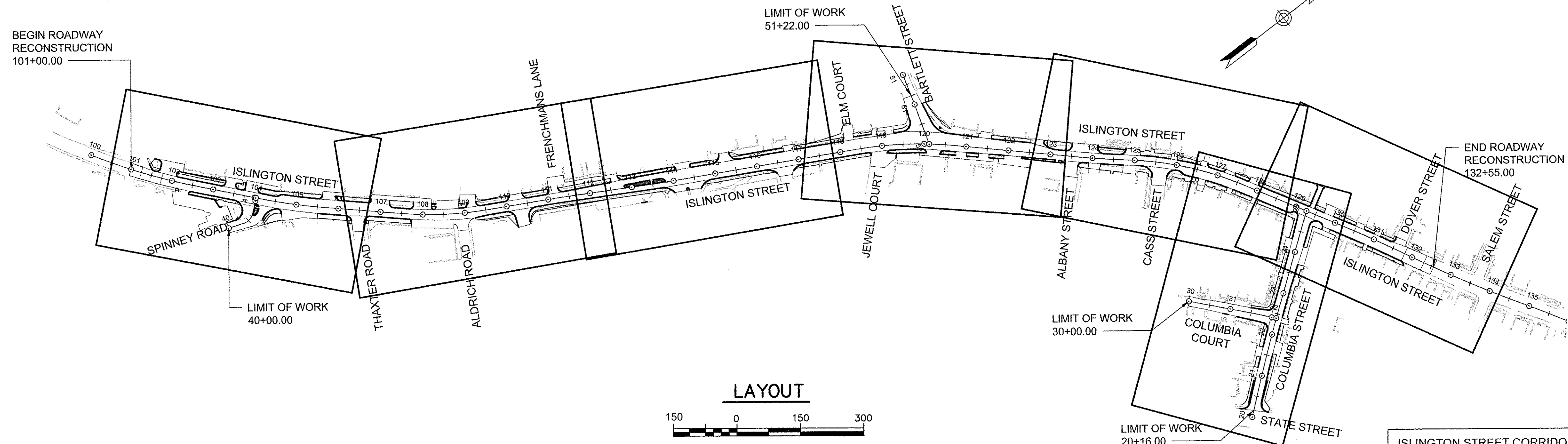
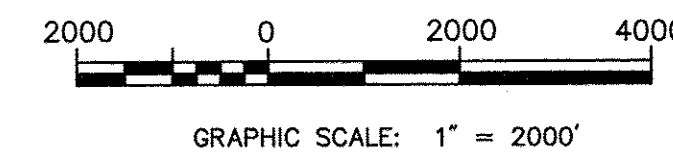
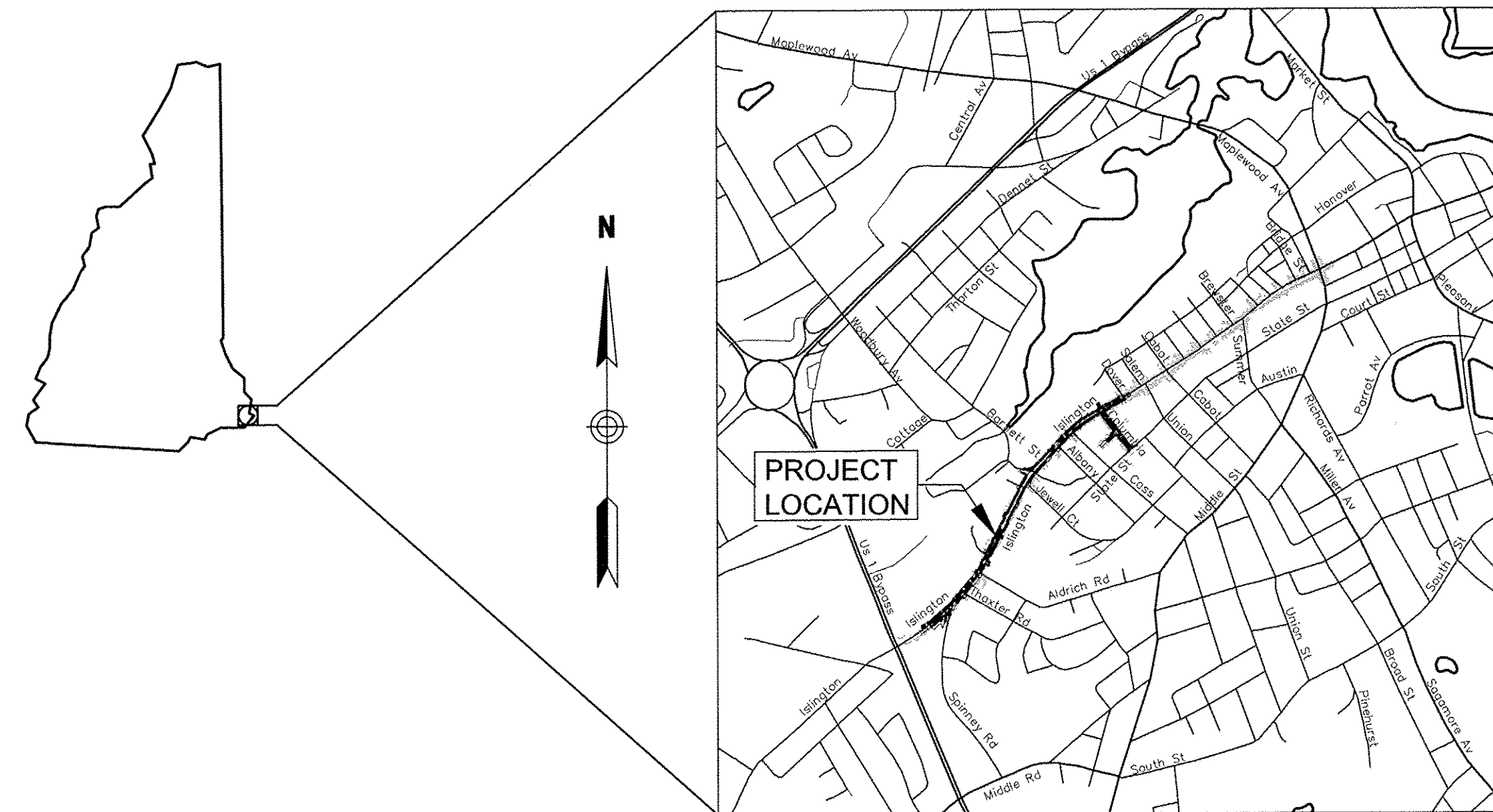


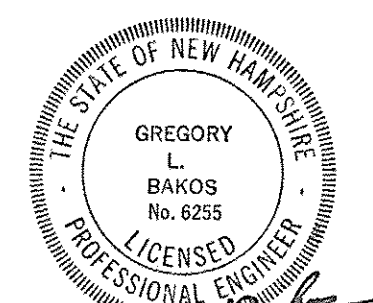
CITY OF PORTSMOUTH, NEW HAMPSHIRE
 DEPARTMENT OF PUBLIC WORKS
 PLANS OF PROPOSED
**ISLINGTON STREET
 CORRIDOR IMPROVEMENTS
 SEGMENT 1**

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
01	COVER SHEET
02	LEGEND & GENERAL NOTES
03	TYPICAL SECTIONS
05-13	DETAILS
14-20	GENERAL PLANS
21-27	PROFILES
28-35	GRADING & LAYOUT PLANS
36-37	TRAFFIC SIGNAL PLANS
38-45	PAVEMENT MARKING & SIGNING PLANS
46-52	LANDSCAPING & LIGHTING PLANS
53-73	CROSS SECTIONS
U-1 TO U-3	UTILITY INDEX & NOTES
U-4 TO U-9B	UTILITY PLANS & PROFILE
U-14 TO U-15	UTILITY DETAILS



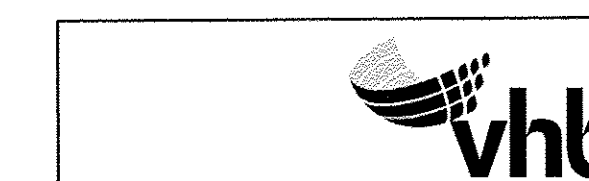
REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION

SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	KMH <td>DATE</td> <td>11/13/18</td>	DATE	11/13/18
SHEET CHECKED	GLB <td>DATE</td> <td>11/13/18</td>	DATE	11/13/18
AS BUILT DETAILS		DATE	



VHB SHEETS 1-73

ALL DRAINAGE, SEWER, AND WATER
 CONSTRUCTION SHALL BE PER SHEETS U-1
 THROUGH U-15 BY UNDERWOOD ENGINEERS



DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	COV-Seg1	7176	01	88

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1

CITY OF PORTSMOUTH, NEW HAMPSHIRE

COVER SHEET

LEGEND

ABBREVIATIONS

NOTES:

Legend table with columns for EXIST. and PROP. symbols and their corresponding descriptions (e.g., PROPERTY LINE, CONCRETE, UNDERDRAIN, etc.).

GENERAL

UTILITY

GENERAL

Table of abbreviations for general construction terms (e.g., ABAN, ACR, AD, ADJ, APPROX, BIT, BOW, CONC, DYL, EL, ELEV, etc.).

Table of abbreviations for utility terms (e.g., CB, CMP, CO, DCB, DI, DMH, CIP, COND, DIP, FES, FM, F&G, etc.).

- Notes regarding construction sequence, including requirements for site security, OSHA standards, and notification procedures.

CONSTRUCTION SEQUENCE (CONT.)

- Notes regarding existing conditions information, including survey requirements and datum systems.

EXISTING CONDITIONS INFORMATION

- Notes regarding erosion control measures, including requirements for erosion control blankets and seeding.

EROSION CONTROL

- Notes regarding utilities, including requirements for marking and protecting existing underground utilities.

UTILITIES

- Notes regarding cross sections, including requirements for marking and protecting existing underground utilities.

CROSS SECTIONS

EXIST XXX.X
PROP XXX.XX

LAYOUT AND MATERIALS

- Notes regarding layout and materials, including requirements for dimensions, proposed bounds, and materials.

CONSTRUCTION SEQUENCE

- Notes regarding winter construction, including requirements for seeding and erosion control during winter months.

Table showing application rates and germination/purity percentages for various seed types (e.g., PARK SEED TYPE 15, CREEPING RED FESCUE).

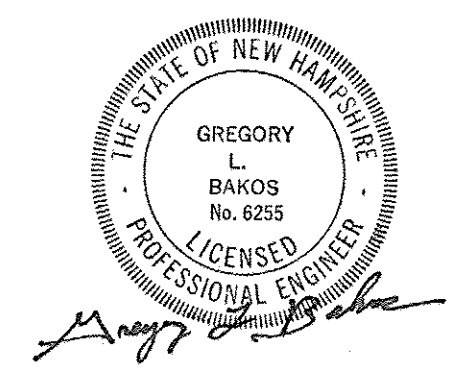
Table showing germination minimum percentages for various seed types (e.g., WINTER RYE, RED FESCUE).

TEMPORARY SEED FOR LAWNS/GRASSED AREAS SHALL ONLY BE PLANTED WHEN PERMANENT GRASSES CANNOT BE PLANTED DUE TO THE GROWING SEASON.

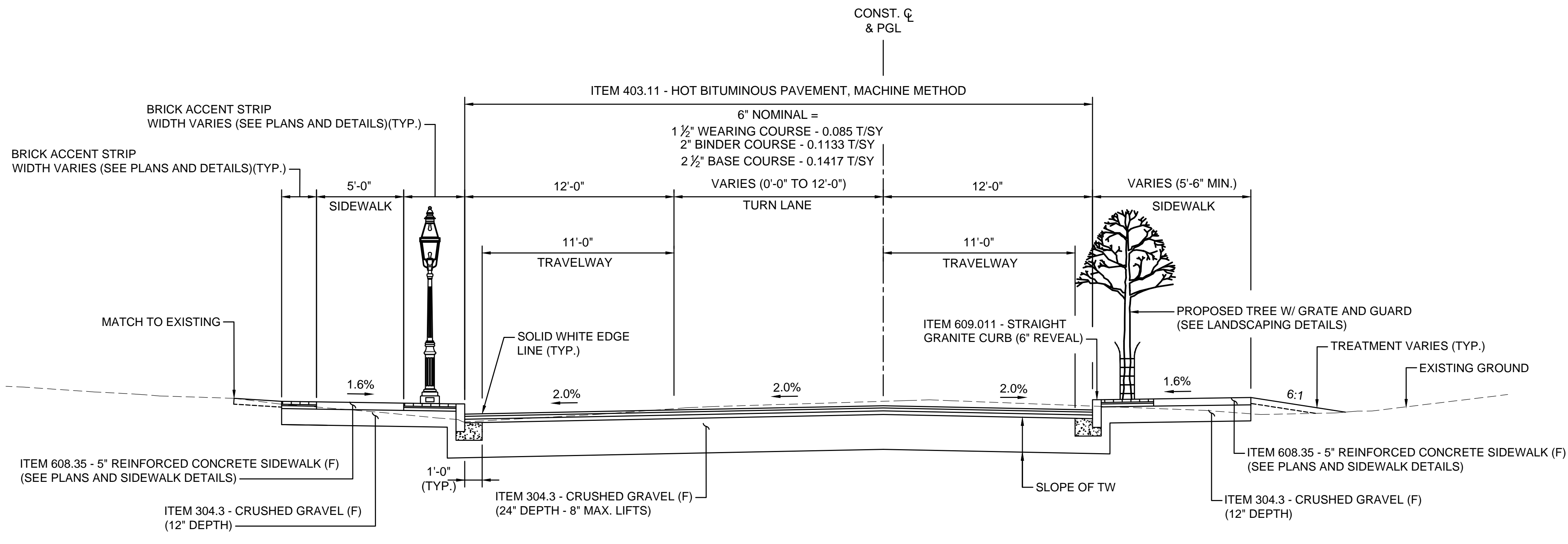
WINTER CONSTRUCTION

- Notes regarding construction sequence, including requirements for survey, site security, and final paving.

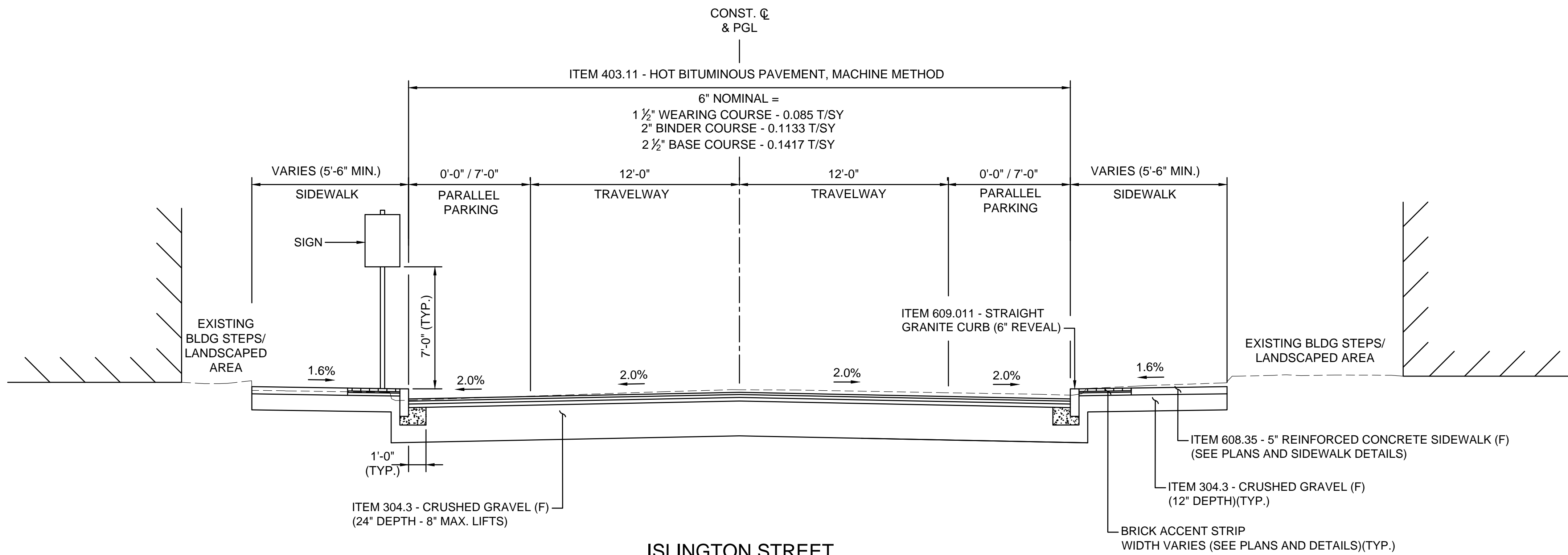
Vertical table on the left side containing project details: REVISIONS AFTER PROPOSAL, STATION, DATE, NUMBER, and AS BUILT DETAILS.



Project title block for ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1, including VHB logo and drawing information.



**ISLINGTON STREET
TYPICAL 3-LANE SECTION**
N.T.S.



**ISLINGTON STREET
TYPICAL SECTION WITH PARKING**
N.T.S.

NOTES:

- ROADWAY AND SIDEWALK CROSS SLOPES SHOWN ABOVE ARE TYPICAL, BUT VARY ACCORDING TO THE CROSS SECTIONS AND GRADING PLANS.
- SEE CURB INSTALLATION DETAIL.
- SEE SIDEWALK DETAILS FOR ADDITIONAL INSTALLATION INFORMATION.
- BRICKS, COBBLES, AND/OR NON-REINFORCED CONCRETE BASE COURSE ARE KNOWN TO EXIST UNDER PORTIONS OF ISLINGTON STREET.

REVISIONS AFTER PROPOSAL

STATION

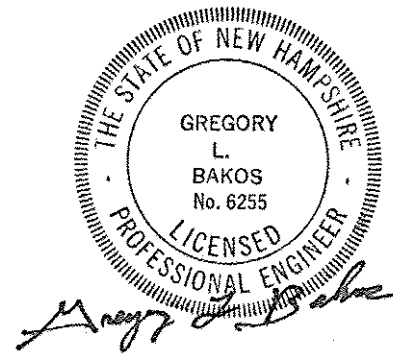
STATION

DATE

NUMBER

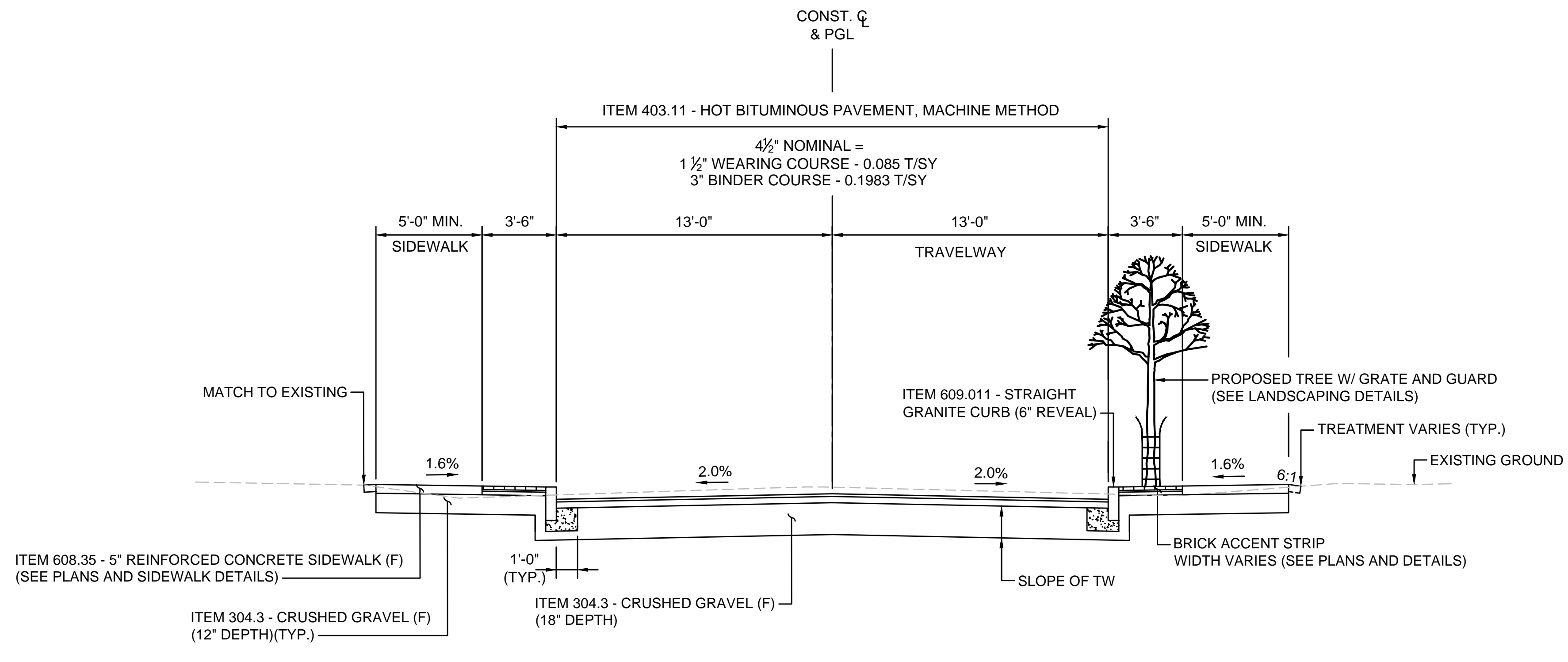
DATE
OCT 2017
11/13/18
11/13/18

SDR PROCESSED
VHB
NEW DESIGN
KMV
SHEET CHECKED
GLB
AS BUILT DETAILS



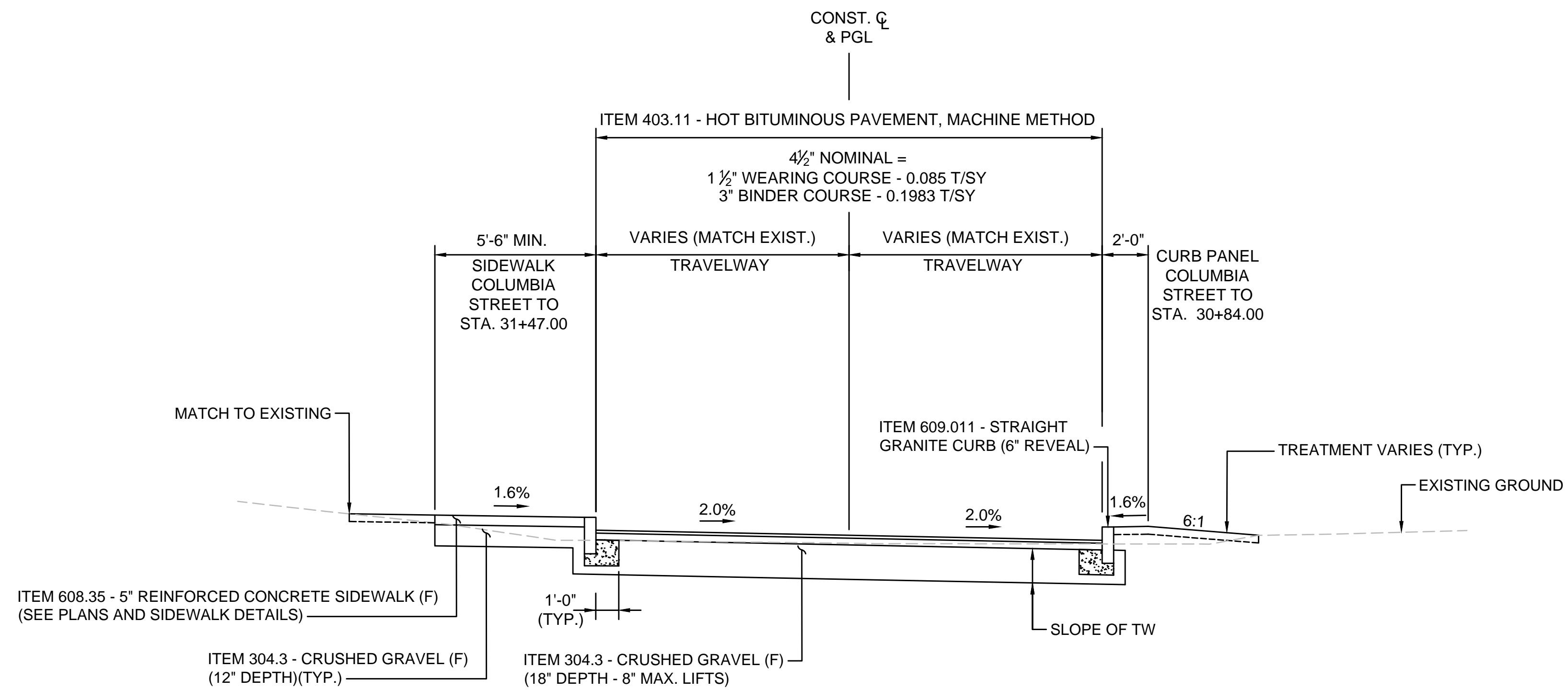
ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
TYPICAL SECTIONS					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	TYP-Seg1	7176	03	88

SDR PROCESSED	VHB	DATE	OCT 2017
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	GLB	DATE	11/13/18
		DATE	
AS BUILT DETAILS			
REVISIONS AFTER PROPOSAL	DESCRIPTION	STATION	



COLUMBIA STREET TYPICAL SECTION

N.T.S.



COLUMBIA COURT TYPICAL SECTION

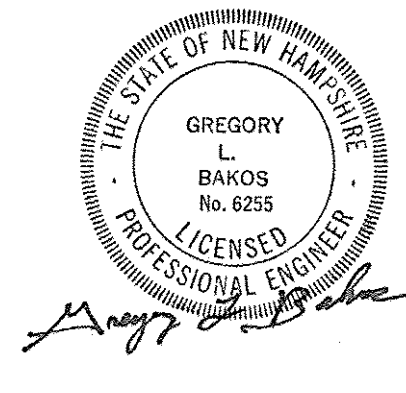
N.T.S.

SIDE ROAD TYPICAL SECTIONS

- BARTLETT STREET**
PAVEMENT AND GRAVEL DEPTHS SHALL MATCH THE ISLINGTON STREET TYPICAL SECTION
- ALL OTHER SIDE ROADS**
PAVEMENT AND GRAVEL DEPTHS SHALL MATCH THE COLUMBIA STREET TYPICAL SECTION

NOTES:

- ROADWAY AND SIDEWALK CROSS SLOPES SHOWN ABOVE ARE TYPICAL, BUT VARY ACCORDING TO THE CROSS SECTIONS AND GRADING PLANS.
- SEE CURB INSTALLATION DETAIL.
- SEE SIDEWALK DETAILS FOR ADDITIONAL INSTALLATION INFORMATION.



DATE PLOTTED		VHB PROJECT NO.		DRAWING		CITY PROJECT NO.		SHEET NO.		TOTAL SHEETS	
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ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

TYPICAL SECTIONS

REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

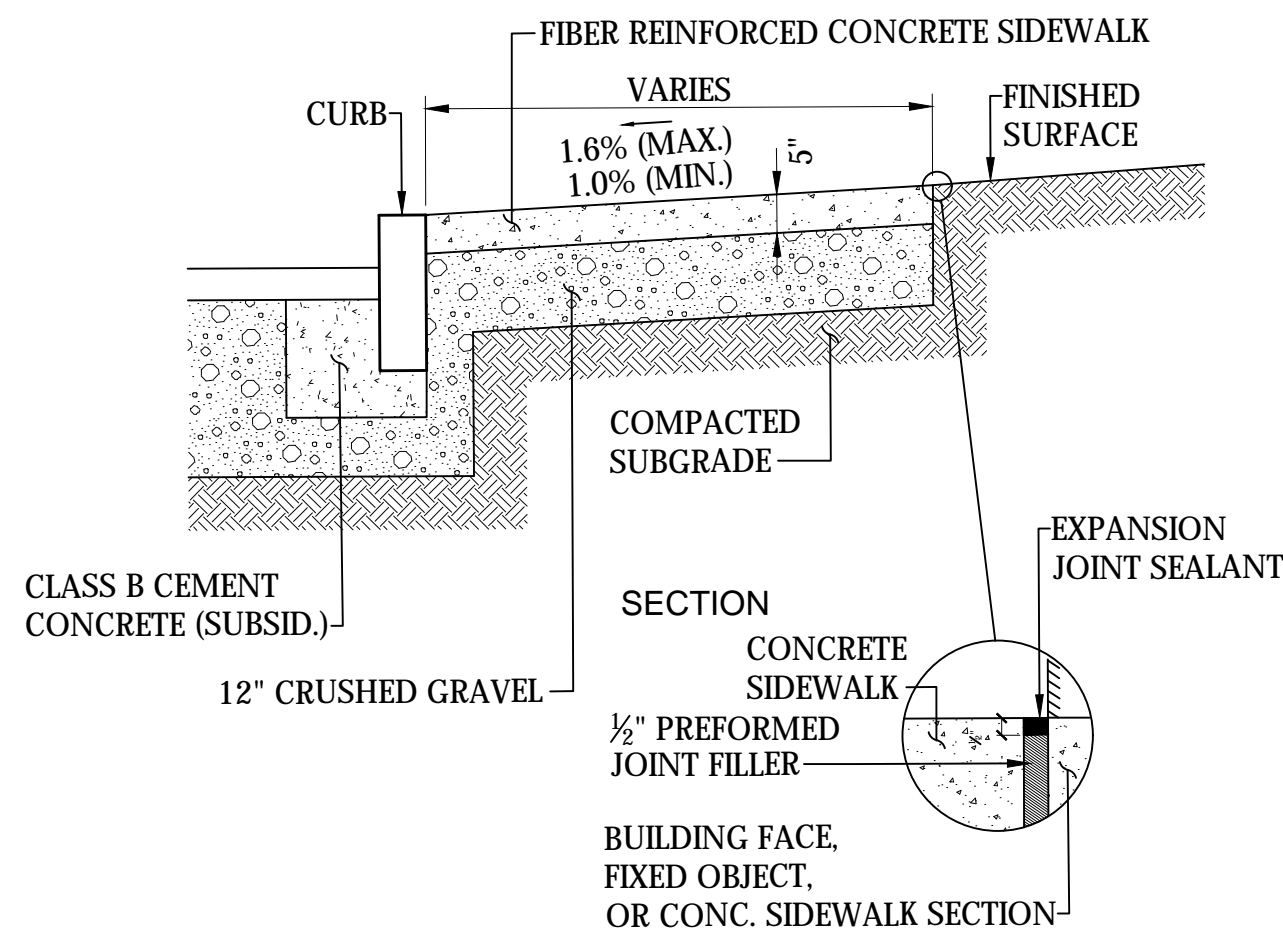
DATE

DATE

DATE

SDR PROCESSED VHB
NEW DESIGN KMH
SHEET CHECKED GLB
AS BUILT DETAILS

DATE OCT 2017
DATE 11/13/18
DATE 11/13/18
DATE

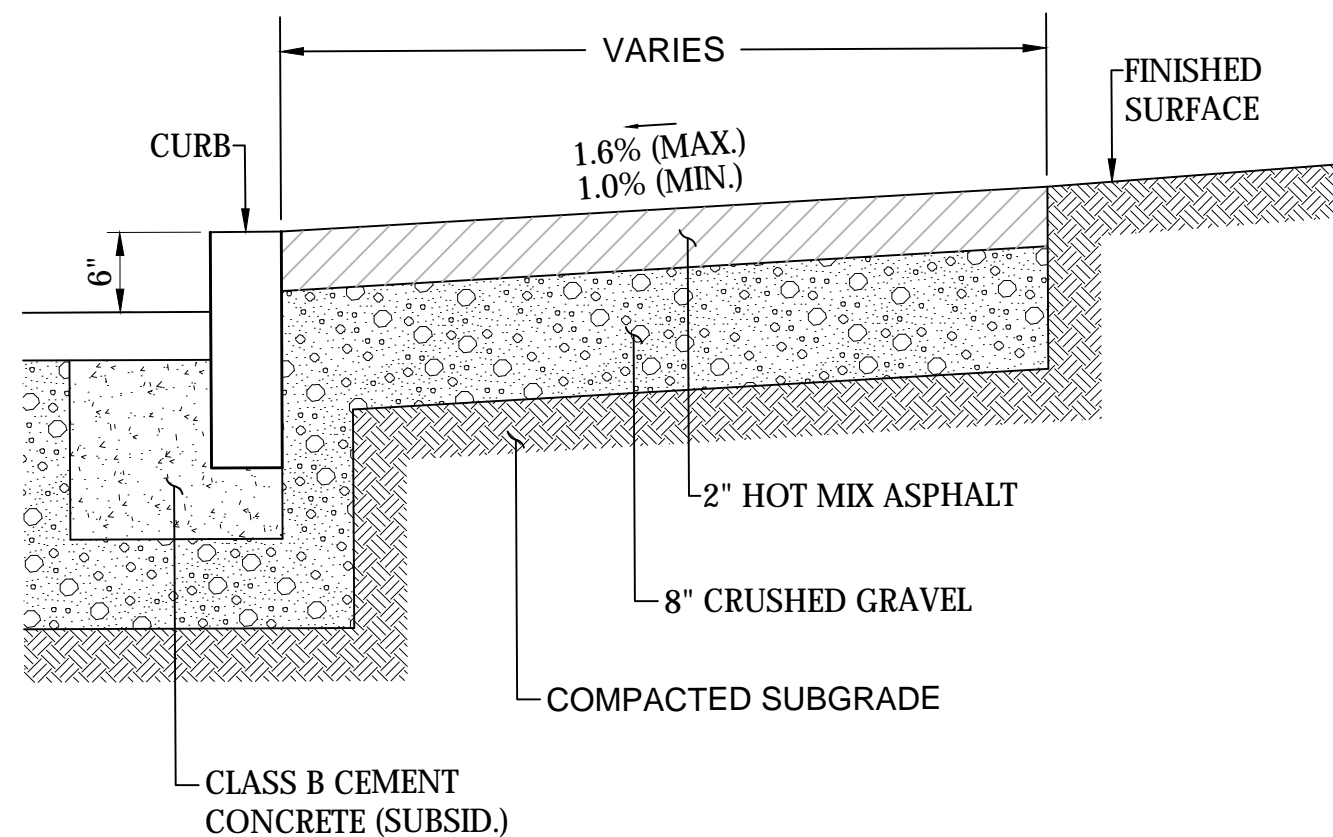


NOTES

1. PROVIDE EXPANSION JOINTS AT MIN. 25 FT. O.C. WITH PRE-FORMED JOINT FILLER.
2. PROVIDE TOOLED CONTROL JOINTS AT 5' O.C.
3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
4. INSTALL 2-FOOT LONG #5 SMOOTH STEEL REBARS, GREASED, SPACED 2' APART AT ALL CONCRETE SIDEWALK CONSTRUCTION JOINTS (SUBSIDIARY TO SIDEWALK ITEM). SET BARS MID DEPTH IN CONCRETE.

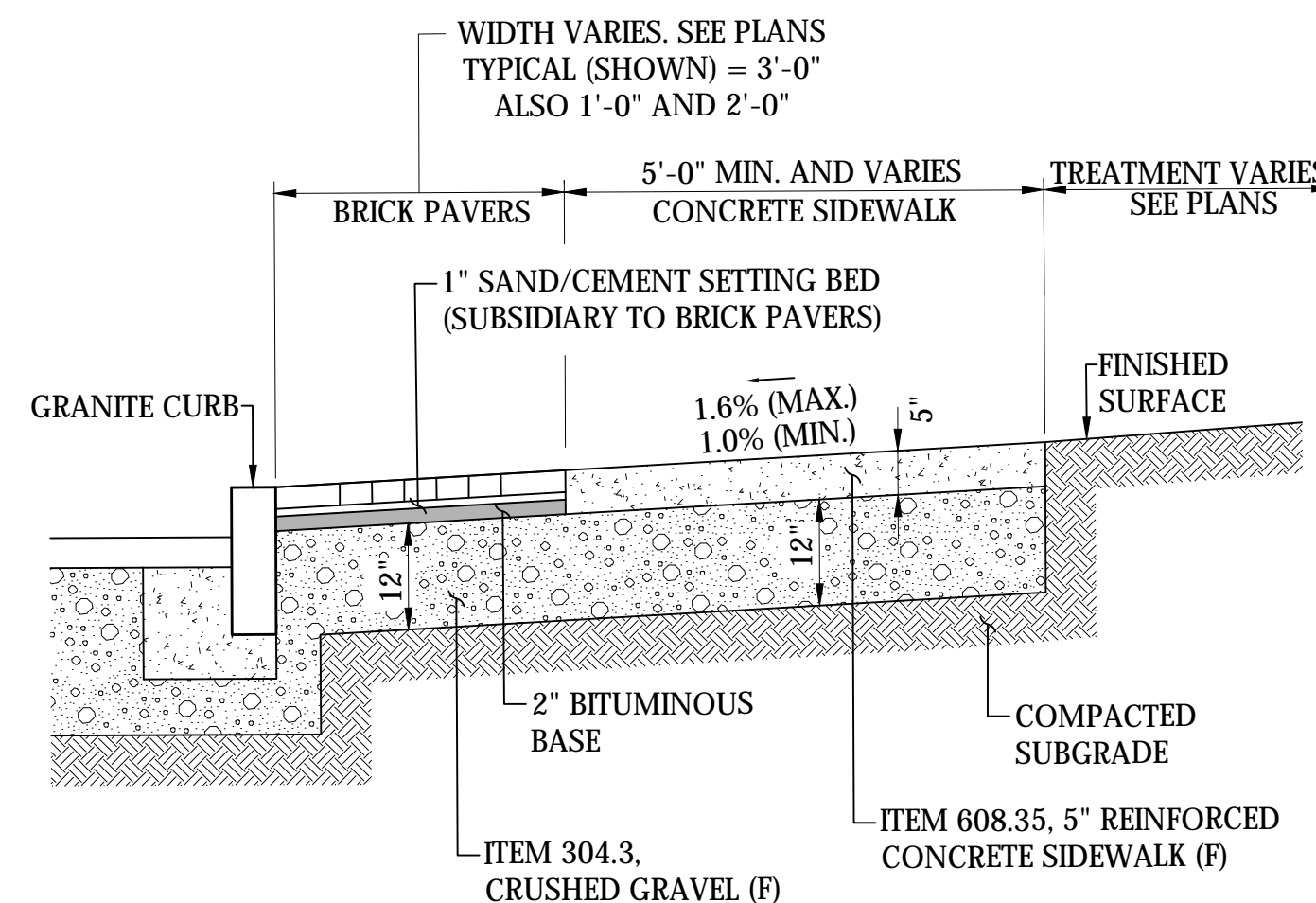
Item 608.35 Reinforced Concrete Sidewalk

N.T.S.



Item 608.12 - 2" Bituminous Sidewalk

N.T.S.

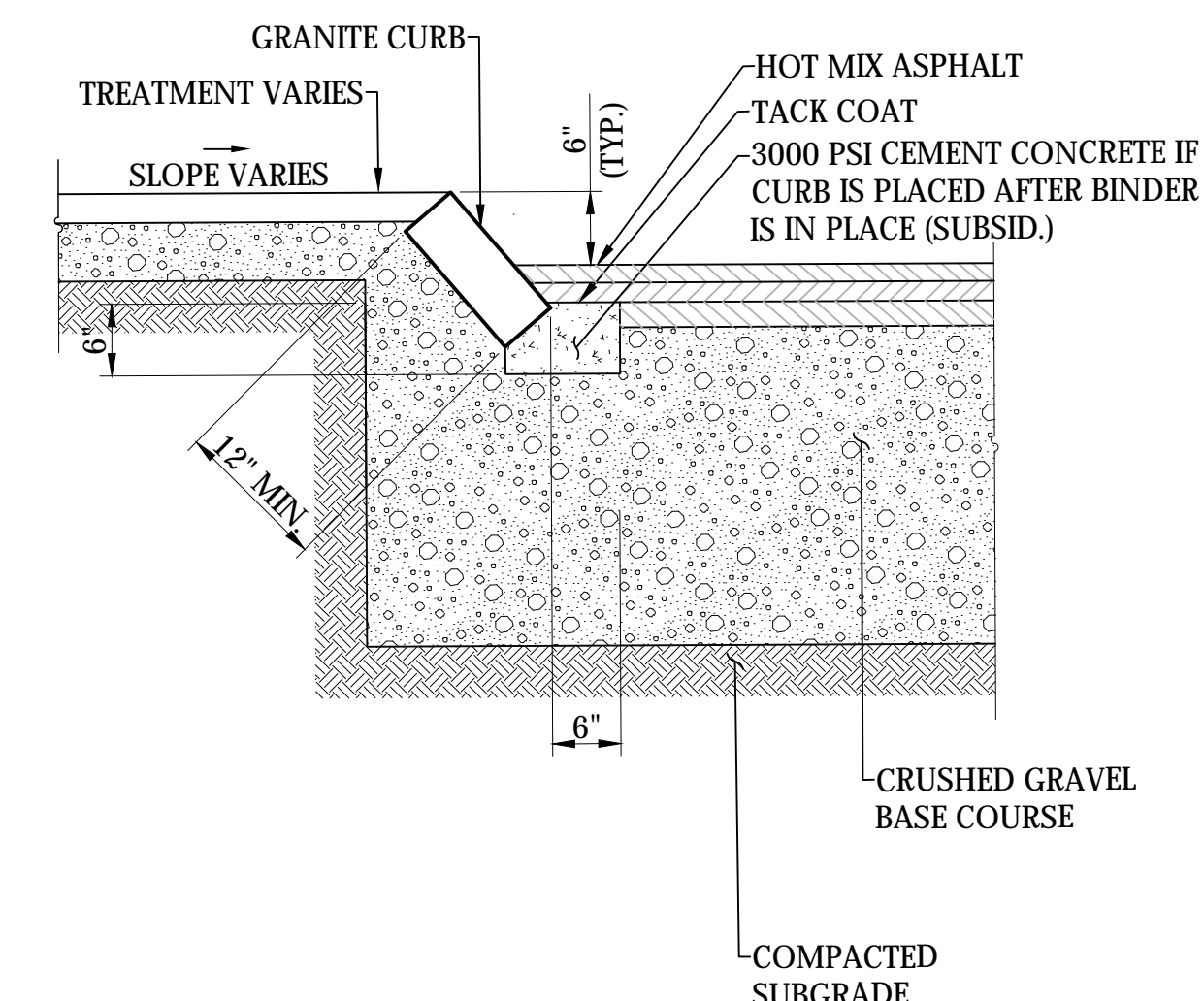


NOTES

1. IF BRICK SIDEWALK IS CALLED FOR ON THE PLANS AT THE BACK OF SIDEWALK, IT SHALL INCLUDE 1" SAND/CEMENT SETTING BED, 2" BITUMINOUS PAVEMENT AND 12" CRUSHED GRAVEL AS SHOWN FOR THE CURB SIDE BRICK INLAY.
2. THE 2" BITUMINOUS BASE UNDER BRICK PAVER SETTING BED WILL BE PAID UNDER ITEM 403.12, HOT BITUMINOUS PAVEMENT, HAND METHOD.

Typical Concrete Sidewalk With Brick Inlay

N.T.S.

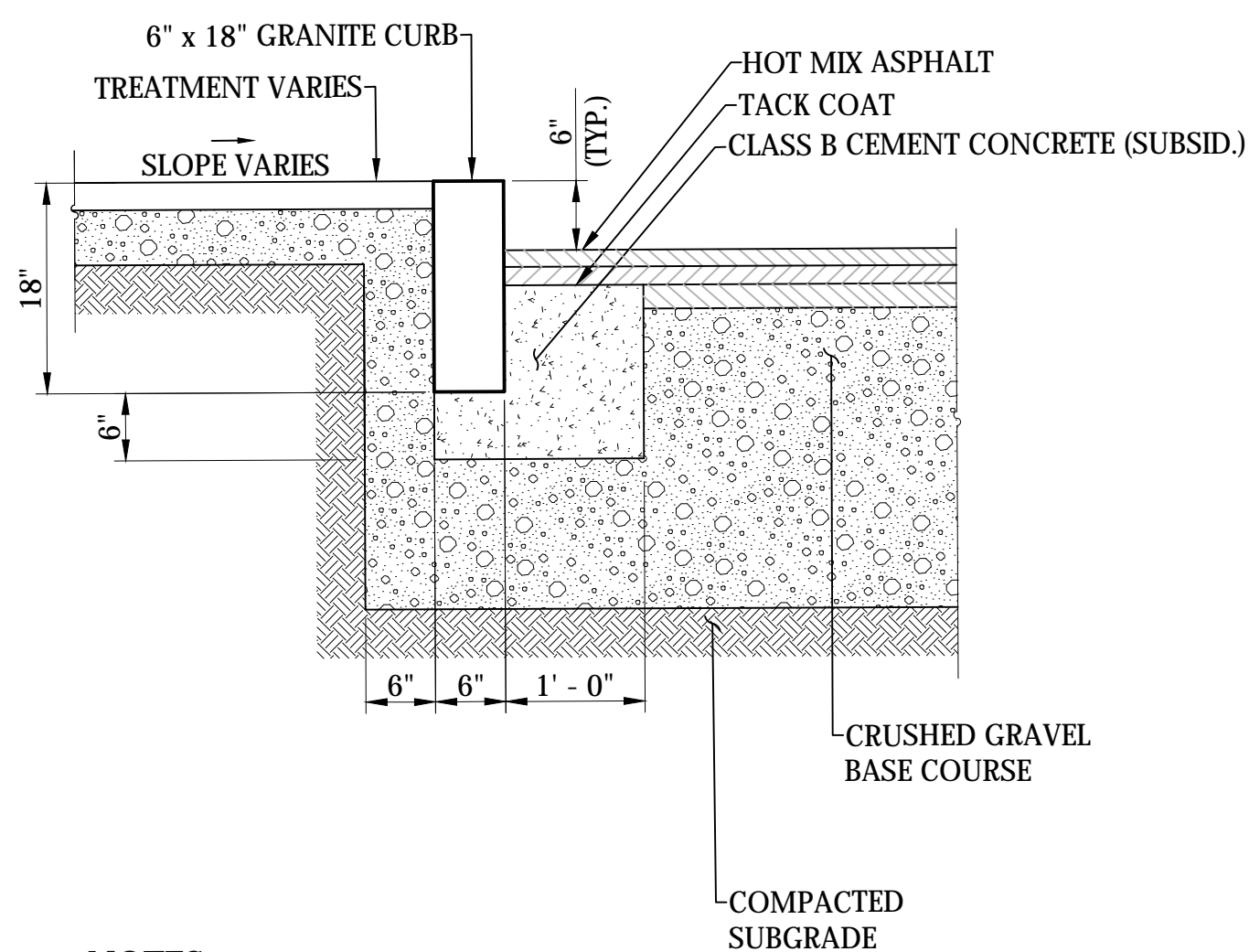


NOTES

1. APPLY TACK COAT TO CONCRETE BEDDING PRIOR TO PAVING OVER IT.
2. DETAIL ALSO APPLIES TO CURVED GRANITE SLOPE CURB.

Item 609.21 Straight Granite Slope Curb

N.T.S.

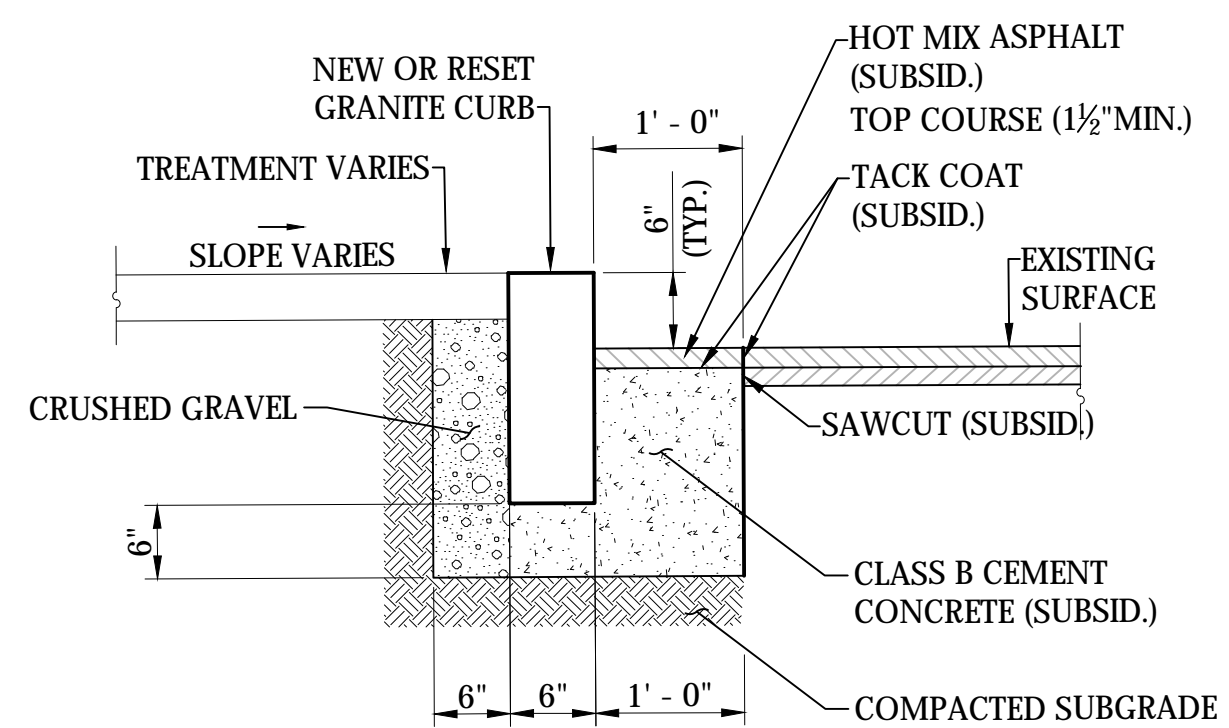


NOTES

1. APPLY TACK COAT TO CONCRETE BEDDING PRIOR TO PAVING OVER IT.
2. DETAIL ALSO APPLIES TO CURVED GRANITE CURB.

Item 609.011 Straight Granite Curb

N.T.S.

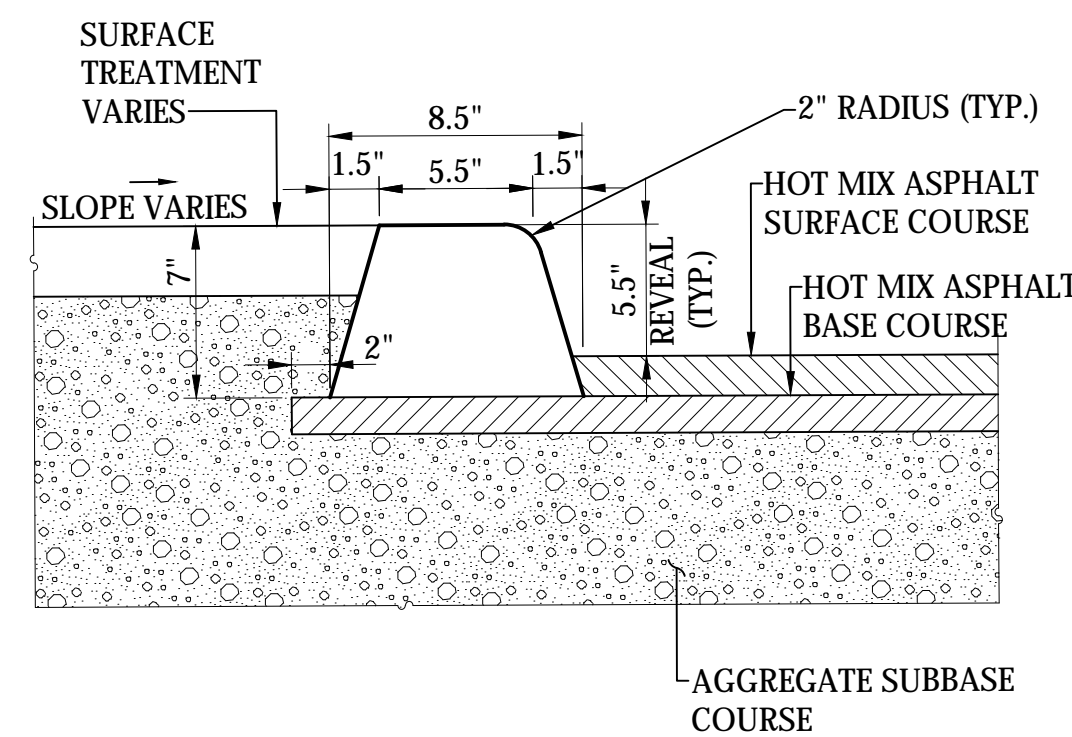


NOTES

1. APPLY TACK COAT TO CONCRETE BEDDING PRIOR TO PAVING OVER IT.
2. DETAIL ALSO APPLIES TO CURVED GRANITE CURB.

Straight Granite Curb Set In Existing Pavement

N.T.S.

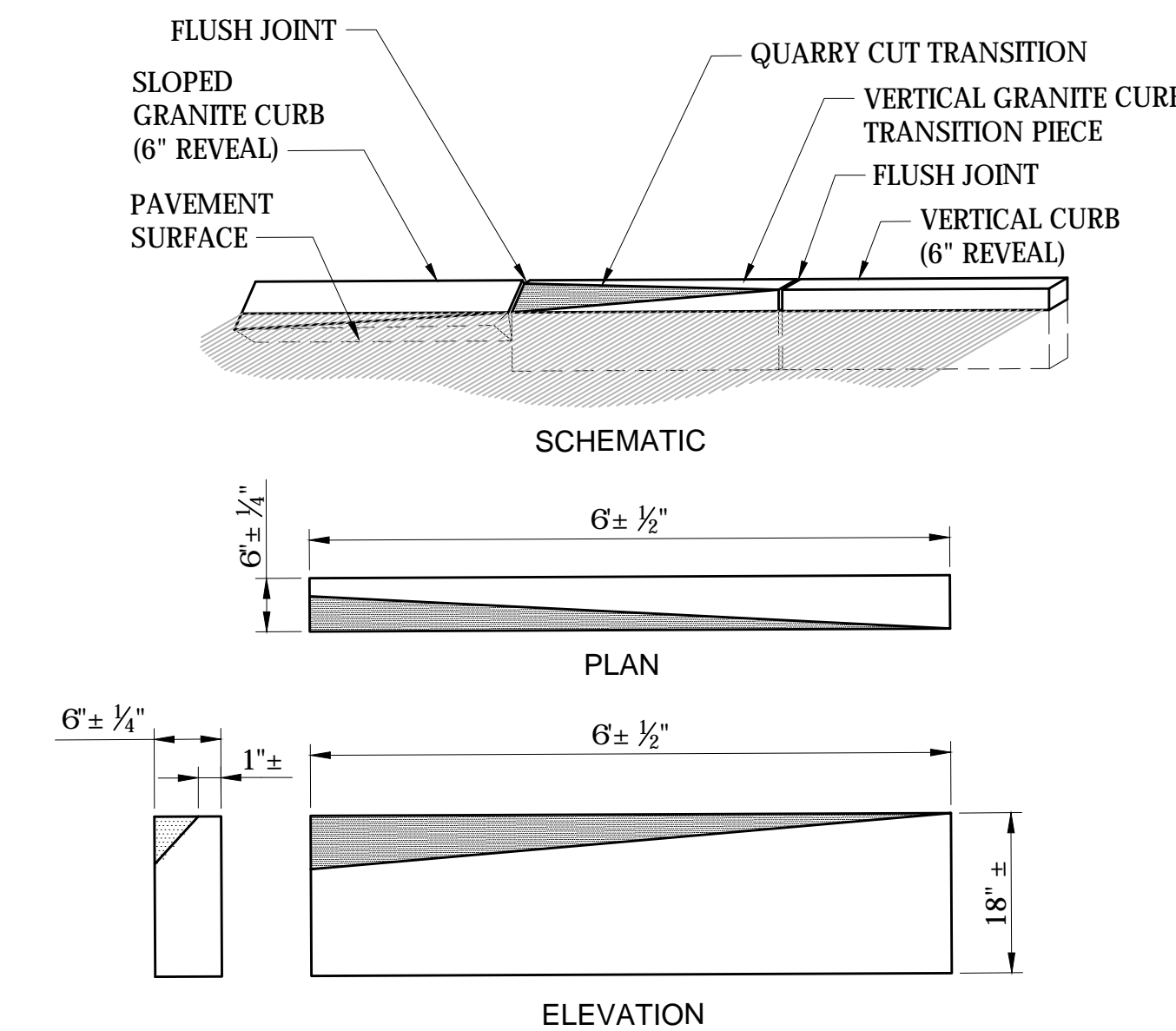


NOTE

ALL CURBING SHALL BE MACHINE EXTRUDED.

Item 609.812 Bituminous Curb, Type A

N.T.S.



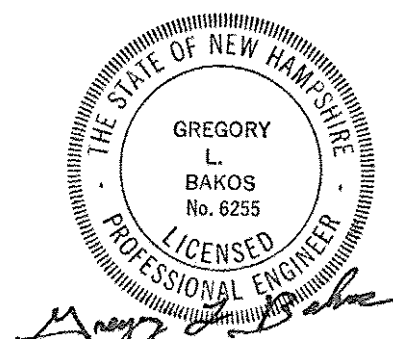
(VERTICAL GRANITE CURB TO SLOPED GRANITE CURB)

NOTE

1. FINAL CURB TRANSITION DESIGN SHALL BE COORDINATED WITH THE CITY OF PORTSMOUTH DPW PRIOR TO CONSTRUCTION.

Curb Transition

N.T.S.



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
DETAILS					
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13-Nov-18	52393.00	DET-Seg1	7176	05	88

REVISIONS AFTER PROPOSAL

STATION

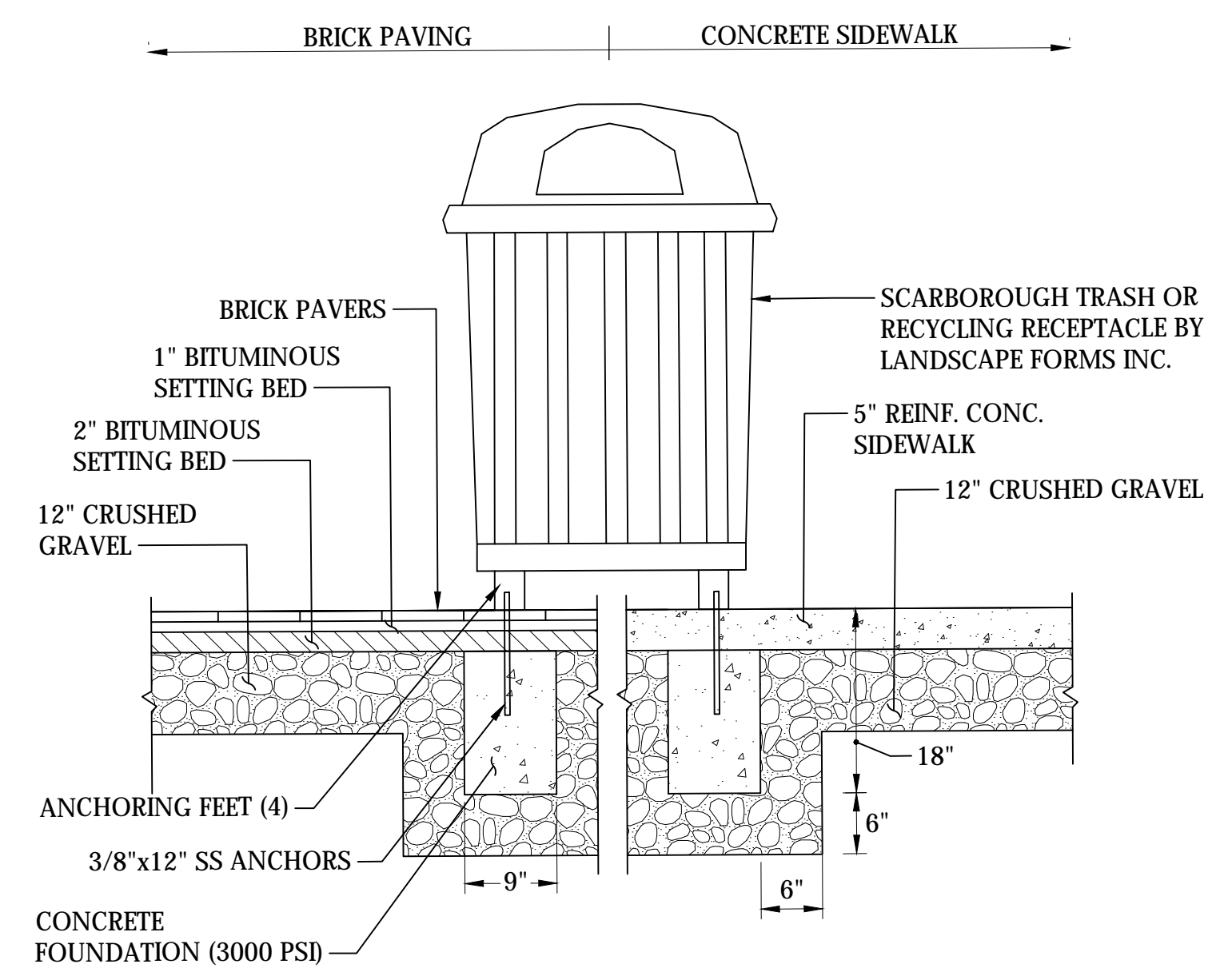
STATION

DATE

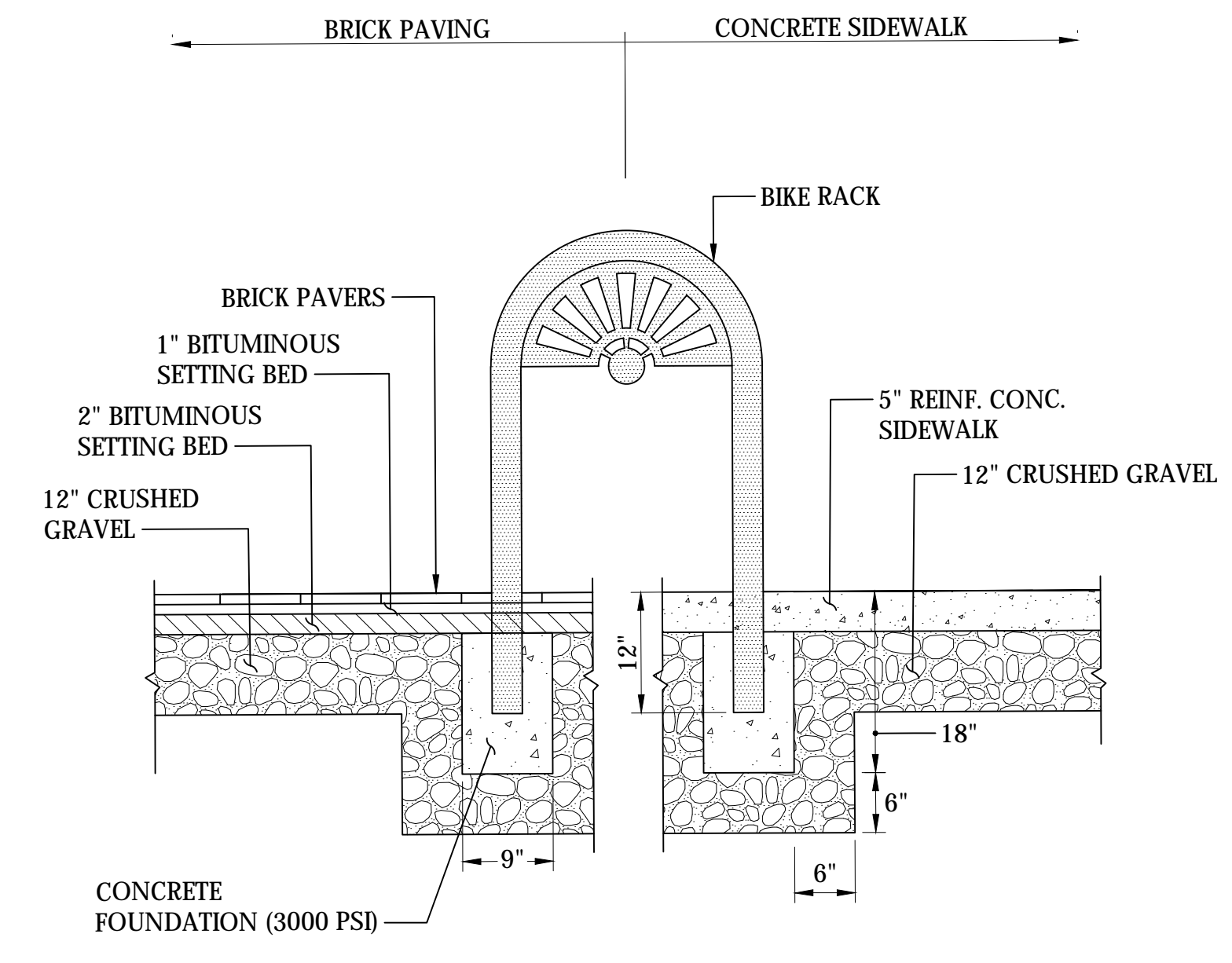
NUMBER

DATE
OCT 2017
DATE 11/13/18
DATE 11/13/18
DATE

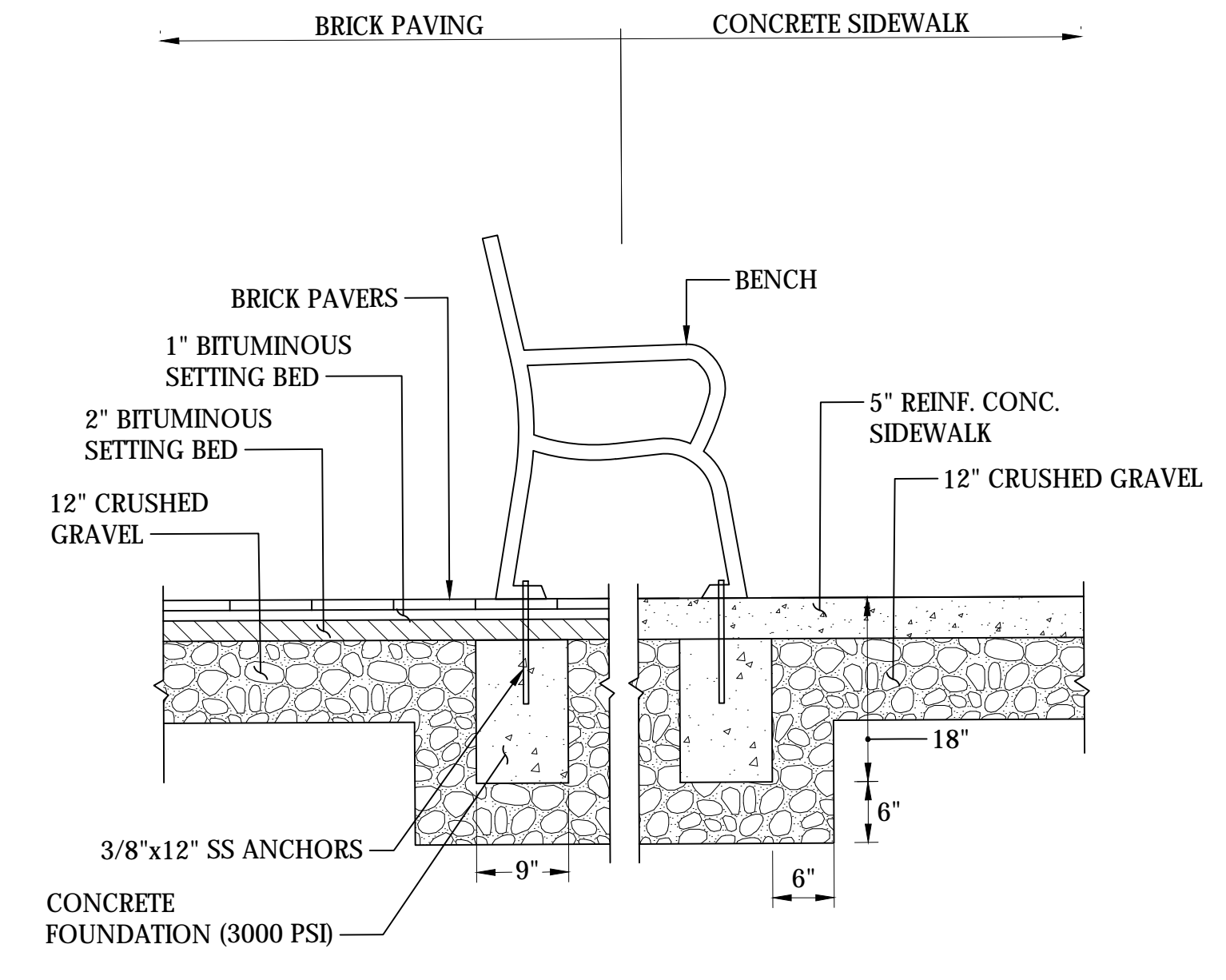
SDR PROCESSED VHB
NEW DESIGN KMH
SHEET CHECKED GLB
AS BUILT DETAILS



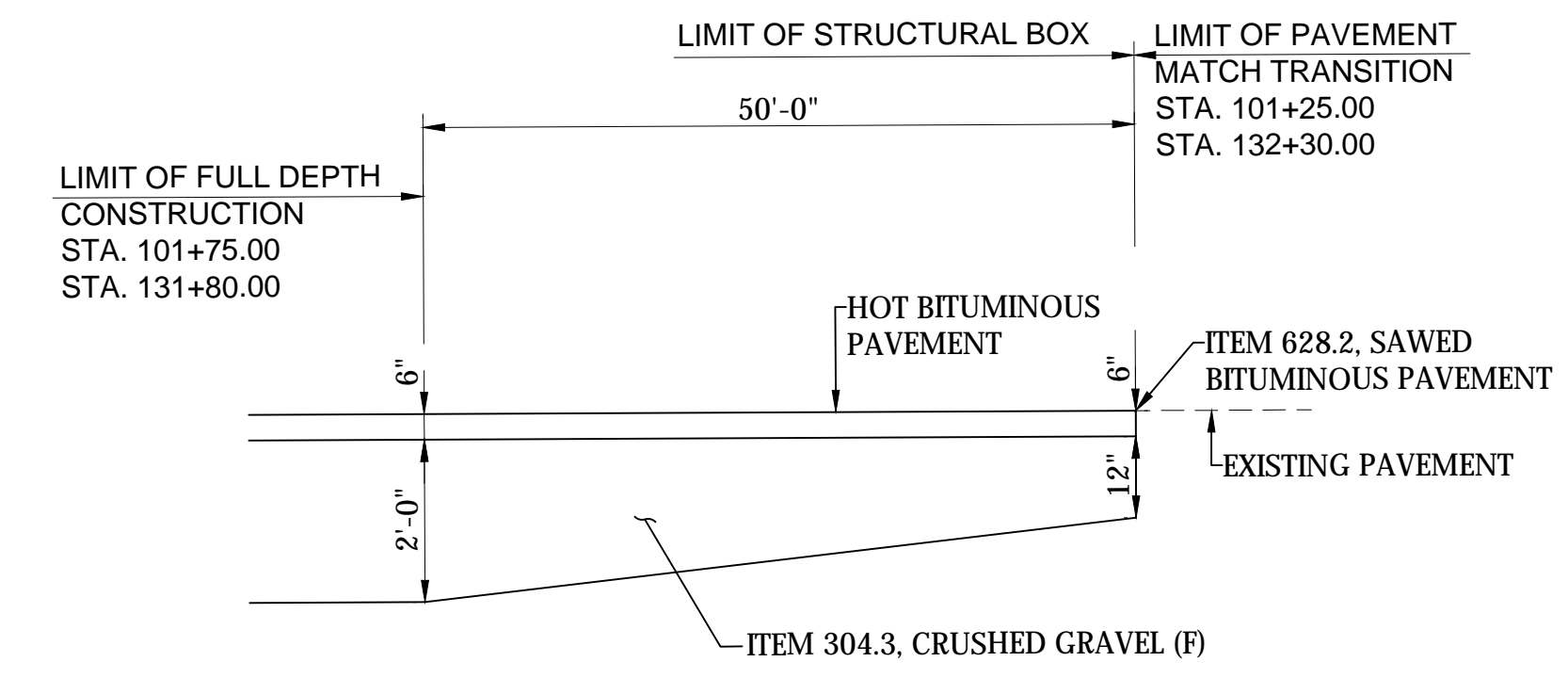
Trash Receptacle
N.T.S.



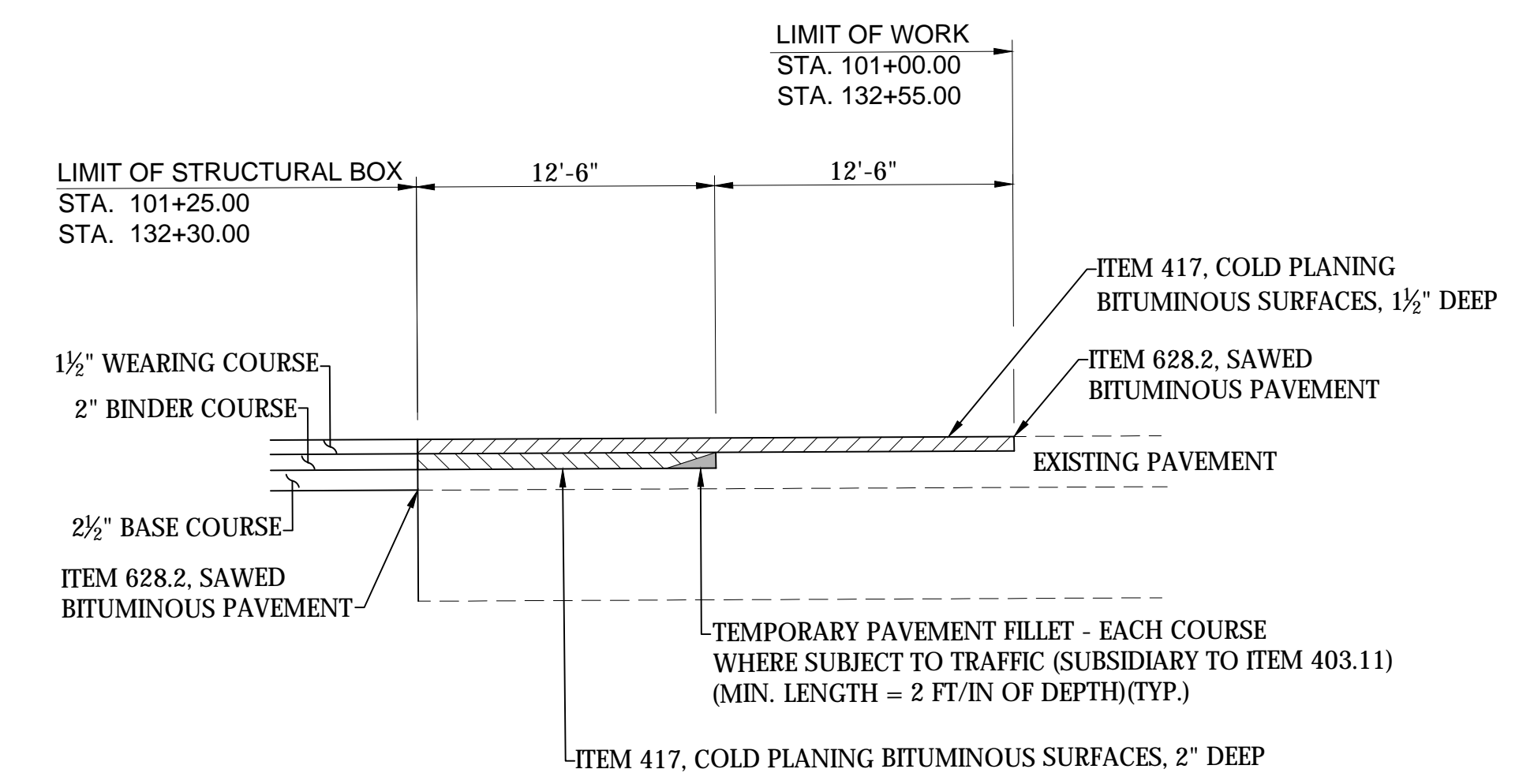
Bicycle Rack
N.T.S.



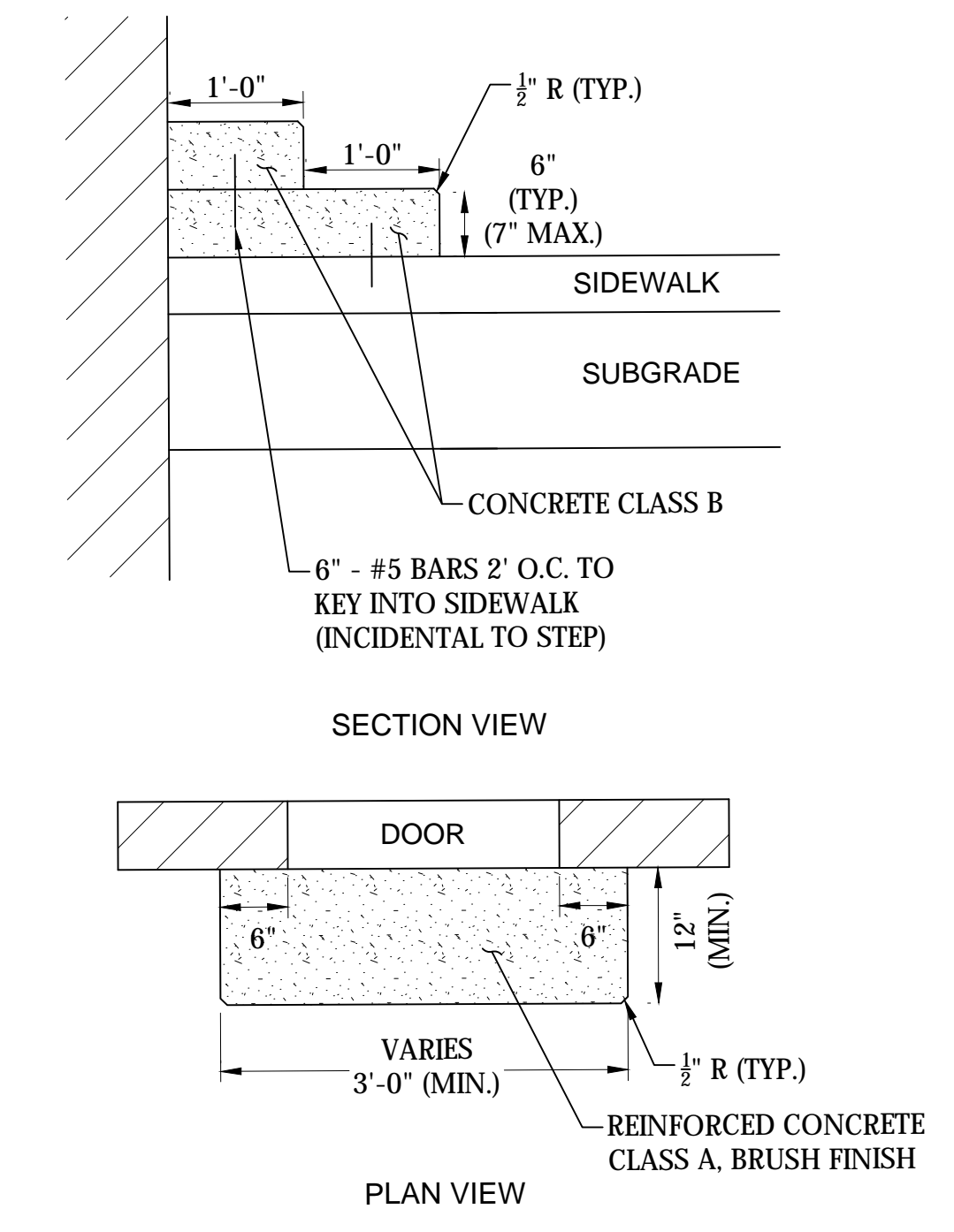
Victor Bench
N.T.S.



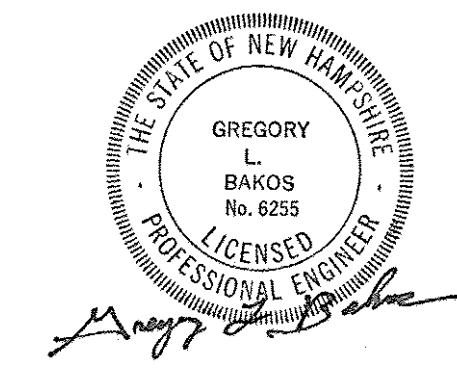
Full Depth Pavement Transition
N.T.S.



Pavement Match Transition
N.T.S.



Concrete Step
N.T.S.



		ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1			
		CITY OF PORTSMOUTH, NEW HAMPSHIRE			
		DETAILS			
		DATE PLOTTED 13-Nov-18	VHB PROJECT NO. 52393.00	DRAWING DET-Seg1	CITY PROJECT NO. 7176

REVISIONS AFTER PROPOSAL

DESCRIPTION

STATION

STATION

DATE

NUMBER

DATE

DATE

SDR PROCESSED

VHB

DATE

KMH

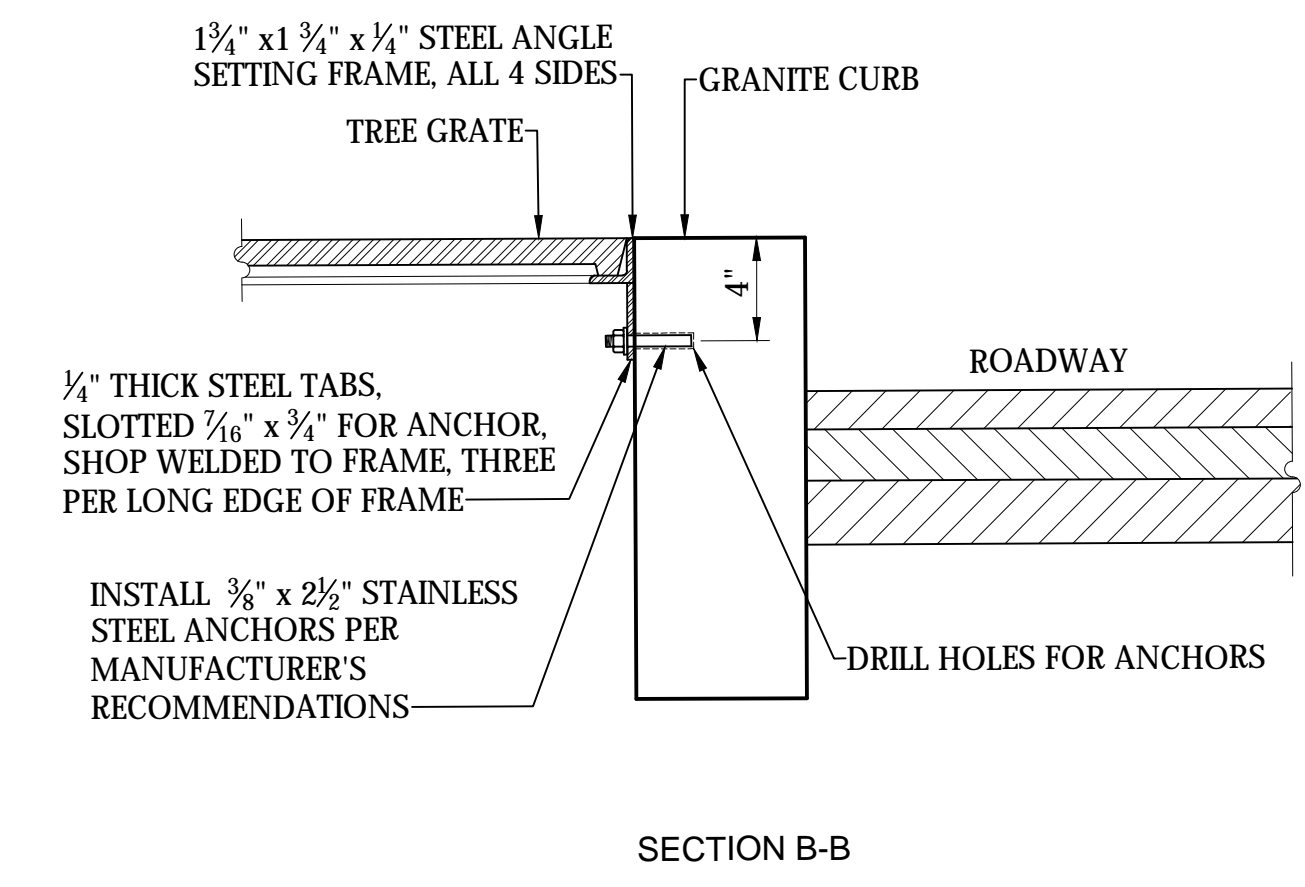
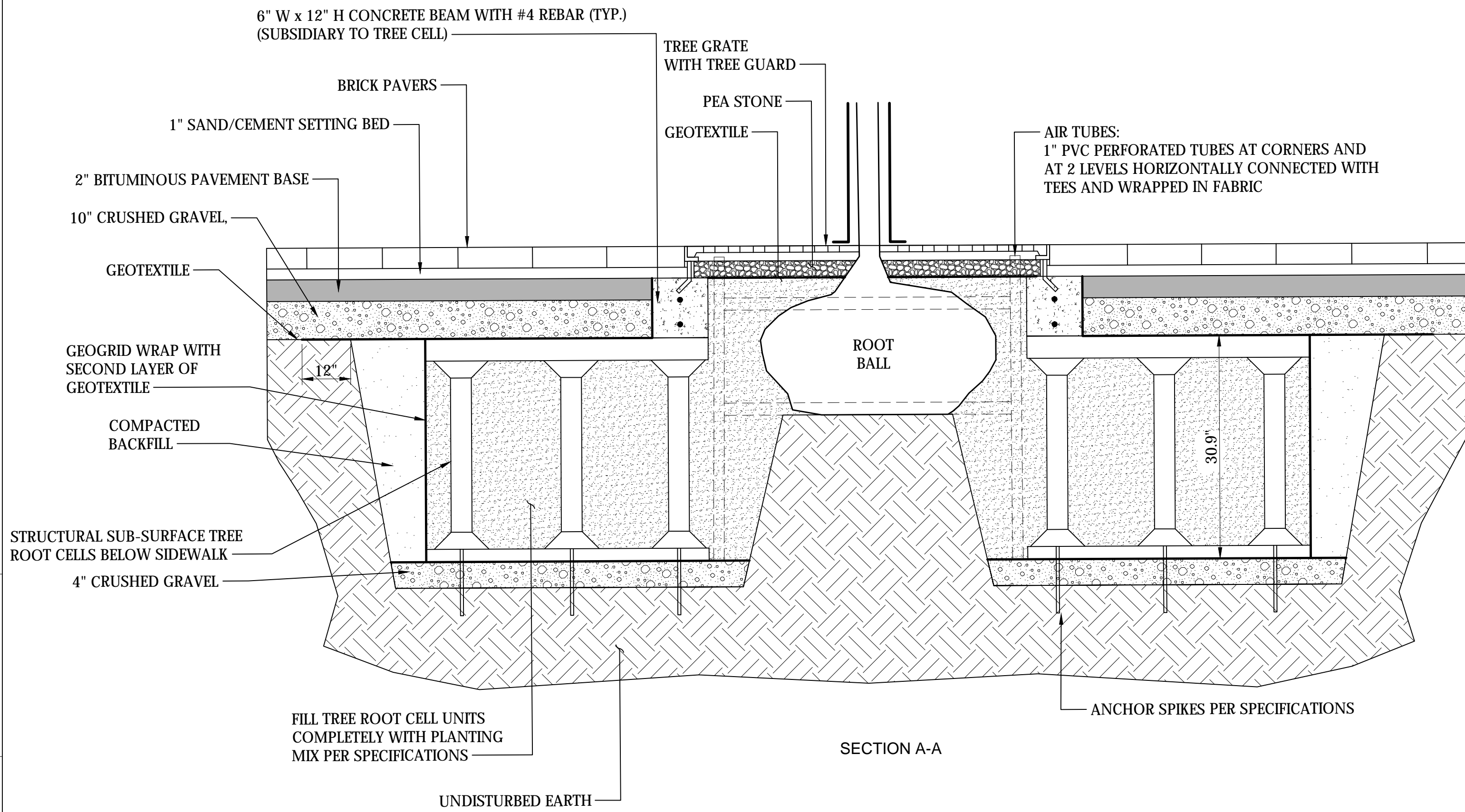
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GLB

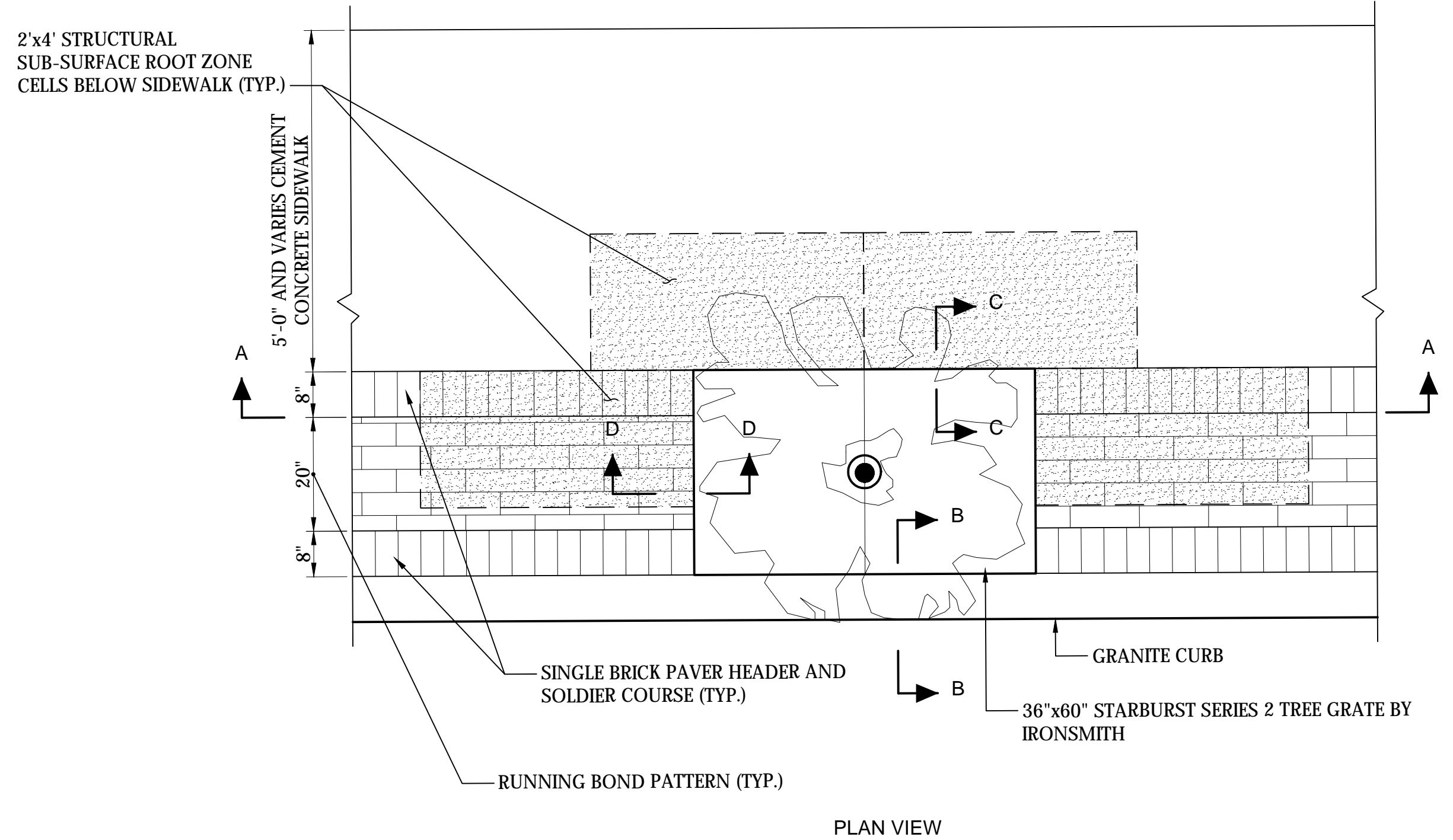
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DATE

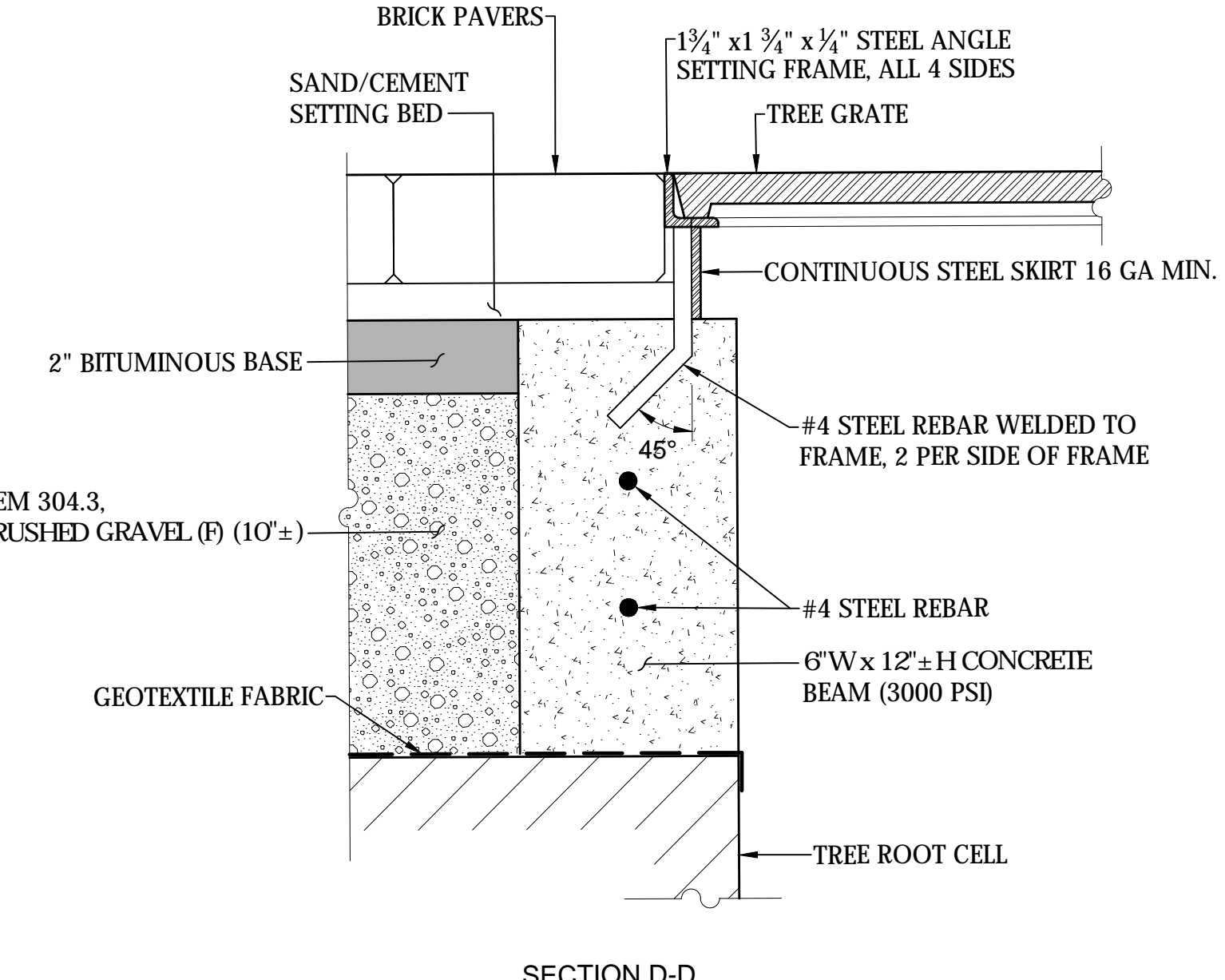
AS BUILT DETAILS



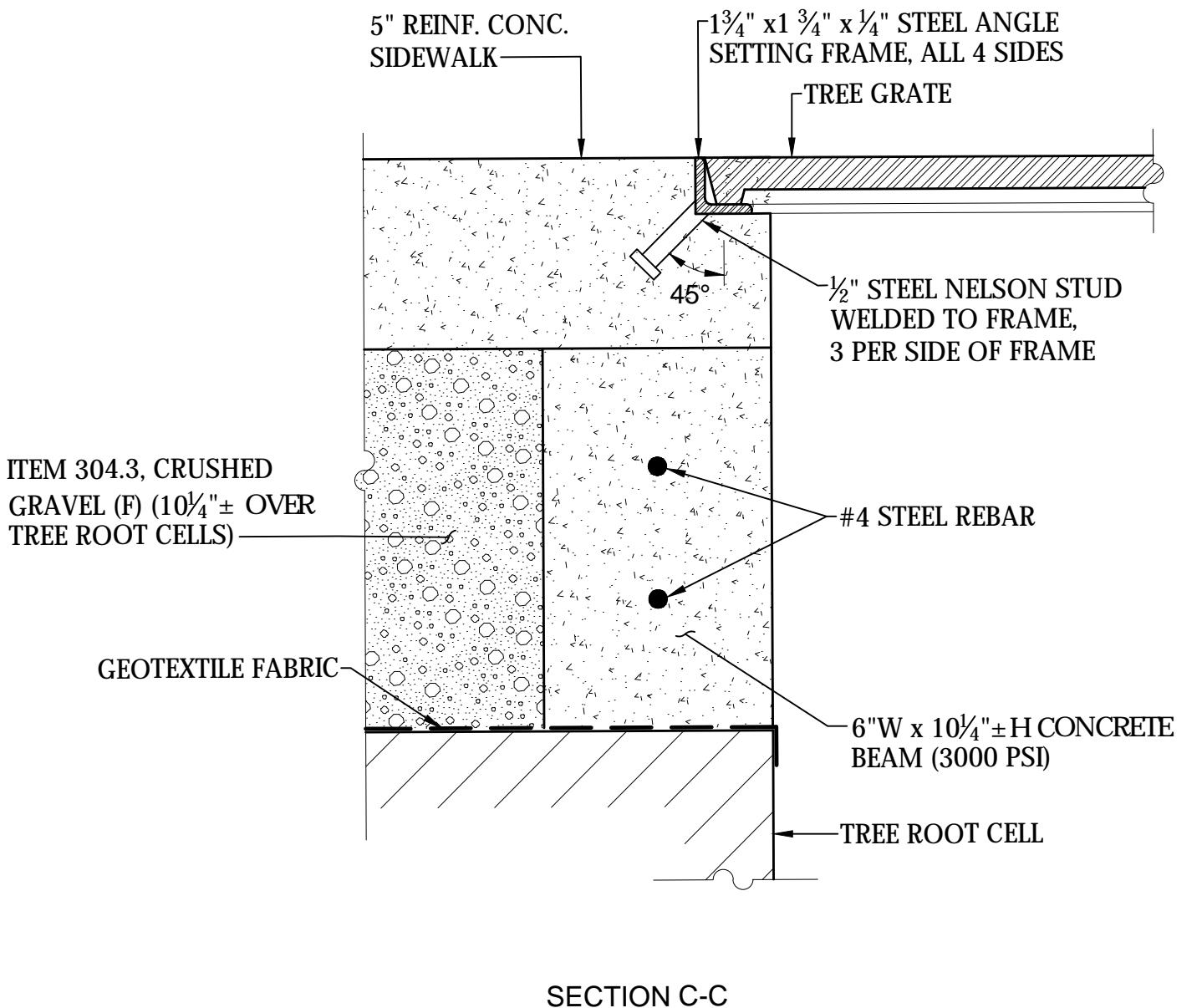
Tree Grate Installation at Granite Curb
N.T.S.



Tree Planting in Sidewalk with Tree Grate and Structural Tree Root Cells
N.T.S.



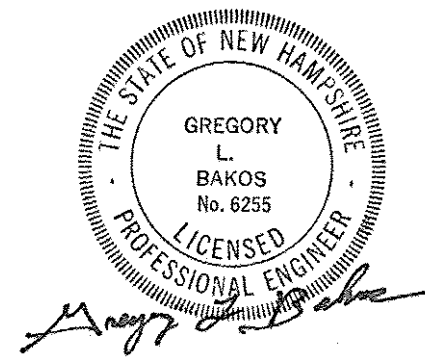
Tree Grate Installation at Sidewalk With Brick Paver Inlay
N.T.S.



Tree Grate Installation at Cement Concrete Sidewalk
N.T.S.

NOTE

CONSTRUCT FOUR 2'x4' STRUCTURAL TREE ROOT CELLS PER TREE. REDUCE NUMBER OF CELLS WHERE UNDERGROUND CONFLICTS PREVENT FULL INSTALLATION OF FOUR CELLS.



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
DETAILS					
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13-Nov-18	52393.00	DET-Seg1	7176	07	88

REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

DATE

DATE

DATE

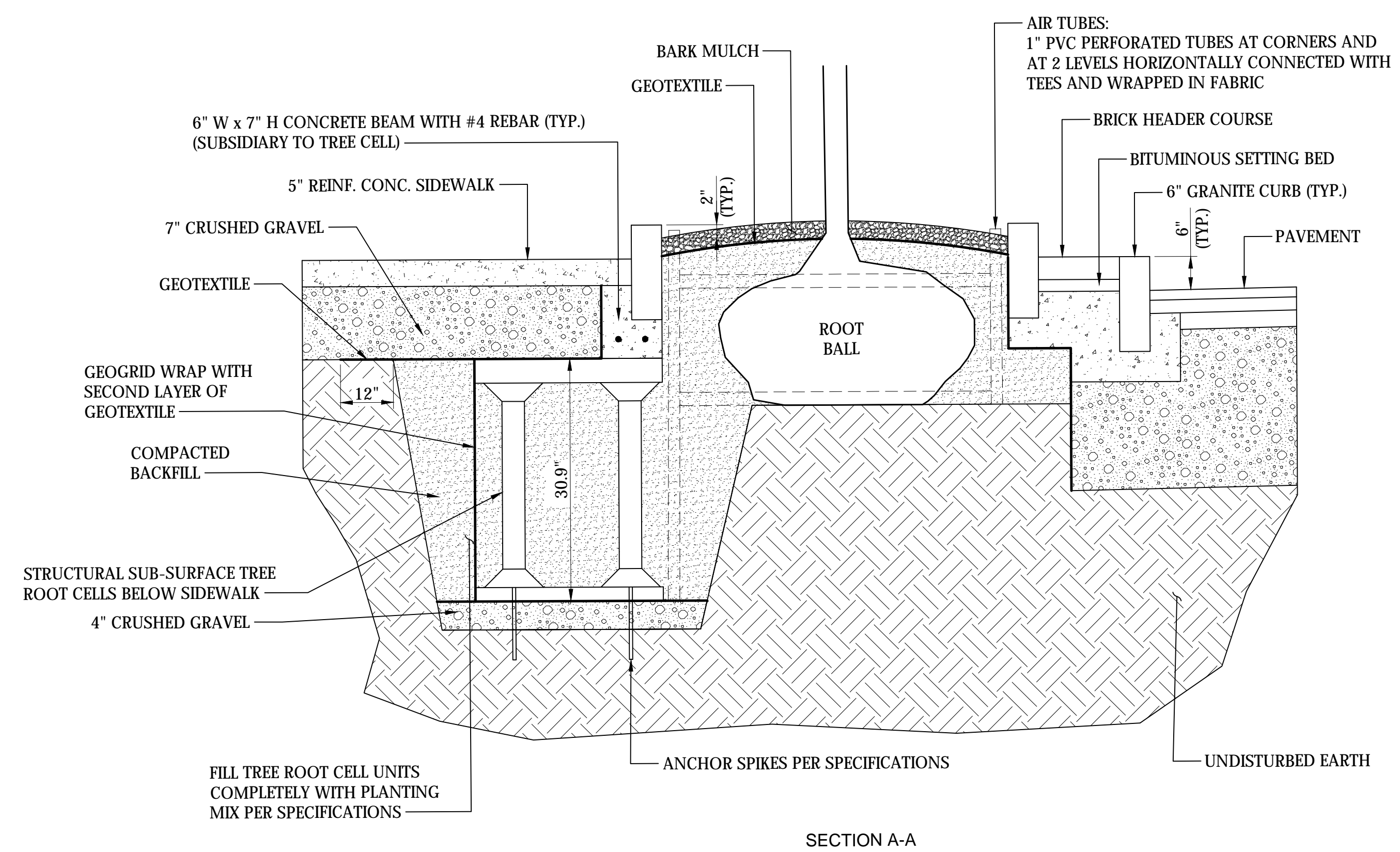
DATE

DATE

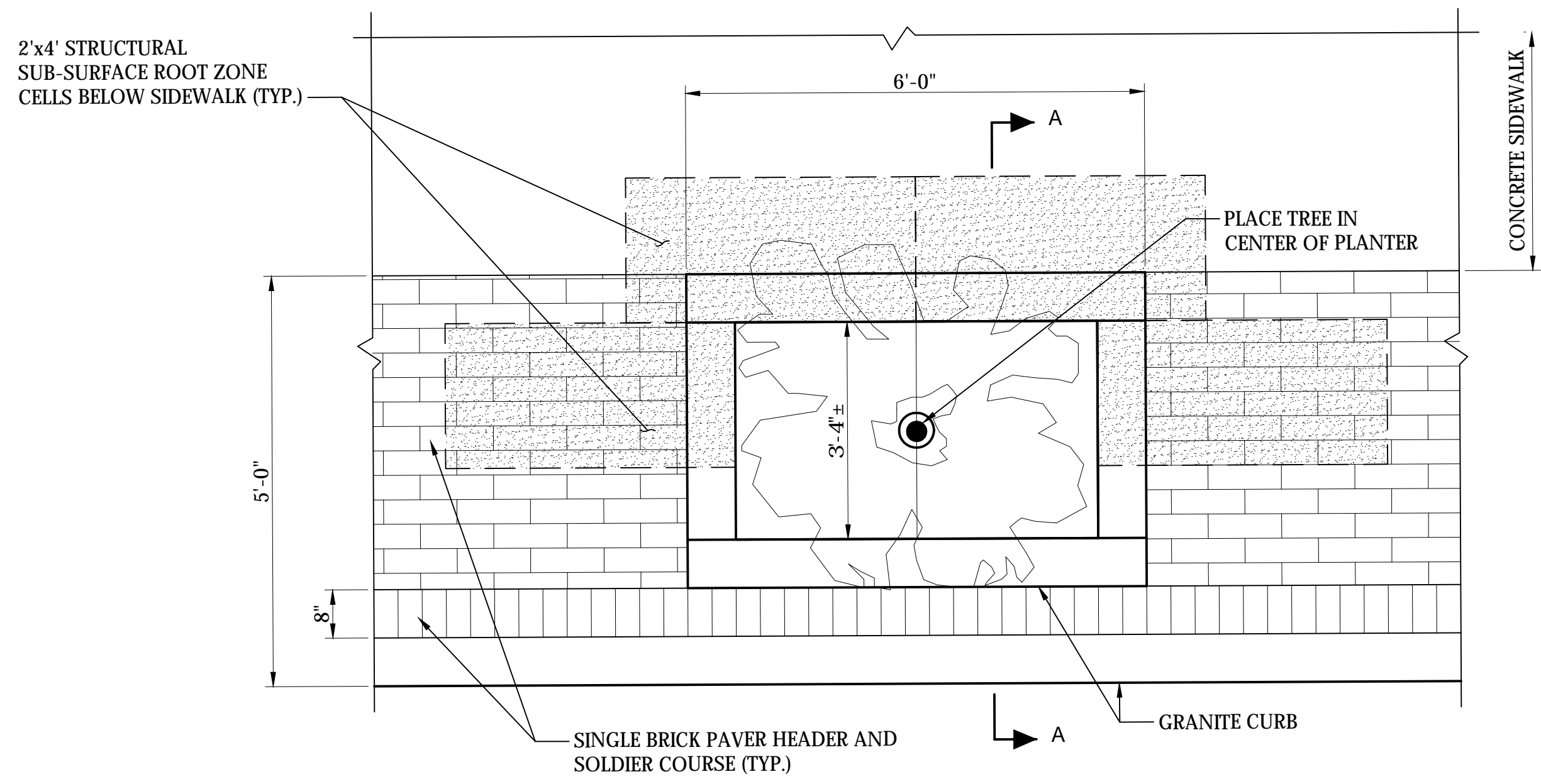
DATE

DATE

DATE



SECTION A-A



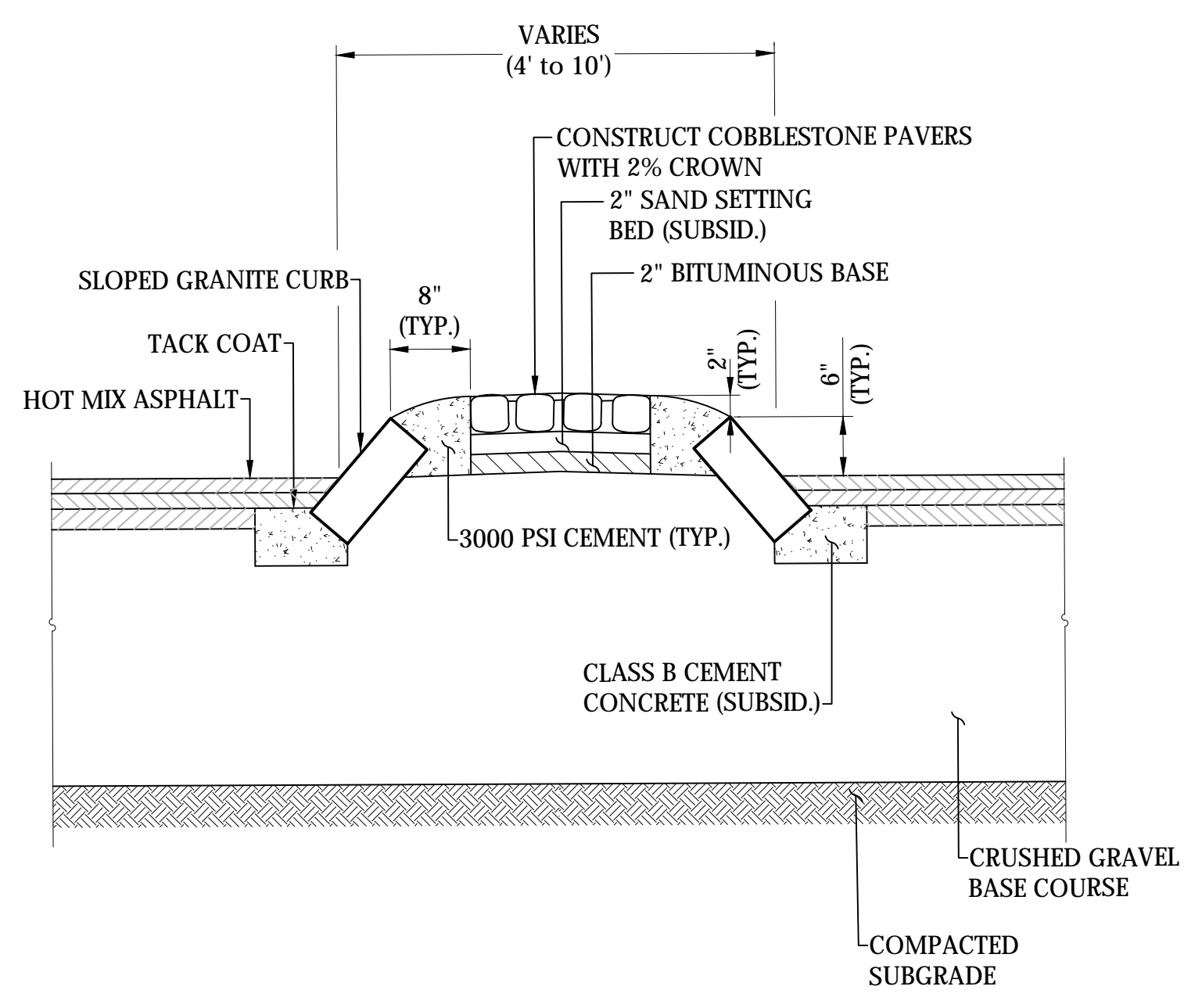
PLAN VIEW

NOTE

1. CONSTRUCT FOUR 2x4' STRUCTURAL TREE ROOT CELLS PER TREE. REDUCE NUMBER OF CELLS WHERE UNDERGROUND CONFLICTS PREVENT FULL INSTALLATION OF FOUR CELLS.

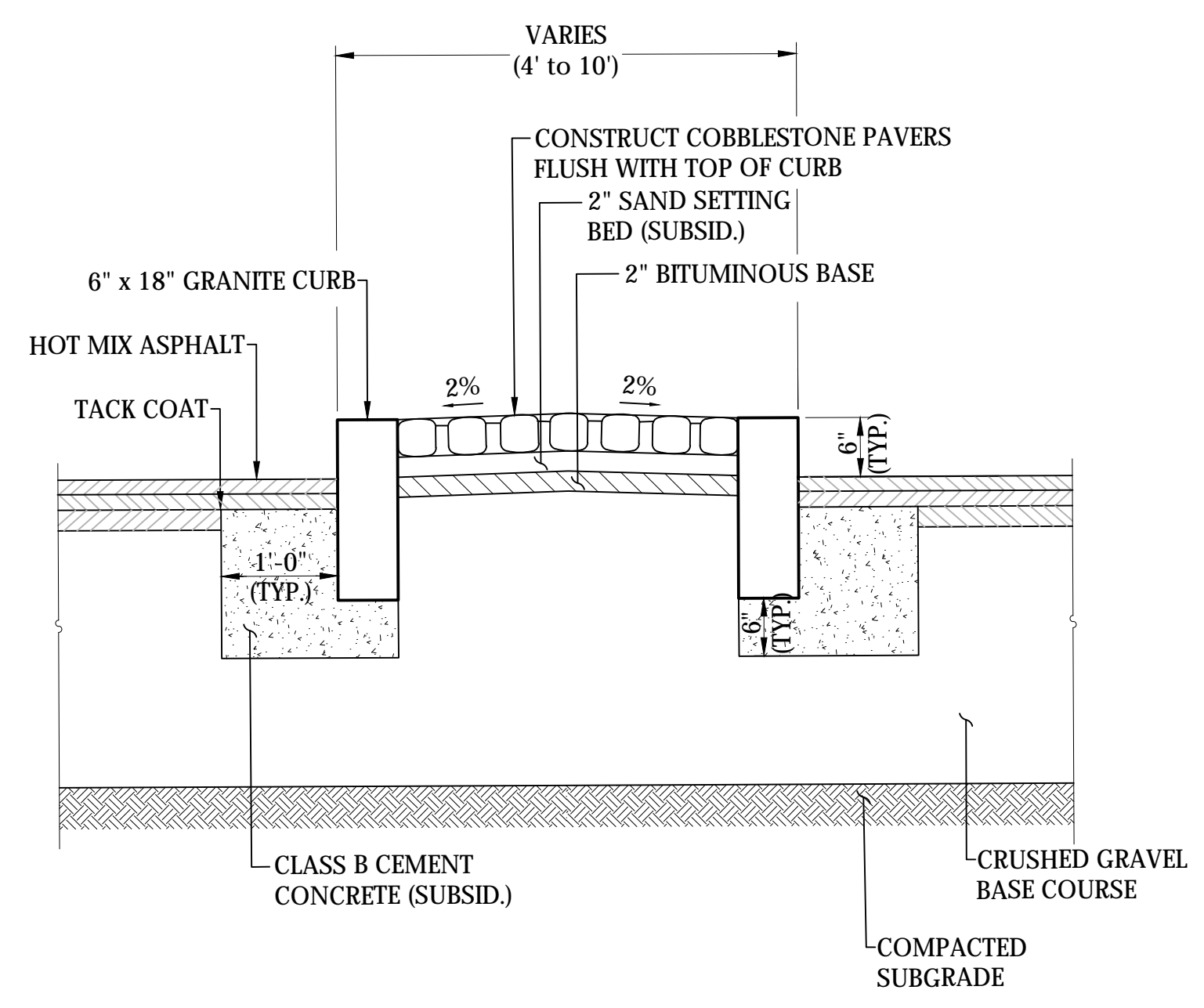
Granite Planter

N.T.S.



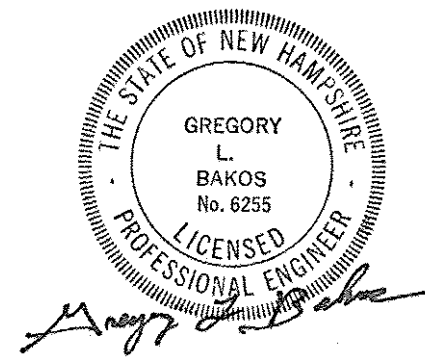
Raised Median Island (Spinney Road)

N.T.S.



Raised Median Island (Islington Street)

N.T.S.



DATE PLOTTED		VHB PROJECT NO.		DRAWING		CITY PROJECT NO.		SHEET NO.		TOTAL SHEETS	
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ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

DETAILS

REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

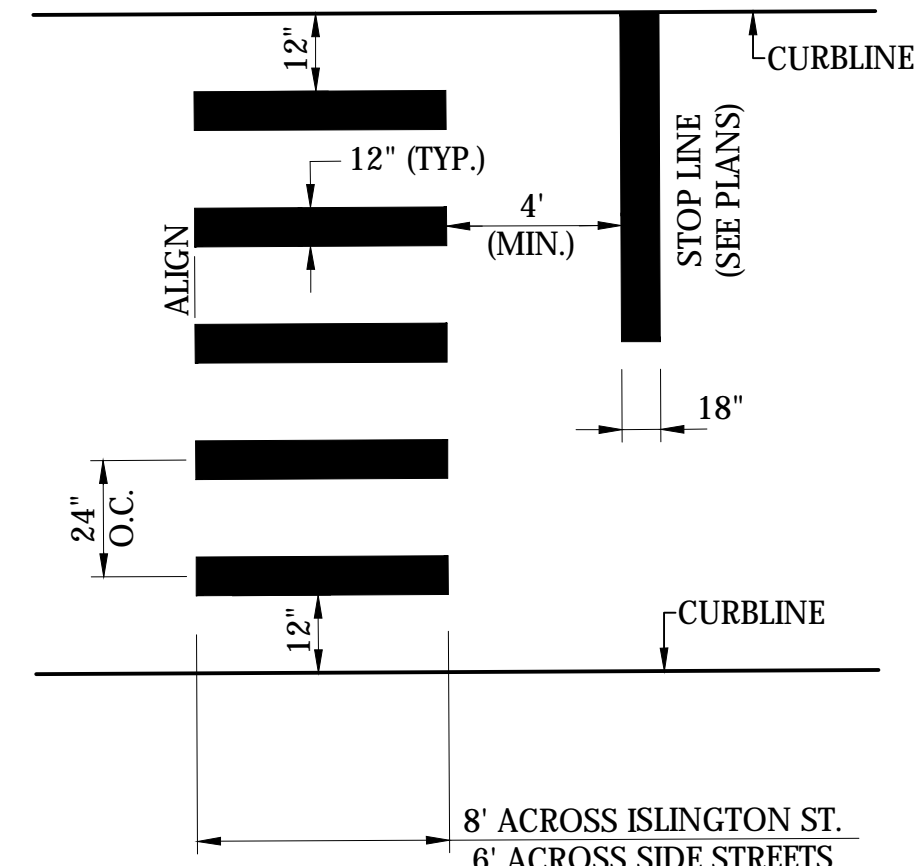
DATE

SDR PROCESSED VHB

NEW DESIGN KMH

SHEET CHECKED GLB

AS BUILT DETAILS

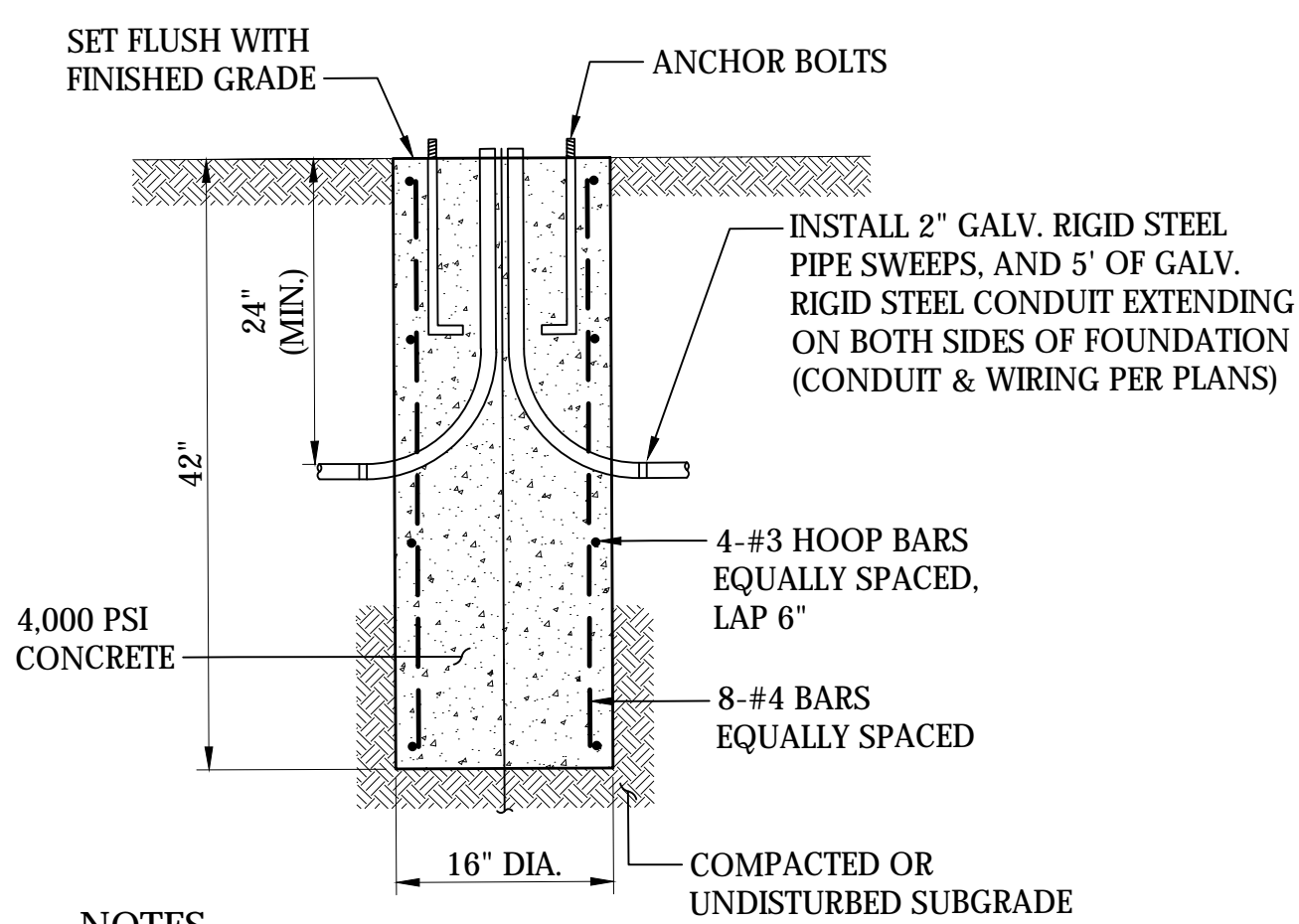


NOTES

1. TWELVE INCH (12") LINES SHALL BE APPLIED IN ONE APPLICATION. NO COMBINATION OF LINES (TWO - 6 INCH LINES) WILL BE ACCEPTED.
2. LONGITUDINAL CROSSWALK LINES TO BE PARALLEL TO CURBLINE.
3. ALL LONGITUDINAL CROSSWALK LINES TO BE THE SAME LENGTH AND PROPERLY ALIGNED.

Crosswalk

N.T.S.

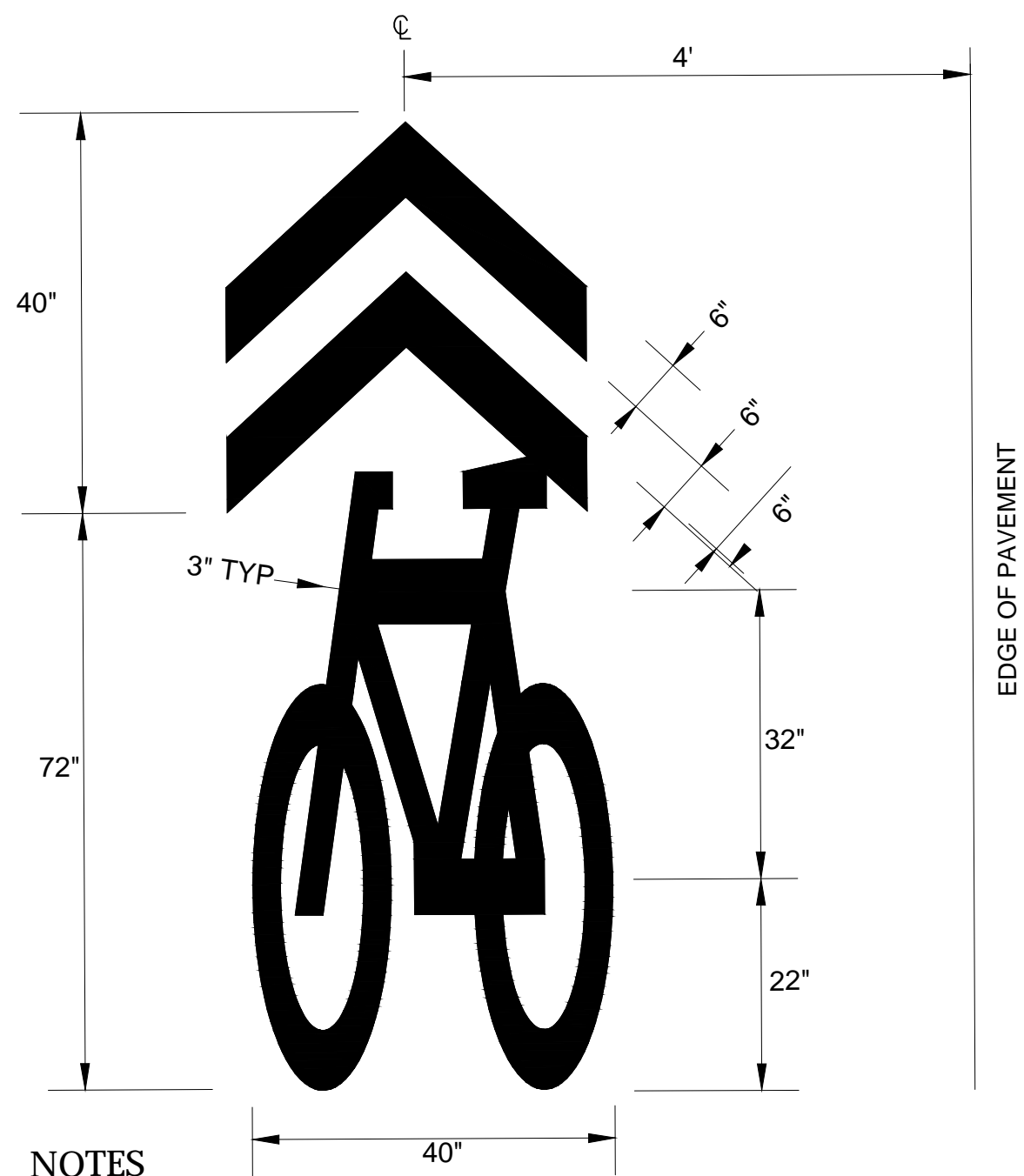


NOTES

1. ANCHORS AND BOLTS SHALL BE OF MATERIALS AND TO DIMENSIONS SPECIFIED BY LIGHT POLE MANUFACTURER.
2. GROUND WIRE AND GROUNDING ROD SHALL BE INCLUDED IN INSTALLATION PER POLE MANUFACTURER AND NATIONAL ELECTRICAL CODE

Light Pole Foundation

N.T.S.

