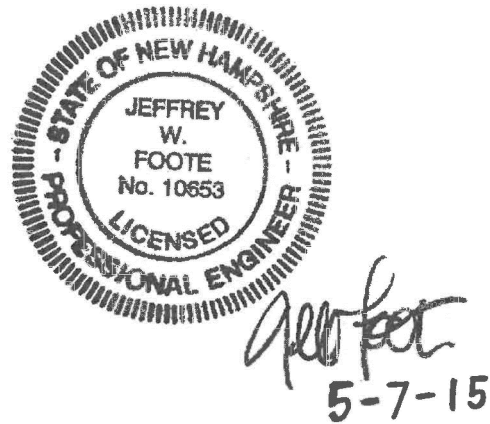
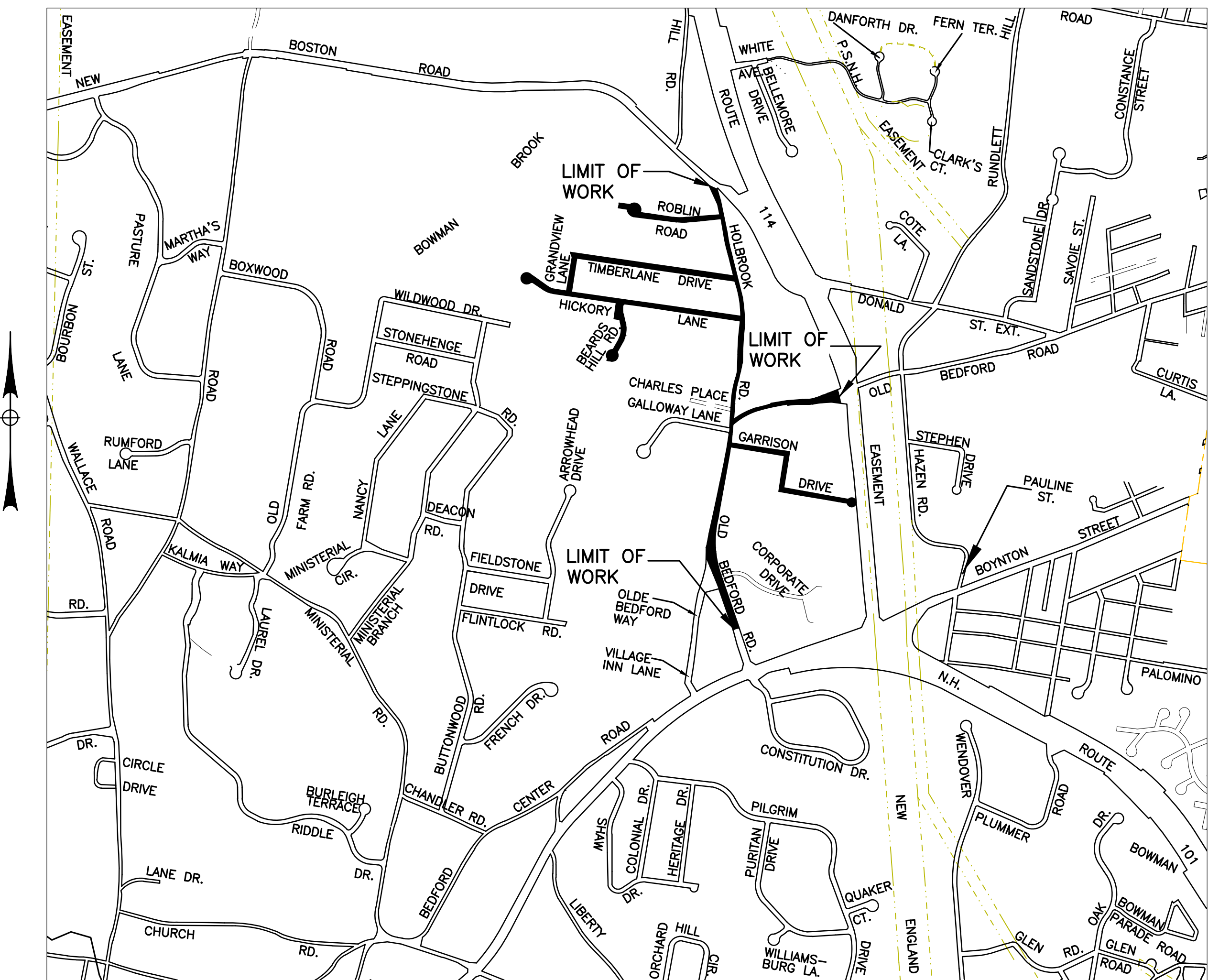


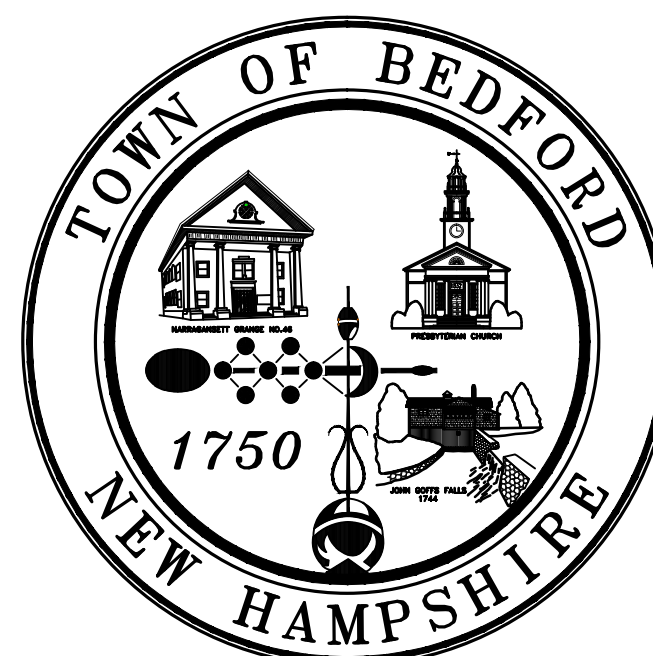
ROADWAY RECONSTRUCTION PLANS

OLD BEDFORD ROAD AND HOLBROOK ROAD

BEDFORD, NEW HAMPSHIRE



BEDFORD PUBLIC WORKS
24 NORTH AMHERST ROAD
BEDFORD, NH 03110



MAY 7, 2015
PROJECT NO. 77-2015

SHEET NO.	DESCRIPTION
1 - 5	COVER SHEET
6 - 8	OLD BEDFORD ROAD PLAN AND PROFILES
9 - 11	HOLBROOK ROAD PLAN AND PROFILES
12	HICKORY LANE PLAN AND PROFILES
13 - 15	GRANDVIEW LANE PLAN AND PROFILE
16 - 17	TIMBERLANE DRIVE PLAN AND PROFILES
18 - 19	DRAINAGE NOTES
20	TYPICAL SECTIONS
21 - 23	ROADWAY DETAILS
24	DRAINAGE DETAILS
25	DRIVEWAY DETAILS
26	EROSION CONTROL DETAILS
27 - 37	EROSION CONTROL NOTES
38 - 46	OLD BEDFORD ROAD CROSS SECTIONS
47 - 54	HOLBROOK ROAD CROSS SECTIONS
55	HICKORY LANE CROSS SECTIONS
56 - 62	GRANDVIEW LANE CROSS SECTIONS
	TIMBERLANE DRIVE CROSS SECTIONS
	TURF REINFORCEMENT MAT DETAIL

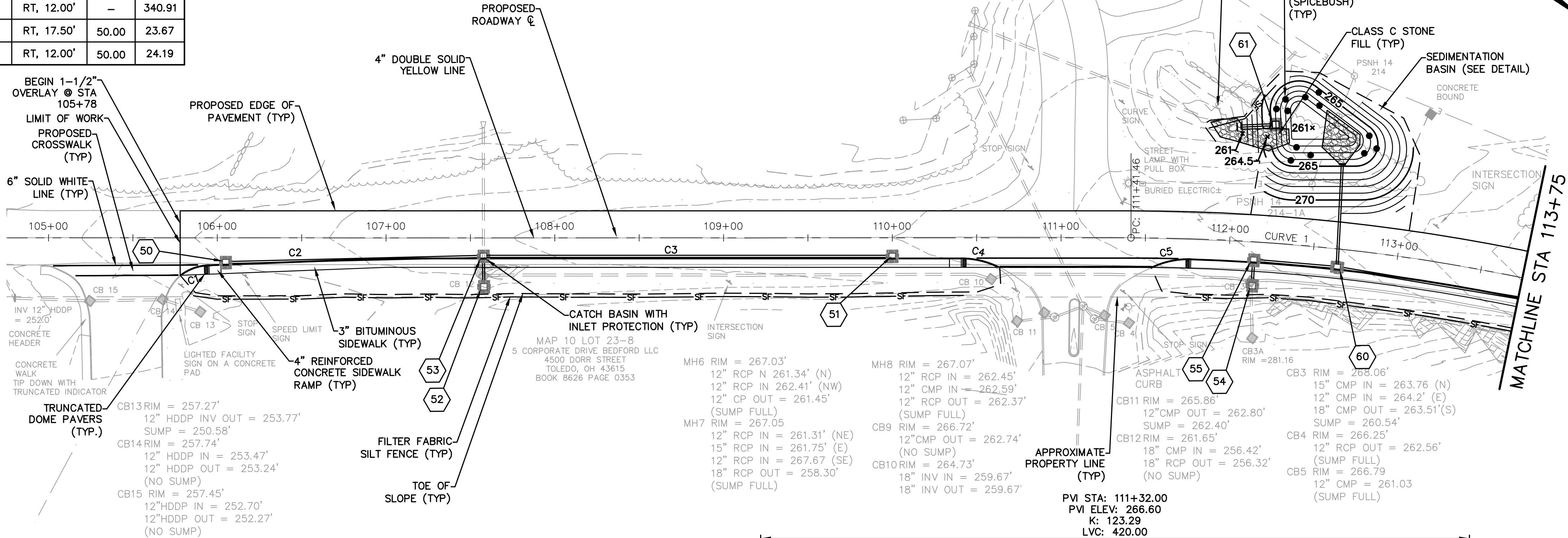
PLAN SET NO. _____

CURB TABLE							
CURB ID	TYPE	START STATION	START OFFSET	END STATION	END OFFSET	RADIUS	LENGTH
C1	STRAIGHT	105+78.00	RT, 22.23'	105+95.09	RT, 16.06'	30.00	18.46
C2	STRAIGHT	105+95.09	RT, 16.06'	107+00.00	RT, 12.00'	—	104.99
C3	STRAIGHT	107+00.00	RT, 12.00'	110+40.91	RT, 12.00'	—	340.91
C4	STRAIGHT	110+40.91	RT, 12.00'	110+63.71	RT, 17.50'	50.00	23.67
C5	STRAIGHT	111+53.68	RT, 17.50'	111+77.30	RT, 12.00'	50.00	24.19

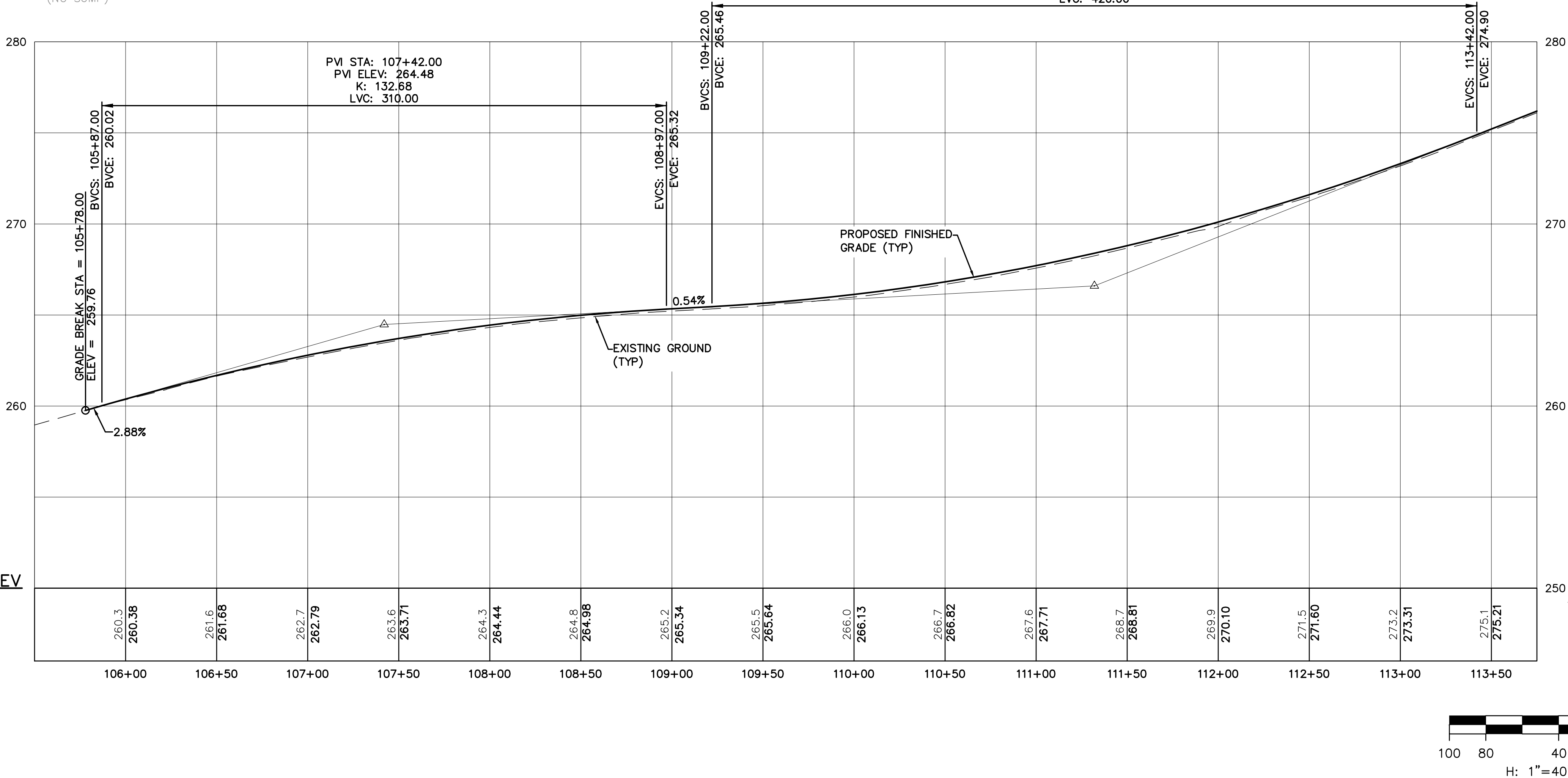
CURVE TABLE					
CURVE #	PI	Δ	R	T	L
CURVE 1	STA 114+70.98	31° 58' 39"	1150.00	329.51	641.83

GENERAL CONSTRUCTION NOTES

- THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED 2010 AND "CONTRACT SPECIFICATIONS OF BEDFORD, NH – DEPARTMENT OF PUBLIC WORKS" OF WHICH THESE PLANS ARE A PART. IN THE EVENT ANY DISCREPANCIES EXIST BETWEEN THESE PLANS AND WRITTEN PORTIONS OF THE CONTRACT SPECIFICATIONS, THE CONTENT OF THE WRITTEN SPECIFICATIONS SHALL PREVAIL.
- ALL WORK SHALL BE COMPLETED WITHIN THE RIGHT-OF-WAY UNLESS SPECIFIED BY THE PLANS OR THE TOWN ENGINEER. ANY WORK REQUIRED ON PRIVATE PROPERTY SHALL BE COORDINATED WITH THE HOMEOWNER AND THE TOWN ENGINEER TO MINIMIZE INCONVENIENCE AND PROVIDE ACCESS TO THE HOMEOWNER. CONTRACTOR SHALL CONTACT TOWN OF BEDFORD, TOWN ENGINEER, FOR LIMITS OF ALL PROPOSED EASEMENTS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES PRIOR TO COMMENCEMENT OF THIS WORK.
- NO EXISTING MONUMENTS, BOUNDS OR BENCHMARKS SHALL BE DISTURBED WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION.
- UNSUITABLE MATERIAL, ROOTS AND STUMPS WITHIN THE LIMITS OF ROADBED SHALL BE REMOVED AS ORDERED.
- DIMENSIONS, ANGLES, BEARINGS, AND ELEVATIONS SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM LIMITED FIELD INVESTIGATIONS AND SURVEY AND MAY NOT ACCURATELY REFLECT ACTUAL FIELD CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY PROJECT WORK. ANY DISCREPANCIES IN DIMENSIONS, CHARACTER OR EXTENT OF THE EXISTING FEATURES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE ADVANCING THE WORK. SHOP DRAWINGS REQUIRED FOR VARIOUS ITEMS OF THE WORK SHALL INDICATE THE ACTUAL FIELD MEASUREMENTS AND SHALL BE SO NOTED.
- REMOVE TOPSOIL FOR ITS TOTAL DEPTH WITHIN THE LIMITS OF THE SLOPE LINES. UNLESS OTHERWISE DIRECTED, STOCKPILE TOPSOIL AND USE IT ON THIS PROJECT AS NEEDED UNDER SECTION 646.
- THE CONTRACTOR SHALL CONTACT DIGSAFE AT 811 A MINIMUM OF 72 HOURS PRIOR TO ANY EXCAVATION.
- SHOULD ANY ALTERING, ADJUSTING, OR RELOCATING OF UTILITIES BE REQUIRED, THIS WORK SHALL BE COMPLETED BY THE APPROPRIATE UTILITY COMPANY AND IS NOT PART OF THIS CONTRACT. HOWEVER, THE CONTRACTOR SHALL FACILITATE THE UTILITY COMPANY IN THEIR PERFORMANCE OF THIS WORK.
- ANY DITCHLINES THAT EXCEED 6 PERCENT IN GRADE SHALL BE LINED WITH RIP-RAP OR TURF REINFORCEMENT MATTING AS SPECIFIED ON THE PLANS.
- ALL SIGNS, MAILBOXES, PROPERTY BOUNDS, ETC. DISTURBED BY THE CONSTRUCTION ACTIVITIES SHALL BE RESET BY THE CONTRACTOR OR HIS AGENT.
- SAWCUT ALL EXISTING PAVEMENT AT LIMITS OF WORK.
- CONTRACTOR SHALL COORDINATE WITH THE FIELD ENGINEER AND REMOVE TREES AS NECESSARY TO COMPLETE THE WORK AND/OR AS DIRECTED BY THE TOWN ENGINEER.
- CONSTRUCT PAVED DRIVE APRON FOR ALL EXISTING DRIVEWAYS AS DIRECTED.
- ALL NEW EMBANKMENT SLOPES SHALL BE LOAMED AND SEEDED, MULCH AS DIRECTED.
- CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR TRAFFIC CONTROL AND ASSOCIATED SIGNAGE AND WARNING DEVICES DURING EXECUTION OF THIS CONTRACT.
- CATCH BASIN RIM ELEVATIONS SHALL BE SET TO ASPHALT BINDER GRADE. FUTURE WEARING COURSE SHALL TAPER INTO THE GRATE.
- GROUND SURVEY AND BASE PLAN PROVIDED BY J.E. BELANGER LAND SURVEYING, PLLC, DUNBARTON, NH AND SANDFORD SURVEYING AND ENGINEERING, INC, BEDFORD, NH.
- TYPICAL SECTIONS AND DETAILS PROVIDED BY TOWN OF BEDFORD, NH.
- EXPOSED SOILS IN DELINEATED WETLANDS AT OUTFALLS AND ALONG SWALES WILL BE SEEDED WITH ERNMX-183, NATIVE DETENTION AREA SEED MIX, OR EQUIVALENT.
- CONTRACTOR TO MAINTAIN EXISTING DRIVE PIPES UNLESS OTHERWISE NOTED.



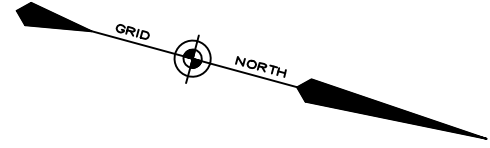
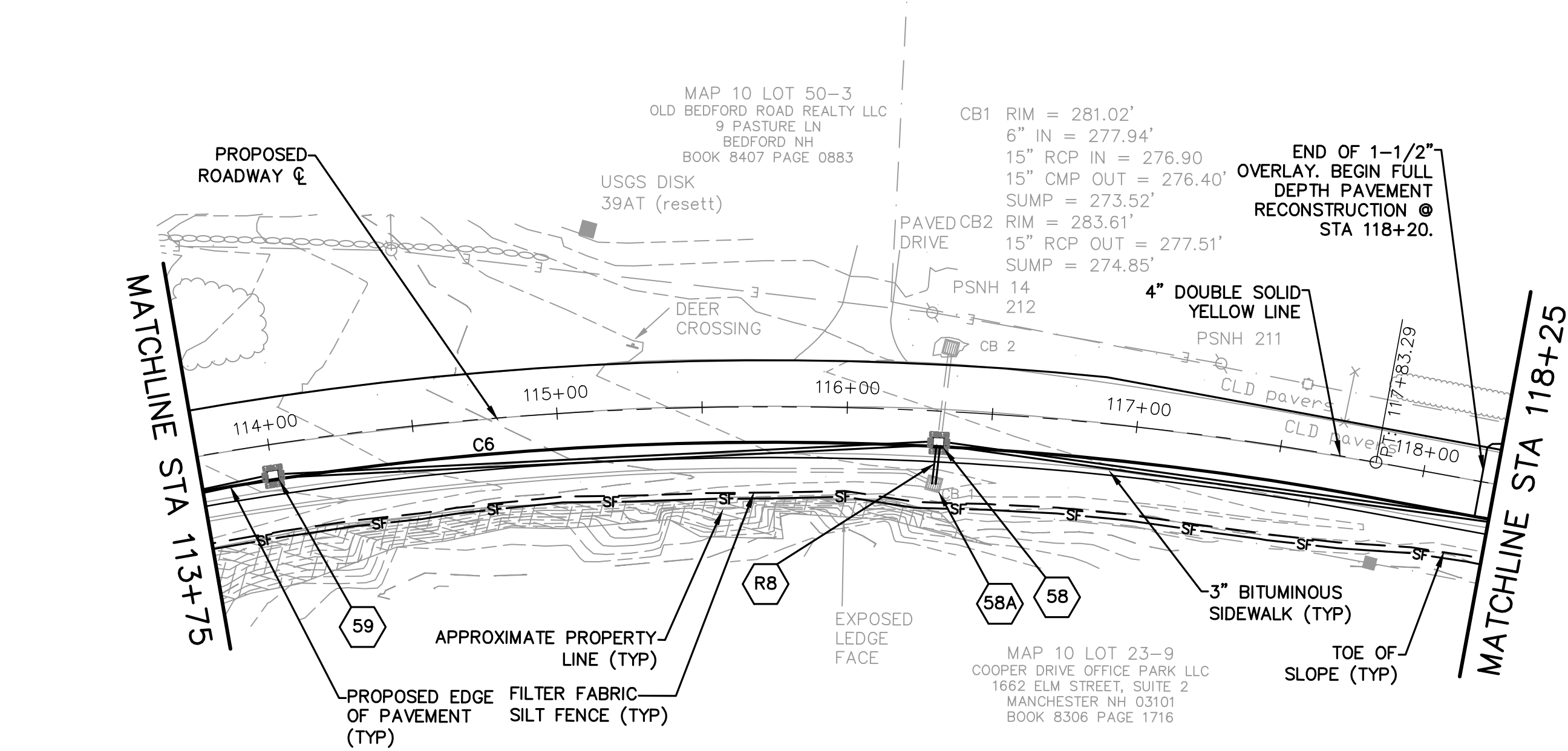
DATUM ELEV
250.00



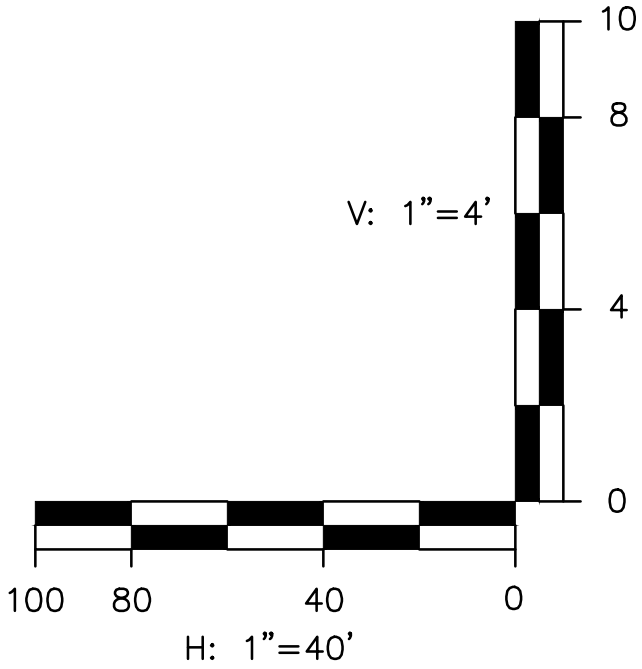
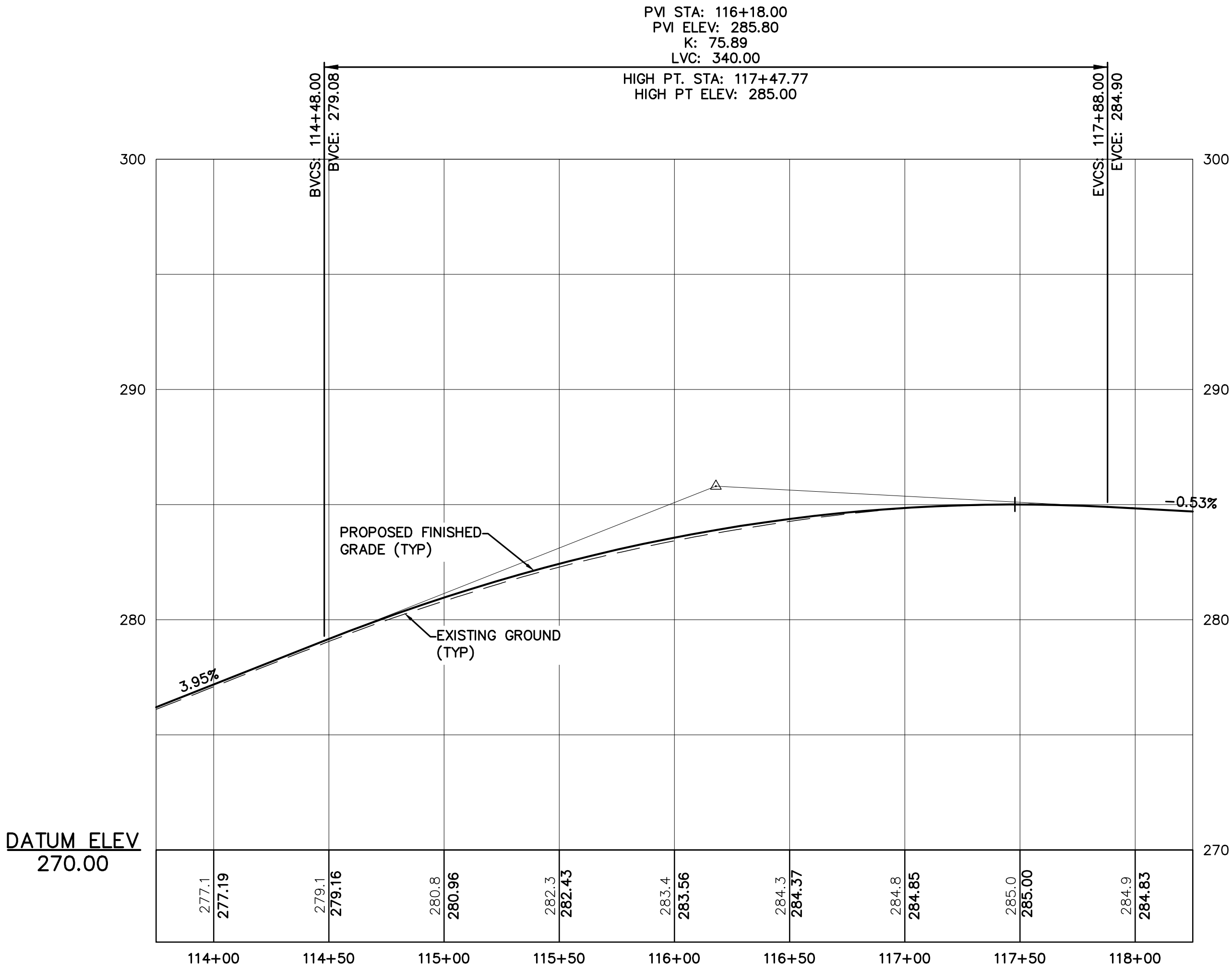
OLD BEDFORD ROAD
PLAN AND PROFILE

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE



CURB TABLE							
CURB ID	TYPE	START STATION	START OFFSET	END STATION	END OFFSET	RADIUS	LENGTH
C6	STRAIGHT	111+77.30	RT, 12.00'	117+83.29	RT, 12.00'	1138.00	599.67

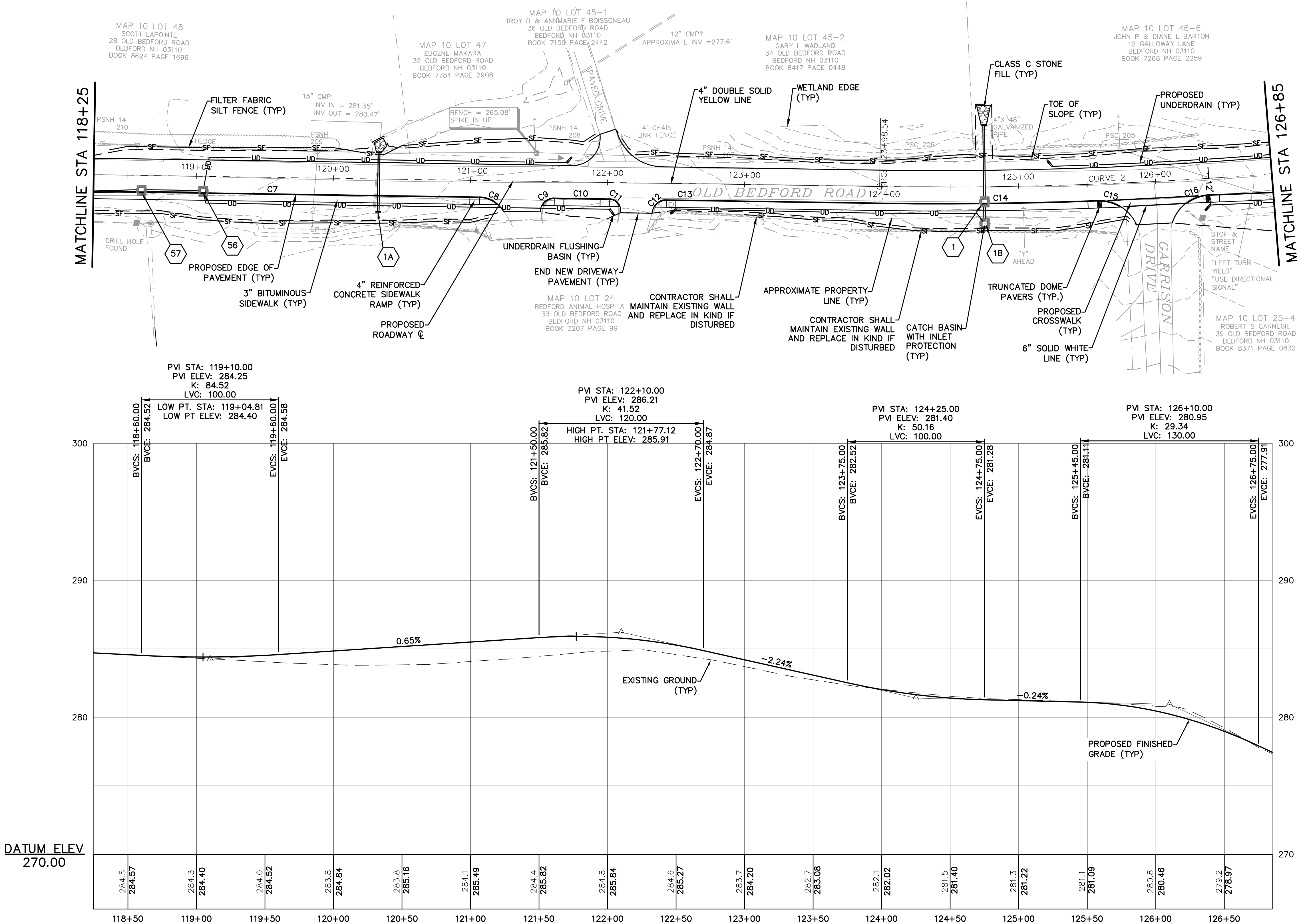


OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE	PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110	DATE: MAY 7, 2015	PROJ. 77-2015	SCALE: AS SHOWN	SHEET: 2	OF	62	NO.	DATE	REVISION DESCRIPTION

CURB TABLE							
CURB ID	TYPE	START STATION	START OFFSET	END STATION	END OFFSET	RADIUS	LENGTH
C7	STRAIGHT	117+83.29	RT, 12.00'	121+06.75	RT, 12.00'	—	323.46
C8	STRAIGHT	121+06.75	RT, 12.00'	121+20.52	RT, 17.50'	20.00	15.20
C9	STRAIGHT	121+52.39	RT, 17.50'	121+61.32	RT, 12.00'	10.00	11.04
C10	STRAIGHT	121+61.32	RT, 12.00'	122+01.80	RT, 12.00'	—	40.48
C11	STRAIGHT	122+01.80	RT, 12.00'	122+09.40	RT, 17.50'	8.00	10.02

CURB TABLE							
CURB ID	TYPE	START STATION	START OFFSET	END STATION	END OFFSET	RADIUS	LENGTH
C12	STRAIGHT	122+34.15	RT, 17.50'	122+43.08	RT, 12.00'	10.00	11.04
C13	STRAIGHT	122+43.08	RT, 12.00'	123+98.54	RT, 12.00'	—	155.46
C14	STRAIGHT	123+98.54	RT, 12.00'	125+57.10	RT, 12.00'	3012.00	159.19
C15	STRAIGHT	125+57.10	RT, 12.00'	125+74.24	RT, 17.50'	30.00	18.37
C16	STRAIGHT	126+21.43	RT, 17.14'	126+38.77	RT, 12.00'	30.00	18.46

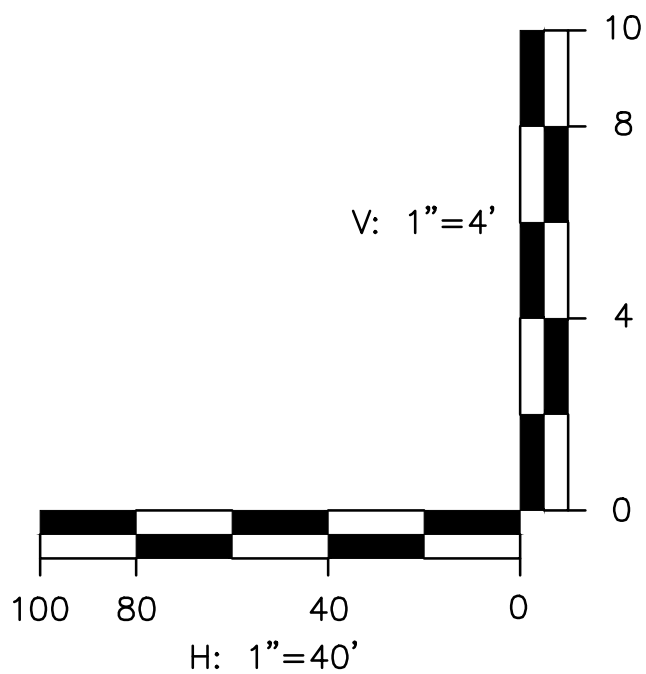
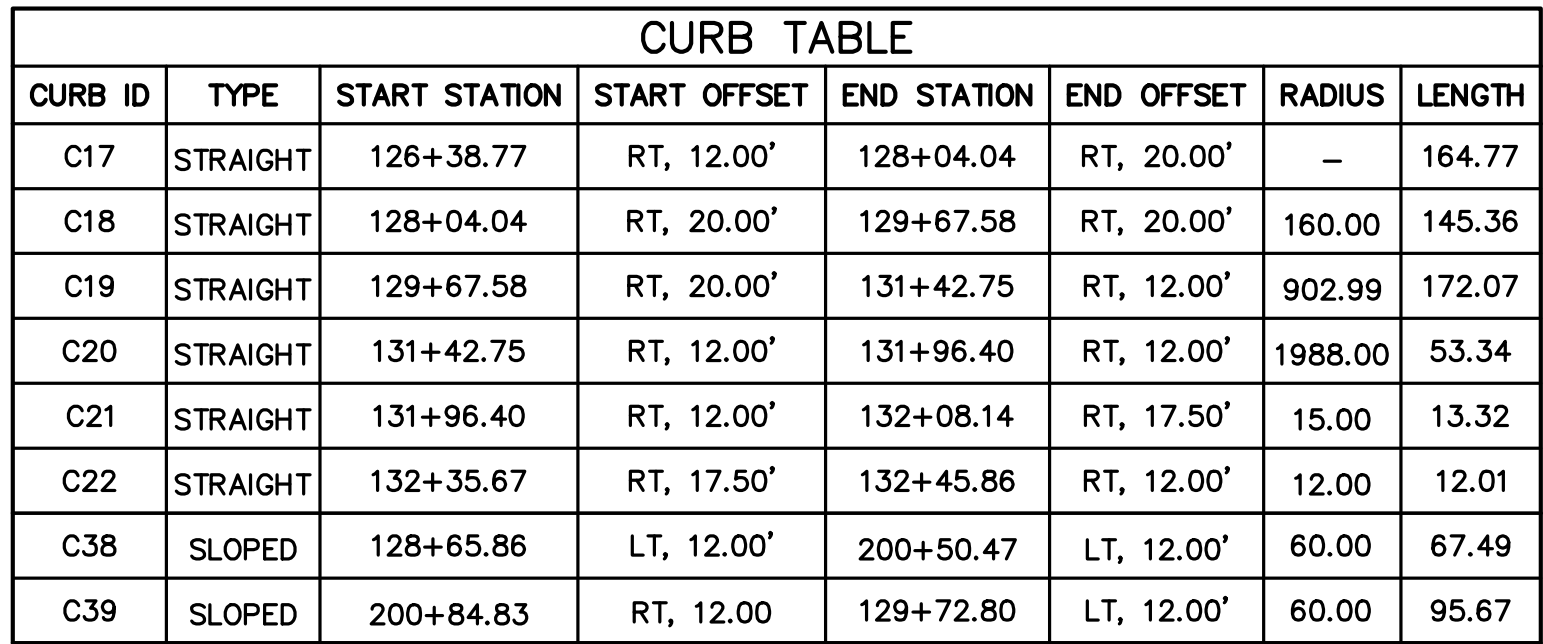
CURVE TABLE					
CURVE #	PI	Δ	R	T	L
CURVE 2	STA 125+94.85	7° 29' 16"	3000.00	196.31	392.06



OLD BEDFORD ROAD
PLAN AND PROFILE

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

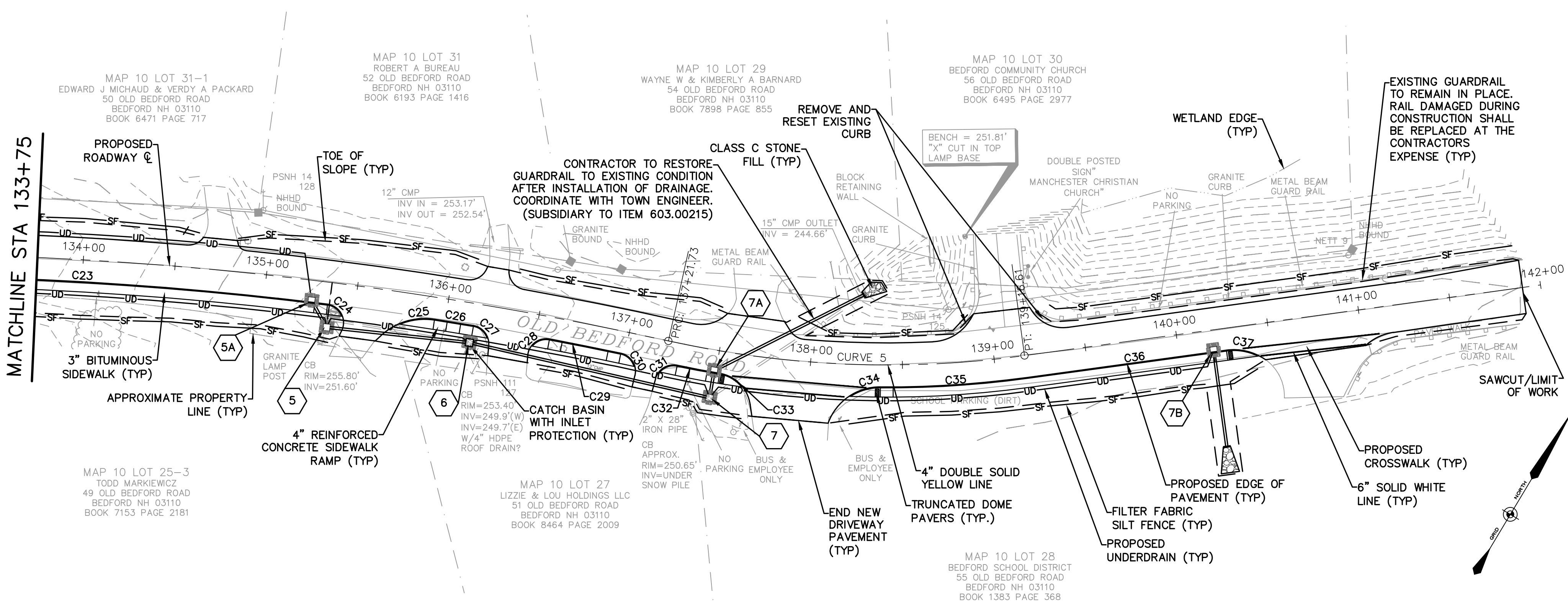


CURVE TABLE					
CURVE #	PI	Δ	R	T	L
CURVE 6	STA 201+26.81	58° 02' 00"	200.00	110.94	202.57

CURVE TABLE					
CURVE #	PI	Δ	R	T	L
CURVE 4	STA 133+59.01	21° 01' 17"	2000.00	371.06	733.78

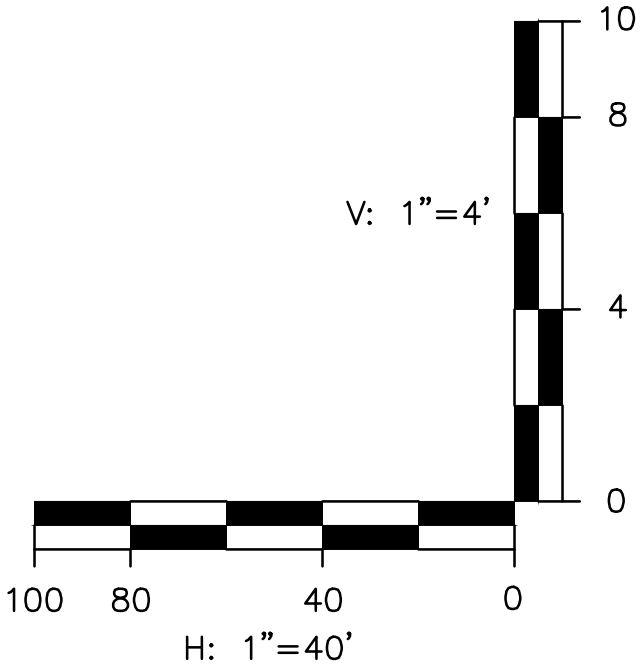
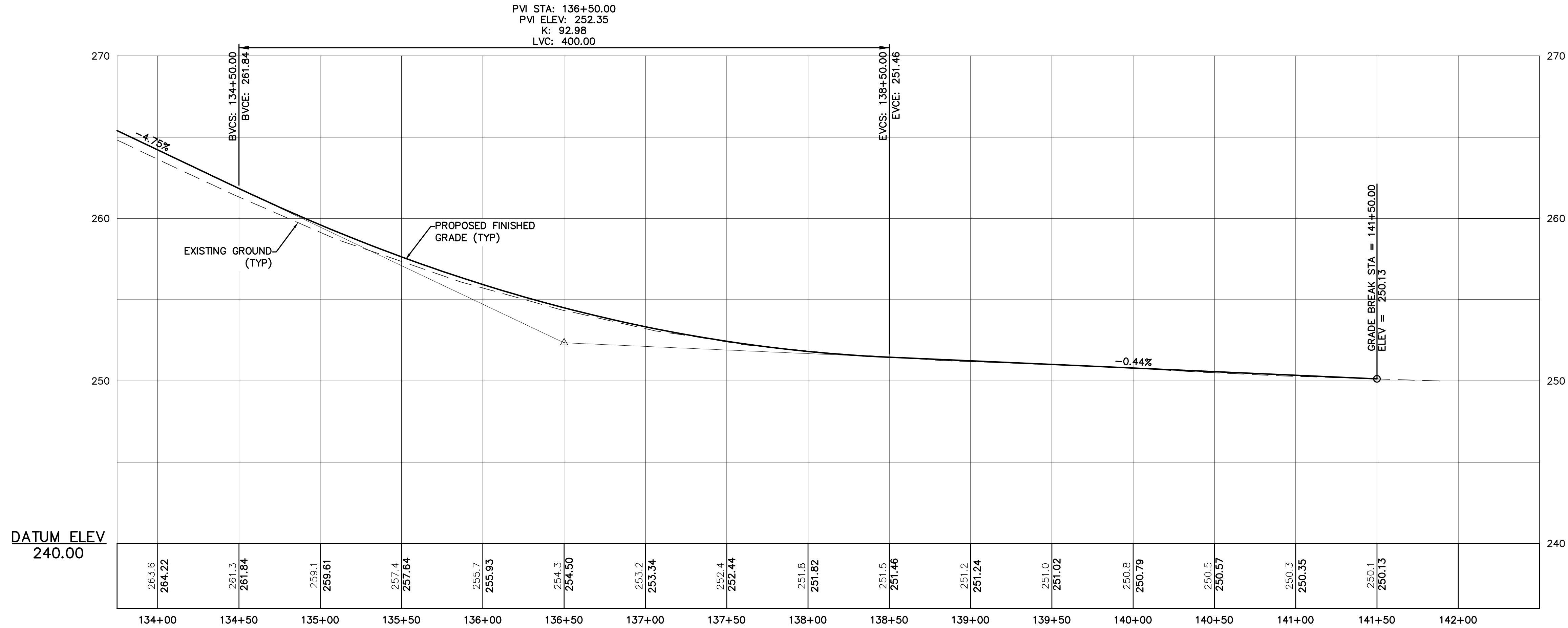
CURVE TABLE					
CURVE #	PI	Δ	R	T	L
CURVE 3	STA 129+00.51	62° 49' 08"	180.00	109.91	197.35

OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE				PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110		OLD BEDFORD ROAD PLAN AND PROFILE						
SHEET: 4	OF	62	SCALE: AS SHOWN	DATE: MAY 7, 2015	PROJ. 77-2015							
								NO.	DATE	REVISION DESCRIPTION		



CURB TABLE							
CURB ID	TYPE	START STATION	START OFFSET	END STATION	END OFFSET	RADIUS	LENGTH
C23	STRAIGHT	132+45.86	RT, 12.00'	135+34.95	RT, 12.00'	1988.00	287.36
C24	STRAIGHT	135+34.95	RT, 12.00'	135+43.97	RT, 17.50'	10.00	11.06
C25	STRAIGHT	135+74.97	RT, 17.50'	135+94.11	RT, 12.00'	35.00	20.06
C26	STRAIGHT	135+94.11	RT, 12.00'	136+15.68	RT, 12.00'	1988.00	21.44
C27	STRAIGHT	136+15.68	RT, 12.00'	136+24.70	RT, 17.50'	10.00	11.06
C28	STRAIGHT	136+48.94	RT, 17.50'	136+57.96	RT, 12.00'	10.00	11.06
C29	STRAIGHT	136+57.96	RT, 12.00'	136+97.74	RT, 12.00'	1988.00	39.54
C30	STRAIGHT	136+97.74	RT, 12.00'	137+06.76	RT, 17.50'	10.00	11.06
C31	STRAIGHT	137+20.41	RT, 17.50'	137+29.09	RT, 12.00'	10.00	10.96
C32	STRAIGHT	137+29.09	RT, 12.00'	137+52.13	RT, 12.00'	562.00	23.55
C33	STRAIGHT	137+52.13	RT, 12.00'	137+65.32	RT, 17.50'	20.00	14.96
C34	STRAIGHT	138+21.66	RT, 17.50'	138+38.08	RT, 12.00'	30.00	18.01
C35	STRAIGHT	138+38.08	RT, 12.00'	139+16.61	RT, 12.00'	562.00	80.23
C36	STRAIGHT	139+16.61	RT, 12.00'	140+25.89	RT, 12.00'	—	109.29
C37	STRAIGHT	140+25.89	RT, 12.00'	140+43.21	RT, 17.50'	30.00	18.46

CURVE TABLE					
CURVE #	PI	Δ	R	T	L
CURVE 5	STA 138+20.20	20° 18' 03"	550.00	98.47	194.87

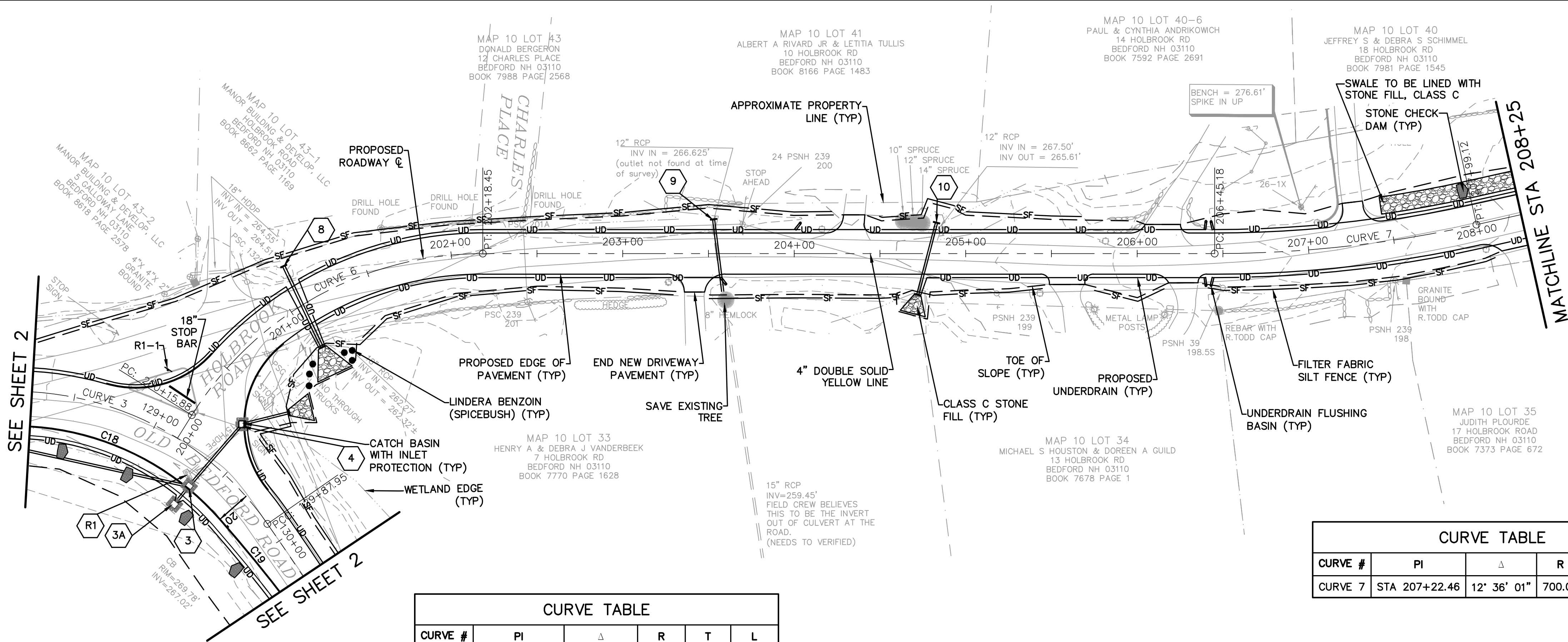


OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD
PLAN AND PROFILE

SHEET: 5 OF 62
SCALE: AS SHOWN
DATE: MAY 7, 2015
PROJ. 77-2015



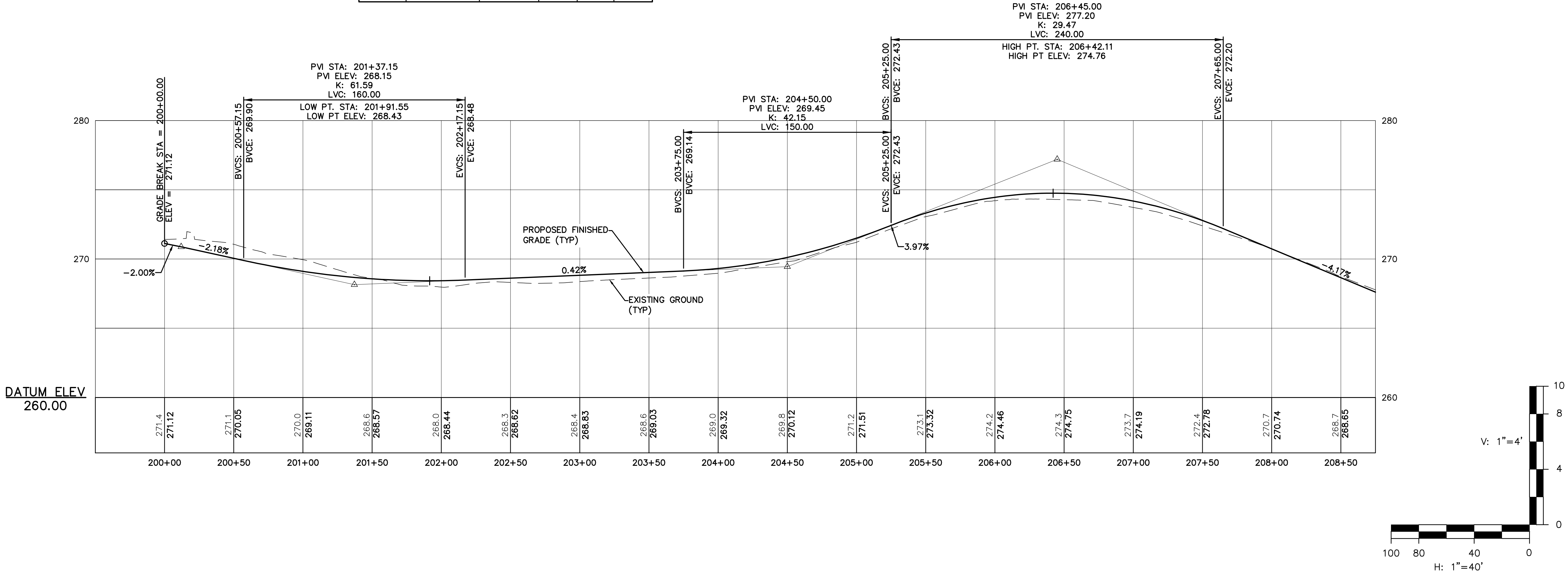
STONE WALL

RECONSTRUCT STONE WALL MULTIPLE STONES WIDE (ITEM 572.99) AT THE FOLLOWING LOCATIONS:

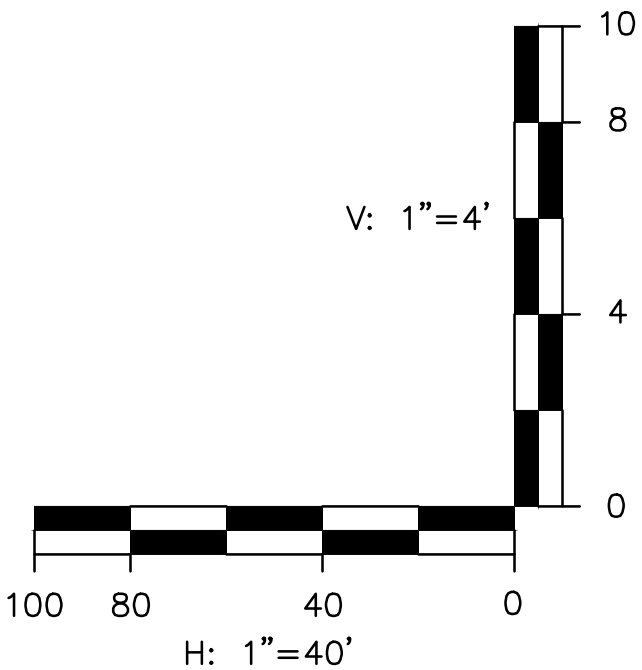
1. STA 205+82, LT TO STA 206+03, LT
2. STA 206+32, LT TO STA 206+44, LT
3. STA 207+07, LT TO STA 207+20, LT

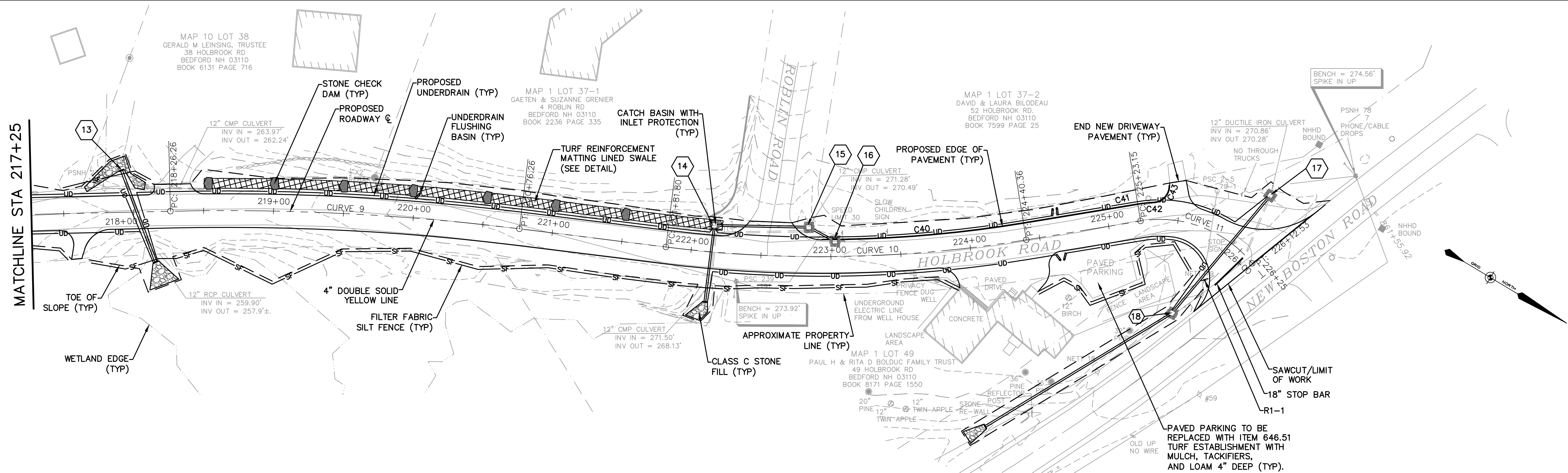
CURVE TABLE					
CURVE #	PI	Δ	R	T	L
CURVE 7	STA 207+22.46	12° 36' 01"	700.00	77.28	153.94

CURVE TABLE					
CURVE #	PI	Δ	R	T	L
CURVE 6	STA 201+26.81	58° 02' 00"	200.00	110.94	202.57



SHEET: 6	OF 62	SCALE: AS SHOWN	PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110	DATE: MAY 7, 2015	PROJ. 77-2015	HOLBROOK ROAD PLAN AND PROFILE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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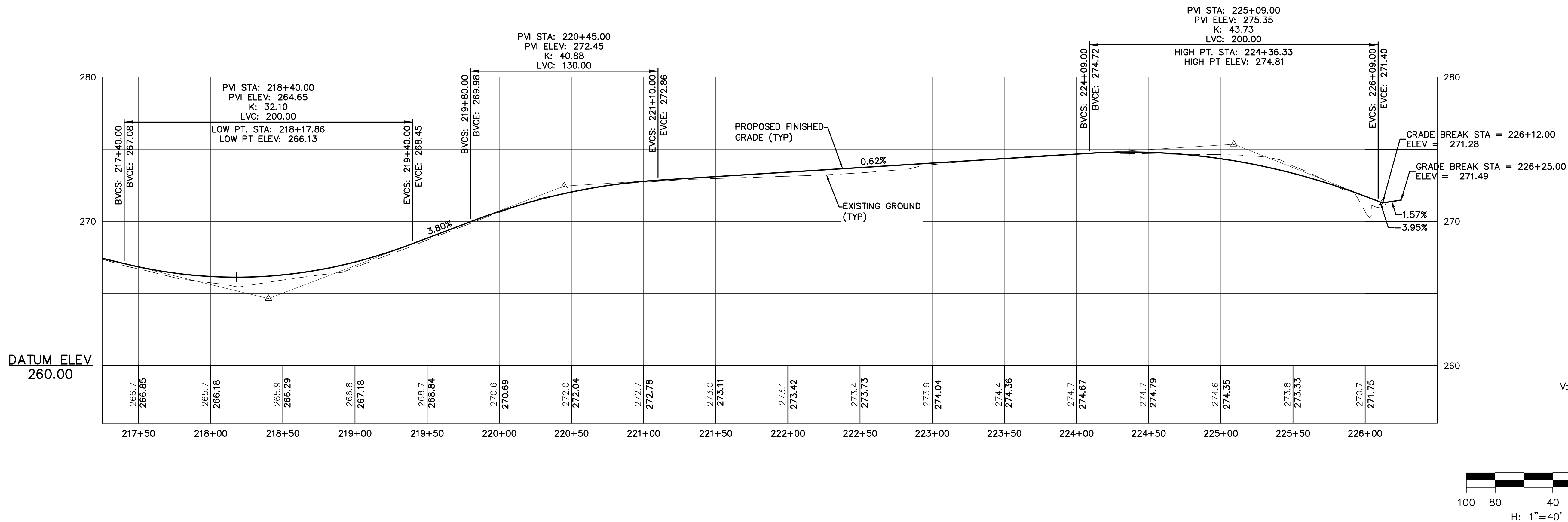


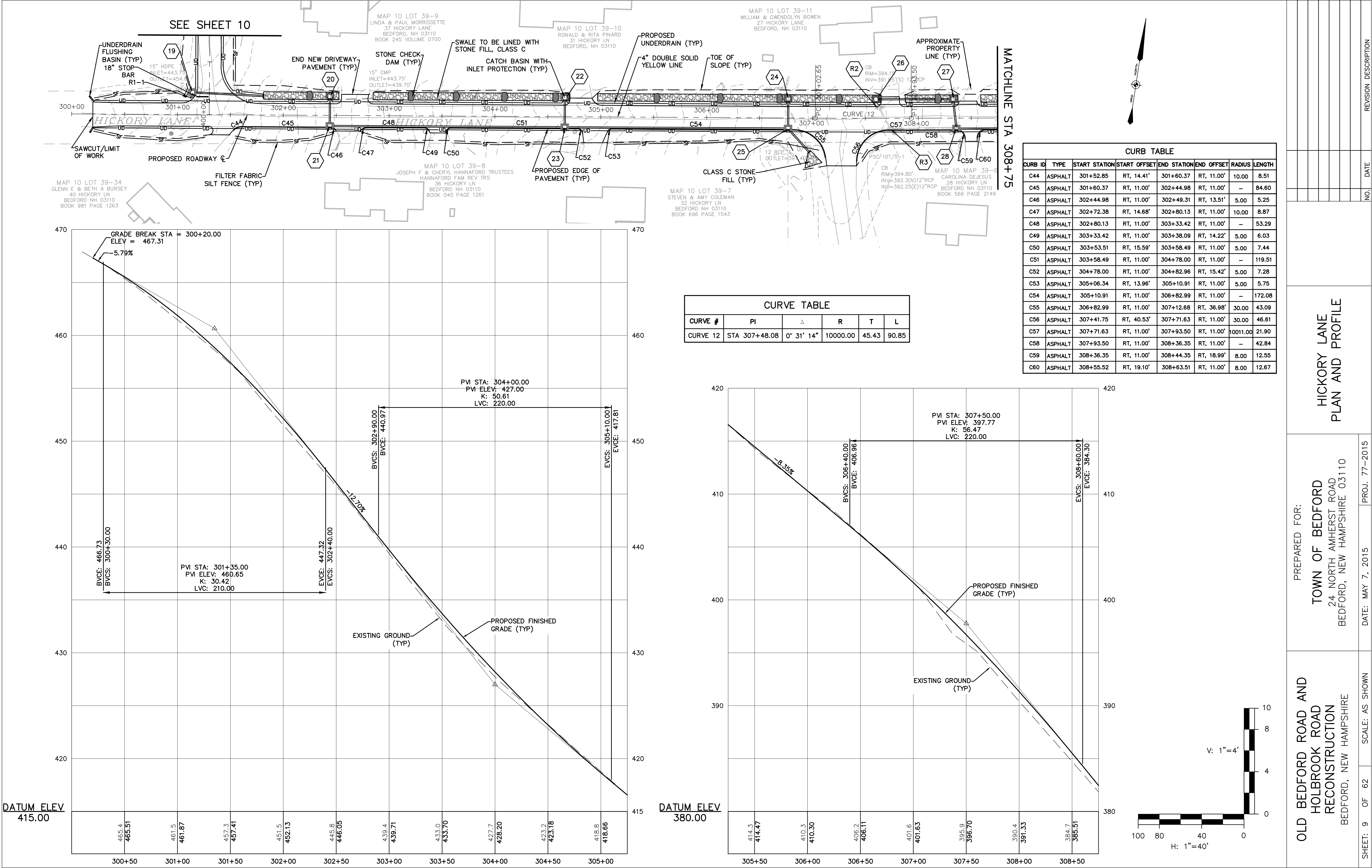
CURVE TABLE					
CURVE #	PI	Δ	R	T	L
CURVE 9	STA 219+51.49	8' 25' 33"	1700.00	125.22	250.00

CURVE TABLE					
CURVE #	PI	Δ	R	T	L
CURVE 10	STA 223+11.98	16° 27' 37"	900.00	130.17	258.56

CURVE TABLE					
CURVE #	PI	Δ	R	T	L
CURVE 11	STA 225+72.47	60° 14' 47"	85.00	49.32	89.38

CURB TABLE							
CURB ID	TYPE	START STATION	START OFFSET	END STATION	END OFFSET	RADIUS	LENGTH
C40	ASPHALT	222+93.71	LT, 12.00'	224+40.36	LT, 12.00'	888.00	144.69
C41	ASPHALT	224+40.36	LT, 12.00'	225+23.15	LT, 12.00'	—	82.79
C42	ASPHALT	225+23.15	LT, 12.00'	225+33.09	LT, 12.00'	97.00	11.35
C43	ASPHALT	225+33.09	LT, 12.00'	225+42.44	LT, 24.30'	12.00	18.49





MAP 10 LOT 39-12
JOHN & SONENE M. GRAHAM
23 HICKORY LN
BEDFORD NH 03110
BOOK 077 PAGE 1710

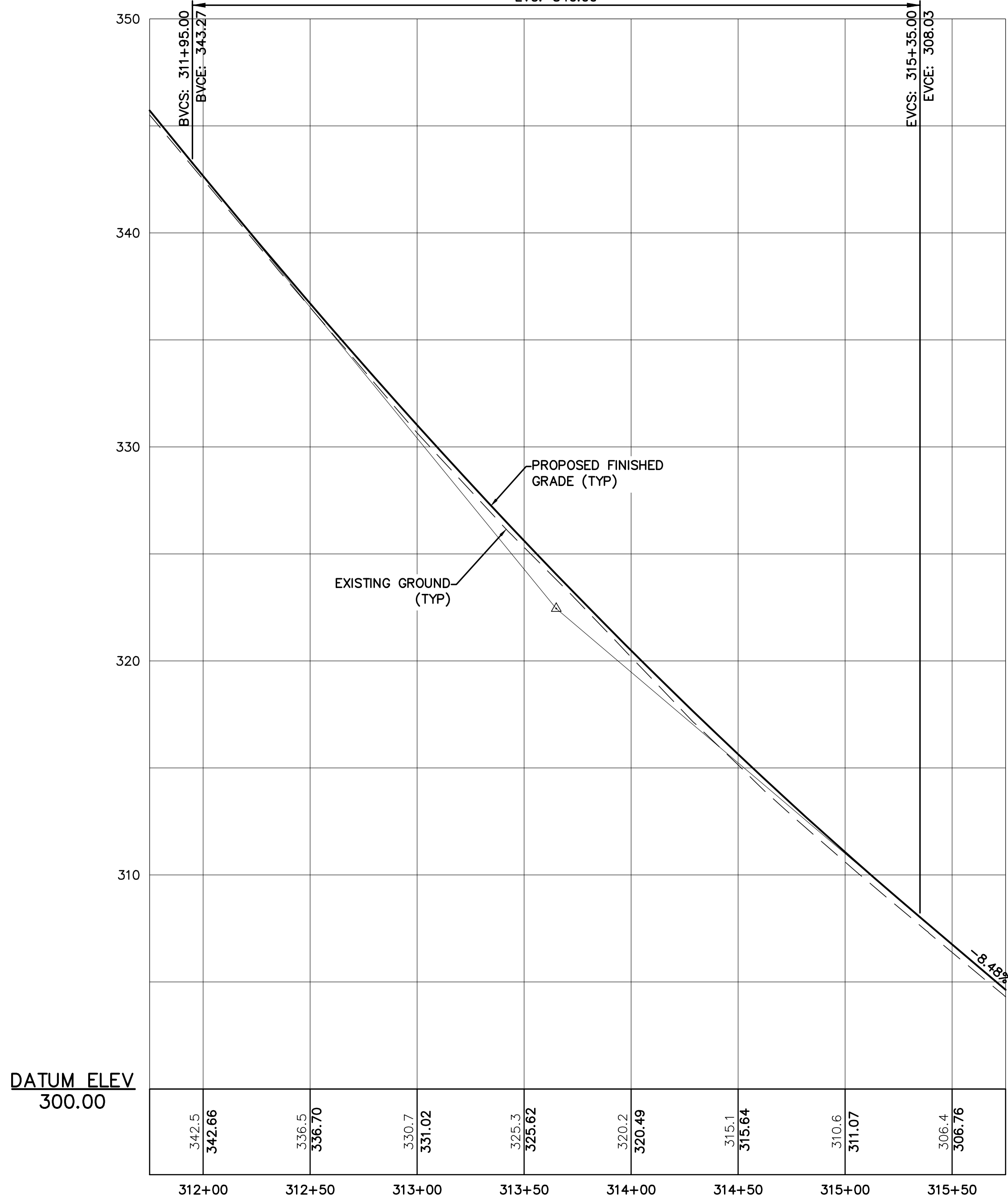
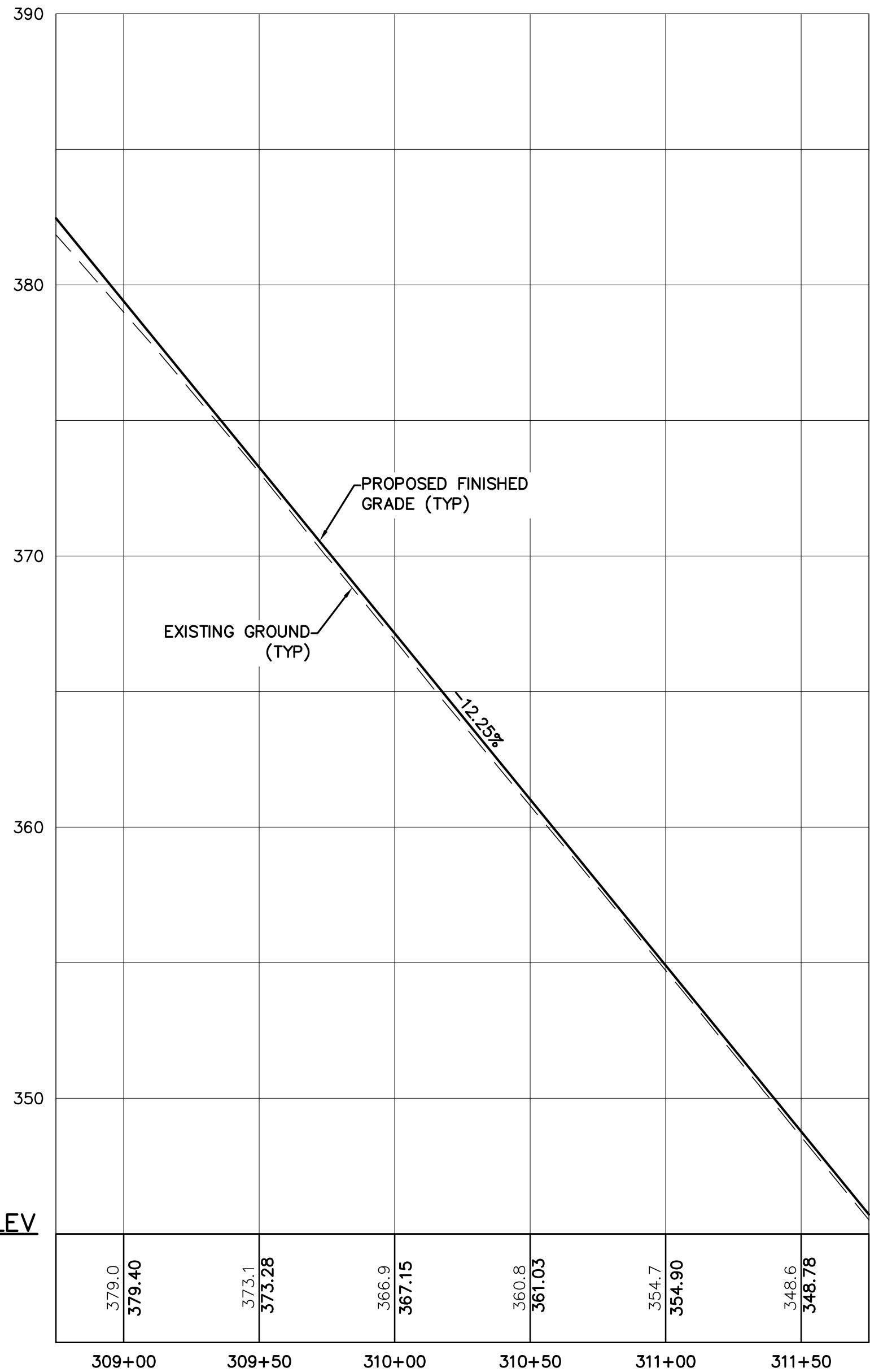
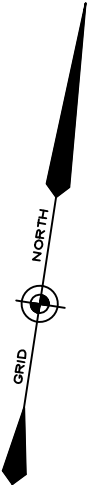
MAP 10 LOT 39-13
ROY H STEWART
19 HICKORY LN
BEDFORD, NH 03110

MAP 10 LOT 39-14
ANDREW BERRY & JAMIE TRAHAN
13 HICKORY LN
BEDFORD NH 03110
BOOK 854 PAGE 2662

CONTRACTOR TO
REMOVE 4IN PVC
PIPE TO PROPERTY
LINE. COORDINATE
WITH TOWN ENGINEER.

MATCHLINE STA 308+75

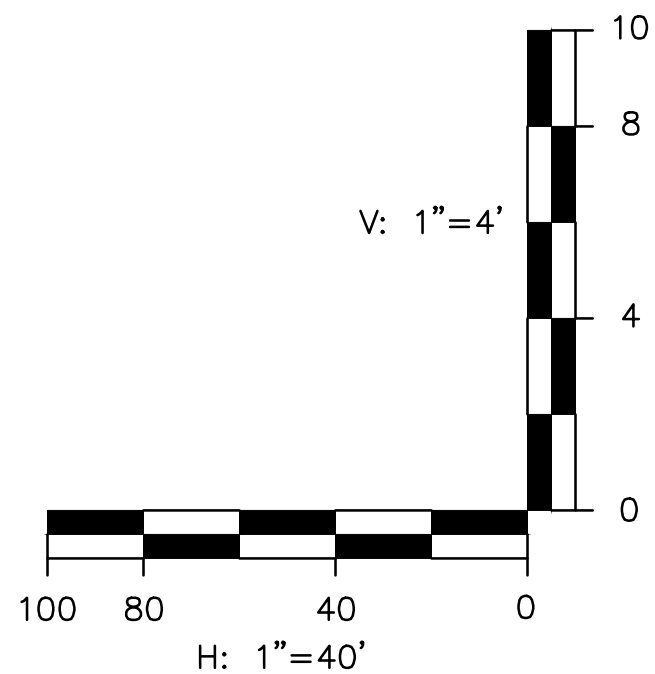
MATCHLINE STA 315+75



STONE WALL

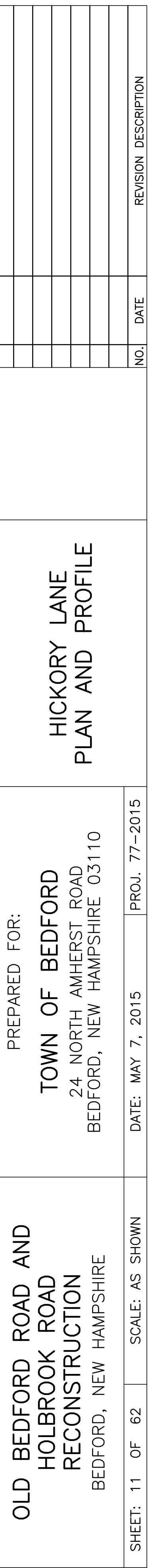
RECONSTRUCT STONE WALL MULTIPLE STONES WIDE (ITEM 572.99)
AT THE FOLLOWING LOCATION:

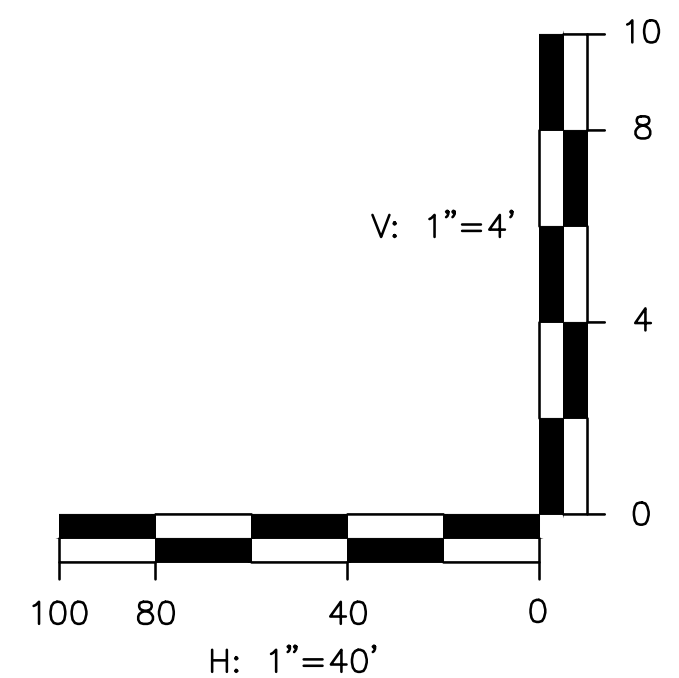
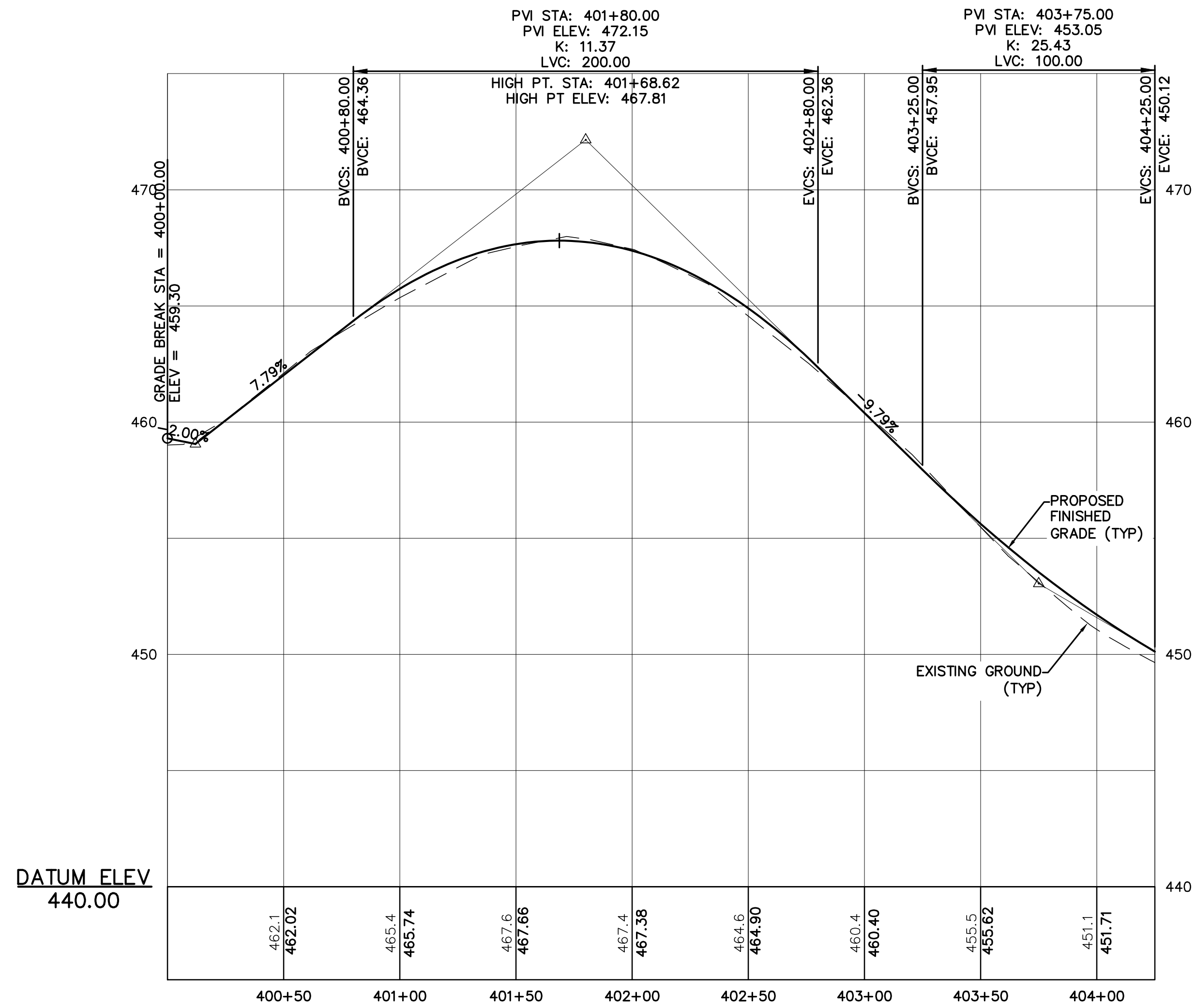
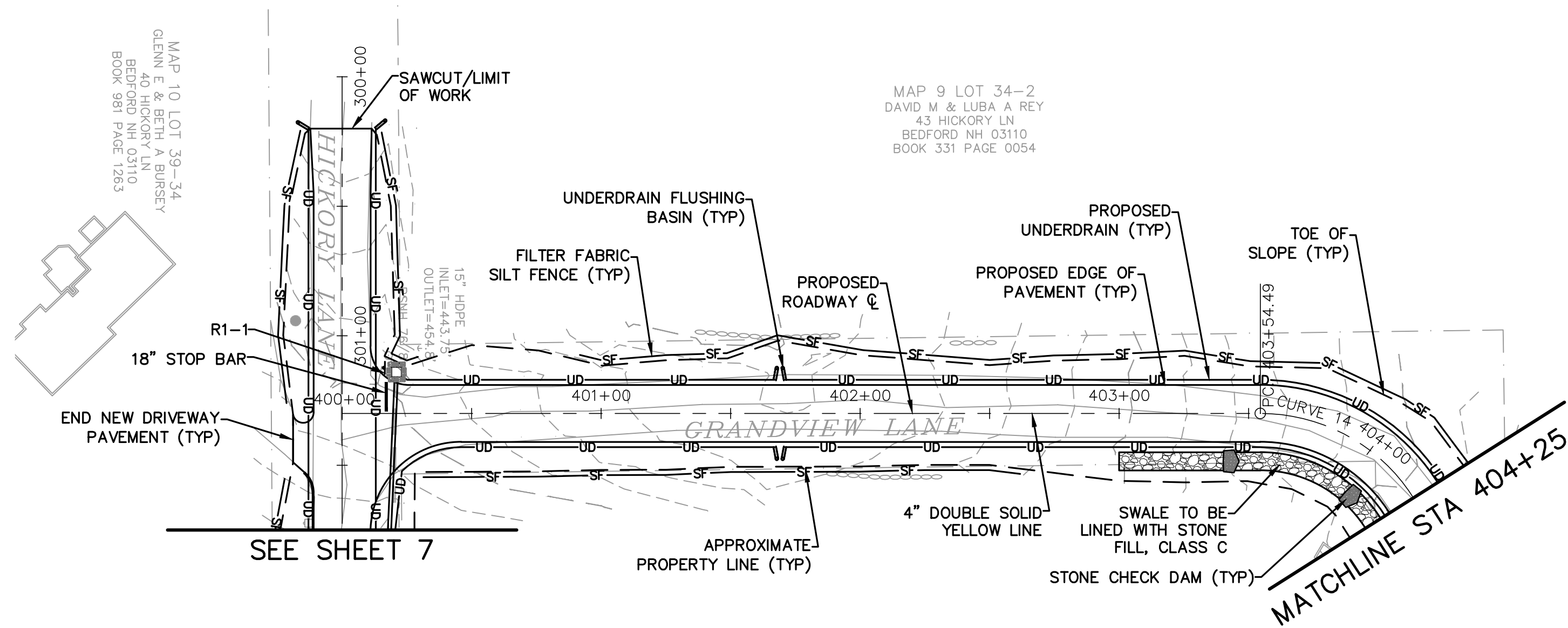
- STA 310+58, LT TO STA 310+91, LT

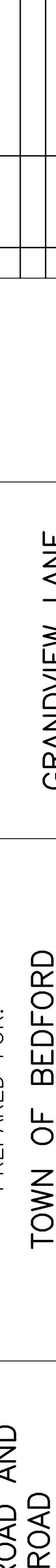


CURB TABLE							
CURB ID	TYPE	START STATION	START OFFSET	END STATION	END OFFSET	RADIUS	LENGTH
C61	ASPHALT	308+63.51	RT, 11.00'	309+58.70	RT, 11.00'	-	95.18
C62	ASPHALT	309+58.70	RT, 11.00'	309+63.69	RT, 15.66'	5.00	7.52
C63	ASPHALT	309+86.34	RT, 15.39'	309+91.31	RT, 11.00'	5.00	7.25
C64	ASPHALT	309+91.31	RT, 11.00'	310+38.05	RT, 11.00'	-	46.74
C65	ASPHALT	310+38.05	RT, 11.00'	310+43.05	RT, 16.00'	5.00	7.85
C66	ASPHALT	310+55.05	RT, 16.00'	310+60.05	RT, 11.00'	5.00	7.14
C67	ASPHALT	310+60.05	RT, 11.00'	312+08.22	RT, 11.00'	-	148.17
C68	ASPHALT	312+08.22	RT, 11.00'	312+12.95	RT, 14.39'	5.00	3.70
C69	ASPHALT	312+29.91	RT, 16.00'	312+38.57	RT, 11.00'	10.00	10.47
C70	ASPHALT	312+38.57	RT, 11.00'	314+46.90	RT, 11.00'	-	208.32
C71	ASPHALT	314+46.90	RT, 11.00'	314+51.89	RT, 15.83'	5.00	7.68
C72	ASPHALT	314+71.30	RT, 16.00'	314+76.30	RT, 11.00'	5.00	7.85
C73	ASPHALT	314+76.30	RT, 11.00'	315+10.81	RT, 11.00'	-	34.51
C74	ASPHALT	315+10.81	RT, 11.00'	315+20.21	RT, 17.60'	10.00	12.23
C75	ASPHALT	315+37.02	RT, 17.13'	315+46.24	RT, 11.00'	10.00	12.58

OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE			PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110		HICKORY LANE PLAN AND PROFILE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE	SHEET: 12 OF 62	SCALE: AS SHOWN	PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110	DATE: MAY 7, 2015	PROJ. 77-2015
			<p style="text-align: center;">GRANDVIEW LANE PLAN AND PROFILE</p> 		
				NO.	DATE
					REVISION DESCRIPTION

MAP 10 LOT 39-30
ROBERT E & PAMELA S BOURNIVAL
33 TIMBERLANE DR
BEDFORD NH 03110
BOOK 708 PAGE 147

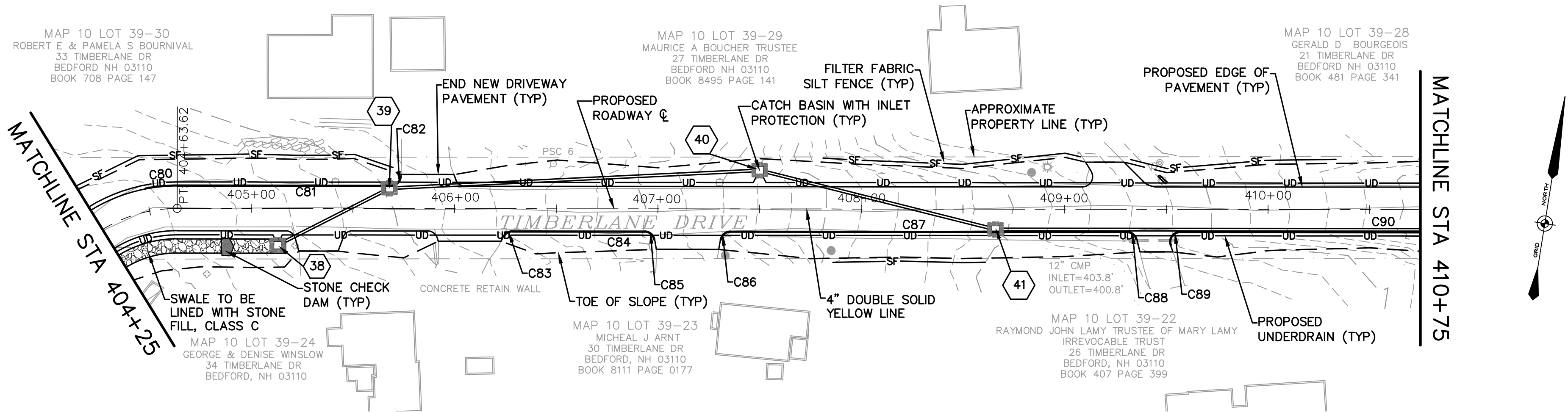
MAP 10 LOT 39-29
MAURICE A BOUCHER TRUSTEE
27 TIMBERLANE DR
BEDFORD NH 03110
BOOK 8495 PAGE 141

MAP 10 LOT 39-28
GERALD D BOURGEOIS
21 TIMBERLANE DR
BEDFORD NH 03110
BOOK 481 PAGE 341

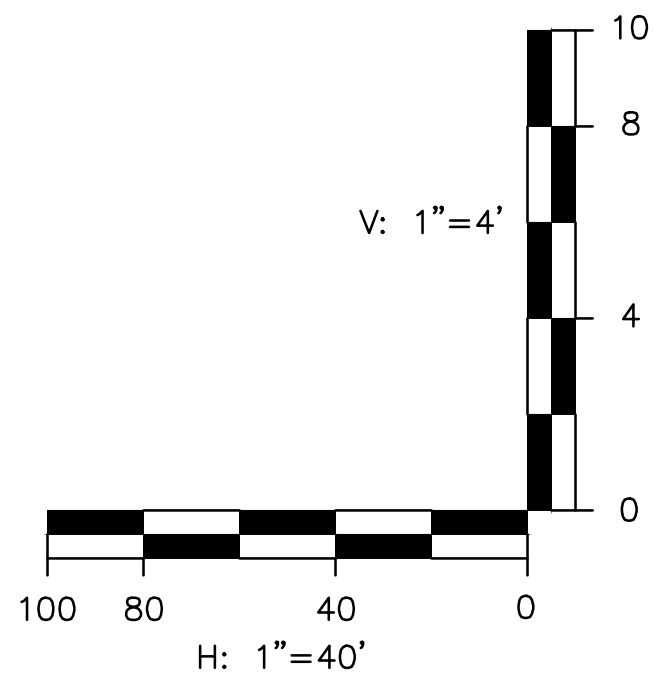
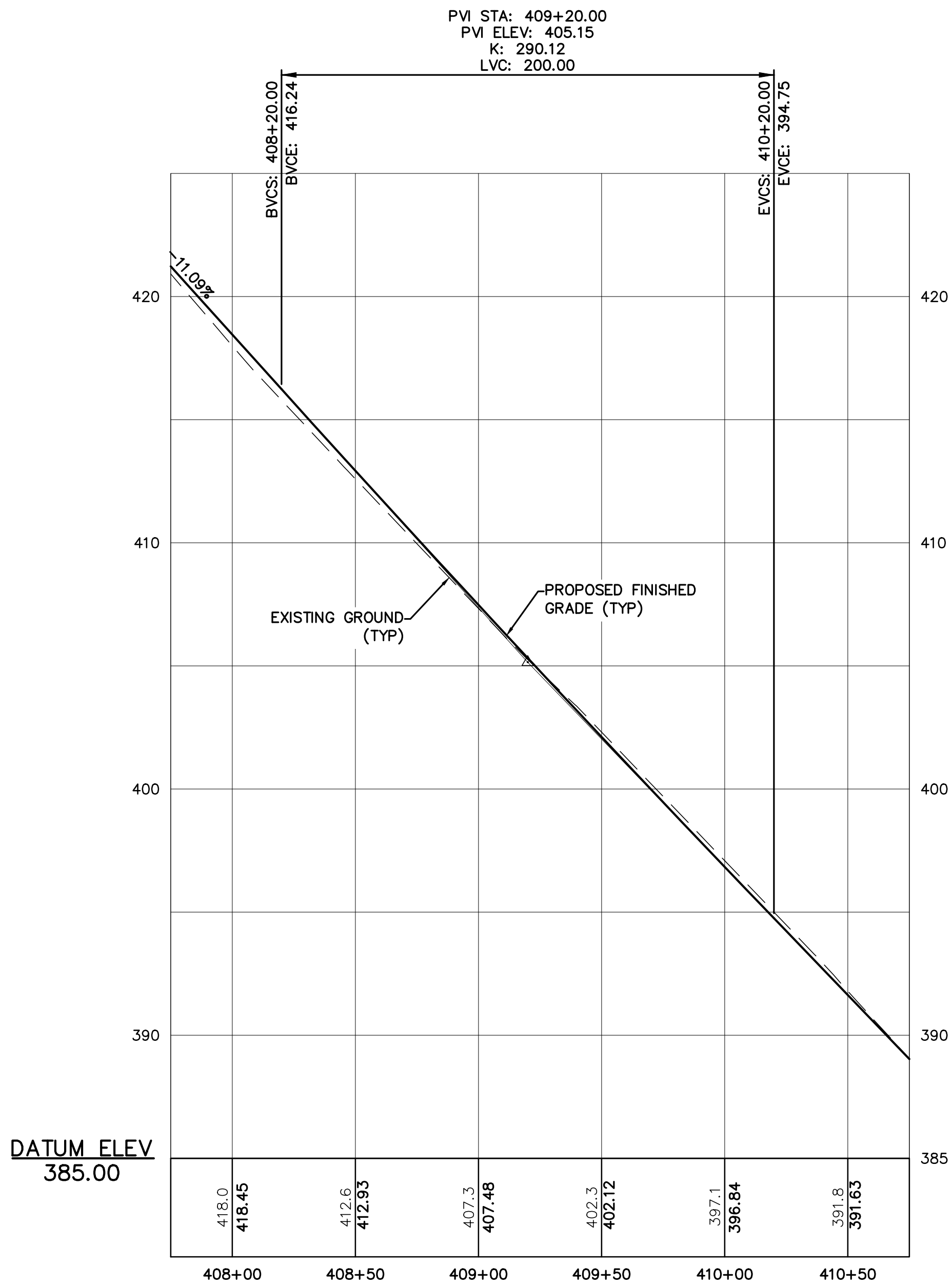
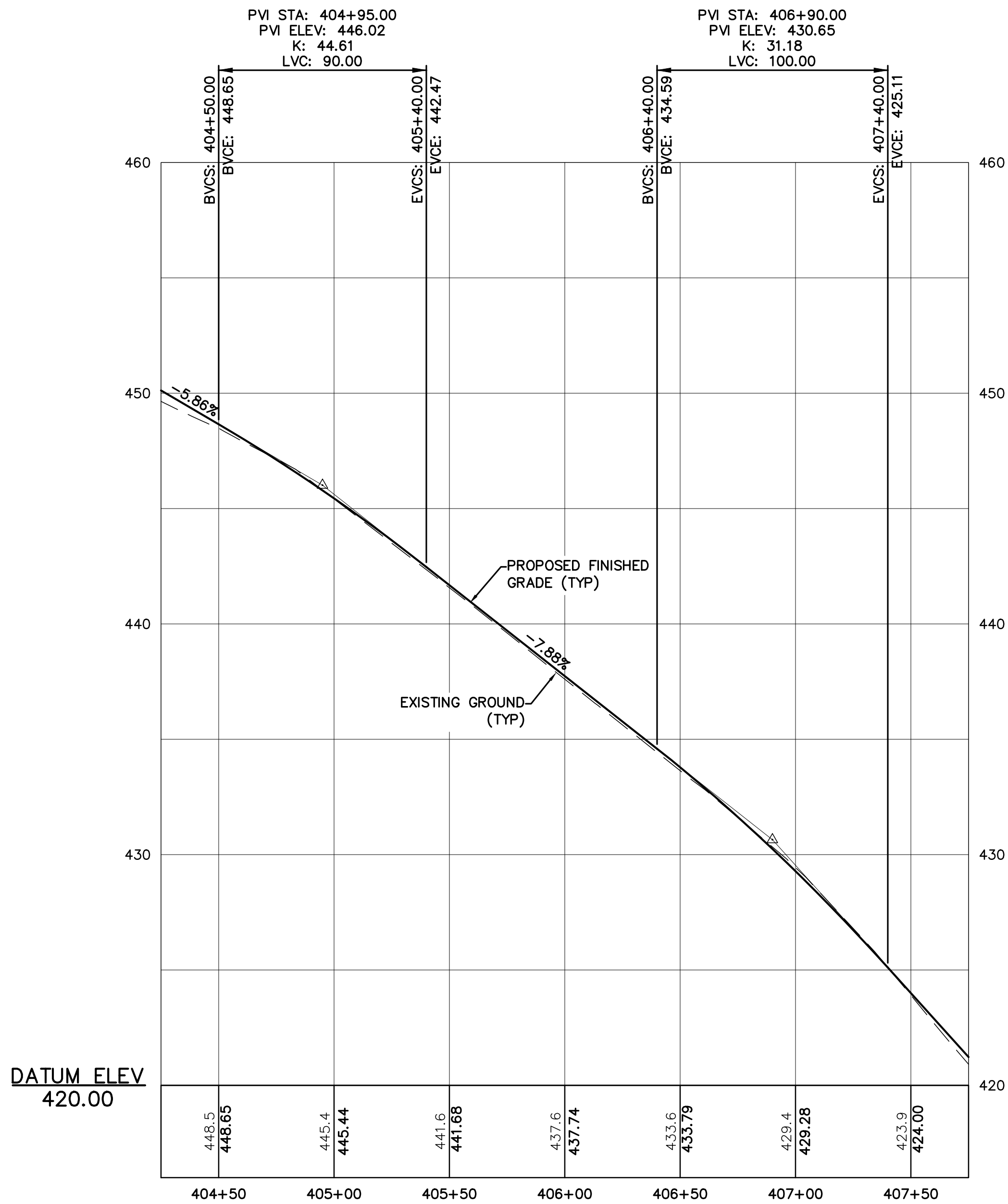
MAP 10 LOT 39-23
MICHAEL J ARNT
30 TIMBERLANE DR
BEDFORD, NH 03110
BOOK 8111 PAGE 0177

MAP 10 LOT 39-22
RAYMOND JOHN LAMY TRUSTEE OF MARY LAMY
IRREVOCABLE TRUST
26 TIMBERLANE DR
BEDFORD, NH 03110
BOOK 407 PAGE 399

MAP 10 LOT 39-24
GEORGE & DENISE WINSLOW
34 TIMBERLANE DR
BEDFORD, NH 03110



CURB TABLE							
CURB ID	TYPE	START STATION	START OFFSET	END STATION	END OFFSET	RADIUS	LENGTH
C80	ASPHALT	404+50.00	LT, 11.00'	404+63.62	LT, 11.00'	81.00	15.76
C81	ASPHALT	404+63.62	LT, 11.00'	405+68.72	LT, 11.00'	-	105.10
C82	ASPHALT	405+68.72	LT, 11.00'	405+73.72	LT, 15.89'	5.00	7.74
C83	ASPHALT	406+23.93	RT, 13.81'	406+28.43	RT, 11.00'	5.00	5.59
C84	ASPHALT	406+28.43	RT, 11.00'	406+93.50	RT, 11.00'	-	65.08
C85	ASPHALT	406+93.50	RT, 11.00'	406+98.44	RT, 15.18'	5.00	7.03
C86	ASPHALT	407+30.73	RT, 15.15'	407+35.66	RT, 11.00'	5.00	7.00
C87	ASPHALT	407+35.66	RT, 11.00'	409+30.67	RT, 11.00'	-	195.01
C88	ASPHALT	409+30.67	RT, 11.00'	409+35.53	RT, 14.82'	5.00	6.67
C89	ASPHALT	409+52.04	RT, 17.74'	409+56.72	RT, 11.00'	5.00	9.63
C90	ASPHALT	409+56.72	RT, 11.00'	412+44.62	RT, 11.00'	-	287.90



OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

TIMBERLANE DRIVE
PLAN AND PROFILE

SHEET: 13 OF 62

SCALE: AS SHOWN

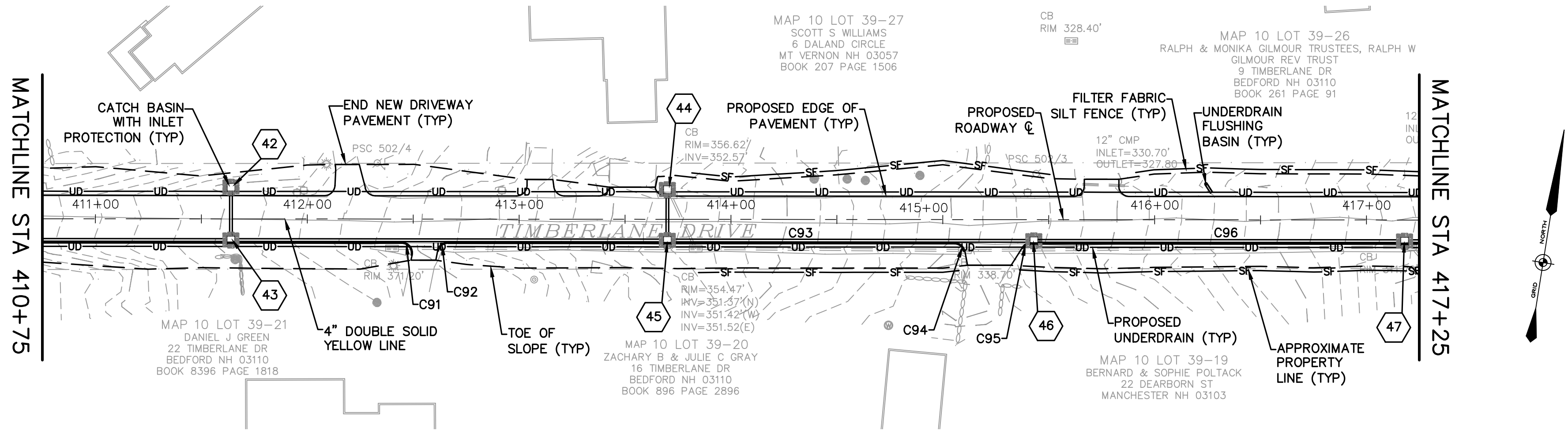
DATE: MAY 7, 2015

PROJ. 77-2015

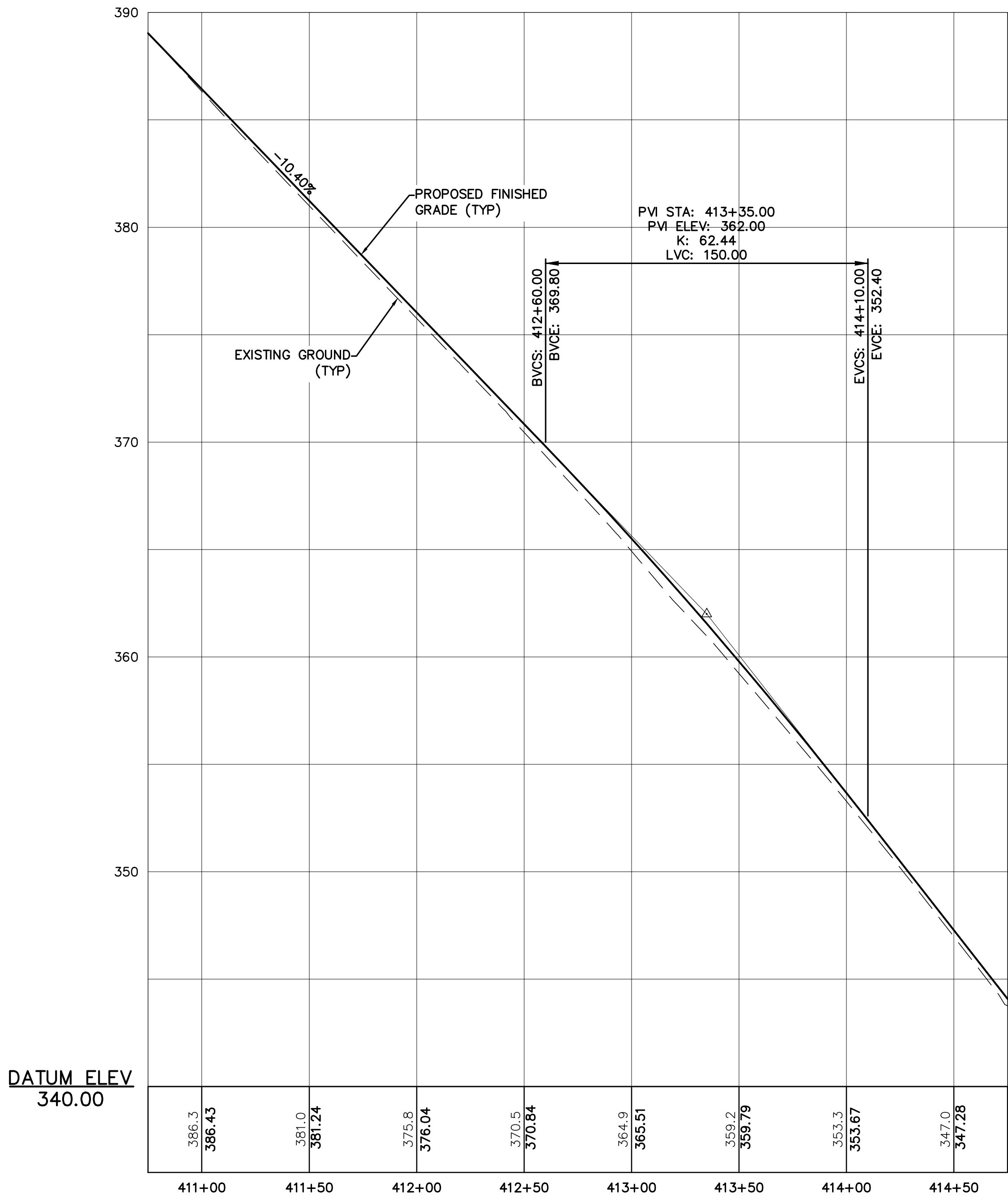
REVISION DESCRIPTION

NO.

