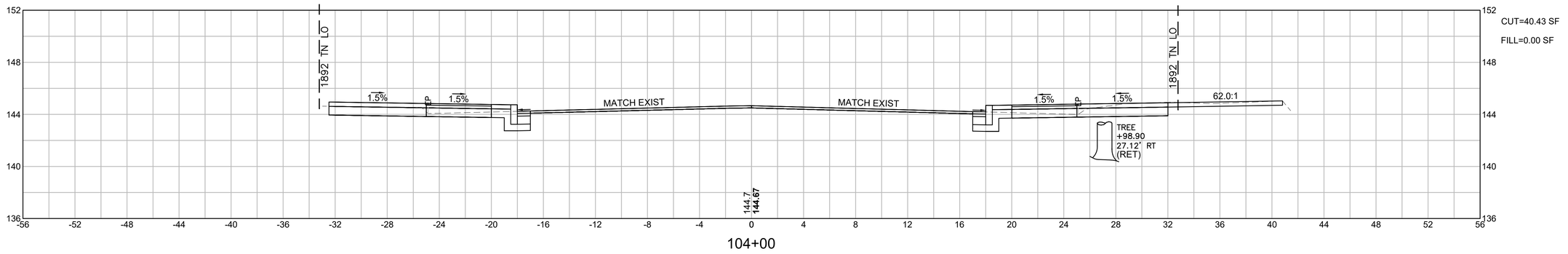


102+50

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	79	100
	STANTEC FILE NO. 179411056		

CROSS SECTIONS
PART 2 OF 23



104+00

CUT=40.43 SF

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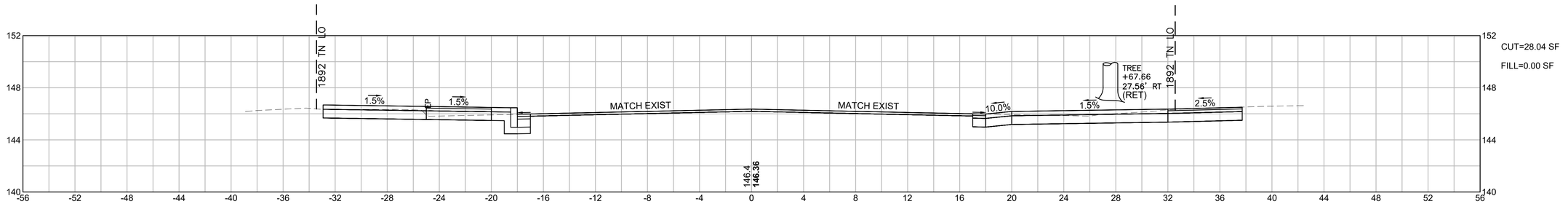
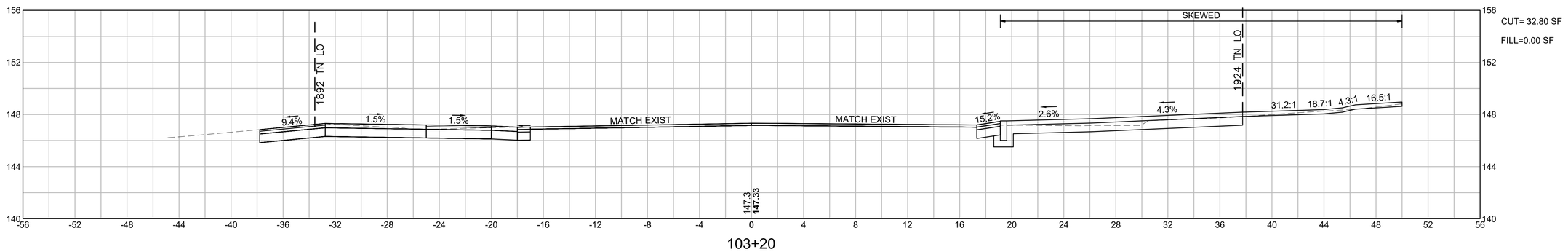


103+50

CUT=28.04 SF

FILL=0.00 SF



103+20

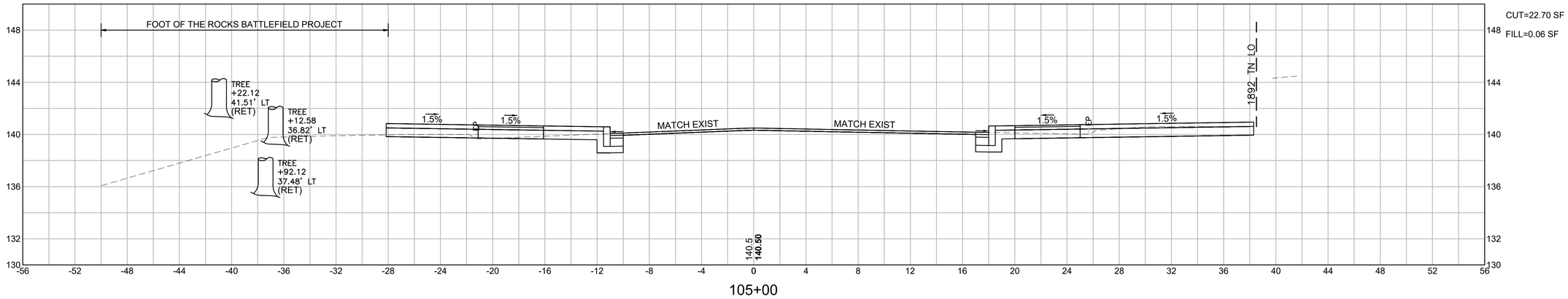
CUT= 32.80 SF

FILL=0.00 SF

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	80	100
	STANTEC FILE NO. 179411056		

CROSS SECTIONS
PART 3 OF 23



105+00

CUT=22.70 SF
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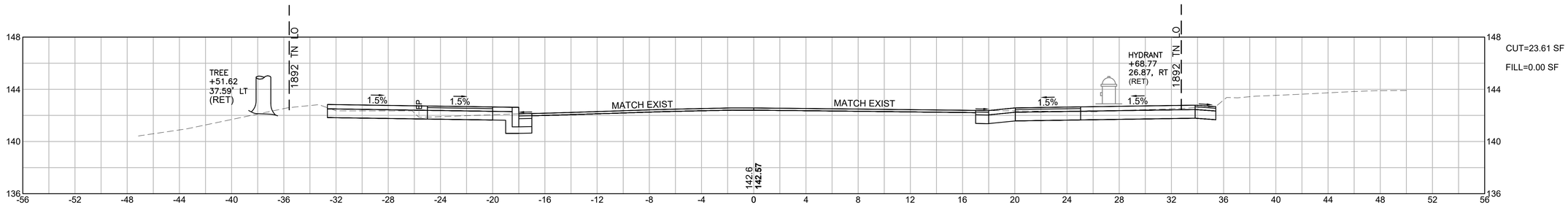

104+50

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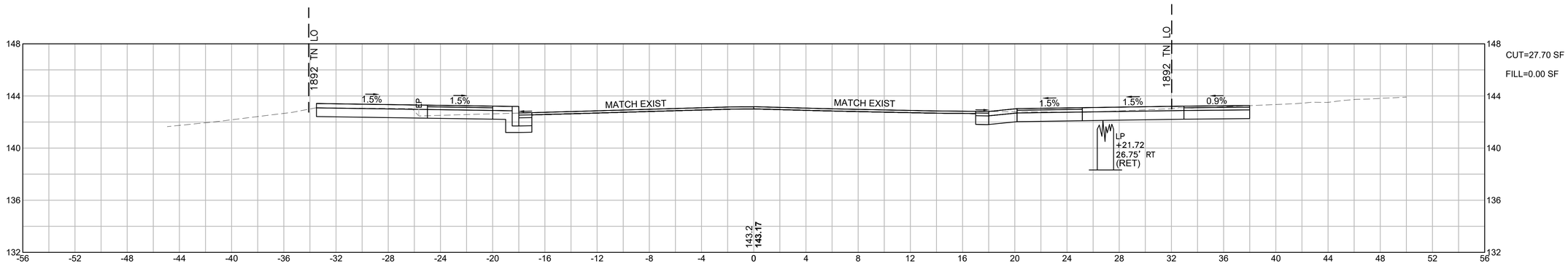


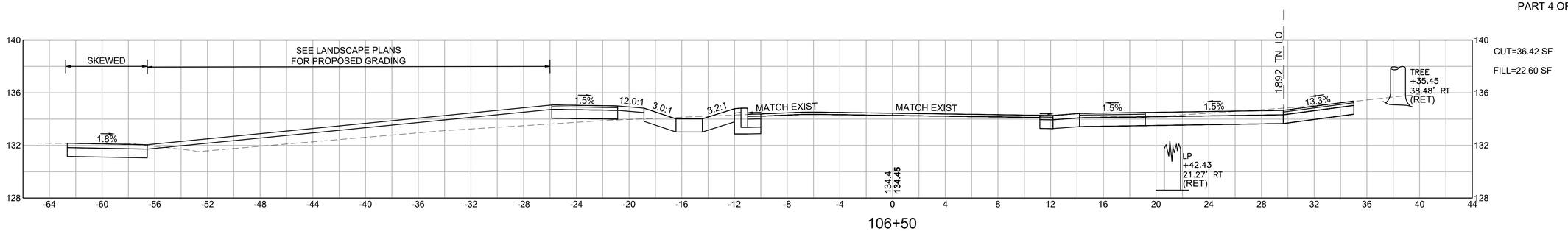
104+36

CUT=27.70 SF
FILL=0.00 SF

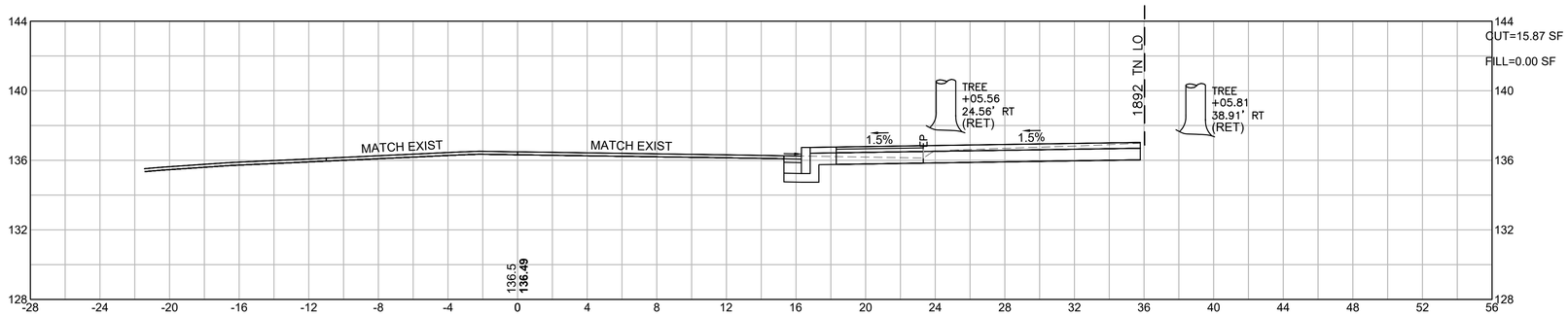
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	81	100
	STANTEC FILE NO. 179411056		