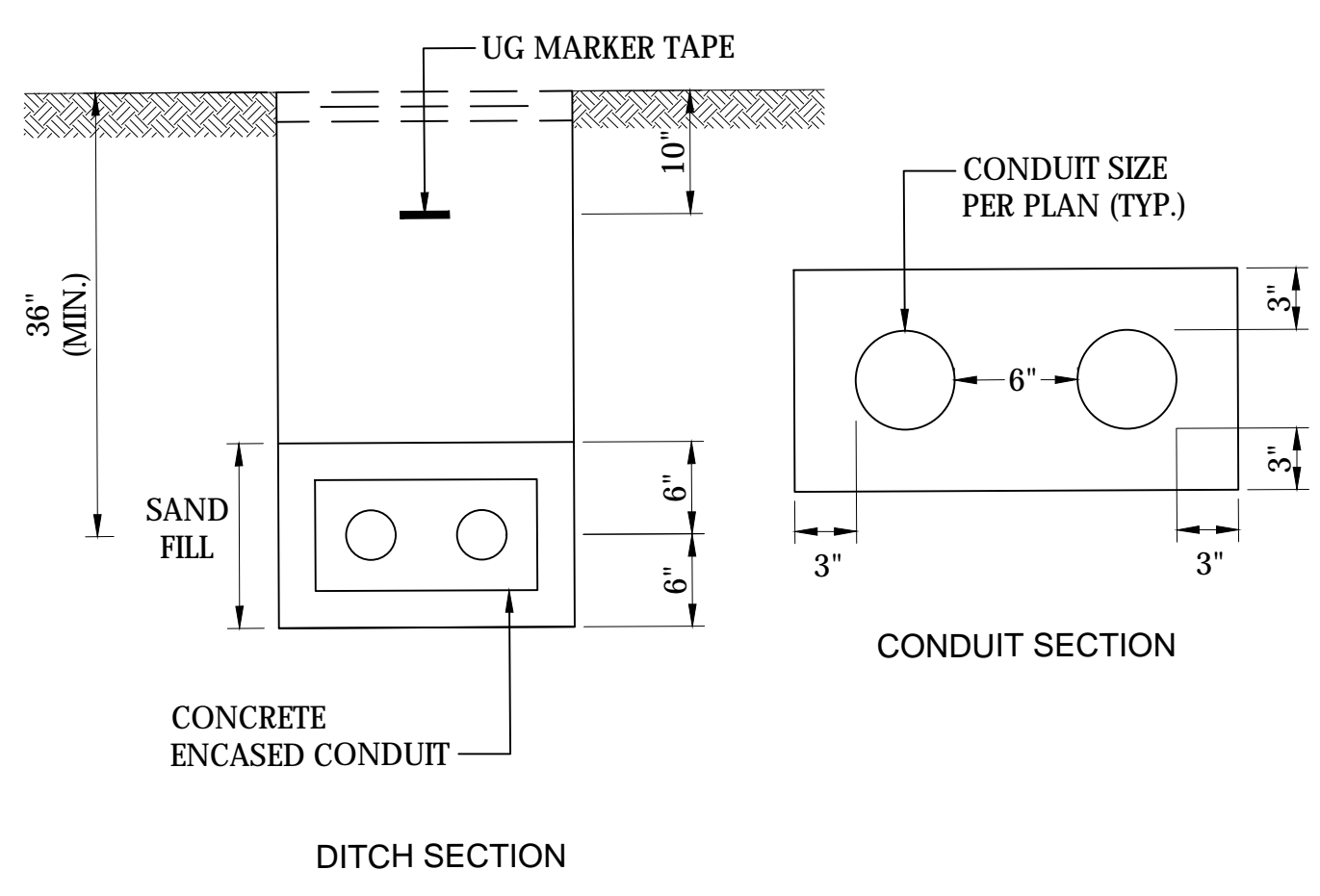


NOTES

1. SEE MUTCD FIGURE 9C-9 FOR MORE INFORMATION.
2. SHARED LANE MARKINGS SHALL BE REFLECTORIZED PAINT.

Bicycle Sharrows

N.T.S.

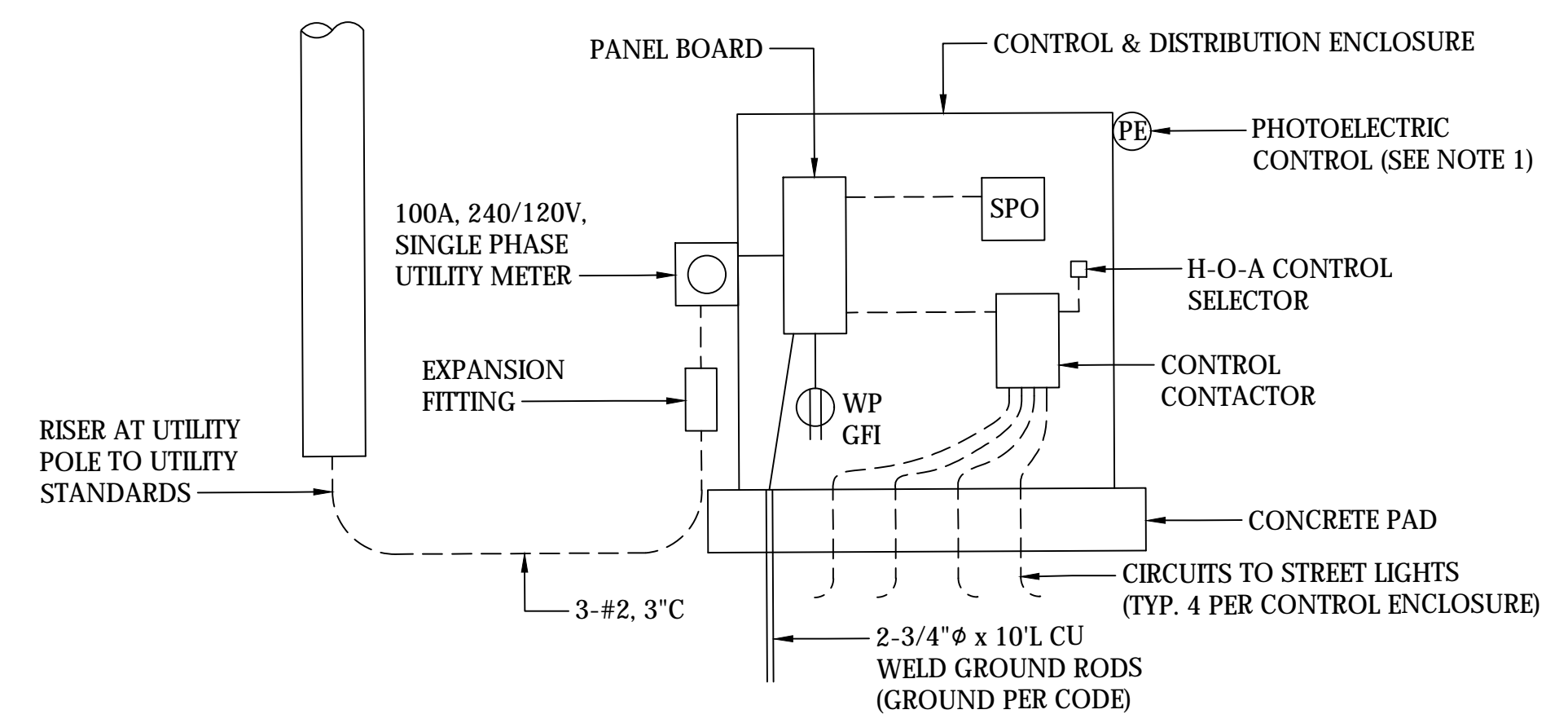


NOTES

1. CONCRETE ENCASE ALL CONDUITS CROSSING ROADWAYS.

Concrete Encased Conduit

N.T.S.



ESTIMATED EQUAL SIZES MOUNTED IN CONTROL & DISTRIBUTION ENCLOSURE

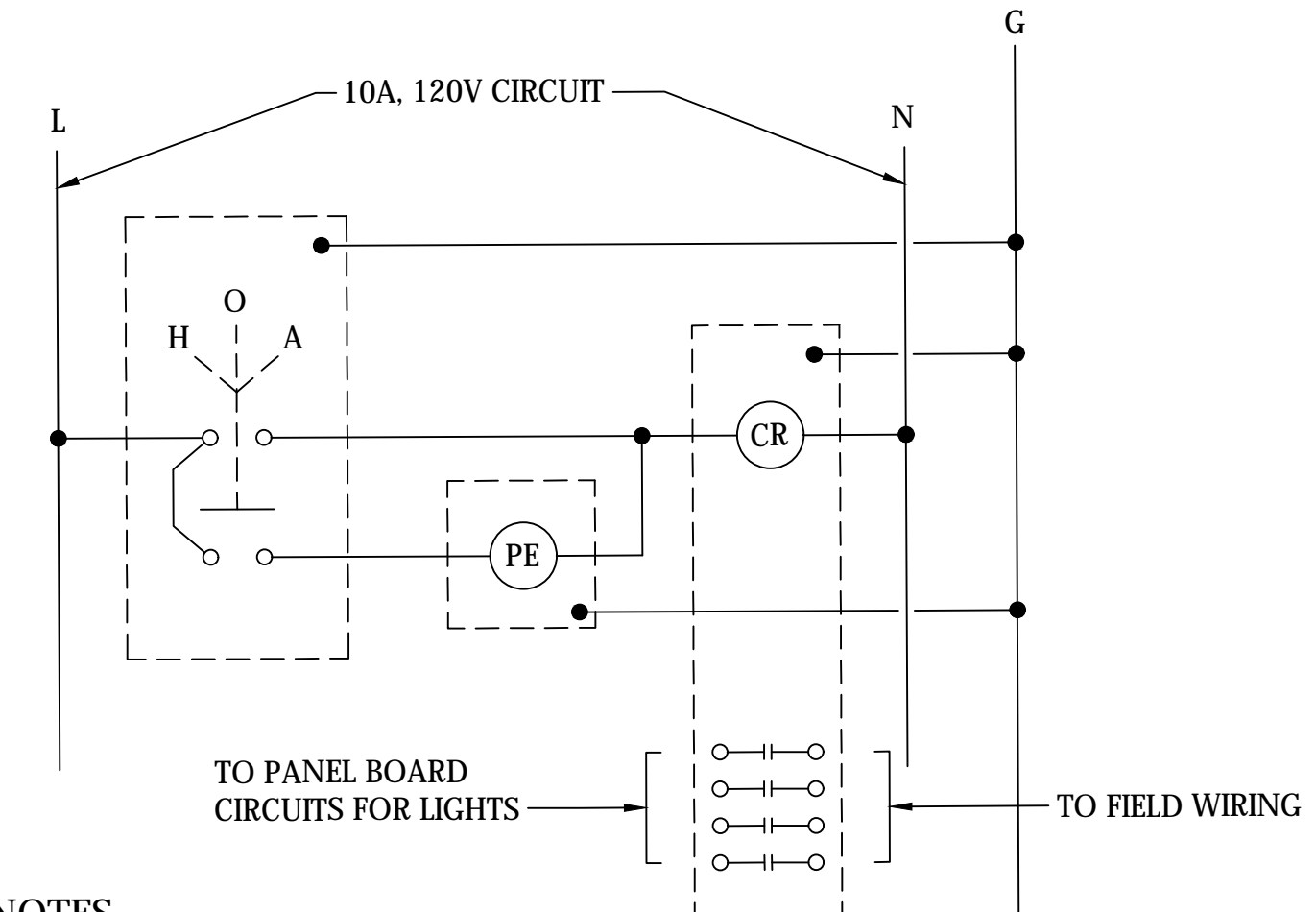
PANEL BOARD	20"W x 26"H x 5 3/4"D
SPO	20"W x 20"H x 7"D
H-O-A	4"W x 4 1/2"H x 3 1/2"D
CONTACTOR	4 1/2"W x 6"H x 4 1/2"D

NOTES

1. FIELD COORDINATE LOCATION OF PHOTOELECTRIC CONTROL WITH CITY AND RESIDENT ENGINEER. PROVIDE SHIELDING TO MINIMIZE EFFECTS OF VEHICLE, BUILDING, AND OTHER LIGHTING.

Typical Service One Line Diagram

N.T.S.

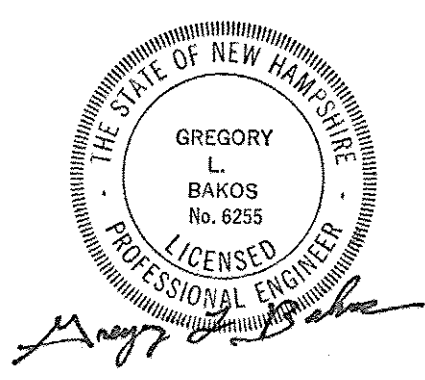


NOTES

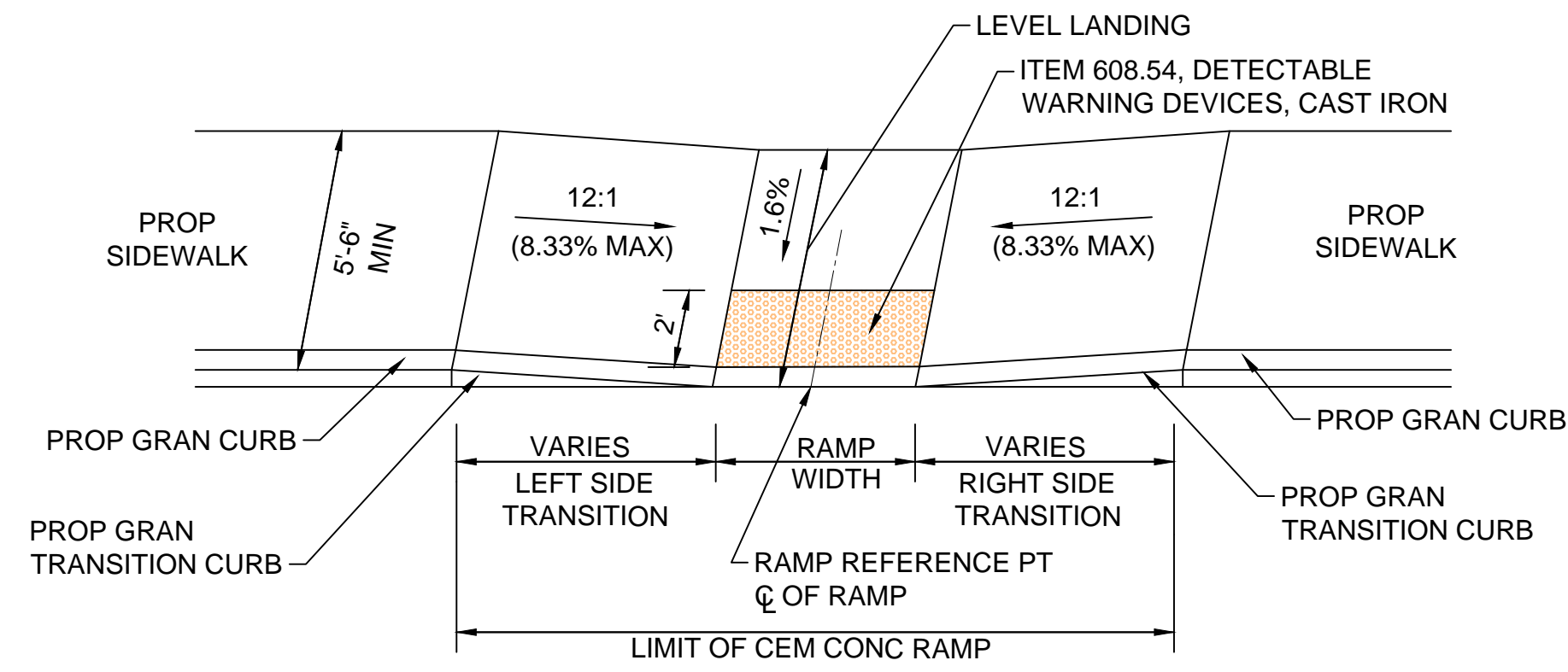
1. H-O-A: ALLEN BRADLEY BULLETIN 800T, 3 POSITION, MAINTAINED CONTACT SELECTOR SWITCH ON NEMA 13 OVERSIZED ENCLOSURE. EQUALS BY SQUARE D, SIEMENS, GENERAL ELECTRIC.
2. CR: ALLEN BRADLEY BULLETIN 500, 4 POLE, NEMA 1 ENCLOSED, 4 POLE CONTACTOR, 120V AC CONTROL, 30A CONTACTS. EQUALS BY SQUARE D, SIEMENS, GENERAL ELECTRIC.
3. PE: PHOTOELECTRIC CONTROLLER, 120V AC, WITH WEATHERPROOF SOCKET, COORDINATE PHYSICAL LOCATION AND PROVIDE ALL REQUIRED SCREENING/SHIELDING TO INHIBIT INTERFERENCE FROM OTHER FIXED AND/OR MOBILE LIGHT SOURCES.

Typical Control W/D

N.T.S.

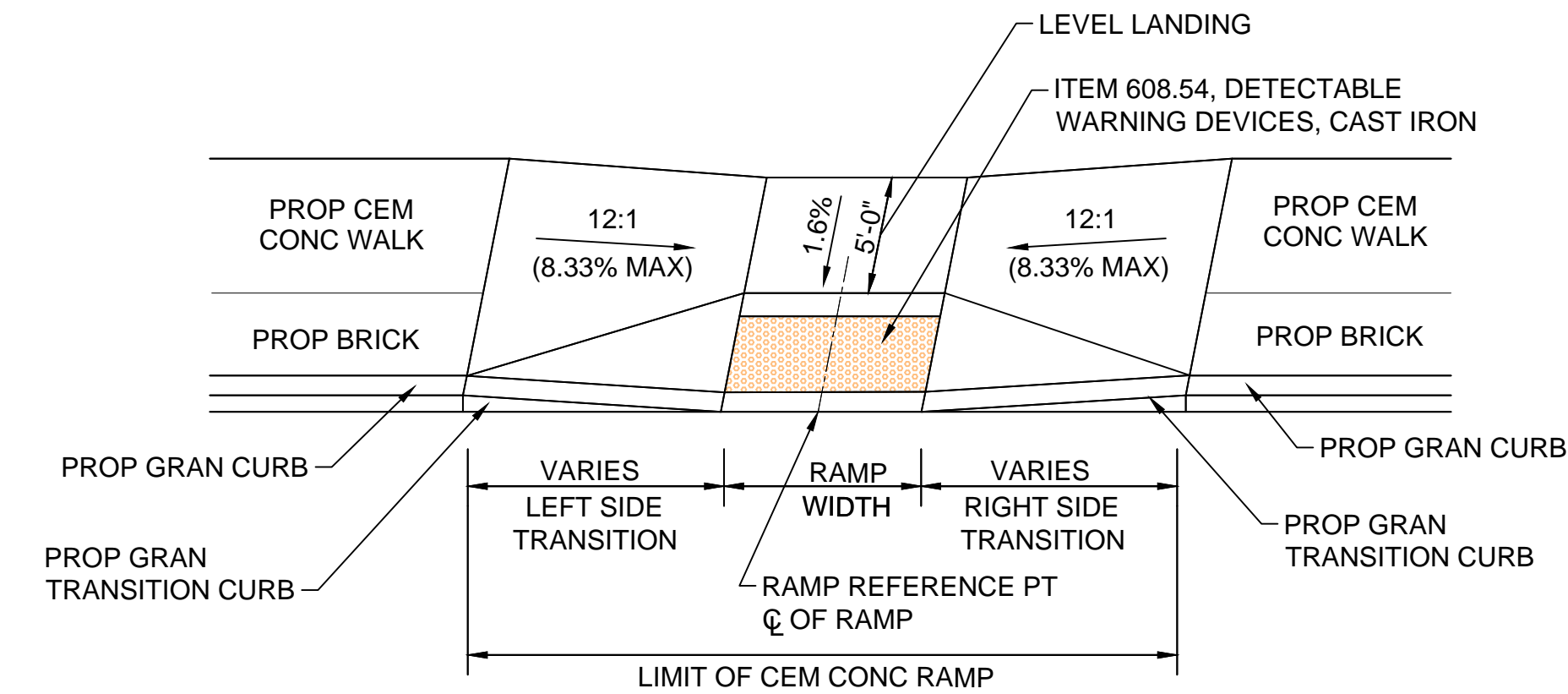


		ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
		CITY OF PORTSMOUTH, NEW HAMPSHIRE					
		DETAILS					
		DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
		13-Nov-18	52393.00	DET-Seg1	7176	09	88



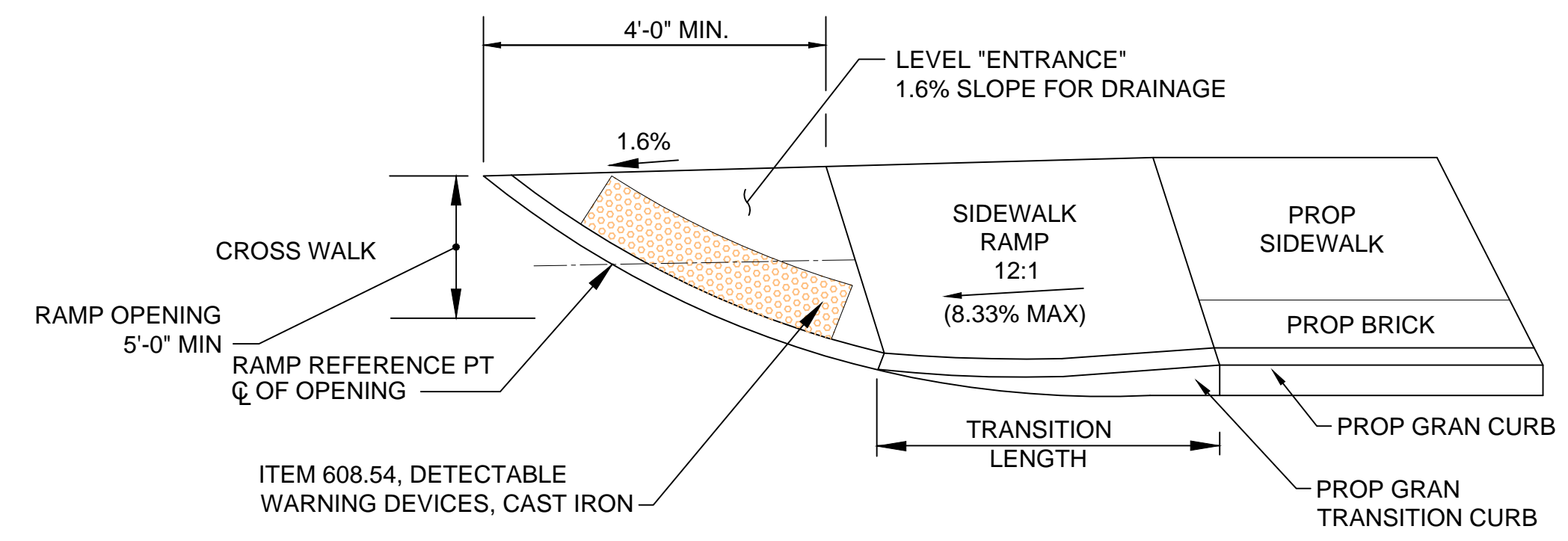
TYPICAL SIDEWALK RAMP DETAIL A
SCALE: NTS

SIDEWALK RAMP DETAIL A TABLE						
NO.	LOCATION	SIDEWALK WIDTH	RAMP WIDTH	LEFT SIDE TRANS LENGTH	RIGHT SIDE TRANS LENGTH	OPENING ELEVATION
21A	STA. 110+54.00 18.25' RT	5'-0"	VARIES	7'-0"	8'-0"	27.17'
71	STA. 20+18.00 19.50' LT	VARIES	5'-6"	9'-2"	7'-0"	18.59'
72	STA. 22+21.00 19.00' LT	VARIES	5'-0"	7'-0"	7'-0"	17.10'
73	STA. 22+54.00 19.00' LT	VARIES	5'-0"	7'-0"	7'-0"	17.46'



TYPICAL SIDEWALK RAMP DETAIL B
SCALE: NTS

SIDEWALK RAMP DETAIL B TABLE						
NO.	LOCATION	SIDEWALK WIDTH	RAMP WIDTH	LEFT SIDE TRANS LENGTH	RIGHT SIDE TRANS LENGTH	OPENING ELEVATION
3	STA. 102+80.00 12.00' LT	5'-0"	5'-0"	7'-0"	7'-0"	30.15'
4	STA. 102+80.00 15.00' RT	5'-0"	5'-0"	7'-0"	7'-0"	30.36'
8	STA. 104+45.00 21.00' RT	5'-0"	5'-0"	7'-0"	7'-0"	29.03'
13	STA. 107+48.00 12.00' RT	5'-0"	5'-0"	7'-0"	7'-0"	26.78'
22	STA. 111+05.00 12.00' RT	5'-0"	5'-0"	7'-0"	8'-0"	26.23'
25	STA. 113+49.00 12.00' RT	5'-0"	6'-0"	7'-0"	8'-0"	21.95'
26	STA. 113+49.00 23.25' LT	5'-0"	6'-0"	8'-0"	7'-0"	21.72'



NOTE:

USE CURVED DETECTABLE WARNING DEVICES TO PROVIDE BEST FIT AT CURVED RAMPS. (TYPICAL)

TYPICAL SIDEWALK RAMP DETAIL C
SCALE: NTS

SIDEWALK RAMP DETAIL C TABLE						
NO.	LOCATION	SIDEWALK WIDTH	RAMP WIDTH	LEFT SIDE TRANS LENGTH	RIGHT SIDE TRANS LENGTH	OPENING ELEVATION
6	STA. 103+69.00 21.00' RT	5'-0"	5'-0"	N/A	7'-0"	29.42'
23	STA. 111+04.00 19.11' LT	5'-0"	VARIES	8'-0"	7'-0"	26.27'
27	STA. 113+87.00 16.80' RT	5'-0"	VARIES	N/A	7'-0"	21.56'
27A	STA. 114+73.00 16.90' RT	5'-0"	VARIES	7'-0"	N/A	20.70'
30	STA. 116+37.00 17.30' RT	5'-0"	VARIES	N/A	8'-0"	18.22'
30A	STA. 116+92.00 17.10' RT	5'-0"	VARIES	7'-0"	N/A	17.01'
32A	STA. 118+37.00 33.00' LT	5'-0"	7'-10"	N/A	7'-0"	13.49'
33A	STA. 119+12.00 15.40' RT	5'-0"	VARIES	7'-0"	N/A	12.29'
35A	STA. 119+62.00 36.00' LT	5'-0"	8'-0"	7'-0"	N/A	10.60'
36A	STA. 120+40.00 19.00' RT	5'-0"	VARIES	7'-0"	N/A	11.89'
50	STA. 125+44.00 27.25' RT	VARIES	VARIES	7'-0"	7'-0"	20.81'
82	STA. 131+45.00 17.40' LT	VARIES	VARIES	7'-0"	N/A	28.97'
84	STA. 131+89.00 24.90' RT	VARIES	VARIES	N/A	7'-0"	30.18'

NOTE:

ALL SIDEWALK TRANSITION RAMPS SHALL BE 6" REINFORCED CONCRETE SIDEWALK



DETAILS

DESCRIPTION

REVISIONS AFTER PROPOSAL

STATION

DATE

NUMBER

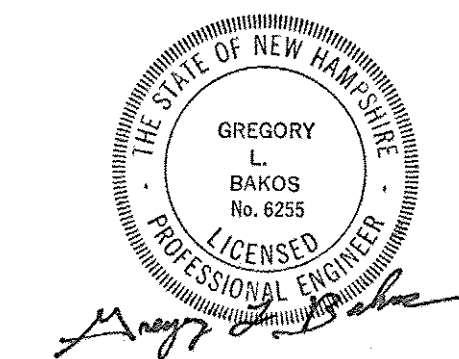
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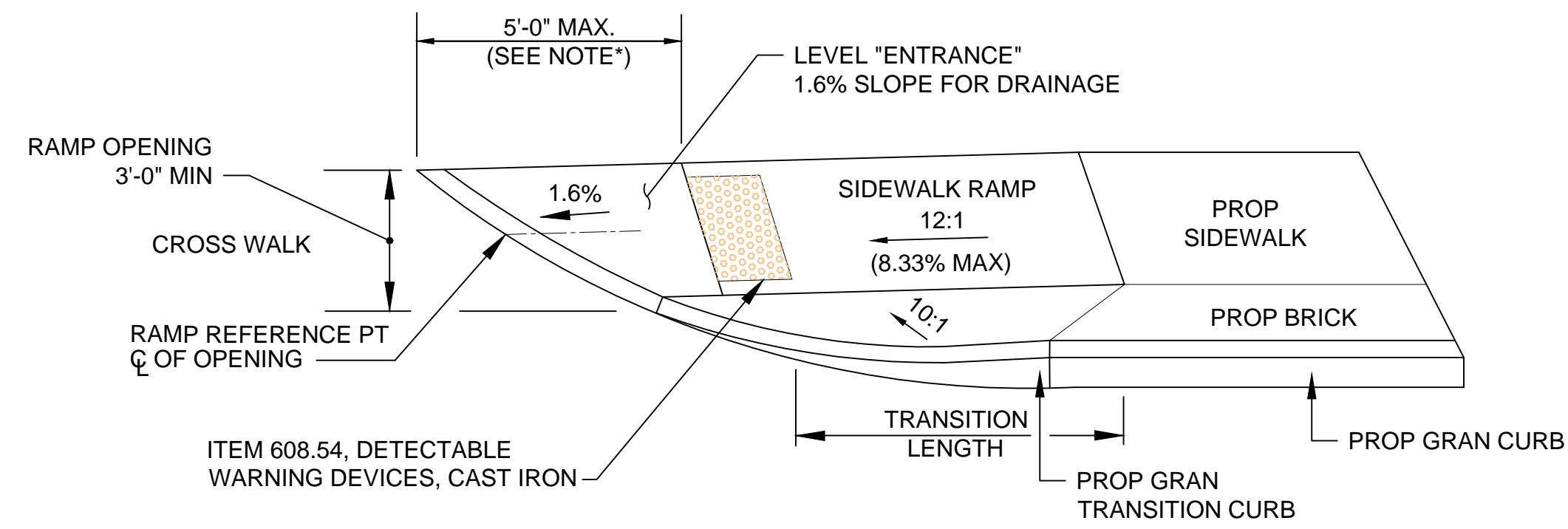
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DATE



AS BUILT DETAILS

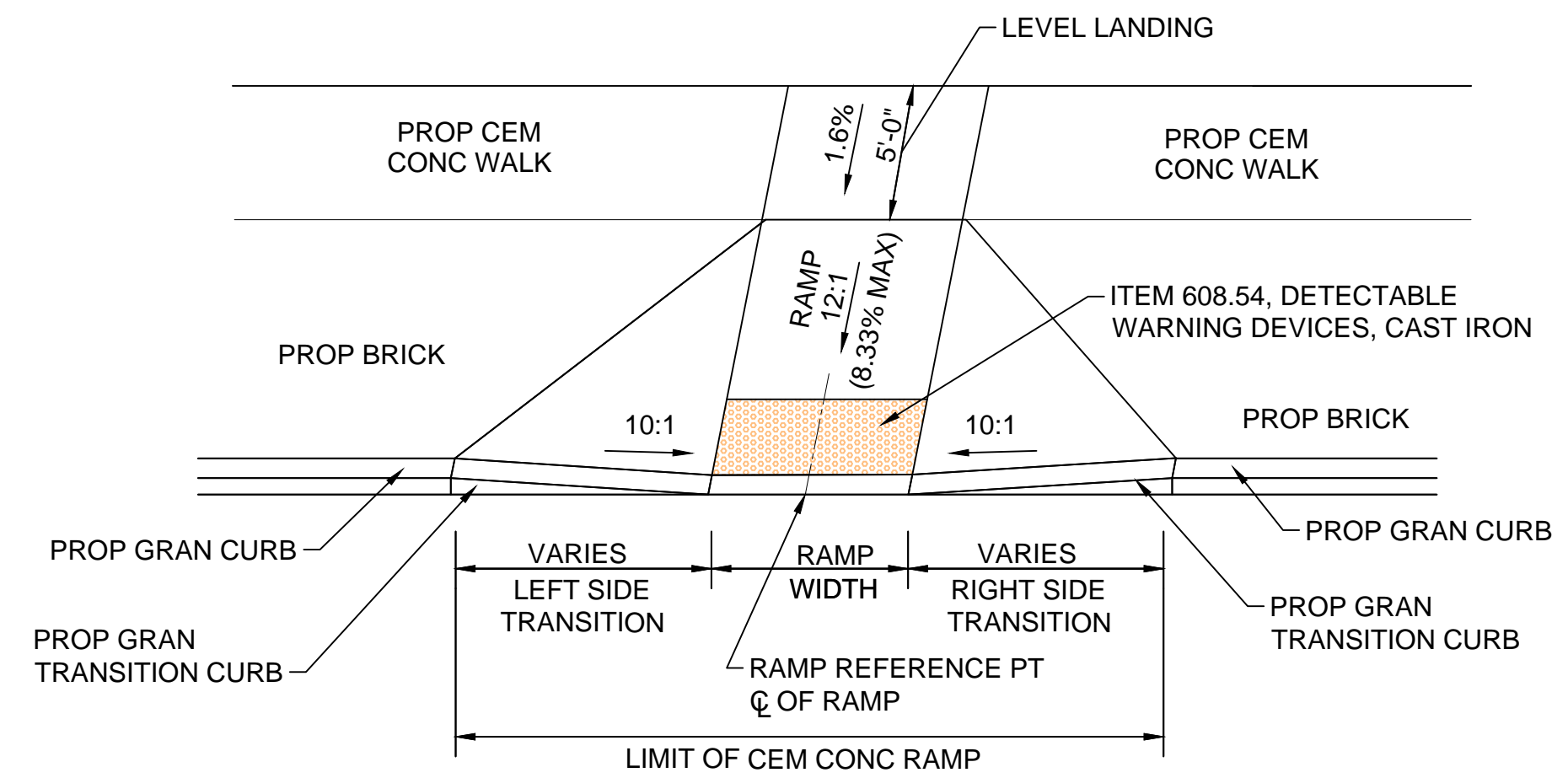


*NOTE:
IF GREATER THAN 5'-0", DETECTABLE WARNING SURFACE SHALL BE PLACED ON LEVEL LANDING AT BACK OF CURB

TYPICAL SIDEWALK RAMP DETAIL D

SCALE: NTS

NO.	LOCATION	SIDEWALK WIDTH	RAMP WIDTH	LEFT SIDE TRANS LENGTH	RIGHT SIDE TRANS LENGTH	OPENING ELEVATION
11	STA. 106+31.00 21.75' RT	5'-0"	VARIES	7'-0"	7'-0"	27.36'
12	STA. 106+66.00 20.00' RT	5'-0"	VARIES	7'-0"	7'-0"	27.12'
21	STA. 110+13.00 19.00' RT	5'-0"	5'-0"	N/A	8'-0"	27.76'
23A	STA. 111+27.00 19.75' LT	6'-6"	6'-6"	N/A	7'-0"	25.84'
32	STA. 118+14.00 31.10' LT	5'-0"	5'-0"	9'-2"	N/A	14.23'
33	STA. 118+72.00 18.00' RT	5'-0"	5'-0"	N/A	9'-2"	12.95'
36	STA. 120+05.00 18.00' RT	5'-0"	5'-0"	N/A	7'-0"	11.38'
44	STA. 123+68.00 19.00' RT	5'-0"	5'-0"	7'-0"	N/A	19.51'
50A	STA. 125+82.00 26.00' RT	5'-0"	5'-0"	7'-0"	7'-0"	21.06'



TYPICAL SIDEWALK RAMP DETAIL E


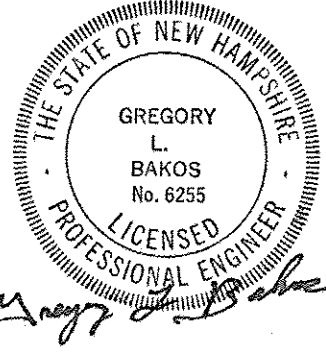
SCALE: NTS

NO.	LOCATION	SIDEWALK WIDTH	RAMP WIDTH	RAMP LENGTH	OPENING ELEVATION
14	STA. 107+48.00 12.00' LT	5'-4"	5'-0"	7'-0"	26.78'
37	STA. 120+16.00 52.75' LT	VARIES	5'-0"	7'-0"	10.19
38	STA. 120+40.00 30.50' LT	VARIES	5'-0"	7'-0"	11.23'
45	STA. 123+17.00 12.00' LT	5'-0"	5'-0"	7'-0"	18.70'
60	STA. 129+63.00 12.00' RT	5'-0"	5'-0"	7'-0"	21.43'
61	STA. 126+03.00 12.00' RT	5'-0"	5'-0"	7'-0"	21.22'
70	STA. 20+24.00 20.25' RT	VARIES	5'-0"	7'-0"	18.50'

NO.	LOCATION	SIDEWALK WIDTH	RAMP WIDTH	LEFT SIDE TRANS LENGTH	LEFT SW/DRIVE DETAIL	RIGHT SIDE TRANS LENGTH	RIGHT SW/DRIVE DETAIL	OPENING ELEVATION
1	STA. 101+85.00 12.00' LT	5'-0"	5'-0"	7'-0"	DRIVE C	7'-0"	DRIVE B	31.29'
9	STA. 105+11.00 15.00' RT	5'-0"	VARIES	7'-0"	DRIVE D	7'-0"	DRIVE B	28.40'
10	STA. 105+76.00 19.00' LT	VARIES	32'-6"	7'-0"	DRIVE C	7'-0"	DRIVE B	27.61'
24	STA. 112+62.00 19.25' LT	5'-0"	5'-0"	8'-0"	DRIVE B	7'-0"	DRIVE C	23.12'
43	STA. 122+66.00 20.10' LT	5'-0"	VARIES	7'-0"	DRIVE D	11'-0"	DRIVE B	17.94'
48	STA. 124+93.00 12.00' LT	5'-0"	VARIES	7'-0"	DRIVE B	7'-0"	DRIVE D	20.76'
51	STA. 125+92.00 12.00' LT	VARIES	VARIES	7'-0"	DRIVE D	7'-0"	A	21.45'
58	STA. 24+77.00 16.00' LT	5'-0"	5'-0"	7'-0"	A	7'-0"	D	20.16'
58A	STA. 24+74.00 16.50' RT	5'-0"	VARIES	8'-0"	D	7'-0"	A	20.80'
62	STA. 129+79.00 12.25' LT	VARIES	23'-6"	7'-0"	A	9'-2"	DRIVE D	21.83'
62A	STA. 129+86.00 21.75' RT	5'-0"	VARIES	9'-2"	DRIVE D	7'-0"	DRIVE B	21.92'

NOTE:

ALL SIDEWALK TRANSITION RAMPS SHALL BE 6" REINFORCED CONCRETE SIDEWALK

		ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1				
		CITY OF PORTSMOUTH, NEW HAMPSHIRE				
		DETAILS				
		DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.
		13-Nov-18	52393.00	DET_WCR-Seg1	7176	11 88

REVISIONS AFTER PROPOSAL

STATION

DATE

NUMBER

DATE

AS BUILT DETAILS

SDR PROCESSED VHB DATE OCT 2017

NEW DESIGN KMH DATE 11/13/18

SHEET CHECKED GJB DATE 11/13/18

DESCRIPTION

REVISIONS AFTER PROPOSAL

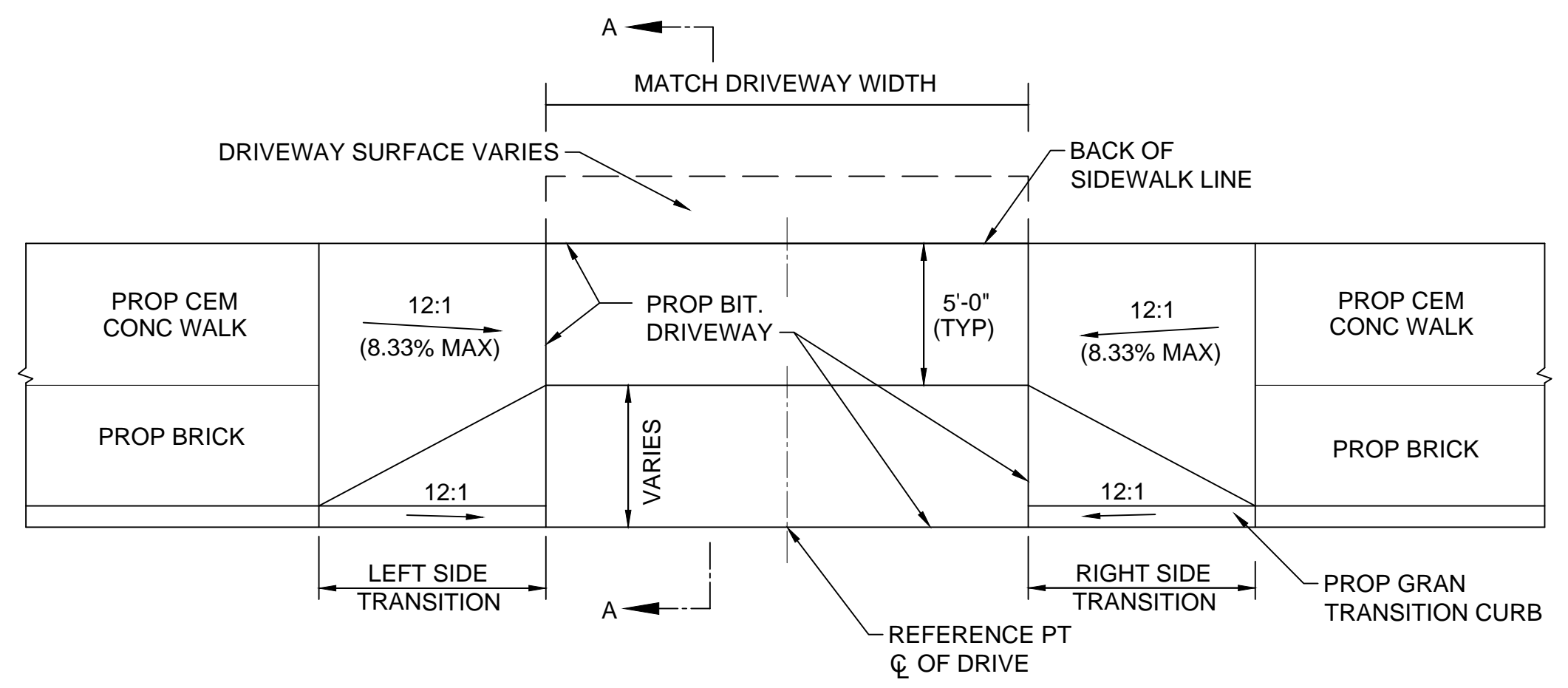
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DATE

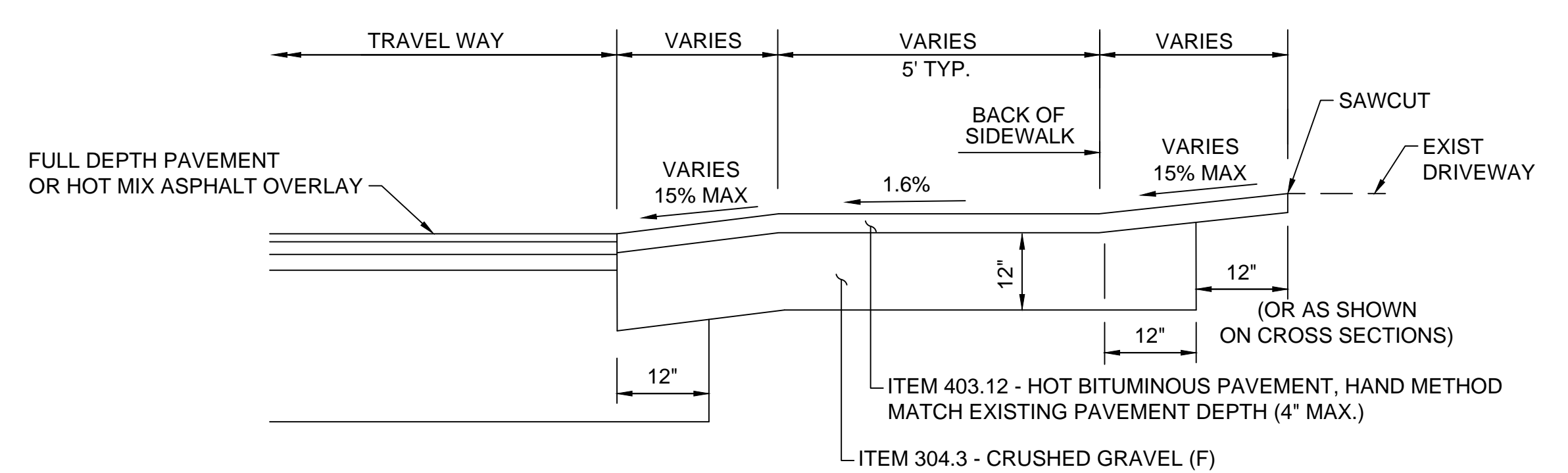
NUMBER

DATE

AS BUILT DETAILS



PLAN



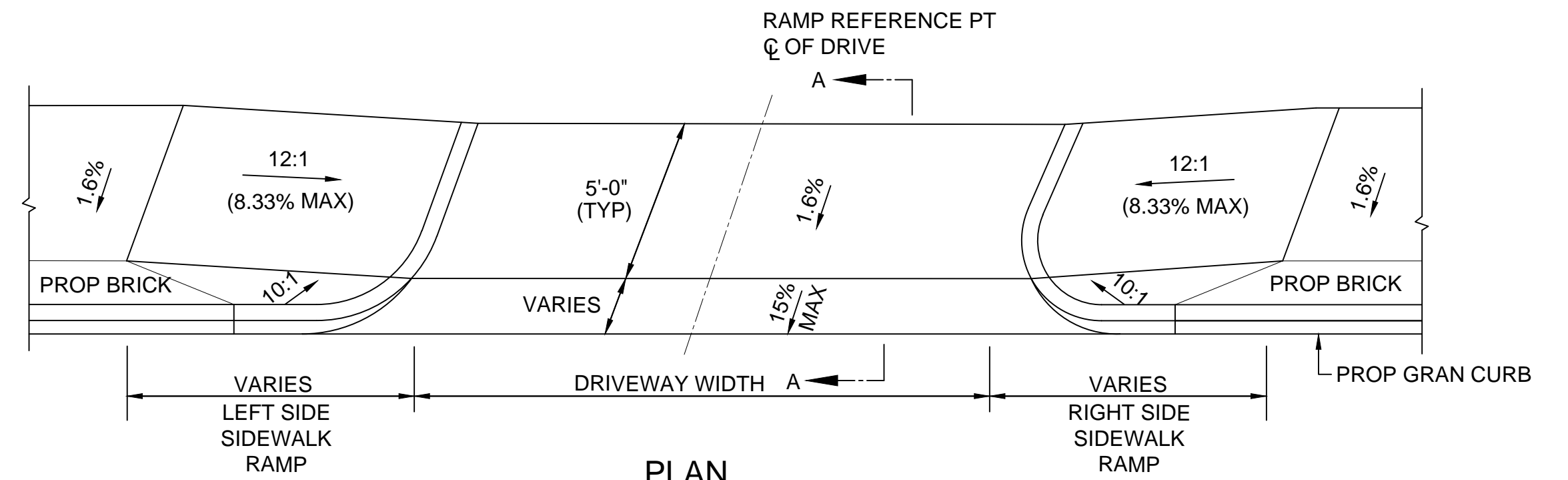
SECTION A-A

TYPICAL BITUMINOUS DRIVEWAY WITH SIDEWALK AND GRANITE TRANSITION CURB DETAIL A

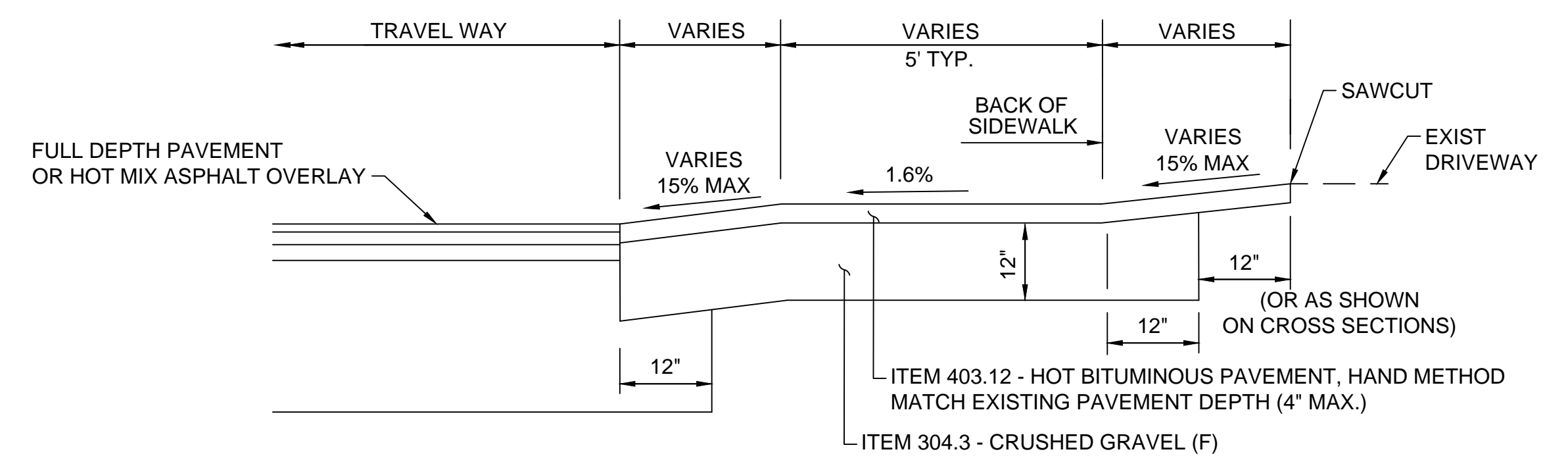
SCALE: NTS

SIDEWALK RAMP DETAIL DRIVEWAY A TABLE						
NO.	LOCATION	SIDEWALK WIDTH	DRIVEWAY WIDTH	LEFT SIDE TRANS LENGTH	RIGHT SIDE TRANS LENGTH	OPENING ELEVATION
63	STA. 23+96.00 15.25' RT	VARIES	43'-6"	8'-0"	7'-0"	19.46'
65	STA. 23+40.00 13.00' LT	8'-6"	10'-0"	8'-0"	7'-0"	18.31'
66	STA. 22+37.00 13.00' RT	VARIES	12'-0"	7'-0"	7'-0"	17.39'
67	STA. 21+72.00 13.00' RT	9'-0"	30'-0"	7'-0"	7'-0"	17.29'
68	STA. 21+54.00 13.00' LT	VARIES	24'-0"	7'-0"	7'-0"	17.32'
69	STA. 21+05.00 13.00' LT	8'-0"	23'-9"	7'-0"	7'-0"	17.53'

NOTE:
ALL SIDEWALK TRANSITION RAMPS SHALL BE 6" REINFORCED CONCRETE SIDEWALK



PLAN

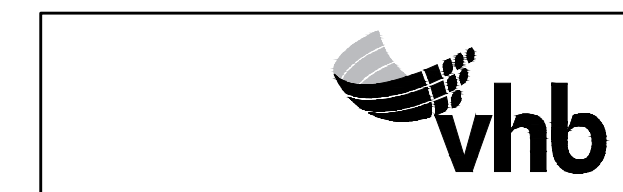
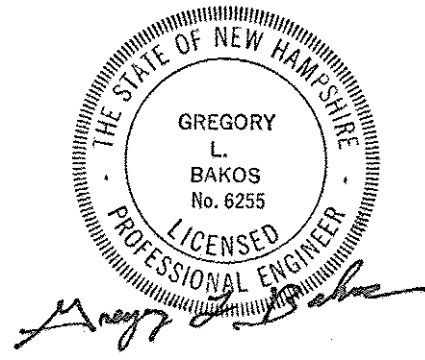


SECTION A-A

TYPICAL BITUMINOUS DRIVEWAY WITH SIDEWALK AND GRANITE TRANSITION CURB DETAIL B

SCALE: NTS

SIDEWALK RAMP DETAIL DRIVEWAY B TABLE						
NO.	LOCATION	SIDEWALK WIDTH	DRIVEWAY WIDTH	LEFT SIDE TRANS LENGTH	RIGHT SIDE TRANS LENGTH	OPENING ELEVATION
5	STA. 103+38.00 12.00' LT	5'-0"	24'-0"	7'-0"	7'-0"	29.65'
7	STA. 103+92.00 12.00' LT	5'-0"	30'-0"	7'-0"	7'-0"	29.20'
15	STA. 106+97.00 15.75' LT	5'-2"	44'-0"	7'-0"	7'-0"	26.74'
16	STA. 107+99.00 12.00' LT	5'-6"	43'-0"	7'-0"	N/A	27.08'
17	STA. 108+46.00 13.00' RT	5'-0"	98'-0"	MATCH EXISTING	7'-0"	27.57'
18	STA. 108+59.00 12.00' LT	5'-0"	54'-0"	N/A	7'-0"	27.59'
19	STA. 109+19.00 12.00' LT	5'-0"	20'-0"	7'-0"	7'-0"	28.05'
20	STA. 110+25.00 12.00' LT	5'-0"	36'-0"	8'-0"	7'-0"	27.63'
28	STA. 114+27.00 24.00' LT	5'-0"	35'-0"	7'-0"	7'-0"	20.82'
32	STA. 118+26.00 28.00' LT	5'-0"	23'-0"	9'-2"	7'-0"	13.68'
33	STA. 118+90.00 12.00' RT	5'-0"	38'-0"	7'-0"	9'-2"	12.38'
46	STA. 123+80.00 12.00' LT	5'-0"	60'-6"	7'-0"	7'-0"	19.65'
59	STA. 129+36.00 12.00' LT	VARIES	12'-0"	7'-0"	8'-0"	20.89'

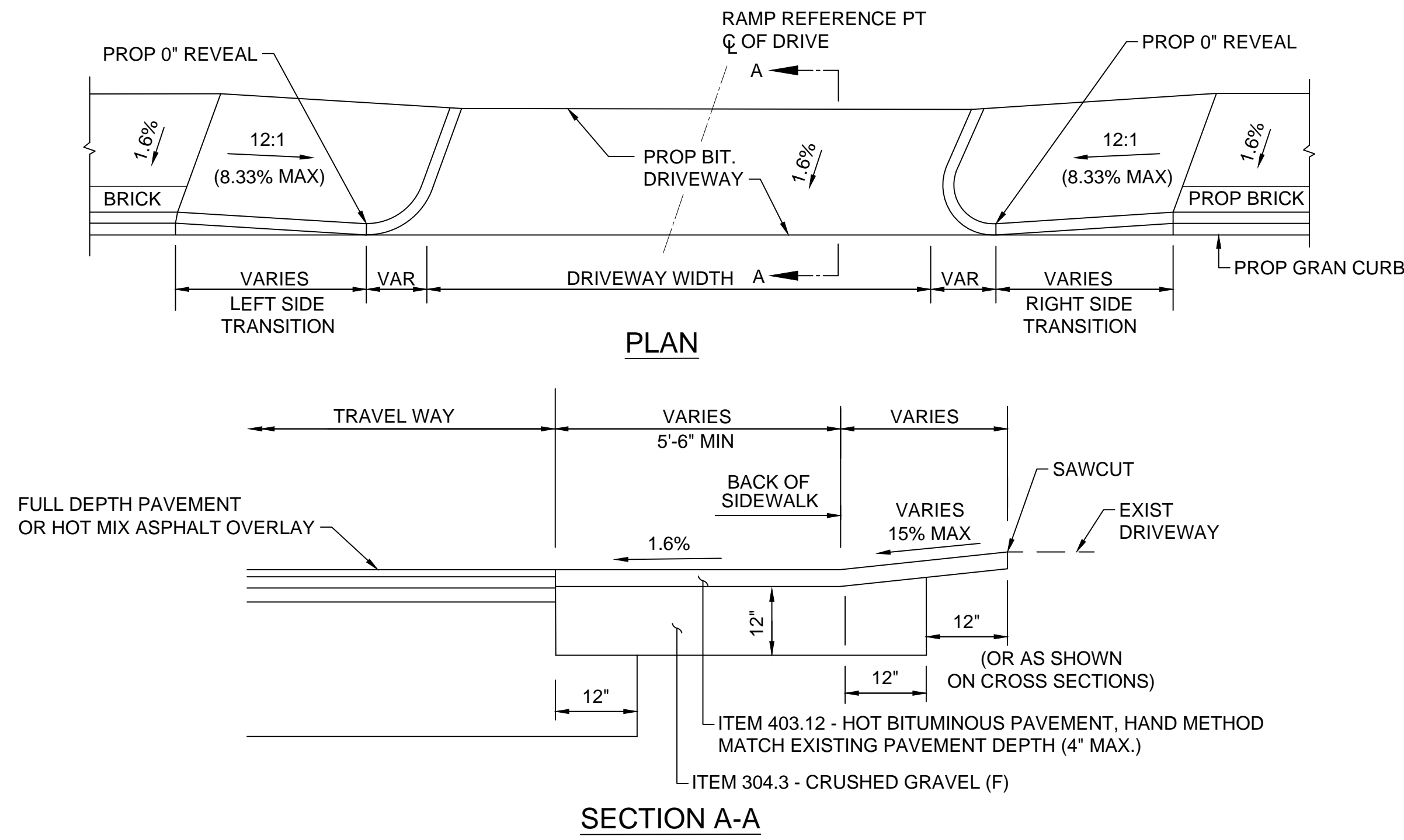


ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

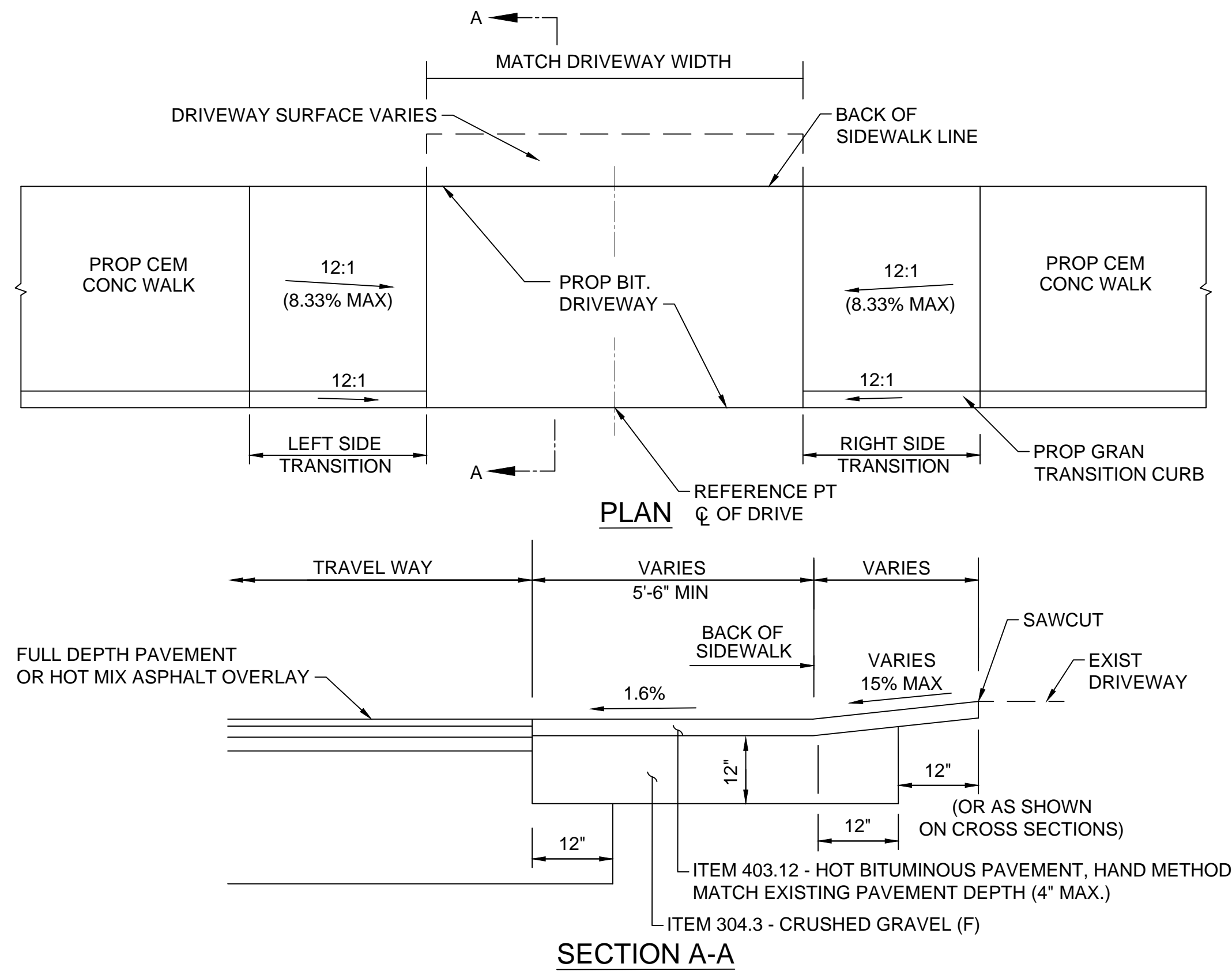
DETAILS

DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	DET_WCR-Seg1	7176	12	88

SDR PROCESSED	VHB	DATE	OCT 2017
	KMH	DATE	11/13/18
NEW DESIGN	GLB	DATE	11/13/18
		DATE	
SHEET CHECKED			
AS BUILT DETAILS			



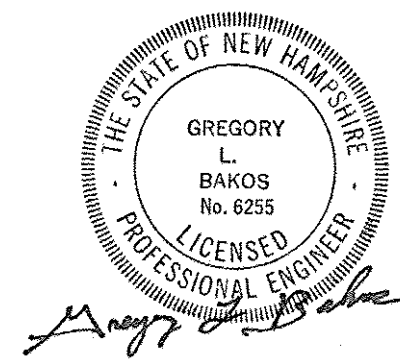
TYPICAL BITUMINOUS DRIVEWAY WITH SIDEWALK AND GRANITE TRANSITION CURB DETAIL C
SCALE: NTS



TYPICAL BITUMINOUS DRIVEWAY WITH SIDEWALK AND GRANITE TRANSITION CURB DETAIL D
SCALE: NTS

NOTE:

ALL SIDEWALK TRANSITION RAMPS SHALL BE 6" REINFORCED CONCRETE SIDEWALK



NO.	LOCATION	SIDEWALK WIDTH	DRIVEWAY WIDTH	LEFT SIDE TRANS LENGTH	RIGHT SIDE TRANS LENGTH	OPENING ELEVATION
2	STA. 102+33.00 15.00' RT	5'-0"	24'-0"	7'-0"	7'-0"	30.78'
29	STA. 115+28.00 24.00' LT	5'-0"	24'-0"	8'-0"	7'-0"	19.76'
52	STA. 126+65.00 12.00' LT	5'-0"	16'-0"	8'-0"	7'-0"	20.90'
54	STA. 127+26.00 12.00' LT	5'-0"	23'-6"	8'-0"	7'-0"	20.13'
57	STA. 127+86.00 12.00' LT	VARIABLES	24'-0"	7'-0"	7'-0"	19.52'

NO.	LOCATION	SIDEWALK WIDTH	DRIVEWAY WIDTH	LEFT SIDE TRANS LENGTH	RIGHT SIDE TRANS LENGTH	OPENING ELEVATION
31	STA. 116+82.00 24.00' LT	5'-0"	26'-0"	9'-2"	7'-0"	16.94'
34	STA. 118+85.00 28.00' LT	5'-0"	12'-6"	9'-2"	7'-0"	12.32'
35	STA. 119+21.00 26.00' LT	5'-0"	20'-0"	9'-2"	7'-0"	11.51'
39	STA. 120+89.50 13.75' RT	5'-0"	25'-0"	11'-0"	7'-0"	12.43'
40	STA. 121+43.00 12.75' RT	5'-0"	25'-0"	11'-0"	7'-0"	14.02'
41	STA. 121+42.00 24.25' LT	VARIABLES	30'-9"	7'-0"	11'-0"	13.76'
42	STA. 122+12.00 12.00' RT	5'-0"	41'-6"	N/A	7'-0"	16.30'
47	STA. 124+06.00 12.00' RT	5'-0"	29'-2"	7'-0"	7'-0"	19.90'
49	STA. 124+89.00 12.00' RT	5'-0"	30'-8"	7'-0"	7'-0"	20.48'
53	STA. 126+68.00 19.00' RT	5'-0"	17'-3"	7'-0"	8'-0"	20.75'
55	STA. 127+39.00 19.00' RT	5'-0"	14'-0"	8'-0"	7'-0"	19.97'
56	STA. 128+04.00 19.00' RT	5'-6"	14'-6"	7'-0"	7'-0"	19.54'
64	STA. 24+15.00 13.50' LT	VARIABLES	27'-9"	7'-0"	8'-0"	19.51'
74	STA. 31+43.00 11.00' LT	6'-0"	9'-8"	N/A	7'-0"	17.17'
80	STA. 130+59.00 12.00' LT	VARIABLES	22'-10"	7'-0"	13'-6"	24.93'
81	STA. 131+03.00 12.00' LT	VARIABLES	16'-0"	7'-0"	13'-6"	27.04'
83	STA. 130+88.00 19.00' RT	VARIABLES	10'-0"	13'-6"	7'-0"	26.03'

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

DETAILS

		ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1 CITY OF PORTSMOUTH, NEW HAMPSHIRE					
		DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
		13-Nov-18	52393.00	DET_WCR-Seg1	7176	13	88

REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

VHB

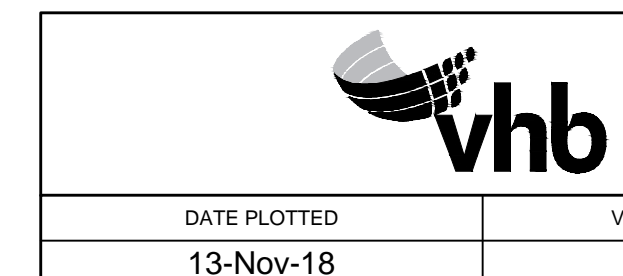
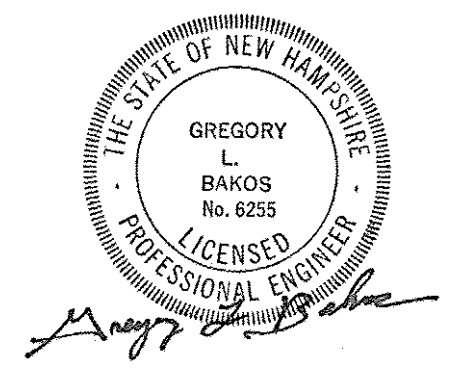
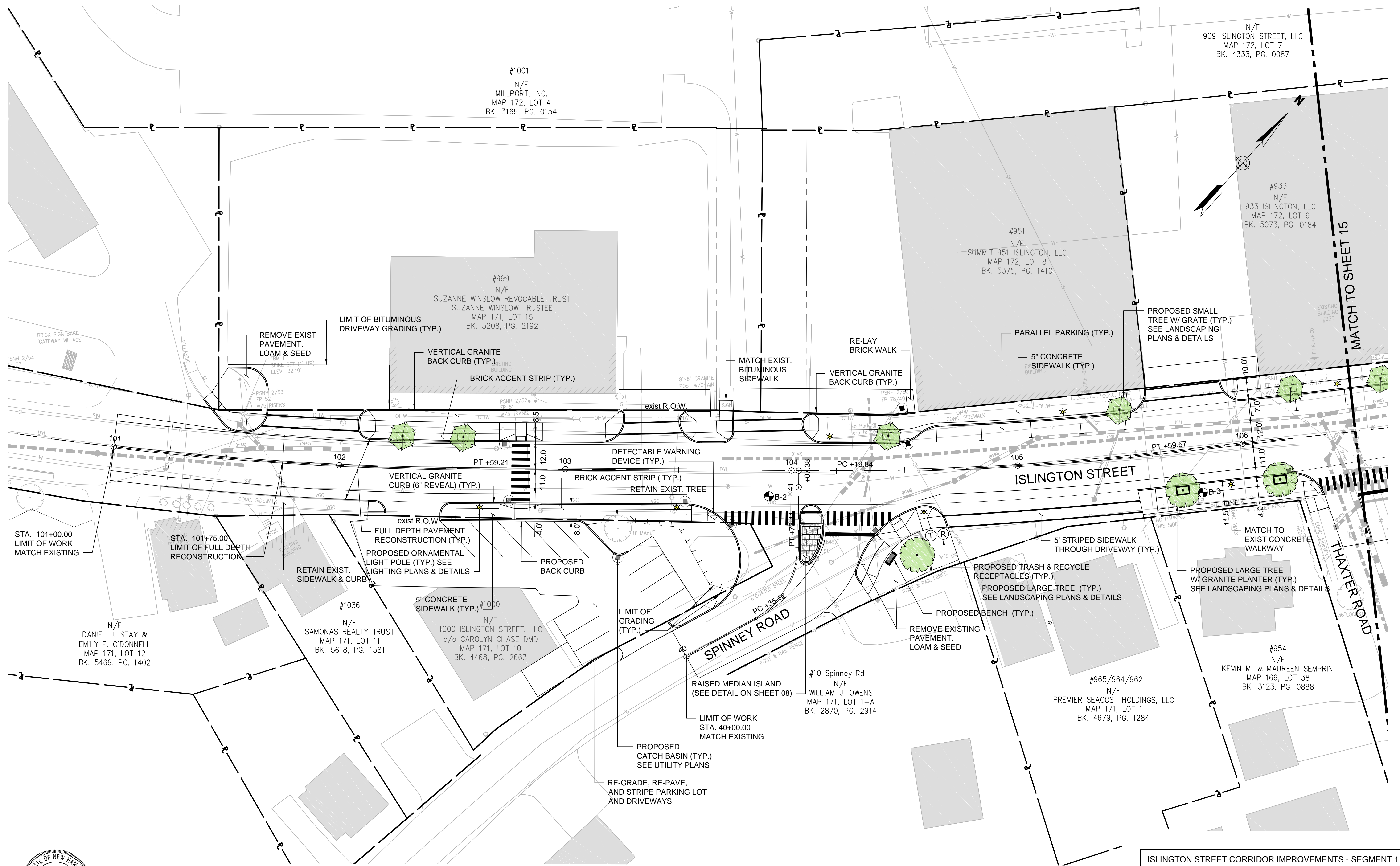
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SHEET CHECKED

AS BUILT DETAILS

REVISIONS AFTER PROPOSAL	STATION	STATION	DATE	NUMBER	DATE

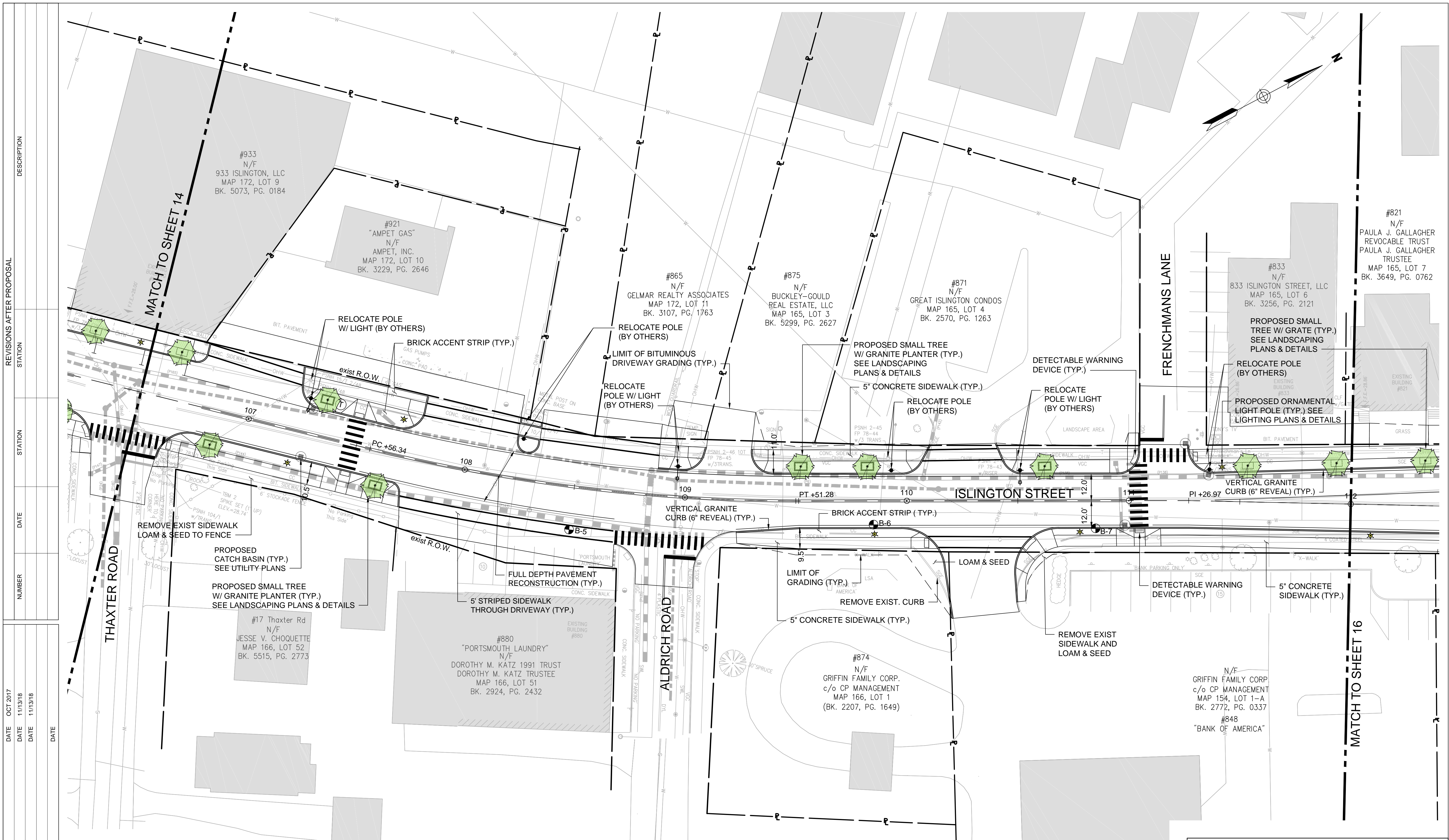
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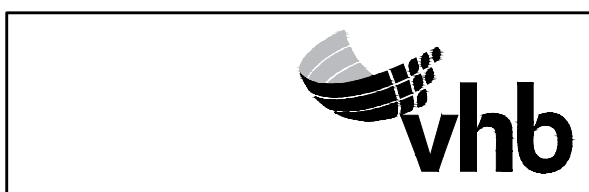
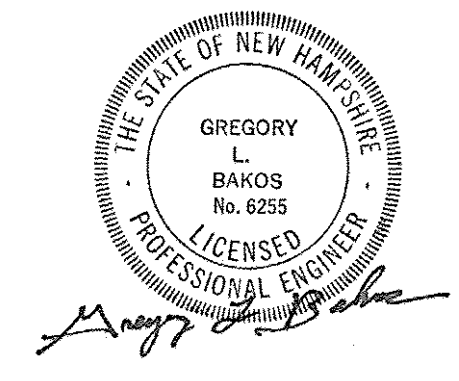
ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

GENERAL PLAN

DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	GEN-Seg1	7176	14	88



SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	KMH	DATE	11/13/18
SHEET CHECKED	GLB	DATE	11/13/18
AS BUILT DETAILS		DATE	



DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	GEN-Seg1	7176	15	88

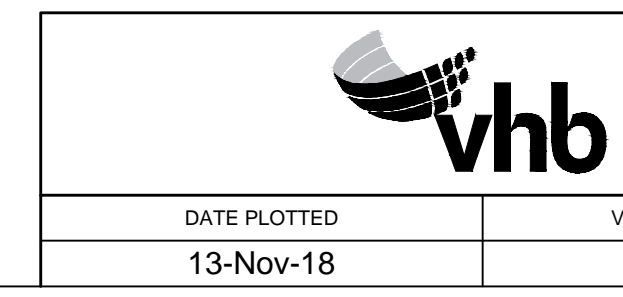
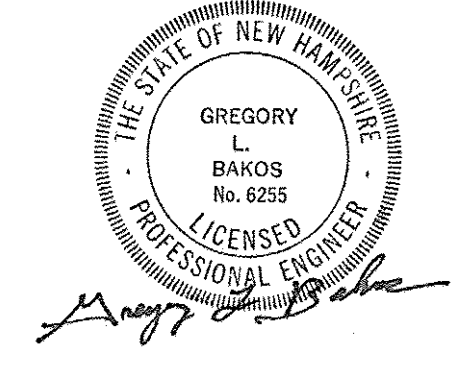
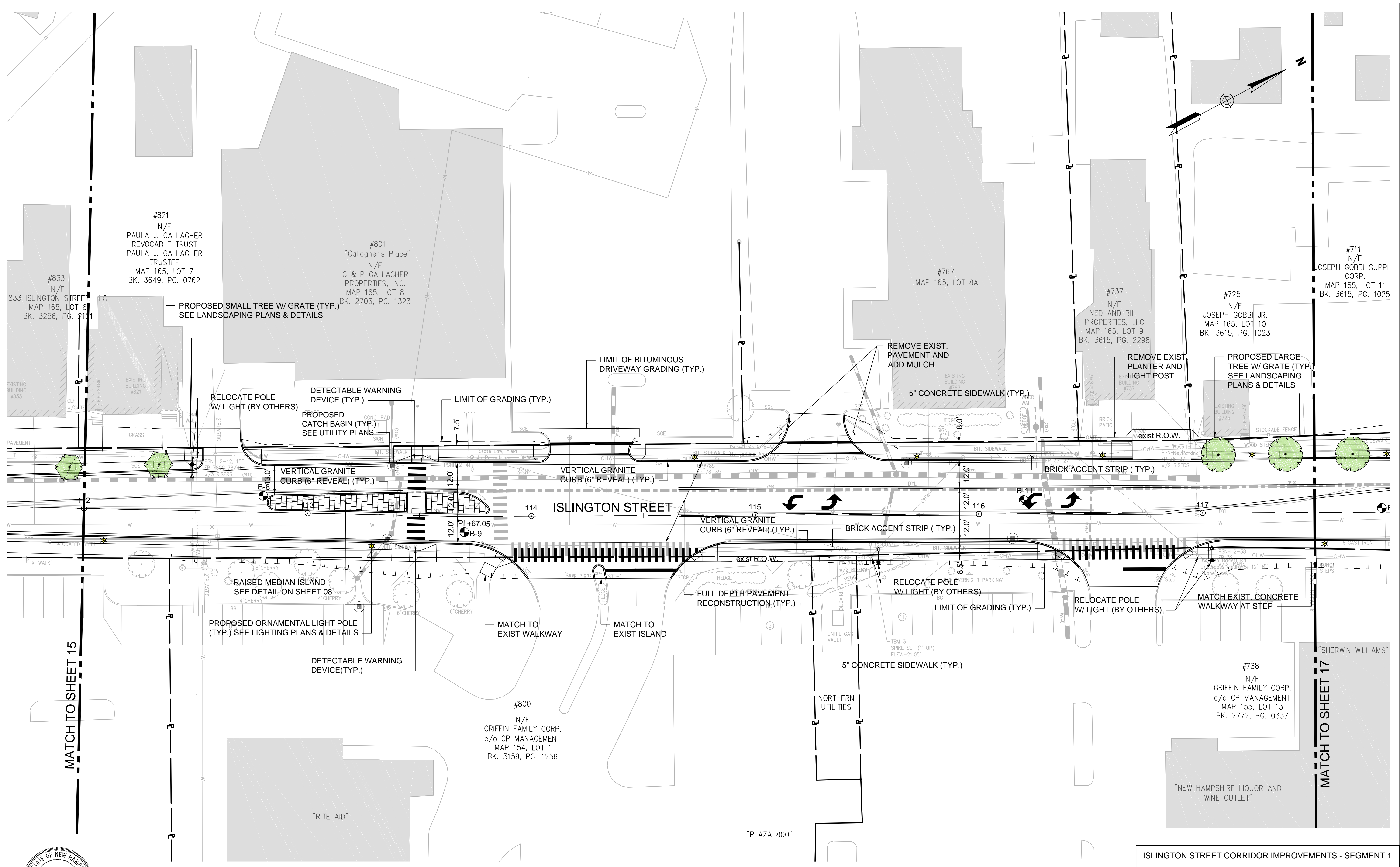
ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1

CITY OF PORTSMOUTH, NEW HAMPSHIRE

GENERAL PLAN

SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	KMH	DATE	11/13/18
SHEET CHECKED	GLB	DATE	11/13/18
AS BUILT DETAILS		DATE	

REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
GENERAL PLAN					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	GEN-Seg1	7176	16	88

REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

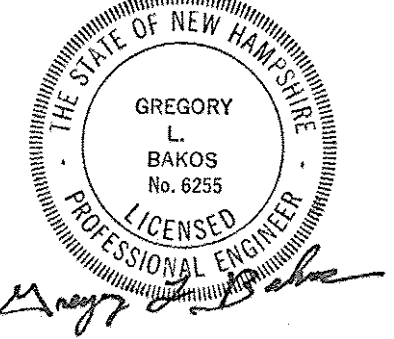
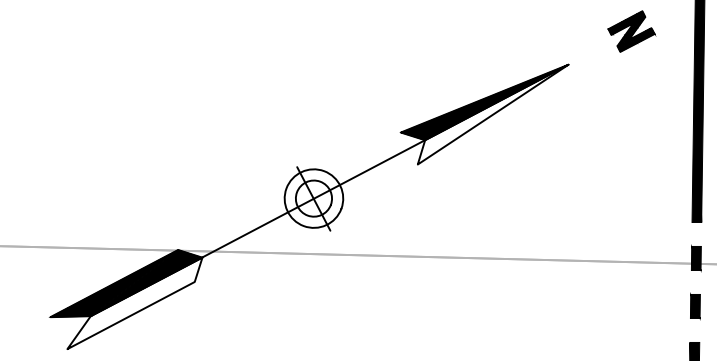
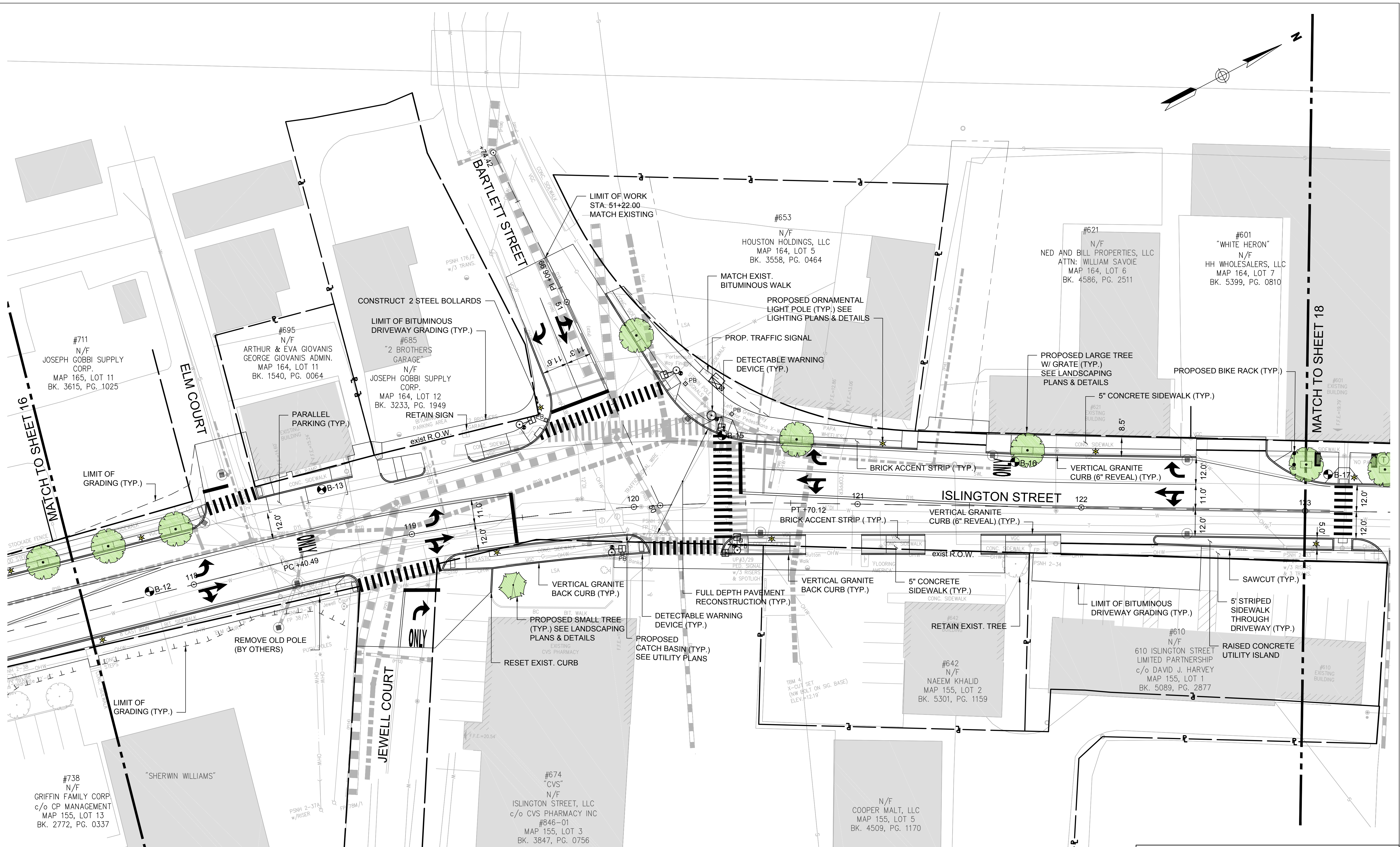
DATE

SDR PROCESSED VHB DATE OCT 2017

NEW DESIGN KMH DATE 1/7/19

SHEET CHECKED GLB DATE 1/7/19

AS BUILT DETAILS



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

GENERAL PLAN

DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
7-Jan-19	52393.00	GEN-Seg1	7176	17	88

REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

VHB

DATE PLOTTED

NEW DESIGN

VHB PROJECT NO.

SHEET CHECKED

DRAWING

AS BUILT DETAILS

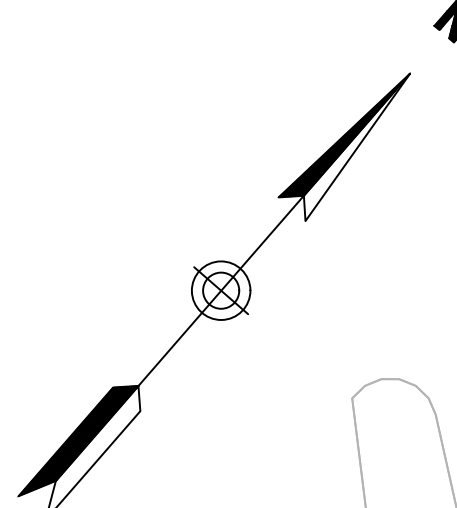
CITY PROJECT NO.

DATE

SHEET NO.

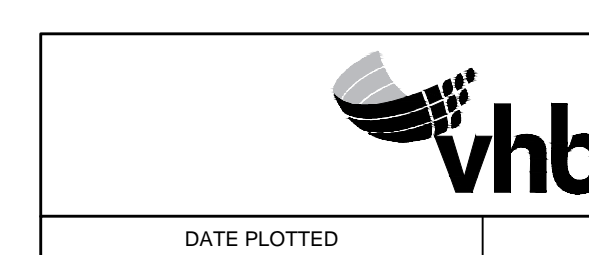
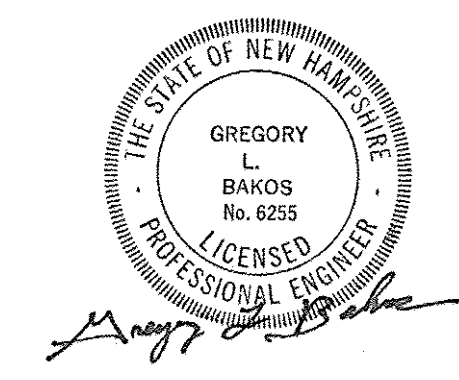
SHEET NO.

TOTAL SHEETS



MATCH TO SHEET 17

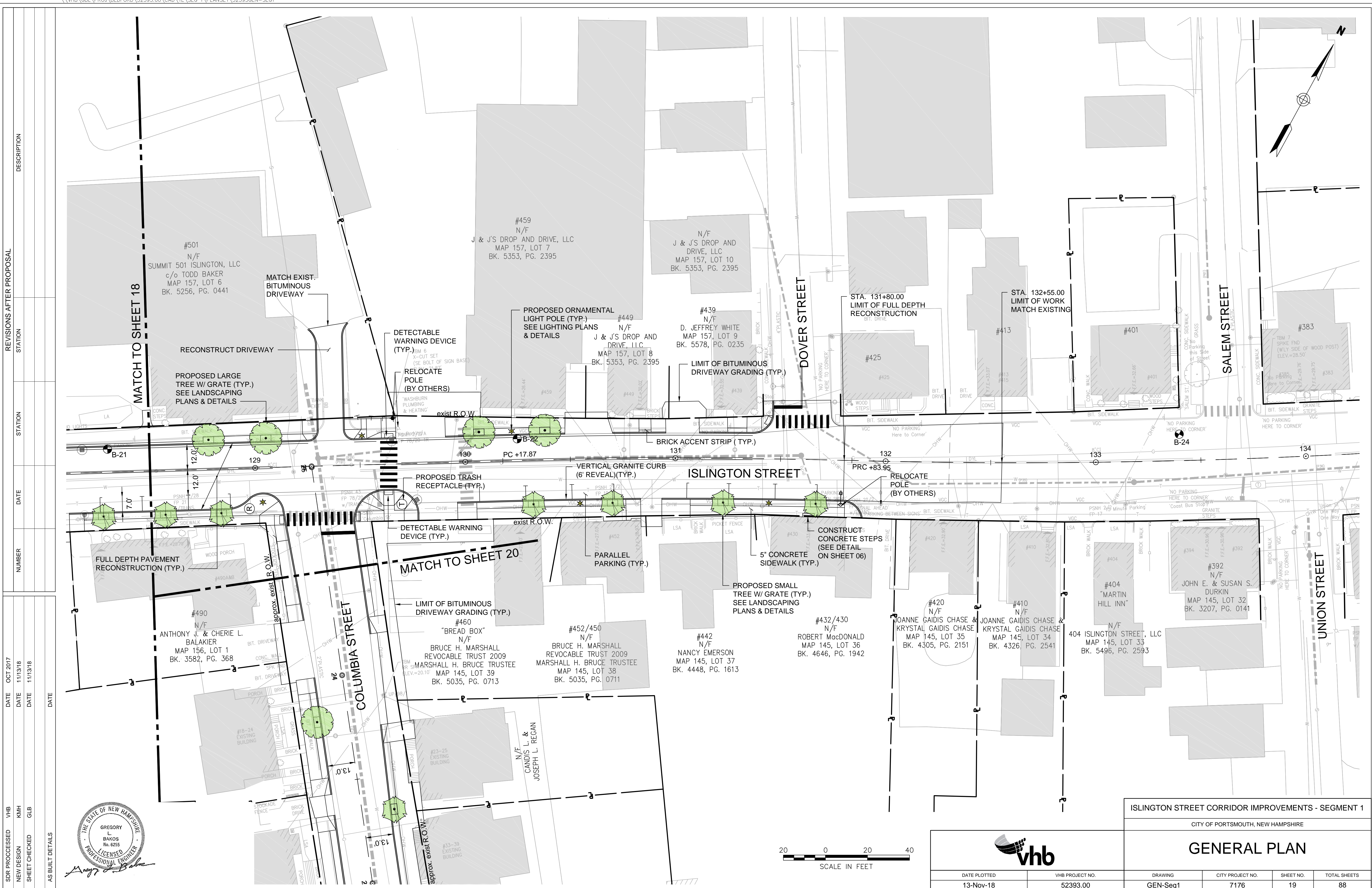
MATCH TO SHEET 19



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

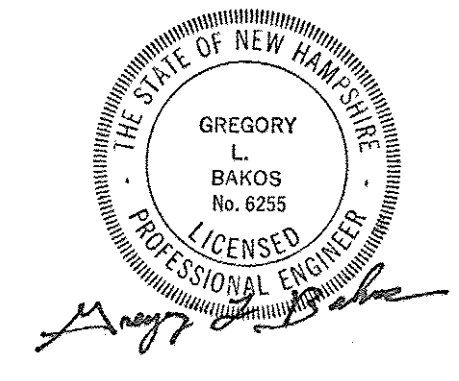
GENERAL PLAN

DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	GEN-Seg1	7176	18	88



REVISIONS AFTER PROPOSAL	STATION	DATE	NUMBER	DESCRIPTION

SDR PROCESSED	VHB	DATE	NEW DESIGN	KMH	DATE	SHEET CHECKED	GLB	DATE	AS BUILT DETAILS
		OCT 2017			11/13/18			11/13/18	



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
GENERAL PLAN					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	GEN-Seg1	7176	19	88

REVISIONS AFTER PROPOSAL

STATION

DATE

NUMBER

DATE

SDR PROCESSED VHB
NEW DESIGN KMH
SHEET CHECKED GLB
AS BUILT DETAILS

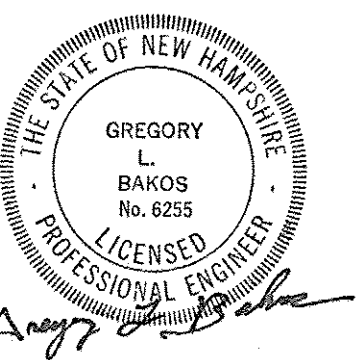
STATION	DATE	NUMBER	DESCRIPTION

DATE	DESCRIPTION
OCT 2017	
11/13/18	
11/13/18	



LIMIT OF WORK
STA. 20+16.00
MATCH EXISTING

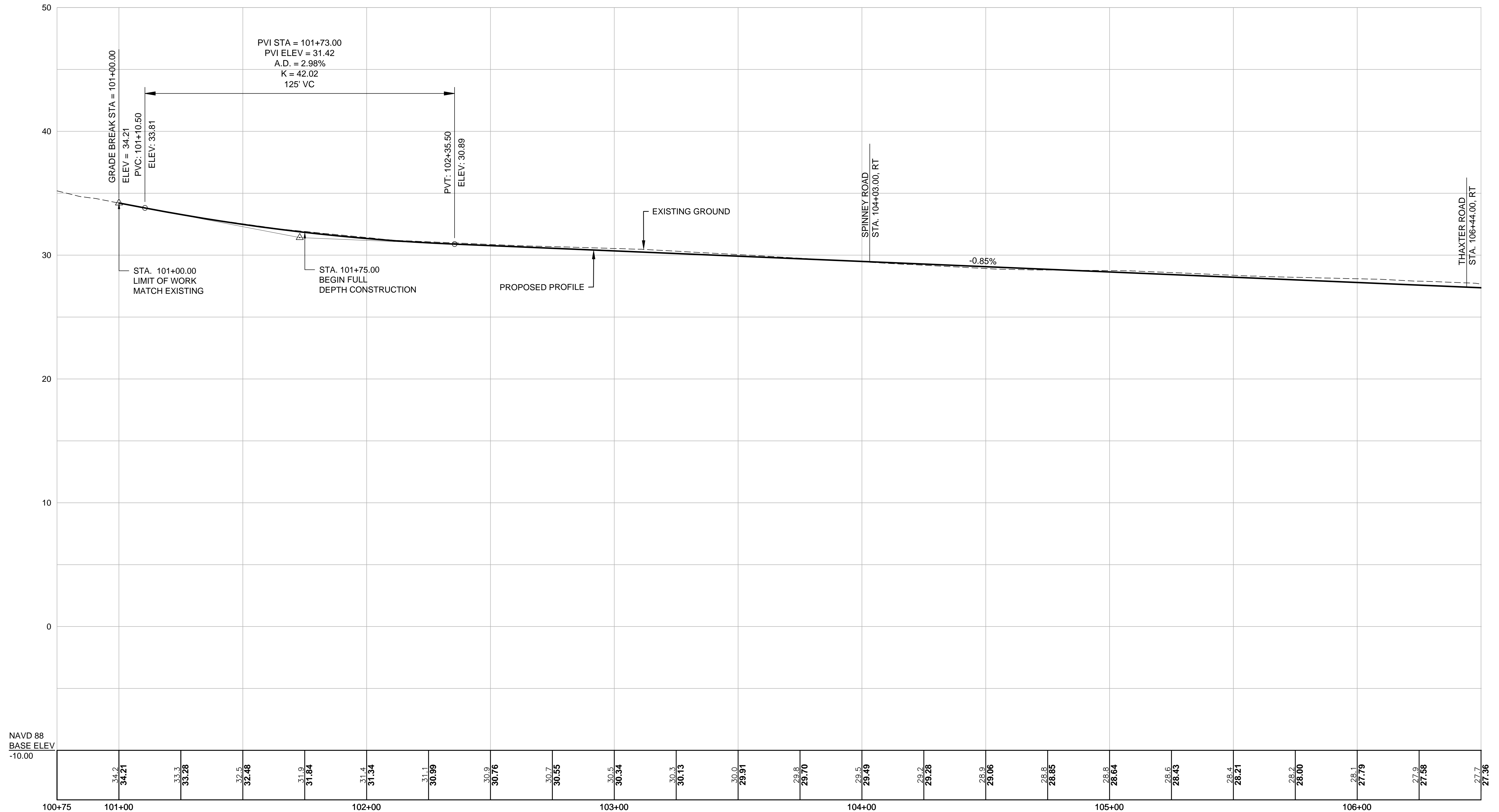
LIMIT OF WORK
STA. 30+00.00
MATCH EXISTING



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
GENERAL PLAN					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	GEN-Seg1	7176	20	88

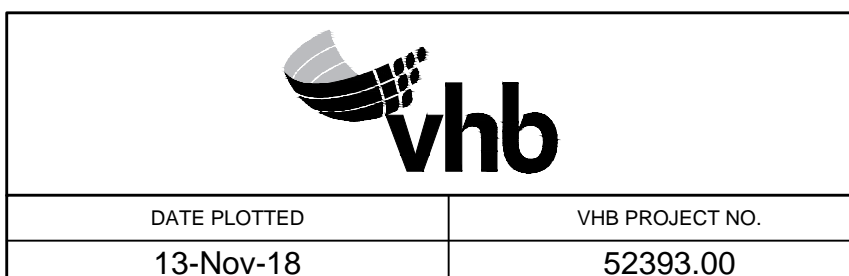
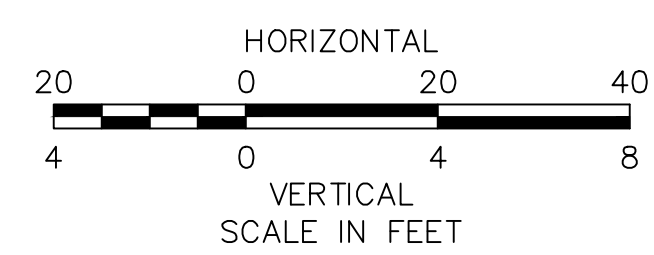
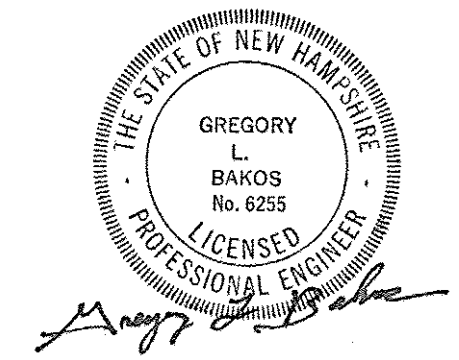
REVISIONS AFTER PROPOSAL		STATION	DESCRIPTION

SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	KMH	DATE	11/13/18
SHEET CHECKED	GLB	DATE	11/13/18
AS BUILT DETAILS		DATE	



NAVD 88
BASE ELEV
-10.00

100+75	34.2	34.21	33.3	33.28	32.5	32.48	31.9	31.84	31.4	31.34	31.1	30.99	30.9	30.76	30.7	30.55	30.5	30.34	30.3	30.13	30.0	29.91	29.8	29.70	29.5	29.49	29.2	29.28	28.9	29.06	28.8	28.85	28.8	28.64	28.6	28.43	28.4	28.21	28.2	28.00	28.1	27.79	27.9	27.58	27.7	27.36
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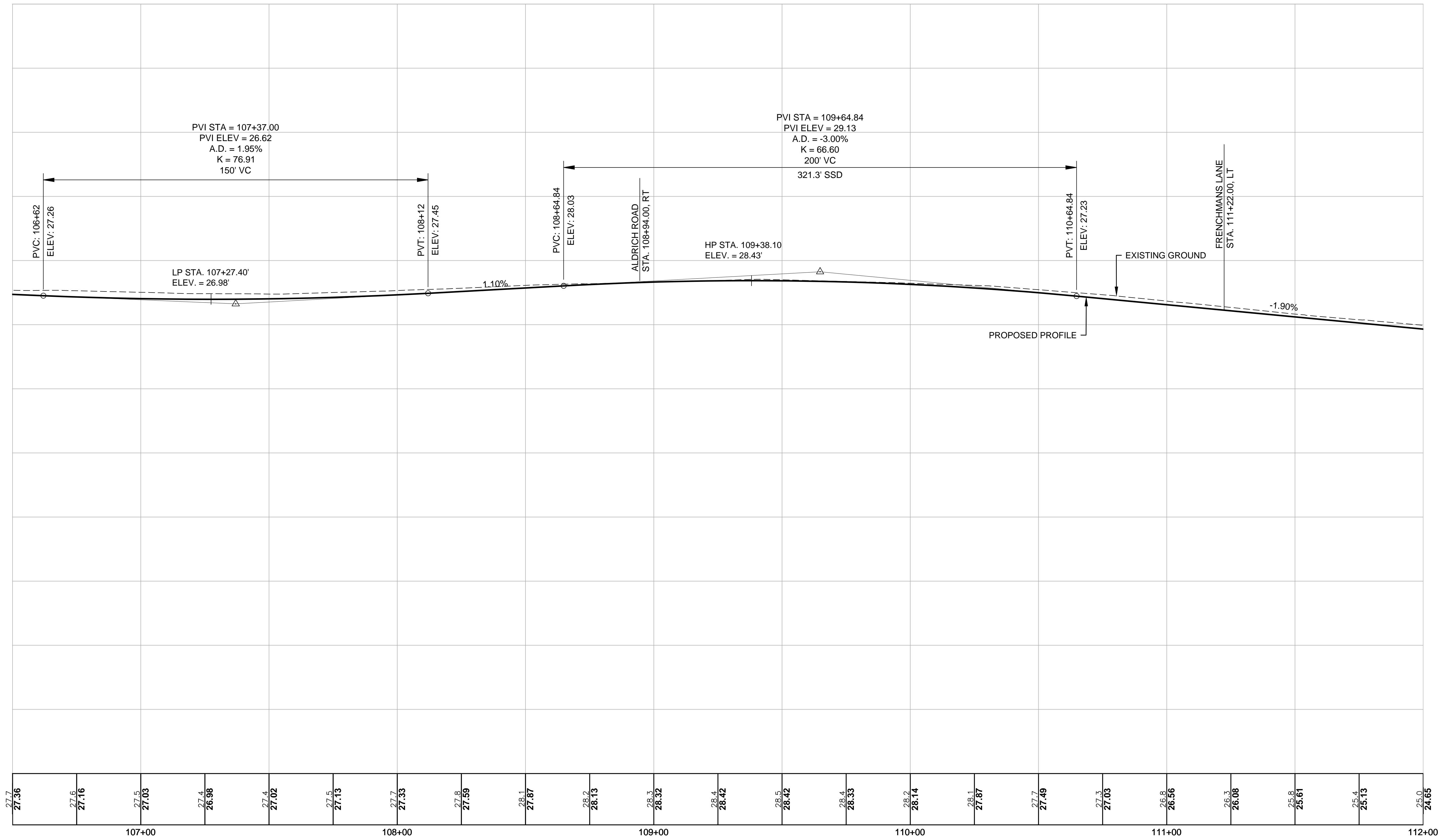


ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
PROFILE					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	PRO-Seg1	7176	21	88

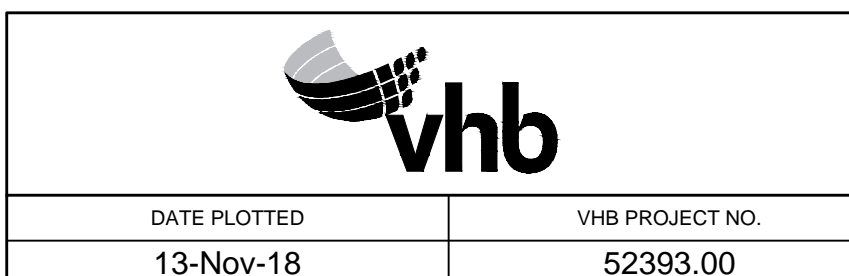
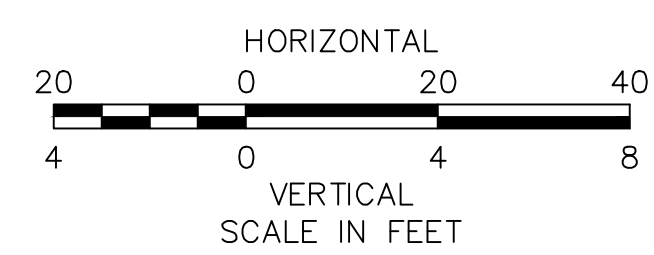
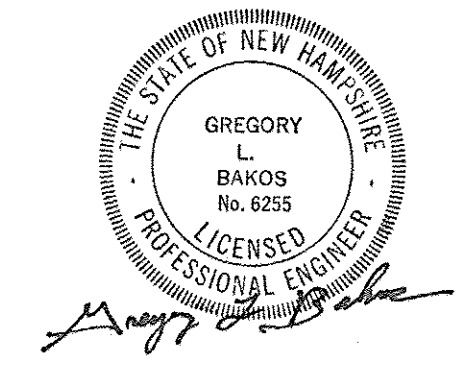
REVISIONS AFTER PROPOSAL

STATION	DESCRIPTION

NUMBER	DATE	STATION	DESCRIPTION



DATE	DATE	DATE	DATE
OCT 2017	11/13/18	11/13/18	

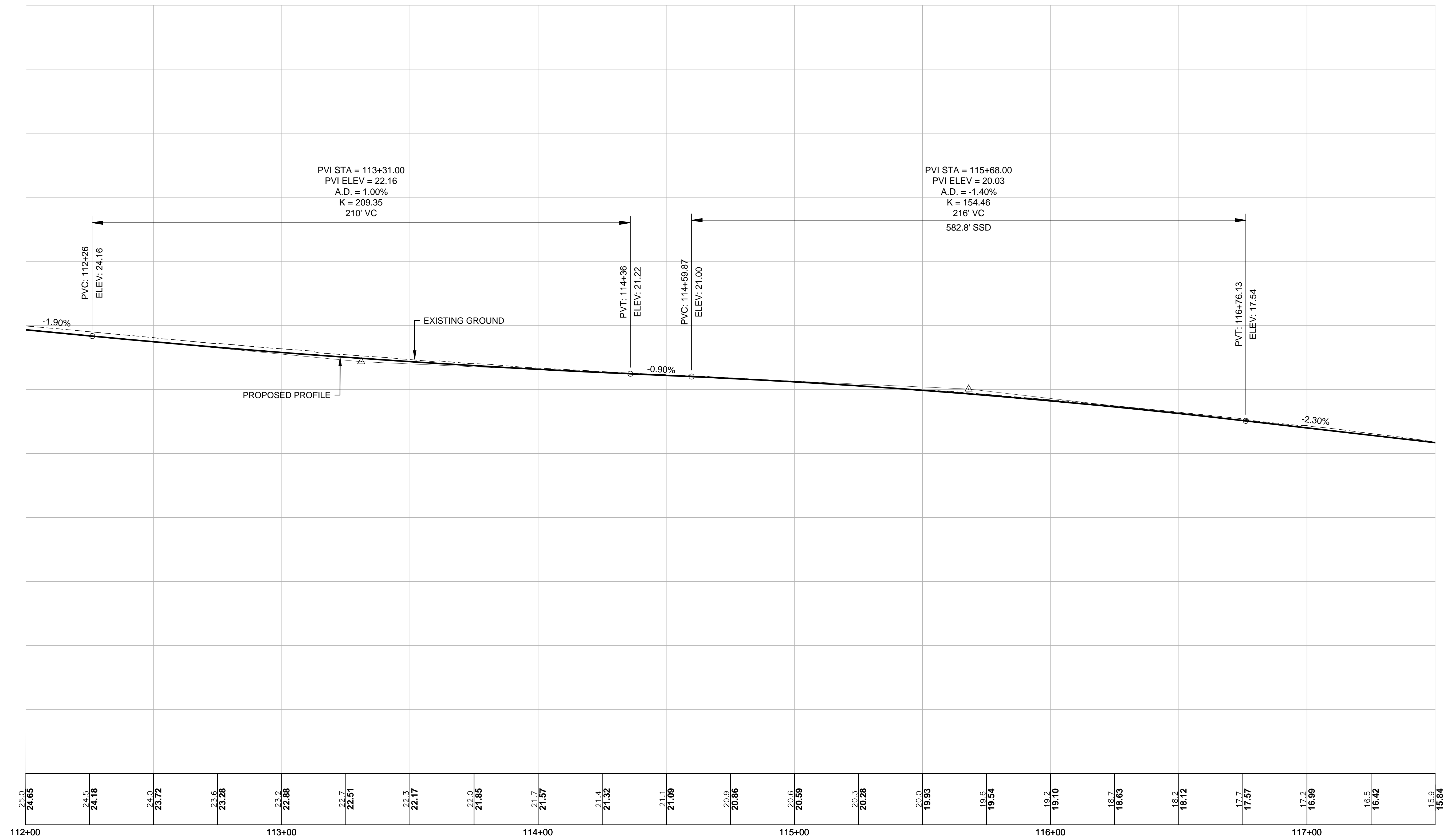


ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
PROFILE					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	PRO-Seg1	7176	22	88

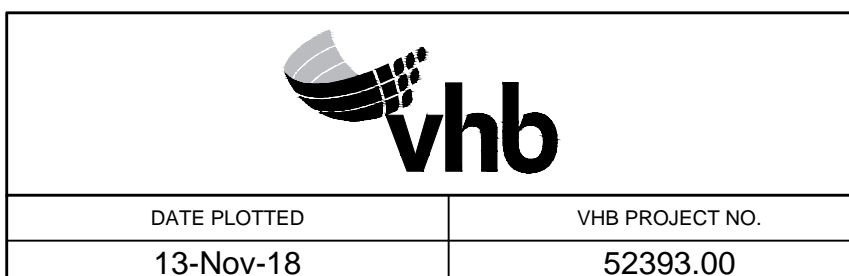
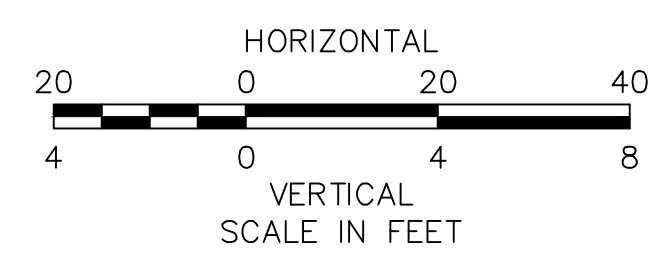
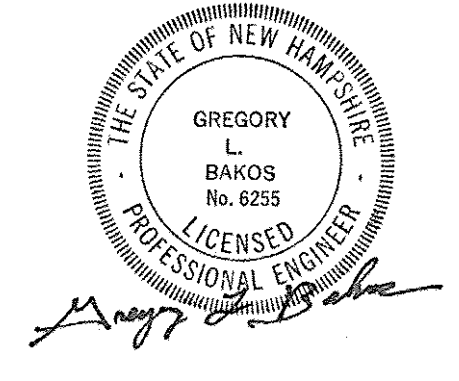
REVISIONS AFTER PROPOSAL

STATION	DESCRIPTION

NUMBER	DATE	STATION	DESCRIPTION



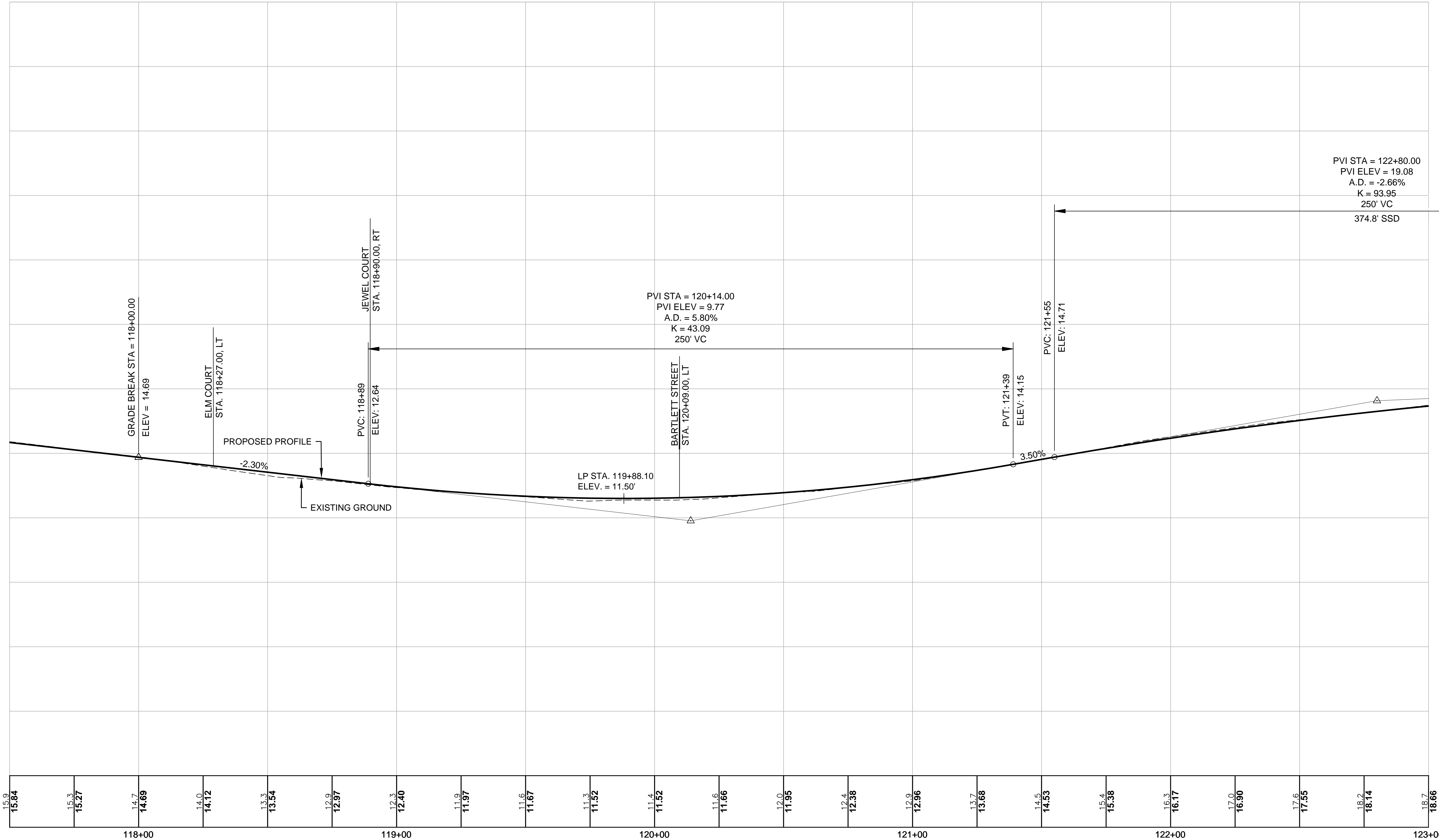
25.0 24.65	24.5 24.18	24.0 23.72	23.6 23.28	23.2 22.88	22.7 22.51	22.3 22.17	22.0 21.85	21.7 21.57	21.4 21.32	21.1 21.09	20.9 20.86	20.6 20.59	20.3 20.28	20.0 19.93	19.6 19.54	19.2 19.10	18.7 18.63	18.2 18.12	17.7 17.57	17.2 16.99	16.5 16.42	15.9 15.84
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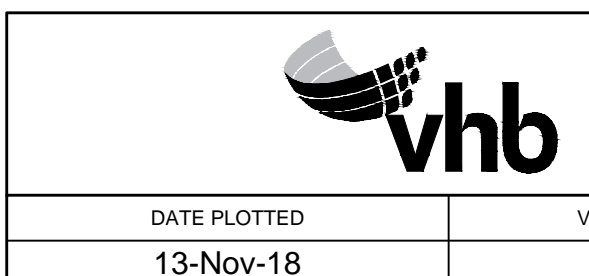
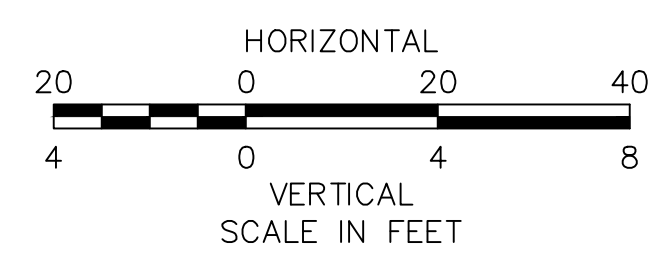
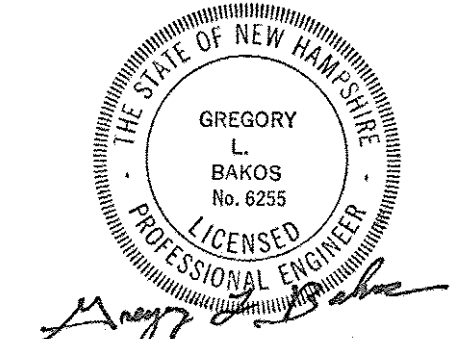
ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
PROFILE					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	PRO-Seg1	7176	23	88

REVISIONS AFTER PROPOSAL		STATION	DESCRIPTION

SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	KMH	DATE	11/13/18
SHEET CHECKED	GLB	DATE	11/13/18
AS BUILT DETAILS		DATE	



15.9	15.84	15.7	15.27	14.7	14.69	14.0	14.12	13.3	13.54	12.9	12.97	12.3	12.40	11.9	11.97	11.6	11.67	11.3	11.52	11.4	11.52	11.6	11.66	12.0	11.95	12.4	12.38	12.9	12.96	13.7	13.68	14.5	14.53	15.4	15.38	16.3	16.17	17.0	16.90	17.6	17.55	18.2	18.14	18.7	18.66
118+00								119+00								120+00								121+00								122+00								123+00					



DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	PRO-Seg1	7176	24	88

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
 CITY OF PORTSMOUTH, NEW HAMPSHIRE

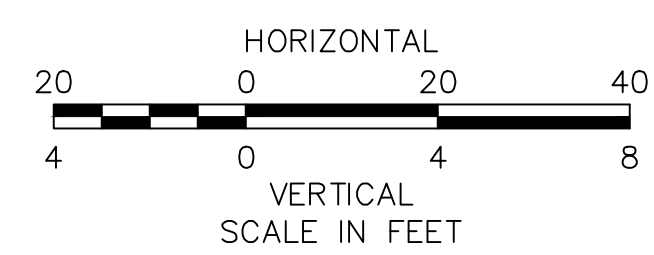
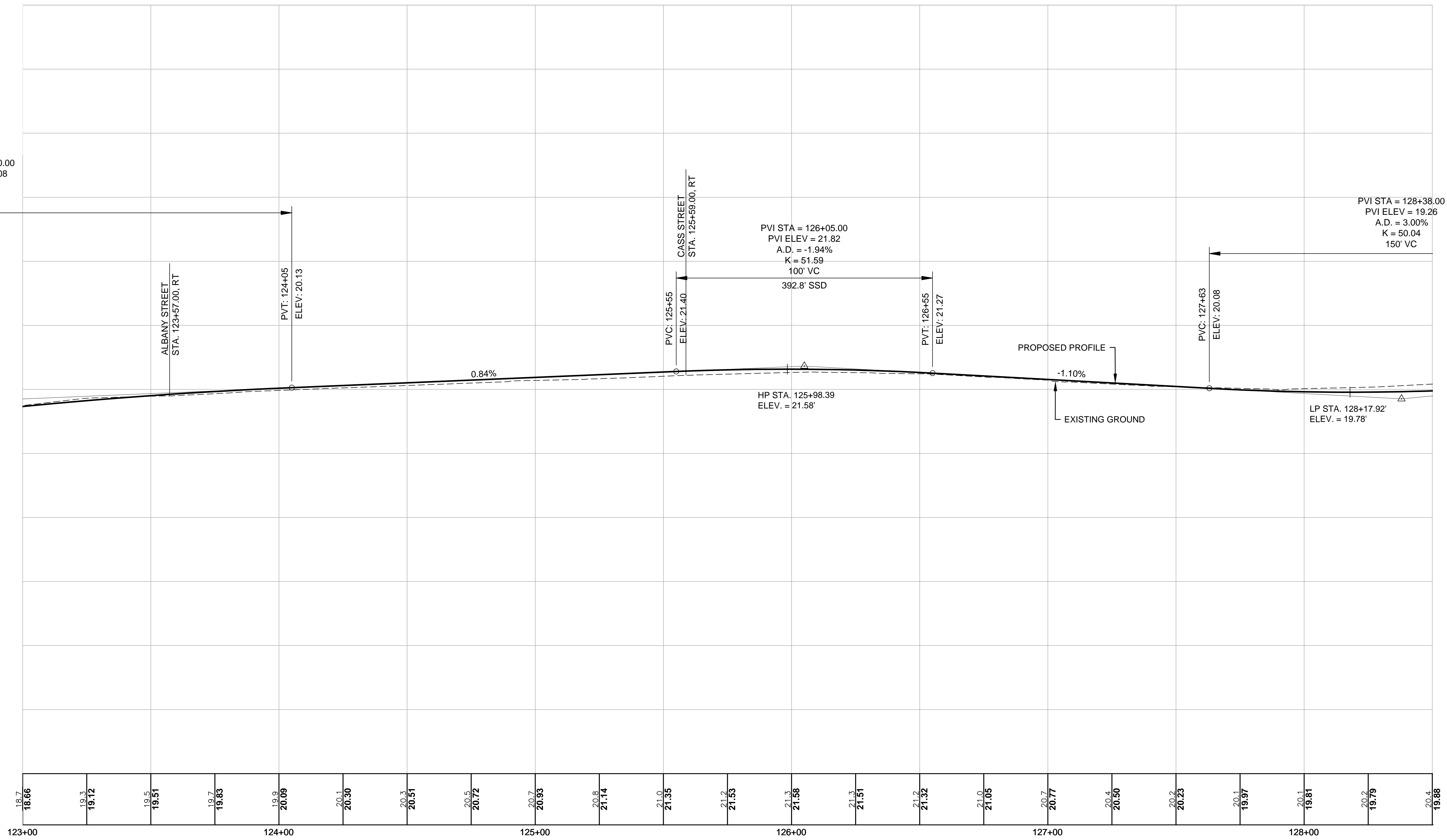
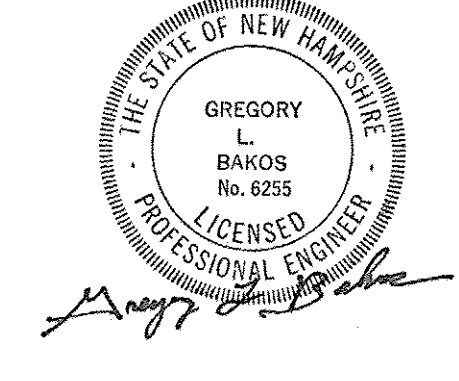
PROFILE

REVISIONS AFTER PROPOSAL

STATION	DESCRIPTION

NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	DATE
VHB	OCT 2017
NEW DESIGN	DATE
KMH	11/13/18
SHEET CHECKED	DATE
GLB	11/13/18
AS BUILT DETAILS	DATE



DATE PLOTTED	VHB PROJECT NO.
13-Nov-18	52393.00

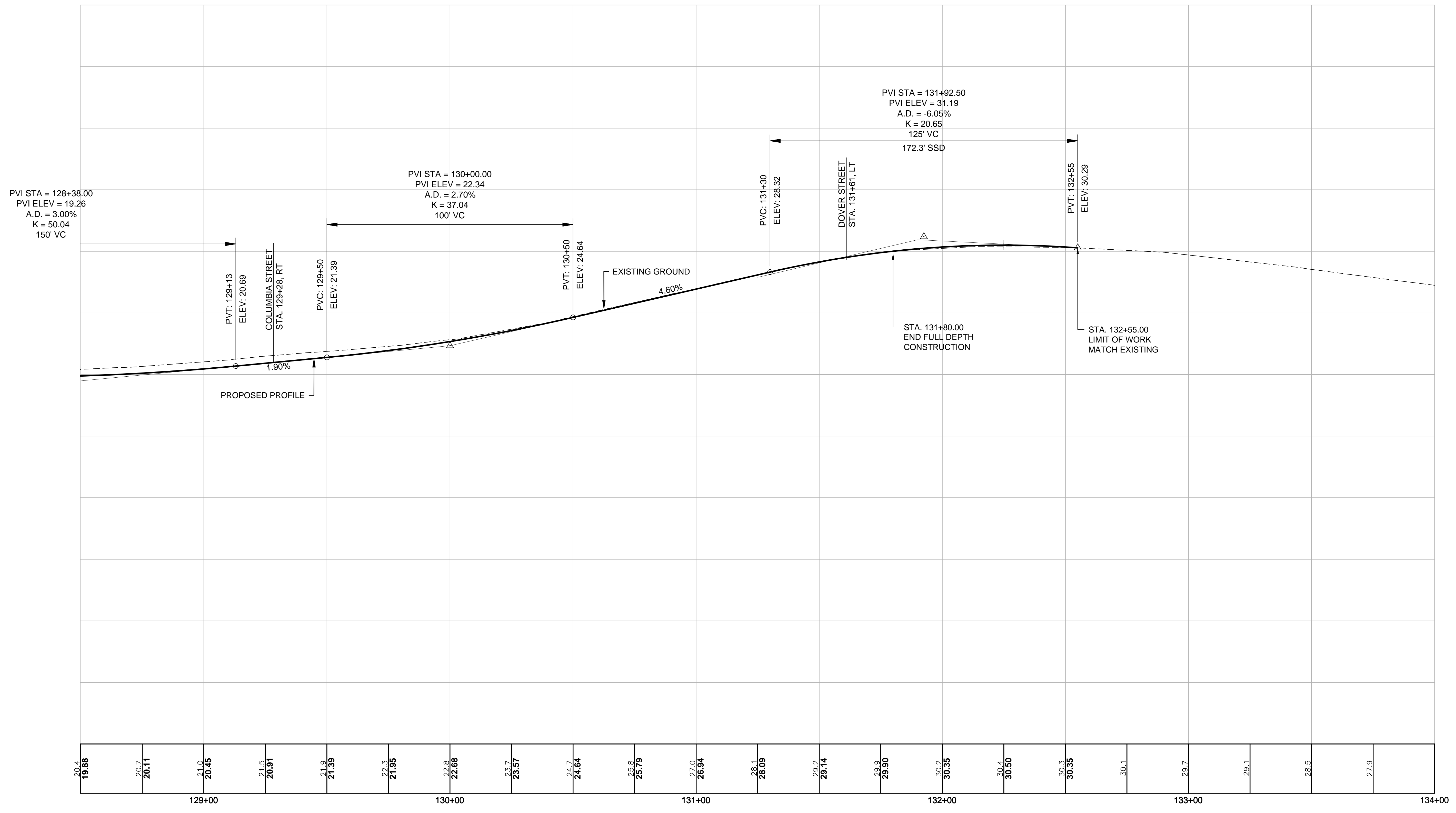
ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1			
CITY OF PORTSMOUTH, NEW HAMPSHIRE			
PROFILE			
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
PRO-Seg1	7176	25	88