DATE



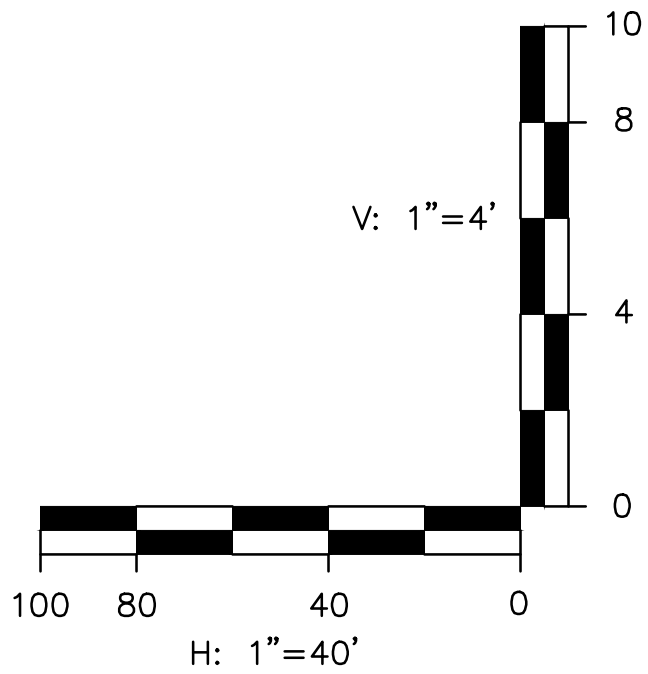
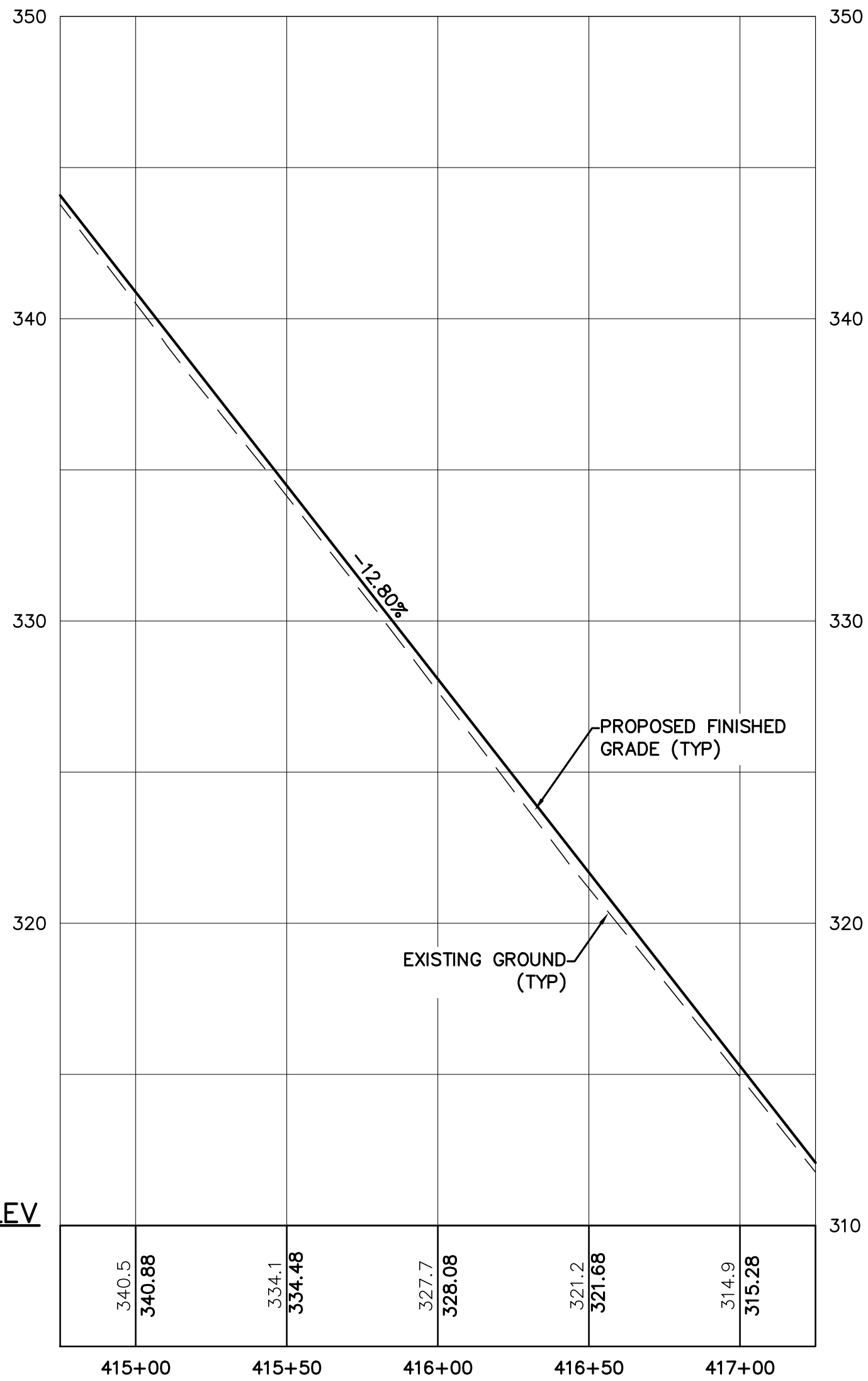
CURB TABLE							
CURB ID	TYPE	START STATION	START OFFSET	END STATION	END OFFSET	RADIUS	LENGTH
C91	ASPHALT	412+44.62	RT, 11.00'	412+49.51	RT, 17.08'	5.00	8.94
C92	ASPHALT	412+61.56	RT, 15.01'	412+66.46	RT, 11.00'	5.00	6.85
C93	ASPHALT	412+66.46	RT, 11.00'	415+05.57	RT, 11.00'	—	239.11
C94	ASPHALT	415+05.57	RT, 11.00'	415+10.49	RT, 15.08'	5.00	6.93
C95	ASPHALT	415+37.46	RT, 13.34'	415+41.69	RT, 11.00'	5.00	5.05
C96	ASPHALT	415+41.69	RT, 11.00'	417+24.00	RT, 11.00'	—	182.31



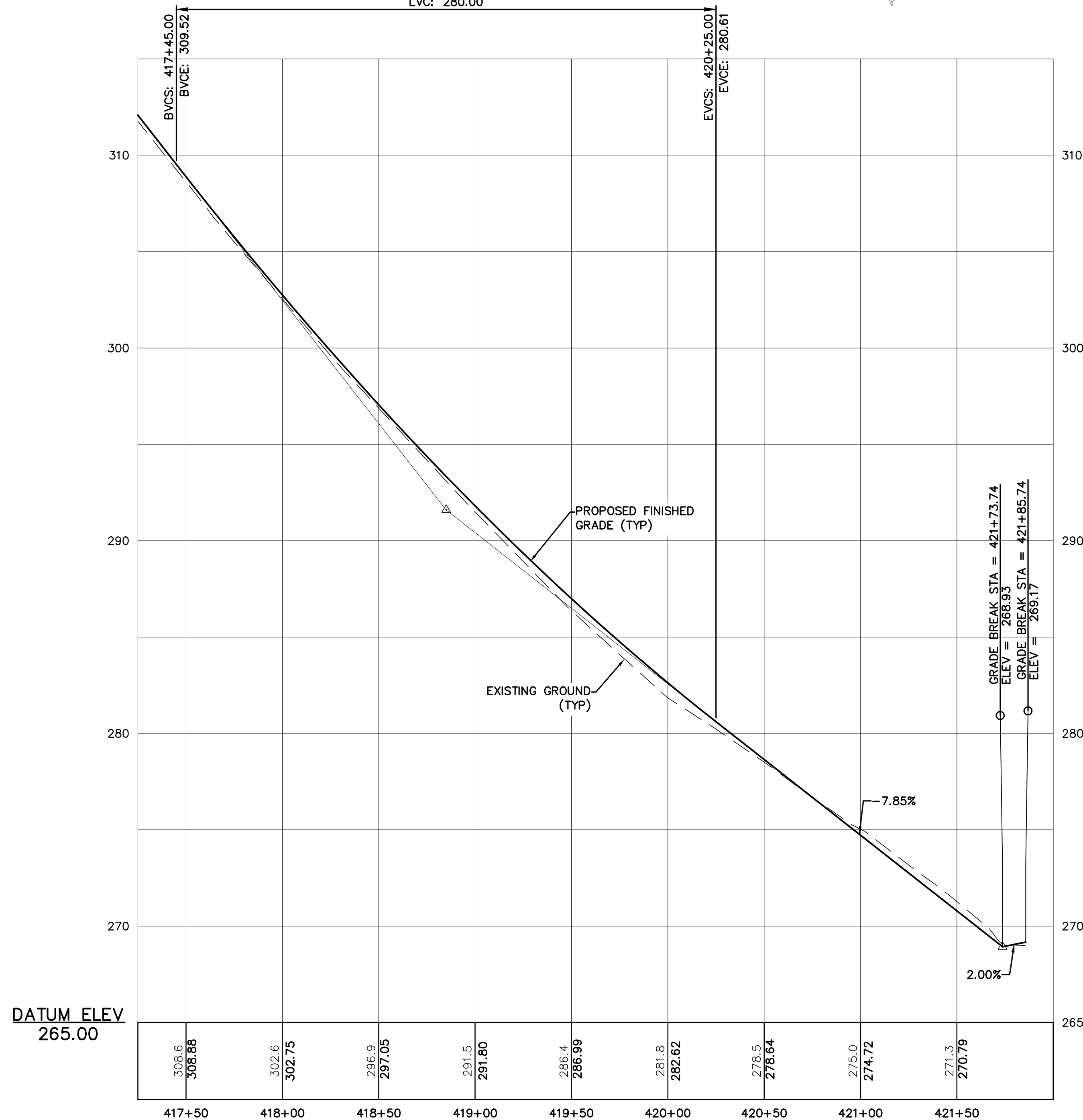
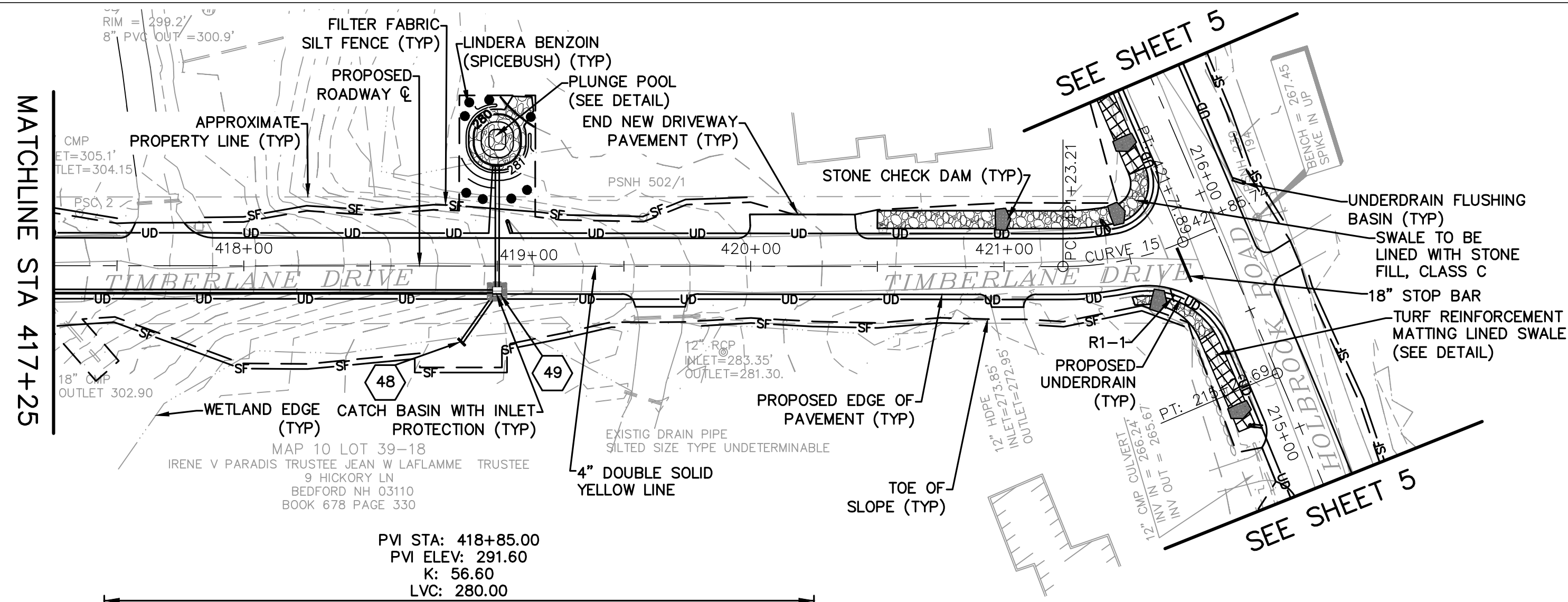
STONE WALL

RECONSTRUCT STONE WALL MULTIPLE STONES WIDE (ITEM 572.99)
AT THE FOLLOWING LOCATION:

1. STA 411+57, LT TO STA 411+69, LT

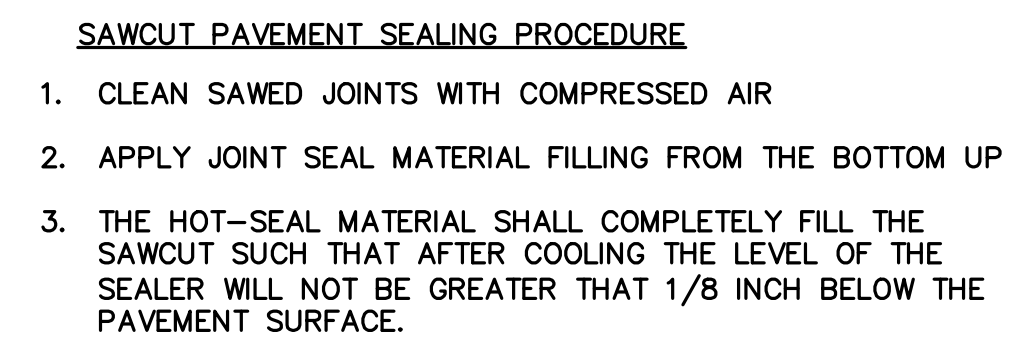


OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE			PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110		TIMBERLANE DRIVE PLAN AND PROFILE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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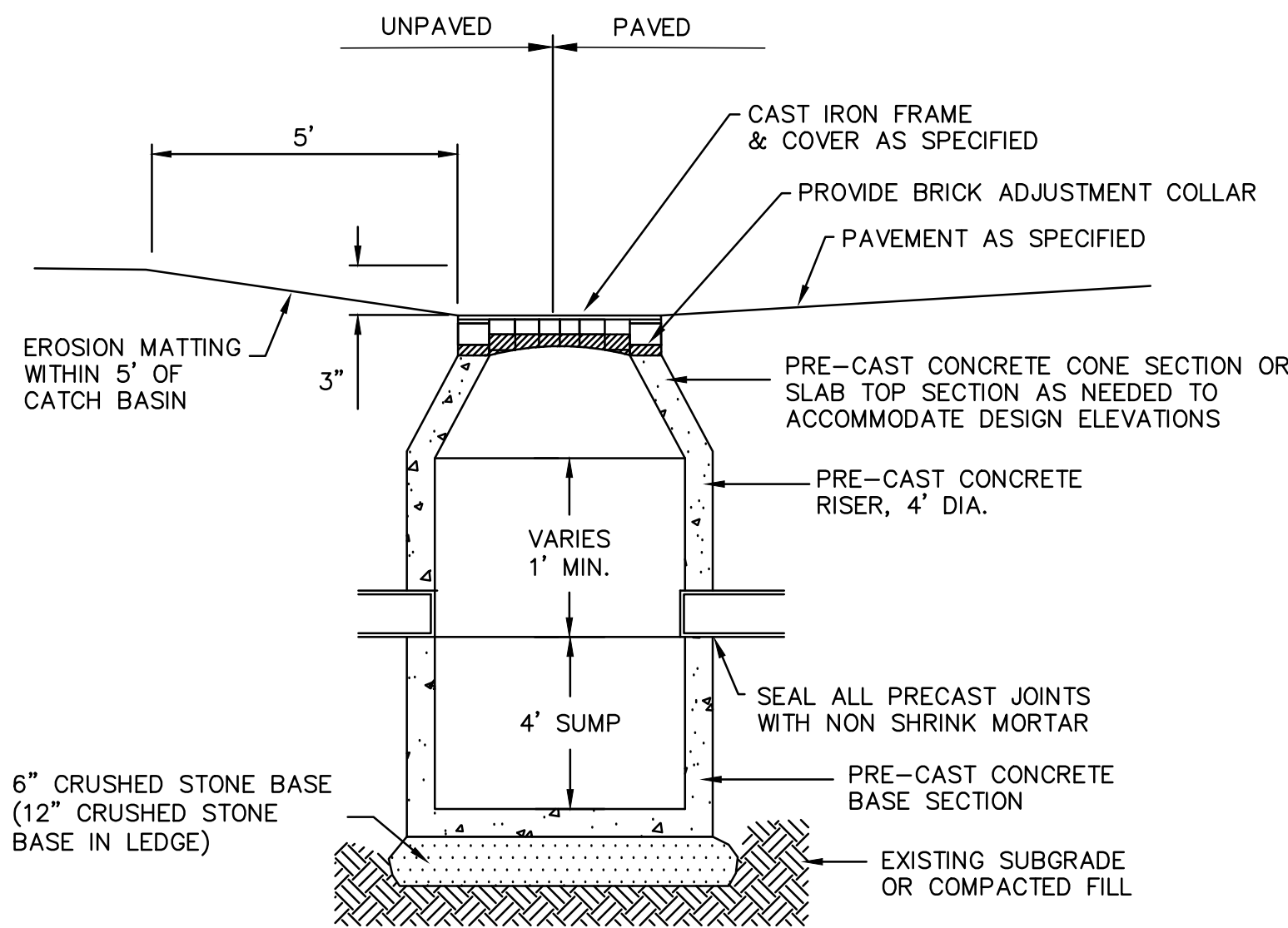
DRAINAGE NOTES										PREPARED FOR:		TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110		OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE		SHEET: 16 OF 62		SCALE: AS SHOWN		DATE: MAY 7, 2015		PROJ. 77-2015	

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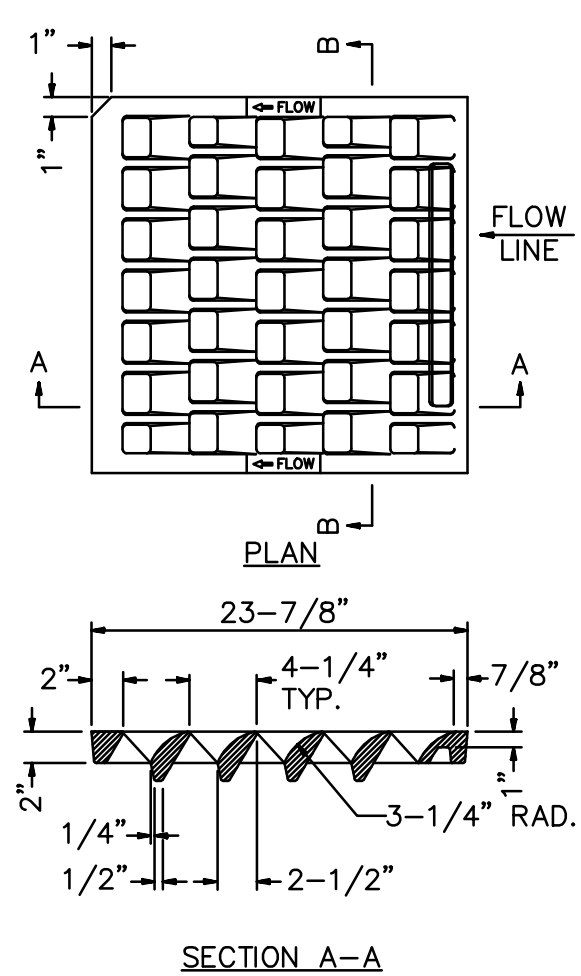


PAVEMENT SAW CUT
NOT TO SCALE

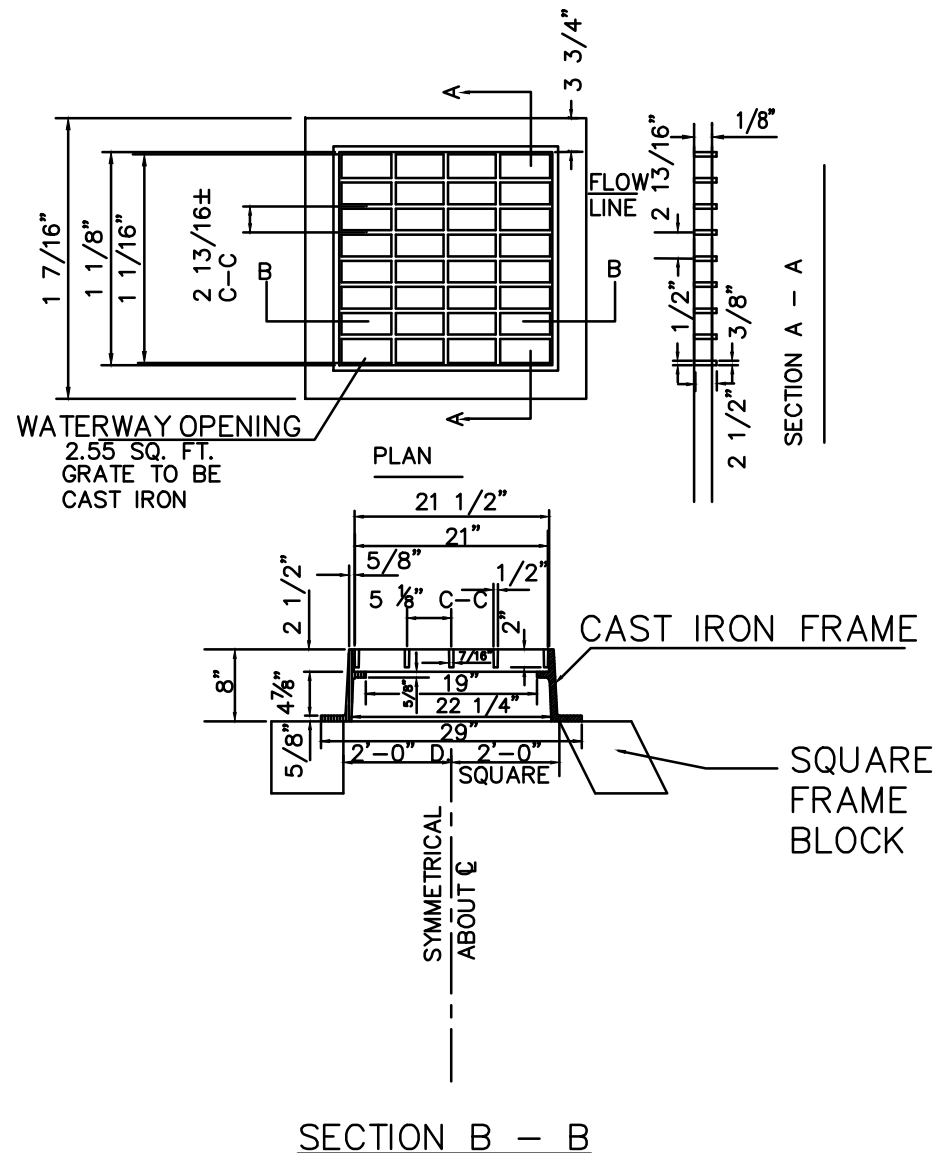
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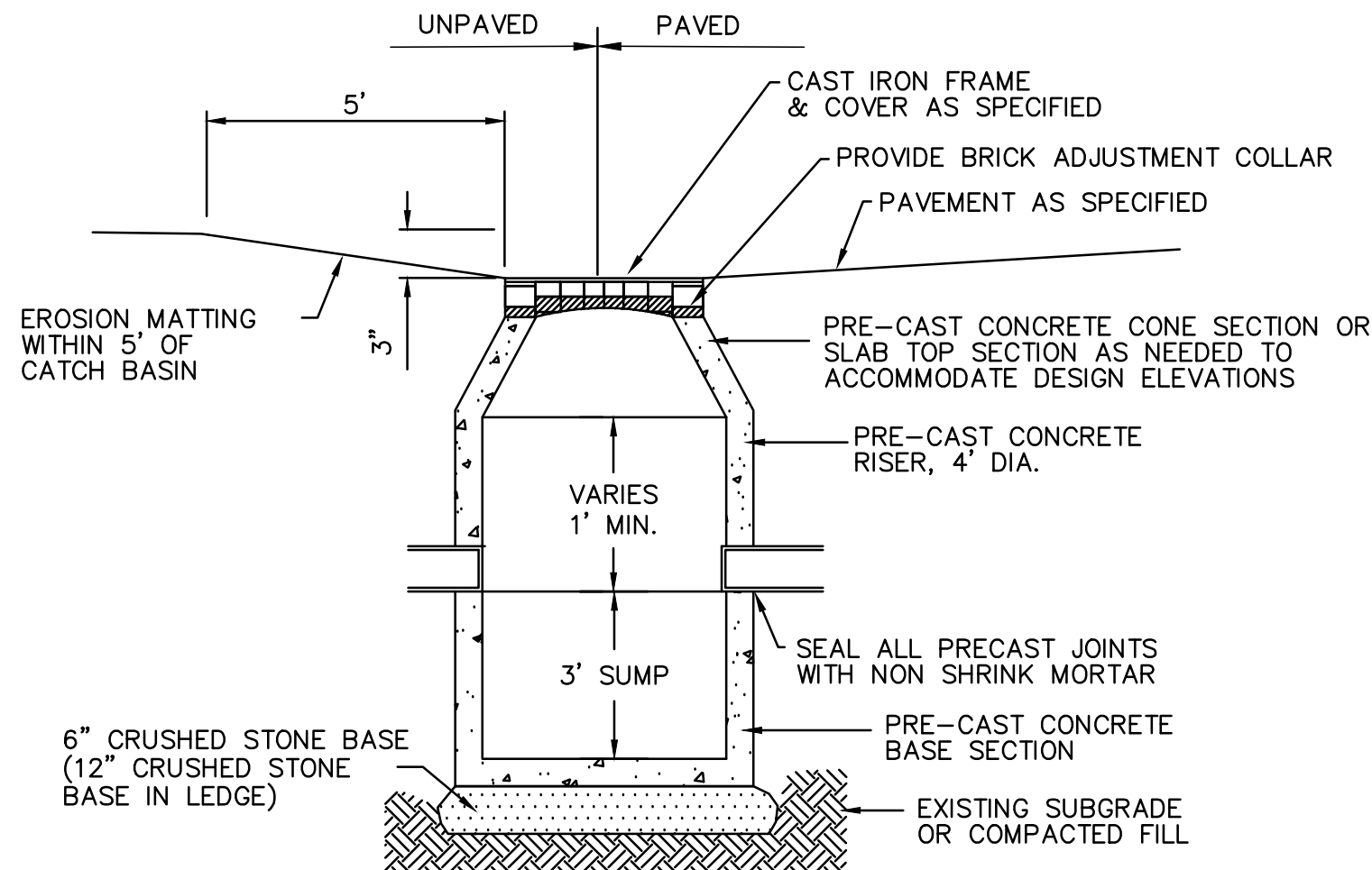
TYPICAL DEEP SUMP CATCH BASIN DETAIL
NOT TO SCALE



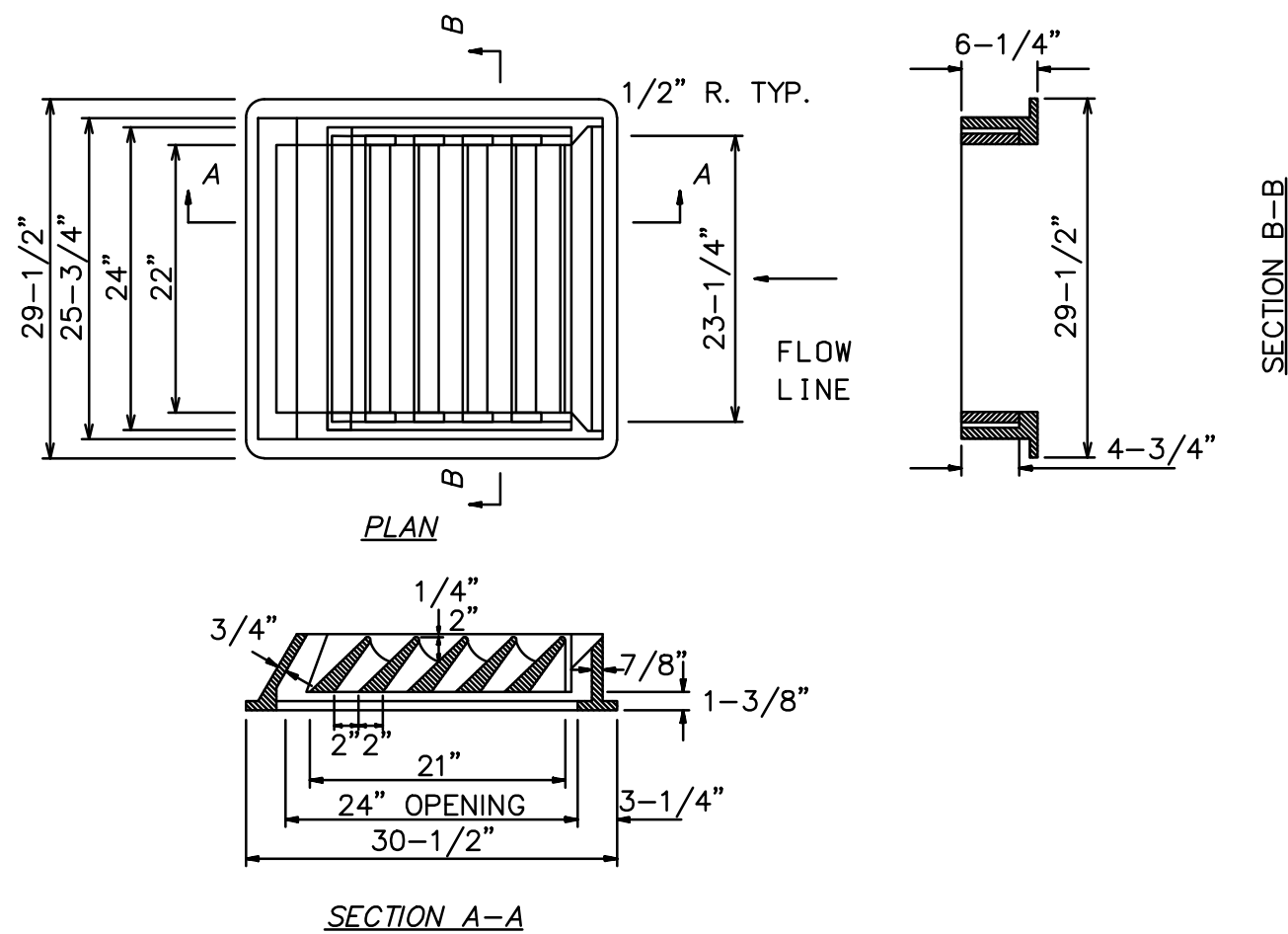
TYPE 'F' CATCH BASIN GRATE DETAIL
NOT TO SCALE



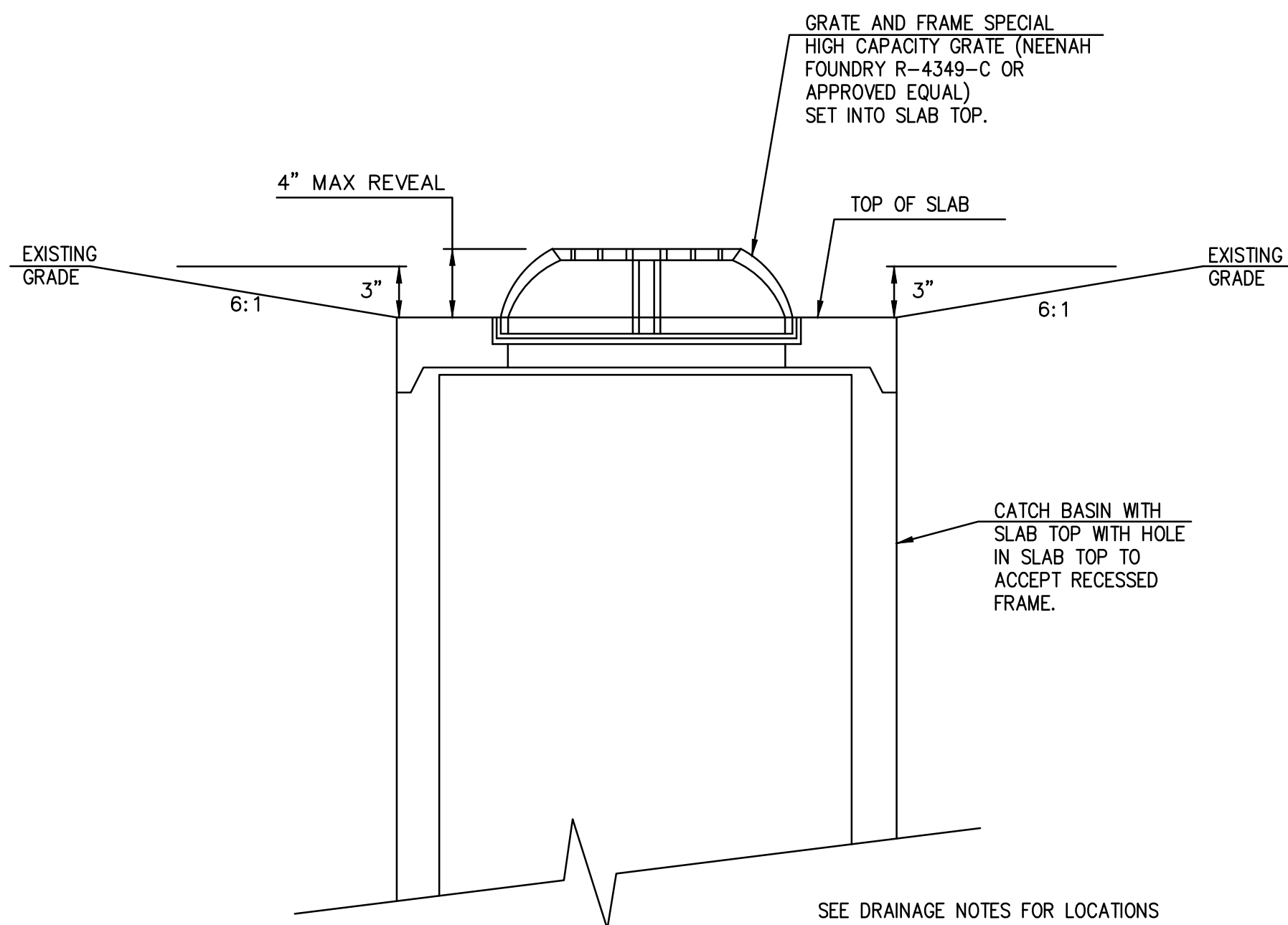
TYPE 'B' CATCH BASIN FRAME & GRATE DETAIL
NOT TO SCALE



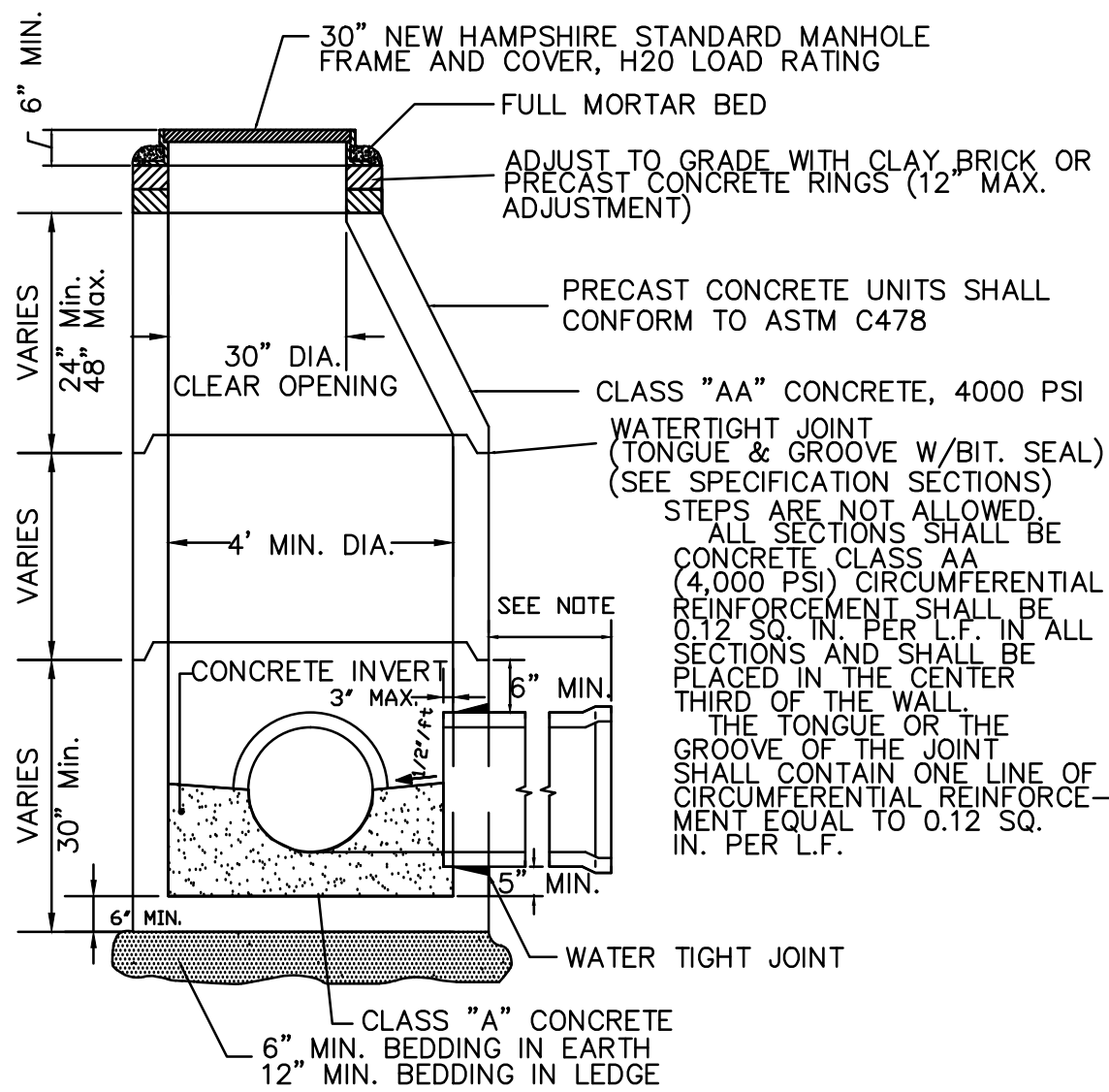
CATCH BASIN DETAIL
NOT TO SCALE



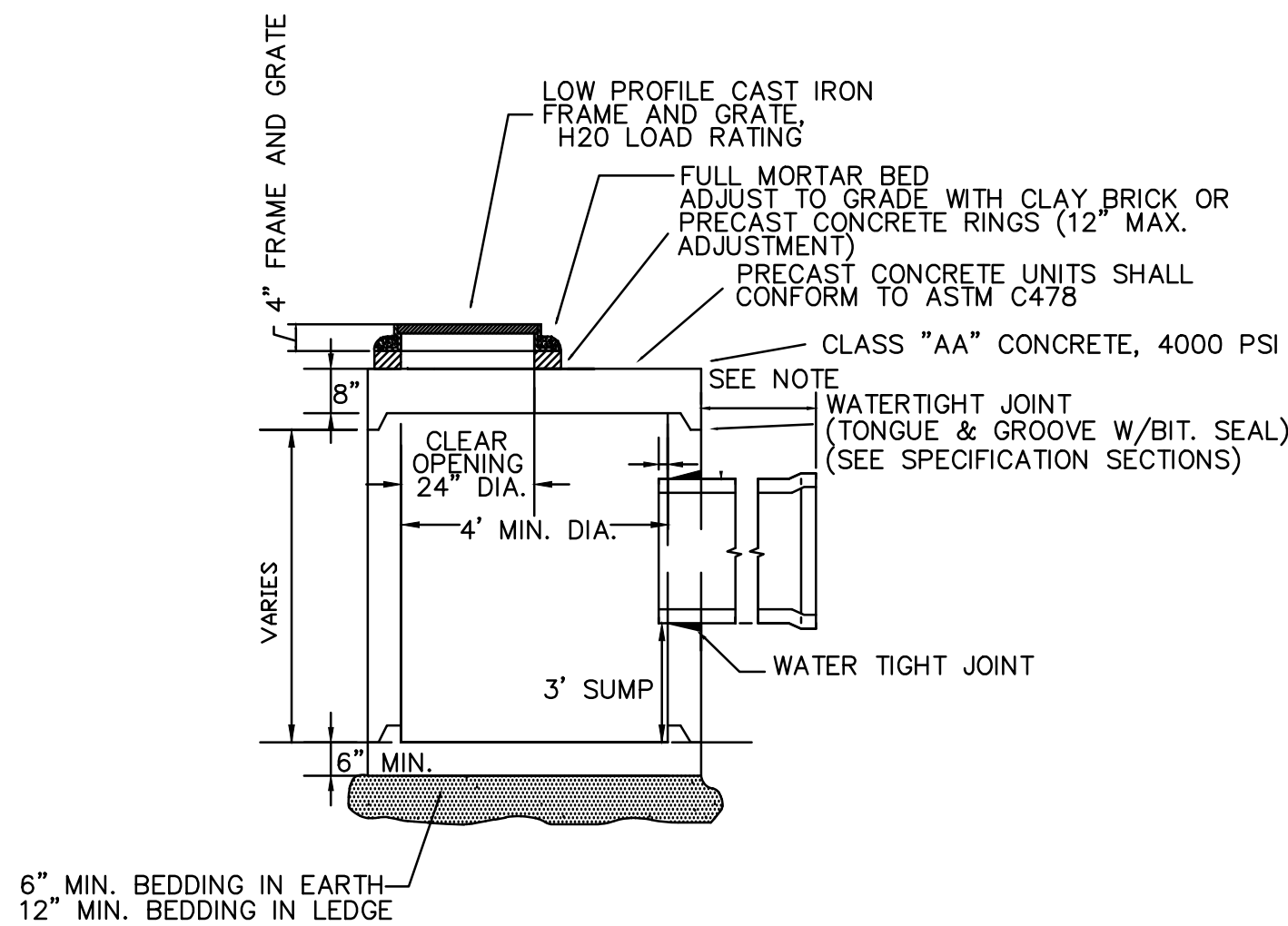
TYPE 'E' CATCH BASIN FRAME & GRATE DETAIL
NOT TO SCALE



BEEHIVE GRATE, NEENAH FOUNDRY MODEL R-4349-C
NOT TO SCALE



TYPICAL DRAIN MANHOLE DETAIL
NOT TO SCALE



TYPICAL SLAB TOP CATCH BASIN DETAIL
NOT TO SCALE

SHEET: 21 OF 62		SCALE: AS SHOWN	DATE: MAY 7, 2015	PROJ. 77-2015
OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE		PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110		
DRAINAGE DETAILS		NO.		
		DATE		
		REVISION DESCRIPTION		



DIA.	HEADWALL LENGTH	HEADWALL HEIGHT	FILL HEIGHT	PIPE COVER	HEADWALL BOTTOM WIDTH
D	L	H	FH	h	w
12"	4'-3"	3'-9"	1'-1"	1'-3"	2'-0"
15"	6'-0"	4'-3"	1'-7"	1'-6"	2'-1"
18"	7'-0"	4'-6"	1'-10"	1'-6"	2'-2"
24"	9'-0"	5'-0"	2'-4"	1'-6"	2'-3"
30"	11'-0"	5'-6"	2'-10"	1'-6"	2'-5"
36"	13'-0"	6'-0"	3'-4"	1'-6"	2'-6"
42"	15'-9"	6'-9"	4'-1"	1'-9"	2'-9"
48"	17'-9"	7'-3"	4'-7"	1'-9"	2'-10"

NOTE: ALL DIMENSIONS GIVEN IN FEET AND INCHES EXCEPT PIPE DIAMETER
PROVIDE GROOVE END AT INLET HEADWALL AND TONGUE END AT OUTLET END HEADWALL

EXISTING TREES TO REMAIN WHERE POSSIBLE

EXISTING GRADE

VARIES

CHANNEL

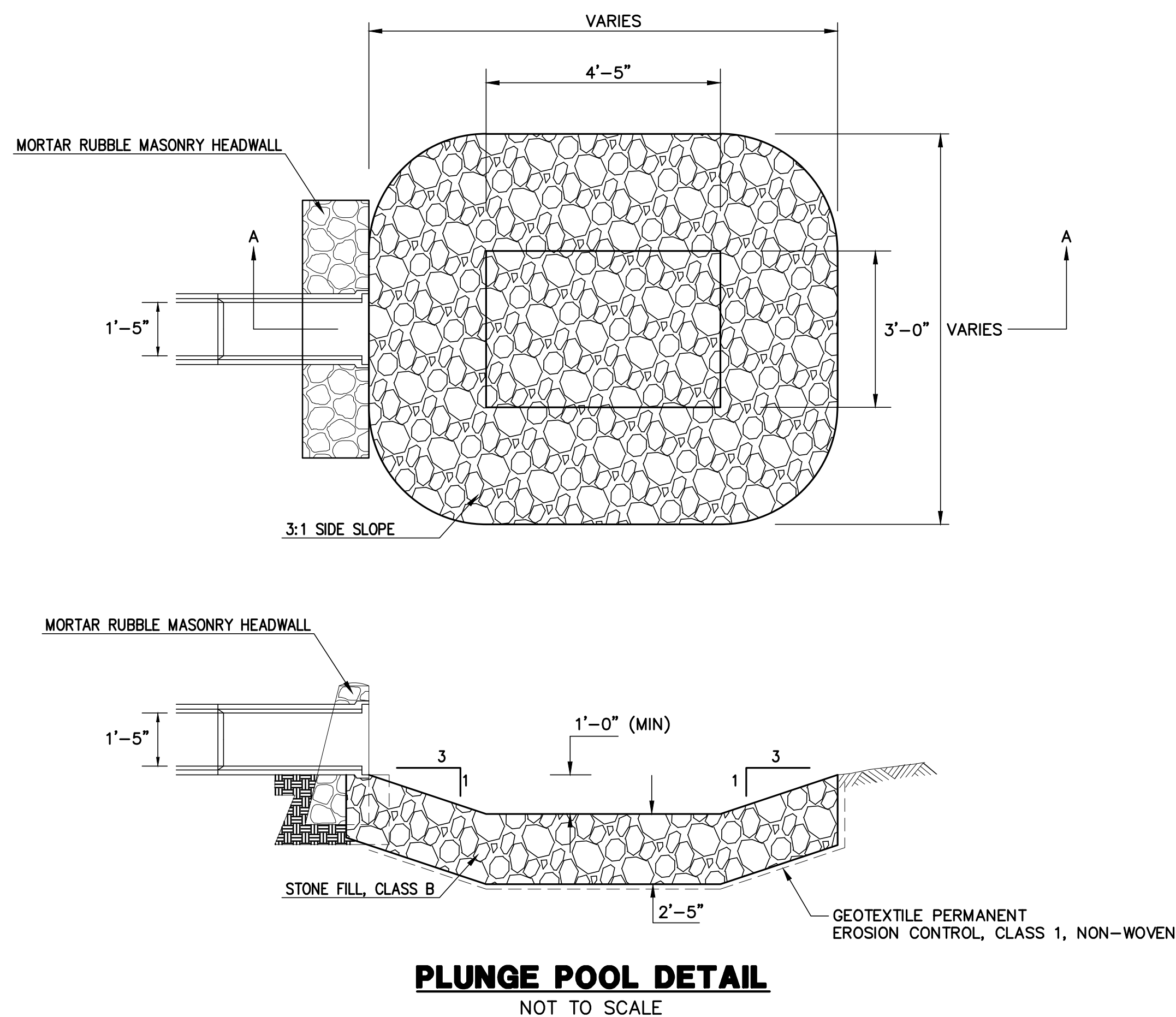
VARIES

TURF REINFORCEMENT MATTING, PROPEX LANDLOK OR APPROVED EQUAL.

2'

TURF REINFORCEMENT MATTING LINED TREATMENT SWALE

NOT TO SCALE



PIPE DIAMETER	DIMENSIONS, INCHES (MM)					
	PART No.	A. ± 1 (25)	B MAX	H. ± 1 (25)	L. ± 1/2(13)	W. ± 2 (50)
15(300.375)	1210 NP	6.5 (165)	10 (254)	6.5 (165)	25 (635)	29 (736)
18 (450)	1810 NP	7.5 (190)	15 (380)	6.5 (168)	32 (812)	35 (890)
24 (600)	2410 NP	7.5 (190)	18 (450)	6.5 (165)	36 (900)	45 (1140)
30 (750)	3010 NP	10.5 (266)	NA	7.0 (178)	53 (1346)	68 (1735)
36 (900)	3610 NP	10.5 (266)	NA	7.0 (178)	53 (1346)	68 (1725)

Diagram illustrating the Underdrain Detail. The layers from top to bottom are:

- ASPHALT
- CRUSHED GRAVEL
- LOAM & SEED
- SUBGRADE
- GRANULAR BACKFILL-SAND TO BOTTOM OF SELECTS
- 6" PERFORATED ADS PIPE - PERFORATIONS DOWN (OR AS DIRECTED OR ORDERED)

Dimensions:

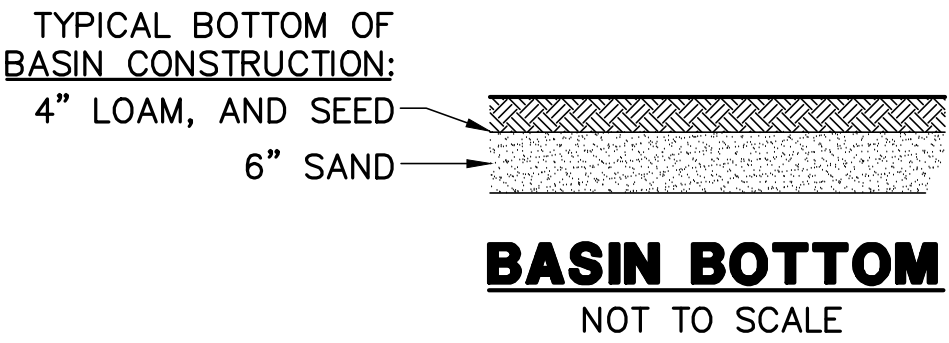
- 6" MIN. (Pipe diameter)
- 1'-6" MIN. (Backfill depth)

UNDERDRAIN DETAIL

NOT TO SCALE

NOTES:

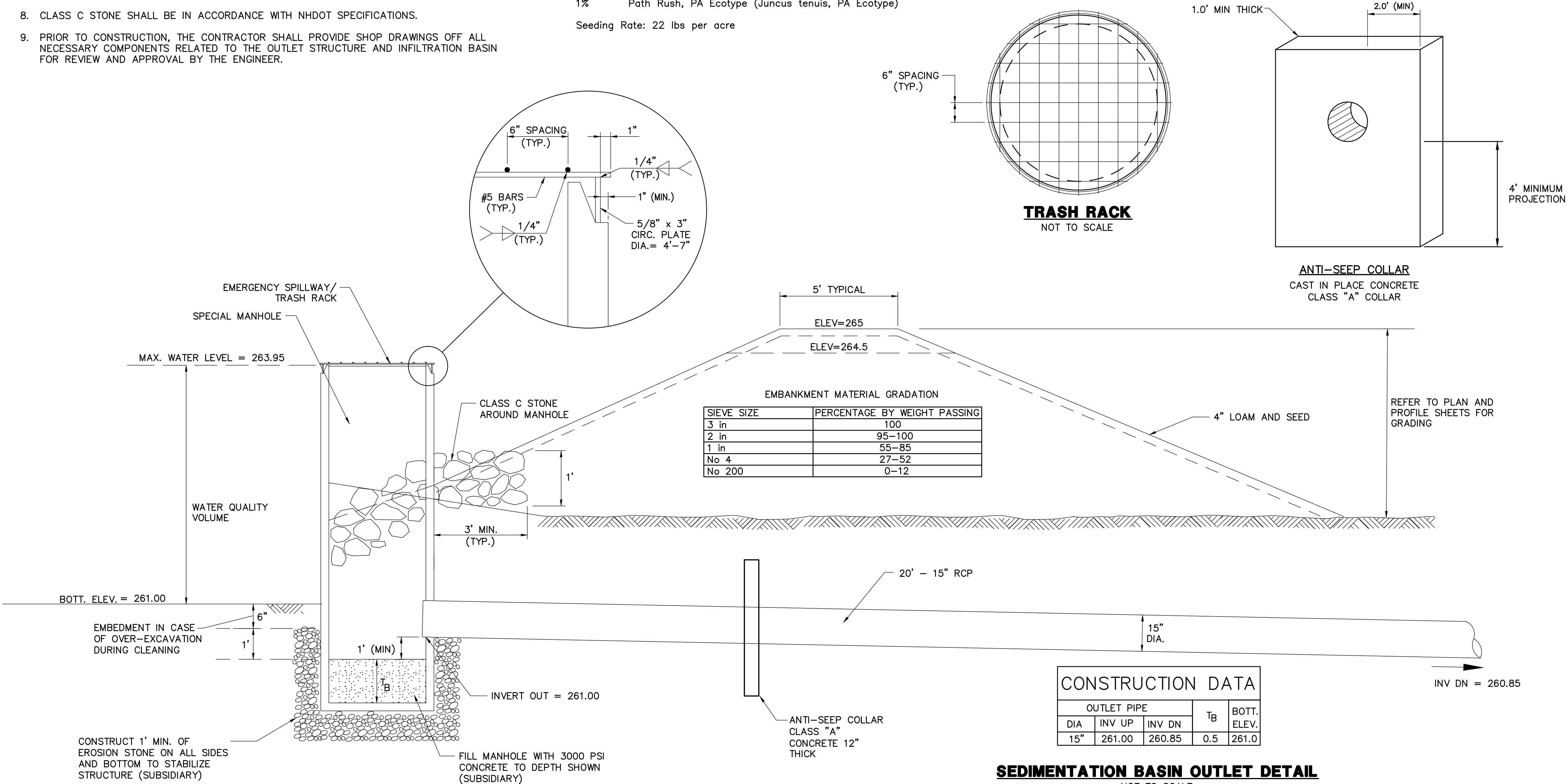
1. THE BASIN AREA SHALL BE CLEARED OF ALL TREES, ROOTS, STUMPS, BOULDERS AND SOD TO A DEPTH OF 2 FEET BELOW FINAL GRADE.
2. CONSTRUCT BERM USING EMBANKMENT MATERIAL FREE OF SOD, ROOTS, FROZEN MATERIAL, LARGE ROCKS, OR OTHER OBJECTIONABLE MATERIAL.
3. TOPSOIL AND SEED ALL EARTH SLOPES AS SOON AS POSSIBLE. STABILIZE THE INLET AREA WITH REQUIRED EROSION CONTROL.
4. REMOVE ACCUMULATED SEDIMENT FROM POND AT COMPLETION OF PROJECT.
5. ANTI-SEEP COLLAR SHALL BE INSTALLED AS SHOWN TO PREVENT FLOW ALONG THE OUTSIDE OF THE PIPE. COLLARS SHOULD PROTECT A MINIMUM OF 2 FEET FROM SIDES AND TOP OF THE PIPE AND 4 FEET BELOW THE PIPE.
6. ALL UPSTREAM CONSTRUCTION SHALL BE COMPLETED AND STABILIZED BEFORE MAKING DRAINAGE CONNECTIONS TO DOWNSTREAM INFILTRATION AREAS.
7. FINAL LANDSCAPING SHALL NOT BE DONE UNTIL AFTER FINAL CLEANING OF SEDIMENT FROM BASIN.
8. CLASS C STONE SHALL BE IN ACCORDANCE WITH NHDOT SPECIFICATIONS.
9. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OFF ALL NECESSARY COMPONENTS RELATED TO THE OUTLET STRUCTURE AND INFILTRATION BASIN FOR REVIEW AND APPROVAL BY THE ENGINEER.



INFILTRATION BASIN AREA SEED MIX:

47%	Deertongue, "Tioga" (Panicum clandestinum(Dichantherium c.), "Tioga")
25%	Virginia Wildrye, PA Ecotype (Elymus virginicus, PA Ecotype)
20%	Fox Sedge, PA Ecotype (Carex vulpinoidea, PA Ecotype)
5%	Autumn Bentgrass, PA Ecotype (Agrostis perennans, PA Ecotype)
2%	Ticklegrass (Rough Bentgrass), PA Ecotype (Agrostis scabra, PA Ecotype)
1%	Path Rush, PA Ecotype (Juncus tenuis, PA Ecotype)

Seeding Rate: 22 lbs per acre



DRAINAGE DETAILS

PREPARED FOR:

TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

DATE: MAY 7, 2015

SCALE: AS SHOWN

SHEET: 23 OF 62

PROJ. 77-2015

REVISION DESCRIPTION

DATE

NO.



CURB TAPER (TYP.)
(6'-0" MIN. DES.)

CURB CUT VARIES
(SEE NOTE NO. 6)

EDGE OF ROADWAY PAVEMENT

2" REVEAL

CURB (TYP.)

SLOPE
12:1 MAX.

SLOPE OF SIDEWALK

EDGE OF RAMP

SIDEWALK WIDTH 5'-6"

1.6% TYP.
(2% MAX.)

VARIES (TYP.)

SLOPE VARIES

RADIUS VARIES
(SEE NOTE NO. 4)

WIDTH VARIES

PLAN VIEW WITH SIDEWALK RAMP



1. GRADES OF MAJOR ENRANCES BEYOND THE PLATFORM SHOULD NOT EXCEED 8%.
2. GRADES OF OTHER DRIVES BEYOND THE PLATFORM SHOULD NOT EXCEED 15%.
3. THE ALGEBRAIC DIFFERENCE BETWEEN TWO ADJACENT GRADES SHOULD NOT EXCEED 10%.
4. FOR DESIGN CRITERIA AND OTHER ADDITIONAL INFORMATION, REFER TO THE NHDOT DRIVEWAY MANUAL.
5. CURBING CAN BE FLARED TO FIT DRIVE RADII IF APPROPRIATE OR ENDED AS DETAILED ABOVE.
6. CURB CUTS FOR RESIDENTIAL DRIVES WITH ANGLES OF ENTRY OF 75°-90° ARE TYPICALLY 25'-0".

[illegible]

EROSION CONTROL SPECIFICATIONS:

1. SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3 – EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION" 2008. THE CONTRACTOR SHALL HAVE REFERENCE TO THIS BOOK.
2. RECOGNIZING THAT IMMEDIATE ATTENTION TO EROSION CONTROL PRACTICES DRAMATICALLY IMPROVES SOIL AND MOISTURE CONSERVATION AND REDUCES NEGATIVE IMPACTS ON WATER QUALITY, THE CONTRACTOR SHALL GIVE HIGH PRIORITY TO THE DAILY AND TIMELY INSTALLATION OF BOTH TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES. IMMEDIATE INSTALLATION OF PRACTICES USUALLY REDUCES LONG TERM COSTS TO THE CONTRACTOR AND PROVIDES BENEFITS TO THE DEVELOPER AND THE PUBLIC GOOD.
3. EROSION CONTROL PRACTICES ARE SHOWN ON THE PLANS WITH RESPECT TO LOCATION AS DETERMINED FROM EXISTING TOPOGRAPHY. CHANGES MAY BE INDICATED IN THE FIELD TO IMPROVE EROSION AND SEDIMENT CONTROL.
4. CONSTRUCTION SHALL PROCEED UNIT BY UNIT TO FACILITATE INSTALLATION OF EROSION CONTROL MEASURES AND THE COMPLETION OF GRADING, SEEDING, AND LANDSCAPING AS SOON AS POSSIBLE WITHIN A UNIT. THIS PROCEDURE SHOULD RESULT IN THE EXPOSURE OF THE SMALLEST PRACTICAL LAND AREA AT ANY ONE TIME.
5. AREAS ADJACENT TO STREAMS CALL FOR PARTICULAR ATTENTION WITH REGARD TO SILT INTERCEPTION. INSTALL SILT FENCES AS SHOWN ON PLAN AND IN DETAIL BEFORE EARTHWORK COMMENCES. ADDITIONAL FENCING MAY BE REQUIRED AS WORK CONTINUES.
6. ALL DISTURBED AREAS AND ALL PROPOSED GRASSED AREAS SHALL HAVE TOPSOIL SPREAD (4" MINIMUM) AND BE LIMED, FERTILIZED, TILLED, SEEDED AND MULCHED. ALL SLOPES 3:1 (1 RISE ON 3 RUN) AND STEEPER SHALL HAVE MULCH HELD IN PLACE WITH NETTING (OR OTHER APPROVED BIODEGRADABLE MATTING MATERIAL), STAPLED AND STAKED. EACH AREA SHALL BE LIMED, FERTILIZED, PREPARED, SEEDED AND MULCHED (WITH ANCHORED NETTING AS REQUIRED) WITHIN 3 DAYS OF FINAL GRADING OR TEMPORARILY STABILIZED WITHIN 21 DAYS OF INITIAL DISTURBANCE. WHEN PERMANENT SEEDING CANNOT BE INSTALLED BY SEPTEMBER 15, TEMPORARY SEEDING AND MULCHING OF ALL DISTURBED AREAS SHALL BE INSTALLED IMMEDIATELY AND MAINTAINED IN THAT CONDITION UNTIL PERMANENT PRACTICES CAN BE INSTALLED IN THE FOLLOWING PLANTING SEASON.
7. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY TIME BEFORE DISTURBED AREAS ARE STABILIZED.
8. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE (SEE NOTE 10).
9. TEMPORARY STABILIZATION OF DISTURBED AREAS:

SEEDBED PREPARATION: TILL THREE INCHES DEEP MIXING IN FERTILIZER. APPLY LIME 2 TONS/ACRE (100#/1,000 SQ. FT.)
FERTILIZE: UNIFORMLY APPLY NOT LESS THAN 300#/ACRE (7#/1,000 SQ. FT.) OF 10–20–20 OR EQUIVALENT.

SEEDING: SELECT APPROPRIATE SEEDING MIXTURE FROM TABLE 1 BELOW. SPREAD SEED UNIFORMLY. FIRM SOIL BY ROLLING OR PACKING; IF NOT FEASIBLE, THEN RAKE LIGHTLY TO COVER SEEDS.

MULCHING: MULCH ALL DISTURBED AREAS WITH 1–1/2 TO 2 TONS OF HAY OR STRAW PER ACRE (70–90#/1,000 SQ. FT.). ANCHOR ON ALL SLOPES 3:1 OR STEEPER AND FLATTER SLOPES SUBJECT TO WASH OR WIND BLOWN. USE JUTE (OR OTHER BIODEGRADABLE) NETTING. STAKING AND STAPLING MAY BE REQUIRED.

TABLE 1 – PLANT SELECTION AND SEEDING RATES			
SPECIES	PER ACRE	PER 1000 SQ.FT.	REMARKS
WINTER RYE	2 BU OR 112 LBS.	2.5 LBS.	BEST FOR FALL SEEDING. SEED AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO DEPTH OF ONE INCH.
OATS	2 1/2 BU OR 80 LBS.	2 LBS.	BEST FOR SPRING SEEDINGS. LATER THAN MAY 15 FOR SUMMER PROTECTION. SEED TO DEPTH OF ONE INCH.
ANNUAL RYE	40 LBS.	1 LB.	GROWS QUICKLY. BUT IS OF SHORT GRASS DURATION USE WHERE APPEARANCES ARE IMPORTANT. COVER SEED WITH NO MORE THAN 1/4 INCH OF SOIL WITH MULCH. SEEDING MAY BE DONE THROUGHOUT GROWING SEASON, OTHERWISE SEED EARLY SPRING OR BETWEEN AUGUST 15 & SEPTEMBER 15.

10. PERMANENT STABILIZATION OF DISTURBED AREAS:

SEED BED PREPARATION: TOPSOIL (SANDY LOAM, LOAM, OR SILT LOAM), FRIABLE, FREE OF TREE ROOTS, WEEDS, STONES MORE THAN 1–1/2 INCHES IN DIAMETER OR LENGTH SHALL BE PLACED OVER ALL DISTURBED AREAS IN A 4" (MINIMUM) THICK LAYER.

TOPSOIL: TOPSOIL SHALL BE FREE OF HERBICIDES AND TOXIC MATERIALS. TILL THREE INCHES DEEP MIXING IN THE FERTILIZER AND LIME. APPLY LIME AT RATES INDICATED IN TABLE "A".

SEEDING: SELECT APPROPRIATE SEEDING MIXTURE FROM TABLE "C". SPREAD SEED UNIFORMLY. FIRM SOIL BY ROLLING OR PACKING; IF NOT FEASIBLE, THEN RAKE LIGHTLY TO COVER SEEDS.

MULCHING: MULCH ALL DISTURBED AREAS WITH 1–1/2 TO 2 TONS OF HAY OR STRAW PER ACRE (70 – 90#/1,000 SQ. FT.). ANCHOR MULCH ON ALL SLOPES 3:1 OR STEEPER AND ON FLATTER SLOPES SUBJECT TO WASH (WATERWAYS AND/OR WINDBLOWN) USING BIODEGRADABLE NETTING (OR OTHER APPROVED BIODEGRADABLE MATTING MATERIAL), WITH STAKING AND STAPLING.

TABLE "A"—LIME APPLICATION RATES		
EXISTING SOIL pH	LIMESTONE TO BE ADDED	
	TONS/ACRE	POUNDS/CY
4.0–4.4	3	12
4.5–4.9	2	8
5.0–5.4	1	4
UNKNOWN	2	8

TABLE "C" – SEEDING GUIDE					
USE	SOIL DRAINAGE				
	SEEDING MIXTURE 1/ <u> DROUGHTY</u>	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED	
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	POOR	GOOD	EXCELLENT	GOOD
	D	FAIR	FAIR	GOOD	EXCELLENT
	E	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNEL WITH FLOWING WATER	A	GOOD	GOOD	GOOD	FAIR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	GOOD	EXCELLENT	EXCELLENT	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSABLE LANDS, AND LOW INTENSITY USE RECREATION SITES	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	FAIR	POOR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	FAIR	GOOD	GOOD	EXCELLENT
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	F	FAIR	EXCELLENT	EXCELLENT	2/
	G	FAIR	EXCELLENT	EXCELLENT	2/
GRAVEL PIT – SEE PM–NH–24 RECOMMENDATIONS REGARDING RECLAMATION OF SAND AND GRAVEL PITS. *					
1/ REFER TO SEEDING MIXTURES AND RATES IN <u>TABLE "D"</u> . 2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREAS AND ATHLETIC FIELDS.					
* SEE "VEGETATING NEW HAMPSHIRE SAND AND GRAVEL PITS: TECHNICAL NOTE PM–NH–24, UNITED STATES DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, REVISION APRIL, 1991.					

11. SEEDING MIXTURES FOR GRASSED TREATMENT SWALES, IF APPLICABLE, AS SPECIFIED BY THE USDA – NATURAL RESOURCES CONSERVATION SERVICE, WOODSVILLE NH ARE:

TABLE "E" – MIXTURES & RATES		
MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT.
A. TALL FESCUE	20	0.45
CREeping RED FESCUE	20	0.45
REDTOP	2	0.05
TOTAL	42	0.95

SITE PREPARATION, LIME, SEED AND MULCH SHALL BE AS IN ITEM 8 ABOVE.

12. TEMPORARY EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
C. A MINIMUM OF 3" OF NON–EROSIVE MATERIAL SUCH STONE OR RIPRAP HAS BEEN INSTALLED; OR
D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

MAINTENANCE: DURING THE CONSTRUCTION PERIOD AND UNTIL SUCH TIME AS THE LONG TERM VEGETATION IS ESTABLISHED TO A 70% VEGETATIVE STAND.
A. DISTURBED AREAS WILL BE FERTILIZED AND RESEEDED.
B. CATCH BASINS WILL BE CHECKED AND CLEANED AS NECESSARY.
C. DRAINAGE AND GRASS TREATMENT SWALES SHALL BE CHECKED FREQUENTLY AND CLEANED AS REQUIRED.
D. THE SILT FENCES AND HAYABLE DIKES WILL BE CHECKED ON A REGULAR BASIS AND REPAIRED AS NECESSARY TO CORRECT ANY DAMAGE, DETERIORATION, AND SHORT–CIRCUITING.
13. REFER TO "EROSION AND SEDIMENT CONTROL PLAN" PRIOR TO ANY SITE DISTURBANCE. CONTACT ENGINEER FOR COPIES OF PLAN.

INSPECTIONS: THE ENGINEER SHALL BE CONTACTED ON A REGULAR BASIS TO INSPECT ALL EROSION CONTROL PRACTICES AS WELL AS THE MAINTENANCE OF THE EROSION CONTROL COMPONENTS. REFER TO CONSTRUCTION SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. EROSION CONTROL PRACTICES SHALL BE IN STRICT ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
14. ALL TREATMENT SWALES, DITCHES, AND LEVEL LIP SPREADERS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
15. FOR SPECIAL WINTER CONSTRUCTION CONSIDERATIONS, THE CONTRACTOR SHALL REFER TO THE "EROSION & SEDIMENT CONTROL PLAN".
16. THIS PROJECT SHALL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430.53 AND CHAPTER AGR 3800 RELATIVE TO SPECIES.

TABLE "D" – MIXTURES & RATES		
MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT.
A. TALL FESCUE	20	0.45
CREeping RED FESCUE	20	0.45
REDTOP	2	0.05
TOTAL	42	0.95
B. TALL FESCUE	15	0.35
CREeping RED FESCUE	10	0.25
CROWN VETCH OR FLATPEA	15	0.35
TOTAL	40 or 55	0.95 or 1.35
C. TALL FESCUE	20	0.45
CREeping RED FESCUE	20	0.45
BIRDSFOOT TREFOIL	8	0.20
TOTAL	48	1.10
D. BIRDSFOOT TREFOIL	20	0.50
REDTOP	10	0.20
TOTAL	30	0.70
E. TALL FESCUE	20	0.45
FLATPEA	30	0.75
TOTAL	50	1.20
F. CREeping RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 1/	50	1.15
TOTAL	100	2.30
G. TALL FESCUE 1/	150	3.60
1/ FOR HEAVY USE ATHLETIC FIELDS CONSULT THE UNIVERSITY OF NEW HAMPSHIRE COOPERATIVE EXTENSION TURF SPECIALIST FOR CURRENT VARIETIES AND SEEDING RATES.		

OTHER SEED MIXTURES AND SEEDING RATES AS RECOMMENDED BY THE USDA – NATURAL RESOURCES CONSERVATION SERVICE MAY BE USED WITH PRIOR WRITTEN PERMISSION FROM THE ENGINEER.

CONSTRUCTION SEQUENCE:

1. THE CONTRACTOR SHALL CONDUCT A PRE–CONSTRUCTION CONFERENCE WITH TOWN OFFICIALS PRIOR TO ANY WORK COMMENCING ON SITE.
2. FELL AND CLEAR TREES, AS REQUIRED. PLACE JOB TRAILER AT SPECIFIED LOCATION AND INSTALL CONSTRUCTION ENTRANCE(S). STABILIZE THE CONSTRUCTION ENTRANCE(S) WITH COARSE AGGREGATE 8 INCHES (MINIMUM) IN DEPTH, ON TOP OF A GEOTEXTILE, TO PREVENT OFF–SITE TRACKING BY VEHICLES AND EQUIPMENT.
3. INSTALL SILT FENCE AT ALL LOCATIONS INDICATED ON PLAN AND AT OTHER LOCATIONS AS DETERMINED BY THE ENGINEER. INSTALL OTHER TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO EARTHWORK COMMENCING.
4. GRUB SITE AND DISPOSE OF DEBRIS, AS NECESSARY; CONTRACTOR TO LEGALLY DISPOSE OF DEBRIS OFF THE SITE.
5. STOCKPILE TOPSOIL AND INSTALL ASSOCIATED EROSION CONTROL MEASURES, I.E., SILT FENCE, AND MULCH.
6. PONDS AND SWALES SHALL BE INSTALLED EARLY ON IN THE CONSTRUCTION SEQUENCE (BEFORE ROUGH GRADING THE SITE) AND SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
7. INSTALL PROPOSED CLOSED DRAINAGE SYSTEMS.
8. REMOVE EXISTING PAVEMENT AND SELECT MATERIAL AND PLACE SELECT MATERIALS AND PAVEMENT FOR THE LIMITS OF THE PROPOSED ROADWAY IMPROVEMENTS. THE LIMITS OF THE ROADWAY IMPROVEMENTS SHALL BE STABILIZED WITHIN 72 HOURS AFTER GRADING.
9. INSPECT ALL DISTURBED AREAS ON A WEEKLY BASIS AND AFTER EVERY ONE–HALF INCH OF RAINFALL. FOLLOWING THESE INSPECTIONS, INSTALL ANY AND ALL TEMPORARY DRAINAGE, EROSION, AND SEDIMENT CONTROL PRACTICES AS INDICATED OR AS REQUIRED, I.E., DIVERSION CHANNELS, BERMS, DRAINS, DITCHES, SILT SACKS, SILT FENCES, SEED AND MULCH, OR ANY OTHER BEST MANAGEMENT PRACTICES AS RECOMMENDED AND SPECIFIED IN THE "STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS OF NEW HAMPSHIRE" (USDA – SOIL CONSERVATION SERVICE).
10. PLACE TOPSOIL, COMPLETE PERMANENT FERTILIZING, LIMING, SEEDING AND MULCHING, AND INSTALL LANDSCAPE PLANTING.
11. CLEAN AND RESTORE SILT DESTINATION SITES. REMOVE OTHER EROSION CONTROL PRACTICES ON A TIMELY BASIS AS PERMANENT MEASURES TAKE HOLD. SPOT FERTILIZE, SEED, AND MULCH AS REQUIRED. NO RUNOFF SHALL BE DIRECTED TO THE PERMANENT MEASURES UNTIL THEY ARE ESTABLISHED.
12. INSPECT AND MAINTAIN GRADING, EROSION CONTROL AND SEDIMENT CONTROL PRACTICES WEEKLY AND INSPECTION SHOULD OCCUR AFTER EVERY 0.5" OR GREATER RAINFALL WITHIN A 24 HOUR PERIOD.
13. REFER TO "EROSION AND SEDIMENT CONTROL PLAN" FOR ADDITIONAL DETAILS RELATIVE TO THE REQUIRED CONSTRUCTION SEQUENCE. MAINTENANCE OF ALL EROSION CONTROL COMPONENTS SHALL BE AN ONGOING PRACTICE AND IN STRICT ACCORDANCE WITH THE APPROVED PLAN.

SPECIAL WINTER CONSIDERATIONS

THE MAJOR FOCUS OF WINTER EROSION AND SEDIMENT CONTROL IS THE PERIODS OF INTENSE RUNOFF ASSOCIATED WITH MID–WINTER THAWS AND RAINSTORMS, AND THE SPRING MELT.

FROZEN GROUND MAKES THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES VERY DIFFICULT. INSTALLATION SHOULD TAKE PLACE WELL BEFORE THE GROUND FREEZES. MAINTENANCE IN WINTER WILL BE MUCH MORE TIME CONSUMING AND DIFFICULT THAN IN THE SUMMER. THE OVERALL CONSTRUCTION SCHEDULE AND THE WEEKLY WORK SCHEDULE WILL BE DEVELOPED TO INCREASE TIME, EFFORT, AND MANPOWER DEVOTED TO MAINTAINING THE EROSION AND SEDIMENT CONTROL MEASURES.

INTENSE RUNOFF IN MID–WINTER THAWS AND RAINSTORMS, AND THE SPRING MELT PERIOD, CAN RESULT IN MORE SEVERE EROSION AND SEDIMENTATION PROBLEMS THAN RUNOFF FROM SUMMER STORMS. THE SOIL IS OFTEN COMPLETELY SATURATED WITH WATER, AND IS ALSO OFTEN UNDERLAIN BY A FROST LAYER. BOTH OF THESE FACTORS RESULT IN A GREATER PERCENTAGE OF THE RAIN OR MELTWATER RUNNING OVER THE GROUND SURFACE. WINTER AND SPRING RAINSTORMS ARE OFTEN HEAVIER AND MORE INTENSE THAN SUMMER SHOWERS. FOR THESE REASONS, EROSION AND SEDIMENTATION CAN BE ESPECIALLY SEVERE IN MID–WINTER THAWS AND THE SPRING MELT.

1. CONTROL MEASURES FOR WINTER CONSTRUCTION:

- A. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS;
- B. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS; AND
- C. AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF GRAVEL PER NHDOT ITEM.
- D. MINIMIZE DISTURBED AREA AND TIME OF DISTURBANCE: DISTURBED AREA AND LENGTH OF DISTURBANCE SHALL BE MINIMIZED ESPECIALLY BETWEEN OCTOBER 15TH AND MAY 1ST.
- E. GRASSED OR RIP RAPPED SWALES AND DITCHES: INSTALLATION WILL OCCUR BEFORE GROUND FREEZES. CHANNELS ARE TO BE STABILIZED WITH STONE, RIPRAP, OR VEGETATION IMMEDIATELY. INSPECTIONS ARE TO BE FREQUENT WITH REMOVAL OF ANY FLOW BLOCKAGE CAUSED BY ICE OR SEDIMENT.
- F. MULCHING: MULCH ALONE SHOULD NOT BE CONSIDERED AN ADEQUATE EROSION AND SEDIMENT CONTROL TECHNIQUE FOR AREAS THAT ARE DISTURBED IN THE WINTER OR SPRING. MULCH IS EASILY WASHED AWAY BY INTENSE RUNOFF FLOWING OVER SATURATED OR FROZEN SOIL. IT IS ESSENTIAL THAT MULCH BE LAID DOWN IN SUCH A WAY THAT IT WILL NOT BLOW OR WASH AWAY.
- G. SILT FENCE: INSTALLATION IS REQUIRED BEFORE THE GROUND FREEZES, OTHERWISE STAKES WILL BE DIFFICULT TO DRIVE. INSPECT FREQUENTLY AND REMOVE ANY COLLECTED SEDIMENT PERIODS IN ORDER TO PROVIDE AS MUCH CAPACITY AS POSSIBLE.
- H. SNOW FENCE: INSTALLATION IS REQUIRED BEFORE THE GROUND FREEZES OTHERWISE STAKES WILL BE DIFFICULT TO DRIVE. FENCES MUST BE PLACED LIBERALLY AROUND THE WORK SITE TO KEEP SOIL DISTURBANCE TO AN ABSOLUTE MINIMUM.
- I. STONE CHECK DAMS: PER DETAIL THE PLACEMENT WILL OCCUR IN SWALES AND DITCHES AFTER FINAL GRADING AND IS TO BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED.
2. INSPECTION AND MAINTENANCE

INSPECTION OF EROSION AND SEDIMENT CONTROL MEASURES IS REQUIRED MORE FREQUENTLY IN THE WINTER AND SPRING THAN IN THE SUMMER. CAREFUL ATTENTION MUST BE GIVEN TO WEATHER PREDICTIONS. INSPECTION OF ALL CONTROL MEASURES WILL BE ONGOING TO ENSURE THAT STRUCTURES WILL MANAGE THE POTENTIALLY HEAVY AND INTENSE RUNOFF. CONSTANT MAINTENANCE OF CRITICAL CONTROL MEASURES MAY BE NECESSARY DURING THE WINTER AND EARLY SPRING TO PREVENT FAILURE OR OVERLOADING OF CONTROL MEASURES. A SECOND LINE OF CONTROL WILL BE QUICKLY INSTALLED IF PROBLEMS OCCUR. A SUBSTANTIAL AMOUNT OF TIME, EQUIPMENT, AND MANPOWER SHALL BE DEVOTED TO EROSION AND SEDIMENT CONTROL.
3. FOLLOW–UP

INSTALLATION OF PERMANENT VEGETATIVE CONTROLS WILL BE REQUIRED AS EARLY AS IS PRACTICAL AT THE BEGINNING OF THE GROWING SEASON.

PREPARED FOR:

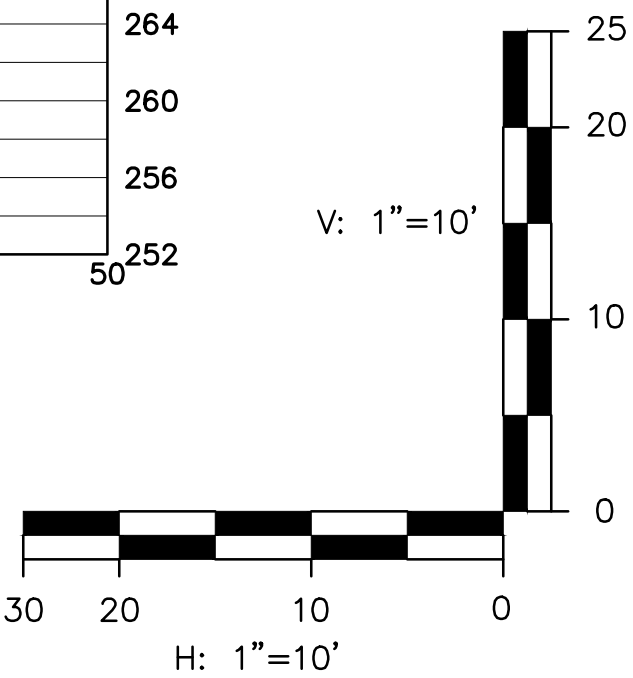
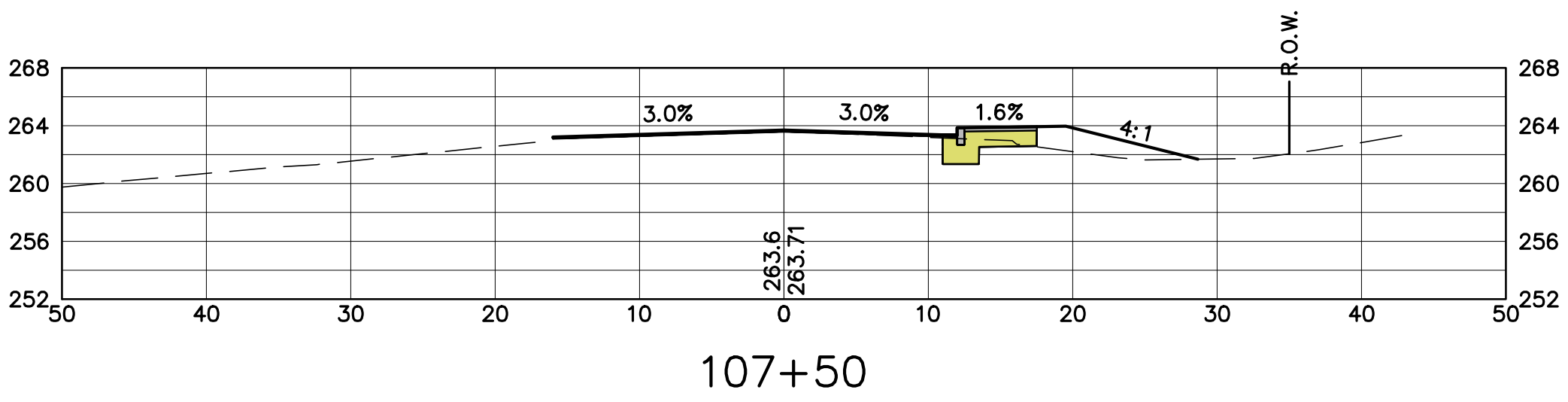
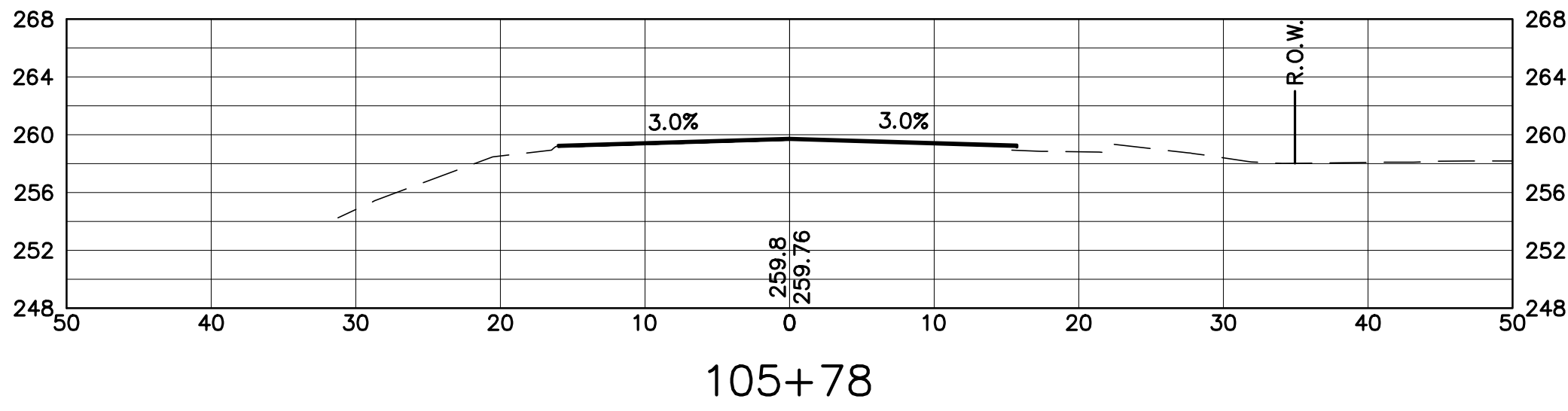
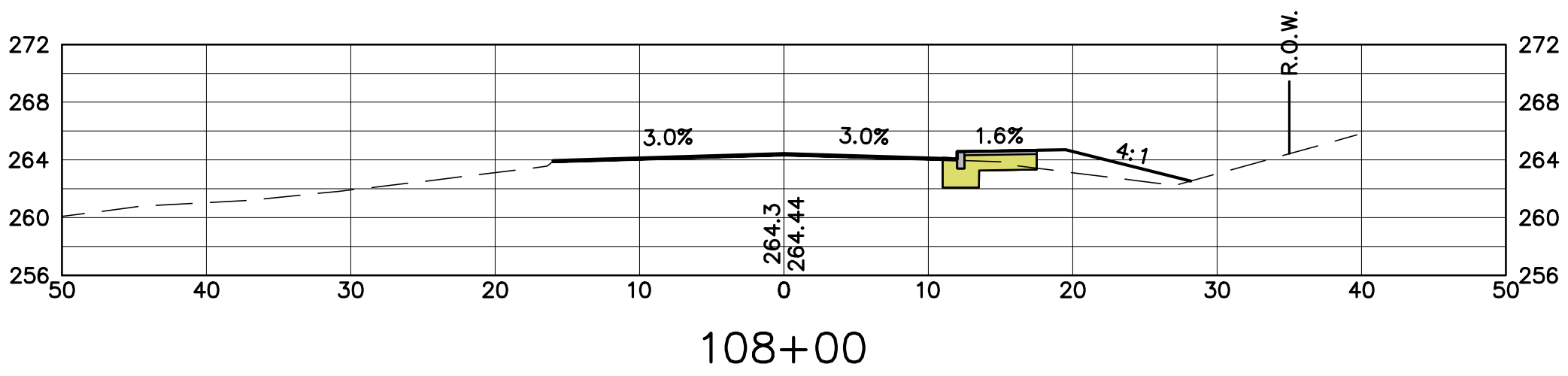
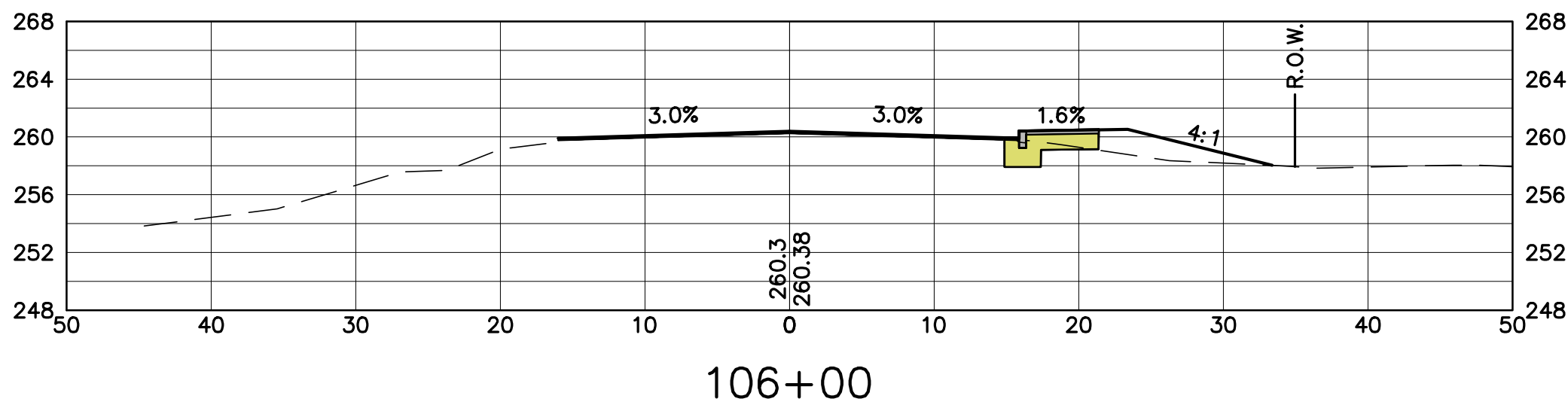
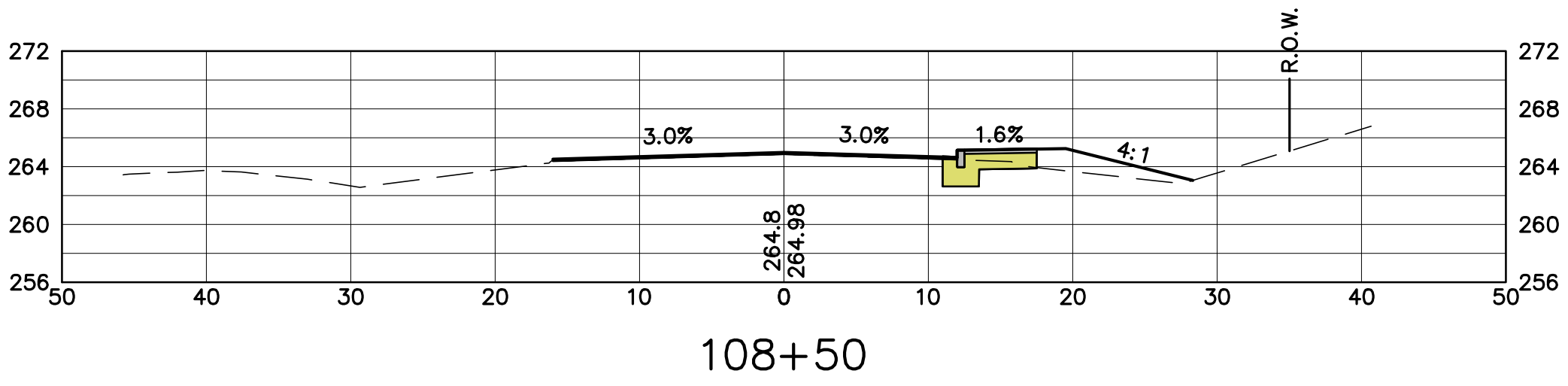
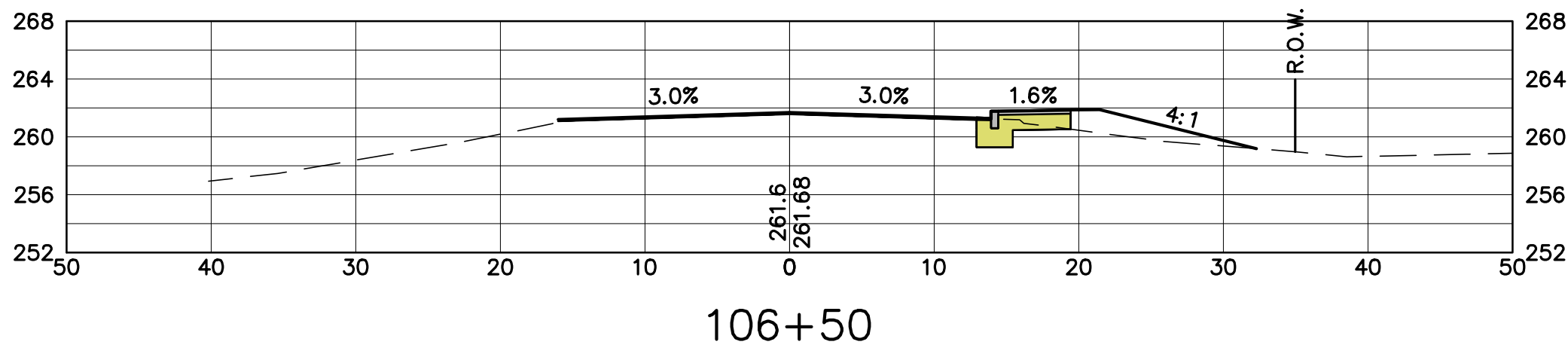
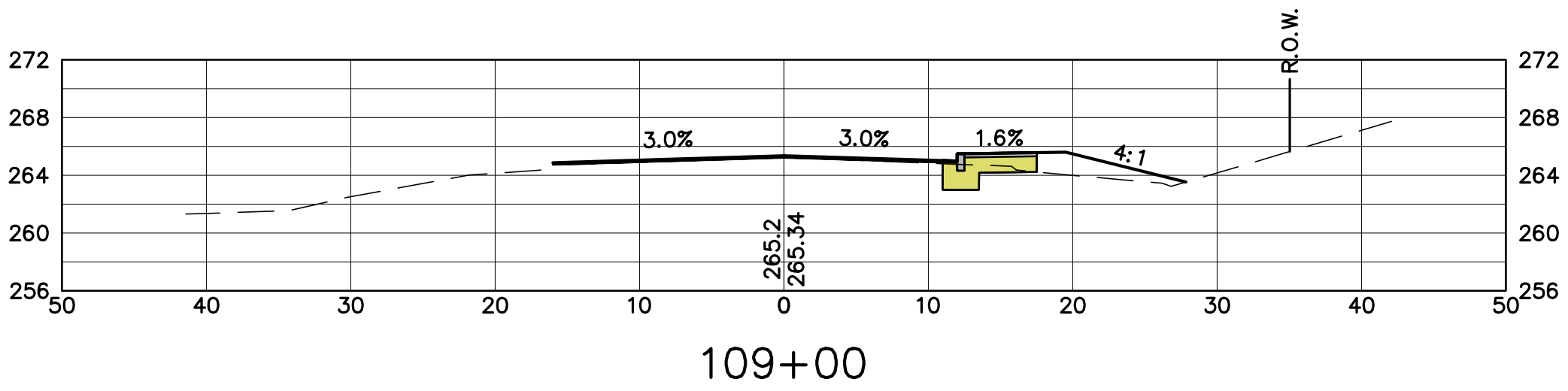
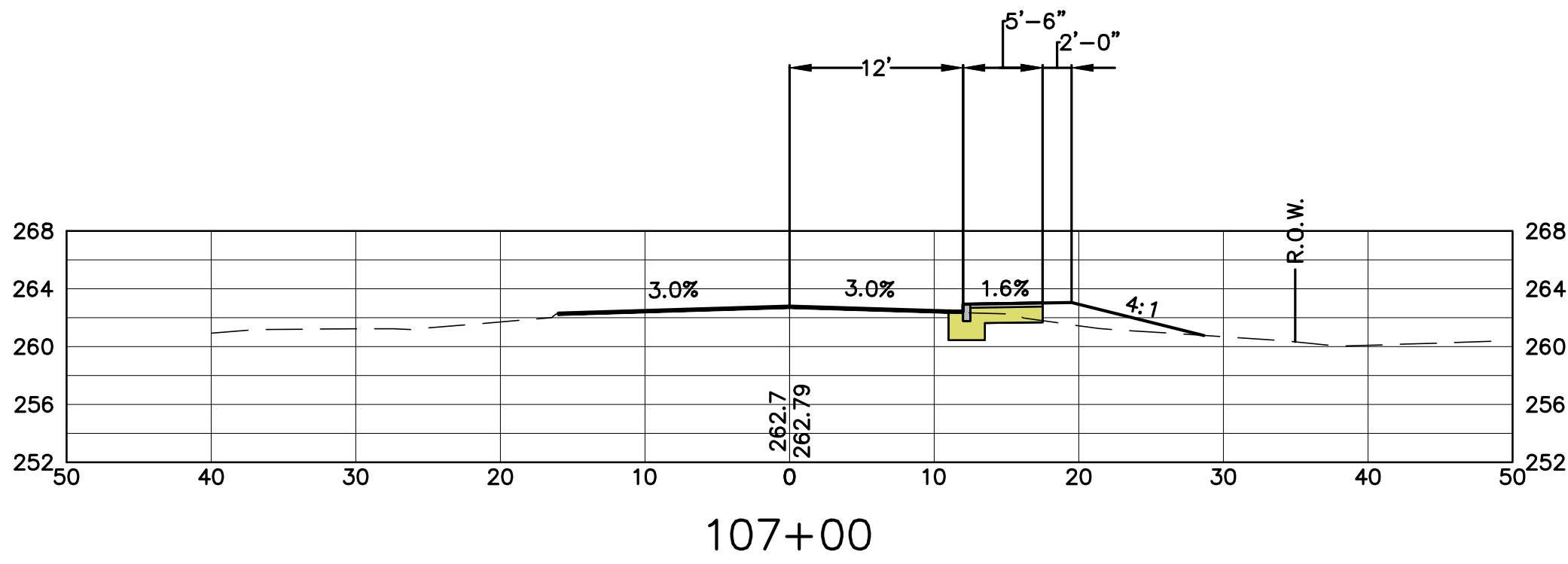
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24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

