

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

PLAN AND PROFILE OF BARNSTABLE PARK AND RIDE

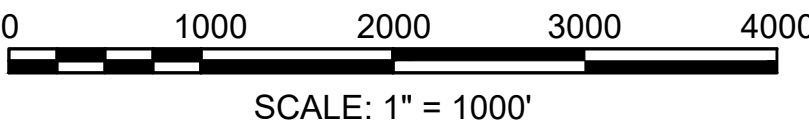
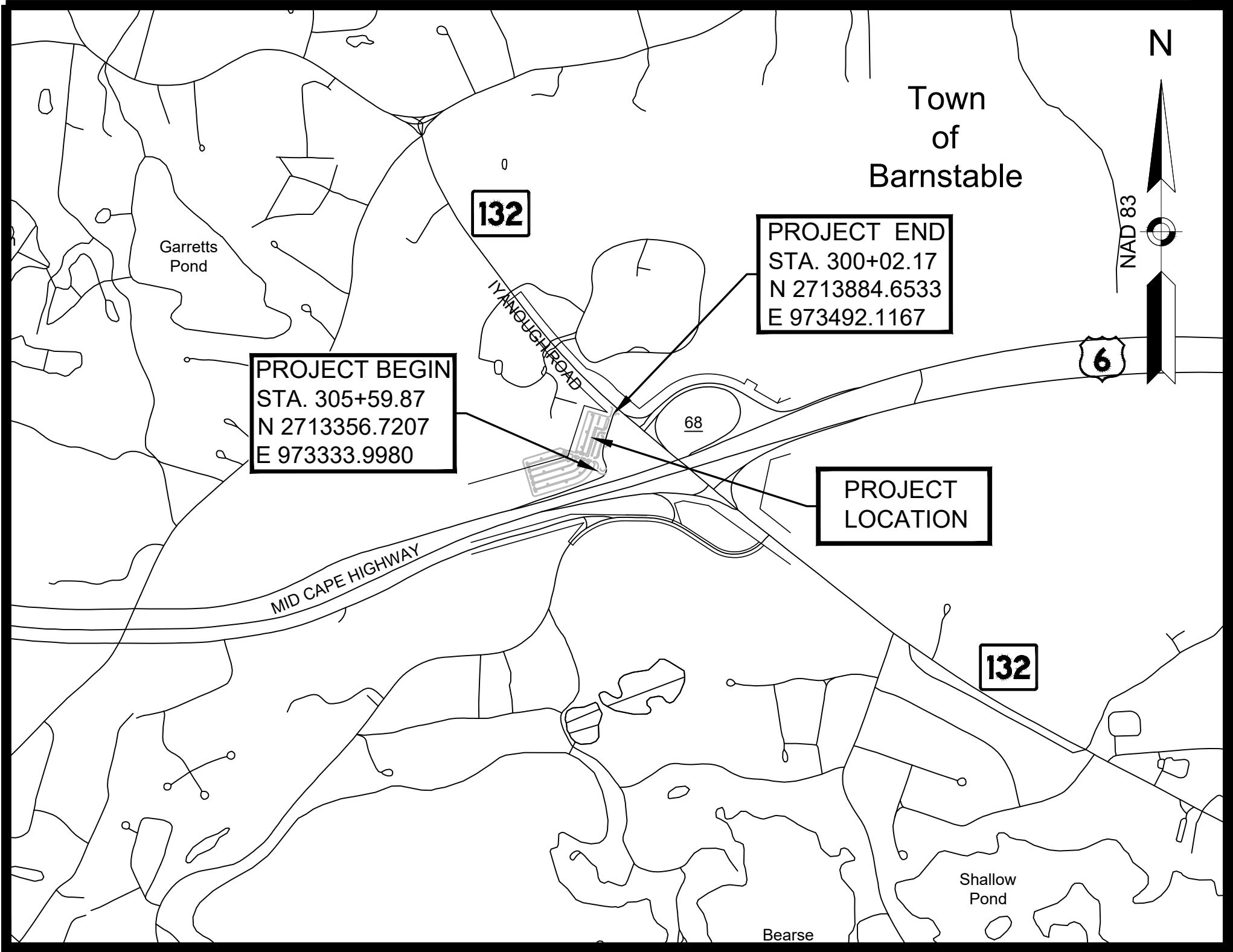
IN THE TOWN OF BARNSTABLE OF BARNSTABLE BARNSTABLE COUNTY

FEDERAL AID PROJECT NO. CRP-003S(984)X

BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	1	87
PROJECT FILE NO.		610800	
TITLE SHEET & INDEX			

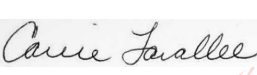
THESE PLANS ARE SUPPLEMENTED BY THE LATEST EDITIONS OF THE FOLLOWING PUBLICATIONS, AS IDENTIFIED IN THE CONTRACT SPECIAL PROVISIONS: THE MASSDOT CONSTRUCTION STANDARD DETAILS, THE MASSDOT STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE MASSDOT STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, THE MASSDOT OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, THE MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, AND THE ANSI AMERICAN STANDARD FOR NURSERY STOCK.

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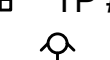
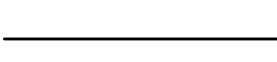
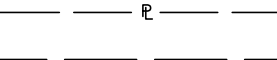


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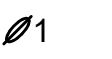
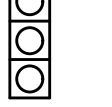
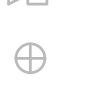
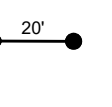
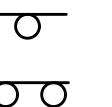
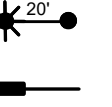
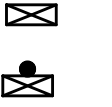
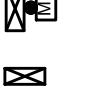
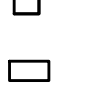
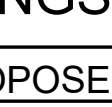
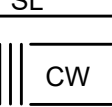
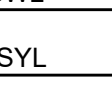
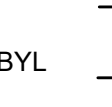
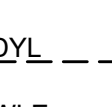
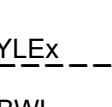
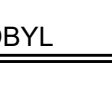
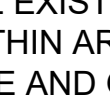
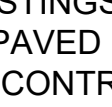
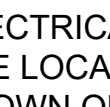
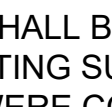
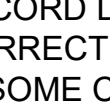
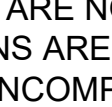
DESIGN DESIGNATION (PARK-AND-RIDE FACILITY)	
DESIGN SPEED	N/A
ADT (2022)	N/A
ADT (2032)	N/A
K	N/A
D	N/A
T (PEAK HOUR)	N/A
T (AVERAGE DAY)	N/A
DHV	N/A
DDHV	N/A
FUNCTIONAL CLASSIFICATION	N/A

 			
	DATE	DESCRIPTION	REV #
			
	APPROVED		
	 06/24/2026		
	CHIEF ENGINEER		DATE

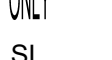
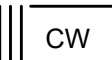
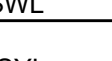
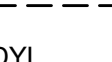
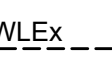
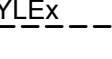
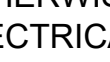
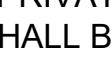
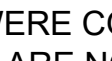
GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		TRANSMISSION POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W / 1 LIGHT
		UTILITY POLE
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		GUARD RAIL - DOUBLE FACE - STEEL POSTS
		GUARD RAIL - DOUBLE FACE - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		HAY BALES/SILT FENCE
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

TRAFFIC SYMBOLS

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

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE
		CROSSWALK
		SOLID WHITE LINE
		SOLID YELLOW LINE
		BROKEN WHITE LINE (10' LINE, 30' GAP)
		BROKEN YELLOW LINE (10' LINE, 30' GAP)
		DOTTED WHITE LINE (3' LINE, 9' GAP)
		DOTTED YELLOW LINE (3' LINE, 9' GAP)
		DOTTED WHITE LINE EXTENSION (2' LINE, 6' GAP)
		DOTTED YELLOW LINE EXTENSION (2' LINE, 6' GAP)
		DOUBLE WHITE LINE
		DOUBLE YELLOW LINE

- ALL EXISTING UTILITY CASTINGS THAT ARE TO REMAIN WITHIN AREAS TO BE REPAVED SHALL BE ADJUSTED TO LINE AND GRADE BY THE CONTRACTOR UNLESS OTHERWISE NOTED. ALL PRIVATE TELEPHONE, GAS, AND ELECTRICAL CASTINGS SHALL BE ADJUSTED BY OTHERS.
- THE LOCATIONS OF EXISTING SUBSURFACE UTILITIES SHOWN ON THE PLANS WERE COMPILED FROM AVAILABLE RECORD DRAWINGS AND ARE NOT WARRANTIED TO BE CORRECT. THE LOCATIONS ARE APPROXIMATE ONLY AND IN SOME CASES MAY BE INCOMPLETE. THE CONTRACTOR SHALL NOTIFY ALL AGENCIES REQUIRED AND VERIFY THE LOCATIONS OF ALL EXISTING SUBSURFACE UTILITIES PRIOR TO PERFORMING ANY WORK.
- PRIOR TO THE INSTALLATION OF PROPOSED UTILITIES, THE CONTRACTOR SHALL EXCAVATE TEST PITS AT LOCATIONS OF UTILITY CROSSINGS TO VERIFY DEPTHS OF EXISTING PIPES, CONDUITS OR OTHER FACILITIES AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL SAWCUT TO THE FULL PAVEMENT DEPTH AT BOUNDARIES BETWEEN FULL DEPTH CONSTRUCTION AND EXISTING PAVEMENT.
- THE SURVEY BASE PLAN WAS PREPARED BY BSC GROUP IN APRIL 2022 AND UPDATED IN FEBRUARY 2024.
- THE MOST RECENT SITE VISIT WAS COMPLETED IN OCTOBER, 2024 TO VERIFY THAT THE EXISTING CONDITIONS SHOWN ON THE PLAN ARE THE CURRENT CONDITIONS IN THE FIELD.
- ALL AREAS OUTSIDE OF THE LIMIT OF WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S OWN EXPENSE.
- ALL EXISTING TREES TO REMAIN SHALL BE PROTECTED FROM DAMAGE CAUSED BY CONTRACTOR OPERATIONS.
- HORIZONTAL DATUM IS BASED ON NORTH AMERICAN DATUM (NAD) 1983.
- ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT DIGSAFE TO MARK OUT UTILITIES WITHIN THE PROJECT AREA. 1-888-344-7233: 1-888-DIG-SAFE.

ABBREVIATIONS

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

BARNSTABLE
BARNSTABLE PARK AND RIDE

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LEGEND & ABBREVIATIONS

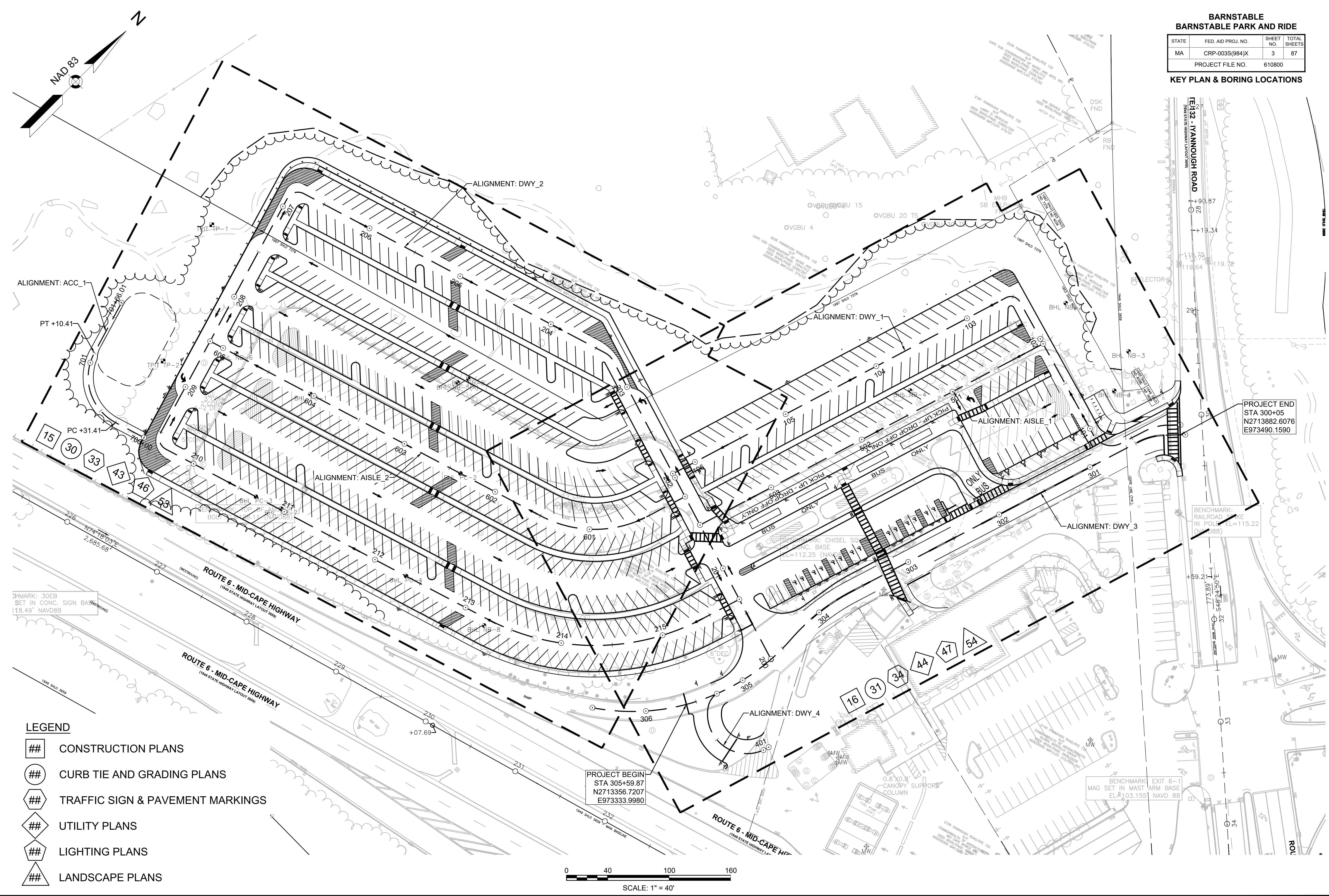
ABBREVIATIONS (cont.)

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 ABBREVIATIONS

CAB	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
DW	STEADY UPRAISED HAND
FDW	FLASHING UPRAISED HAND
FR	FLASHING CIRCULAR RED
FRL	FLASHING RED LEFT ARROW
FRR	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR YELLOW
FYL	FLASHING YELLOW LEFT ARROW
FYR	FLASHING YELLOW RIGHT ARROW
G	STEADY CIRCULAR GREEN
GL	STEADY GREEN LEFT ARROW
GR	STEADY GREEN RIGHT ARROW
GSL	STEADY GREEN SLASH

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KEY PLAN & BORING LOCATIONS			



- LEGEND**
- ## CONSTRUCTION PLANS
 - ## CURB TIE AND GRADING PLANS
 - ## TRAFFIC SIGN & PAVEMENT MARKINGS
 - ## UTILITY PLANS
 - ## LIGHTING PLANS
 - ## LANDSCAPE PLANS

0 40 100 160
SCALE: 1" = 40'

BORING LOG

nobis

Contractor:

New England Boring Contractors

Driller:

Z. Ohman

Nobis Rep.:

C. Piekarski

Project:

Barnstable Park and Ride Expansion

Location:

Barnstable, Massachusetts

Nobis Project No.:

100480.000

Rig Type / Model:

ATV / M-2

Hammer Type:

Automatic Hammer

Hammer Host:

Automatic

Boring No.:

NB-1

Boring Location:

N: T713667, E: 973424

Checked by:

P. Giraldo

Date Start:

May 22, 2023

Date Finish:

May 23, 2023

Ground Surface Elev.:

(+/-) 120

Datum:

NAVD 88

Type

Casing

Sampler

Split-Spoon

Date

Time

Depth Below Ground (ft.)

Depth of Casing (ft.)

Depth to Bottom of Hole (ft.)

Stabilization Time

Size ID (in.)

5

1-3/8

Advancement

Drive and Wash

140-lb Hammer

SAMPLE INFORMATION

Depth (ft.)

Type & No.

Rec (in.)

Depth (ft.)

Blows/ ft.in.

Ground Water

LITHOLOGY

Stratum Elev./ Depth (ft.)

NOTES

1

S-1

19

0-2

4

10

TOPSOIL
11&S / I.2

S-1A: Medium dense, brown, fine to medium SAND, trace Organic Silt. Dry (TOPSOIL).

2

S-2

14

2-4

13

9

FILL

S-2B: Medium dense, brown, fine to coarse SAND, some fine Gravel, trace Silt. Dry (FILL).

3

S-2

14

2-4

13

9

FILL

S-2C: Medium dense, tan-white, fine to coarse SAND, trace fine Gravel. Dry.

4

S-3

12

4-6

5

5

FILL

S-3C: Medium dense, tan-white, fine to coarse SAND, trace fine Gravel. Dry.

5

S-4

13

6-8

5

5

113.5 / 6.5

S-4: Loose, light brown, fine to coarse SAND, some fine Gravel, trace Silt. Moist. Laboratory Analysis: 78.3% Sand, 18.8% Gravel, and 2.9% Fines. Encountered inferred boulder drill to drill action.

6

S-4

13

6-8

5

5

BOULDERS / COBBLES

S-4: Loose, light brown, fine to coarse SAND, some fine Gravel, trace Silt. Moist. Laboratory Analysis: 78.3% Sand, 18.8% Gravel, and 2.9% Fines. Encountered inferred boulder drill to drill action.

7

S-5

3

9-11

7

5

S-5: Loose, brown, fine to coarse SAND, some fine Gravel, trace Silt. Wet.

8

S-5

3

9-11

7

5

S-5: Loose, brown, fine to coarse SAND, some fine Gravel, trace Silt. Wet.

9

S-5

3

9-11

7

5

S-5: Loose, brown, fine to coarse SAND, some fine Gravel, trace Silt. Wet.

10

S-5

3

9-11

7

5

S-5: Loose, brown, fine to coarse SAND, some fine Gravel, trace Silt. Wet.

11

S-5

3

9-11

7

5

S-5: Loose, brown, fine to coarse SAND, some fine Gravel, trace Silt. Wet.

12

S-5

3

9-11

7

5

S-5: Loose, brown, fine to coarse SAND, some fine Gravel, trace Silt. Wet.

13

S-5

3

9-11

7

5

S-5: Loose, brown, fine to coarse SAND, some fine Gravel, trace Silt. Wet.

14

S-5

3

9-11

7

5

S-5: Loose, brown, fine to coarse SAND, some fine Gravel, trace Silt. Wet.

15

S-6

7

14-16

8

19

SAND

S-6: Medium dense, fine GRAVEL, little fine to medium Sand. Wet.

16

S-6

7

14-16

8

19

SAND

S-6: Medium dense, fine GRAVEL, little fine to medium Sand. Wet.

17

S-6

7

14-16

8

19

SAND

S-6: Medium dense, fine GRAVEL, little fine to medium Sand. Wet.

18

S-6

7

14-16

8

19

SAND

S-6: Medium dense, fine GRAVEL, little fine to medium Sand. Wet.

19

S-6

7

14-16

8

19

SAND

S-6: Medium dense, fine GRAVEL, little fine to medium Sand. Wet.

20

S-6

7

14-16

8

19

SAND

S-6: Medium dense, fine GRAVEL, little fine to medium Sand. Wet.

21

S-7

4

19-21

21

18

S-7: Dense, tan, fine to coarse SAND, little fine Sand, trace Silt. Wet.

22

S-7

4

19-21

21

18

S-7: Dense, tan, fine to coarse SAND, little fine Sand, trace Silt. Wet.

23

S-7

4

19-21

21

18

S-7: Dense, tan, fine to coarse SAND, little fine Sand, trace Silt. Wet.

24

S-7

4

19-21

21

18

S-7: Dense, tan, fine to coarse SAND, little fine Sand, trace Silt. Wet.

25

S-8

8

24-26

7

8

S-8: Medium dense, tan, fine to medium SAND, trace Silt. Wet.

26

S-8

8

24-26

7

8

S-8: Medium dense, tan, fine to medium SAND, trace Silt. Wet.

Soil

Percentage

Non-Soil

trace little some or more

5 - 10

10 - 20

20 - 50

several numerous

very few several numerous

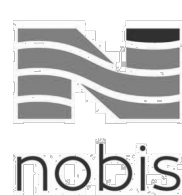
NOTES:

1) Water introduced to borehole during drive and wash process.

BORING LOG - NOBIS GINT DATA TEMPLATE (COTT 7.001.120T - 8/22/23 18:00 - J:\00480.000-BSC GROUP - BARNSTABLE PARK AND RIDE FIELD STATION\BORING LOGS\BARNSTABLE PARK AND RIDE.GPJ)

Soil descriptions, and findings, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be gradual.

Page No 1 of 2



Contractor: New England Boring Contractors

Driller: Z. Ohman

Nobis Rep: C. Piekarski

Project: Barnstable Park and Ride Expansion

Location: Barnstable, Massachusetts

Nobis Project No.: 100480.000

Rig Type / Model: ATV / M-2

Hammer Type: Automatic Hammer

Hammer Holst: Automatic

Boring No.: NB-1

Boring Location: N: 2713867, E: 973424

Checked by: P. Giraldo

Date Start: May 22, 2023

Date Finish: May 23, 2023

Ground Surface Elev.: (+/-) 120

Datum: NAVD 88

Type	Drilling Method		Sampler		Groundwater Observations					
	Casing	Split-Spoon	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time		
Size ID (in.)	5	1-3/8	05/22/23	14:30	15	40	40	10 minutes		
Advancement	Drive and Wash	140-lb Hammer								

Depth (ft.)	SAMPLE INFORMATION				Gravel Grits	LITHOLOGY	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES	
	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.					
27					SAND	S-9: Medium dense, tan, fine to coarse SAND, some fine Gravel. Wet.			
28									
29									
30	S-9	5	29-31	10					
31				11					
32				11					
33				13					
34									
35	S-10	8	34-36	10					
36				7					
37				7					
38				8					
39									
40	S-11	0	39-41	12					
41				70					
42									
43	S-12	8	44-46	16					
44				13					
45				10					
46				14					
47									
48									
49									
50	S-13	6	49-51	11					
51				25					
52				26					
	Percentage	Non-Soil	NOTES:					2	
	Soil	5 - 10	very few	2) Target depth reached. Boring backfilled with spoils and sand.					
	trace	10 - 20	little						
	some	20 - 35	several						
	and	35 - 50	numerous						

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be gradual.

Page No.

2

of 2

nobis						BORING LOG Project: Barnstable Park and Ride Expansion Location: Barnstable, Massachusetts Nobis Project No.: 100480_000						
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Contractor: New England Boring Contractors Driller: Z. Ohman Nobis Rep.: C. Piekarski						Rig Type / Model: ATV / M-2 Hammer Type: Automatic Hammer Hammer Hoist: Automatic							Boring No.: NB-2 Boring Location: N: 2713907, E: 973350 Checked by: P. Giraldo Date Start: May 19, 2023 Date Finish: May 19, 2023 Ground Surface Elev.: (+/-) 128 Datum: NAVD 88			
		Drilling Method		Sampler		Groundwater Observations										
Type	Casing	Split-Spoon		Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time							
Size ID (in.)	5	1-3/8		05/19/23	09:00	Not Encountered		5	8	16 hours						
Advancement	Drive and Wash	140-lb Hammer														
SAMPLE INFORMATION				LITHOLOGY				SAMPLE DESCRIPTION AND REMARKS (Classification System - Modified Bustamer)						NOTES		
Depth (ft.)	Type & No.	Reel (in.)	Depth (ft.)	Blows/6 in.	Ground Water	Status Elev./Depth (ft.)										
1	S-1	8	0-2	2	WOH	TOPSOIL 127.3 / 0.0	S-1: Very loose, dark brown, fine to medium SAND, little Silt. Dry. (TOPSOIL).									
2				3		S-2: Loose, brown, fine to medium SAND and Silt. Dry. (ORGANIC DEPOSITS).										
3	S-2	2	2-4	4												
4				5												
5				6												
6	S-3	16	4-6	7	SAND AND SILT	S-3: Medium dense, tan, SILT and fine to medium Sand. Dry. (SILT).										
7				8												
8				9												
9	S-4	12	6-8	10	S-4: Medium dense, tan, SILT and fine to medium Sand. Dry. (SILT).											
10				11												
11				12	120.0 / 8.0											
12				13		Boring terminated at 8 feet.						1				
13				14												
14				15												
15				16												
16				17												
17				18												
18				19												
19				20												
20				21												
21				22												
22				23												
23				24												
24				25												
25				26												
26				27												
Soil	Percentage	Non-Soil	NOTES:													
trace	5 - 10	very few	1) Boring terminated due to property dispute and change in proposed design.													
little	10 - 20	few														
some	20 - 35	several														
and	35 - 50	numerous														
Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be gradual.																
Page No. 1 of 1																

BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	4	87
PROJECT FILE NO.		610800	

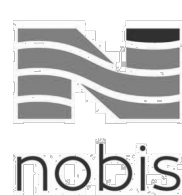
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nobis						BORING LOG Project: Barnstable Park and Ride Expansion Location: Barnstable, Massachusetts Nobis Project No.: 100450-000						
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Contractor: New England Boring Contractors Driller: Z. Ohman Nobis Rep.: C. Plekarski						Rig Type / Model: ATV / M-2 Hammer Type: Automatic Hammer Hammer Holist: Automatic							Boring No.: NB-3 Boring Location: N: 2713909, E: 973244 Checked by: P. Graldo Date Start: May 24, 2023 Date Finish: May 24, 2023 Ground Surface Elev.: (+/-) 138 Datum: NAVD 88			
		Drilling Method		Sampler		Groundwater Observations										
Type	Casing	Split-Spoon	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time								
Size ID (in.)	5	1-3/8	▼ 05/24/23	09:00	18	19	19	20 minutes								
Advancement	Drive and Wash	140-lb Hammer														
SAMPLE INFORMATION			LITHOLOGY		SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)										NOTES	
Depth (ft.)	Type & No.	Rec (in.)	Depth (ft.)	Blogs/ 6 in.	Gravel	Stratium Elev. (Depth ft.)										
27																
28																
29	S-9	2	29-31	2	SAND	Encountered inferred boulder with difficult advancement. Cored through boulder roughly 1 foot in thickness. S-9: Medium dense, tan, fine to coarse SAND and Gravel. Wet.	S-10: No recovery.	S-11: No recovery.	S-12: Dense, tan, fine to coarse SAND, trace Silt. Wet.	S-13: Medium dense, tan, fine to medium SAND, trace Silt. Wet.	Boring terminated at 51 feet.	3				
30																
31																
32																
33																
34	S-10	2	34-36	21												
35				15												
36				10												
37				10												
38																
39	S-11	0	39-41	3	87.0 / 51.0											
40				9												
41				8												
42				8												
43																
44	S-12	8	44-46	15												
45				14												
46				13												
47				13												
48																
49	S-13	8	49-51	14												
50				14												
51				13												
52				12												
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129																
130																
131																
132																
133																
134																

nobis						BORING LOG						Boring No.: NB-4																																									
						Project: Barnstable Park and Ride Expansion						Boring Location: N. 2713709, E. 973286																																									
						Location: Barnstable, Massachusetts						Checked by: P. Graldo																																									
												Date Start: May 18, 2023																																									
						Nobis Project No.: 100480 000						Date Finish: May 19, 2023																																									
Contractor: New England Boring Contractors						Rig Type / Model: ATV / M-2						Ground Surface Elev.: (+/-) 115																																									
Driller: Z. Ohman						Hammer Type: Automatic Hammer						Datum: NAVD 88																																									
Nobis Rep.: C. Plekarski						Hammer Hoist: Automatic																																															
Drilling Method						Sampler						Groundwater Observations																																									
Type Casing						Split-Spoon						Date						Time						Depth Below Ground (ft.)						Depth of Casing (ft.)						Depth to Bottom of Hole (ft.)						Stabilization Time											
Size ID (in.)						4						1-3/8						▼ 05/18/23						14:30						9.0						9						9						5 minutes					
Advancement						Drive and Wash						140-lb Hammer																																									
SAMPLE INFORMATION												LITHOLOGY												SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)												NOTES																	
Down (ft.)		Type & No.		Rec (in.)		Depth (ft.)		Blogs/ 6 in.		Groundwater		Stratun Elev./ Depth (ft.)		TOPSOIL T14.9 / 10												S-1A: Medium dense, brown, fine to medium SAND, and Organic Silt. Dry.																											
1		S-1		22		0-2		8		11		10		FILL												S-2: Medium dense, tan, fine to medium SAND, little Silt. Dry.																											
2																																																					
3		S-2		14		2-4		8		6		6		109.0 / 6.0												S-3: Loose, tan, fine to medium SAND, little Silt. Dry.																											
4																																																					
5		S-3		13		4-6		4		3		3		SAND												S-4: Loose, tan, fine to medium SAND and fine Gravel, trace Silt. Dry. Laboratory Analysis; 62.2% Sand, 34.9% Gravel, and 2.9% Fines.																											
6																																																					
7		S-4		13		6-8		3		4		5		▼												S-5: Very loose, tan, medium to coarse SAND, little Silt. Wet.																											
8																																																					
9		S-5		0		9-11		4		2		2														S-6: Loose, tan, fine to coarse SAND, some fine Gravel, trace Silt. Wet.																											
10																																																					
11																										S-7: Medium dense, tan, fine to coarse SAND, some fine Gravel, trace Silt. Wet.																											
12																																																					
13																										S-8: Medium dense, tan, fine to medium SAND, some Silt. Wet.																											
14																																																					
15		S-6		5		14-16		3		3		3																																									
16																																																					
17																																																					
18																																																					
19																																																					
20		S-7		5		19-21		6		7		6																																									
21																																																					
22																																																					
23																																																					
24																																																					
25		S-8		4		24-26		13		9		8																																									
26																																																					
		Soil		Percentage		Non-Soil								NOTES:																																							
		trace little some and		5 - 10 10 - 20 20 - 35		very few few several numerous																																															
Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be gradual.																		Page No. 1 of 2																																			

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Contractor:

New England Boring Contractors

Driller:

Z. Ohman

Nobis Rep.:

C. Plekarski

Project:

Barnstable Park and Ride Expansion

Location:

Barnstable, Massachusetts

Nobis Project No.:

100480.000

Rig Type / Model:

ATV / M-2

Hammer Type:

Automatic Hammer

Hammer Hoist:

Automatic

Boring No.:

NB-5

Boring Location:

N: 2713460, E: 972971

Checked by:

P. Giraldo

Date Start:

May 18, 2023

Date Finish:

May 18, 2023

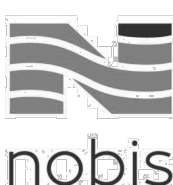
Ground Surface Elev.:

(+/-) 114

Datum:

NAVD 88

Type		Drilling Method		Sampler		Groundwater Observations					
Size ID (in.)		Casing		Split-Spoon		Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
		4		1-3/8		05/18/23	09:45	Not Encountered	8	8	5 minutes
Advancement		Drive and Wash		140-lb Hammer							
SAMPLE INFORMATION						SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Bustamer)					
Depth (ft.)	Type & No.	Rec (in.)	Depth (ft.)	Blogs/6 in.	Ground	LITHOLOGY					
						Stratum Elev. / Depth (ft.)					
1	S-1	19	0-2	4	Gravel TOPSOIL 113.0 / 1.0 FILL 106.0 / 8.0	S-1: Medium dense, LIGHT BROWN, fine to medium SAND and Silt, little fine Gravel. Wet.					
2				6		S-2: Dense, light brown, fine to medium SAND, some Silt, little fine Gravel. Wet.					
3	S-2	8	2-4	10		S-3: Dense, light brown, fine to medium SAND, some Silt, little fine Gravel. Wet.					
4				12							
5	S-3	9	4-6	19		S-4: Dense, light brown, fine to medium SAND, some Silt. Wet.					
6				20							
7				23							
8	S-4	14	6-8	18		Encountered inferred boulder.					
9				14		Boring terminated at 8 feet.					
10				15							
11											
12											
13											
14											
15											
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Contractor: New England Boring Contractors

Driller: Z. Ohman

Nobis Rep: C. Piekarski

Project: Barnstable Park and Ride Expansion

Location: Barnstable, Massachusetts

Nobis Project No.: 100480 000

Rig Type / Model: ATV / M-2

Hammer Type: Automatic Hammer

Hammer Hoist: Automatic

Boring No.: NB-5 (A)

Boring Location: N: 2713460, E: 972971

Checked by: P. Giraldo

Date Start: May 18, 2023

Date Finish: May 18, 2023

Ground Surface Elev.: (+/-) 114

Datum: NAVD 88

Drilling Method		Sampler		Groundwater Observations						Notes
Type	Casing	Split-Spoon	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time		
Size ID (in.)	4	1-3/8	▼ 05/18/23	11:30	20	30	31	5 minutes		
Advancement	Drive and Wash	140-lb Hammer								
SAMPLE INFORMATION			LITHOLOGY		SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Bustamer)					Notes
Depth (ft.)	Type & No.	Rec (in.)	Depth (ft.)	Blows/6 in.	Groundwater Status	Stratum Elev. / Depth (ft.)				
1										
2										
3										
4										
5										
6										
7										
8										
9										
10	S-5	7	9-11	4						
11				6						
12				8						
13				6						
14										
15	S-6	0	14-16	6						
16				7						
17				5						
18				9						
19										
20	S-7	5	19-21	3						
21				4						
22				3						
23				5						
24										
25	S-8	5	24-26	5						
26				4						
27				5						
Soil	Percentage	Non-Soil	NOTES:							
trace little and	5 - 10 10 - 20 20 - 35 several	very few few several numerous	1) Water introduced to borehole during drive and wash process to 9' to begin sampling again.							

Soil

trace little and

Percentage

5 - 10
10 - 20
20 - 35
several

Non-Soil

very few
few
several
numerous

NOTES:

1) Water introduced to borehole during drive and wash process to 9' to begin sampling again.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratum; transitions may be gradual.

Page No.

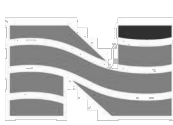
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BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	5	87
PROJECT FILE NO.		610800	

[illegible]

						BORING LOG							Boring No.: NB-6	
						Project: Barnstable Park and Ride Expansion							Boring Location: N: 2713314, E: 972784	
Contractor: New England Boring Contractors						Rig Type / Model: ATV / M-2							Checked by: P. Graldo	
Driller: Z. Ohman						Location: Barnstable, Massachusetts							Date Start: May 17, 2023	
Nobis Rep.: C. Plekarski						Nobis Project No.: 100450 000							Date Finish: May 17, 2023	
						Ground Surface Elev.: (+/-) 108							Datum: NAVD 88	
		Drilling Method		Sampler		Groundwater Observations								
Type	Casing	Split-Spoon		Date		Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time				
Size ID (in.)	4	1-3/8		▼ 05/17/23		11:00	18	20	31	5 minutes				
Advancement	Drive and Wash		140-lb Hammer											
SAMPLE INFORMATION						LITHOLOGY						NOTES		
Depth (ft.)	Type & No.	Rec. (in.)	Depth (ft.)	Blogs/ 6 in.	Gravel	Silt/clay	Stratum Elev./ Depth (ft.)							
1	S-1	13	0-2	6		S-1: Medium dense, brown, fine to medium SAND. Moist.								
2				12		S-2: Medium dense, light brown, fine to coarse SAND, some fine Gravel. Moist.								
3	S-2	11	2-4	9		S-3: Medium dense, tan, fine to coarse SAND, little fine Gravel. Moist.								
4				13		S-4: Medium dense, tan, fine to medium SAND. Moist. Boulders encountered.								
5	S-3	16	4-6	11		S-5: Loose, tan, fine to coarse SAND, trace fine Gravel, trace Silt. Pockets of organic material. Moist. Laboratory Analysis; 84.8% Sand, 8.2% Gravel, and 7.0% Fines.								
6				12		S-6: Loose, brown, fine to coarse SAND, little fine Gravel, little Silt. Wet.								
7	S-4	15	6-8	9		S-7: Medium dense, gray, fine to coarse SAND, little Silt. Wet.								
8				7		S-8 (A): Loose, tan, fine to medium SAND and Silt. Wet.								
9				5		S-8 (B): Loose, black, fine SAND and Silt. Several organic fibers and fragments. Wet.								
10				10		S-9: Loose, tan, fine to coarse SAND, trace Silt, little fine Gravel. Wet.								
11	S-5	8	9-11	5										
12				5										
13				5										
14	S-6	4	14-16	15										
15				4										
16				W/OH										
17														
18														
19	S-7	5	19-21	3										
20				6										
21				10										
22	S-8	8	21-23	20										
23				2										
24				3										
25				6										
26	S-9	8	24-26	3										
27				2										
28				7										
29				12										
Soil Percentages														
trace	5 - 10	Non-Soil very few												
little	10 - 20	few												
some	20 - 35	several												
and	35 - 50	numerous												
NOTES:														
Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be gradual.														
Page No.											1	of 2		

 nobis						BORING LOG						Boring No.: NB-6	
						Project: Barnstable Park and Ride Expansion						Boring Location: N. 2713314, E. 972784	
Location: Barnstable, Massachusetts						Checked by: P. Graldo							
Nobis Project No.: 100480 000						Date Start: May 17, 2023							
						Date Finish: May 17, 2023							
Contractor: New England Boring Contractors						Rig Type / Model: ATV / M-2						Ground Surface Elev.: (+/-) 108	
Driller: Z. Ohman						Hammer Type: Automatic Hammer							
Nobis Rep.: C. Plekarski						Hammer Hoist: Automatic						Datum: NAVD 88	
		Drilling Method		Sampler		Groundwater Observations							
Type	Casing	Split-Spoon		Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time				
Size ID (in.)	4	1-3/8		▼ 05/17/23	11:00	18	20	31	5 minutes				
Advancement	Drive and Wash	140-lb Hammer											
SAMPLE INFORMATION				LITHOLOGY		SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Bustarret)						NOTES	
Down (ft.)	Type & No.	Ree (in.)	Depth (ft.)	Blows/ 6 in.	Ground Grabbed	Stratum Elev./ Depth (ft.)							
27						SILTY SAND 77.0 / 31.0	S-10: Dense, tan, fine to coarse SAND, little Silt. Wet. Boring terminated at 31 feet.					1	
28													
29	S-10	9	29-31	7									
30				16									
31				16									
32				18									
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
53	Percentages	Non-Soil	NOTES: 1) Target depth reached. Boring backfilled with spoils and sand.										
trace little some and	5 - 10 10 - 20 20 - 35 35 - 50	very few few several numerous											
Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be gradual.													
Page No. 2 of 2													

nobis NOBIS BORING & FOUNDATION SERVICES GROUP INC. BARNSTABLE PARK AND RIDER EXPANSION DRAFT - NOT FOR CONSTRUCTION		BORING LOG				Boring No.: NB-7 Boring Location: N: 2713201, E: 972902			
		Project: Barnstable Park and Ride Expansion				Checked by: P. Giraldo			
		Location: Barnstable, Massachusetts				Date Start: May 23, 2023			
		Nobis Project No.: 100480 000				Date Finish: May 23, 2023			
Contractor: New England Boring Contractors		Rig Type / Model: ATV / M-2				Ground Surface Elev.: (+/-) 108			
Driller: Z. Ohman		Hammer Type: Automatic Hammer				Datum: NAVD 88			
Nobis Rep.: C. Plekarski		Hammer Host: Automatic							

Drilling Method		Sampler	Groundwater Observations					
Type	Casing	Split-Spoon	Date	Time	Depth Below Ground (ft.)	Depth of Casings (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
Case ID (in.)	4	1-3/8"	M 05/23/23	11:45	21	24	24	5 minutes
Advancement	Drive and Wash	140-lb Hammer						

SAMPLE INFORMATION						LITHOLOGY	NOTES
Depth (ft.)	Type & No.	Rac (in.)	Depth (ft.)	Blows/6 in.	Ground Reaction	Status Elev./ Depth (ft.)	
1	S-1	13	0-2	18		ASPHALT 107.5' TO 112.0'	S-1A (7"): Very dense, brown, fine to medium SAND, little silt. Moist. S-1B (6") : Very dense, tan, fine to coarse SAND, trace Silt. Dry. S-2 (A) (9") : Medium dense, black, fine to medium SAND, Asphalt fragments and particles. Wet. S-2 (B) (5") : Medium dense, tan, fine to coarse SAND, trace Silt. Wet. S-3: Medium dense, tan, fine to coarse SAND, trace Silt. Wet.
2				28			
3				22			
4	S-2	14	2-4	17			
5				19			
6				20			
7				19			
8	S-3	12	4-6	7			
9				13			
10				12			
11	S-4	3	6-8	10		102.0' to 6.0'	S-4: Medium dense, tan, SILT and fine to medium Sand .Wet. S-5: Medium dense, tan, fine to medium SAND and Silt. Wet. S-6: Medium dense, tan, fine to medium SAND, some Silt. Wet. S-7: Medium dense, tan, fine to coarse SAND, trace Silt. Wet. S-8: Medium dense, tan, fine to coarse SAND, trace Silt. Wet. no recover, 3" SS used to collect sample.
12				8			
13				8			
14				12			
15							
16	S-5	3	9-11	6			
17				12			
18				13			
19				14			
20							
21	S-6	2	14-16	7			
22				15			
23				10			
24				13			
25							
26	S-7	8	19-21	5			
27				6			
28				5			
29				9			
30							
31	S-8	10	24-26	6			
32				8			
33				9			
34							

Soil	Percentage	Non-Soil	Notes:
trace	5 - 10	very few	1) Asphalt approximately 6" thick, roughly 16" of subsurface. 2) 3" SS used to collect sample.
little	10 - 20	few	
several	20 - 35	numerous	
many	> 35	extensive	

Soil Descriptions, and findings, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be gradual.



Contractor: New England Boring Contractors

Driller: Z. Ohman

Nobis Rep.: C. Plekarski

BORING LOG

Project: Barnstable Park and Ride Expansion

Location: Barnstable, Massachusetts

Nobis Project No.: 100480.000

Rig Type / Model: ATV / M-2

Hammer Type: Automatic Hammer

Hammer Hoist: Automatic

Boring No.: NB-7

Boring Location: N: 2713201, E: 972902

Checked by: P. Giraldo

Date Start: May 23, 2023

Date Finish: May 23, 2023

Ground Surface Elev.: (+/-) 108

Datum: NAVD 88

Type	Drilling Method		Sampler		Groundwater Observations					
	Casing	Split-Spoon	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time		
Size ID (in.)	4	1-3/8	5/23/23	11:45	21	24	24	5 minutes		
Advancement	Drive and Wash	140-lb Hammer								

Depth (ft.)	SAMPLE INFORMATION				Ground Grains	LITHOLOGY	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Bustamer)	NOTES
	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.					
27									
28									
29	S-9	11	29-31	21					
				15					
				13					
31				13					
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
45									
46									
47									
48									
49									
50									
51									
52									

Soil	Percentage	Non-Soil	NOTES:
trace little some and	5 - 10 10 - 20 20 - 35 35 - 50	very few several numerous	3) Target depth reached. Boring backfilled with spoils, sand, and cold patch asphalt to approximate ground surface.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratum; transitions may be gradual.

Page No. 2 of 2

BORING LOG

Boring No.: **NB-8**
Boring Location: _____
Checked by: **P. Giraldo**
Date Start: **May 25, 2023**
Date Finish: **May 25, 2023**
Ground Surface Elev.: **(+/-) 109**
Datum: **NAVD 88**

Project: **Barnstable Park and Ride Expansion**
Location: **Barnstable, Massachusetts**
Nobis Project No.: **100480.000**
Rig Type / Model: **ATV / M-2**
Hammer Type: **Automatic Hammer**
Hammer Host: **Automatic**

Contractor: **New England Boring Contractors**
Driller: **Z. Ohman**
Nobis Rep.: **R. Clopper**

Drilling Method	Sampler
Type Casing	Split-Spoon
Size ID (in.) 4	1-3/8
Advancement Drive and Wash	140-lb Hammer

Groundwater Observations					
Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
05/25/23	14:30	28.5	29	31	5 minutes

SAMPLE INFORMATION				
Depth (ft.)	Type & No.	Rec (in)	Depth (ft.)	Blows/6 in.
1	S-1	8	0.5-2.5	10
2				9
3				8
4	S-2	7	2.5-4.5	13
5				8
6	S-3	6	4.5-6.5	5
7				4
8	S-4	12	6.5-8.5	7
9				7
10	S-5	11	8.5-10.5	9
11				8
12				8
13				
14				
15	S-6	4	14-16	12
16				10
17				8
18				11
19				
20	S-7	0	19-21	16
21				15
22				10
23				11
24				
25	S-8	12	24-26	16
26				13
27				14

LITHOLOGY	
Ground	Stratum
Gravel	Grain
ASPHALT 100.3/10.7	
SAND	

SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Sumerbit)	
S-1: Medium dense, light brown, fine to coarse SAND, little fine Gravel. Dry.	
S-2: Medium dense, light brown, fine to coarse SAND, trace Silt. Dry.	
S-3: Loose, light brown, fine to coarse SAND, trace fine Gravel, trace Silt. Moist.	
S-4: Medium dense, light brown, fine to medium SAND, some fine Gravel, trace Silt. Moist. Laboratory Analysis: 61.8% Sand, 33.5% Gravel, and 4.7% Fines.	
S-5: Medium dense, light brown, fine to coarse SAND, trace Silt. Moist. Staining observed throughout sample.	
S-6: Medium dense, light brown, fine to coarse SAND, some fine Gravel, trace Silt. Wet.	
S-7: Medium dense, dark brown, fine to coarse SAND, little fine Gravel, trace Silt. Wet. no recovery, 3" SS used to obtain sample.	
S-8: Medium dense, light brown, fine to medium SAND, trace Silt. Wet.	

Soil	Percentage	Non-Soil
trace little and	5 - 10 10 - 20 20 - 35 35 - 50	very few few several numerous

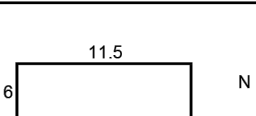
NOTES:

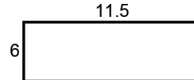
Soil descriptions, and findings, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between strata; transitions may be gradual.

Page No 1 of 2

BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	6	87
PROJECT FILE NO.		610800	

BORING LOG										Boring No.: NB-8			
										Boring Location: _____			
										Project: <u>Barnstable Park and Ride Expansion</u>		Checked by: <u>P. Gralido</u>	
										Location: <u>Barnstable, Massachusetts</u>		Date Start: <u>May 25, 2023</u>	
										Nobis Project No.: <u>100480 000</u>		Date Finish: <u>May 25, 2023</u>	
Contractor: <u>New England Boring Contractors</u>				Rig Type / Model: <u>ATV / M-2</u>				Ground Surface Elev.: <u>(+/-) 109</u>					
Driller: <u>Z. Ohman</u>				Hammer Type: <u>Automatic Hammer</u>				Datum: <u>NAVD 88</u>					
Nobis Rep.: <u>R. Clogger</u>				Hammer Hoist: <u>Automatic</u>									
		Drilling Method		Sampler		Groundwater Observations							
Type	Size ID (in.)	Casing	Split-Spoon	Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time				
	4		1-3/8	▼ 05/25/23	14:30	28.5	29	31	5 minutes				
Advancement		Drive and Wash		140-lb Hammer									
SAMPLE INFORMATION						LITHOLOGY							
Down (ft.)	Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	Ground Reaction	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Bruner)					NOTES	
27						SAND	S-9: Medium dense, light brown, fine to medium SAND, trace Silt. Wet. Boring terminated at 31 feet.					1 2	
28													
29													
30	S-9	9	29-31	8 9 9 12									
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													
45													
46													
47													
48													
49													
50													
51													
52													
Soil	Percentage	Non-Soil	NOTES:										
Trace	5 - 10	very few	1) Boring moved 30.5' due to access issues with NB-8 original location.										
little	10 - 20	few	2) Boring backfilled with spoils, sand, and cold patch asphalt to approximate ground surface.										
some	20 - 35	several											
and	35 - 50	numerous											

TEST PIT LOG						
		PROJECT MassDOT Barnstable Park & Ride Expansion Route 6 and Route 132 Barnstable, Massachusetts		TEST PIT NO. <u>NTP-1</u> SHEET <u>1</u> of <u>2</u> FILE NO. <u>100480.000</u> CHKD BY <u>P. Giraldo</u>		
Engineer <u>R. Clopper</u> Contractor <u>New England Boring</u> Operator <u>Bob Thompson</u> Weather <u>50s, Cloudy</u>		Make <u>Cabota</u> Model <u>KX080-4</u> Capacity <u>2x2x2</u> Reach <u>12 Ft.</u>		Ground El. <u>+90 FT</u> Date <u>NAVD88</u> Date Start <u>5/25/2023</u> Date Finish <u>5/25/2023</u>		
Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	USDA Texture Classification	
1	TOPSOIL	TOPSOIL (16")	E			
2	SAND	G-1 Light brown Fine GRAVEL and Fine to Medium SAND, trace Silt, moist. Orange staining observed between 5' - 6' BGS.	E	2A	SAND	
3						
4						
5						
6	SAND	G-2 Light brown: Fine to Medium SAND, trace Fine gravel, trace Silt, moist. Orange staining observed throughout. Excavation terminated at 8' BGS.	E			
7						
8						
9						
10						
11						
12						
13						
14						
15						
Notes: 1.) Test pit backfilled with excavated soils and compacted with excavator bucket. 2.) Groundwater not encountered. 3.) Test Pit would not stay open beyond 8' BGS. 4.) Laboratory Sieve Analysis (Gravel: 53%, Sand: 44.1%, Fines 2.9%)			WATER SYMBOLS  Groundwater  Estimated Seasonal High Groundwater			
		BOULDER 12" - 24" 24" - 36" >36"	CLASS A B C	PROPORTIONS USED 0-10% Trace 10-20% Little 20-35% Some 35-50% And	EXCAVATION EFFORT E = Easy M = Moderate D = Difficult	

TEST PIT LOG					
		PROJECT MassDOT Barnstable Park & Ride Expansion Route 6 and Route 132 Barnstable, Massachusetts		TEST PIT NO. <u>NTP-1</u> SHEET <u>2</u> of <u>2</u> FILE NO. <u>100480.000</u> CHKD BY <u>P. Giraldo</u>	
		Engineer <u>R. Clogger</u> Contractor <u>New England Boring</u> Operator <u>Bob Thompson</u> Weather <u>50s Cloudy</u>		Make <u>Cabtor</u> Model <u>KX080-4</u> Capacity <u>2x2x2</u> Reach <u>12 Ft.</u>	Ground El. <u>+90 FT</u> Datum <u>NAVD88</u> Date Start <u>5/25/2023</u> Date Finish <u>5/25/2023</u>
				WATER SYMBOLS  Groundwater  Estimated Seasonal High Groundwater	
		Notes: 1.) Photo of TP-1 completed at target depth.		 	

TEST PIT LOG

PROJECT

MassDOT Barnstable Park & Ride Expansion

Route 6 and Route 132

Barnstable, Massachusetts

TEST PIT NO.

NTP-2

SHEET

1 of 2

FILE NO.

100480.000

CHKD BY

P. Giraldo

Engineer

R. Clopper

Contractor

New England Boring

Operator

Bob Thompson

Weather

50s Cloudy

Make

Cabota

Model

KX080-4

Capacity

2x2x2

Reach

12 Ft.

Ground El.

±95 FT

Datum

NAVD88

Date Start

5/25/2023

Date Finish

5/25/2023

Depth Below Grade (ft)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Strata Change & Water Level

SAND

Subsurface Description

TOPSOIL (12")

G-1 Light Brown, Fine to Coarse SAND, some Fine to Coarse gravel, trace silt, Moist.

G-2 Light Brown, Fine to Medium SAND, some Silt, little Fine Gravel, wet.

Staining observed in soil.

Excavation terminated at 11' bgs.

Excavation Effort

E

E

E

Boulder Qty/Class

3A
2B

2A

USDA Textural Classification

Sandy Loam

Notes:

1.) Test pit backfilled with excavated soils and compacted with excavator bucket.
2.) Groundwater not encountered.
3.) Laboratory Seive Analysis (Gravel: 19.3 %, Sand: 50.5%, Fines: 30.2%)

WATER SYMBOLS

Groundwater

Estimated Seasonal High Groundwater

8.5

2

N

BOULDER

GLASS

PROPORTIONS USED

EXCAVATION EFFORT

12"-24"

A

0-10%

Trace

E = Easy

24"-36"

B

10-20%

Little

M = Moderate

>36"

C

20-35%

Some

D = Difficult

35-50%

And

TEST PIT LOG

PROJECT

MassDOT Barnstable Park & Ride Expansion

Route 6 and Route 132

Barnstable, Massachusetts

TEST PIT NO.

NTP-2

SHEET

2 of 2

FILE NO.

100480.000

CHKD BY

P. Giraldo

Engineer

R. Clopper

Contractor

New England Boring

Operator

Bob Thompson

Weather

50s Cloudy

Make

Cabota

Model

KX080-4

Capacity

2x2x2

Reach

12 Ft.

Ground El.

±FT95

Datum

NAVD88

Date Start

5/25/2023

Date Finish

5/25/2023

Depth Below Grade (ft)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Strata Change & Water Level

SAND

Subsurface Description

TOPSOIL (12")

G-1 Light Brown, Fine to Coarse SAND, some Fine to Coarse gravel, trace silt, Moist.

G-2 Light Brown, Fine to Medium SAND, some Silt, little Fine Gravel, wet.

Staining observed in soil.

Excavation terminated at 11' bgs.

Excavation Effort

E

E

E

Boulder Qty/Class

3A
2B

2A

USDA Textural Classification

Sandy Loam

Notes:

1.) Photo of TP-2 completed at target depth.

WATER SYMBOLS

Groundwater

Estimated Seasonal High Groundwater

8.5

2

N

BOULDER

GLASS

PROPORTIONS USED

EXCAVATION EFFORT

12"-24"

A

0-10%

Trace

E = Easy

24"-36"

B

10-20%

Little

M = Moderate

>36"

C

20-35%

Some

D = Difficult

35-50%

And

PAVEMENT CORE LOG

PROJECT

MassDOT Barnstable Park and Ride Expansion

Barnstable, MA

TEST PIT NO.

PC-1

SHEET

1 of 1

FILE NO.

100480.00

CHKD. BY

B. Waterman

Engineer

C. Piekarski

Contractor

New England Boring Contractors

Operator

Carl

Weather

Cloudy mid 50s

Make

Thin Wall Core Machine

Diameter

6 inches

Depth

6"

Ground El.

± 108

Datum

NAVD-88

Time Start

2:00 PM

Time End

5/24/2023

Depth Below Grade (ft)

0.2

0.4

0.6

0.8

1.0

1.2

1.4

1.6

1.8

Strata Change & Water Level

Asphalt

Subbase

Subsurface Description

Asphalt 6" thick; 1.5" surface pavement, over 2" of intermediate pavement, over 2.5" HMA base pavement.

Brown fine to medium SAND, some fine to coarse Gravel, little Silt.

Excavation Effort

Boulder Qty/Class

USDA Textural Classification

Notes:

1. PC-1 backfilled and compacted with excavated spoils and compacted with cold patch to ground surface.
2. No groundwater encountered.

WATER SYMBOLS

Groundwater

Estimated Seasonal High Groundwater

8.5

2

N

BOULDER

GLASS

PROPORTIONS USED

EXCAVATION EFFORT

12"-24"

A

0-10%

Trace

E = Easy

24"-36"

B

10-20%

Little

M = Moderate

>36"

C

20-35%

Some

D = Difficult

35-50%

And

BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	7	87
PROJECT FILE NO.		610800	

BORING, TEST PIT AND PAVEMENT CORE LOGS

PAVEMENT CORE LOG

PROJECT

MassDOT Barnstable Park and Ride Expansion

Barnstable, MA

TEST PIT NO.

PC- 2

SHEET

1 of 1

FILE NO.

100480.00

CHKD. BY

B. Waterman

Engineer

C. Piekarski

Contractor

New England Boring Contractors

Operator

Carl

Weather

Cloudy Mid 50s

Make

Thin Wall Core Machine

Diameter

6 inches

Depth

6"

Ground El.

± 109

Datum

NAVD-88

Time Start

1:30 PM

Time End

5/24/2023

Depth Below Grade (ft)

0.2

0.4

0.6

0.8

1.0

1.2

1.4

1.6

1.8

Strata Change & Water Level

Asphalt

Subbase

Subsurface Description

Asphalt 6" thick; 1.5" surface pavement, over 4.5" HMA base pavement.

Brown fine to medium SAND, some fine to coarse Gravel, little Silt. (See Note 3).

Excavation Effort

Boulder Qty/Class

USDA Textural Classification

Notes:

1. PC-2 backfilled and compacted with excavated spoils and compacted with cold patch to ground surface.
2. No groundwater encountered.
3. Laboratory grain size performed (Gravel = 28%, Sand = 60.6%, Fines = 11.2%, AASHTO A-1-b)

WATER SYMBOLS

Groundwater

Estimated Seasonal High Groundwater

8.5

2

N

BOULDER

GLASS

PROPORTIONS USED

EXCAVATION EFFORT

12"-24"

A

0-10%

Trace

E = Easy

24"-36"

B

10-20%

Little

M = Moderate

>36"

C

20-35%

Some

D = Difficult

35-50%

And

PAVEMENT CORE LOG

PROJECT

MassDOT Barnstable Park and Ride Expansion

Barnstable, MA

TEST PIT NO.

PC- 3

SHEET

1 of 1

FILE NO.

100480.00

CHKD. BY

B. Waterman

Engineer

C. Piekarski

Contractor

New England Boring Contractors

Operator

Carl

Weather

Cloudy Mid 50s

Make

Thin Wall Core Machine

Diameter

6 inches

Depth

4"

Ground El.

± 108

Datum

NAVD-88

Time Start

1:00 PM

Time End

5/24/2023

Depth Below Grade (ft)

0.2

0.4

0.6

0.8

1.0

1.2

1.4

1.6

1.8

Strata Change & Water Level

Asphalt

Subbase

Subsurface Description

Asphalt 4" thick; 2.5" surface pavement over 1.5" HMA base pavement

Brown fine to medium SAND, some fine to coarse Gravel, trace Silt. (See Note 3).

Excavation Effort

Boulder Qty/Class

USDA Textural Classification

Notes:

1. PC-3 backfilled and compacted with excavated spoils and compacted with cold patch to ground surface.
2. No groundwater encountered.
3. Laboratory grain size performed (Gravel = 24%, Sand = 67.6%, Fines = 8.4%, AASHTO A-1-b)

WATER SYMBOLS

Groundwater

Estimated Seasonal High Groundwater

8.5

2

N

BOULDER

GLASS

PROPORTIONS USED

EXCAVATION EFFORT

12"-24"

A

0-10%

Trace

E = Easy

24"-36"

B

10-20%

Little

M = Moderate

>36"

C

20-35%

Some

D = Difficult

35-50%

And

PAVEMENT CORE LOG

PROJECT

MassDOT Barnstable Park and Ride Expansion

Barnstable, MA

TEST PIT NO.

PC- 4

SHEET

1 of 1

FILE NO.

100480.00

CHKD. BY

B. Waterman

Engineer

C. Piekarski

Contractor

New England Boring Contractors

Operator

Carl

Weather

Cloudy Mid 50s

Make

Thin Wall Core Machine

Diameter

6 inches

Depth

5"

Ground El.

± 109

Datum

NAVD-88

Time Start

11:00 AM

Time End

5/24/2023

Depth Below Grade (ft)

0.2

0.4

0.6

0.8

1.0

1.2

1.4

1.6

1.8

Strata Change & Water Level

Asphalt

Subbase

Subsurface Description

Asphalt 5" thick; 2" of surface pavement over 3" HMA base pavement

Brown fine to medium SAND, some fine to coarse Gravel, little Silt.

Excavation Effort

Boulder Qty/Class

USDA Textural Classification

Notes:

1. PC-4 backfilled and compacted with excavated spoils and compacted with cold patch to ground surface.
2. No groundwater encountered.