REVISIONS AFTER PROPOSAL

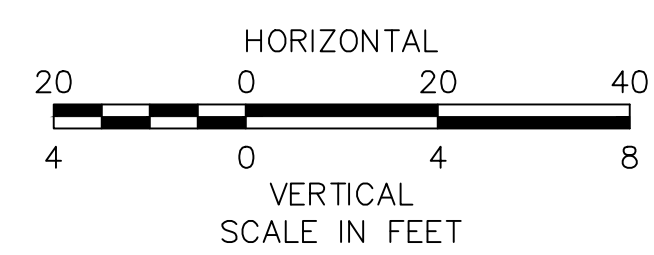
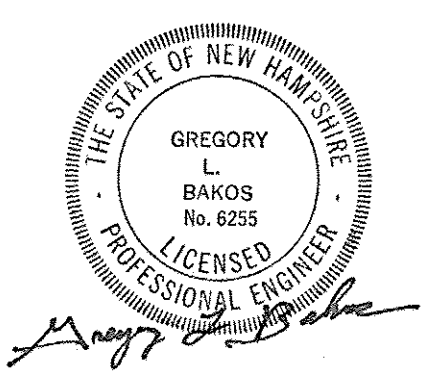
STATION	DESCRIPTION

NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	DATE
VHB	OCT 2017
NEW DESIGN	DATE
KMH	11/13/18
SHEET CHECKED	DATE
GLB	11/13/18
AS BUILT DETAILS	DATE



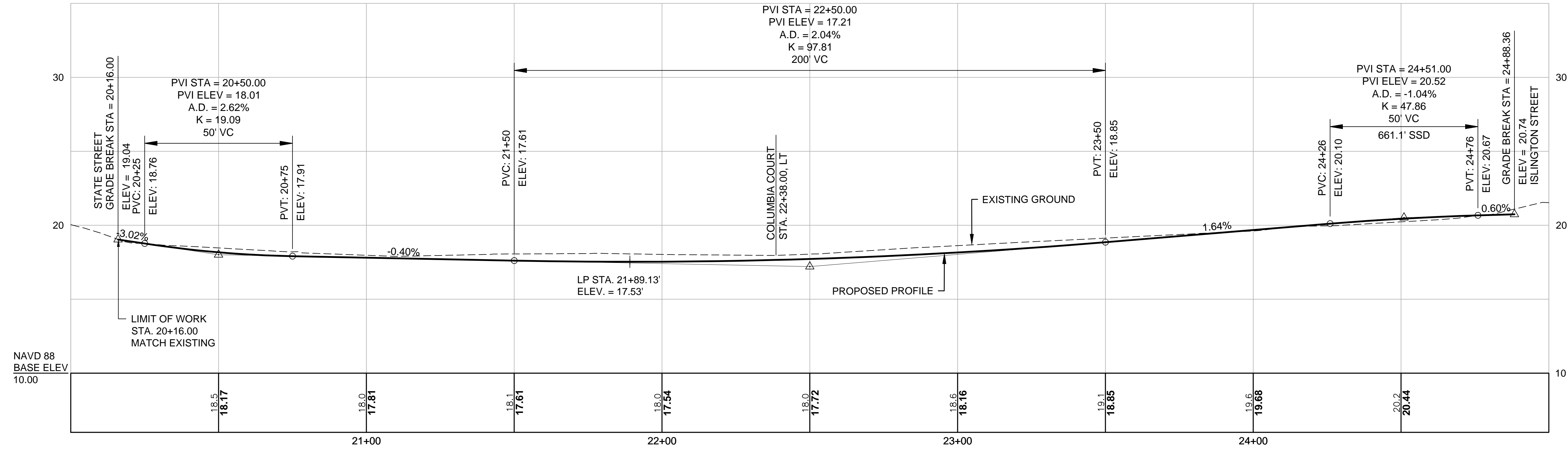
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129+00				130+00				131+00				132+00				133+00				134+00																		



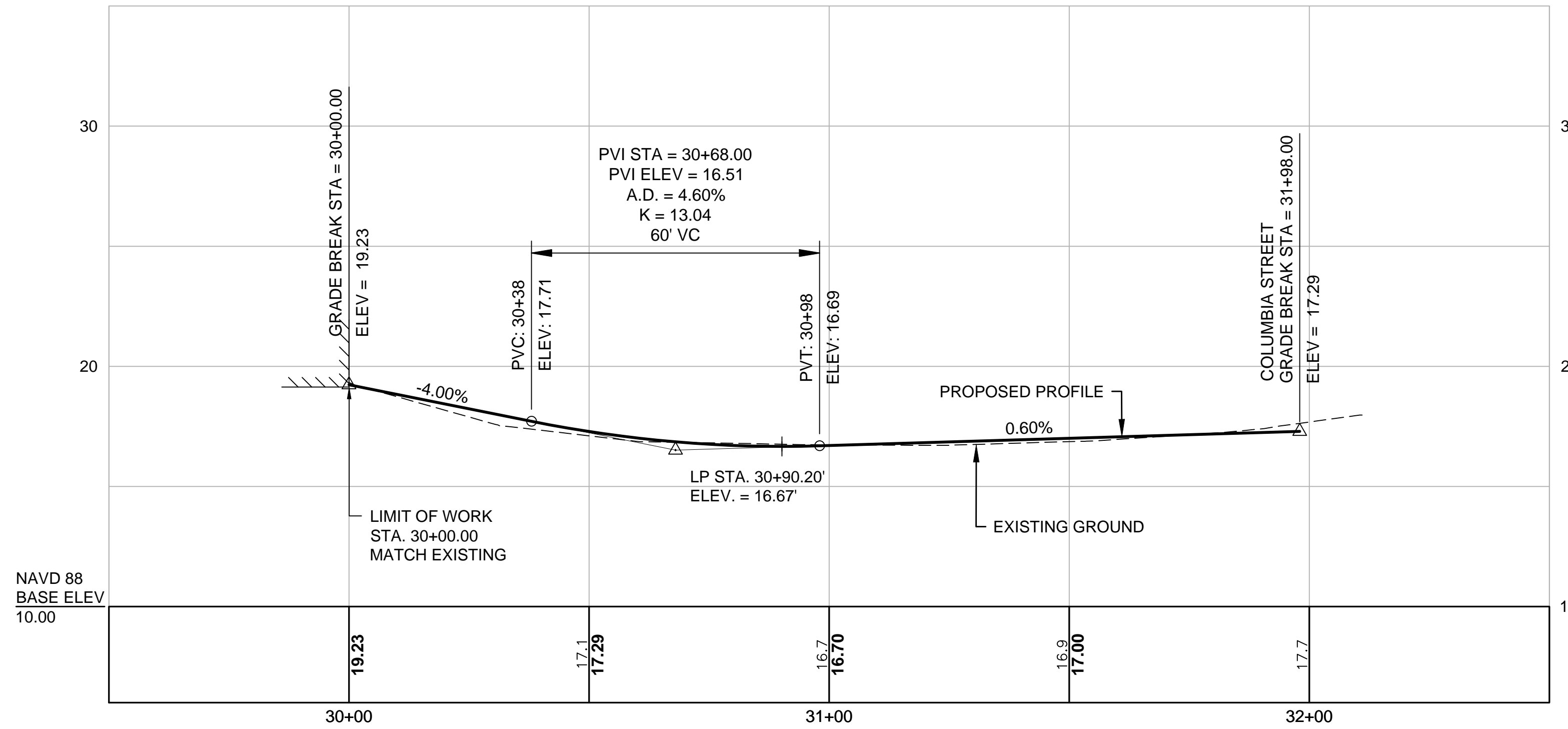
DATE PLOTTED	VHB PROJECT NO.
13-Nov-18	52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1				
CITY OF PORTSMOUTH, NEW HAMPSHIRE				
PROFILE				
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS	
PRO-Seg1	7176	26	88	

COLUMBIA STREET



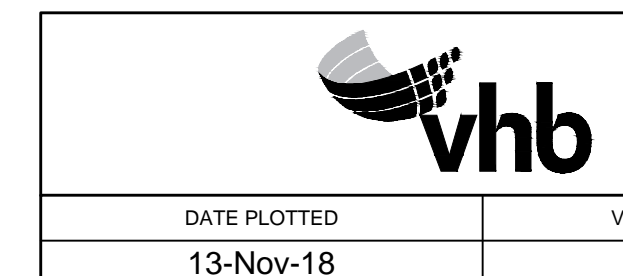
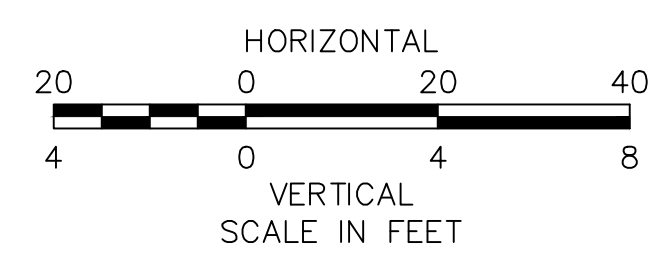
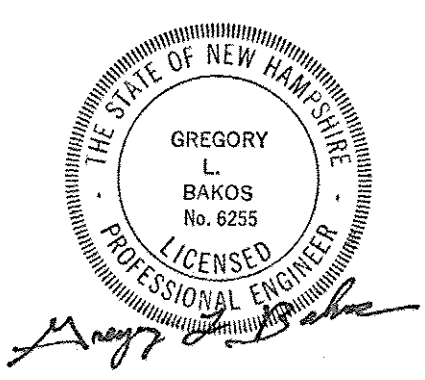
COLUMBIA COURT



REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	DATE
VHB	OCT 2017
NEW DESIGN	DATE
KMH	11/13/18
SHEET CHECKED	DATE
GLB	11/13/18
AS BUILT DETAILS	DATE



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
PROFILE					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	PRO-Seg1	7176	27	88

REVISIONS AFTER PROPOSAL

DESCRIPTION

STATION

STATION

DATE

NUMBER

DATE
OCT 2017

SDR PROCESSED
VHB

DATE
11/13/18

NEW DESIGN
KMH

DATE
11/13/18

SHEET CHECKED
GLB

DATE

AS BUILT DETAILS

ISLINGTON STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C100	100+00.00	207572.163	1222299.998	R = 1420.30' Δ= 10°27'24" L=259.21' T=129.97'		102+59.21	207725.808	1222508.321
L100	102+59.21	207725.808	1222508.321		N48° 21' 42"E 160.62'	104+19.84	207832.530	1222628.362
C101	104+19.84	207832.530	1222628.362	R = 1200.00' Δ= 6°40'19" L=139.74' T=69.95'		105+59.57	207931.239	1222727.160
L101	105+59.57	207931.239	1222727.160		N41° 41' 23"E 196.77'	107+56.34	208078.176	1222858.028
C102	107+56.34	208078.176	1222858.028	R = 800.00' Δ= 13°57'41" L=194.94' T=97.95'		109+51.28	208238.029	1222968.752
L102	109+51.28	208238.029	1222968.752		N27° 43' 42"E 175.70'	111+26.97	208393.548	1223050.500
L103	111+26.97	208393.548	1223050.500		N29° 00' 57"E 240.08'	113+67.05	208603.496	1223166.953
L104	113+67.05	208603.496	1223166.953		N27° 31' 00"E 473.44'	118+40.49	209023.376	1223385.684
C103	118+40.49	209023.376	1223385.684	R = 875.00' Δ= 15°02'11" L=229.63' T=115.48'		120+70.12	209210.860	1223517.132
L105	120+70.12	209210.860	1223517.132		N42° 33' 12"E 293.07'	123+63.20	209426.752	1223715.330
C104	123+63.20	209426.752	1223715.330	R = 2000.00' Δ= 3°29'40" L=121.98' T=61.01'		124+85.18	209519.068	1223795.032
C105	124+85.18	209519.068	1223795.032	R = 760.00' Δ= 20°41'03" L=274.37' T=138.69'		127+59.54	209696.648	1224002.224
L106	127+59.54	209696.648	1224002.224		N59° 44' 35"E 258.32'	130+17.87	209826.812	1224225.357
C106	130+17.87	209826.812	1224225.357	R = 3000.00' Δ= 3°10'19" L=166.09' T=83.06'		131+83.95	209906.487	1224371.062
C107	131+83.95	209906.487	1224371.062	R = 3000.00' Δ= 6°00'30" L=314.60' T=157.45'		134+98.56	210064.139	1224643.145

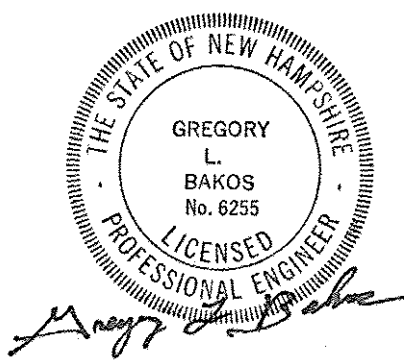
HORIZONTAL CONTROL POINT DATA				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
HC-3	102+90.98	19.72' LT	207761.6500	1222518.9562
HC-4	106+29.69	34.48' RT	207960.6644	1222799.5404
HC-9	120+48.50	42.35' LT	209222.6148	1223470.8187
HC-10	123+21.47	17.94' RT	209383.8870	1223700.3263
HC-11	126+03.57	20.97' LT	209620.4054	1223862.4455

SPINNEY ROAD CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L40	40+00.00	207727.058	1222633.962		N19° 17' 59"E 35.12'	40+35.12	207760.207	1222645.571
C40	40+35.12	207760.207	1222645.571	R = 36.00' Δ= 60°56'18" L=38.29' T=21.18'		40+73.41	207796.024	1222638.499
L41	40+73.41	207796.024	1222638.499		N41° 38' 18"W 33.97'	41+07.38	207821.413	1222615.927

BARTLETT STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L50	50+00.00	209166.606	1223479.144		N72° 59' 23"W 106.99'	51+06.99	209197.905	1223376.836
L51	51+06.99	209197.905	1223376.836		N74° 38' 37"W 67.43'	51+74.42	209215.762	1223311.816

COLUMBIA STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L20	20+00.00	209386.361	1224454.377		N39° 45' 18"W 92.92'	20+92.92	209457.799	1224394.952
C20	20+92.92	209457.799	1224394.952	R = 3500.00' Δ= 2°49'38" L=172.70' T=86.37'		22+65.62	209593.240	1224287.828
L21	22+65.62	209593.240	1224287.828		N36° 55' 41"W 234.82'	25+00.45	209780.953	1224146.745

COLUMBIA COURT CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L30	30+00.00	209431.678	1224146.369		N47° 52' 43"E 149.89'	31+49.89	209532.208	1224257.545
C30	31+49.89	209532.208	1224257.545	R = 1000.00' Δ= 1°31'38" L=26.66' T=13.33'		31+76.54	209549.821	1224277.553
L31	31+76.54	209549.821	1224277.553		N49° 24' 22"E 34.47'	32+11.01	209572.250	1224303.727



DATE PLOTTED	VHB PROJECT NO.
13-Nov-18	52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1				
CITY OF PORTSMOUTH, NEW HAMPSHIRE				
GRADING & LAYOUT PLAN				
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS	
GRADE-Seg1	7176	28	88	

SDR PROCESSED VHB DATE OCT 2017 VHB
 NEW DESIGN KMVH DATE 11/13/18 VHB
 SHEET CHECKED GJB DATE 11/13/18 VHB
 AS BUILT DETAILS

REVISIONS AFTER PROPOSAL

STATION

STATION

NUMBER

DATE

DATE

DATE

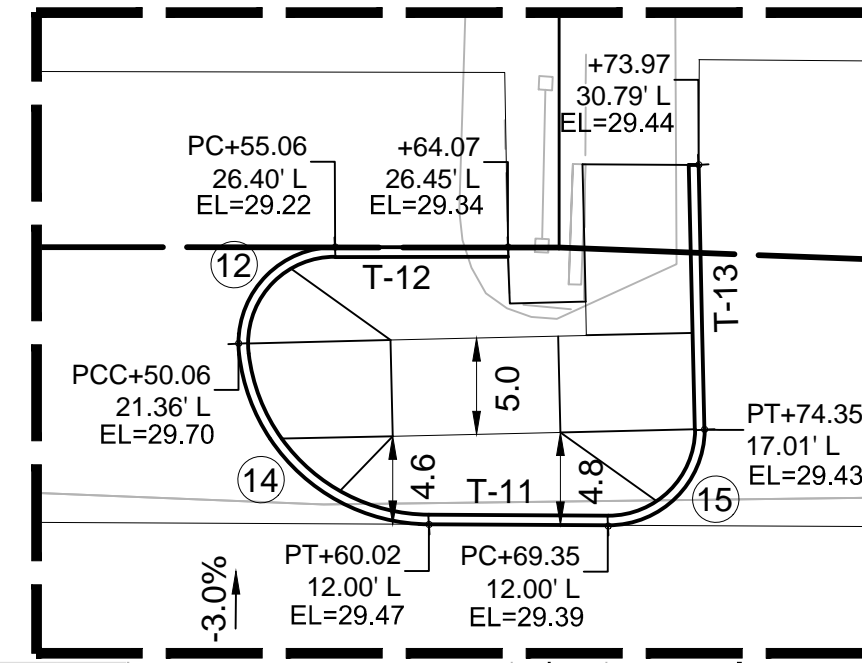
DATE

CURB TABLE	
NUMBER	LENGTH
T-1	13.45
T-2	2.37
T-3	8.79
T-4	7.86
T-6	3.28
T-7	109.90
T-10	56.79
T-11	9.33
T-12	9.01
T-13	13.78
T-17	34.51
T-20	67.87

CURB TABLE		
NUMBER	LENGTH	RADIUS
1	8.26'	10.00'
2	16.40'	10.00'
3	15.71'	10.00'
4	7.66'	5.00'
5	7.87'	5.00'
6	45.87'	1408.30'
10	15.60'	10.00'
11	3.96'	2.50'
12	8.46'	5.00'
14	14.49'	10.00'
15	7.85'	5.00'

CURB TABLE		
NUMBER	LENGTH	RADIUS
26	12.42'	10.00'
27	12.42'	10.00'
28	32.77'	1188.00'
29	10.56'	15.00'
30	10.32'	15.00'
31	81.12'	1181.00'
32	15.73'	10.00'
33	15.71'	10.00'

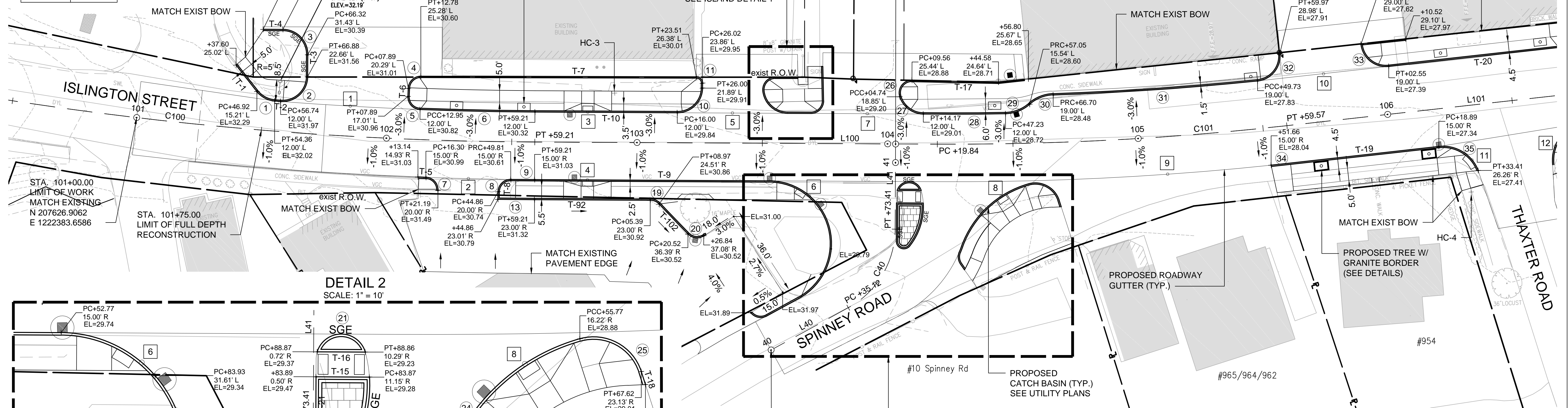
ISLAND DETAIL 1
SCALE: 1" = 10'



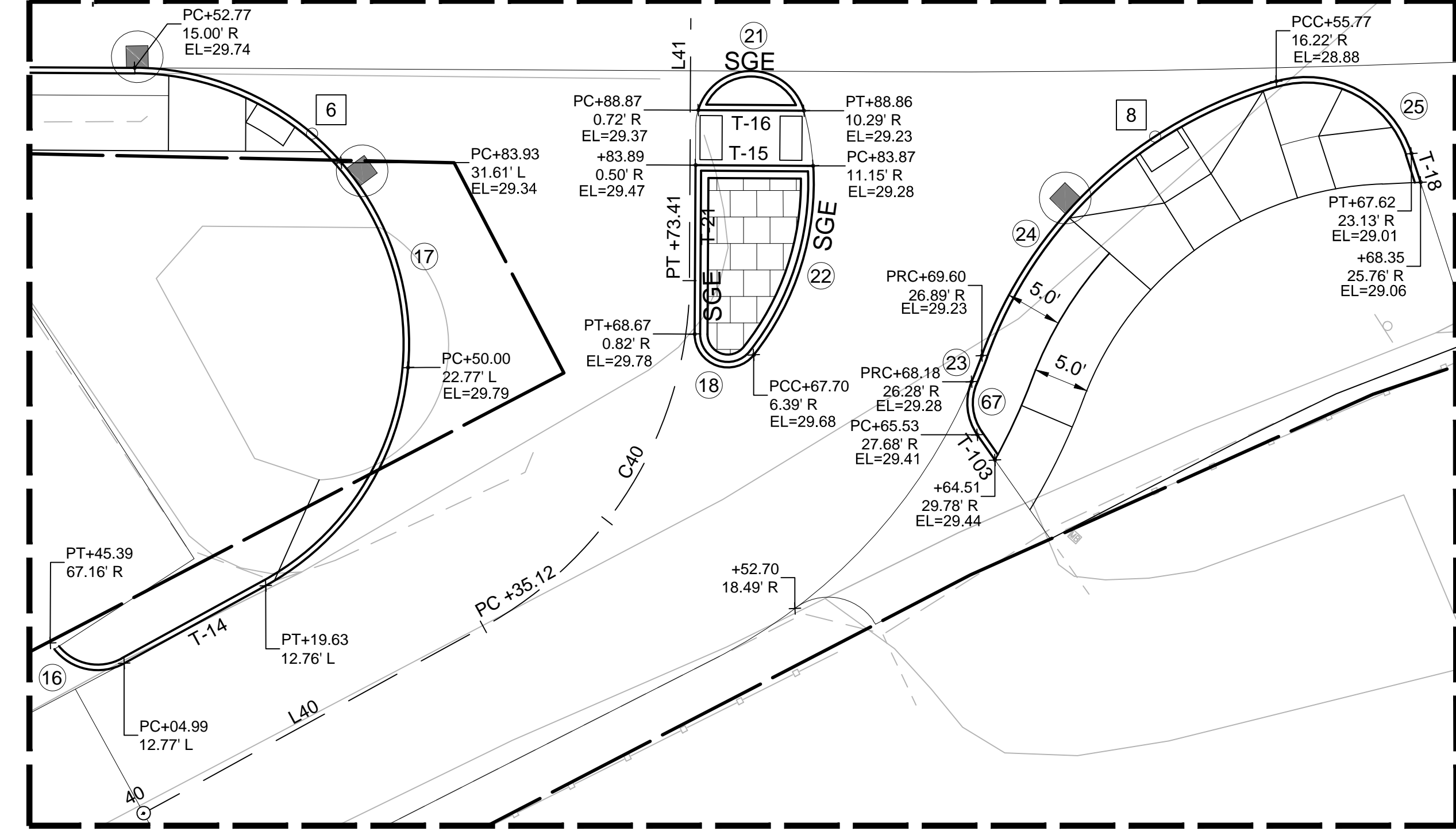
PROPOSED TREE GRATE
(SEE DETAILS)

SEE ISLAND DETAIL 1

ISLINGTON STREET STA. 104+03.16 =
SPINNEY ROAD STA. 41+07.38



DETAIL 2
SCALE: 1" = 10'



CURB TABLE		
NUMBER	LENGTH	RADIUS
16	7.68'	5.00'
17	65.87'	25.00'
18	7.43'	3.00'
21	12.78'	5.00'
22	18.36'	25.00'
23	2.98'	50.00'
24	37.86'	40.00'
25	15.35'	10.00'
67	5.05'	5.00'

CURB TABLE		
NUMBER	LENGTH	RADIUS
7	7.89'	5.00'
8	7.85'	5.00'
9	9.51'	1435.30'
13	14.80'	1443.30'
19	3.99'	5.00'
20	6.89'	5.00'

CURB TABLE	
NUMBER	LENGTH
T-5	3.19
T-8	3.01
T-9	93.55
T-14	14.63
T-15	10.65
T-16	9.58
T-18	2.74
T-19	59.31
T-21	15.31
T-92	46.17
T-102	16.56
T-103	2.79

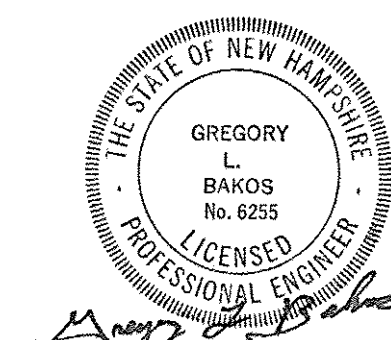
CURB TABLE		
NUMBER	LENGTH	RADIUS
34	8.01'	1215.00'
35	19.78'	15.00'
36	22.71'	15.00'

LEGEND

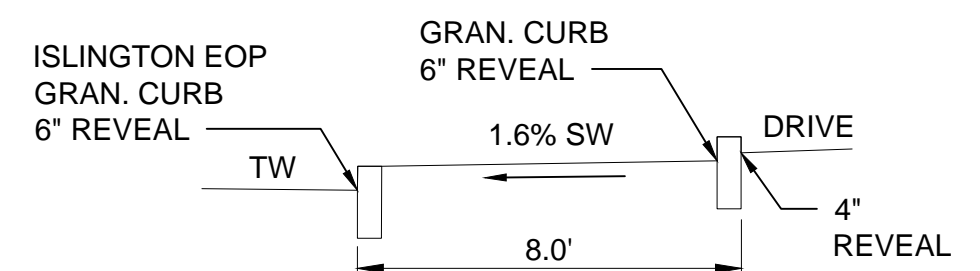
- # ADA RAMP/DRIVEWAY NO. (SEE DETAILS)
- @ CURB CURVE NO.
- T-# CURB TANGENT NO.
- C# ALIGNMENT CURVE NO.
- L# ALIGNMENT TANGENT NO.

NOTES:

1. ALL CURBING TO BE VERTICAL GRANITE CURB (VGC) UNLESS NOTED OTHERWISE
2. ALL ELEVATIONS LISTED ARE BOTTOM OF CURB ELEVATIONS.



BACK CURB DETAIL
STA. 102+45 TO STA. 103+05, RT



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1

CITY OF PORTSMOUTH, NEW HAMPSHIRE

GRADING & LAYOUT PLAN

DATE PLOTTED		VHB PROJECT NO.		DRAWING		CITY PROJECT NO.		SHEET NO.		TOTAL SHEETS	
13-Nov-18		52393.00		GRADE-Seg1		7176		29		88	



REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

DATE

SDR PROCESSED VHB

NEW DESIGN KMVH DATE 11/13/18

SHEET CHECKED GLB DATE 11/13/18

AS BUILT DETAILS

CURB TABLE		
NUMBER	LENGTH	RADIUS
36	22.71'	15.00'
41	6.86'	5.00'
47	20.40'	20.00'
47A	7.98'	20.00'
49	20.05'	20.00'
49A	12.79'	20.00'

CURB TABLE	
NUMBER	LENGTH
T-23	90.84
T-26	6.49
T-30	28.54
T-34	24.24
T-35	12.25
T-38	58.51
T-40	239.92
T-104	45.84

LEGEND

- # ADA RAMP/DRIVEWAY NO. (SEE DETAILS)
- Ⓢ CURB CURVE NO.
- T-# CURB TANGENT NO.
- C # ALIGNMENT CURVE NO.
- L # ALIGNMENT TANGENT NO.

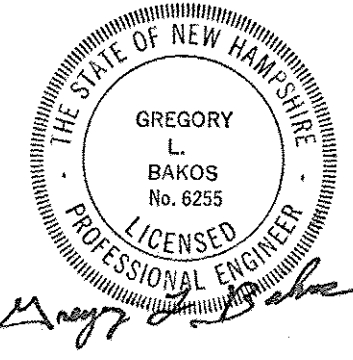
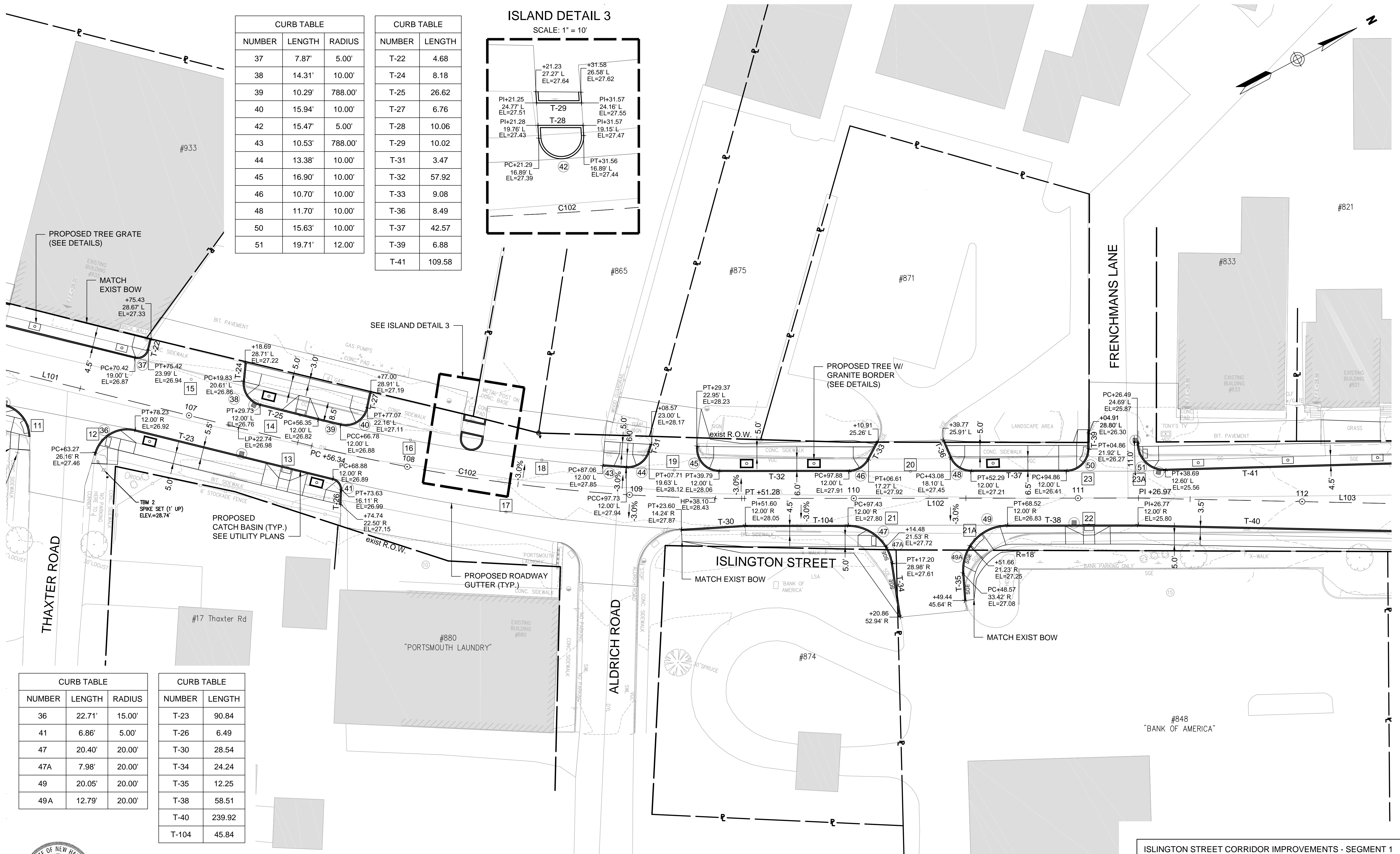
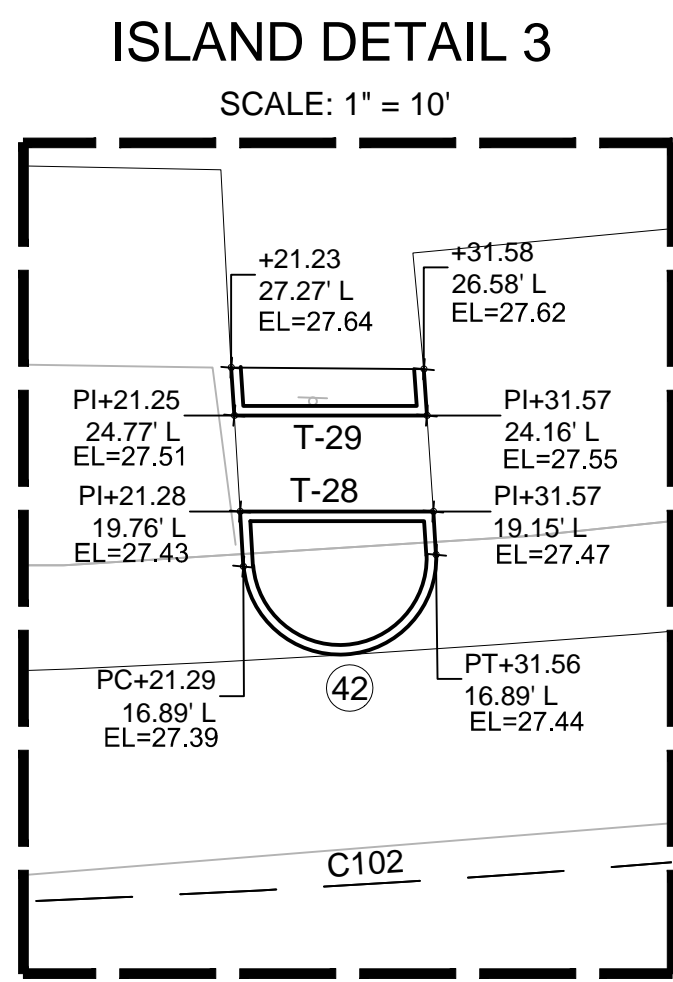
NOTES:

1. ALL CURBING TO BE VERTICAL GRANITE CURB (VGC) UNLESS NOTED OTHERWISE
2. ALL ELEVATIONS LISTED ARE BOTTOM OF CURB ELEVATIONS.



CURB TABLE		
NUMBER	LENGTH	RADIUS
37	7.87'	5.00'
38	14.31'	10.00'
39	10.29'	788.00'
40	15.94'	10.00'
42	15.47'	5.00'
43	10.53'	788.00'
44	13.38'	10.00'
45	16.90'	10.00'
46	10.70'	10.00'
48	11.70'	10.00'
50	15.63'	10.00'
51	19.71'	12.00'

CURB TABLE	
NUMBER	LENGTH
T-22	4.68
T-24	8.18
T-25	26.62
T-27	6.76
T-28	10.06
T-29	10.02
T-31	3.47
T-32	57.92
T-33	9.08
T-36	8.49
T-37	42.57
T-39	6.88
T-41	109.58



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
GRADING & LAYOUT PLAN					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	GRADE-Seg1	7176	30	88



REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

VHB

KMH

GLB

AS BUILT DETAILS

CURB TABLE		
NUMBER	LENGTH	RADIUS
52	7.72'	5.00'
53	14.23'	12.00'
53A	4.29'	12.00'
54	10.78'	3.43'
55	17.04'	20.00'
56	4.60'	2.00'
59	7.85'	5.00'
60	10.81'	5.00'
62	18.51'	20.00'
62A	12.16'	20.00'
63	18.55'	20.00'
63A	12.87'	20.00'

CURB TABLE	
NUMBER	LENGTH
T-42	84.55
T-43	59.51
T-44	59.09
T-45	9.26
T-46	9.45
T-47	12.76
T-49	36.64
T-52	46.98
T-54	109.11
T-55	109.28
T-96	14.54

CURB TABLE		
NUMBER	LENGTH	RADIUS
57	24.76'	35.00'
57A	10.20'	35.00'
58	8.62'	2.77'
61	20.46'	35.00'
61A	10.01'	35.00'
64	25.57'	35.00'
64A	5.00'	35.00'
65	24.89'	35.00'
65A	5.07'	35.00'

CURB TABLE	
NUMBER	LENGTH
T-50	2.92
T-51	3.93
T-53	131.29
T-56	129.40

LEGEND

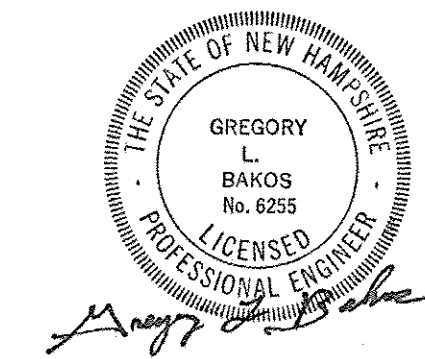
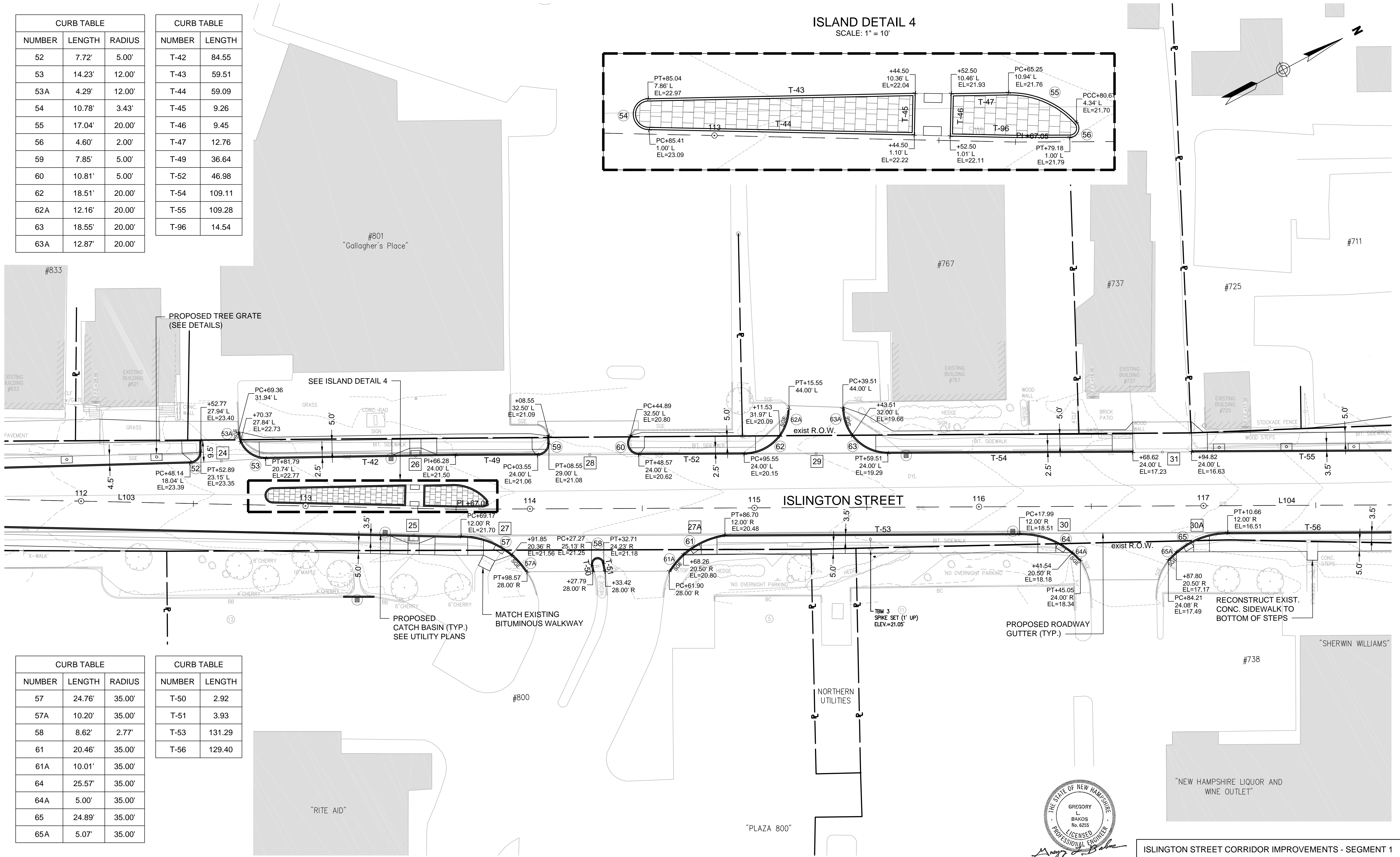
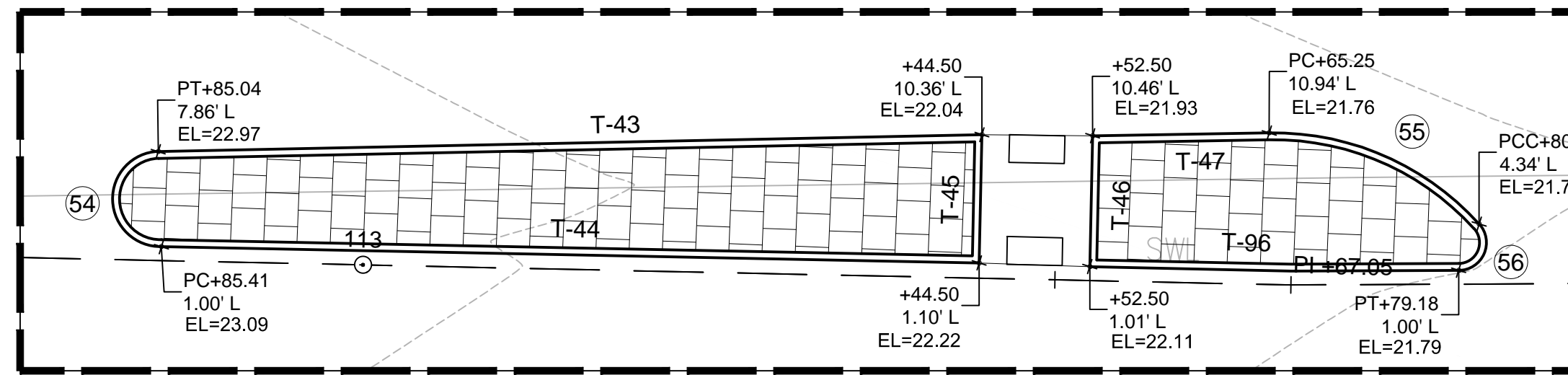
- # ADA RAMP/DRIVEWAY NO. (SEE DETAILS)
- ⊙ CURB CURVE NO.
- T-# CURB TANGENT NO.
- C # ALIGNMENT CURVE NO.
- L # ALIGNMENT TANGENT NO.

NOTES:

1. ALL CURBING TO BE VERTICAL GRANITE CURB (VGC) UNLESS NOTED OTHERWISE
2. ALL ELEVATIONS LISTED ARE BOTTOM OF CURB ELEVATIONS.

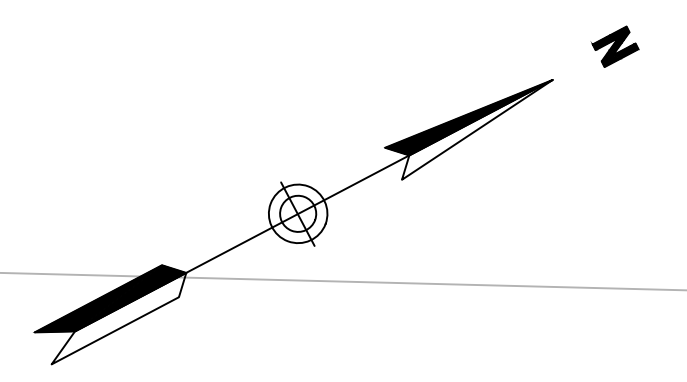


ISLAND DETAIL 4
SCALE: 1" = 10'



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
GRADING & LAYOUT PLAN					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	GRADE-Seg1	7176	31	88





CURB TABLE		
NUMBER	LENGTH	RADIUS
66	16.05'	10.00'
68	39.94'	905.00'
74	12.08'	862.85'
76	19.33'	1029.14'
77	34.88'	21.00'
79	48.12'	50.00'
81	37.71'	1020.00'
83	4.33'	5.00'
84	31.74'	45.00'
181	7.88'	5.00'
182	4.72'	3.00'
183	4.72'	3.00'

CURB TABLE	
NUMBER	LENGTH
T-62	50.48
T-63	72.73
T-67	56.30
T-71	21.47
T-107	3.39

CURB TABLE		
NUMBER	LENGTH	RADIUS
69	26.14'	863.00'
70	8.98'	5.00'

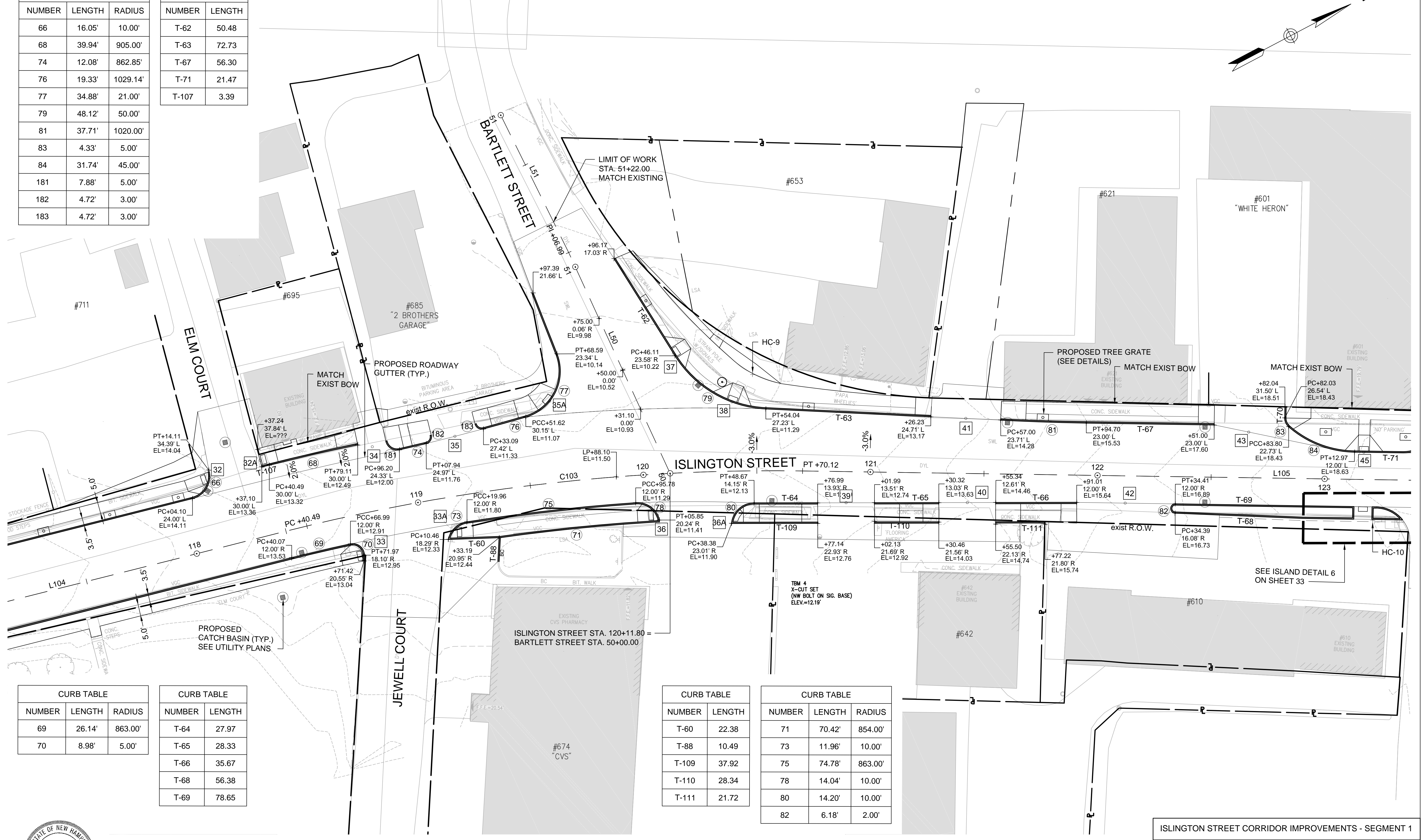
CURB TABLE	
NUMBER	LENGTH
T-64	27.97
T-65	28.33
T-66	35.67
T-68	56.38
T-69	78.65

CURB TABLE	
NUMBER	LENGTH
T-60	22.38
T-88	10.49
T-109	37.92
T-110	28.34
T-111	21.72

CURB TABLE		
NUMBER	LENGTH	RADIUS
71	70.42'	854.00'
73	11.96'	10.00'
75	74.78'	863.00'
78	14.04'	10.00'
80	14.20'	10.00'
82	6.18'	2.00'

REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION

DATE	NUMBER	DATE	NUMBER	DATE	NUMBER
OCT 2017					
11/13/18					
11/13/18					

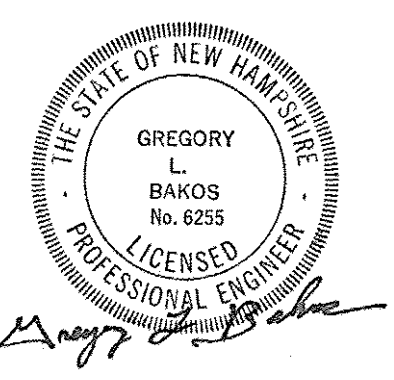


LEGEND

ADA RAMP/DRIVEWAY NO. (SEE DETAILS)
 # CURB CURVE NO.
 T-# CURB TANGENT NO.
 C# ALIGNMENT CURVE NO.
 L# ALIGNMENT TANGENT NO.

NOTES:

1. ALL CURBING TO BE VERTICAL GRANITE CURB (VGC) UNLESS NOTED OTHERWISE
 2. ALL ELEVATIONS LISTED ARE BOTTOM OF CURB ELEVATIONS.



SDR PROCESSED VHB DATE OCT 2017
 NEW DESIGN KMV DATE 11/13/18
 SHEET CHECKED GLB DATE 11/13/18
 AS BUILT DETAILS

REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

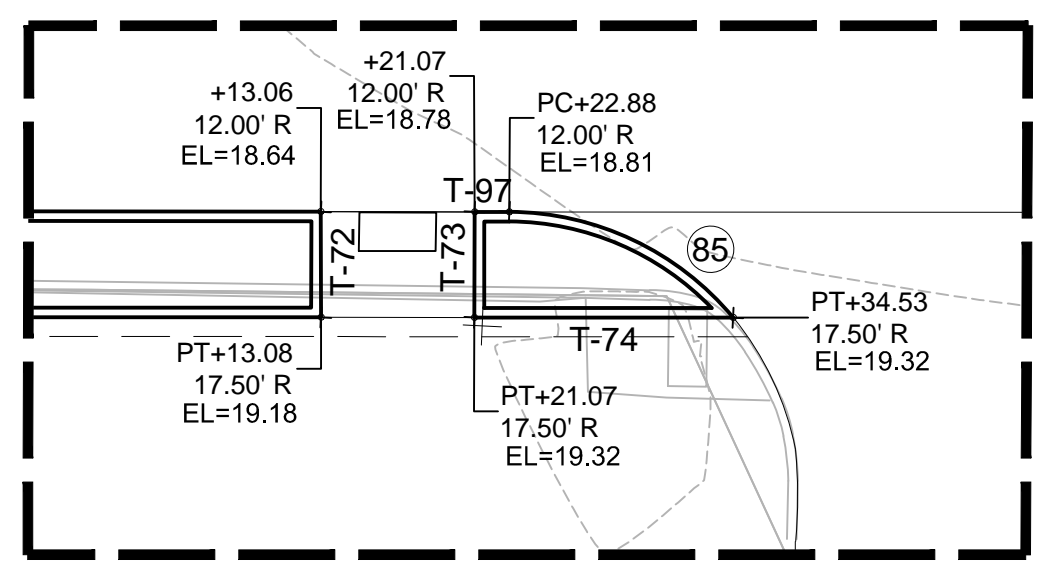
DATE

DATE

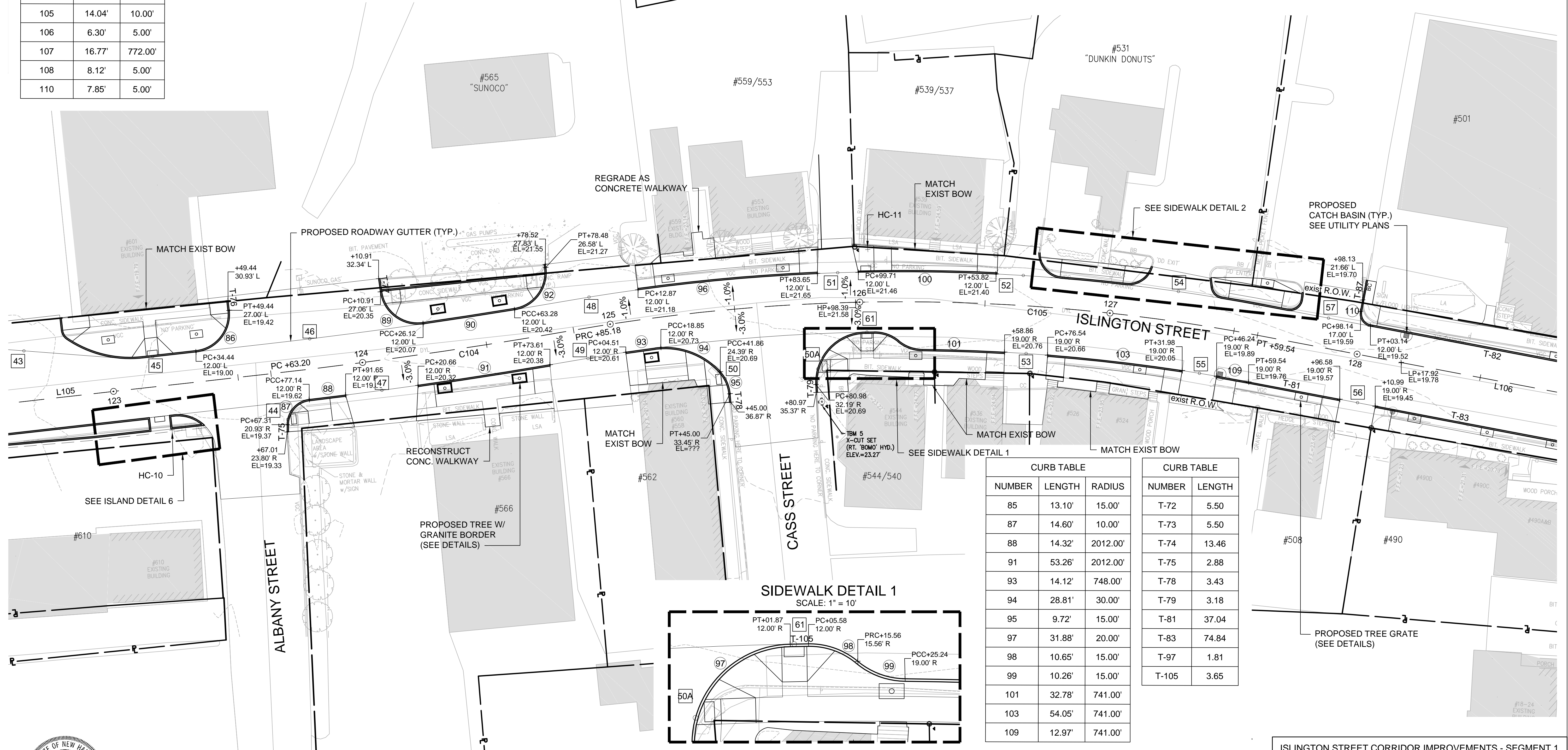
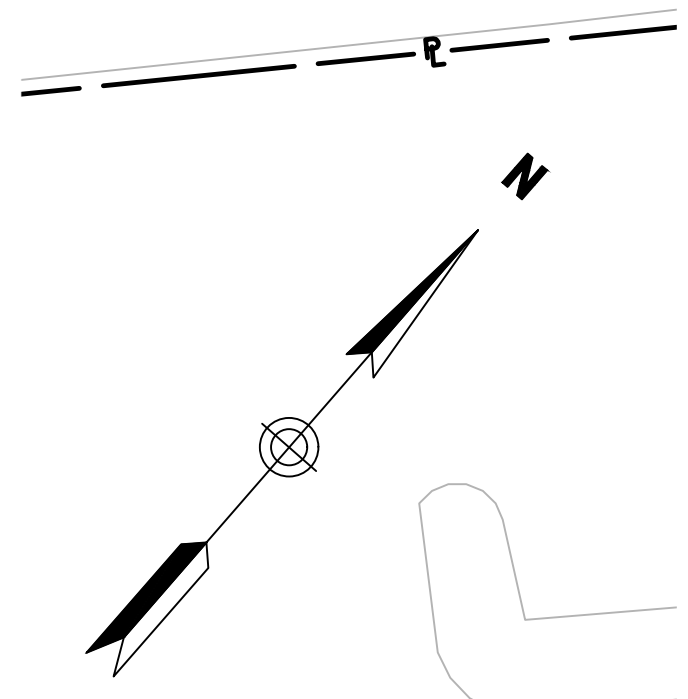
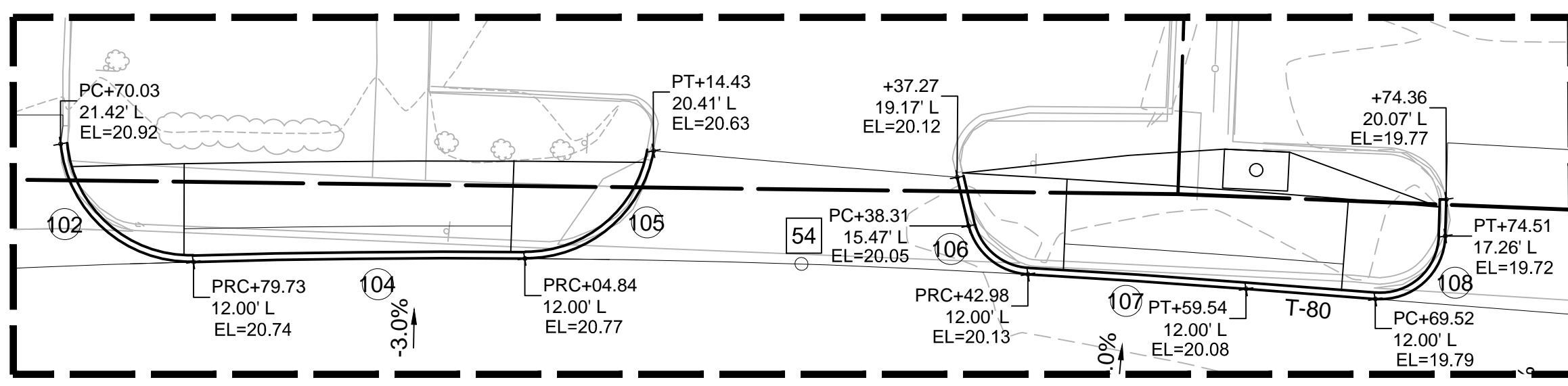
CURB TABLE		
NUMBER	LENGTH	RADIUS
86	23.56'	15.00'
89	23.68'	15.00'
90	36.94'	1988.00'
92	23.20'	15.00'
96	71.89'	772.00'
100	54.96'	772.00'
102	15.06'	10.00'
104	25.48'	772.00'
105	14.04'	10.00'
106	6.30'	5.00'
107	16.77'	772.00'
108	8.12'	5.00'
110	7.85'	5.00'

CURB TABLE	
NUMBER	LENGTH
T-76	3.93
T-77	5.28
T-80	9.97
T-82	122.35
T-87	8.04

ISLAND DETAIL 6
SCALE: 1" = 10'



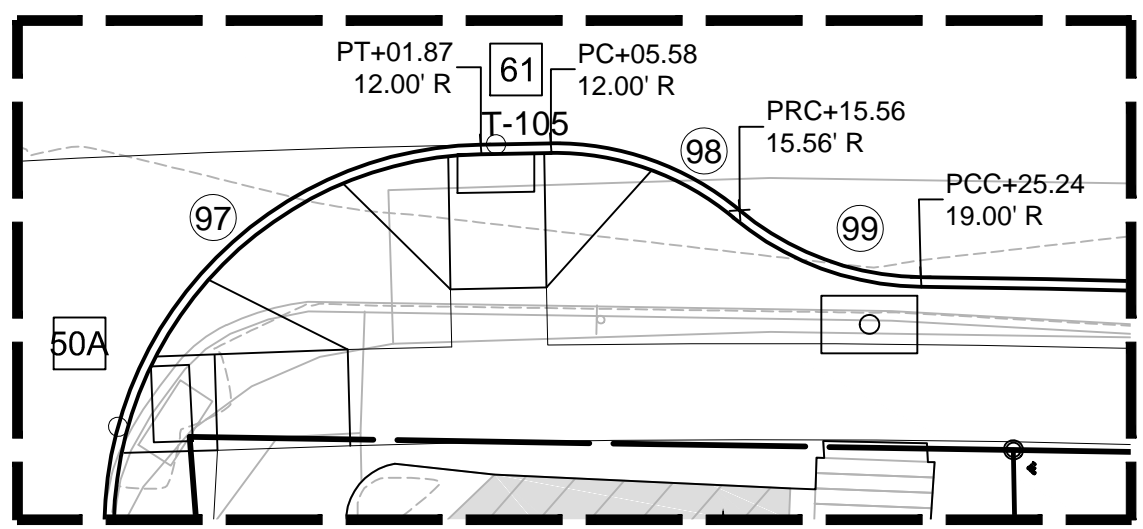
SIDEWALK DETAIL 2
SCALE: 1" = 10'



CURB TABLE		
NUMBER	LENGTH	RADIUS
85	13.10'	15.00'
87	14.60'	10.00'
88	14.32'	2012.00'
91	53.26'	2012.00'
93	14.12'	748.00'
94	28.81'	30.00'
95	9.72'	15.00'
97	31.88'	20.00'
98	10.65'	15.00'
99	10.26'	15.00'
101	32.78'	741.00'
103	54.05'	741.00'
109	12.97'	741.00'

CURB TABLE	
NUMBER	LENGTH
T-72	5.50
T-73	5.50
T-74	13.46
T-75	2.88
T-78	3.43
T-79	3.18
T-81	37.04
T-83	74.84
T-97	1.81
T-105	3.65

SIDEWALK DETAIL 1
SCALE: 1" = 10'

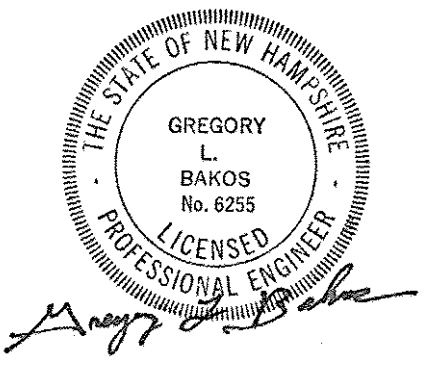


LEGEND

- # ADA RAMP/DRIVEWAY NO. (SEE DETAILS)
- ⊙ CURB CURVE NO.
- T-# CURB TANGENT NO.
- C # ALIGNMENT CURVE NO.
- L # ALIGNMENT TANGENT NO.

NOTES:

1. ALL CURBING TO BE VERTICAL GRANITE CURB (VGC) UNLESS NOTED OTHERWISE
2. ALL ELEVATIONS LISTED ARE BOTTOM OF CURB ELEVATIONS.



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

GRADING & LAYOUT PLAN

		DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
		13-Nov-18	52393.00	GRADE-Seg1	7176	33	88

CURB TABLE		
NUMBER	LENGTH	RADIUS
72	29.84'	3012.00'
113	7.81'	5.00'
115	7.97'	10.00'
116	7.72'	10.00'
118	7.90'	5.00'
126	25.26'	3012.00'
127	25.32'	3012.00'
128	15.01'	10.00'

CURB TABLE	
NUMBER	LENGTH
T-58	4.97
T-59	4.97
T-90	35.72
T-91	38.95
T-93	19.81
T-94	26.99
T-106	6.32

REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

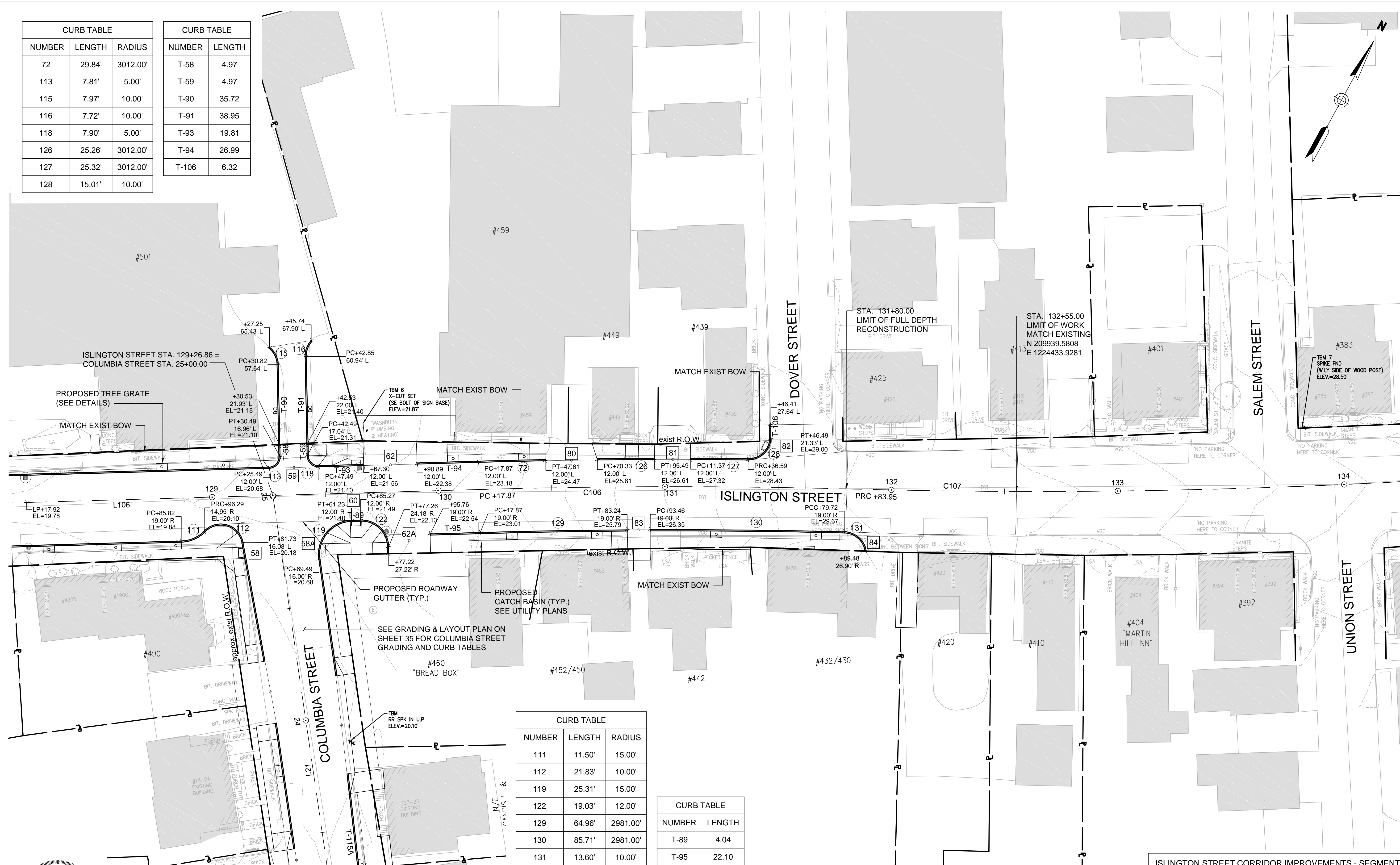
NUMBER

DATE

SDR PROCESSED
NEW DESIGN
SHEET CHECKED
AS BUILT DETAILS

OCT 2017
11/13/18
11/13/18

VHB
KMV
GLB

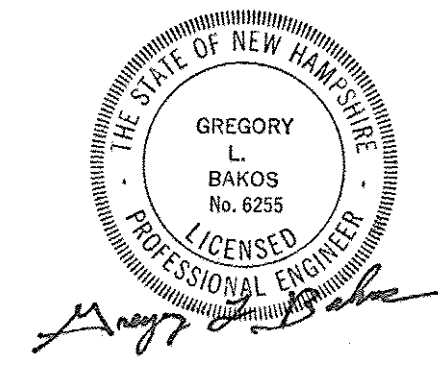


CURB TABLE		
NUMBER	LENGTH	RADIUS
111	11.50'	15.00'
112	21.83'	10.00'
119	25.31'	15.00'
122	19.03'	12.00'
129	64.96'	2981.00'
130	85.71'	2981.00'
131	13.60'	10.00'

CURB TABLE	
NUMBER	LENGTH
T-89	4.04
T-95	22.10

NOTES:

- ALL CURBING TO BE VERTICAL GRANITE CURB (VGC) UNLESS NOTED OTHERWISE
- ALL ELEVATIONS LISTED ARE BOTTOM OF CURB ELEVATIONS.



LEGEND

- # ADA RAMP/DRIVEWAY NO. (SEE DETAILS)
- (#) CURB CURVE NO.
- T-# CURB TANGENT NO.
- C # ALIGNMENT CURVE NO.
- L # ALIGNMENT TANGENT NO.

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1

CITY OF PORTSMOUTH, NEW HAMPSHIRE

GRADING & LAYOUT PLAN

		CITY PROJECT NO. 7176			
		DRAWING GRADE-Seg1		SHEET NO. 34	
DATE PLOTTED 13-Nov-18	VHB PROJECT NO. 52393.00	TOTAL SHEETS 88			

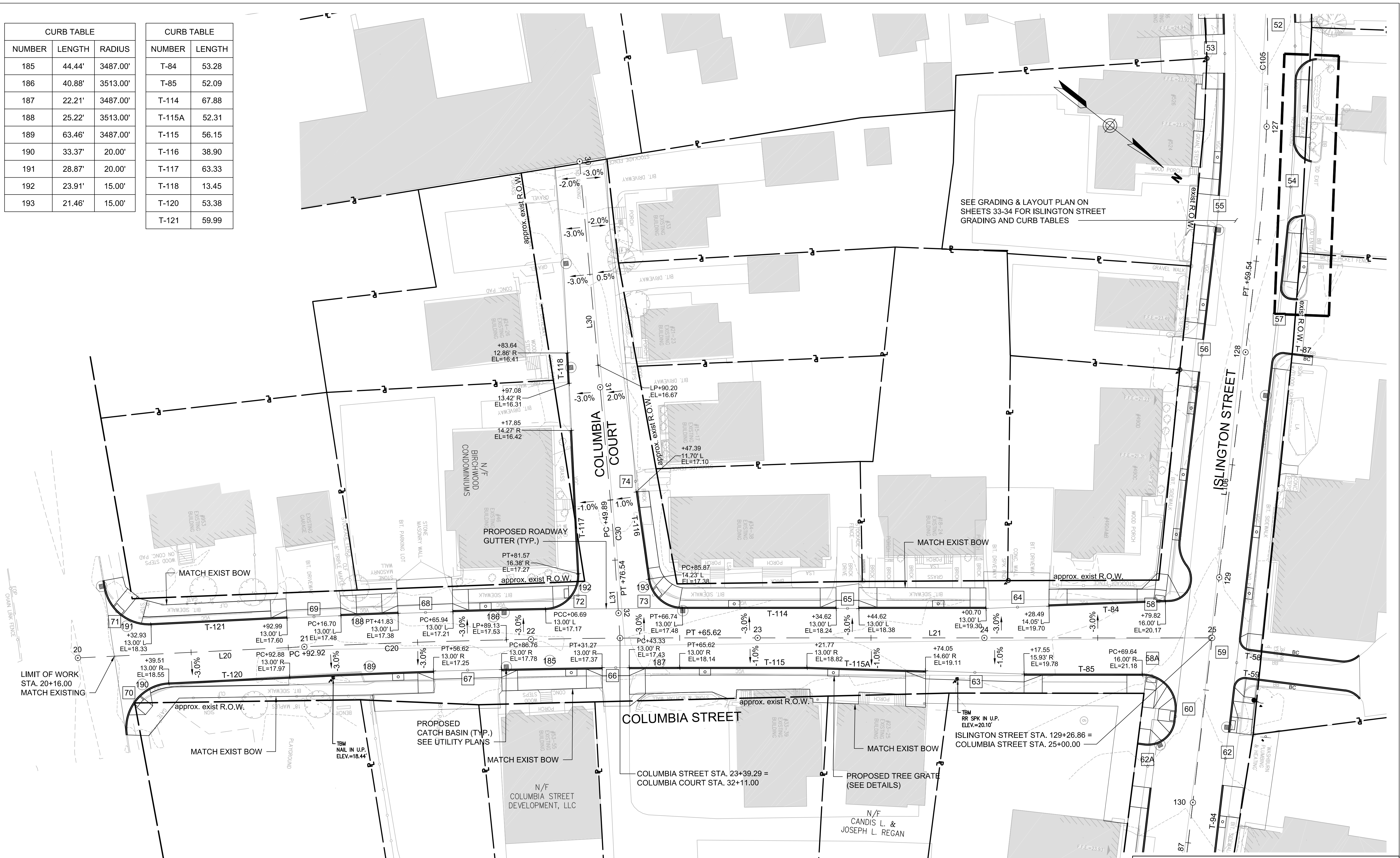
CURB TABLE			CURB TABLE		
NUMBER	LENGTH	RADIUS	NUMBER	LENGTH	
185	44.44'	3487.00'	T-84	53.28	
186	40.88'	3513.00'	T-85	52.09	
187	22.21'	3487.00'	T-114	67.88	
188	25.22'	3513.00'	T-115A	52.31	
189	63.46'	3487.00'	T-115	56.15	
190	33.37'	20.00'	T-116	38.90	
191	28.87'	20.00'	T-117	63.33	
192	23.91'	15.00'	T-118	13.45	
193	21.46'	15.00'	T-120	53.38	
			T-121	59.99	

REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION

NUMBER	DATE	STATION	DESCRIPTION

DATE	DATE	DATE	DATE
OCT 2017	11/13/18	11/13/18	

VHB	KMH	GLB



SEE GRADING & LAYOUT PLAN ON SHEETS 33-34 FOR ISLINGTON STREET GRADING AND CURB TABLES

- LEGEND**
- # ADA RAMP/DRIVEWAY NO. (SEE DETAILS)
 - (#) CURB CURVE NO.
 - T-# CURB TANGENT NO.
 - C-# ALIGNMENT CURVE NO.
 - L# ALIGNMENT TANGENT NO.

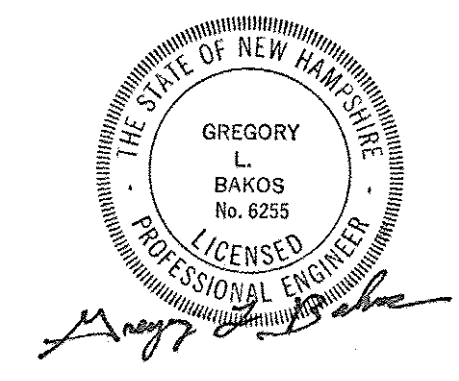
- NOTES:**
1. ALL CURBING TO BE VERTICAL GRANITE CURB (VGC) UNLESS NOTED OTHERWISE
 2. ALL ELEVATIONS LISTED ARE BOTTOM OF CURB ELEVATIONS.



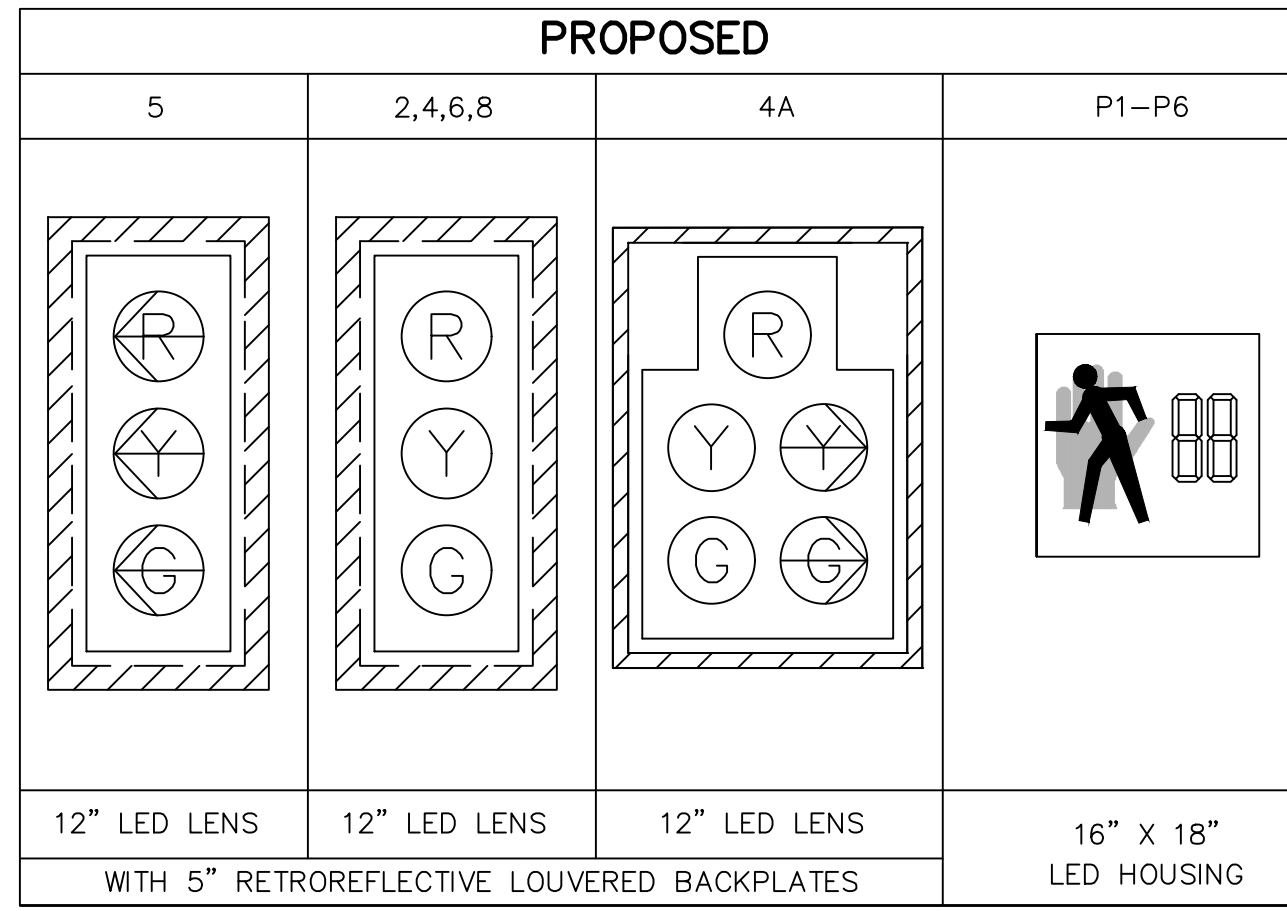
ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

GRADING & LAYOUT PLAN

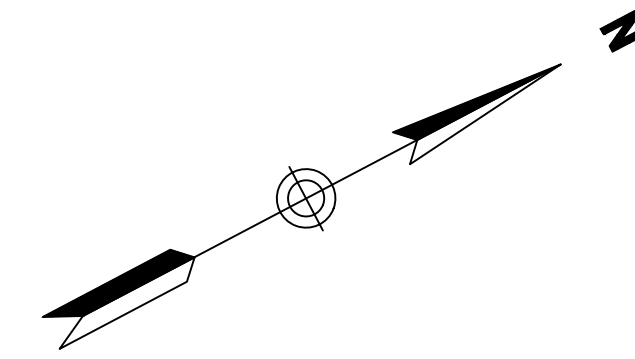
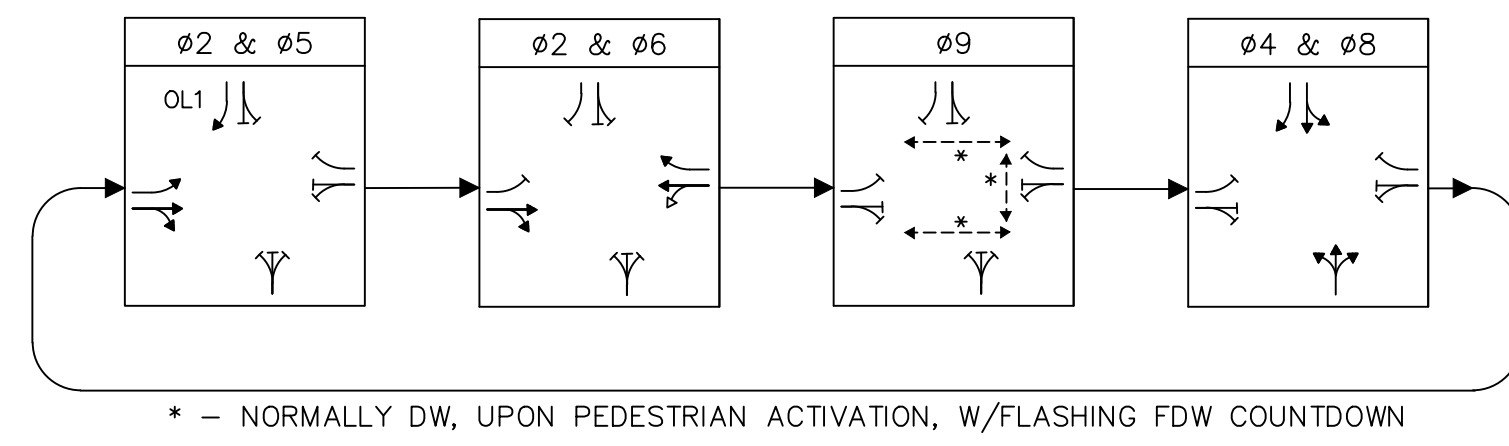
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	GRADE-Seg1	7176	35	88



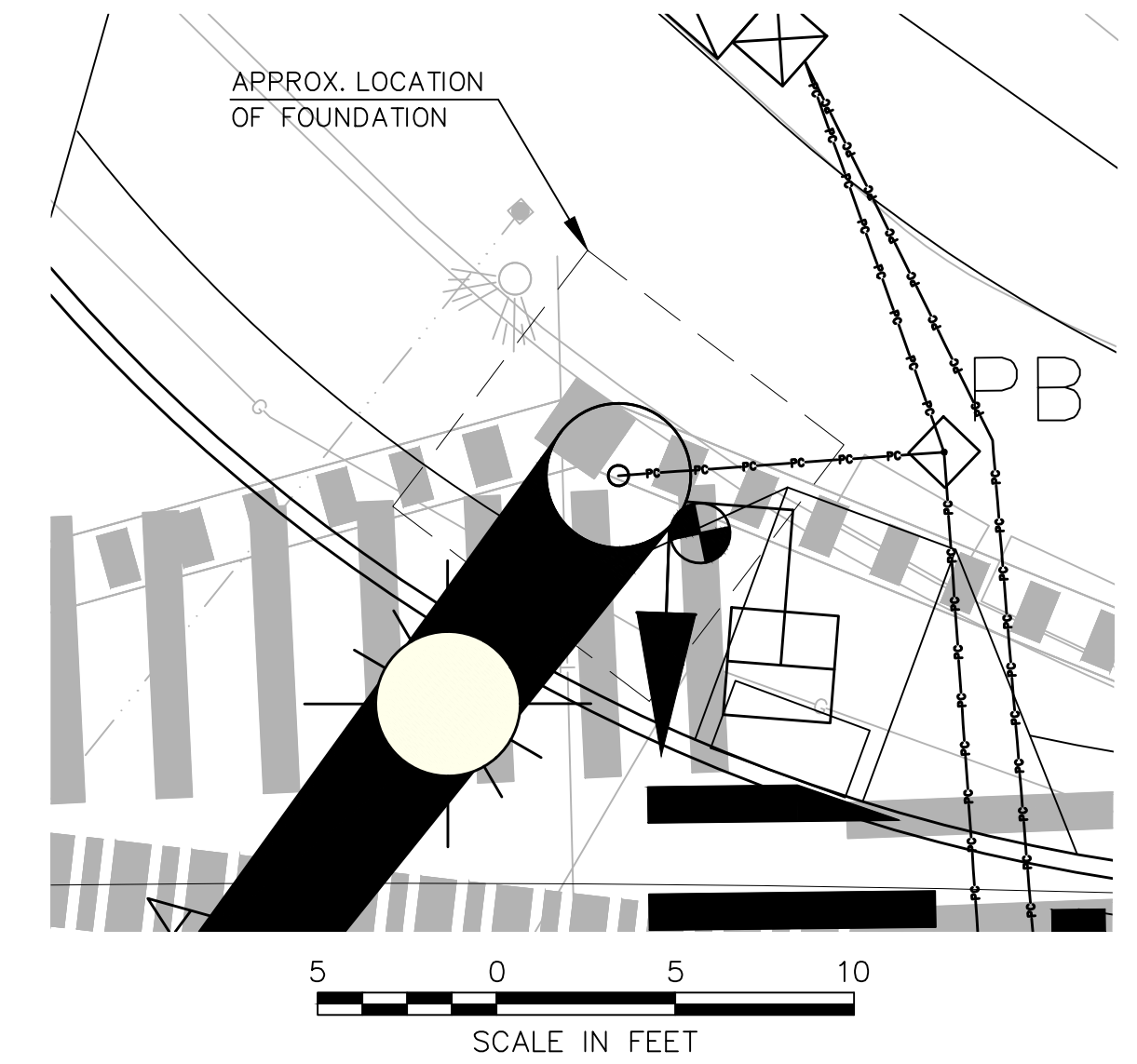
SIGNAL HEAD DATA



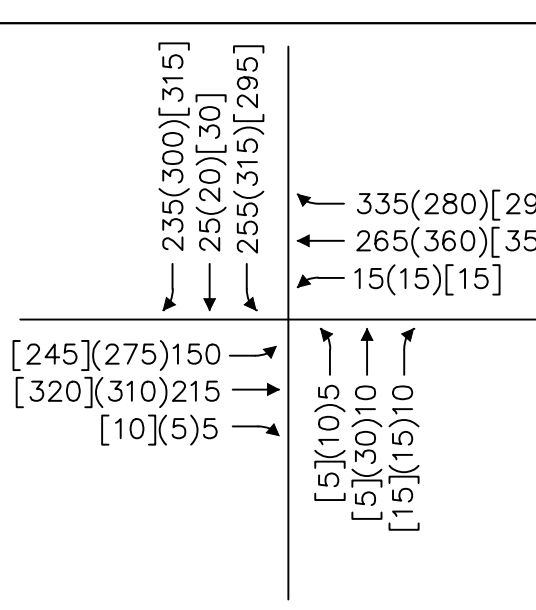
PROPOSED N.E.M.A. PHASE SEQUENCE



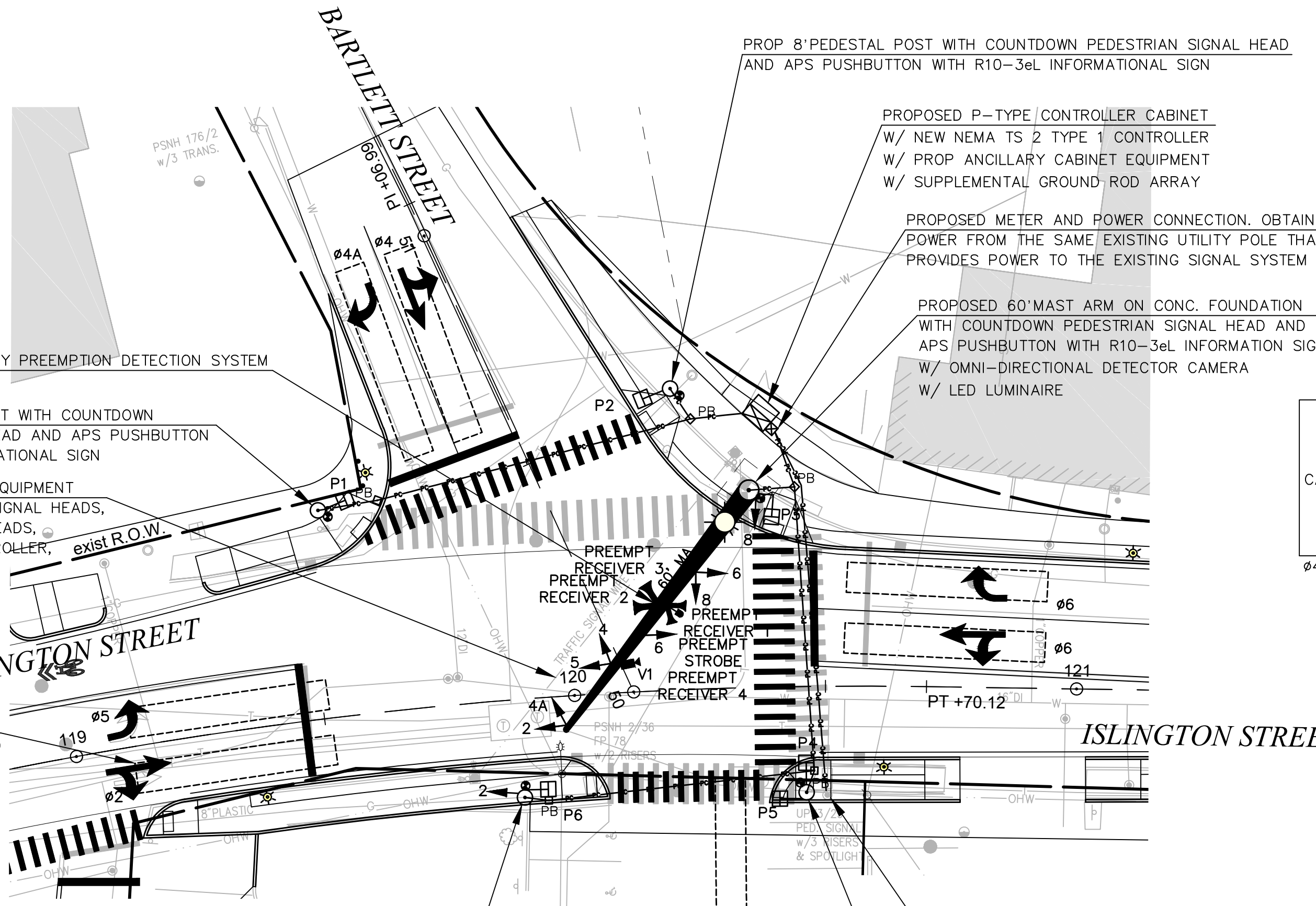
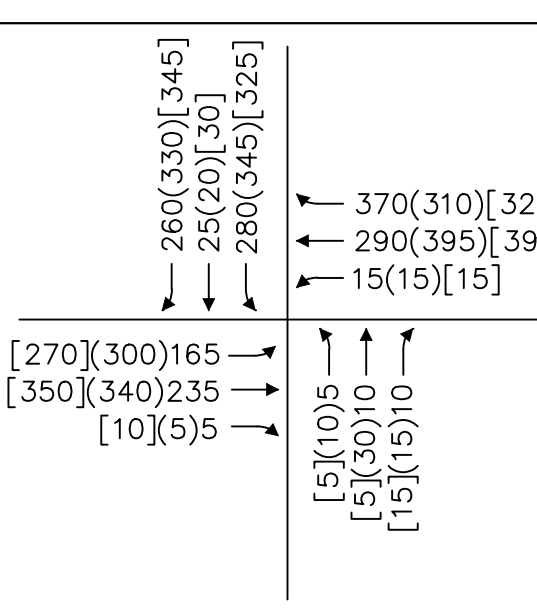
FOUNDATION DETAIL



2018 SYSTEM DESIGN VOLUMES AM(PM)[SAT]



2028 SYSTEM DESIGN VOLUMES AM(PM)[SAT]



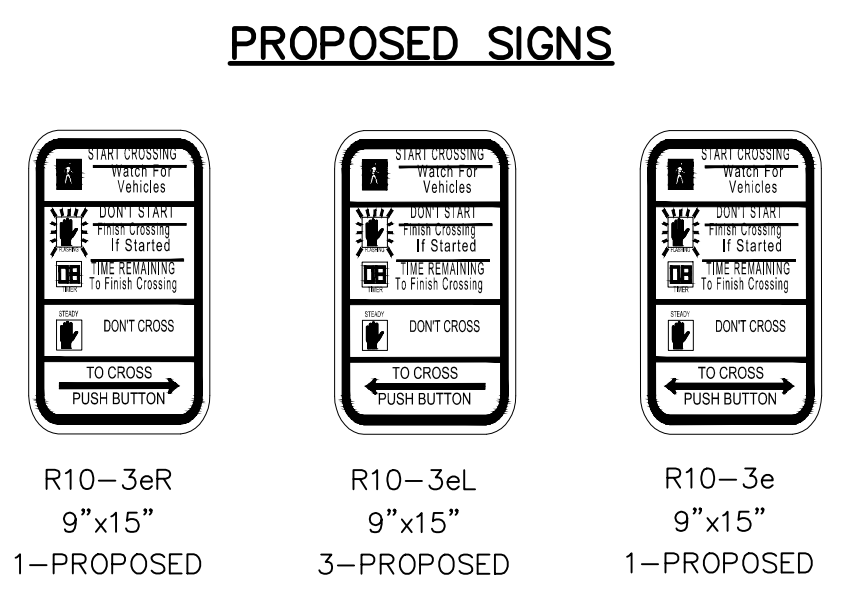
DETECTOR SCHEDULE

STREET	DIRECTION	LANE	Ø	TYPE
ISLINGTON STREET	SOUTHBOUND	LEFT-THRU	6	VIDEO
ISLINGTON STREET	SOUTHBOUND	RIGHT	6	VIDEO
ISLINGTON STREET	NORTHBOUND	LEFT	5	VIDEO
ISLINGTON STREET	NORTHBOUND	THRU-RIGHT	2	VIDEO
BARTLETT STREET	EASTBOUND	LEFT-THRU	4	VIDEO
BARTLETT STREET	EASTBOUND	RIGHT	4A	VIDEO
DRIVE	WESTBOUND	LEFT-THRU-RIGHT	8	VIDEO

Ø4A SHALL BE SET WITH A 6 SECOND DELAY

MAST ARM FOUNDATION

LOCATION	TYPE
120+35 LT 40	TYPE 1E



NEMA DUAL RING CONTROLLER

PROPOSED SIGNAL PHASING & TIMING

	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9
	NOT USED		NOT USED				NOT USED		EXCL. PED.
INITIAL INTERVAL	-	10	-	8	5	10	-	8	-
VEHICLE EXTENSION	-	3	-	3	3	3	-	3	-
MAXIMUM 1	-	35	-	40	20	35	-	40	-
MAXIMUM 2	-	35	-	35	25	35	-	35	-
YELLOW	-	4.0	-	4.0	4.0	4.0	-	4.0	3.0
ALL RED	-	2.0	-	2.0	2.0	2.0	-	2.0	0.0
PEDESTRIAN WALK	-	-	-	-	-	-	-	-	7
PEDESTRIAN CLEAR	-	-	-	-	-	-	-	-	14.0
FLASH	-	FY	-	FR	FR	FY	-	FR	DARK
RECALL	-	SOFT	-	OFF	OFF	SOFT	-	OFF	OFF
DETECTOR	-	NL	-	NL	NL	NL	-	NL	-
PRE-EMPT PRIORITY	-	2	-	3	2	1	-	4	-

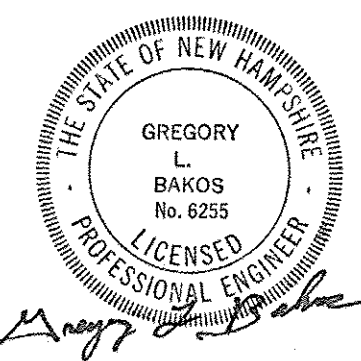
NL=NONLOCK FR=FLASH RED FY=FLASH YELLOW
MAX 2 = 3:00 - 7:00 PM MONDAY THROUGH FRIDAY

FIRE PREEMPTION

PREEMPT 1	CALLS Ø6
PREEMPT 2	CALLS Ø2 & Ø5
PREEMPT 3	CALLS Ø4
PREEMPT 4	CALLS Ø8

FIRE PREEMPTION NOTES:

- LOCATION OF EMERGENCY VEHICLE PREEMPTION RECEIVERS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR, THE ENGINEER, AND THE CITY OF PORTSMOUTH FIRE DEPARTMENT.
- EMERGENCY VEHICLE PREEMPTION SIGNALS SHALL BE TRANSMITTED BY OPTICAL EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY OPTICAL DETECTORS LOCATED AT THE INTERSECTION.
- PREEMPTION SIGNALS SHALL BE SERVICED ON A FIRST COME - FIRST SERVED BASIS.
- IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED AT THE INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD THE EMERGENCY ACTIVE PHASE GREEN FOR A MINIMUM OF 10 SECONDS OR UNTIL THE PREEMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PREEMPTION PHASE CLEARANCE (4.0 SECONDS YELLOW AND 2.0 SECONDS ALL RED) AND SERVE SUBSEQUENT EMERGENCY ACTIVE PHASES AS NECESSARY. AT THE COMPLETION OF THE PREEMPTION CYCLE, THE CONTROLLER SHALL TIME THE PREEMPTION CLEARANCE AND RESUME NORMAL SIGNAL OPERATIONS.
- MINIMUM GREEN AND NORMAL VEHICLE AND PEDESTRIAN CLEARANCE TIMES SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PREEMPTION DEMAND.
- CONFIRMATION STROBE SHALL BE ILLUMINATED WHENEVER ANY EMERGENCY VEHICLE PREEMPTION GREEN IS ON.
- OVERLAPS SHALL NOT BE ACTIVATED DURING EMERGENCY PREEMPTION CALLS.



ITEM 616.191

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1

CITY OF PORTSMOUTH, NEW HAMPSHIRE

SIGNALIZATION PLAN

	DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
	7-Jan-19	52393.00	SIG-Seg1	7176	36	88

REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION

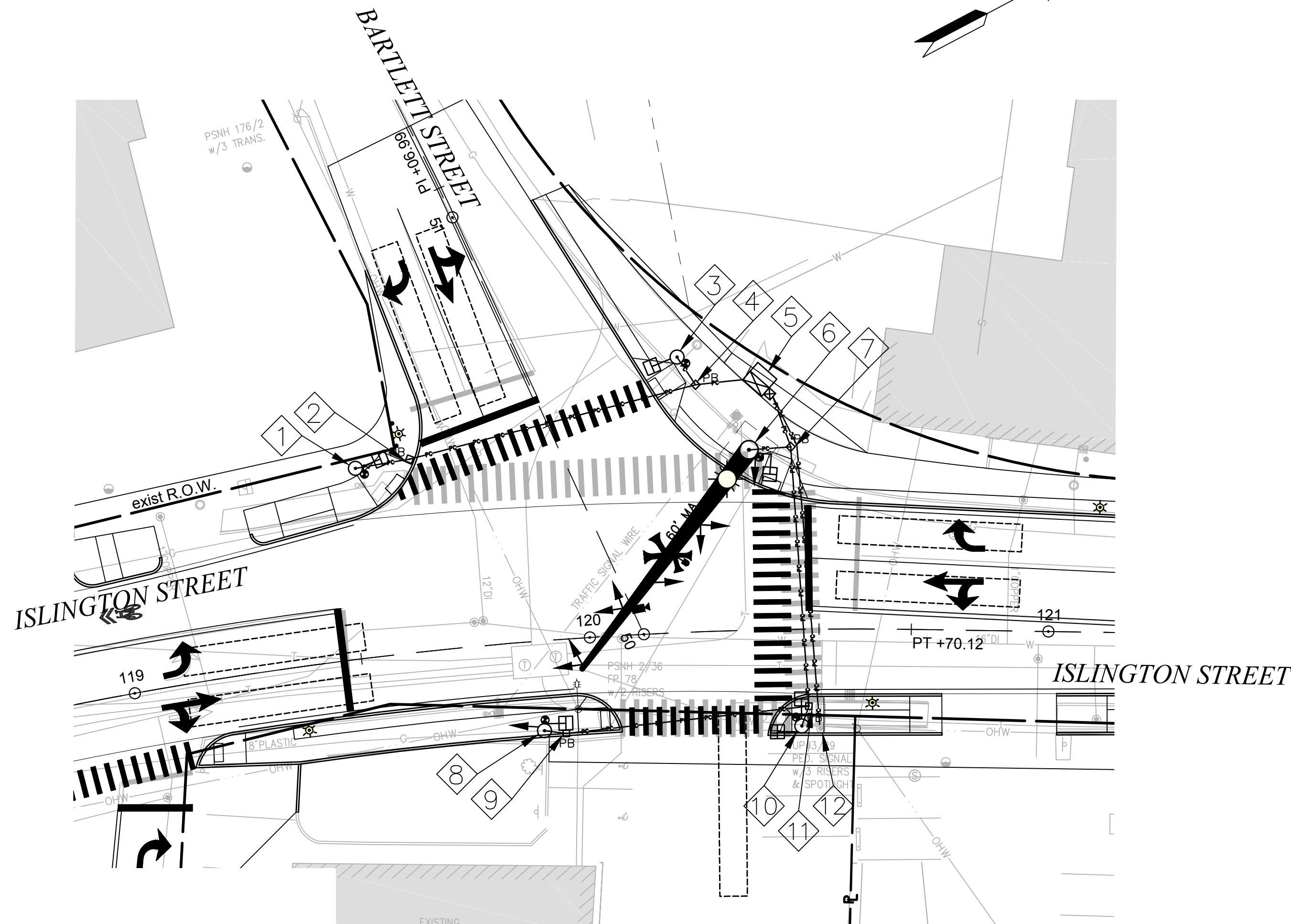
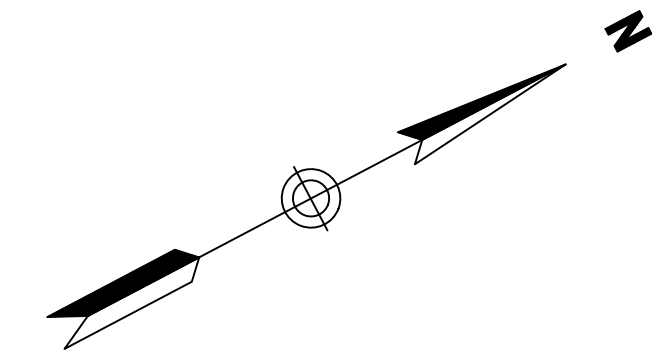
SDR PROCESSED	DATE
VHB	OCT 2017
MLG	1/7/19
CMB	1/7/19

STATION	DATE	NUMBER

CONSTRUCTION NOTES:

1. ALL CONSTRUCTION SHALL CONFORM WITH THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, BUREAU OF HIGHWAY DESIGN SPECIFICATIONS UNLESS OTHERWISE NOTED.
2. THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED HEREIN USING NEW MATERIALS. THE TERM "REMOVE AND SALVAGE"(R+S) MEANS EQUIPMENT TO BE REMOVED AND DELIVERED TO THE CITY OF PORTSMOUTH. THE TERM "REMOVE AND RELOCATE" (R+R) MEANS EQUIPMENT TO BE REMOVED AND RE-USED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
3. PAVEMENT SAWCUTTING FOR CONDUITS AND JACKING PITS (WHEN REQUIRED) SHALL BE SUBSIDIARY TO ITEM 616.191. REPLACEMENT OF PAVEMENT FOR CONDUIT TRENCHES AND JACKING PITS WILL BE PAID UNDER ITEM 403.12 OR 403.99
4. MAST ARMS SHALL BE DESIGNED TO INCLUDE A 30"x36" SIGN MOUNTED 2- FEET TO THE RIGHT OF EACH SIGNAL HEAD.
5. ALL MAST ARM FOUNDATIONS SHALL INCLUDE A 12 INCH LAYER OF STRUCTURAL FILL BELOW THE BOTTOM OF THE FOOTING GRADE.
6. ALL MAST ARM FOUNDATIONS SHALL BE CONSTRUCTED FOLLOWING NHDOT STANDARD SPECIFICATIONS AND DETAILS.
7. ANY BEARING SURFACE MATERIAL DISTURBED BY EXCAVATION AND/OR BY DEWATERING METHODS SHALL BE REMOVED TO A DEPTH OF 12 INCHES AND REPLACED WITH STRUCTURAL FILL.
8. PLACEMENT OF STRUCTURAL FILL MATERIAL SHALL BE SUBSIDIARY TO ITEM 616.191.
9. SEE PAVEMENT MARKING AND SIGNING PLANS FOR ALL PROPOSED AND EXISTING SIGNS.
10. PEDESTRIAN PUSHBUTTONS SHALL BE MOUNTED 42" ABOVE THE SIDEWALK.
11. ALL EQUIPMENT SHALL BE PAINTED BLACK EXCEPT THE CONTROLLER CABINET WHICH SHALL BE NATURAL ALUMINUM FINISH.

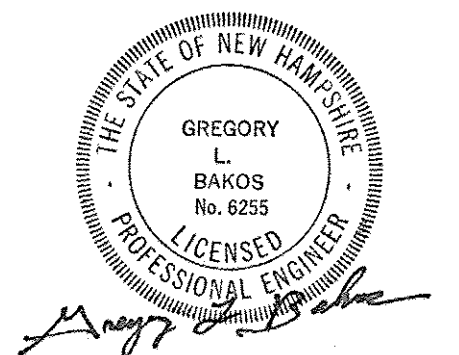
PROPOSED CONDUIT SCHEDULE				
I.D.	NO.	LENGTH	SCHEDULE TYPE	REMARKS
①-②	1	12	40	FROM PROP PP TO PROP PB
②-④	1	65	80	FROM PROP PB TO PROP PB
④-④	1	8	40	FROM PROP PP TO PROP PB
④-⑤	1	14	40	FROM PROP PB TO PROP CC
⑤-⑦	1	16	40	FROM PROP CC TO PROP PB
⑥-⑦	1	78	80	FROM PROP CC TO PROP POWER
⑦-⑦	1	10	40	FROM PROP MA TO PROP PB
⑦-⑩	1	57	80	FROM PROP PB TO PROP PB
⑧-⑨	1	5	40	FROM PROP PP TO PROP PB
⑩-⑩	1	54	80	FROM PROP PB TO PROP PB
⑩-⑩	1	5	40	FROM PROP PP TO PROP PB
TOTAL:		40	80	40 = 3-INCH PVC SCHEDULE 40 80 = 3-INCH PVC SCHEDULE 80
		70'	254'	



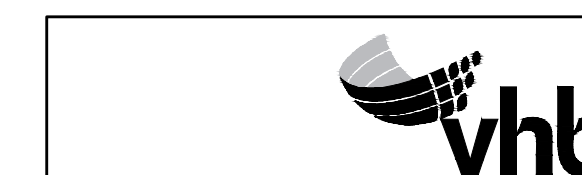
EXISTING / PROPOSED FOUNDATION SCHEDULE			
I.D.	STATION	FOUNDATION TYPE	REMARKS
①	STA 119+54 LT 42	TSFND	PROPOSED PEDESTAL POLE
②	STA 119+65 LT 42	PB	PROPOSED PULL BOX
③	STA 120+21 LT 60	TSFND	PROPOSED PEDESTAL POLE
④	STA 120+25 LT 54	PB	PROPOSED PULL BOX
⑤	STA 120+37 LT 54	CCFND	PROPOSED CONTROLLER CABINET
⑥	STA 120+35 LT 40	TYPE 1E	W/ ANCHOR BOLTS FOR SIGNAL POLE
⑦	STA 120+44 LT 40	PB	PROPOSED PULL BOX
⑧	STA 119+89 RT 20	TSFND	PROPOSED PEDESTAL POLE
⑨	STA 119+94 RT 21	PB	PROPOSED PULL BOX
⑩	STA 120+46 RT 21	TSFND	PROPOSED PEDESTAL POLE
⑪	STA 120+47 RT 17	PB	PROPOSED PULL BOX
⑫	STA 120+50 RT 22	-	existing power pole

WHERE:

- TYPE # = TRAFFIC SIGNAL MAST ARM FOUNDATION CONSTRUCTED IN ACCORDANCE WITH NHDOT TRAFFIC SIGNAL STANDARD TS-1, TS-2, OR TS-3 AS APPLICABLE. TBD MEANS TO BE DETERMINED BY CONTRACTOR OR HIS ENGINEER BASED ON BORINGS TO BE COMPLETED BY THE CONTRACTOR.
- PB = 14-INCH CONCRETE PULL BOX CONSTRUCTED IN ACCORDANCE WITH NHDOT SIGNAL AND LIGHTING STANDARD SL-1 (UNLESS OTHER SIZE NOTED)
- CCFND = CONCRETE FOUNDATION FOR CONTROLLER CABINETS CONSTRUCTED IN ACCORDANCE WITH NHDOT SIGNAL AND LIGHTING STANDARDS SL-2
- TSFND = CONCRETE FOUNDATION FOR PEDESTALS (SIGNAL AND METER) CONSTRUCTED IN ACCORDANCE WITH NHDOT SIGNAL AND LIGHTING STANDARDS SL-2



ITEM 616.191



DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
7-Jan-19	52393.00	SIG-Seg1	7176	37	88

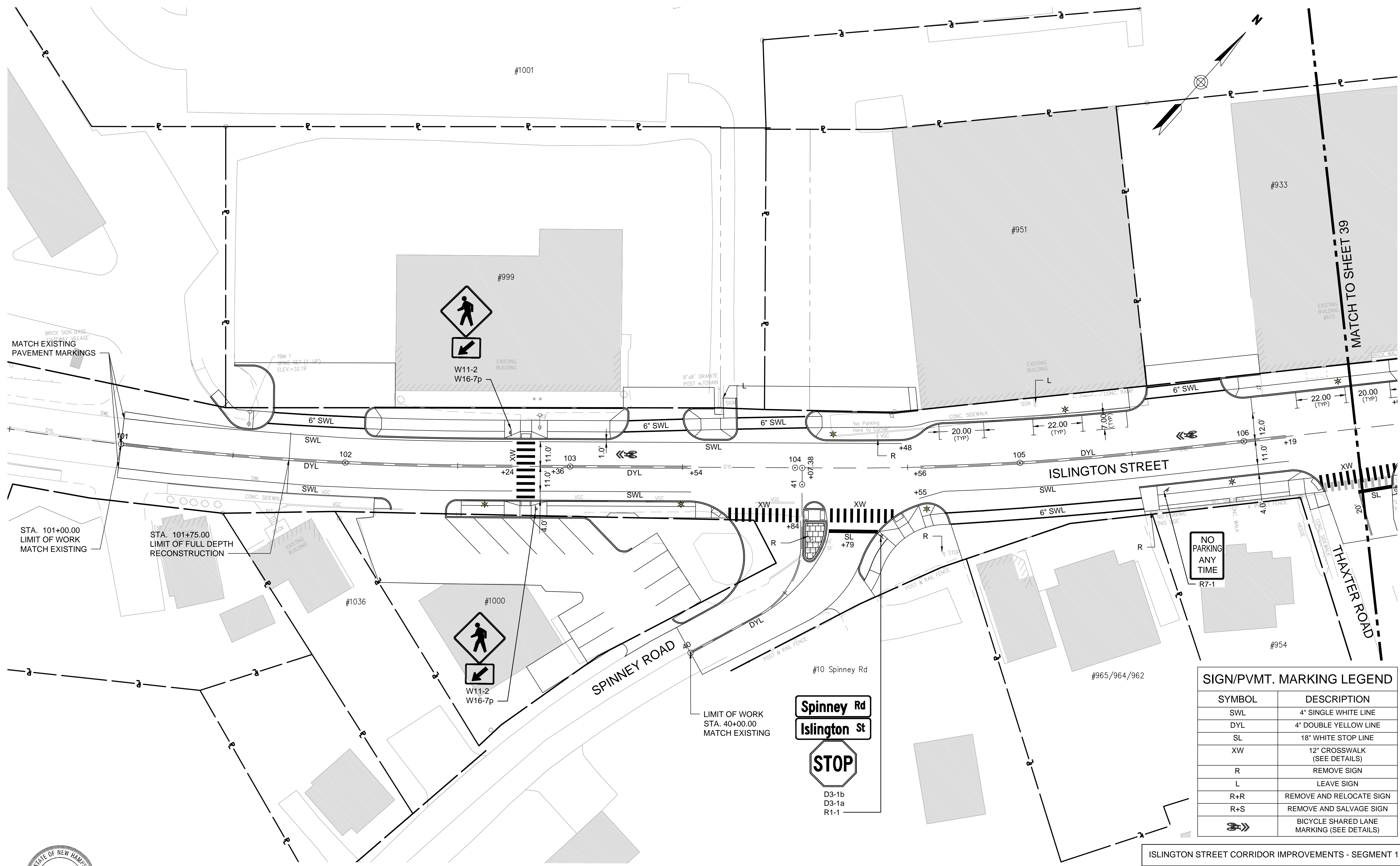
ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

SIGNALIZATION PLAN

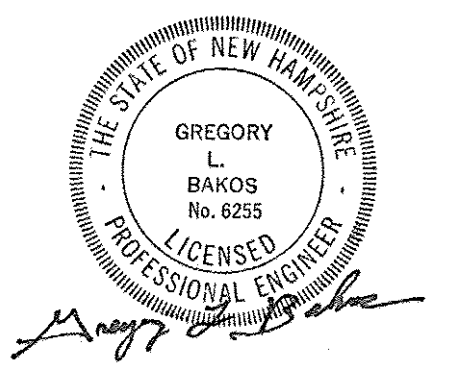
SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	MLG	DATE	1/7/19
SHEET CHECKED	CMB	DATE	1/7/19
AS BUILT DETAILS		DATE	

REVISIONS AFTER PROPOSAL	DESCRIPTION
STATION	
STATION	
NUMBER	

SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	MLG	DATE	11/13/18
SHEET CHECKED	MDS	DATE	11/13/18
AS BUILT DETAILS		DATE	



- NOTES:
1. ALL CROSSWALKS, STOP LINES, ARROWS, AND LEGENDS SHALL BE THERMOPLASTIC MARKINGS. CROSSWALKS SHALL BE 6' WIDE CROSSING SIDE ROADS AND DRIVEWAYS AND 8' WIDE CROSSING ISLINGTON STREET.