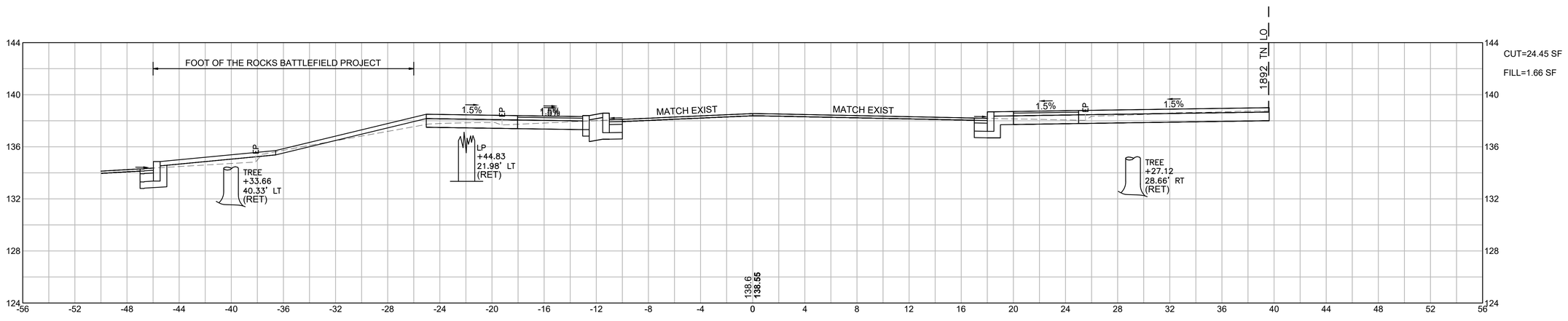
CROSS SECTIONS
PART 4 OF 23



106+50



106+00

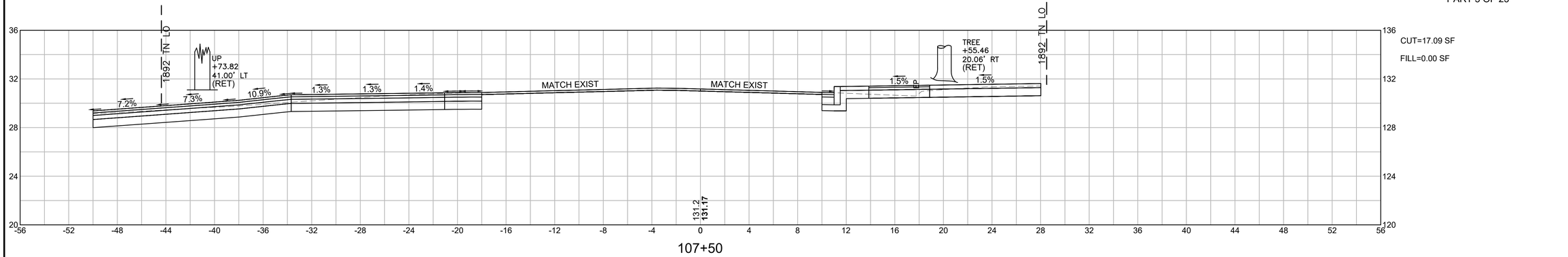


105+50

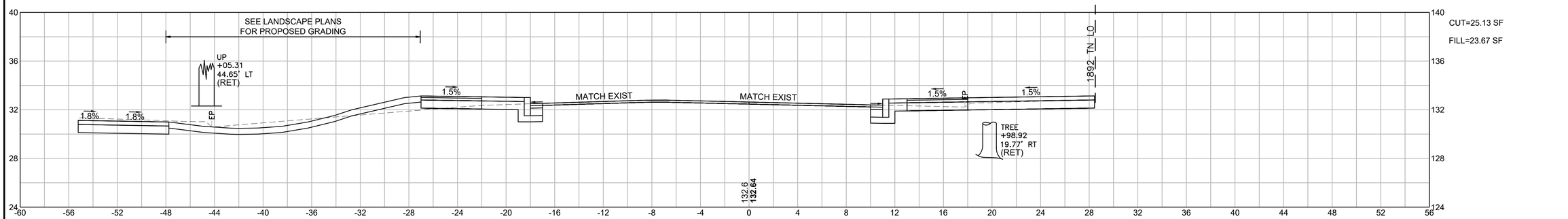
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	82	100
	STANTEC FILE NO. 179411056		

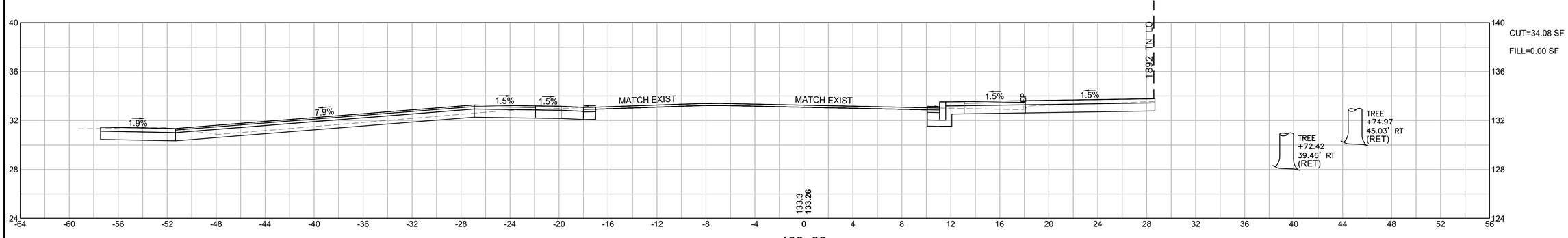
CROSS SECTIONS
PART 5 OF 23



107+50



107+00

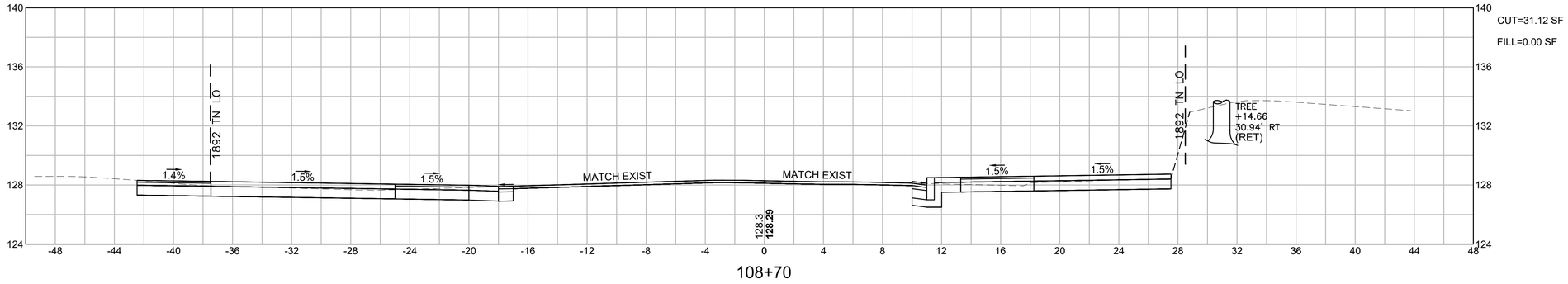


106+82

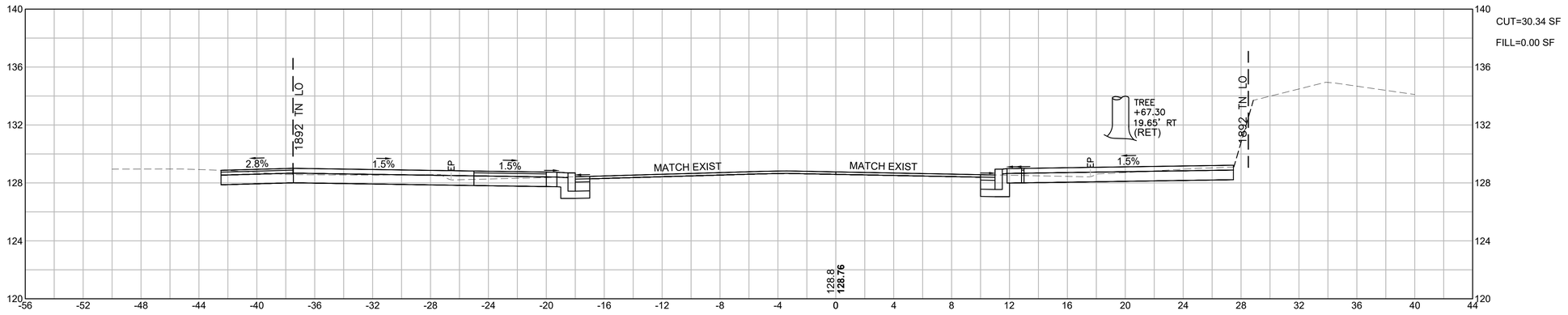
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	83	100
	STANTEC FILE NO. 179411056		

