

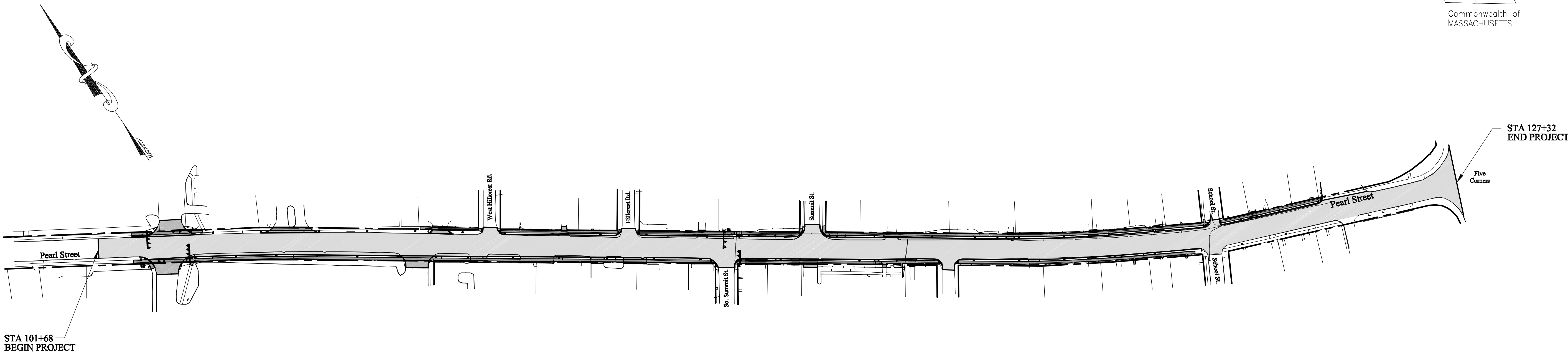
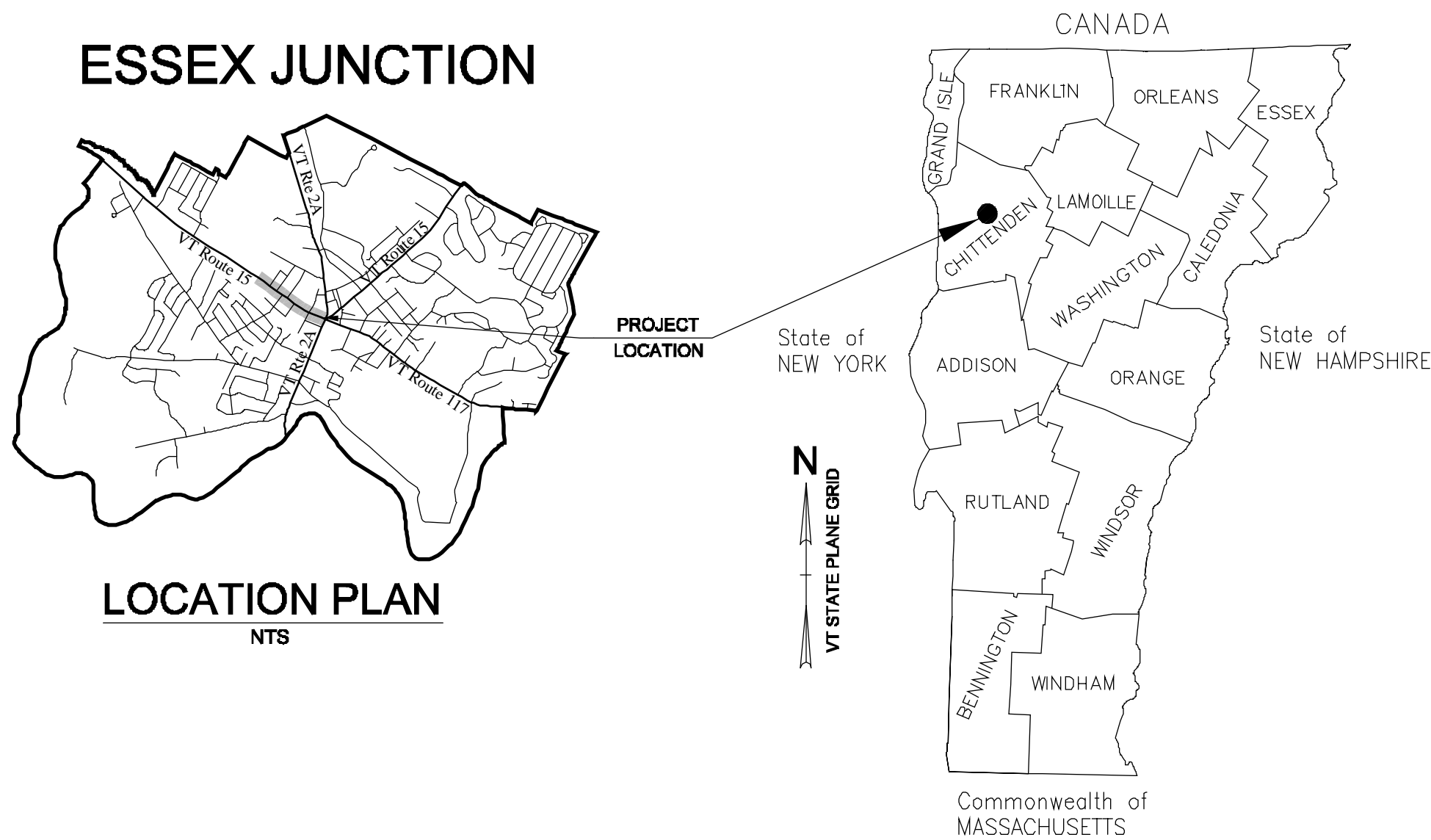
Essex Junction STP 5300(14)

VT Route 15 - Pearl Street Link

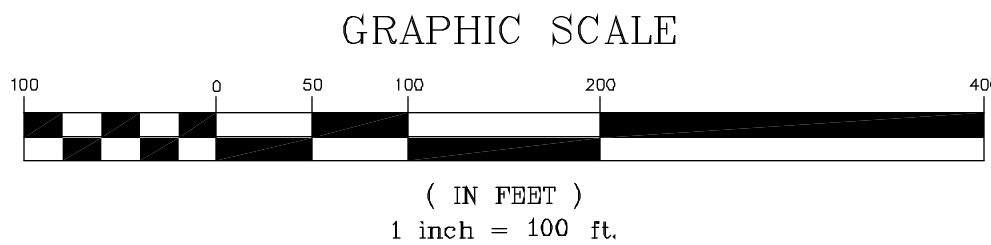
BEGINNING ON VT 15 (PEARL STREET) IN ESSEX JUNCTION AT STATION 101+68 (MM 1.704) AND EXTENDING EASTERLY
ALONG PEARL STREET A DISTANCE OF 2,564 FEET (0.486 MILES) TO STATION 127+32 (MM 2.190).

LENGTH OF ROADWAY = 2,564 FEET (0.488 MILES)
LENGTH OF PROJECT = 2,564 FEET (0.488 MILES)

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES NEW CONCRETE SIDEWALKS AND CURBS, STREET LIGHTING,
PAVEMENT OVERLAY, PAVEMENT MARKINGS; TRAFFIC SIGNALS AND OTHER RELATED ITEMS.



OVERALL SITE PLAN



NOTES:

1. THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE VERMONT AGENCY OF TRANSPORTATION. CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE VTRANS STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS INCORPORATED IN THESE PLANS.
2. THE SIDELINES OF THE PEARL STREET R.O.W. ARE BASED ON LIMITED FOUND EXISTING BOUNDARY EVIDENCE, VILLAGE STREET MAPS AND PLANS BY VTRANS. INDIVIDUAL PROPERTY SIDE LINES WERE LOCATED BASED ON FOUND EVIDENCE, THE ABOVE VTRANS PLANS, PROPERTY SURVEYS AND TOWN PARCEL MAPS.
3. LINES SHOWN ON THESE PLANS AS EXISTING PROPERTY LINES ARE BELIEVED TO BE ACCURATE BUT SHOULD NOT BE RELIED UPON FOR PURPOSES UNRELATED TO THE VILLAGE OF ESSEX JUNCTION'S ACQUISITION OF LANDS AND RIGHTS FOR THIS PROJECT.
4. TRAFFIC DATA (PEARL STREET)
2015 AADT = 14,300 vpd
2030 AADT = 16,300 vpd
2030 DHV = 1,460 vph
2030 %T = 3%
DESIGN SPEED = 25 MPH

QUALITY ASSURANCE PROGRAM:
INSPECTION LEVEL 2

FUNDING ASSISTANCE FOR THIS PROJECT IS BEING FURNISHED
BY THE FHWA AND THE VILLAGE OF ESSEX JUNCTION

DATUM
VERTICAL: NAVD 88
HORIZONTAL: NAD 83 (1996)

VILLAGE OF ESSEX JUNCTION

ACCEPTED _____ DATE _____

VILLAGE MANAGER

PRELIMINARY PLANS
MARCH 19, 2015

LD Lamoureux & Dickinson
Consulting Engineers, Inc.
14 Morse Drive, Essex, VT 05452
802-878-4450 www.LDengineering.com

INDEX OF SHEETS

SHEET #	TITLE
1	TITLE SHEET
2	INDEX
3-3A	TYPICAL SECTIONS
4	TYPICAL SECTIONS & DETAILS
5-6	QUANTITY SHEETS
7-11	EXISTING CONDITIONS
12-16	LAYOUT PLANS
17-32	CROSS SECTIONS
33	EROSION PREVENTION & SEDIMENT CONTROL PLAN
33A	EROSION CONTROL & LIGHTING DETAILS
34	STONE WALL PLAN & SECTIONS
35-36	SIGNAL PLANS
37-38	CANTILEVER CROSS SECTIONS
39-40	TRAFFIC CONTROL PLANS
41-45	SIGN & PAVEMENT MARKING PLANS
46-47	SIGN SUMMARY SHEETS
48-??	LIGHTING DESIGN PLANS

VAOT STANDARD DETAILS

DETAIL #	TITLE	DATE
C-2A	PORTLAND CEMENT CONCRETE SIDEWALK DRIVE ENTRANCES	10-14-2005
C-2B	PORTLAND CEMENT CONCRETE SIDEWALK DRIVE ENTRANCES	10-14-2005
C-3A	SIDEWALK RAMPS	03-10-2008
C-3B	SIDEWALK RAMPS AND MEDIAN ISLANDS	03-10-2008
C-10	CURBING	02-11-2008
D-20	HIGHWAY CROSSING SLEEVES FOR UNDERGROUND UTILITIES	03-03-2003
E-121	STANDARD SIGN PLACEMENT, CONVENTIONAL ROAD	08-08-1995
E-136B	STATE ROUTE MARKER SIGN DETAILS	08-08-1995
E-140	REGULATORY SIGN DETAILS	08-30-1996
E-142	REGULATORY SIGN DETAILS	09-20-1995
E-143	REGULATORY SIGN DETAILS	06-15-2004
E-143B	REGULATORY SIGN DETAILS	03-15-2005
E-145A	REGULATORY SIGN DETAILS LANE USE CONTROL SIGNS	12-23-1994
E-146	REGULATORY SIGN DETAILS	09-20-1995
E-150	WARNING SIGN DETAILS	05-01-2004
E-152	WARNING SIGN DETAILS	05-01-2004
E-153B	WARNING SIGN DETAILS	05-30-2003
E-170	TRAFFIC CONTROL SIGNALS PEDESTAL POST MOUNTED	11-04-1999
E-171A	TRAFFIC CONTROL SIGNALS GENERAL NOTES & DETAILS	08-09-1995
E-171B	TRAFFIC CONTROL SIGNALS MISC. DETAILS	08-09-1995
E-171C	TRAFFIC CONTROL SIGNALS CANTILEVER MOUNTING DETAILS	08-09-1995
E-173	PULLBOXES AND JUNCTION BOXES	08-09-1995
E-180A	STREET LIGHTING DETAILS	08-09-1995
E-180B	STREET LIGHTING DETAILS	08-09-1995
E-191	PAVEMENT MARKING DETAILS	02-01-1999
E-192	PAVEMENT MARKING DETAILS	10-12-2000
E-193	PAVEMENT MARKING DETAILS	08-18-1995
E-194	BICYCLE PAVEMENT MARKINGS AND SIGN LAYOUT	03-15-2005
T-1	TRAFFIC CONTROL GENERAL NOTES	08-06-2012
T-10	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING	08-06-2012
T-17	TRAFFIC CONTROL MISCELLANEOUS DETAILS	08-06-2002
T-21	TEMPORARY TRAFFIC CONTROL FOR THREE LANE ROADWAY CLOSURE	08-06-2012
T-28	CONSTRUCTION SIGN DETAILS	08-06-2012
T-30	CONSTRUCTION SIGN DETAILS	08-06-2012
T-35	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS	08-06-2012
T-36	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS FOR PAVING	08-06-2012
T-45	SQUARE TUBE SIGN POST AND ANCHOR	01-02-2013

LEGEND

	SURVEY CONTROL POINT
	PROPERTY CORNER MONUMENT
	EXISTING SIGNS
	NEW SIGN
	EXISTING TREE
	EXISTING SHRUBS
	RIGHT-OF-WAY BOUNDARY
	PROPERTY BOUNDARY
	EXISTING UTILITY POLE & OVERHEAD WIRES
	EXISTING CATCH BASIN & STORM PIPE
	EXISTING SEWER MANHOLE & MAIN
	EXISTING GAS LINE & VALVE
	EXISTING WATER LINE, VALVE & HYDRANT
	EXISTING SPOTLIGHT & LIGHT POLE
	EXISTING LUMINAIRE
	NEW LUMINAIRE
	EXSTING UTILITY POLE
	NEW UTILITY POLE & GUY WIRE
	LIMIT OF CONSTRUCTION - FILL
	LIMIT OF CONSTRUCTION - CUT

PRELIMINARY PLANS
MARCH 19, 2015

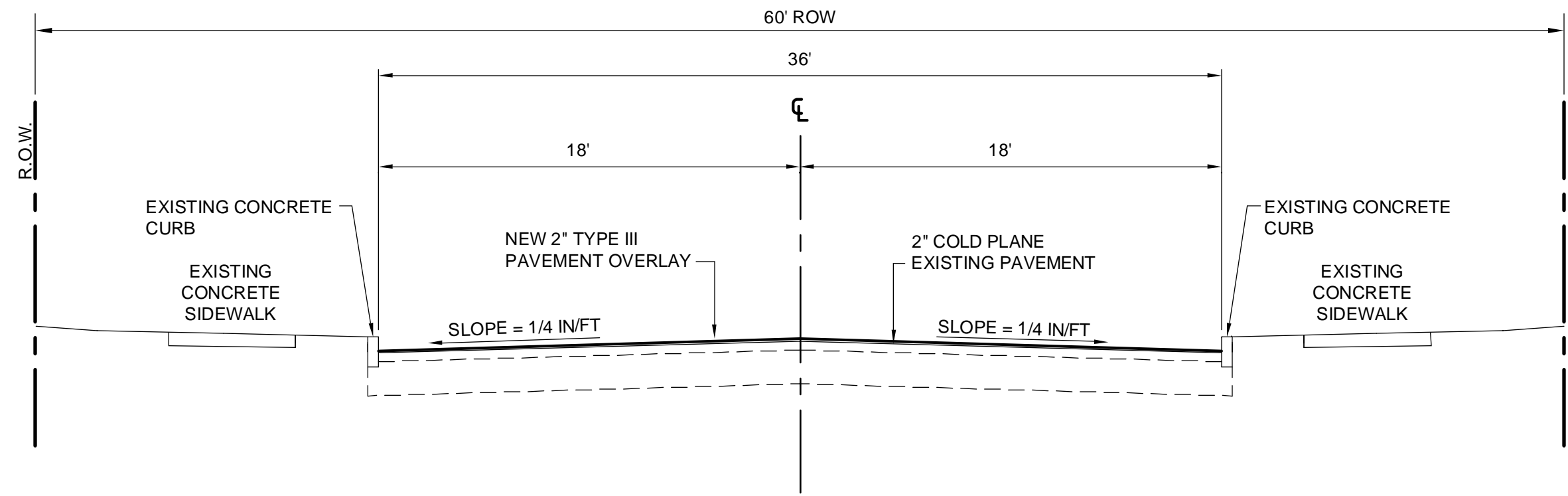
Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

 <div>Civil Engineer Lamoureux & Dickinson Consulting Engineers, Inc. 14 Morse Drive, Essex, VT 05452 802-878-4450 www.LDEngineering.com</div>	 <div>Electrical Engineer Kirick Engineering Assoc., P.C. 5399 Williston Road, Suite 103 Williston, VT 05495 802-655-5731</div>	14119
		Design RD
		Drawn BH
		Date 3-19-15
		Scale
		INDEX
		Sheet number 2

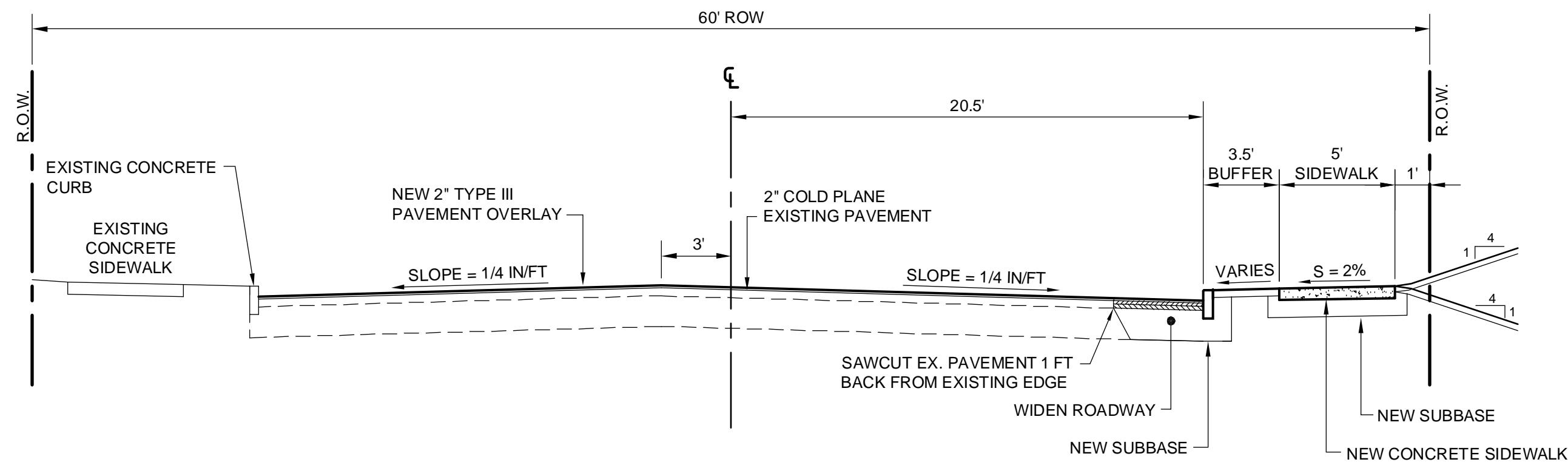
STATE OF VERMONT AGENCY OF TRANSPORTATION													QUANTITY SHEET 1														
SUMMARY OF ESTIMATED QUANTITIES													TOTALS		DESCRIPTIONS							DETAILED SUMMARY OF QUANTITIES					
												Initial Group	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND		QUANTITIES	UNIT	ITEMS					
												1	1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10										
												1	1		EACH	REMOVING MEDIUM TREES	201.15										
												1	1		EACH	REMOVING LARGE TREES	201.16										
												2845	2845		CY	COMMON EXCAVATION	203.15										
												56	56		CY	EXCAVATION OF SURFACES AND PAVEMENTS	203.28										
												10	10		CY	GRANULAR BORROW	203.32										
												50	50		CY	TRENCH EXCAVATION OF EARTH	204.20										
												10	10		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22										
												12290	12290		SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10										
												675	675		CY	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	301.26										
												1260	1260		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35										
												11	11		CWT	EMULSIFIED ASPHALT	404.65										
												1530	1530		TON	BITUMINOUS CONCRETE PAVEMENT	406.25										
												100	100		GAL	WATER REPELLENT, SILANE	514.10										
												9	9		EACH	CHANGING ELEVATION OF DROP INLETS, CATCH BASINS, OR MANHOLES	604.40										
												40	40		HR	POWER BROOM RENTAL, TYPE I	608.30										
												5	5		MGAL	DUST CONTROL WITH WATER	609.10										
												4150	4150		LF	CAST-IN-PLACE CONCRETE CURB, TYPE B	616.28										
												3900	3900		LF	REMOVAL OF EXISTING CURB	616.41										
												1780	1780		SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10										
												180	180		SY	PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH	618.11										
												224	224		SF	DETECTABLE WARNING SURFACE	618.30										
												14	14		EACH	ADJUST ELEVATION OF VALVE BOX	629.20										
												200	200		HR	UNIFORMED TRAFFIC OFFICERS	630.10										
												1600	1600		HR	FLAGGERS	630.15										
												1	1		LS	MOBILIZATION/DEMOBILIZATION	635.11										
												1	1		LS	TRAFFIC CONTROL	641.10										
												5	5		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15										
												4	4		EACH	PORTABLE ARROW BOARD	641.16										
												4440	4440		LF	4 INCH WHITE LINE	646.20										
												5350	5350		LF	4 INCH YELLOW LINE	646.21										
												265	265		LF	8 INCH WHITE LINE	646.22										
												78	78		LF	24 INCH STOP BAR	646.26										
												95	95		EACH	LETTER OR SYMBOL	646.30										
												435	435		LF	CROSSWALK MARKING	646.31										
												100	100		LB	SEED	651.15										
												1	1		TON	HAY MULCH	651.25										
												200	200		CY	TOPSOIL	651.35										
												50	50		SY	TEMPORARY EROSION MATTING	653.20										
												21	21		EACH	INLET PROTECTION DEVICE, TYPE II	653.41										
																		PROJECT NAME: VT Route 15 - Pearl Street Link									
																		PROJECT NUMBER: Essex Junction STP 5300(14)									
																		FILENAME: Quantity Sheet 4-7-15					PLOT DATE: 04/07/2015				
																		PROJECT LEADER: RD					DRAWN BY: CD				
																		DESIGNED BY: RD					CHECKED BY: RD				
																		QUANTITY SHEET #1					SHEET 0 OF				

QUANTITY SHEET 2

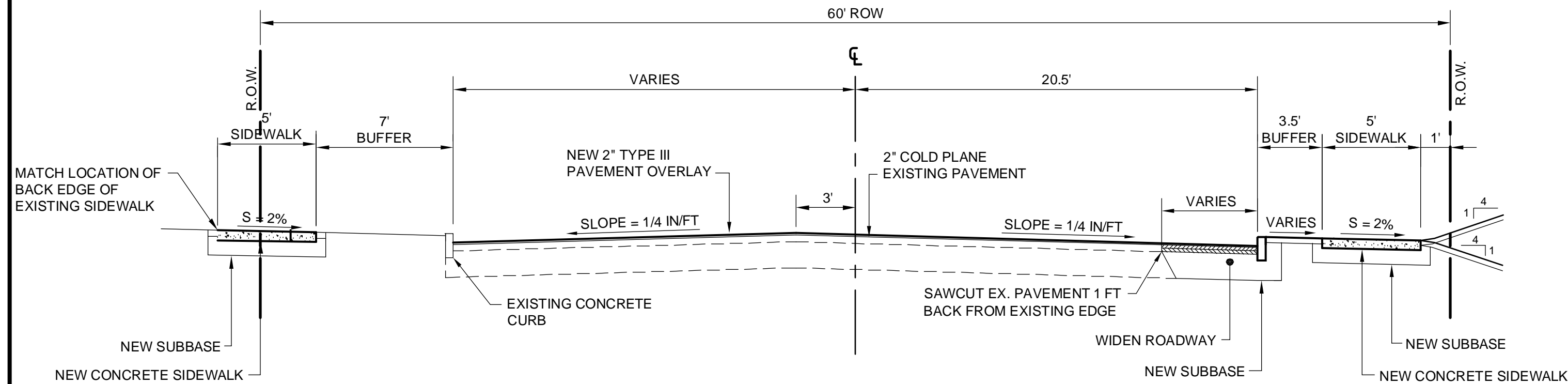
SUMMARY OF ESTIMATED QUANTITIES													TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
												Initial Group	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
												5800	5800		LF	PROJECT DEMARCATION FENCE	653.55				
												32	32		LS	TREE PROTECTION	656.85				
												200	200		SF	TRAFFIC SIGNS, TYPE A	675.20				
												414	414		LB	TUBULAR STEEL SIGN POST	675.33				
												54	54		EACH	REMOVING SIGNS	675.50				
												2	2		EACH	TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION	678.15				
												5210	5210		LF	WIRED CONDUIT (2 INCH)	678.23				
												100	100		LF	WIRED CONDUIT (3 INCH)	678.23				
												300	300		LF	ELECTRICAL WIRING	678.24				
												12	12		EACH	JUNCTION BOX	678.26				
												45	45		LF	ELECTRICAL CONDUIT SLEEVE (12 INCH)	678.30				
												380	380		LF	ELECTRICAL CONDUIT SLEEVE (8 INCH)	678.30				
												1	1		EACH	TEMPORARY TRAFFIC SIGNAL SYSTEM	678.40				
												2	2		EACH	SPECIAL PROVISION (ELECTRICAL SERVICE & LOAD CENTER)	900.620				
												1	1		EACH	SPECIAL PROVISION (RECTANGULAR RAPID FLASHING BEACONS, INTERSECTION)	900.620				
												53	53		EACH	SPECIAL PROVISION (STREET LIGHT)	900.620				
												1	1		LS	SPECIAL PROVISION (ALTERNATE CONCRETE CURING COMPOUND)	900.645				
												1	1		LS	SPECIAL PROVISION (REBUILD ROCK GARDEN)	900.645				
												1	1		LS	SPECIAL PROVISION (REBUILD STONE MASONRY WALLS)	900.645				
												8	8		SY	SPECIAL PROVISION (COLORED TEXTURED CONCRETE, 5 INCH)	900.675				
												120	120		SY	SPECIAL PROVISION (PORTLAND CEMENT CONCRETE SIDEWALK, 12 INCH)	900.675				
												460	460		TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, HAND PLACED)	900.680				
																			PROJECT NAME: VT Route 15 - Pearl Street Link		
																			PROJECT NUMBER: Essex Junction STP 5300(14)		
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																			QUANTITY SHEET #2		
																			SHEET 1 OF		



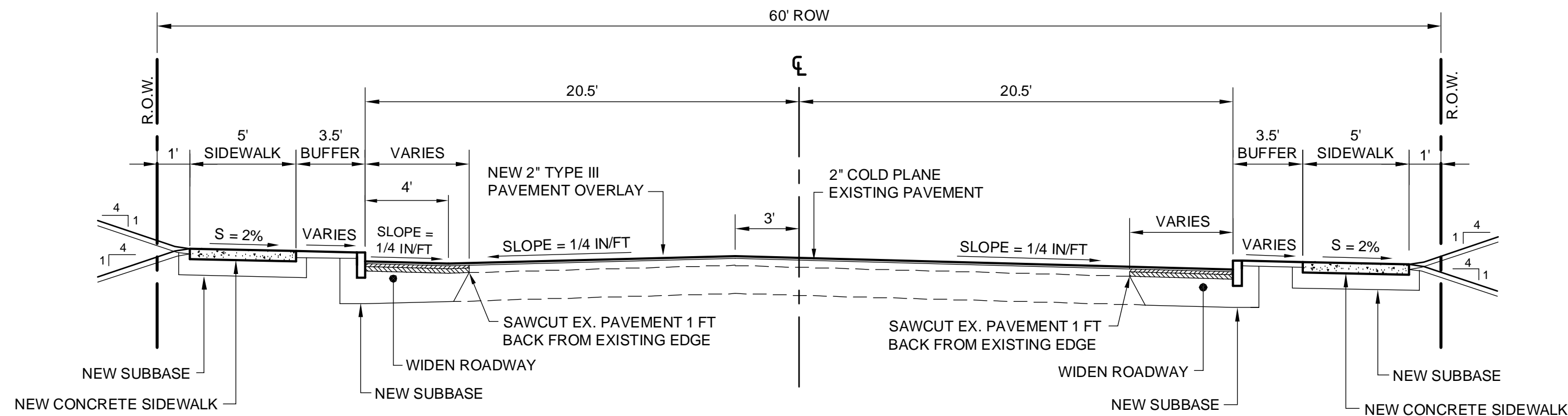
TYPICAL CROSS SECTION
NTS STA 101+68 TO STA 102+31



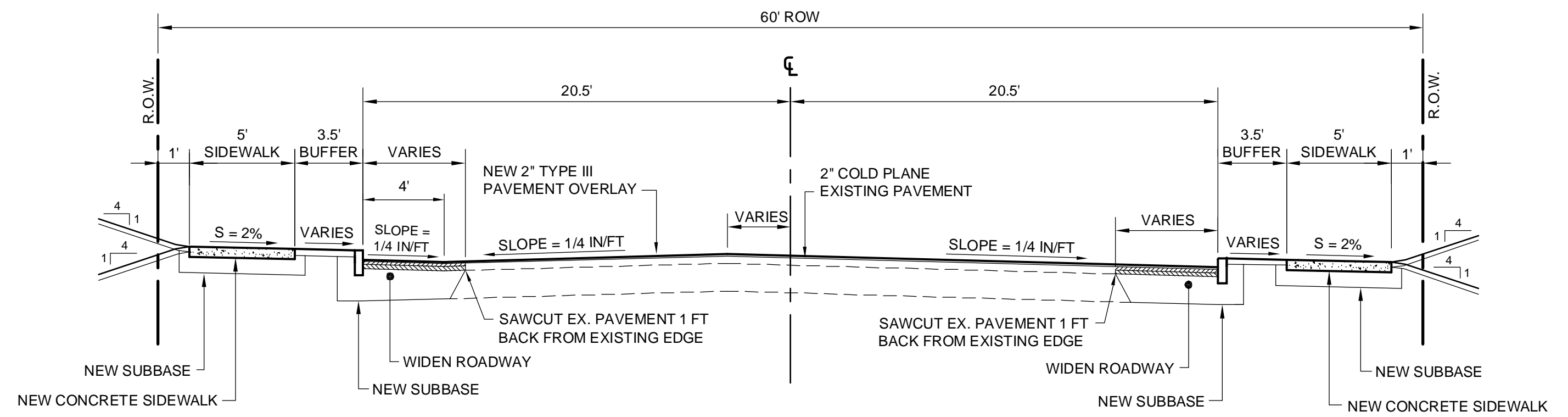
TYPICAL CROSS SECTION
NTS STA 102+31 TO STA 107+72



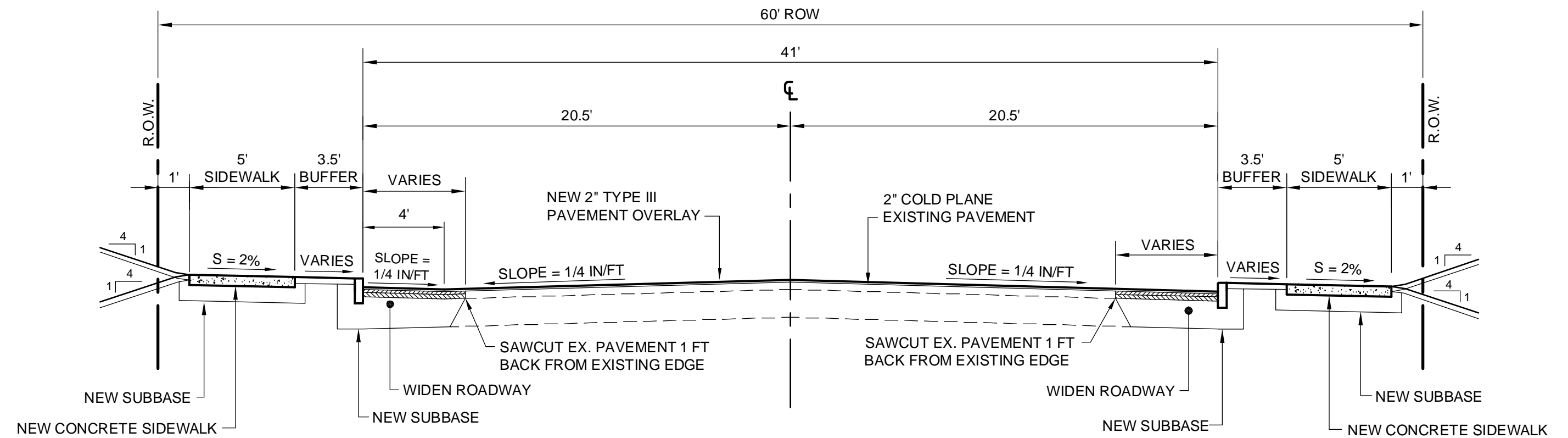
TYPICAL CROSS SECTION
NTS STA 107+72 TO STA 109+00



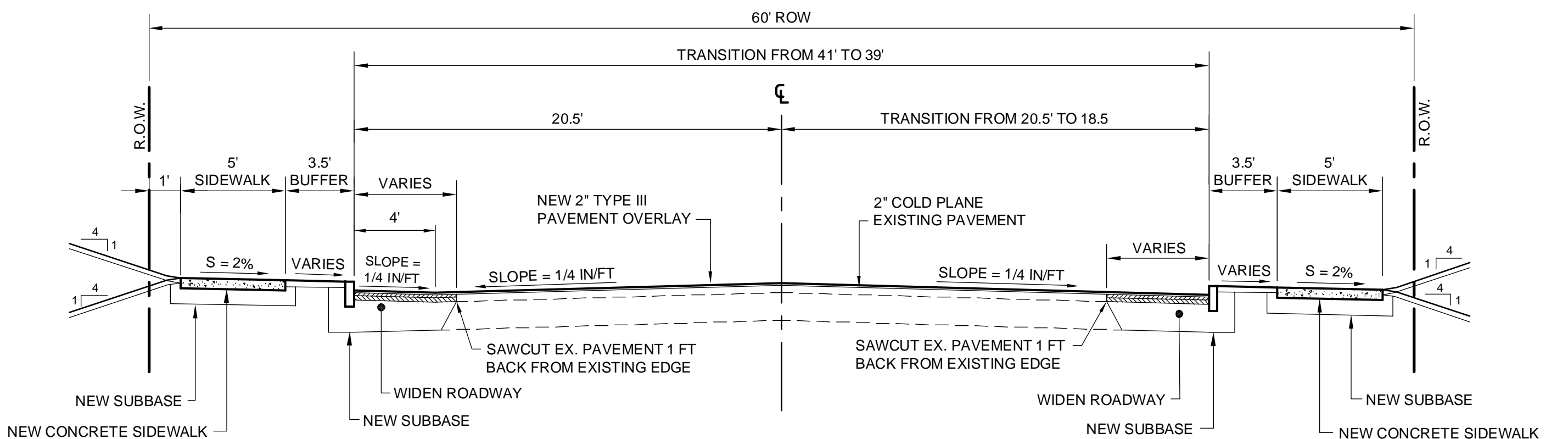
TYPICAL CROSS SECTION
NTS STA 109+00 TO STA 113+00



TYPICAL CROSS SECTION
NTS STA 113+00 TO STA 113+50



TYPICAL CROSS SECTION
NTS STA 113+50 TO STA 116+25



TYPICAL CROSS SECTION
NTS STA 116+25 TO STA 117+10

NOTES

1. BITUMINOUS CONCRETE PAVEMENT SHALL BE 75 BLOW MARSHALL MIX WITH PG 58-28 PERFORMANCE GRADED BINDER.
2. SAWCUT OF EXISTING PAVEMENT SHALL BE INCIDENTAL TO ALL EXCAVATION ITEMS (TYP).
3. SHIM EXISTING ROADWAY WITH SHIM PAVEMENT AS DIRECTED BY THE ENGINEER PRIOR TO PLACEMENT OF FINAL OVERLAY.
4. TACK COAT: EMULSIFIED ASPHALT SHALL BE APPLIED:
a) AT A RATE OF 0.05 GAL/SY BETWEEN SUCCESSIVE COURSES OF PAVEMENT, AND
b) AT A RATE OF 0.08 GAL/SY ON MILLED SURFACES.
5. EMULSIFIED ASPHALT SHALL BE APPLIED TO NEW CURB FACES, SIDEWALK EDGES AND EXISTING PAVEMENT EDGES AT THE RATE OF 0.10 GAL/SY. APPLY UNDER PRESSURE OR WITH A NEW BRUSH. OLD OR DRIED OUT BRUSHES SHALL NOT BE USED.

PRELIMINARY PLANS MARCH 19, 2015

Essex Junction STP 5300(14) VT Route 15 - Pearl Street Link

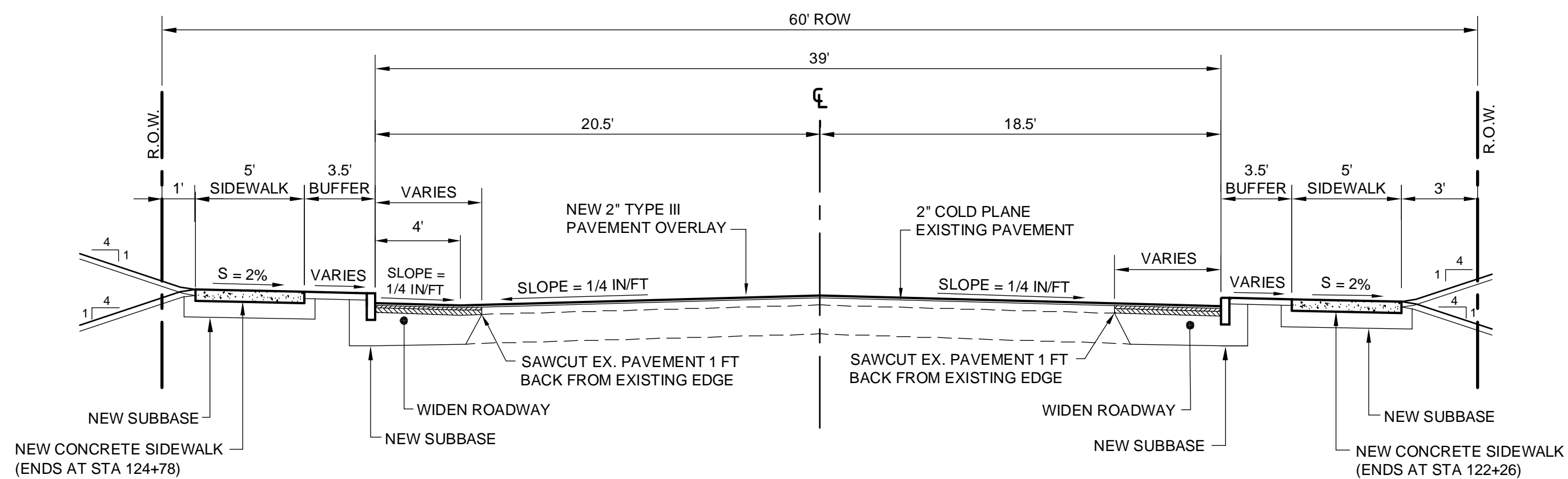
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Electrical Engineer
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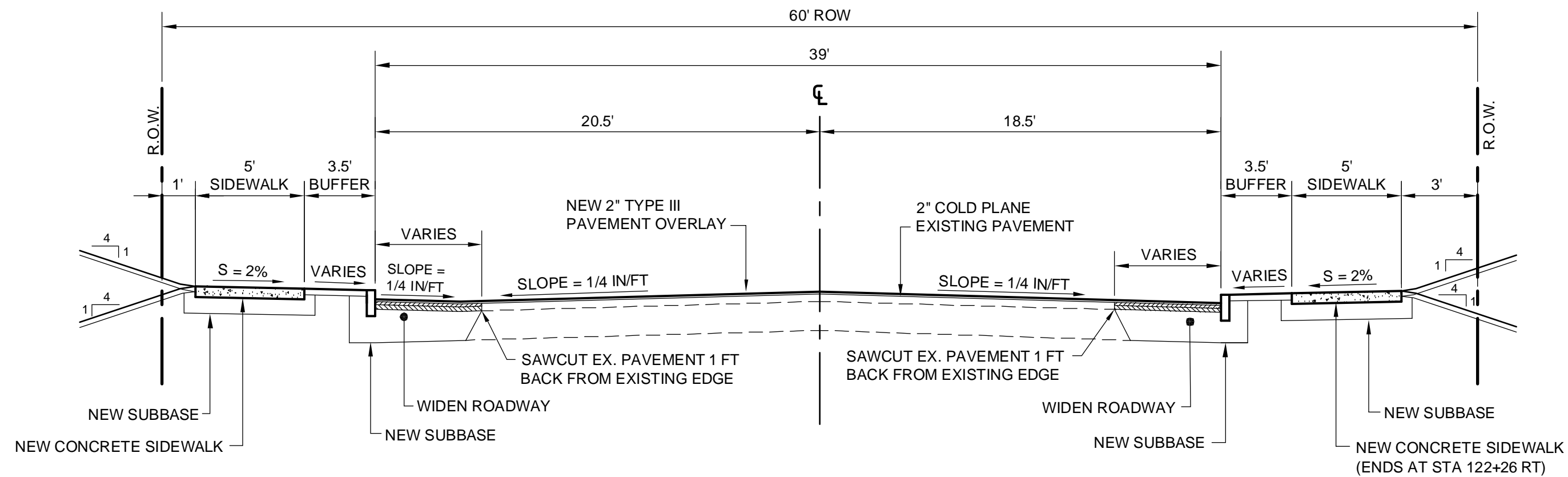
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14119
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Date
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Scale
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Sheet number

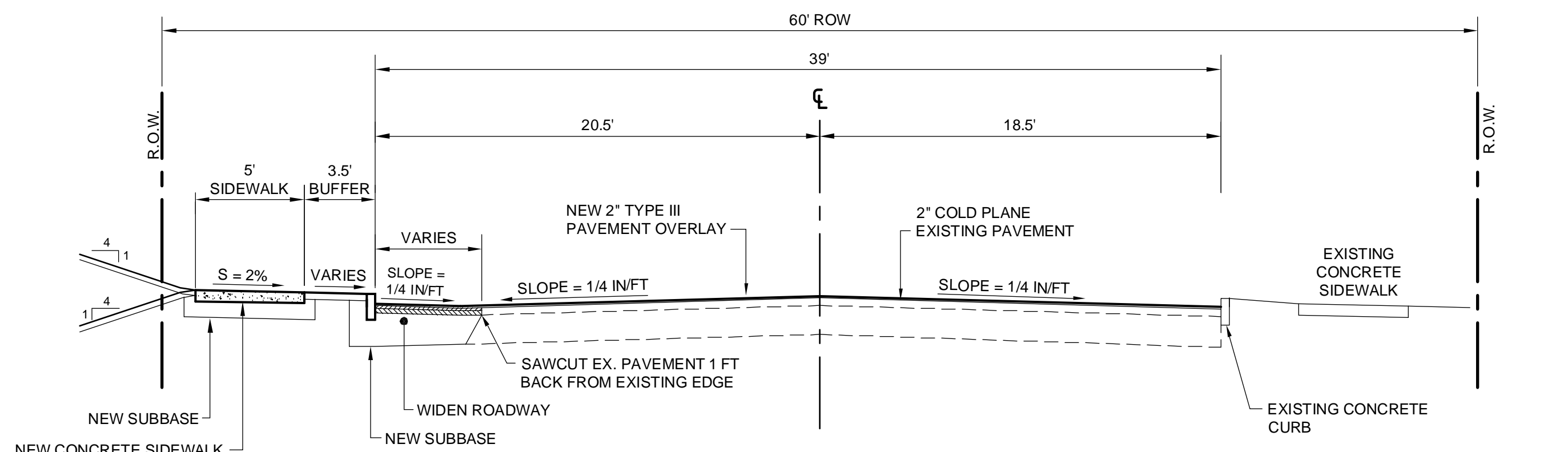
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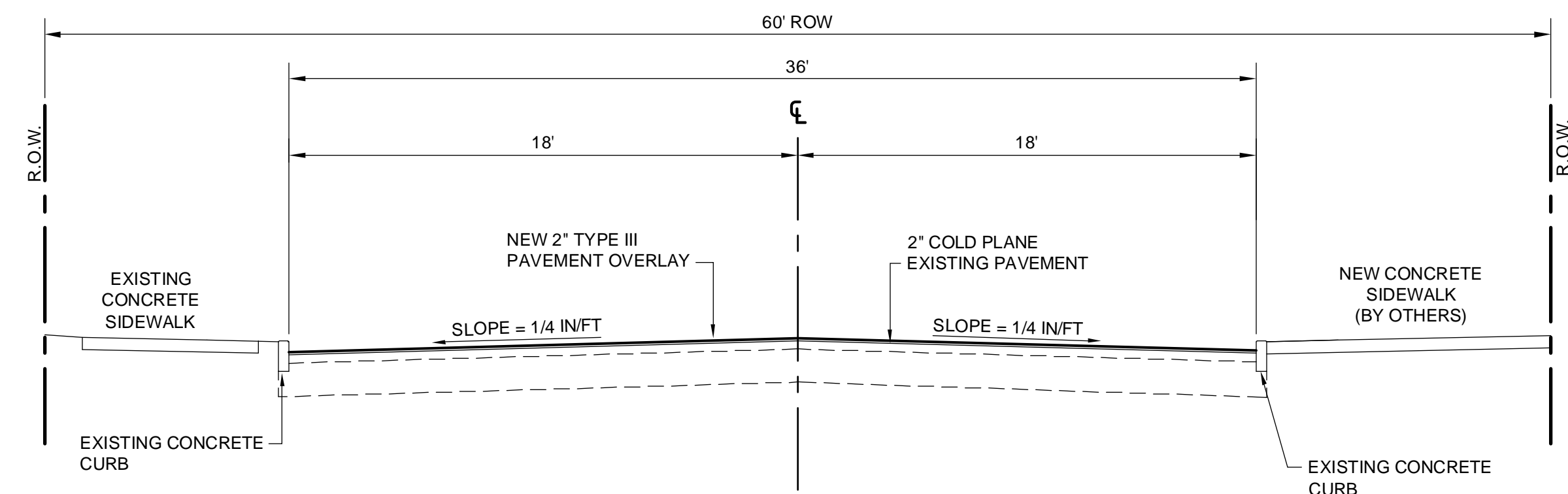
TYPICAL CROSS SECTION
NTS STA 117+10 TO STA 117+65



TYPICAL CROSS SECTION
NTS STA 117+65 TO STA 122+40



TYPICAL CROSS SECTION
NTS STA 122+40 TO STA 124+78



TYPICAL CROSS SECTION
NTS STA 124+78 TO STA 127+32

NOTES

1. BITUMINOUS CONCRETE PAVEMENT SHALL BE 75 BLOW MARSHALL MIX WITH PG 58-28 PERFORMANCE GRADED BINDER.
2. SAWCUT OF EXISTING PAVEMENT SHALL BE INCIDENTAL TO ALL EXCAVATION ITEMS (TYP).
3. SHIM EXISTING ROADWAY WITH SHIM PAVEMENT AS DIRECTED BY THE ENGINEER PRIOR TO PLACEMENT OF FINAL OVERLAY.
4. TACK COAT: EMULSIFIED ASPHALT SHALL BE APPLIED:
 - a) AT A RATE OF 0.05 GAL/SY BETWEEN SUCCESSIVE COURSES OF PAVEMENT, AND
 - b) AT A RATE OF 0.08 GAL/SY ON MILLED SURFACES.
5. EMULSIFIED ASPHALT SHALL BE APPLIED TO NEW CURB FACES, SIDEWALK EDGES AND EXISTING PAVEMENT EDGES AT THE RATE OF 0.10 GAL/SY. APPLY UNDER PRESSURE OR WITH A NEW BRUSH. OLD OR DRIED OUT BRUSHES SHALL NOT BE USED.

PRELIMINARY PLANS MARCH 19, 2015

Essex Junction STP 5300(14) VT Route 15 - Pearl Street Link

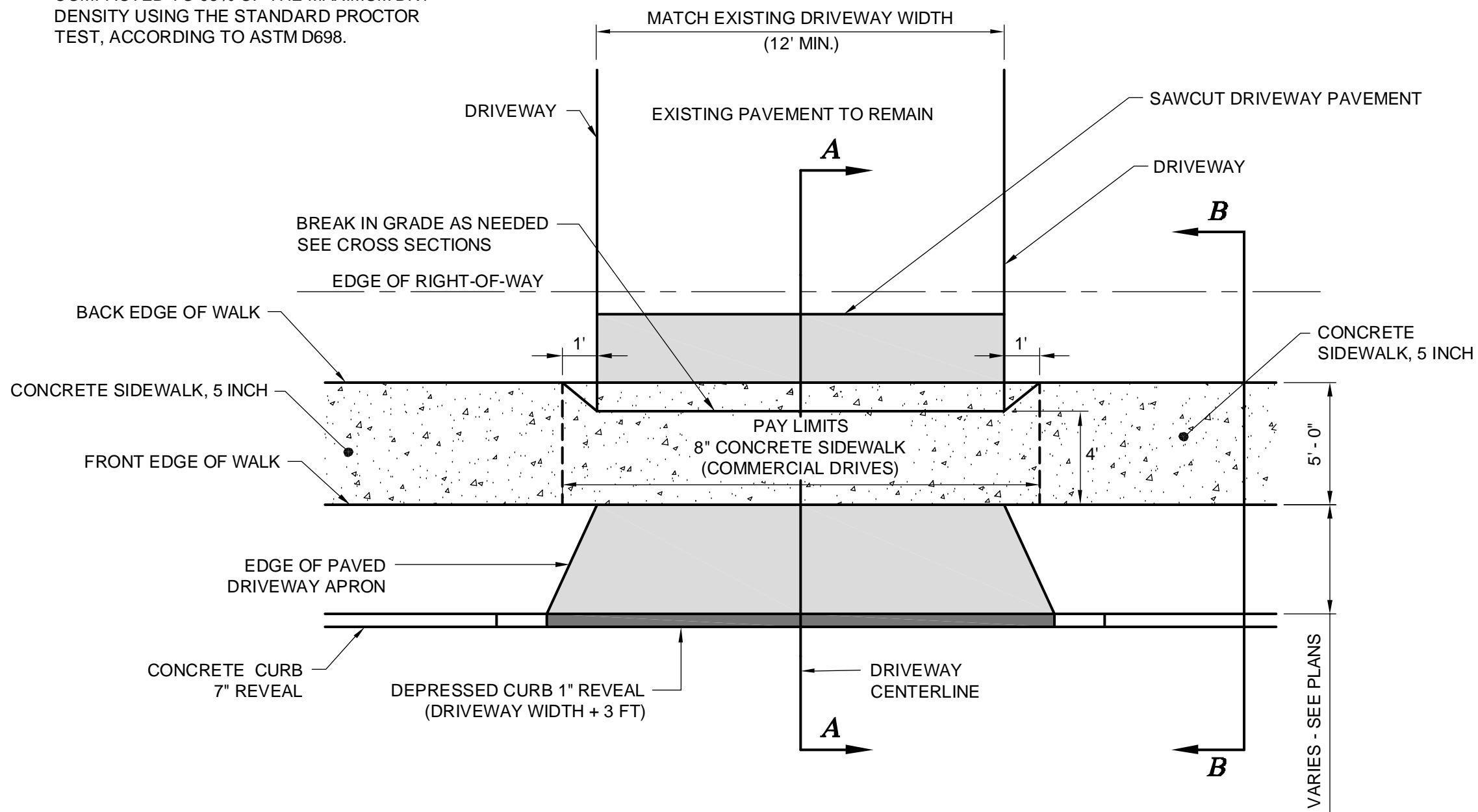
Civil Engineer
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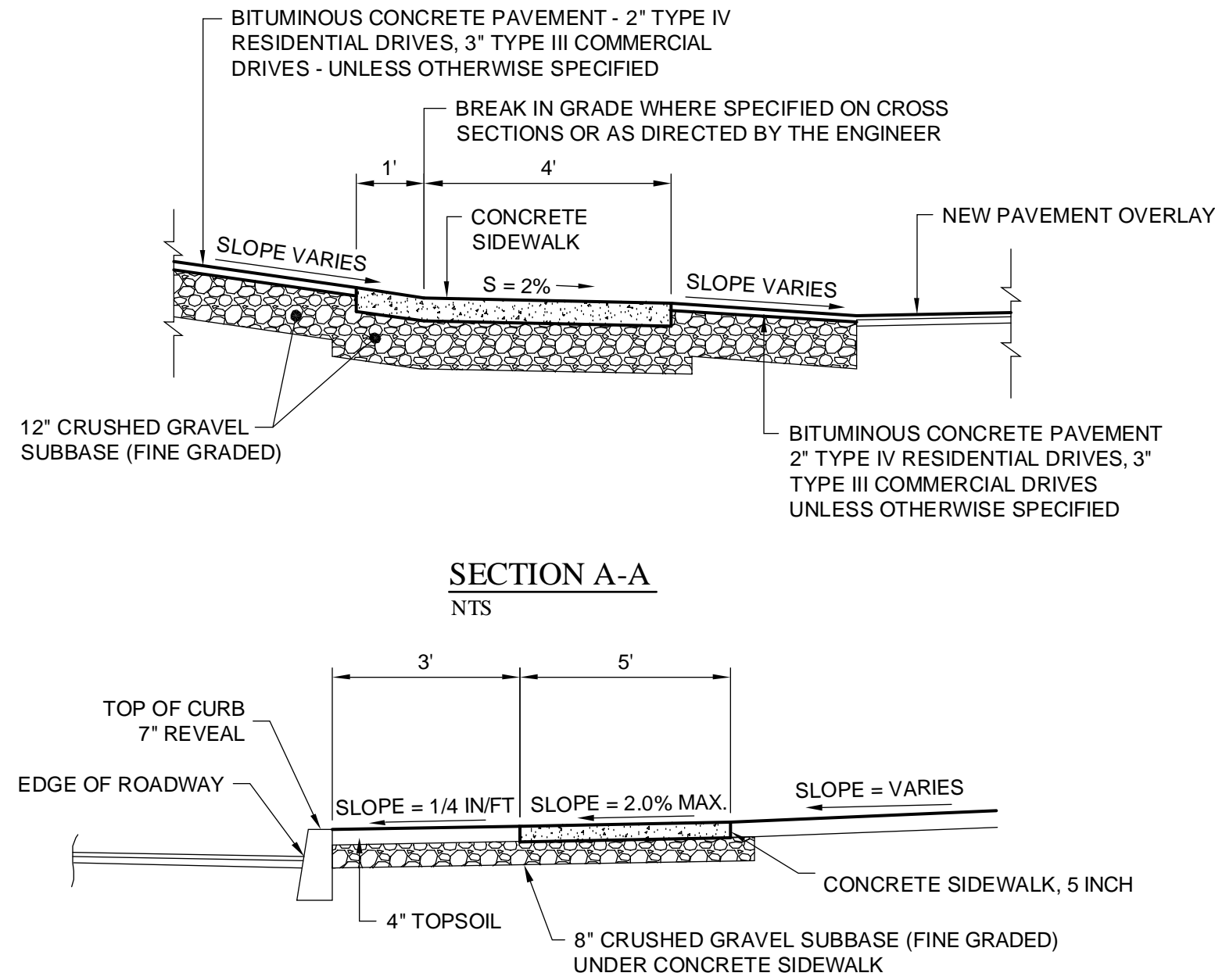
TYPICAL SECTIONS

Project No.
14119
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Scale
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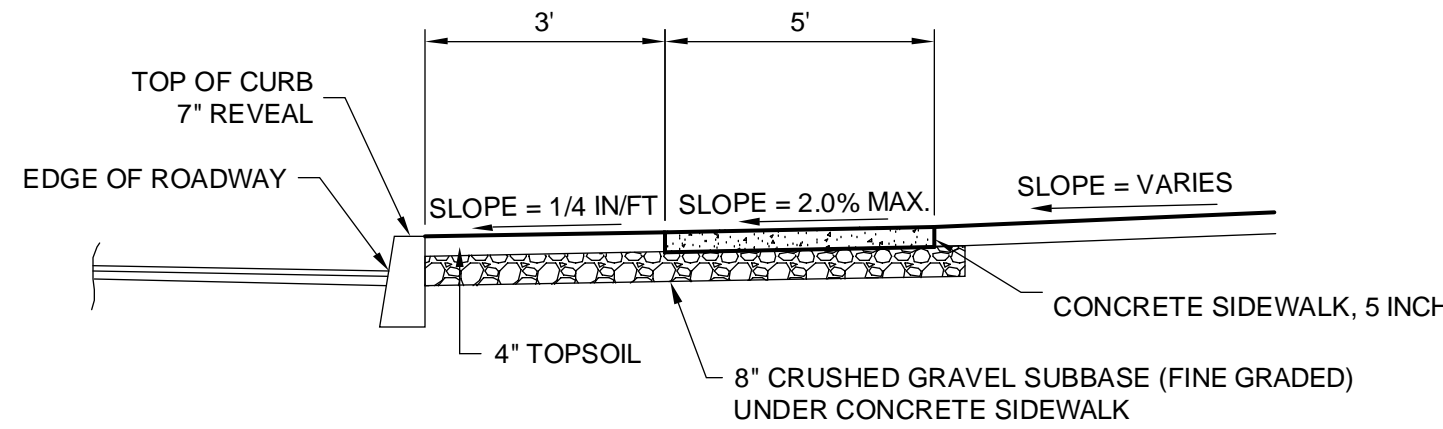
NOTE: SUBBASE MATERIALS SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY USING THE STANDARD PROCTOR TEST, ACCORDING TO ASTM D698.