SYMBOL	DESCRIPTION
SWL	4" SINGLE WHITE LINE
DYL	4" DOUBLE YELLOW LINE
SL	18" WHITE STOP LINE
XW	12" CROSSWALK (SEE DETAILS)
R	REMOVE SIGN
L	LEAVE SIGN
R+R	REMOVE AND RELOCATE SIGN
R+S	REMOVE AND SALVAGE SIGN
	BICYCLE SHARED LANE MARKING (SEE DETAILS)

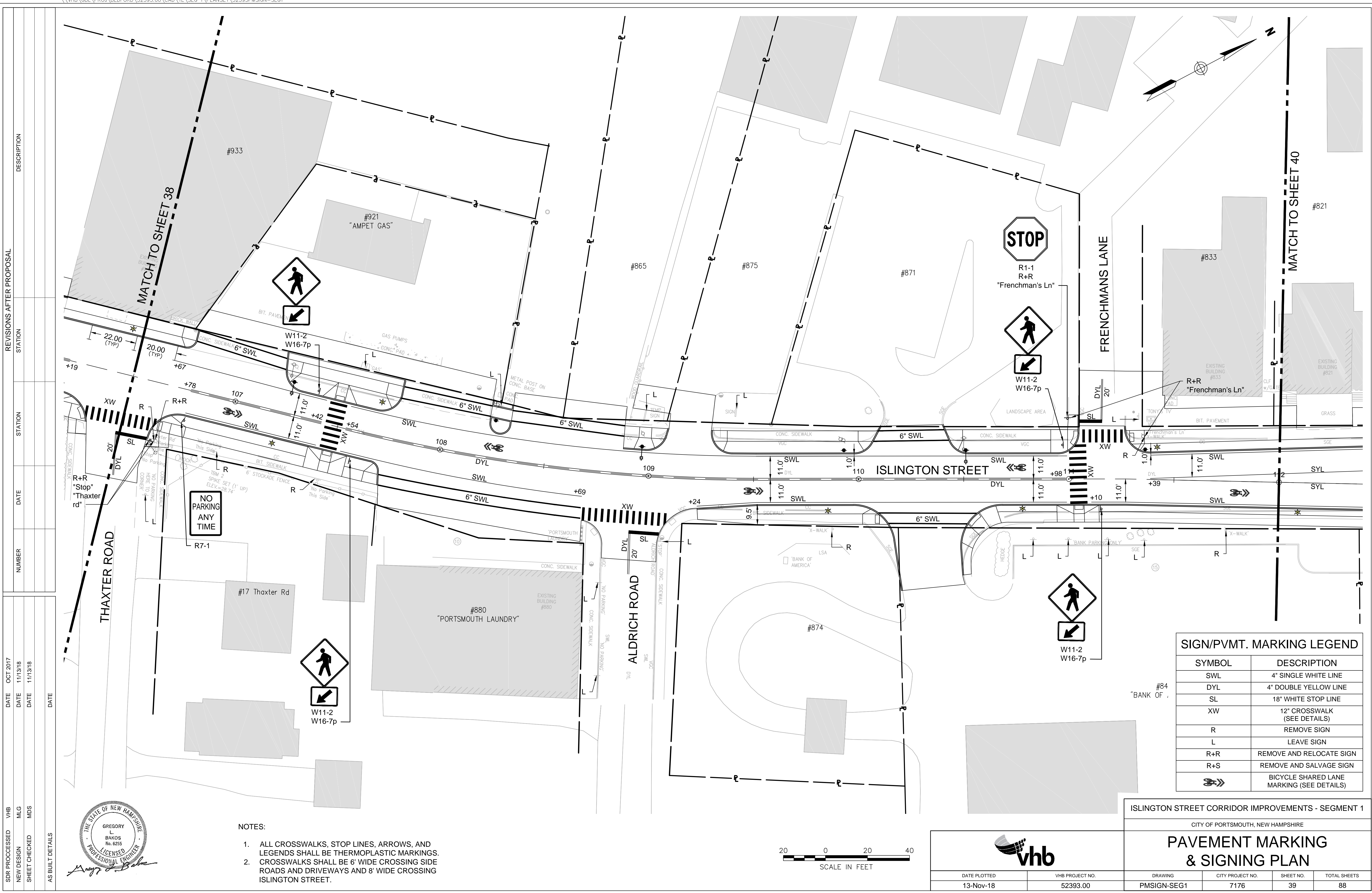


ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1

CITY OF PORTSMOUTH, NEW HAMPSHIRE

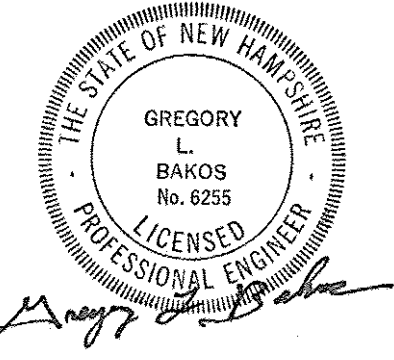
PAVEMENT MARKING & SIGNING PLAN

DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	PMSIGN-SEG1	7176	38	88



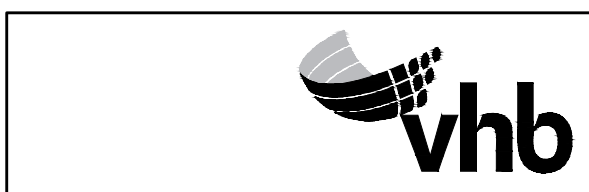
SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	MLG	DATE	11/13/18
SHEET CHECKED	MDS	DATE	11/13/18
AS BUILT DETAILS		DATE	

REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION



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DATE PLOTTED	13-Nov-18	VHB PROJECT NO.	52393.00	DRAWING	PMSIGN-SEG1	CITY PROJECT NO.	7176	SHEET NO.	39	TOTAL SHEETS	88
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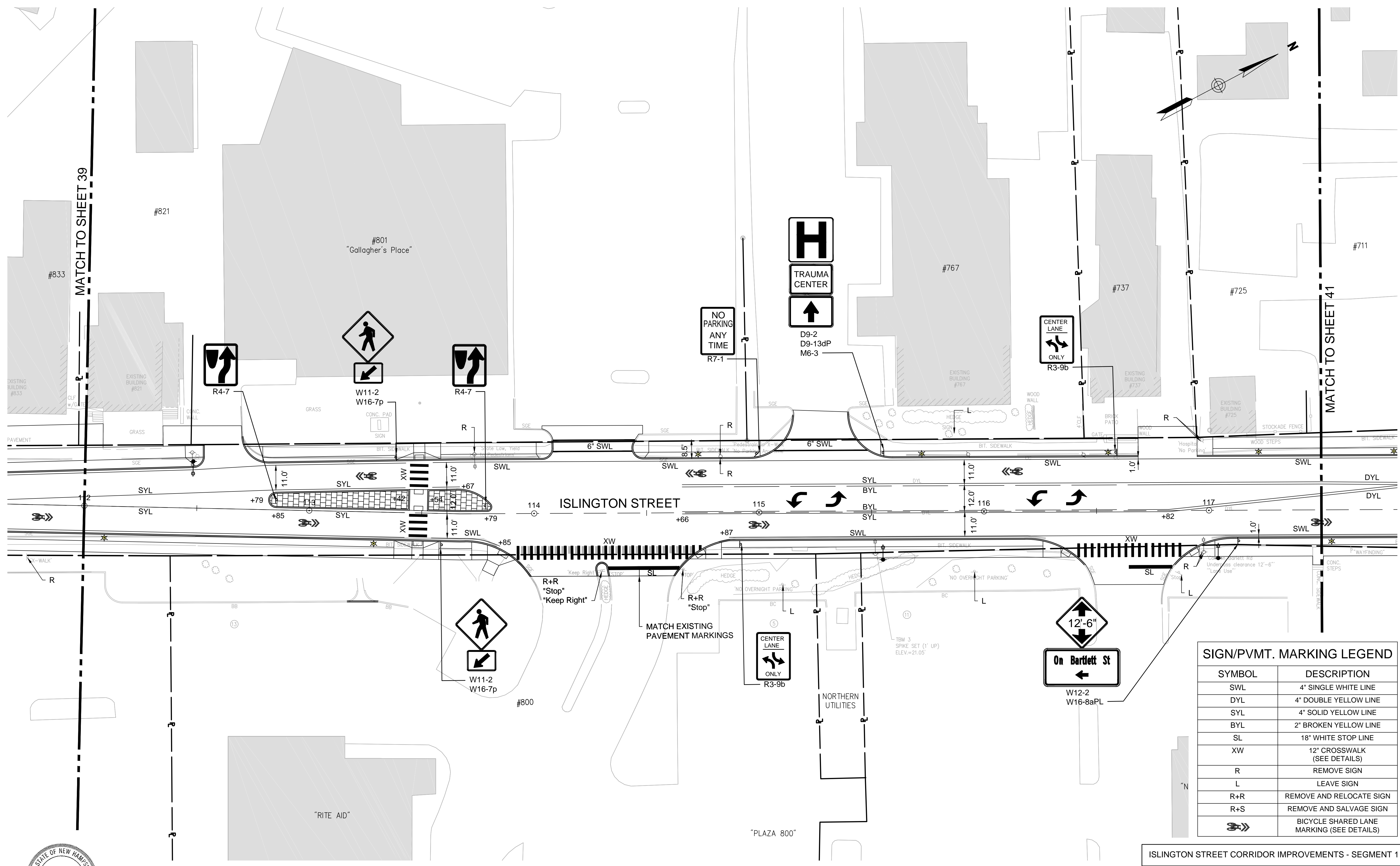
ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

PAVEMENT MARKING & SIGNING PLAN

MATCH TO SHEET 40

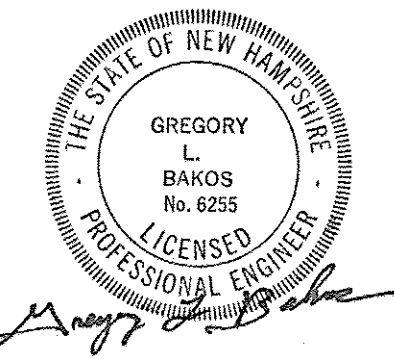
MATCH TO SHEET 38

SDR PROCESSED	VHB	DATE	OCT 2017
	MLG	DATE	11/13/18
	MDS	DATE	11/13/18
	AS BUILT DETAILS	DATE	
REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION	



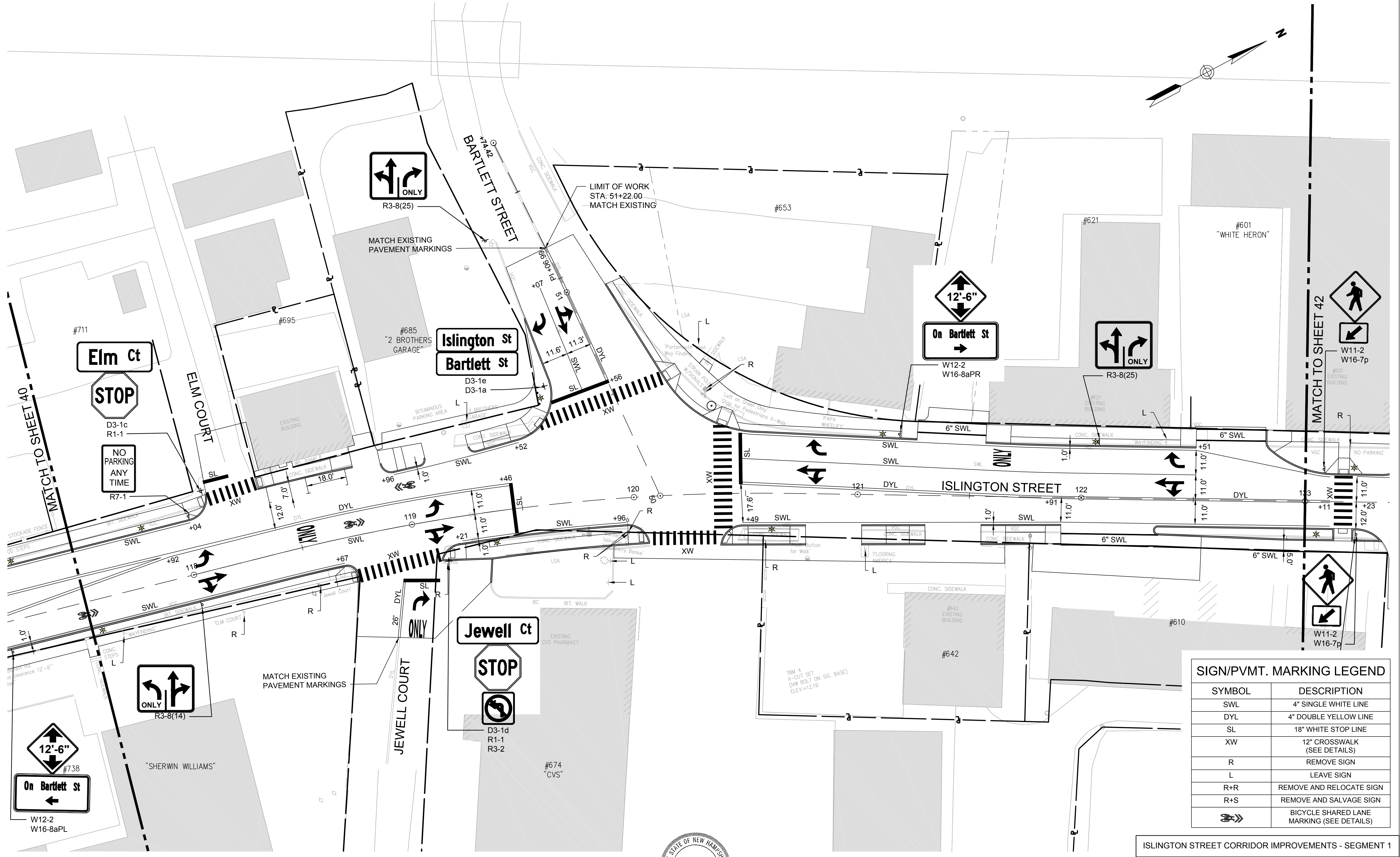
- NOTES:
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SIGN/PVMT. MARKING LEGEND	
SYMBOL	DESCRIPTION
SWL	4" SINGLE WHITE LINE
DYL	4" DOUBLE YELLOW LINE
SYL	4" SOLID YELLOW LINE
BYL	2" BROKEN YELLOW LINE
SL	18" WHITE STOP LINE
XW	12" CROSSWALK (SEE DETAILS)
R	REMOVE SIGN
L	LEAVE SIGN
R+R	REMOVE AND RELOCATE SIGN
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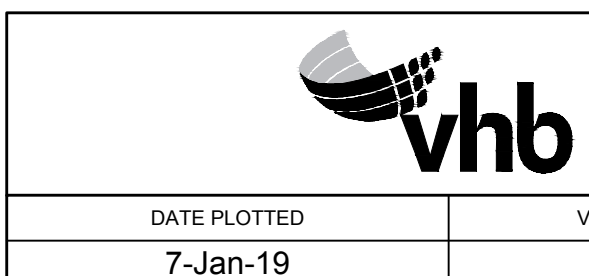
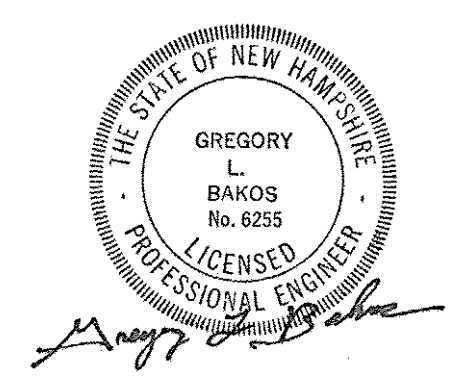
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PAVEMENT MARKING & SIGNING PLAN					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	PMSIGN-SEG1	7176	40	88

SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	MLG	DATE	1/7/19
SHEET CHECKED	MDS	DATE	1/7/19
AS BUILT DETAILS		DATE	



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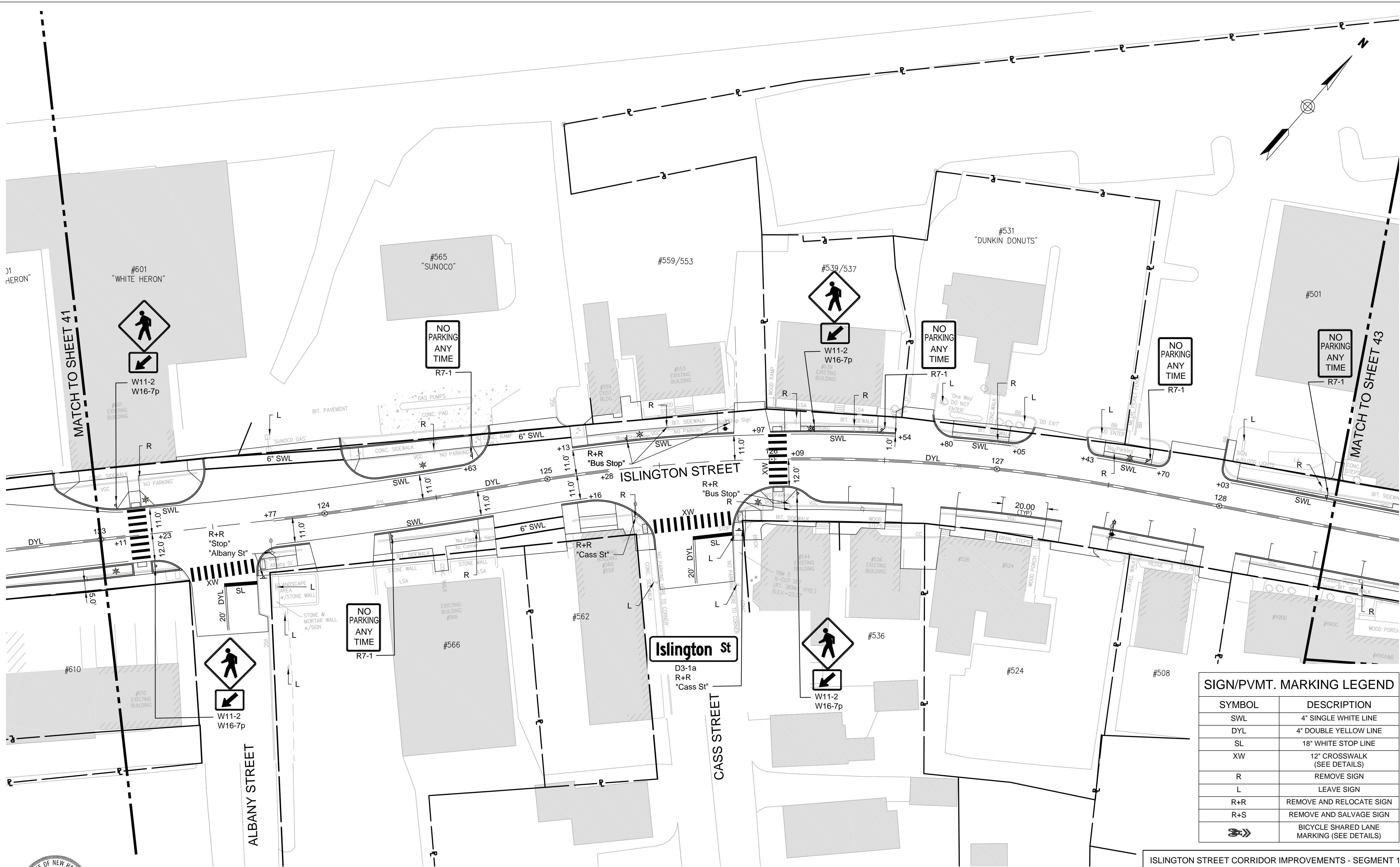


ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
PAVEMENT MARKING & SIGNING PLAN					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
7-Jan-19	52393.00	PMSIGN-SEG1	7176	41	88

REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION

NUMBER	DATE

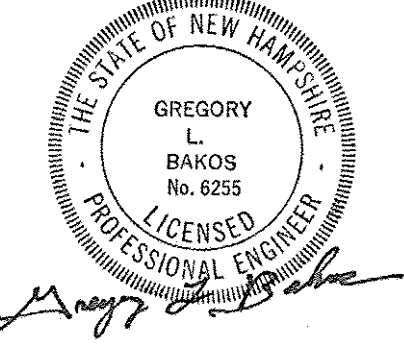
SDR PROCESSED	VHB	DATE	OCT 2017
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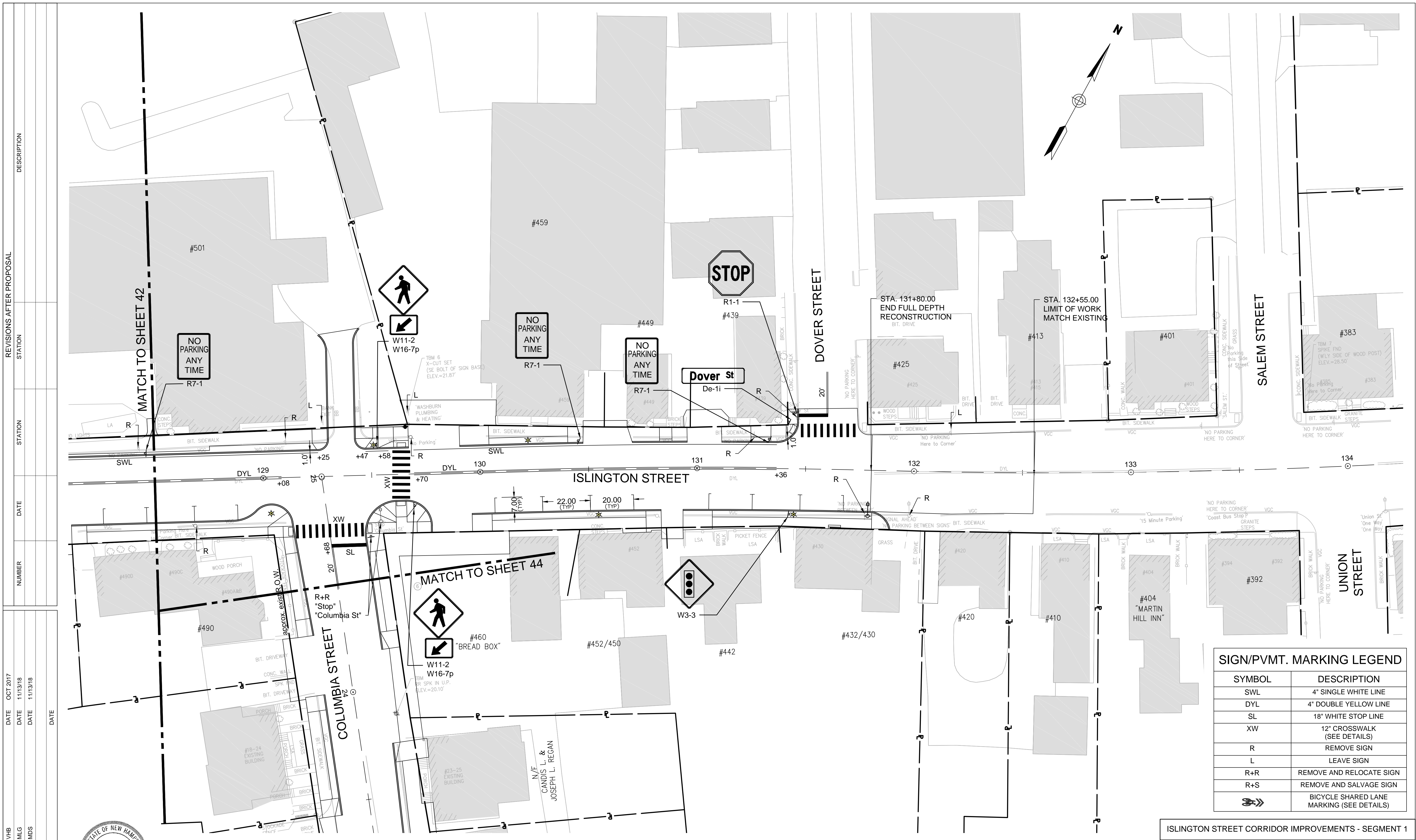
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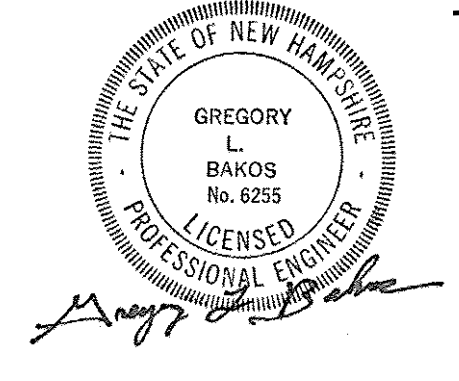
- NOTES:**
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		ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1			
		CITY OF PORTSMOUTH, NEW HAMPSHIRE			
<p>PAVEMENT MARKING & SIGNING PLAN</p>		DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
DATE PLOTTED 13-Nov-18		VHB PROJECT NO. 52393.00		PMSIGN-SEG1	7176 42 88



SDR PROCESSED	VHB	DATE	OCT 2017
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ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1

CITY OF PORTSMOUTH, NEW HAMPSHIRE

PAVEMENT MARKING & SIGNING PLAN

DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	PMSIGN-SEG1	7176	43	88

SIGN/PVMT. MARKING LEGEND	
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REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION

NUMBER	DATE	STATION	DESCRIPTION



STATE STREET

COLUMBIA COURT

COLUMBIA STREET

ISLINGTON STREET

State St
Columbia St

STOP

STOP

NO PARKING
ANY TIME



W11-2
W16-7p

LIMIT OF WORK
STA. 20+16.00
MATCH EXISTING

LIMIT OF WORK
STA. 30+00.00
MATCH EXISTING

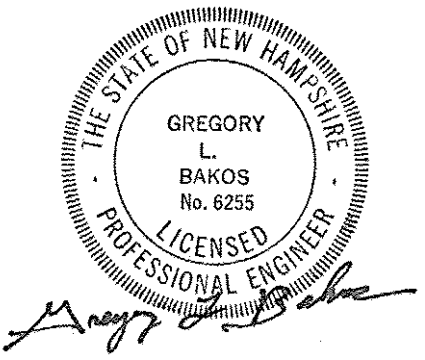
approx. exist R.O.W.

approx. exist R.O.W.

N/F CITY OF PORTSMOUTH
'CATER PARK'

N/F COLUMBIA STREET
DEVELOPMENT, LLC

N/F CANDIS L. &
JOSEPH L. REGAN



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
PAVEMENT MARKING & SIGNING PLAN					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	PMSIGN-SEG1	7176	44	88

ITEM #	IDENT #	SIGN SIZE		TEXT	TEXT DIMENSIONS			SHIELD SIZE (inch)	ARROW (inch)	NUMERAL (inch)	# OF SIGNS REQ'D	SIGN AREA (SQ. FT.)		REMARKS	ITEM #	IDENT #	SIGN SIZE		TEXT	TEXT DIMENSIONS			SHIELD SIZE (inch)	ARROW (inch)	NUMERAL (inch)	# OF SIGNS REQ'D	SIGN AREA (SQ. FT.)		REMARKS												
		WIDTH (inch)	HEIGHT (inch)		LETTER HEIGHT (inch)	UC	LC					CAPS	NOM AREA				TOTAL AREA	BREAKAWAY		STEEL I-BEAMS	CONCRETE BASE	4" ALUMINUM					U-CHANNEL-GALV.	WIDTH (inch)		HEIGHT (inch)	LETTER HEIGHT (inch)	UC	LC	CAPS	NOM AREA	TOTAL AREA	BREAKAWAY	STEEL I-BEAMS	CONCRETE BASE	4" ALUMINUM	U-CHANNEL-GALV.
		UC	LC		CAPS																																				
615.03	R1-1	30	30	STOP			10C				7	6.25	43.75	RED & BLACK / WHITE	615.06	M6-3	21	15								1	2.19	2.19	BLUE / WHITE MOUNT BELOW D9-2 AND D9-13dP												
615.06	R3-2	24	24								1	4.00	4.00	RED & BLACK / WHITE MOUNT BELOW R1-1	615.06	D3-1a	42	12		6C	4.5C					1	3.50	3.50	GREEN / WHITE MOUNT ABOVE R1-1												
															615.02						2	3.50	7.00								1	GREEN / WHITE									
615.03	R3-8(14)	36	30				4D				1	7.50	7.50	BLACK / WHITE	615.05	D3-1b	42	12		6C	4.5C					1	3.50	3.50	GREEN / WHITE MOUNT ABOVE D3-1a												
615.03	R3-8(25)	36	30				4D				2	7.50	15.00	BLACK / WHITE	615.05	D3-1c	30	12		6D	4.5D					1	2.50	2.50	GREEN / WHITE												
615.03	R3-9b	24	36			3E 3E 3E					2	6.00	12.00	BLACK / WHITE	615.05	D3-1d	42	12		6D	4.5D					1	3.00	3.00	GREEN / WHITE MOUNT ABOVE R1-1												
615.03	R4-7	24	30								2	5.00	10.00	BLACK / WHITE	615.05	D3-1e	42	12		6D	4.5D					1	3.50	3.50	GREEN / WHITE MOUNT ABOVE D3-1a												
615.03	R7-1	12	18				3C 3B 2C 2C				11	1.50	16.50	RED / WHITE	615.05	D3-1g	36	12		6D	4.5D					1	3.00	3.00	GREEN / WHITE MOUNT ABOVE D3-1h												
615.03	W3-3	30	30								1	6.25	6.25	YELLOW / BLACK / GREEN/RED	615.05	D3-1h	48	12		6C	4.5C					1	4.00	4.00	GREEN / WHITE MOUNT ABOVE R1-1												
615.03	W11-2	30	30								14	6.25	87.50	BLACK / FLUORESCENT YELLOW GREEN	615.02	D3-1i	42	12		6D	4.5D					1	3.50	3.50	GREEN / WHITE												
615.03	W12-2	36	36				12D				2	9.00	18.00	YELLOW / BLACK	615.03	D9-2	30	30				25EM				1	6.25	6.25	BLUE / WHITE												
615.06	W16-7p	24	12								14	2.00	28.00	BLACK / FLUORESCENT YELLOW GREEN MOUNT BELOW W11-2	615.06	D9-13dP	24	12				3D 3D				1	2.00	2.00	BLUE / WHITE MOUNT BELOW D9-2												
615.06	W16-8aPL	36	15				4B				1	4.50	4.50	YELLOW / BLACK MOUNT BELOW W12-2																											
615.06	W16-8aPR	36	15				4B				1	4.50	4.50	YELLOW / BLACK MOUNT BELOW W12-2																											

GENERAL NOTES

- REFER TO THE 2016 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION PUBLISHED BY THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT).
- REFER TO THE LATEST EDITION OF THE STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION AS PUBLISHED BY THE NHDOT FOR EXACT DETAILS OF PERMANENT SIGNING STANDARDS.
- NOTE NEW REFLECTIVITY REQUIREMENTS IN THE 2016 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 718 PUBLISHED BY THE NHDOT.
- REFER TO THE LATEST EDITION OF THE STANDARD HIGHWAY SIGNS MANUAL AS PUBLISHED BY THE USDOT-FHWA FOR EXACT DETAILS OF BORDERS, ETC.
- THE ALUMINUM OR U-CHANNEL POSTS SHALL BE FLUSH WITH THE TOP OF THE TOP SIGN ON ALL SINGLE POST ASSEMBLIES.

REVISIONS AFTER PROPOSAL

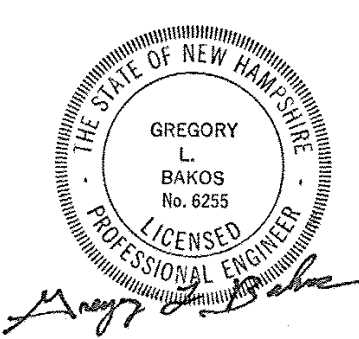
STATION	DESCRIPTION
DATE	NUMBER

SDR PROCESSED VHB DATE OCT 2017

NEW DESIGN MLG DATE 11/13/18

SHEET CHECKED MDS DATE 11/13/18

AS BUILT DETAILS



DATE PLOTTED	VHB PROJECT NO.
13-Nov-18	52393.00

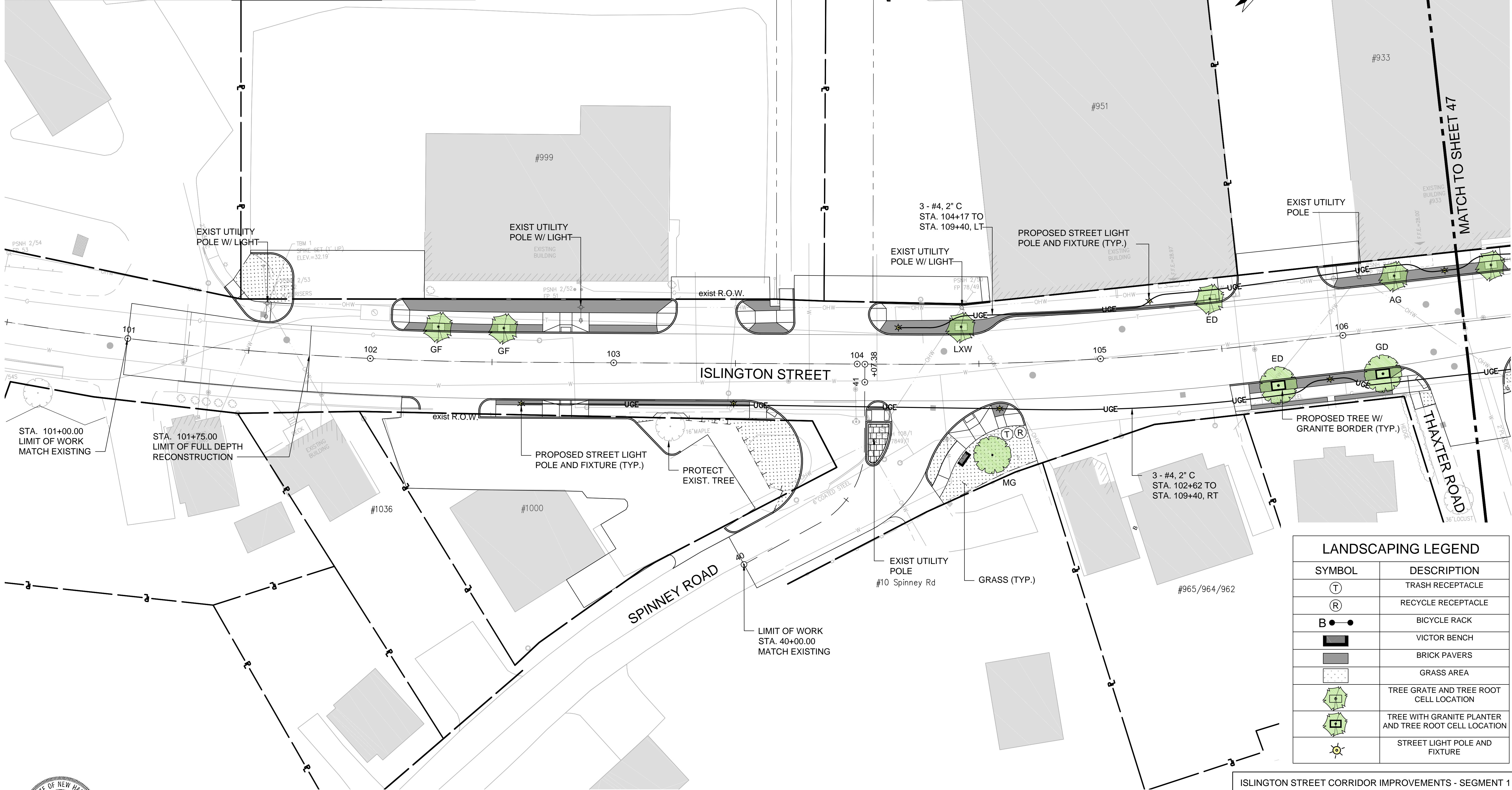
ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1

CITY OF PORTSMOUTH, NEW HAMPSHIRE

SIGN SUMMARY SHEET

DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
TSSS-Seg1	7176	45	88

PROPOSED TREES				
KEY	BOTANICAL NAME	COMMON NAME	QTY	COMMENTS
AG	ACER GRISEUM	PAPERBARK MAPLE	1	
ED	EVODIA DANIELLII	KOREAN EVODIA	2	
GD	GYMNOCLADUS DIOICA	KENTUCKY COFFEETREE	1	
GF	GINKGO FASTIGIATA	FASTIGATE GINKO	2	
LXW	LABURNUM X WATERERI	GOLDEN CHAINTREE	1	
MG	METASEQUOIA GLYPTOSTROBOIDES	DAWN REDWOOD	1	
TOTAL:			8	



REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION

NUMBER	DATE	DATE	DATE

SDR PROCESSED VHB DATE 11/13/18
 NEW DESIGN KMH DATE 11/13/18
 SHEET CHECKED GLB DATE 11/13/18
 AS BUILT DETAILS

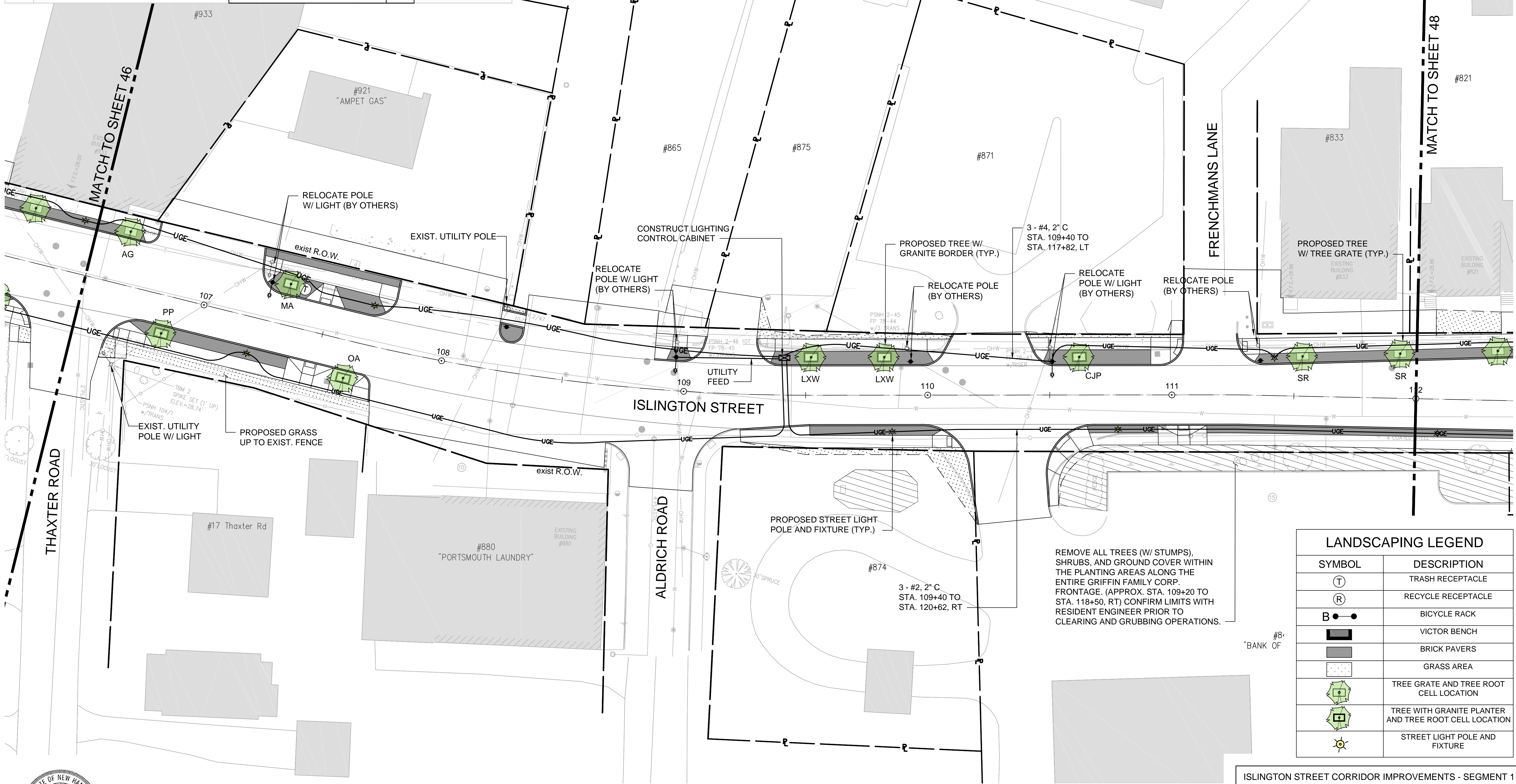
- NOTES:**
- ALL LIGHTING CONDUIT SHALL BE 2" PVC SCHEDULE 40, AND SCHEDULE 80 UNDER ROADWAYS.
 - ALL TREES SHALL BE 2" - 2 1/2" CAL.



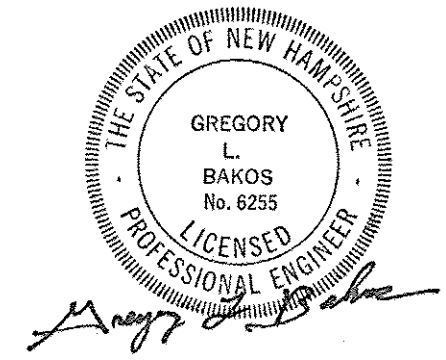
LANDSCAPING LEGEND	
SYMBOL	DESCRIPTION
(T)	TRASH RECEPTACLE
(R)	RECYCLE RECEPTACLE
B ● ●	BICYCLE RACK
■	VICTOR BENCH
■	BRICK PAVERS
■	GRASS AREA
(Tree symbol)	TREE GRATE AND TREE ROOT CELL LOCATION
(Tree symbol)	TREE WITH GRANITE PLANTER AND TREE ROOT CELL LOCATION
(Light pole symbol)	STREET LIGHT POLE AND FIXTURE

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
LANDSCAPING & LIGHTING PLAN					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	LD-Seg1	7176	46	88

PROPOSED TREES				
KEY	BOTANICAL NAME	COMMON NAME	QTY	COMMENTS
AG	ACER GRISEUM	PAPERBARK MAPLE	1	
CJP	CERCIDIPHYLLUM JAPONICUM "PENDULA"	WEeping KATSURA	1	
LXW	LABURNUM X WATERERI	GOLDEN CHAINTREE	2	
MA	MAACKIA AMURENSIS	AMUR MAACKIA	1	
OA	OXYDENDRUM ARBOREUM	SOURWOOD	1	
PP	PARROTIA PERSICA	PERSIAN IRONWOOD/PARROTIA	1	/PERSIAN PARROTIA
SR	SYRINGA RETICULATA	JAPANESE TREE LILAC	2	
			TOTAL:	9



REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION
NUMBER	DATE	DATE
SDR PROCESSED	DATE	DATE



NOTE:

- ALL LIGHTING CONDUIT SHALL BE 2" PVC SCHEDULE 40, AND SCHEDULE 80 UNDER ROADWAYS.
- ALL TREES SHALL BE 2" - 2 1/2" CAL.



REMOVE ALL TREES (W/ STUMPS), SHRUBS, AND GROUND COVER WITHIN THE PLANTING AREAS ALONG THE ENTIRE GRIFFIN FAMILY CORP. FRONTAGE. (APPROX. STA. 109+20 TO STA. 118+50, RT) CONFIRM LIMITS WITH RESIDENT ENGINEER PRIOR TO CLEARING AND GRUBBING OPERATIONS.

LANDSCAPING LEGEND	
SYMBOL	DESCRIPTION
(T)	TRASH RECEPTACLE
(R)	RECYCLE RECEPTACLE
B ● ●	BICYCLE RACK
■	VICTOR BENCH
■	BRICK PAVERS
■	GRASS AREA
■	TREE GRATE AND TREE ROOT CELL LOCATION
■	TREE WITH GRANITE PLANTER AND TREE ROOT CELL LOCATION
☀	STREET LIGHT POLE AND FIXTURE

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
LANDSCAPING & LIGHTING PLAN					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	LD-Seg1	7176	47	88

PROPOSED TREES				
KEY	BOTANICAL NAME	COMMON NAME	QTY	COMMENTS
GD	GYMNOCLADUS DIOICA	KENTUCKY COFFEETREE	1	
NS	NYSSA SYLVATICA	BLACK GUM	1	
SR	SYRINGA RETICULATA	JAPANESE TREE LILAC	1	
TOTAL:			3	

REVISIONS AFTER PROPOSAL

STATION

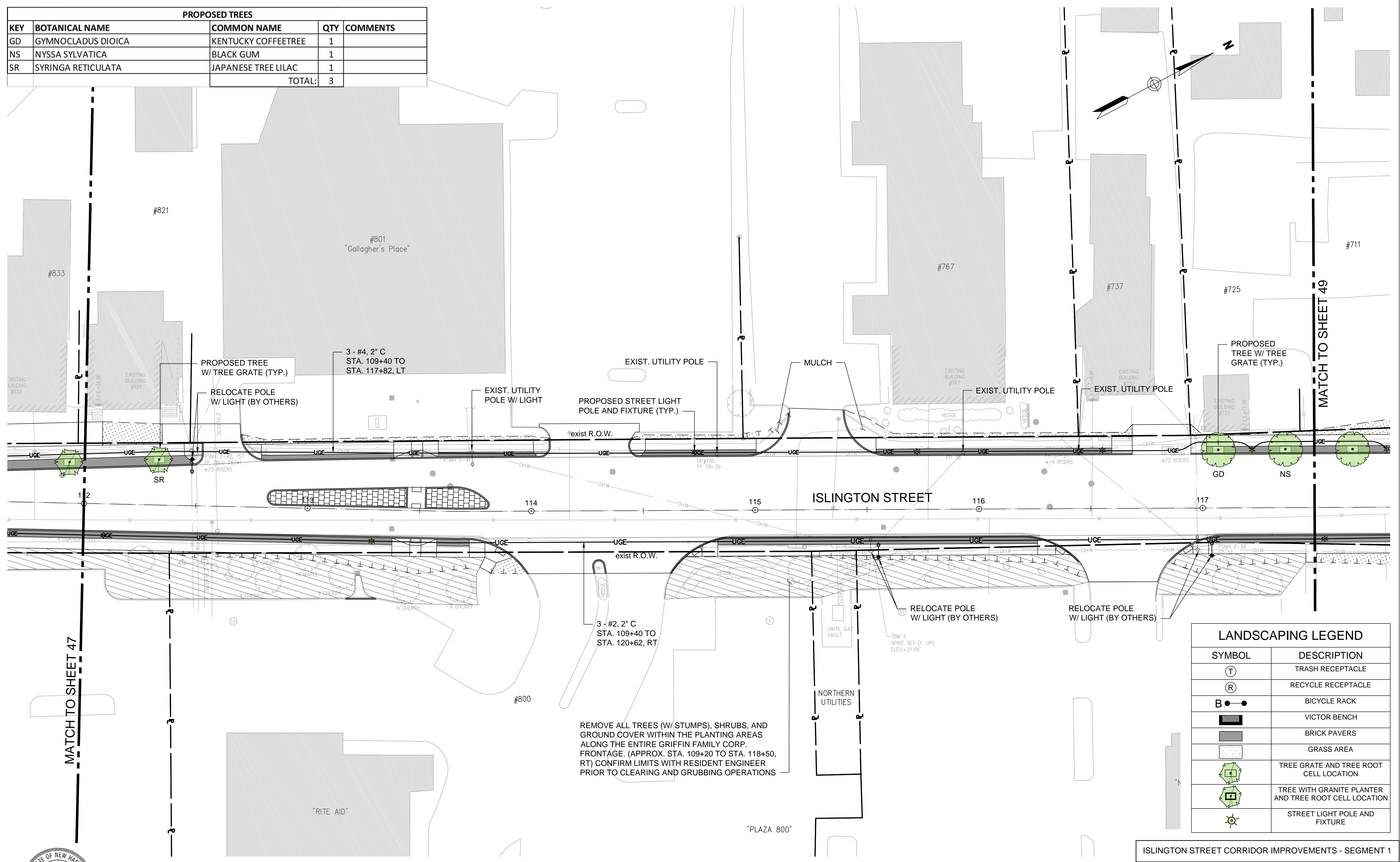
STATION

DATE

NUMBER

SDR PROCESSED DATE \$SDR DATES

VHB DATE 11/13/18
 KMVH DATE 11/13/18
 GLB DATE 11/13/18
 AS BUILT DETAILS

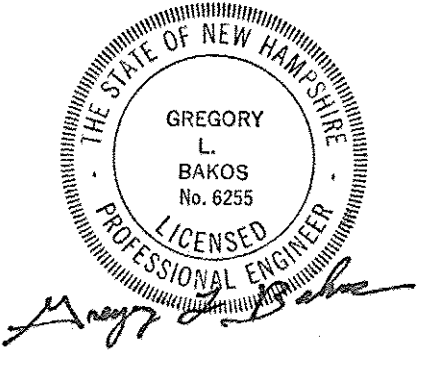


MATCH TO SHEET 47

MATCH TO SHEET 49

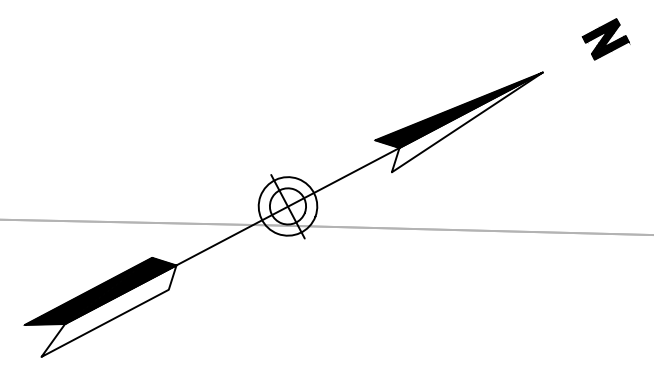
LANDSCAPING LEGEND	
SYMBOL	DESCRIPTION
(T)	TRASH RECEPTACLE
(R)	RECYCLE RECEPTACLE
B ● ●	BICYCLE RACK
[BENCH]	VICTOR BENCH
[BRICK]	BRICK PAVERS
[GRASS]	GRASS AREA
[TREE GRATE]	TREE GRATE AND TREE ROOT CELL LOCATION
[TREE WITH GRATE]	TREE WITH GRANITE PLANTER AND TREE ROOT CELL LOCATION
[LIGHT POLE]	STREET LIGHT POLE AND FIXTURE

NOTE:
 1. ALL LIGHTING CONDUIT SHALL BE 2" PVC SCHEDULE 40, AND SCHEDULE 80 UNDER ROADWAYS.
 2. ALL TREES SHALL BE 2" - 2 1/2" CAL.

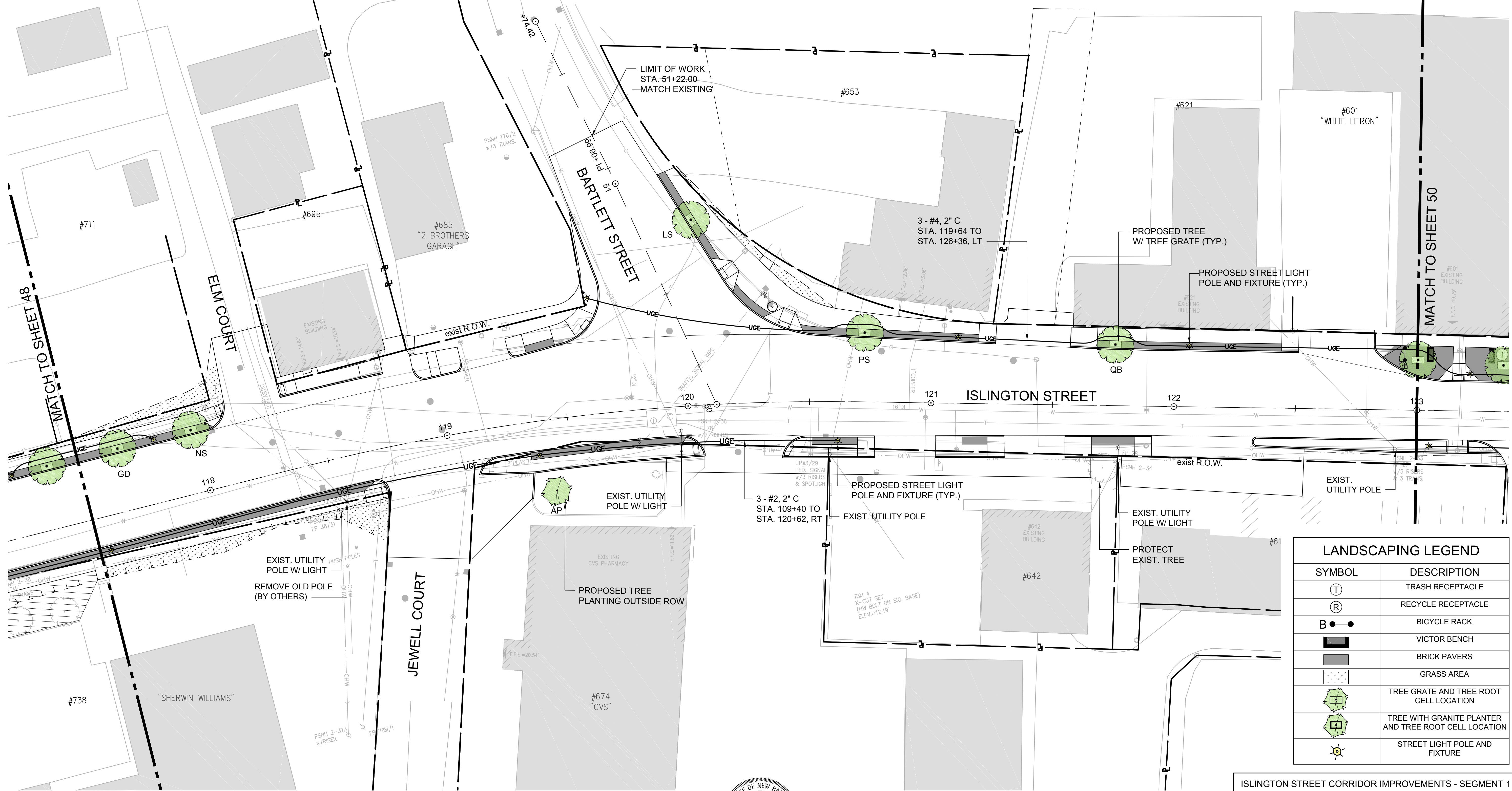


		ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1			
		CITY OF PORTSMOUTH, NEW HAMPSHIRE			
LANDSCAPING & LIGHTING PLAN					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	LD-Seg1	7176	48	88

PROPOSED TREES				
KEY	BOTANICAL NAME	COMMON NAME	QTY	COMMENTS
AP	ACER PALMATUM	JAPENSE MAPLE	1	
GD	GYMNOCLADUS DIOICA	KENTUCKY COFFEETREE	1	
LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	1	
NS	NYSSA SYLVATICA	BLACK GUM	1	
PS	PRUNUS SUBHIRTELLA	HIGAN CHERRY	1	
QB	QUERCUS BICOLOR	SWAMP WHITE OAK	1	
TOTAL:			6	

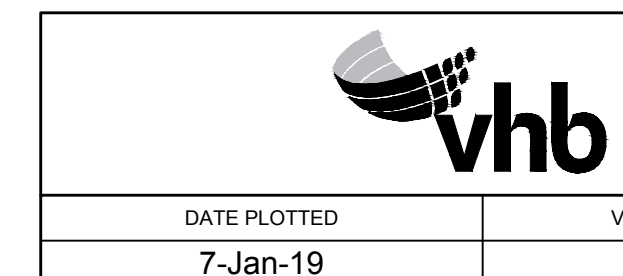
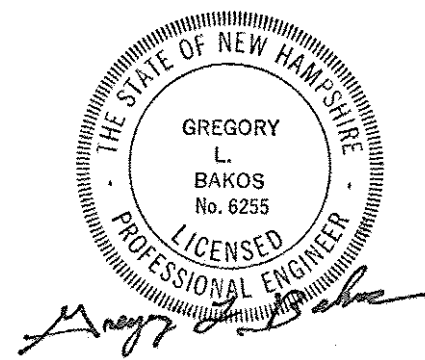


REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION



LANDSCAPING LEGEND	
SYMBOL	DESCRIPTION
	TRASH RECEPTACLE
	RECYCLE RECEPTACLE
	BICYCLE RACK
	VICTOR BENCH
	BRICK PAVERS
	GRASS AREA
	TREE GRATE AND TREE ROOT CELL LOCATION
	TREE WITH GRANITE PLANTER AND TREE ROOT CELL LOCATION
	STREET LIGHT POLE AND FIXTURE

NOTE:
 1. ALL LIGHTING CONDUIT SHALL BE 2" PVC SCHEDULE 40, AND SCHEDULE 80 UNDER ROADWAYS.
 2. ALL TREES SHALL BE 2" - 2 1/2" CAL.



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
LANDSCAPING & LIGHTING PLAN					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
7-Jan-19	52393.00	LD-Seg1	7176	49	88

SDR PROCESSED	VHB	DATE	\$\$\$RDATES
NEW DESIGN <td>KMH <td>DATE</td> <td>17/19 </td></td>	KMH <td>DATE</td> <td>17/19 </td>	DATE	17/19
SHEET CHECKED <td>GLB <td>DATE</td> <td>17/19 </td></td>	GLB <td>DATE</td> <td>17/19 </td>	DATE	17/19
AS BUILT DETAILS <td> </td> <td>DATE</td> <td> </td>		DATE	

PROPOSED TREES				
KEY	BOTANICAL NAME	COMMON NAME	QTY	COMMENTS
AT	ACER TARTARICUM	TARTARIAN MAPLE (SINGLE STEM)	1	SINGLE STEM
CJ	CERCIDIPHYLLUM JAPONICUM	KATSURA TREE	1	
CR	CHIONANTHUS RETUSUS	CHINESE FRINGETREE	1	
GF	GINKGO FASTIGIATA	FASTIGATE GINKO	2	
LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	2	
MA	MAACKIA AMURENSIS	AMUR MAACKIA	1	
NS	NYSSA SYLVATICA	BLACK GUM	1	
PP	PARROTIA PERSICA	PERSIAN IRONWOOD/PARROTIA	1	/PERSIAN PARROTIA
PS	PRUNUS SUBHIRTILLA	HIGAN CHERRY	1	
SR	SYRINGA RETICULATA	JAPANESE TREE LILAC	3	
			TOTAL:	14



LANDSCAPING LEGEND	
SYMBOL	DESCRIPTION
(T)	TRASH RECEPTACLE
(R)	RECYCLE RECEPTACLE
B ● ●	BICYCLE RACK
▬	VICTOR BENCH
■	BRICK PAVERS
□	GRASS AREA
⊕	TREE GRATE AND TREE ROOT CELL LOCATION
⊕	TREE WITH GRANITE PLANTER AND TREE ROOT CELL LOCATION
⊙	STREET LIGHT POLE AND FIXTURE

NOTE:
 1. ALL LIGHTING CONDUIT SHALL BE 2" PVC SCHEDULE 40, AND SCHEDULE 80 UNDER ROADWAYS.
 2. ALL TREES SHALL BE 2" - 2 1/2" CAL.

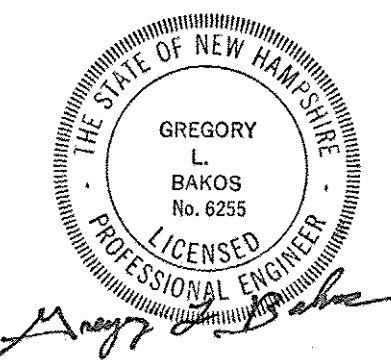


ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
 CITY OF PORTSMOUTH, NEW HAMPSHIRE

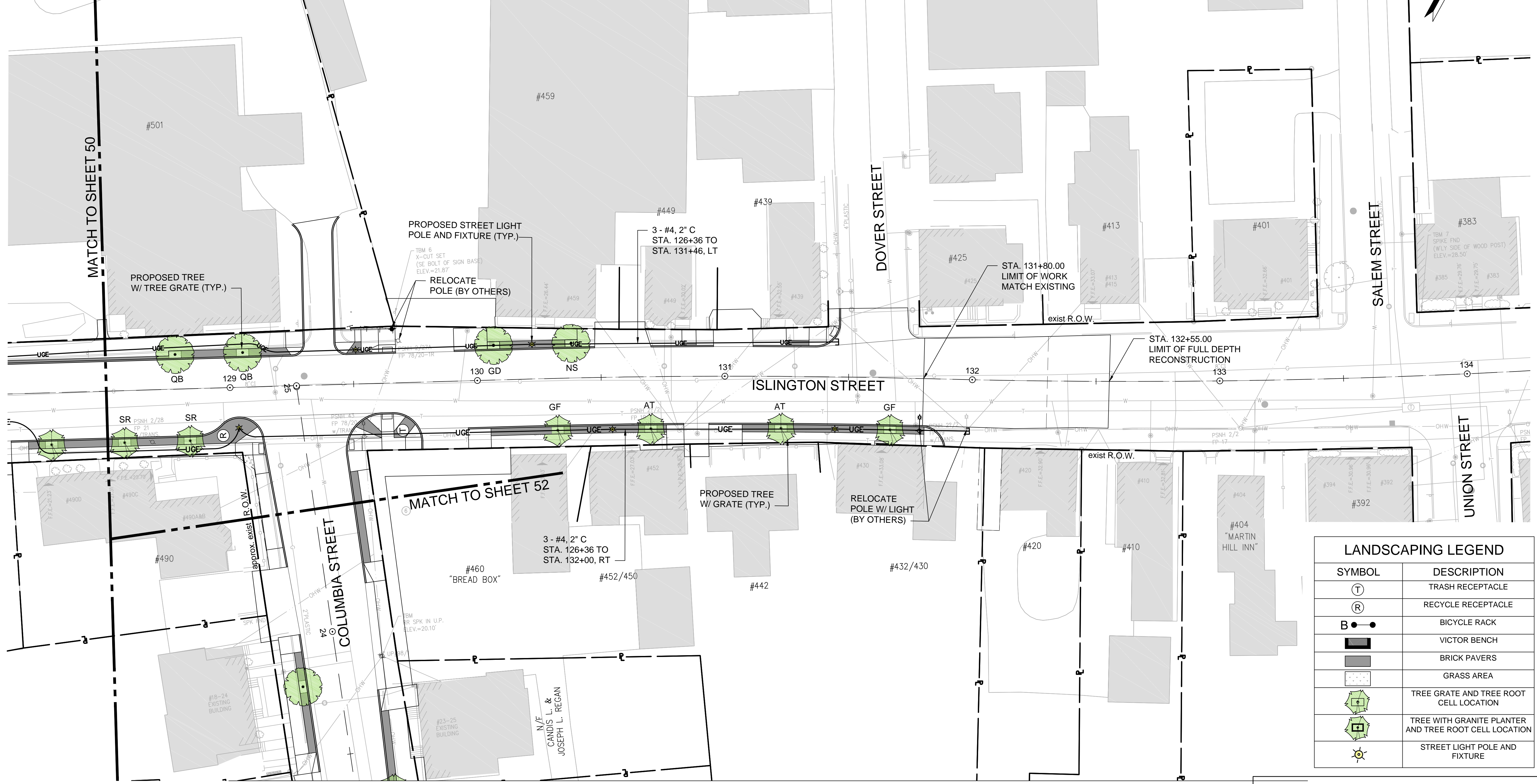
LANDSCAPING & LIGHTING PLAN

DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	LD-Seg1	7176	50	88

REVISIONS AFTER PROPOSAL	STATION	DATE	NUMBER	DESCRIPTION

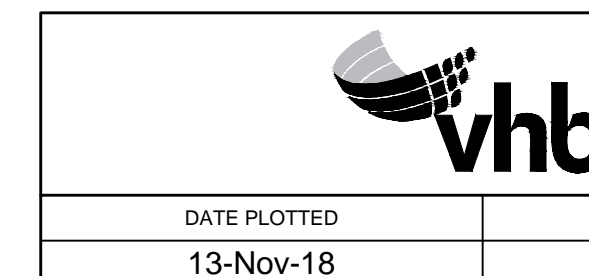


PROPOSED TREES				
KEY	BOTANICAL NAME	COMMON NAME	QTY	COMMENTS
AT	ACER TARTARICUM	TARTARIAN MAPLE (SINGLE STEM)	2	SINGLE STEM
GD	GYMNOCLADUS DIOICA	KENTUCKY COFFEETREE	1	
GF	GINKGO FASTIGIATA	FASTIGATE GINKO	2	
NS	NYSSA SYLVATICA	BLACK GUM	1	
QB	QUERCUS BICOLOR	SWAMP WHITE OAK	2	
SR	SYRINGA RETICULATA	JAPANESE TREE LILAC	2	
			TOTAL:	10



LANDSCAPING LEGEND	
SYMBOL	DESCRIPTION
	TRASH RECEPTACLE
	RECYCLE RECEPTACLE
	BICYCLE RACK
	VICTOR BENCH
	BRICK PAVERS
	GRASS AREA
	TREE GRATE AND TREE ROOT CELL LOCATION
	TREE WITH GRANITE PLANTER AND TREE ROOT CELL LOCATION
	STREET LIGHT POLE AND FIXTURE

NOTE:
 1. ALL LIGHTING CONDUIT SHALL BE 2" PVC SCHEDULE 40, AND SCHEDULE 80 UNDER ROADWAYS.
 2. ALL TREES SHALL BE 2" - 2 1/2" CAL.

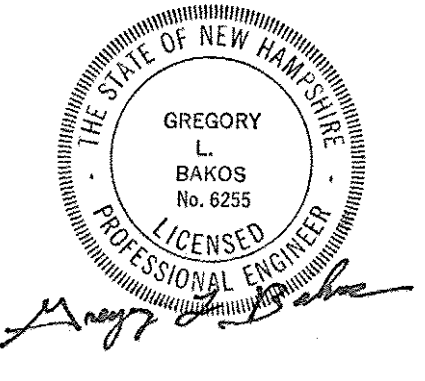


DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	LD-Seg1	7176	51	88

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
 CITY OF PORTSMOUTH, NEW HAMPSHIRE

LANDSCAPING & LIGHTING PLAN

SDR PROCESSED	VHB
NEW DESIGN	KMH
SHEET CHECKED	GLB
AS BUILT DETAILS	



REVISIONS AFTER PROPOSAL	DESCRIPTION
STATION	
STATION	
DATE	
NUMBER	

PROPOSED TREES				
KEY	BOTANICAL NAME	COMMON NAME	QTY	COMMENTS
ED	EVODIA DANIELLII	KOREAN EVODIA	1	
GD	GYMNOCLADUS DIOICA	KENTUCKY COFFEETREE	2	
LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	1	
LXW	LABURNUM X WATERERI	GOLDEN CHAINTREE	1	
NS	NYSSA SYLVATICA	BLACK GUM	1	
SJ	SOPHORA JAPONICA	JAPANESE PAGODA	1	
			TOTAL:	7

LANDSCAPING LEGEND	
SYMBOL	DESCRIPTION
	TRASH RECEPTACLE
	RECYCLE RECEPTACLE
	BICYCLE RACK
	VICTOR BENCH
	BRICK PAVERS
	GRASS AREA
	TREE GRATE AND TREE ROOT CELL LOCATION
	TREE WITH GRANITE PLANTER AND TREE ROOT CELL LOCATION
	STREET LIGHT POLE AND FIXTURE

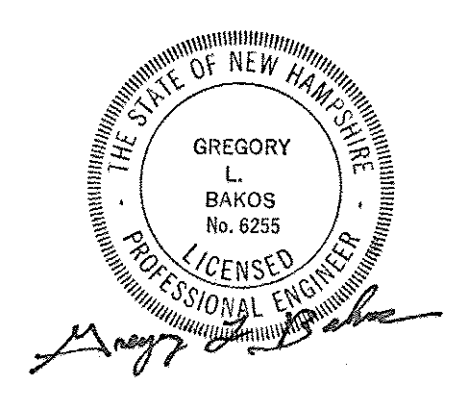


REVISIONS AFTER PROPOSAL	STATION	DESCRIPTION

R=20.23'
 +12.3' 12"VC (P235)
 +12.1' 12"VC (P236)

R=19.83'
 P177 (P177)
 P182 (P182)
 P182 (P182)
 P198 (P198)

R=19.91'
 +11.2' 15"VC (P229)
 +12.3' 8"VC (P232)
 +13.5' 10"VC (P233)
 +11.2' 15"VC (P234)



NOTE:
 ALL LIGHTING CONDUIT SHALL BE 2" PVC SCHEDULE 40,
 AND SCHEDULE 80 UNDER ROADWAYS.

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
LANDSCAPING & LIGHTING PLAN					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	LD-Seg1	7176	52	88



SDR PROCESSED	VHB	DATE	SDRDATES
NEW DESIGN	KMH	DATE	11/13/18
SHEET CHECKED	GLB	DATE	11/13/18
AS BUILT DETAILS		DATE	

DESCRIPTION

REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

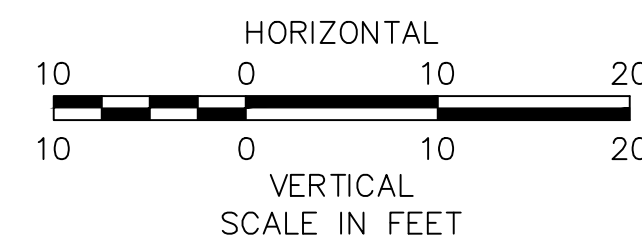
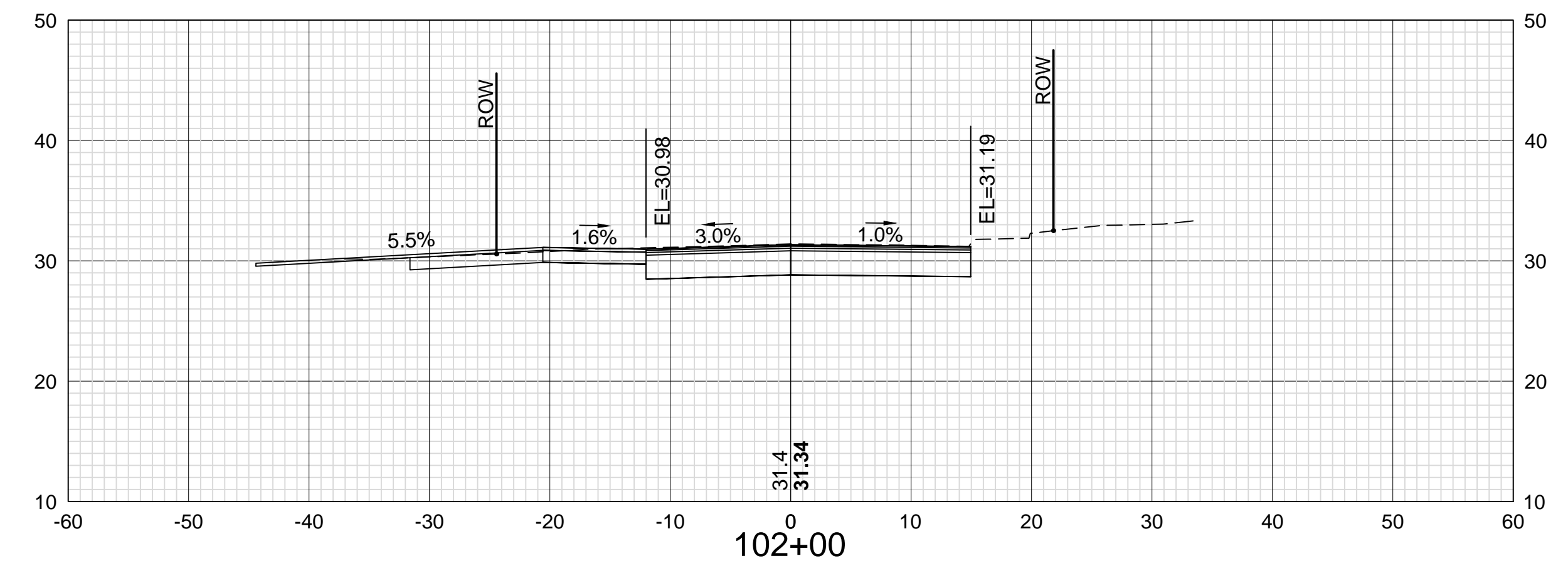
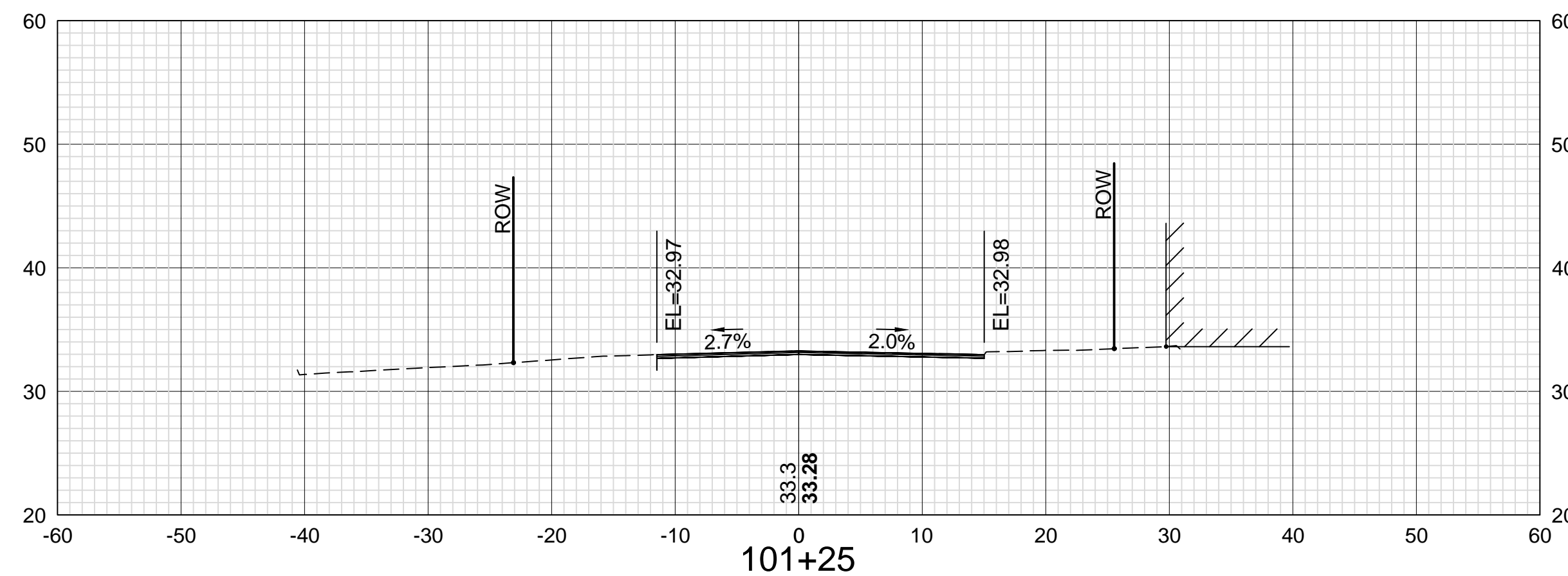
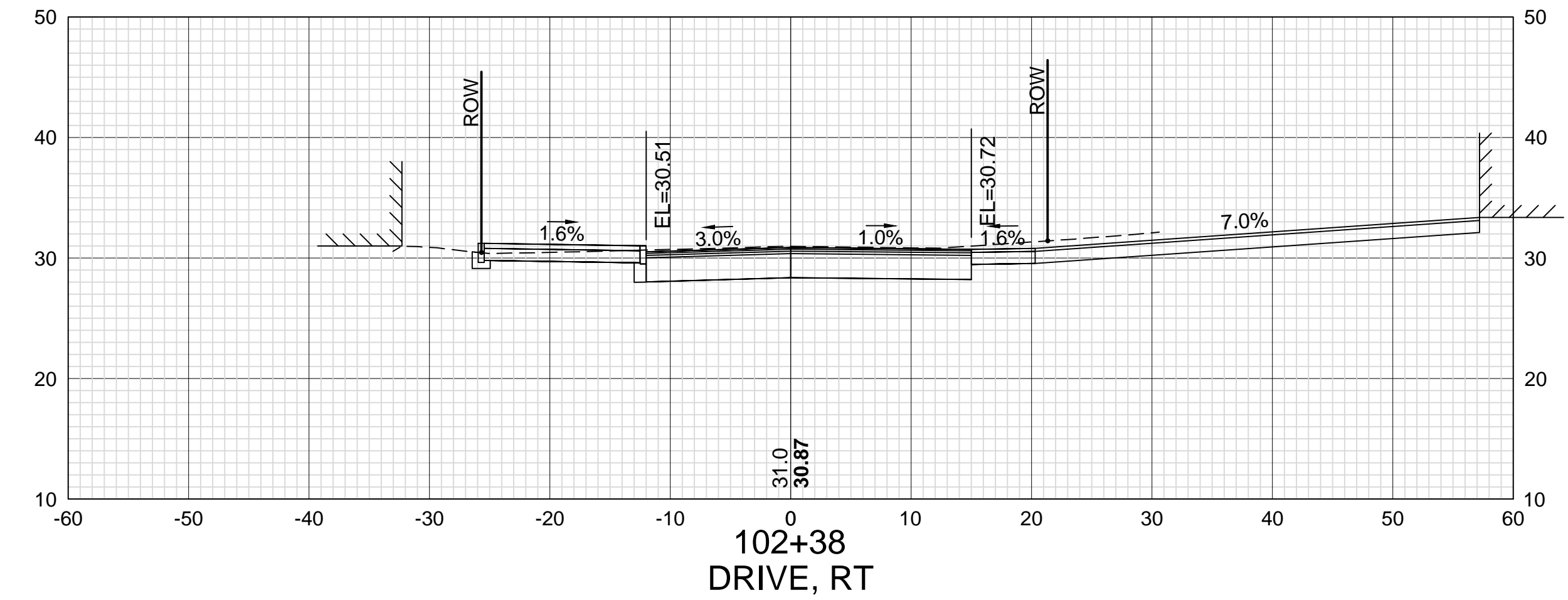
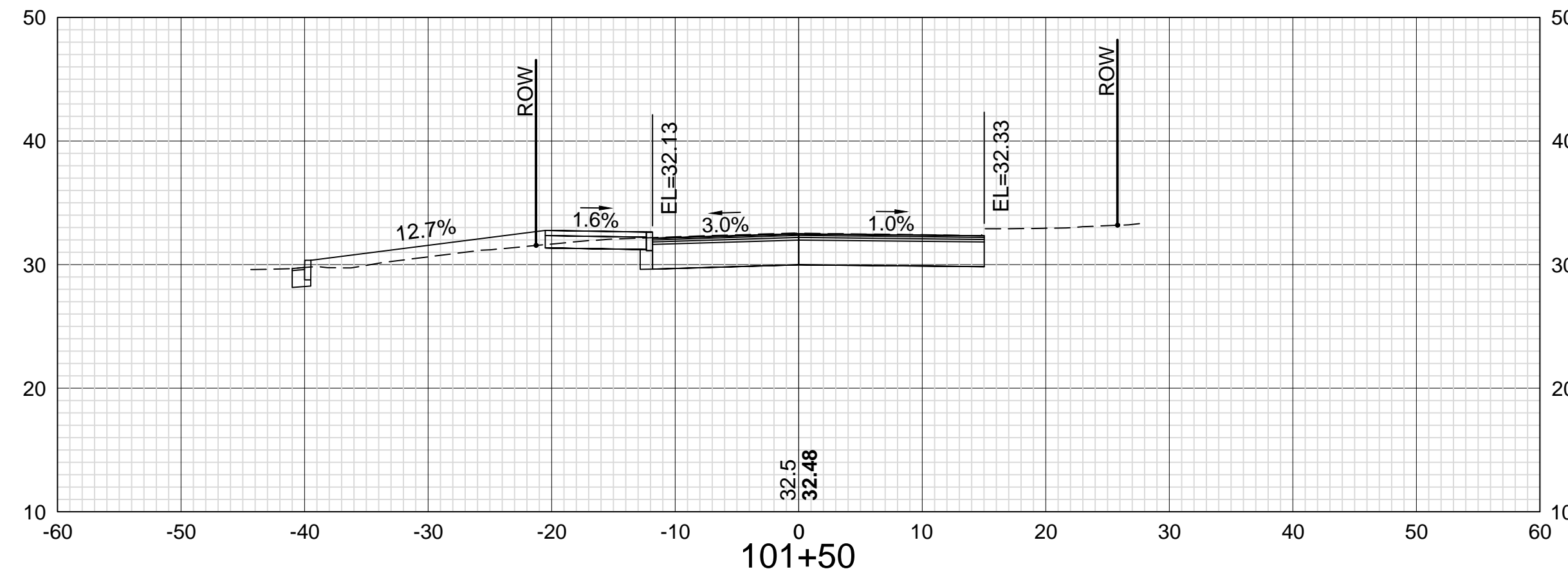
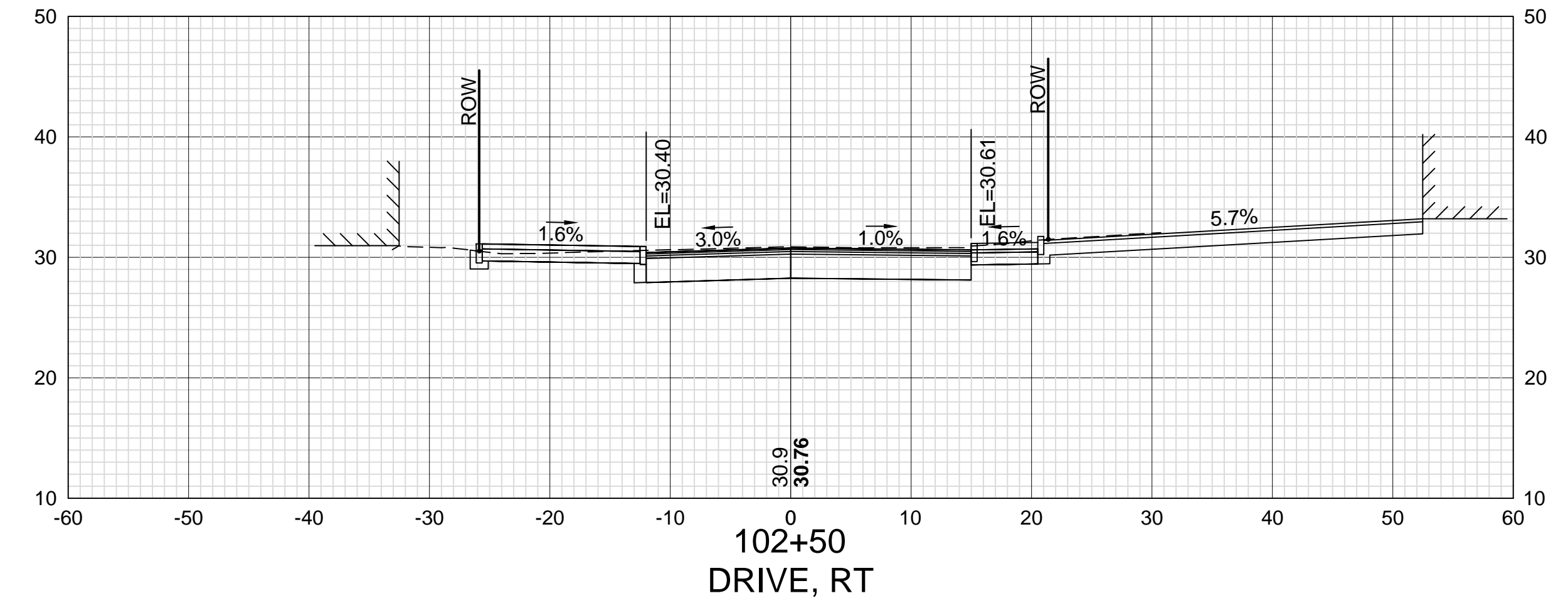
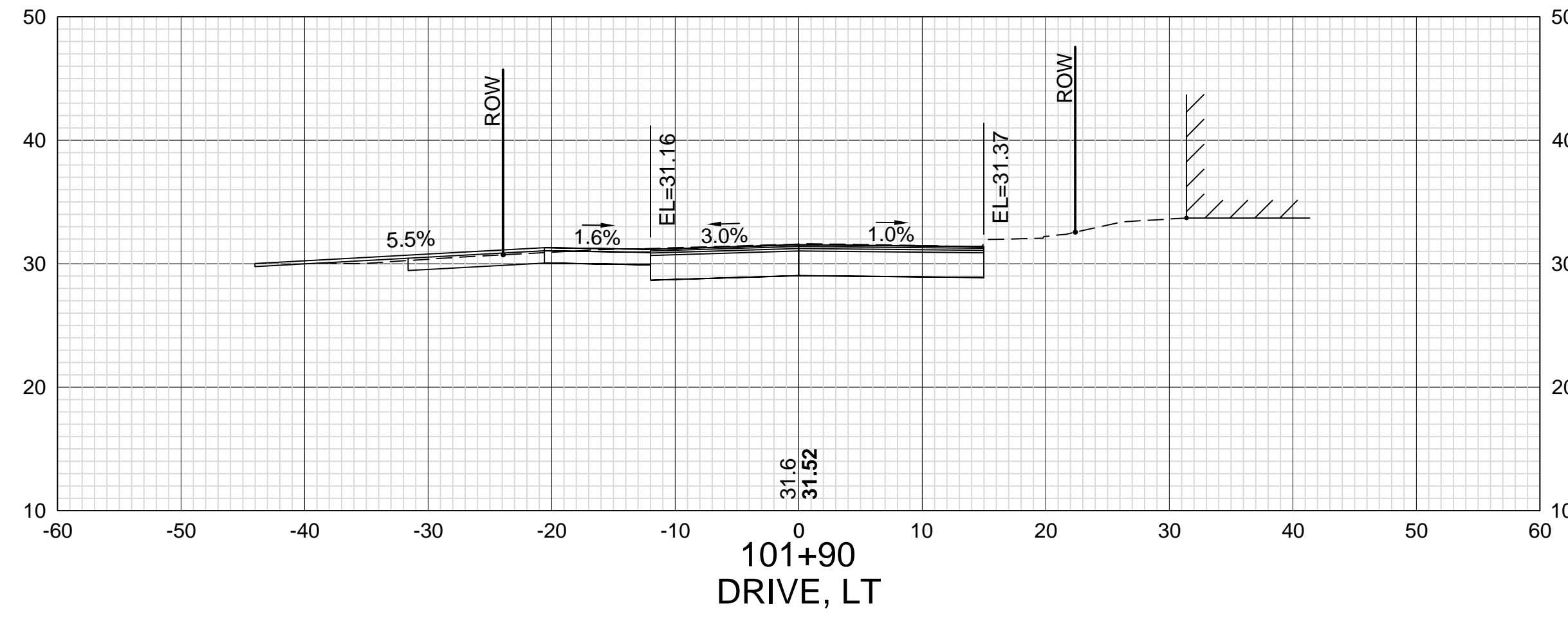
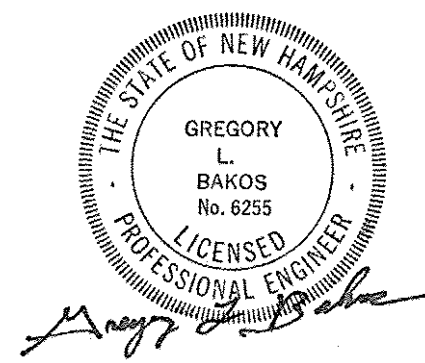
DATE

SDR PROCESSED VHB

NEW DESIGN KMH

SHEET CHECKED GLB

AS BUILT DETAILS



DATE PLOTTED
13-Nov-18

VHB PROJECT NO.
52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1				
CITY OF PORTSMOUTH, NEW HAMPSHIRE				
CROSS SECTIONS				
ISLINGTON STREET				
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS	
XS-Seg1	7176	53	88	

DESCRIPTION

REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

SDR PROCESSED

VHB

DATE

NEW DESIGN

DATE

DATE

SHEET CHECKED

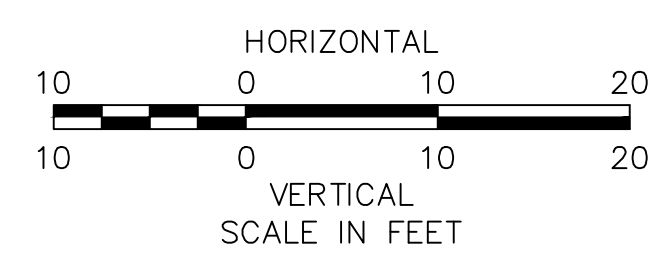
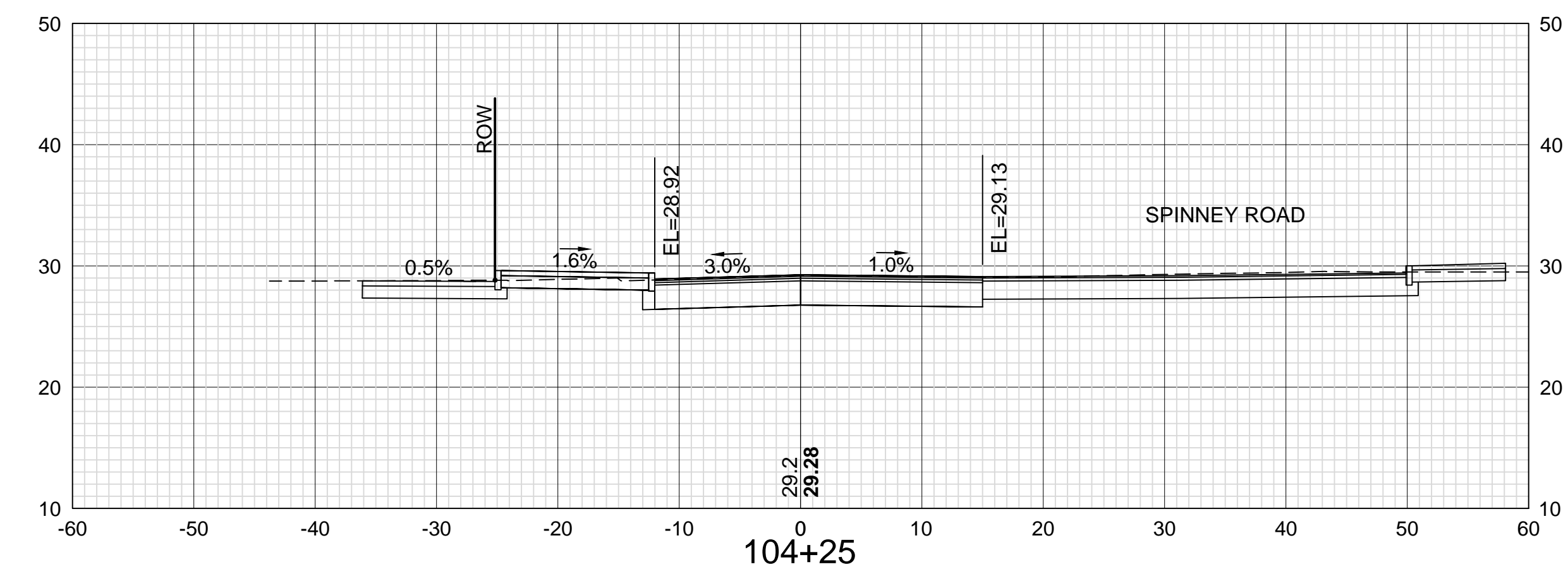
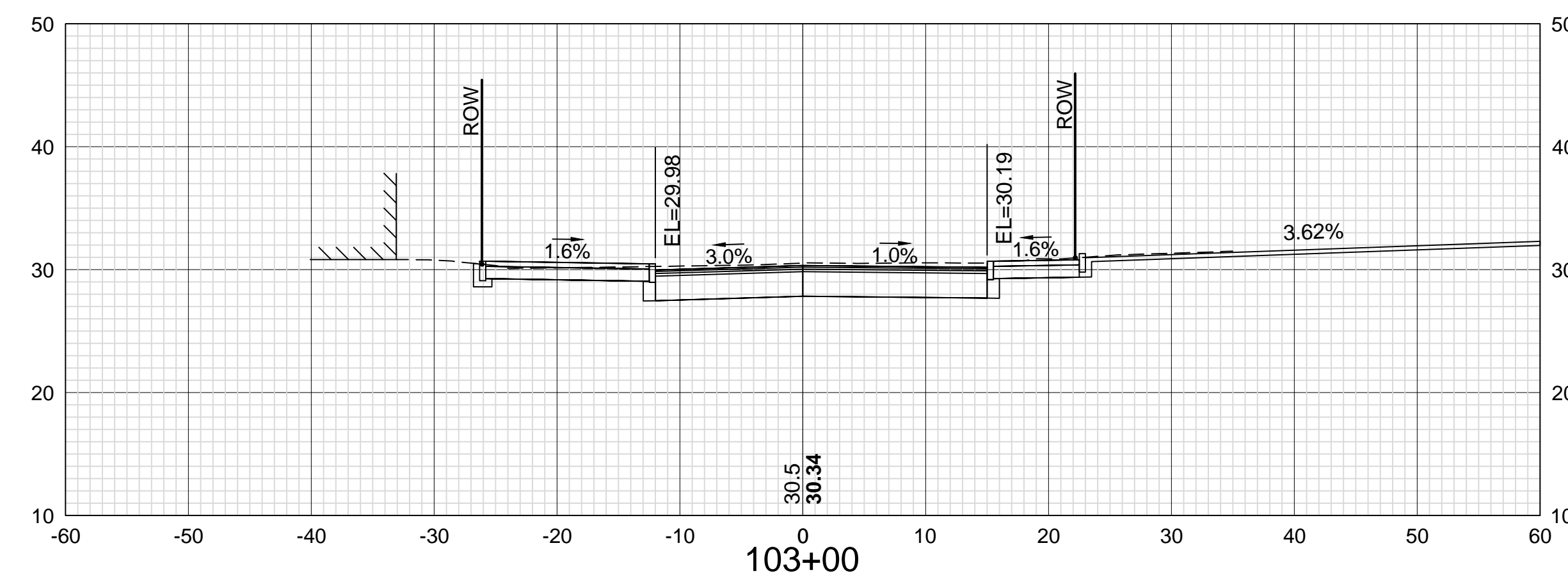
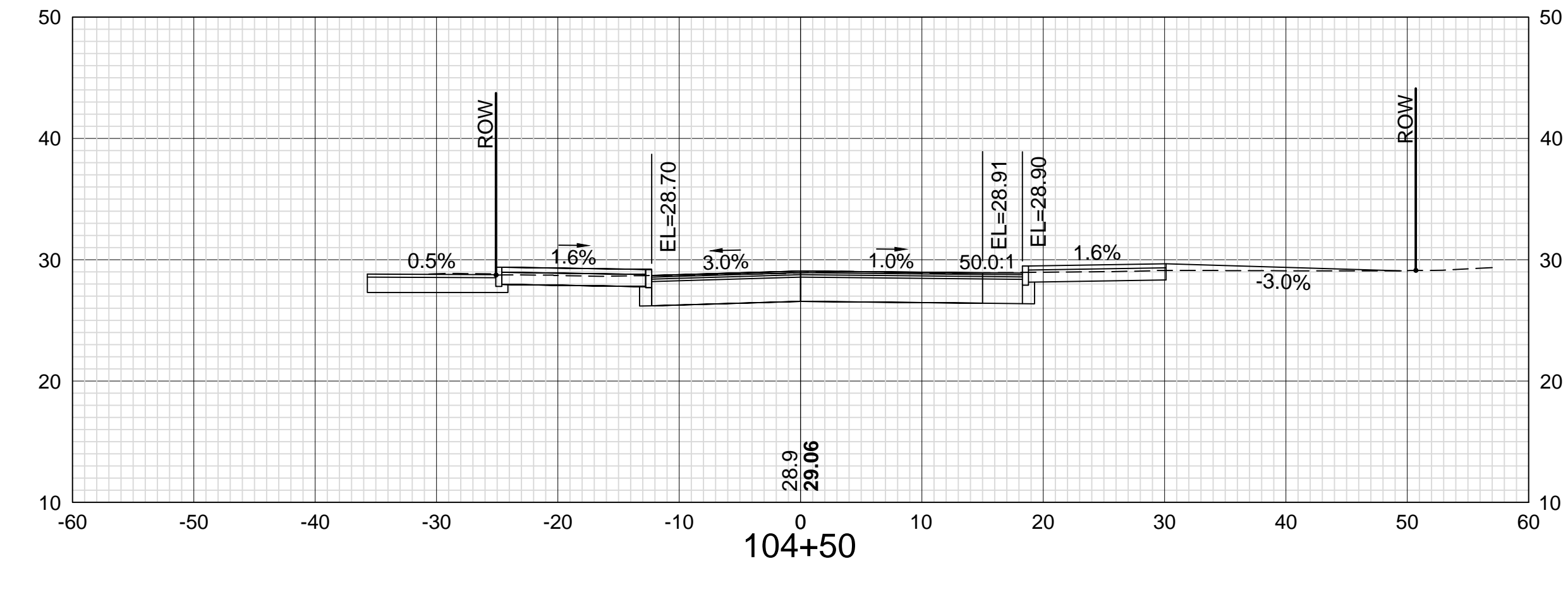
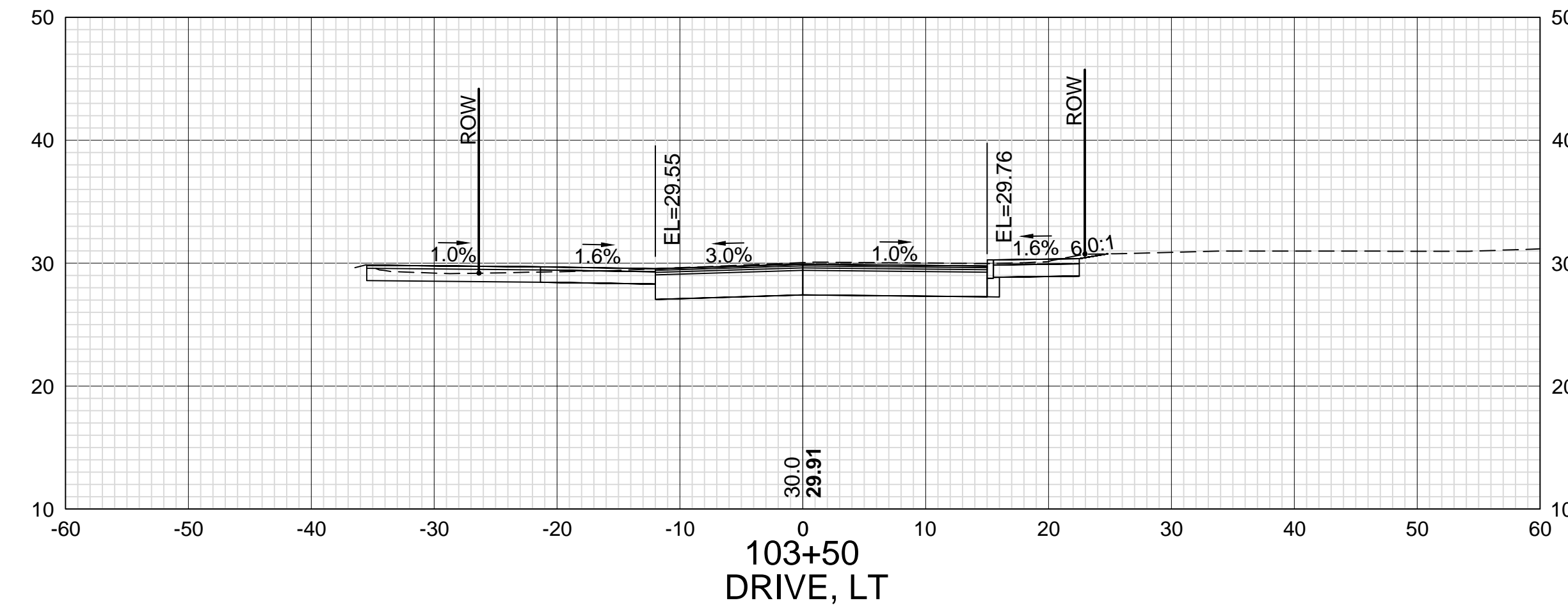
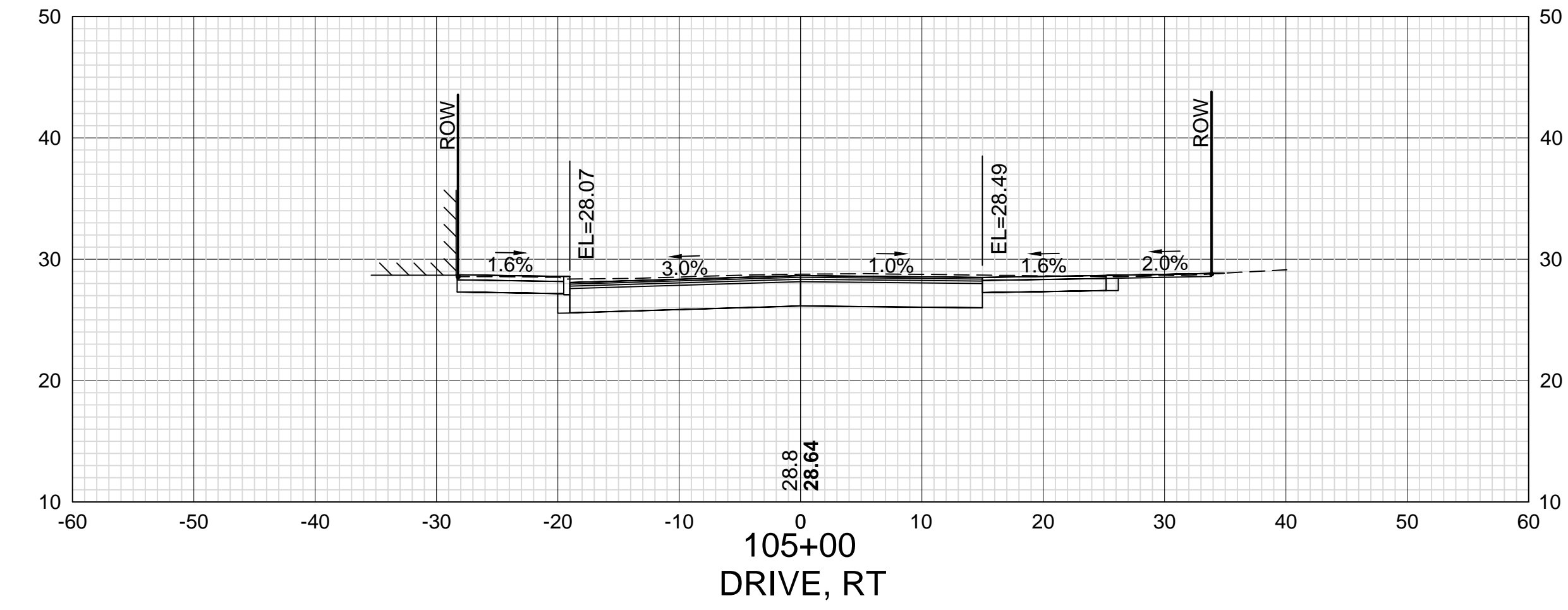
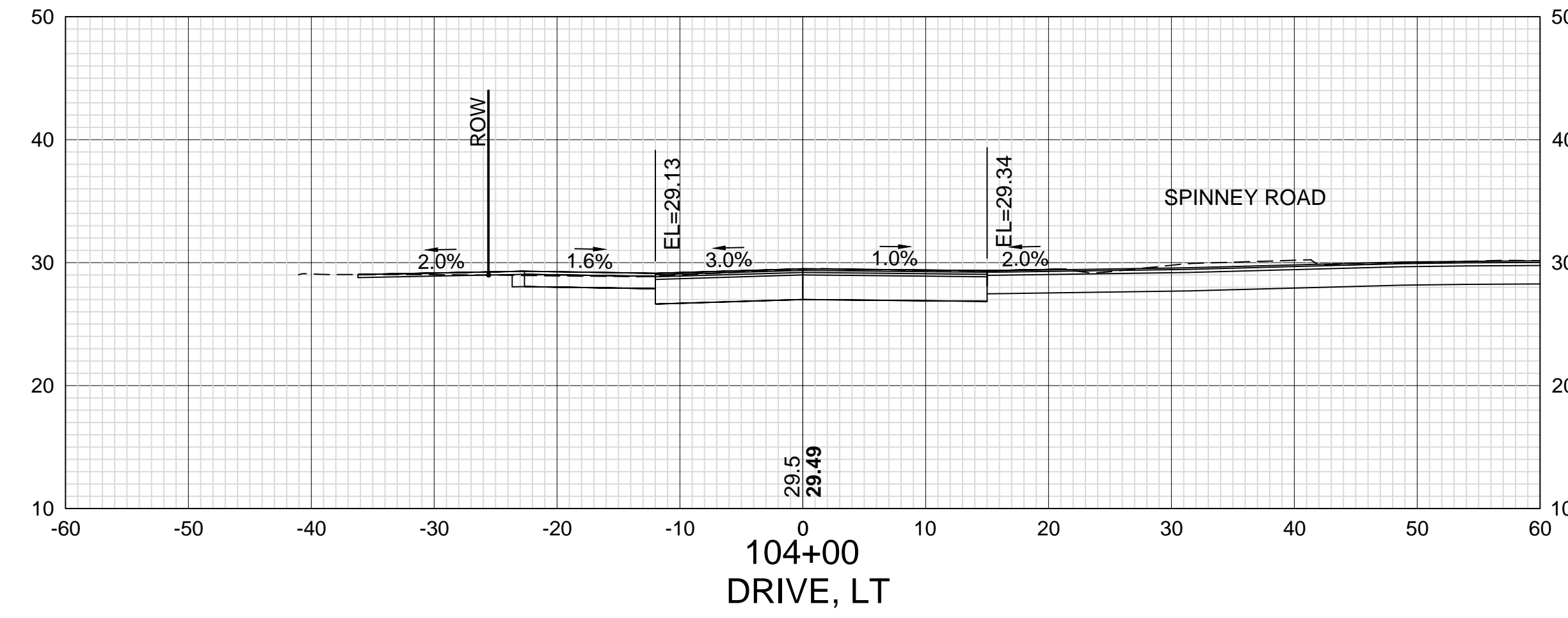
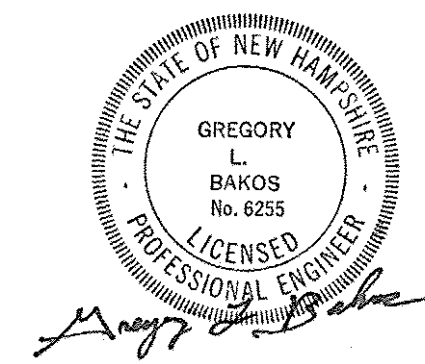
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AS BUILT DETAILS



DATE PLOTTED	VHB PROJECT NO.
13-Nov-18	52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1			
CITY OF PORTSMOUTH, NEW HAMPSHIRE			
CROSS SECTIONS			
ISLINGTON STREET			
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
XS-Seg1	7176	54	88

REVISIONS AFTER PROPOSAL

DESCRIPTION

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

DATE

SDR PROCESSED VHB

NEW DESIGN KMH

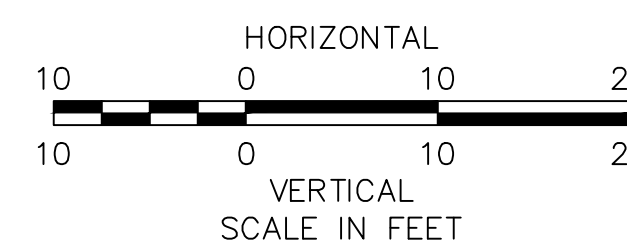
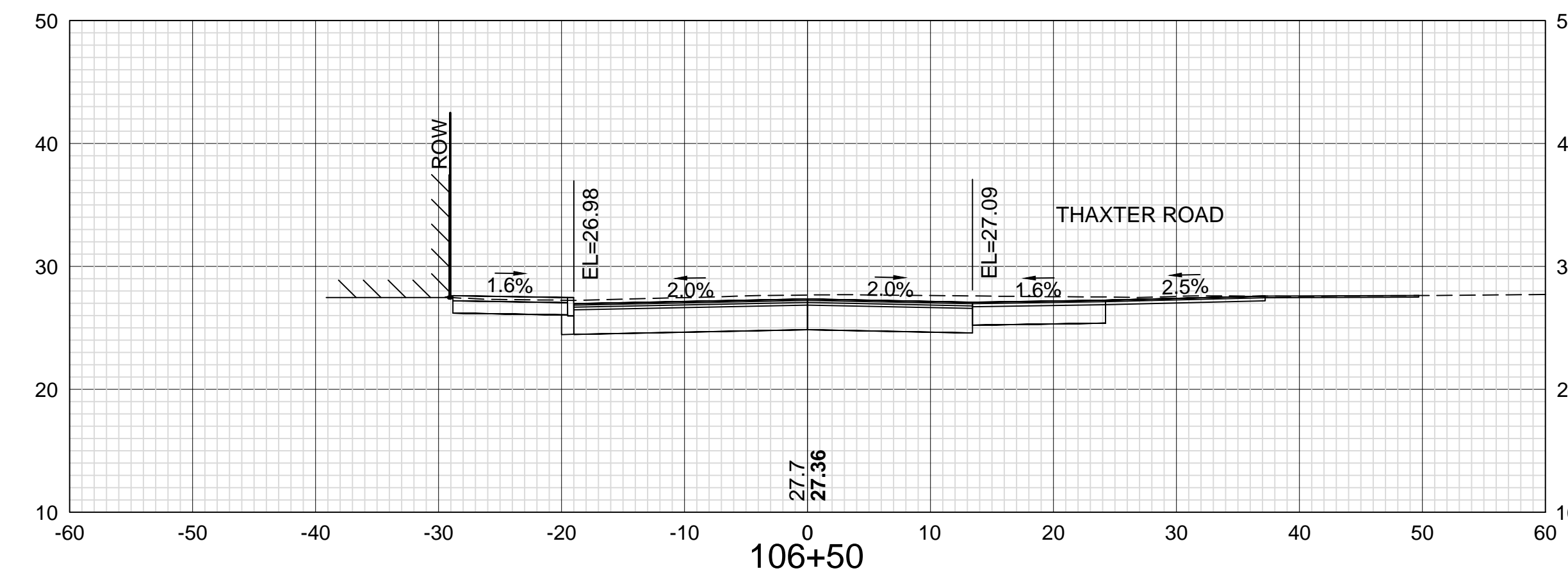
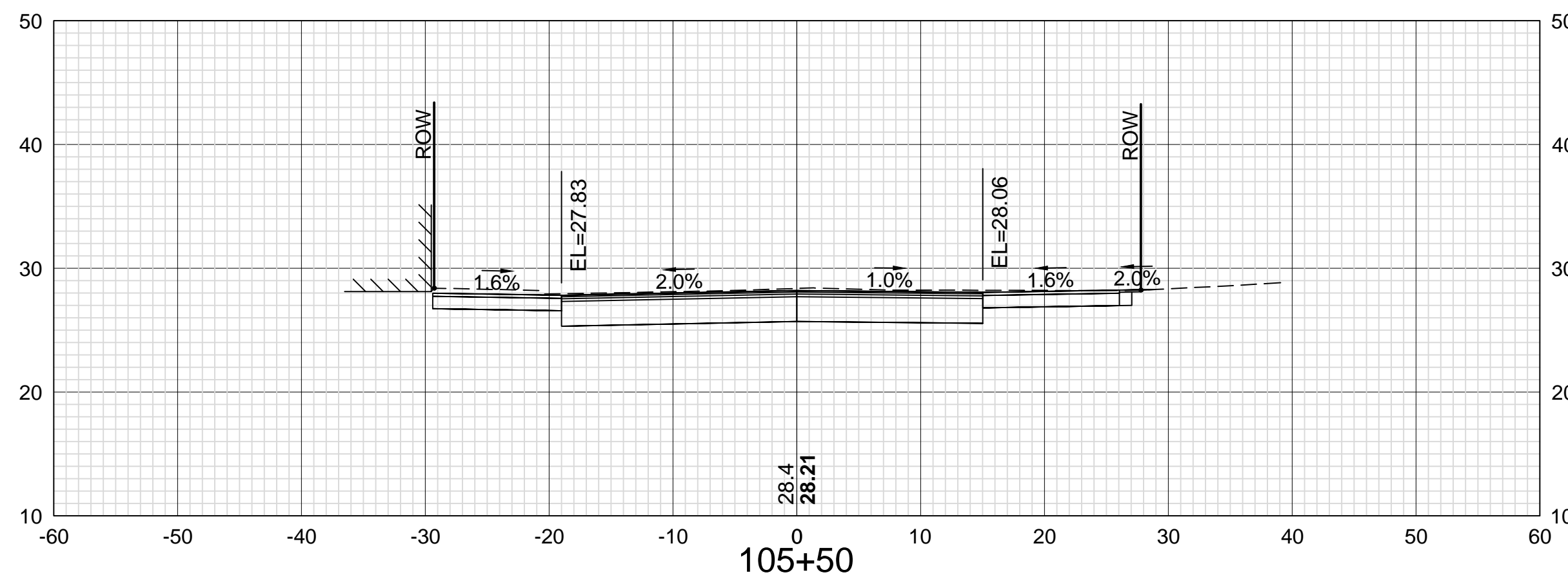
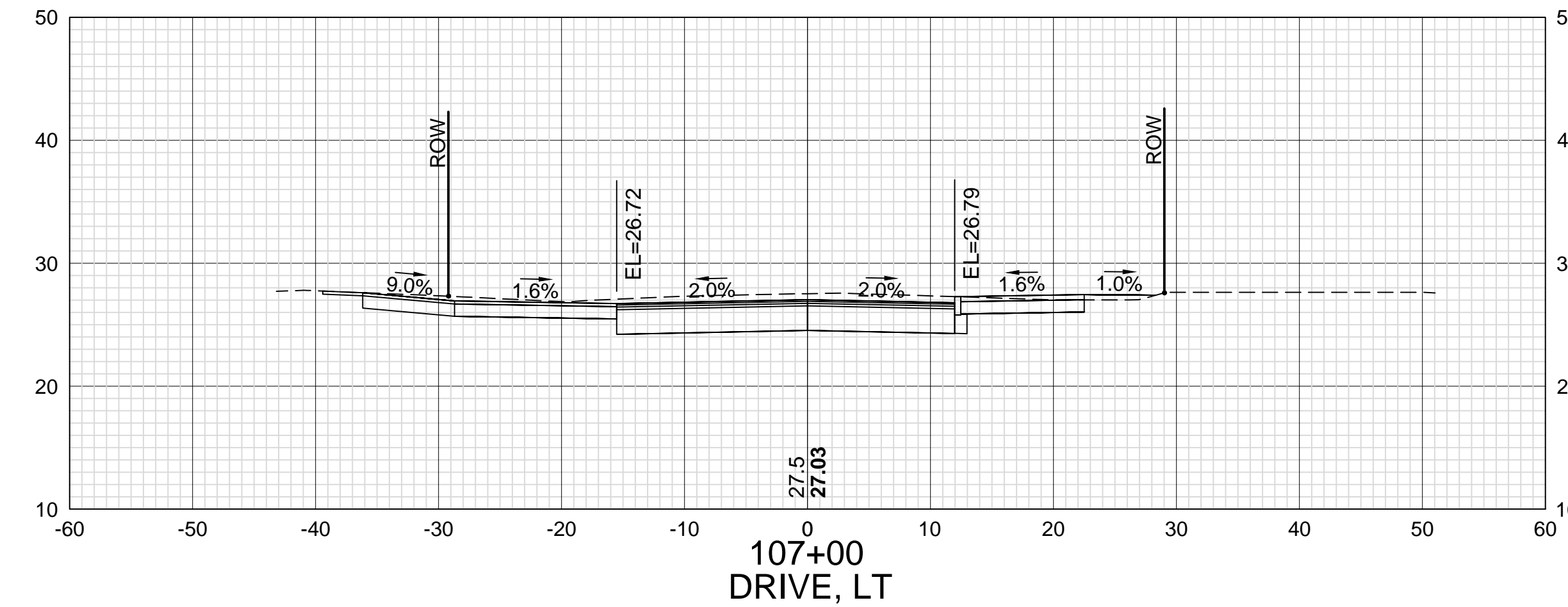
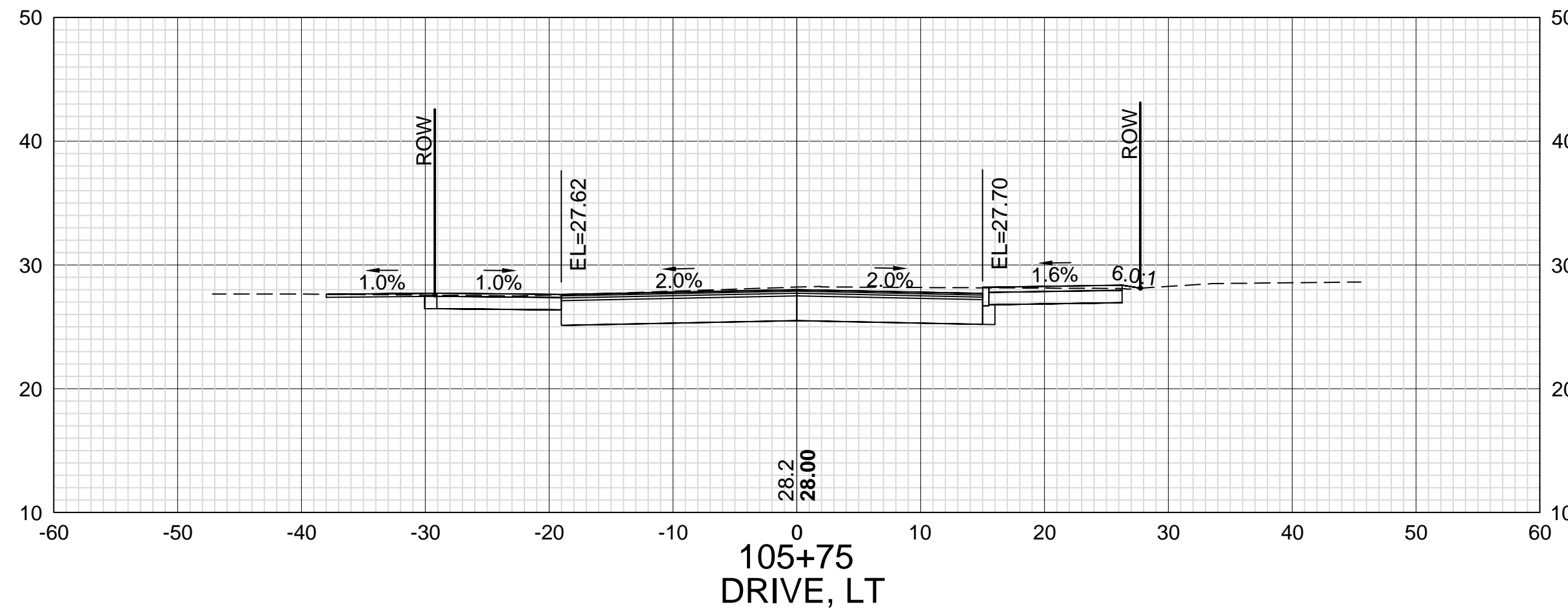
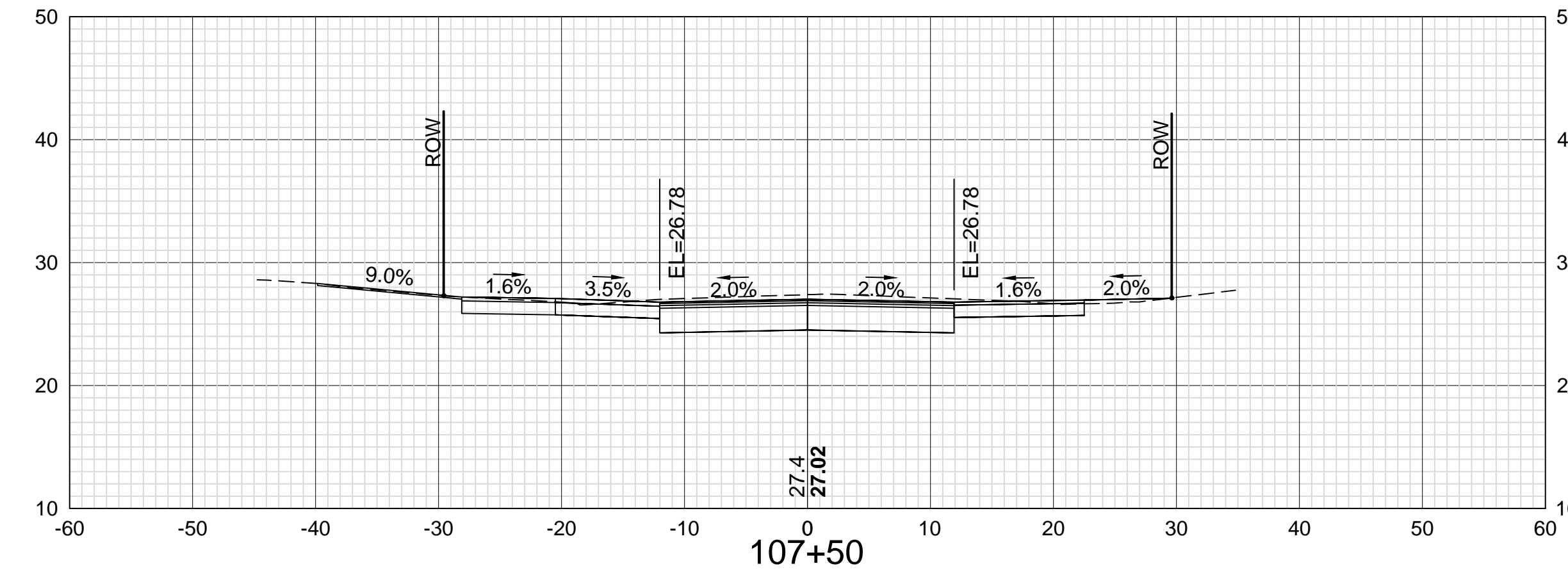
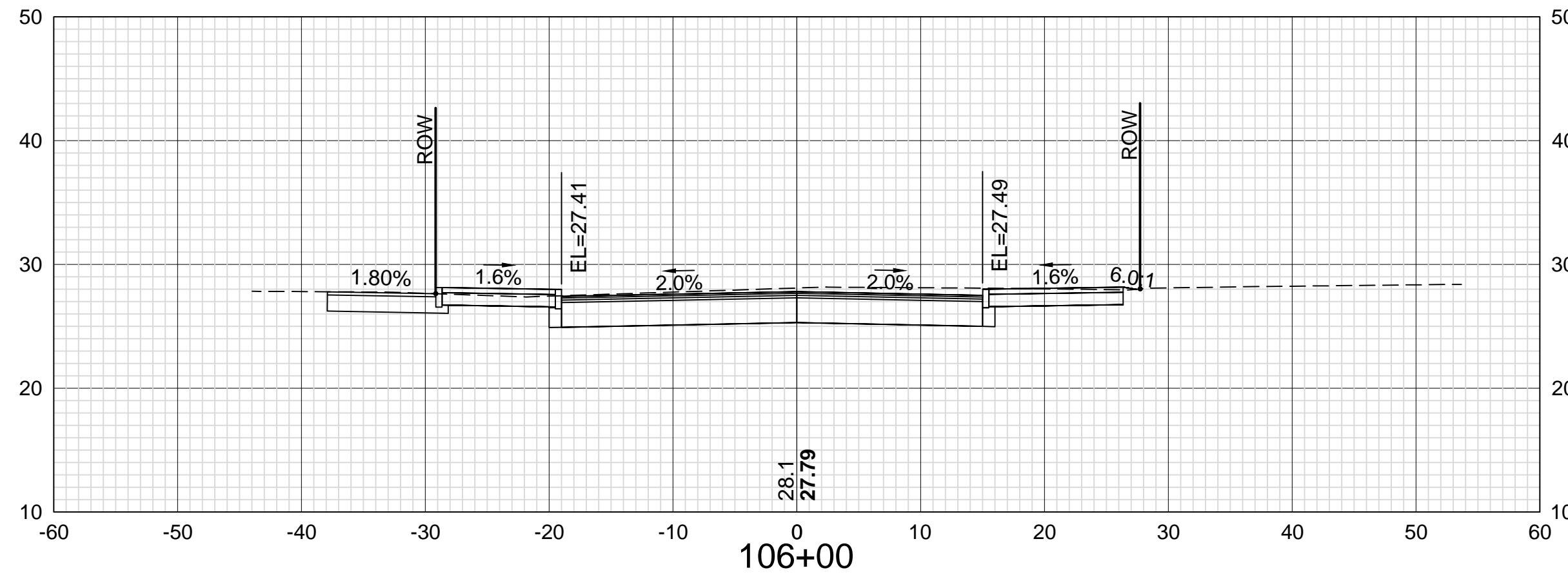
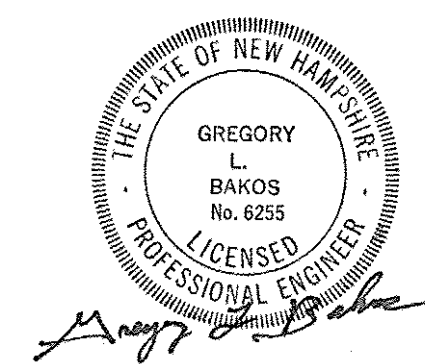
SHEET CHECKED GJB

AS BUILT DETAILS

OCT 2017

11/13/18

11/13/18



DATE PLOTTED
13-Nov-18

VHB PROJECT NO.
52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1				
CITY OF PORTSMOUTH, NEW HAMPSHIRE				
CROSS SECTIONS				
ISLINGTON STREET				
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS	
XS-Seg1	7176	55	88	

REVISIONS AFTER PROPOSAL

DESCRIPTION

STATION

STATION

DATE

NUMBER

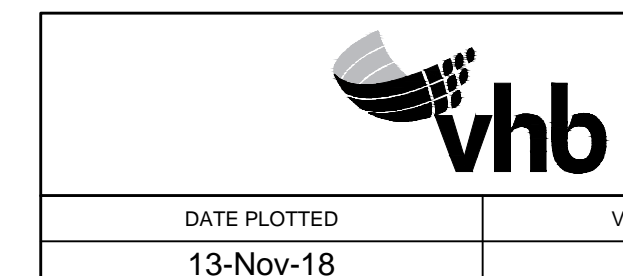
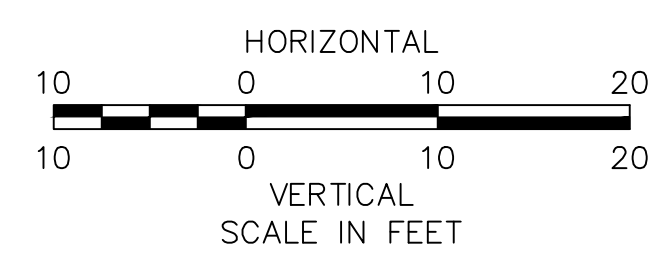
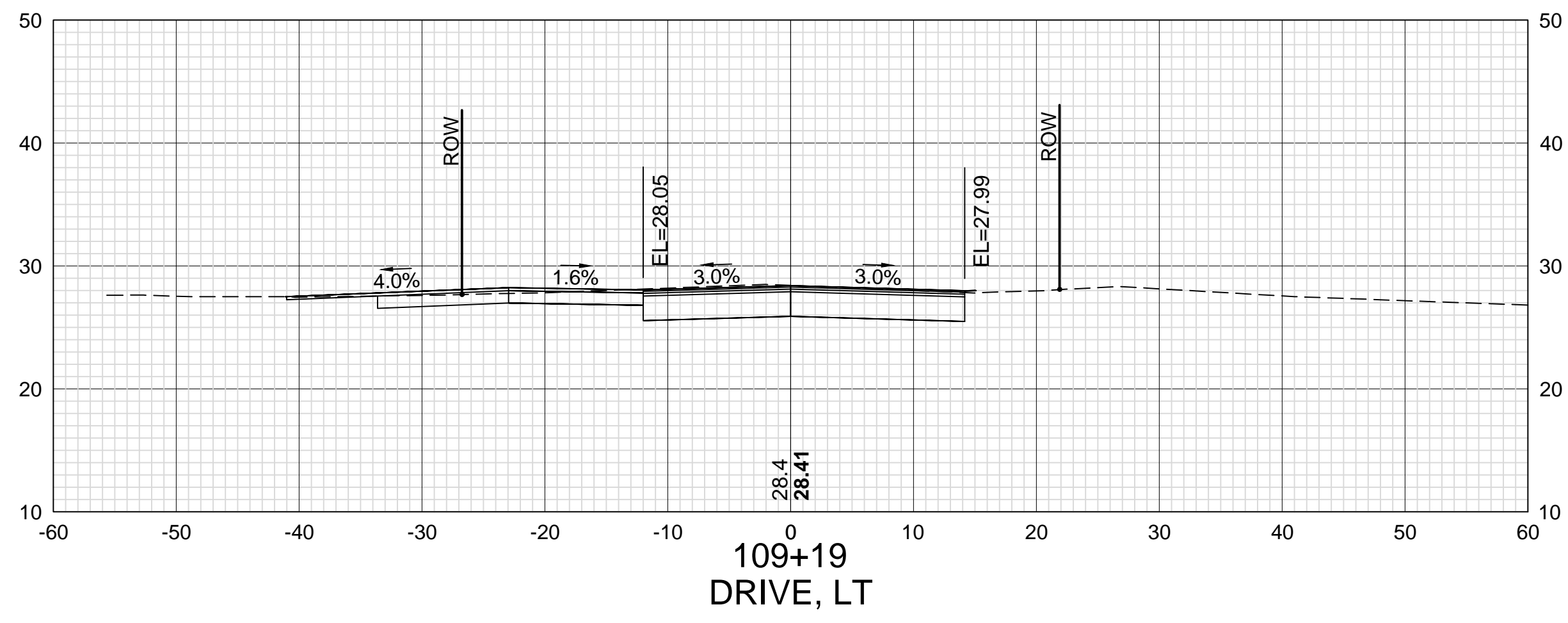
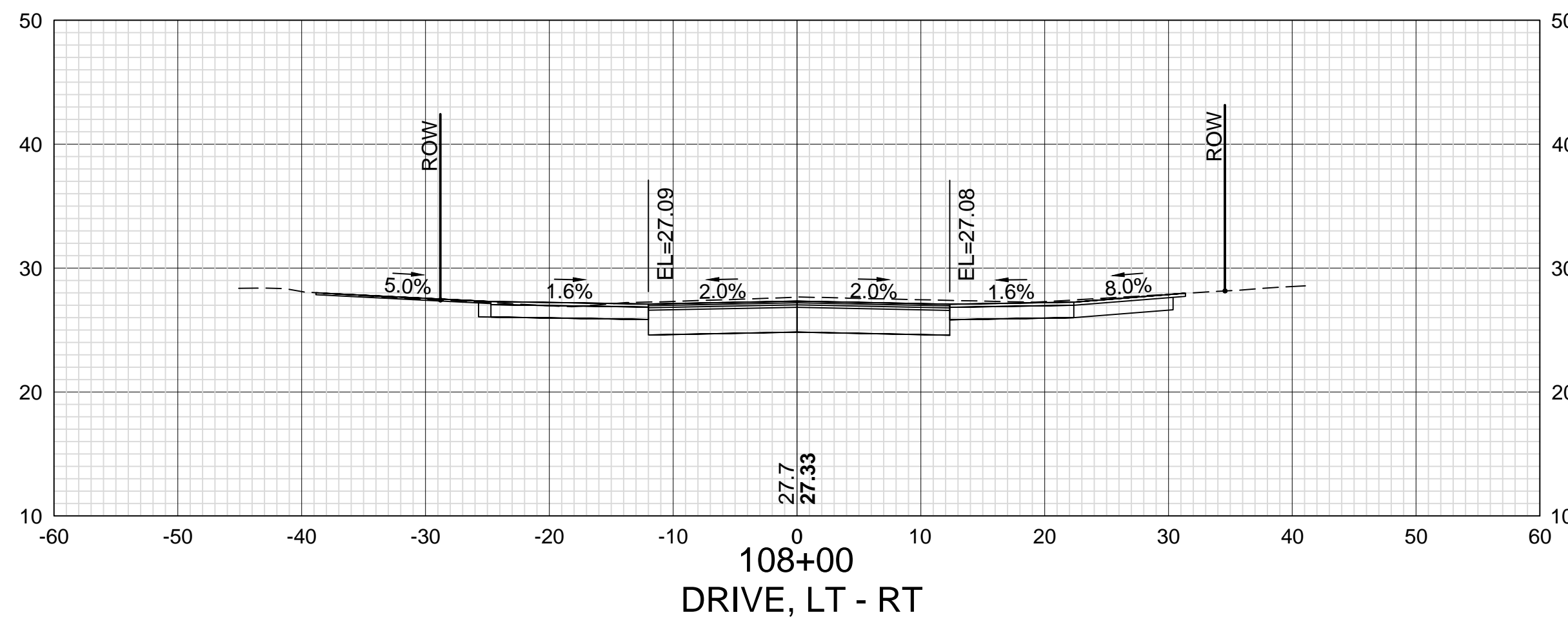
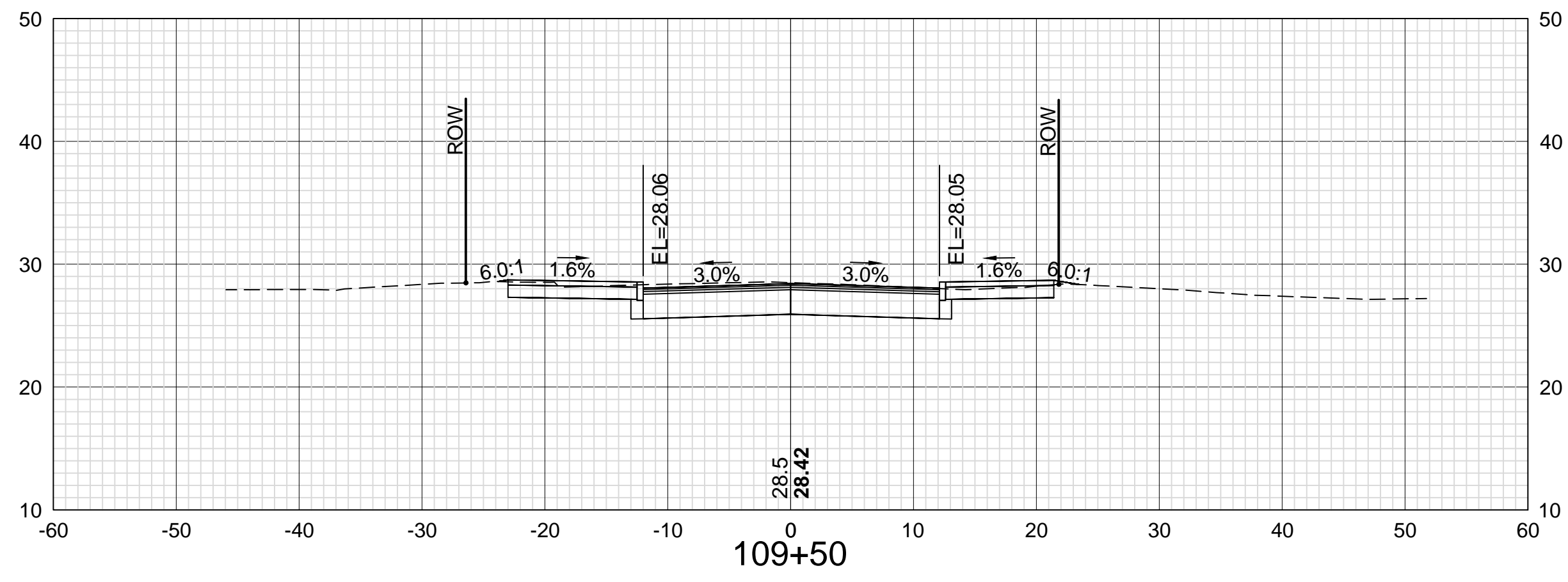
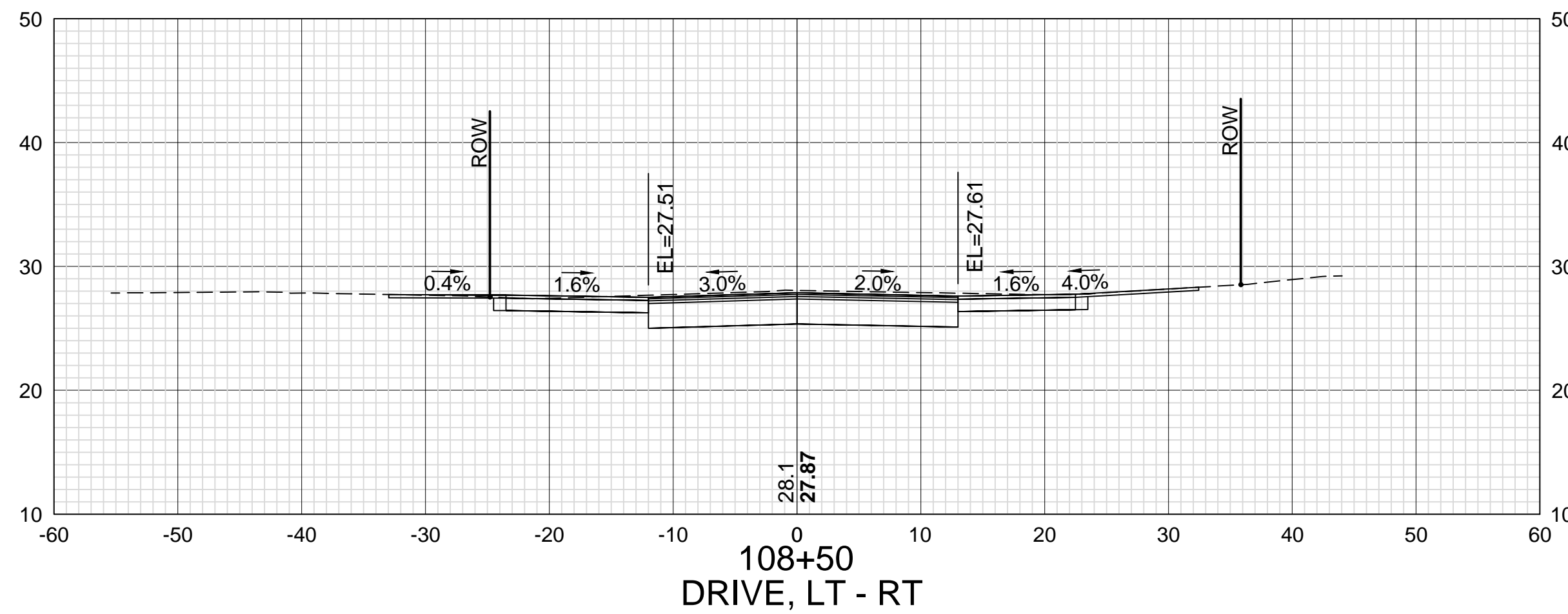
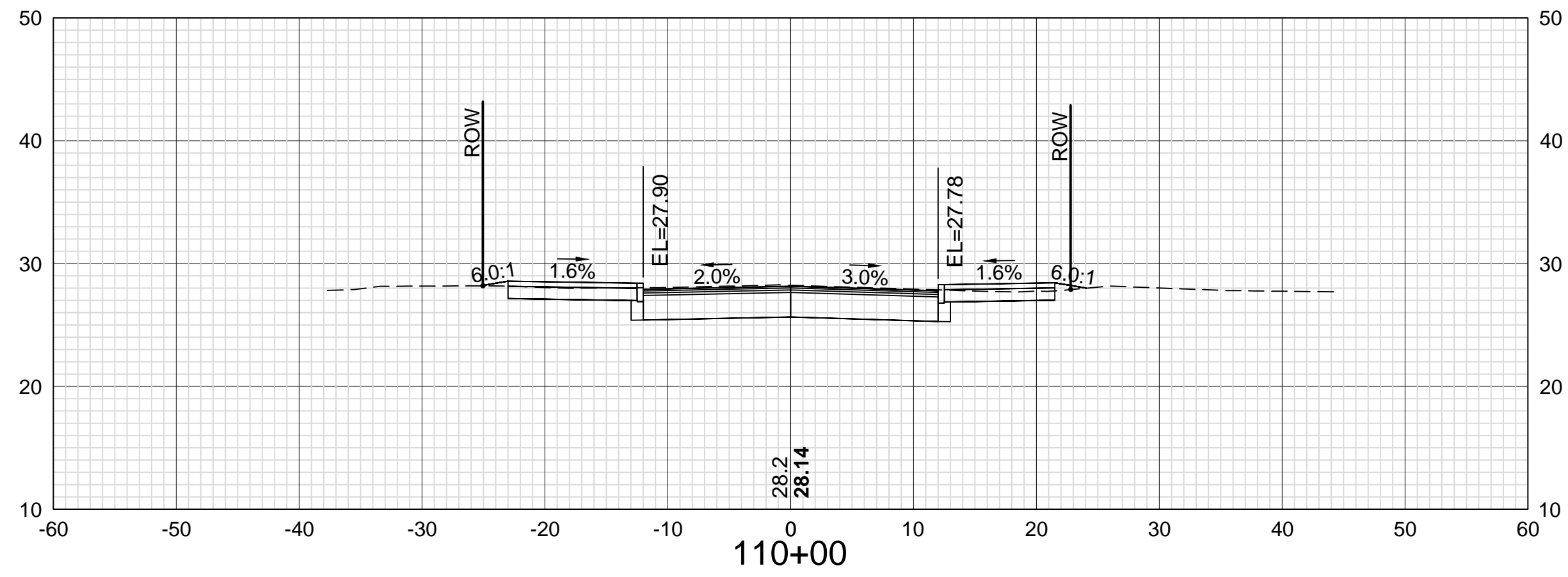
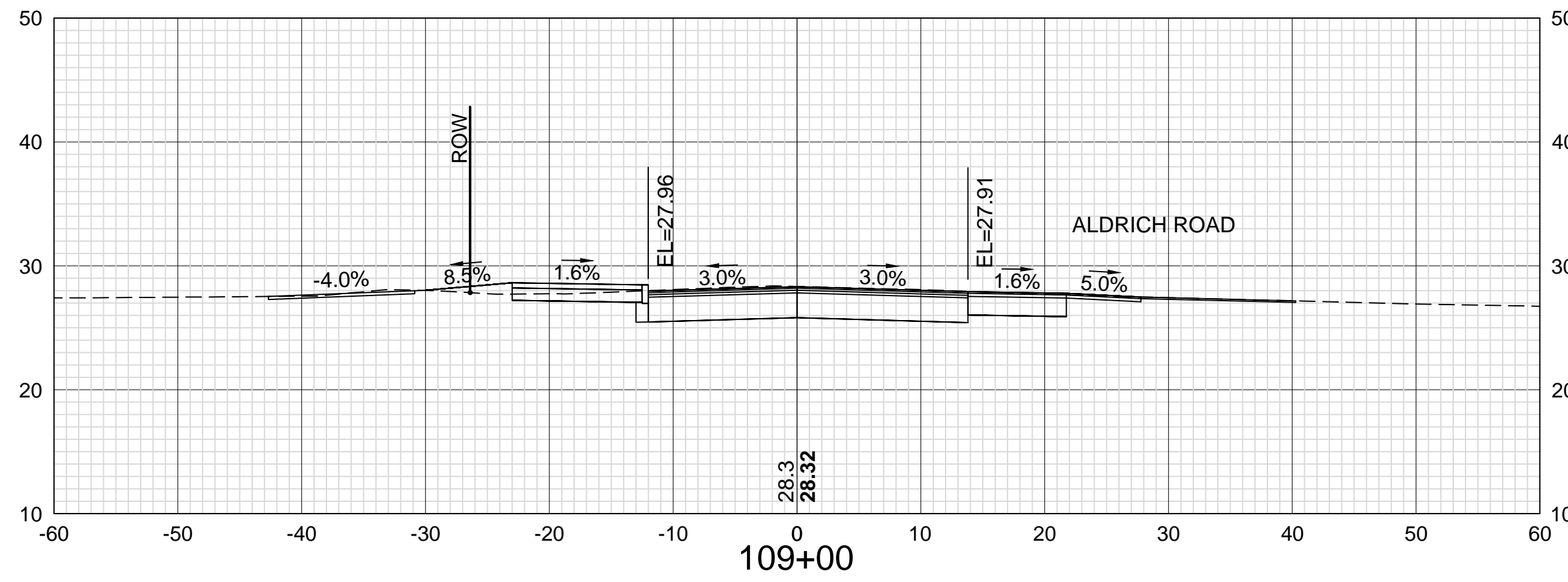
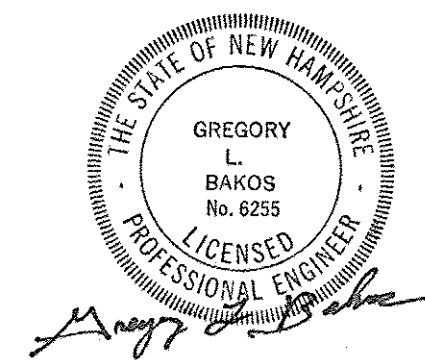
DATE