WATER SYMBOLS

Groundwater

Estimated Seasonal High Groundwater

8.5

2

N

BOULDER

GLASS

PROPORTIONS USED

EXCAVATION EFFORT

12"-24"

A

0-10%

Trace

E = Easy

24"-36"

B

10-20%

Little

M = Moderate

>36"

C

20-35%

Some

D = Difficult

35-50%

And

610800_HD04(BORING_LOGS)DWG Plotted on 2-Jul-2026 11:07 AM

PAVEMENT NOTES

PROPOSED FULL DEPTH PAVEMENT (PARKING LOT)

SURFACE COURSE: 1.75" SUPERPAVE SURFACE COURSE 12.5 POLYMER (SSC-12.5-P) OVER

INTERMEDIATE COURSE: 2.0" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER

BASE COURSE: 3.5" SUPERPAVE BASE COURSE 37.5 (SBC-37.5) OVER

FOUNDATION: 12" GRAVEL BORROW (TYPE b)

PROPOSED FULL DEPTH PAVEMENT (BUS LANE)

SURFACE COURSE: 1.75" SUPERPAVE SURFACE COURSE 12.5 POLYMER (SSC-12.5-P) OVER

INTERMEDIATE COURSE: 2.0" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER

BASE COURSE: 3.5" SUPERPAVE BASE COURSE 37.5 (SBC-37.5) OVER

FOUNDATION: 4" STONE OVER
8" GRAVEL BORROW (TYPE b)

PROPOSED FULL DEPTH PAVEMENT (PARKING LOT) - WIDENING (LESS THAN 4.0')

SURFACE COURSE: 1.75" SUPERPAVE SURFACE COURSE 12.5 POLYMER (SSC-12.5-P) OVER

INTERMEDIATE COURSE: 4" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER

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

FOUNDATION: 6" GRAVEL BORROW (TYPE b)

PROPOSED MILL & OVERLAY (PARKING LOT)

SURFACE COURSE: 2.5" SUPERPAVE SURFACE COURSE 12.5 POLYMER (SSC-12.5-P)

FINE MILLING: 2.5" PAVEMENT FINE MILLING

PROPOSED MILL & OVERLAY (ACCESS DRIVE)

SURFACE COURSE: 2.5" SUPERPAVE SURFACE COURSE 12.5 POLYMER (SSC-12.5-P)

FINE MILLING: 2.5" PAVEMENT FINE MILLING

PROPOSED SHARED USE PATH

SURFACE COURSE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER

INTERMEDIATE COURSE: 2.5" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER

FOUNDATION: 12" GRAVEL BORROW (TYPE b)

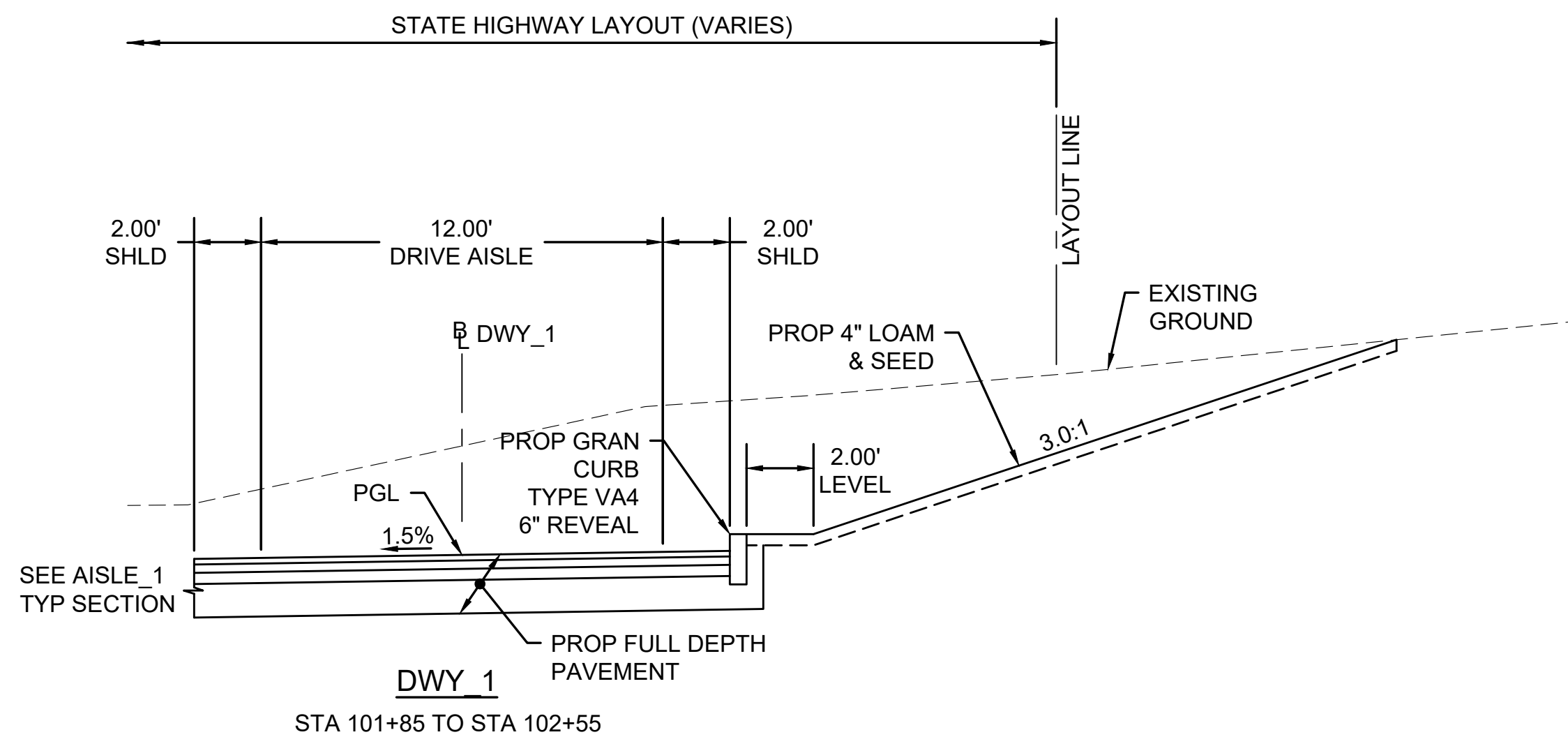
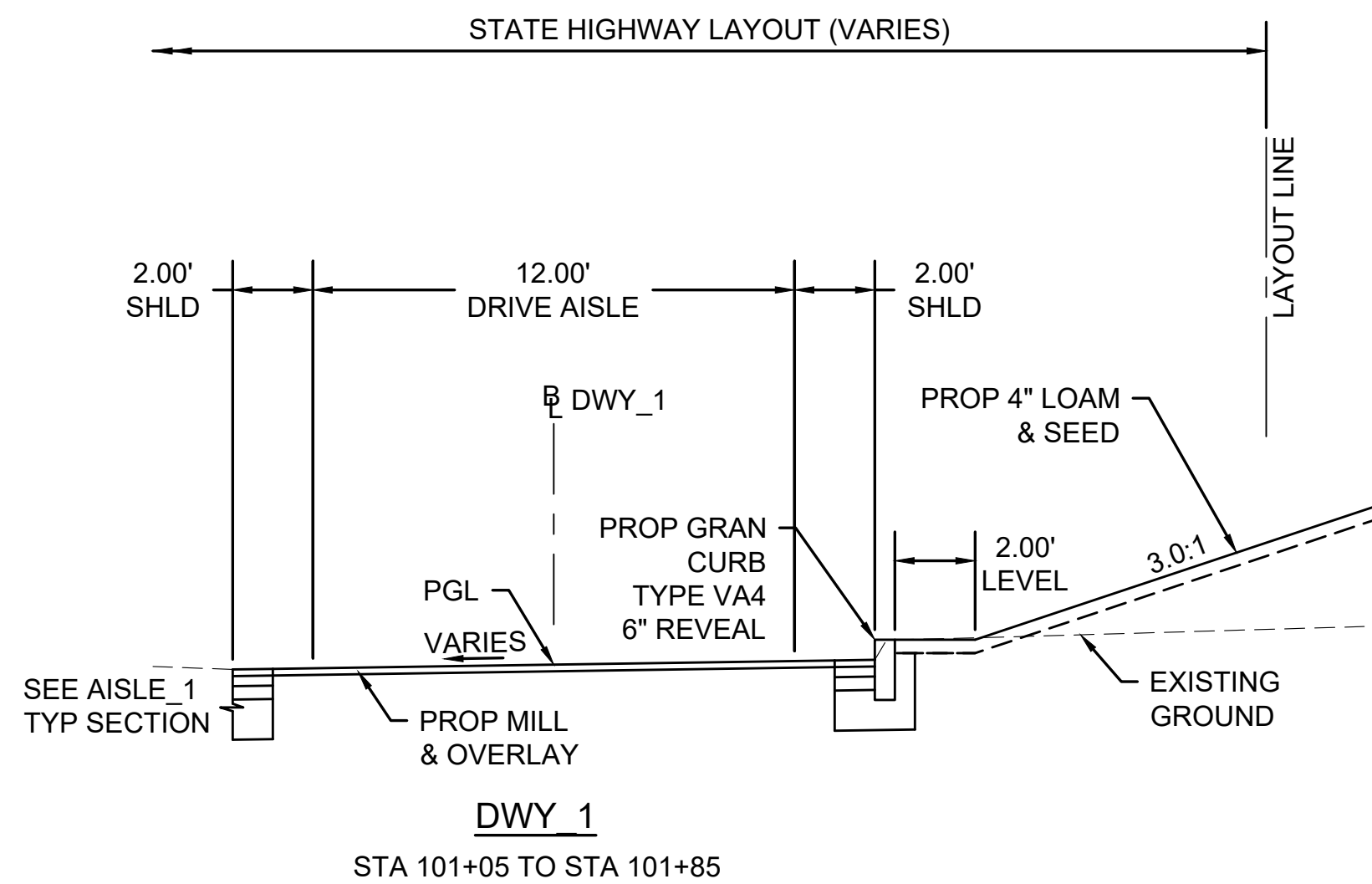
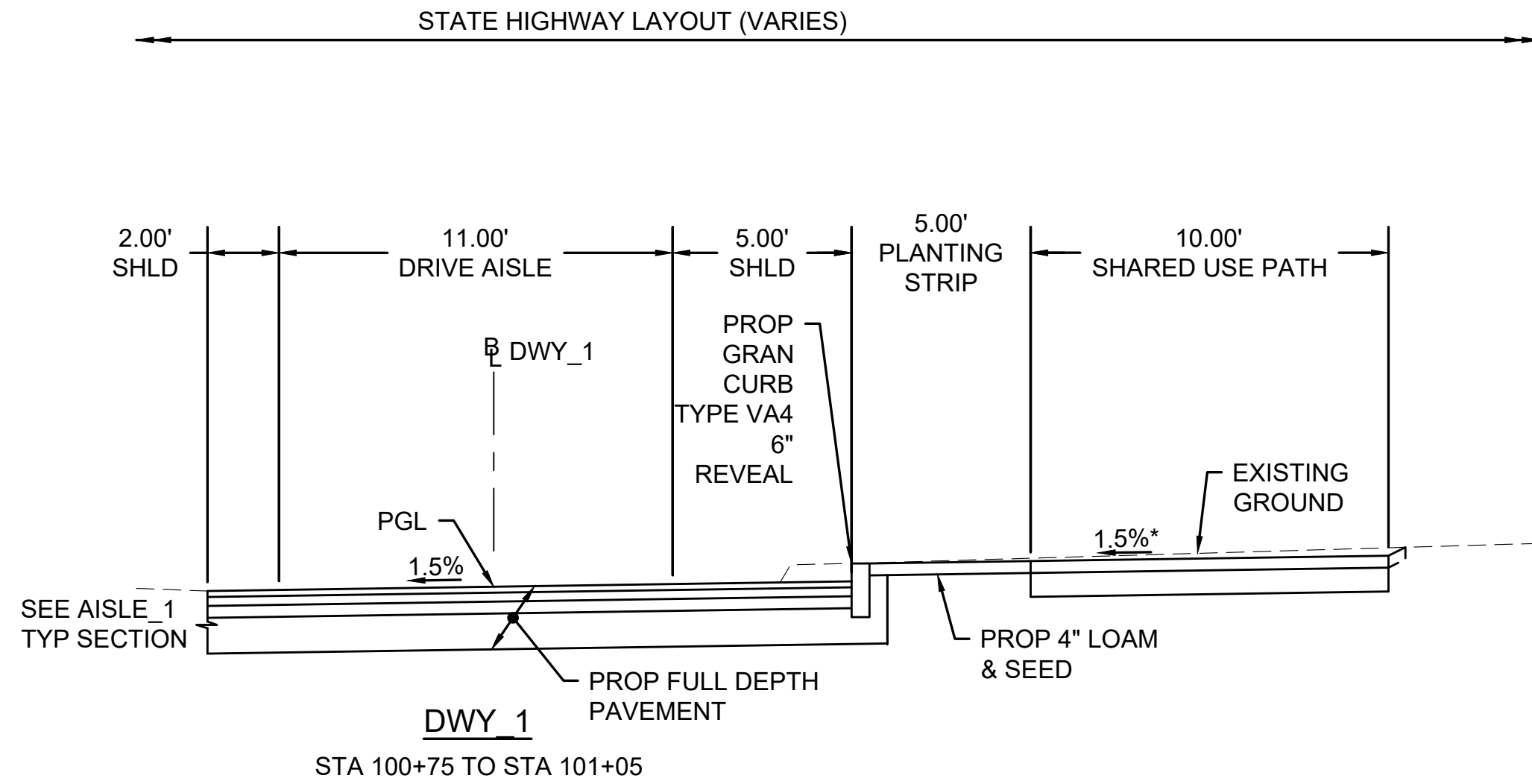
PROPOSED CONCRETE SIDEWALK AND PEDESTRIAN CURB RAMPS

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

SUBBASE: 8" GRAVEL BORROW (TYPE b)

PROPOSED DRAINAGE BASIN GRAVEL ACCESS ROAD

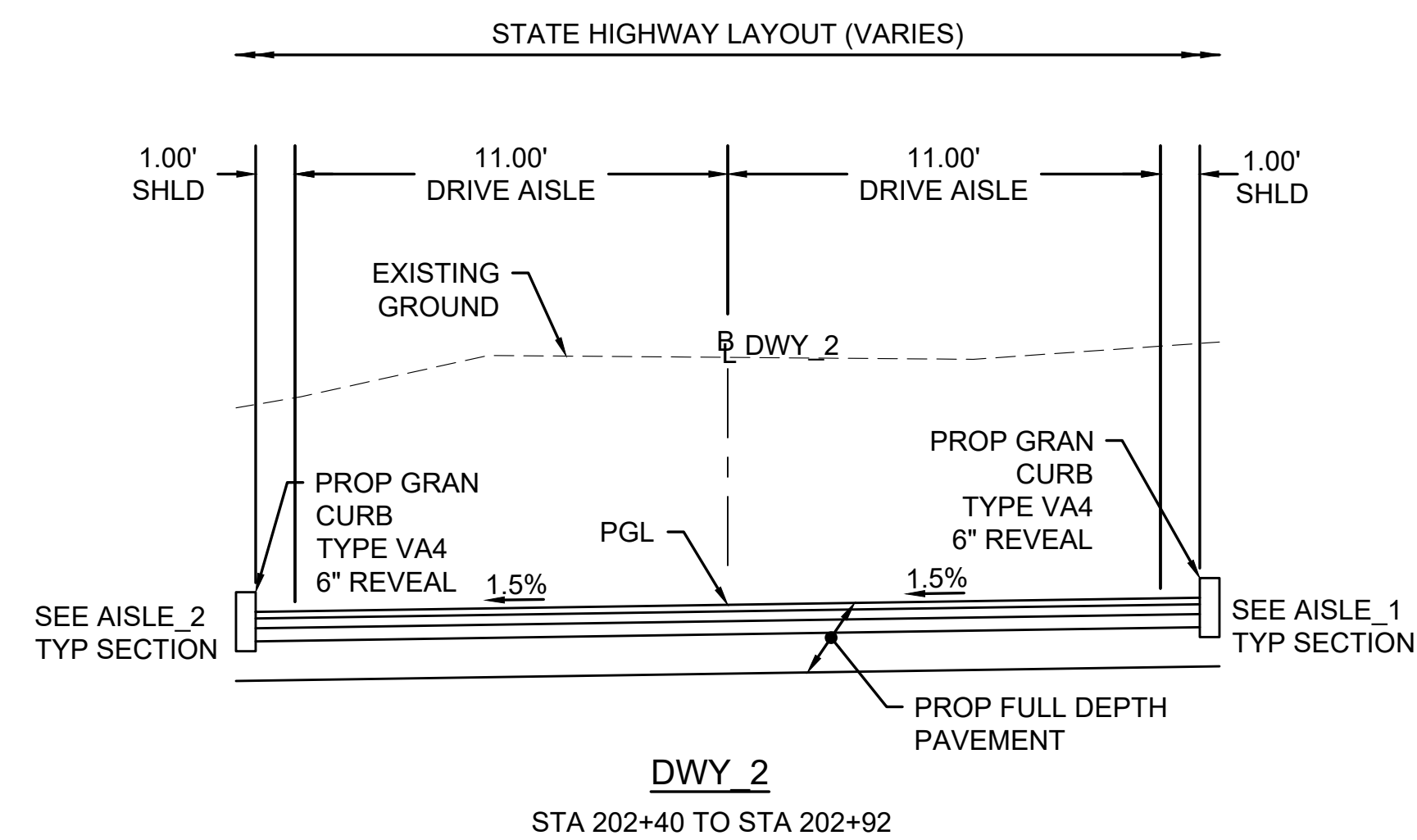
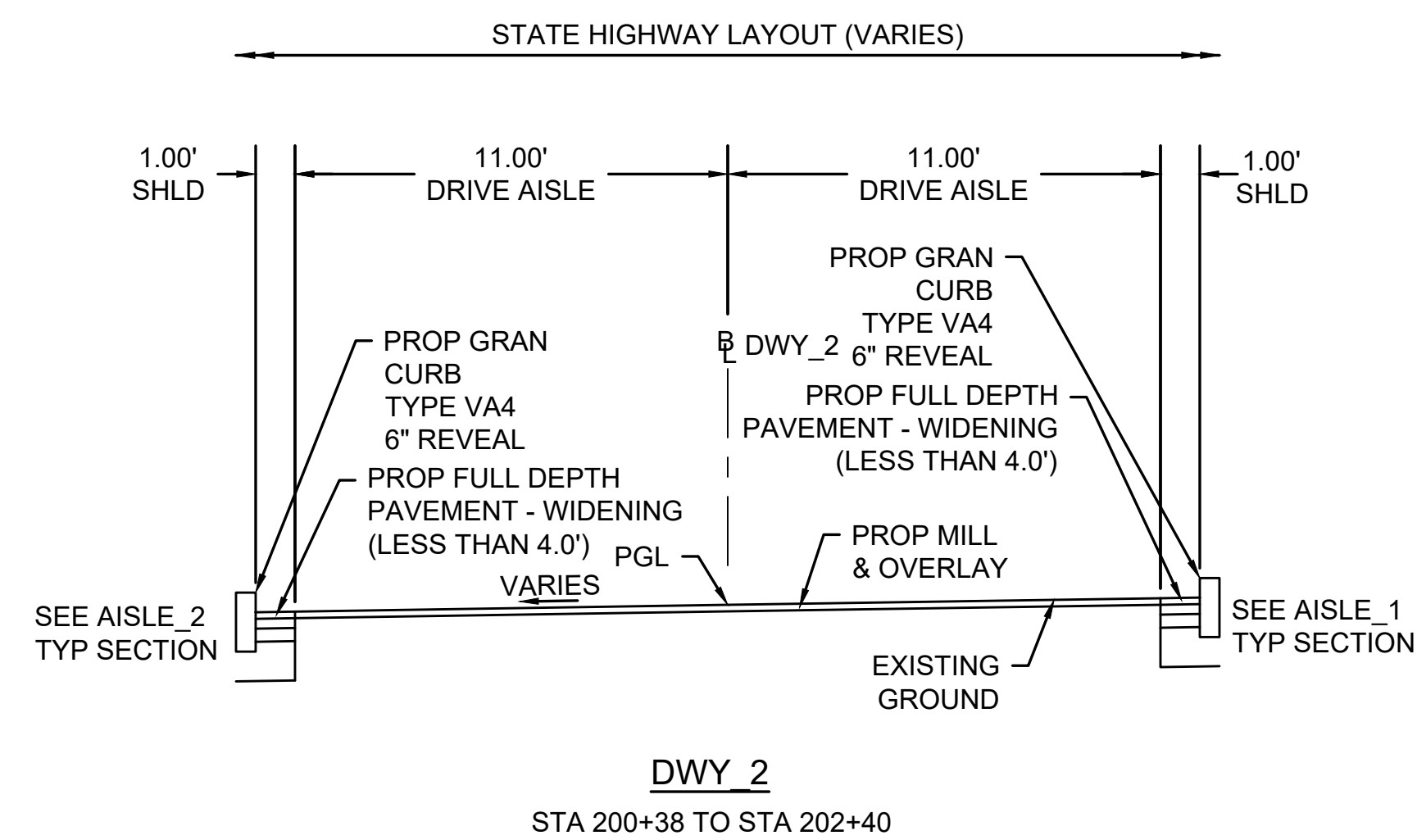
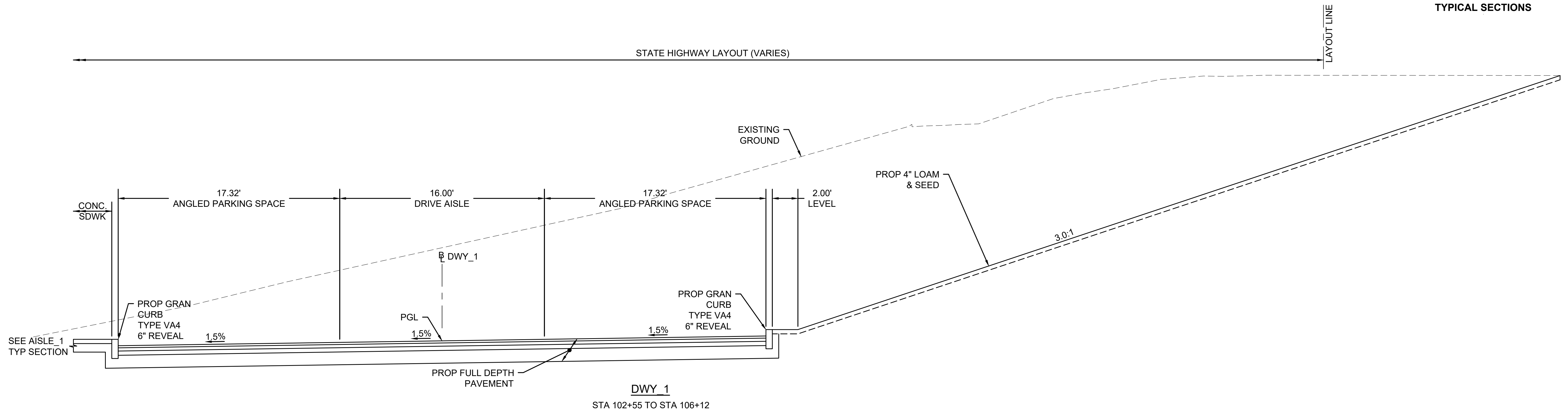
SURFACE COURSE: 12" GRAVEL BORROW (TYPE b)



NOTES:

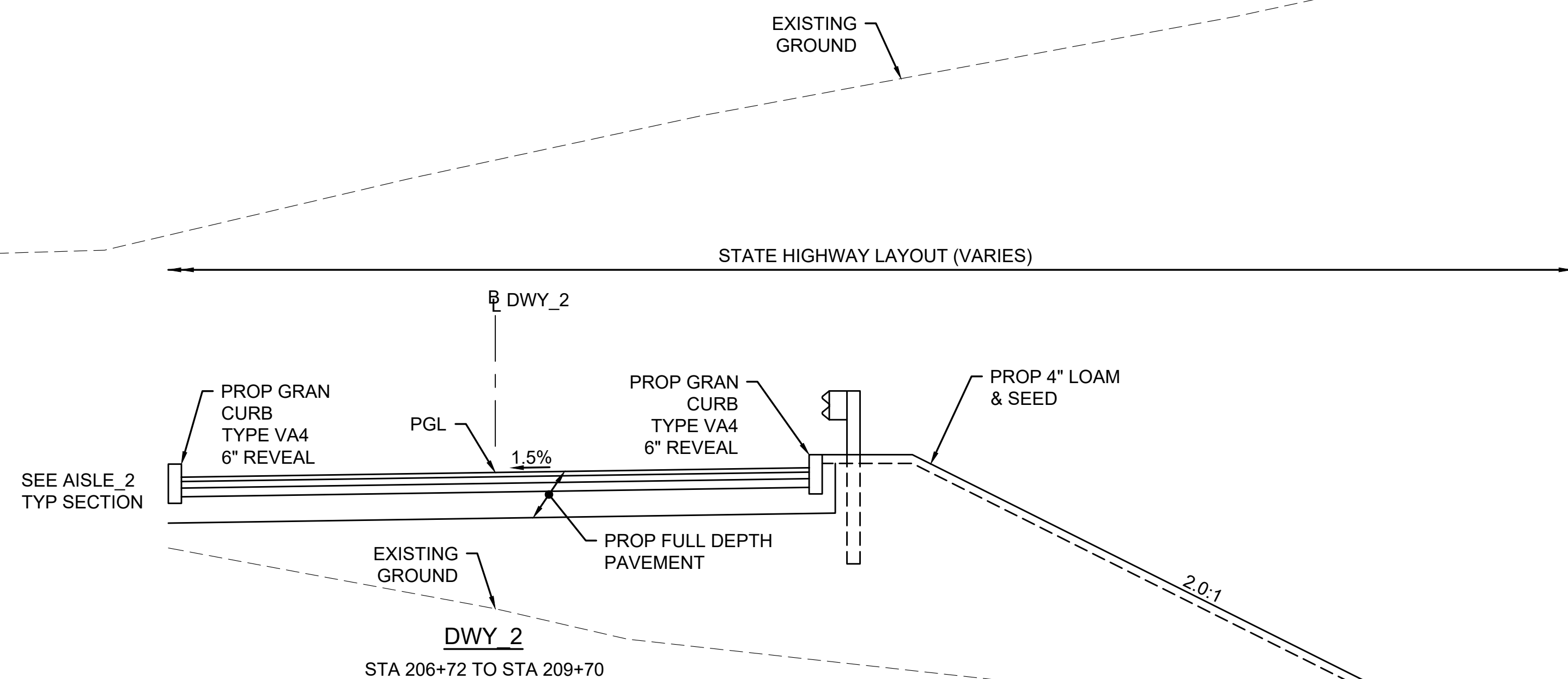
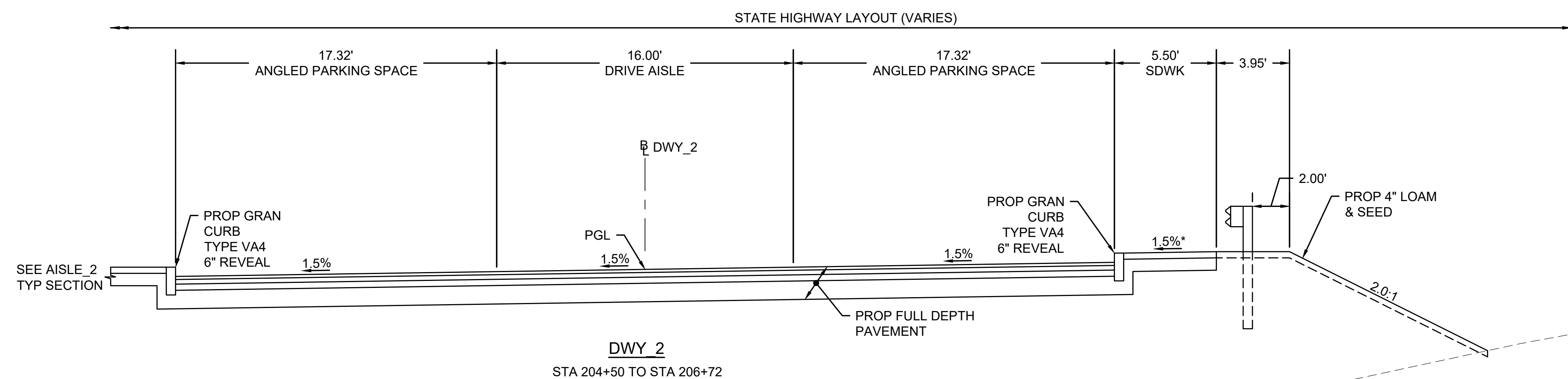
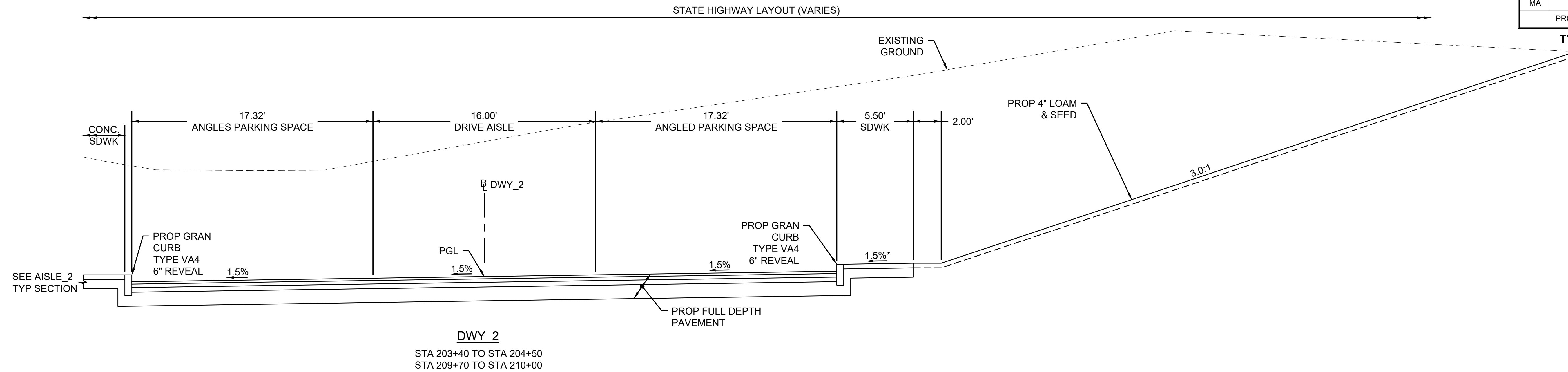
- SAWCUTS ARE LOCATED 12" FROM THE EXISTING EDGE OF ROAD OR 12" FROM THE PROPOSED EDGE OF PAVEMENT, WHICHEVER IS FURTHEST INTO THE EXISTING ROADWAY.
- ASPHALT EMULSIONS FOR TACK COAT SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 - ON A NEW HMA SURFACE, NOT OPENED TO TRAFFIC, THE EMULSION APPLICATION RATE SHALL EQUAL 0.06 TO 0.08 GALLONS PER SQUARE YARD
 - ON AN EXISTING TIGHT SMOOTH PAVEMENT THE EMULSION APPLICATION RATE SHALL EQUAL 0.06 TO 0.08 GALLONS PER SQUARE YARD
 - ON A MILLED SURFACE THE EMULSION APPLICATION RATE SHALL EQUAL 0.07 TO 0.09 GALLONS PER SQUARE YARD
 - ON CEMENT CONCRETE BASE COURSE THE EMULSION APPLICATION RATE SHALL BE EQUAL TO SPRAY APPLICATION FOR THE ADJACENT SURFACE
 - ON NEW HMA PATCHES THE EMULSION APPLICATION RATE SHALL EQUAL 0.06 TO 0.09 GALLONS PER SQUARE YARDSPECIFIED APPLICATION RATES ARE BASED ON A 57/43 RESIDUAL TO WATER RATIO. THE RESIDUAL AMOUNT OF TACK IS DEFINED AS THE REMAINING ASPHALT AFTER THE TACK COAT HAS SET AND ALL WATER HAS EVAPORATED. THE APPLICATION RATE OF THE TACK COAT EMULSION SHALL BE SET AT A RATE THAT ACHIEVES THE SPECIFIED RESIDUAL AMOUNT. TACK COAT SHALL BE APPLIED TO COVER A MINIMUM OF 95% OF THE PAVEMENT SURFACE.
- LEVELING COURSES TO BE ADDED IN AREAS OF MILLING AND RESURFACING AS NECESSARY TO ACHIEVE PROPOSED GRADES.
- JOINTS BETWEEN NEW HOT MIX ASPHALT PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HMA JOINT ADHESIVE AND BACKSANDDED.
- ALL ADA ACCESSIBLE CROSS SLOPES ARE DESIGNED WITH A ±0.5% TOLERANCE. NO ACCESSIBLE CROSS SLOPES MAY EXCEED 2.0%

BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	9	87
PROJECT FILE NO.		610800	
TYPICAL SECTIONS			



BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	10	87
PROJECT FILE NO.		610800	

TYPICAL SECTIONS

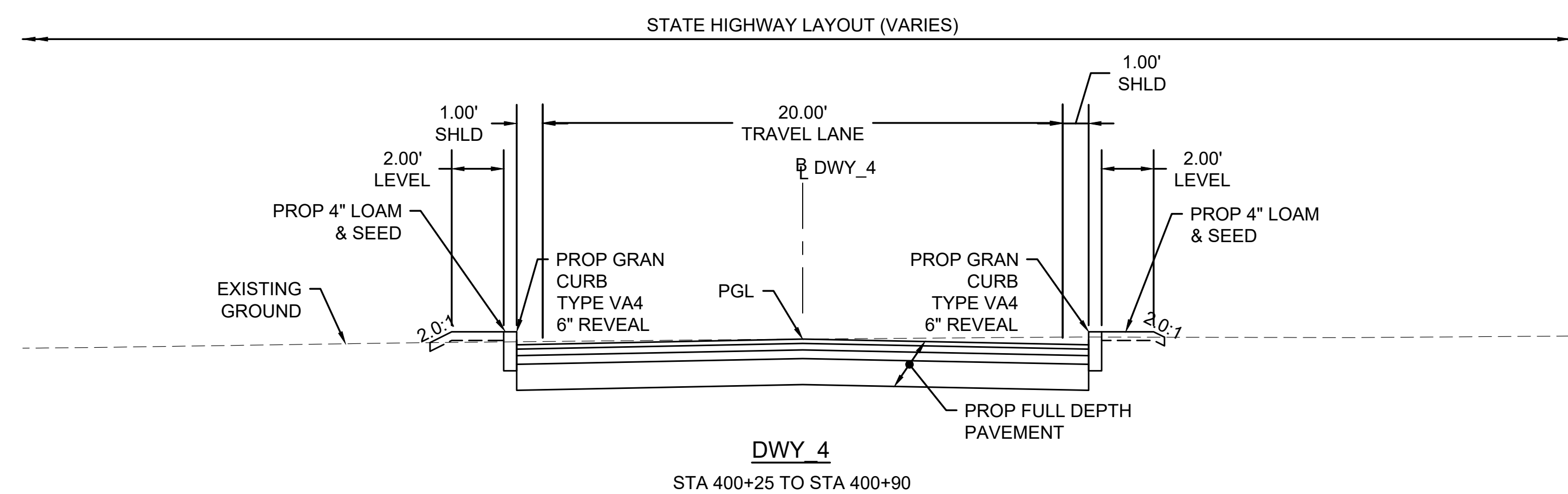
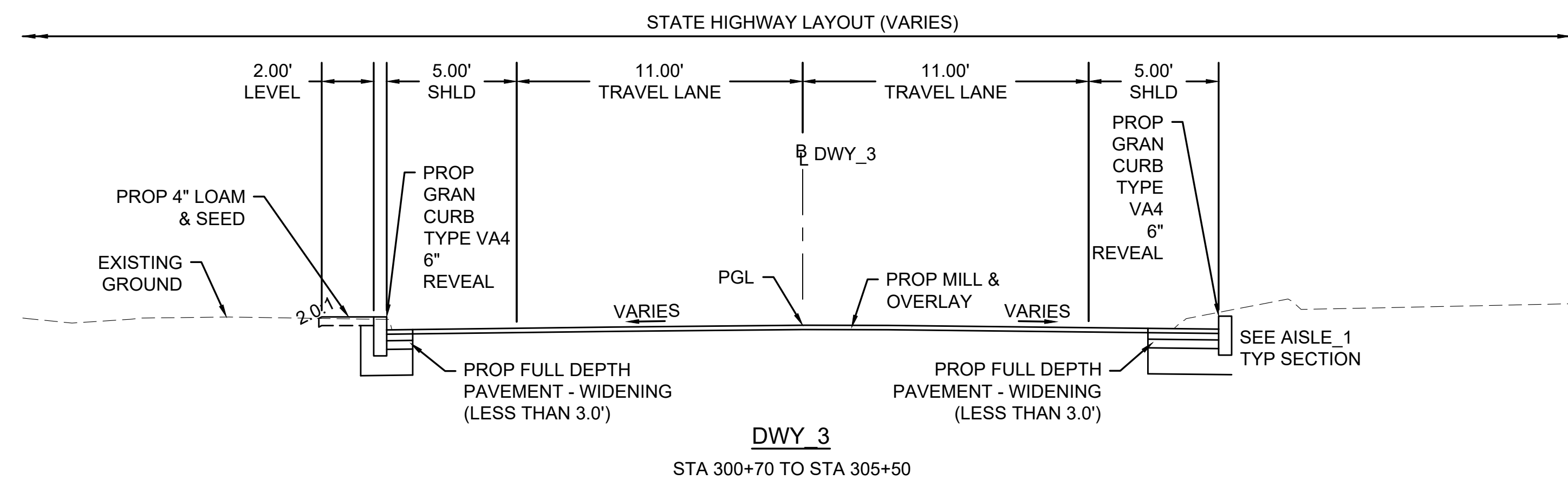
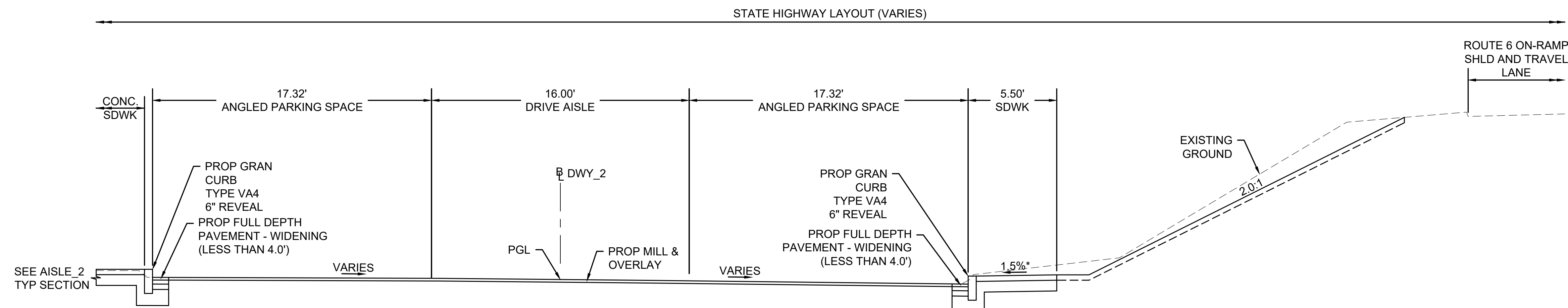


* ±0.5% TOLERANCE

**BARNSTABLE
BARNSTABLE PARK AND RIDE**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	11	87
PROJECT FILE NO.		610800	

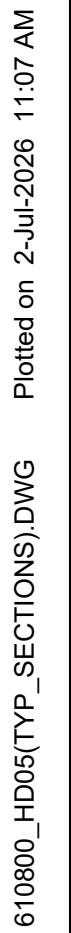
TYPICAL SECTIONS



* ±0.5% TOLERANCE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	12	87
PROJECT FILE NO.		610800	

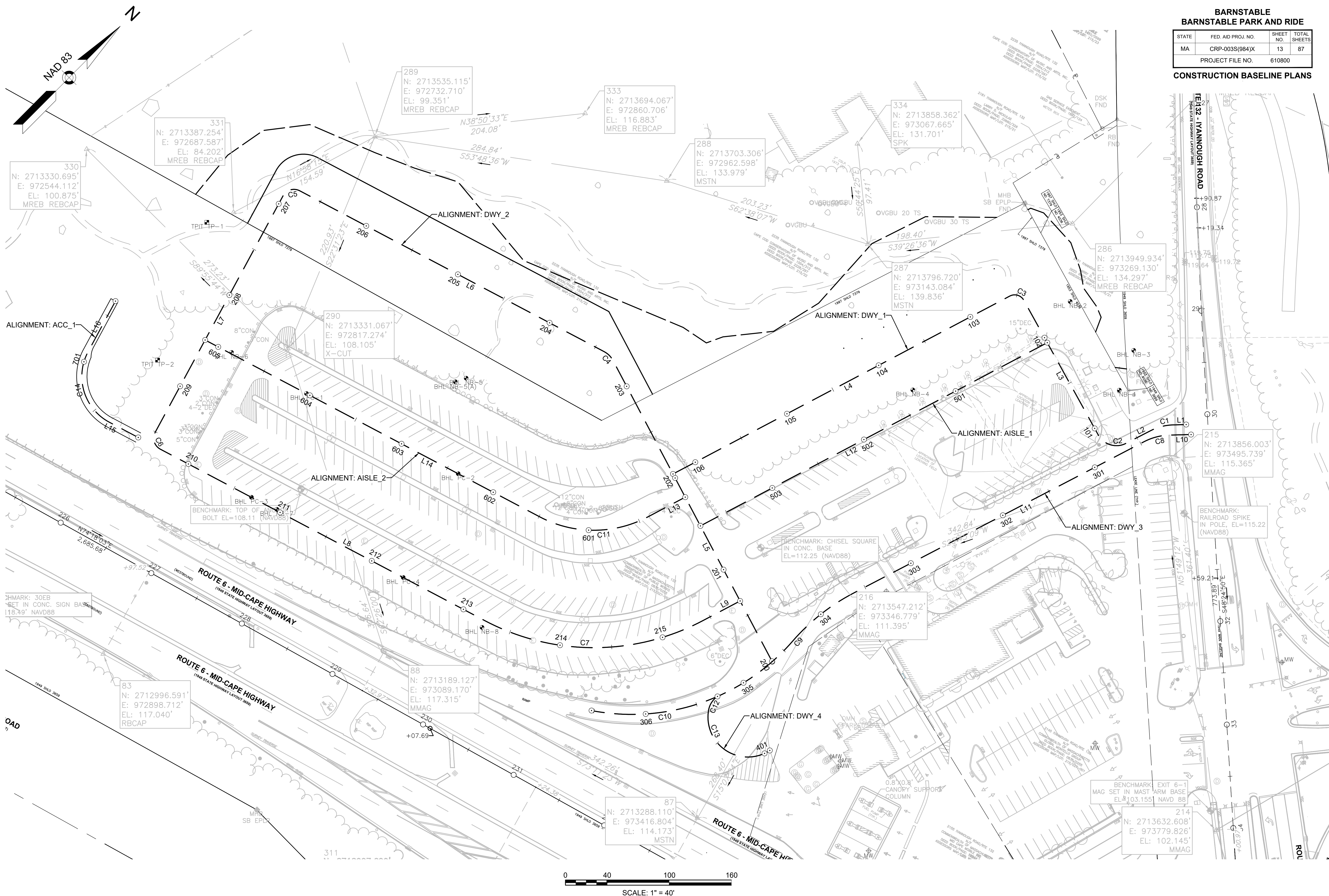
* ±0.5% TOLERANCE



BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	13	87
PROJECT FILE NO.		610800	

CONSTRUCTION BASELINE PLANS



DWY_1 CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	100+00.00	2713889.707	973483.471		S43°44'23"W 12.55'	100+12.55	2713880.637	973474.793
C1	100+12.55	2713880.637	973474.793	R = 50.00' Δ= 25°49'25" L=22.54' T=11.46'		100+35.09	2713861.450	973463.342
L2	100+35.09	2713861.450	973463.342		S17°54'58"W 26.85'	100+61.94	2713835.900	973455.081
C2	100+61.94	2713835.900	973455.081	R = 20.00' Δ= 88°20'00" L=30.83' T=19.43'		100+92.77	2713822.851	973430.455
L3	100+92.77	2713822.851	973430.455		N73°45'01"W 148.58'	102+41.35	2713864.427	973287.811
C3	102+41.35	2713864.427	973287.811	R = 10.00' Δ= 88°55'22" L=15.52' T=9.81'		102+56.87	2713857.805	973275.466
L4	102+56.87	2713857.805	973275.466		S17°19'37"W 367.43'	106+24.31	2713507.046	973166.037

DWY_2 CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L5	199+99.60	2713446.062	973361.513		N72°40'23"W 328.74'	203+28.34	2713543.967	973047.693
C4	203+28.34	2713543.967	973047.693	R = 20.00' Δ= 34°17'03" L=11.97' T=6.17'		203+40.31	2713544.005	973035.904
L6	203+40.31	2713544.005	973035.904		S73°02'34"W 332.18'	206+72.49	2713447.121	972718.165
C5	206+72.49	2713447.121	972718.165	R = 12.00' Δ= 89°28'27" L=18.74' T=11.89'		206+91.23	2713432.249	972710.155
L7	206+91.23	2713432.249	972710.155		S16°25'54"E 259.22'	209+50.44	2713183.619	972783.479
C6	209+50.44	2713183.619	972783.479	R = 12.00' Δ= 90°31'33" L=18.96' T=12.11'		209+69.40	2713175.536	972798.489
L8	209+69.40	2713175.536	972798.489		N73°02'34"E 353.93'	213+23.33	2713278.762	973137.031
C7	213+23.33	2713278.762	973137.031	R = 225.00' Δ= 55°42'57" L=218.80' T=118.92'		215+42.13	2713426.970	973286.197
L9	215+42.13	2713426.970	973286.197		N17°19'37"E 40.66'	215+82.79	2713465.781	973298.306

DWY_3 CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L10	300+00.00	2713886.220	973493.616		S43°44'23"W 20.66'	300+20.66	2713871.296	973479.334
C8	300+20.66	2713871.296	973479.334	R = 56.50' Δ= 26°05'42" L=25.73' T=13.09'		300+46.39	2713849.359	973466.313
L11	300+46.39	2713849.359	973466.313		S17°38'41"W 316.10'	303+62.49	2713548.131	973370.499
C9	303+62.49	2713548.131	973370.499	R = 200.00' Δ= 21°29'41" L=75.03' T=37.96'		304+37.52	2713474.079	973361.542
C10	304+37.52	2713474.079	973361.542	R = 205.47' Δ= 59°56'07" L=214.94' T=118.47"		306+52.45	2713289.770	973271.180

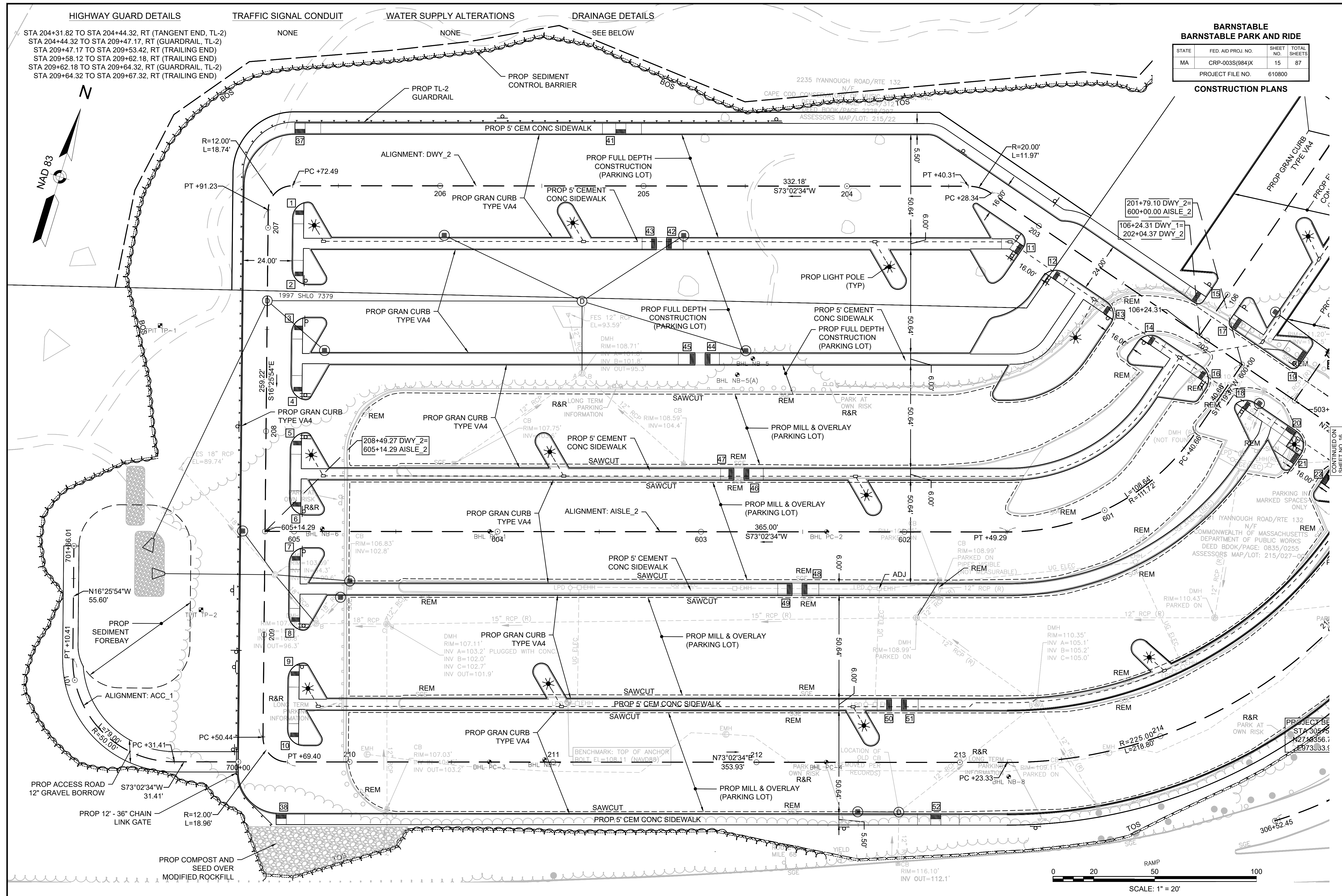
DWY_4 CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C12	400+00.00	2713385.054	973347.739	R = 20.00' Δ= 45°48'08" L=15.99' T=8.45'		400+15.99	2713369.803	973350.854
C13	400+15.99	2713369.803	973350.854	R = 38.50' Δ= 133°40'35" L=89.82' T=89.99'		401+05.81	2713383.657	973420.279

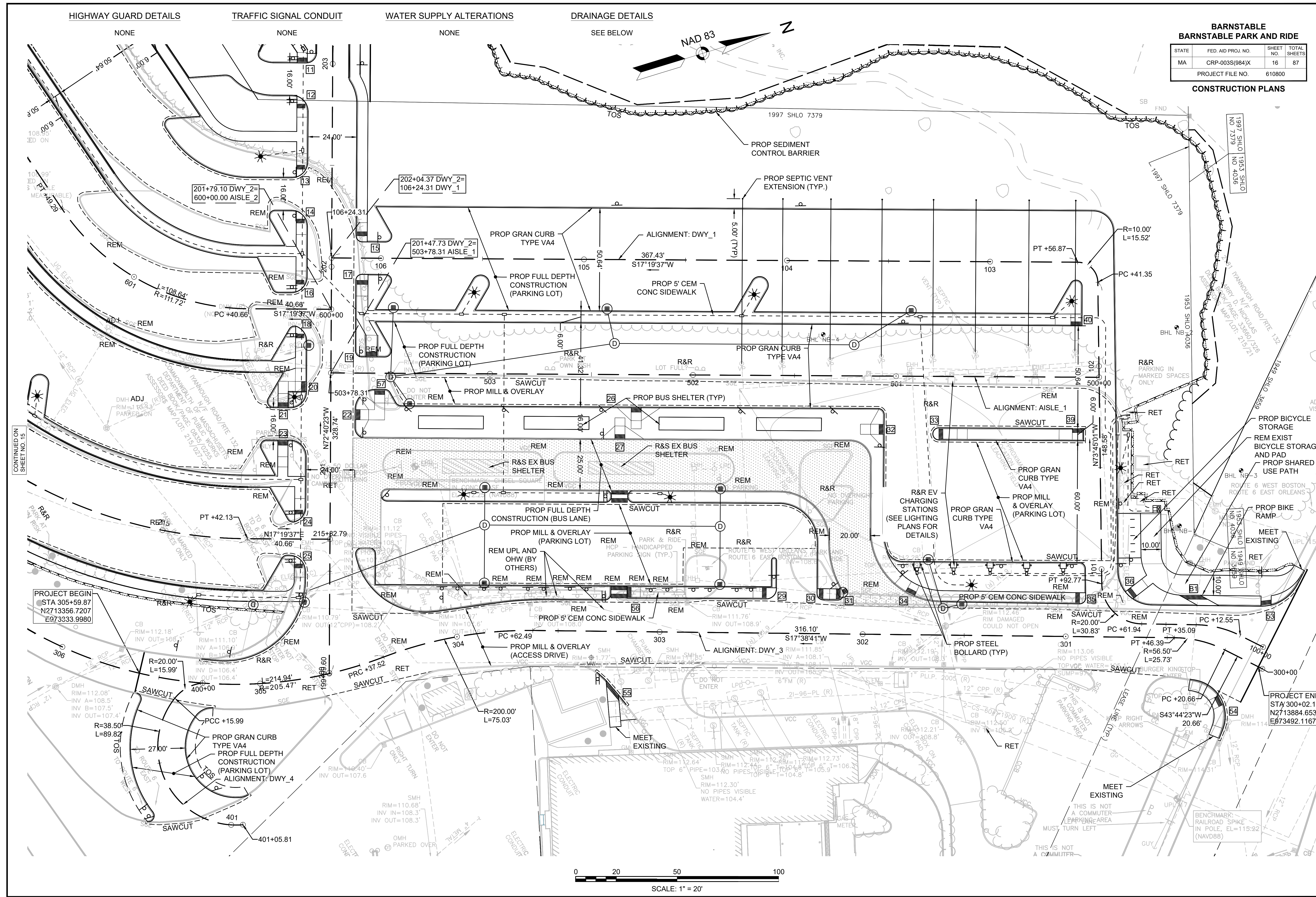
AISLE_1 CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L12	500+00.00	2713851.321	973332.777		S17°19'37"W 378.31'	503+78.31	2713490.177	973220.107

AISLE_2 CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L13	600+00.00	2713499.519	973190.164		S17°19'37"W 40.66'	600+40.66	2713460.708	973178.056
C11	600+40.66	2713460.708	973178.056	R = 111.72' Δ= 55°42'57" L=108.64' T=59.05'		601+49.29	2713387.119	973103.991
L14	601+49.29	2713387.119	973103.991		S73°02'34"W 365.00'	605+14.29	2713280.663	972754.859

ACC_1 CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L15	700+00.00	2713168.503	972775.426		S73°02'34"W 31.41'	700+31.41	2713159.342	972745.379
C14	700+31.41	2713159.342	972745.379	R = 50.00' Δ= 90°31'33" L=79.00' T=50.46'		701+10.41	2713193.024	972682.838
L16	701+10.41	2713193.024	972682.838		N16°25'54"W 55.60'	701+66.01	2713246.353	972667.111

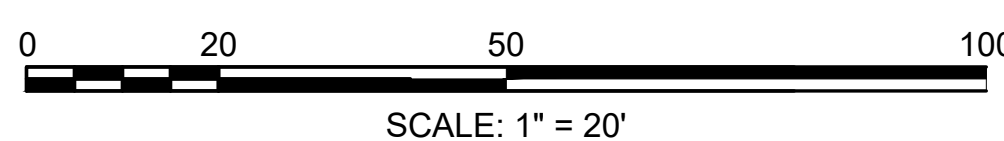
SURVEY TRAVERSE POINT DATA				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
83	2712996.591	972898.712	117.040	MTRV RBCAP
87	2713288.110	973416.804	114.173	MTRV MSTN
88	2713189.127	973089.170	117.315	MTRV MMAG
214	2713632.608	973779.826	102.145	MTRV MMAG
215	2713856.003	973495.739	115.365	MTRV MMAG
216	2713547.212	973346.779	111.395	MTRV MMAG
286	2713949.934	973269.130	134.297	MTRV MREB REBCAP
287	2713796.720	973143.084	139.836	MTRV MSTN
288	2713703.306	972962.598	133.979	MTRV MSTN
289	2713535.115	972732.710	99.351	MTRV MREB REBCAP
290	2713331.067	972817.274	108.105	MTRV X-CUT
330	2713330.695	972544.112	100.875	MTRV MREB REBCAP
331	2713387.254	972687.587	84.202	MTRV MREB REBCAP
333	2713694.067	972860.706	116.883	MTRV MREB REBCAP
334	2713858.362	973067.665	131.701	MTRV SPK





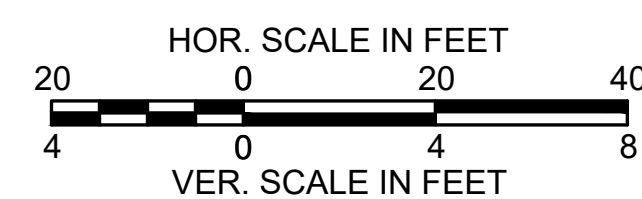
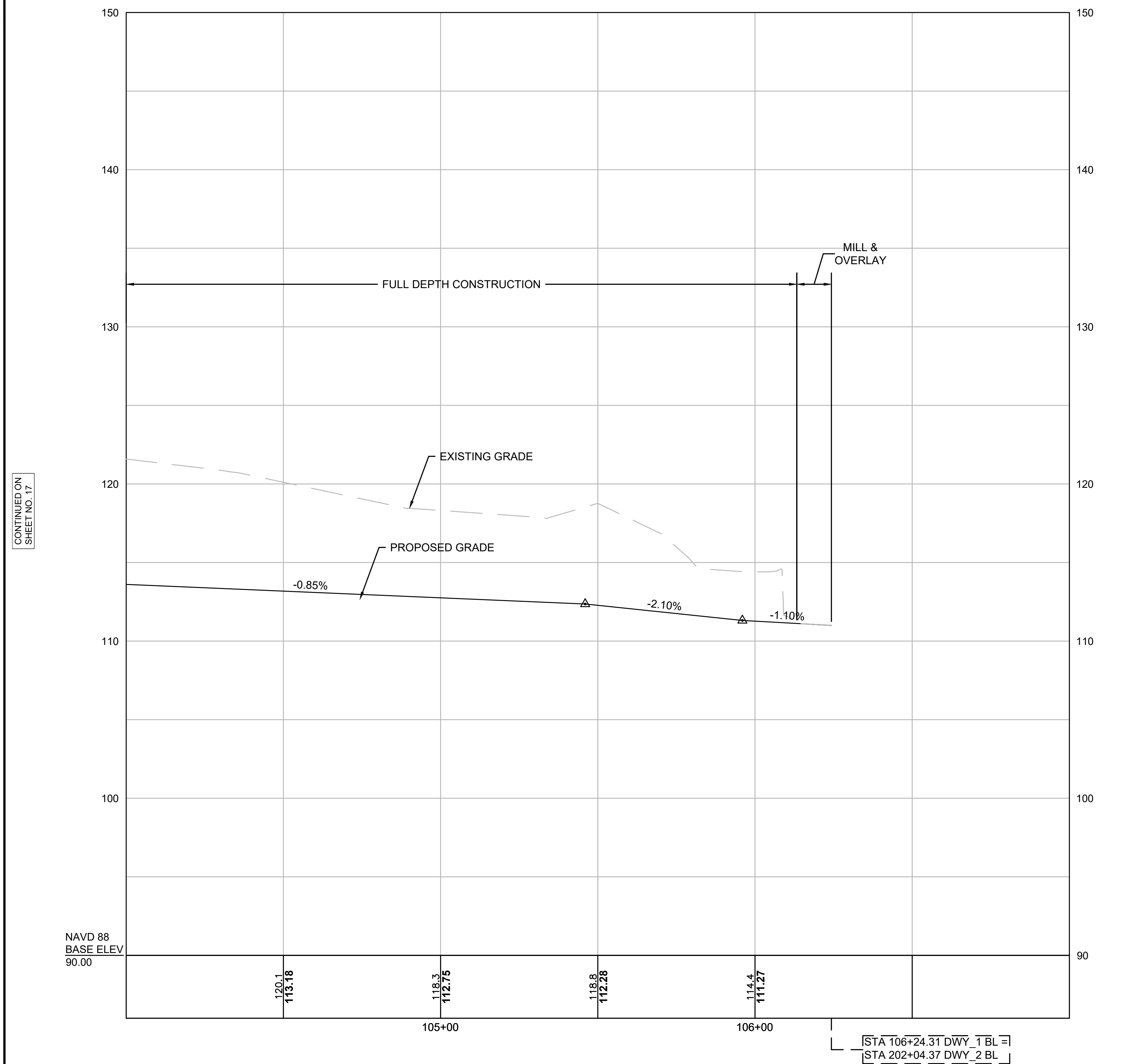
BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	16	87
PROJECT FILE NO.		610800	

CONSTRUCTION PLANS



BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	18	87
PROJECT FILE NO.		610800	

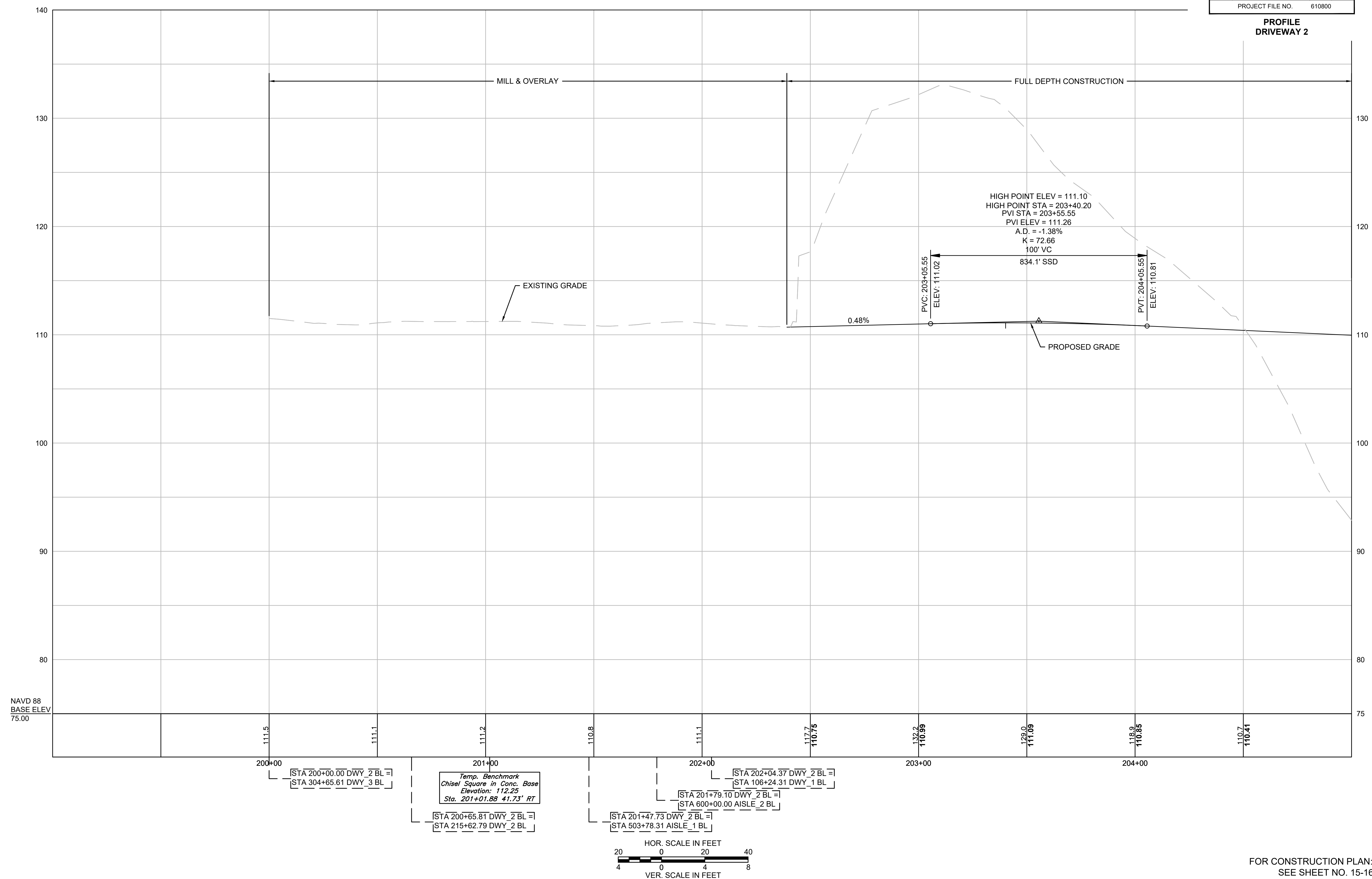
PROFILE
DRIVEWAY 1



FOR CONSTRUCTION PLAN:
SEE SHEET NO. 15-16

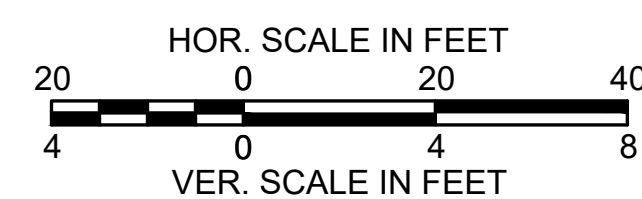
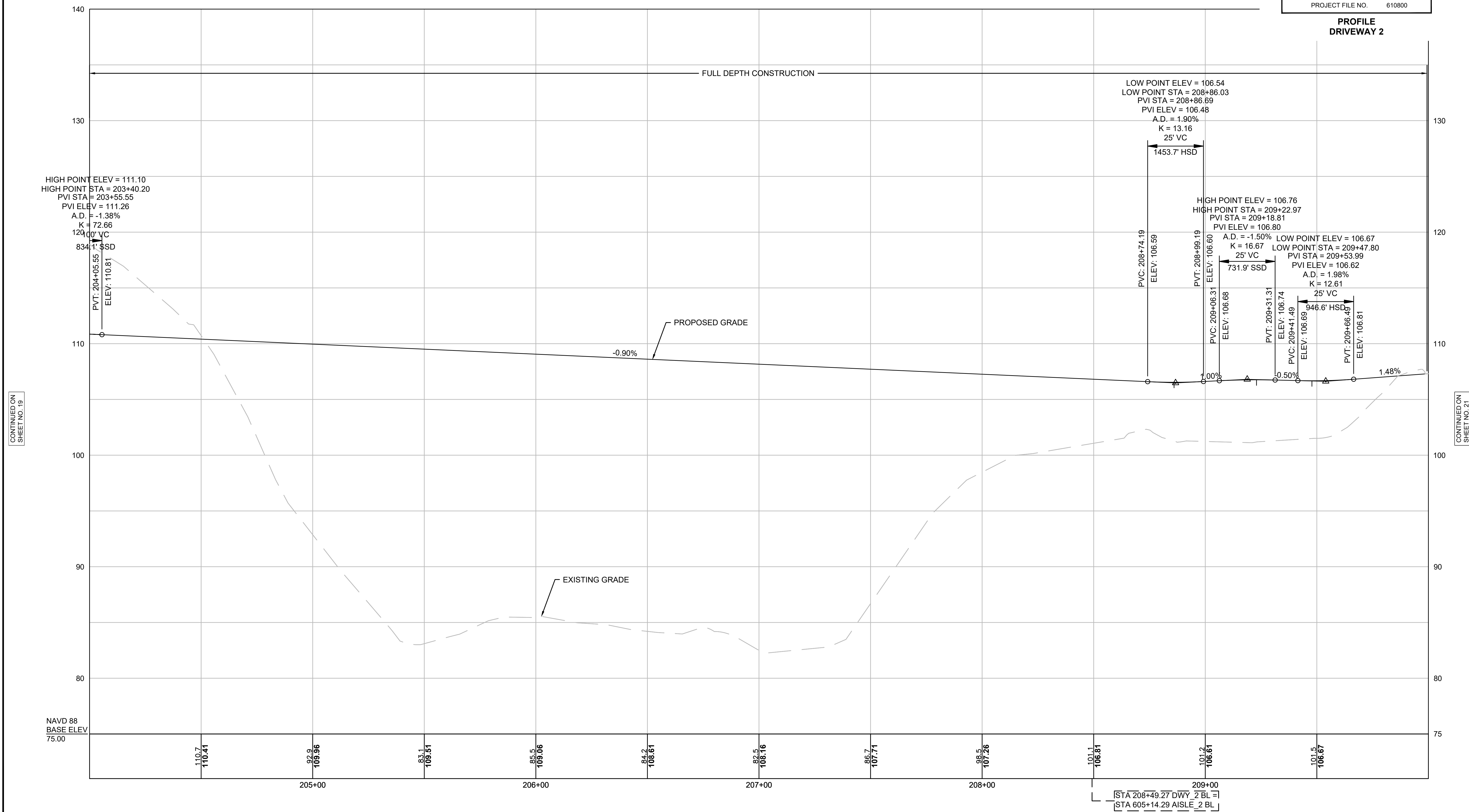
BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	19	87
PROJECT FILE NO.		610800	

PROFILE
DRIVEWAY 2



BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	20	87
PROJECT FILE NO.		610800	

PROFILE
DRIVEWAY 2



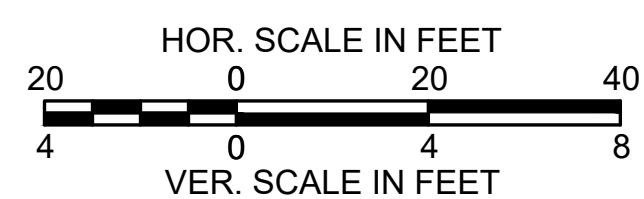
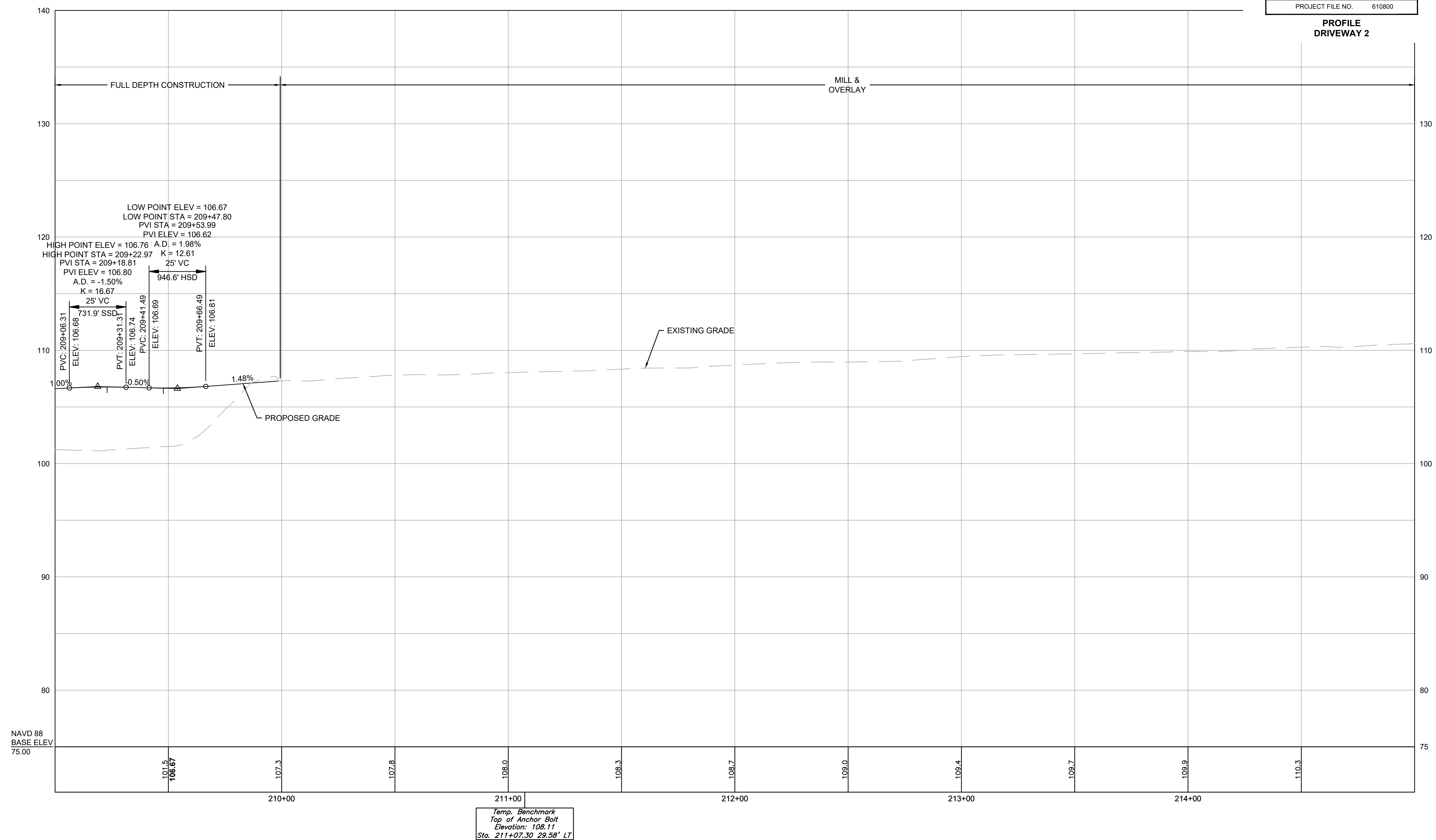
FOR CONSTRUCTION PLAN:
SEE SHEET NO. 15-16

BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	21	87
PROJECT FILE NO.		610800	

PROFILE
DRIVEWAY 2

CONTINUED ON
SHEET NO. 20

CONTINUED ON
SHEET NO. 22

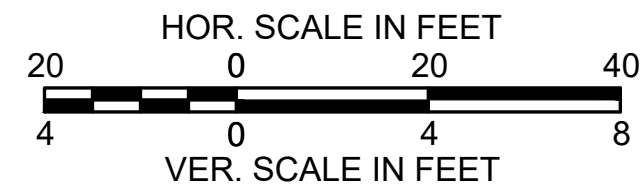
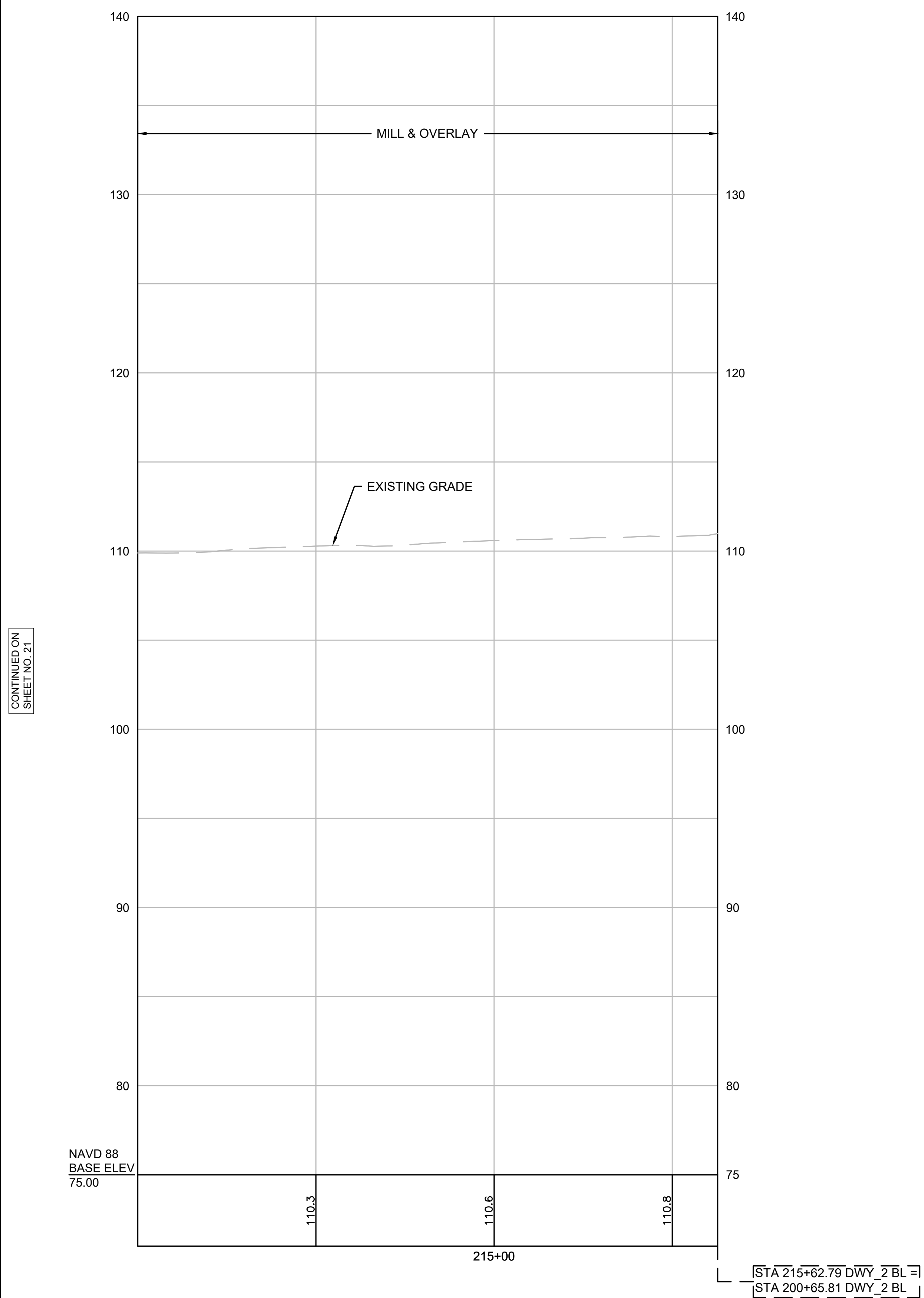