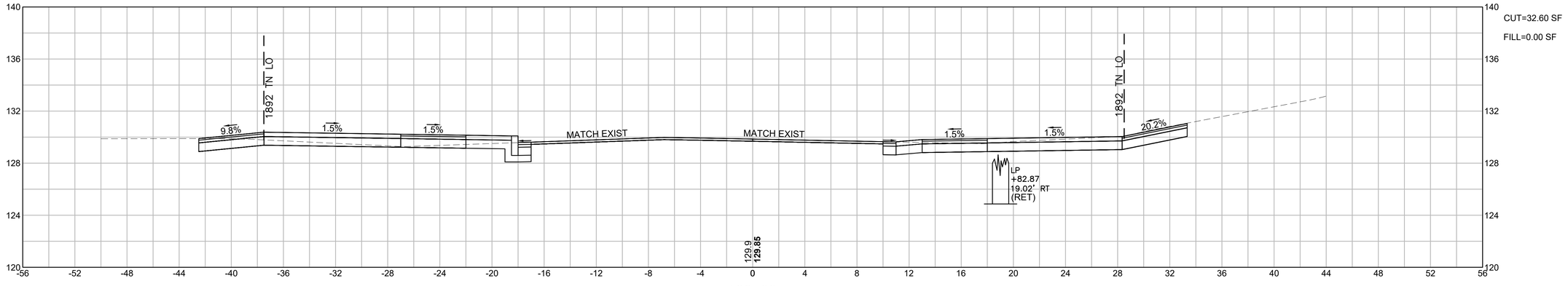
CROSS SECTIONS
PART 6 OF 23



108+70



108+50

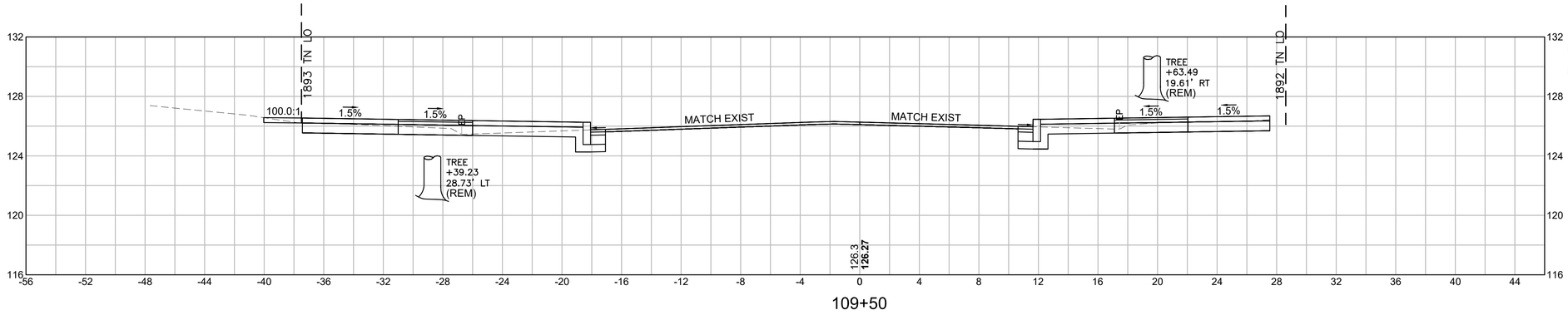


108+00

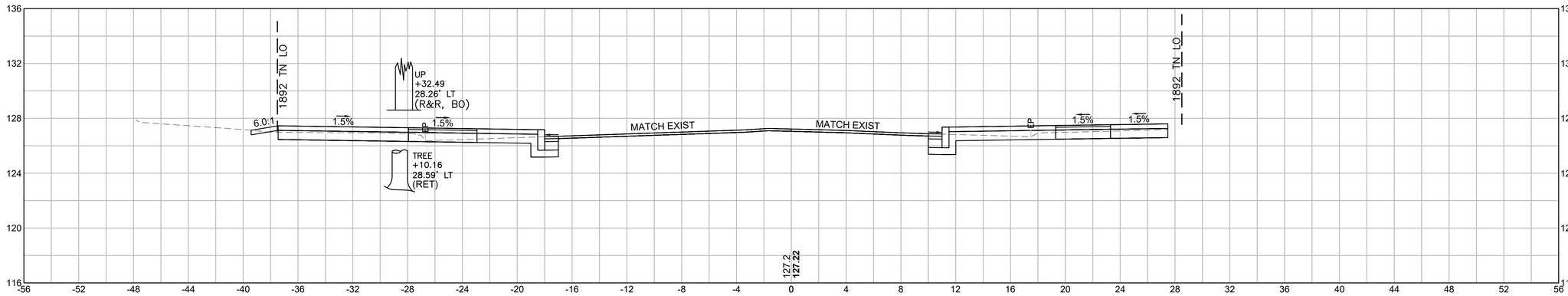
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	84	100
	STANTEC FILE NO. 179411056		

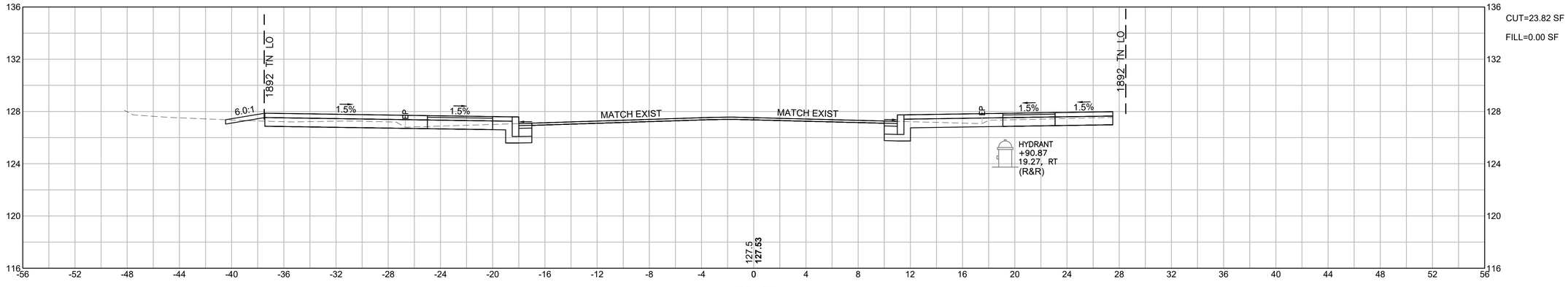
CROSS SECTIONS
PART 7 OF 23



109+50



109+15

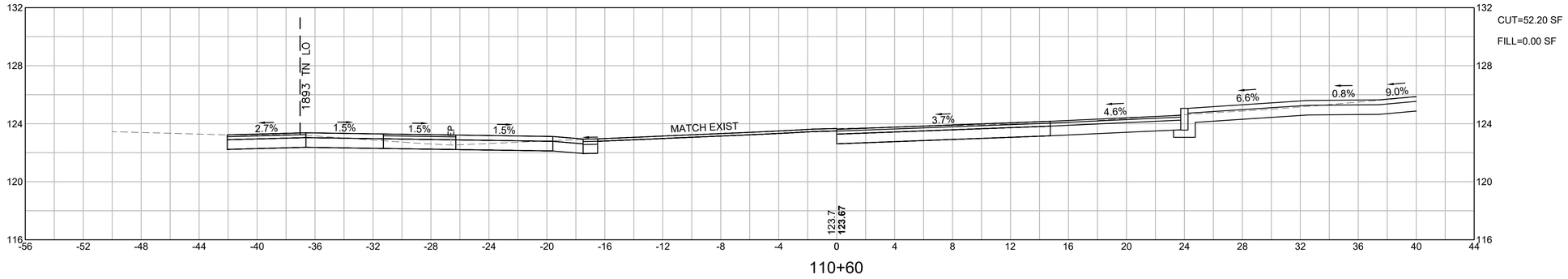


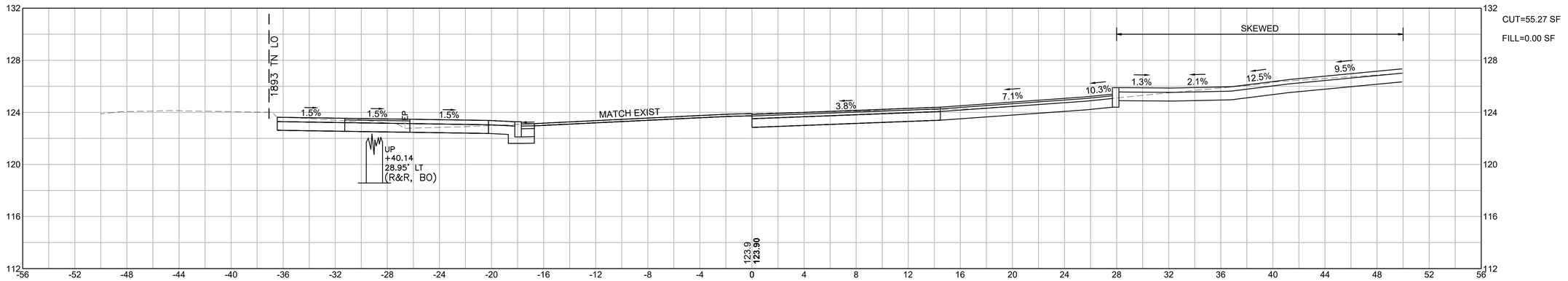
109+00

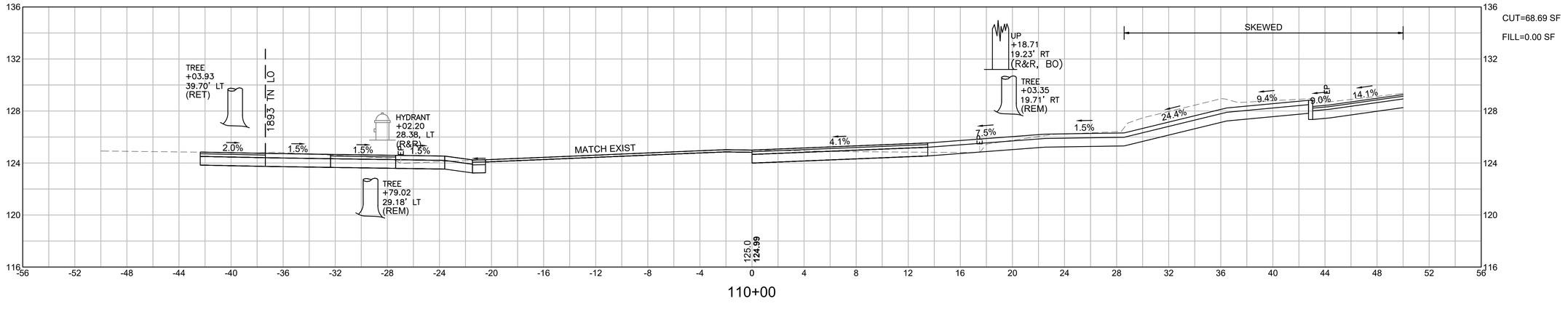
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	85	100
	STANTEC FILE NO. 179411056		

CROSS SECTIONS
PART 8 OF 23



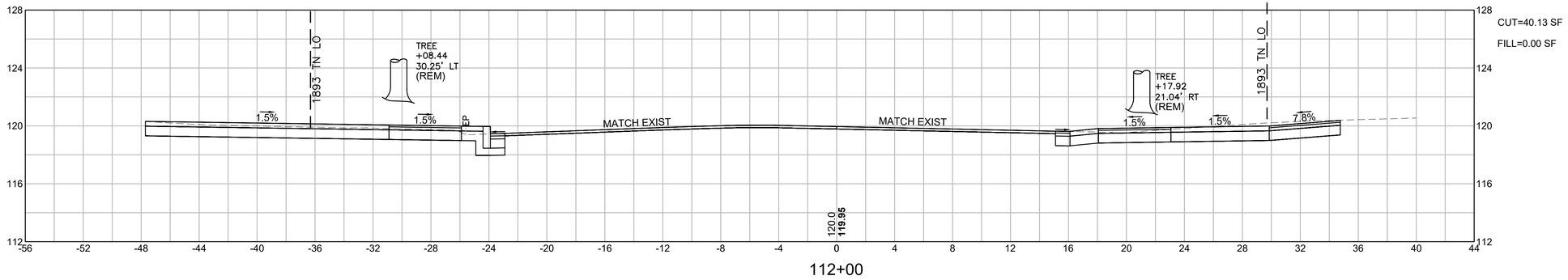




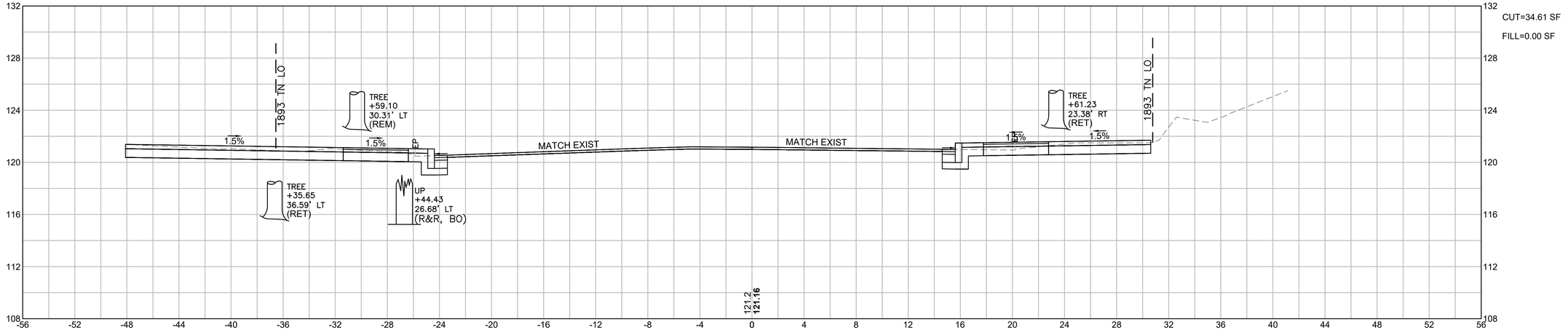
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	86	100
	STANTEC FILE NO. 179411056		