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DATE

SDR PROCESSED VHB
NEW DESIGN KMH
SHEET CHECKED GLB
AS BUILT DETAILS



DATE PLOTTED: 13-Nov-18

VHB PROJECT NO.: 52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1				
CITY OF PORTSMOUTH, NEW HAMPSHIRE				
CROSS SECTIONS				
ISLINGTON STREET				
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS	
XS-Seg1	7176	56	88	

REVISIONS AFTER PROPOSAL

DESCRIPTION

STATION

STATION

DATE

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DATE

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DATE

SDR PROCESSED

VHB

OCT 2017

NEW DESIGN

KMH

11/13/18

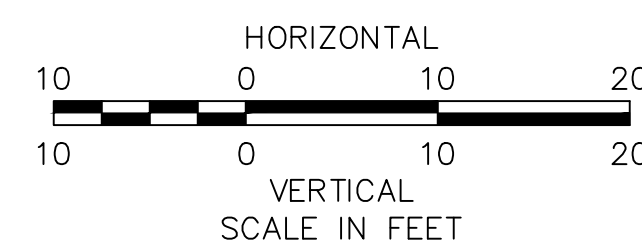
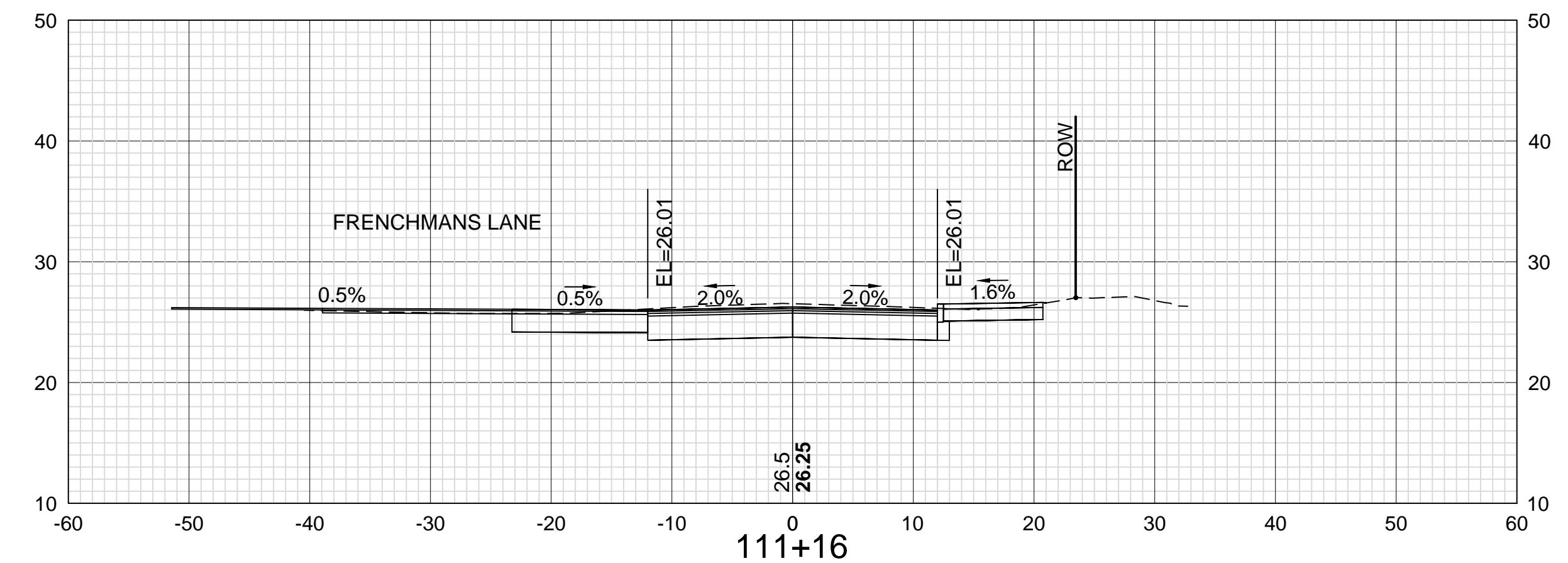
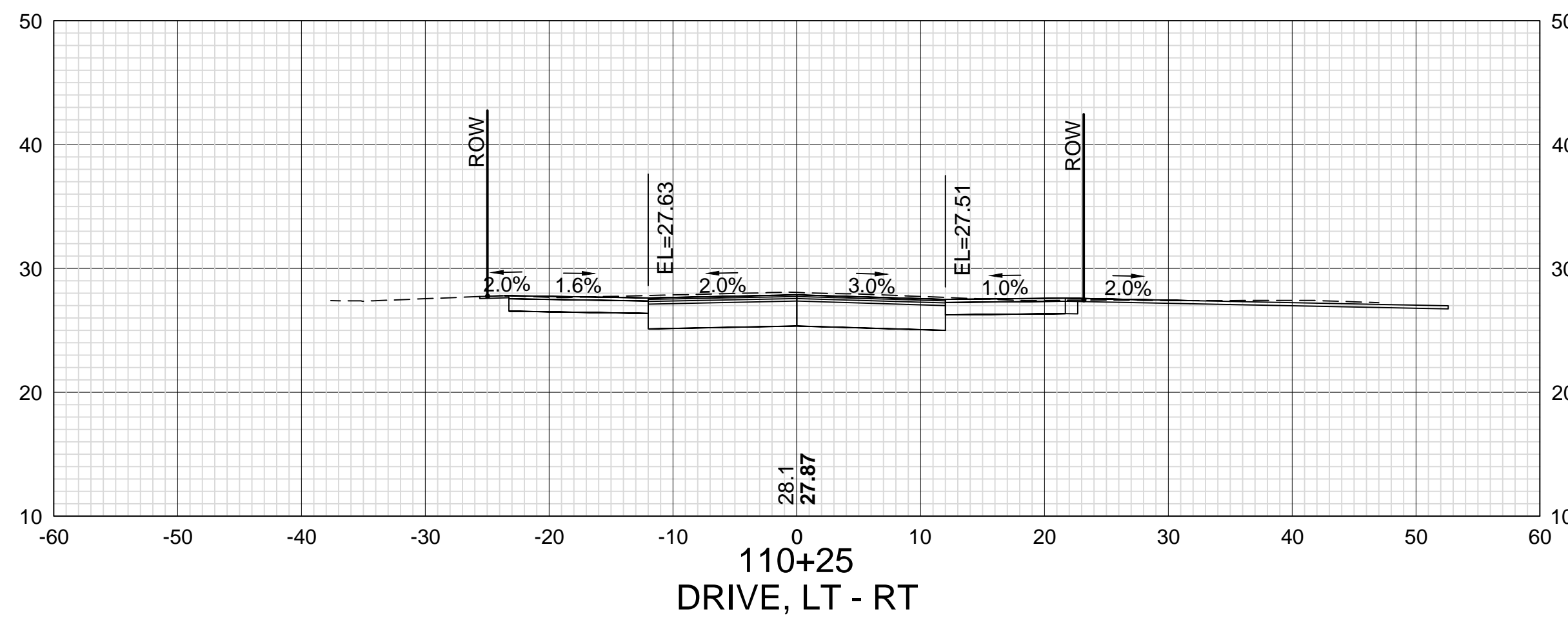
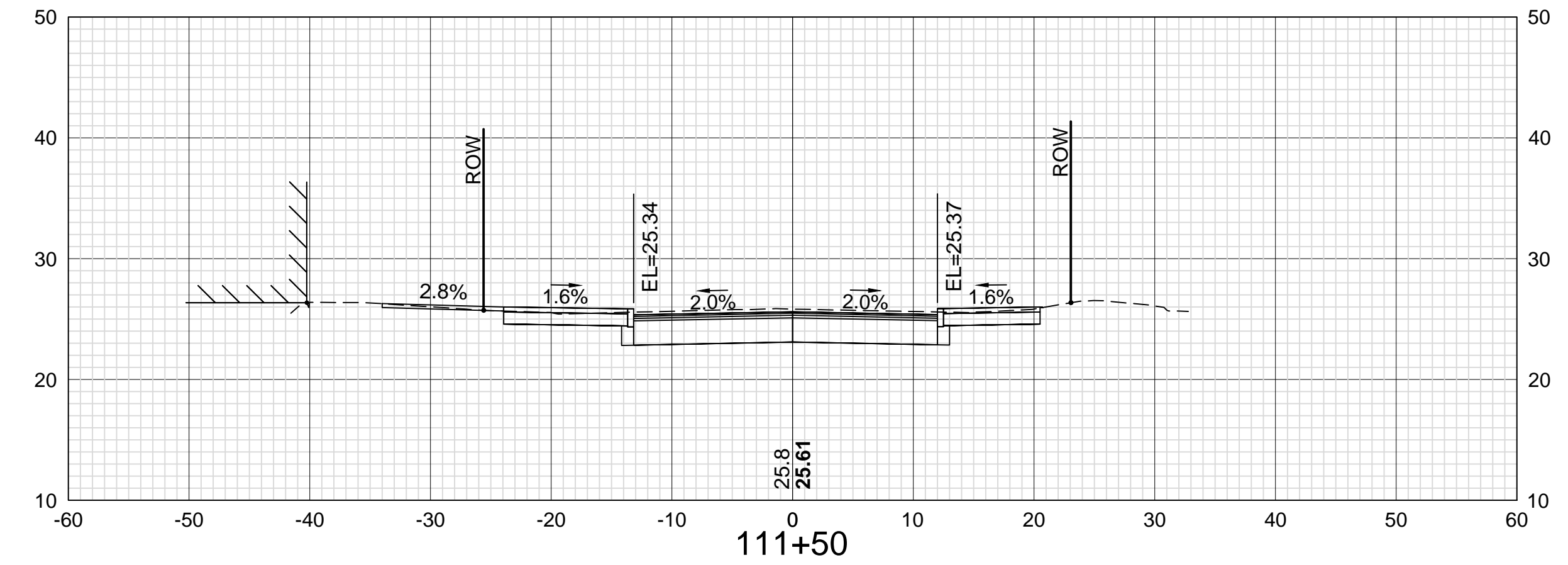
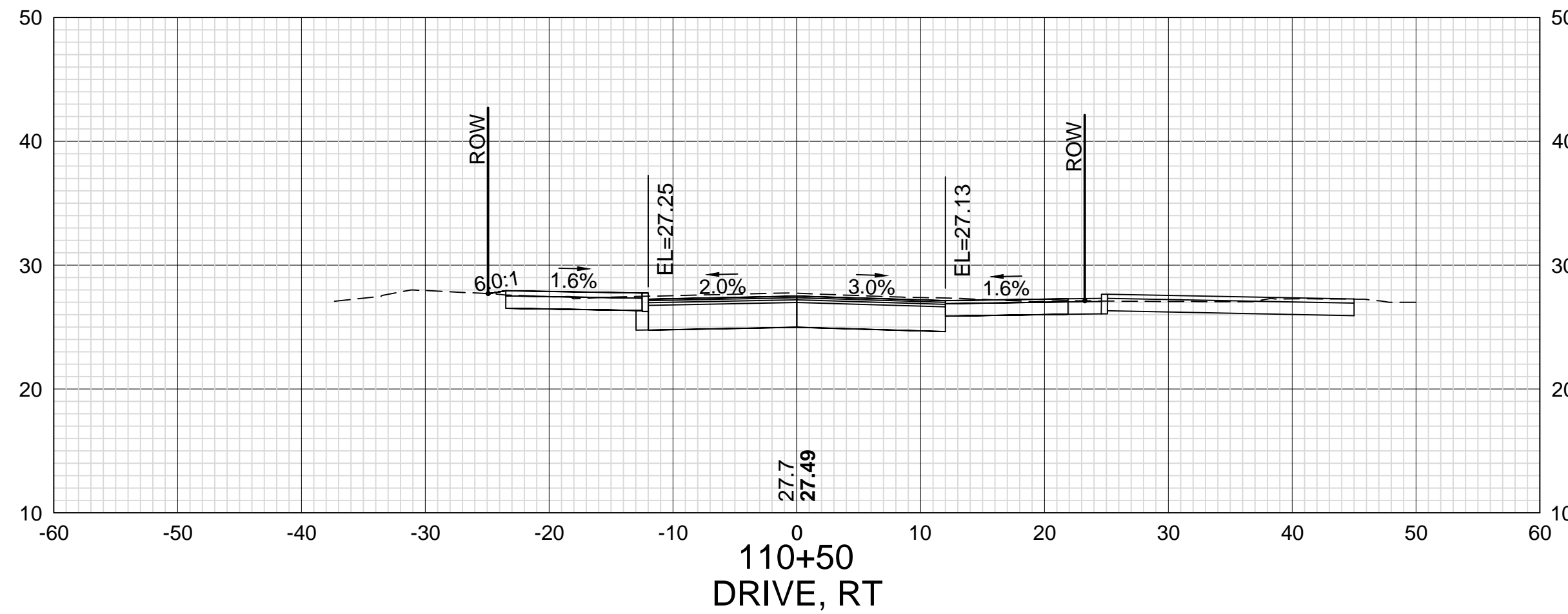
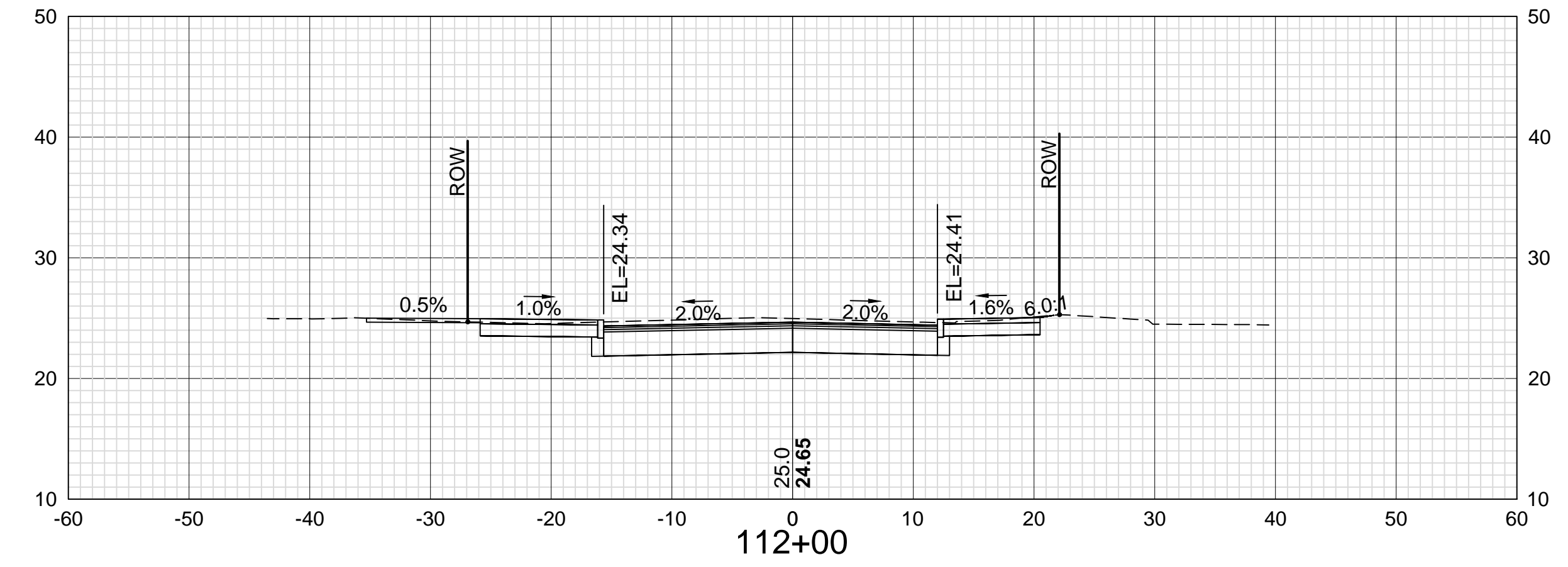
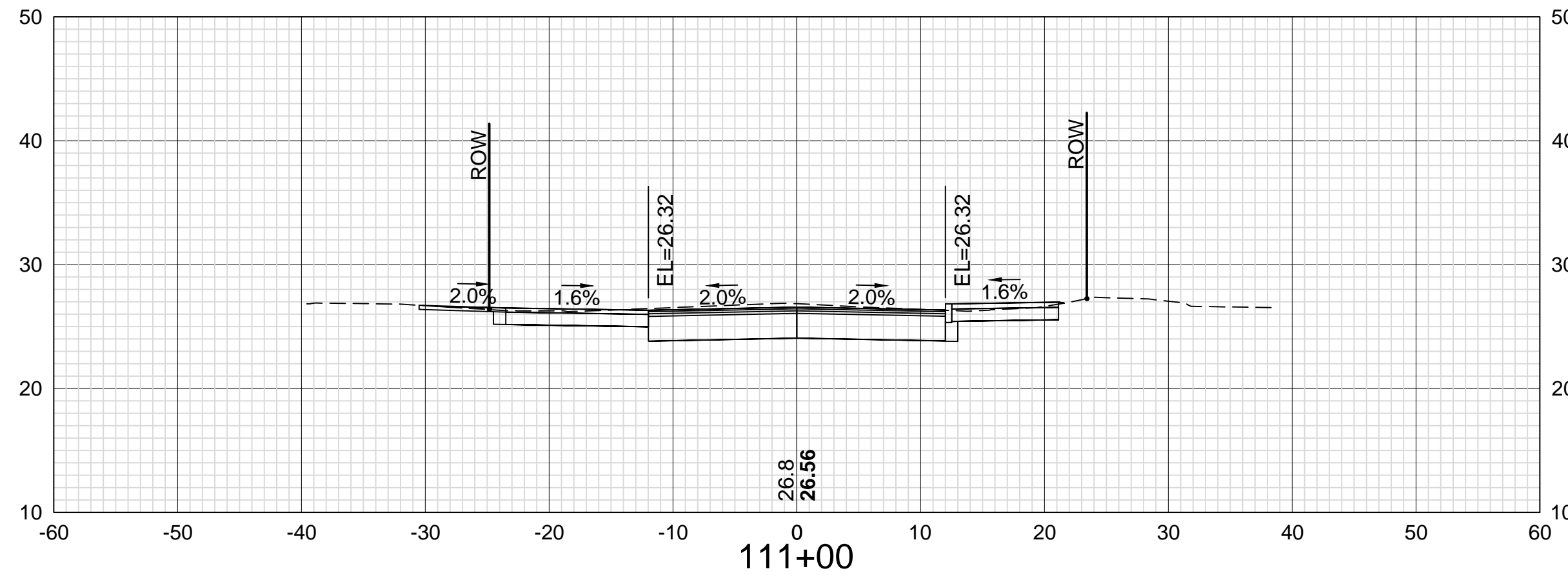
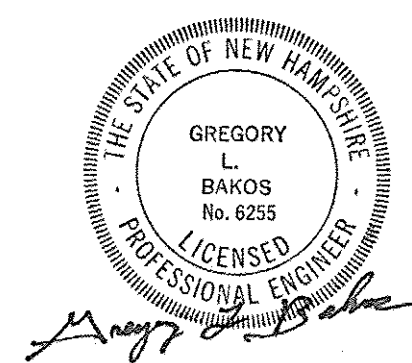
SHEET CHECKED

GLB

11/13/18

AS BUILT DETAILS

DATE



DATE PLOTTED
13-Nov-18

VHB PROJECT NO.
52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1				
CITY OF PORTSMOUTH, NEW HAMPSHIRE				
CROSS SECTIONS				
ISLINGTON STREET				
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS	
XS-Seg1	7176	57	88	

REVISIONS AFTER PROPOSAL

DESCRIPTION

STATION

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NUMBER

DATE

OCT 2017

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DATE

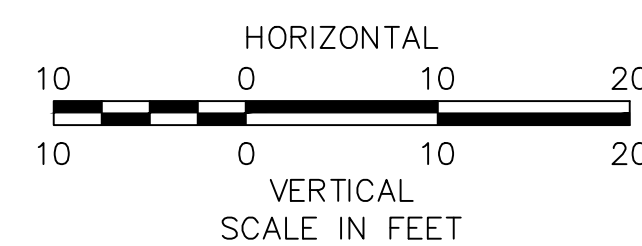
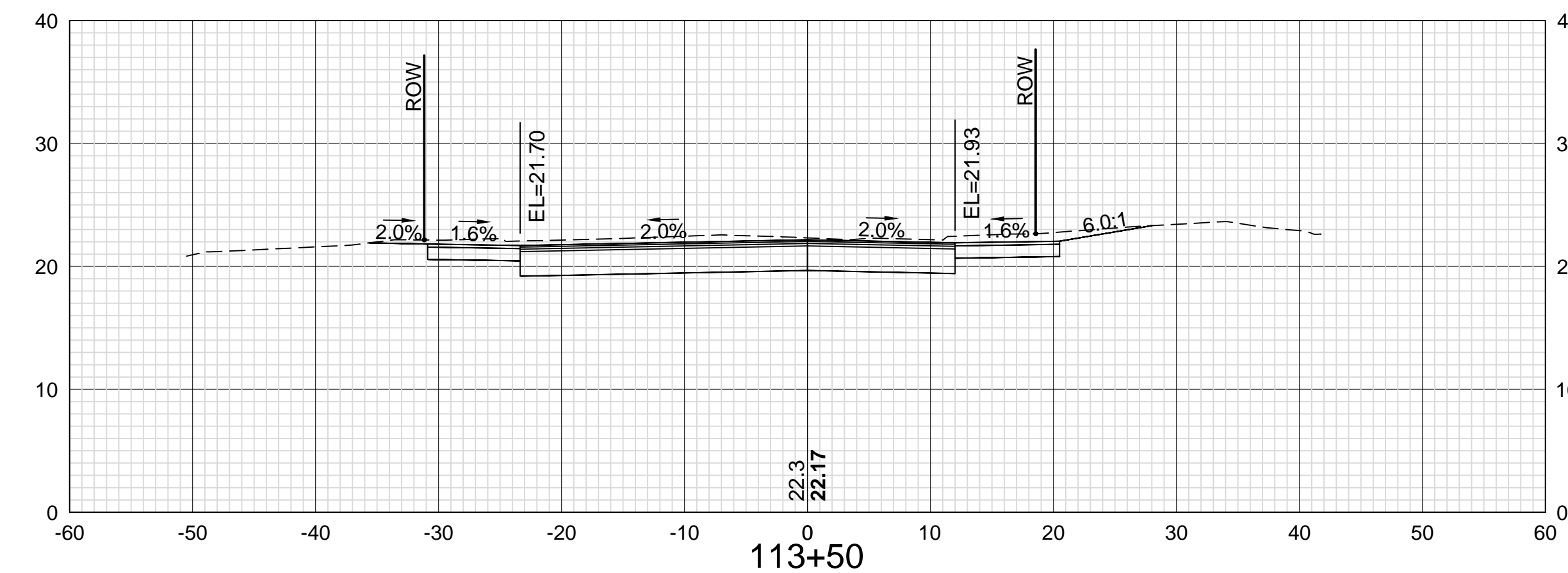
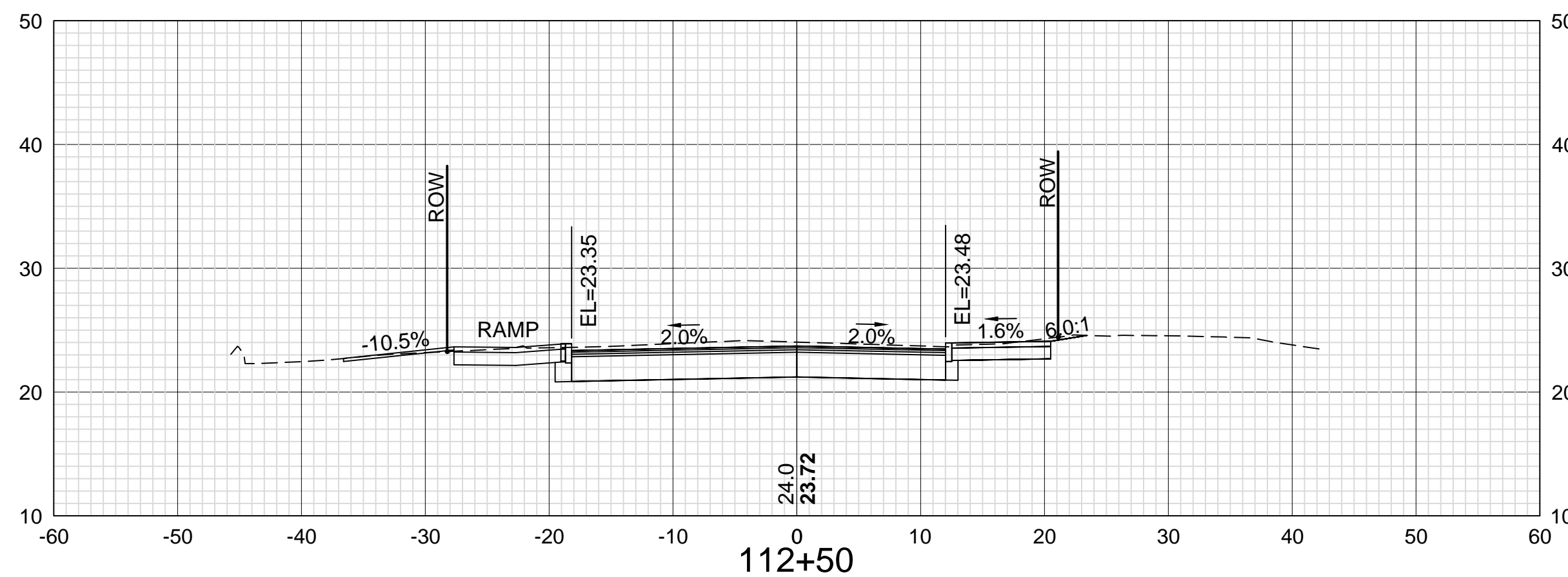
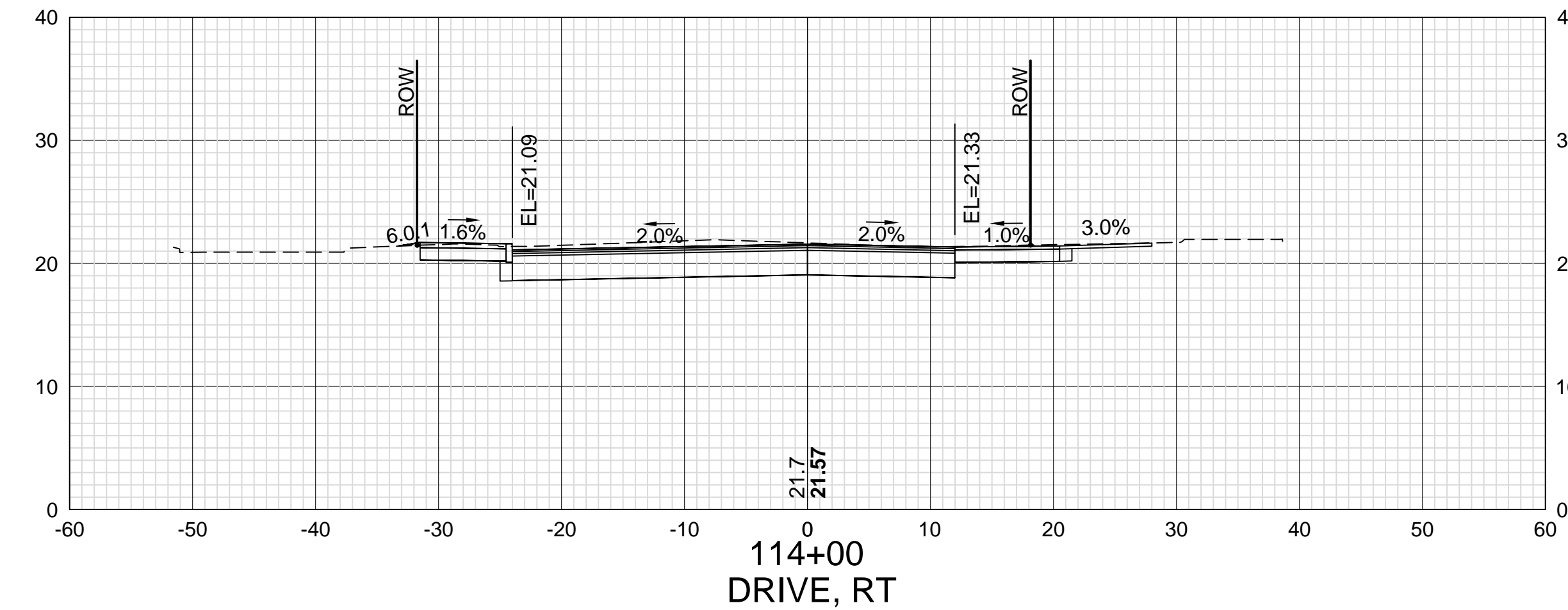
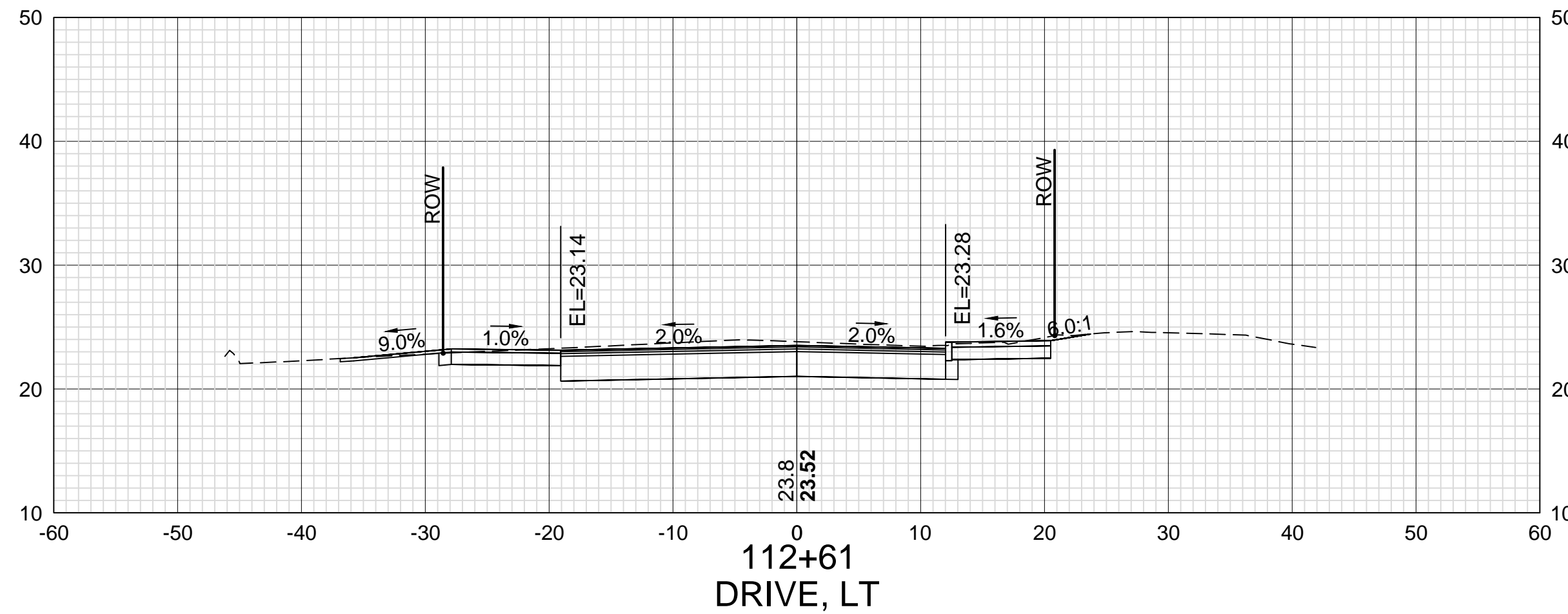
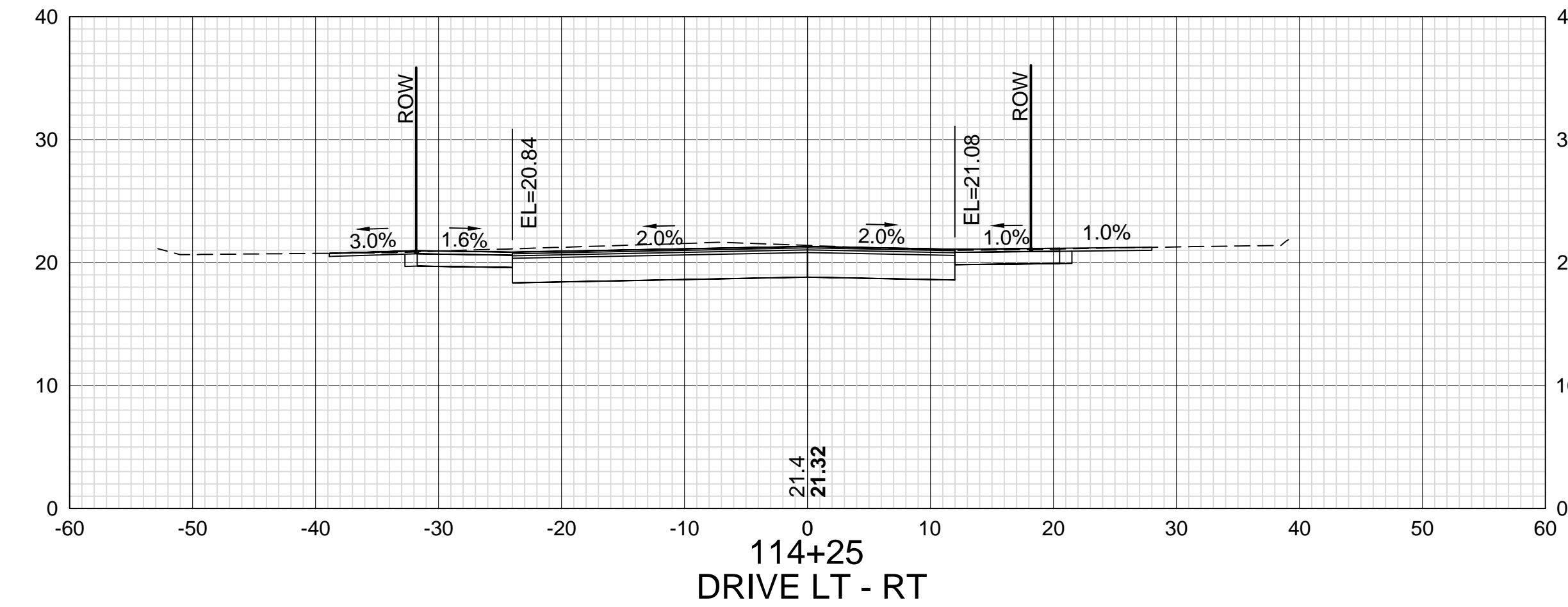
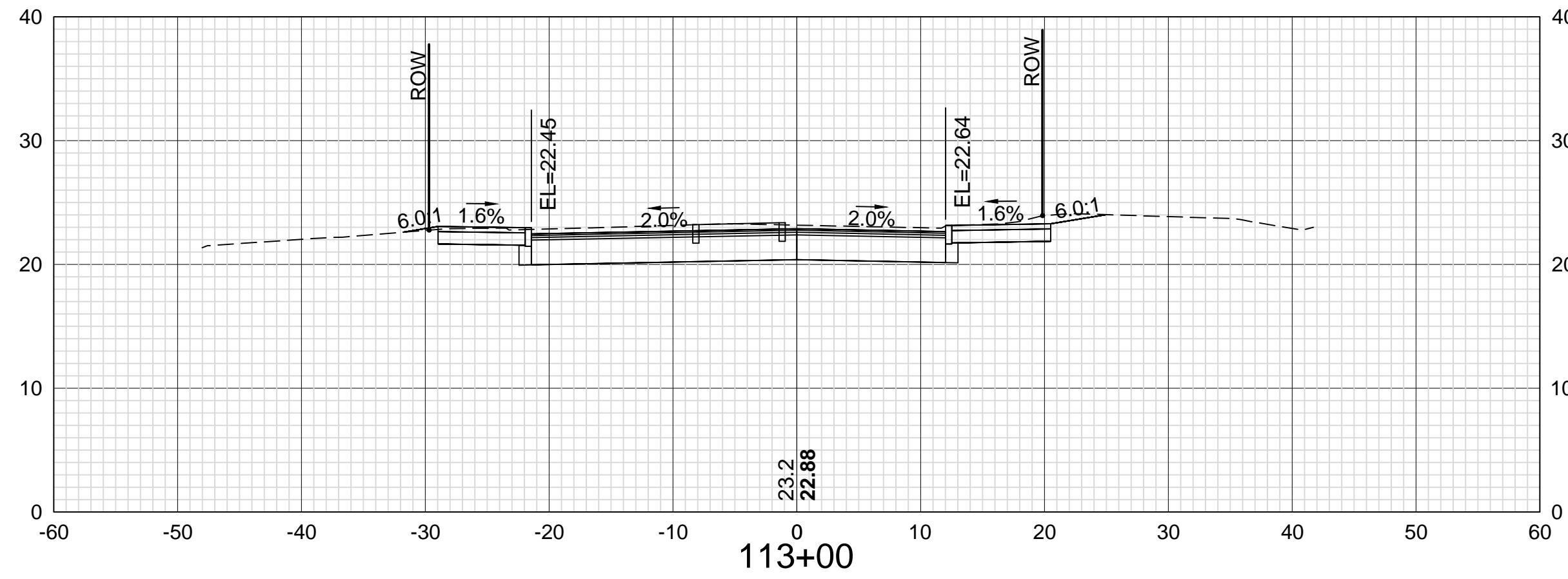
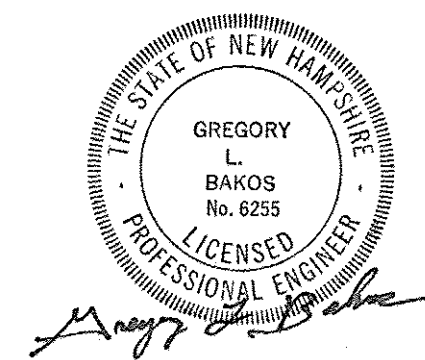
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SDR PROCESSED VHB

NEW DESIGN KMH

SHEET CHECKED GLB

AS BUILT DETAILS



DATE PLOTTED
13-Nov-18

VHB PROJECT NO.
52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1				
CITY OF PORTSMOUTH, NEW HAMPSHIRE				
CROSS SECTIONS				
ISLINGTON STREET				
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS	
XS-Seg1	7176	58	88	

REVISIONS AFTER PROPOSAL

DESCRIPTION

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

DATE

SDR PROCESSED

VHB

NEW DESIGN

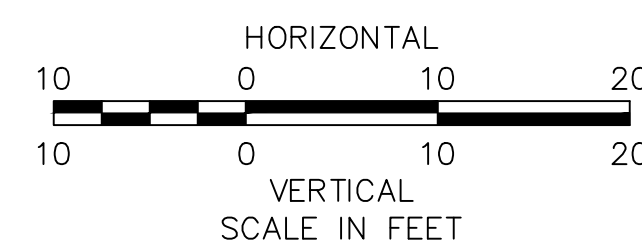
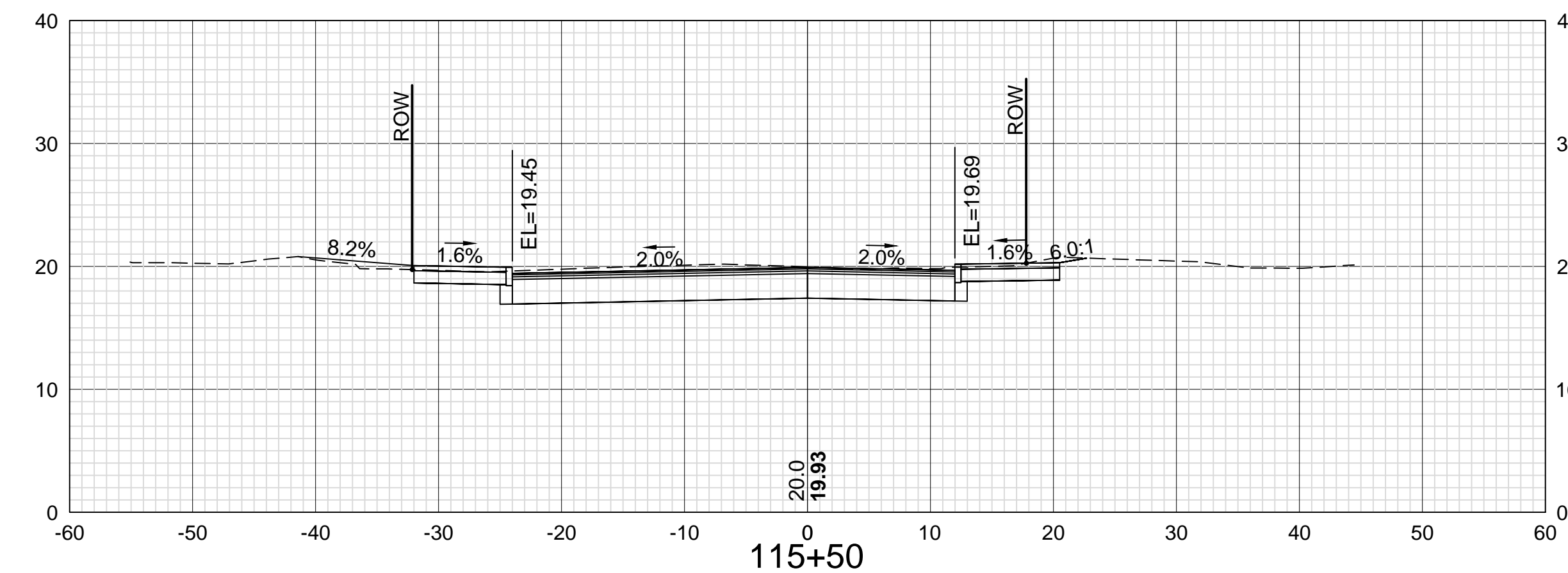
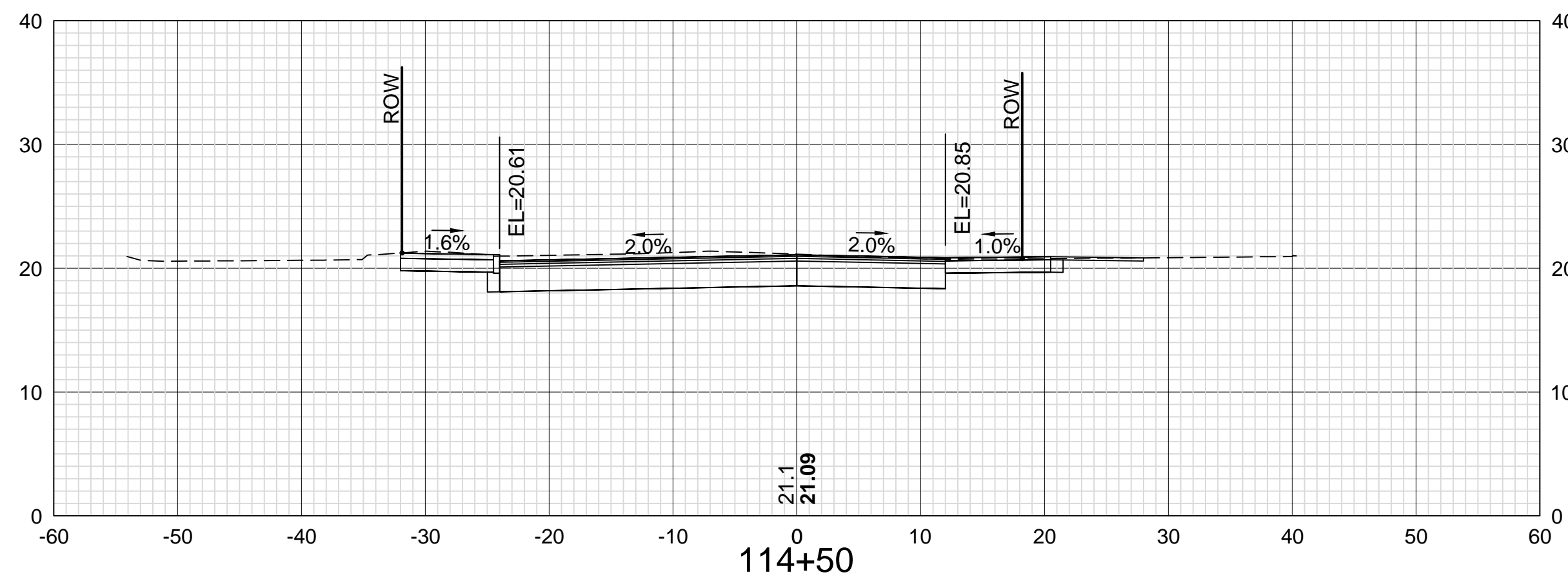
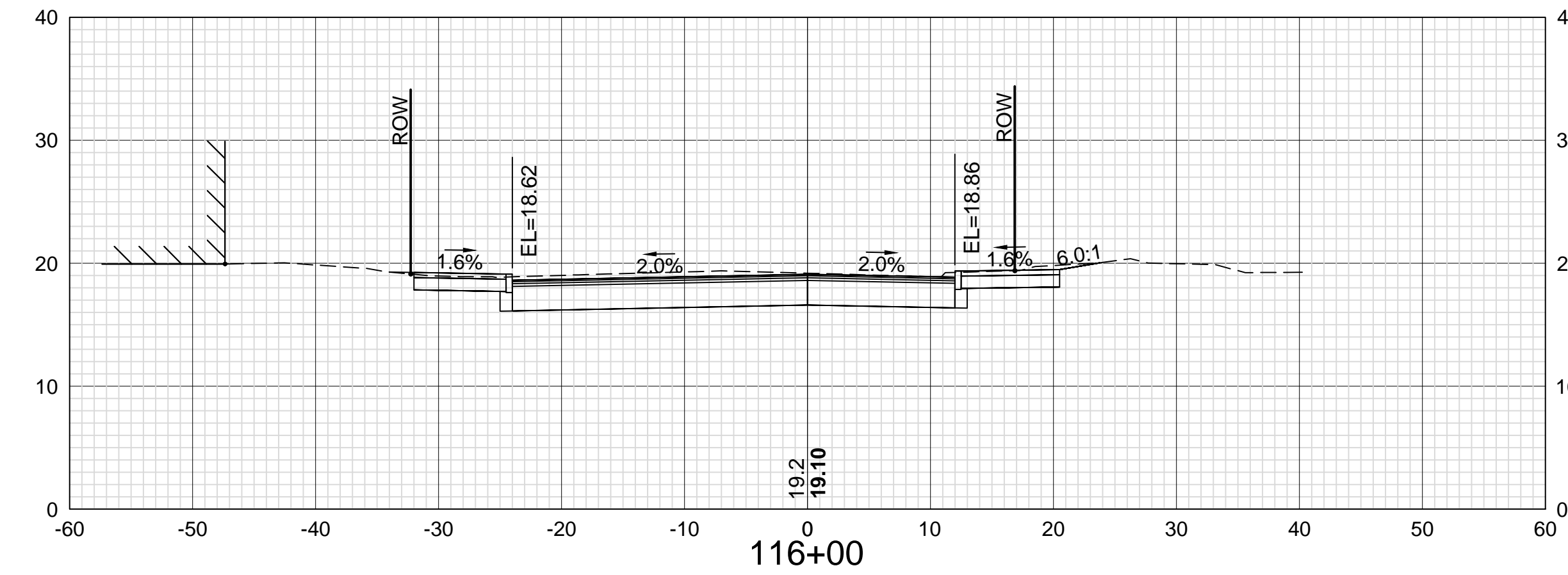
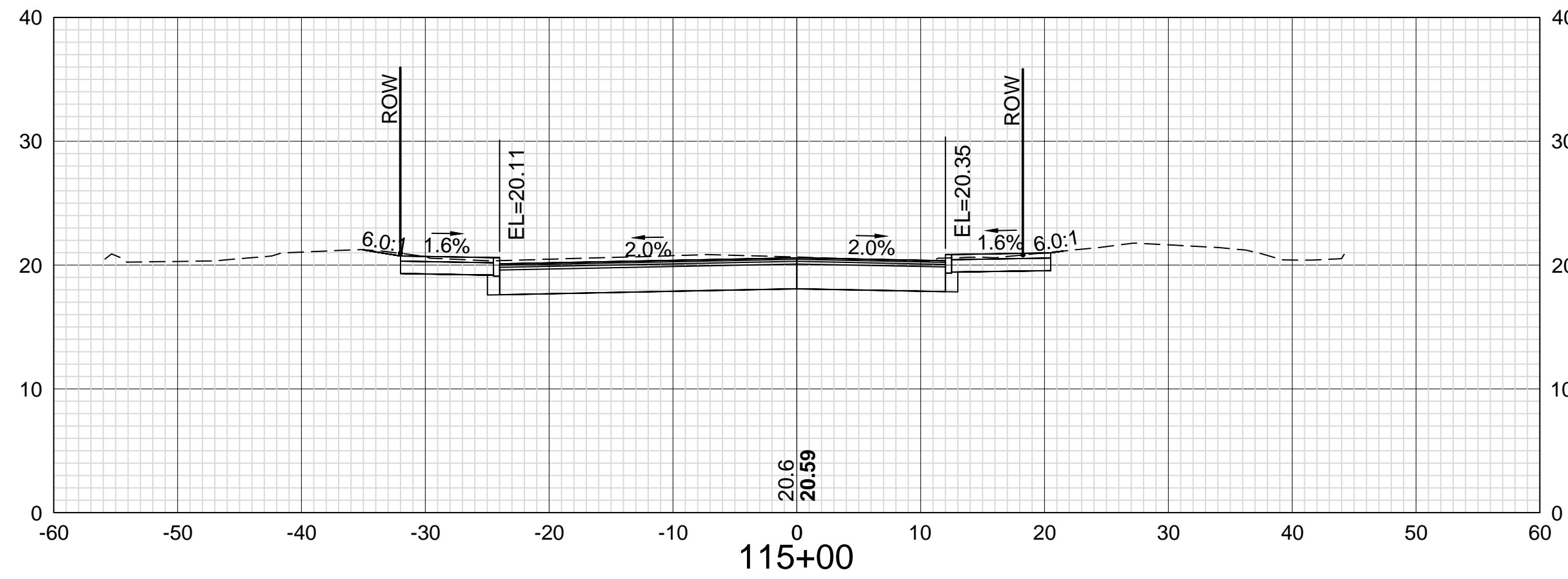
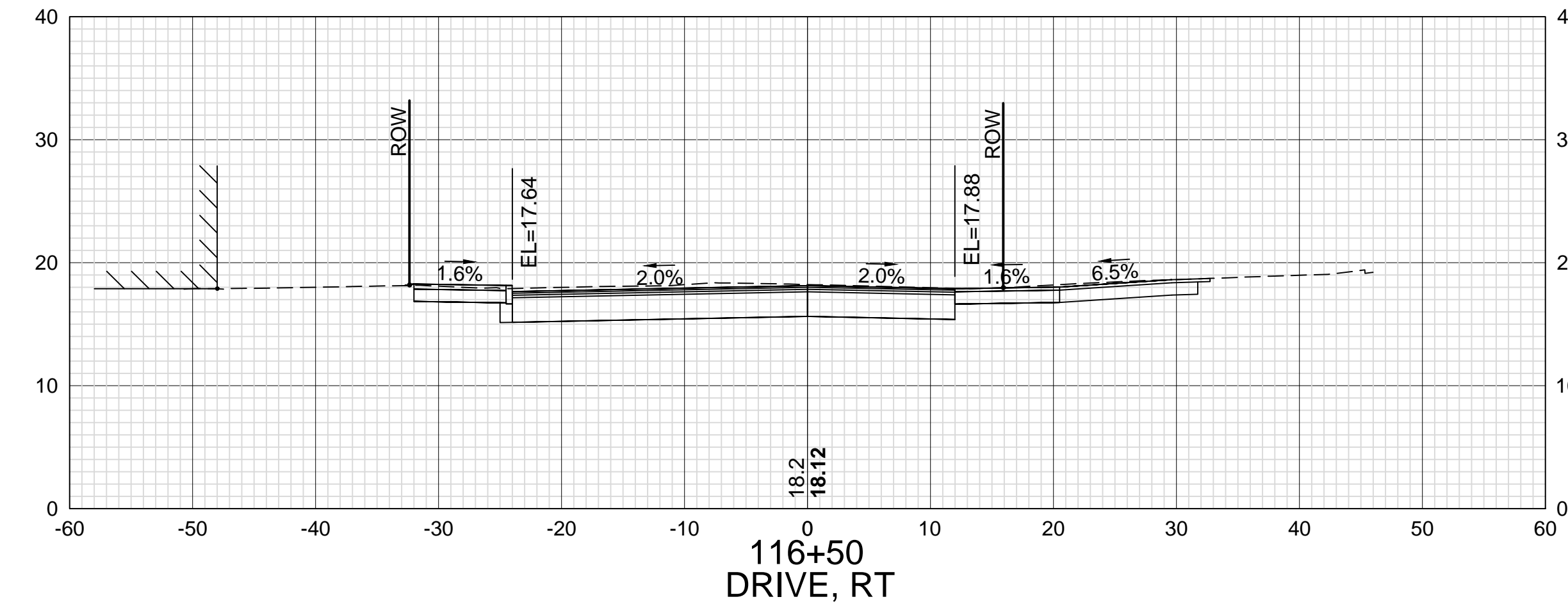
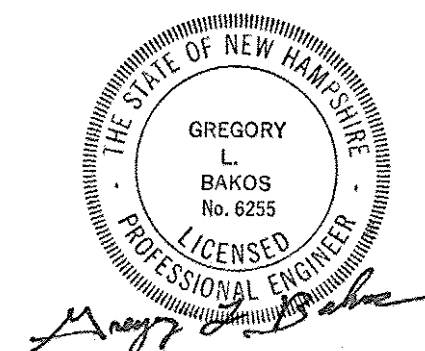
KMH

SHEET CHECKED

GLB

AS BUILT DETAILS

DATE



DATE PLOTTED
13-Nov-18

VHB PROJECT NO.
52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1			
CITY OF PORTSMOUTH, NEW HAMPSHIRE			
CROSS SECTIONS			
ISLINGTON STREET			
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
XS-Seg1	7176	59	88

REVISIONS AFTER PROPOSAL

DESCRIPTION

STATION

STATION

DATE

NUMBER

DATE

DATE

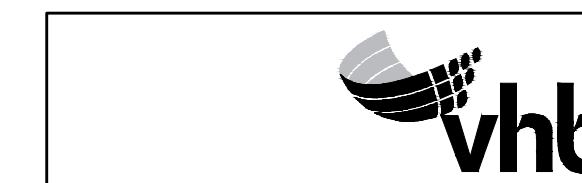
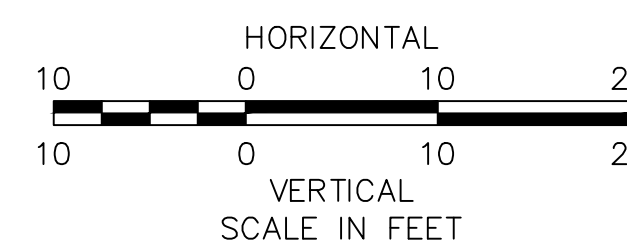
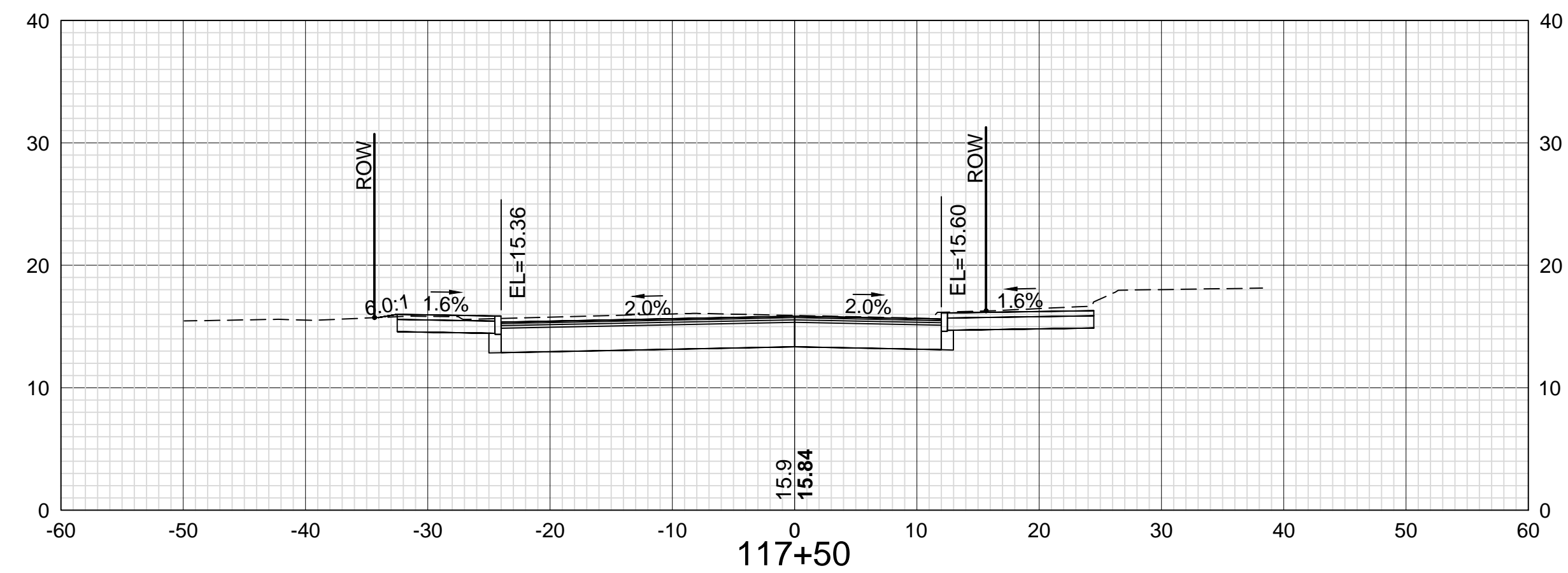
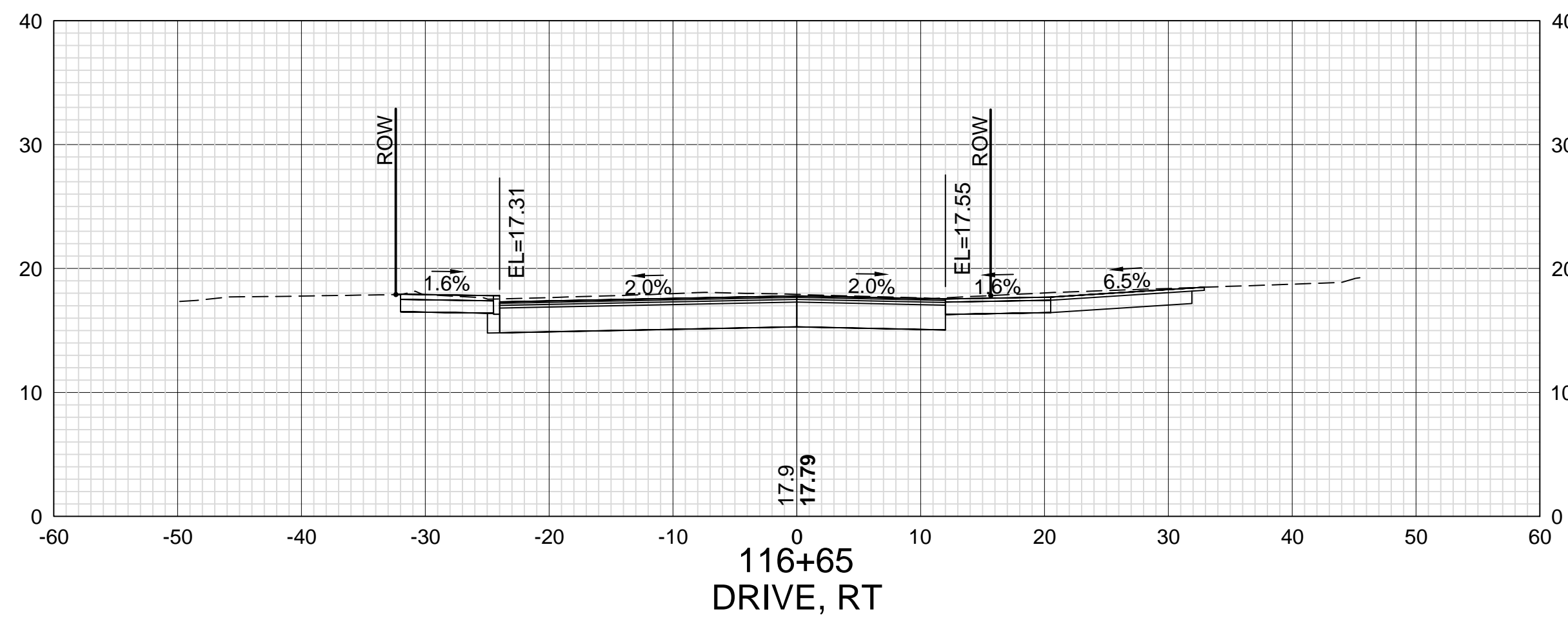
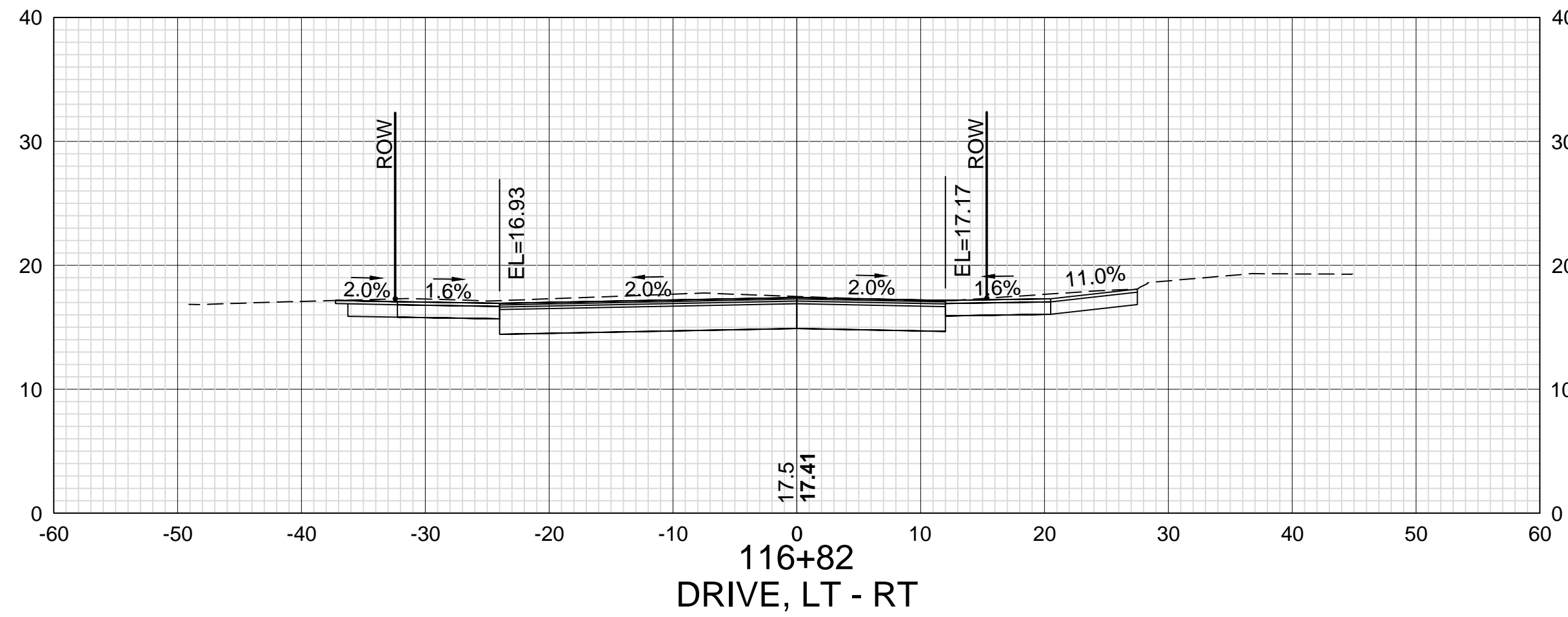
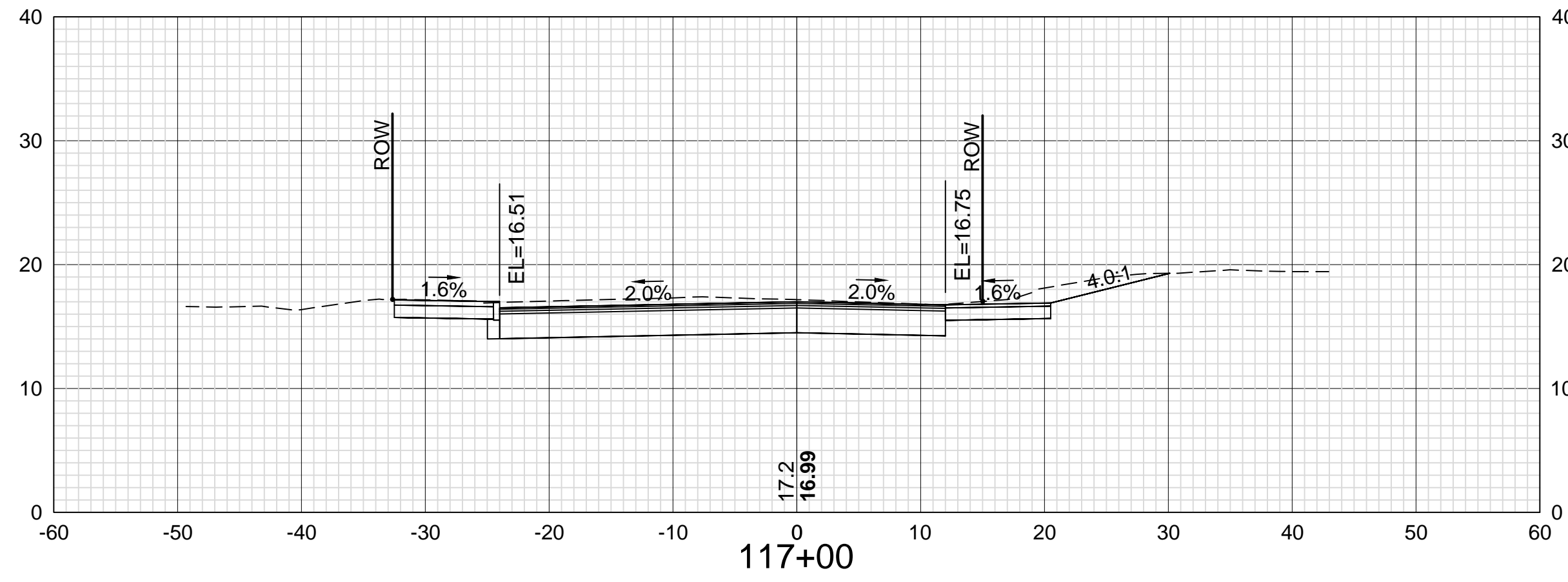
DATE

DATE

DATE

DATE

DATE



DATE PLOTTED

VHB PROJECT NO.

DRAWING

CITY PROJECT NO.

SHEET NO.

TOTAL SHEETS

13-Nov-18

52393.00

XS-Seg1

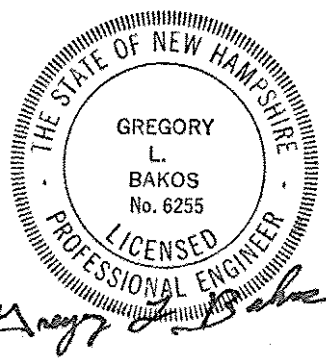
7176

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ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

CROSS SECTIONS
ISLINGTON STREET



Gregory L. Bakos

SDR PROCESSED VHB
NEW DESIGN KMH
SHEET CHECKED GLB
AS BUILT DETAILS

REVISIONS AFTER PROPOSAL

DESCRIPTION

STATION

STATION

DATE

NUMBER

DATE OCT 2017

SDR PROCESSED VHB

DATE 11/13/18

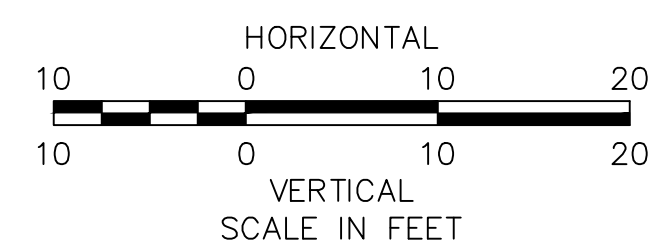
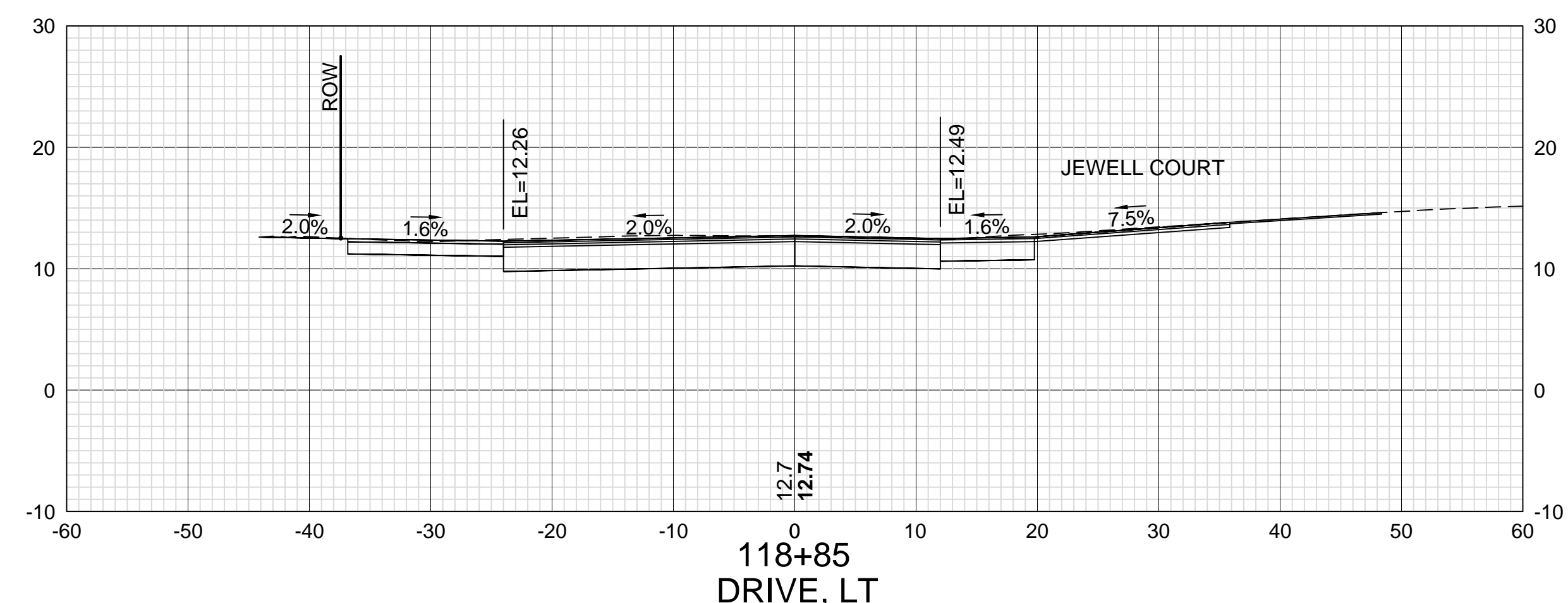
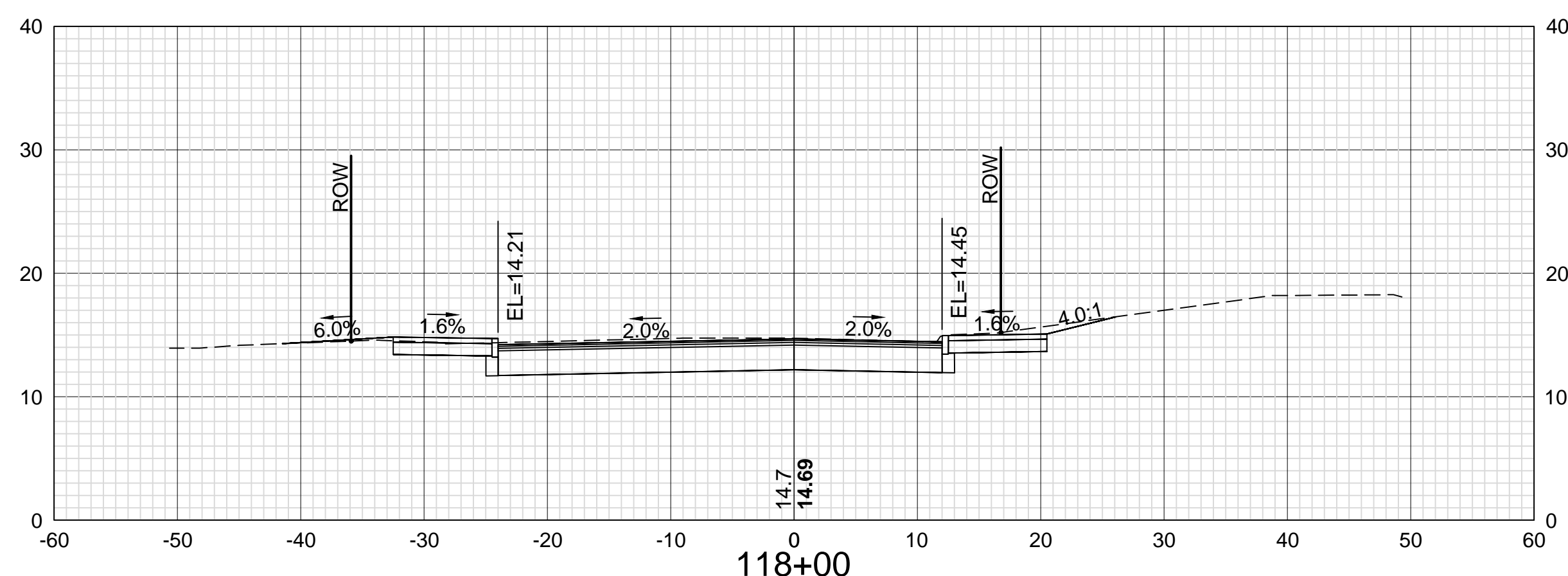
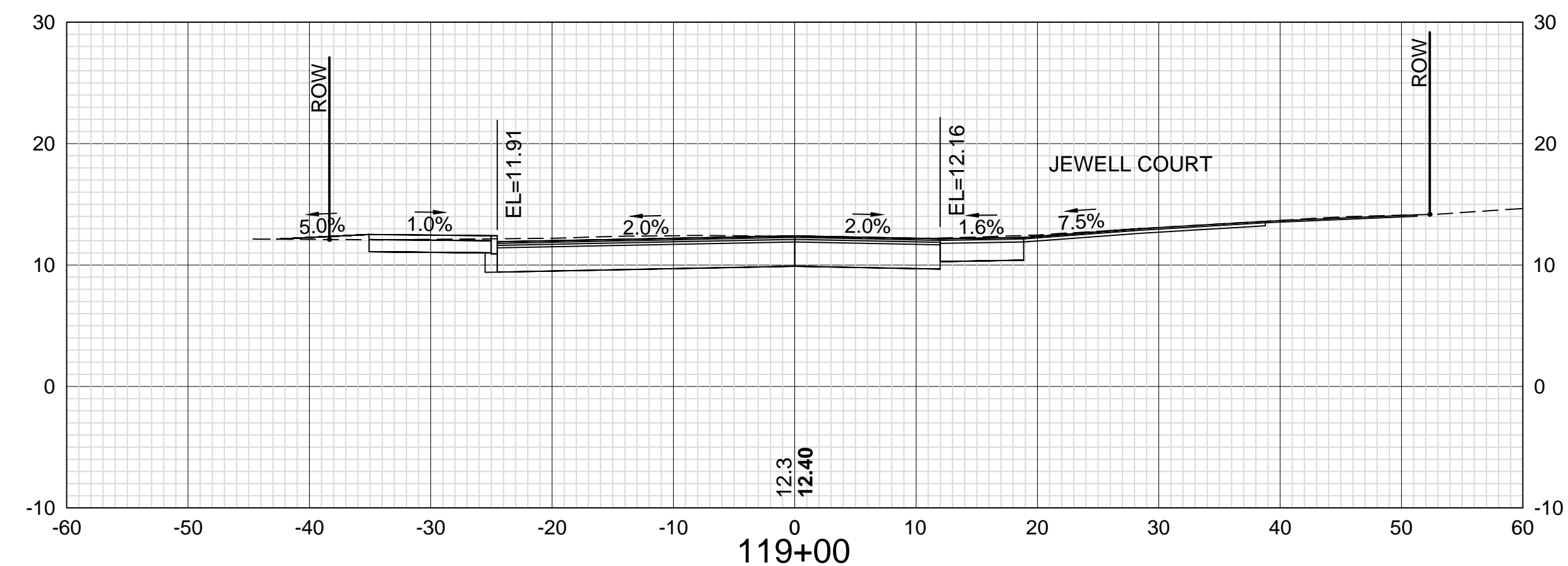
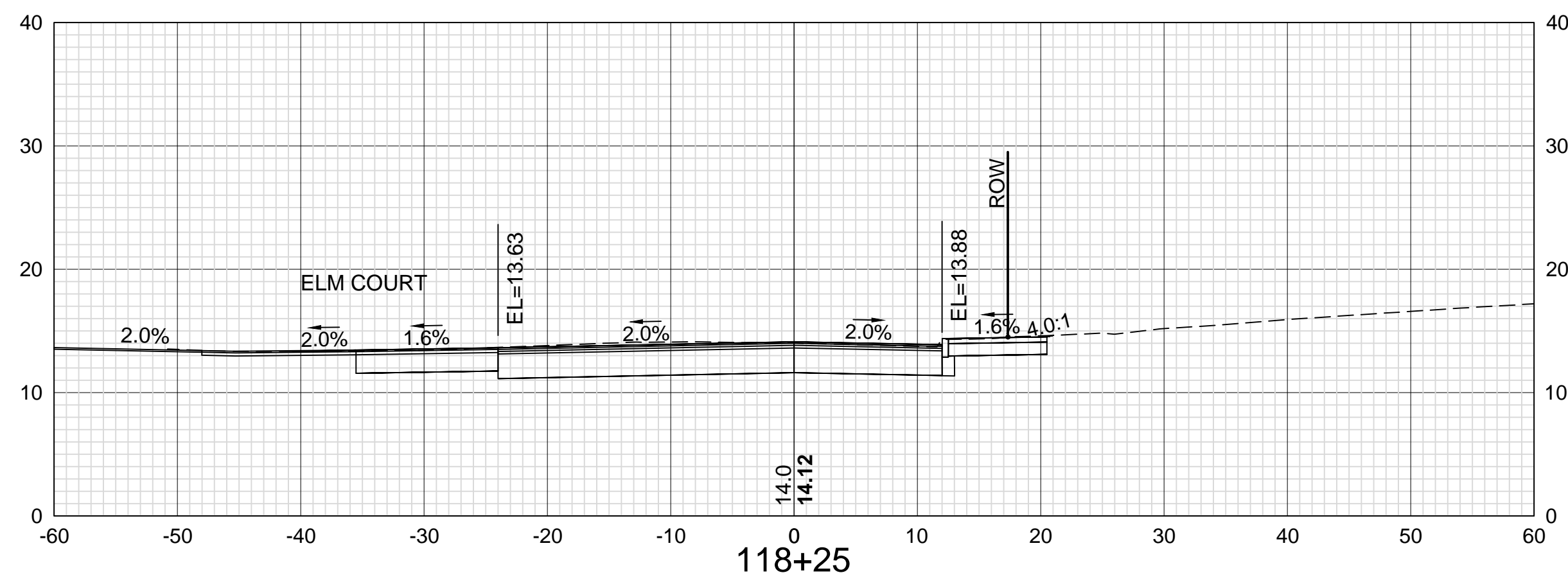
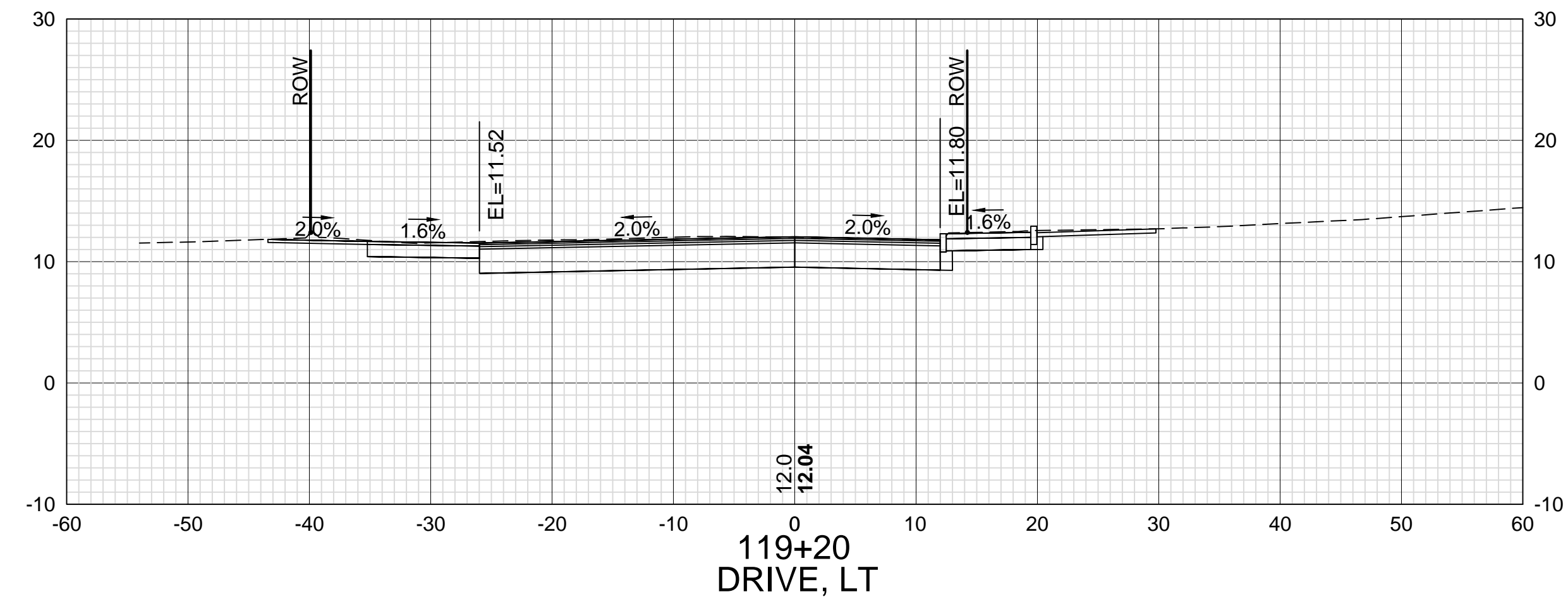
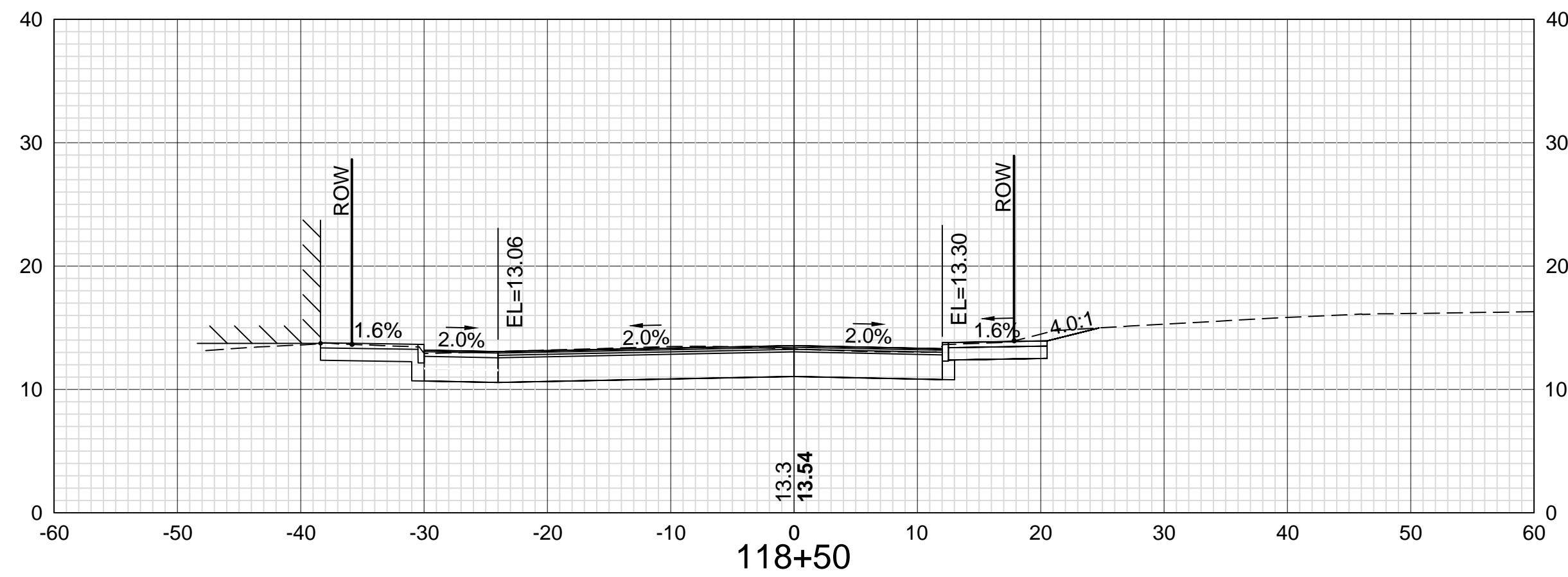
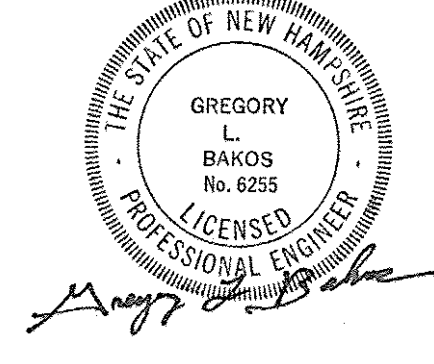
NEW DESIGN KMH

DATE 11/13/18

SHEET CHECKED GLB

DATE

AS BUILT DETAILS



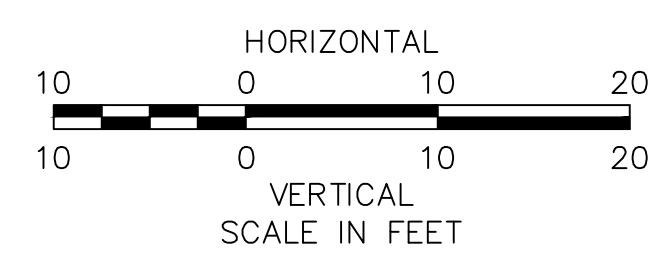
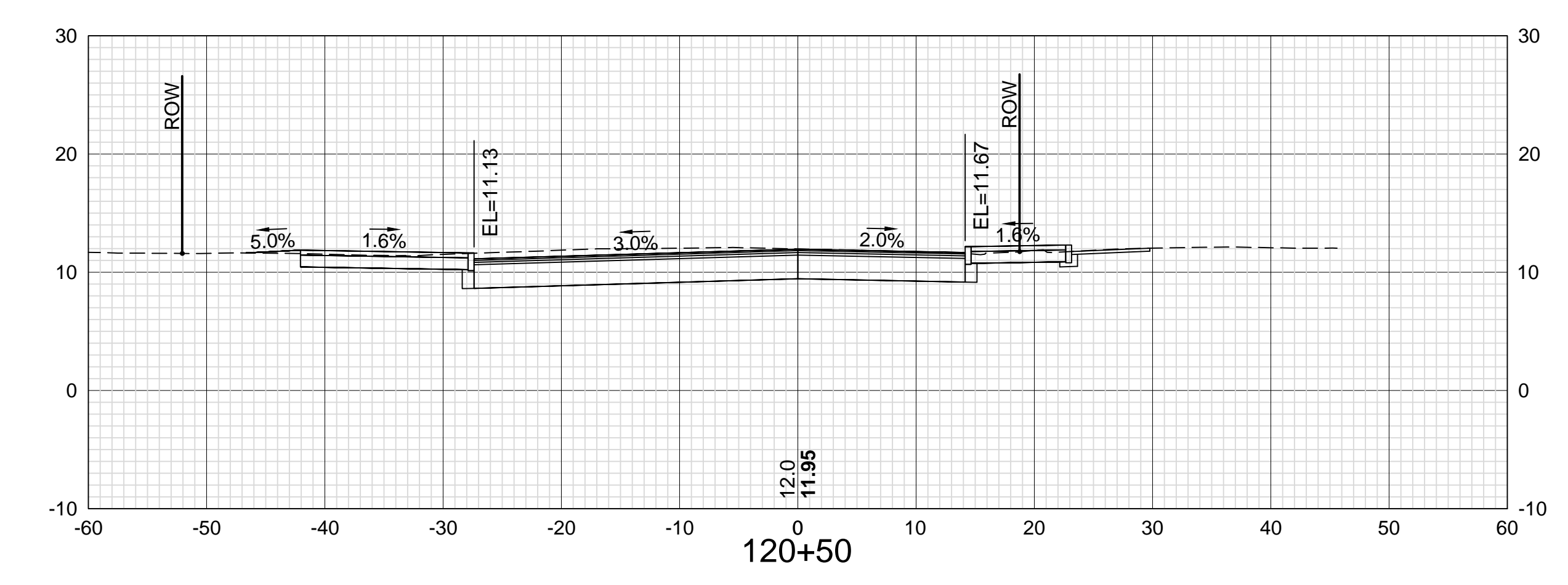
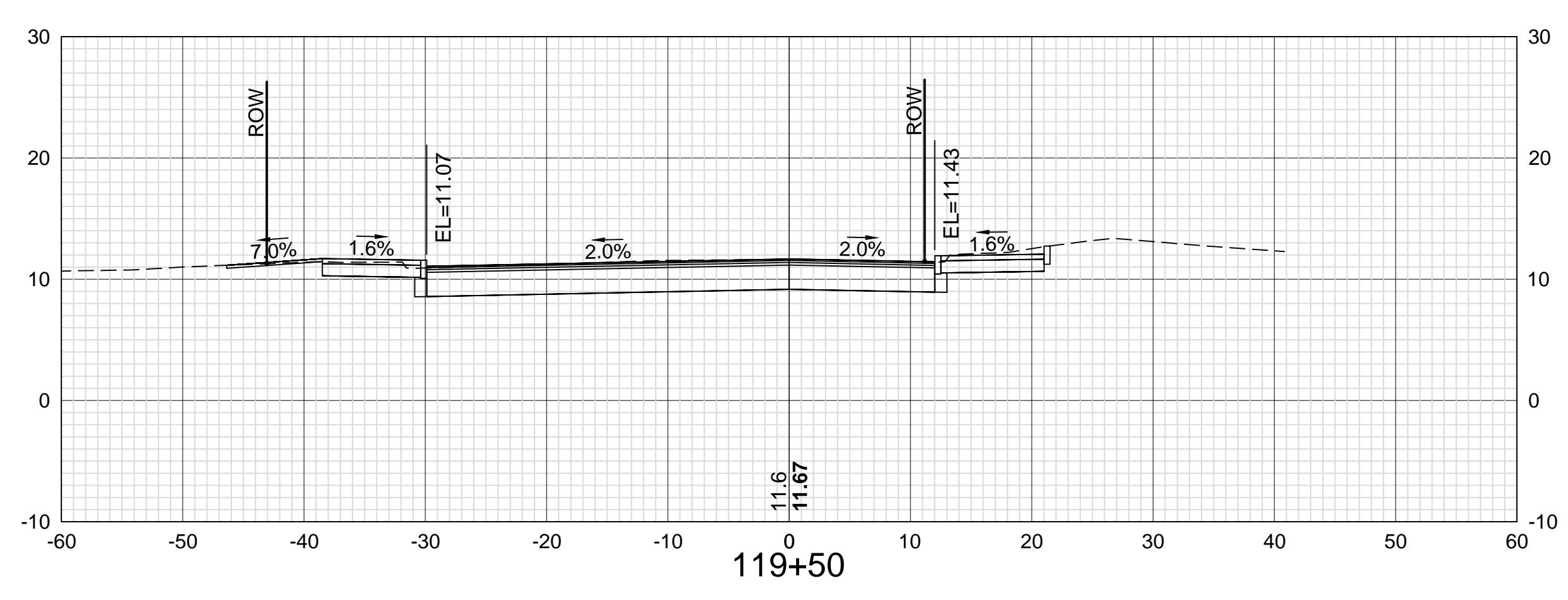
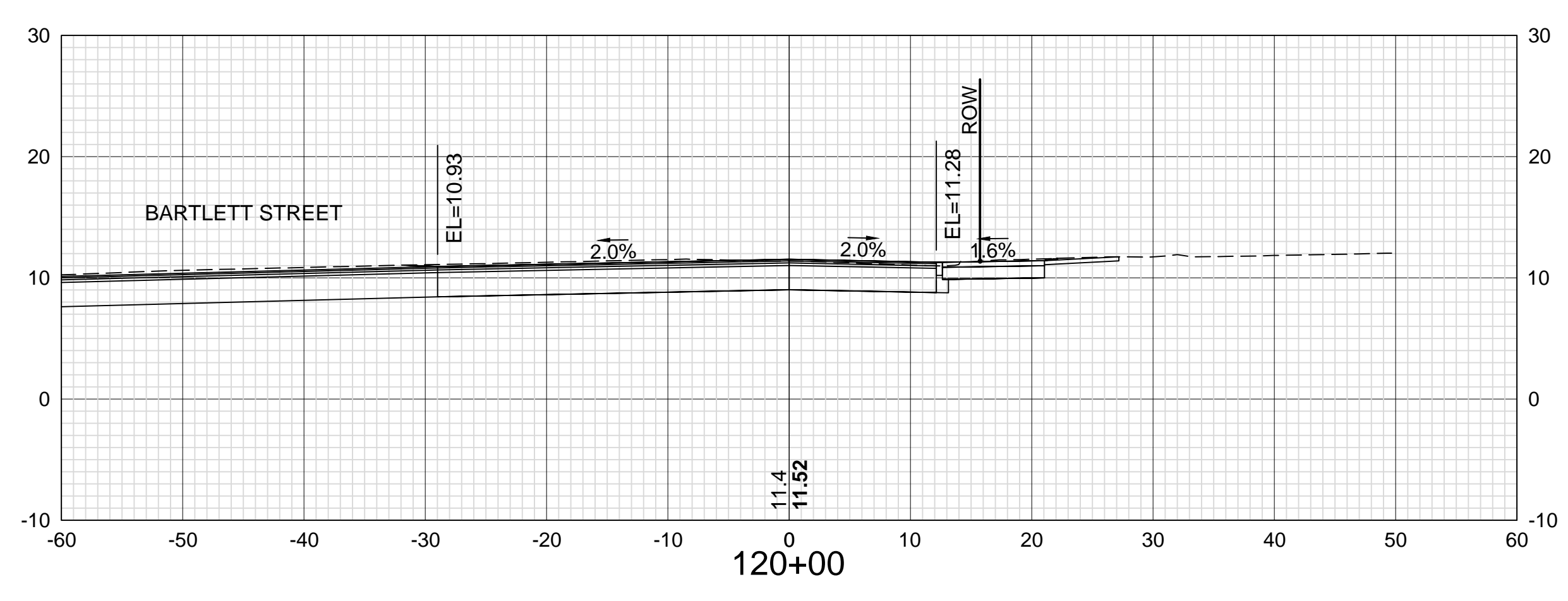
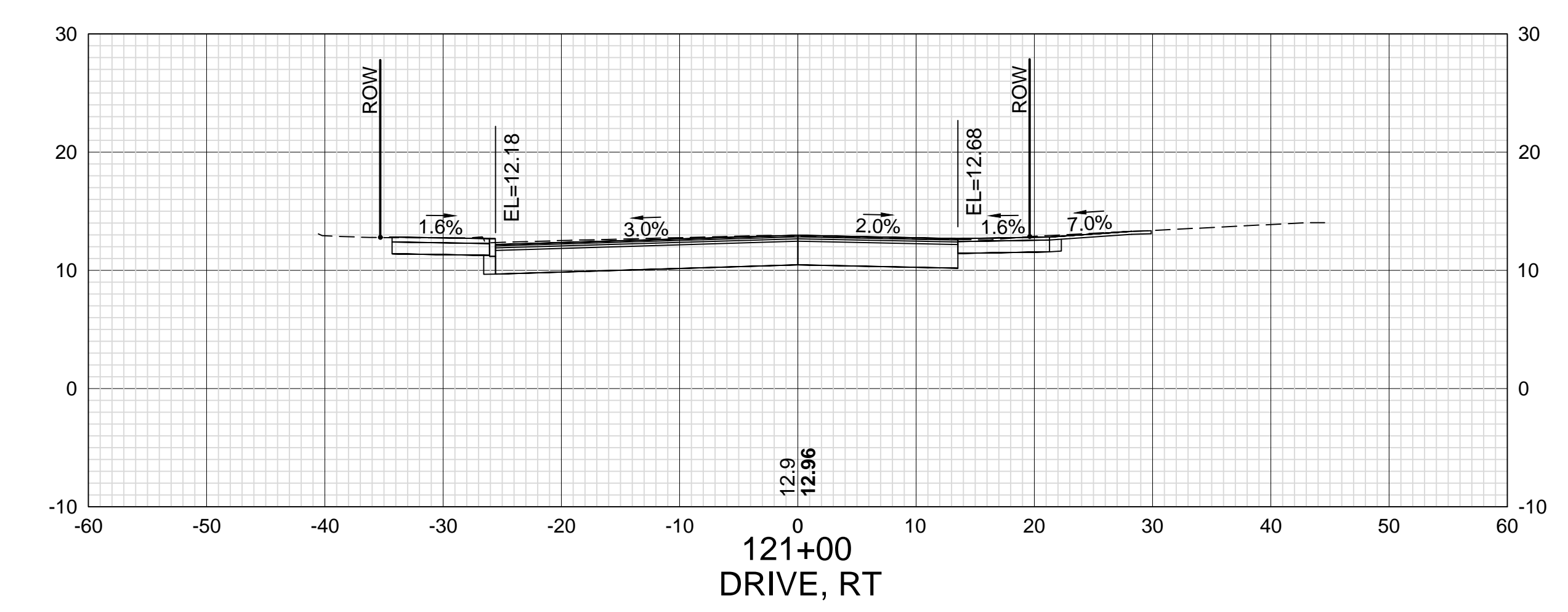
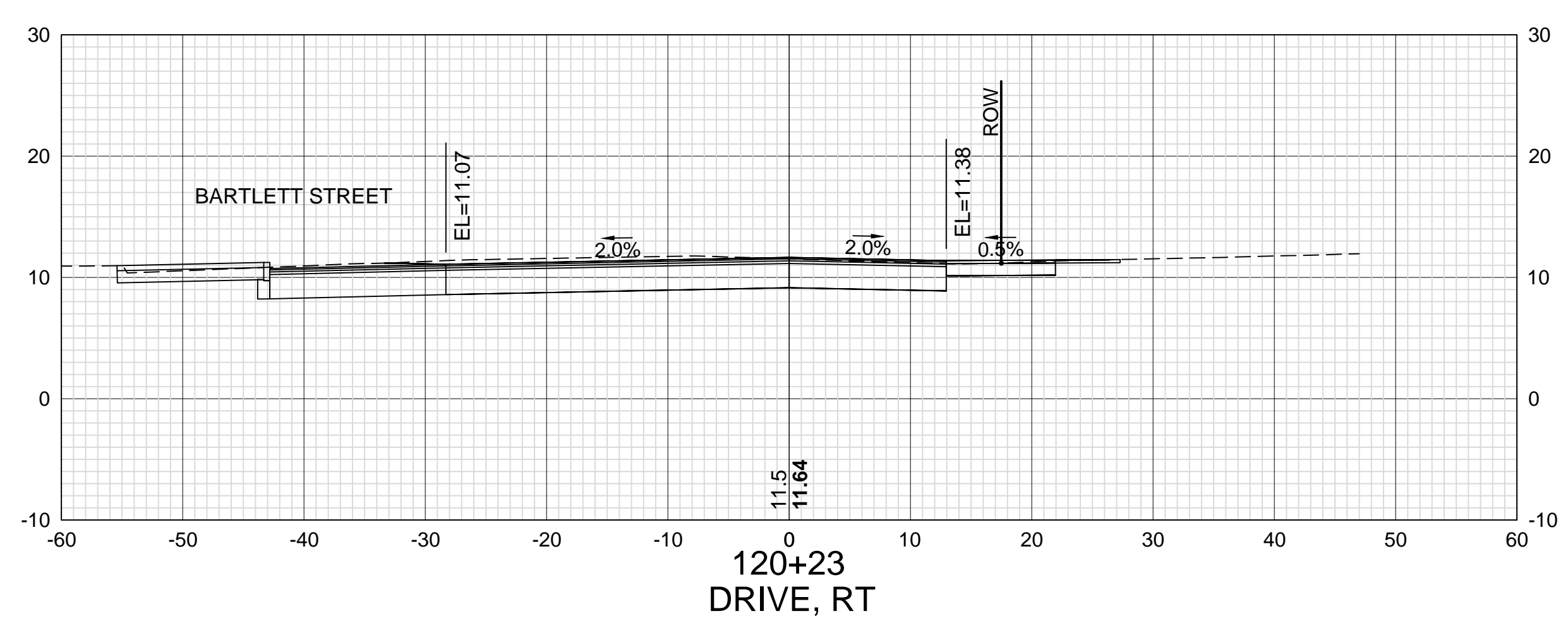
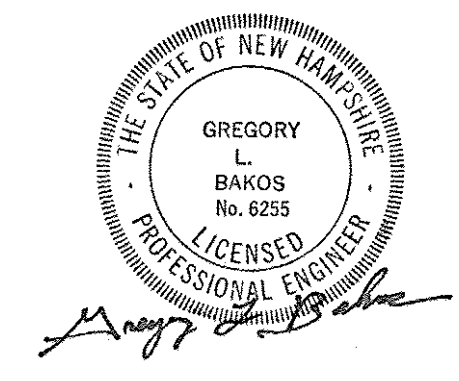
DATE PLOTTED		VHB PROJECT NO.	
13-Nov-18		52393.00	

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1			
CITY OF PORTSMOUTH, NEW HAMPSHIRE			
CROSS SECTIONS			
ISLINGTON STREET			
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
XS-Seg1	7176	61	88



REVISIONS AFTER PROPOSAL	
STATION	DESCRIPTION
STATION	
DATE	
NUMBER	

SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	KMH	DATE	11/13/18
SHEET CHECKED	GLB	DATE	11/13/18
AS BUILT DETAILS		DATE	



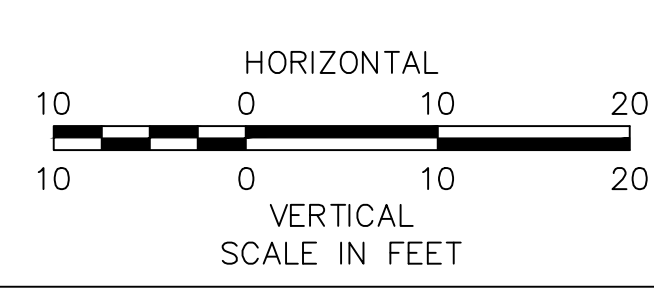
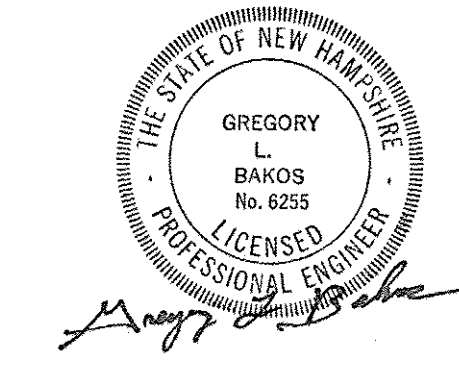
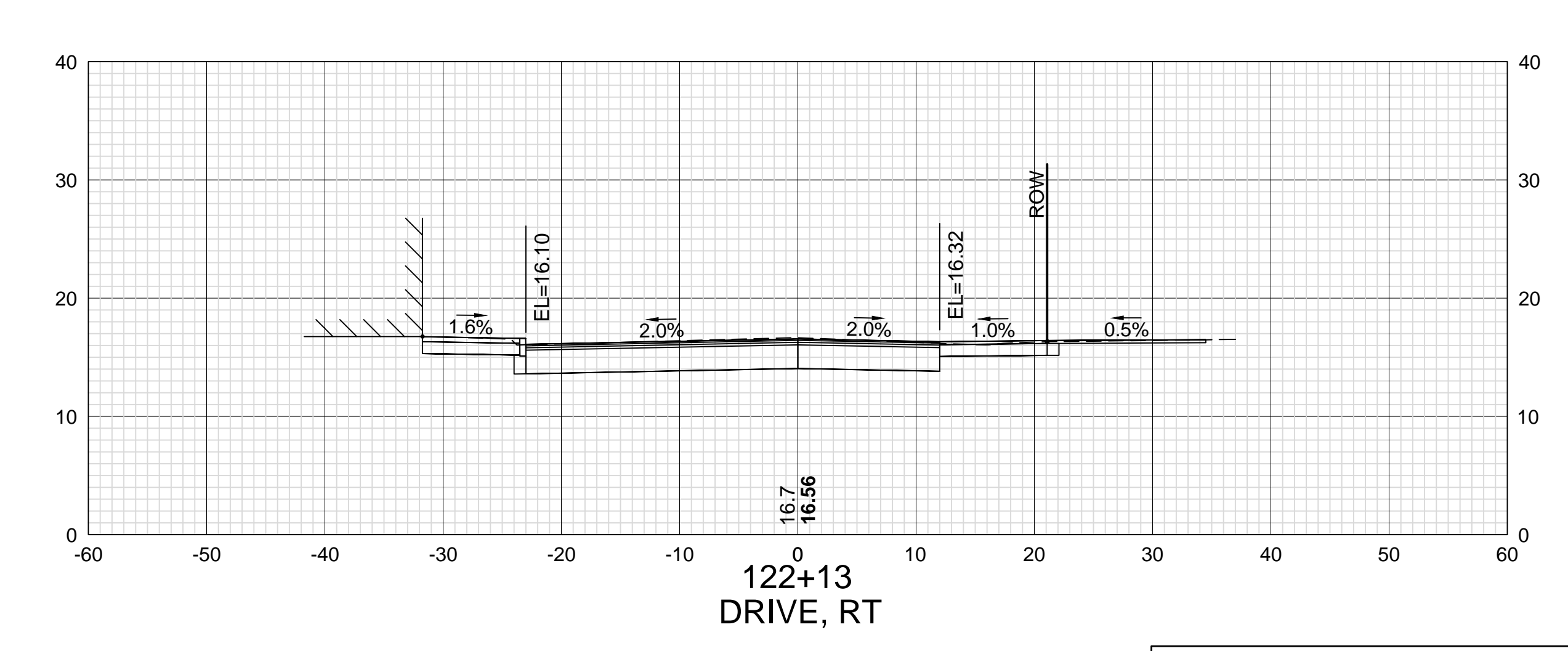
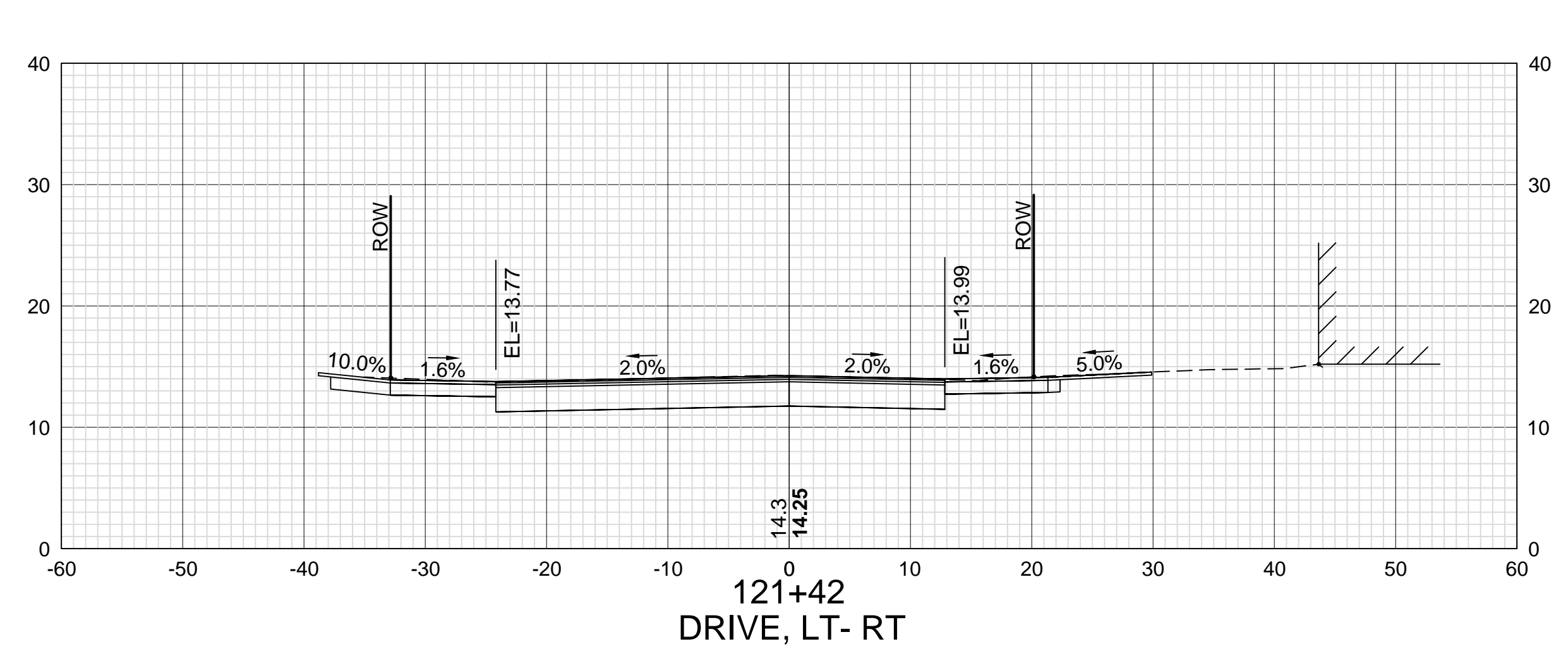
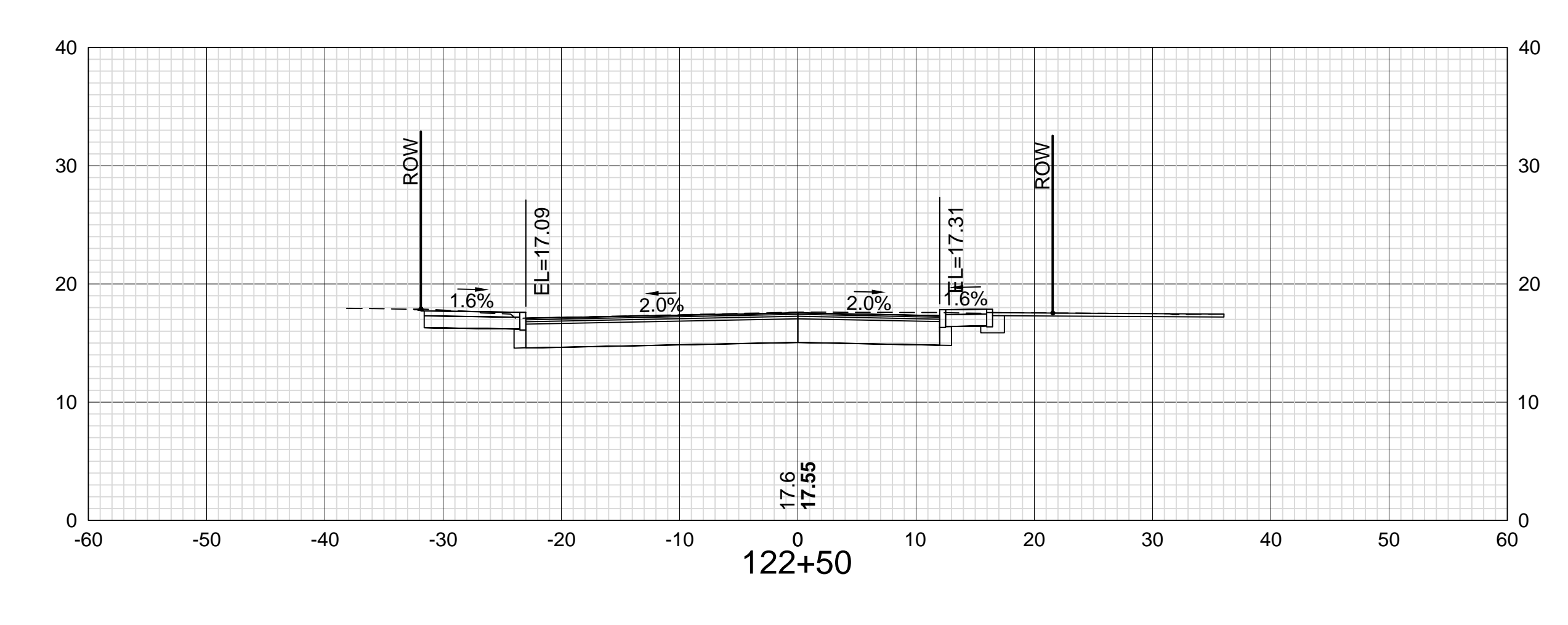
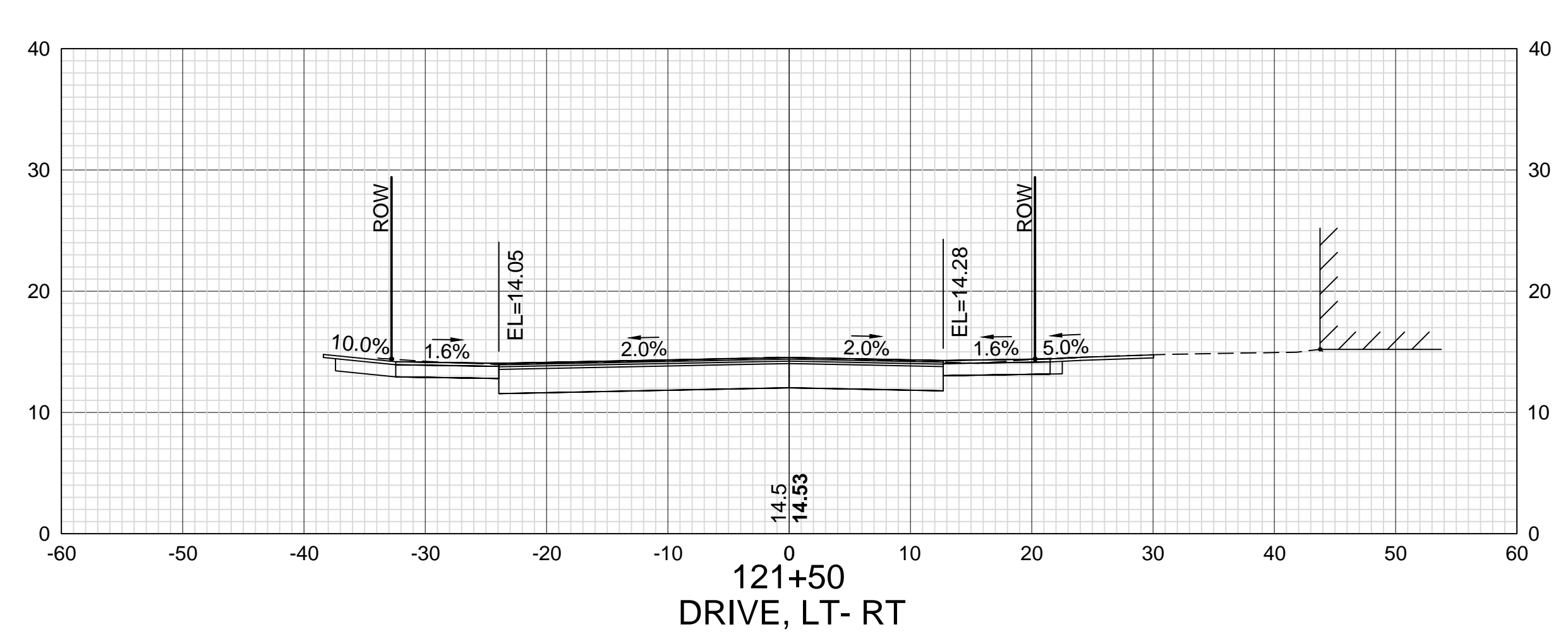
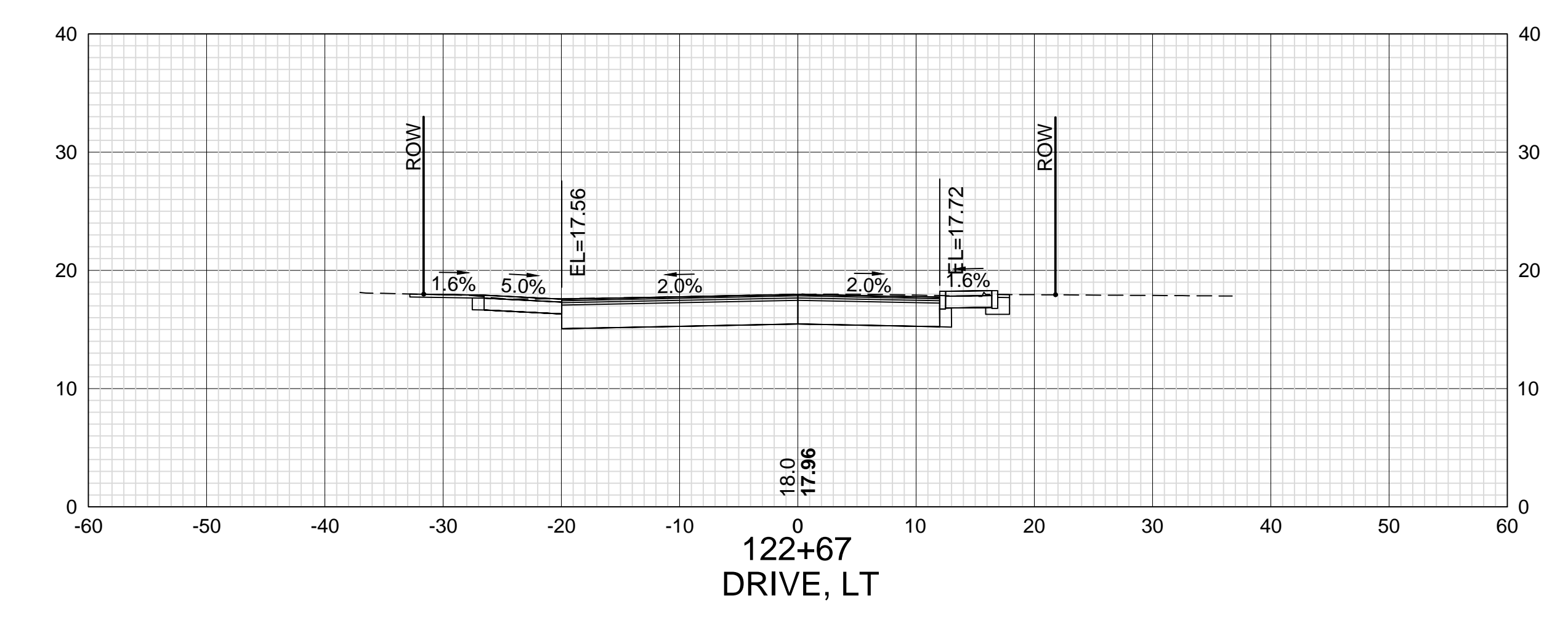
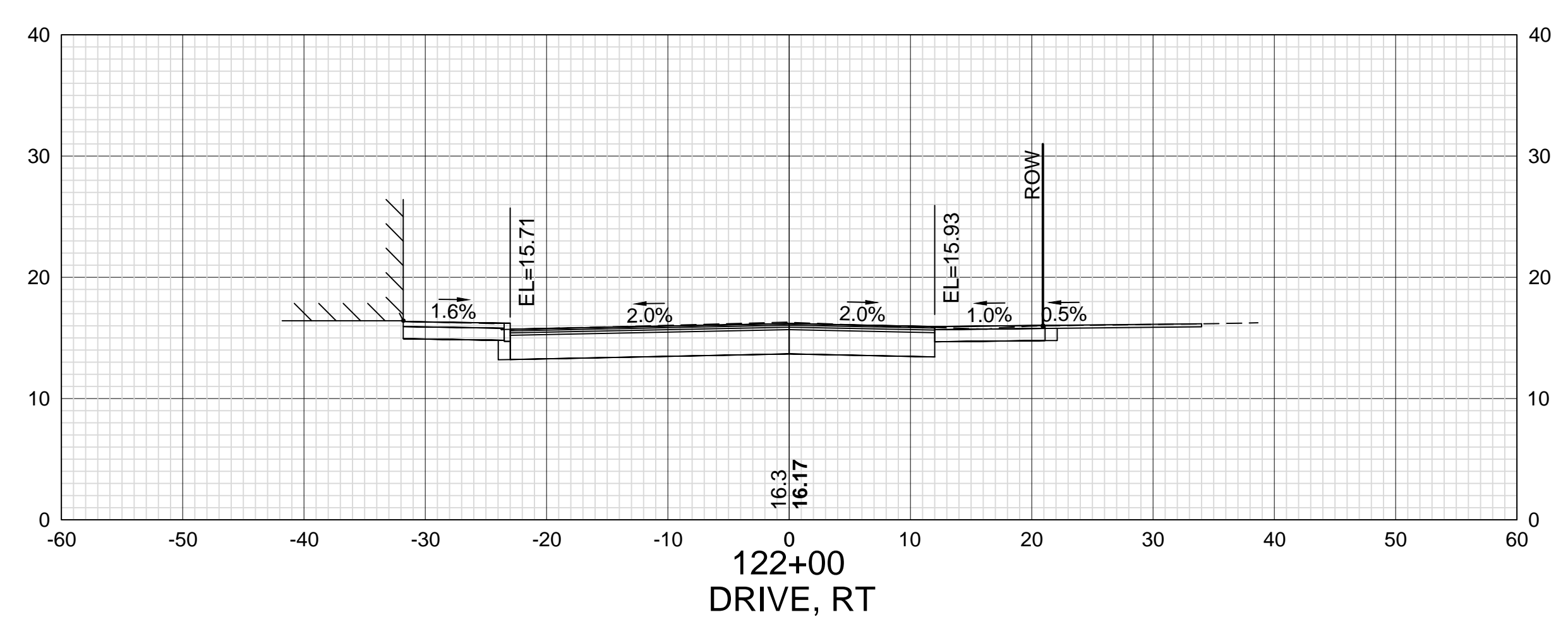
DATE PLOTTED	VHB PROJECT NO.
13-Nov-18	52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1			
CITY OF PORTSMOUTH, NEW HAMPSHIRE			
CROSS SECTIONS			
ISLINGTON STREET			
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
XS-Seg1	7176	62	88



