TRANSPORTATION IMPROVEMENT PROJECT

PLAN AND PROFILE OF

NANTASKET AVENUE, GEORGE WASHINGTON BOULEVARD, HULL SHORE DRIVE, HULL SHORE DRIVE EXTENSION, PHIPPS STREET, EDGEWATER DRIVE, AND WHITEHEAD AVENUE

IN THE TOWN OF

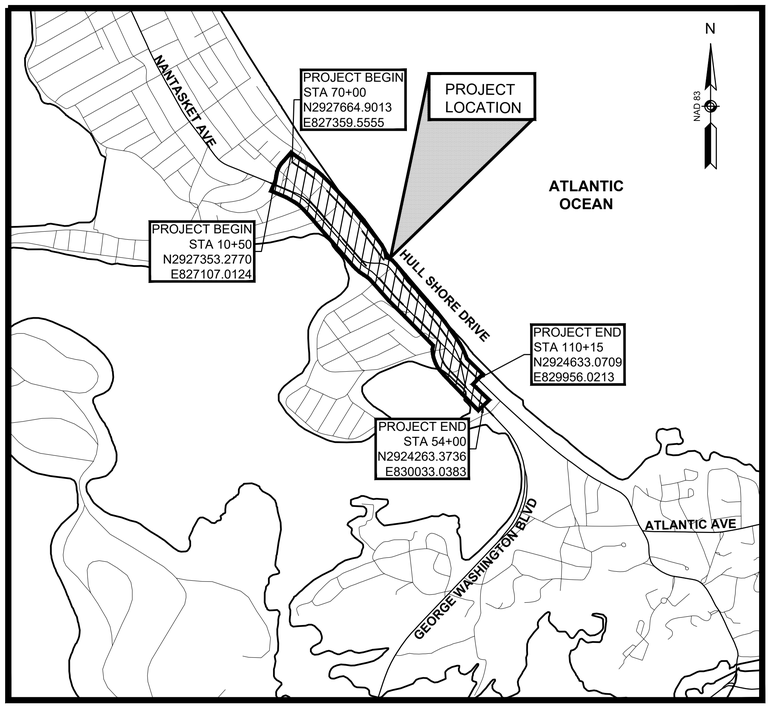
HULL

PLYMOUTH COUNTY

25% SUBMITTAL

THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 1988, AS AMENDED, THE SUPPLEMENTAL SPECIFICATIONS DATED APRIL 1, 2019, THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WTH MASSACHUSETTS AMENDMENTS, 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, WILL GOVERN.

INDEX



0 1000 2000 3000 4000

SCALE: 1" = 1000'

LENGTH OF PROJECT = 3,950.00 FEET = 0.748 MILES (HULL SHORE DRIVE)
4,350.00 FEET = 0.824 MILES (NANTASKET AVENUE)

DESIGN DESIGNATION

	NANTASKET AVENUE	GEORGE WASHINGTON BLVD.
DESIGN SPEED	30 MPH	30 MPH
ADT (2022)	21,071 VPD	18,671 VPD
ADT (2027)	9,310 VPD	15,700 VPD
K	7.4%	7.6%
D	45.9% NB	48.0% NB
T (PEAK HOUR)	2.7%	3.2%
T (AVERAGE DAY)	2.0%	2.0%
DHV	1,361 VPH	1,465 VPH
DDHV	360 VPH	690 VPH
FUNCTIONAL CLASSIFICATION	URBAN MINOR ARTERIAL	URBAN MINOR ARTERIAL

08/30/2022	25% SUBMISSION	-
DATE	DESCRIPTION	REV #

MassWorks Infrastructure Project
Executive Office of Housing & Economic Development

MASSACHUSETTS WORKS
Jobs for Today and Tomorrow

TEC
The Engineering Corp
TEC, Inc.

282 Merrimack Street
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508-868-5104

169 Ocean Blvd, Unit 3
PO Box 249
Hampton, NH 03842
603-601-8154

www.TheEngineeringCorp.com

DESIGNED BY	CHECKED BY	DATE
SAZ/KRD	KRD	AUGUST 30, 2022
DRAWN BY	**APPROVED BY**	**PROJECT NO.**
SAZ	KRD	T0597.03

HULL
TWO-WAY CONVERSION
LEGEND & ABBREVIATIONS
SHEET 2 OF 78

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
		BICYCLE RACK
		POST SQUARE
		POST CIRCULAR
WELL	WELL	WELL
EHH	EHH	ELECTRIC HANDHOLE
		FENCE GATE POST
GG	GG	GAS GATE
BHL #	BHL #	BORING HOLE
MW #	MW #	MONITORING WELL
TP #	TP #	TEST PIT
		HYDRANT
		LIGHT POLE
CO.BD.		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
MHB	MHB	MASSACHUSETTS HIGHWAY BOUND
MON		MONUMENT
SB		STONE BOUND
TB		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
TPL or GUY	TPL or GUY	TROLLEY POLE OR GUY POLE
HTP		TRANSMISSION POLE
UFB	UFB	UTILITY POLE W/ FIREBOX
UPDL	UPDL	UTILITY POLE WITH DOUBLE LIGHT
ULT	ULT	UTILITY POLE W / 1 LIGHT
UPL	UPL	UTILITY POLE
		BUSH
SIZE & TYPE		TREE
		STUMP
		SWAMP / MARSH
WG	WG	WATER GATE
PM	PM	PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
99		CONTOURS (ON-THE-GROUND SURVEY DATA)
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	x	CHAIN LINK OR METAL FENCE
o	o	WOOD FENCE
		HAY BALES/SILT FENCE
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

TRAFFIC SYMBOLS

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

PAVEMENT MARKINGS SYMBOLS

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

ABBREVIATIONS

GENERAL

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

ABBREVIATIONS (cont.)

GENERAL

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
WCR	WHEEL CHAIR RAMP
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

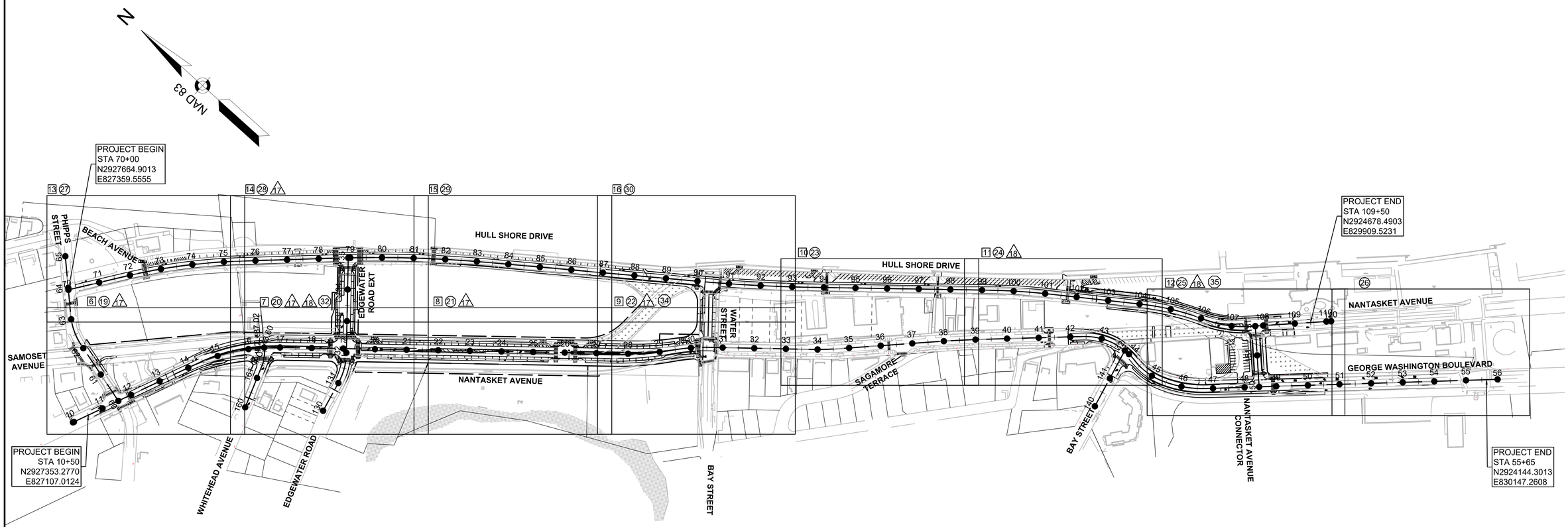
TRAFFIC SIGNAL

CAB.	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
DW	STEADY DON'T WALK
FDW	FLASHING DON'T WALK
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, TILE, 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 WALK
Y	STEADY CIRCULAR YELLOW
YL	STEADY YELLOW LEFT ARROW

T0597.01[25%]HD2\LEGEND & ABBREVIATIONS).DWG Plotted on 31-Aug-2022 8:49 AM

HULL
TWO-WAY CONVERSION
KEY PLAN
SHEET 3 OF 78

T0597.01[25%]HD3\KEY PLAN).DWG Plotted on 31-Aug-2022 8:50 AM

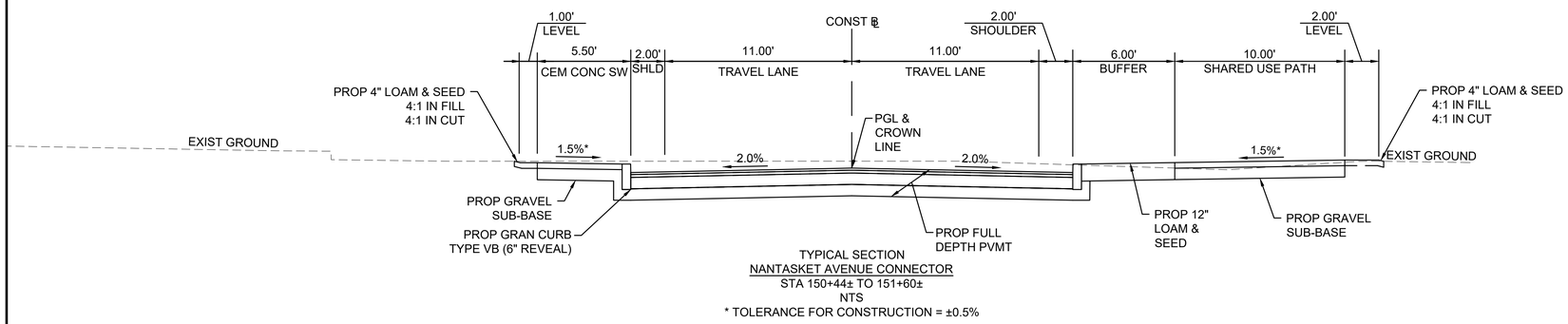


LEGEND

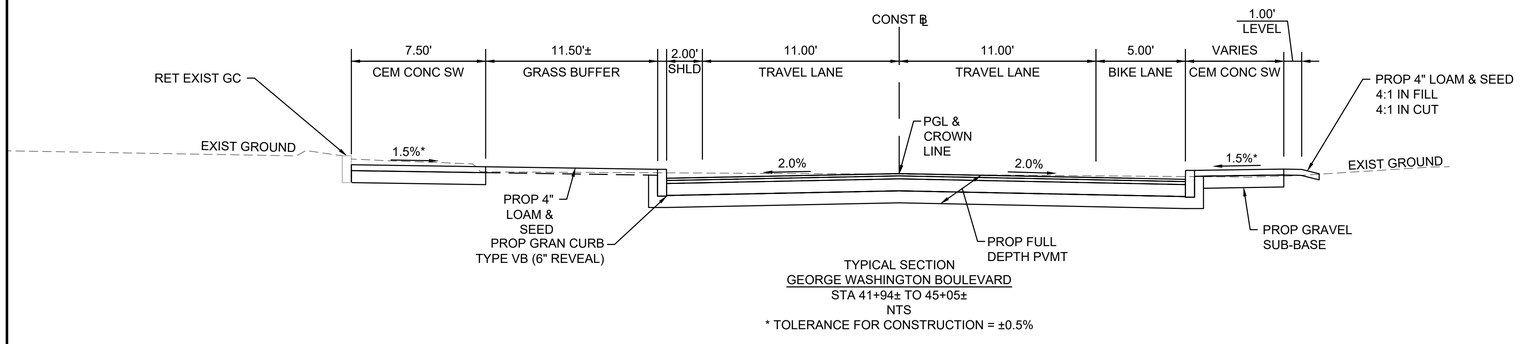
- [#] = CONSTRUCTION PLANS
- (#) = TRAFFIC SIGN & PAVEMENT MARKING PLANS
- △# = PROFILES
- (#) = TRAFFIC SIGNAL PLANS

0 150 300 450 600

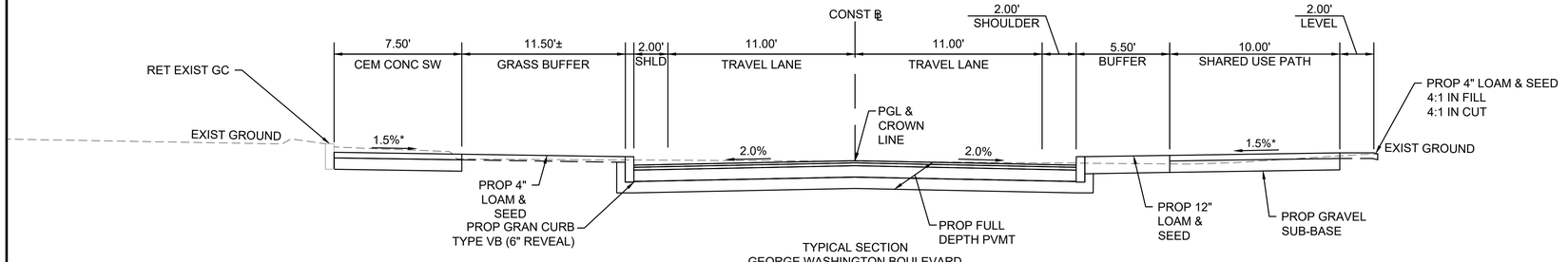
SCALE: 1" = 150'



TYPICAL SECTION
NANTASKET AVENUE CONNECTOR
STA 150+44± TO 151+60±
NTS
* TOLERANCE FOR CONSTRUCTION = ±0.5%



TYPICAL SECTION
GEORGE WASHINGTON BOULEVARD
STA 41+94± TO 45+05±
NTS
* TOLERANCE FOR CONSTRUCTION = ±0.5%



TYPICAL SECTION
GEORGE WASHINGTON BOULEVARD
STA 45+05± TO 47+17±
NTS
* TOLERANCE FOR CONSTRUCTION = ±0.5%

PAVEMENT NOTES

PROPOSED FULL DEPTH PAVEMENT

SURFACE: 1¾" HMA SURFACE COURSE OVER
1¼" HMA INTERMEDIATE COURSE OVER

BASE: 3½" HMA BASE COURSE OVER

SUBBASE: 4" DENSE GRADED CRUSHED STONE OVER
8" GRAVEL BORROW, TYPE b (COMPACTED) (SEE PAVEMENT NOTE 6 BELOW)

PROPOSED FULL DEPTH PAVEMENT LESS THAN 4 FEET WIDE

SURFACE: 1¾" HMA SURFACE COURSE OVER
1¼" HMA INTERMEDIATE COURSE OVER

BASE: 6" HIGH EARLY STRENGTH CEMENT CONCRETE BASE COURSE OVER

SUBBASE: 12" GRAVEL BORROW, TYPE b (COMPACTED) (SEE PAVEMENT NOTE 6 BELOW)

PROPOSED HMA OVERLAY

SURFACE: 1¾" HMA SURFACE COURSE OVER
VARIABLE HMA LEVELING COURSE AS REQUIRED TO MAINTAIN 2% MIN CROSS SLOPE

PROPOSED PERMANENT UTILITY TRENCH PATCH

SURFACE: HMA OVERLAY OVER
VARIABLE DEPTH (MATCH EXIST TOP COURSE THICKNESS) HMA INTERMEDIATE COURSE OVER

BASE: VARIABLE DEPTH (MATCH EXIST BINDER / BASE COURSE THICKNESS) HMA BASE COURSE OVER

SUBBASE: 12" GRAVEL BORROW, TYPE b (COMPACTED) (SEE PAVEMENT NOTE 6 BELOW)

PROPOSED HMA DRIVEWAY (TO MATCH EXISTING)

SURFACE: 1½" HMA SURFACE COURSE OVER
2" HMA INTERMEDIATE COURSE OVER

BASE: 8" GRAVEL BORROW, TYPE b (COMPACTED) (SEE PAVEMENT NOTE 6 BELOW)

PROPOSED CEMENT CONCRETE SIDEWALK / WHEELCHAIR RAMPS /SHARED USE PATH/BICYCLE RAMPS

SURFACE: 4" CEMENT CONCRETE (AIR ENTRAINED, 4000 PSI, ¾", 610)

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

PROPOSED CEMENT CONCRETE SIDEWALK THROUGH DRIVEWAY

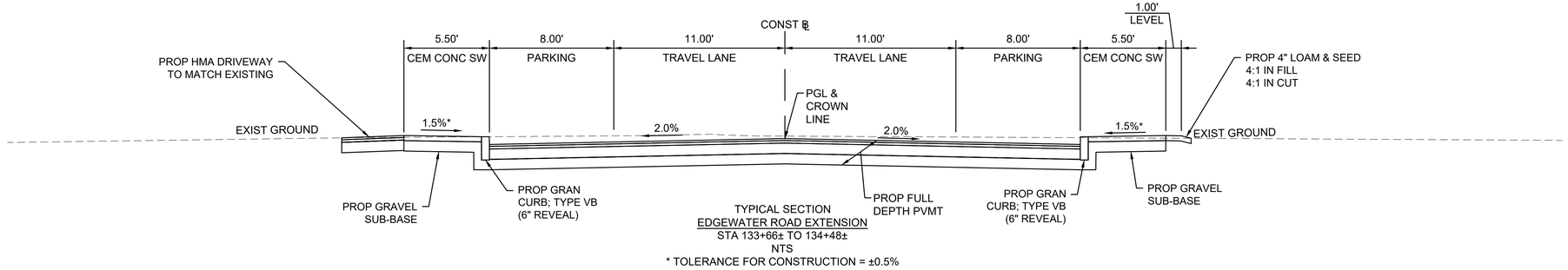
SURFACE: 6" CEMENT CONCRETE (AIR ENTRAINED, 4000 PSI, ¾", 610)

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

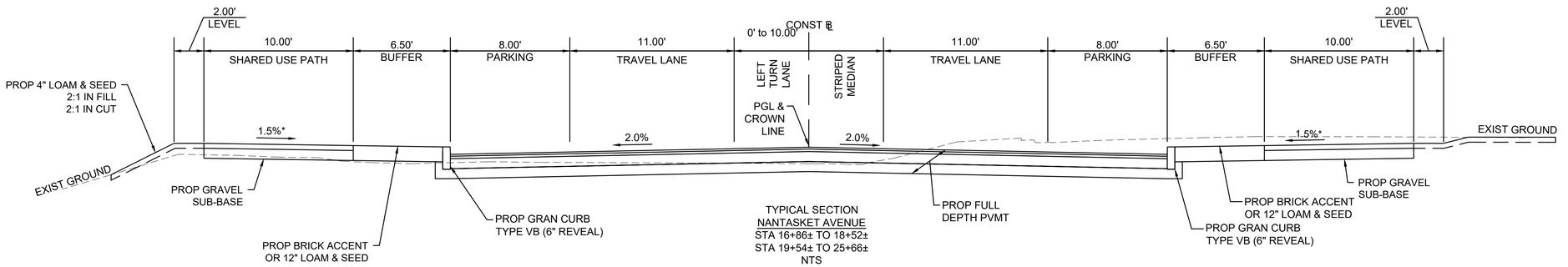
GENERAL PAVEMENT NOTES:

1. ASPHALT EMULSION FOR TACK COAT SHALL BE APPLIED BETWEEN ALL ASPHALT SURFACES AND SAWCUT JOINTS BEFORE PAVING. HMA JOINT SEALANT SHALL BE APPLIED TO ALL COLD JOINTS (LONGITUDINAL AND TRANSVERSE) BEFORE PAVING SURFACE COURSE. ASPHALT EMULSION FOR TACK COAT SHALL BE APPLIED AT A RATE OF 0.05 GAL/SY, EXCEPT OVER MILLED AND CEMENT CONCRETE SURFACES, WHERE THE APPLICATION RATE SHALL BE 0.07 GAL/SY. ALL SURFACES SHALL BE CLEAN OF ALL ORGANICS, DEBRIS, AND SAND PRIOR TO PAVING.
2. ALL HMA SHALL BE PRODUCED WITH WMA ADDITIVE.
3. ALL HMA SHALL BE IN ACCORDANCE WITH SECTION 450.
4. ASPHALT EMULSION FOR TACK COAT SHALL BE RS-1H TO RESIST TRACKING OF TACK BY HAUL VEHICLES.
5. HMA FOR WALKS AND DRIVEWAYS SHALL BE IN ACCORDANCE WITH SECTION 700.
6. ALL GRAVEL BORROW MEETING SPECIFICATION SHALL BE RETAINED IN PLACE, COMPACTED, AND LEVELED AS REQUIRED.

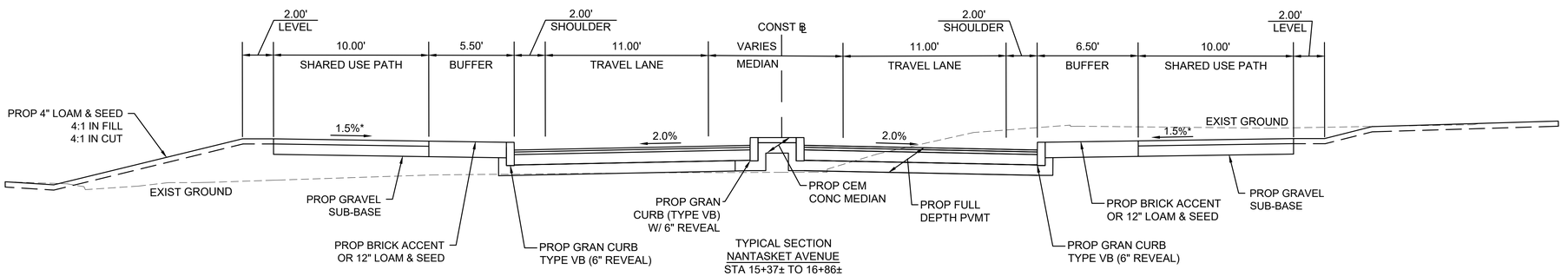
HULL
TWO-WAY CONVERSION
TYPICAL SECTIONS - 2 OF 2
SHEET 5 OF 78



TYPICAL SECTION
EDGEWATER ROAD EXTENSION
STA 133+66± TO 134+48±
NTS
* TOLERANCE FOR CONSTRUCTION = ±0.5%



TYPICAL SECTION
NANTASKET AVENUE
STA 16+86± TO 18+52±
STA 19+54± TO 25+66±
NTS
* TOLERANCE FOR CONSTRUCTION = ±0.5%



TYPICAL SECTION
NANTASKET AVENUE
STA 15+37± TO 16+86±
STA 26+20± TO 28+35±
NTS
* TOLERANCE FOR CONSTRUCTION = ±0.5%

HULL
TWO-WAY CONVERSION
CONSTRUCTION PLANS - 1 OF 11
SHEET 6 OF 78

NANTASKET AVENUE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	9+96.75	2927373.783	827057.866		S67°21'08"E 418.70'	14+15.44	2927212.558	827444.275
C1	14+15.44	2927212.558	827444.275	R=600.00' Δ=26°23'05" L=276.30' T=140.64'		16+91.74	2927052.202	827666.284

PHIPPS STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L7	60+00.00	2927312.742	827204.164		N14°26'18"E 213.07'	62+13.07	2927519.082	827257.290
C9	62+13.07	2927519.082	827257.290	R=200.00' Δ=28°20'17" L=98.92' T=50.49'		63+11.99	2927605.042	827304.171

CONTINUED ON SHEET NO. 13

CONTINUED ON SHEET NO. 7

NAD 83

PHIPPS STREET

SAMOSET AVENUE

NANTASKET AVENUE

WHITEHEAD AVENUE

3 PHIPPS STREET
N/F
FREDRIC J MACCAFFRAY
BK–PG 46925–301
MAP–LOT 27–032

22 SAMOSET AVENUE
N/F
RAYMOND R CHASE &
JACQUELINE M CHASE
BK–PG 47574–19
MAP–LOT 27–031

19 SAMOSET AVENUE
N/F
EOSCO FAMILY LIMITED PARTNERSHIP
BK–PG 47574–19
MAP–LOT 27–095

N/F
HULL REDEVELOPMENT AUTHORITY
BK–PG
MAP–LOT 27–034

14 SAMOSET AVENUE
N/F
HULL REDEVELOPMENT AUTHORITY
BK–PG
MAP–LOT 27–035

N/F
TOWN OF HULL
BK–PG
MAP–LOT 27–093

N/F
TOWN OF HULL
BK–PG
MAP–LOT 27–093

394 NANTASKET AVENUE
N/F
FRANCIS P. LEONARD AND
FRANCES M. LEONARD
BK–PG 43862–201
MAP–LOT 27–091

396 NANTASKET AVENUE
N/F
DEUTSCHE BANK
NATIONAL TRUST
COMPANY
BK–PG 39846–324
MAP–LOT 27–090

379 NANTASKET AVENUE
N/F
CUMBERLAND FARMS INC
BK–PG 8347–346
MAP–LOT 27–154

100 MOUNTFORD ROAD
N/F
TRUNG DANG
BK–PG 11693–263
MAP–LOT 27–155

387 NANTASKET ROAD
N/F
JOSEPH AND NORDEEN CAMPEDELLI
BK–PG _____
MAP–LOT 27–109

10 WHITEHEAD AVENUE
N/F
JOHN W MITCHELL
BK–PG 47124–221
MAP–LOT 27–149

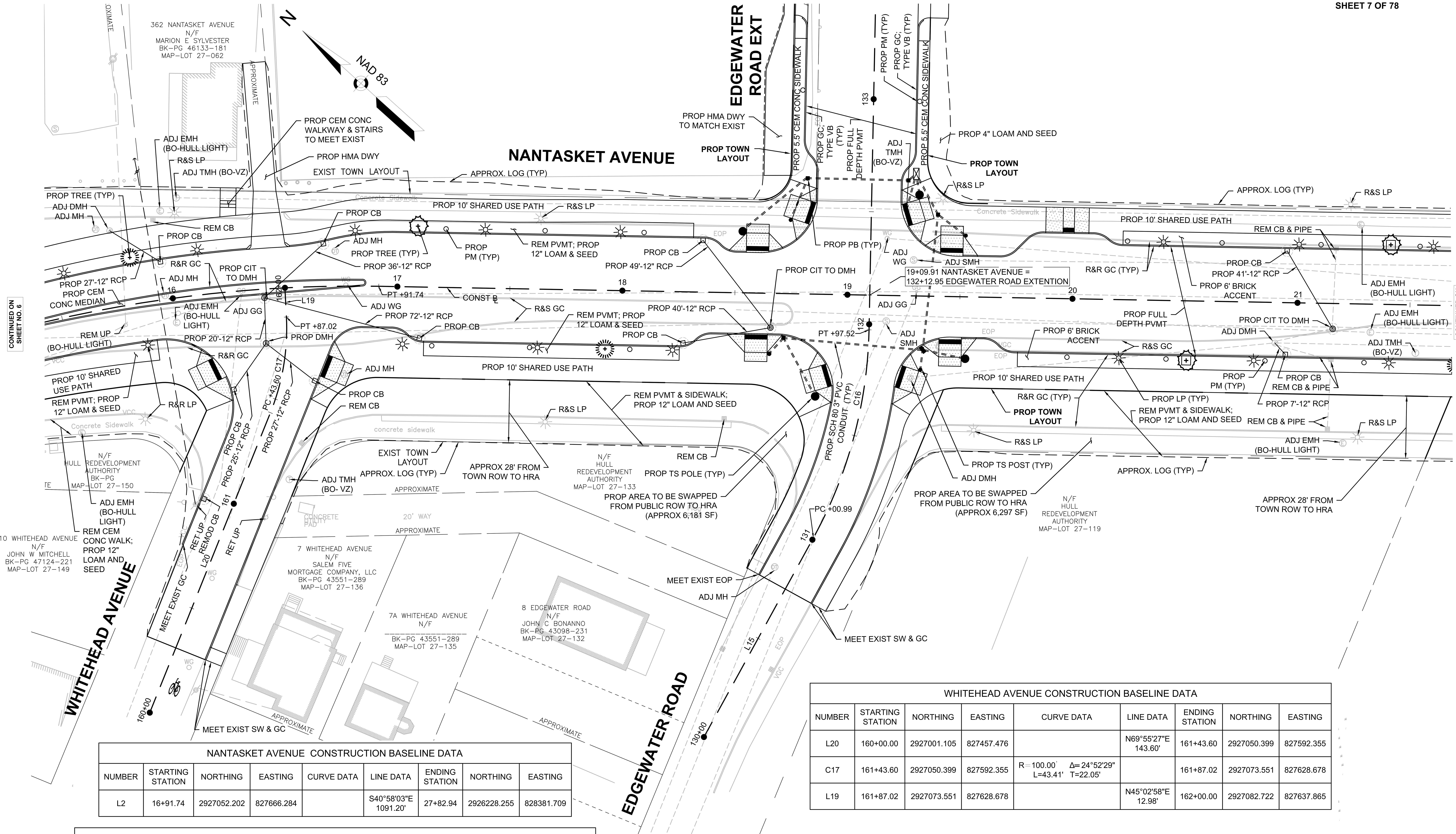
12 WHITEHEAD AVENUE
N/F
GARY M HUFNAGLE &
JANET C HUFNAGLE
BK–PG 47124–219
MAP–LOT 27–148

N/F
HULL REDEVELOPMENT AUTHORITY
BK–PG
MAP–LOT 27–150

EXIST TOWN LAYOUT
PT +11.99
63
C9
PC +13.07
62
MEET EXIST SW & GC
ADJ GG
ADJ CB
PROP GC; TYPE VB (TYP)
PROP SAWCUT (TYP)
PROP FULL DEPTH PVMT
PROP 7' CEM CONC SIDEWALK
ADJ MH
RET CB
R&R DCR LIGHTING CABINET
PROP UP (BO-HULL LIGHT)
REM PVMT & SIDEWALK; PROP 12" LOAM AND SEED
R&S LP
RET CB
RET VGC
RETAIN EXIST SIDEWALK
MEET EXIST SW
PROP LP (TYP)
ADJ MH
ADJ WG
PROP CIT TO DMH
PROP 12'-12" RCP
PROP CB
PC +15.44
C1
15
PROP BICYCLE RAMP
PROP 10' SHARED USE PATH
REM PVMT; PROP 12" LOAM & SEED
R&R GC
REM CEM CONC WALK; PROP 12" LOAM & SEED
PROP BICYCLE RAMP
PROP 27'-12" RCP
PROP CEM CONC MEDIAN
REM UP (BO-HULL LIGHT)
PROP 10' SHARED USE PATH
REM PVMT; PROP 12" LOAM & SEED
R&R HYD
ADJ MH
CEM CONC WALK TO MEET EXIST STAIRS
REM PVMT; PROP 12" LOAM & SEED
PROP AREA TO BE SWAPPED FROM PUBLIC ROW TO HRA (APPROX 3,164 SF)
PROP TOWN LAYOUT
ADJ EMH (BO-HULL LIGHT)
REM CEM CONC WALK; PROP 12" LOAM AND SEED
APPROX. LOG (TYP)
PROP TREE (TYP)
ADJ DMH
ADJ MH
MEET EXIST SW & GC
MEET EXIST DWY
REM UP (BO-HULL LIGHT)
L7
61
MEET EXIST SW & GC
MEET EXIST SW & GC
EXIST TOWN LAYOUT
APPROX. LOG (TYP)
MEET EXIST SW & GC
ADJ TMH (BO-VZ)
12
L1
PROP 8.5' MIN CEM CONC SIDEWALK
CONST EE
ADJ CB
PROP 5.5' CEM CONC SIDEWALK
PROP SAWCUT (TYP)
LIMIT OF HMA MILL & OVERLAY
LIMIT OF FULL DEPTH PVMT
PROP FULL DEPTH PVMT
14
ADJ GG
REMOD CB
RET UP
R&R LP
PROP HMA DWY TO MEET EXIST
PROP GC; TYPE VB (TYP)
REM CEM CONC WALK; PROP 12" LOAM AND SEED
R&R BRICK WALK
RET UP
PROP 8.5' MIN CEM CONC SIDEWALK
EXIST TOWN LAYOUT
60+00
11
11+55.27 NANTASKET AVENUE = 60+00.00 PHIPPS STREET
PROJECT BEGIN
STA 10+50
N2927353.2770
E827107.0124
9+96.75
PROP 6.5' CEM CONC SIDEWALK
CANNON
War Memorial
Flagpole
Bench
Concrete Sidewalk
Concrete Curb
Concrete Wall
Paved Driveway
Electric Box
VCC
WG
GG
APPROXIMATE

0 20 50 100
SCALE: 1" = 20'

CONTINUED ON SHEET NO. 14



NANTASKET AVENUE CONSTRUCTION BASELINE DATA									
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L2	16+91.74	2927052.202	827666.284		S40°58'03"E 1091.20'	27+82.94	2926228.255	828381.709

EDGEWATER ROAD EXTENTION CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L15	130+00.00	2926810.883	827614.172		N76°48'09"E 100.99'	131+00.99	2926833.940	827712.498
C16	131+00.99	2926833.940	827712.498	R=200.00' Δ=27°39'14" L=96.53' T=49.22'		131+97.52	2926877.376	827797.656

WHITEHEAD AVENUE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L20	160+00.00	2927001.105	827457.476		N69°55'27"E 143.60'	161+43.60	2927050.399	827592.355
C17	161+43.60	2927050.399	827592.355	R=100.00' Δ=24°52'29" L=43.41' T=22.05'		161+87.02	2927073.551	827628.678
L19	161+87.02	2927073.551	827628.678		N45°02'58"E 12.98'	162+00.00	2927082.722	827637.865

T0597.01[25%]HD5(CONSTRUCTION PLANS).DWG Plotted on 31-Aug-2022 8:53 AM

HULL
TWO-WAY CONVERSION
CONSTRUCTION PLANS - 3 OF 11
SHEET 8 OF 78

T:\0597.01\25%\HDS\CONSTRUCTION PLANS\.DWG Plotted on 31-Aug-2022 8:53 AM

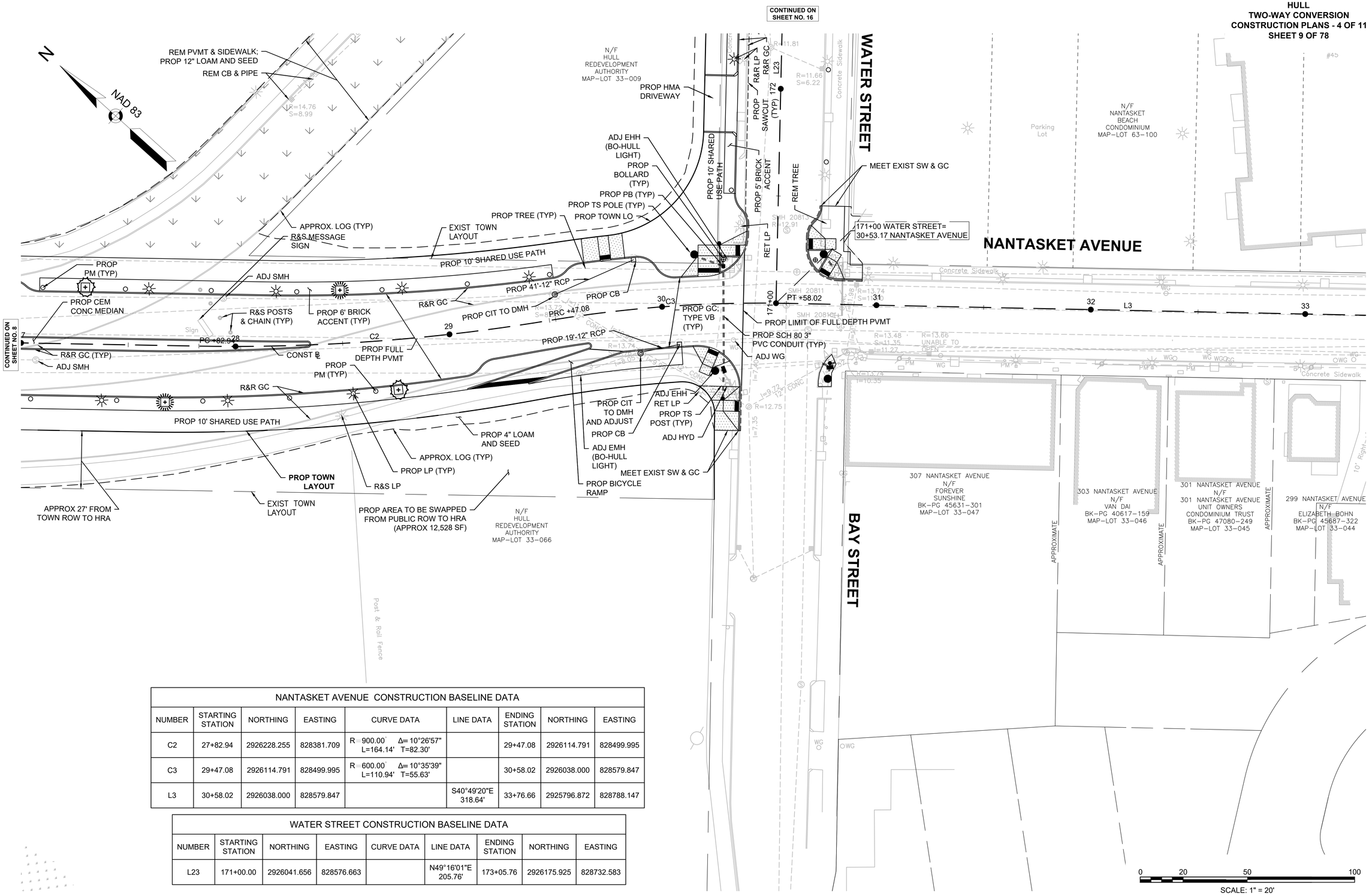
NANTASKET AVENUE

N

NAD 83

R&S LP
APPROX. LOG (TYP)
R&S LP
REM CB
PROP CB
REM CB
Concrete Sidewalk
PROP 10' SHARED USE PATH
ADJ HYD
PROP CB
PROP 31'-12" RCP
PROP 33'-12" RCP
ADJ WG
R&R GC (TYP)
REM CB
PROP CB
ADJ EMH
(BO-HULL LIGHT)
RET ELEC CAB
EXIST TOWN
LAYOUT
FUTURE HRA DRIVEWAY LOCATION
(SUBJECT TO CHANGE)
ADJ TMH
(BO-VZ)
R&S LP
ADJ HYD
PROP
PM (TYP)
PROP CEM
CONC MEDIAN
PROP TEE
PROP 29'-6" CLDI
CONTINUED ON
SHEET NO. 7
ADJ EMH
(BO-HULL LIGHT)
ADJ WG
22
L2
ADJ GG
23
24
CONST
25
26
27
R&R GC (TYP)
ADJ SMH
ADJ TMH
(BO-VZ)
PROP
PM (TYP)
PROP CIT TO DMH
PROP DMH
ADJ DMH
PROP 7'-12" RCP
REM CB & PIPE
R&S GC
PROP CB
PROP 26'-12" RCP
ADJ DMH
PROP 9'-12" RCP
PROP FULL
DEPTH PVMT
ADJ EMH
(BO-HULL LIGHT)
PROP WG
PROP PED
REFUGE
PROP 10' SHARED USE PATH
REM CB
REM PIPE
PROP CB
PROP LP (TYP)
PROP GC;
TYPE VB (TYP)
R&S LP
PROP TOWN
LAYOUT
R&R HYD
REM CB & PIPE
R&S LP
PROP TREE (TYP)
PROP 6' BRICK
ACCENT (TYP)
REM CB & PIPE
R&S LP
REM PVMT & SIDEWALK;
PROP 12" LOAM AND SEED
R&R GC (TYP)
R&S LP
R&R HYD
EXIST TOWN
LAYOUT
Concrete Sidewalk
APPROX. LOG (TYP)
ADJ EMH
(BO-HULL LIGHT)
APPROX 28' FROM
TOWN ROW TO HRA
PROP AREA TO BE SWAPPED
FROM PUBLIC ROW TO HRA
(APPROX 13,973 SF)
N/F
HULL
REDEVELOPMENT
AUTHORITY
MAP–LOT 33–067
APPROX 27' FROM
TOWN ROW TO HRA
Bench
Concrete
Wall
Edge of Sea Grass
APPROXIMATE

0 20 50 100
SCALE: 1" = 20'



NANTASKET AVENUE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C2	27+82.94	2926228.255	828381.709	R=900.00' Δ=10°26'57" L=164.14' T=82.30'		29+47.08	2926114.791	828499.995
C3	29+47.08	2926114.791	828499.995	R=600.00' Δ=10°35'39" L=110.94' T=55.63'		30+58.02	2926038.000	828579.847
L3	30+58.02	2926038.000	828579.847		S40°49'20"E 318.64'	33+76.66	2925796.872	828788.147

WATER STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L23	171+00.00	2926041.656	828576.663		N49°16'01"E 205.76'	173+05.76	2926175.925	828732.583

N

NAD 83

HULL SHORE DRIVE

NANTASKET AVENUE

SAGAMORE TERRACE

CONTINUED ON SHEET NO. 16

CONTINUED ON SHEET NO. 11

CONTINUED ON SHEET NO. 9

N/F
COMMONWEALTH OF
MASSACHUSETTS
DCAM–DCR
MAP–LOT 37–010

MEET EXIST SW & GC

REM WCR;
PROP CEM CONC SW

MEET EXIST GC

PROP SAWCUT (TYP)

PROP GC;
TYPE VB (TYP)

REM PVMT; PROP 12"
LOAM & SEED

EXIST TOWN
LAYOUT

CONST ℄

MEET EXIST DWY

45 HULL SHORE DRIVE
N/F
NANTASKET
BEACH CONDOMINIUM
BK–PG 48552–129
MAP–LOT 33–001–A

#45

19 HULL
SHORE
DRIVE
N/F
HULLS KITCHEN
REALTY TRUST
BK–PG
41147–188
MAP–LOT
34–085

15 HULL SHORE
DRIVE
N/F
TOP JIAN
REALTY TRUST
MAP–LOT 34–084

280 NANTASKET
AVENUE
N/F
JDLRE INC
MAP–LOT 34–091

273 NANTASKET
AVENUE
N/F
MAURICE LUSSIER
BK–PG 19421–25
MAP–LOT 34–092

276 NANTASKET AVENUE
N/F
VERNERA GATTININI
MAP–LOT 34–093

APPROXIMATE

NANTASKET AVENUE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C4	33+76.66	2925796.872	828788.147	R=1000.00' Δ=5°18'26" L=92.63' T=46.35'		34+69.29	2925729.679	828851.857
L4	34+69.29	2925729.679	828851.857		S46°07'46"E 292.99'	37+62.28	2925526.627	829063.077

HULL SHORE DRIVE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L12	93+68.25	2925919.566	828941.557		S41°04'52"E 552.14'	99+20.40	2925503.373	829304.384