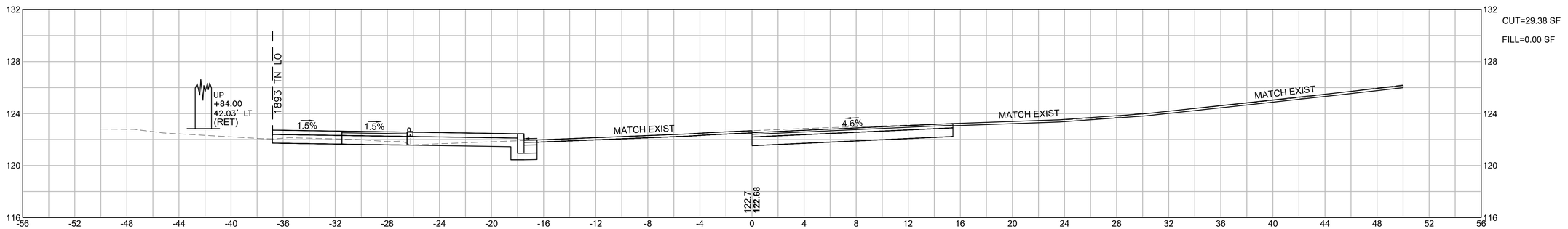
CROSS SECTIONS
PART 9 OF 23



112+00



111+50

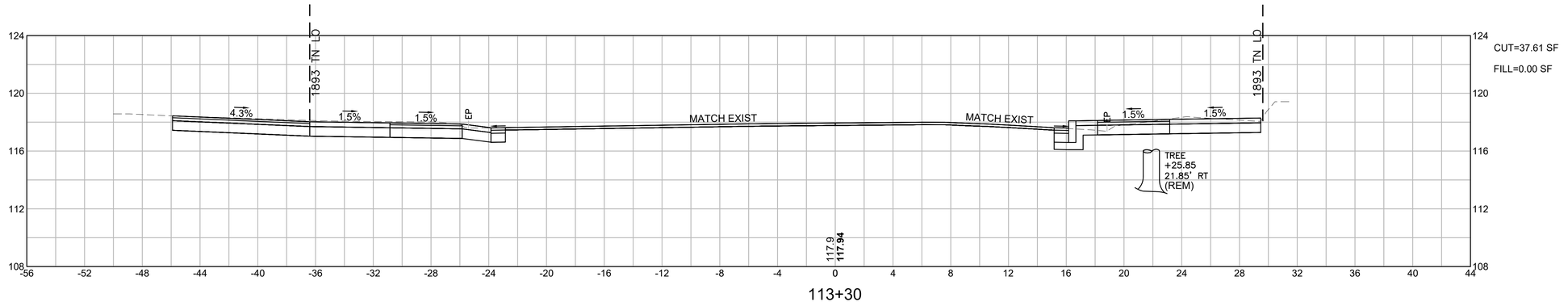


111+00

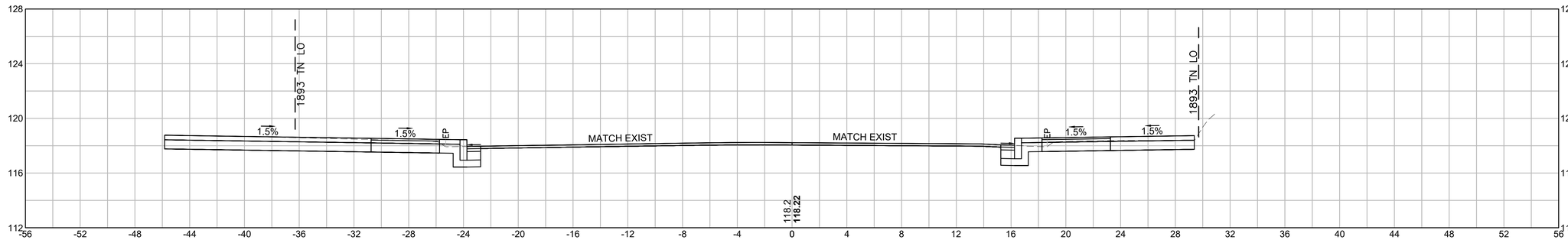
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	87	100
	STANTEC FILE NO. 179411056		

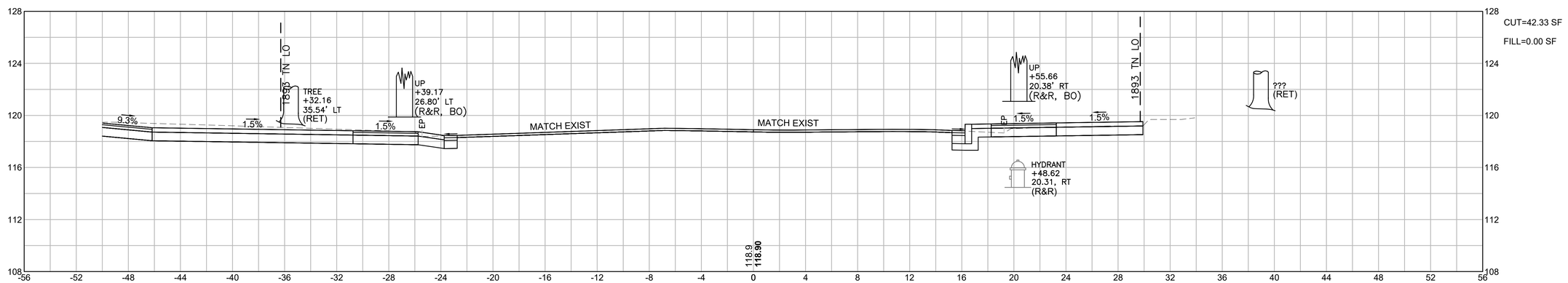
CROSS SECTIONS
PART 10 OF 23



113+30



113+00

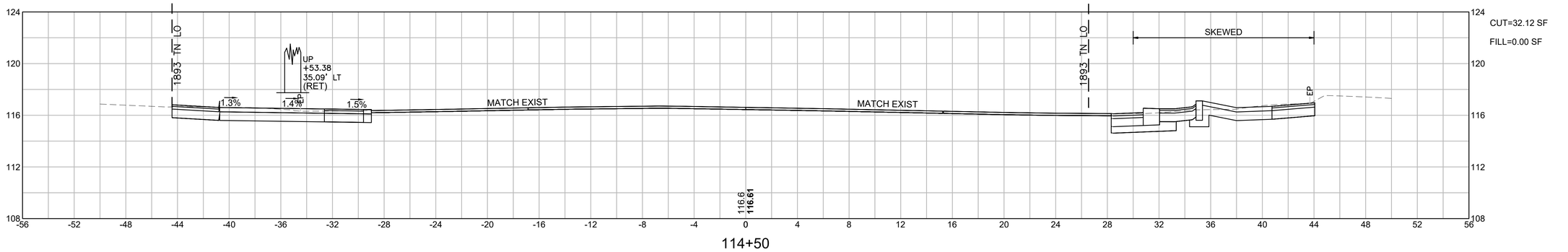


112+50

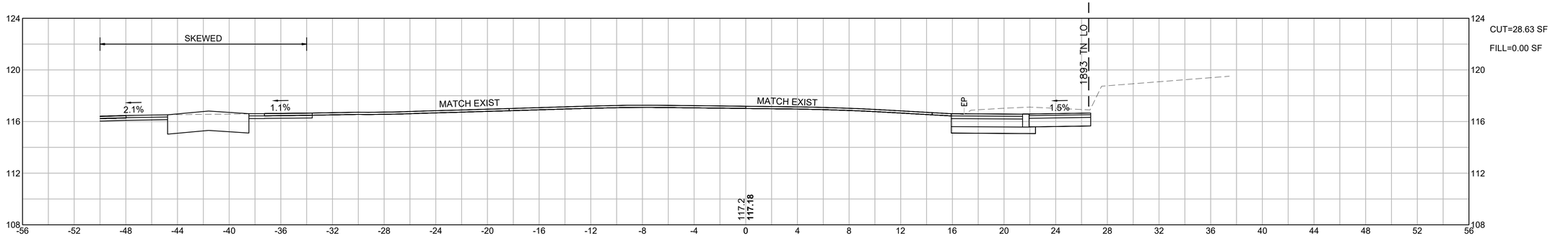
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	88	100
	STANTEC FILE NO. 179411056		