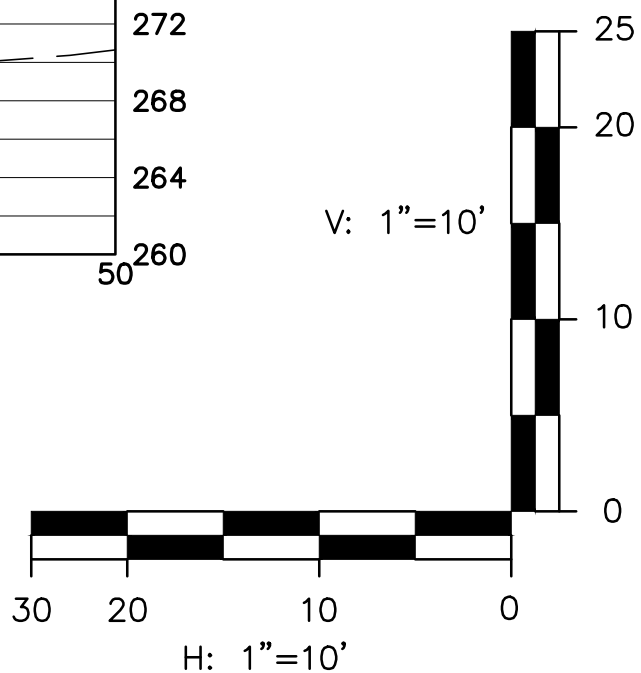
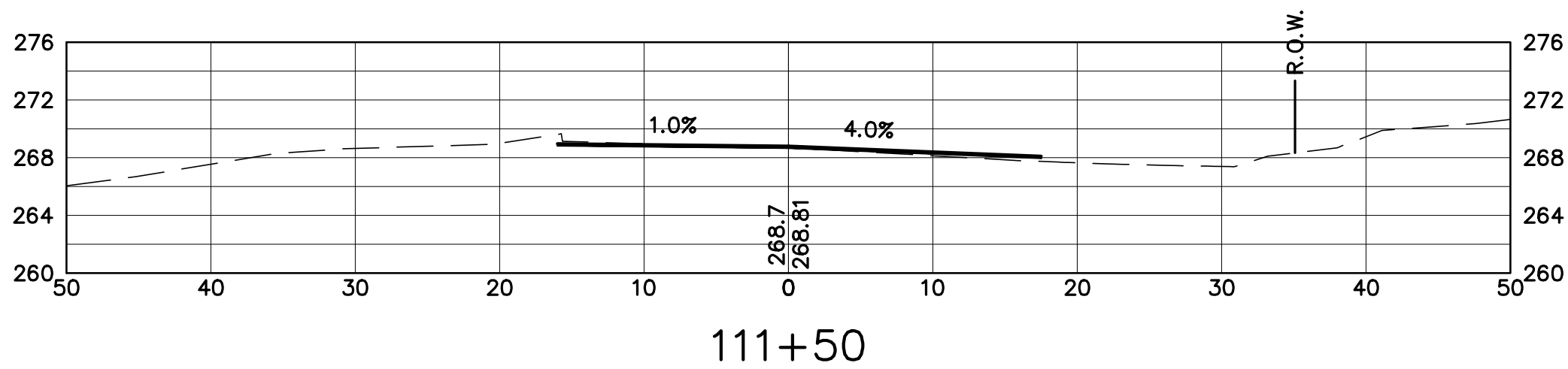
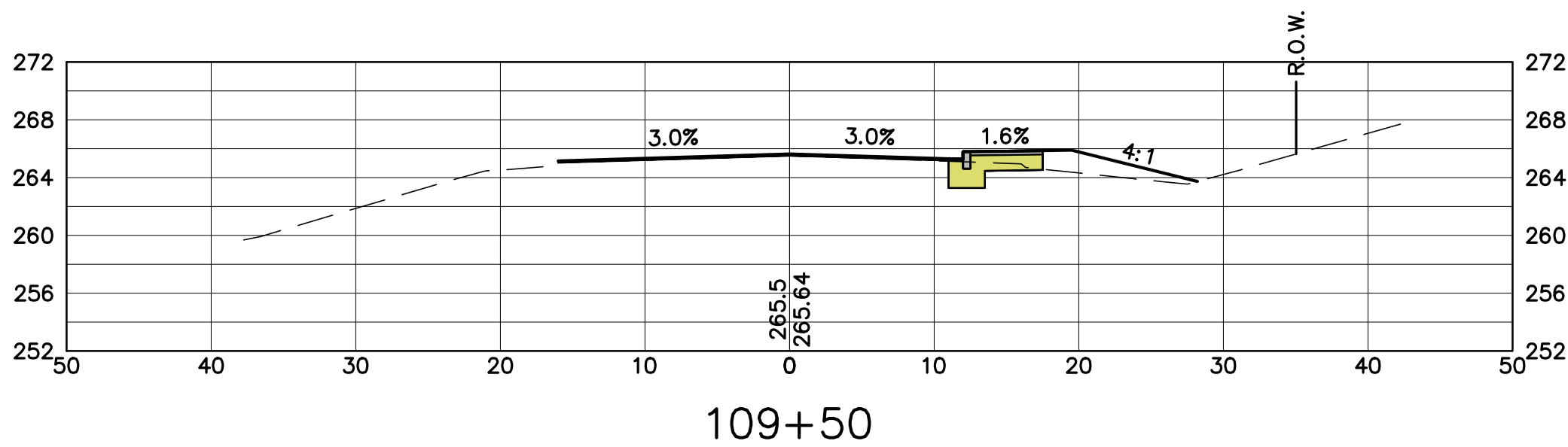
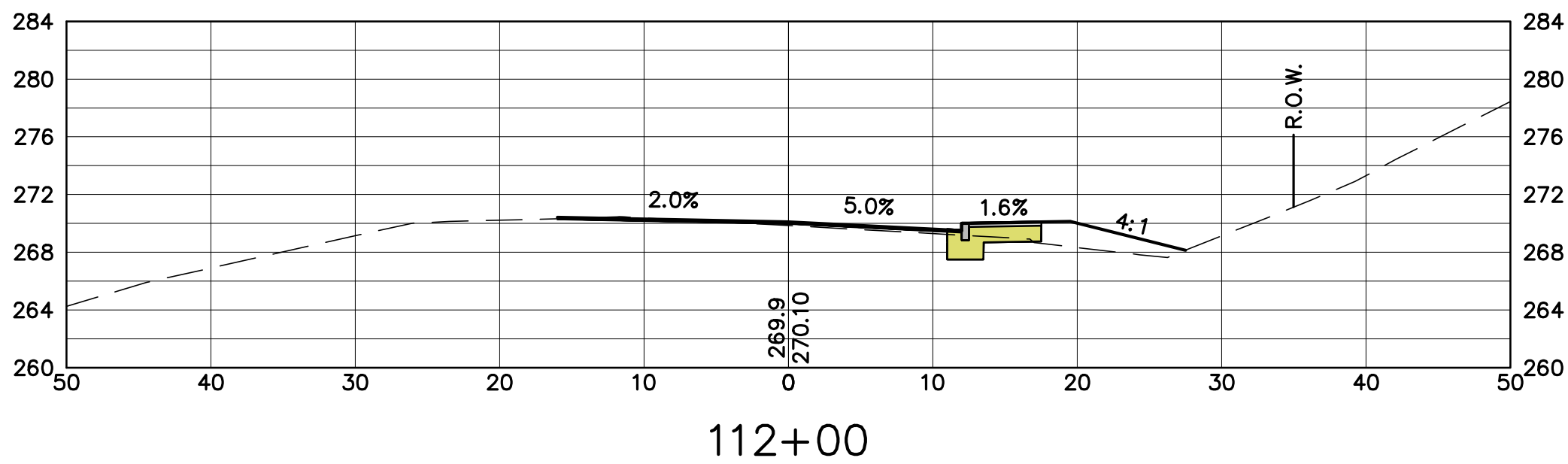
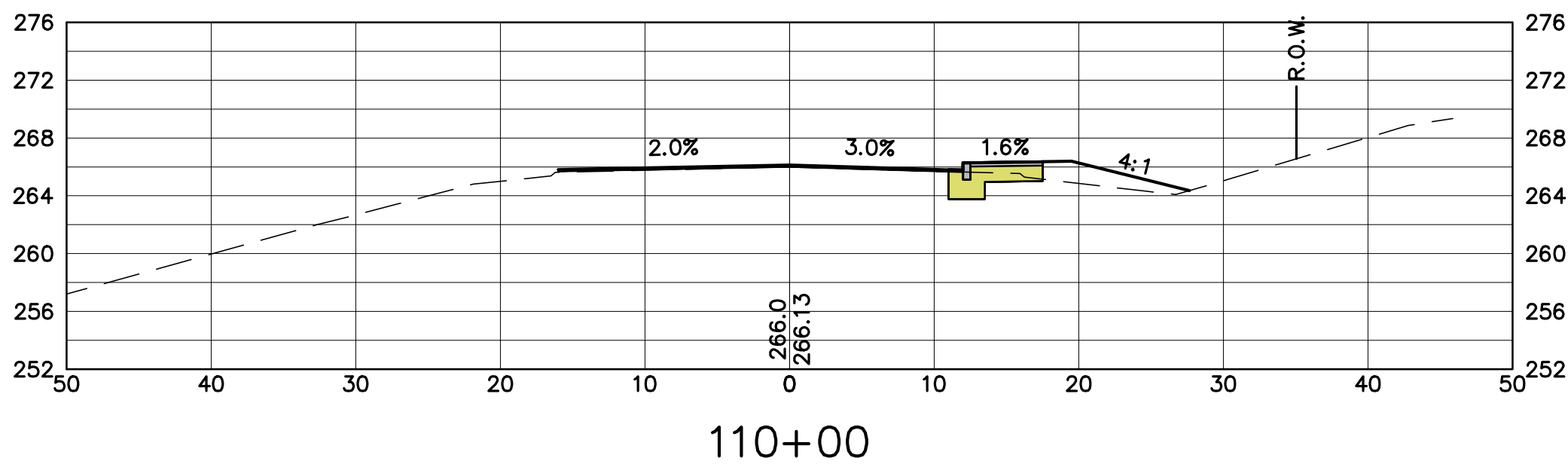
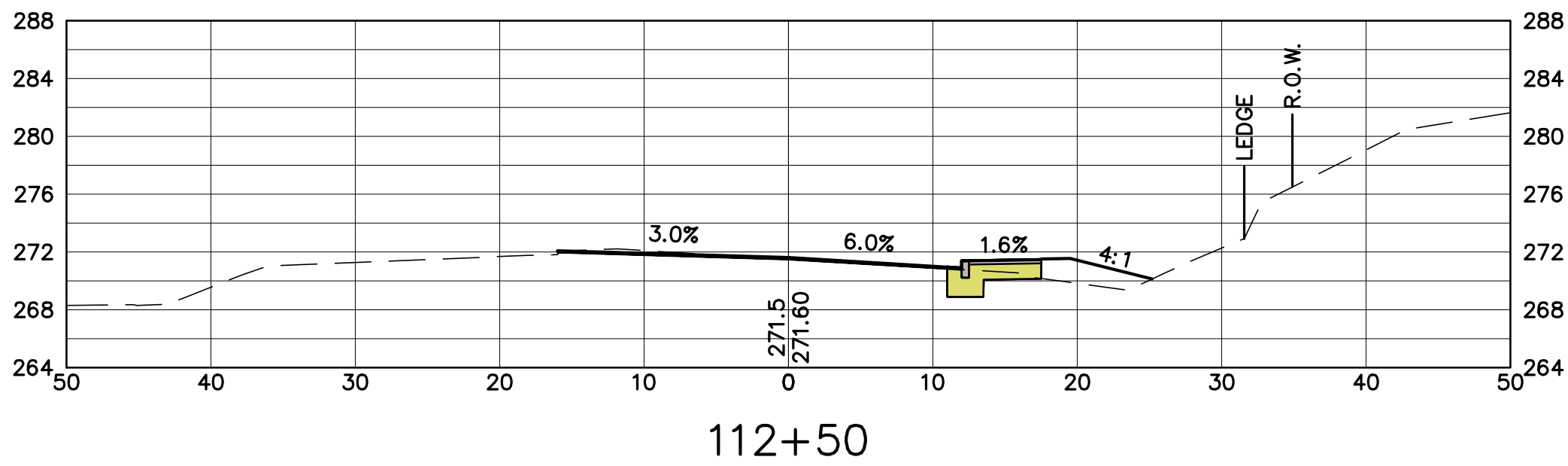
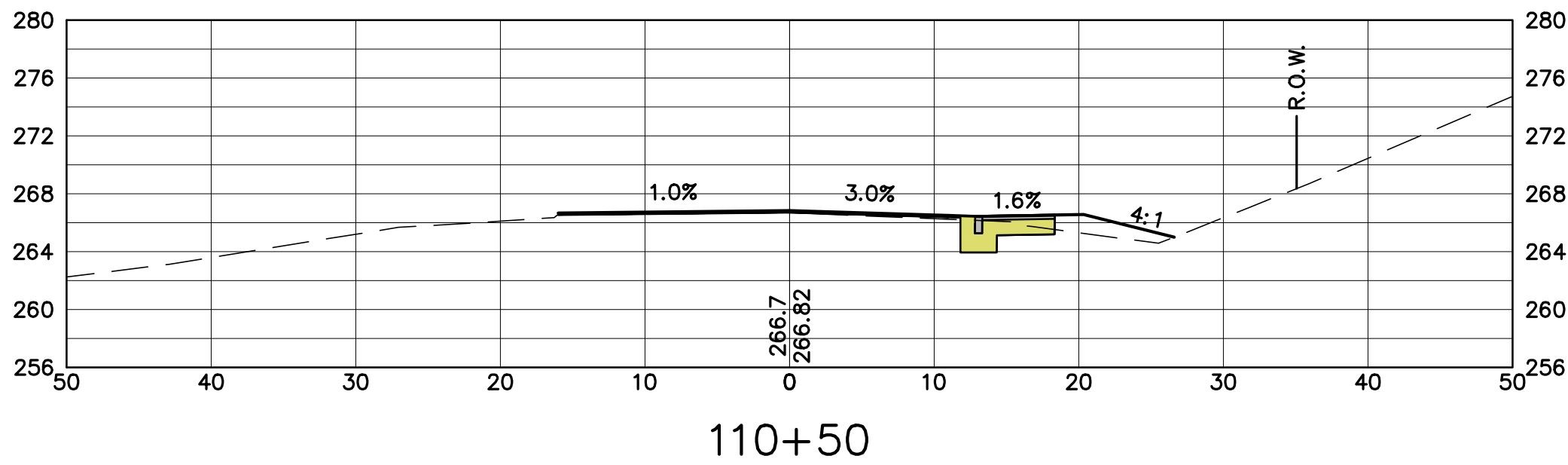
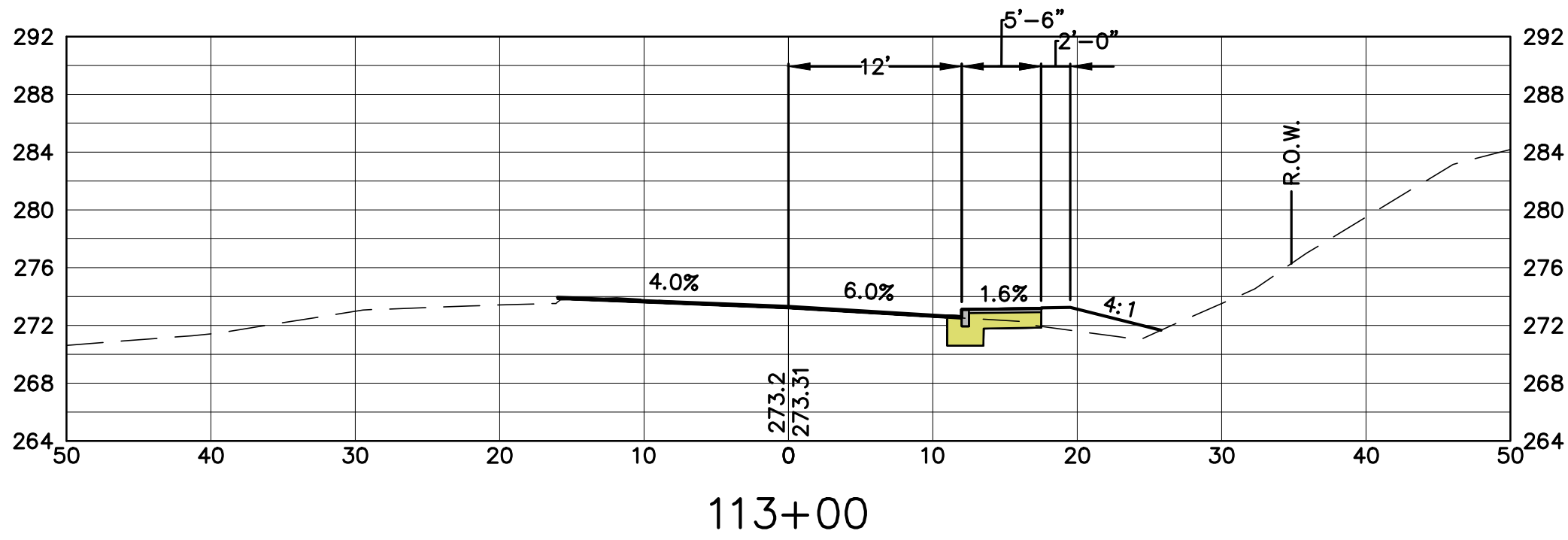
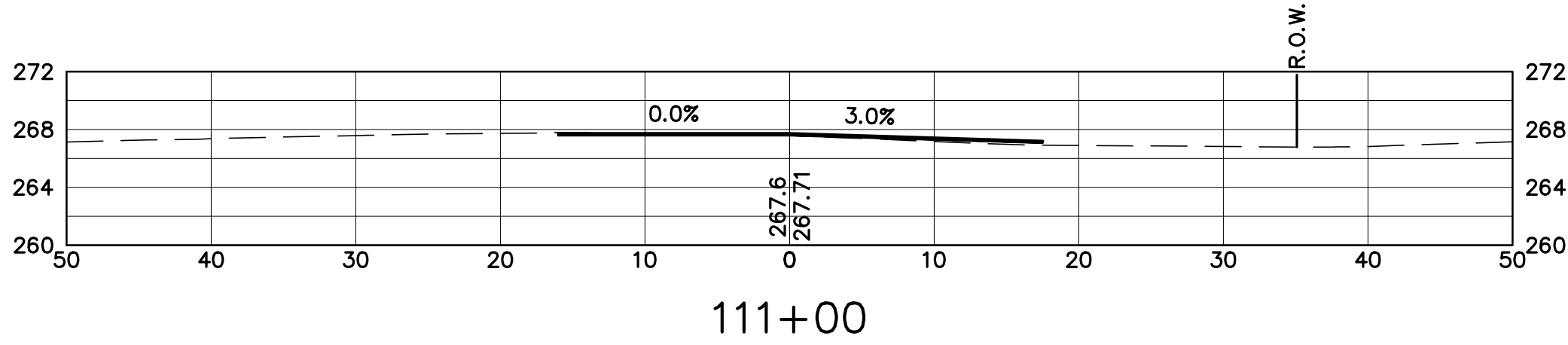
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EROSION CONTROL NOTES

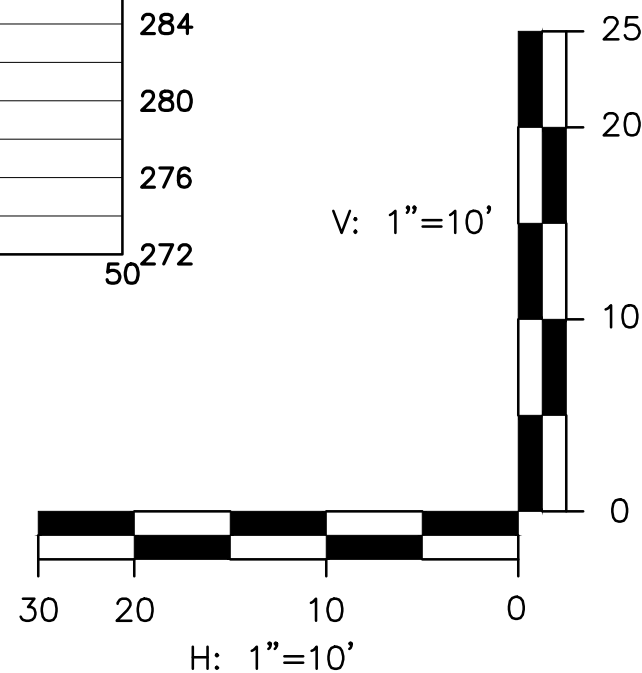
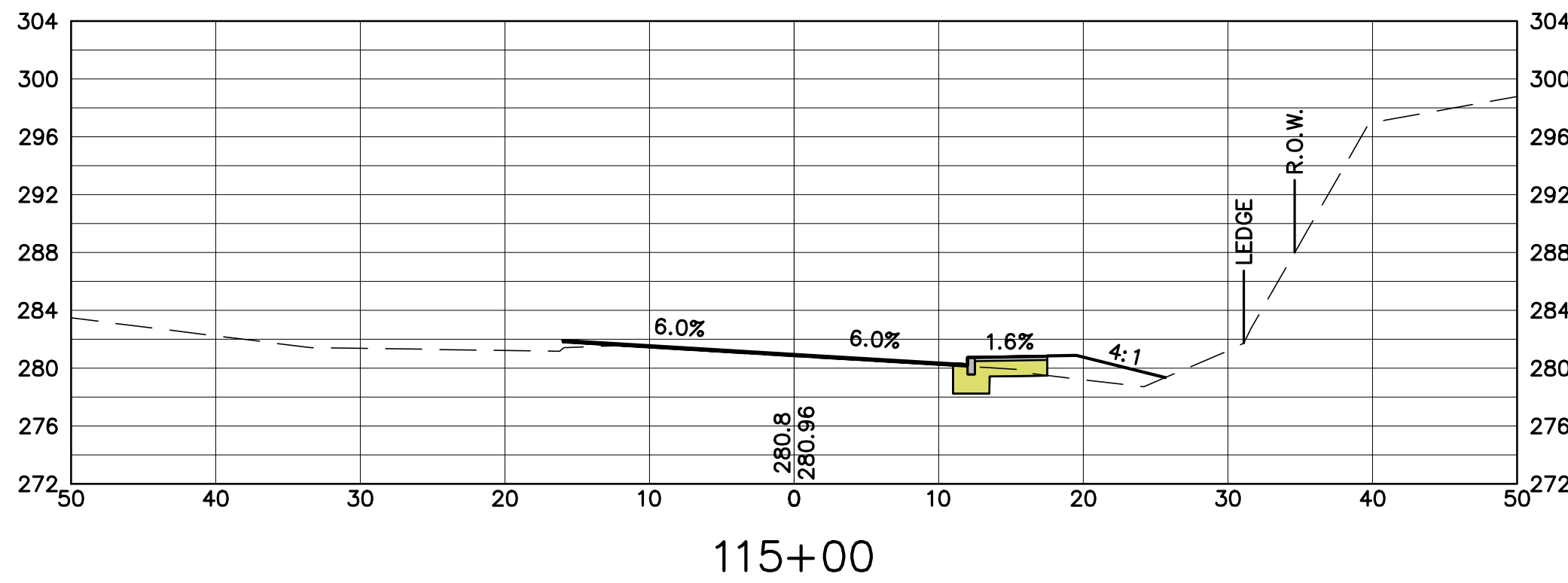
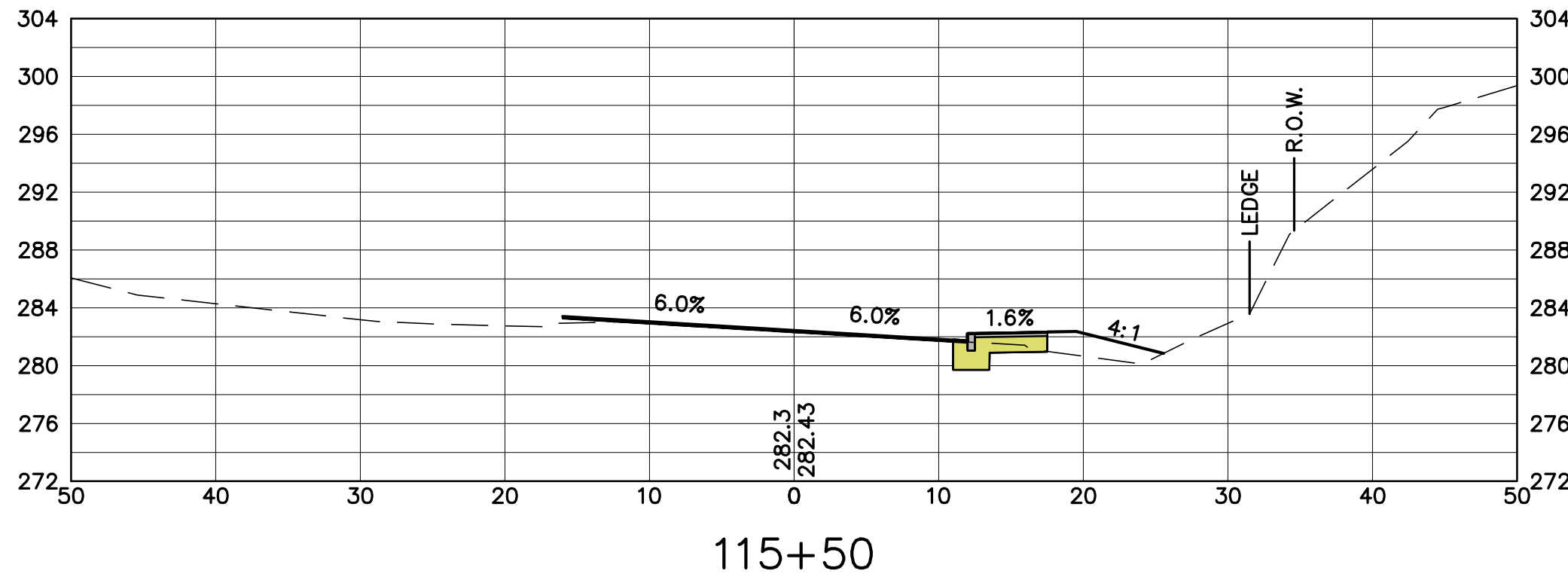
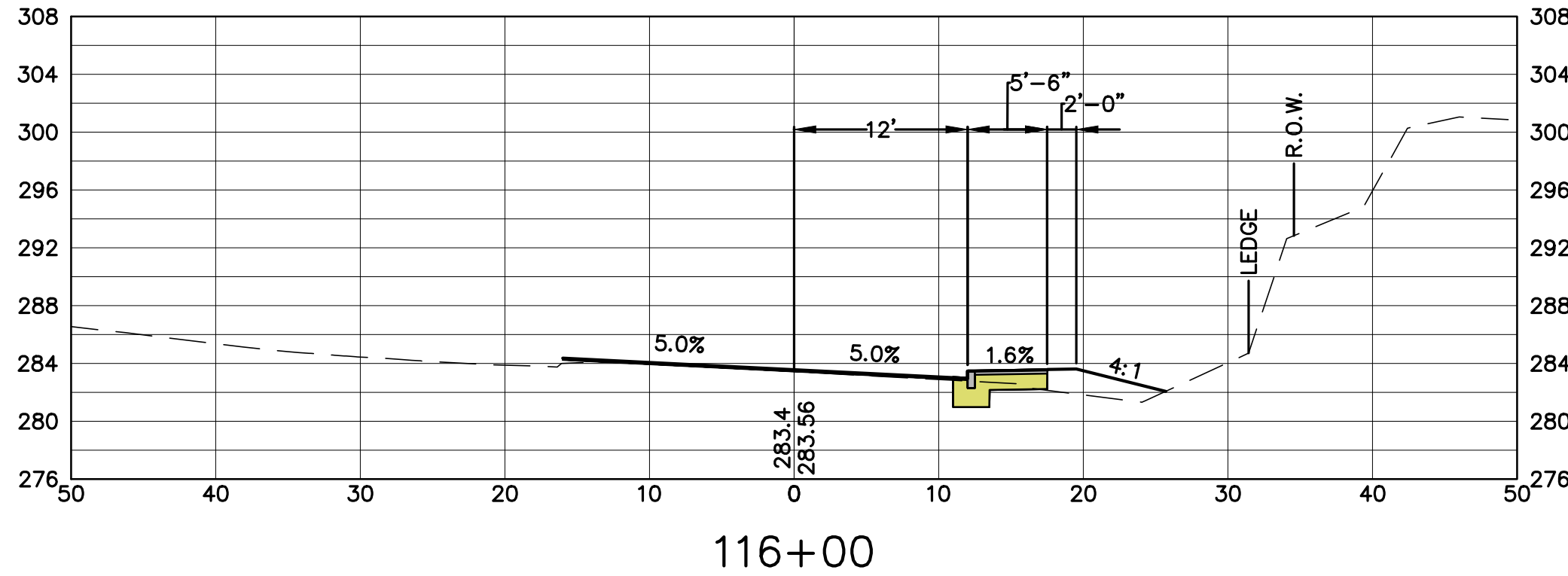
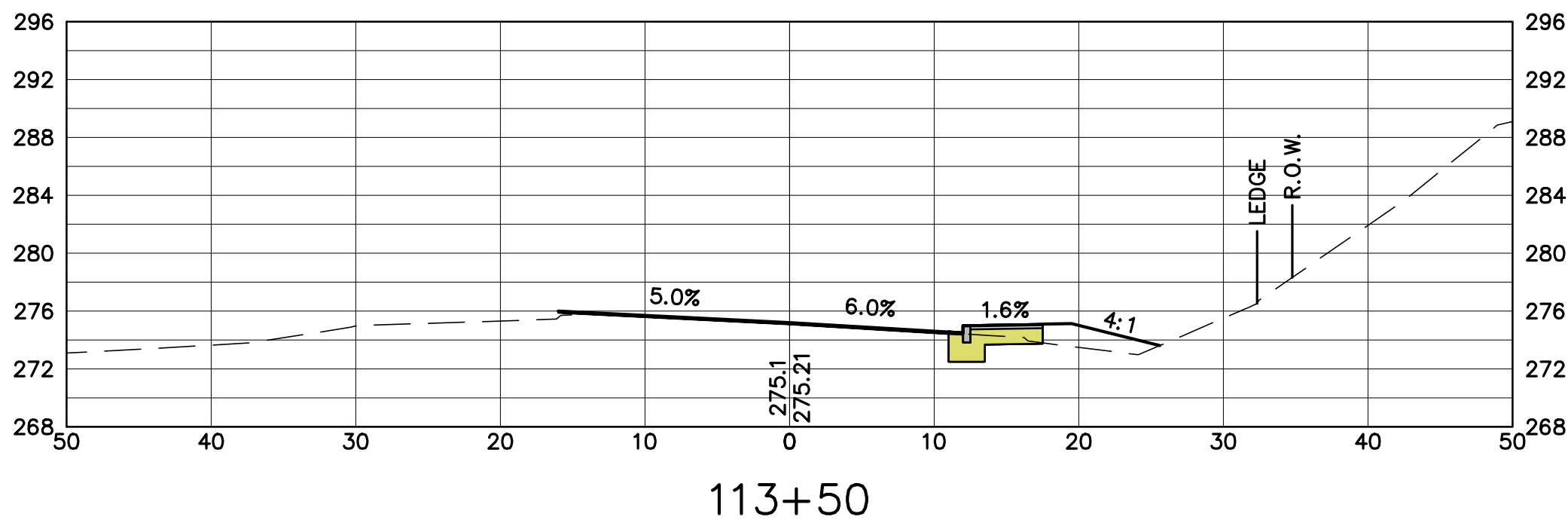
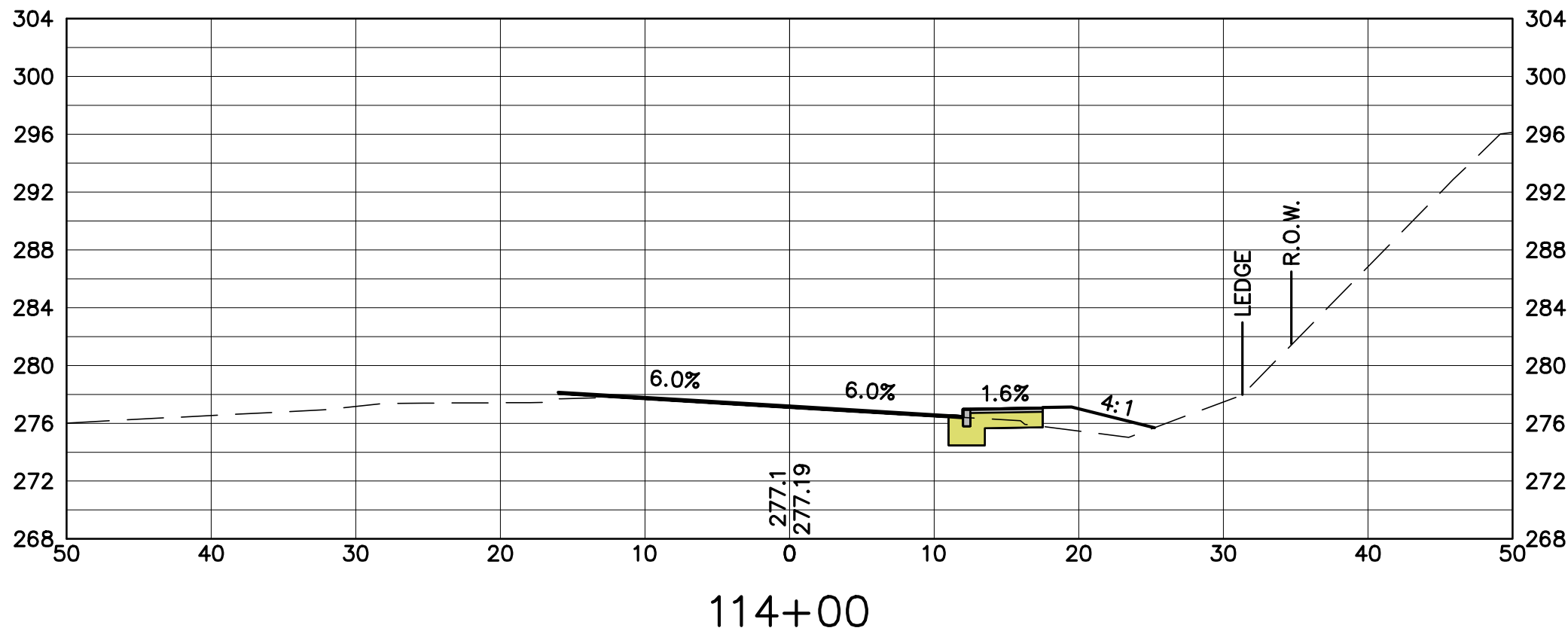
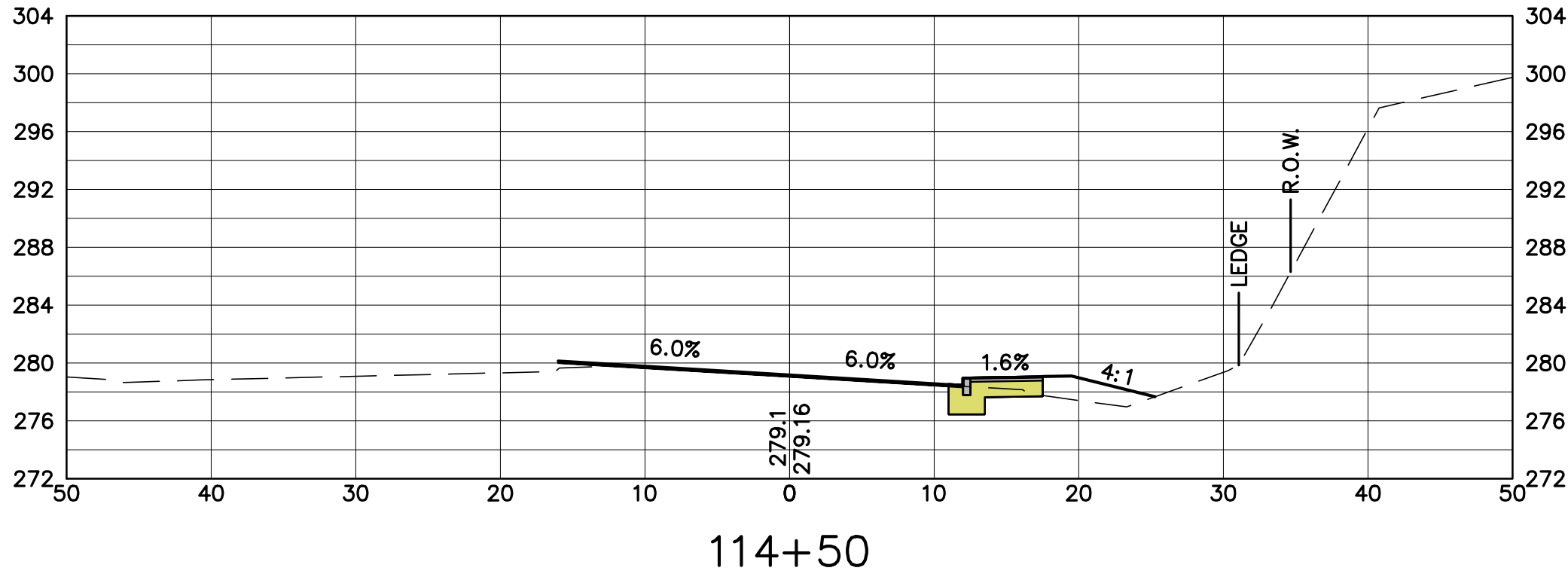
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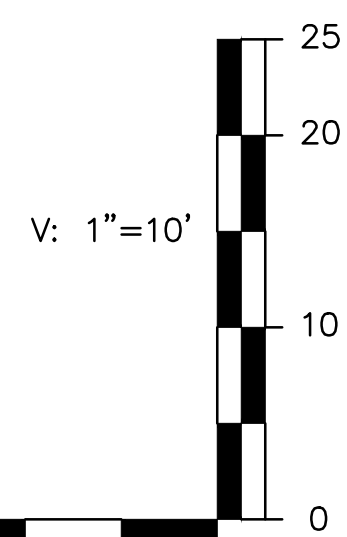
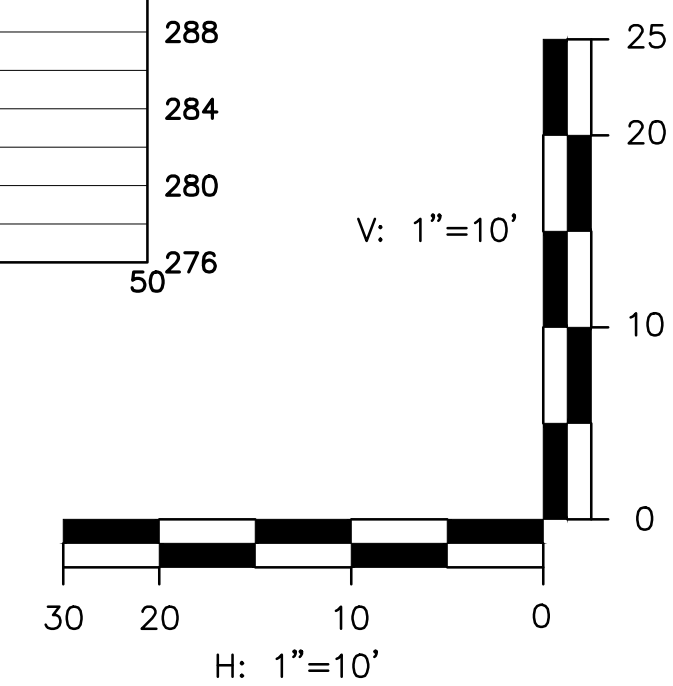
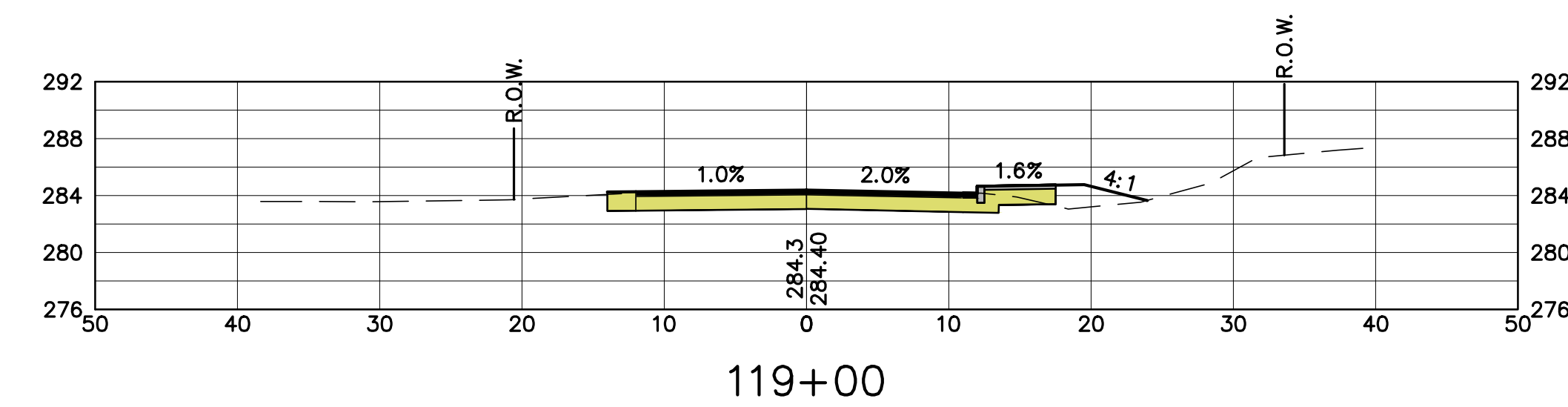
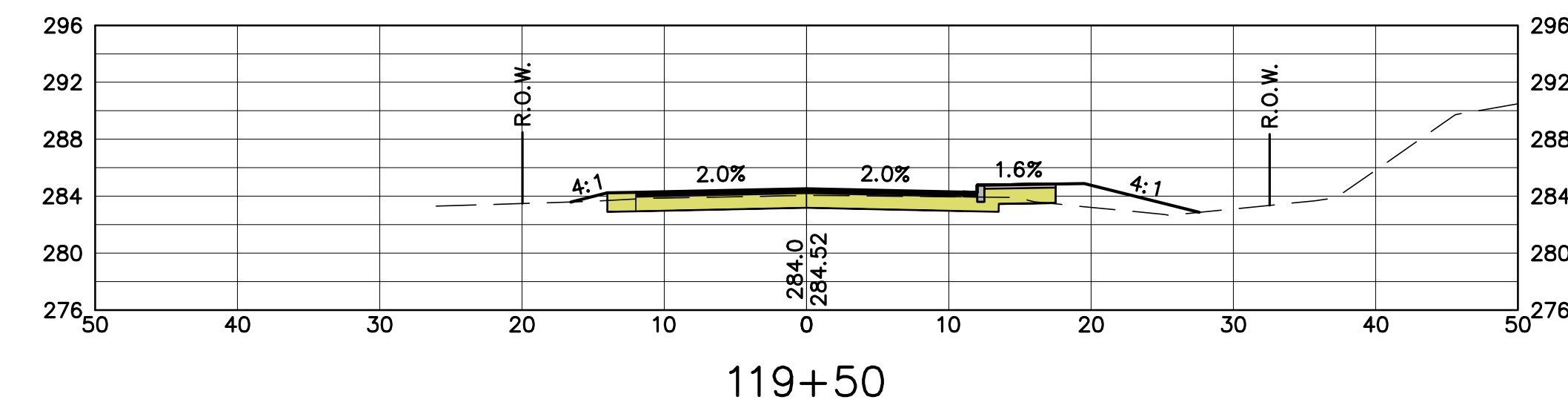
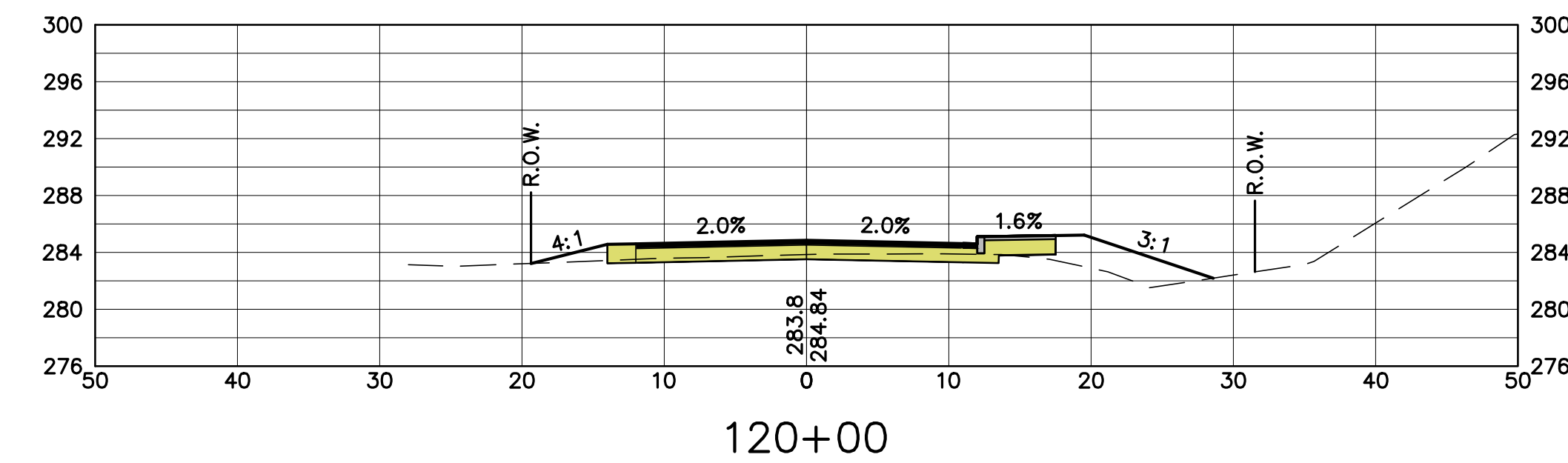
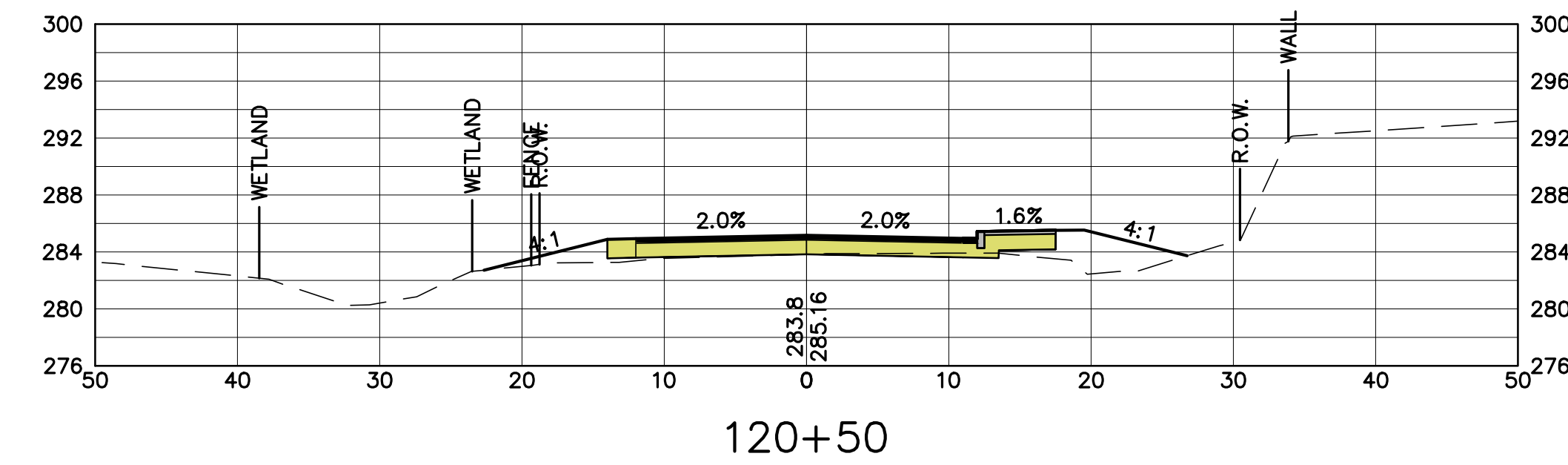
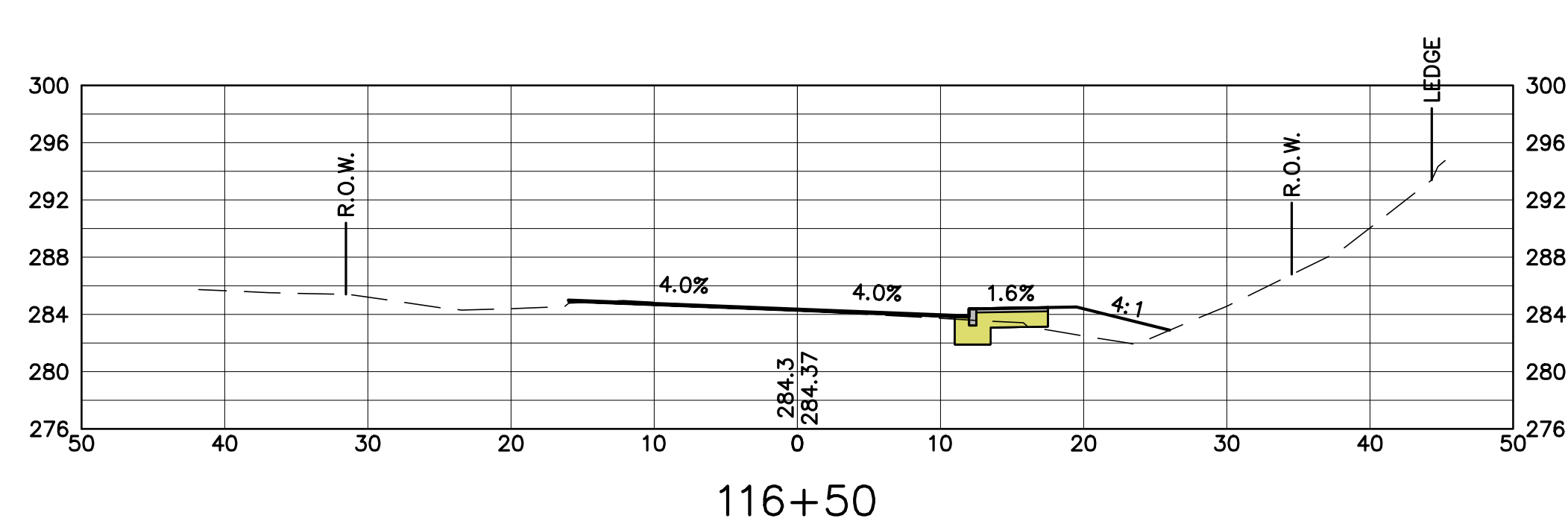
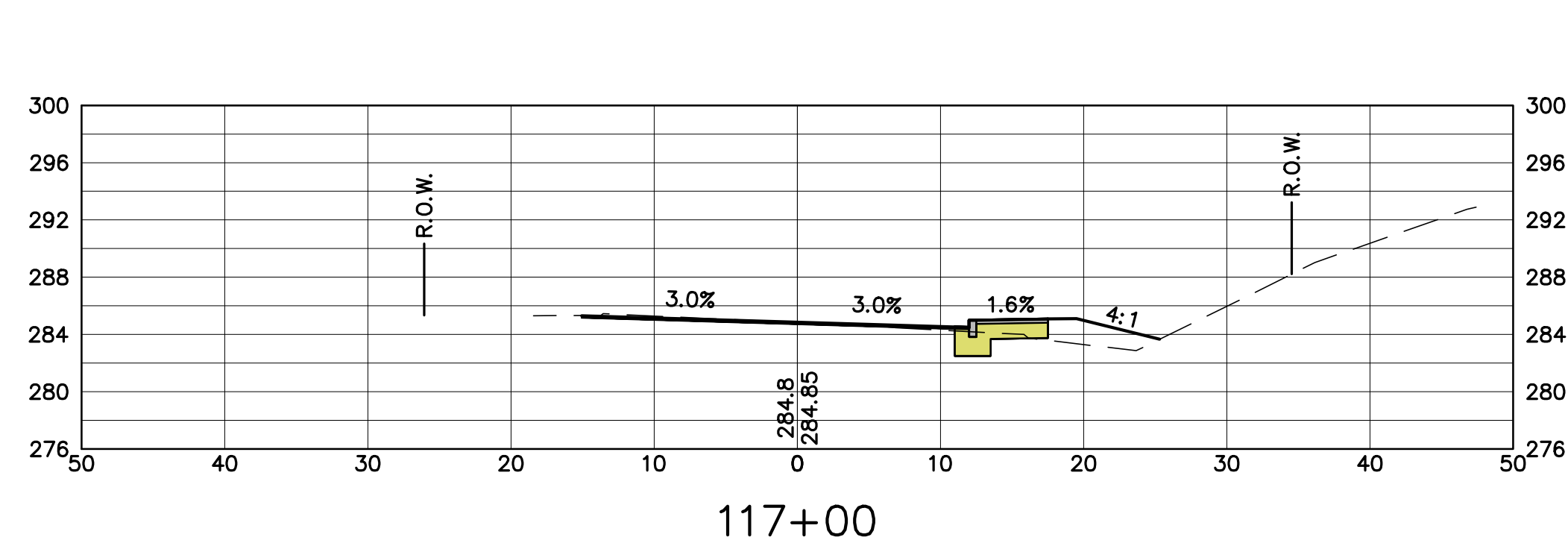
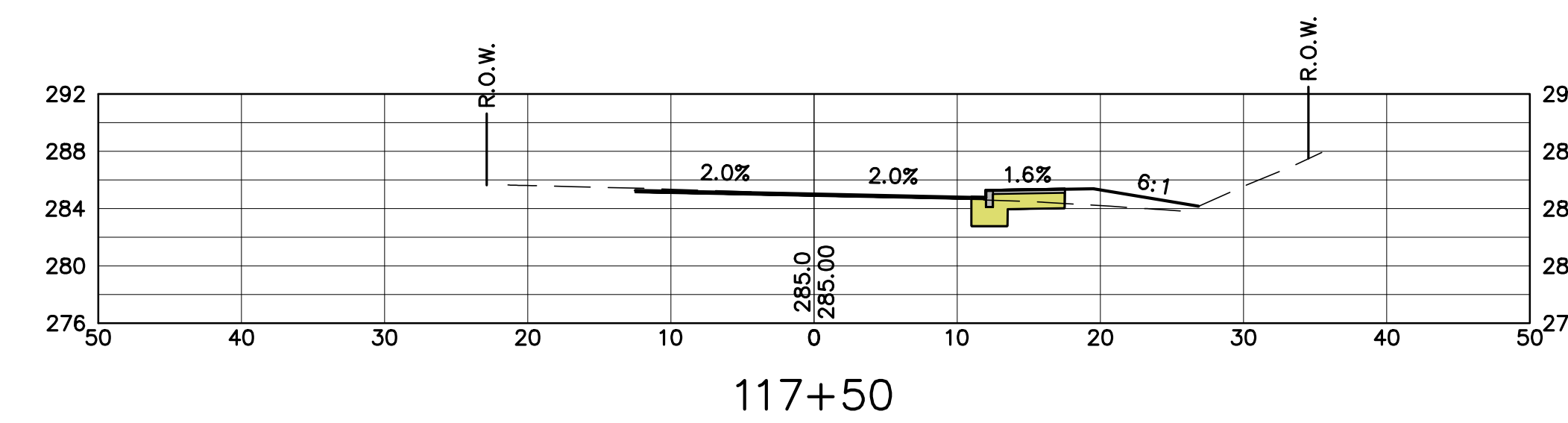
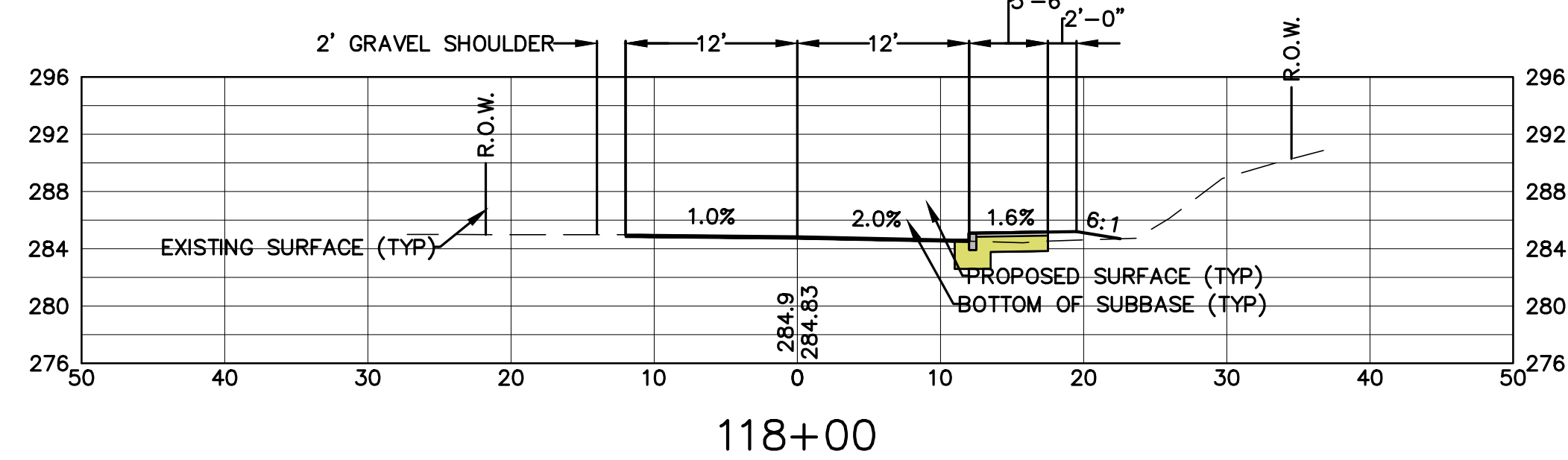
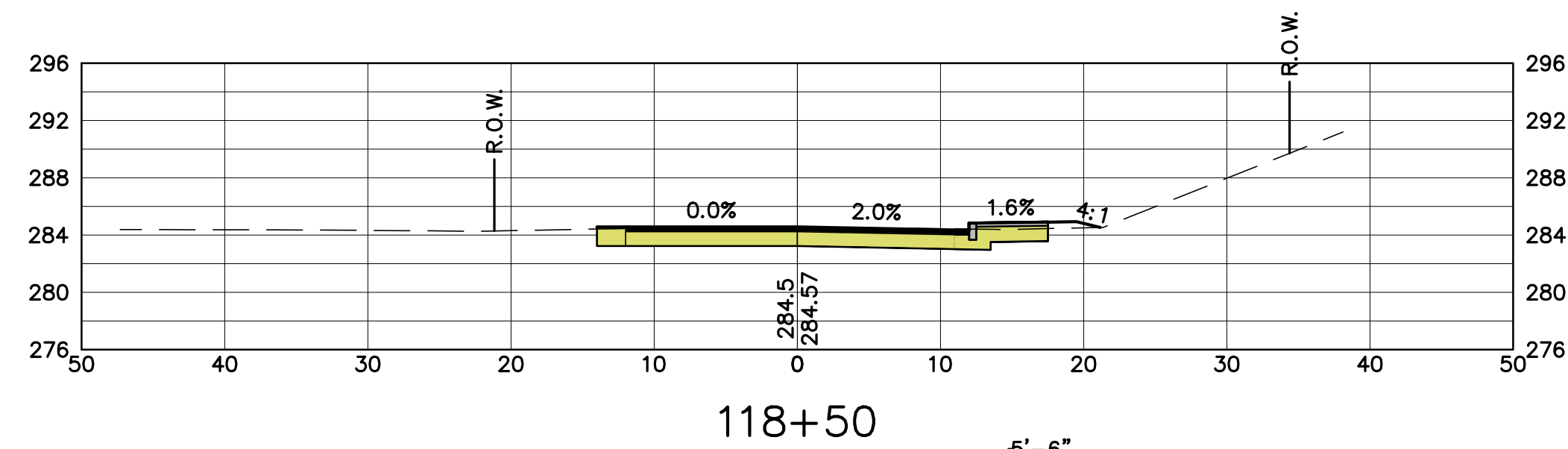
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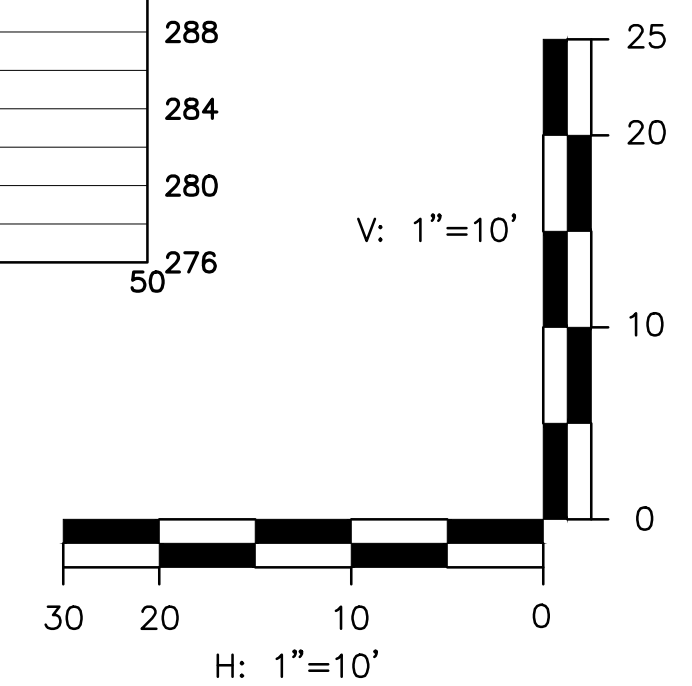
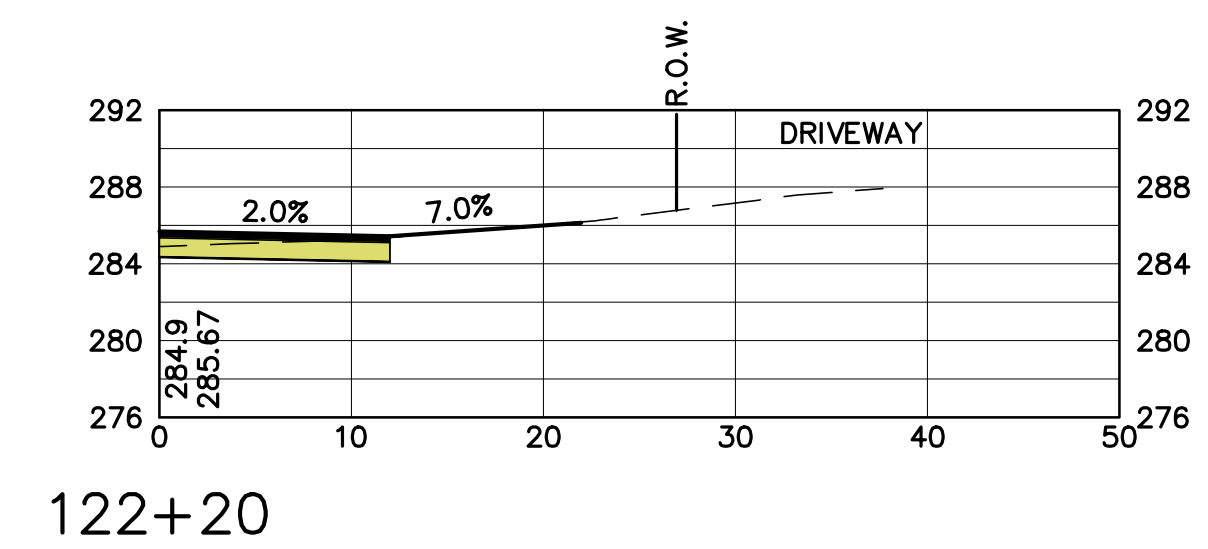
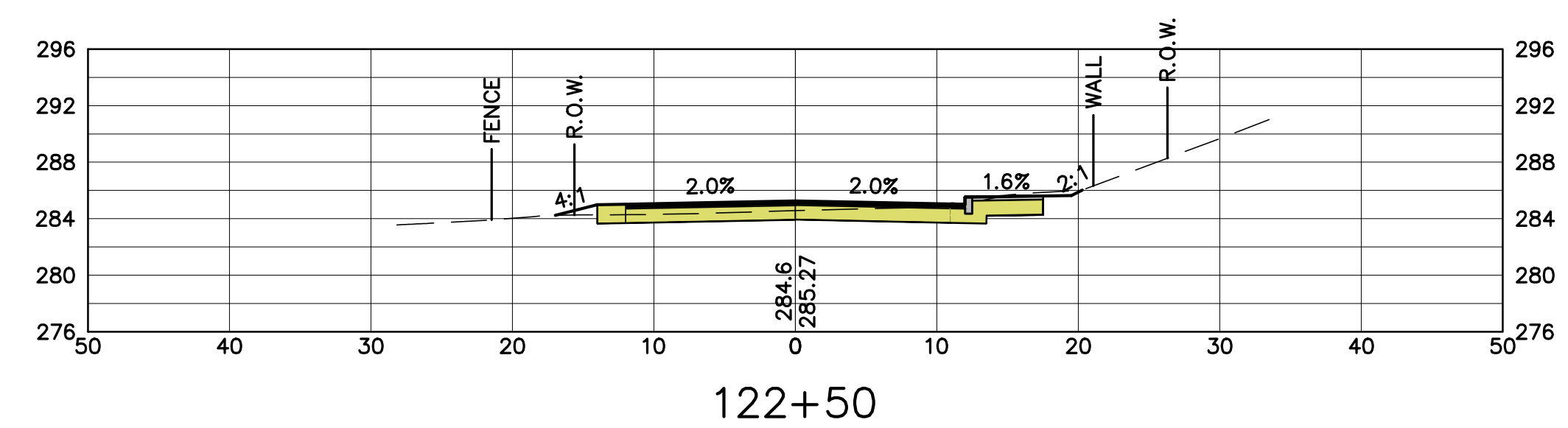
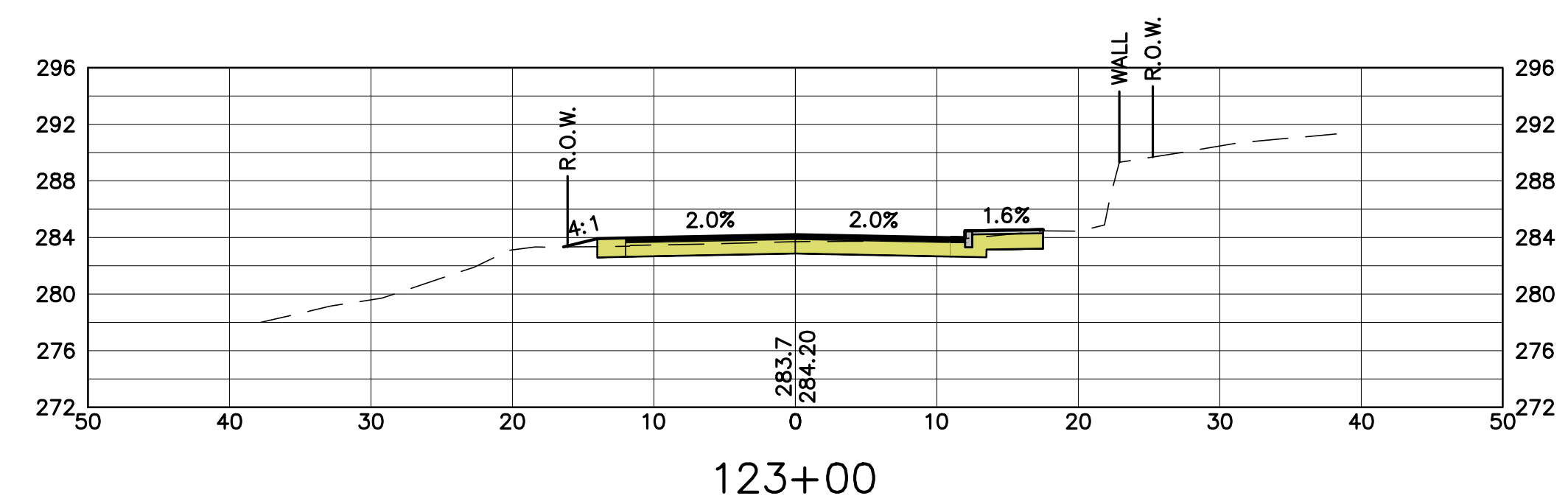
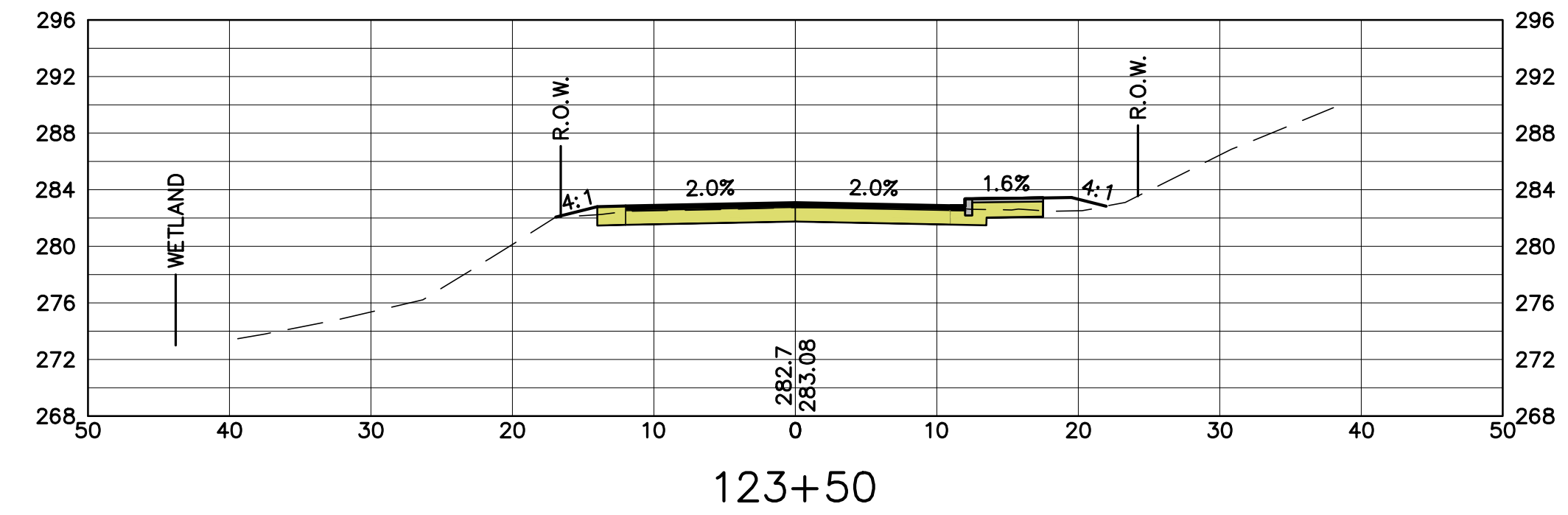
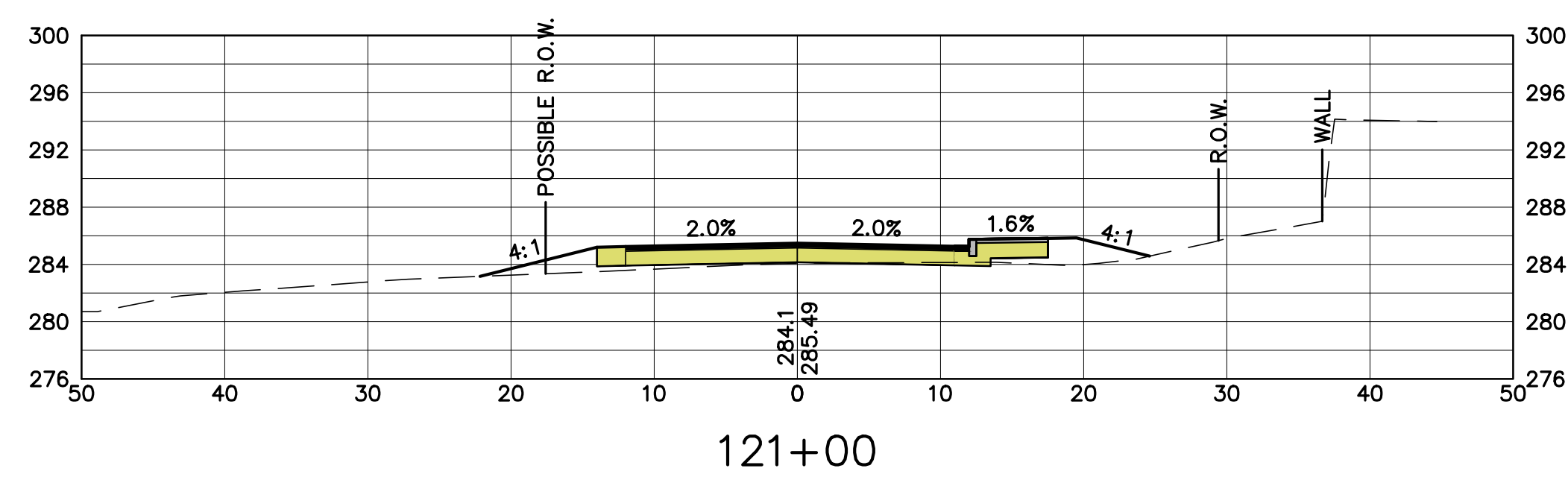
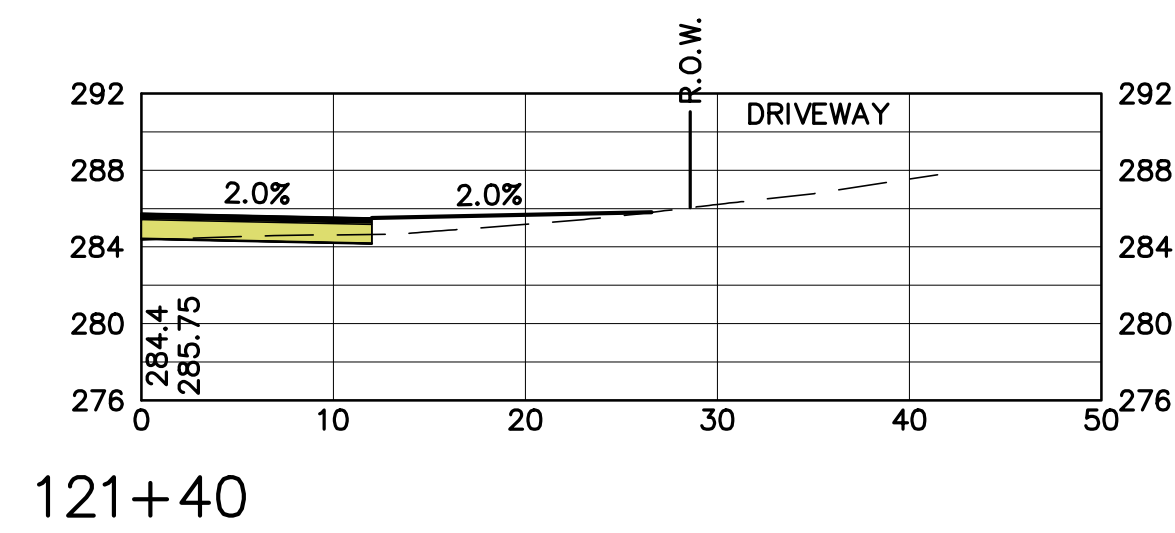
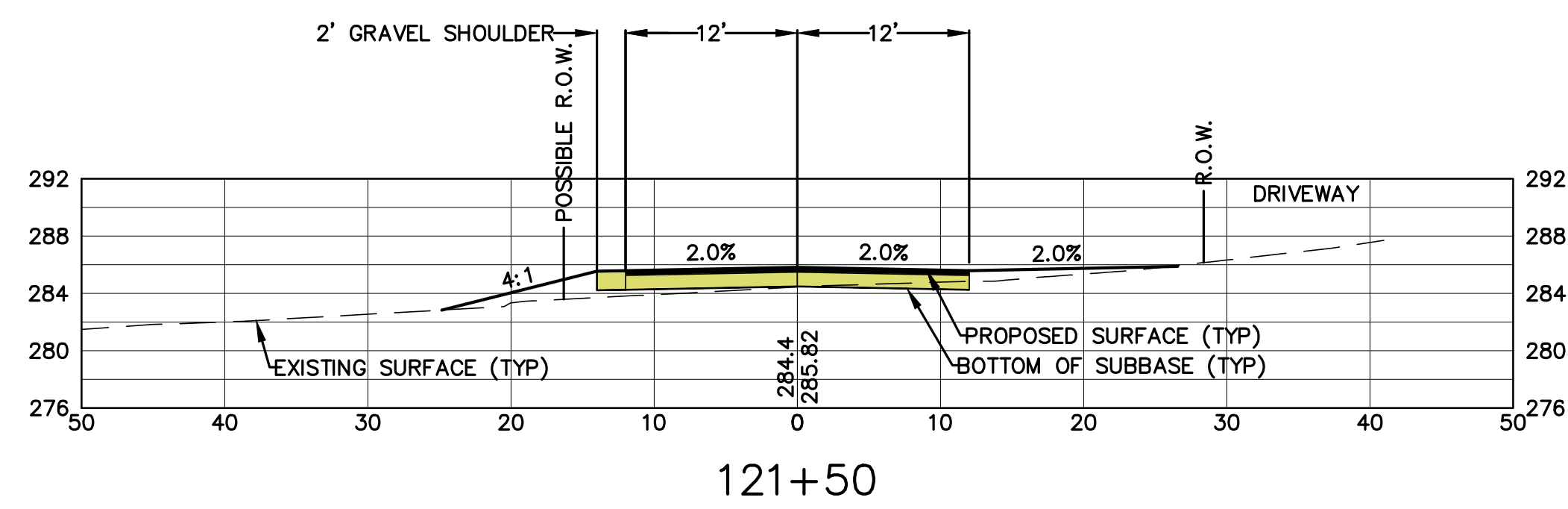
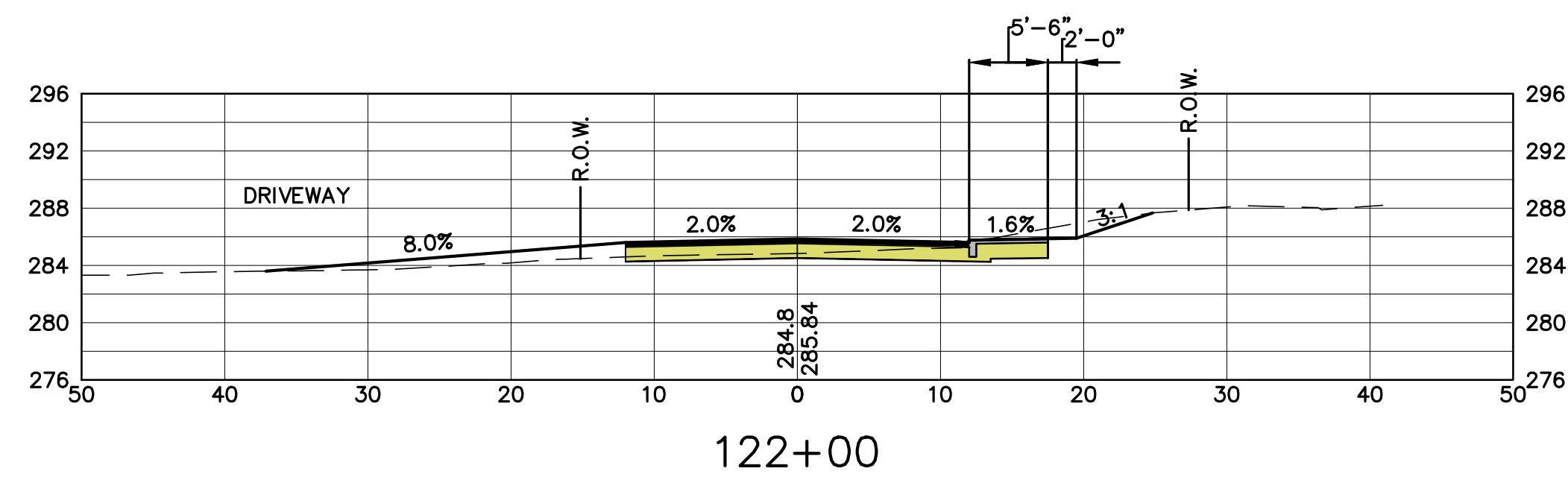
SHEET: 28 OF 62	SCALE: AS SHOWN	PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110	OLD BEDFORD ROAD CROSS SECTIONS 109+50 TO 113+00	NO.	DATE	REVISION DESCRIPTION



OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE	SHEET: 29	OF 62	SCALE: AS SHOWN	PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110	OLD BEDFORD ROAD CROSS SECTIONS 113+50 TO 116+00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE	PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110	OLD BEDFORD ROAD CROSS SECTIONS 116+50 TO 120+50						
SHEET: 30 OF 62	SCALE: AS SHOWN	DATE: MAY 7, 2015	PROJ. 77-2015	NO.	DATE	REVISION	DESCRIPTION	



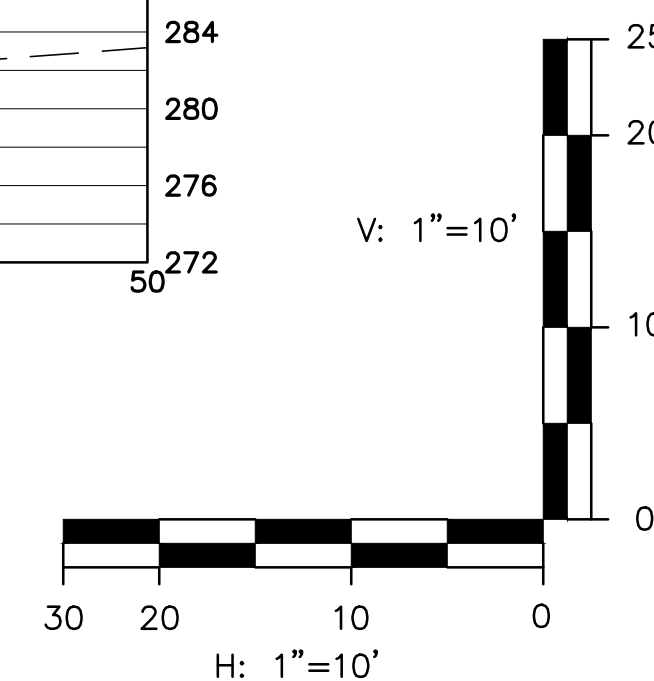
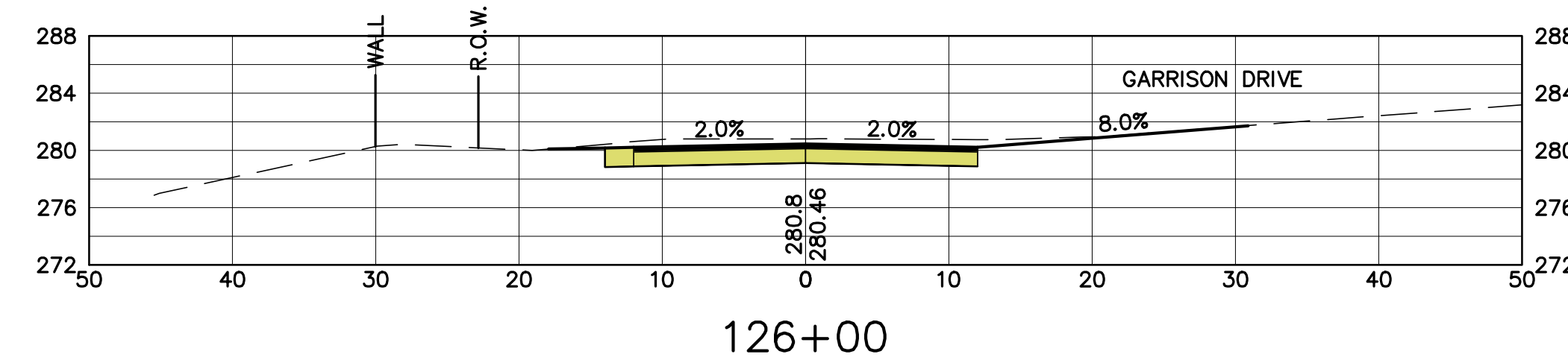
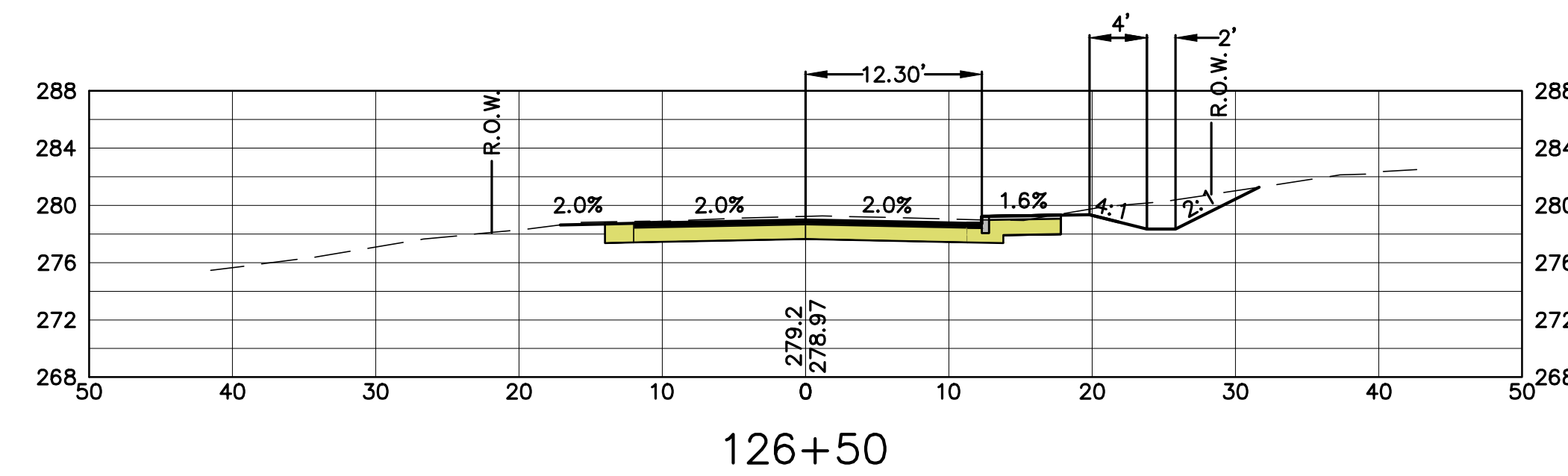
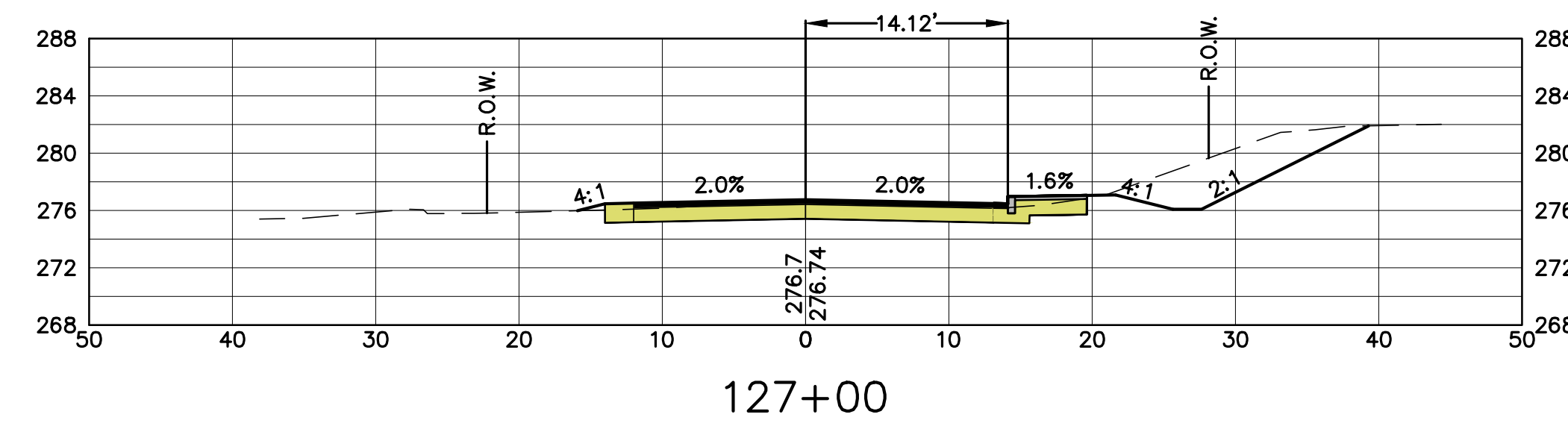
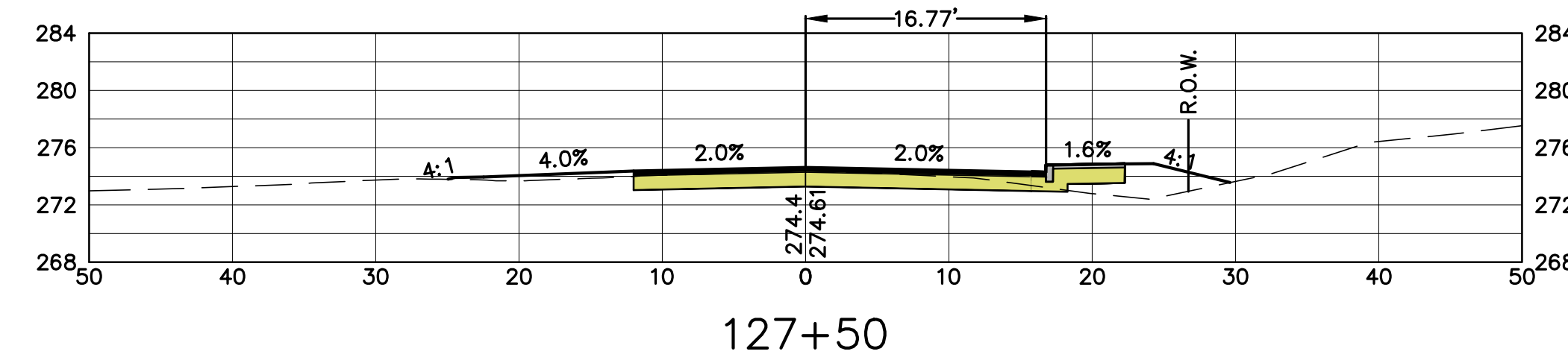
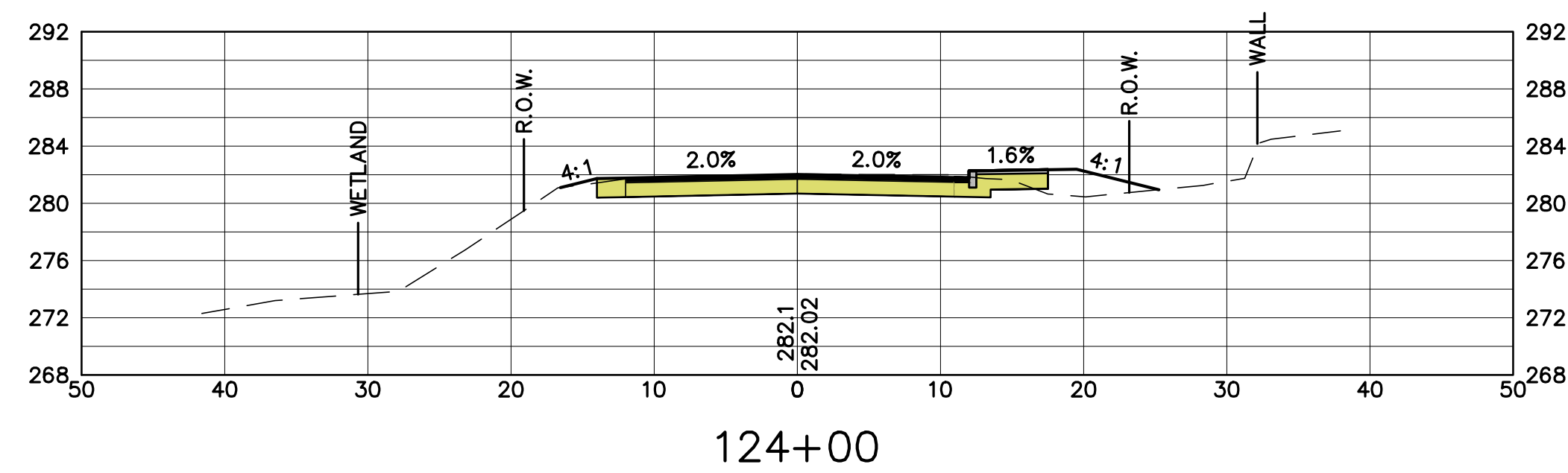
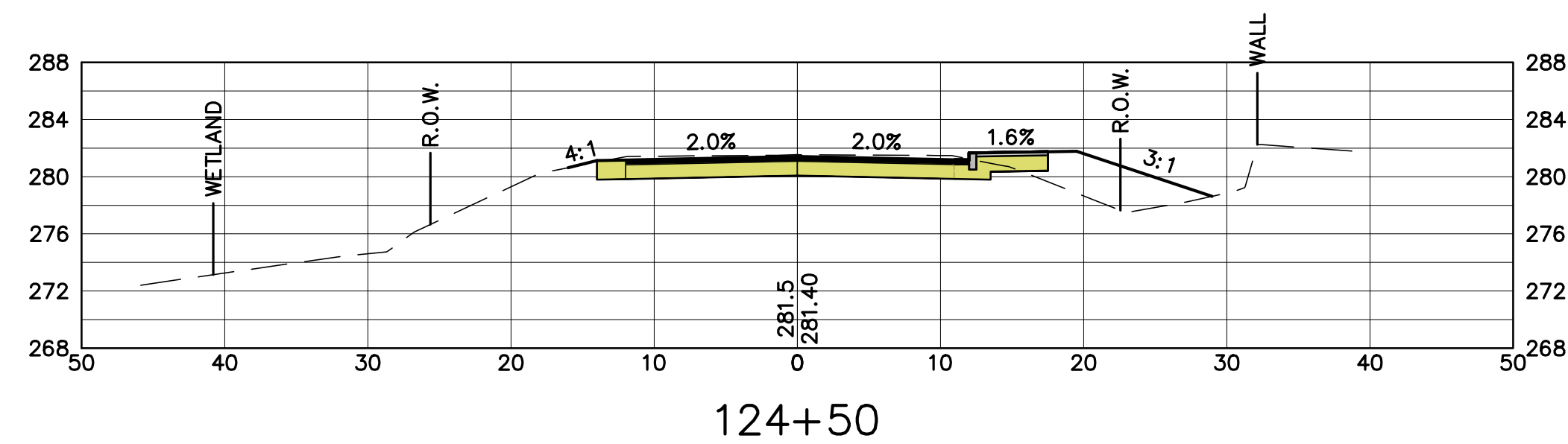
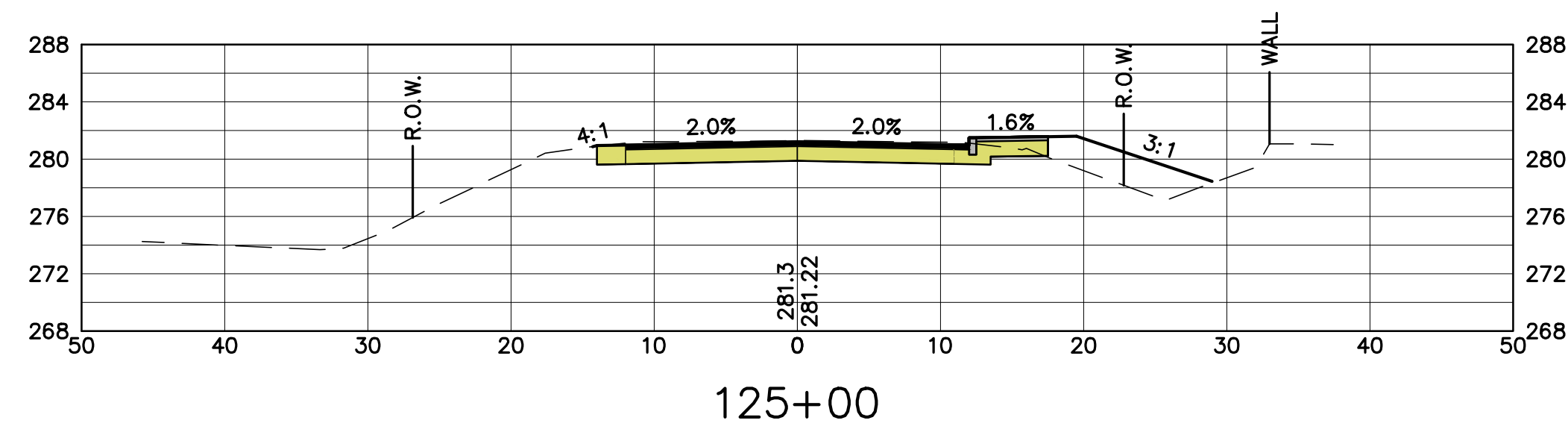
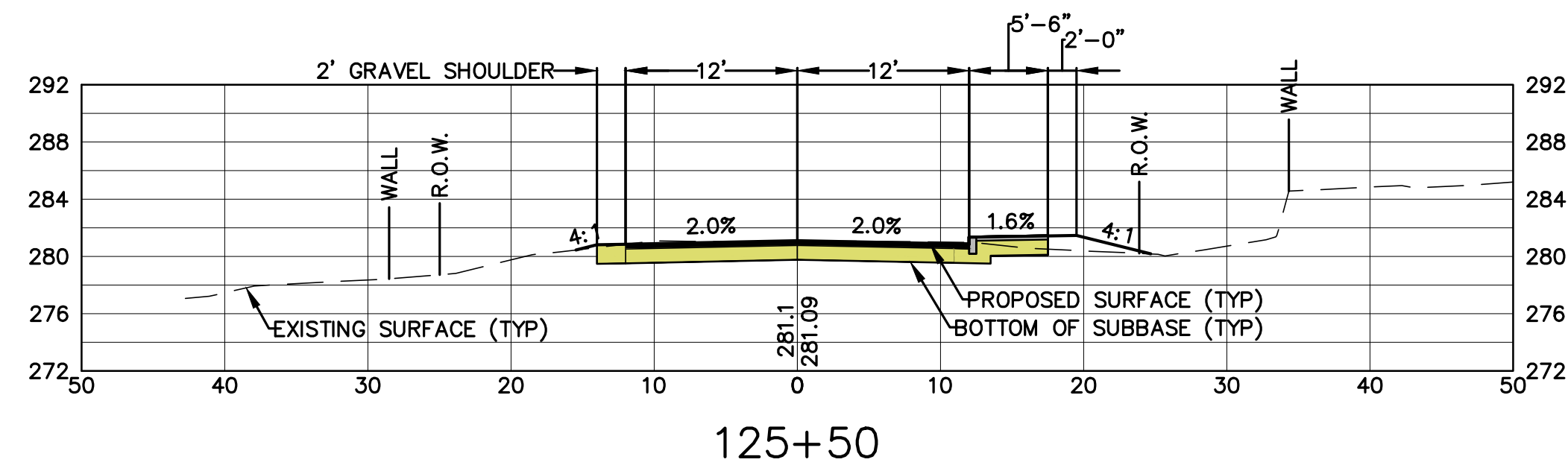
OLD BEDFORD ROAD
CROSS SECTIONS
121+00 TO 123+50

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

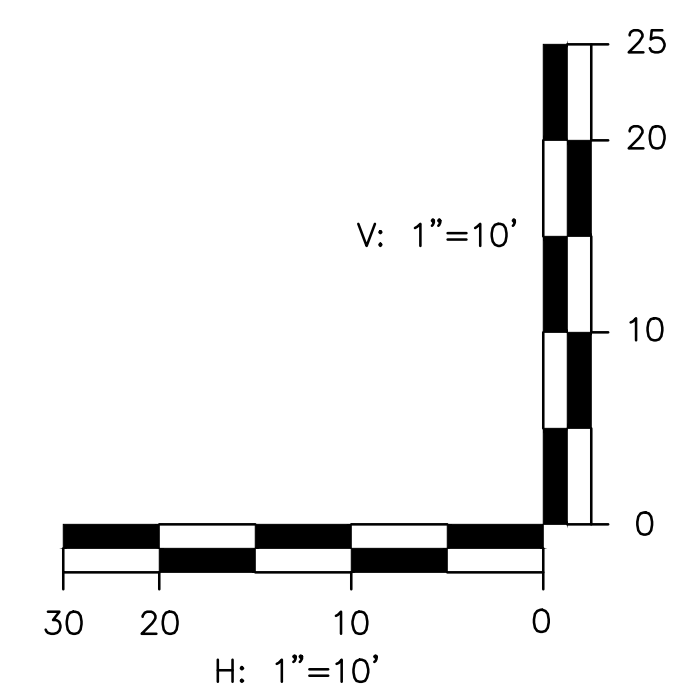
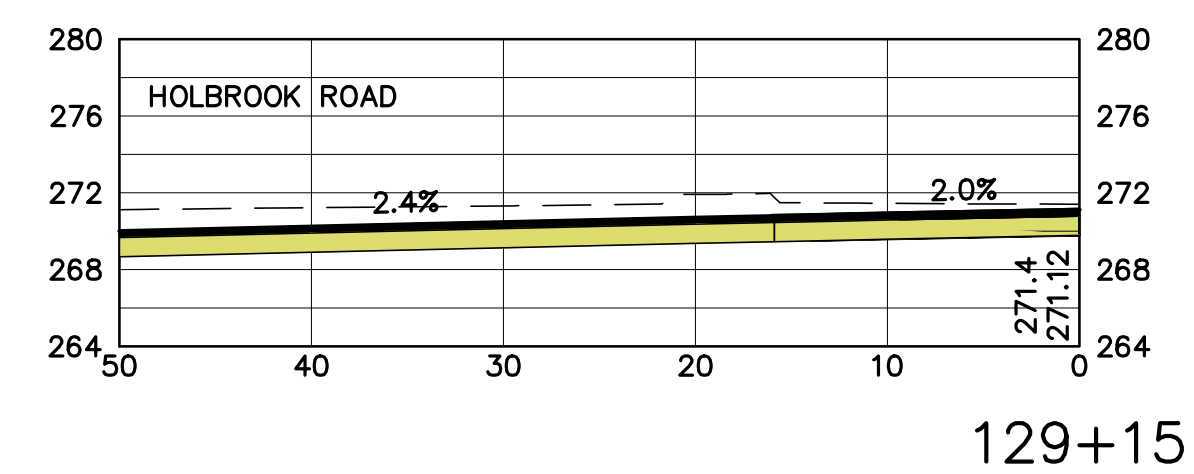
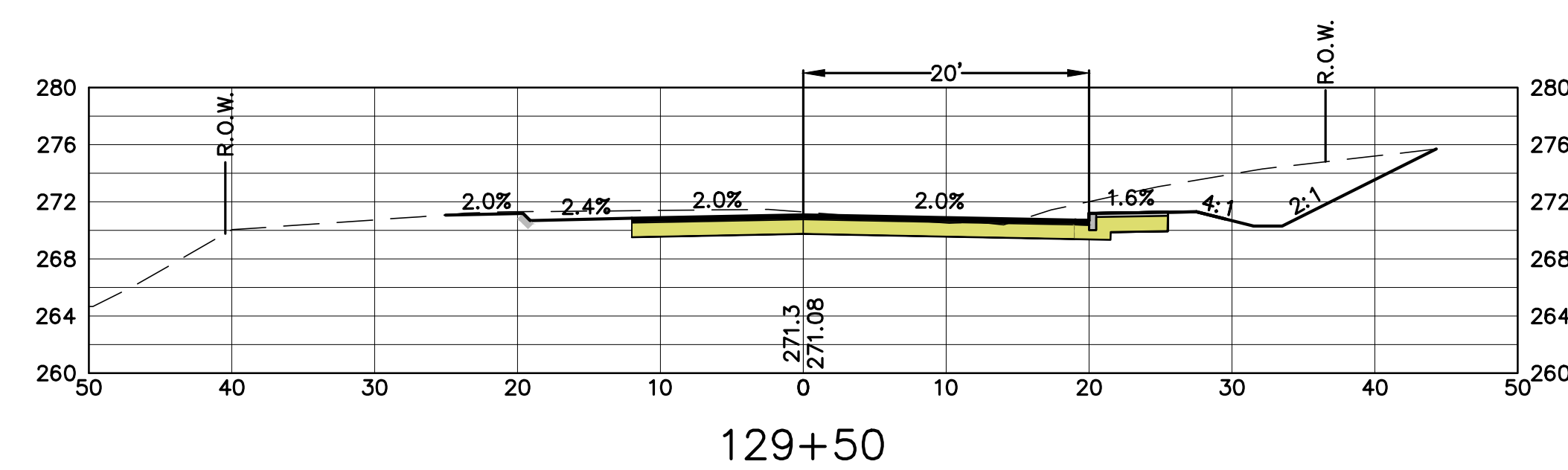
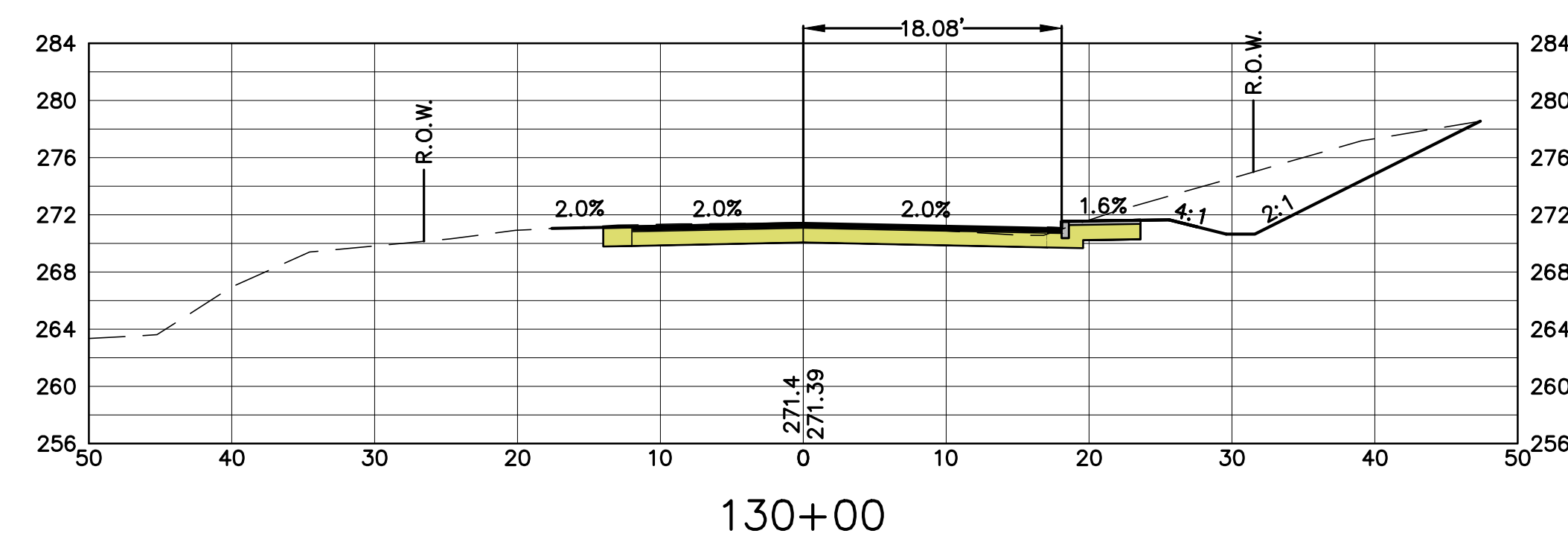
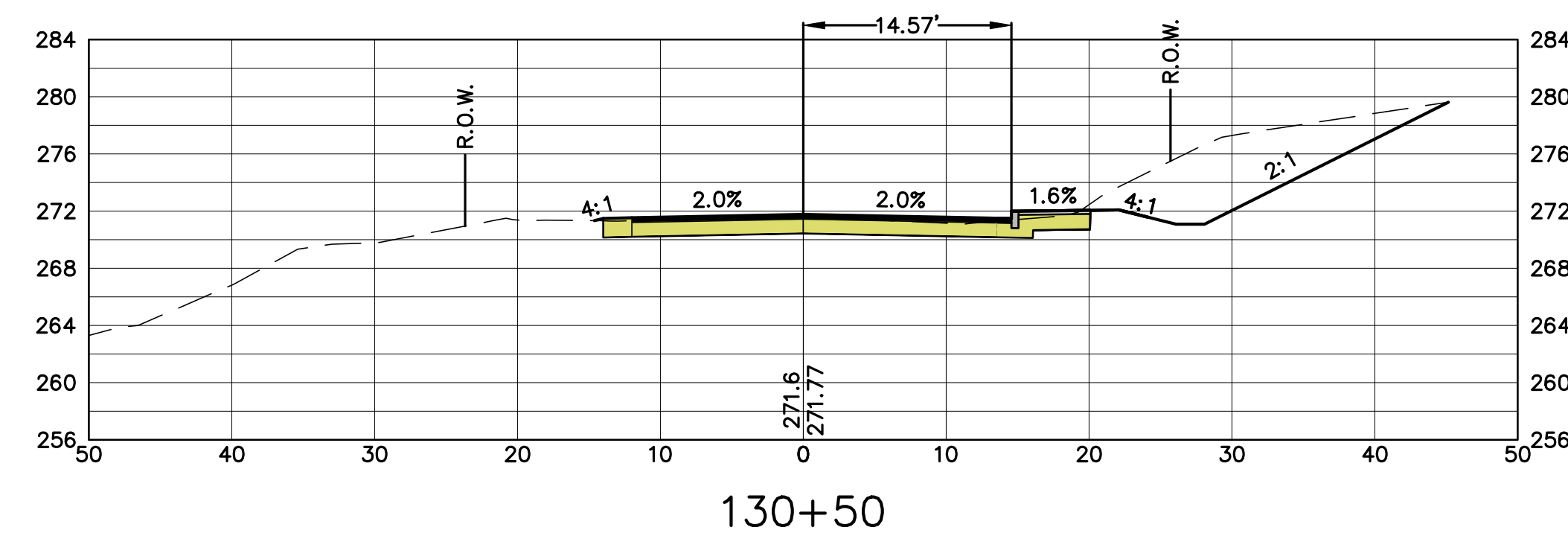
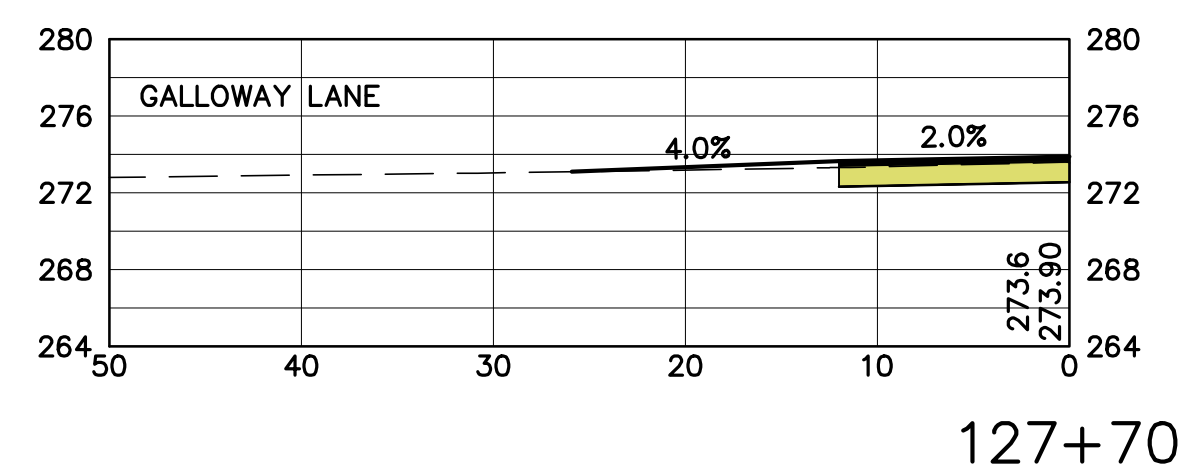
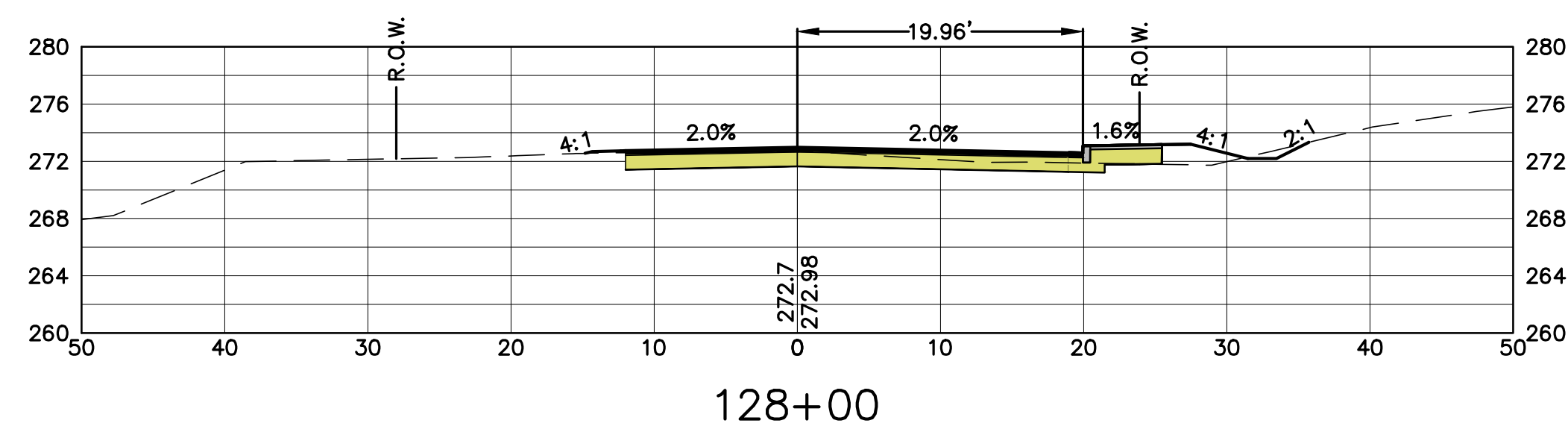
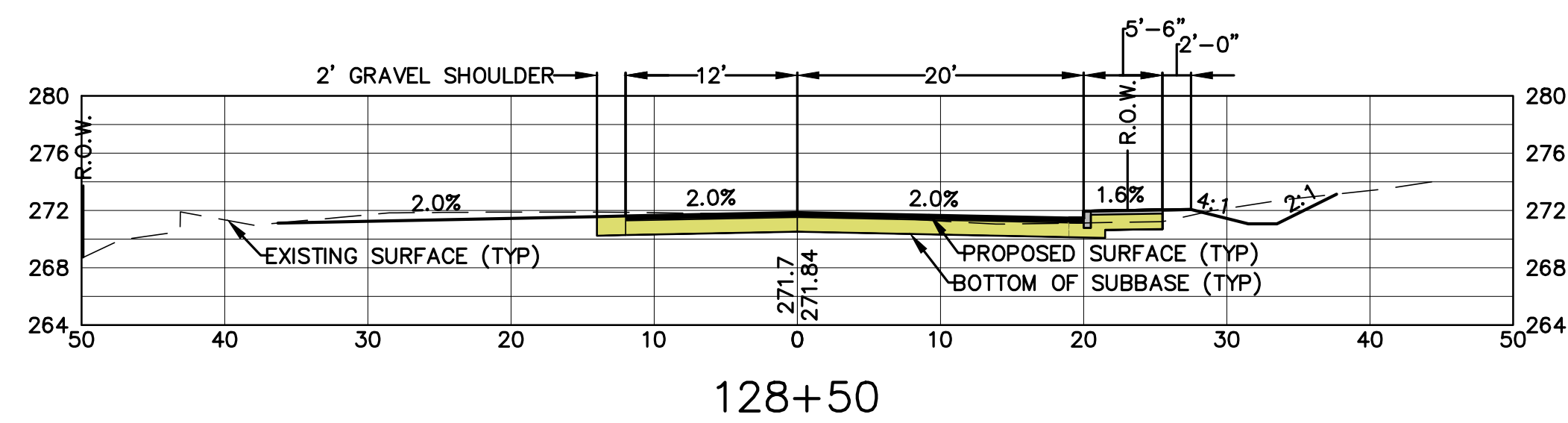
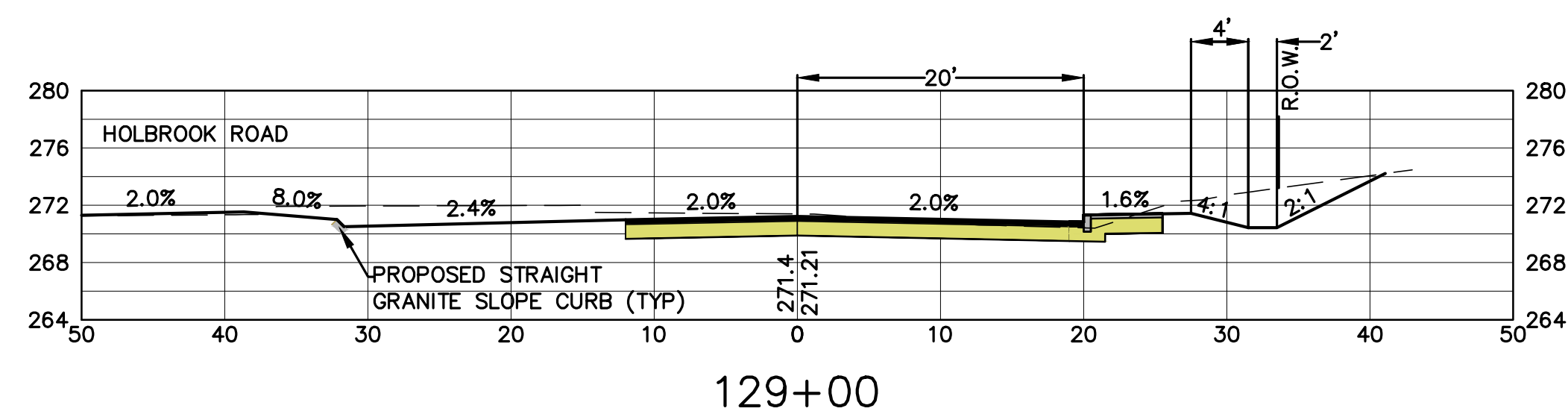
OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