93 PT +68.25 94 95 96 L12 97 98

33 PC +76.66 34 C4 PT +69.29 35 36 L4 37 PC +62.28 38 C5 39

Concrete Sidewalk

OWG

WG

GG

PM

EXIST TOWN
LAYOUT

10' Right-of-Way

297 NANTASKET AVENUE
N/F
POLLOCK CHARLOTTE
BK–PG 10203–038
MAP–LOT 33–042

295 NANTASKET AVENUE
N/F
POLLOCK CHARLOTTE
BK–PG 10203–038
MAP–LOT 33–041

293 NANTASKET AVENUE
N/F
LYONS MICHAEL TR
BK–PG 15056–217
MAP–LOT 33–040

283 NANTASKET AVENUE
N/F
MARCHIONE QUINTINO TR
BK–PG 39969–33
MAP–LOT 33–039

299 NANTASKET AVENUE
N/F
ELIZABETH BOHN
BK–PG 45687–322
MAP–LOT 33–044

22 PORRAZZO ROAD
N/F
DAVID DOUGLAS
BK–PG 39267–290
MAP–LOT 34–080

18 PORRAZZO ROAD
N/F
TIBERT JAMES L
BK–PG 45898–342
MAP–LOT 34–080

N/F
EASTON THOMAS
MAP–LOT 34–059–A

275 NANTASKET AVENUE
N/F
TOWN OF HULL
MAP–LOT 34–059

0 20 50 100

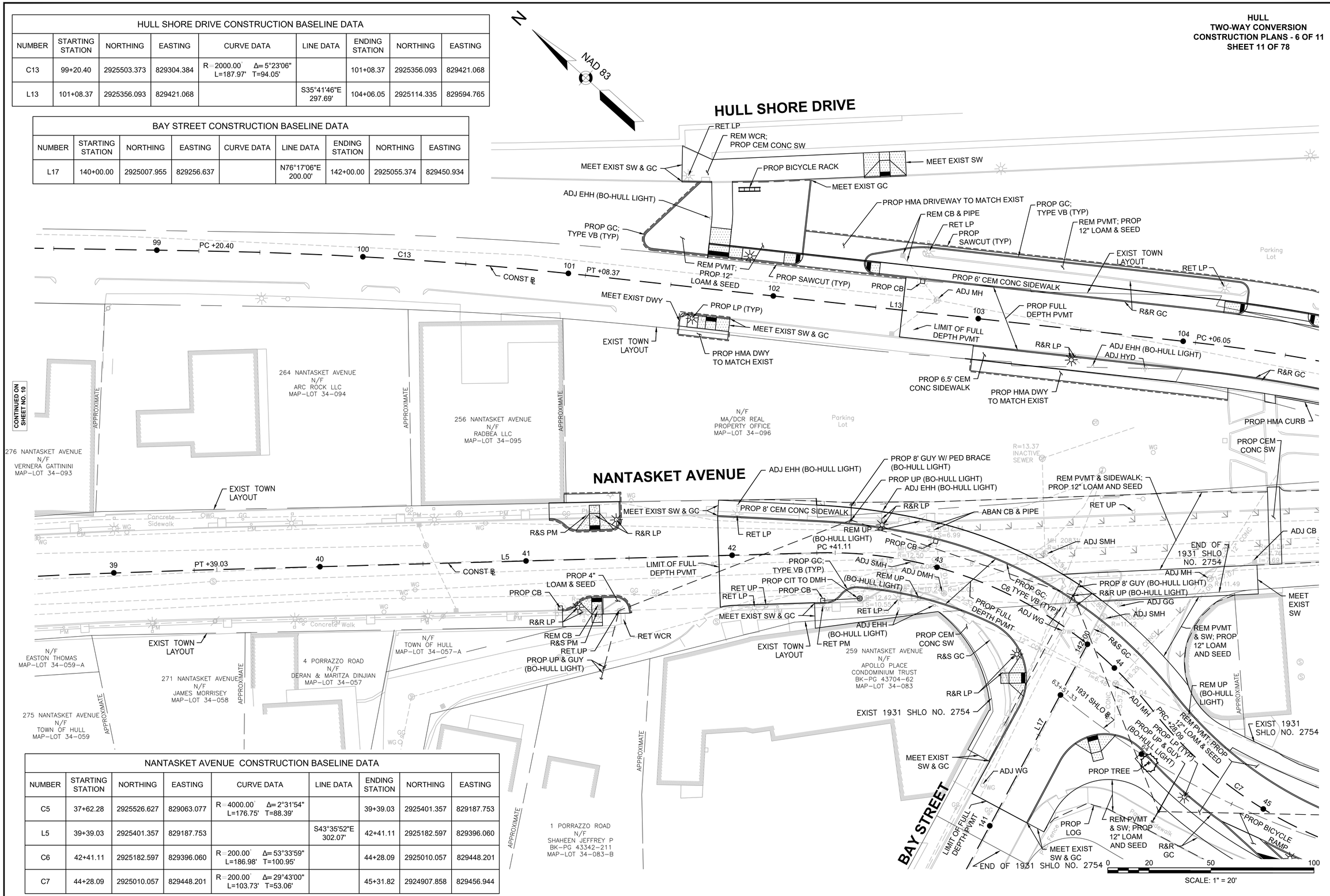
SCALE: 1" = 20'

T:\597.01\25%\HDS\CONSTRUCTION PLANS\.DWG Plotted on 31-Aug-2022 8:55 AM

HULL SHORE DRIVE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C13	99+20.40	2925503.373	829304.384	R=2000.00' Δ=5°23'06" L=187.97' T=94.05'		101+08.37	2925356.093	829421.068
L13	101+08.37	2925356.093	829421.068		S35°41'46"E 297.69'	104+06.05	2925114.335	829594.765

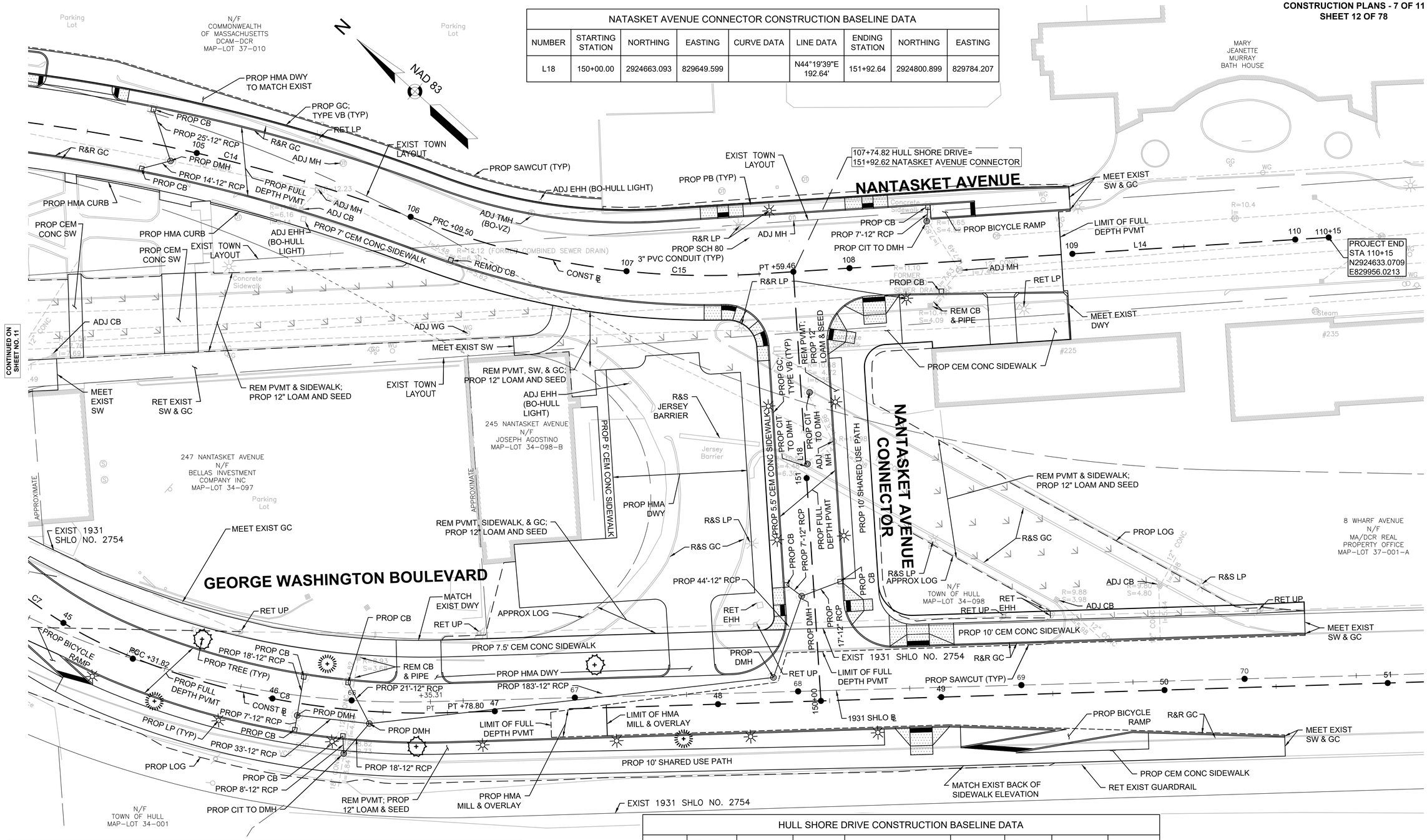
BAY STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L17	140+00.00	2925007.955	829256.637		N76°17'06"E 200.00'	142+00.00	2925055.374	829450.934

NANTASKET AVENUE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C5	37+62.28	2925526.627	829063.077	R=4000.00' Δ=2°31'54" L=176.75' T=88.39'		39+39.03	2925401.357	829187.753
L5	39+39.03	2925401.357	829187.753		S43°35'52"E 302.07'	42+41.11	2925182.597	829396.060
C6	42+41.11	2925182.597	829396.060	R=200.00' Δ=53°33'59" L=186.98' T=100.95'		44+28.09	2925010.057	829448.201
C7	44+28.09	2925010.057	829448.201	R=200.00' Δ=29°43'00" L=103.73' T=53.06'		45+31.82	2924907.858	829456.944



T0597.01\25%]HDS\CONSTRUCTION PLANS\.DWG Plotted on 31-Aug-2022 8:57 AM

NATASKET AVENUE CONNECTOR CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L18	150+00.00	2924663.093	829649.599		N44°19'39"E 192.64'	151+92.64	2924800.899	829784.207



NANTASKET AVENUE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C8	45+31.82	2924907.858	829456.944	R=350.00' Δ=24°03'39" L=146.98' T=74.59'		46+78.80	2924783.828	829533.782
L6	46+78.80	2924783.828	829533.782		S43°48'33"E 921.20'	56+00.00	2924119.044	830171.490

HULL SHORE DRIVE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C14	104+06.05	2925114.335	829594.765	R=800.00' Δ=14°34'16" L=203.45' T=102.28'		106+09.50	2924935.868	829691.304
C15	106+09.50	2924935.868	829691.304	R=350.00' Δ=24°32'51" L=149.95' T=76.14'		107+59.46	2924811.633	829773.217
L14	107+59.46	2924811.633	829773.217		S45°40'21"E 255.54'	110+15.00	2924633.071	829956.021

0 20 50 100
SCALE: 1" = 20'

T0597.01[25%]HDS\CONSTRUCTION PLANS\.DWG Plotted on 31-Aug-2022 8:57 AM

PHIPPS STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L8	63+11.99	2927605.042	827304.171		N42°46'35"E 188.01'	65+00.00	2927743.045	827431.857

HULL SHORE DRIVE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L9	70+00.00	2927664.901	827359.555		S55°19'34"E 186.70'	71+86.70	2927558.689	827513.095
C10	71+86.70	2927558.689	827513.095	R=1800.00' Δ=11°34'18" L=363.53' T=182.39'		75+50.23	2927323.188	827789.224

N
NAD 83

BEACH AVENUE

HULL SHORE DRIVE

PHIPPS STREET

200 HULL SHORE DRIVE
N/F
COMMONWEALTH OF MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–054

N/F
COMMONWEALTH OF MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–054

N/F
COMMONWEALTH OF MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–056

N/F
COMMONWEALTH OF MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–057

N/F
TOWN OF HULL
BK–PG
MAP–LOT 27–058

N/F
COMMONWEALTH OF MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–059

9 MANOMET AVENUE
N/F
SMITTY LLC
BK–PG 30600–136
MAP–LOT 27–013

5 PHIPPS STREET
N/F
HEALEY THOMAS R & CAROL J
BK–PG 4268–759
MAP–LOT 27–033

3 PHIPPS STREET
N/F
FREDRIC J MACCAFFRAY
BK–PG 46925–301
MAP–LOT 27–032

14 SAMOSET AVENUE
N/F
HULL REDEVELOPMENT AUTHORITY
BK–PG
MAP–LOT 27–035

PROJECT BEGIN
STA 70+00
N2927664.9013
E827359.5555

70+00 HULL SHORE DRIVE=
63+93.54 PHIPPS STREET

65+00
64
63
L8
L9
C10
71
72
73
74
75
PC +86.70
PT +50.23
PT +11.99
70+00

PROP HMA DWY TO MATCH EXIST
MEET EXIST SW & GC
MEET EXIST DWY
ADJ GG
ADJ CB
PROP GC: TYPE VB (TYP)
APPROX. LOG (TYP)
CONST ℄
EXIST TOWN LAYOUT
APPROXIMATE
ABANDONED RR BED
Concrete Sidewalk
Gravel Walk
Brick
SIDEWALK
EOP
WG

CONTINUED ON SHEET NO. 6

CONTINUED ON SHEET NO. 14

0 20 50 100
SCALE: 1" = 20'

HULL SHORE DRIVE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L10	75+50.23	2927323.188	827789.224		S43°45'16"E 310.83'	78+61.06	2927098.670	828004.186
C11	78+61.06	2927098.670	828004.186	R=4000.00' Δ=6°52'35" L=480.06' T=240.32'		83+41.12	2926732.853	828314.600

EDGEWATER ROAD EXTENTION CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L16	131+97.52	2926877.376	827797.656		N49°08'56"E 302.48'	135+00.00	2927075.225	828026.452

N

NAD 83

N/F
COMMONWEALTH OF
MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–059

APPROXIMATE

APPROXIMATE

N/F
HULL
REDEVELOPMENT
AUTHORITY
MAP–LOT 27–061

HULL SHORE DRIVE

REM EXIST WCR;
PROP 5.5' CEM CONC SW & GC

MEET EXIST SW & GC

EXIST TOWN
LAYOUT

PROP 6.5' CEM
CONC SIDEWALK

MEET EXIST SW & GC

ADJ CB

EOP

R&R GC

78+93.40 HULL SHORE DRIVE=
135+00.00 EDGEWATER ROAD EXTENTION

ADJ DMH

PROP LIMIT OF
FULL DEPTH PVMT

PROP LIMIT OF
FULL DEPTH PVMT

PT +50.23

76

77

L10

78

PC +61.06

135+00

79

80

CONST ℄

C11

81

MEET EXIST DWY

CONTINUED ON
SHEET NO. 13

CONTINUED ON
SHEET NO. 15

REM EXIST WCR;
PROP 7' CEM CONC SW & GC

ADJ CB

EOP

MEET EXIST SW & GC

VGC

MEET EXIST SW & GC

R&R WOODEN POST

RET UP

RET WOODEN POSTS
& WIRE (TYP)

EXIST TOWN LAYOUT

R&R WOODEN
BLOCK

N/F
COMMONWEALTH OF
MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–036

APPROXIMATE PROPERTY LINE

REM WOODEN
POSTS & WIRE

**PROP TOWN
LAYOUT**

**PROP TOWN
LAYOUT**

PROP 5.5' CEM CONC SIDEWALK

PROP GC;
TYPE VB (TYP)

134

PROP FULL DEPTH PVMT

PROP 5.5' CEM CONC SIDEWALK

APPROX. LOG (TYP)

L16

PROP 4" LOAM AND SEED

PROP 4"
LOAM & SEED

PROP HMA DWY
TO MATCH EXIST

PROP HMA DWY
TO MATCH EXIST

12 SAMOSET AVENUE
N/F
COMMONWEALTH OF
MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–037

APPROXIMATE

APPROXIMATE

362 NANTASKET AVENUE
N/F
MARION E SYLVESTER
BK–PG 46133–181
MAP–LOT 27–062

APPROXIMATE

APPROXIMATE

**EDGEWATER
ROAD EXT**

APPROXIMATE

PROP PM (TYP)

PROP GC;
TYPE VB (TYP)

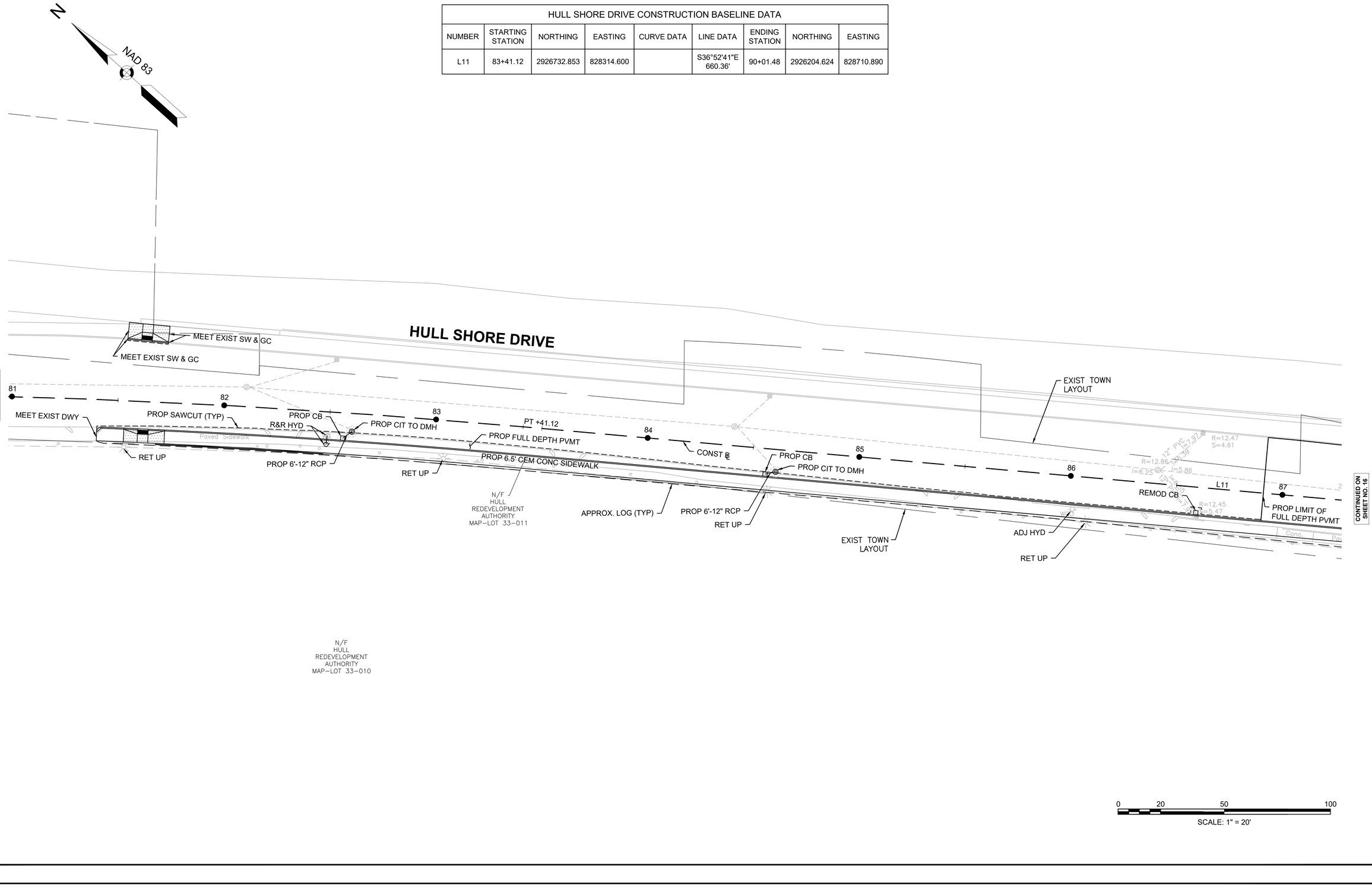
133

0 20 50 100

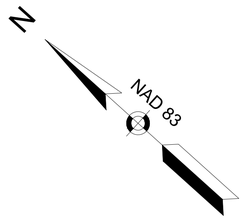
SCALE: 1" = 20'

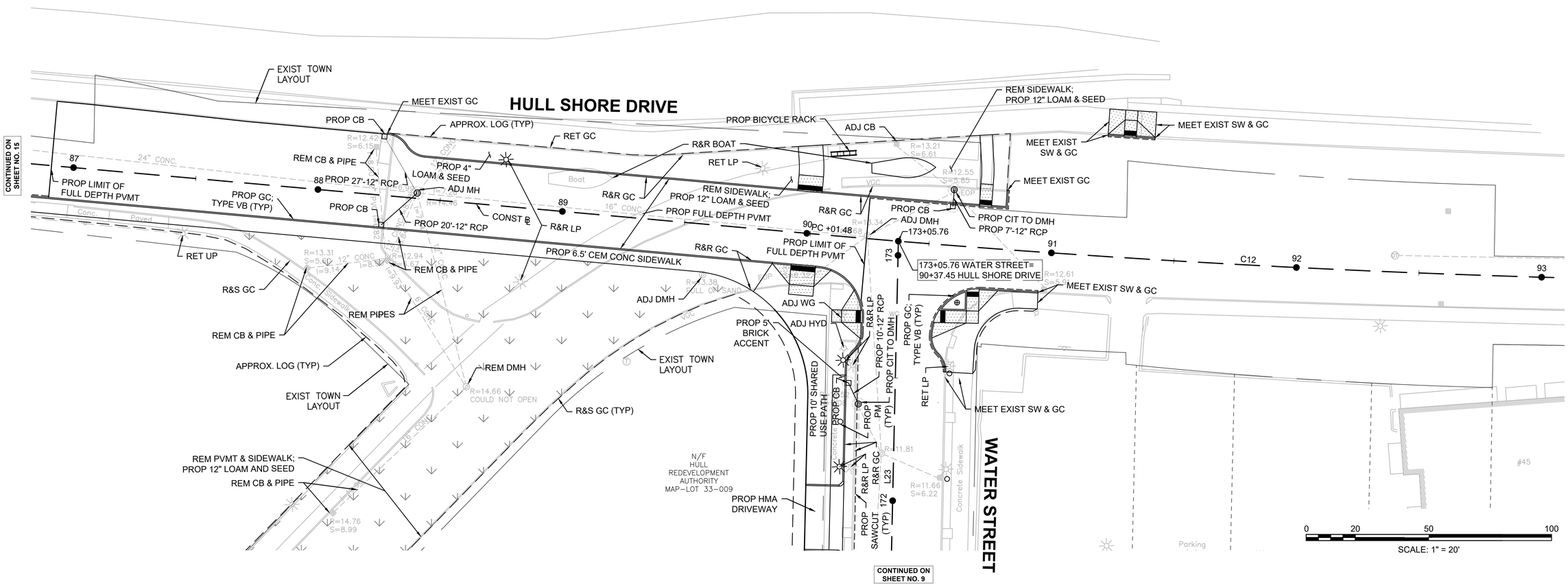
CONTINUED ON
SHEET NO. 7

HULL SHORE DRIVE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L11	83+41.12	2926732.853	828314.600		S36°52'41"E 660.36'	90+01.48	2926204.624	828710.890



HULL SHORE DRIVE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C12	90+01.48	2926204.624	828710.890	R=5000.00' Δ=4°12'11" L=366.78' T=183.47'		93+68.25	2925919.566	828941.557





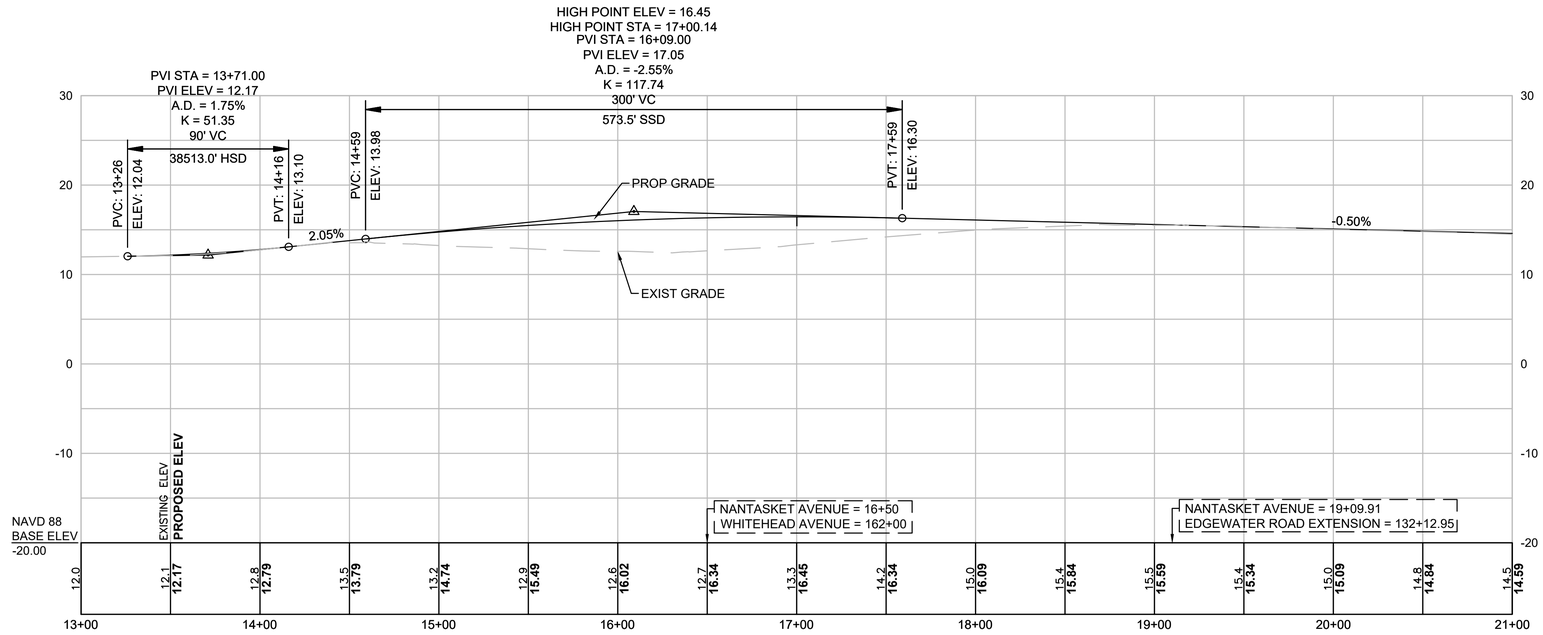
CONTINUED ON SHEET NO. 15

CONTINUED ON SHEET NO. 10

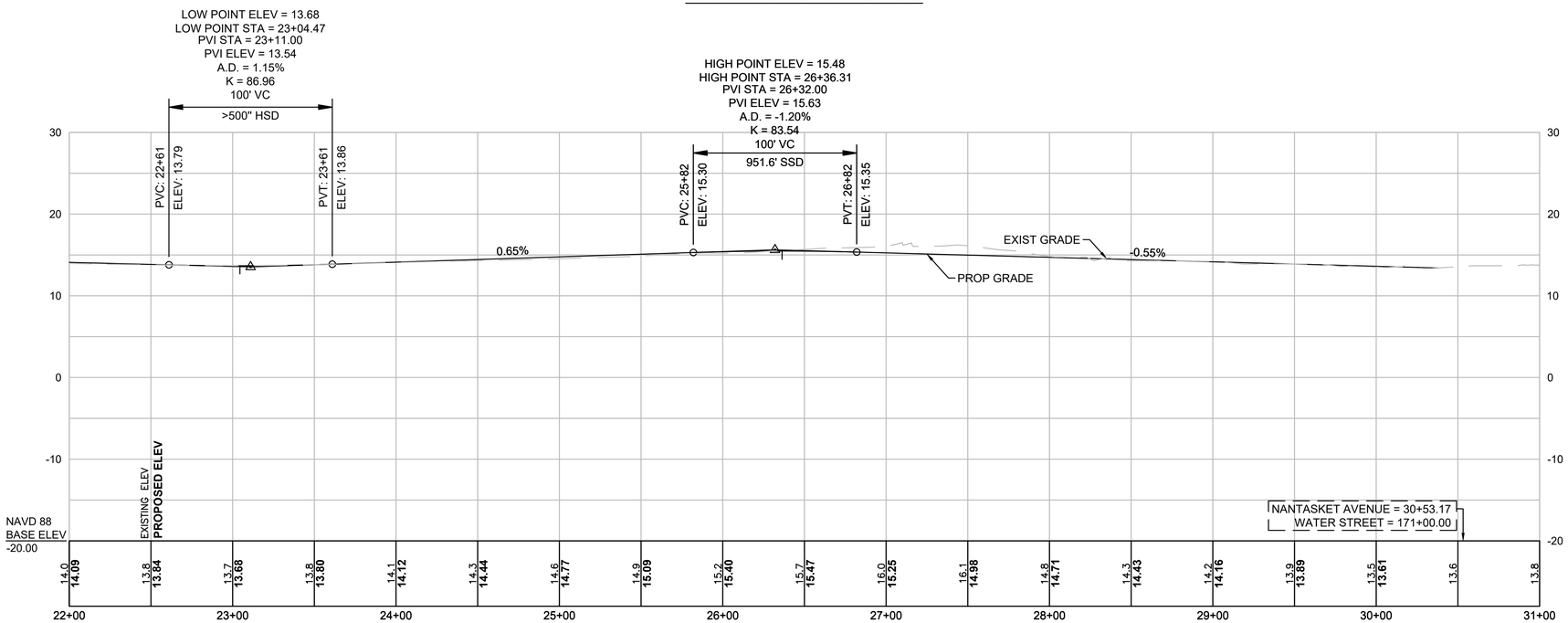
CONTINUED ON SHEET NO. 9

T0597.01[25%]HD6\PROFILES.DWG Plotted on 31-Aug-2022 9:00 AM

NANTASKET AVENUE



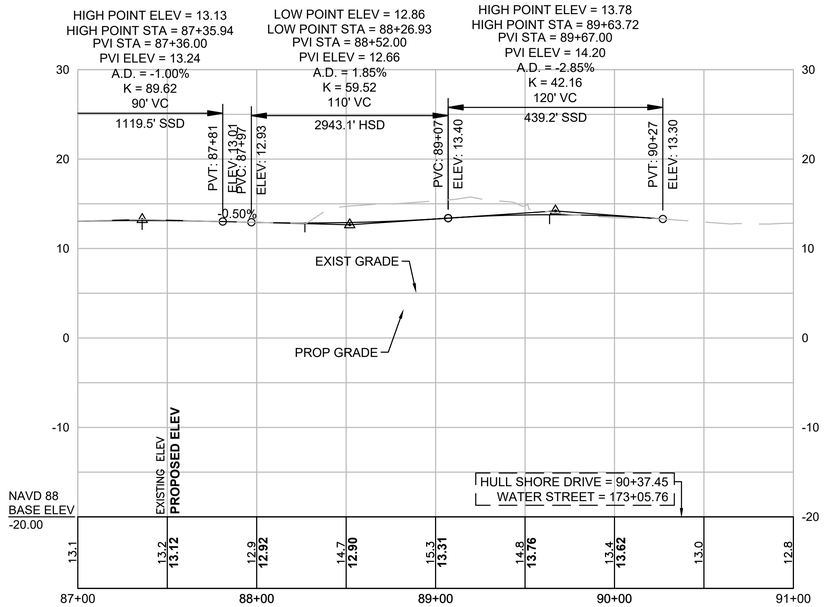
NANTASKET AVENUE



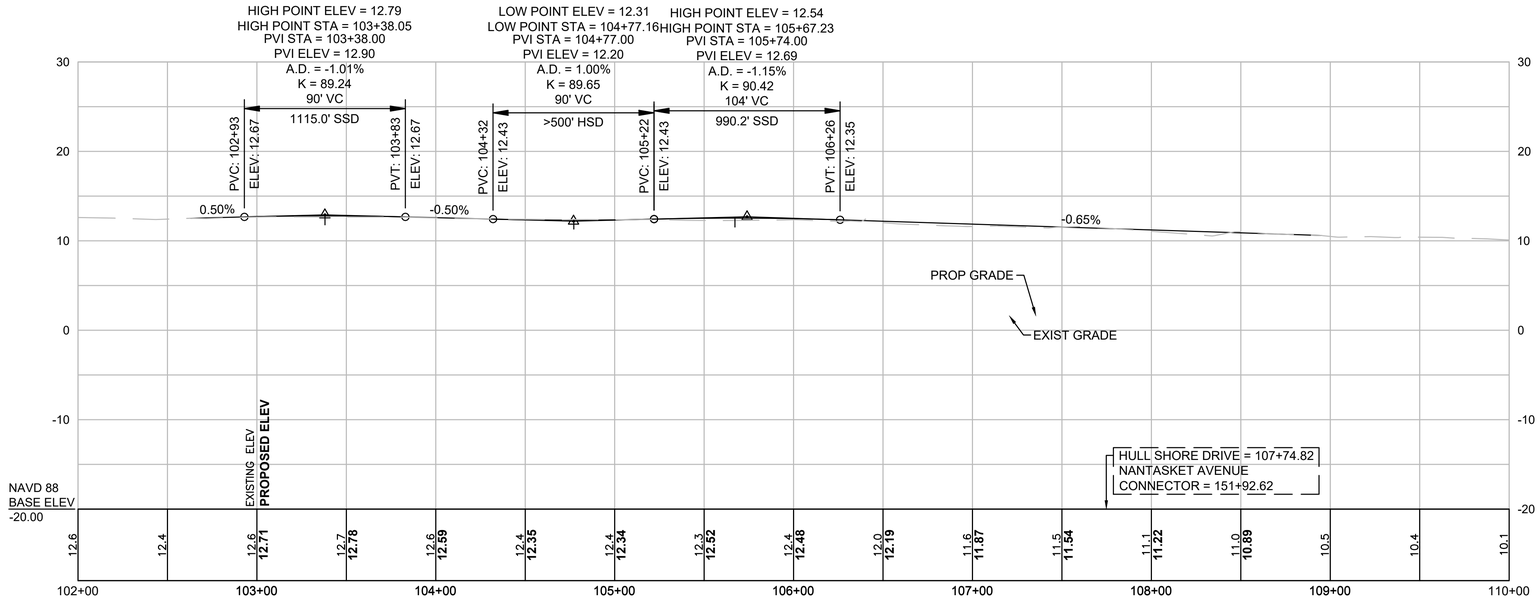
HOR. SCALE IN FEET
40 0 40 80
8 0 8 16
VER. SCALE IN FEET

T0597.01[25%]HD6\PROFILES.DWG Plotted on 31-Aug-2022 9:00 AM

HULL SHORE DRIVE



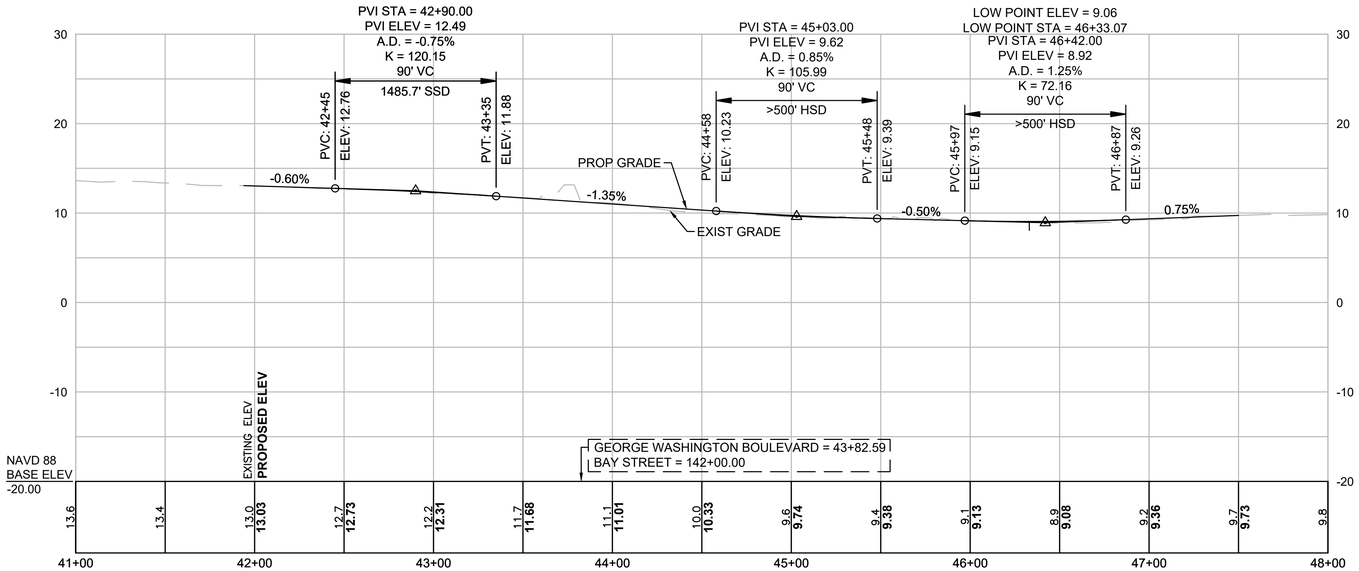
HULL SHORE DRIVE



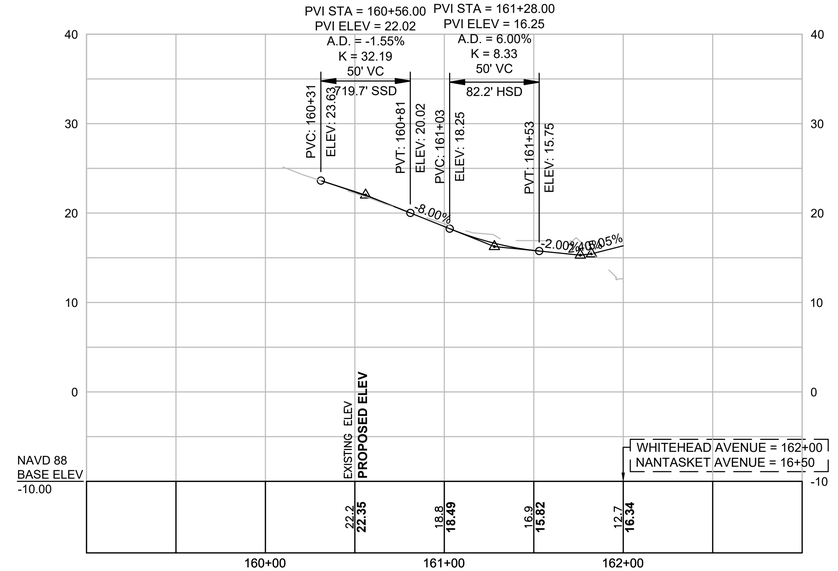
HOR. SCALE IN FEET
40 0 40 80
8 0 8 16
VER. SCALE IN FEET

T0597.01[25%]HD6(PROFILES).DWG Plotted on 31-Aug-2022 9:00 AM

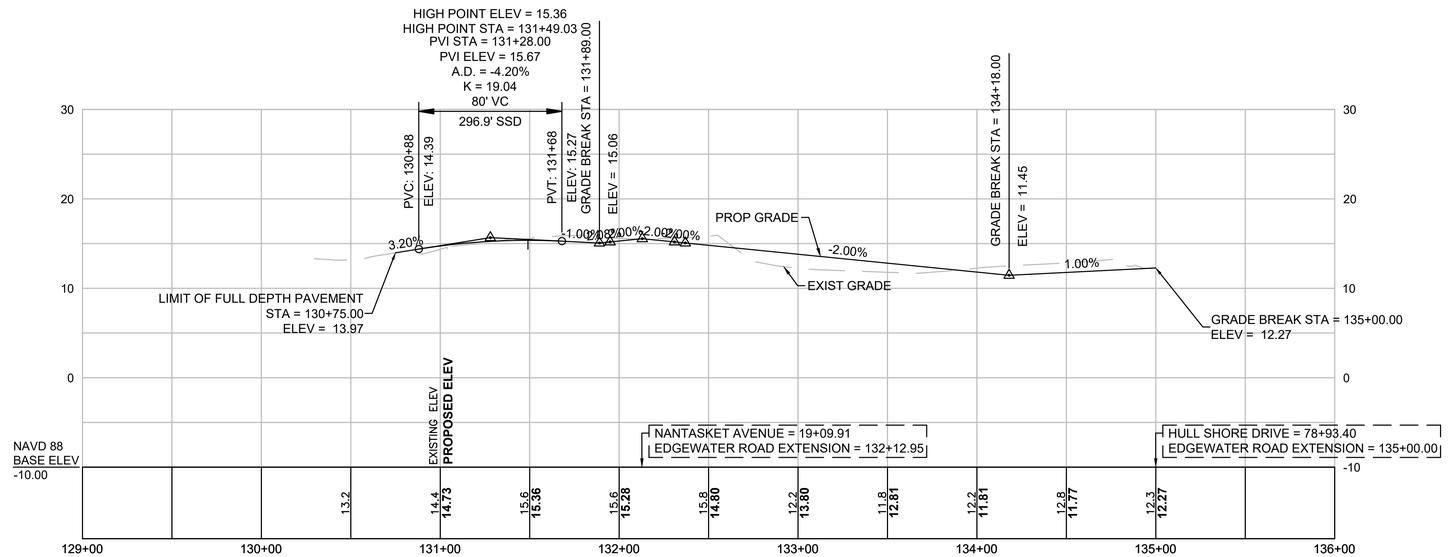
GEORGE WASHINGTON BOULEVARD



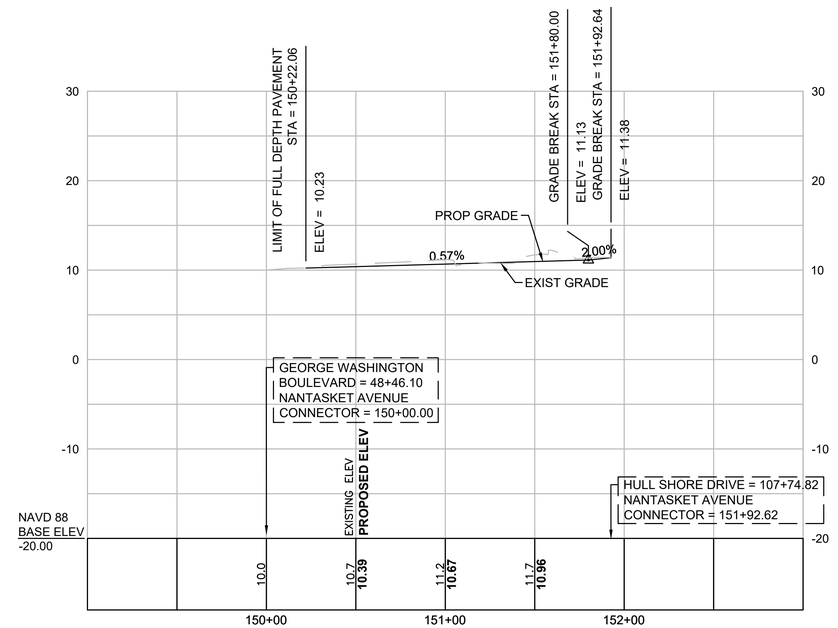
WHITEHEAD AVENUE



EDGEWATER ROAD EXTENTION



NATASKET AVENUE CONNECTOR



HOR. SCALE IN FEET
40 0 40 80
VER. SCALE IN FEET
8 0 8 16

HULL
TWO-WAY CONVERSION
TRAFFIC SIGN & PAVEMENT MARKING PLANS - 1 OF 12
SHEET 20 OF 78

NOTES:

1. ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
2. ALL PAVEMENT MARKINGS WITHIN THE LIMITS OF WORK SHALL BE THERMOPLASTIC MATERIALS.
3. IN AREAS WHERE THE EXISTING PAVEMENT IS BEING RETAINED, ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE REMOVED BY APPROVED METHODS.
4. A MINIMUM OF 3'-0" PATH OF TRAVEL CLEARANCE, EXCLUDING CURB, IS REQUIRED WHEN PLACING SIGNS.
5. THE MINIMUM MOUNTING HEIGHT OF POST MOUNTED SIGNS, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE TOP OF THE CURB OR SIDEWALK SHALL BE 7 FEET.

FOR SIGN SUMMARY: SEE SHEET 32

CONTINUED ON SHEET NO. 28

CONTINUED ON SHEET NO. 21

NAD 83

PHIPPS STREET

SAMOSET AVENUE

NANTASKET AVENUE

WHITEHEAD AVENUE

3 PHIPPS STREET N/F FREDRIC J MACCAFFRAY BK–PG 46925–301 MAP–LOT 27–032

22 SAMOSET AVENUE N/F RAYMOND R CHASE & JACQUELINE M CHASE BK–PG 47574–19 MAP–LOT 27–031

19 SAMOSET AVENUE N/F EOSCO FAMILY LIMITED PARTNERSHIP BK–PG 47574–19 MAP–LOT 27–095

14 SAMOSET AVENUE N/F HULL REDEVELOPMENT AUTHORITY BK–PG MAP–LOT 27–035

N/F HULL REDEVELOPMENT AUTHORITY BK–PG MAP–LOT 27–034

N/F HULL REDEVELOPMENT AUTHORITY BK–PG MAP–LOT 27–150

N/F TOWN OF HULL BK–PG MAP–LOT 27–093

394 NANTASKET AVENUE N/F FRANCIS P. LEONARD AND FRANCES M. LEONARD BK–PG 43862–201 MAP–LOT 27–091

396 NANTASKET AVENUE N/F DEUTSCHE BANK NATIONAL TRUST COMPANY BK–PG 39846–324 MAP–LOT 27–090

379 NANTASKET AVENUE N/F CUMBERLAND FARMS INC BK–PG 8347–346 MAP–LOT 27–154

100 MOUNTFORD ROAD N/F TRUNG DANG BK–PG 11693–263 MAP–LOT 27–155

387 NANTASKET ROAD N/F JOSEPH AND NORDEEN CAMPEDELLI BK–PG _____ MAP–LOT 27–109

12 WHITEHEAD AVENUE N/F GARY M HUFNAGLE & JANET C HUFNAGLE BK–PG 47124–219 MAP–LOT 27–148

10 WHITEHEAD AVENUE N/F JOHN W MITCHELL BK–PG 47124–221 MAP–LOT 27–149

EXIST TOWN LAYOUT

R&S "MUNICIPAL PARKING"

R&S "PARK THIS SIDE ONLY"

REMOVE EXIST PVMT MARKINGS

MEET EXIST PVMT MARKINGS

REM TS POST

CONST ⊞

PROJECT BEGIN
STA 10+50
N2927353.2770
E827107.0124

D11-1 M6-2L

R3-17 R3-17aP

R3-17 R3-17bP

R4-7

R5-1

R5-3 D11-1 M6-2R

W2-2R

W11-2 W16-7pL

W11-2 W16-9p

D3-1a Nantasket Ave

D3-1c Phipps St

D3-1d Mountford Rd

D3-1e Samoset Ave

6" DBYL

6" SWL

6" SYL

12" SL

8" CW

6" DWLEx (2' LINE W/ 6' GAP)

12" SYL @ 1:1, 10' O.C. (TYP.)