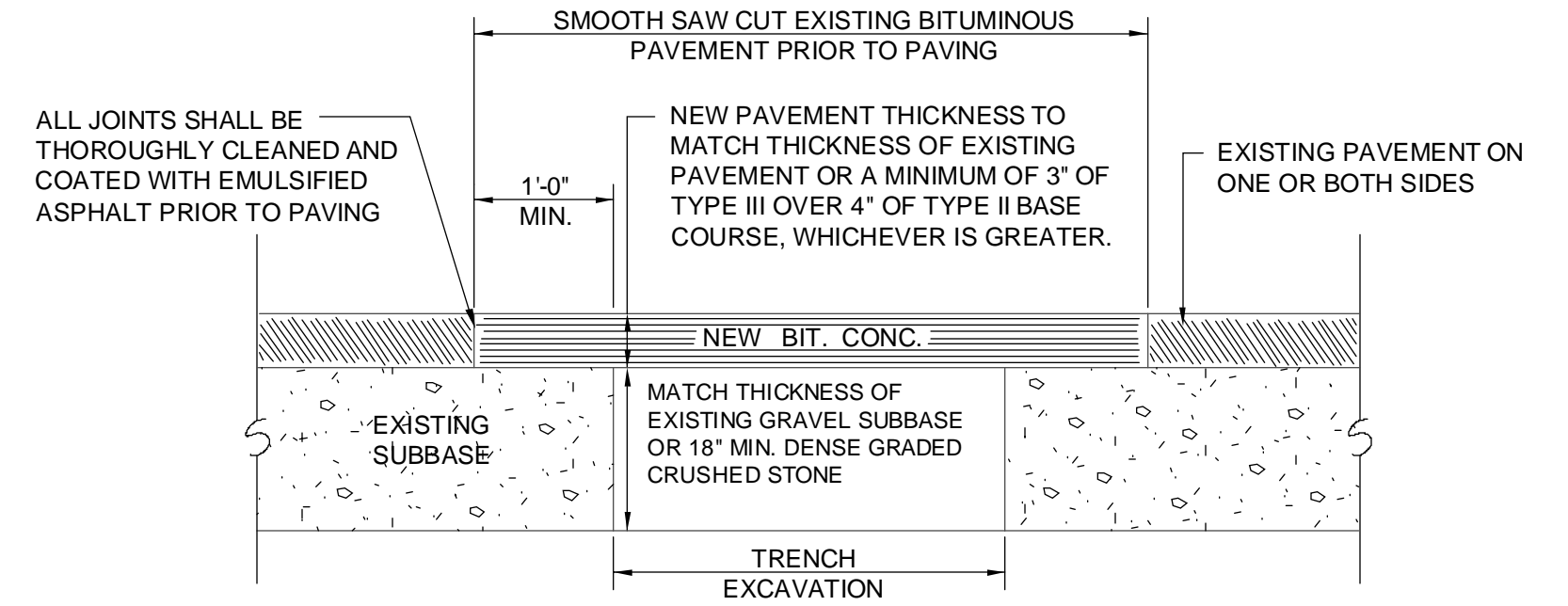
TYPICAL DRIVEWAY DETAIL
NTS



SECTION A-A
NTS



SECTION B-B
NTS



1. SET UP AND MAINTAIN SIGNS AND OTHER SAFETY CONTROL DEVICES IN ACCORDANCE WITH THE MUTCD.
2. RESHAPE HOLE AND PATCH AREA BY CUTTING WITH CONCRETE SAW INTO A SQUARE OR RECTANGULAR SHAPE. CUT SIDE FACES VERTICALLY. RESHAPE DOWNWARD TO SOLID MATERIAL AND AROUND HOLE TO SOLID PAVEMENT.
3. BACKFILL TRENCH IN 6" LIFTS AND COMPACT EACH LIFT TO 95% OF MAXIMUM DENSITY OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 STANDARD PROCTOR.
4. REMOVE ALL LOOSE MATERIAL AND THOROUGHLY SWEEP THE HOLE AREA CLEAN OF MUD AND STANDING WATER.
5. APPLY LIQUID EMULSION (RS-1) TO VERTICAL FACES IN A UNIFORM MANNER. DO NOT PUDDLE EMULSION ON BOTTOM OF THE HOLE.
6. PLACE BASE COURSE PAVEMENT AND COMPACT IN LIFTS OF NO MORE THAN 2" THICKNESS. EACH LIFT SHALL BE COMPACTED WITH A VIBRATORY ROLLER OR VIBRATORY PLATE COMPACTOR.
7. FILL TOP OF HOLE WITH WEAR COURSE BITUMINOUS CONCRETE PAVEMENT. THE FINAL LIFT SHOULD BE 1/2" TO 1" ABOVE ADJOINING PAVEMENT BEFORE COMPACTION SO THAT AFTER COMPACTION THERE IS A SLIGHT CROWN. THE FINAL LIFT SHOULD BE THOROUGHLY COMPACTED WITH A VIBRATORY ROLLER. A VIBRATORY PLATE COMPACTOR HAND TAMP SHOULD ONLY BE USED FOR SMALL AREAS (LESS THAN 1 SF).
8. CLEAN UP AREA. DO NOT LEAVE EXCESS FILL OR EXCAVATED MATERIAL ON THE PAVEMENT. REMOVE SAFETY SIGNS AND DEVICES.

EXISTING BITUMINOUS PAVEMENT REPLACEMENT
NTS

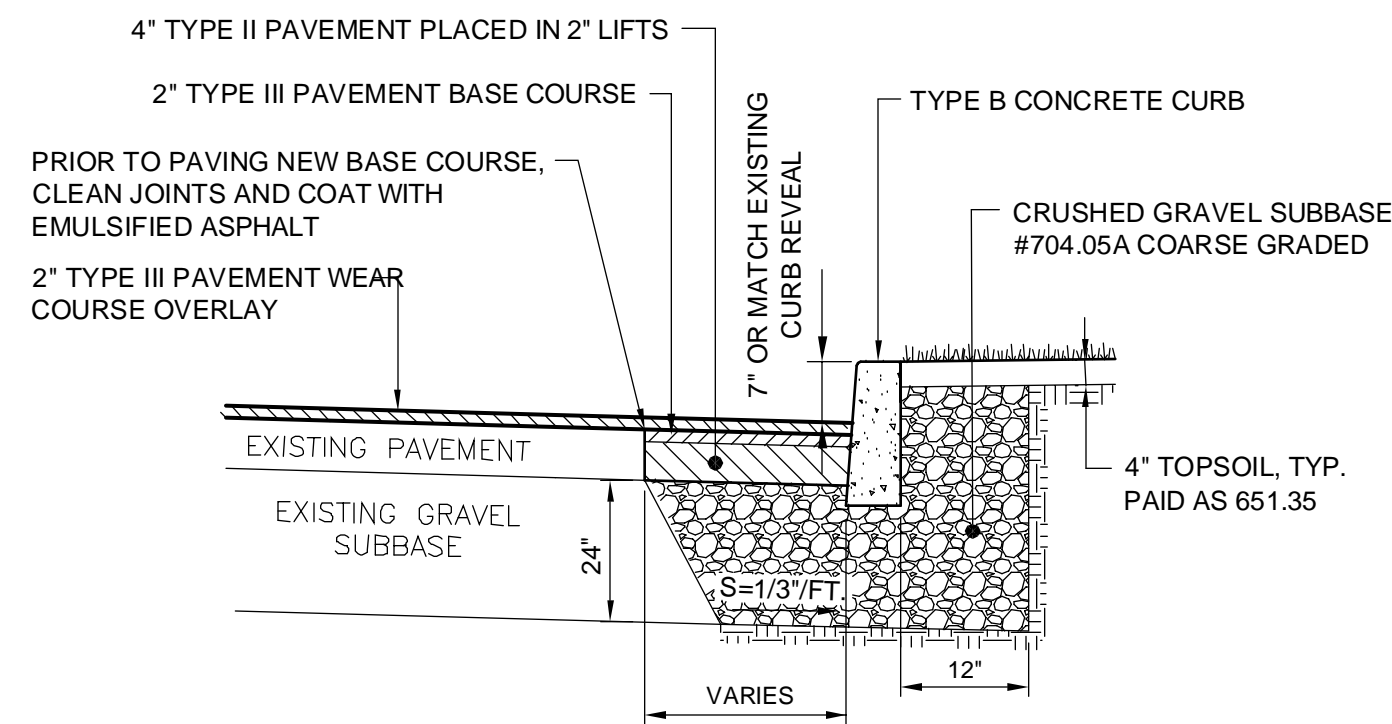
GENERAL CONSTRUCTION SPECIFICATIONS

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION 2011, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2009 EDITION), THE VILLAGE OF ESSEX JUNCTION LAND DEVELOPMENT CODE REQUIREMENTS AND THESE PLANS.
2. THE CONTRACTOR SHALL CONTACT ALL UTILITIES BEFORE EXCAVATION TO VERIFY THE LOCATION OF ANY UNDERGROUND LINES. THE CONTRACTOR SHALL NOTIFY DIG SAFE AND THE VILLAGE OF ESSEX JUNCTION PUBLIC WORKS DEPT. PRIOR TO ANY EXCAVATION.
3. UTILITIES INFORMATION SHOWN HEREON WERE OBTAINED FROM BEST AVAILABLE SOURCES AND MAY OR MAY NOT BE EITHER ACCURATE OR COMPLETE. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY, PUBLIC OR PRIVATE, SHOWN OR NOT SHOWN HEREON. THE CONTRACTOR SHALL CONNECT OR RECONNECT ALL UTILITIES TO THE NEAREST SOURCE THROUGH COORDINATION WITH UTILITY OWNER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE DUST CREATED AS A RESULT OF CONSTRUCTION DOES NOT CREATE A NUISANCE OR A SAFETY HAZARD. WHERE AND WHEN DEEMED NECESSARY BY THE ENGINEER OR OWNER, THE CONTRACTOR SHALL BE REQUIRED TO WET SECTIONS OF THE CONSTRUCTION AREA WITH WATER OR SWEEP ROADS WITH A POWER BROOM (TYPE I) AS DUST CONTROL.
5. CONSTRUCTION OBSERVATION AND CERTIFICATION WILL BE PERFORMED BY THE RESIDENT ENGINEER. L&D WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS THAT MAY ARISE FROM FAILURE TO FOLLOW THESE PLANS AND SPECIFICATIONS AND THE DESIGN INTENT THAT THEY CONVEY AND ANY CHANGES MADE IN THE PLANS AND SPECIFICATIONS OR IN THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS WITHOUT L&D'S PRIOR KNOWLEDGE AND CONSENT.
6. HEALTHY EXISTING TREES SHOWN ON THE LAYOUT PLAN TO BE SAVED SHALL BE PROTECTED BY THE CONTRACTOR. (ITEM 656.85-TREE PROTECTION)

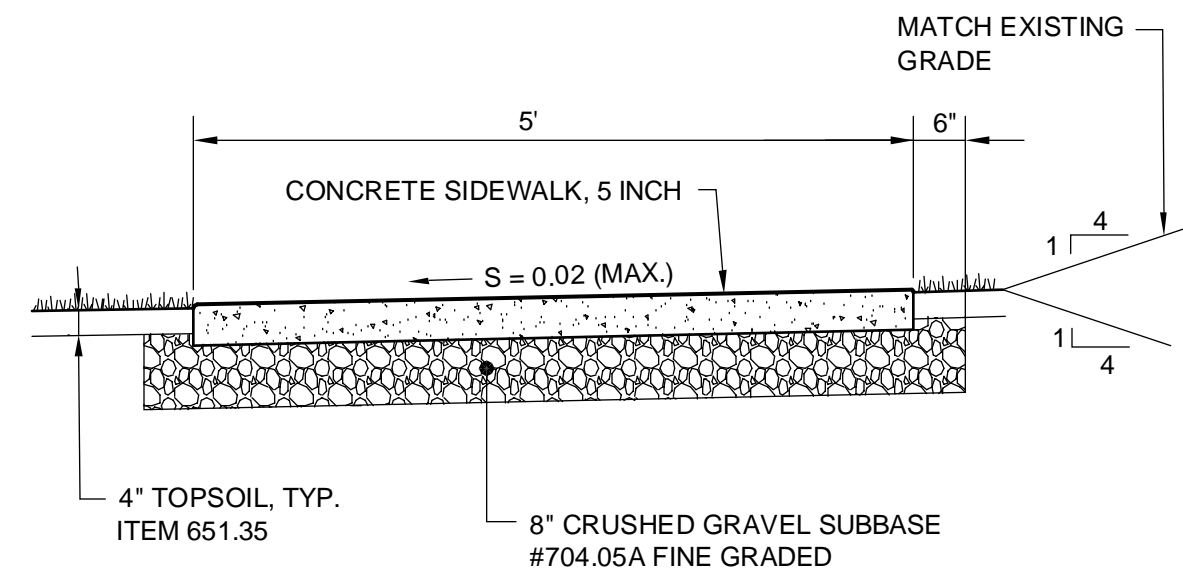
SIDEWALK CONSTRUCTION NOTES

1. SIDEWALK AND COLORED/TEXTURED CONCRETE SHALL BE CAST IN 100 FOOT SECTIONS. THERE WILL BE NO EXPANSION JOINTS. CONNECTION TO EXISTING SIDEWALK AND BETWEEN 100 FOOT SECTIONS SHALL BE ACCOMPLISHED UTILIZING 18" X 5/8" SMOOTH DOWELS PLACED 1 FOOT ON CENTER (4 DOWELS FOR A FIVE FOOT WIDE SIDEWALK) CENTERED AT SIDEWALK JOINTS. DOWELS SHALL BE INSTALLED TO ALLOW LONGITUDINAL EXPANSION AND CONTRACTION AT THE JOINT. THE WALK SHALL BE GROOVED WITH A FALSE JOINT EVERY 5 FEET.
2. PAYMENT FOR ALL DOWELS AND INSTALLATION SHALL BE INCIDENTAL TO ITEM 900.675 SPECIAL PROVISION (COLORED, TEXTURED CONCRETE) AND THE PORTLAND CEMENT CONCRETE SIDEWALK ITEMS.
3. UPON PLACEMENT OF THE CONCRETE, THE CONTRACTOR SHALL APPLY A CONCRETE CURING / SEALING COMPOUND. THE COMPOUND SHALL BE ON THE VTRANS PRE-APPROVED PRODUCTS LIST. THE COMPOUND SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATIONS. PAYMENT FOR THIS CURING COMPOUND SHALL BE INCIDENTAL TO THE PORTLAND CEMENT CONCRETE SIDEWALK AND SPECIAL PROVISION (COLORED, TEXTURED CONCRETE) ITEMS.

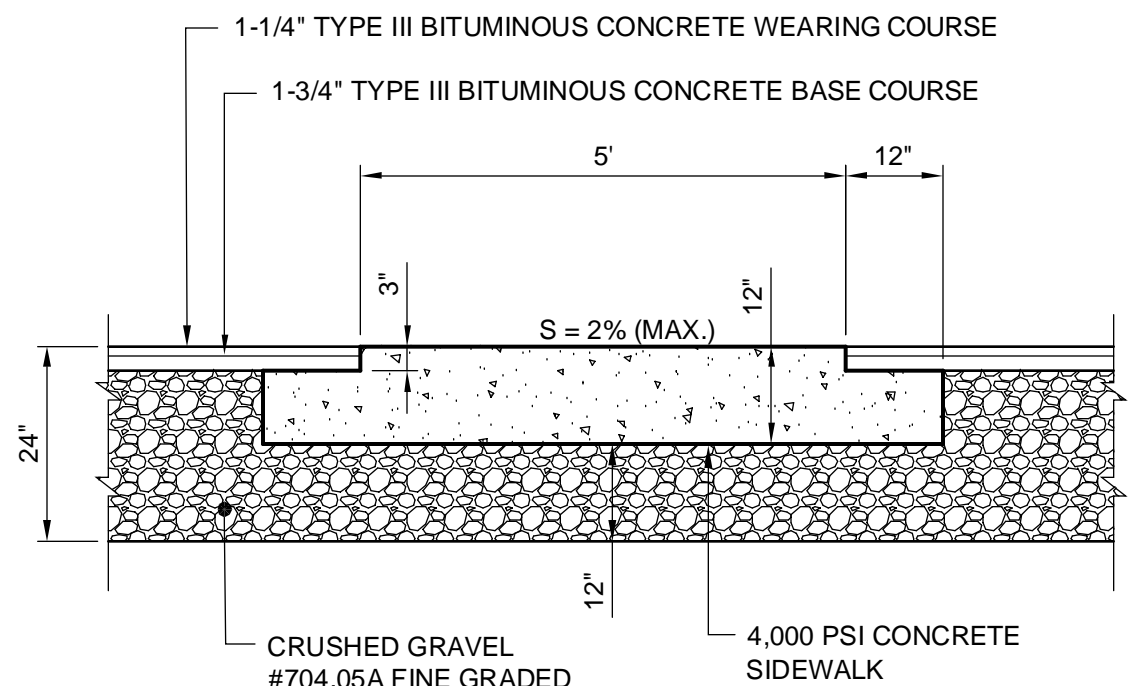
THE DIFFERENCE IN COST BETWEEN TREATING THE SIDEWALK WITH THE STANDARD VTRANS APPROVED CURING COMPOUND AND CERT1-VEX AC 1315, AS MANUFACTURED BY VEXON CHEMICALS, INC., SHALL BE PAID AS A NON-PARTICIPATING BID ALTERNATE UNDER SPECIAL PROVISION ITEM 900.645 (ALTERNATE CURING COMPOUND ADDITIONAL COST).



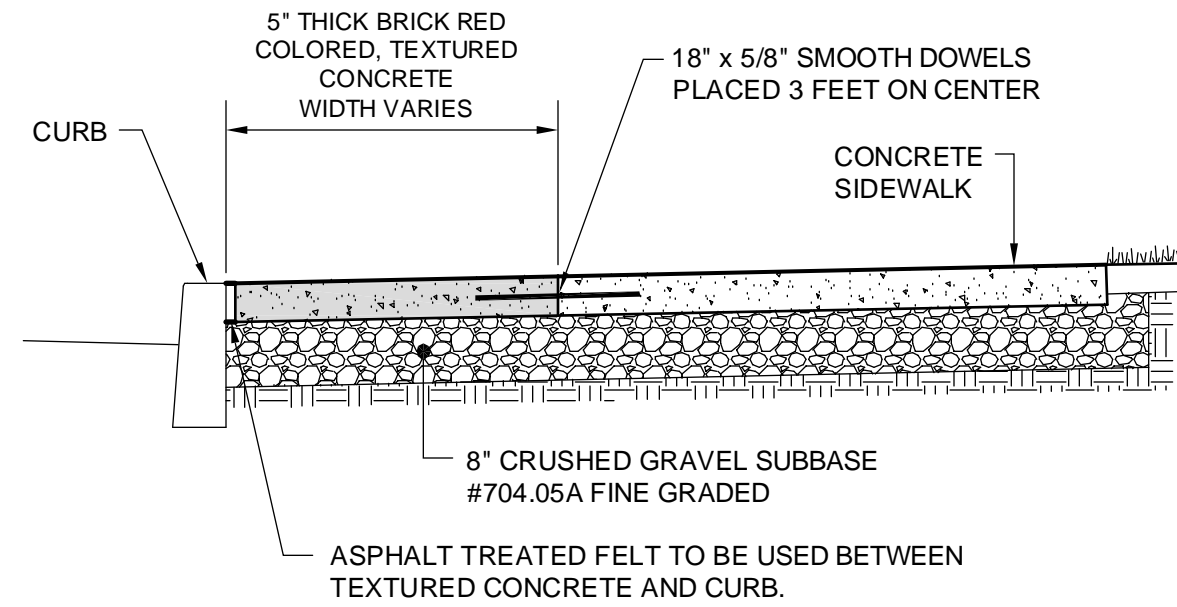
TYPICAL CONCRETE CURB SECTION
NTS



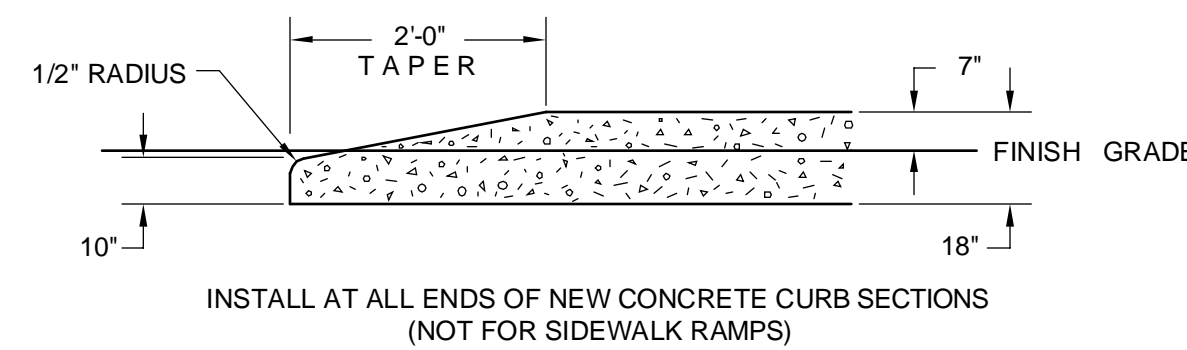
TYPICAL CONCRETE SIDEWALK SECTION
NTS



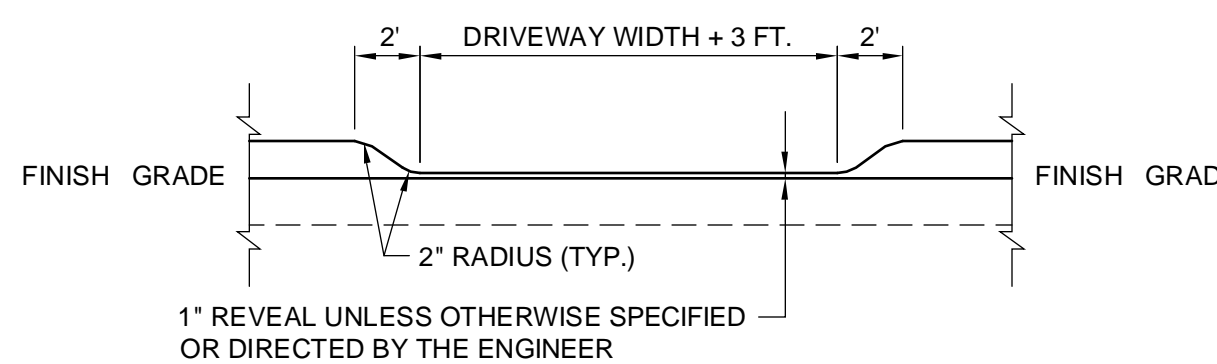
TYPICAL 12" THICK PORTLAND CEMENT CONCRETE SIDEWALK ACROSS DRIVE DETAIL
NTS



TEXTURED, COLORED CONCRETE
NTS



CONCRETE CURB END TAPER
NTS



TYPICAL DRIVEWAY CURB CUT
NTS

PRELIMINARY PLANS MARCH 19, 2015

Essex Junction STP 5300(14) VT Route 15 - Pearl Street Link



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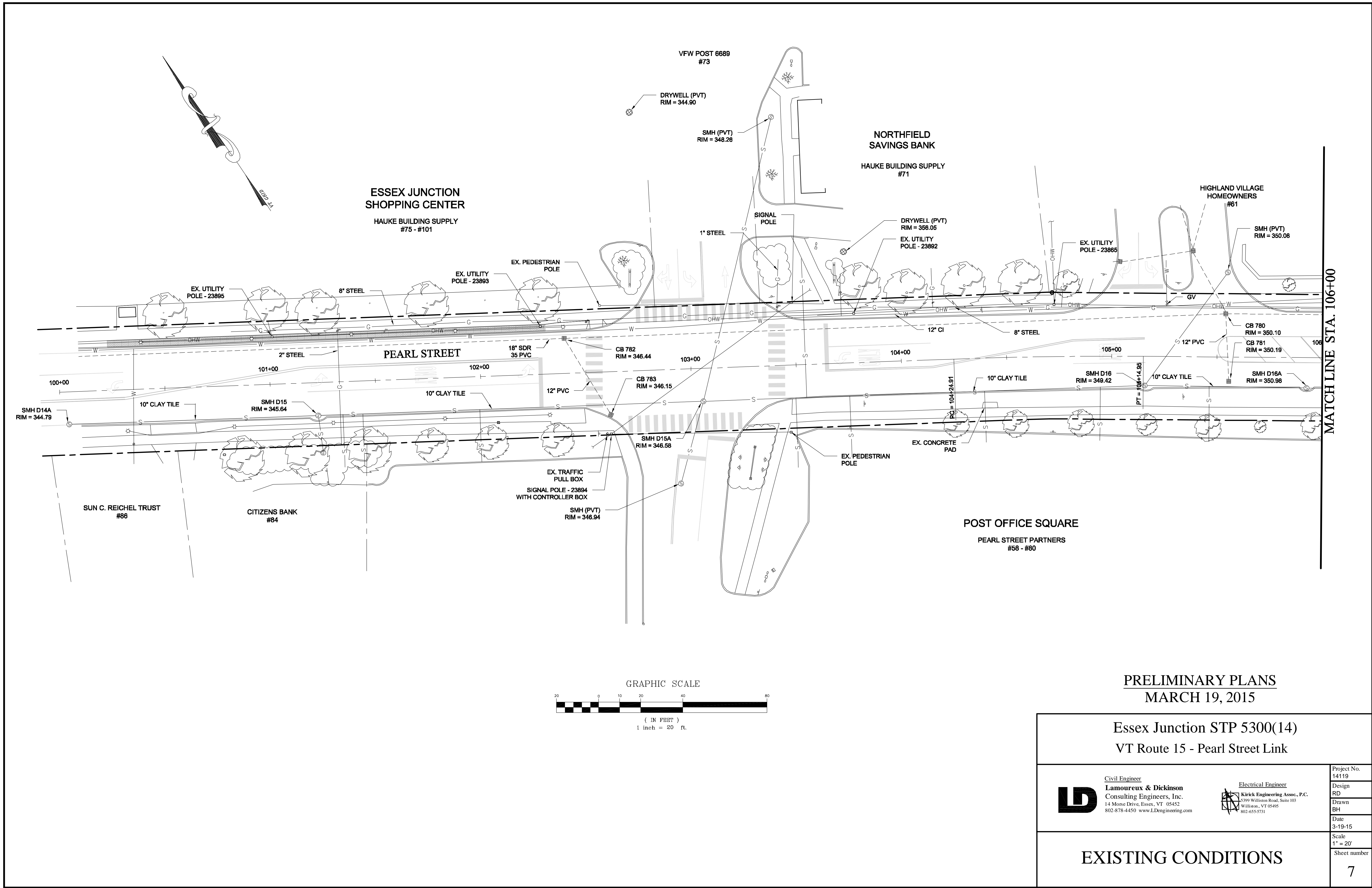
Electrical Engineer
Kirkick Engineering Assoc., P.C.
399 Williston Road, Suite 103
Williston, VT 05495
802-655-5731

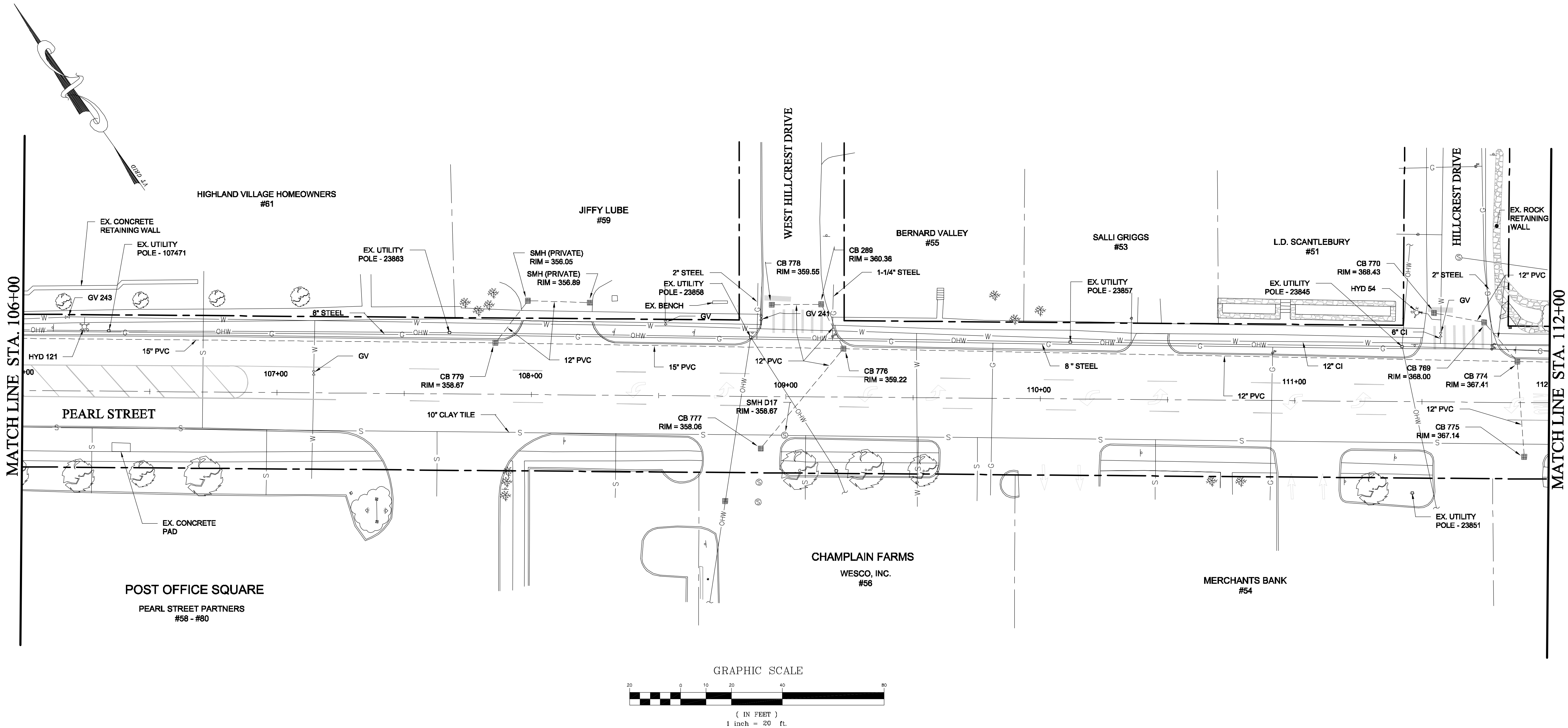
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Scale
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TYPICAL SECTIONS & DETAILS

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PRELIMINARY PLANS
MARCH 19, 2015

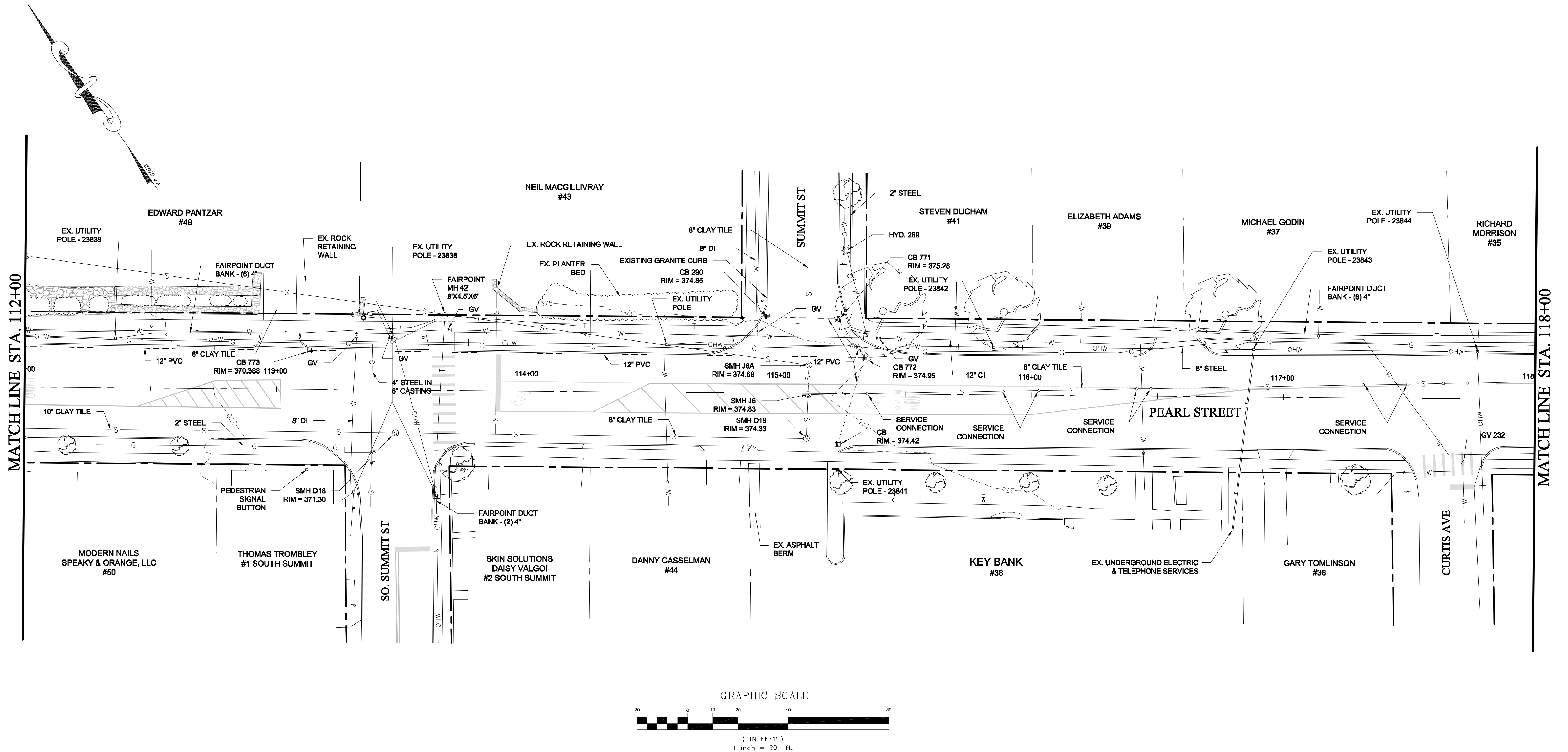
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Design RD
Drawn BH
Date 3-19-15
Scale 1" = 20'
Sheet number 8



PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

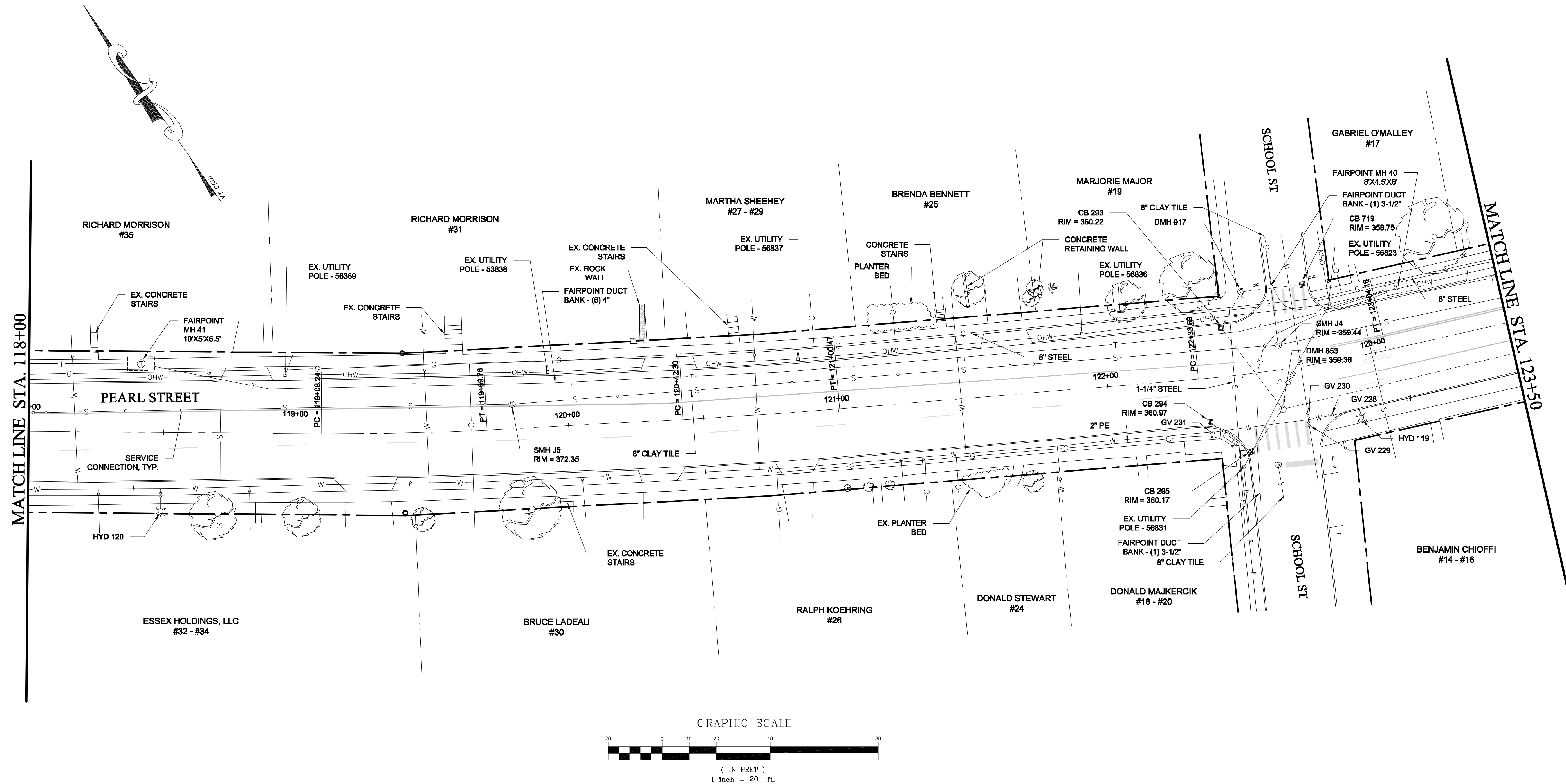
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EXISTING CONDITIONS

9



PRELIMINARY PLANS
MARCH 19, 2015

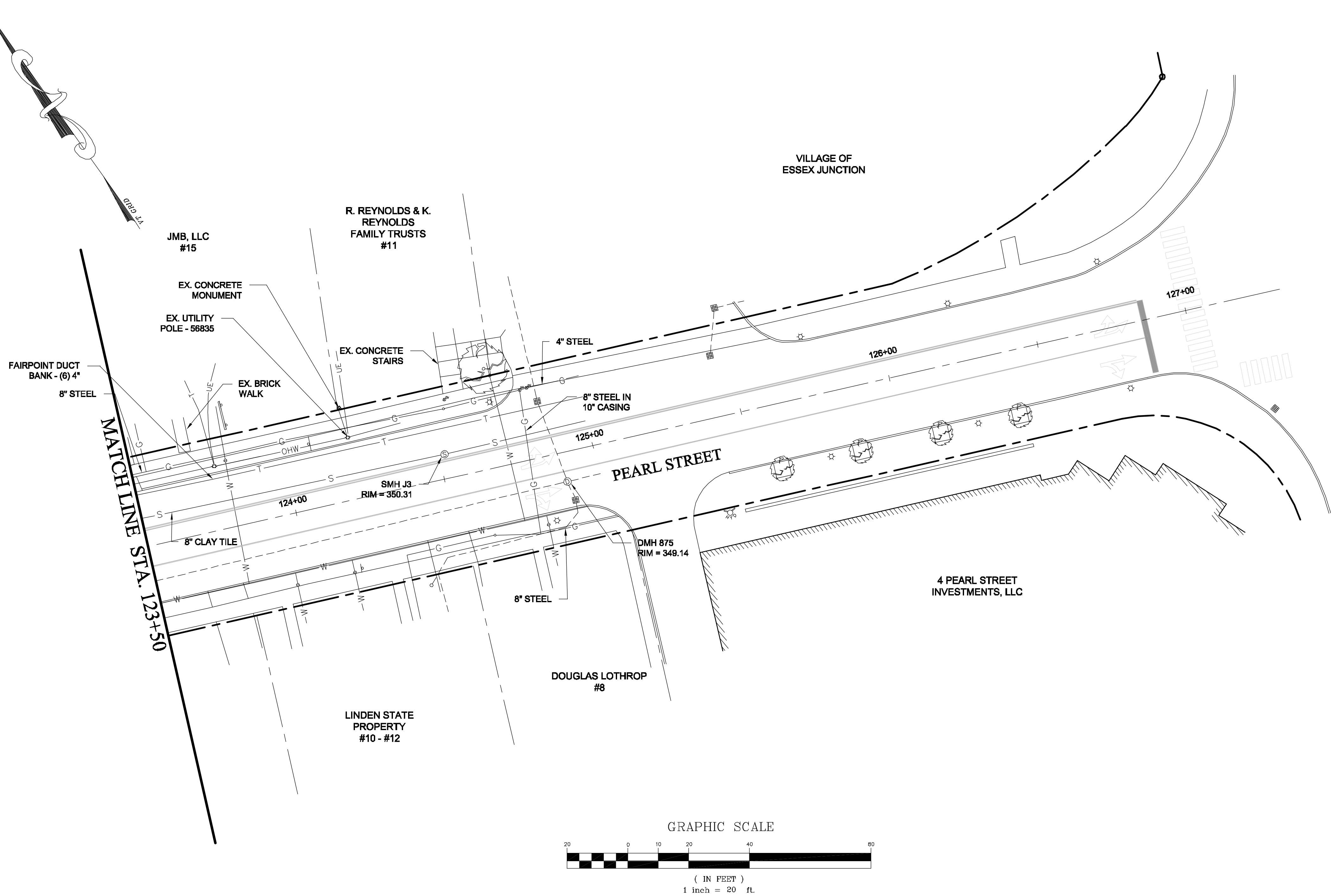
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Sheet number 10



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MARCH 19, 2015

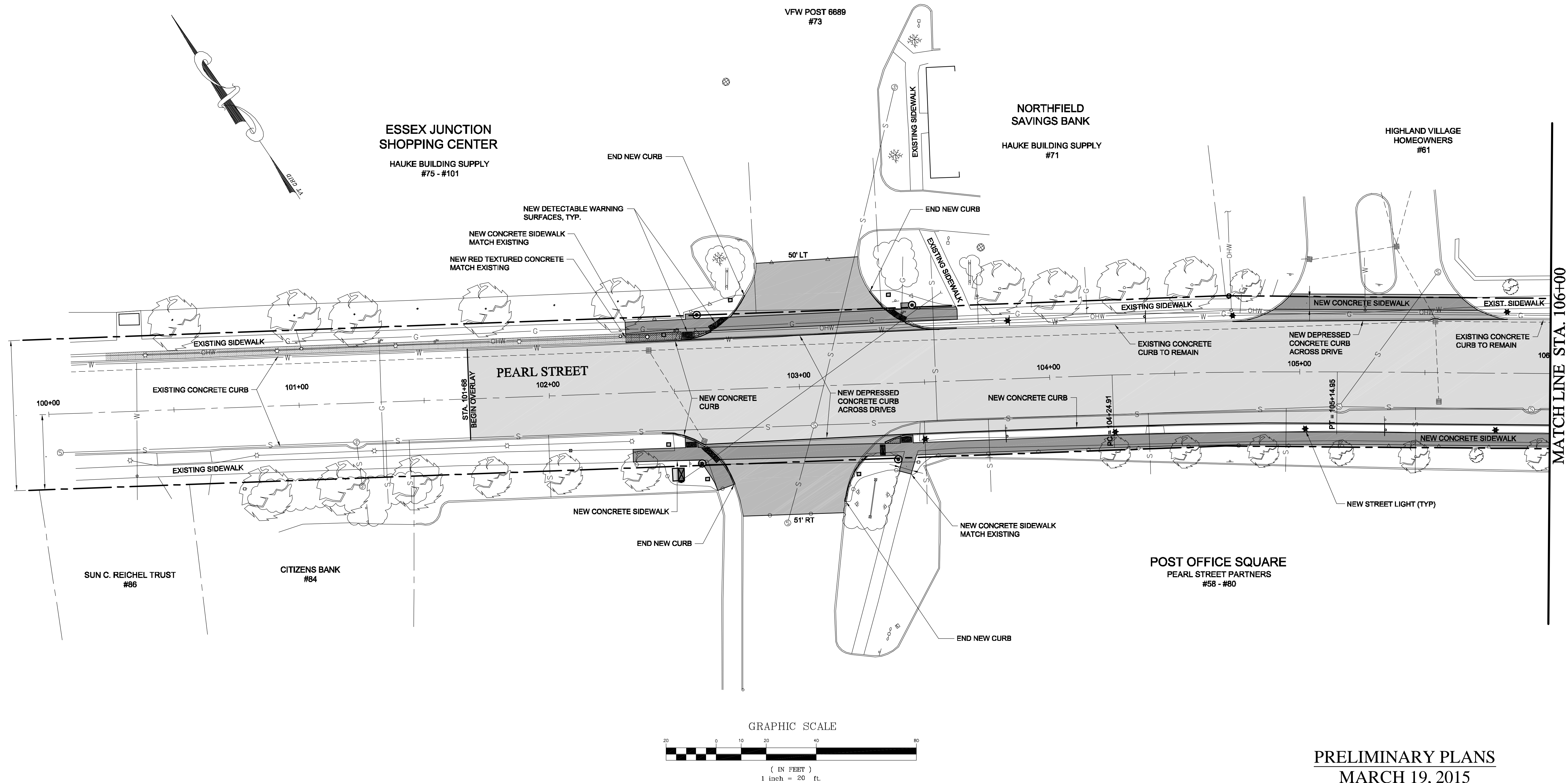
Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

	<small>Civil Engineer</small> Lamoureux & Dickinson Consulting Engineers, Inc. 14 Morse Drive, Essex, VT 05452 802-878-4450 www.LDengineering.com	<small>Electrical Engineer</small>  Kirick Engineering Assoc., P.C. 399 Williston Road, Suite 103 Williston, VT 05495 802-655-5731

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Date 3-19-15
Scale 1" = 20'
Sheet number 11

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PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

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Design
RD
Drawn
BH
Date
3-19-15
Scale
1" = 20'
Sheet number

LAYOUT PLAN

12

ITEM 210.10 - COLD PLANING, BITUMINOUS PAVEMENT
STA 101+68 - 106+00 LT & RT

ITEM 406.25 - BITUMINOUS CONCRETE PAVEMENT
STA 101+68 - 106+00 LT & RT

ITEM 616.41 - REMOVAL OF EXISTING CURB
STA 102+31 - 102+79 LT STA 102+45 - 102+73 RT
STA 103+30 - 103+64 LT STA 103+17 - 106+00 RT

ITEM 616.28 - CAST-IN-PLACE CONCRETE CURB, TYPE B
STA 102+31 - 103+64 LT STA 102+43 - 102+62 RT
STA 102+62 - 102+65 LT STA 102+61 - 103+43 RT
STA 102+72 - 102+80 LT STA 102+68 - 102+75 RT
STA 103+27 - 103+35 LT STA 103+18 - 103+25 RT
STA 103+42 - 103+64 LT STA 103+44 - 106+00 RT
STA 104+73 - 105+84 LT

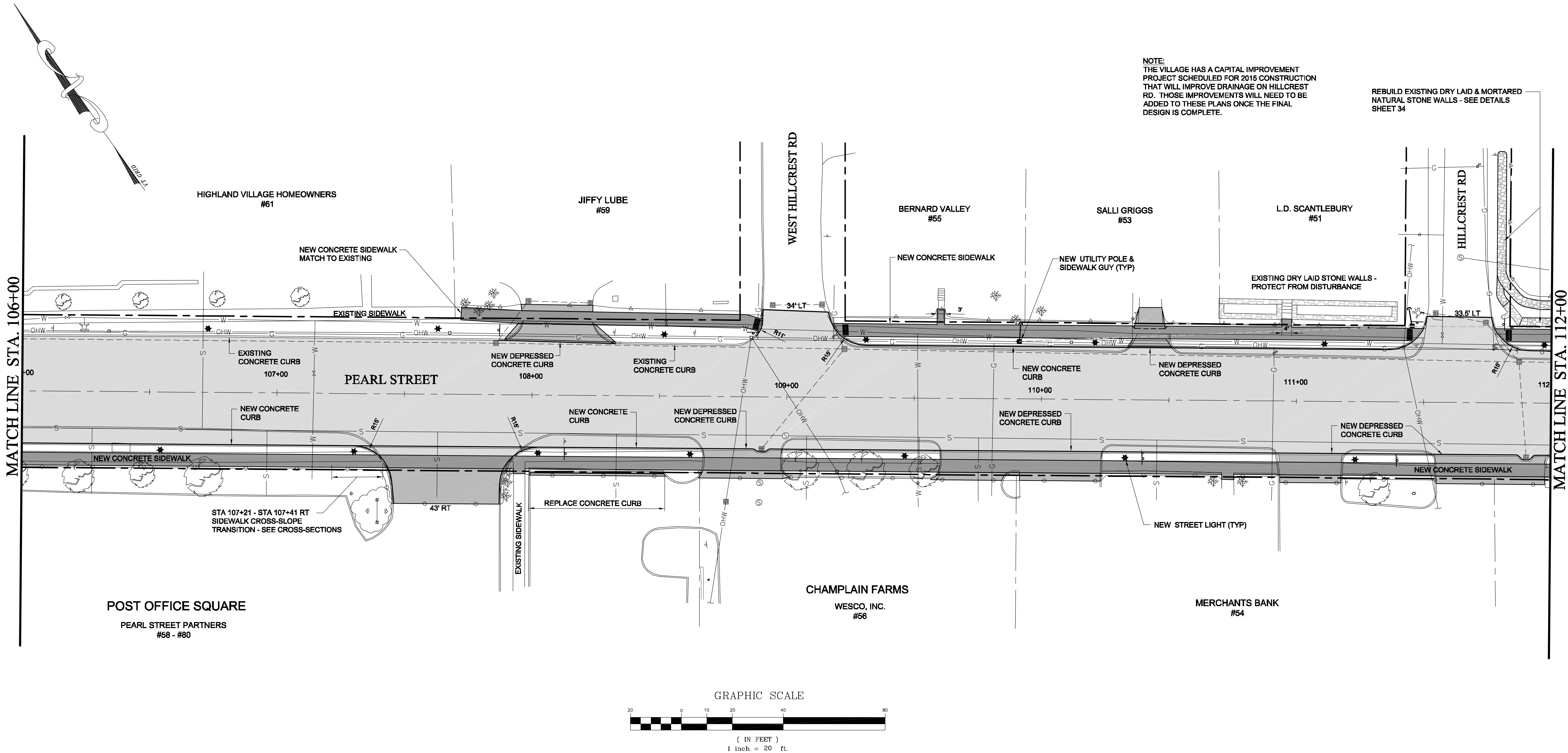
ITEM 618.10 - PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
STA 102+32 - 102+73 LT STA 102+63 - 102+74 RT
STA 103+36 - 103+64 LT STA 103+26 - 106+00 RT

ITEM 618.30 - DETECTABLE WARNING SURFACE
STA 102+56 LT STA 102+56 RT
STA 102+69 LT STA 102+64 RT
STA 103+40 LT STA 103+32 RT
STA 103+42 RT

ITEM 203.28 - EXCAVATION OF SURFACES AND PAVEMENTS
STA 102+55 - 103+51 LT STA 102+61 - 103+42 RT
STA 104+75 - 105+80 LT

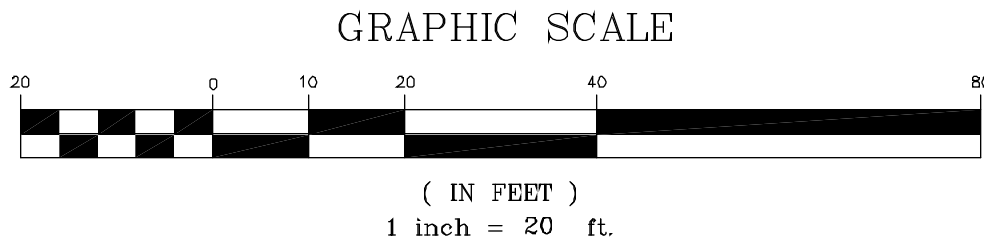
ITEM 629.20 - ADJUST ELEVATION OF VALVE BOX
STA 105+26 LT

ITEM 900.620 - SPECIAL PROVISION (STREET LIGHT)
STA 103+84 LT STA 103+50 RT
STA 104+73 LT STA 104+25 RT
STA 105+83 LT STA 105+02 RT
STA 105+78 RT



NOTE:
THE VILLAGE HAS A CAPITAL IMPROVEMENT PROJECT SCHEDULED FOR 2015 CONSTRUCTION THAT WILL IMPROVE DRAINAGE ON HILLCREST RD. THOSE IMPROVEMENTS WILL NEED TO BE ADDED TO THESE PLANS ONCE THE FINAL DESIGN IS COMPLETE.