REVISIONS AFTER PROPOSAL	STATION	STATION	DATE	NUMBER

SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	KMH	DATE	11/13/18
SHEET CHECKED	GLB	DATE	11/13/18
AS BUILT DETAILS		DATE	



DATE PLOTTED	VHB PROJECT NO.
13-Nov-18	52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1				
CITY OF PORTSMOUTH, NEW HAMPSHIRE				
CROSS SECTIONS				
ISLINGTON STREET				
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS	
XS-Seg1	7176	63	88	

REVISIONS AFTER PROPOSAL

DESCRIPTION

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

SDR PROCESSED

VHB

OCT 2017

KMH

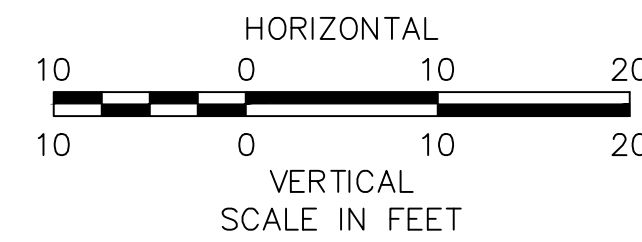
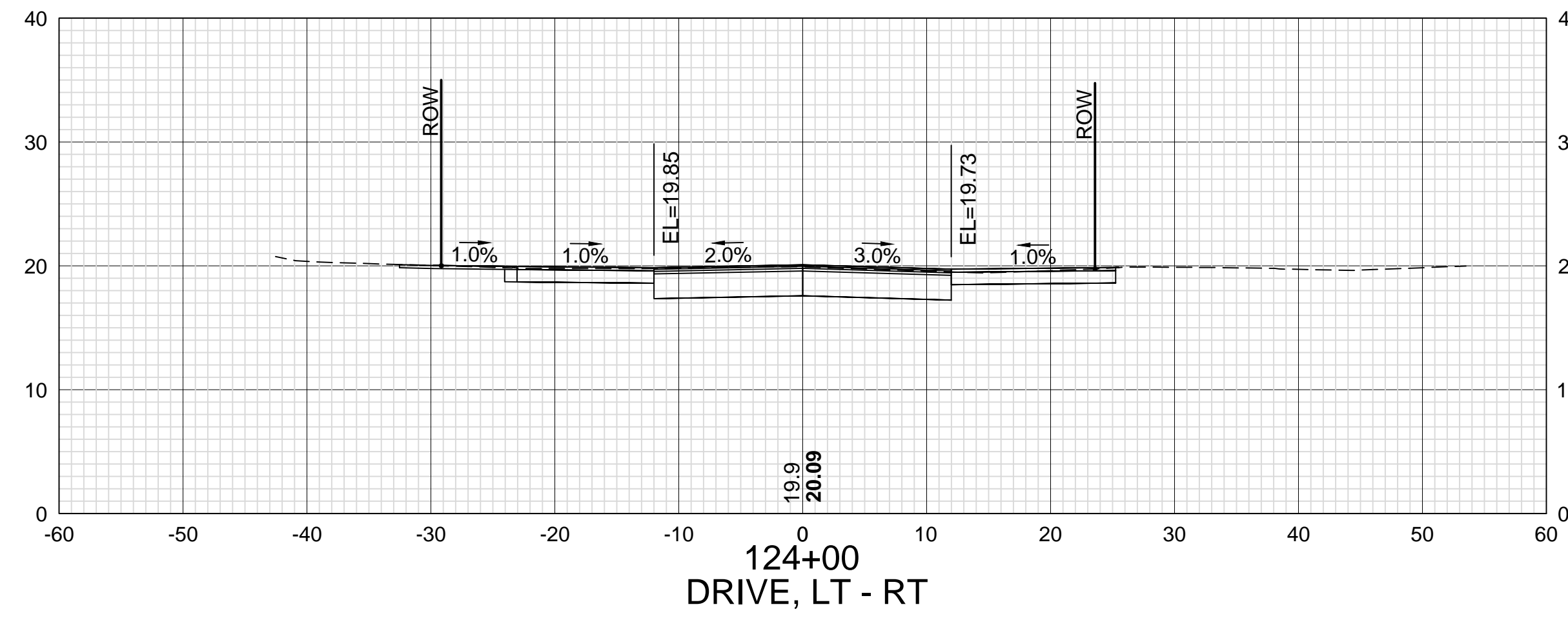
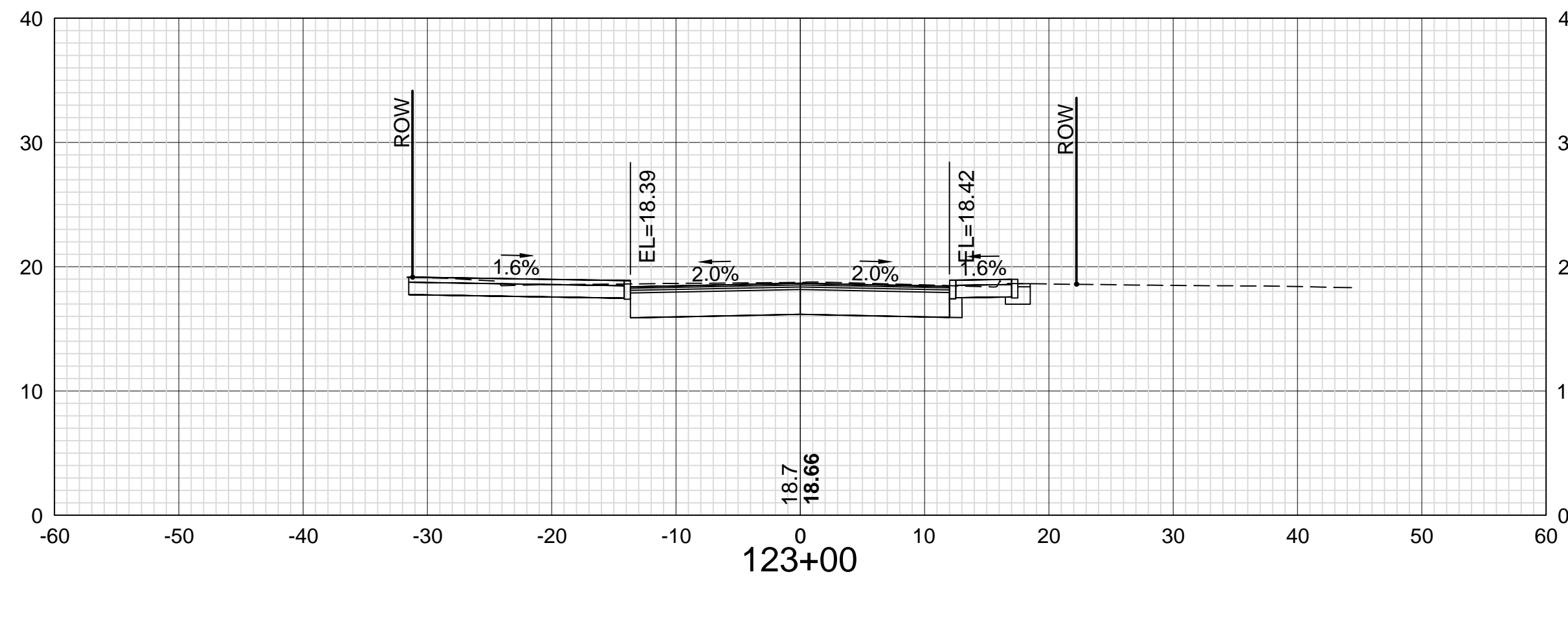
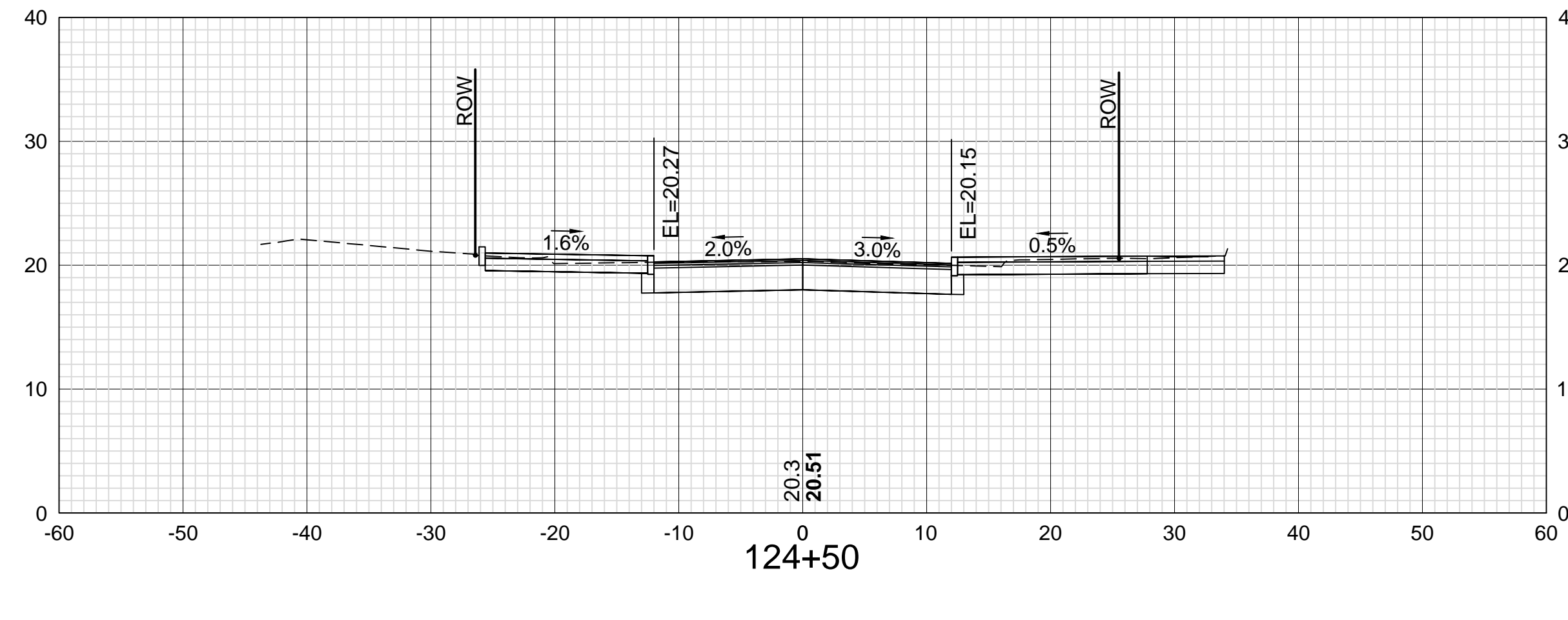
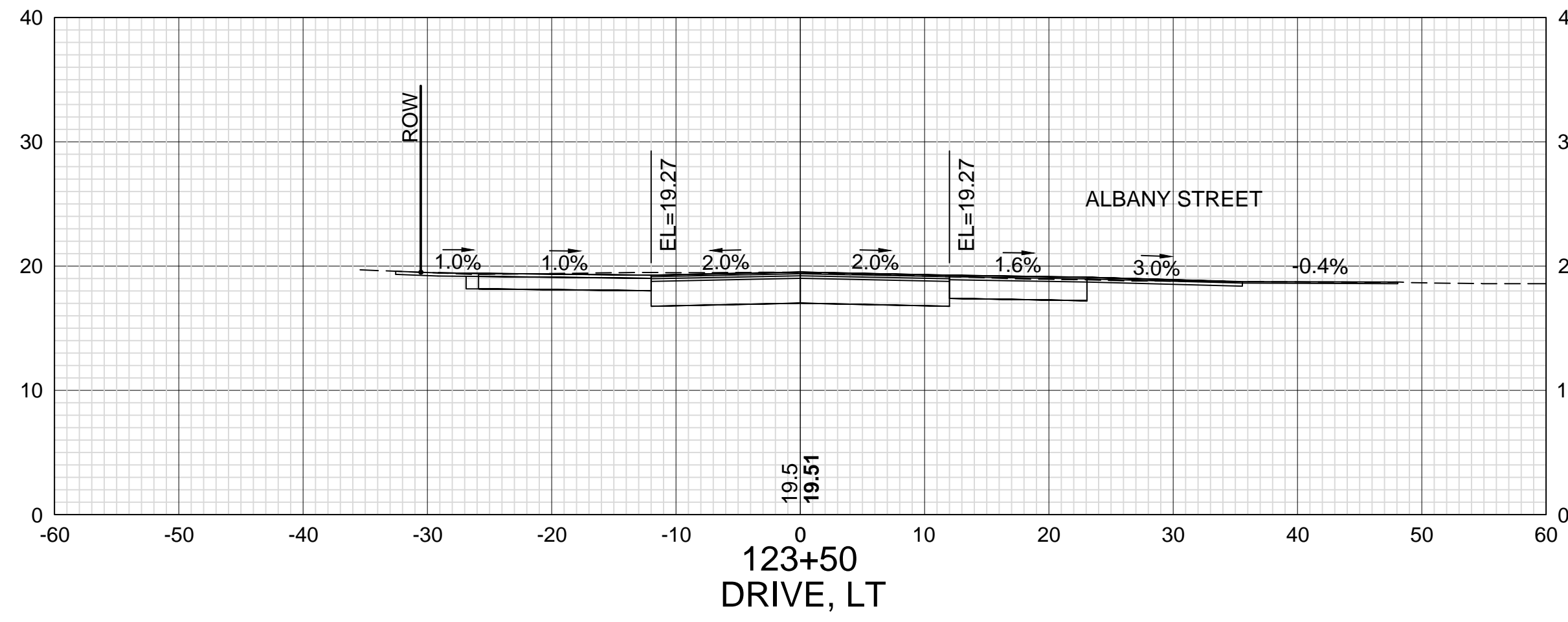
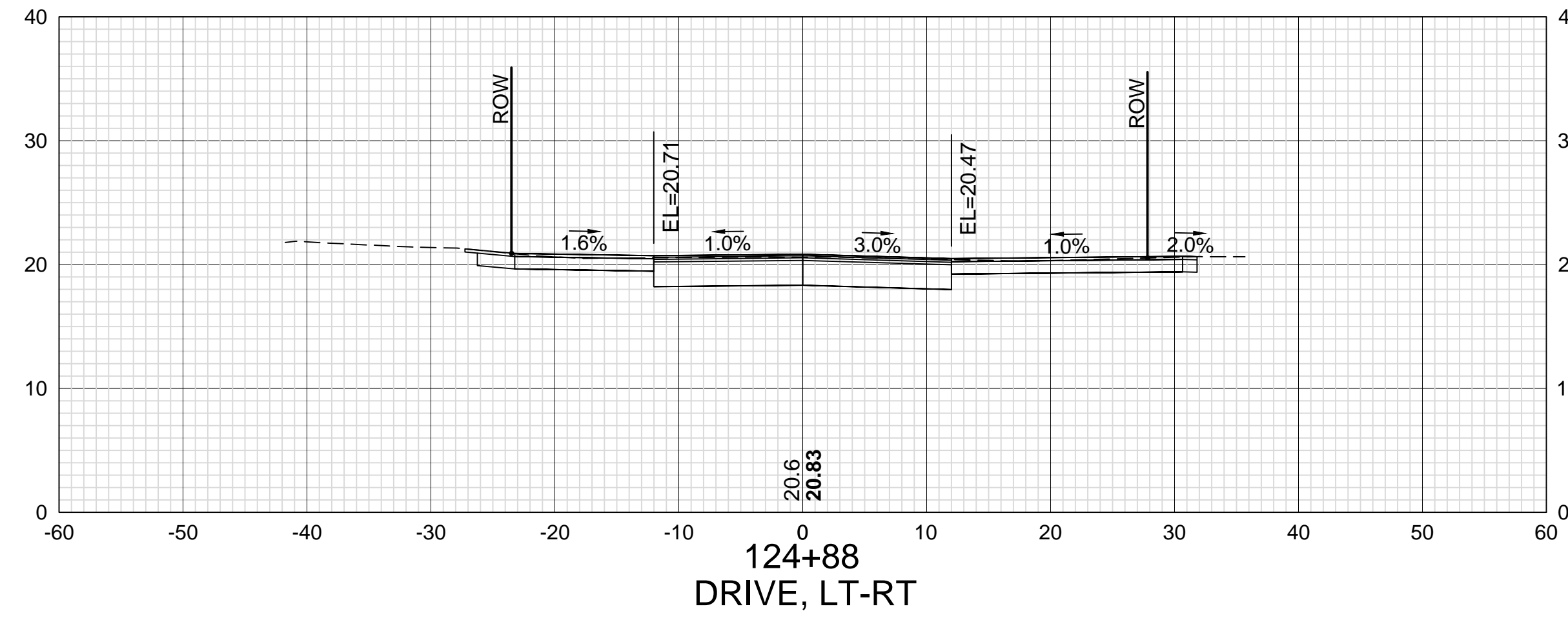
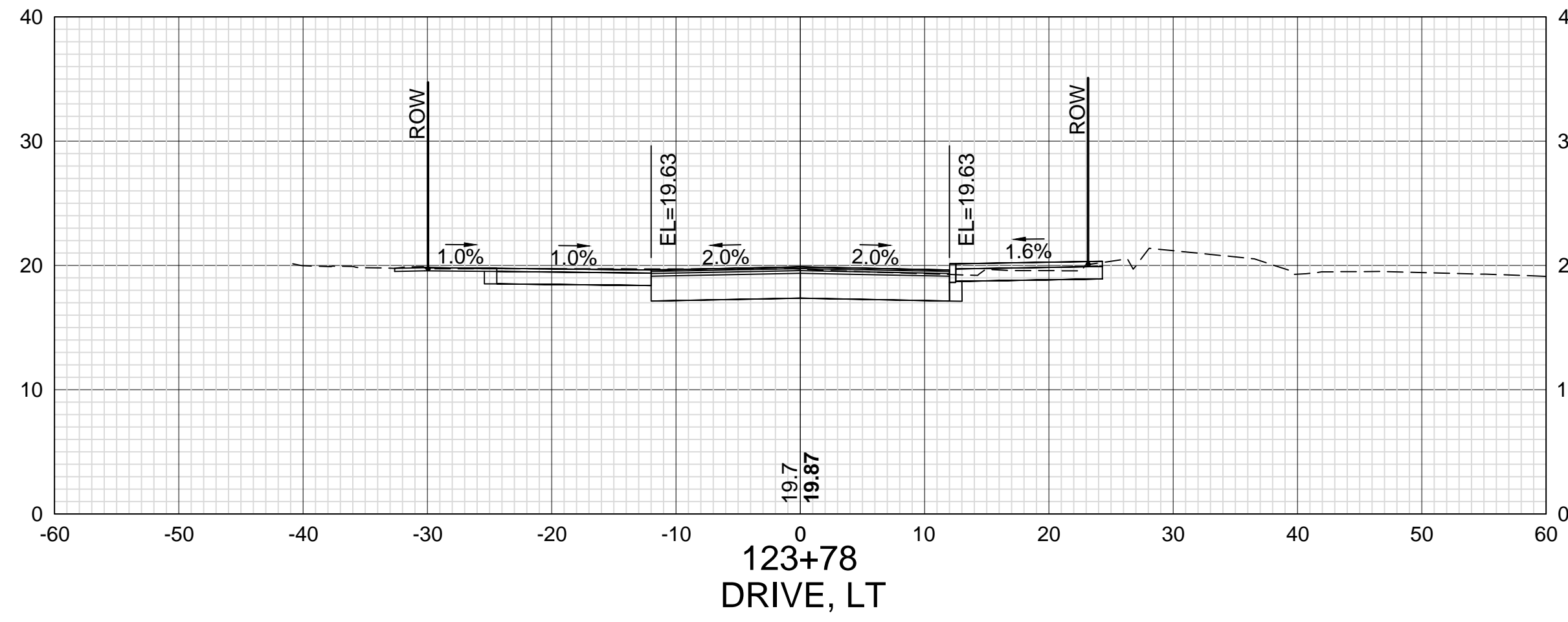
11/13/18

GLB

11/13/18

AS BUILT DETAILS

DATE

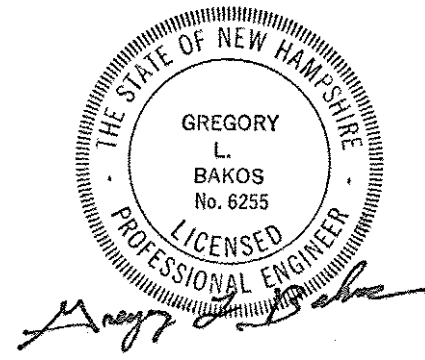


DATE PLOTTED: 13-Nov-18
VHB PROJECT NO.: 52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

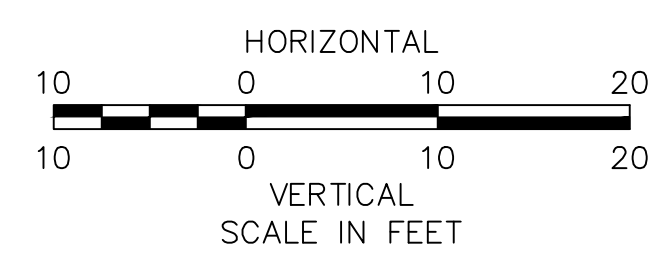
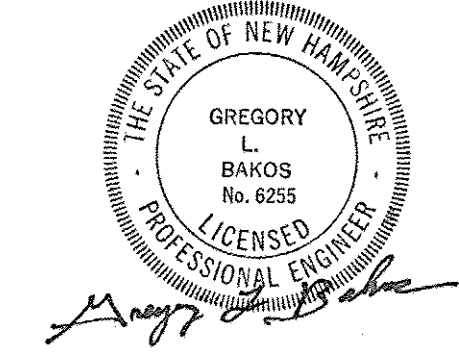
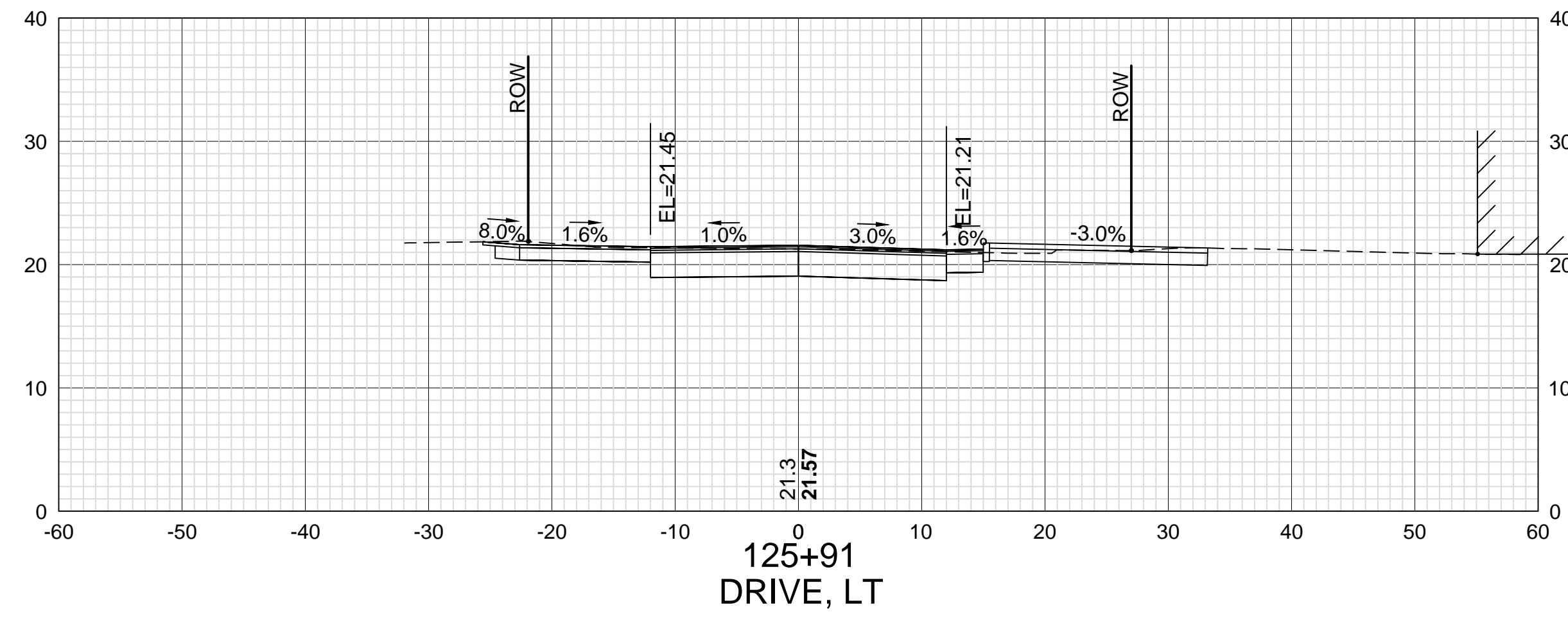
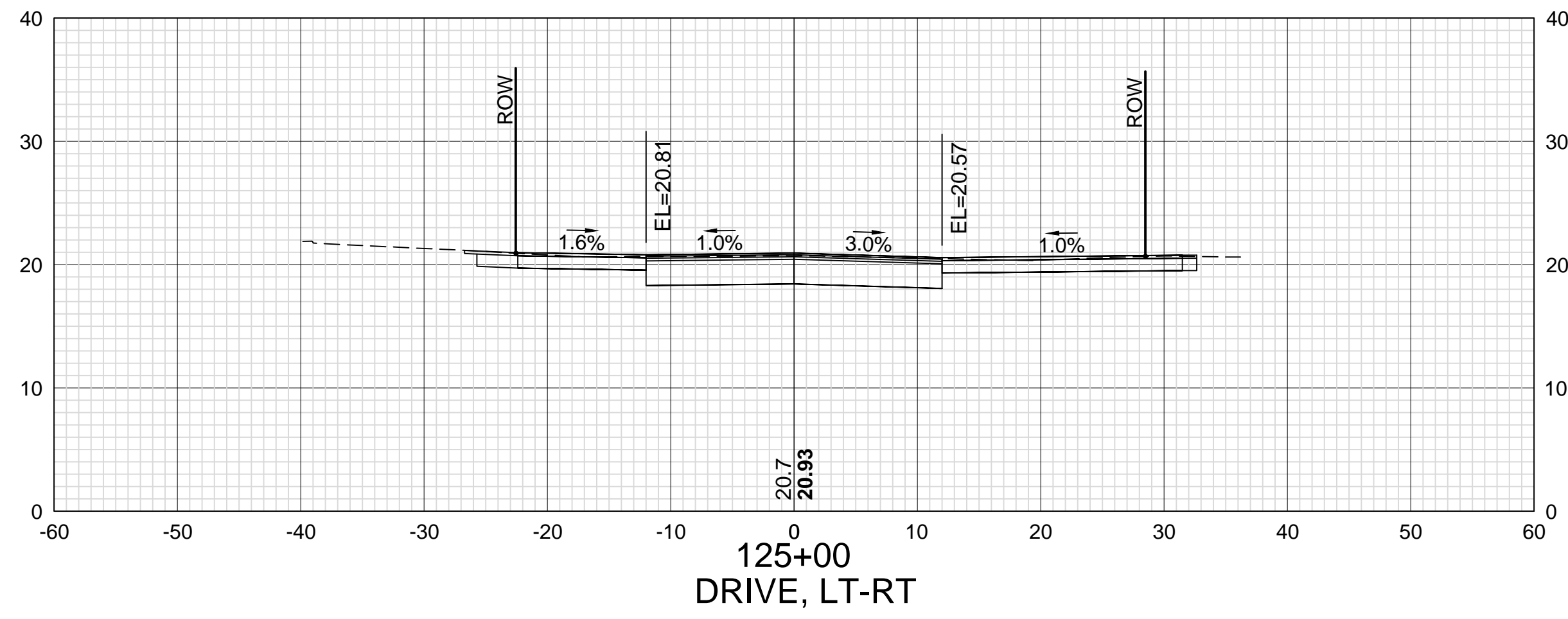
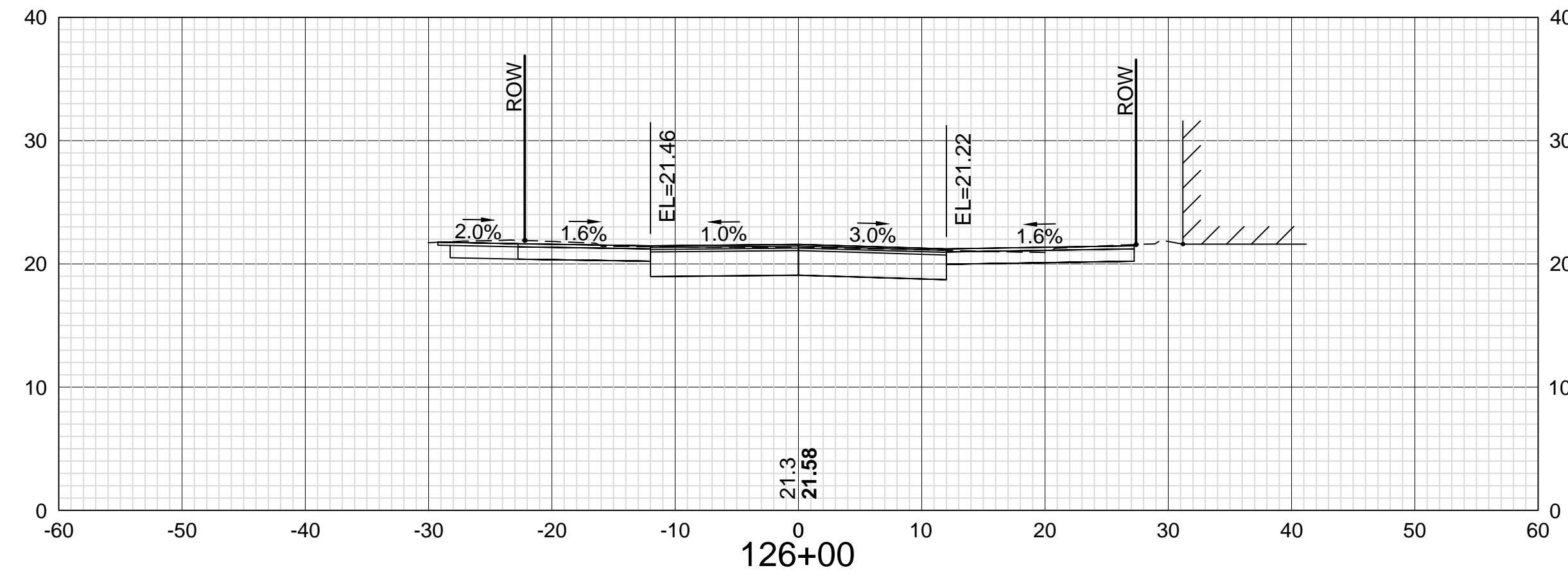
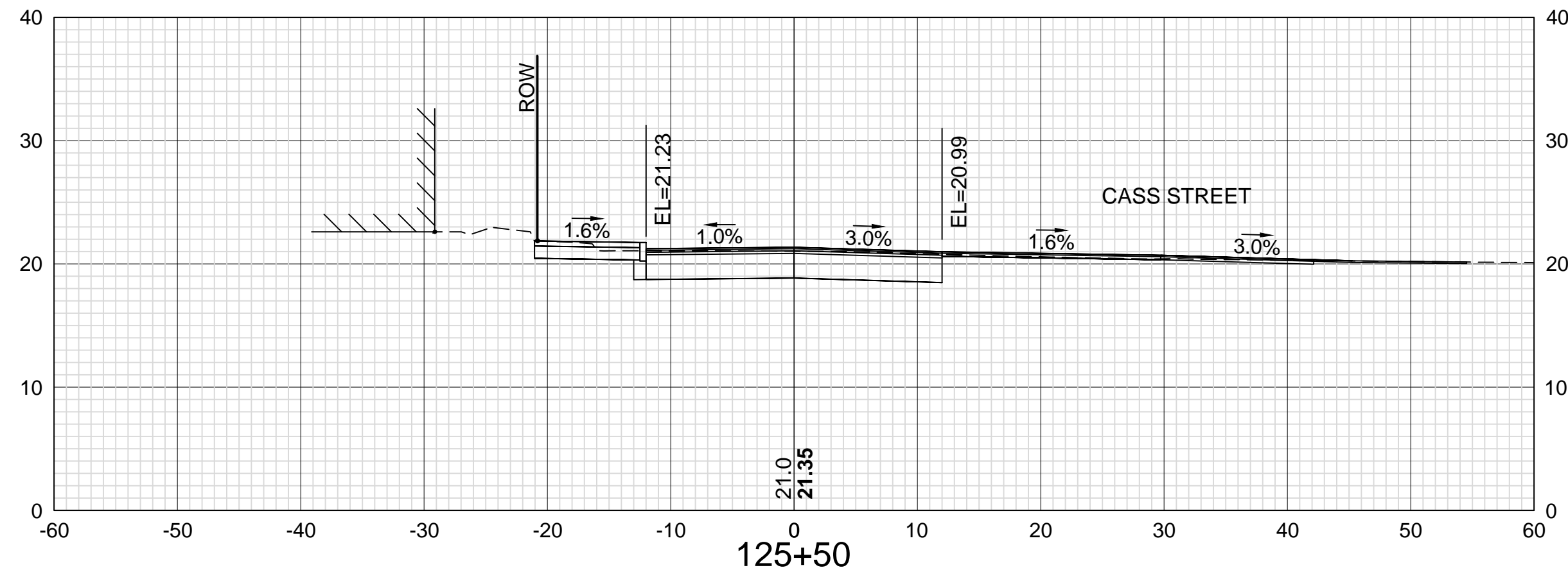
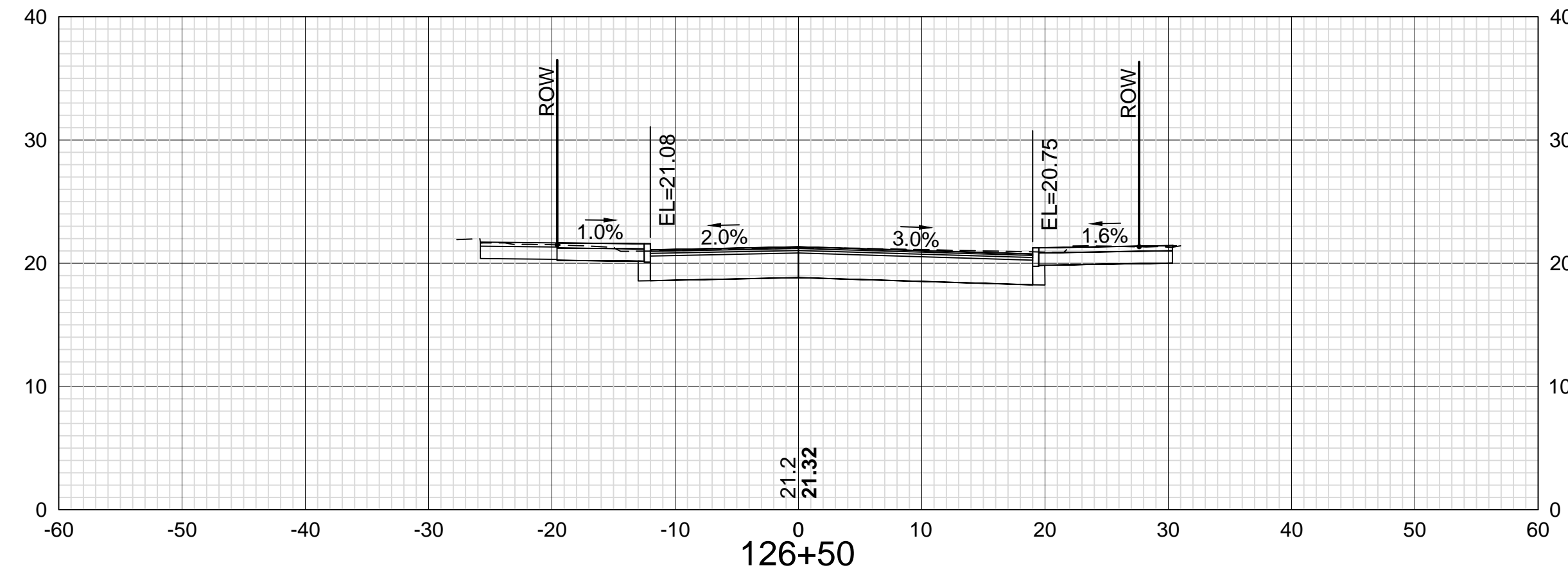
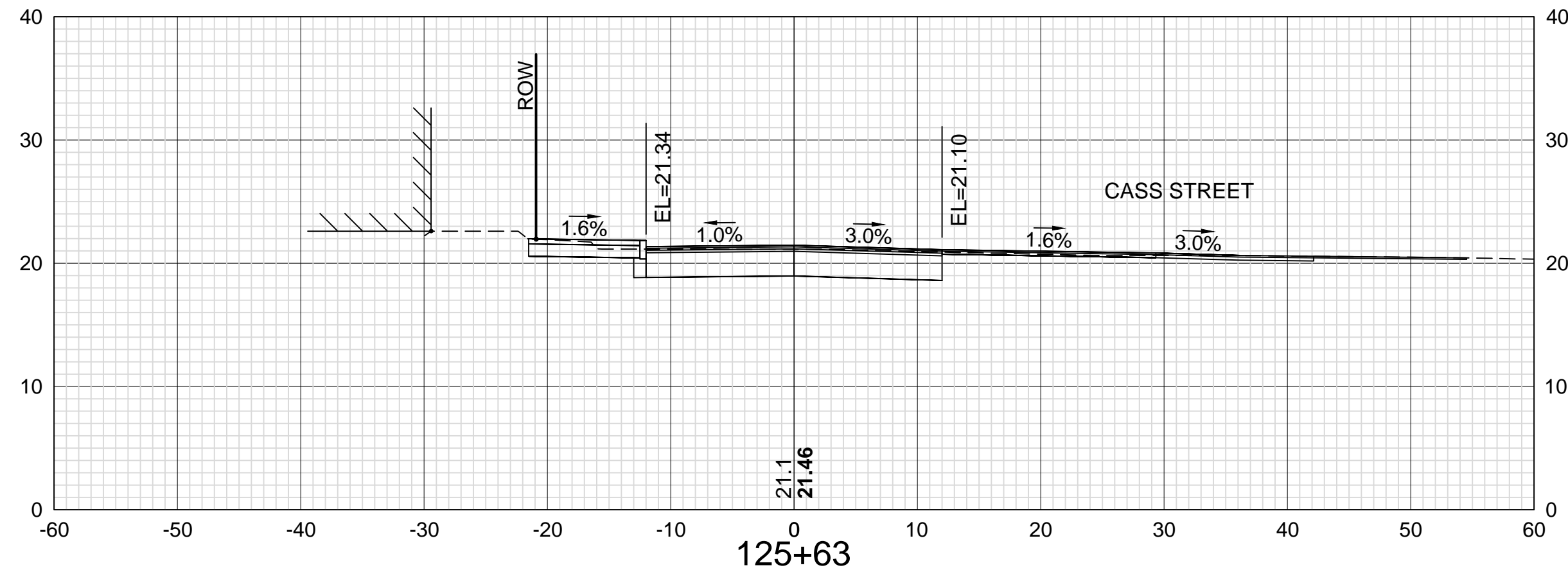
CROSS SECTIONS
ISLINGTON STREET

DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
XS-Seg1	7176	64	88



REVISIONS AFTER PROPOSAL	DESCRIPTION
	STATION
	STATION
	DATE
NUMBER	

SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	KMH	DATE	11/13/18
SHEET CHECKED	GLB	DATE	11/13/18
AS BUILT DETAILS		DATE	



DATE PLOTTED	VHB PROJECT NO.
13-Nov-18	52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1			
CITY OF PORTSMOUTH, NEW HAMPSHIRE			
CROSS SECTIONS			
ISLINGTON STREET			
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
XS-Seg1	7176	65	88



REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

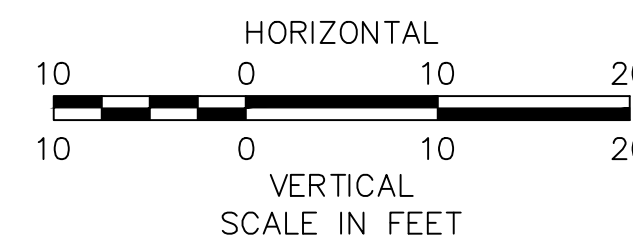
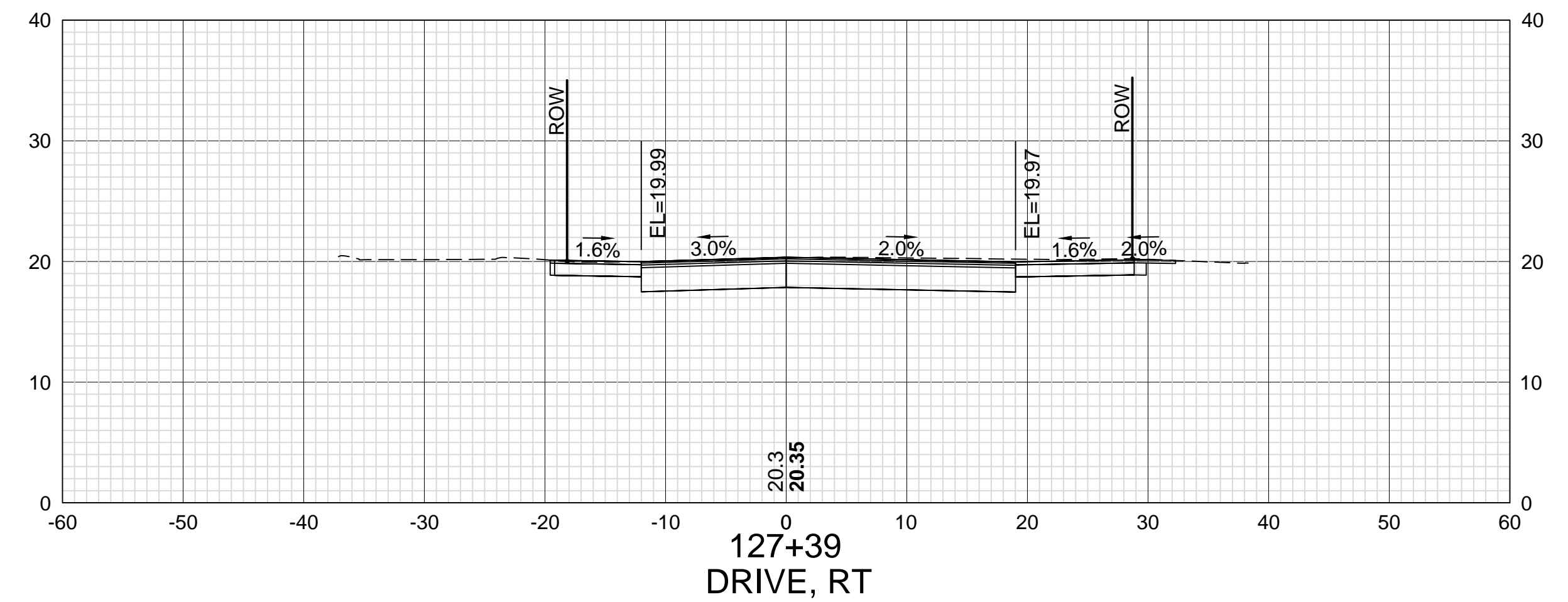
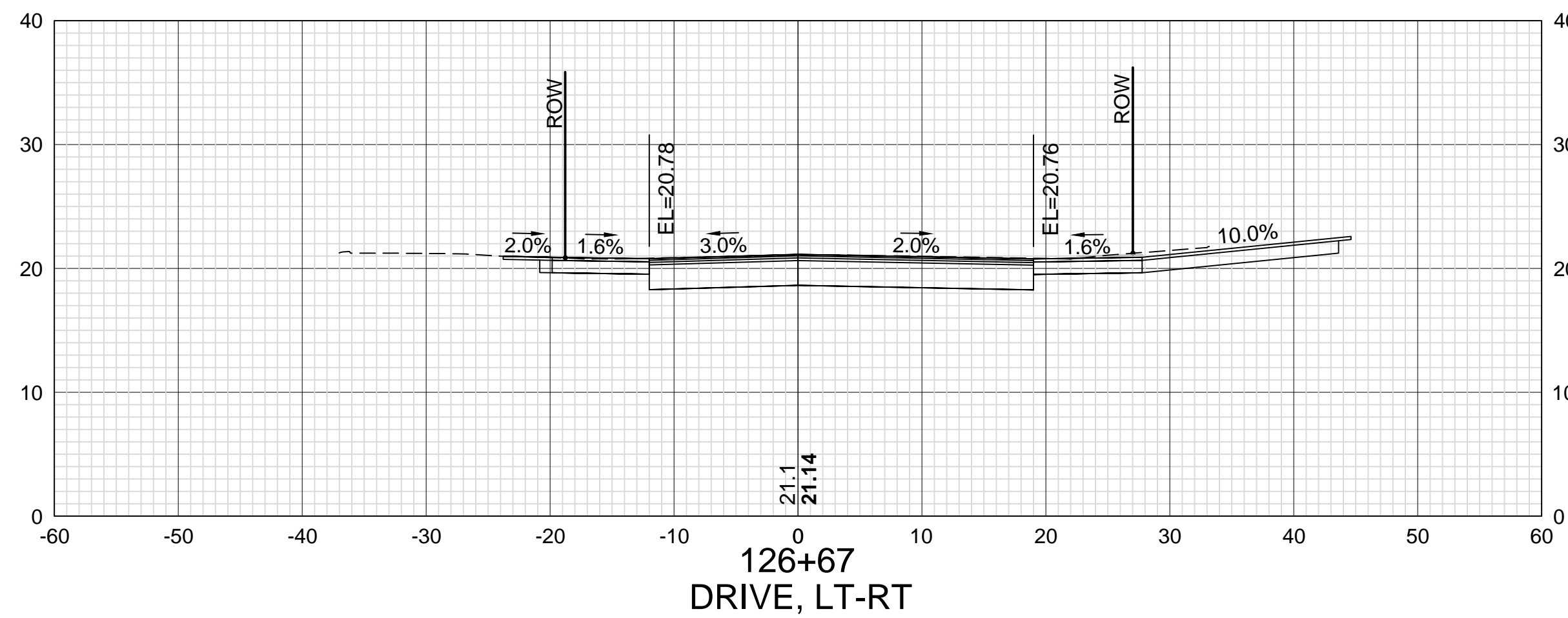
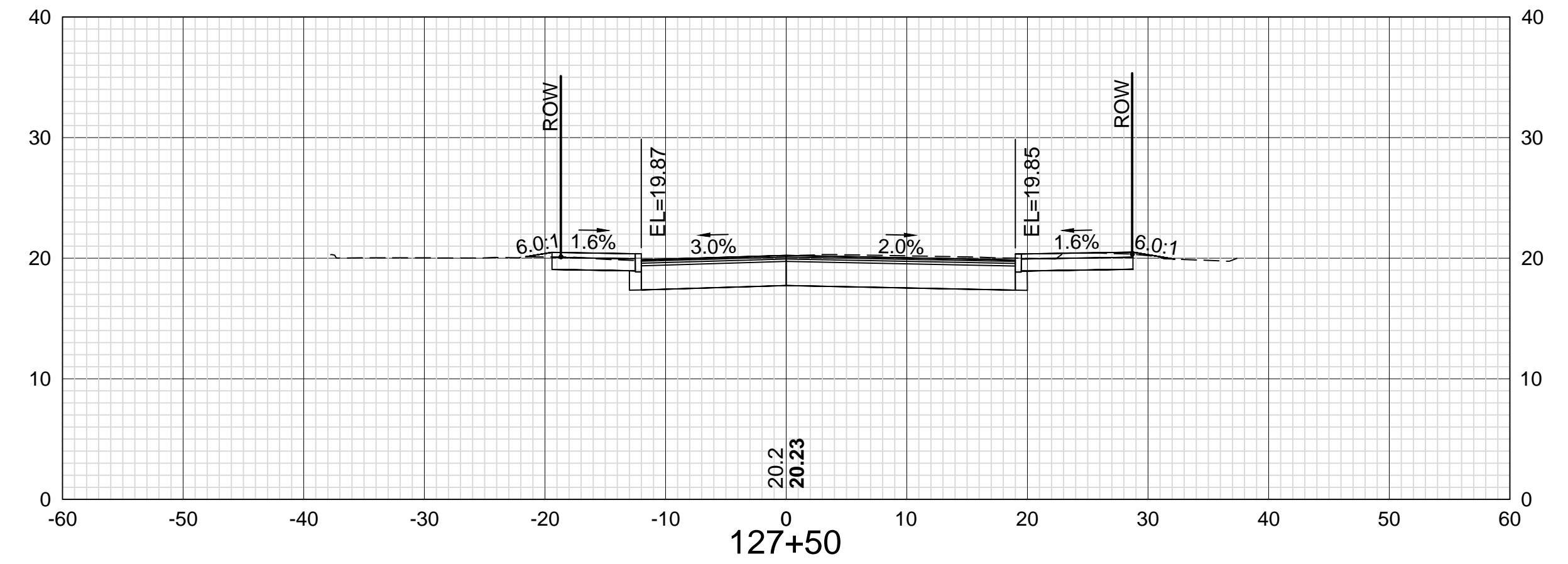
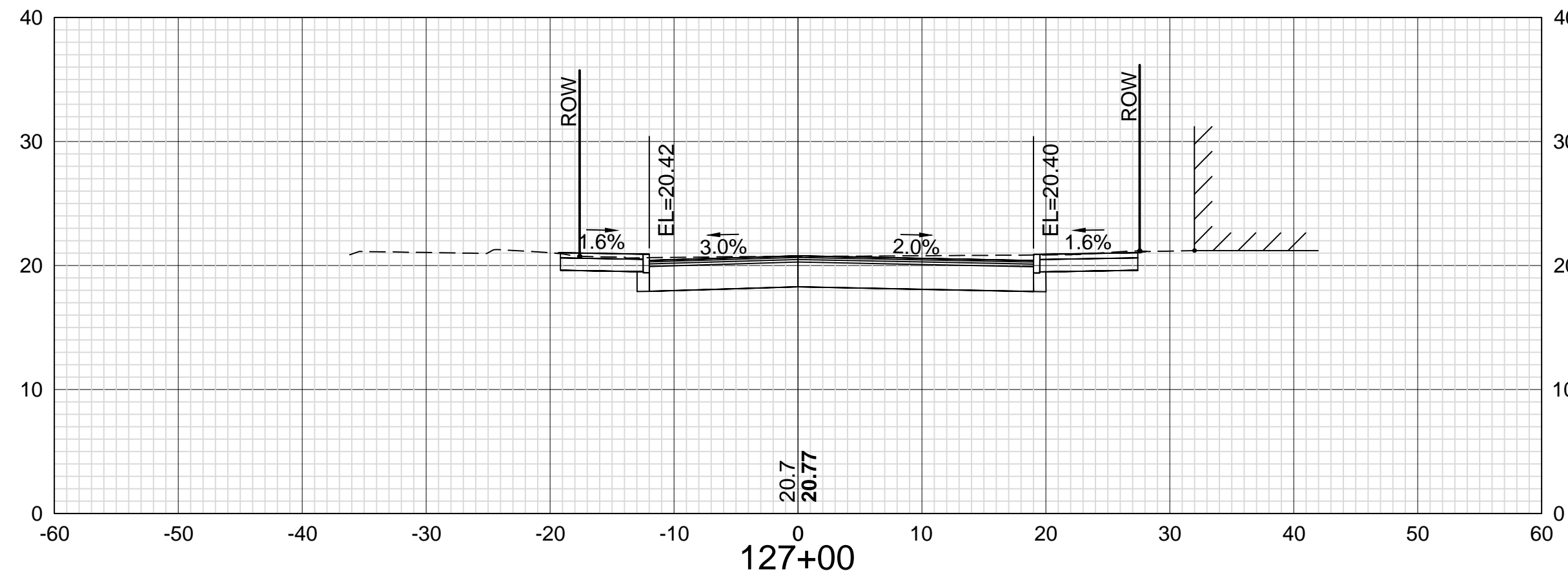
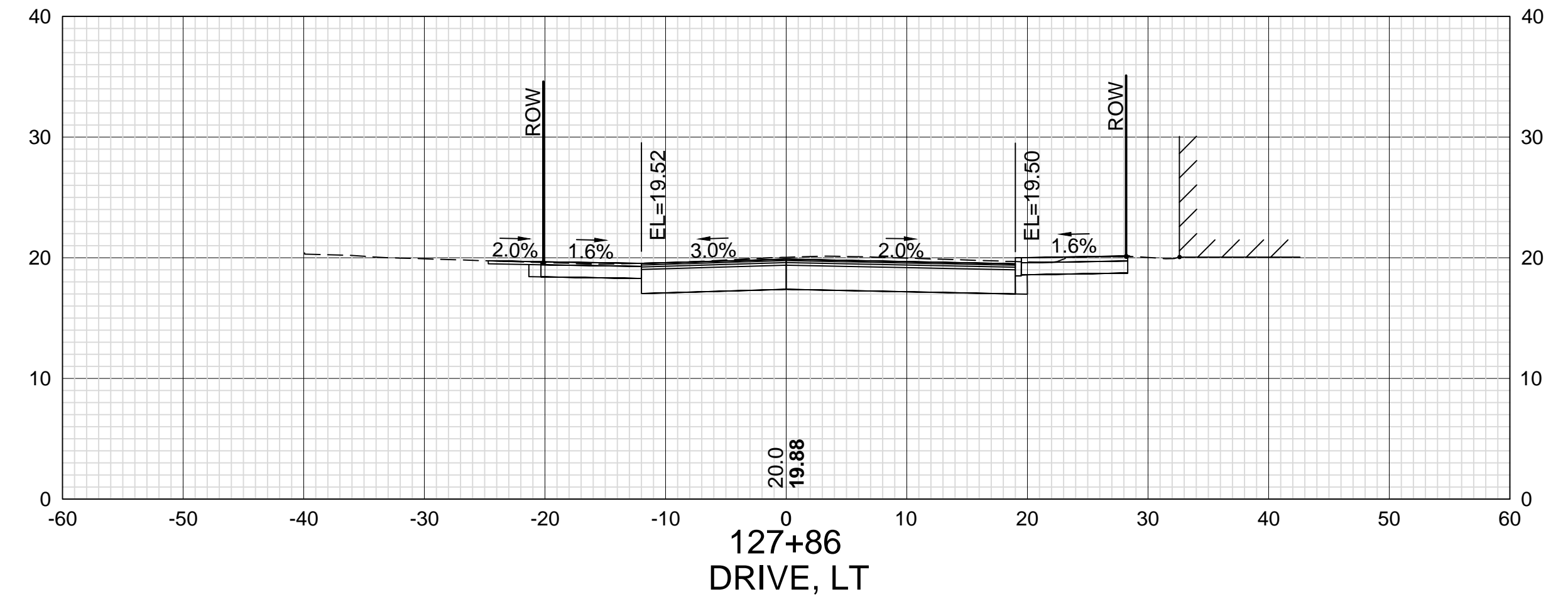
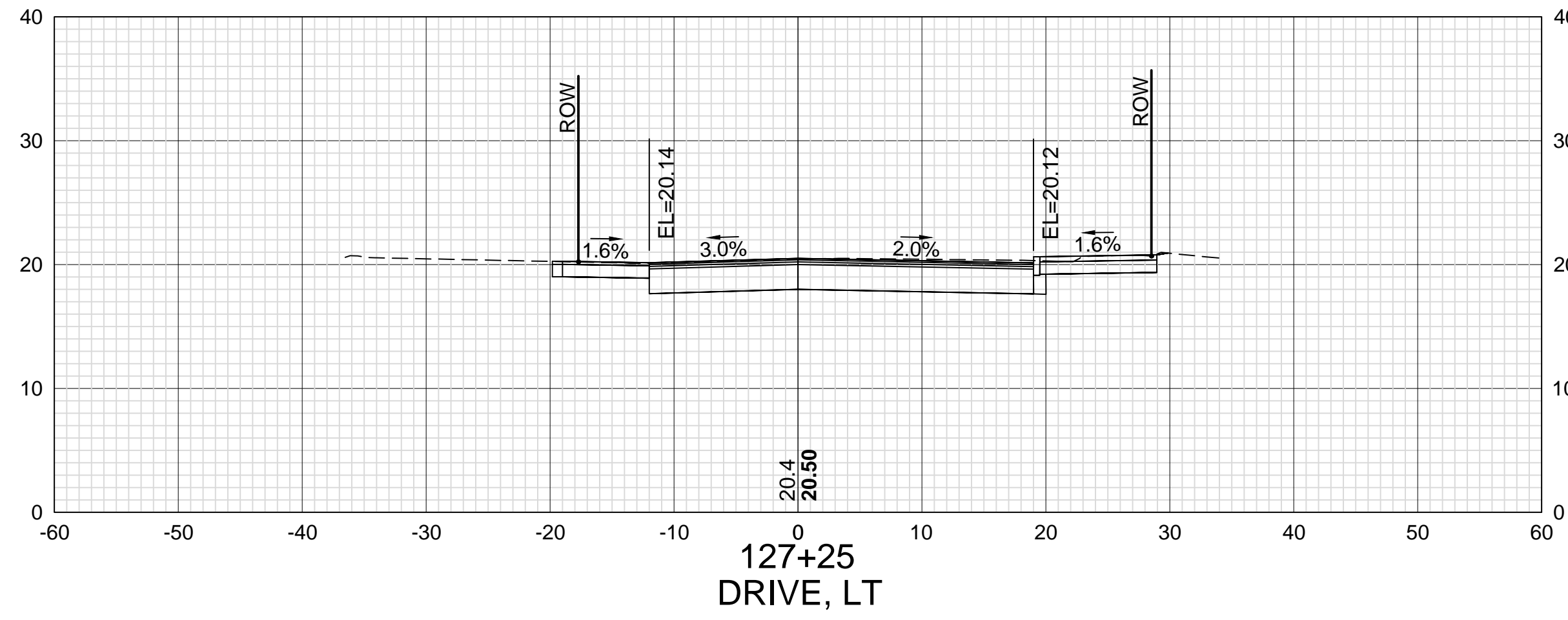
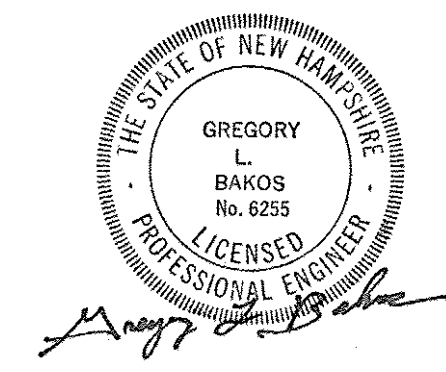
DATE

SDR PROCESSED VHB

NEW DESIGN KMH

SHEET CHECKED GLB

AS BUILT DETAILS



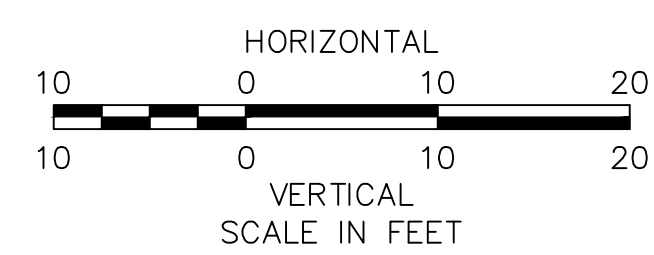
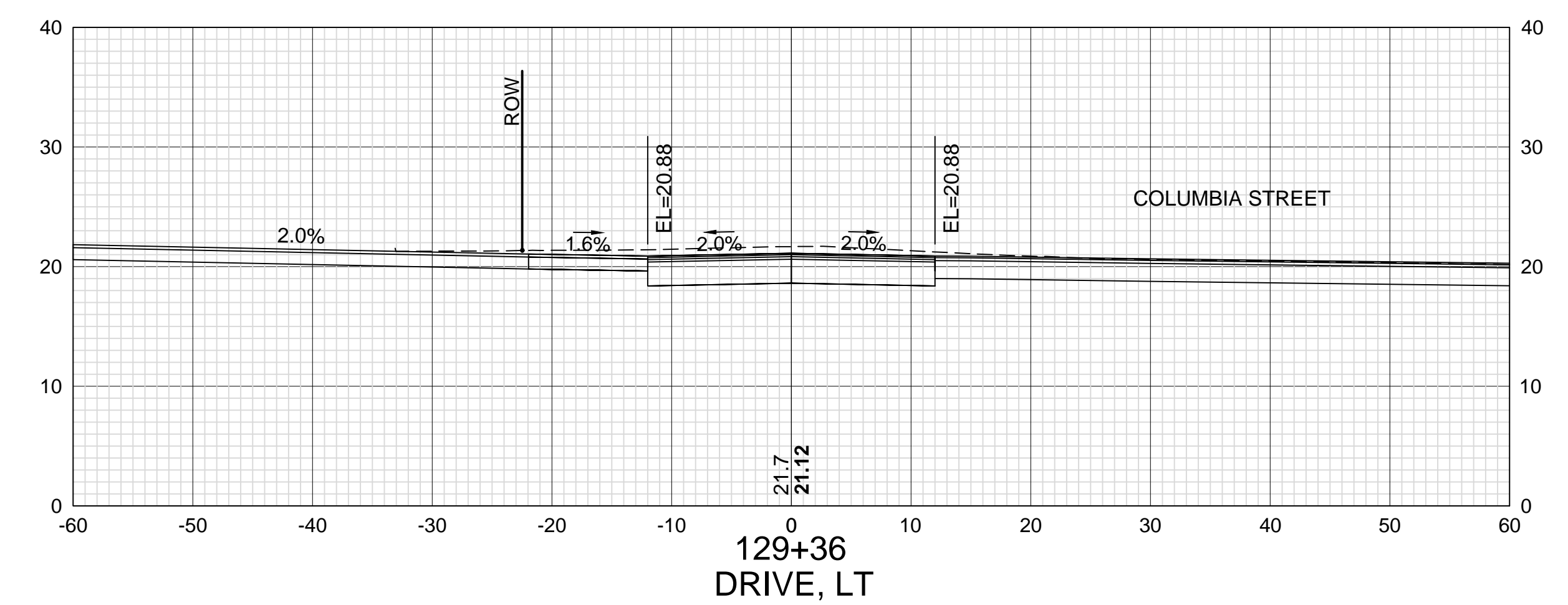
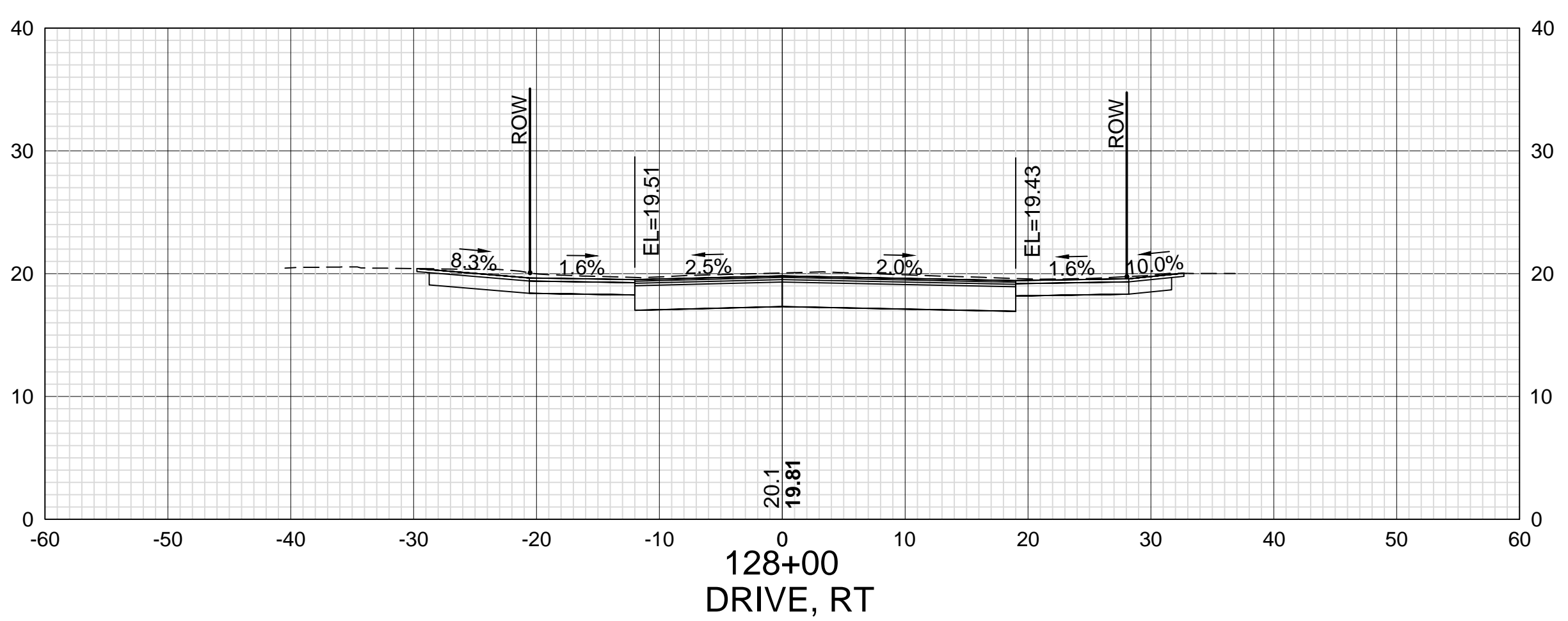
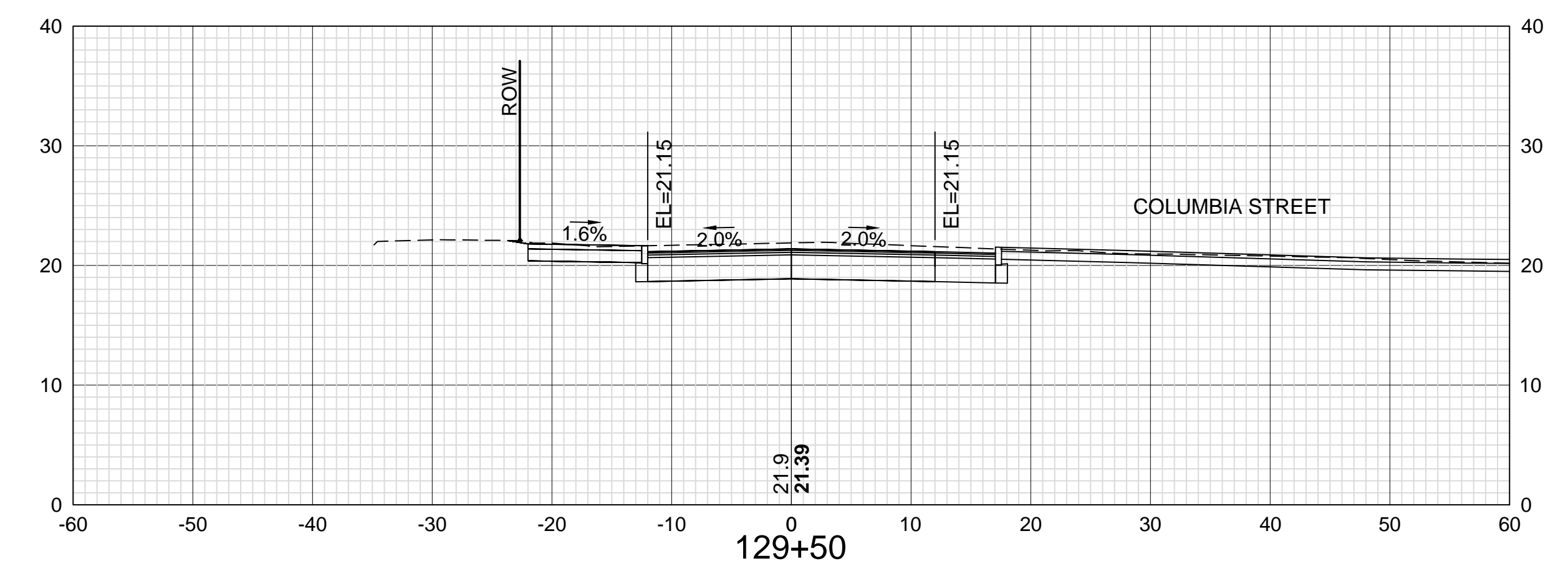
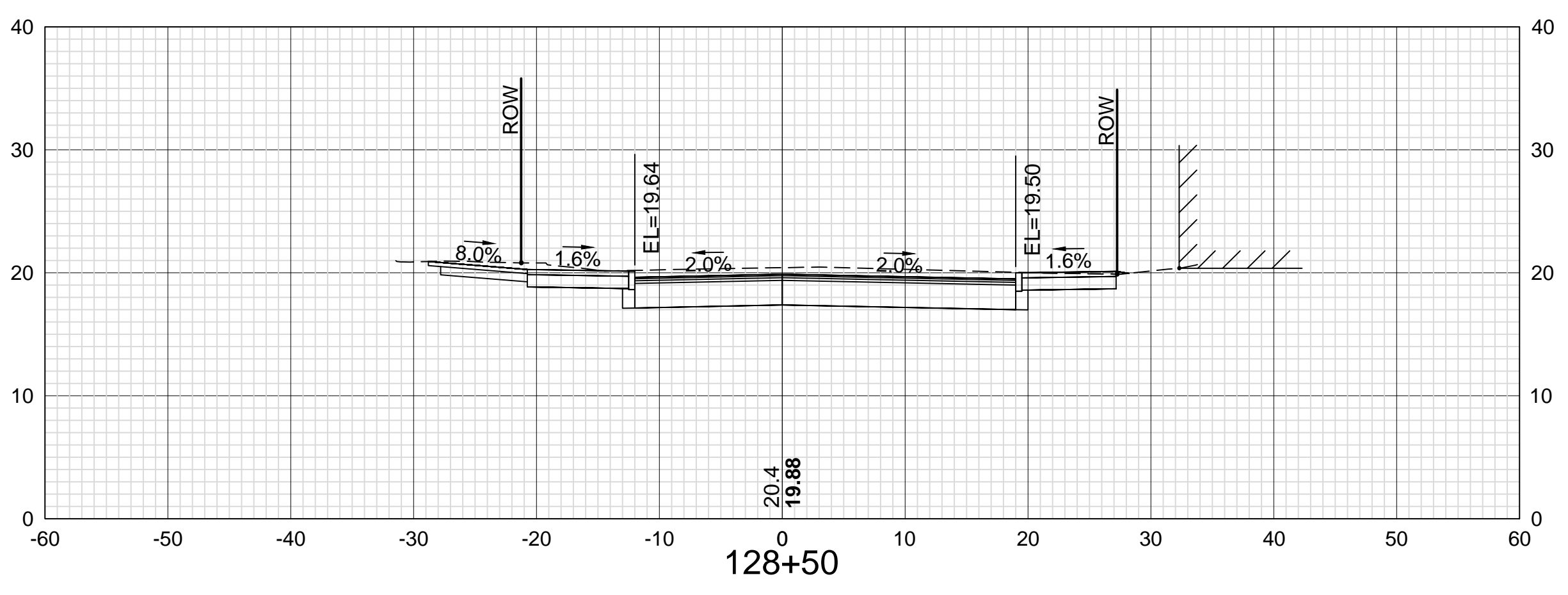
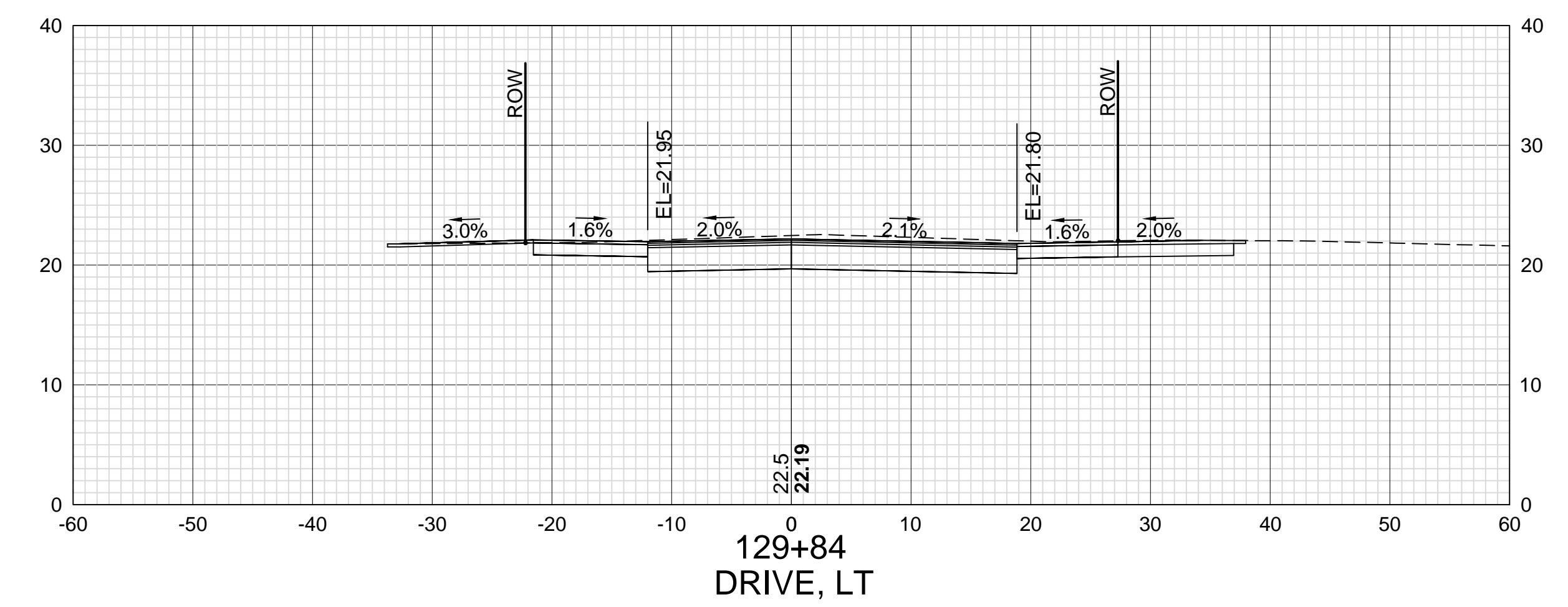
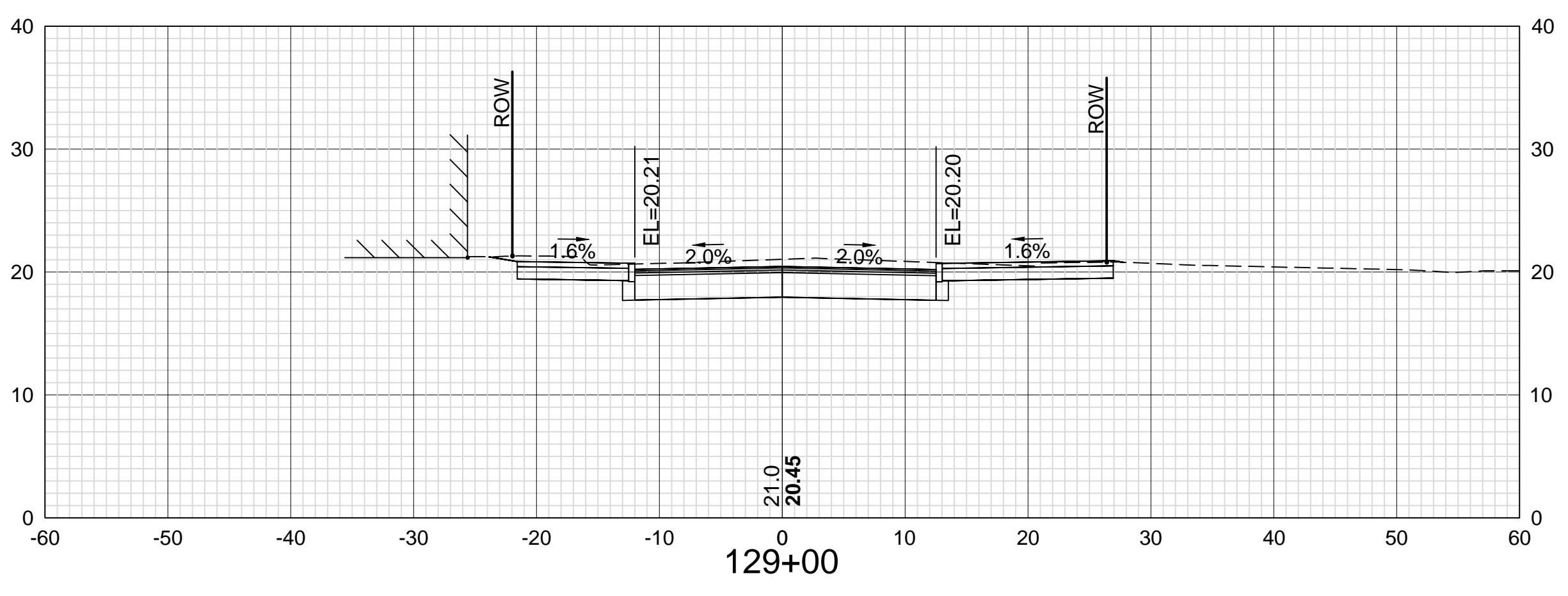
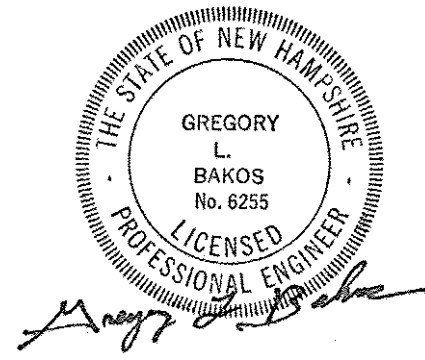
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	XS-Seg1	7176	66	88

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

CROSS SECTIONS
ISLINGTON STREET

SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	KMH	DATE	11/13/18
SHEET CHECKED	GLB	DATE	11/13/18
AS BUILT DETAILS		DATE	

REVISIONS AFTER PROPOSAL	STATION	DATE	NUMBER

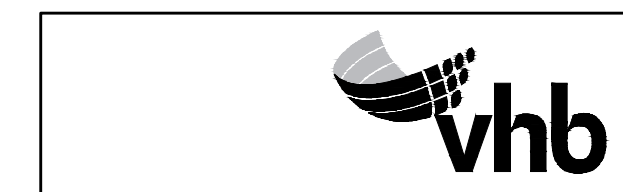
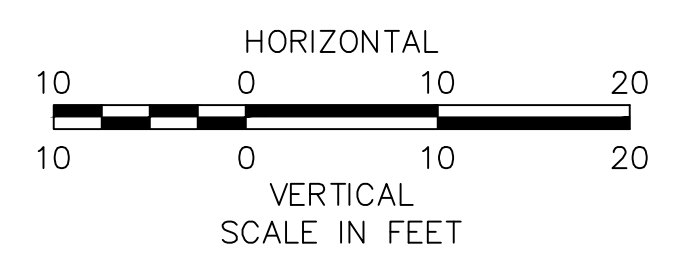
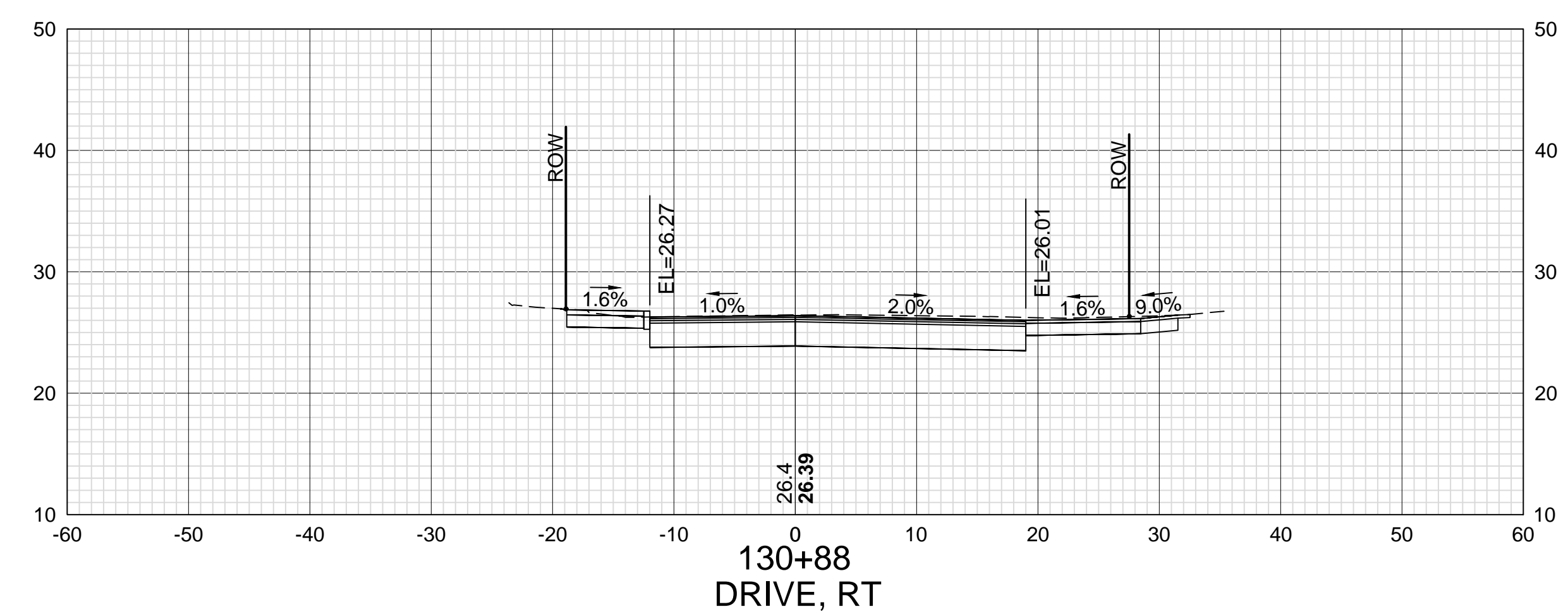
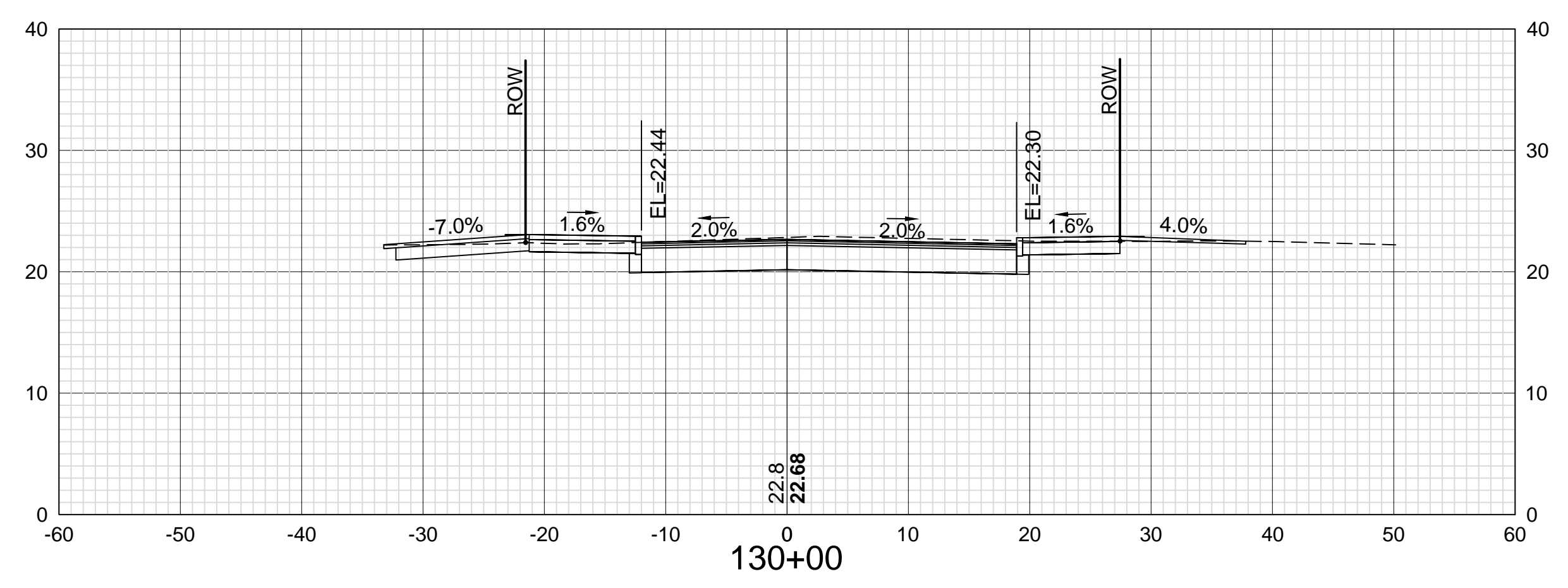
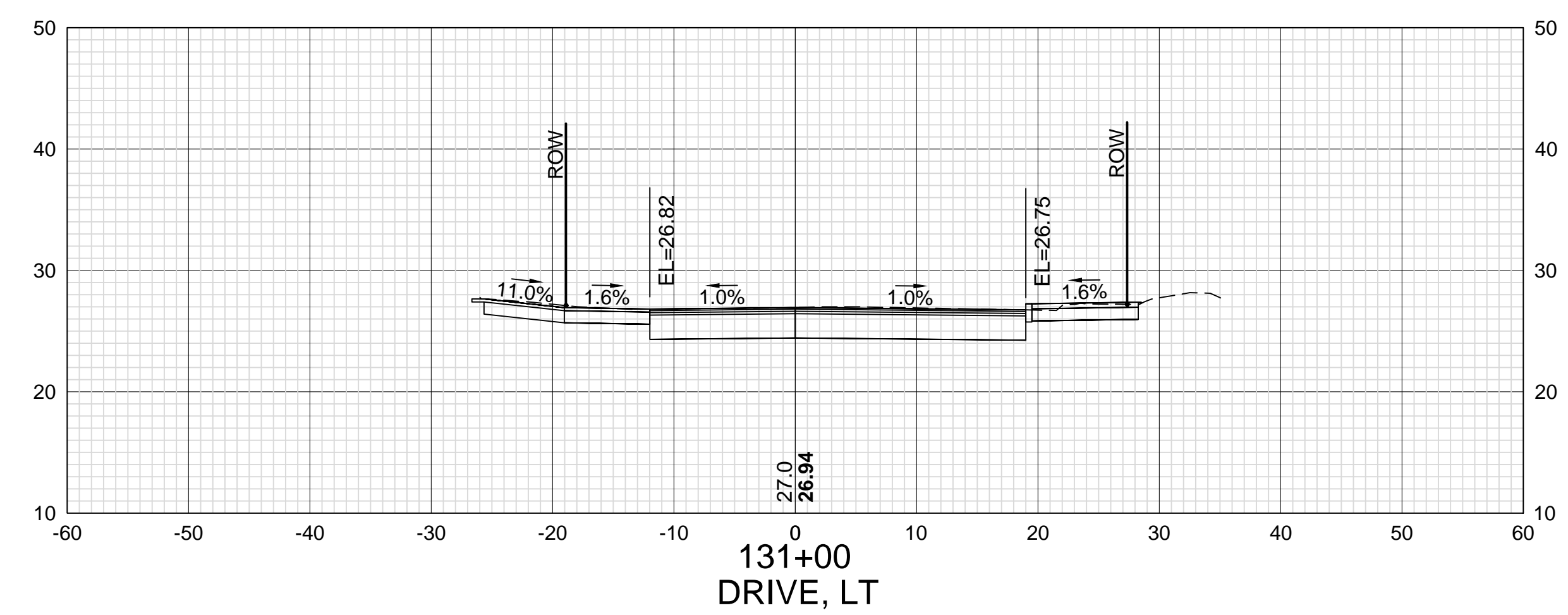
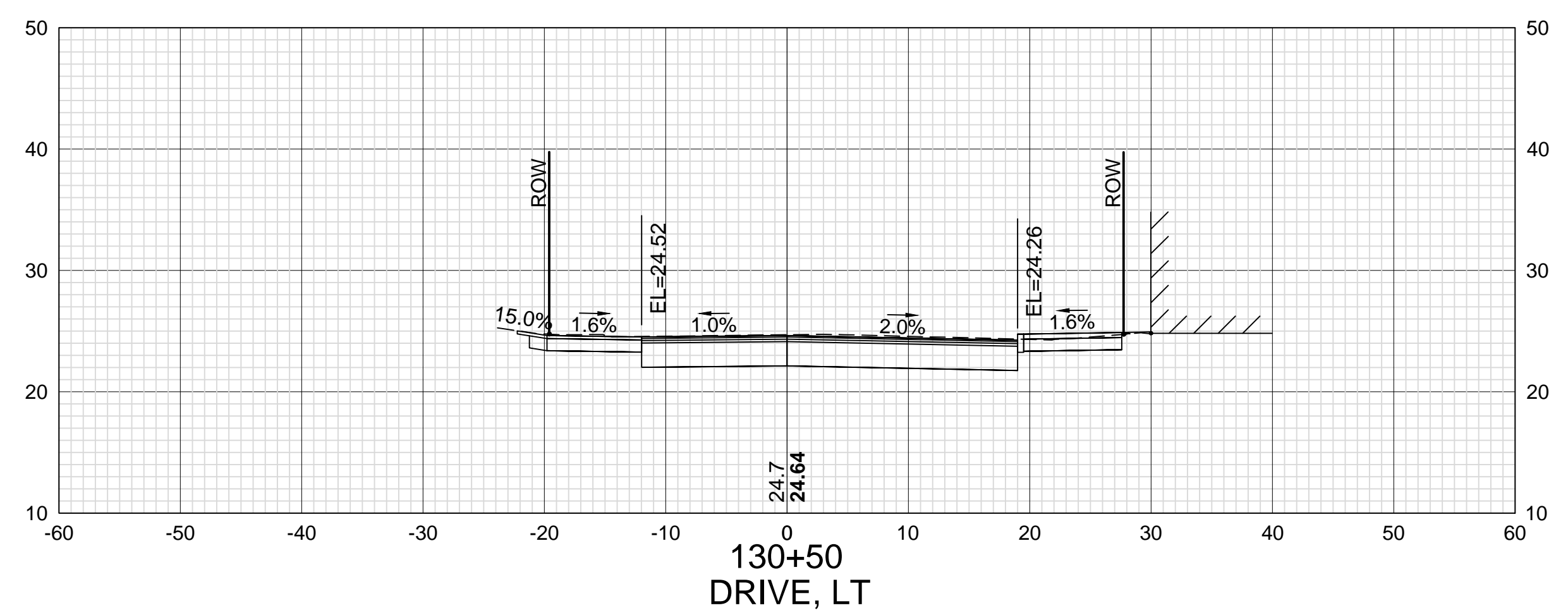
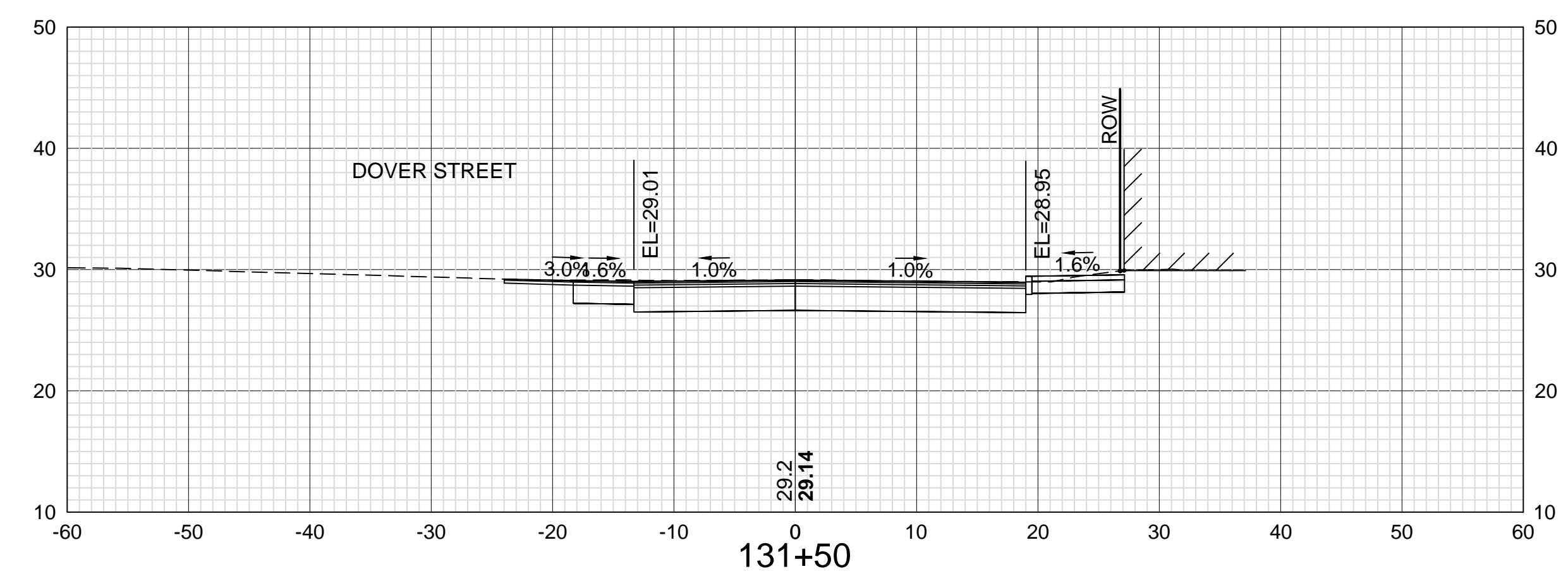
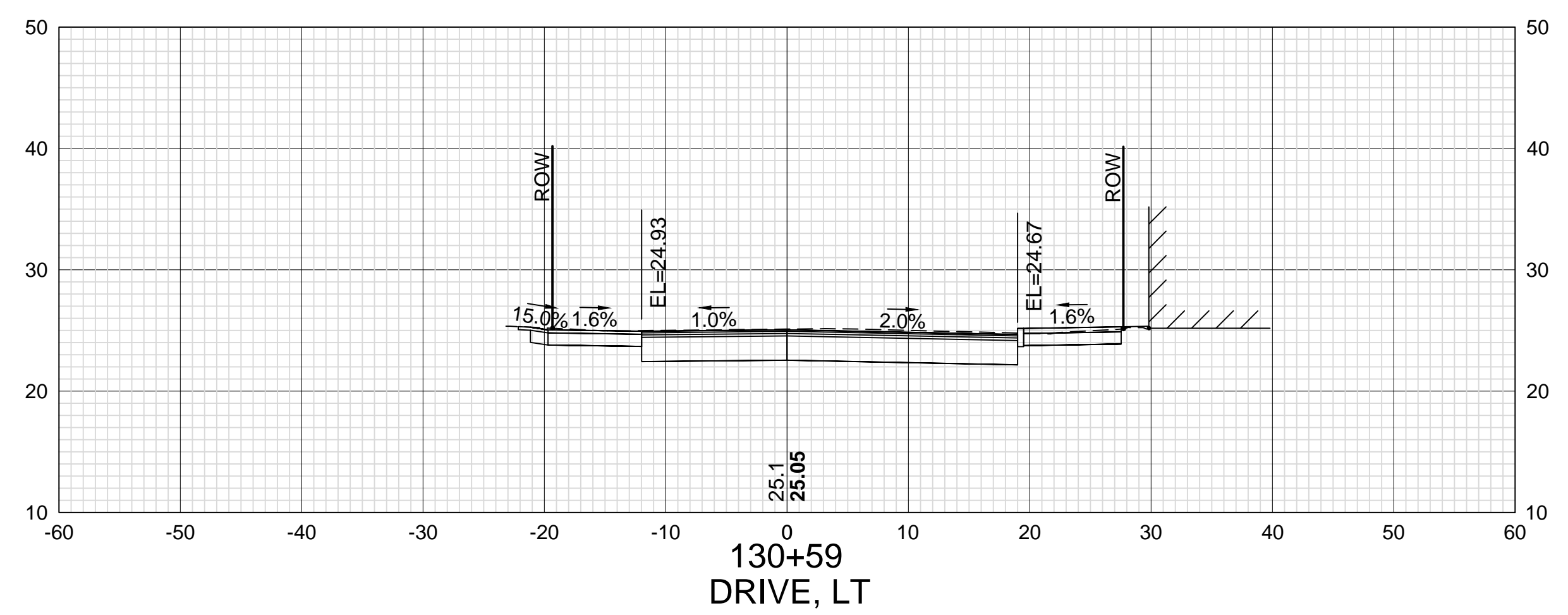
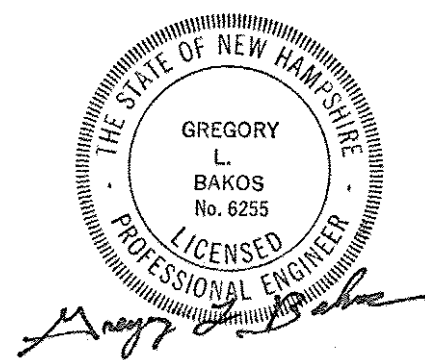


DATE PLOTTED	VHB PROJECT NO.
13-Nov-18	52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1			
CITY OF PORTSMOUTH, NEW HAMPSHIRE			
CROSS SECTIONS			
ISLINGTON STREET			
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
XS-Seg1	7176	67	88

REVISIONS AFTER PROPOSAL	
NUMBER	DATE
STATION	DESCRIPTION

SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	KMH	DATE	11/13/18
SHEET CHECKED	GLB	DATE	11/13/18
AS BUILT DETAILS		DATE	



DATE PLOTTED	VHB PROJECT NO.
13-Nov-18	52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1				
CITY OF PORTSMOUTH, NEW HAMPSHIRE				
CROSS SECTIONS				
ISLINGTON STREET				
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS	
XS-Seg1	7176	68	88	

REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

DATE

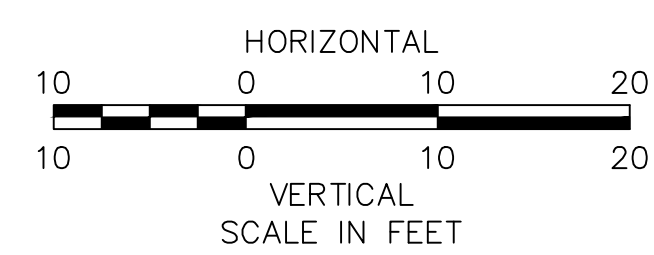
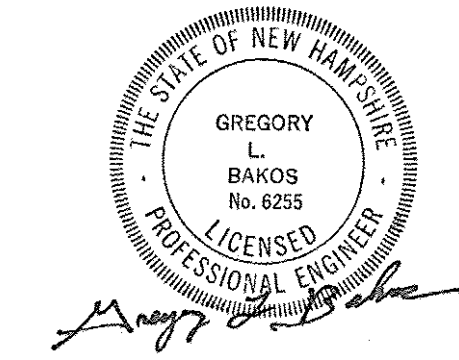
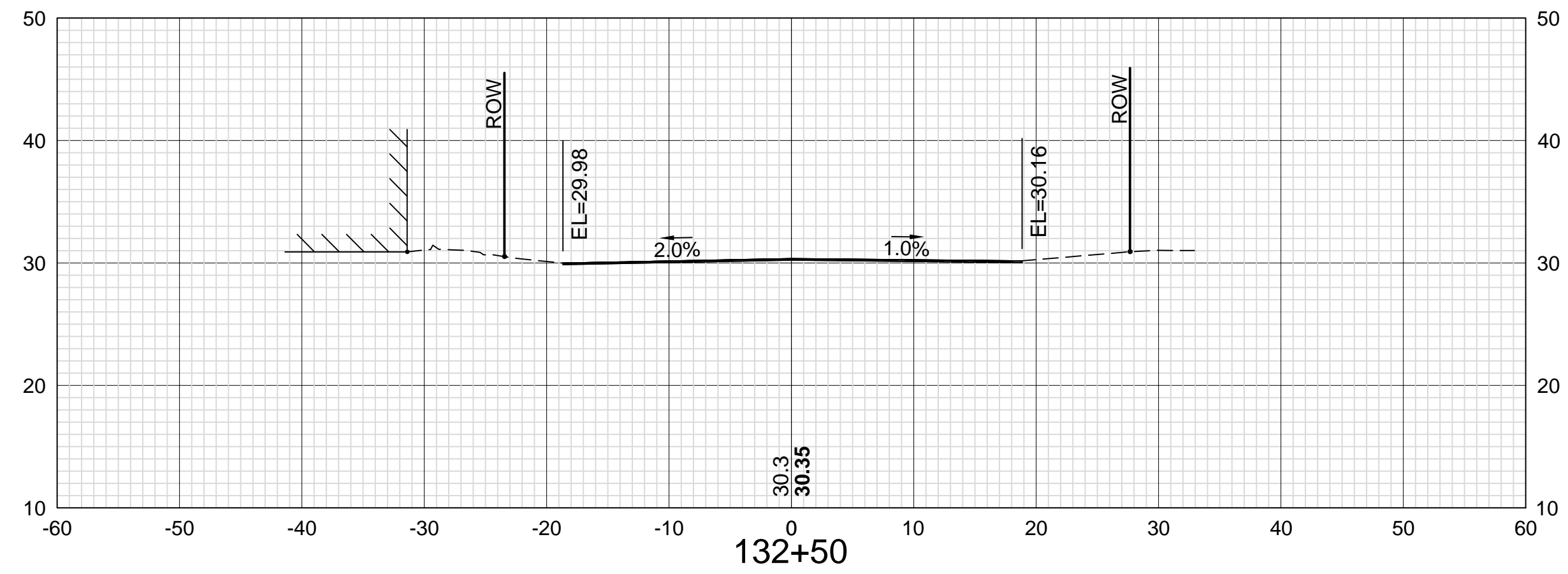
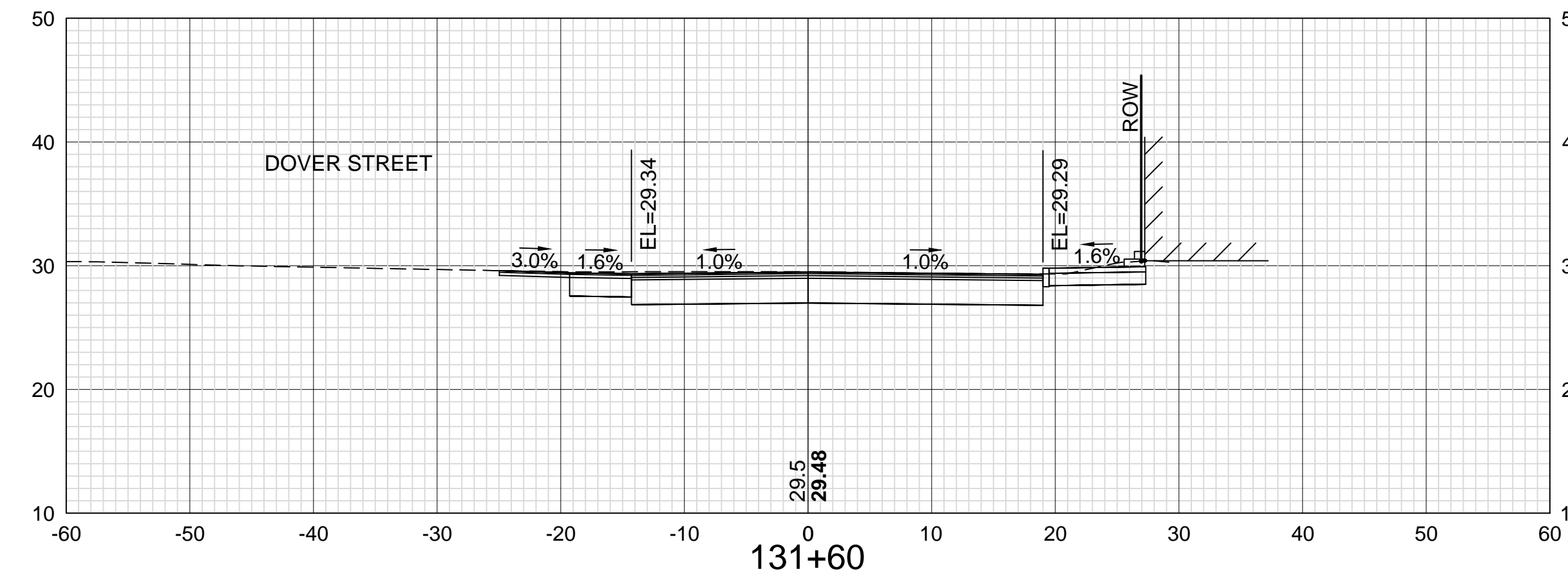
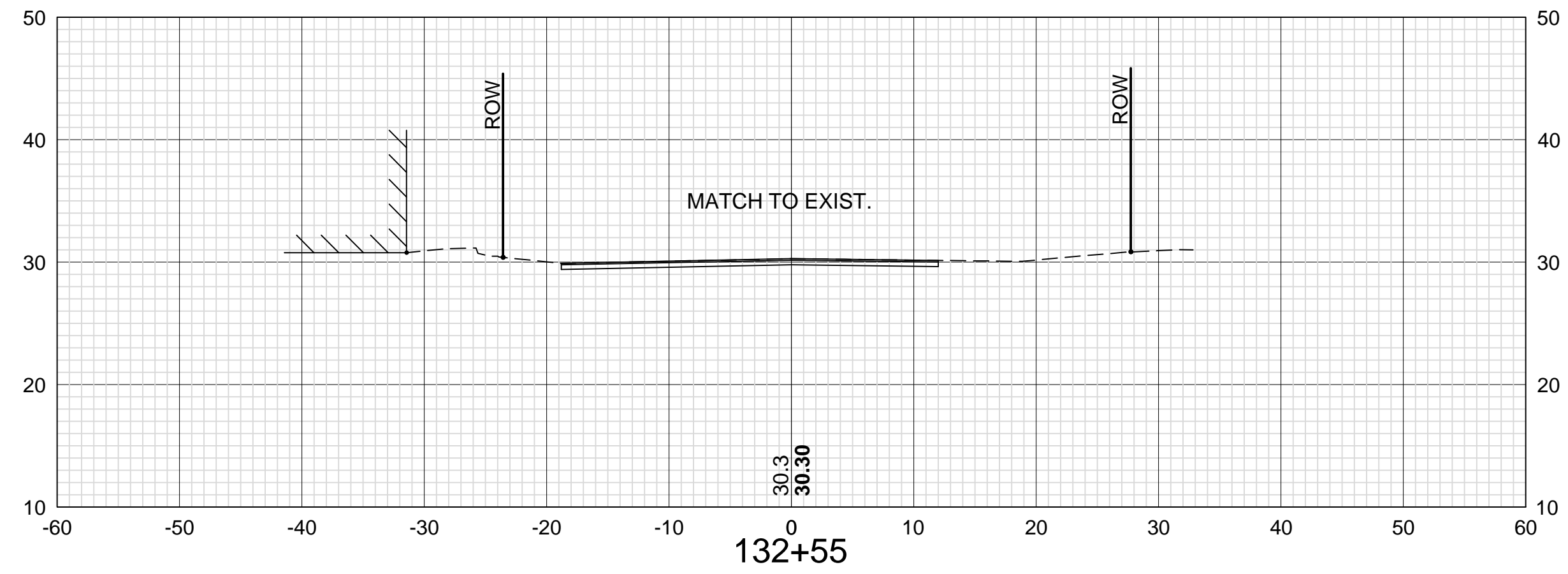
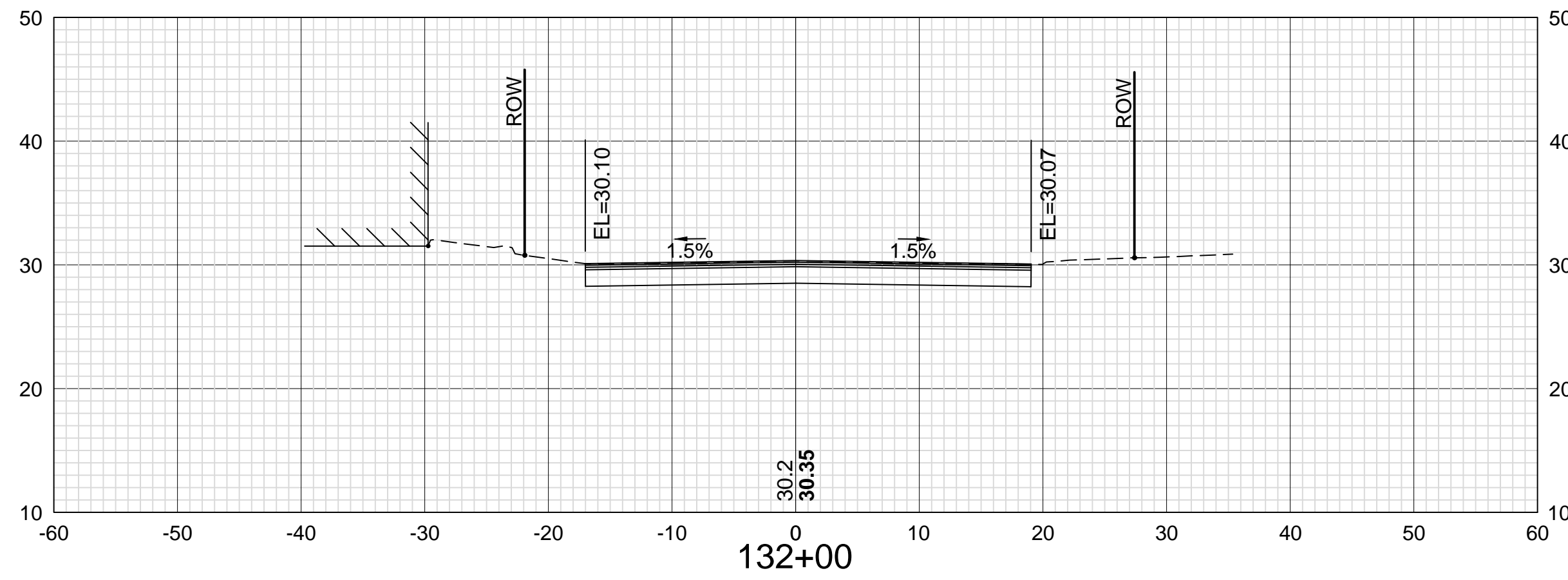
SDR PROCESSED VHB
NEW DESIGN KMH
SHEET CHECKED GJB
AS BUILT DETAILS

DESCRIPTION	STATION	DATE	NUMBER

DATE

DATE

DATE



DATE PLOTTED	VHB PROJECT NO.
13-Nov-18	52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1				
CITY OF PORTSMOUTH, NEW HAMPSHIRE				
CROSS SECTIONS				
COLUMBIA COURT				
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS	
XS-Seg1	7176	69	88	



REVISIONS AFTER PROPOSAL

DESCRIPTION

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

SDR PROCESSED

NEW DESIGN

SHEET CHECKED

AS BUILT DETAILS

VHB

KMH

GLB

OCT 2017

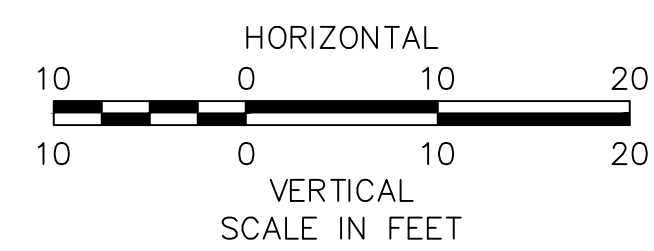
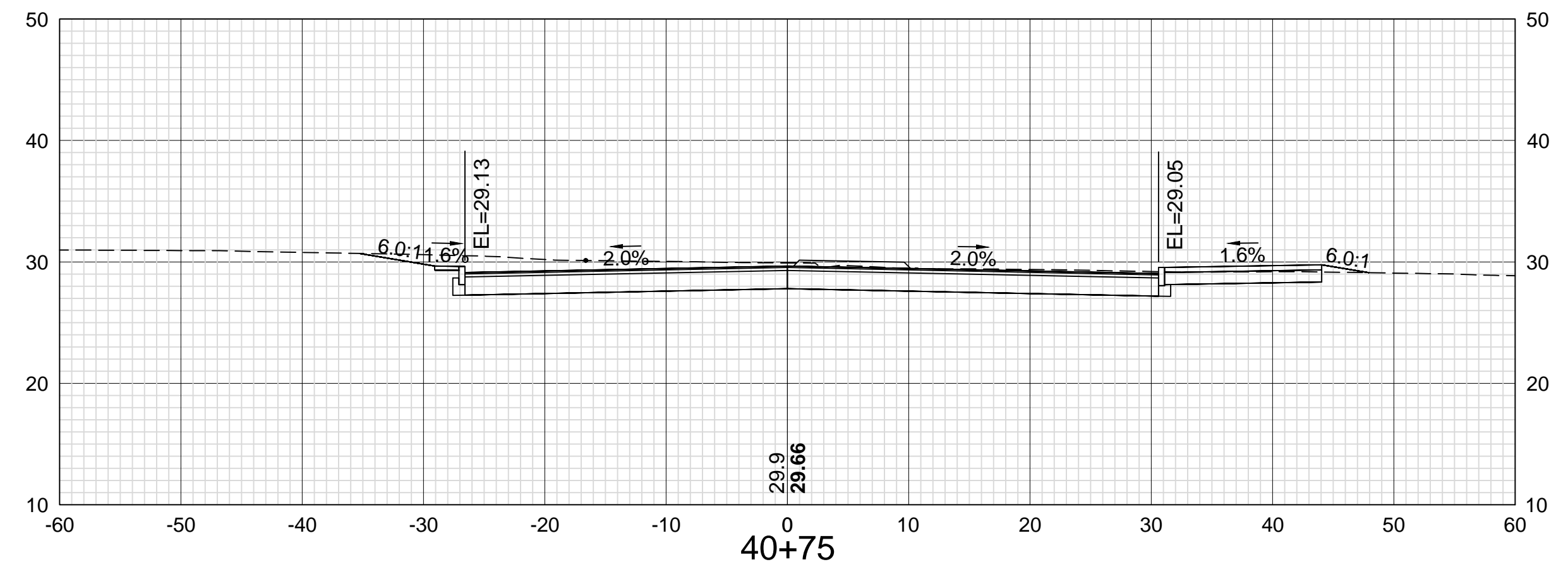
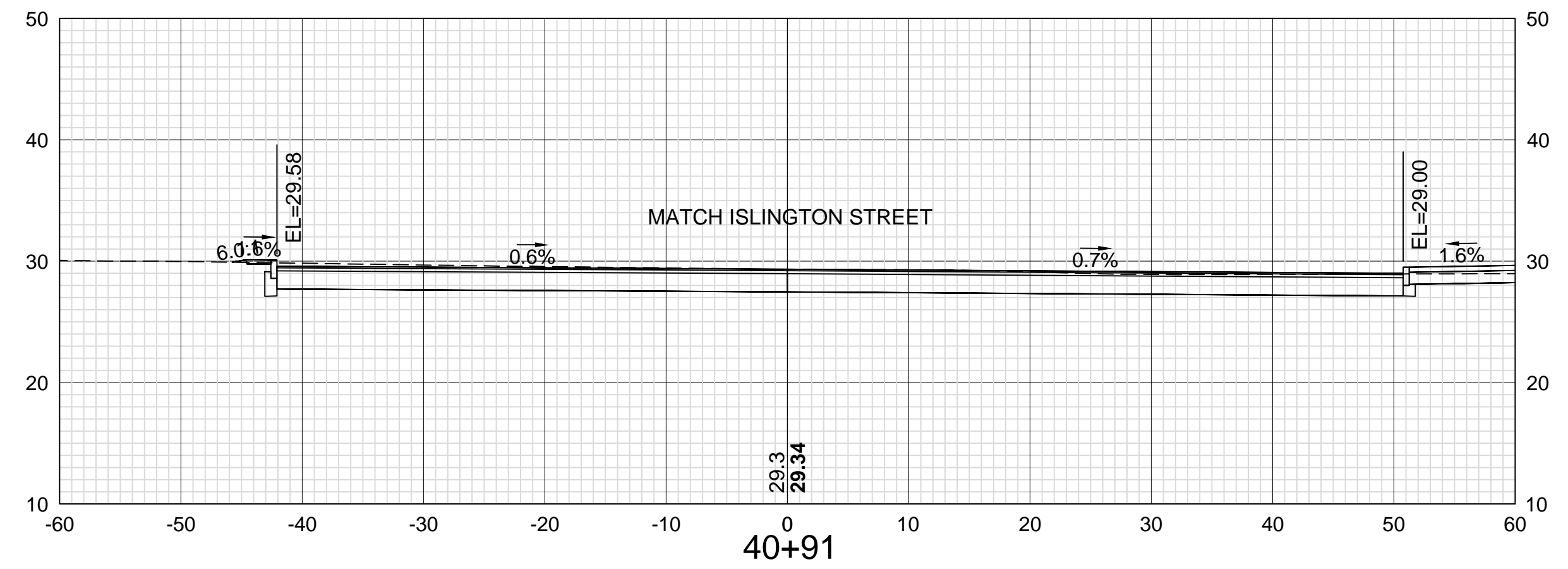
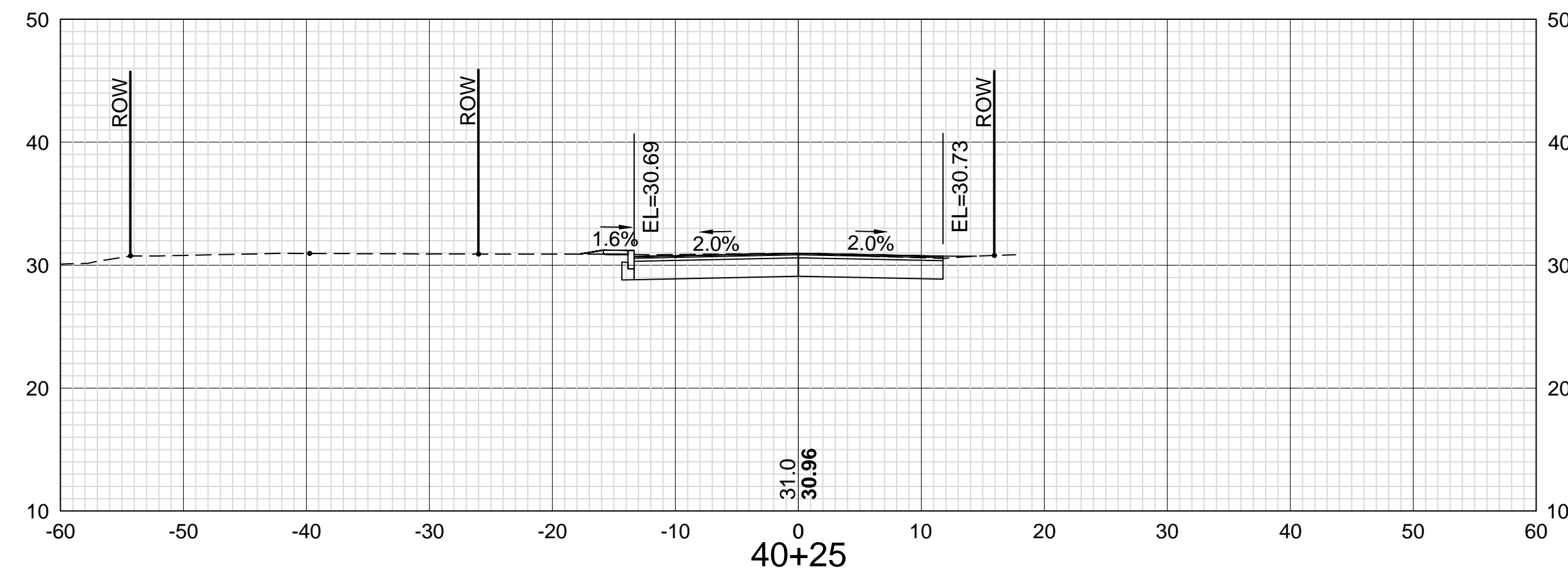
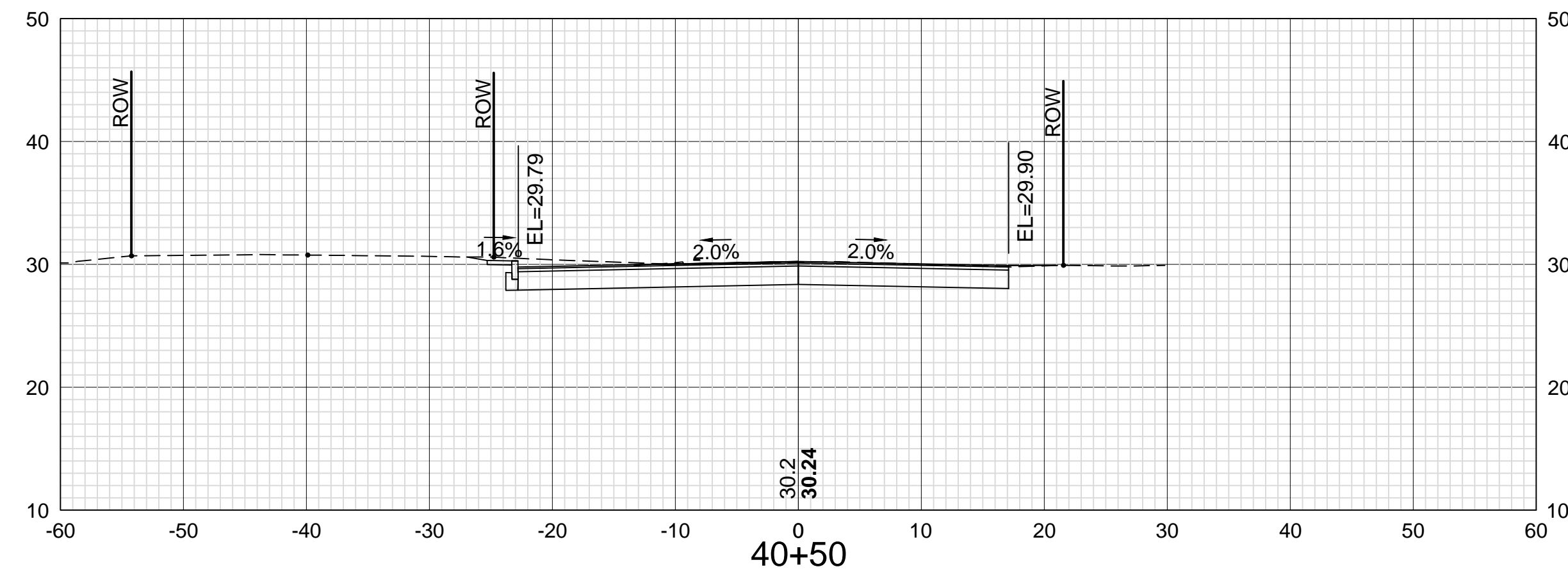
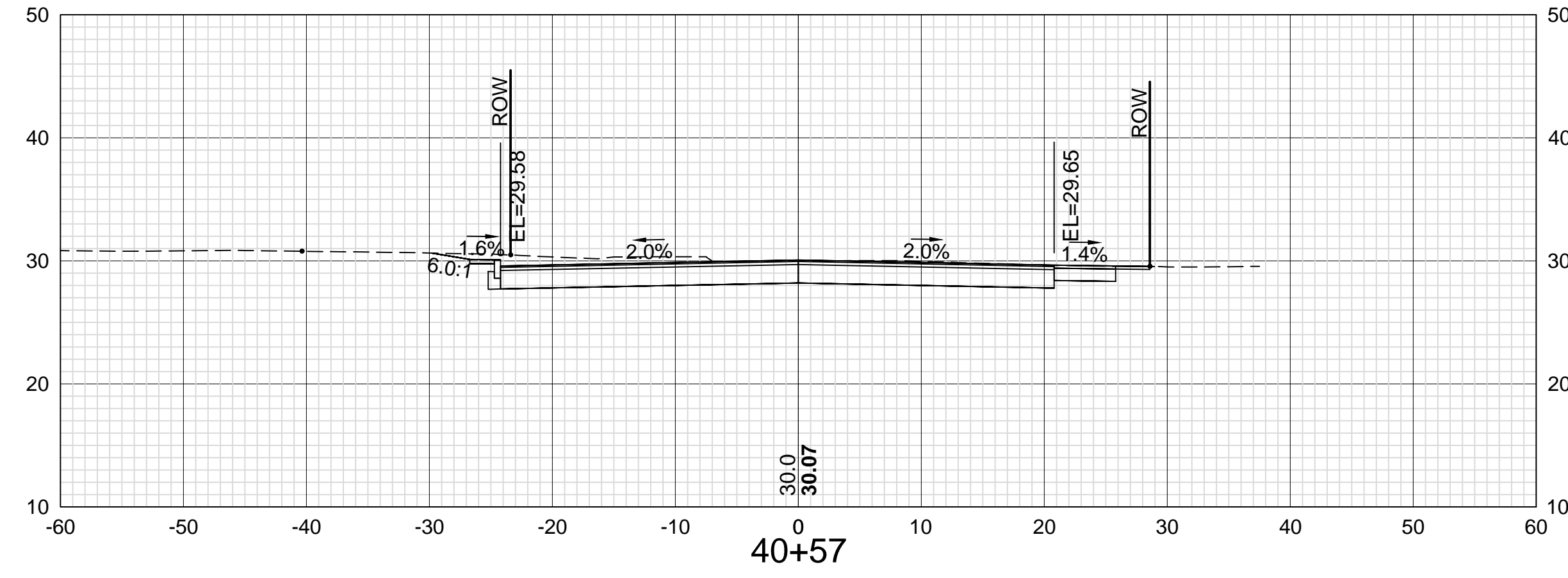
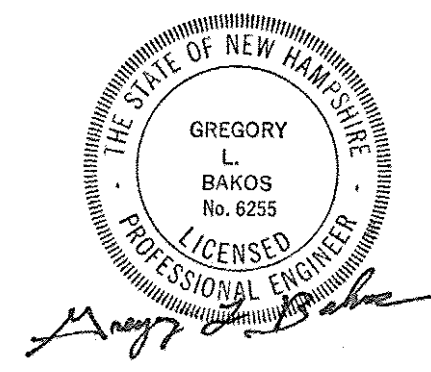
11/13/18

