

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



GARLAND PENOBSCOT COUNTY

EXETER ROAD

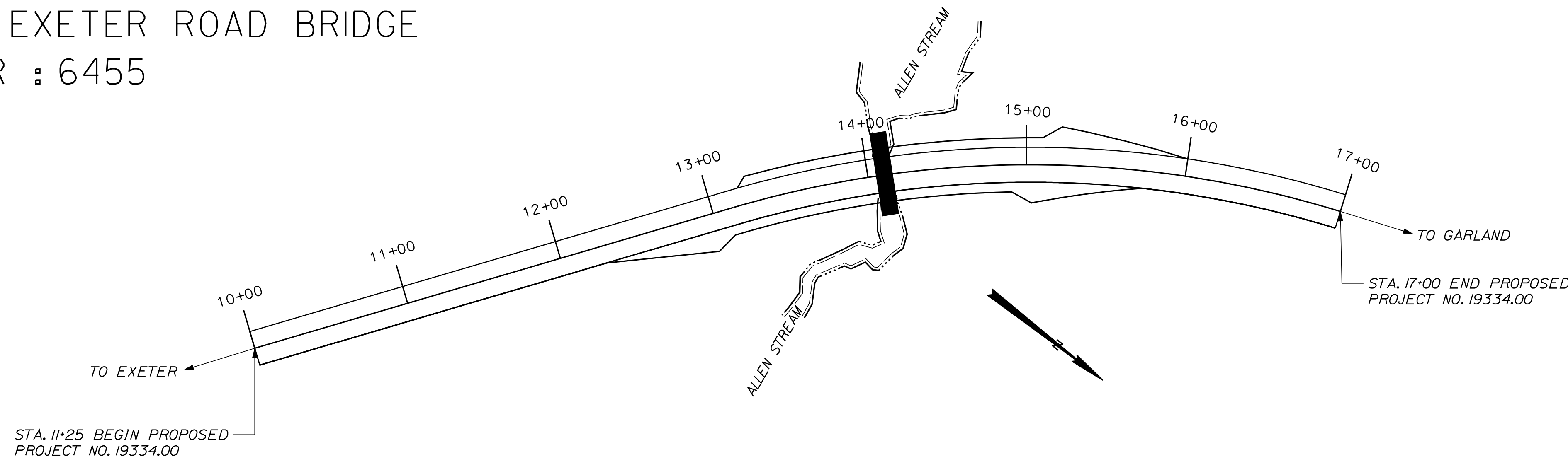
19334.00

PROJECT LENGTH : 0.11 MILES

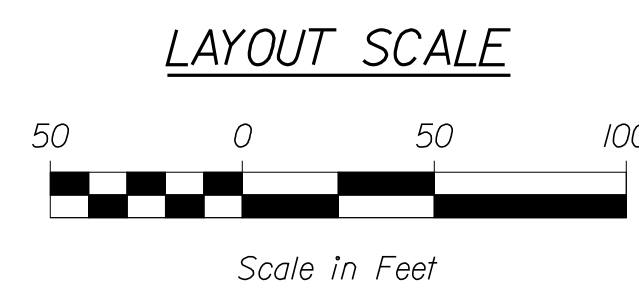
PLAN LEGEND	
Town, County, State	Centerline-Existing
Property Lines	Centerline-Proposed
R/W Lines-Existing	Travelway-Existing
R/W Lines-Proposed	Travelway-Proposed
Culvert-Existing	Railroad
Culvert Proposed	Catch Basins
Curbing Existing	Manholes
Curbing Proposed	Proposed Underdrain
Type 1	Proposed Ditch
Type 3	Existing Ditch
Type 5	Utility Poles
Outline of Bodies of Water	Fire Hydrants
Ledge	Existing Water Line
Buildings	Existing San. Sewer
Trees Conifer	Existing San. Sewer Manhole
Trees Deciduous	Guardrail-Existing
Tree Line	Guardrail-Proposed
Clearing Limit Line	Guardrail-Cable, Other

INDEX OF SHEETS	
Description	Sheet No.
Title Sheet	1
Typical Sections	2 - 3
Plan / Profile	4
Cross - Sections	5 - 8
Detour Plans	9 - 11

BRIDGE NAME : EXETER ROAD BRIDGE
BRIDGE NUMBER : 6455



TRAFFIC DATA	
Current (2012) AADT	660
Design Speed (mph)	45
Functional Class:	MINOR COLLECTOR



PROJECT LOCATION:	GARLAND, LOCATED 0.23 MILES NORTHERLY OF THE GARLAND/EXETER TOWN LINE ON THE EXETER ROAD (C409K)
PROGRAM AREA:	HIGHWAY
SCOPE OF WORK:	STRUT REPLACEMENT WITH DRAINAGE AND SAFETY IMPROVEMENTS

WIN 19334.00 19334.00

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
APPROVED	DATE
COMMISSIONER:	CHIEF ENGINEER:
SIGNATURE	P.E. NUMBER
DATE	DATE
PROGRAM	PROJECT INFORMATION
PROJECT MANAGER	SHAWN DAVIS
DESIGNER	ROBERT CHESTER
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	
GARLAND EXETER ROAD	
TITLE SHEET	
SHEET NUMBER	
1	
OF 11	

Date: 5/25/2012

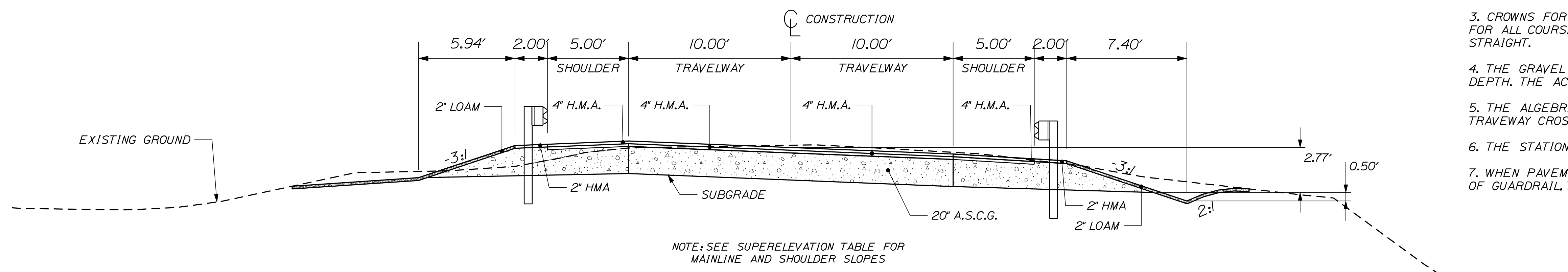
Username: Lucas.P.Soo

Division: HIGHWAY

Filename: ... \highway\msta\002_Typical.dgn

NOTE:

1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
4. THE GRAVEL QUANTITY CALCULATION IS BASED ON A 2" LOAM DEPTH. THE ACTUAL DEPTH MAY VARY. SEE THE GENERAL NOTES.
5. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.
6. THE STATIONING SHOWN UNDER EACH TYPICAL IS APPROXIMATE.
7. WHEN PAVEMENT EXTENDS LESS THAN 3 FT. FROM THE FACE OF GUARDRAIL, 7 FT. MINIMUM GUARDRAIL POSTS ARE REQUIRED.

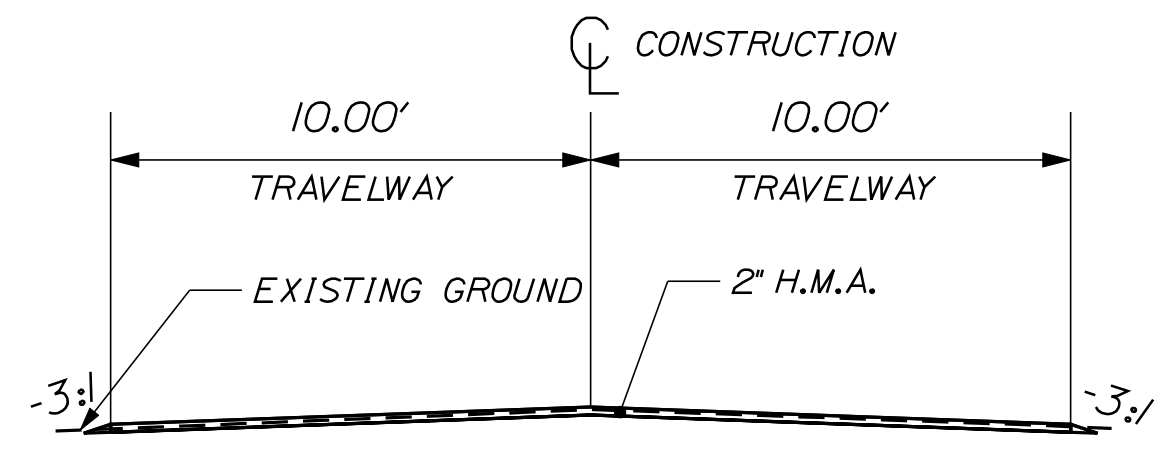


AGGREGATE SUBBASE COURSE GRAVEL		
LEFT SHOULDER	10 FT. TRAVEL LANES	RIGHT SHOULDER
55.2 CY/100 LF	123.4 CY/100 LF	53.4 CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION
13+52 TO 14+69 LT.	13+52 TO 14+69	13+52 TO 14+69 RT.