PT +11.99

PC +13.07

PC +15.44

9+96.15

EXISTING SIGN LEGEND

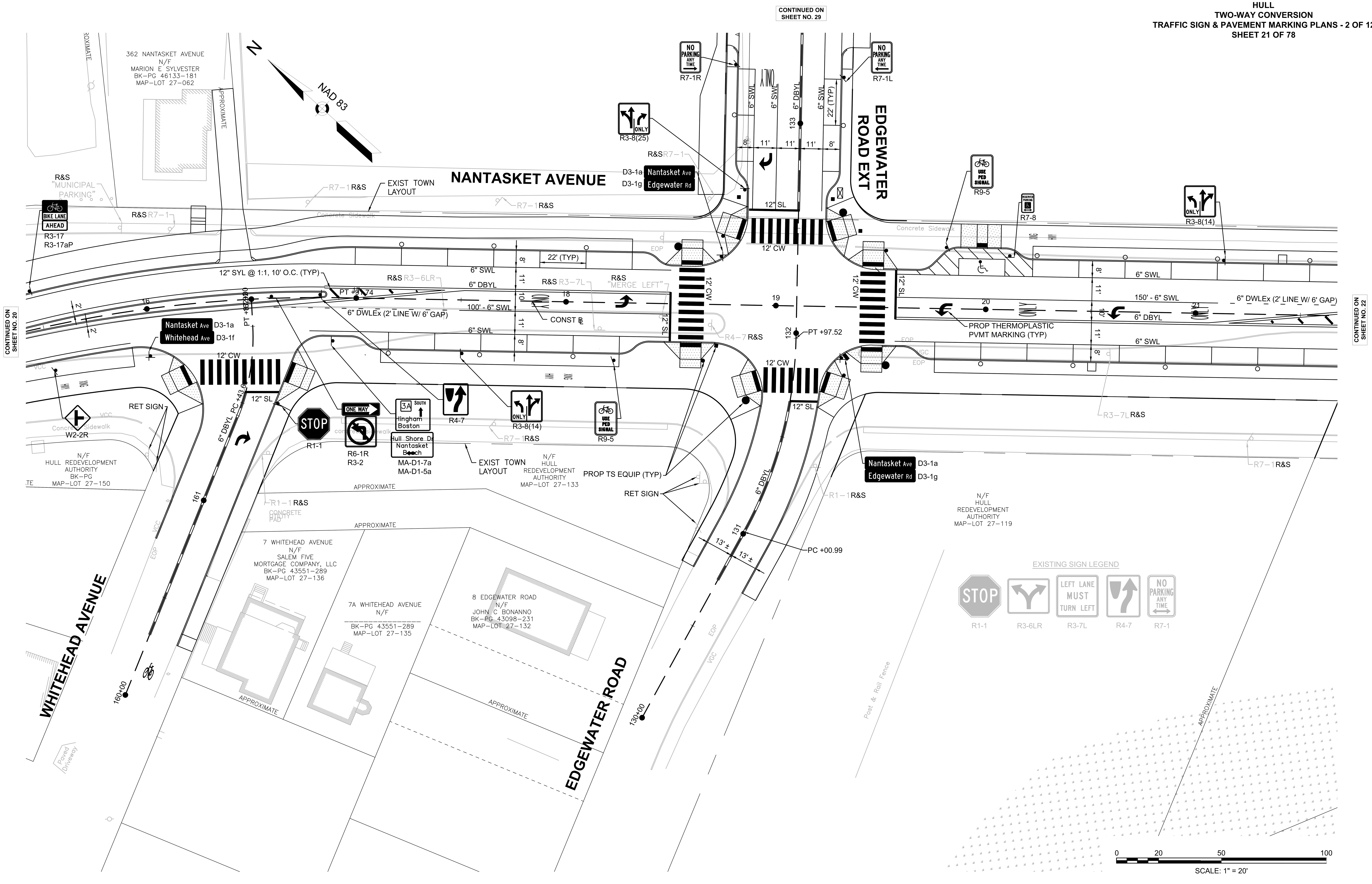
STOP R1-1 | R3-4 | R4-7 | DO NOT ENTER R5-1 | NO PARKING ANY TIME R7-1

0 20 50 100

SCALE: 1" = 20'

T0597.01\25%\HD7\TRAFFIC SIGN & PAVEMENT MARKING PLANS).DWG Plotted on 31-Aug-2022 9:01 AM

HULL
TWO-WAY CONVERSION
TRAFFIC SIGN & PAVEMENT MARKING PLANS - 2 OF 12
SHEET 21 OF 78



CONTINUED ON SHEET NO. 29
CONTINUED ON SHEET NO. 20
CONTINUED ON SHEET NO. 22
NAD 83
N
NANTASKET AVENUE
EDGEWATER ROAD EXT
WHITEHEAD AVENUE
EDGEWATER ROAD
362 NANTASKET AVENUE
N/F
MARION E SYLVESTER
BK-PG 46133-181
MAP-LOT 27-062
"MUNICIPAL PARKING"
EXIST TOWN LAYOUT
R3-17
R3-17aP
D3-1a
D3-1g
D3-1f
R3-8(25)
R3-8(14)
R7-1R
R7-1L
R7-8
R9-5
R4-7
R1-1
R6-1R
R3-2
MA-D1-7a
MA-D1-5a
W2-2R
12" SYL @ 1:1, 10' O.C. (TYP)
6" DWLEx (2' LINE W/ 6' GAP)
PROP THERMOPLASTIC PVMT MARKING (TYP)
PROP TS EQUIP (TYP)
RET SIGN
12' CW
12" SL
6" SWL
6" DBYL
100' - 6" SWL
150' - 6" SWL
22' (TYP)
CONST ℄
"MERGE LEFT"
PT +97.52
PC +00.99
N/F
HULL REDEVELOPMENT AUTHORITY
MAP-LOT 27-150
MAP-LOT 27-133
MAP-LOT 27-119
7 WHITEHEAD AVENUE
N/F
SALEM FIVE MORTGAGE COMPANY, LLC
BK-PG 43551-289
MAP-LOT 27-136
7A WHITEHEAD AVENUE
N/F
BK-PG 43551-289
MAP-LOT 27-135
8 EDGEWATER ROAD
N/F
JOHN C BONANNO
BK-PG 43098-231
MAP-LOT 27-132
Post & Rail Fence
APPROXIMATE
EXISTING SIGN LEGEND
R1-1
R3-6LR
R3-7L
R4-7
R7-1
SCALE: 1" = 20'

T0597.01[25%]HD7(TRAFFIC SIGN & PAVEMENT MARKING PLANS).DWG   Plotted on 31-Aug-2022 9:01 AM

HULL
TWO-WAY CONVERSION
TRAFFIC SIGN & PAVEMENT MARKING PLANS - 3 OF 12
SHEET 22 OF 78

N

NAD 83

APPROX CENTERLINE OF THE GREEN NORTH ROAD

APPROX CENTERLINE OF THE GREEN SOUTH ROAD

THIS SECTION MAY BE REFINED FOLLOWING THE COMPLETION OF THE URBAN RENEWAL PLANNING PROCESS FOR THE HRA PARCELS

NANTASKET AVENUE

R&S R7-1

R7-8

EXIST TOWN LAYOUT

FUTURE POTENTIAL DRIVEWAY

W11-15
W16-7pL

R7-8

Concrete Sidewalk

22' (TYP)

8'
11'
10'
11'
8'

6" SWL

6" DBYL

150' - 6" SWL

6" SWL

12' CW

12' CW

12' CW

6" SWL

6" SYL

6" SYL

6" SWL

2'

2'

6" DWLEx (2' LINE W/ 6' GAP)

12" SYL @ 1:1, 10' O.C. (TYP)

CONST ℄

6" DWLEx (2' LINE W/ 6' GAP)

PROP THERMOPLASTIC PVMT MARKING (TYP)

24

24

25

26

27

CONTINUED ON SHEET NO. 21

CONTINUED ON SHEET NO. 23

ONLY ONLY

R3-8(13)

AHEAD

W11-15
W16-9p

W11-15
W16-7pL

R4-7

R7-1 R&S

EXIST TOWN LAYOUT

Concrete Sidewalk

N/F
HULL
REDEVELOPMENT
AUTHORITY
MAP-LOT 33-067

EXISTING SIGN LEGEND

NO PARKING ANY TIME

R7-1

Bench

Concrete Wall

Edge of Sea Grass

APPROXIMATE

0 20 50 100

SCALE: 1" = 20'

HULL
TWO-WAY CONVERSION
TRAFFIC SIGN & PAVEMENT MARKING PLANS - 4 OF 12
SHEET 23 OF 78

CONTINUED ON SHEET NO. 31

CONTINUED ON SHEET NO. 22

CONTINUED ON SHEET NO. 24

N

NAD 83

R&S R7-1

N/F
HULL
REDEVELOPMENT
AUTHORITY
MAP-LOT 33-009

WATER STREET

NANTASKET AVENUE

EXIST TOWN LAYOUT

AHEAD
W11-15
W16-9p

D11-1
M6-6R

RET R7-1

D3-1a Nantasket Ave
D3-1h Water St

R7-8

R&S R3-1

R&S R5-1

22' (TYP)

8'

11'

6" SWL

PRC +47.08

6" DBYL

30

29

PC +82.68

CONST ℄

12" SYL @ 1:1, 10' O.C. (TYP)

PROP THERMOPLASTIC PVMT MARKING (TYP)

D11-1
M6-6L

RET R7-1

PROP TS EQUIP (TYP)

W6-3

R4-7

BIKE LANE AHEAD
R3-17
R3-17aP

D11-1
M6-2L

EXIST TOWN LAYOUT

N/F
HULL
REDEVELOPMENT
AUTHORITY
MAP-LOT 33-066

6" SWL

6" DBYL

6" SWL

17'2

22' (TYP)

Concrete Sidewalk

8'

12'

12'

8'

12" SL

PROP PB (TYP)

PT +58.02

171+00

8' CW

12" SL

6" DWLEx
(2' LINE W/ 6' GAP)

8' CW

8' CW

31

6" DBYL

32

33

Parking Lot

N/F
NANTASKET
BEACH
CONDOMINIUM
MAP-LOT 63-100

NANTASKET AVENUE

RET
"RESERVED PARKING"

Concrete Sidewalk

"TWO HOUR PARKING" RET

RET EXIST PVMT MARKINGS

W6-3

EXIST 5' BIKE LANE

NO PARKING 7:00 AM TO 10:00 AM
LOADING ZONE
R7-2b
R8-3gPL

NO PARKING 7:00 AM TO 10:00 AM
LOADING ZONE
R7-2b
R8-3gPR

"TWO HOUR PARKING" R&D

Concrete Sidewalk

10' Right...

307 NANTASKET AVENUE
N/F
FOREVER
SUNSHINE
BK-PG 45631-301
MAP-LOT 33-047

303 NANTASKET AVENUE
N/F
VAN DAI
BK-PG 40617-159
MAP-LOT 33-046

301 NANTASKET AVENUE
N/F
301 NANTASKET AVENUE
UNIT OWNERS
CONDOMINIUM TRUST
BK-PG 47080-249
MAP-LOT 33-045

299 NANTASKET AVENUE
N/F
ELIZABETH BOHN
BK-PG 45687-322
MAP-LOT 33-044

APPROXIMATE

APPROXIMATE

APPROXIMATE

BAY STREET

EXISTING SIGN LEGEND

R3-1

DO NOT ENTER
R5-1

NO PARKING ANY TIME
R7-1

Post

Post

0 20 50 100

SCALE: 1" = 20'

HULL
TWO-WAY CONVERSION
TRAFFIC SIGN & PAVEMENT MARKING PLANS - 5 OF 12
SHEET 24 OF 78

T0597.01[25%]HD7\TRAFFIC SIGN & PAVEMENT MARKING PLANS).DWG Plotted on 31-Aug-2022 9:02 AM

N
NAD 83

HULL SHORE DRIVE

NANTASKET AVENUE

SAGAMORE TERRACE

CONTINUED ON SHEET NO. 31
CONTINUED ON SHEET NO. 25
CONTINUED ON SHEET NO. 23

N/F COMMONWEALTH OF MASSACHUSETTS DCAM–DCR MAP–LOT 37–010

R7-8 R7-8P

R&S R7-8

PROP THERMOPLASTIC PVMT MARKING (TYP)

W11-2 W16-7pL

45°

19'

9'

27' - 6' SWL (TYP)

6" SWL
6" SWL
6" DBYL
6" SWL

EXIST TOWN LAYOUT

93 PT +68.25 94 95 96 97 98

8' CW

CONST ℄

6'
11'
11'
2' ±

AHEAD W11-2 W16-9p

W6-3

NO PARKING ANY TIME R7-1

R&S R3-1

W11-2 W16-7pL

EXIST TOWN LAYOUT

45 HULL SHORE DRIVE
N/F
NANTASKET BEACH CONDOMINIUM
BK–PG 48552–129
MAP–LOT 33–001–A

EXISTING SIGN LEGEND

STOP R1-1 | SPEED LIMIT 30 R2-1(30) | R3-1 | R3-2 | DO NOT ENTER R5-1 | ONE WAY R6-1

NO PARKING ANY TIME R7-1 | RESERVED PARKING R7-8 | W11-2 | W16-7L | W16-7pR | AHEAD W16-9p

AHEAD W11-2 W16-9p

W11-2 W16-7pL

APPROXIMATE

19 HULL SHORE DRIVE
N/F
HULLS KITCHEN REALTY TRUST
BK–PG 41147–188
MAP–LOT 34–085

R&R R7-8

W11-2 W16-7pL

W6-3

NO PARKING ANY TIME R7-1

15 HULL SHORE DRIVE
N/F
TOP JIAN REALTY TRUST
MAP–LOT 34–084

280 NANTASKET AVENUE
N/F
JDLRE INC
MAP–LOT 34–091

NO PARKING 7:00 AM TO 10:00 AM LOADING ZONE R7-2b R8-3gPR

278 NANTASKET AVENUE
N/F
MAURICE LUSSIER
BK–PG 19421–25
MAP–LOT 34–092

NO PARKING 7:00 AM TO 10:00 AM LOADING ZONE R7-2b R8-3gPL

276 NANTASKET AVENUE
N/F
CLARA GATTINNI
MAP–LOT 34–093

R&S R3-1
R&S R6-1
RET R7-1

AHEAD W11-2 W16-9p (R&R FROM STA 34+58)

R&R "TWO HOUR PARKING"

RET R1-1
R&R R1-6

W16-7pL

R&R W11-2
R&S W16-7pR

RET EXIST PVMT MARKINGS

W11–2 R&R (TO STA 37+35)
W16–9p R&R (TO STA 37+35)

RET R5-1

R&S R3-1 RET R1-1

Concrete Sidewalk

33 PC +76.66 34 PT +69.29 35 6" DBYL 36 CONST ℄ 8' CW 37 PC +62.28 38 6" DBYL 39

"TWO HOUR PARKING" R&D

10' Right-of-Way

299 NANTASKET AVENUE
N/F
ELIZABETH BOHN
BK–PG 45687–322
MAP–LOT 33–044

297 NANTASKET AVENUE
N/F
POLLOCK CHARLOTTE
BK–PG 10203–038
MAP–LOT 33–042

295 NANTASKET AVENUE
N/F
POLLOCK CHARLOTTE
BK–PG 10203–038
MAP–LOT 33–041

R&S R3-1
R&S R6-1

RET W11-2
RET W16-9p

EXIST TOWN LAYOUT

293 NANTASKET AVENUE
N/F
LYONS MICHAEL TR
BK–PG 15056–217
MAP–LOT 33–040

NO PARKING 7:00 AM TO 10:00 AM LOADING ZONE R7-2b R8-3gPL

R&S R3-2
R&S R6-1

283 NANTASKET AVENUE
N/F
MARCHIONE QUINTINO
BK–PG 39969–
MAP–LOT 33–1

NO PARKING 7:00 AM TO 10:00 AM LOADING ZONE R7-2b R8-3gPR

RET W11-2
RET W16-7pL

RET R7-1
R&S R3-2

8' CW

6" DBYL

12" SL

R3-1 R&S
R6-1 R&S

STOP R1-1

22 PORRAZZO ROAD
N/F
DAVID DOUGLAS
BK–PG 39267–290
MAP–LOT 34–080

R2-1(30) RET

"TWO HOUR PARKING" RET

18 PORRAZZO ROAD
N/F
TIBERT JAMES L
BK–PG 45898–342
MAP–LOT 34–080

N/F
EASTON THOMAS
MAP–LOT 34–059–A

275 NANTASKET AVENUE
N/F
TOWN OF HULL
MAP–LOT 34–059

APPROXIMATE

0 20 50 100
SCALE: 1" = 20'

HULL
TWO-WAY CONVERSION
TRAFFIC SIGN & PAVEMENT MARKING PLANS - 6 OF 12
SHEET 25 OF 78

N

NAD 83

EXISTING SIGN LEGEND

R1-1 R1-2 R3-1 R3-2 R5-1 R6-1 R7-1 W11-2 W16-7L W16-7pR W16-9p

HULL SHORE DRIVE

NANTASKET AVENUE

BAY STREET

CONTINUED ON SHEET NO. 24

CONTINUED ON SHEET NO. 26

99 PC +20.40 6" DBYL 100 101 PT +08.37 102 103 104 PC +06.05

39 PT +39.03 6" DBYL 40 41 42 6" DBYL PC +41.11 43 44 45

6" SWL 6" SWL 6" SWL 6" SWL 6" SWL 6" SWL

CONST ℄

45° 19' 27' 6" SWL (TYP)

6' 11' 11' 3' 8' CW 8' CW 5' 11' 11' 2' 11' 11' 5' 2' 11' 11' 5'

R&R R7-1

R&S R3-1

EXIST TOWN LAYOUT

R7-1R NO PARKING ANY TIME

W6-3

R7-8 R7-8P VAN ACCESSIBLE

R5-1 DO NOT ENTER

R7-1 NO PARKING ANY TIME

R1-2 R&S

PROP THERMOPLASTIC PVMT MARKING (TYP)

R&S "NO PARK OVERNIGHT"

W11-2 W16-7pL

AHEAD W11-2 W16-9p

EXIST TOWN LAYOUT

Parking Lot

"TWO HOUR PARKING" R&S

W11-2 W16-7pL

W11-2 W16-9p R&S

R&S R6-1 R&S R3-2

R7-1R NO PARKING ANY TIME

"BOSTON R&R QUINCY"

W11-2 W16-7pR R&S

W1-8R

R3-2 R&S R6-1 R&S

END OF 1931 SHLO NO. 2754

R1-1 R&S

R3-2

6" DYLEx (2' LINE W/ 6' GAP)

EXIST 1931 SHLO NO. 27

R7-1 R&S

6" DWLEx (2' LINE W/ 6' GAP)

PRC +28.0911'

12' SL

15'± 15'±

6" DBYL

141

END OF 1931 SHLO NO. 2754

142.00

R&S R3-1 R&S R6-1 RET R7-1

RET EXIST PVMT MARKINGS

W11-2 R&S W16-9p R&S

R&S R3-1 R&S R6-1

W11-2 W16-7pL

R&S R3-2 RET R5-1 R&S R6-1

W1-4R

W13-1P(20) 20 MPH

W11-2 W16-7pL

AHEAD W11-2 W16-9p

R&S R3-2 RET R5-1 R&S R6-1

W11-2 R&S W16-7pL R&S

BIKE LANE R3-17

STOP R1-1 R3-2

BIKE LANE ENDS R3-17 R3-17bP

NO MOTOR VEHICLES R5-3

D11-1

M6-2R

PROP THERMOPLASTIC PVMT MARKING (TYP)

R&S R1-1

Concrete Sidewalk

Concrete Walk

Sidewalk

Fence

APPROXIMATE

264 NANTASKET AVENUE N/F ARC ROCK LLC MAP–LOT 34–094

256 NANTASKET AVENUE N/F RADBEA LLC MAP–LOT 34–095

N/F MA/DCR REAL PROPERTY OFFICE MAP–LOT 34–096

N/F EASTON THOMAS MAP–LOT 34–059–A

271 NANTASKET AVENUE N/F JAMES MORRISEY MAP–LOT 34–058

275 NANTASKET AVENUE N/F TOWN OF HULL MAP–LOT 34–059

4 PORRAZZO ROAD N/F DERAN & MARITZA DINJIAN MAP–LOT 34–057

N/F TOWN OF HULL MAP–LOT 34–057–A

3 PORRAZZO ROAD N/F HORN MAX BK–PG 48269–327 MAP–LOT 34–083–A

1 PORRAZZO ROAD N/F SHAHEEN JEFFREY P BK–PG 43342–211 MAP–LOT 34–083–B

259 NANTASKET AVENUE N/F APOLLO PLACE CONDOMINIUM TRUST BK–PG 43704–62 MAP–LOT 34–083

0 20 50 100

SCALE: 1" = 20'

HULL
TWO-WAY CONVERSION
TRAFFIC SIGN & PAVEMENT MARKING PLANS - 7 OF 12
SHEET 26 OF 78

NAD 83

NANTASKET AVENUE

GEORGE WASHINGTON BOULEVARD

NANTASKET AVENUE CONNECTOR

N/F COMMONWEALTH OF MASSACHUSETTS DCAM–DCR MAP–LOT 37–010

MARY JEANETTE MURRAY BATH HOUSE

247 NANTASKET AVENUE N/F BELLAS INVESTMENT COMPANY INC MAP–LOT 34–097

245 NANTASKET AVENUE N/F JOSEPH AGOSTINO MAP–LOT 34–098–B

N/F TOWN OF HULL MAP–LOT 34–098

N/F TOWN OF HULL MAP–LOT 34–001

8 WHARF AVENUE N/F MA/DCR REAL PROPERTY OFFICE MAP–LOT 37–001–A

EXIST 1931 SHLO NO. 2754

EXIST TOWN LAYOUT

Parking Lot

Concrete Sidewalk

Jersey Barrier

Steam

105 106 108 109 110 110+15 PT +59.46 PRC +09.50 PT +78.80 PCC +31.82 45 46 47 48 49 50 51

6" SWL 6" DBYL 6" DWLEX (2' LINE W/ 6' GAP) 12" SYL @ 1:1, 10' O.C. (TYP) 6" BWL (10' LINE W/ 30' GAP) 225' - 12" SWL

8' CW 12' CW 12" SL 150'-00

CONST ℄ EOP VCC

R&S R2–1(30) R&S R3–1 R&S R3–2 R&S R4–7 R&S R5–1 R&S R7–1 R&S R7–8 R&S "NO TURNS" R&S "THROUGH TRAFFIC"

R2–1(30) R&R R7–1 R&R

W6-3 W11-2 W16-7pL W11-15 W16-7pL W11-15 W16-9p W11-2 W16-9p W1-4R W13-1P(20) D11-1 M6-1L D11-1 M6-2L D11-1 M6-6R R3-17 R3-17aP W11-15 W16-9p R3-8(13) R3-8(35) R5-1 R1-1

BIKE LANE BIKE ROUTE AHEAD ONLY STOP DO NOT ENTER

PROJECT END STA 110+15 N2924633.0709 E829956.0213

PROP THERMOPLASTIC PVMT MARKING (TYP)

EXISTING SIGN LEGEND

SPEED LIMIT 30 R2-1(30) · R3-1 · R3-2 · R4-7 · DO NOT ENTER R5-1 · NO PARKING ANY TIME R7-1 · RESERVED PARKING R7-8

0 20 50 100

SCALE: 1" = 20'

CONTINUED ON SHEET NO. 25

CONTINUED ON SHEET NO. 27

HULL
TWO-WAY CONVERSION
TRAFFIC SIGN & PAVEMENT MARKING PLANS - 8 OF 12
SHEET 27 OF 78

N

NAD 83

NANTASKET AVENUE

Concrete Sidewalk

Steam

213 NANTASKET AVENUE
N/F
MA/DCR REAL PROPERTY OFFICE
MAP–LOT 37–008

WHARF AVENUE

1 WHARF AVENUE
N/F
MA/DCR
REAL PROPERTY
MAP–LOT 37–009–A

APPROXIMATE

8 WHARF AVENUE
N/F
MA/DCR REAL PROPERTY OFFICE
MAP–LOT 37–001–A

Surfside
Kenbermar
Pemberton
Hull Shore Dr
Nantasket Beach
MA-D1-5c
MS-D1-5b

R&S "THROUGH TRAFFIC BEAR RIGHT"

AHEAD
D11-1
W16-9P

R&S R3–6LR

ONLY
R3-5R

RIGHT LANE MUST TURN RIGHT
R3-7R

EXIST 1931 SHLO NO. 2754

6" SWL

225' - 12" DWL (2' LINE W/ 6' GAP)

6" DBYL

190' - 6" BWL 10' LINE W/ 30' GAP)

6" BWL (10' LINE W/ 30' GAP)

100' - 6" SWL

CONST ℄

PROJECT END
STA 54+00
N2924263.3736
E830033.0383

51 52 53 54 55 56+00

11' 11' 11' 10' 11'±

CONTINUED ON SHEET NO. 26

R3–6R R&S

ONLY
R3-5a

GEORGE WASHINGTON BOULEVARD

EXIST 1931 SHLO NO. 2754

EXISTING SIGN LEGEND

R3-4 R3-6R R3-6LR R4-7 R5-1 R10-11b

48 GEORGE WASHINGTON BLV
N/F
STEAMBOAT WHARF
MARINA INC
BK–PG 35760–124
MAP–LOT 34–007

N/F
TOWN OF HULL
MAP–LOT 37–006–D

0 20 50 100

SCALE: 1" = 20'

N
NAD 83

BEACH AVENUE
PAVED
SIDEWALK
EOP

HULL SHORE DRIVE
EXIST TOWN LAYOUT

200 HULL SHORE DRIVE
N/F
COMMONWEALTH OF MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–054

N/F
COMMONWEALTH OF MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–056

N/F
COMMONWEALTH OF MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–057

N/F
TOWN OF HULL
BK–PG
MAP–LOT 27–058

N/F
COMMONWEALTH OF MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–059

APPROXIMATE

PROP THERMOPLASTIC PVMT MARKING (TYP)

AHEAD
W11-2
W16-9p

W11-2
W16-7pL

R7-8

RET R7–1
RET R5–1
R&S R7–8
22' (TYP)
8'±
6'±
11'±
11'±
6'±
75
74
73
72
71
PT +50.23
CONST ℄
14' CW
R&R R7–1
R&S R6–1

CONTINUED ON SHEET NO. 29

9 MANOMET AVENUE
N/F
SMITTY LLC
BK–PG 30600–136
MAP–LOT 27–013

Concrete Sidewalk
Gravel Walk
Brick

N/F
COMMONWEALTH OF MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–054

PHIPPS STREET

65+00
RET R7–1
6" DBYL

Hull Shore Dr D3-1b
Phipps St D3-1c

STOP
R1-1

PROJECT BEGIN
STA 70+00
N2927664.9013
E827359.5555

R&S R1–1
R&S R5–1
R&S R6–1
12" SL
5'±
11'±
11'±
2'±
6" SWL
6" DBYL
PC +86.70
70+00

R1–1 R&S
R5–1 R&S
R7–1 R&R

EXIST TOWN LAYOUT

R&R R7–1

5 PHIPPS STREET
N/F
HEALEY THOMAS R & CAROL J
BK–PG 4268–759
MAP–LOT 27–033

8' CW

3 PHIPPS STREET
N/F
FREDRIC J MACCAFFRAY
BK–PG 46925–301
MAP–LOT 27–032

PT +11.99
6" DBYL
63

CONTINUED ON SHEET NO. 20

EXISTING SIGN LEGEND

STOP R1-1
DO NOT ENTER R5-1
ONE WAY R6-1
NO PARKING ANY TIME R7-1
RESERVED PARKING R7-8

14 SAMOSET AVENUE
N/F
HULL REDEVELOPMENT AUTHORITY
BK–PG
MAP–LOT 27–035

0 20 50 100
SCALE: 1" = 20'

N
NAD 83

N/F
COMMONWEALTH OF
MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–059

APPROXIMATE

APPROXIMATE

N/F
HULL
REDEVELOPMENT
AUTHORITY
MAP–LOT 27–061

HULL SHORE DRIVE

BIKE LANE
R3-17

EXIST TOWN
LAYOUT

PROP THERMOPLASTIC
PVMT MARKING (TYP)

W11-2
W16-7pL

AHEAD
W11-2
W16-9p

RESERVED PARKING
R7-8

RET R7–1

RET R7–1

R7–8 R&S

22' (TYP)

8'

6'

11'

11'

3'

6" SWL

6" DBYL

6" SWL

14' CW

6" DWLEx (2' LINE W/ 6' GAP)

14' CW

EOP

PT +50.23

76

77

78

PC +61.06

135+00

79

80

81

CONST ℄

CONTINUED ON
SHEET NO. 28

CONTINUED ON
SHEET NO. 30

R&R R7–1
R&S R6–1

EXIST TOWN
LAYOUT

R&S R6–1
R&R R7–1
RET R7–8

RET R7–8

RET R5–1

N/F
COMMONWEALTH OF
MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–036

R6–1 R&S
"NO PARK
OVERNIGHT"

APPROXIMATE PROPERTY LINE

RET

W11-2
W16-7pL

AHEAD
W11-2
W16-9p

R5–1 R&S
R6–1 R&S

EOP

VGC

8' CW

12" SL

Hull Shore Dr D3-1b
Edgewater Rd D3-1g

STOP
R1-1

R&S R6–1
R&R R7–1

R&S R7–1

AHEAD
W11-2
W16-9p

R&R R7–1

EXIST TOWN LAYOUT

EXISTING SIGN LEGEND

DO NOT ENTER — R5-1
ONE WAY — R6-1
NO PARKING ANY TIME — R7-1
RESERVED PARKING — R7-8

12 SAMOSET AVENUE
N/F
COMMONWEALTH OF
MASSACHUSETTS
DCAM–DCR
MAP–LOT 27–037

8'

11'

11'

8'

EDGEWATER
ROAD EXT

22' (TYP)

134

NO PARKING ANY TIME
R7-1L

NO PARKING ANY TIME
R7-1R

APPROXIMATE

APPROXIMATE

362 NANTASKET AVENUE
N/F
MARION E SYLVESTER
BK–PG 46133–181
MAP–LOT 27–062

APPROXIMATE

APPROXIMATE

NO PARKING ANY TIME
R7-1R

NO PARKING ANY TIME
R7-1L

6" SWL

6" SWL

6" DBYL

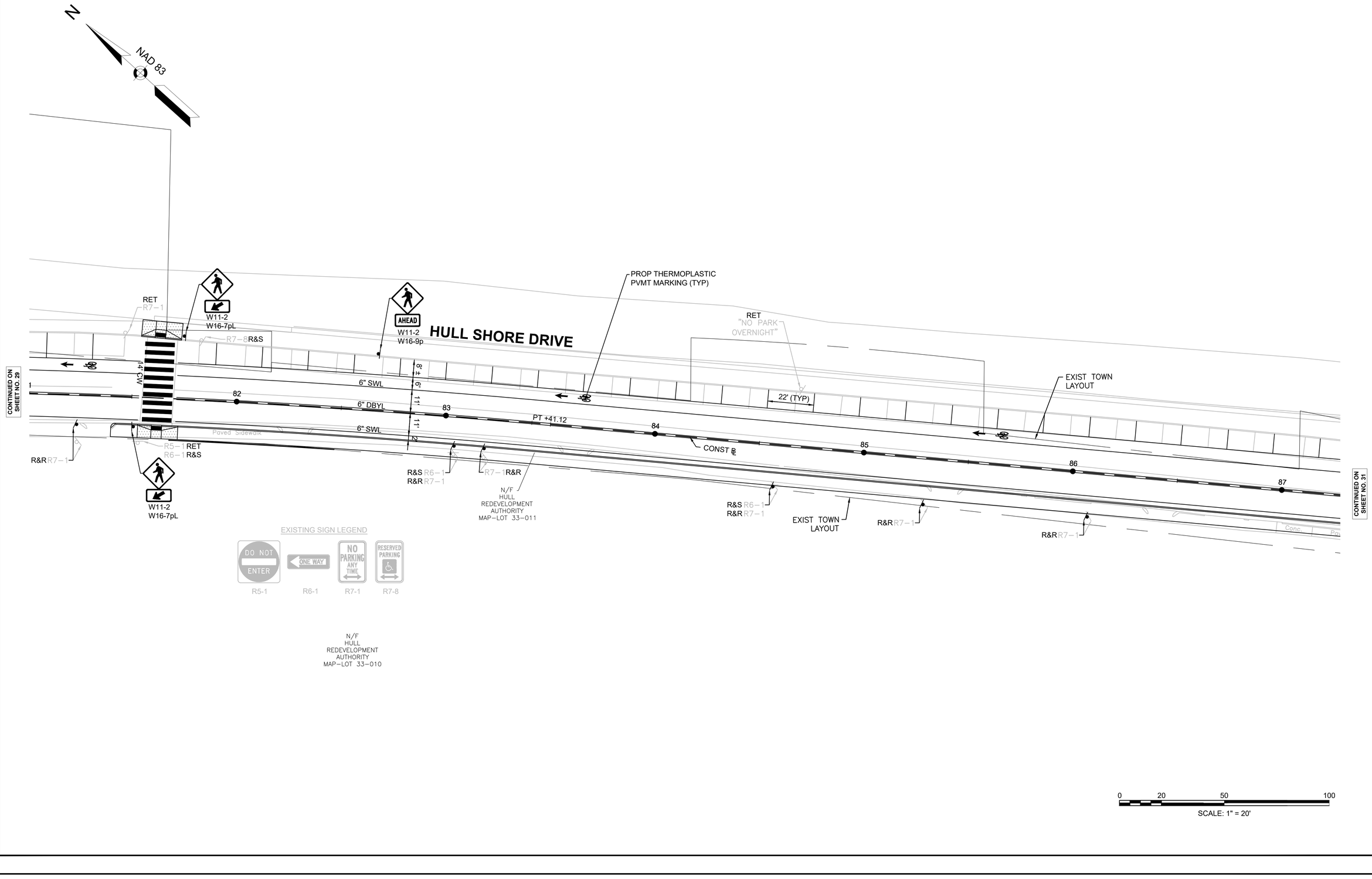
6" SWL

22' (TYP)

133

CONTINUED ON
SHEET NO. 21

0 20 50 100
SCALE: 1" = 20'

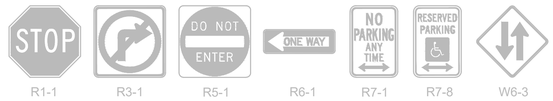


T0597.01\25%\HD7\TRAFFIC SIGN & PAVEMENT MARKING PLANS\.DWG Plotted on 31-Aug-2022 9:05 AM

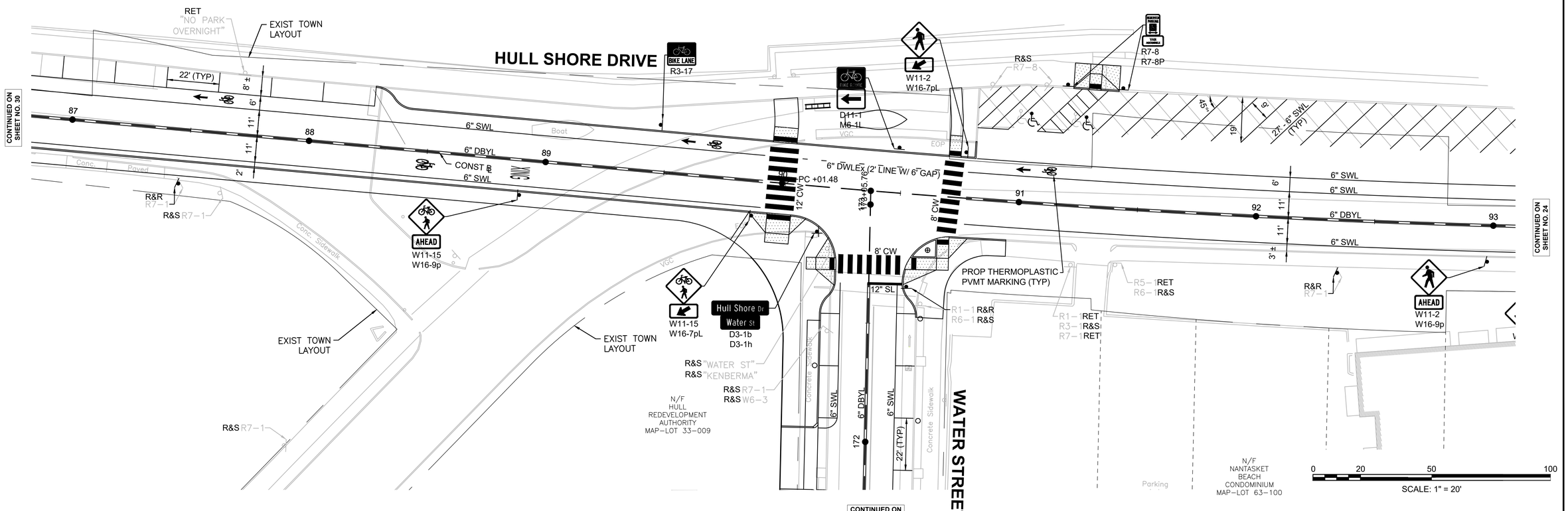
N

NAD 83

EXISTING SIGN LEGEND



R1-1 R3-1 R5-1 R6-1 R7-1 R7-8 W6-3



HULL
TWO-WAY CONVERSION
TRAFFIC SIGN SUMMARY - 1 OF 2
SHEET 32 OF 78

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN (in)			TEXT DIMENSIONS (in)			NUMBER OF SIGNS REQUIRED	COLOR			SIZE AND NUMBER OF POSTS REQUIRED	UNIT AREA (SF)	TOTAL AREA (SF)
	WIDTH	HEIGHT	LEGEND	LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR		BACK-GROUND	LEGEND	BORDER			
20	30	30	STOP	①			10	RED	WHITE	WHITE	10	6.25	62.50
R3-2	24	24					3	WHITE	BLACK/ RED	BLACK	2 MOUNT 1 W/ R1-1	4.00	12.00
R3-5a	36	36	ONLY				1	WHITE	BLACK	BLACK	0 MOUNT ON MAST ARM	9.00	9.00
R3-5R	36	36	ONLY				1	WHITE	BLACK	BLACK	0 MOUNT ON MAST ARM	9.00	9.00
R3-7R	30	30	RIGHT LANE MUST TURN RIGHT				1	WHITE	BLACK	BLACK	1	6.25	6.25
R3-8(13)	30	30	ONLY ONLY				2	WHITE	BLACK	BLACK	2	6.25	12.50
R3-8(14)	30	30	ONLY				2	WHITE	BLACK	BLACK	2	6.25	12.50
R3-8(17)	30	30	ONLY				2	WHITE	BLACK	BLACK	2	6.25	12.50
R3-8(25)	30	30	ONLY				1	WHITE	BLACK	BLACK	1	6.25	6.25
R3-8(35)	30	30	ONLY ONLY				1	WHITE	BLACK	BLACK	1	6.25	6.25
R3-8(35)	36	36	ONLY ONLY				1	WHITE	BLACK	BLACK	0 MOUNT ON MAST ARM	9.00	9.00
R3-17	24	18	BIKE LANE				12	BLACK/ WHITE	BLACK/ WHITE	BLACK	12	3.00	36.00
R3-17aP	24	8	AHEAD				4	WHITE	BLACK	BLACK	0 MOUNT W/ R3-17	1.33	5.33
R3-17bP	24	8	ENDS				3	WHITE	BLACK	BLACK	0 MOUNT W/ R3-17	1.33	4.00
R4-7	24	30					4	WHITE	BLACK	BLACK	4	5.00	20.00
R5-1	30	30	DO NOT ENTER				3	RED	WHITE	WHITE	3	6.25	18.75
R5-3	24	24	NO MOTOR VEHICLES				2	WHITE	BLACK	BLACK	2	4.00	8.00
R5-3	25	25	NO PARKING ANY TIME	①			3	WHITE	BLACK	BLACK	3	4.34	13.02
R6-1R	12	36	ONE WAY				1	BLACK/ WHITE	BLACK/ WHITE	BLACK	0 MOUNT W/ R3-2	3.00	3.00
R7-1	12	18	NO PARKING ANY TIME				8	WHITE	RED	RED	0 MOUNT W/ W/ 6-3	1.50	12.00
R7-1L	12	18	NO PARKING ANY TIME				2	WHITE	RED	RED	2	1.50	3.00
R7-1R	12	18	NO PARKING ANY TIME				4	WHITE	RED	RED	3 1 MOUNT W/ R6-3	1.50	6.00
R7-2b	12	18	NO PARKING 7:00 AM TO 10:00 AM				6	WHITE	RED	RED	6	1.50	9.00
R7-8	12	18	RESERVED PARKING				12	WHITE	GREEN/ BLUE	GREEN	12	1.50	18.00
R7-8P	18	9	VAN ACCESSIBLE				6	WHITE	GREEN	GREEN	0 MOUNT W/ R7-8	1.13	6.75
R8-3gPL	12	9	LOADING ZONE				3	WHITE	RD	RED	0 MOUNT W/ R7-2b	0.75	2.25
R8-3gPR	12	9	LOADING ZONE				3	WHITE	RD	RED	0 MOUNT W/ R7-2b	0.75	2.25
R9-5	12	18	USE PED SIGNAL				2	WHITE	BLACK	BLACK	2	1.50	3.00

NOTES:

① SEE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS FOR TEXT AND LEGEND DIMENSIONS.

2. THE MINIMUM MOUNTING HEIGHT OF POST-MOUNTED SIGNS, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE TOP OF CURB OR SIDEWALK, OR THE ELEVATION OF THE NEAR EDGE OF TRAVEL WAY, SHALL BE 7 FEET UNLESS OTHERWISE SPECIFIED.