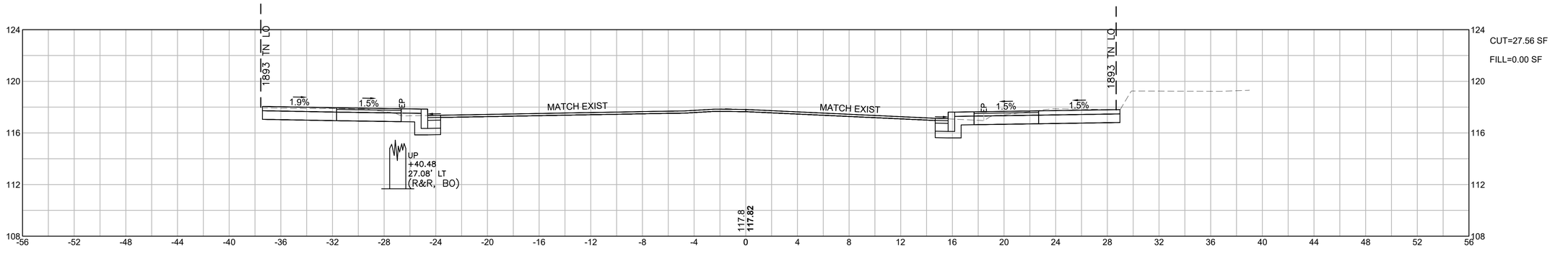
CROSS SECTIONS
PART 11 OF 23



114+50



114+00

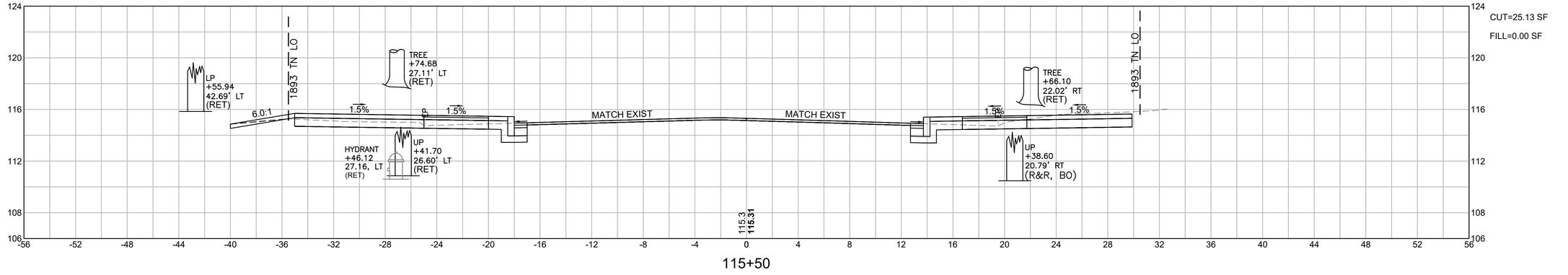


113+50

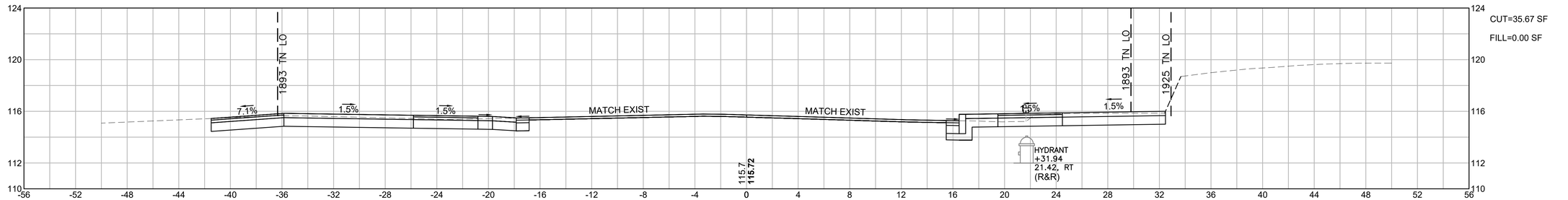
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	89	100
	STANTEC FILE NO. 179411056		

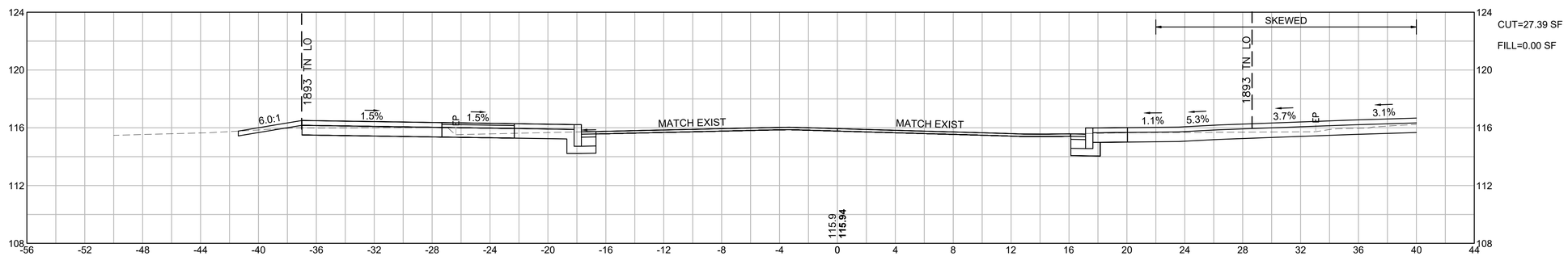
CROSS SECTIONS
PART 12 OF 23



115+50



115+17



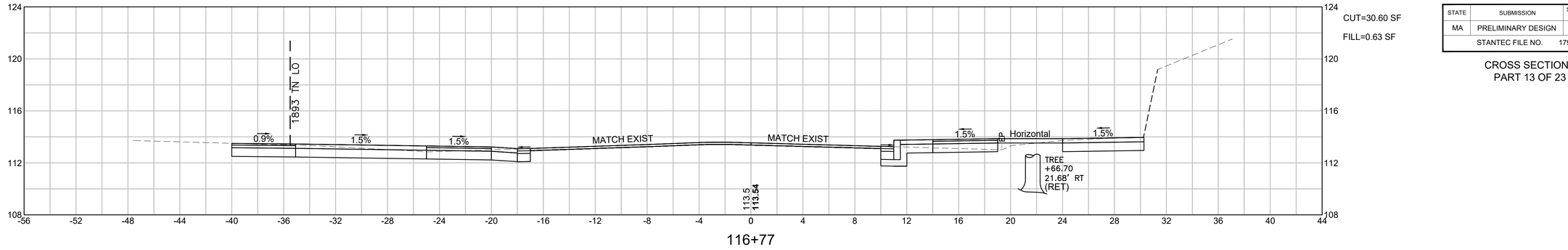
115+00

ARLINGTON
APPLETON STREET & MASS AVE

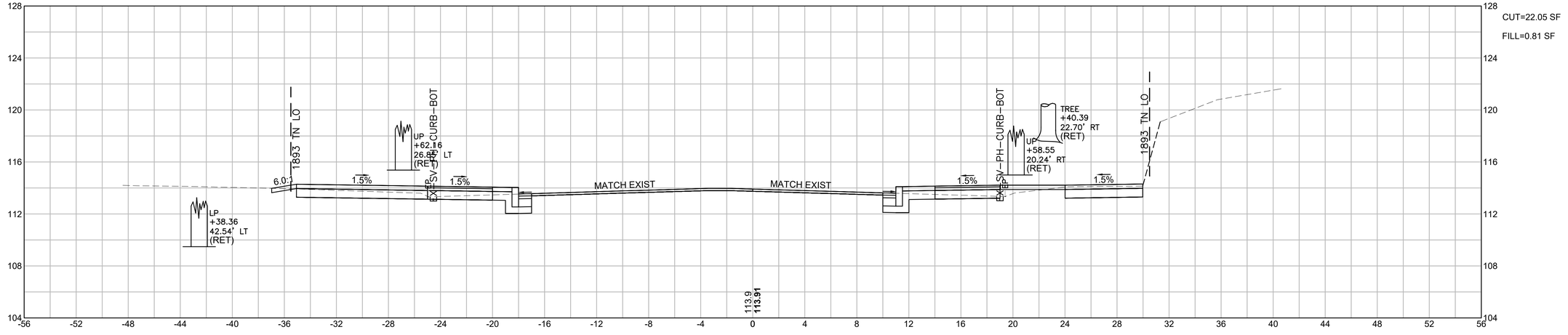
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	90	100
	STANTEC FILE NO. 179411056		

CROSS SECTIONS
PART 13 OF 23

APPLETON_ST_XS.DWG Plotted on 10-May-2024 12:21 PM



116+77



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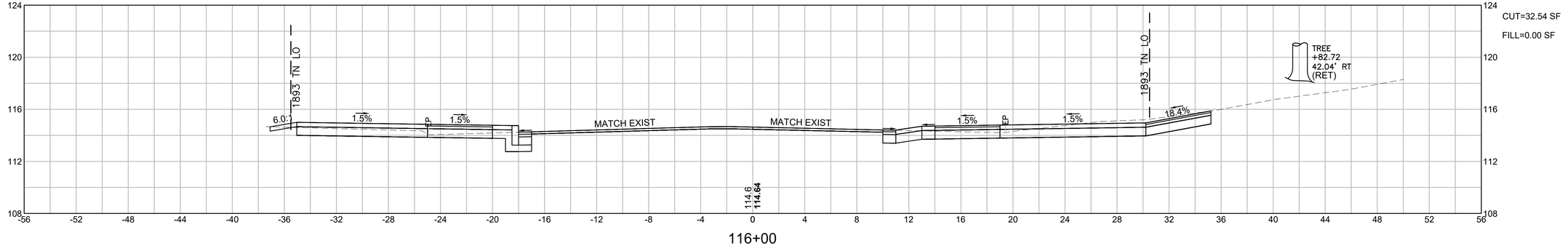


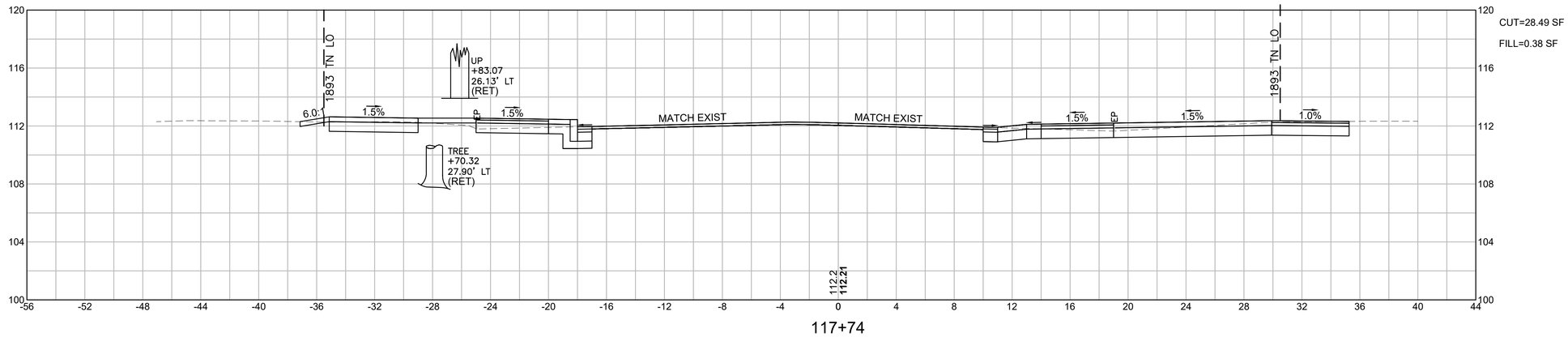
116+00

ARLINGTON
APPLETON STREET & MASS AVE

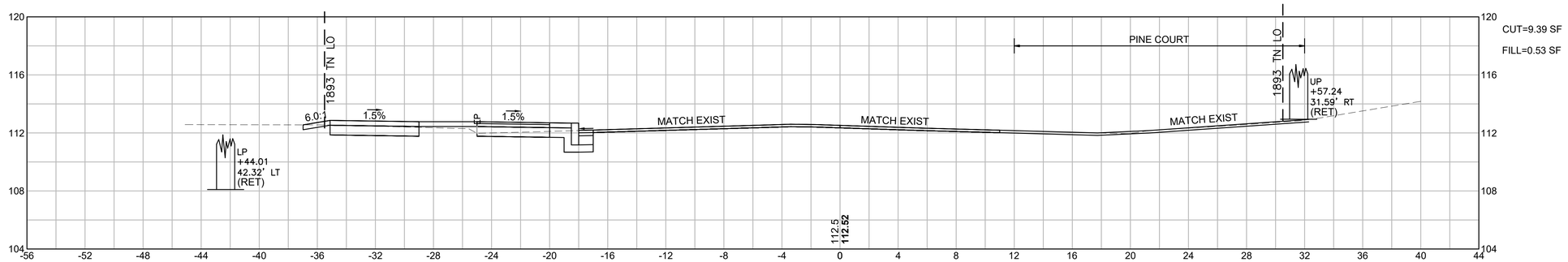
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	91	100
	STANTEC FILE NO. 179411056		