REBUILD EXISTING DRY LAID & MORTARED NATURAL STONE WALLS - SEE DETAILS SHEET 34



ITEM 210.10 - COLD PLANING, BITUMINOUS PAVEMENT
STA 106+00 - 112+00 LT & RT

ITEM 406.25 - BITUMINOUS CONCRETE PAVEMENT
STA 106+00 - 112+00 LT & RT

ITEM 616.41 - REMOVAL OF EXISTING CURB
STA 109+16 - 110+35 LT STA 106+00 - 107+44 RT
STA 110+50 - 111+50 LT STA 107+85 - 108+66 RT
STA 111+77 - 112+00 LT STA 108+96 - 109+60 RT
STA 110+21 - 110+92 RT
STA 111+17 - 111+54 RT

ITEM 616.28 - CAST IN PLACE CONCRETE CURB, TYPE B
STA 107+87 - 108+31 LT STA 106+00 - 107+46 RT
STA 108+84 - 108+89 LT STA 107+88 - 112+00 RT
STA 109+16 - 111+50 LT
STA 111+74 - 112+00 LT

ITEM 618.10 - PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
STA 107+72 - 107+96 LT STA 106+00 - 107+44 RT
STA 108+25 - 108+90 LT STA 107+89 - 108+68 RT
STA 109+18 - 111+50 LT STA 108+98 - 109+60 RT
STA 111+78 - 112+00 LT STA 111+18 - 111+54 RT

ITEM 618.11 - PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH
STA 107+92 - 108+25 LT STA 110+23 - 111+18 RT
STA 111+59 - 112+00 RT

ITEM 618.30 - DETECTABLE WARNING SURFACE
STA 108+88 LT
STA 109+23 LT
STA 111+44 LT
STA 111+83 LT

ITEM 203.28 - EXCAVATION OF SURFACES AND PAVEMENTS
STA 107+90 - 108+33 LT STA 107+34 - 107+95 RT
STA 108+80 - 109+28 LT STA 108+68 - 108+98 RT
STA 110+34 - 110+62 LT STA 109+61 - 110+22 RT
STA 110+93 - 111+18 RT
STA 111+64 - 111+97 RT

ITEM 629.20 - ADJUST ELEVATION OF VALVE BOX
STA 107+14 LT
STA 108+53 LT
STA 110+36 LT
STA 111+57 LT

ITEM 900.620 - SPECIAL PROVISION (STREET LIGHT)
STA 106+72 LT STA 106+54 RT
STA 107+63 LT STA 107+30 RT
STA 108+52 LT STA 108+03 RT
STA 109+31 LT STA 108+62 RT
STA 110+21 LT STA 109+46 RT
STA 111+11 LT STA 110+33 RT
STA 111+97 LT STA 111+23 RT

PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link



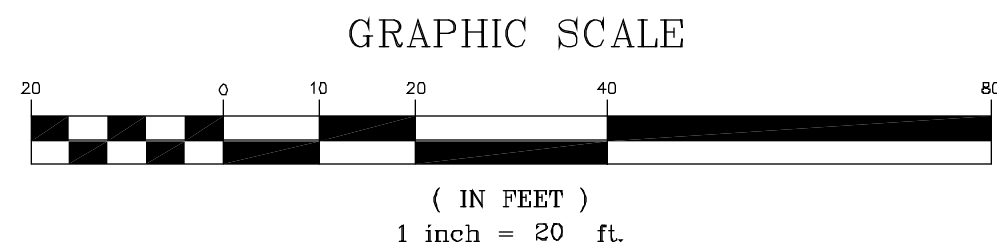
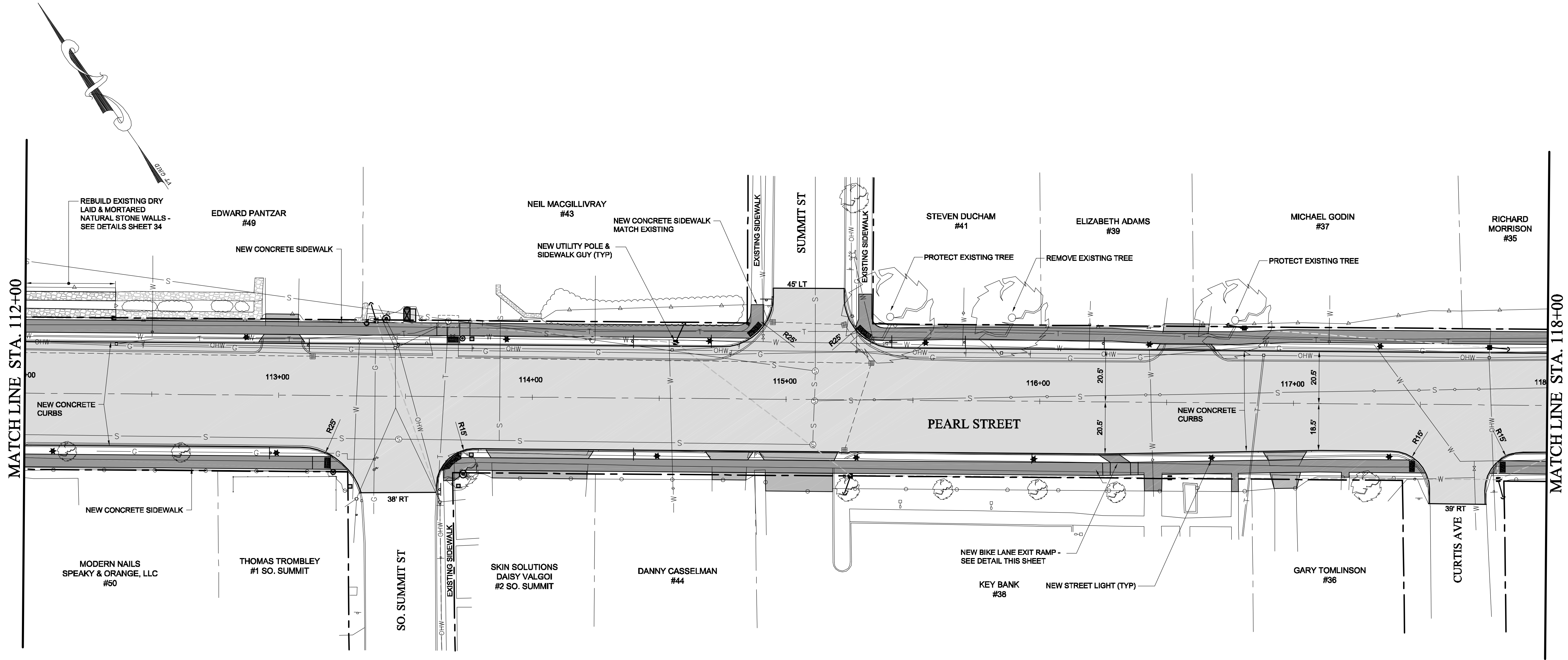
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Project No.
14119
Design
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Drawn
BH
Date
3-19-15
Scale
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Sheet number
13



ITEM 210.10 COLD PLANING, BITUMINOUS CONCRETE PAVEMENT.
STA 112+00 - 118+00 LT & RT

ITEM 406.25 BITUMINOUS CONCRETE PAVEMENT
STA 112+00 - 118+00 LT & RT

ITEM 616.41 - REMOVAL OF EXISTING CURB
STA 112+00 - 112+93 LT STA 112+00 - 113+32 RT
STA 113+09 - 113+60 LT STA 116+27 - 117+53 RT
STA 113+70 - 114+95 LT
STA 115+22 - 116+48 LT
STA 116+66 - 118+00 LT

ITEM 616.28 CAST IN PLACE CONCRETE CURB, TYPE B
STA 112+00 - 114+96 LT STA 112+00 - 113+36 RT
STA 115+23 - 118+00 LT STA 113+64 - 117+53 RT
STA 117+76 - 118+00 RT

ITEM 618.10 - PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
STA 112+00 - 114+91 LT STA 112+00 - 113+27 RT
STA 113+64 - 114+92 RT
STA 115+19 - 118+00 RT
STA 117+76 - 118+00 RT

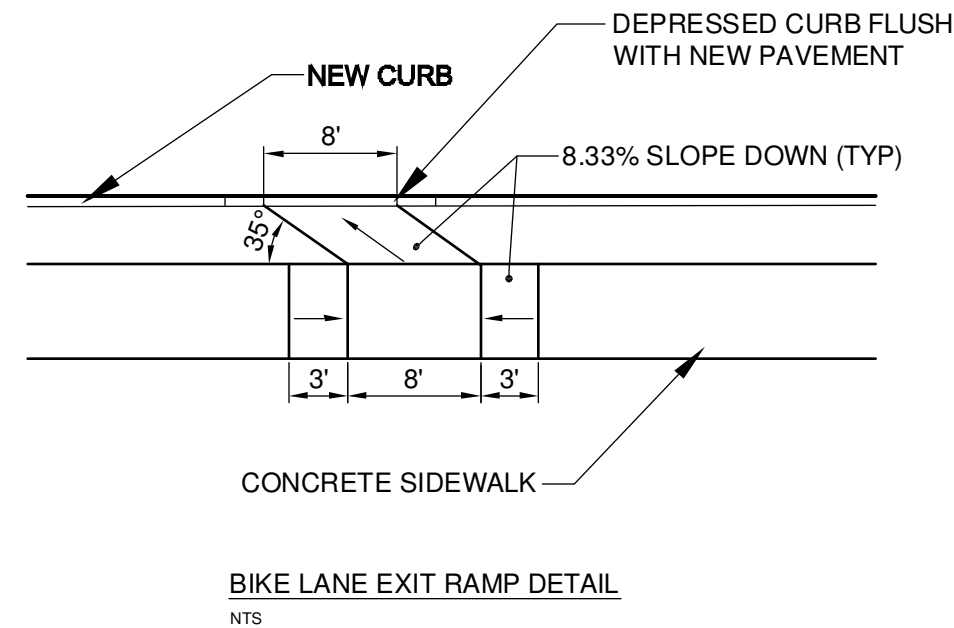
ITEM 618.11 - PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH
STA 113+84 - 114+22 RT
STA 114+92 - 115+19 RT

ITEM 618.30 - DETECTABLE WARNING SURFACE
STA 113+69 LT STA 113+20 RT
STA 114+87 LT STA 113+68 RT
STA 115+32 LT STA 117+50 RT
STA 117+83 RT

ITEM 203.28 - EXCAVATION OF SURFACES AND PAVEMENTS
STA 112+92 - 113+10 LT STA 113+82 - 114+24 RT
STA 116+46 - 116+69 LT STA 114+68 - 114+86 RT
STA 114+88 - 115+21 RT
STA 116+86 - 117+05 RT

ITEM 900.620 - SPECIAL PROVISION (STREET LIGHT)
STA 112+87 LT STA 112+11 RT
STA 113+90 LT STA 112+99 RT
STA 114+70 LT STA 114+49 RT
STA 115+55 LT STA 115+28 RT
STA 116+43 LT STA 115+98 RT
STA 117+34 LT STA 116+68 RT
STA 117+38 RT

ITEM 629.20 - ADJUST ELEVATION OF VALVE BOX
STA 112+50 LT STA 116+45 RT
STA 113+32 LT STA 117+48 RT
STA 113+46 LT STA 117+72 RT
STA 113+69 LT
STA 114+23 LT
STA 114+91 LT
STA 115+34 LT
STA 115+39 LT
STA 116+20 LT
STA 117+14 LT



PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
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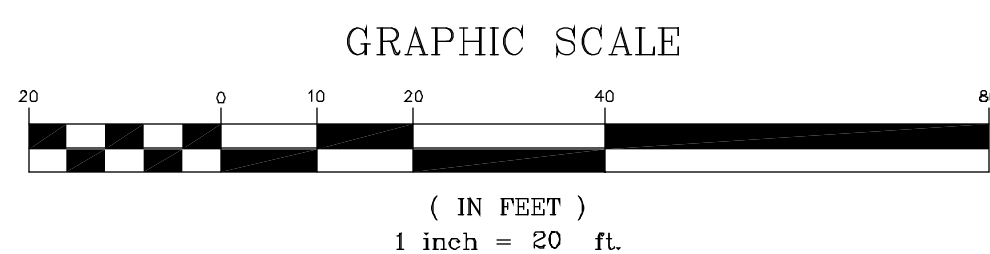
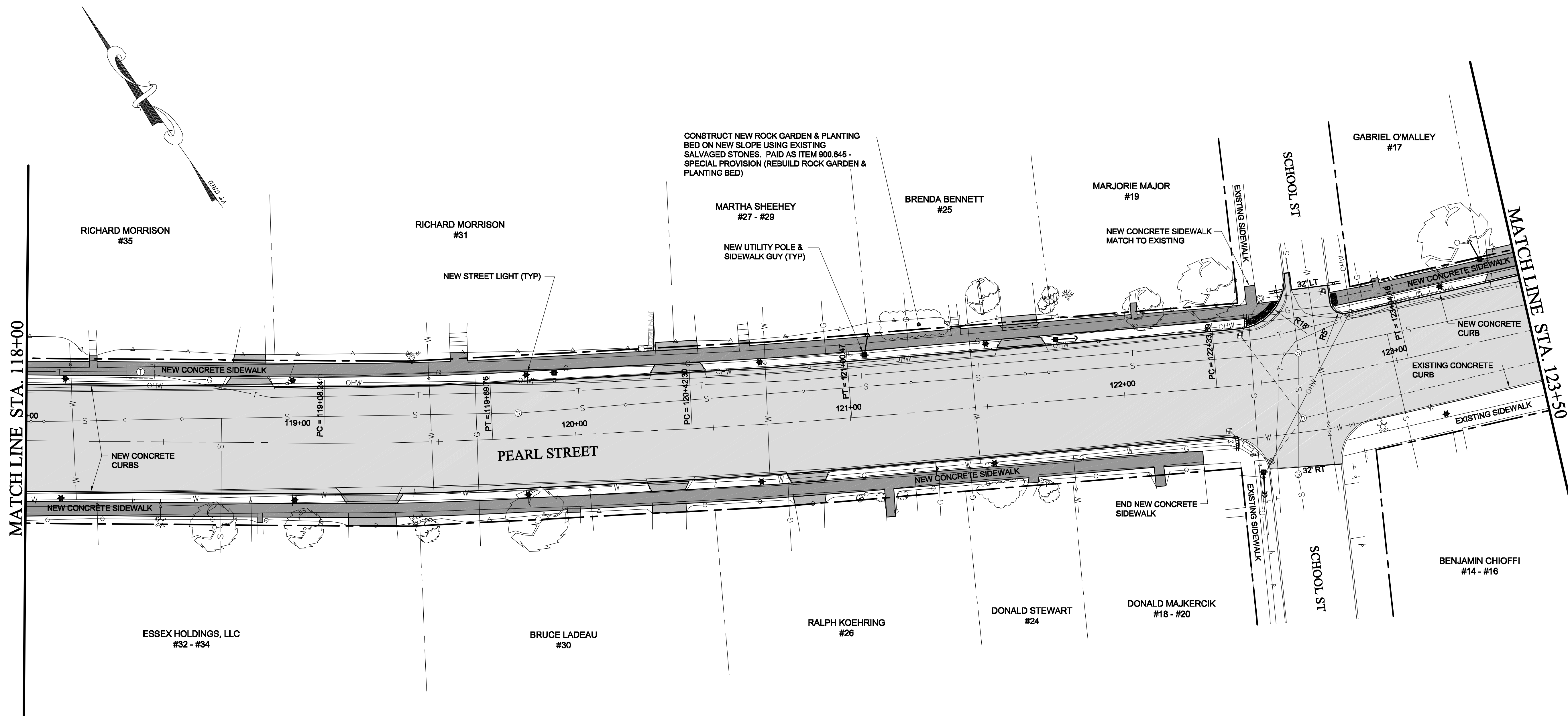
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Project No.
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Design
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Drawn
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Date
3-19-15
Scale
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Sheet number

14



ITEM 210.10 - COLD PLACING, BITUMINOUS PAVEMENT
STA 118+00 - 123+50 LT & RT

ITEM 406.25 - BITUMINOUS CONCRETE PAVEMENT
STA 118+00 - 123+50 LT & RT

ITEM 616.28 - CAST IN PLACE CONCRETE CURB, TYPE B
STA 118+00 - 122+62 LT STA 118+00 - 122+38 RT
STA 122+78 - 123+50 LT

ITEM 616.41 REMOVAL OF EXISTING CURB
STA 118+00 - 118+70 LT STA 118+50 - 119+14 RT
STA 118+90 - 120+27 LT STA 119+37 - 120+24 RT
STA 120+48 - 121+53 LT STA 120+42 - 120+75 RT
STA 121+73 - 122+62 LT STA 120+92 - 122+48 RT
STA 122+78 - 123+38 LT

ITEM 618.10 - PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
STA 118+00 - 122+60 LT STA 118+00 - 119+17 RT
STA 122+79 - 123+50 LT STA 119+34 - 120+27 RT
STA 120+39 - 120+78 RT
STA 120+89 - 122+47 RT

ITEM 618.11 - PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH
STA 119+17 - 119+34 RT
STA 120+27 - 120+39 RT
STA 120+78 - 120+90 RT

ITEM 618.30 - DETECTABLE WARNING SURFACE
STA 122+54 LT STA 122+44 RT
STA 122+81 LT

ITEM 203.28 - EXCAVATION OF SURFACES AND PAVEMENTS
STA 118+72 - 118+89 LT STA 119+13 - 119+36 RT
STA 120+27 - 120+47 LT STA 120+24 - 120+39 RT
STA 121+54 - 121+74 LT

ITEM 629.20 - ADJUST ELEVATION OF VALVE BOX
STA 118+16 LT STA 118+26 RT
STA 119+47 LT STA 118+49 RT
STA 120+70 LT STA 118+82 RT
STA 121+45 LT STA 120+04 RT
STA 121+22 RT
STA 122+37 RT
STA 122+72 RT
STA 122+72 RT
STA 122+80 RT

ITEM 900.620 - SPECIAL PROVISION (STREET LIGHT)
STA 118+14 LT STA 118+13 RT
STA 118+87 LT STA 118+98 RT
STA 118+83 LT STA 118+82 RT
STA 120+68 LT STA 120+66 RT
STA 121+51 LT STA 121+51 RT
STA 123+21 LT STA 123+13 RT

PRELIMINARY PLANS MARCH 19, 2015

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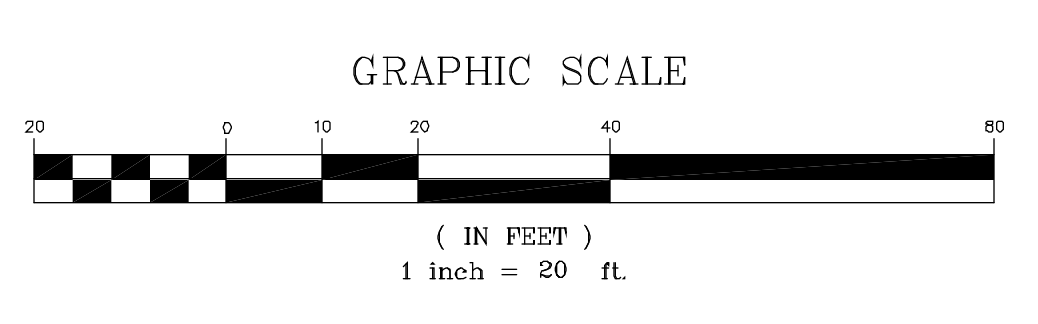
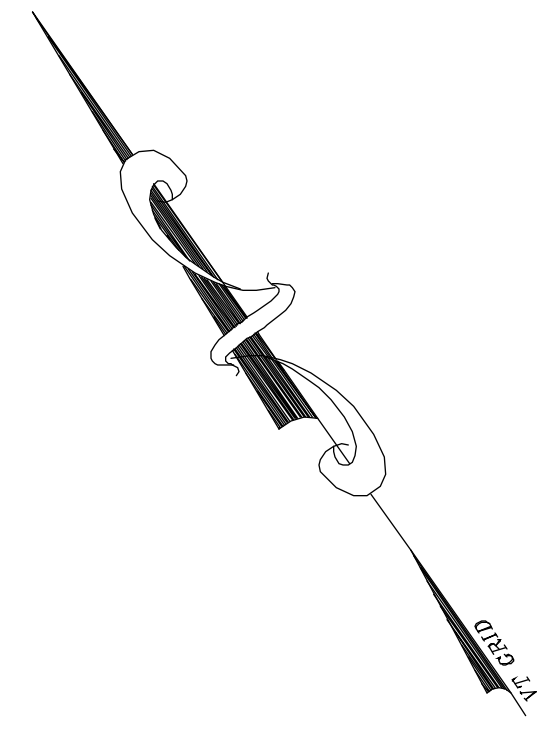
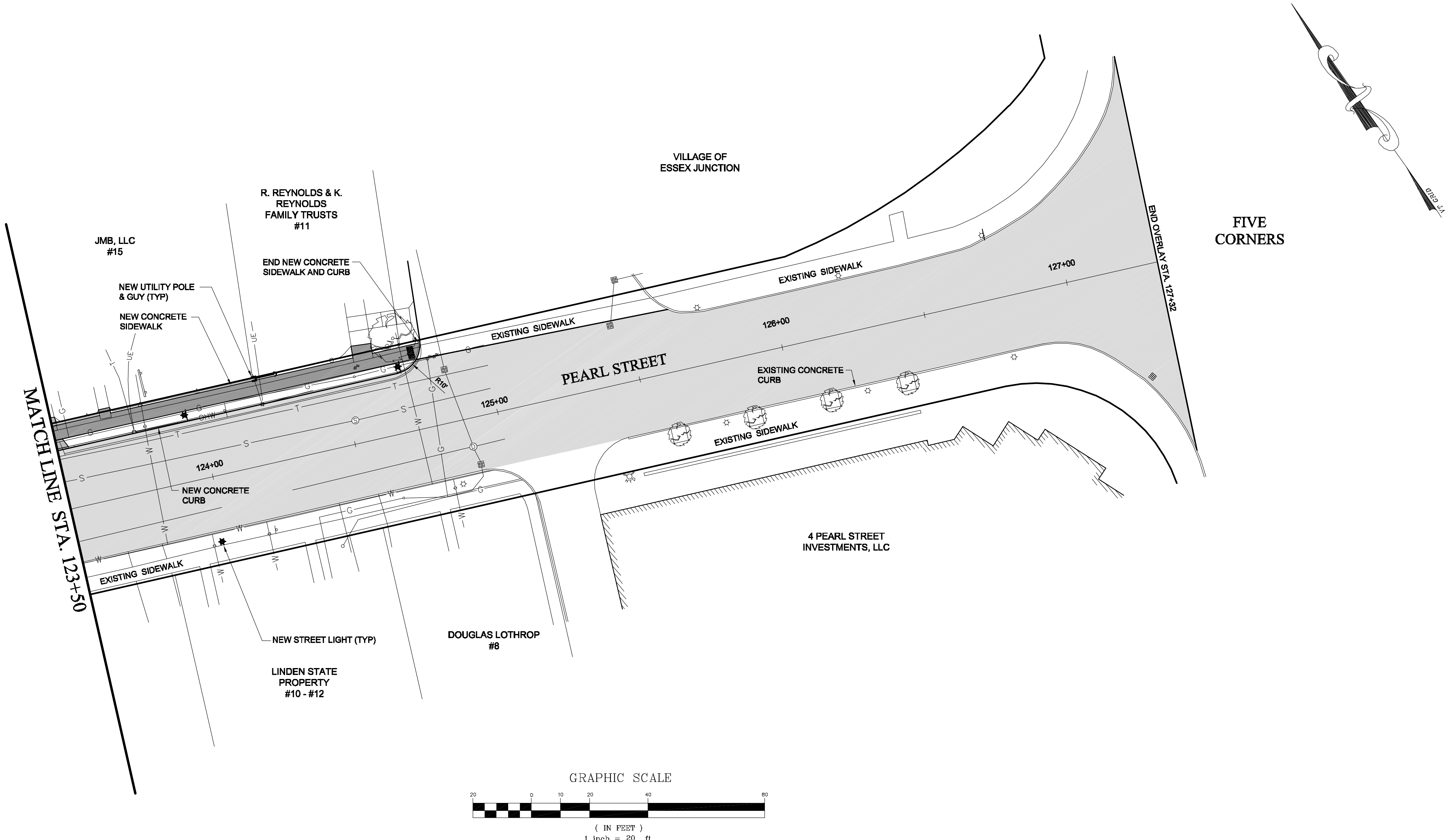
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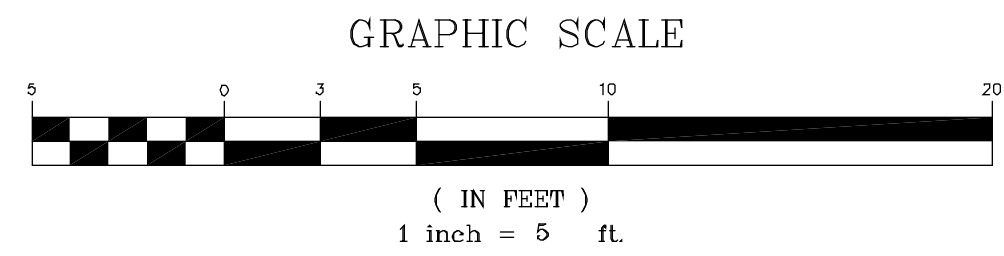
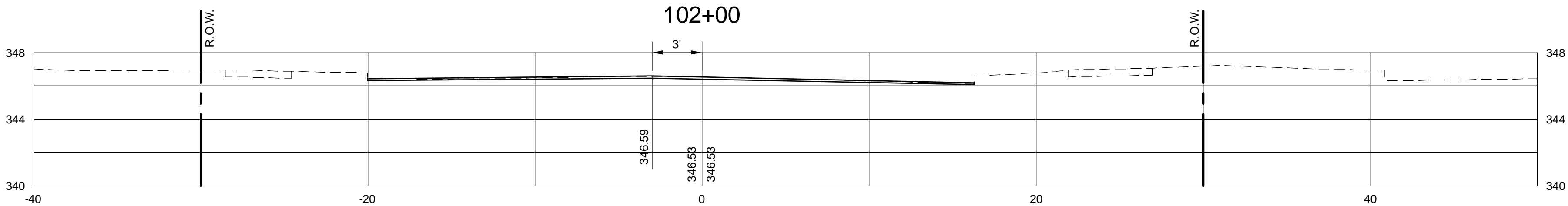
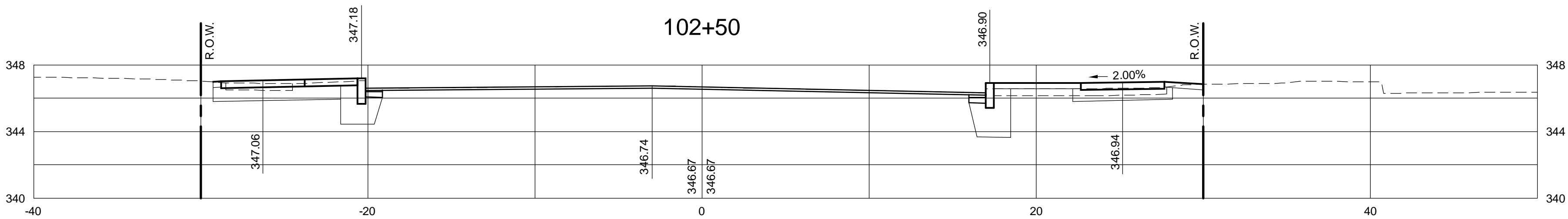
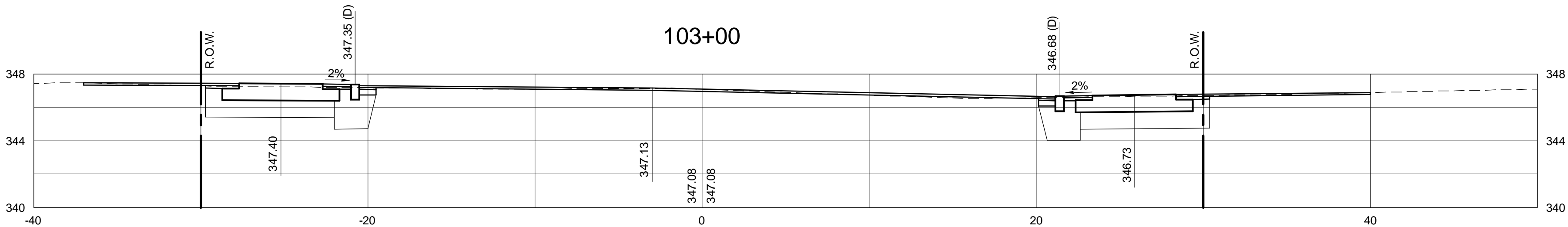
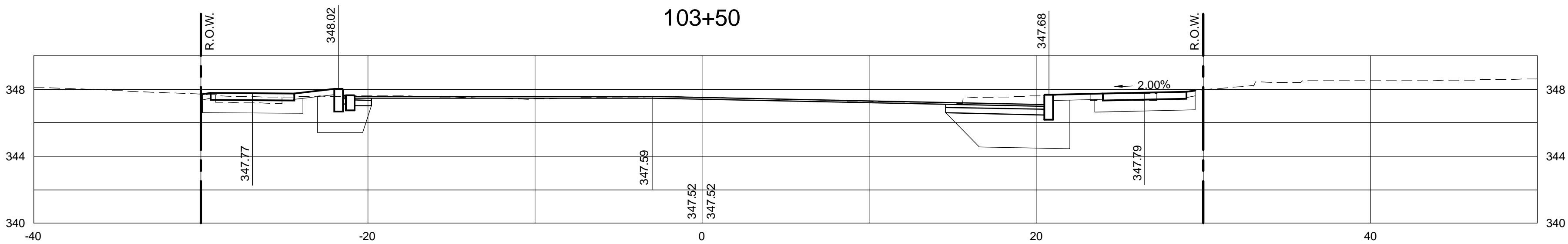
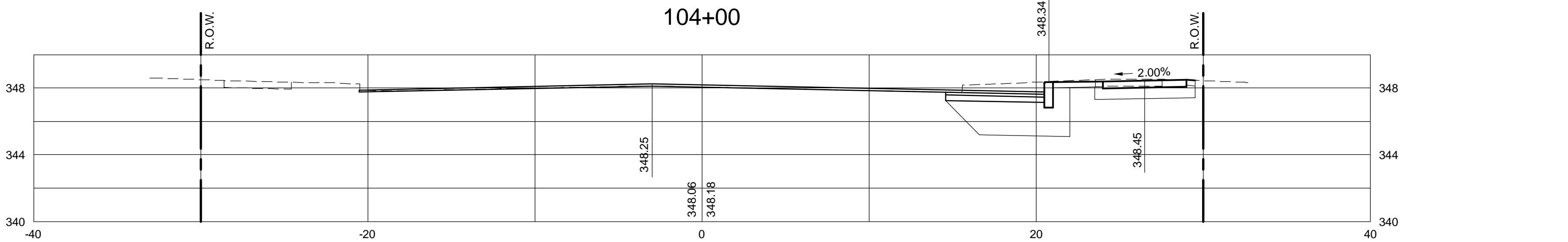
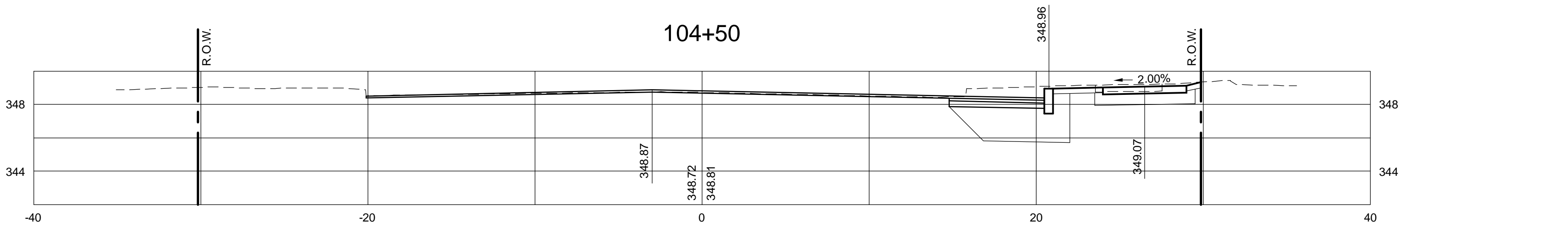


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| ITEM 210.10 - COLD PLANING, BITUMINOUS PAVEMENT
STA 123+50 - 127+32 LT & RT | ITEM 616.28 - CAST IN PLACE CONCRETE CURB, TYPE B
STA 123+50 - 124+79 LT | ITEM 629.20- ADJUST ELEVATION OF VALVE BOX
STA 123+81 LT
STA 124+72 LT |
| ITEM 406.25 - BITUMINOUS CONCRETE PAVEMENT
STA 123+50 - 127+32 LT & RT | ITEM 618.10 - PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
STA 123+50 - 124+79 LT | ITEM 900.620 - SPECIAL PROVISION (STREET LIGHT)
STA 123+98 RT
STA 123+95 LT
STA 124+70 LT |
| ITEM 616.41 - REMOVAL OF EXISTING CURB
STA 123+50 - 124+79 LT | ITEM 618.30 - DETECTABLE WARNING SURFACE
STA 124+75 LT | |

PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

 Lamoureux & Dickinson Consulting Engineers, Inc. 14 Morse Drive, Essex, VT 05452 802-878-4450 www.LDengineering.com	 Kirkick Engineering Assoc., P.C. 399 Williston Road, Suite 103 Williston, VT 05495 802-655-5731	Project No. 14119	
		Design RD	
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		Date 3-19-15	
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		Sheet number 16	



PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

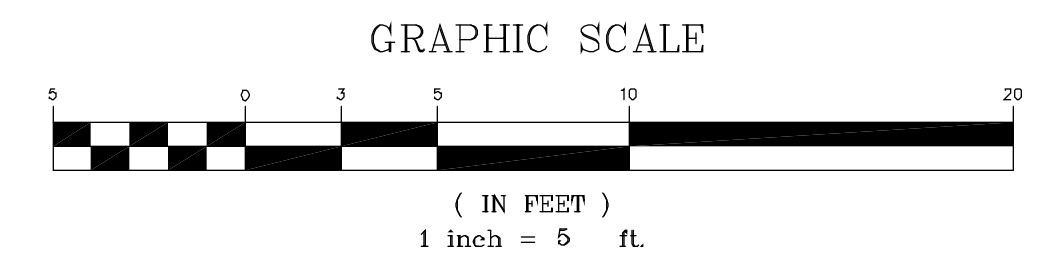
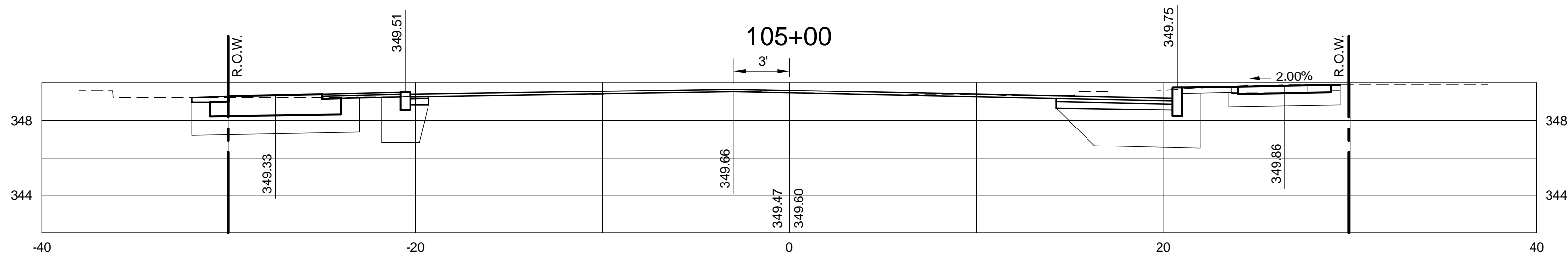
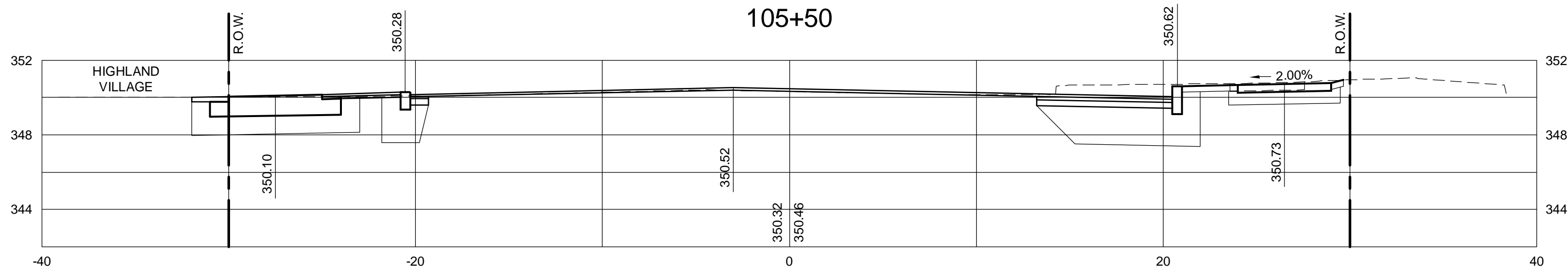
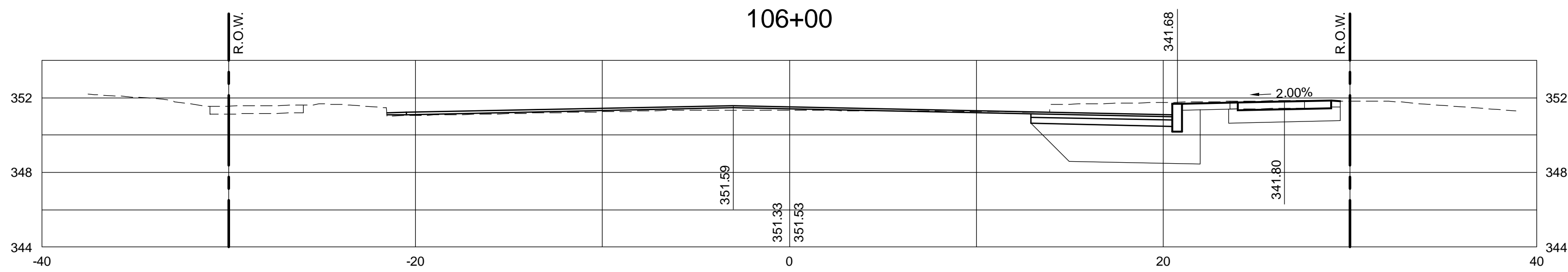
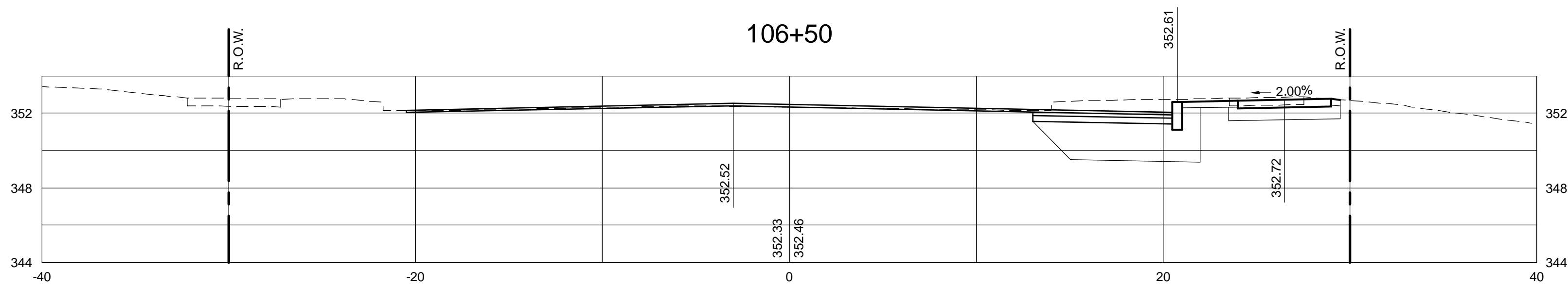
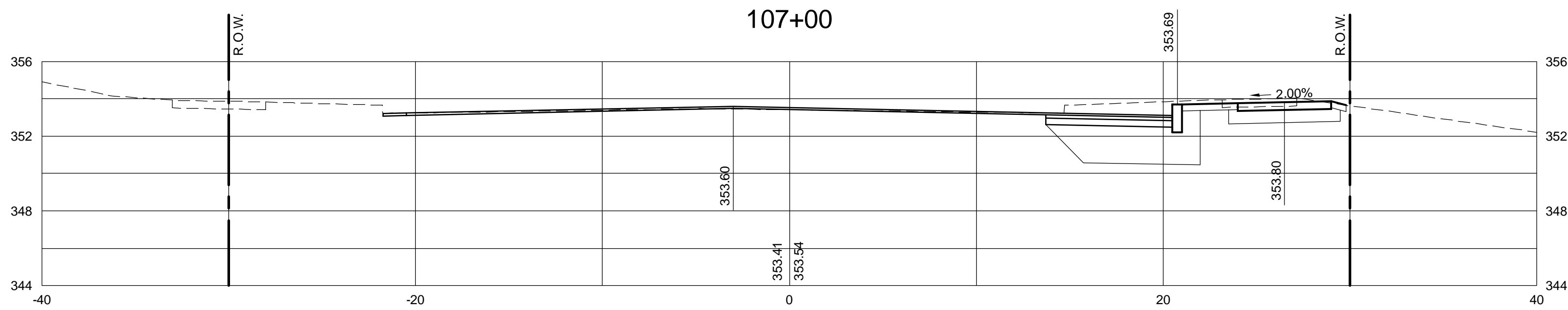
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CROSS SECTIONS

Project No.
14119
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RD
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BH
Date
3-19-15
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17



PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

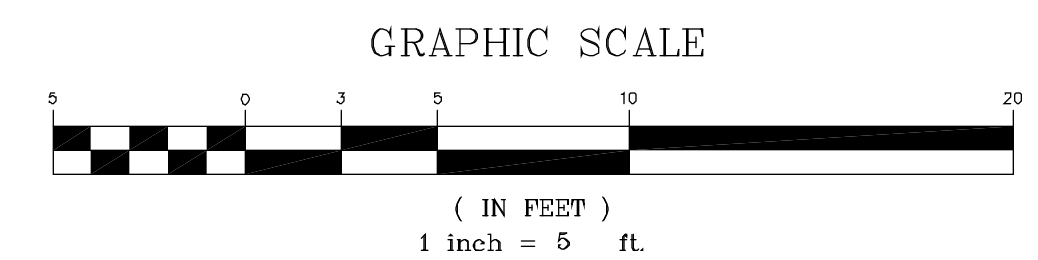
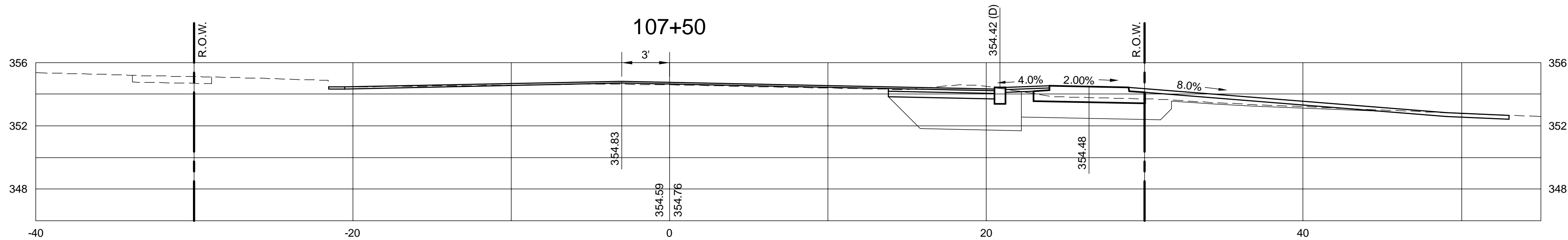
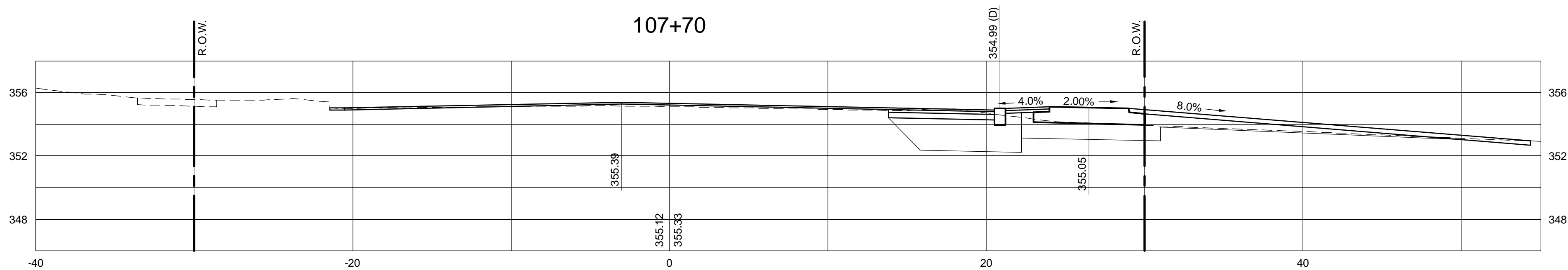
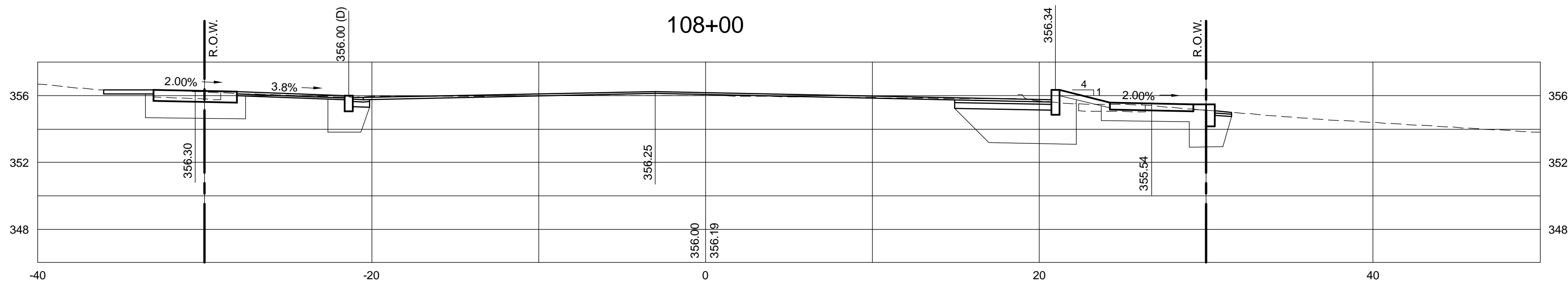
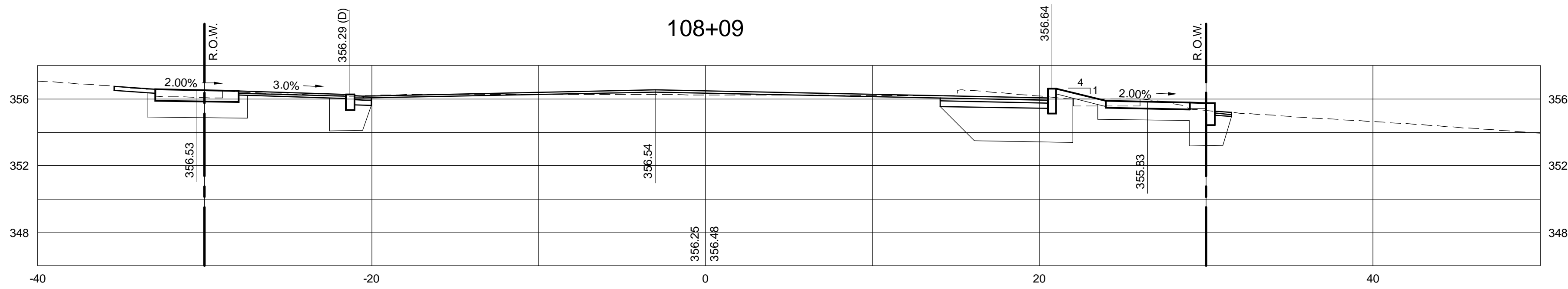
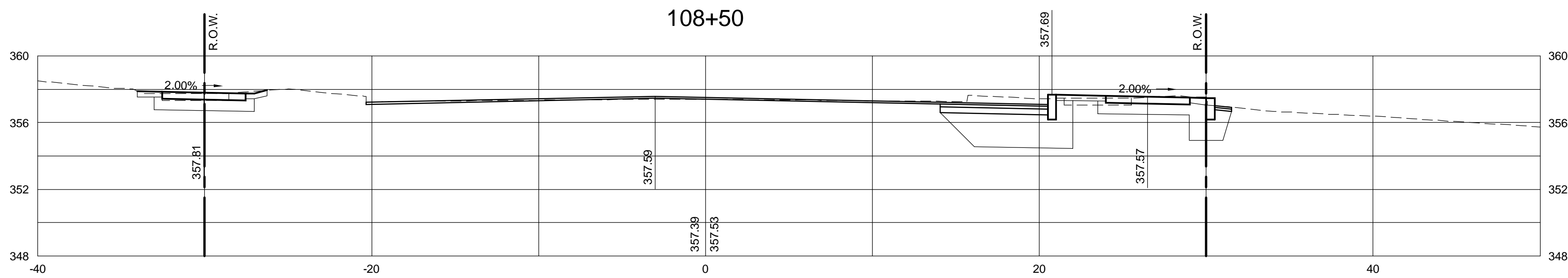
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Project No.
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Design
RD
Drawn
BH
Date
3-19-15

CROSS SECTIONS

Scale
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Sheet number
18



PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

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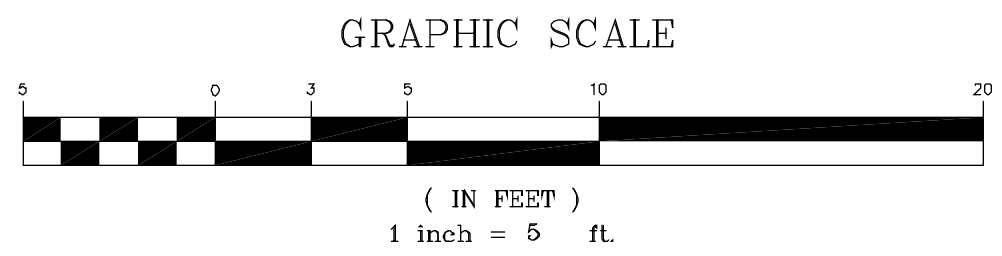
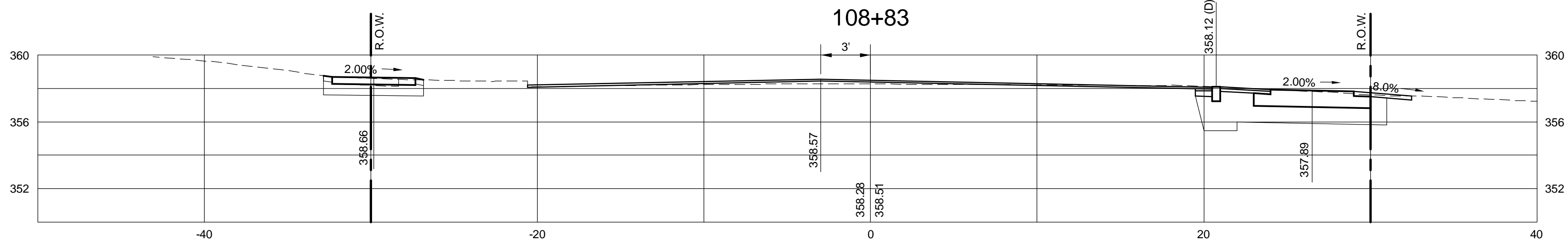
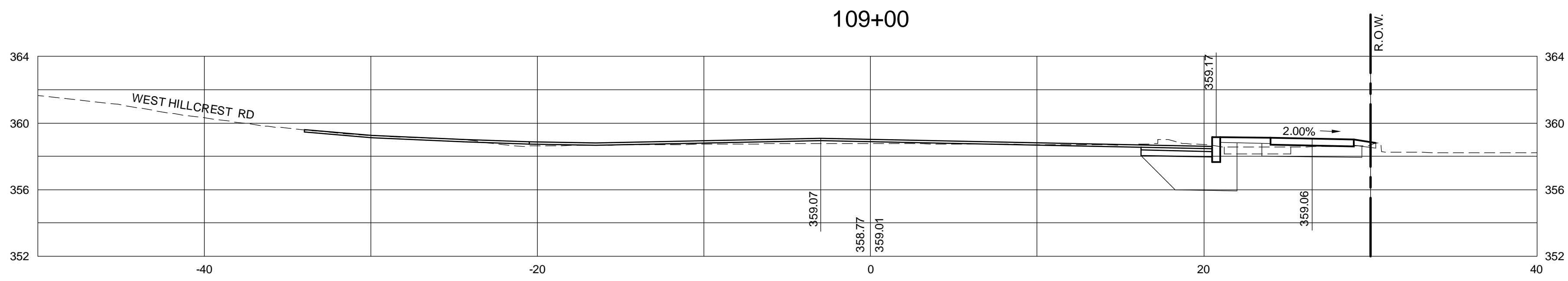
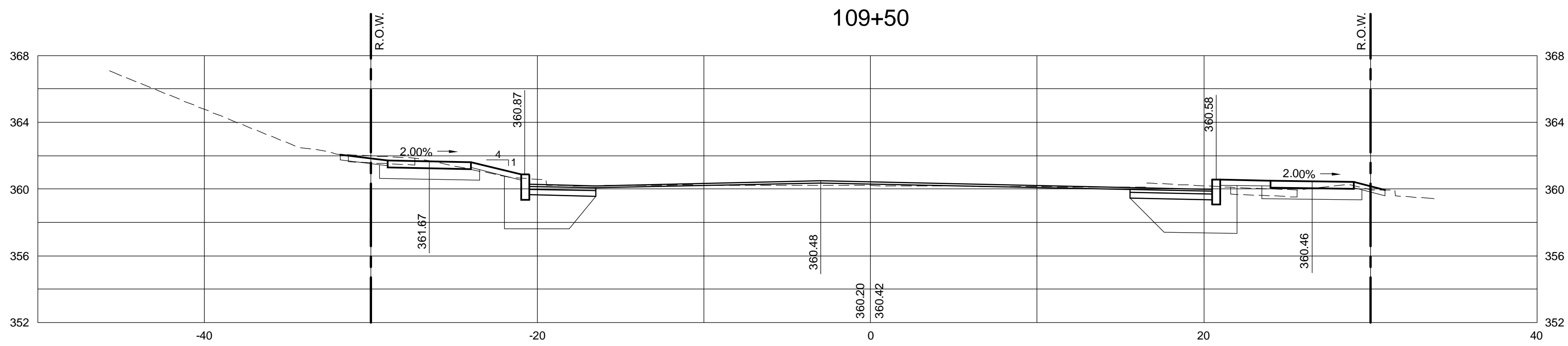
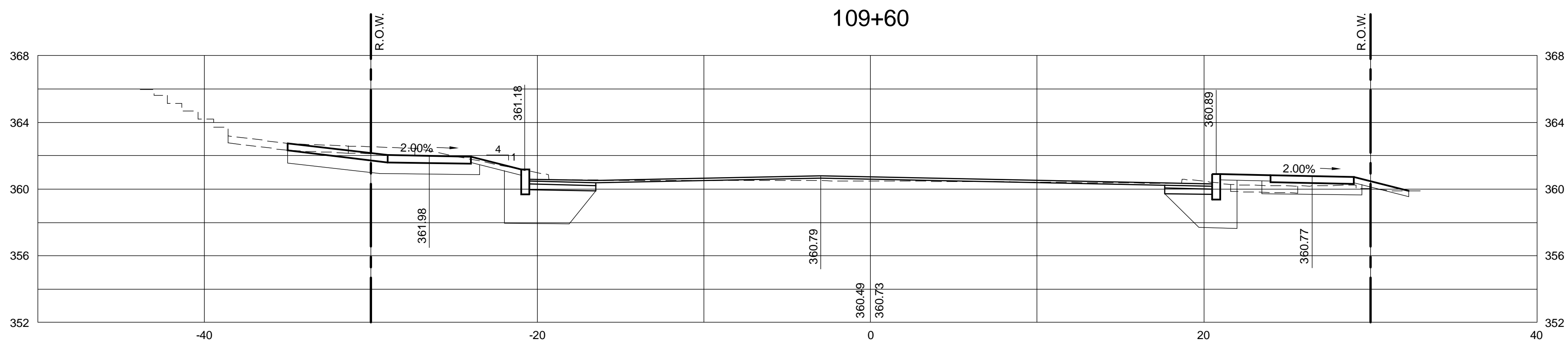
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Project No.
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RD
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BH
Date
3-19-15