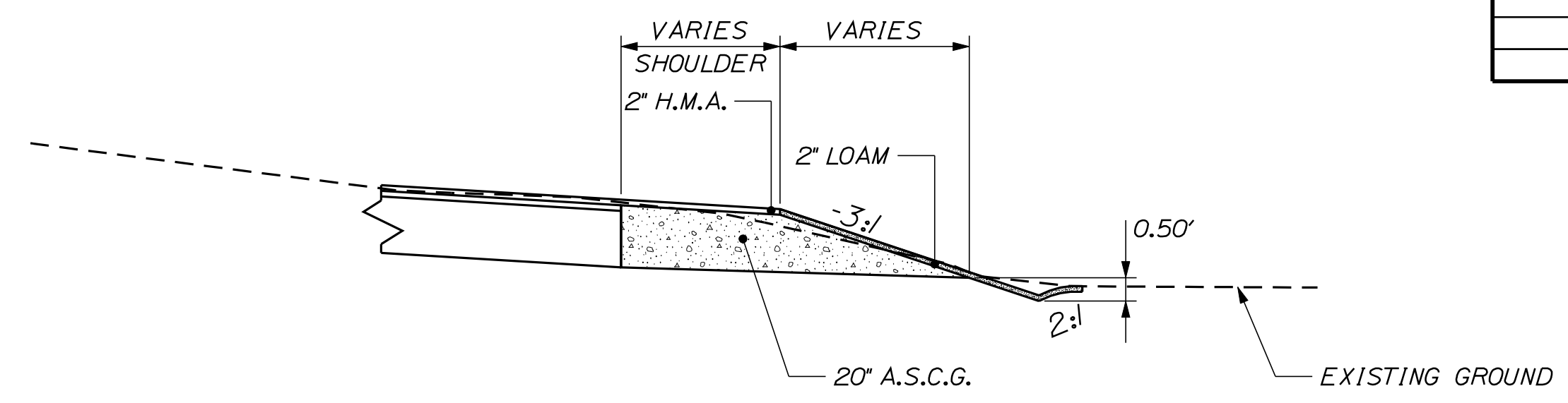
FULL CONSTRUCTION
STA. 13+52 TO 14+69, RT. & LT.
NORMAL

SUPERELEVATION TABLE

LT SHOULDER	LT TRAVELWAY	STATION	RT TRAVELWAY	RT SHOULDER
		START		
	-4.8%	11+00	-4.7%	
	-3.6%	11+50	-3.6%	
	-2.0%	12+00	-3.0%	
	0.0%	12+50	-3.0%	-6.0%
	2.0%	13+00	-3.0%	-6.0%
-4.0%	4.0%	13+50	-4.0%	-6.0%
-2.0%	6.0%	14+00	-6.0%	-6.0%
-2.0%	6.0%	14+50	-6.0%	-6.0%
-2.0%	6.0%	15+00	-6.0%	-6.0%
-2.0%	6.0%	15+50	-6.0%	-6.0%
	5.0%	16+00	-7.8%	
	4.0%	16+50	-9.6%	
	3.1%	17+00	-11.1%	



2" MILL AND FILL
STA. 11+25 TO 13+52 RT. & LT.
STA. 14+69 TO 17+00, RT. & LT.
NORMAL



AGGREGATE SUBBASE COURSE GRAVEL	
LEFT SHOULDER	RIGHT SHOULDER
45.0 CY/100 LF	44.7 CY/100 LF
STATION TO STATION	STATION TO STATION
13+19 TO 16+00 LT.	12+27 TO 15+74 RT.

SHOULDER WIDENINGS RT & LT
STA. 12+27 RT. TO 15+74 RT.
STA. 13+19 LT. TO 16+00 LT.
NORMAL

PROJ. MANAGER	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN-DETAILED	S. DAVIS	APR. 2012			
CHECKED-REVIEWED	L. SOO				
DESIGN DET AILED					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

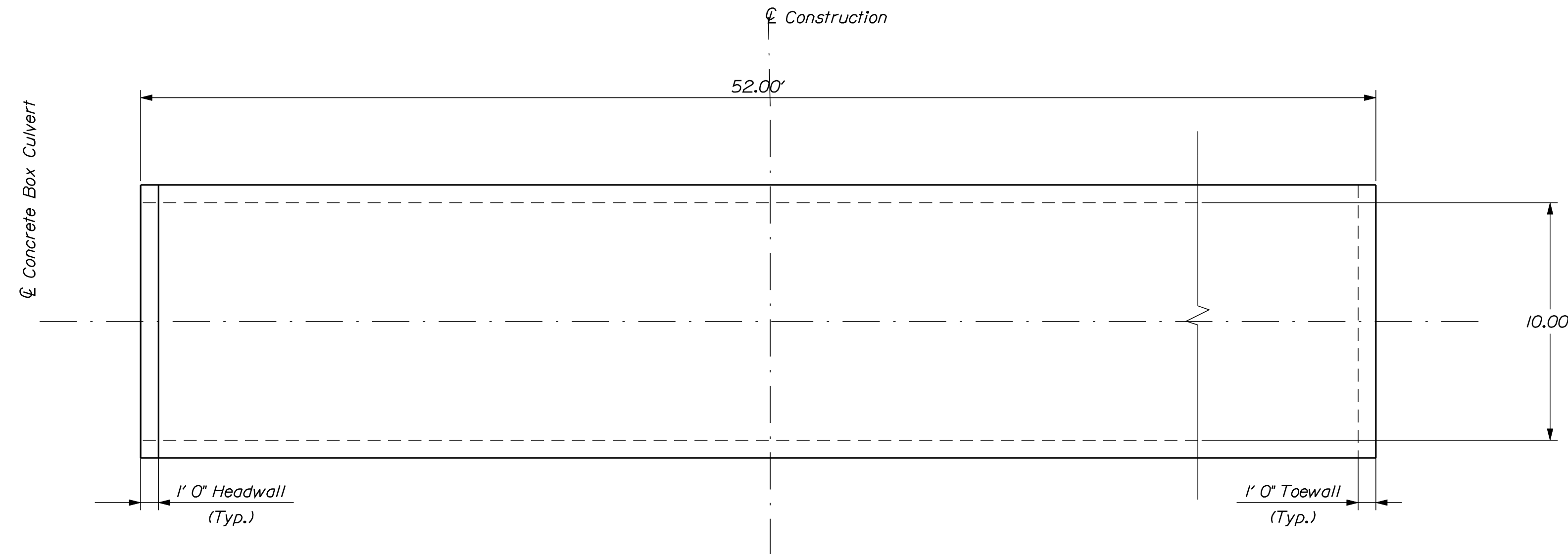
GARLAND
EXETER ROAD
TYPICAL SECTIONS

NOT TO SCALE

BOX CULVERT DETAILS

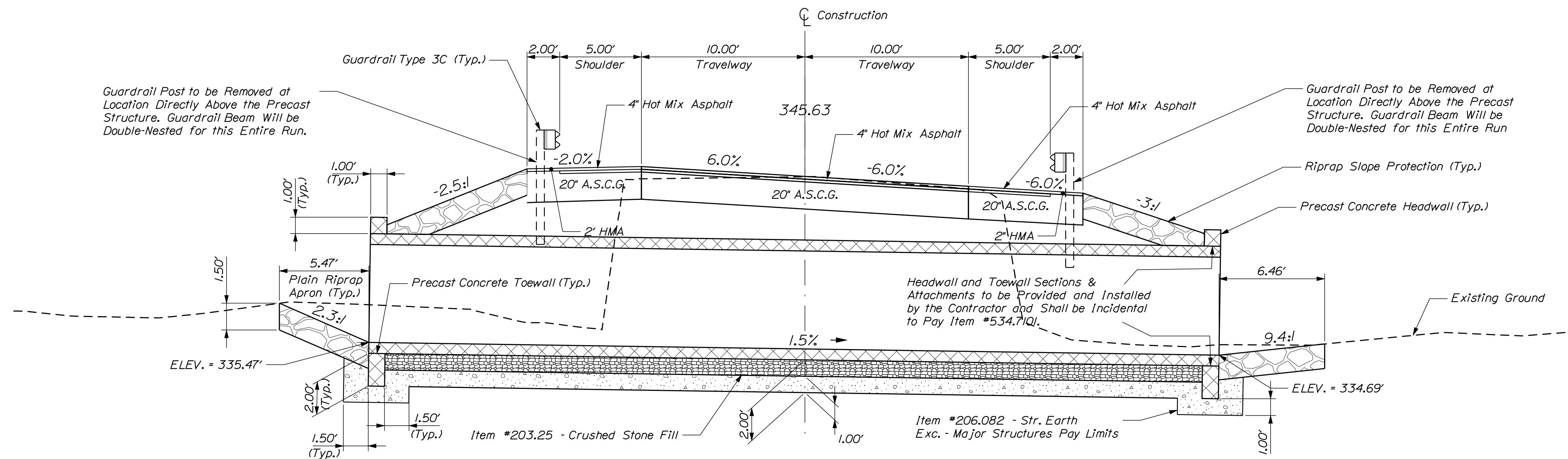
PRECAST CONCRETE BOX NOTES:

1. THE PRECAST STRUCTURE WILL BE PROVIDED BY MAINE DOT. IT IS TO BE TRANSPORTED TO THE SITE BY THE CONTRACTOR PRIOR TO INSTALLATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE ATTACHMENT OF THE TOEWALL TO THE BOX CULVERT. THE HEADWALL SHALL BE PRECAST AND IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN THE REINFORCEMENT (REFERENCE STANDARD SPECS. SECTION 712.061 - STRUCTURAL PRECAST CONCRETE UNITS). ANY DAMAGES TO THE STRUCTURE INCURRED AFTER PICK UP WILL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND NOT MAINE DOT. PLEASE REFER TO SECTION 534, PRECAST STRUCTURAL CONCRETE AND MANUFACTURER'S SPECS FOR INSTRUCTION ON CONSTRUCTION, HANDLING, AND ASSEMBLY OF THE PRECAST UNITS.
2. REPLACEMENT OF THE STRUCTURE WILL REQUIRE A DETOUR OF TRAFFIC AROUND THE WORKING AREA (SEE DETOUR TYPICALS AND SPECIAL PROVISION SECTION 105 NOTE*2).
3. INSTALL STANDARD MEMBRANE WATERPROOFING OVER THE TOP AND TO 12 INCHES DOWN THE EXTERIOR SIDES OF THE PRECAST UNITS.
4. COFFERDAMS ARE TO BE PLACED AT BOTH THE DOWNSTREAM AND UPSTREAM ENDS OF THE PRECAST STRUCTURE TO ALLOW WATER TO BE PUMPED AND REMOVED FROM THE WORKING AREA.
5. THE INSLOPES ON EITHER SIDE OF THE STRUCTURE FROM STATIONS 13+90 TO 14+25 RT. & LT. WILL BE RIPRAPPED WITH SLOPES EXISTANT BETWEEN 1:1 AND 1.5:1 (REFER TO CROSS SECTIONS). AS SHOWN IN THIS TYPICAL, RIPRAP IS ALSO TO BE PLACED OVER THE TOP OF THE PRECAST STRUCTURE AND SLOPED DOWN UNTIL IT IS STABILIZED BY THE HEADWALL ON EITHER END OF THE STRUCTURE.
6. ONCE THE STRUCTURES ARE INSTALLED AND BACKFILLED UP TO TOP OF SUBGRADE, ITEM #403.213 - 12.5MM HMA BASE AND ITEM #403.208 12.5MM HMA SURFACE WILL BE USED TO PAVE THE RESULTING TRENCH BACK IN.
7. GUARDRAIL TREATMENT OVER BURRIED STRUCTURES, 606(24) PAYMENT SHALL BE CONSIDERED INCIDENTAL TO THE GUARDRAIL PAY ITEMS.



CONCRETE BOX CULVERT PLAN VIEW

STA. 14+10.41



TYPICAL BOX CULVERT SECTION

INSTALL 6' RISE BY 10' SPAN BY 52' LONG CONCRETE BOX CULVERT

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

19334.00

WIN
19334.00

HIGHWAY PLANS

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	BY	DATE
S. DAVIS	L. SOO	APR. 2012

CHECKED/REVIEWED	DESIGN DETAIL	DESIGN DETAIL	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES

GARLAND
EXETER ROAD

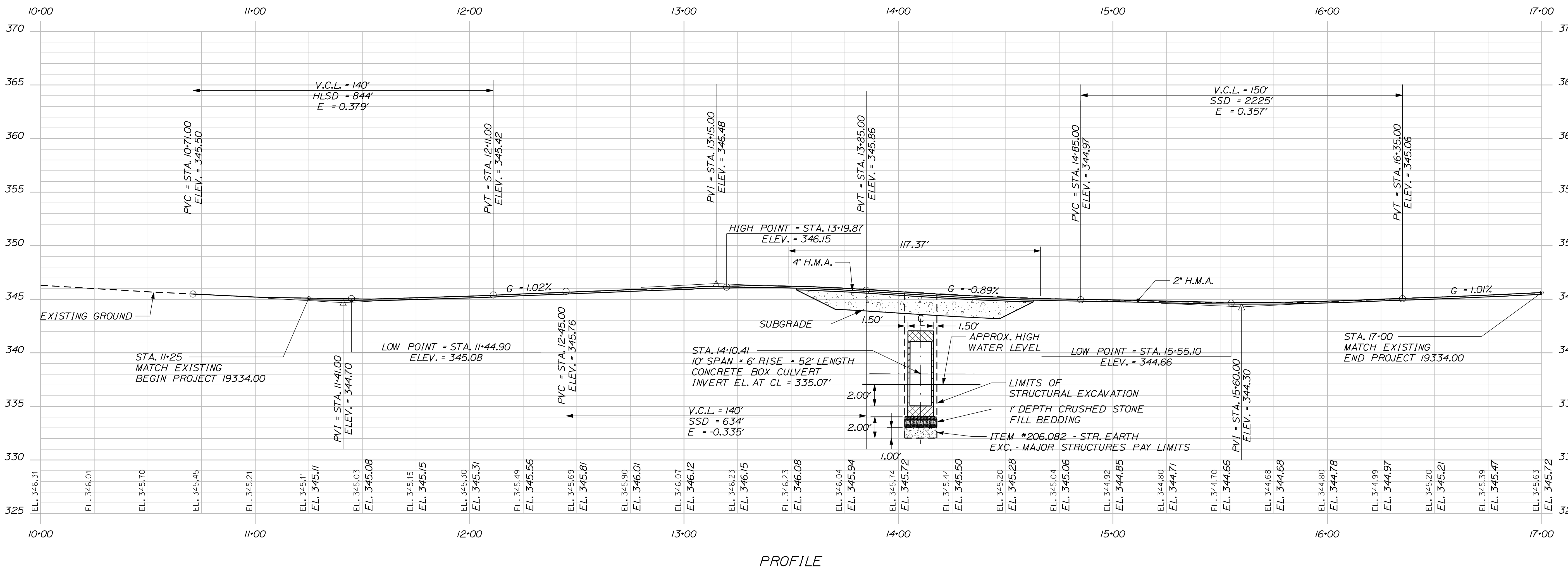
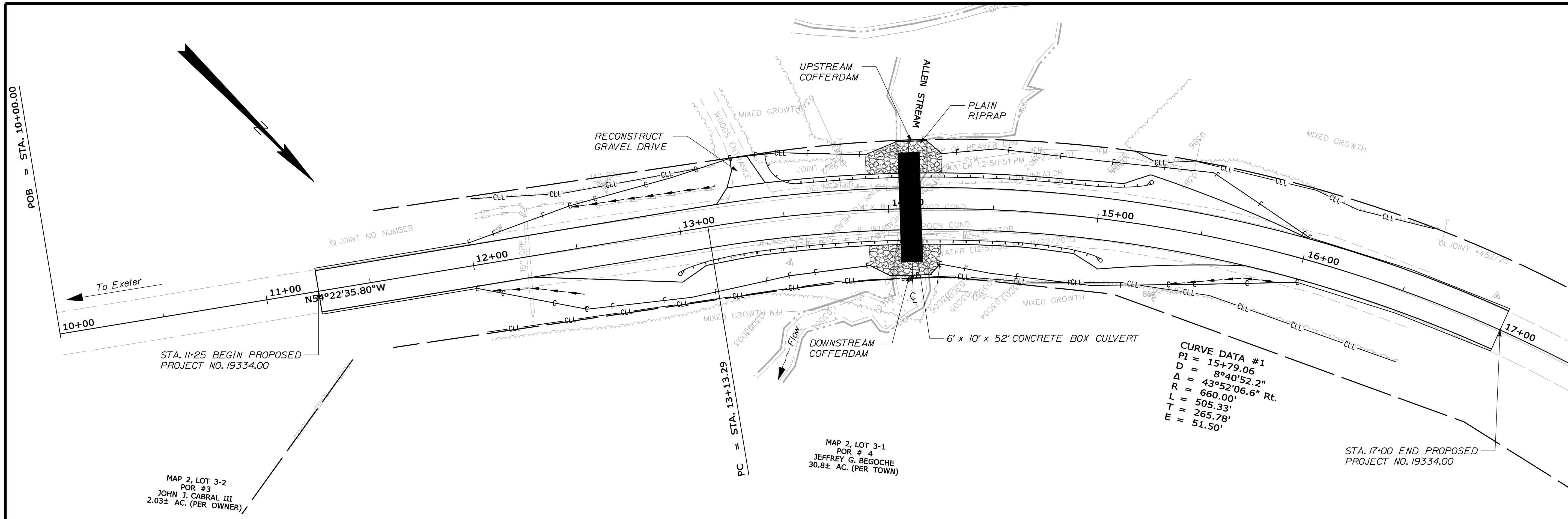
TYPICAL SECTIONS