SHEET: 31 OF 62	SCALE: AS SHOWN	DATE: MAY 7, 2015	PROJ. 77-2015
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NO.	DATE	REVISION DESCRIPTION
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OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE			PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110		OLD BEDFORD ROAD CROSS SECTIONS 124+00 TO 127+50																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							</
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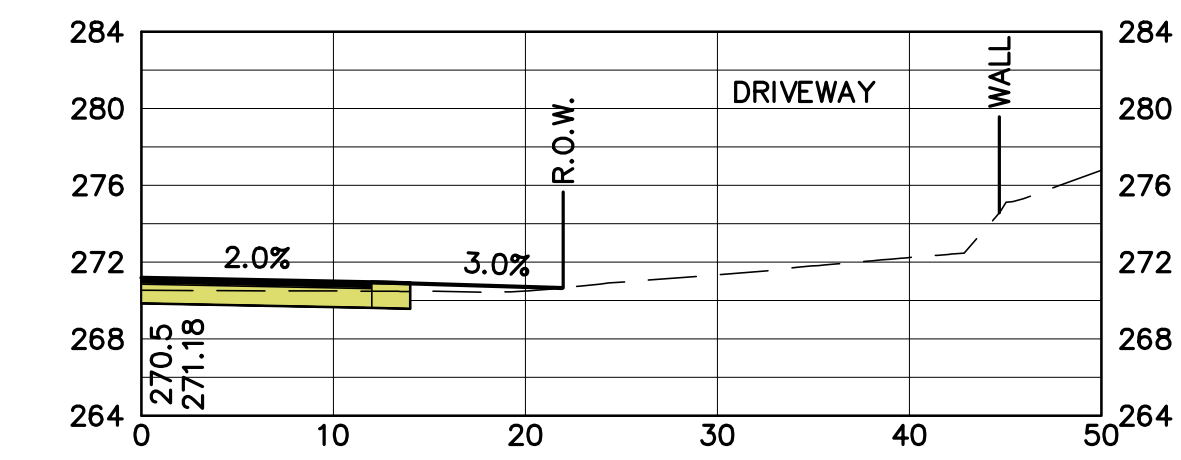
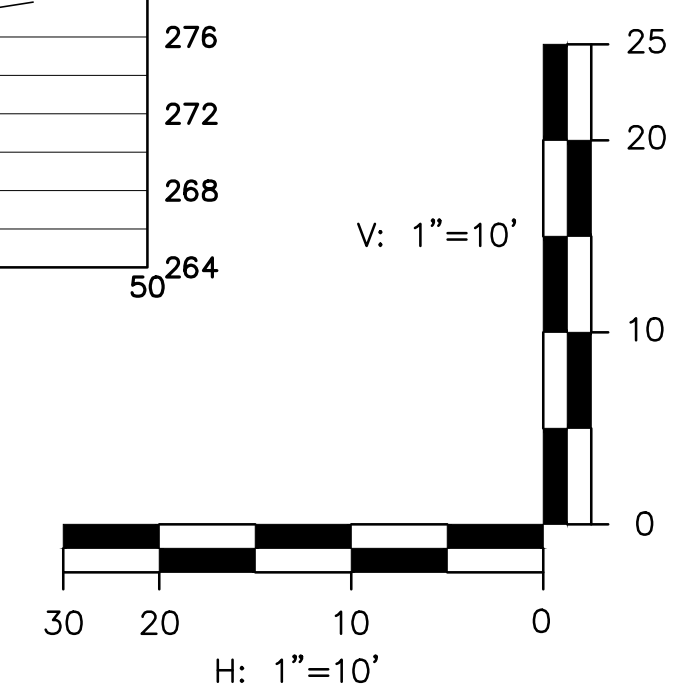
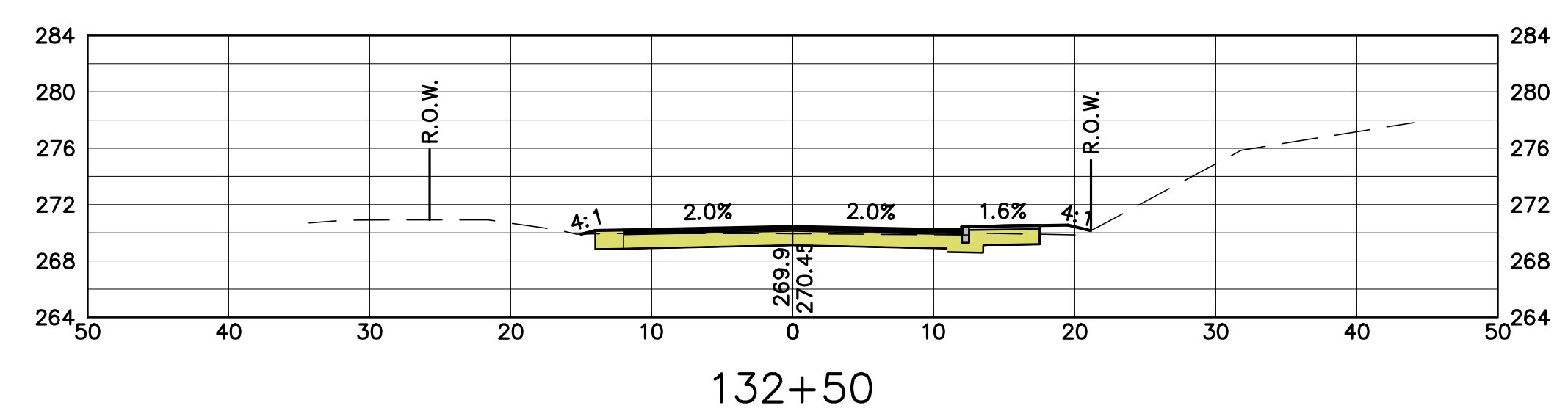
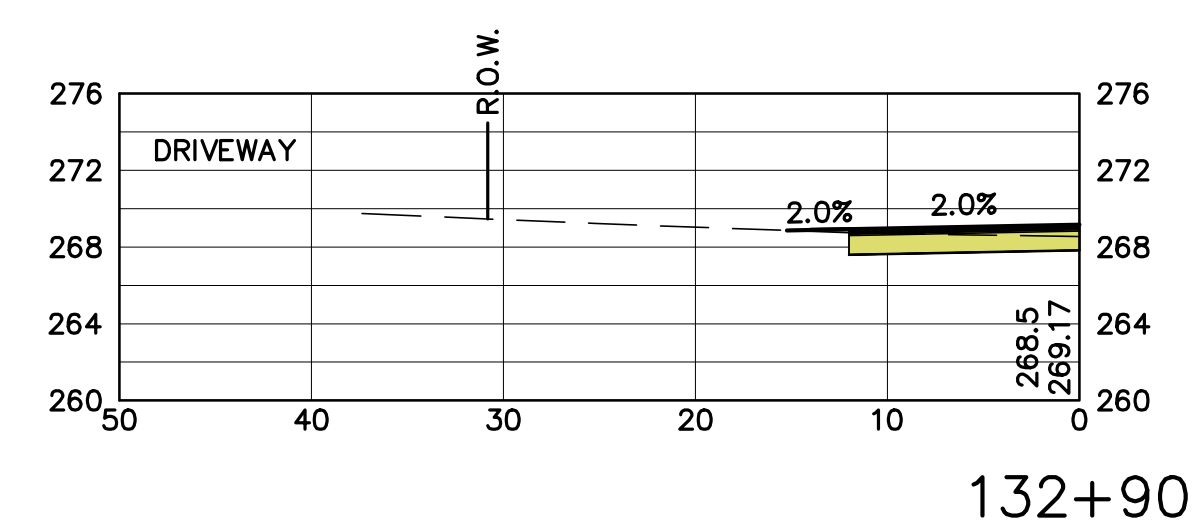
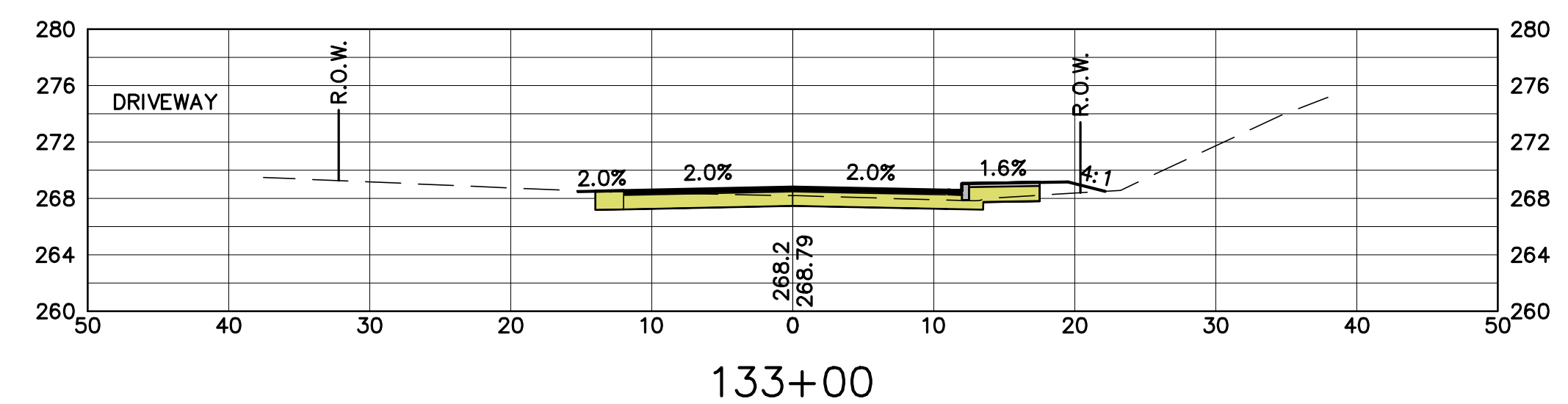
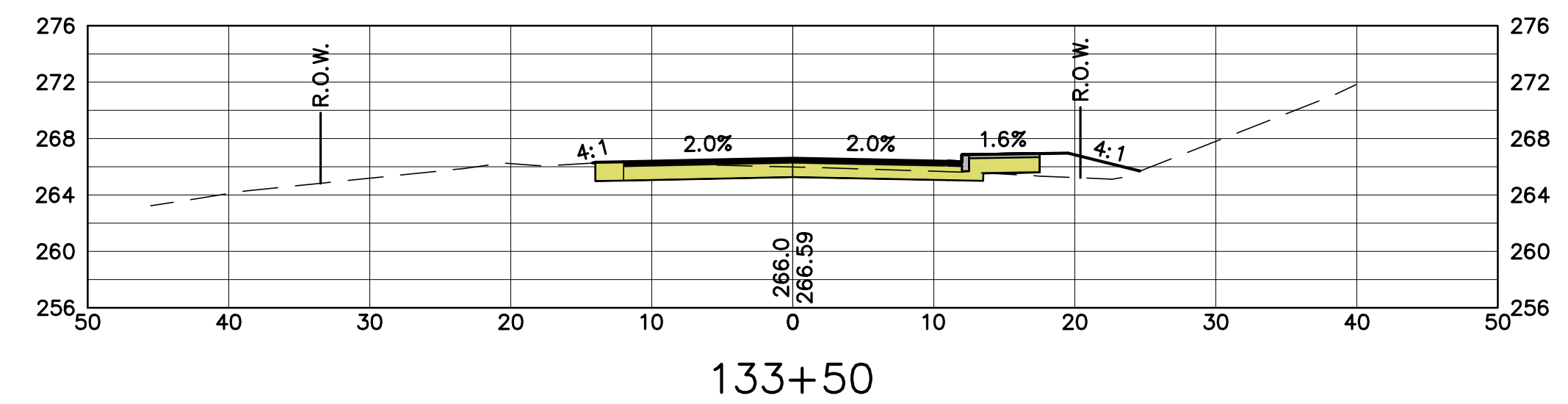
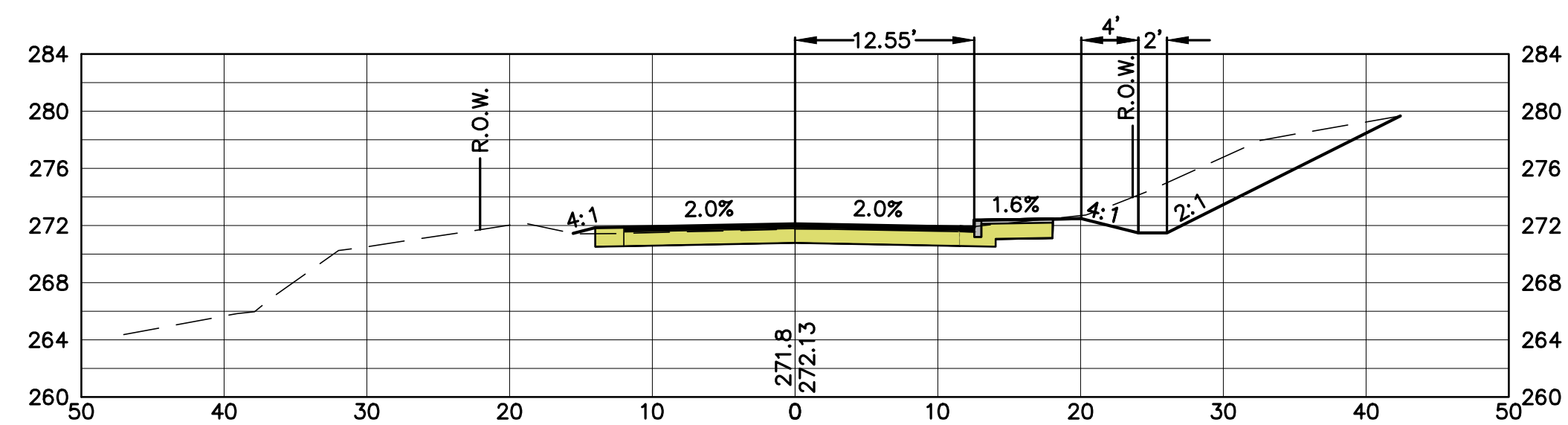
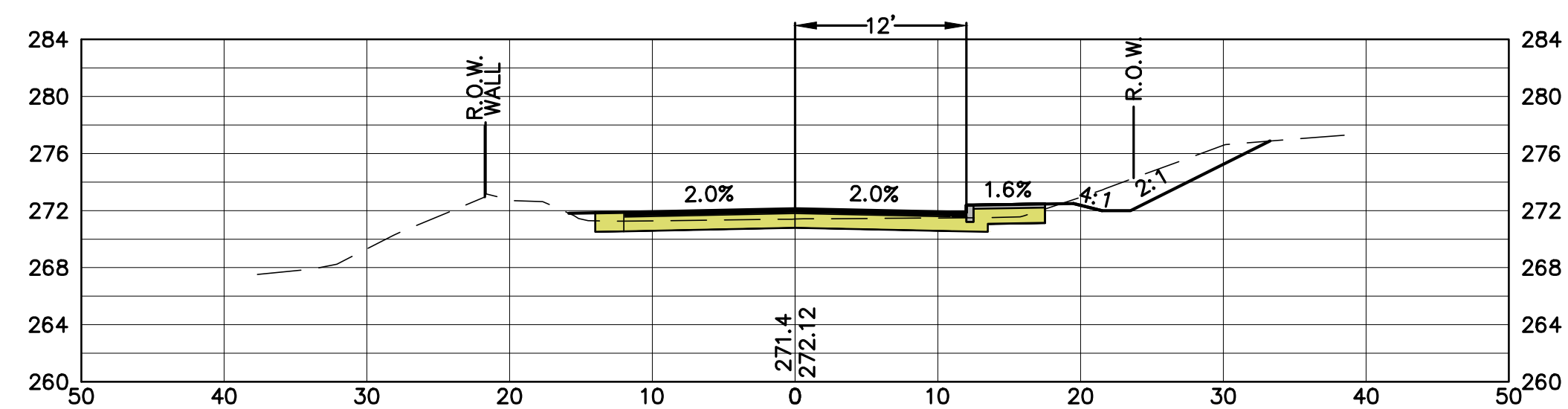
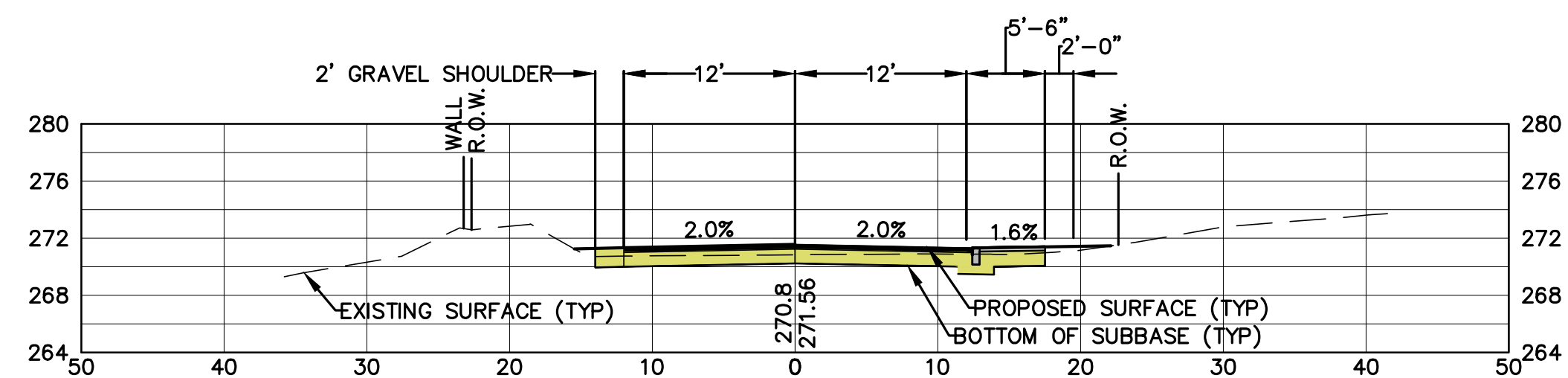
OLD BEDFORD ROAD
CROSS SECTIONS
127+70 TO 130+50

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

HEET: 33 OF 62	SCALE: AS SHOWN	DATE: MAY 7, 2015	PROJ. 77-2015
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NO.	DATE	REVISION DESCRIPTION
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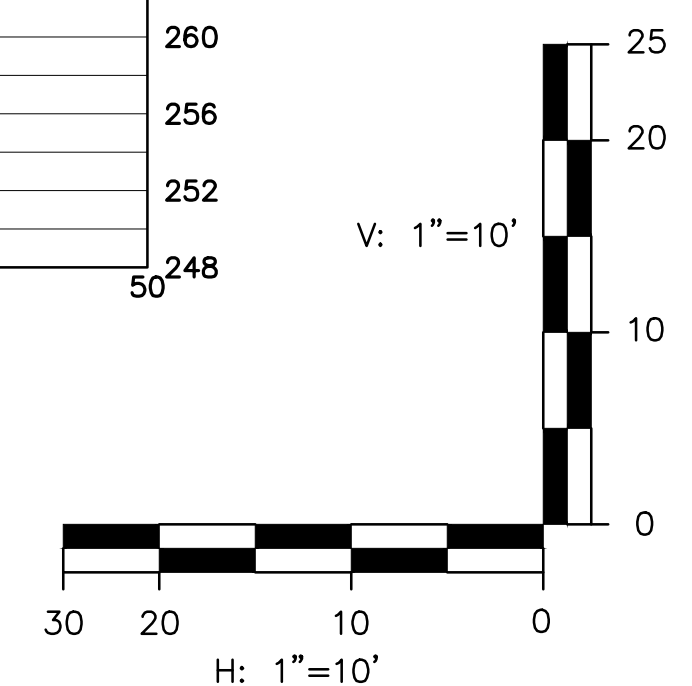
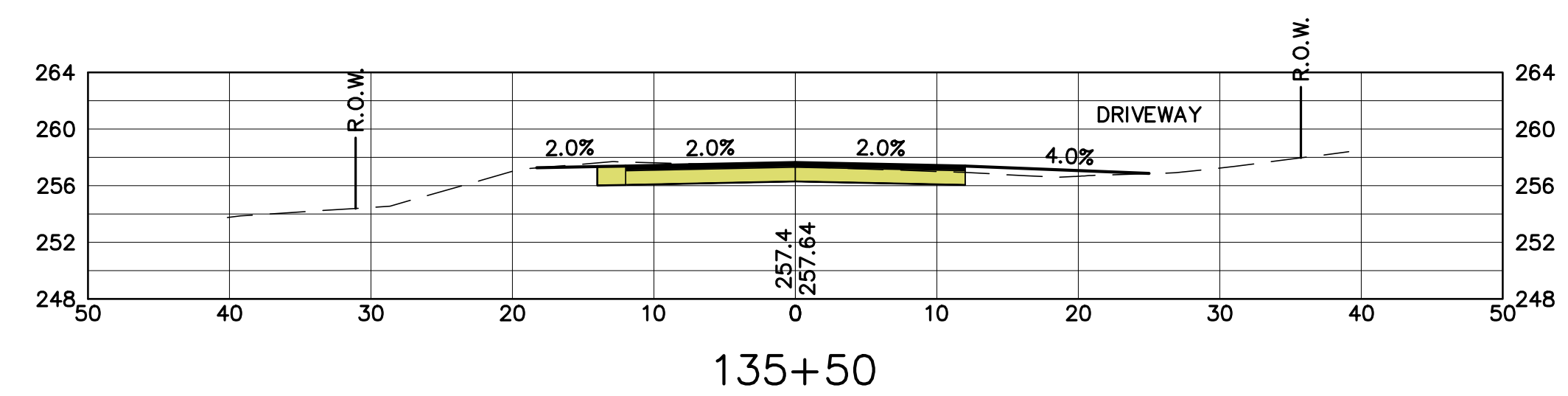
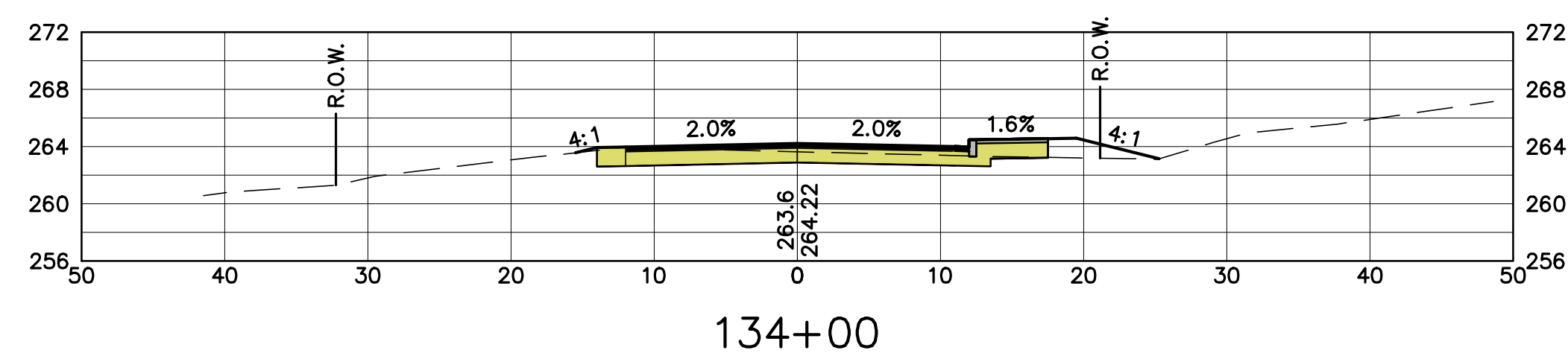
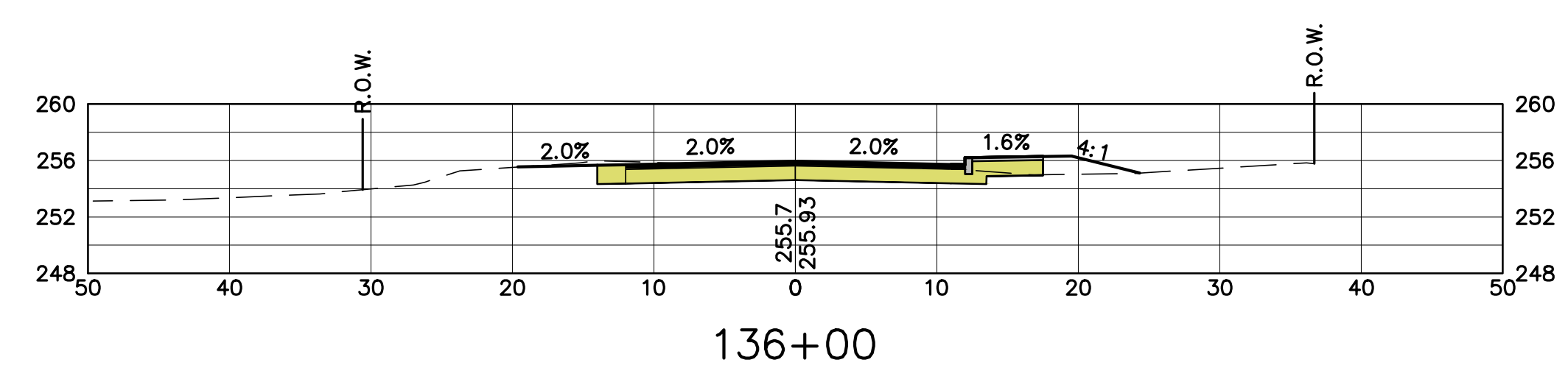
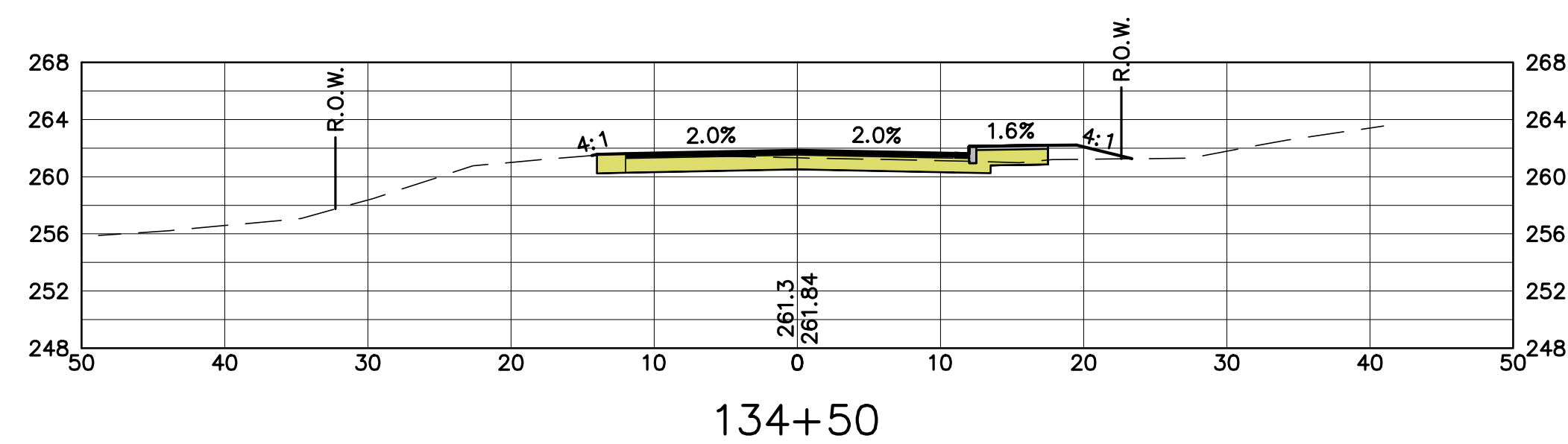
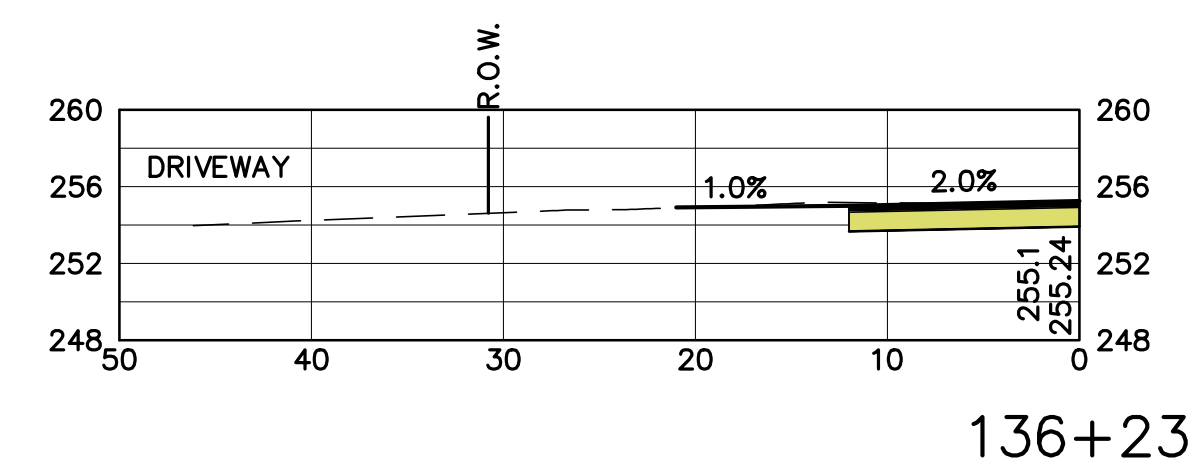
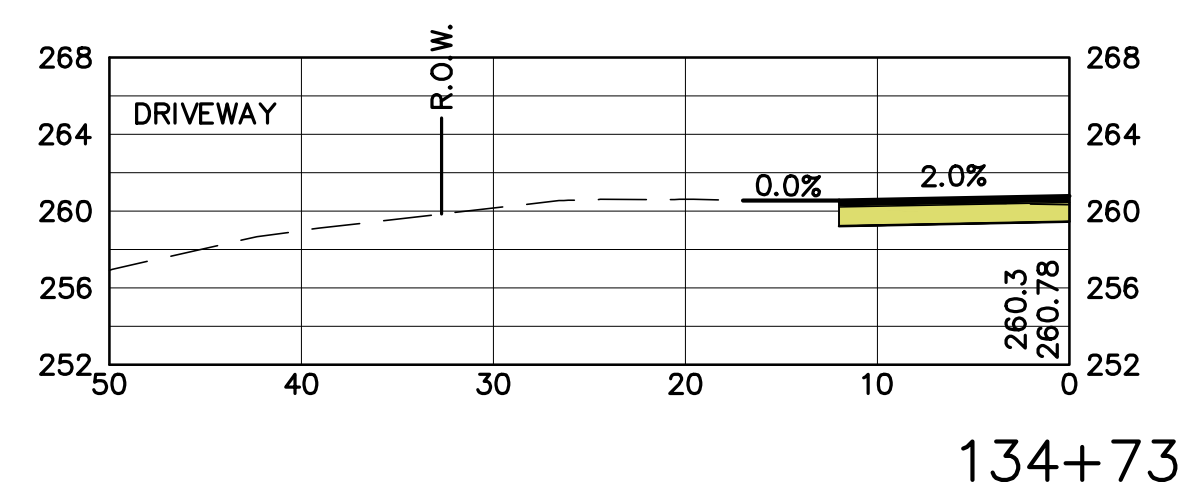
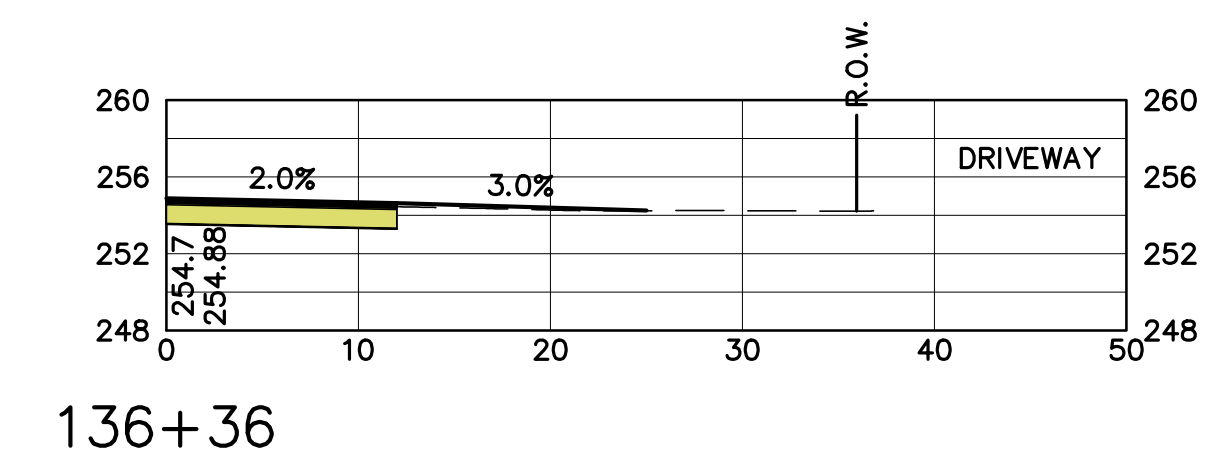
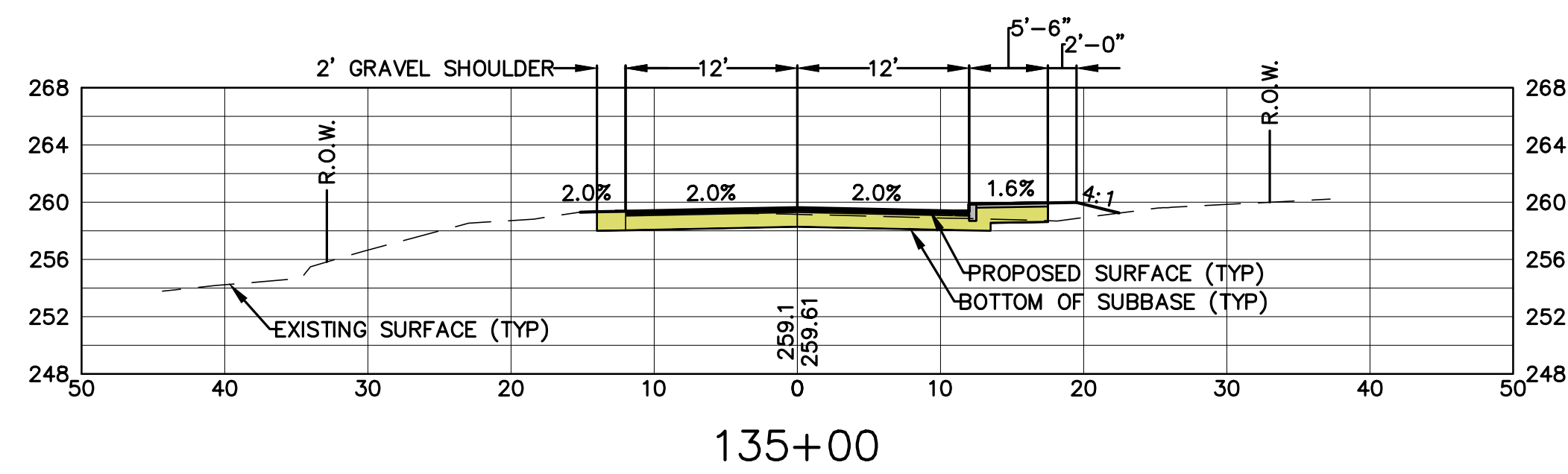
 $132+20$ 

OLD BEDFORD ROAD
CROSS SECTIONS
131+00 TO 133+50

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

SHEET: 34	OF 62	SCALE: AS SHOWN	DATE: MAY 7, 2015	PROJ. 77-2015
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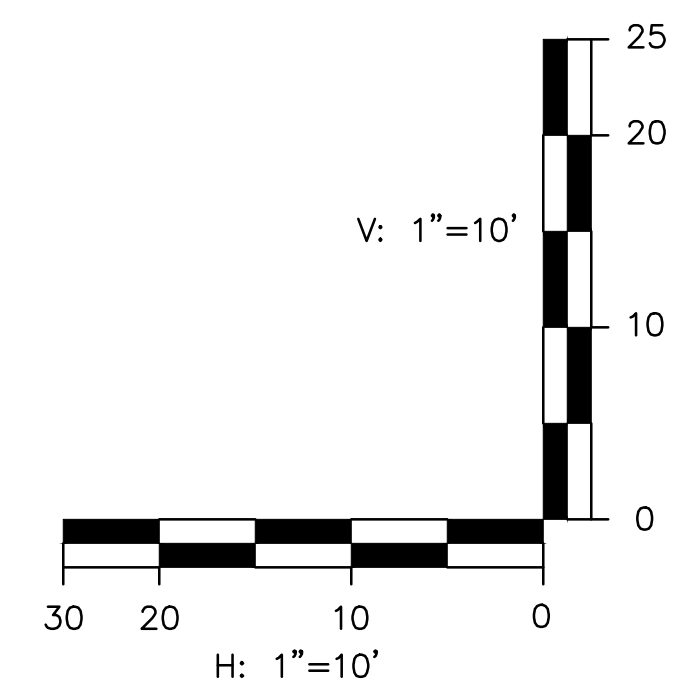
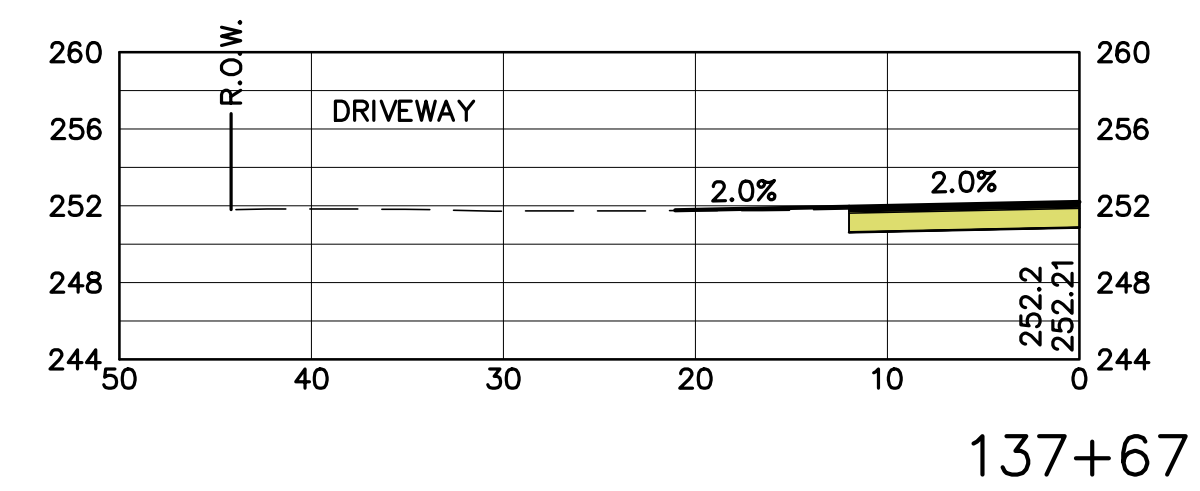
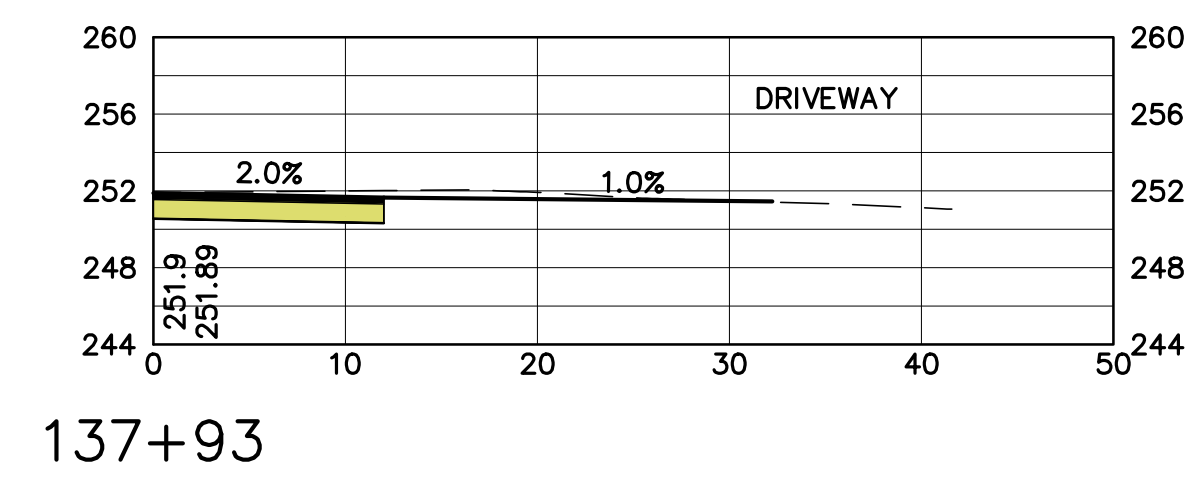
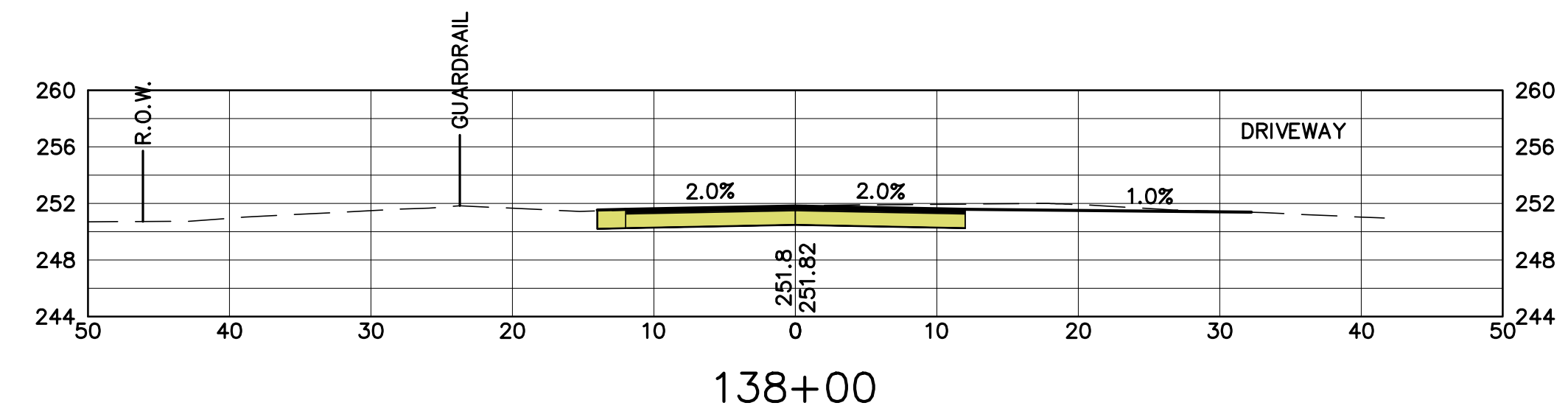
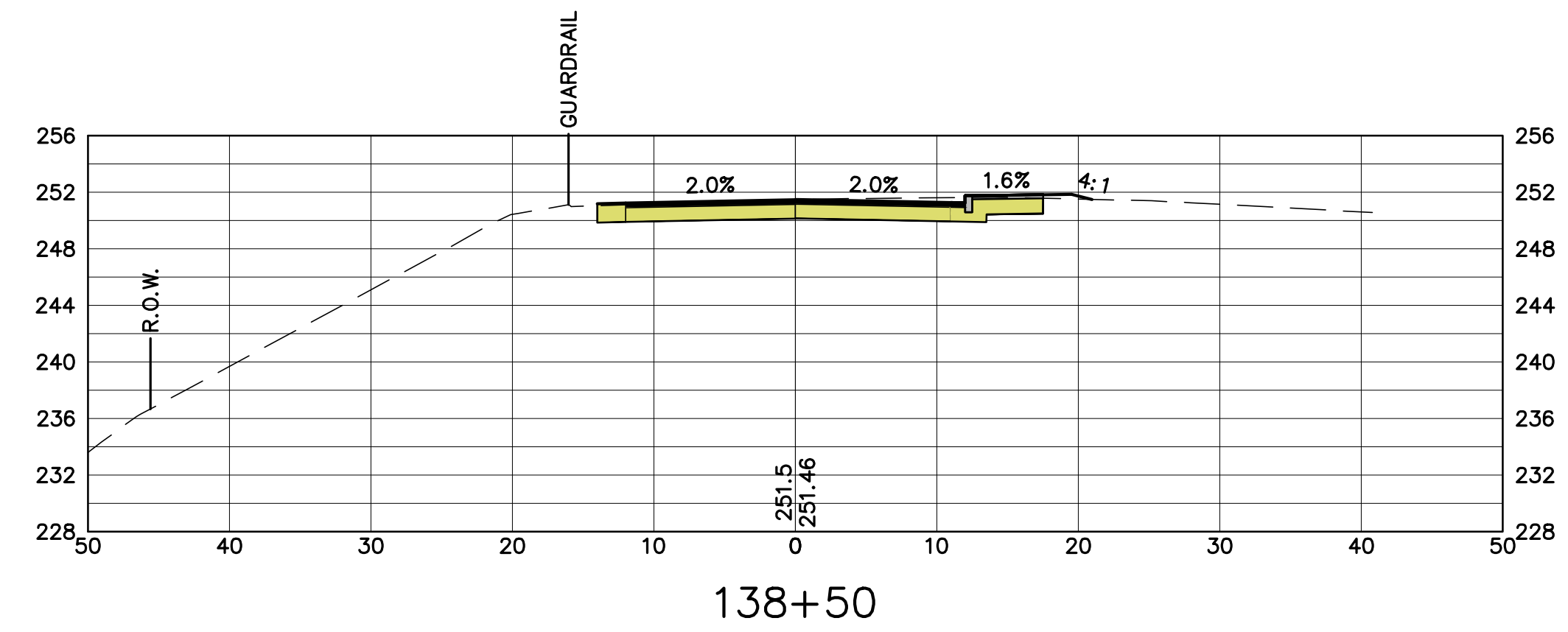
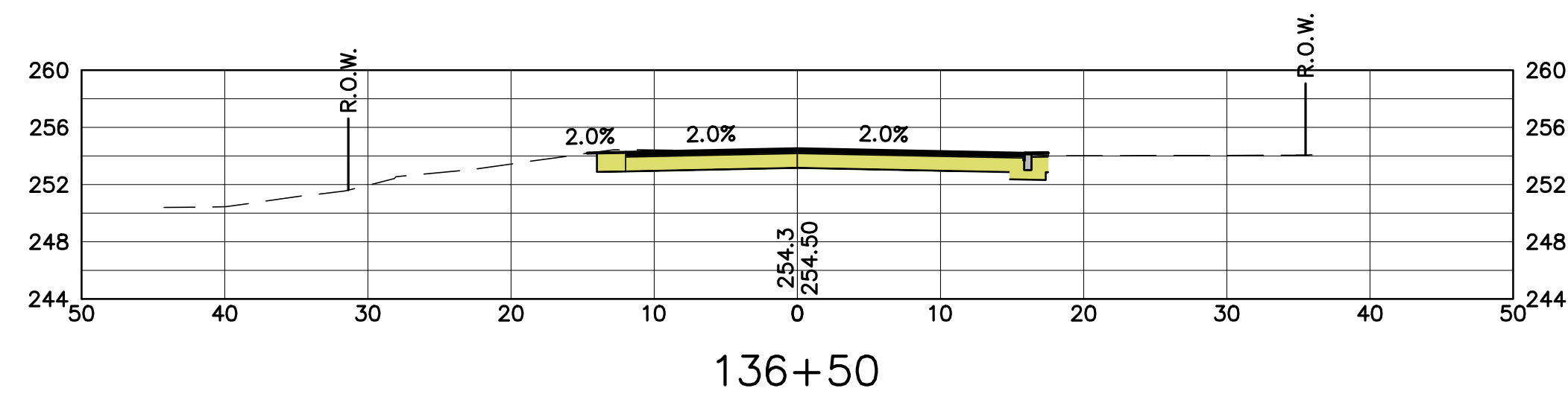
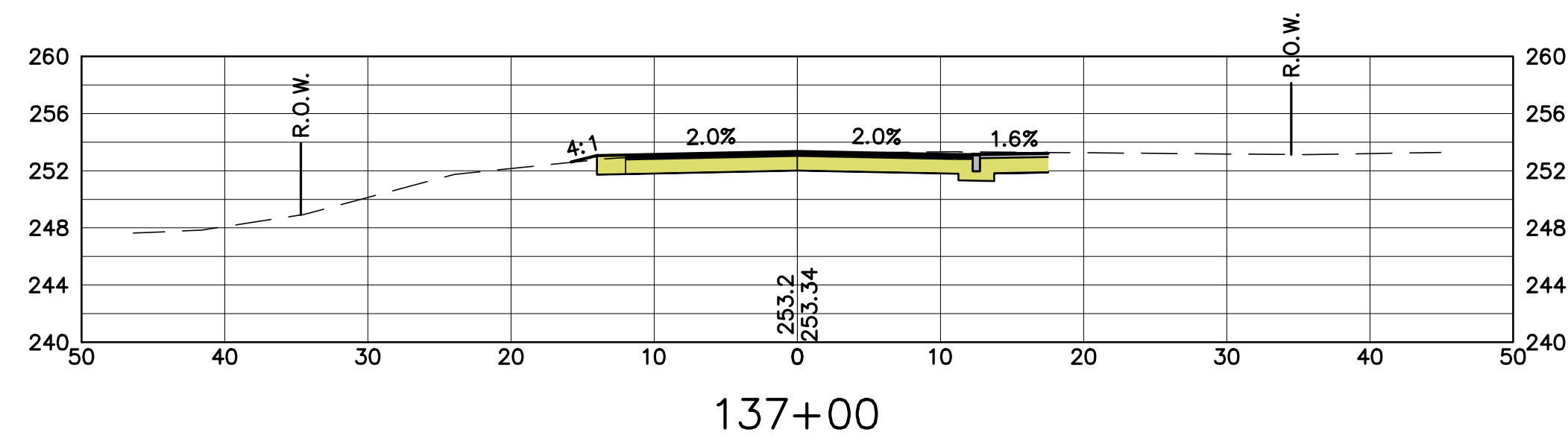
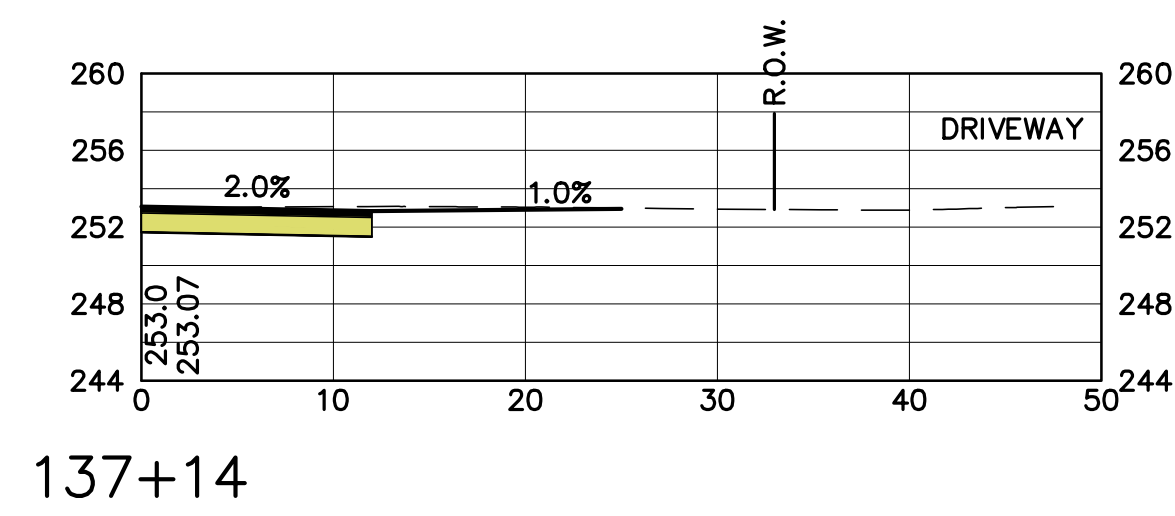
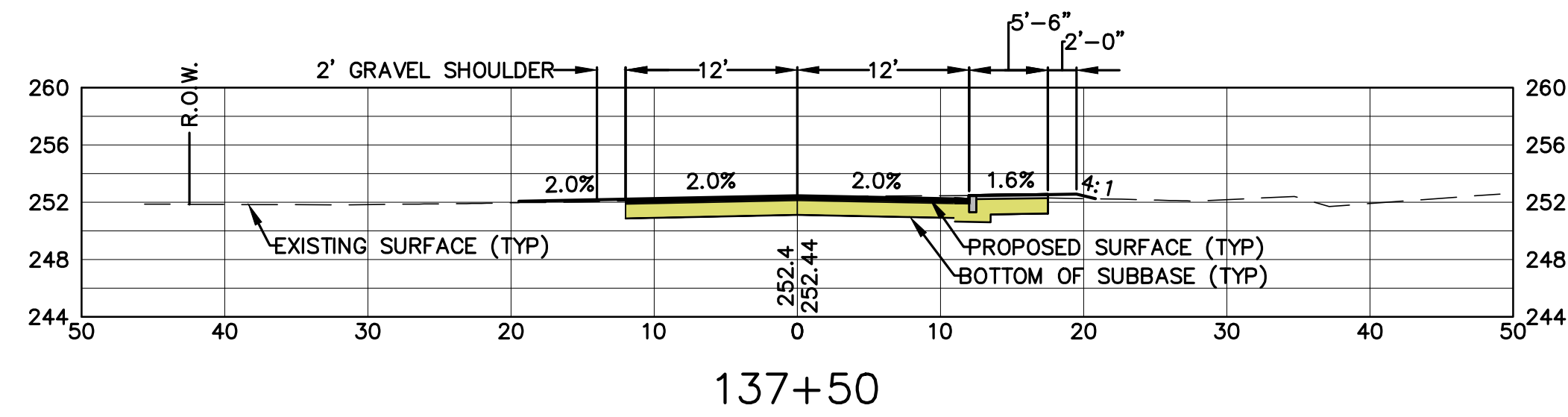


OLD BEDFORD ROAD
CROSS SECTIONS
134+00 TO 136+36

DATE: MAY 7, 2015	PROJ. 77-2015
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OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

SHEET: 35 OF 62	SCALE: AS SHOWN	DATE: MAY 7, 2015	PROJ. 77-2015	NO.	DATE	REVISION DESCRIPTION



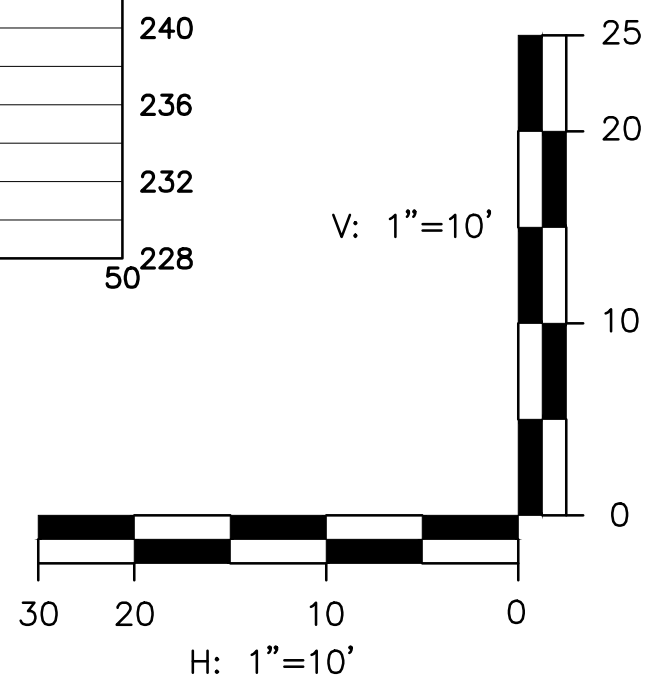
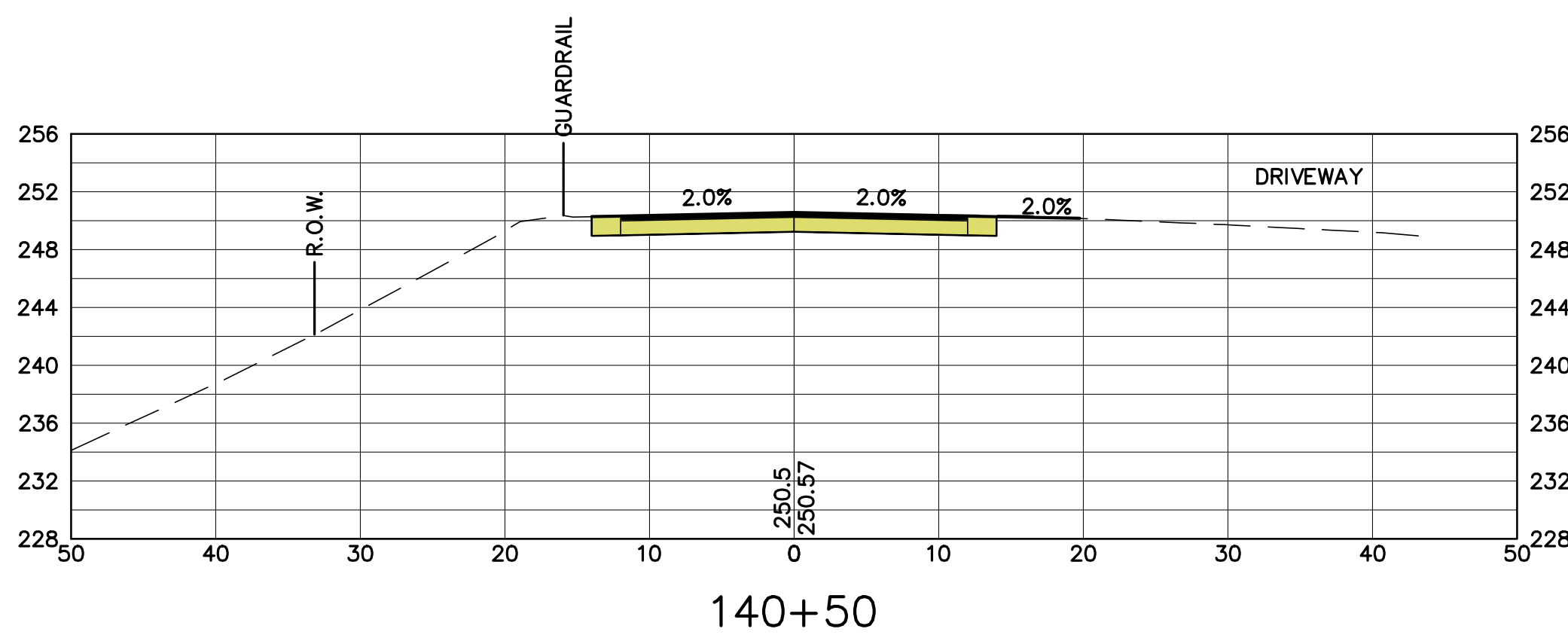
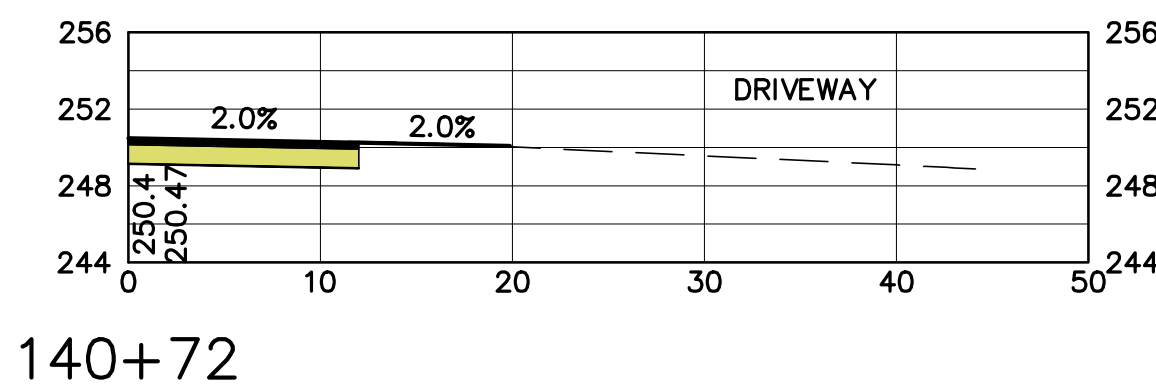
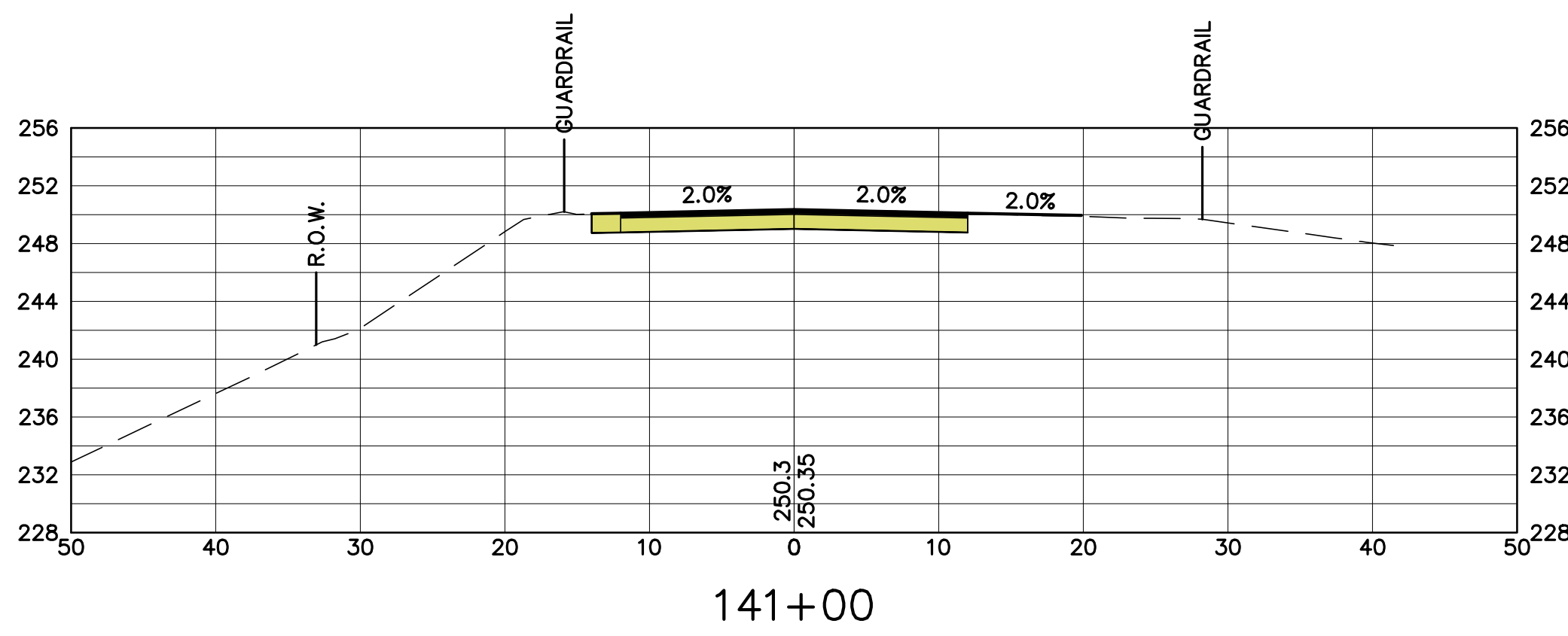
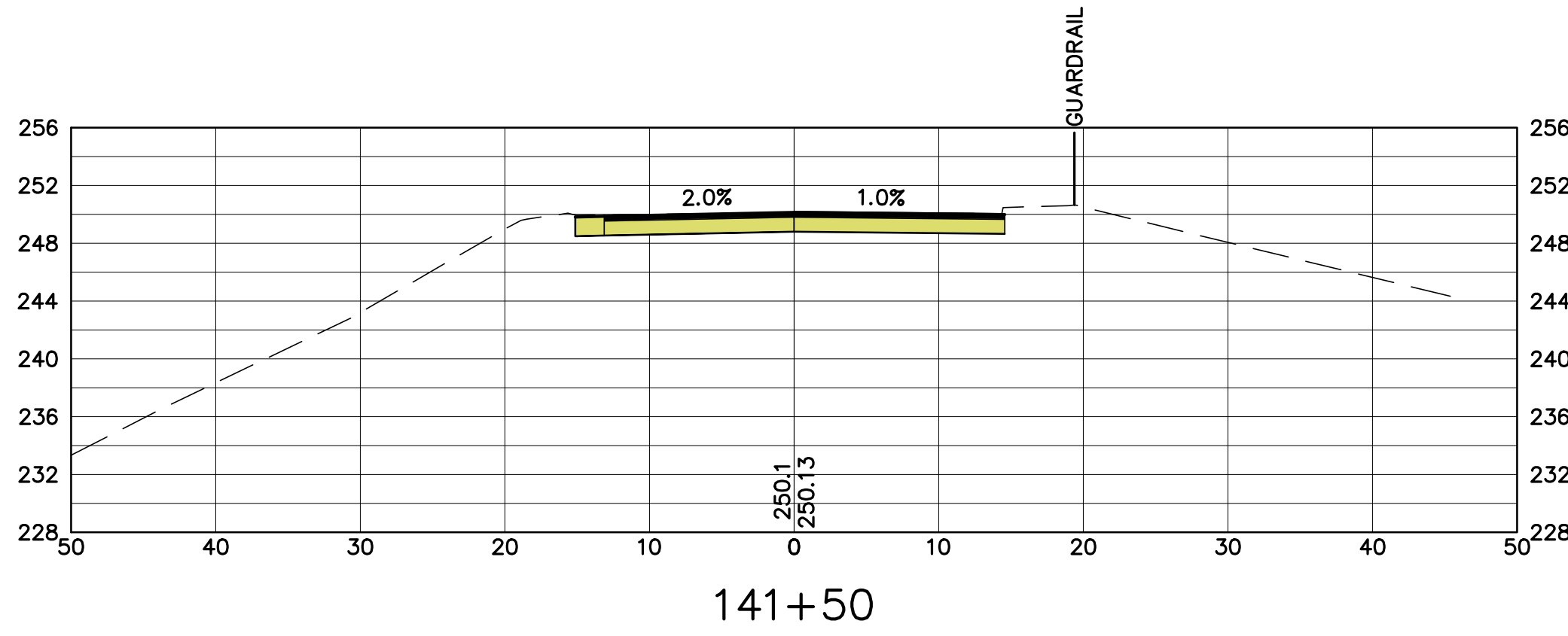
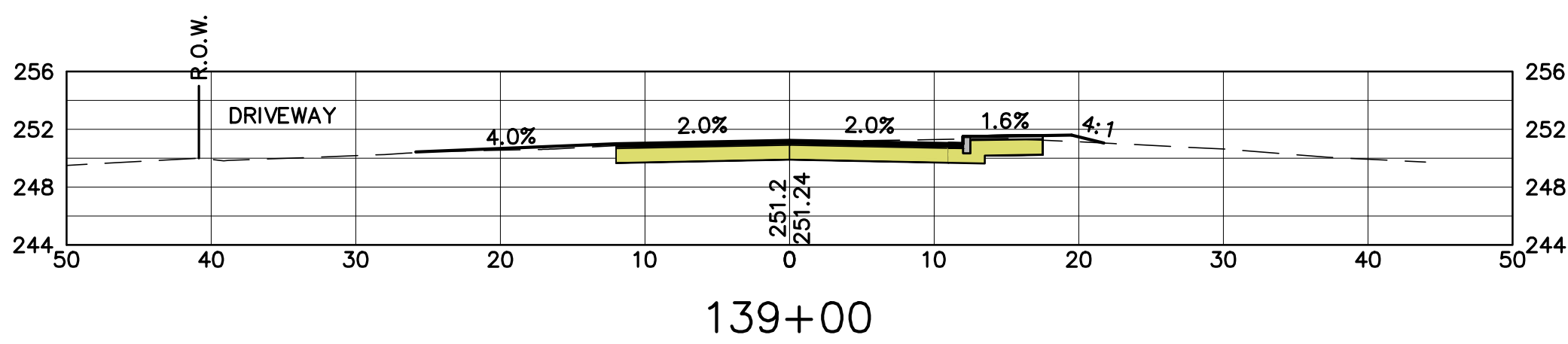
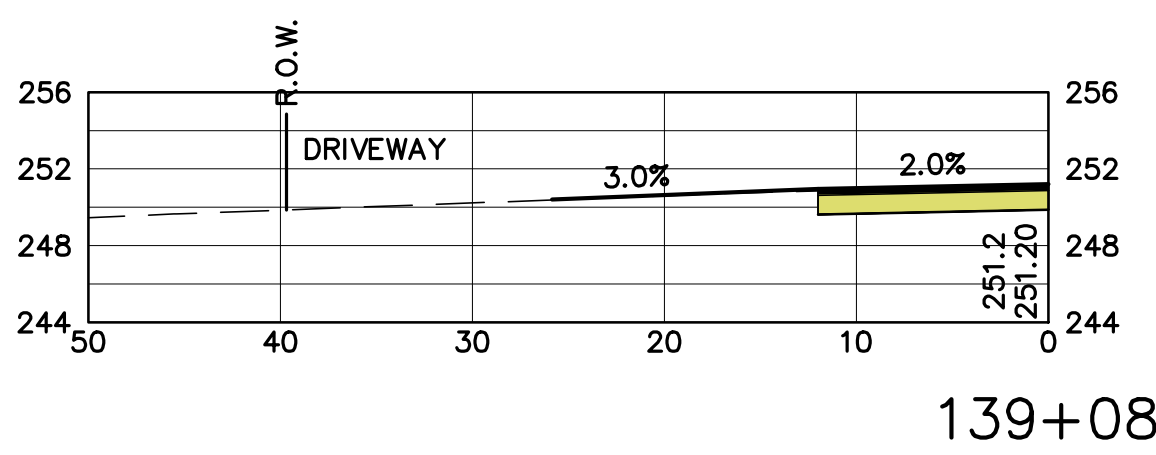
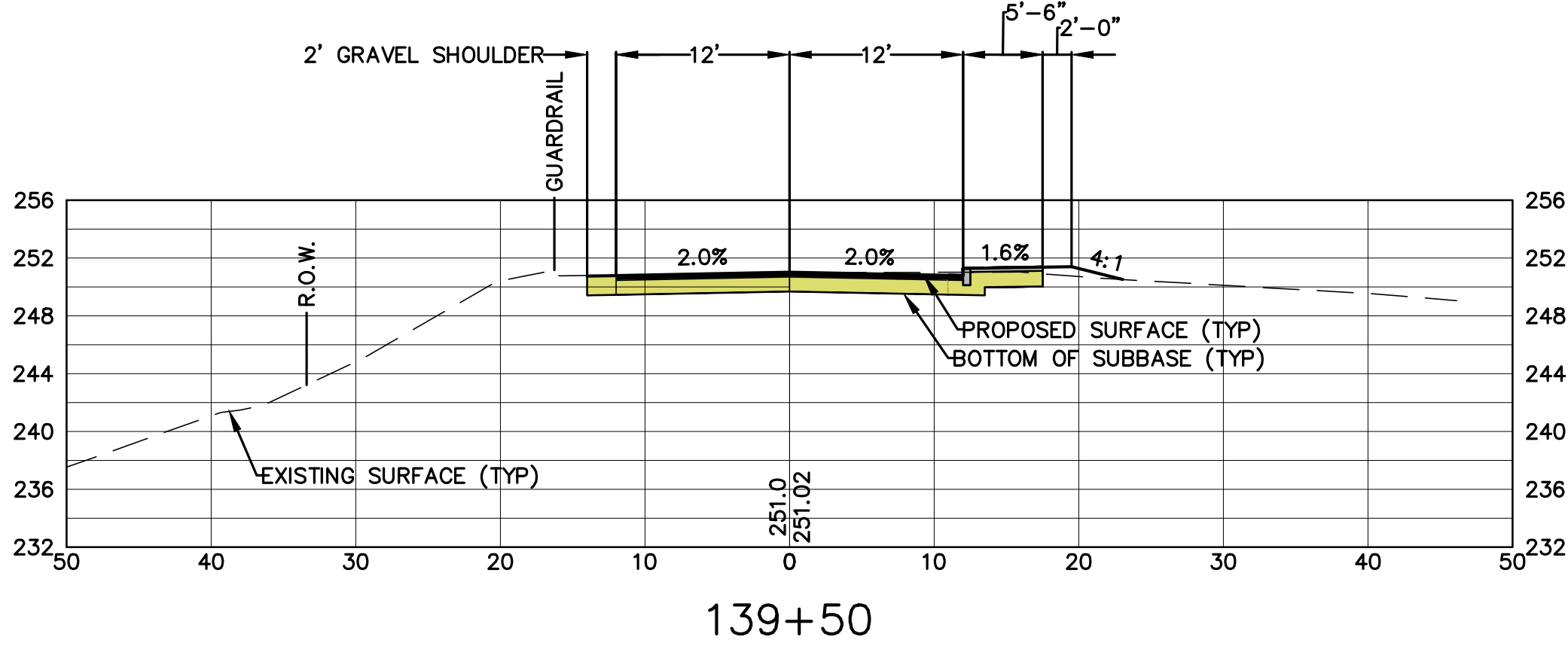
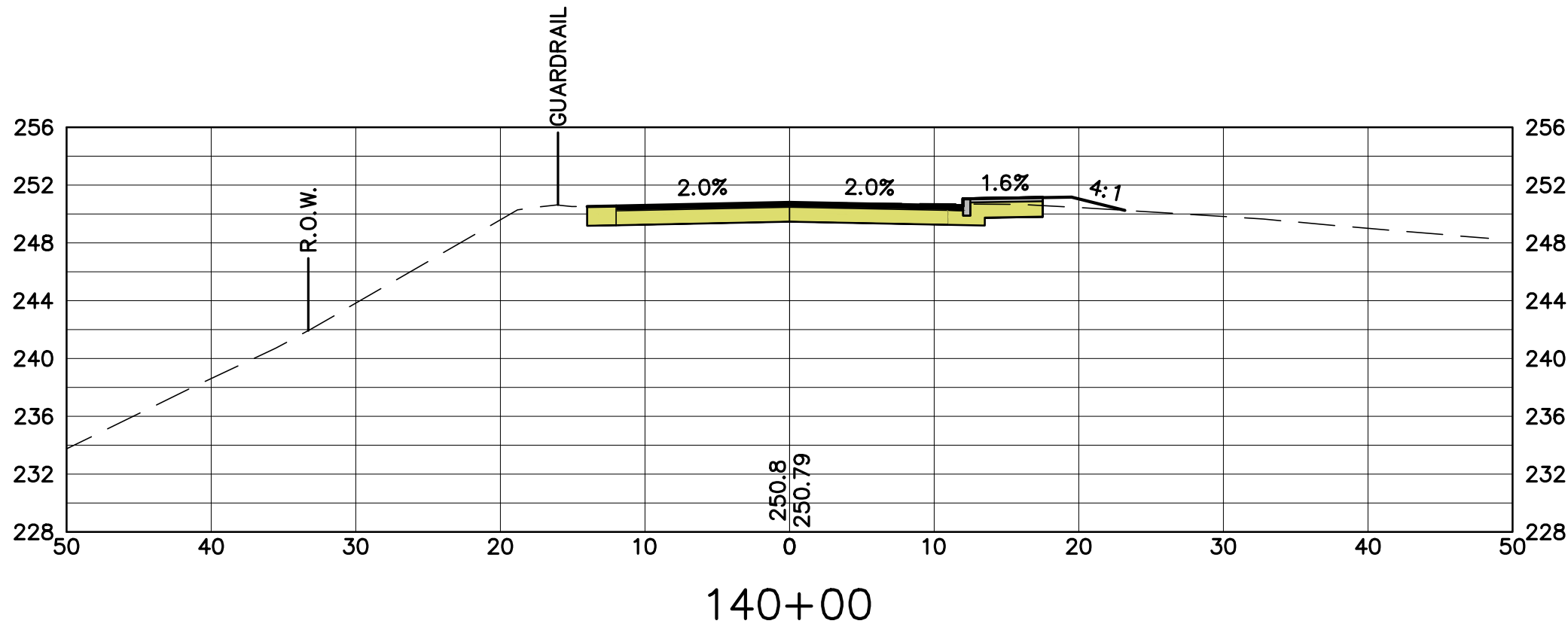
OLD BEDFORD ROAD
CROSS SECTIONS
136+50 TO 138+50

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

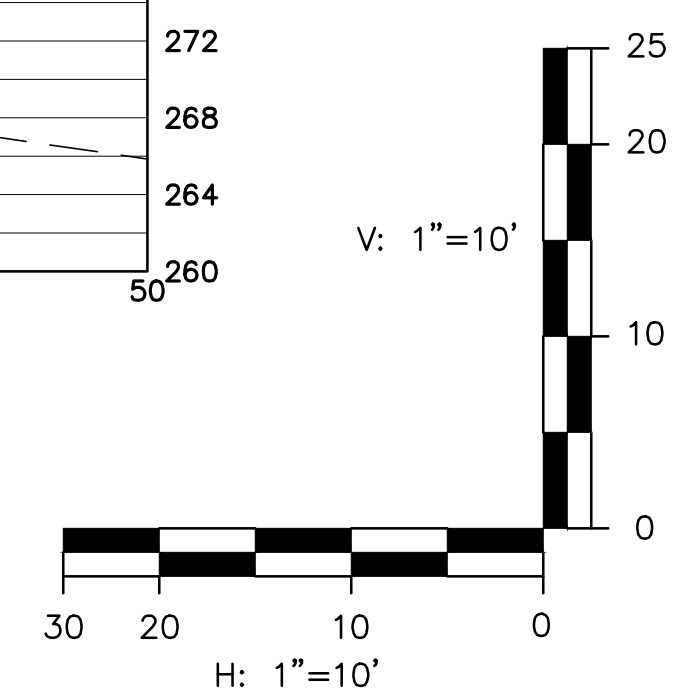
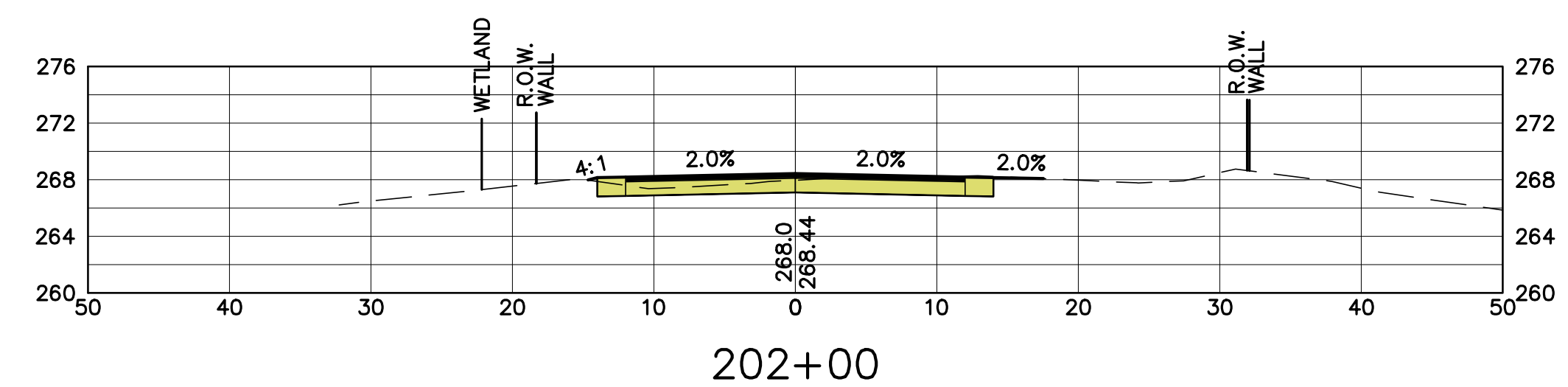
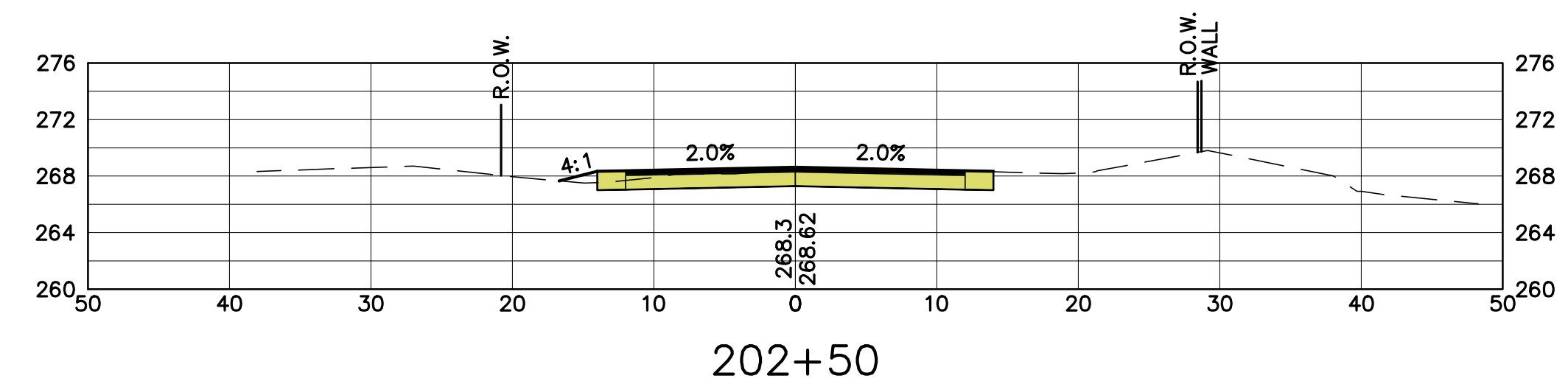
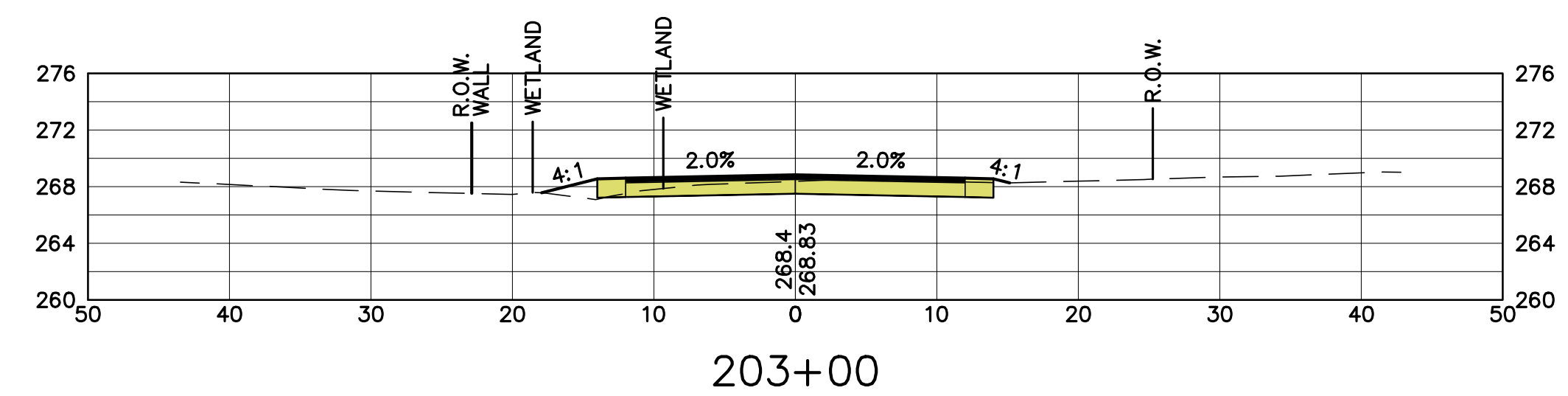
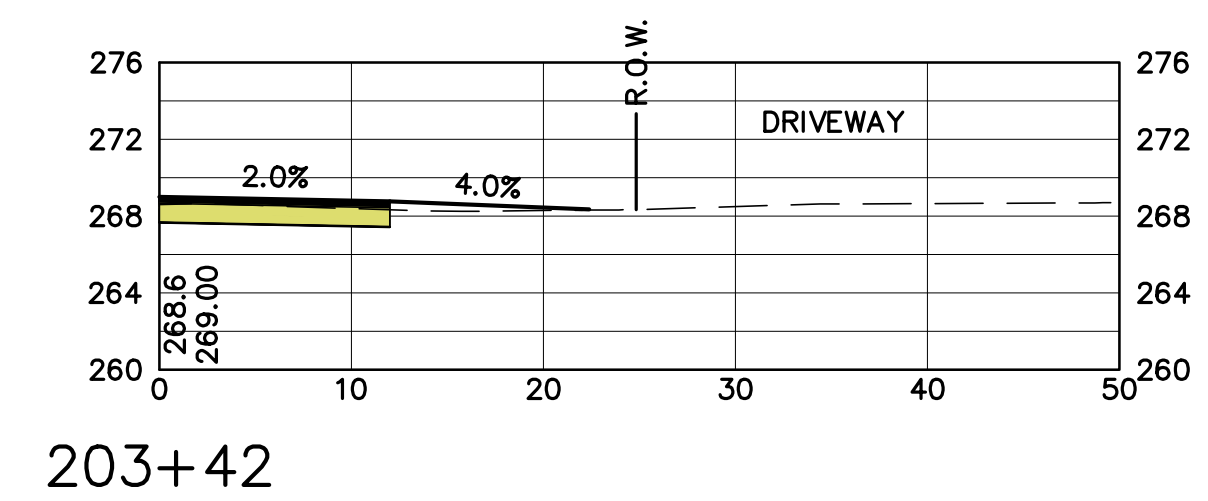
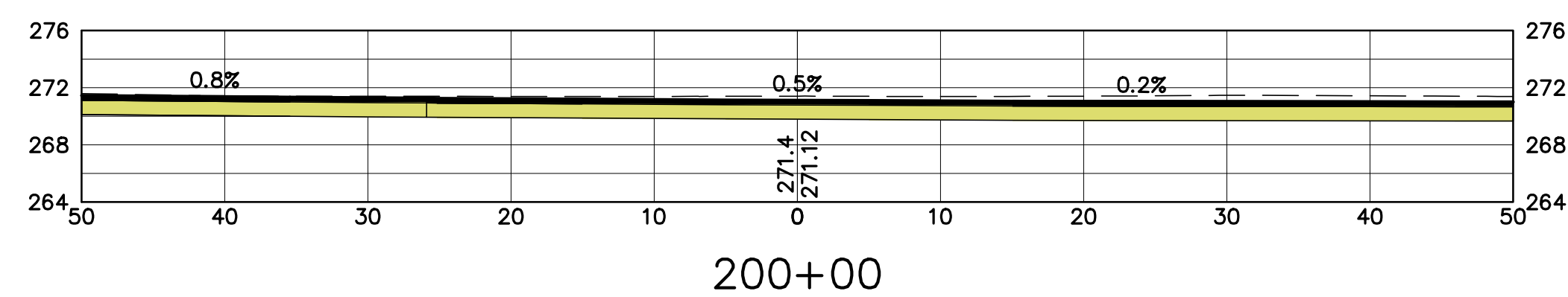
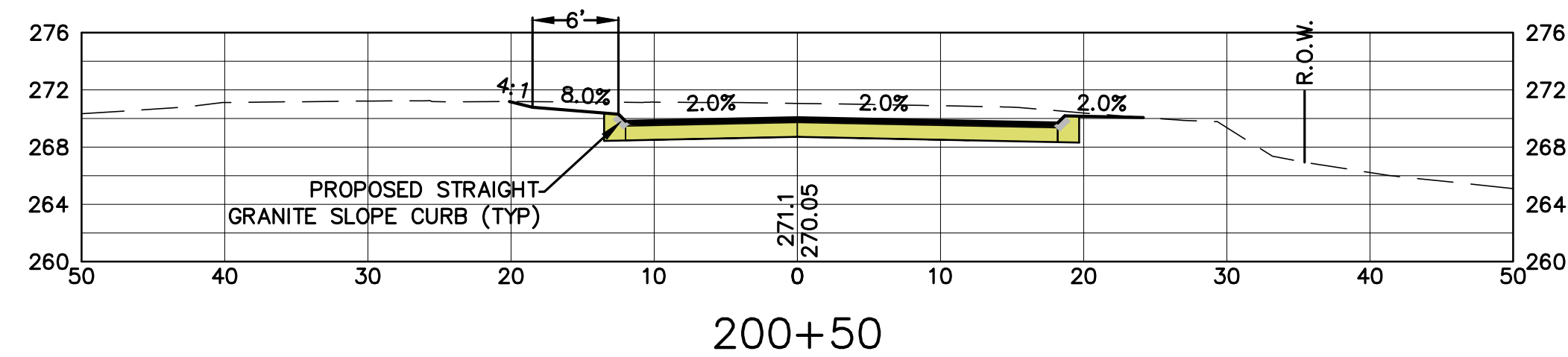
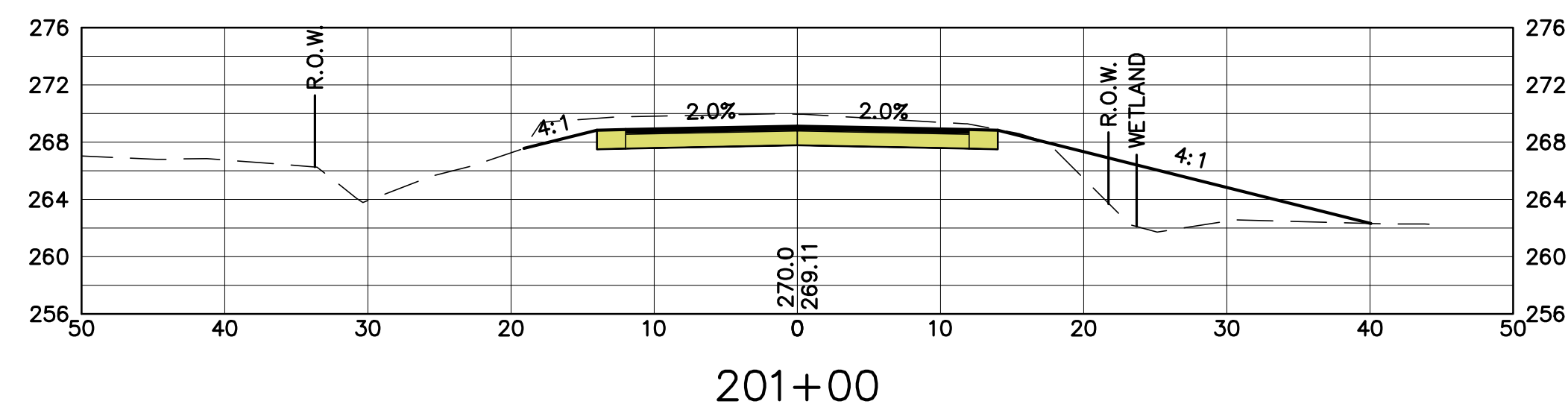
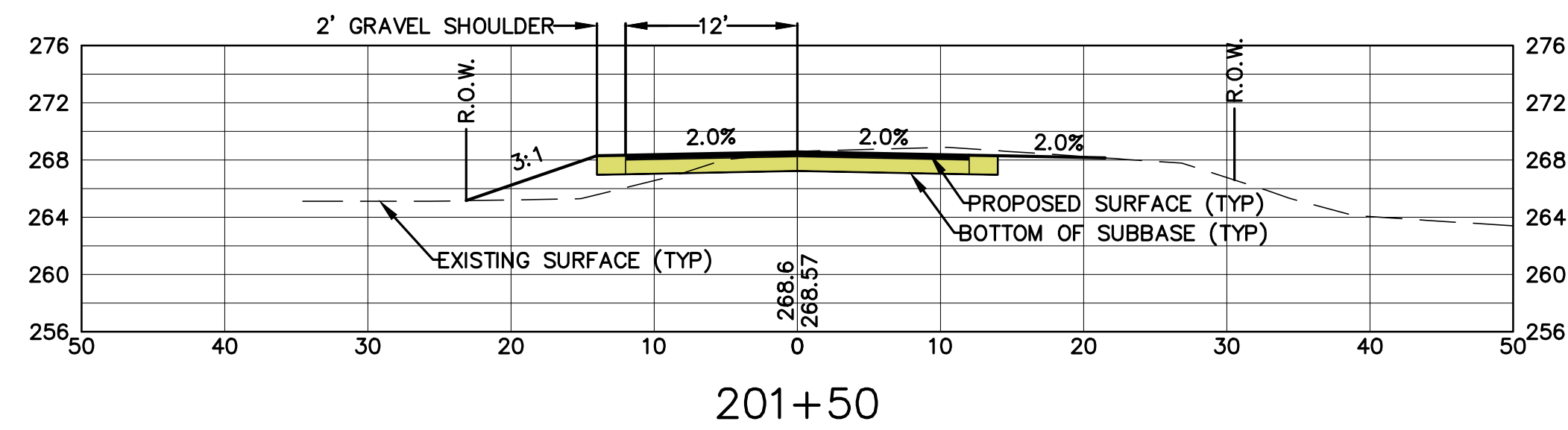
OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

SHEET: 36 OF 62	SCALE: AS SHOWN	DATE: MAY 7, 2015	PROJ. 77-2015
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NO.	DATE	REVISION DESCRIPTION
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OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE			PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110		OLD BEDFORD ROAD CROSS SECTIONS 139+00 TO 141+50							
SHEET: 37 OF 62			SCALE: AS SHOWN		DATE: MAY 7, 2015		PROJ. 77-2015		NO.		DATE	



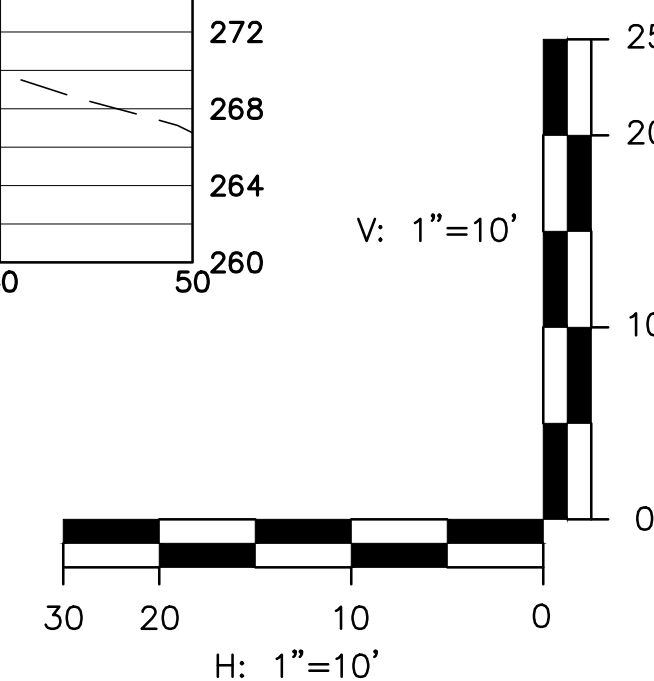
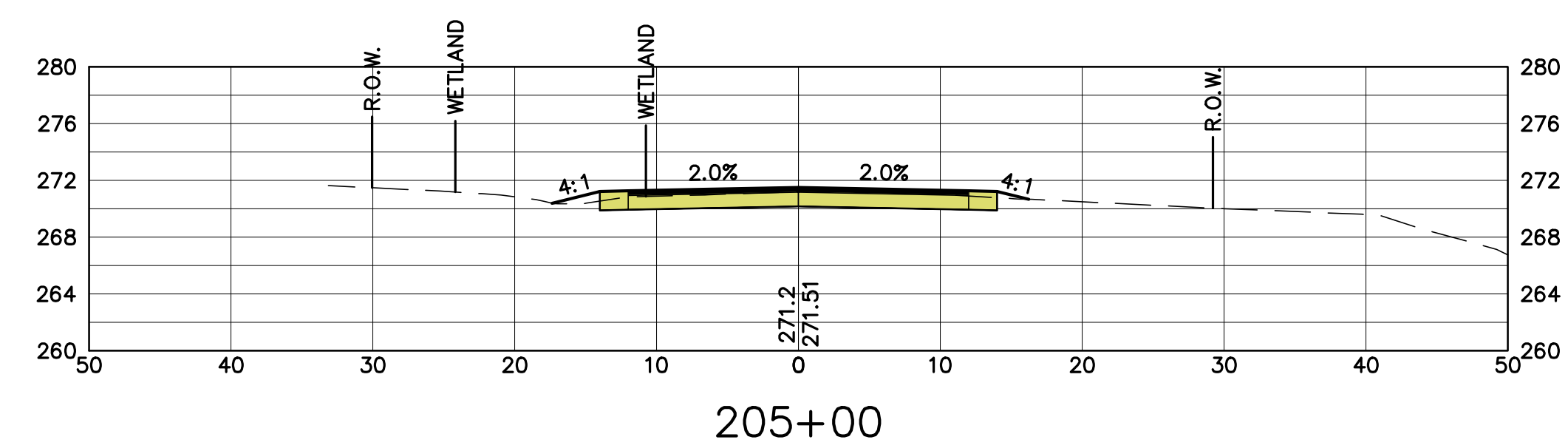
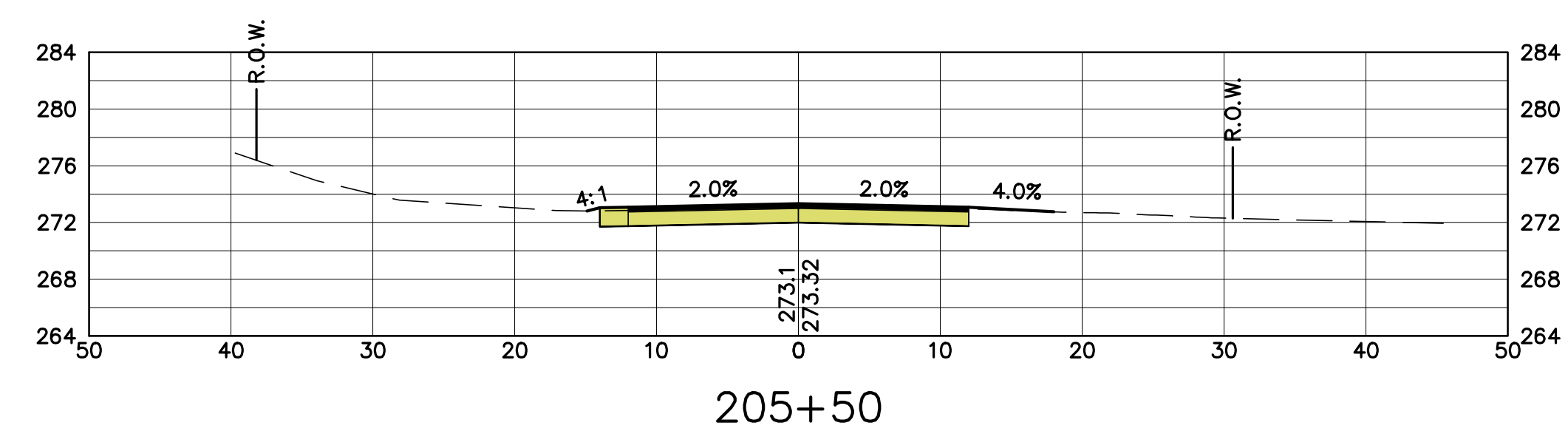
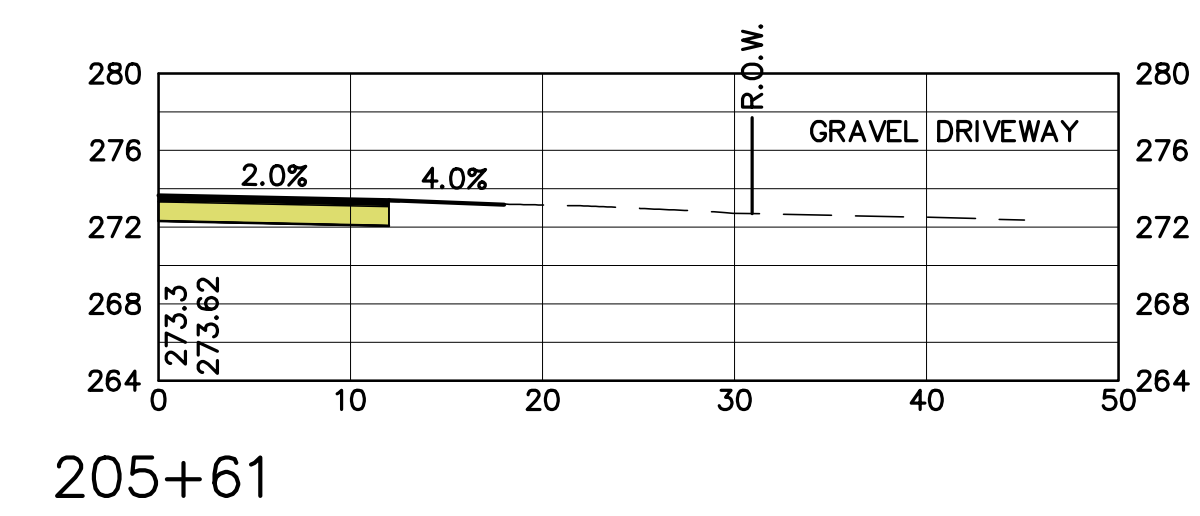
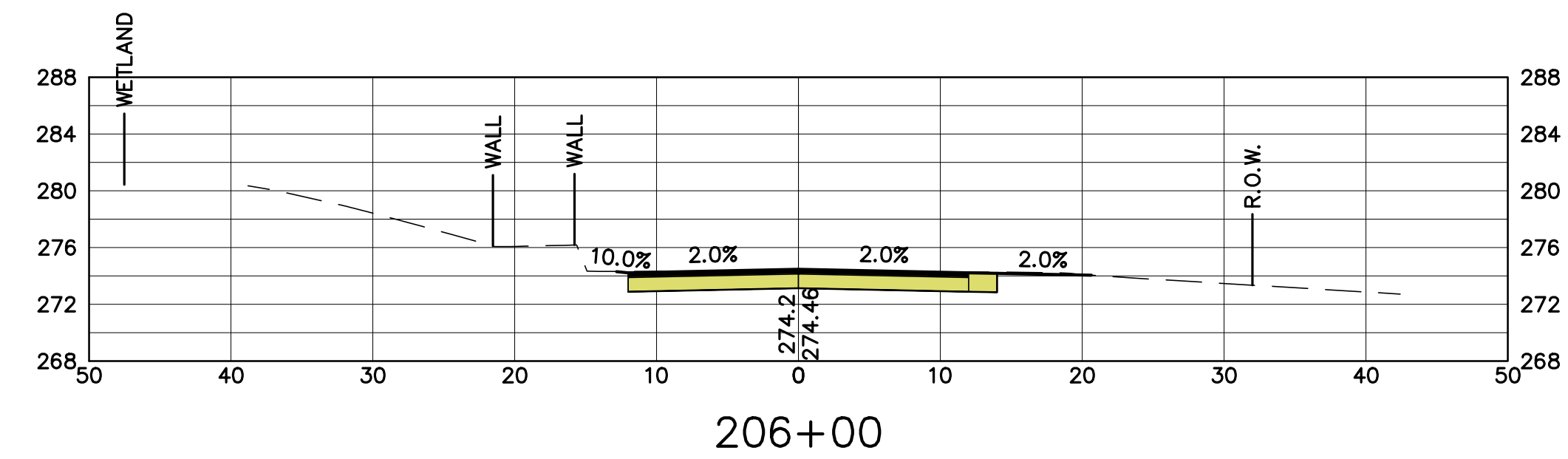
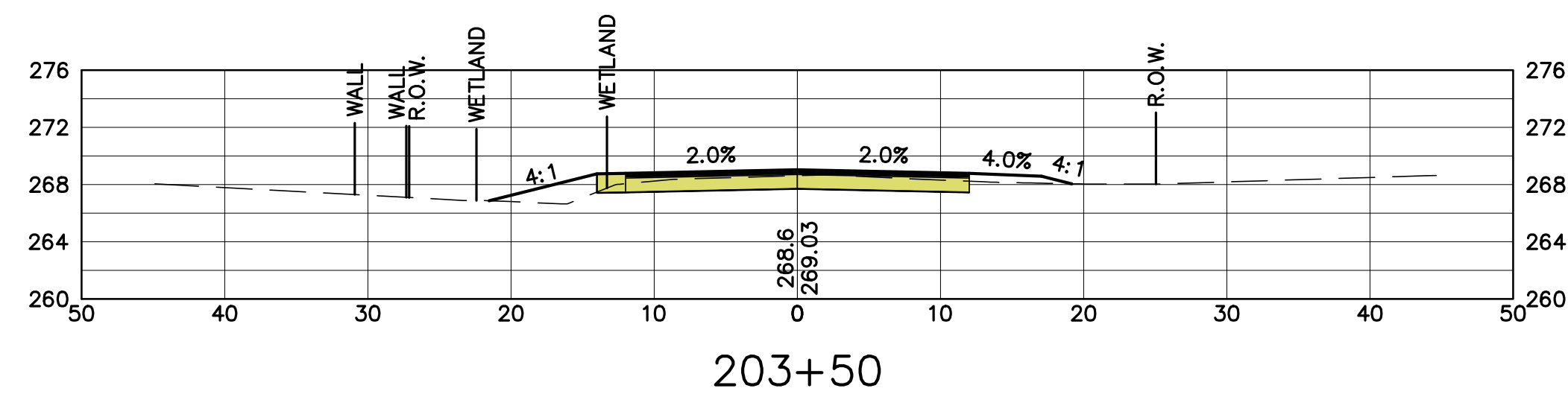
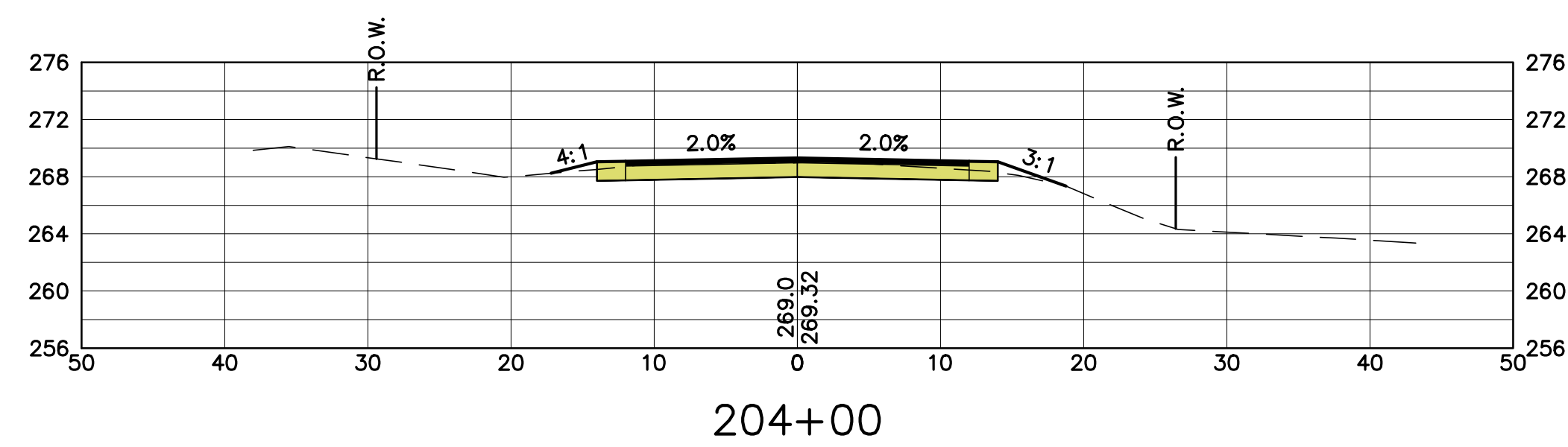
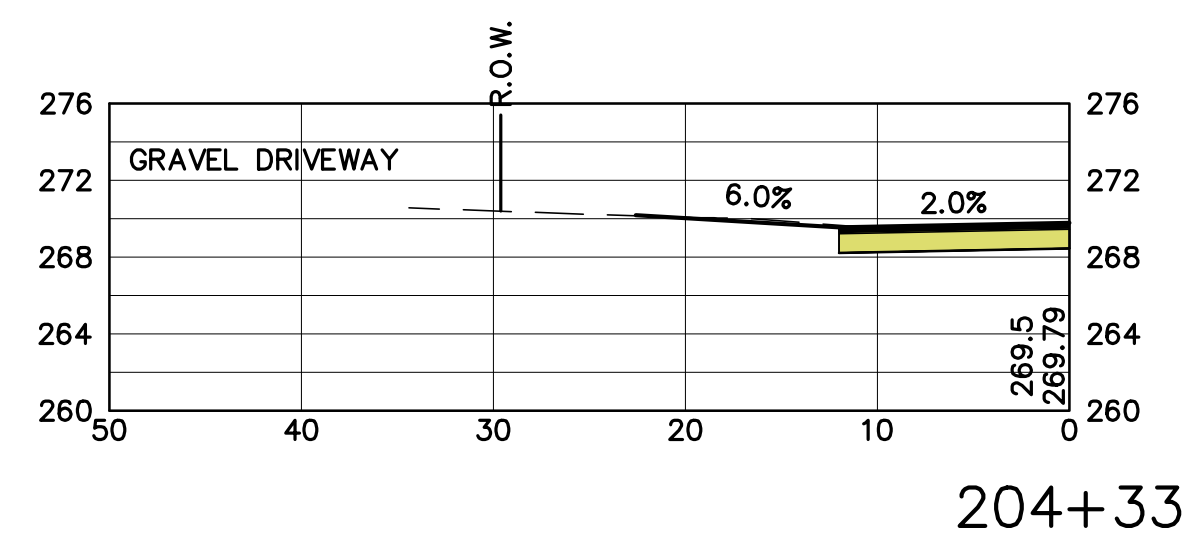
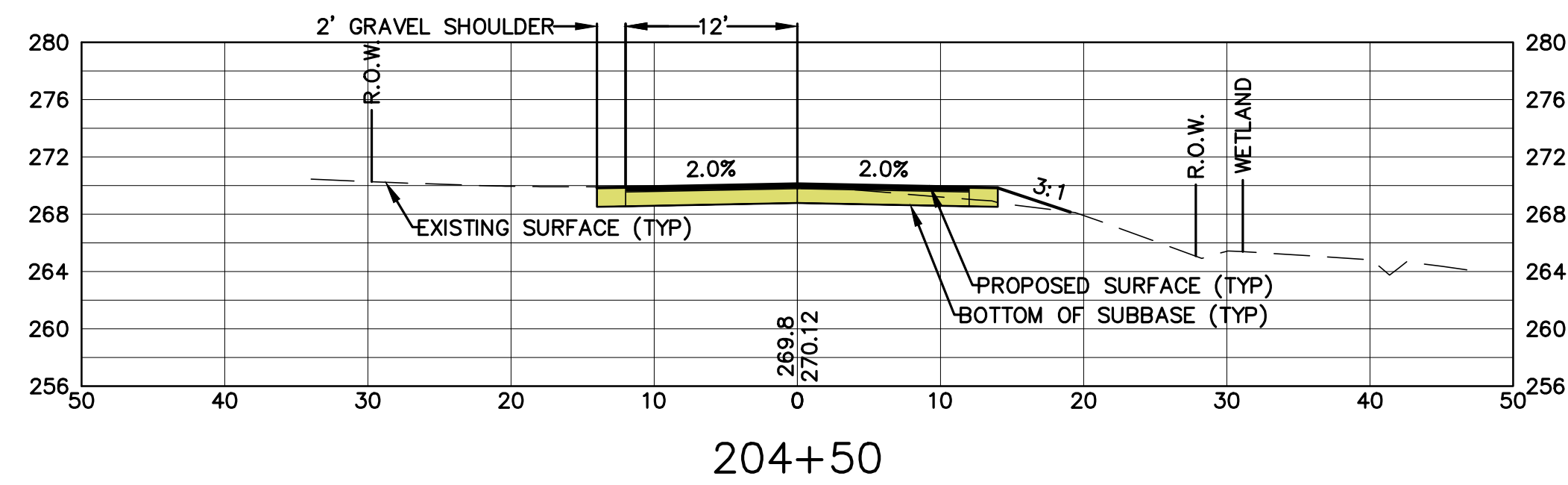
HOLBROOK ROAD
CROSS SECTIONS
200+00 TO 203+42