Scale
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Sheet number

CROSS SECTIONS

19



PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

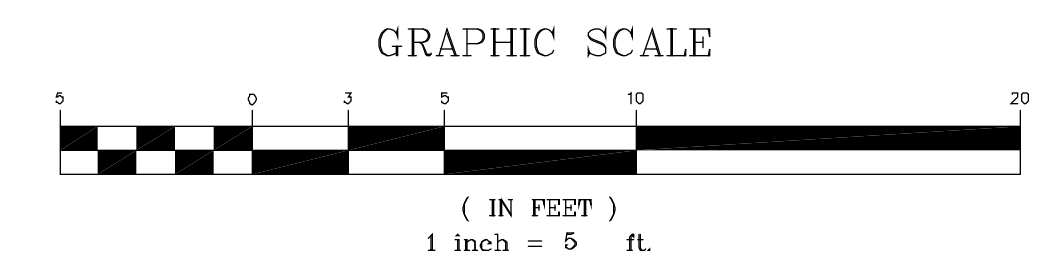
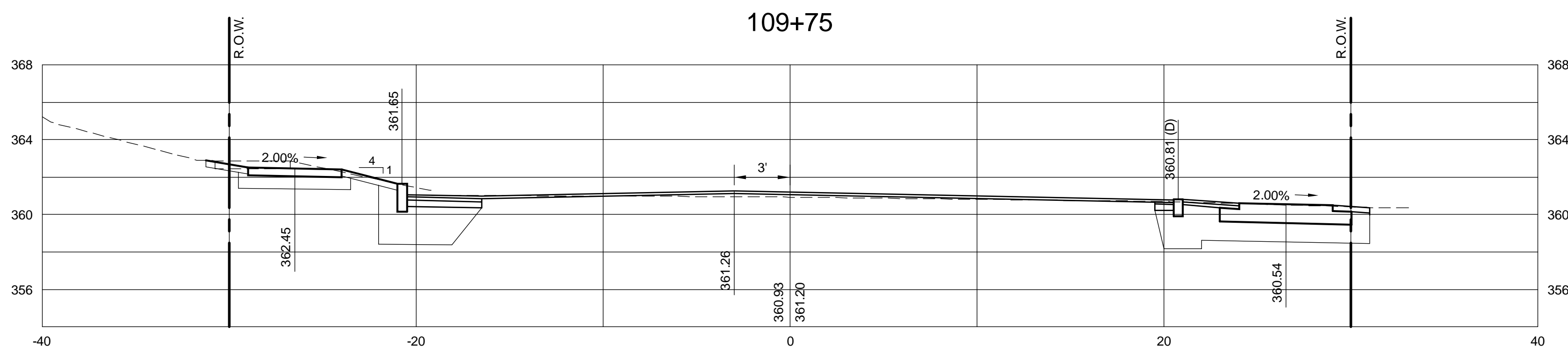
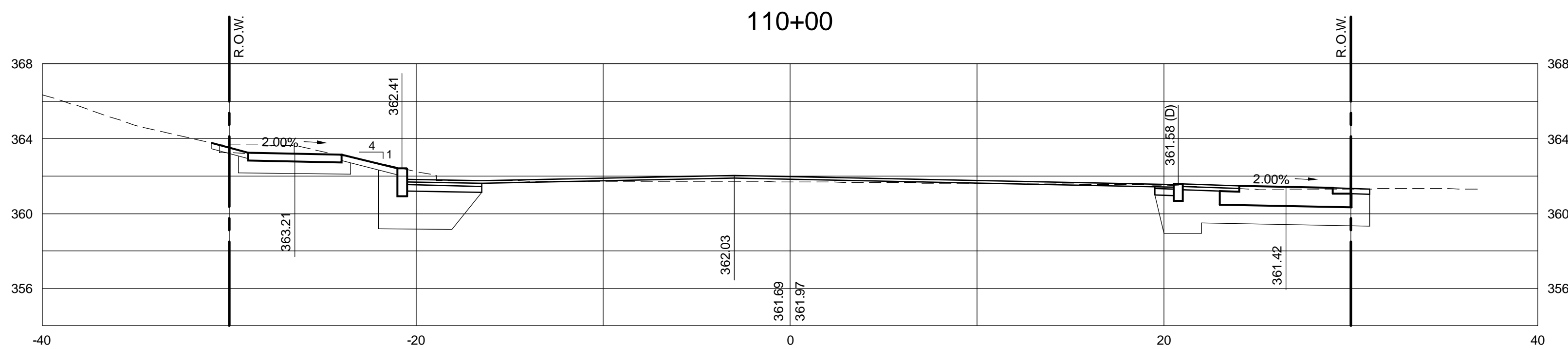
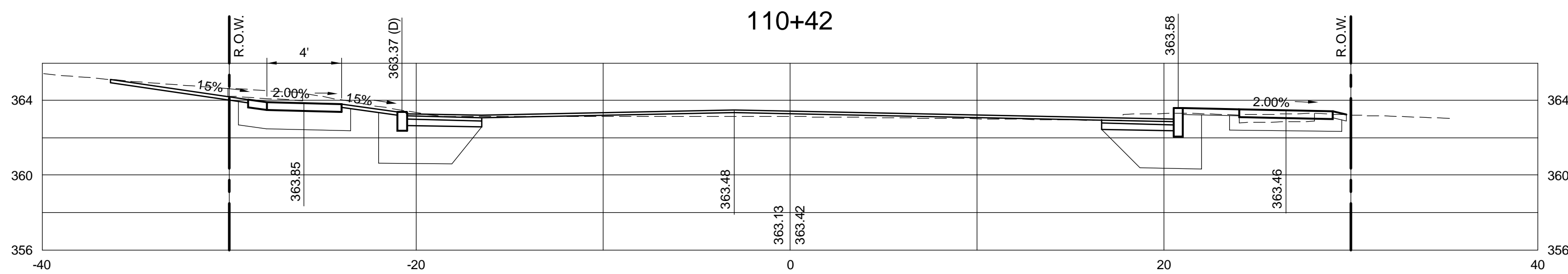
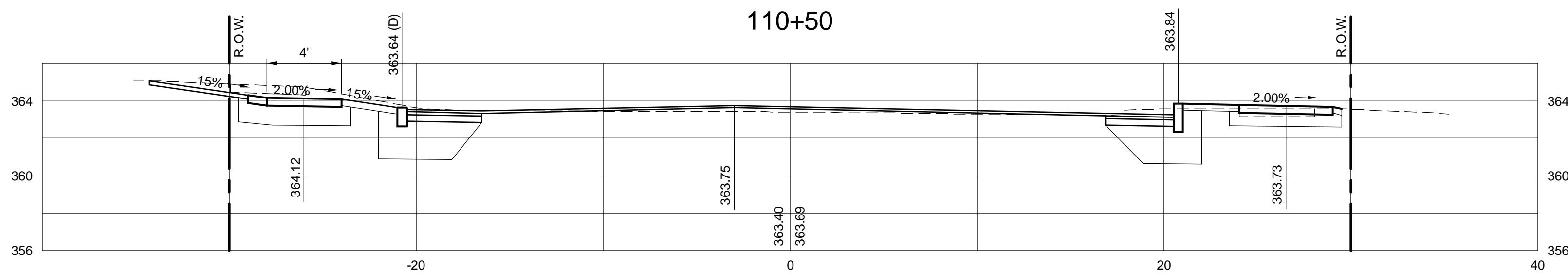
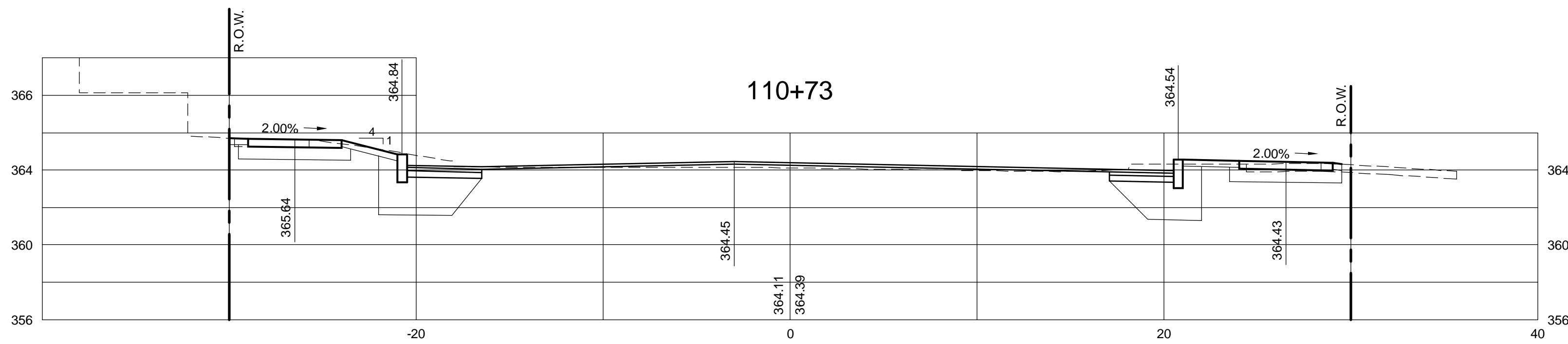
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RD
Drawn
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Scale
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Sheet number

CROSS SECTIONS

20



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MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

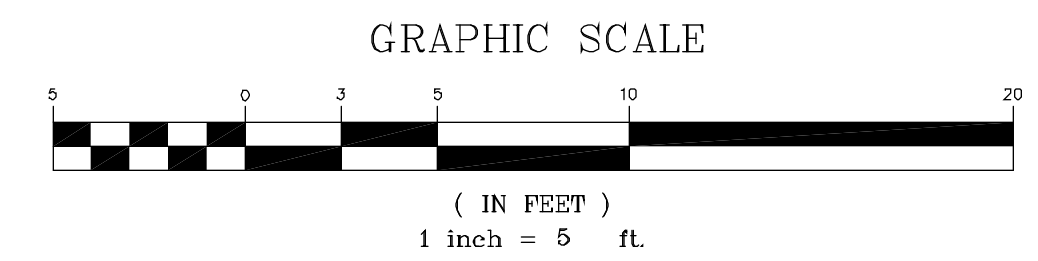
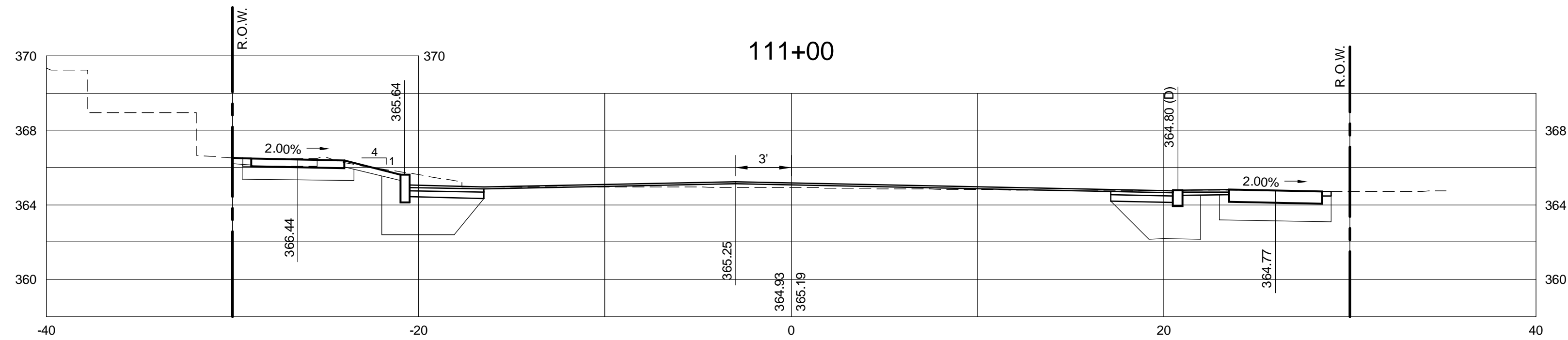
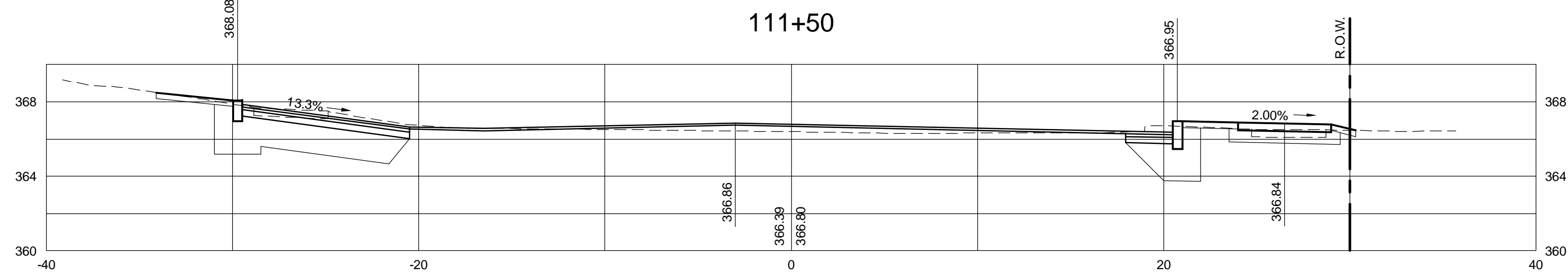
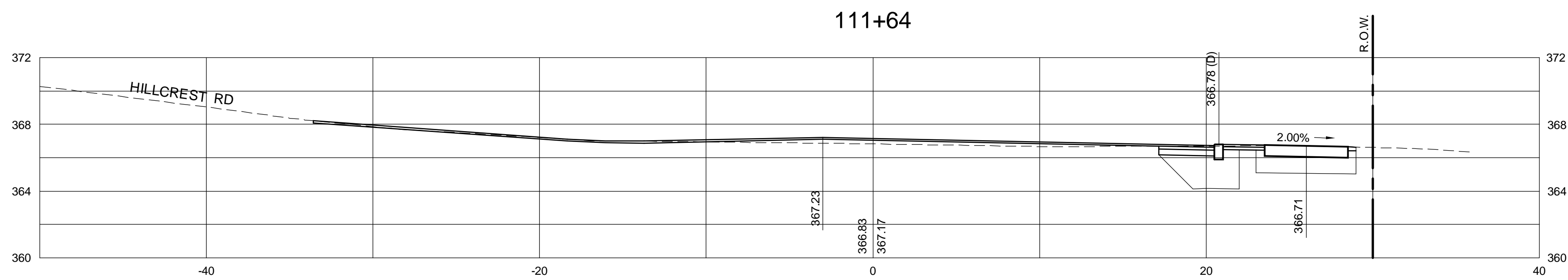
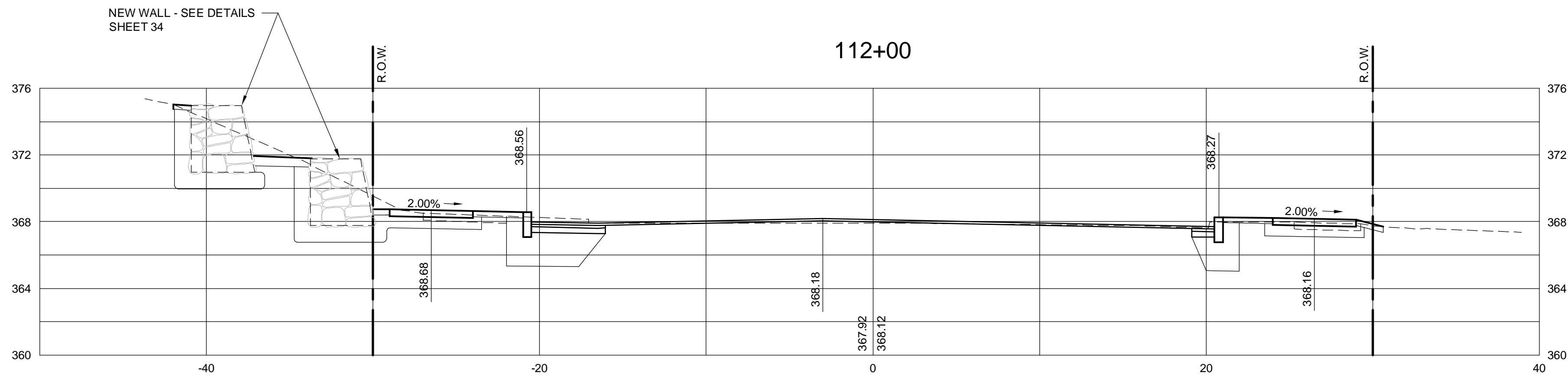
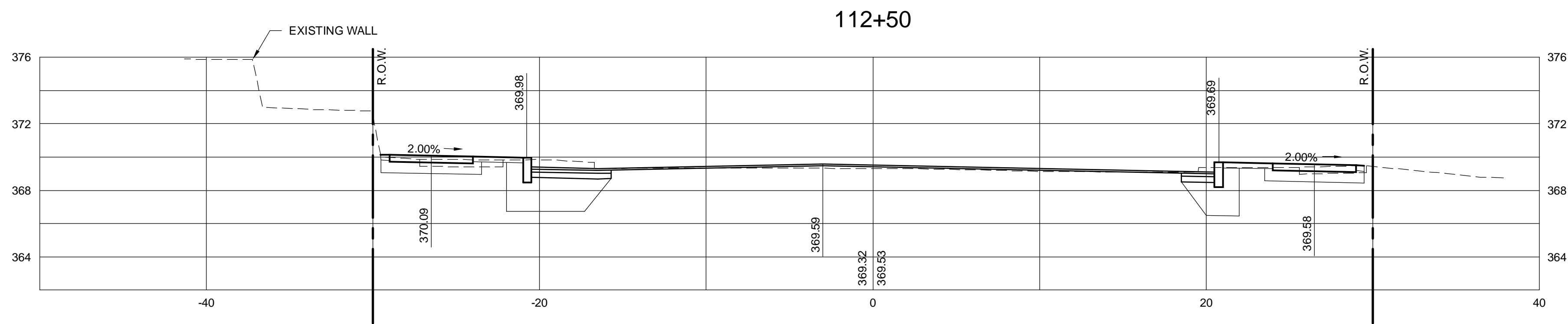
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Project No.
14119
Design
RD
Drawn
BH
Date
3-19-15

CROSS SECTIONS

Scale
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Sheet number
21



PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

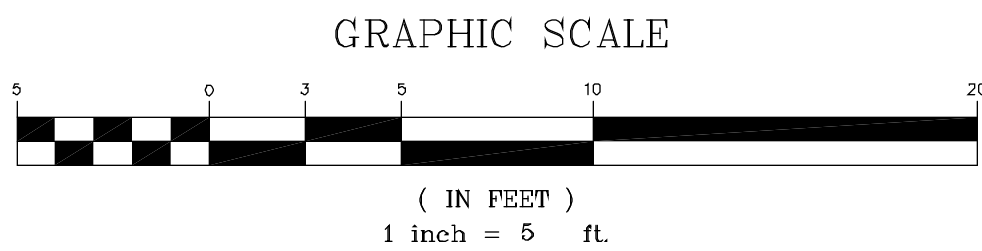
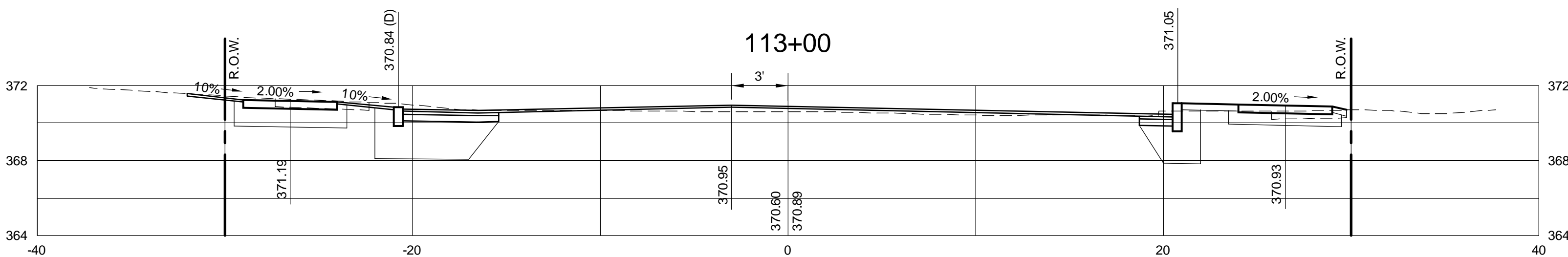
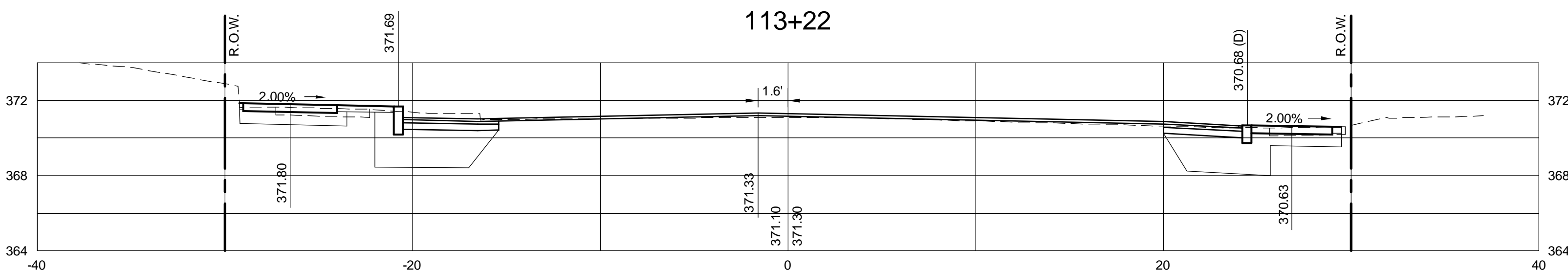
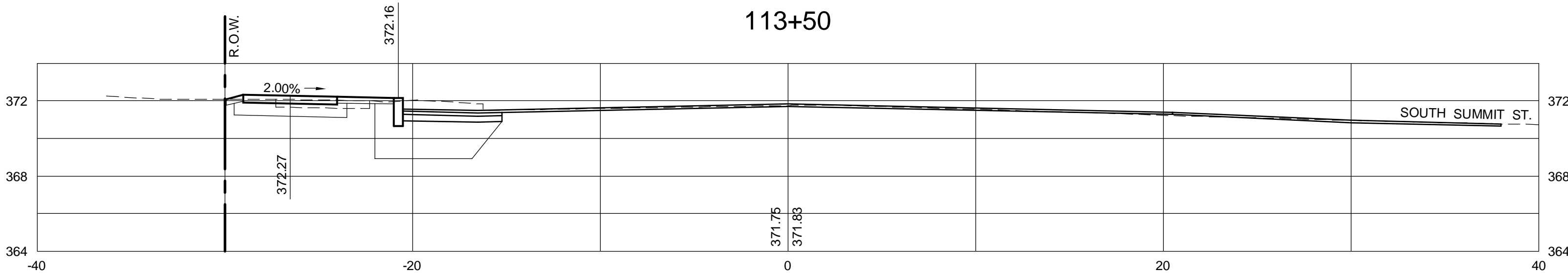
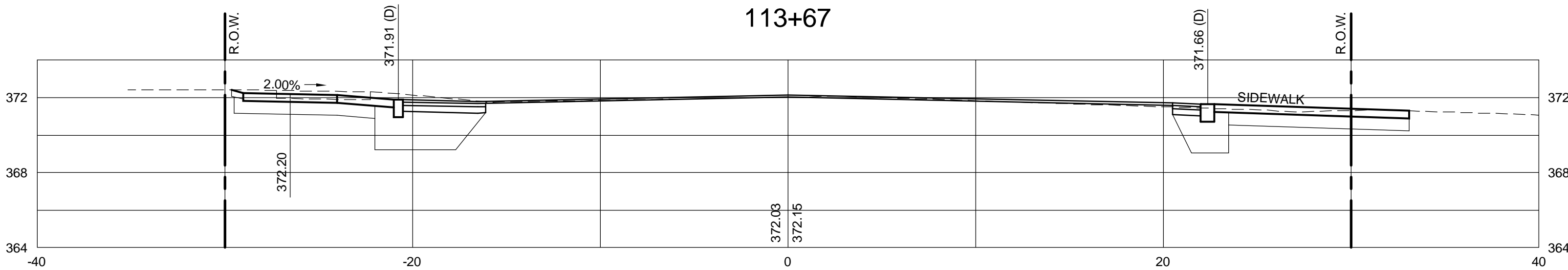
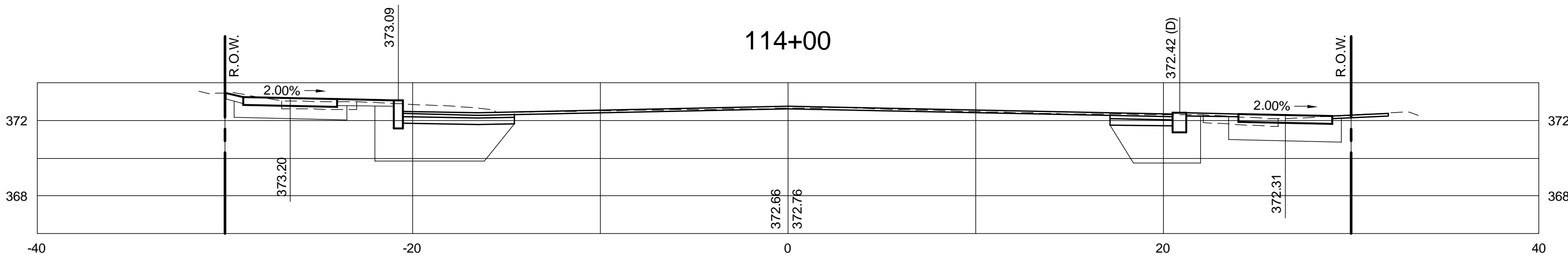
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Project No.
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Design
RD
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BH
Date
3-19-15
Scale
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CROSS SECTIONS

22



PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

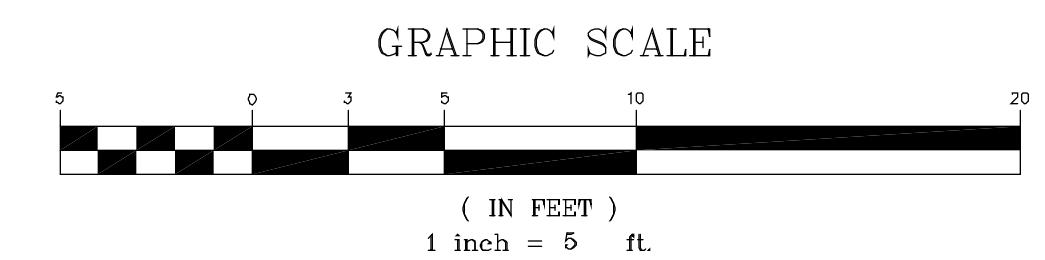
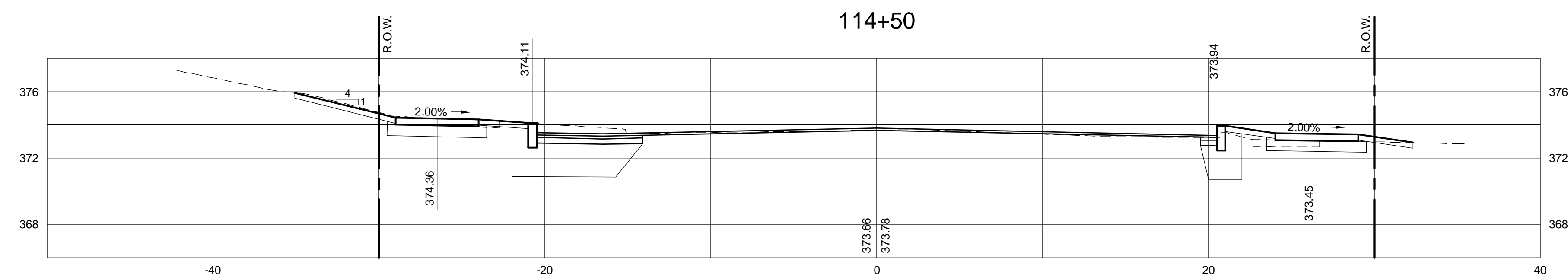
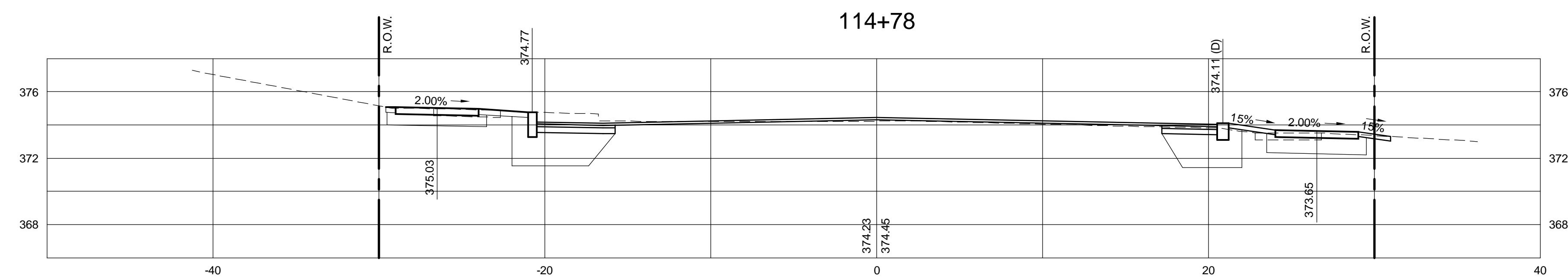
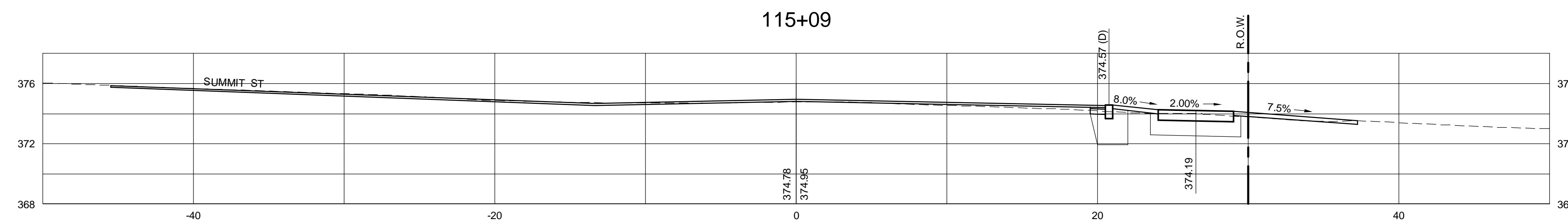
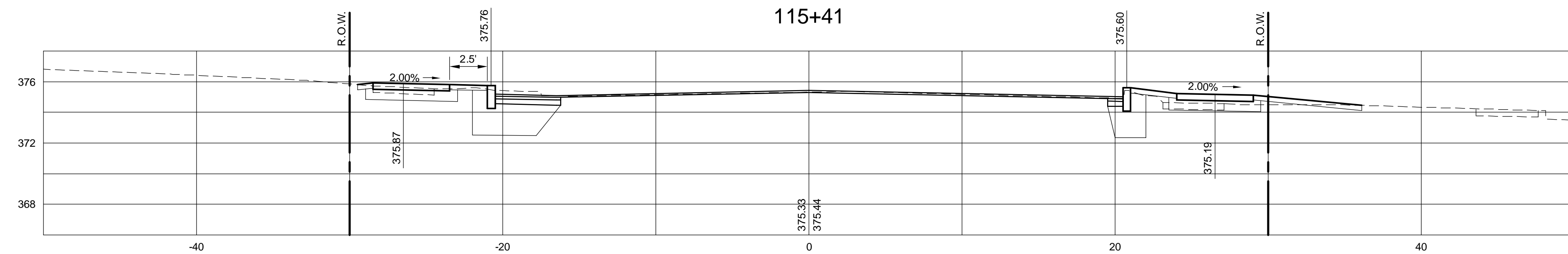
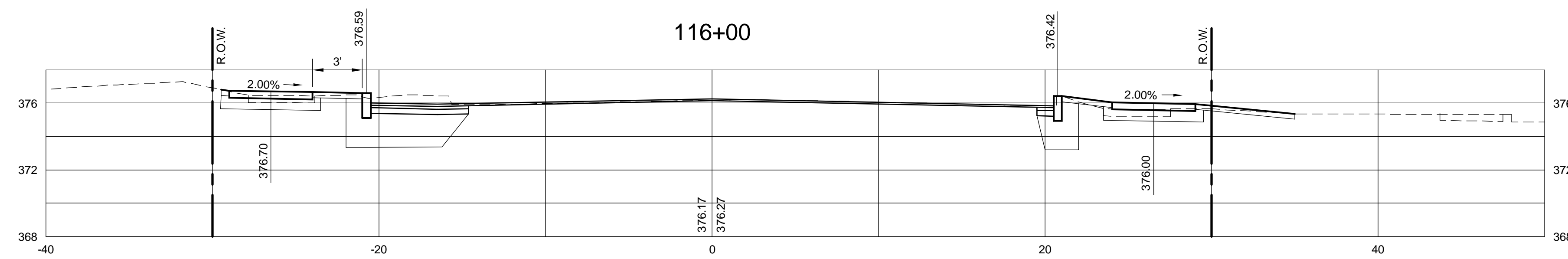
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CROSS SECTIONS

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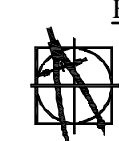
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MARCH 19, 2015

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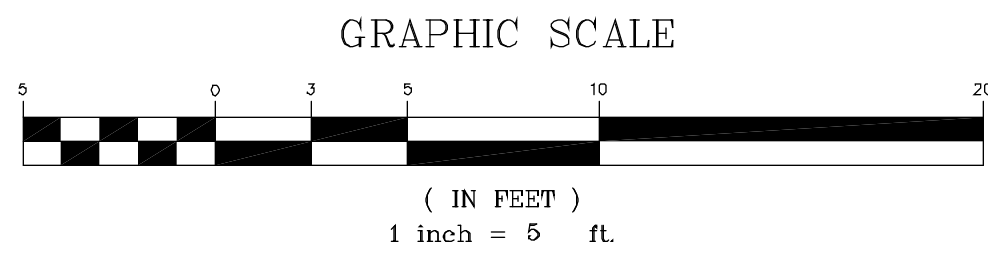
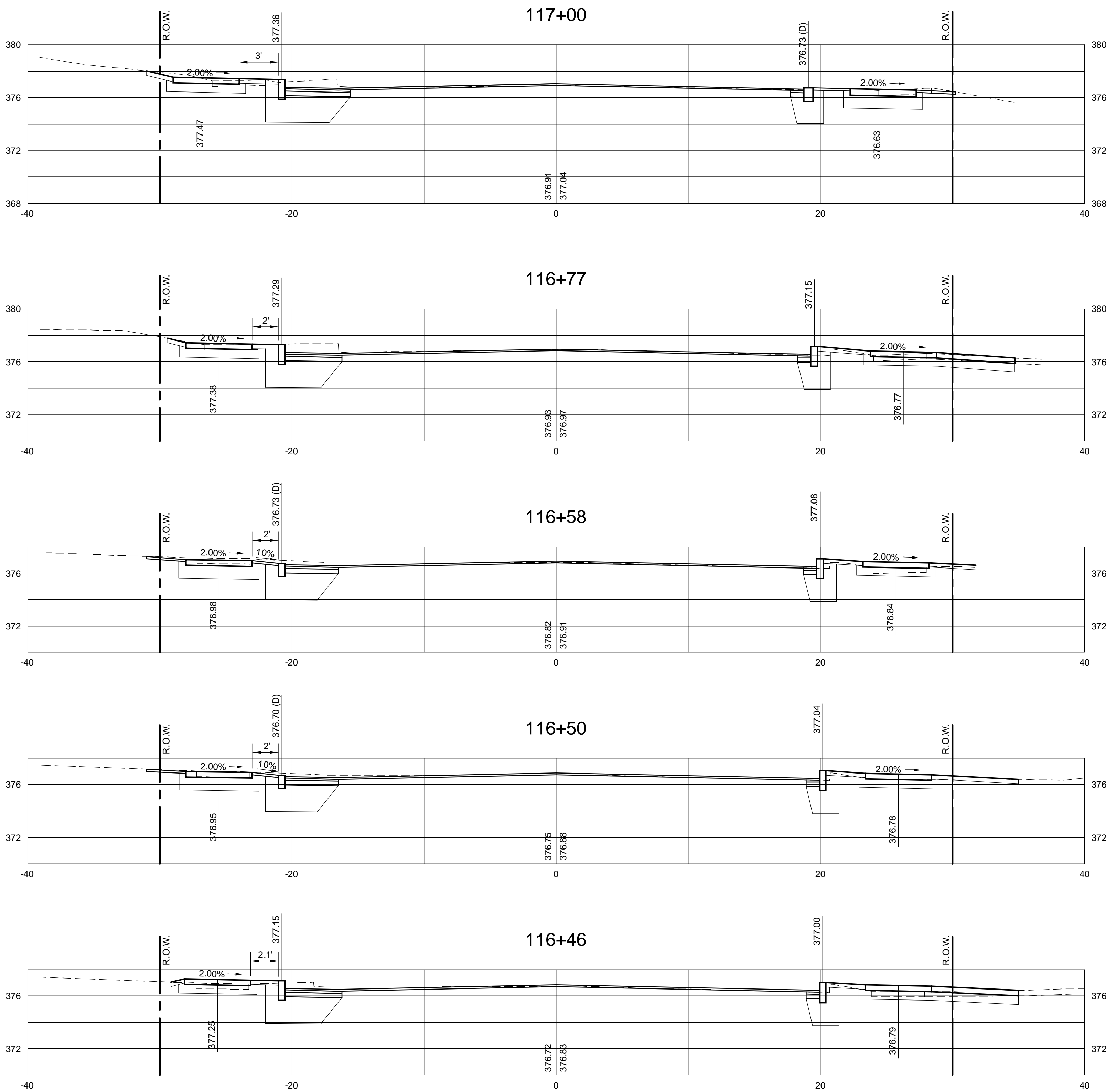
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24



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MARCH 19, 2015

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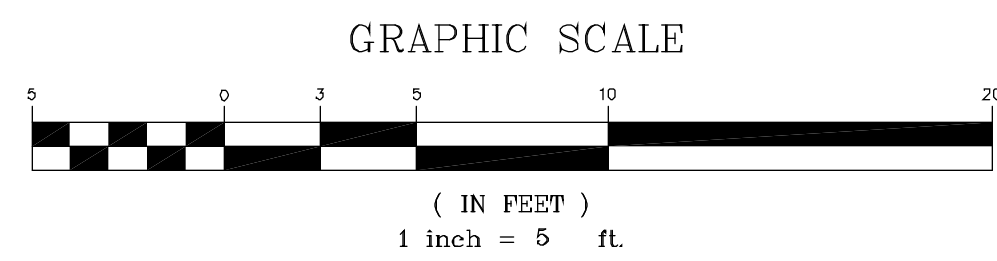
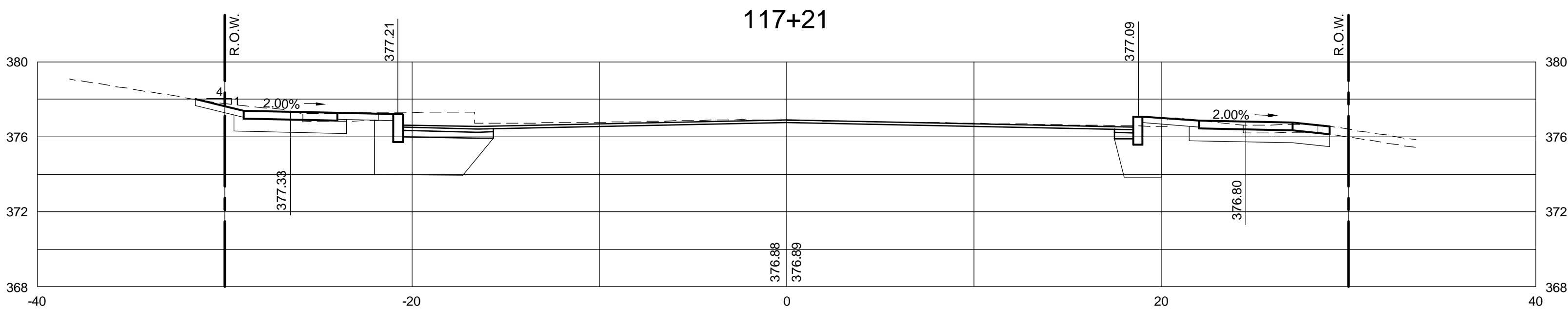
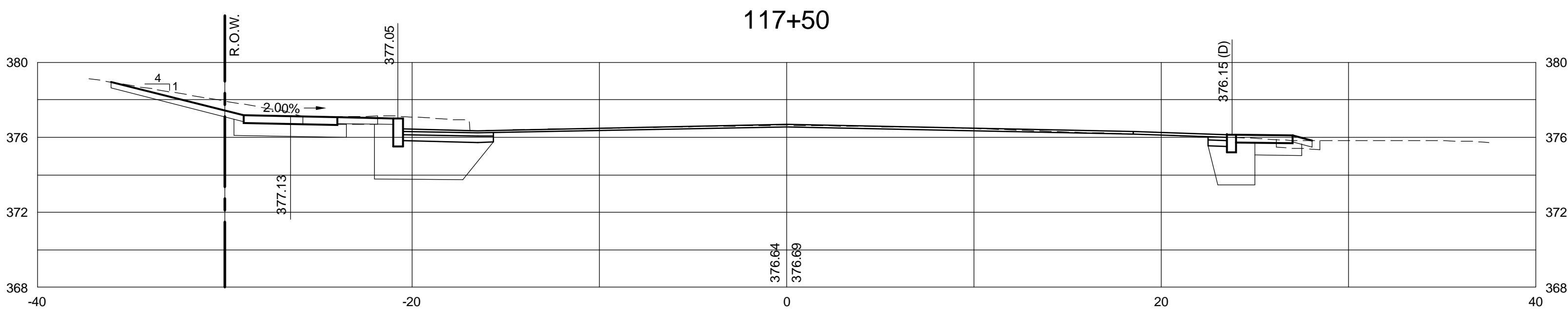
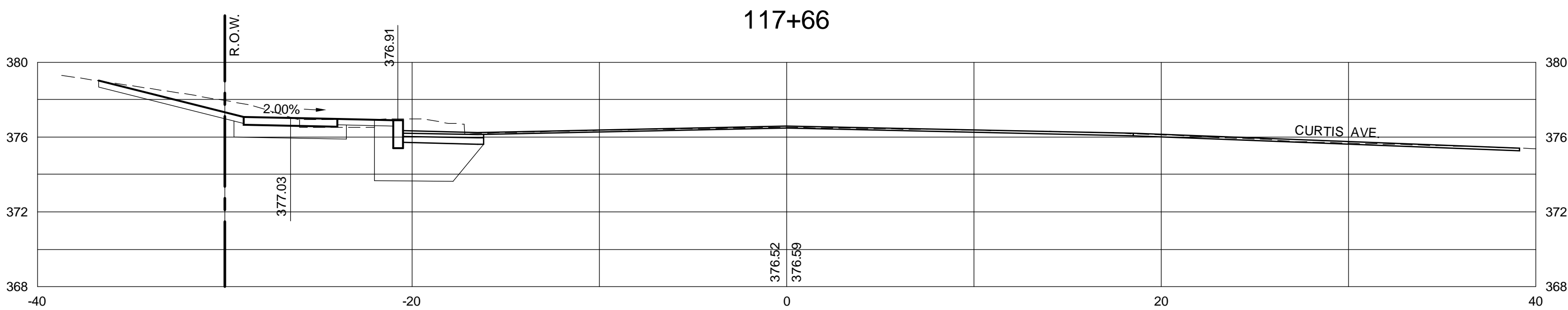
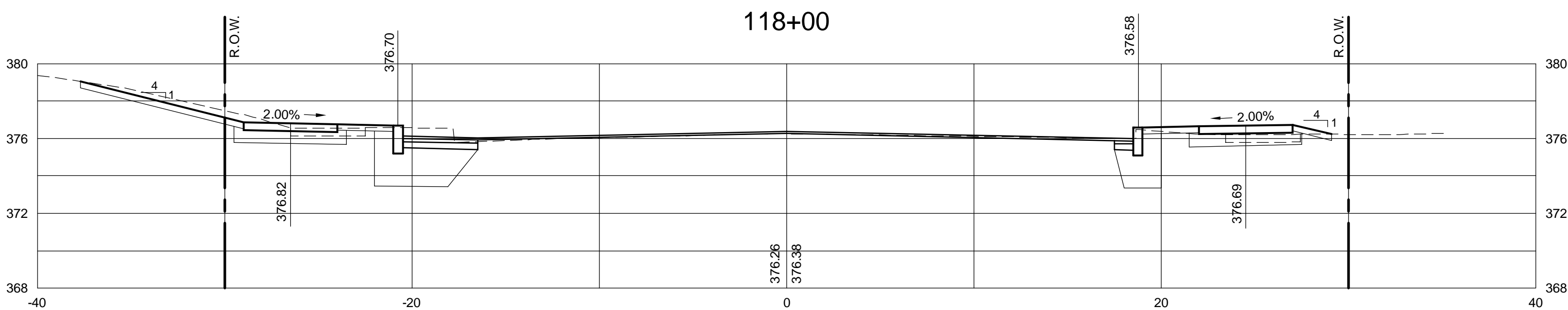
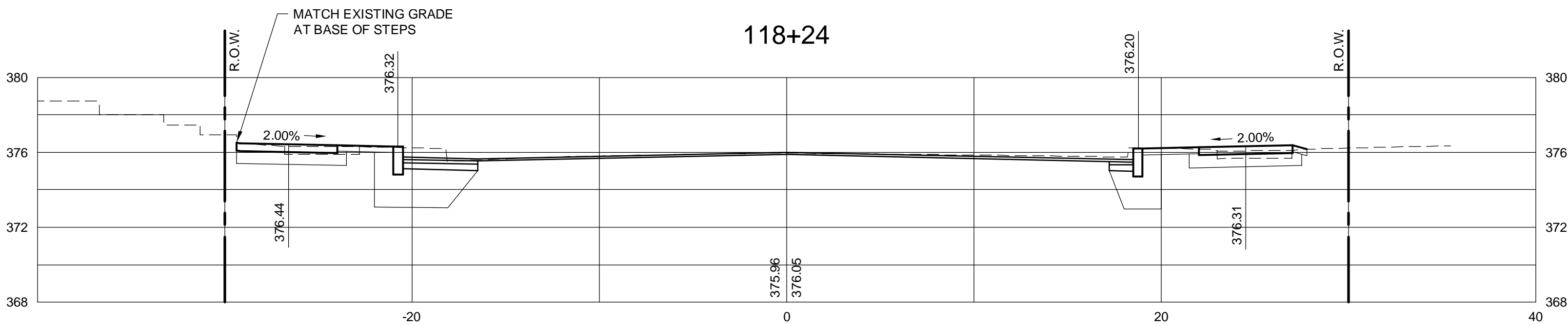
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Sheet number
25

CROSS SECTIONS



PRELIMINARY PLANS
MARCH 19, 2015

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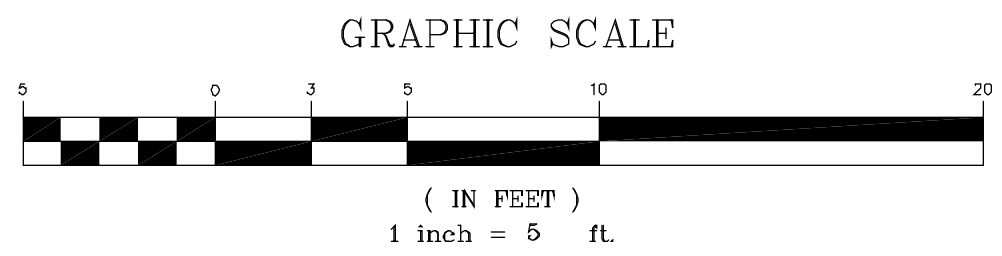
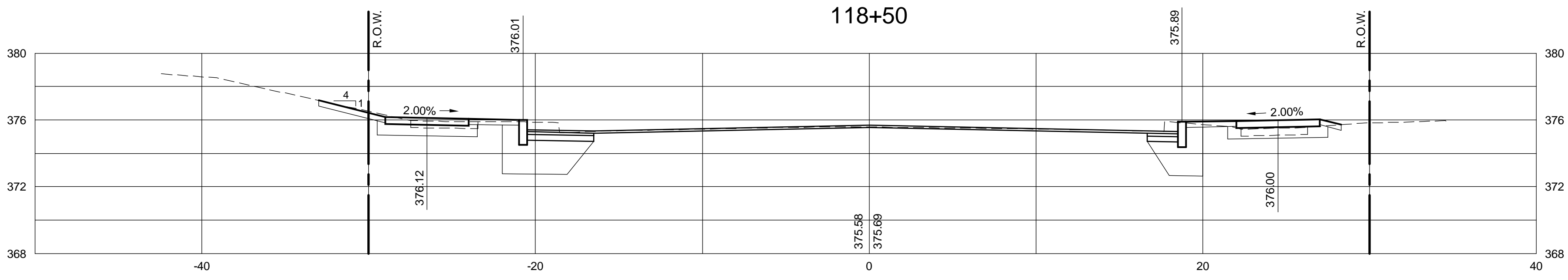
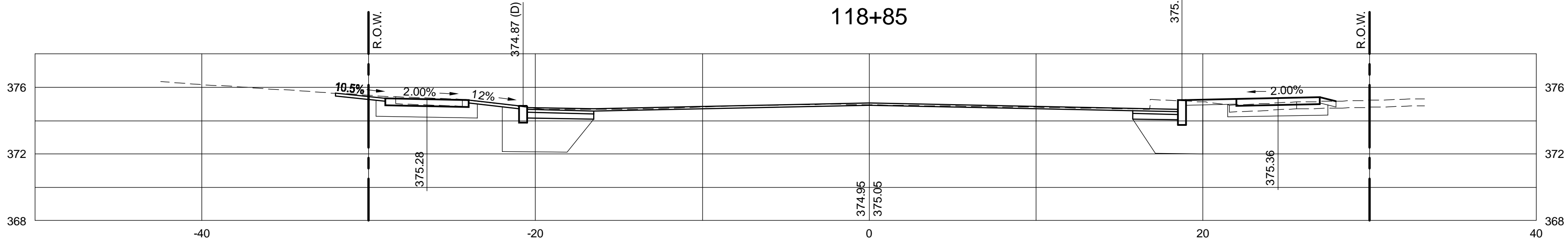
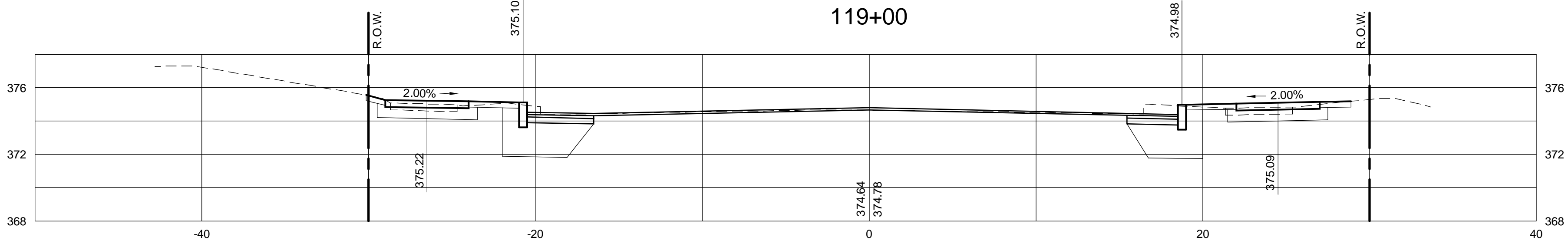
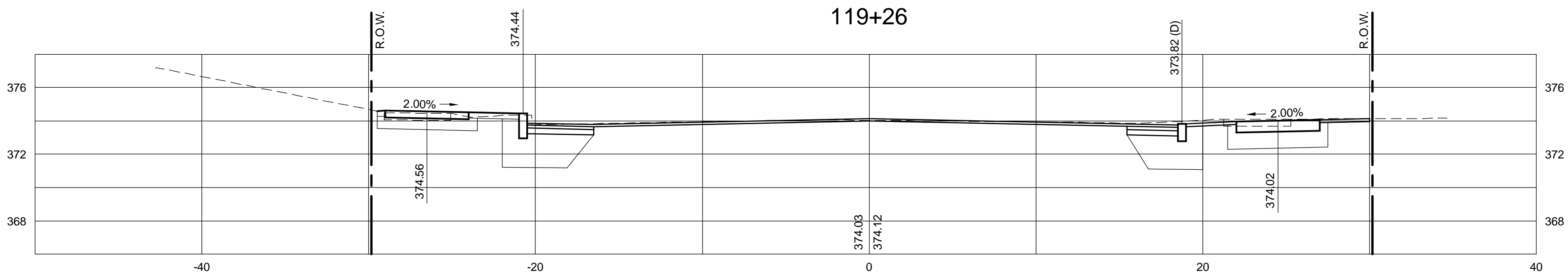
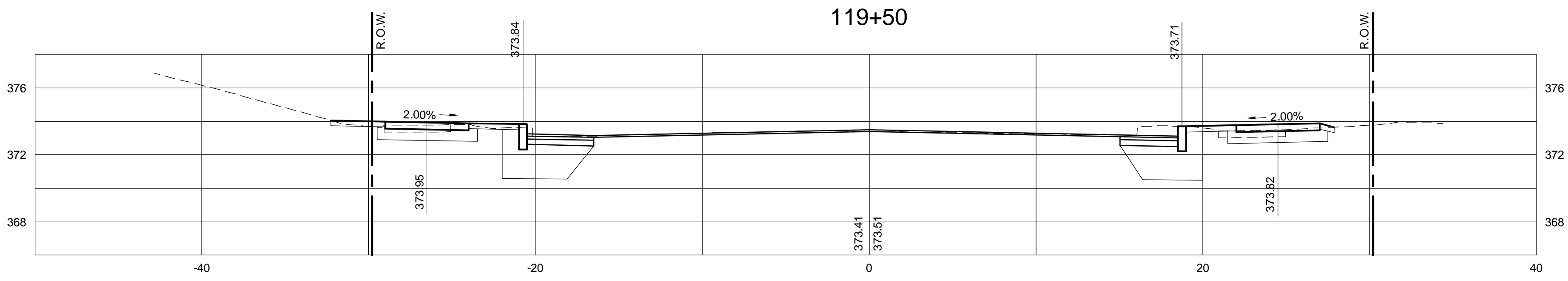
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CROSS SECTIONS