3. A MINIMUM OF 3'-0" PATH OF TRAVEL CLEARANCE, EXCLUDING CURB, IS REQUIRED WHEN PLACING SIGNS.

HULL
TWO-WAY CONVERSION
TRAFFIC SIGN SUMMARY - 2 OF 2
SHEET 33 OF 78

TRAFFIC SIGN SUMMARY

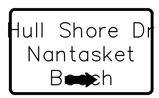
IDENTIFICATION NUMBER	SIZE OF SIGN (in)		LEGEND	TEXT DIMENSIONS (in)			NUMBER OF SIGNS REQUIRED	COLOR			SIZE AND NUMBER OF POSTS REQUIRED	UNIT AREA (SF)	TOTAL AREA (SF)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR		BACK-GROUND	LEGEND	BORDER			
W1-4R	30	30					2	YELLOW	BLACK	BLACK	2	6.25	12.50
W1-8R	12	18					2	YELLOW	BLACK	BLACK	2	1.50	3.00
W2-2R	18	18					1	YELLOW	BLACK	BLACK	1	2.25	2.25
W6-3	30	30					11	YELLOW	BLACK	BLACK	11	6.25	68.75
W11-2	30	30					38	YELLOW	BLACK	BLACK	38	6.25	237.50
W11-15	30	30					11	YELLOW	BLACK	BLACK	11	6.25	68.75
W13-1P(20)	18	18					2	YELLOW	BLACK	BLACK	0 MOUNT W/ W1-4R	2.25	4.50
W16-7pL	24	12					29	YELLOW	BLACK	BLACK	0 MOUNT 24 W/ W11-2 MOUNT 5 W/ W11-15	2.00	58.00
W16-9P	24	12					22	YELLOW	BLACK	BLACK	0 MOUNT 15 W/ W11-2 MOUNT 6 W/ W11-15 MOUNT ON MAST ARM	2.00	44.00
M6-1L	12	9					3	GREEN	WHITE	WHITE	0 MOUNT W/ D11-1	0.75	2.25
M6-2L	12	9					3	GREEN	WHITE	WHITE	0 MOUNT W/ D11-1	0.75	2.25
M6-2R	12	9					2	GREEN	WHITE	WHITE	0 MOUNT W/ R5-3	0.75	1.50
M6-6L	12	9					1	GREEN	WHITE	WHITE	0 MOUNT W/ D11-1	0.75	0.75
M6-6R	12	9					2	GREEN	WHITE	WHITE	2	0.75	1.50

TRAFFIC SIGN SUMMARY

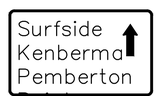
IDENTIFICATION NUMBER	SIZE OF SIGN (in)		LEGEND	LETTER HEIGHT			NUMBER OF SIGNS REQUIRED	COLOR			SIZE AND NUMBER OF POSTS REQUIRED	UNIT AREA (SF)	TOTAL AREA (SF)
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR		BACK-GROUND	LEGEND	BORDER			
MA-D1-5a	70	48	SEE BELOW		①		1	GREEN	WHITE	WHITE	1	PAID UNDER ITEM 874.	
MA-D1-5b	70	48	SEE BELOW				1	GREEN	WHITE	WHITE	0 MOUNT ON MAST ARM	PAID UNDER ITEM 874.	
MA-D1-5c	70	48	SEE BELOW				1	GREEN	WHITE	WHITE	0 MOUNT ON MAST ARM	PAID UNDER ITEM 874.	
MA-D1-7a	66	108	SEE BELOW				1	GREEN	WHITE	WHITE	0 MOUNT 1 W/ MA-D1-5a	PAID UNDER ITEM 874.	
D3-1a (PBS)	48	12	SEE BELOW				5	GREEN	WHITE	WHITE	5	PAID UNDER ITEM 874.	
D3-1b (PBS)	48	12	SEE BELOW				3	GREEN	WHITE	WHITE	3	PAID UNDER ITEM 874.	
D3-1c (PBS)	36	12	SEE BELOW				3	GREEN	WHITE	WHITE	1 MOUNT 1 W/ D3-1a(PBS) MOUNT 1 W/ D3-1b(PBS)	PAID UNDER ITEM 874.	
D3-1d (PBS)	48	12	SEE BELOW				1	GREEN	WHITE	WHITE	1	PAID UNDER ITEM 874.	
D3-1e (PBS)	45	12	SEE BELOW				1	GREEN	WHITE	WHITE	0 MOUNT 1 W/ D3-1c(PBS)	PAID UNDER ITEM 874.	
D3-1f (PBS)	51	12	SEE BELOW				1	GREEN	WHITE	WHITE	0 MOUNT 1 W/ D3-1a(PBS)	PAID UNDER ITEM 874.	
D3-1g (PBS)	48	12	SEE BELOW				3	GREEN	WHITE	WHITE	0 MOUNT 2 W/ D3-1a(PBS) MOUNT 1 W/ D3-1b(PBS)	PAID UNDER ITEM 874.	
D3-1h (PBS)	33	12	SEE BELOW				2	GREEN	WHITE	WHITE	0 MOUNT 1 W/ D3-1a(PBS) MOUNT 1 W/ D3-1b(PBS)	PAID UNDER ITEM 874.	
D3-1i (PBS)	30	12	SEE BELOW				1	GREEN	WHITE	WHITE	1	PAID UNDER ITEM 874.	
D11-1	24	18					12	GREEN	WHITE	WHITE	7 MOUNT 2 W/ R5-3, 1 W/ M6-6R, 1 W/ M6-2L, 1 ON MAST ARM	3.00	36.00

MA-D1-7a

MA-D1-5a



MA-D1-5b



MA-D1-5c

D3-1a

D3-1b

D3-1c

D3-1d

D3-1e

D3-1f

D3-1g

D3-1h

D3-1i

NOTES:

① SEE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS FOR TEXT AND LEGEND DIMENSIONS.

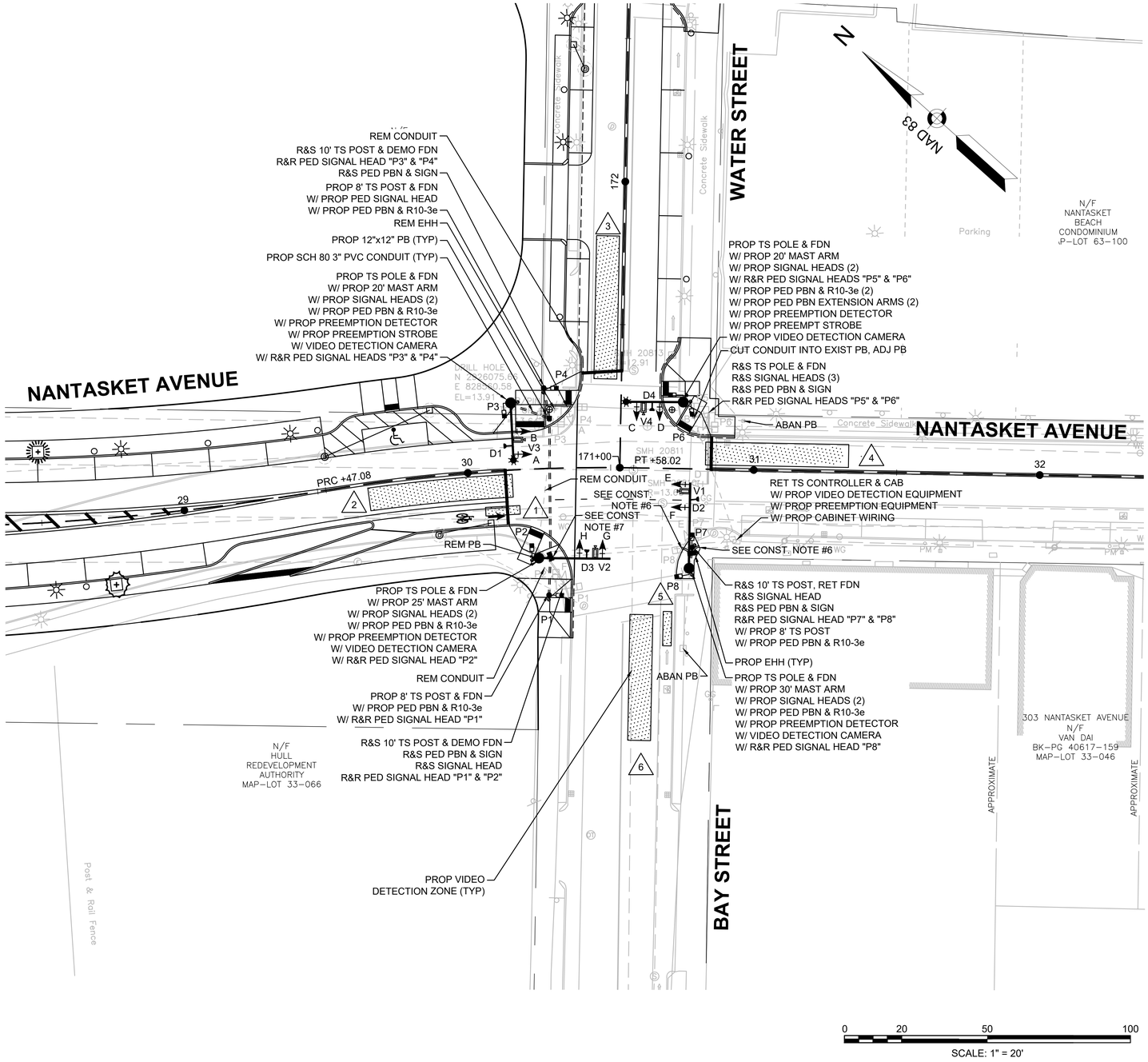
2. THE MINIMUM MOUNTING HEIGHT OF POST-MOUNTED SIGNS, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE TOP OF CURB OR SIDEWALK, OR THE ELEVATION OF THE NEAR EDGE OF TRAVEL WAY, SHALL BE 7 FEET UNLESS OTHERWISE SPECIFIED.

3. A MINIMUM OF 3'-0" PATH OF TRAVEL CLEARANCE, EXCLUDING CURB, IS REQUIRED WHEN PLACING SIGNS.

HULL
TWO-WAY CONVERSION
TRAFFIC SIGNAL PLANS - 1 OF 5
SHEET 34 OF 78

CONSTRUCTION NOTES:

1. PEDESTRIAN PUSH BUTTONS SHALL BE PERPENDICULAR TO THE CROSSWALK PATH OF TRAVEL, WITH THE ARROW PROVIDED ON THE PUSH BUTTON PARALLEL TO THE CROSSWALK PATH OF TRAVEL.
2. VIDEO DETECTION ZONES SHALL BE ADJUSTED IN THE FIELD IN PRESENCE OF ENGINEER AND TOWN OF HULL.
3. CROSSWALKS NOT SHOWN FOR VISUAL CLARITY OF TRAFFIC SIGNAL EQUIPMENT.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ITEMS REQUIRED TO INSTALL TRAFFIC SIGNAL INFRASTRUCTURE AT LOCATION; INCLUDING, BUT NOT LIMITED TO, SHIELDING AND INSULATION OF OVERHEAD UTILITIES AND/OR USE OF LOW PROFILE EXCAVATION EQUIPMENT.
5. TRAFFIC SIGNAL PLANS DEPICT MULTI-CAMERA SYSTEM FOR CAMERA VIDEO DETECTION. CONTRACTOR SHALL HAVE OPTION TO PROVIDE SINGLE POINT VIDEO DETECTION (SPVD) SYSTEM.
6. WHERE NOTED ON LAYOUT, CONTRACTOR SHALL CUT CONDUIT INTO EXISTING CONDUIT SWEEP.
7. WHERE NOTED ON LAYOUT, CONTRACTOR SHALL INSTALL PULL BOX / ELECTRIC HAND HOLE ONTO EXISTING CONDUIT RUN.
8. CONTRACTOR SHALL MAINTAIN EXIST SIGNAL OPERATIONS AT THE INTERSECTION DURING CONSTRUCTION, UNTIL THE NEW SIGNAL IS OPERATIONAL; UNLESS OTHERWISE NOTED BY THE TOWN OF HULL AND THE ENGINEER. THE CONTRACTOR WILL PROVIDE TEMPORARY SIGNAL EQUIPMENT AS NECESSARY TO MAINTAIN OPERATIONS DURING CONSTRUCTION.
9. ALL EXIST CONDUIT WHERE NO LONGER UTILIZED AND NOT REMOVED, IS TO BE ABANDONED AND SHALL BE PLUGGED AT ITS ENDS BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
10. THE LAYOUT OF EXISTING CONDUIT IS APPROXIMATE AND SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO INSTALLATION OF TRAFFIC SIGNAL INFRASTRUCTURE.
11. CONTRACTOR IS RESPONSIBLE FOR AND SHALL COORDINATE WITH UTILITY COMPANY FOR THE SHIELDING AND INSULATION OF TRAFFIC SIGNAL EQUIPMENT AND OVERHEAD HEAD WIRES (AS NECESSARY).



HULL
TWO-WAY CONVERSION
TRAFFIC SIGNAL PLANS - 2 OF 5
SHEET 35 OF 78

SEQUENCE AND TIMING CHART FOR FULLY-ACTUATED TRAFFIC SIGNAL CONTROL

NANTASKET AVENUE AT BAY STREET AND WATER STREET (HULL, MASSACHUSETTS)

			Ø1			Ø2			Ø3			Ø4			Ø5			Ø6			Ø7			Ø8			Ø9				PRE-EMPTION PHASING AND PRIORITY											
			NOT USED			PERM			NOT USED			PERM			NOT USED			PERM			NOT USED			PERM							PREEMPT ØA - D1			PREEMPT ØB - D2			PREEMPT ØC - D3			PREEMPT ØD - D4		
APPROACH	DIRECTION	HOUSING	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	FLASHING OPERATION	25	26	27	28	29	30	31	32	33	34	35	36
BAY STREET	EB	C,D				R	R	R				G	Y	R				R	R	R				R	R	R	R	R	R	FR	R	R	R	R	R	R	R	R	R	G	Y	R
WATER STREET	WB	G,H				R	R	R				R	R	R				R	R	R				G	Y	R	R	R	R	FR	R	R	R	R	R	R	G	Y	R	R	R	R
NANTASKET AVENUE	NB	A,B				G	Y	R				R	R	R				R	R	R				R	R	R	R	R	R	FY	R	R	R	G	Y	R	R	R	R	R	R	R
NANTASKET AVENUE	SB	E,F				R	R	R				R	R	R				G	Y	R				R	R	R	R	R	R	FY	G	Y	R	R	R	R	R	R	R	R	R	R
PEDESTRIAN	ALL	P1-P8				DW	DW	DW				DW	DW	DW				DW	DW	DW				DW	DW	DW	W	FDW	DW	OUT	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
MINIMUM INTERVAL						10						6						10						6						EMERGENCY ONLY	*			*			*			*		
VEHICLE EXTENSION						3						2						3						2																			
MAXIMUM 1						35						15						35						15																			
MAXIMUM 2						40						20						40						20																			
YELLOW CLEARANCE							4.0						4.0						4.0						4.0							4.0				4.0				4.0		
RED CLEARANCE								1.0						1.0						1.0						1.0						1.0				1.0				1.0	
WALK																											7.0															
PEDESTRIAN CLEARANCE																												7.0	4.0													
RECALL						MIN						OFF						MIN						OFF			OFF				-			-			-			-		
DETECTOR						NON-LOCK						NON-LOCK						NON-LOCK						NON-LOCK			LOCK				-			-			-			-		
																															Ø6			Ø2			Ø8			Ø4		

* SEE EMERGENCY VEHICLE PRE-EMPTION NOTES.

SEQUENCE & TIMING NOTES:
1. AUTOMATIC FLASHING OPERATION PER M.U.T.C.D. SECTION 4D.28 - 4D.31.
2. MAXIMUM 1 = FREE OPERATION
   MAXIMUM 2 = 6:00A-10:00A & 3:00P-7:00P, M-F
3. PERM = PERMITTED PHASE
4. THE RIGHT OF WAY MAY BE ASSIGNED TO ANY PHASE OR ANY COMBINATION OF NON-CONFLICTING PHASES.
5. IF CALLS EXIST ON ALL PHASES, THE ASSIGNMENT OF RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE PREFERENTIAL PHASE SEQUENCE.
6. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT WILL NOT CHANGE DURING THE CLEARANCE INTERVAL.
7. IF THE ASSIGNED RIGHT-OF-WAY FOR ANY TRAFFIC MOVEMENT IS TO CHANGE DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATION FOR THAT MOVEMENT WILL DISPLAY THE APPROPRIATE CLEARANCE INTERVALS.
8. PEDESTRIAN PHASE WILL ONLY BE CALLED UPON PUSH BUTTON ACTIVATION.

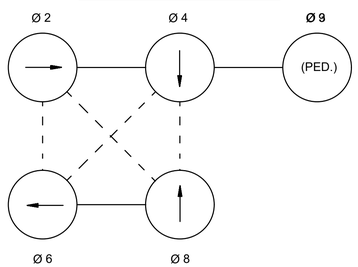
EMERGENCY VEHICLE PRE-EMPTION NOTES:
1. EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE OPTICALLY TRANSMITTED BY OPTICAL EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY OPTICAL DETECTORS LOCATED AT EACH INTERSECTION.
2. EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE SERVICED ON A FIRST DETECTED FIRST SERVED BASIS.
3. IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY OPTICAL DETECTOR D1 (OR D2, D3, D4) THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD IN EMERGENCY VEHICLE PRE-EMPTION PHASE ØA (OR ØB, ØC, ØD) GREEN FOR A MINIMUM OF TEN (10) SECONDS OR A MAXIMUM OF SIXTY (60) SECONDS OR UNTIL PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCE (AS NOTED IN CHART) AND SERVICE SUBSEQUENT EMERGENCY VEHICLE PRE-EMPTION PHASES AS NECESSARY.
4. NORMAL CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.
5. CONFIRMATION STROBE (WHITE) SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PRE-EMPTION GREEN IS ON.
6. PHASING SHALL RETURN TO THE PREFERENTIAL PHASE SEQUENCE FOLLOWING THE TERMINATION OF EMERGENCY VEHICLE PRE-EMPTION.

NANTASKET AVENUE AT WATER STREET / BAY STREET
LIST OF MAJOR ITEMS REQUIRED

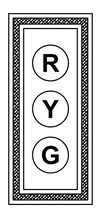
ITEM #	QUANTITY	DESCRIPTION
804.3	±115	3" PVC SCH 80 CONDUIT
811.22	2	ELECTRIC HANDHOLE - SD2.022
811.31	1	12" x 12" PULL BOX - SD2.031
	2	TS POLE W/ 20' MAST ARM, STEEL MONOLEVER, W/ FOUNDATION (PAINTED BLACK)
	1	TS POLE W/ 25' MAST ARM, STEEL MONOLEVER, W/ FOUNDATION (PAINTED BLACK)
	1	TS POLE W/ 30' MAST ARM, STEEL MONOLEVER, W/ FOUNDATION (PAINTED BLACK)
	2	8' TS POST (PAINTED BLACK), W/ FOUNDATION
	1	8' TS POST (PAINTED BLACK) ON EXISTING FOUNDATION
	8	SIGNAL HEAD, 3-SECTION, 12" LED MODULES, LOUVERED BACKPLATES W/ 3" RETROREFLECTIVE STRIP, TUNNEL VISORS (PAINTED BLACK)
	8	PEDESTRIAN PUSH BUTTON (APS) (VIBRATORY & AUDIBLE) W/ R10-3e AND SIGN SADDLE (PAINTED BLACK)
816.01	4	VIDEO DETECTION CAMERA [OR SINGLE POINT VIDEO DETECTION (SPVD) SYSTEM]
	1	VIDEO DETECTION CHASSIS & CABLING
	2	VIDEO PROCESSOR MODULE (1+1 SPARE) [1 MODULE IF SVPD]
	1	7" LCD MONITOR FOR VIDEO DETECTION
	4	EMERGENCY PREEMPTION DETECTOR AND DETECTOR CABLING
	2	EMERGENCY PREEMPTION 2-CHANNEL PHASE SELECTOR
	2	EMERGENCY PREEMPTION STROBE (WHITE LENS)
	8	R&R PEDESTRIAN SIGNAL HEAD, 16" LED MODULE, W/ COUNTDOWN INDICATOR
	2	R&S 10' TS POST & DEMO FOUNDATION
	1	R&S 10' TS POST
816.80	1	R&S TS POLE, 25' MAST ARM, & FDN
	4	R&S PEDESTRIAN PUSH BUTTONS & SIGN ASSEMBLY
	6	R&S SIGNAL HEADS

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

NEMA DUAL RING PHASING



1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
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 TO REMAIN 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.

SIGNAL HOUSING DATA		
A-F	P1-P8	A-H
REMOVE & STACK	REMOVE & RESET	
ALL W/ 12" LENSES	ALL 16" LED W/ COUNTDOWN INDICATIONS & VISORS	ALL W/ 12" L.E.D. LENSES, 5" LOUVERED BACKPLATES, 3" RETROREFLECTIVE STRIP, & TUNNEL VISORS

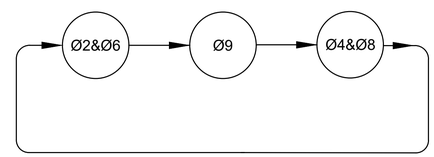
VIDEO DETECTOR DATA

AMPLIFIER NO.	DETECTOR NO.	NO.-SECTION SIZE	PHASE CALLED	PHASE EXT.	DELAY / EXT.	OPERATIONS
V1	1	±3'x15'	Ø6	Ø6	0	PRESENCE
V1	2	±8'x50'	Ø6	Ø6	0	PRESENCE
V2	3	±8'x50'	Ø8	Ø8	0	PRESENCE
V3	4	±8'x50'	Ø2	Ø2	0	PRESENCE
V4	5	±3'x15'	Ø4	Ø4	0	PRESENCE
V4	6	±8'x50'	Ø4	Ø4	0	PRESENCE

VIDEO DETECTOR NOTES:
1. DELAY AND EXTENSION TIMINGS SHALL BE PROGRAMMED IN THE CONTROLLER ONLY.

CONSTRUCTION NOTES:
1. THE CONSTRUCTION SHALL CONFORM WITH MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION SPECIFICATIONS UNLESS OTHERWISE NOTED.
2. PEDESTRIAN PUSH BUTTONS SHALL BE PERPENDICULAR TO THE CROSSWALK PATH OF TRAVEL, WITH THE ARROW PROVIDED ON THE PUSH BUTTON PARALLEL TO THE CROSSWALK PATH OF TRAVEL.
3. PULL BOXES SHALL NOT BE LOCATED WITHIN WHEELCHAIR RAMPS, UNLESS OTHERWISE NOTED.
4. ALL MAST ARM FOUNDATIONS SHALL CONFORM WITH MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION "OVERHEAD SIGNAL STRUCTURE & FOUNDATION - STANDARD DRAWINGS", DATED DECEMBER 2015, UNLESS OTHERWISE NOTED.
5. ALL SIGNAL HEADS AND SIGNS SHALL BE RIGIDLY MOUNTED.
6. CONTRACTOR SHALL FINE-TUNE THE TIMING PARAMETERS IN THE PRESENCE OF THE ENGINEER AND TOWN OF HULL REPRESENTATIVES FOLLOWING INSTALLATION.
7. CONTRACTOR IS RESPONSIBLE FOR AND SHALL COORDINATE WITH UTILITY COMPANY FOR THE SHIELDING AND INSULATION OF TRAFFIC SIGNAL EQUIPMENT AND OVERHEAD HEAD WIRES (AS NECESSARY).

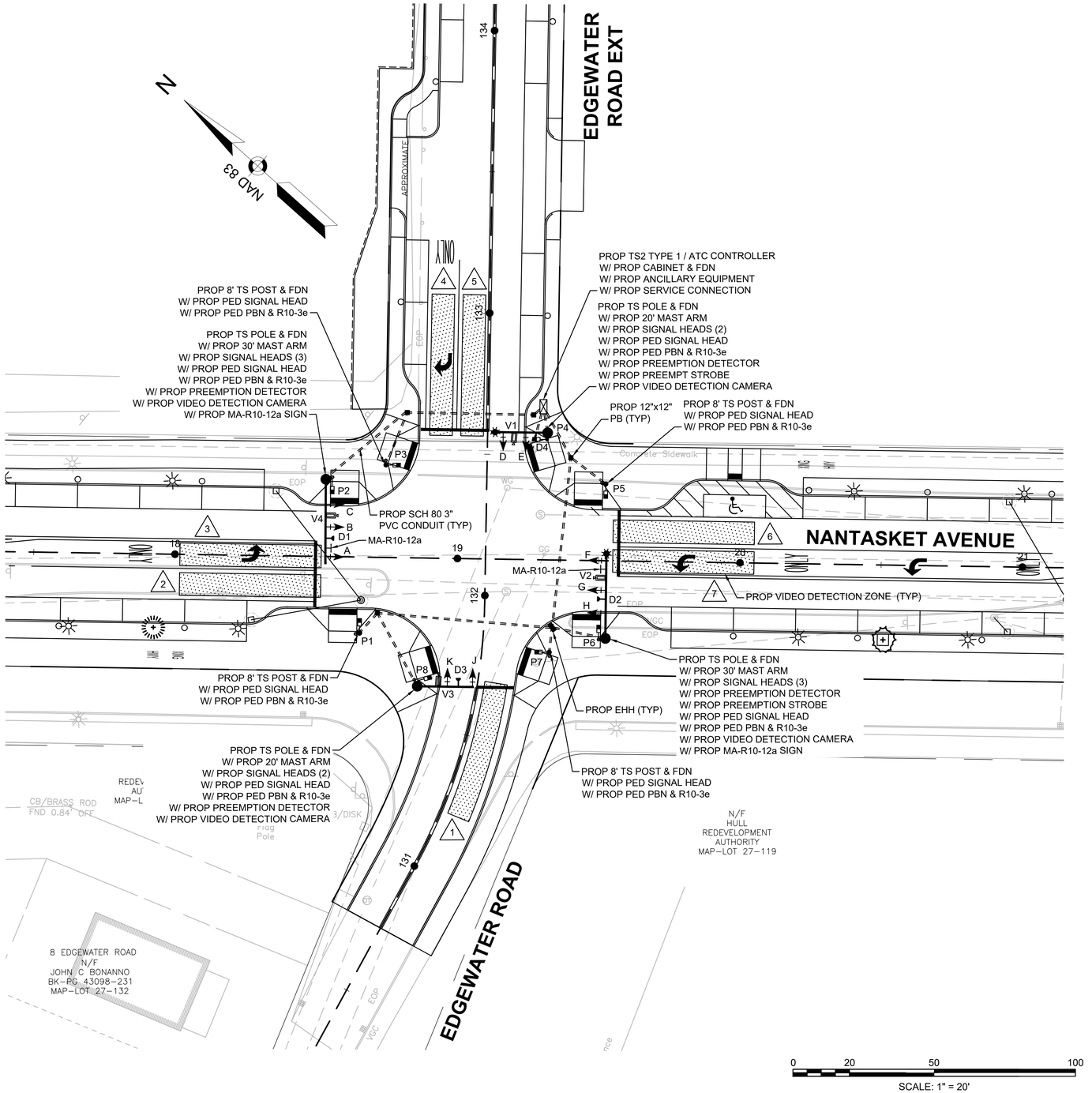
PREFERENTIAL PHASE SEQUENCE



* PEDESTRIAN PHASE UPON PUSH BUTTON ACTIVATION ONLY.

CONSTRUCTION NOTES:

1. PEDESTRIAN PUSH BUTTONS SHALL BE PERPENDICULAR TO THE CROSSWALK PATH OF TRAVEL, WITH THE ARROW PROVIDED ON THE PUSH BUTTON PARALLEL TO THE CROSSWALK PATH OF TRAVEL.
2. VIDEO DETECTION ZONES SHALL BE ADJUSTED IN THE FIELD IN PRESENCE OF ENGINEER AND TOWN OF HULL.
3. CROSSWALKS NOT SHOWN FOR VISUAL CLARITY OF TRAFFIC SIGNAL EQUIPMENT.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ITEMS REQUIRED TO INSTALL TRAFFIC SIGNAL INFRASTRUCTURE AT LOCATION; INCLUDING, BUT NOT LIMITED TO, SHIELDING AND INSULATION OF OVERHEAD UTILITIES AND/OR USE OF LOW PROFILE EXCAVATION EQUIPMENT.
5. TRAFFIC SIGNAL PLANS DEPICT MULTI-CAMERA SYSTEM FOR CAMERA VIDEO DETECTION. CONTRACTOR SHALL HAVE OPTION TO PROVIDE SINGLE POINT VIDEO DETECTION (SPVD) SYSTEM.
6. CONTRACTOR IS RESPONSIBLE FOR AND SHALL COORDINATE WITH UTILITY COMPANY FOR THE SHIELDING AND INSULATION OF TRAFFIC SIGNAL EQUIPMENT AND OVERHEAD HEAD WIRES (AS NECESSARY).



T0597.01[25%]HD7A\TRAFFIC SIGNAL PLANS\.DWG Plotted on 31-Aug-2022 9:07 AM

HULL
TWO-WAY CONVERSION
TRAFFIC SIGNAL PLANS - 4 OF 5
SHEET 37 OF 78

SEQUENCE AND TIMING CHART FOR FULLY-ACTUATED TRAFFIC SIGNAL CONTROL

NANTASKET AVENUE AT EDGEWATER ROAD (HULL, MASSACHUSETTS)			Ø1			Ø2			Ø3			Ø4			Ø5			Ø6			Ø7			Ø8			Ø9		
			NOT USED			FYA			NOT USED			PERM			NOT USED			FYA			NOT USED			PERM					
APPROACH	DIRECTION	HOUSING	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
EDGEWATER ROAD	EB	D,E				R	R	R				G	Y	R				R	R	R				R	R	R	R	R	R
EDGEWATER ROAD EXT	WB-L/T	J,K				R	R	R				R	R	R				R	R	R				G	Y	R	R	R	R
NANTASKET AVENUE	NB-L	A				FY	Y	R				R	R	R				R	R	R				R	R	R	R	R	R
NANTASKET AVENUE	NB	B,C				G	Y	R				R	R	R				R	R	R				R	R	R	R	R	R
NANTASKET AVENUE	SB-L	F				R	R	R				R	R	R				FY	Y	R				R	R	R	R	R	R
NANTASKET AVENUE	SB	G,H				R	R	R				R	R	R				G	Y	R				R	R	R	R	R	R
PEDESTRIAN	ALL	P1-P8				DW	DW	DW				DW	DW	DW				DW	DW	DW				DW	DW	DW	W	FDW	DW
MINIMUM INTERVAL						10						6						10						6					
VEHICLE EXTENSION						3						2						3						2					
MAXIMUM 1						30						20						30						20					
MAXIMUM 2						40						20						40						20					
YELLOW CLEARANCE							3.5						3.5						3.5						3.5				
RED CLEARANCE								1.0						1.5						1.0						1.5			
WALK																											7.0		
PEDESTRIAN CLEARANCE																												8.0	4.0
RECALL						MIN						OFF						MIN						OFF			OFF		
DETECTOR						NON-LOCK						NON-LOCK						NON-LOCK						NON-LOCK			LOCK		

FLASHING OPERATION
FR
FR
FY
FY
FY
OUT
EMERGENCY ONLY

PRE-EMPTION PHASING AND PRIORITY

PREEMPT ØA - D1			PREEMPT ØB - D2			PREEMPT ØC - D3			PREEMPT ØD - D4		
25	26	27	28	29	30	31	32	33	34	35	36
R	R	R	R	R	R	R	R	R	G	Y	R
R	R	R	R	R	R	G	Y	R	R	R	R
FY	Y	R	R	R	R	R	R	R	R	R	R
G	Y	R	R	R	R	R	R	R	R	R	R
FY	Y	R	FY	Y	R	R	R	R	R	R	R
R	R	R	G	Y	R	R	R	R	R	R	R
DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
*			*			*			*		
	4.0			4.0			4.0			4.0	
		1.0			1.0			1.0			1.0
-			-			-			-		
Ø2			Ø6			Ø8			Ø4		

* SEE EMERGENCY VEHICLE PRE-EMPTION NOTES.

SEQUENCE & TIMING NOTES:
1. AUTOMATIC FLASHING OPERATION PER M.U.T.C.D. SECTION 4D.28 - 4D.31.
2. MAXIMUM 1 = FREE OPERATION
   MAXIMUM 2 = 6:00A-10:00A & 3:00P-7:00P, M-F
3. OL = OVERLAP PHASE
4. PERM = PERMITTED PHASE
5. FYA = FLASHING YELLOW ARROW INDICATION
6. THE RIGHT OF WAY MAY BE ASSIGNED TO ANY PHASE OR ANY COMBINATION OF NON-CONFLICTING PHASES.
7. IF CALLS EXIST ON ALL PHASES, THE ASSIGNMENT OF RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE PREFERENTIAL PHASE SEQUENCE.
8. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT WILL NOT CHANGE DURING THE CLEARANCE INTERVAL.
9. IF THE ASSIGNED RIGHT-OF-WAY FOR ANY TRAFFIC MOVEMENT IS TO CHANGE DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATION FOR THAT MOVEMENT WILL DISPLAY THE APPROPRIATE CLEARANCE INTERVALS.
10. PEDESTRIAN PHASE WILL ONLY BE CALLED UPON PUSH BUTTON ACTIVATION.

EMERGENCY VEHICLE PRE-EMPTION NOTES:
1. EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE OPTICALLY TRANSMITTED BY OPTICAL EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY OPTICAL DETECTORS LOCATED AT EACH INTERSECTION.
2. EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE SERVICED ON A FIRST DETECTED FIRST SERVED BASIS.
3. IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY OPTICAL DETECTOR D1 (OR D2, D3, D4) THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD IN EMERGENCY VEHICLE PRE-EMPTION PHASE ØA (OR ØB, ØC, ØD) GREEN FOR A MINIMUM OF TEN (10) SECONDS OR A MAXIMUM OF SIXTY (60) SECONDS OR UNTIL PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION PHASE CLEARANCE (AS NOTED IN CHART) AND SERVICE SUBSEQUENT EMERGENCY VEHICLE PRE-EMPTION PHASES AS NECESSARY.
4. NORMAL CLEARANCE SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PRE-EMPTION DEMAND.
5. CONFIRMATION STROBE (WHITE) SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PRE-EMPTION GREEN IS ON.
6. PHASING SHALL RETURN TO THE PREFERENTIAL PHASE SEQUENCE FOLLOWING THE TERMINATION OF EMERGENCY VEHICLE PRE-EMPTION.

NANTASKET AVENUE AT EDGEWATER ROAD

LIST OF MAJOR ITEMS REQUIRED

ITEM #	QUANTITY	DESCRIPTION
804.3	±350	3" PVC SCH 80 CONDUIT
811.22	1	ELECTRIC HANDHOLE - SD2.022
811.31	4	12" x 12" PULL BOX - SD2.031
815.2	1	8Ø NEMA TS 2 TYPE 1 ATC CONTROLLER IN A TYPE B BASE MOUNTED CABINET W/ FOUNDATION (PAINTED BLACK)
	1	NEW SERVICE CONNECTION, (UNDERGROUND)
	2	TS POLE W/ 20' MAST ARM, STEEL MONOLEVER, W/ FOUNDATION (PAINTED BLACK)
	2	TS POLE W/ 30' MAST ARM, STEEL MONOLEVER, W/ FOUNDATION (PAINTED BLACK)
	4	8' TS POST (PAINTED BLACK), W/ FOUNDATION
	10	SIGNAL HEAD, 3-SECTION, 12" LED MODULES, BACKPLATES W/ 3" RETROREFLECTIVE STRIP, TUNNEL VISORS (PAINTED BLACK)
	8	PEDESTRIAN SIGNAL HEAD, 16" LED MODULE, W/ COUNTDOWN INDICATOR (PAINTED BLACK)
	8	PEDESTRIAN PUSH BUTTON (APS) (VIBRATORY & AUDIBLE) W/ R10-3e AND SIGN SADDLE (PAINTED BLACK)
	4	VIDEO DETECTION CAMERA [OR SINGLE POINT VIDEO DETECTION (SPVD) SYSTEM]
	1	VIDEO DETECTION CHASSIS & CABLING
	1	VIDEO PROCESSOR MODULE
	1	7" LCD MONITOR FOR VIDEO DETECTION
	4	EMERGENCY PREEMPTION DETECTOR AND DETECTOR CABLING
	2	EMERGENCY PREEMPTION 2-CHANNEL PHASE SELECTOR
	2	EMERGENCY PREEMPTION STROBE (WHITE LENS)
832.	15 SF	TS POLE MOUNTED SIGNS (MA-R10-12a) (RIGIDLY MOUNTED)

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

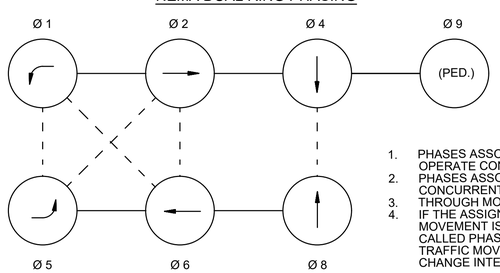
VIDEO DETECTOR DATA

AMPLIFIER NO.	DETECTOR NO.	NO.-SECTION SIZE	PHASE CALLED	PHASE EXT.	DELAY / EXT.	OPERATIONS
V1	1	±8'x50'	Ø4	Ø4	0	PRESENCE
V2	2	±8'x50'	Ø6	Ø6	0	PRESENCE
V2	3	±8'x50'	Ø6	Ø6	0	PRESENCE
V3	4	±8'x50'	Ø8	Ø8	5 SEC	PRESENCE
V3	5	±8'x50'	Ø8	Ø8	0	PRESENCE
V4	6	±8'x50'	Ø2	Ø2	0	PRESENCE
V4	7	±8'x50'	Ø2	Ø2	0	PRESENCE

VIDEO DETECTOR NOTES:
1. DELAY AND EXTENSION TIMINGS SHALL BE PROGRAMMED IN THE CONTROLLER ONLY.

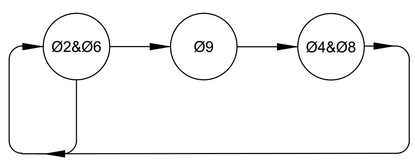
CONSTRUCTION NOTES:
1. THE CONSTRUCTION SHALL CONFORM WITH MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION SPECIFICATIONS UNLESS OTHERWISE NOTED.
2. PEDESTRIAN PUSH BUTTONS SHALL BE PERPENDICULAR TO THE CROSSWALK PATH OF TRAVEL, WITH THE ARROW PROVIDED ON THE PUSH BUTTON PARALLEL TO THE CROSSWALK PATH OF TRAVEL.
3. PULL BOXES SHALL NOT BE LOCATED WITHIN WHEELCHAIR RAMPS.
4. ALL MAST ARM FOUNDATIONS SHALL CONFORM WITH MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION "OVERHEAD SIGNAL STRUCTURE & FOUNDATION - STANDARD DRAWINGS", DATED DECEMBER 2015, UNLESS OTHERWISE NOTED.
5. ALL SIGNAL HEADS AND SIGNS SHALL BE RIGIDLY MOUNTED.
6. CONTRACTOR SHALL FINE-TUNE THE TIMING PARAMETERS IN THE PRESENCE OF THE ENGINEER AND TOWN OF HULL REPRESENTATIVES FOLLOWING INSTALLATION.
7. CONTRACTOR IS RESPONSIBLE FOR AND SHALL COORDINATE WITH UTILITY COMPANY FOR THE SHIELDING AND INSULATION OF TRAFFIC SIGNAL EQUIPMENT AND OVERHEAD HEAD WIRES (AS NECESSARY).

NEMA DUAL RING PHASING



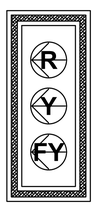
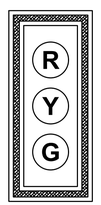
1. PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
3. THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
4. IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS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

PREFERENTIAL PHASE SEQUENCE



* PEDESTRIAN PHASE UPON PUSH BUTTON ACTIVATION ONLY.

SIGNAL HOUSING DATA

A,F	B,C,D,E,G,H,J,K	P1-P8
		
ALL HOUSINGS W/ 12" L.E.D. LENSES, 5" BACKPLATES, 3" RETROREFLECTIVE STRIP, & TUNNEL VISORS		ALL 16" L.E.D. W/ COUNTDOWN INDICATION

SIGNAL HOUSING DATA			
A,B	C,E	D,F	P1-P6
REMOVE & STACK	REMOVE & STACK	REMOVE & STACK	REMOVE & STACK
			

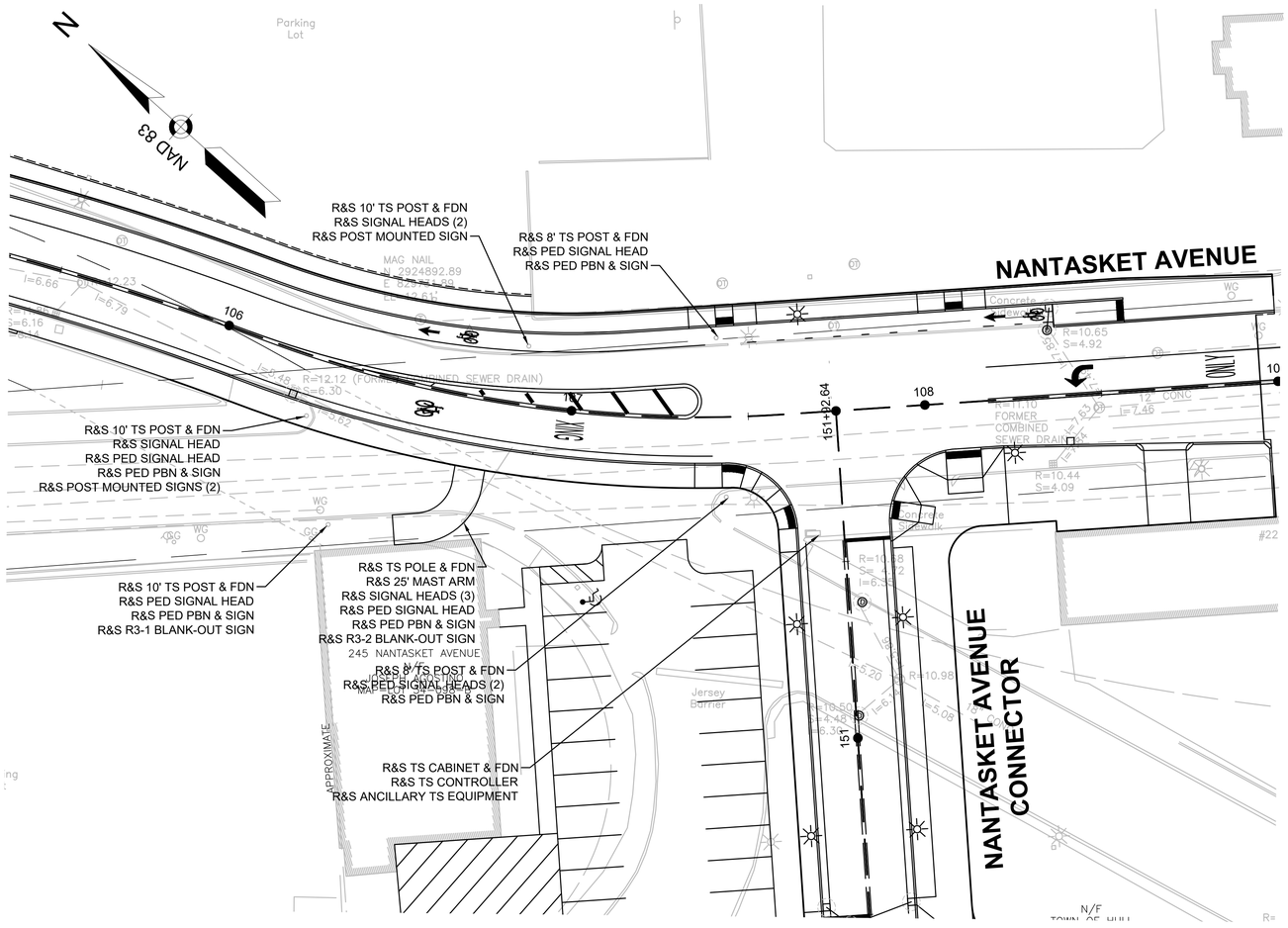
NANTASKET AVENUE AT NANTASKET AVENUE CONNECTOR
LIST OF MAJOR ITEMS REQUIRED

ITEM #	QUANTITY	DESCRIPTION
ITEM 816.02	1	R&S TS CONTROLLER & CABINET; DEMO FOUNDATION
	1	R&S TS POLE & 25' MAST ARM; DEMO FOUNDATION
	3	R&S 8' TS POST & DEMO FOUNDATION
	2	R&S 10' TS POST & DEMO FOUNDATION
	6	R&S SIGNAL HEAD, 3-SECTION, 12" MODULES
	6	R&S PED SIGNAL HEADS
	4	R&S PEDESTRIAN PUSH BUTTONS & SIGN ASSEMBLY
	2	R&S ELECTRONIC BLANK-OUT SIGNS (R3-1 & R3-2)
	2	R&S TS POST MOUNTED SIGNS

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

CONSTRUCTION NOTES:

1. THE CONSTRUCTION SHALL CONFORM WITH MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION SPECIFICATIONS UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL REMOVE ALL EXISTING PULL BOXES AND TS CONDUIT IN AREAS WITHIN ROADWAY AND SIDEWALK RECONSTRUCTION. ALL OTHER PULL BOXES AND TS CONDUIT SHALL BE ABANDONED.
3. PULL BOXES SHALL NOT BE LOCATED WITHIN WHEELCHAIR RAMPS.



0 20 50 100

SCALE: 1" = 20'

NOTES:

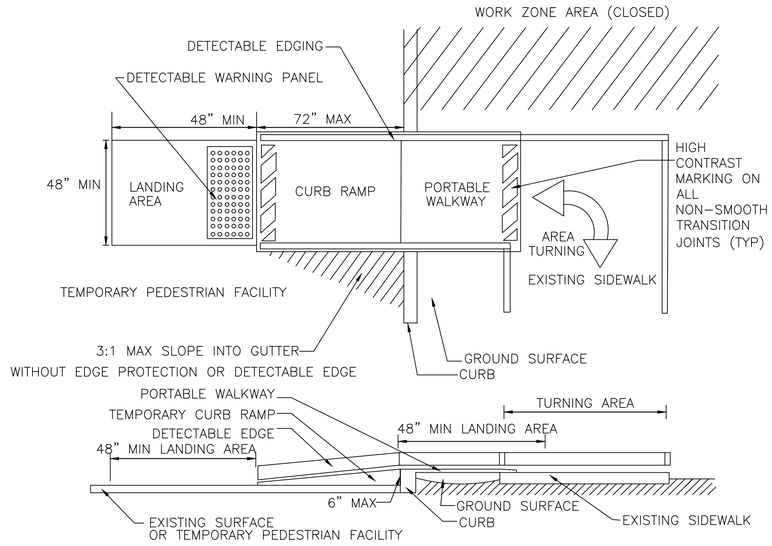
1. ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS, UNLESS SUPERCEDED BY THESE PLANS.
2. ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
3. TEMPORARY CONSTRUCTION SIGNING 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 HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
5. SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, CHANNELIZING DEVICES, BARRIERS, AND CRASH ATTENUATORS MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
6. CONTRACTORS SHALL NOTIFY EACH ABUTTER AT LEAST 24 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 FIVE PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A LIGHTS.
8. THE ADVISORY SPEED LIMIT, IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.
9. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
10. MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
11. MINIMUM LANE WIDTH IS TO BE 11 FEET (3.3m) UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
12. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.