11/13/18

DATE

DATE

DATE



DATE PLOTTED
13-Nov-18

VHB PROJECT NO.
52393.00

DRAWING
XS-Seg1

CITY PROJECT NO.
7176

SHEET NO.
70

TOTAL SHEETS
88

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

CROSS SECTIONS
SPINNEY ROAD

REVISIONS AFTER PROPOSAL

DESCRIPTION

STATION

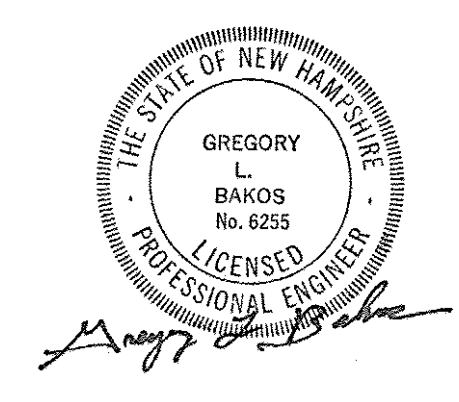
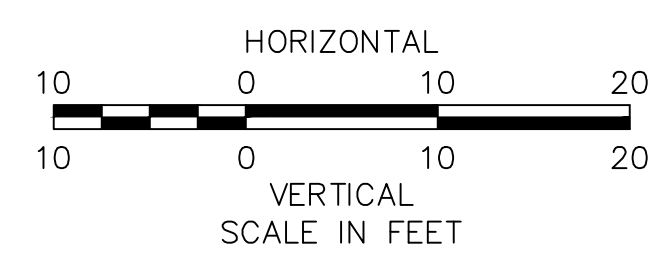
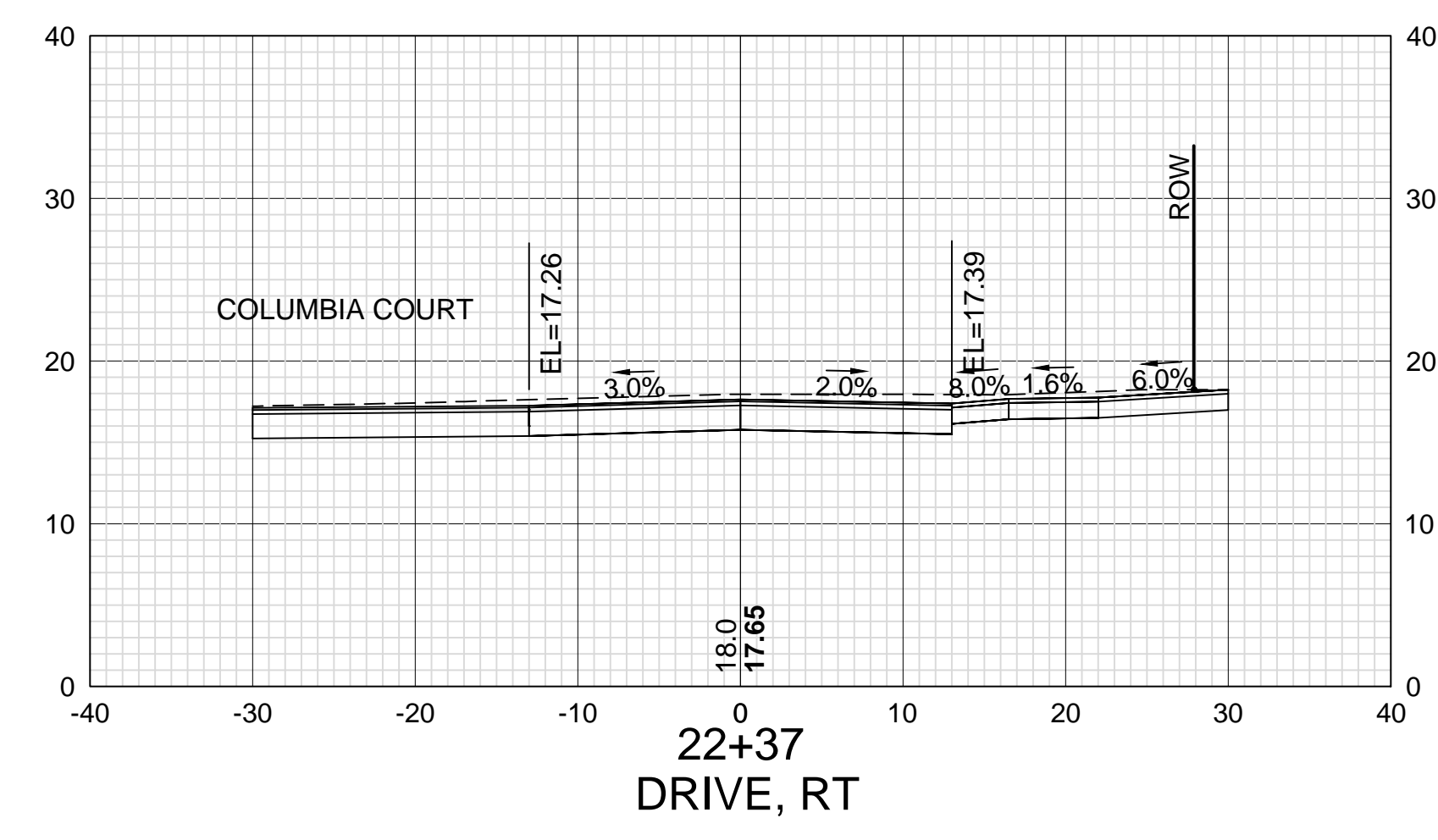
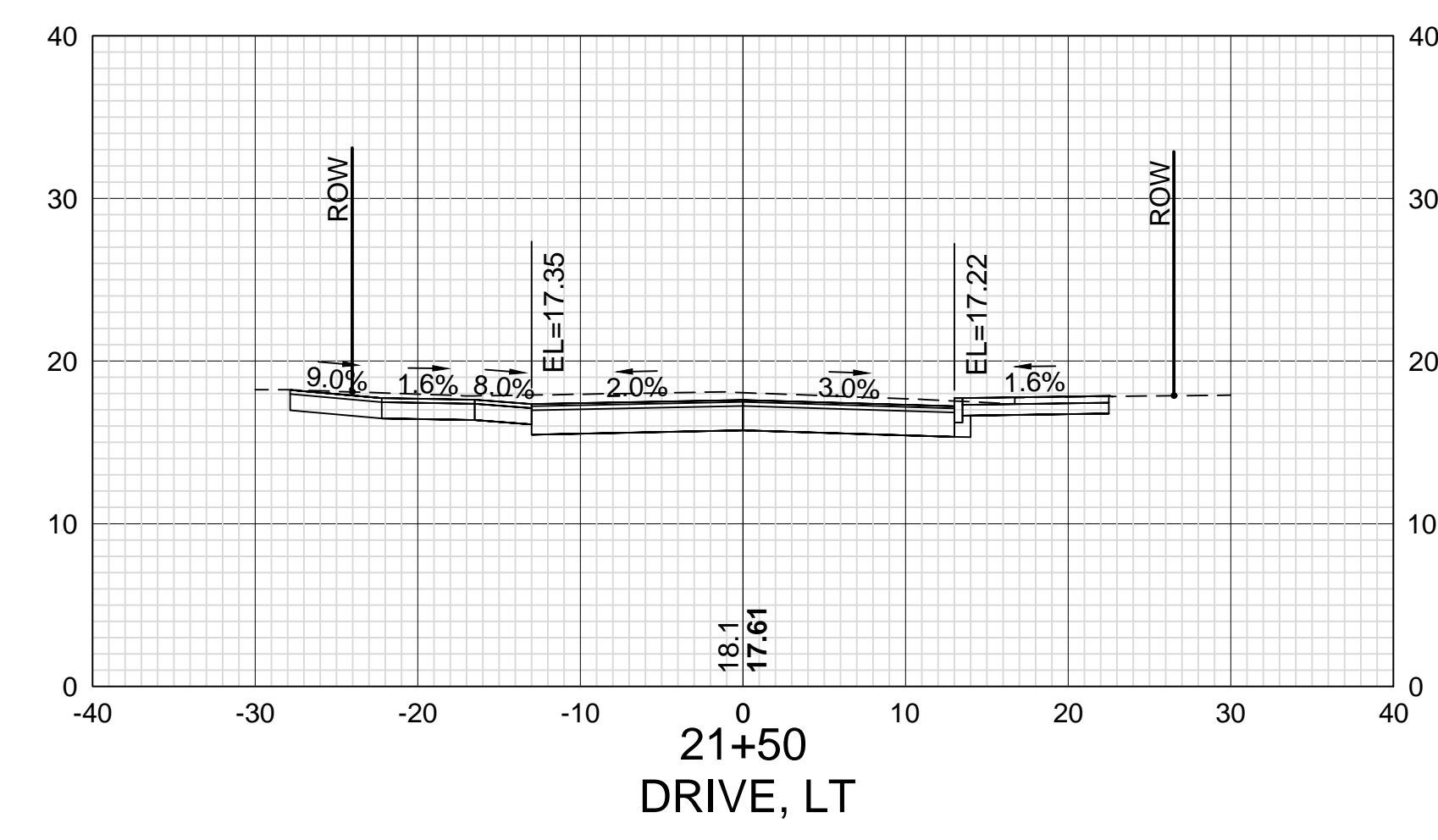
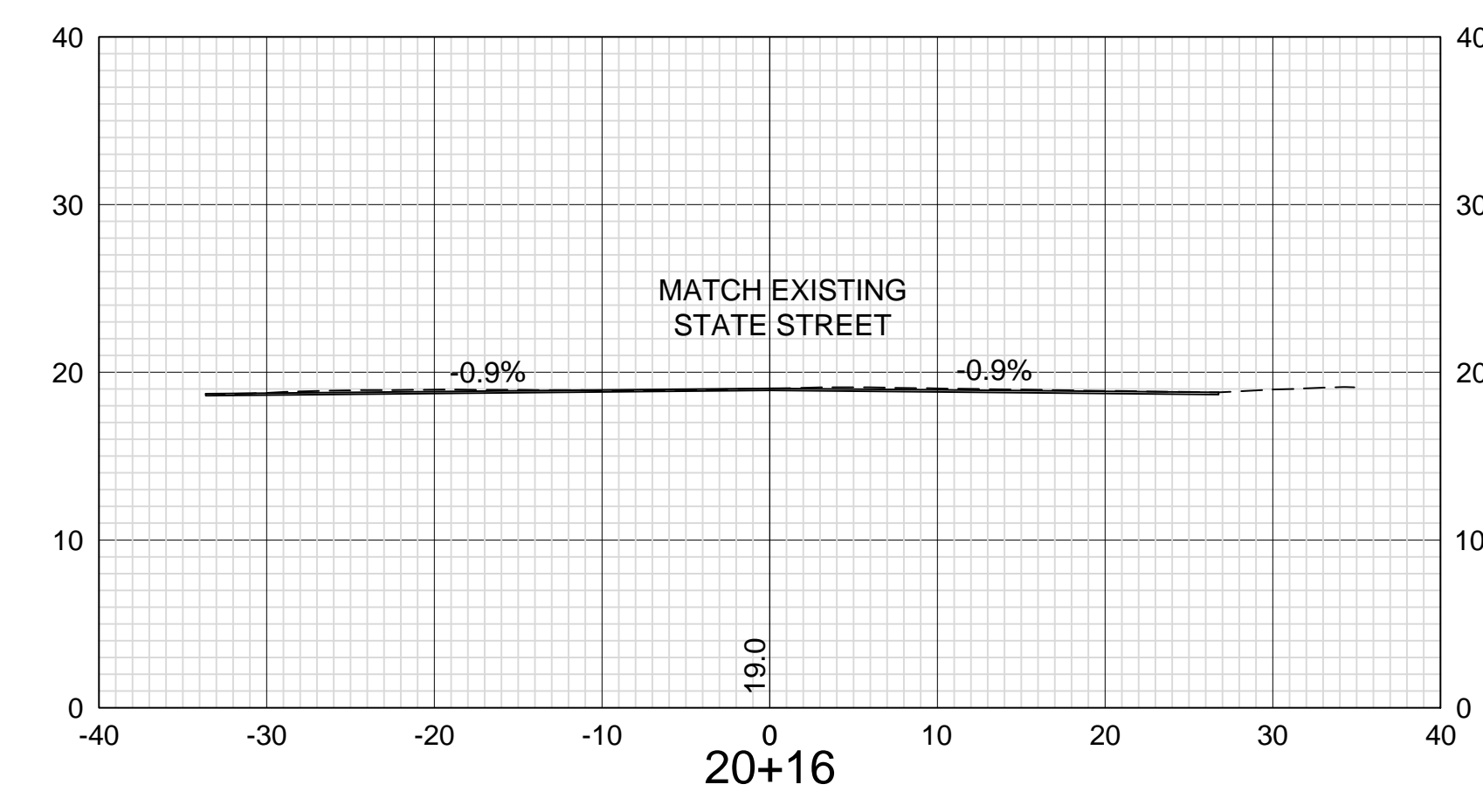
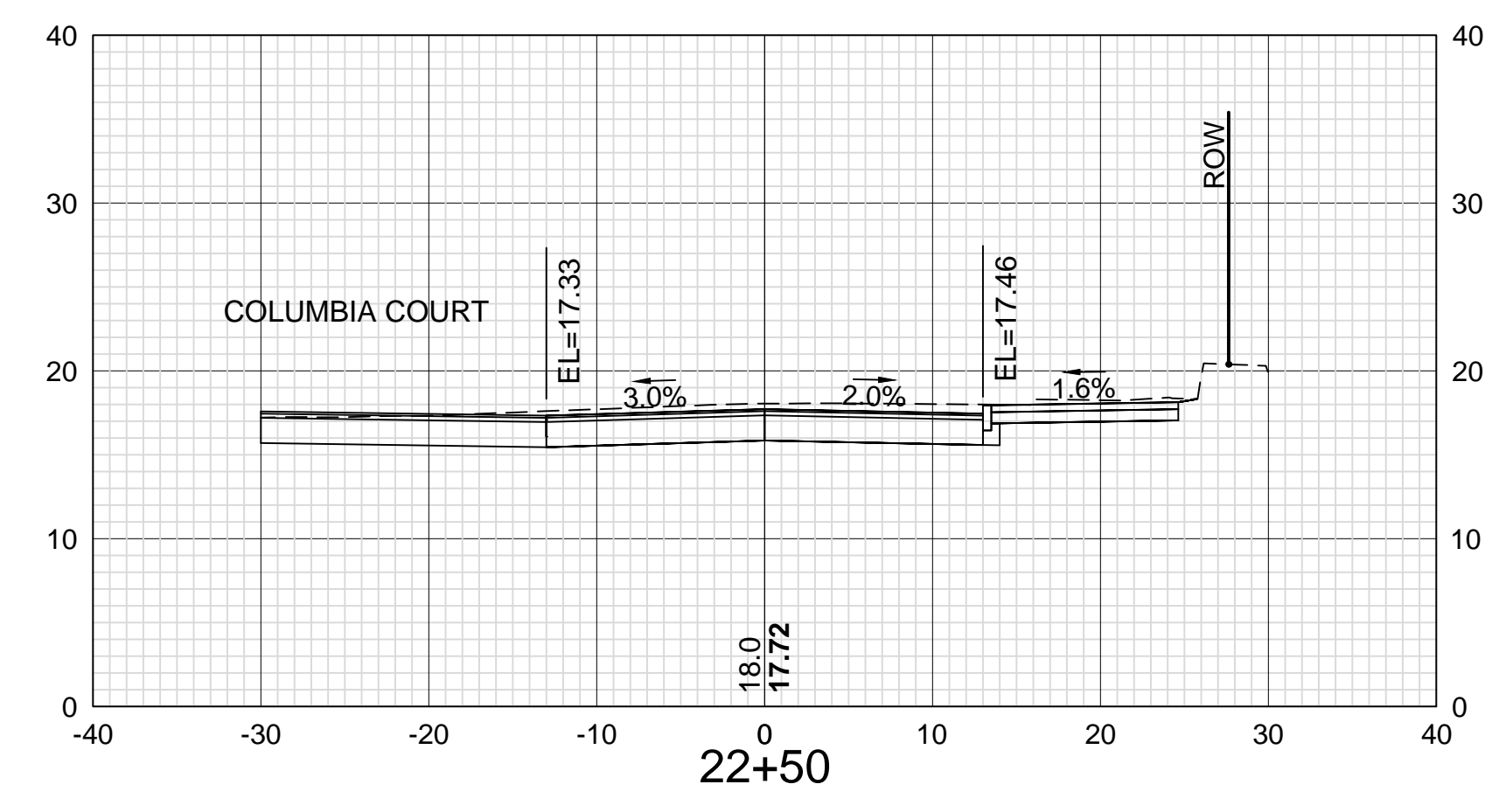
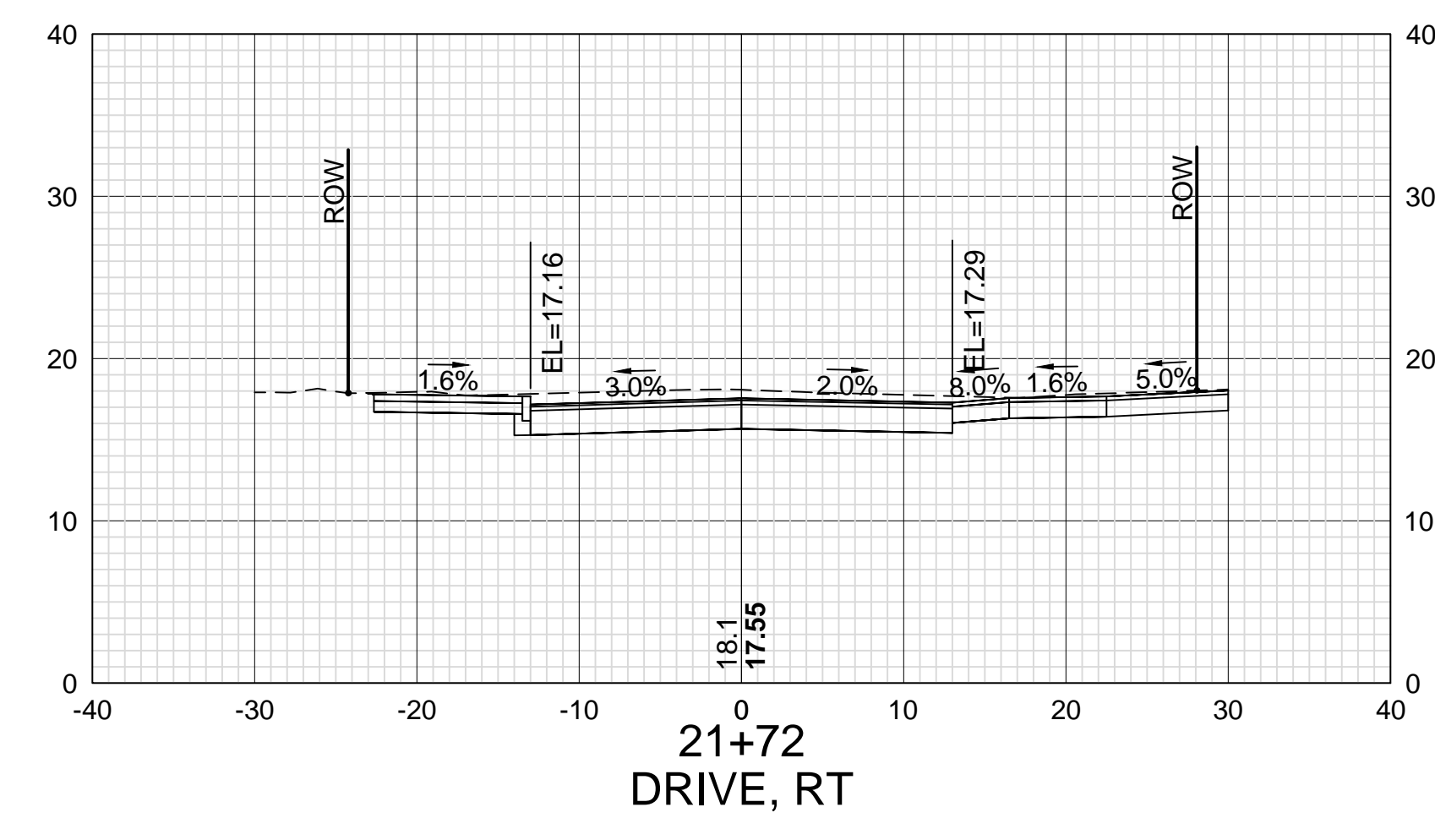
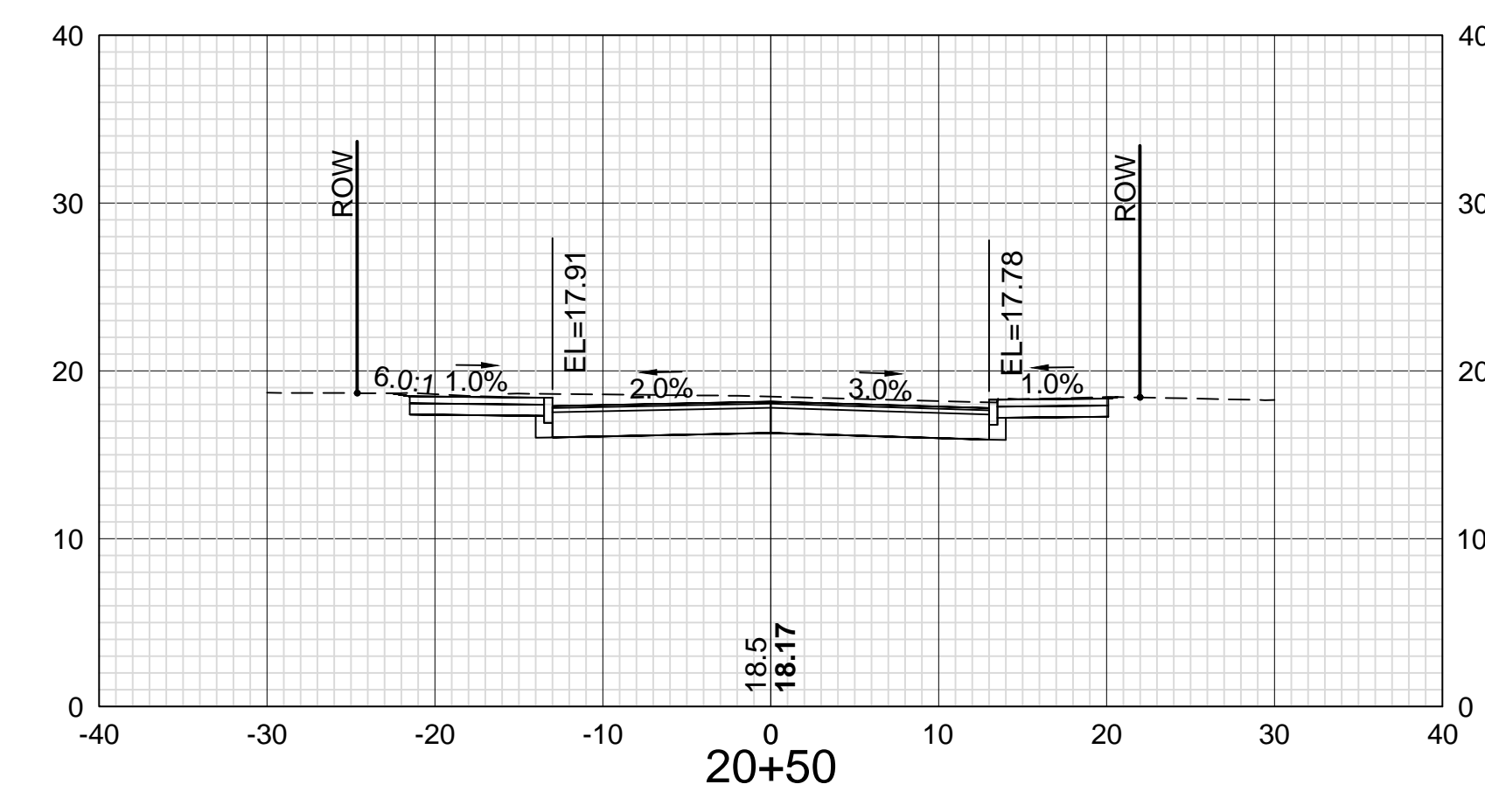
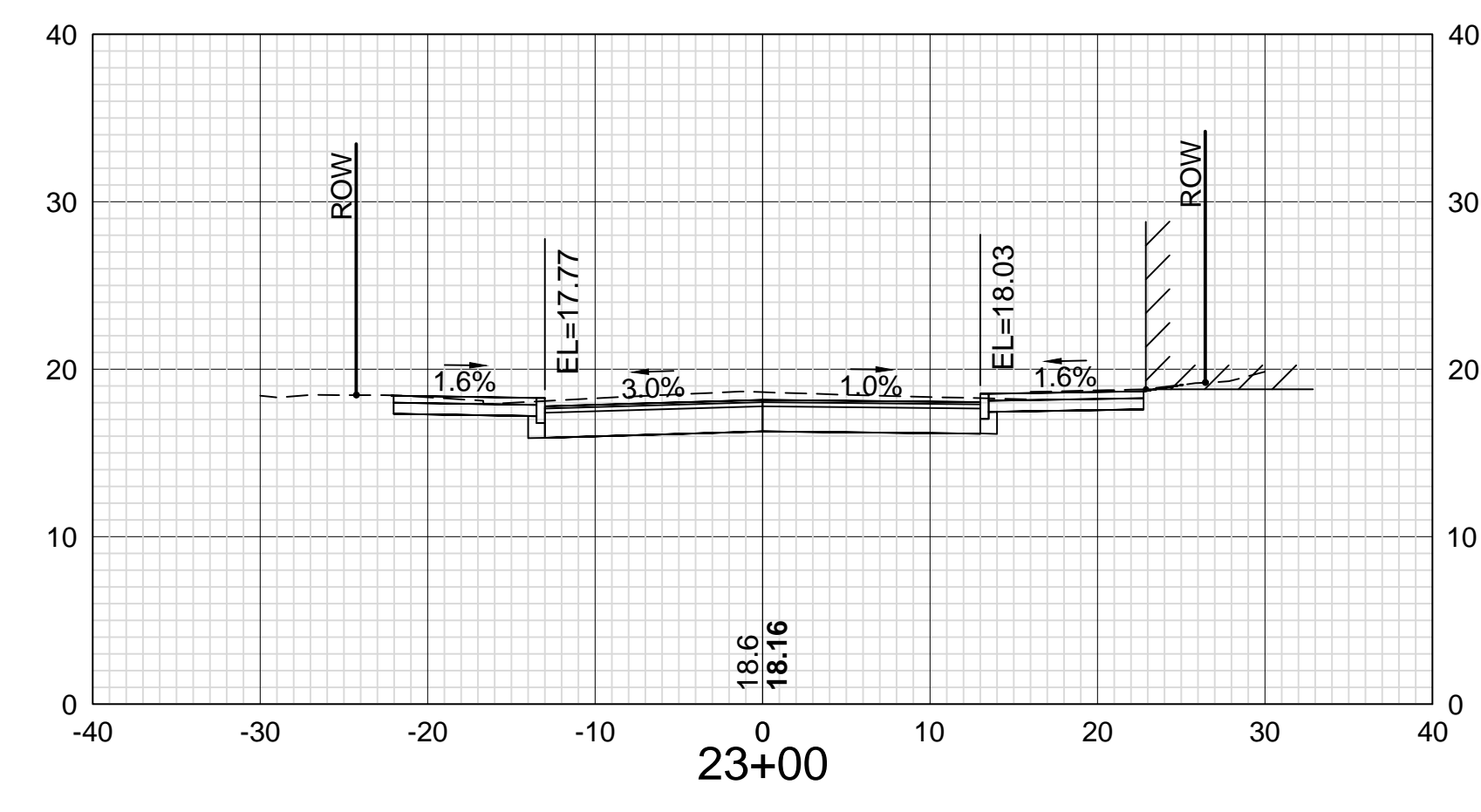
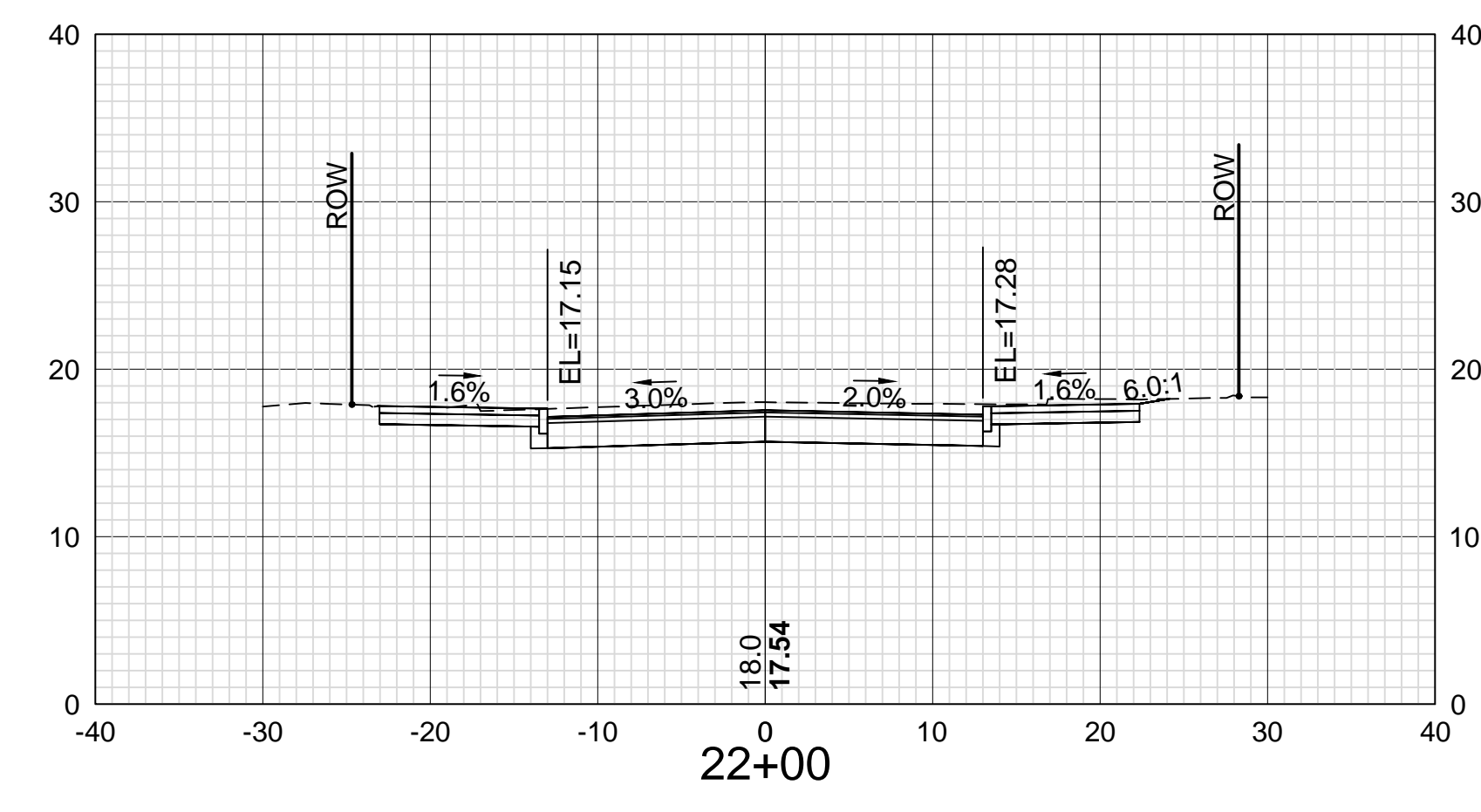
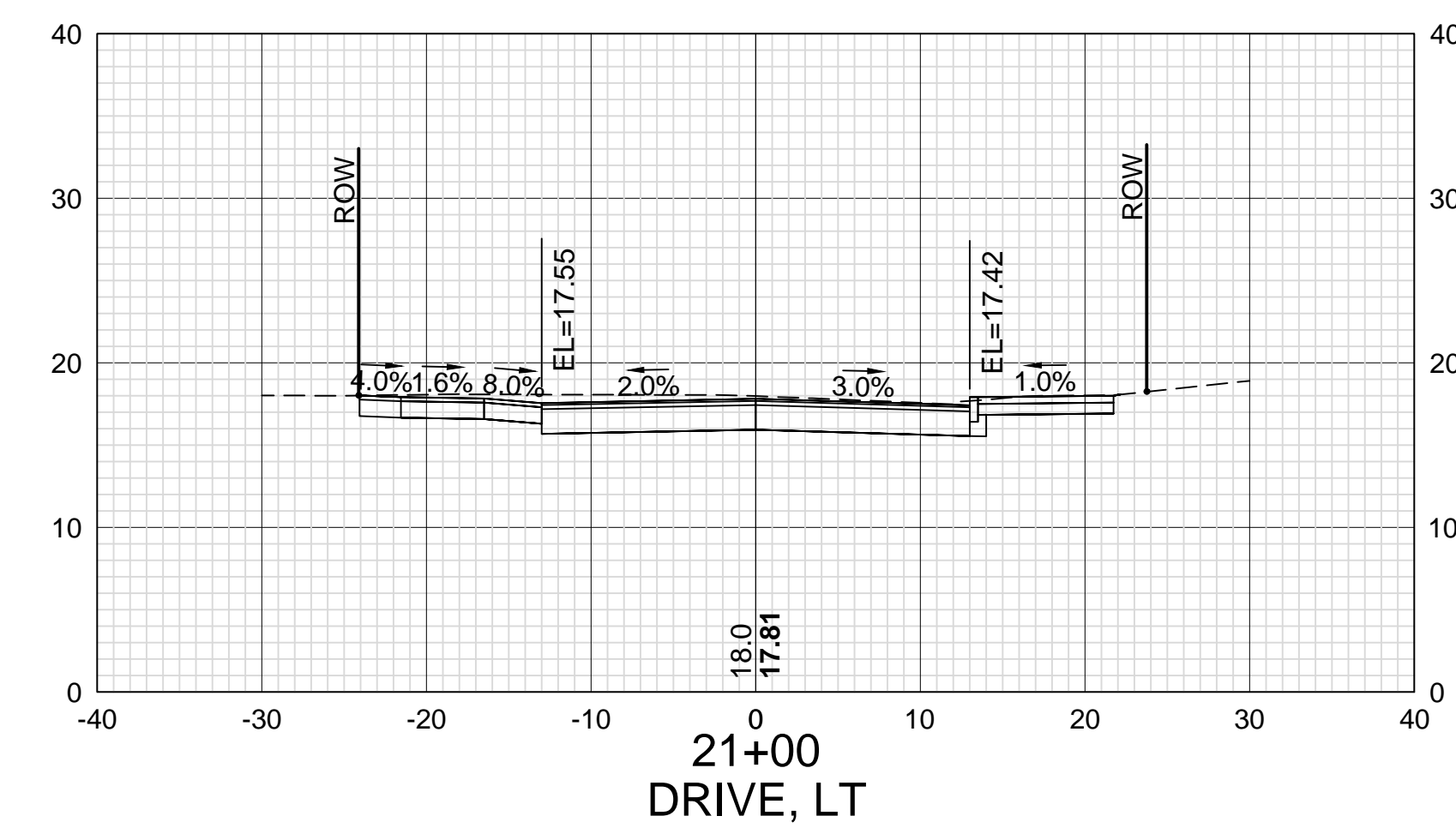
STATION

DATE

NUMBER

DATE

AS BUILT DETAILS



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1
CITY OF PORTSMOUTH, NEW HAMPSHIRE

CROSS SECTIONS
COLUMBIA STREET

DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	XS-Seg1	7176	71	88



REVISIONS AFTER PROPOSAL

DESCRIPTION

STATION

STATION

DATE

NUMBER

DATE

SDR PROCESSED VHB
NEW DESIGN KMH
SHEET CHECKED GLB
AS BUILT DETAILS

STATION

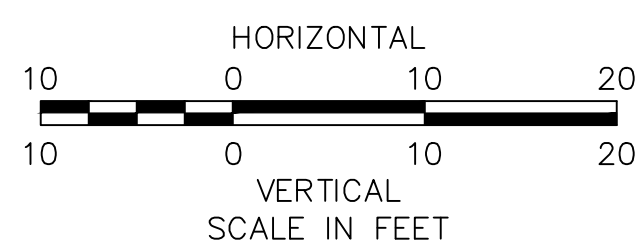
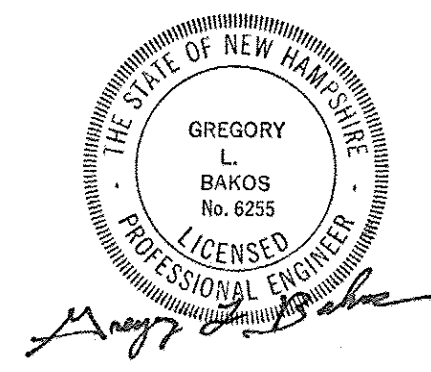
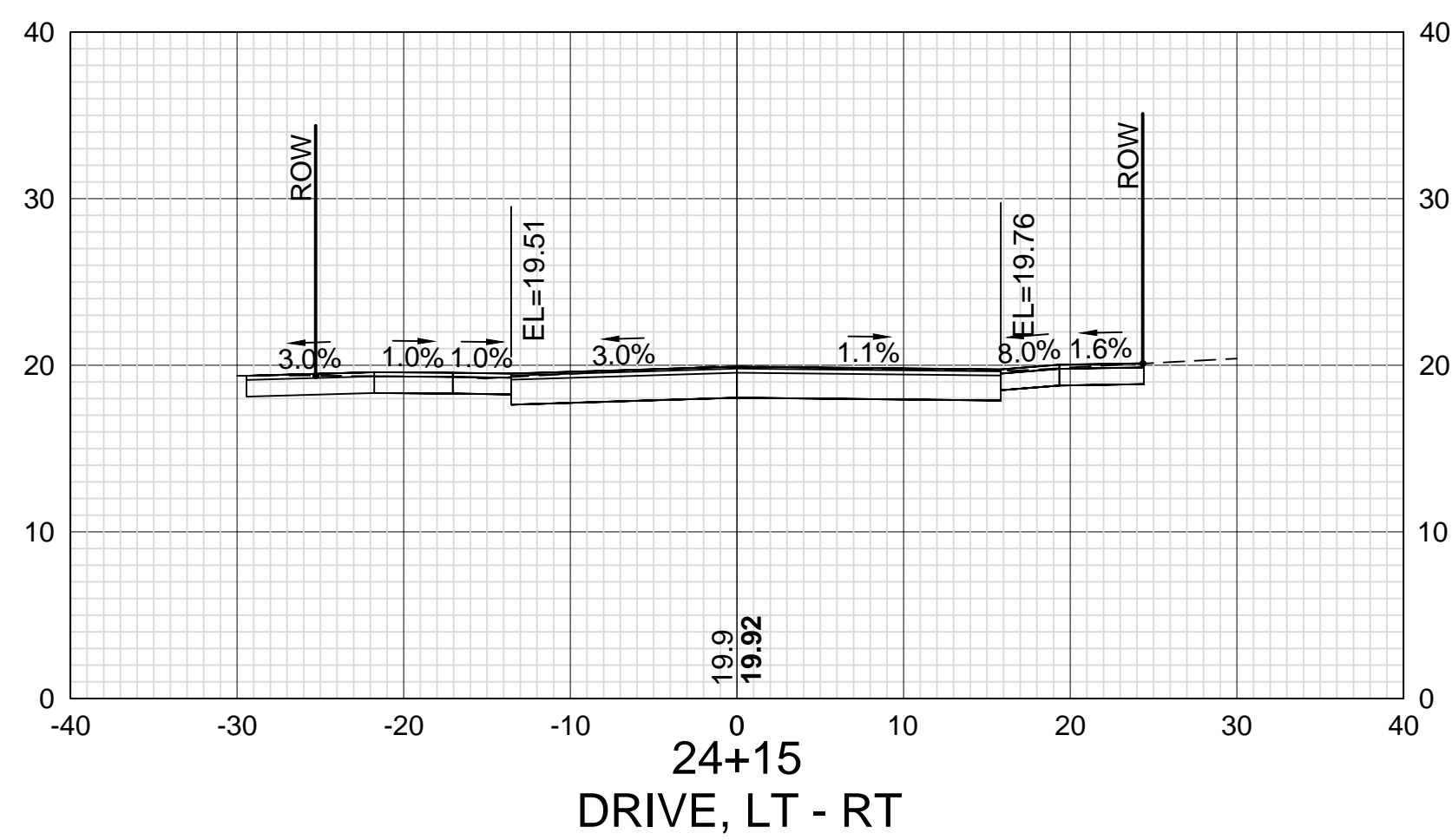
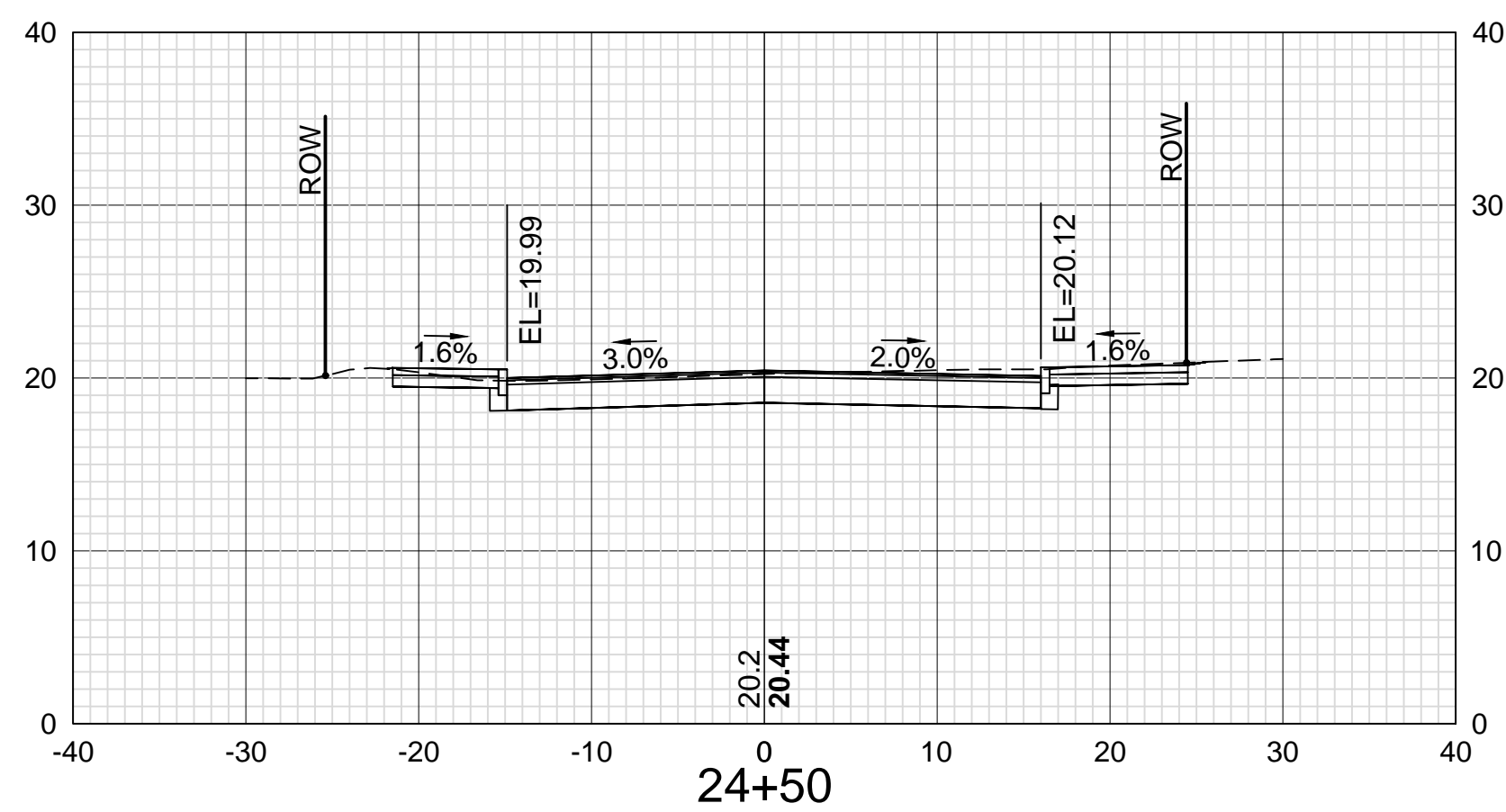
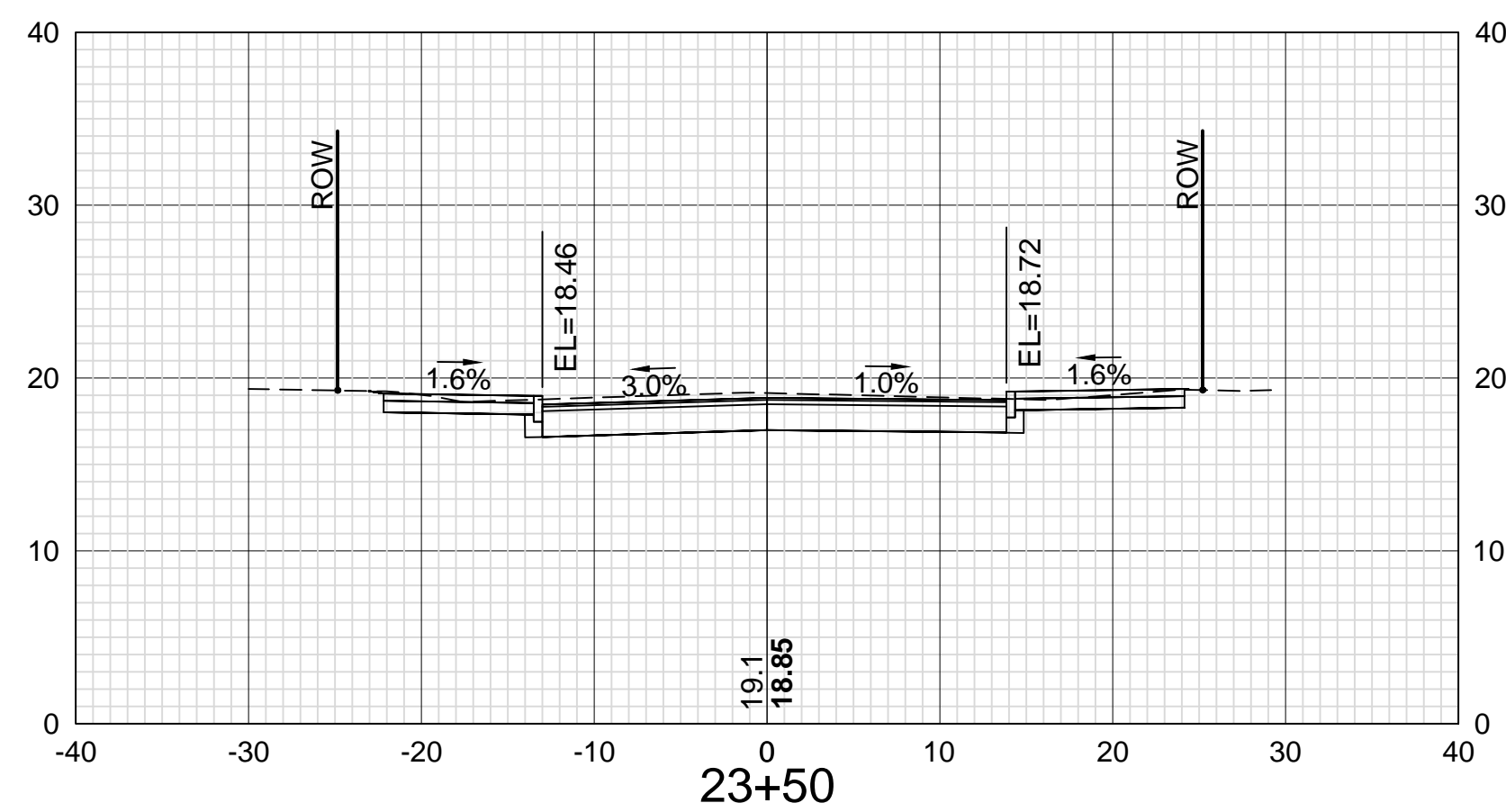
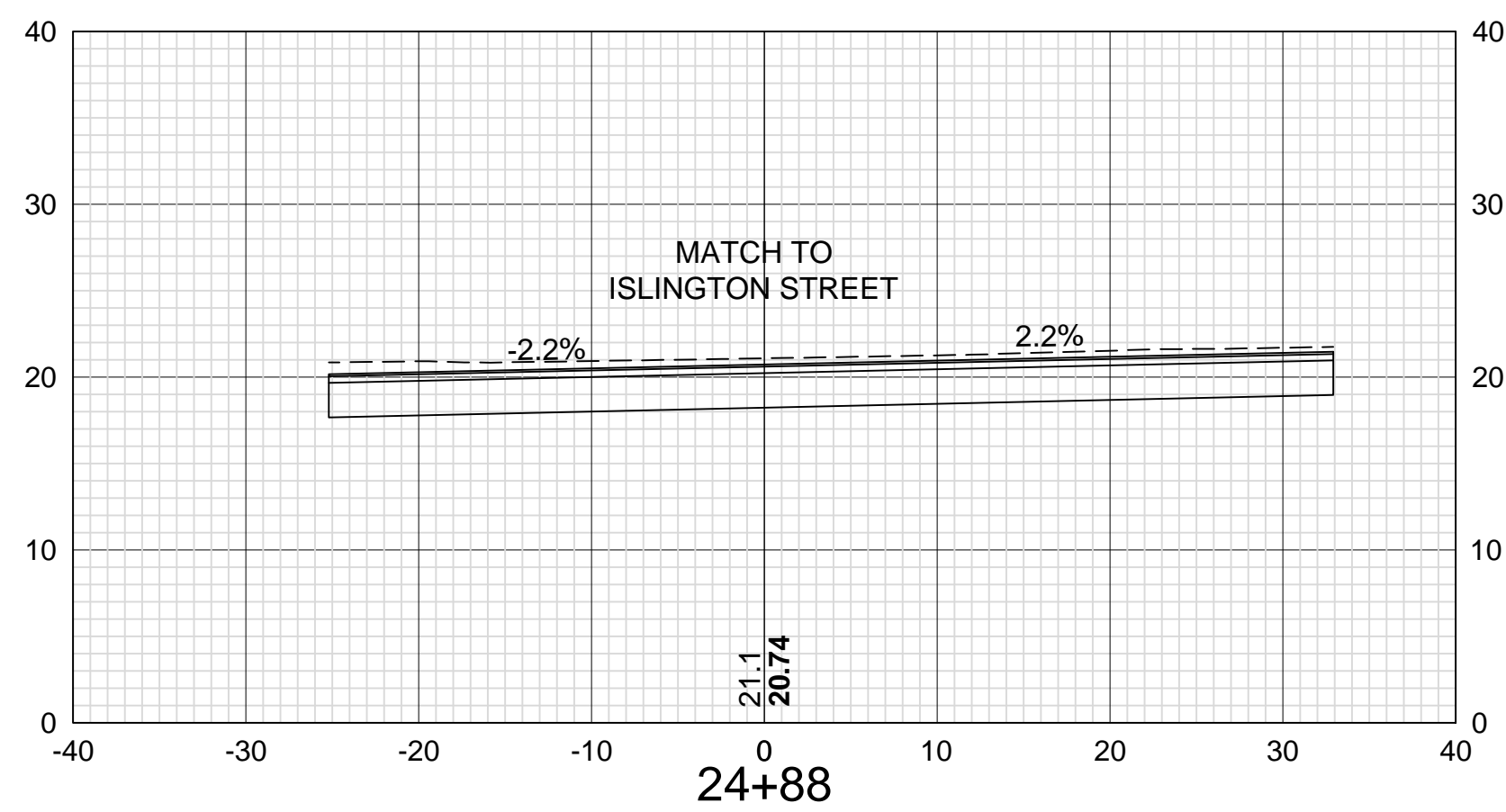
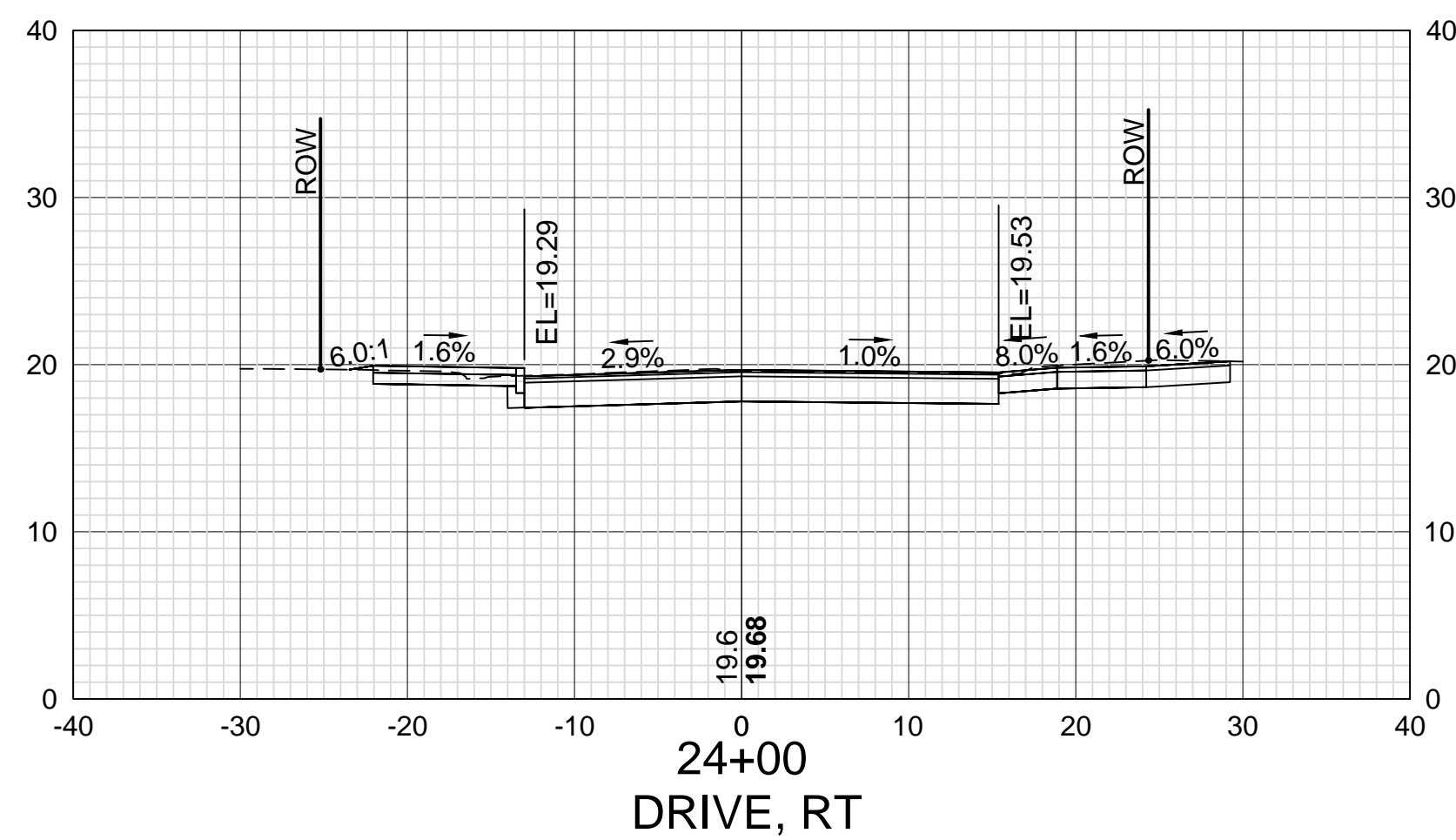
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DATE

NUMBER

DATE

DATE



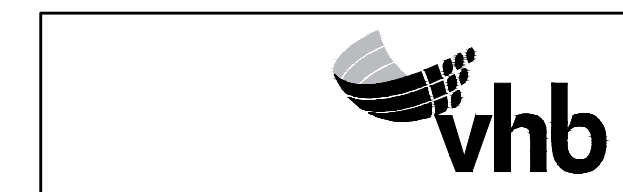
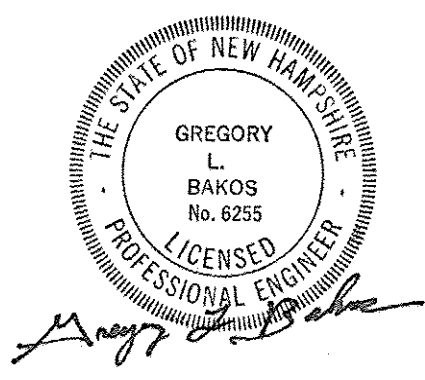
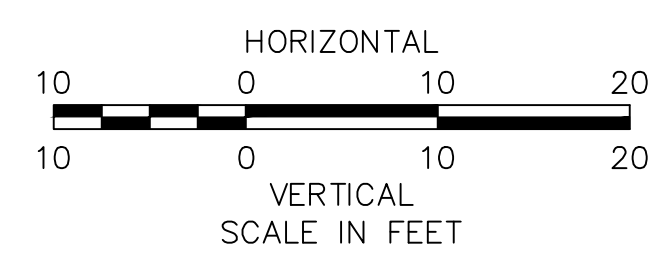
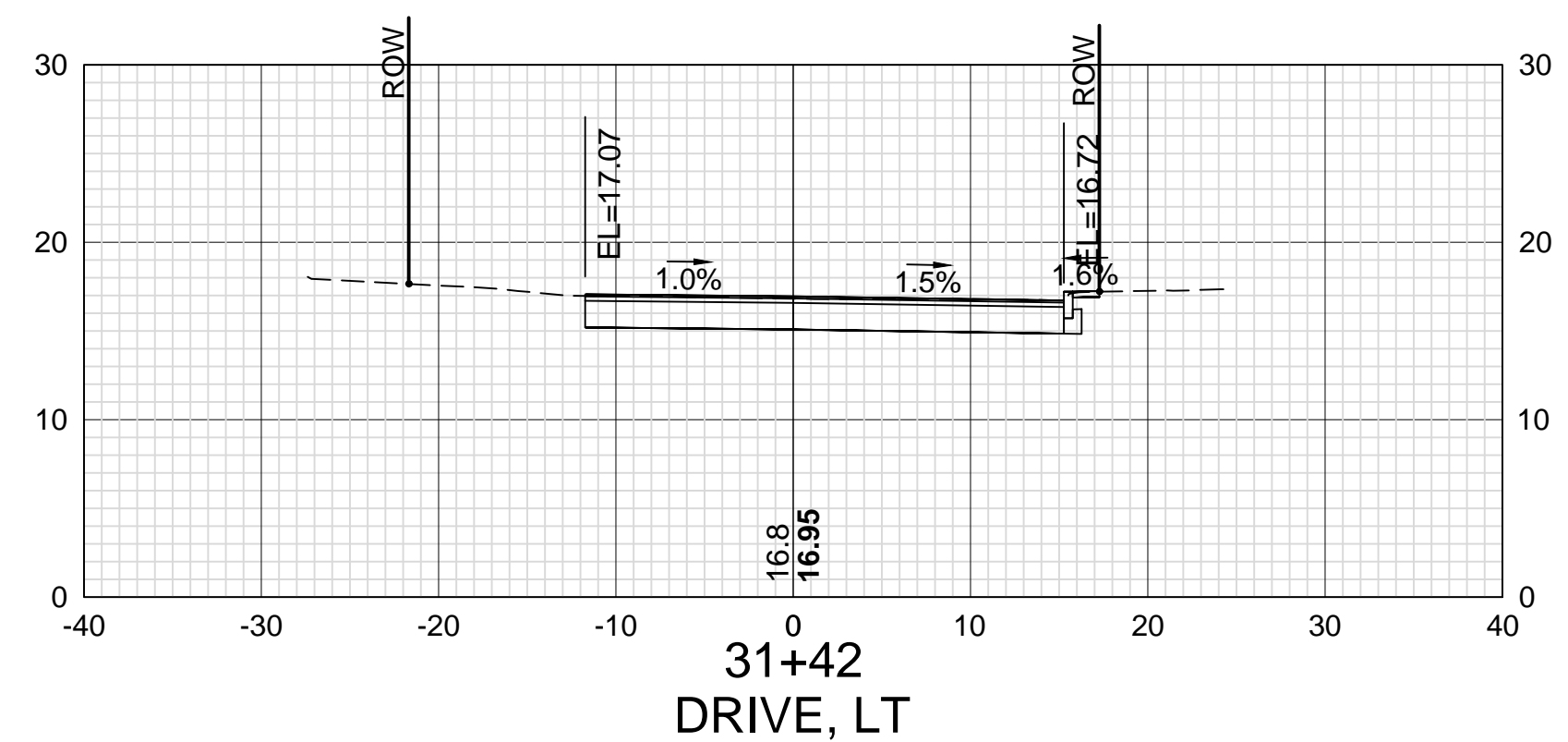
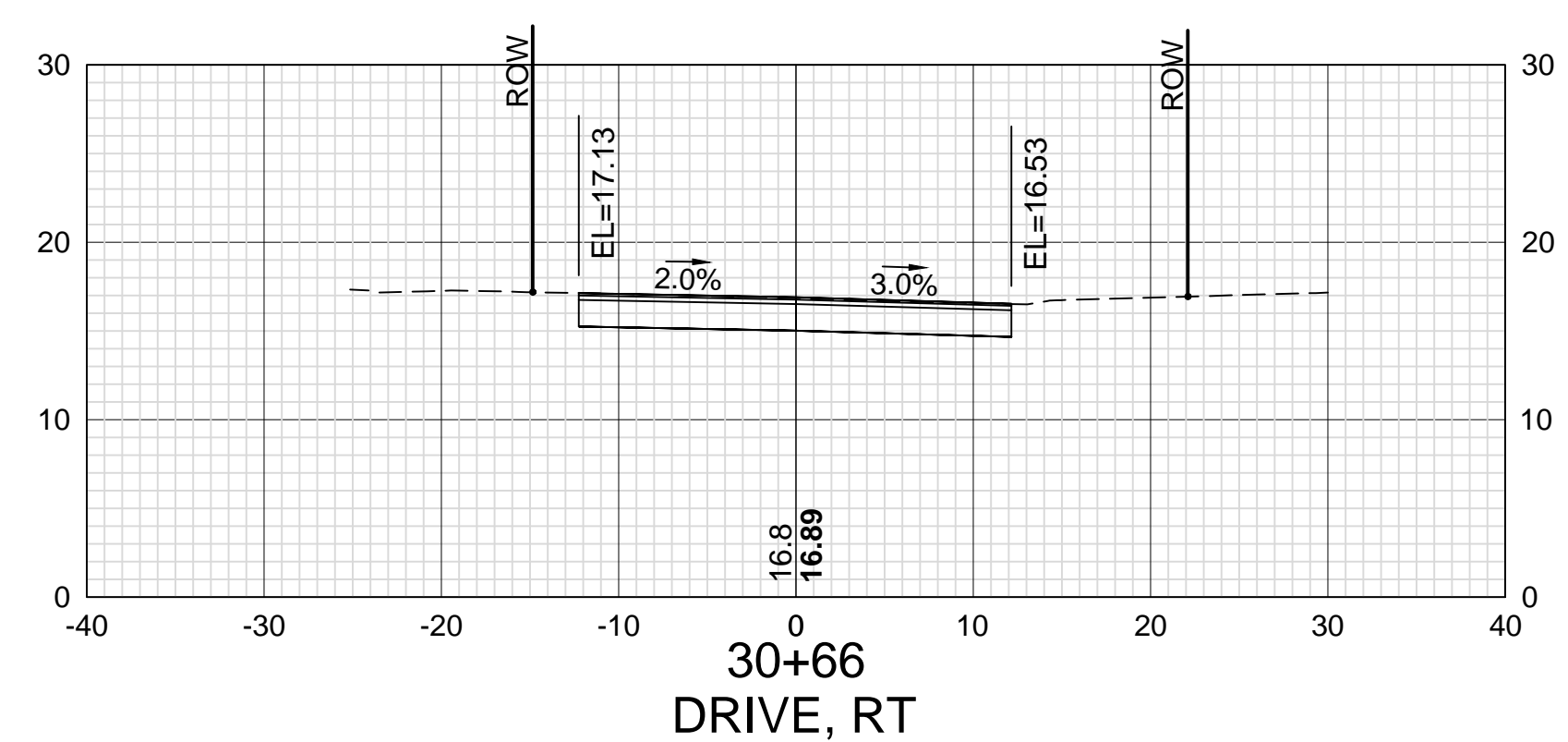
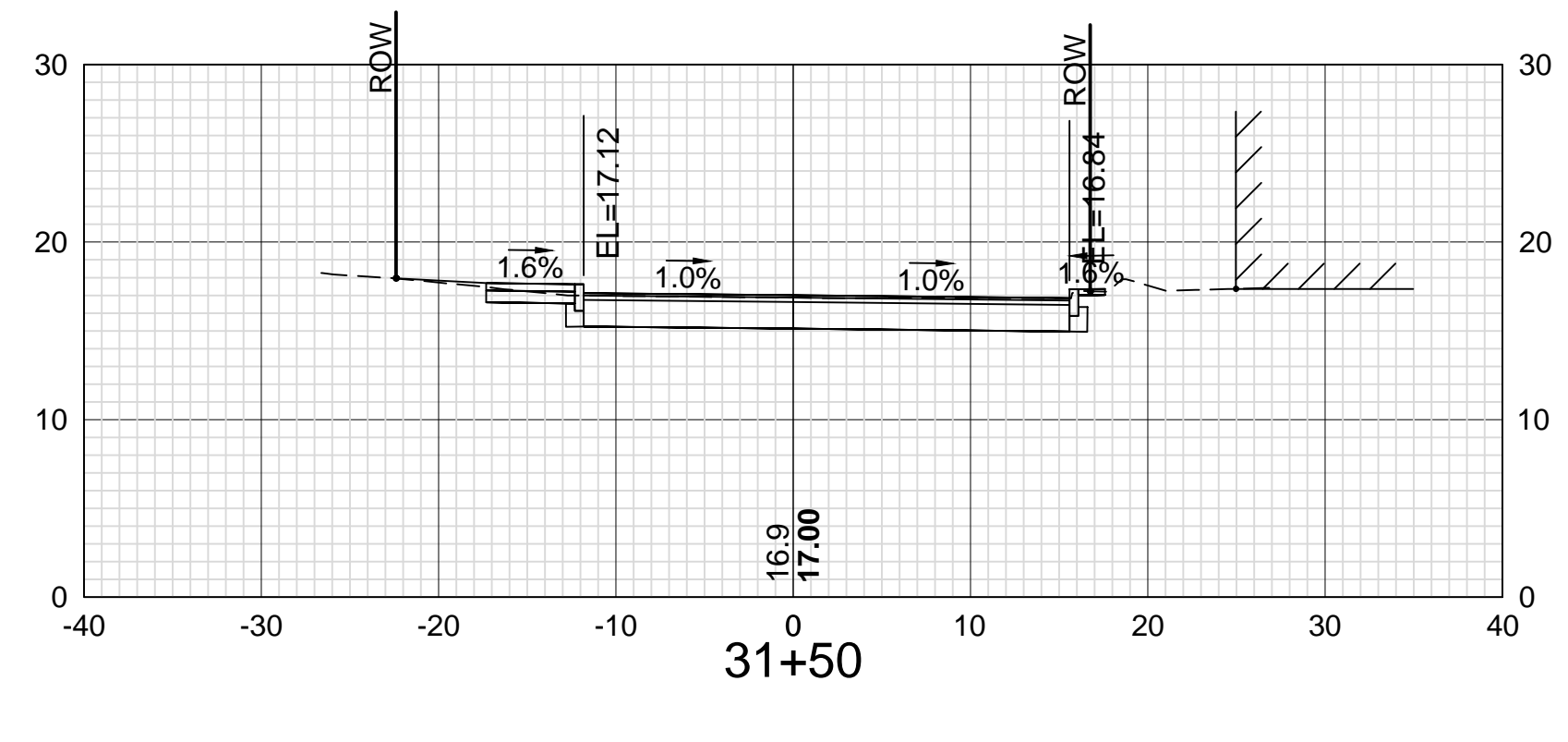
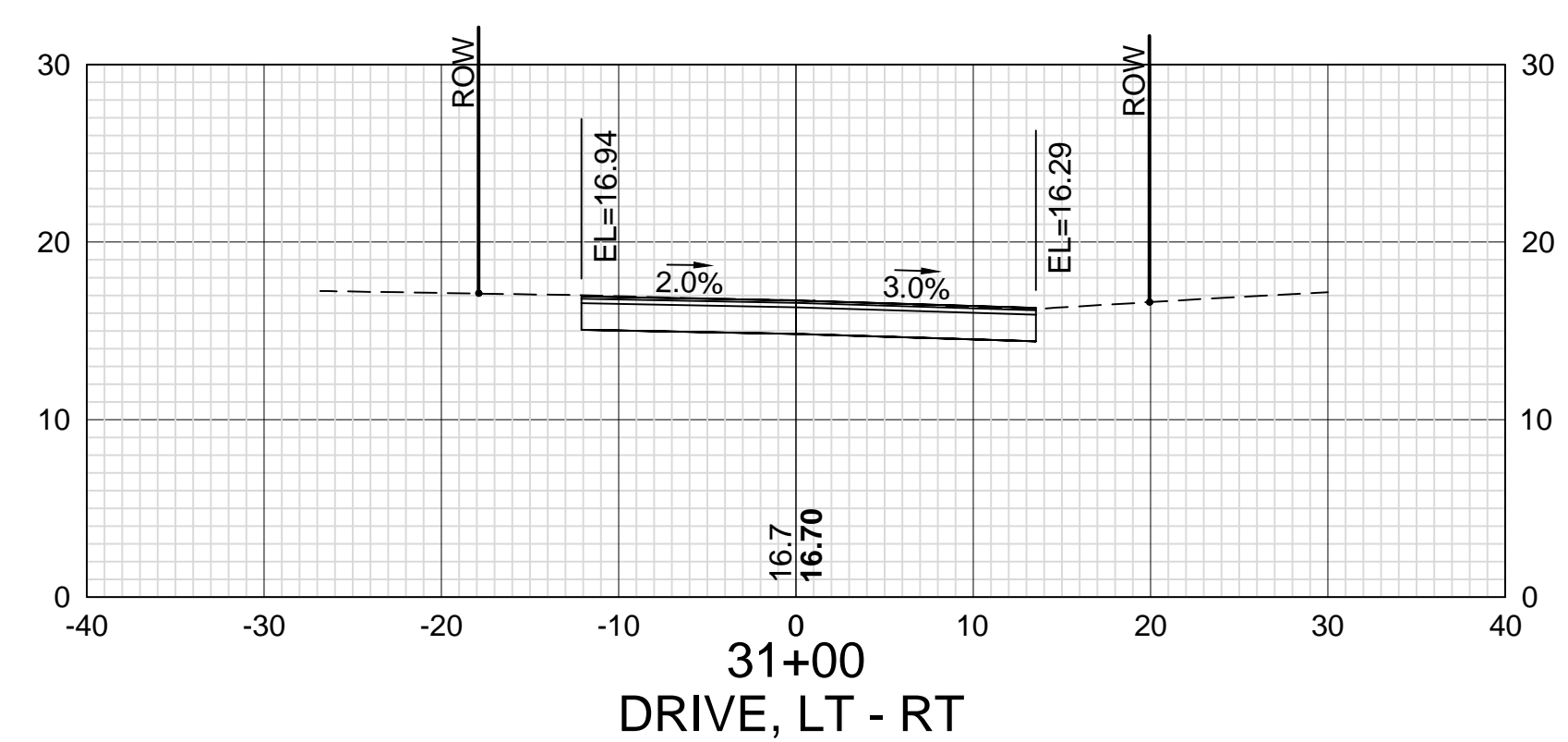
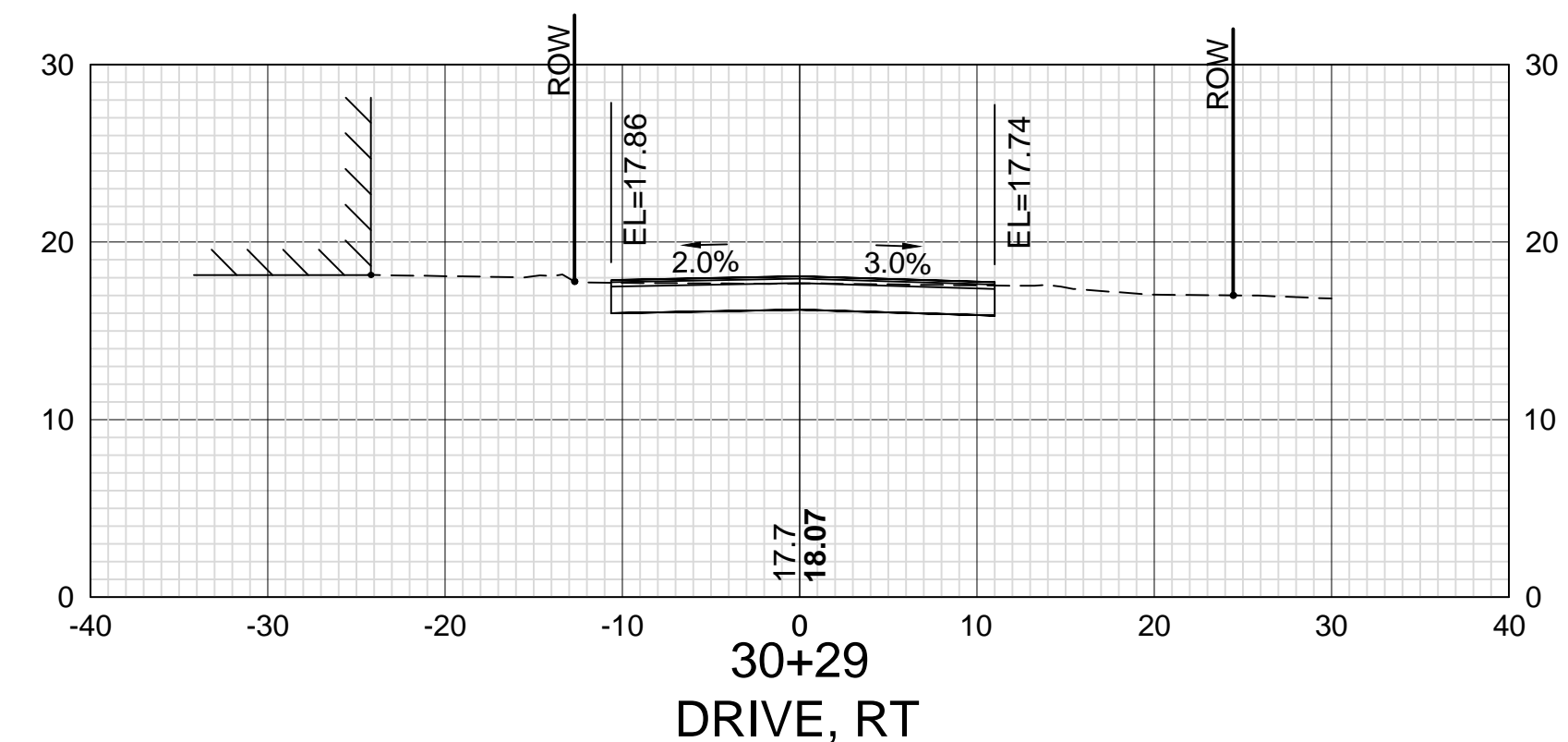
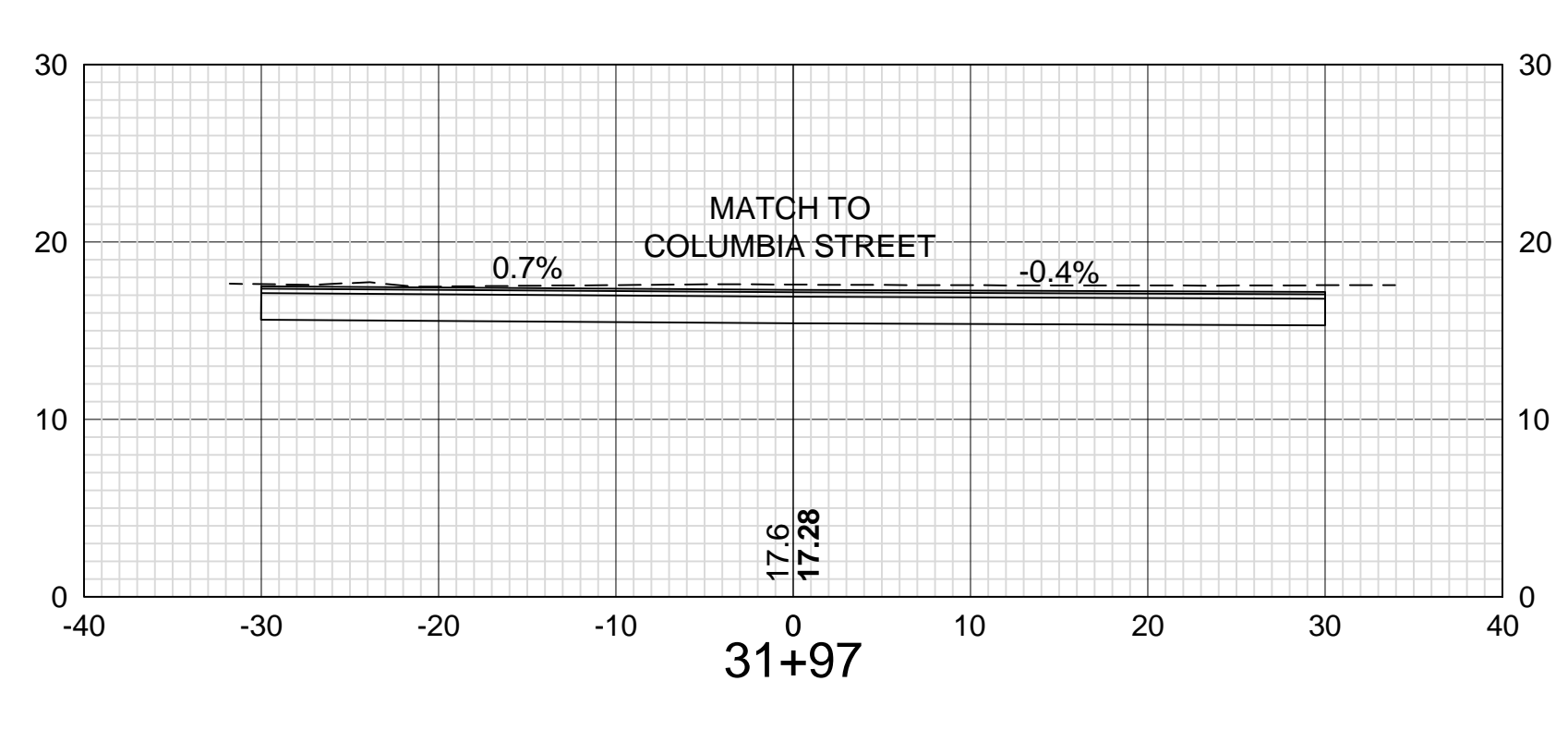
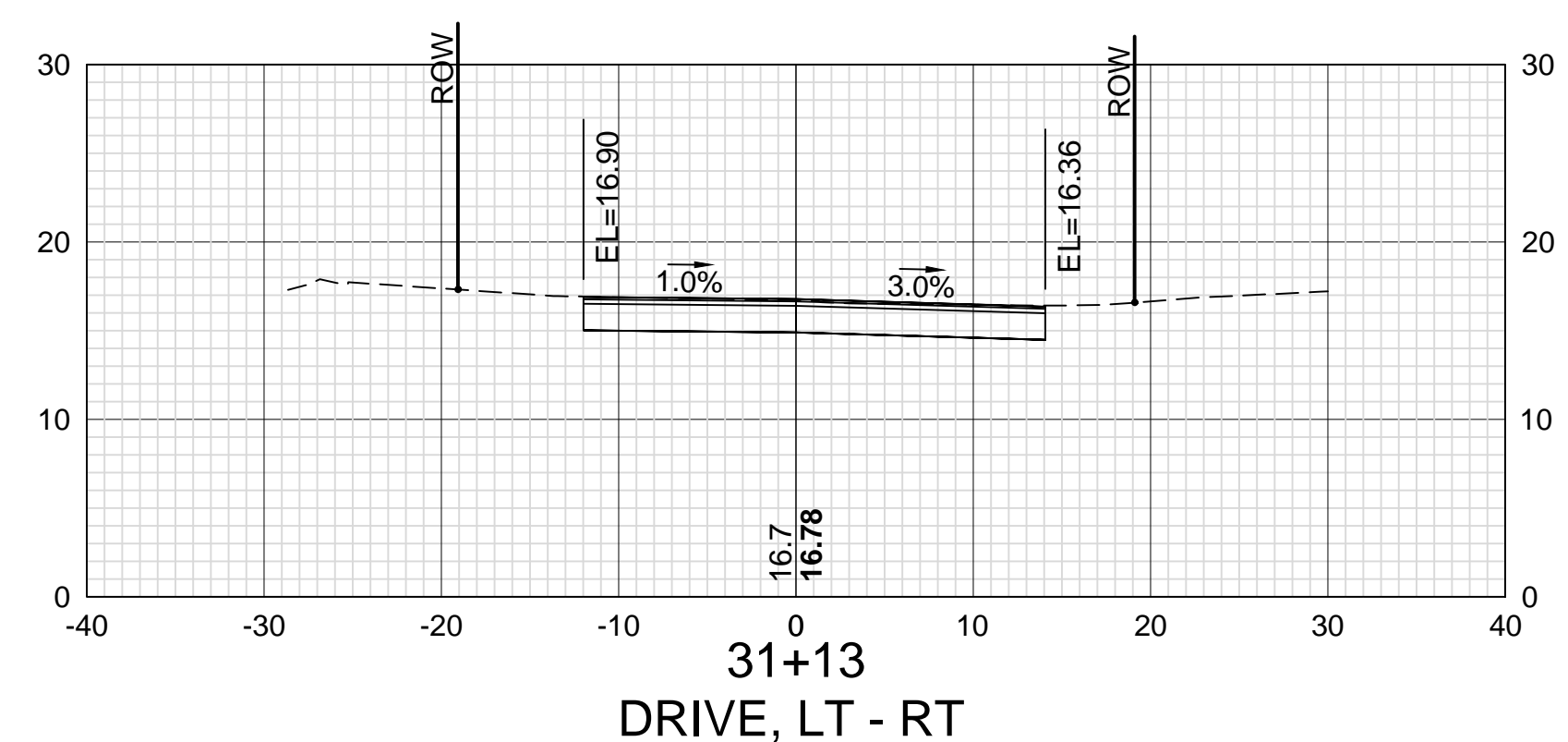
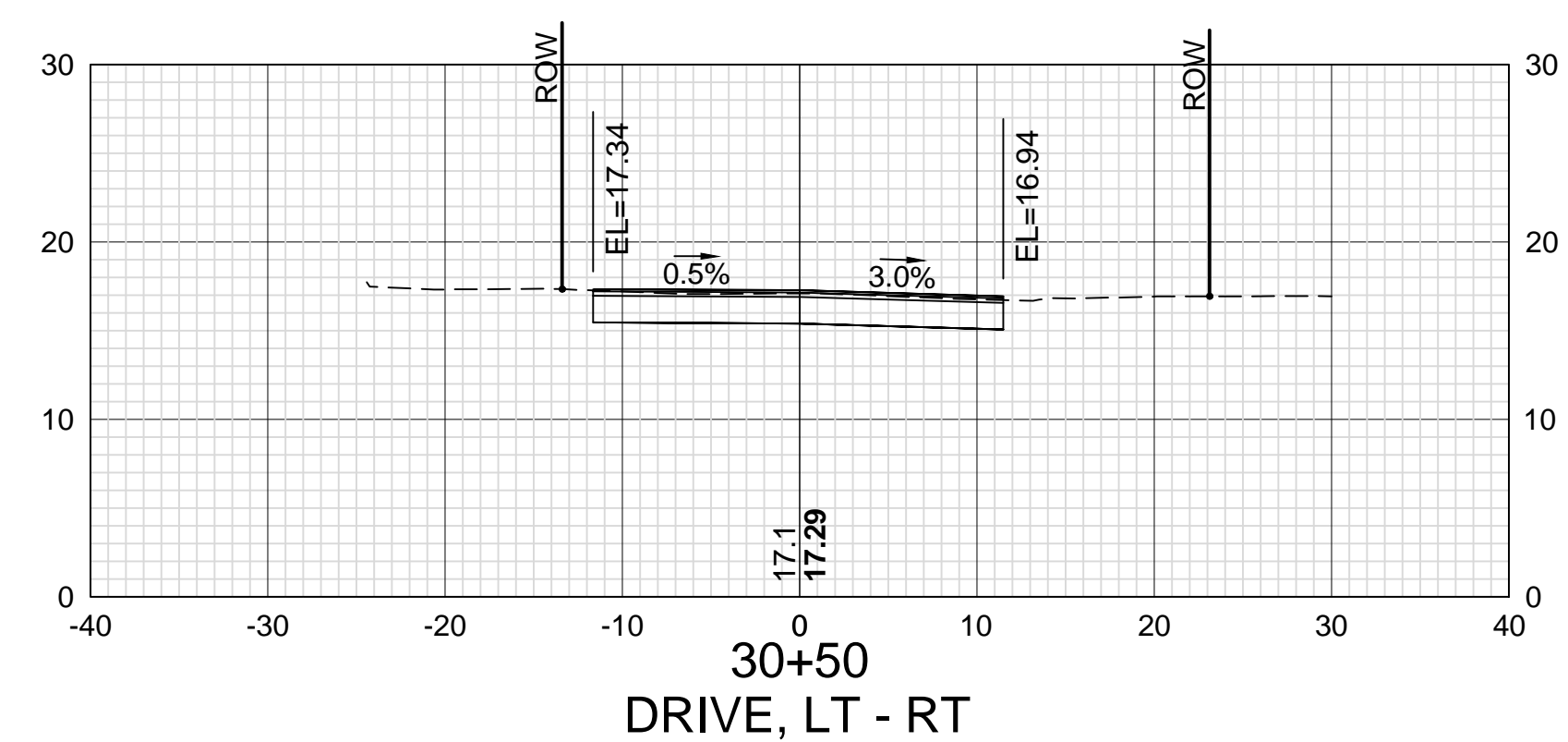
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VHB PROJECT NO.: 52393.00

ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1				
CITY OF PORTSMOUTH, NEW HAMPSHIRE				
CROSS SECTIONS				
COLUMBIA STREET				
DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS	
XS-Seg1	7176	72	88	

REVISIONS AFTER PROPOSAL	STATION	DATE	NUMBER

SDR PROCESSED	VHB	DATE	OCT 2017
NEW DESIGN	KMH	DATE	11/13/18
SHEET CHECKED	GLB	DATE	11/13/18
AS BUILT DETAILS		DATE	



ISLINGTON STREET CORRIDOR IMPROVEMENTS - SEGMENT 1					
CITY OF PORTSMOUTH, NEW HAMPSHIRE					
CROSS SECTIONS					
COLUMBIA COURT					
DATE PLOTTED	VHB PROJECT NO.	DRAWING	CITY PROJECT NO.	SHEET NO.	TOTAL SHEETS
13-Nov-18	52393.00	XS-Seg1	7176	73	88

UTILITY LEGEND:

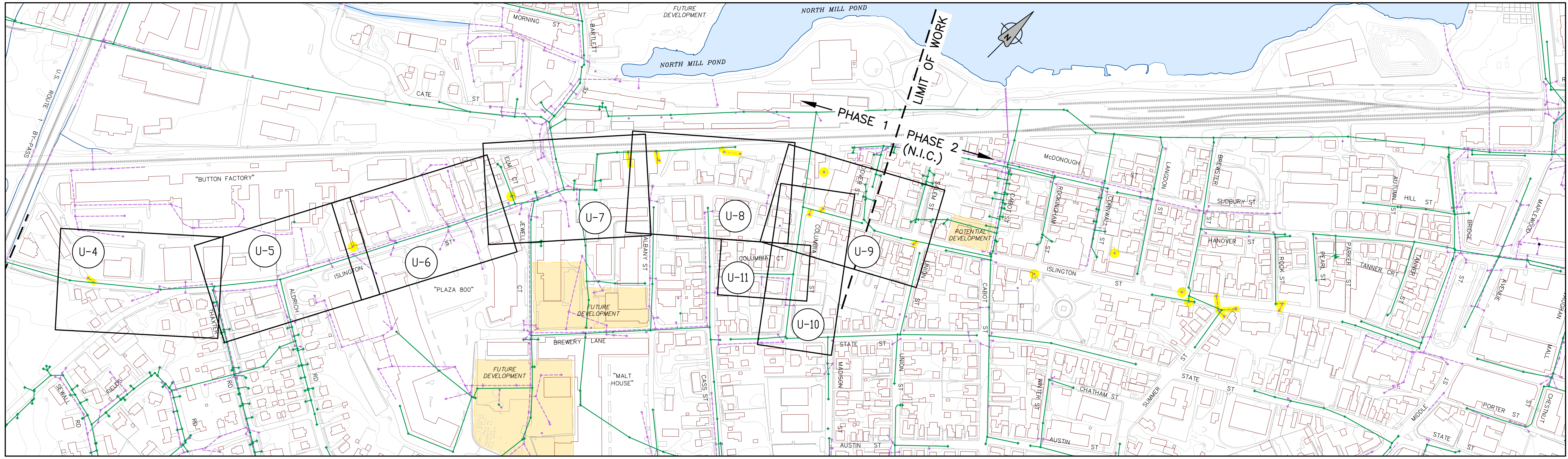
EXISTING	PROPOSED	
		SEWER LINE
		DRAIN LINE
		WATER LINE
		METER PIT WATER GATE
		WATER SHUTOFF
		DRAIN MANHOLE
		CATCH BASIN
		SEWER MANHOLE
		CLEANOUT
		SEWER/DRAIN LINE
		WATER LATERAL APPROX. LOC. SEWER LATERAL APPROX. LOC.
		HYDRANT
		GAS VALVE/GAS SHUTOFF
		GAS LINE
		RECORD GAS LINE (UNITIL JAN 2018)
		REDUCER TEE
		COUPLING
		TELEPHONE MANHOLE
		UNDERGROUND TELEPHONE LINE
		OVERHEAD WIRE
		PIPE LABEL
		ROOF DRAIN

UTILITY ABBREVIATIONS

AC/ACP	ASPHALT CONCRETE PIPE
bs	BUILDING SURVEY
CB	CATCH BASIN
CI/CIP	CAST IRON PIPE
CL 52	CLASS 52 PIPE
CMP	CORRUGATED METAL PIPE
CU	COPPER PIPE
DI	DUCTILE IRON PIPE
DMH	DRAIN MANHOLE
gis	CITY OF PORTSMOUTH GIS SYSTEM
HDPE	HIGH DENSITY POLYETHYLENE PIPE
I	INVERT ELEVATION
INV	INVERT ELEVATION
NIC	NOT IN CONTRACT
PE	POLYETHYLENE PIPE
PVC	POLYVINYL CHLORIDE PIPE
R	RIM ELEVATION
RCP	REINFORCED CONCRETE PIPE
ref.	REFERENCE PLAN
S	SLOPE (PIPE)
SMH	SEWER MANHOLE
TBD	TO BE DETERMINED
tie	CITY OF PORTSMOUTH TIE SHEETS
UP	UTILITY POLE

UTILITY PLAN INDEX

SHEET TITLE	DWG. NO.	SHT. NO.
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STANDARD WATER DETAILS	U-14	87
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LEGEND:

	CB/STRUCTURE & DRAIN LINE
	MH/CONNECTION & SEWER LINE
	SUSPECTED DRAINAGE CONNECTION TO SEWER

UTILITY PLAN INDEX MAP



ISSUE FOR APPROVAL

By	5/9/18	DR
By	1/11/19	DR
By	2029	DR

RECORD DWG
Date

NO. REVISIONS

APP'D

Drawn/Chk	RMG
Designed	DR
Checked	PDM
Approved	—
Date	1/7/2019
Book No.	—
Project No.	2029
Dwg. ID	AS_SHOWN
Scale	—

UNDERWOOD
engineers

25 Vaughan Mall, Portsmouth, N.H. 03801
Tel. 603-436-6192 Fax. 603-431-4733

UTILITY PLAN INDEX
ISLINGTON STREET CORRIDOR IMPROVEMENTS
CITY OF PORTSMOUTH
PORTSMOUTH, NEW HAMPSHIRE

DWG NO
U-1

SHEET
74 OF 88

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SEWER PIPE QUANTITY SCHEDULE

Dwg. No.	Location	Item No./Item (Lin. Ft.)			
		1.1.08 8" PVC	1.1.10 10" PVC	1.1.12 12" PVC	1.1.15 15" PVC
U4	100+95 to 106+35		22		492
	104+00 LT (Note 1)	51			
U5	104+32 LT (Note 1)		5		
	106+35 RT				8
U6	106+37 to 112+00				552
	108+95 RT	23			
U7	112+00 to 117+50				540
	114+15 LT (Note 2)				
U8	116+50 RT (Note 3)	26			
	117+50 to 118+95				141
U9	120+82 to 123+00				218
	118+31 LT		40		
U10	123+00 to 128+50				535
	128+50 to 129+20				70
U11	129+26 to 131+59	253			
	130+05 LT (Note 4)	100			
U11	24+95 to 20+00				500
	20+00 RT				35
U11	20+00 LT	104			
	30+36 to 32+04	168			
Subtotal:		740	67		3091
Rounding:		40	13	50	59
Total Est. Quantity:		780	80	50	3150

- Notes:
 1 Services old Button Factory area.
 2 Services 801 Islington St.
 3 Services Plaza 800.
 4 Service for 459 Islington St. Still under review.

WATER PIPE QUANTITY SCHEDULE

Dwg. No.	Location	Item No./Item (Lin. Ft.)					
		3.1.04 4" DI	3.1.06 6" DI	3.1.08 8" DI	3.1.10 10" DI	3.1.12 12" DI	3.1.16 16" DI
U4	101+20 to 106+50						592
	106+50 to 112+00						550
U5	106+60 RT			30			
	109+05 RT			25			
U6	112+00 to 117+50						550
	112+50 RT						
U7	117+50 to 118+45						95
	118+20						
U8	120+98 to 123+00						202
	123+00 to 128+50						550
U9	123+60 RT			16			
	125+50 RT			20			
U10	125+97 LT		35				
	128+50 to 131+85						335
U11	131+55 LT		55				
	20+10 to 24+95			514			
U11	30+00 to 30+25						
	30+26 to 32+20		194				
Water Services (Private)		184	160	121			
Subtotal:		184	444	726			2874
Rounding:		16	36	54	50	50	96
Total Est. Quantity:		200	480	780	50	50	2970

DRAINAGE PIPE QUANTITY SCHEDULE

Dwg. No.	Location	Item No./Item (Lin. Ft.)				
		603.822 12" PE	603.822 15" PE	603.822 18" PE	603.822 24" PE	603.00330 30" PVC SDR35
U4	102+75 to 103+70	163		180		
	103+73 to 106+41					
U5	104+52 LT	12				
	106+19 to 106+42	21				
U6	106+38 LT	5				
	106+42			26		
U7	106+44 to 108+83			235		
	107+28	18				
U8	108+86 to 110+04			118		
	108+86 to 112+00				311	
U9	111+30 LT	14				
	112+00 to 116+30			426		
U10	113+30 RT	29				
	116+32 to 117+50					118
U11	117+50 to 118+96					140
	118+20 LT	23				
U11	118+35 RT	18				
	118+45	24				
U11	120+20 to 121+45			115		
	121+45 to 122+47	167				
U11	125+42 to 128+16	367				
	128+21 to 128+50		30			
U11	128+50 to 129+09		58			
	129+14 to 129+70	75				
U11	22+30 to 25+10			278		
	19+86 to 22+25			231		
U11	21+88	20				
	21+50 LT	15				
U11	20+13 LT	17				
	30+45 to 32+00	150				
Subtotal:		1138	661	610	737	258
Rounding:		102	29	30	23	12
Total Est. Quantity:		1240	690	640	760	270

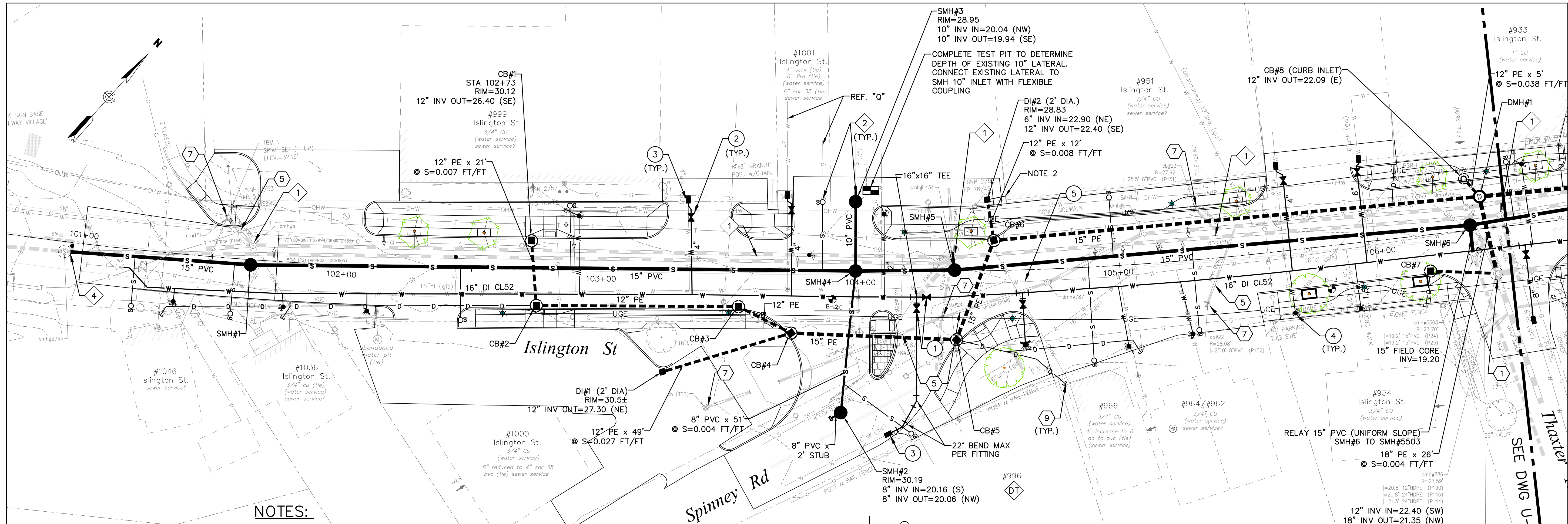
SERVICE PIPE QUANTITY SCHEDULE (INDIVIDUAL PROPERTIES)

Dwg. No.	Address	Item No./Item								Comments/Instructions	
		1.1.06A 6" PVC (in R-O-W)	1.1.06B 6" PVC (on Private Property)	603.8221 6" PE Drain	3.2.10 1" Copper	3.2.15 1-1/2" Copper	3.2.20 2" Copper	3.2.40 4" DI	3.106 6" DI		3.108 8" DI
U4	1046 Islington	18									Water assumed to be serviced from Spiny Road. Field verify.
	1036 Islington	18									
	1001 Islington	25			(Note 1)				40		
	1000 Islington	19			(Note 2)	6				38	
	999 Islington	22			(Note 1)	30					
	996 Islington	31			N/A						
	951 Islington	20			(Note 1)			35	40		
	966 Islington	37									
	964/962 Islington	30									
	933 Islington								42		
U5	954 Islington	10	18		18						Existing sewer service to Thaxter to remain.
	933 Islington	20			15	30					
	17 Thaxter				7						
	921 Islington	20			15	40				37	
	880 Islington	30					15				
	865 Islington	20			(Note 1)	40					
	874 Islington										
	875 Islington				(Note 1)					45	
	869 Islington	20			(Note 1)				32	33	
	871 Islington	22			(Note 2)				34	14	
U6	833 Islington	23			15						Sewer Service TBD
	821 Islington	25			30	35					
	801 Islington (Note 3)				(Note 2)				40		
	800 Islington (Note 3)				(Note 2)				15	25	
	767 Islington	25			(Note 2)			35	45		
	737 Islington	25	5								
	725 Islington	22						14	33		
	738 Islington	27			(Note 2)			15			
	Elm Court (Note 3)				N/A					35	
	695 Islington (Note 3)									23	
U7	685 Islington				20						Existing water/sewer services to remain. Sewer service to Bartlett (Ref. "E"). Existing sewer service to remain. Existing water/sewer services to Albany to remain. Size of existing service to be determined during construction.
	653 Islington				25						
	642 Islington				10	15					
	621 Islington				15					30	
	610 Islington				65						
	601 Islington	20			(Note 2)	31				32	
	601 Islington				12				30		
	566 Islington					25					
	565 Islington	20	110		40	25					
	564/562/560 Islington					10					
U8	553 Islington	22	77		42	36					Existing sewer service to Cass (Ref. "H") to remain.
	559 Islington	15			28						
	544/540 Islington					16					
	539/537 Islington	25	88		32	33					
	536 Islington	30			43			12			
	531 Islington	18	73		10	30					
	526/524 Islington				85	30					
	508 Islington	32			24	20					
	501 Islington				(Note 1)						
	501 Islington	15	75			30					
U9	460 Islington	30			50	16					Water/sewer services to Dover to remain.
	490 Islington	20			22	22					
	459 Islington (Note 3)		(Note 3)		105	24					
	452/450 Islington	30			80	20					
	449 Islington	22			25	28					
	442 Islington	34			28	17					
	439 Islington				65						
	432/430 Islington	30			55				18		
	469 Islington				40						
	23/25 Columbia	30			83	15					
U10	33/35 Columbia	28			65	14					Newer building set back from the road
	STA 22+45 Columbia	33			40	20					
	53/55 Columbia	27			60	14					
	46 Columbia	13			10	30					
	34/38 Columbia	19			64	32					
	18/24 Columbia	20			12	45					
	STA 20+40 Columbia					24					
	15/17 Columbia	26			40	16					
	21/23 Columbia	21			23	10					
	33 Columbia	20			36	7					
U11	24/26 Columbia	15			10	20					Water service to playground drinking fountain
	953 State St	25			15	25					
Subtotal:		1139	428	1780	1033	114	210	184	160	121	
Rounding:		41	42	60	37	36	40				
Total:		1180	470	1840	1070	150	250				

- Notes:
 1 No drainage provided. Property has existing private drainage system.
 2 Drain service quantified in Drainage Pipe Quantity Schedule.
 3 Sewer service quantified in Sewer Pipe Quantity Schedule.

DRAIN STRUCTURES

Dwg No.	Structure No	STA	Unit Items						
			604.124 4' Dia. CB (Type B)	604.184 4' Dia. CB (Curb Inlet)	604.125 5' Dia. CB	604.324 4' Dia. DMH	604.325 5' Dia. DMH	604.2 2' Dia DI	
U4	CB 1	102+74	6.7						
	CB 2	102+75	7.1						
U4	CB 3	103+53	7.1						
	CB 4	103+73	7.1						
U4	CB 5	104+40	10.0						
	CB 6	104+52	9.9						
U4	CB 8	105+85		7.8					
	DI 1	103+21							



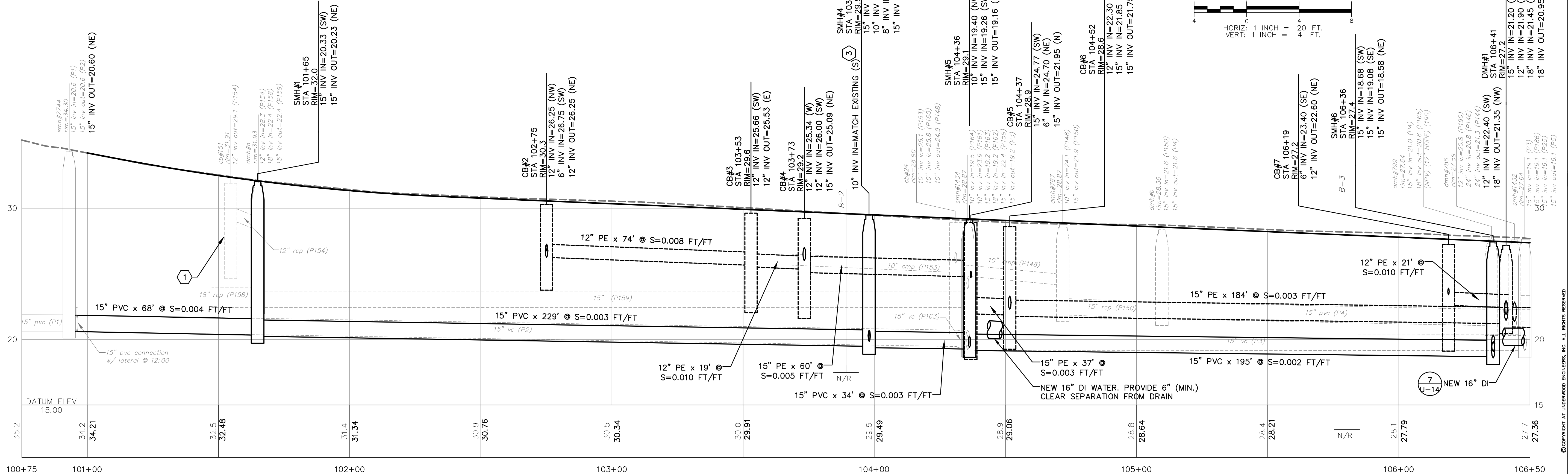
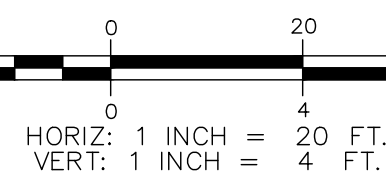
NOTES:

1. CONNECT EXISTING 10" AC TO NEW SMH#5 WITH 10" PVC x 5' AND FLEXIBLE COUPLING, ITEM 1.1.10.
2. CONNECT 6" PE DRAIN PIPE TO EXISTING ROOF DRAIN SYSTEM. VERIFY DEPTH TO EXISTING ROOF DRAIN CONNECTION PRIOR TO ORDERING DI#2.

ISLINGTON ST. PLAN VIEW

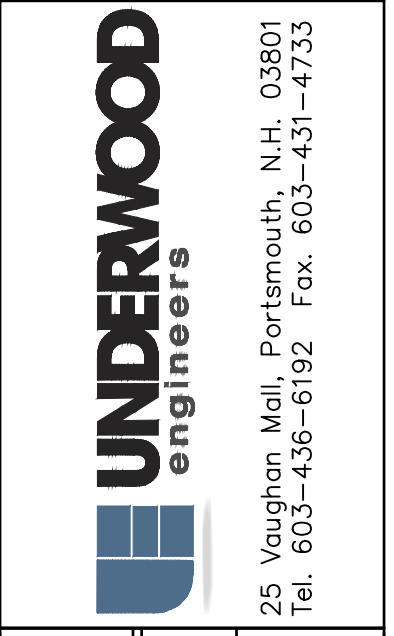
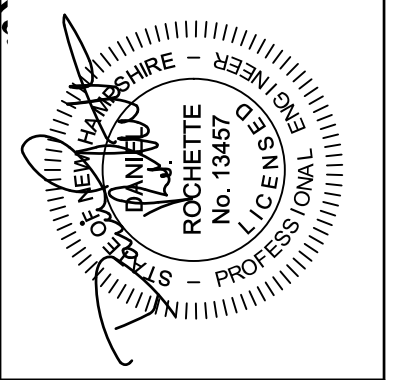
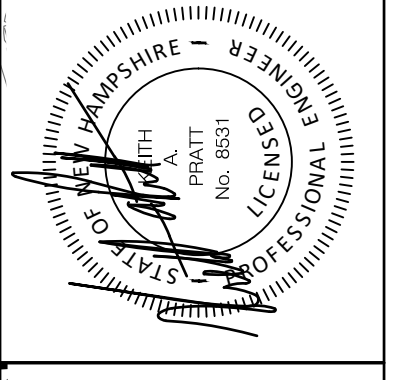


ISLINGTON ST. PROFILE VIEW

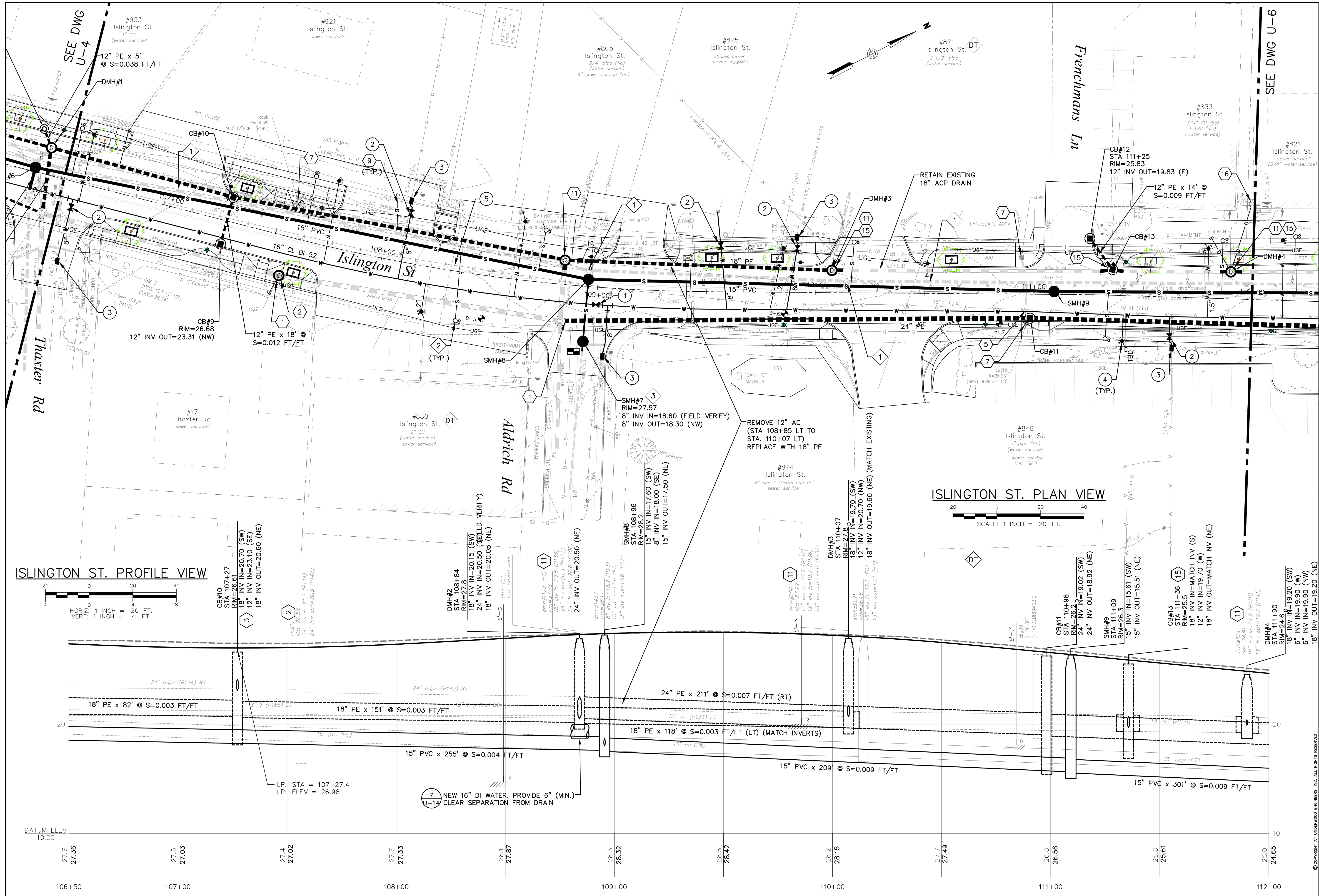


ISSUE FOR	DATE	BY
APPROVAL	5/9/18	DJR
CONSTRUCTION	1/11/19	DJR
RECORD DWG		

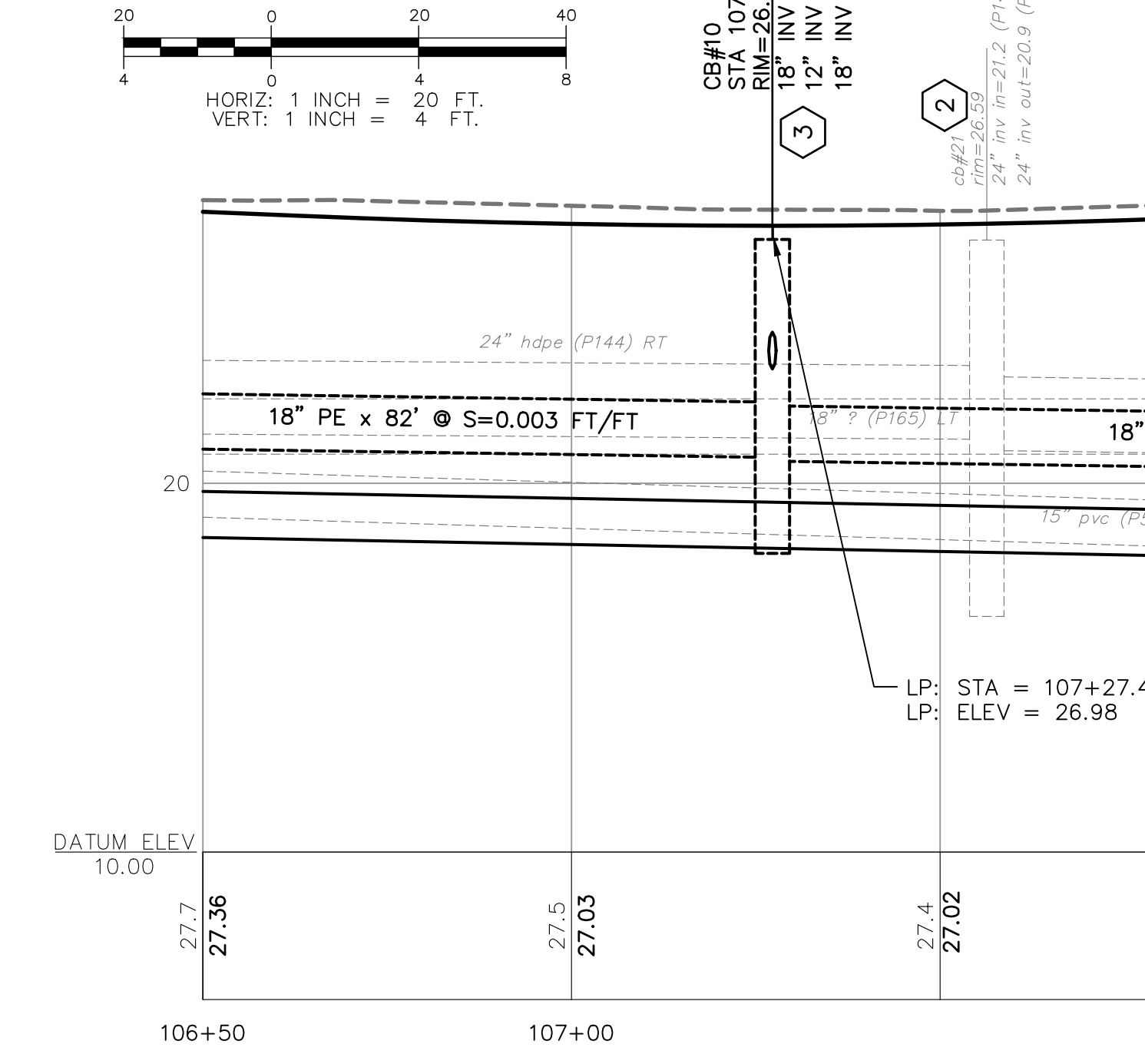
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Designed	PDM
Checked	PDM
Approved	
Date	1/7/2019
Book No.	
Project No.	2029
Dwg. ID	2029bbs.uatl.2
Scale	AS SHOWN



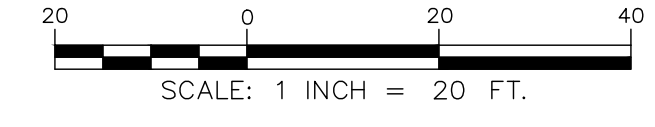
UTILITIES PLAN & PROFILE	
ISLINGTON STREET CORRIDOR IMPROVEMENTS	
CITY OF PORTSMOUTH	
PORTSMOUTH, NEW HAMPSHIRE	
DWG NO U-4	SHEET 77 OF 88



ISLINGTON ST. PROFILE VIEW



ISLINGTON ST. PLAN VIEW



ISSUE FOR	APPROVAL	By	Date
	DESIGN	JR	5/9/18
REVISIONS	NO.	DATE	DESCRIPTION
	1	1/11/19	DJR

Drawn/Chk	RJG
Designed	JR
Checked	PD
Approved	1/7/2019
Date	1/7/2019
Book No.	Project No. 2039
Dwg. ID	AS SHOWN
Scale	AS SHOWN

DWG NO	U-5
SHEET	78 OF 88

UNDERWOOD engineers

25 Vaughan Mall, Portsmouth, N.H. 03801
Tel. 603-436-6192 Fax. 603-431-4733

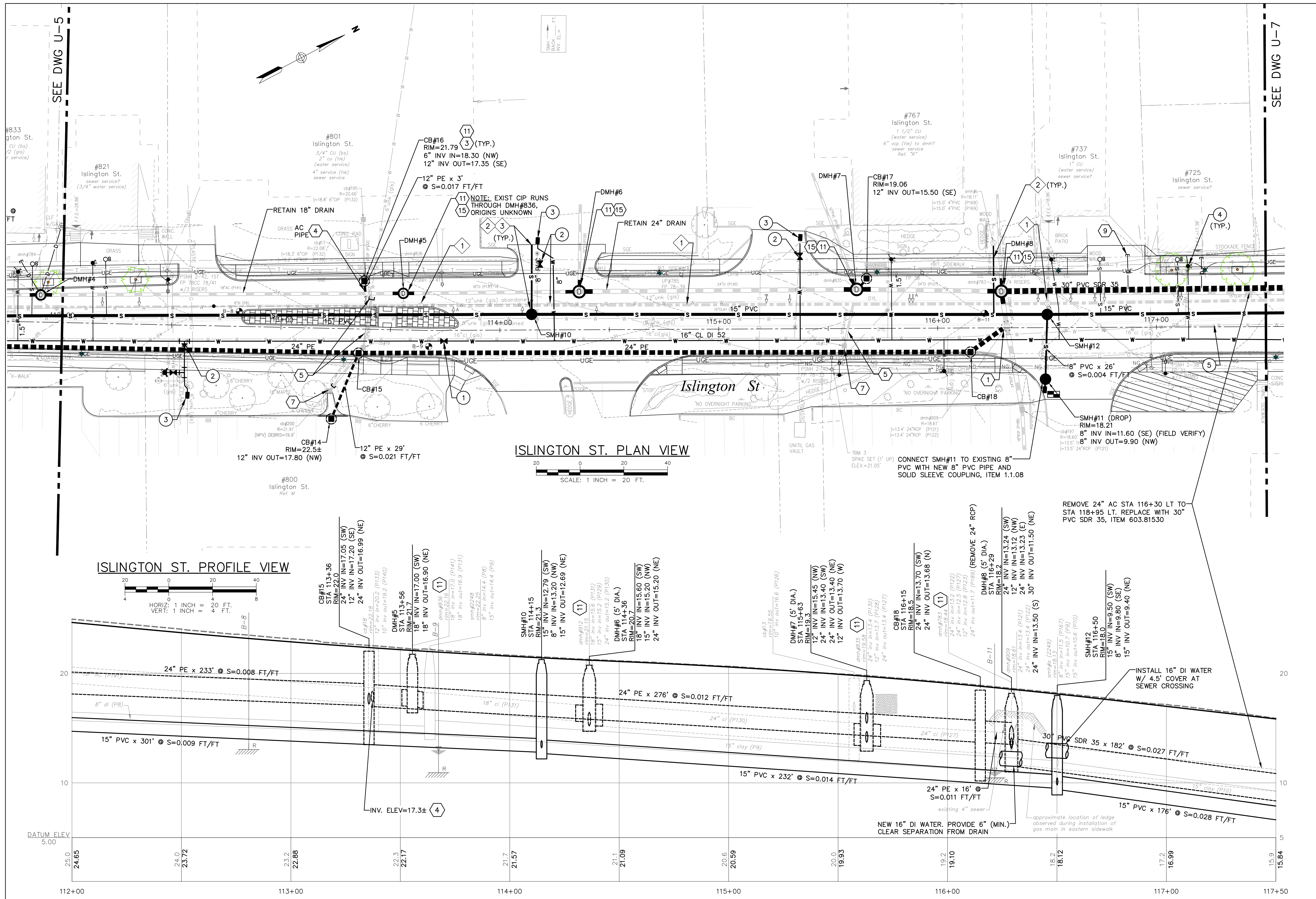
UTILITIES PLAN & PROFILE

ISLINGTON STREET CORRIDOR IMPROVEMENTS

CITY OF PORTSMOUTH

PORTSMOUTH, NEW HAMPSHIRE

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ISSUE FOR		APPROVAL		CONSTRUCTION		RECORD DWG	
Date	By	Date	By	Date	By	Date	By
5/9/18	DJR	5/9/18	DJR	1/11/19	DJR		

Drawn/Chk	RMG	Checked	PD	Date	Book No.	Project No.	Dwg. ID	Scale
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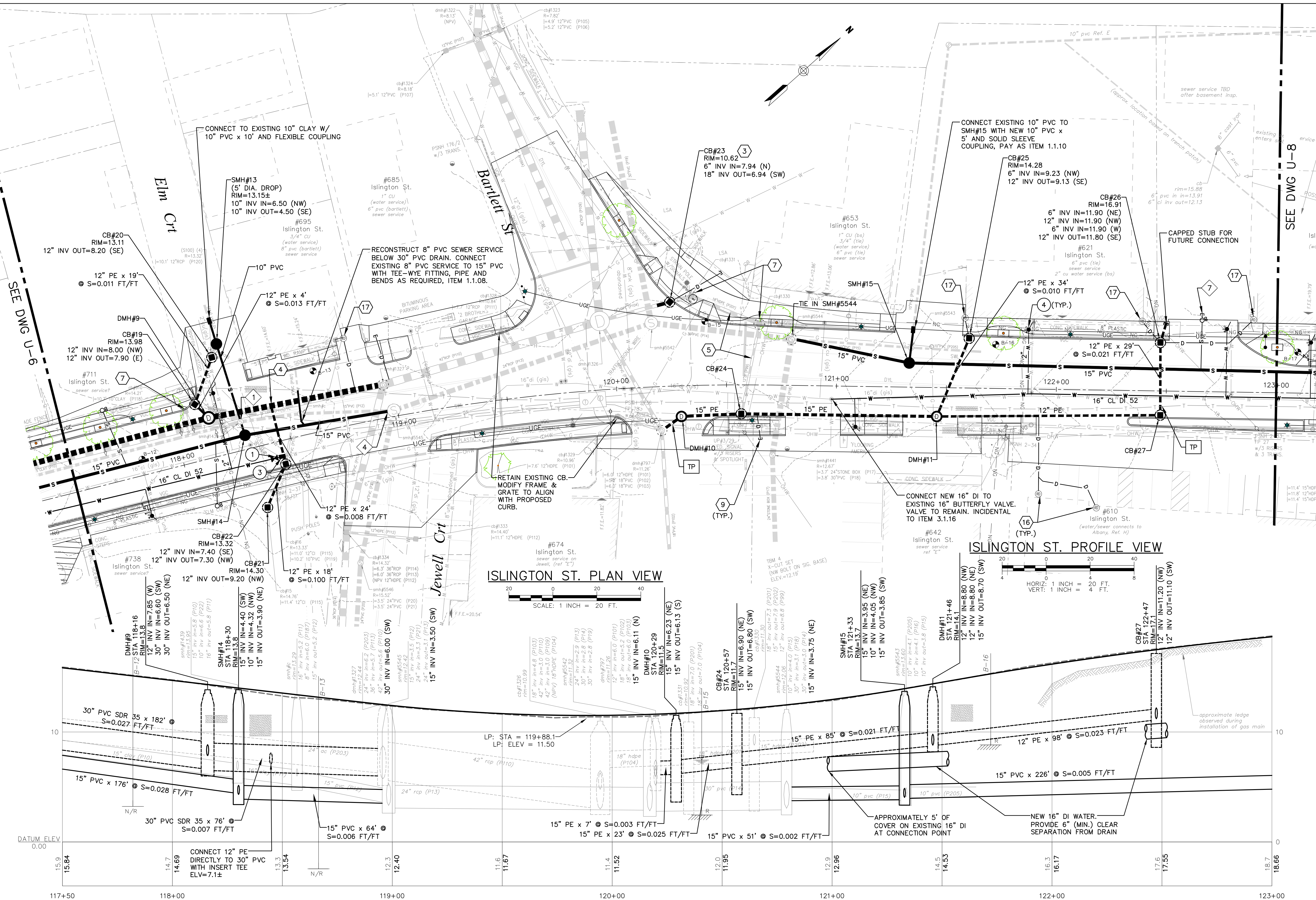
NO.	REVISIONS
NO.	AS SHOWN

DWG NO	SHEET
U-6	79 OF 88

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 25 Vaughan Mall, Portsmouth, N.H. 03801
 Tel. 603-436-6192 Fax. 603-431-4733

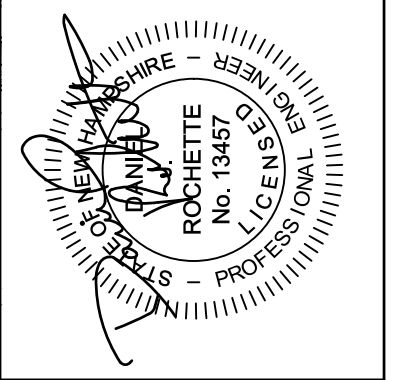
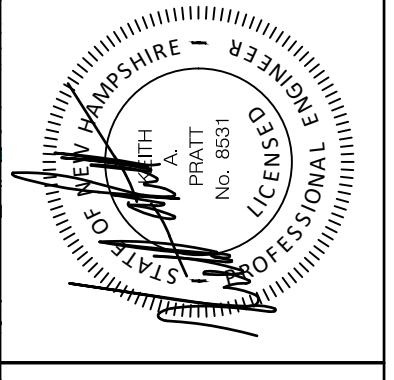
UTILITIES PLAN & PROFILE
 ISLINGTON STREET CORRIDOR IMPROVEMENTS
 CITY OF PORTSMOUTH
 PORTSMOUTH, NEW HAMPSHIRE

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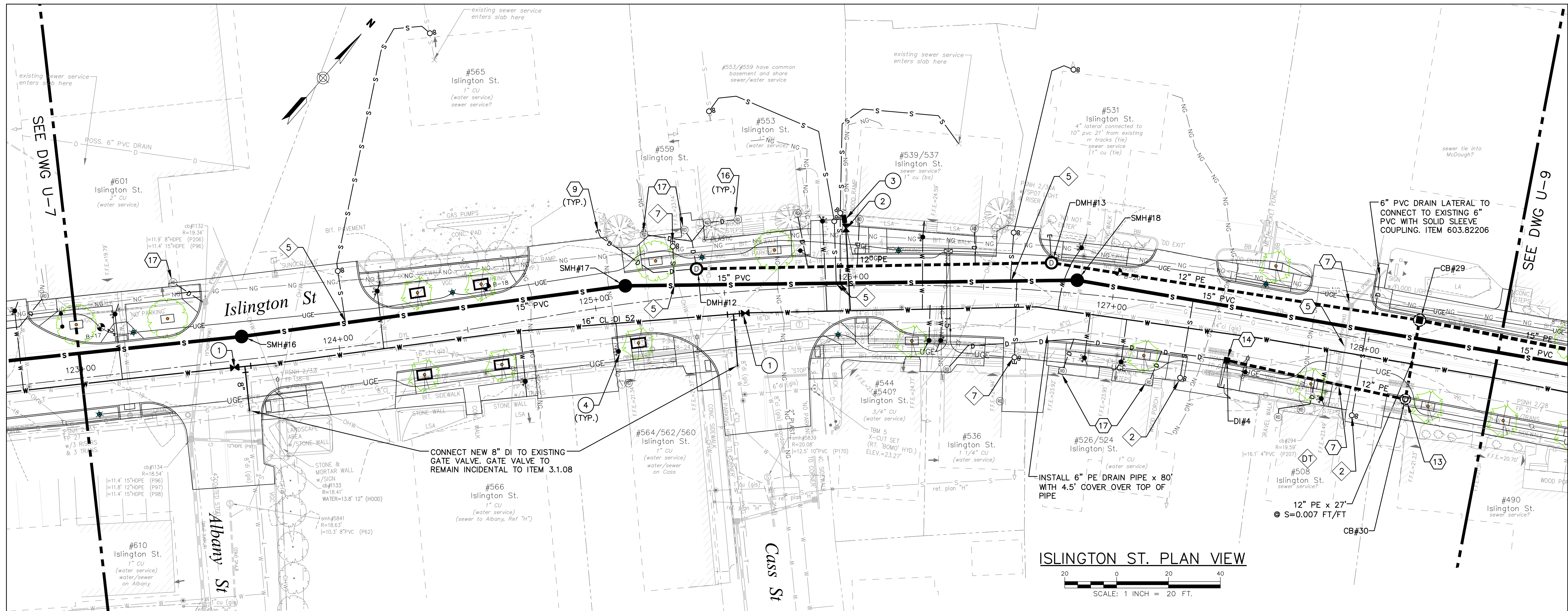
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Designed			
Checked			
Approved			
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Book No.			
Project No.	2029		
Dwg. ID	2029bos.utl.2		



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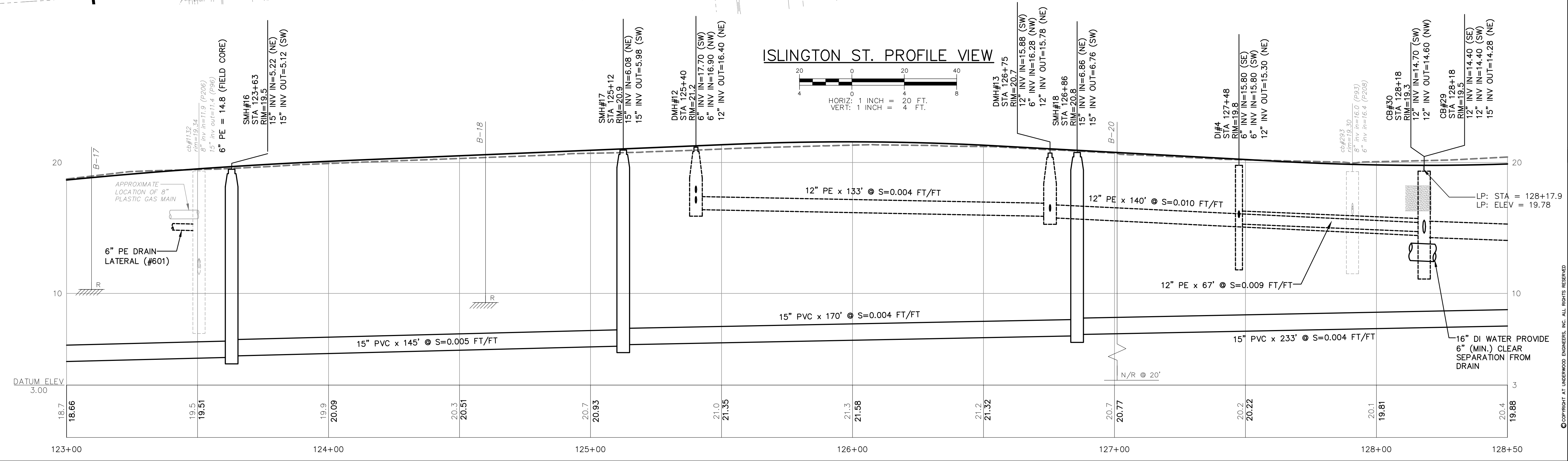
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UTILITIES PLAN & PROFILE
ISLINGTON STREET CORRIDOR IMPROVEMENTS
PORTSMOUTH, NEW HAMPSHIRE



ISLINGTON ST. PLAN VIEW
SCALE: 1 INCH = 20 FT.