SHEET NUMBER

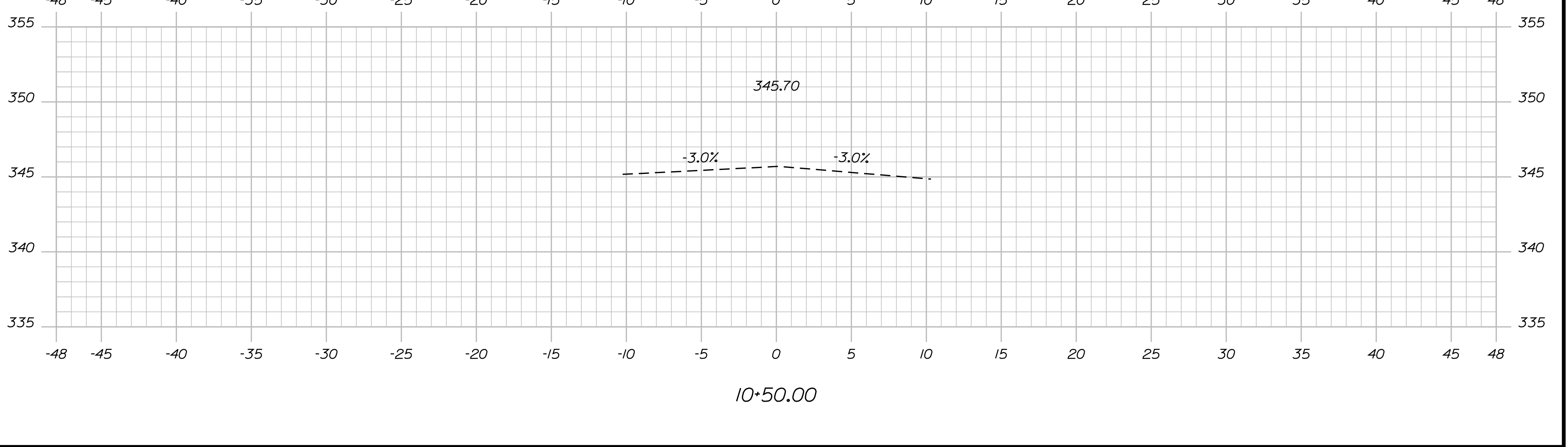
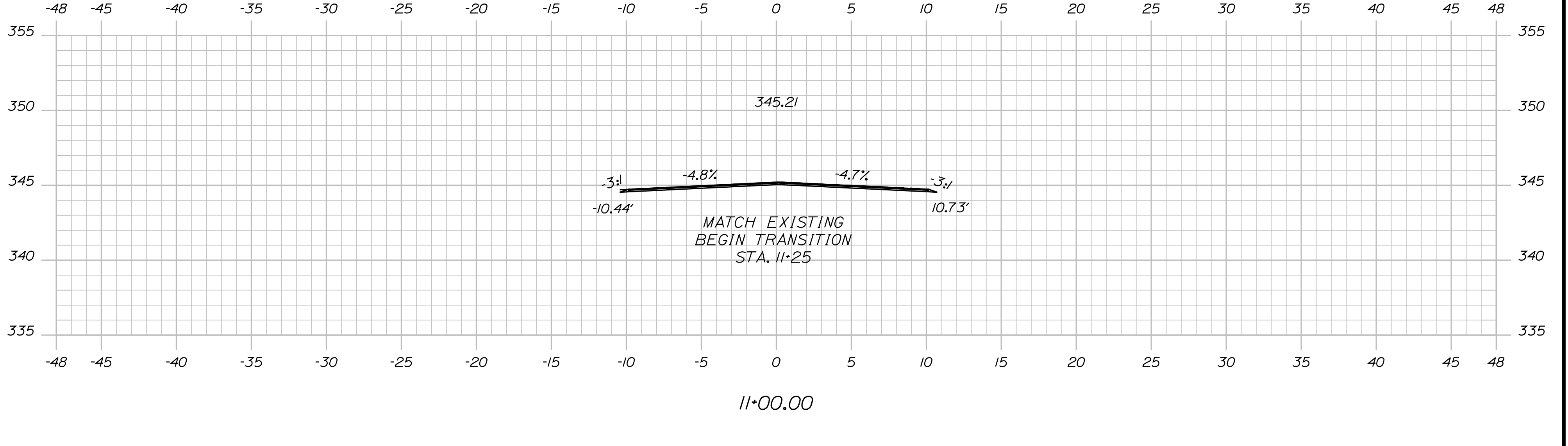
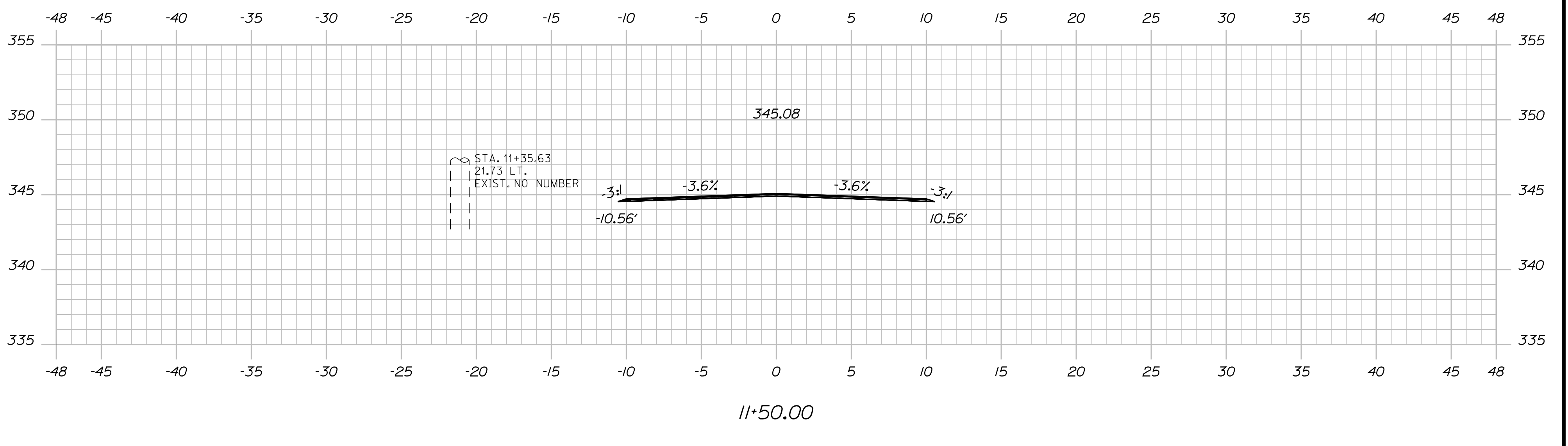
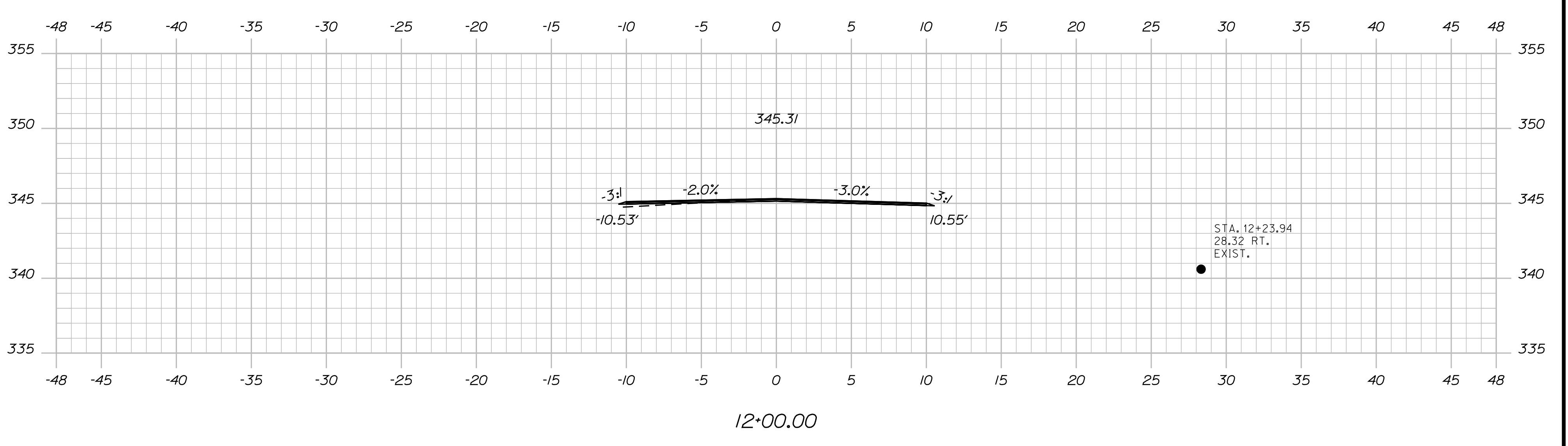
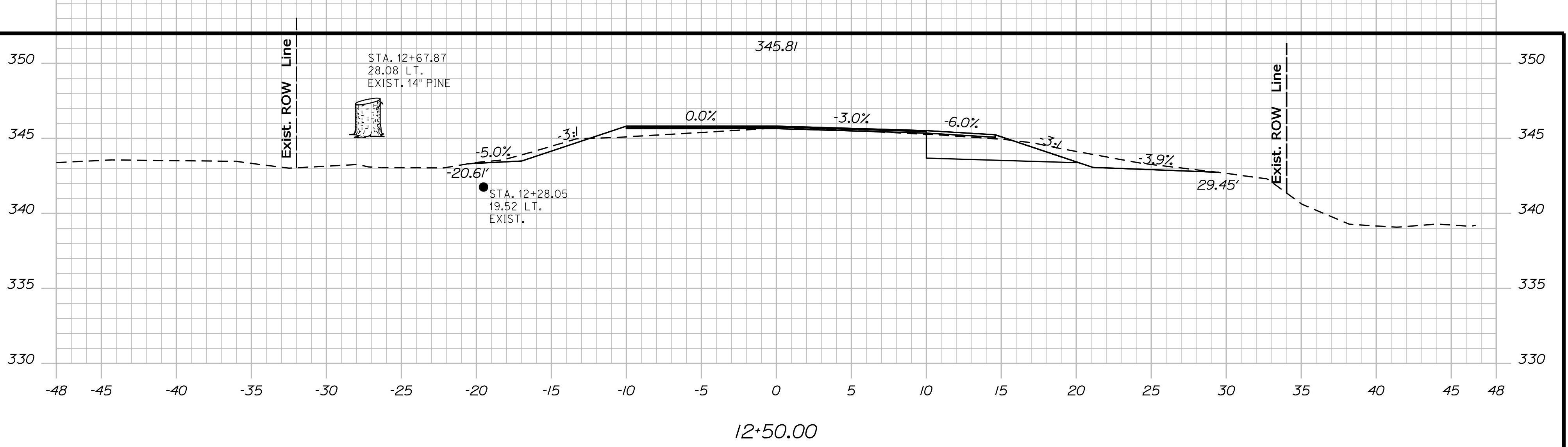
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OF 11