26



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MARCH 19, 2015

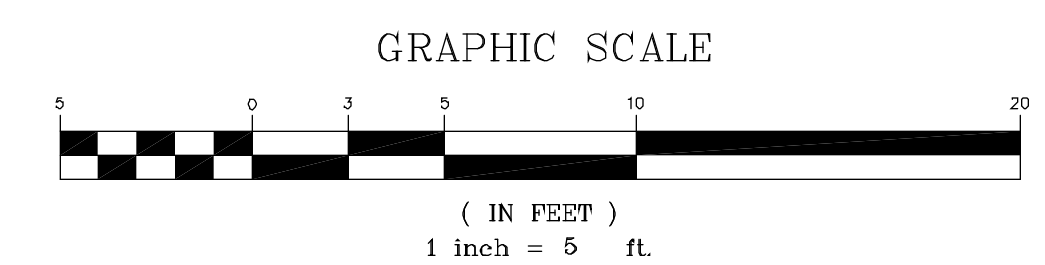
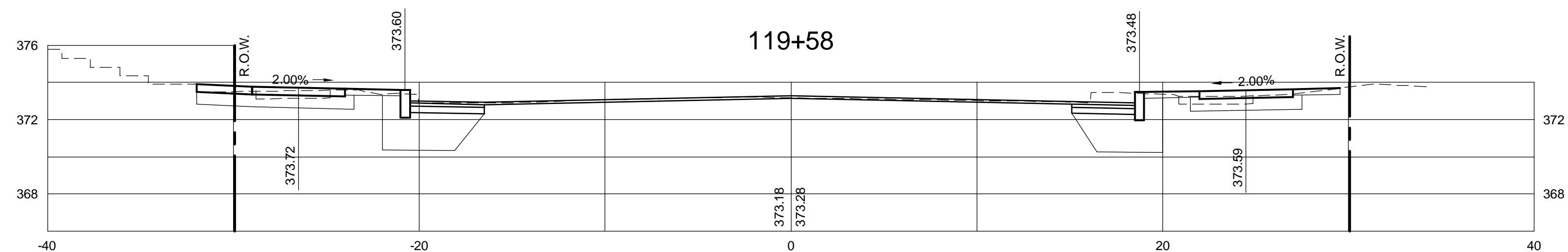
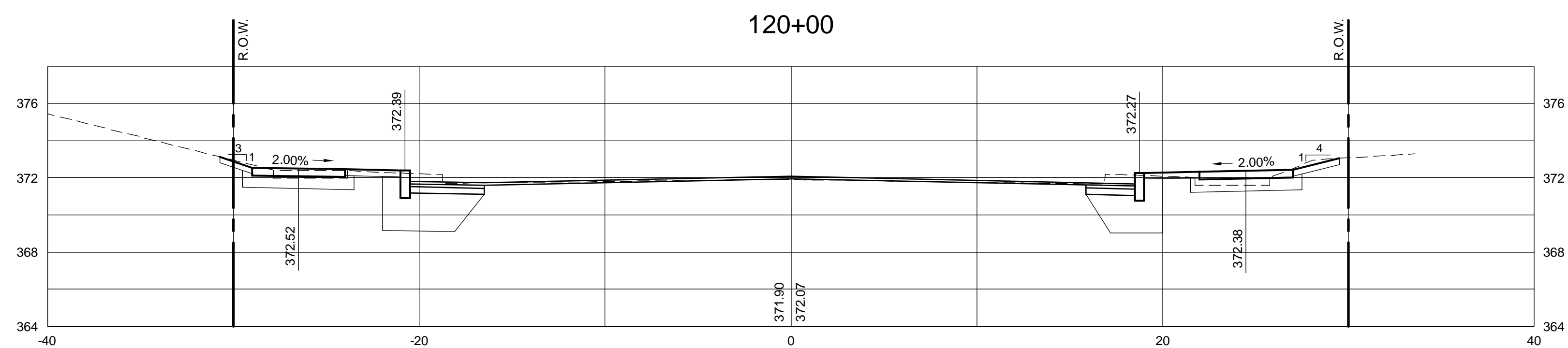
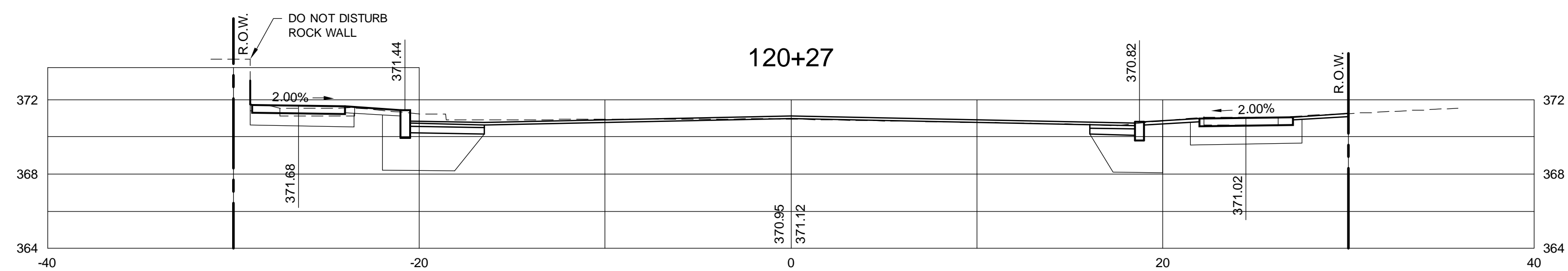
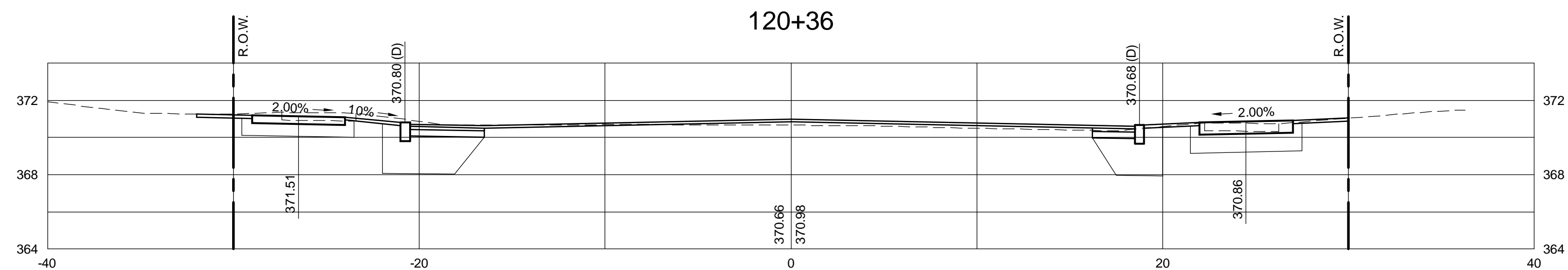
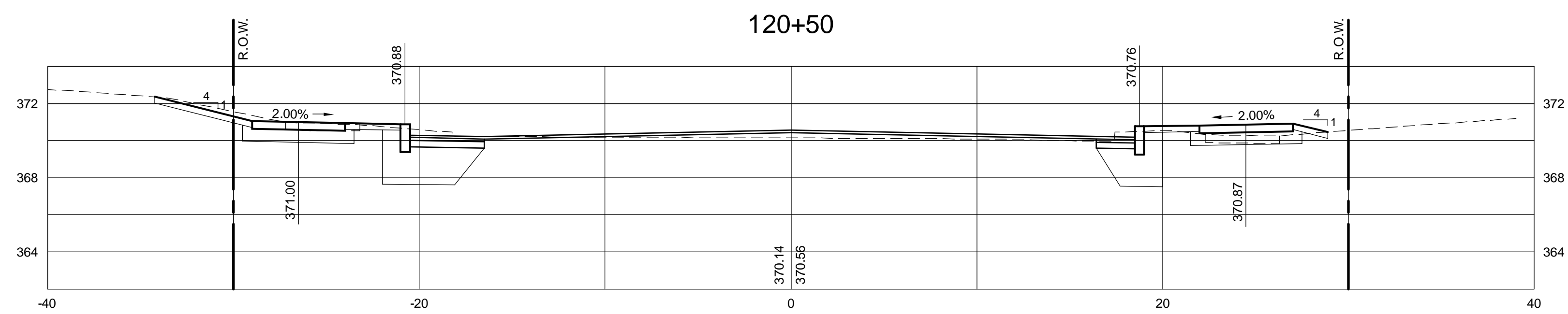
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Project No.
14119
Design
RD
Drawn
BH
Date
3-19-15
Scale
1" = 5'
Sheet number
27

CROSS SECTIONS




PRELIMINARY PLANS
MARCH 19, 2015

MARCH 19, 2015

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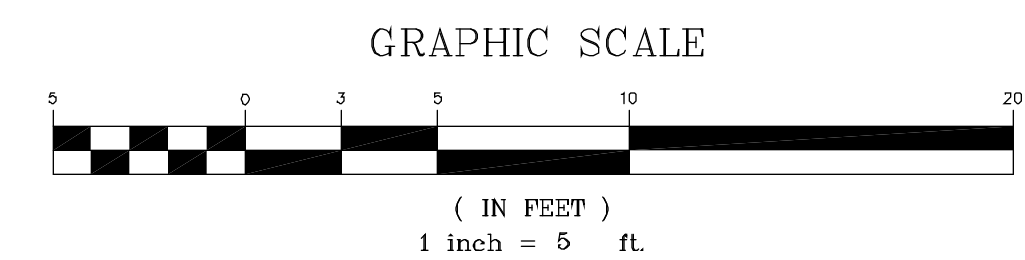
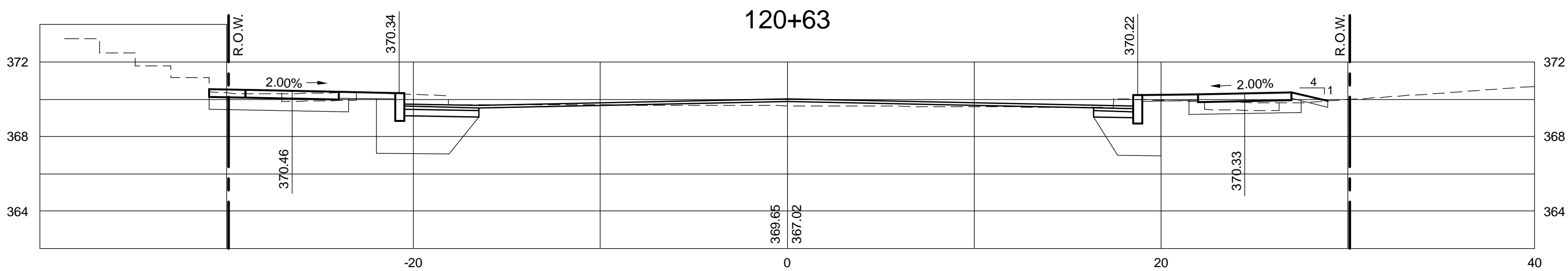
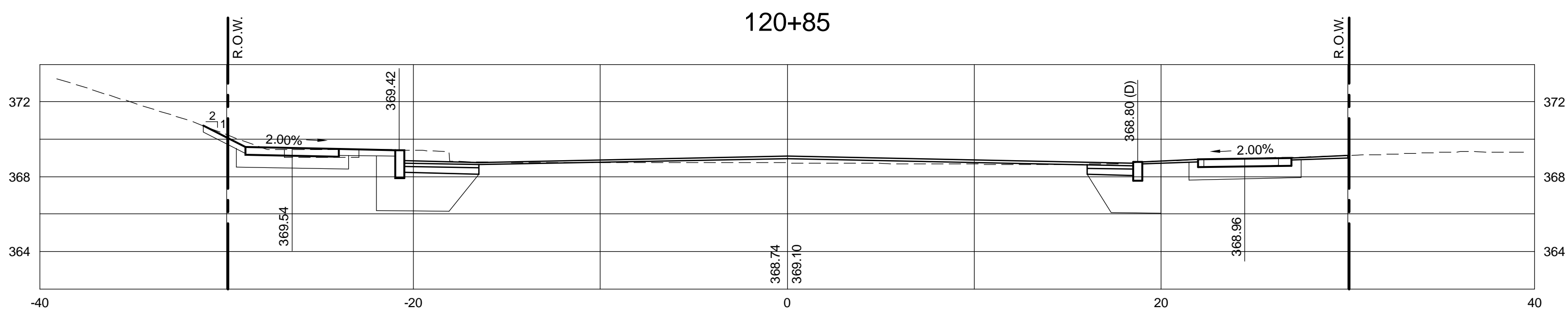
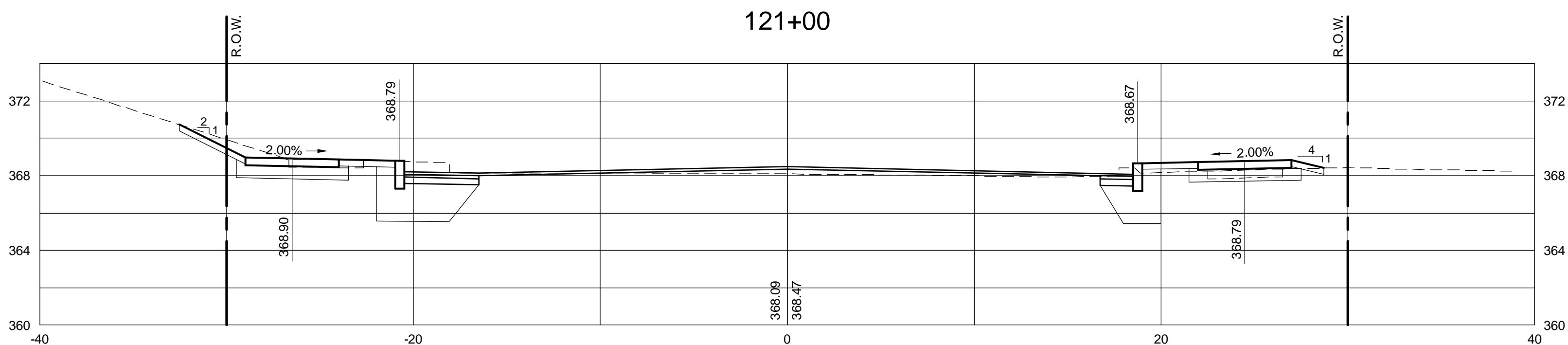
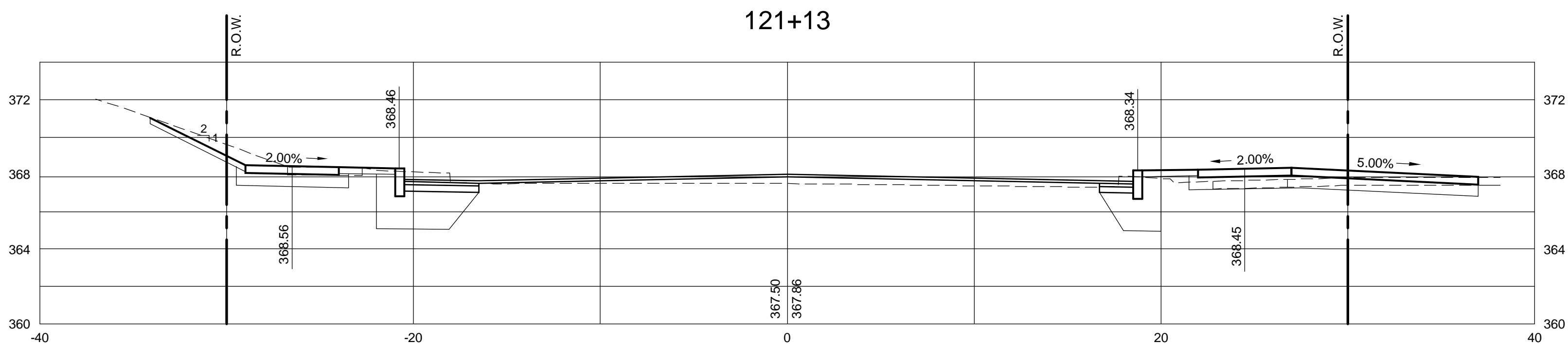
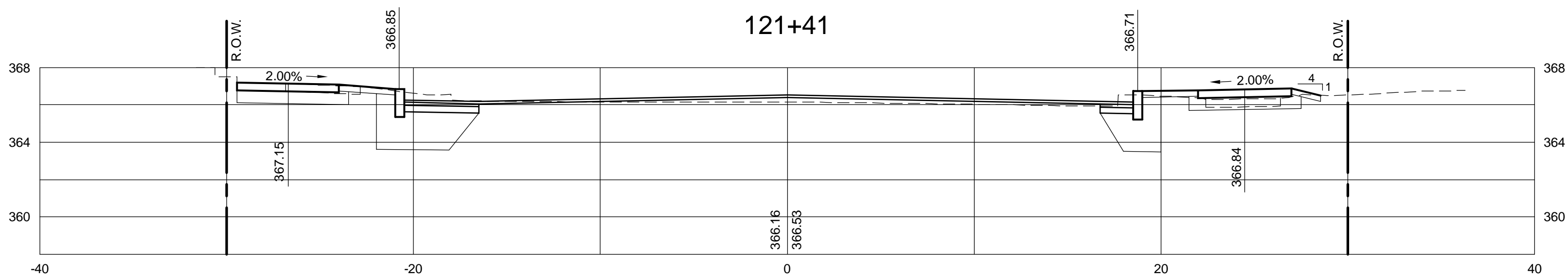
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28 |

28

CROSS SECTIONS



PRELIMINARY PLANS
MARCH 19, 2015

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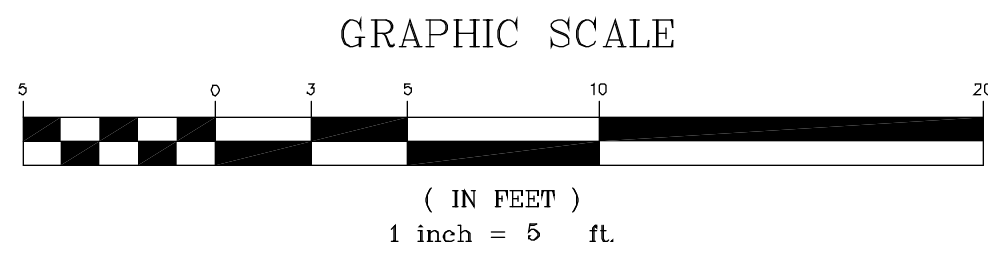
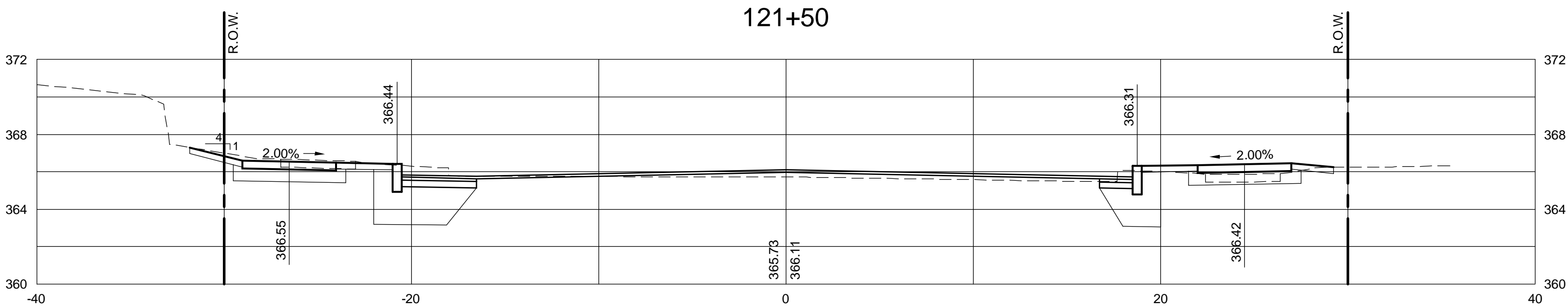
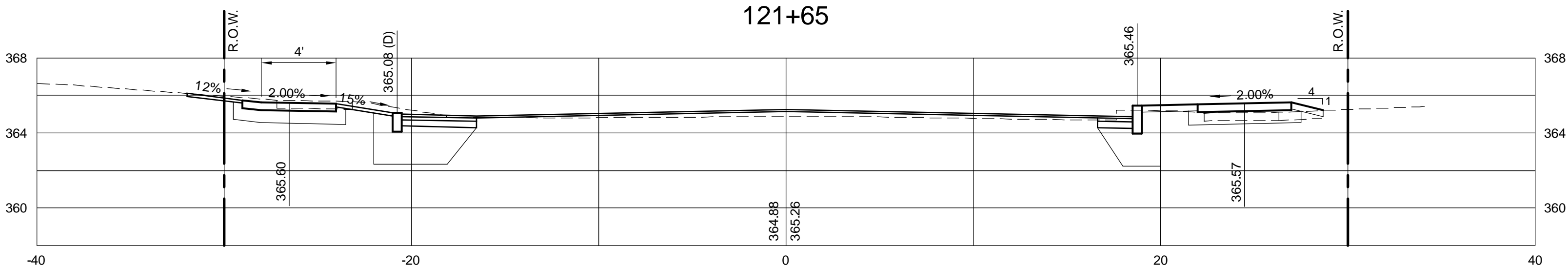
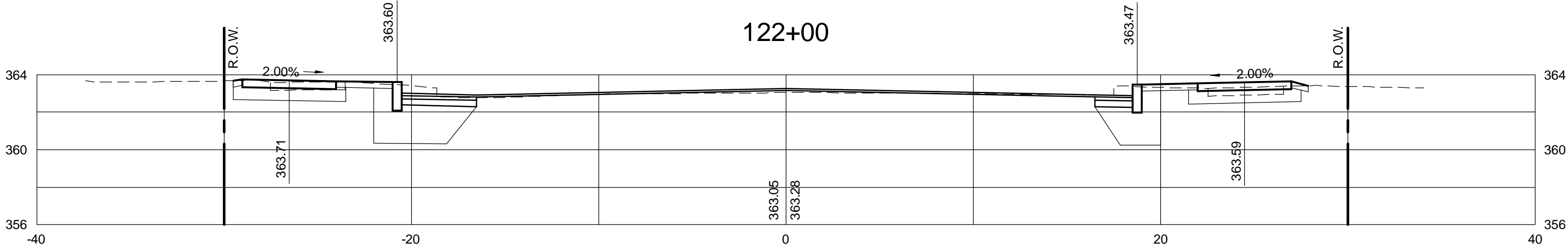
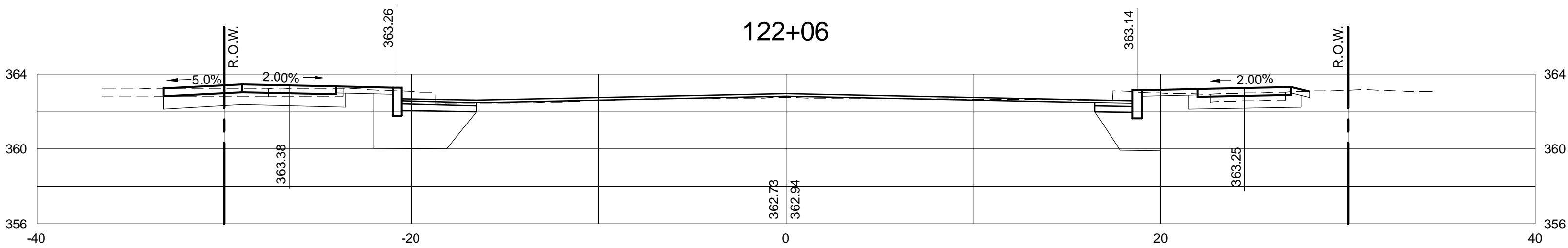
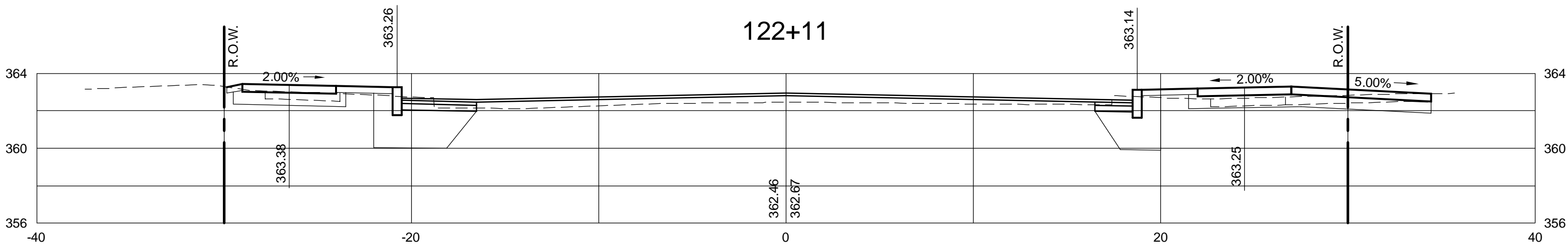
Electrical Engineer
Kirk Engineering Assoc., P.C.
399 William Road, Suite 103
Williston, VT 05495
802-655-5731

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29



PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

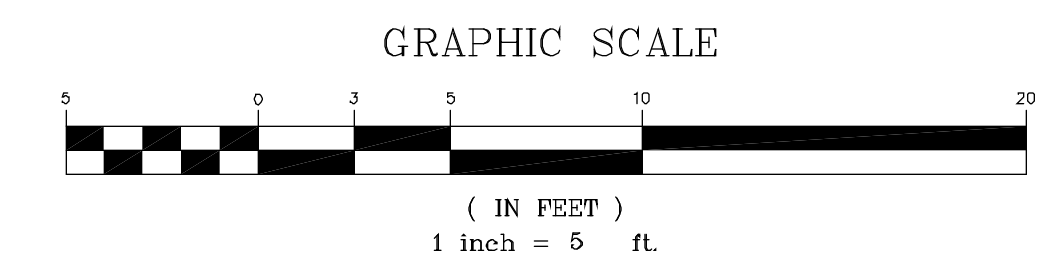
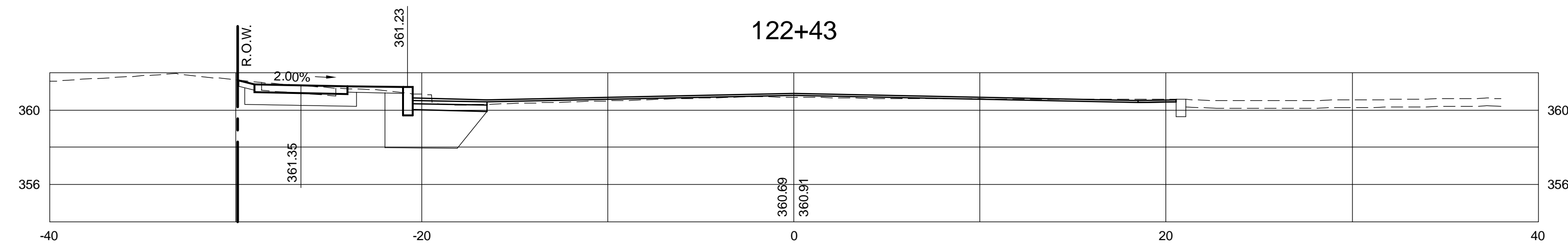
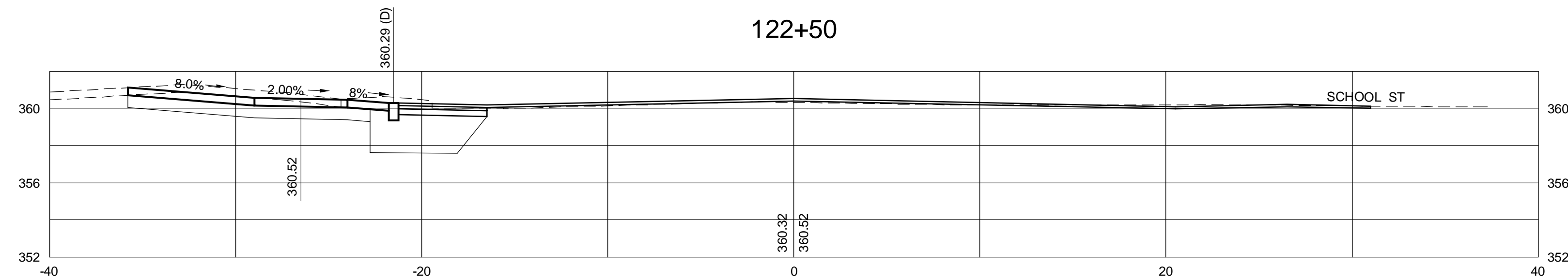
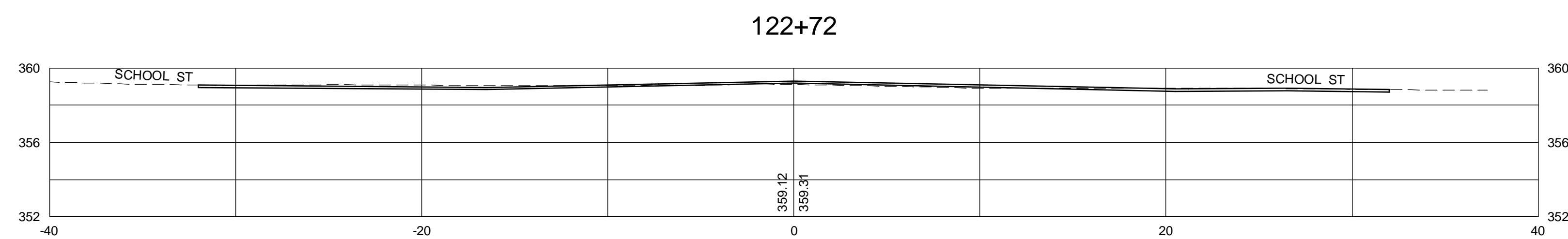
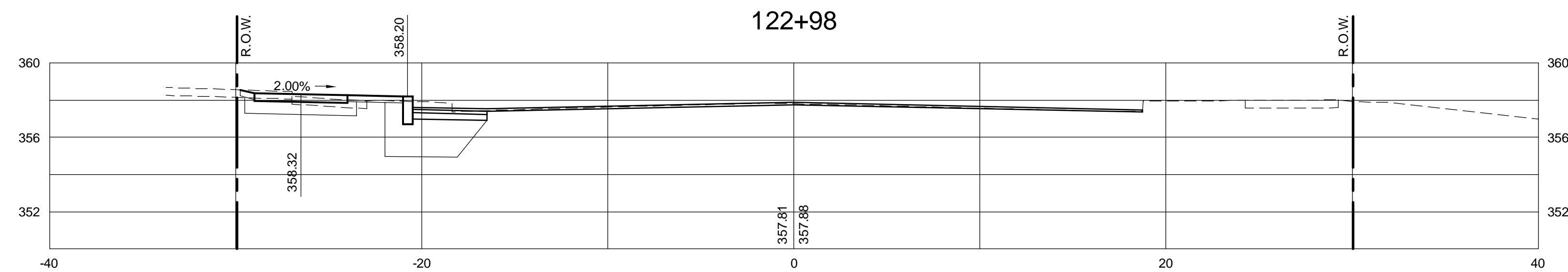
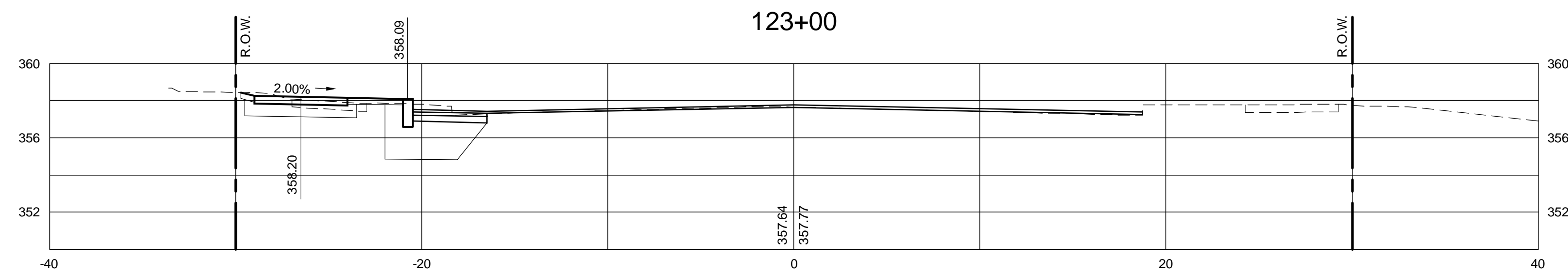
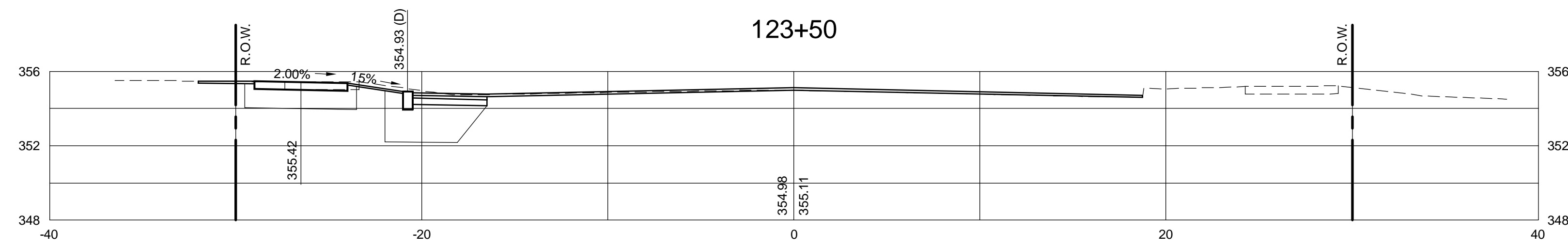
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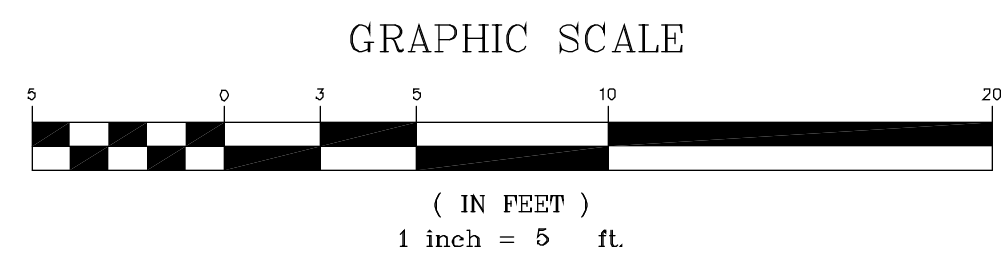
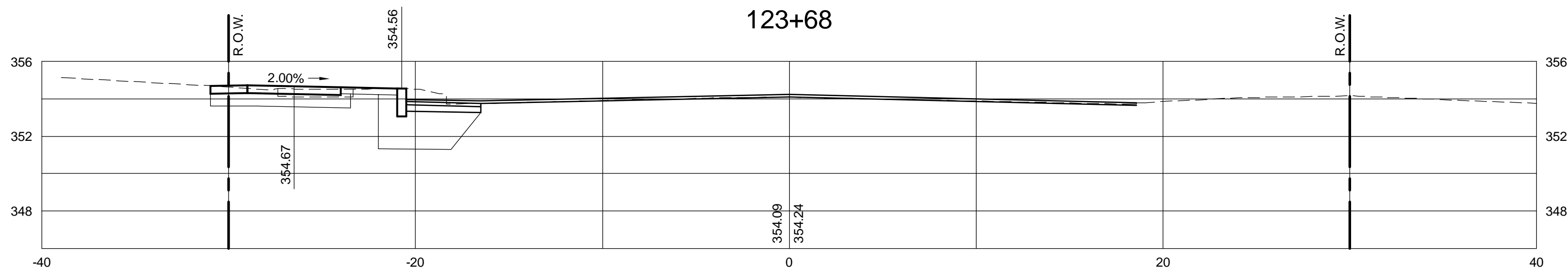
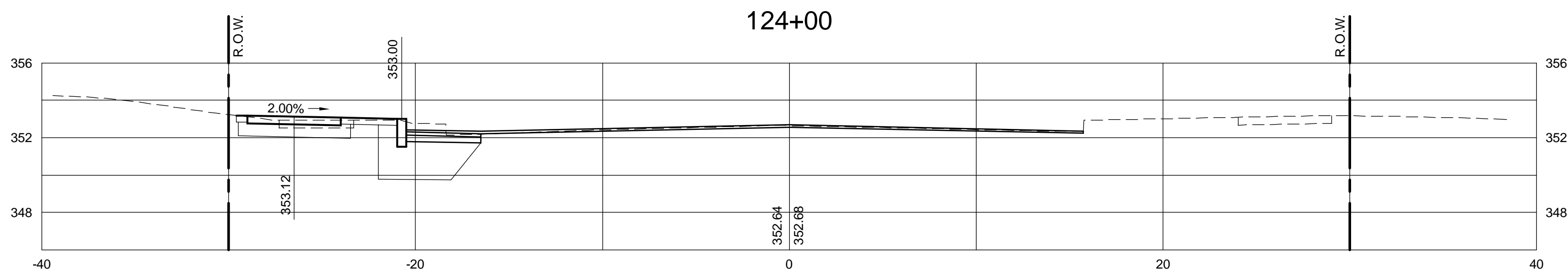
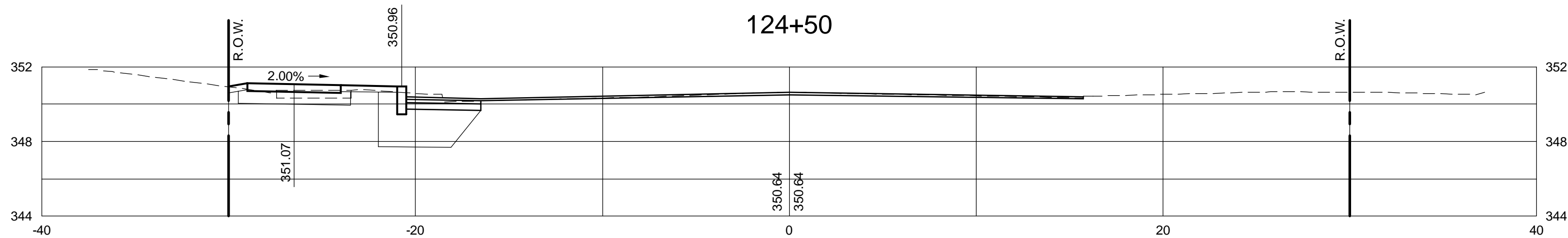
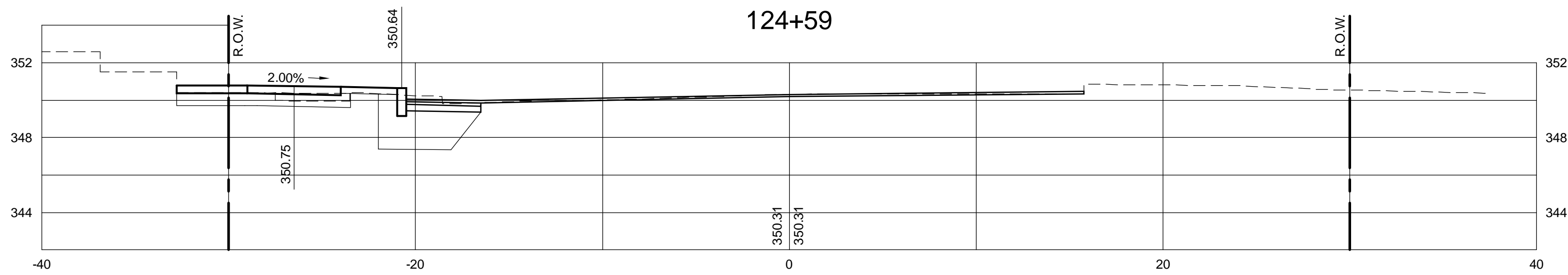
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 **Kirick Engineering Assoc., P.C.**
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PRELIMINARY PLANS
MARCH 19, 2015

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VT Route 15 - Pearl Street Link

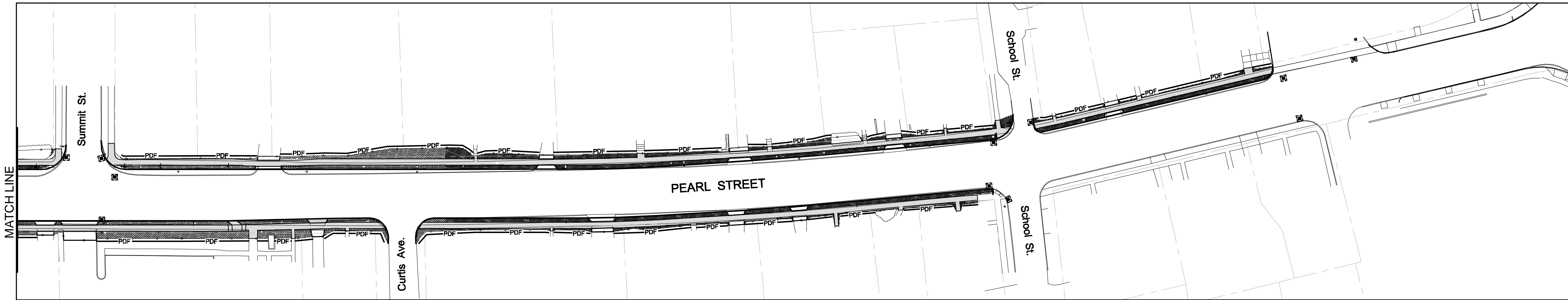
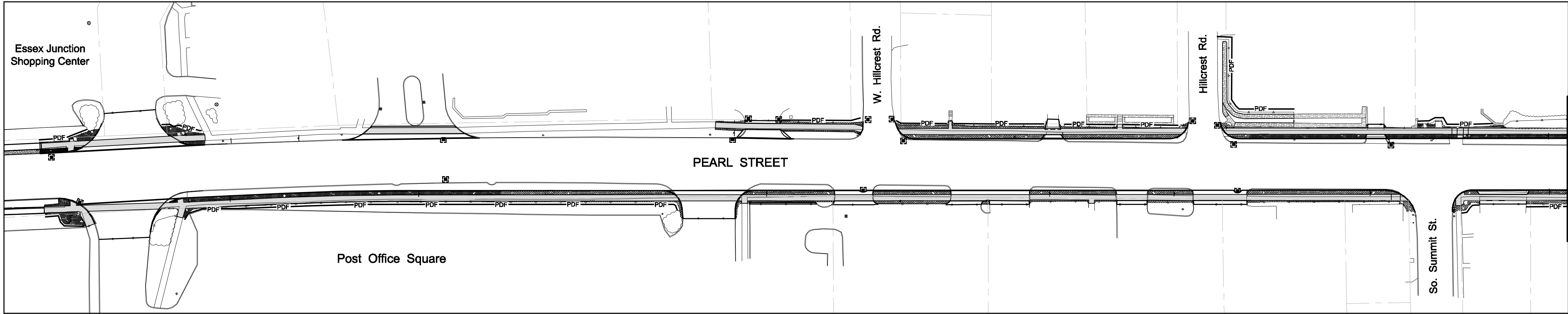
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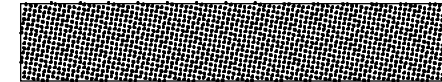
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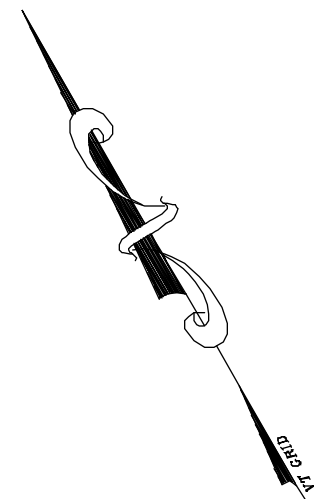
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32



Legend

-  PROJECT DEMARCATION FENCE
-  TEMPORARY INLET PROTECTION
-  NEW TOPSOIL, SEED & MULCH AREA



0 40 80 120
SCALE: 1 INCH = 100 FEET

PRELIMINARY PLANS
MARCH 19, 2015

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VT Route 15 - Pearl Street Link

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**EROSION PREVENTION &
SEDIMENT CONTROL PLAN**

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1. IT HAS BEEN DETERMINED THAT THIS PROJECT MEETS THE CONDITIONS FOR A LOW RISK PROJECT BASED UPON THE CRITERIA SET BY THE AGENCY OF NATURAL RESOURCES FOR EROSION PREVENTION AND SEDIMENT CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT PROPER EROSION PREVENTION AND SEDIMENT CONTROL TECHNIQUES ARE USED DURING CONSTRUCTION. GUIDANCE ON EROSION PREVENTION AND SEDIMENT CONTROL CAN BE FOUND IN ANY PUBLICATIONS ENTITLED "THE LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL" AND THE "VERMONT EROSION PREVENTION AND SEDIMENT CONTROL FIELD GUIDE". THE CONTRACTOR IS REQUIRED TO HAVE COPIES OF BOTH OF THESE PUBLICATIONS ON SITE AT ALL TIMES.

- FROM THE BASIC RISK EVALUATION, THE PROJECT WILL DISTURB LESS THAN TWO ACRES OF LAND, IS PARTIALLY LOCATED IN A WATERSHED IMPAIRED DUE TO STORMWATER AND WILL HAVE DISCHARGES FROM THE CONSTRUCTION SITE THAT DO NOT FIRST PASS THROUGH A 50 FT VEGETATED BUFFER AREA. THE PROJECT WILL ALSO NOT HAVE DISTURBED EARTH IN ANY ONE LOCATION FOR MORE THAN 14 CONSECUTIVE CALENDAR DAYS WITHOUT TEMPORARY OR FINAL STABILIZATION.
- FROM THE DETAILED RISK EVALUATION THE ONLY CRITERIA THAT IS APPLIES IS LETTER B: THE PROJECT WILL HAVE STORMWATER DISCHARGES BY DIRECT CONVEYANCE TO A WATER OF THE STATE LISTED AS IMPAIRED BY STORMWATER.
- FROM THE RISK MITIGATION SECTION THE PROJECT WILL BE LIMITED TO 2 ACRES OF DISTURBANCE AT ANY ONE TIME.

SHOULD THE CONTRACTOR'S OPERATION RESULT IN A CHANGE TO THESE ASSUMPTIONS AND A REVISED RISK EVALUATION RESULTS IN A HIGHER RISK CATEGORY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL PERMITTING WITH THE AGENCY OF NATURAL RESOURCES VIA FILING OF A JOINT (WITH THE VILLAGE) NOTICE OF INTENT FOR COVERAGE UNDER THE APPROPRIATE CONSTRUCTION GENERAL PERMIT (I.E. CGP 9020 (2006) OR INDIVIDUAL PERMIT) PRIOR TO SUCH DISTURBANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES NEEDED TO SATISFY ANY SUCH PERMIT REQUIREMENTS.

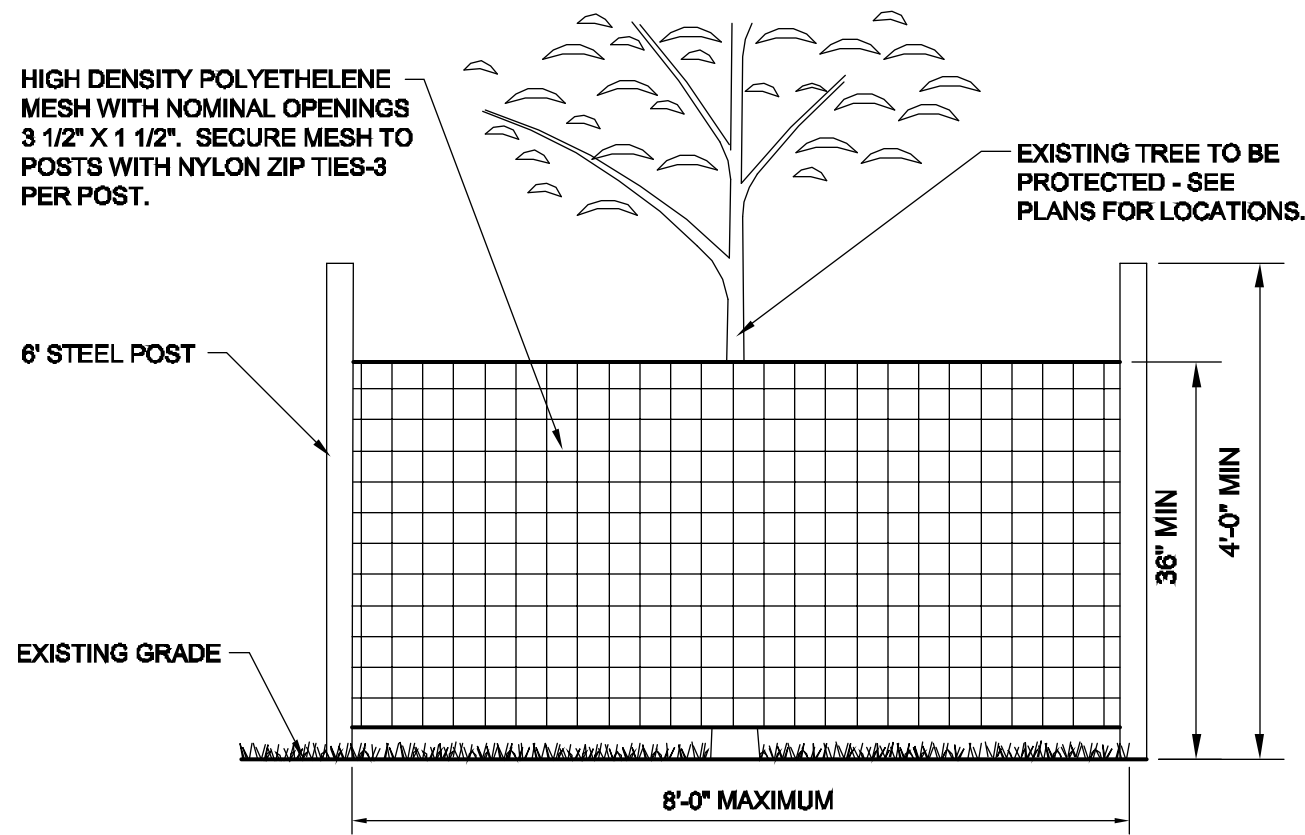
- ## TURF ESTABLISHMENT

ALL DISTURBED AREAS THAT DO NOT HAVE AN IMPERVIOUS SURFACE (PAVEMENT, SIDEWALKS, ROOFS) SHALL BE STABILIZED WITH SEEDING AND MULCHING PRIOR TO OCTOBER 1. ANY WORK PERFORMED AFTER SEPTEMBER 15 OF EACH YEAR SHALL BE STABILIZED WITH MULCH OR NETTING SUFFICIENT TO PREVENT EROSION AND SHALL BE IMMEDIATELY SEEDING AND REMULCHED AS SOON AS WEATHER PERMITS IN THE SPRING. PLACEMENT OF TOPSOIL, AND THE APPLICATION OF SEED, FERTILIZER, LIME (WHERE APPLICABLE), AND MULCH SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

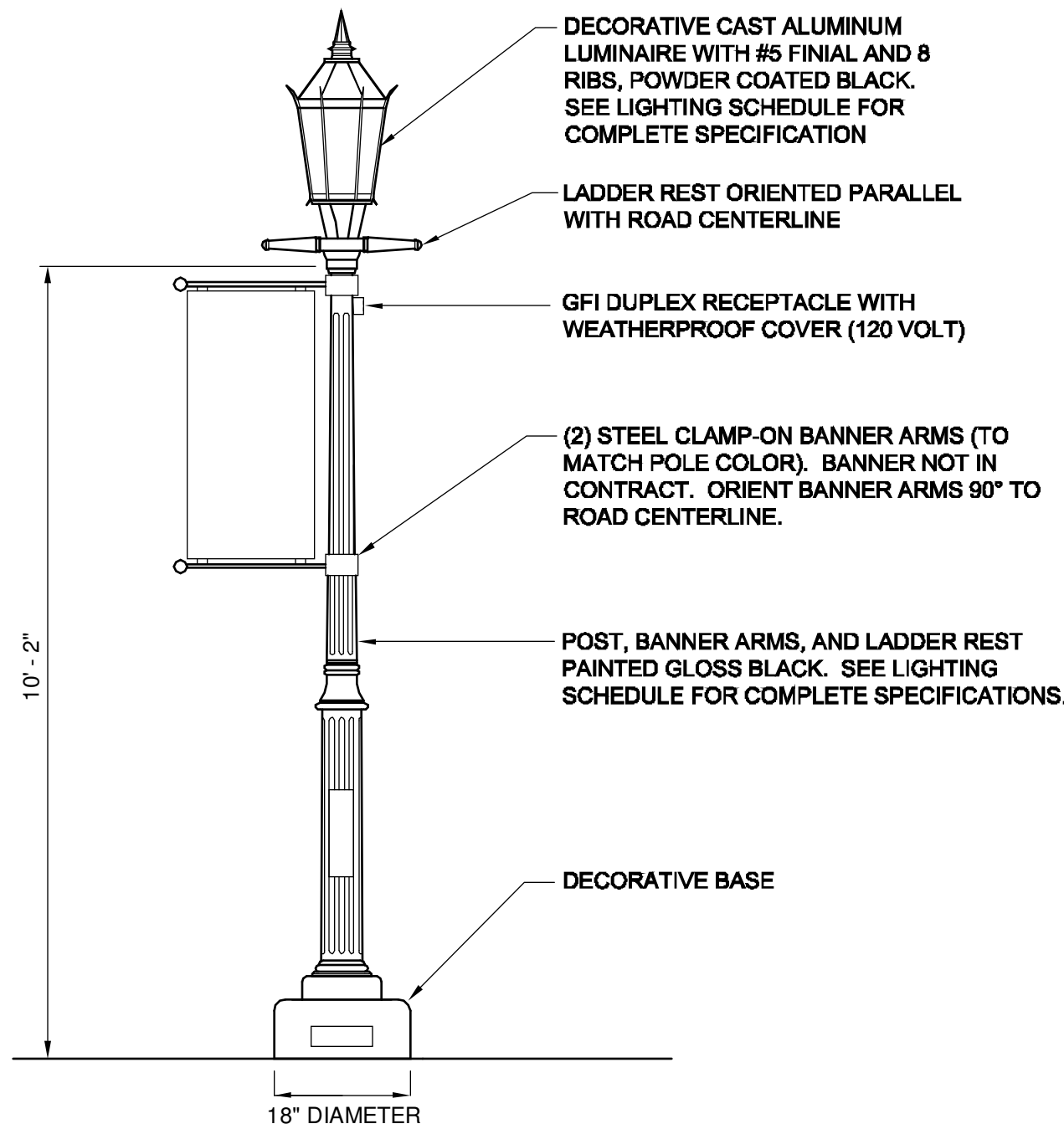
1. A MINIMUM OF 4" OF APPROVED TOPSOIL SHALL BE PLACED IN ALL AREAS. PLACEMENT OF TOPSOIL SHALL NOT BE DONE WHEN THE GROUND OR TOPSOIL IS FROZEN, EXCESSIVELY WET, OR OTHERWISE IN A CONDITION DETRIMENTAL TO THE WORK. FOLLOWING PLACEMENT OF TOPSOIL, THE SURFACE SHALL BE RAKED. ALL STONES, LUMPS, ROOTS, OR OTHER OBJECTUAL MATERIAL SHALL BE REMOVED.
2. SEED MIXTURES SHALL CONFORM TO THE SEED MIX TABLES SHOWN ON THIS SHEET AND BE SPREAD UNIFORMLY IN ALL AREAS INDICATED ON THE PLANS AT THE SPECIFIED RATE. FOR SEEDING BETWEEN SEPTEMBER 1 AND OCTOBER 1, WINTER RYE SHALL BE OVERSEEDD AT AN APPLICATION RATE OF 100 POUNDS PER ACRE.
3. FERTILIZER SHALL CONFORM TO THE STANDARDS OF *THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS* AND BE APPLIED ONLY AFTER PERFORMING A SOIL TEST AND BE APPLIED BASED UPON SOIL DEFICIENCIES. LIME SHALL ONLY BE APPLIED AS NEEDED BASED UPON A SOIL pH TEST.
4. WITHIN 24 HOURS OF APPLICATION OF SEED, FERTILIZER AND LIME, THE SURFACE SHALL BE MULCHED WITH A HAY MULCH. MULCH SHALL BE SPREAD UNIFORMLY OVER THE AREA AT A MINIMUM RATE OF 2 TONS PER ACRE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A FULL GROWTH OF GRASS IN ALL DISTURBED AREAS TO BE RE-VEGETATED. VEGETATION GROWTH SHALL BE PERMANENT AND SUFFICIENT TO PREVENT EROSION OF THE UNDERLYING SOIL UNDER ALL CONDITIONS OF PRECIPITATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING AND CARING FOR SEEDD, MULCHED, AND AREAS OF ESTABLISHED VEGETATION UNTIL FINAL ACCEPTANCE OF THE WORK BY THE OWNER.