ISLINGTON ST. PROFILE VIEW



ISSUE FOR	APPROVAL	DATE	BY
		5/9/18	DJR
		1/11/19	DJR

Drawn/Chk. RMR	Designed RMR
Checked PDM	Approved PDM
Date 1/7/2019	Date 1/7/2019
Book No. 2029	Project No. 2029
Dwg. ID 2029bas_utl-2	Scale AS SHOWN

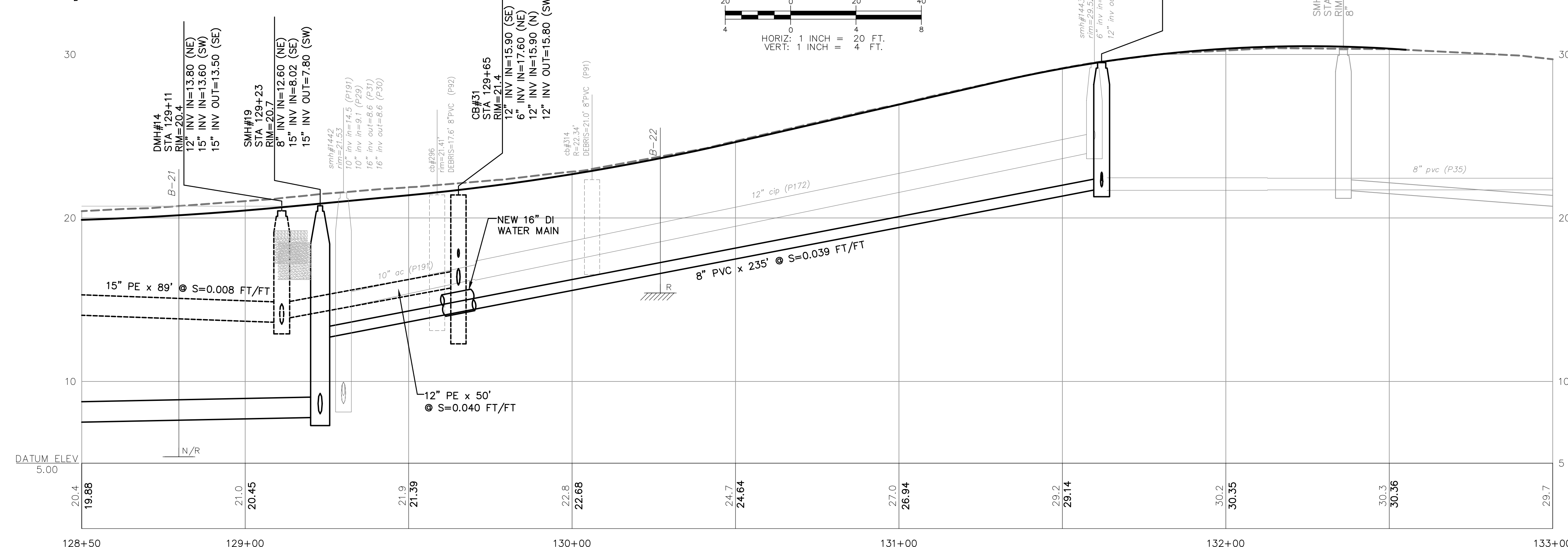
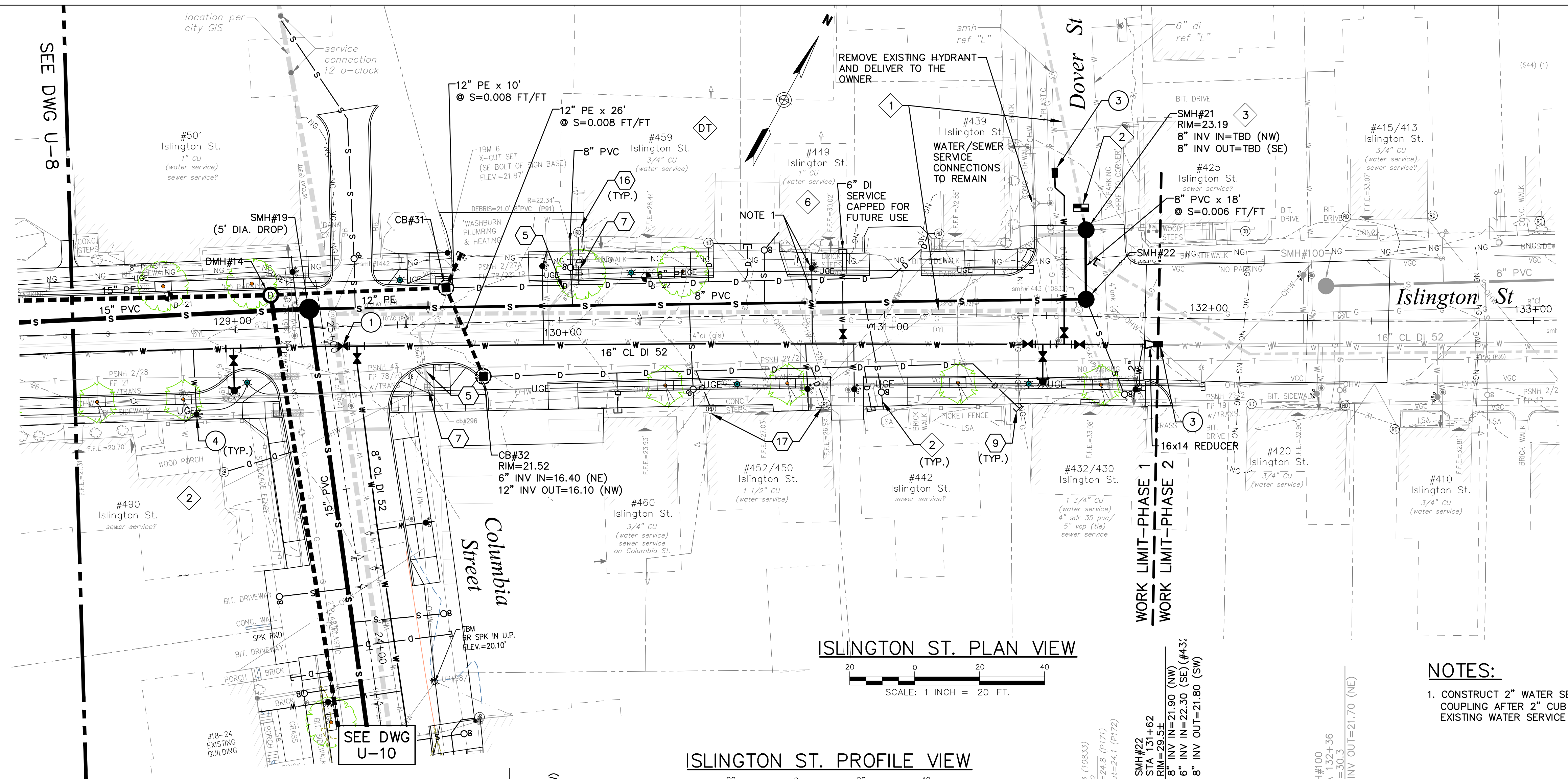
Professional Engineer Seal: ROSETTE W. PRATT, No. 15897, LICENSED PROFESSIONAL ENGINEER, STATE OF NEW HAMPSHIRE

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DWG NO. U-8	SHEET 81 OF 88
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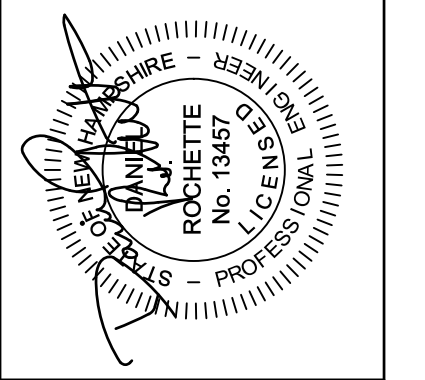
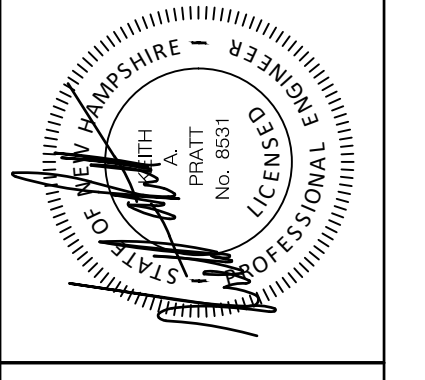
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NOTES:
1. CONSTRUCT 2" WATER SERVICE. PROVIDE REDUCTION COUPLING AFTER 2" CUB STOP TO REDUCE TO EXISTING WATER SERVICE SIZE.

ISSUE FOR	APPROVAL	DATE	BY
REVISIONS			

Drawn/Chk	RJG
Designed	DJR
Checked	PDM
Approved	[Signature]
Date	1/7/2019
Book No.	2029
Project No.	2029
Dwg. ID	2029bas_u1-2
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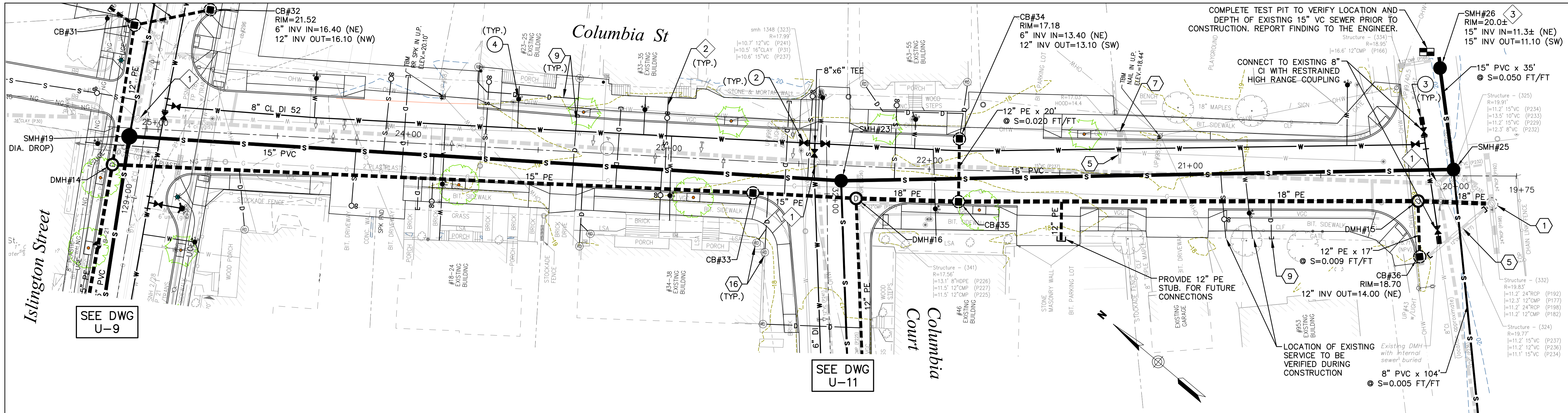
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ISLINGTON STREET CORRIDOR IMPROVEMENTS

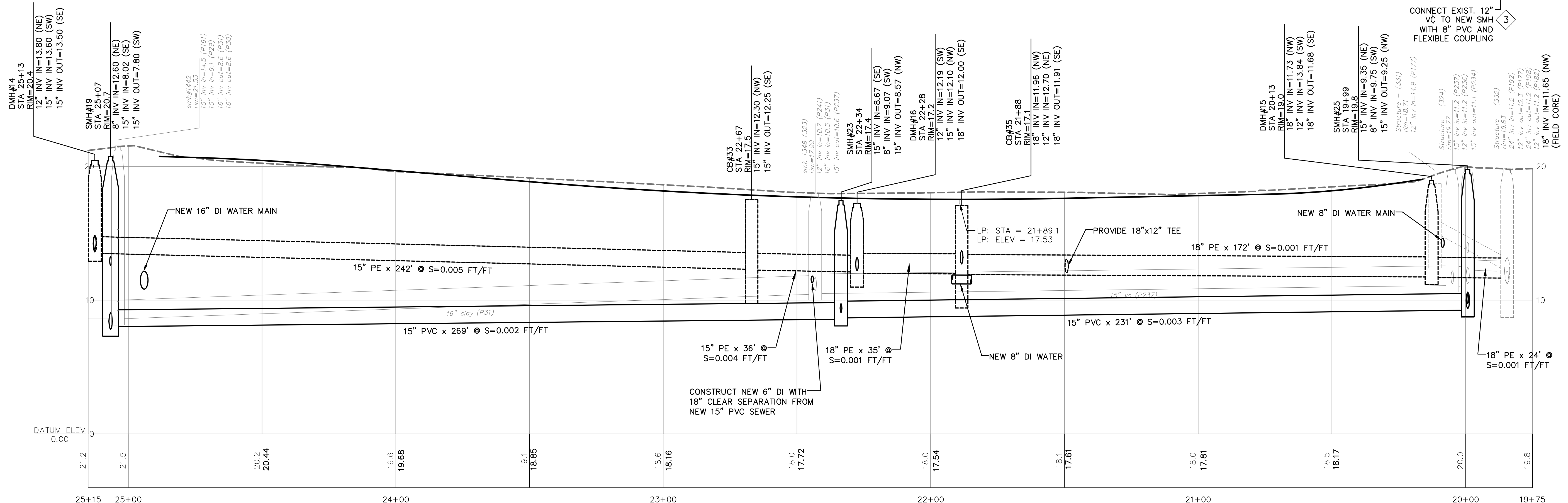
CITY OF PORTSMOUTH

PORTSMOUTH, NEW HAMPSHIRE

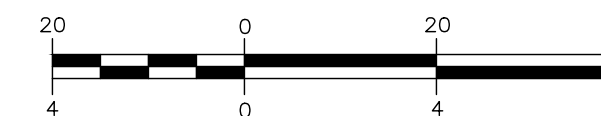
DWG NO. U-9
SHEET 82 OF 88



COLUMBIA ST. PLAN VIEW



COLUMBIA ST. PROFILE VIEW



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APPROVAL		Date	5/9/18	DJR
CONSTRUCTION		Date	1/11/19	DJR
RECORD DWG		Date		
REVISIONS		NO.		
Drawn/Chk	RJR	Checked	FDI	Date
Designed	DJR	Approved	1/7/2019	
Book No.	2029	Project No.	2029	
Dwg. ID	2029bas_u11-2	Scale	AS SHOWN	

UNDERWOOD ENGINEERS, INC.

STATE OF NEW HAMPSHIRE

Professional Engineer

Pratt No. 6881

UNDERWOOD ENGINEERS, INC.

Professional Engineer

Rochette No. 15499

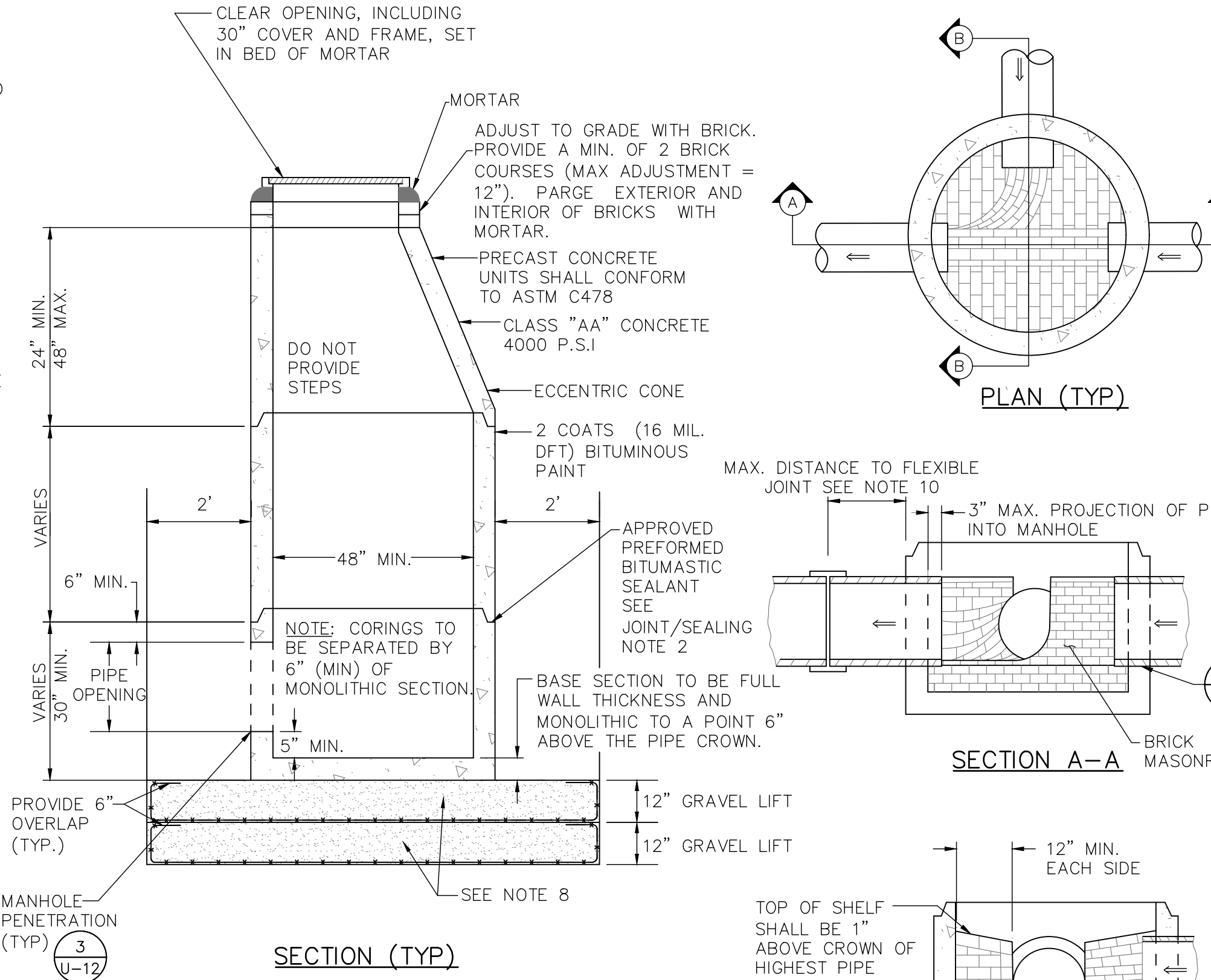
UTILITIES PLAN & PROFILE
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CITY OF PORTSMOUTH
PORTSMOUTH, NEW HAMPSHIRE

DWG NO	SHEET
U-10	83 OF 88

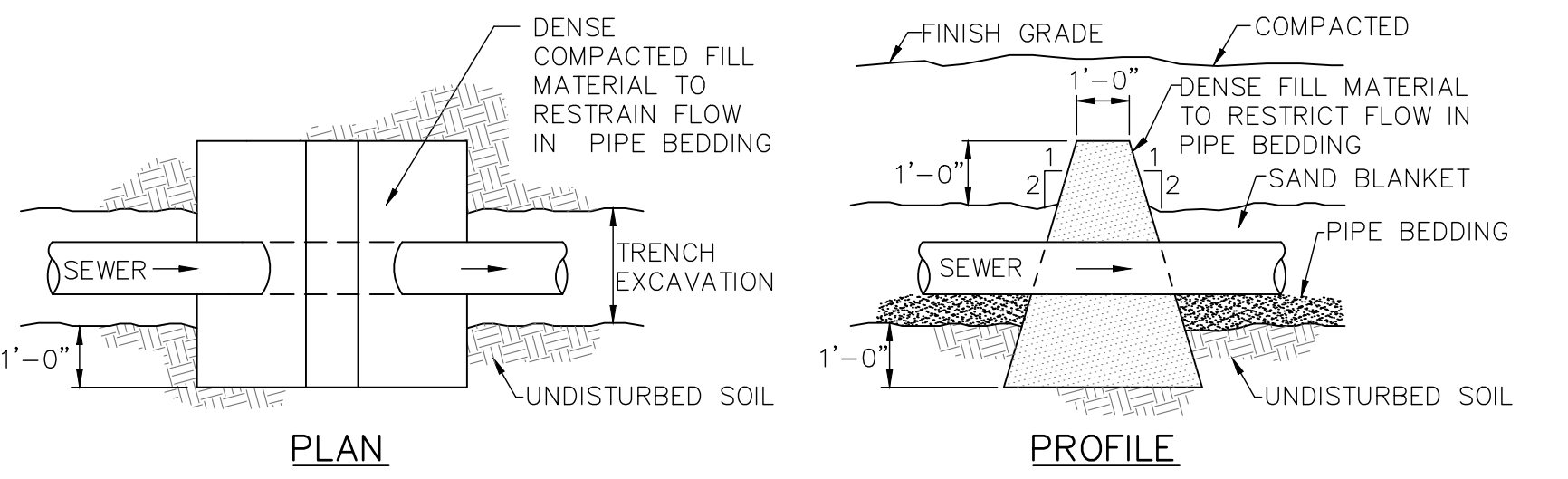
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STANDARD MANHOLE NOTES:

- GENERAL:** SEWER MANHOLES, INCLUDING ALL COMPONENT PARTS, SHALL BE ASSEMBLED FROM PRECAST SECTIONS, WITH STEEL REINFORCEMENT, IN ANY APPROVED MANHOLE. THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H2O LOADING) WITHOUT FAILURE, AND TO PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE, CONTINUOUSLY FOR THE LIFE OF THE STRUCTURE. A PERIOD GENERALLY IN EXCESS OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES.
- BARRELS AND CONE SECTIONS:** SHALL BE PRECAST REINFORCED CONCRETE.
- PRECAST CONCRETE:** BARREL SECTIONS, CONES, AND BASES SHALL CONFORM TO ASTM C478.
- LEAKAGE TEST:** SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS. INVERT AND SHELF TO BE PRIOR TO BACKFILL PLACED AFTER TESTING.
- INVERTS AND SHELVES:** MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT. INVERT BRICKS SHALL BE LAID ON EDGE. AT CHANGES IN DIRECTION, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO AN ELEVATION OF 1" ABOVE THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY.
- FRAMES AND COVERS:** MANHOLE FRAMES AND COVERS SHALL BE CITY OF PORTSMOUTH STANDARD AND SHALL BE PICKED UP BY THE CONTRACTOR AT PORTSMOUTH DPW.
- BEDDING:** SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33. STONE SIZE NO. 67:
100% PASSING 1 INCH SCREEN
90-100% PASSING 3/4 INCH SCREEN
20-55% PASSING 3/8 INCH SCREEN
0-10% PASSING #4 SIEVE
0-5% PASSING #8 SIEVE
- WHERE THE MATERIAL BELOW MANHOLE STRUCTURE IS SOFT OR YIELDING, AND WHERE DIRECTED BY THE ENGINEER, INSTALL DOUBLE LAYER OF GEOGRID (TENSAR TX160 OR EQUAL). PAY AS ITEM 1.8B (LFx2).
- SHALLOW MANHOLE:** IN LIEU OF A CONE SECTION, WHEN MANHOLE IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER HAVING AN ECCENTRIC ENTRANCE AND CAPABLE OF SUPPORTING H-20 LOADS MAY BE USED.
- FLEXIBLE JOINT:** A FLEXIBLE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES:
RCP AND CI PIPE - ALL SIZES - 48"
AC AND VC PIPE - UP THROUGH 12" DIA. - 18"
AC AND VC PIPE - LARGER THAN 12" DIA. - 36"
DI PIPE - NONE REQUIRED
PVC - UP THROUGH 15" DIA. - NONE REQUIRED
PVC - LARGER THAN 15" DIA. - 48"/60"
ABS (ASTM D2680) - ALL SIZES - SAME AS VC ABOVE.
- SPECIFICATIONS:** ADDITIONAL CONSTRUCTION SPECIFICATIONS ARE INCLUDED IN THE CONTRACT DOCUMENTS. THESE STANDARD MANHOLE DRAWINGS ARE NOT COMPLETE WITHOUT THESE SPECIFICATIONS.



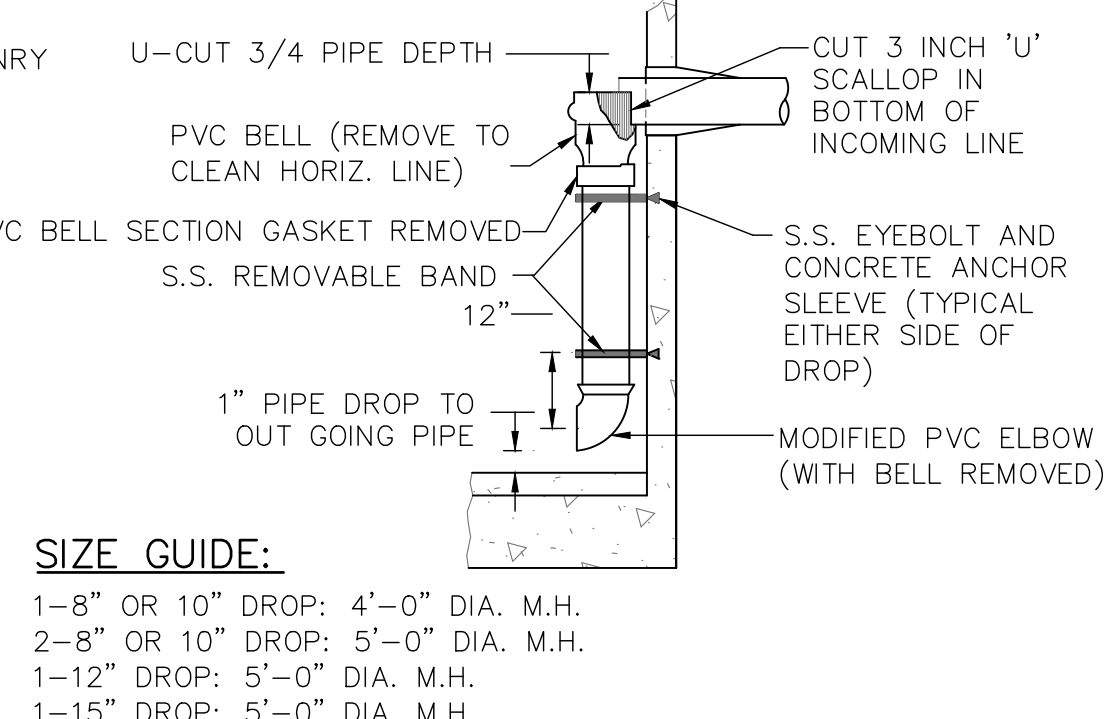
1 SEWER MANHOLE
U-12 NOT TO SCALE



4 TRENCH DAM
U-12 NOT TO SCALE

GRAVITY SEWER TRENCH NOTES:

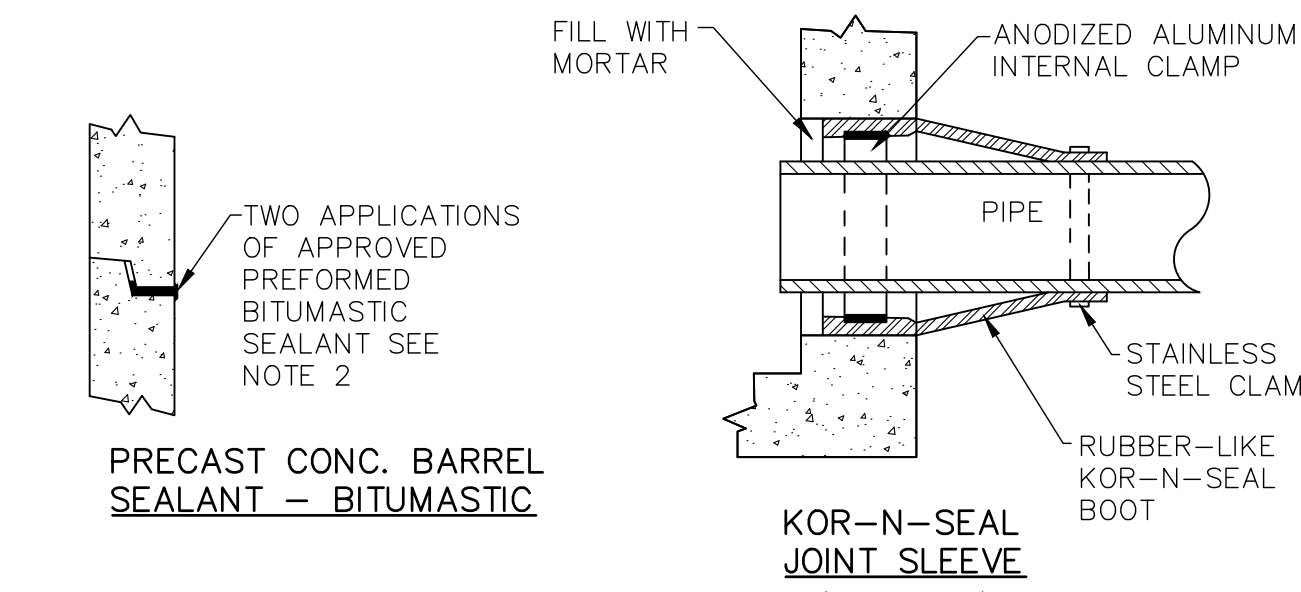
- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE:** BACKFILL AS STATED IN THE TECHNICAL SPECIFICATIONS OR AS SHOWN ON THE DRAWINGS.
- BEDDING:** SEE NOTE 7 OF STANDARD MANHOLE NOTES. WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, GRADED SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1-1/2 INCH AND/OR THE USE OF GEOGRID FABRIC (ITEM 1.8B) MAY BE REQUIRED.
- SAND BLANKET:** CLEAN SAND FREE FROM ORGANIC MATTER, SO GRADED THAT 90-100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE. BLANKET MAY BE OMITTED FOR CAST-IRON, DUCTILE IRON, AND REINFORCED CONCRETE PIPE PROVIDED HOWEVER, THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE.
- SUITABLE MATERIAL:** IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS; PIECES OF PAVEMENT; ORGANIC MATTER; TOP SOIL; ALL WET OR SOFT MUCK, PEAT, OR SOFT CLAY; ALL EXCAVATED LEDGE MATERIAL; ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION; AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. IN CROSS-COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK, OR PEAT, IF HE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER, FOR MAINTENANCE AND POSSIBLY RECONSTRUCTION, WILL BE PRESERVED.
- BASE COURSE AND PAVEMENT:** SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES - DIVISIONS 300 AND 400 RESPECTIVELY.
- W = MAXIMUM ALLOWABLE TRENCH PAYMENT WIDTH:** FOR ROCK EXCAVATION, FOR ORDERED EXCAVATION BELOW GRADE AND HANDLING OF EXCAVATED CONTAMINATED SOILS. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES IN NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE OUTSIDE DIAMETER (O.D.).
- CROSS COUNTRY CONSTRUCTION:** BACKFILL OR FILL SHALL BE MOUND TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- WHERE TRENCH BOTTOM IS SOFT OR YIELDING, AND WHERE DIRECTED BY THE ENGINEER, INSTALL SINGLE LAYER OF GEOGRID (TX160 OR EQUAL) ACROSS THE ENTIRE WIDTH OF TRENCH BOTTOM. PAY AS ITEM 1.8A (L.F.).



5 DROP MANHOLE
U-12 NOT TO SCALE

JOINTING AND SEALING NOTES

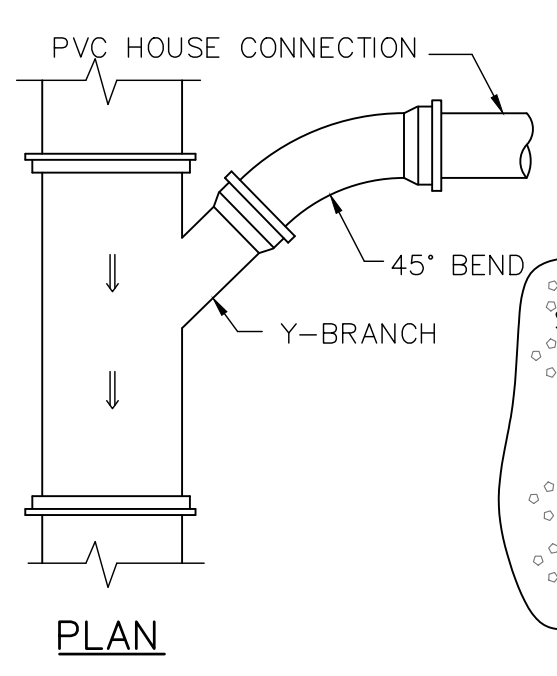
- PIPE TO MANHOLE JOINTS SHALL BE ONLY AS APPROVED BY THE ENGINEER AND IN GENERAL, WILL DEPEND UPON AN ELASTOMERIC SEALANT FOR WATERTIGHTNESS.
- FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY. APPROVED BITUMASTIC SEALANTS: RAM-NEK E 2 KENT SEAL NO.2
- ALL GASKETS, SEALANTS, MORTAR, ETC., SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.



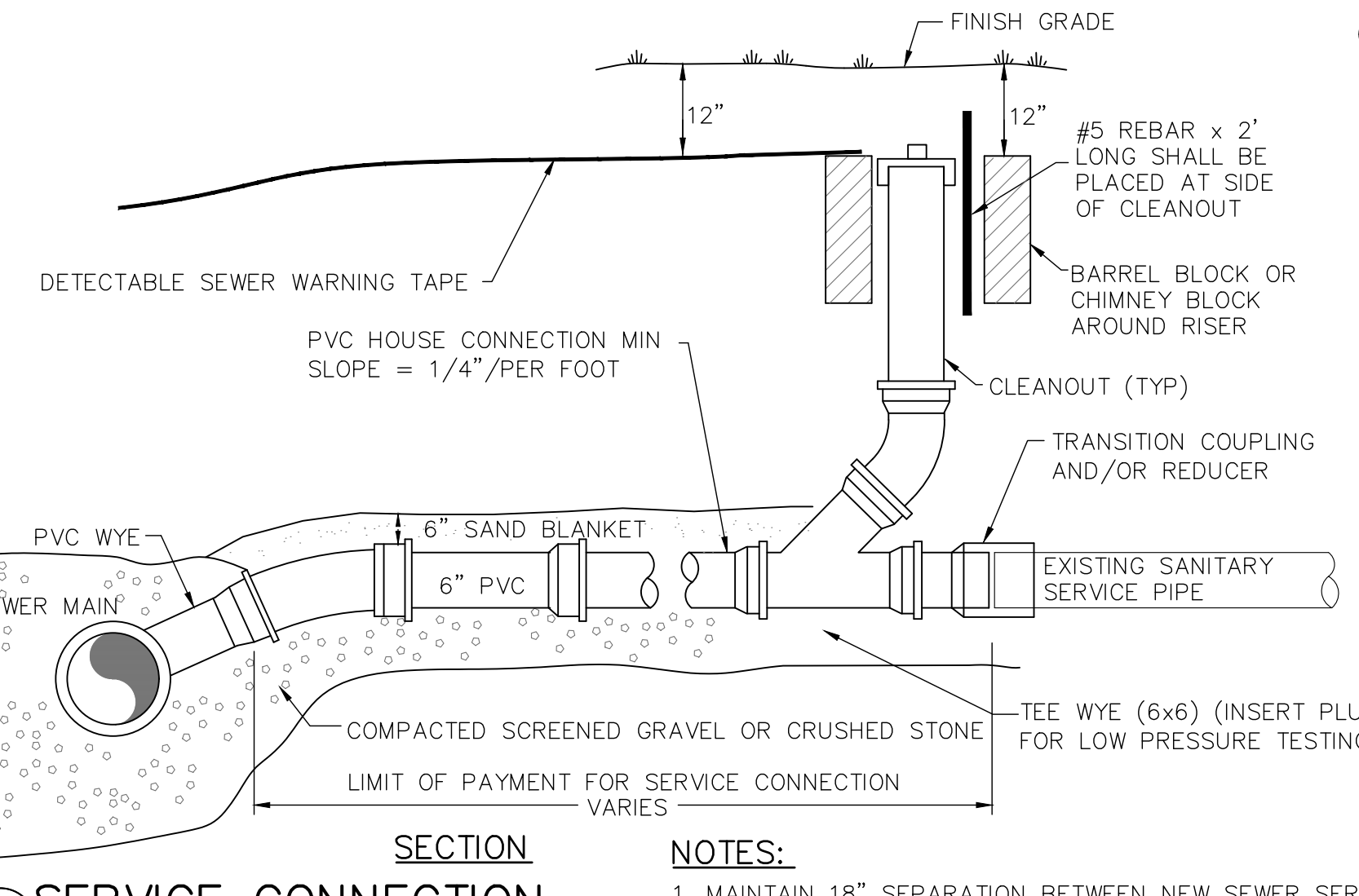
3 MANHOLE PENETRATIONS
U-12 NOT TO SCALE

SERVICE CONNECTION NOTES:

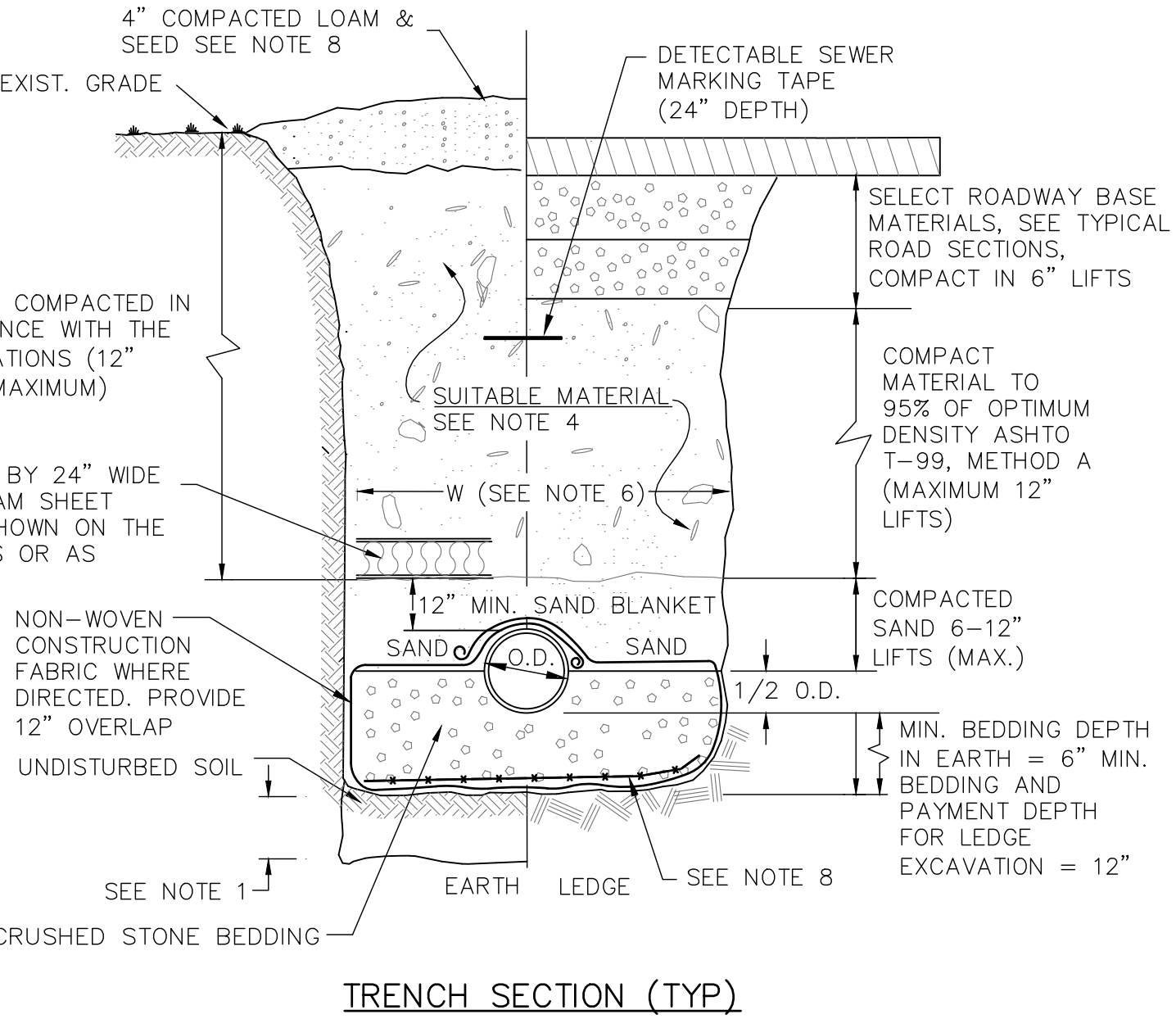
- SEE DETAILS FOR SERVICE CONNECTION REQUIREMENTS.
- SERVICE CONNECTION SHALL BE INSTALLED BELOW WATER MAIN WHERE POSSIBLE.
- CLEANOUTS SHALL BE INSTALLED AT EACH SERVICE CONNECTION.
- REBAR SHALL BE PLACED AT SIDE OF CLEANOUT.
- CLEANOUT SHALL BE USED TO PLUG AND TEST ALL NEW LATERALS WITH MINIMAL INTERRUPTION TO OPERATION OF HOMEOWNER SANITARY SYSTEM.
- CLEANOUT RISER PIPE AND FITTINGS SHALL BE INCIDENTAL AND SHALL NOT BE CONSIDERED FOR PAYMENT.



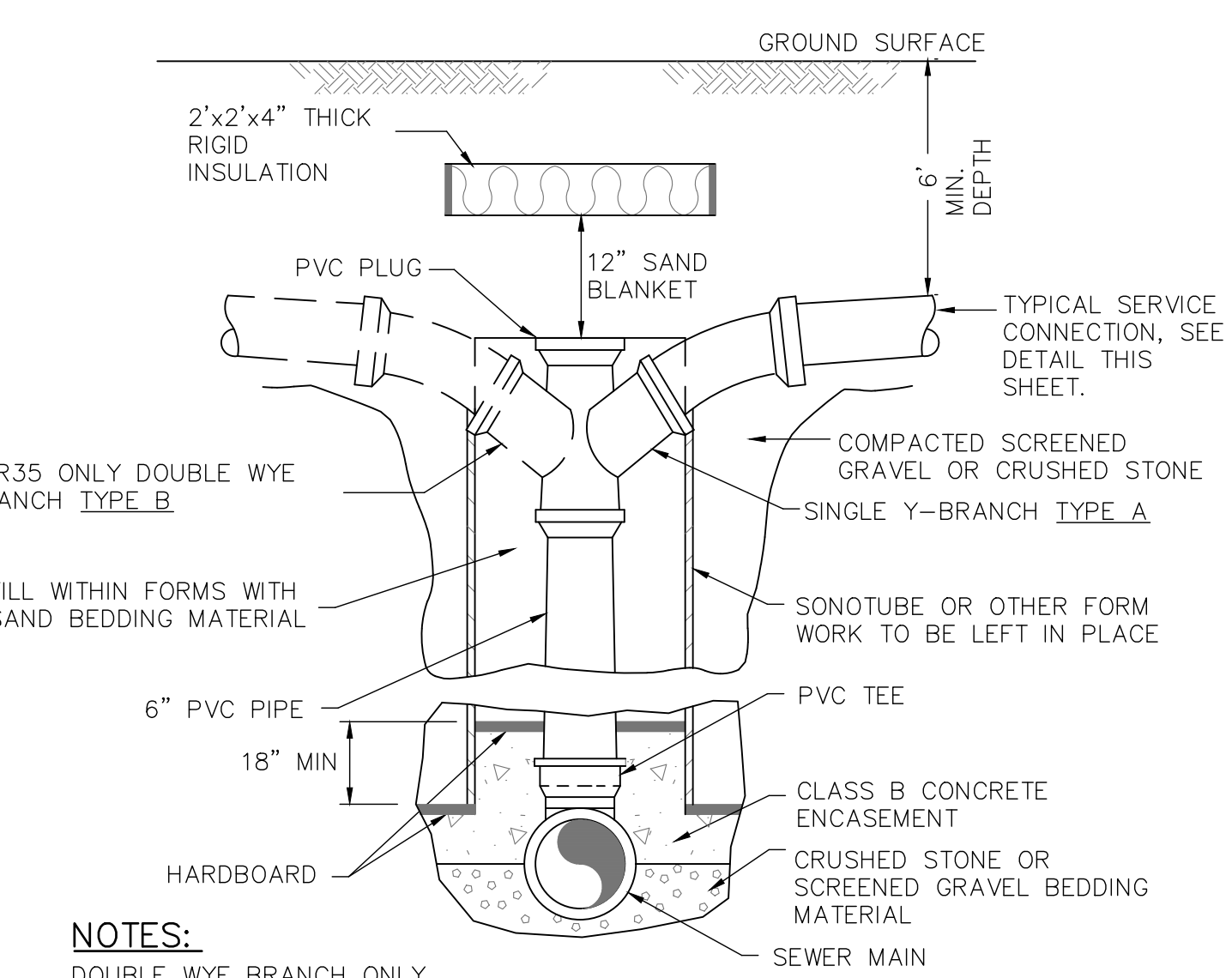
6 SERVICE CONNECTION
U-12 NOT TO SCALE



6 SERVICE CONNECTION
U-12 NOT TO SCALE



2 TRENCH - GRAVITY SEWER
U-12 NOT TO SCALE



7 PVC SEWER SERVICE CHIMNEY WITH WYE
U-12 NOT TO SCALE

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		DAR	5/9/18	
		DAR	1/17/19	
		DAR	2029	
		DAR	2029	
		DAR	2029	

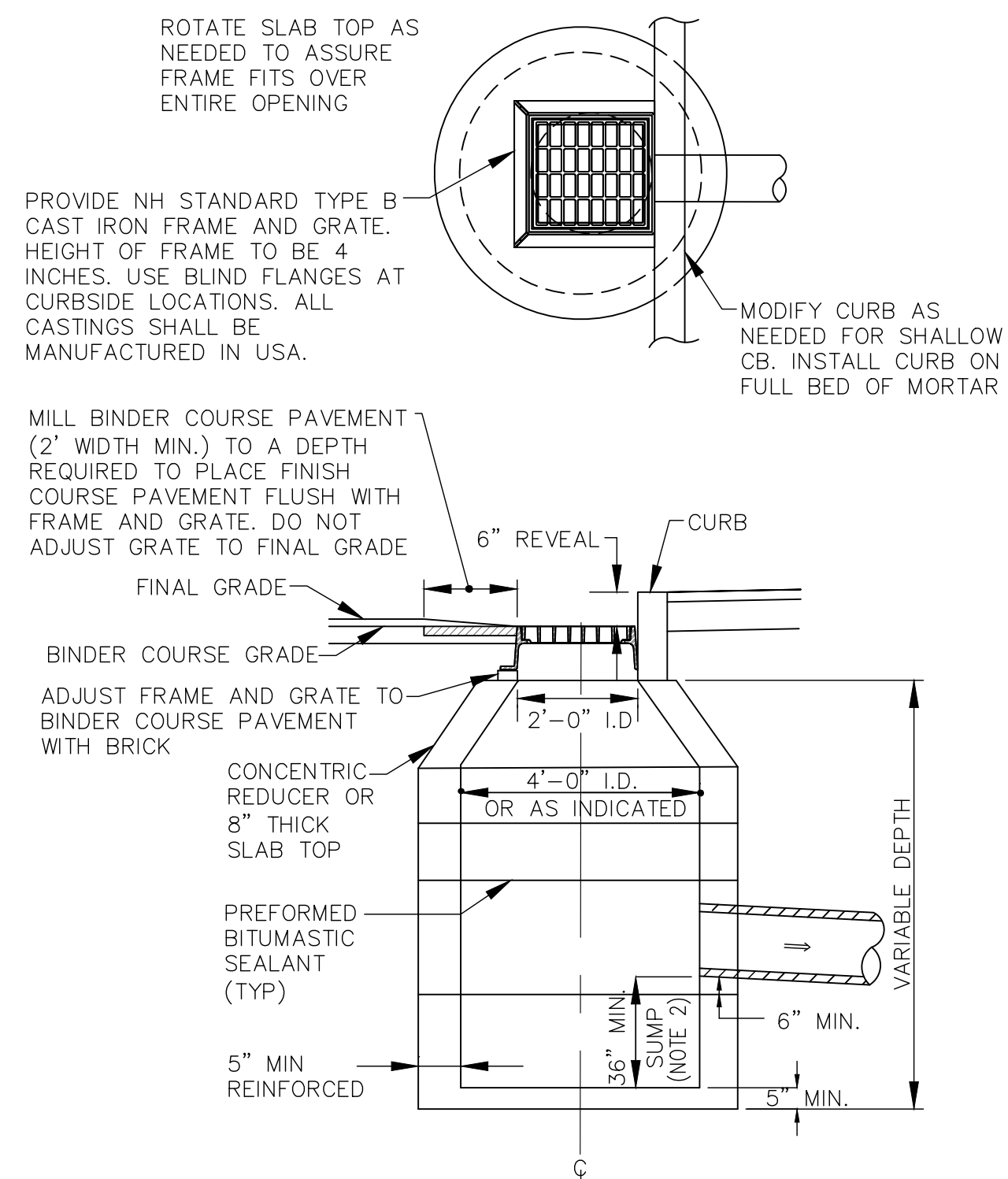
Professional Engineer Seal for James P. Rochette, License No. 03801, State of New Hampshire.

UNDERWOOD engineers
25 Vaughan Mall, Portsmouth, N.H. 03801
Tel. 603-436-6192 Fax. 603-431-4733

STANDARD SEWER DETAILS
ISLINGTON STREET CORRIDOR IMPROVEMENTS
CITY OF PORTSMOUTH
PORTSMOUTH, NEW HAMPSHIRE

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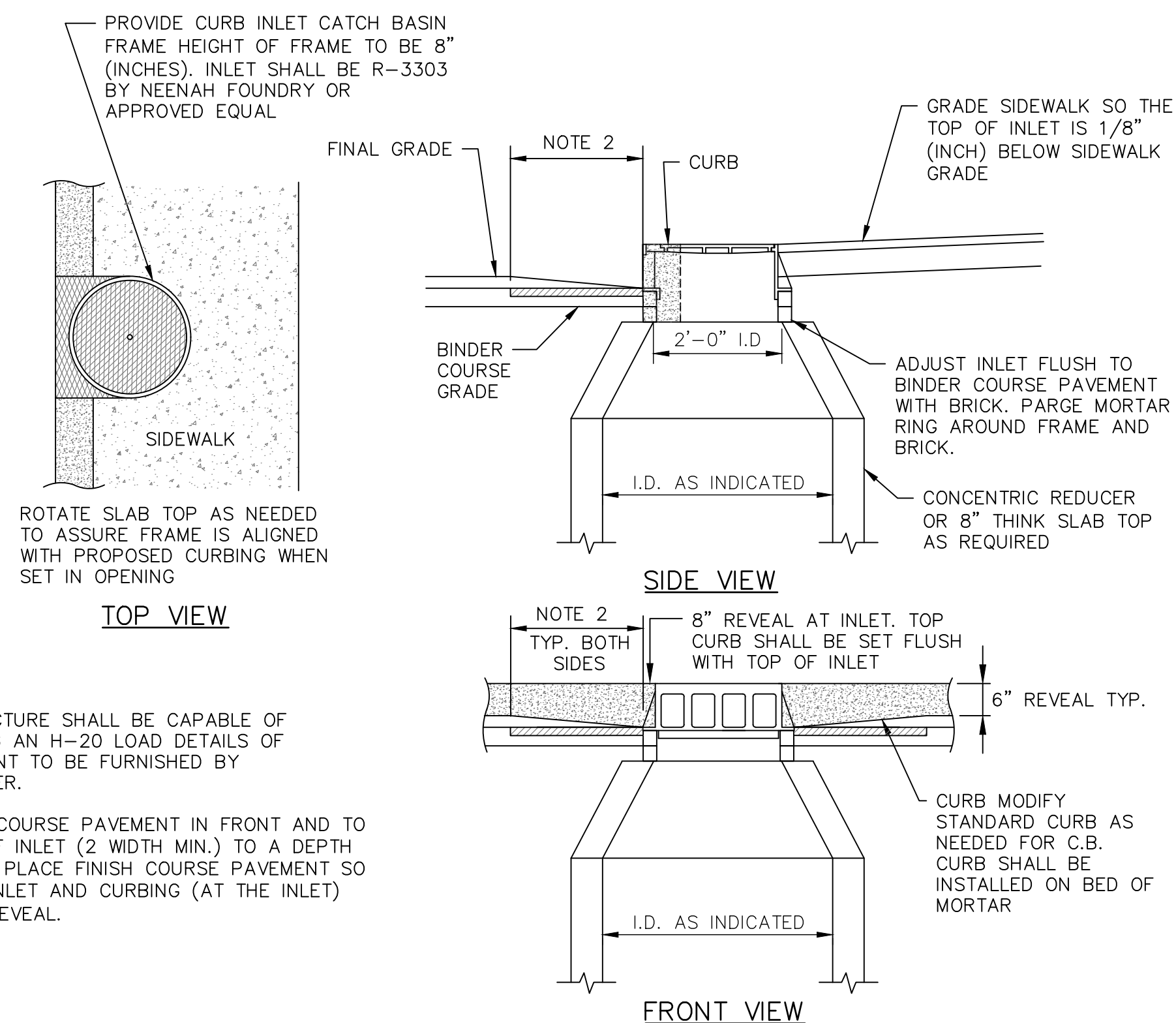
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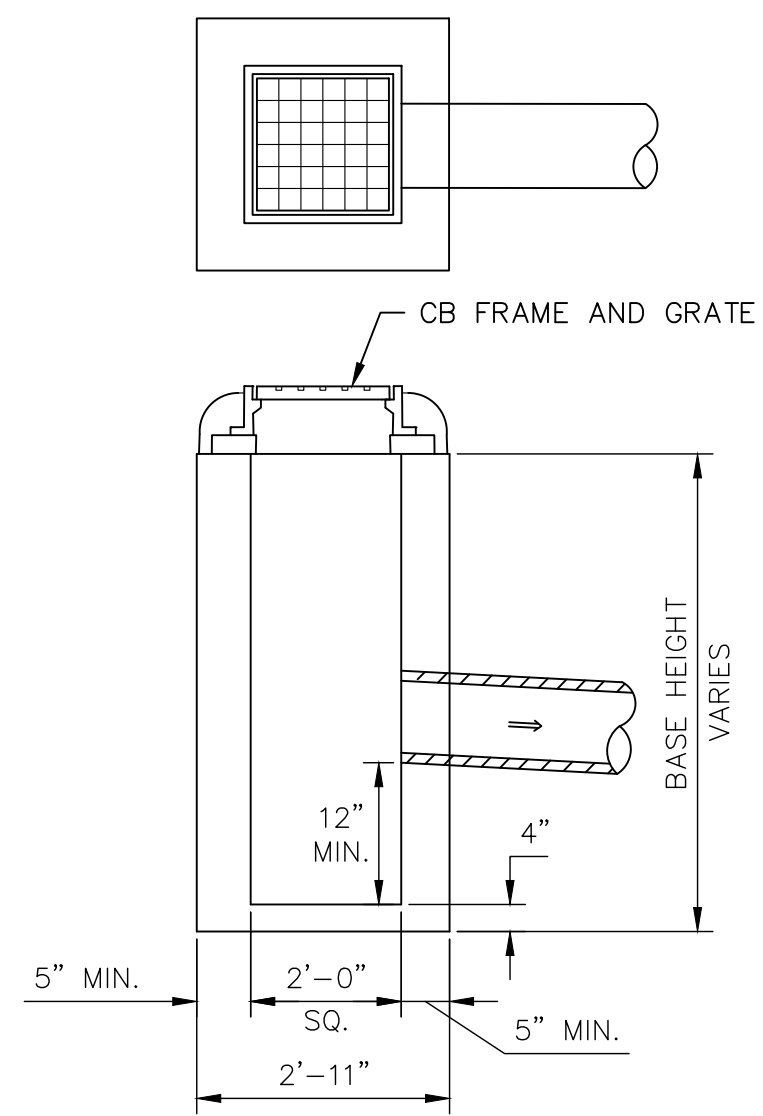
1 CATCH BASIN DETAIL
U-13 NOT TO SCALE

CATCH BASIN NOTES:

- ENTIRE STRUCTURE SHALL BE CAPABLE OF WITHSTANDING AN H-20 LOAD DETAILS OF REINFORCEMENT TO BE FURNISHED BY MANUFACTURER.
- WHERE SUMP IS OMITTED PROVIDE MASONRY INVERT PER DETAIL **2**



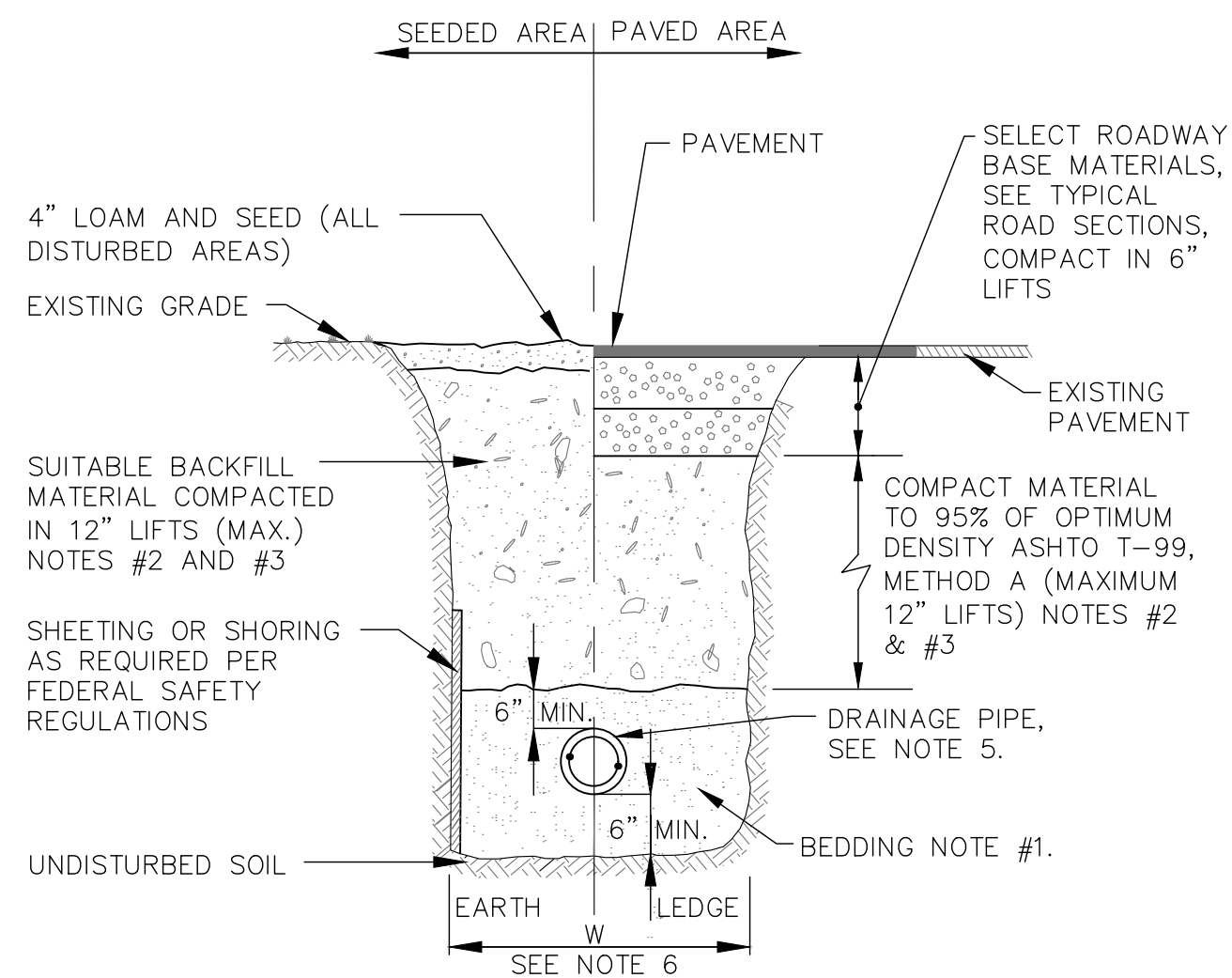
5 INLET CATCH BASIN FRAME DETAIL
U-13 NOT TO SCALE



2 DROP INLET DETAIL
U-13 NOT TO SCALE

NOTES:

- CONCRETE: 5,000 PSI AT 28 DAYS.
- REINFORCING: 1 LAYER OF 4x4/4x4 W.W.M.
- TO ACCOMMODATE A 24" SQ. C.I. FRAME AND GRATE.



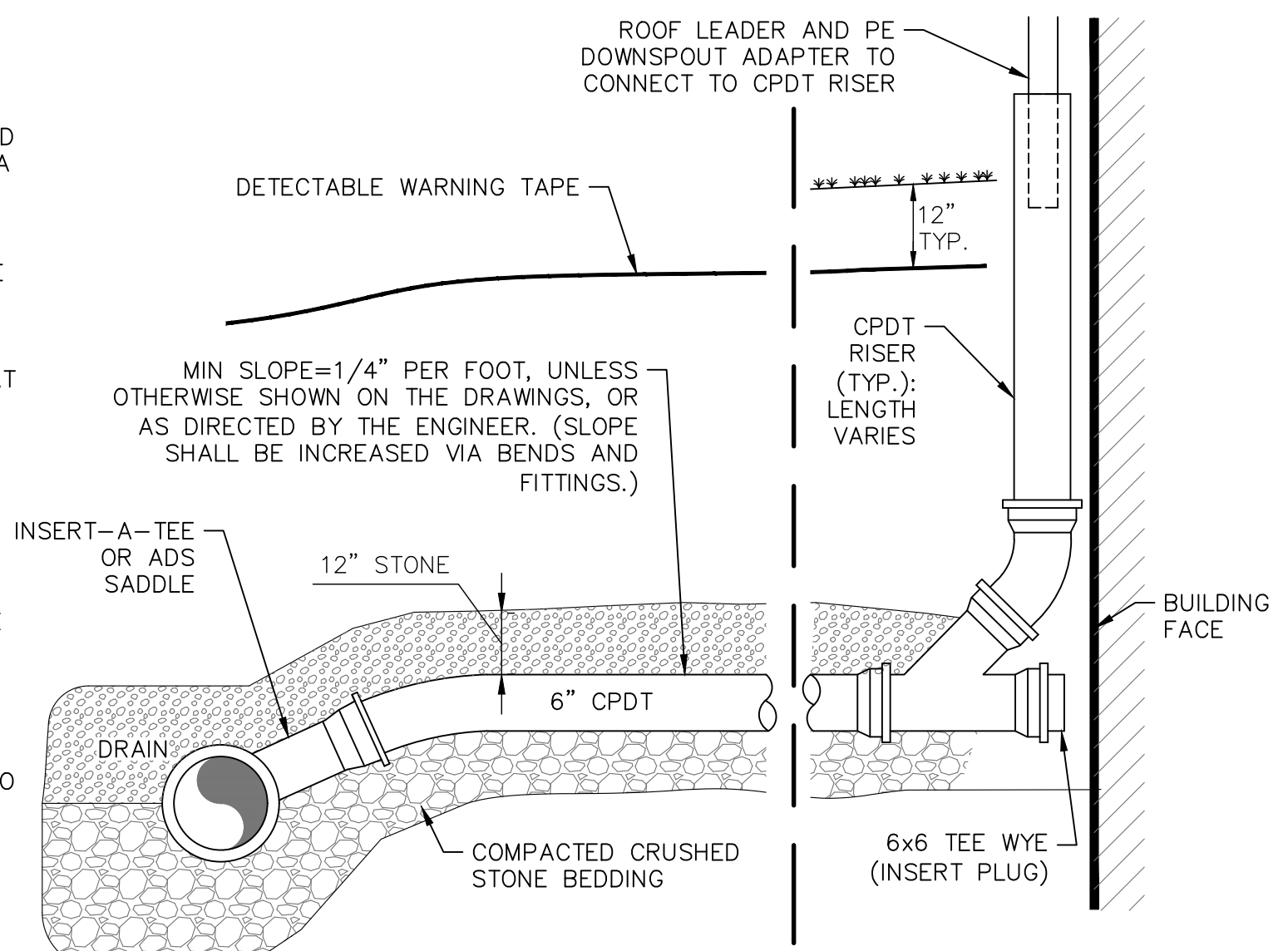
3 TRENCH DETAIL - STORM DRAIN
U-13 NOT TO SCALE

TRENCH NOTES - STORM DRAIN

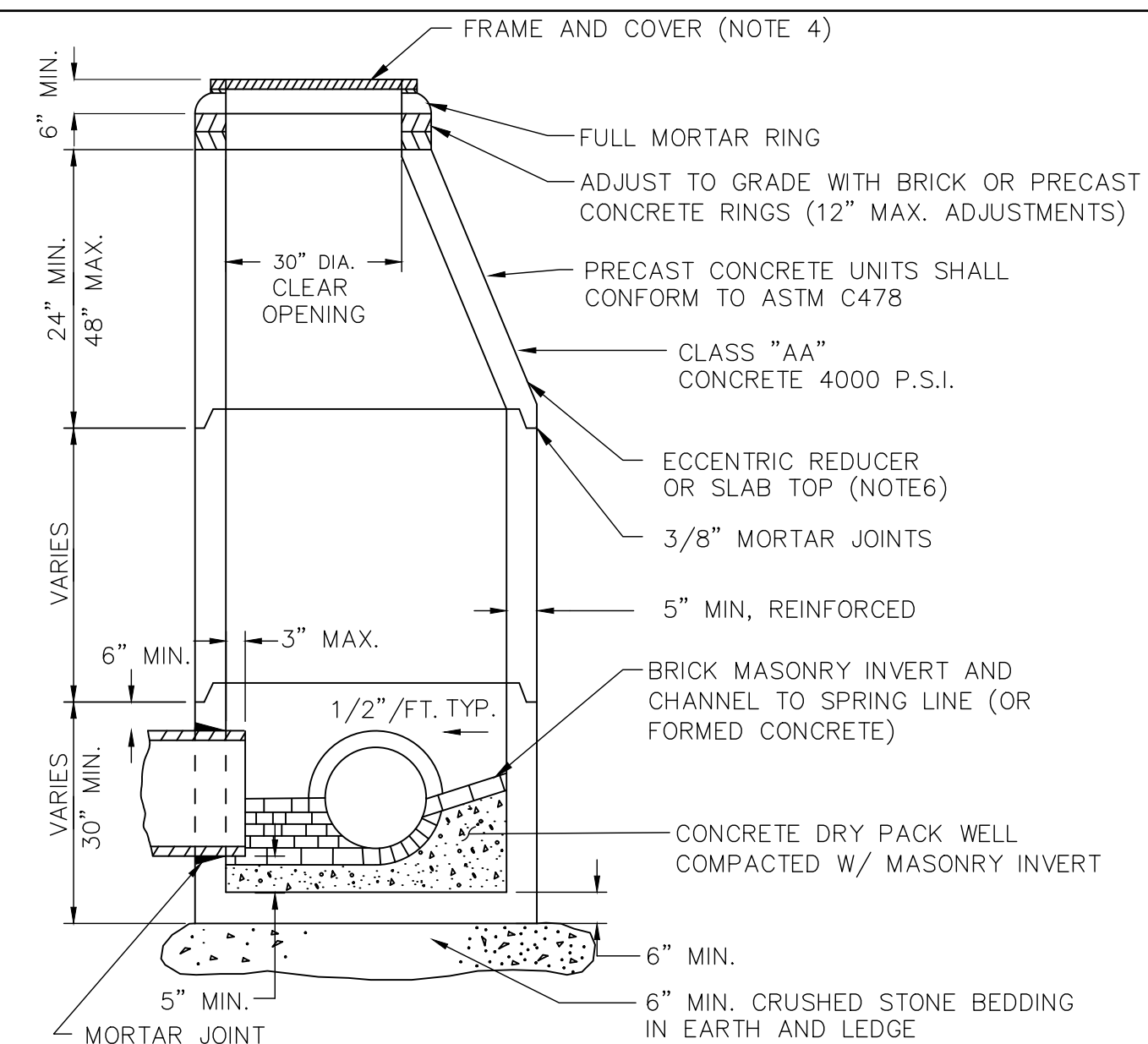
- BEDDING:** BEDDING FOR PIPES SHALL CONSIST OF PREPARING THE BOTTOM OF THE TRENCH TO SUPPORT THE ENTIRE LENGTH OF THE PIPE AT A UNIFORM SLOPE AND ALIGNMENT. CRUSHED GRAVEL (NHDOT ITEM 304.3) OR CRUSHED STONE SHALL BE USED TO BED THE PIPE TO THE ELEVATION SHOWN ON THE DRAWINGS.
- COMPACTION:** ALL BACKFILL SHALL BE COMPACTED AT OR NEAR OPTIMUM MOISTURE CONTENT BY PNEUMATIC TAMPERS, VIBRATORY COMPACTORS OR OTHER APPROVED MEANS. BACKFILL BENEATH PAVED SURFACES SHALL BE COMPACTED TO NOT LESS THAN 95 PERCENT OF AASHTO T99, METHOD C.
- SUITABLE MATERIAL:** IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS; PIECES OF PAVEMENT; ORGANIC MATTER; TOP SOIL; ALL WET OR SOFT MUCK, PEAT, OR CLAY; ALL EXCAVATED LEDGE MATERIAL; ROCKS OVER 6 INCHES IN LARGEST DIMENSION; FROZEN EARTH AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. IN SEEDING AREAS, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, ROCKS UNDER 12", FROZEN EARTH OR CLAY, IF HE/SHE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE PIPE WILL BE PRESERVED.
- BASE COURSE AND PAVEMENT:** SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES - DIVISIONS 300 AND 400 RESPECTIVELY.
- DRAINAGE PIPE:** PIPE MATERIALS SHALL BE EITHER PVC SDR 35 OR POLYETHYLENE (PE).
- W=MAXIMUM ALLOWABLE TRENCH WIDTH:** FOR ROCK EXCAVATION, FOR ORDERED EXCAVATION BELOW GRADE AND HANDLING OF EXCAVATED CONTAMINATED SOILS. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES IN NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE OUTSIDE DIAMETER (O.D.).

NOTES:

- SERVICE LATERALS WILL BE PROVIDED AT EACH DOWNSPOUT AS WELL AS A SEPARATE CLEANOUT FOR EACH PROPERTY TO FACILITATE PRIVATE SUMP PUMP /DRAIN SERVICE CONNECTIONS. CLEANOUTS SHALL BE INSTALLED AT THE PROPERTY LINE FOR EACH SERVICE LATERAL.
- REBAR OR 2x4 SHALL BE PLACED AT SIDE OF CLEANOUT.
- CLEANOUT RISER PIPE AND FITTINGS ARE INCIDENTAL AND WILL NOT BE CONSIDERED FOR PAYMENT.
- SERVICES SHALL BE ORIENTED @ 10:30 OR 1:30 (TYP.) UNDER NO CIRCUMSTANCES SHALL SERVICES BE LOCATED BETWEEN 3:00 AND 9:00.
- LOCATE ROOF LEADER CONNECTIONS AT EXISTING DOWNSPOUTS. AT ADJACENT BUILDING CORNERS, TWO DOWNSPOUTS MAY BE CONNECTED TO ONE LATERAL USING APPROPRIATE WYE (AND OTHER) FITTING(S).



6 DRAIN LATERAL & ROOF LEADER CONNECTION
U-13 NOT TO SCALE

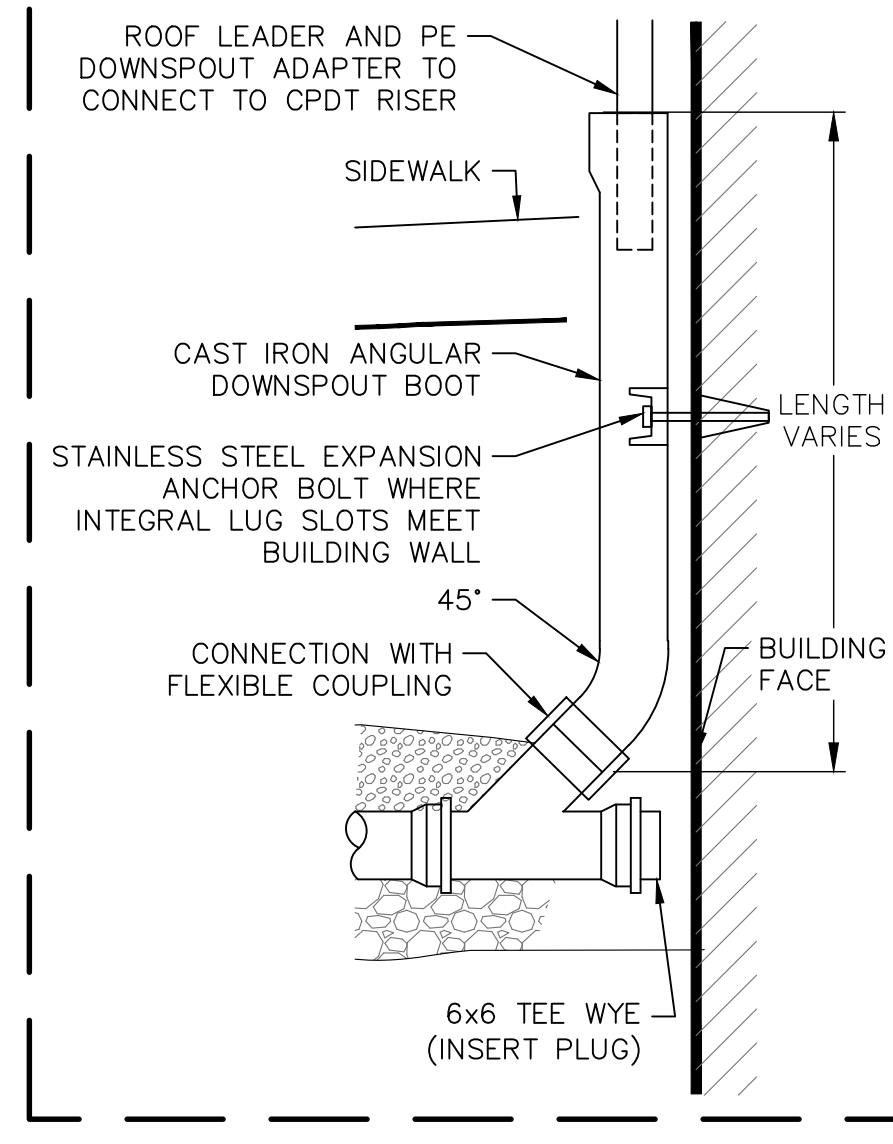


4 TYPICAL DRAINAGE MANHOLE
U-13 NOT TO SCALE

DRAIN MANHOLE NOTES:

- BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE.
- PRECAST CONCRETE BARREL SECTIONS, CONES, AND BASES SHALL CONFORM TO ASTM C478.
- INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT (OR FORMED CONCRETE), CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE INVERT. INVERT BRICKS SHALL BE LAID ON EDGE. AT CHANGES IN DIRECTION, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST POSSIBLE TANGENT TO THE CENTER LINE OF THE PIPES. SHELVES SHALL BE CONSTRUCTED TO AN ELEVATION OF 1/2 THE PIPE DIA. AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL.
- FRAMES AND COVERS: MANHOLE FRAMES AND COVERS SHALL BE HINGED, ERGO XL BY EAST JORDON IRON WORKS, AND PROVIDE A 30-INCH (MIN.) CLEAR OPENING. THE WORD "DRAIN", IN 3-INCH LETTERS SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER.
- BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33. STONE SIZE NO. 67.
100% PASSING 1 INCH SCREEN
90-100% PASSING 3/4 INCH SCREEN
20-55% PASSING 3/8 INCH SCREEN
0-10% PASSING #4 SIEVE
0-5% PASSING #8 SIEVE
- SLAB TOP COVERS: MAY BE APPROVED IN LIEU OF A CONE SECTION, WHEN MANHOLE IS LESS THAN 5 FEET AND FOR LARGE DIAMETER MANHOLES. SLAB TOP COVERS SHALL BE REINFORCED CONCRETE HAVING AN ECCENTRIC ENTRANCE AND CAPABLE OF SUPPORTING H-20 LOADS.

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1-1/2 INCH TO 1/2 INCH OR USE OF GEOGRID FABRIC (ITEM 1.8B) MAY BE REQUIRED.



DOWNSPOUT BOOT FOR ROOF LEADER CONNECTION ADJACENT TO SIDEWALK OR PARKING LOT

ISSUE FOR			APPROVAL		
NO.	DATE	BY	DATE	BY	DATE
1	5/9/18	DJR	5/9/18	DJR	
CONSTRUCTION			RECORD DWG		
Date			By		
1/11/19			DJR		
PROJECT NO.			DATE		
2029			2029		
DWG. ID.			AS SHOWN		
2029a0610					
SCALE			NO. REVISIONS		
AS SHOWN					
APPD					

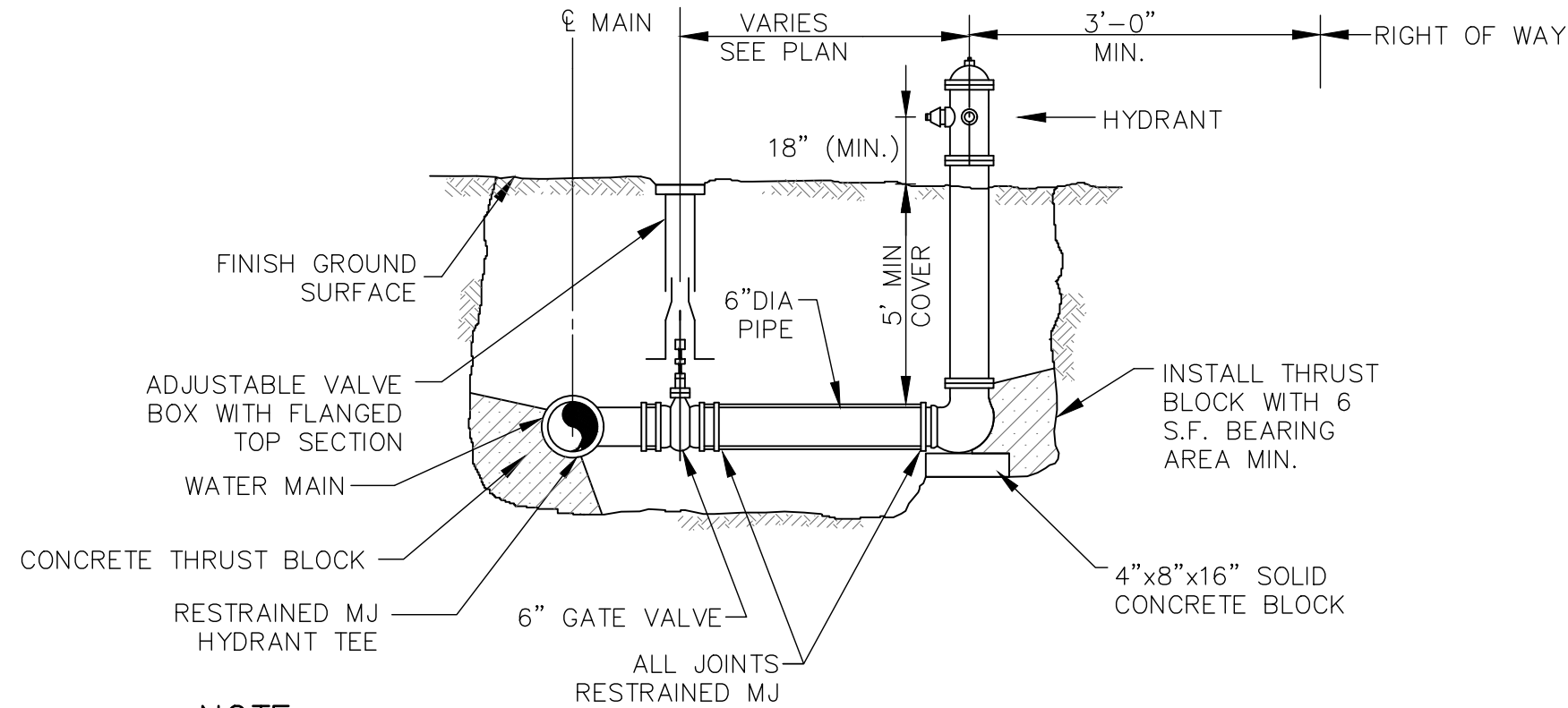
Drawn/Chk.	Checked	Designed	PDW	Approved	Date	Book No.	Project No.	Dwg. ID	Scale
					1/7/2019			2029a0610	

25 Vaughan Mall, Portsmouth, N.H. 03801 Tel. 603-436-6192 Fax. 603-431-4733	

DRAINAGE DETAILS	
ISLINGTON STREET CORRIDOR IMPROVEMENTS	
CITY OF PORTSMOUTH	
PORTSMOUTH, NEW HAMPSHIRE	

DWG NO	SHEET
U-13	86 OF 88

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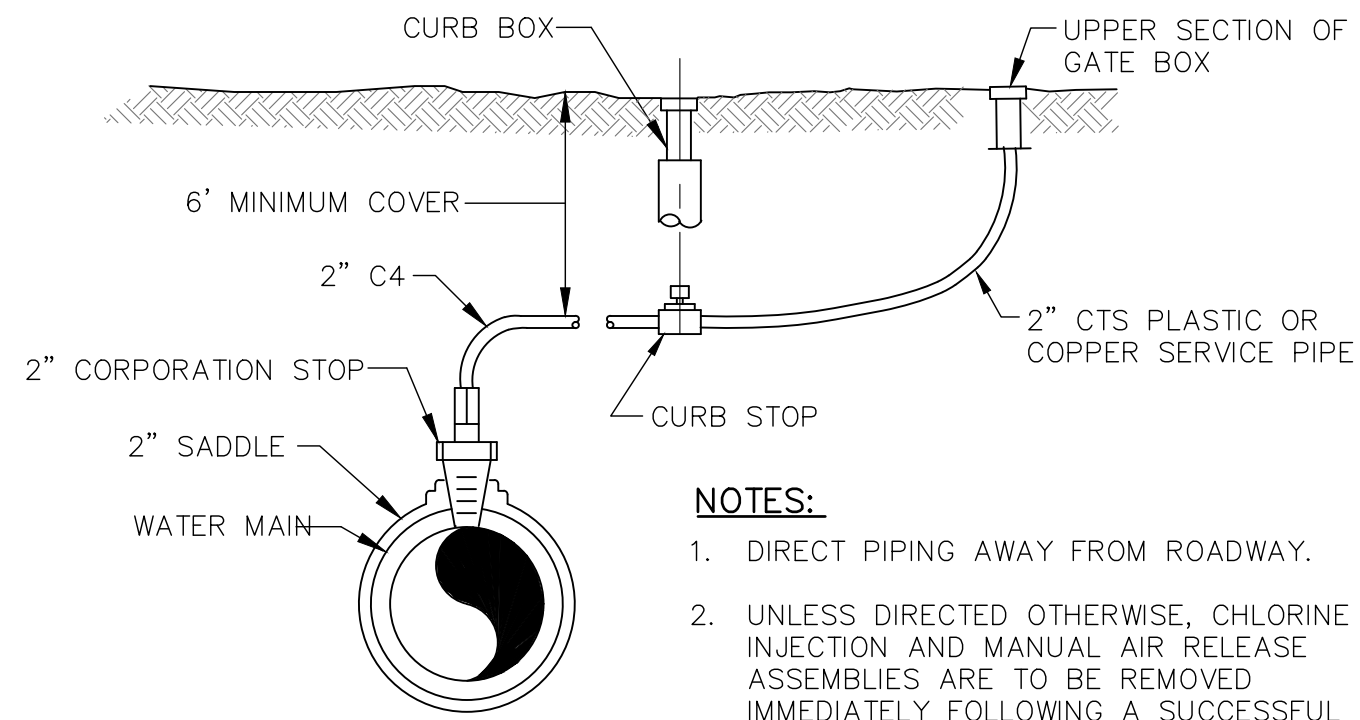


NOTE:

- HYDRANTS SHALL BE DELIVERED FROM FACTORY W/O DRAIN HOLES.
- HYDRANT ASSEMBLY INCLUDES MJ HYDRANT TEE.
- HYDRANT SHALL BE KENNEDY K-81A GUARDIAN, PER CITY OF PORTSMOUTH STANDARDS.
- LOCATE HYDRANTS A MINIMUM OF 18" BEHIND CURBING UNLESS OTHERWISE DIRECTED. REVIEW HYDRANT LOCATIONS WITH PROJECT REPRESENTATIVE PRIOR TO WATER MAIN INSTALLATIONS.

1 TYPICAL HYDRANT ASSEMBLY SECTION

U-14 NOT TO SCALE

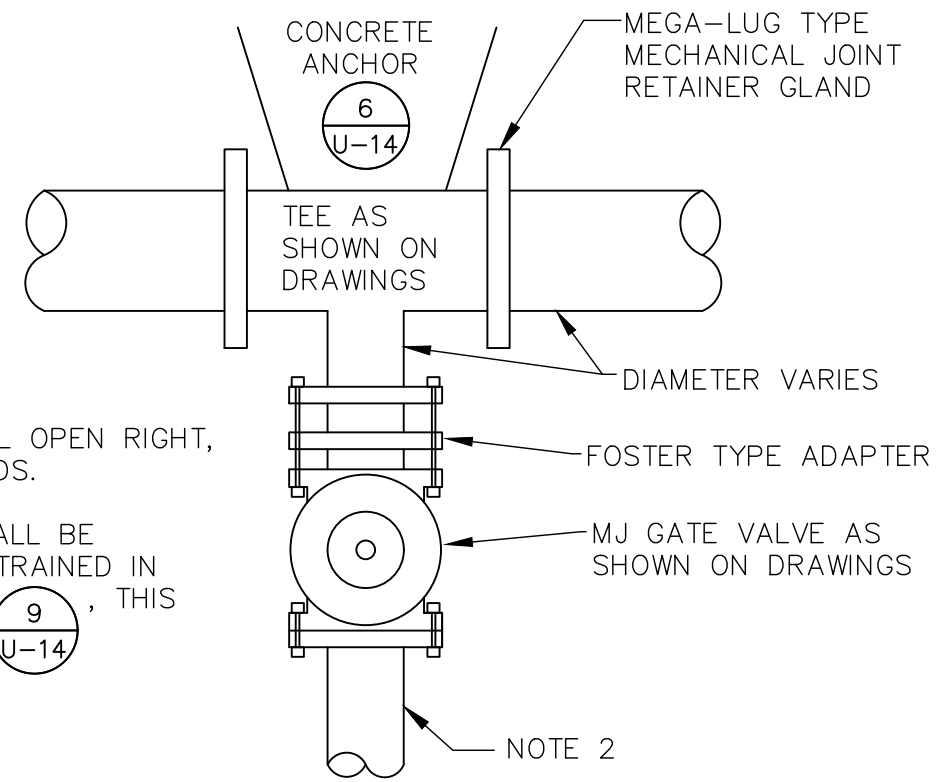


NOTES:

- DIRECT PIPING AWAY FROM ROADWAY.
- UNLESS DIRECTED OTHERWISE, CHLORINE INJECTION AND MANUAL AIR RELEASE ASSEMBLIES ARE TO BE REMOVED IMMEDIATELY FOLLOWING A SUCCESSFUL BACTERIA TEST. LEAVE THE CORPORATION STOP AND 12" LENGTH OF TUBING (WITH A CRIMPED END) IN PLACE.

2 TEMPORARY BLOW-OFF TAP ASSEMBLY

U-14 NOT TO SCALE

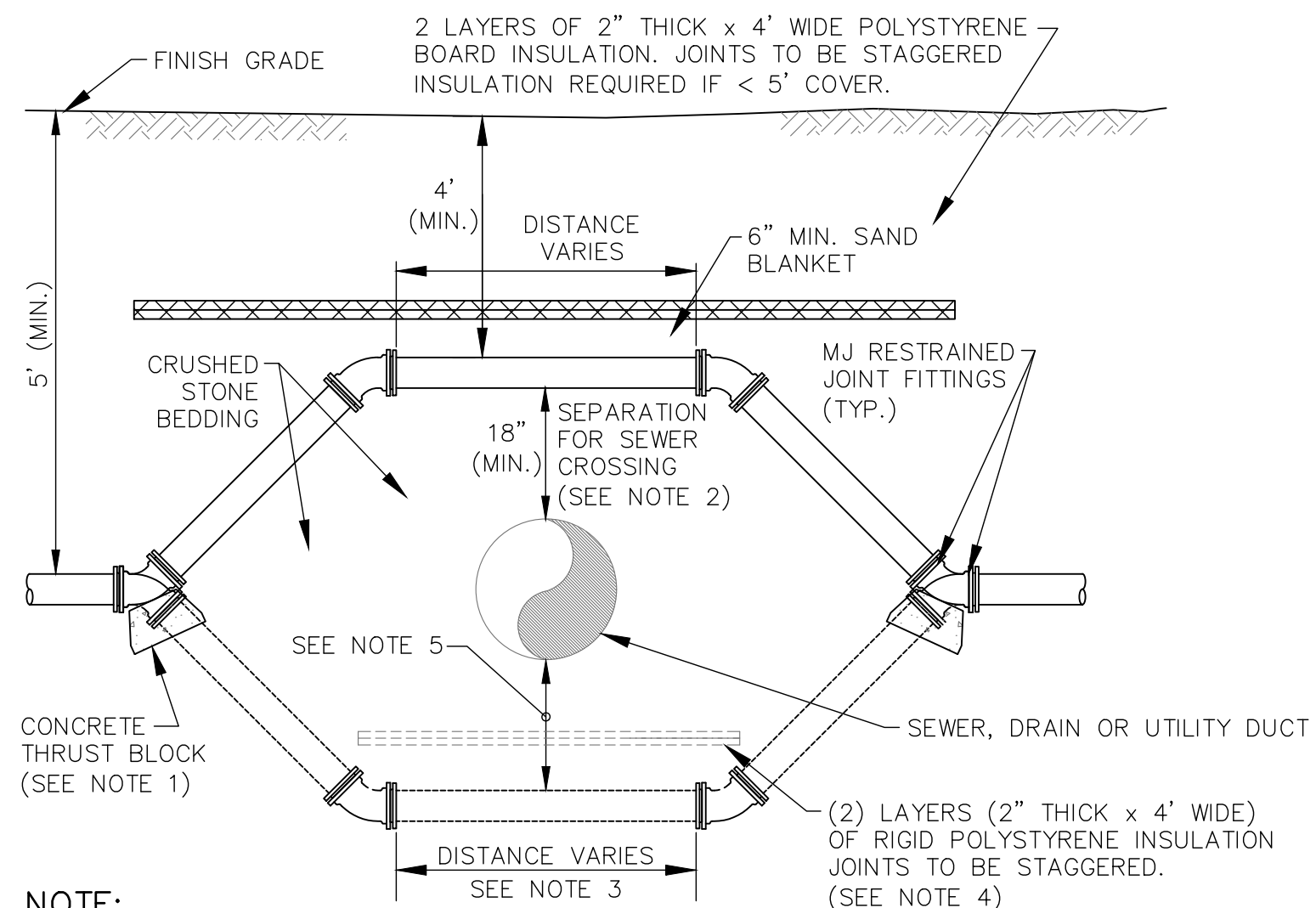


NOTE:

- GATE VALVES SHALL OPEN RIGHT, PER CITY STANDARDS.
- BRANCH PIPING SHALL BE MECHANICALLY RESTRAINED IN ACCORDANCE WITH THIS SHEET

5 TEE & GATE VALVE ASSEMBLY DETAIL (TYP.)

U-14 NOT TO SCALE



NOTE:

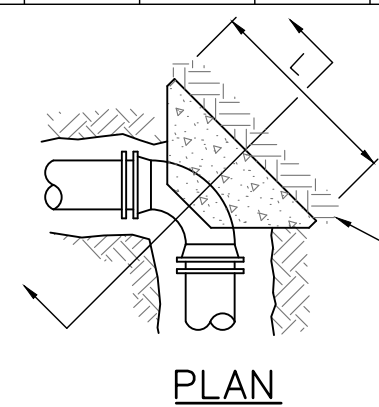
- INSTALL (4) FOUR 45° MJ BENDS WITH RESTRAINED JOINT FITTINGS.
- VERTICAL SEPARATION DEPTH BETWEEN WATER AND SEWER SHALL BE AT LEAST 18", WITH WATER ABOVE SEWER, PER NHDES ENV-Wq 704.12. VERTICAL SEPARATION OF LESS THAN 18" ALLOWED ONLY WITH WAIVER FROM NHDES.
- CENTER CROSSING PIPE BETWEEN BELLS. SEWER PIPE JOINT SHALL BE A MINIMUM OF 6 FT. HORIZONTALLY FROM THE WATER MAIN.
- PROVIDE INSULATION IF DRAIN CROSSES OVER WATER MAIN.
- PROVIDE 6" SEPARATION FOR DRAIN OR OTHER UTILITY CROSSINGS. IF ADDITIONAL DEPTH IS 1' OR LESS FROM NORMAL DEPTH, ADDITIONAL DEPTH MAY BE ACHIEVED BY USING PIPE JOINT DEFLECTIONS PER CONTRACTOR RECOMMENDATION. IF ADDITIONAL DEPTH FROM NORMAL EXCEEDS 1', ADDITIONAL DEPTH WILL BE ACHIEVED USING BENDS AS SHOWN.
- IF CONSTRUCTION OF WATER MAIN UNDER SEWER MAIN IS UNAVOIDABLE, SEWER MAIN SHALL BE CONSTRUCTED OF C900 PVC PIPE FROM MANHOLE TO MANHOLE.

7 WATER MAIN CONFLICT - CROSSING DETAIL

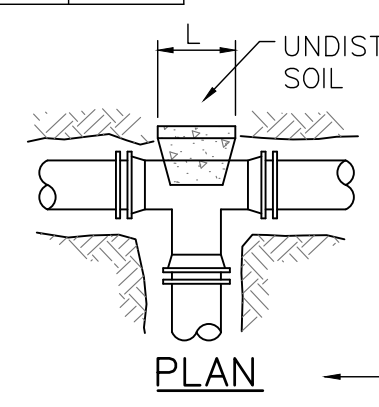
U-14 NOT TO SCALE

MINIMUM CONCRETE ANCHOR DIMENSIONS

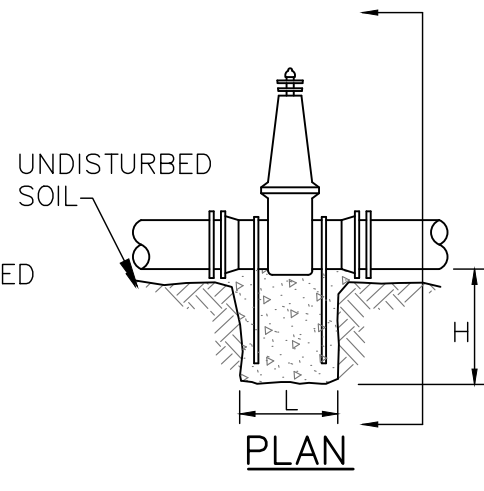
PIPE SIZE INCHES	TEE OR PLUG FT.		ALL BENDS FT.		ALL LINE VALVES FT.			PIPE SIZE INCHES
	H	L	H	L	H	L	B	
6	1.5	3.0	2.0	3.5	1.5	3.0	2.5	6
8	2.0	4.0	2.5	5.0	2.0	4.0	3.0	8
10	2.5	5.0	3.0	6.0	3.0	4.0	3.0	10
12	3.0	6.0	3.0	8.0	3.0	5.0	4.0	12
16	3.0	6.5	3.0	10.0	3.0	4.5	4.0	16



ALL BENDS



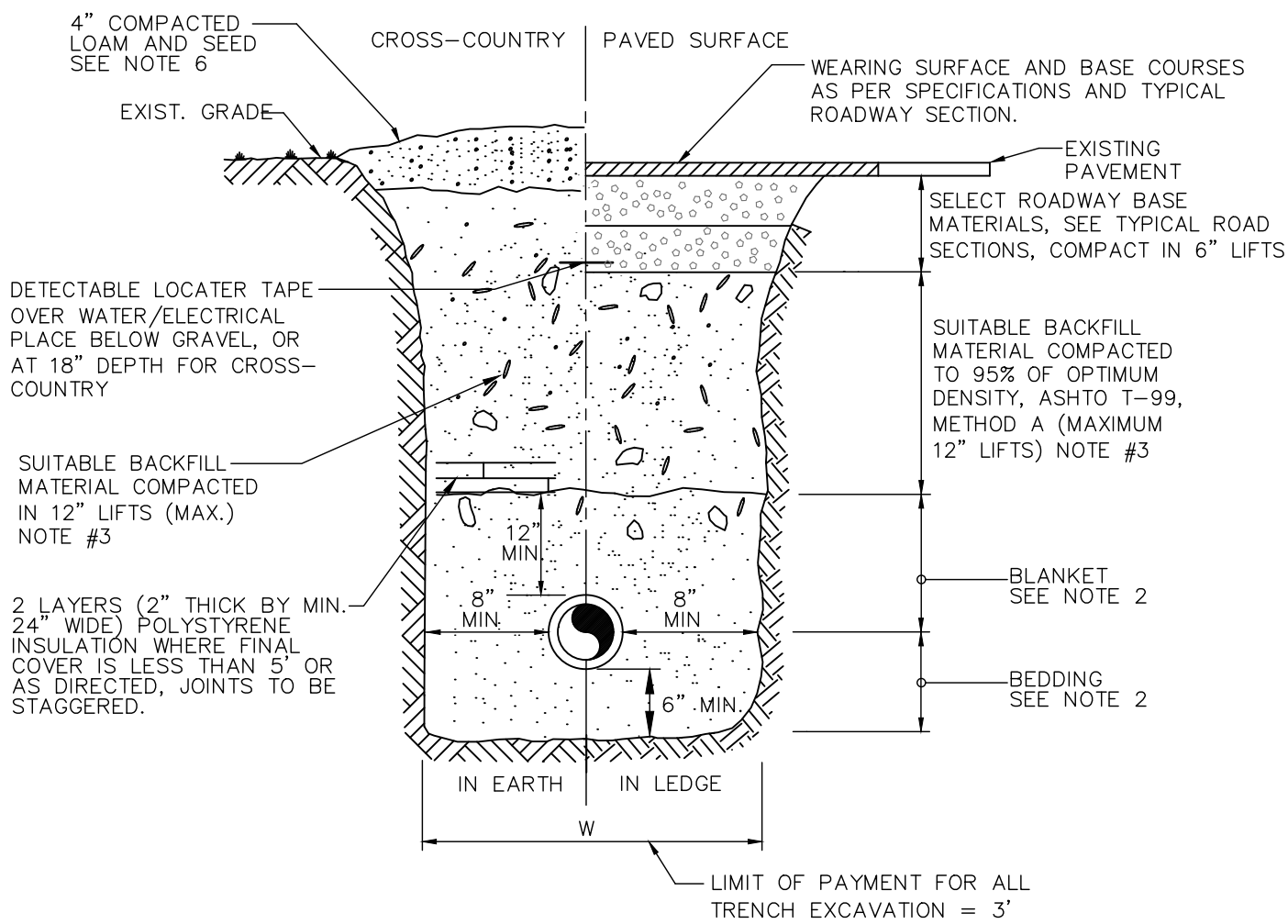
TEE OR TAPPING SLEEVE



LINE VALVE

6 CONCRETE ANCHORS

U-14 NOT TO SCALE



8 TYPICAL TRENCH DETAIL

U-14 NOT TO SCALE

STANDARD TRENCH NOTES

- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE: BACKFILL AS STATED IN THE TECHNICAL SPECIFICATIONS OR AS SHOWN ON THE DRAWINGS.
- BEDDING AND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER (SECTION 02228). BLANKET MAY BE OMITTED FOR DUCTILE IRON AND REINFORCED CONCRETE PIPE, PROVIDED HOWEVER, THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE.
- BACKFILL MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS; PIECES OF PAVEMENT; ORGANIC MATTER; TOP SOIL; ALL WET OR SOFT MUCK, PEAT, OR CLAY; ALL EXCAVATED LEDGE MATERIAL; ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION; AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.
- MINIMUM COVER: NOT LESS THAN 5.5 FEET, 7 MAX, EXCEPT TO AVOID SUBSURFACE STRUCTURES.
- FOR CROSS-COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK, OR PEAT, IF ENGINEER IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE PIPE LINE, FOR MAINTENANCE AND POSSIBLY RECONSTRUCTION, WILL BE PRESERVED.
- DRIVEWAYS: CRUSHED GRAVEL IN DRIVEWAYS SHALL MATCH EXISTING WITH A MINIMUM OF 6". EXISTING GRAVEL SHALL BE REMOVED AND REPLACED AND SHALL NOT BE MEASURED FOR PAYMENT.

HORIZONTAL BENDS:

Nominal Pipe Diameter	Bend Angle			
	90°	45°	22.5°	11.25°
4"	6'	3'	2'	1'
6"	9'	4'	2'	2'
8"	11'	5'	3'	2'
10"	13'	6'	3'	2'
12"	16'	7'	3'	2'
16"	20'	9'	4'	2'

REDUCERS:

Nom. Diameter of Large Pipe	Nominal Diameter of Small Pipe (Note 4)				
	4"	6"	8"	10"	12"
8"	17'	10'	-	-	-
10"	23'	17'	10'	-	-
12"	29'	24'	18'	10'	-
16"	39'	36'	31'	28'	18'

DEAD ENDS:

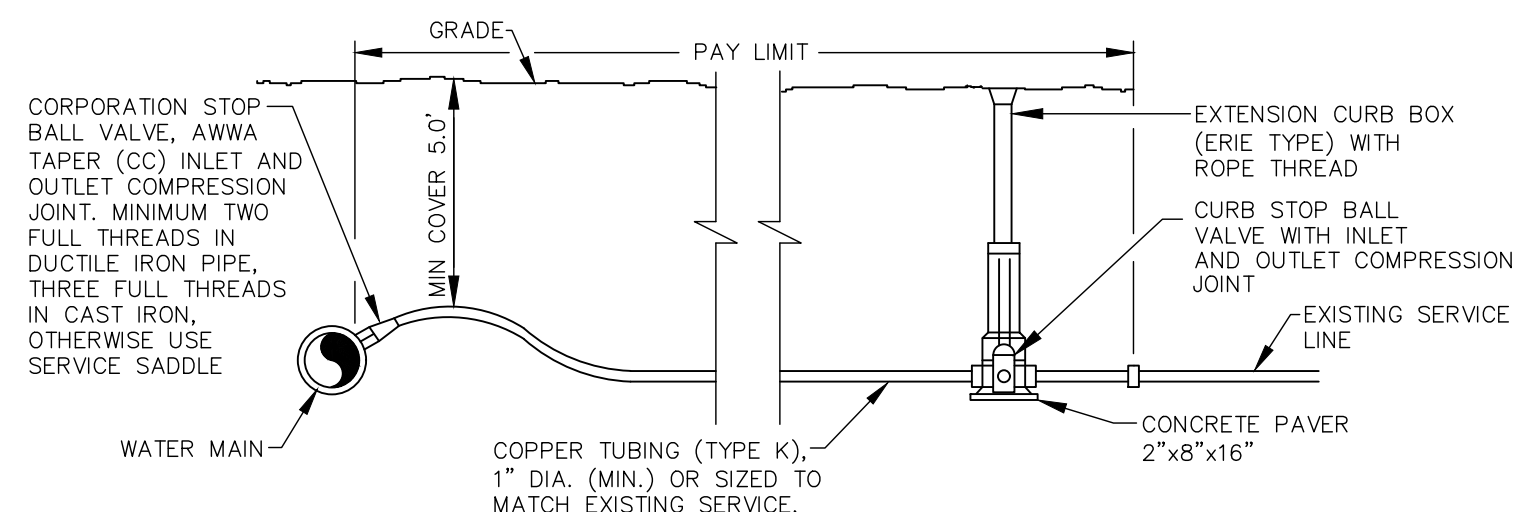
Nom. Pipe Diameter	Restrained Length (ft)
4"	13'
6"	18'
8"	23'
10"	28'
12"	33'
16"	43'

TEES:

Nominal Pipe	Nominal Branch Diameter (Note 5)			
	8"	10"	12"	16"
8"	6'	-	-	-
10"	8'	11'	-	-
12"	1'	7'	16'	-
16"	1'	1'	9'	25'

NOTES:

- ALL FITTINGS SHALL HAVE MECHANICAL RETAINING GLANDS AT ALL ENDS AND A MINIMUM OF ONE JOINT SHALL BE RESTRAINED BEYOND EACH SIDE OF FITTING.
- PIPE EXTENDING FROM ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED TO THE MINIMUM LENGTHS SHOWN.
- ALL MINIMUM LENGTHS SHOWN ABOVE WERE CALCULATED USING THE EBAA IRON RESTRAINT LENGTH CALCULATOR VERSION 6.3 USING THE FOLLOWING ASSUMPTIONS: DUCTILE IRON PIPE, TYPE 4 TRENCH, 5 FOOT DEPTH OF BURY, A TEST PRESSURE OF 150 PSI AND SOILS CONSISTING OF WELL GRADED SANDS AND GRAVELLY SANDS WITH LITTLE OR NO FINES.
- ENGINEER RESERVES THE RIGHT TO MODIFY RESTRAINT LENGTHS REQUIRED BASED ON VARYING TRENCH CONDITIONS, DEPTH OF BURY OR PIPE MATERIALS.
- FOR REDUCERS, RESTRAIN LENGTH SHOWN IS FOR THE LARGER PIPE.
- MECHANICALLY RESTRAIN ONE JOINT ON EITHER SIDE OF THE NOMINAL PIPE OF TEE AT A MINIMUM DISTANCE OF 5'.



NOTES:

- PROVIDE NEW LINE USING CONTINUOUS LENGTHS OF COPPER. NO COUPLING ALLOWED IN ROADWAY WITHOUT APPROVAL OF ENGINEER.
- TAPS TO BE MADE AT APPROX. 2:00 AND 10:00.
- PROVIDE FOR SERVICE LINE CONTRACTION AND EXPANSION BY INSTALLING "S" IN SERVICE LINE NEAR MAIN.
- IF SERVICE IS INSTALLED WITH LESS THAN 5' COVER, INSULATE OVER LINE.
- REMOVE EXISTING CURB STOP (SALVAGE AS IDENTIFIED IN SECT. 01611).
- CONNECT CURB STOP TO EXISTING SERVICE LINE AT PROPERTY LINE OR AT LOCATION APPROVED BY THE ENGINEER (NO COUPLING WITHOUT APPROVAL OF ENGINEER) AFTER PRESSURE TESTING AND DISINFECTION.
- SHUT OFF EXISTING CORPORATION AND REMOVE OR ABANDON EXISTING SERVICE LINE.
- CURB BOX SHALL BE SET IN THE GRASS AREA BETWEEN CURB AND SIDEWALK UNLESS DIRECTED OTHERWISE.
- 2" SERVICE CONNECTIONS SHALL USE A STAINLESS STEEL SERVICE SADDLE.
- MAINTAIN 18" SEPARATION BETWEEN THE NEW WATER SERVICE AND THE NEW OR EXISTING SEWER MAIN (WATER SHALL BE OVER SEWER).

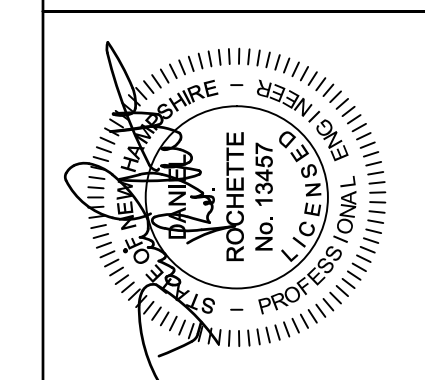
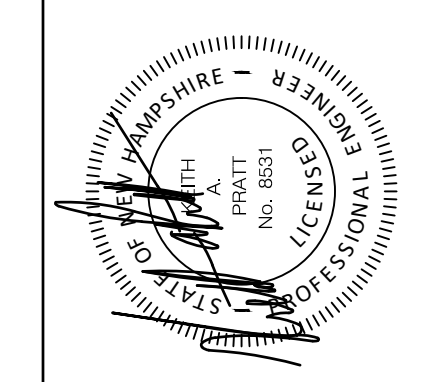
4 TYPICAL SERVICE CONNECTION

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9 MECHANICAL JOINT RESTRAINT

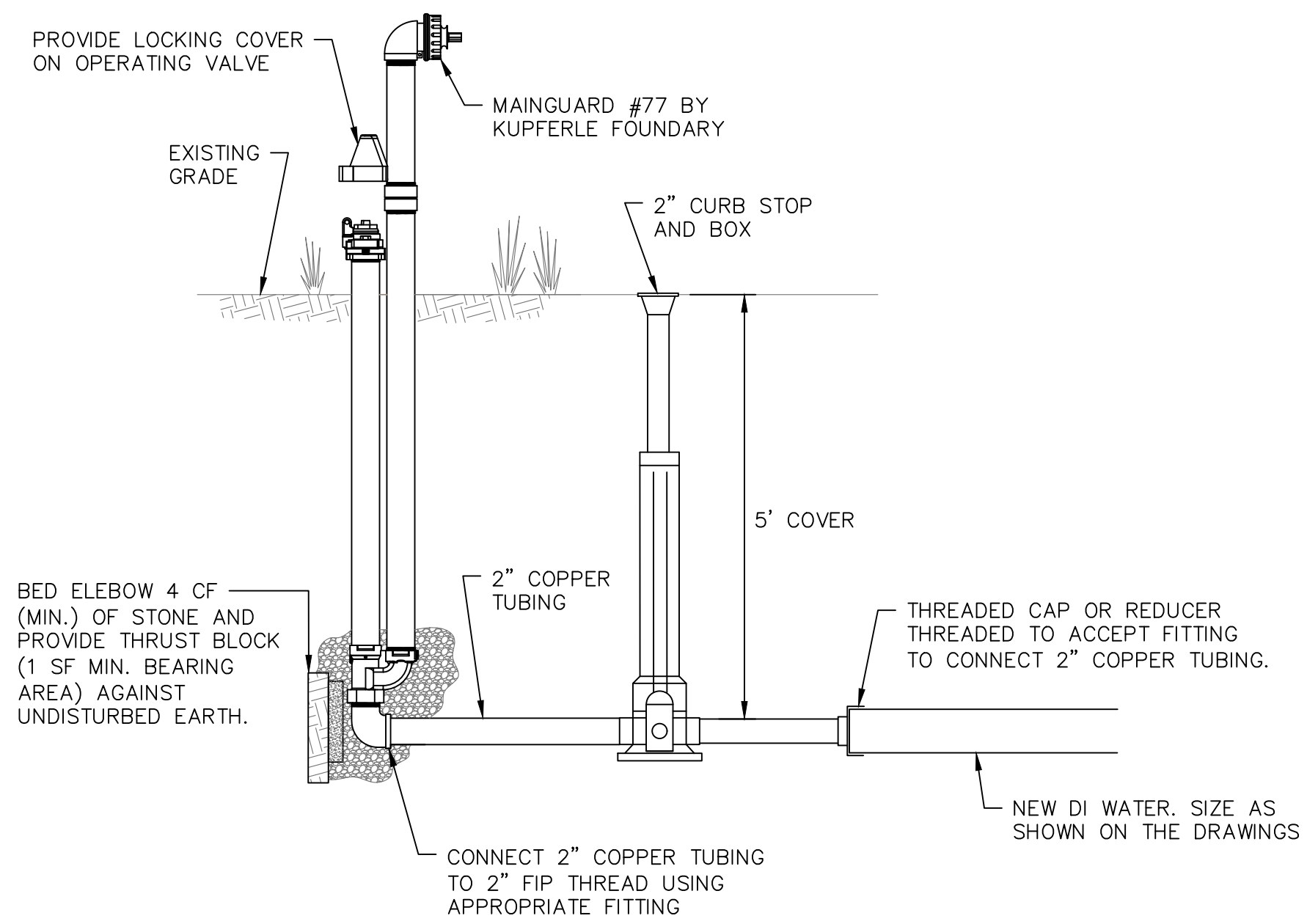
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ISSUE FOR	APPROVAL	DATE	BY
REVISIONS			
CONSTRUCTION			
RECORD			

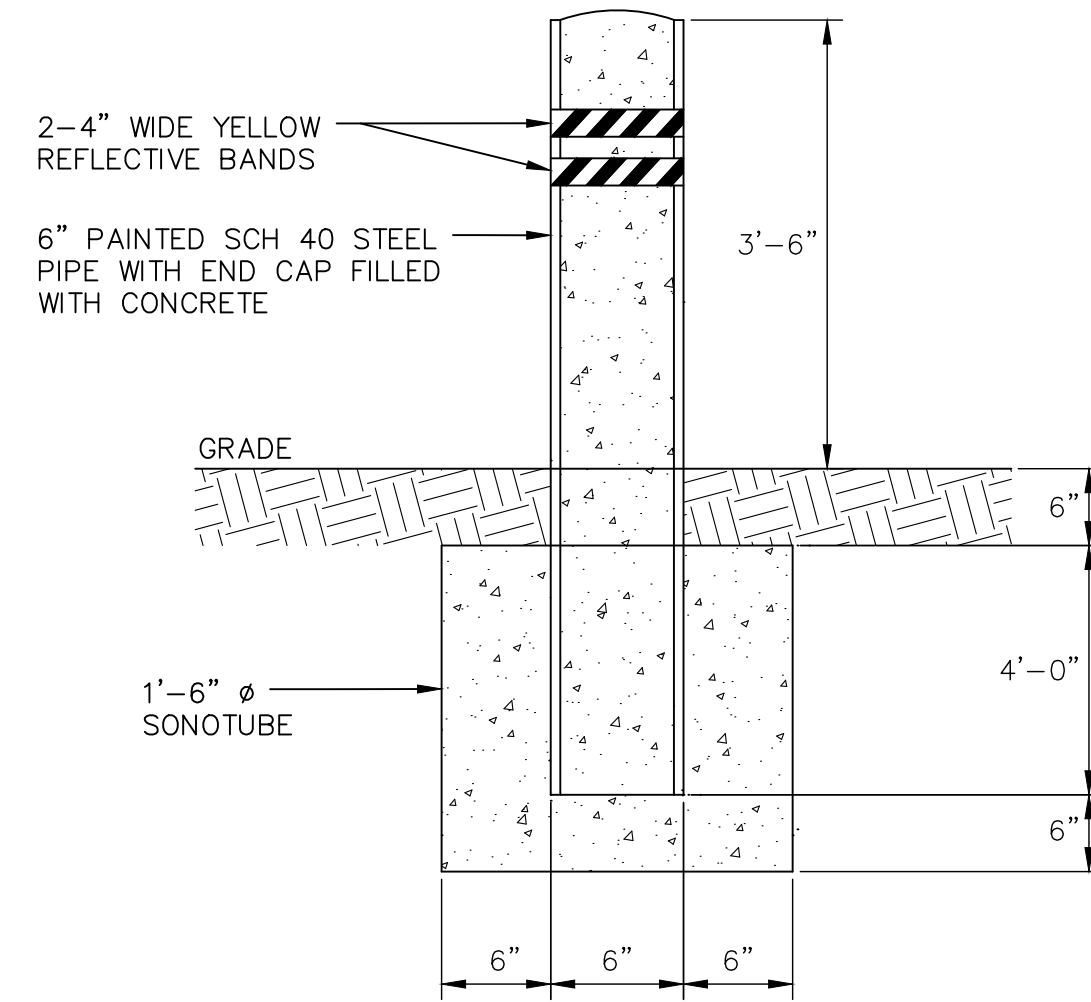


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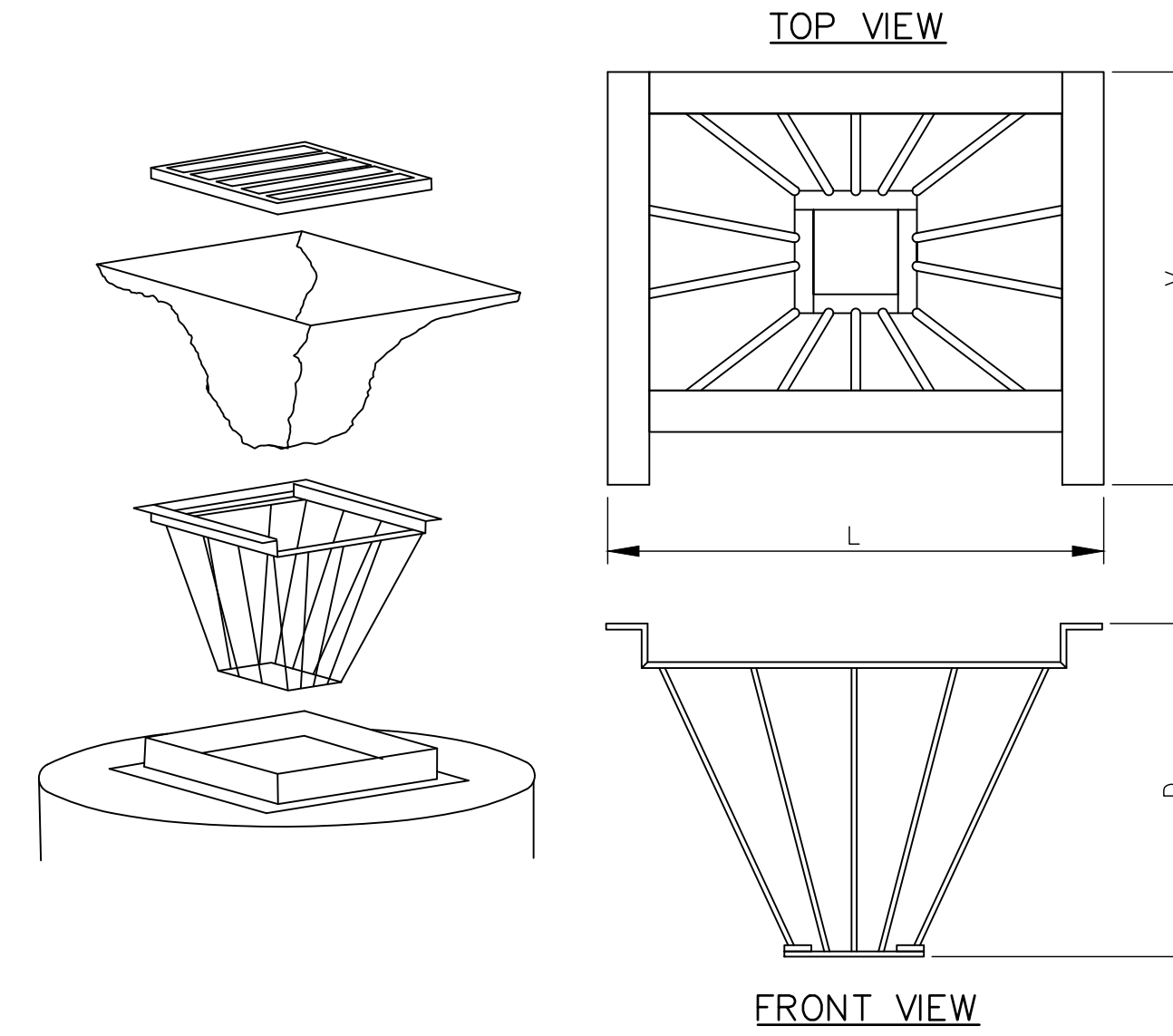
STANDARD WATER DETAILS
ISLINGTON STREET CORRIDOR IMPROVEMENTS
CITY OF PORTSMOUTH
PORTSMOUTH, NEW HAMPSHIRE



1 **YARD HYDRANT DETAIL**
U-15 NOT TO SCALE



2 **STEEL BOLLARD DETAIL**
U-15 NOT TO SCALE



3 **TEMPORARY CATCH BASIN INLET FILTER**
U-15 NOT TO SCALE

INLET FILTER NOTES:

1. METAL-ERA INLET BASKET AVAILABLE FROM METAL-ERA, INC.
N4 W22450 BLUEMOUND ROAD
WAUKESHA, WI 53186
1-800-558-2162
2. INSTALL APPROPRIATE METAL BASKET.
3. A. GEOTEXTILE FABRIC SHALL BE POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE, OR POLYENYLIDENE CHLORIDE MEETING THE FOLLOWING:
 - a. GRAB STRENGTH: 45# MIN. IN ANY PRINCIPAL DIRECTION (ASTM D1682)
 - b. MULEN BURST STRENGTH: 60 PSI MIN. (ASTM D771)
 B. FABRIC SHALL HAVE AN OPENING NO GREATER THAN A #20 SIEVE AND A MIN. PERMEABILITY OF 120 GPM/SQ. FT.
4. FILTER FABRIC SHALL BE PUSHED DOWN AND FORMED TO THE SHAPE OF THE BASKET. THE SHEET FABRIC SHALL BE LARGE ENOUGH TO BE SUPPORTED BY THE BASKET FRAME WHEN HOLDING SEDIMENT AND EXTEND AT LEAST 6 INCHES PAST THE FRAME. GRATE INLET SHALL BE PLACED OVER THE BASKET/FRAME AND WILL ANCHOR THE FABRIC.
5. INSPECT BASKET DAILY OR MORE FREQUENTLY DURING STORM EVENTS.
6. SEDIMENT SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE FREQUENTLY TO PREVENT CLOGGING.
7. USE OF METAL-ERA INLET BASKET DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF MAINTAINING OTHER EROSION CONTROL MEASURES AS MAY BE REQUIRED OR FROM STABILIZING DISTURBED AREAS AS SOON AS PRACTICAL.
8. REMOVE FABRIC & BASKET ONCE ALL DISTURBED AREAS ARE STABILIZED & VEGETATIVE GROWTH OR PERMANENT EROSION CONTROL MEASURES ARE ESTABLISHED.

ISSUE FOR	APPROVAL	DATE	BY
APPROVAL		5/9/18	DJR
CONSTRUCTION		1/11/19	DJR
RECORD DWG			

Drawn/Chk. RMG
Designed DJR
Checked PDM
Approved
Date 1/7/2019
Book No. 2029
Project No. 202946rails
Dwg. ID AS_SHOWL
Scale

Professional Engineer
STATE OF NEW HAMPSHIRE
PRATT
No. 8951
LIC. ENGR. 13457
ROCHETTE
No. 13457
LIC. ENGR. 13457
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