NOT TO SCALE



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
19334.00		WIN	
19334.00		HIGHWAY PLANS	
PROJ. MANAGER	S. DAVIS	DATE	APR 2012
CHECKED/REVIEWED	L. SOO	SIGNATURE	
DESIGN/DETAILS		P.E. NUMBER	
REVISIONS 1		DATE	
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
GARLAND EXETER ROAD		PLANS	
		SHEET NUMBER	
4		OF 11	
		STA. 11+25.00 TO STA. 17+00.00	



Sta. 10+50.00 to Sta. 12+50.00

OF 11
5
SHEET NUMBER

**GARLAND
EXETER ROAD**

CROSS SECTIONS

PROJ. MANAGER	S. DAVIS	BY	DATE
DESIGN-DETAILED	L. SOO	-----	APR 2012
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
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SIGNATURE _____

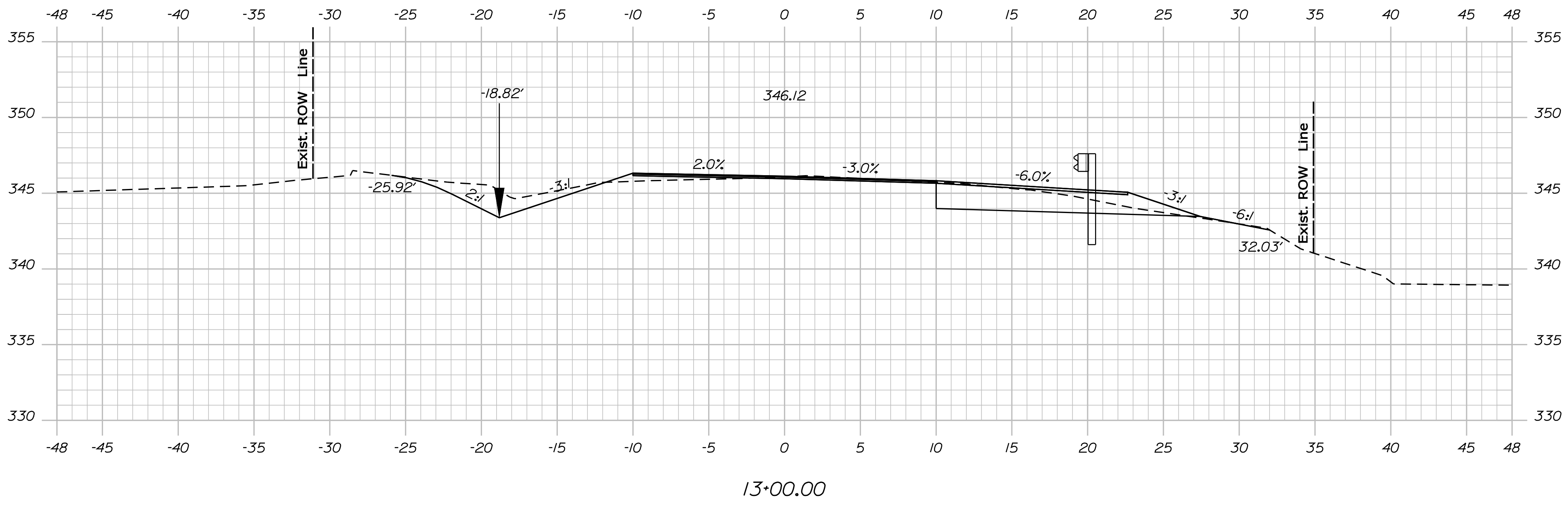
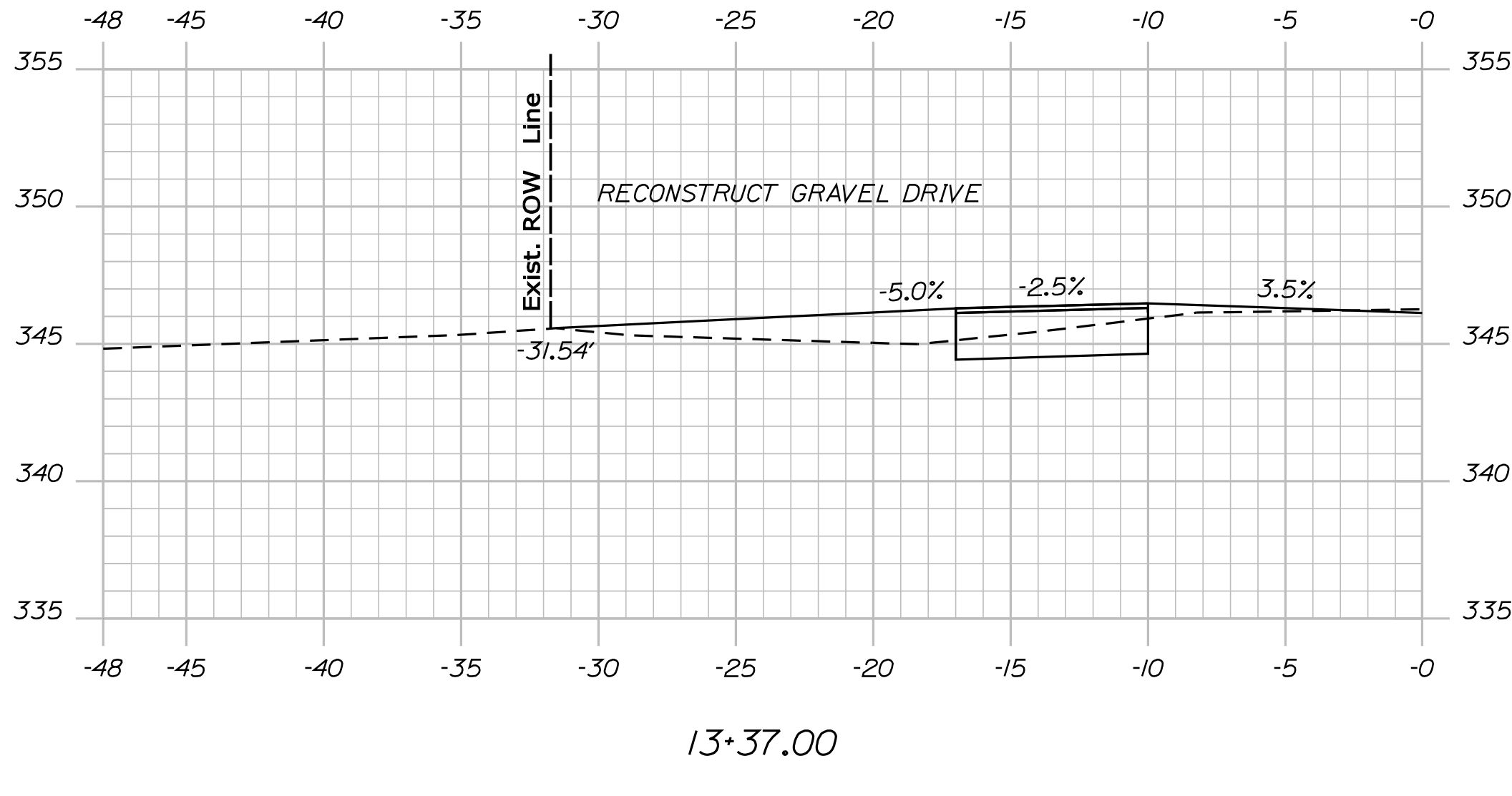
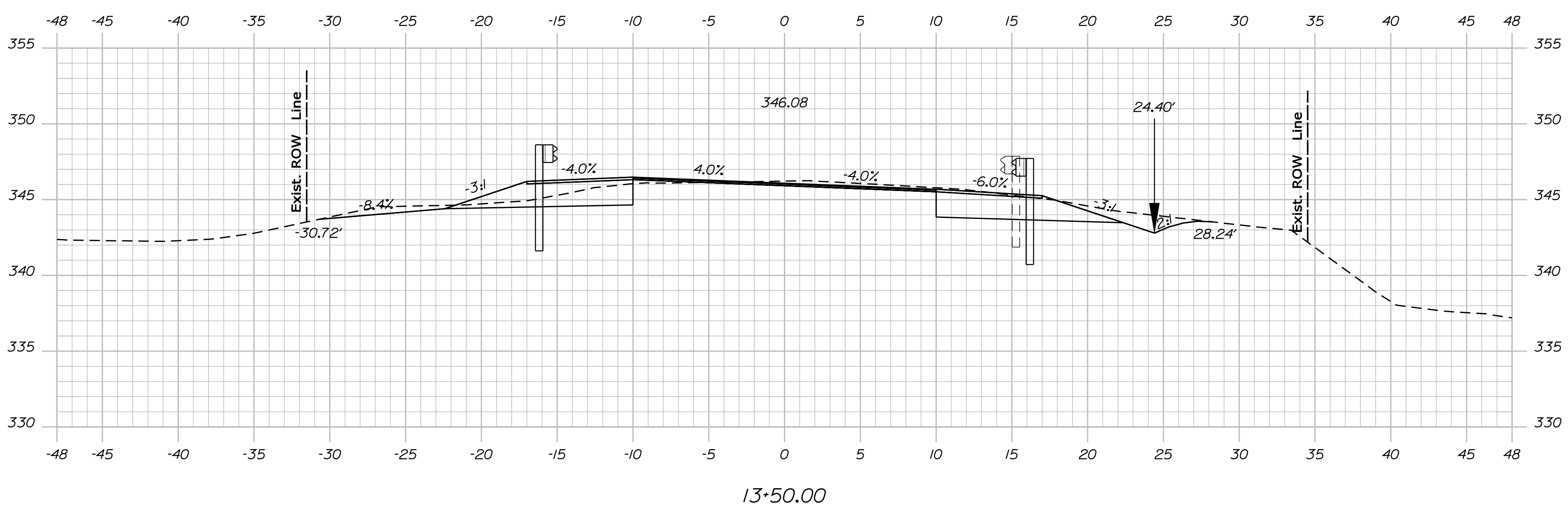
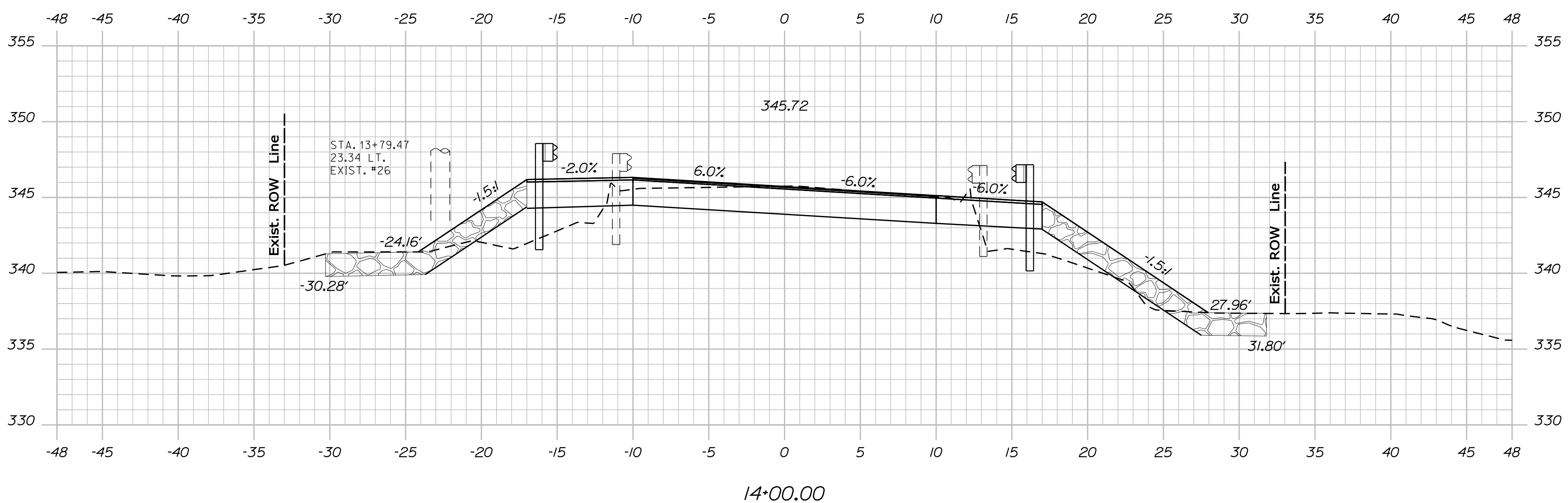
P.E. NUMBER _____