FOR CONSTRUCTION PLAN:
SEE SHEET NO. 15-16

BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	22	87
PROJECT FILE NO.		610800	

PROFILE
DRIVEWAY 2

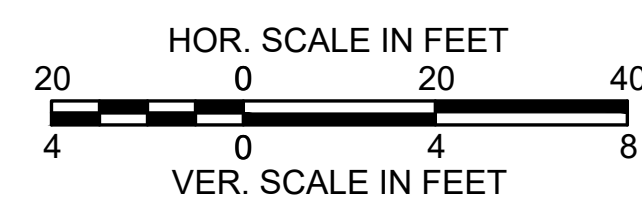
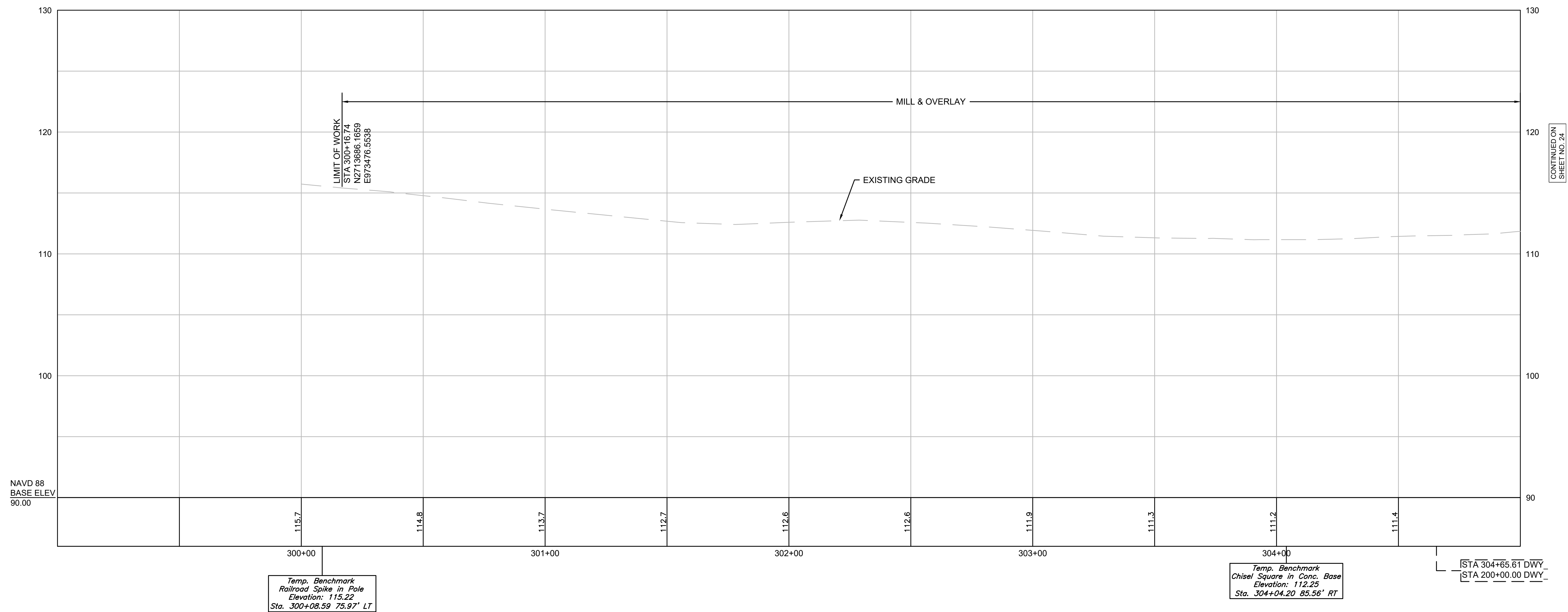


FOR CONSTRUCTION PLAN:
SEE SHEET NO. 15-16

**BARNSTABLE
BARNSTABLE PARK AND RIDE**

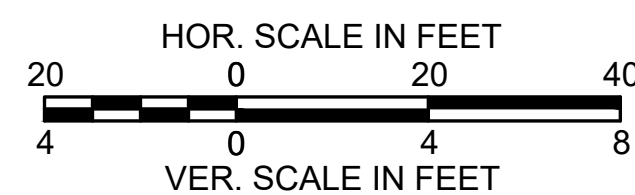
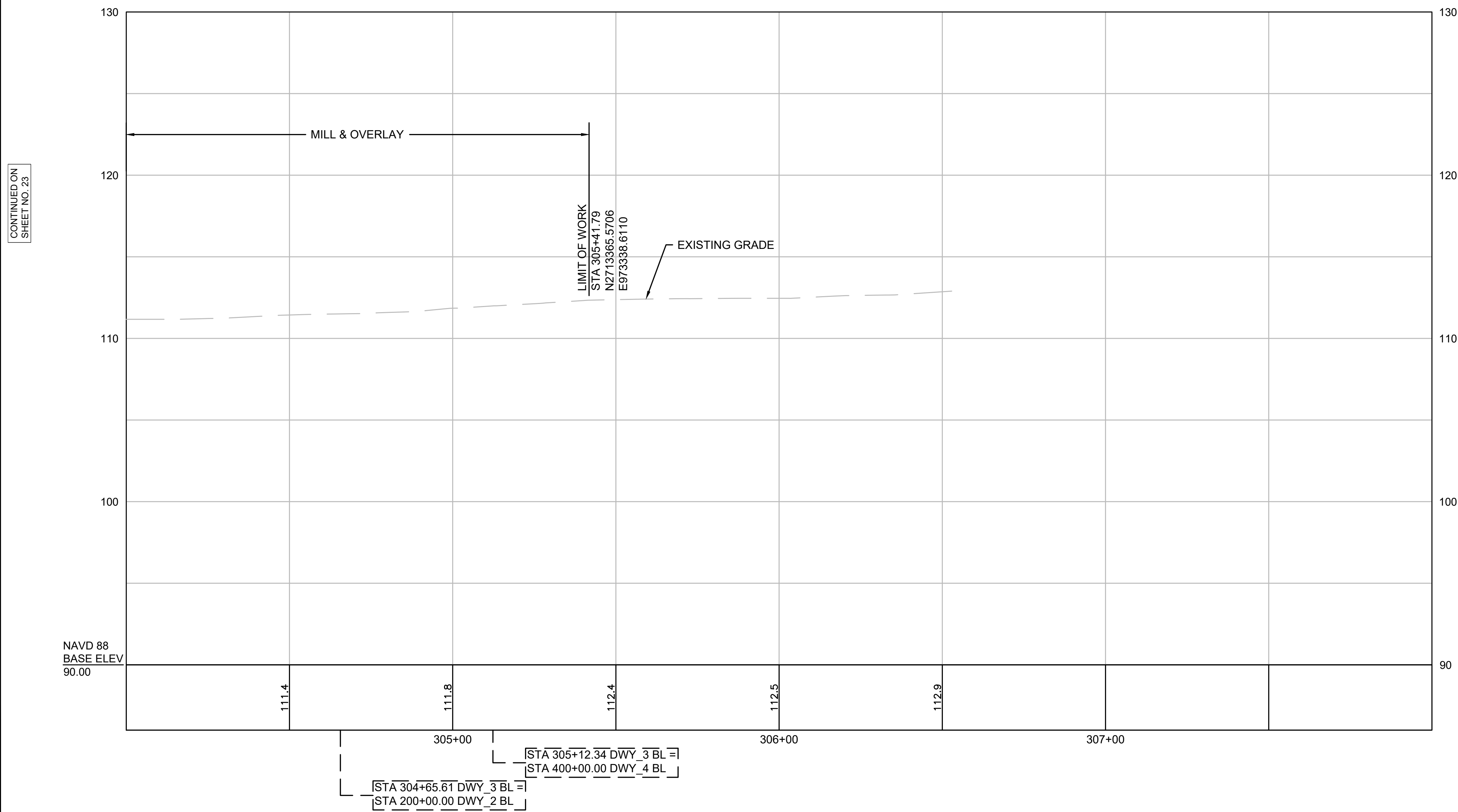
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	23	87
PROJECT FILE NO.		610800	

**PROFILE
DRIVEWAY 3**



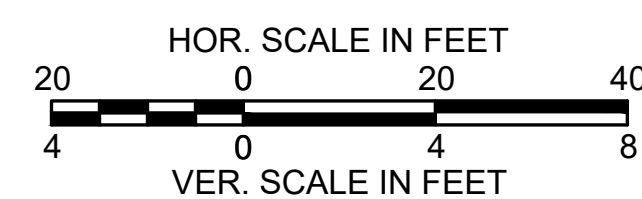
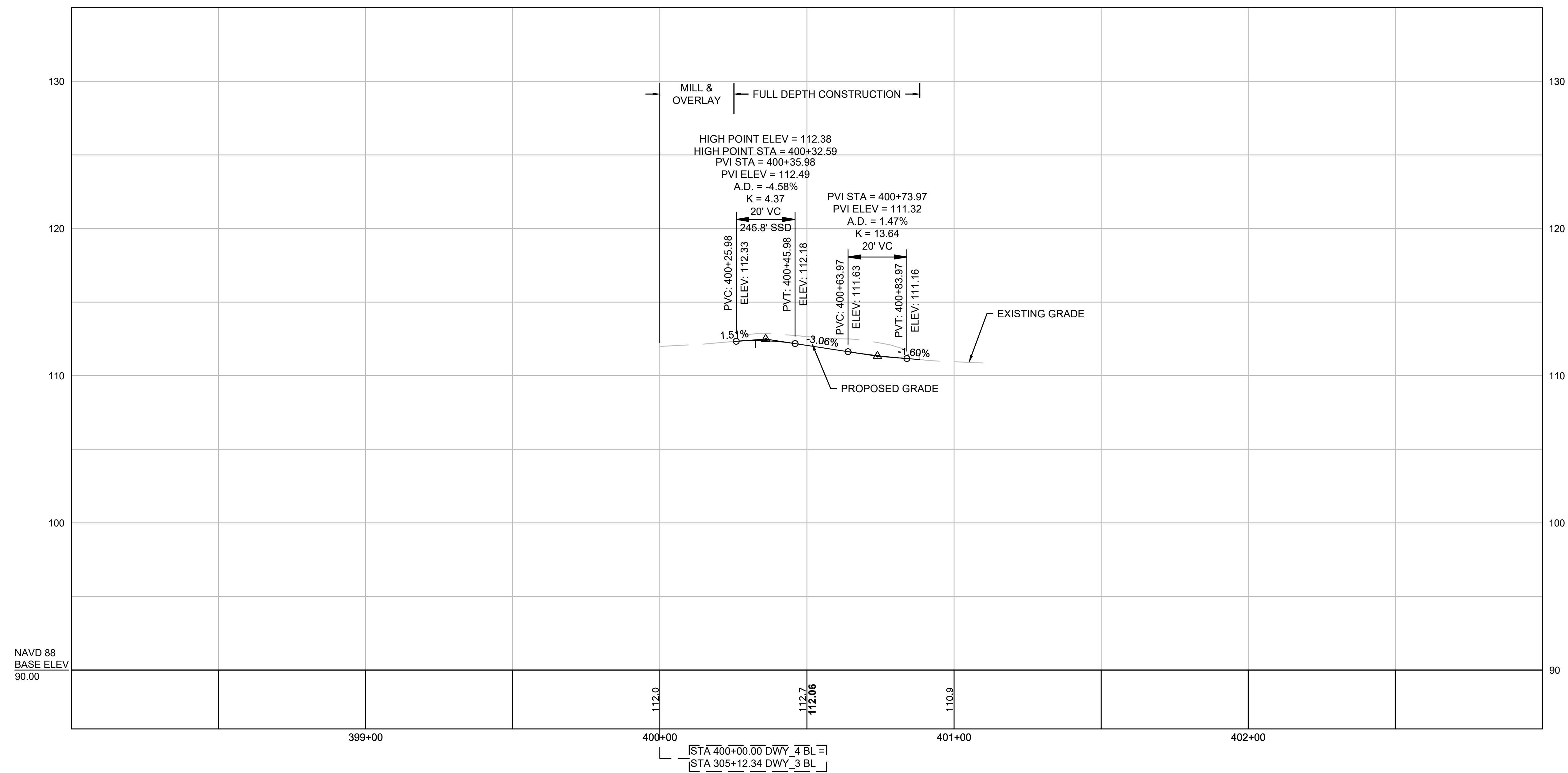
FOR CONSTRUCTION PLAN:
SEE SHEET NO. 15-16

CONTINUED ON
SHEET NO. 24



BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	25	87
PROJECT FILE NO.		610800	

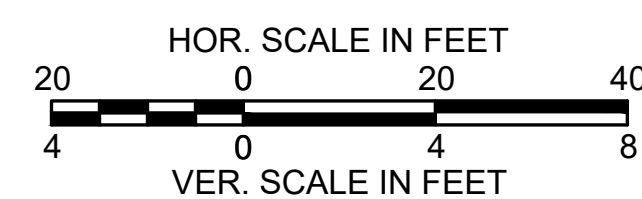
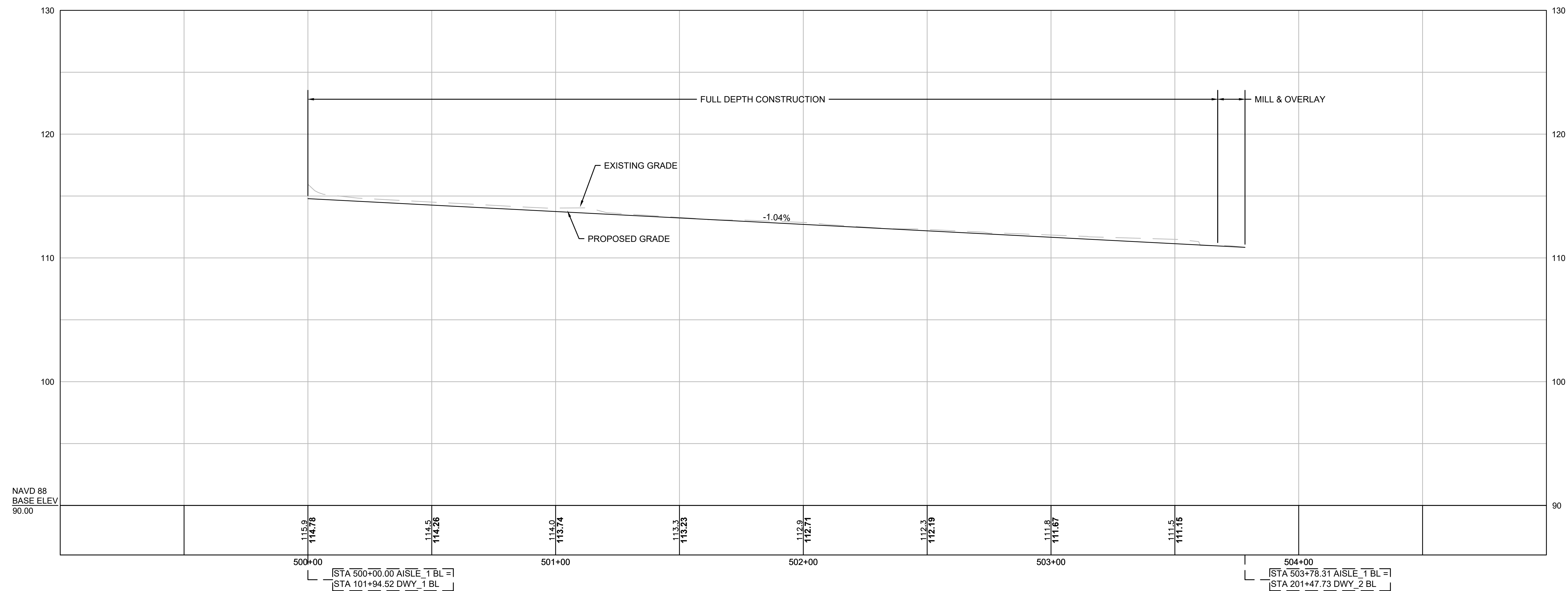
PROFILE
DRIVEWAY 4



FOR CONSTRUCTION PLAN:
SEE SHEET NO. 16

BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	26	87
PROJECT FILE NO.		610800	

PROFILE
AISLE 1

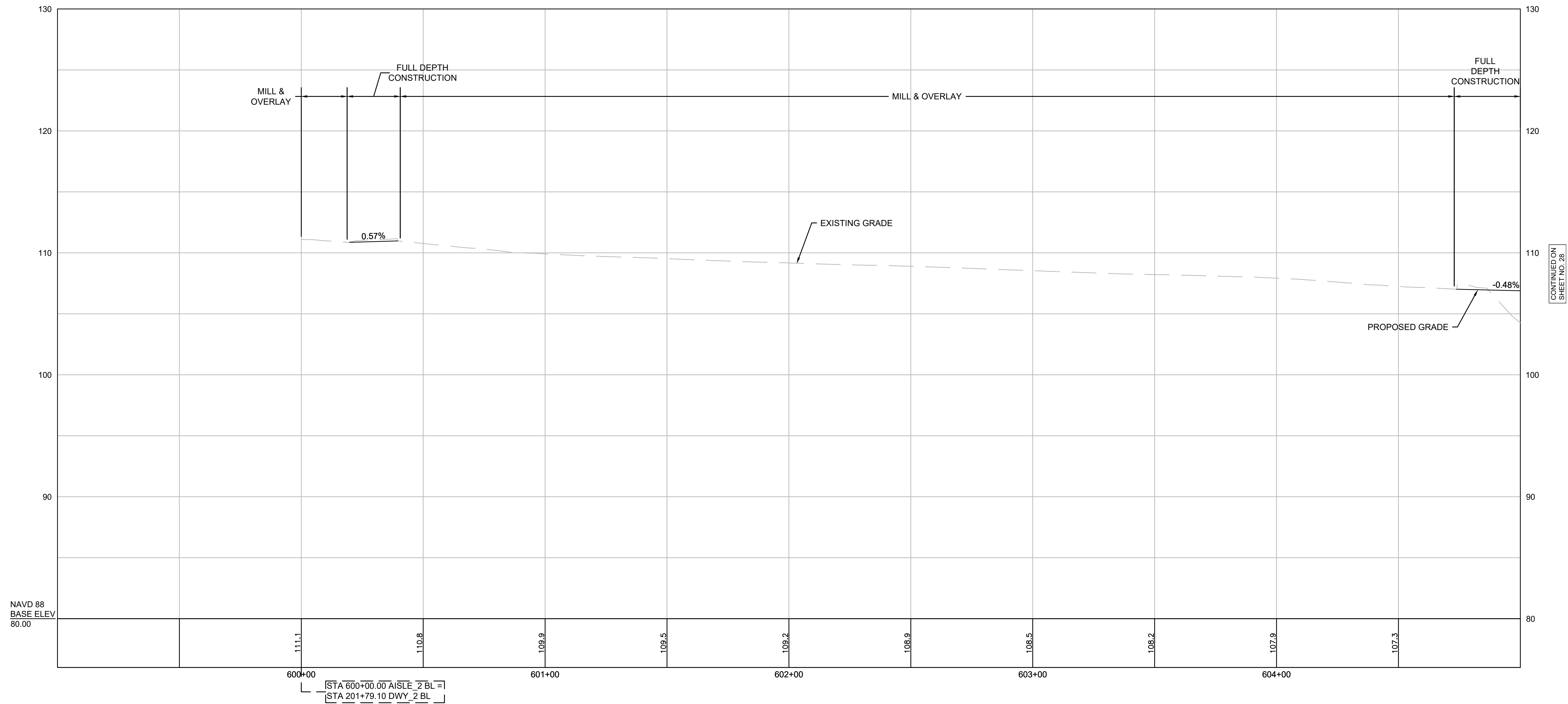


FOR CONSTRUCTION PLAN:
SEE SHEET NO. 16

BARNSTABLE
BARNSTABLE PARK AND RIDE

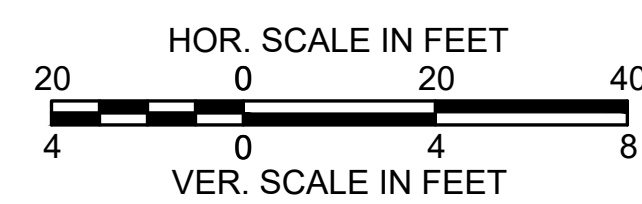
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	27	87
PROJECT FILE NO.		610800	

PROFILE
AISLE 2



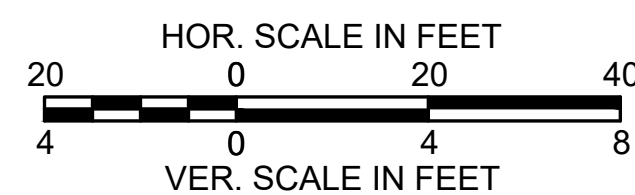
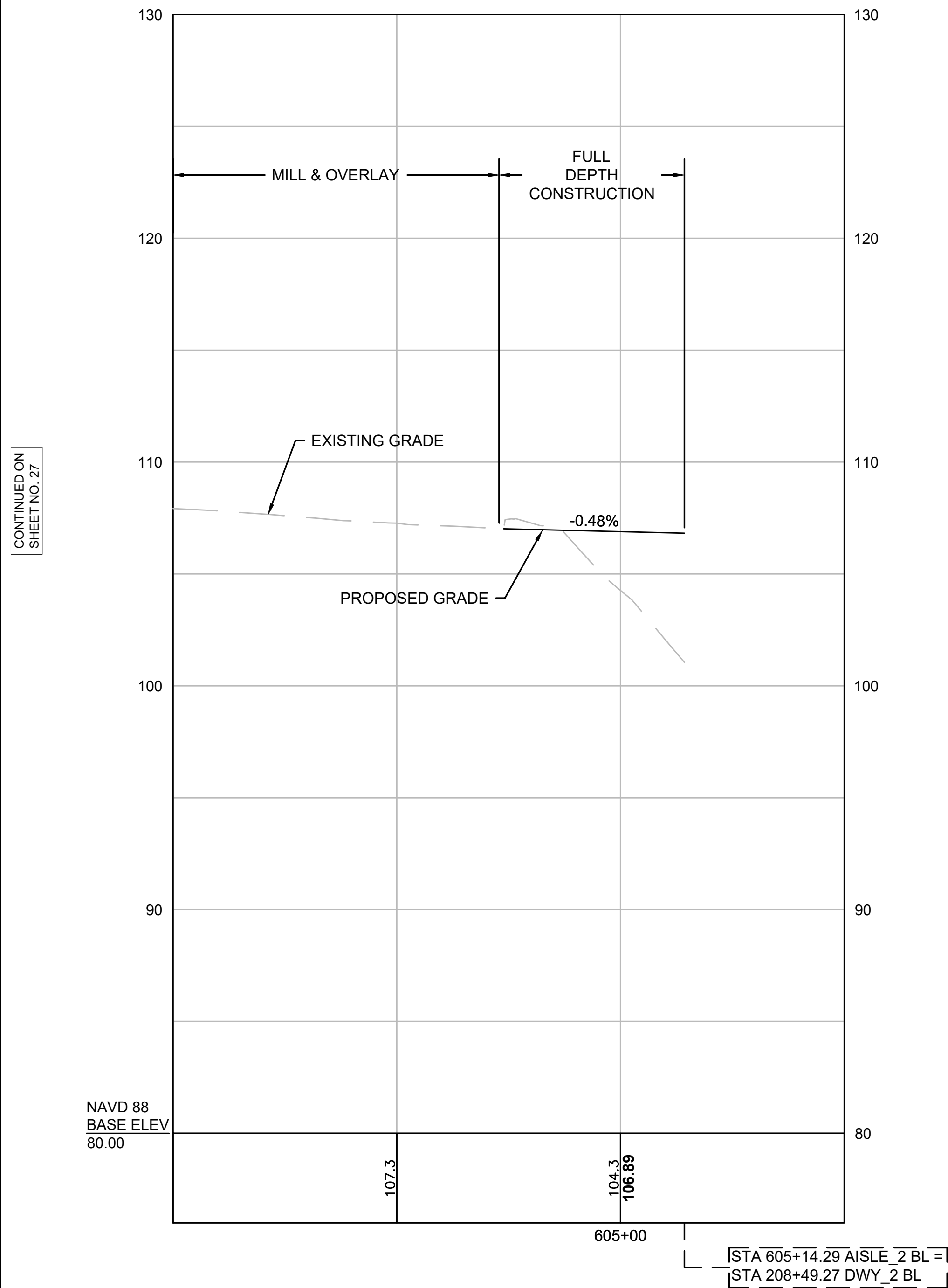
NAVD 88
BASE ELEV
80.00

STA 600+00.00 AISLE 2 BL =
STA 201+79.10 DWY 2 BL =



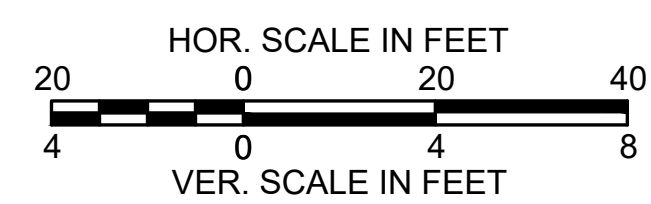
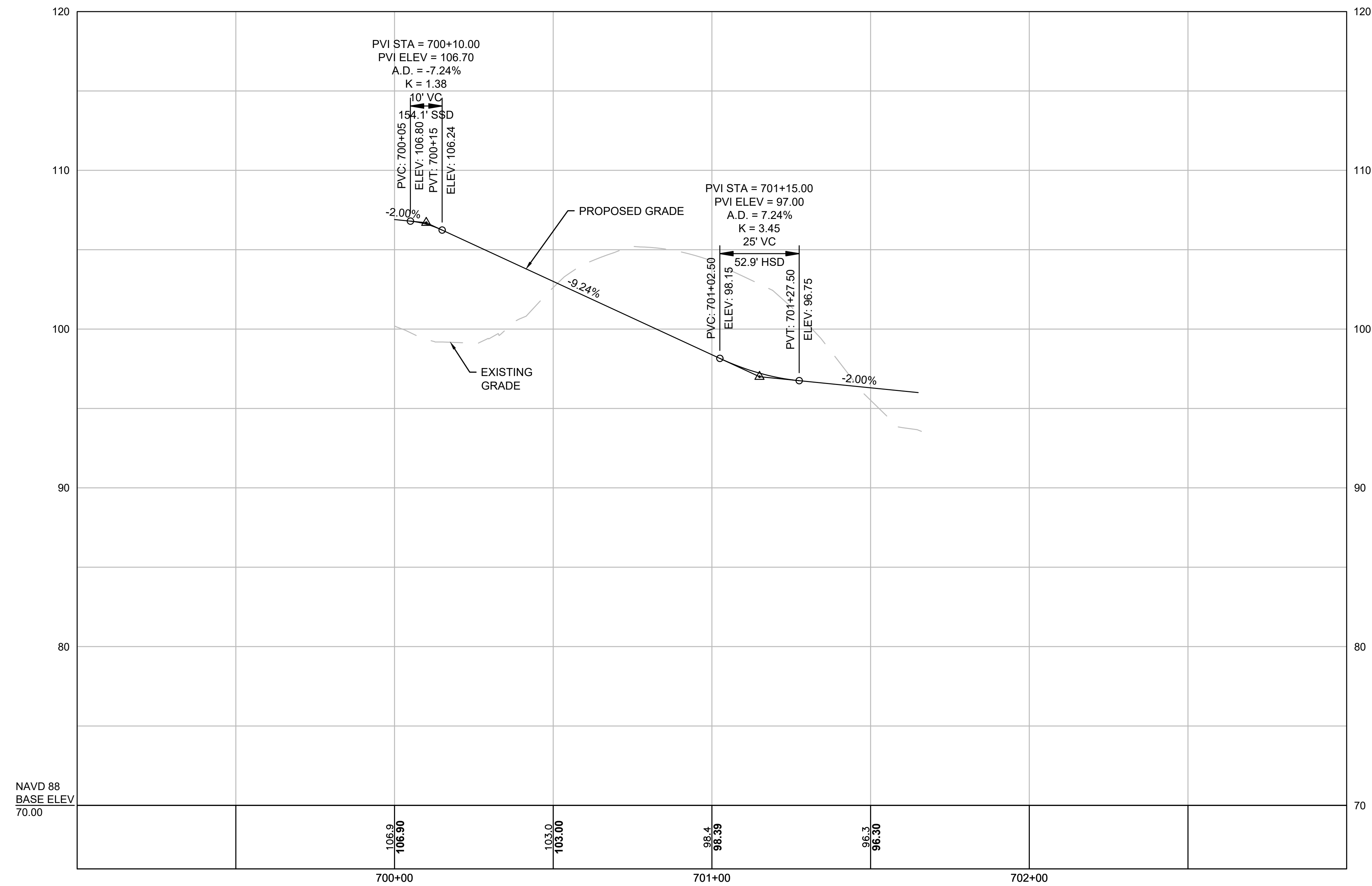
FOR CONSTRUCTION PLAN:
SEE SHEET NO. 15-16

CONTINUED ON
SHEET NO. 28



BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	29	87
PROJECT FILE NO.		610800	

PROFILE
ACC_1

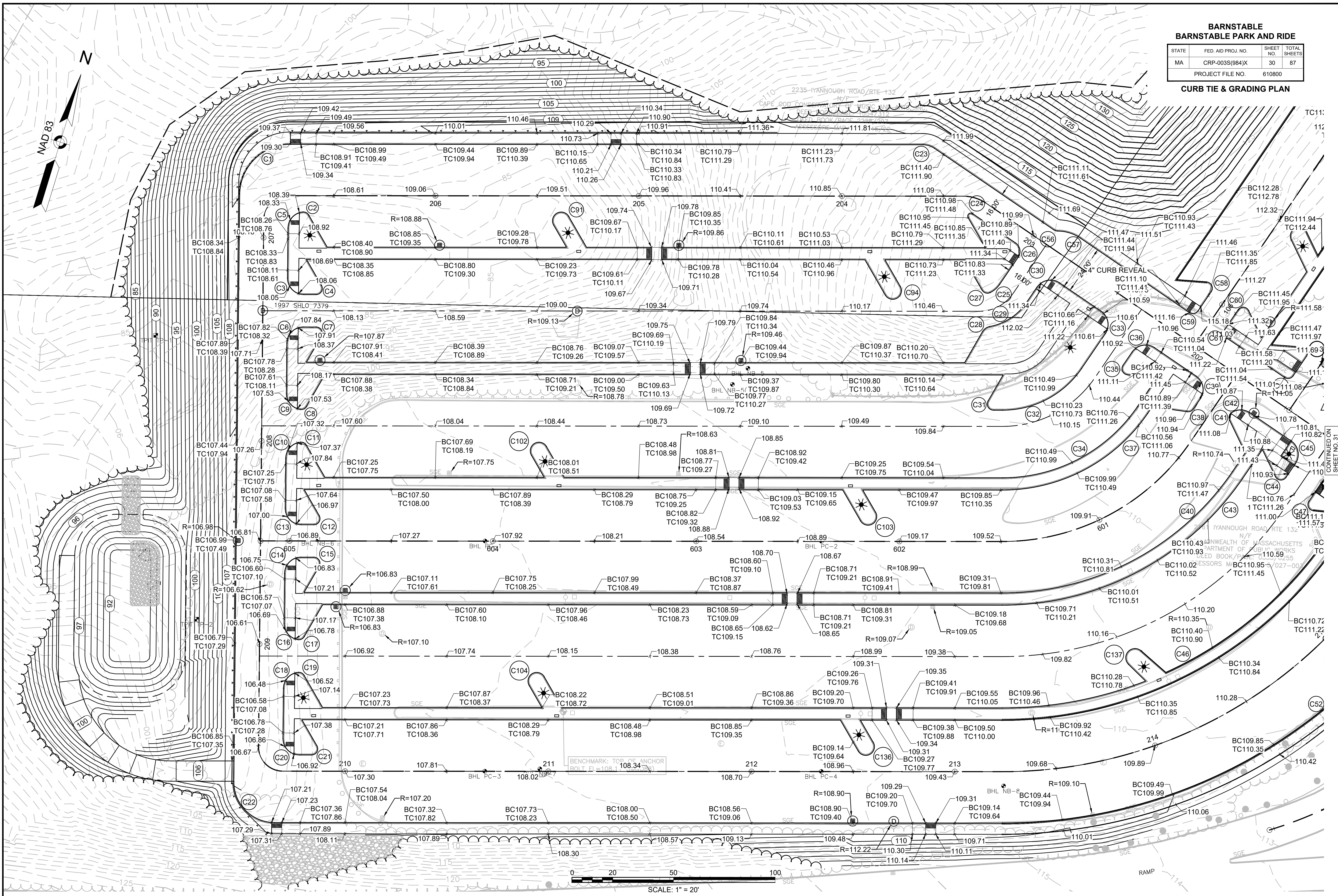


FOR CONSTRUCTION PLAN:
SEE SHEET NO. 15

BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	30	87
PROJECT FILE NO.		610800	

CURB TIE & GRADING PLAN

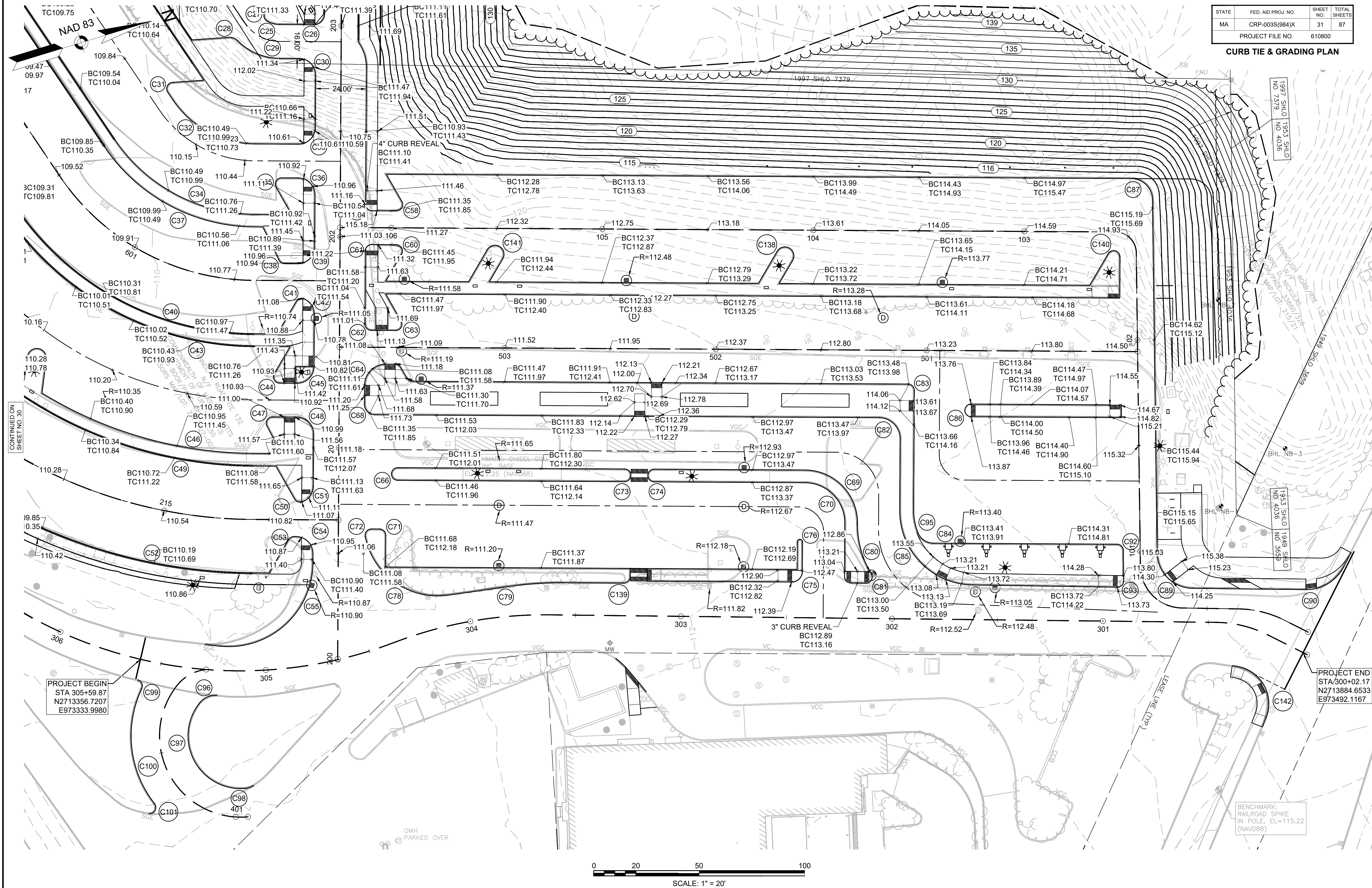


CONTINUED ON
SHEET NO. 31

BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	31	87
PROJECT FILE NO.		610800	

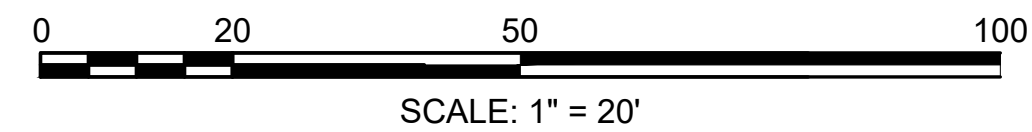
CURB TIE & GRADING PLAN



PROJECT BEGIN
STA 305+59.87
N2713356.7207
E973333.9980

PROJECT END
STA 300+02.17
N2713384.6533
E973492.1167

BENCHMARK:
RAILROAD SPIKE
IN POLE, EL=115.22
(NAVD88)



CONTINUED ON
SHEET NO. 30

BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	32	87
PROJECT FILE NO.		610800	

CURB TIE & GRADING PLAN

CURVE TABLE							
CURVE	RADIUS	LENGTH	TANGENT	DELTA	ALIGNMENT	BEGIN STA/OFFSET	END STA/OFFSET
C1	25.00'	39.04'	24.77'	89°28'27"	DWY_2	206+71.38 25.32	206+85.53 14.98
C2	3.00'	3.42'	1.92'	65°17'20"	DWY_2	206+62.39 -9.52	206+65.26 -8.03
C3	8.00'	12.64'	8.07'	90°31'33"	DWY_2	207+19.80 -12.00	207+27.80 -20.07
C4	3.00'	6.28'	5.20'	120°00'00"	DWY_2	207+23.22 -28.70	207+27.74 -26.15
C5	8.00'	11.75'	7.23'	84°11'07"	DWY_2	206+65.26 -8.03	206+95.16 -12.00
C6	8.00'	12.49'	7.93'	89°28'27"	DWY_2	207+43.80 -19.93	207+51.80 -12.00
C7	3.00'	6.28'	5.20'	120°00'00"	DWY_2	207+43.74 -26.29	207+48.22 -28.93
C8	3.00'	3.58'	2.04'	68°27'29"	DWY_2	207+84.36 -18.90	207+82.87 -21.92
C9	8.00'	11.46'	6.96'	82°04'04"	DWY_2	207+76.44 -12.00	207+84.36 -18.90
C10	8.00'	11.75'	7.23'	84°11'06"	DWY_2	208+00.48 -19.19	208+08.44 -12.00
C11	3.00'	3.42'	1.92'	65°17'22"	DWY_2	208+00.48 -19.19	208+01.94 -22.08
C12	3.00'	6.28'	5.20'	120°00'00"	DWY_2	208+36.50 -28.70	208+41.03 -26.15
C13	8.00'	12.64'	8.07'	90°31'33"	DWY_2	208+33.08 -12.00	208+41.08 -20.07
C14	8.00'	12.49'	7.93'	89°28'27"	DWY_2	208+57.09 -19.93	208+65.09 -12.00
C15	3.00'	6.28'	5.20'	120°00'00"	DWY_2	208+57.03 -26.29	208+61.50 -28.93
C16	8.00'	11.46'	6.96'	82°04'04"	DWY_2	208+89.73 -12.00	208+97.65 -18.90
C17	3.00'	3.58'	2.04'	68°27'29"	DWY_2	208+96.16 -21.92	208+97.65 -18.90
C18	8.00'	11.75'	7.23'	84°11'06"	DWY_2	209+13.77 -19.19	209+21.73 -12.00
C19	3.00'	3.42'	1.92'	65°17'22"	DWY_2	209+13.77 -19.19	209+15.23 -22.08
C20	8.00'	12.64'	8.07'	90°31'33"	DWY_2	209+46.37 -12.00	209+77.44 -8.00

CURVE TABLE							
CURVE	RADIUS	LENGTH	TANGENT	DELTA	ALIGNMENT	BEGIN STA/OFFSET	END STA/OFFSET
C61	3.00'	4.71'	3.00'	90°00'00"	DWY_2	201+96.37 15.00	201+93.37 12.00
C62	3.00'	4.71'	3.00'	90°00'00"	DWY_2	201+55.73 15.00	201+58.73 12.00
C63	3.00'	6.28'	5.20'	120°00'00"	DWY_2	201+60.23 29.17	201+55.73 26.57
C64	10.00'	15.28'	9.58'	87°31'17"	DWY_2	201+39.72 21.57	201+29.73 12.00
C66	3.00'	9.42'	INFINITY	180°00'00"	DWY_2	200+90.73 28.00	200+84.73 28.00
C68	5.00'	7.85'	5.00'	90°00'00"	DWY_2	201+15.73 17.00	201+20.73 12.00
C69	25.00'	39.43'	25.16'	90°21'24"	DWY_2	200+65.57 246.00	200+90.73 221.00
C70	19.00'	29.96'	19.12'	90°21'24"	DWY_2	200+65.61 240.00	200+84.73 221.00
C71	3.00'	4.71'	3.00'	90°00'00"	DWY_2	200+58.63 22.47	200+61.63 19.47
C72	2.97'	5.35'	3.74'	103°11'55"	DWY_3	200+61.63 15.66	200+58.02 12.72
C73	3.00'	9.42'	INFINITY	180°00'00"	DWY_3	303+27.51 69.50	303+27.47 63.50
C74	3.00'	9.42'	INFINITY	180°00'00"	DWY_3	303+13.51 69.58	303+13.47 63.58
C75	5.00'	7.85'	5.00'	90°00'00"	DWY_3	302+42.72 21.87	302+47.69 16.84
C76	1.25'	3.93'	INFINITY	180°00'00"	DWY_3	302+42.80 35.87	302+45.30 35.86
C78	35.00'	52.96'	33.04'	86°42'11"	DWY_3	304+07.75 14.24	304+33.54 51.84
C79	150.00'	21.92'	10.98'	8°22'28"	DWY_3	303+57.63 15.24	303+78.36 14.20
C80	44.35'	24.59'	12.62'	31°45'49"	DWY_3	302+10.12 21.36	302+16.85 44.68
C81	3.00'	6.51'	5.68'	124°18'58"	DWY_3	302+10.12 21.36	302+12.57 16.65
C82	10.00'	15.71'	10.00'	90°00'00"	DWY_3	301+97.07 85.23	302+07.13 95.17

CURVE TABLE							
CURVE	RADIUS	LENGTH	TANGENT	DELTA	ALIGNMENT	BEGIN STA/OFFSET	END STA/OFFSET
C21	3.00'	6.28'	5.20'	120°00'00"	DWY_2	209+86.11 -12.50	209+83.52 -8.00
C22	20.00'	31.60'	20.18'	90°31'33"	DWY_2	209+57.96 17.62	209+68.07 25.55
C23	10.00'	5.98'	3.08'	34°17'03"	DWY_2	203+54.53 23.58	203+60.16 25.32
C24	1.50'	4.04'	6.57'	154°17'03"	DWY_2	203+32.69 -7.71	203+35.26 -10.27
C25	12.00'	6.21'	3.18'	29°40'06"	DWY_2	203+00.38 -29.26	203+01.95 -35.20
C26	5.00'	7.85'	5.00'	90°00'00"	DWY_2	203+00.38 -13.00	203+05.38 -8.00
C27	3.00'	4.51'	2.80'	86°02'51"	DWY_2	203+01.95 -35.20	203+05.86 -36.42
C28	5.00'	4.33'	2.31'	49°36'57"	DWY_2	202+92.69 -49.17	202+94.17 -53.10
C29	28.00'	22.15'	11.69'	45°19'55"	DWY_2	202+84.38 -29.26	202+92.69 -49.17
C30	8.00'	12.57'	8.00'	90°00'00"	DWY_2	202+76.38 -12.00	202+84.38 -20.00
C31	3.00'	6.28'	5.20'	120°00'00"	DWY_2	202+67.98 -82.07	202+72.67 -79.81
C32	47.08'	45.78'	24.88'	55°42'56"	DWY_2	202+43.74 -40.66	202+64.30 -79.55
C33	8.00'	12.57'	8.00'	90°00'00"	DWY_2	202+43.74 -20.00	202+51.74 -12.00
C34	80.40'	78.18'	42.49'	55°42'58"	DWY_2	202+10.42 -40.66	202+45.53 -107.08
C35	3.00'	6.28'	5.20'	120°00'00"	DWY_2	202+23.24 -30.47	202+27.74 -27.88
C36	8.00'	12.57'	8.00'	90°00'00"	DWY_2	202+19.74 -12.00	202+27.74 -20.00
C37	86.40'	84.02'	45.66'	55°42'58"	DWY_2	202+04.42 -40.66	202+42.15 -112.04
C38	3.00'	3.33'	1.86'	83°40'56"	DWY_2	201+87.10 -26.20	201+88.77 -28.89
C39	8.00'	12.57'	8.00'	90°00'00"	DWY_2	201+87.10 -20.00	201+95.10 -12.00
C40	137.04'	133.26'	72.43'	55°42'58"	DWY_2	201+53.78 -40.66	213+23.33 -87.96

CURVE TABLE							
CURVE	RADIUS	LENGTH	TANGENT	DELTA	ALIGNMENT	BEGIN STA/OFFSET	END STA/OFFSET
C83	3.00'	4.71'	3.00'	90°00'00"	DWY_1	103+51.72 -75.64	103+54.72 -72.64
C84	8.00'	9.61'	5.48'	68°47'39"	DWY_3	301+80.76 36.00	301+88.25 41.06
C85	35.00'	54.64'	34.67'	89°27'09"	DWY_3	301+62.02 16.42	301+96.88 51.23
C86	3.00'	9.42'	INFINITY	180°00'00"	DWY_1	101+70.68 -79.19	101+64.68 -79.30
C87	10.00'	15.52'	9.81'	88°55'22"	DWY_1	102+50.85 20.95	102+54.77 26.11
C89	17.00'	26.29'	16.59'	88°36'18"	DWY_1	100+57.04 9.40	100+99.03 8.00
C90	20.00'	22.03'	12.28'	63°06'11"	DWY_3	300+03.29 44.93	300+14.49 27.25
C91	4.25'	13.35'	INFINITY	180°00'00"	DWY_2	205+34.44 -10.13	205+41.81 -14.38
C92	3.00'	4.66'	2.94'	88°55'22"	DWY_1	101+00.39 -8.00	101+03.39 -10.94
C93	3.00'	4.80'	3.09'	91°37'29"	DWY_1	100+86.71 -12.57	100+88.06 -8.80
C94	4.25'	13.35'	INFINITY	180°00'00"	DWY_2	203+71.30 -44.39	203+78.66 -48.64
C95	29.50'	10.92'	5.52'	21°12'21"	DWY_3	301+88.25 41.06	301+90.30 51.72
C96	10.00'	9.13'	4.91'	52°18'28"	DWY_3	305+22.58 -11.77	305+29.92 -15.80
C97	25.00'	58.63'	59.44'	134°22'31"	DWY_4	400+15.05 -13.49	401+05.81 -13.50
C98	10.00'	4.16'	2.11'	23°48'56"	DWY_3	305+07.12 -54.49	305+10.22 -55.72
C99	3.00'	5.23'	3.57'	99°52'47"	DWY_3	305+56.32 -13.47	305+58.91 -9.78
C100	52.00'	57.64'	32.18'	63°30'29"	DWY_4	400+24.79 13.50	400+67.47 13.50
C101	3.00'	6.97'	6.92'	133°07'16"	DWY_4	400+67.47 13.50	400+69.00 18.56
C102	4.25'	13.35'	INFINITY	180°00'00"	DWY_2	205+45.30 -123.41	205+52.66 -127.66
C103	4.25'	13.35'	INFINITY	180°00'00"	DWY_2	212+60.89 -127.66	212+53.53 -123.41

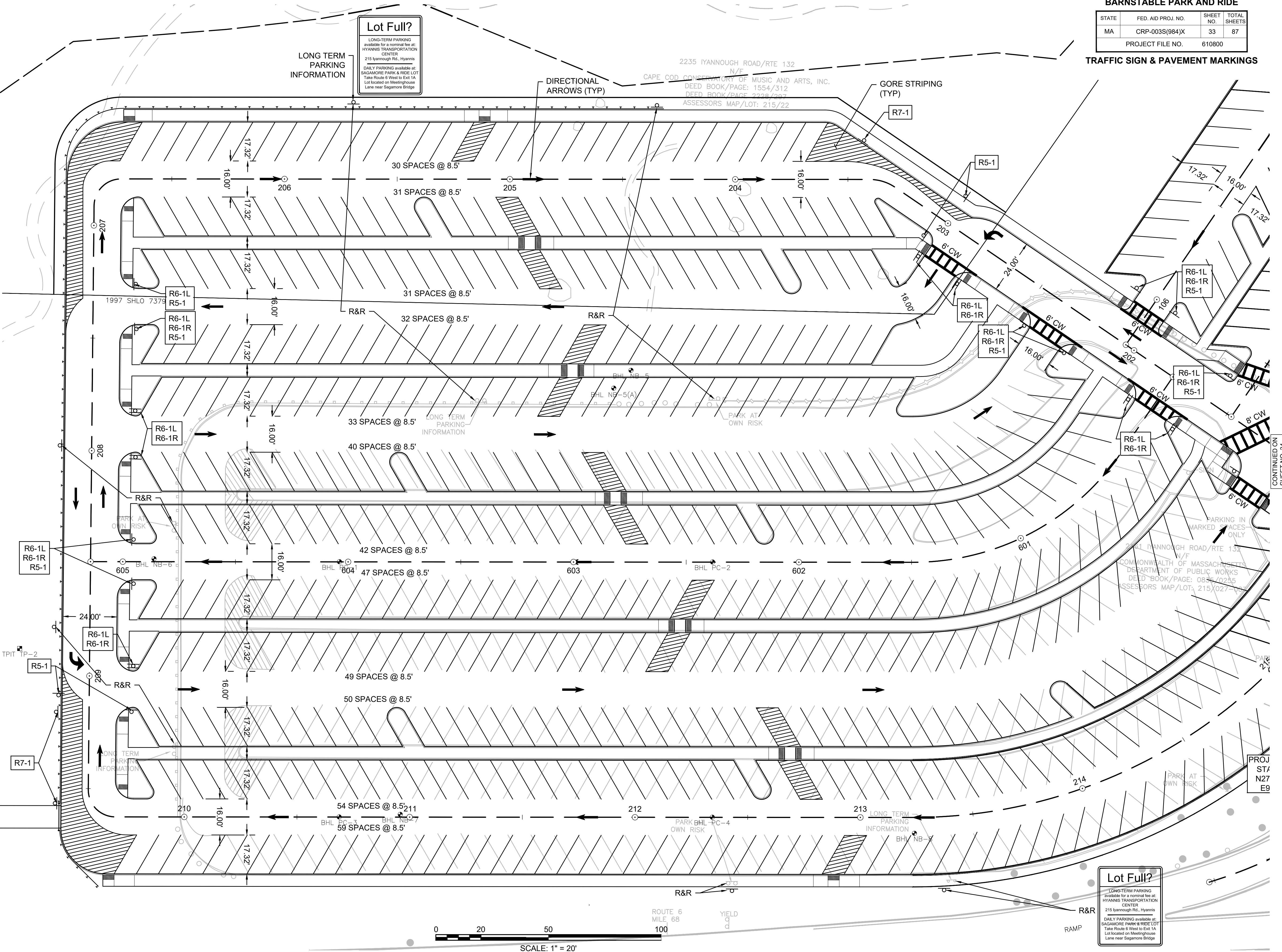
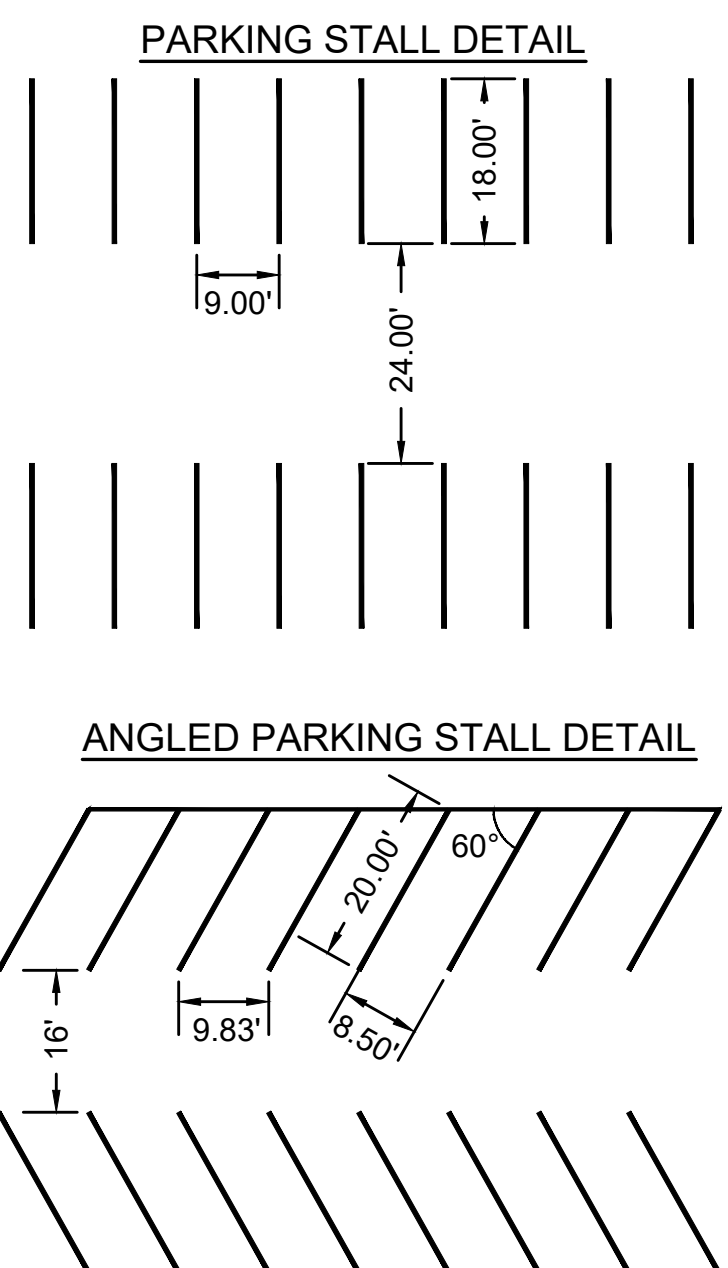
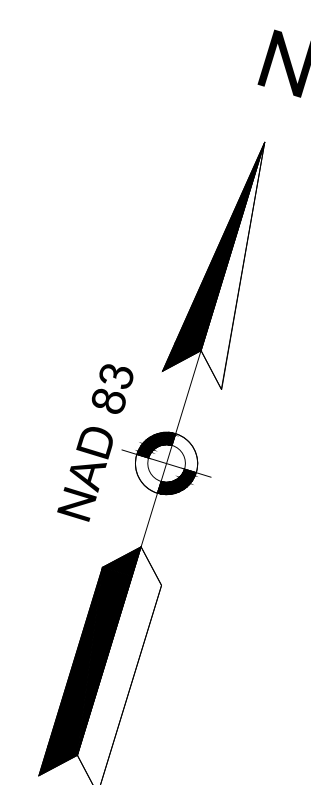
CURVE TABLE							
CURVE	RADIUS	LENGTH	TANGENT	DELTA	ALIGNMENT	BEGIN STA/OFFSET	END STA/OFFSET
C41	3.00'	4.35'	2.66'	83°08'07"	DWY_2	201+69.19 -20.63	201+70.45 -16.86
C42	8.00'	9.34'	5.28'	66°51'53"	DWY_2	201+63.10 -12.00	201+70.45 -16.86
C43	143.04'	139.09'	75.60'	55°42'58"	DWY_2	201+47.78 -40.66	213+23.33 -81.96
C44	3.00'	6.28'	5.20'	120°00'00"	DWY_2	201+30.46 -28.21	201+34.96 -30.81
C45	8.00'	12.57'	8.00'	90°00'00"	DWY_2	201+30.46 -20.00	201+38.46 -12.00
C46	193.68'	188.34'	102.37'	55°42'57"	DWY_2	213+23.33 -31.32	215+42.13 -31.32
C47	3.00'	6.19'	5.01'	118°12'19"	DWY_2	201+10.04 -34.12	201+14.46 -31.47
C48	8.00'	12.57'	8.00'	90°00'00"	DWY_2	201+06.46 -12.00	201+14.46 -20.00
C49	199.68'	194.17'	105.54'	55°42'57"	DWY_2	213+23.33 -25.32	215+42.13 -25.32
C50	3.00'	4.21'	2.53'	80°21'58"	DWY_2	215+61.93 -9.81	215+65.57 -8.50
C51	8.00'	9.72'	5.56'	69°38'02"	DWY_2	200+81.81 -12.00	215+65.57 -8.50
C52	250.32'	243.42'	132.30'	55°42'57"	DWY_2	213+23.33 25.32	215+42.13 25.32
C53	3.00'	3.14'	1.73'	60°00'00"	DWY_2	215+59.15 9.50	215+61.75 8.00
C54	8.00'	12.57'	8.00'	90°00'00"	DWY_2	200+49.81 -12.00	215+62.79 8.00
C55	40.00'	66.73'	44.11'	95°35'23"	DWY_2	200+05.70 -55.90	200+45.51 -12.00
C56	3.00'	1.80'	0.93'	34°18'04"	DWY_2	202+91.65 8.52	202+93.34 8.00
C57	20.00'	11.97'	6.17'	34°18'04"	DWY_2	202+80.38 12.00	202+91.65 8.52
C58	3.00'	6.28'	5.20'	120°00'00"	DWY_1	105+95.14 12.50	105+97.74 8.00
C59	3.00'	4.71'	3.00'	90°00'00"	DWY_1	106+09.31 8.00	106+12.31 11.00
C60	3.00'	6.28'	5.20'	120°00'00"	DWY_1	105+95.14 -12.50	105+97.74 -8.00

CURVE TABLE							
CURVE	RADIUS	LENGTH	TANGENT	DELTA	ALIGNMENT	BEGIN STA/OFFSET	END STA/OFFSET
C104	4.25'	13.35'	INFINITY	180°00'00"	DWY_2	210+97.93 -46.52	210+90.57 -42.27
C136	4.25'	13.35'	INFINITY	180°00'00"	DWY_2	212+52.49 -10.13	212+59.85 -14.38
C137	4.52'	13.96'	161.16'	176°47'03"	DWY_2	214+01.26 -42.01	214+11.37 -45.97
C138	4.25'	13.35'	INFINITY	180°00'00"	DWY_1	104+09.74 -14.38	104+17.10 -10.13
C139	3.00'	4.71'	3.00'	90°00'00"	DWY_3	303+24.24 18.41	303+27.22 15.40
C140	3.00'	7.85'	11.20'	150°00'00"	DWY_1	102+39.46 -7.76	102+60.19 -10.35
C141	4.25'	13.35'	INFINITY	180°00'00"	DWY_1	105+47.15 -14.38	105+54.51 -10.13
C142	18.00'	32.50'	22.81'	103°26'51"	DWY_3	300+03.93 -35.57	300+31.12 -19.33

BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	33	87
PROJECT FILE NO.		610800	

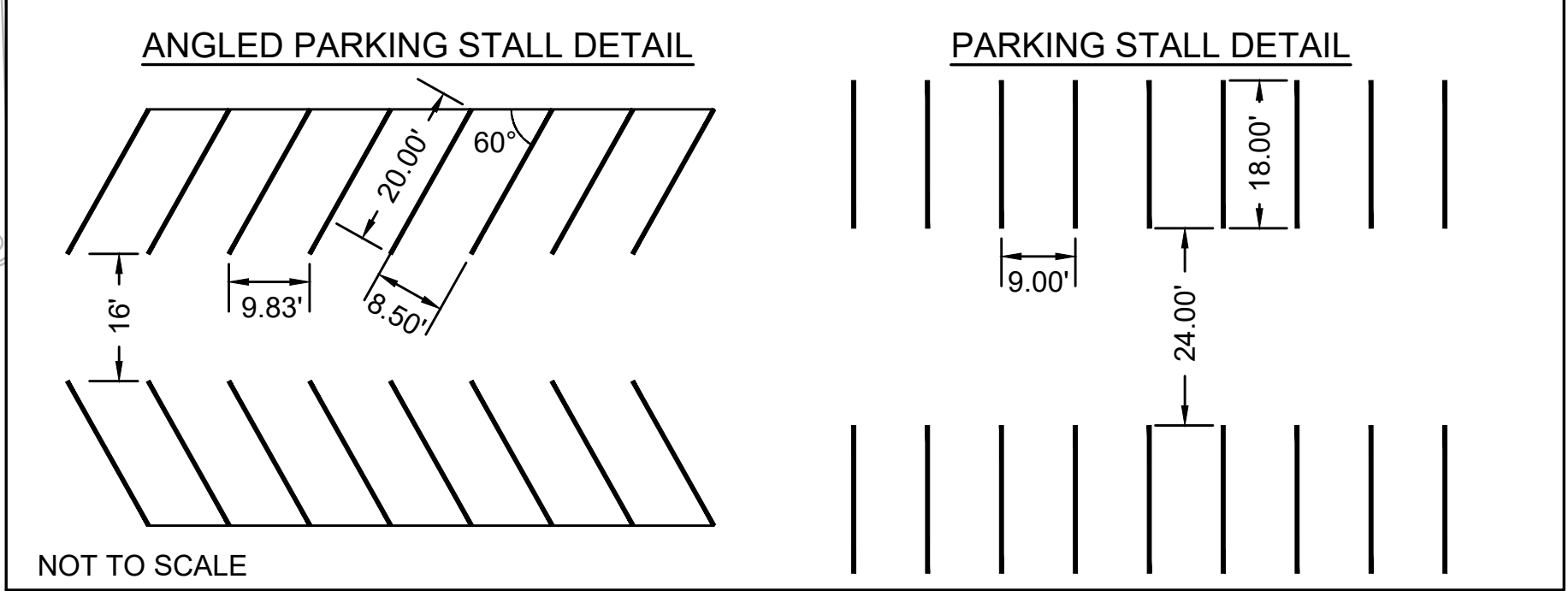
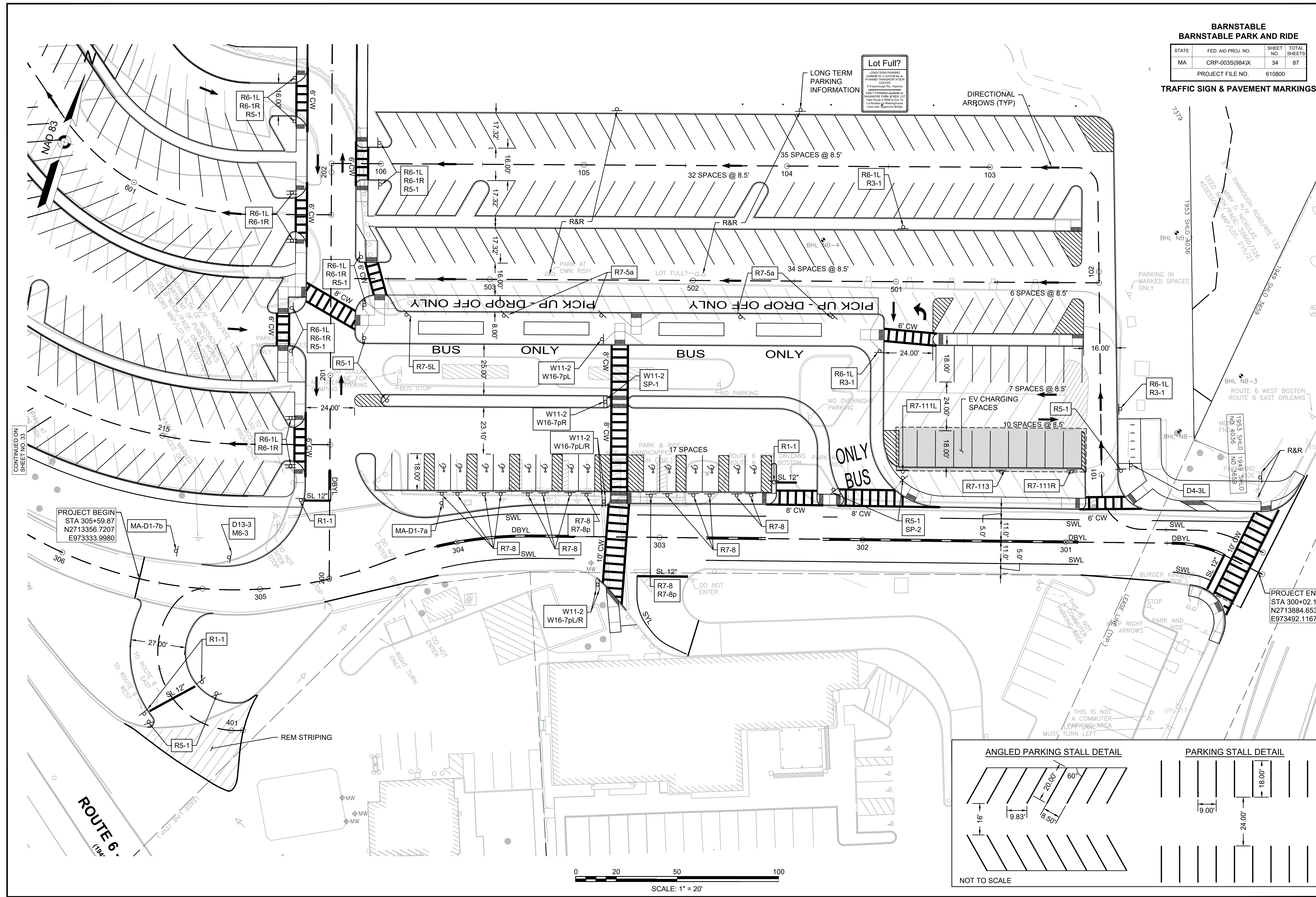
TRAFFIC SIGN & PAVEMENT MARKINGS



BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	34	87
PROJECT FILE NO.		610800	