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD,
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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HOLBROOK ROAD
CROSS SECTIONS
203+50 TO 206+00

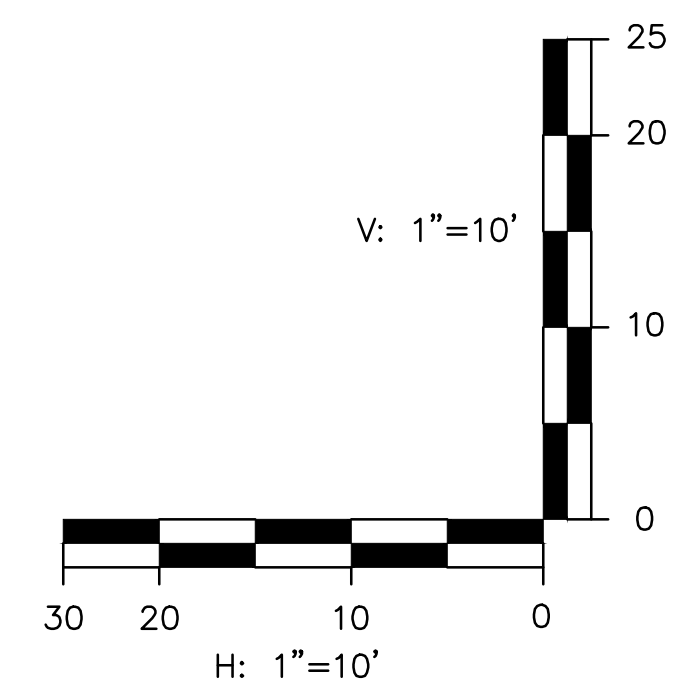
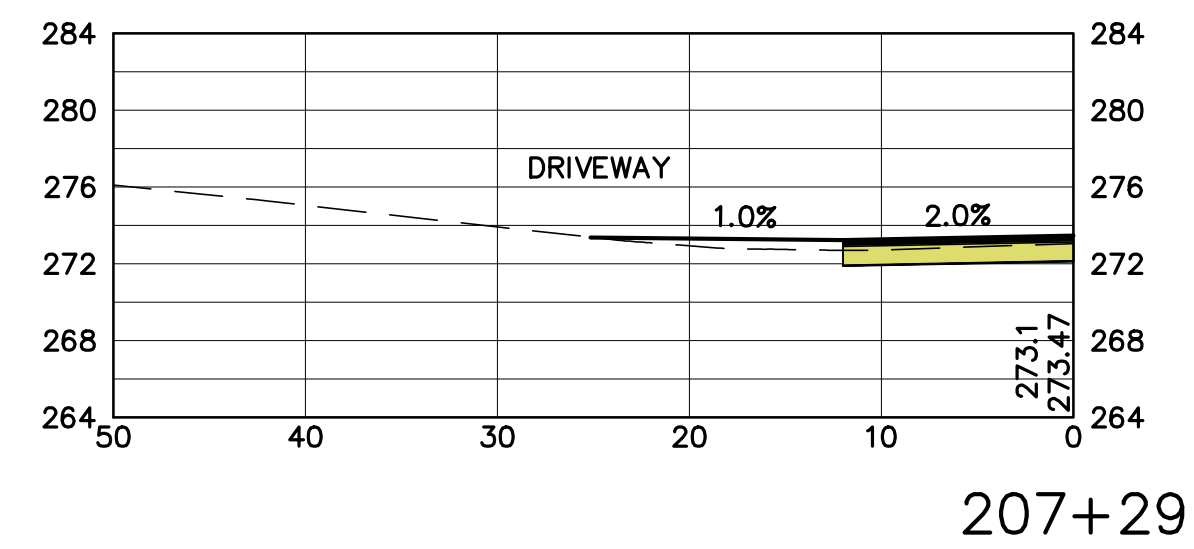
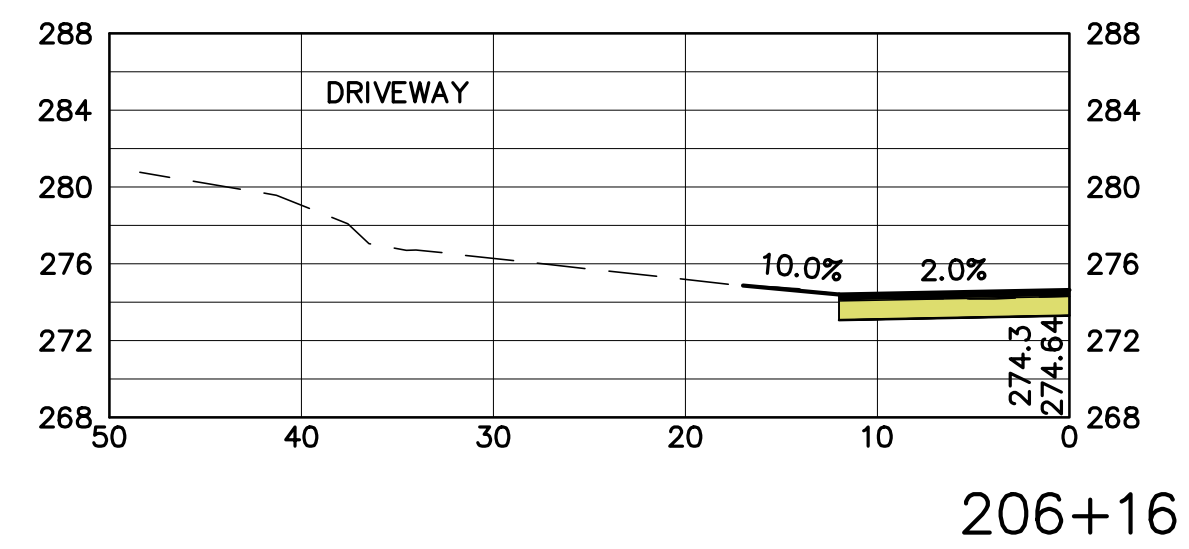
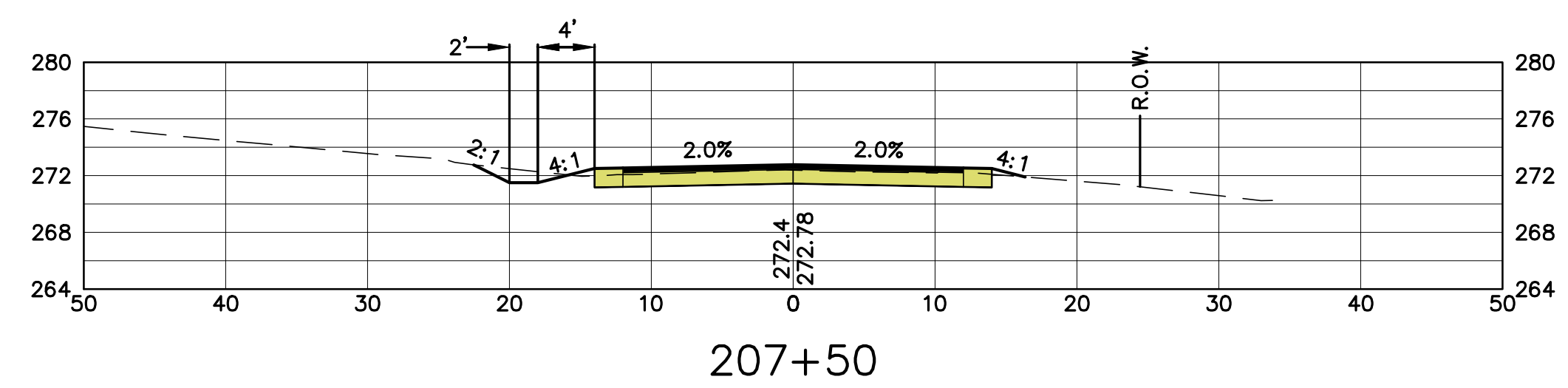
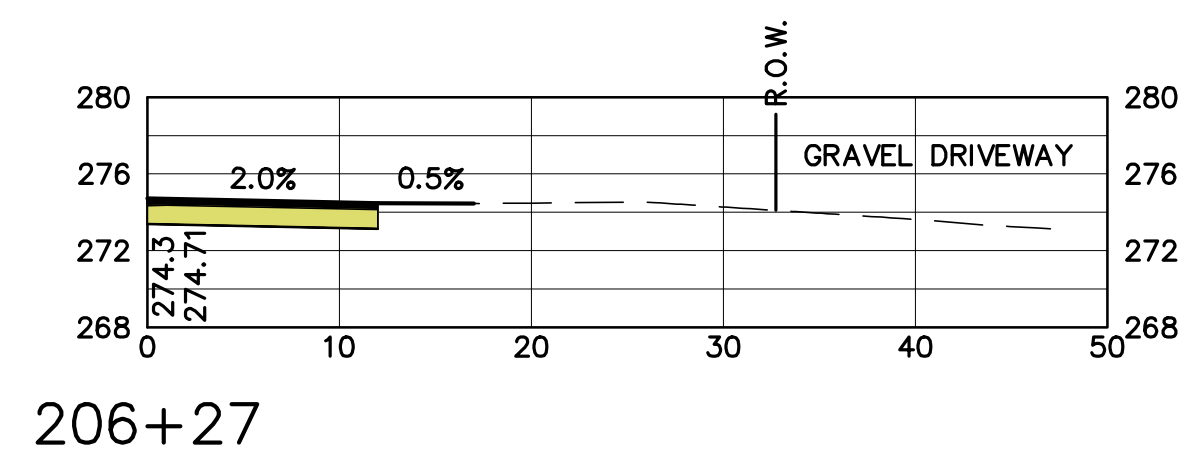
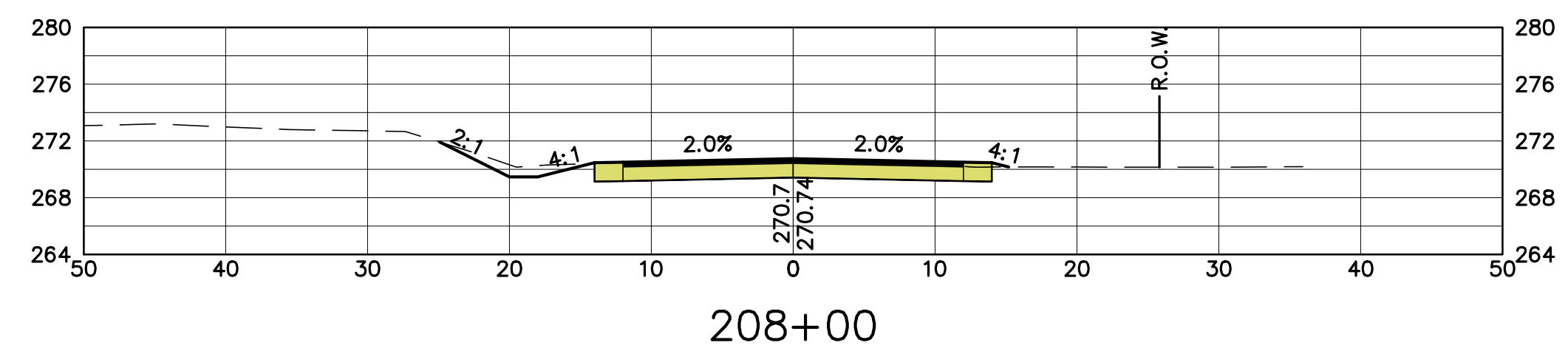
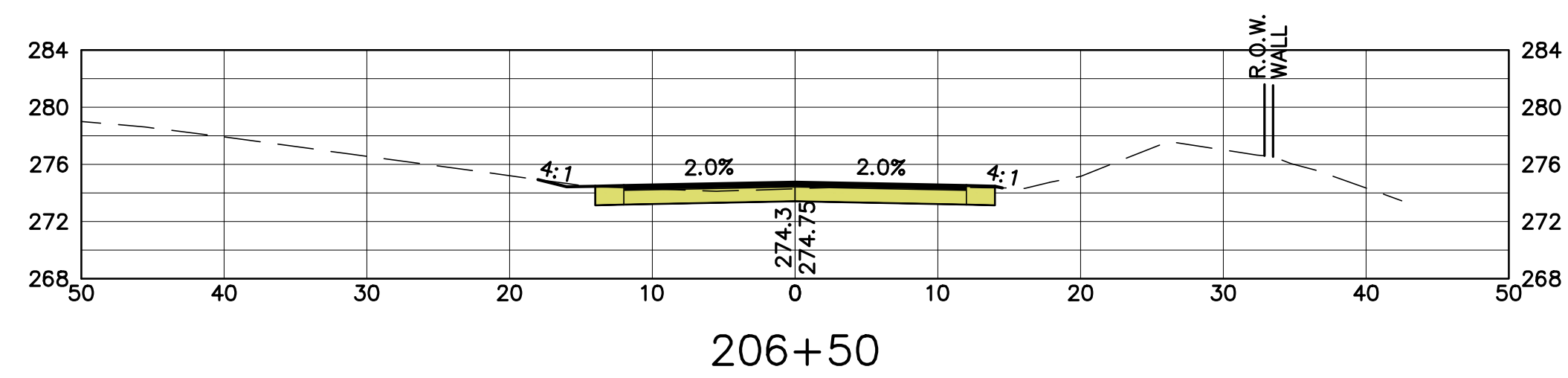
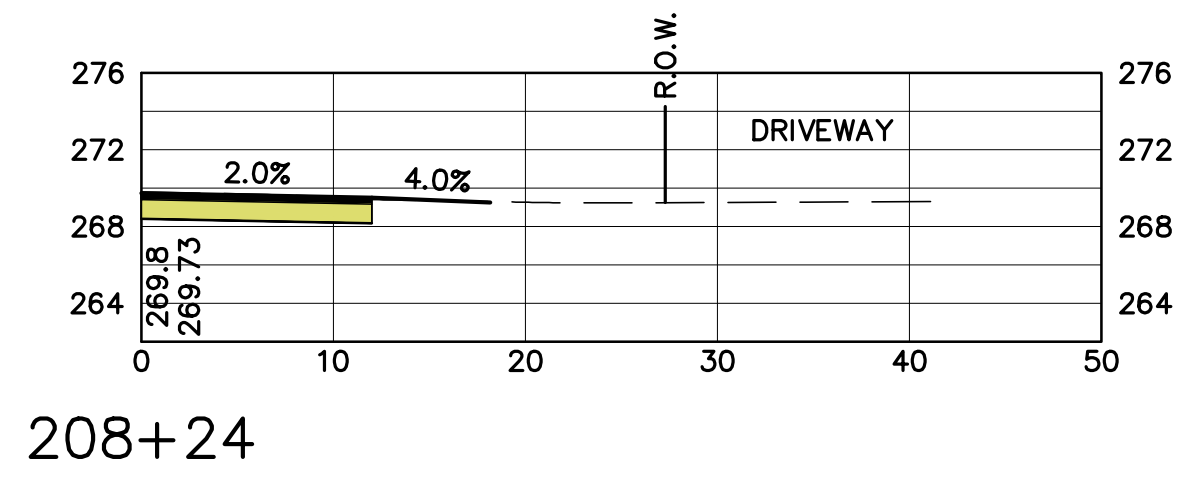
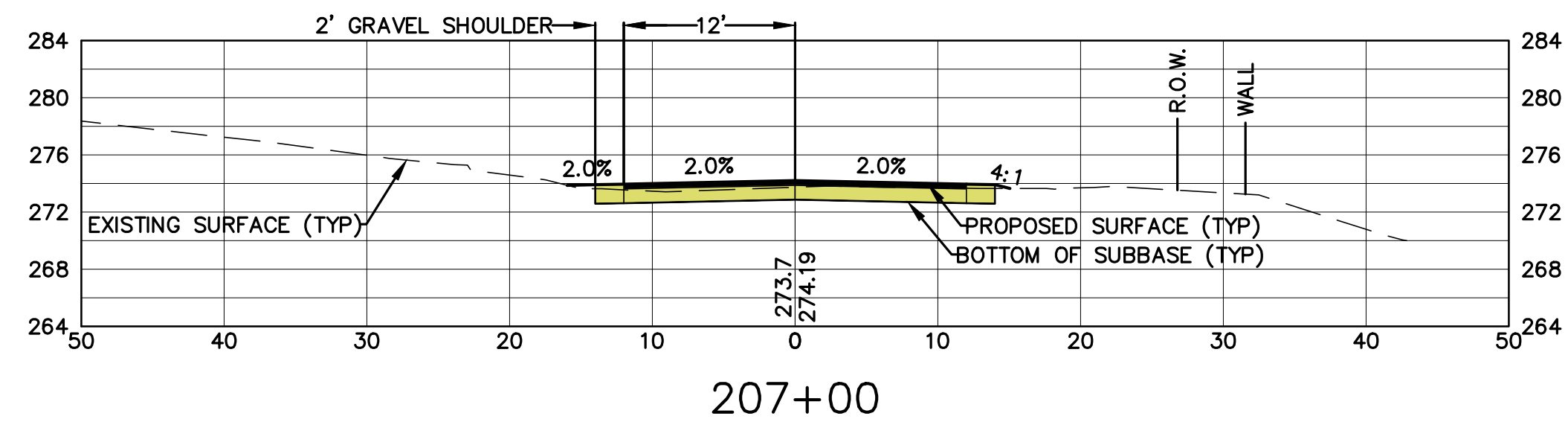
PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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NO.	DATE
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REVISION DESCRIPTION



H: $1'' = 10'$

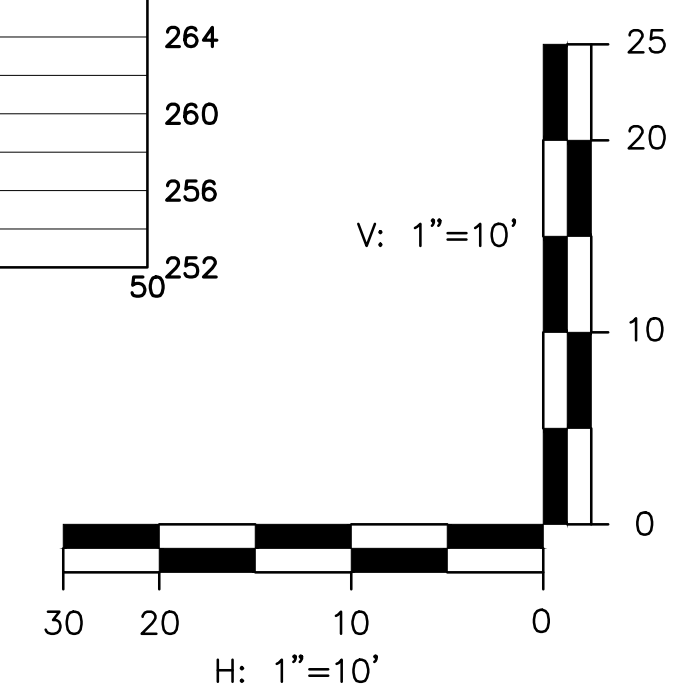
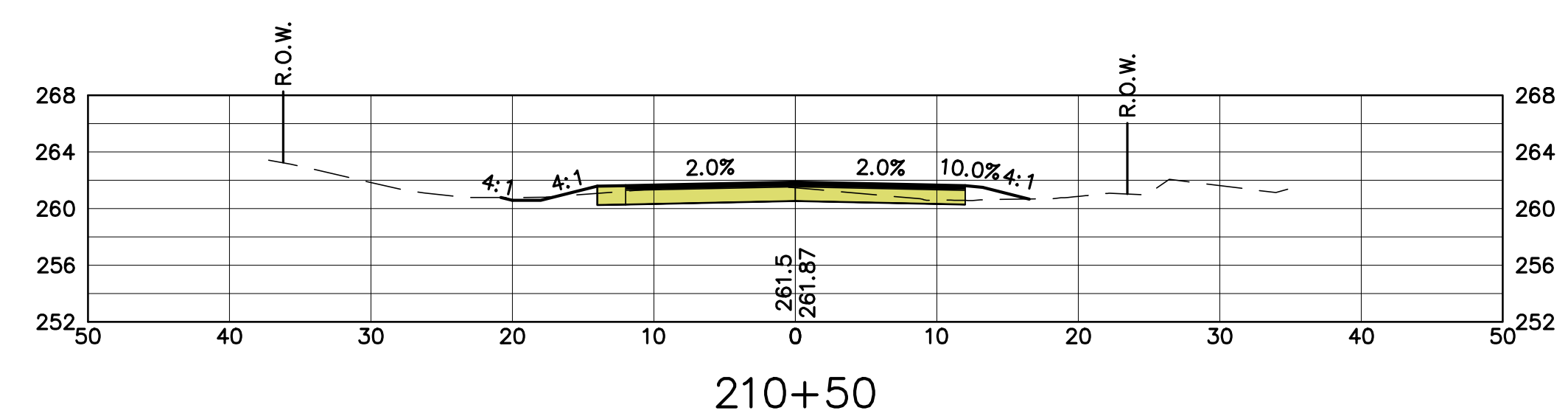
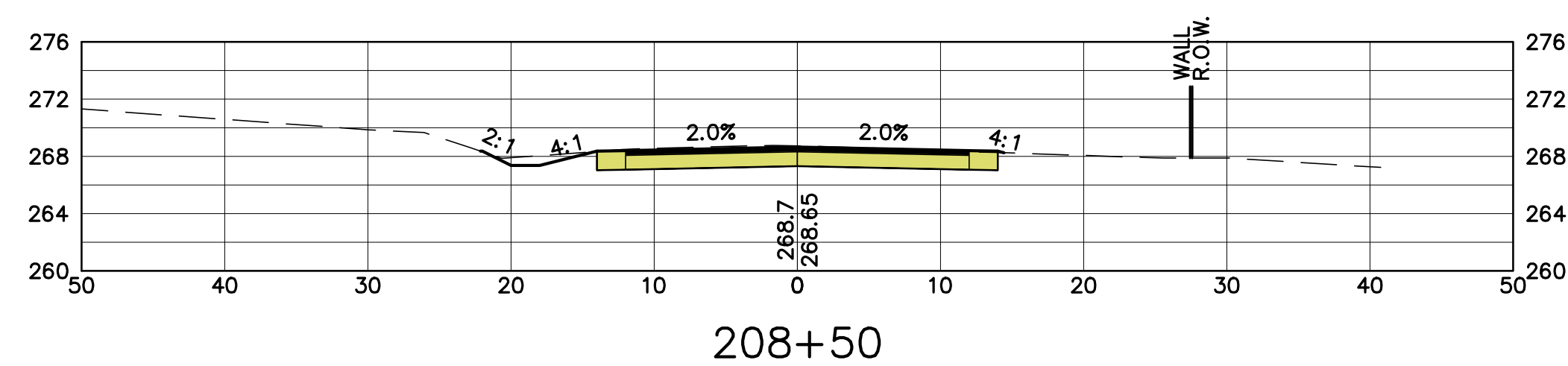
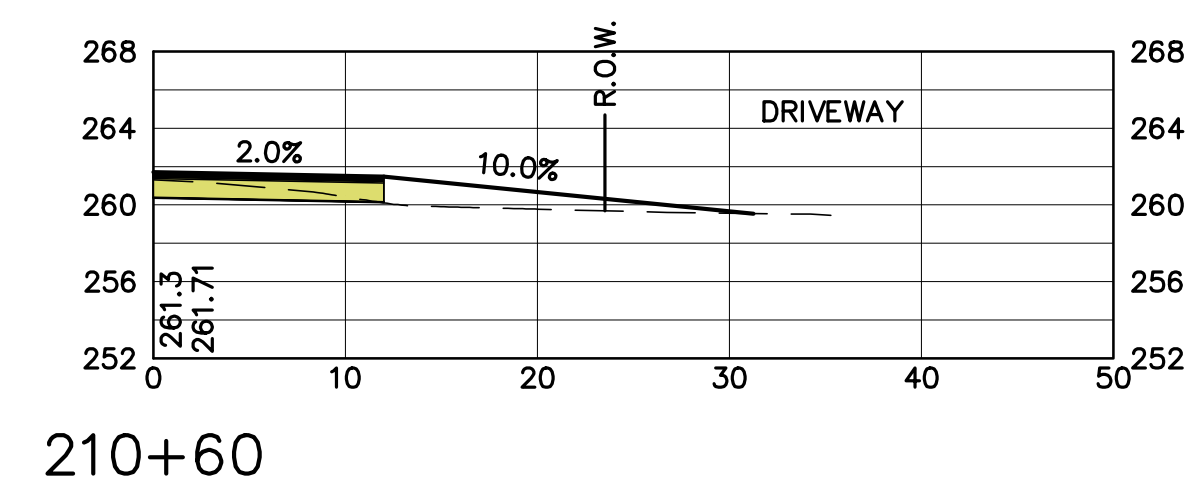
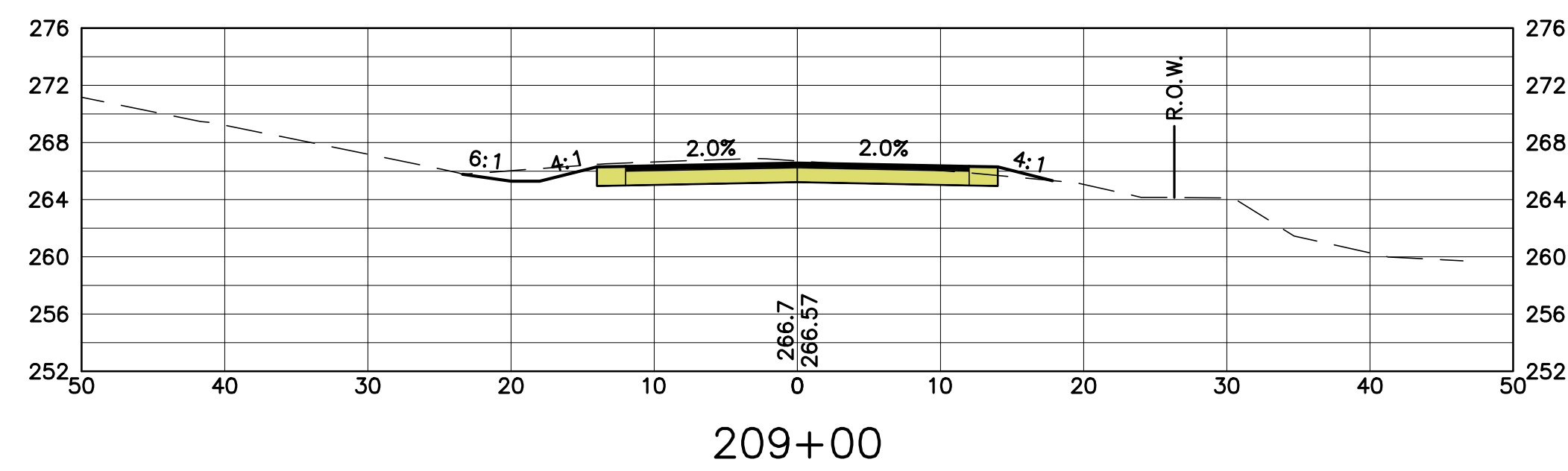
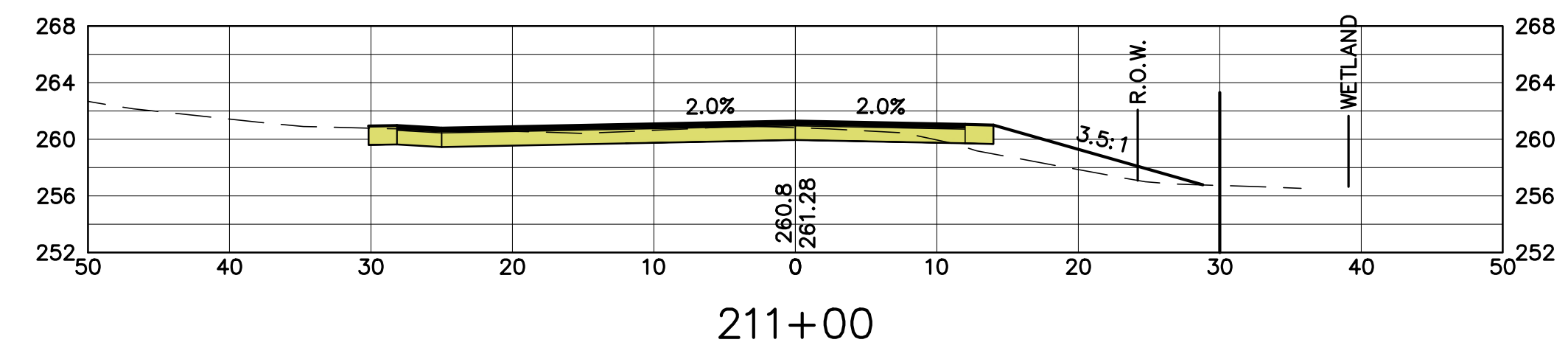
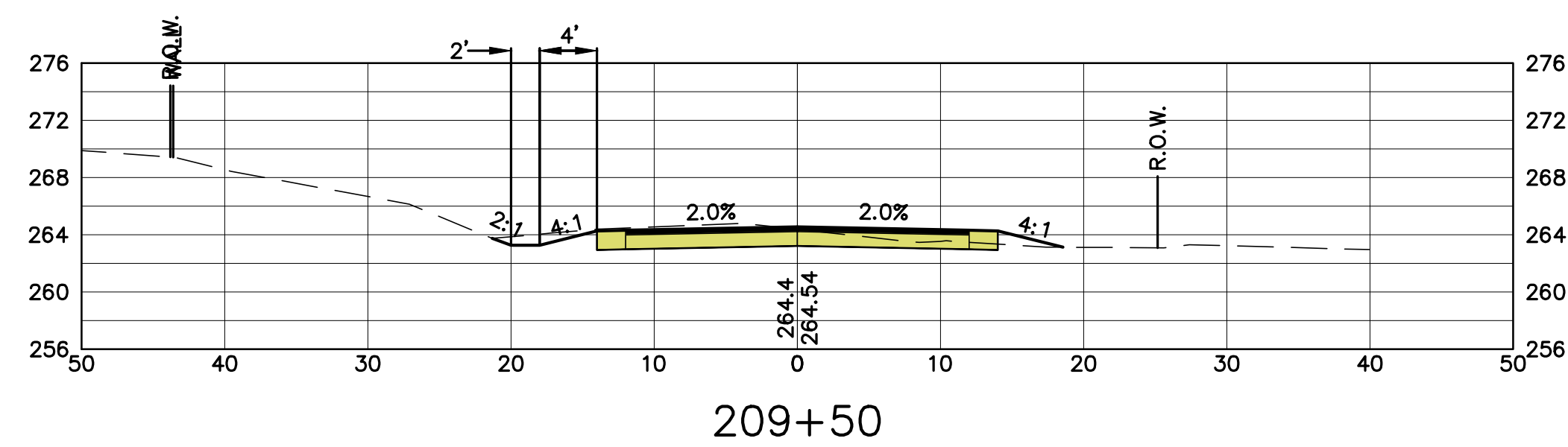
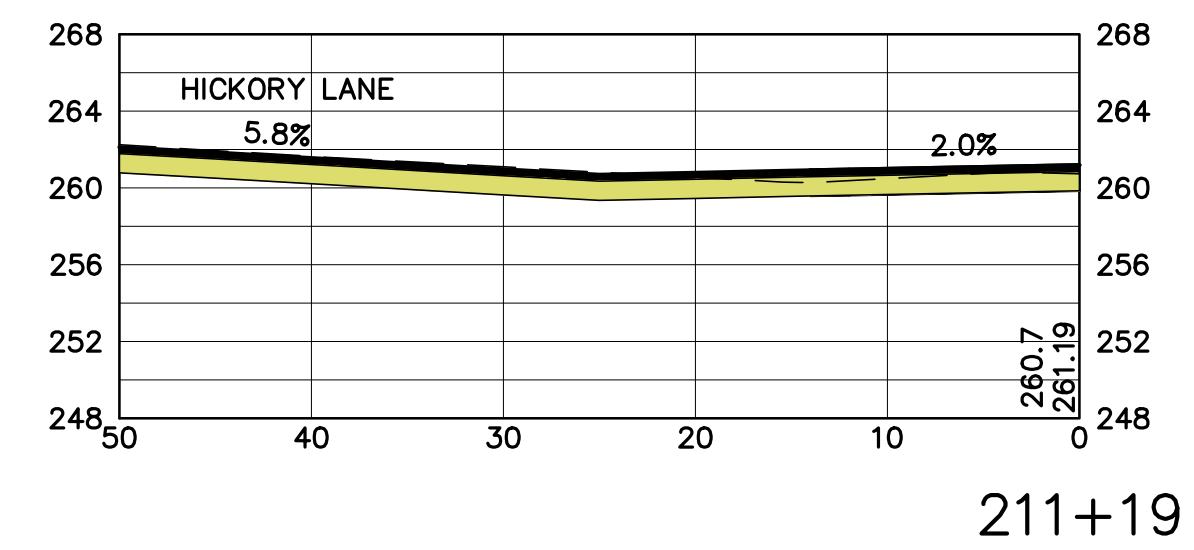
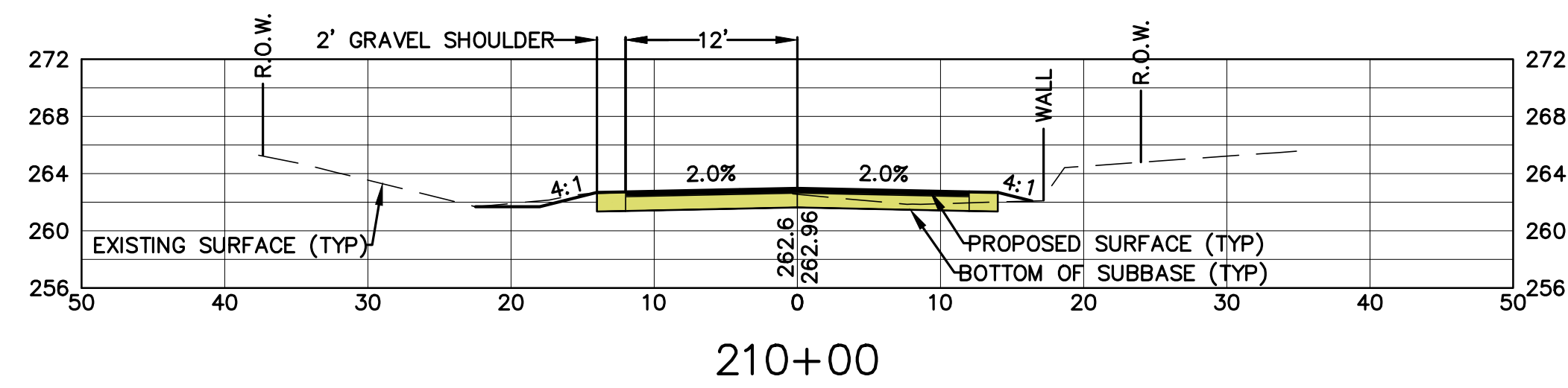
HOLBROOK ROAD
CROSS SECTIONS
206+16 TO 208+24

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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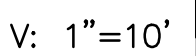
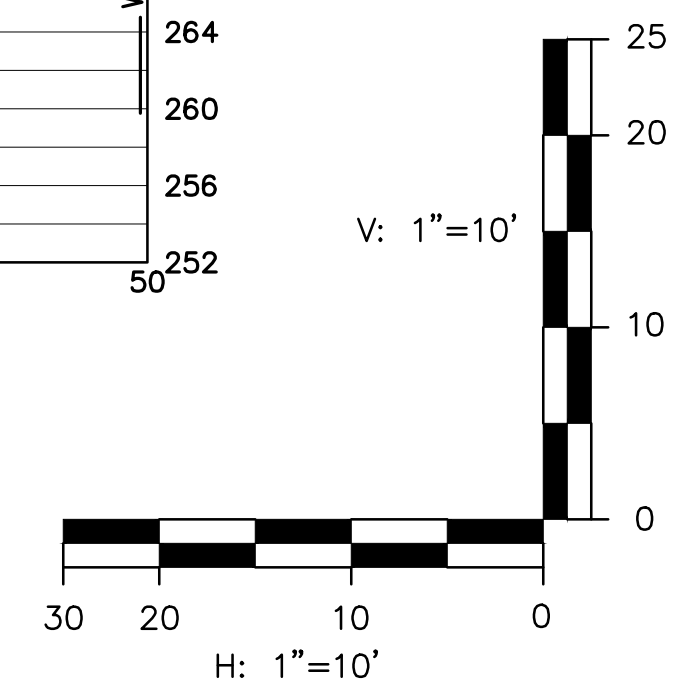
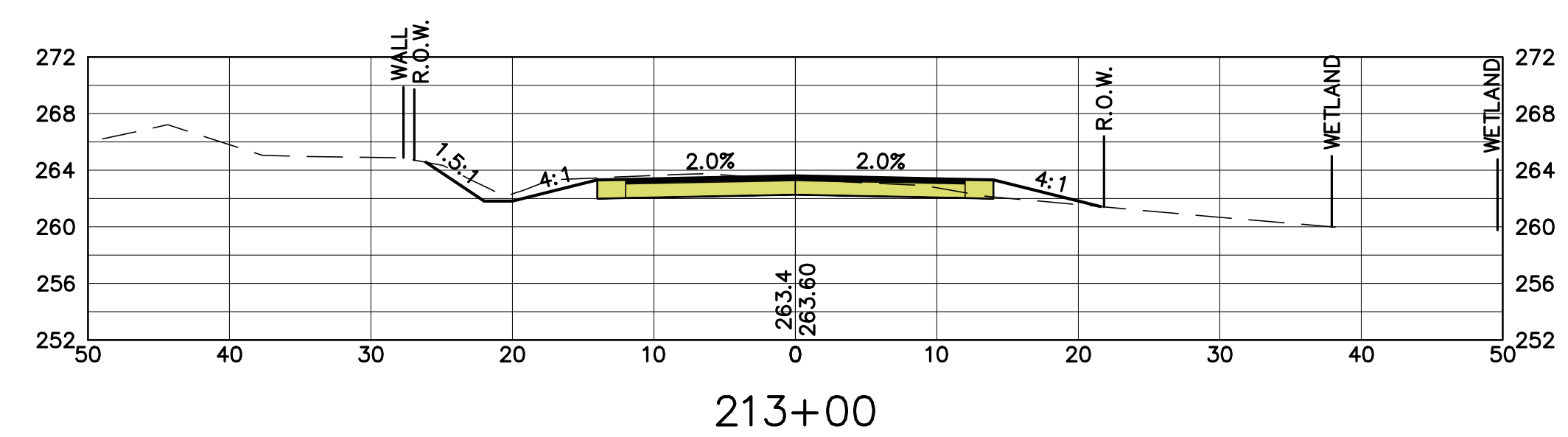
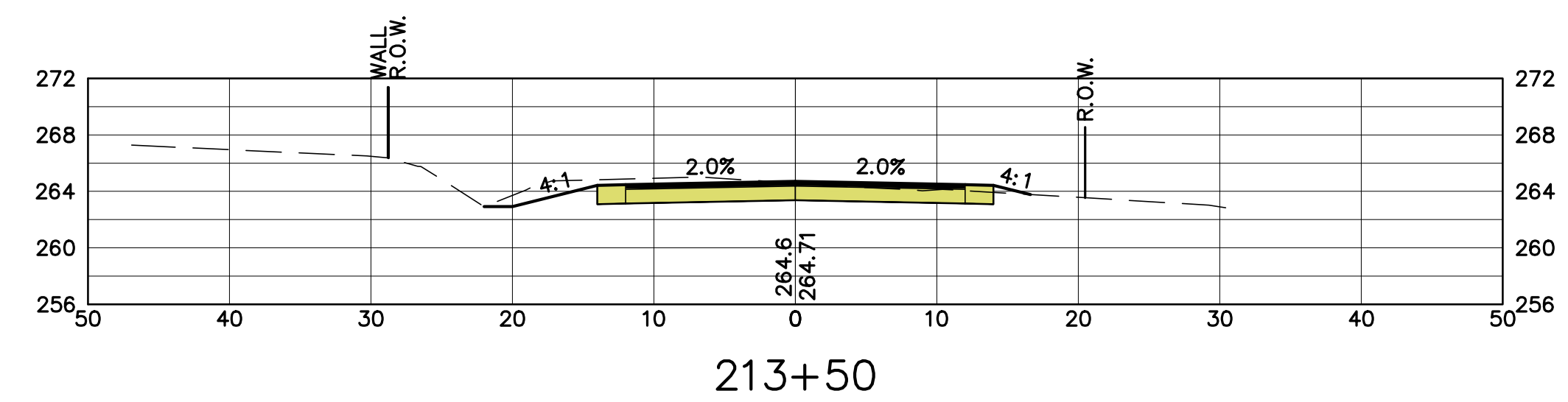
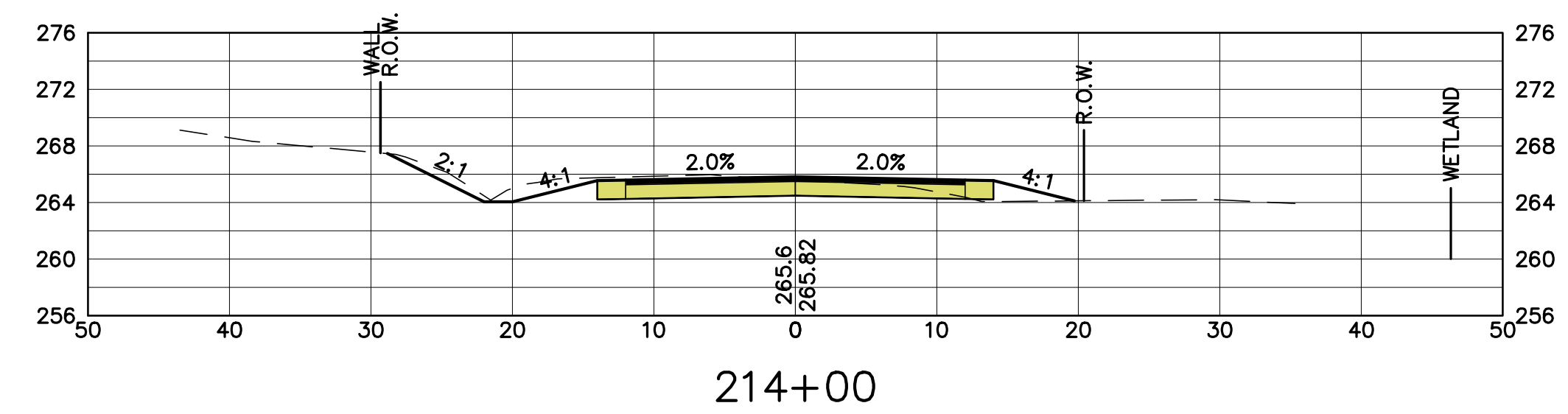
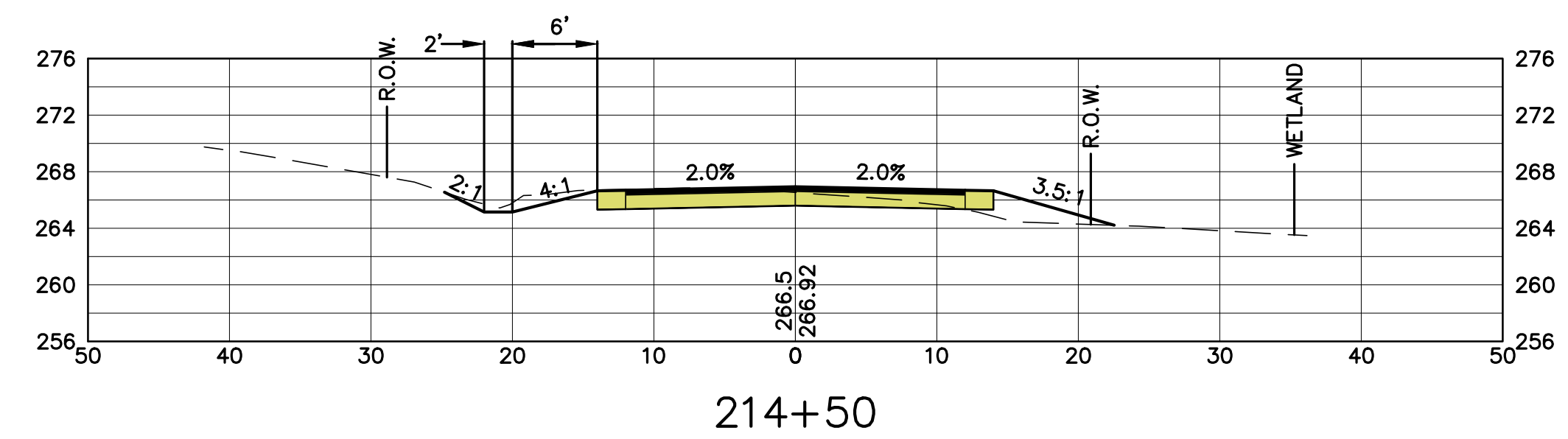
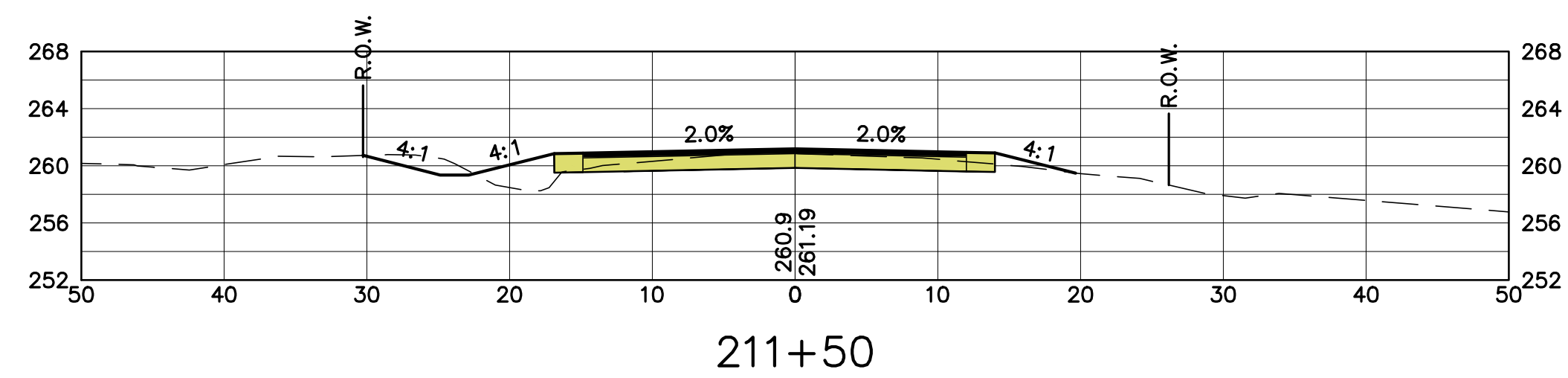
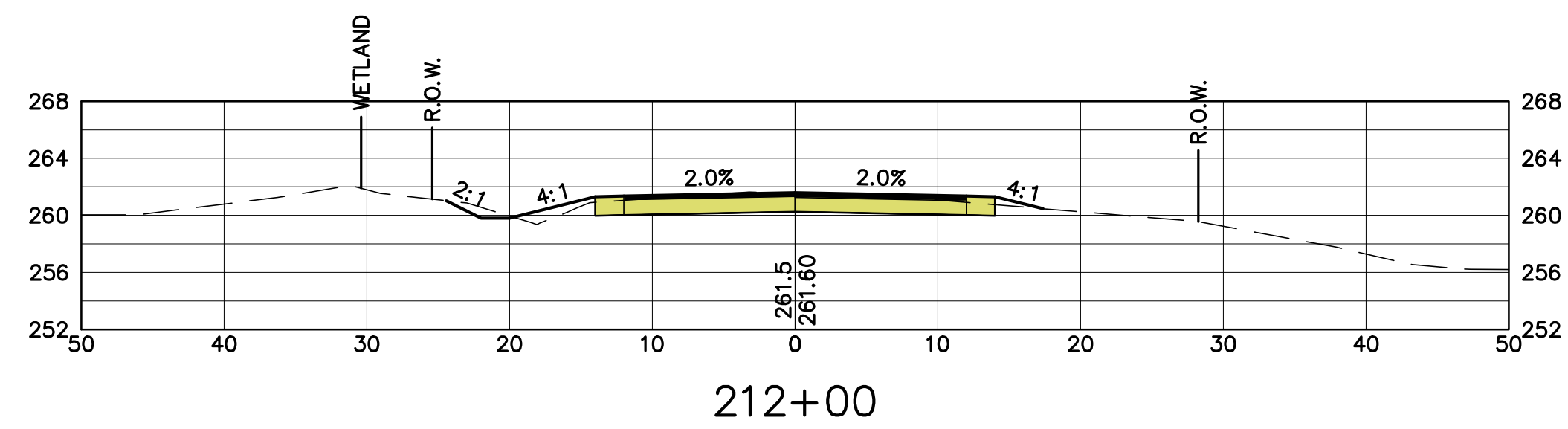
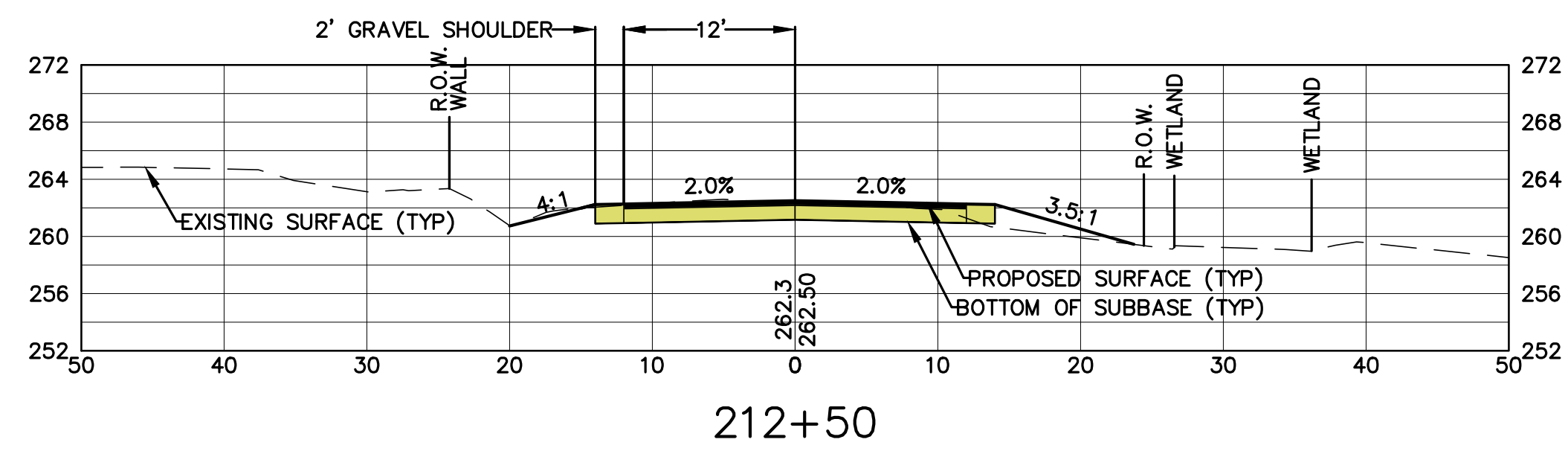
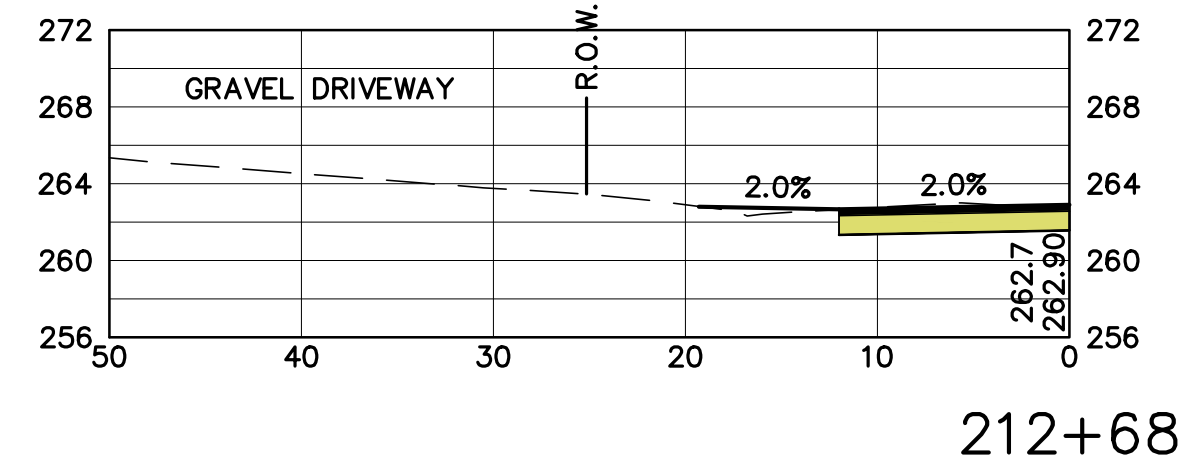
HOLBROOK ROAD
CROSS SECTIONS
208+50 TO 211+19

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD,
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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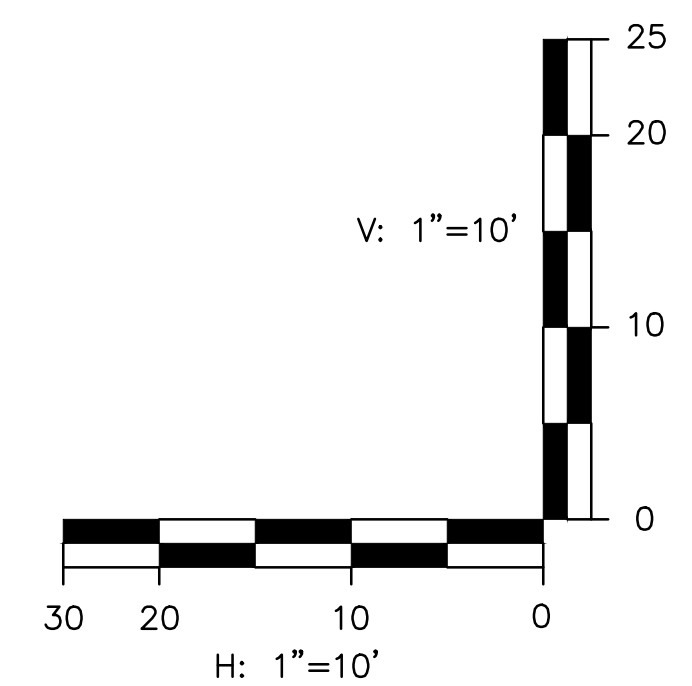
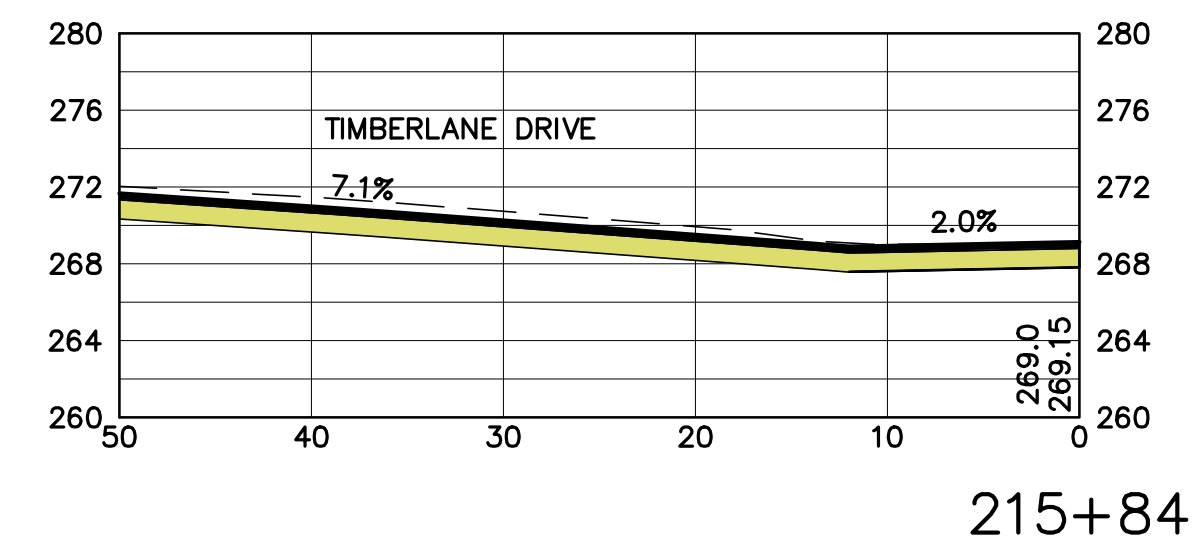
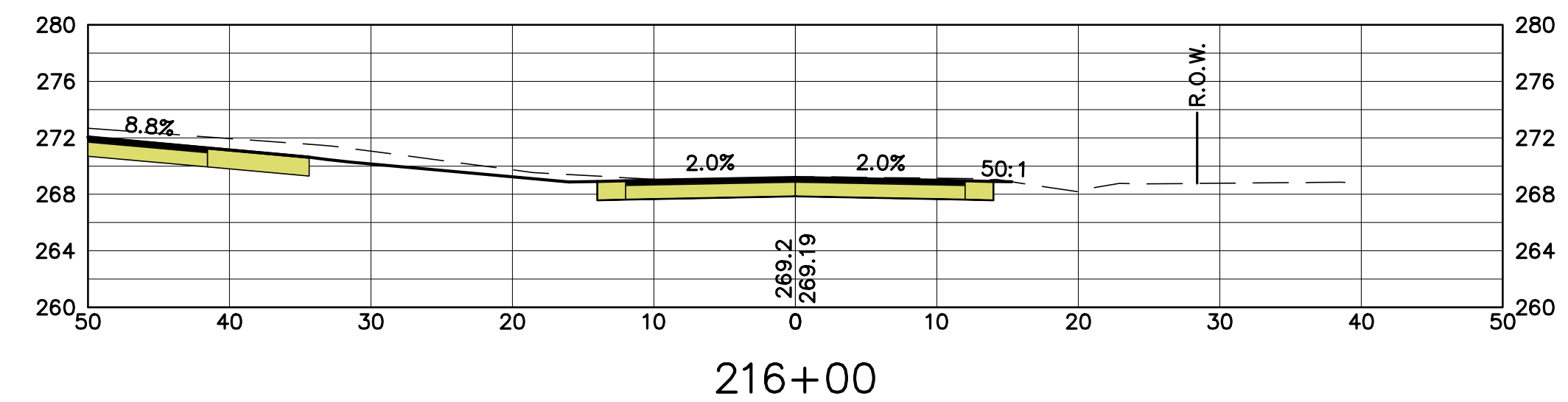
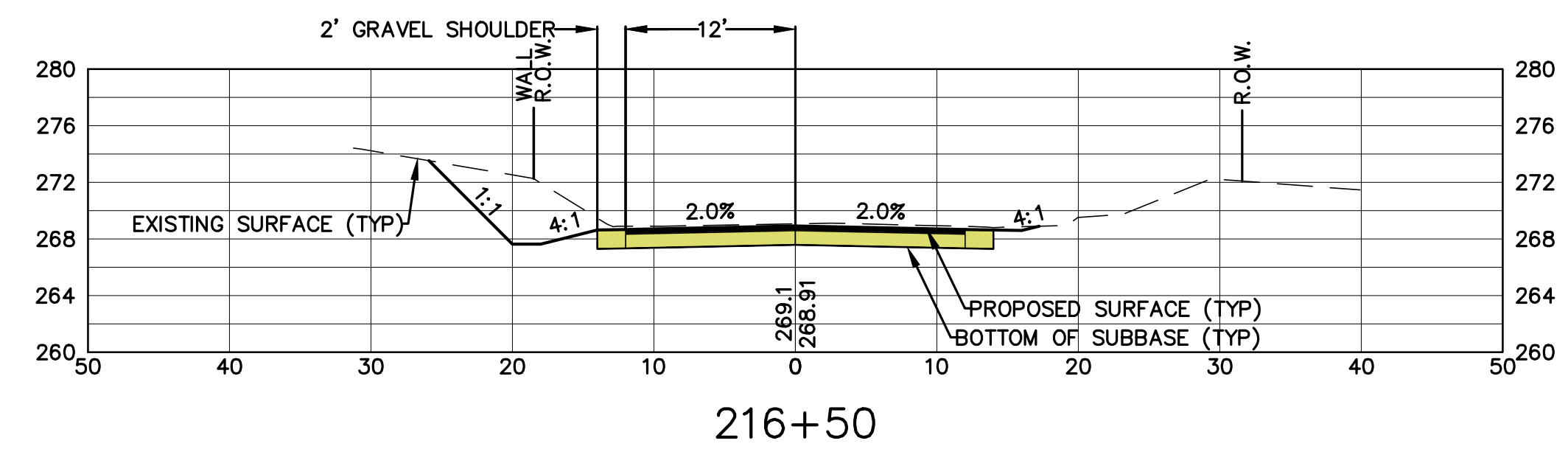
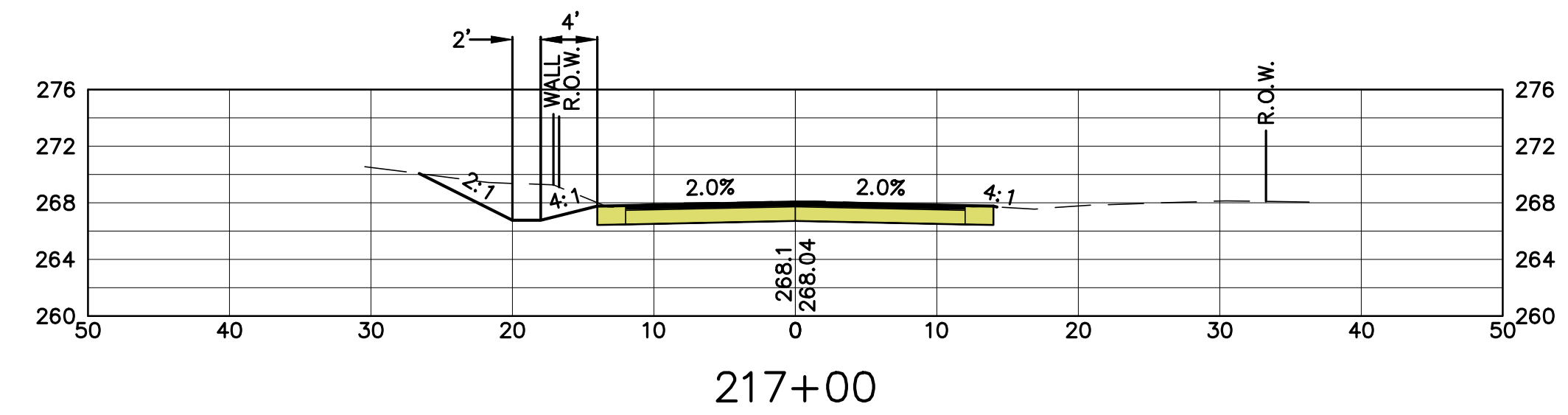
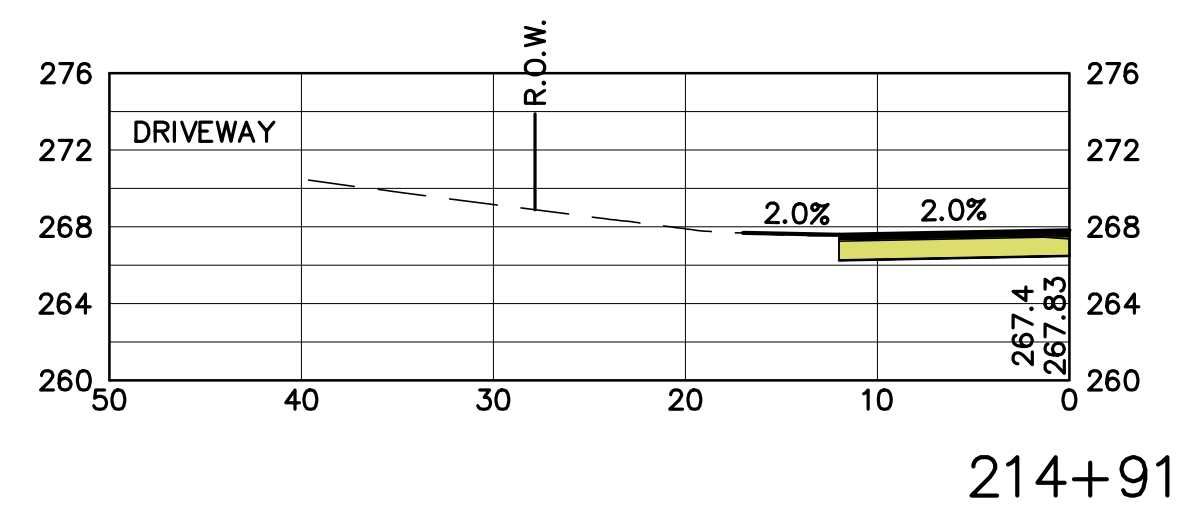
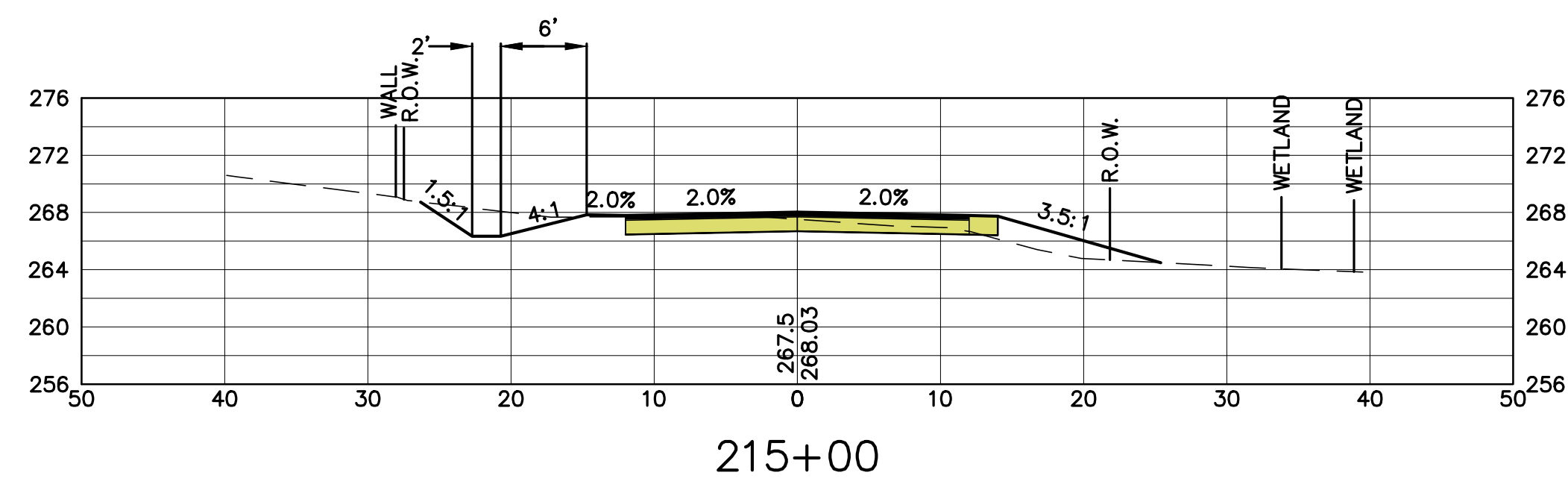
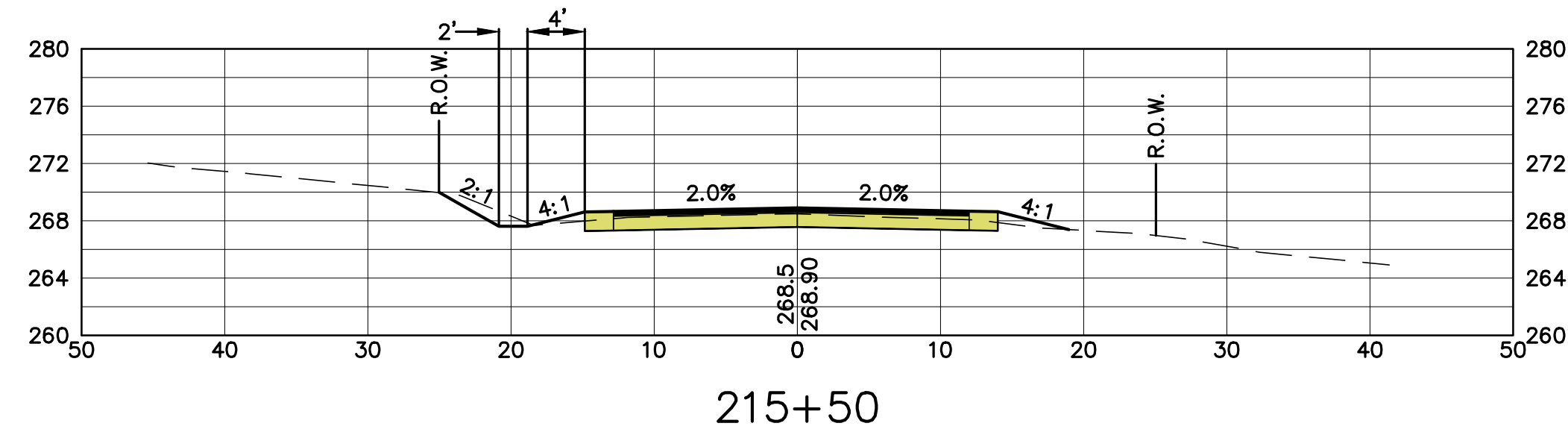
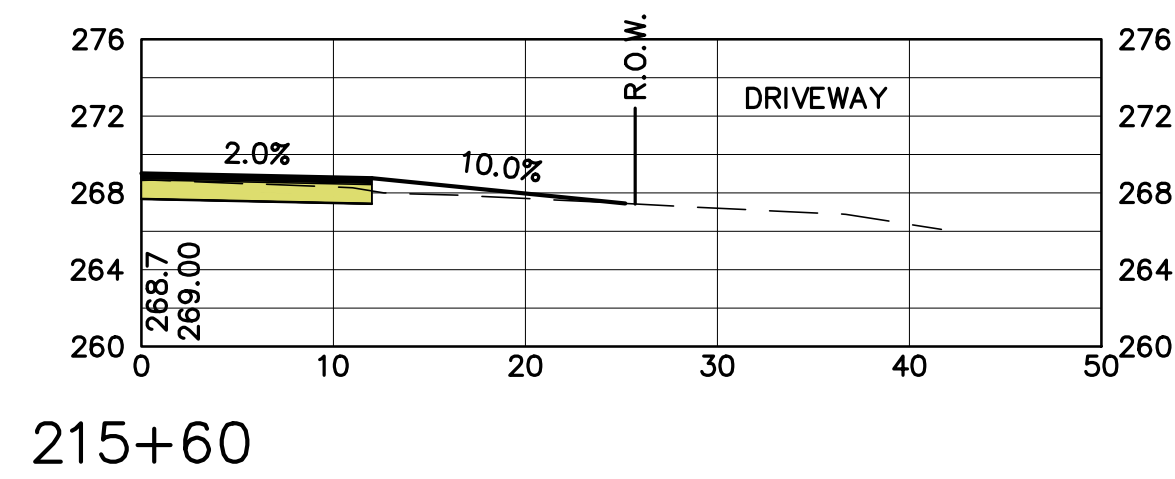
HOLBROOK ROAD
CROSS SECTIONS
211+50 TO 214+50

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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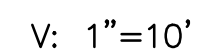
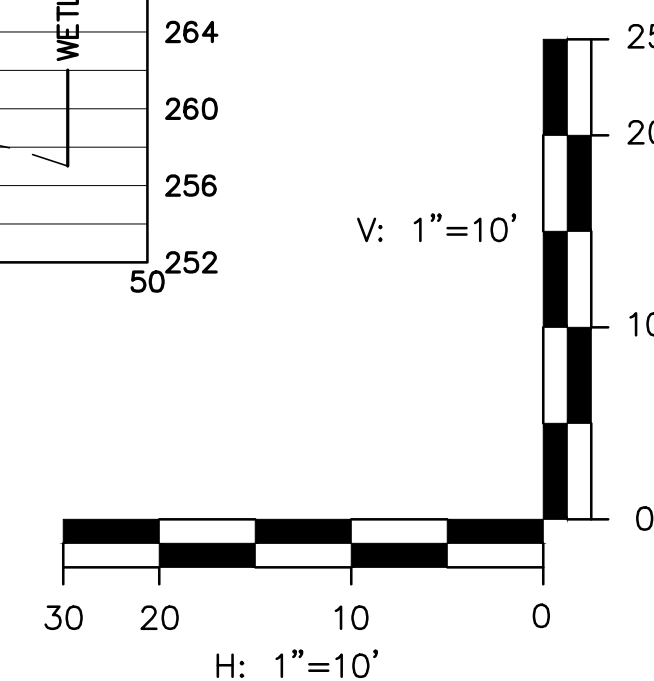
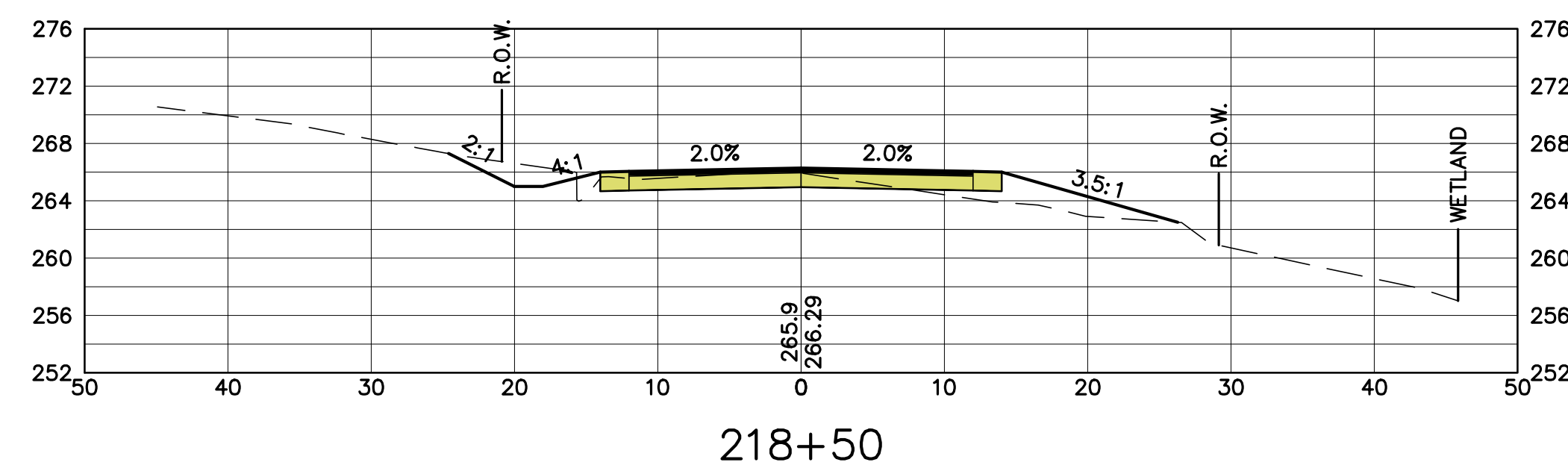
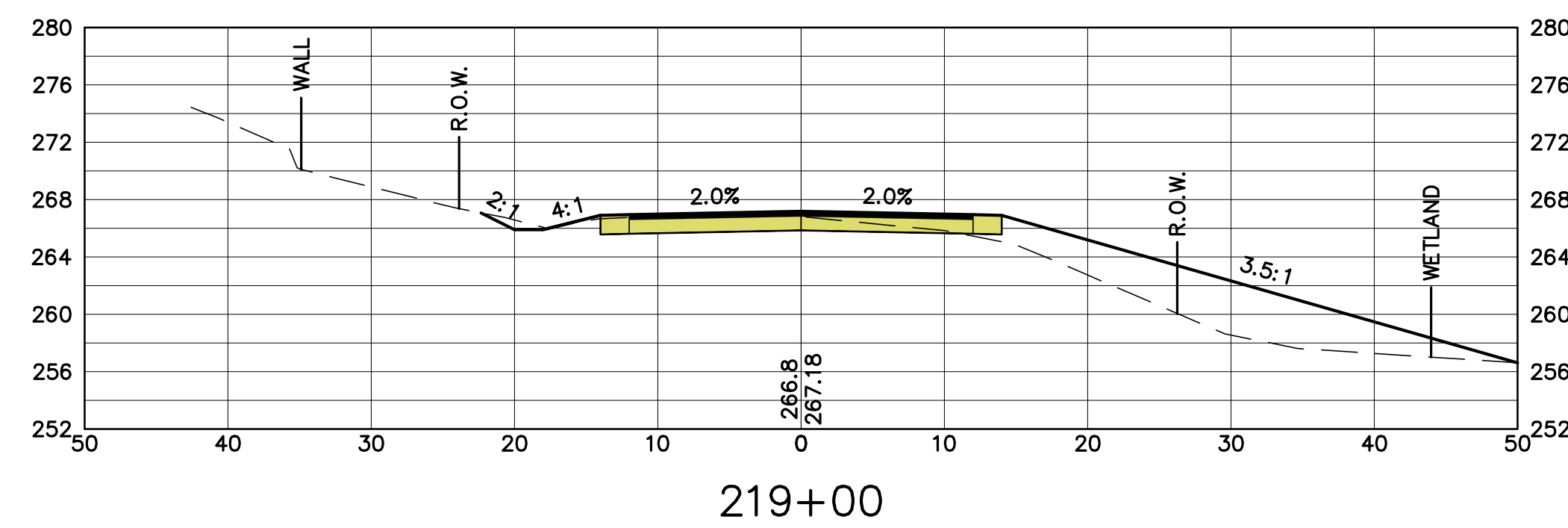
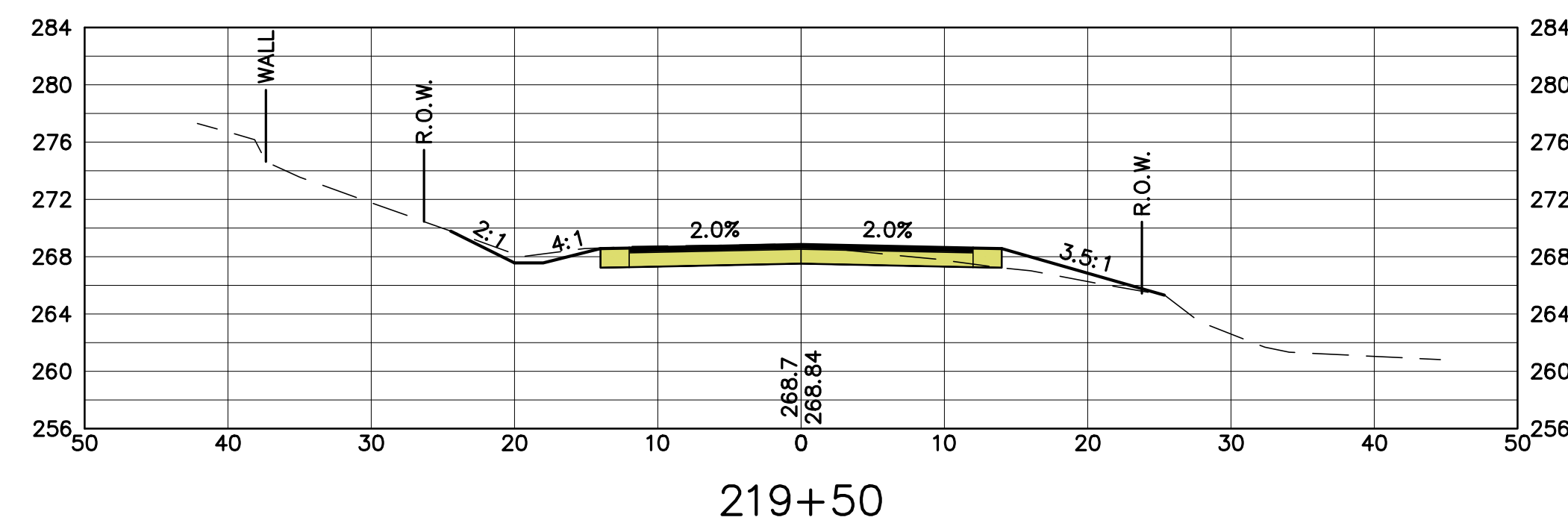
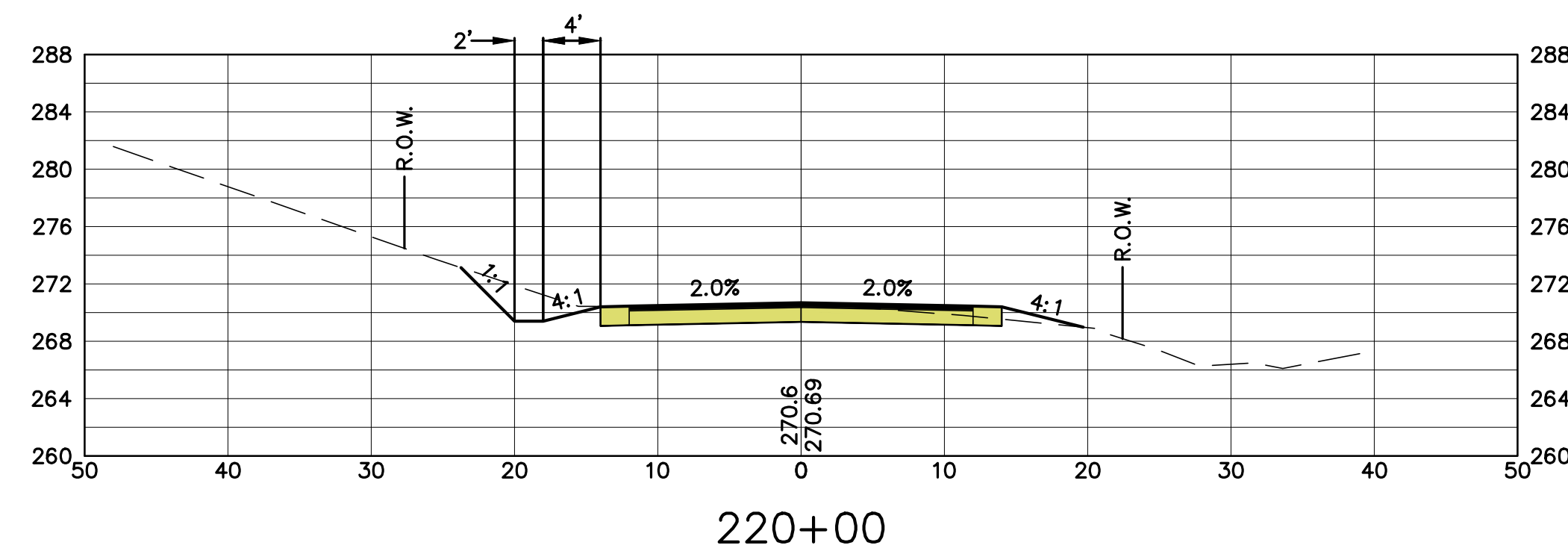
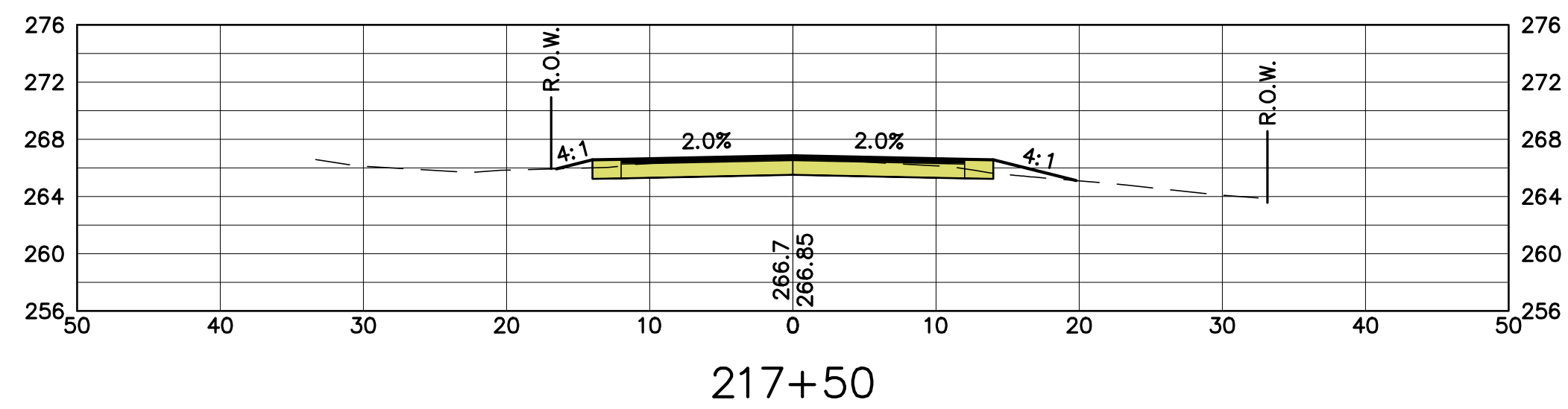
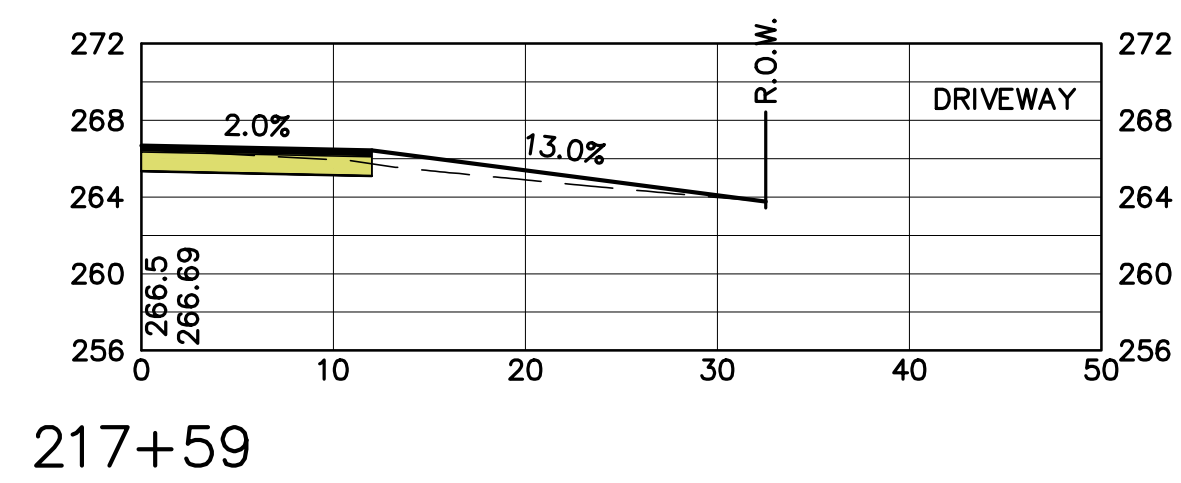
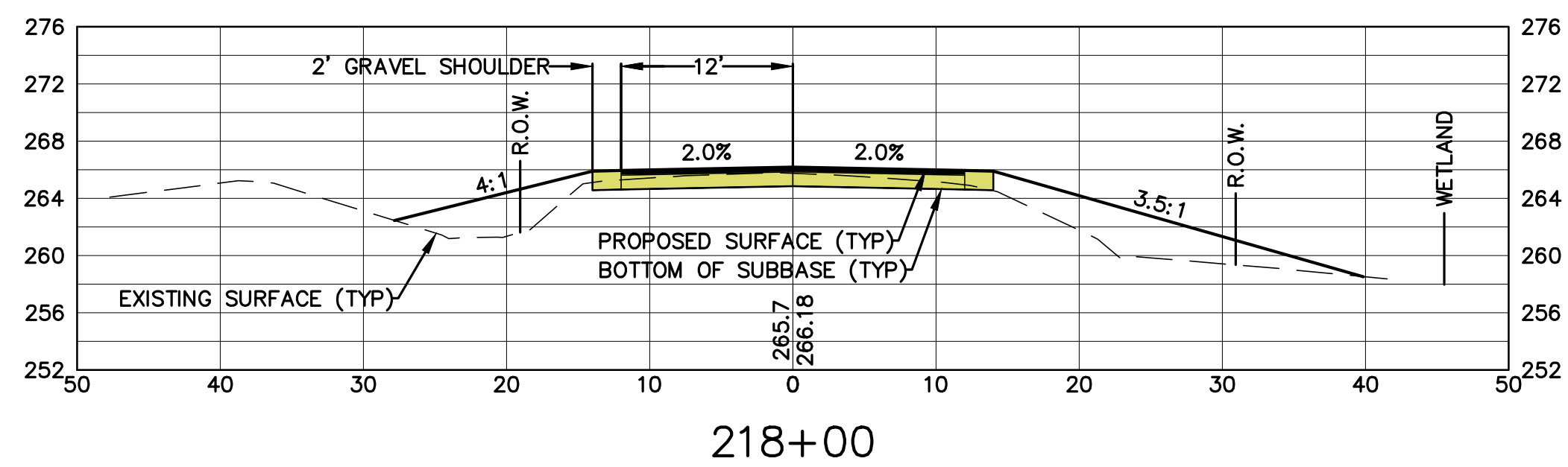
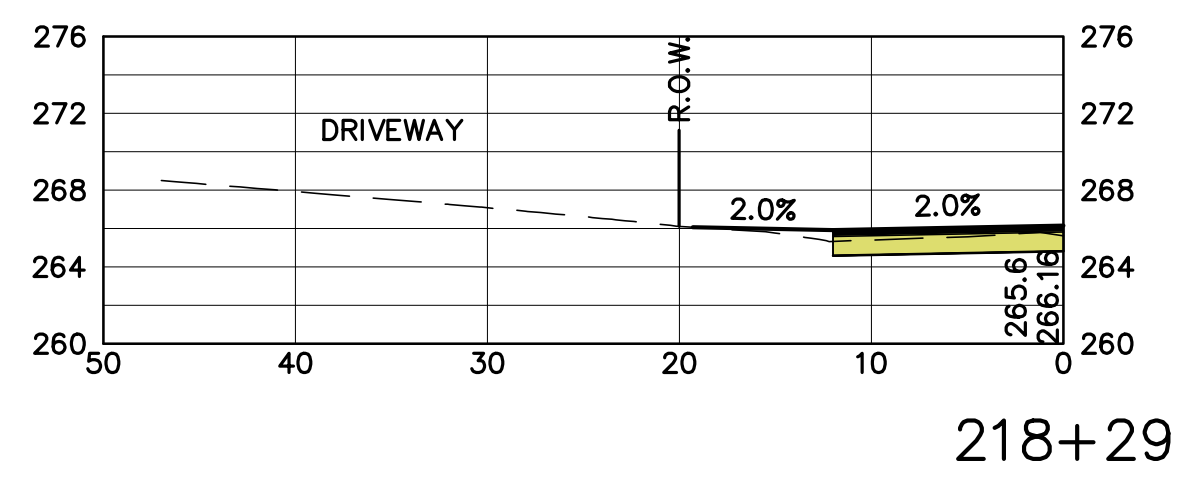
HOLBROOK ROAD
CROSS SECTIONS
214+91 TO 217+00