CROSS SECTIONS
PART 14 OF 23

APPLETON_ST_XS.DWG Plotted on 10-May-2024 12:22 PM



117+74



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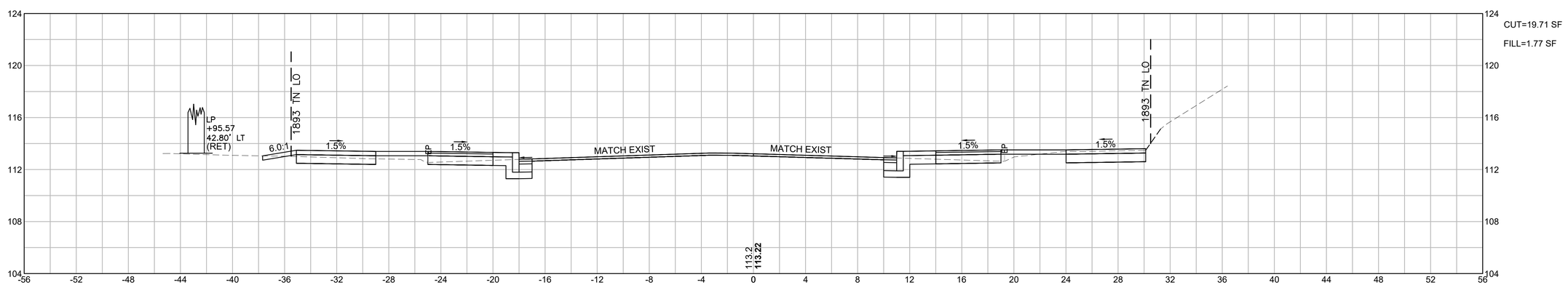
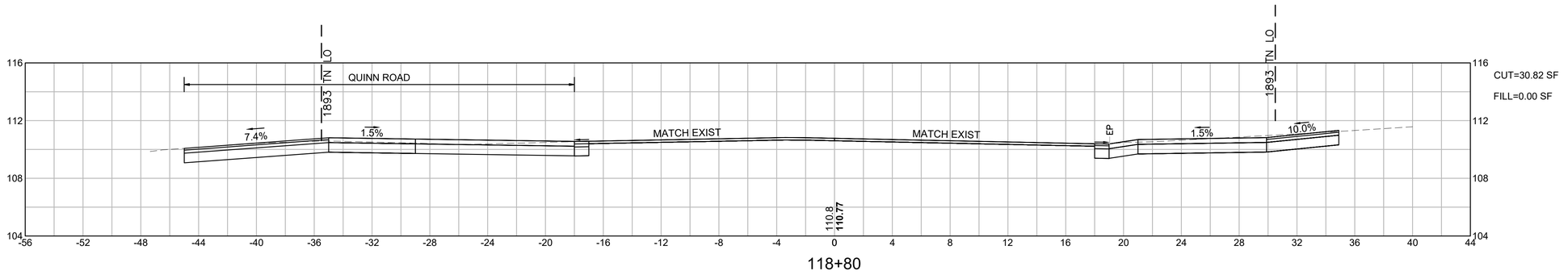


117+00

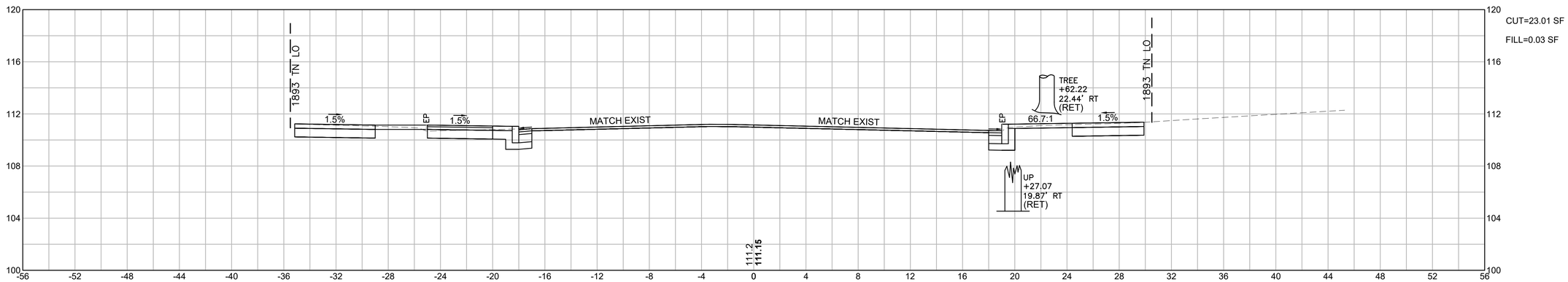
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	92	100
	STANTEC FILE NO. 179411056		

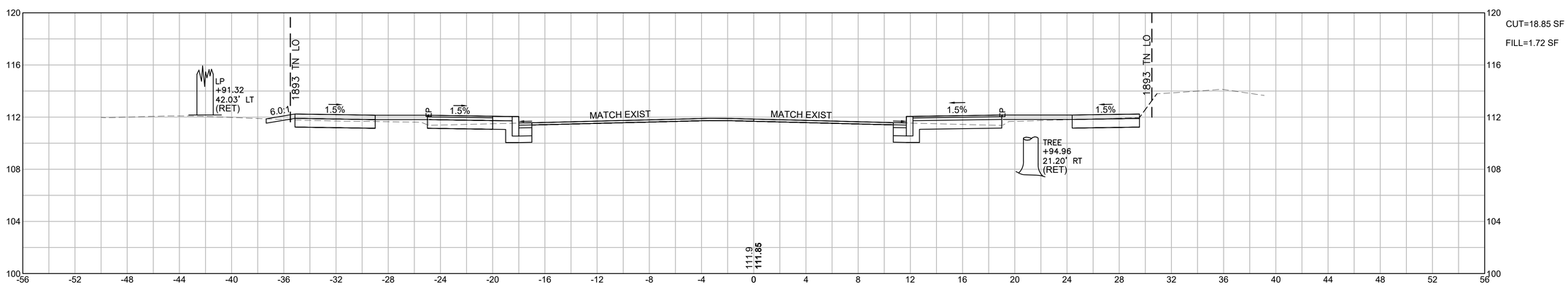
CROSS SECTIONS
PART 15 OF 23



118+80



118+50

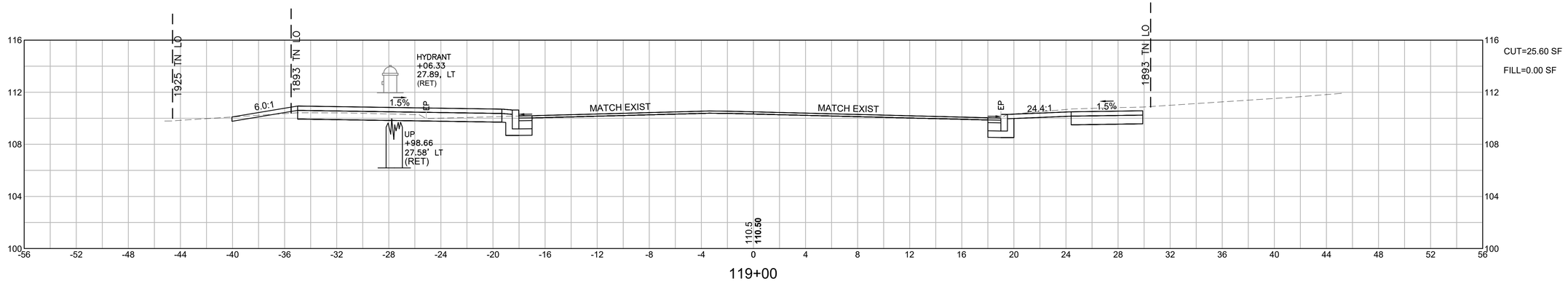


118+00

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	93	100
	STANTEC FILE NO. 179411056		

CROSS SECTIONS
PART 16 OF 23

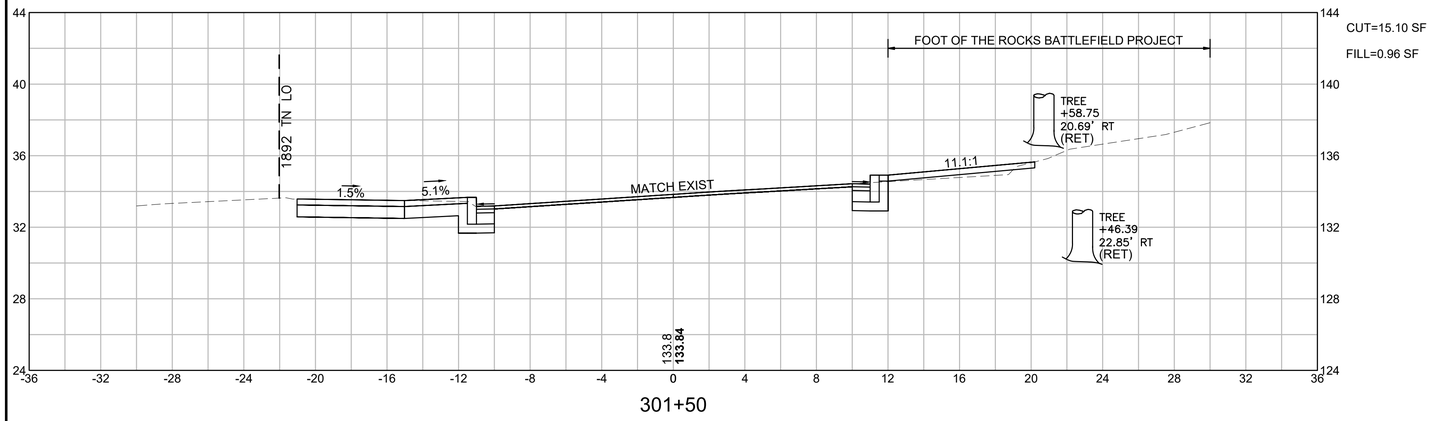


119+00

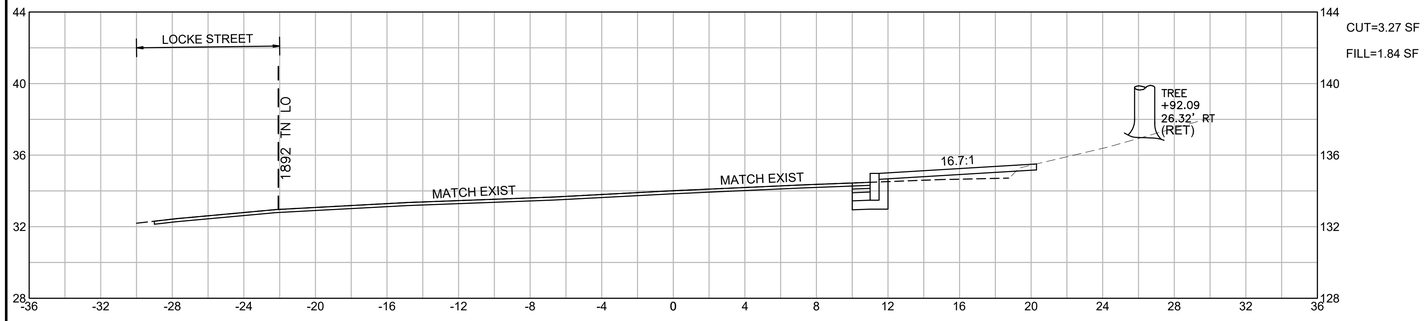
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	94	100
	STANTEC FILE NO. 179411056		