TRAFFIC SIGN & PAVEMENT MARKINGS



TRAFFIC SIGN SUMMARY

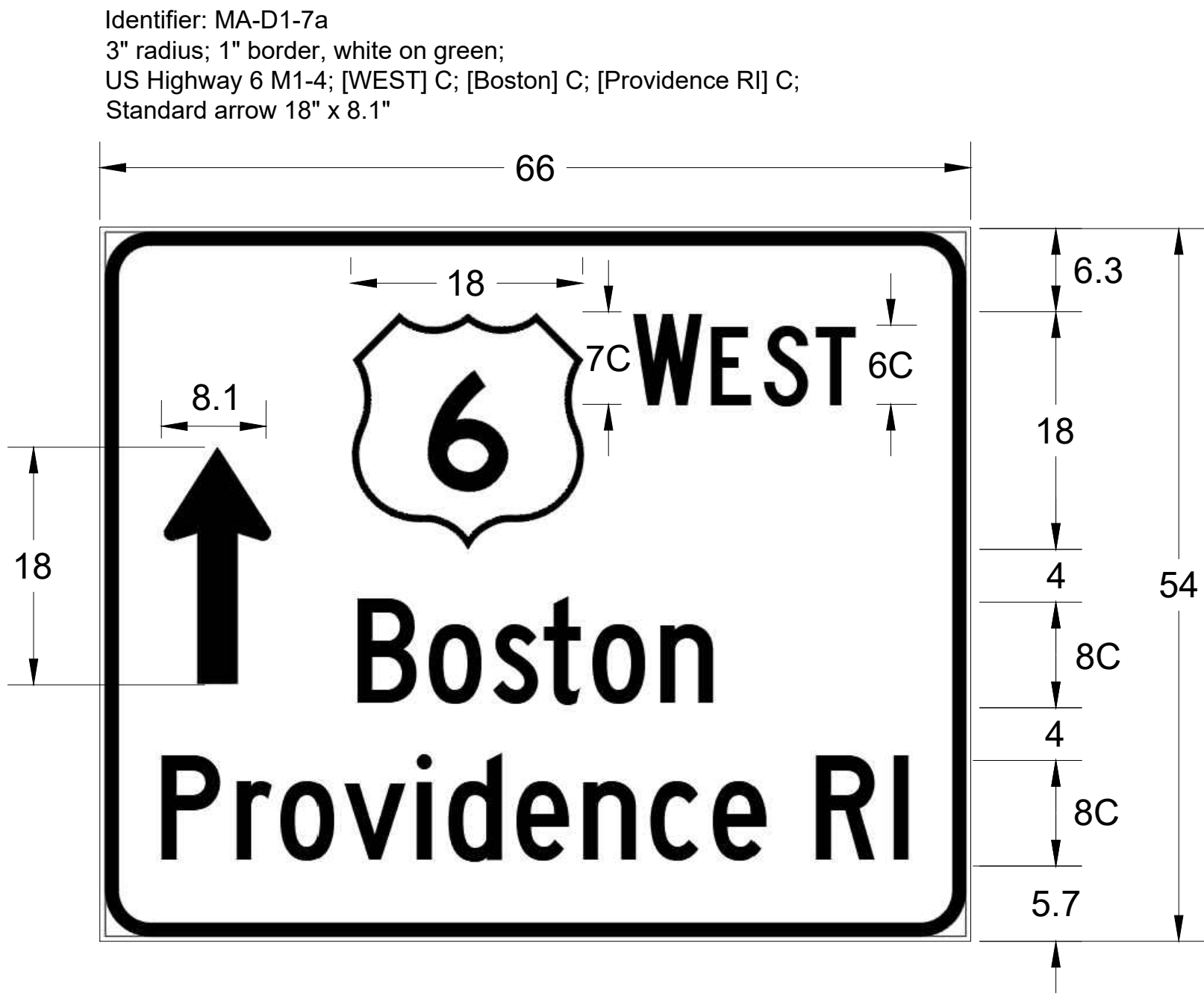
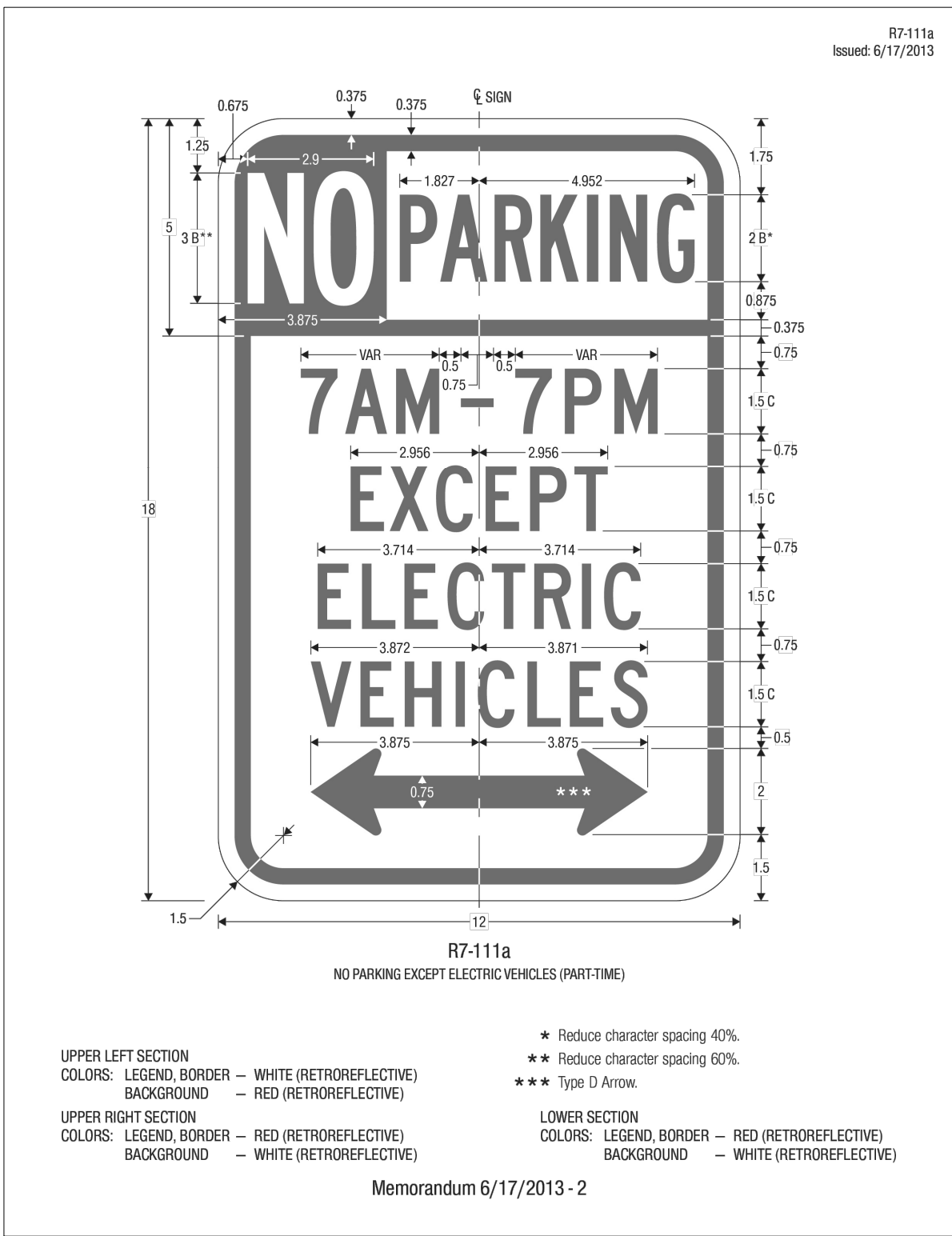
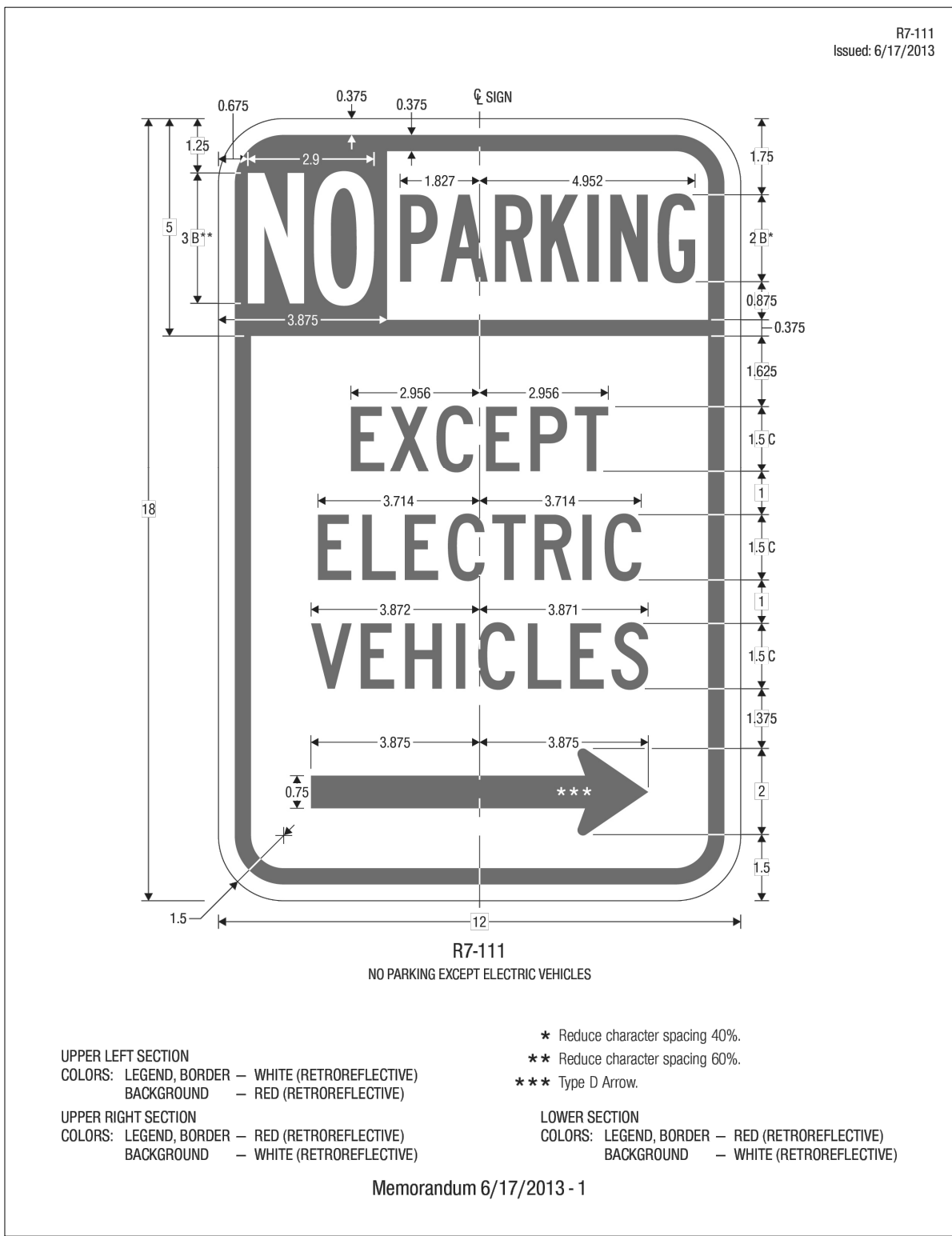
BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	35	87
PROJECT FILE NO.		610800	
TRAFFIC SIGN SUMMARY SHEET			

IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND	BORDER			
D13-3 (MOD)	48	30		SEE 2009 M.U.T.C.D.			1	GREEN	WHITE	WHITE	P-5 (2)	10.00	10.00
R1-1	30	30		SEE 2009 M.U.T.C.D.			3	RED	WHITE	WHITE	P-5 (3)	6.25	18.75
R3-1	24	24		SEE 2009 M.U.T.C.D.			3	WHITE	BLACK RED	WHITE	MNTD W/R6-1L (2) P-5 (1)	4.0	12.0
R5-1	30	30		SEE 2009 M.U.T.C.D.			23	WHITE	RED	WHITE	P-5 (23)	6.25	143.75
R6-1L	36	12		SEE 2009 M.U.T.C.D.			18	WHITE	BLACK	BLACK	P-5 (11) MNTD W/R5-1 (7)	3.00	54.00
R6-1R	36	12		SEE 2009 M.U.T.C.D.			15	WHITE	BLACK	BLACK	MNTD W/R6-1L (15)	3.00	45.00
R7-1	12	18		SEE 2009 M.U.T.C.D.			3	WHITE	RED	RED	P-5 (3)	1.50	4.50
R7-5a (15 MIN)	12	18		SEE 2009 M.U.T.C.D.			4	WHITE	RED	RED	P-5 (4)	1.50	6.00
R7-5L (15 MIN)	12	18		SEE 2009 M.U.T.C.D.			1	WHITE	RED	RED	P-5	1.50	1.50
R7-8	12	18		SEE 2009 M.U.T.C.D.			14	WHITE	GREEN BLUE	GREEN	P-5 (14)	1.50	21
R7-8p	12	6		SEE 2009 M.U.T.C.D.			2	GREEN	WHITE	WHITE	MNTD W/R7-8 (2)	1.13	2.26
R7-113	12	18		SEE SHEET 36			1	RED WHITE	WHITE RED	RED	P-5 (1)	1.50	1.50
R7-111L	12	18		SEE SHEET 36			1	RED WHITE	WHITE RED	RED	P-5 (1)	1.50	1.50
R7-111R	12	18		SEE SHEET 36			1	RED WHITE	WHITE RED	RED	P-5 (1)	1.50	1.50
W11-2	30	30		SEE 2009 M.U.T.C.D.			4	FLUOR. YELLOW- GREEN	BLACK	BLACK	P-5 (3)	9.00	36.00
W16-7pL	24	12		SEE 2009 M.U.T.C.D.			2	FLUOR. YELLOW- GREEN	BLACK	BLACK	MNTD W/W11-2	2.00	4.00
W16-7pR	24	12		SEE 2009 M.U.T.C.D.			1	FLUOR. YELLOW- GREEN	BLACK	BLACK	MNTD W/W11-2	2.00	2.00
M6-3	21	15		SEE 2009 M.U.T.C.D.			1	WHITE	BLACK	BLACK	MNTD W/D13-3	2.19	2.19

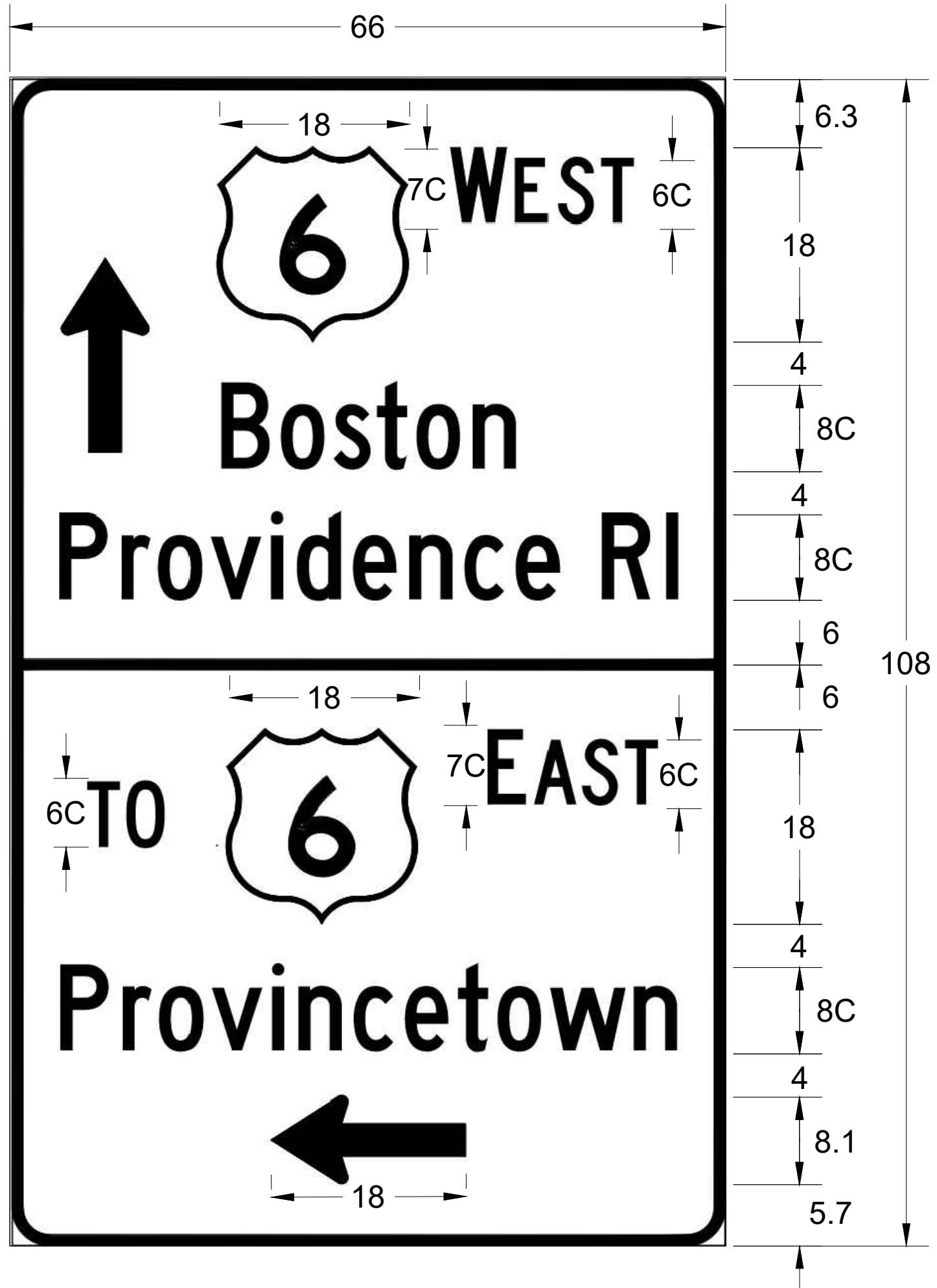
IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND	BORDER			
MA-D1-7a	66	54		SEE SHEET 36			1	GREEN	WHITE	WHITE	S5 X 10 POST (2)	24.75	24.75
MA-D1-7b	66	108		SEE SHEET 36			1	GREEN	WHITE	WHITE	S5 X 10 POST (2)	49.50	49.50
D4-3L	12	18		SEE 2009 M.U.T.C.D.			1	WHITE	GREEN	GREEN	P-5 (1)	1.50	1.50
SP-1	21	15		--	4.054 8.071 2.875	8.071x6 (2) @90 DEG	1	FLOUR. YELLOW- GREEN	BLACK	BLACK	MNTD W/W11-2	0.75	0.75
SP-2	24	12		3D	2 3D 2 3D 2	--	2	WHITE	BLACK	BLACK	MNTD W/R5-1	2.00	4.00

TRAFFIC SIGN SUMMARY

BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	36	87
PROJECT FILE NO.		610800	
TRAFFIC SIGN SUMMARY SHEET			



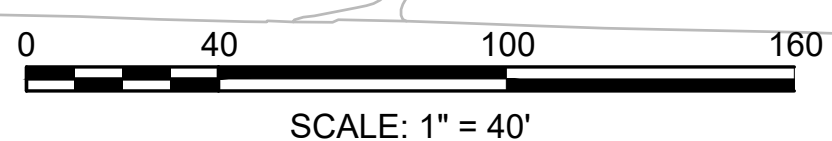
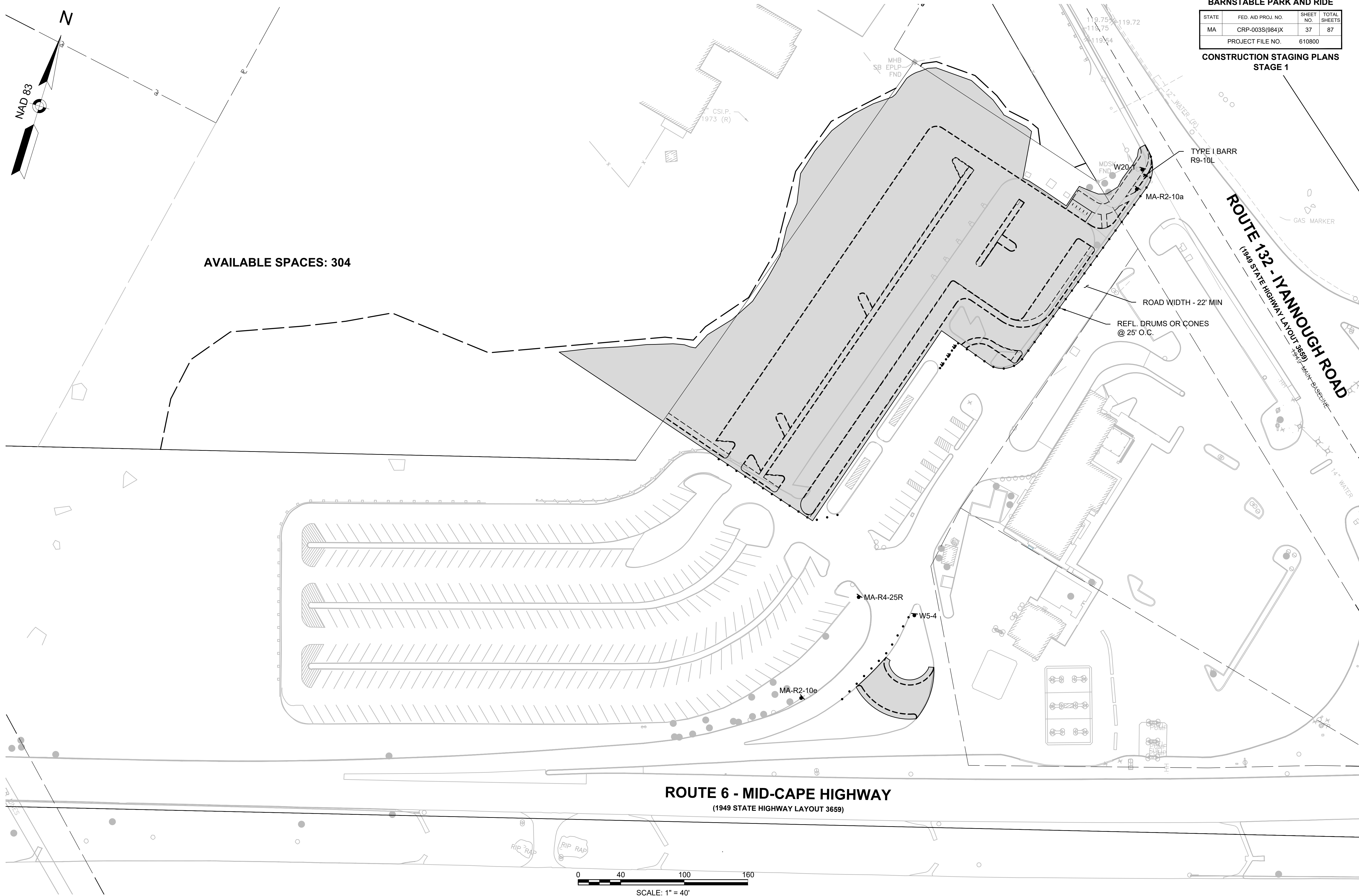
Identifier: MA-D1-7b
3" radius; 1" border, white on green;
US Highway 6 M1-4; [WEST] C; [Boston] C; [Providence RI] C;
US Highway 6 M1-4; [EAST] C; [Provincetown] C;
Standard arrow 18" x 8.1"



BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	37	87
PROJECT FILE NO.		610800	

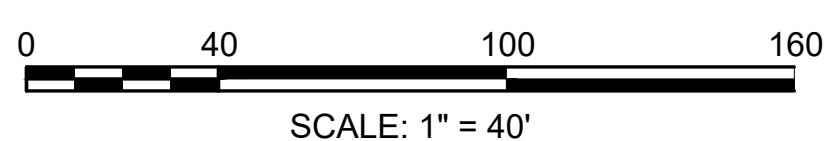
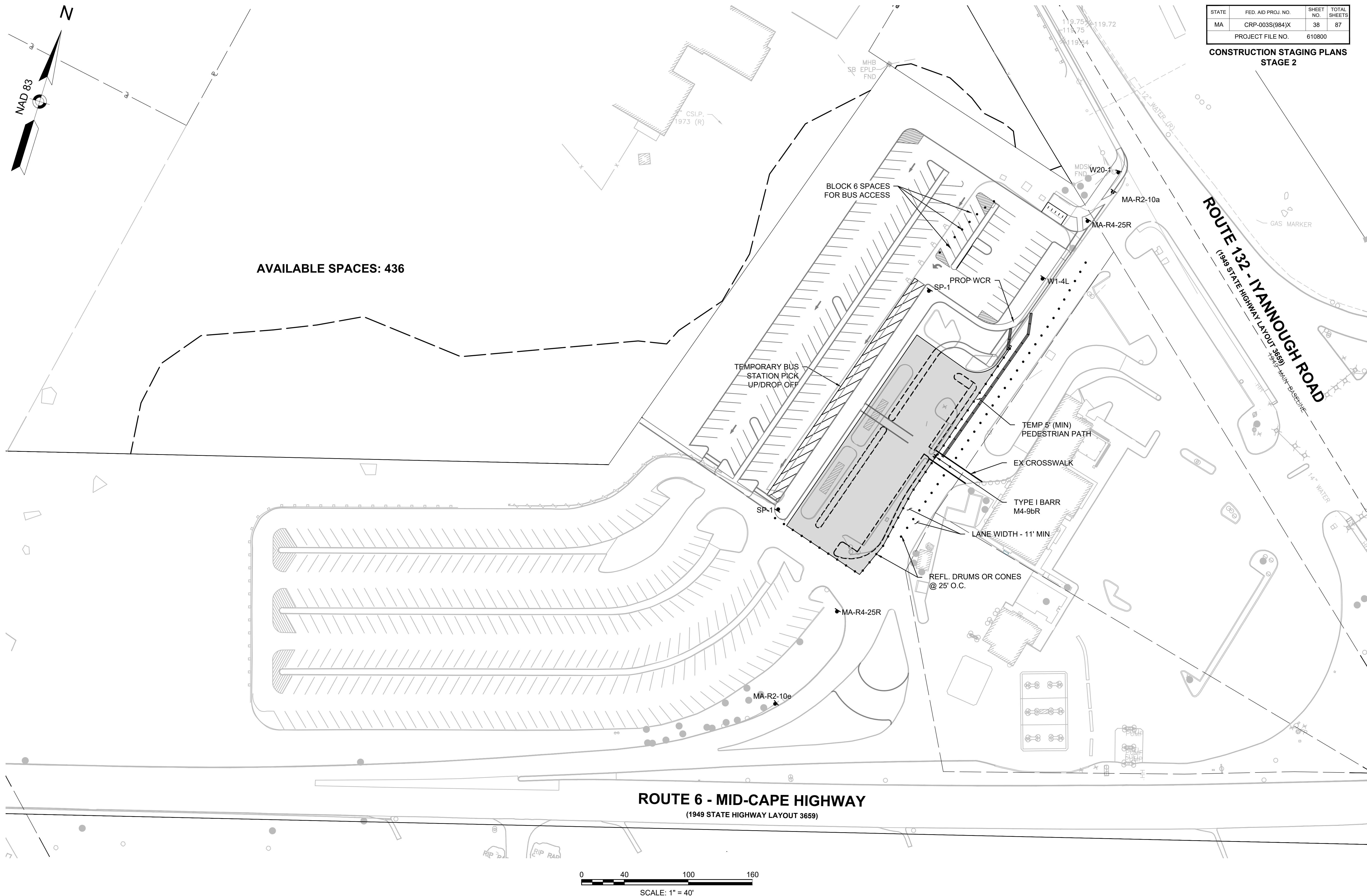
CONSTRUCTION STAGING PLANS
STAGE 1



BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	38	87
PROJECT FILE NO.		610800	

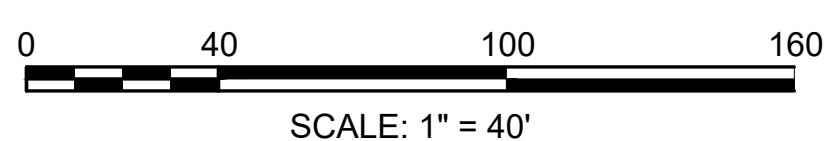
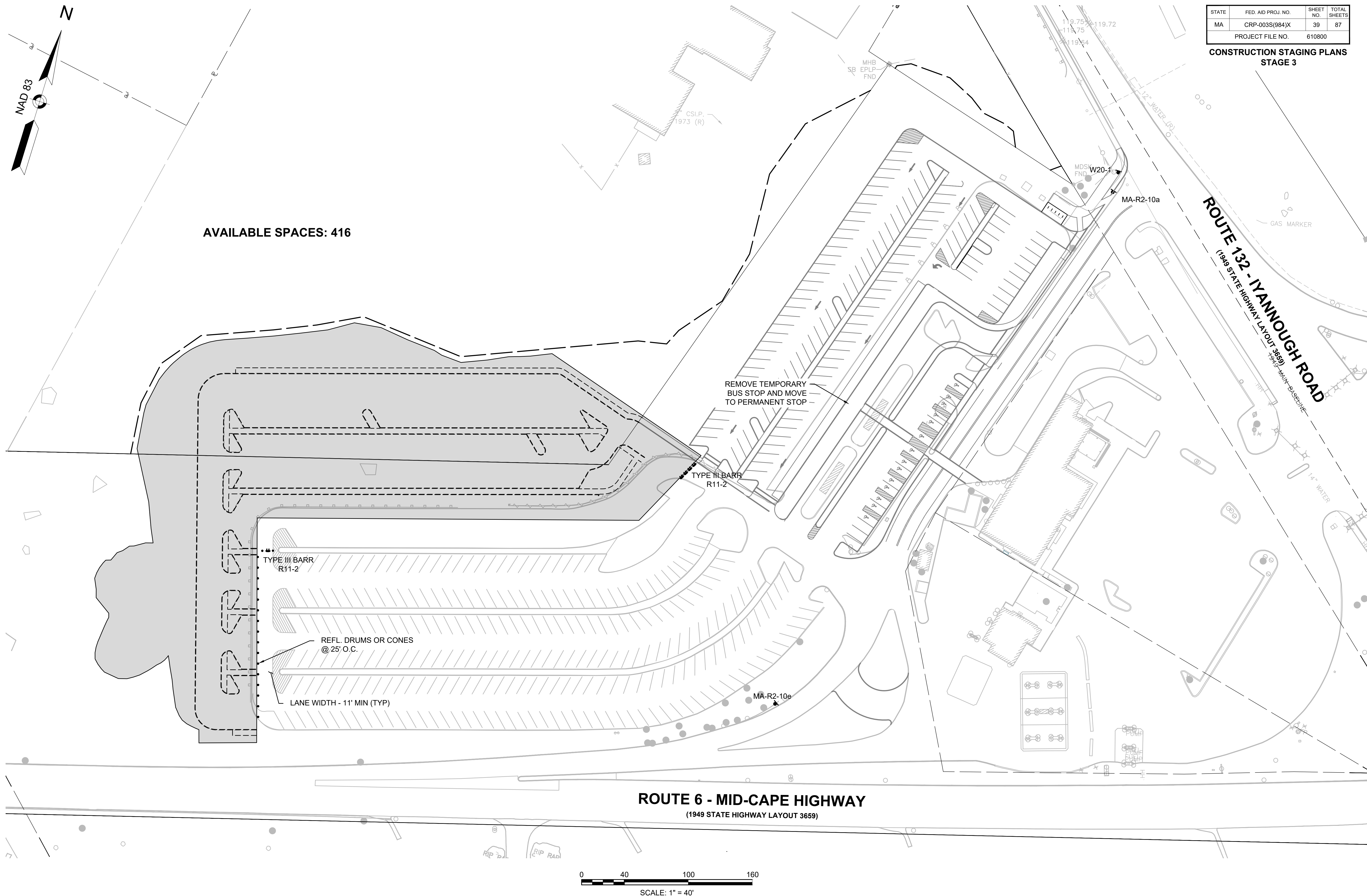
CONSTRUCTION STAGING PLANS
STAGE 2



BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	39	87
PROJECT FILE NO.		610800	

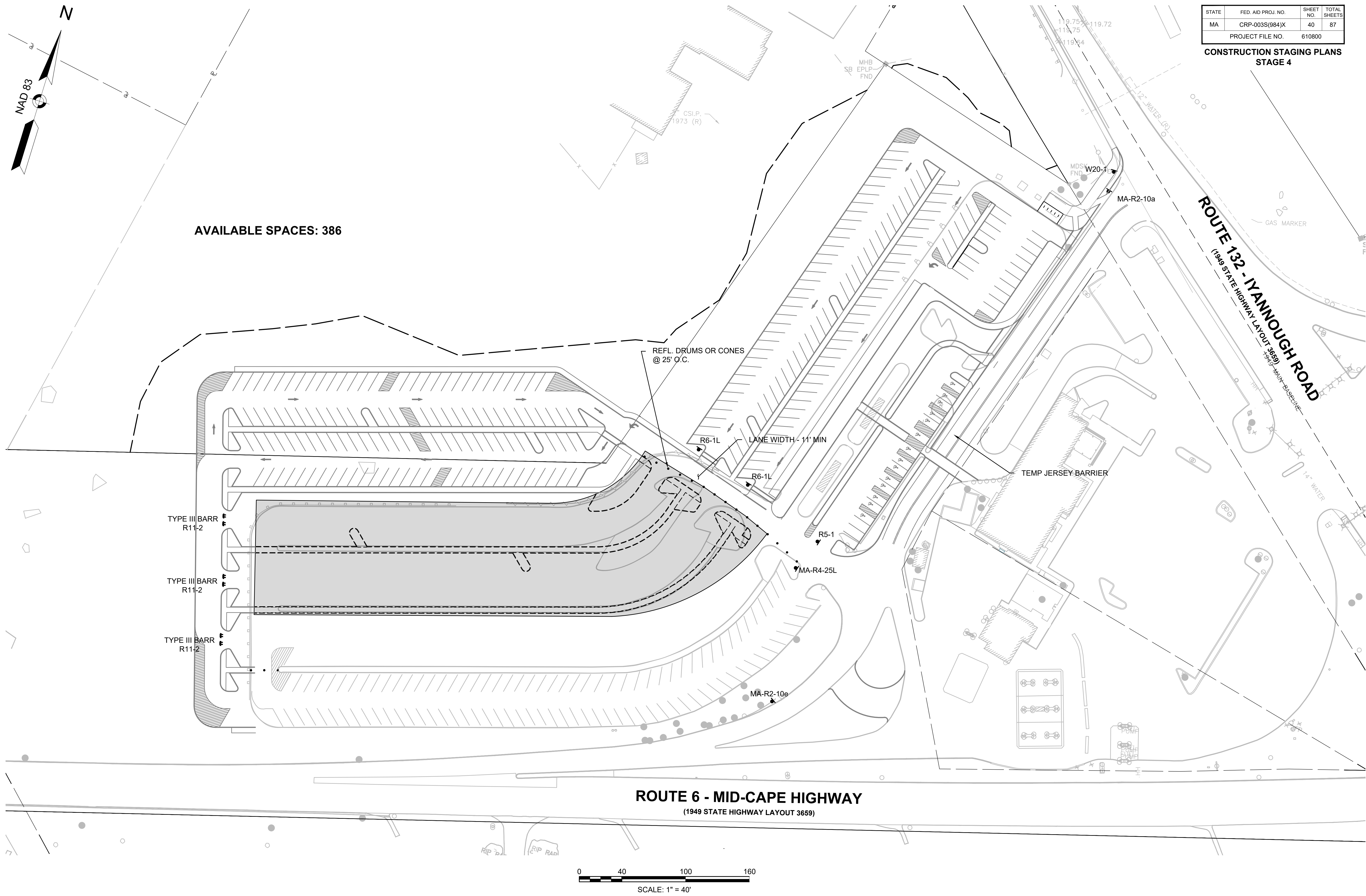
CONSTRUCTION STAGING PLANS
STAGE 3



BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	40	87
PROJECT FILE NO.		610800	

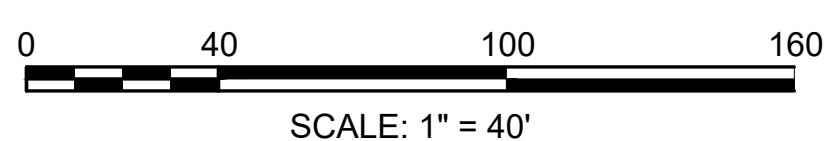
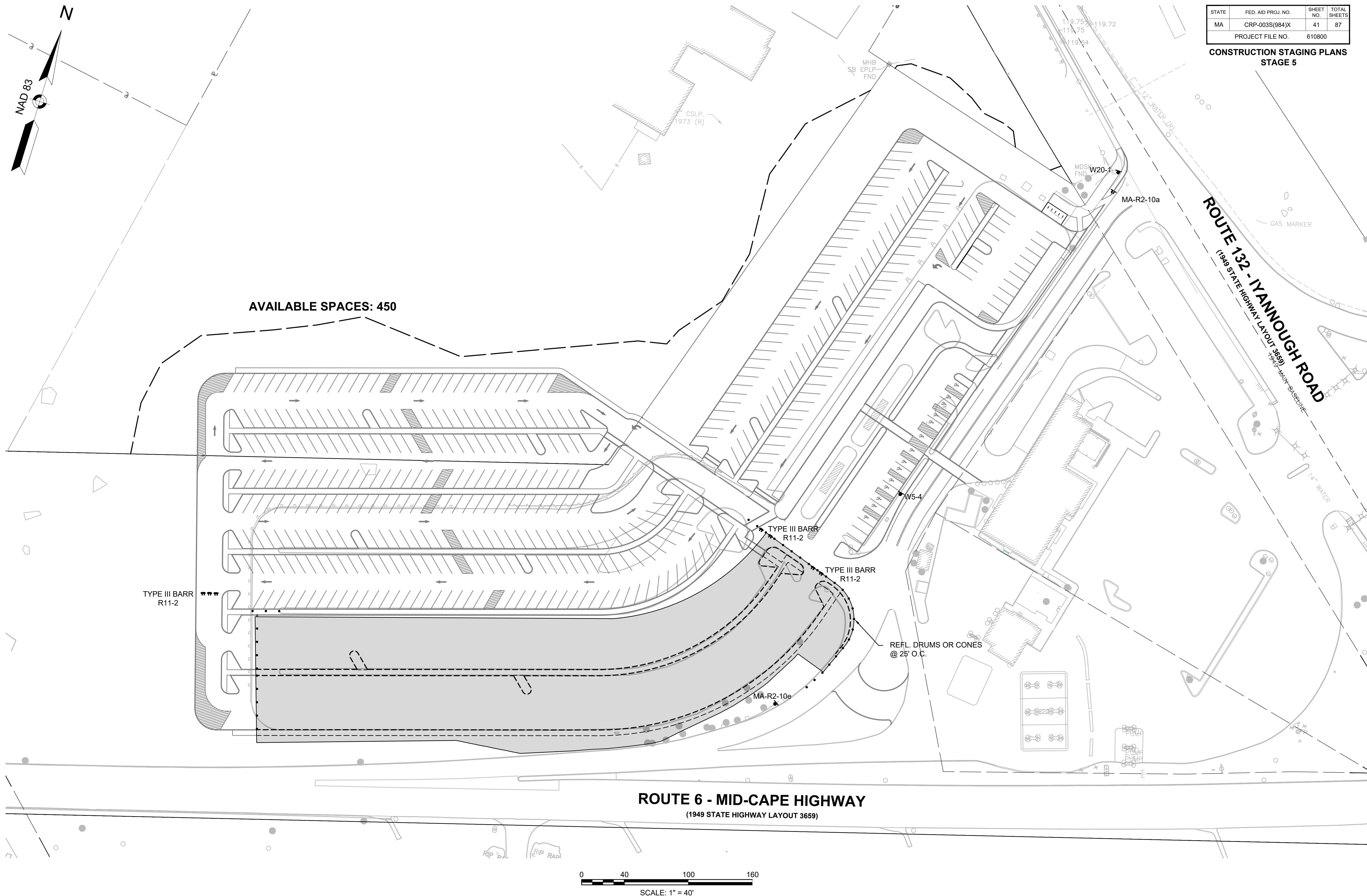
CONSTRUCTION STAGING PLANS
STAGE 4



BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	41	87
PROJECT FILE NO.		610800	

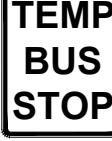
CONSTRUCTION STAGING PLANS
STAGE 5



TEMPORARY TRAFFIC SIGN SUMMARY

BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	42	87
PROJECT FILE NO.		610800	

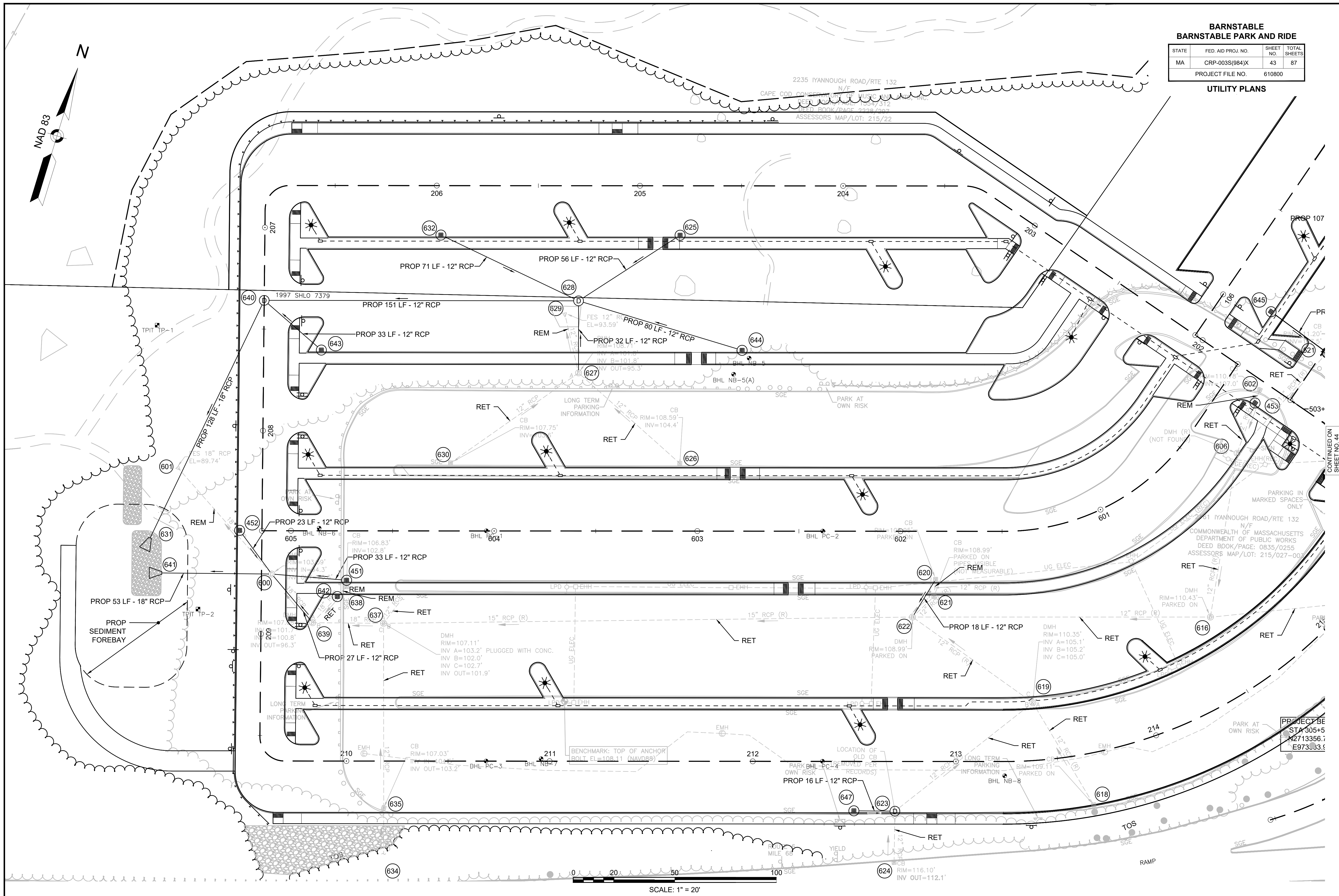
TEMPORARY TRAFFIC CONTROL PLAN SIGN SUMMARY

IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND	BORDER			
M4-9bR	30	24		5D	1	14	1	FL ORANGE/ WHITE	BLACK	BLACK	--	5.00	--
MA-R2-10a	48	36		4D -- 6D	3	--	1	FL ORANGE/ WHITE	BLACK	BLACK	--	12.00	--
MA-R2-10e	36	48		5C	4	--	1	FL ORANGE/ WHITE	BLACK	BLACK	--	12.00	--
MA-R4-25 L	24	30		5D	2.5	14	1	WHITE	BLACK	BLACK	--	5.00	--
MA-R4-25 R	24	30		5D	2.5	14	2	WHITE	BLACK	BLACK	--	5.00	--
R5-1	30	30		4D	2	5	1	WHITE	RED	BLACK	--	6.25	--
R6-1L	36	12		4D	2	5.25	2	WHITE	BLACK	BLACK	--	3.00	--
R9-10L	24	12		2C	1.75	1.6	3	WHITE	BLACK	BLACK	--	2.00	--
R11-2	48	30		8D	4	--	3	WHITE	BLACK	BLACK	--	10.00	--
W1-4L	36	36		--	--	33.4285	1	FL ORANGE	BLACK	BLACK	--	9.00	--
W5-4	36	36		6D	3.122	--	1	FL ORANGE	BLACK	BLACK	--	9.00	--
W20-1	36	36		5D	3.682	--	1	FL ORANGE	BLACK	BLACK	--	9.00	--
SP-2	24	30		5D	2.5	14	2	FL ORANGE	BLACK	BLACK	--	5.00	--

- NOTES:
- 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.
 - ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
 - TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
 - 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.
 - 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 MASH "MANUAL FOR ASSESSING SAFETY HARDWARE."
 - 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.
 - THE FIRST TEN PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH SEQUENTIAL FLASHING LIGHTS.
 - THE ADVISORY SPEED LIMIT, IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.
 - DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY AN ENGINEER.
 - MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT ON MPH.
 - MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CHANNELIZING DEVICE OR BARRIER.
 - ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.
 - ALL TEMPORARY FACILITIES, INCLUDING BUT NOT LIMITED TO, TEMPORARY PEDESTRIAN PASSAGEWAYS AROUND A CONSTRUCTION SITE SHALL COMPLY WITH 521 CMR.

BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	43	87
PROJECT FILE NO.		610800	

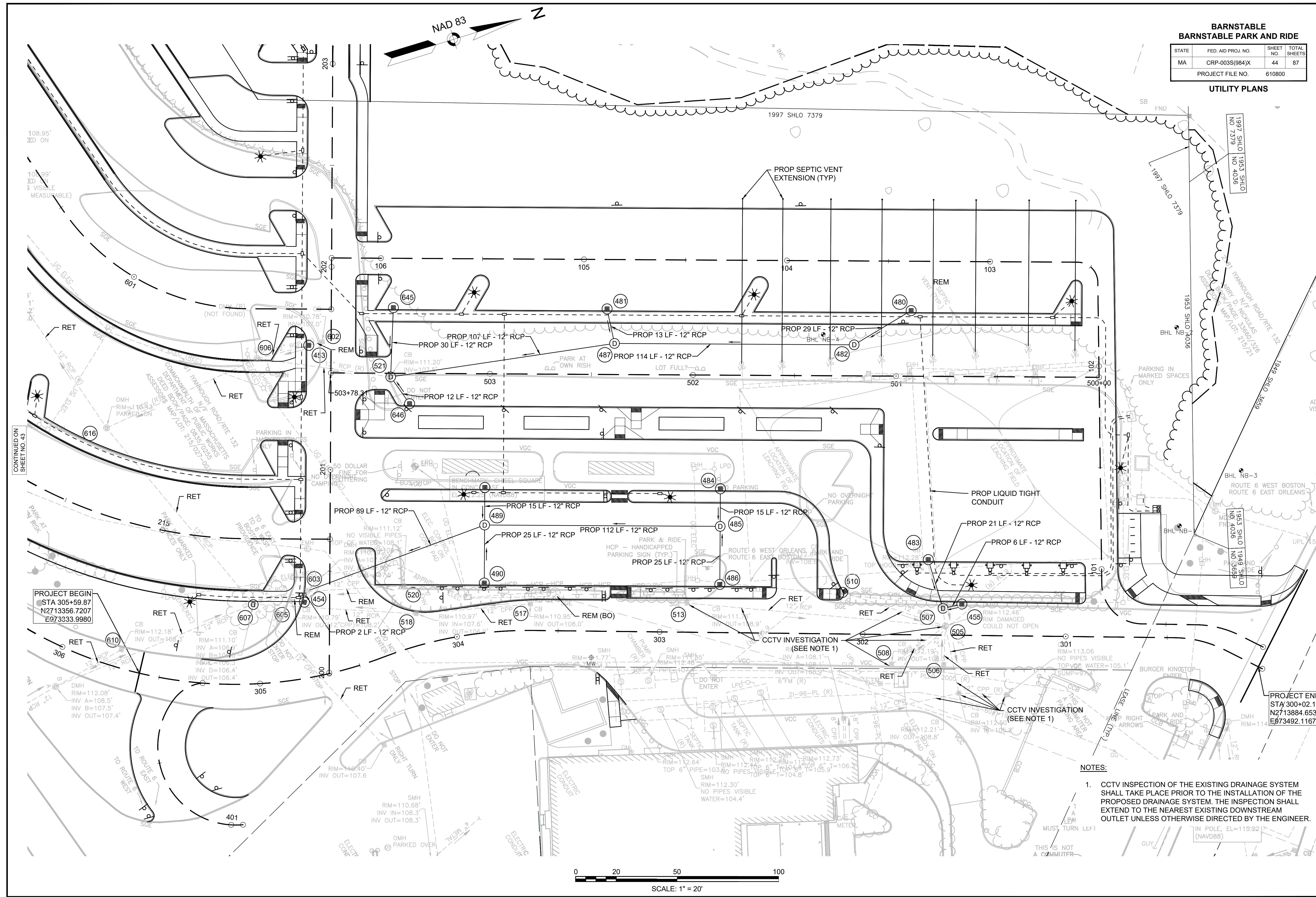
UTILITY PLANS



BARNSTABLE
BARNSTABLE PARK AND RIDE

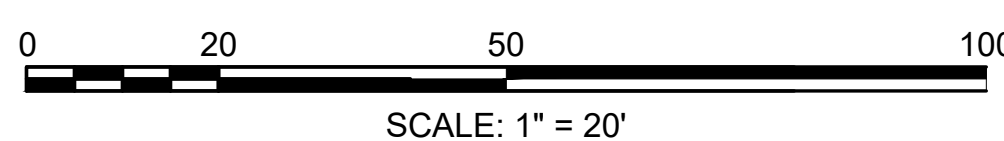
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	44	87
PROJECT FILE NO.		610800	

UTILITY PLANS



NOTES:

- CCTV INSPECTION OF THE EXISTING DRAINAGE SYSTEM SHALL TAKE PLACE PRIOR TO THE INSTALLATION OF THE PROPOSED DRAINAGE SYSTEM. THE INSPECTION SHALL EXTEND TO THE NEAREST EXISTING DOWNSTREAM OUTLET UNLESS OTHERWISE DIRECTED BY THE ENGINEER.



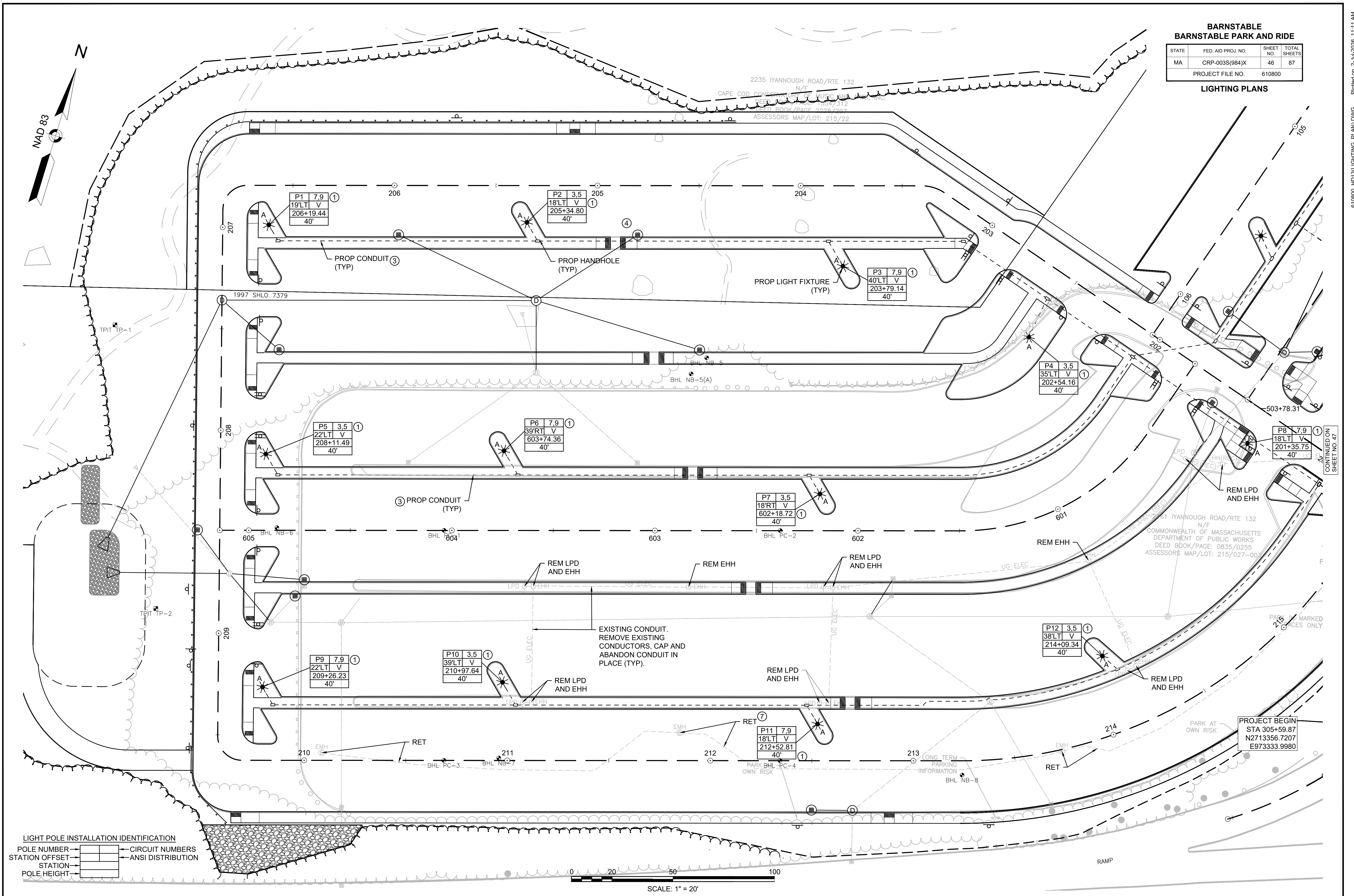
STRUCTURE TABLE							
NO.	ALIGNMENT	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS	TYPE
451	AISLE_2	604+72.6 24.3' LT	106.83		I=102.85' (600)	PROP CB	GRATE INLET
452	DWY_2	208+49.2 11.0' RT	106.98		I=102.60' (600)	PROP CB	GRATE INLET
453	AISLE_2	600+11 17.9' LT	111.05	I=106.88' (602)	I=106.88' (606)	PROP CB	GRATE INLET
454	AISLE_2	600+12.4 144.4' LT	110.90		I=107.71' (603)	PROP CB	GRATE INLET
455	AISLE_1	500+67 112.1' LT	113.05		I=108.50' (507)	PROP CB	GRATE INLET
480	AISLE_1	500+92.7 32.3' RT	113.77		I=109.27' (482)	PROP CB	GRATE INLET
481	AISLE_1	502+42.5 32.3' RT	112.48		I=108.35' (487)	PROP CB	GRATE INLET
482	AISLE_1	501+20.7 15.3' RT	113.28	I=109.10' (480)	I=109.00' (487)	PROP DMH	MANHOLE
483	AISLE_1	500+83.6 90.3' LT	113.40		I=107.50' (507)	PROP CB	GRATE INLET
484	AISLE_1	501+86.2 56.0' LT	112.93		I=109.32' (485)	PROP CB	GRATE INLET
485	AISLE_1	501+86.2 74.5' LT	112.67	I=109.23' (484) I=109.23' (486)	I=109.13' (489)	PROP DMH	MANHOLE
486	AISLE_1	501+86.2 103.1' LT	112.18		I=109.37' (485)	PROP CB	GRATE INLET
487	AISLE_1	502+38.7 15.3' RT	112.27	I=108.26' (482) I=108.26' (481)	I=108.16' (521)	PROP DMH	MANHOLE
488	AISLE_1	503+02.2 56.0' LT	111.65		I=108.64' (489)	PROP CB	GRATE INLET
489	AISLE_1	503+02.2 74.5' LT	111.47	I=108.55' (485) I=108.55' (488) I=108.55' (490)	I=108.45' (603)	PROP DMH	MANHOLE
490	AISLE_1	503+02.2 103.1' LT	111.20		I=108.69' (489)	PROP CB	GRATE INLET
505	AISLE_1	500+75 123.0' LT	112.52	I=106.50' (513) I=106.50' (508) I=106.80' (507) I=106.50' (510) I=106.50' (506)	I=106.00' (504)	ADJ	MANHOLE
506	AISLE_1	500+75.7 141.9' LT	112.28		I=108.80' (505)	RET	GRATE INLET
507	AISLE_1	500+76.2 114.3' LT	112.48	I=107.00' (483) I=108.30' (455)	I=106.90' (505)	CIT TO DMH	MANHOLE
508	AISLE_1	501+01.5 141.8' LT	112.24		I=108.30' (505)	RET	GRATE INLET
510	AISLE_1	501+25.7 106.7' LT	112.84		I=108.60' (505)	REMOD	GRATE INLET
513	AISLE_1	502+02.3 112.4' LT	111.82		I=108.90' (505)	REMOD	GRATE INLET
517	AISLE_1	502+79.4 113.3' LT	110.96		I=108.00' (518)	ADJ	GRATE INLET
518	AISLE_1	503+35.7 118.3' LT	110.90	I=107.60' (517)	I=106.90' (607)	ADJ	GRATE INLET
520	AISLE_1	503+41.8 104.6' LT	111.88		I=108.10' (603)	REM	GRATE INLET
521	AISLE_1	503+48.9 1.8' LT	111.19	I=107.60' (487) I=107.60' (645) I=107.60' (646)	I=107.50' (606)	CIT TO DMH	MANHOLE
600	DWY_2	208+70.5 5.0' LT	106.62	I=94.30' (639) I=102.11' (451) I=102.16' (452) I=100.07' (639)	I=90.60' (601) I=94.58' (641)	ADJ	MANHOLE
601	DWY_2	208+18.3 42.0' RT	91.53	I=89.74' (600)		REM	OUTFALL
602	AISLE_2	600+04.3 16.1' LT	110.74		I=107.00' (453)	REM	GRATE INLET
603	AISLE_2	600+11.3 139.0' LT	110.87	I=107.50' (520) I=110.31' (605) I=107.60' (454) I=107.60' (489)	I=107.50' (607)	ADJ	MANHOLE
605	AISLE_2	600+19.1 143.9' LT	110.94		I=-0.50' (603)	REM	GRATE INLET

STRUCTURE TABLE							
NO.	ALIGNMENT	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS	TYPE
606	AISLE_2	600+36.4 24.5' LT	110.74	I=106.50' (521) I=106.50' (453)	I=106.50' (616)	ADJ	MANHOLE
607	AISLE_2	600+37.6 145.7' LT	111.29	I=106.80' (518) I=106.40' (613) I=106.30' (522) I=106.90' (603)	I=106.40' (616)	CIT TO DMH	GRATE INLET
610	AISLE_2	600+64.9 175.0' LT	112.27		I=108.30' (613)	RET	GRATE INLET
616	AISLE_2	600+83.9 72.8' LT	110.35	I=105.60' (607) I=105.60' (606)	I=105.50' (622)	ADJ	MANHOLE
618	AISLE_2	601+29.3 138.6' LT	109.10		I=106.50' (619)	ADJ	GRATE INLET
619	AISLE_2	601+41.1 84.8' LT	110.35	I=105.20' (623) I=105.10' (618)	I=105.00' (622)	ADJ	MANHOLE
620	AISLE_2	601+82.7 23.6' LT	108.99		I=104.80' (621) I=104.94' (622)	REMOD	GRATE INLET
621	AISLE_2	601+83.5 32.1' LT	109.05	I=104.60' (620)	I=104.50' (622)	ADJ	GRATE INLET
622	AISLE_2	601+94 42.2' LT	109.07	I=104.10' (616) I=104.10' (621) I=104.10' (619) I=104.50' (620)	I=104.00' (637)	ADJ	MANHOLE
623	AISLE_2	602+02.6 137.8' LT	112.22	I=110.55' (624) I=106.17' (647)	I=106.07' (619)	PROP DMH	MANHOLE
624	AISLE_2	602+03 163.0' LT	116.23		I=112.10' (623)	RET	GRATE INLET
625	AISLE_2	603+08.6 145.6' RT	109.86		I=105.75' (628)	PROP CB	GRATE INLET
626	AISLE_2	603+08.6 33.3' RT	108.63		I=104.40' (627)	ADJ	GRATE INLET
627	AISLE_2	603+58.5 77.8' RT	108.78	I=101.80' (630) I=101.80' (626)	I=95.30' (629) I=101.70' (628)	ADJ	MANHOLE
628	AISLE_2	603+58.5 113.3' RT	109.13	I=100.99' (627) I=98.22' (644) I=103.25' (632) I=104.56' (625)	I=100.89' (640)	PROP DMH	MANHOLE
629	AISLE_2	603+65.4 107.3' RT	94.84	I=93.59' (627)		REM	OUTFALL
630	AISLE_2	604+21.4 33.5' RT	107.75		I=103.60' (627)	ADJ	GRATE INLET
631	DWY_2	208+53.4 55.0' RT		I=92.50' (640)		PROP FES	OUTFALL
632	AISLE_2	604+26.3 145.6' RT	108.88		I=104.75' (628)	PROP CB	GRATE INLET
634	AISLE_2	604+54.2 174.9' LT	121.76			RET	GRATE INLET
635	AISLE_2	604+54.2 136.3' LT	107.20	I=104.50' (636)	I=103.20' (637)	ADJ	GRATE INLET
637	AISLE_2	604+54.4 45.5' LT	107.10	I=102.00' (622) I=103.20' (633) I=102.70' (635)	I=101.90' (639)	ADJ	MANHOLE
638	AISLE_2	604+72.6 27.5' LT	106.84		I=102.80' (642)	REM	GRATE INLET
639	AISLE_2	604+89.3 45.2' LT	106.76	I=100.80' (637) I=101.70' (642)	I=96.30' (600) I=100.70' (600)	ADJ	MANHOLE
640	DWY_2	207+35.9 0.0'	107.84	I=98.00' (628) I=98.00' (643)	I=95.09' (631)	PROP DMH	MANHOLE
641	DWY_2	208+70.5 49.1' RT		I=93.50' (600)		PROP FES	OUTFALL
642	AISLE_2	604+77.2 32.3' LT	106.83	I=102.50' (638)	I=102.50' (639)	PROP CB	GRATE INLET
643	DWY_2	207+60 28.3' LT	107.87		I=98.75' (640)	PROP CB	GRATE INLET
644	AISLE_2	602+78 89.0' RT	109.46		I=105.50' (628)	PROP CB	GRATE INLET
645	AISLE_1	503+47.8 32.3' RT	111.58		I=108.03' (521)	PROP CB	GRATE INLET
646	AISLE_1	503+39.5 14.9' LT	111.37		I=107.92' (521)	PROP CB	GRATE INLET
647	DWY_2	212+49.8 24.3' RT	108.90		I=106.28' (623)	PROP CB	GRATE INLET

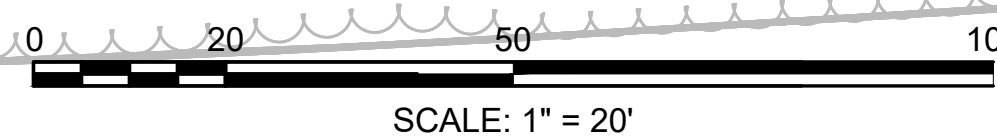
BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	45	87
PROJECT FILE NO.		610800	

UTILITY PLANS

BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	46	87
PROJECT FILE NO.		610800	
LIGHTING PLANS			



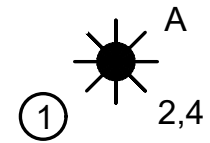
LIGHT POLE INSTALLATION IDENTIFICATION			
POLE NUMBER		CIRCUIT NUMBERS	
STATION OFFSET		ANSI DISTRIBUTION	
STATION			
POLE HEIGHT			



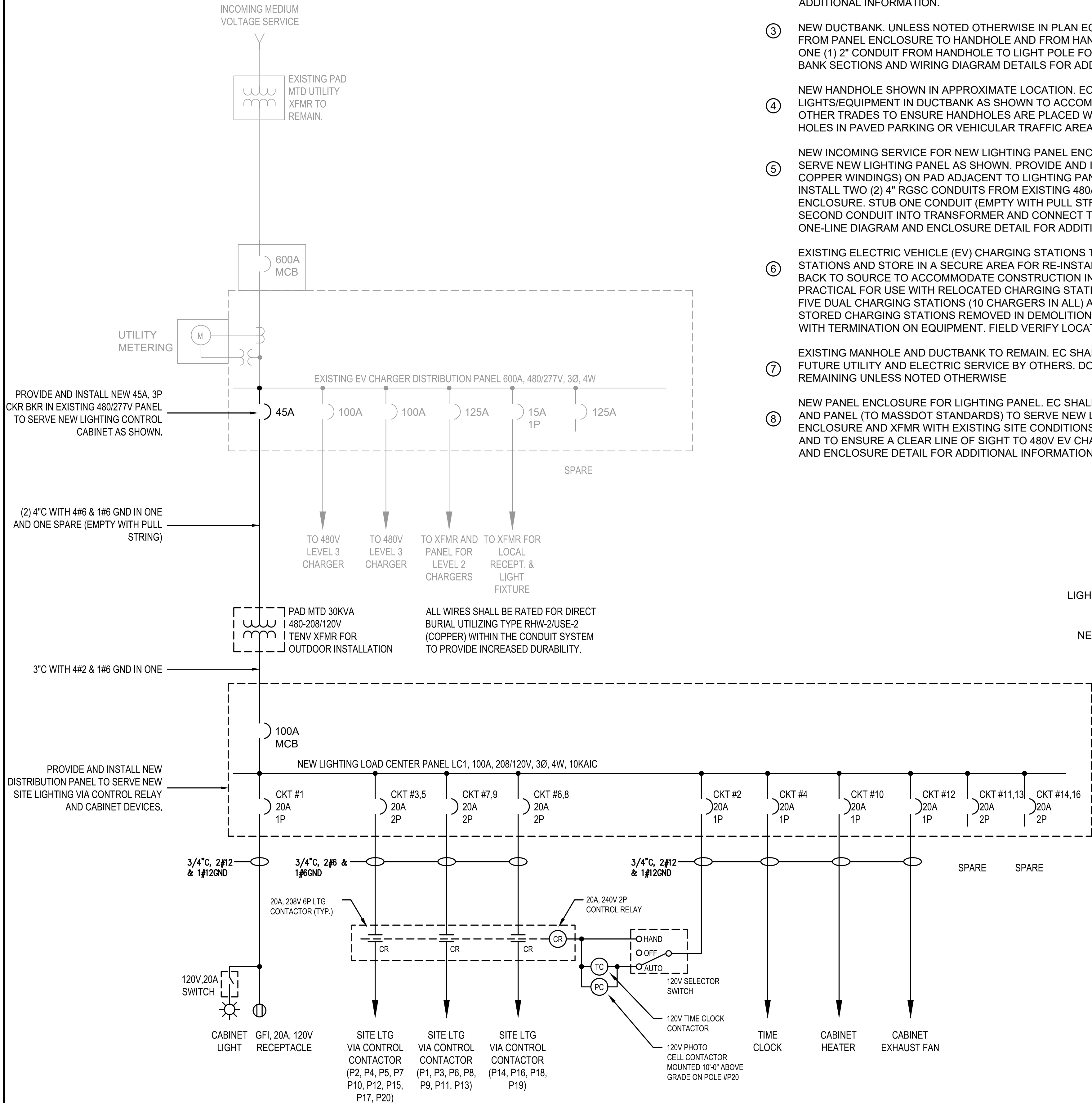
SCALE: 1" = 20'



LIGHTING LEGEND:



- A - FIXTURE TYPE-SEE LIGHT FIXTURE SCHEDULE SHEET 49
- 2,4 - CIRCUIT NUMBERS. SEE CIRCUIT DIAGRAM THIS SHEET
- ①- REFERENCE NOTES. SEE LIGHTING NOTES THIS SHEET



CIRCUIT DIAGRAM

SCALE: NTS

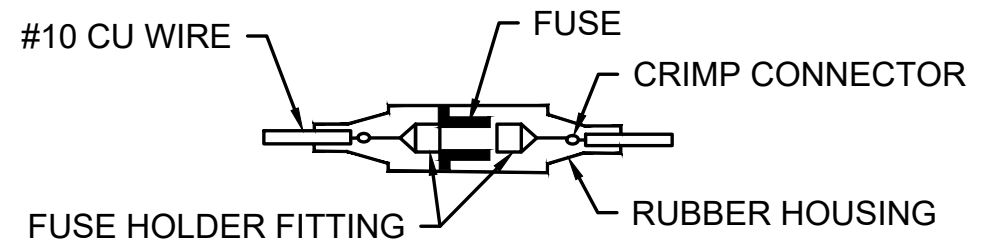
LIGHTING NOTES:

- NEW SITE LIGHT. EC SHALL PROVIDE AND INSTALL NEW POLE FOUNDATION AND FIXTURE IN LOCATIONS SHOWN AND FEED FROM NEW ENCLOSURE NOTED BELOW. RUN CKT THROUGH LOCAL HANDHOLE AND INTO POLE. RUN CKT UP POLE WITH 90° CONDUCTORS AND INSTALL WEATHERPROOF INLINE FUSE (5A MIN) ACCESSIBLE IN HANDHOLE AT BASE OF POLE. COORDINATE FINAL FIXTURE LOCATION WITH OTHER TRADES PRIOR TO INSTALLATION.
- EXISTING PANELBOARD ENCLOSURE TO BE REMOVED. EC SHALL DISCONNECT AND REMOVE PANEL, METER, PHOTO CELL, INCOMING SERVICE ETC. TO ALLOW FOR NEW ENCLOSURE INSTALLATION NOTED BELOW. SEE ELECTRICAL DETAILS FOR ADDITIONAL INFORMATION.
- NEW DUCTBANK. UNLESS NOTED OTHERWISE IN PLAN EC SHALL PROVIDE AND INSTALL ONE (1) 3" SCH. 80 PVC CONDUITS RUN FROM PANEL ENCLOSURE TO HANDHOLE AND FROM HANDHOLE TO HANDHOLE. TO SUPPORT NEW SITE LIGHT FIXTURES. PROVIDE ONE (1) 2" CONDUIT FROM HANDHOLE TO LIGHT POLE FOUNDATION FOR THE BRANCH CIRCUIT SERVING THAT FIXTURE. SEE DUCT BANK SECTIONS AND WIRING DIAGRAM DETAILS FOR ADDITIONAL INFORMATION.
- NEW HANDHOLE SHOWN IN APPROXIMATE LOCATION. EC SHALL PROVIDE AND INSTALL NEW HANDHOLE ADJACENT TO ALL SITE LIGHTS/EQUIPMENT IN DUCTBANK AS SHOWN TO ACCOMMODATE INSTALLATION OF NEW BRANCH CKTS. COORDINATE WITH OTHER TRADES TO ENSURE HANDHOLES ARE PLACED WITHIN SIDEWALKS OR OTHER ISLAND AREAS. DO NOT INSTALL HAND HOLES IN PAVED PARKING OR VEHICULAR TRAFFIC AREAS.
- NEW INCOMING SERVICE FOR NEW LIGHTING PANEL ENCLOSURE. INSTALL NEW 45A, 3P CKR BKR IN EXISTING 480/277V PANEL TO SERVE NEW LIGHTING PANEL AS SHOWN. PROVIDE AND INSTALL 30KVA TOTALLY ENCLOSED NON-VENTILATED XFMR (WITH COPPER WINDINGS) ON PAD ADJACENT TO LIGHTING PANEL ENCLOSURE AND FEED FROM 45A CKT NOTED ABOVE. PROVIDE AND INSTALL TWO (2) 4" RGSC CONDUITS FROM EXISTING 480/277V EV SERVICE PANEL TO NEW XFMR SERVING LIGHTING PANEL ENCLOSURE. STUB ONE CONDUIT (EMPTY WITH PULL STRING) 6" ABOVE TRANSFORMER PAD AND CAP FOR FUTURE USE. RUN SECOND CONDUIT INTO TRANSFORMER AND CONNECT TO PRIMARY LUGS TO PROVIDE 120/208V SERVICE TO LIGHTING PANEL. SEE ONE-LINE DIAGRAM AND ENCLOSURE DETAIL FOR ADDITIONAL INFORMATION.
- EXISTING ELECTRIC VEHICLE (EV) CHARGING STATIONS TO BE RELOCATED. EC SHALL DISCONNECT AND REMOVE CHARGING STATIONS AND STORE IN A SECURE AREA FOR RE-INSTALLATION. REMOVE ALL INCOMING FEEDERS, CONDUIT, HANDHOLES, ETC BACK TO SOURCE TO ACCOMMODATE CONSTRUCTION IN THE CHARGER AREA. PRESERVE EXISTING CIRCUITS TO THE EXTENT PRACTICAL FOR USE WITH RELOCATED CHARGING STATIONS IN NEW LOCATION. PROVIDE AND INSTALL NEW FEEDER TO EACH OF FIVE DUAL CHARGING STATIONS (10 CHARGERS IN ALL) AS SHOWN. COORDINATE WITH CHARGER MANUFACTURER TO RE-INSTALL STORED CHARGING STATIONS REMOVED IN DEMOLITION. RECONNECT TO THE EXISTING CKTS IN DP2 AND ASSIST MANUFACTURER WITH TERMINATION ON EQUIPMENT. FIELD VERIFY LOCATIONS AND EQUIPMENT RATINGS PRIOR TO ENERGIZING.
- EXISTING MANHOLE AND DUCTBANK TO REMAIN. EC SHALL PRESERVE EXISTING DUCT BANK AND MANHOLE TO ALLOW FOR FUTURE UTILITY AND ELECTRIC SERVICE BY OTHERS. DO NOT INTERRUPT DUCTBANK OR OTHER STRUCTURE SHOWN AS REMAINING UNLESS NOTED OTHERWISE
- NEW PANEL ENCLOSURE FOR LIGHTING PANEL. EC SHALL PROVIDE AND INSTALL NEW ENCLOSURE, STEP DOWN TRANSFORMER, AND PANEL (TO MASSDOT STANDARDS) TO SERVE NEW LIGHTING CIRCUITS SHOWN IN PLAN. COORDINATE LOCATION OF ENCLOSURE AND XFMR WITH EXISTING SITE CONDITIONS TO PROVIDE MIN. 3'-0" WORKING CLEARANCE IN FRONT OF EQUIPMENT AND TO ENSURE A CLEAR LINE OF SIGHT TO 480V EV CHARGING PANEL USED TO FEED LIGHTING PANEL. SEE ONE-LINE DIAGRAM AND ENCLOSURE DETAIL FOR ADDITIONAL INFORMATION.