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
- MEDIAN BARRIER
- MEDIAN BARRIER WITH WARNING LIGHTS
- WORK VEHICLE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC OR PEDESTRIAN SIGNAL
- SIGN

SUGGESTED WORK ZONE WARNING SIGN SPACING

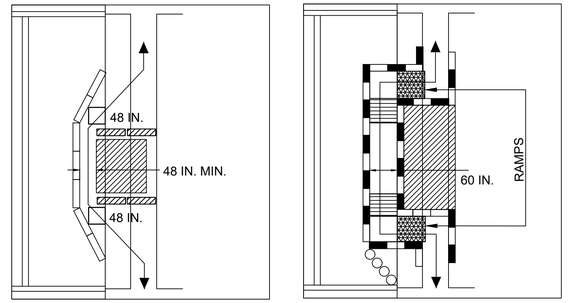
ROAD TYPE	DISTANCE BETWEEN SIGNS **		
	A	B	C
LOCAL OR LOW VOLUME ROADWAYS*	350 (100)	350 (100)	350 (100)
MOST OTHER ROADWAYS*	500 (150)	500 (150)	500 (150)
FREEWAYS AND EXPRESSWAYS*	1,000 (300)	1,500 (450)	2,640 (800)



PEDESTRIAN TYPICAL DETAILS

NOTES:

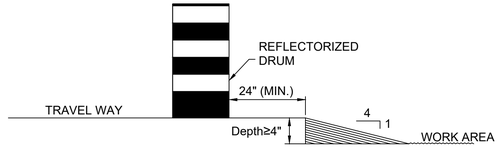
1. CURB RAMPS SHALL BE 60 IN. MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2 IN. MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6 IN. OR GREATER OR HAS A SIDE APRON SLOP STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD 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.



- 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 Figures Ped-1 & Ped-2).
- 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.

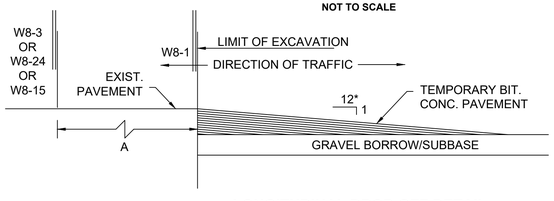
AUDIBLE DEVICES

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.



LATERAL DROP-OFF DETAIL

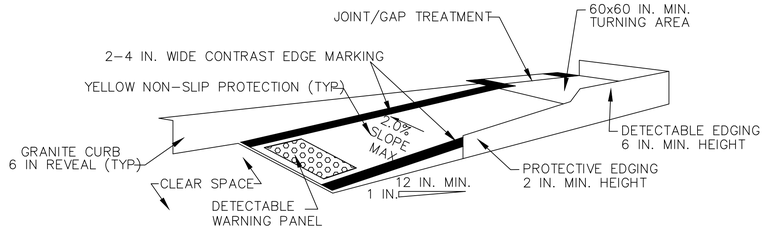
NOT TO SCALE



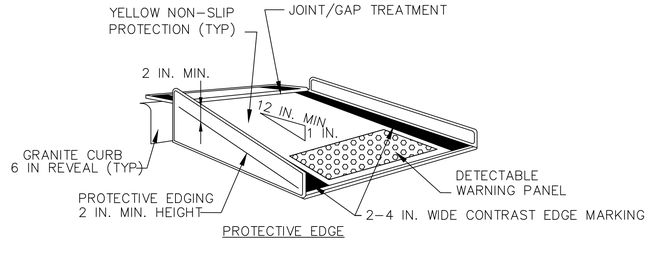
* - INCREASE SLOPE RATIO FOR HIGHER SPEEDS

LONGITUDINAL DROP-OFF DETAIL

NOT TO SCALE



TEMPORARY CURB RAMP-PARALLEL TO CURB



TEMPORARY CURB RAMP-PERPENDICULAR TO CURB

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, TWO-WAY TRAFFIC TAPER	50 FT MIN.(15 m) 100 FT(30 m) MAX.
DOWNSTREAM TAPER	50 FT MIN.(15 m) 100 FT MAX.(30 m) PER LANE

FORMULAS FOR DETERMINING TAPER LENGTHS

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

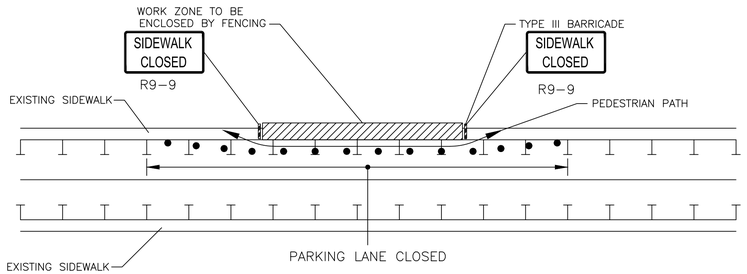
SPEED LIMIT (S)	TAPER LENGTH (L) Meters
60 KM/H OR LESS	$L = \frac{WS^2}{155}$
70 KM/H OR MORE	$L = \frac{WS}{1.6}$

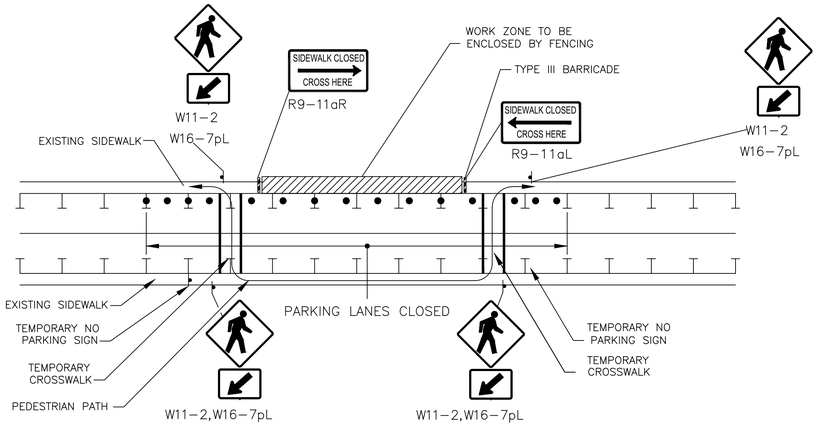
WHERE: L = TAPER LENGTH IN FEET (METERS)

W = WIDTH OF OFFSET IN FEET (METERS)

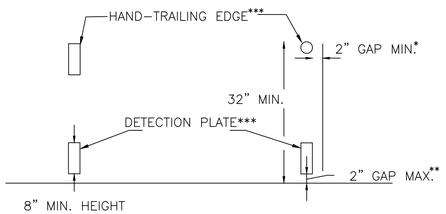
S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICAPATED OPERATING SPEED IN MPH (KM/H)

T0597.01[25%]HD8\TEMP. TRAFFIC CONTROL PLANS\.DWG Plotted on 31-Aug-2022 9:08 AM





NOTES
1. ADDITIONAL ADVANCE WARNING MAY BE NECESSARY.
2. CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN. VEHICULAR TRAFFIC SHOULD BE HANDLED AS SHOWN ELSEWHERE.
3. STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
4. IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT AS SHOWN IN PEDESTRIAN BYPASS TYPE I, TEMPORARY CROSSWALKS WITH APPROPRIATE SIGNS SHOULD BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AS SHOWN IN PEDESTRIAN BYPASS TYPE II, AND AS DIRECTED BY THE ENGINEER. TEMPORARY CURB RAMPS WILL BE REQUIRED AT ALL TEMPORARY CROSSWALK LOCATIONS.
5. BYPASS IS TO BE USED IN CONJUCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS DIRECTED BY THE ENGINEER.
6. THE TEMPORARY SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THIS WALKWAY EXCEEDS 200 FEET THEN A 5 FOOT X 5 FOOT PASSING ZONE. (FOR SHORT TERM SETUPS < 10 HOURS, THIS CONDITION MAY BE WAIVED. A NOTE WOULD NEED TO BE INCLUDED IN THE TTCP THAT STATES HOW THE CONTRACTOR SHOULD ADDRESS THIS ISSUE.)



CROSS SECTION VIEW

PEDESTRIAN CHANNELIZING DEVICE

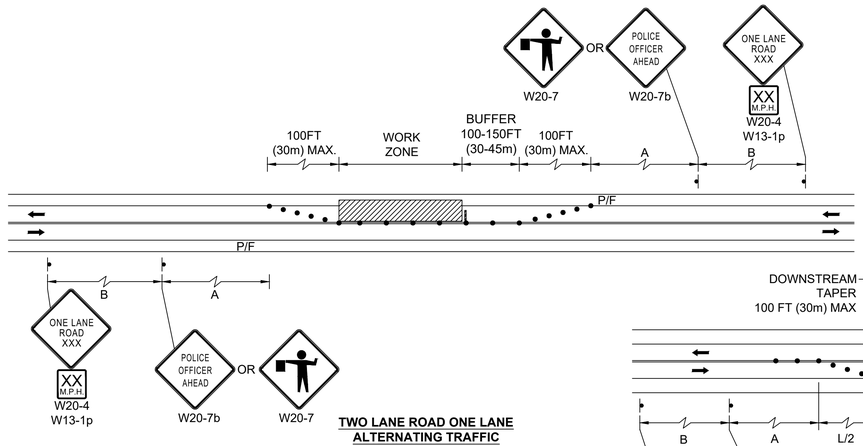
NOTES:

* THERE SHALL BE A 2 INCH GAP BETWEEN THE HAND-TRAILING EDGE AND ITS SUPPORT.

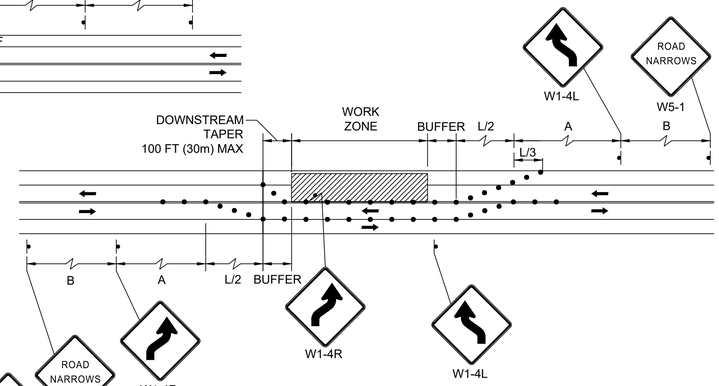
** A MAXIMUM 2 INCH GAP BETWEEN THE BOTTOM OF THE BOTTOM RAIL AND THE SURFACE MAY BE USED TO PROVIDE DRAINAGE.

*** 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.

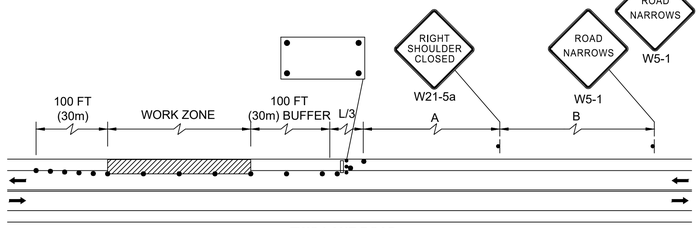
PEDESTRIAN
DETAILS



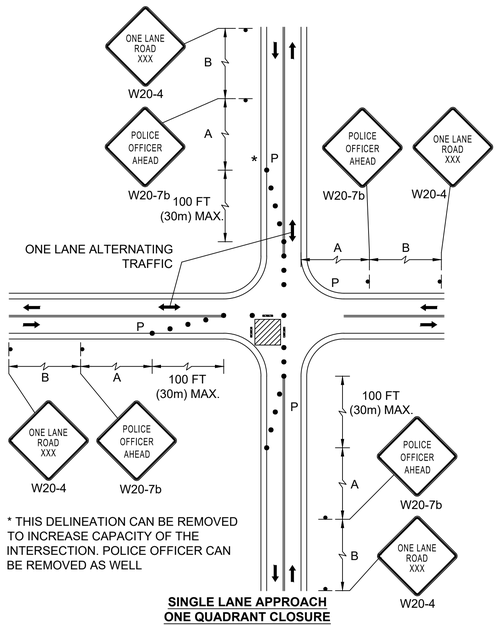
TWO LANE ROAD ONE LANE ALTERNATING TRAFFIC



TWO LANE ROAD SHOULDER AND TRAVEL LANE CLOSED

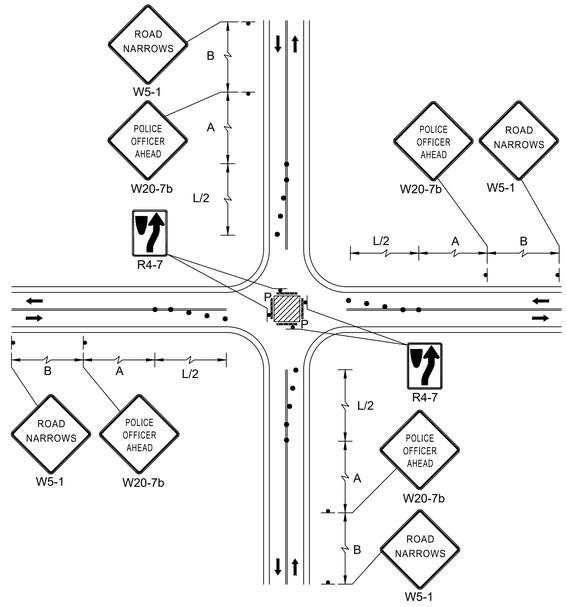


TWO LANE ROAD SHOULDER CLOSED



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

SINGLE LANE APPROACH ONE QUADRANT CLOSURE



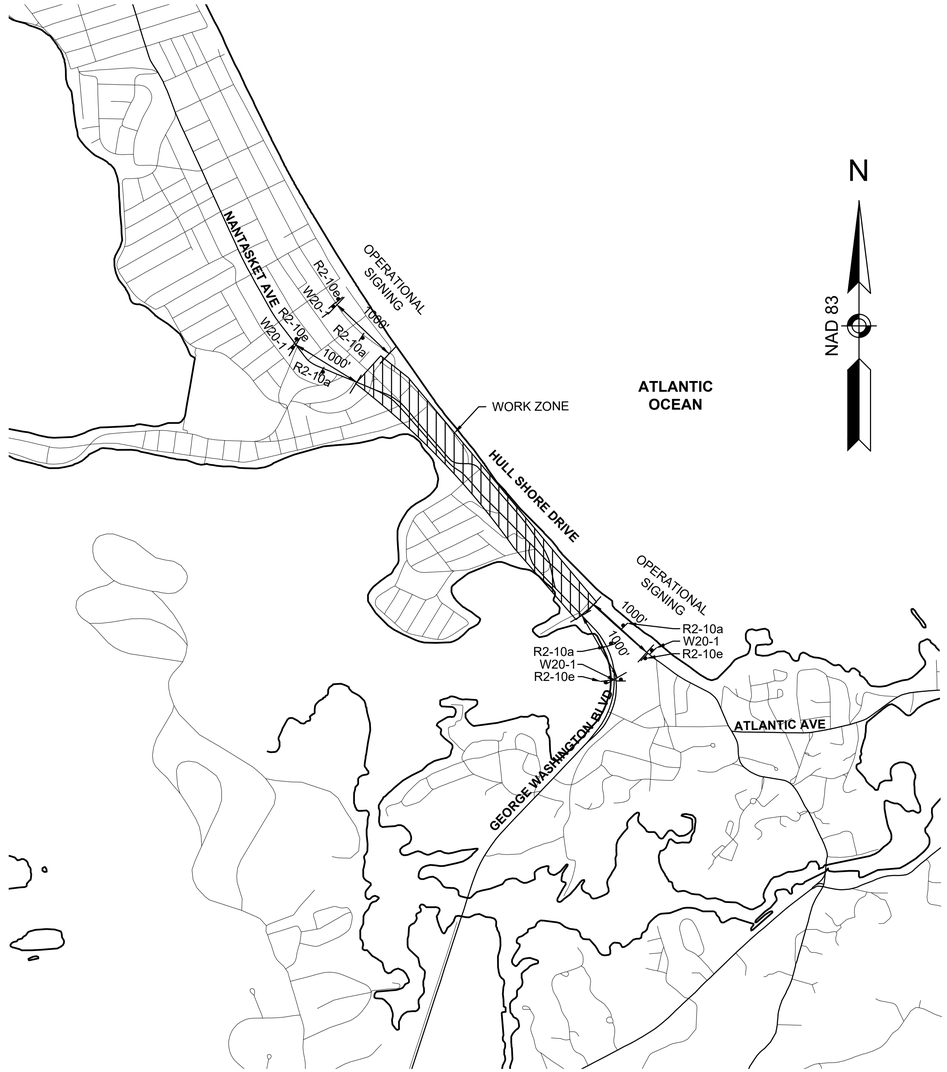
SINGLE LANE APPROACH CENTER CLOSURE

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN (in)			TEXT DIMENSIONS (in)			COLOR			NUMBER OF SIGNS REQUIRED	UNIT AREA (SF)	TOTAL AREA (SF)
	WIDTH	HEIGHT	LEGEND	LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR	BACK-GROUND	LEGEND	BORDER			
MA-R2-10a	48	36	WORK ZONE / SPEEDING FINES DOUBLED	MASSDOT STANDARD SIGN			FL. ORANGE WHITE	BLACK BLACK	BLACK BLACK	11	12.00	132.00
MA-R2-10e	36	48	END ROAD WORK / DOUBLE FINES END				FL. ORANGE WHITE	BLACK BLACK	BLACK BLACK	9	12.00	108.00
R4-7	24	30		SEE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS			WHITE	BLACK	BLACK	4	5.00	20.00
R8-3a	18	24	NO PARKING				WHITE	RED	RED	2	3.00	6.00
R9-9	24	12	SIDEWALK CLOSED				WHITE	BLACK	BLACK	2	2.00	4.00
R9-11aL	24	12	SIDEWALK CLOSED ← CROSS HERE				WHITE	BLACK	BLACK	1	2.00	2.00
R9-11aR	24	12	SIDEWALK CLOSED → CROSS HERE				WHITE	BLACK	BLACK	1	2.00	2.00
W1-4L	36	36					FL. ORANGE	BLACK	BLACK	2	9.00	18.00
W1-4R	36	36					FL. ORANGE	BLACK	BLACK	2	9.00	18.00
W5-1	36	36	ROAD NARROWS				FL. ORANGE	BLACK	BLACK	7	9.00	63.00
W8-1	36	36	BUMP				FL. ORANGE	BLACK	BLACK	1	9.00	9.00
W8-15	36	36	GROOVED PAVEMENT				FL. ORANGE	BLACK	BLACK	1	9.00	9.00
W11-2	30	30					YELLOW	BLACK	BLACK	4	6.25	25.00
W13-1p	18	18	XX MPH				FL. ORANGE	BLACK	BLACK	2	2.25	4.50
W16-7pL	24	12					YELLOW	BLACK	BLACK	4	2.00	8.00
W20-1	36	36	ROAD WORK AHEAD				FL. ORANGE	BLACK	BLACK	2	9.00	18.00
W20-4	36	36	ONE LANE ROAD AHEAD				FL. ORANGE	BLACK	BLACK	6	9.00	54.00
W20-7	36	36					FL. ORANGE	BLACK	BLACK	10		

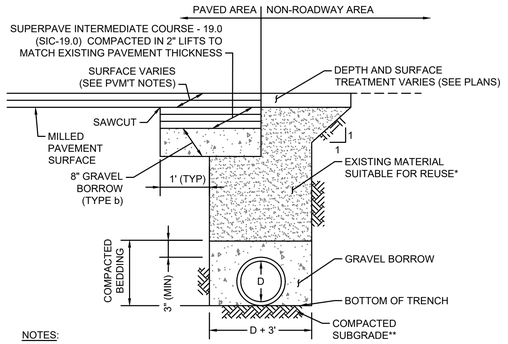
TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN (in)			TEXT DIMENSIONS (in)			COLOR			NUMBER OF SIGNS REQUIRED	UNIT AREA (SF)	TOTAL AREA (SF)
	WIDTH	HEIGHT	LEGEND	LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR	BACK-GROUND	LEGEND	BORDER			
MA-W20-7b	36	36	POLICE OFFICER AHEAD	MASSDOT STANDARD SIGN			FL. ORANGE	BLACK	BLACK	10	9.00	90.00
W21-5a	36	36	RIGHT SHOULDER CLOSED	SEE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS			FL. ORANGE	BLACK	BLACK	1	9.00	9.00



ADVANCED SIGNING SCHEMATIC

N.T.S.



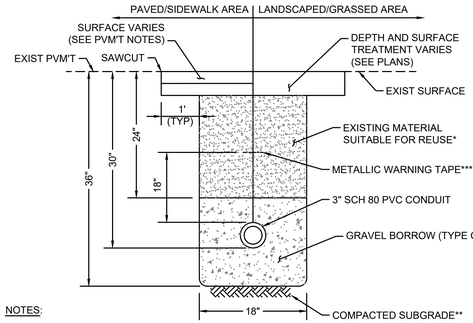
NOTES:

* EXISTING MATERIAL OBTAINED FROM EXCAVATION THAT IS DETERMINED TO BE SUITABLE, AND APPROVED BY THE ENGINEER SHALL BE USED. BACKFILL SHALL BE PLACED IN LAYERS NO MORE THAN 6" IN DEPTH AND THOROUGHLY COMPACTED. BACKFILLING TO A POINT 2' OVER THE PIPE SHALL CONTAIN NO STONES LARGER THAN 3".

**SOFT OR UNSUITABLE MATERIAL EXISTING BELOW THE REQUIRED BEDDING GRADE SHALL BE REMOVED AS DIRECTED AND REPLACED WITH SAND, GRAVEL, CRUSHED STONE OR OTHER SUITABLE MATERIAL AND THOROUGHLY COMPACTED.

UTILITY TRENCH

N.T.S.



NOTES:

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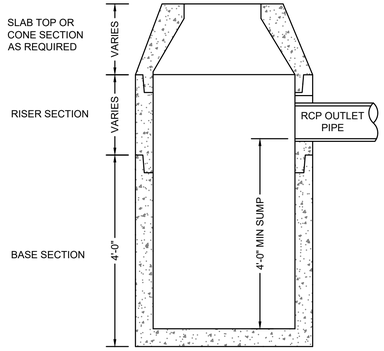
** SOFT OR UNSUITABLE MATERIAL EXISTING BELOW THE REQUIRED BEDDING GRADE SHALL BE REMOVED AS DIRECTED AND REPLACED WITH SAND, GRAVEL, CRUSHED STONE OR OTHER SUITABLE MATERIAL AND THOROUGHLY COMPACTED.

*** 6" DETECTABLE METALLIC WARNING TAPE COLOR TO BE PER APWA STANDARD 1'-6" OVER CONDUIT.

CONDUIT TRENCH

N.T.S.

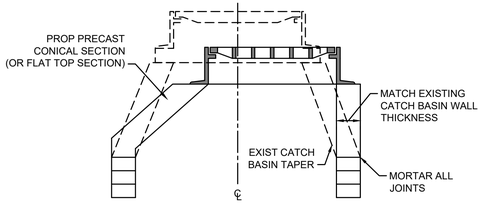


NOTE:

ALL CATCH BASINS SHALL CONFORM TO MASSDOT CONSTRUCTION STANDARD E 201.4.0 EXCEPT FOR 4' SUMP DEPTH AS SHOWN

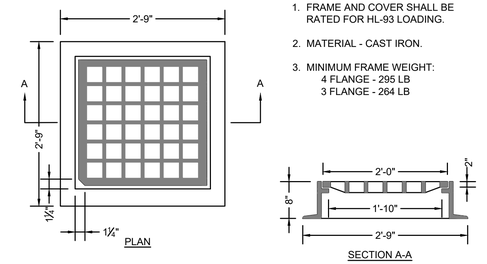
DEEP SUMP CATCH BASIN

N.T.S.



CATCH BASIN REMODEL

N.T.S.

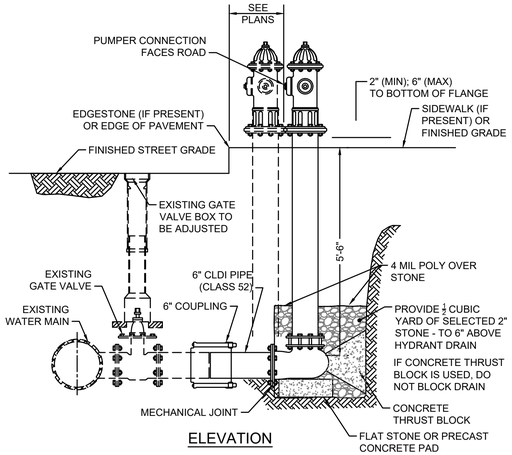


NOTES:

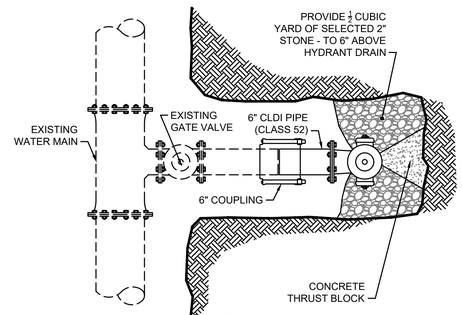
1. FRAME AND COVER SHALL BE RATED FOR HL-93 LOADING.
2. MATERIAL - CAST IRON.
3. MINIMUM FRAME WEIGHT:
   4 FLANGE - 295 LB
   3 FLANGE - 264 LB

CATCH BASIN FRAME & GRATE (MUNICIPAL STANDARD)

N.T.S.



ELEVATION



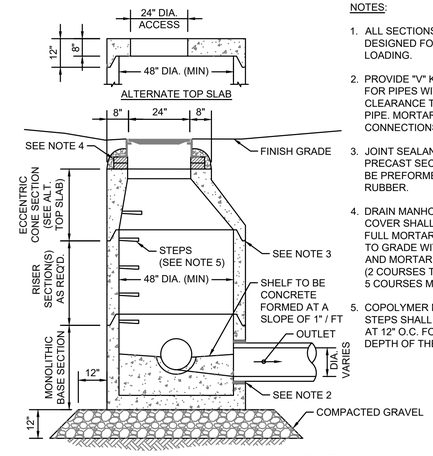
PLAN

NOTES:

1. ALL CONCRETE TO BE CAST-IN-PLACE (MIN 3000 PSI)
2. CONCRETE THRUST BLOCK TO BE USED ONLY WHERE IT WILL BEAR ON UNDISTURBED EARTH.
3. CONTRACTOR SHALL SHIELD HYDRANT BASE DRAIN HOLES, MECHANICAL JOINT GLANDS, AND BOLTS DURING PLACEMENT OF CONCRETE THRUST BLOCKS. DRAIN HOLES, GLANDS AND BOLTS, SHALL BE VERIFIED AS OPEN AND FREE OF OBSTRUCTIONS PRIOR TO BACKFILLING.

HYDRANT REMOVED AND RESET

N.T.S.

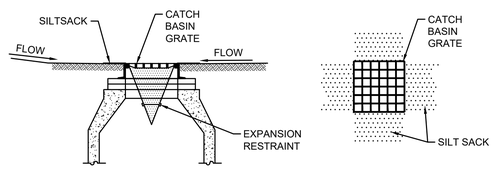


NOTES:

1. ALL SECTIONS SHALL BE DESIGNED FOR HL-93 LOADING.
2. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR. (2 COURSES TYP 5 COURSES MAX)
5. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.

DRAIN MANHOLE

N.T.S.

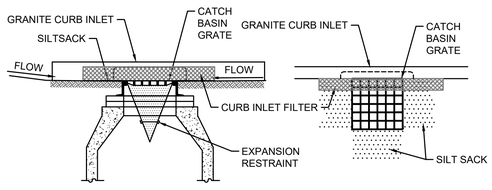


NOTES:

1. INSTALL SILT SACK IN EXISTING CATCH BASINS BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
2. GRATE TO BE PLACED OVER SILT SACK.
3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.

INLET PROTECTION SILT SACK IN CATCH BASIN

N.T.S.

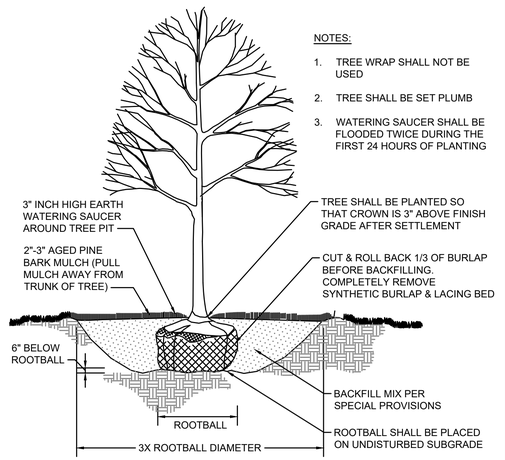


NOTES:

1. INSTALL SILT SACK IN EXISTING CATCH BASINS BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
2. GRATE TO BE PLACED OVER SILT SACK.
3. SILT SACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.

INLET PROTECTION SILT SACK IN CATCH BASIN WITH CURB INLET

N.T.S.



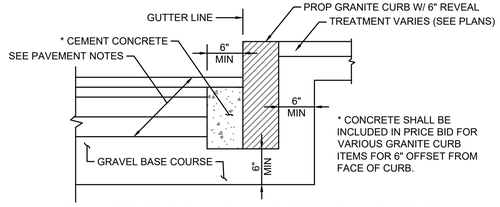
NOTES:

1. TREE WRAP SHALL NOT BE USED
2. TREE SHALL BE SET PLUMB
3. WATERING SAUCER SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS OF PLANTING

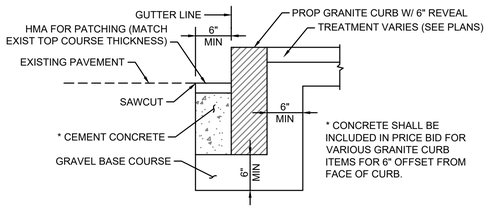
DECIDUOUS TREE PLANTING

N.T.S.

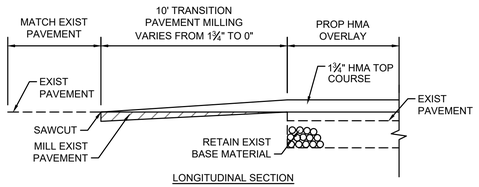
T0597.01\25%\HD9\CONSTRUCTION DETAILS.DWG Plotted on 31-Aug-2022 9:08 AM



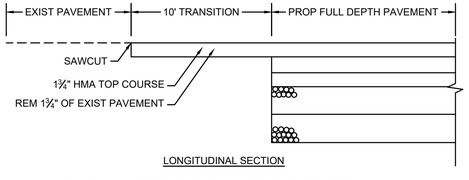
GRANITE CURB IN FULL DEPTH PAVEMENT
N.T.S.



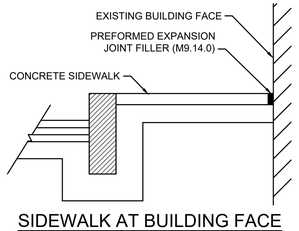
GRANITE CURB IN EXISTING PAVEMENT
N.T.S.



HMA OVERLAY TRANSITION
N.T.S.



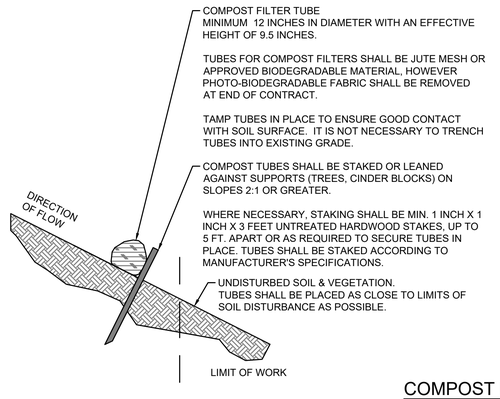
FULL DEPTH PAVEMENT TRANSITION
N.T.S.

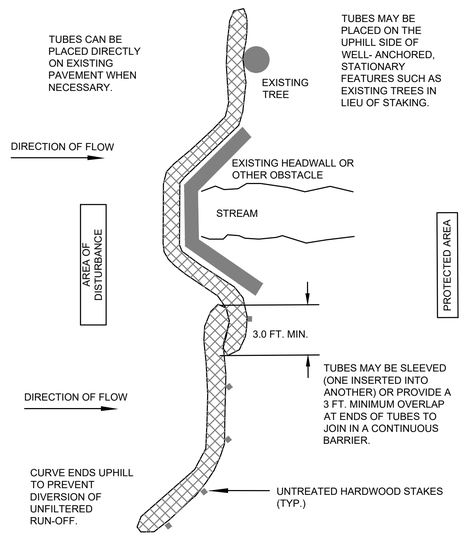


SIDEWALK AT BUILDING FACE
N.T.S.

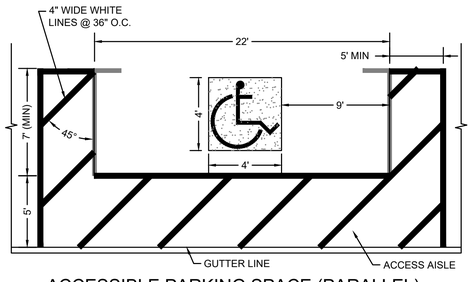
NOTES:

1. PROVIDE A MINIMUM TUBE DIAMETER OF 12 INCHES FOR SLOPES UP TO 50 FEET IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER TUBE DIAMETER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATIONS WITH LONGER OR STEEPER SLOPES.
2. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
3. TUBE LOCATION MAY BE SHIFTED TO ADJUST TO LANDSCAPE FEATURES, BUT SHALL PROTECT UNDISTURBED AREA AND VEGETATION TO MAXIMUM EXTENT POSSIBLE.
4. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
5. ADDITIONAL TUBES SHALL BE USED AT THE DIRECTION OF THE ENGINEER.
6. ADDITIONAL STAKING SHALL BE USED AT THE DIRECTION OF THE ENGINEER.

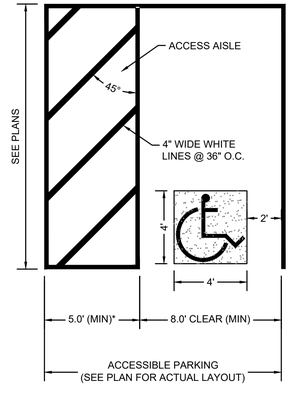




COMPOST FILTER TUBE
N.T.S.



ACCESSIBLE PARKING SPACE (PARALLEL)
N.T.S.

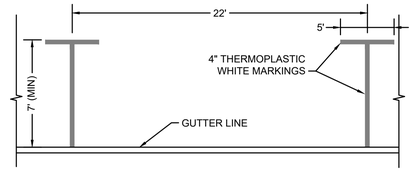


*8' ADJACENT TO VAN ACCESSIBLE PARKING SPACES

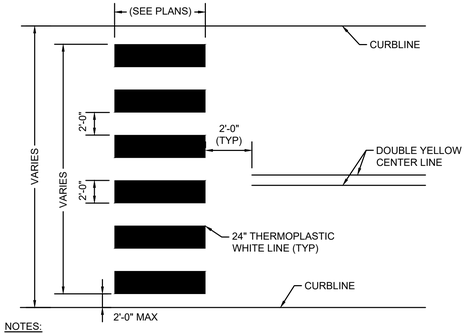
NOTES:

1. ALL DIMENSIONS TO EDGE OF 4" PAVEMENT STRIPING.
2. ALL STRIPING SHALL BE 4" WIDE SOLID WHTIE PAVEMENT MARKINGS UNLESS OTHERWISE NOTED.
3. 8' CLEAR WIDTH REFERS TO 8' BETWEEN INSIDE EDGES OF PAVEMENT MARKINGS.
4. SYMBOL SHALL BE CENTERED WITHIN PARKING STALL

ACCESSIBLE PARKING SPACE
N.T.S.



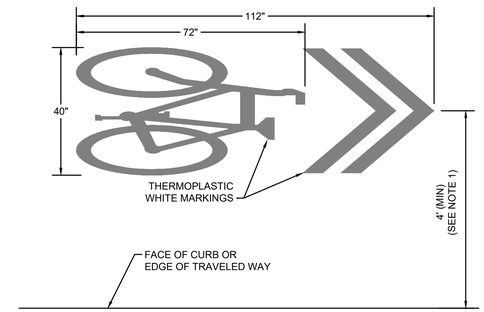
PARALLEL PARKING STALL PAVEMENT MARKING
N.T.S.



NOTES:

1. ALL 12" LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6" LINES) WILL BE ACCEPTED. ALL 24" LINES MAY BE EITHER ONE 24" LINE OR A COMBINATION OF TWO - 12" LINES.
2. LAYOUT OF CROSSWALKS SHALL BE APPROVED BY THE ENGINEER PRIOR TO APPLICATION.
3. CROSSWALK BARS SHALL BE PLACED OUTSIDE THE VEHICULAR WHEEL PATH WHEREVER POSSIBLE.

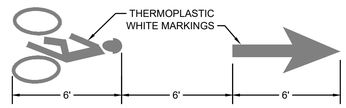
CROSSWALK PAVEMENT MARKING
N.T.S.



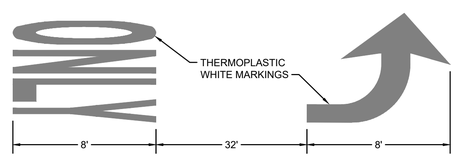
NOTES:

1. CENTER IN LANES LESS THAN 14' WIDE. 11' (MIN) ADJACENT TO ON-STREET PARALLEL PARKING.
2. SHARED LANE PAVEMENT MARKING SHALL BE PLACED IMMEDIATELY AFTER AN INTERSECTION AND SPACED AT INTERVALS NOT GREATER THAN 250 FEET THEREAFTER.

SHARED LANE PAVEMENT MARKING
N.T.S.

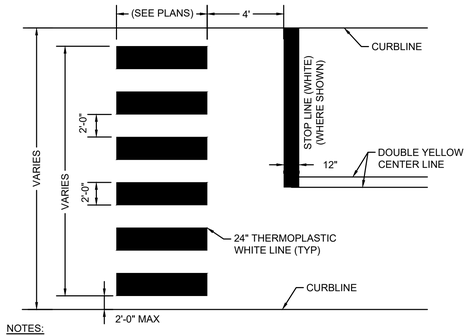


BICYCLE LANE PAVEMENT MARKING
N.T.S.



NOTE: SPACING SHALL BE SAME FOR RIGHT TURN LANE AND THRU ONLY PAVEMENT MARKING (REFER TO MASSDOT STANDARD DRAWING TR.6.1)

LEFT TURN LANE PAVEMENT MARKING
N.T.S.

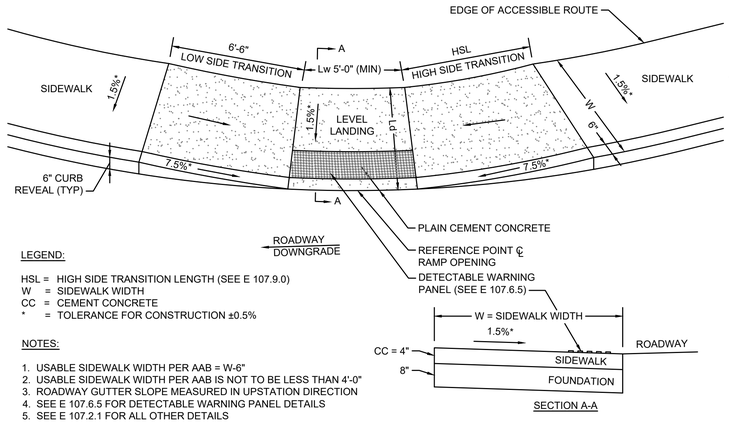


NOTES:

1. ALL 12" LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6" LINES) WILL BE ACCEPTED. ALL 24" LINES MAY BE EITHER ONE 24" LINE OR A COMBINATION OF TWO - 12" LINES.
2. LAYOUT OF CROSSWALKS SHALL BE APPROVED BY THE ENGINEER PRIOR TO APPLICATION.
3. CROSSWALK BARS SHALL BE PLACED OUTSIDE THE VEHICULAR WHEEL PATH WHEREVER POSSIBLE.

CROSSWALK PAVEMENT MARKING
N.T.S.

HULL
TWO-WAY CONVERSION
WHEELCHAIR RAMP & DRIVEWAY DETAILS - 1 OF 2
SHEET 44 OF 78



LEGEND:

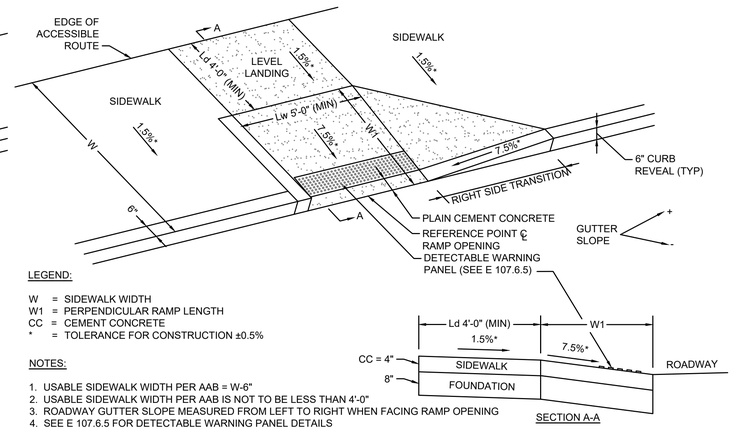
HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
W = SIDEWALK WIDTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:

1. USABLE SIDEWALK WIDTH PER AAB = W-6"
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED IN UPSTATION DIRECTION
4. SEE E 107.6.5 FOR DETECTABLE WARNING PANEL DETAILS
5. SEE E 107.2.1 FOR ALL OTHER DETAILS

WHEELCHAIR RAMP TYPE A

N.T.S.



LEGEND:

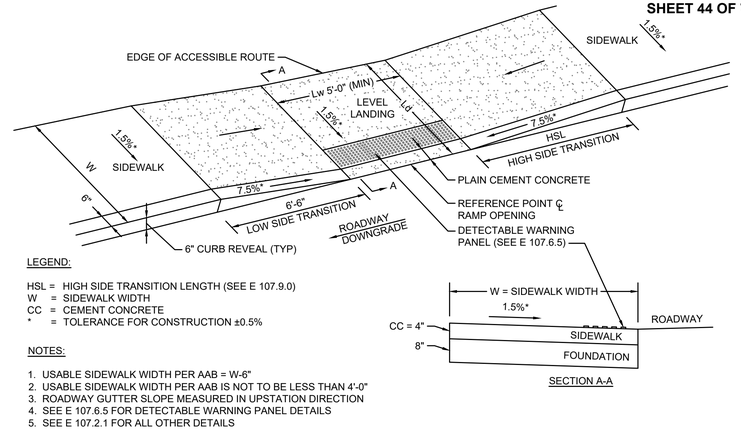
W = SIDEWALK WIDTH
W1 = PERPENDICULAR RAMP LENGTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:

1. USABLE SIDEWALK WIDTH PER AAB = W-6"
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED FROM LEFT TO RIGHT WHEN FACING RAMP OPENING
4. SEE E 107.6.5 FOR DETECTABLE WARNING PANEL DETAILS

WHEELCHAIR RAMP TYPE B

N.T.S.



LEGEND:

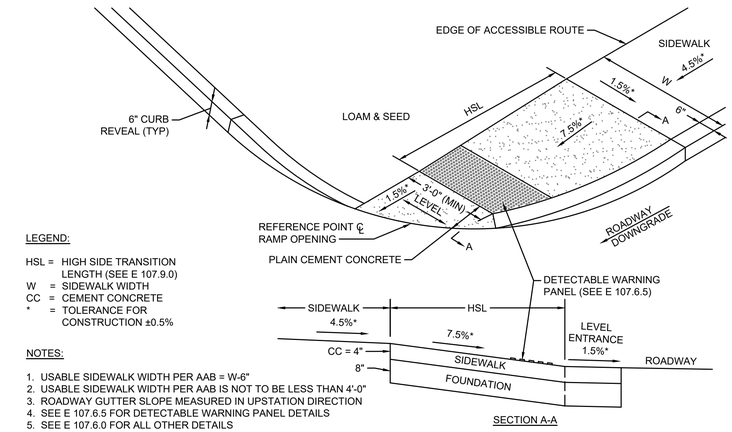
HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
W = SIDEWALK WIDTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:

1. USABLE SIDEWALK WIDTH PER AAB = W-6"
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED IN UPSTATION DIRECTION
4. SEE E 107.6.5 FOR DETECTABLE WARNING PANEL DETAILS
5. SEE E 107.2.1 FOR ALL OTHER DETAILS

WHEELCHAIR RAMP TYPE C

N.T.S.