URBAN MIX GRASS SEED		
% BY WEIGHT	LBS. LIVE SEED PER ACRE	TYPE OF SEED
37.5	45	CREEPING RED FESCUE
37.25	37.5	KENTUCKY BLUEGRASS
31.25	37.5	WINTER HARDY, PERENNIAL RYE
100	120 # LIVE SEED PER ACRE	

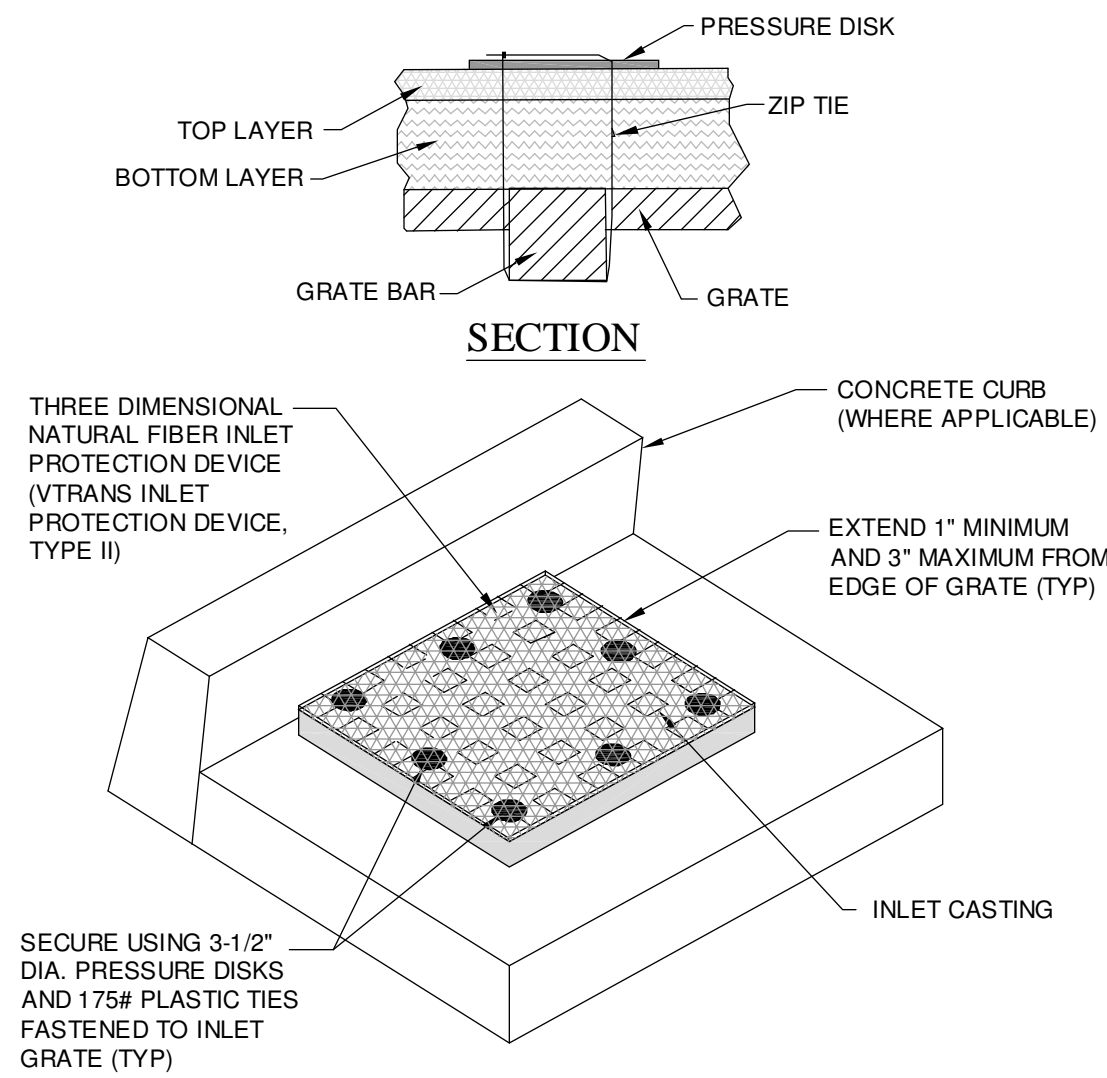
1. PRIOR TO START OF CONSTRUCTION, INSTALL TEMPORARY PROTECTION ZONE (TPZ) FENCE IN LOCATIONS SHOWN ON PLANS FOR TREE AND PLANT PROTECTION. TPZ FENCE SHALL BE PLACED AT THE EDGE OF TREE DRIP LINES. SEE DETAIL THIS SHEET.
2. TPZ FENCE SHALL PROTECT EXISTING TREES, SHRUBS AND OTHER VEGETATION THROUGHOUT CONSTRUCTION AGAINST CUTTING, BREAKING OR SKINNING OF ROOTS, SKINNING AND BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS; EXCESS FOOT OR VEHICULAR TRAFFIC; AND PARKING OF VEHICLES.
3. WHERE TEMPORARY CLEARANCE IS NEEDED DURING CONSTRUCTION THAT MAY CONFLICT WITH EXISTING TREES, BRANCHES SHALL BE TIED BACK TO HOLD THEM OUT OF THE CLEARANCE ZONE.
4. WHEN EXCAVATION IS TO OCCUR IN CLOSE PROXIMITY TO EXISTING TREES, ROOT PRUNING SHALL BE DONE PRIOR TO CONSTRUCTION. ROOTS SHALL BE CLEANLY CUT, WITH CUTS TO THE DEPTH OF THE REQUIRED EXCAVATION. WHEN COMPLETED, REPLACE SOIL IN THE TRENCH AREA.
5. ROOTS ENCOUNTERED DURING EXCAVATION IN THE VICINITY OF TREE PROTECTION ZONES SHALL BE CLEANLY CUT AND PROTECTED DURING CONSTRUCTION OPERATIONS. TEMPORARILY COVER EXPOSED ROOTS WITH A DOUBLE LAYER OF DAMPENED BURLAP TO PREVENT ROOTS FROM DRYING OUT UNTIL THEY CAN BE COVERED WITH SOIL. COVER ROOTS WITH SOIL AS SOON AS POSSIBLE REMOVING BURLAP FIRST.
6. WATER EXISTING TREES AND OTHER VEGETATION TO REMAIN WITHIN LIMITS OF CONTRACT WORK AS REQUIRED TO MAINTAIN THEIR HEALTH DURING THE COURSE OF CONSTRUCTION OPERATIONS.
7. IF ANY TREES OR SHRUBS DESIGNATED TO BE SAVED ARE DAMAGED AND REPLACEMENT IS REQUIRED, TREES OR SHRUBS OF THE SAME SPECIES AND VARIETY SHALL BE FURNISHED AND PLANTED BY THE CONTRACTOR. THE TOTAL INCH DIAMETER OF THE REPLACEMENT TREES OR SHRUBS SHALL EQUAL THE DIAMETER OF THE TREE OR SHRUB TO BE REPLACED.
8. PRUNING OF EXISTING TREES, AS IDENTIFIED ON THE PLANS, SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL SOCIETY OF ARBORICULTURES' *TREE PRUNING GUIDELINES*, THE ANSI A300 PRUNING STANDARD AND THE MOST RECENT EDITION OF ANSI Z133.1.
9. REMOVE TEMPORARY PROTECTION DEVICES AND FACILITIES INSTALLED DURING COURSE OF WORK AFTER COMPLETION OF ALL WORK AND RESTORE PLANT PROTECTION AREAS TO THEIR ORIGINAL CONDITION.



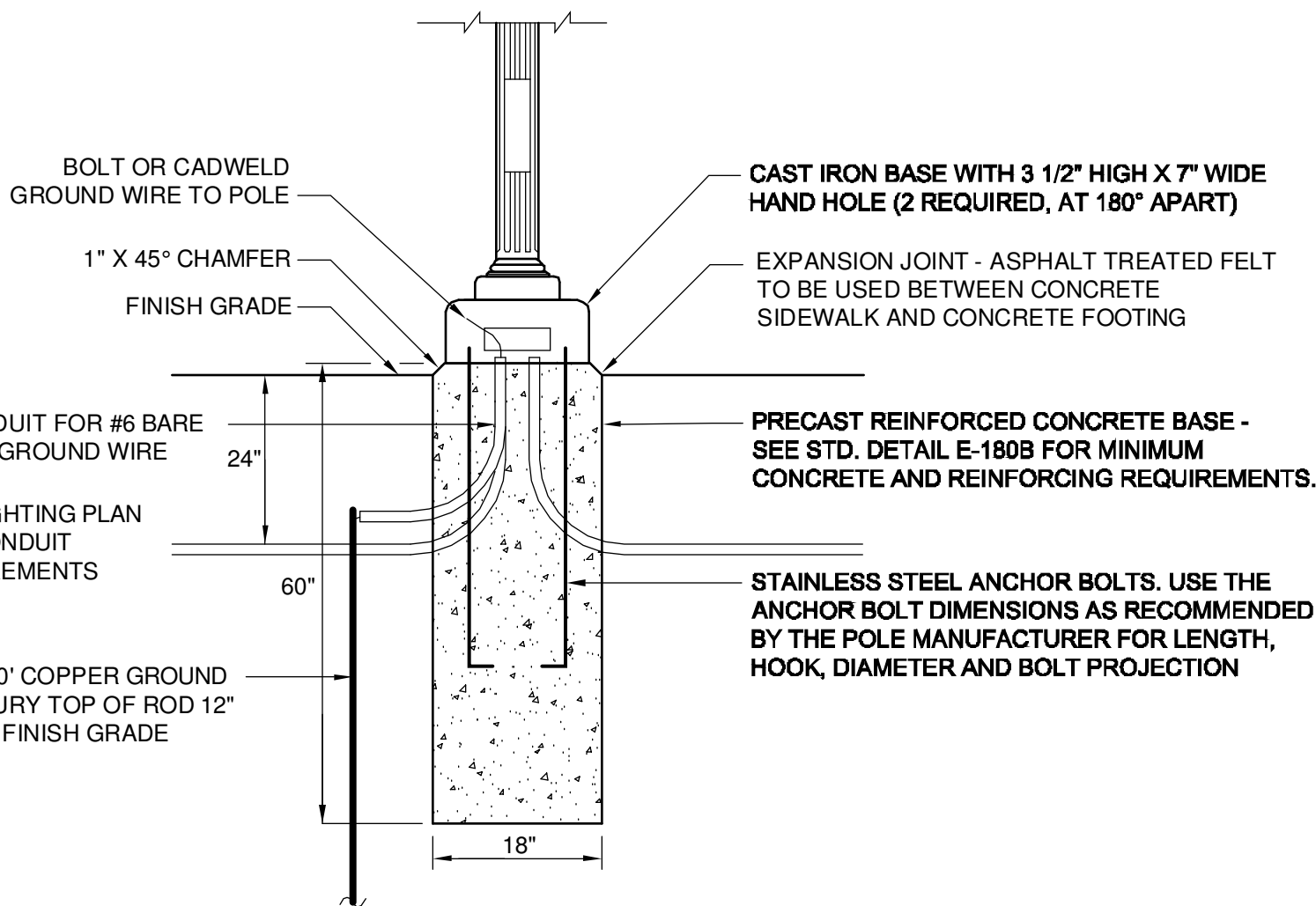
TREE PROTECTION ZONE DETAIL



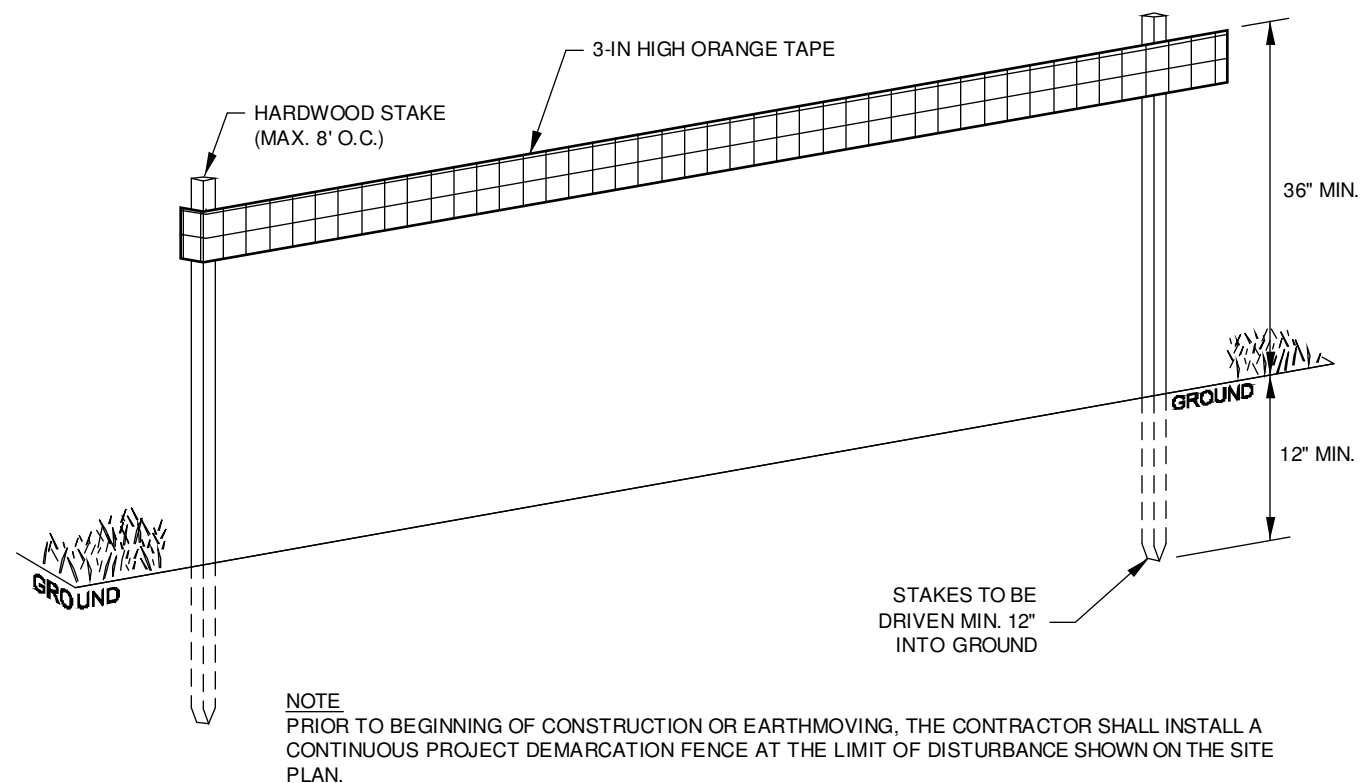
LUMINAIRE DETAIL



INLET PROTECTION (TYPE II)



LIGHT POLE BASE DETAIL



PROJECT DEMARCATION FENCE

Essex Junction STP 5300(14)

VT Route 15 - Pearl Street Link



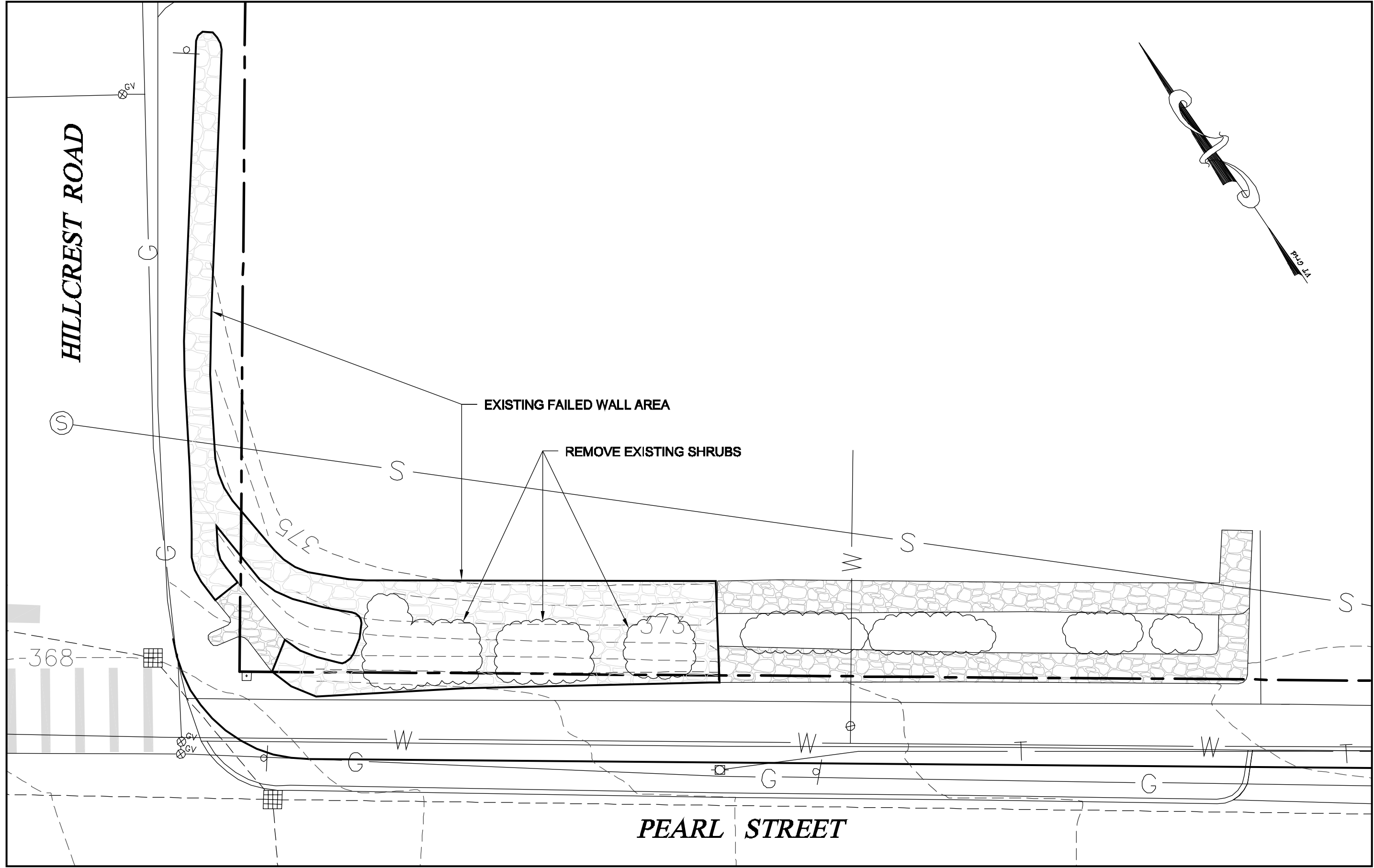
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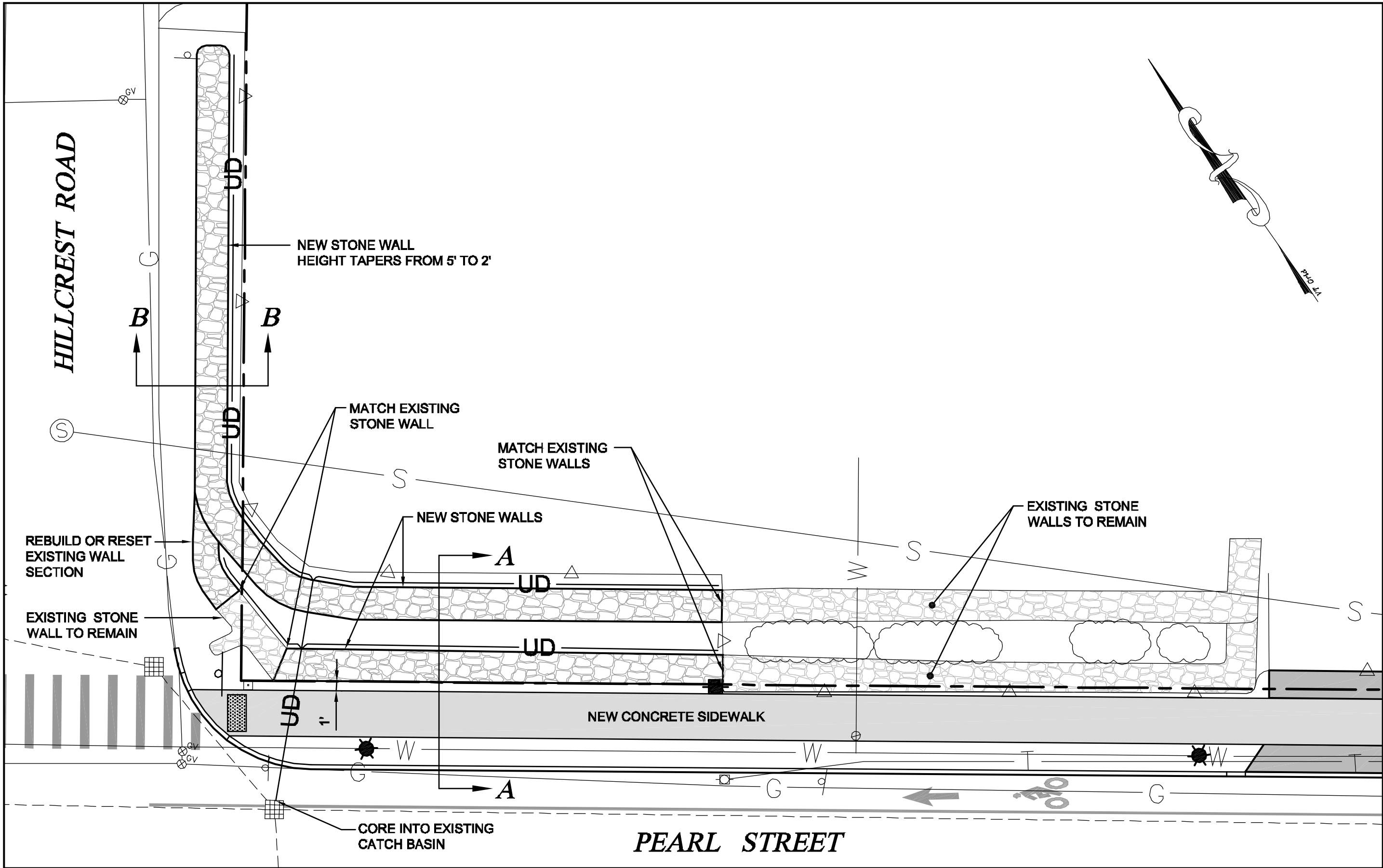
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EROSION CONTROL & LIGHTING DETAILS

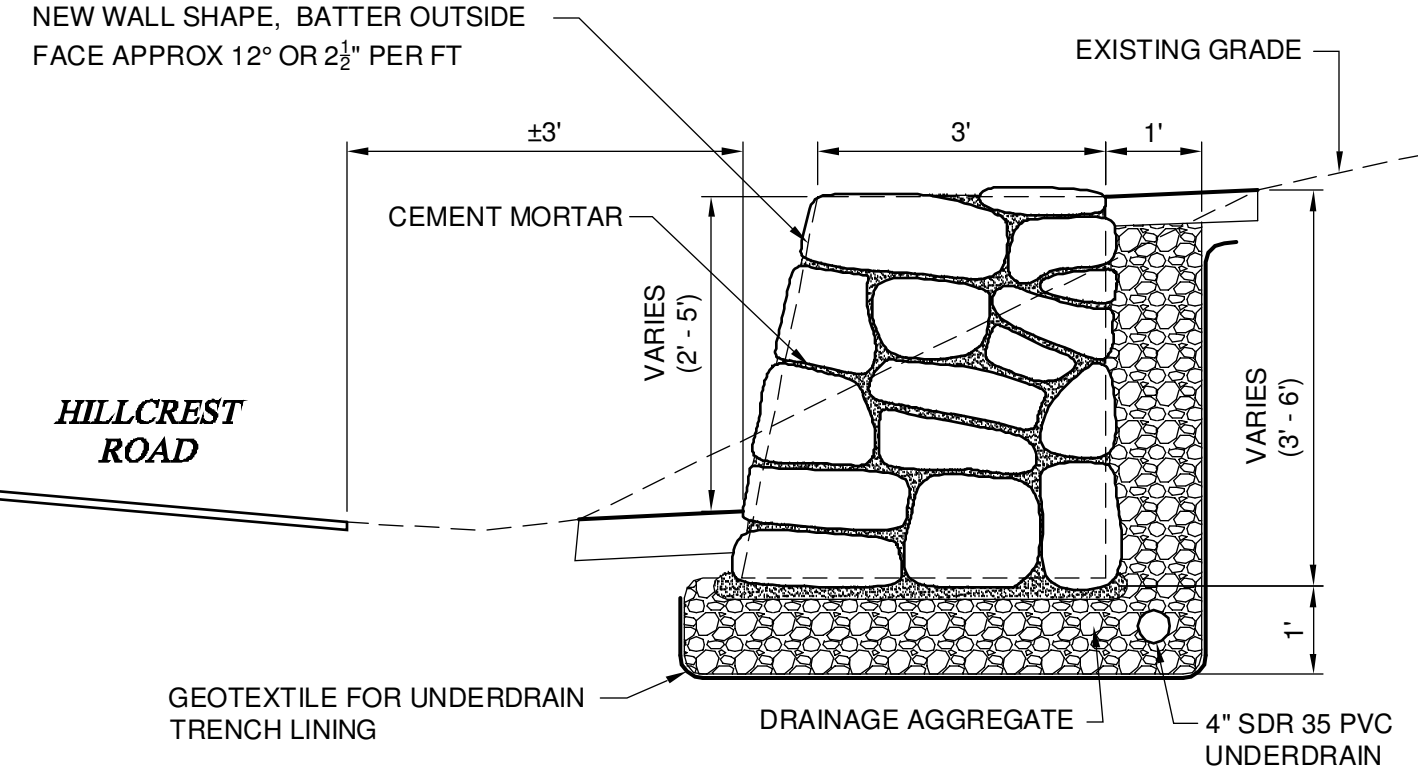
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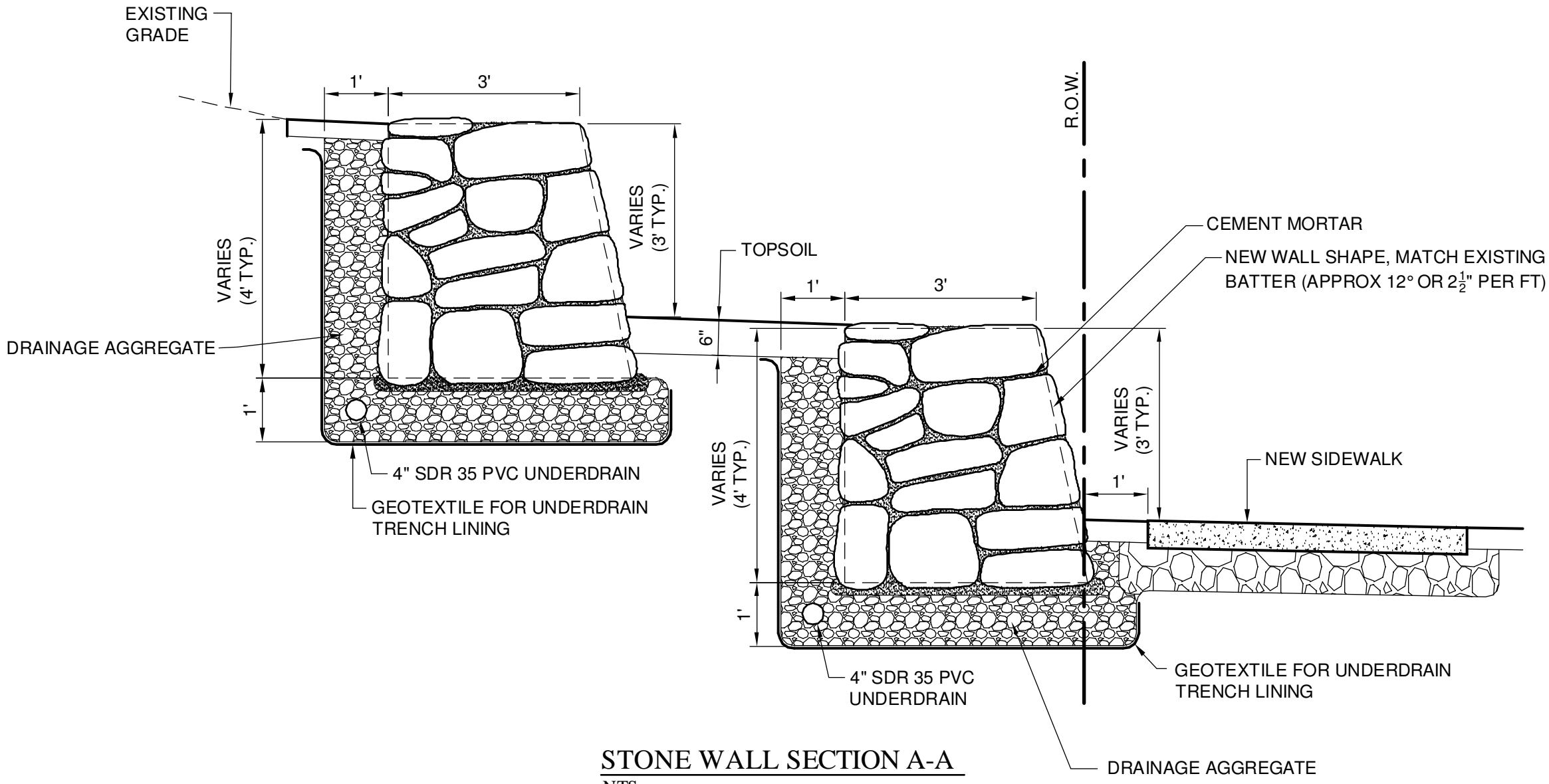
EXISTING STONE WALL PLAN VIEW



PROPOSED STONE WALL PLAN VIEW



STONE WALL SECTION B-B
NTS



STONE WALL SECTION A-A
NTS

- NOTES:
- OVERALL WALL DIMENSIONS AND CROSS-SECTION SHALL BE AS SHOWN IN SECTIONS A-A AND B-B.
 - EXISTING ON-SITE STONES SHALL BE SALVAGED, OLD MORTAR REMOVED (IF PRESENT), AND REUSED TO FORM THE NEW WALL FACES. NEW STONES, IF NEEDED, SHALL BE OF SIMILAR SIZE AND SHAPE, AND USED AS INTERIOR STONES BEHIND THE FACE STONES.
 - CEMENT MORTAR SHALL CONFORM TO ASTM C270, TYPE S. ALL VISIBLE MORTAR ON THE OUTSIDE WALL FACE AND TOP OF WALL SHALL BE STAINED TO MATCH THE COLOR OF EXISTING MORTAR.

PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

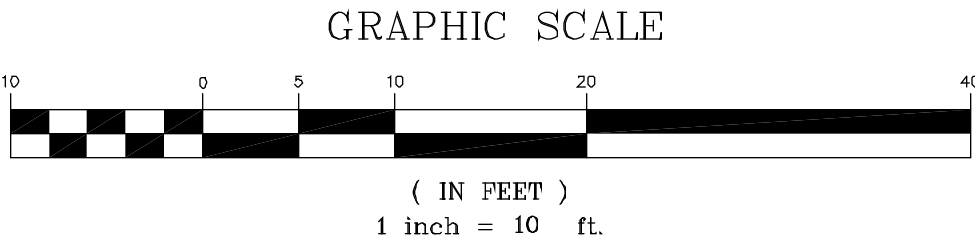
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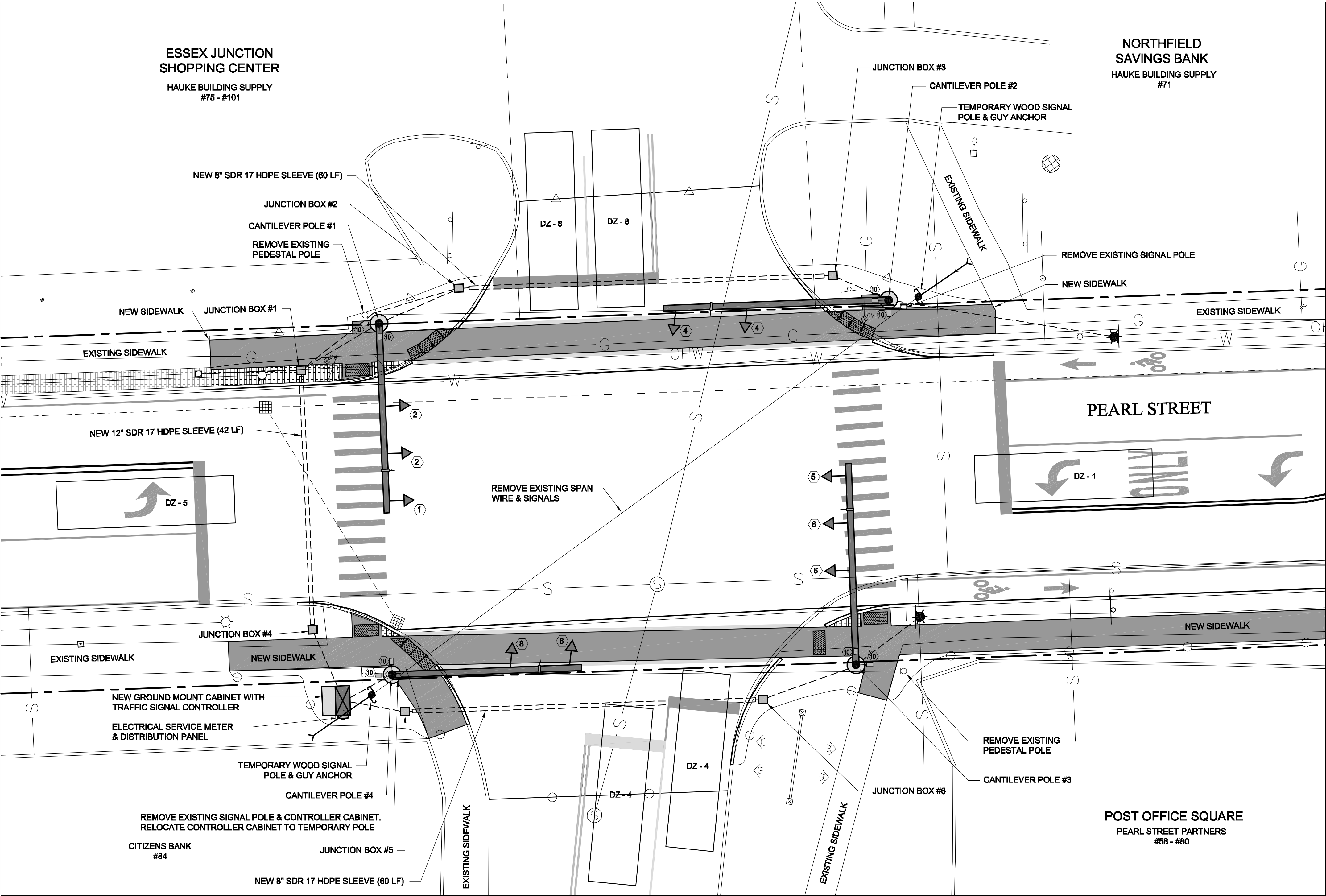
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STONE WALL REPAIR
PLAN & SECTIONS

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CONDUIT SCHEDULE				
FROM	TO	WIRED CONDUIT		DESCRIPTION
		2"	2-1/2"	
UTILITY POLE	JUNCTION BOX #1		14'	ELECTRICAL SERVICE
JUNCTION BOX #1	JUNCTION BOX #4		44'	ELECTRICAL SERVICE
JUNCTION BOX #4	CONTROLLER CABINET		12'	ELECTRICAL SERVICE
CONTROLLER CABINET	JUNCTION BOX #4		12'	STREET LIGHTING
CONTROLLER CABINET	JUNCTION BOX #4		12'	SIGNAL WIRING
JUNCTION BOX #4	JUNCTION BOX #1		44'	STREET LIGHTING
JUNCTION BOX #4	JUNCTION BOX #1		44'	SIGNAL WIRING
JUNCTION BOX #1	CANTILEVER POLE #1		15'	SIGNAL WIRING
JUNCTION BOX #1	JUNCTION BOX #2		31'	STREET LIGHTING
CANTILEVER POLE #1	JUNCTION BOX #2		15'	SIGNAL WIRING
JUNCTION BOX #2	JUNCTION BOX #3		63'	STREET LIGHTING
JUNCTION BOX #2	JUNCTION BOX #3		63'	SIGNAL WIRING
JUNCTION BOX #3	CANTILEVER POLE #2		10'	STREET LIGHTING
JUNCTION BOX #3	CANTILEVER POLE #2		10'	SIGNAL WIRING
CANTILEVER POLE #1	LUMINAIRE		37'	STREET LIGHTING
CONTROLLER CABINET	CANTILEVER POLE #4		10'	SIGNAL WIRING
CONTROLLER CABINET	CANTILEVER POLE #4		10'	STREET LIGHTING
CONTROLLER CABINET	JUNCTION BOX #5		11'	SIGNAL WIRING
CONTROLLER CABINET	JUNCTION BOX #5		11'	STREET LIGHTING
JUNCTION BOX #5	JUNCTION BOX #6		60'	SIGNAL WIRING
JUNCTION BOX #5	JUNCTION BOX #6		60'	STREET LIGHTING
JUNCTION BOX #6	CANTILEVER POLE #3		17'	SIGNAL WIRING
JUNCTION BOX #6	CANTILEVER POLE #3		17'	STREET LIGHTING
CANTILEVER POLE #3	LUMINAIRE		14'	STREET LIGHTING

NOTE: NEW SLEEVES MAY BE INSTALLED BY OPEN CUT EXCAVATION. PEARL ST REPORTEDLY HAS A 20-22 FT WIDE X 8" THICK REINFORCED CEMENT PAVEMENT CENTERED IN THE ROADWAY. SAW CUT & REMOVE OVER NEW SLEEVE. REPLACE WITH NEW TYPE II BITUMINOUS CONCRETE PAVEMENT WITH 12" MIN. DENSE GRADED CRUSHED STONE SUBBASE. MATCH EXISTING BITUMINOUS CONCRETE PAVEMENT THICKNESS ABOVE CONCRETE.

	PHASE 1+2 PEARL STREET	PHASE 1+6 (DWELL PHASE) PEARL STREET	PHASE 4+8 SHOPPING CENTER/ POST OFFICE SQUARE
VEH. EXTENSION			-
RT. TURN DELAY			-
MIN. GREEN	-	-	-
YELLOW CLEAR	-	-	-
RED CLEAR	-	-	-
OFF PEAK (REST OF DAY) (60 SECOND CYCLE)	MAX. 1 GREEN	-	-
PM PEAK (3:00-6:00 p.m.) (70 SECOND CYCLE)	MAX. 2 GREEN	-	-

NOTE: THERE IS NO SCHEDULED FLASHING TIME PERIOD.

PRELIMINARY PLANS
MARCH 19, 2015

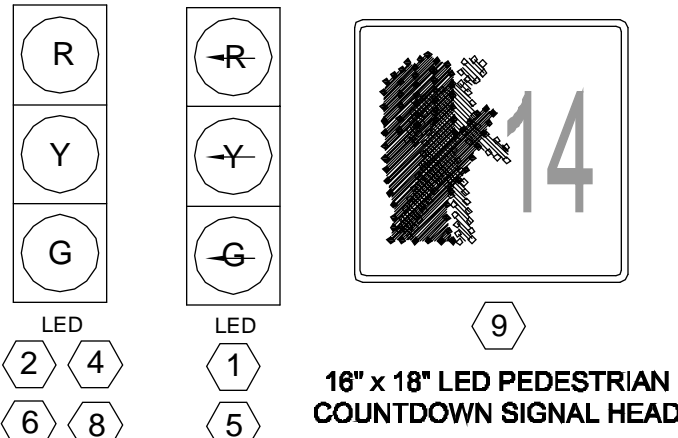
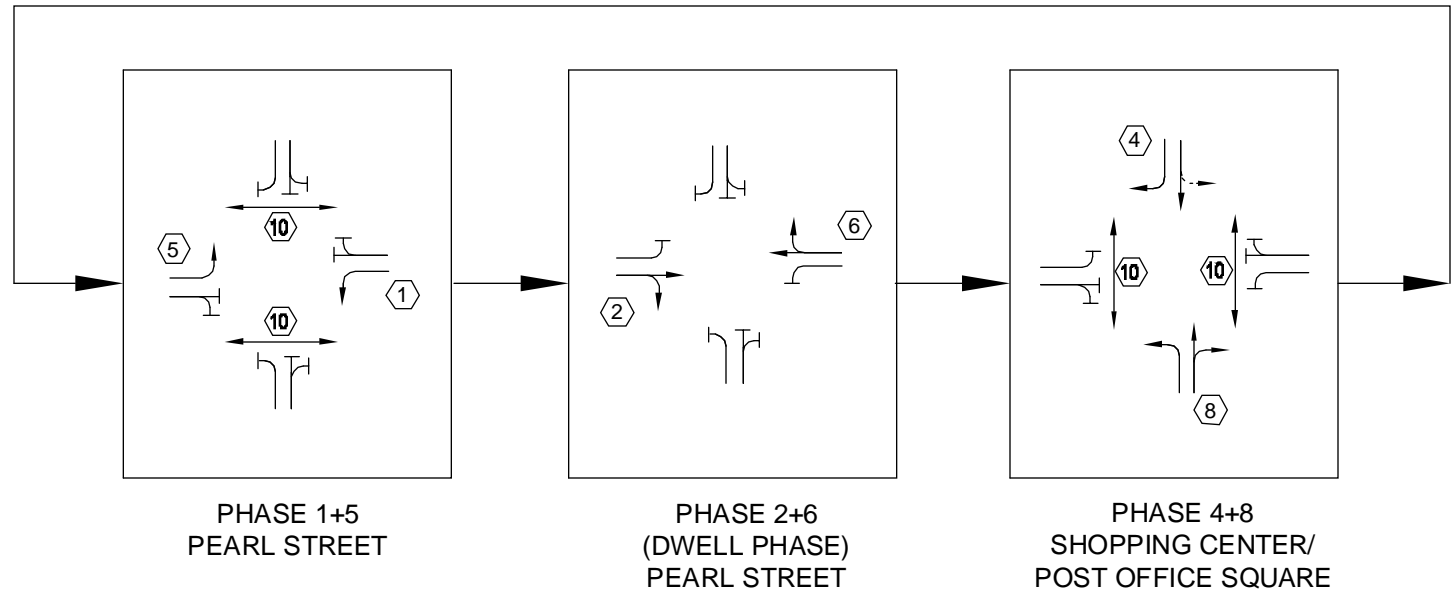
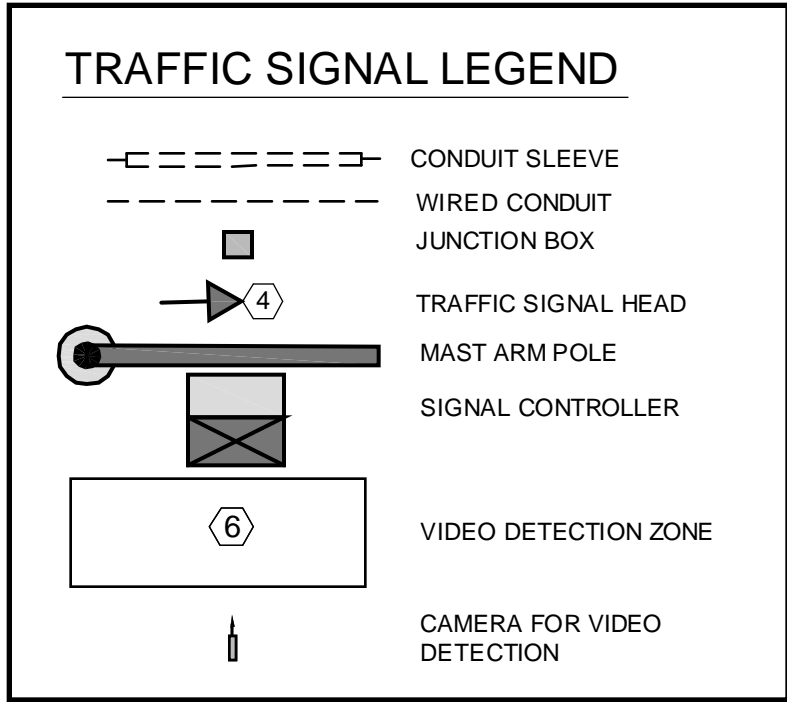
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SIGNAL PLAN

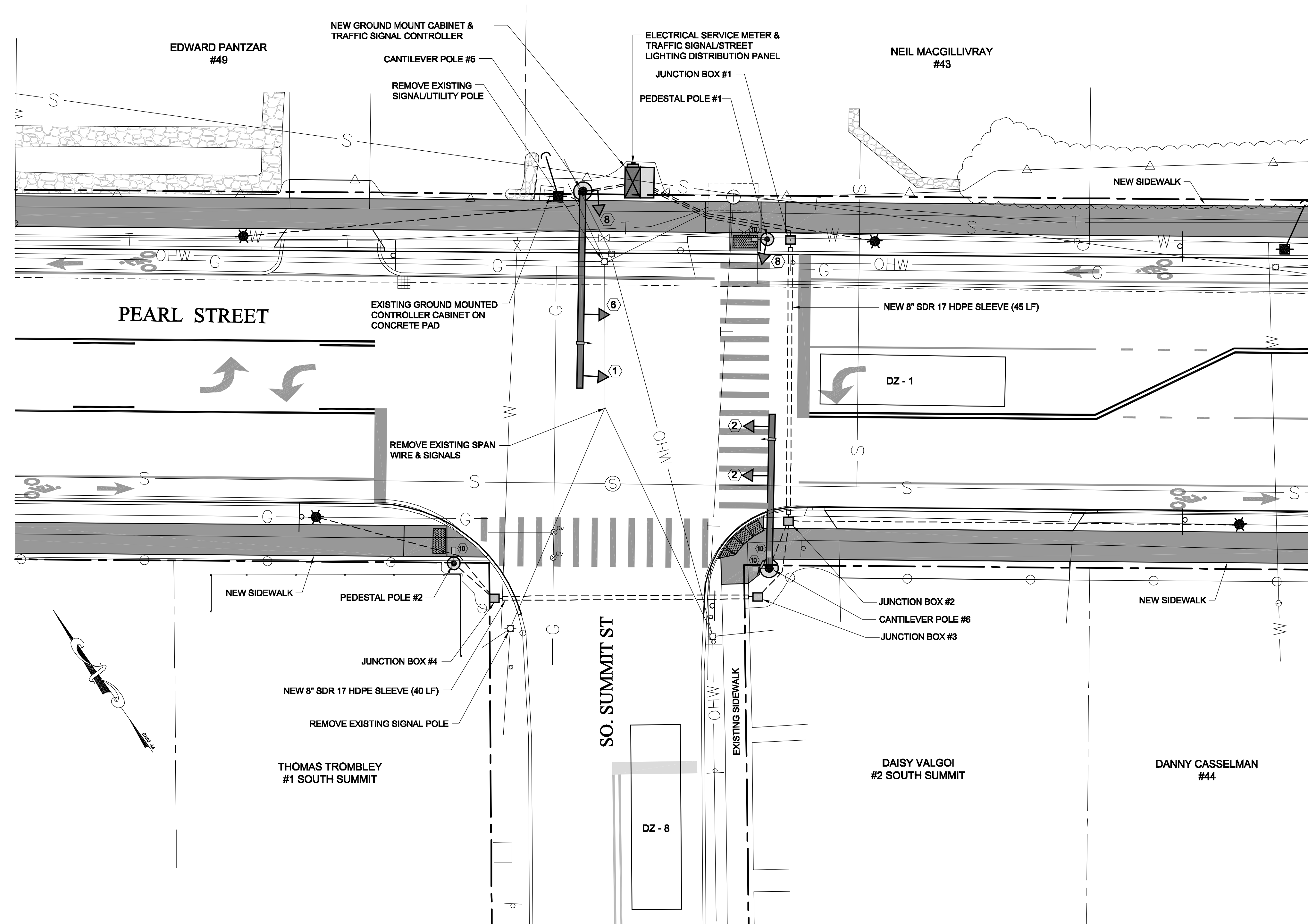


SIGNAL HEADS

LIST OF MAJOR EQUIPMENT

EQUIPMENT	QUANTITY
GROUND MOUNT SIGNAL CONTROLLER CABINET	1
12" POLYCARBONATE TRAFFIC SIGNAL HEADS WITH TUNNEL VISORS AND MOUNTING HARDWARE (ALL LED)	10
CANTILEVER POLES & FOUNDATIONS	4
LED HAND/MAN PEDESTRIAN COUNTDOWN SIGNAL HEADS	8
ACCESSIBLE PEDESTRIAN PUSH BUTTON ASSEMBLIES	8
JUNCTION BOXES	6
VEHICLE VIDEO DETECTION SYSTEM CAMERAS	4

THE QUANTITIES LISTED ABOVE ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY. MISCELLANEOUS (UNLISTED) WIRE, CABLE, HARDWARE ETC., ARE REQUIRED TO PROVIDE FOR A FUNCTIONING TRAFFIC SIGNAL SYSTEM.