BARNSTABLE
BARNSTABLE PARK AND RIDE

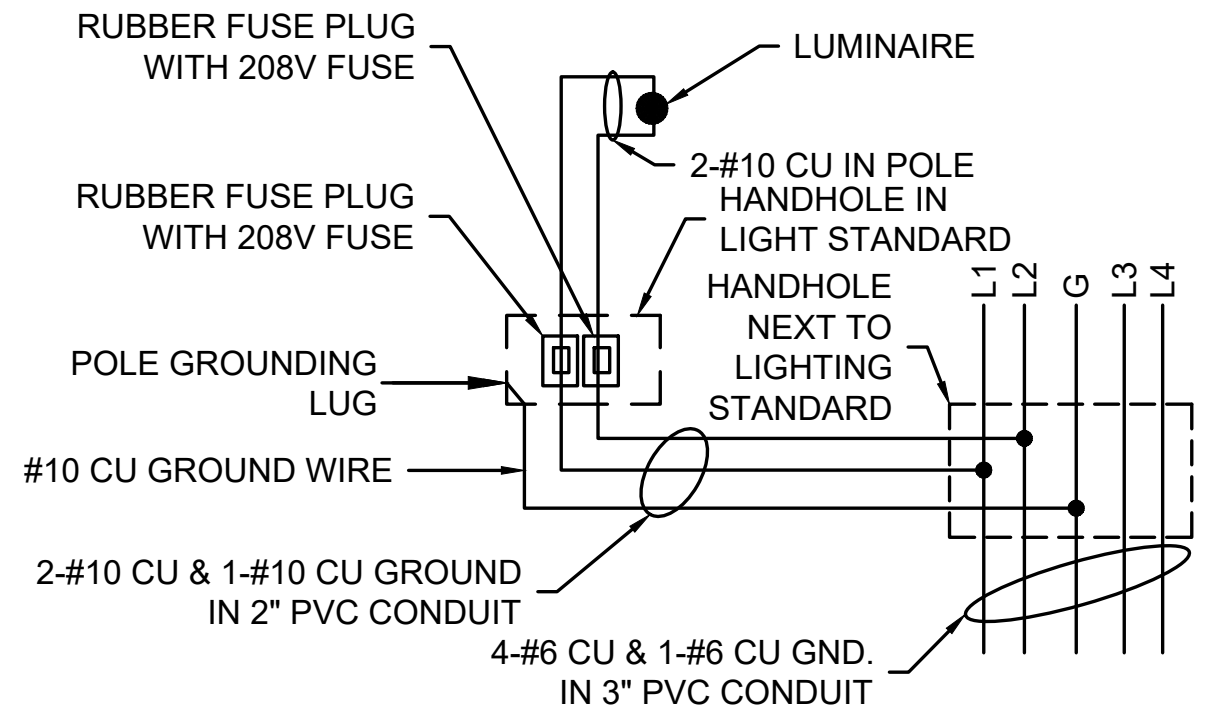
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	48	87
PROJECT FILE NO.		610800	

LIGHTING PLANS & DETAILS



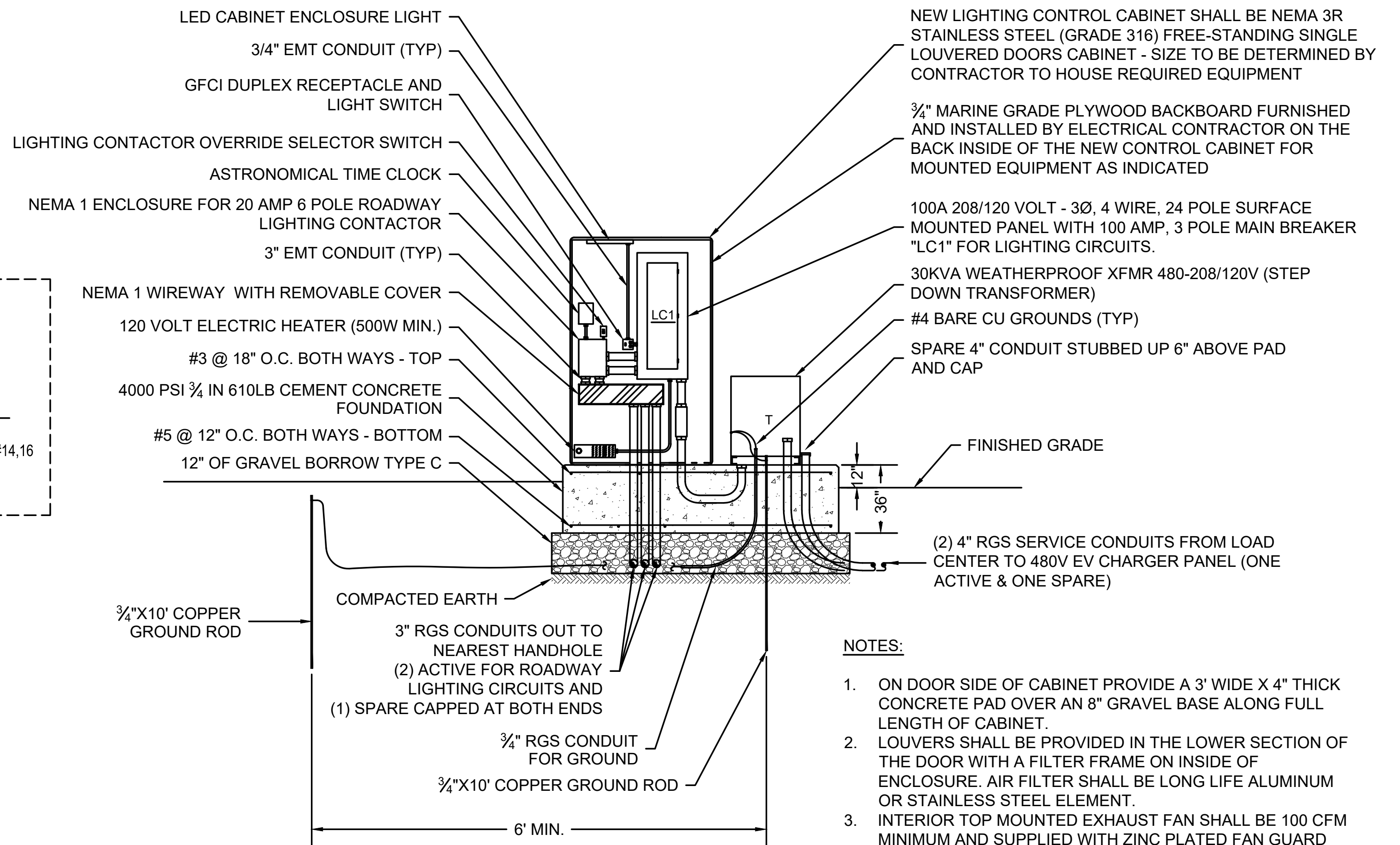
FUSE DETAIL FOR LUMINAIRE

SCALE: NTS



WIRING DIAGRAM FOR SITE LIGHTING LUMINAIRE

SCALE: NTS



LIGHTING LOAD CENTER AND ENCLOSURE DETAIL

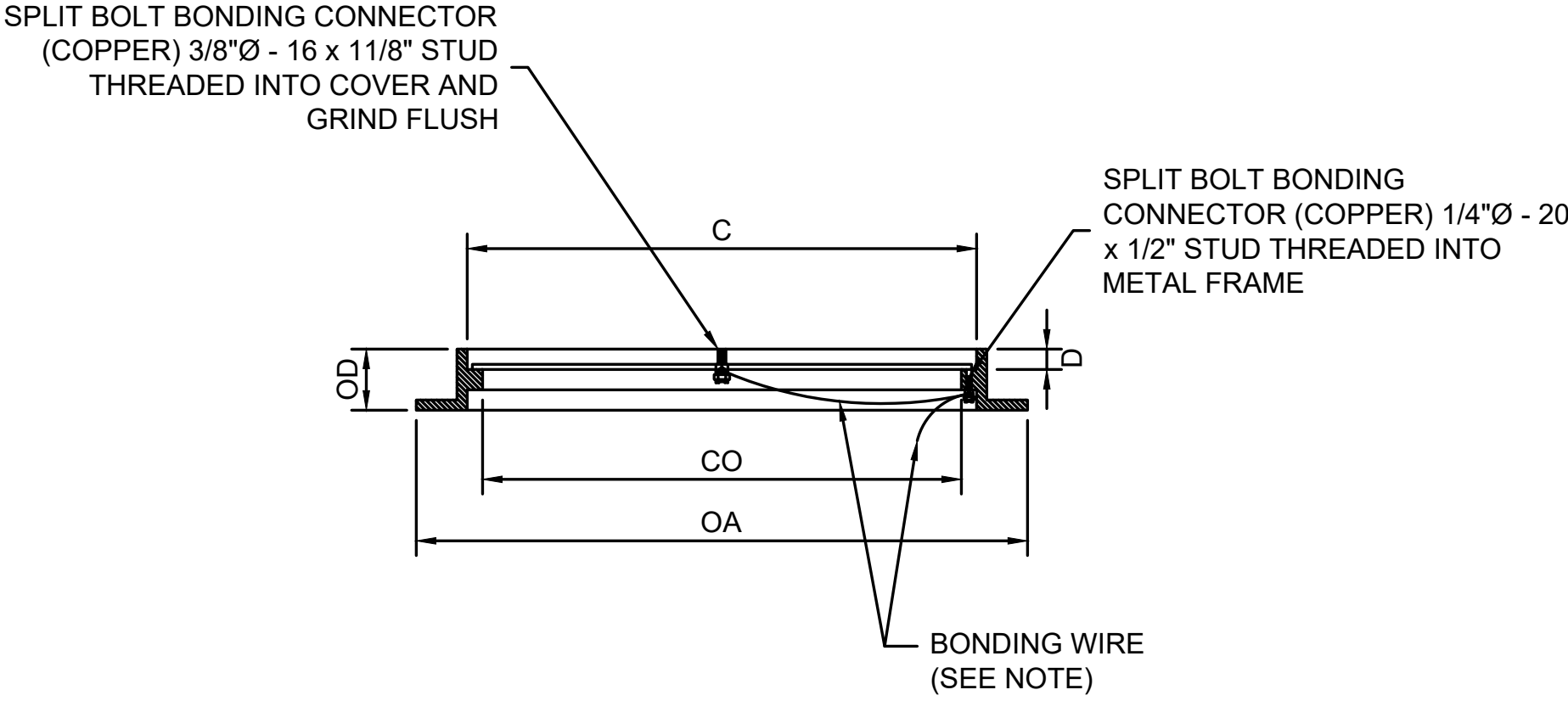
SCALE: NTS

NOTES:

- ON DOOR SIDE OF CABINET PROVIDE A 3' WIDE X 4" THICK CONCRETE PAD OVER AN 8" GRAVEL BASE ALONG FULL LENGTH OF CABINET.
- LOUVERS SHALL BE PROVIDED IN THE LOWER SECTION OF THE DOOR WITH A FILTER FRAME ON INSIDE OF ENCLOSURE. AIR FILTER SHALL BE LONG LIFE ALUMINUM OR STAINLESS STEEL ELEMENT.
- INTERIOR TOP MOUNTED EXHAUST FAN SHALL BE 100 CFM MINIMUM AND SUPPLIED WITH ZINC PLATED FAN GUARD OR EQUIVALENT FOR CORROSION RESISTANCE.
- HEATER AND EXHAUST FAN SHALL BE THERMOSTATICALLY CONTROLLED. HEATER SHALL OPERATE UNDER 50°F AND EXHAUST FAN SHALL OPERATE OVER 90°F.
- PHOTOCELL SHALL BE MOUNTED ON TOP OF NEAREST LUMINAIRE, FACING THE NORTHERN SKY.

LIGHTING FIXTURE SCHEDULE					
DESIG.	MANUFACTURER & CATALOG NO.	TYPE OF LAMPS	VTG.	MTG.	REMARKS
A	2 HEAD POLE MTD SITE LIGHT HOLOPHANE MGLEDM P14 40K MVOLT ZT AR VH GRSD NBR PR7 SH BR-1065	105W LED PER HEAD	208V 1Ø	POLE	FIXTURE CATALOG NUMBER IS FOR STANDARD GRAY FINISH. PROVIDE 40'-0" POLE WITH DUAL TENON MOUNT TO ACCOMMODATE 2 HEADS SPACED NO MORE THAN 18" APART
A-ALT1	2 HEAD POLE MTD SITE LIGHT LEOTEK VTOR 216A MV 40K7 T5 GY P1 SF LLPC PS3 TB SP2	90W LED PER HEAD	208V 1Ø	POLE	ALTERNATE FIXTURE FOR TYPE 'A'. CATALOG NUMBER IS FOR STANDARD GRAY FINISH. PROVIDE 40'-0" POLE WITH DUAL HEAD MOUNT TO ACCOMMODATE 2 HEADS SPACED NO MORE THAN 18" APART
A-ALT2	2 HEAD POLE MTD SITE LIGHT LUMECON LDS SAL 125 GR T3 1 40 SF 7P PC3	126W LED PER HEAD	208V 1Ø	POLE	ALTERNATE FIXTURE FOR TYPE 'A'. CATALOG NUMBER IS FOR STANDARD GRAY FINISH. PROVIDE 40'-0" POLE WITH DUAL HEAD MOUNT TO ACCOMMODATE 2 HEADS SPACED NO MORE THAN 18" APART
B	SINGLE HEAD POLE MTD SITE LIGHT HOLOPHANE MGLEDM P14 40K MVOLT ZT MR VH GRSD NBR PR7 SH	105W LED PER HEAD	208V 1Ø	POLE	FIXTURE CATALOG NUMBER IS FOR STANDARD GRAY FINISH. PROVIDE 40'-0" POLE WITH SINGLE TENON MOUNT FACING LUMINAIRE TOWARD TRAFFIC AREAS.
B-ALT1	SINGLE HEAD POLE MTD SITE LIGHT LEOTEK VTOR 216A MV 40K7 T3R GY P1 SF LLPC PS3 TB SP2	90W LED PER HEAD	208V 1Ø	POLE	ALTERNATE FIXTURE FOR TYPE 'B'. CATALOG NUMBER IS FOR STANDARD GRAY FINISH. PROVIDE 40'-0" POLE WITH SINGLE HEAD MOUNT FACING LUMINAIRE TOWARDS TRAFFIC AREAS
B-ALT2	SINGLE HEAD POLE MTD SITE LIGHT LUMECON LDS SAL 125 GR T3 1 40 SF 7P PC3	126W LED PER HEAD	208V 1Ø	POLE	ALTERNATE FIXTURE FOR TYPE 'B'. CATALOG NUMBER IS FOR STANDARD GRAY FINISH. PROVIDE 40'-0" POLE WITH SINGLE HEAD MOUNT FACING LUMINAIRE TOWARDS TRAFFIC AREAS

- NOTES:
- PROVIDE SINGLE POLE WITH DUAL HEADS 180° APART FOR TYPE 'A' FIXTURES AND SINGLE HEAD POLE FOR TYPE 'B' FIXTURES WHERE SHOWN IN PLAN.
 - AN APPROVED EQUAL MAY BE USED FOR ANY OF THE LUMINAIRES LISTED ABOVE.



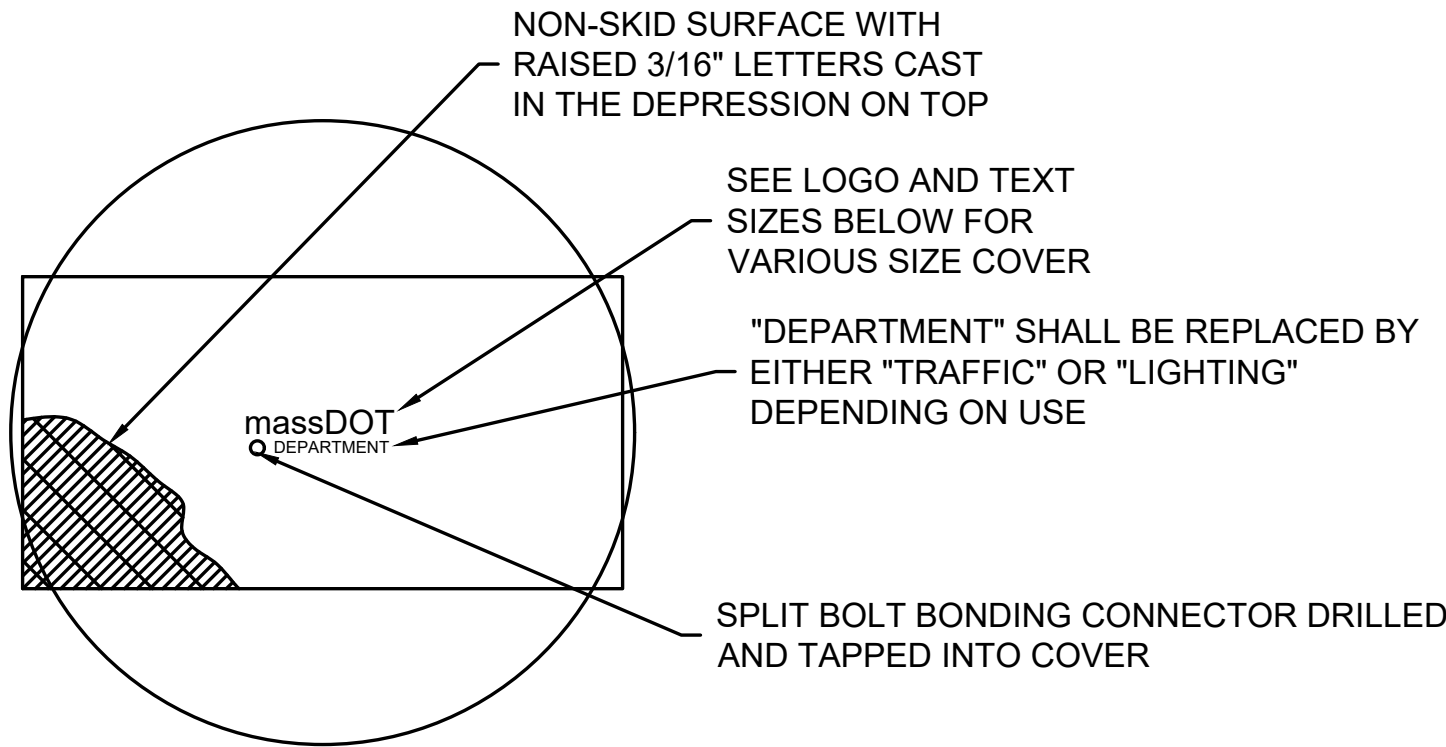
SIZE OF COVER	COVER DEPTH	OVERALL DEPTH	CLEAR OPENING	OVERALL	APPROX. WEIGHT	STANDARD DRAIN
C	D	OD	CO	OA	W	W
24 3⁄4" X 12 3⁄4"	1 1⁄2"	3"	24"X12"	29 3⁄4" X 17 3⁄4"	159 LB.	SD2-022

NOTES:

ATTACH 3 FEET OF #8 CU BONDING WIRE FROM SPLIT BOLT BONDING CONNECTOR IN COVER AND FRAME. PROVIDE SUFFICIENT LENGTH OF #8 CU BONDING WIRE FROM SPLIT BOLT BONDING CONNECTOR IN FRAME TO THE HANDHOLE GROUND ROD AND EQUIPMENT GROUNDING CONDUCTOR FOR LIGHTING SYSTEM.

ELECTRIC HANDHOLE FRAME AND COVER DETAIL

SCALE: NTS

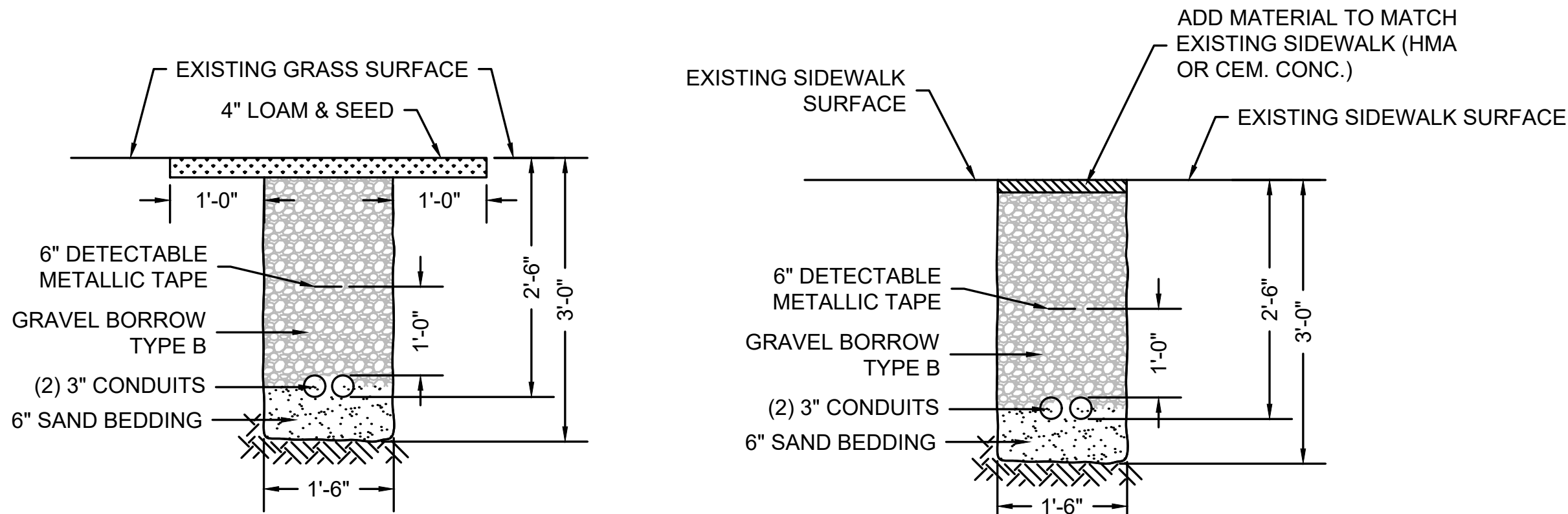


- NOTES:
- LOGO AND TEXT SHALL BE CENTERED WITHIN THE COVER.
 - LOGO AND TEXT SHALL BE RAISED 3/16" INCHES FROM THE COVER SURFACE.
 - LOGO AND TEXT SHALL BE ITALICIZED AND SHALL UTILIZE THE "ERAS DEMI" STYLE FONT.

SIZE OF COVER	MASSDOT LOGO	DEPARTMENT TEXT SIZE	STANDARD DRAWING
24" X13"	16 3⁄4" WIDE X 2 1⁄2" HIGH	TRAFFIC: 6" WIDE X 1" HIGH LIGHTING: 7" WIDE X 1" HIGH	SD2-022

MASSDOT LOGO FOR ELECTRICAL HANDHOLE

SCALE: NTS



- NOTES:
- CONDUIT SHALL BE SCHEDULE 80 ELECTRICAL CONDUIT TYPE NM-PLASTIC (UL), WITH PULL ROPE.
 - WARNING TAPE COLOR SHALL BE PER APWA STANDARDS.
 - WHEN 2-3" CONDUITS ARE SPECIFIED USE PLASTIC SPACERS 4' O.C. TO MAINTAIN A 3" CONDUIT SPACING.

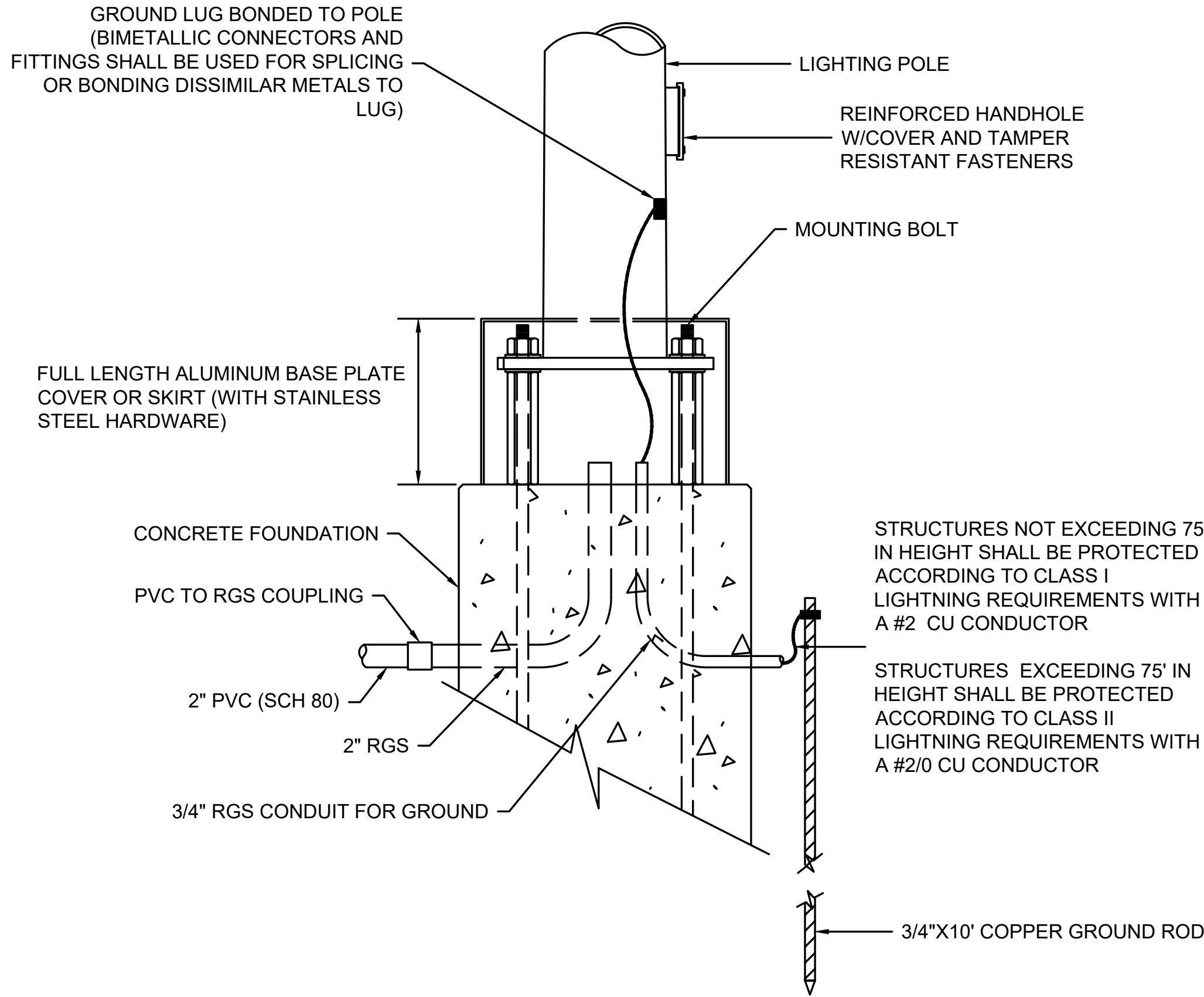
CONDUIT UNDER GRASS

SCALE: NTS

- NOTES:
- CONDUIT SHALL BE SCHEDULE 80 ELECTRICAL CONDUIT TYPE NM-PLASTIC (UL), WITH PULL ROPE.
 - WARNING TAPE COLOR SHALL BE PER APWA STANDARDS.
 - WHEN 2-3" CONDUITS ARE SPECIFIED USE PLASTIC SPACERS 4' O.C. TO MAINTAIN A 3" CONDUIT SPACING.

CONDUIT UNDER SIDEWALK

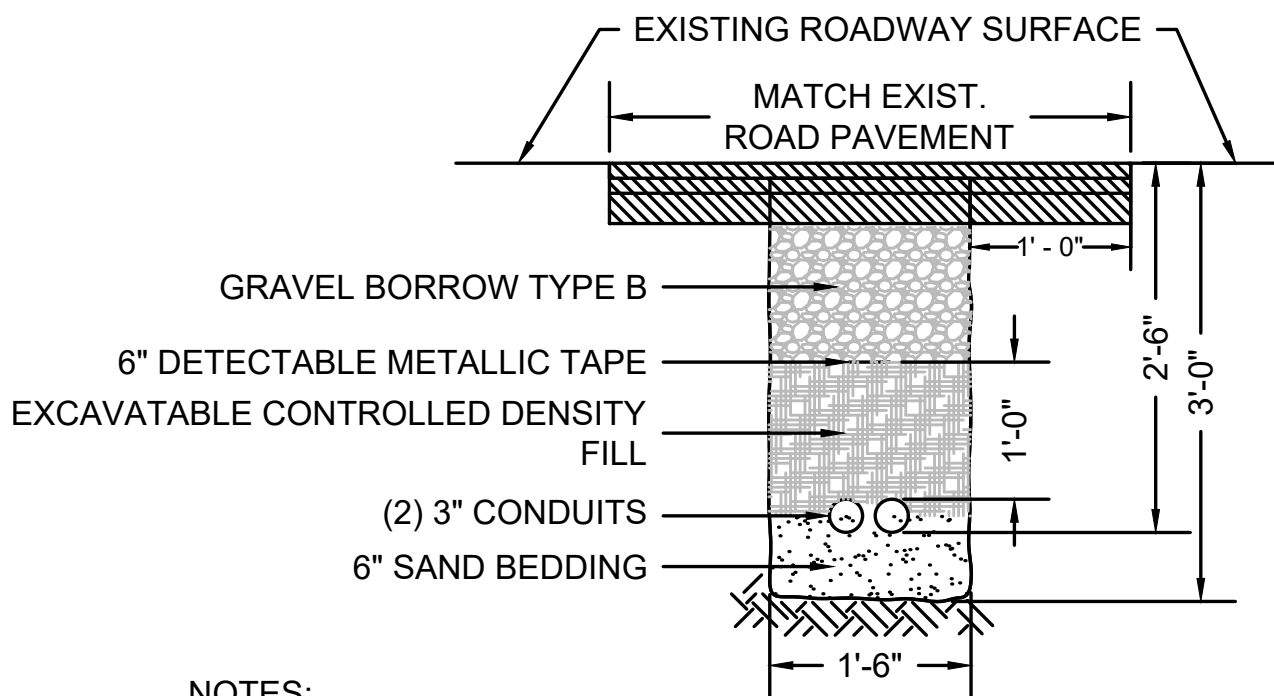
SCALE: NTS



- NOTES:
- LEVELING BOLTS TO BE PROVIDED, AS REQUIRED BY MANUFACTURER. CONTRACTOR IS RESPONSIBLE FOR COORDINATING PROPER FIXTURE ORIENTATION.
 - ALL HARDWARE TO BE STAINLESS STEEL.

BREAK AWAY FOUNDATION

SCALE: NTS

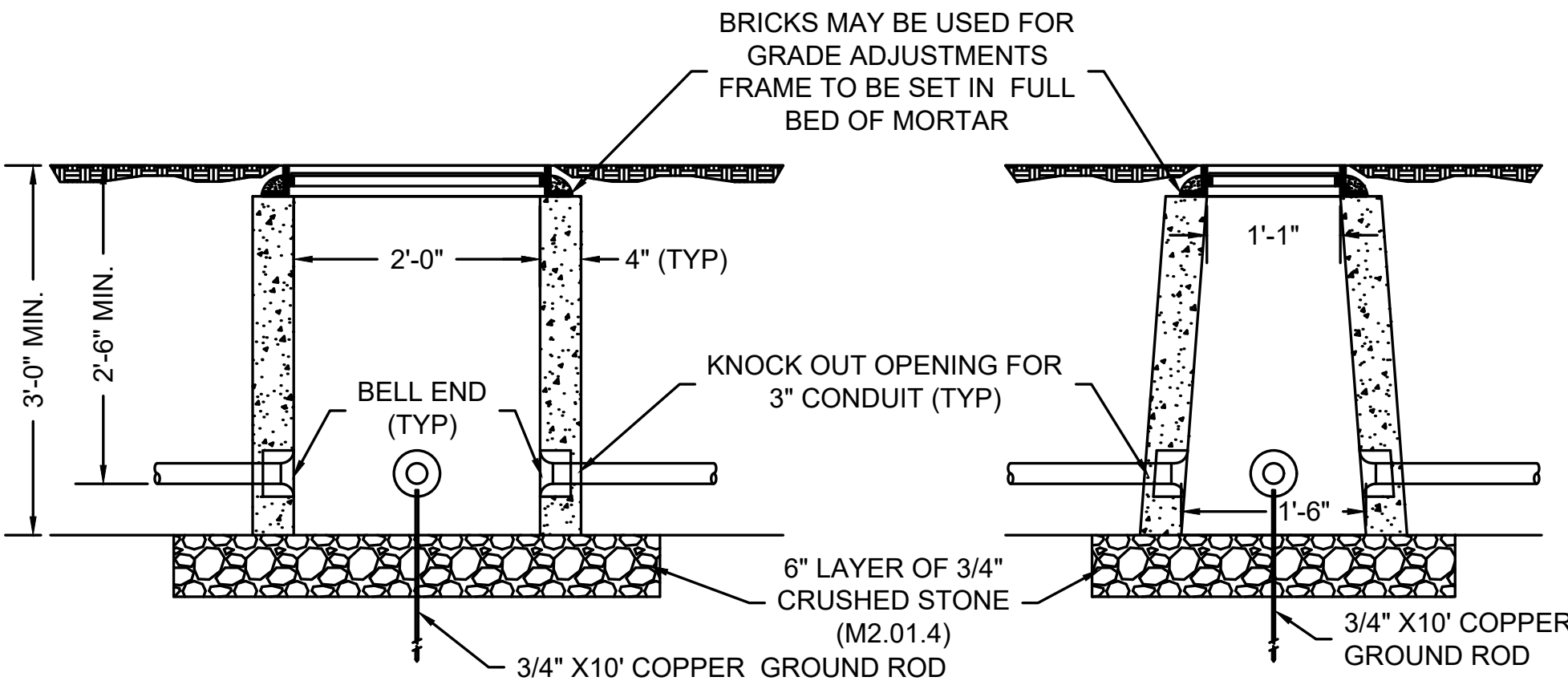


- NOTES:
- CONDUIT SHALL BE SCHEDULE 80 ELECTRICAL CONDUIT TYPE NM-PLASTIC (UL), WITH PULL ROPE.
 - CONTROL DENSITY FILL SHALL MEET THE REQUIREMENTS OF SUBSECTION M.4.08.0.
 - WARNING TAPE COLOR SHALL BE PER APWA STANDARDS.
 - WHEN 2-3" CONDUITS ARE SPECIFIED USE PLASTIC SPACERS 4' O.C. TO MAINTAIN A 3" CONDUIT SPACING.

CONDUIT CROSSING ROADWAY

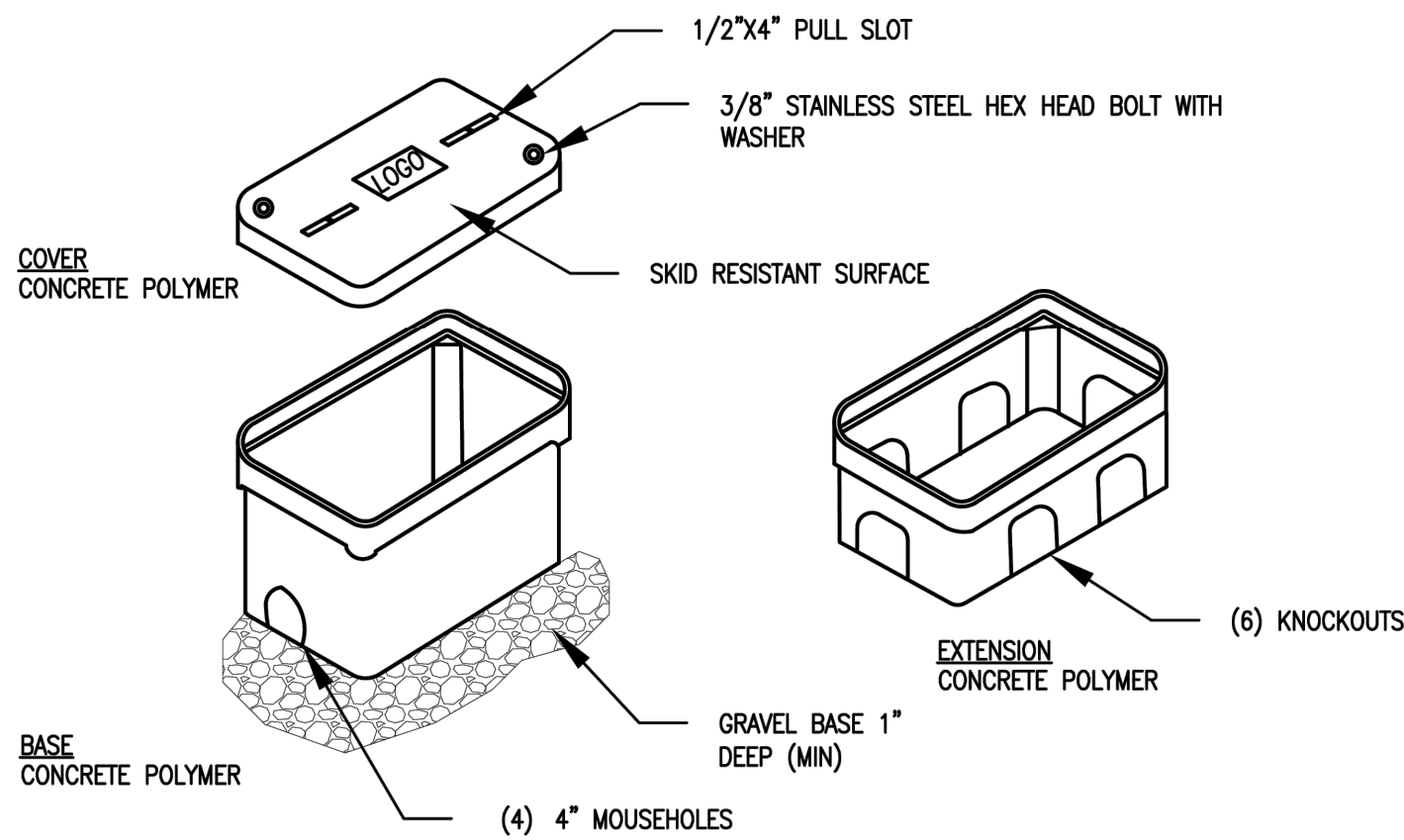
SCALE: NTS

- CONDUIT CROSSING NOTES NOTES:
- A MINIMUM OF 12 INCHES OF SEPARATION IS REQUIRED FOR CROSSINGS WITH GAS, WATER, SEWER AND DRAINAGE.
 - CONDUITS SHALL BE BLOWN CLEAN USING COMPRESSED AIR. RUN MANDREL THRU EACH CONDUIT TO CONFIRM VIABLE PATHWAY.
 - WOVEN POLYESTER MULE TAPE WITH MINIMUM STRENGTH OF 2500 LB TENSILE STRENGTH TO BE INSTALLED WITHIN EACH CONDUIT.



24 IN X 13 IN X 36 IN ELECTRIC HANDHOLE (SD2-022)

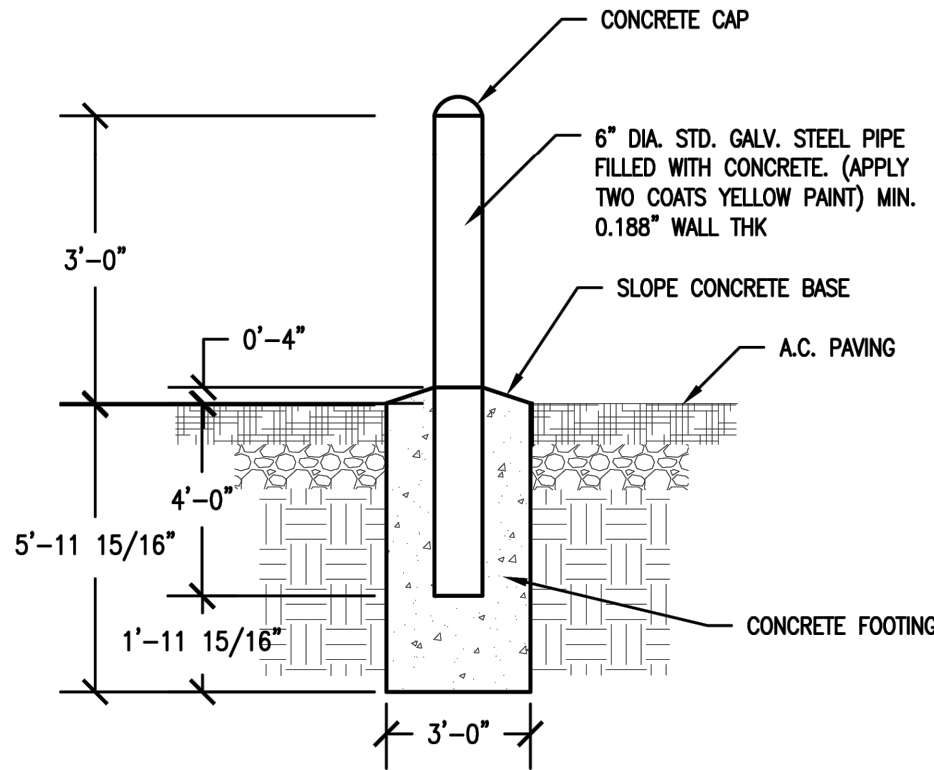
SCALE: NTS



- NOTES:
- BACK FILL WITH GRAVEL WHEN NOT LOCATED IN CONCRETE PAD.

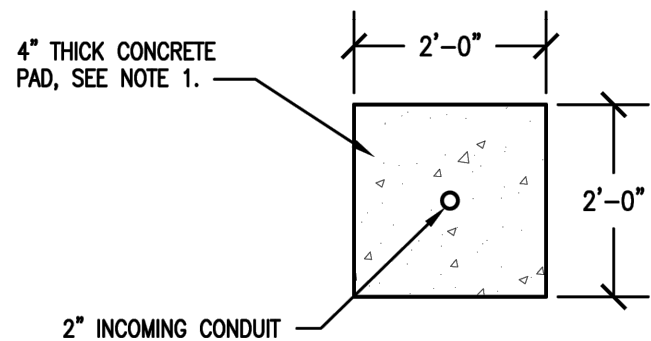
TYPICAL EV CHARGING HANDHOLD DETAIL

SCALE: NTS



EV CHARGING UNIT BOLLARD DETAIL

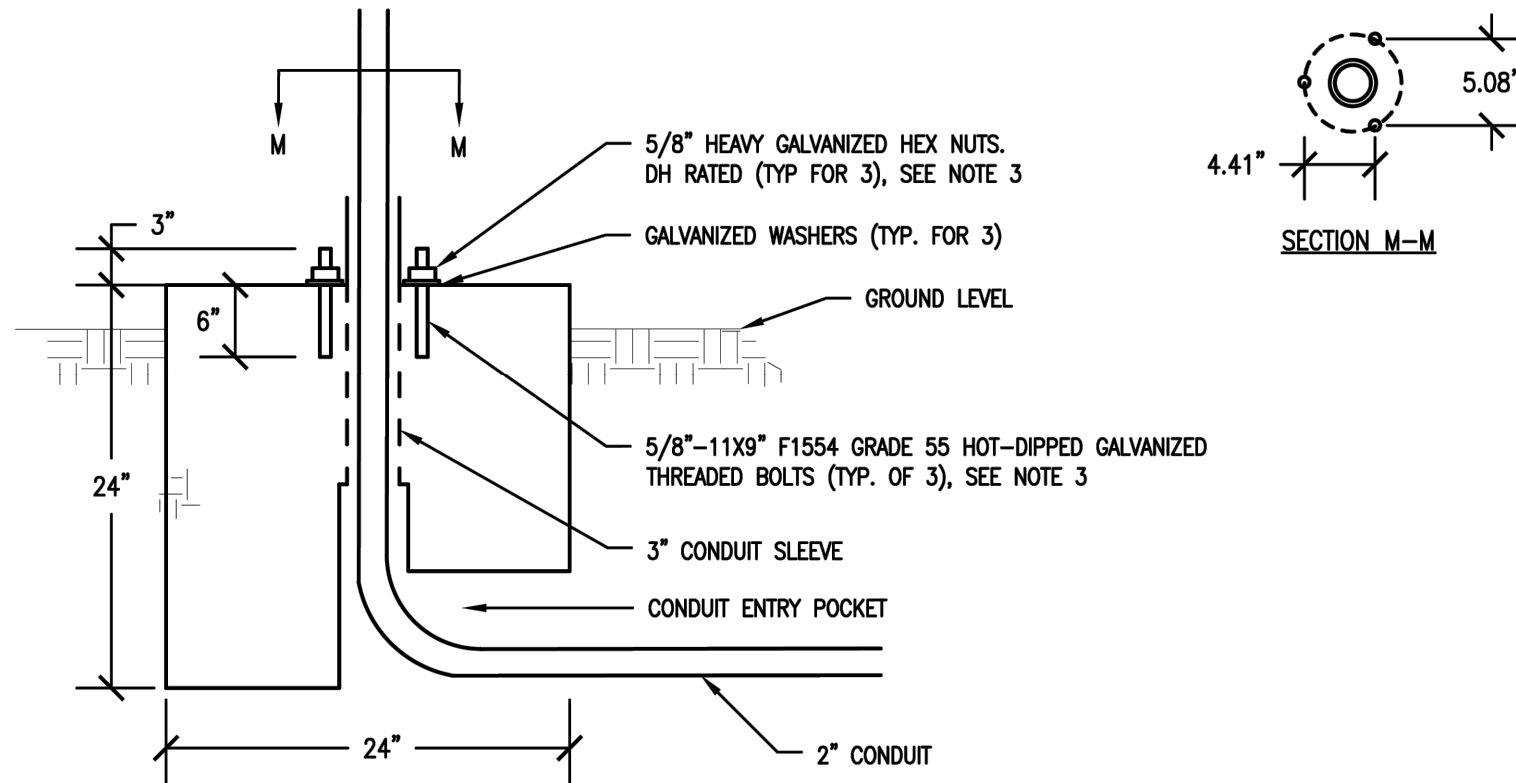
SCALE: NTS



- NOTES:
- DESIGN FOR 200LBS MINIMUM LOAD.

EV CHARGING UNIT CONCRETE PAD PLAN

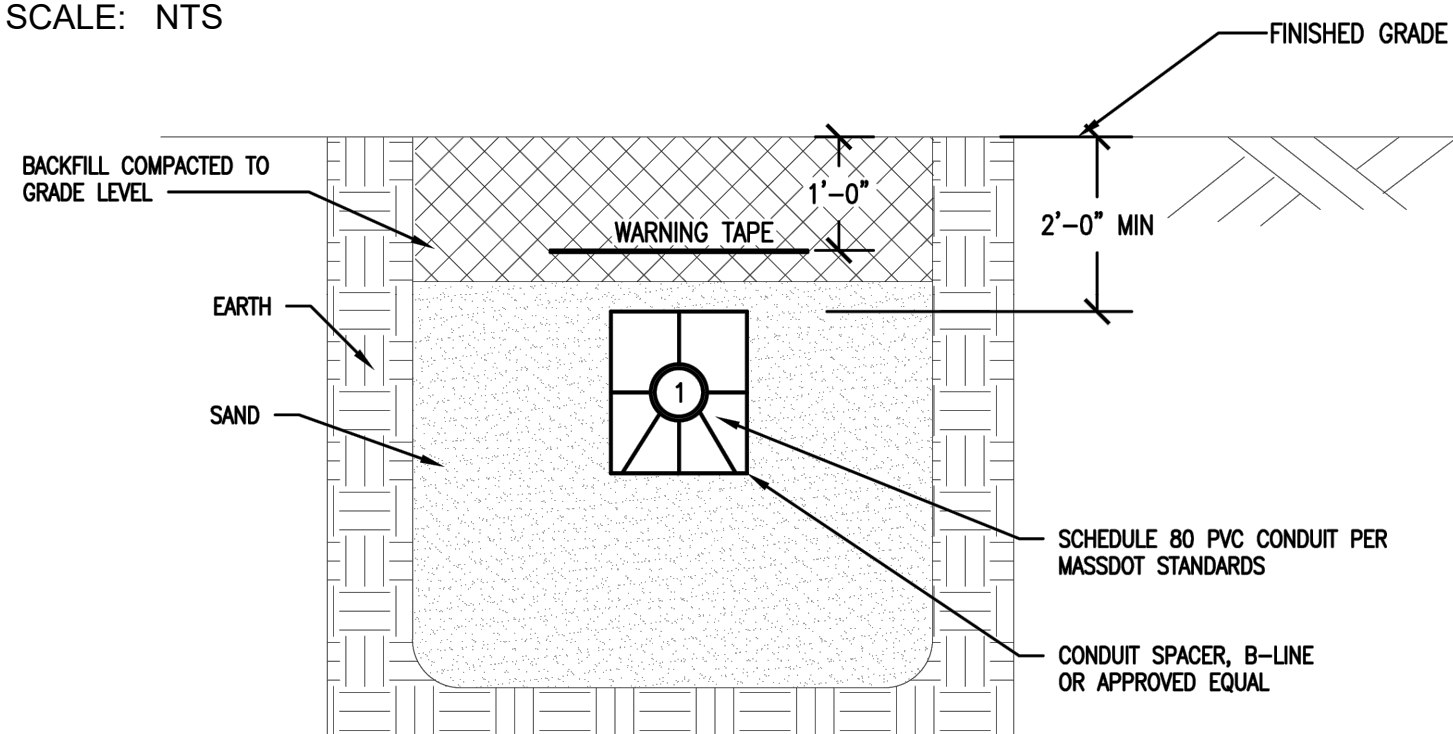
SCALE: NTS



- NOTES:
- REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION.
 - 200LBS MAXIMUM EQUIPMENT WEIGHT.
 - COORDINATE BOLT DOWN PATTERN AND CONDUIT ENTRY WITH EV CHARGER MANUFACTURER.

EV CHARGING UNIT CONCRETE PAD ELEVATION DETAIL

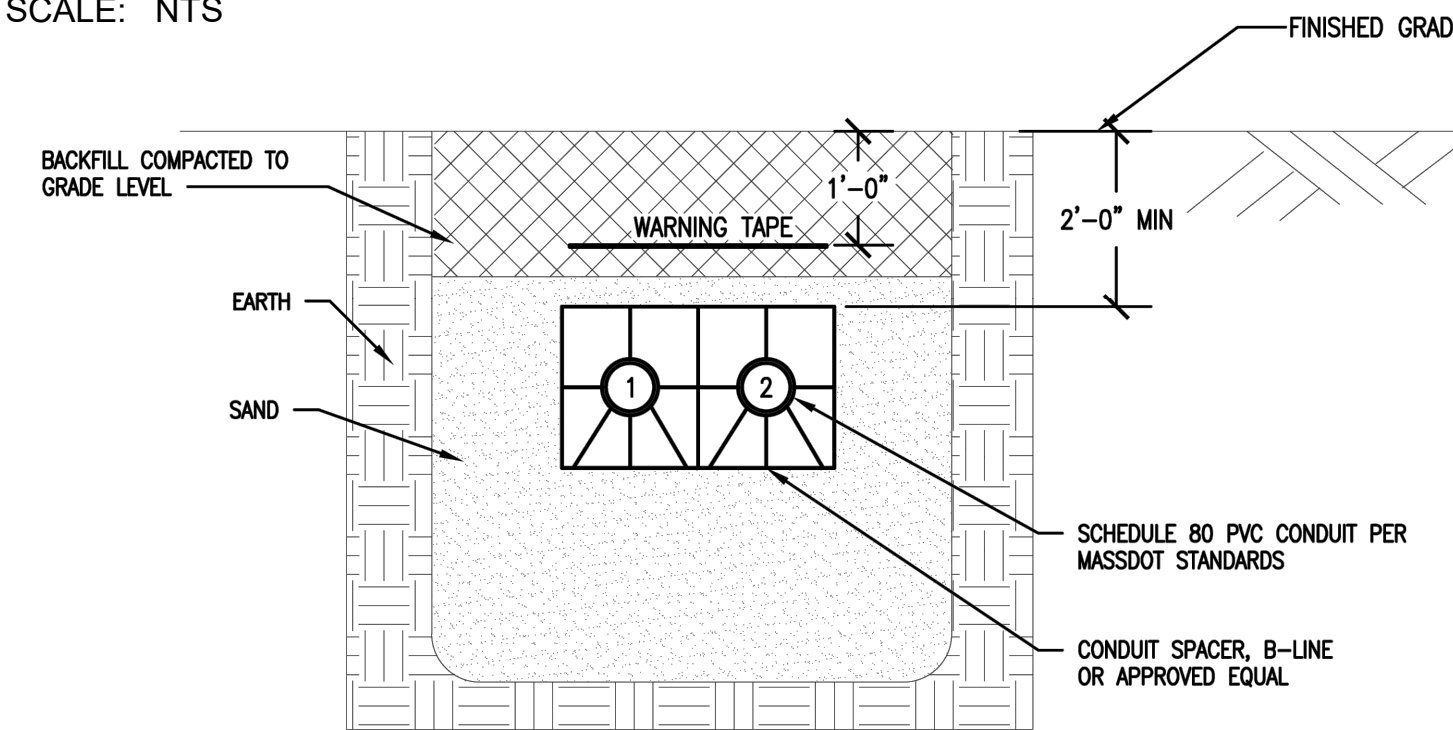
SCALE: NTS



① 1-1/4" CONDUIT - ACTIVE

EV CHARGING UNIT DIRECT BURIED DUCTBANK 1X1

SCALE: NTS



① 1-1/4" CONDUIT - ACTIVE ② 1-1/4" CONDUIT - ACTIVE

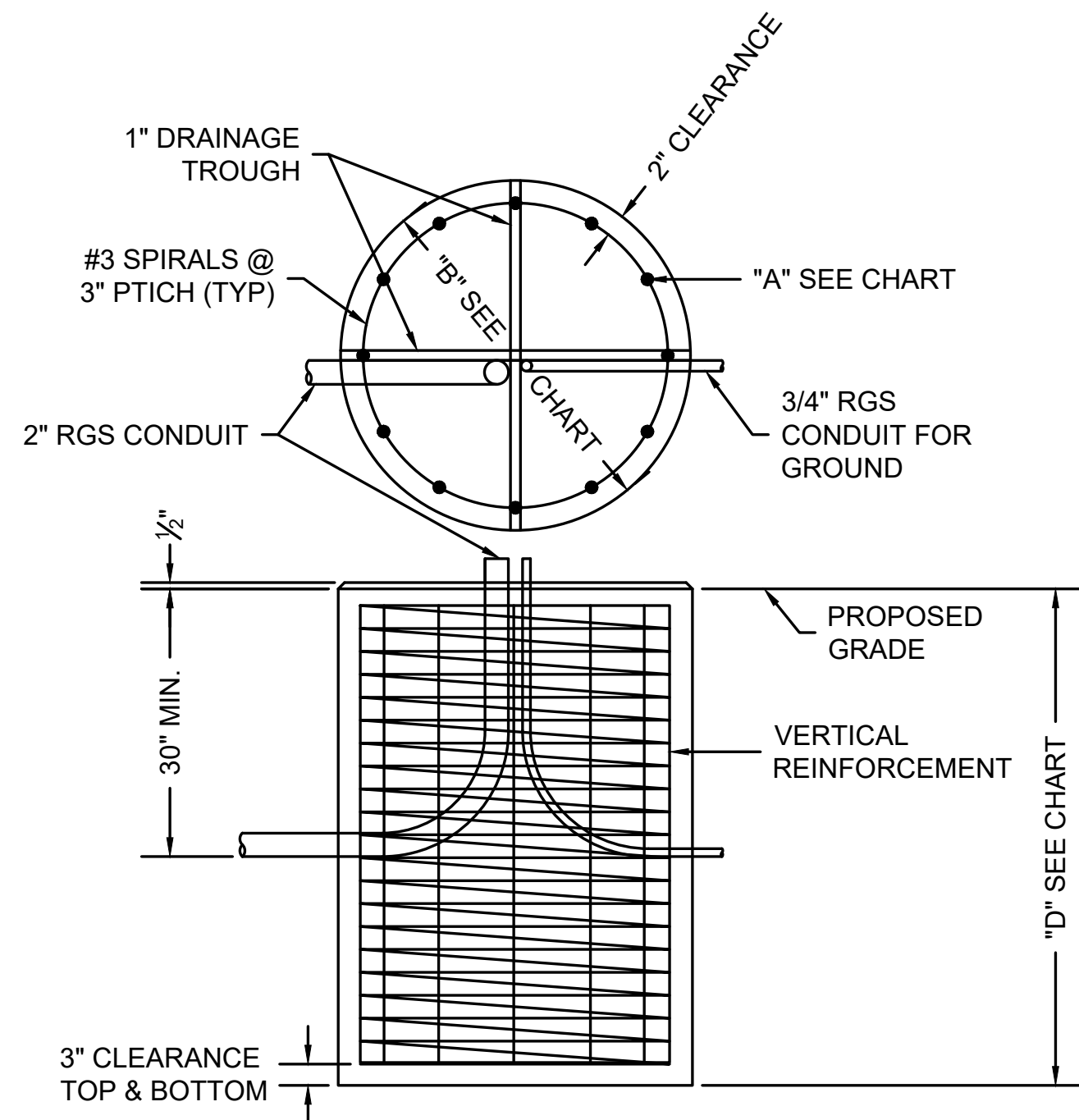
EV CHARGING UNIT DIRECT BURIED DUCTBANK 1X2

SCALE: NTS

BARNSTABLE BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	50	87
PROJECT FILE NO.		610800	

LIGHTING PLANS & DETAILS



FOUNDATION DESIGN CHART

MOUNTING HEIGHT	DIAMETER "B"	DEPTH "D"	VERTICAL REINFORCEMNT "A"	STANDARD DETAIL NUMBER
30'-40'	3'-0"	7'-0"	8-#5	SD3.013
40'-100'	3'-0"	10'-0"	12-#5	SD3.014

- NOTES:
- CEMENT CONCRETE FOR FOUNDATIONS TO BE 4000 PSI, 3/4IN, 610LB.
 - A MINIMUM SLOPE OF 1/8" PER FT FROM EDGE OF BASE PLATE TO FACE OF CONCRETE.
 - THE ACTUAL DEPTH OF FOUNDATION WILL BE THE "D" DIMENSION ABOVE THE 1/2" REVEAL.
 - THE ANCHOR BOLTS SHALL BE SUPPLIED BY THE LIGHT STANDARD MANUFACTURER. THE MANUFACTURER SHALL ALSO SUPPLY A TEMPLATE FOR SETTING THE BOLTS AND SHALL INDICATE THE NECESSARY PROJECTION.