LEGEND:

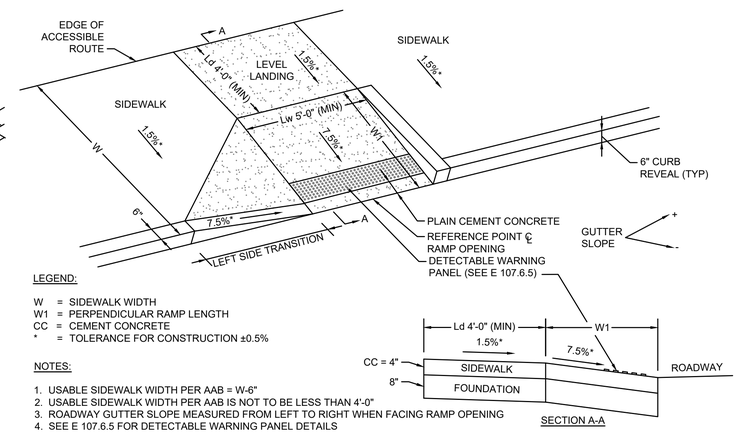
HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
W = SIDEWALK WIDTH
W1 = PERPENDICULAR RAMP LENGTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:

1. USABLE SIDEWALK WIDTH PER AAB = W-6"
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED IN UPSTATION DIRECTION
4. SEE E 107.6.5 FOR DETECTABLE WARNING PANEL DETAILS

WHEELCHAIR RAMP TYPE D

N.T.S.



LEGEND:

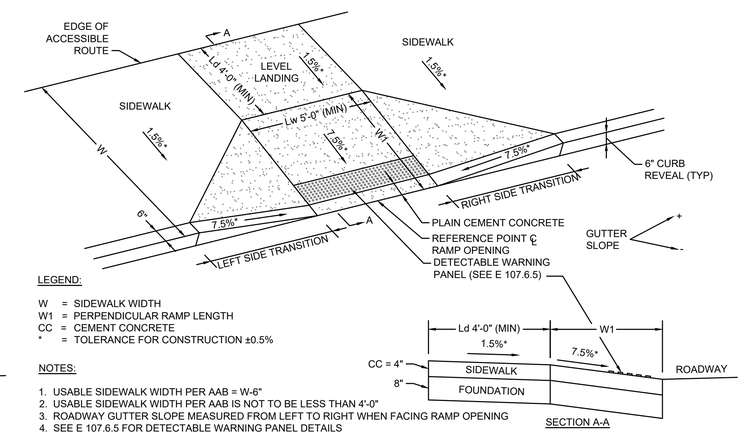
HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
W = SIDEWALK WIDTH
W1 = PERPENDICULAR RAMP LENGTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:

1. USABLE SIDEWALK WIDTH PER AAB = W-6"
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED IN UPSTATION DIRECTION
4. SEE E 107.6.5 FOR DETECTABLE WARNING PANEL DETAILS

WHEELCHAIR RAMP TYPE E

N.T.S.



LEGEND:

HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
W = SIDEWALK WIDTH
W1 = PERPENDICULAR RAMP LENGTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:

1. USABLE SIDEWALK WIDTH PER AAB = W
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED IN UPSTATION DIRECTION
4. SEE E 107.6.5 FOR DETECTABLE WARNING PANEL DETAILS

WHEELCHAIR RAMP TYPE F

N.T.S.

LEGEND:

HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
W = SIDEWALK WIDTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:

1. USABLE SIDEWALK WIDTH PER AAB = W-6"
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED IN UPSTATION DIRECTION
4. SEE E 107.6.5 FOR DETECTABLE WARNING PANEL DETAILS
5. SEE E 107.6.0 FOR ALL OTHER DETAILS

WHEELCHAIR RAMP TYPE G

N.T.S.

LEGEND:

W = SIDEWALK WIDTH
W1 = PERPENDICULAR RAMP LENGTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:

1. USABLE SIDEWALK WIDTH PER AAB = W-6"
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED FROM LEFT TO RIGHT WHEN FACING RAMP OPENING
4. SEE E 107.6.5 FOR DETECTABLE WARNING PANEL DETAILS

WHEELCHAIR RAMP TYPE H

N.T.S.

LEGEND:

W = SIDEWALK WIDTH
W1 = PERPENDICULAR RAMP LENGTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

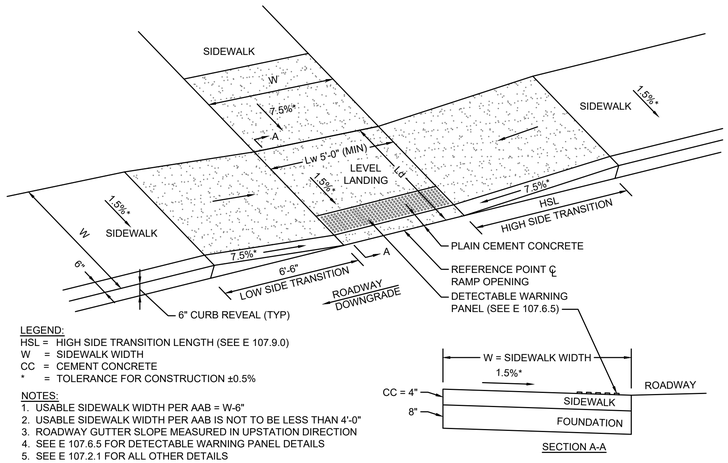
NOTES:

1. USABLE SIDEWALK WIDTH PER AAB = W-6"
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED FROM LEFT TO RIGHT WHEN FACING RAMP OPENING
4. SEE E 107.6.5 FOR DETECTABLE WARNING PANEL DETAILS

WHEELCHAIR RAMP TYPE I

N.T.S.

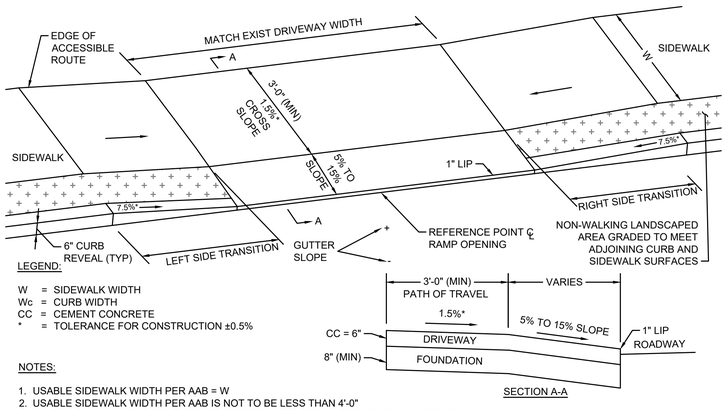
T0597.01(25%)HD9(CONSTRUCTION DETAILS).DWG Plotted on 31-Aug-2022 9:08 AM



LEGEND:
HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
W = SIDEWALK WIDTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:
1. USABLE SIDEWALK WIDTH PER AAB = W-6"
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED IN UPSTATION DIRECTION
4. SEE E 107.6.5 FOR DETECTABLE WARNING PANEL DETAILS
5. SEE E 107.2.1 FOR ALL OTHER DETAILS

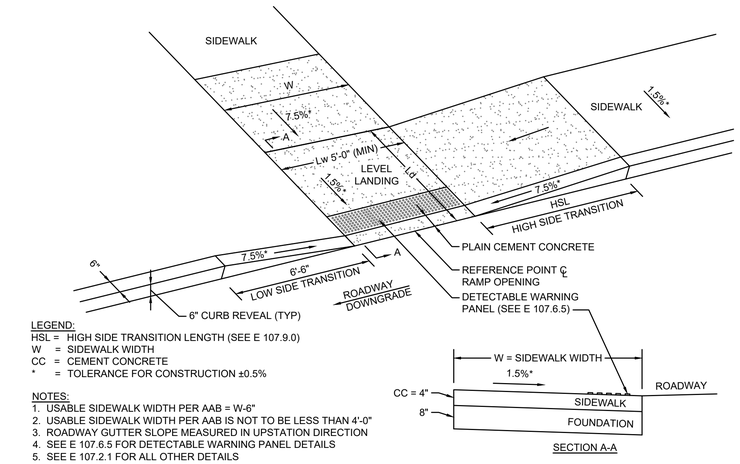
WHEELCHAIR RAMP TYPE J
N.T.S.



LEGEND:
W = SIDEWALK WIDTH
Wc = CURB WIDTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:
1. USABLE SIDEWALK WIDTH PER AAB = W
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED IN FROM LEFT TO RIGHT WHEN FACING DRIVEWAY
4. SURFACE TREATMENT VARIES; SEE PLANS

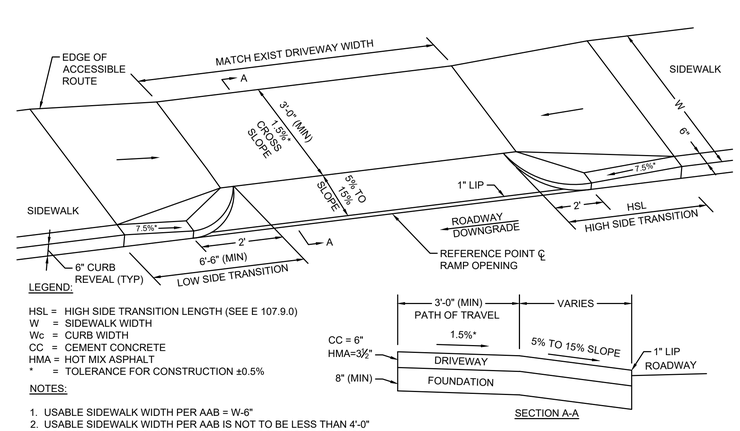
SIDEWALK THROUGH DRIVEWAY TYPE A
N.T.S.



LEGEND:
HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
W = SIDEWALK WIDTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:
1. USABLE SIDEWALK WIDTH PER AAB = W-6"
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED IN UPSTATION DIRECTION
4. SEE E 107.6.5 FOR DETECTABLE WARNING PANEL DETAILS
5. SEE E 107.2.1 FOR ALL OTHER DETAILS

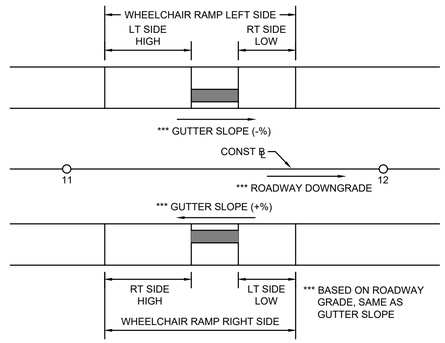
WHEELCHAIR RAMP TYPE K
N.T.S.



LEGEND:
HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
W = SIDEWALK WIDTH
Wc = CURB WIDTH
CC = CEMENT CONCRETE
HMA = HOT MIX ASPHALT
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:
1. USABLE SIDEWALK WIDTH PER AAB = W-6"
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED IN UPSTATION DIRECTION
4. SURFACE TREATMENT VARIES; SEE PLANS

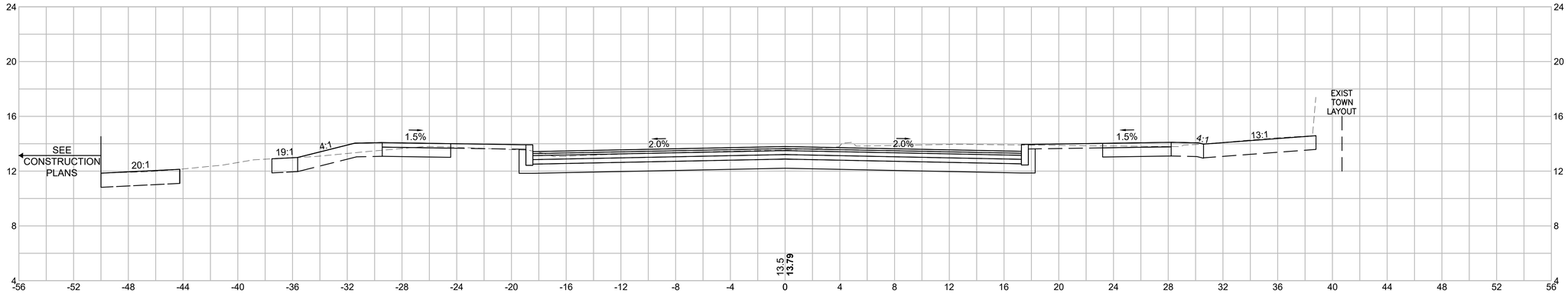
SIDEWALK THROUGH DRIVEWAY TYPE C
N.T.S.



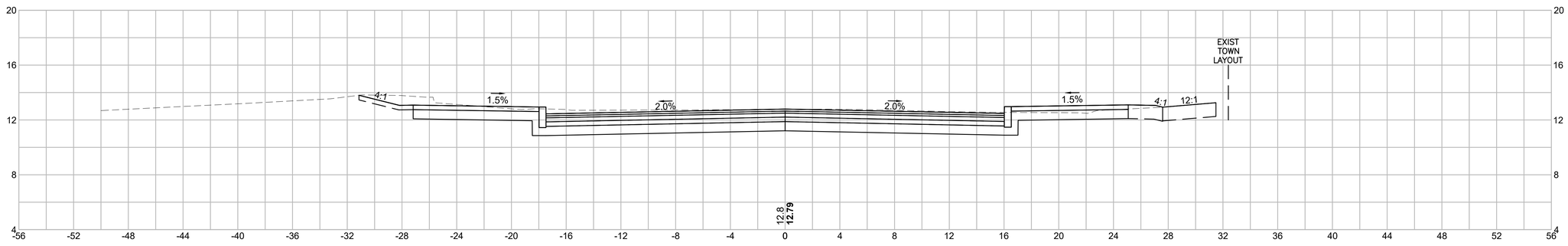
GUTTER SLOPE DIAGRAM
N.T.S.

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 1 OF 33
NANTASKET AVENUE
SHEET 46 OF 78

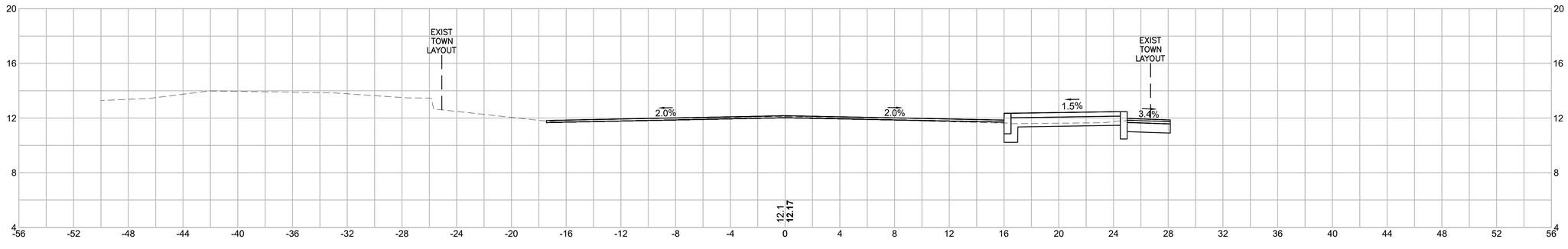
14+50



14+00



13+50

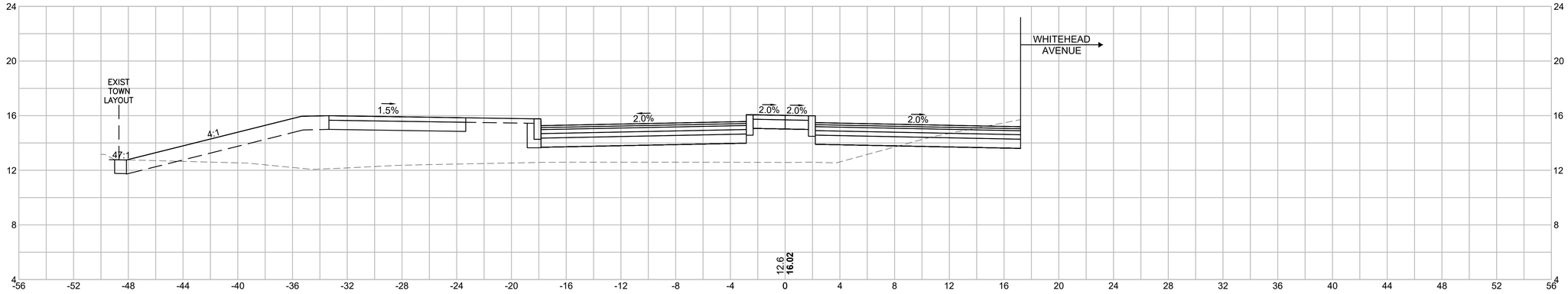


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

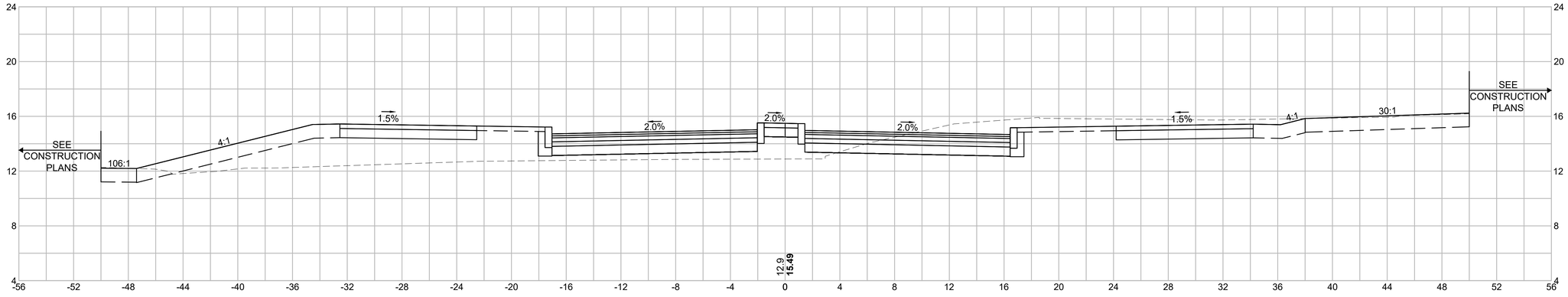
HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 2 OF 33
NANTASKET AVENUE
SHEET 47 OF 78

T0597.01[25%]HD10(CROSS SECTIONS).DWG Plotted on 31-Aug-2022 9:09 AM

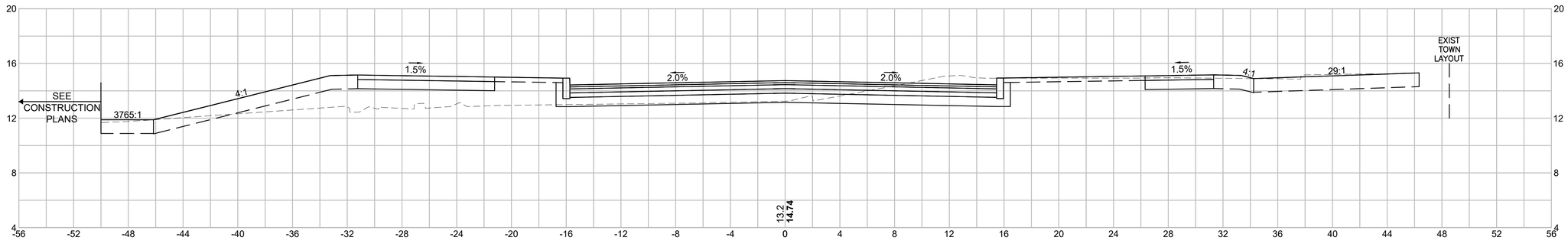
16+00



15+50



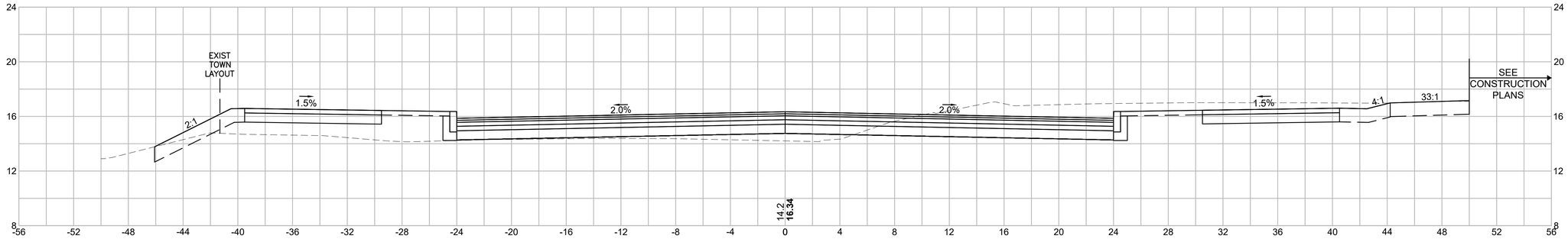
15+00



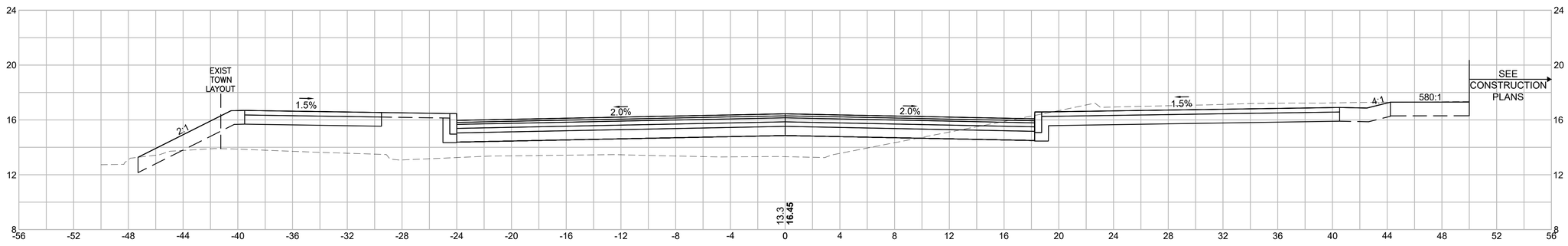
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 3 OF 33
NANTASKET AVENUE
SHEET 48 OF 78

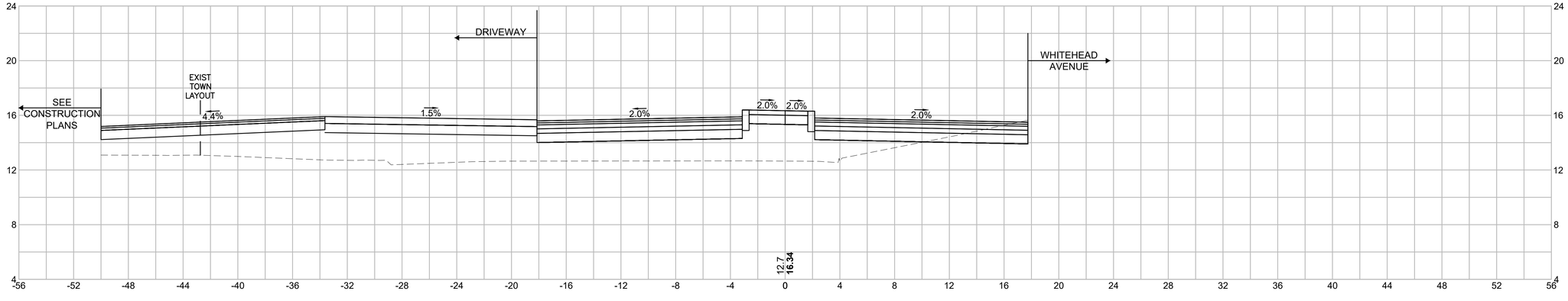
17+50



17+00



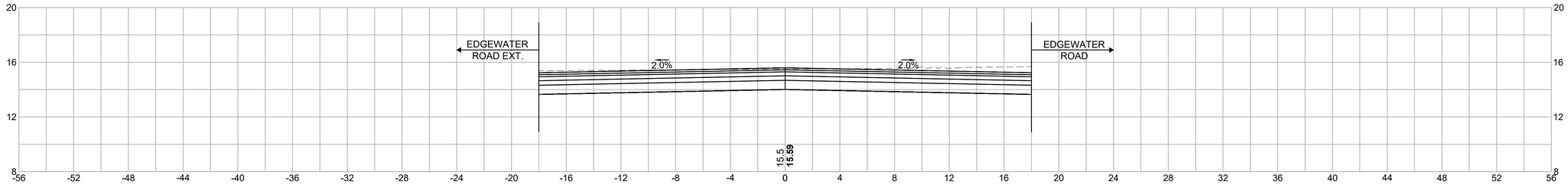
16+50



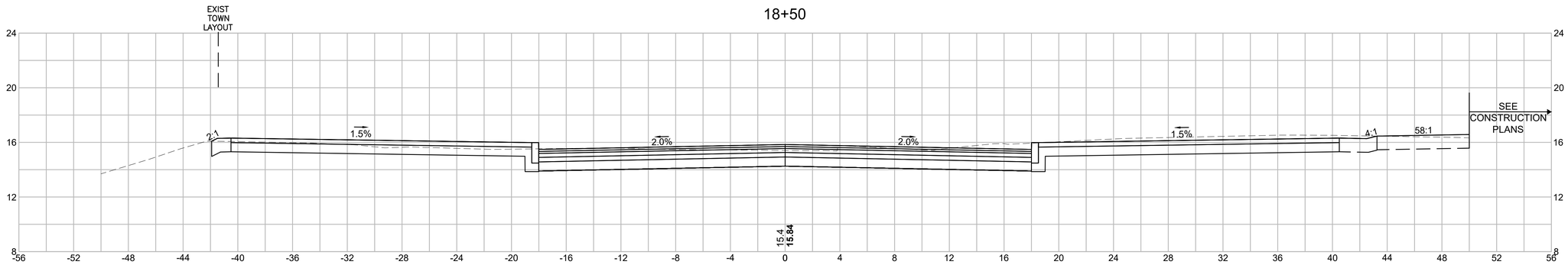
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 4 OF 33
NANTASKET AVENUE
SHEET 49 OF 78

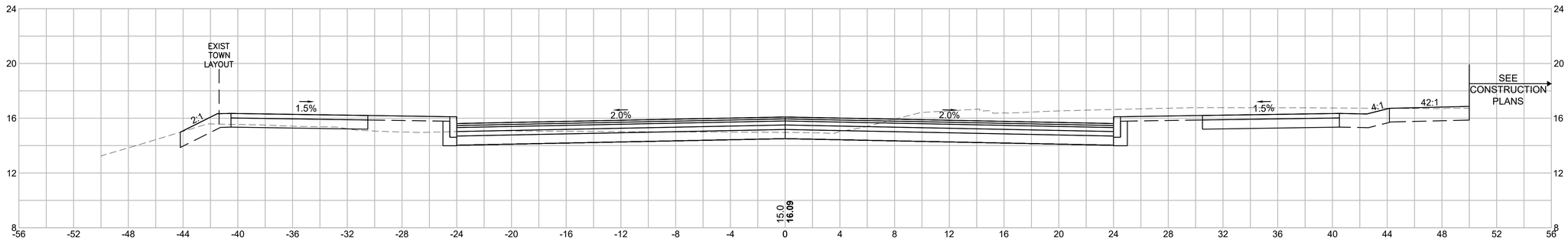
19+00



18+50



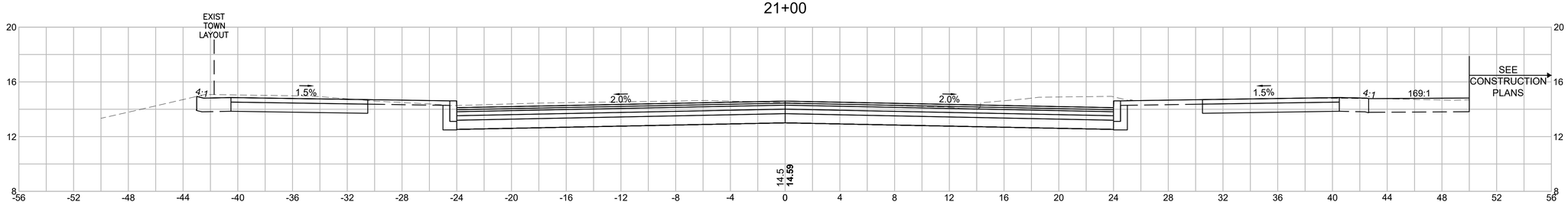
18+00



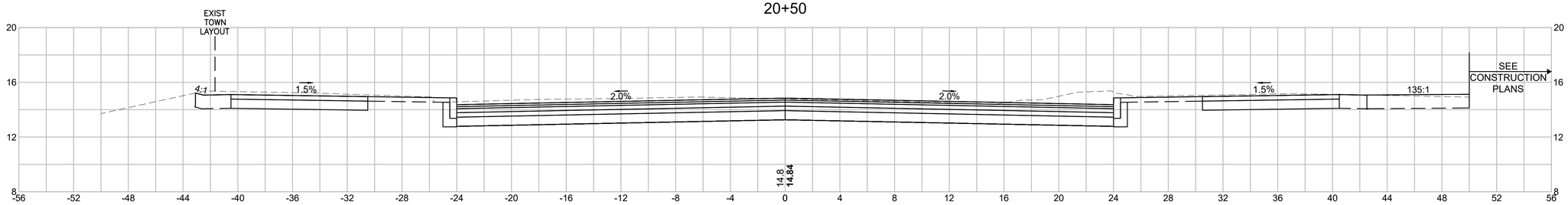
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 5 OF 33
NANTASKET AVENUE
SHEET 50 OF 78

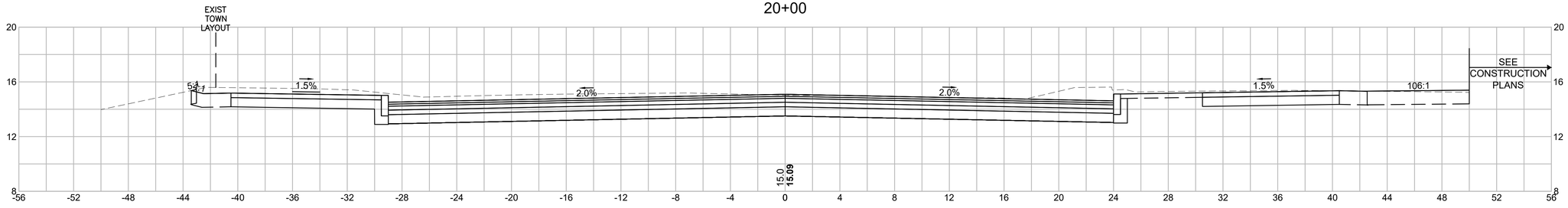
21+00



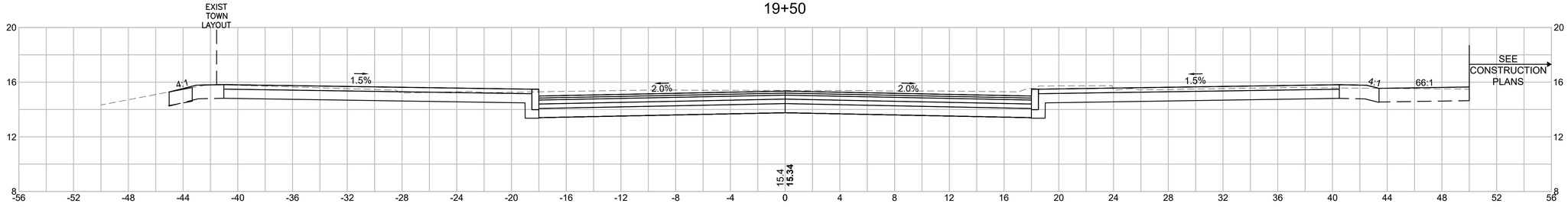
20+50



20+00



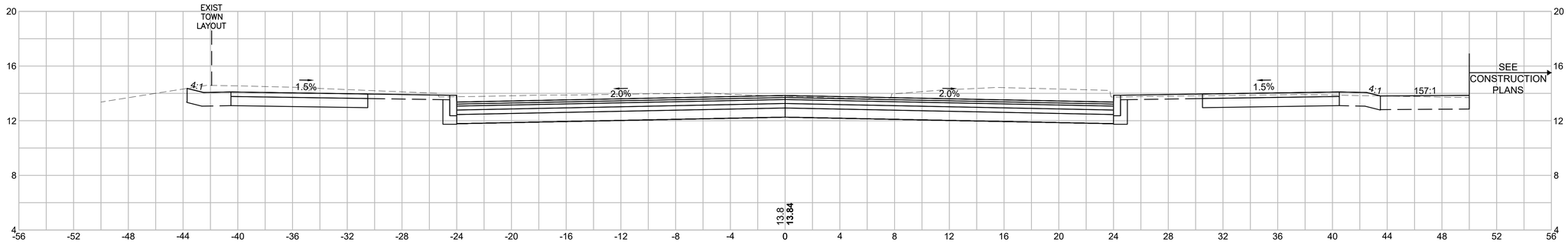
19+50



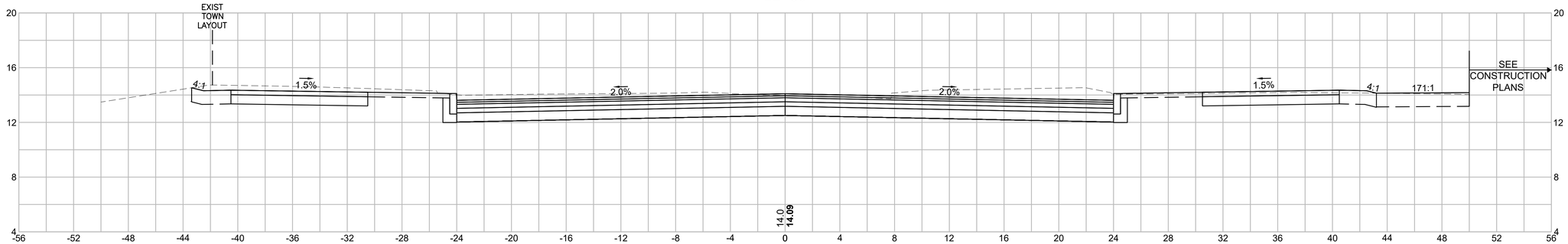
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 6 OF 33
NANTASKET AVENUE
SHEET 51 OF 78

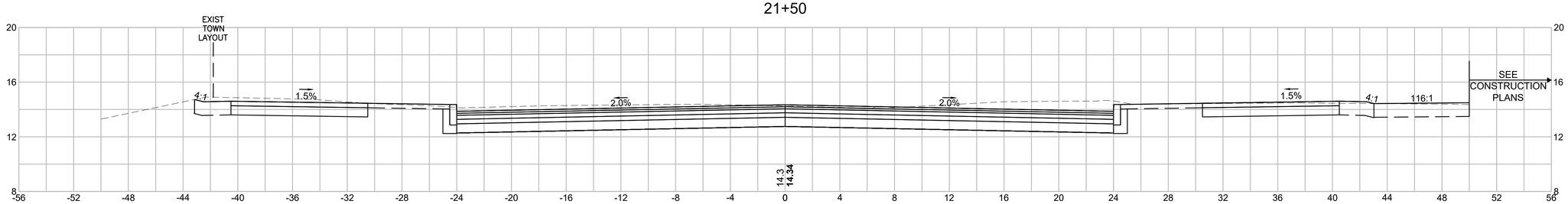
22+50



22+00



21+50

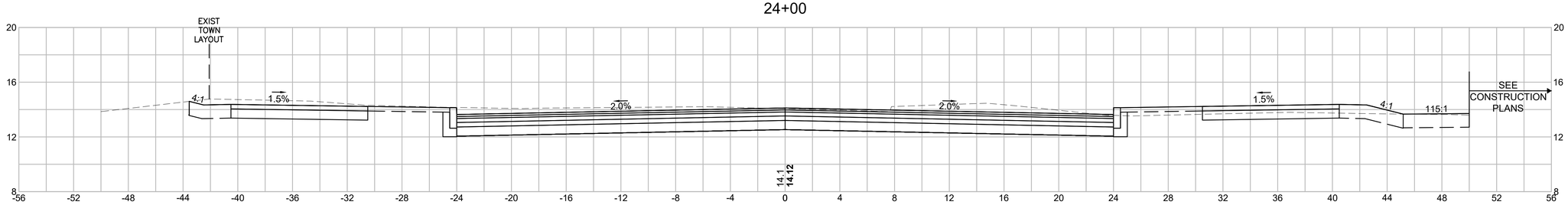


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

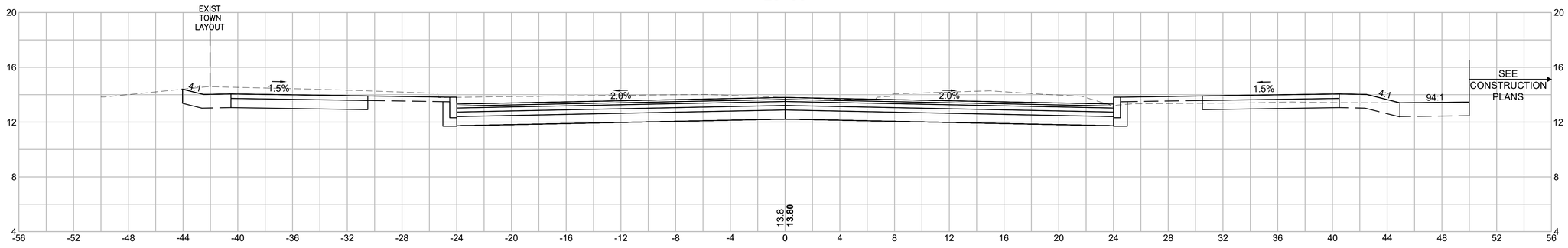
HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 7 OF 33
NANTASKET AVENUE
SHEET 52 OF 78

T:\597.01\25%\HD10\CROSS SECTIONS\.DWG Plotted on 31-Aug-2022 9:11 AM

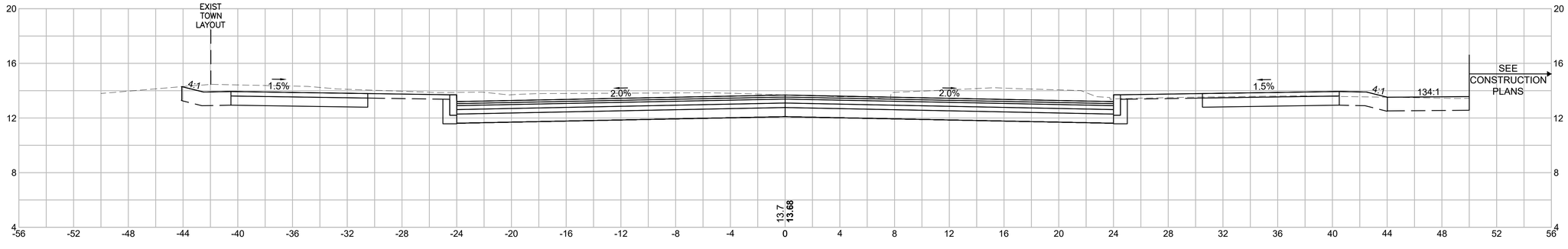
24+00



23+50



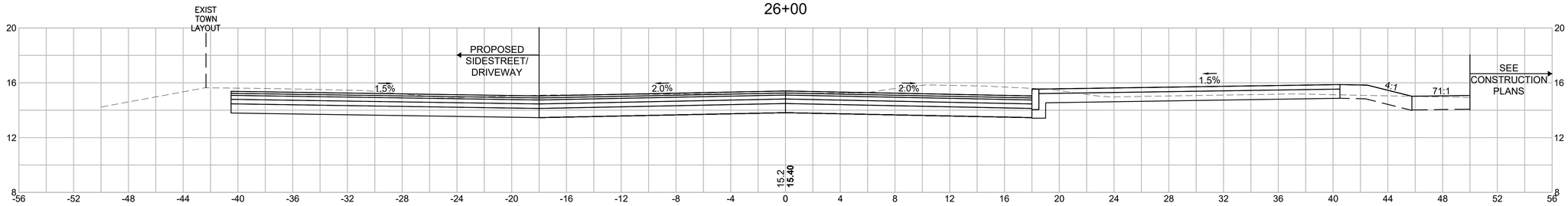
23+00



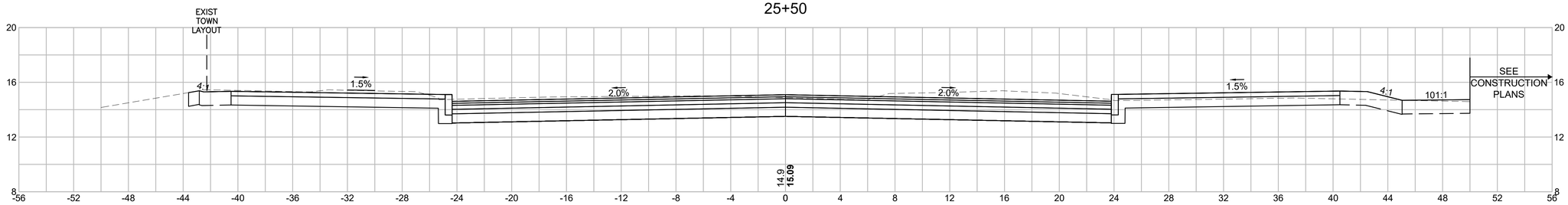
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 8 OF 33
NANTASKET AVENUE
SHEET 53 OF 78

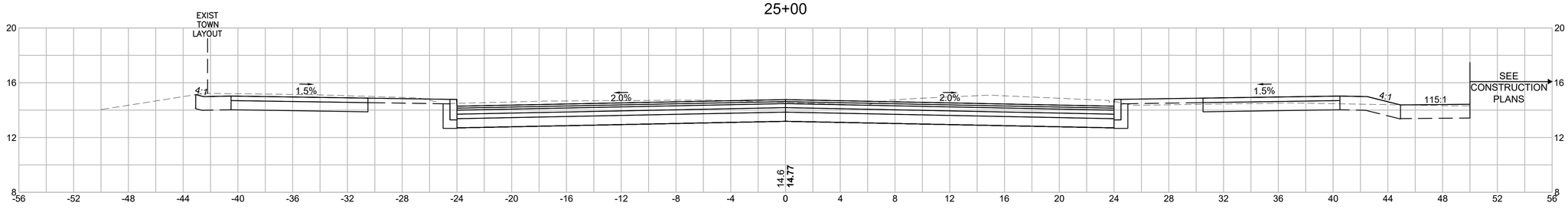
26+00



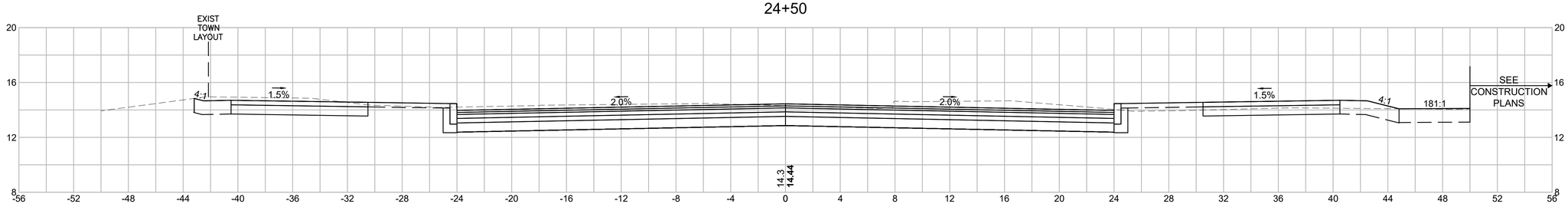
25+50



25+00



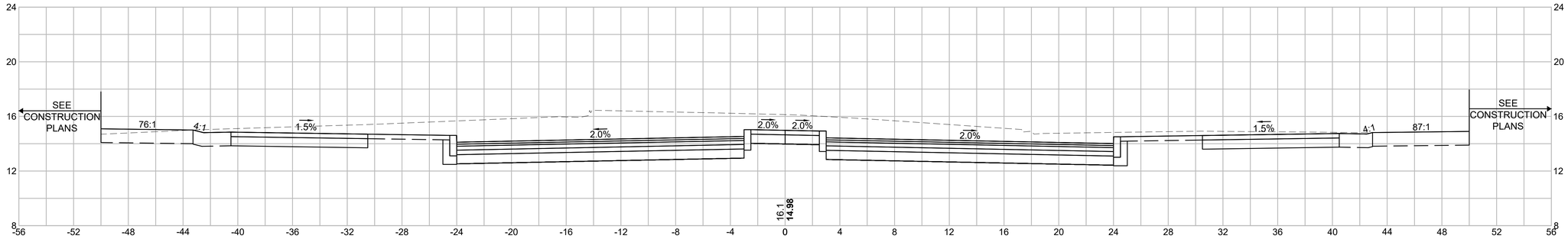
24+50



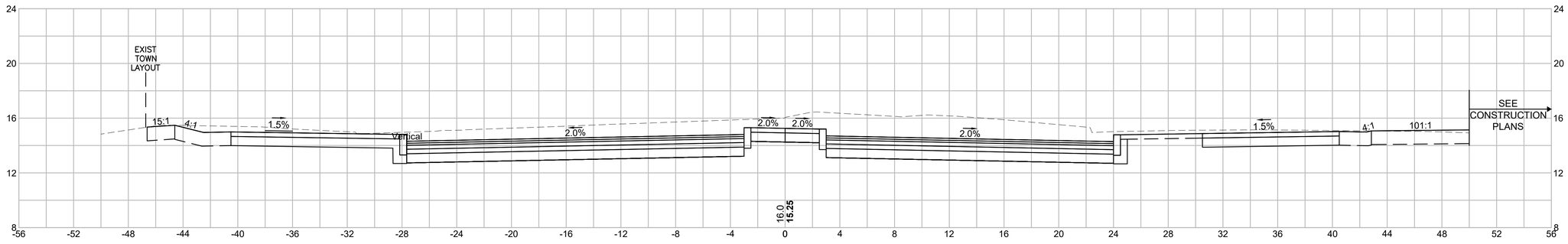
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 9 OF 33
NANTASKET AVENUE
SHEET 54 OF 78