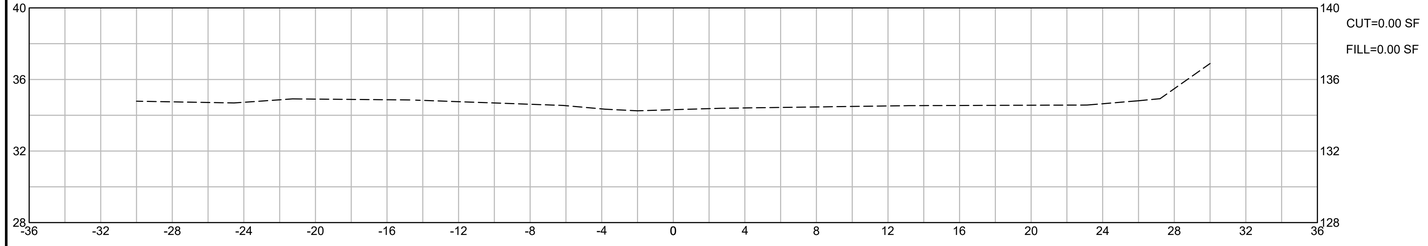
CROSS SECTIONS
PART 17 OF 23



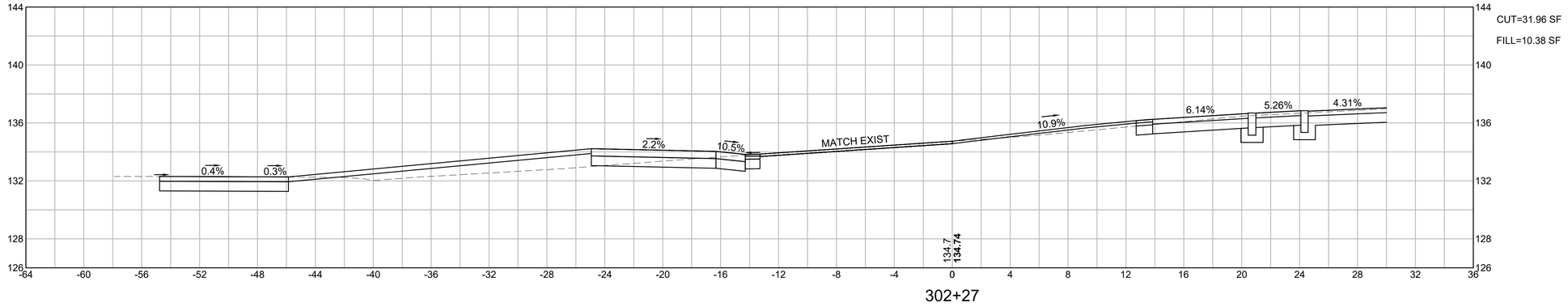
301+50



301+00



300+50



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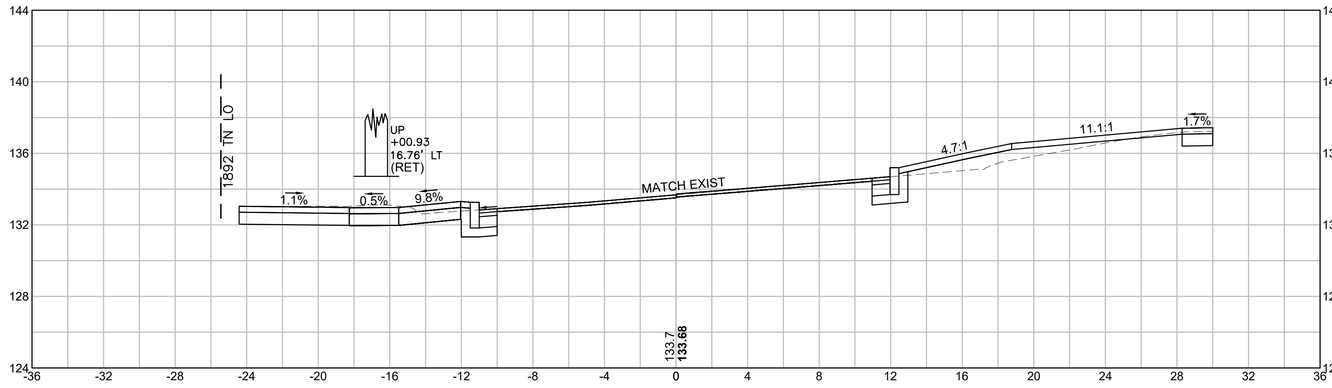
FILL=10.38 SF

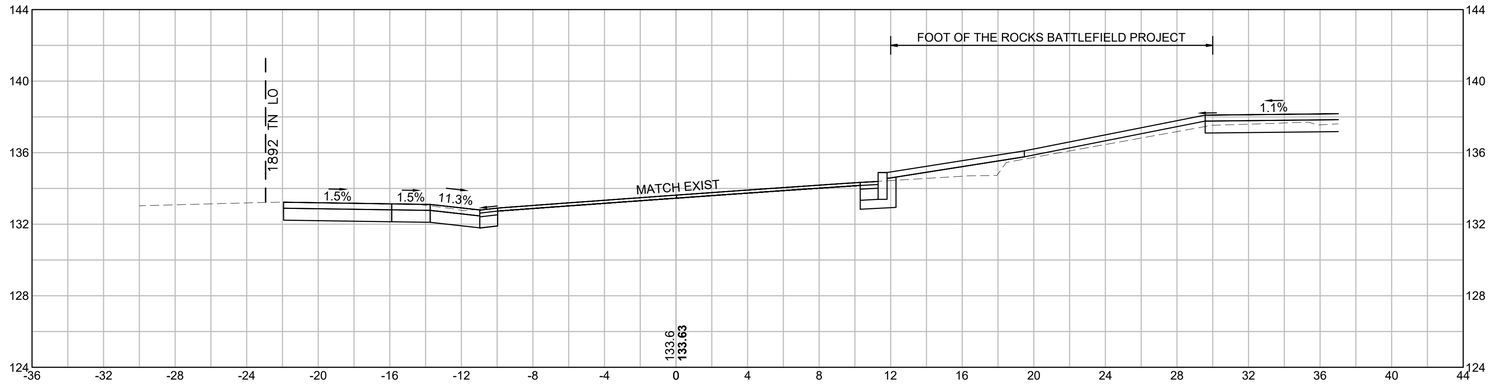
302+27



CUT=17.57 SF

FILL=4.99 SF

302+00



CUT=14.63 SF

FILL=2.98 SF

301+88

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	95	100
	STANTEC FILE NO. 179411056		

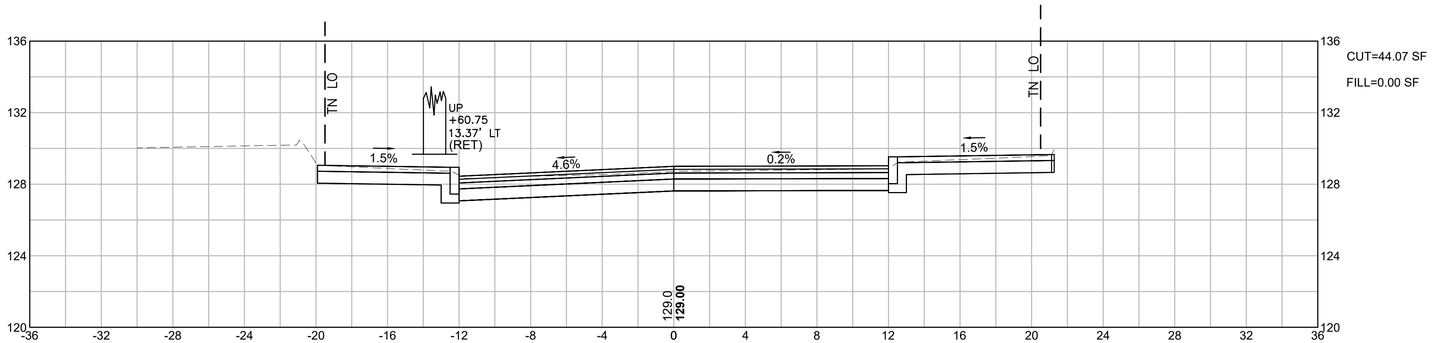
CROSS SECTIONS
PART 18 OF 23

APPLETON_ST_XS.DWG Plotted on 10-May-2024 12:22 PM

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	96	100
	STANTEC FILE NO. 179411056		

CROSS SECTIONS
PART 19 OF 23

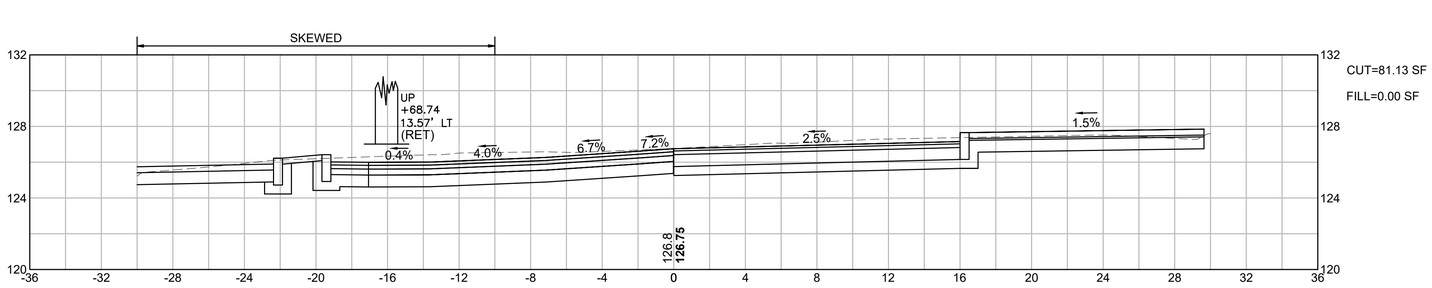


400+50

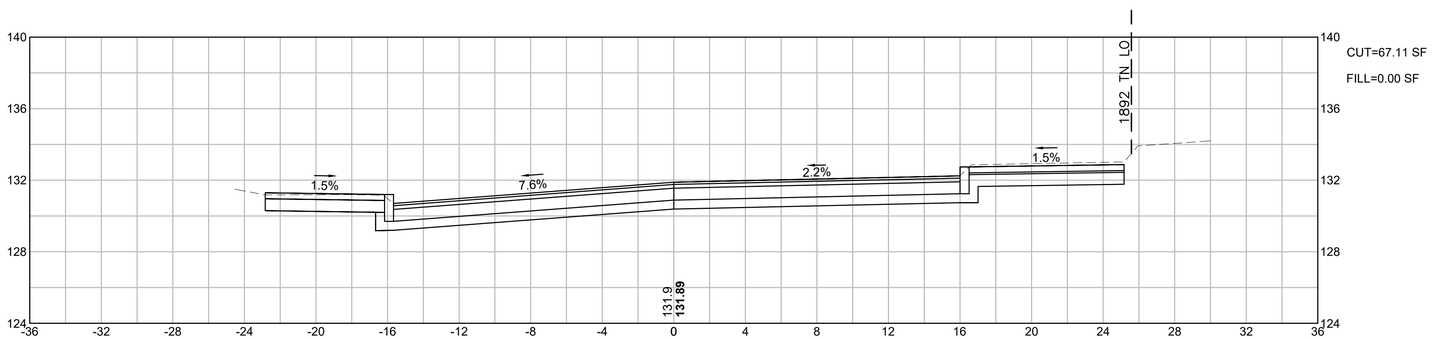
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	97	100
	STANTEC FILE NO. 179411056		