LIGHT STANDARD FOUNDATION (SD3.01/SD3.014)

SCALE: NTS

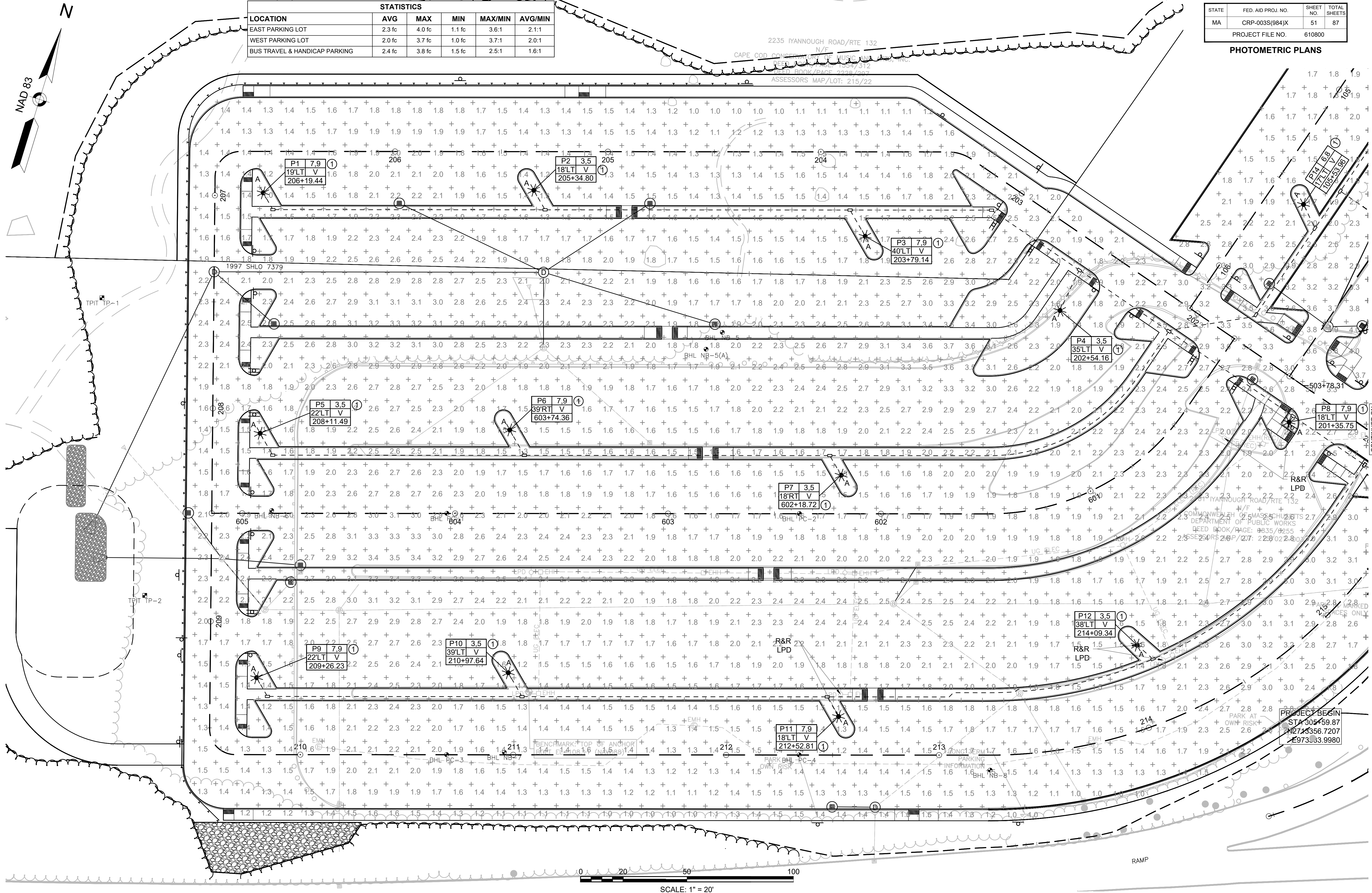
BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	51	87
PROJECT FILE NO.		610800	

PHOTOMETRIC PLANS

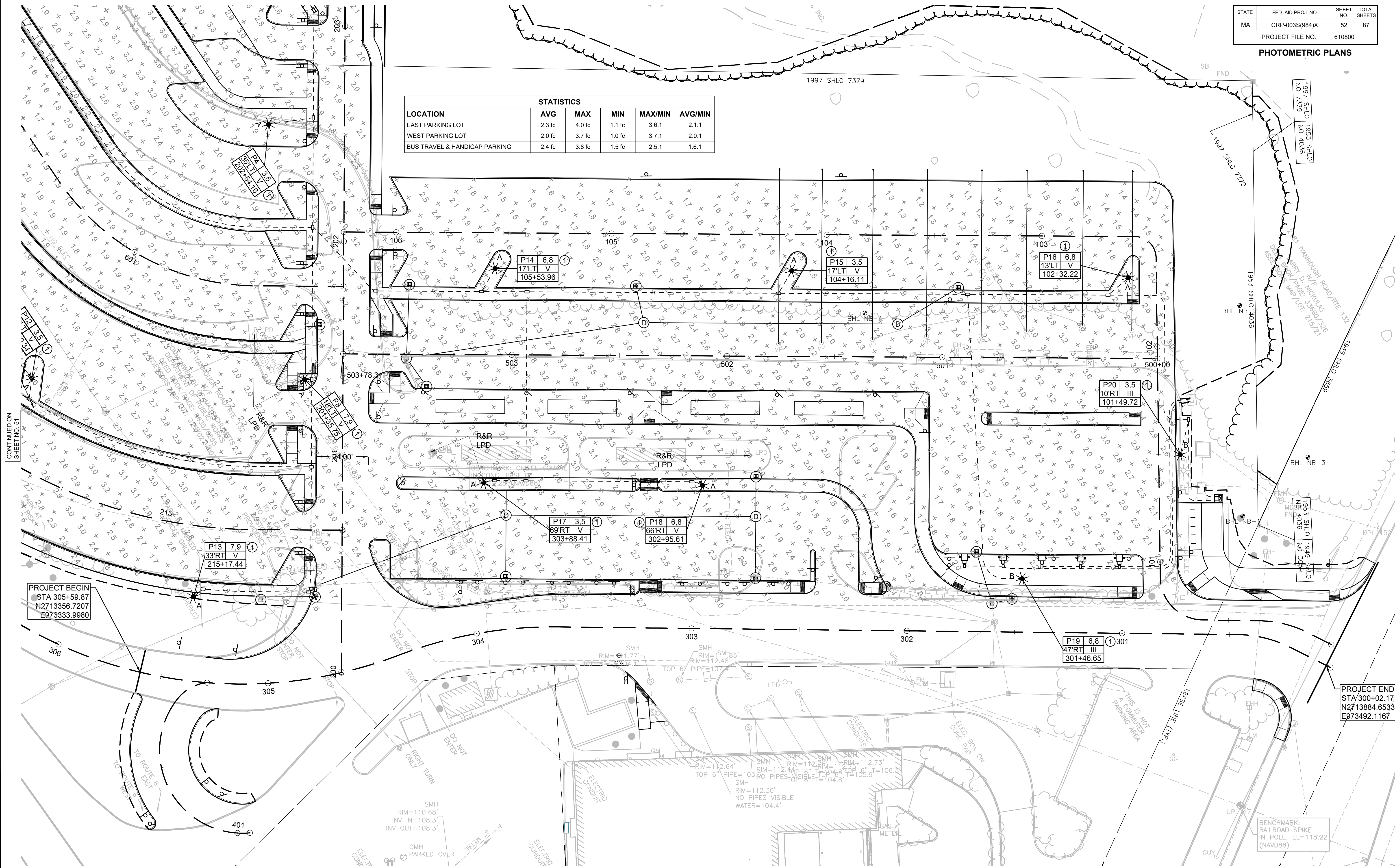
STATISTICS					
LOCATION	AVG	MAX	MIN	MAX/MIN	AVG/MIN
EAST PARKING LOT	2.3 fc	4.0 fc	1.1 fc	3.6:1	2.1:1
WEST PARKING LOT	2.0 fc	3.7 fc	1.0 fc	3.7:1	2.0:1
BUS TRAVEL & HANDICAP PARKING	2.4 fc	3.8 fc	1.5 fc	2.5:1	1.6:1

2235 IYANNOUGH ROAD/RTE 132
N/F
CAPE COD CONSERVATION OF MUSIC AND ARTS, INC.
DEED BOOK/PAGE: 2228/212
ASSESSORS MAP/LOT: 215/22



CONTINUED ON
SHEET NO. 52

STATISTICS					
LOCATION	AVG	MAX	MIN	MAX/MIN	AVG/MIN
EAST PARKING LOT	2.3 fc	4.0 fc	1.1 fc	3.6:1	2.1:1
WEST PARKING LOT	2.0 fc	3.7 fc	1.0 fc	3.7:1	2.0:1
BUS TRAVEL & HANDICAP PARKING	2.4 fc	3.8 fc	1.5 fc	2.5:1	1.6:1



CONTINUED ON
SHEET NO. 51

PROJECT BEGIN
STA 305+59.87
N2713356.7207
E073333.9980

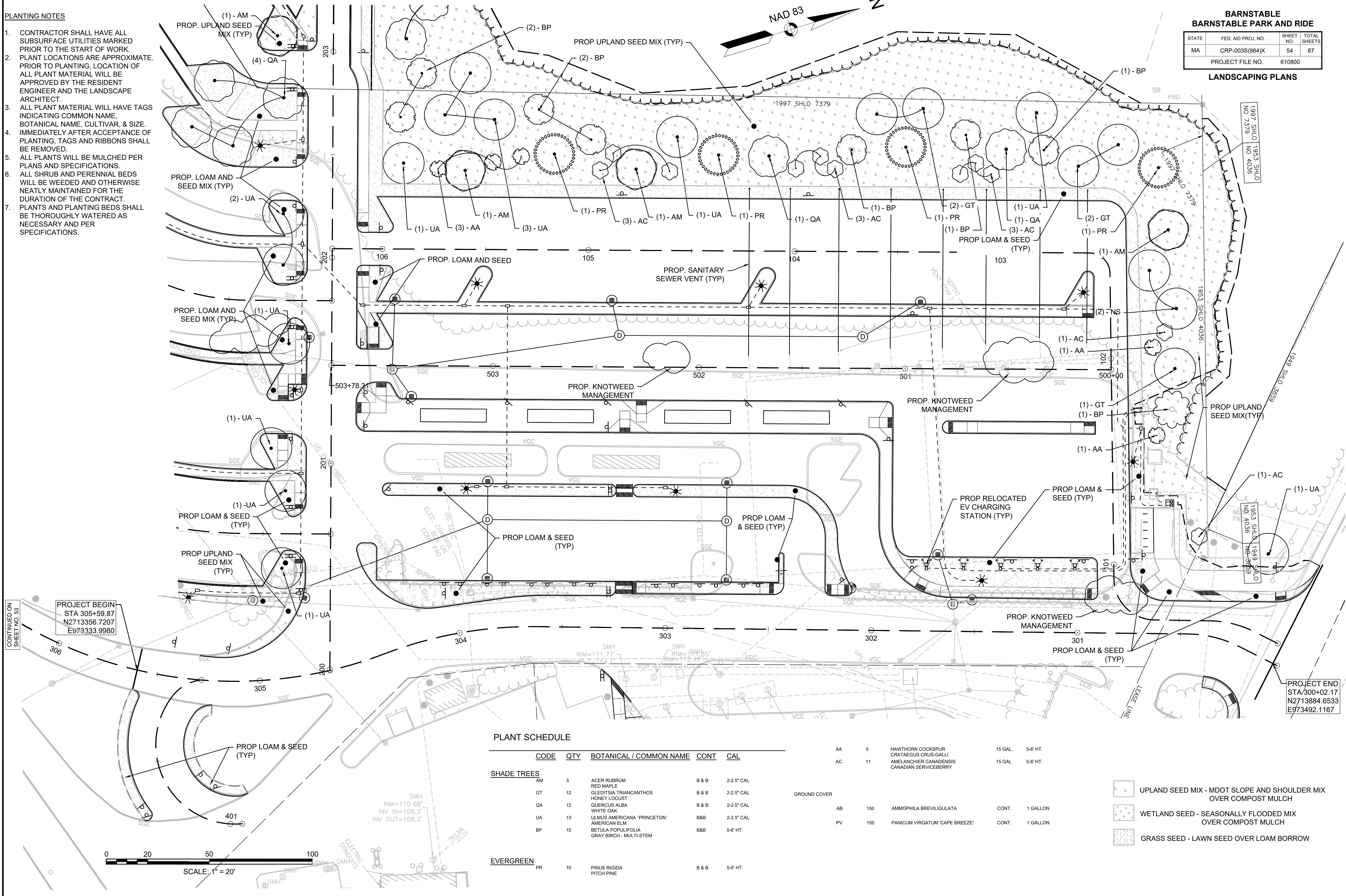
PROJECT END
STA 300+02.17
N2713884.6533
E973492.1167

BENCHMARK:
RAILROAD SPIKE
IN POLE, EL=115.22
(NAVD88)

PLANTING NOTES

1. CONTRACTOR SHALL HAVE ALL SUBSURFACE UTILITIES MARKED PRIOR TO THE START OF WORK.
2. PLANT LOCATIONS ARE APPROXIMATE. PRIOR TO PLANTING, LOCATION OF ALL PLANT MATERIAL WILL BE APPROVED BY THE RESIDENT ENGINEER AND THE LANDSCAPE ARCHITECT.
3. ALL PLANT MATERIAL WILL HAVE TAGS INDICATING COMMON NAME, BOTANICAL NAME, CULTIVAR, & SIZE. IMMEDIATELY AFTER ACCEPTANCE OF PLANTING, TAGS AND RIBBONS SHALL BE REMOVED.
4. ALL PLANTS WILL BE MULCHED PER PLANS AND SPECIFICATIONS.
5. ALL SHRUB AND PERENNIAL BEDS WILL BE WEEDED AND OTHERWISE NEATLY MAINTAINED FOR THE DURATION OF THE CONTRACT.
6. PLANTS AND PLANTING BEDS SHALL BE THOROUGHLY WATERED AS NECESSARY AND PER SPECIFICATIONS.
- 7.

BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	54	87
PROJECT FILE NO.		610800	
LANDSCAPING PLANS			



PLANT SCHEDULE

CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL
SHADE TREES				
AM	5	ACER RUBRUM RED MAPLE	B & B	2-2.5" CAL
GT	12	GLEDITSIA TRIANCANTHOS HONEY LOCUST	B & B	2-2.5" CAL
QA	12	QUERCUS ALBA WHITE OAK	B & B	2-2.5" CAL
UA	13	ULMUS AMERICANA 'PRINCETON' AMERICAN ELM	B&B	2-2.5" CAL
BP	15	BETULA POPULIFOLIA GRAY BIRCH - MULTI-STEM	B&B	5-6" HT.
EVERGREEN				
PR	10	PINUS RIGIDA PITCH PINE	B & B	5-6" HT.

AA	5	HAWTHORN COCKSPUR CRATAEGUS CRUS-GALLI	15 GAL.	5-6" HT.
AC	11	AMELANCHIER CANADENSIS CANADIAN SERVICEBERRY	15 GAL.	5-6" HT.
AB	150	AMMOPHILA BREVILIGULATA	CONT.	1 GALLON
PV	150	PANICUM VIRGATUM 'CAPE BREEZE'	CONT.	1 GALLON

- UPLAND SEED MIX - MDOT SLOPE AND SHOULDER MIX OVER COMPOST MULCH
- WETLAND SEED - SEASONALLY FLOODED MIX OVER COMPOST MULCH
- GRASS SEED - LAWN SEED OVER LOAM BORROW

PLANTING NOTES

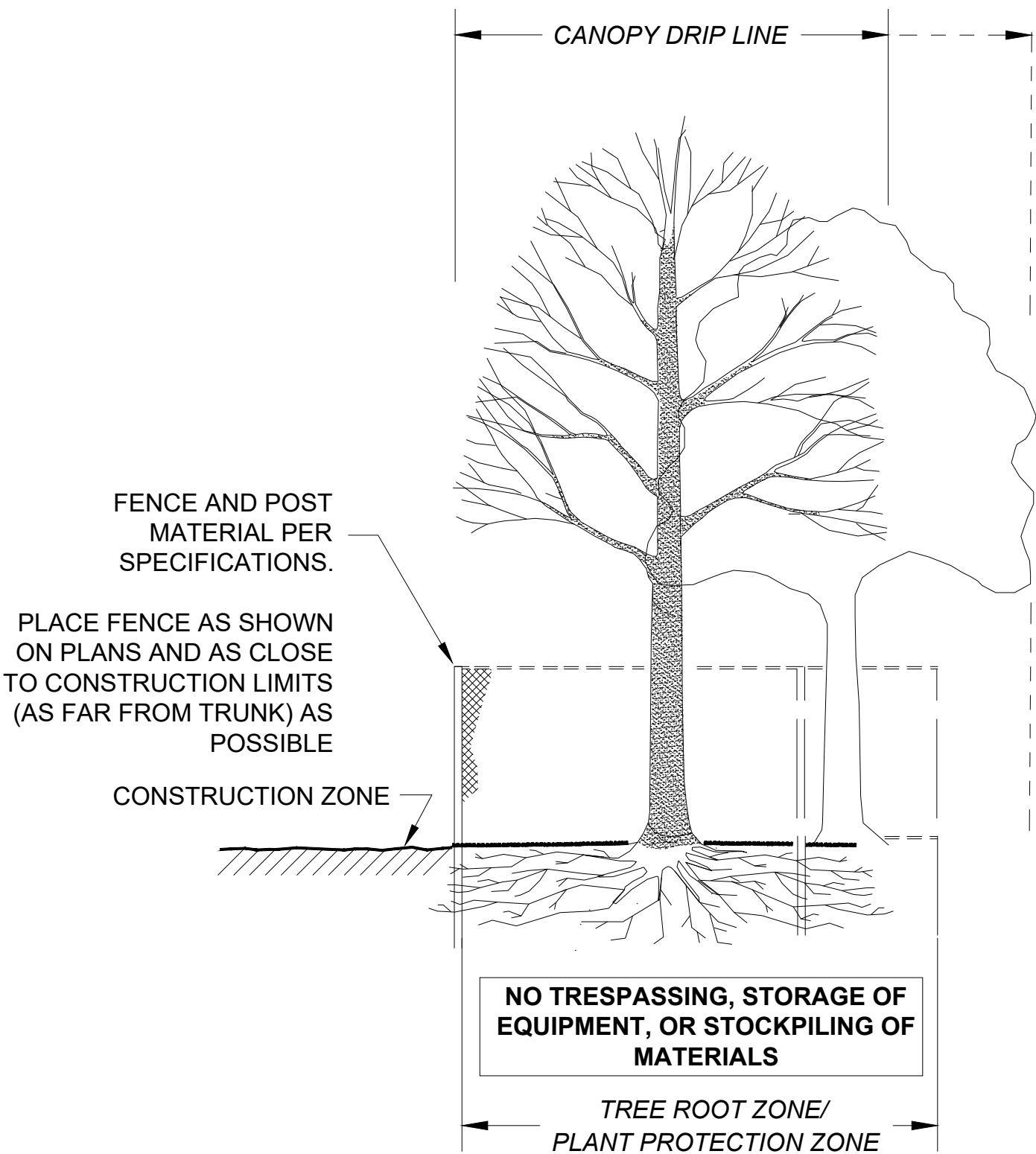
1. CONTRACTOR SHALL HAVE ALL SUBSURFACE UTILITIES MARKED PRIOR TO THE START OF WORK.
2. PLANT LOCATIONS ARE APPROXIMATE. PRIOR TO PLANTING, LOCATION OF ALL PLANT MATERIAL WILL BE APPROVED BY THE RESIDENT ENGINEER AND THE LANDSCAPE ARCHITECT.
3. ALL PLANT MATERIAL WILL HAVE TAGS INDICATING COMMON NAME, BOTANICAL NAME, CULTIVAR, & SIZE.
4. IMMEDIATELY AFTER ACCEPTANCE OF PLANTING, TAGS AND RIBBONS SHALL BE REMOVED.
5. ALL PLANTS WILL BE MULCHED PER PLANS AND SPECIFICATIONS.
6. ALL SHRUB AND PERENNIAL BEDS WILL BE WEEDED AND OTHERWISE NEATLY MAINTAINED FOR THE DURATION OF THE CONTRACT.
7. PLANTS AND PLANTING BEDS SHALL BE THOROUGHLY WATERED AS NECESSARY AND PER SPECIFICATIONS.

WATERING NOTES

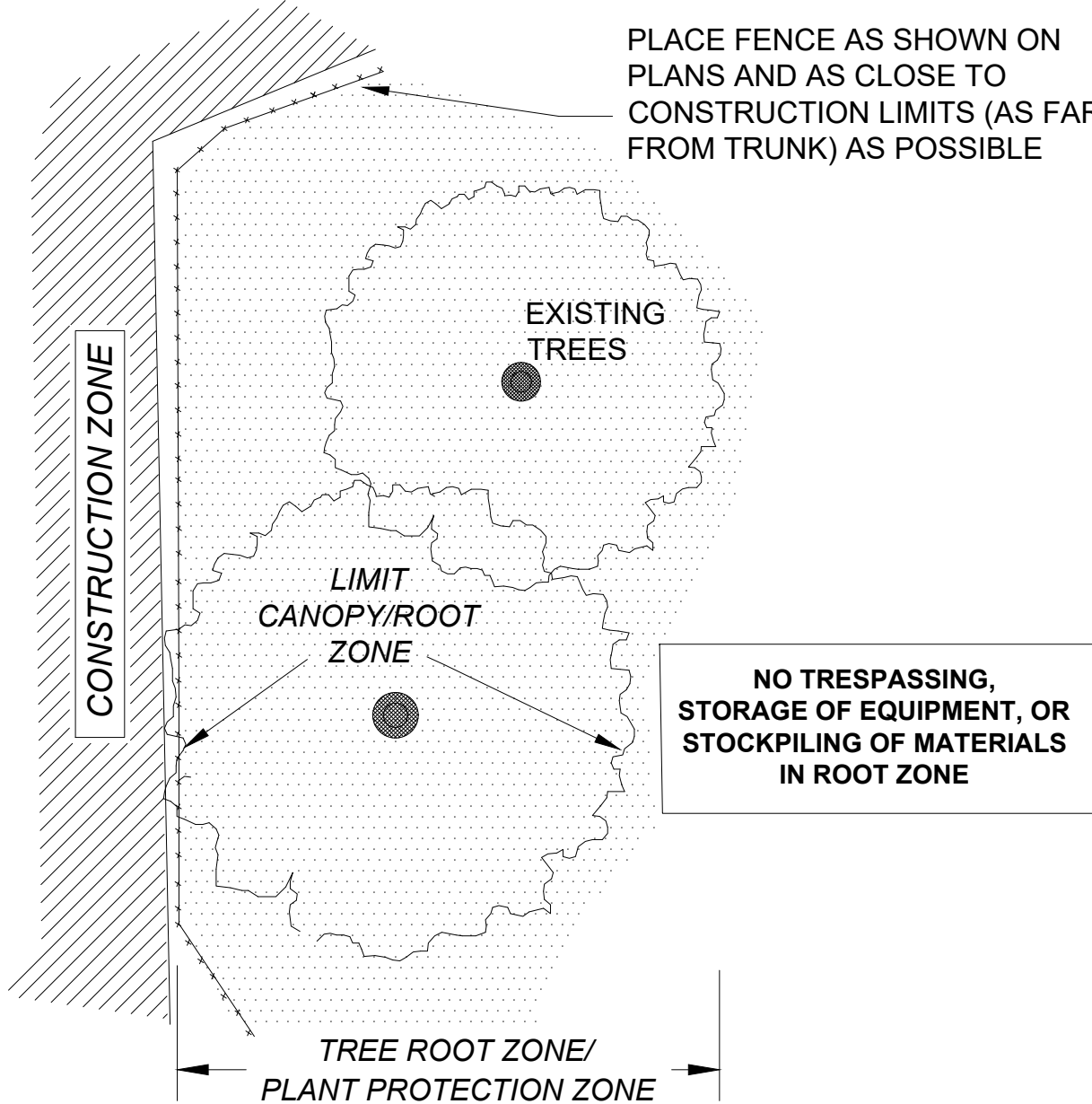
1. IRRIGATION BAGS MAY BE USED FOR STREETScape AND PARK PLANTINGS ONLY.
2. A SCHEDULE FOR FILLING AND REMOVAL SHALL BE SUBMITTED TO THE ENGINEER.
3. USE AND SCHEDULE MUST BE APPROVED BY THE MASSDOT LANDSCAPE ARCHITECT.
4. A MINIMUM OF 2 BAGS PER TREE SHALL BE USED. BAGS SHALL BE ATTACHED TO STAKES.
5. NO BAGS SHALL BE PLACED AROUND THE TREE TRUNK.
6. BAGS SHALL BE MAINTAINED FULL JUNE 1 - OCTOBER 1 OR AS APPROVED.
7. BAGS SHALL BE REMOVED AT THE END OF THE SEASON.

UPLAND NATIVE SEEDING NOTES

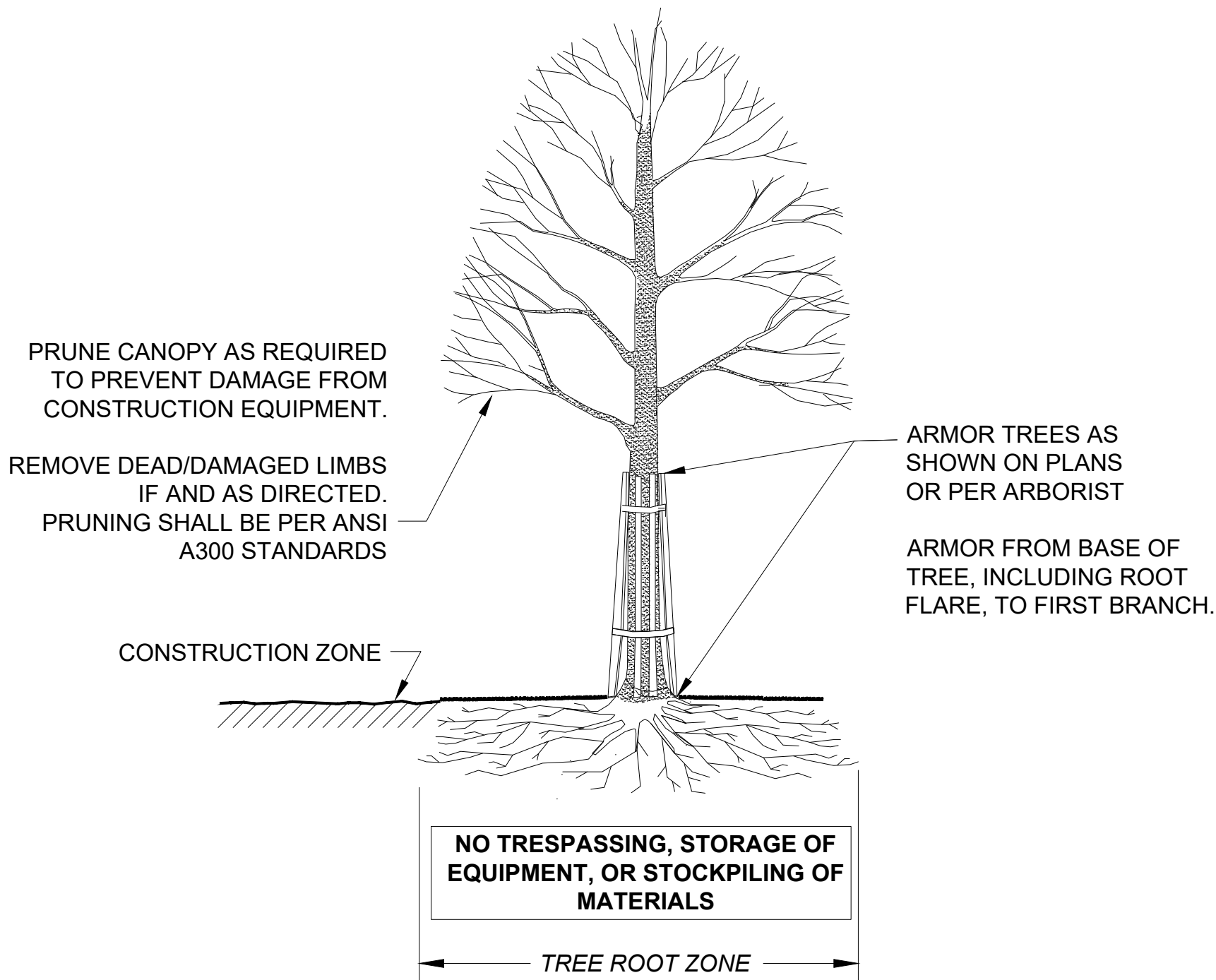
1. SEEDING SHALL BE BROADCAST METHOD ONLY (NOT HYDROSEED) UNLESS APPROVED OTHERWISE BY THE MASSDOT LANDSCAPE ARCHITECT.
2. SEEDING AND SUBMITTALS SHALL BE PER THE SPECIAL PROVISIONS.
3. SUBMITTALS FOR SEED MIXES SHALL BE APPROVED BY THE ENGINEER AND LANDSCAPE ARCHITECT PRIOR TO SEED APPLICATION.
4. SITE PREPARATION SHALL BE PER SPECIFICATIONS AND APPROVED BY THE ENGINEER PRIOR TO SEEDING.
5. WHEN SEEDING OUT OF SEASON APPLICATION RATE SHALL BE INCREASED BY 50%.



SECTION - FENCE PROTECTION OF ROOT ZONE



PLAN VIEW - FENCE PROTECTION OF ROOT ZONE



SECTION - TRUNK ARMORING & PRUNING

BARNSTABLE
BARNSTABLE PARK AND RIDE

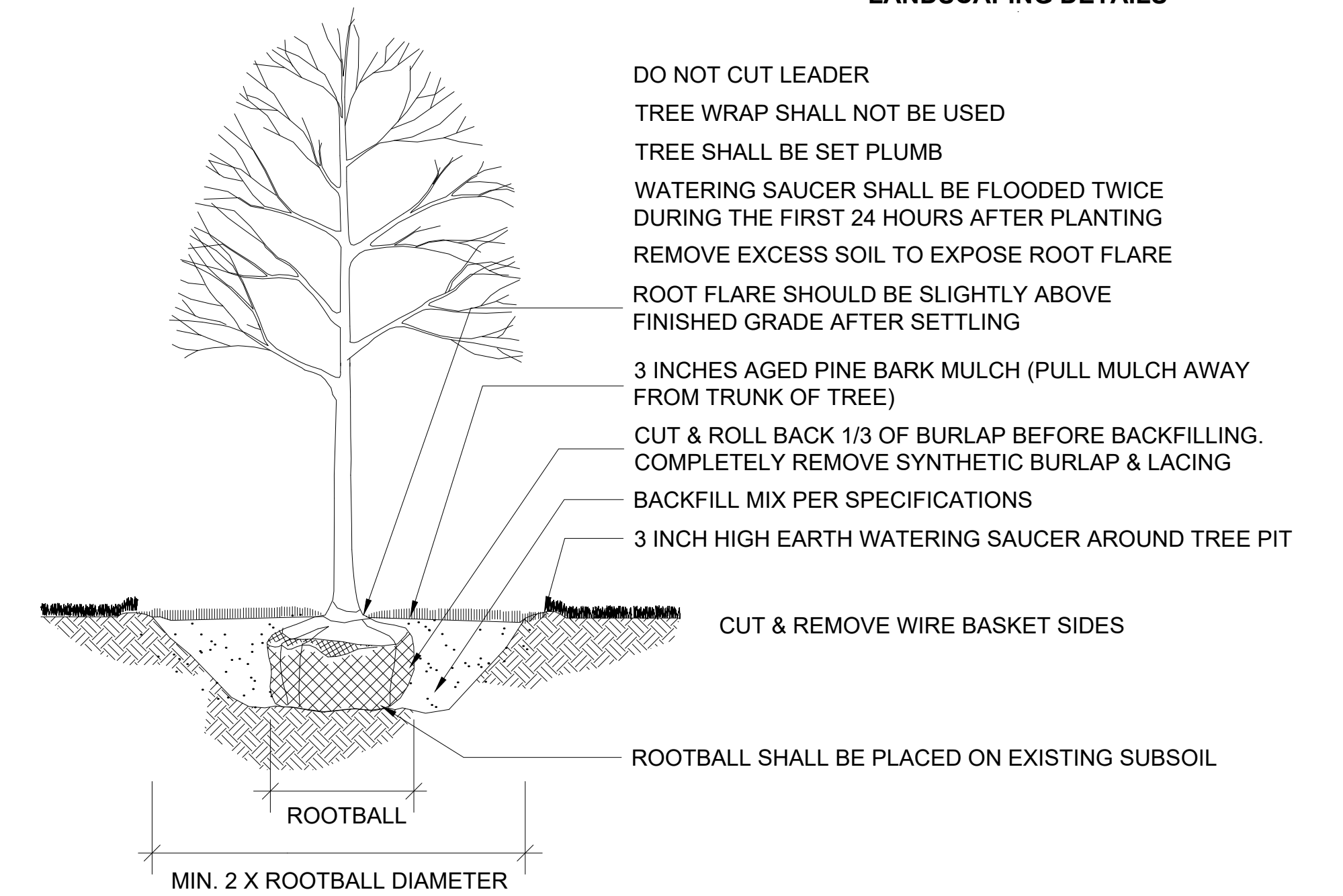
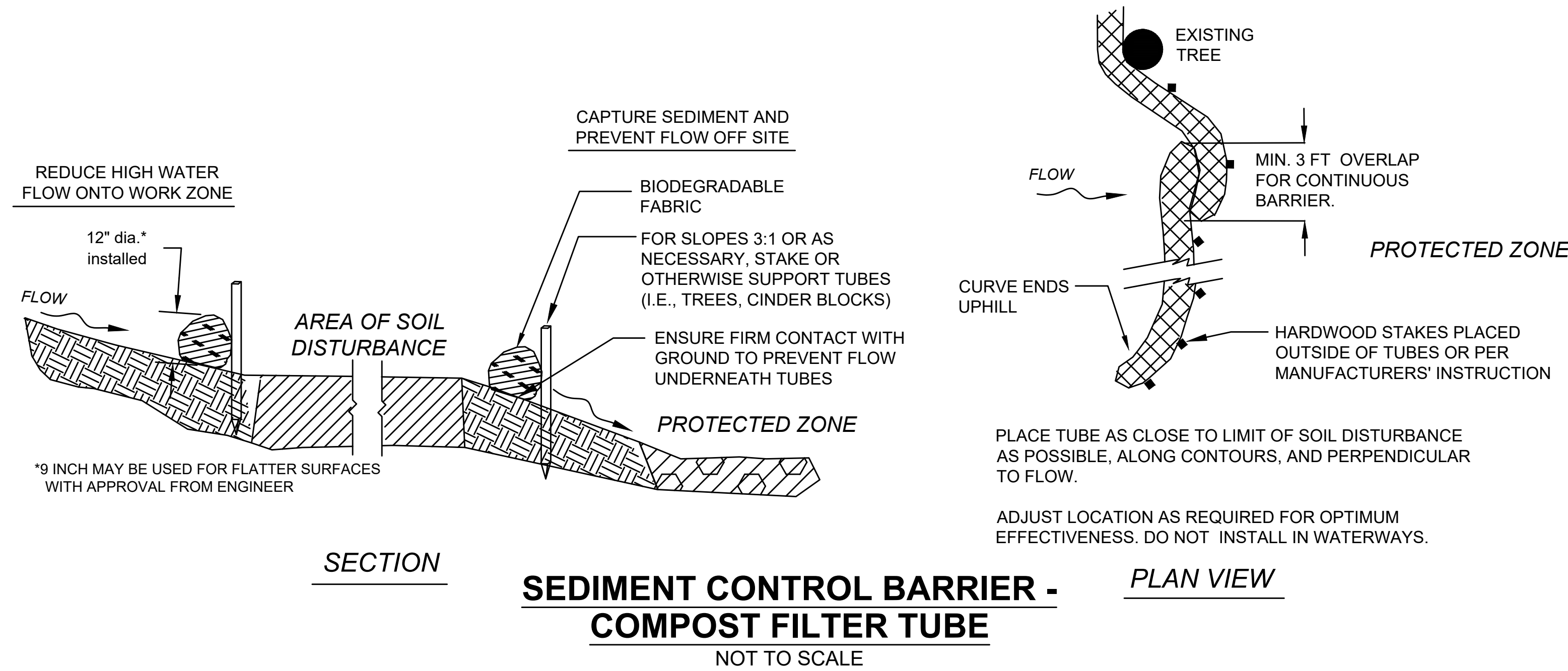
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	55	87
PROJECT FILE NO.		610800	

LANDSCAPING NOTES AND DETAILS

TREE PROTECTION - ROOT ZONE

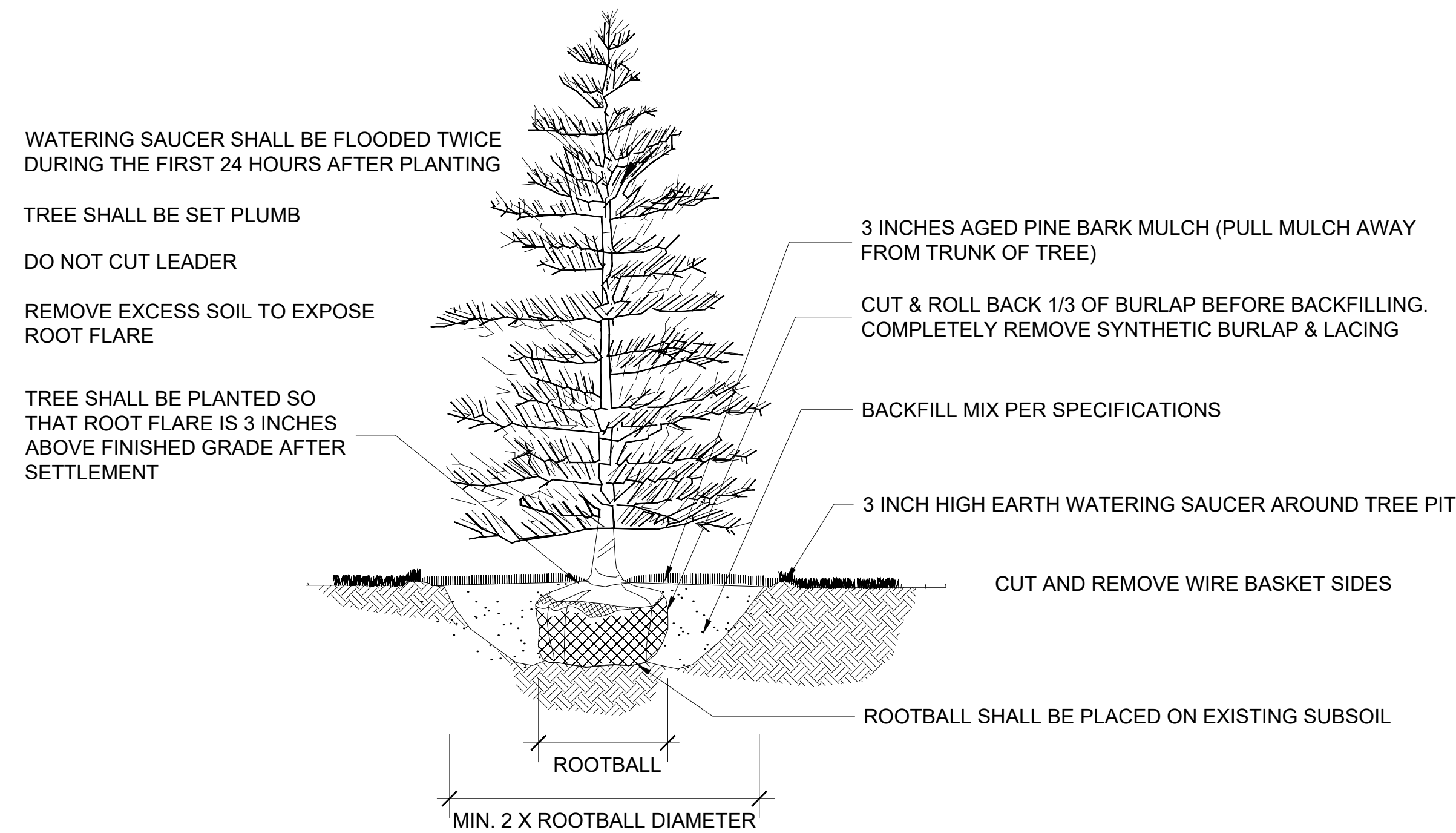
NOT TO SCALE

TREE PROTECTION - TRUNK



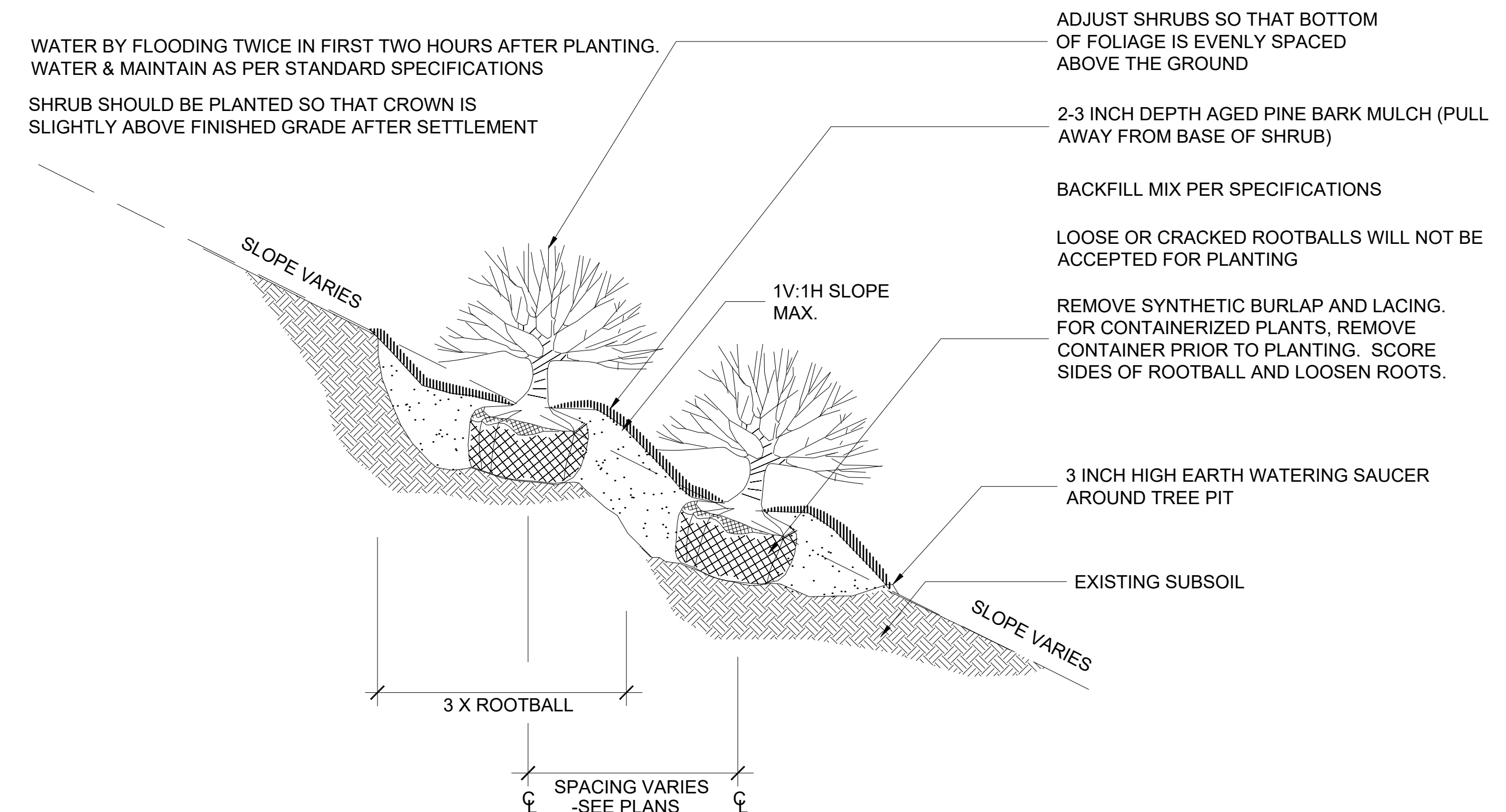
DECIDUOUS TREE PLANTING

NOT TO SCALE



EVERGREEN TREE PLANTING

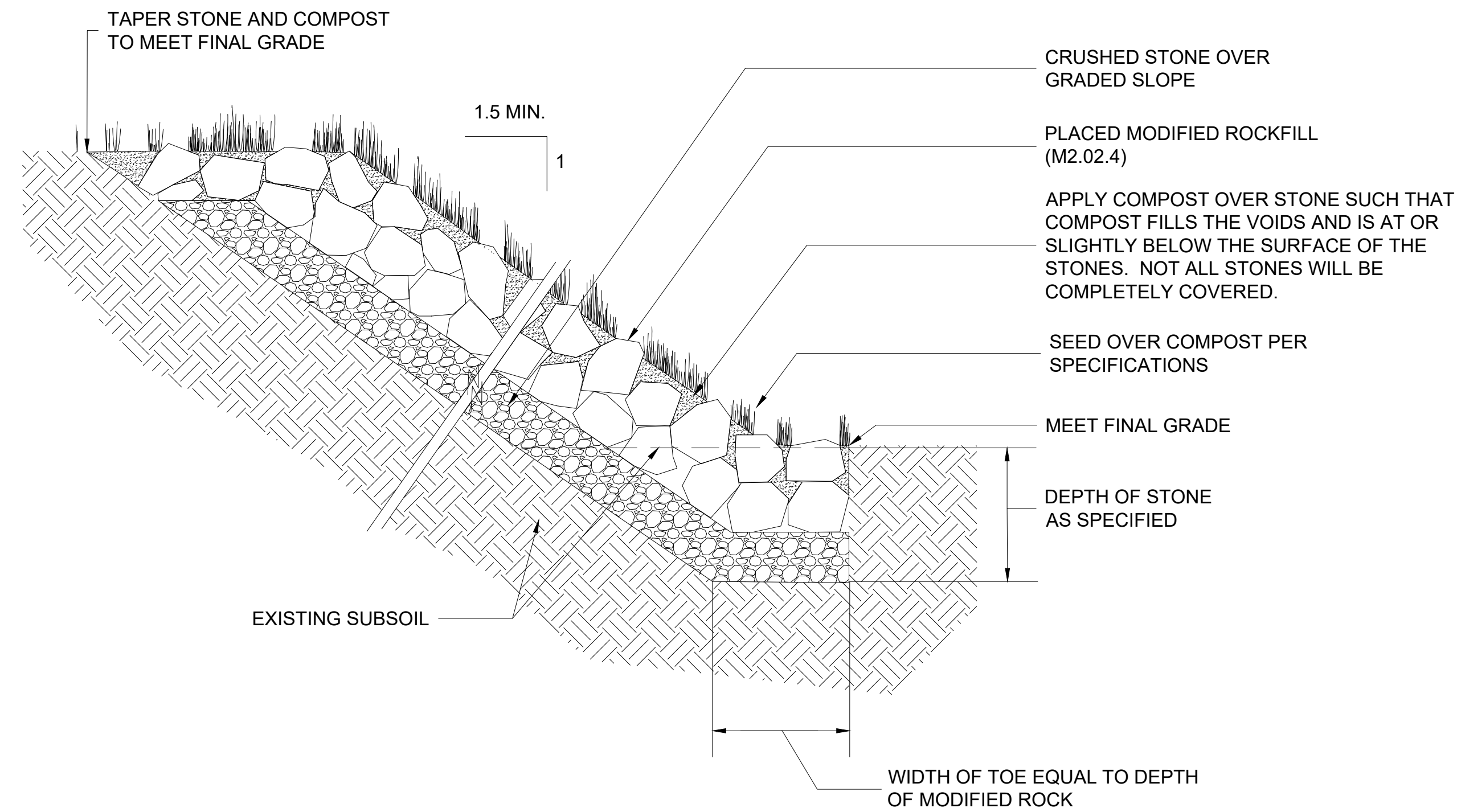
NOT TO SCALE



CONTAINERIZED SHRUB PLANTING (SLOPE) DETAIL

NOT TO SCALE

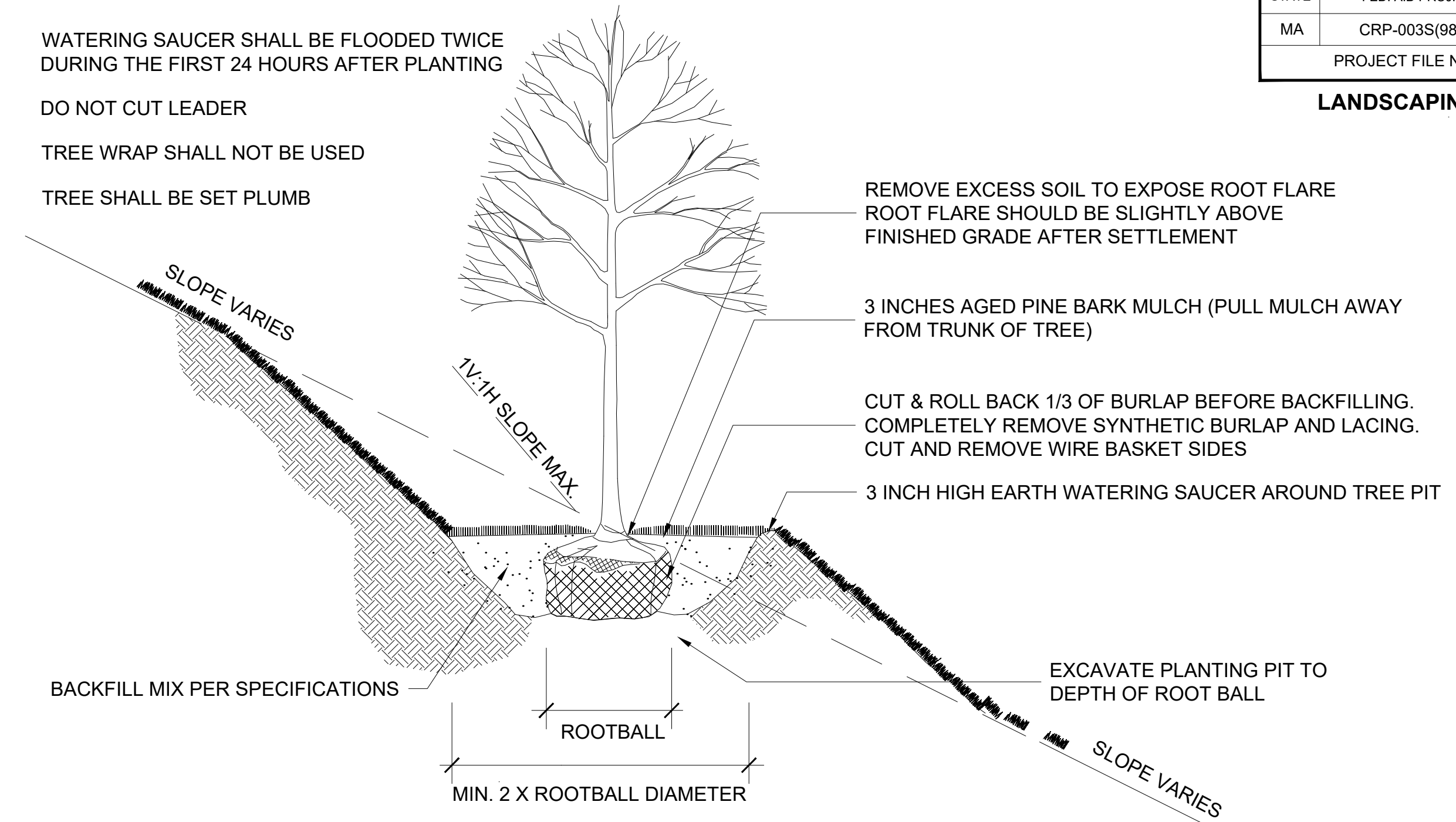
BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	57	87
PROJECT FILE NO.		610800	
LANDSCAPING DETAILS			



COMPOST AND SEED OVER MODIFIED ROCKFILL (NON-WATERWAY)

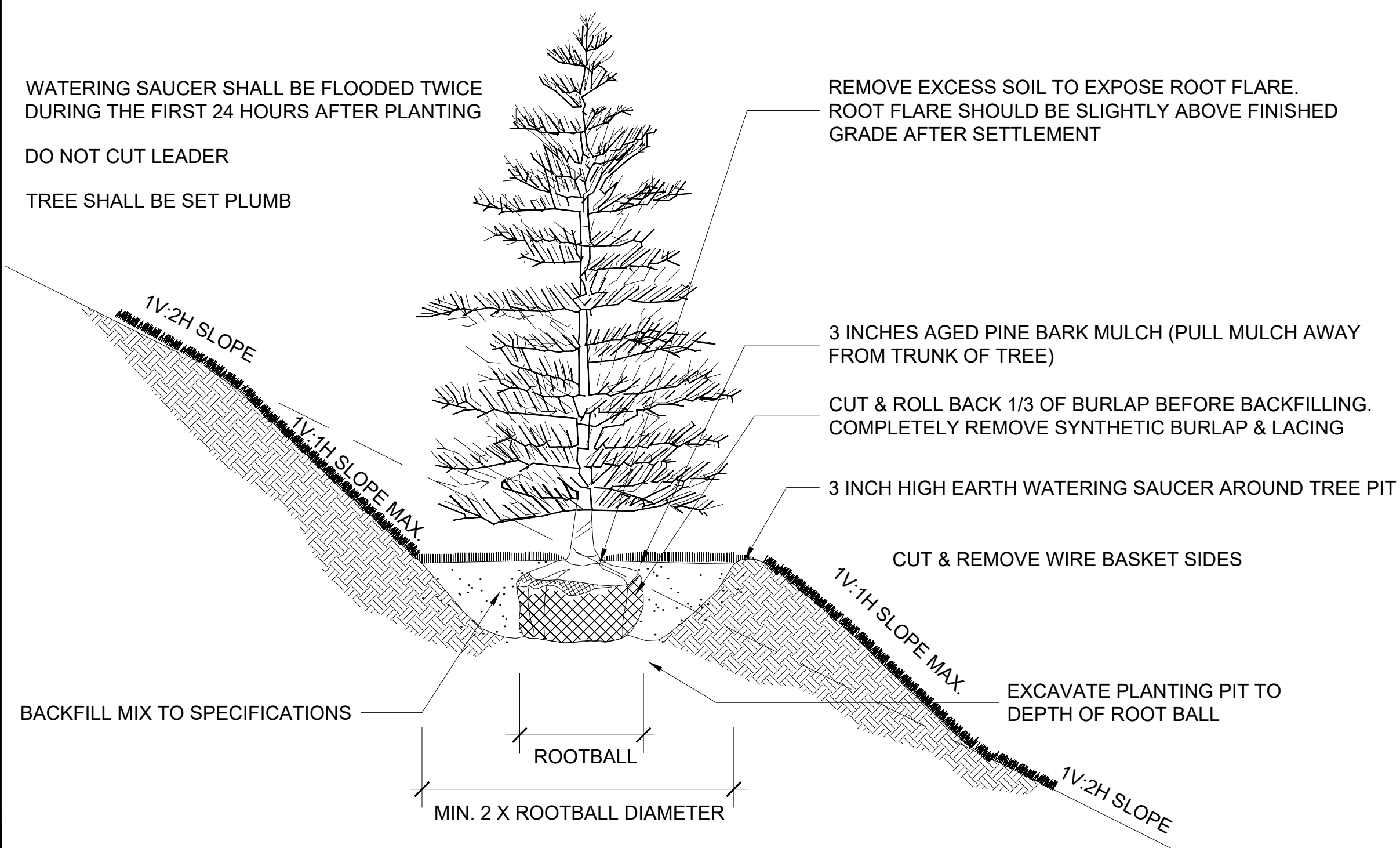
NOT TO SCALE

20160320_MassDOT



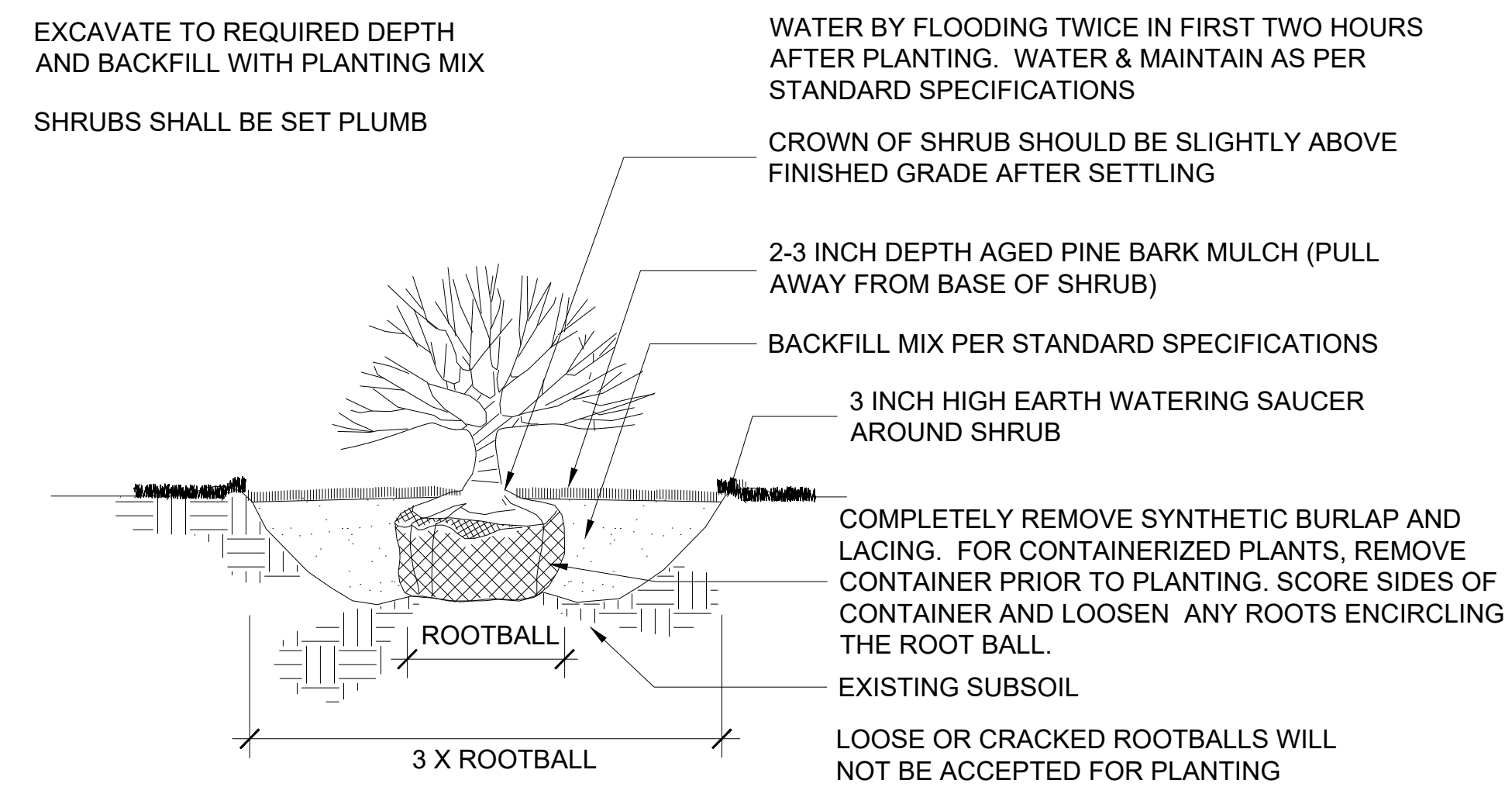
DECIDUOUS TREE PLANTING (SLOPE)

NOT TO SCALE



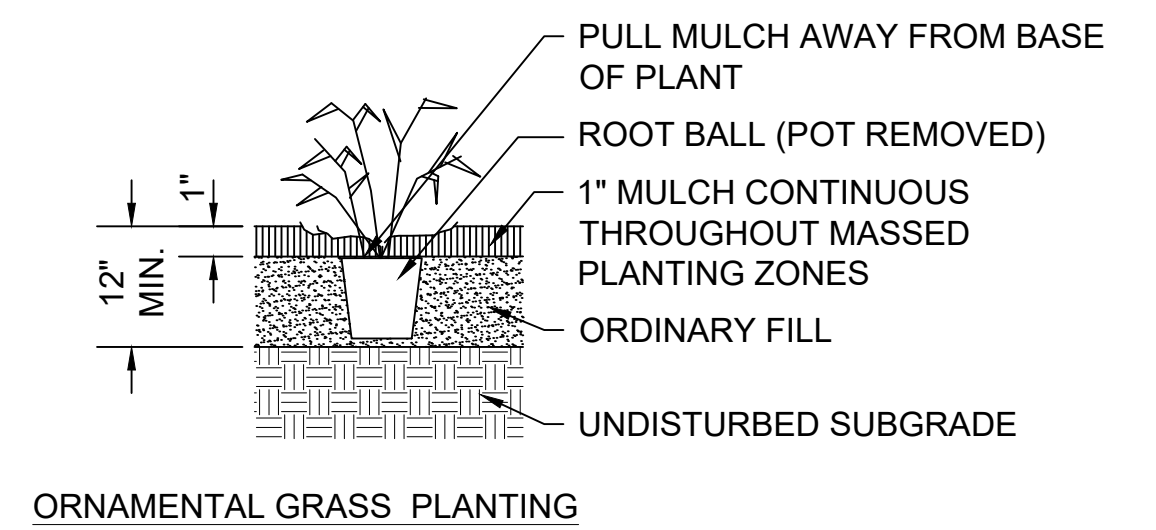
EVERGREEN TREE PLANTING (SLOPE)

NOT TO SCALE



SHRUB PLANTING

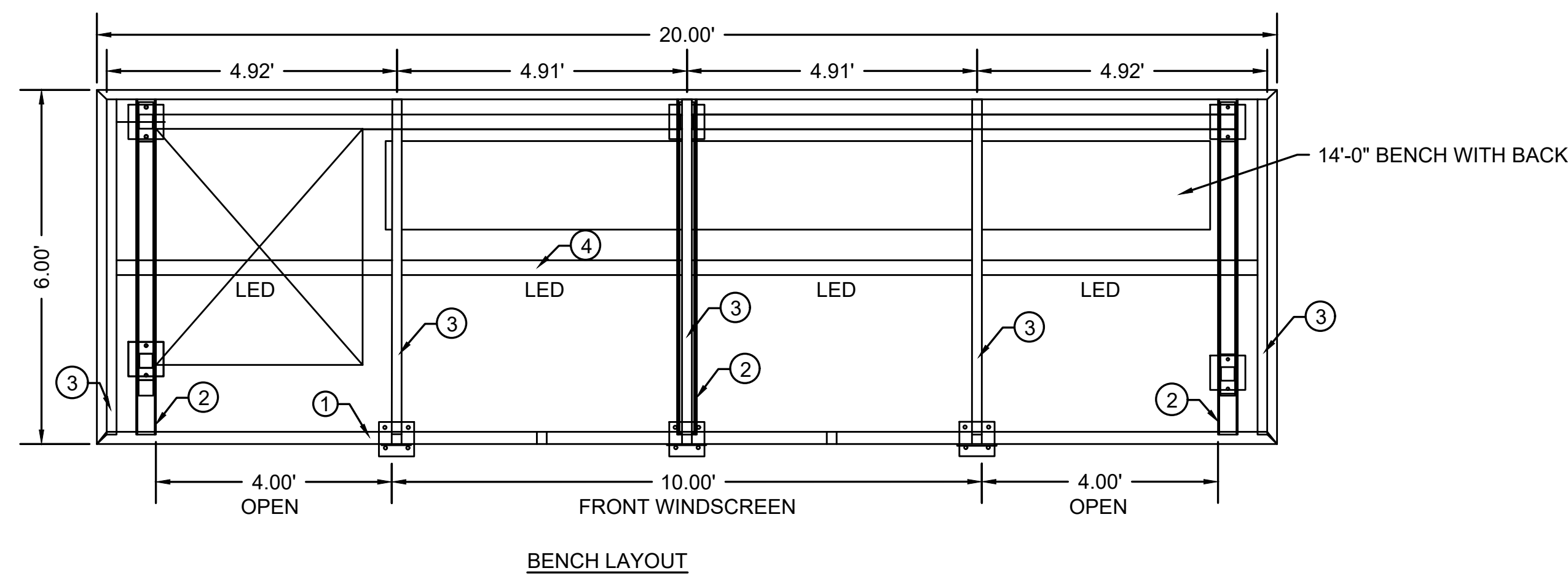
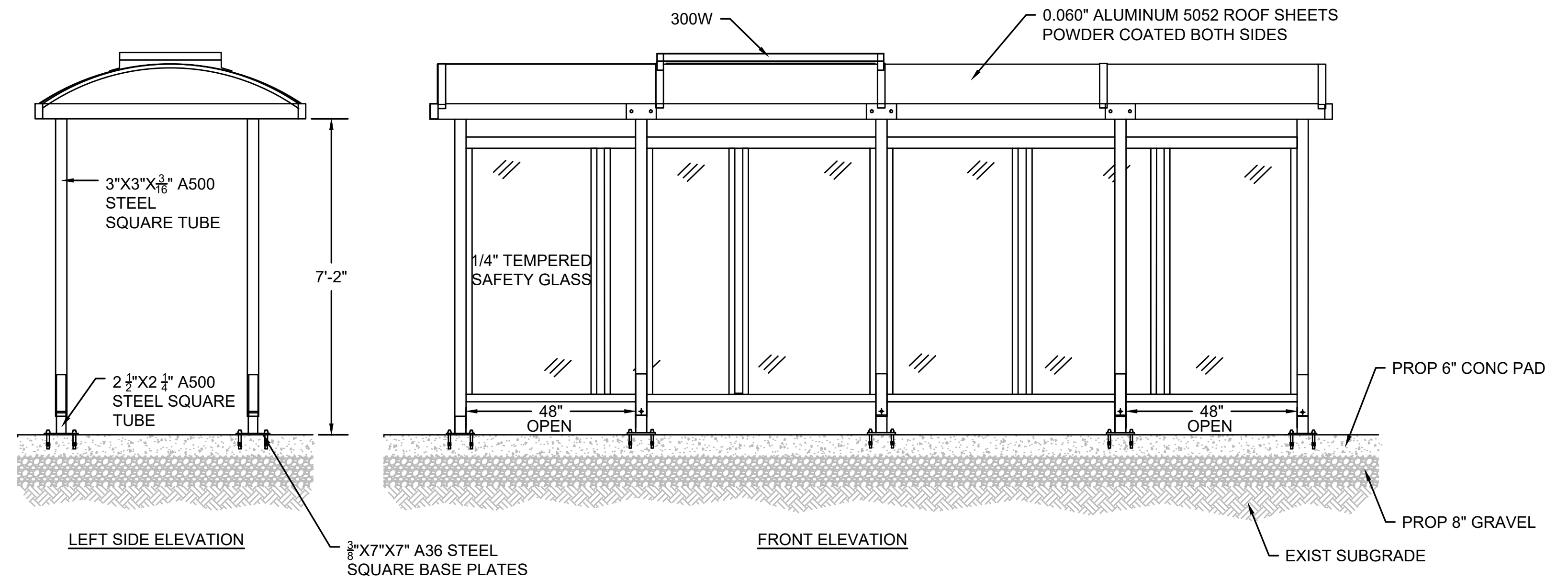
NOT TO SCALE



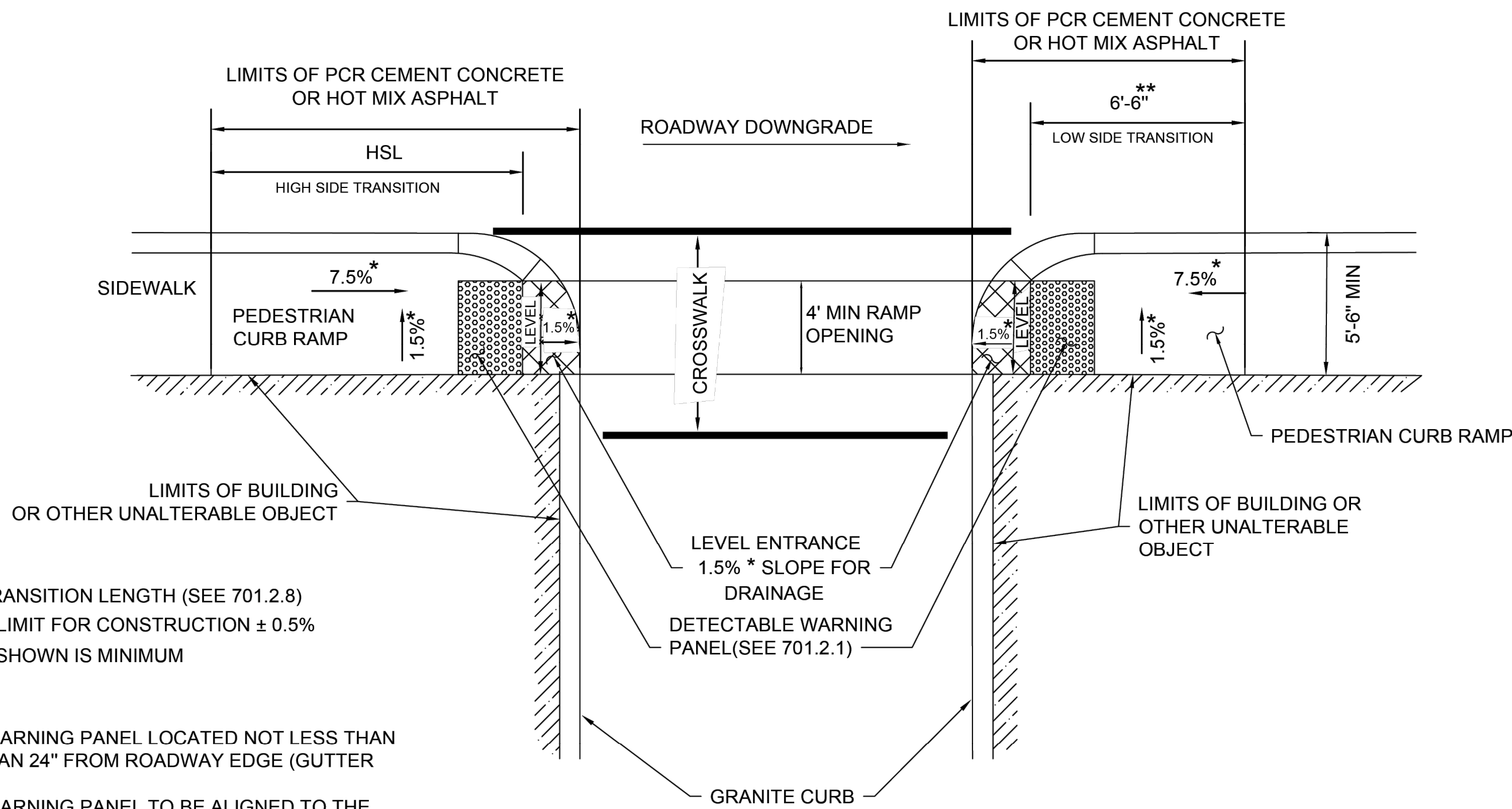
ORNAMENTAL GRASS PLANTING

SCALE: NONE

BARNSTABLE BARNSTABLE PARK AND RIDE			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	58	87
PROJECT FILE NO.		610800	
CONSTRUCTION DETAILS			



- Legend for callouts:
- ① 5"x2"
 - ② 4"x2"
 - ③ 2"x1"
 - ④ 2"x3"



LEGEND
HSL = HIGH SIDE TRANSITION LENGTH (SEE 701.2.8)
* = TOLERANCE LIMIT FOR CONSTRUCTION $\pm 0.5\%$
** = TRANSITION SHOWN IS MINIMUM

- NOTES:
1. DETECTABLE WARNING PANEL LOCATED NOT LESS THAN 6" OR MORE THAN 24" FROM ROADWAY EDGE (GUTTER LINE).
 2. DETECTABLE WARNING PANEL TO BE ALIGNED TO THE DIRECTION OF TRAVEL.
 3. PEDESTRIAN PATH OF TRAVEL SHALL BE NO LESS THAN 4'-0" WIDE AND FREE OF VERTICAL OBSTRUCTIONS (FOR ALL CONSTRAINED CONDITIONS).
 4. LEVEL LANDING MUST BE CLEAR OF ANY VERTICAL OBSTRUCTION.
 5. ALL SLOPE VALUES LISTED HERE ARE MAXIMUM VALUES WITH CONSTRUCTION TOLERANCE OF $\pm 0.5\%$.