DATE _____

**STATE OF MAINE
DEPARTMENT OF TRANSPORTATION**

19334.00

**WIN
19334.00** HIGHWAY PLANS



Sta. 13+00.00 to Sta. 14+00.00

SHEET NUMBER
6
OF 11

**GARLAND
EXETER ROAD
CROSS SECTIONS**

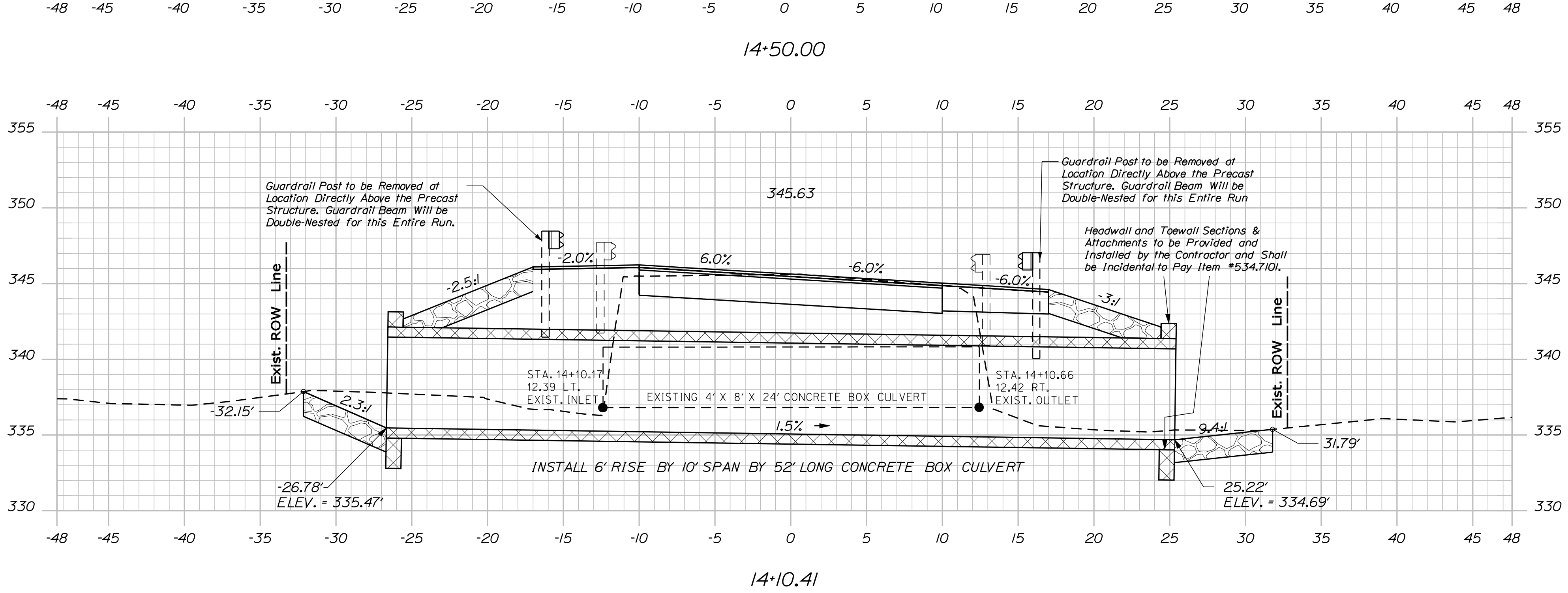
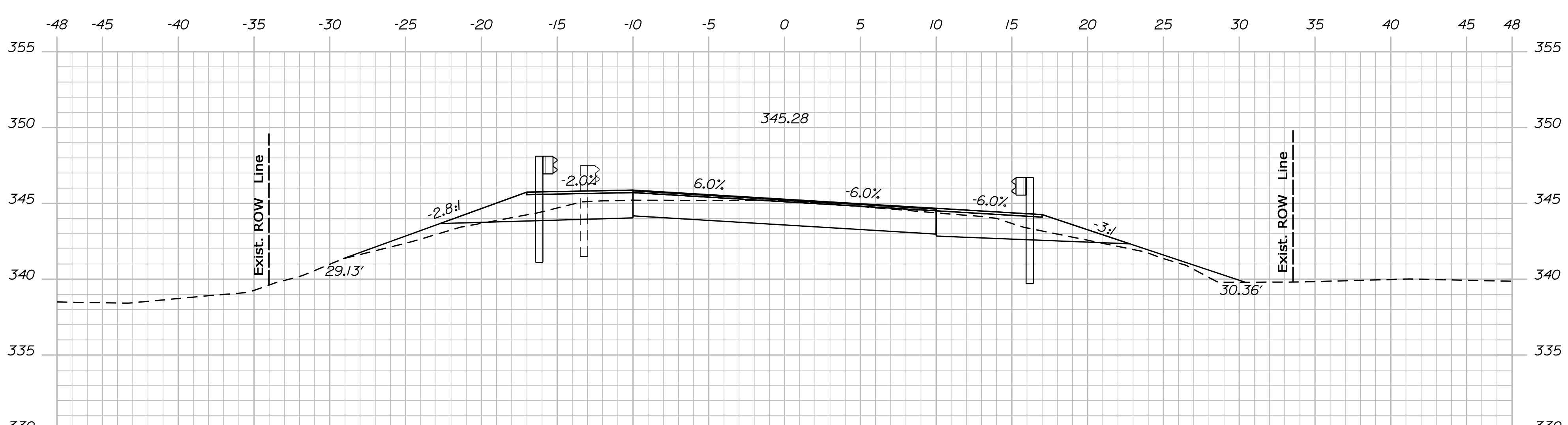
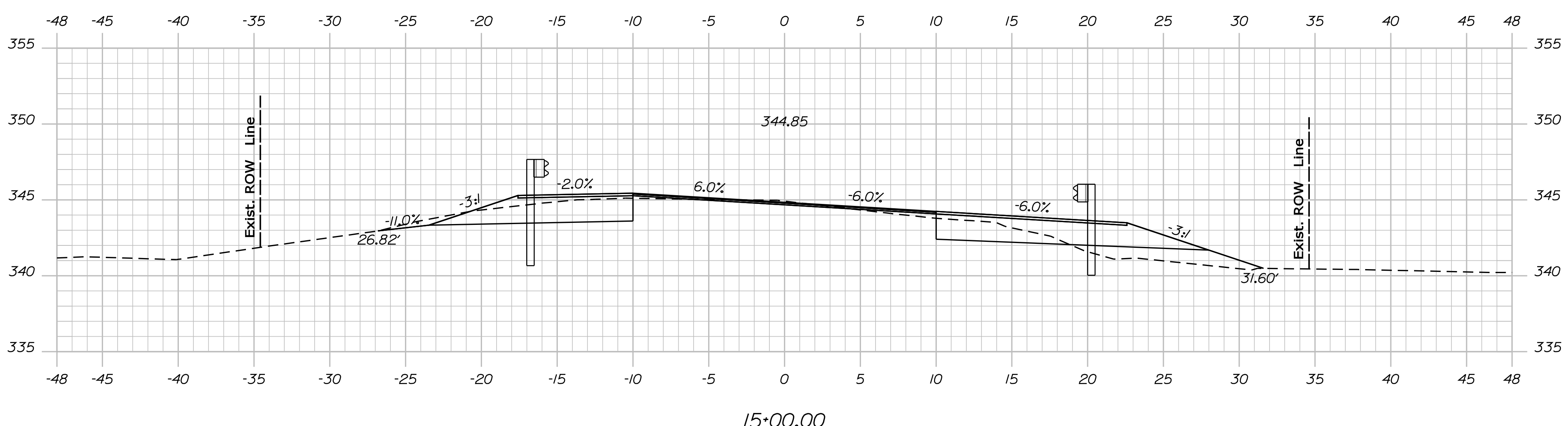
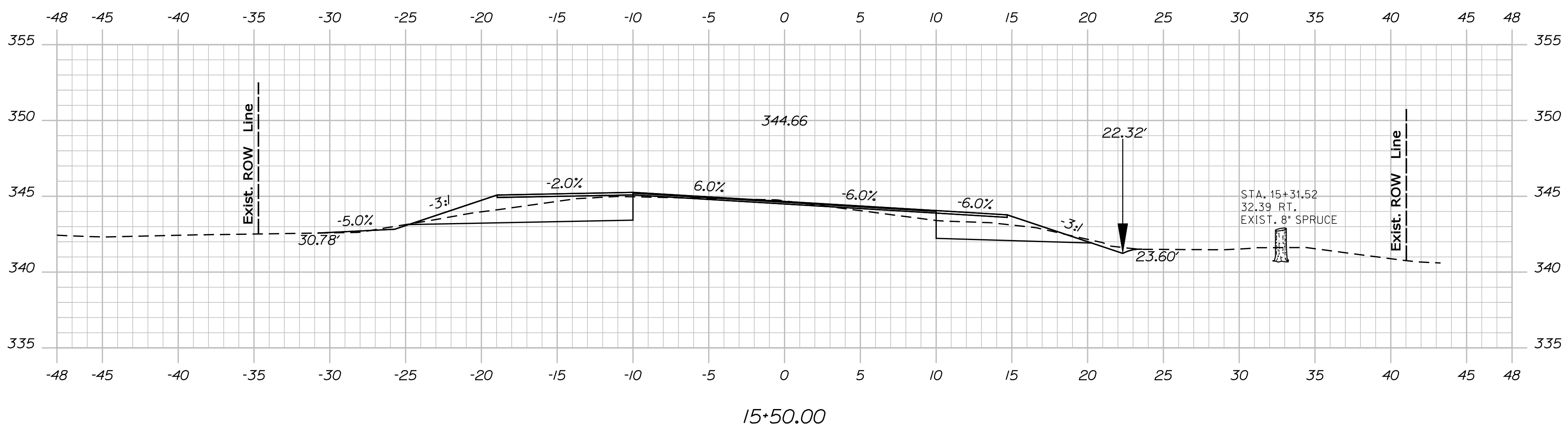
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CHECKED-REVIEWED	-----	-----	-----
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DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
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REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