CROSS SECTIONS
PART 20 OF 23



501+50

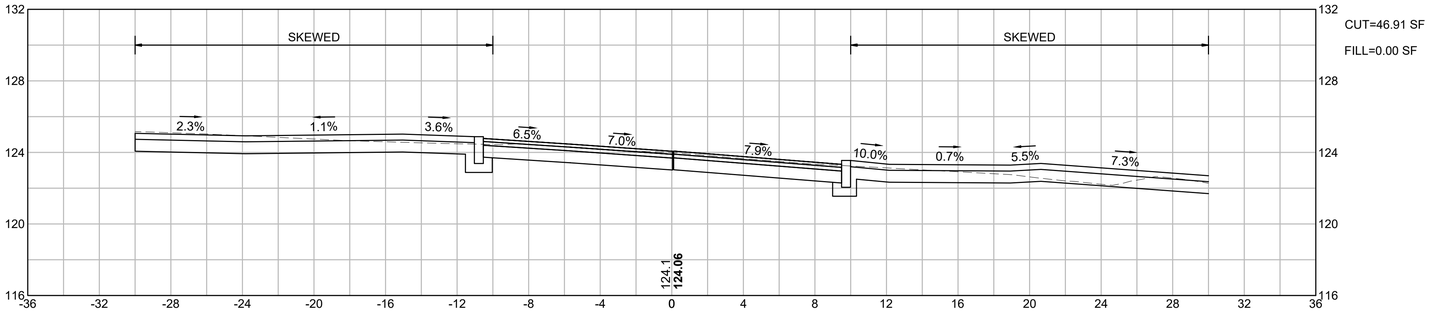


501+00

ARLINGTON
APPLETON STREET & MASS AVE

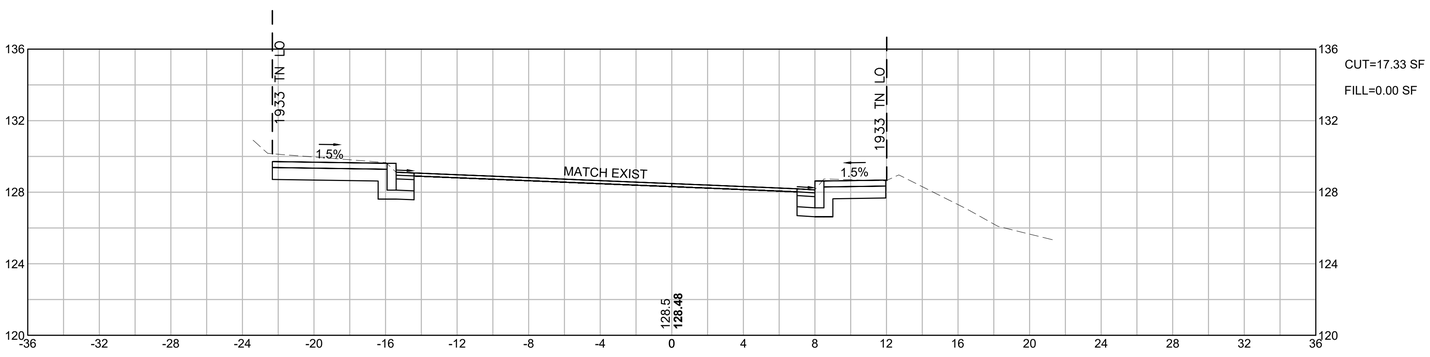
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	98	100
STANTEC FILE NO. 179411056			

CROSS SECTIONS
PART 21 OF 23



CUT=46.91 SF
FILL=0.00 SF

601+00



CUT=17.33 SF
FILL=0.00 SF

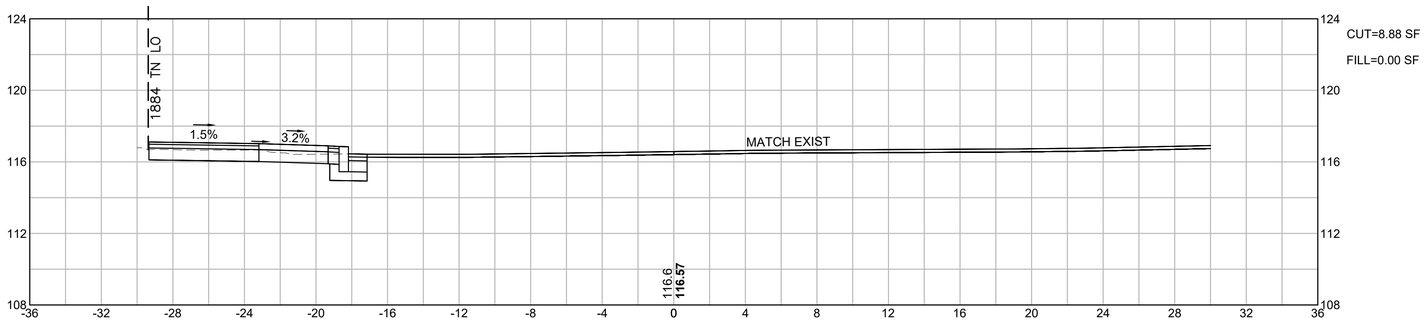
600+50

APPLETON_ST_XS.DWG Plotted on 10-May-2024 12:22 PM

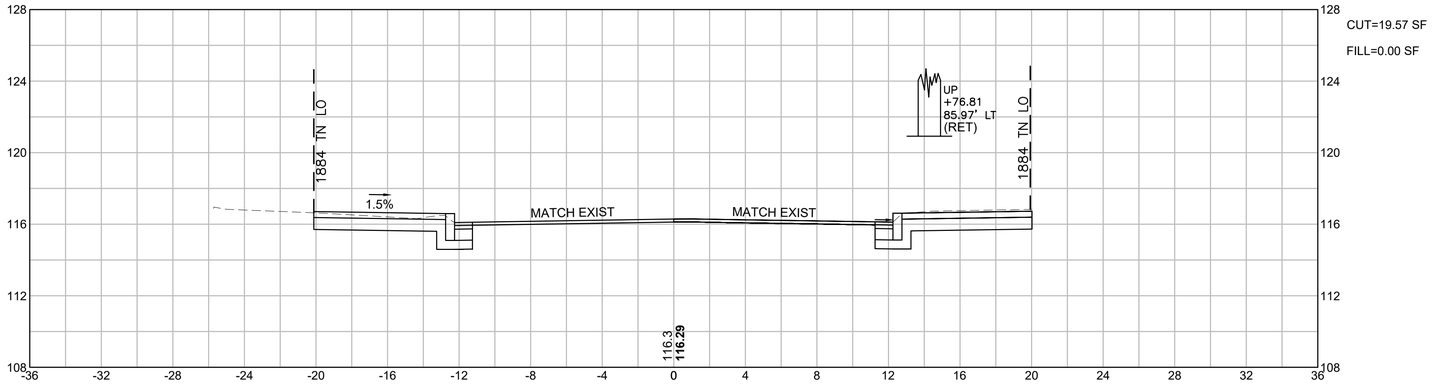
ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	99	100
	STANTEC FILE NO. 179411056		

CROSS SECTIONS
PART 22 OF 23



701+00



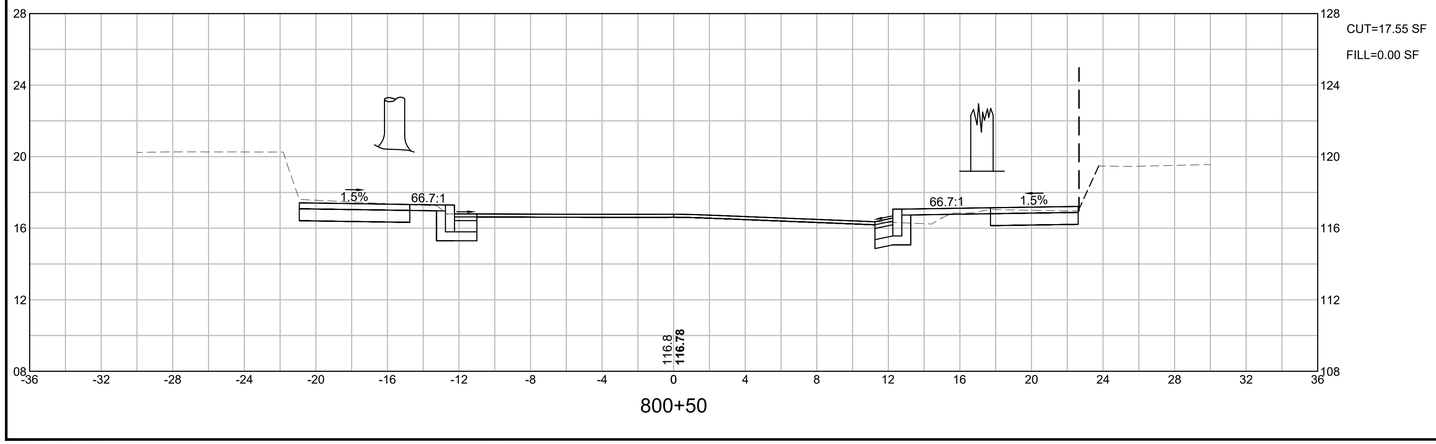
700+50

APPLETON_ST_XS.DWG Plotted on 10-May-2024 12:22 PM

ARLINGTON
APPLETON STREET & MASS AVE

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	PRELIMINARY DESIGN	100	100
	STANTEC FILE NO. 179411056		

CROSS SECTIONS
PART 23 OF 23



800+50

APPLETON_ST_XS.DWG Plotted on 10-May-2024 12:22 PM