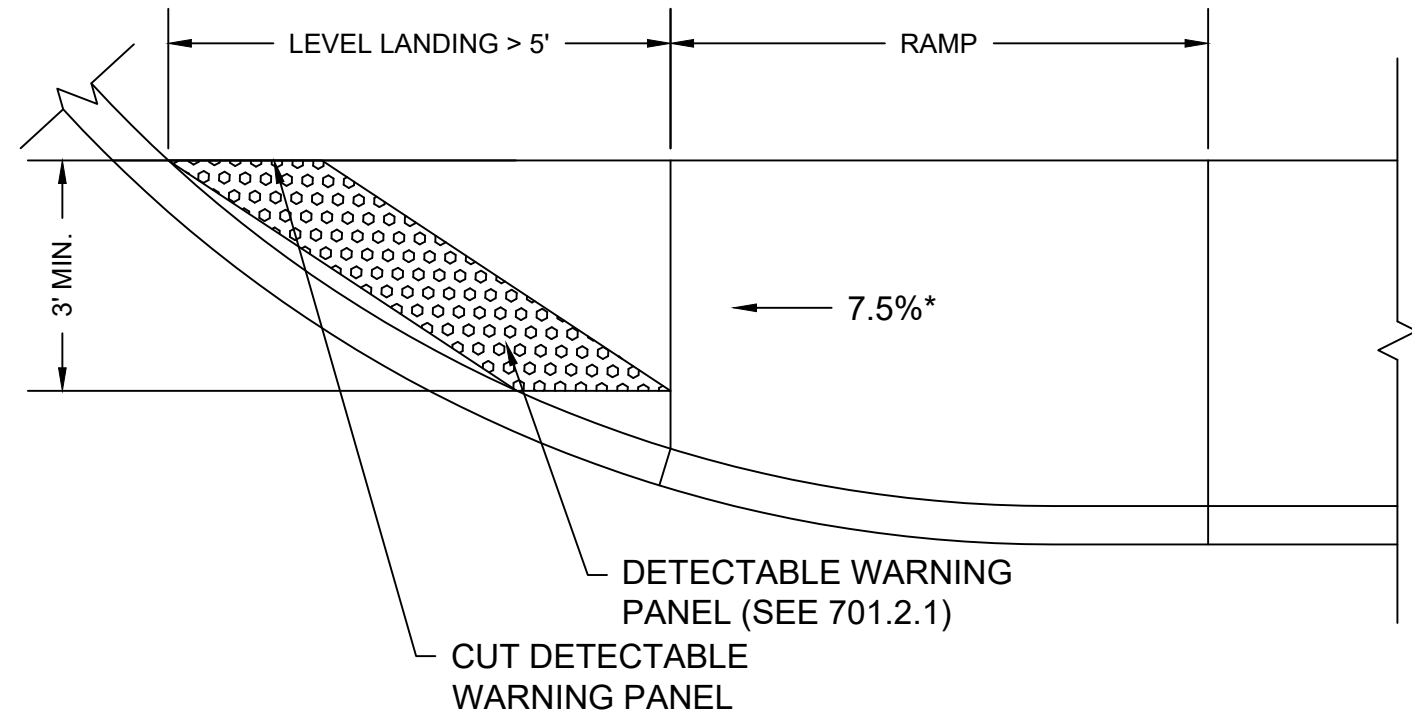
CONSTRUCTION STANDARDS
SECTION 700

PEDESTRIAN CURB RAMP FOR ONE
CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL

ISSUE DATE
JAN 2025

DRAWING NUMBER
701.2.5

PEDESTRIAN CURB RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL									
PCR#	ASSET ID	RAMP REFERENCE POINT		WIDTH OF SIDEWALK (W)	WIDTH OF RAMP ENTRANCE (4'-0" MIN)	CLEAR PATH OF TRAVEL (4'-0" MIN)	ROADWAY GUTTER SLOPE	TRANSITION LENGTH	
		STATION	OFFSET					HIGH SIDE	LOW SIDE
1		206+68.48	10.86 L	5.50	4.00	4.00	-0.90%	7.67	6.50
2		207+24.90	16.00 L	5.50	4.00	4.00	-0.90%	7.67	
3		207+46.70	16.00 L	5.50	4.00	4.00	-0.90%		6.50
4		207+81.54	16.00 L	5.50	4.00	4.00	-0.90%	7.67	
5		208+03.34	16.00 L	5.50	4.00	4.00	-0.90%		6.50
6		208+38.18	16.00 L	5.50	4.00	4.00	-0.90%	7.67	
7		208+59.99	16.00 L	5.50	4.00	4.00	-0.90%		6.50
8		208+94.83	16.00 L	5.50	4.00	4.00	0.87%		6.50
9		209+16.63	16.00 L	5.50	4.00	4.00	0.64%	7.67	
10		209+73.39	10.94 L	5.50	4.00	4.00	1.48%		6.50
11		203+00.88	15.00 L	5.00	5.00	5.00	0.99%		5.00
12		202+81.48	16.00 L	5.50	4.00	4.00	0.67%		6.50
13		202+46.64	16.00 L	5.50	4.00	4.00	0.90%	7.67	
14		202+24.84	16.00 L	5.50	4.00	4.00	-0.75%	7.67	
15		202+15.37	15.00 R	5.50	5.00	5.00	-0.82%		6.50
16		201+90.00	16.00 L	5.50	4.00	4.00	-0.57%		6.50
17		201+93.37	15.25 R	6.00	5.50	5.50	-0.50%	7.67	
18		201+68.20	16.00 L	5.50	4.00	4.00	1.29%		6.50
19		201+58.73	15.25 R	6.50	5.50	5.50	0.26%	7.67	
21		201+30.96	23.46 L	5.50	5.00	5.00	-1.65%		6.50
23		201+13.96	23.46 L	5.00	5.00	5.00	-0.26%	7.67	
24		200+76.72	16.00 L	5.50	4.00	4.00	0.10%	7.67	
25		200+54.91	16.00 L	5.50	4.00	4.00	1.38%		6.50
29		302+47.71	19.84 R	6.00	5.00	5.00	-0.79%		6.50
30		302+19.65	19.69 R	5.50	5.00	4.00	0.31%		5.20
31		302+12.56	19.65 R	5.50	5.00	4.60	-0.50%		5.20
33		500+78.73	28.32 L	6.00	5.00	5.00	-1.04%	9.00	
35		300+93.35	19.14 R	5.50	5.00	5.00	1.32%		9.00
36		100+78.18	12.05 R	5.00	5.00	5.00	1.32%		9.00
53	PED-11495	100+08.11	19.35 R	5.00	5.00	5.00	1.20%		6.50
55	PED-13162	303+22.65	31.53 L	5.50	5.50	5.50	0.59%	7.67	
56		303+16.23	19.46 R	6.00	5.00	5.00	1.20%		6.50

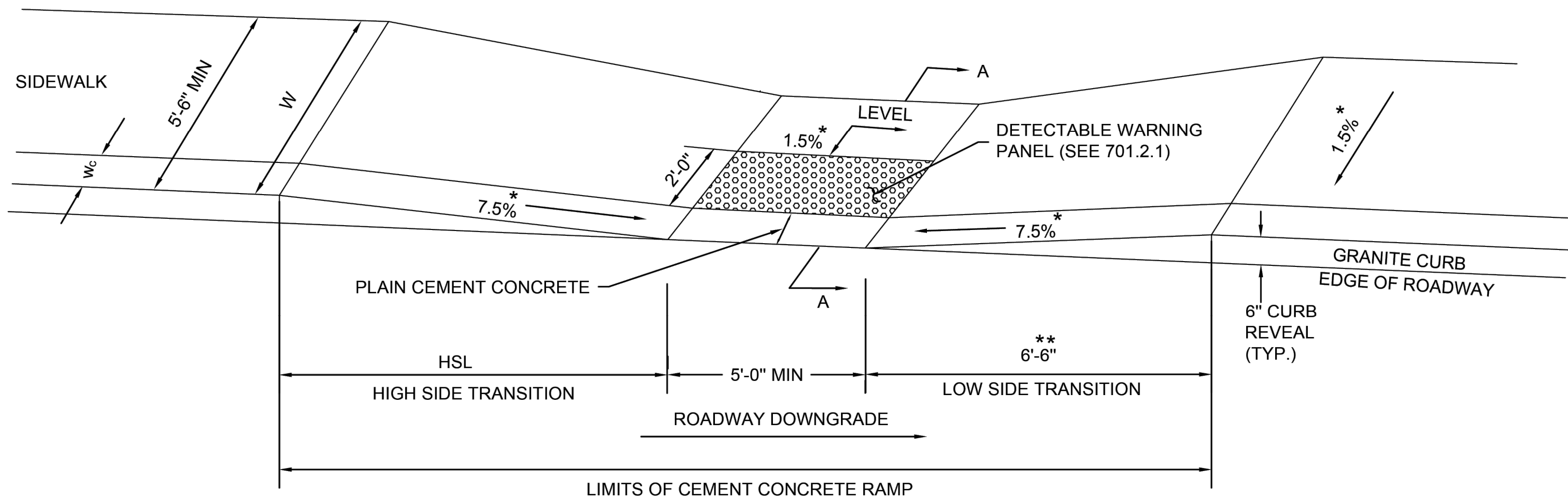


* = TOLERANCE FOR CONSTRUCTION $\pm 0.5\%$

- NOTE:
1. THE DETECTABLE WARNING PANEL IS 2 FEET DEEP MINIMUM AT ALL LOCATIONS IN THE PEDESTRIAN PATH OF TRAVEL

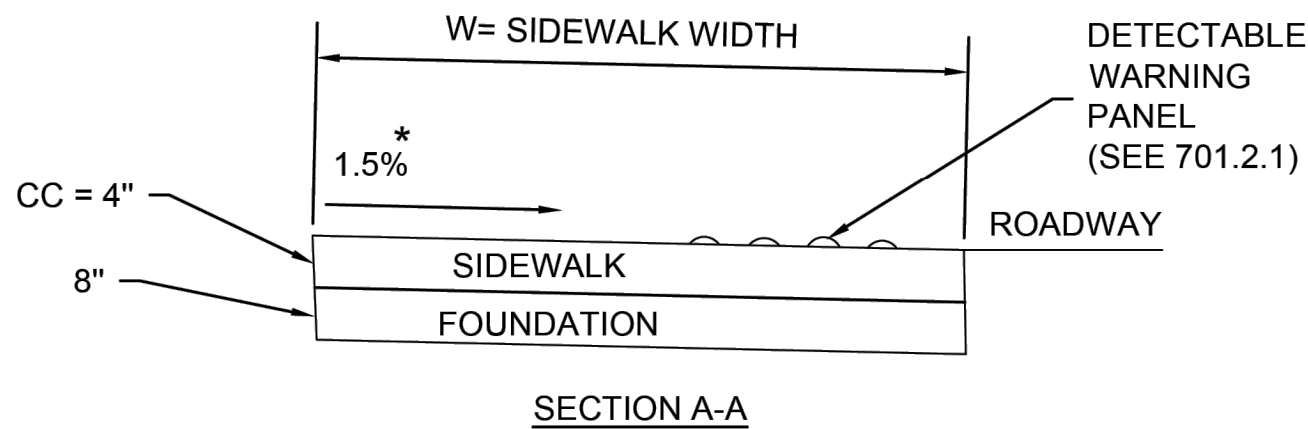
DETECTABLE WARNING PANEL ON PEDESTRIAN CURB RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL WHERE THE LEVEL LANDING IS MORE THAN 5 FEET DEEP AT ANY POINT

PEDESTRIAN CURB RAMP IN CONSTRAINED CONDITION WITH DETECTABLE WARNING PANEL									
PCR#	ASSET ID	RAMP REFERENCE POINT		LENGTH OF PRIMARY RAMP (W)	WIDTH OF RAMP ENTRANCE (5.0' MIN)	DEPTH OF LEVEL LANDING (4.0' MIN)	ROADWAY GUTTER SLOPE	TRANSITION LENGTH	
		STATION	OFFSET					HIGH SIDE	LOW SIDE
20		201+40.96	12.50 L	5.50	5.00	5.00	-0.71%		6.50
34		301+76.75	20.39 R	5.64	5.01	5.95	-0.80%	7.67	6.50
37		206+68.88	25.82 R	5.50	5.00	5.50	-0.90%	7.67	
38		209+68.45	25.94 R	5.50	5.00	5.50	-1.50%	9.00	
39		500+10.53	25.32 L	6.00	5.00	5.50	-2.37%		6.50
40		500+11.59	25.32 R	6.00	5.00	5.50	0.96%	7.67	
41		205+11.21	25.82 R	5.50	5.00	5.50	-0.90%	7.67	6.50
52		212+88.17	25.82 R	5.50	5.00	5.50	1.50%	9.00	6.50
54	PED-20049	100+07.02	32.93 L	5.00	5.00	5.00	1.14%	9.00	6.50



LEGEND
HSL = HIGH SIDE TRANSITION LENGTH (SEE 701.2.8)
W = SIDEWALK WIDTH
W_c = CURB WIDTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION $\pm 0.5\%$
** = TRANSITION LENGTH SHOWN IS MINIMUM

- NOTES:
1. LEVEL LANDING AND RAMP MUST BE CLEAR OF ANY VERTICAL OBSTRUCTIONS.
 2. DETECTABLE WARNING PANEL MUST BE 2'-0" AT ALL POINTS IN PEDESTRIAN PATH OF TRAVEL.
 3. PEDESTRIAN PATH OF TRAVEL SHALL BE NO LESS THAN 4'-0" WIDE AND FREE OF VERTICAL OBSTRUCTIONS (FOR ALL CONSTRAINED CONDITIONS).
 4. ALL SLOPE VALUES LISTED HERE ARE MAXIMUM VALUES WITH CONSTRUCTION TOLERANCE OF $\pm 0.5\%$.
 5. USABLE SIDEWALK WIDTH = $W - W_c$



CONSTRUCTION STANDARDS
SECTION 700

PEDESTRIAN CURB RAMP IN CONSTRAINED
CONDITION WITH DETECTABLE WARNING PANELS

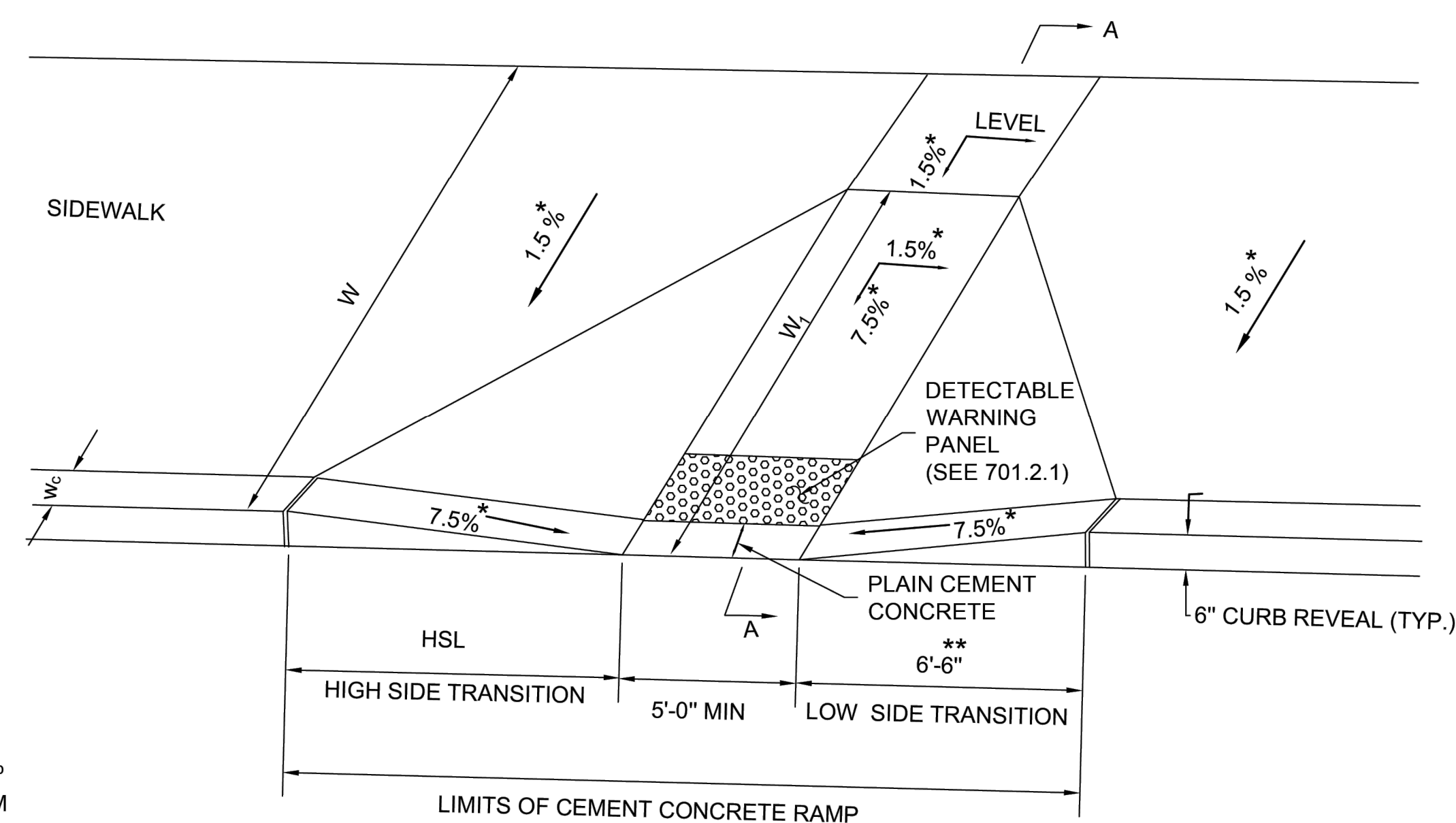
ISSUE DATE
JAN 2025

DRAWING NUMBER
701.2.2

BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	60	87
PROJECT FILE NO.		610800	

PEDESTRIAN CURB RAMP DETAILS



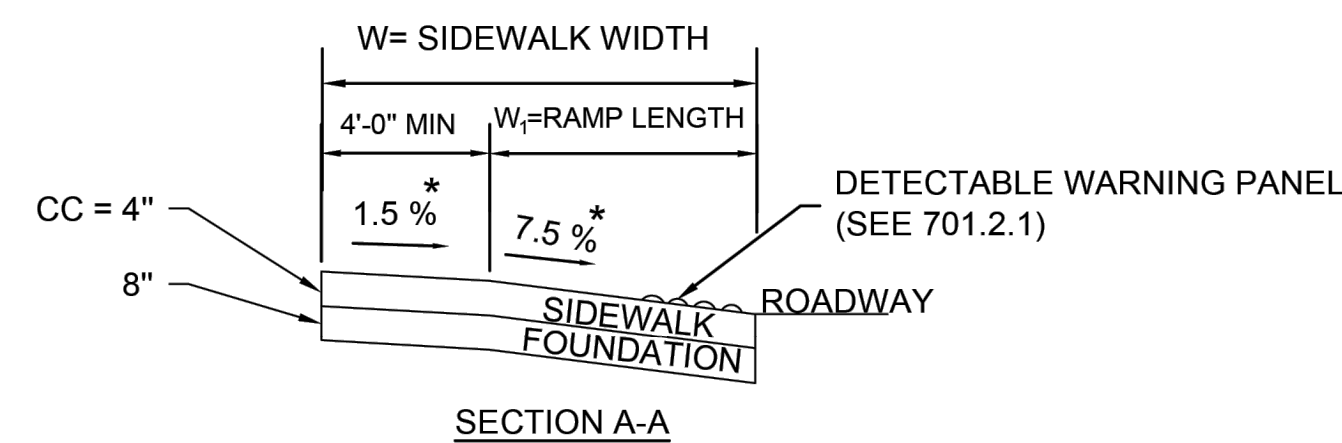
LEGEND

HSL = HIGH SIDE TRANSITION LENGTH
(SEE 701.2.8)

W = SIDEWALK WIDTH
W_C = CURB WIDTH
W₁ = PERPENDICULAR RAMP LENGTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ± 0.5%
** = TRANSITION LENGTH SHOWN IS MINIMUM

NOTES:

1. LEVEL LANDING AND RAMP MUST BE CLEAR OF ANY VERTICAL OBSTRUCTIONS.
2. DETECTABLE WARNING PANEL MUST BE 2'-0" AT ALL POINTS IN PEDESTRIAN PATH OF TRAVEL.
3. PEDESTRIAN PATH OF TRAVEL SHALL BE NO LESS THAN 4'-0" WIDE AND FREE OF VERTICAL OBSTRUCTIONS (FOR ALL CONSTRAINED CONDITIONS).
4. ALL SLOPE VALUES LISTED HERE ARE MAXIMUM VALUES WITH CONSTRUCTION TOLERANCE OF $\pm 0.5\%$.
5. USABLE SIDEWALK WIDTH = $W - W_c$



CONSTRUCTION STANDARDS

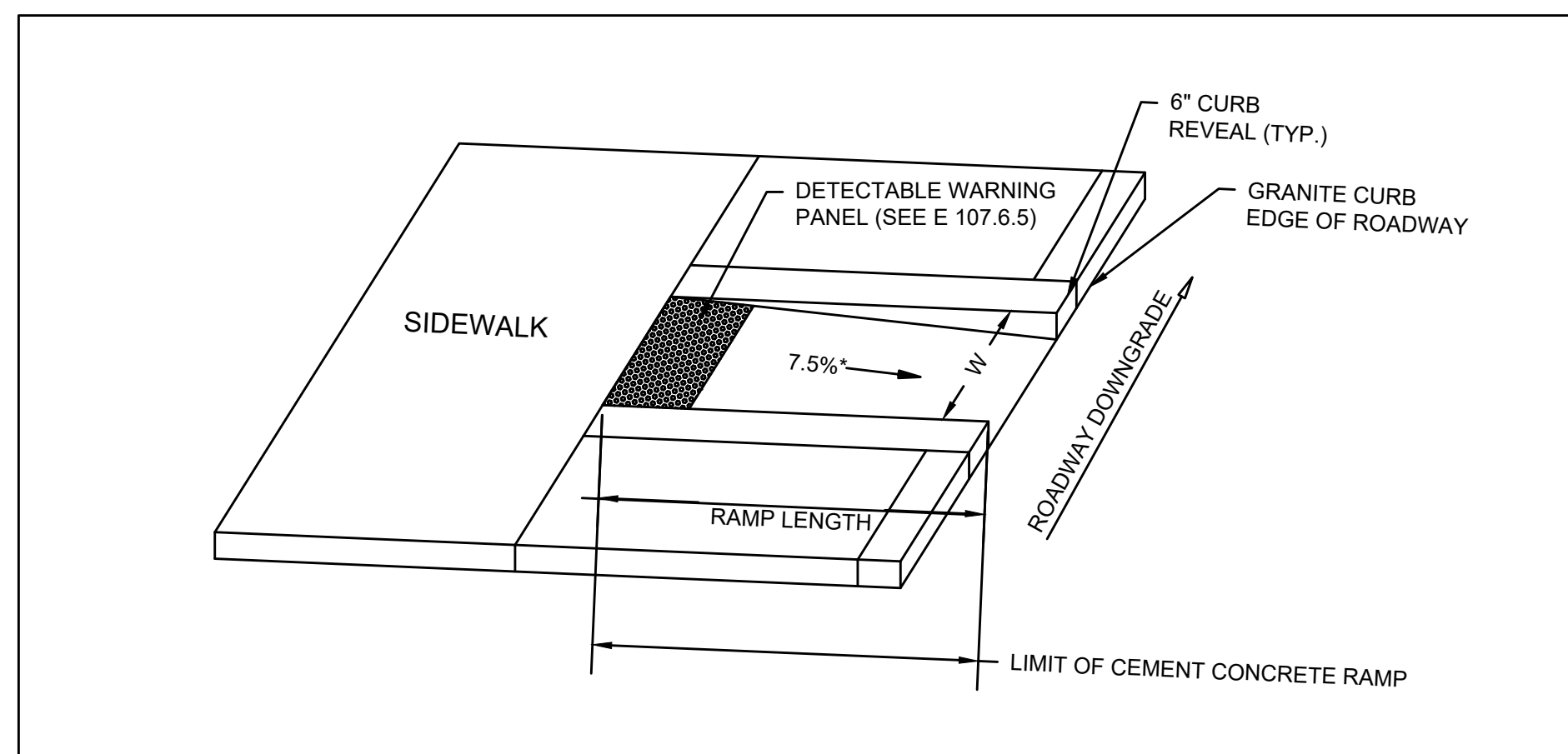
SECTION 700

**PEDESTRIAN CURB RAMP
GREATER THAN 12'-4" SIDEWALK**

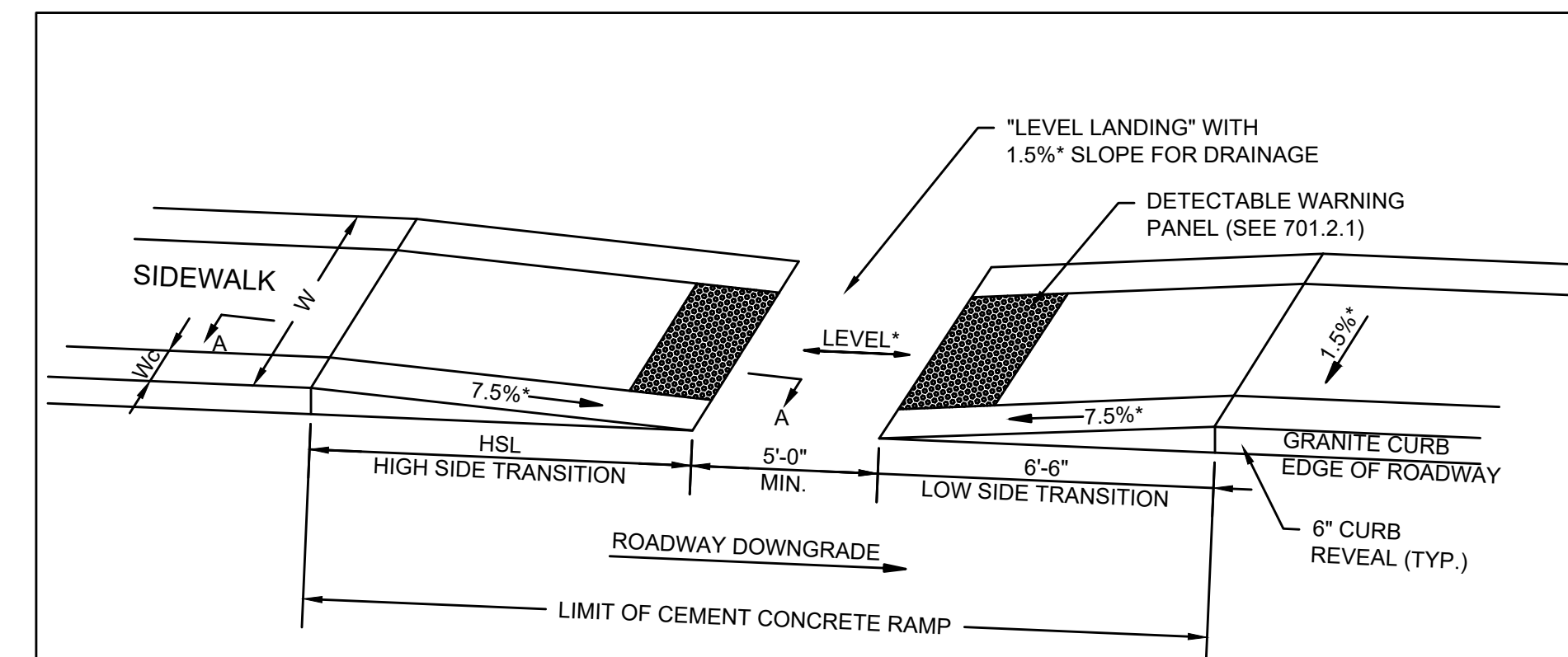
ISSUE DATE
JAN 2025

DRAWING NUMBER
701.2.4

PEDESTRIAN CURB RAMPS GREATER THAN 12'-4" SIDEWALK									
PCR#	ASSET ID	RAMP REFERENCE POINT		LENGTH OF PRIMARY RAMP (W1)	WIDTH OF RAMP ENTRANCE (5.0' MIN)	DEPTH OF LEVEL LANDING (4.0' MIN)	ROADWAY GUTTER SLOPE	TRANSITION LENGTH	
		STATION	OFFSET					HIGH SIDE	LOW SIDE
22		201+23.23	12.50 R	6.67	5.00	5.00	-1.93%	9.00	6.50
26		502+27.85	16.50 L	6.67	5.00	4.00	-1.68%	9.00	6.50
27		502+35.83	31.50 L	6.67	5.00	5.00	-1.12%	9.00	6.50
32		501+06.23	26.25 L	6.67	5.00	4.50	-1.74%	9.00	6.50
57		503+54.24	8.50 L	6.67	5.00	5.00	-1.71%	9.00	6.50

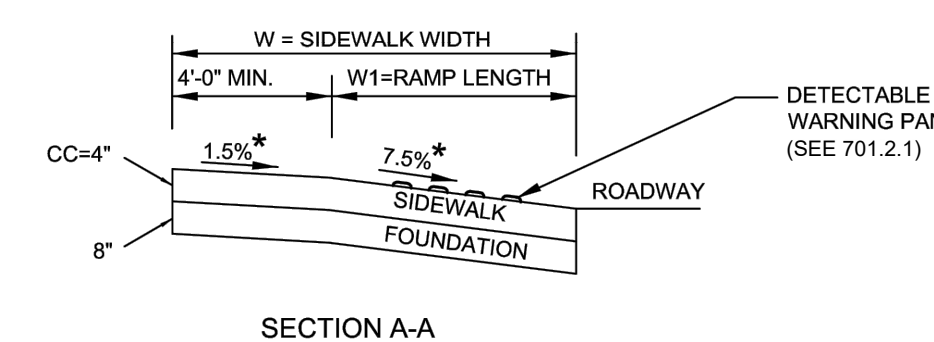


BICYCLE CURB RAMP DETAIL					
BCR#	ASSET ID	RAMP REFERENCE POINT		WIDTH OF RAMP ENTRANCE (W)	RAMP LENGTH
		STATION	OFFSET		
B1		300+33.72	17.86 R	6.00	10.50

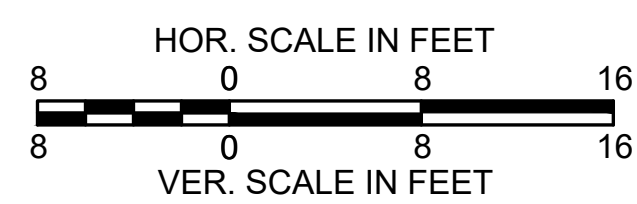
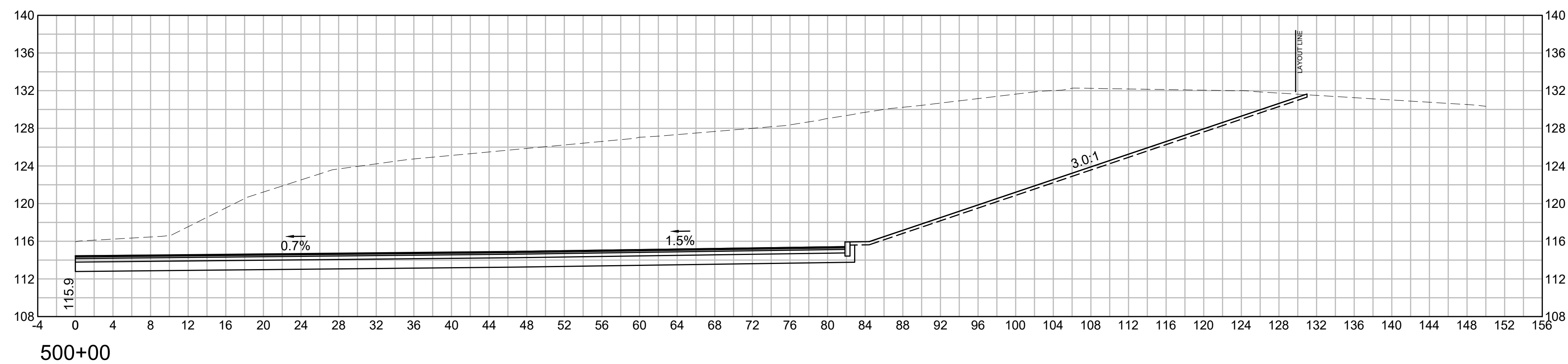
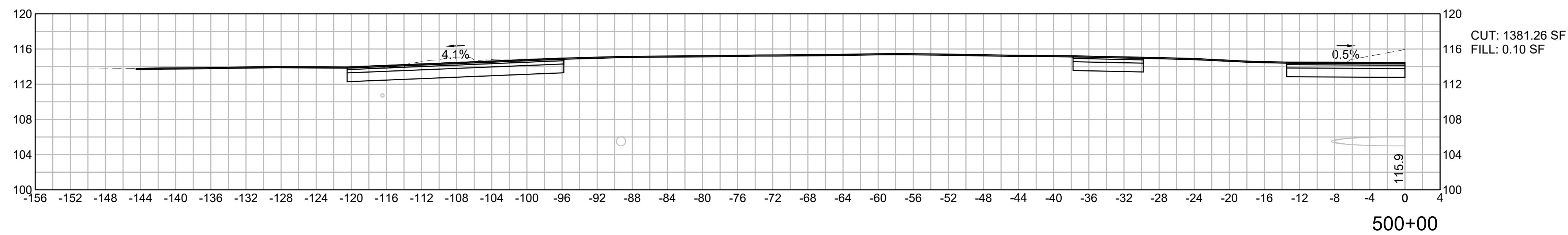


LEGEND

HSL = HIGH SIDE TRANSITION LENGTH
(SEE 701.2.8)
W = SIDEWALK WIDTH
 W_c = CURB WIDTH
 W_1 = PERPENDICULAR RAMP LENGTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION $\pm 0.5\%$
USABLE SIDEWALK WIDTH PER AAB = $W - W_c$
RAMP LENGTH, W_1 = $W - 4'-0"$ Min



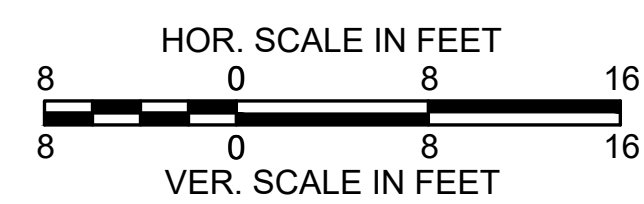
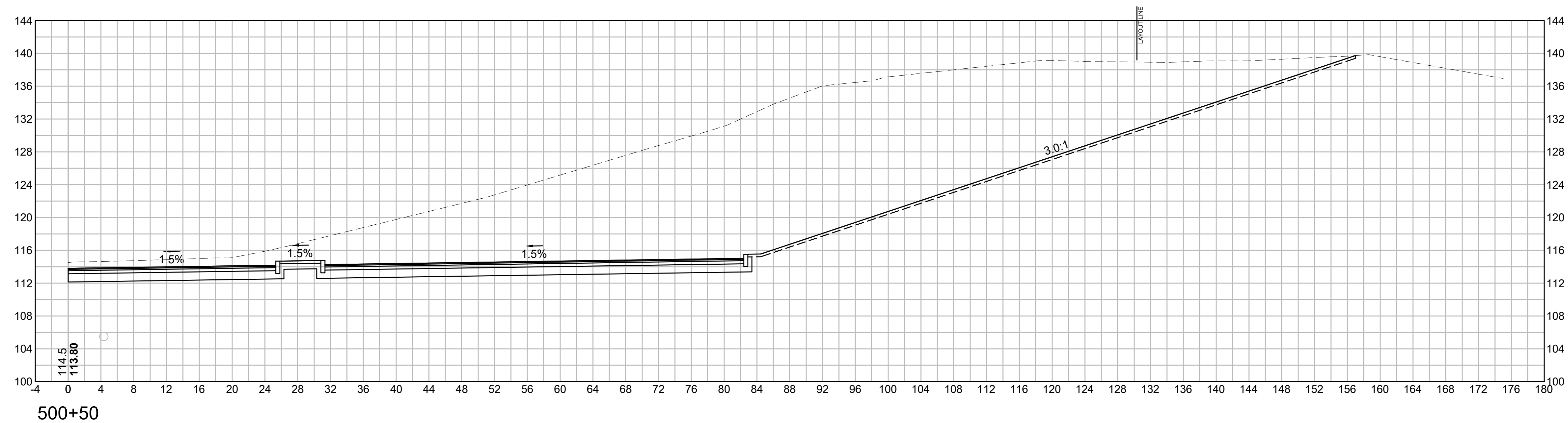
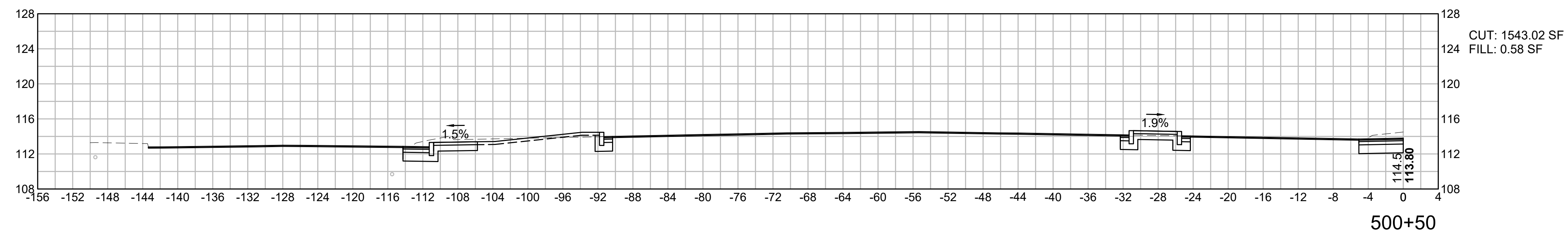
PEDESTRIAN CURB RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL									
PCR#	ASSET ID	RAMP REFERENCE POINT		SIDEWALK WIDTH (W)	WIDTH OF RAMP ENTRANCE (5.0' MIN)	DEPTH OF LEVEL LANDING (4.0' MIN)	ROADWAY GUTTER SLOPE	TRANSITION LENGTH (W1)	
		STATION	OFFSET					HIGH SIDE	LOW SIDE
42		204+88.16	28.32 L	6.00	5.00	6.00	-0.90%	7.67	
43		204+94.16	28.32 L	6.00	5.00	6.00	-0.90%		6.50
44		602+97.50	84.96 R	6.00	5.00	6.00	0.52%		6.50
45		603+03.50	84.96 R	6.00	5.00	6.00	0.52%	7.67	
46		602+78.37	28.32 R	6.00	5.00	6.00	-1.66%	9.00	
47		602+84.37	28.32 R	6.00	5.00	6.00	-1.66%		6.50
48		602+49.73	28.32 L	6.00	5.00	6.00	-0.34%	7.67	
49		602+55.73	28.32 L	6.00	5.00	6.00	-0.34%		6.50
50		212+71.81	28.32 L	6.00	5.00	6.00	0.24%	7.67	
51		212+65.81	28.32 L	6.00	5.00	6.00	0.24%		6.50



BARNSTABLE
BARNSTABLE PARK AND RIDE

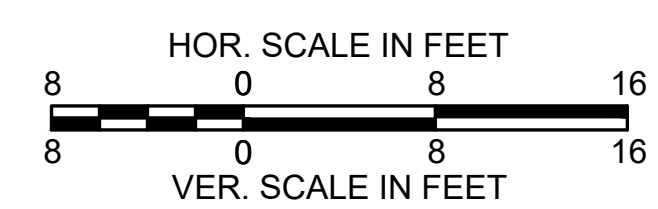
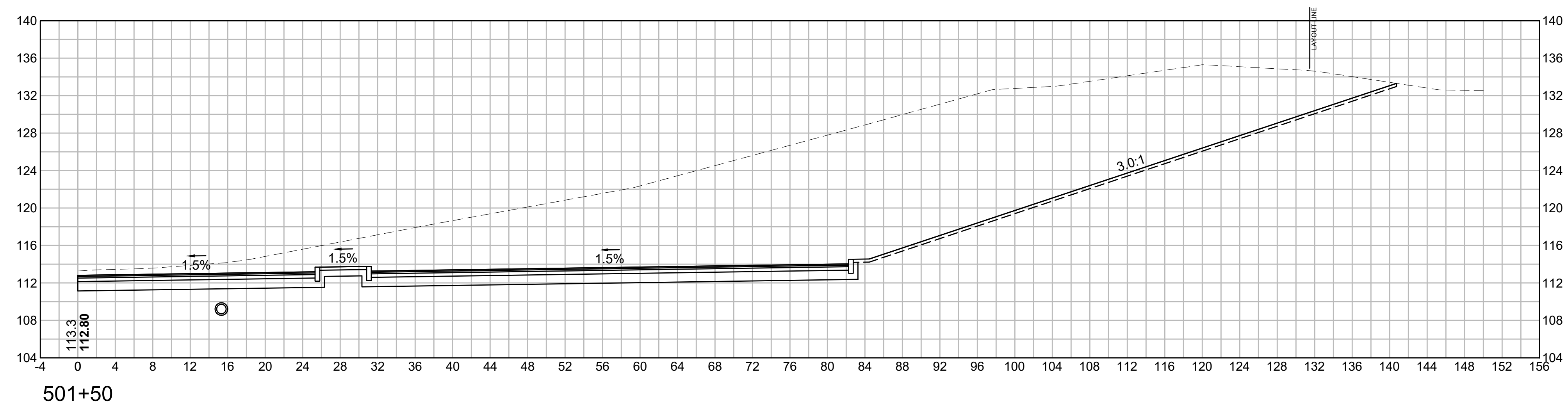
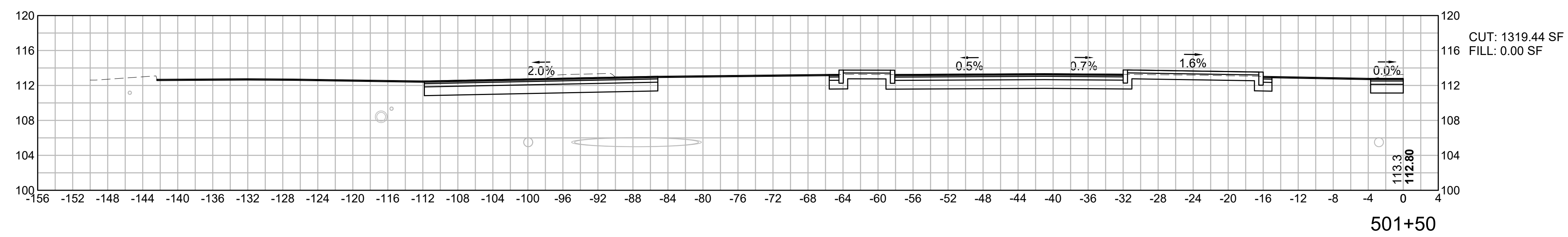
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	62	87
PROJECT FILE NO.		610800	

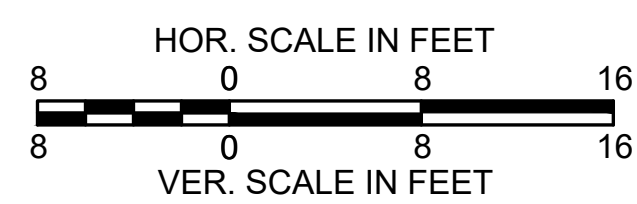
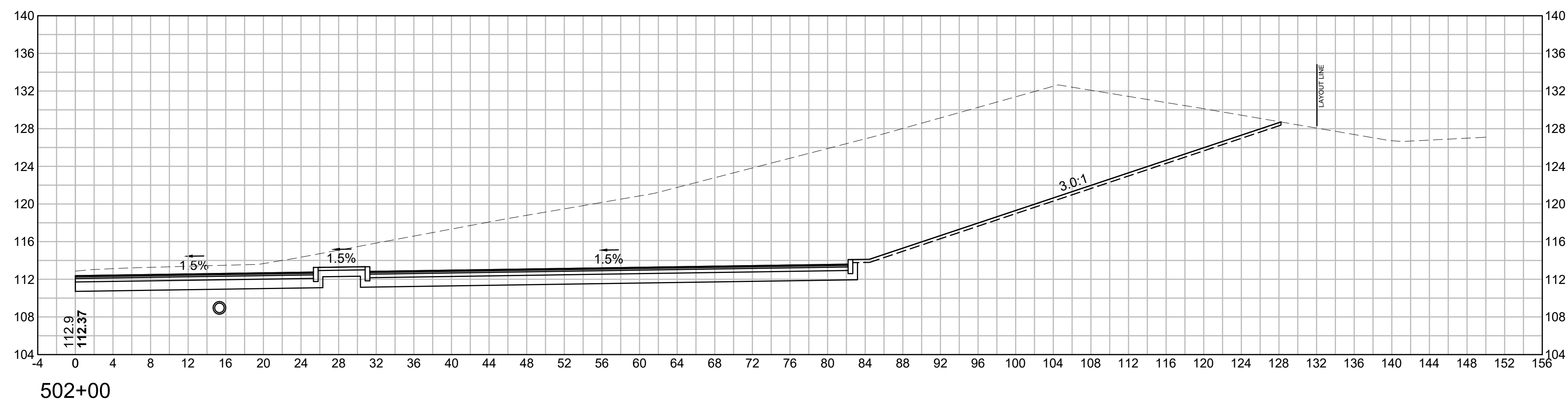
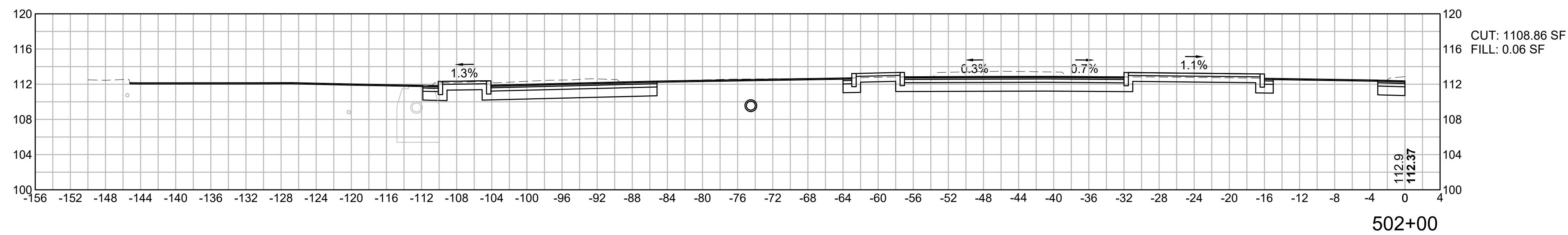
CROSS SECTIONS LOT 1



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	64	87
PROJECT FILE NO.		610800	

CROSS SECTIONS LOT 1

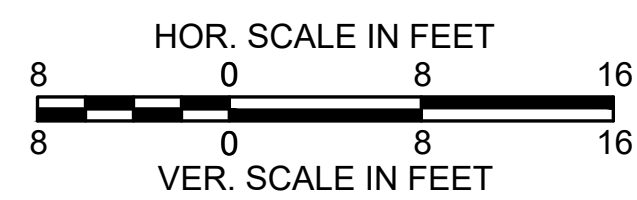
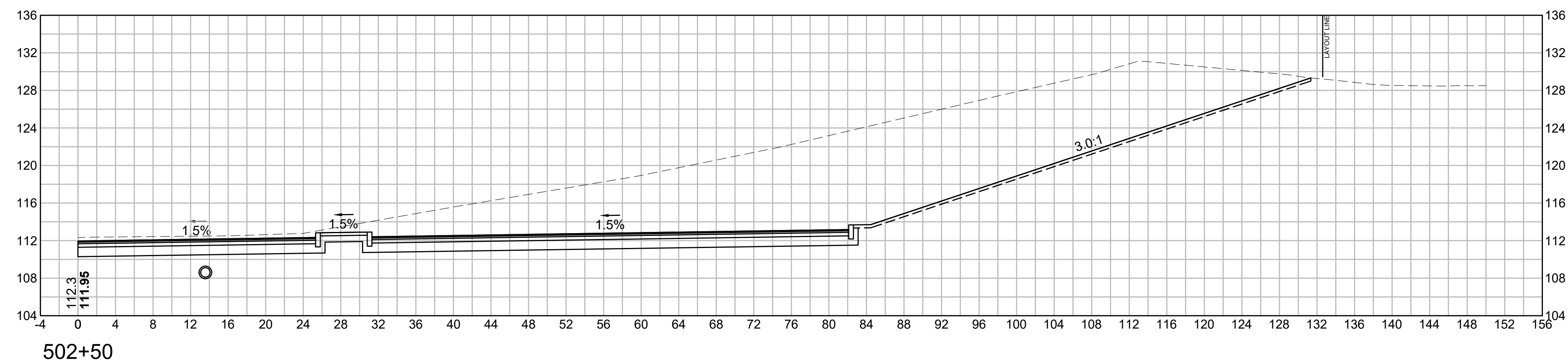
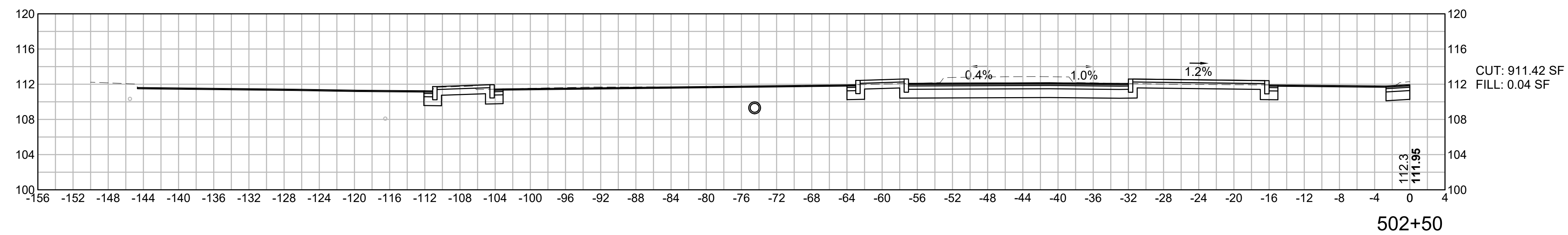




BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	66	87
PROJECT FILE NO.		610800	

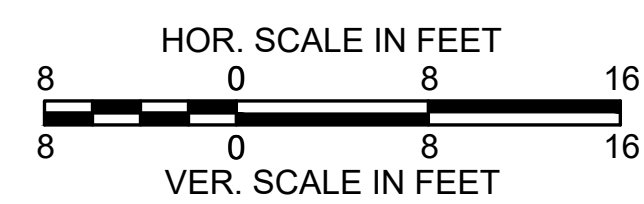
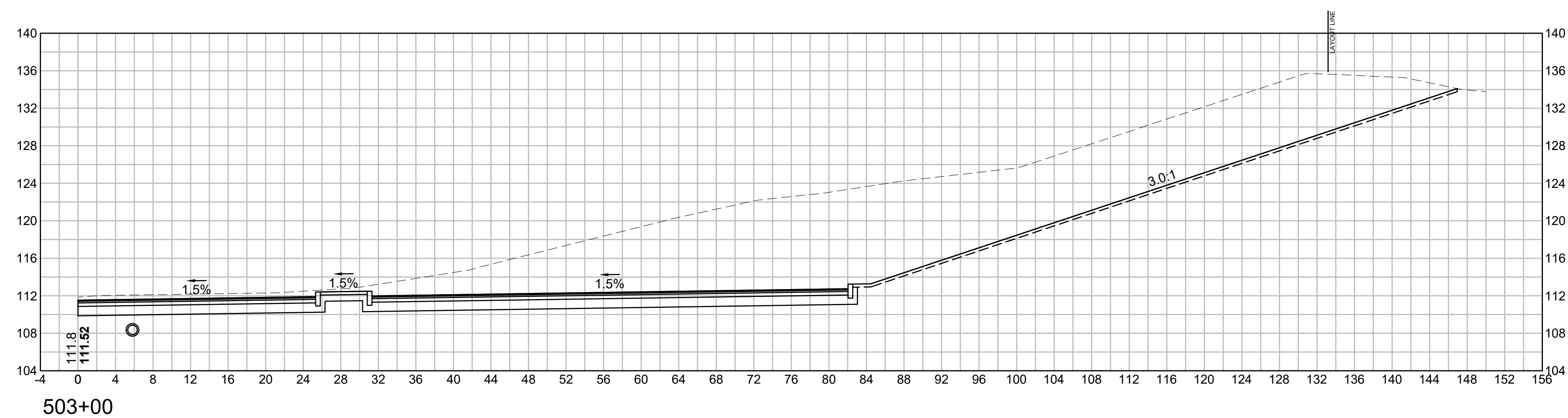
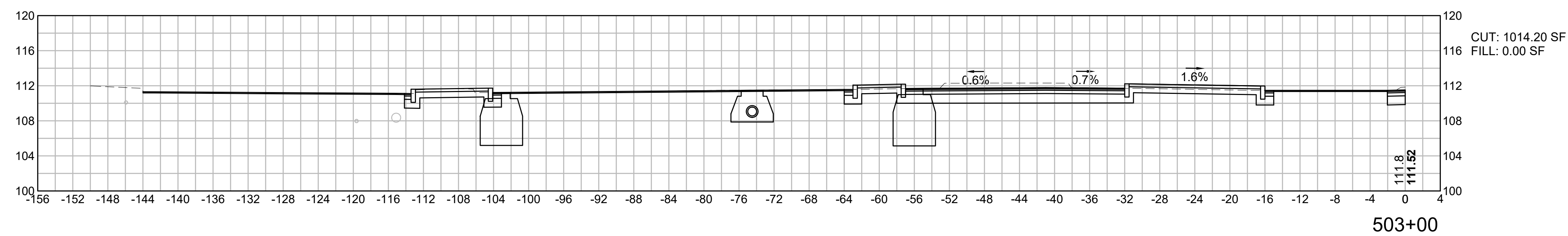
CROSS SECTIONS LOT 1



BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	67	87
PROJECT FILE NO.		610800	

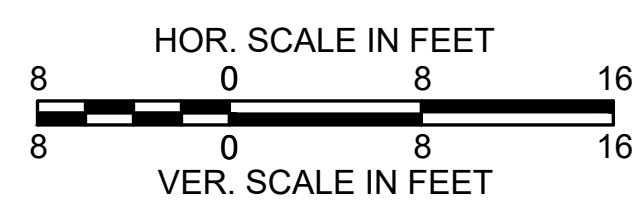
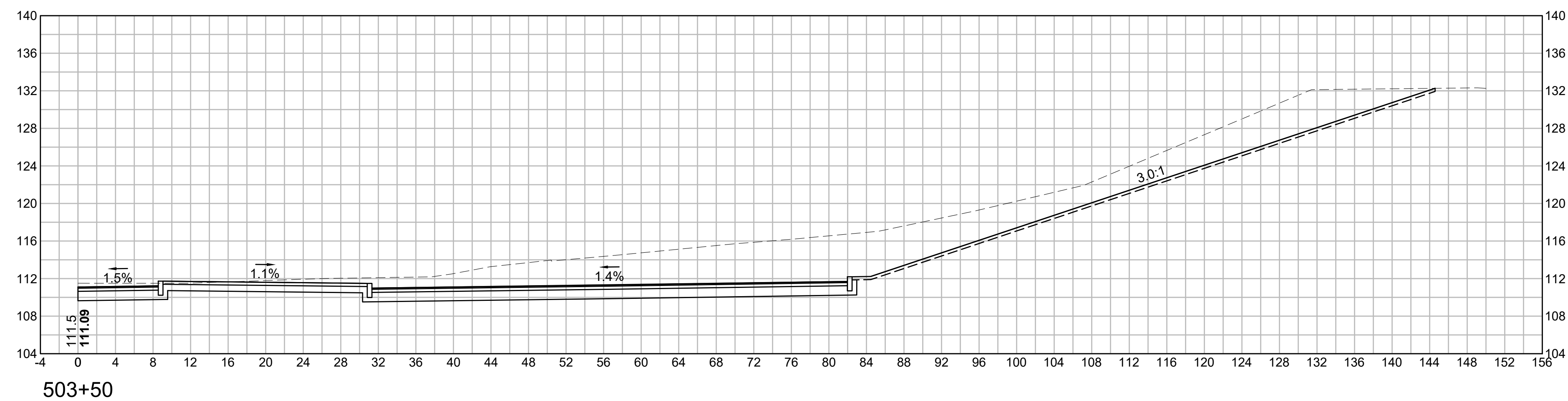
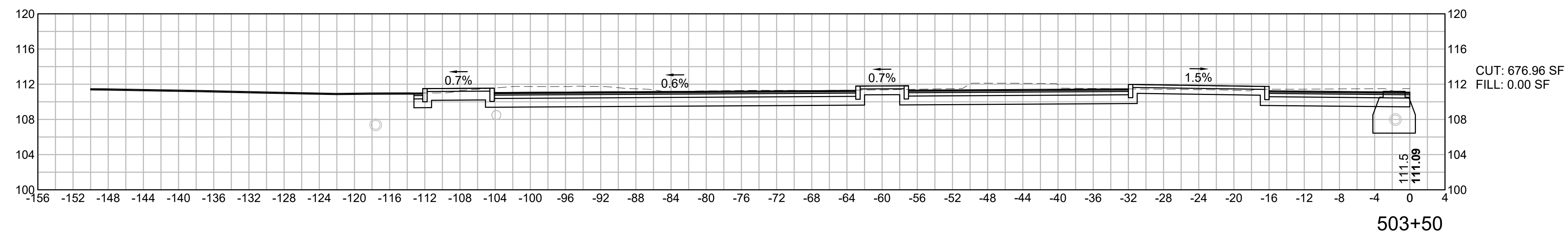
CROSS SECTIONS LOT 1



BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	68	87
PROJECT FILE NO.		610800	

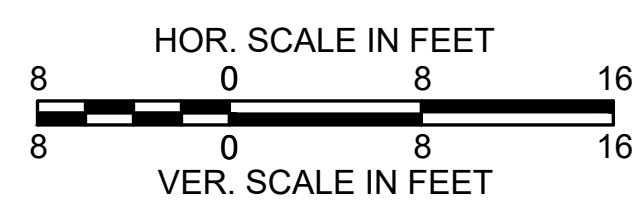
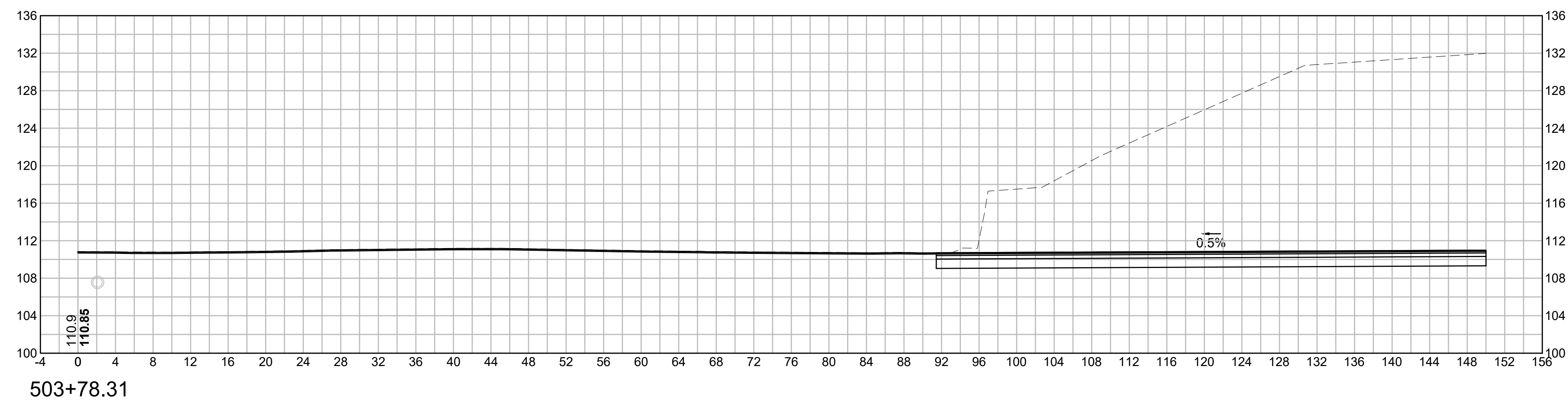
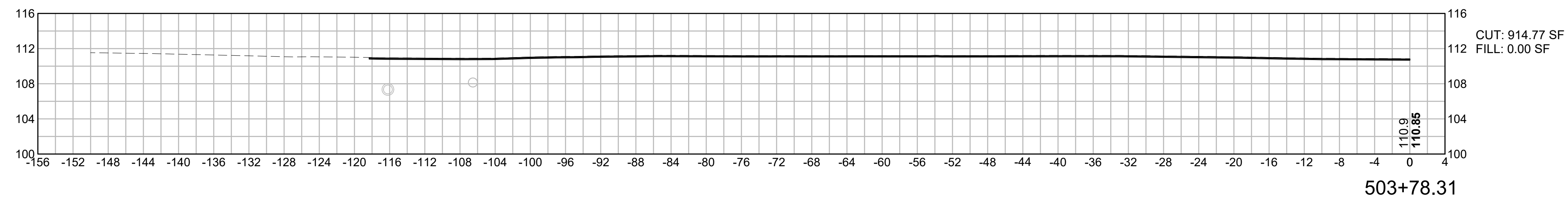
CROSS SECTIONS LOT 1



BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	69	87
PROJECT FILE NO.		610800	

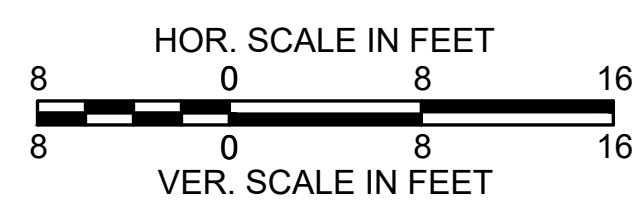
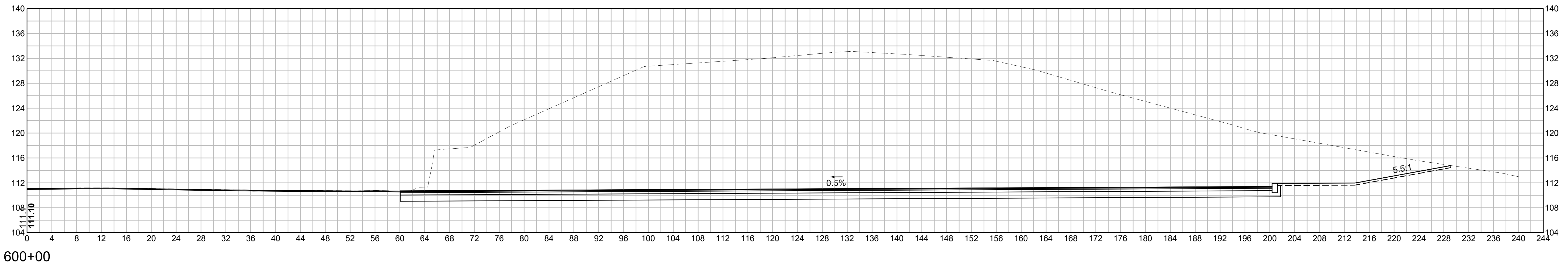
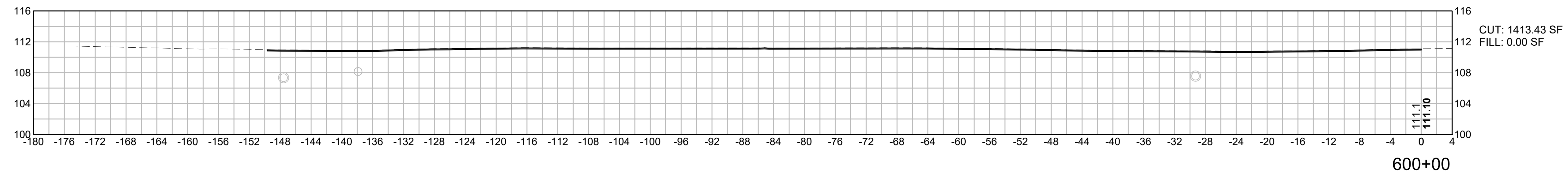
CROSS SECTIONS LOT 1

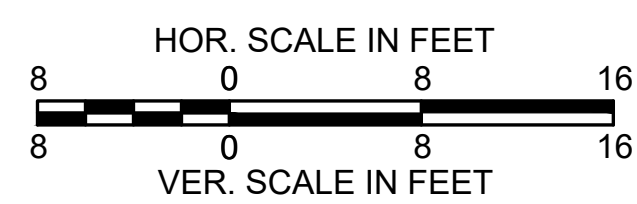
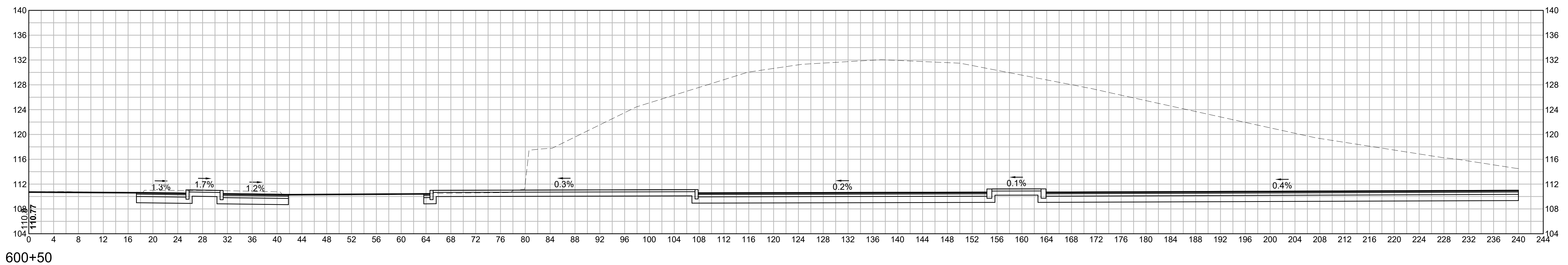
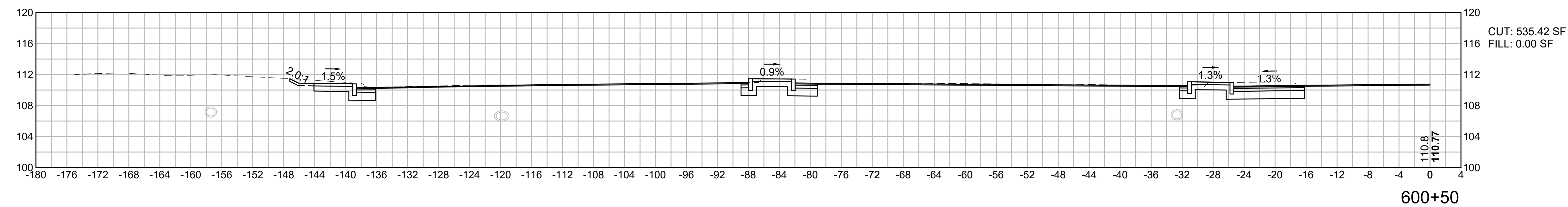


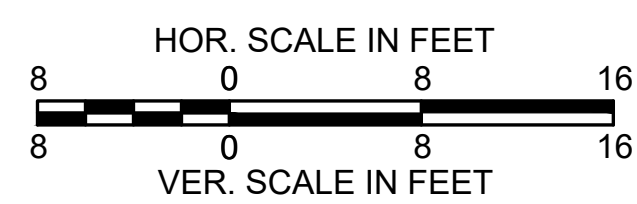
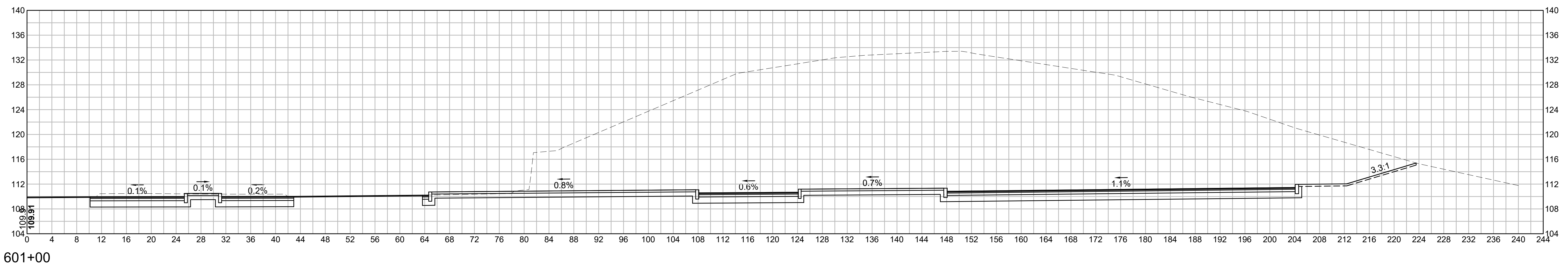
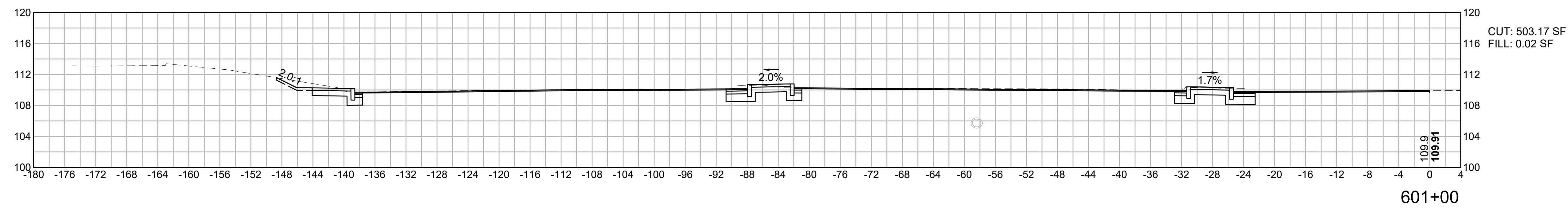
BARNSTABLE
BARNSTABLE PARK AND RIDE