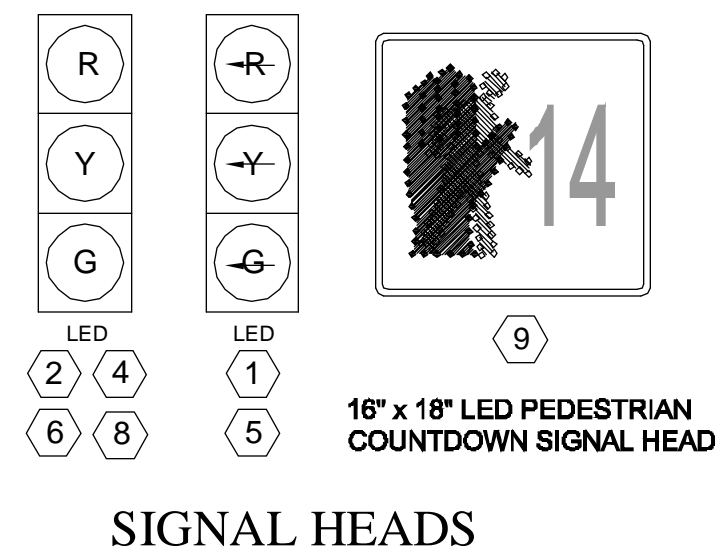
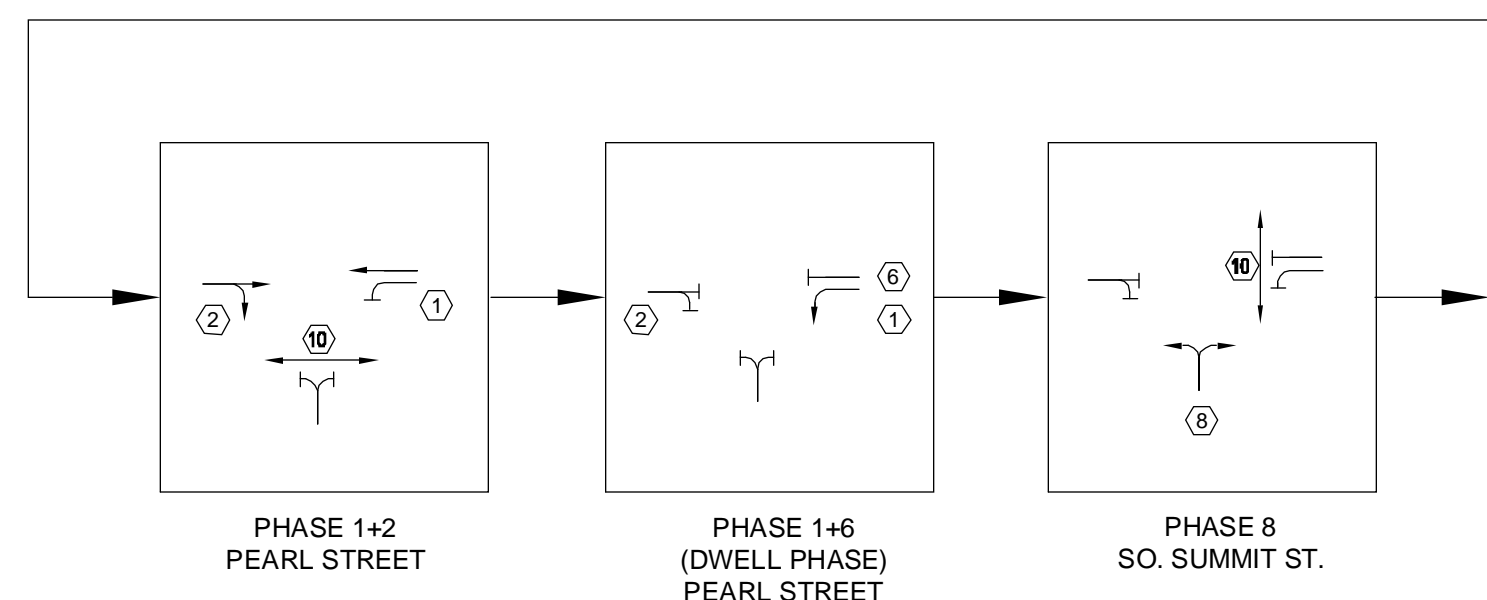
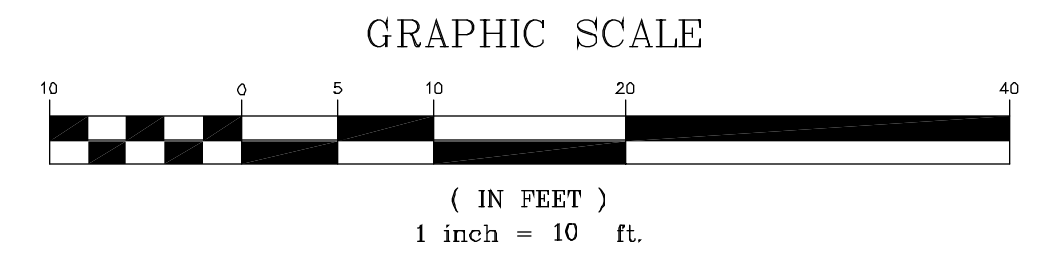
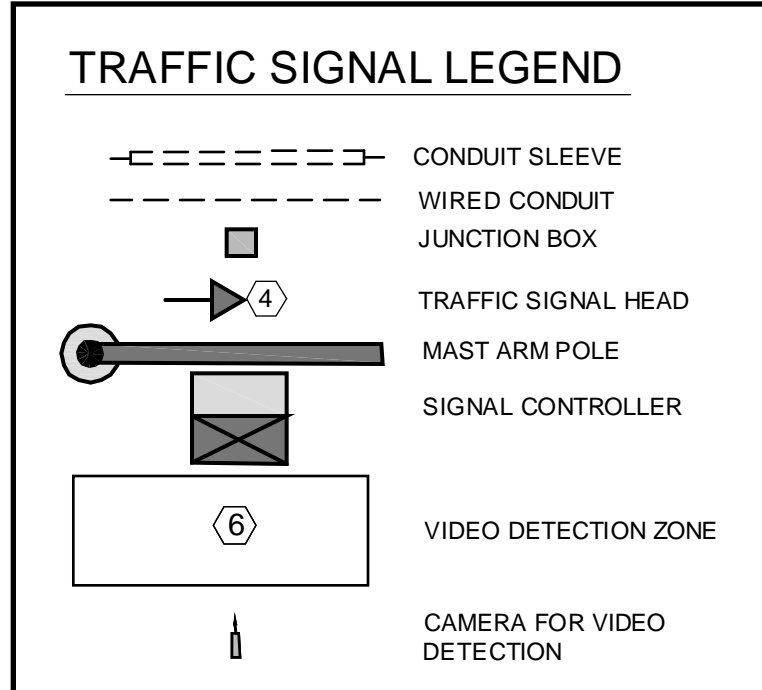


CONDUIT SCHEDULE				
FROM	TO	WIRED CONDUIT		DESCRIPTION
		2"	2-1/2"	
UTILITY POLE	CONTROLLER CABINET		12'	ELECTRICAL SERVICE
CONTROLLER CABINET	CANTILEVER POLE #5	8'		SIGNAL WIRING
CONTROLLER CABINET	LUMINAIRE	64'		STREET LIGHTING
CONTROLLER CABINET	PED POLE #1	25'		SIGNAL WIRING
CONTROLLER CABINET	JUNCTION BOX #1	29'		SIGNAL WIRING
CONTROLLER CABINET	JUNCTION BOX #1	29'		STREET LIGHTING
CONTROLLER CABINET	LUMINAIRE	41'		STREET LIGHTING
JUNCTION BOX #1	JUNCTION BOX #2	46'		STREET LIGHTING
JUNCTION BOX #1	JUNCTION BOX #2	46'		SIGNAL WIRING
JUNCTION BOX #2	CANTILEVER POLE #6	8'		SIGNAL WIRING
JUNCTION BOX #2	LUMINAIRE	73'		STREET LIGHTING
JUNCTION BOX #2	JUNCTION BOX #3	14'		STREET LIGHTING
JUNCTION BOX #2	JUNCTION BOX #3	14'		SIGNAL WIRING
JUNCTION BOX #3	JUNCTION BOX #4	43'		STREET LIGHTING
JUNCTION BOX #3	JUNCTION BOX #4	43'		SIGNAL WIRING
JUNCTION BOX #4	PED POLE #2	9'		SIGNAL WIRING
JUNCTION BOX #4	LUMINAIRE	33'		STREET LIGHTING

NOTE: NEW SLEEVES MAY BE INSTALLED BY OPEN CUT EXCAVATION. PEARL ST REPORTEDLY HAS A 20-22 FT WIDE X 8" THICK REINFORCED CEMENT CONCRETE PAVEMENT CENTERED IN THE ROADWAY. SAW CUT & REMOVE OVER NEW SLEEVE. REPLACE WITH NEW TYPE II BITUMINOUS CONCRETE PAVEMENT WITH 12" MIN. DENSE GRADED CRUSHED STONE SUBBASE. MATCH EXISTING BITUMINOUS CONCRETE PAVEMENT THICKNESS ABOVE CONCRETE.

	PHASE 1+2 PEARL STREET	PHASE 1+6 (DWEELL PHASE) PEARL STREET	PHASE 8 SO. SUMMIT ST.
VEH. EXTENSION			-
RT. TURN DELAY			-
MIN. GREEN	-		-
YELLOW CLEAR	-	-	-
RED CLEAR	-	-	-
OFF PEAK (REST OF DAY) (60 SECOND CYCLE)	MAX. 1 GREEN	-	-
PM PEAK (3:00-6:00 p.m.) (70 SECOND CYCLE)	MAX. 2 GREEN	-	-

NOTE: THERE IS NO SCHEDULED FLASHING TIME PERIOD.



LIST OF MAJOR EQUIPMENT	
EQUIPMENT	QUANTITY
GROUND MOUNT SIGNAL CONTROLLER CABINET	1
12" POLYCARBONATE TRAFFIC SIGNAL HEADS WITH TUNNEL VISORS AND MOUNTING HARDWARE (ALL LED)	6
CANTILEVER POLES & FOUNDATIONS	2
PEDESTAL POLES & FOUNDATIONS	2
LED HAND/MAN PEDESTRIAN COUNTDOWN SIGNAL HEADS	4
ACCESSIBLE PEDESTRIAN PUSH BUTTON ASSEMBLIES	4
JUNCTION BOXES	4
VEHICLE VIDEO DETECTION SYSTEM CAMERAS	3

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PRELIMINARY PLANS
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Civil Engineer
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SIGNAL PLAN

Project No. 14119
Design RD
Drawn BH
Date 3-19-15
Scale 1" = 10'
Sheet number 36

GENERAL SPECIFICATIONS

- 1.01 ALL WORK SHALL BE IN ACCORDANCE WITH VILLAGE OF ESSEX JUNCTION'S PUBLIC WORKS STANDARDS AND REQUIREMENTS, THE 2011 VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND THESE PLANS.
- 1.02 THE CONTRACTOR SHALL CONTACT ALL UTILITIES BEFORE EXCAVATION TO VERIFY THE LOCATION OF ANY UNDERGROUND LINES. THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 511 PRIOR TO ANY EXCAVATION.
- 1.03 CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS OF EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY, PUBLIC OR PRIVATE, SHOWN HEREON.
- 1.04 ANY SURFACES, LINES OR STRUCTURES WHICH HAVE BEEN DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THE CONDITION AT LEAST EQUAL TO THAT IN WHICH THEY WERE FOUND IMMEDIATELY PRIOR TO THE BEGINNING OF CONSTRUCTION.
- 1.05 CONSTRUCTION OBSERVATION AND CERTIFICATION IS OFTEN REQUIRED BY STATE AND LOCAL PERMITS. IT IS RECOMMENDED THAT CONSTRUCTION OF THE IMPROVEMENTS DETAILED ON THIS PLANS BE OBSERVED BY LAMOUREUX & DICKINSON CONSULTING ENGINEERS, INC. (L&D) TO DETERMINE IF THE WORK IS BEING PERFORMED IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. L&D WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS THAT MAY ARISE FROM FAILURE TO FOLLOW THESE PLANS AND SPECIFICATIONS AND THE DESIGN INTENT THAT THEY CONVEY. ANY CHANGES MADE IN THE PLANS AND SPECIFICATIONS OR IN THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS WITHOUT L&D'S PRIOR KNOWLEDGE AND CONSENT, AND/OR FAILURE TO SCHEDULE OBSERVATION OF THE WORK AND TESTING IN PROGRESS.
- 1.06 THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND REMOVAL OF EXISTING SIGNAL EQUIPMENT STRUCTURES, VEGETATION AND PAVEMENT NECESSARY TO CONSTRUCT THE PROPOSED TRAFFIC SIGNAL MODIFICATIONS. UNLESS OTHERWISE NOTED ON THE PLANS, ALL SALVAGED AND UNUSED TRAFFIC SIGNAL EQUIPMENT SHALL BE RETURNED TO THE VILLAGE OF ESSEX JUNCTION PUBLIC WORKS DEPT. THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL, DEBRIS AND TRASH FROM THE SITE UPON COMPLETION OF CONSTRUCTION, UNLESS OTHERWISE DIRECTED BY THE OWNER.

SIGNAL EQUIPMENT SPECIFICATIONS

- 3.01 ALL NEW EQUIPMENT SHALL MEET OR EXCEED THE 2011 VTRANS STANDARD SPECIFICATIONS 678 & 752, NEMA STANDARDS AND INSA OR ITS SPECIFICATIONS, WHERE APPLICABLE. INSTALLATION OF SIGNAL EQUIPMENT SHALL BE AS DETAILED ON THESE PLANS.
- 3.02 THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND ENGINEER, FOR APPROVAL, SHOP DRAWINGS FOR EACH NEW TRAFFIC SIGNAL EQUIPMENT ITEM. SHOP DRAWING SUBMITTALS SHALL CONFORM TO VTRANS STD. SPECS.
- 3.03 ALL NEW PEDESTAL POLES AND SIGNAL EQUIPMENT SHALL BE PAINTED FLAT BLACK WITH A POWDER COATING PROCESS.
- 3.04 PEDESTRIAN SIGNAL HEADS SHALL BE SIDE MOUNTED DIRECTLY TO METAL PEDESTAL POLES WITHOUT ANY EXPOSED CONDUIT OR EXTERNAL PIPE BRACKETS. ALL NEW PEDESTRIAN SIGNAL HEADS AND MOUNTING HARDWARE SHALL BE SUPPLIED WITH BLACK POWDER COATING.
- 3.05 NEW PEDESTRIAN PUSH-BUTTONS SHALL BE ACCESSIBLE PEDESTRIAN ASSEMBLIES AS DEFINED IN THE MUTCD. PEDESTRIAN INSTRUCTION SIGNS SHALL BE INCLUDED AT ALL PEDESTRIAN PUSH BUTTON LOCATIONS. PEDESTRIAN PUSH BUTTONS SHALL BE RAISED FROM THEIR HOUSINGS AND SHALL BE A MINIMUM OF 2" DIA. THE FORCE REQUIRED TO ACTIVATE THE PUSH BUTTON SHALL BE NO GREATER THAN 5 lbf. THE TACTILE ARROW ON THE PUSH BUTTON SHALL POINT TO THE CROSSING. EACH PEDESTRIAN PUSH BUTTON SHALL BE PROVIDED WITH AN INTEGRAL CAST ALUMINUM HOUSING/SIGN MOUNTING PLATE AND 9" x 12" INSTRUCTION SIGN AS SHOWN.
- 3.06 MINIMUM CONDUIT SIZES SHALL BE 2½" Ø FOR POWER SERVICES AND 2" Ø FOR ALL OTHER (INCLUDING SIGNAL WIRING, STREET LIGHTING, LOOP LEAD-INS, INTERCONNECT, ETC.). NEW TRAFFIC SIGNAL WIRING SHALL USE JACKETED SIGNAL CABLE HAVING THE REQUIRED NUMBER OF 14 AWG (MIN.) CONDUCTORS MEETING THE LATEST REQUIREMENTS OF THE INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMS) SPEC. 19-1 OR 20-1.
- 3.07 FINAL ACCEPTANCE OF THIS PROJECT BY THE OWNER WILL BE SUBJECT TO A 30-DAY TEST PERIOD, DURING WHICH ALL ADJUSTMENTS SHALL BE MADE AND EQUIPMENT PROBLEMS CORRECTED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. IF PROBLEMS ARISE DURING THE 30-DAY TEST PERIOD, THE ACCEPTANCE DATE MAY BE EXTENDED. UPON COMPLETION OF THE 30-DAY TEST PERIOD, THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER AND THE OWNER UPDATED SIGNAL TIMING PROGRAMMING SHEETS SHOWING ALL MODIFIED SETTINGS, IF ANY.
- 3.08 VEHICLE VIDEO DETECTION SYSTEM:
THE CONTRACTOR SHALL FURNISH AND INSTALL A NEW VEHICLE VIDEO DETECTION SYSTEM (VVDs). THE VVDs SHALL INCLUDE:
A. ALL MOUNTING HARDWARE (VIDEO DETECTOR CAMERA MOUNTING BRACKET OR VIDEO DETECTOR CAMERA POLE MOUNT EXTENSION BRACKET).
B. COMMUNICATIONS INTERFACE PANEL, DETECTOR PORT MASTER, VIDEO DETECTOR CABLE (2 SHIELDED TWISTED PAIR 22 AWG (MIN.) CABLE, 5-WIRES TOTAL), PLUS ALL ASSOCIATED EQUIPMENT AND MISCELLANEOUS FITTINGS (INCL. CABINET WIRING). CAMERAS SHALL BE CONNECTED TO THE INTERFACE CARD USING STAR TOPOLOGY EXCEPT THAT MULTIPLE CAMERAS ON ONE POLE MAY CONNECTED USING COMBINED STAR-BUS TOPOLOGY.
C. ALL LABOR, MATERIAL, EQUIPMENT AND SIGNAL CONTROLLER PROGRAMMING REQUIRED TO COMPLETE THE INSTALLATION AND MAKE THE VVDs FULLY OPERATIONAL.
D. VIDEO CAMERAS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS TO ACHIEVE THE DETECTION ZONES AS SHOWN ON THE SIGNAL LAYOUT PLAN.
ALL VVDs COMPONENTS SHALL BE CURRENT PRODUCTION EQUIPMENT FURNISHED BY THE SAME MANUFACTURER (FOR SYSTEM OPERATION COMPATIBILITY PURPOSES).

PROJECT SCHEDULING & COORDINATION

- 2.01 TO ENSURE COMPLIANCE WITH THE PLAN(S), THE CONTRACTOR SHALL NOTIFY THE VILLAGE PUBLIC WORKS DEPT. AND ENGINEER 24 HOURS IN ADVANCE OF STARTING ANY WORK, CUTTING THE PAVEMENT, BEGINNING THE INSTALLATION OF ANY SIGNAL EQUIPMENT, SIGNAL OPERATION MODIFICATIONS AND FINAL INSPECTION.
- 2.02 THE WORK PERFORMED AS PART OF THE PROPOSED TRAFFIC SIGNAL MODIFICATIONS SHALL BE CLOSELY COORDINATED AND PRE-SCHEDULED WITH THE VILLAGE OF ESSEX JUNCTION PUBLIC WORKS DEPT.
- 2.03 EXISTING TRAFFIC SIGNALS SHALL REMAIN IN OPERATION AT ALL TIMES UNTIL THE NEW TRAFFIC SIGNALS ARE MADE OPERATIONAL. ALL EXISTING SIGNAL EQUIPMENT SHALL BE SALVAGED AND RETURNED TO THE VILLAGE OF ESSEX JUNCTION PUBLIC WORKS DEPT.

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Lamoureux & Dickinson
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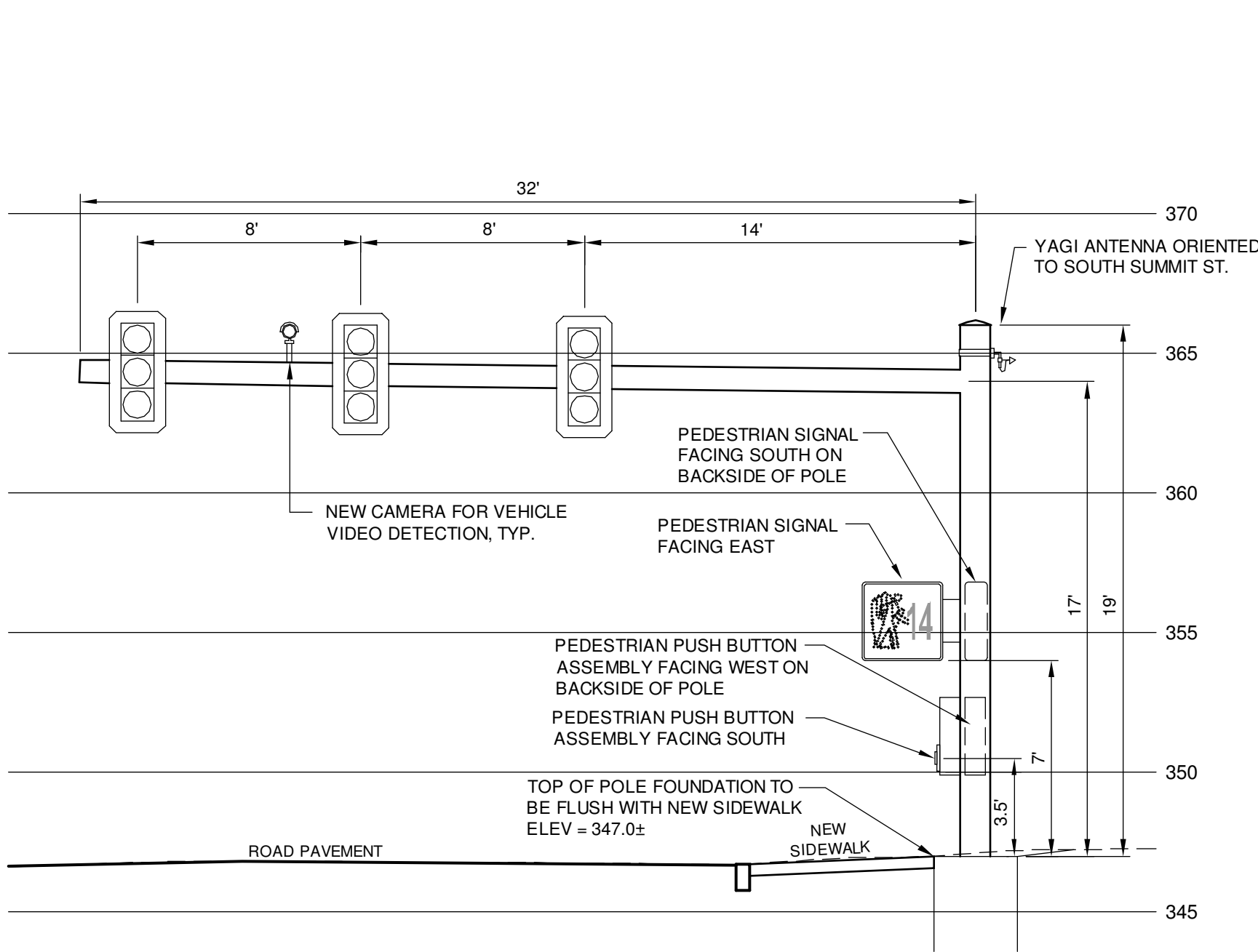
Electrical Engineer
Kirk Engineering Assoc., P.C.
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Williston, VT 05495
802-655-5731

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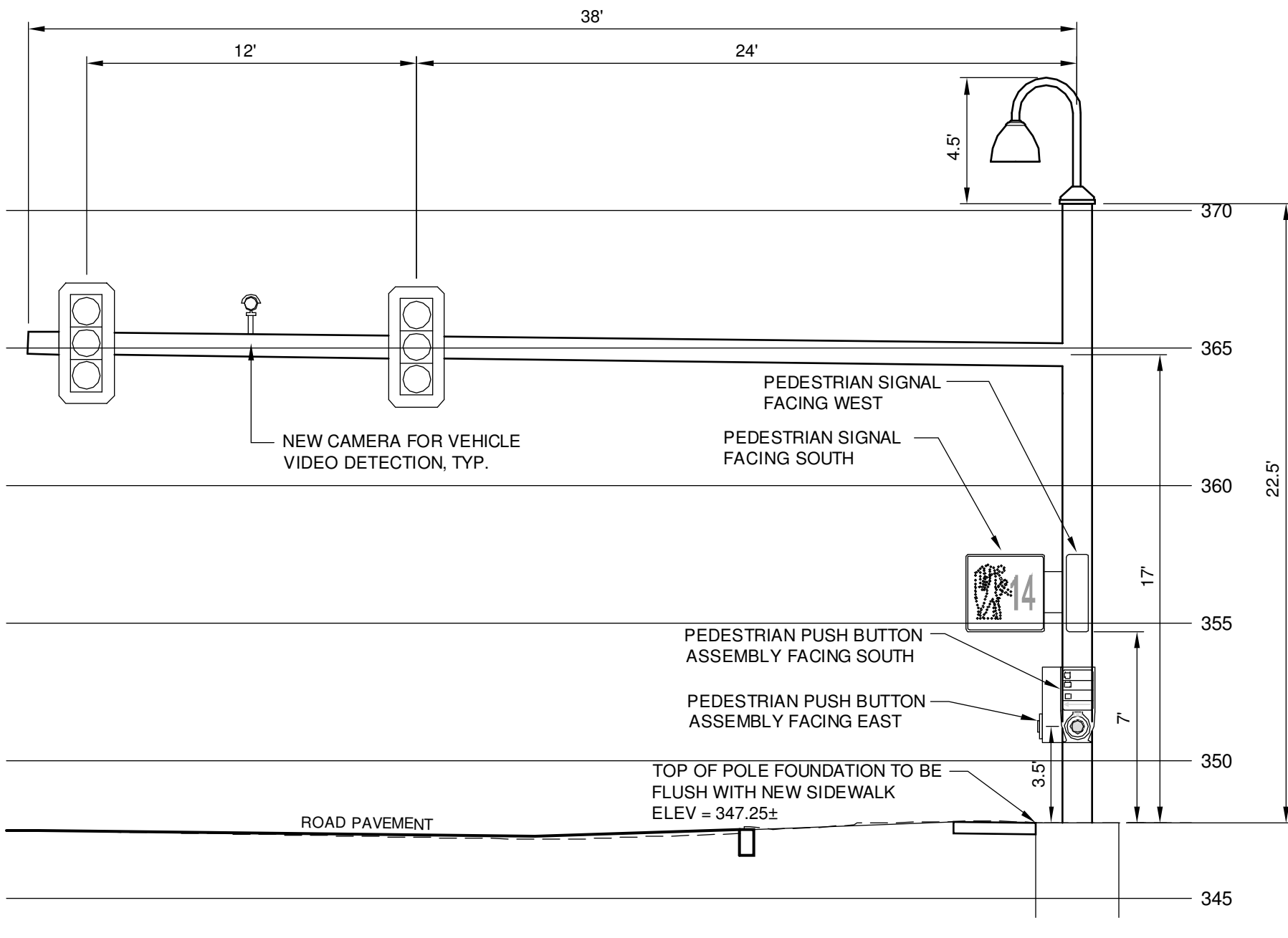
CANTILEVER CROSS SECTIONS

37

CANTILEVER POLE #1
WESTBOUND PEARL STREET VIEW

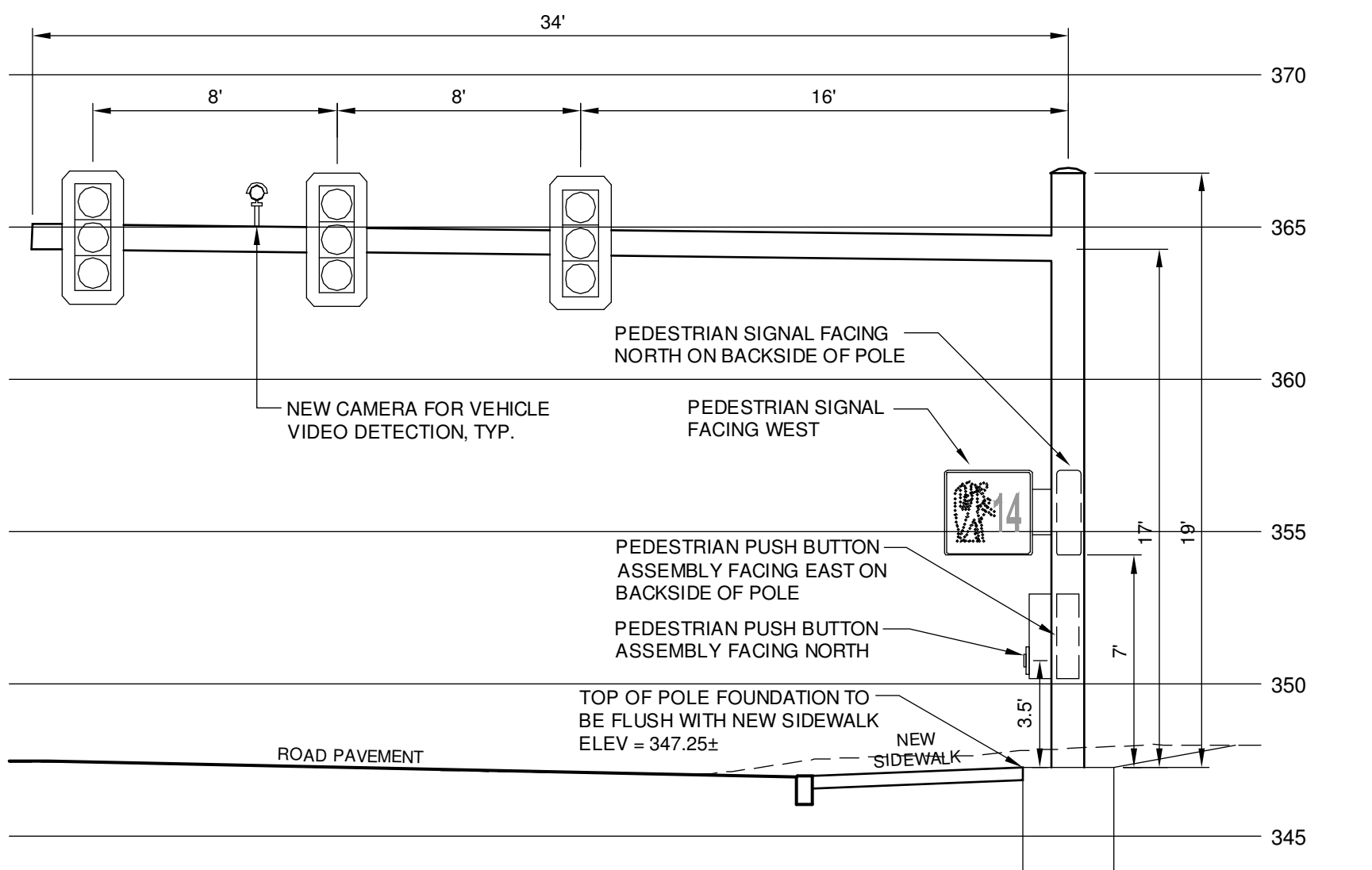


CANTILEVER POLE #2
POST OFFICE SQUARE VIEW

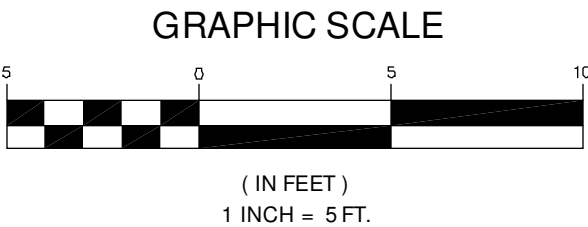
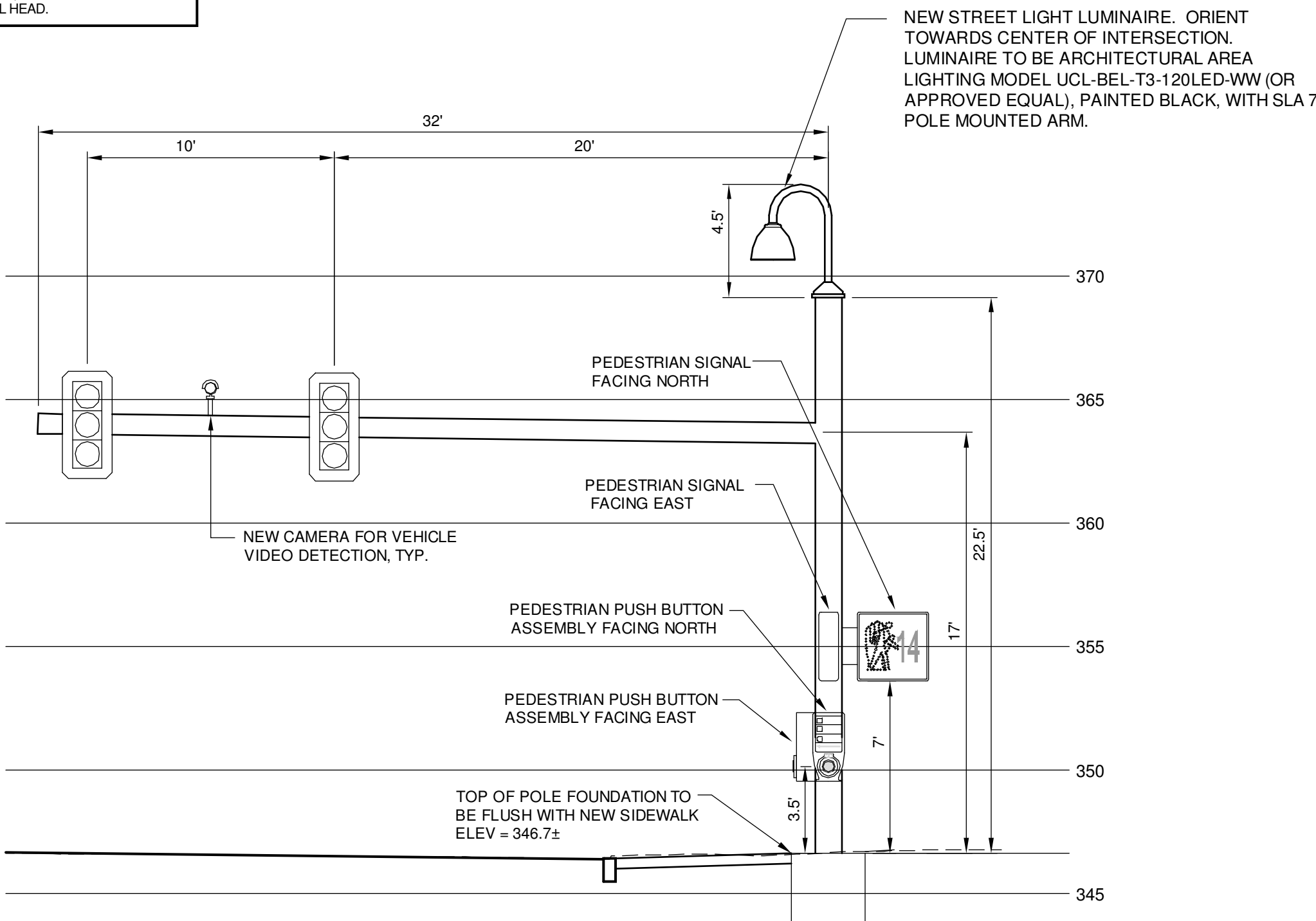


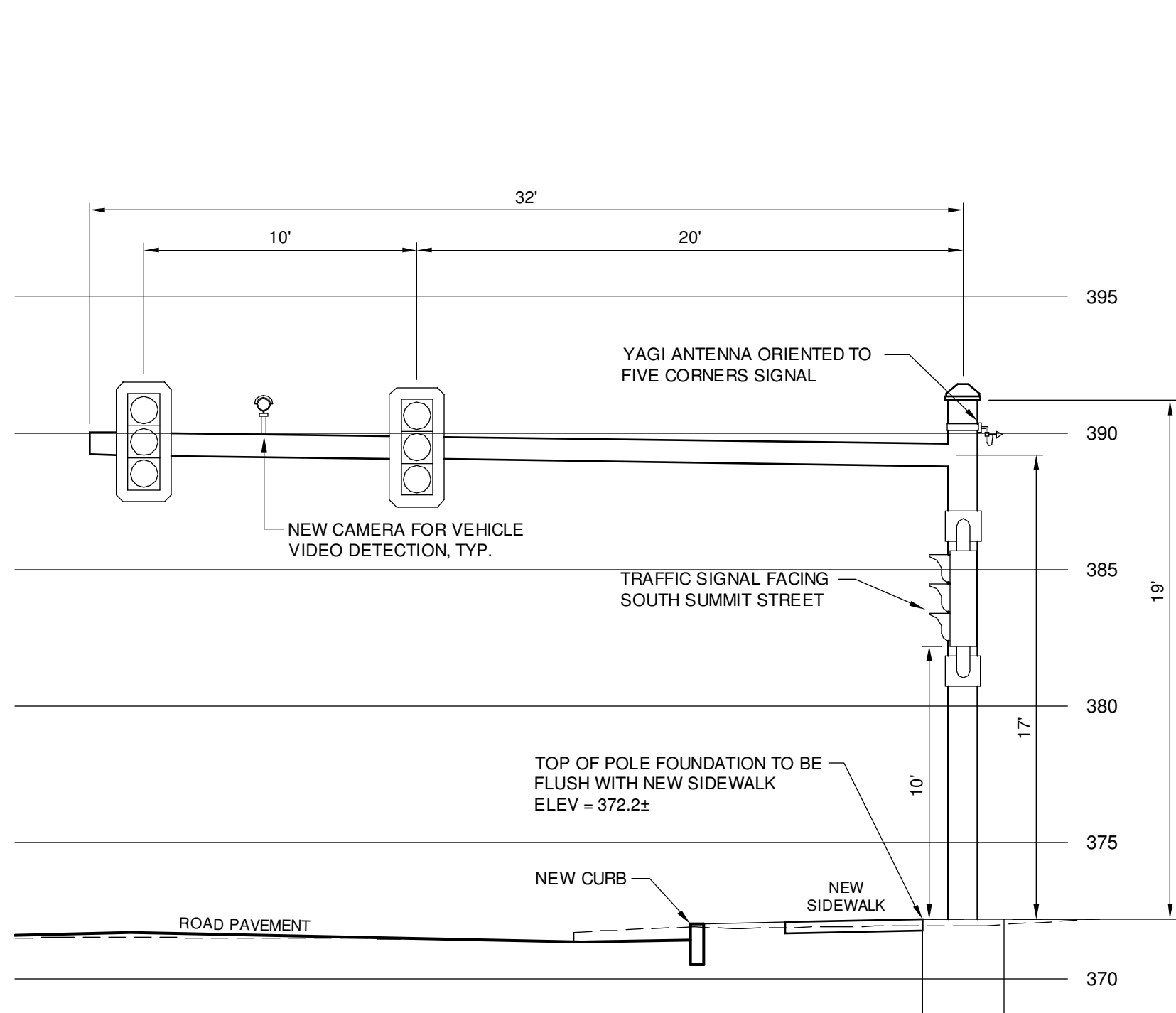
NOTE:
THE DESIGN OF THE CANTILEVER POLES SHOWN HEREON IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE CANTILEVER POLE MANUFACTURER. ALL SIGNAL HEADS AND SIGNS SHALL BE CENTERED VERTICALLY ON THE CANTILEVER. THE CANTILEVERS SHALL BE DESIGNED TO PROVIDE A 17'-0" TO 18'-0" VERTICAL CLEARANCE FROM THE PAVEMENT TO THE BOTTOM OF THE SIGNAL HEADS (EXCLUDING BACKPLATE). THE SHOP DRAWINGS FOR THE MAST ARM POLES SHALL INCLUDE DETAILED DIMENSIONS (ANGLES, LENGTHS, DEAD LOAD DEFLECTIONS, ETC.) TO DETERMINE THE RESULTING ELEVATIONS OF EACH SIGNAL HEAD.

CANTILEVER POLE #3
EASTBOUND PEARL STREET VIEW

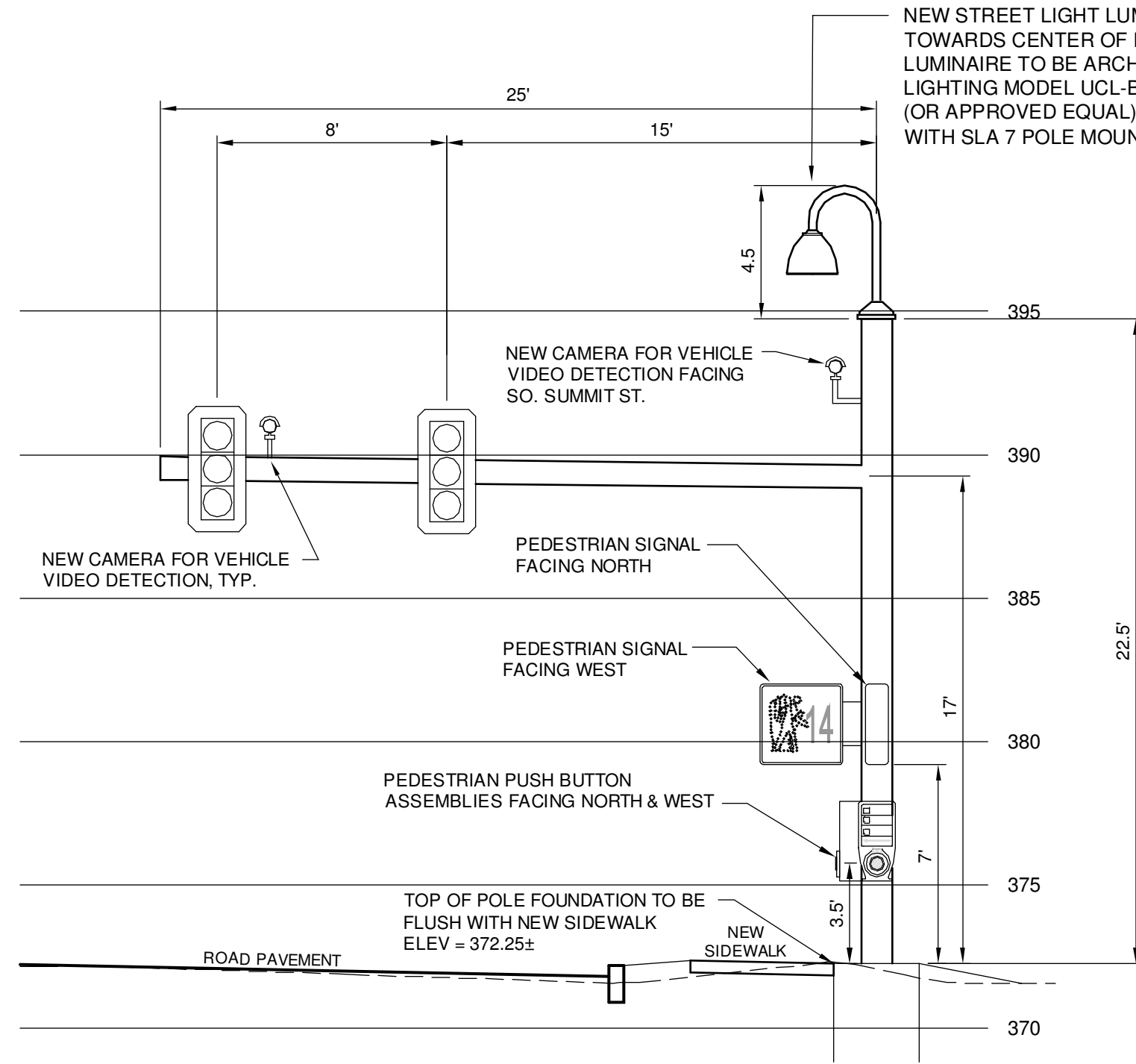


CANTILEVER POLE #4
SHOPPING CENTER VIEW

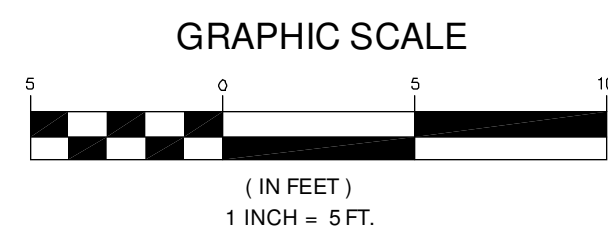




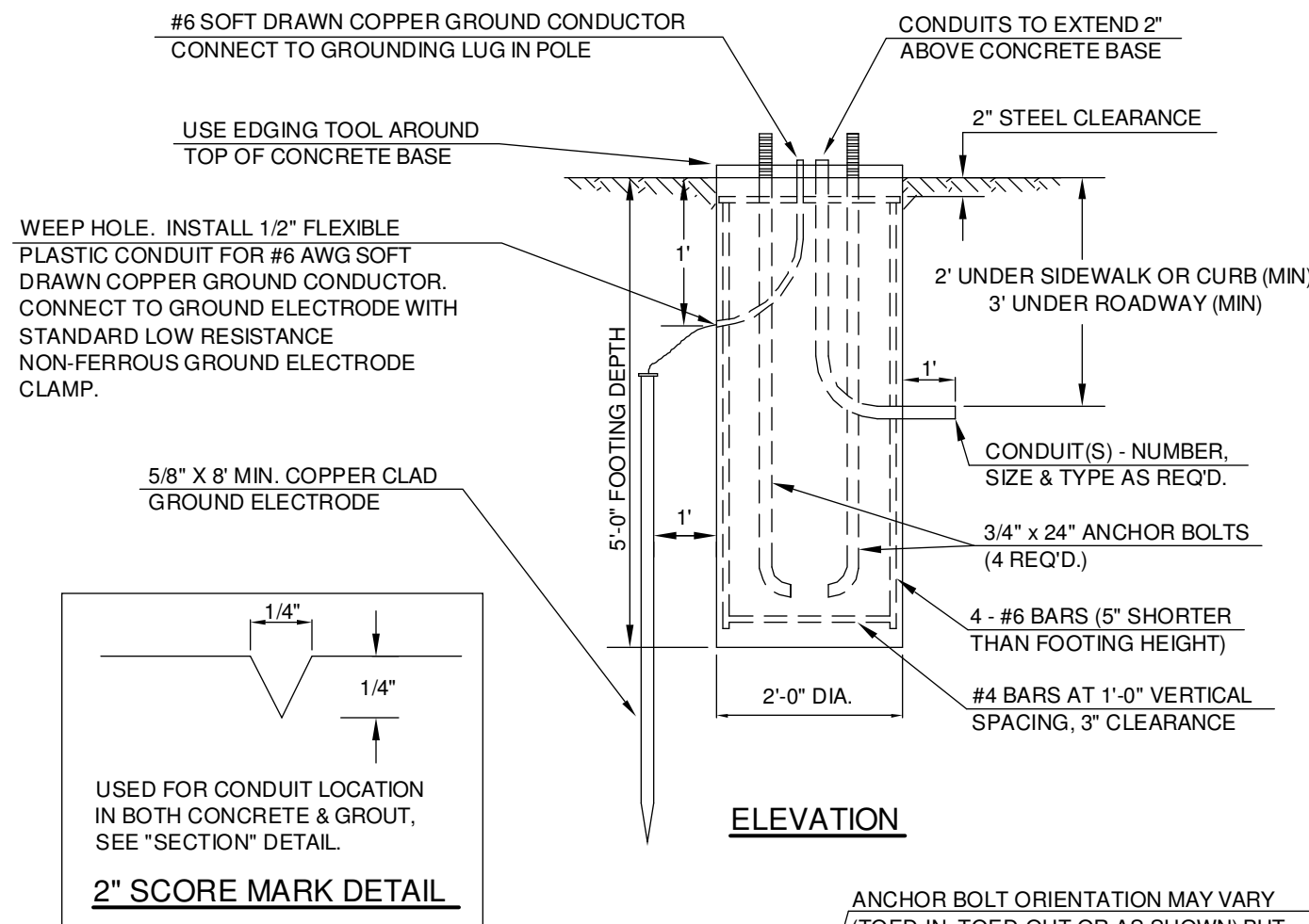
**CANTILEVER POLE #5
WESTBOUND PEARL STREET VIEW**



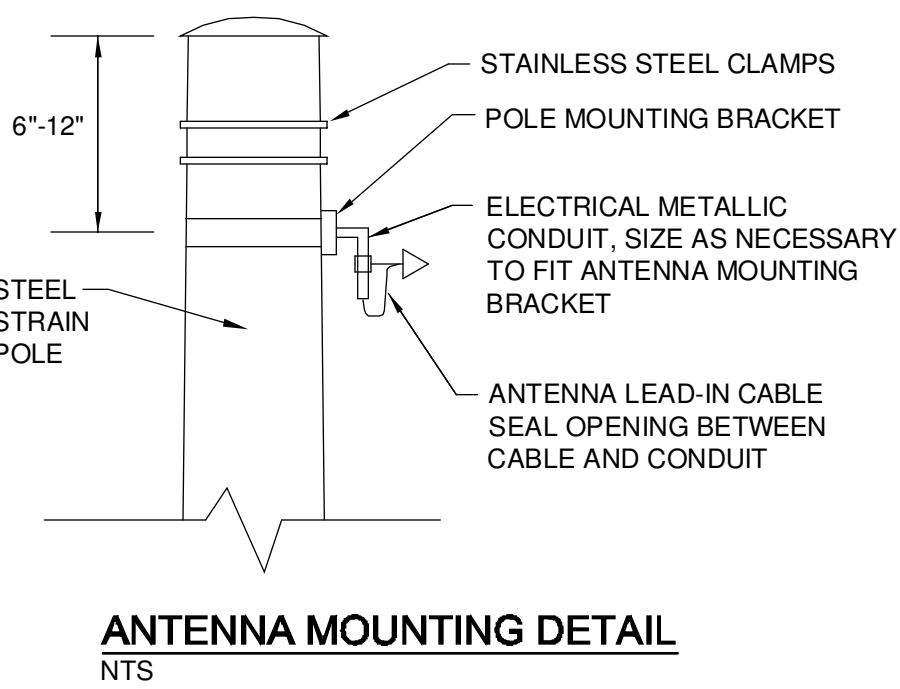
**CANTILEVER POLE #6
EASTBOUND PEARL STREET VIEW**



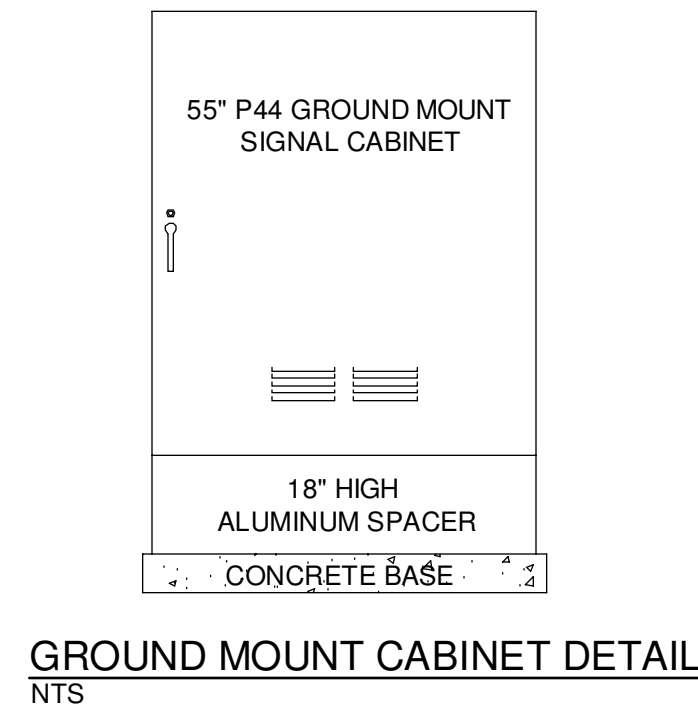
NOTE:
THE DESIGN OF THE CANTILEVER POLES SHOWN HEREON IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE CANTILEVER POLE MANUFACTURER. ALL SIGNAL HEADS AND SIGNS SHALL BE CENTERED VERTICALLY ON THE CANTILEVER. THE CANTILEVER S SHALL BE DESIGNED TO PROVIDE A 17'-0" TO 19'-0" VERTICAL CLEARANCE FROM THE PAVEMENT TO THE BOTTOM OF THE SIGNAL HEADS (EXCLUDING BACKPLATE). THE SHOP DRAWINGS FOR THE MAST ARM POLES SHALL INCLUDE DETAILED DIMENSIONS (ANGLES, LENGTHS, DEAD LOAD DEFLECTIONS, ETC.) TO DETERMINE THE RESULTING ELEVATIONS OF EACH SIGNAL HEAD.



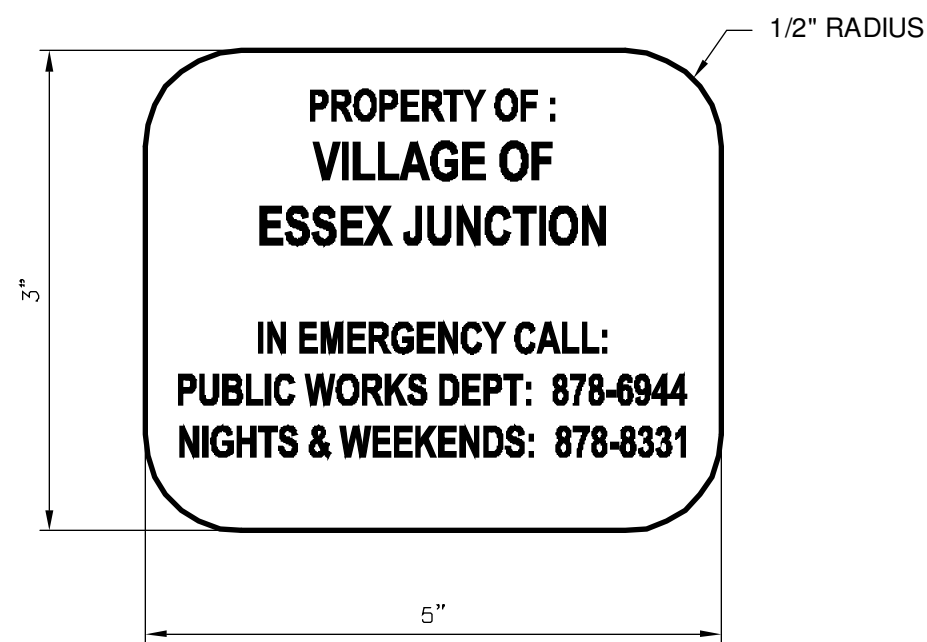
**PEDESTAL POLE REINFORCED CONCRETE FOOTING DETAIL
NTS**



**ACCESSIBLE PEDESTRIAN SIGNAL (APS)
ASSEMBLY DETAIL
NTS**

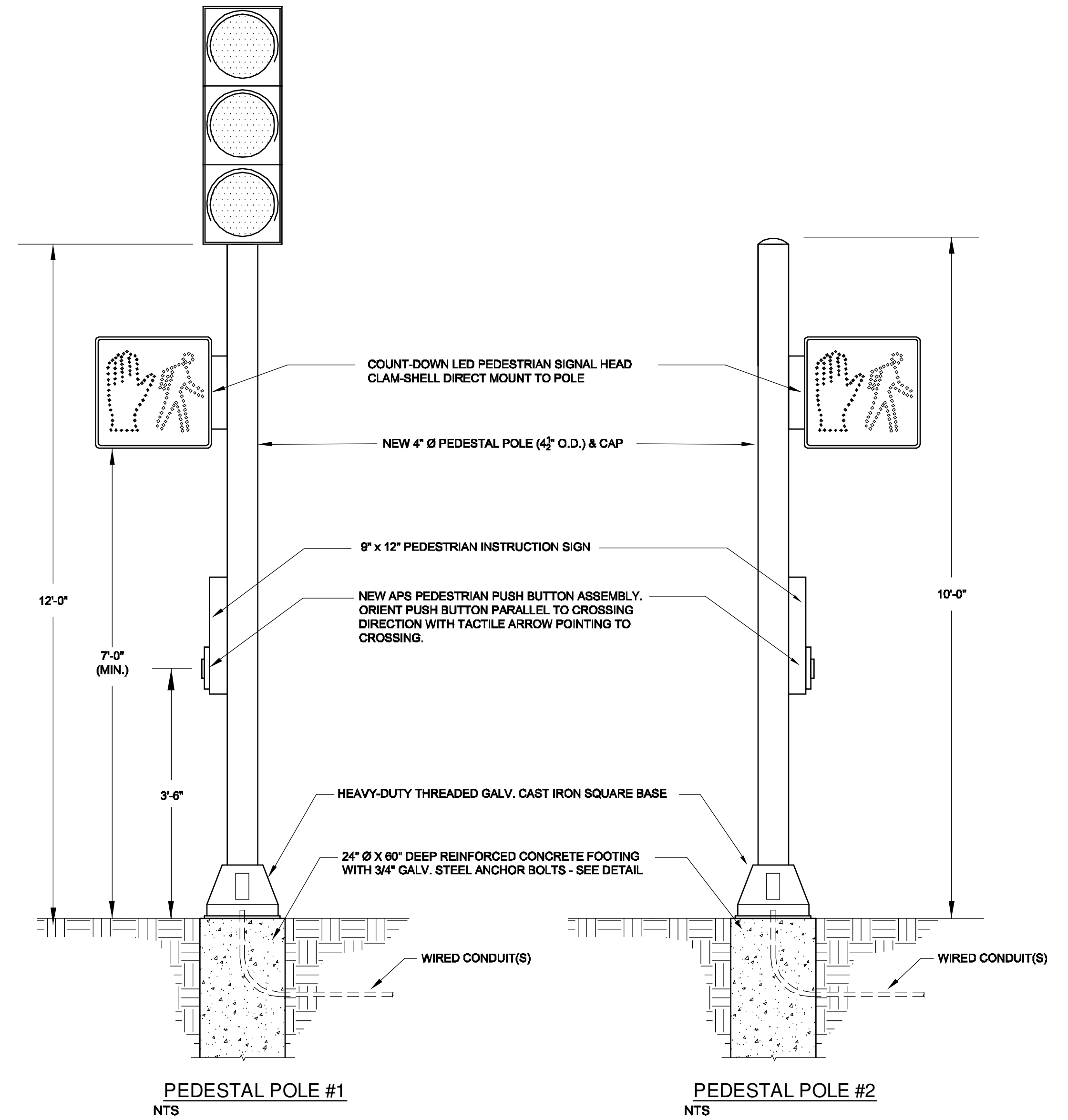


**GROUND MOUNT CABINET DETAIL
NTS**



- LEGEND:** - BLACK (NON-REFL.) - STAMPED PRIOR TO PAINTING BACKGROUND: NATURAL ALUMINUM OR BRASS SURFACE
- NOTES:**
1. THE PLAQUE SHALL BE MOUNTED ON ALL TRAFFIC SIGNAL CONTROLLER CABINETS. IT SHALL BE FASTENED TO THE CONTROLLER CABINET IN SUCH A MANNER AS TO BE NOT EASILY REMOVED, SUCH AS WELDED, RIVETED OR BOLTED WITH VANDAL PROOF BOLTS.
 2. THE LETTERS SHALL BE PUNCHED, STAMPED, OR ENGRAVED. SUCH STAMPING SHALL PENETRATE AT LEAST 1/2 THE BASE THICKNESS.
 3. THE BASE MATERIAL FOR THE PLAQUE SHALL BE BRASS OR ALUMINUM WITH A MINIMUM THICKNESS OF 0.100 INCHES.