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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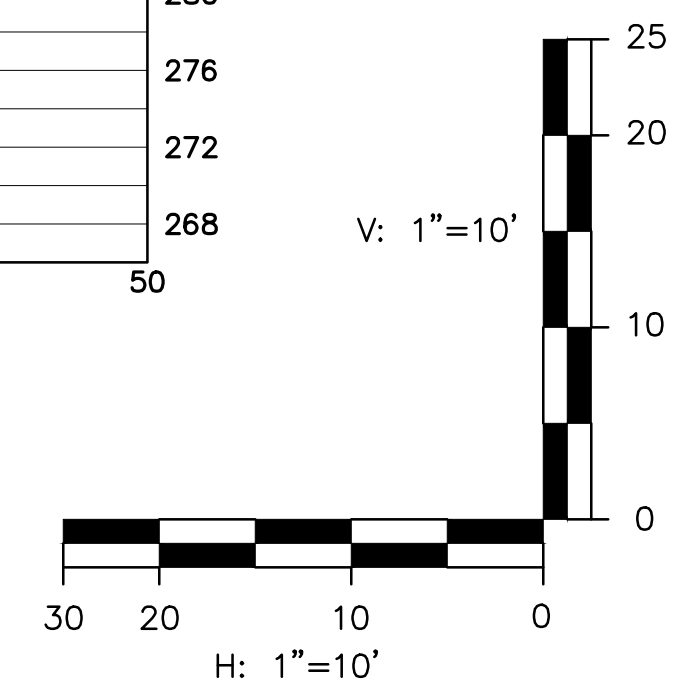
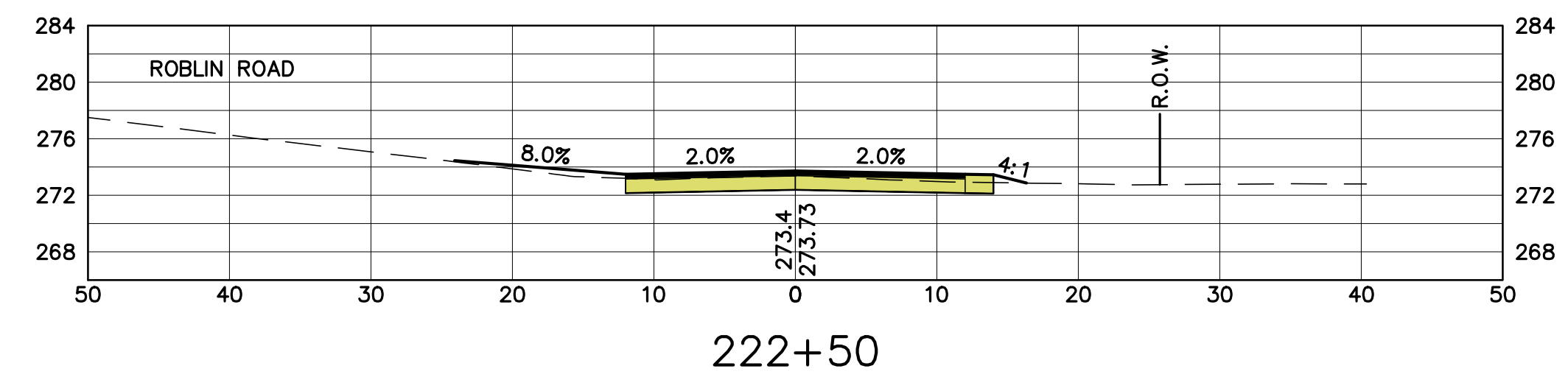
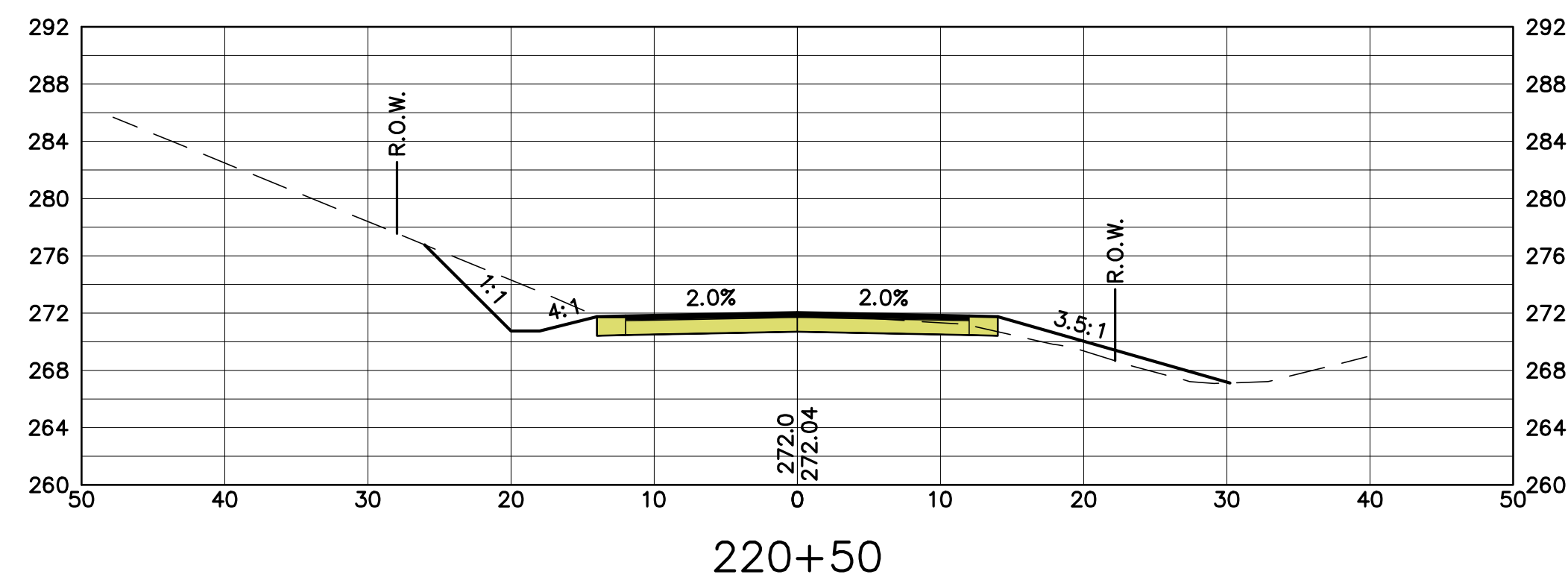
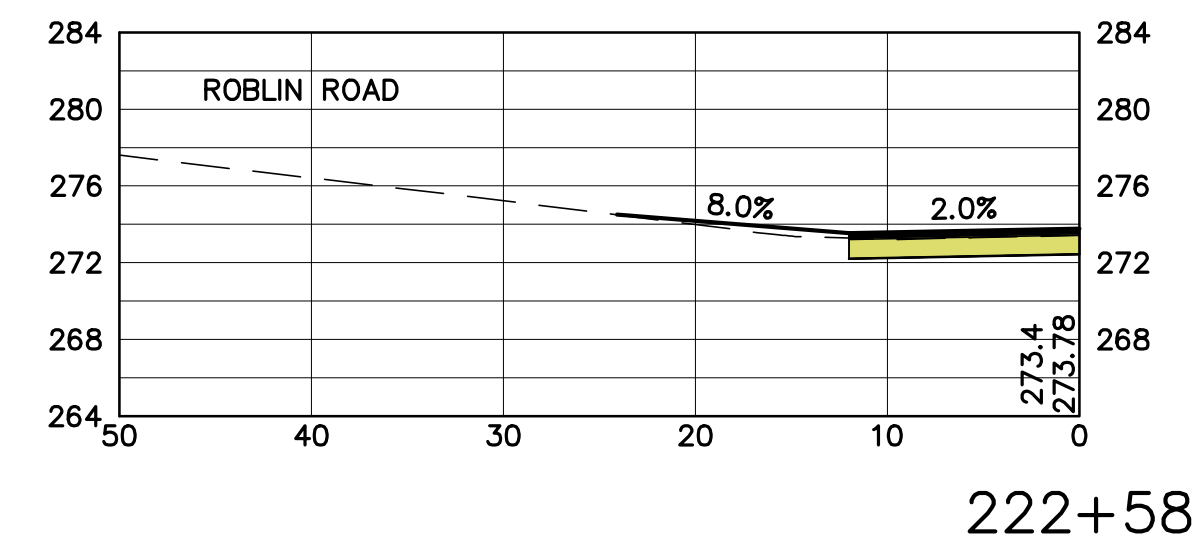
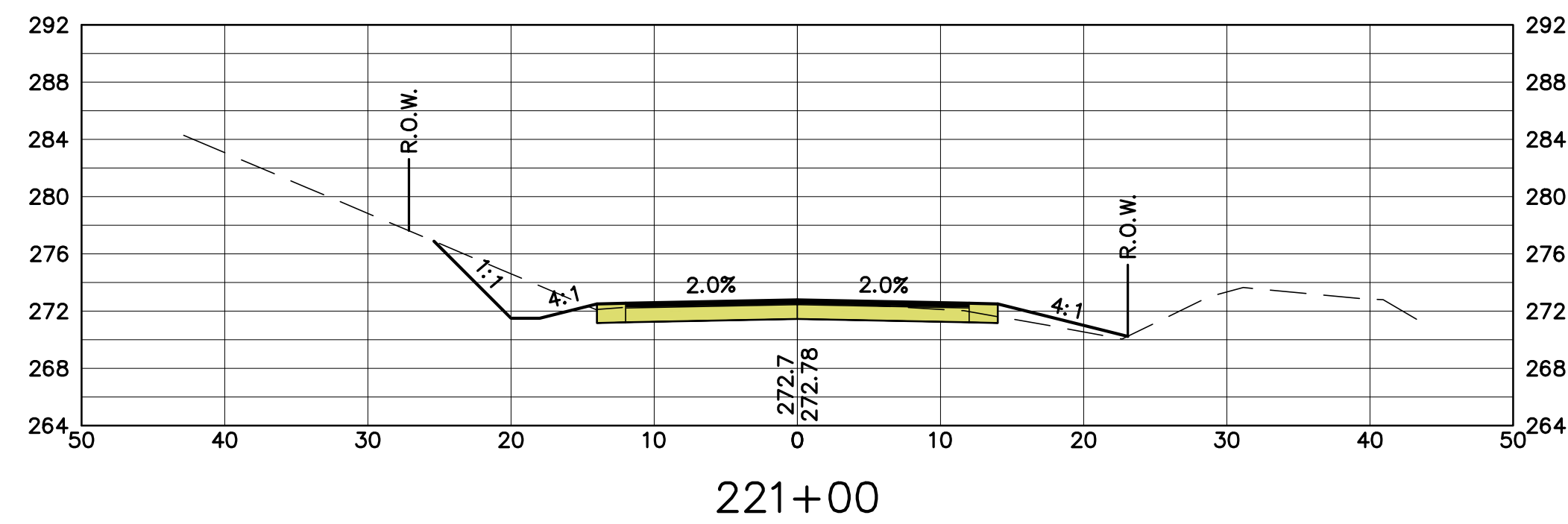
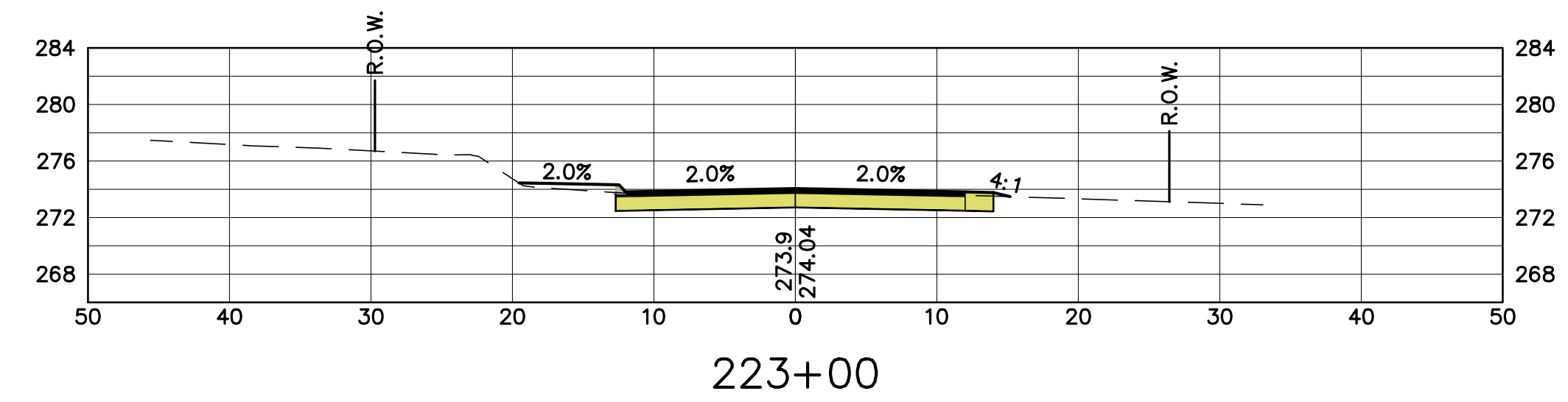
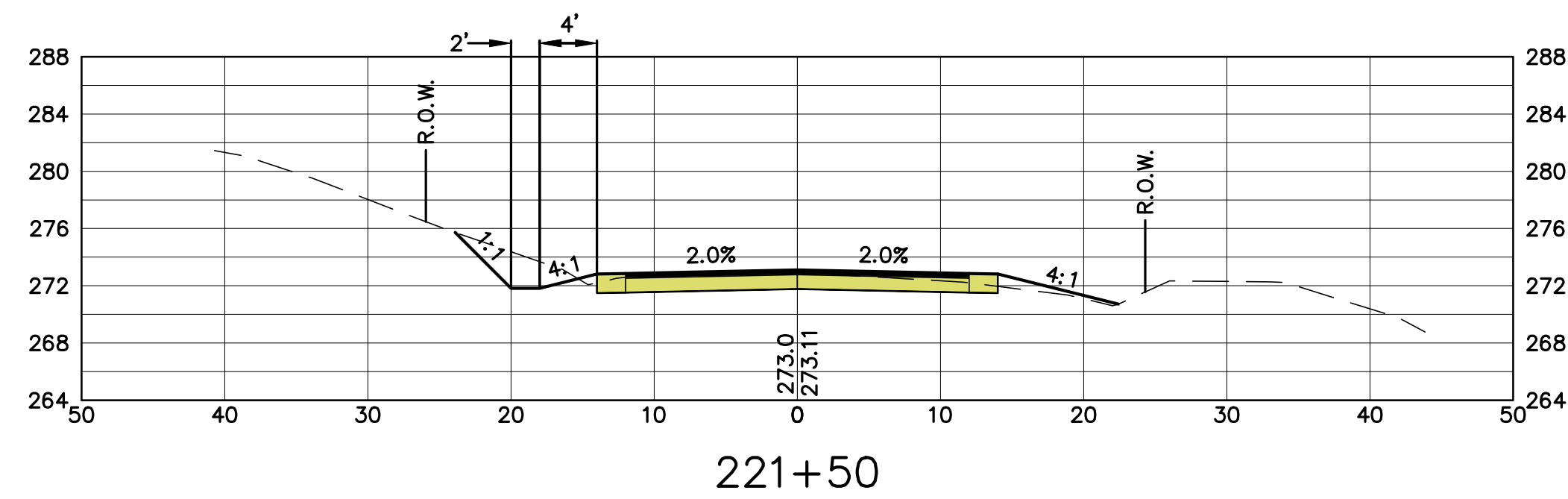
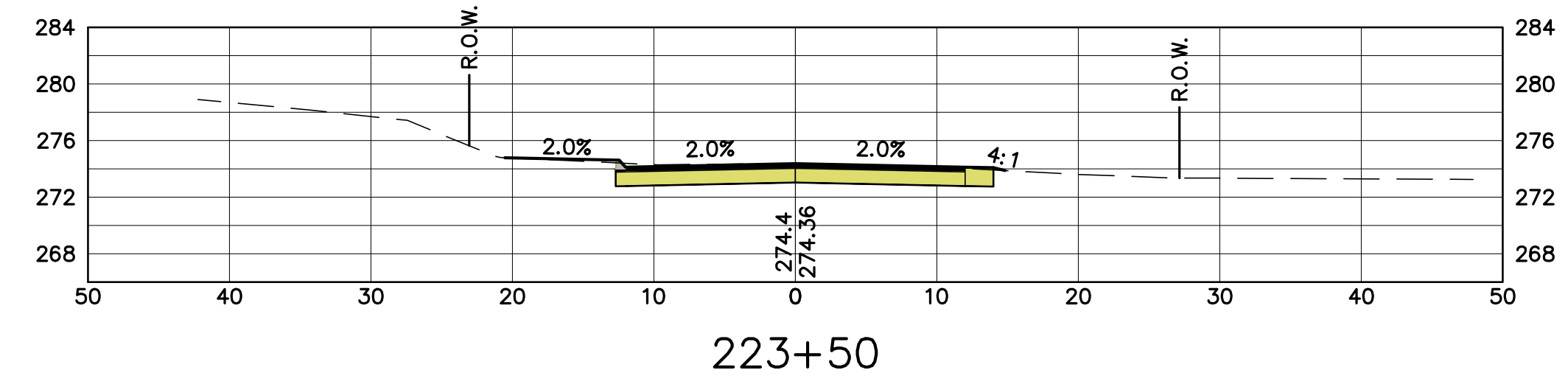
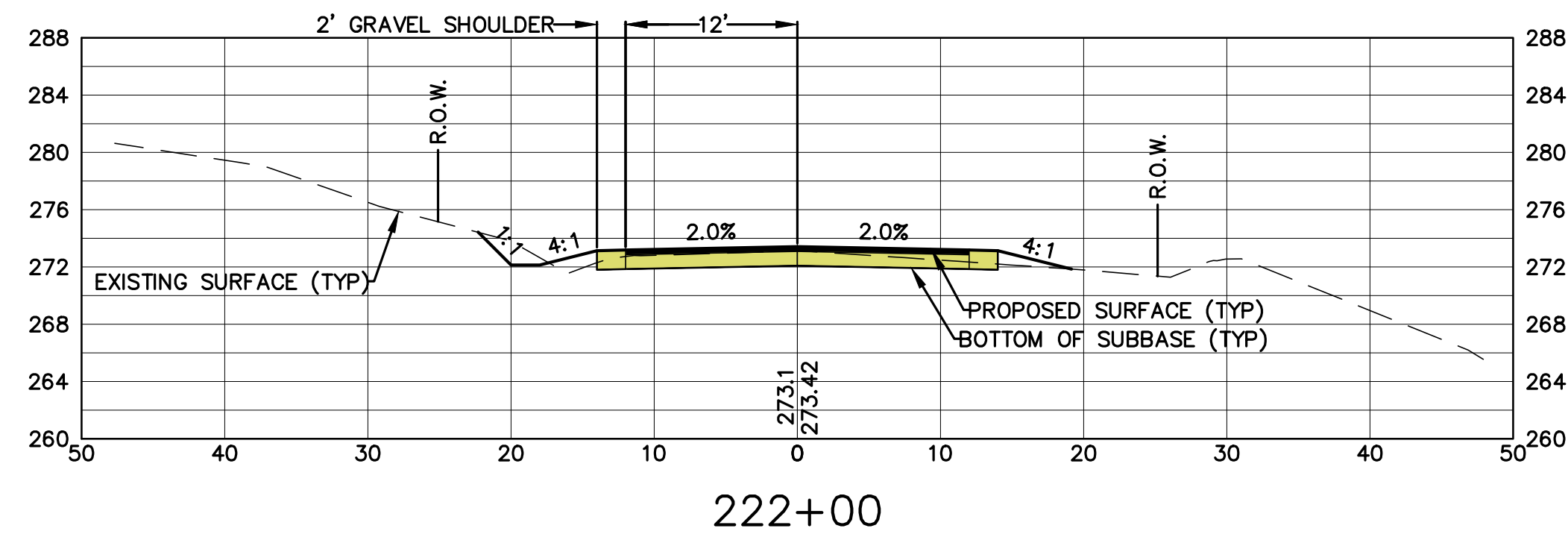
HOLBROOK ROAD
CROSS SECTIONS
217+50 TO 220+00

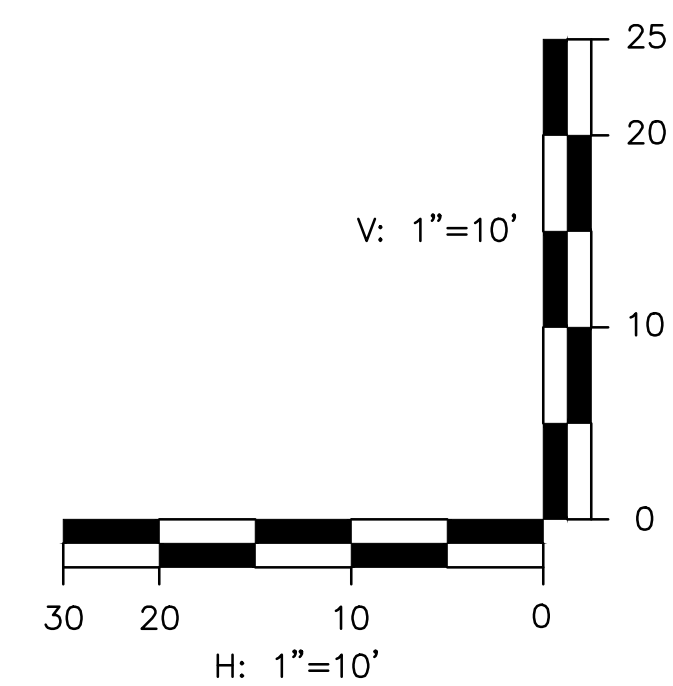
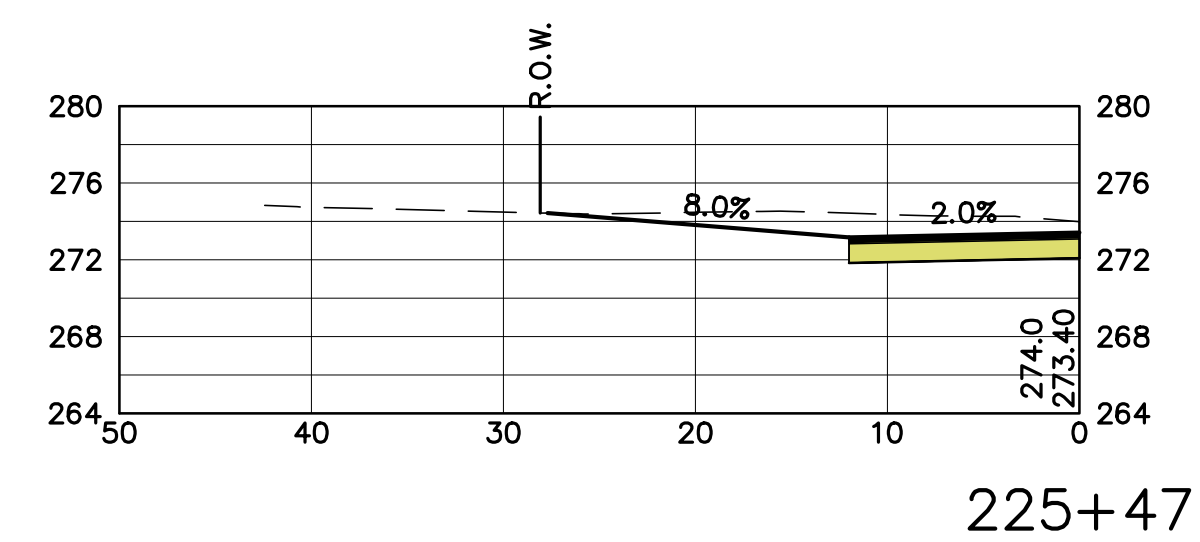
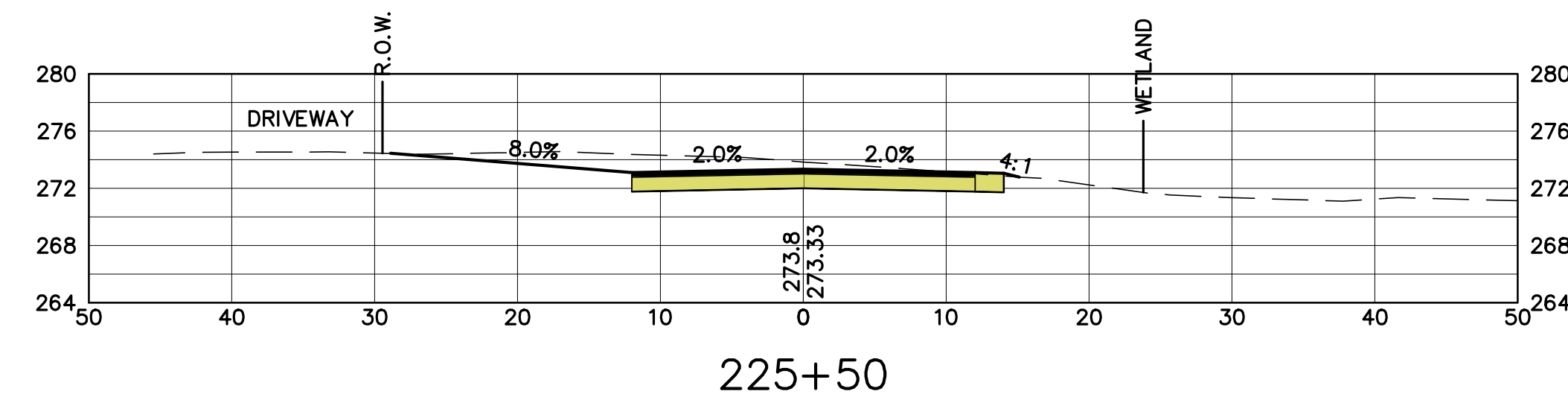
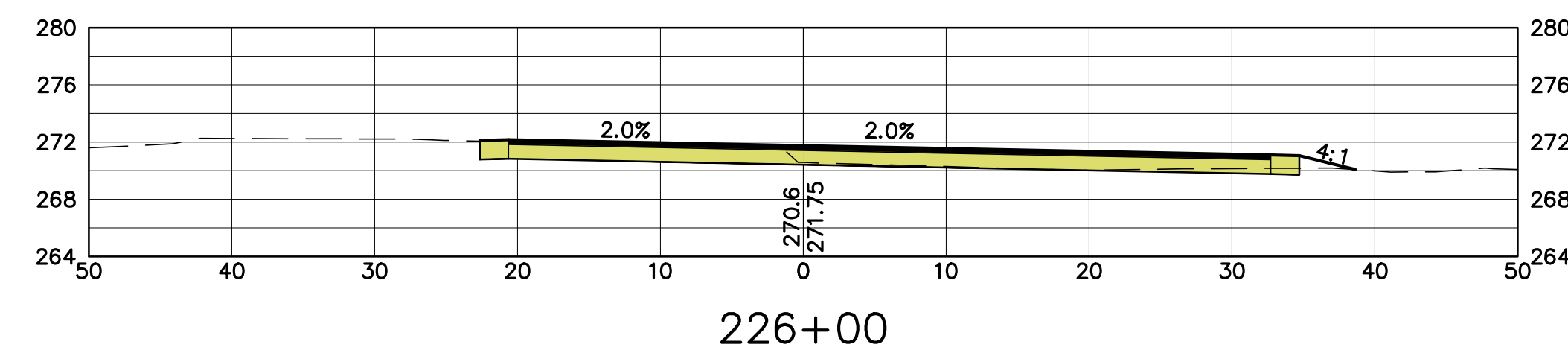
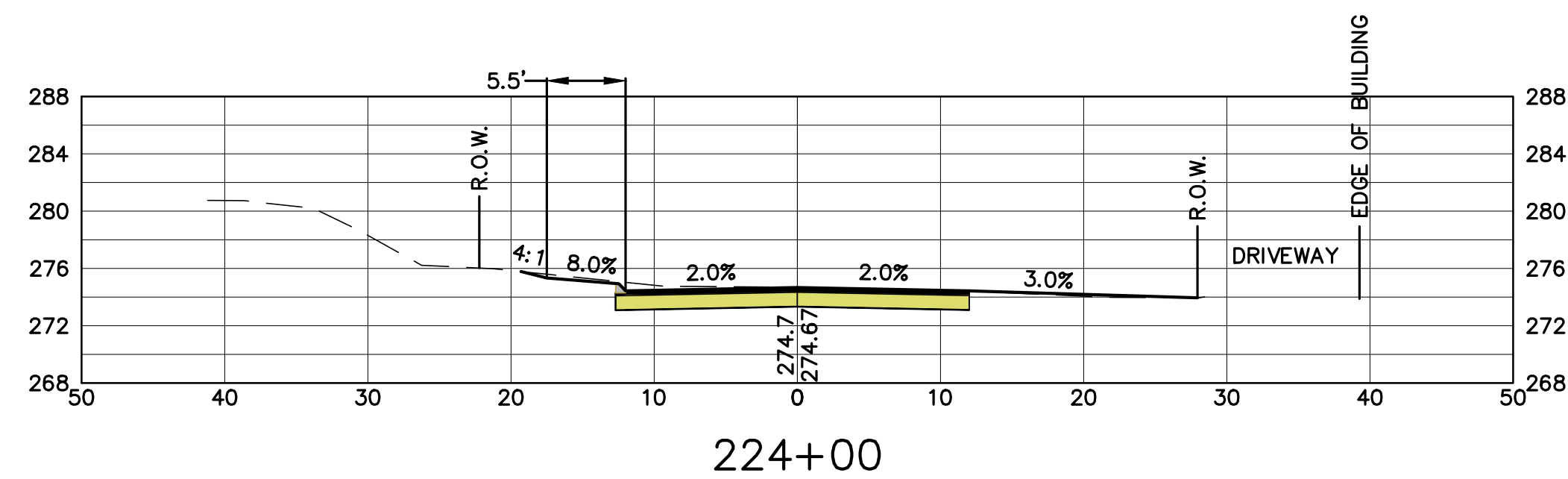
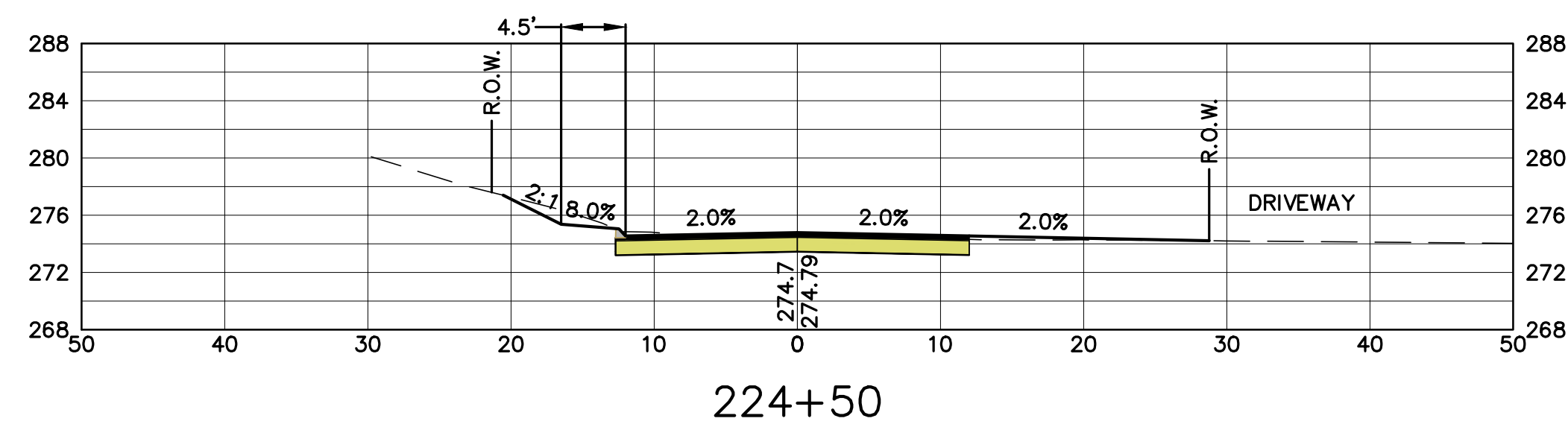
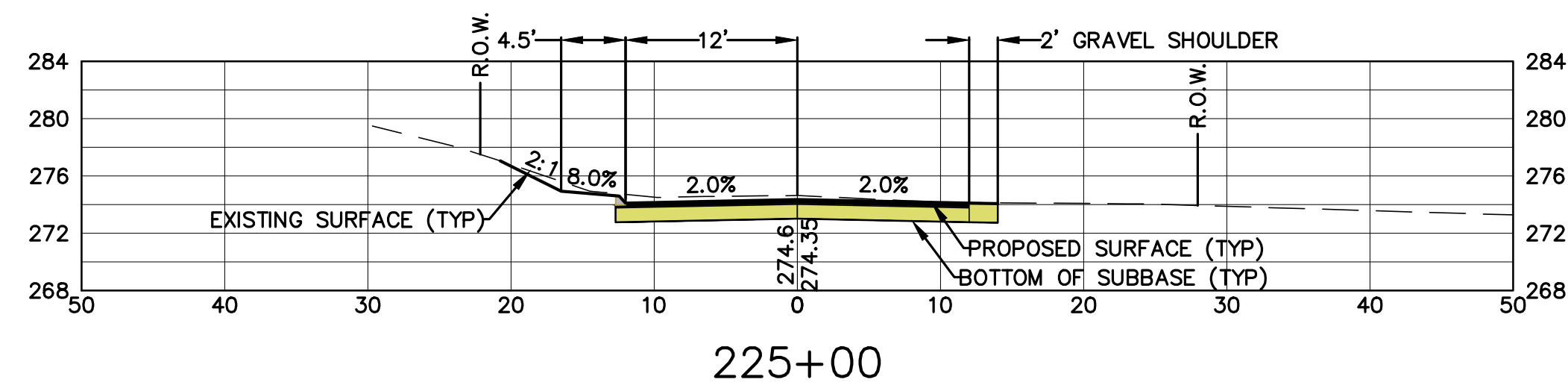
PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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V: $1''=10'$

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST STREET
BEDFORD, NEW HAMPSHIRE

HOLBROOK ROAD
CROSS SECTIONS
224+00 TO 226+00

SHEET: 46 OF 62

SCALE: AS SHOWN

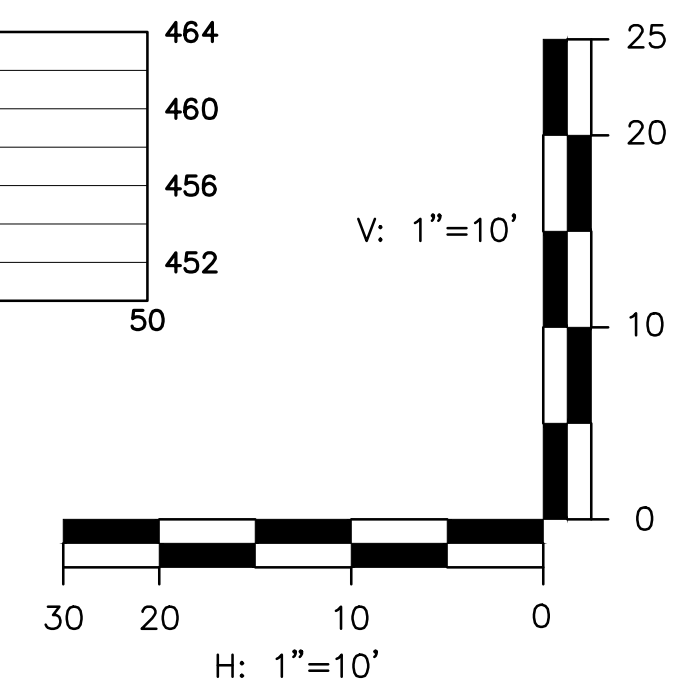
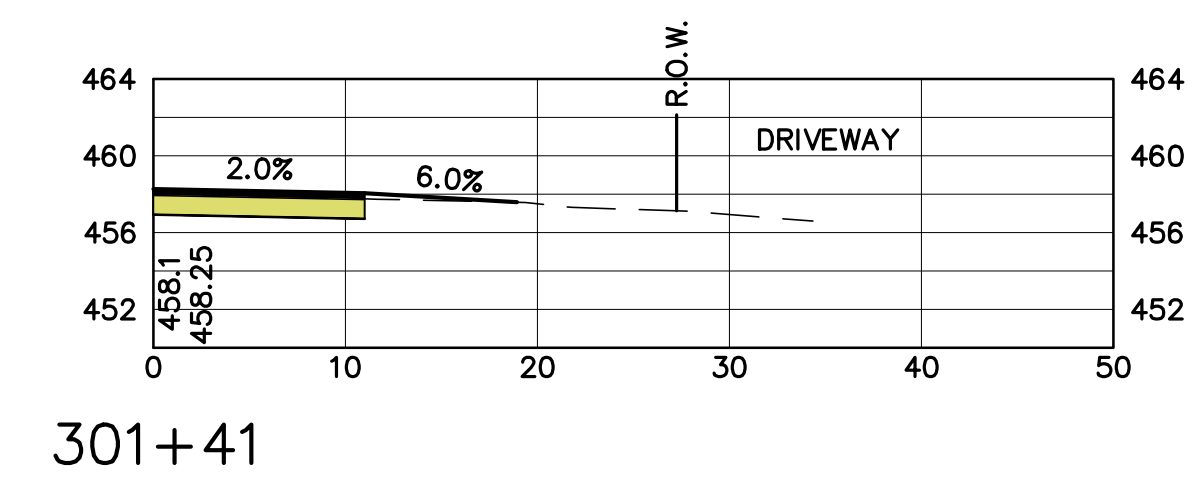
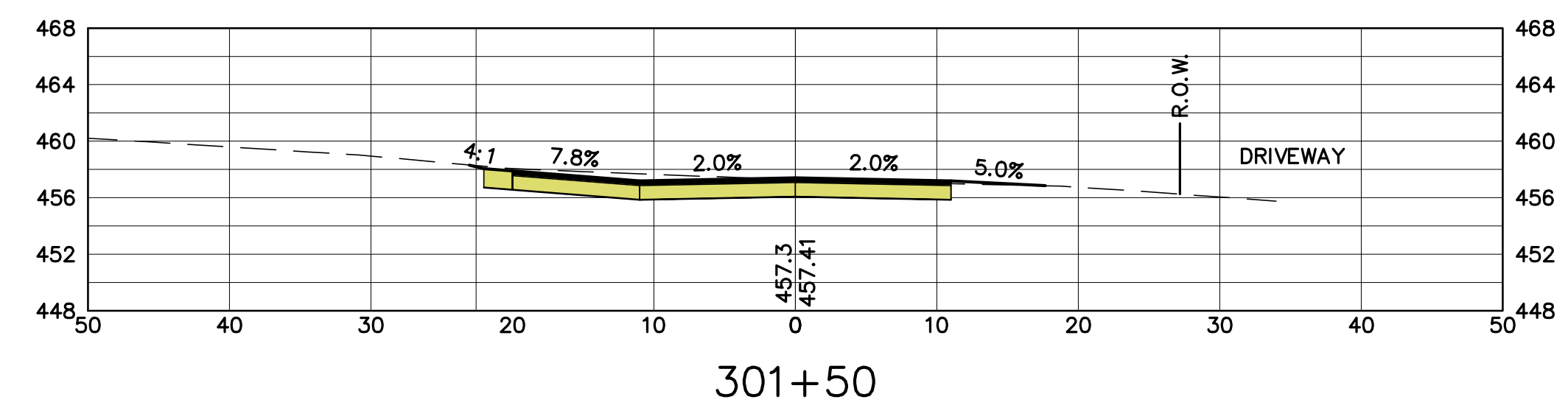
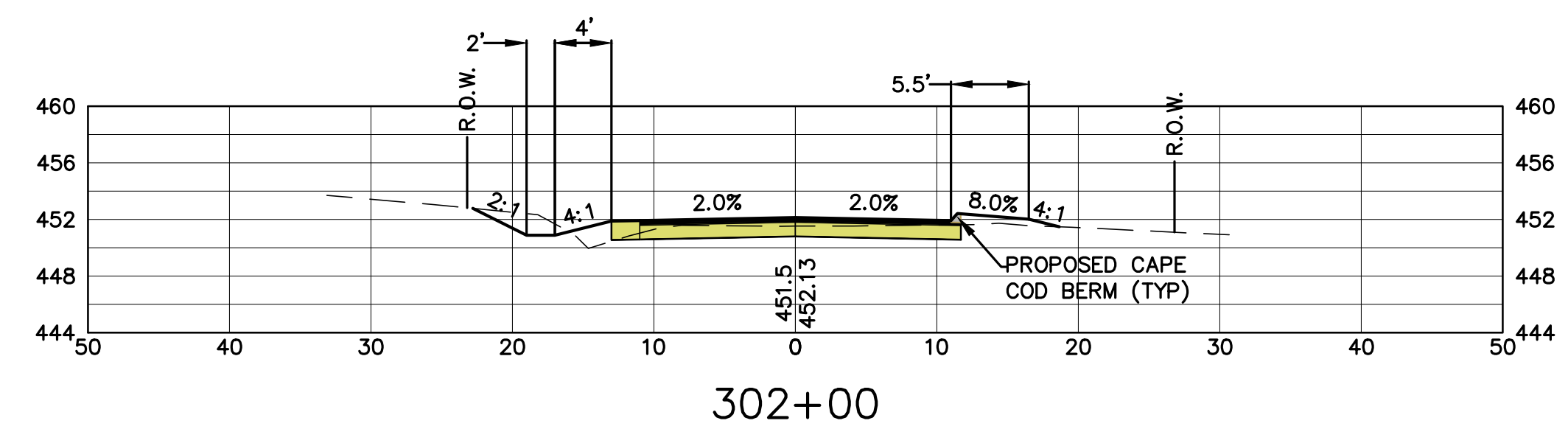
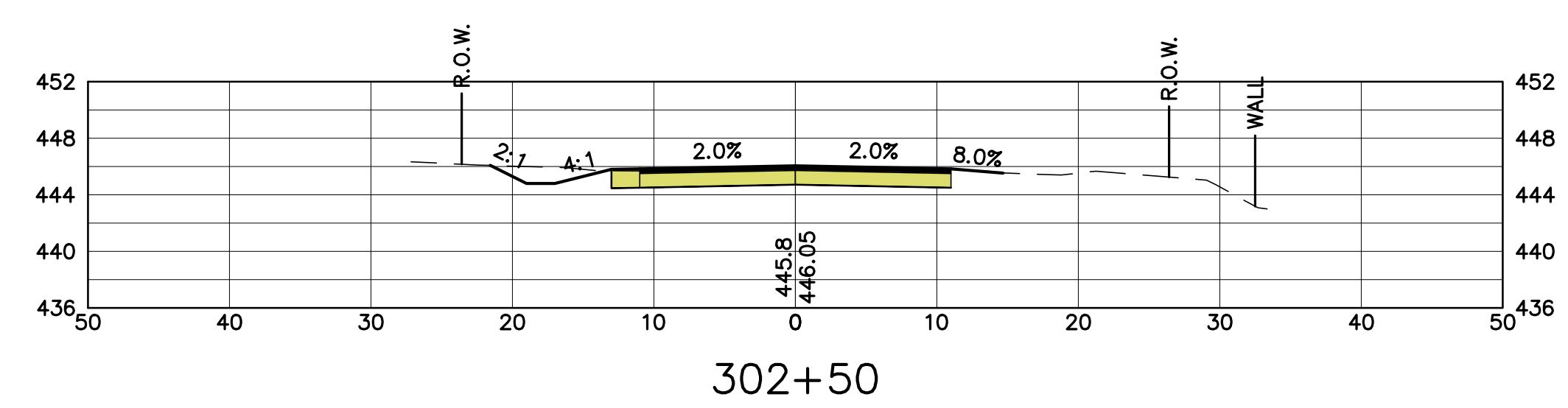
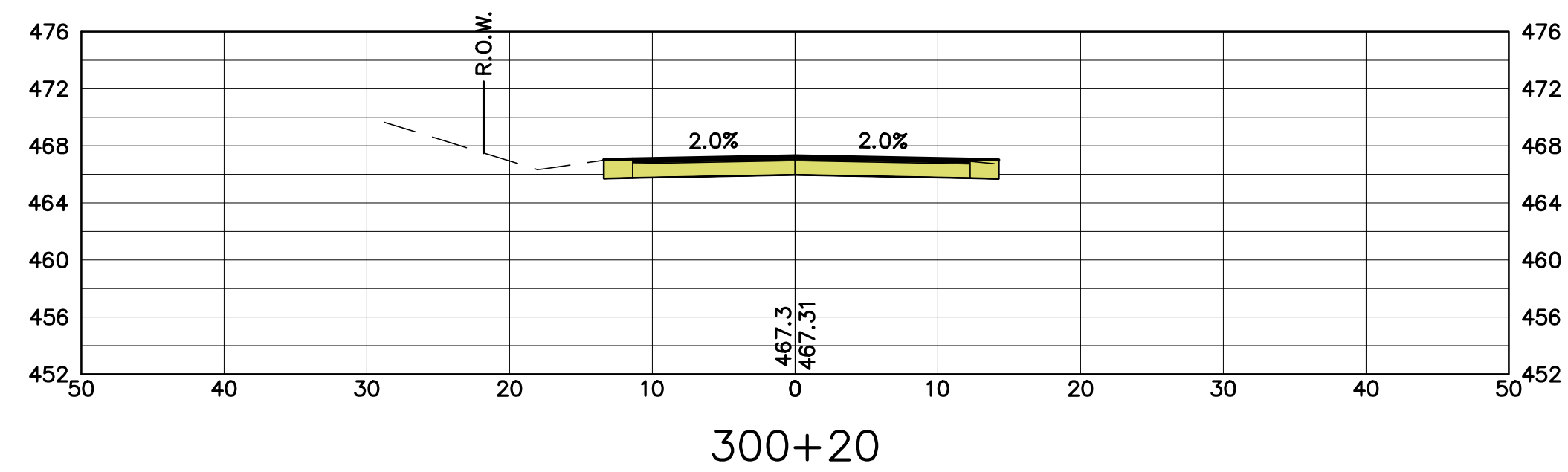
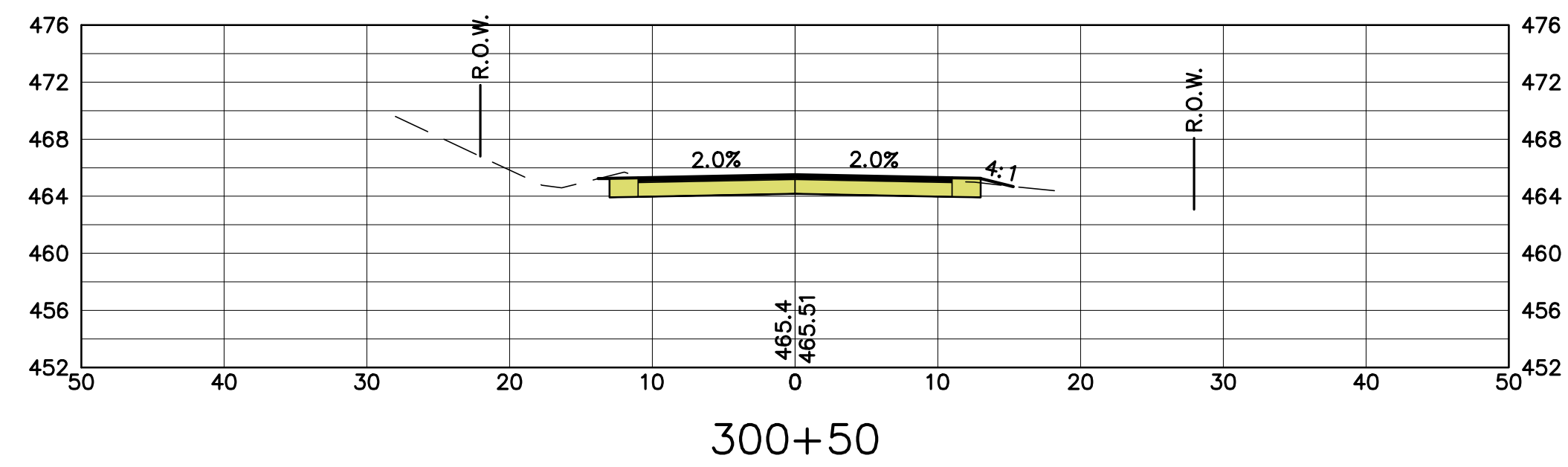
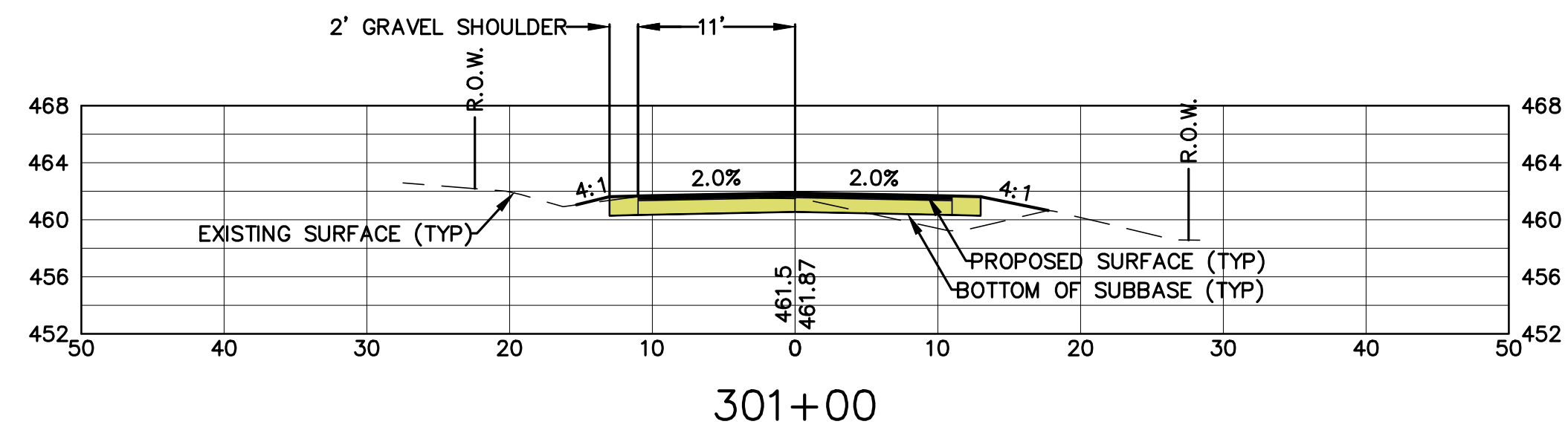
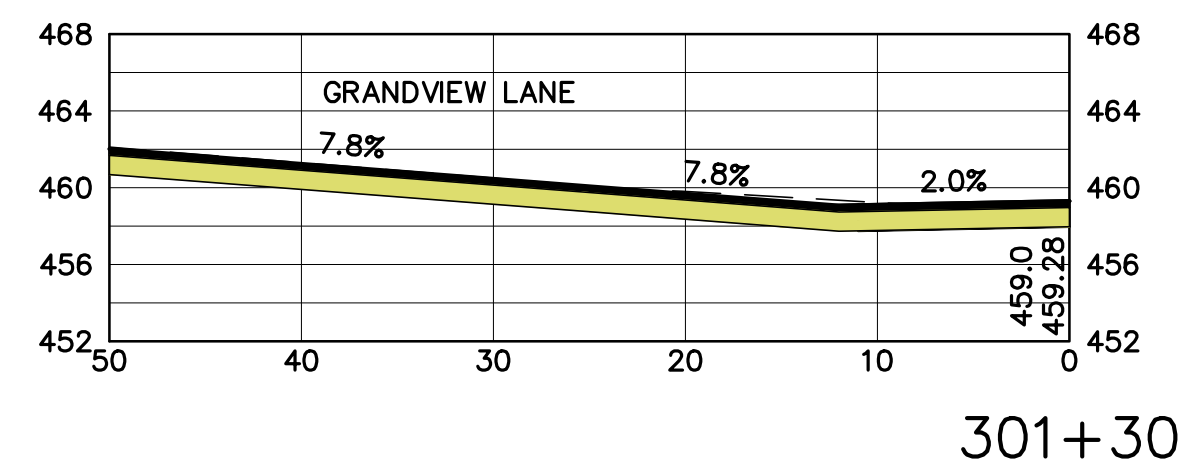
DATE: MAY 7, 2015

PROJ. 77-2015

	No.
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DATE _____

REVISION	DESCRIPTION
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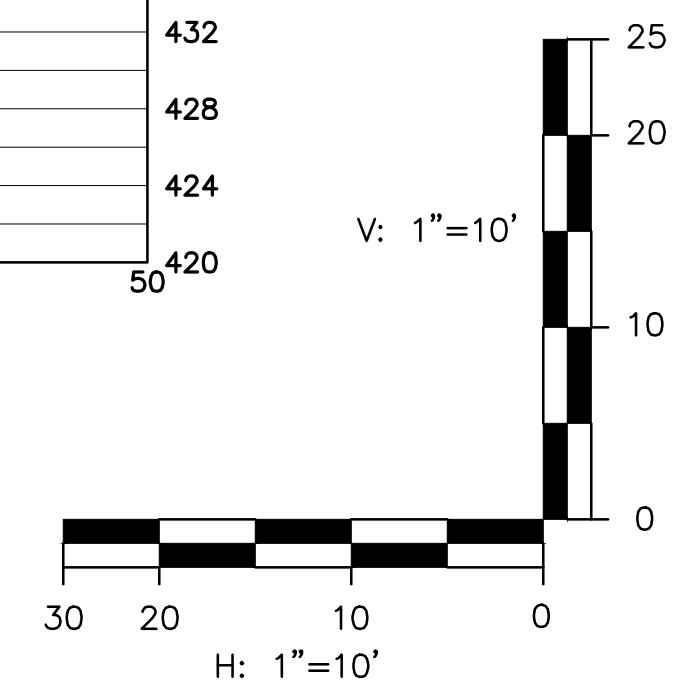
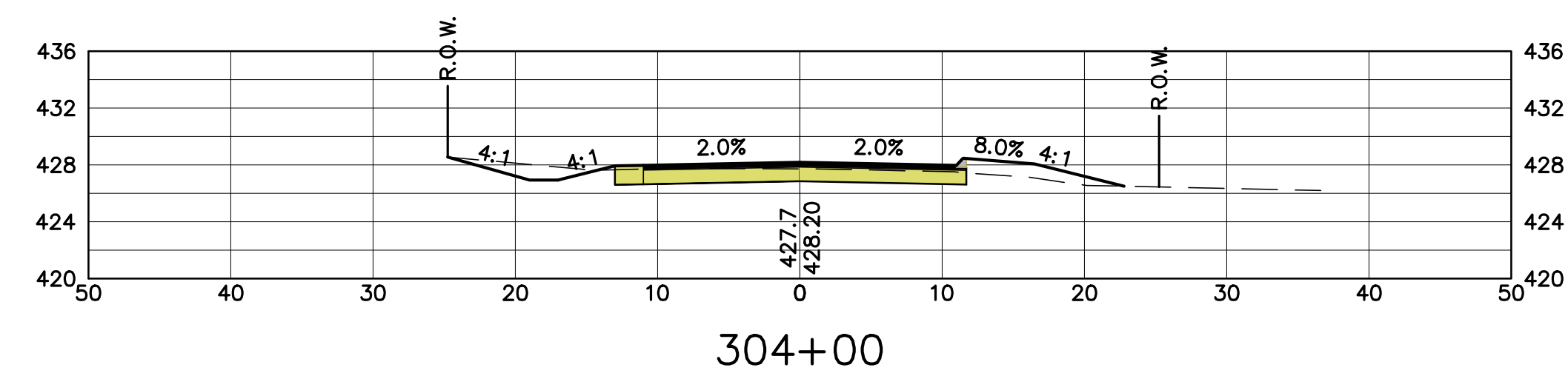
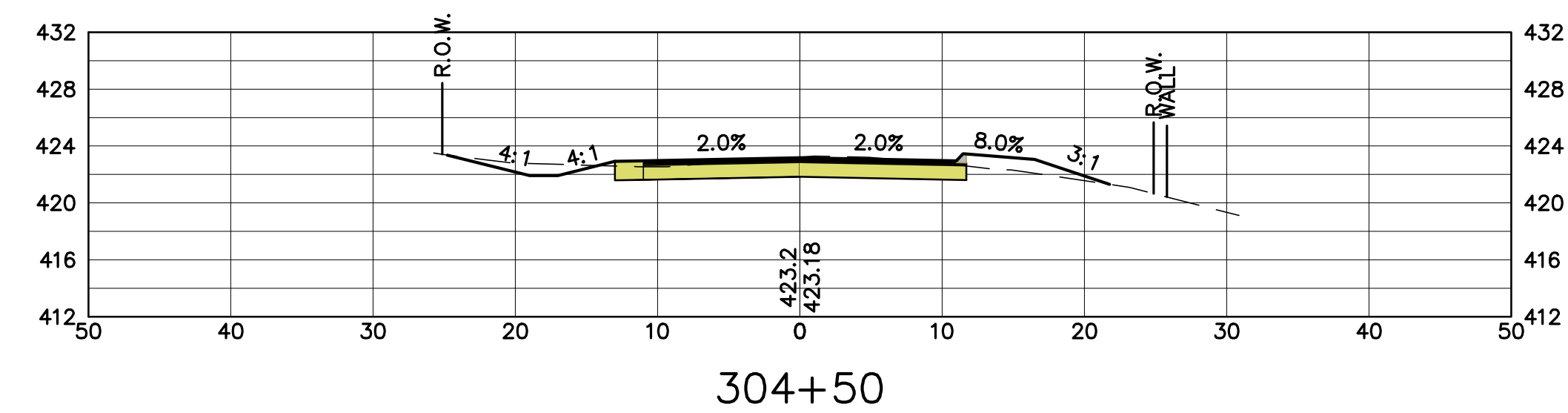
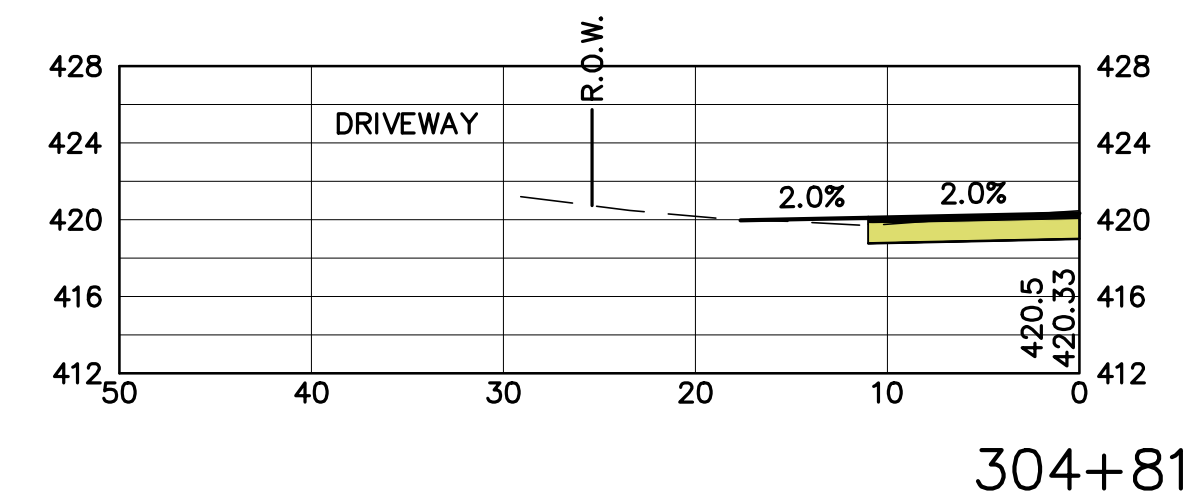
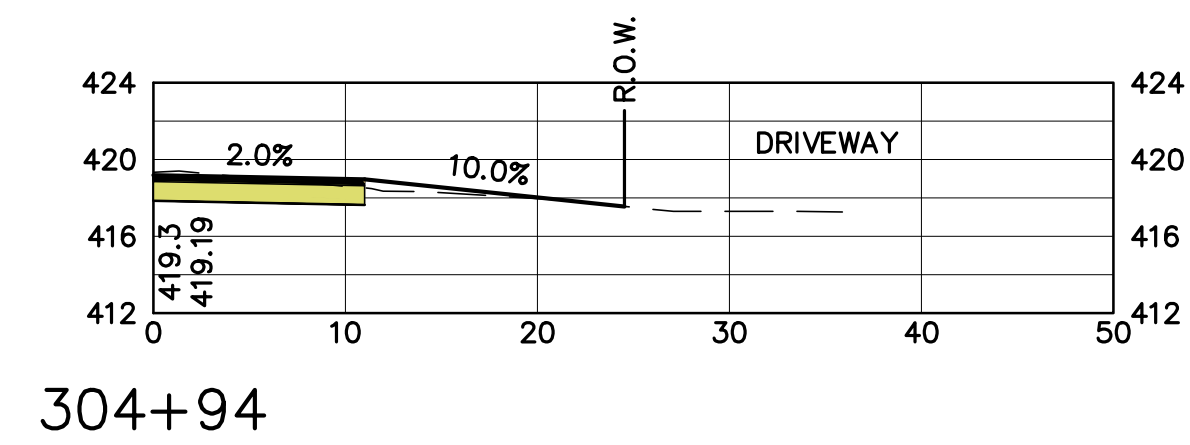
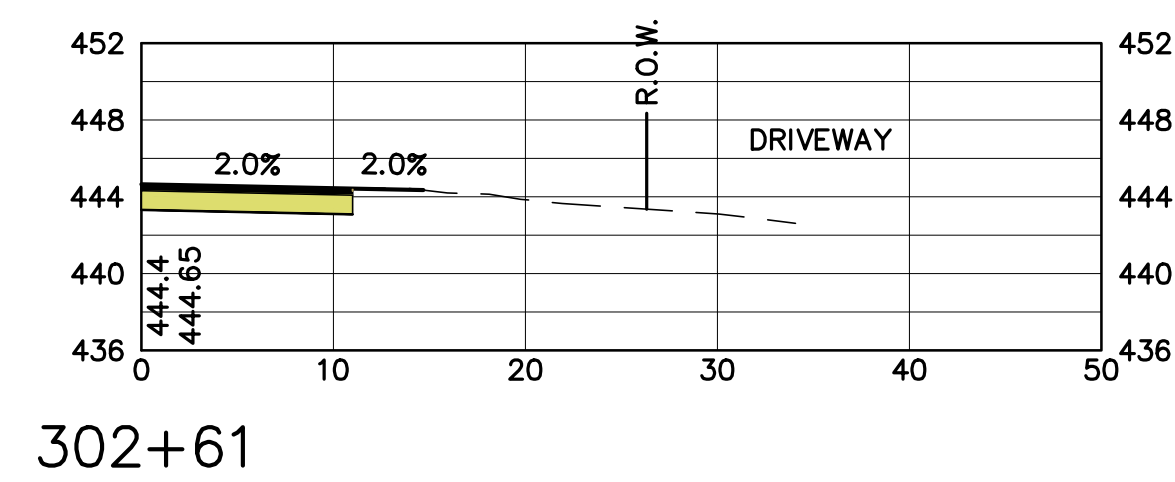
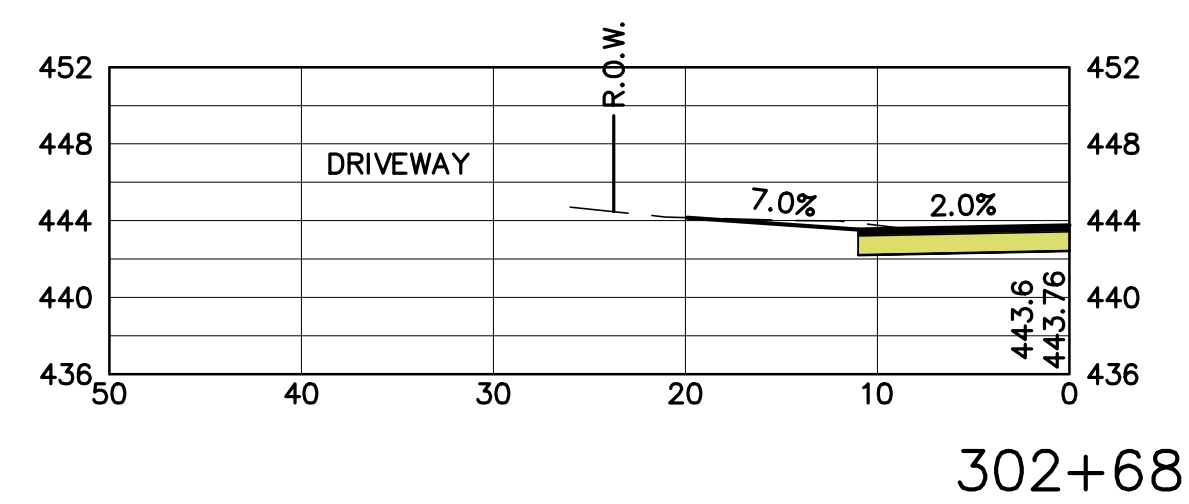
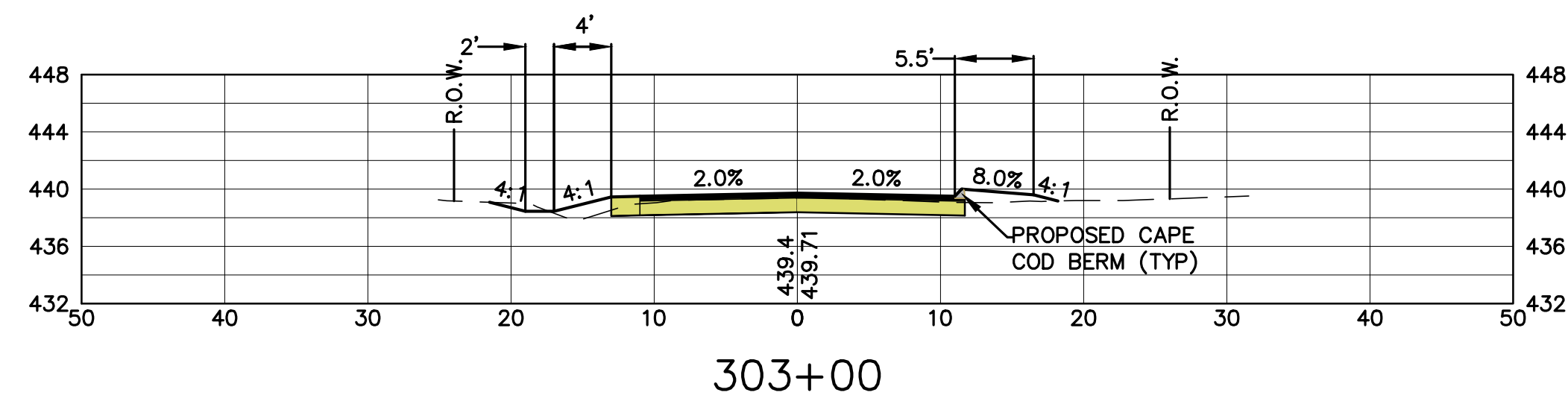
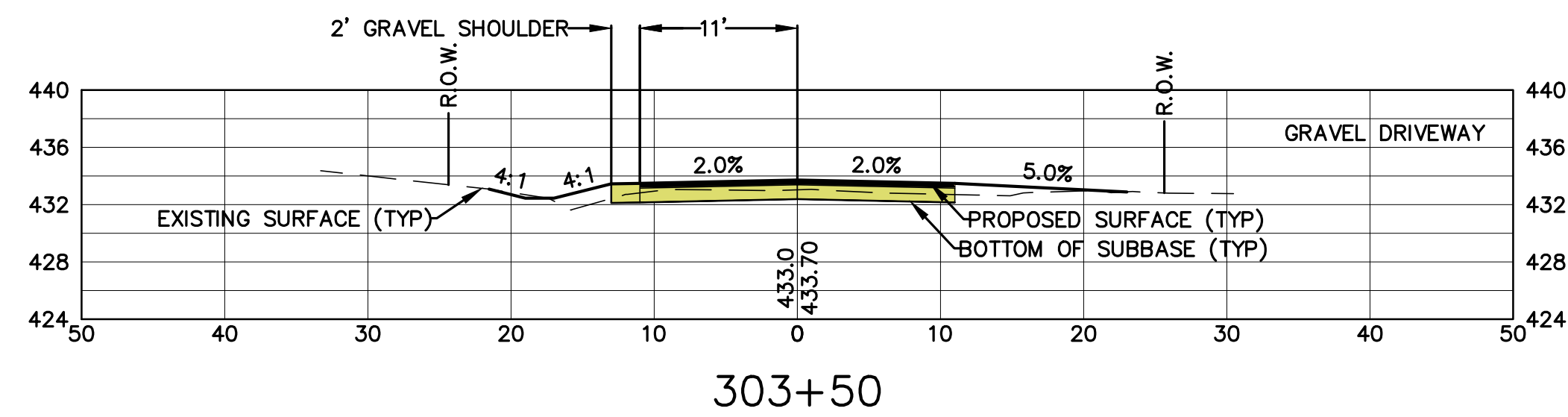
HICKORY LANE
CROSS SECTIONS
300+20 TO 302+50

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

SHEET: 47 OF 62	SCALE: AS SHOWN	DATE: MAY 7, 2015	PROJ. 77-2015
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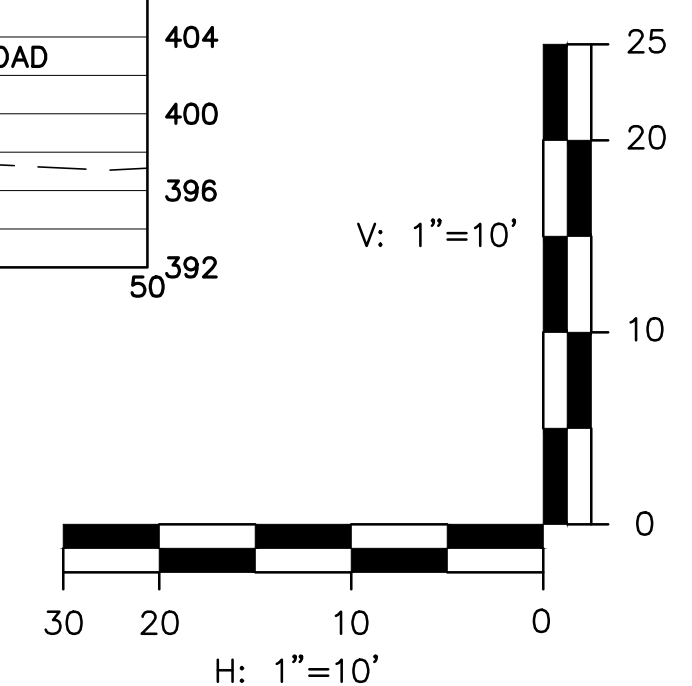
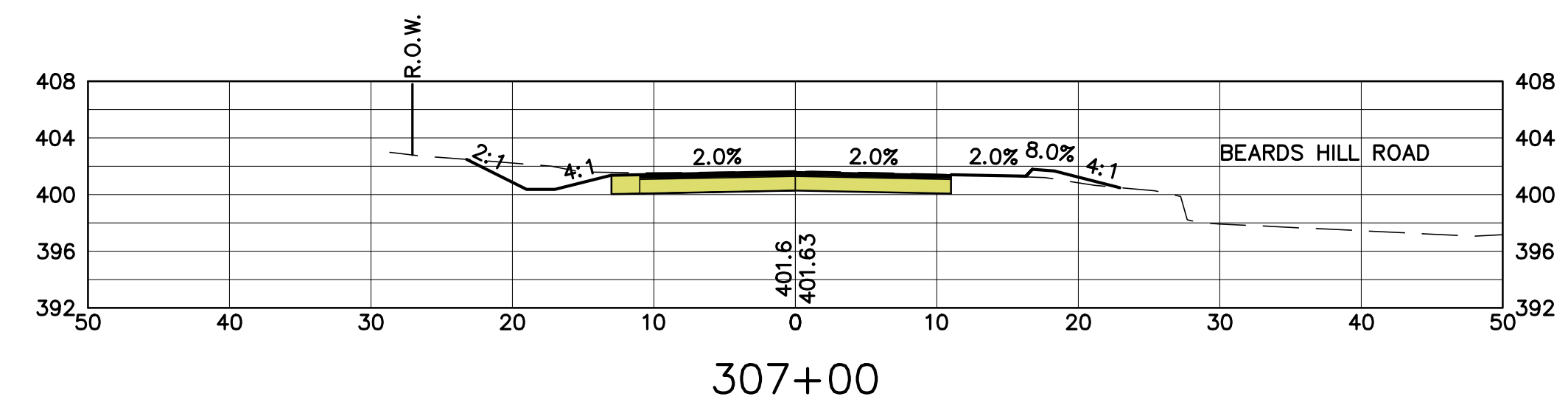
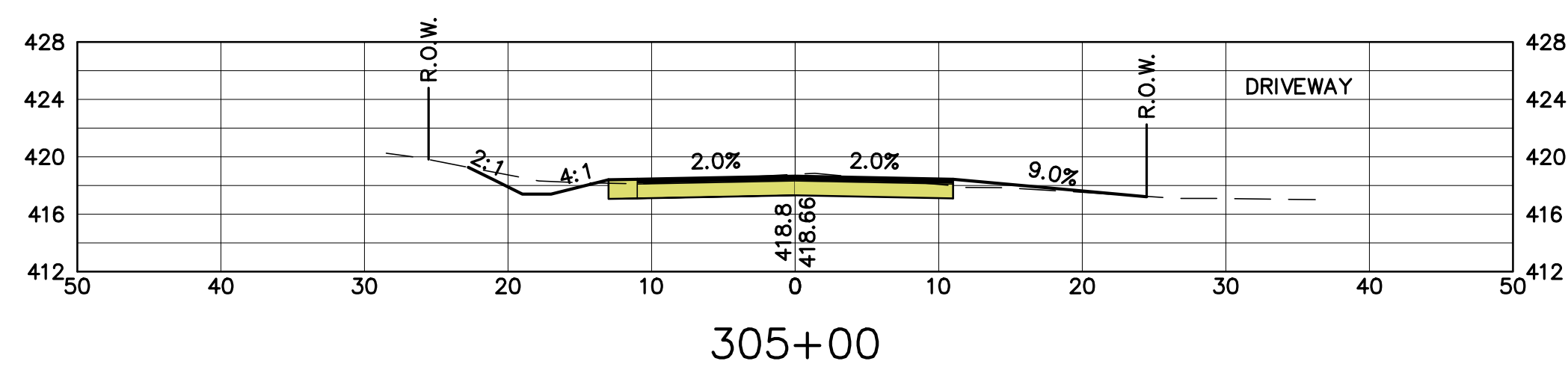
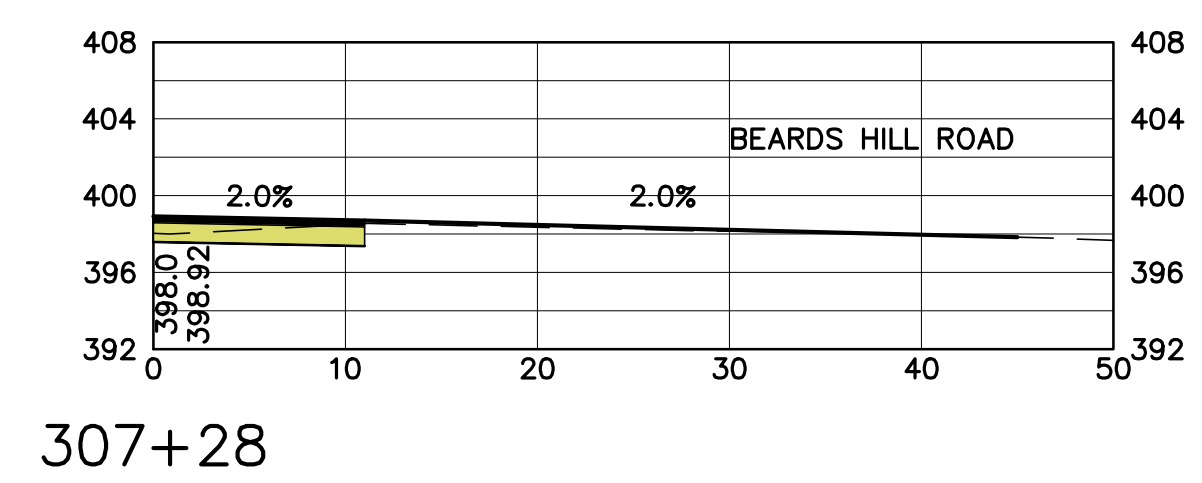
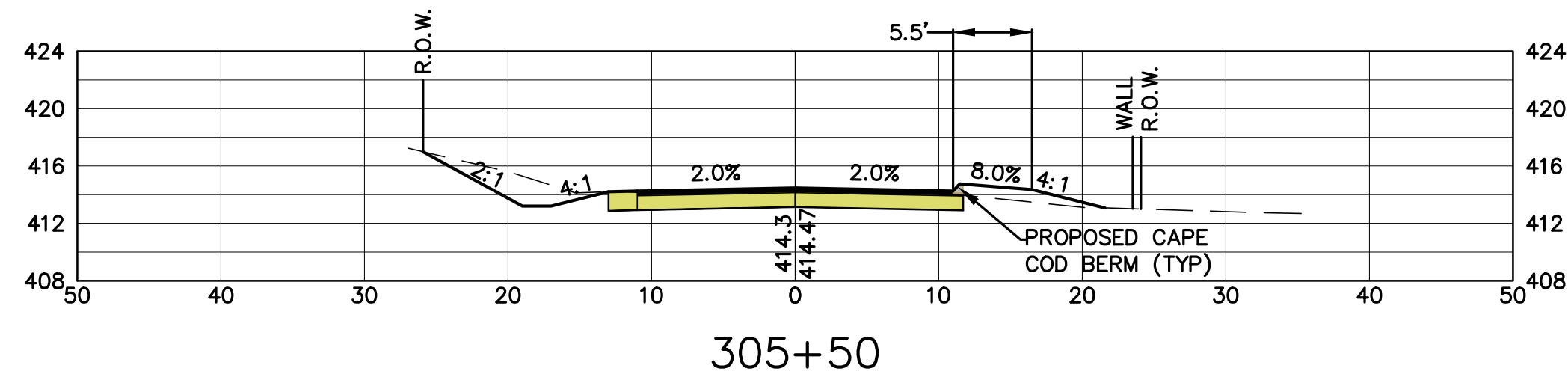
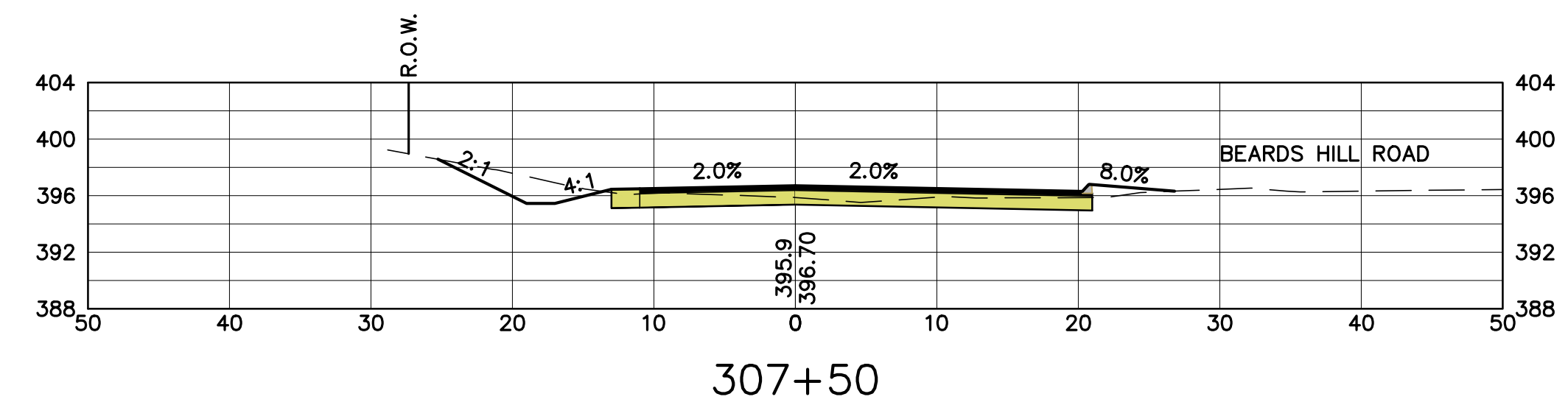
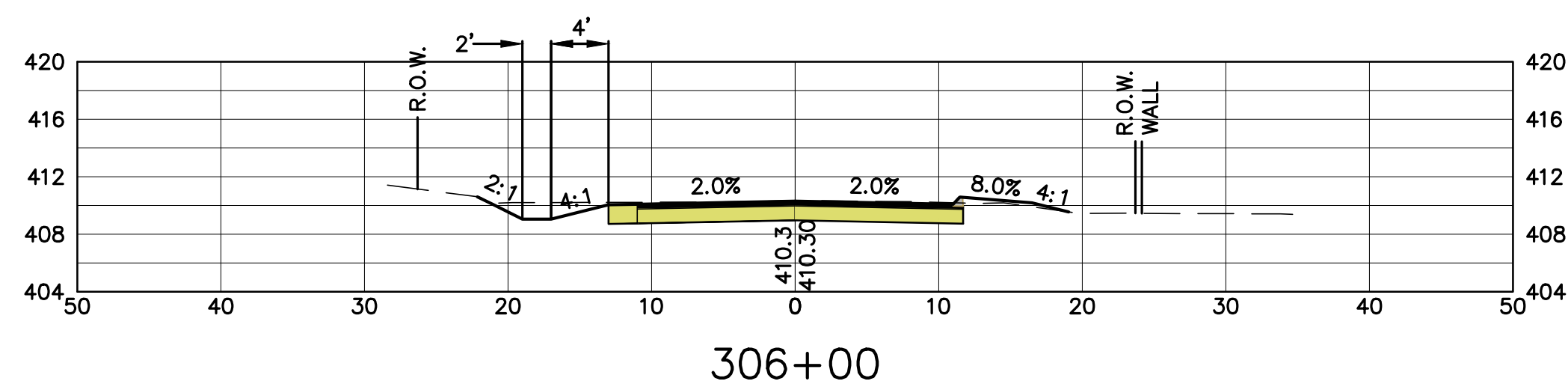
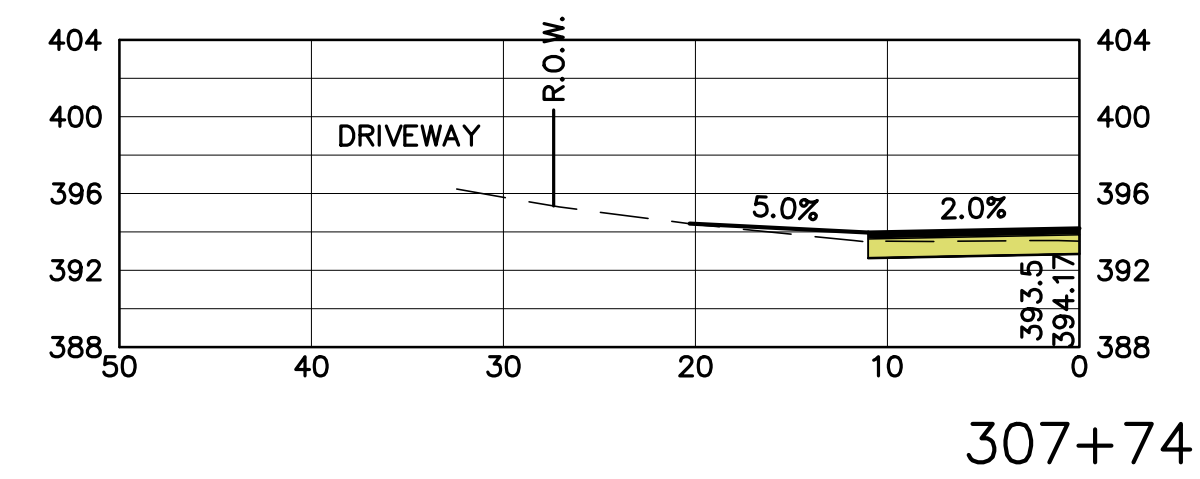
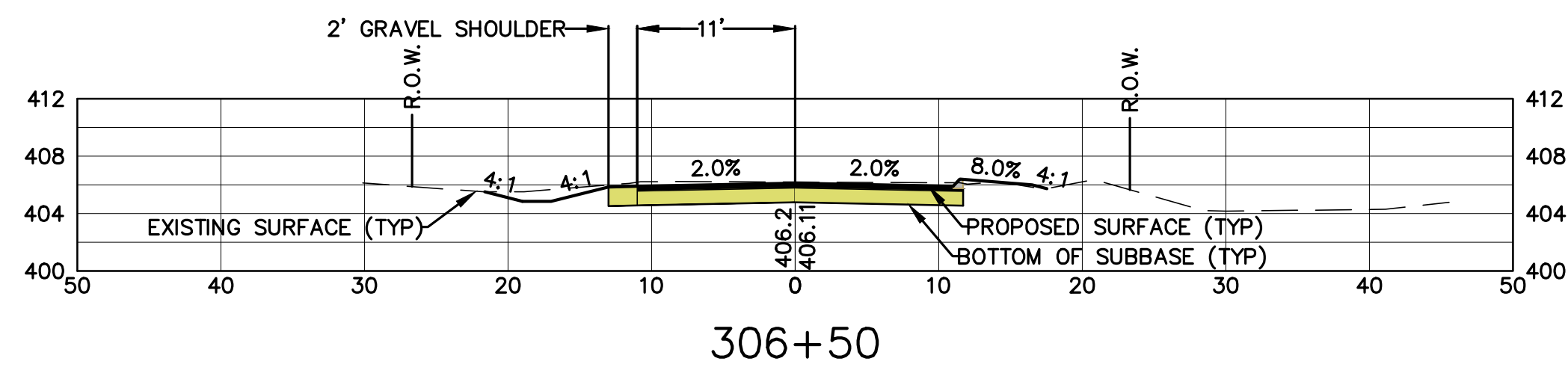
HICKORY LANE
CROSS SECTIONS
302+61 TO 304+94

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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NO.	DATE	REVISION DESCRIPTION
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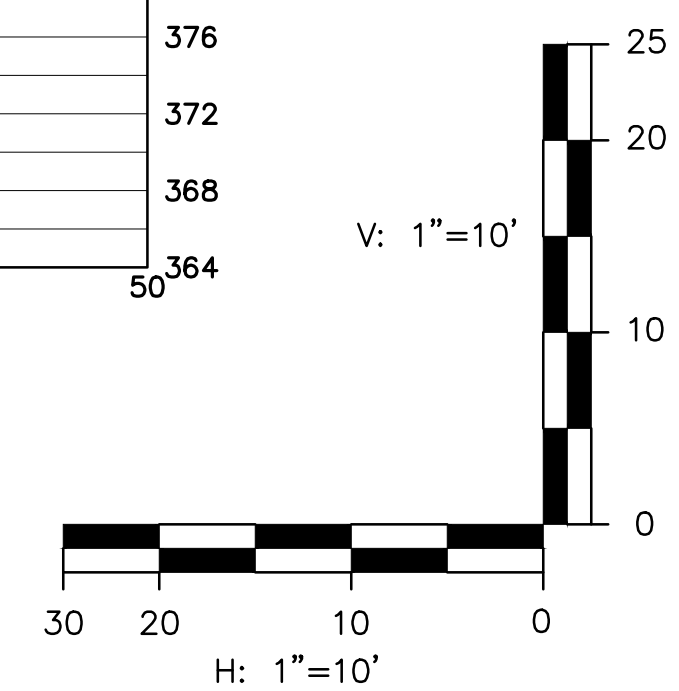
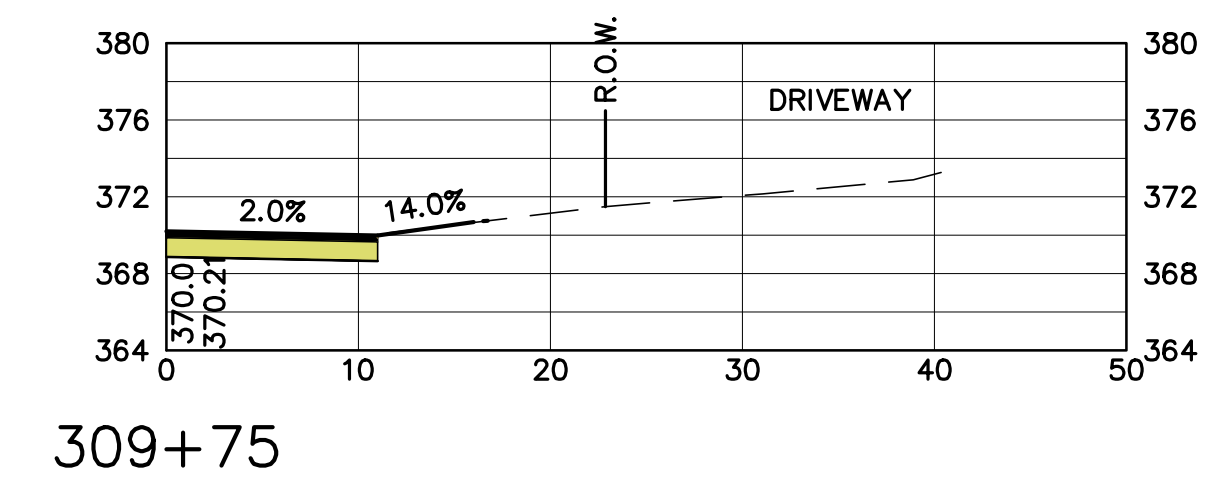
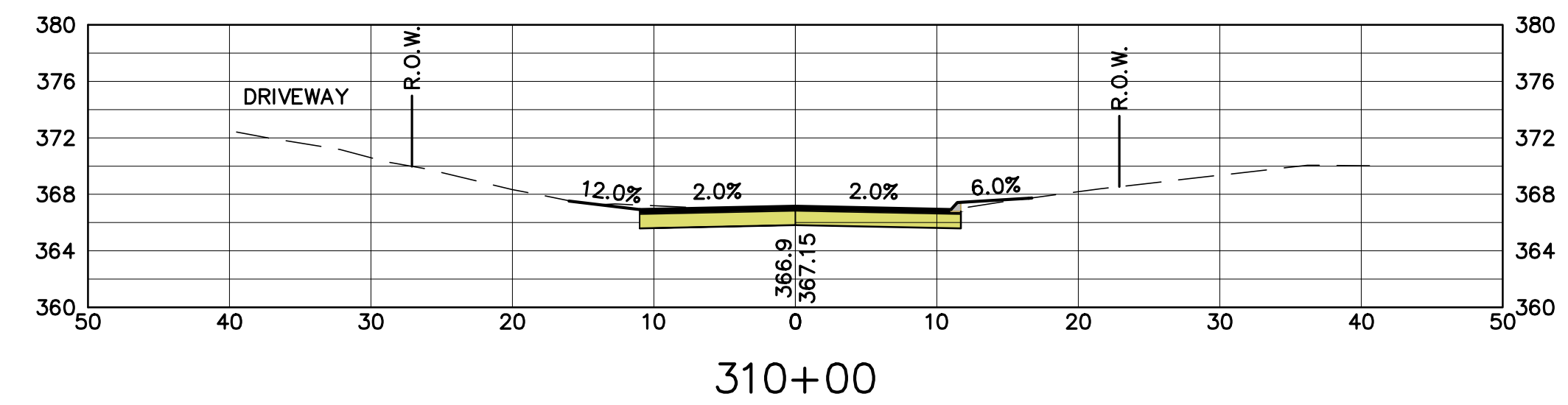
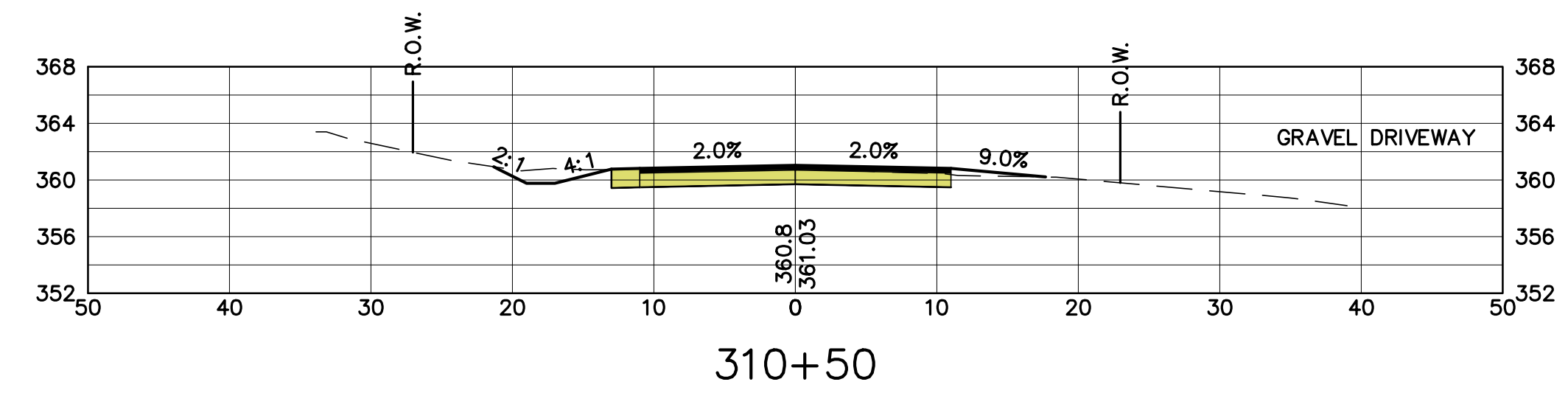
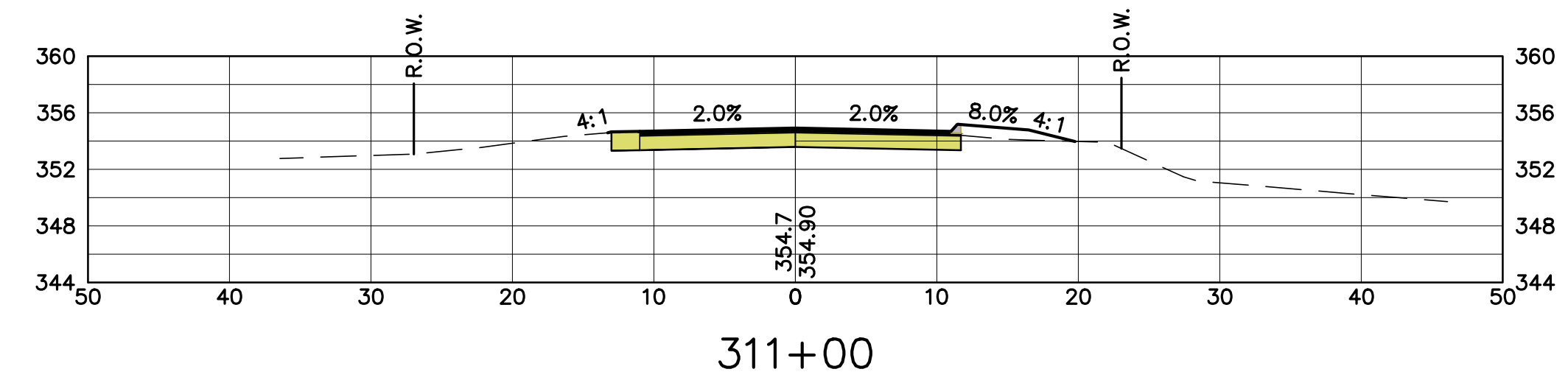
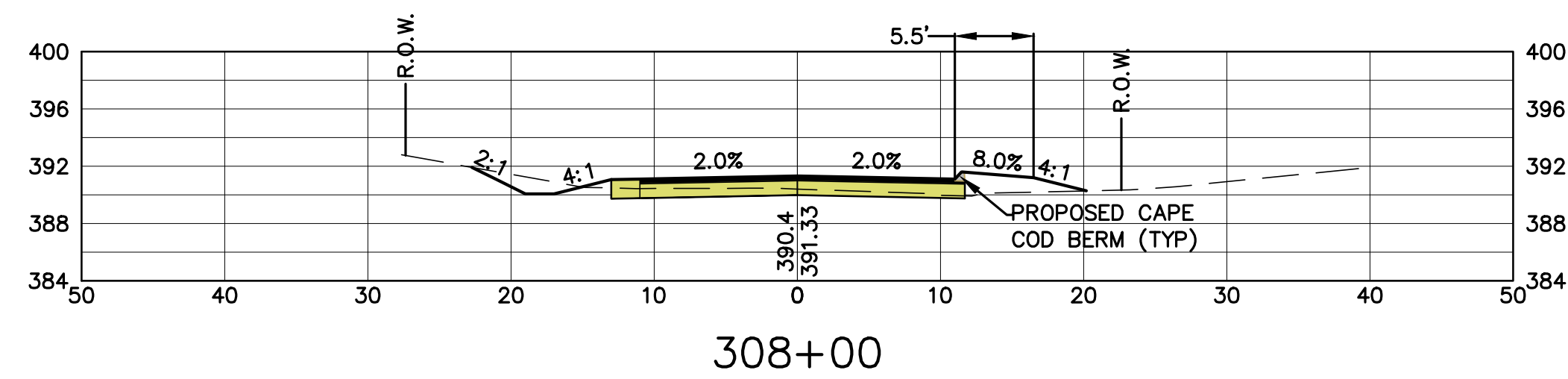
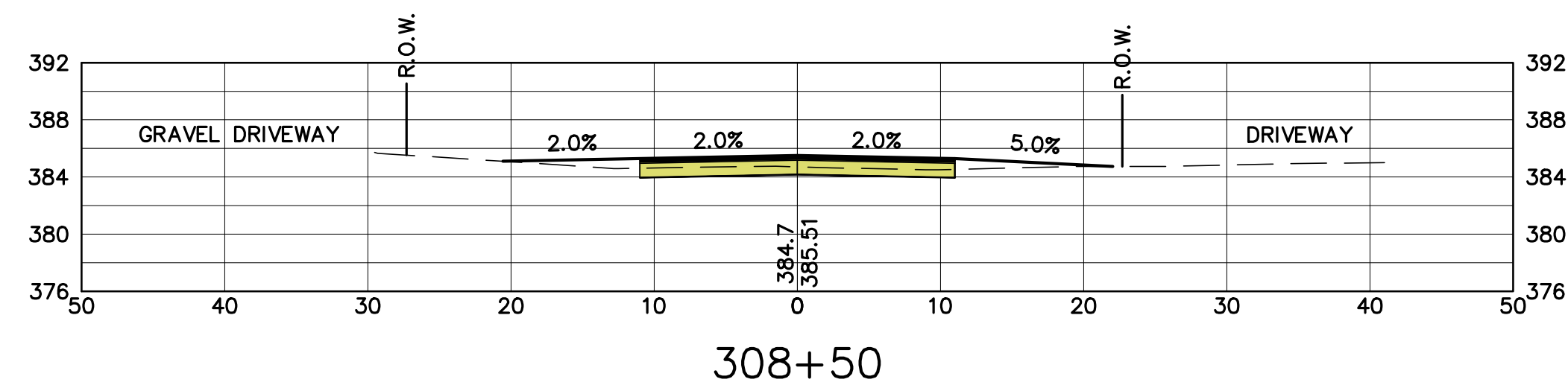
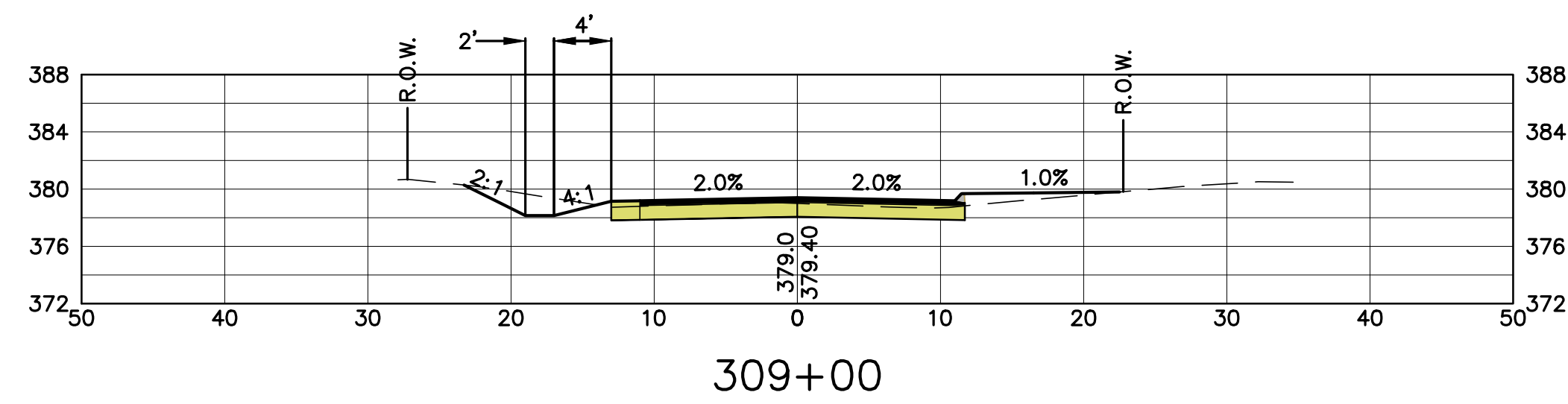
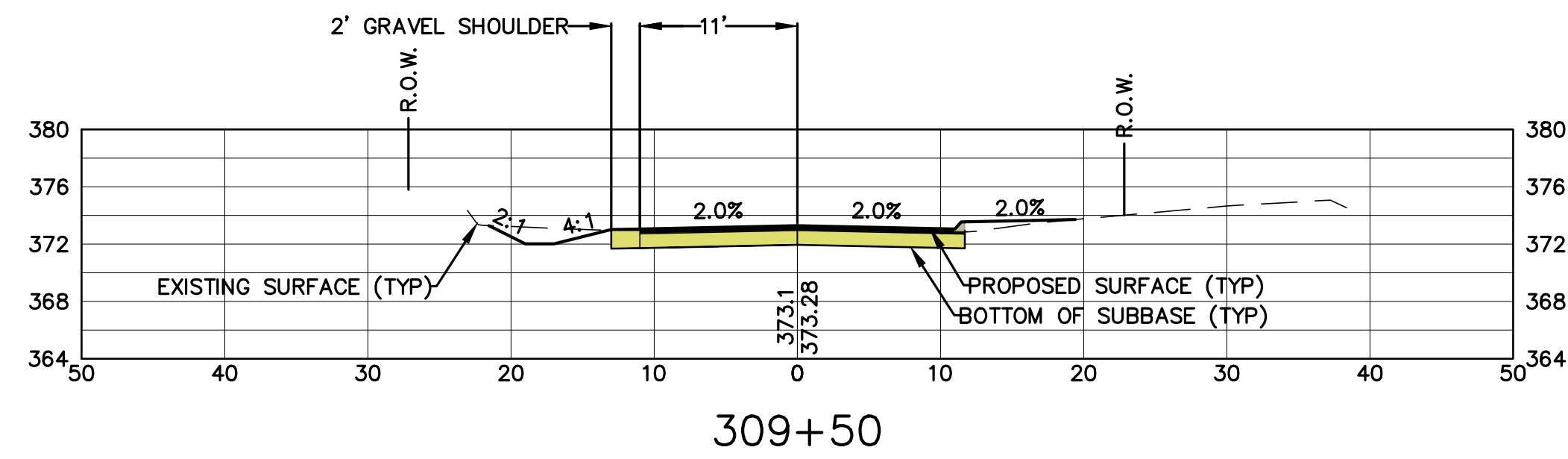
HICKORY LANE
CROSS SECTIONS
305+00 TO 307+74