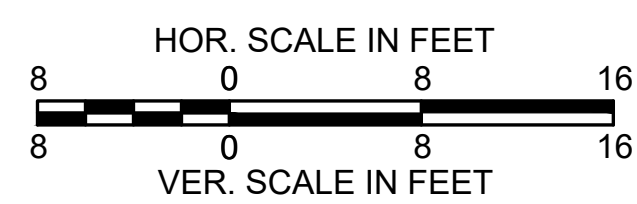
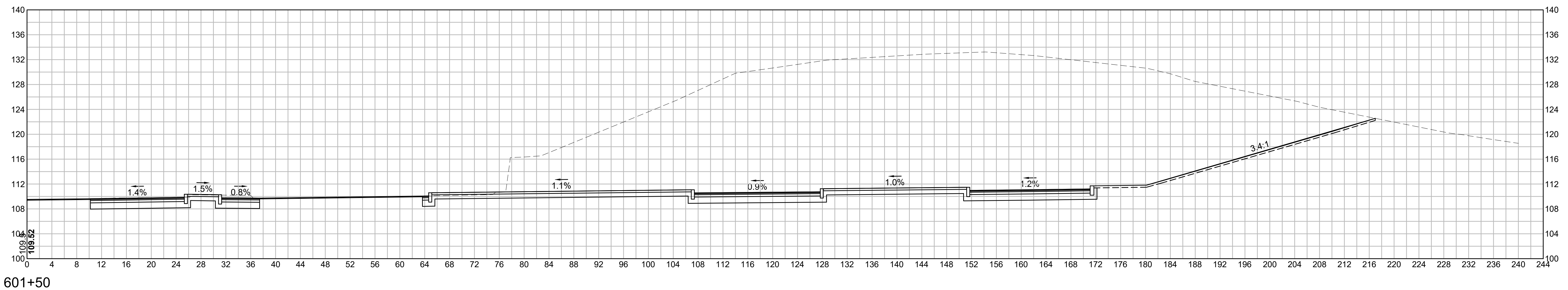
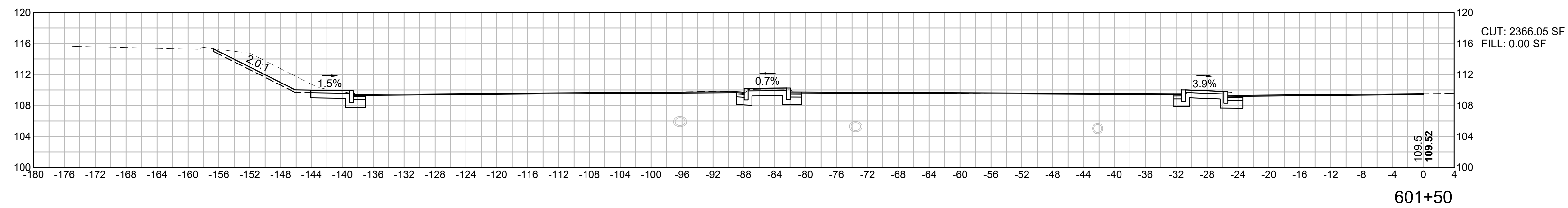
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	70	87
PROJECT FILE NO.		610800	

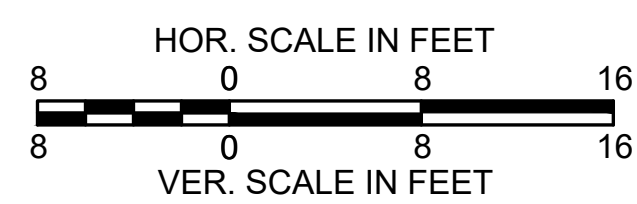
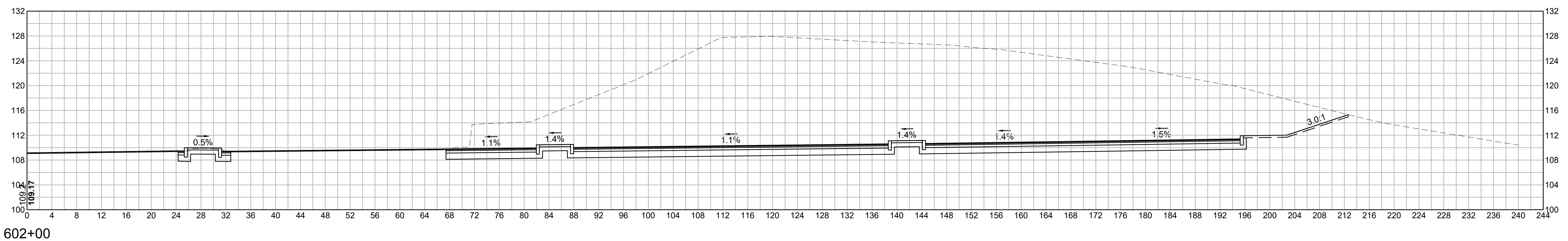
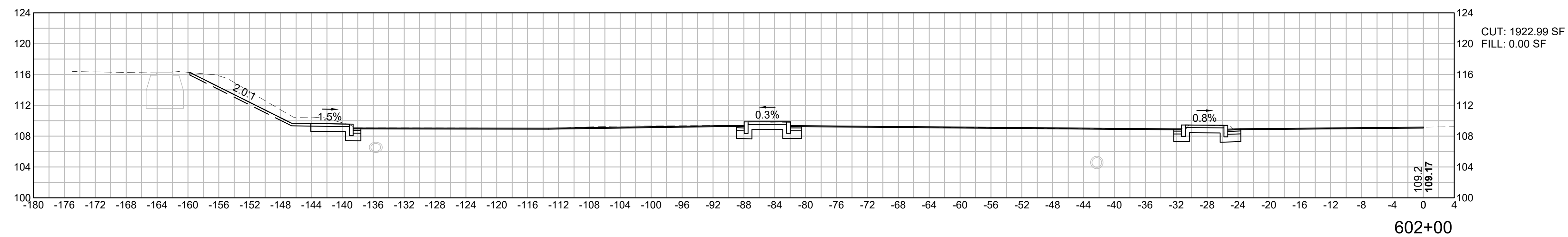
CROSS SECTIONS LOT 2

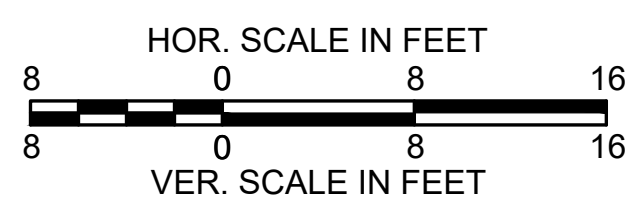
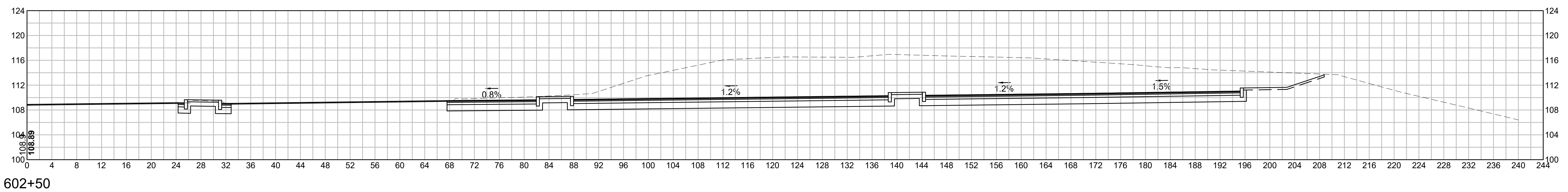
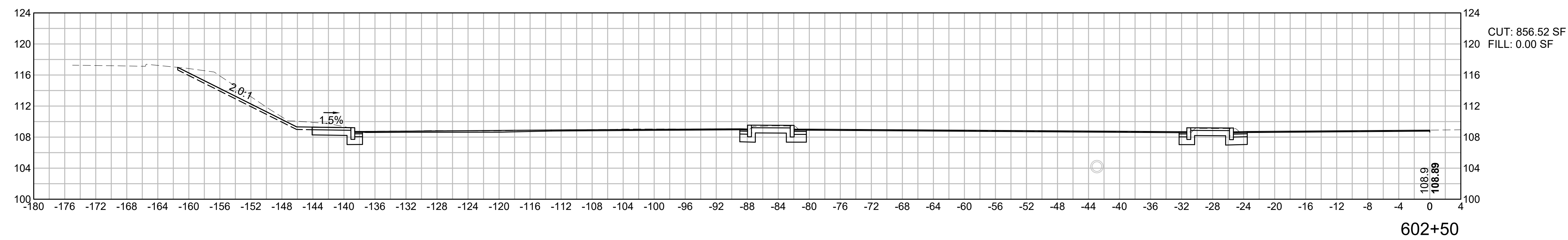


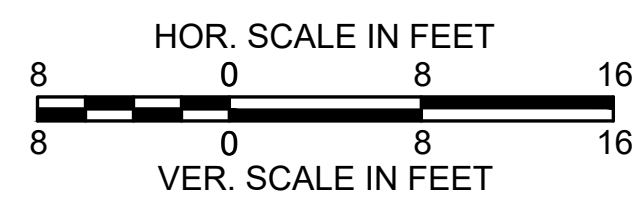
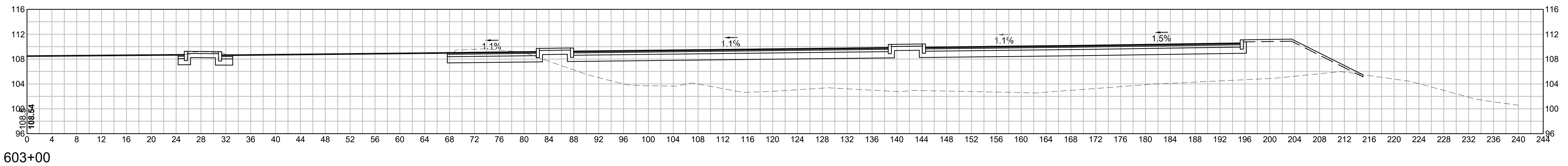
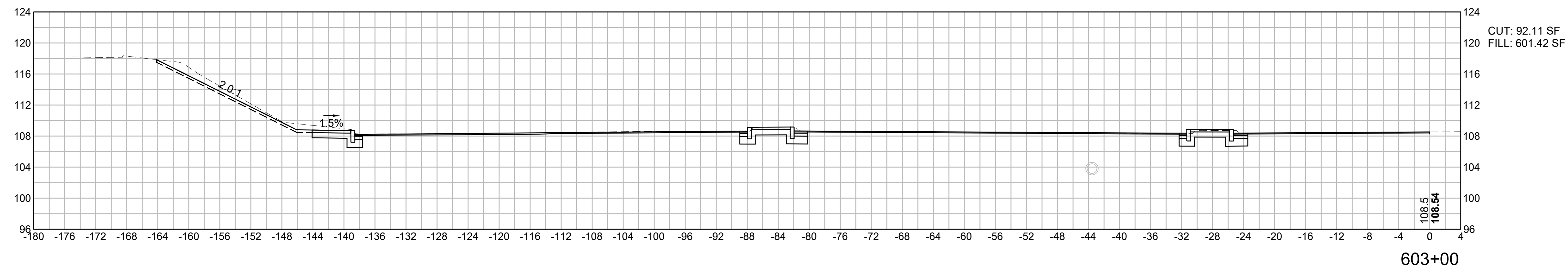


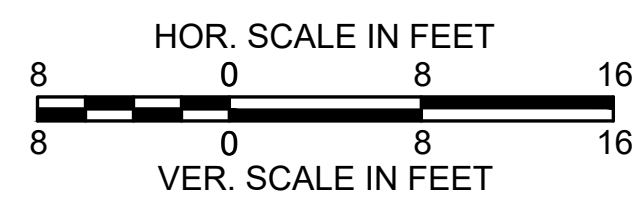
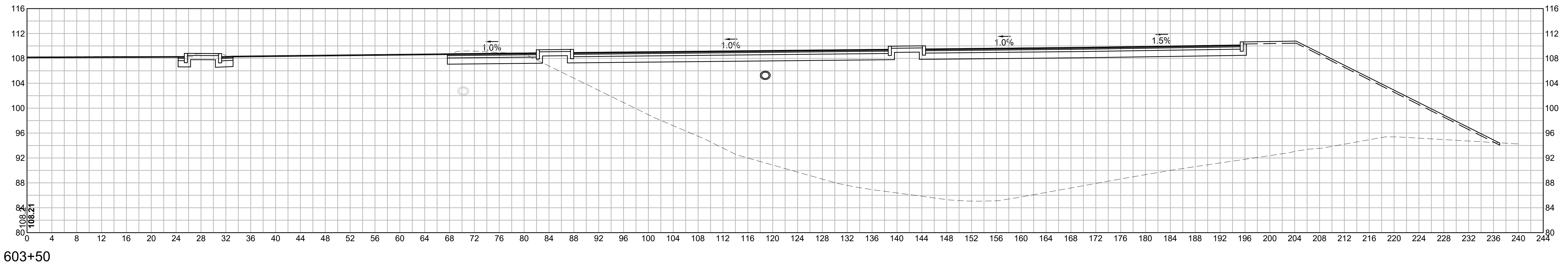
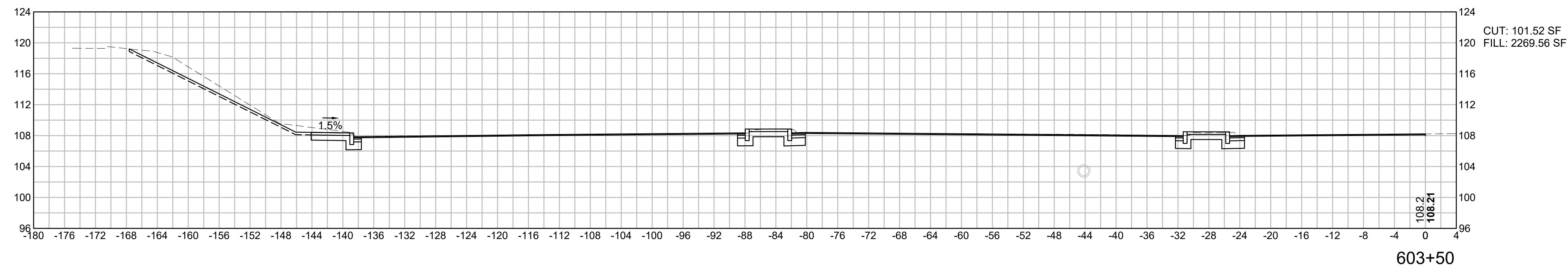


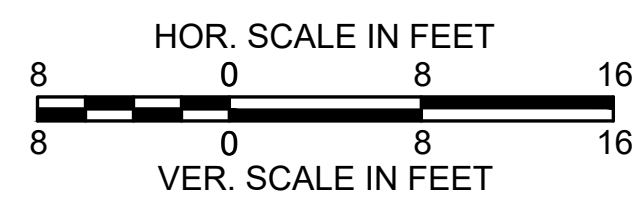
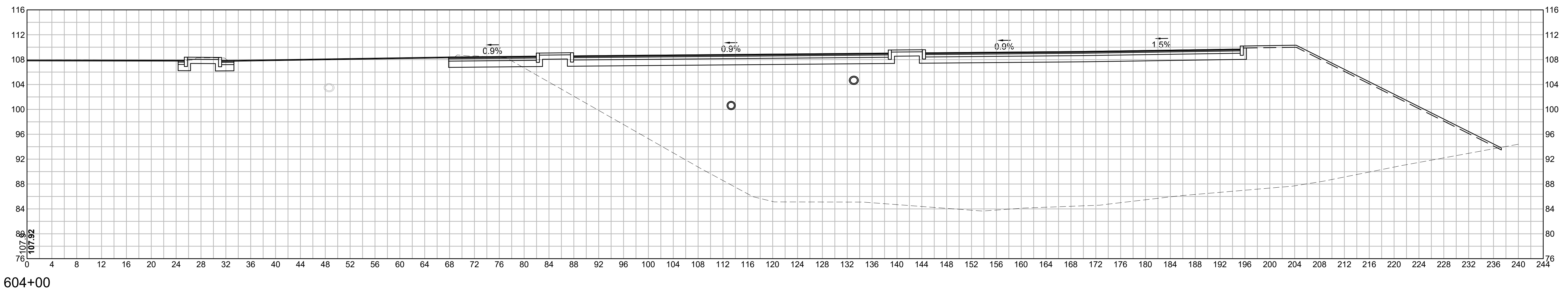
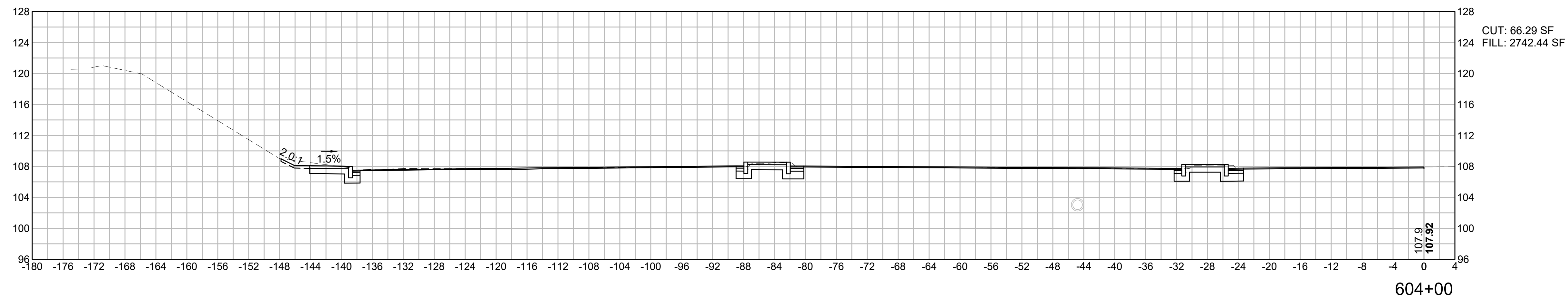


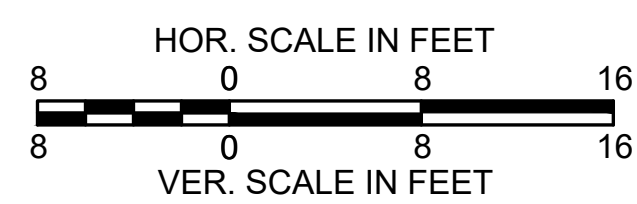
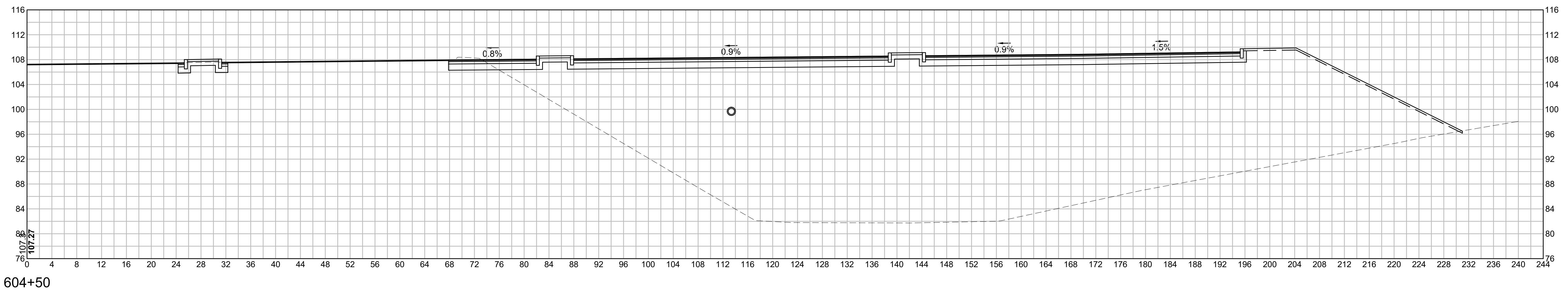
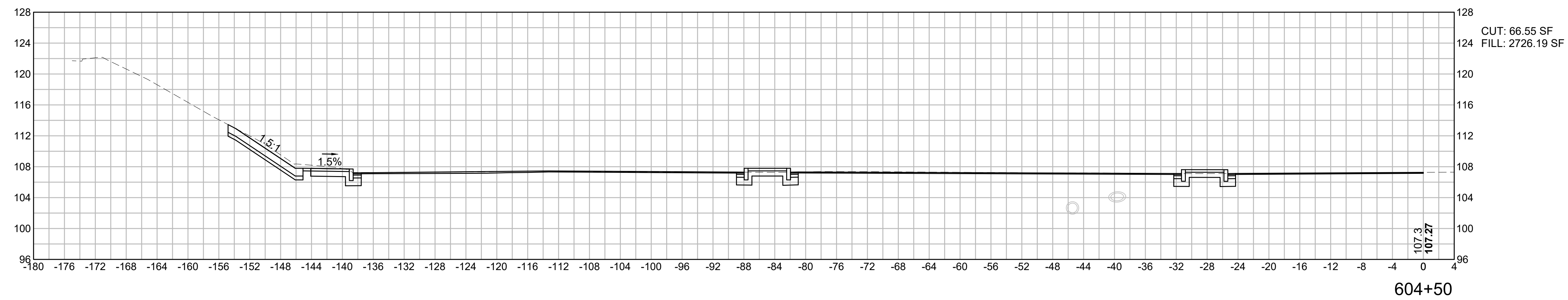


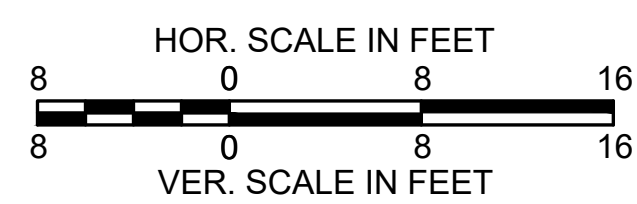
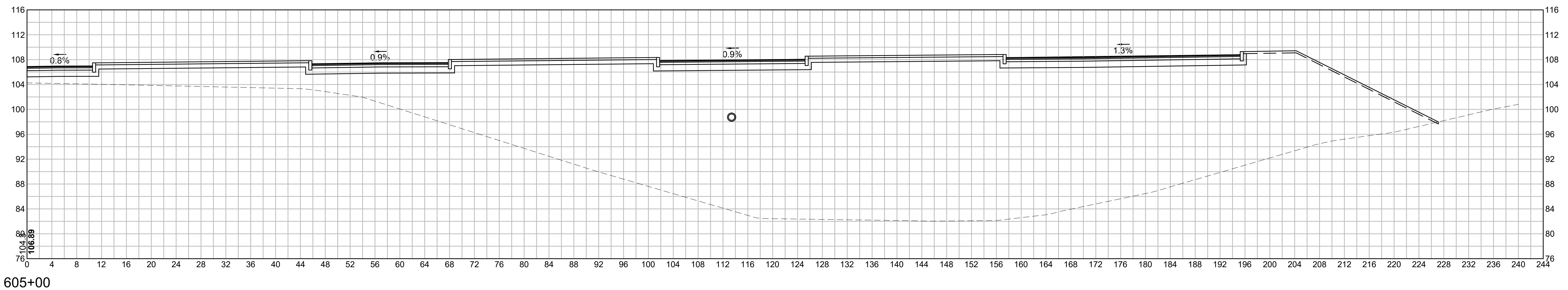
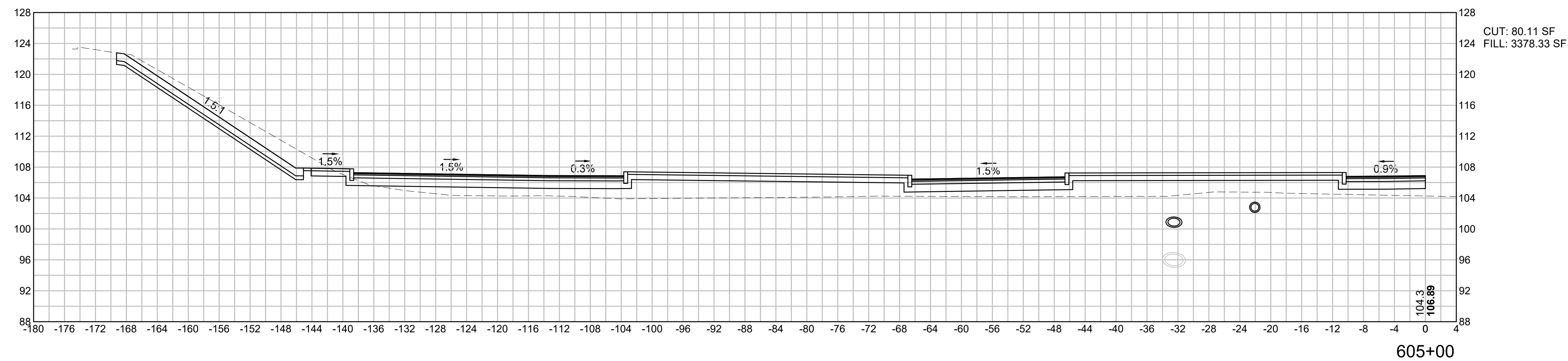


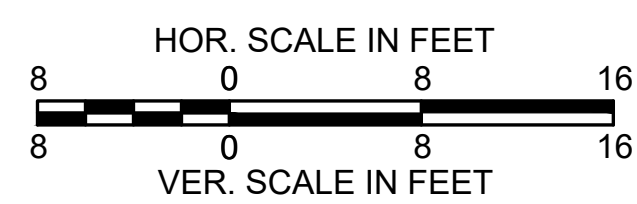
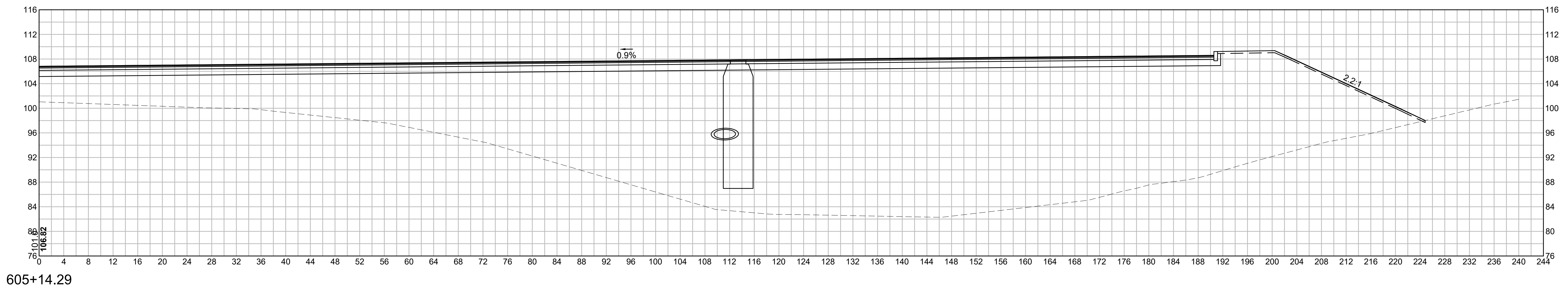
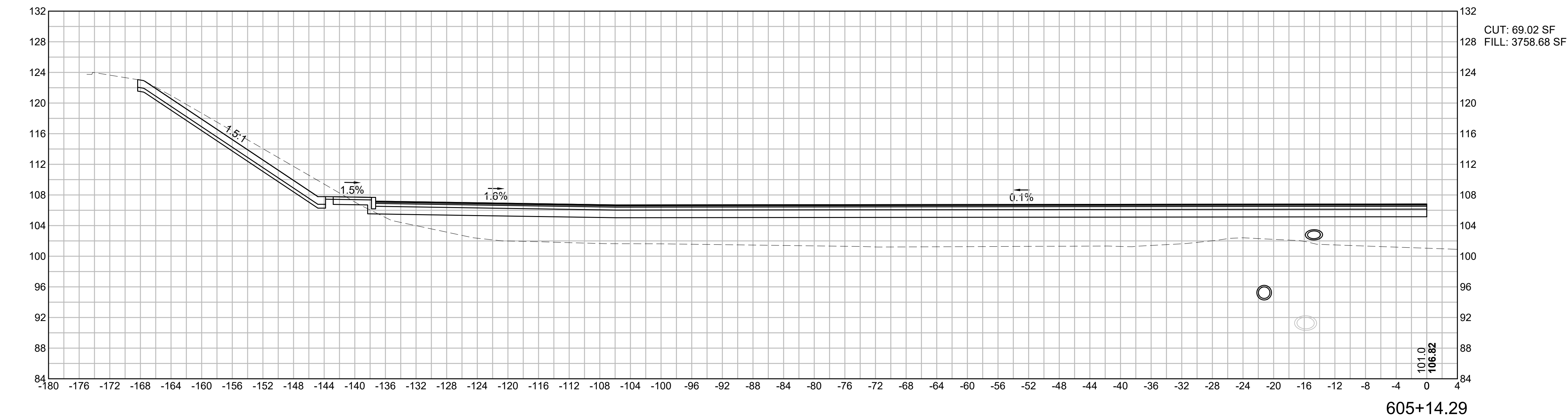


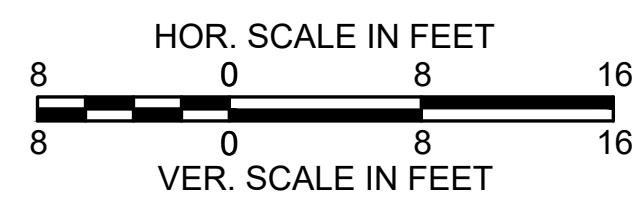
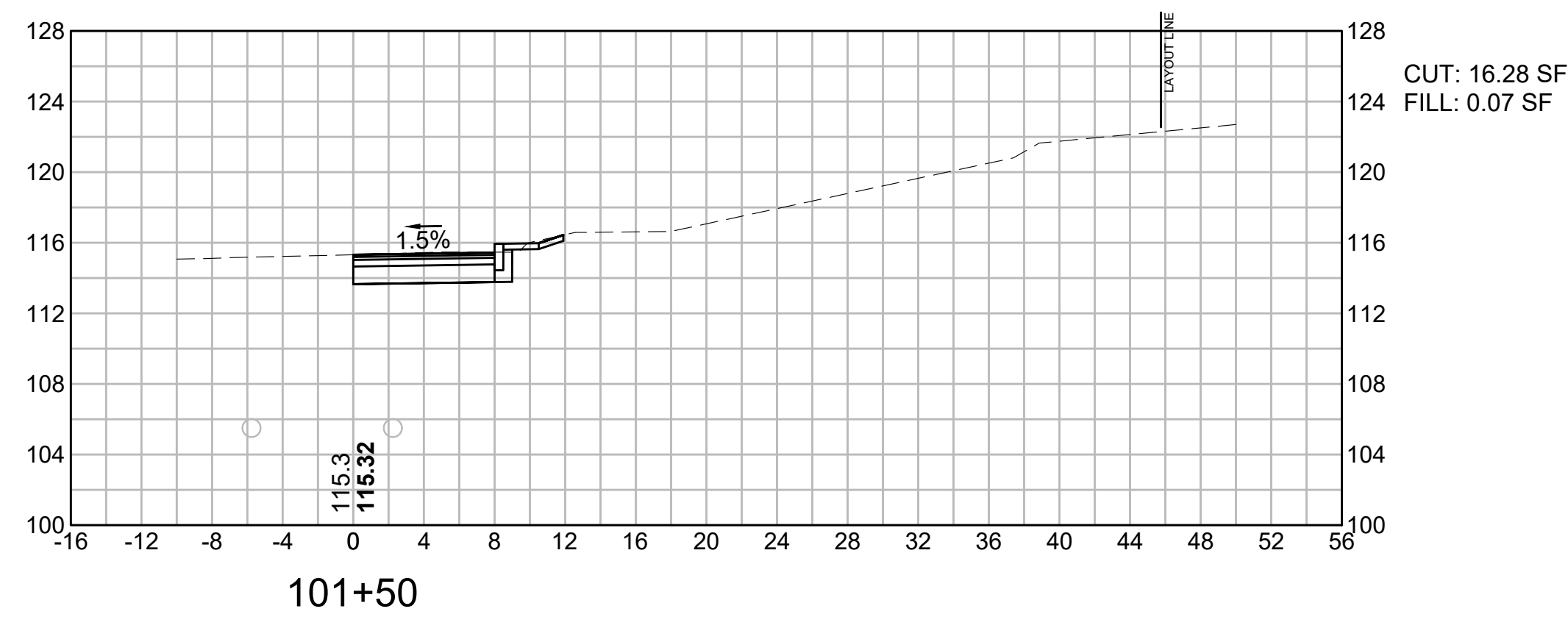
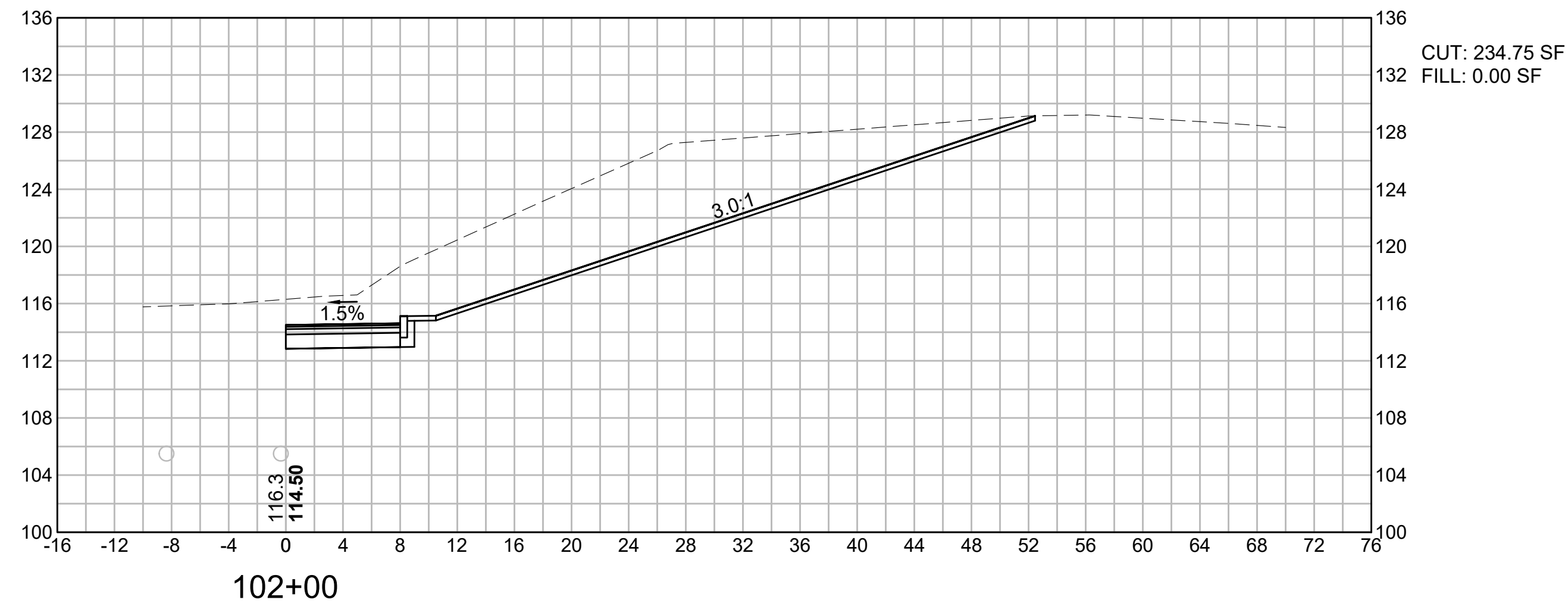
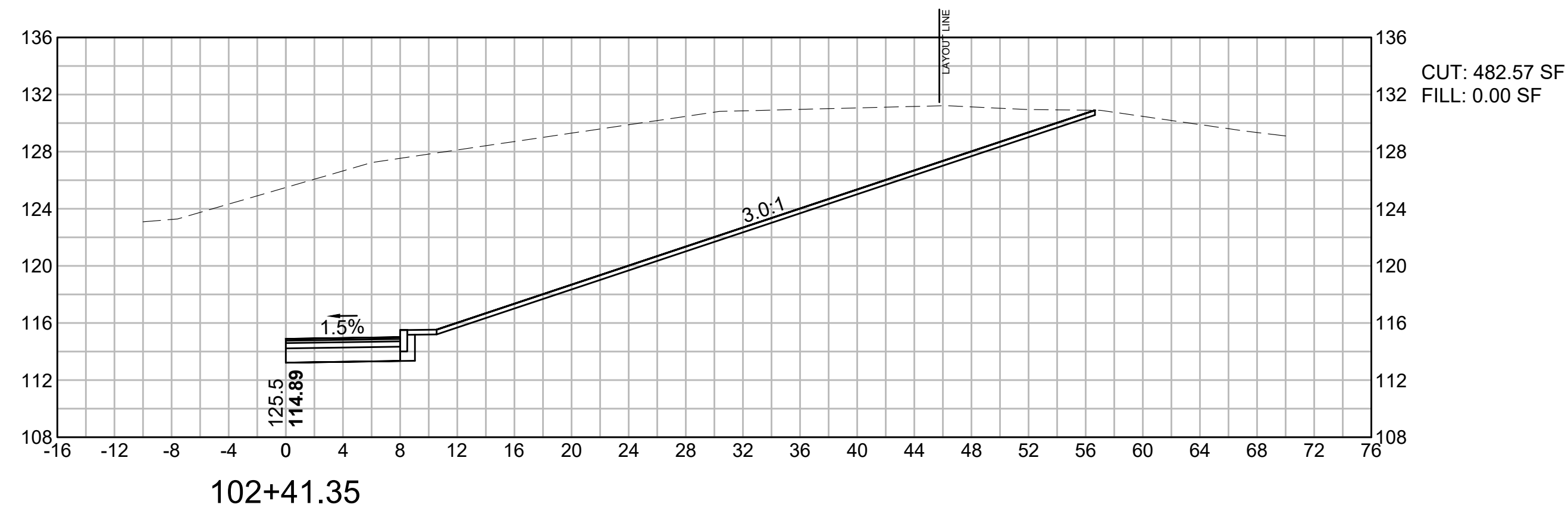
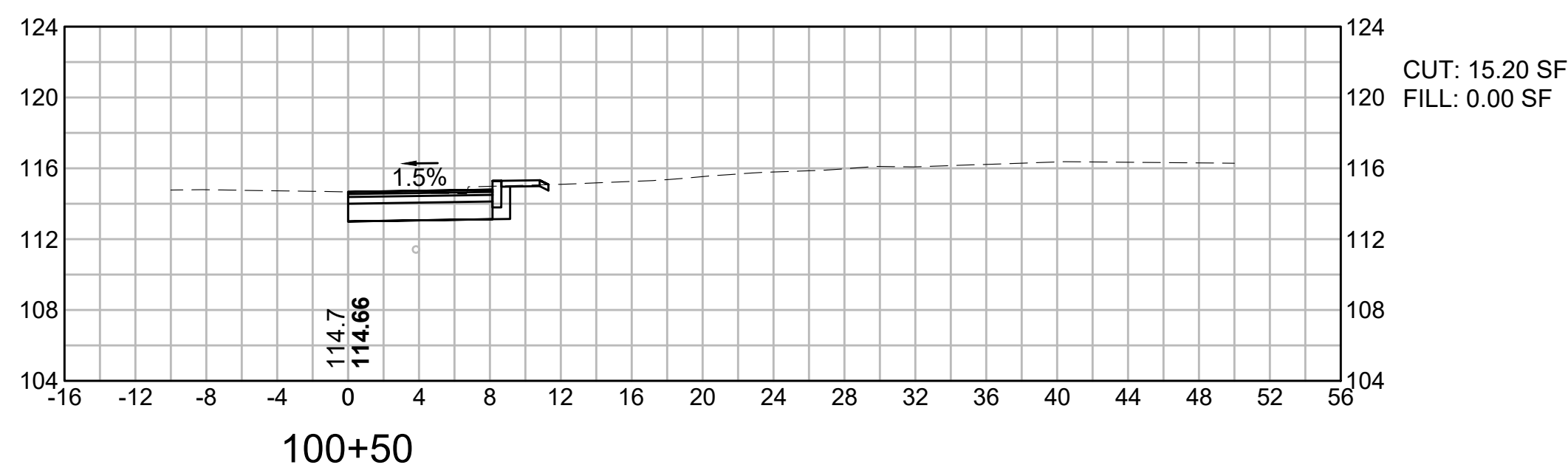
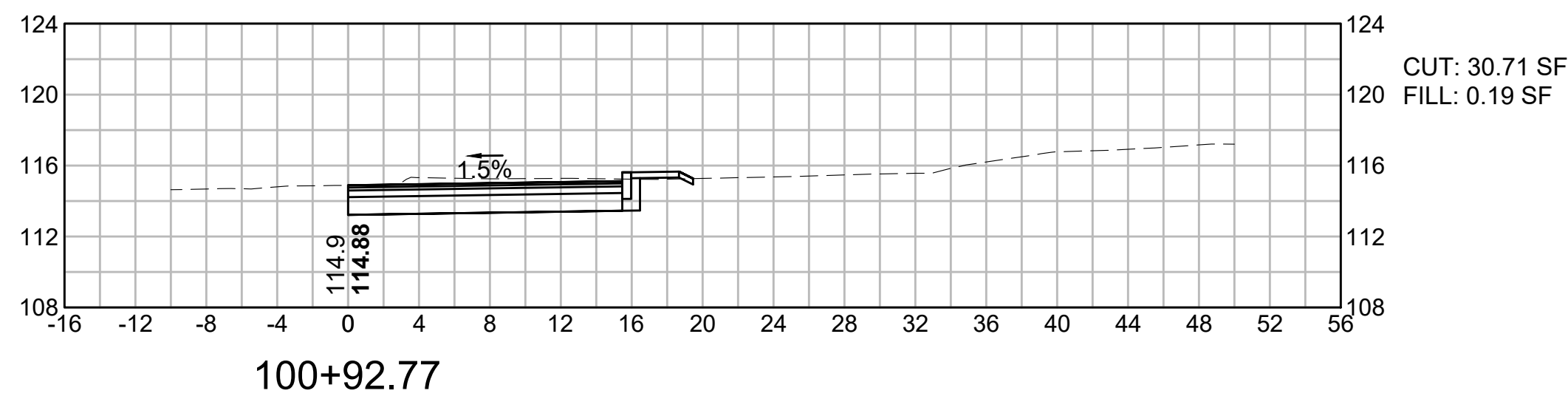
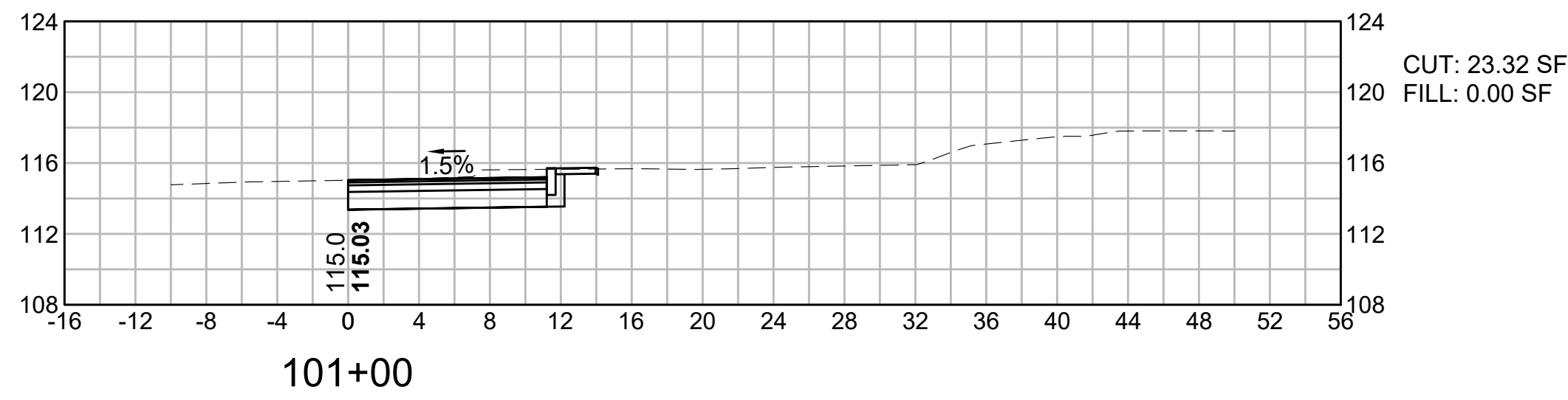








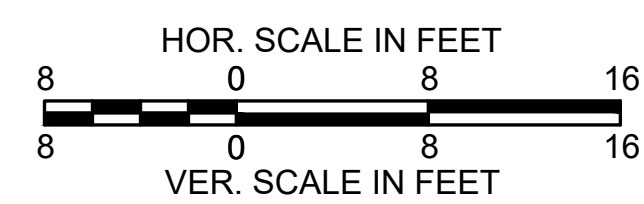
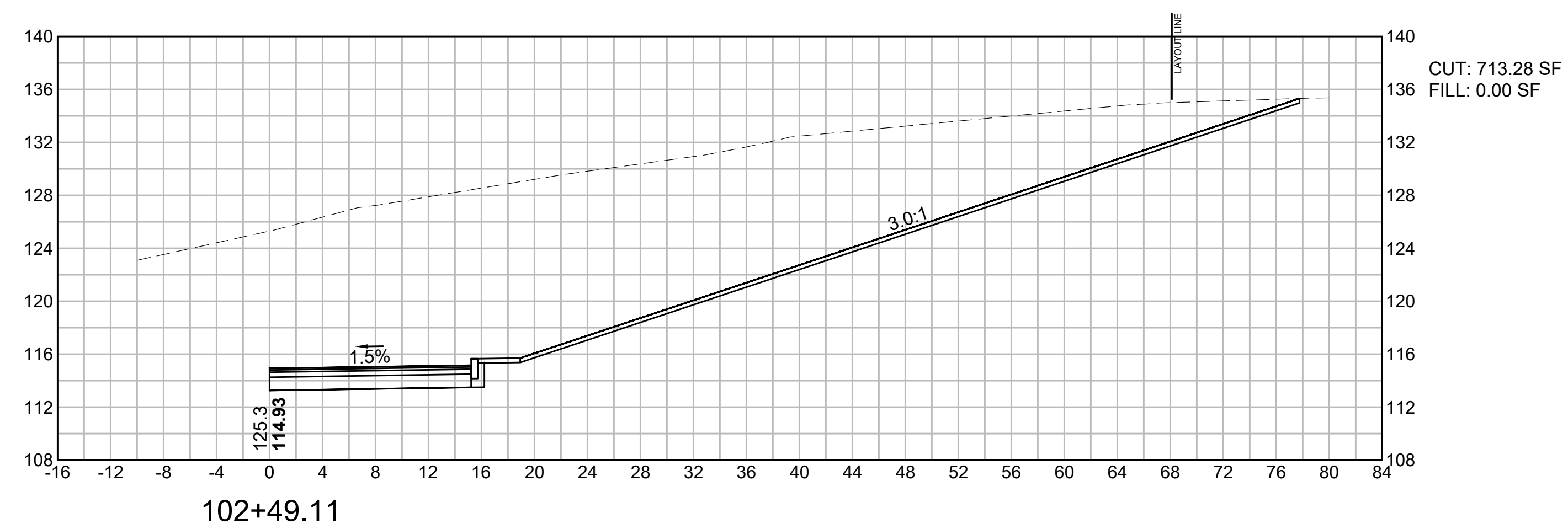


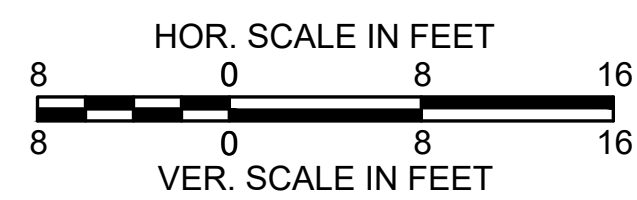
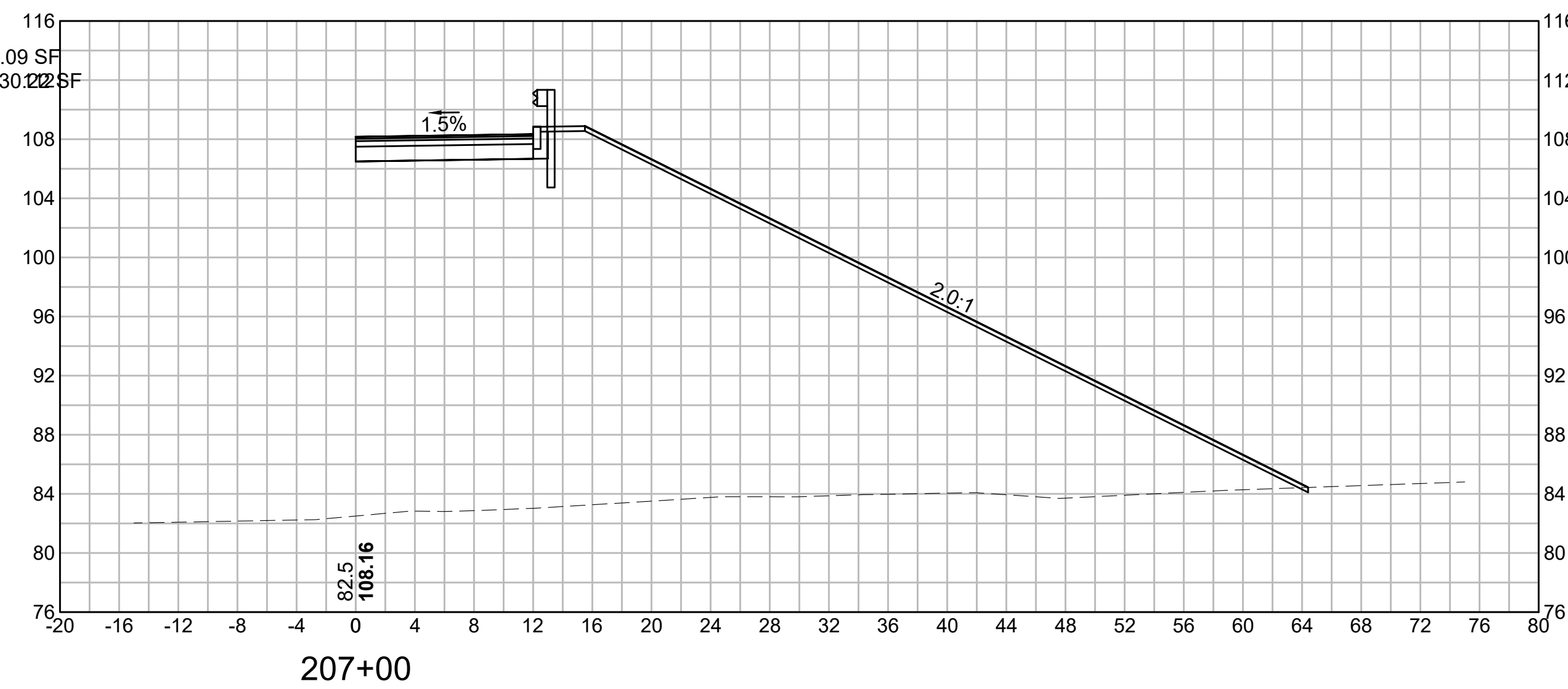
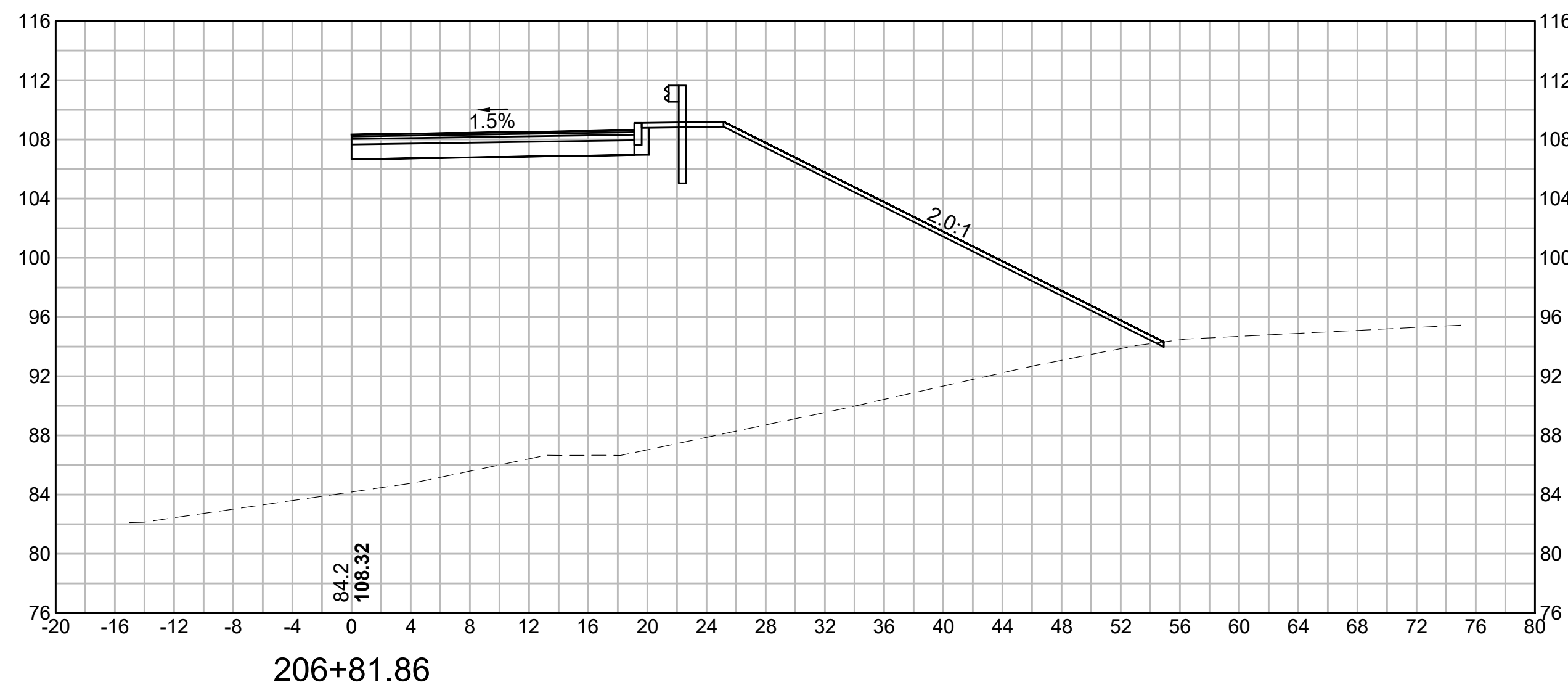
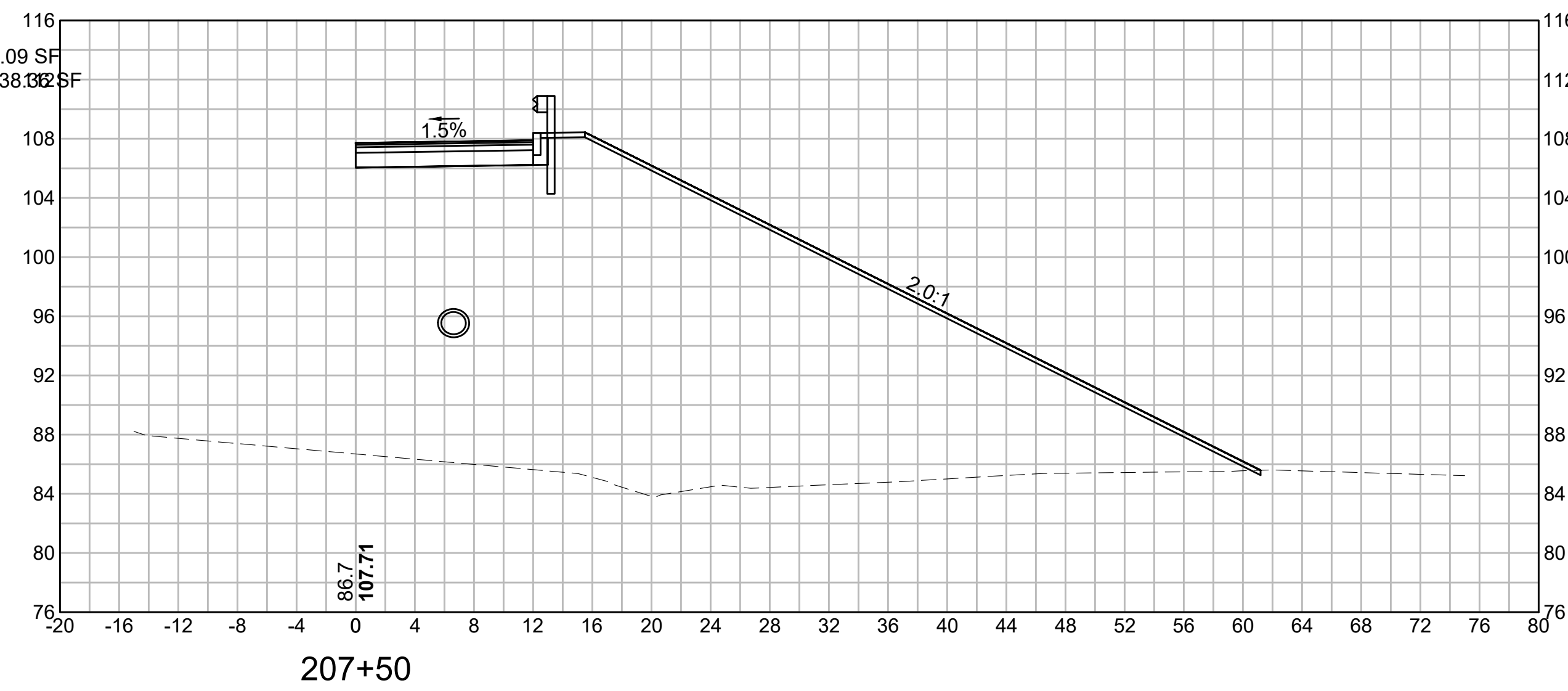
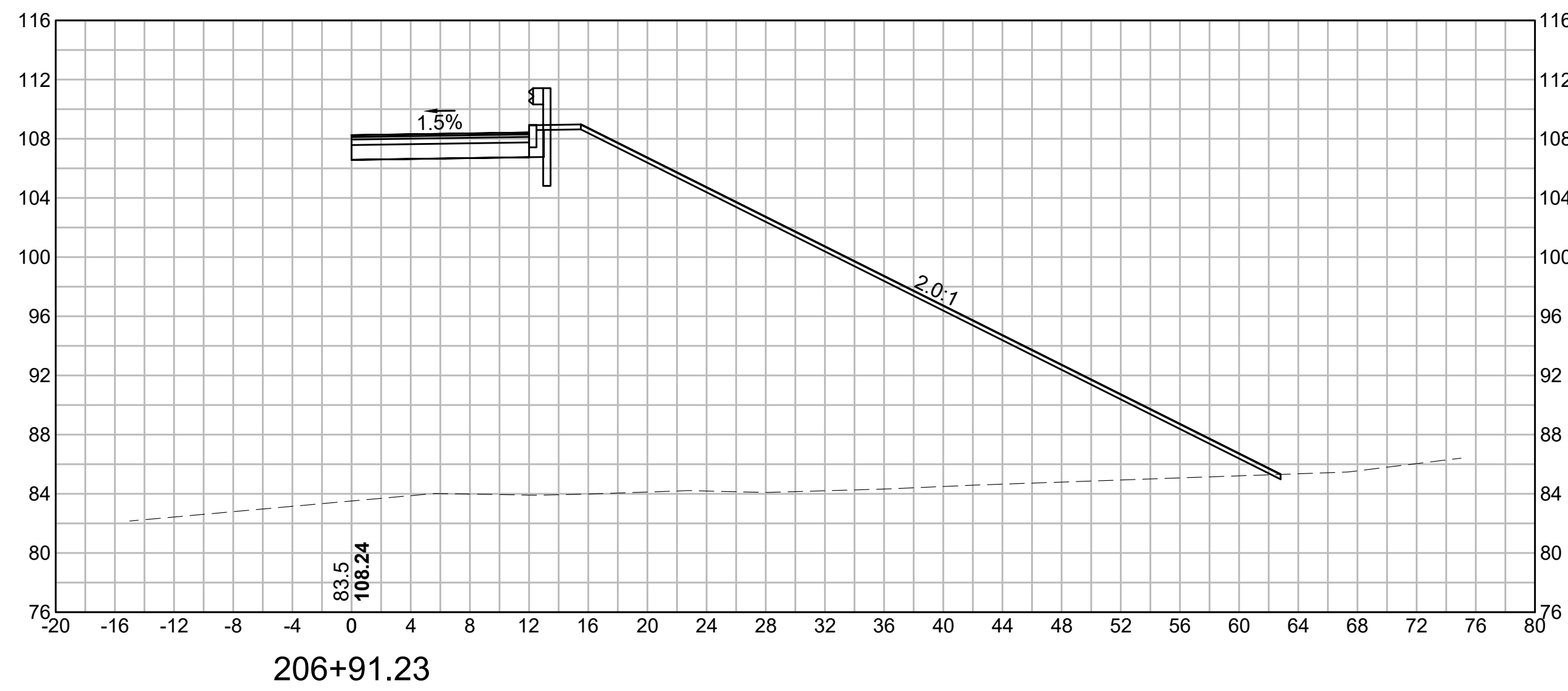


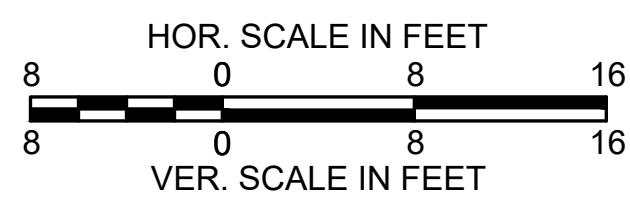
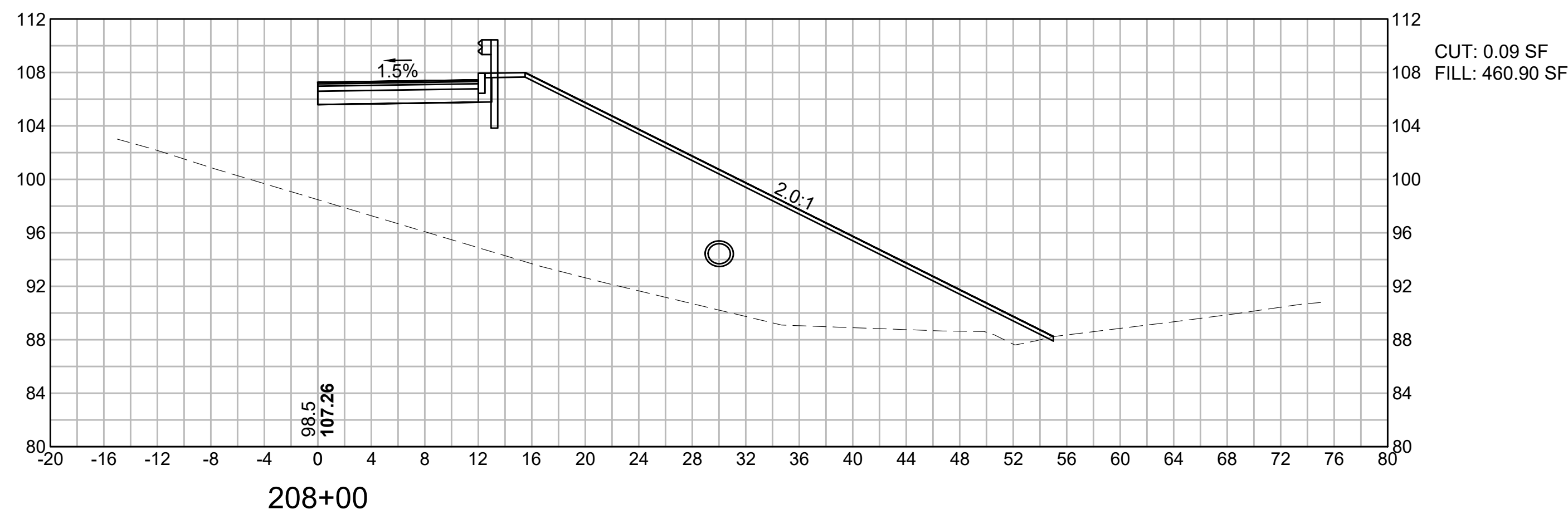
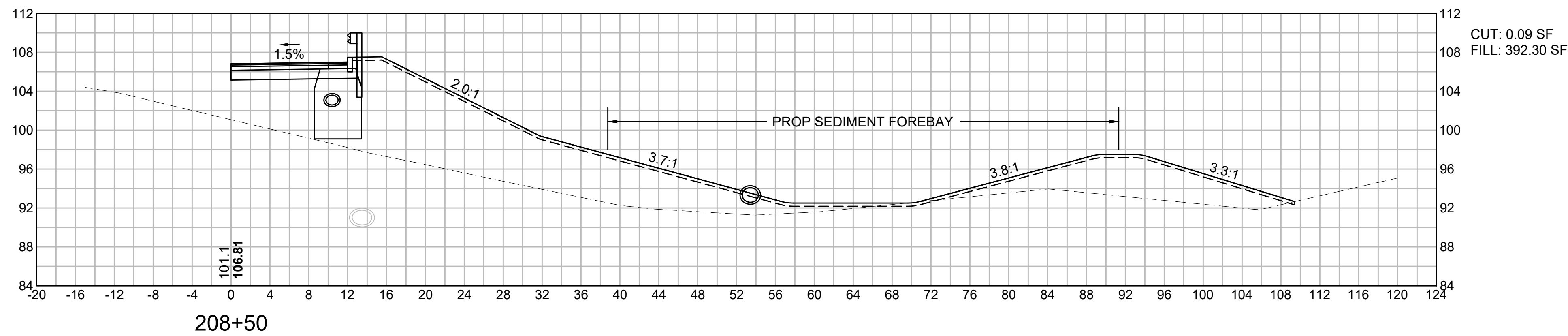
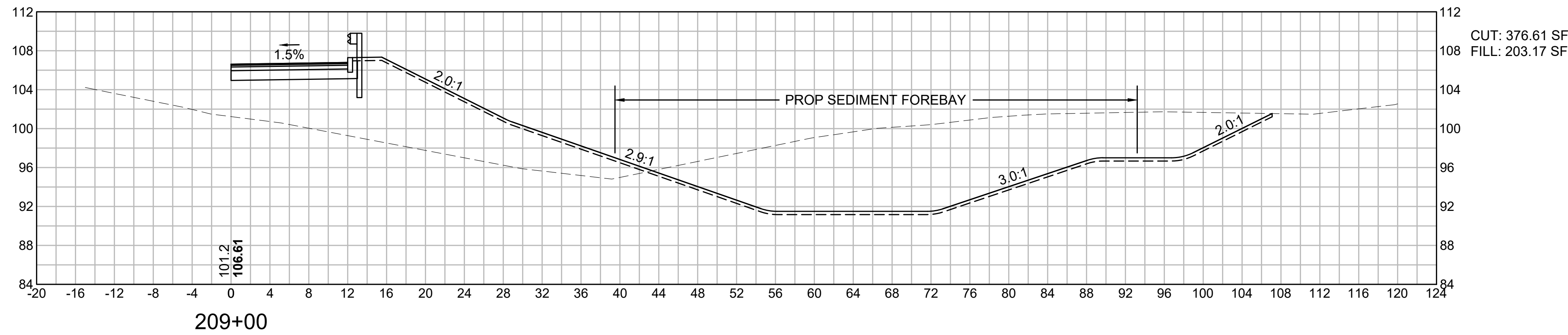
BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	83	87
PROJECT FILE NO.		610800	

CROSS SECTIONS DRIVEWAY 1







BARNSTABLE
BARNSTABLE PARK AND RIDE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CRP-003S(984)X	86	87
PROJECT FILE NO.		610800	

CROSS SECTIONS DRIVEWAY 2