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DATE _____

**STATE OF MAINE
DEPARTMENT OF TRANSPORTATION**

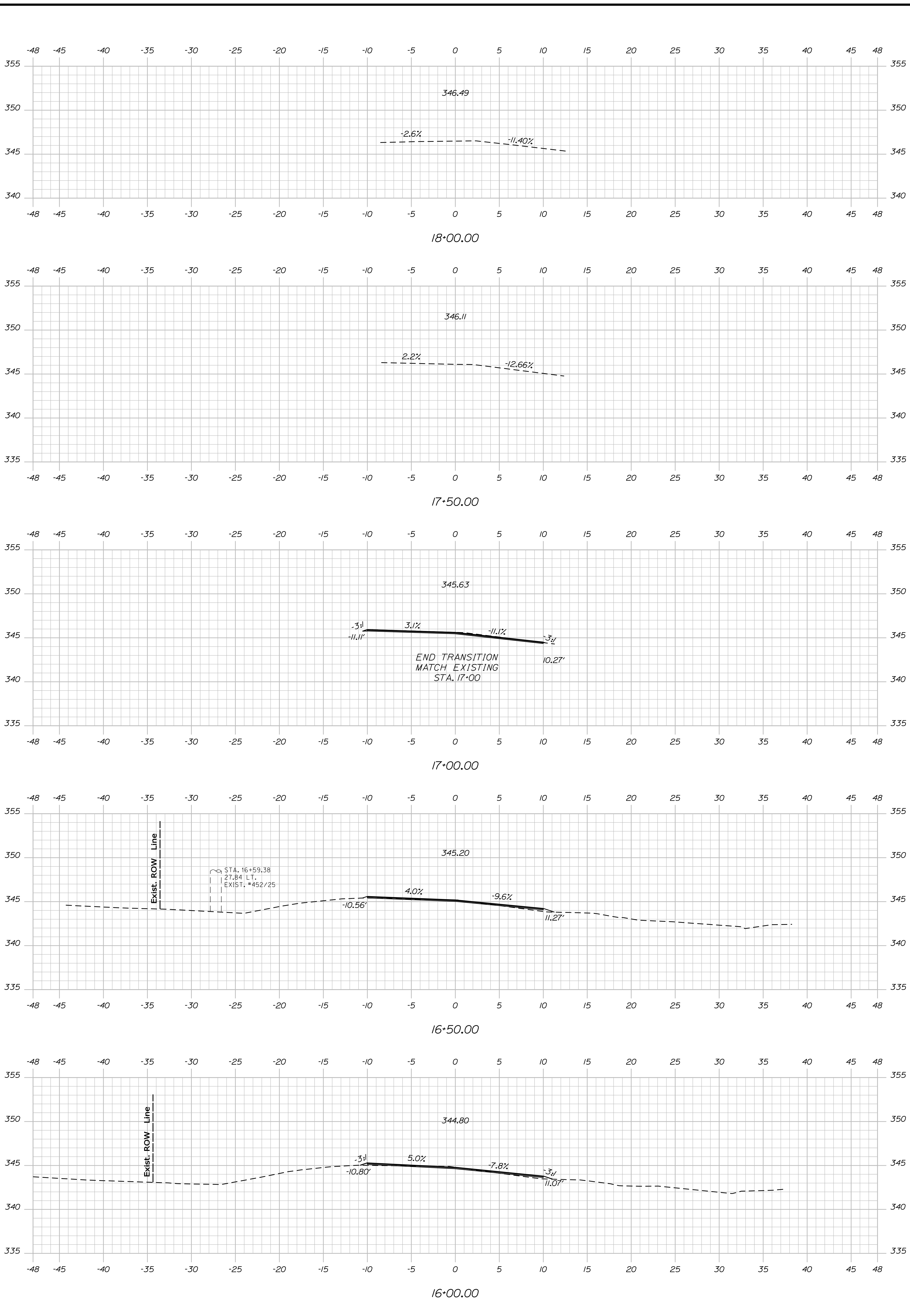
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**WIN
19334.00** HIGHWAY PLANS



Sta. 14+10.41 to Sta. 15+50.00

SHEET NUMBER OF 11 2	GARLAND EXETER ROAD	PROJ. MANAGER S DAVIS DESIGN-DETAILED L SOO CHECKED-REVIEWED DESIGN2-DETAILED2 DESIGN3-DETAILED3 REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	BY DATE APR 2012	SIGNATURE P.E. NUMBER DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION 19334.00 WIN 19334.00 HIGHWAY PLANS	
	CROSS SECTIONS					



Sta. 16+00.00 to Sta. 18+00.00

SHEET NUMBER
8
OF 11

**GARLAND
EXETER ROAD
CROSS SECTIONS**

PROJ. MANAGER	S DAVIS	BY	DATE
DESIGN-DETAILED	L. SOO	-----	APR 2012
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
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REVISIONS 2	-----	-----	-----
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FIELD CHANGES	-----	-----	-----