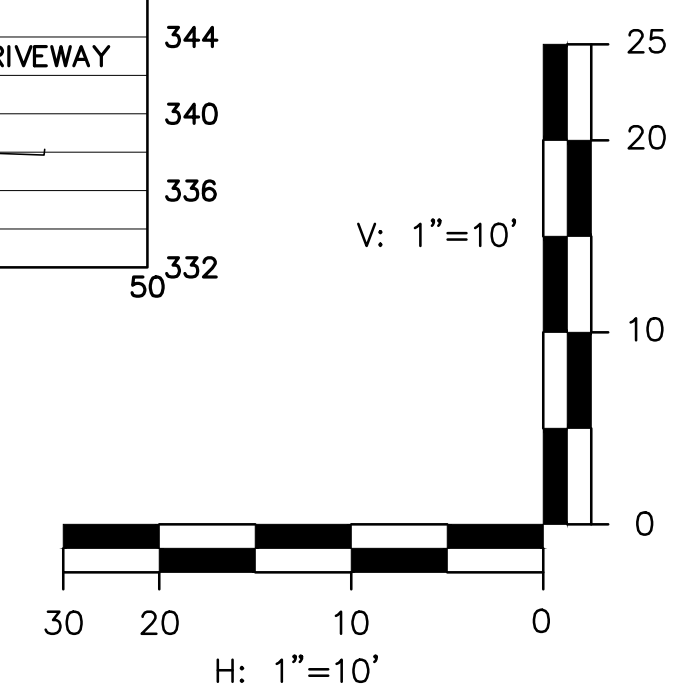
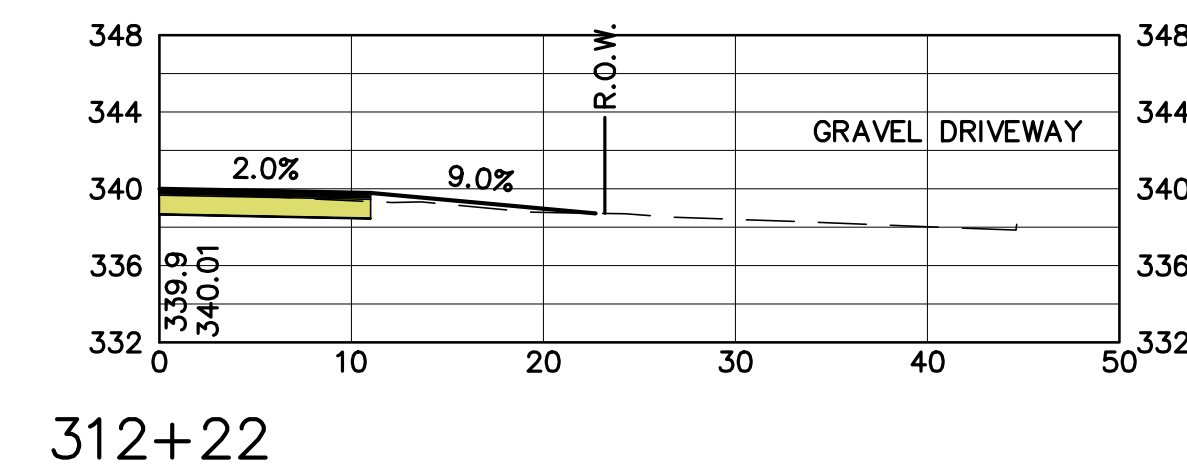
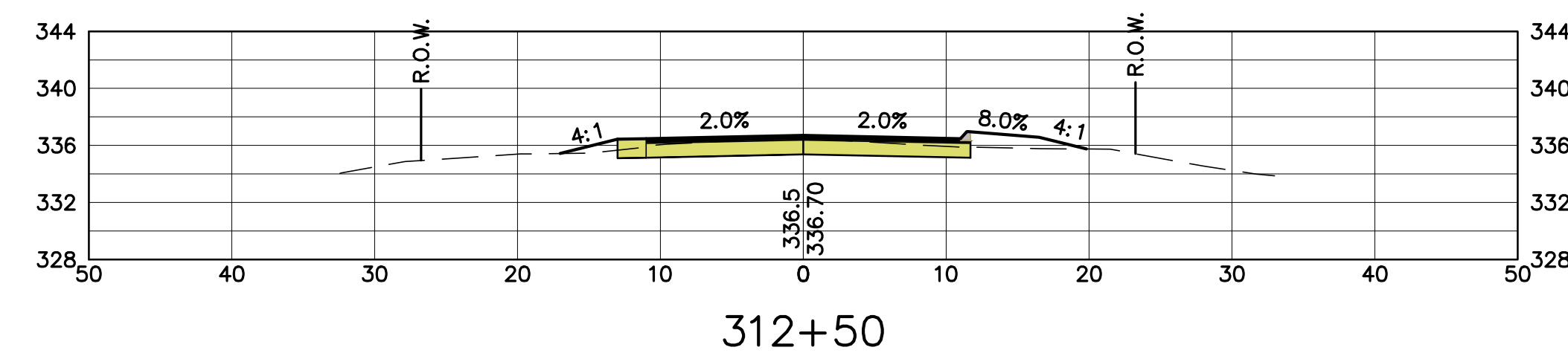
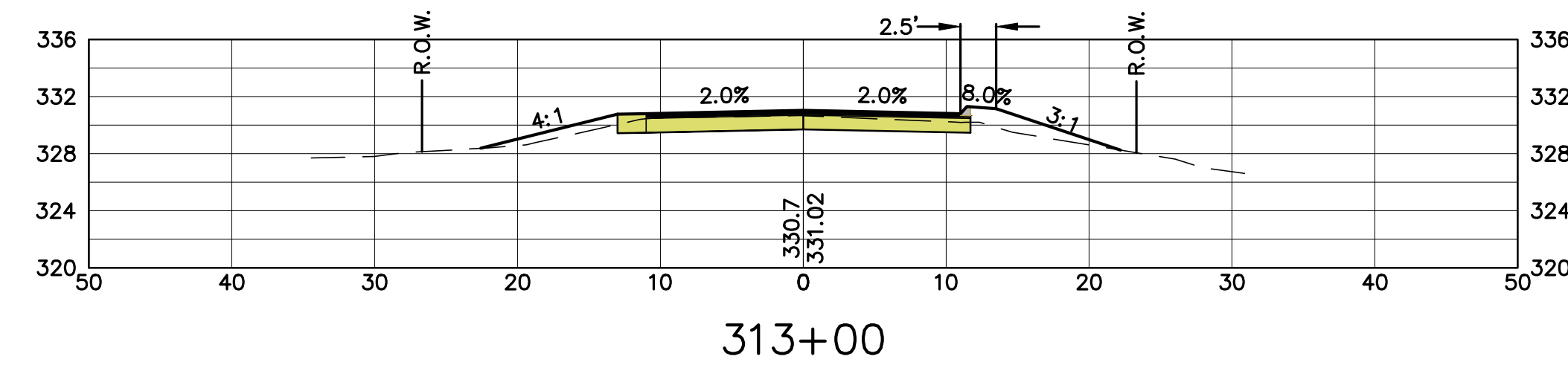
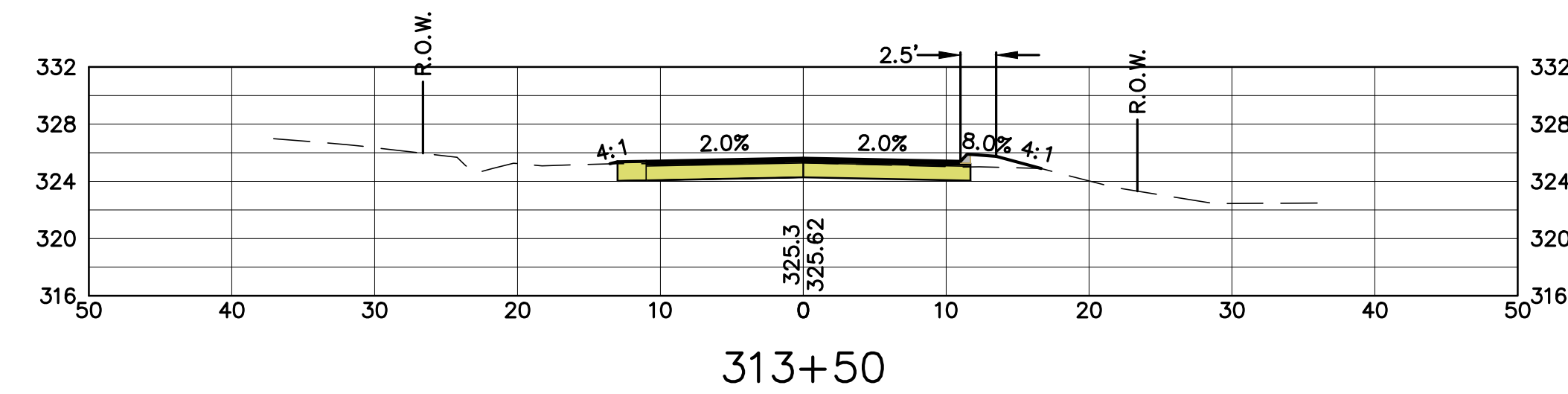
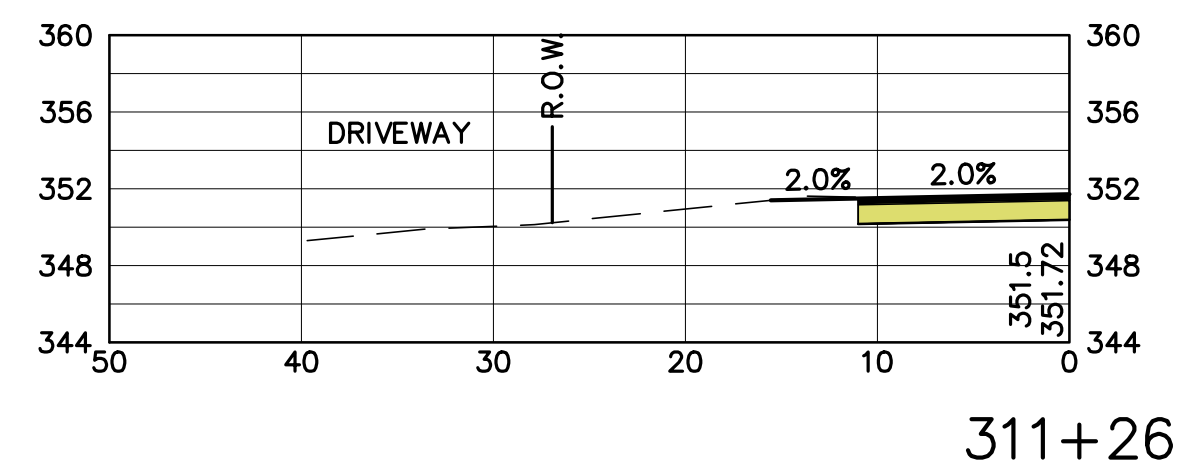
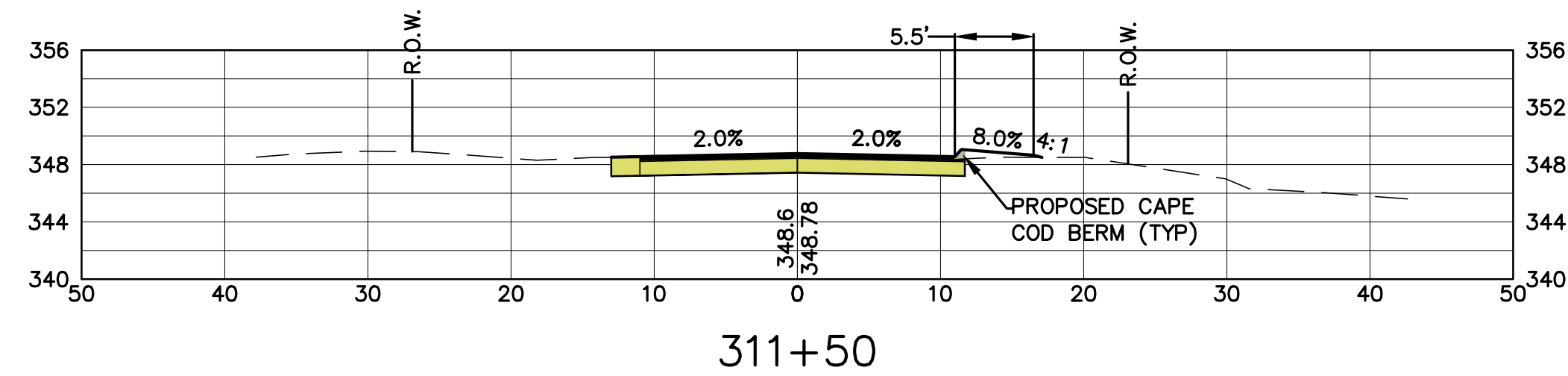
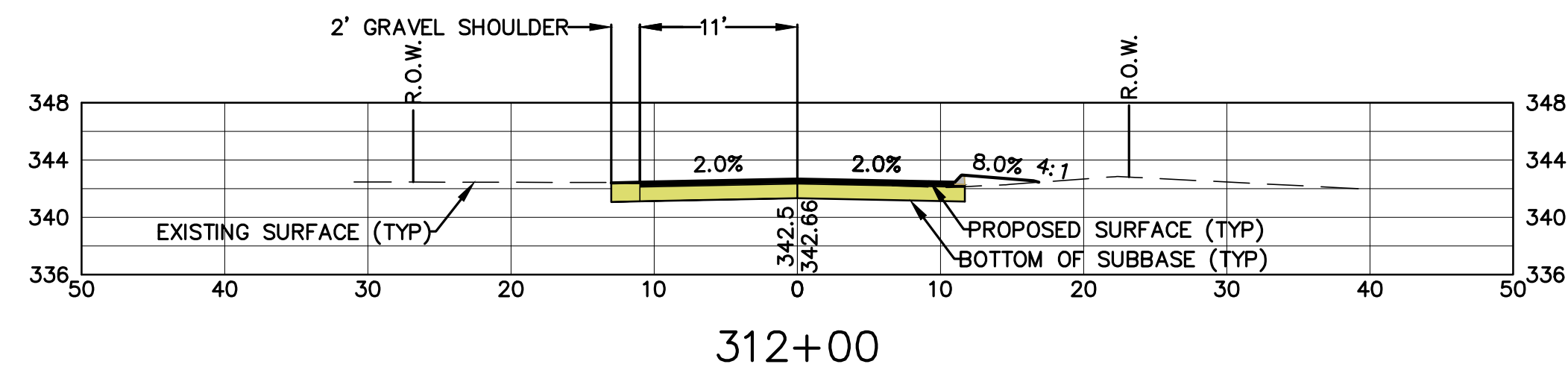
PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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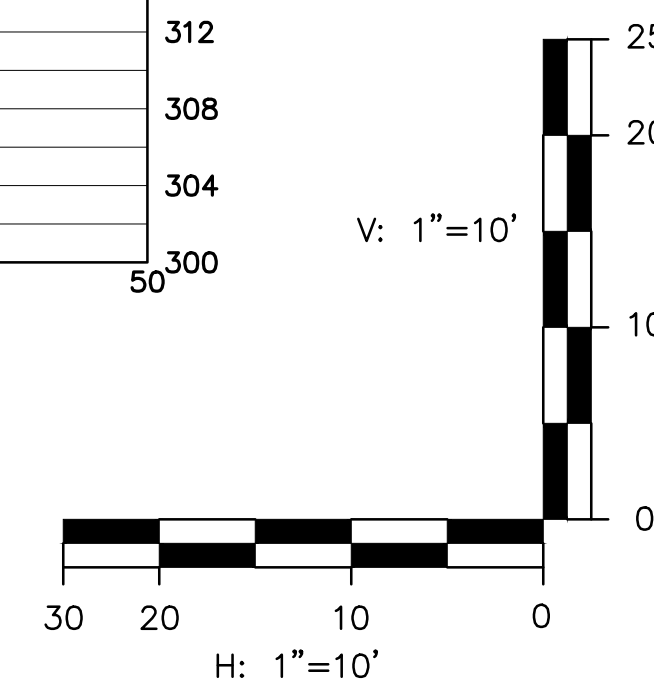
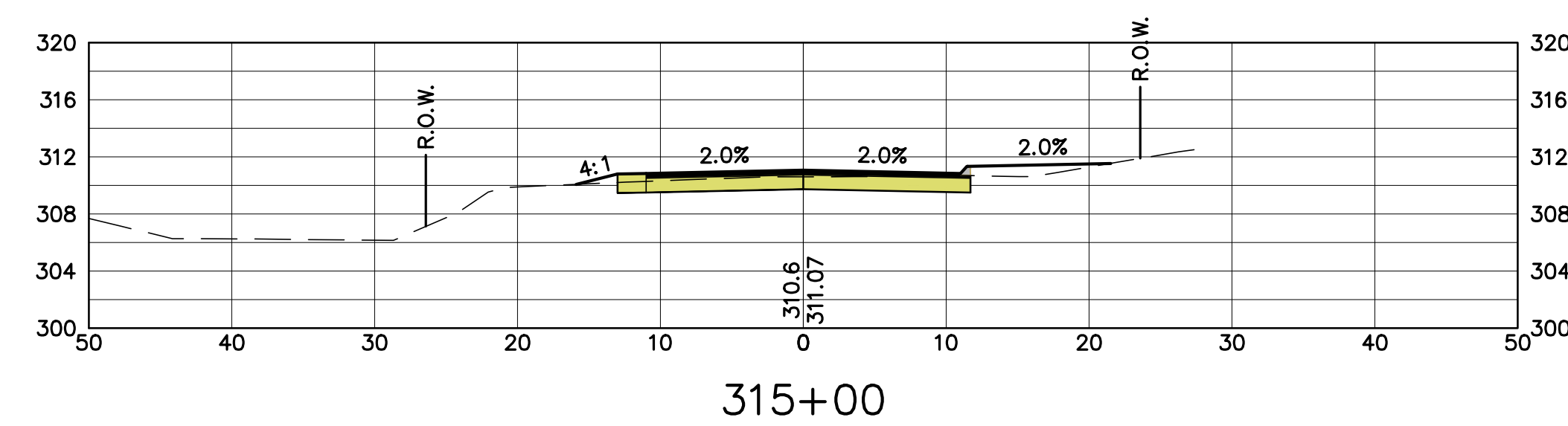
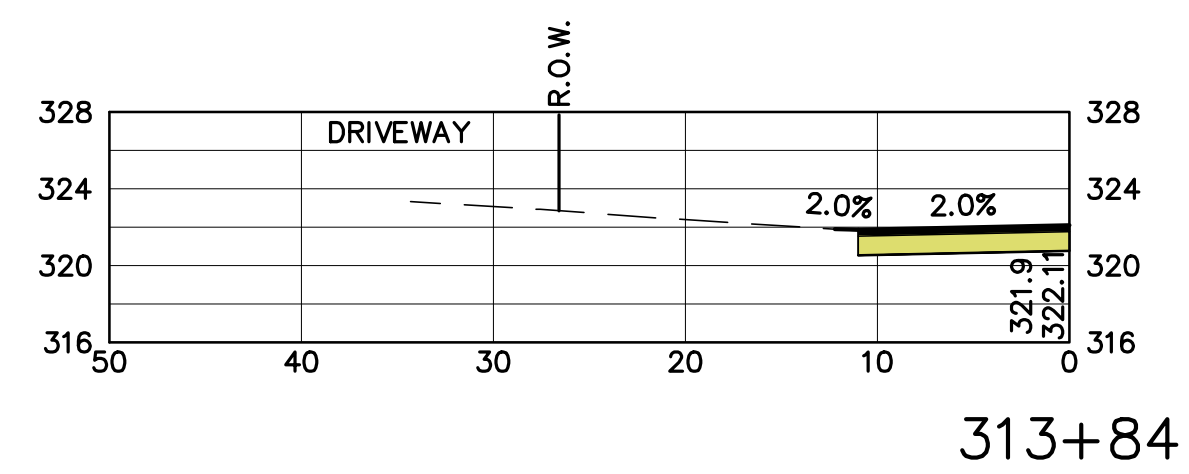
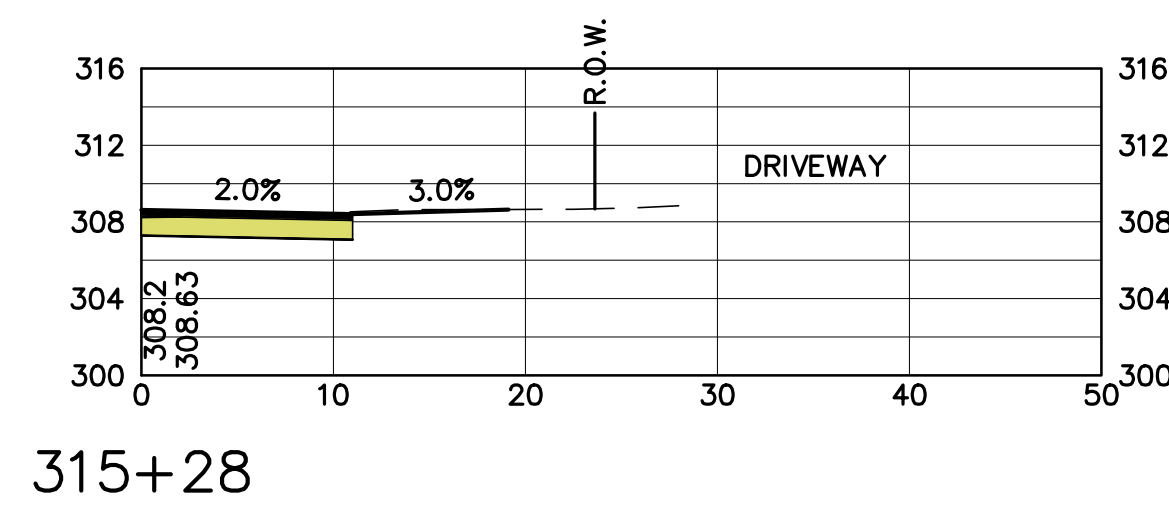
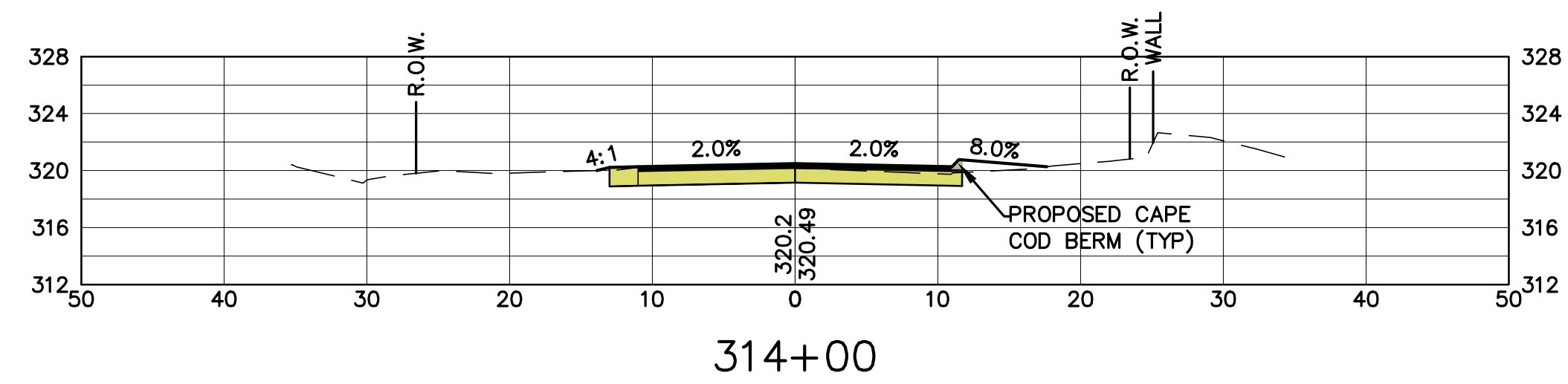
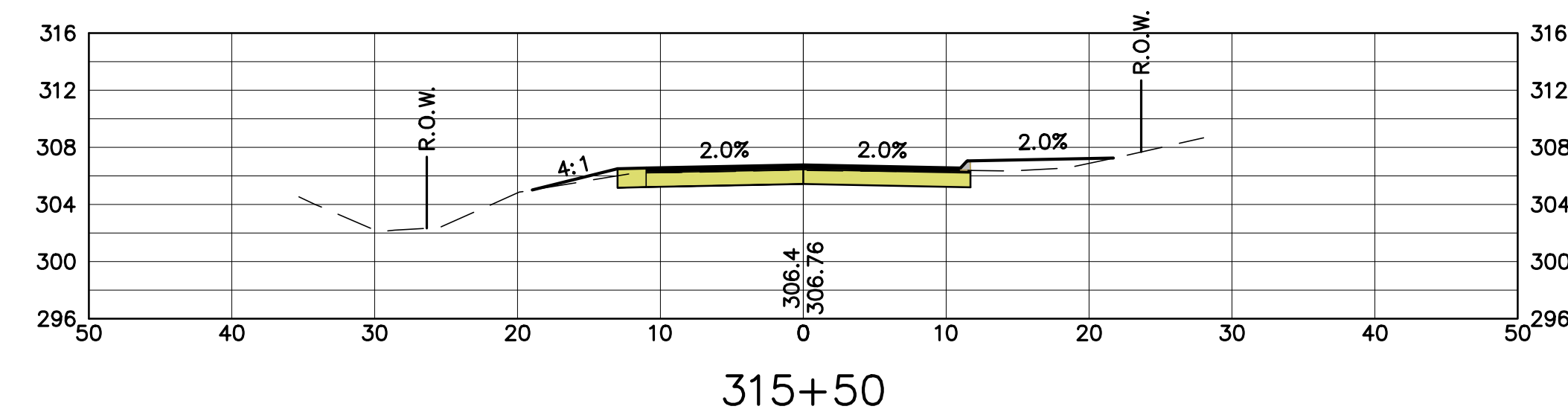
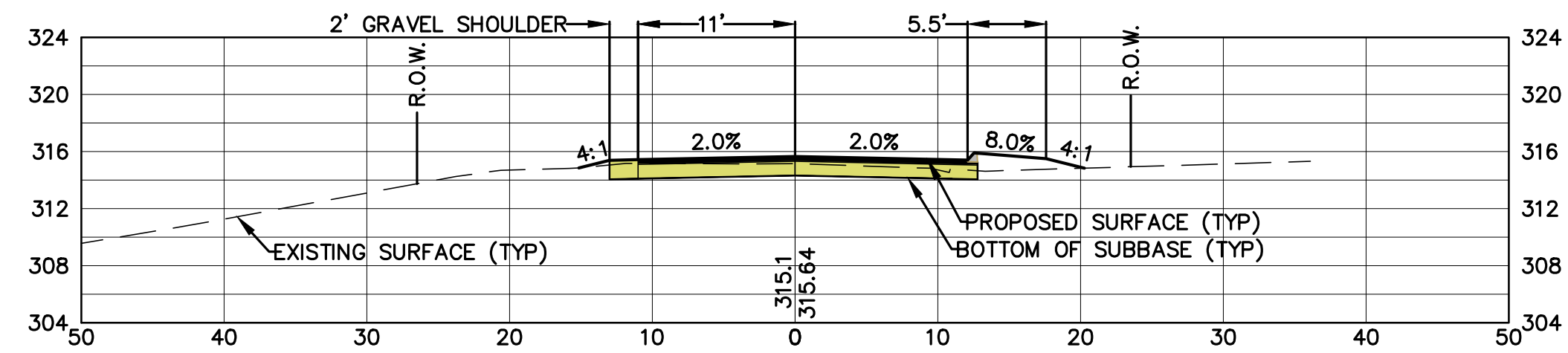
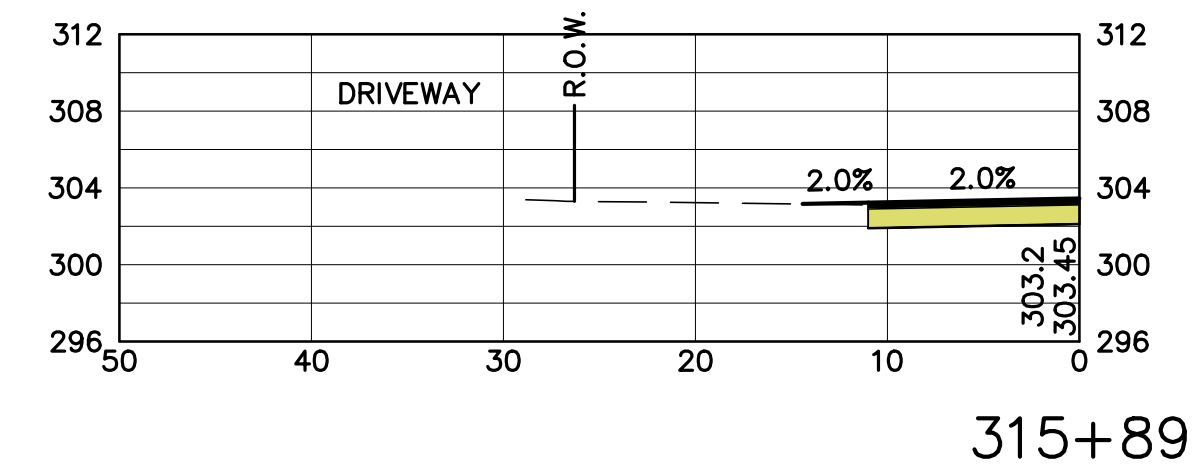
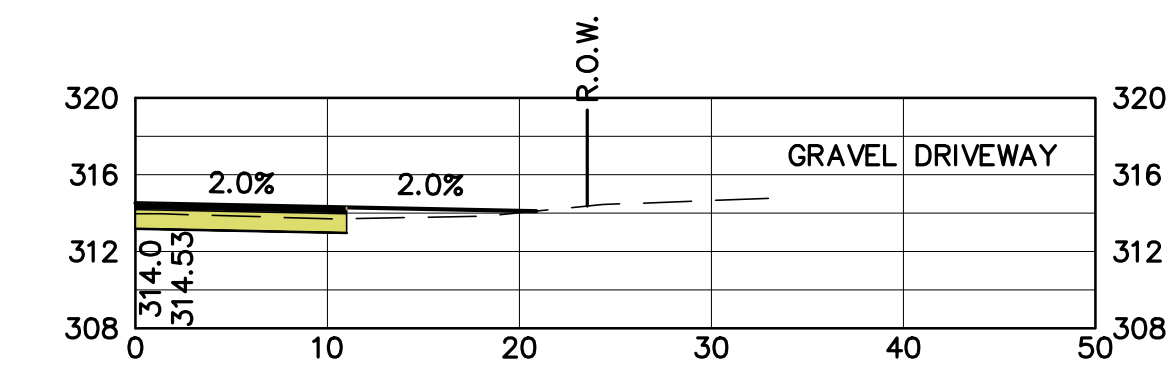
HICKORY LANE
CROSS SECTIONS
311+26 TO 313+50

<p>PREPARED FOR:</p> <p>TOWN OF BEDFORD</p> <p>24 NORTH AMHERST ROAD</p> <p>BEDFORD, NEW HAMPSHIRE 03110</p>	
DATE: MAY 7, 2015	PROJ. 77-2015

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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HICKORY LANE
CROSS SECTIONS
313+84 TO 315+89

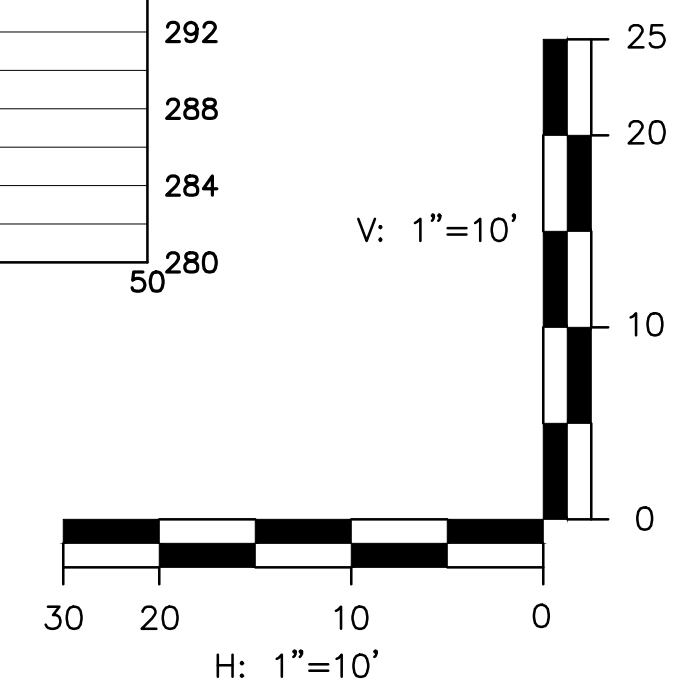
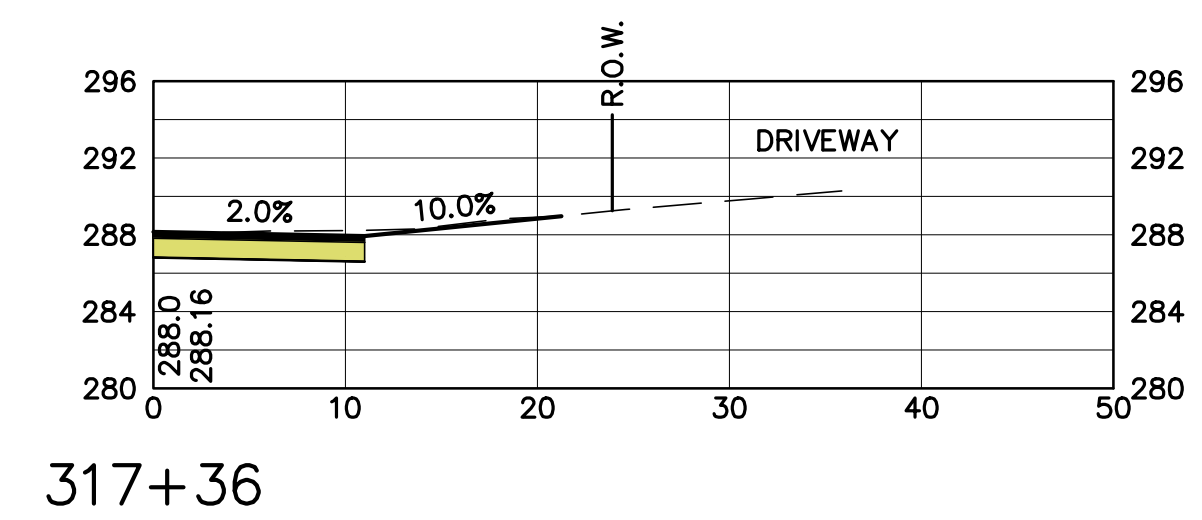
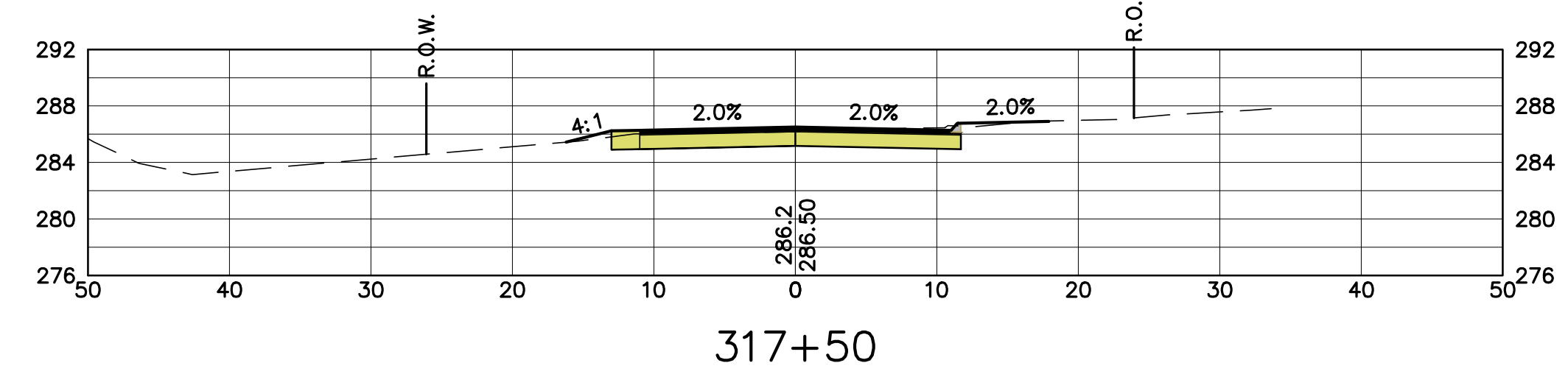
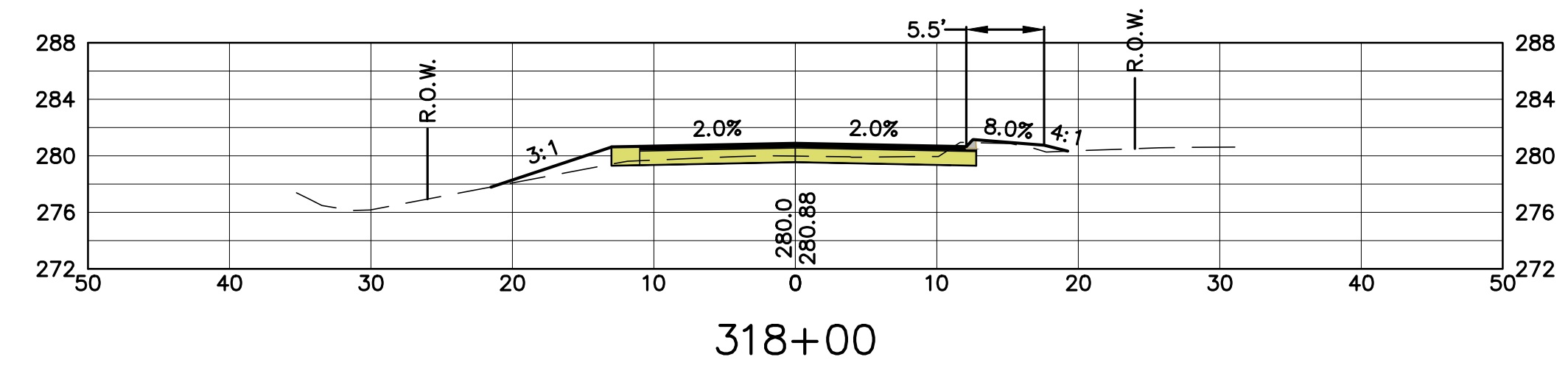
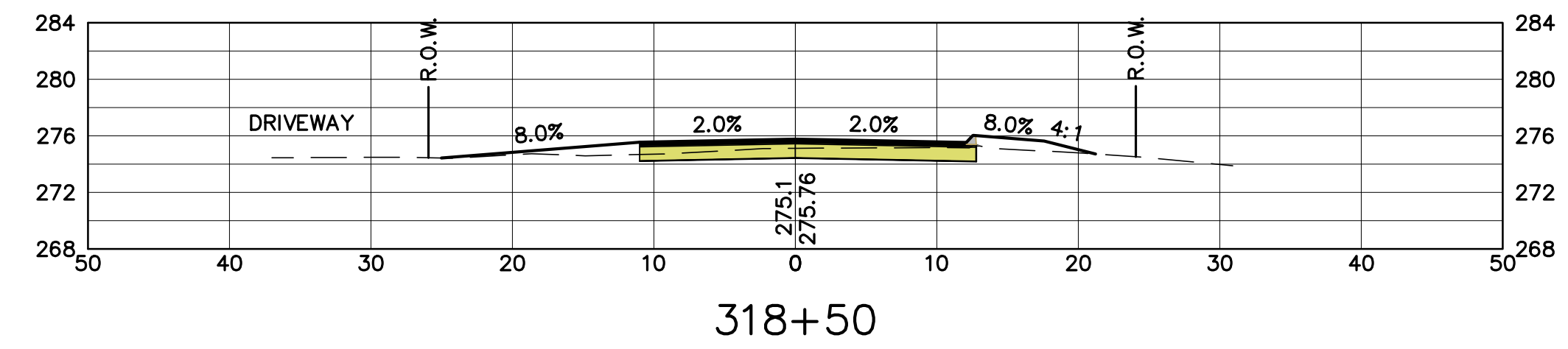
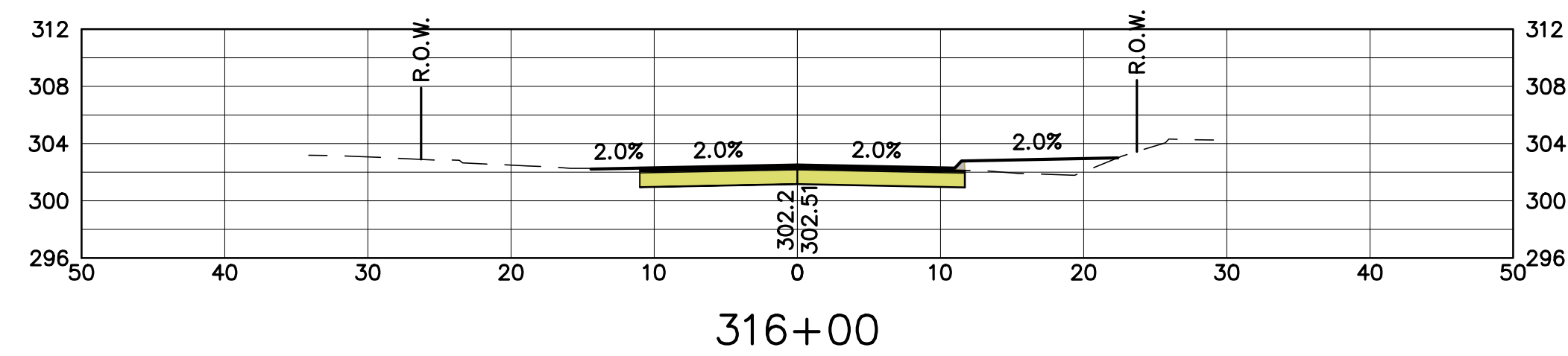
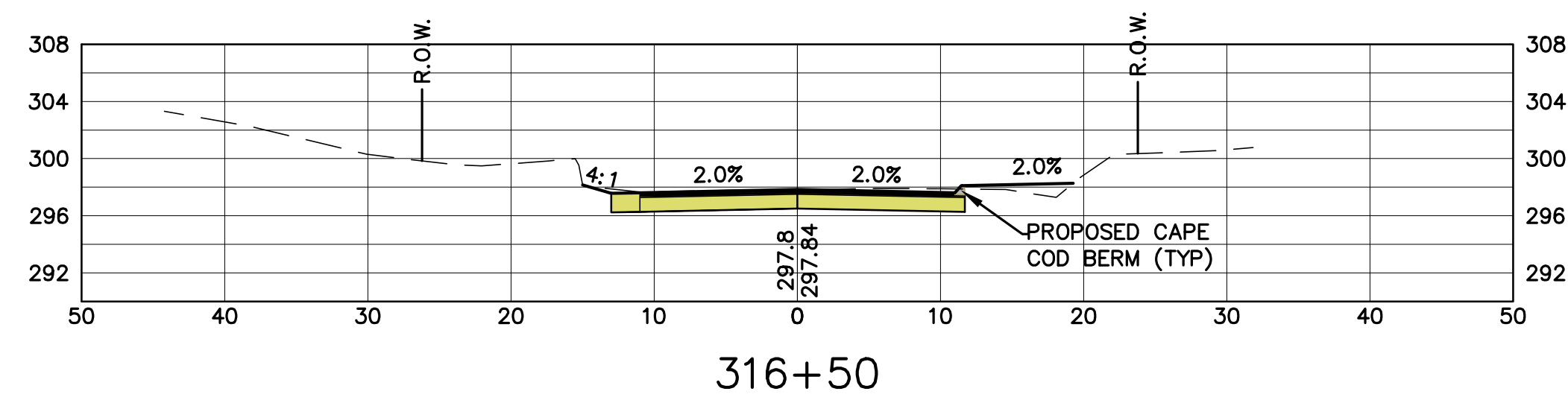
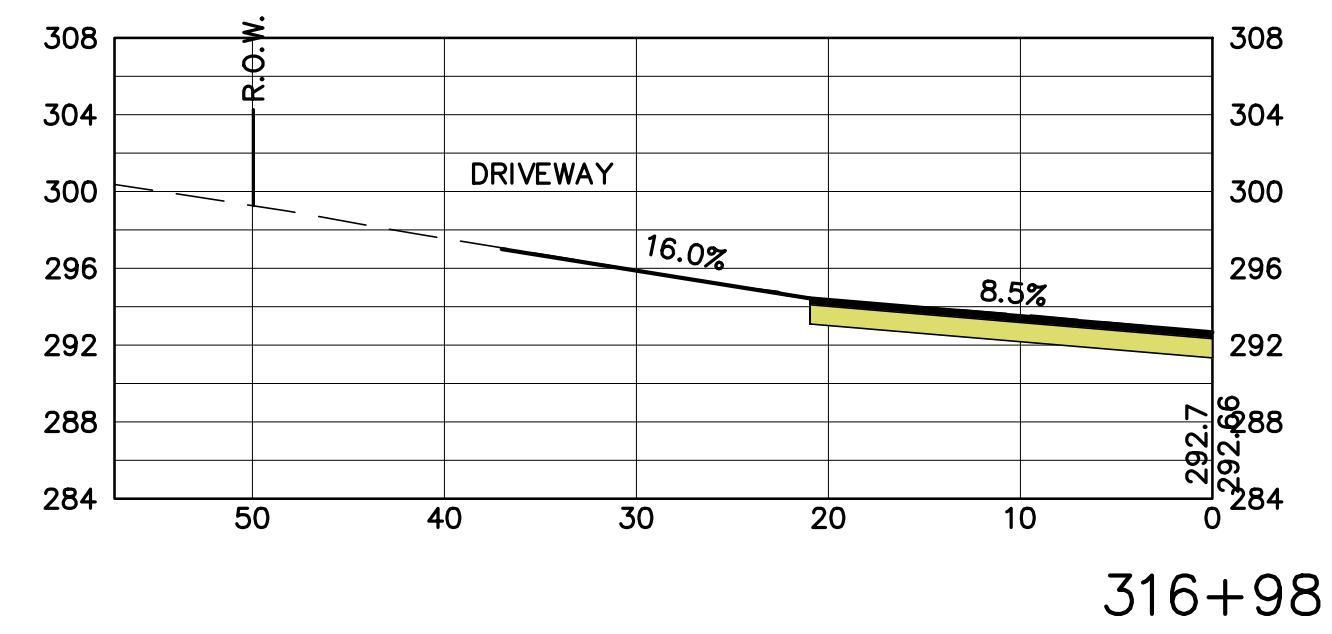
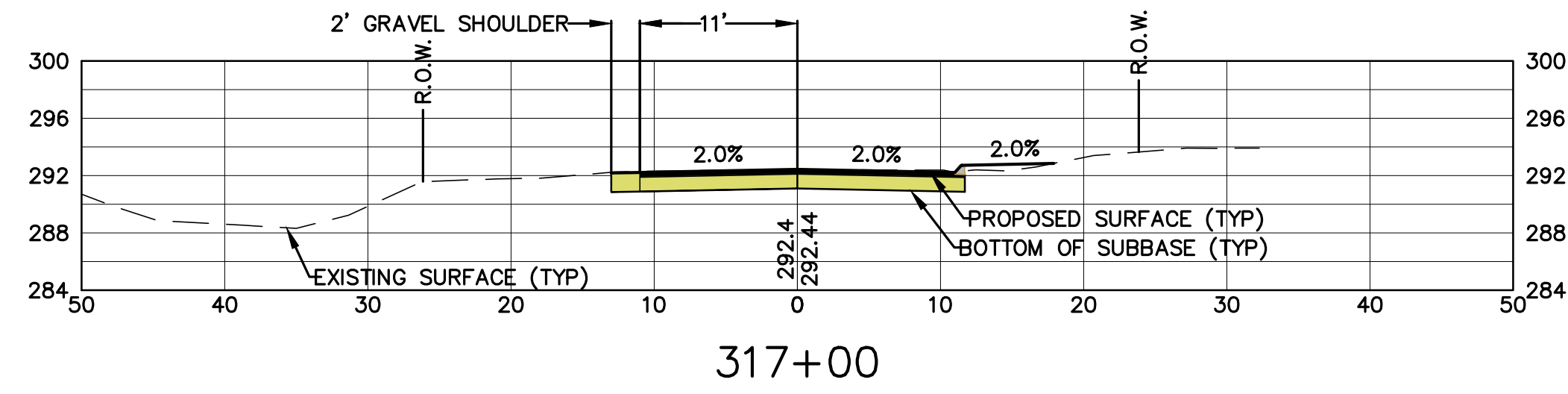
PREPARED FOR:	
TOWN OF BEDFORD	
24 NORTH AMHERST ROAD	
BEDFORD, NEW HAMPSHIRE 03110	
DATE: MAY 7, 2015	PROJ. 77-2015

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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NO.	DATE
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V: $1''=10'$

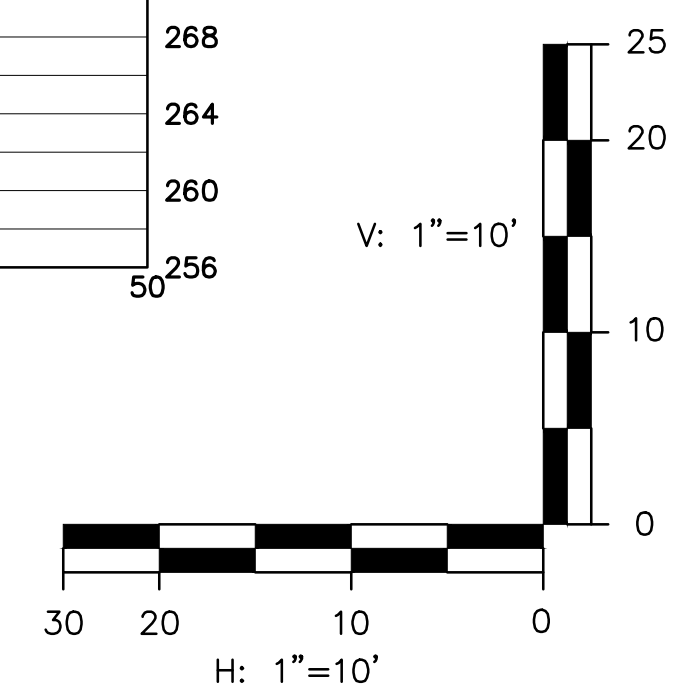
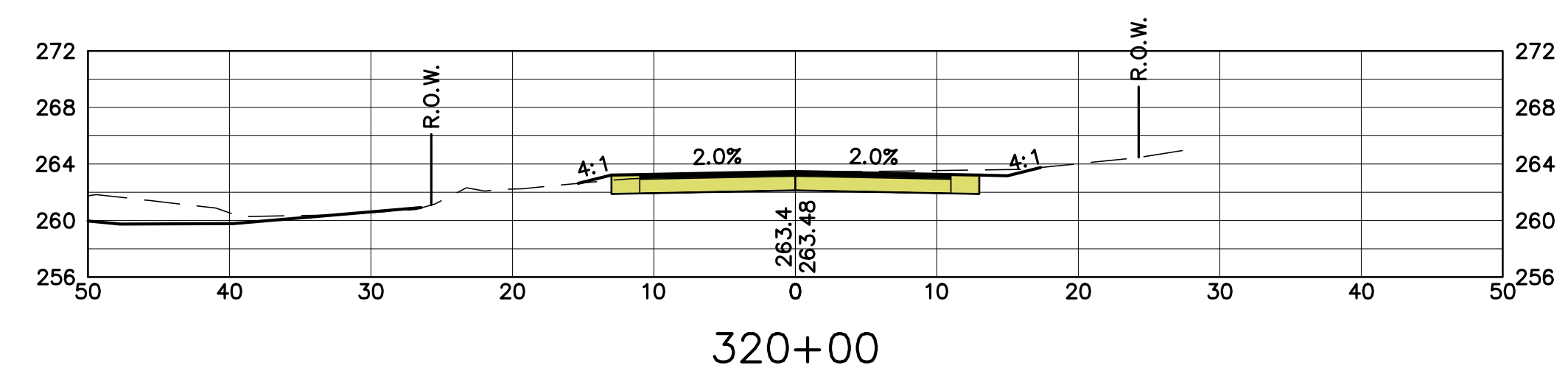
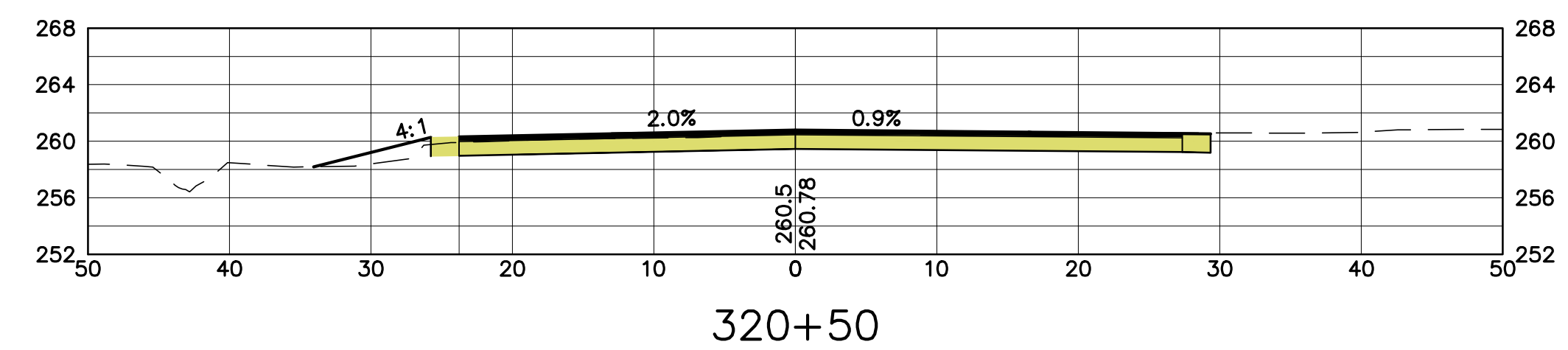
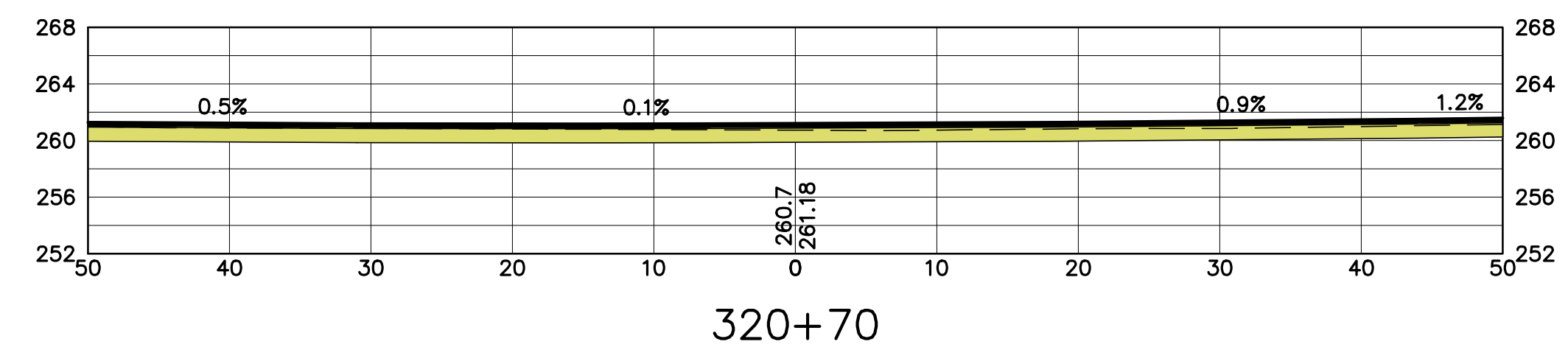
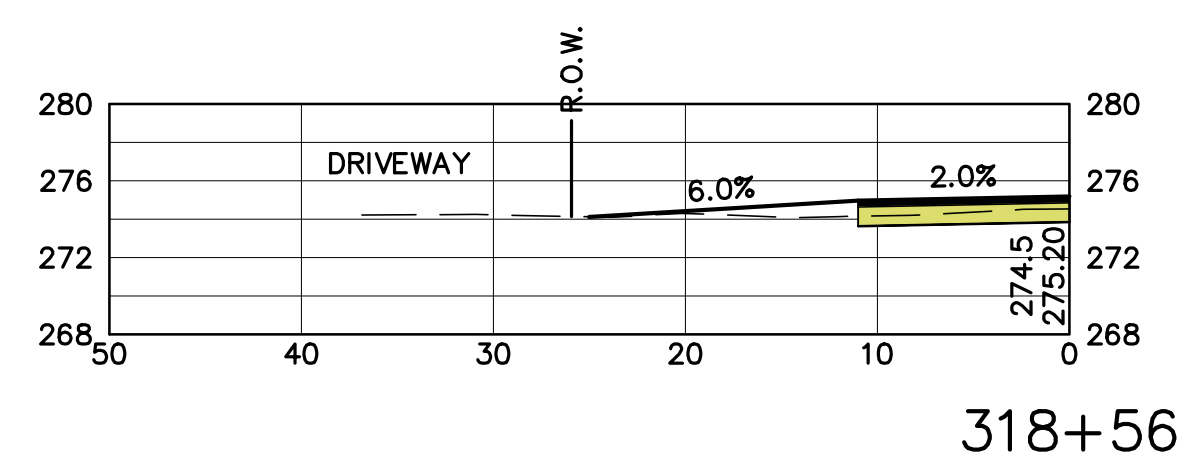
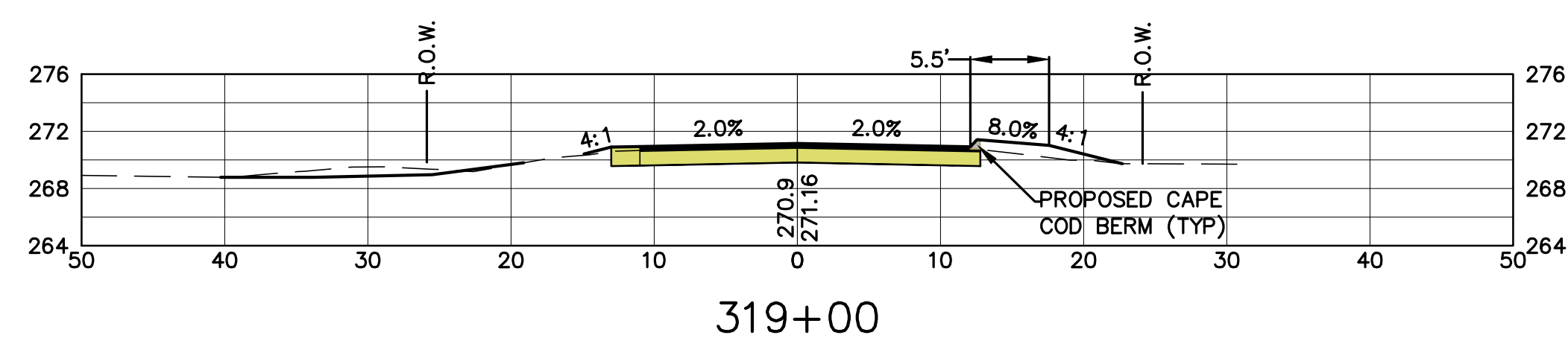
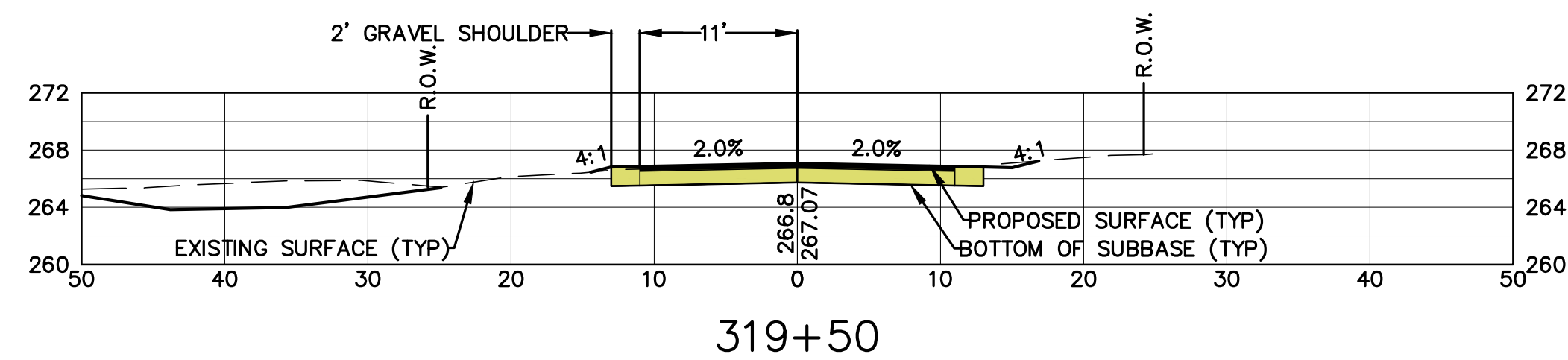
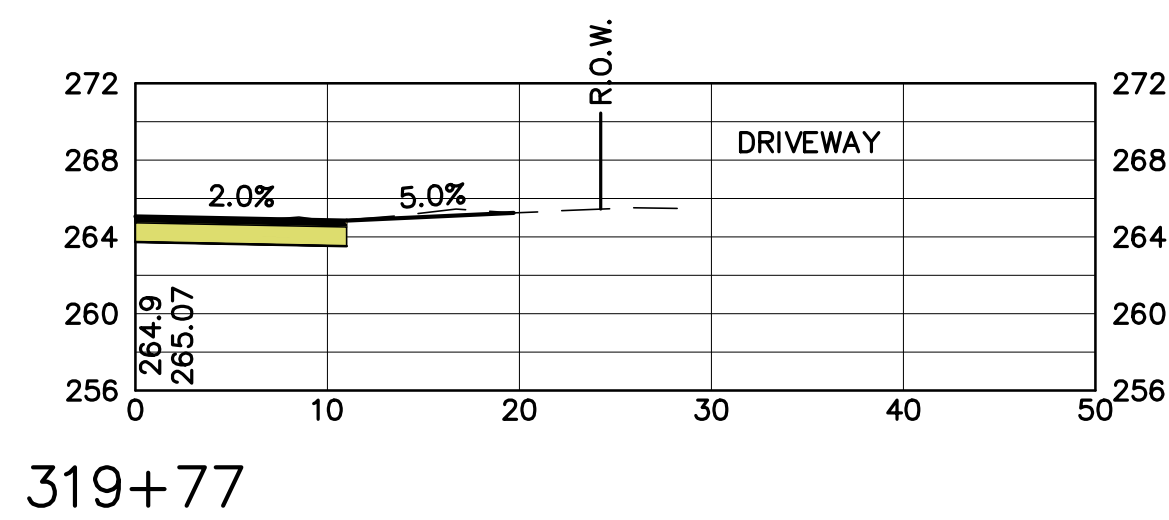
HICKORY LANE
CROSS SECTIONS
316+00 TO 318+50

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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NO.	DATE	REVISION DESCRIPTION
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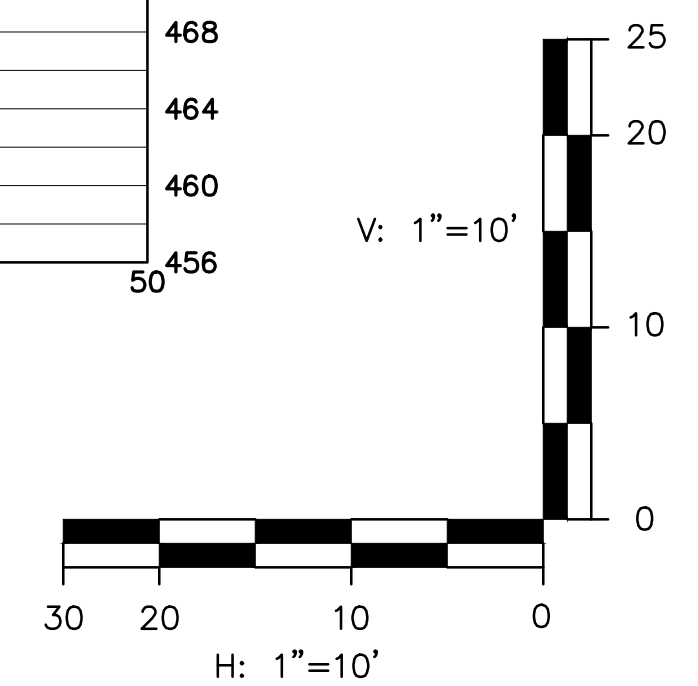
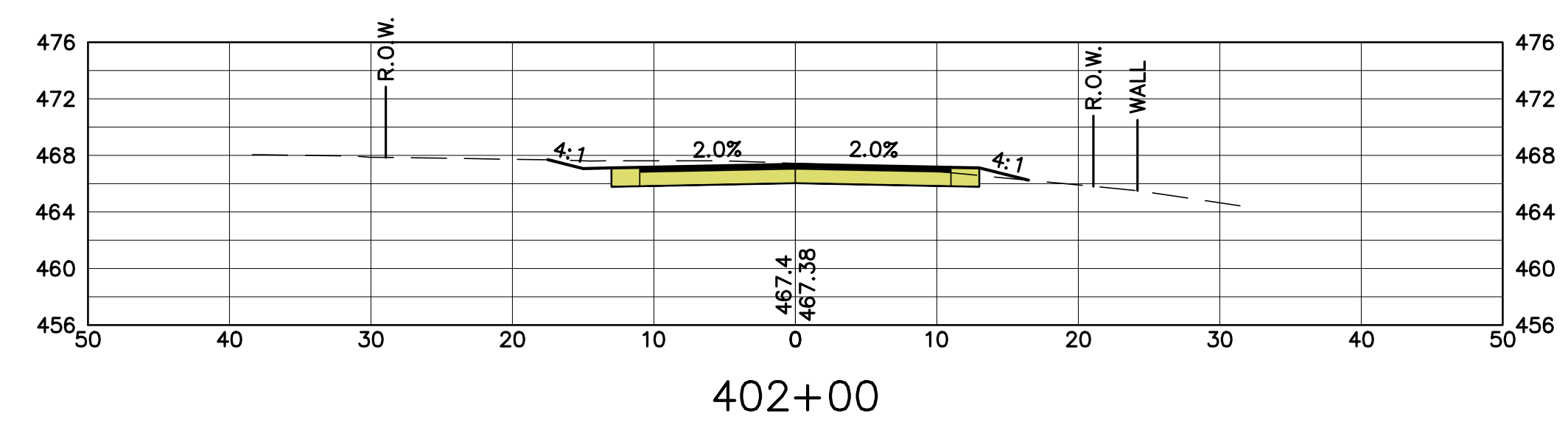
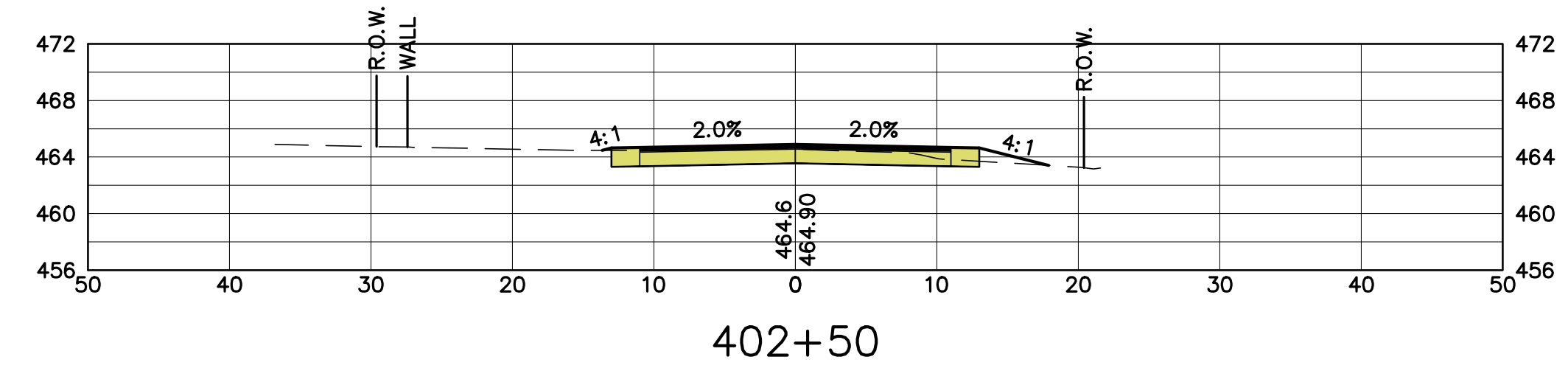
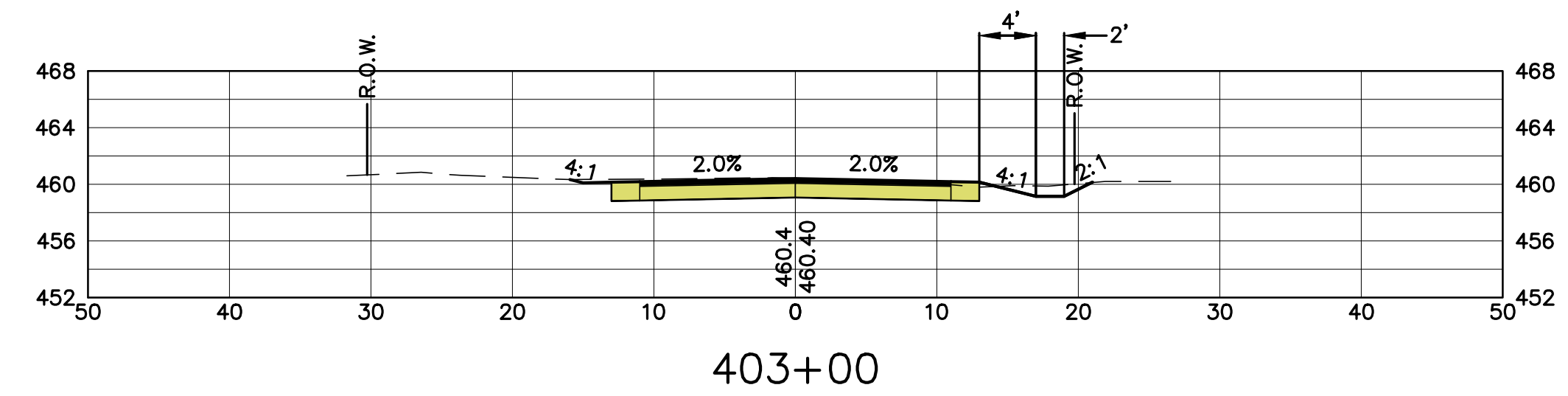
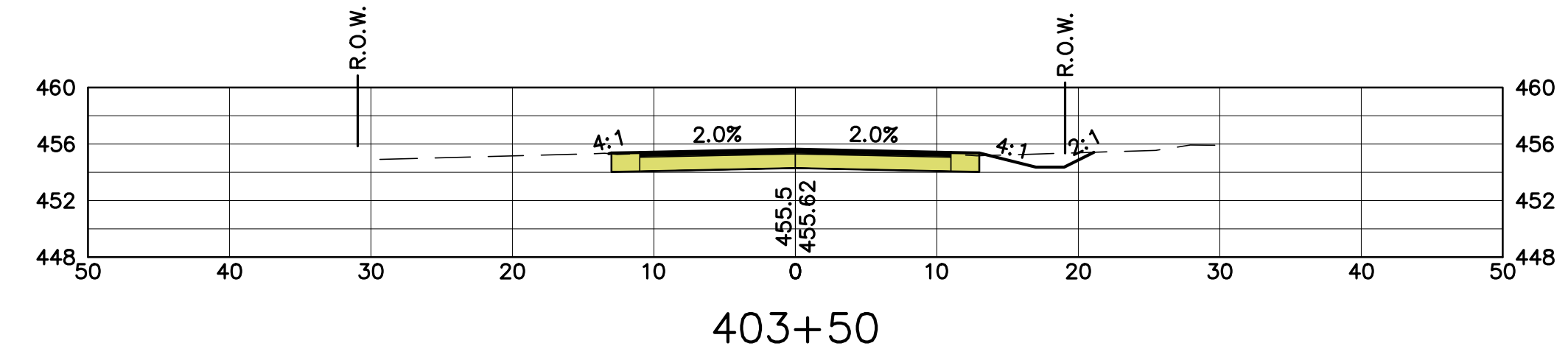
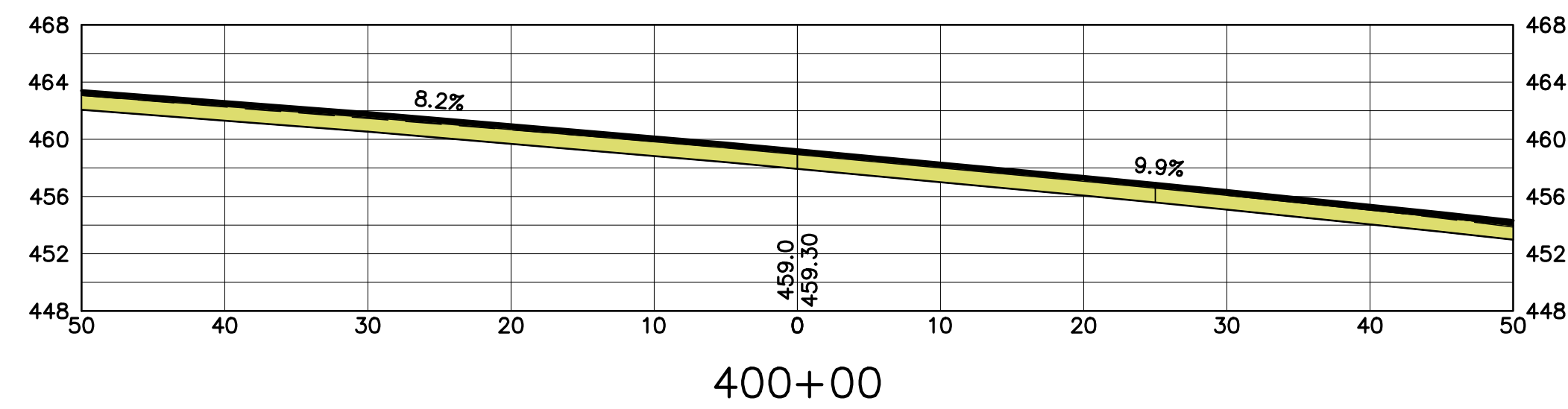
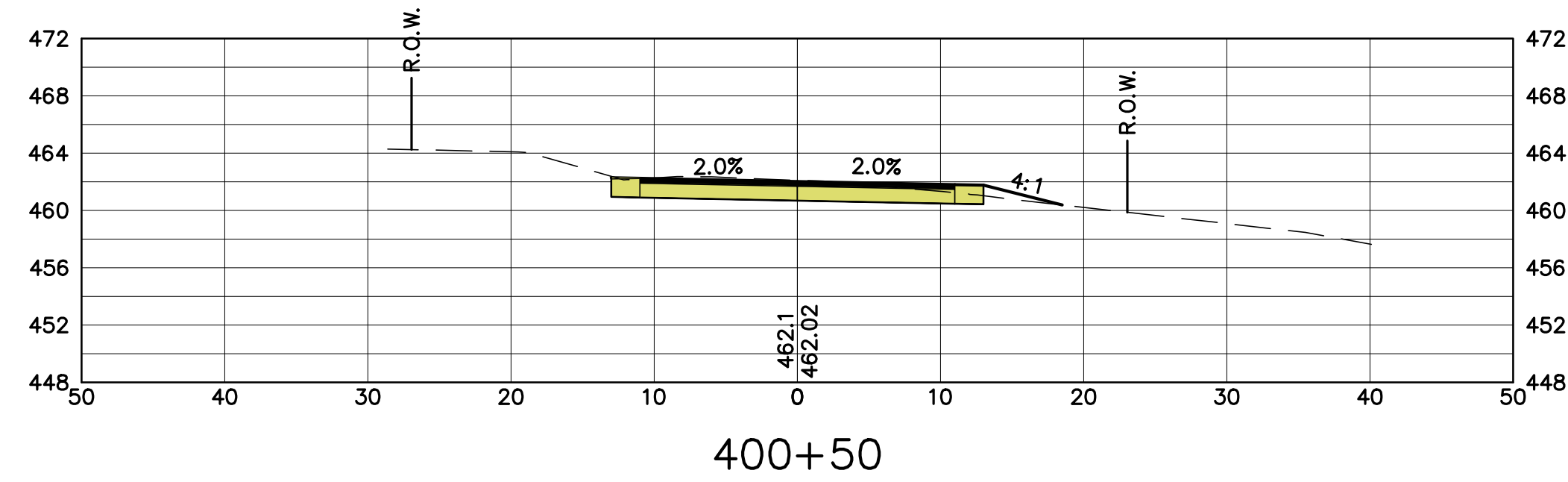
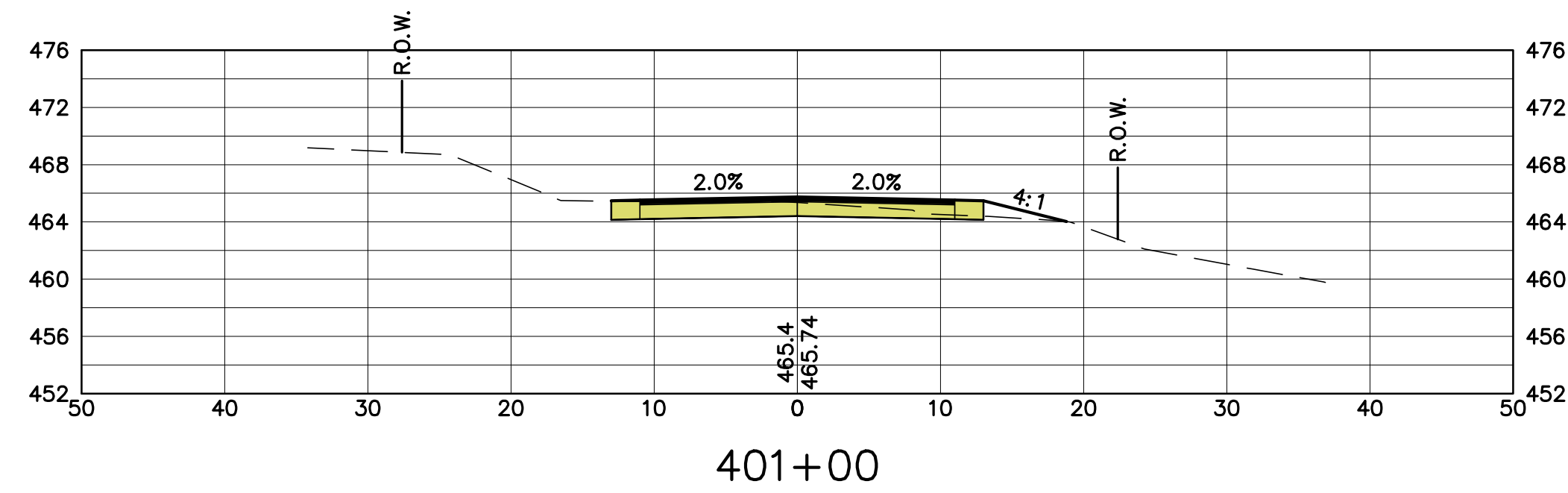
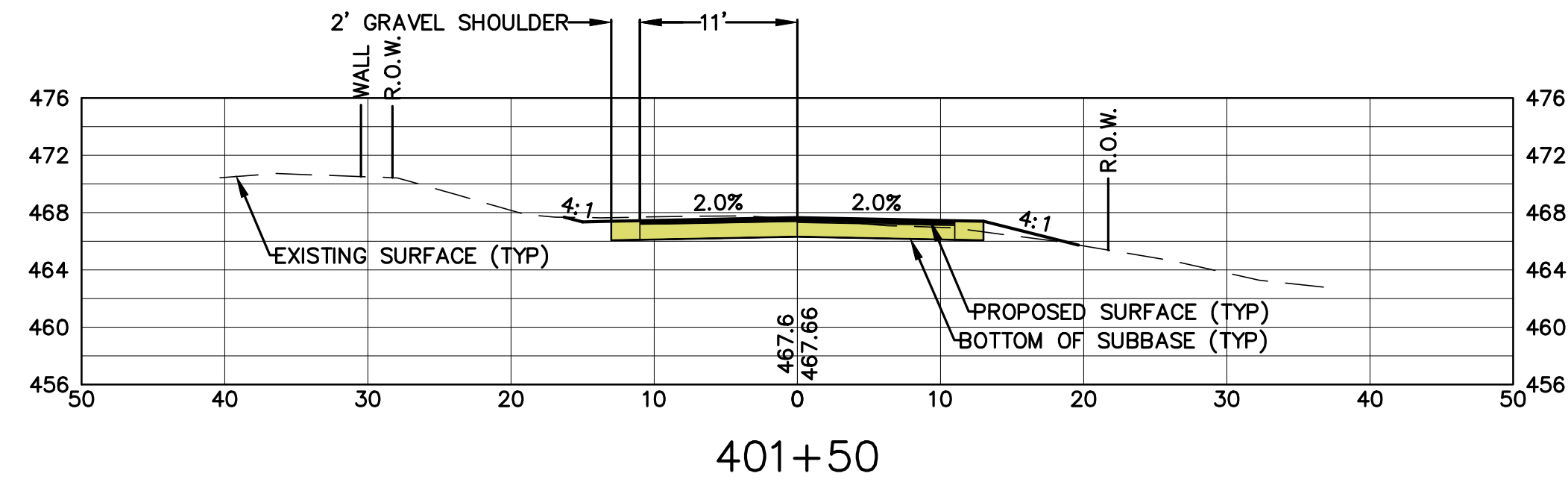
HICKORY LANE
CROSS SECTIONS
318+56 TO 320+70

PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110	
DATE: MAY 7, 2015	PROJ. 77-2015

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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				NO.	DATE	REVISION DESCRIPTION



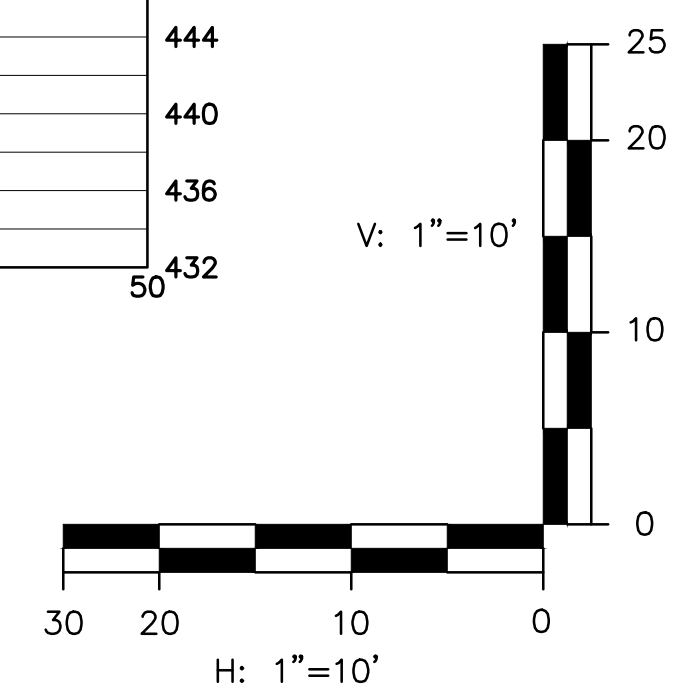
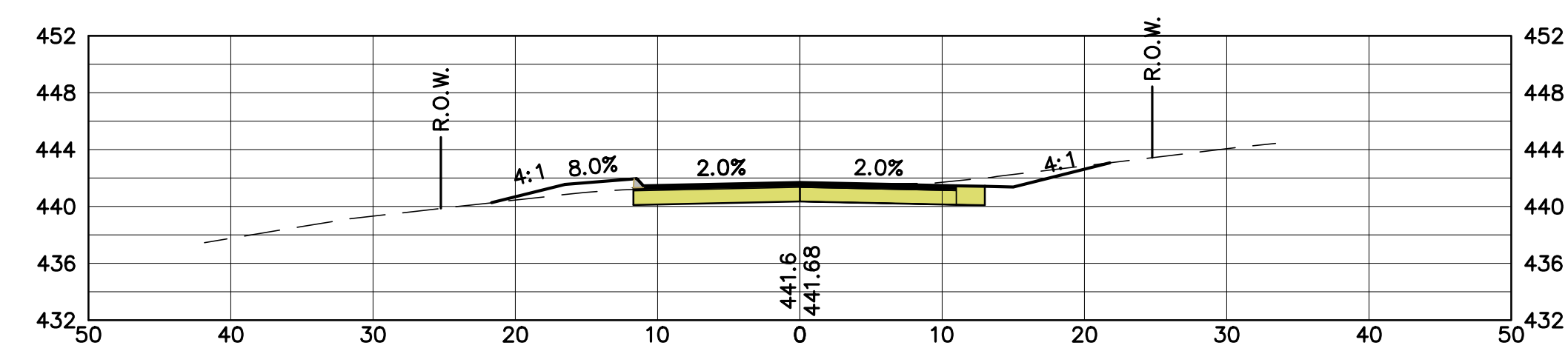
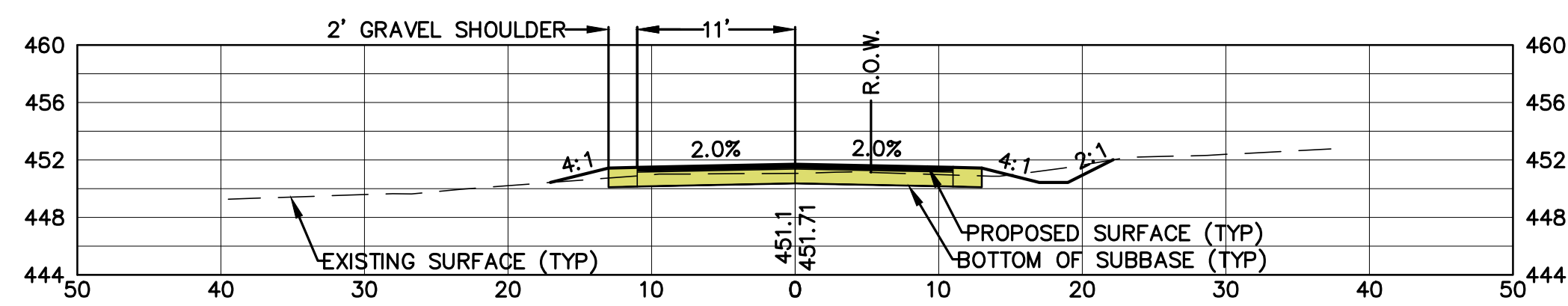
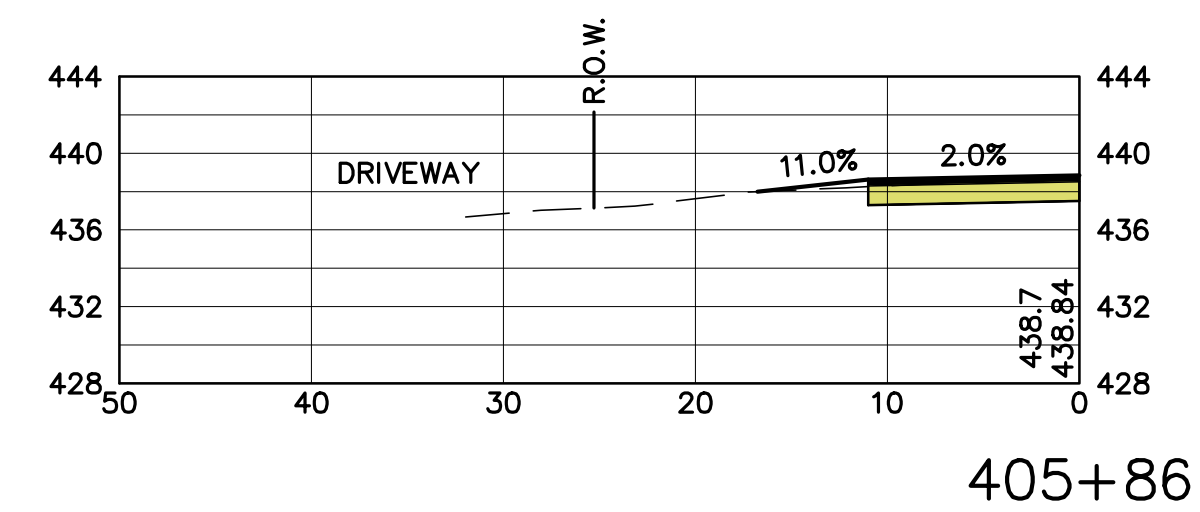
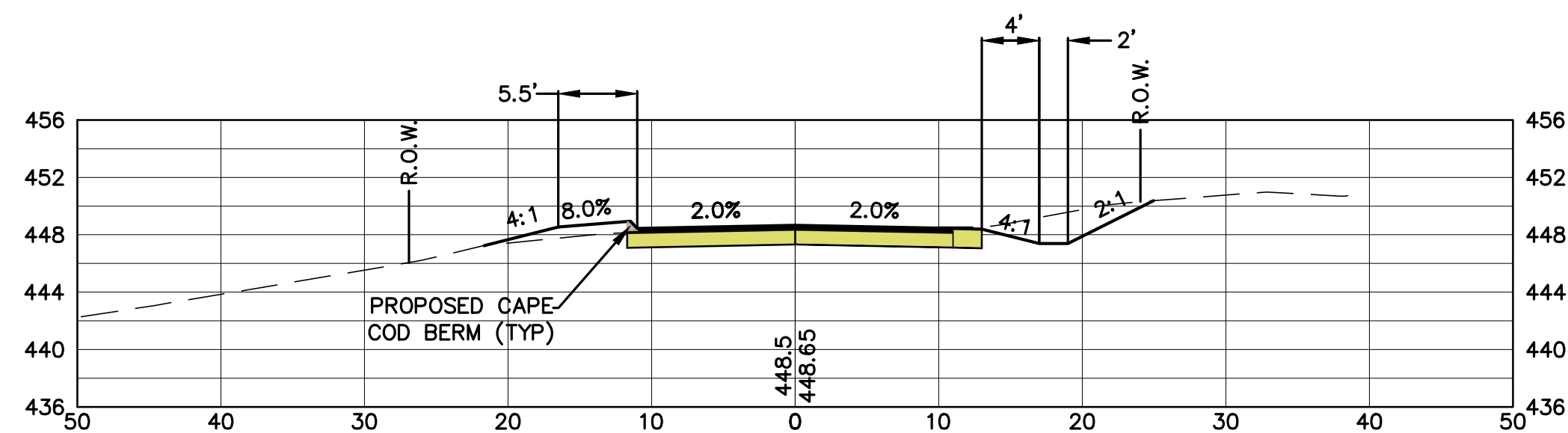
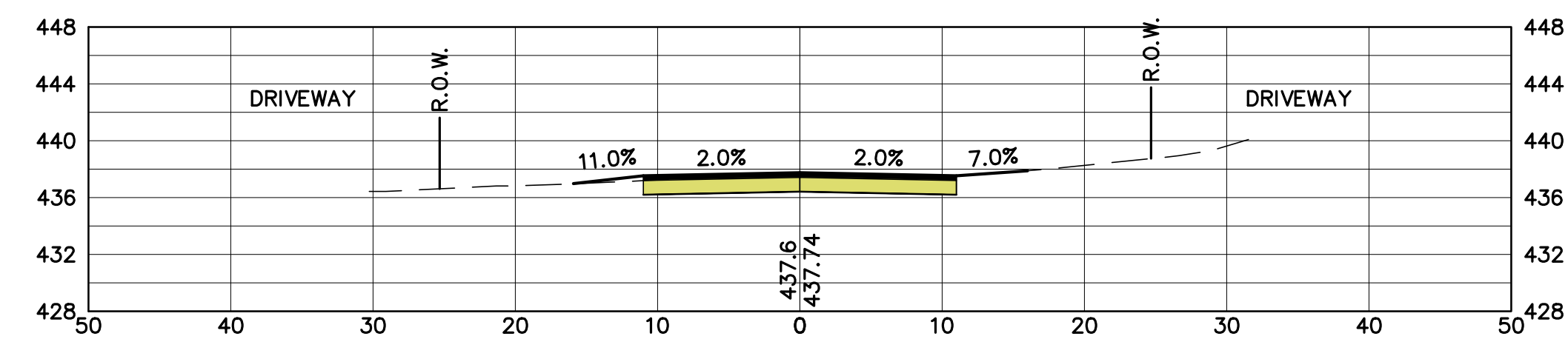
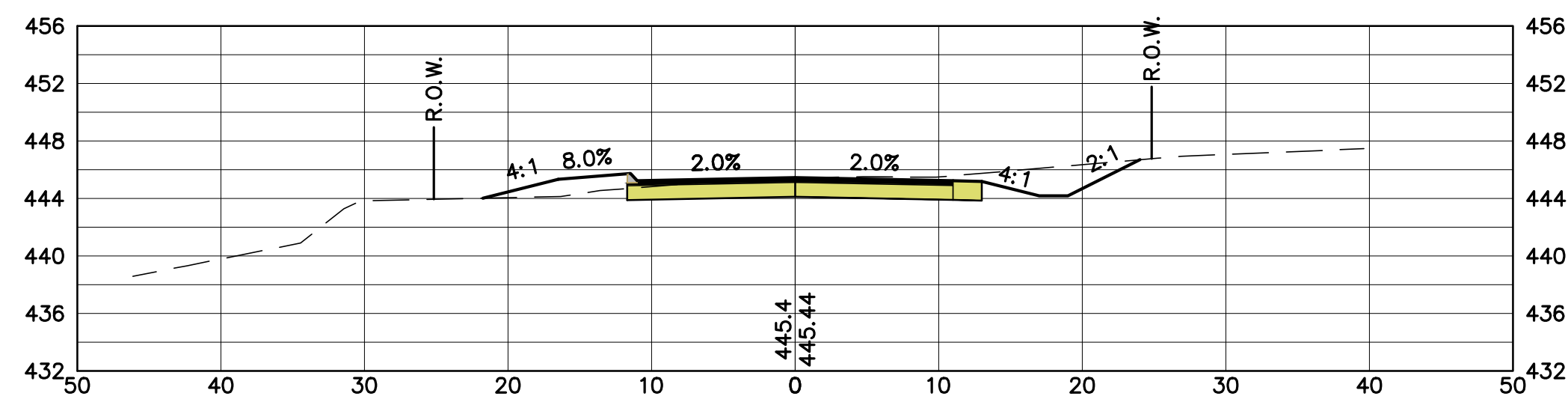
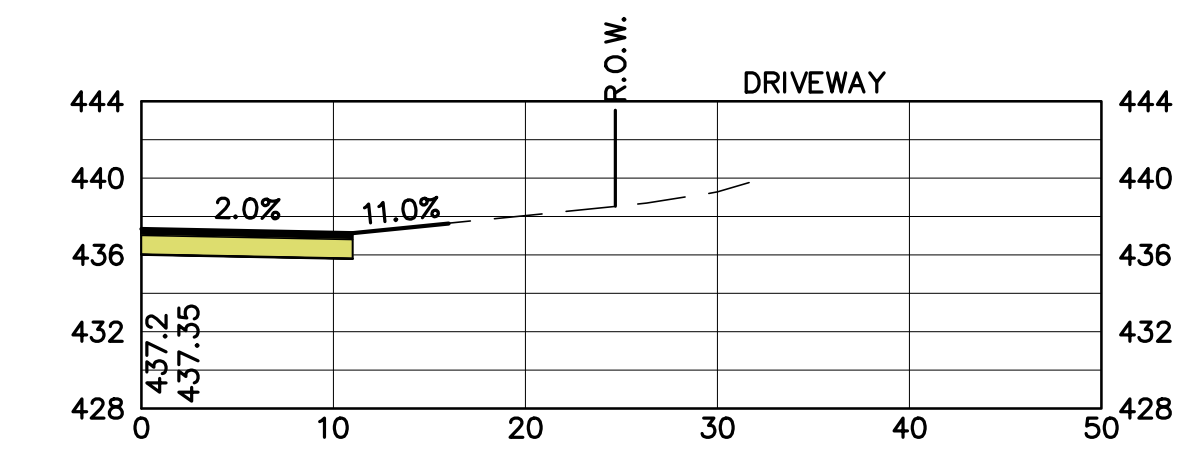
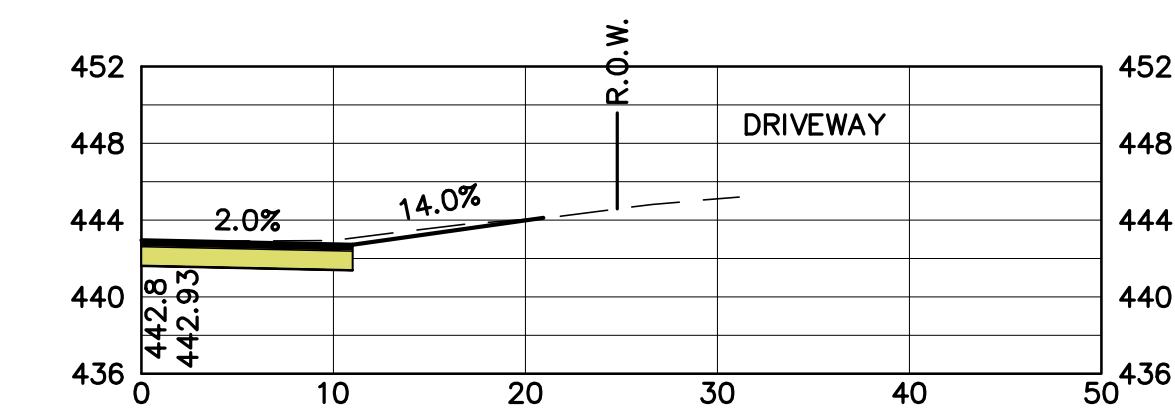
GRANDVIEW LANE
CROSS SECTIONS
400+00 TO 403+50

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

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NO.	DATE	REVISION DESCRIPTION
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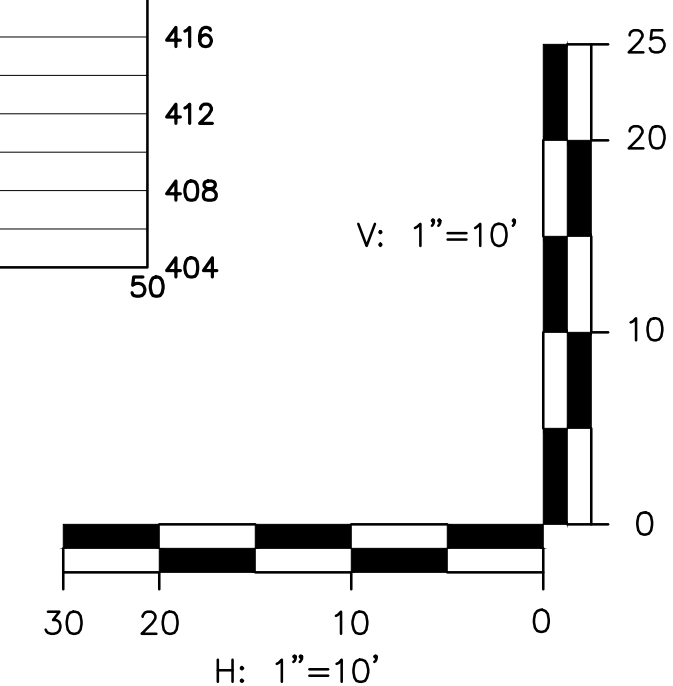
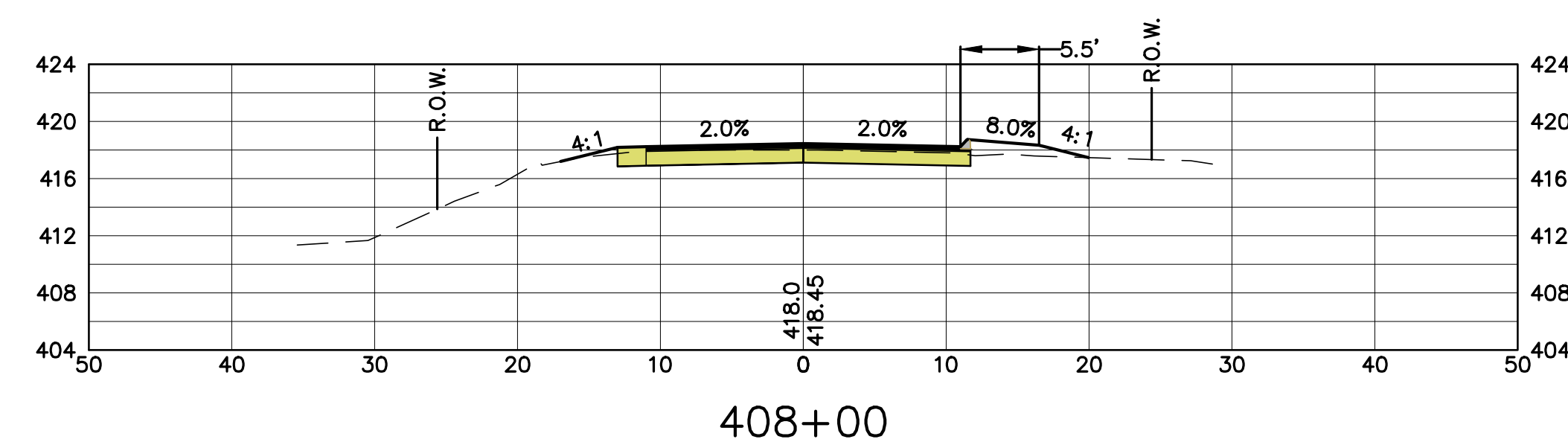
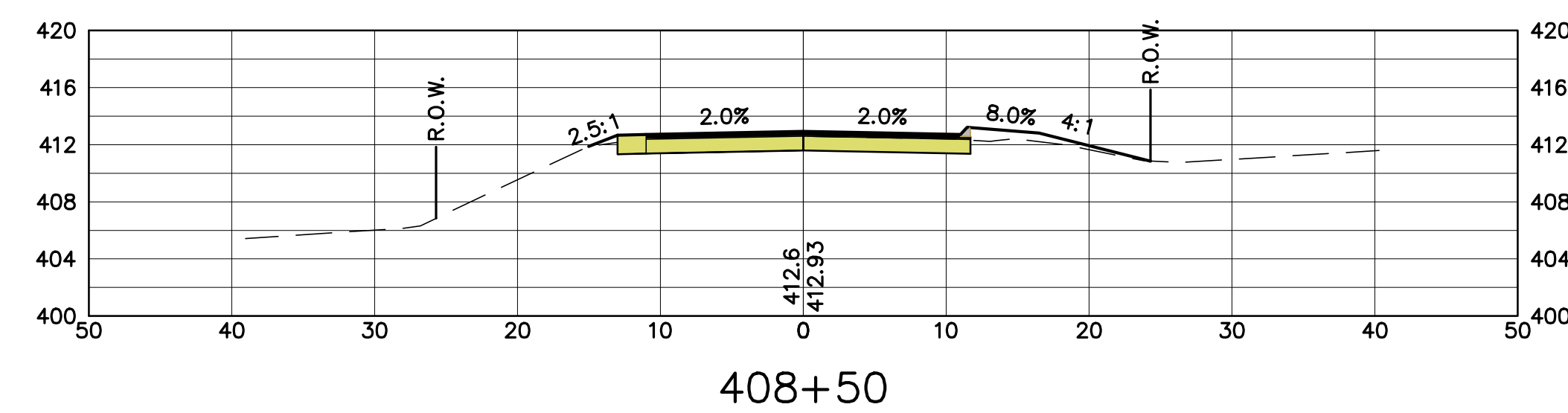
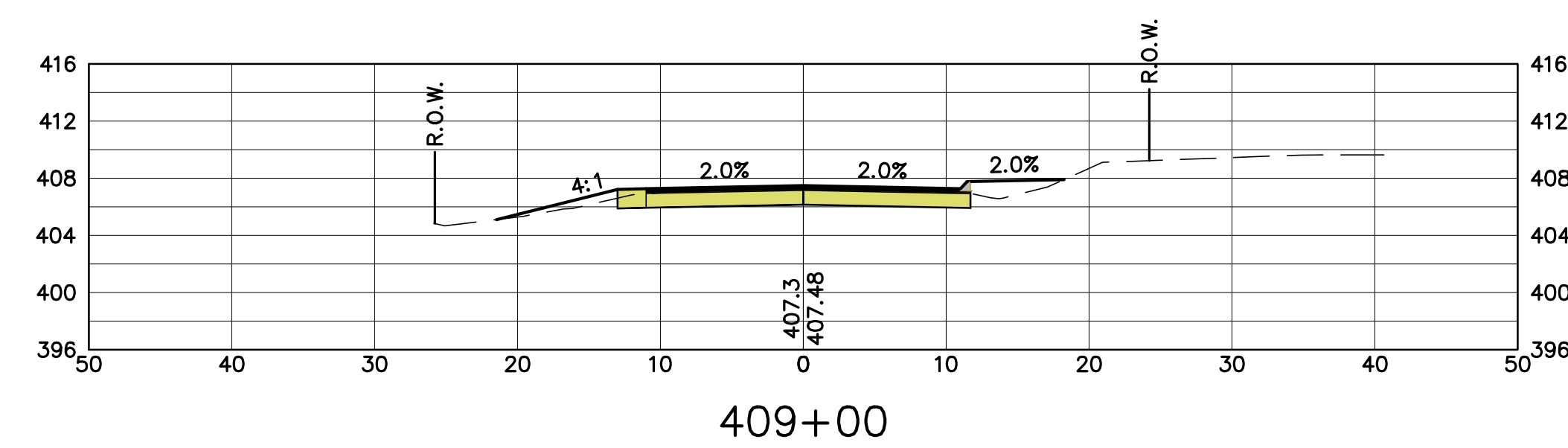
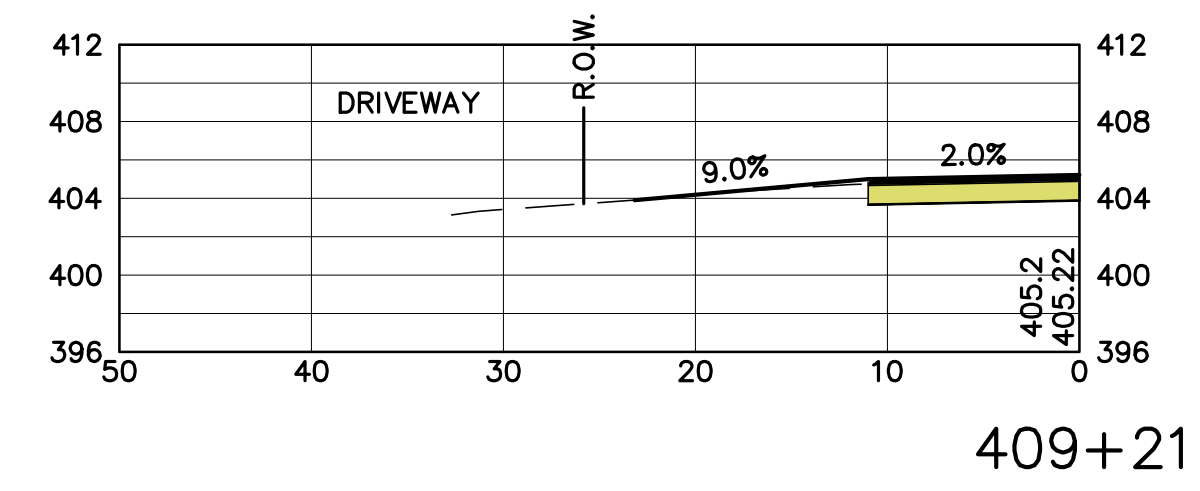
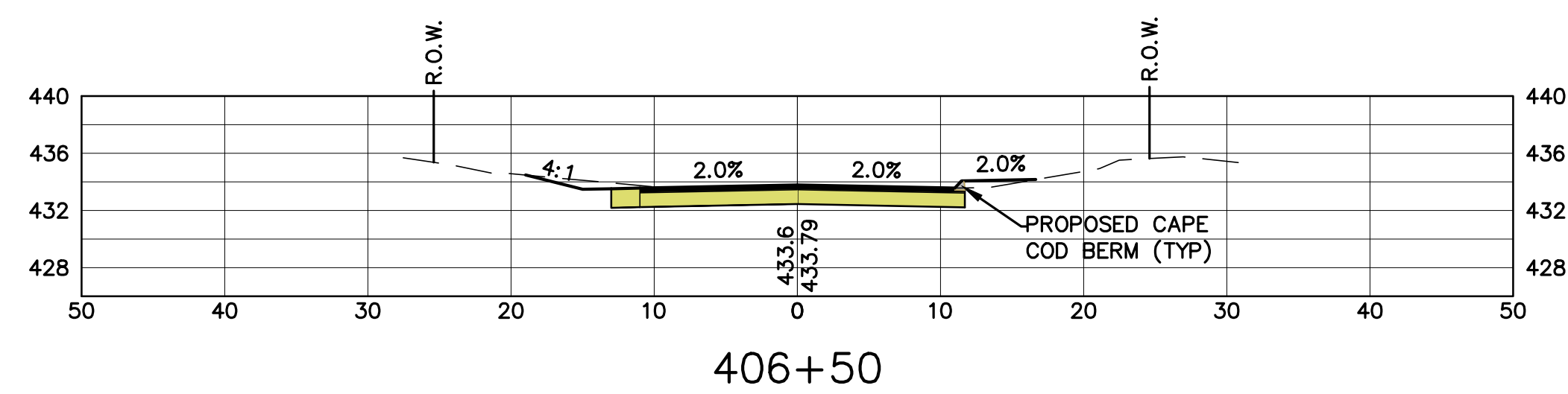
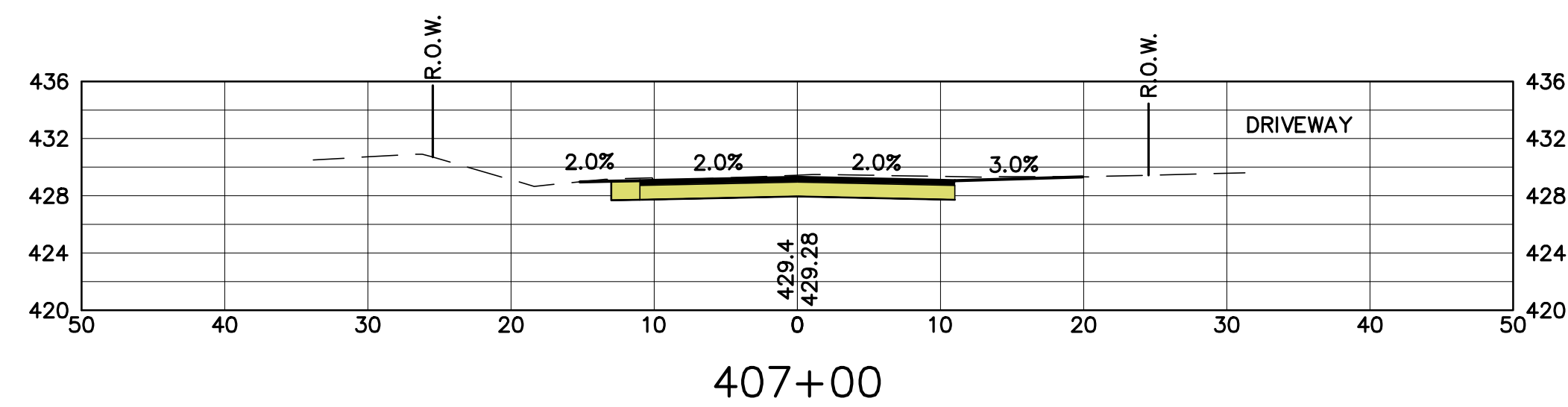
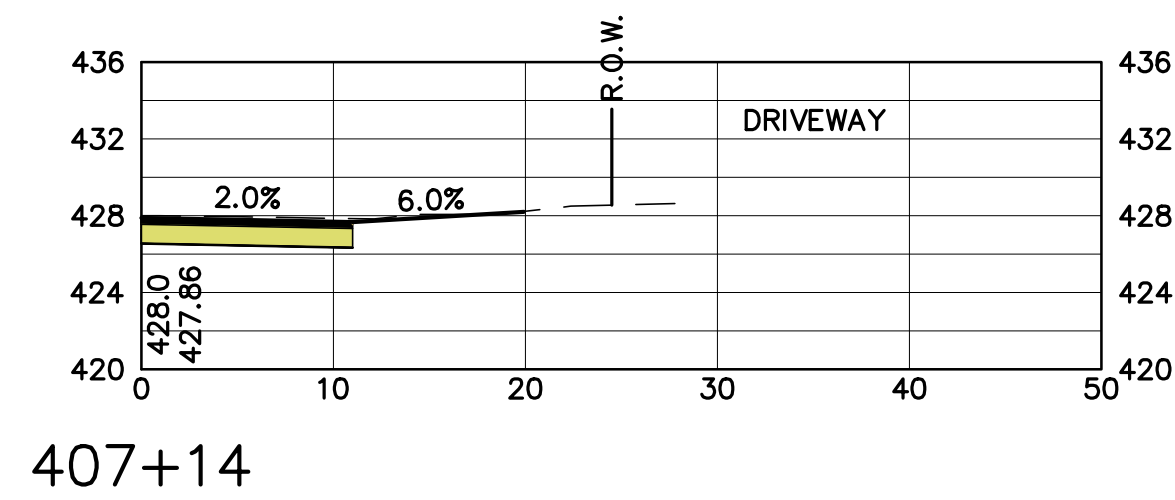
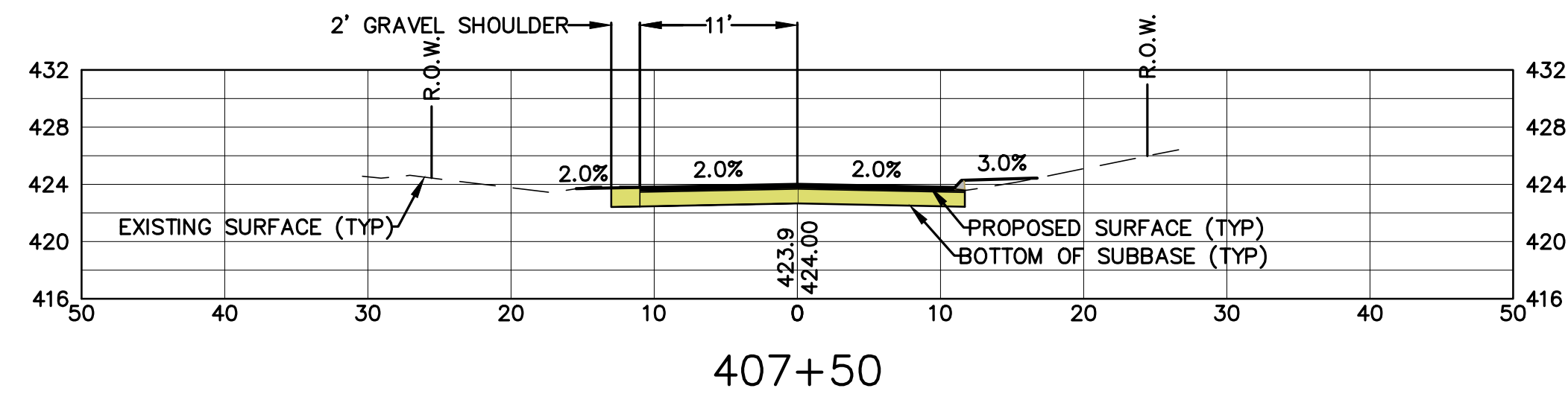
TIMBERLANE DRIVE
CROSS SECTIONS
404+00 TO 406+05