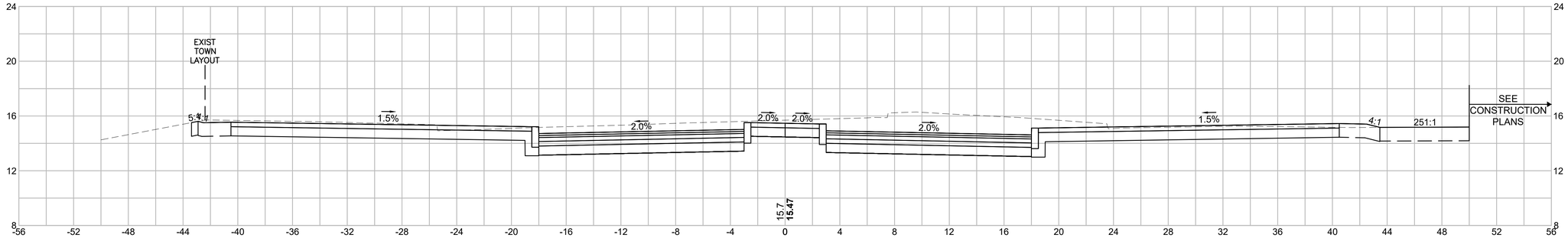
27+50



27+00



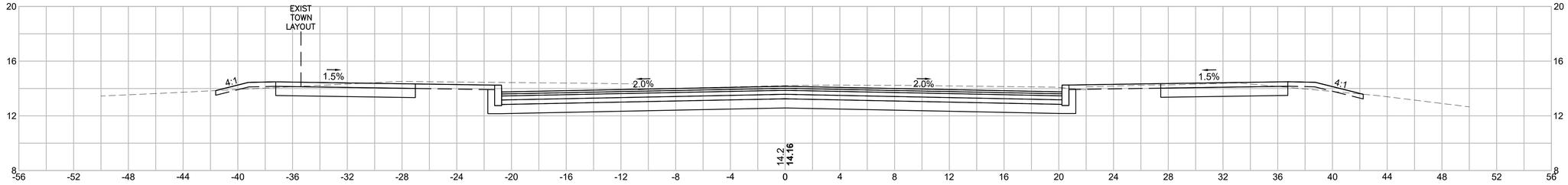
26+50



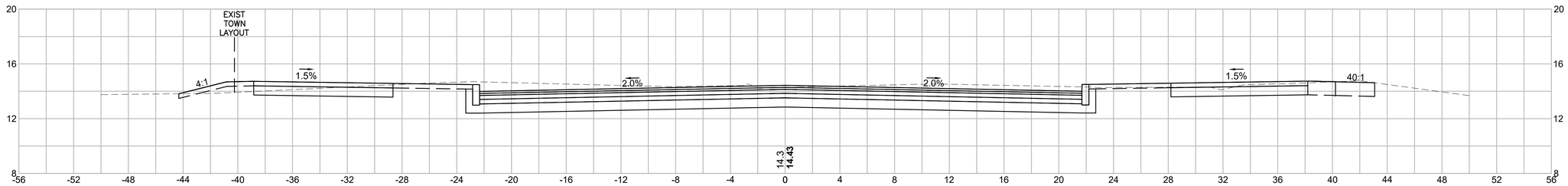
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 10 OF 33
NANTASKET AVENUE
SHEET 55 OF 78

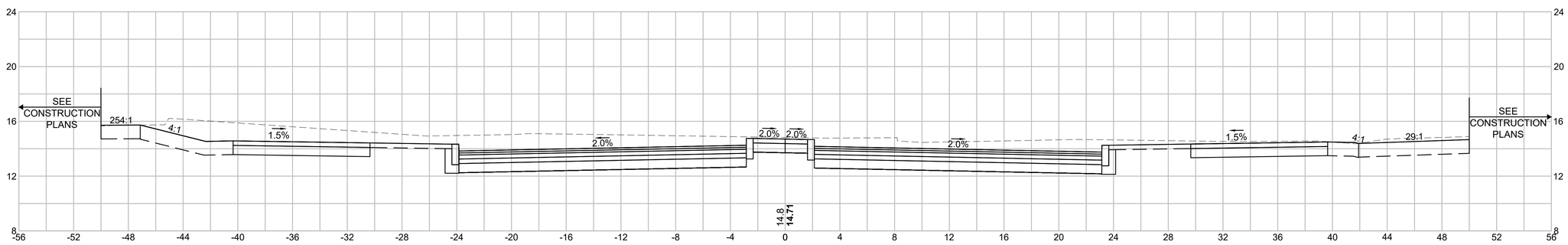
29+00

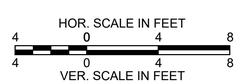


28+50



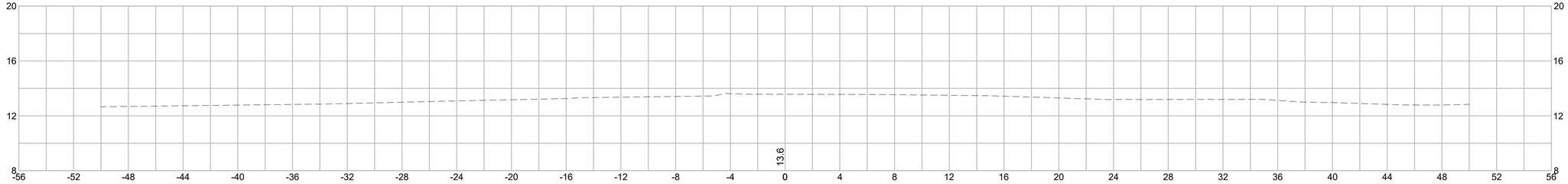
28+00



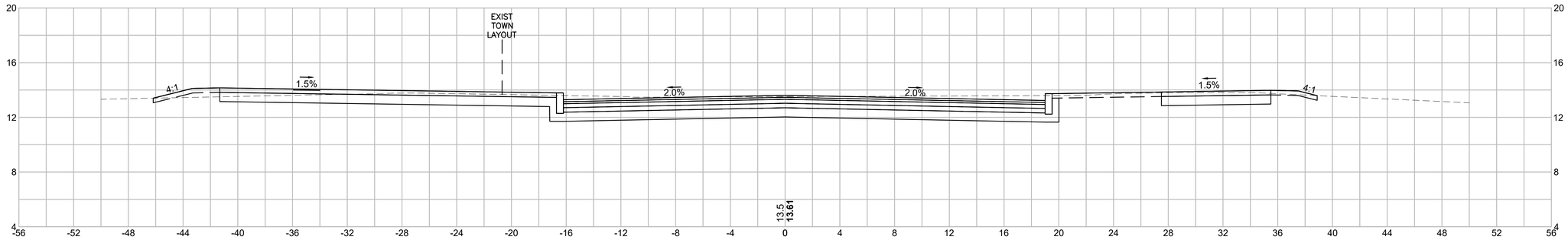


HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 11 OF 33
NANTASKET AVENUE
SHEET 56 OF 78

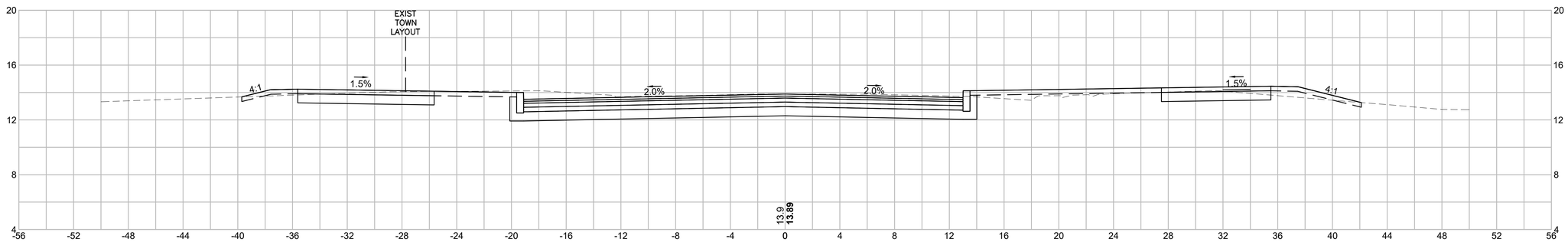
30+50



30+00



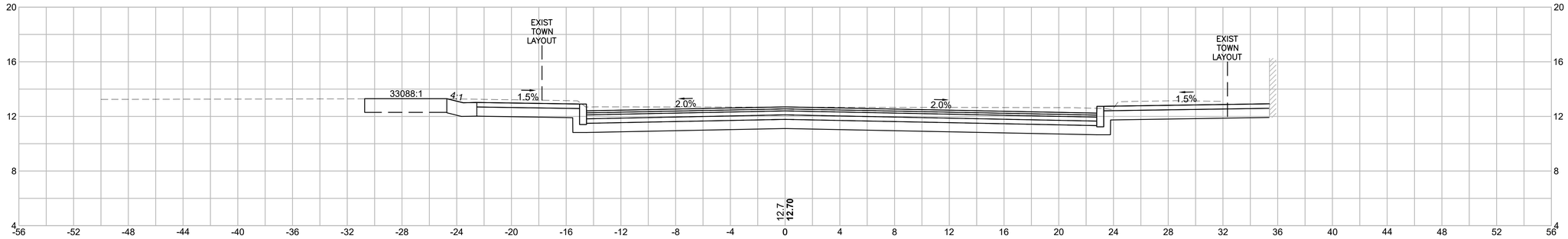
29+50



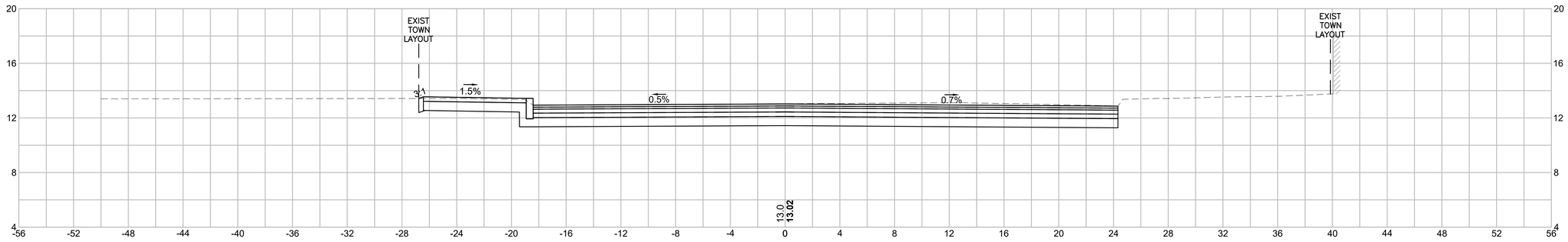
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 12 OF 33
GEORGE WASHINGTON BOULEVARD
SHEET 57 OF 78

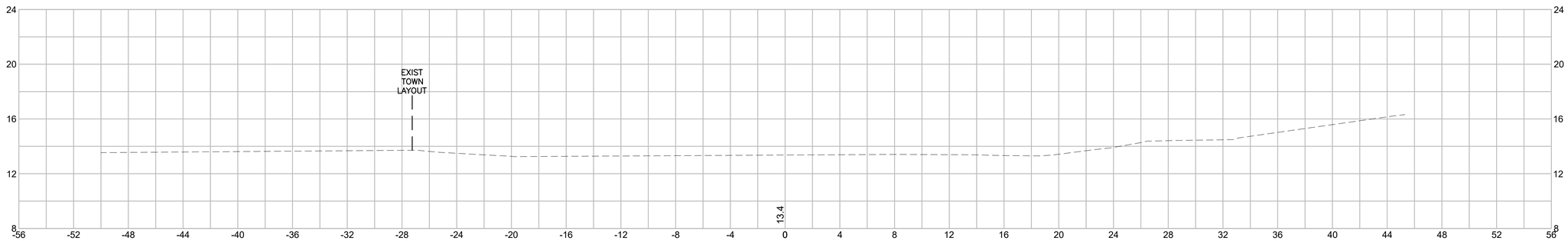
42+50



42+00



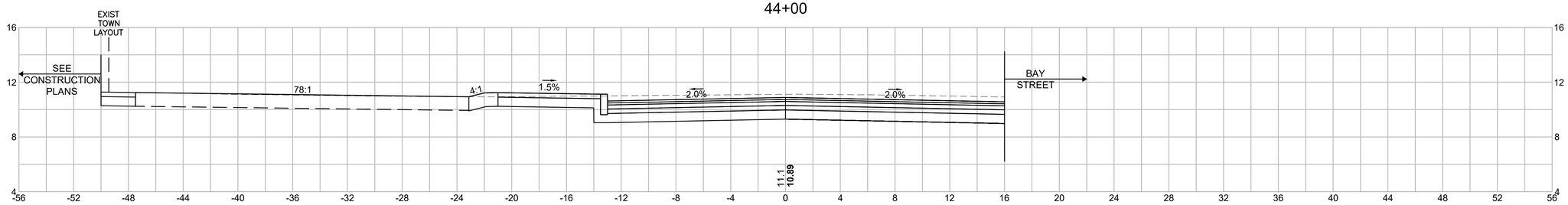
41+50



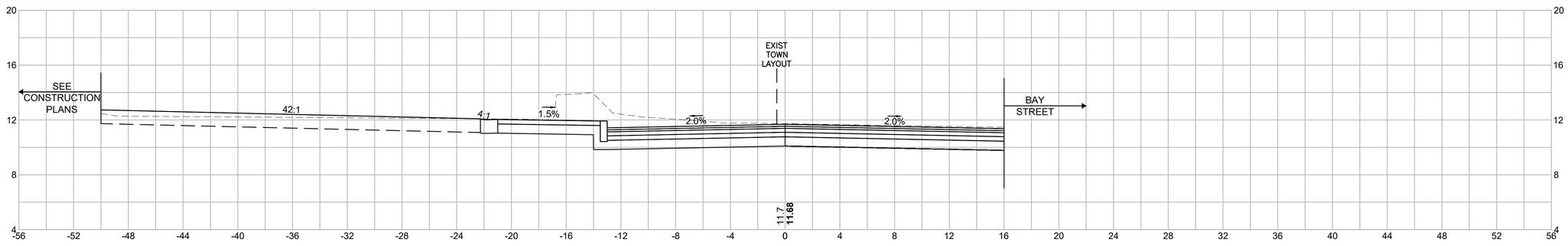
HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 13 OF 33
GEORGE WASHINGTON BOULEVARD
SHEET 58 OF 78

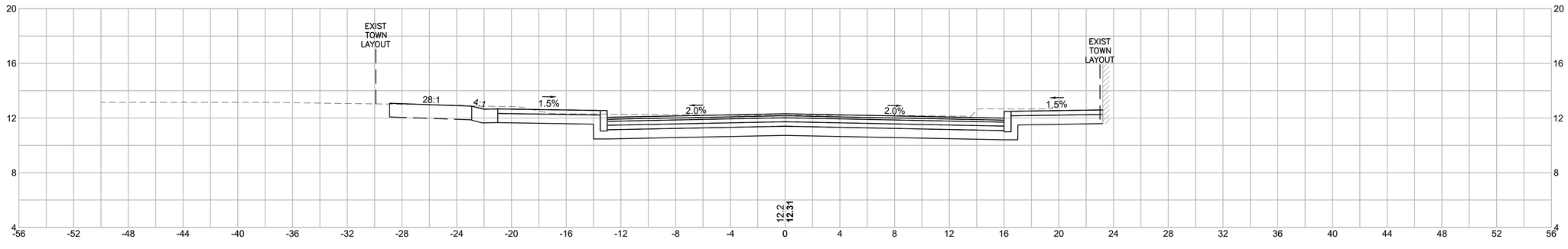
44+00



43+50



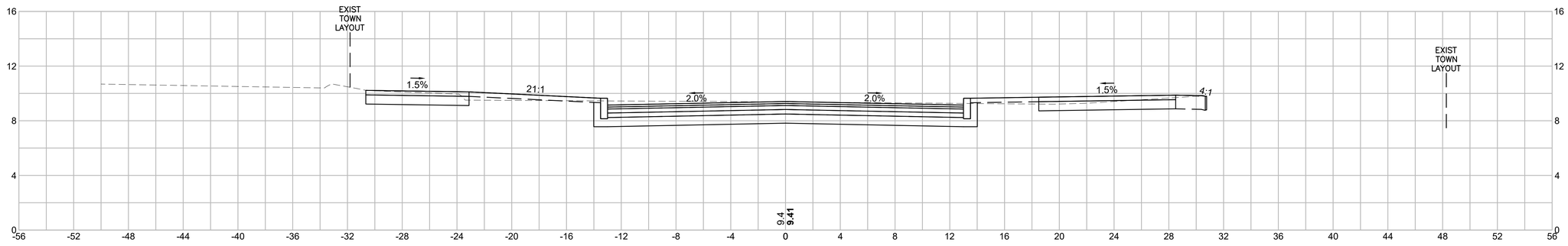
43+00



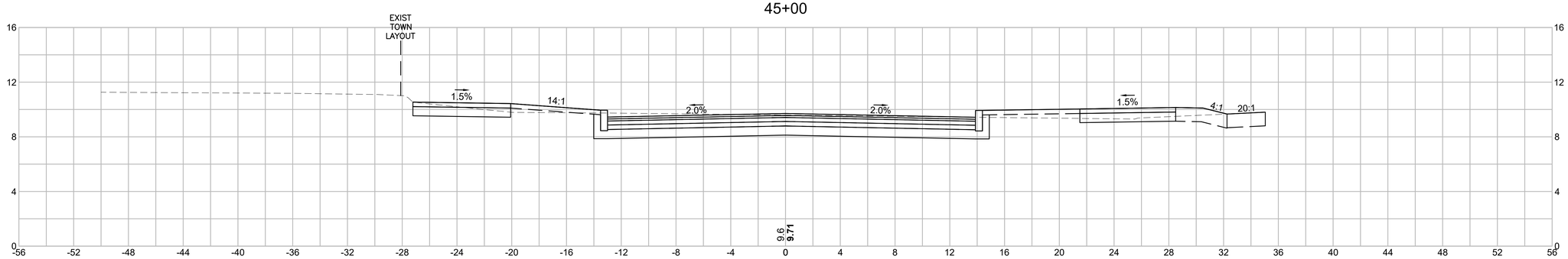
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 14 OF 33
GEORGE WASHINGTON BOULEVARD
SHEET 59 OF 78

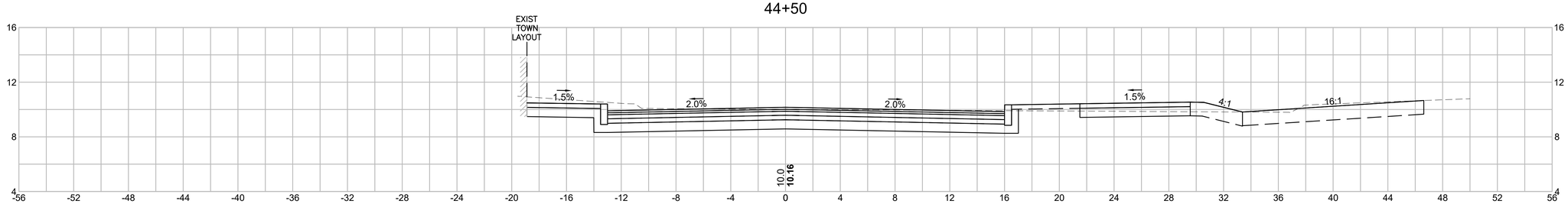
45+50



45+00



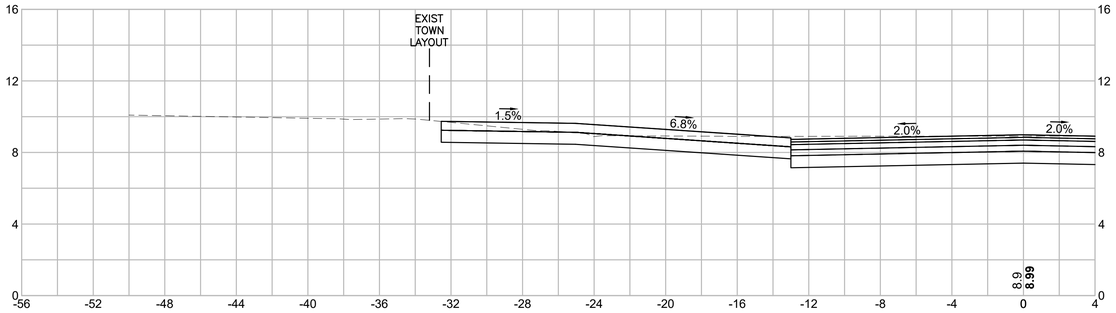
44+50



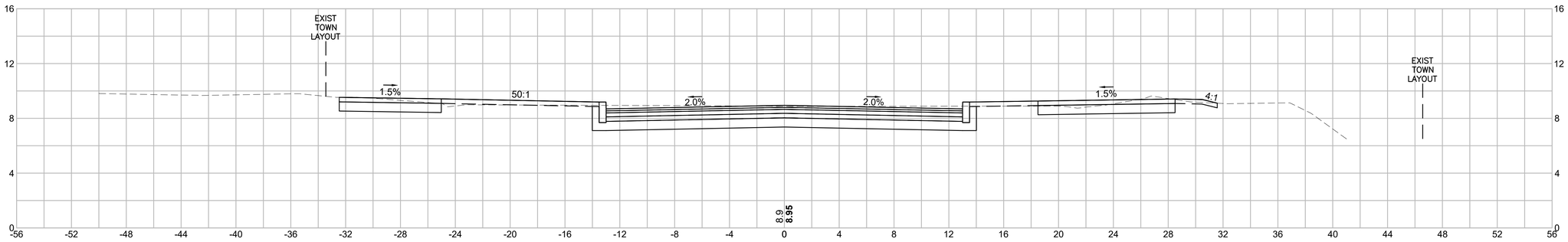
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 15 OF 33
GEORGE WASHINGTON BOULEVARD
SHEET 60 OF 78

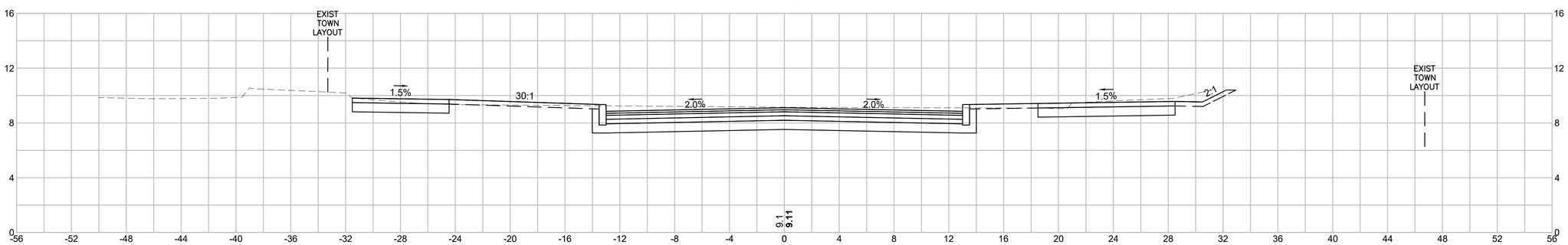
46+66.08

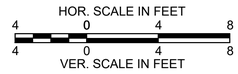


46+50



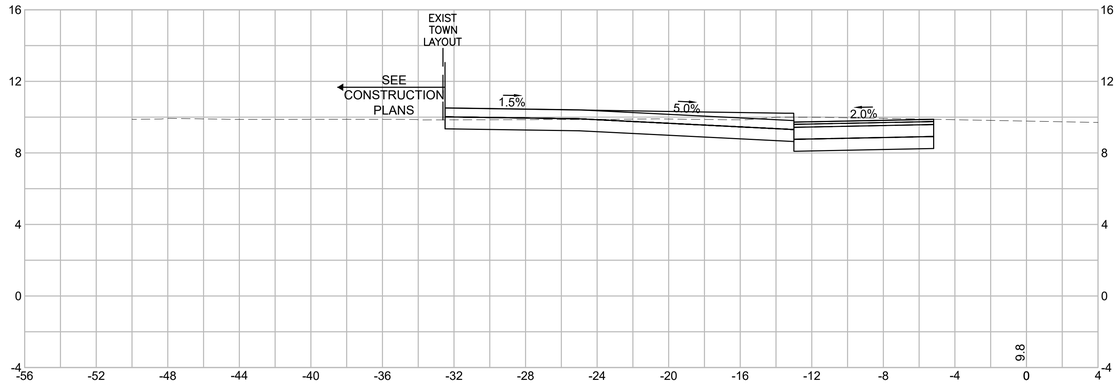
46+00



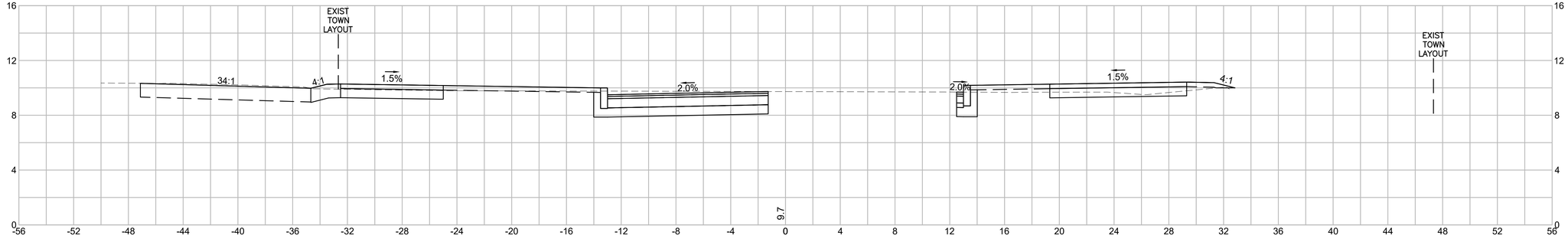


HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 16 OF 33
GEORGE WASHINGTON BOULEVARD
SHEET 61 OF 78

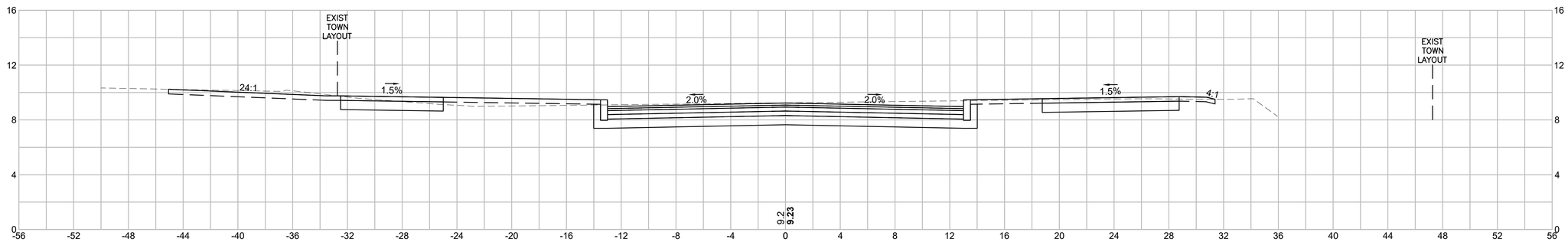
47+88.91



47+50



47+00

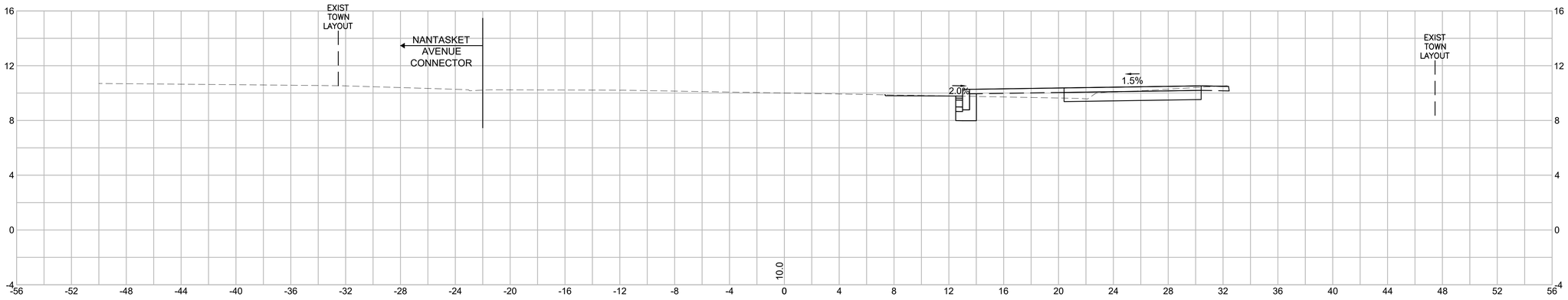


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

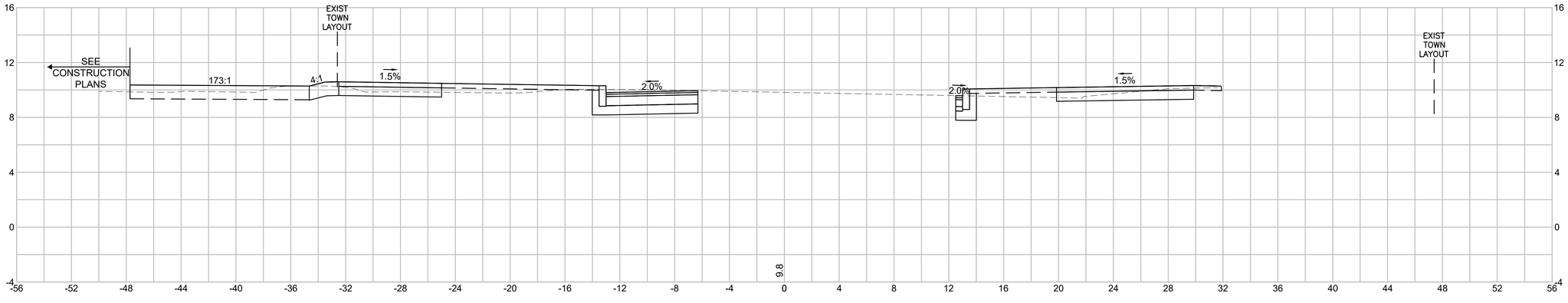
HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 17 OF 33
GEORGE WASHINGTON BOULEVARD
SHEET 62 OF 78

T0597.01\25%\HD10\(CROSS SECTIONS).DWG Plotted on 31-Aug-2022 9:14 AM

48+50



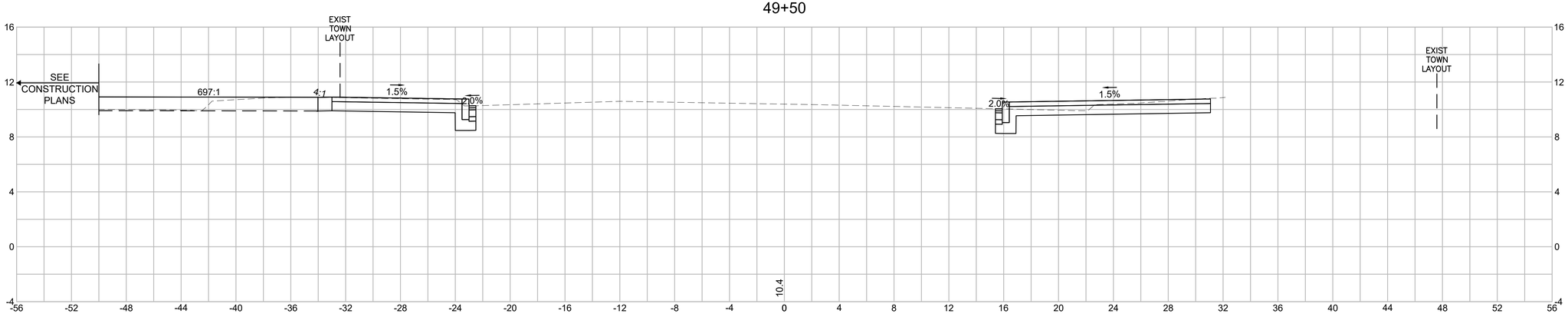
48+00



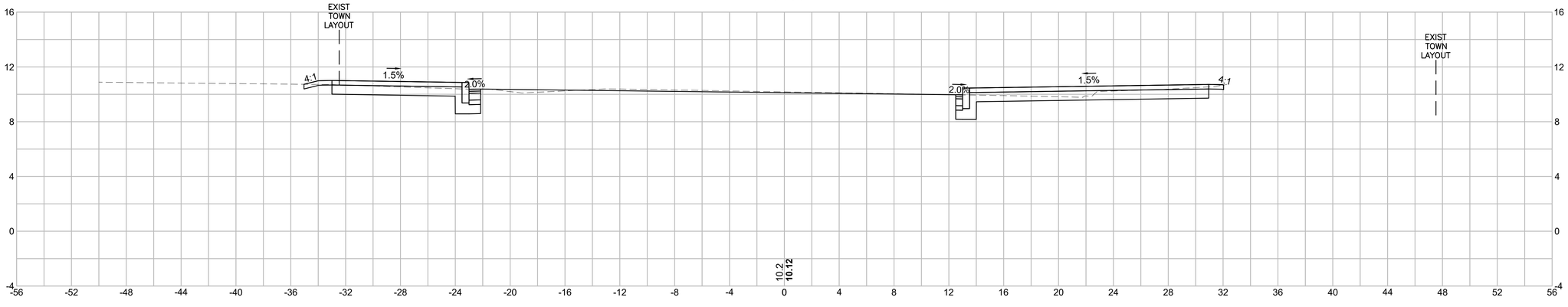
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 18 OF 33
GEORGE WASHINGTON BOULEVARD
SHEET 63 OF 78

49+50

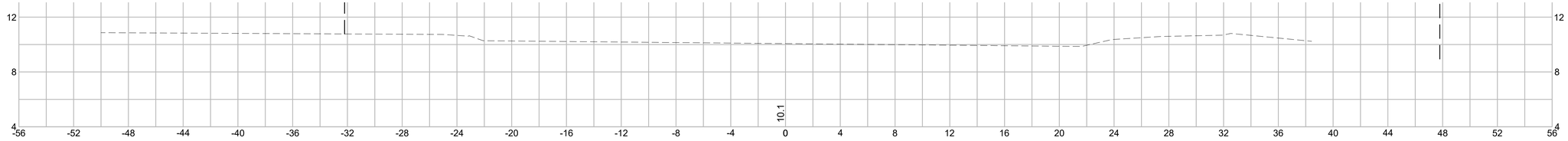


49+00

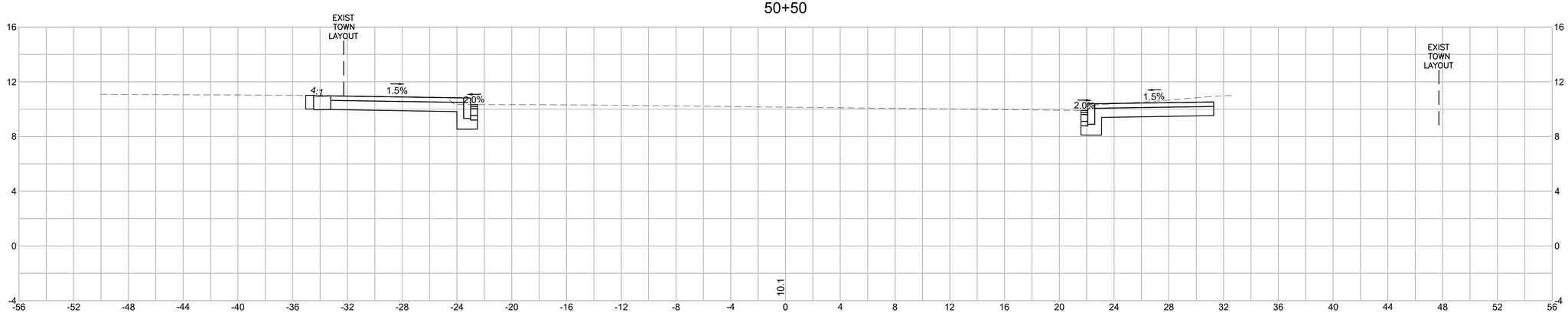


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

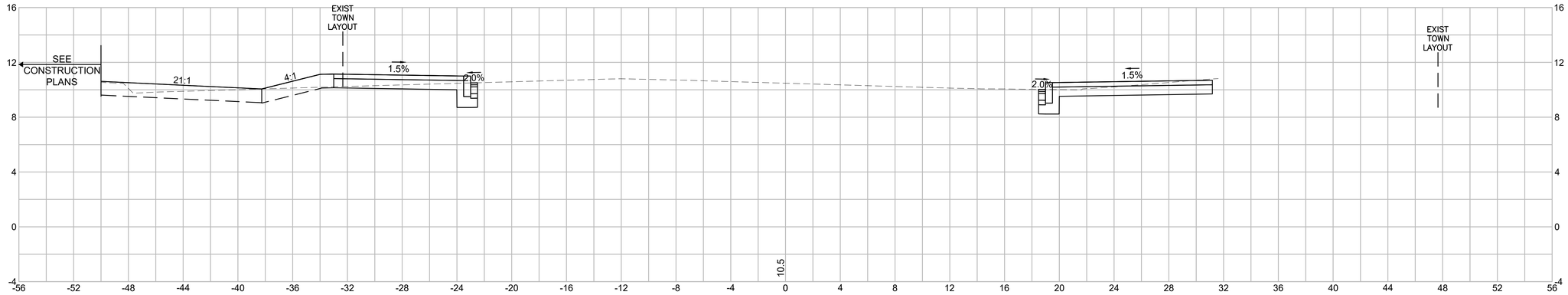
HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 19 OF 33
GEORGE WASHINGTON BOULEVARD
SHEET 64 OF 78



50+50



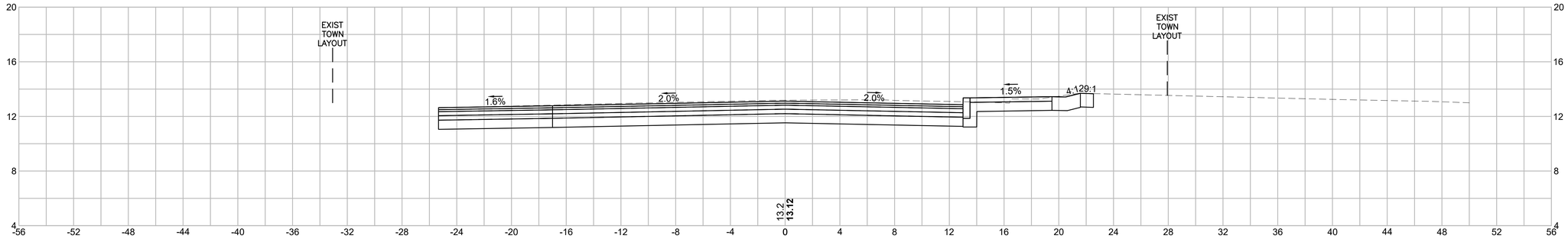
50+00



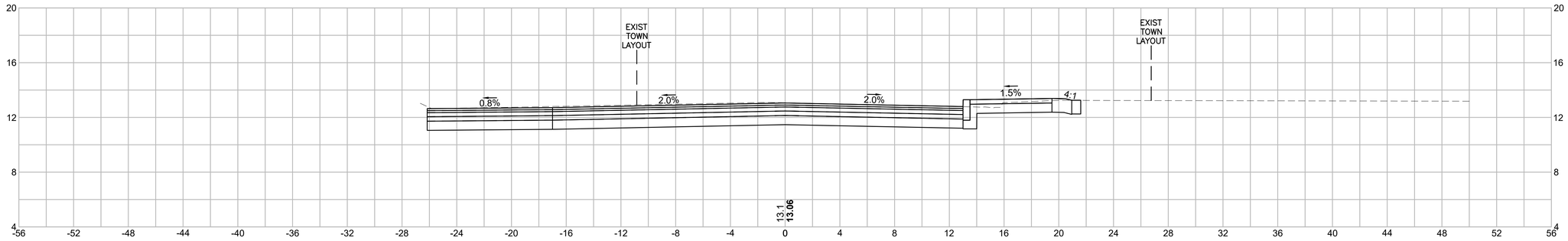
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 20 OF 33
HULL SHORE DRIVE
SHEET 65 OF 78

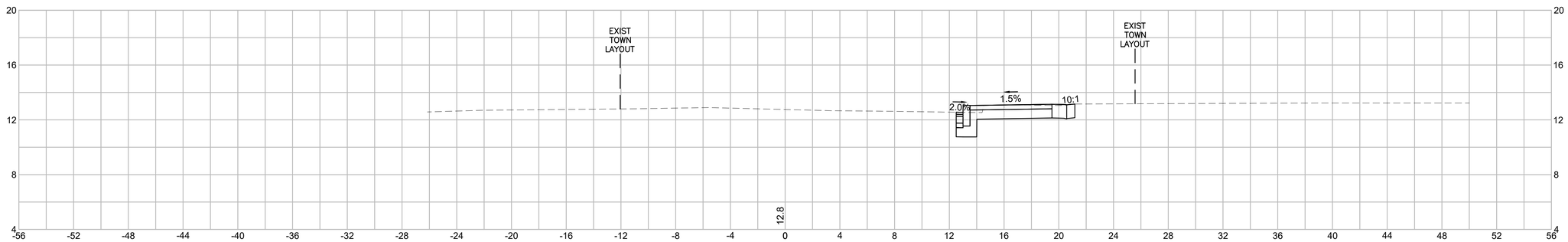
87+50



87+00



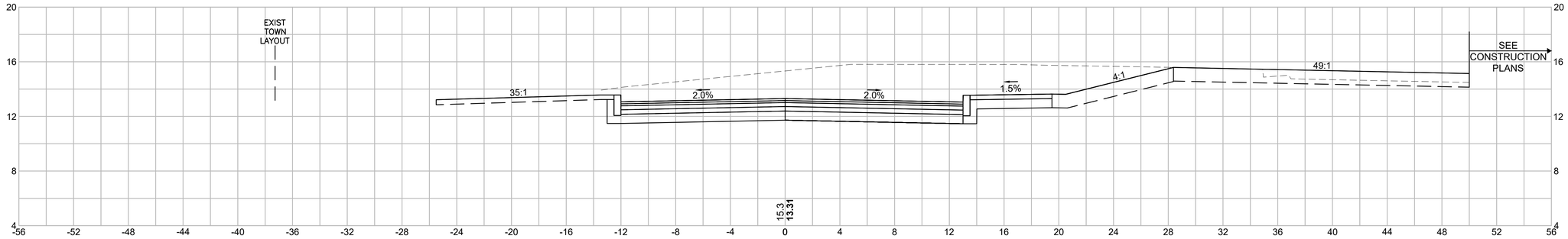
86+50



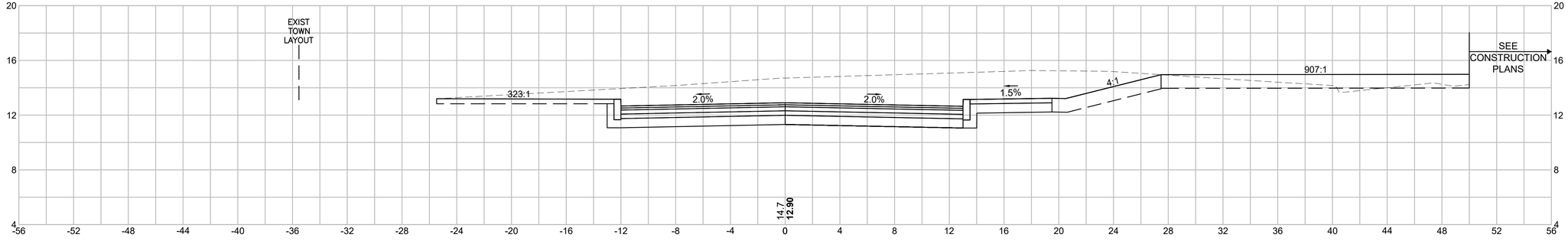
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 21 OF 33
HULL SHORE DRIVE
SHEET 66 OF 78