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DATE _____

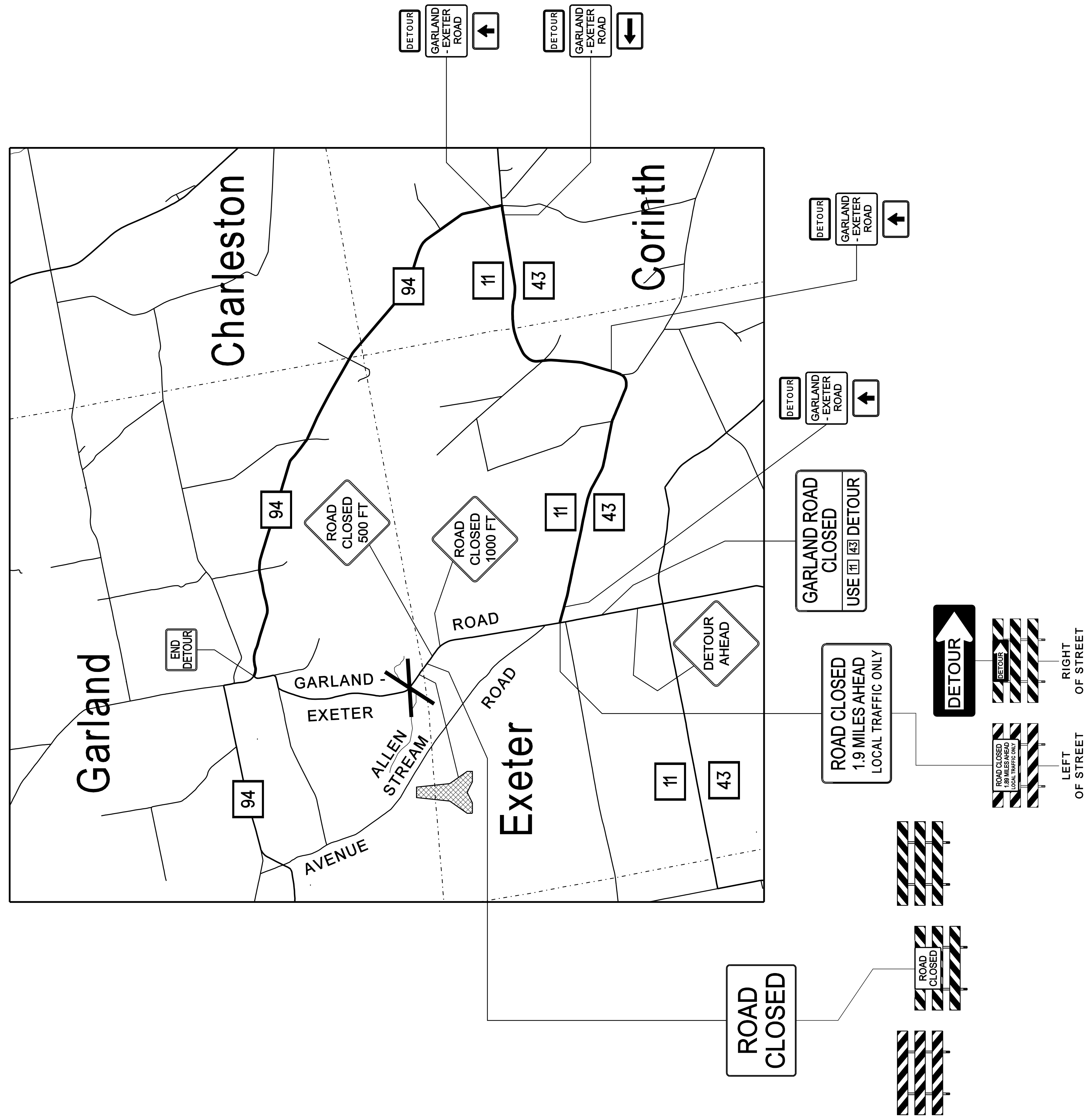
**STATE OF MAINE
DEPARTMENT OF TRANSPORTATION**

19334.00

**WIN
19334.00** HIGHWAY PLANS

MAINE DEPARTMENT OF TRANSPORTATION

GARLAND - EXETER ROAD (NORTH BOUND)

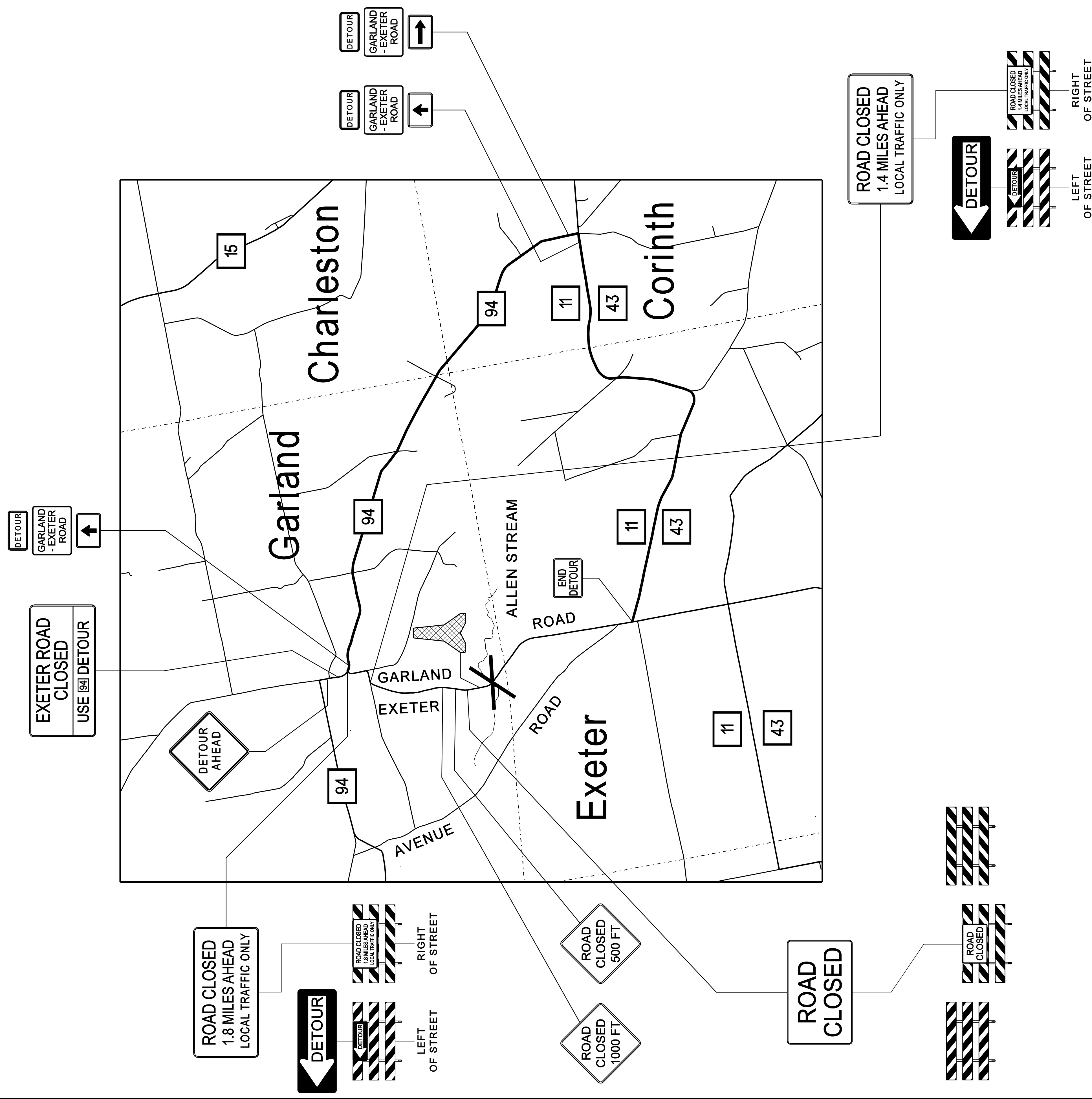


NOT TO SCALE

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	19334.00 WIN 19334.00 HIGHWAY PLANS																																										
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MAINE DEPARTMENT OF TRANSPORTATION

GARLAND - EXETER ROAD (SOUTH BOUND)



NOT TO SCALE

SHEET NUMBER	10	OF 11	STATE OF MAINE DEPARTMENT OF TRANSPORTATION	WIN 19334.00 HIGHWAY PLANS
GARLAND EXETER ROAD				
DETOUR PLAN				
PROJ. MANAGER	S. DAVIS	BY	DATE	SIGNATURE
DESIGN-DETAILED	L. SOO	APR 2012	SIGNATURE	P.E. NUMBER
CHECKED-REVIEWED				
DESIGN-DETAILED				
DESIGN-DETAILED				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

MAINE DEPARTMENT OF TRANSPORTATION

GARLAND - EXETER ROAD

(DETOUR SIGN SUMMARY)

MUTCD DESIGNATION	SIGN APPEARANCE	SIGN SIZE	QUANTITY
M4-8		24" x 12"	7
M6-1		21" x 15"	1
M6-1		21" x 15"	1
M6-3		21" x 15"	5
M4-8a		24" x 18"	2
R11-3a		60" x 30"	1
R11-3a		60" x 30"	1
R11-3a		60" x 30"	1
R11-3a		60" x 30"	1
R11-3a		60" x 30"	1
M4-10		48" x 18"	1
M4-10		48" x 18"	2
R11-2		48" x 30"	2
W20-2		36" x 36"	2
W20-3		36" x 36"	2
W20-3		36" x 36"	2
R8-4		30" x 18"	7
TYPE III BARRICADE		(8' WIDE)	12
TEMP. CONC. BARRIER TYPE I		(10' LONG)	4