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

SHEET: 56 OF 62	SCALE: AS SHOWN	DATE: MAY 7, 2015	PROJ. 77-2015
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NO.	DATE	REVISION DESCRIPTION
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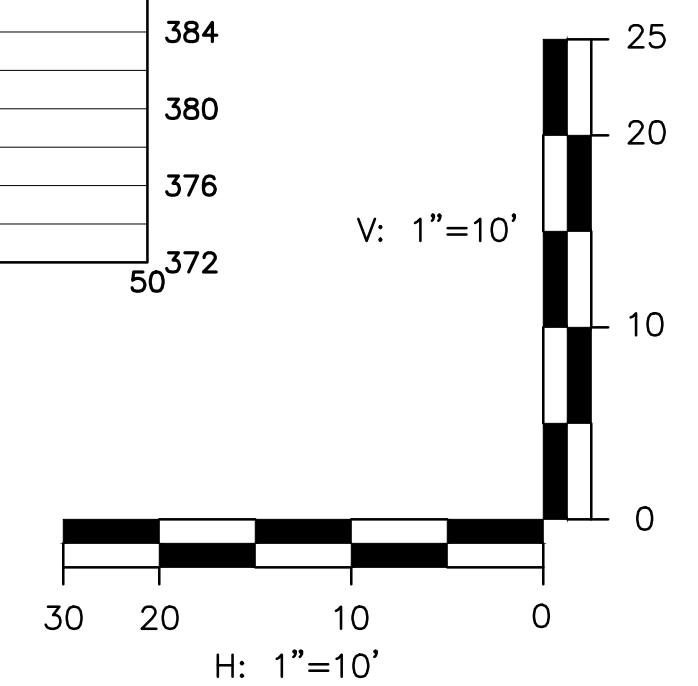
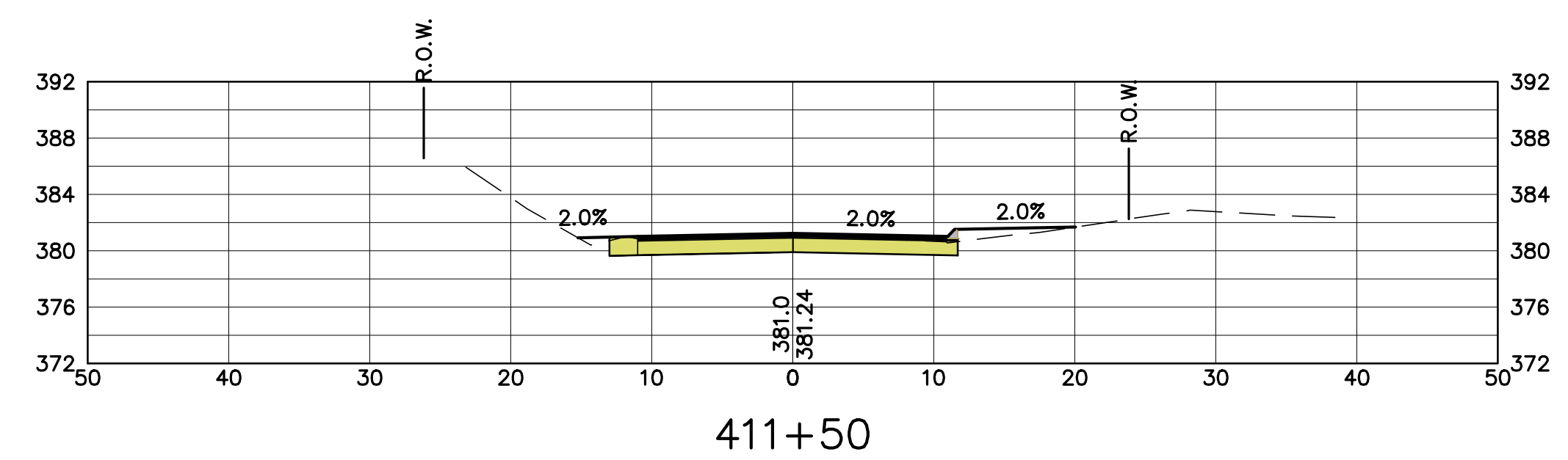
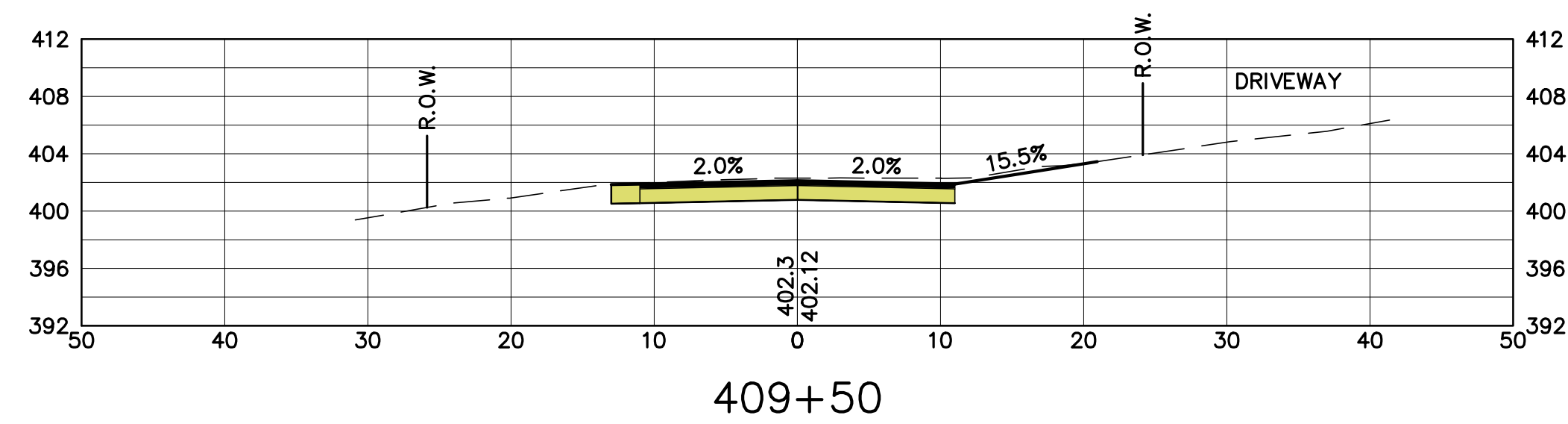
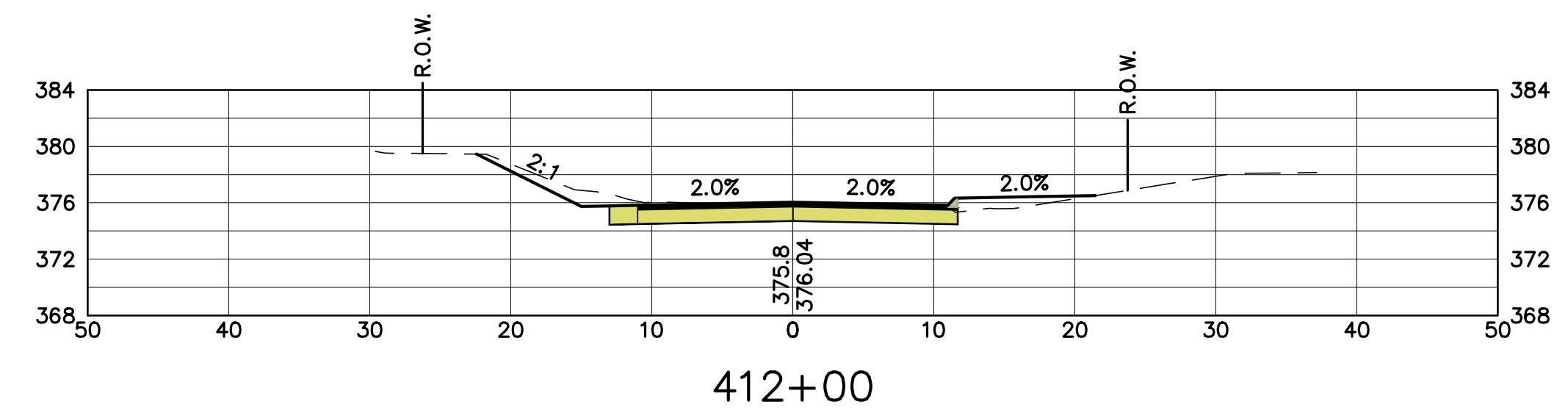
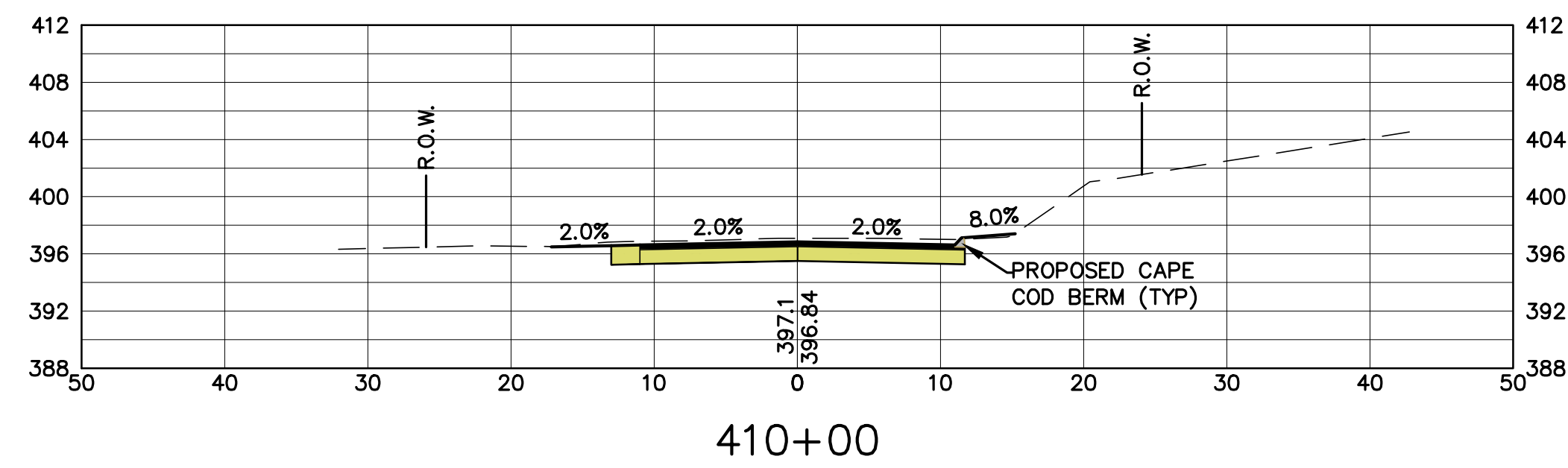
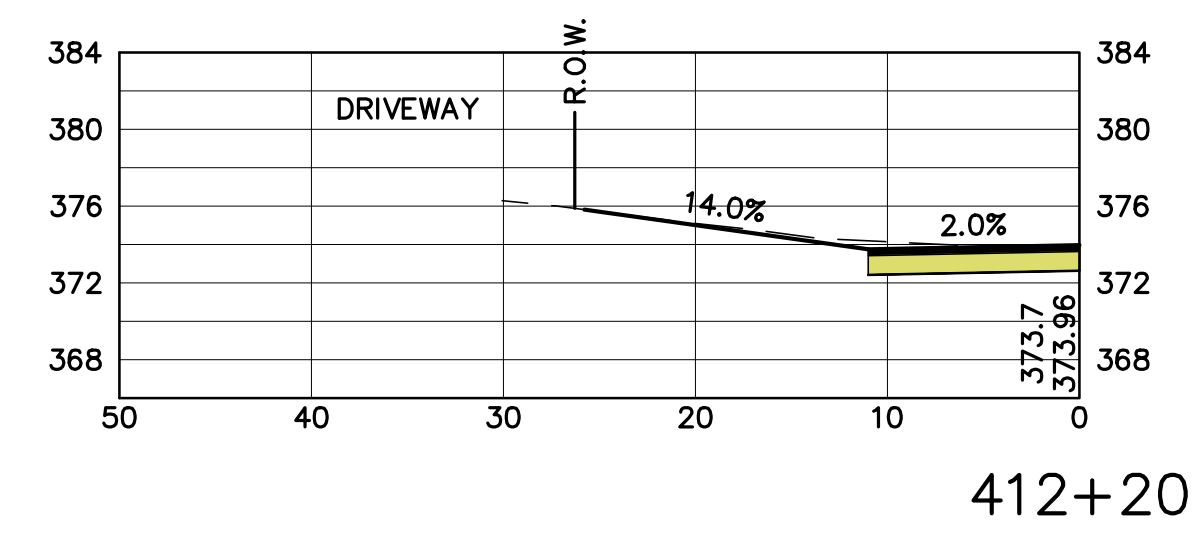
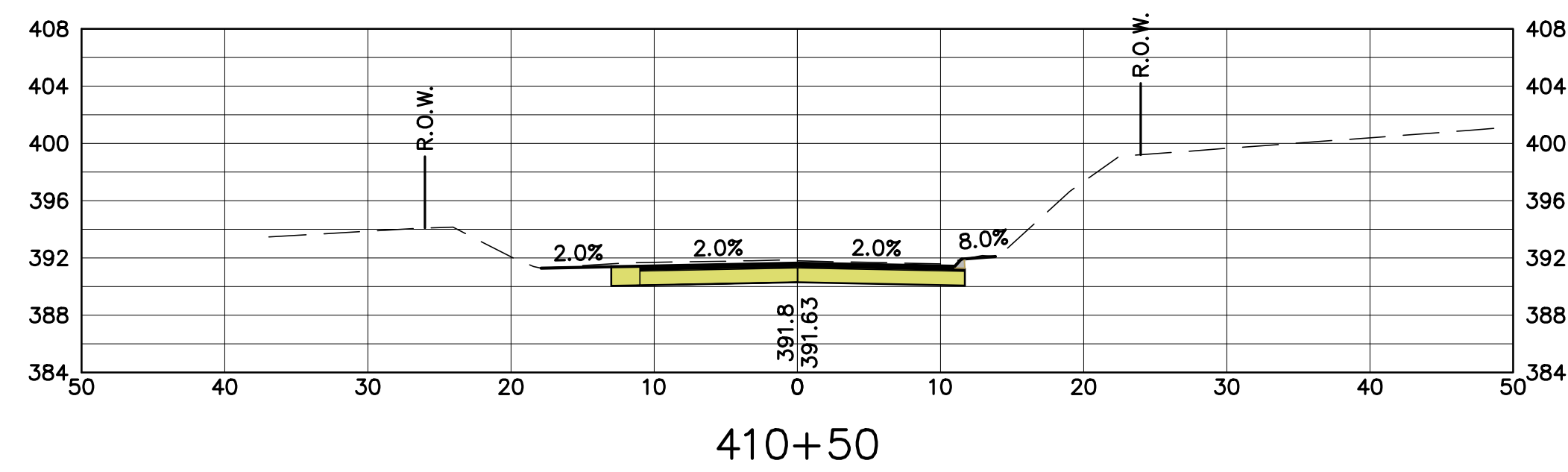
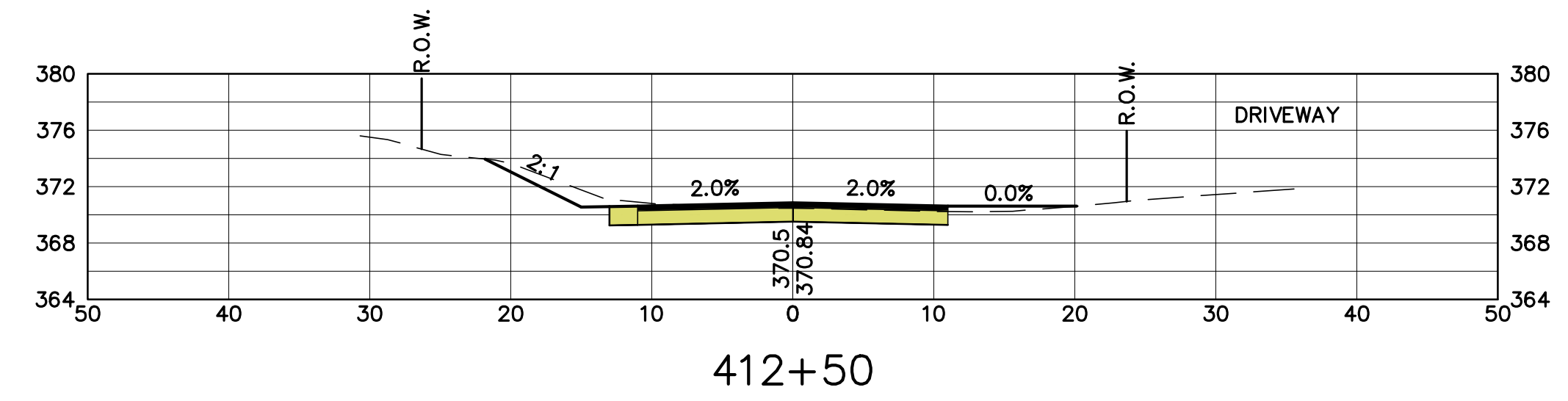
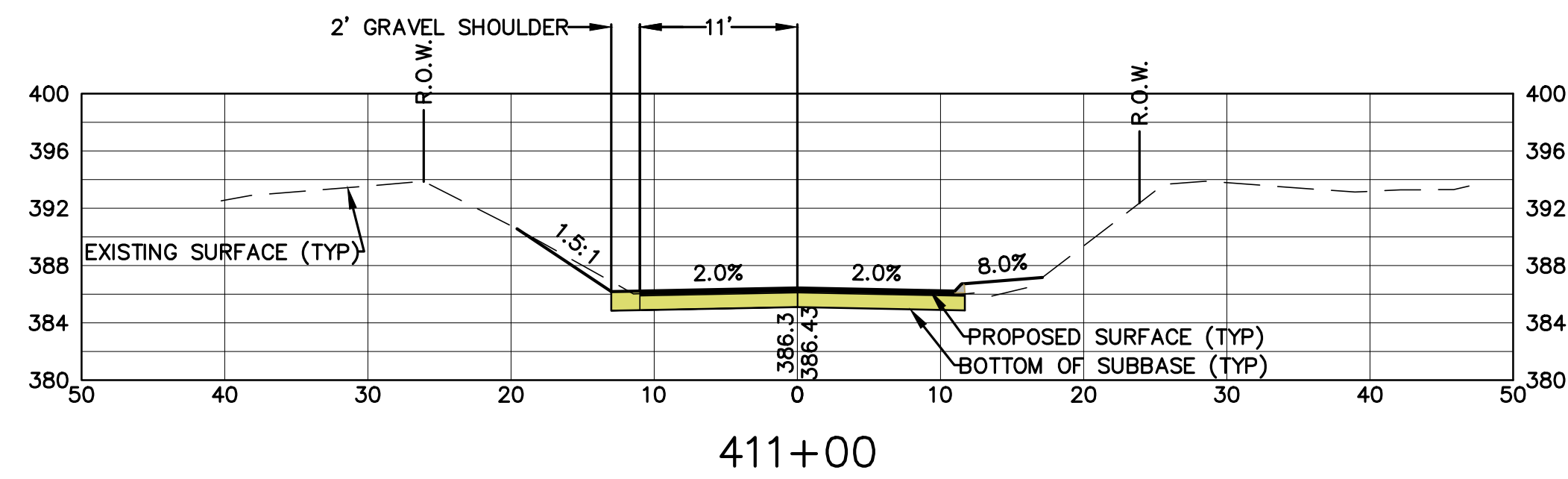
TIMBERLANE DRIVE
CROSS SECTIONS
406+50 TO 409+21

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

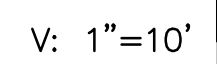
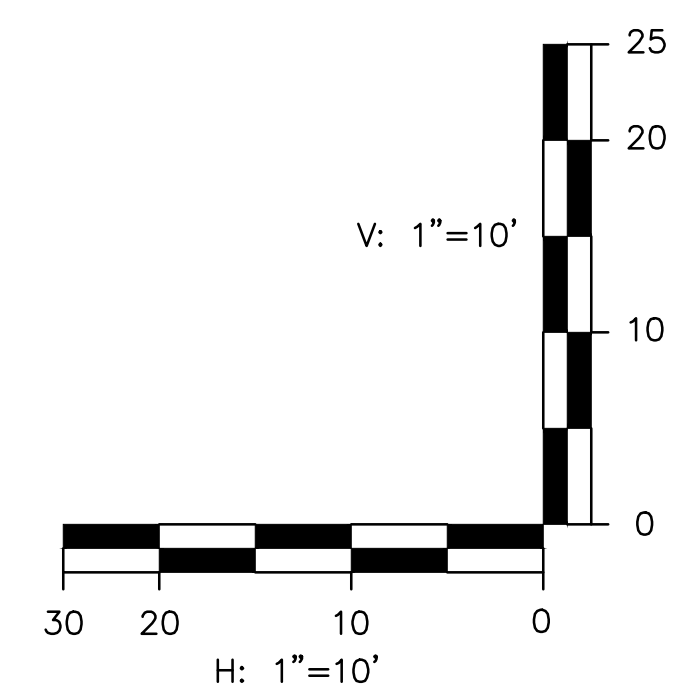
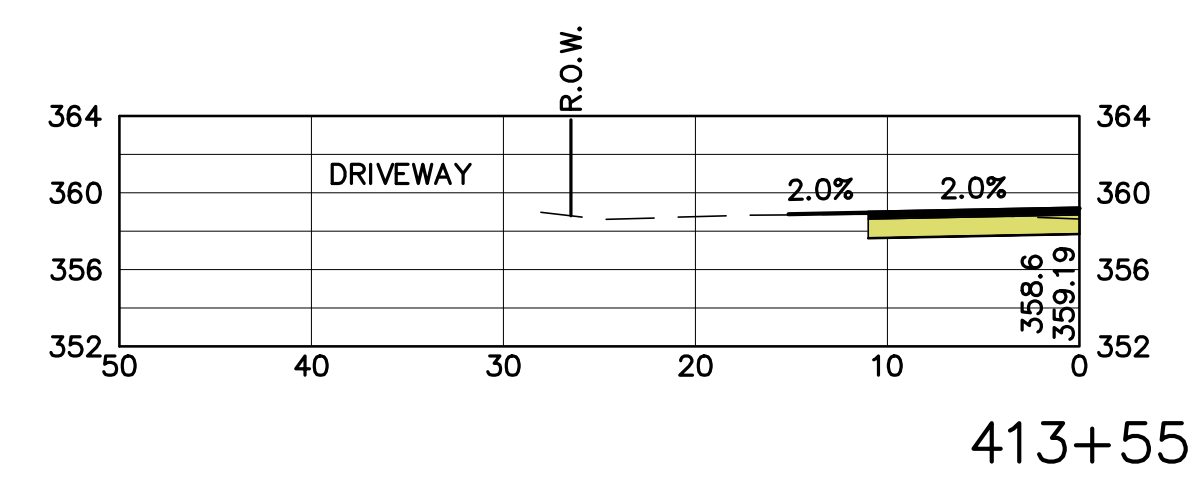
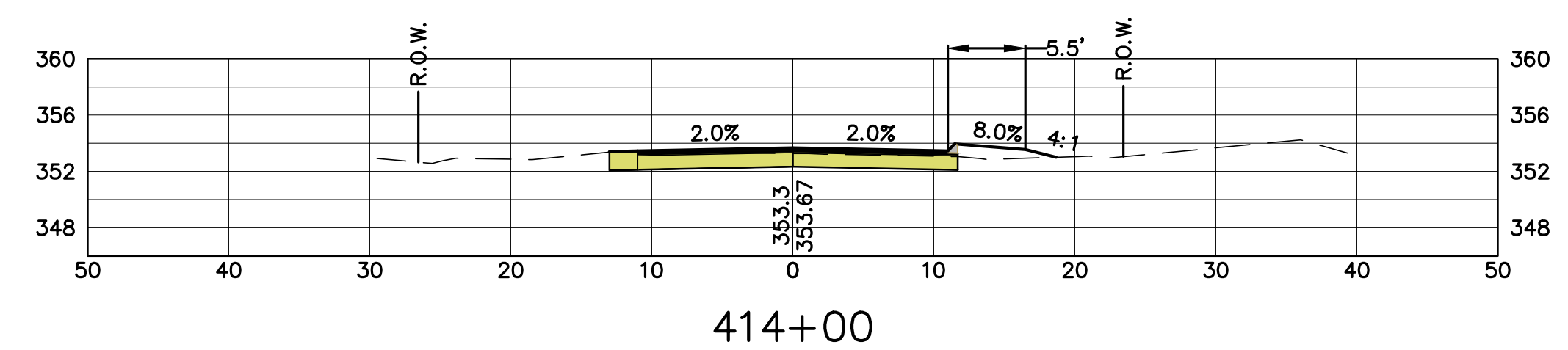
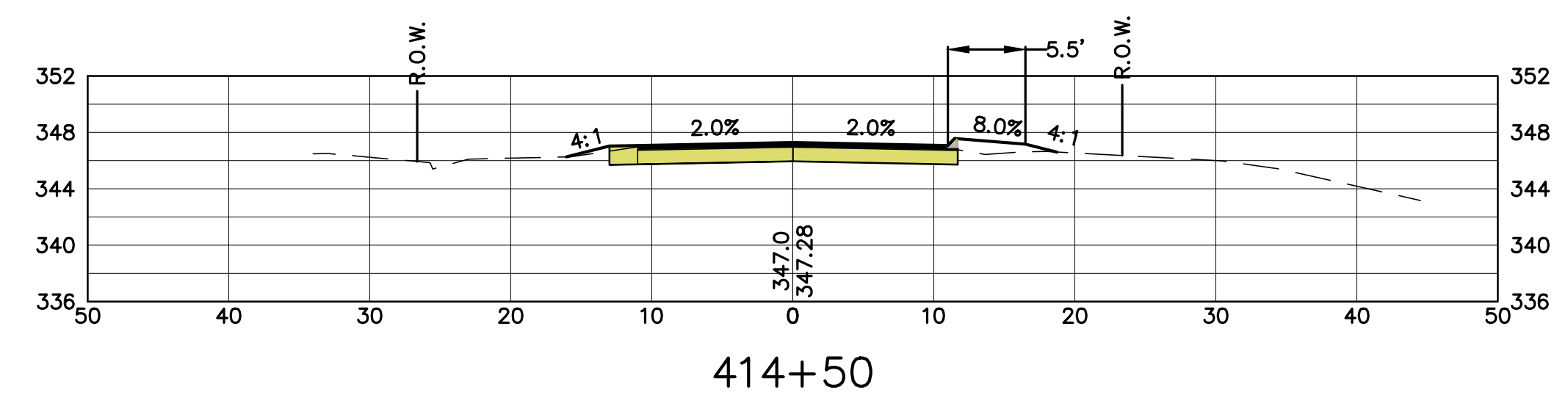
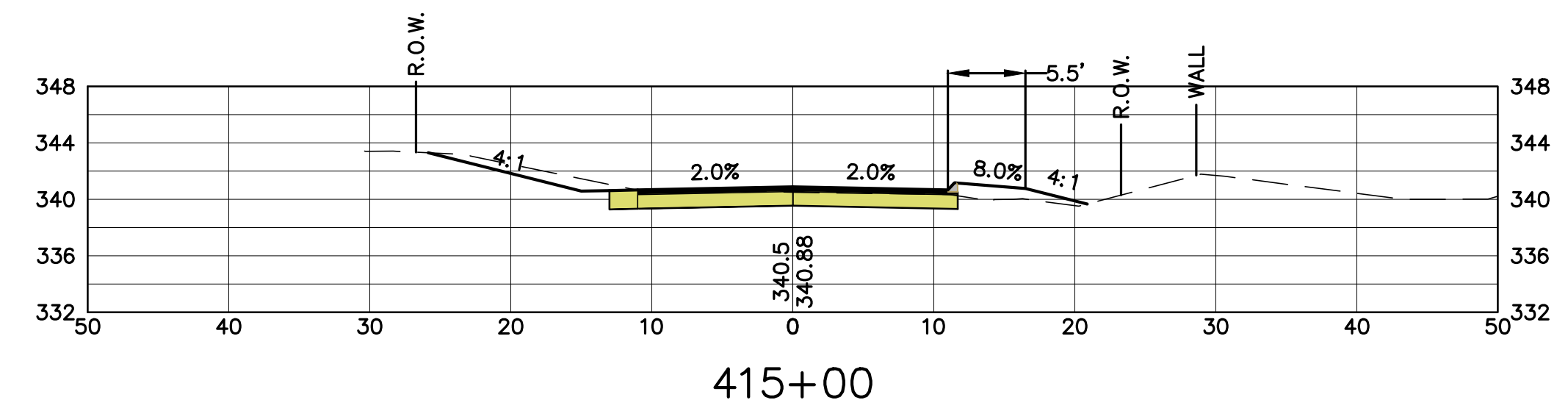
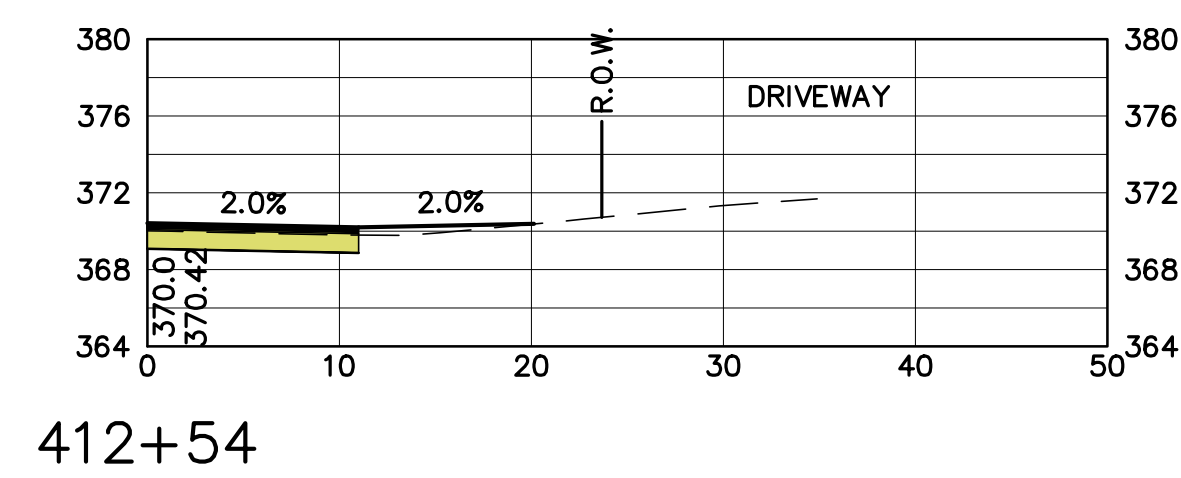
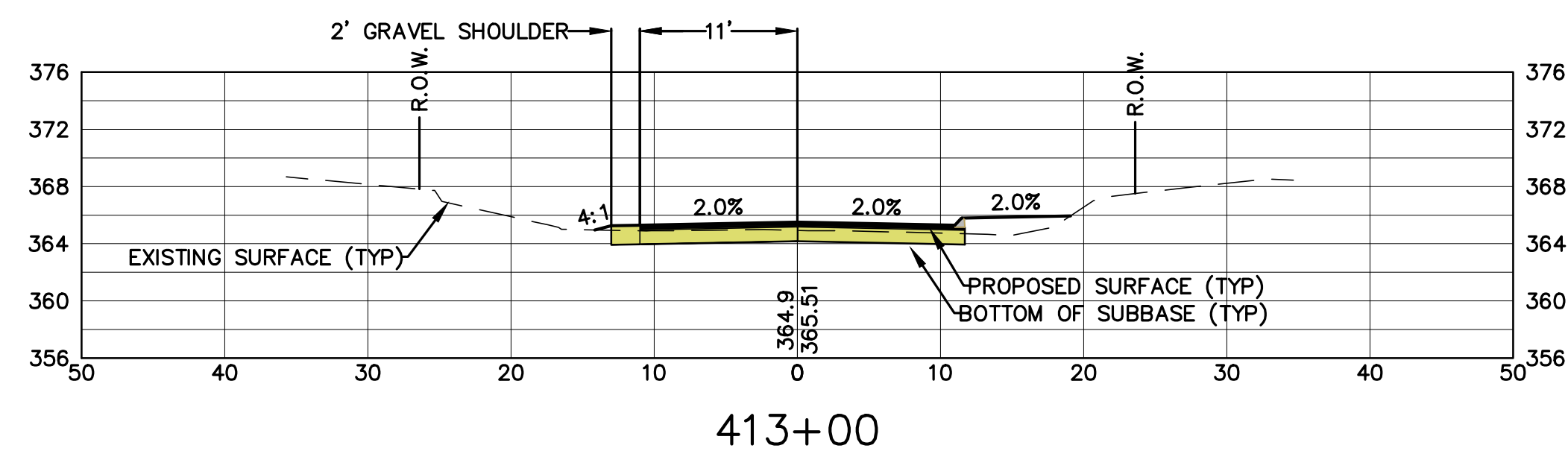
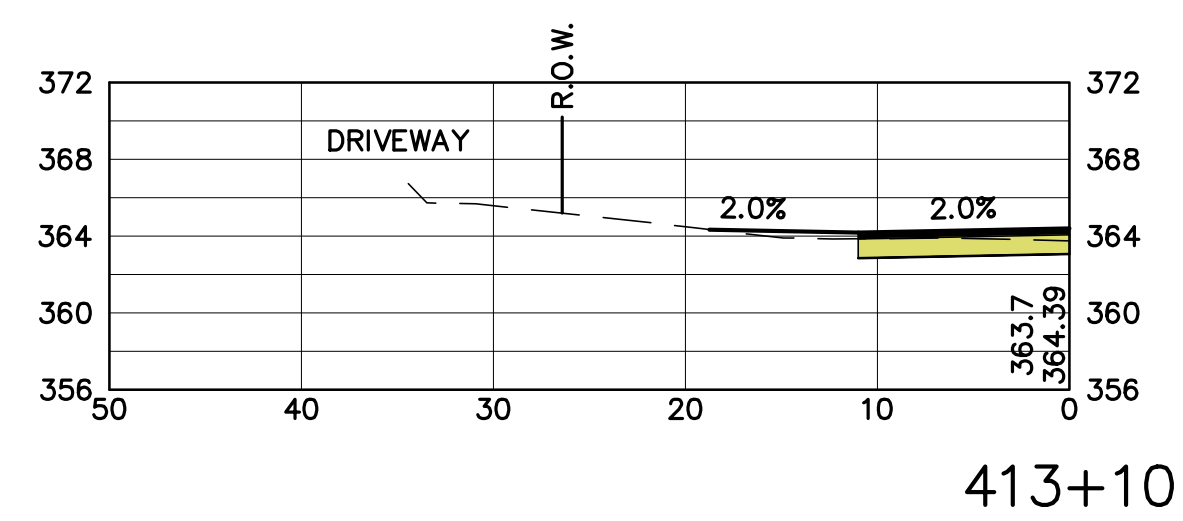
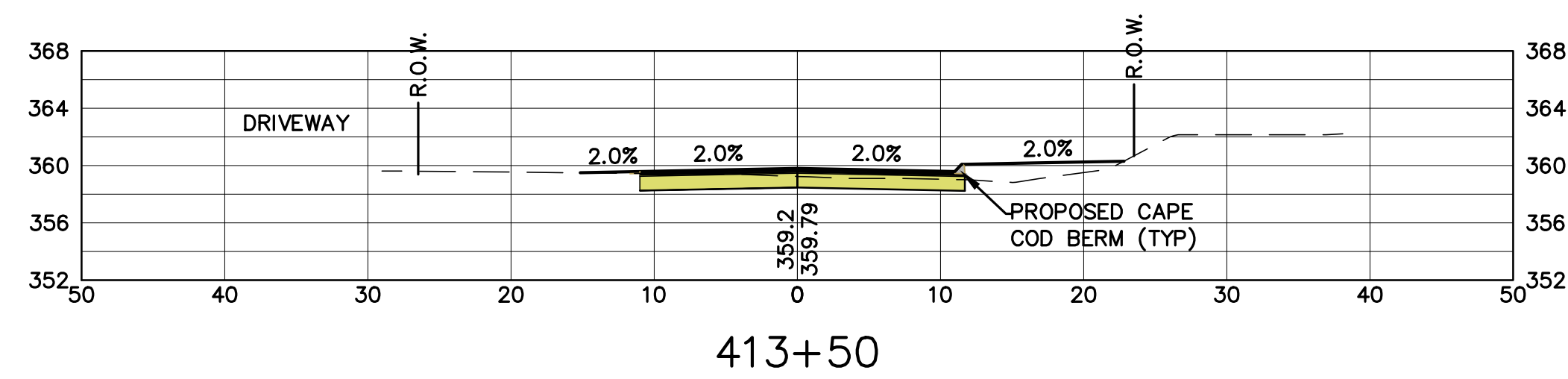
OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

SHEET: 57 OF 62	SCALE: AS SHOWN	DATE: MAY 7, 2015	PROJ. 77-2015
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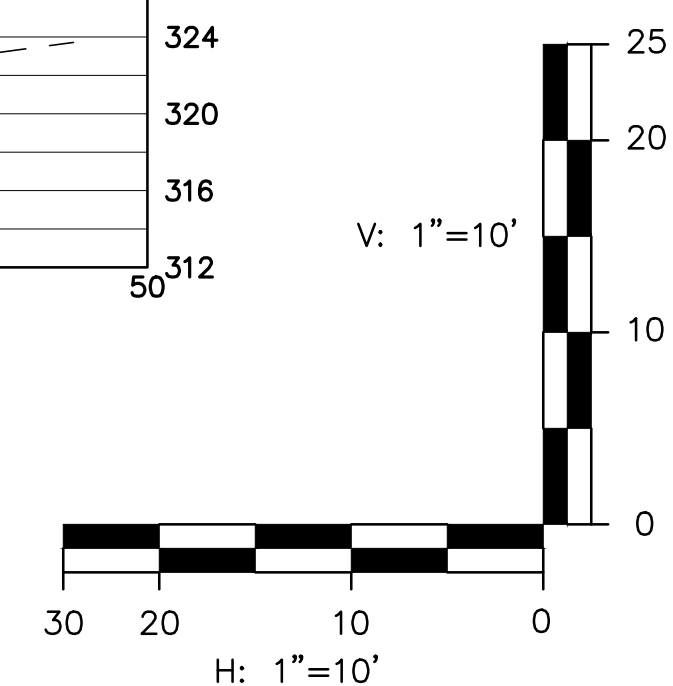
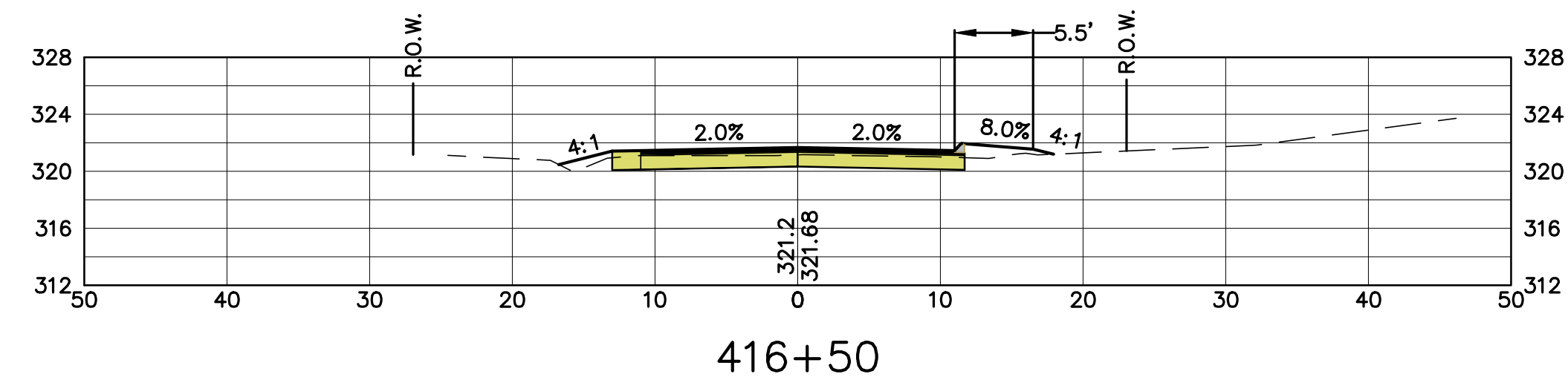
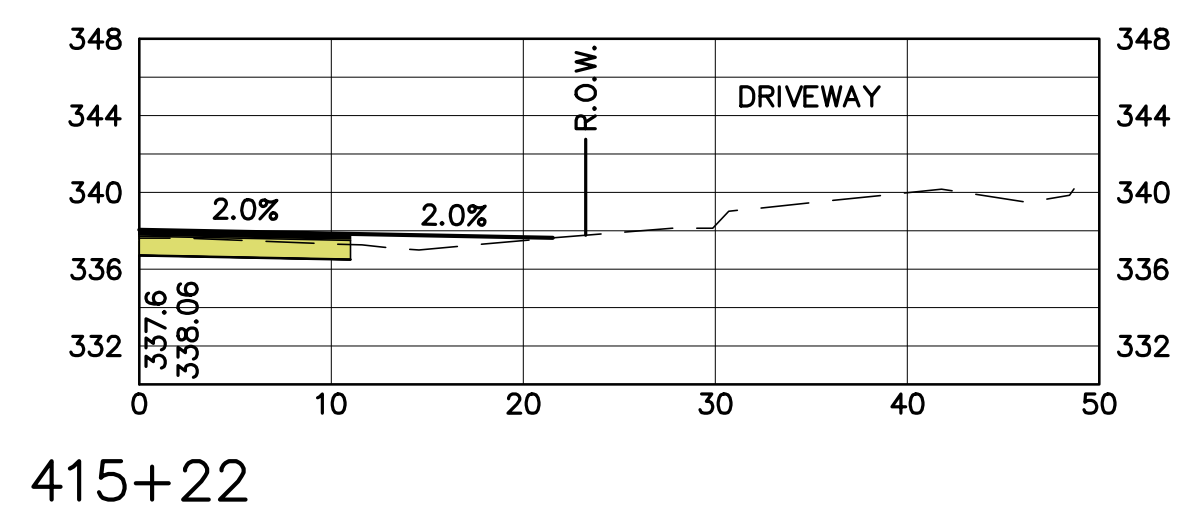
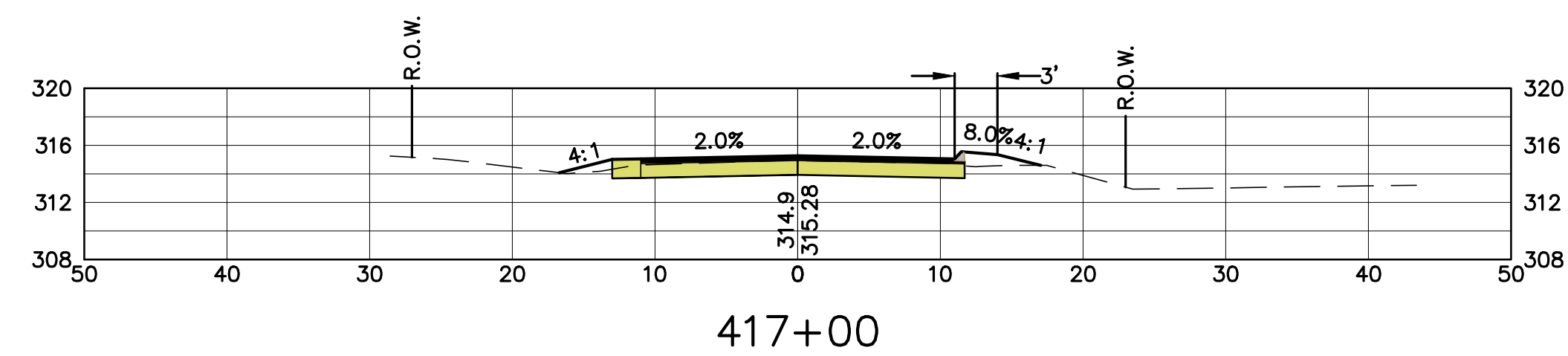
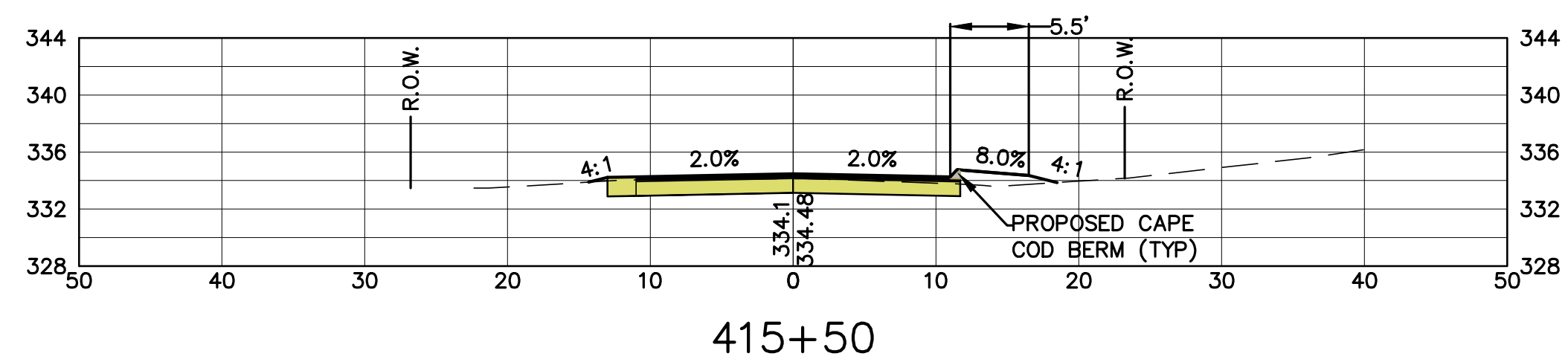
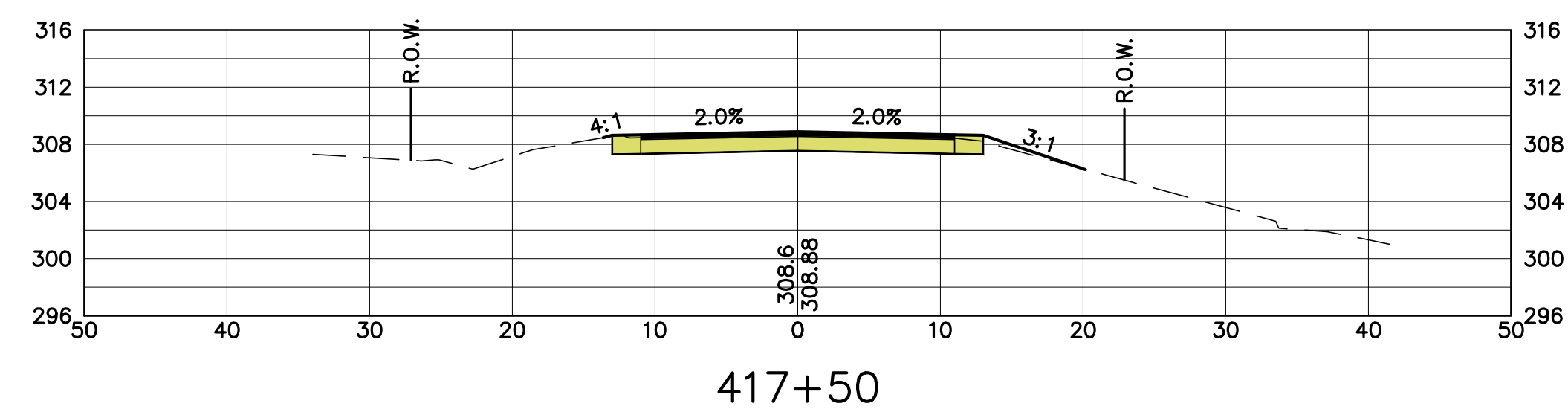
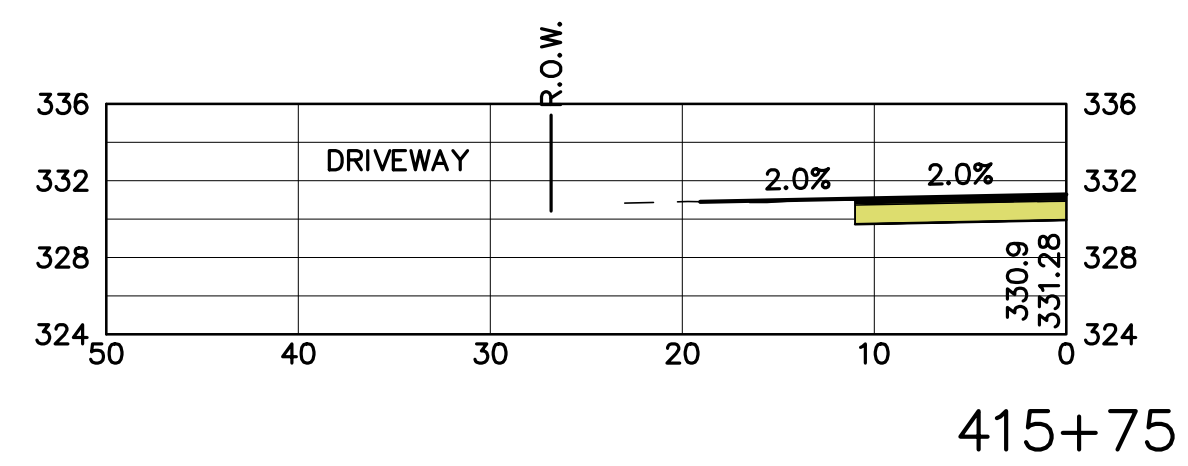
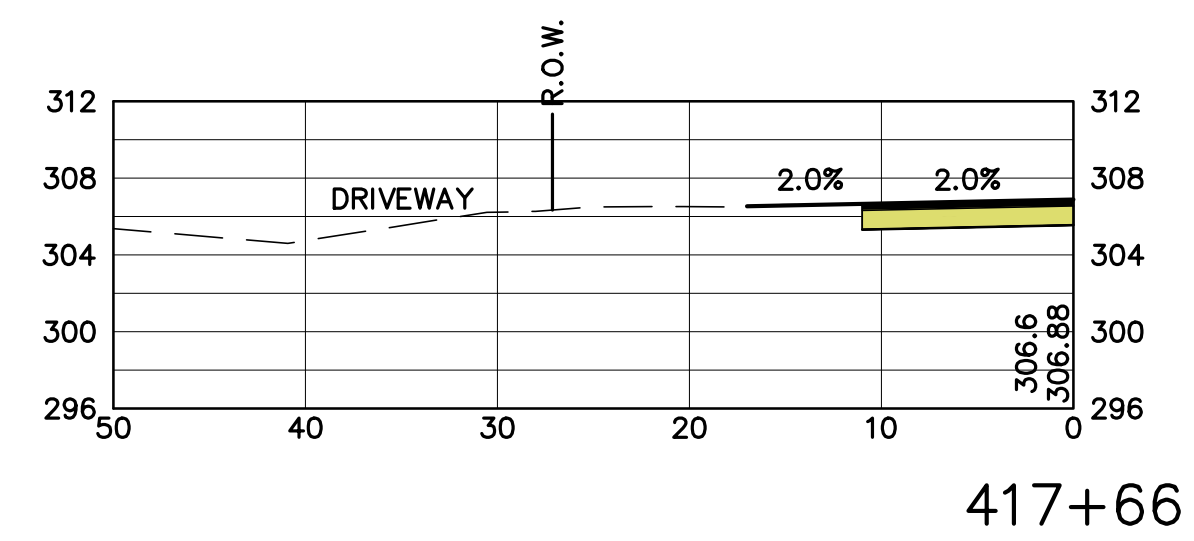
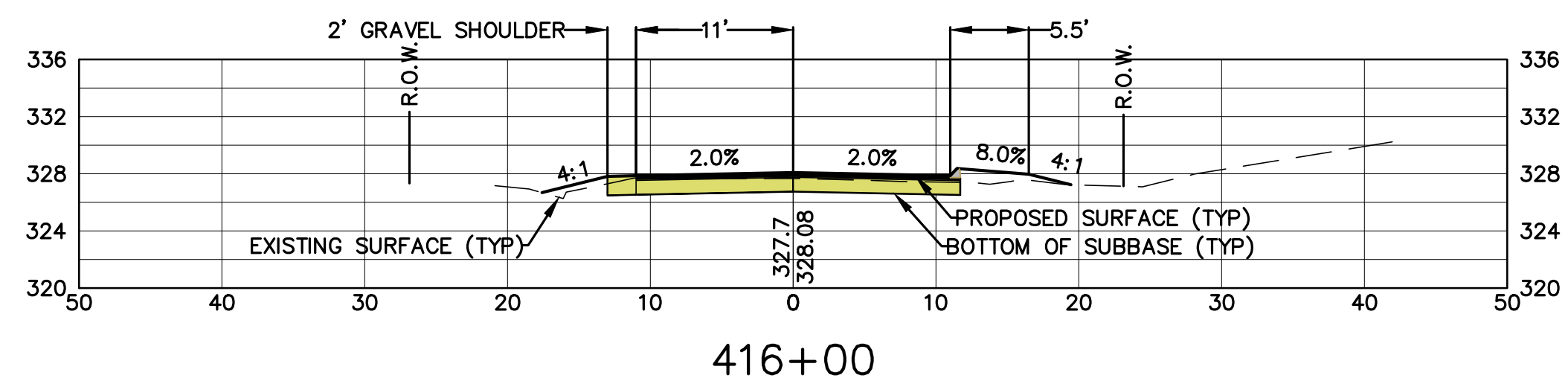
NO.	DATE	REVISION DESCRIPTION
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<p>OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE</p>	<p>PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110</p>	<p>TIMBERLANE DRIVE CROSS SECTIONS 409+50 TO 412+50</p>	<p>NO.</p>	<p>DATE</p>	<p>REVISION DESCRIPTION</p>
<p>SHEET: 58 OF 62 SCALE: AS SHOWN</p>	<p>DATE: MAY 7, 2015</p>	<p>PROJ. 77-2015</p>			



<p>OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE</p>	<p>PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110</p>		<p>TIMBERLANE DRIVE CROSS SECTIONS 412+54 TO 415+00</p>
<p>DATE: 59 OF 62</p>	<p>SCALE: AS SHOWN</p>	<p>DATE: MAY 7, 2015</p>	<p>PROJ. 77-2015</p>



V: $1''=10'$

TIMBERLANE DRIVE
CROSS SECTIONS
415+22 TO 417+66

PREPARED FOR:
TOWN OF BEDFORD
24 NORTH AMHERST ROAD
BEDFORD, NEW HAMPSHIRE 03110

OLD BEDFORD ROAD AND
HOLBROOK ROAD
RECONSTRUCTION
BEDFORD, NEW HAMPSHIRE

PROJ. 77-2015

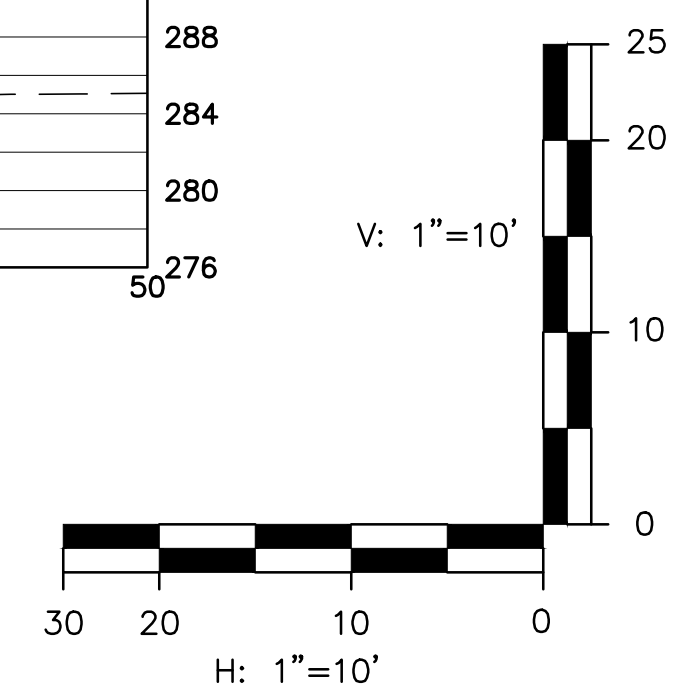
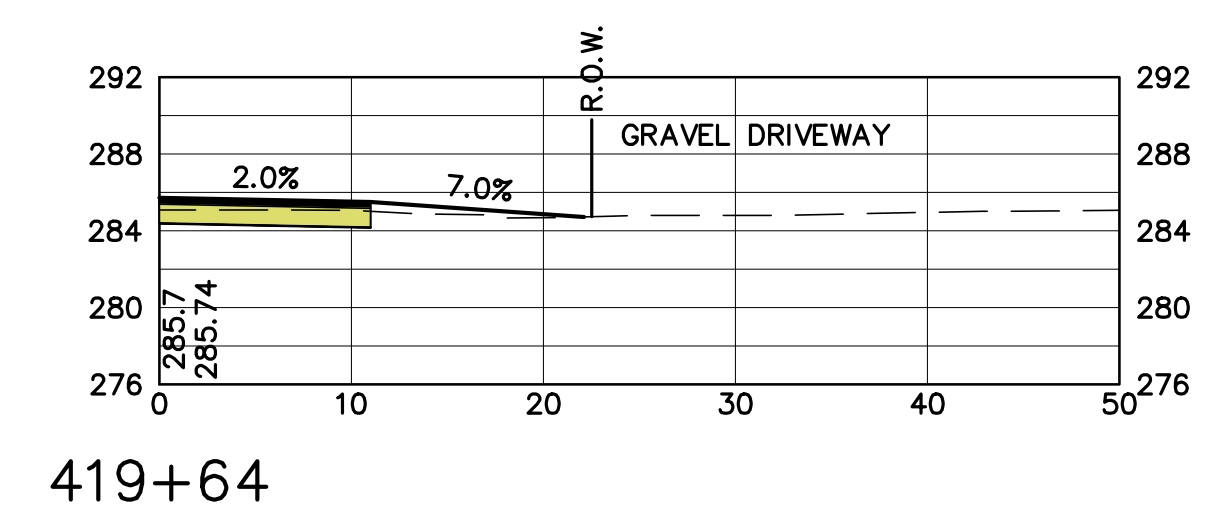
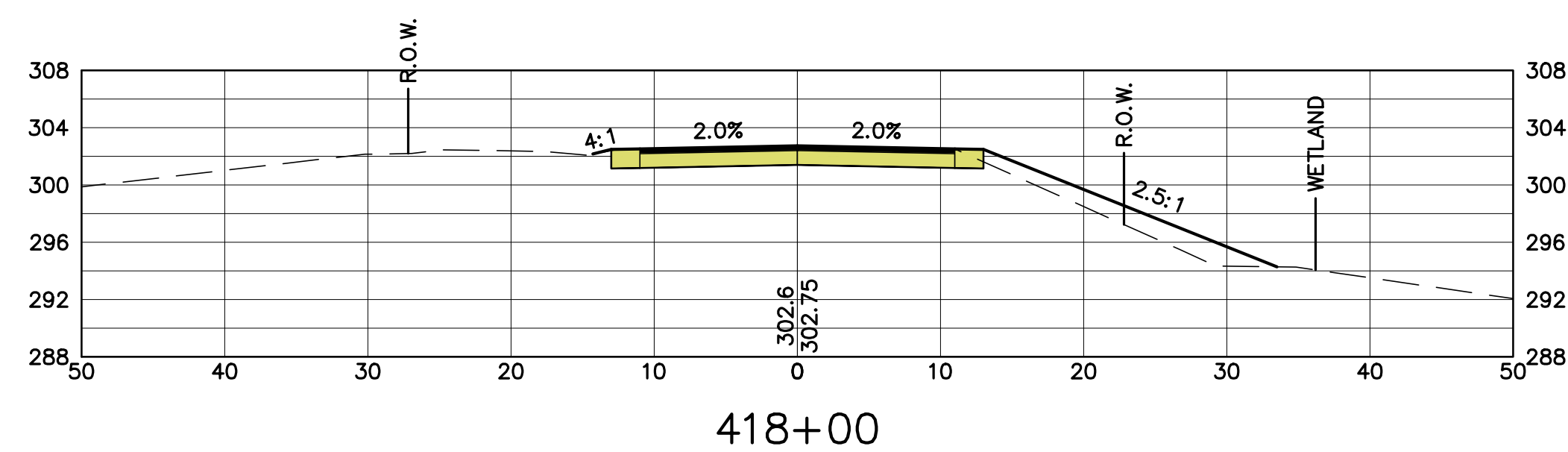
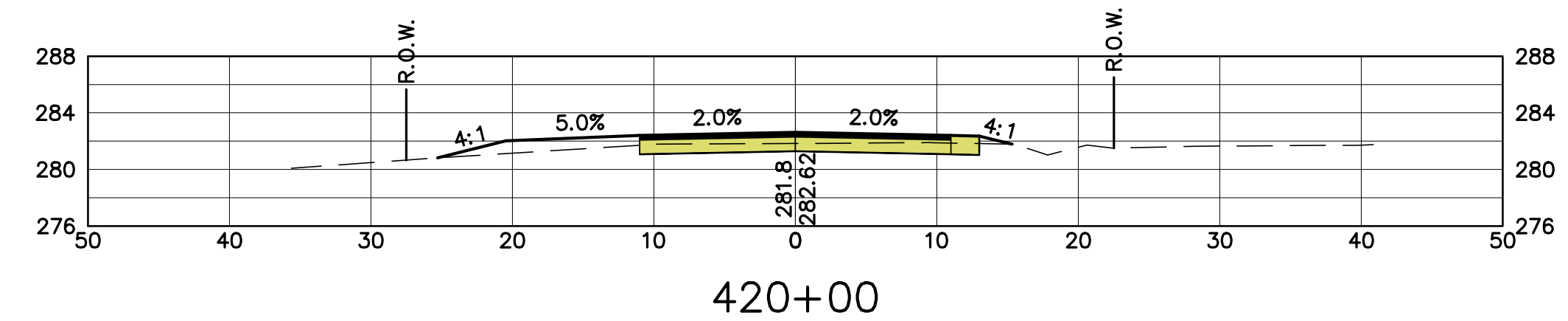
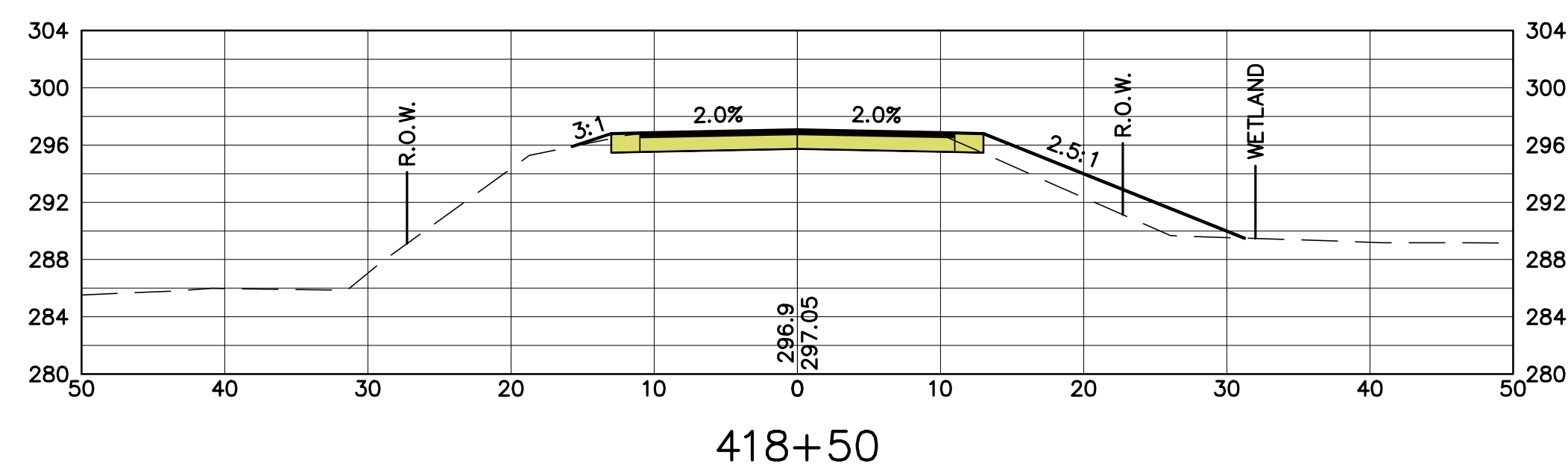
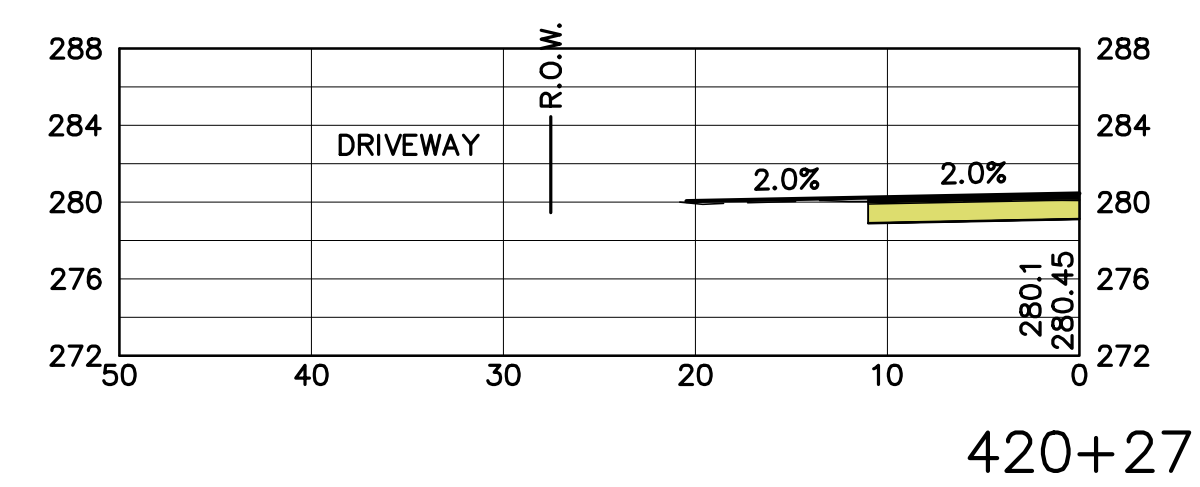
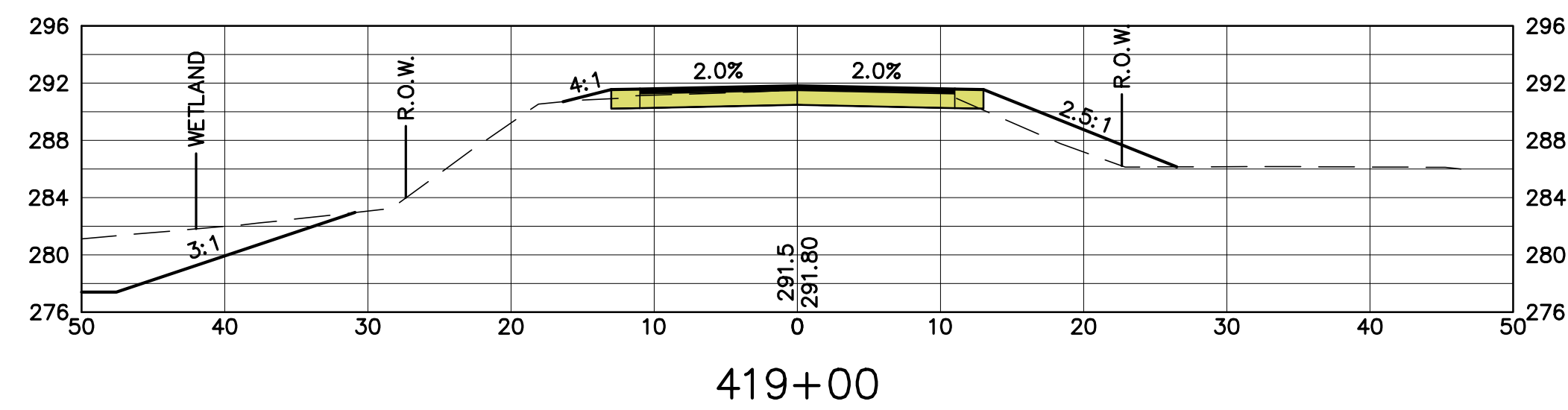
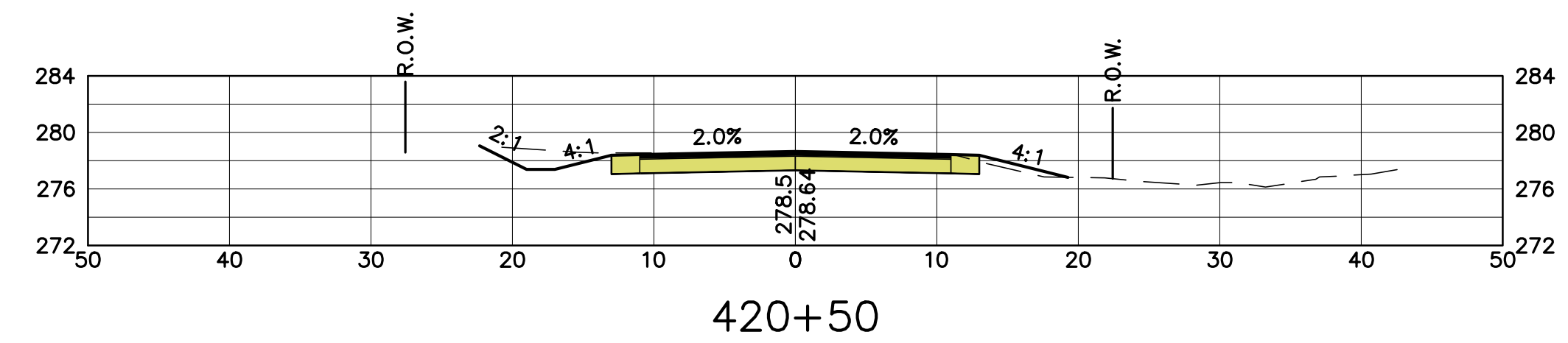
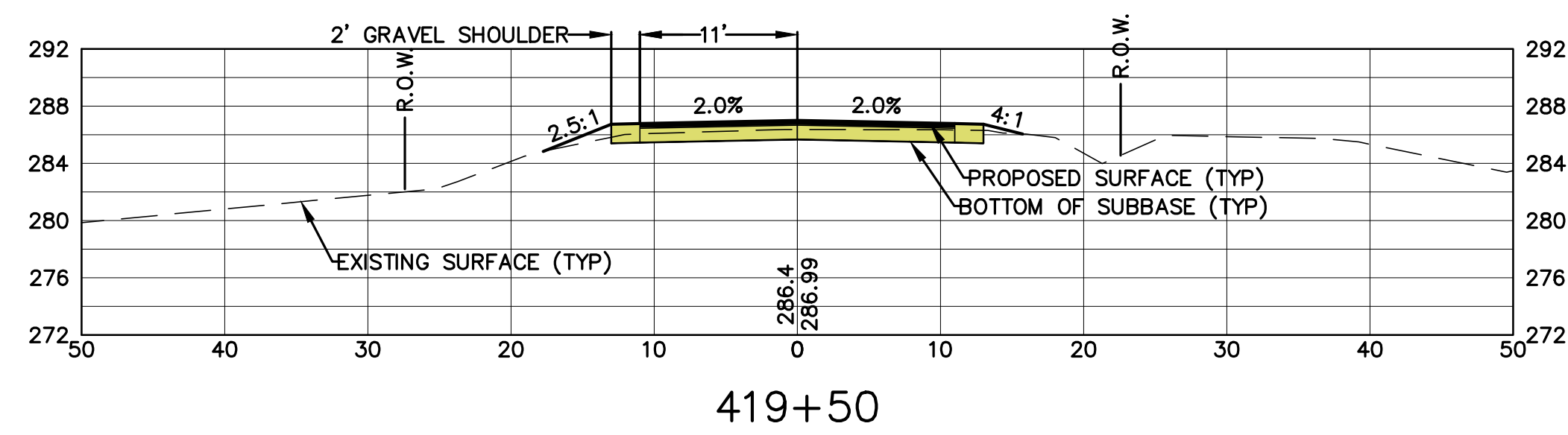
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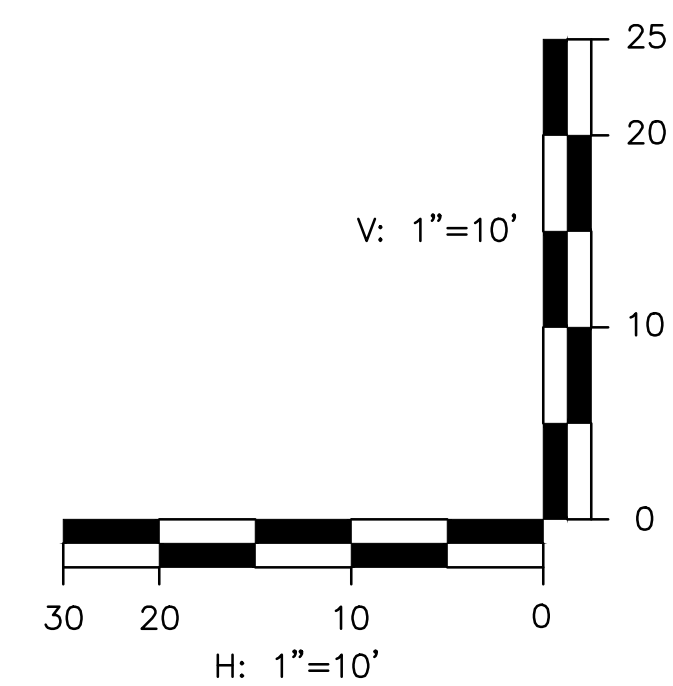
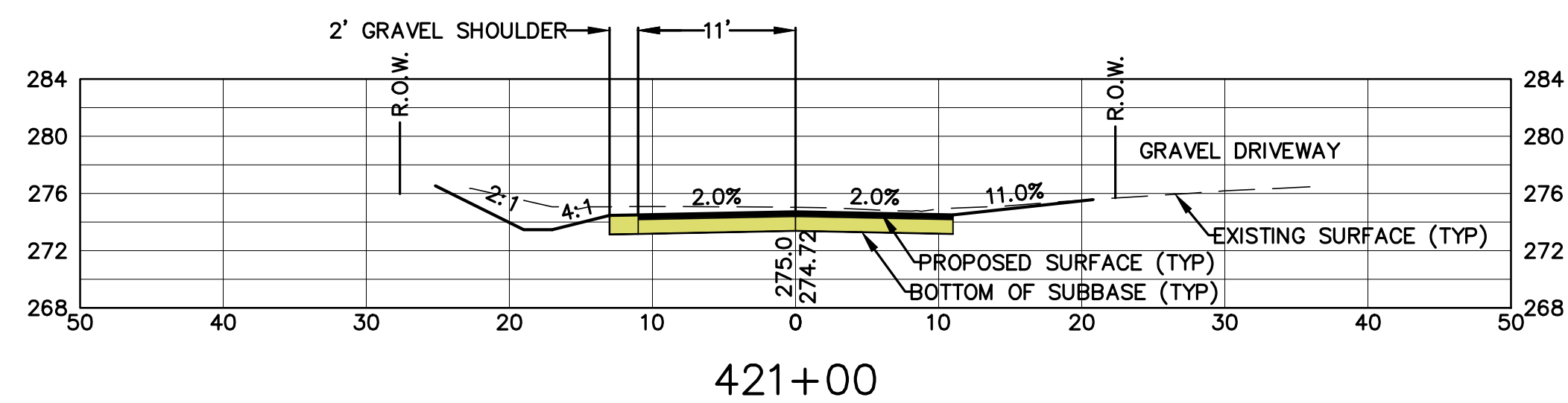
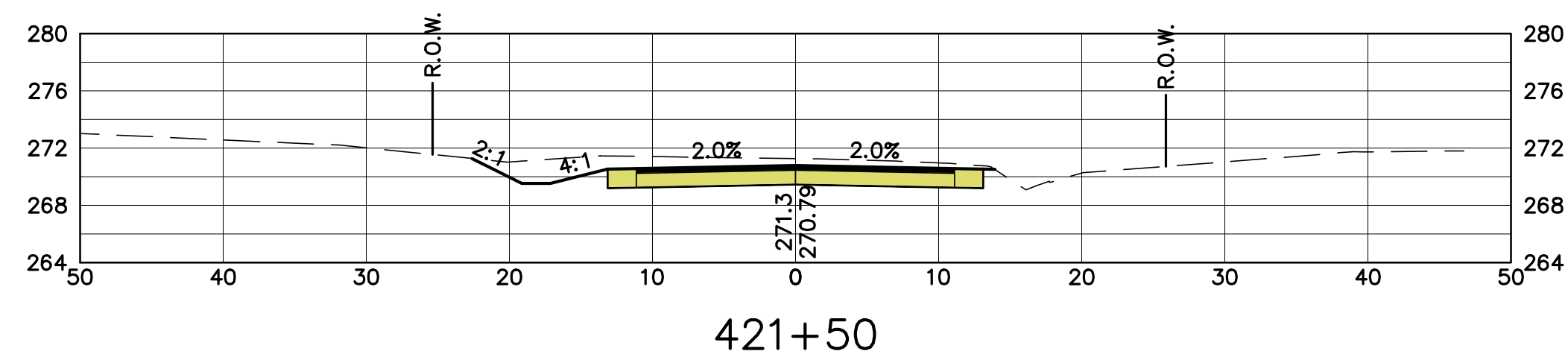
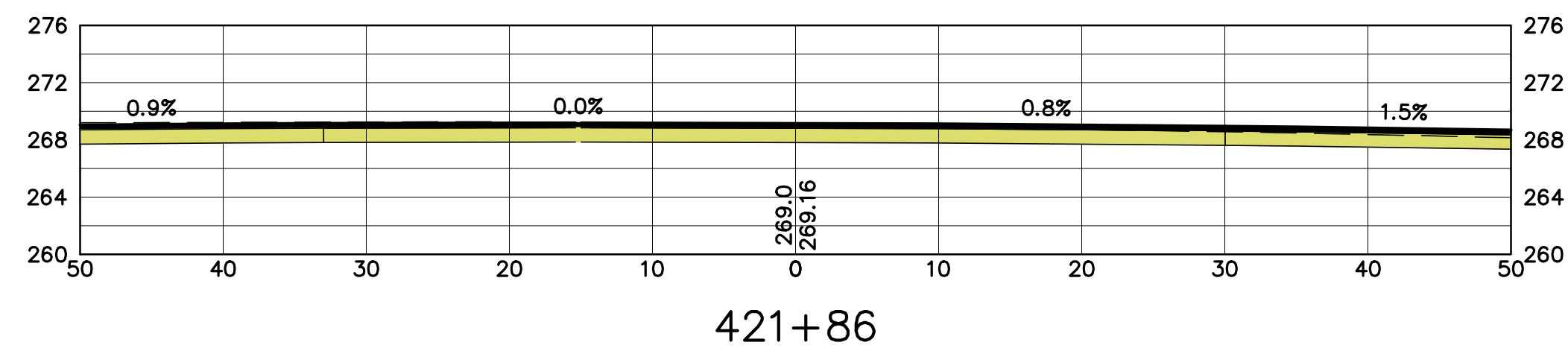
SCALE: AS SHOWN

SHEET: 60 OF 62

REVISION	DESCRIPTION
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	NO.	DATE
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SHEET: 62 OF 62		SCALE: AS SHOWN	PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110		TIMBERLANE DRIVE CROSS SECTIONS 421+00 TO 421+86		
OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE							
DATE: MAY 7, 2015 PROJ. 77-2015						NO.	DATE
							REVISION DESCRIPTION

SHEET: 62 OF 62		SCALE: AS SHOWN	PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110		TIMBERLANE DRIVE CROSS SECTIONS 421+00 TO 421+86		
OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE							
DATE: MAY 7, 2015 PROJ. 77-2015						NO.	DATE
							REVISION DESCRIPTION

SHEET: 62 OF 62		SCALE: AS SHOWN	PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110		TIMBERLANE DRIVE CROSS SECTIONS 421+00 TO 421+86		
OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE							
DATE: MAY 7, 2015 PROJ. 77-2015						NO.	DATE
							REVISION DESCRIPTION

SHEET: 62 OF 62		SCALE: AS SHOWN	PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110		TIMBERLANE DRIVE CROSS SECTIONS 421+00 TO 421+86		
OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE							
DATE: MAY 7, 2015 PROJ. 77-2015						NO.	DATE
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SHEET: 62 OF 62		SCALE: AS SHOWN	PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110		TIMBERLANE DRIVE CROSS SECTIONS 421+00 TO 421+86		
OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE							
DATE: MAY 7, 2015 PROJ. 77-2015						NO.	DATE
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SHEET: 62 OF 62		SCALE: AS SHOWN	PREPARED FOR: TOWN OF BEDFORD 24 NORTH AMHERST ROAD BEDFORD, NEW HAMPSHIRE 03110		TIMBERLANE DRIVE CROSS SECTIONS 421+00 TO 421+86		
OLD BEDFORD ROAD AND HOLBROOK ROAD RECONSTRUCTION BEDFORD, NEW HAMPSHIRE							
DATE: MAY 7, 2015 PROJ. 77-2015						NO.	DATE
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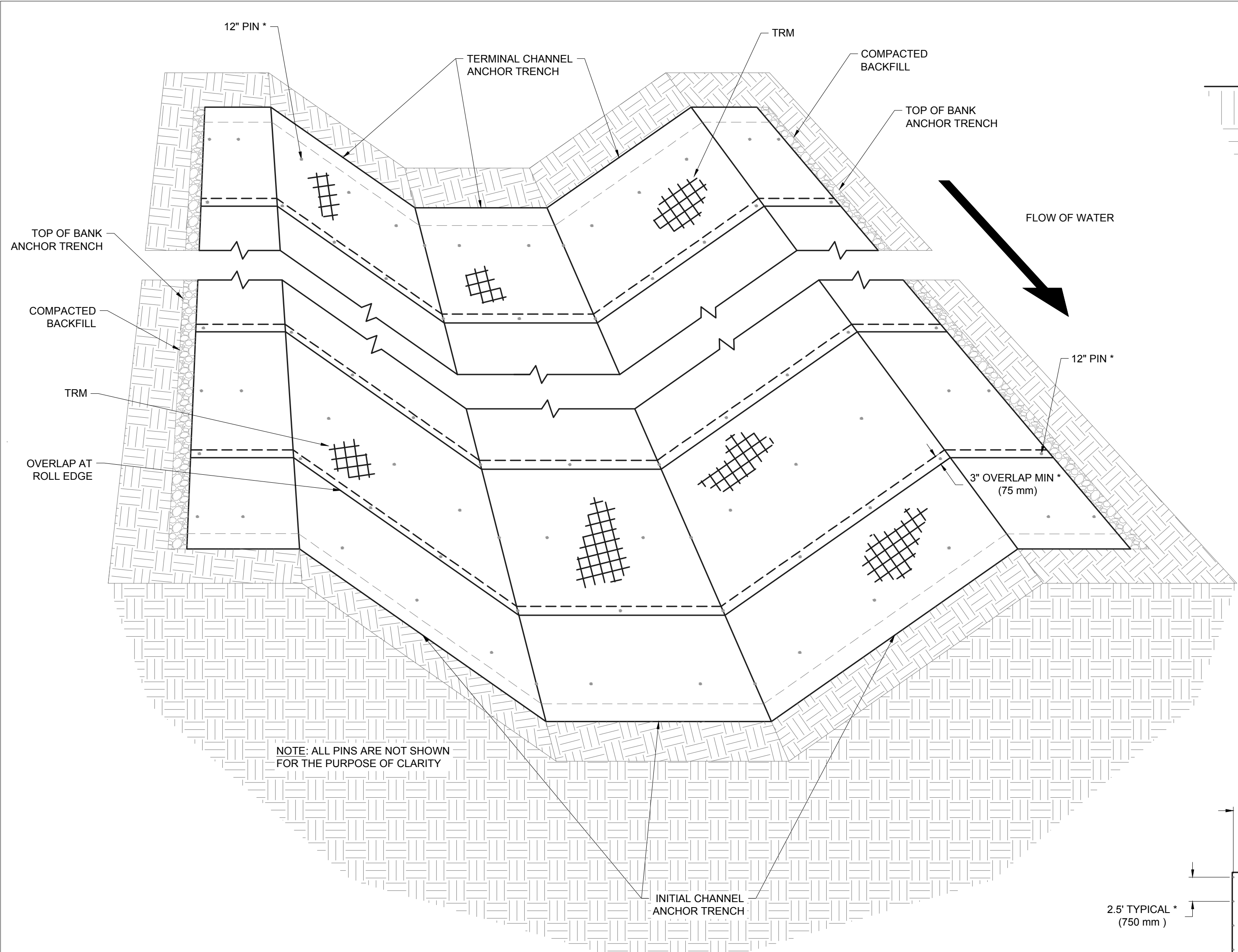


FIGURE 1: INSTALLATION OF TRM SYSTEM IN A CHANNEL

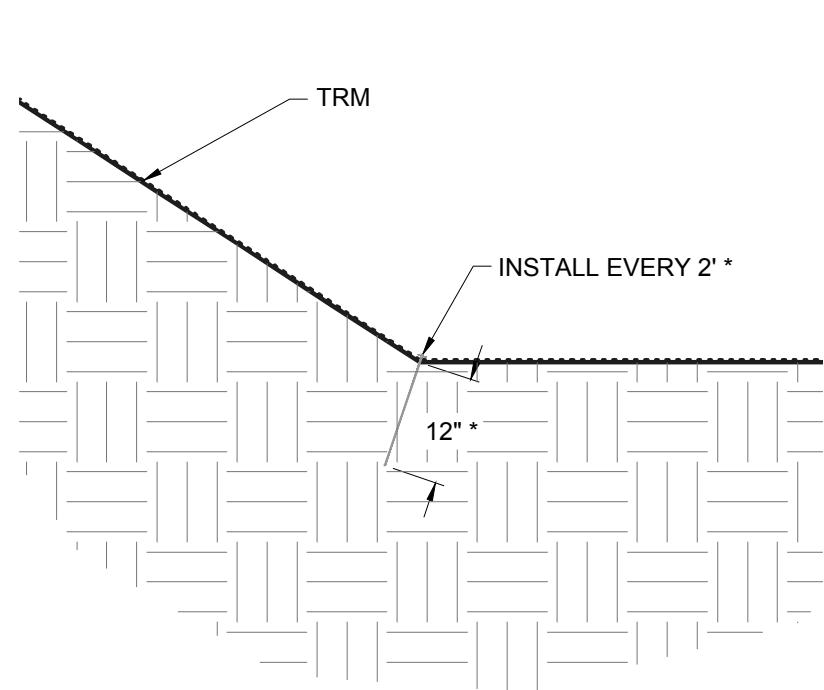


FIGURE 8: BREAK IN SLOPE INTERFACE
DETAIL FOR CHANNELS

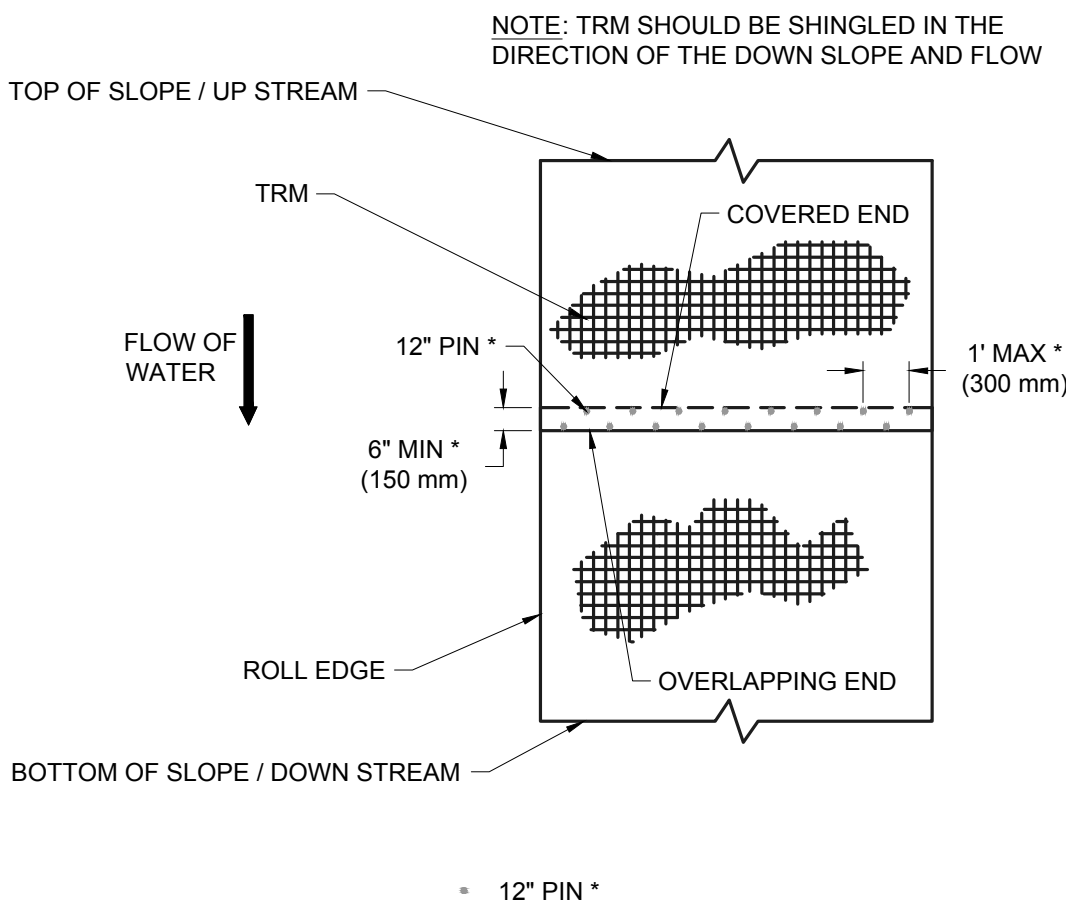


FIGURE 9: OVERLAP AT ROLL END DETAIL

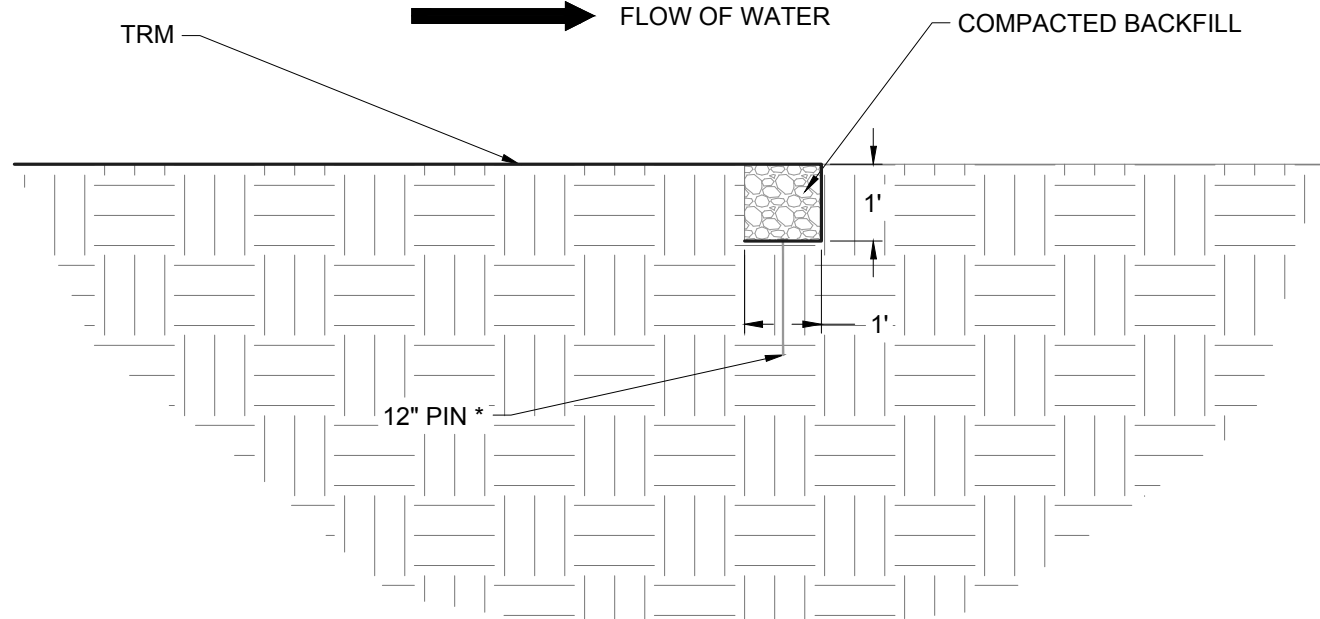


FIGURE 2: INITIAL CHANNEL ANCHOR
TRENCH (DOWNSTREAM) DETAIL

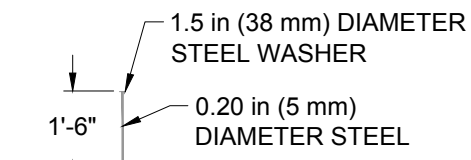


FIGURE 7: SECURING PIN DETAIL

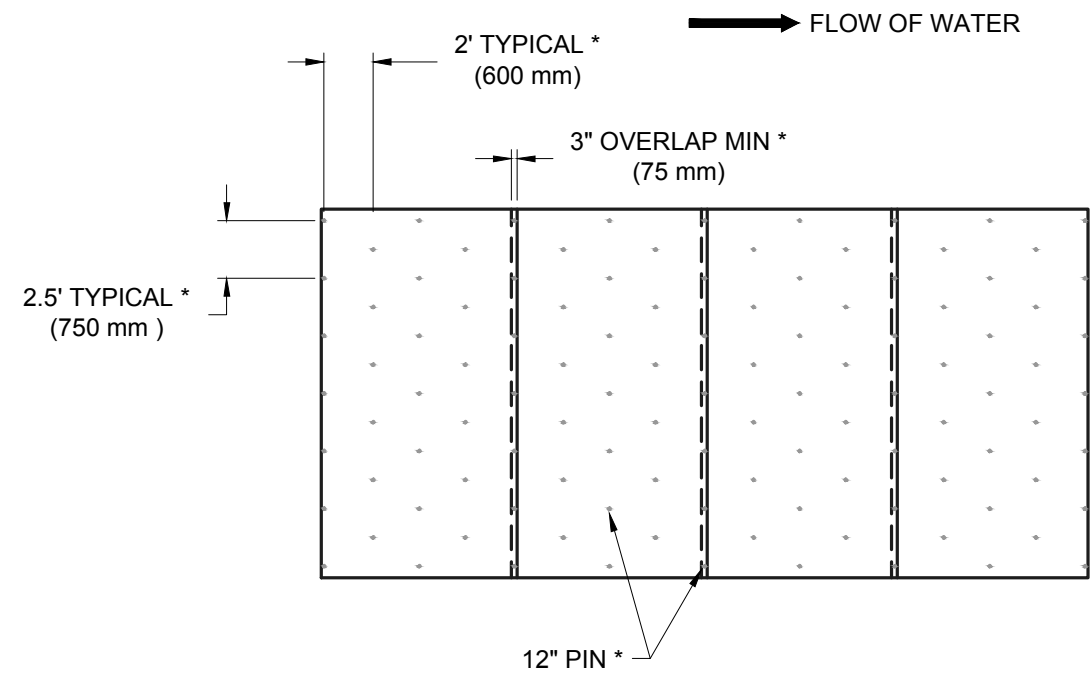


FIGURE 6: PIN PATTERN AND LONGITUDINAL
EDGE DETAIL

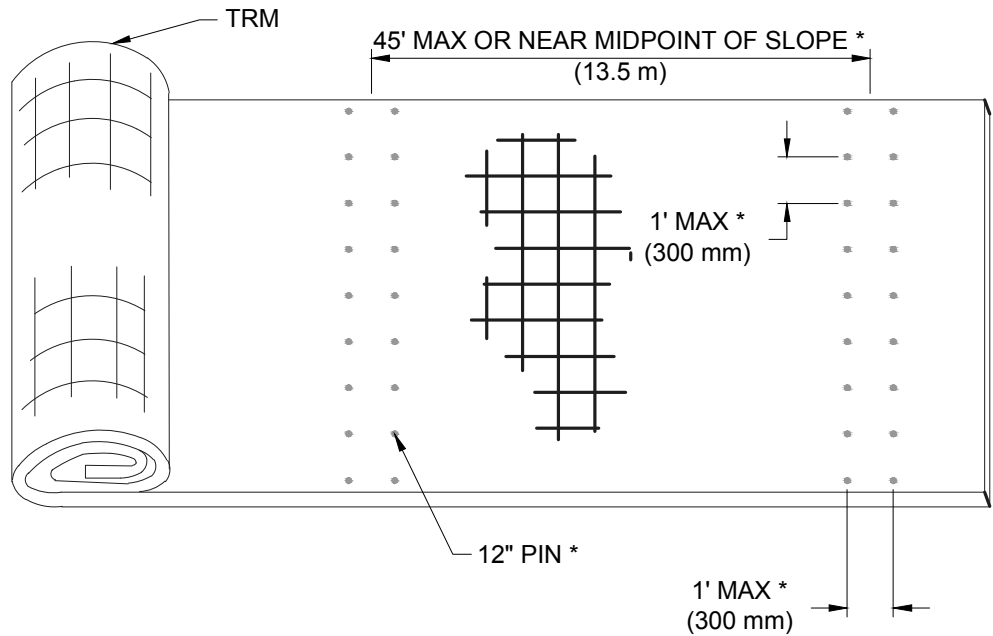


FIGURE 10: SIMULATED CHECK SLOT DETAIL

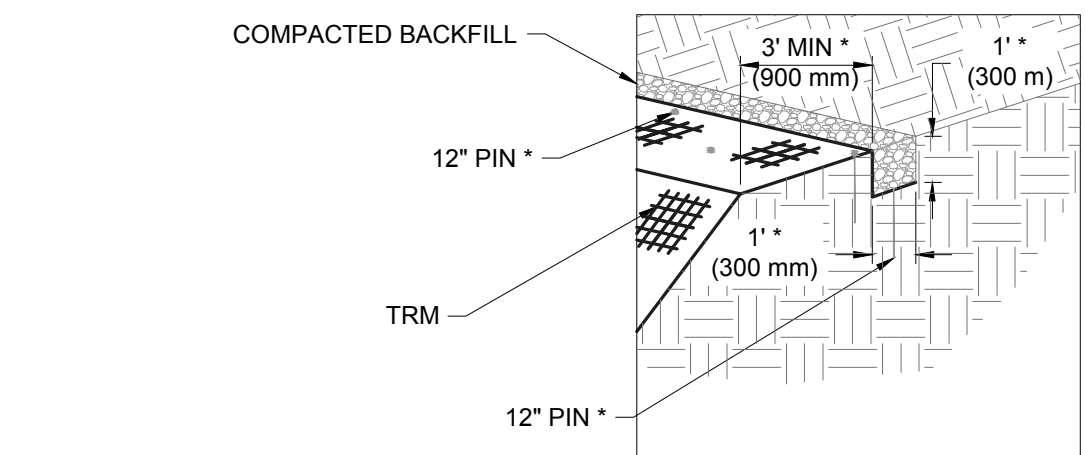


FIGURE 3: TOP OF BANK (TOB)
ANCHOR TRENCH

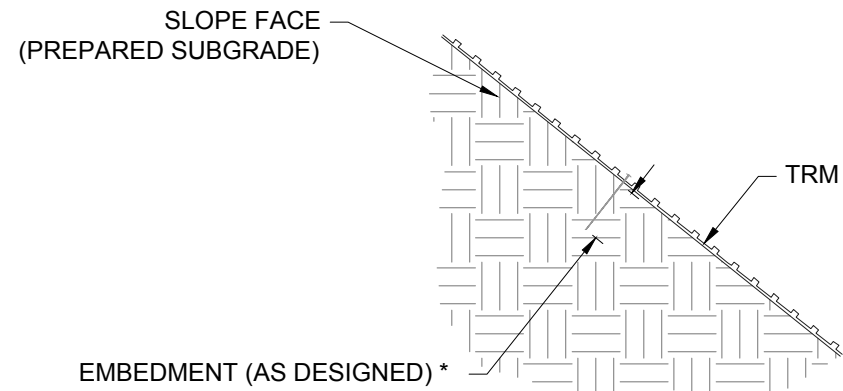


FIGURE 5: IN PLACE PIN DETAIL

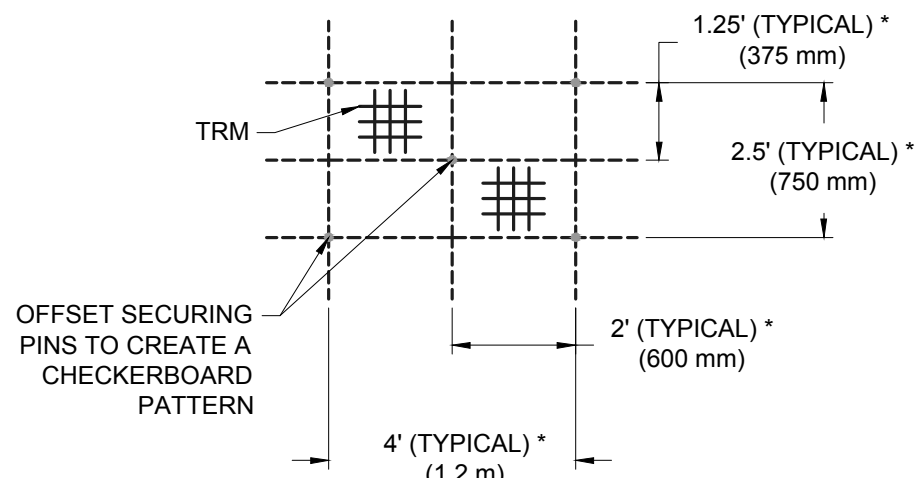


FIGURE 7: PIN PATTERN DETAIL

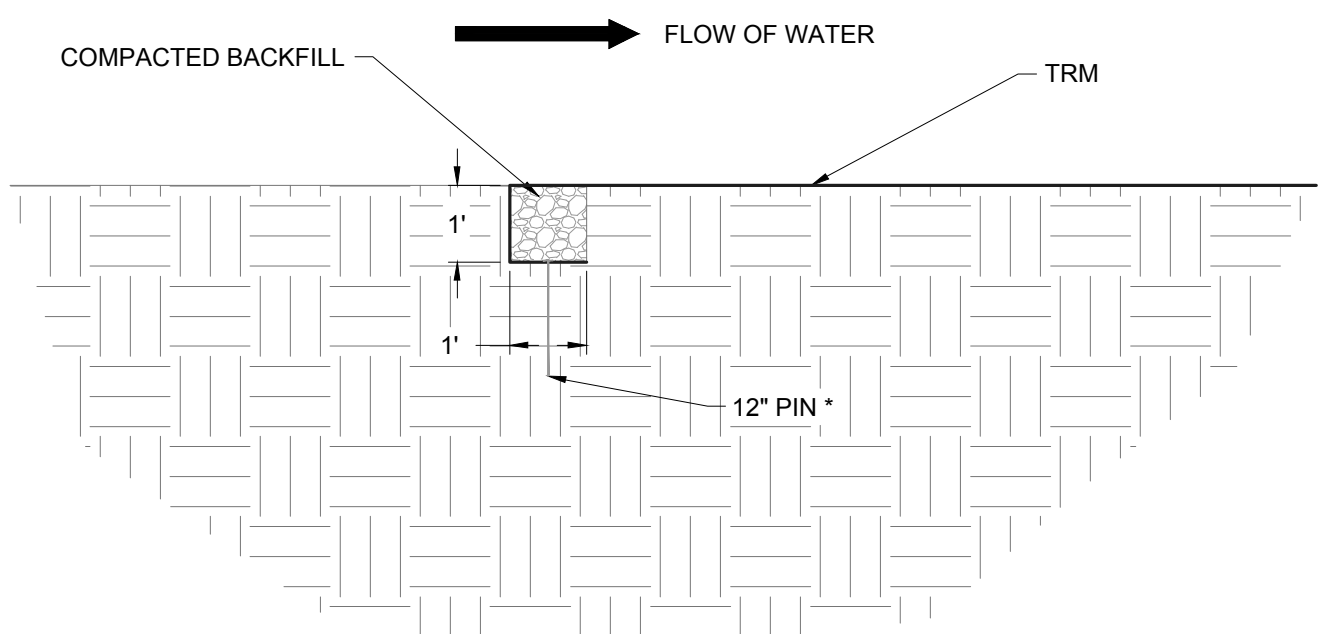


FIGURE 11: TERMINAL CHANNEL ANCHOR
TRENCH (UPSTREAM) DETAIL

TURF REINFORCEMENT MAT (TRM) IN A CHANNEL GENERAL INSTALLATION GUIDELINES

PRE-CONSTRUCTION

A pre-construction meeting shall be held with the construction team and a representative from Propex ®. This meeting shall be scheduled by the contractor with at least two weeks notice. Also, Propex suggests that installation monitoring of the TRM be performed by a qualified independent third party.

SITE PREPARATION

- Grade and compact area of TRM installation as directed and approved by Engineer. Subgrade shall be uniform and smooth. Remove all rocks, clods, vegetation or other objects so the installed mat will have direct contact with soil surface.
- Prepare seedbed by loosening the top 2-3 in (50-75 mm) minimum of soil. This may be accomplished with a rotary tiller on slopes 3:1 or flatter.
- Perform a site specific soil test to determine what amendments such as lime and fertilizer to incorporate.
- Do not mulch areas where mat is to be placed.

SEEDING

- Keep seeded areas moist as necessary to establish vegetation. When watering seeded areas, use fine spray to prevent erosion of seeds or soil. If as a result of a rain, prepared seedbed becomes crusted or eroded, or if eroded places, ruts or depressions exist for any reason, rework soil until smooth and reseed such areas.
- Apply an amount equivalent to 50% of the total seed mixture required to be installed on the soil surface before installing the TRM.
- Disturbed areas shall be reseeded.
- Consult project plans and/or specifications for seed types and application rates.

GENERAL INSTALLATION GUIDELINES FOR STORM WATER CHANNELS

- Figure 1 shows general installation layout and details for TRM in storm water channels.
- Excavate an Initial Channel (IC) Anchor Trench 1 ft wide x 1 ft deep (300 mm x 300 mm) minimum wide across the channel at downstream end of project (see Figure 2). Deeper initial trench and/or hard armoring may be required in channels that have the potential for scour.
- Excavate the Top of Bank (TOB) Anchor Trench 1 ft wide x 1 ft deep (300 x 300 mm) minimum wide along both sides of the installation (see Figure 3). Each TOB Anchor Trench shall be located 3 ft (900 mm) minimum over crest of bank.
- Beginning at the downstream end of the channel, place TRM roll end into a TOB Anchor Trench and secure with pins on 2 ft (600 mm) centers (see Figure 3).
- Unroll TRM down the first channel bank and up the opposing channel bank, terminating the TRM roll end into the opposite TOB Anchor Trench and secure with pins on 2 ft (600 mm) centers (see Figure 3).
- Place the TRM roll edge into IC Anchor Trench. Secure TRM roll edge in Initial Channel Anchor Trench with pins on 2 ft (600 mm) centers (see Figure 2).
- Position adjacent rolls and secure in Initial Channel Anchor Trench in same manner.
- Continue installation as described above, overlapping adjacent rolls as follows:
 - A. Roll edge overlap: 3 in (75 mm) minimum overlap with upstream mat on top. Secure with one row of securing pins on 12 in (300 mm) centers on the designed pin pattern detail in Figure 6.
 - B. Roll end overlap for slopes: 6 in (150 mm) minimum overlap with upslope mat on top. Secure with two rows of pins staggered 6 in (150 mm) apart on 12 in (300 mm) centers (see Figure 9).
- Secure mat using pins. For appropriate frequency and pattern, see the typical Anchor/Pin Pattern Detail (see Figure 6) and the Pin Pattern Detail (see Figure 7). See Toe Interface Detail (Figure 8) for special anchoring patterns for breaks in slope.
- For channel bank heights or channel bottom widths greater than 45 ft (13.7 m), install simulated check slots per Figure 10. This method includes placing two rows of pins 12 in (300 mm) apart on 12 in (300 mm) centers at 45 ft (13.7 m) maximum intervals (see Figure 10) or across the midpoint of the slope for slope lengths less than 60 ft (18.2 m).
- Excavate Terminal Channel (TC) Anchor Trench 12 in wide x 12 in deep (300 x 300 mm) minimum across the channel at the upstream end of the project (see Figure 11). Deeper terminal trench and/or hard armoring may be required in channels that have the potential for scour.
- Place the TRM roll edge into TC Anchor Trench. Secure TRM roll edge in TC Anchor Trench with pins on 2 ft (600 mm) centers (see Figure 11).
- Backfill and compact soil into each trench as directed and approved by Engineer.
- When required, the Engineer is to create project details for transition to structures along the longitudinal edge or to address water flowing perpendicular to the seams.

GROUND PINNING AND ANCHORING DEVICES

- Metal pins should be at least 0.20 in (5 mm) diameter steel with a 1 1/2 in (38 mm) steel washer at the head of the pin (see Figure 8). Metal pins should be driven flush to the soil surface. Pins should be between 12-24 in (300-600 mm) long and have sufficient ground penetration to resist pullout. Longer pins may be required for looser soils. Heavier metal stakes may be required in rocky soils. Depending on soil pH and design life of the pin, galvanized or stainless steel pins may be required. Consult project plans and/or specifications for tie down device details.

SPECIAL TRANSITIONS

- For applications that require special transitions (i.e. connections to riprap, concrete, T-Walls, etc.), refer to the project specific drawings or consult with Propex Engineering Service at 423-553-2450.

VEGETATION ESTABLISHMENT

- Installed TRM shall be re-seeded and soil-filled or sodded as is required by the project documents.
- After seeding, spread and lightly rake 1/2 - 3/4 in (12-19 mm) of fine site soil or topsoil into the mat and completely fill the voids using backside of rake or other flat tool. For slopes 3:1 or flatter, roll the entire TRM installation with a drum roller to compact seed and soil tightly into the matrix.
- Smooth soil-fill in order to just expose the top of the TRM. Do not place excessive soil above the mat.
- If equipment must operate on the mat, make sure it is of the rubber-tired type. No tracked equipment or sharp turns are allowed on the mat.
- Avoid any traffic over the mat if loose or wet soil conditions exist.
- Broadcast additional seed and install a Landlok® Erosion Control Blanket (ECB) above the soil-filled mat as required by the Engineer. For levees or slopes steeper than 3:1, the addition of the ECB may be required or alternate methods of retaining the soil fill may be considered. Please contact the project engineer or Propex Engineering Services at (423) 553-2450.
- Irrigate as necessary to establish and maintain vegetation. Frequent, light irrigation will need to be applied to seeded areas if no natural rain events have occurred within two weeks of seeding and shall continue until 75% of vegetation has established and has reached a height of 2 inches. Do not over irrigate.

CONTRACTORS MAINTENANCE AND GUARANTEE PERIOD

It shall be the responsibility of the Owner to maintain all seed and TRM areas after Engineer's acceptance. Maintenance shall consist of watering and weeding, repair of all erosion and any re-seeding as necessary to establish a uniform stand of the specified grasses. A minimum of 70% of the area seed shall be covered with no bare or dead spots greater than 10 ft² (1 m²). Seeded areas shall not be mowed prior to establishment of 70% vegetative density and a minimum grass growth of 4 inches (100 mm). Mower height shall not be set lower than 4 inches (100 mm). Throughout the duration of the project, the contractor shall be responsible for mowing to facilitate growth and shall not let the vegetation in the seeded areas exceed 18 inches (450 mm). In addition, the Contractor shall water all grassed areas as often as necessary to establish satisfactory growth and to maintain its growth throughout the duration of the project. Replanting is to be performed within 14 calendar days of notification by the Engineer.