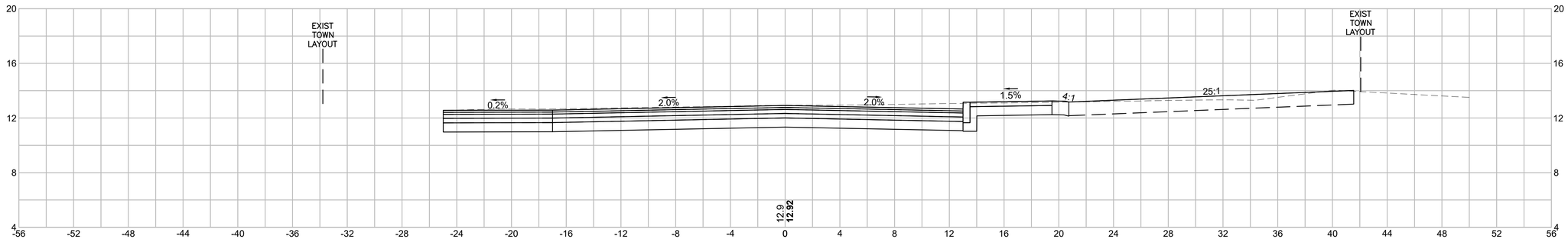
89+00



88+50



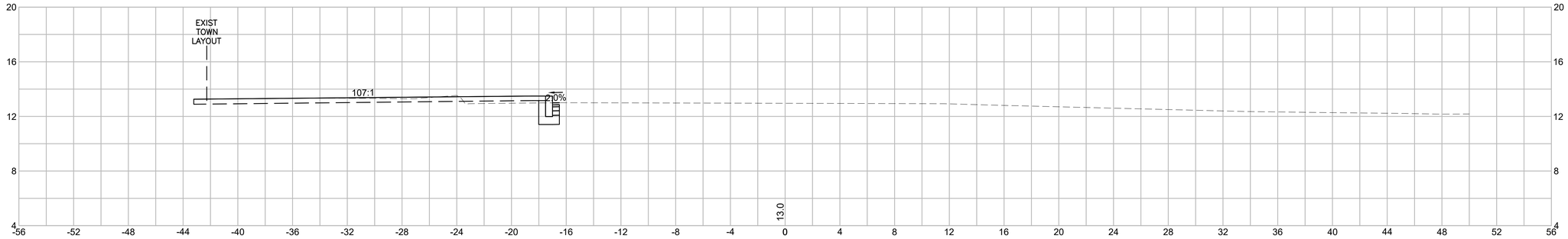
88+00



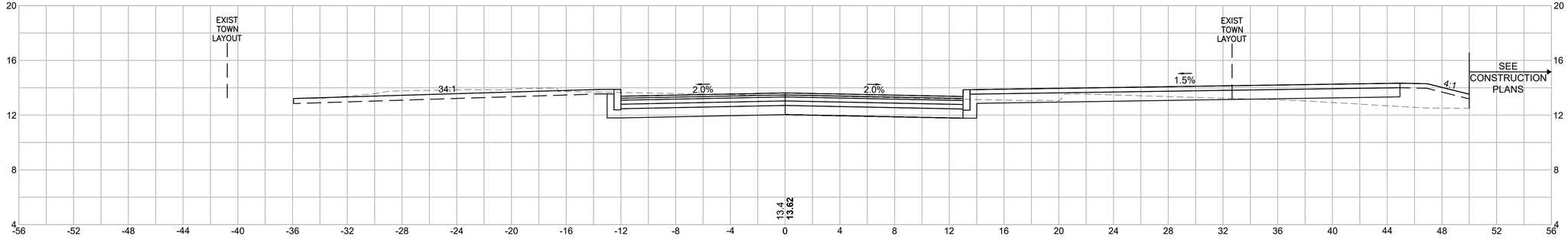
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 22 OF 33
HULL SHORE DRIVE
SHEET 67 OF 78

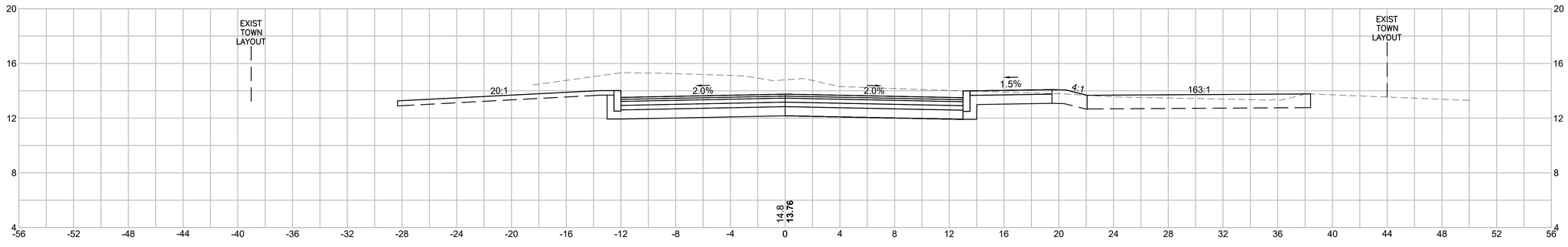
90+50



90+00



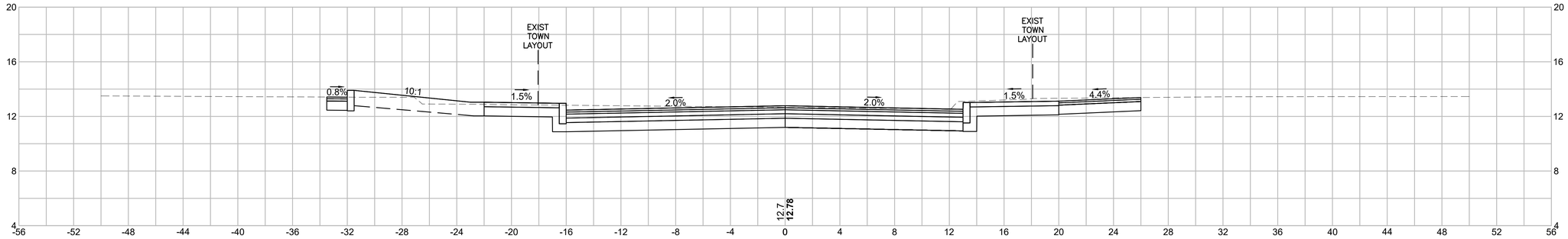
89+50



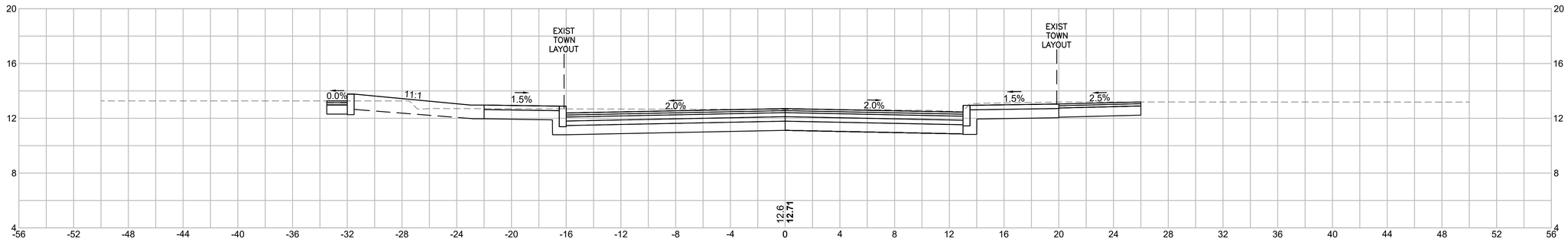
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 23 OF 33
HULL SHORE DRIVE
SHEET 68 OF 78

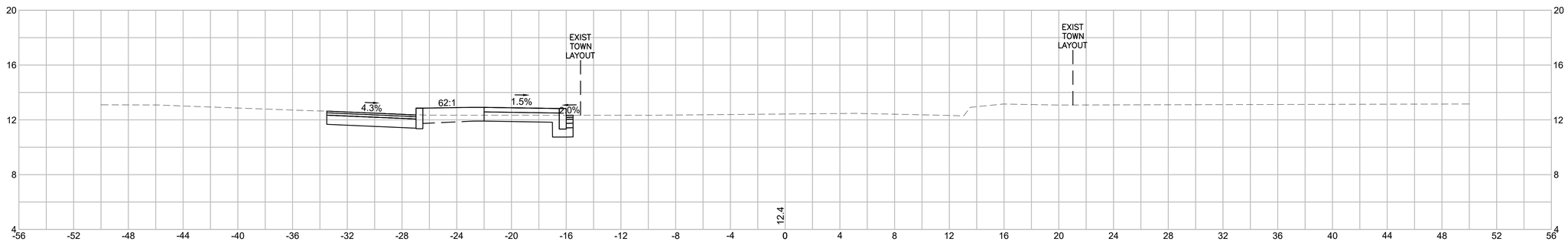
103+50



103+00



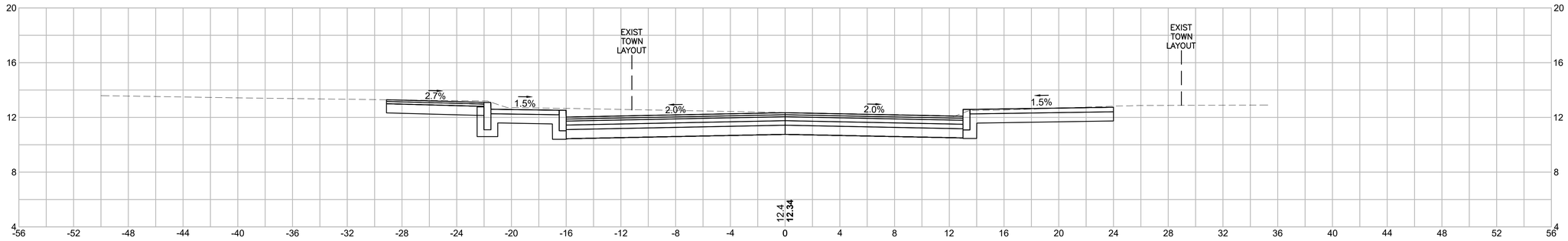
102+50



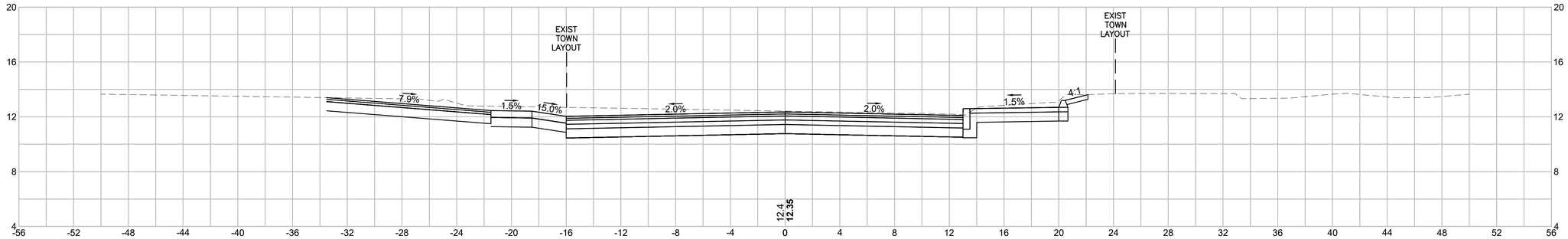
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 24 OF 33
HULL SHORE DRIVE
SHEET 69 OF 78

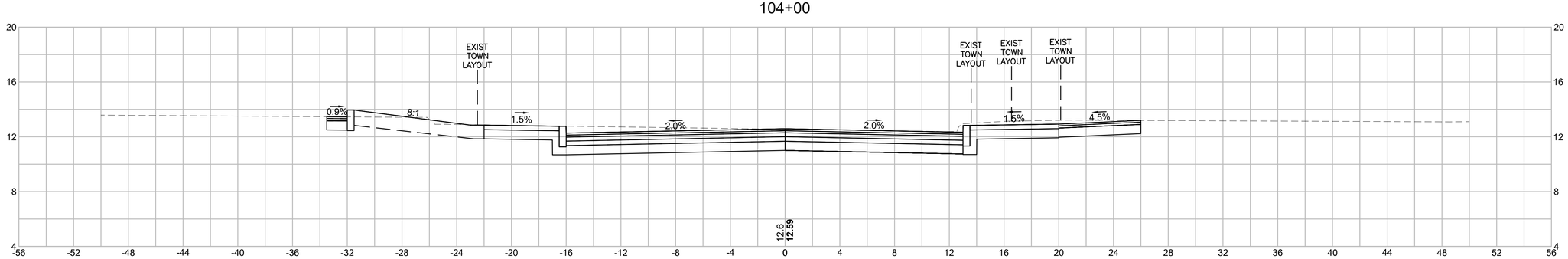
105+00



104+50



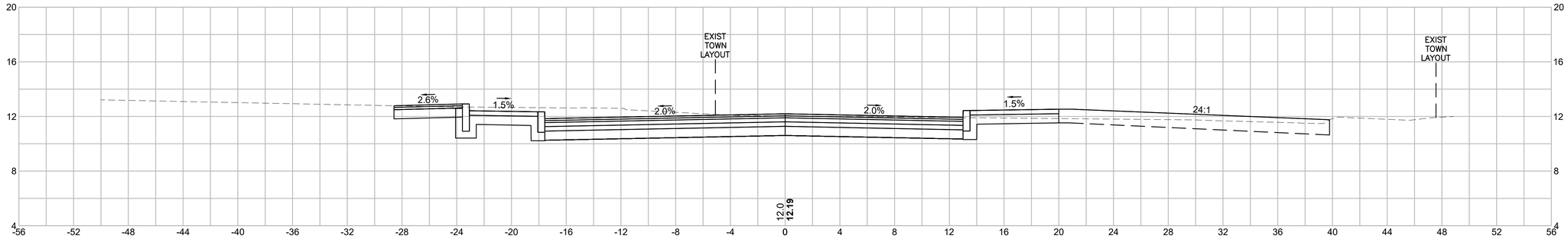
104+00



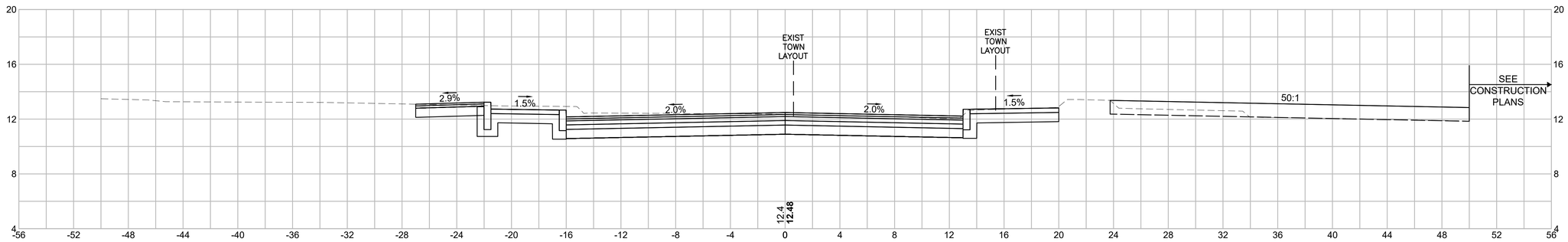
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 25 OF 33
HULL SHORE DRIVE
SHEET 70 OF 78

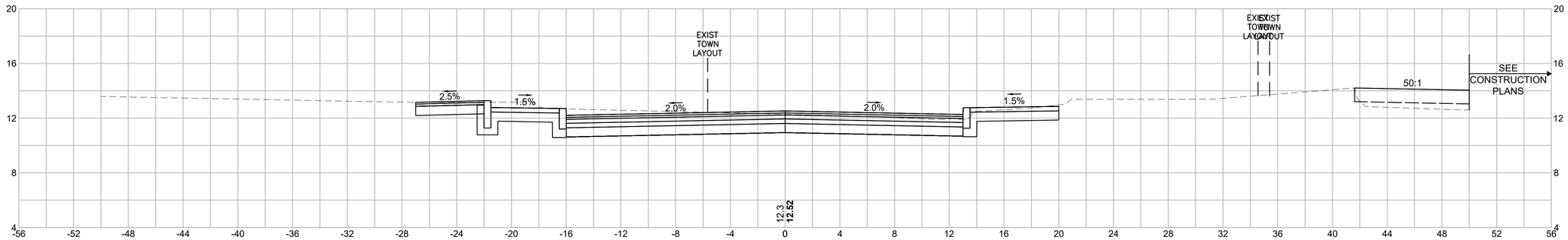
106+50



106+00



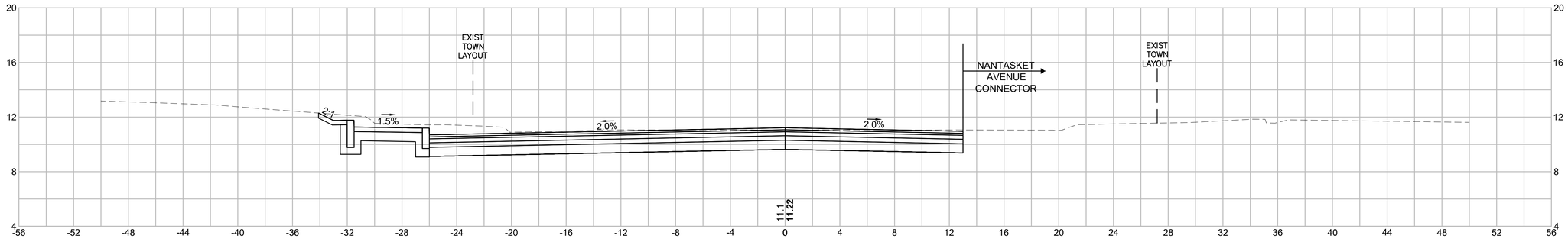
105+50



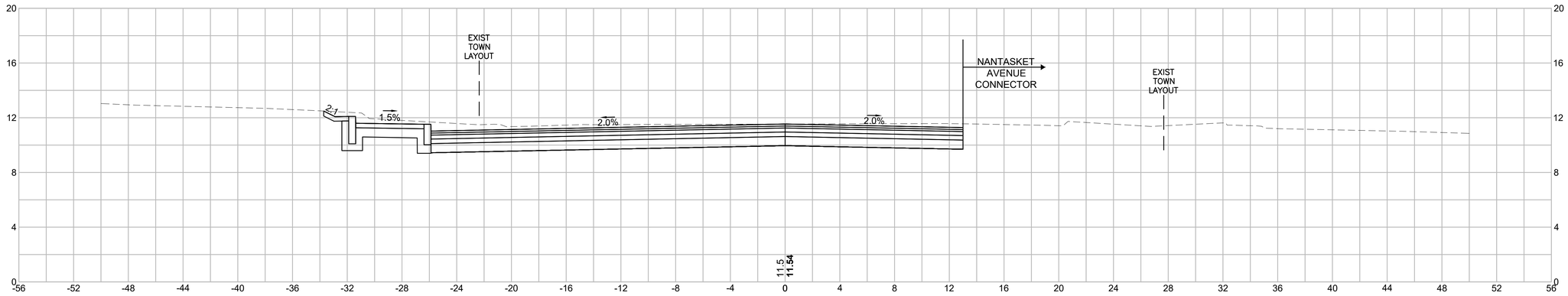
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 26 OF 33
HULL SHORE DRIVE
SHEET 71 OF 78

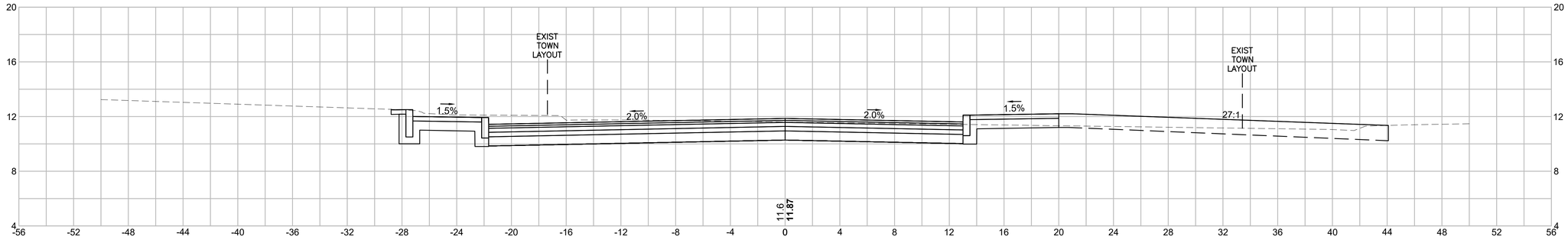
108+00



107+50



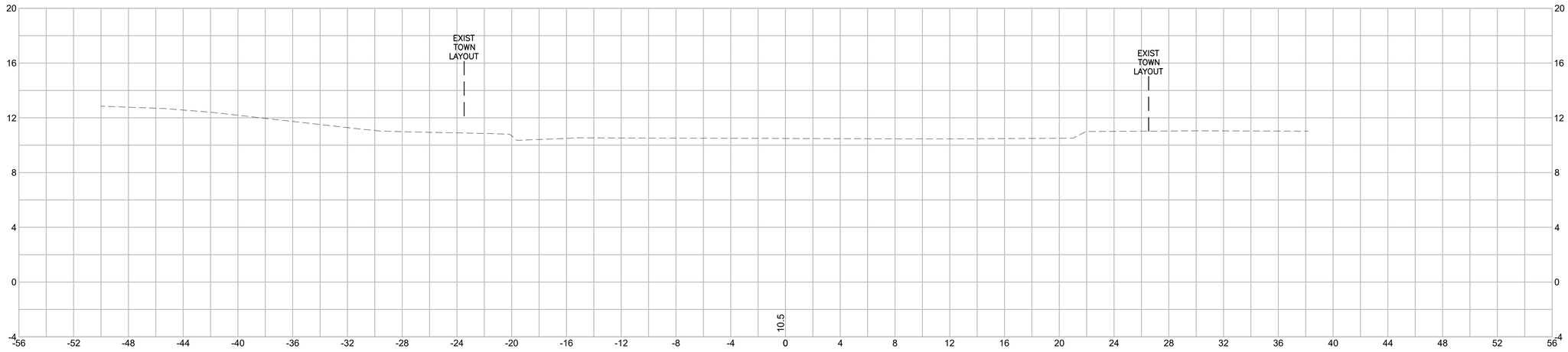
107+00



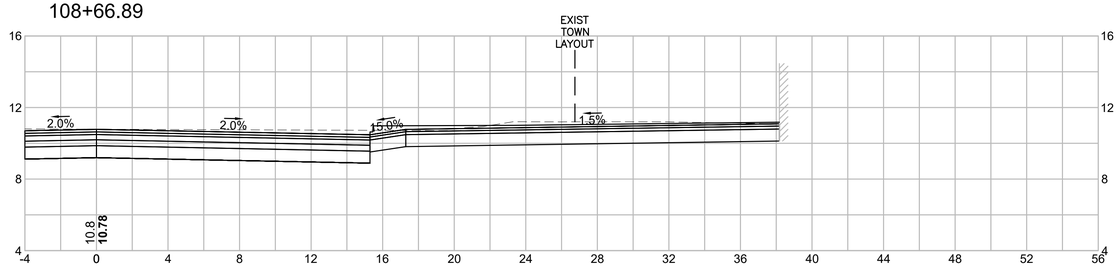
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 27 OF 33
HULL SHORE DRIVE
SHEET 72 OF 78

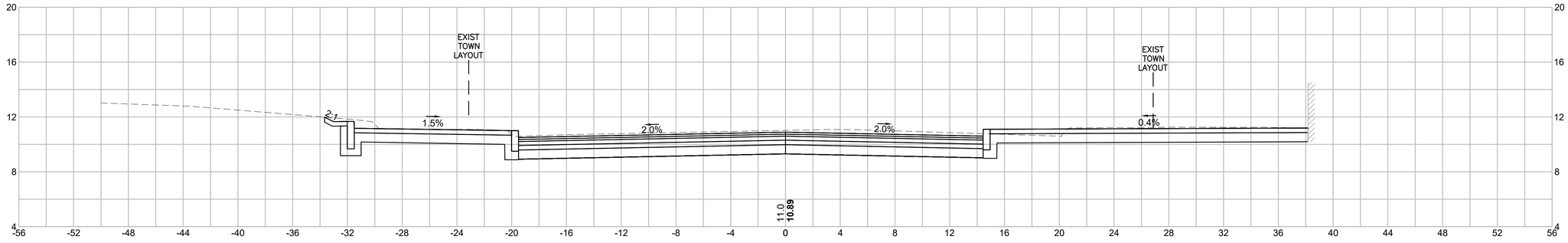
109+00



108+66.89



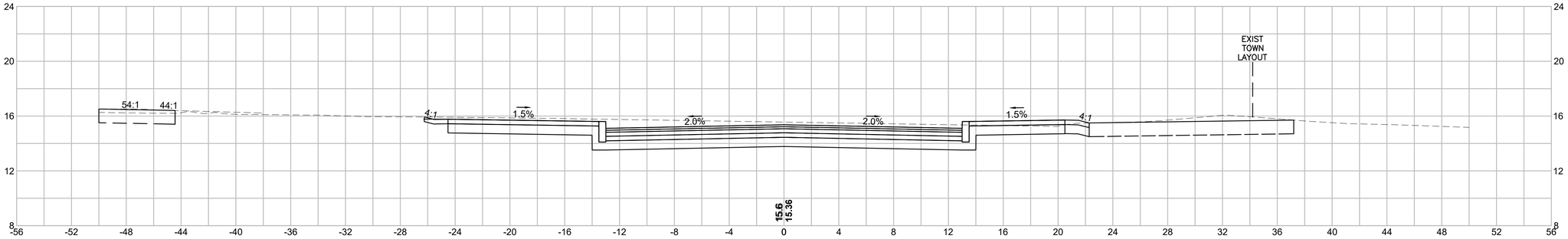
108+50



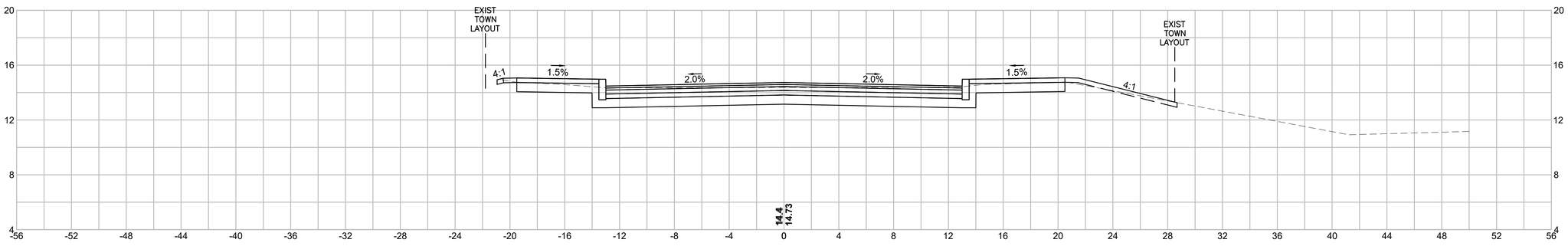
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 28 OF 33
EDGEWATER ROAD EXTENSION
SHEET 73 OF 78

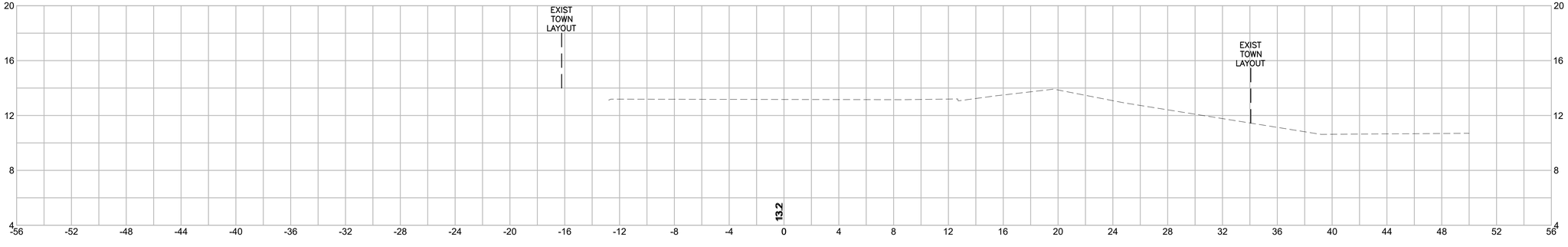
131+50



131+00



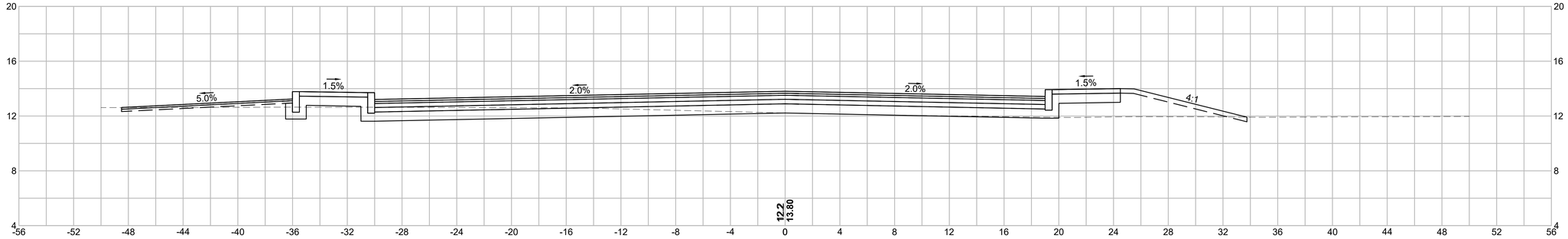
130+50



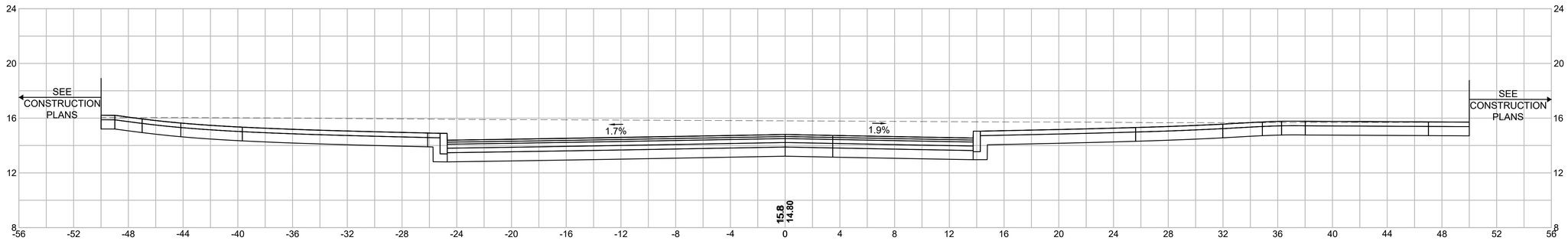
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 29 OF 33
EDGEWATER ROAD EXTENSION
SHEET 74 OF 78

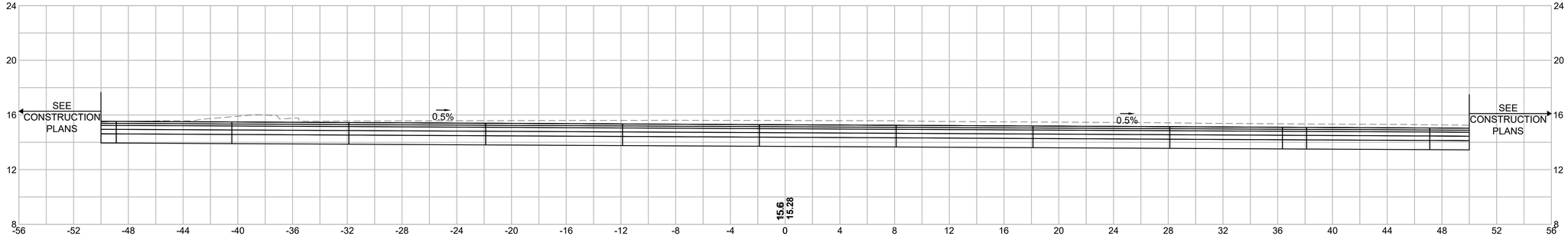
133+00



132+50



132+00

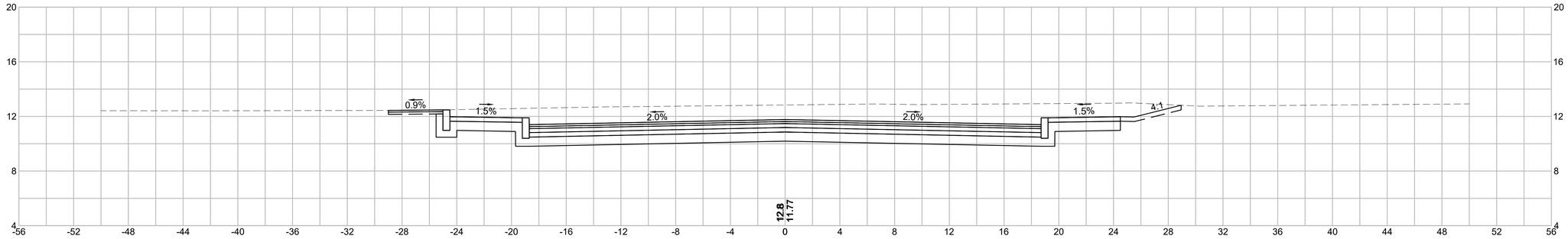


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

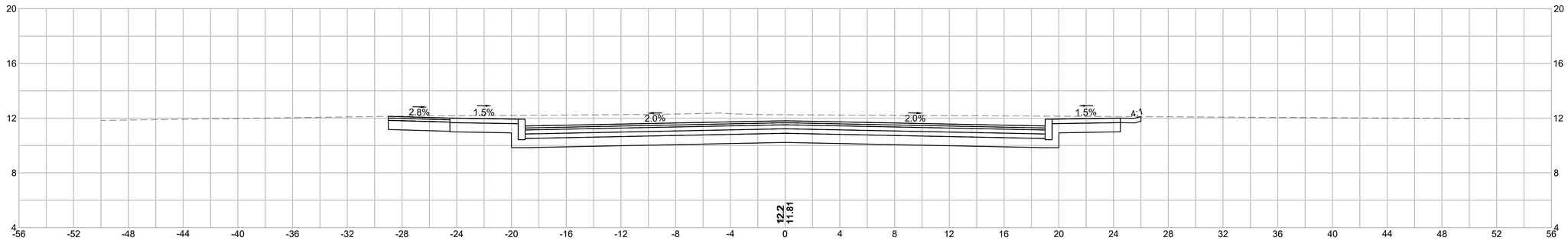
T0597.01[25%]HD10(CROSS SECTIONS).DWG Plotted on 31-Aug-2022 9:17 AM

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 30 OF 33
EDGEWATER ROAD EXTENSION
SHEET 75 OF 78

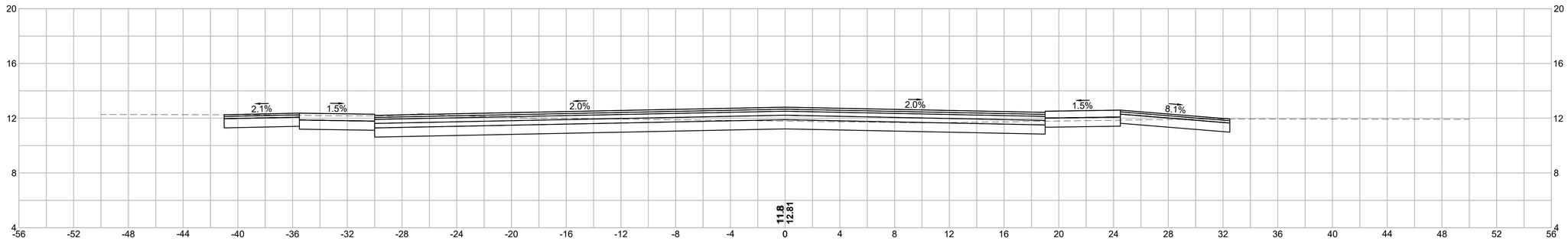
134+50



134+00



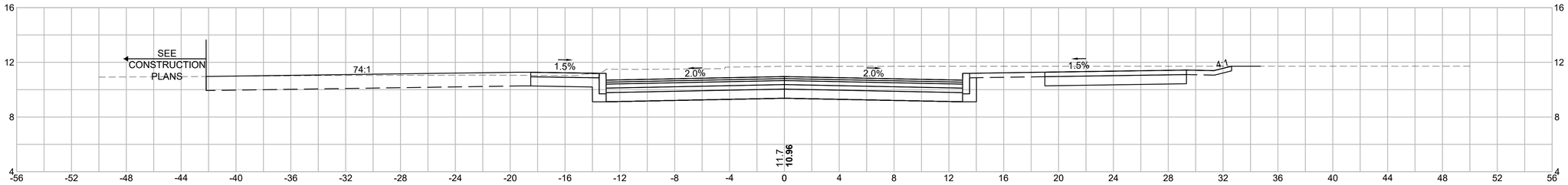
133+50



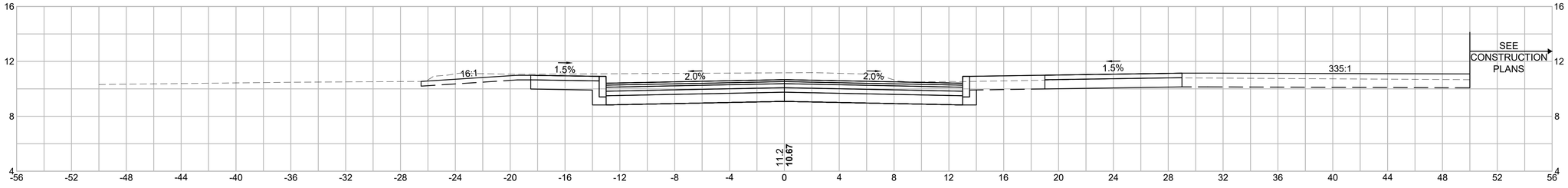
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 31 OF 33
NANTASKET AVENUE CONNECTOR
SHEET 76 OF 78

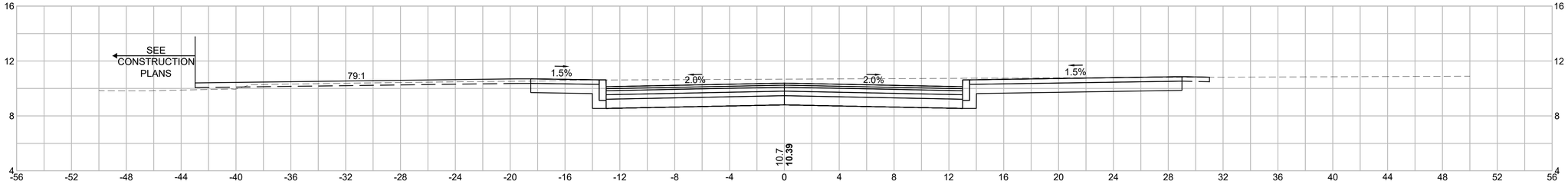
151+50



151+00



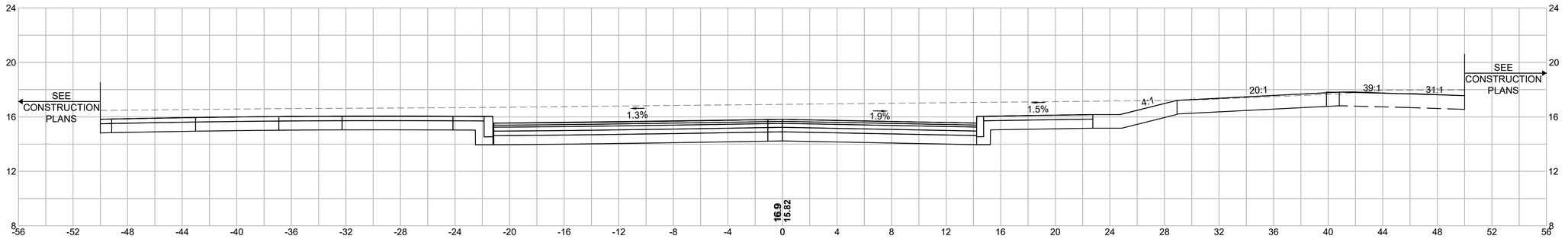
150+50



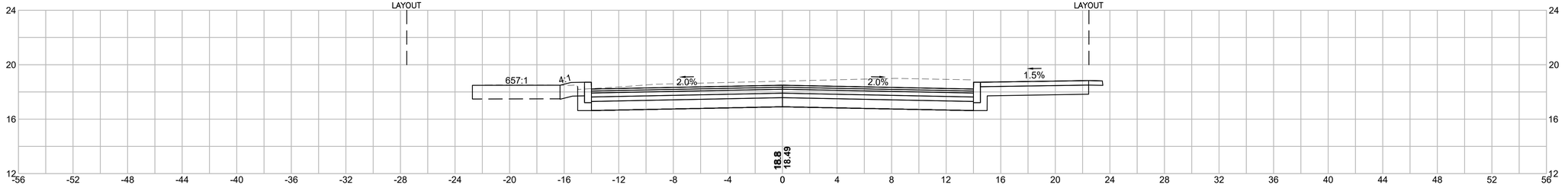
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 32 OF 33
WHITEHEAD AVENUE
SHEET 77 OF 78

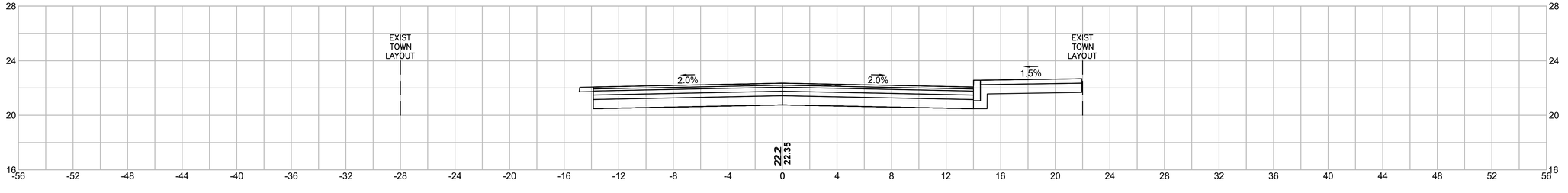
161+50



161+00



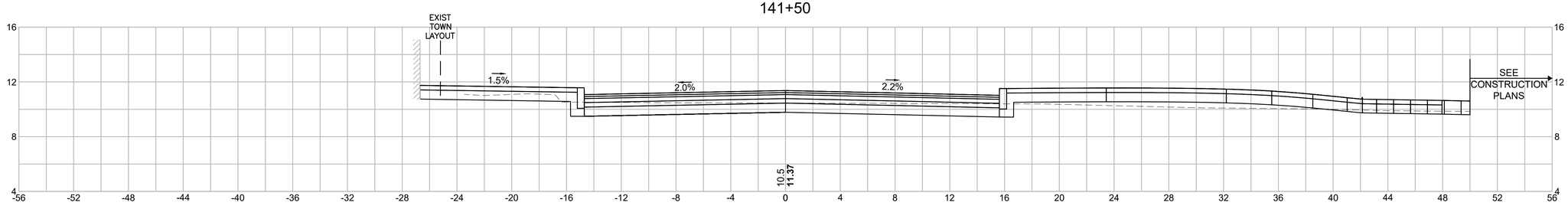
160+50



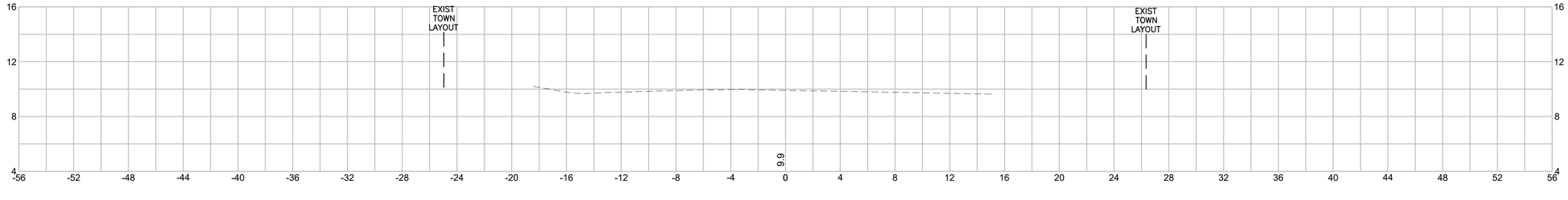
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

HULL
TWO-WAY CONVERSION
CROSS SECTIONS - 33 OF 33
BAY STREET
SHEET 78 OF 78

141+50



141+00



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