**CONTROLLER IDENTIFICATION PLAQUE
NTS**





**PEDESTAL POLE #1
NTS**

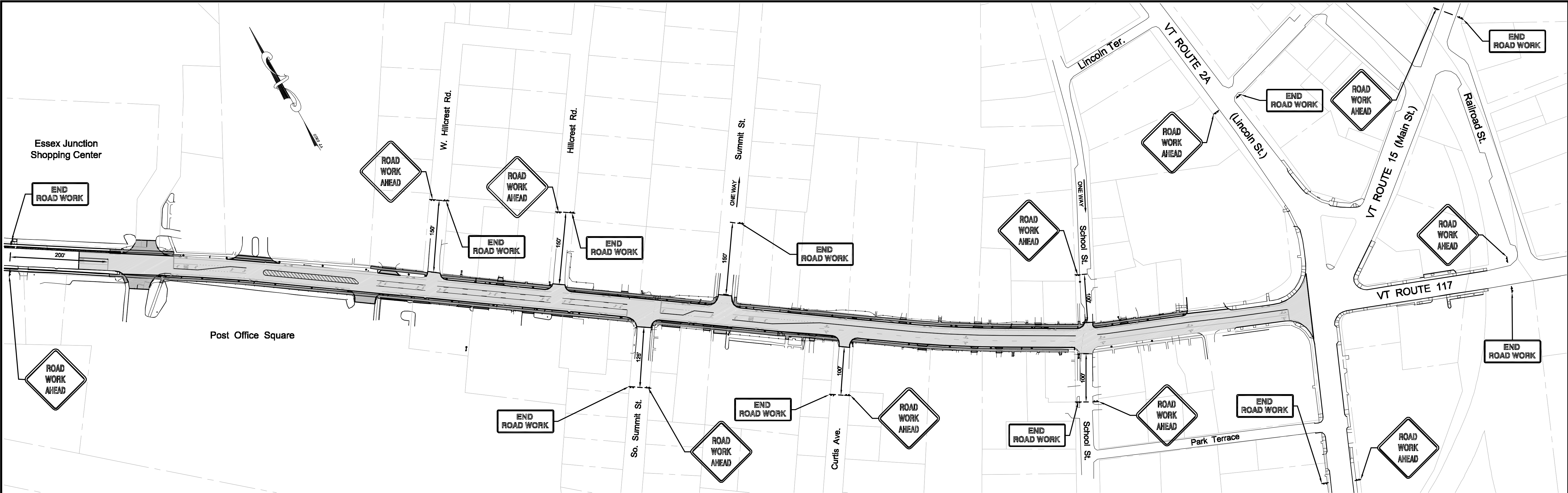
**PEDESTAL POLE #2
NTS**

**PRELIMINARY PLANS
MARCH 19, 2015**

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 <div><u>Civil Engineer</u> Lamoureux & Dickinson Consulting Engineers, Inc. 14 Morse Drive, Essex, VT 05452 802-878-4450 www.LDengineering.com</div>	 <div><u>Electrical Engineer</u> Kirick Engineering Assoc., P.C. 4399 Williston Road, Suite 103 Williston, VT 05495 802-655-5731</div>	14119
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		Drawn BH
		Date 3-19-15
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CANTILEVER CROSS SECTIONS		Sheet number <div>38</div>

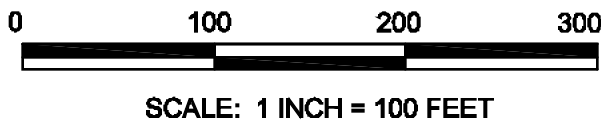
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LONG TERM STATIONARY SIGNS

1. THE SIGNS SHALL BE LOCATED AS DETAILED ON THIS SHEET. THE CONTRACTOR AND RESIDENT ENGINEER SHALL DETERMINE THE EXACT LOCATIONS BASED ON SITE CONDITIONS. CONSTRUCTION APPROACH SIGNS SHALL BE LOCATED A MINIMUM OF 100 FT FROM EXISTING SIGNS AND SHALL NOT BE PLACED IN LOCATIONS WHERE THEY ARE OBSCURED BY TREES, UTILITY POLES, ETC.
2. CONSTRUCTION APPROACH SIGNS SHALL BE ERECTED BEFORE THE START OF WORK AND SHALL BE COVERED UNTIL WORK COMMENCES, DURING PERIODS OF INACTIVITY, OR UPON COMPLETION OF THE WORK. EACH SIGN SHALL BE ERECTED IN A NEAT AND PROFESSIONAL MANNER ON POSTS SET SECURELY IN THE GROUND. THE BOTTOM OF THE SIGN SHALL BE AT LEAST 7 FT ABOVE THE EDGE OF PAVEMENT AND THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST 6 FT OUTSIDE THE SHOULDER POINT, OR 2 FT WHERE LOCATED BEHIND CURB.
3. THE COLORS SHALL CONFORM WITH THE STANDARD COLORS ADOPTED BY AASHTO AND APPROVED BY THE FHWA. CONSTRUCTION SIGNS SHALL CONSIST OF BLACK TEXT AND BORDER ON A FLUORESCENT ORANGE BACKGROUND.
4. ALL SIGN STANDS AND POST INSTALLATION SHALL BE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM 350 (NCHRP) COMPLIANT.
5. AS A MINIMUM, ROLL-UP SIGN MATERIAL SHALL HAVE ASTM D 4956-01 TYPE VI FLUORESCENT ORANGE RETRO-REFLECTIVE SHEETING.
6. ALL POST MOUNTED SIGNS SHALL HAVE ASTM D 4956-01 TYPE VII, TYPE VIII OR TYPE IX FLUORESCENT ORANGE RETRO-REFLECTIVE SHEETING. RETROREFLECTIVITY OF ALL SIGNS SHALL MEET THE REQUIREMENTS OF THE 2009 MUTCD.
7. SIGNS SHALL BE MAINTAINED IN A CLEAN AND LEGIBLE CONDITION SATISFACTORY TO THE RESIDENT ENGINEER. THEY SHALL BE COMPLETELY VISIBLE TO THE APPROACHING TRAFFIC AT ALL TIMES. THEY SHALL BE KEPT PLUMB AND LEVEL. DAMAGED, DEFACED OR DIRTY SIGNS SHALL BE REPAIRED, CLEANED OR REPLACED AT THE REQUEST OF THE RESIDENT ENGINEER.
8. THE SIGN BASE MATERIAL USED FOR THE CONSTRUCTION APPROACH SIGNS MAY BE OF THE FOLLOWING, WITH MINIMUM THICKNESS AS NOTED:
FLAT SHEET ALUMINUM 0.125 INCHES
HIGH DENSITY OVERLAYED PLYWOOD 5/8 INCHES
9. LETTERS, DIGITS, ARROWS, SPACING AND TEXT DIMENSIONS SHALL CONFORM WITH THE "STANDARD HIGHWAY SIGNS BOOK" AND DESIGNS PRESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
10. SIGN COVERS SHALL CONSIST OF A PANEL PAINTED FLAT BLACK, THE SAME SIZE AS THE SIGN IT COVERS. THE PANEL SHALL BE OF WOOD, PLYWOOD, HARDBOARD OR ANY MATERIAL SATISFACTORY TO THE RESIDENT ENGINEER. NO MATERIAL WILL BE APPROVED THAT WILL DETERIORATE BY EXPOSURE TO THE WEATHER DURING THE PROJECT. MOUNTING OF THE PANEL SHALL BE DONE IN SUCH A WAY AS NOT TO DAMAGE THE SIGN FACE MATERIAL.
11. ALL LONG TERM STATIONARY SIGNS SHALL BE MOUNTED ON TWO 3 LBS/FT FLANGED CHANNEL POSTS OR 2 INCH SQUARE STEEL POSTS WITH ANCHORS. NO SIGN POSTS SHALL EXTEND OVER THE TOP EDGE OF THE SIGN INSTALLED ON SAID POSTS.
12. PRIOR TO PLACING TEMPORARY WORK ZONE SIGNS ON THE PROJECT, THE CONTRACTOR MUST FURNISH FOR APPROVAL A DETAIL FOR TEMPORARY WORK ZONE SIGNS ON STEEL POSTS SHOWING STUBS PROJECTING A MAXIMUM OF 4 INCHES ABOVE GROUND LEVEL. BOLTS FOR SIGN POST ATTACHMENT SHALL BE NCHRP 350 COMPLIANT, IF IN THE CLEAR ZONE.
13. ALL TRAFFIC CONES, BARRICADES AND BARRELS SHALL USE TYPE III MINIMUM RETRO-REFLECTIVE SHEETING.

CONSTRUCTION APPROACH SIGNING
(LONG TERM STATIONARY)



FLAGGERS AND UNIFORM TRAFFIC OFFICERS

UNIFORMED TRAFFIC CONTROL OFFICERS SHALL DIRECT TRAFFIC AT THE NORTH STREET INTERSECTION WHEN CONSTRUCTION ACTIVITIES ARE UNDERWAY WITHIN THE OPERATIONAL AREA OF THE INTERSECTION, WHEN CONTINUOUS TWO-WAY TRAFFIC IS NOT POSSIBLE OR WHEN DEEMED NECESSARY BY THE VILLAGE OR VTRANS. THE PRESENCE OF THE BLUE LIGHT MAY NOT BE SUITABLE OR NECESSARY. THE WEARING OF DEPARTMENTALLY REQUIRED AND APPROVED REFLECTIVE GARMENTS IS REQUIRED.

FLAGGERS ARE ONLY ALLOWED TO STOP AND RELEASE TRAFFIC.

FLAGGERS ARE REQUIRED TO SATISFACTORY COMPLETE A 4-HOUR APPROVED TRAINING COURSE AND CARRY THEIR FLAGGER CERTIFICATION CARD WITH THEM. THE CONTRACTOR SHALL PROVIDE COPIES OF EACH FLAGGER'S CERTIFICATION CARD.

ALL FLAGGERS SHALL WEAR SAFETY APPAREL MEETING REQUIREMENTS OF ISEA "AMERICAN NATIONAL STANDARD OF HIGH-VISIBILITY APPAREL" AND LABELED AS MEETING THE ANSI 107-2004 STANDARD PERFORMANCE FOR CLASS 2 RISK EXPOSURE. INDIVIDUALS ENGAGED IN TRAFFIC CONTROL SHALL WEAR A HIGH-VISIBILITY VEST WITH "TRAFFIC CONTROL" VISIBLE, WITHOUT EXCEPTION.

A FLAGGER STATION SHALL BE LOCATED SUCH THAT APPROACHING ROAD USERS WILL HAVE SUFFICIENT DISTANCE TO STOP AT AN INTENDED STOPPING POINT. THE DISTANCES FOR THE STOPPING SIGHT DISTANCE IS A FUNCTION OF THE SPEED OF THE HIGHWAY. PLEASE REFER TO TABLE 6E-1 STOPPING SIGHT DISTANCE AS A FUNCTION OF SPEED IN THE 2009 MUTCD. THIS DISTANCE MAY INCREASE FOR UPGRADES AND OTHER CONDITIONS THAT AFFECT SIGHT DISTANCE.

WHEN USED, THE 'BE PREPARED TO STOP' SIGN SHOULD BE LOCATED BEFORE THE FLAGGER SYMBOL SIGN.

IT IS RECOMMENDED IF THE FLAGGER IS NOT AT THEIR STATION FOR MORE THAN 15 MINUTES THAT THE SIGNS BE TURNED FROM APPROACHING TRAFFIC SO AS NOT TO SEND A FALSE MESSAGE TO THE MOTORIST TRAVELING THROUGH THE WORK ZONE. OTHERWISE THE FLAGGER SIGNS LOSE THEIR EFFECTIVENESS WHEN THE FLAGGING OPERATION IS ACTIVE.

TEMPORARY TRAFFIC CONTROL NOTES

1. ALL TEMPORARY CONTROL DEVICES SHALL MEET OR EXCEED THOSE SHOWN ON THE STANDARD DETAILS, WHERE THE STANDARD DETAILS CONFLICT WITH THE MUTCD, THE MUTCD SHALL GOVERN.
2. FOR ANY WORK WITHIN THE HIGHWAY RIGHT-OF-WAY A MINIMUM OF ONE-WAY THRU TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. CONTINUOUS TWO-WAY TRAFFIC SHALL BE MAINTAINED AT NIGHT, ON WEEKENDS AND HOLIDAYS, DURING PEAK TRAFFIC AND WHENEVER POSSIBLE DURING CONSTRUCTION.
3. SHORT DURATION TEMPORARY TRAFFIC CONTROL SIGNING AND CHANNELIZING DEVICES SHALL BE IN ACCORDANCE WITH THE APPROPRIATE MUTCD STANDARDS (PART 6). TYPICAL APPLICATIONS 3.10, 22, 23, 28 AND 29 ARE USEFUL EXAMPLES. VARIATIONS IN THE SIGNING PACKAGES MAY BE DICTATED BY UNIQUE GEOMETRY, SPECIFIC CONSTRUCTION ACTIVITIES, AND/OR TRAFFIC CONDITIONS.
4. APPROACH CONSTRUCTION SIGNING SHALL REMAIN IN PLACE DURING THE ENTIRE CONSTRUCTION PERIOD.
5. THE CONTRACTOR SHALL NOT WORK WITHIN THE HIGHWAY ROW WITHOUT THE APPROPRIATE CONSTRUCTION SIGNING AND TEMPORARY TRAFFIC CONTROL DEVICES IN PLACE.
6. TO FACILITATE THE FLOW OF TRAFFIC, THE VILLAGE AND VTRANS SHALL HAVE AUTHORITY TO MODIFY THE CONTRACTOR'S ONGOING OPERATIONS OR PROPOSED METHODS OF CONSTRUCTION AS DEEMED NECESSARY FOR THE SAFETY, CONVENIENCE AND WELFARE OF THE TRAVELING PUBLIC. THE CONTRACTOR SHALL COMPLY WITH DIRECTIVES CONCERNING THIS MATTER.
7. THE MIXING OF TEMPORARY TRAFFIC CONTROL DEVICES (DRUMS, CONES, ETC.) ALONG A TANGENT HIGHWAY IS NOT ALLOWED. DRUMS SHOULD BE USED TO CHANNELIZE OR DELINEATE ROAD USER'S FLOW WHILE REFLECTORIZED CONES ARE BETTER SUITED TO DELINEATE DRIVES WITHIN THE WORK ZONE.
8. REASONABLE ACCESS TO BUSINESSES AND RESIDENCES WITHIN THE PROJECT AREA SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION.
9. CONTRACTOR SHALL PROVIDE A MINIMUM 48 HOUR ADVANCE NOTICE TO PROPERTY OWNERS PRIOR TO COMMENCING WORK IN DRIVES. WHERE SIDEWALKS CROSS DRIVES, THEY SHALL BE CONSTRUCTED IN TWO PHASES, MAINTAINING ACCESS TO DRIVEWAYS AT ALL TIMES.
10. FLAGGERS AND/OR TRAFFIC CONTROL PERSONNEL SHALL DIRECT BICYCLISTS THROUGH THE CONSTRUCTION AREA IN THE SAME MANNER AS VEHICULAR TRAFFIC. CONSTRUCTION VEHICLES AND ROADWAY TRAFFIC SHALL BE STOPPED WHEN PEDESTRIANS ARE PRESENT IN THE WORK ZONE SO THEY MAY BE DIRECTED SAFELY THROUGH AN ADA COMPLIANT DETOUR THROUGH THE WORK ZONE.
11. AN ADA COMPLIANT ROUTE SHALL BE PROVIDED THROUGH THE WORK ZONE AT ALL TIMES. THIS ROUTE SHALL BE LEFT IN PLACE OVERNIGHT AND MUST INCLUDE SIGNS THAT MEET THE MUTCD, AND PEDESTRIAN CHANNELIZING DEVICES THAT MEET MUTCD AND ADA. CHANNELIZING DEVICES MUST HAVE A CONTINUOUS DETECTABLE BOTTOM EDGE PER MUTCD STANDARDS.
12. SIDEWALK CLOSED SIGNS (R9-9) SHALL BE REQUIRED IN ADVANCE OF THE WORK AREA ON COMPLETED PORTIONS OF THE PROJECT TO PREVENT PEDESTRIANS FROM ENTERING THE WORK ZONE.



W21-1a



W3-4

PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link



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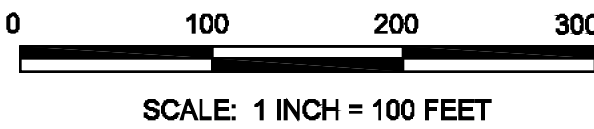
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Project No.
14119
Design
RD
Drawn
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Date
3-19-15

Scale
1" = 100'
Sheet number



TRAFFIC CONTROL
PEDESTRIAN DETOUR PLAN



NOTES:

1. SIDEWALK CONSTRUCTION SHALL PROCEED ON ONLY ONE SIDE OF PEARL STREET AT A TIME.
2. CONTRACTOR SHALL STAGE SIDEWALK CONSTRUCTION SO THAT AT ALL TIMES THERE EXISTS A CONTINUOUS, ADA COMPLIANT, FUNCTIONAL SIDEWALK ROUTE ALONG EACH SIDE, WITH DETOURS AND TEMPORARY CROSSWALKS AS NECESSARY.
3. THIS PLAN SHOWS THE SIGNS REQUIRED WHEN SIDEWALK WORK IS UNDERWAY ON THE NORTH SIDE OF PEARL STREET. THESE SIGNS MUST BE REVERSED FOR WORK ON THE SOUTH SIDE OF THE STREET.
5. THE CONTRACTOR WILL NEED TO COMPLETE THE INSTALLATION OF THE NEW SIDEWALK WITHIN EACH ZONE PRIOR TO STARTING WORK IN ANOTHER ZONE.
6. SIDEWALK CLOSED SIGNS SHALL BE MOUNTED ON TYPE III BARRICADES SO THAT THE BOTTOM OF THE BARRICADE IS DETECTABLE TO A VISUALLY IMPAIRED PEDESTRIAN USING A CANE.



PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

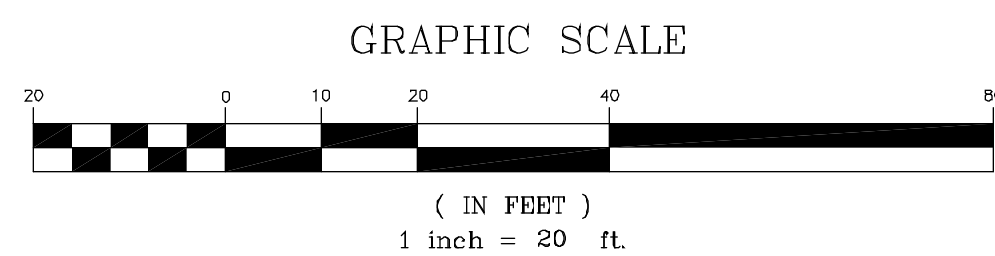
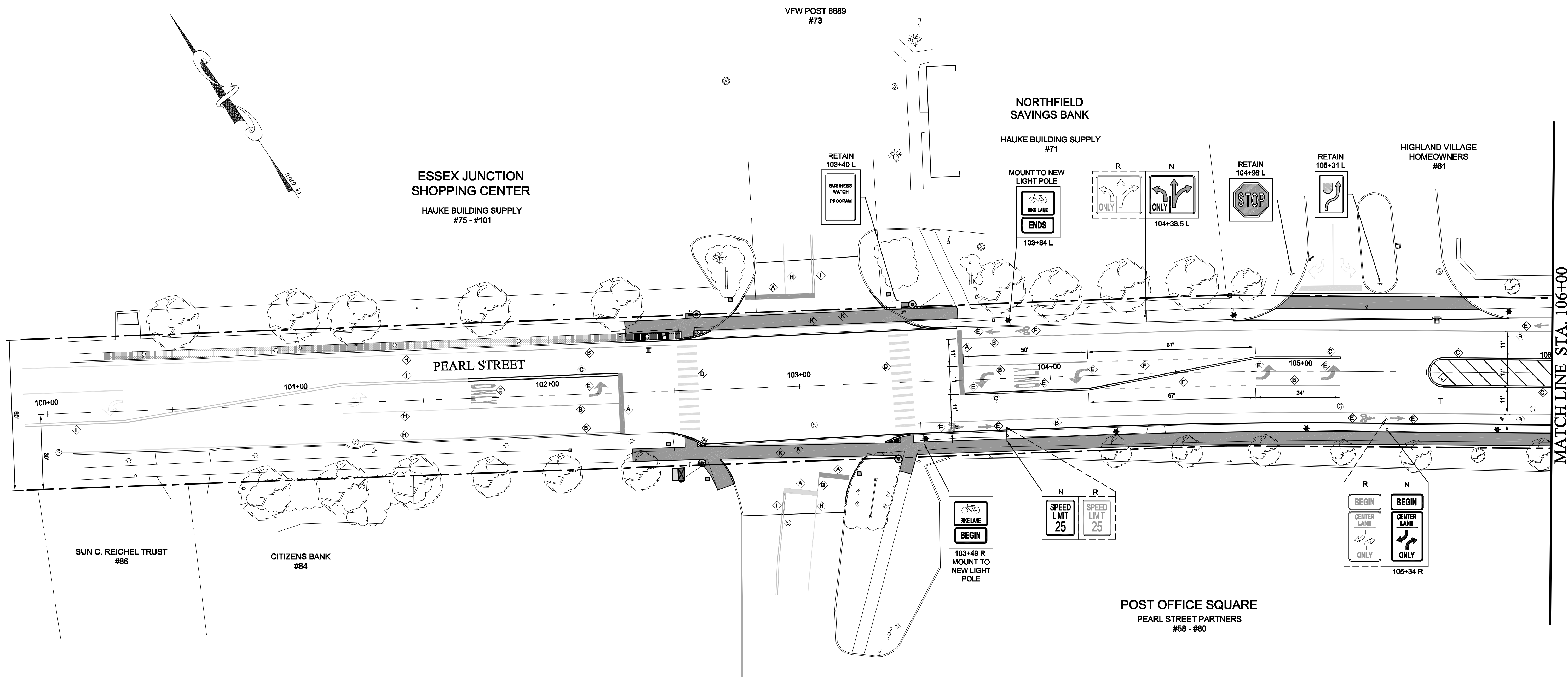
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TRAFFIC CONTROL

Project No. 14119
Design RD
Drawn BH
Date 3-19-15
Scale 1" = 100'
Sheet number 40

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ITEM 646.20 - 4 INCH WHITE LINE
STA. 101+68 - 102+51 LT
STA. 101+68 - 102+28 RT (2)
STA. 103+06 - 103+07 RT
STA. 103+47 - 106+00 RT
STA. 103+66 - 104+15 LT
STA. 103+66 - 106+00 LT
STA. 104+15 - 104+82 LT (DOTTED)
STA. 104+15 - 104+82 RT (DOTTED)
STA. 104+82 - 105+16 RT

ITEM 646.21 - 4 INCH YELLOW LINE
STA. 101+68 - 102+28 LT (2)
STA. 103+66 - 105+16 LT/RT (2)
STA. 105+51 - 106+00 LT/RT (2)
STA. 105+53 - 106+00 LT/RT (7)

ITEM 646.22 - 8 INCH WHITE LINE
STA. 102+62 - 103+29 RT
STA. 102+66 - 103+43 LT
STA. 102+68 - 103+24 RT
STA. 102+74 - 103+35 LT

ITEM 646.26 - 24 INCH STOP BAR
STA. 102+68 LT/RT
STA. 102+80 - 103+08 LT
STA. 102+90 - 103+05 RT
STA. 103+06 - 103+18 RT
STA. 103+65 LT/RT

ITEM 646.30 - LETTER OR SYMBOL
STA. 101+74 LT/RT
STA. 102+20 LT/RT
STA. 103+62 RT
STA. 103+73 RT
STA. 103+74 LT/RT
STA. 103+78 LT
STA. 103+91 LT
STA. 103+91 LT/RT
STA. 104+11 LT/RT
STA. 104+86 LT/RT
STA. 105+12 LT/RT
STA. 105+25 RT
STA. 105+39 RT
STA. 105+97 LT

ITEM 646.31 - CROSSWALK MARKING
STA. 102+55 - 102+56 LT/RT
STA. 103+41 - 103+43 LT/RT

PAVEMENT MARKING LEGEND

- ◆ NEW 24" SOLID WHITE STOPBAR
- ◆ NEW 4" SOLID WHITE LINE
- ◆ NEW DOUBLE 4" SOLID YELLOW LINE
- ◆ NEW CROSSWALK MARKING
- ◆ NEW LETTER OR SYMBOL
- ◆ NEW 4" DOTTED WHITE LINE
- ◆ NEW 4" DASHED WHITE LINE
- ◆ EXISTING 4" SOLID WHITE LINE
- ◆ EXISTING 4" SOLID YELLOW LINE
- ◆ NEW 4" SOLID YELLOW LINE
- ◆ NEW 4" DASHED YELLOW LINE

PRELIMINARY PLANS MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link



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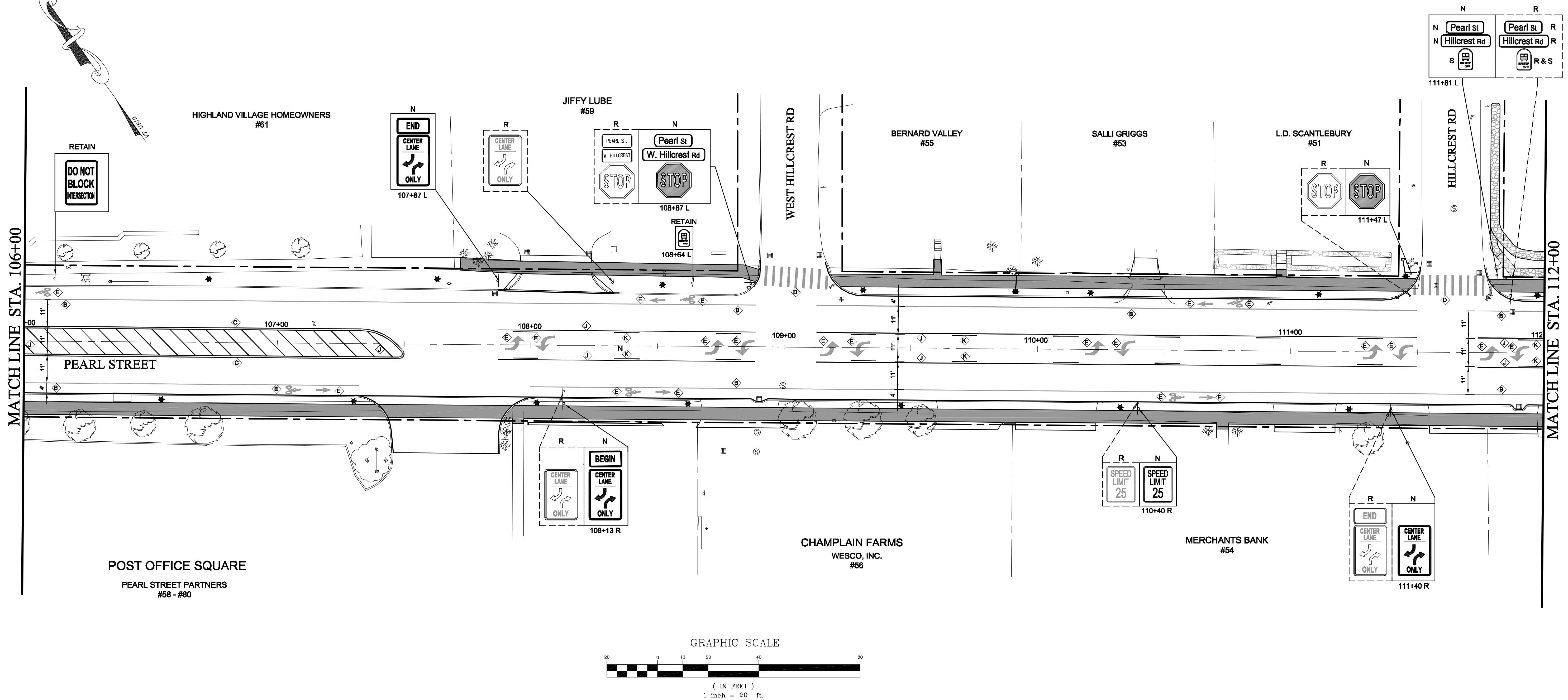
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PAVEMENT MARKING & SIGN PLAN

Project No.
14119
Design
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Date
3-19-15
Scale
1" = 20'
Sheet number

41

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ITEM 646.20 - 4 INCH WHITE LINE
STA. 106+00 - 108+89 LT
STA. 106+00 - 107+32 RT
STA. 108+00 - 112+00 RT
STA. 109+13 - 111+50 LT
STA. 111+74 - 112+00 LT

ITEM 646.21 - 4 INCH YELLOW LINE
STA. 106+00 - 107+50 LT/RT (4)
STA. 106+00 - 107+46 LT/RT (21)
STA. 107+87 - 108+89 LT/RT (2)
STA. 107+93 - 108+83 LT/RT (2) (DASHED)
STA. 109+13 - 111+50 LT/RT (2)
STA. 109+26 - 111+36 LT/RT (2) (DASHED)
STA. 111+74 - 112+00 LT/RT (2)
STA. 111+90 - 112+00 LT/RT (2) (DASHED)

ITEM 646.30 - LETTER OR SYMBOL
STA. 106+08 LT
STA. 107+05 RT
STA. 107+18 RT
STA. 107+94 LT/RT
STA. 108+06 LT/RT
STA. 108+40 RT
STA. 108+50 LT
STA. 108+52 RT
STA. 108+63 LT
STA. 108+73 LT/RT
STA. 108+84 LT/RT
STA. 109+18 LT/RT
STA. 109+30 LT/RT
STA. 110+23 LT/RT
STA. 110+35 LT/RT
STA. 110+53 RT
STA. 110+67 RT
STA. 110+67 LT
STA. 110+80 LT
STA. 111+32 LT/RT
STA. 111+44 LT/RT
STA. 111+79 LT/RT
STA. 111+91 LT/RT

ITEM 646.31 - CROSSWALK MARKING
STA. 108+92 - 109+16 LT
STA. 111+48 - 111+80 LT

PAVEMENT MARKING LEGEND

- ⬡ NEW 24" SOLID WHITE STOPBAR
- ⬢ NEW 4" SOLID WHITE LINE
- ⬢ NEW DOUBLE 4" SOLID YELLOW LINE
- ⬢ NEW CROSSWALK MARKING
- ⬢ NEW LETTER OR SYMBOL
- ⬢ NEW 4" DOTTED WHITE LINE
- ⬢ NEW 4" DASHED WHITE LINE
- ⬢ EXISTING 4" SOLID WHITE LINE
- ⬢ EXISTING 4" SOLID YELLOW LINE
- ⬢ NEW 4" SOLID YELLOW LINE
- ⬢ NEW 4" DASHED YELLOW LINE

PRELIMINARY PLANS MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

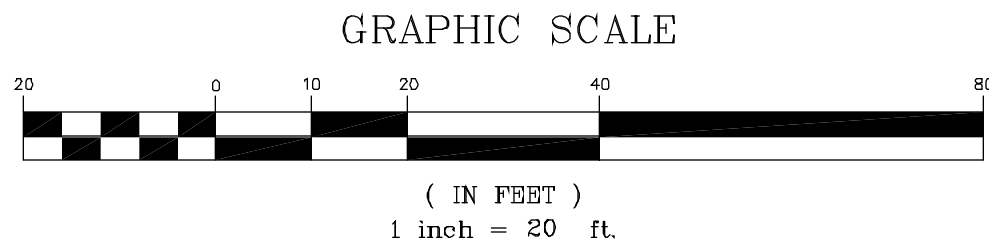
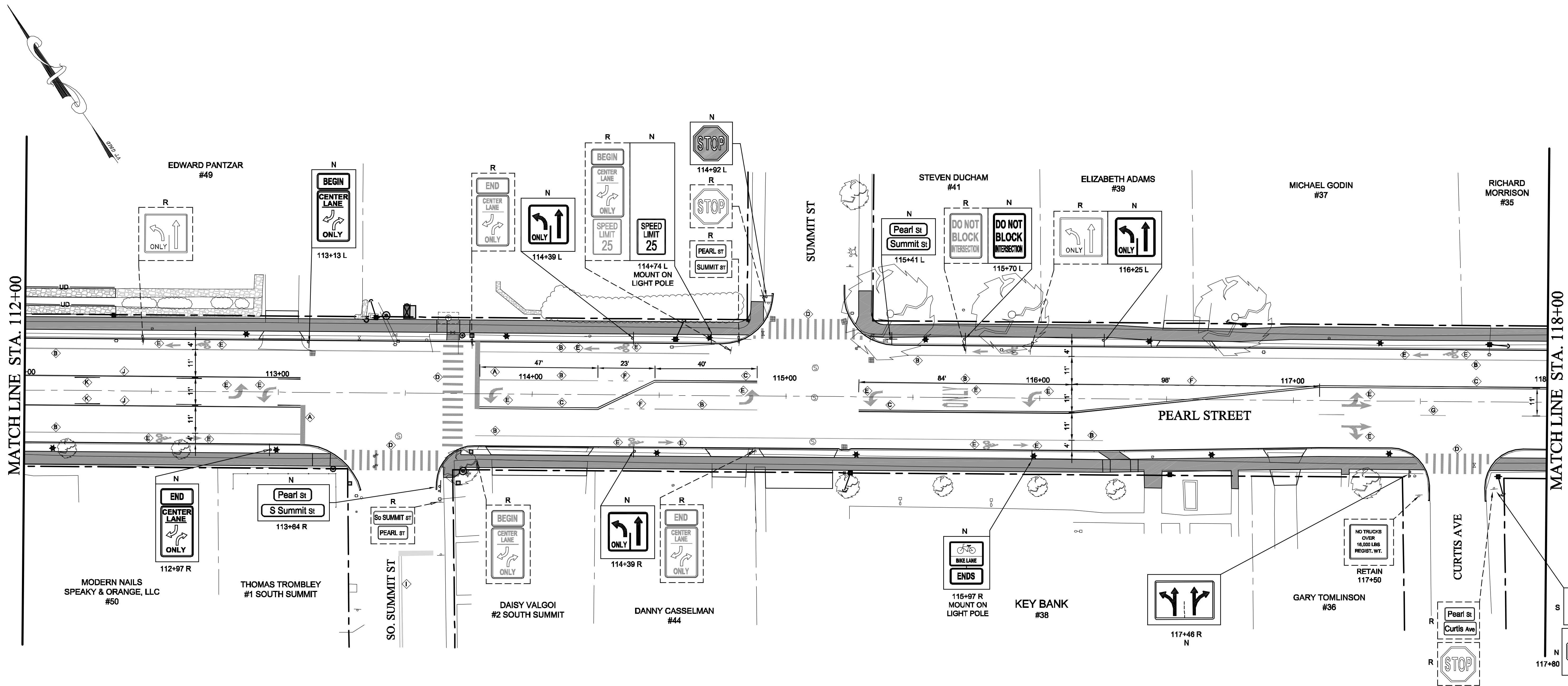


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PAVEMENT MARKING & SIGN PLAN

Project No. 14119
Design RD
Drawn BH
Date 3-19-15
Scale 1" = 20'
Sheet number 42



ITEM 646.20 - 4 INCH WHITE LINE
STA. 112+00 - 114+70 LT
STA. 112+00 - 113+09 RT
STA. 113+78 - 116+25 RT
STA. 113+89 - 114+26 LT
STA. 114+26 - 114+48 LT/RT (DOTTED)
STA. 114+48 - 114+89 RT
STA. 115+29 - 116+25 LT
STA. 115+48 - 118+00 LT
STA. 116+25 - 117+00 LT (DOTTED)
STA. 117+70 - 118+00 RT (DASHED)

ITEM 646.21 - 4 INCH YELLOW LINE
STA. 112+00 - 113+09 LT/RT (2)
STA. 112+20 - 119+09 LT/RT (2) (DASHED)
STA. 113+89 - 114+89 LT/RT (2)
STA. 115+29 - 118+00 LT/RT (2)

ITEM 646.26 - 24 INCH STOP BAR
STA. 113+09 LT/RT
STA. 113+78 LT/RT

ITEM 646.30 - LETTER OR SYMBOL

STA. 112+54 RT
STA. 112+57 LT
STA. 112+66 RT
STA. 112+71 LT
STA. 112+84 LT/RT
STA. 112+95 LT/RT
STA. 113+85 LT/RT
STA. 114+23 LT
STA. 114+36 LT
STA. 114+40 RT
STA. 114+52 RT
STA. 114+85 LT/RT
STA. 115+34 LT/RT
STA. 115+76 LT
STA. 115+66 LT/RT
STA. 115+80 RT
STA. 115+89 LT
STA. 115+92 RT
STA. 115+97 LT/RT
STA. 117+25 RT
STA. 117+51 LT
STA. 117+65 LT

ITEM 646.31 - CROSSWALK MARKING

STA. 113+26 - 113+63 RT
STA. 113+67 - 113+68 LT/RT
STA. 114+81 - 115+31 LT
STA. 117+52 - 117+77 RT

PAVEMENT MARKING LEGEND

- NEW 24" SOLID WHITE STOPBAR
- NEW 4" SOLID WHITE LINE
- NEW DOUBLE 4" SOLID YELLOW LINE
- NEW CROSSWALK MARKING
- NEW LETTER OR SYMBOL
- NEW 4" DOTTED WHITE LINE
- NEW 4" DASHED WHITE LINE
- EXISTING 4" SOLID WHITE LINE
- EXISTING 4" SOLID YELLOW LINE
- NEW 4" SOLID YELLOW LINE
- NEW 4" DASHED YELLOW LINE

PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

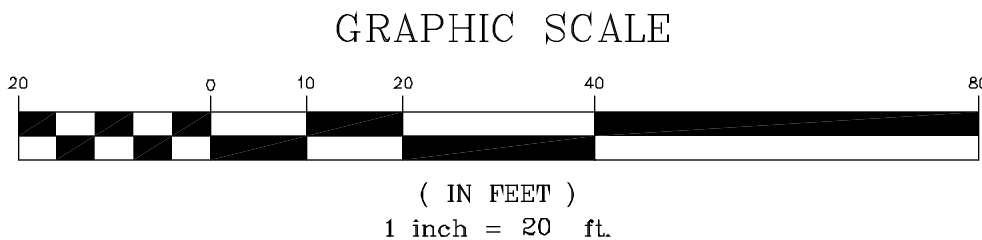
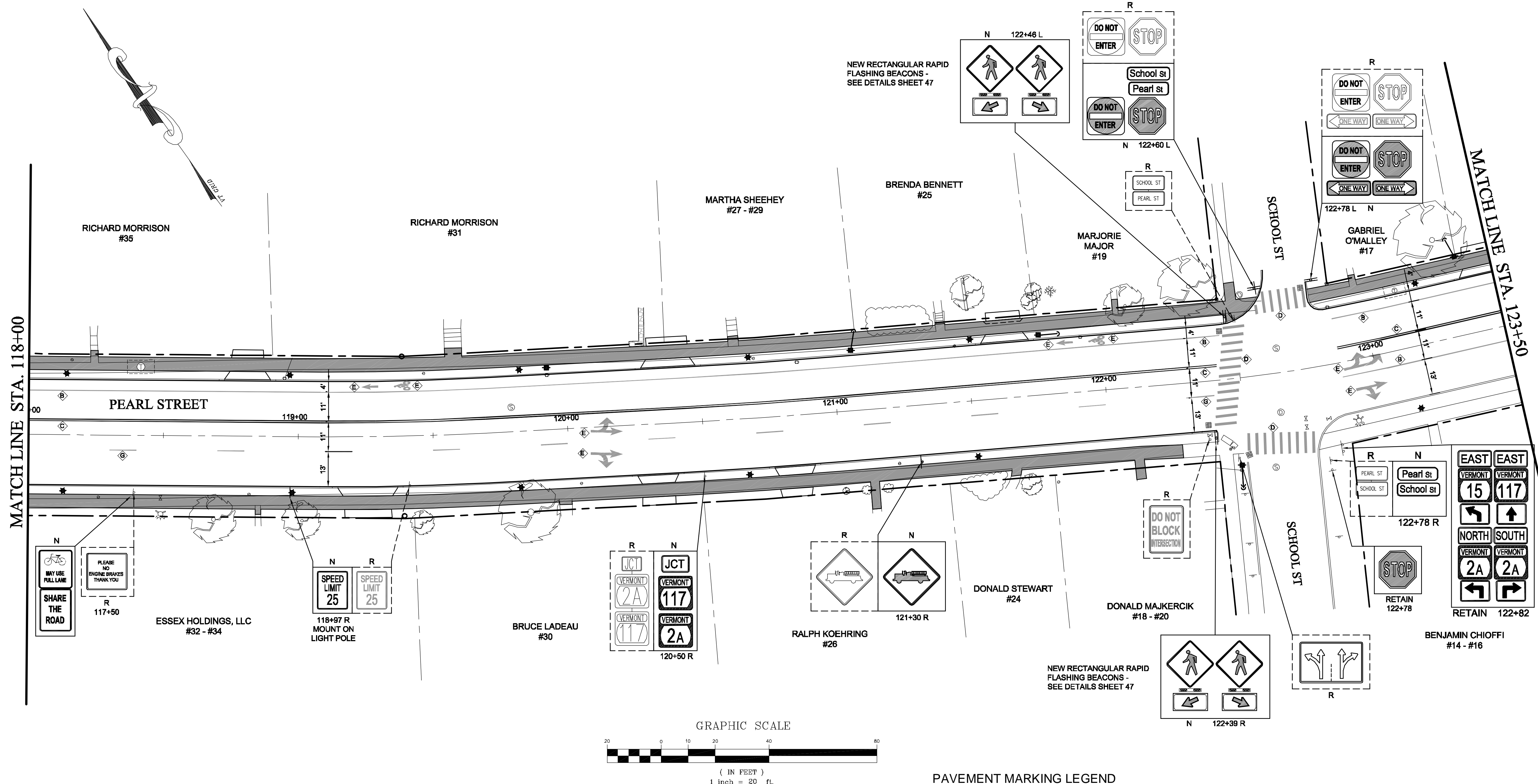


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PAVEMENT MARKING
& SIGN PLAN

Project No.
14119
Design
RD
Drawn
BH
Date
3-19-15
Scale
1" = 20'
Sheet number
43



ITEM 646.20 - 4 INCH WHITE LINE
STA. 118+00 - 122+44 LT
STA. 118+30 - 122+40 RT (DASHED)
STA. 122+87 - 123+50 LT/RT

ITEM 646.21 - 4 INCH YELLOW LINE
STA. 118+00 - 122+42 LT (2)
STA. 122+87 - 123+50 LT (2)

ITEM 646.30 - LETTER OR SYMBOL
STA. 119+27 LT
STA. 119+41 LT
STA. 120+14 RT
STA. 121+87 LT
STA. 121+98 LT
STA. 122+96 LT/RT
STA. 122+98 RT

ITEM 646.31 - CROSSWALK MARKING
STA. 122+42 - 122+50 LT/RT
STA. 122+50 - 122+74 RT
STA. 122+59 - 122+78 LT

PAVEMENT MARKING LEGEND

- NEW 24" SOLID WHITE STOPBAR
- NEW 4" SOLID WHITE LINE
- NEW DOUBLE 4" SOLID YELLOW LINE
- NEW CROSSWALK MARKING
- NEW LETTER OR SYMBOL
- NEW 4" DOTTED WHITE LINE
- NEW 4" DASHED WHITE LINE
- EXISTING 4" SOLID WHITE LINE
- EXISTING 4" SOLID YELLOW LINE
- NEW 4" SOLID YELLOW LINE
- NEW 4" DASHED YELLOW LINE

PRELIMINARY PLANS
MARCH 19, 2015

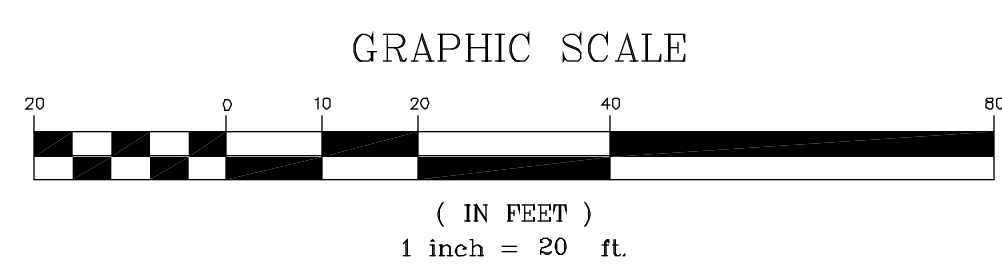
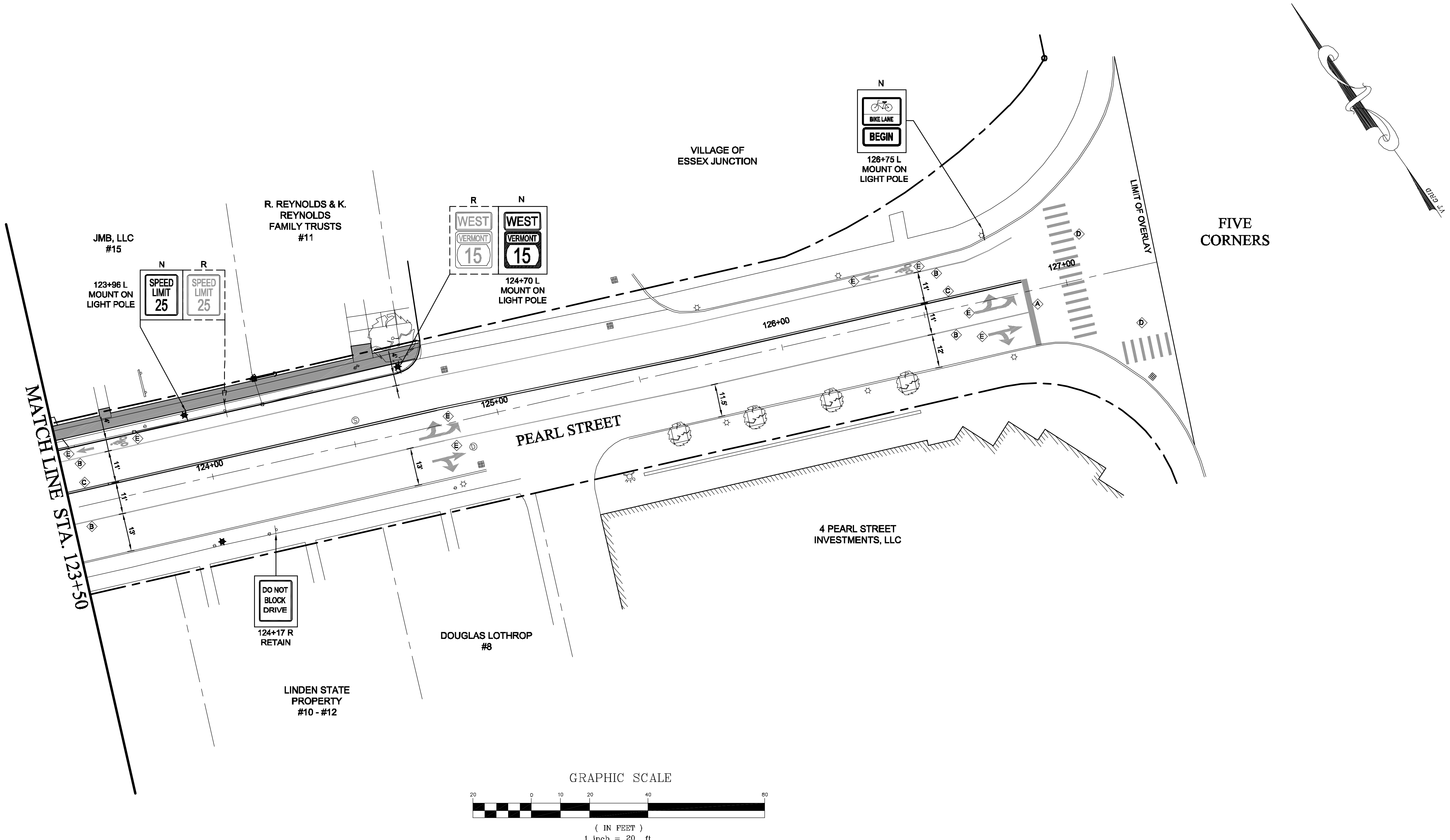
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14119
Design
RD
Drawn
BH
Date
3-19-15
Scale
1" = 20'
Sheet number
44



ITEM 646.20 - 4 INCH WHITE LINE
STA. 123+50 - 126+85 LT/RT

ITEM 646.21 - 4 INCH YELLOW LINE
STA. 123+50 - 126+85 LT (2)

ITEM 646.26 - 24 INCH STOP BAR
STA. 126+86 LT/RT

ITEM 646.30 - LETTER OR SYMBOL
STA. 123+60 LT
STA. 123+72 LT
STA. 124+79 LT/RT
STA. 124+80 RT
STA. 126+75 LT/RT
STA. 126+76 RT

ITEM 646.31 - CROSSWALK MARKING
STA. 127+01 - 127+03 LT/RT
STA. 127+12 - 127+30 RT

PAVEMENT MARKING LEGEND

- ⬡ NEW 24" SOLID WHITE STOPBAR
- ▤ NEW 4" SOLID WHITE LINE
- ▨ NEW DOUBLE 4" SOLID YELLOW LINE
- ▩ NEW CROSSWALK MARKING
- Ⓔ NEW LETTER OR SYMBOL
- ⋯ NEW 4" DOTTED WHITE LINE
- ⋯ NEW 4" DASHED WHITE LINE
- ▤ EXISTING 4" SOLID WHITE LINE
- ▨ EXISTING 4" SOLID YELLOW LINE
- ▩ NEW 4" SOLID YELLOW LINE
- ⋯ NEW 4" DASHED YELLOW LINE

PRELIMINARY PLANS
MARCH 19, 2015






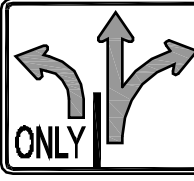






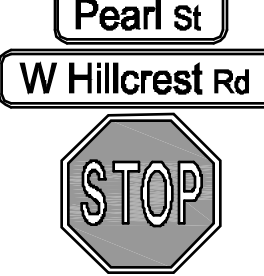



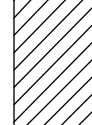
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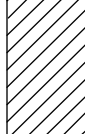
	Civil Engineer Lamoureux & Dickinson Consulting Engineers, Inc. 14 Morse Drive, Essex, VT 05452 802-878-4450 www.LDengineering.com	Electrical Engineer  Kirk Engineering Assoc., P.C. 399 Williston Road, Suite 103 Williston, VT 05495 802-655-5731
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PAVEMENT MARKING
& SIGN PLAN

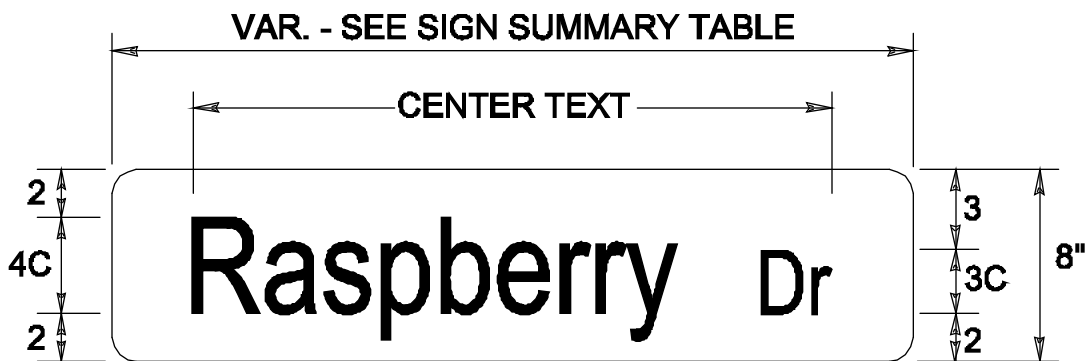
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Date 3-19-15
Scale 1" = 20'
Sheet number 45

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SIGN SUMMARY TABLE												
STATION	SIGN LEGEND	SIGN DIMENSIONS				AREA (SF)	NO. OF POSTS	NEW SIGN POSTS			MUTCD	
		EACH SIDE	SAFETY DIST.	WIDTH (in)	HEIGHT (in)			SQUARE STEEL (in)				
								1.75	2.0	2.5		
1.88	2.42	3.35										
103+49 R		1		24"	18"	3.00					D11-1 M4-11 MOUNT ON LIGHT POLE	
		1		24"	12"	2.00						
103+84 L		1		24"	18"	3.00					D11-1 M4-6 MOUNT ON LIGHT POLE	
		1		24"	12"	2.00						
103+82 R		1		24"	30"	5.00	1		15		R2-1	
104+38 L		1		30"	36"	7.50	1		15		VR-922	
105+34 R		1		24"	12"	2.00					M4-11	
		1		24"	36"	6.00	1		15		R3-9B	
107+87 L		1		24"	12"	2.00					M4-6	
		1		24"	36"	6.00	1		15		R3-9B	
108+13 R		1		24"	12"	2.00					M4-11	
		1		24"	36"	6.00	1		15		R3-9B	
108+87 L		1		24"	8"	1.33					D3-1	
		1		36"	8"	2.00	1		16		D3-1	
		1		30"	30"	6.25					R1-1	
110+40 R		1		24"	30"	5.00	1		15		R2-1	
111+40 R		1		24"	36"	6.00	1		15		R3-9B	
TOTAL		17					SF	EA	FT	FT	FT	
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."							67.1	8		121		
							TOTAL	SF		FT		
								67.1		121		

SIGN SUMMARY TABLE														
STATION	SIGN LEGEND	SIGN DIMENSIONS				AREA (SF)	NEW SIGN POSTS					MUTCD		
		EACH SALVAGED	WIDTH (in)	HEIGHT (in)	NO. OF POSTS		SQUARE STEEL (in)							
							1.75	2.0	2.5					
1.88	2.42	3.35												
111+47 L		1		30"	30"	6.25	1		15		R1-1			
111+82 L		1		24"	8"	1.33	1				D3-1			
		1		30"	8"	1.68					D3-1			
		1												
112+97 R		1		24"	12"	2.00	1		15		M4-6			
		1		24"	36"	6.00					R3-9B			
113+13 L		1		24"	12"	2.00	1		15		M4-11			
		1		24"	36"	6.00					R3-9B			
113+64 R		1		24"	8"	1.33	1		15		D3-1			
		1		36"	8"	2.00					D3-1			
114+39 L		1		30"	30"	6.25					MOUNT ON LIGHT POLE VR-821			
114+39 R		1		30"	30"	6.25					MOUNT ON LIGHT POLE VR-921			
114+74 R		1		24"	30"	5.00					MOUNT ON LIGHT POLE R2-1			
TOTAL						12	1			SF	EA	FT	FT	FT
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISIONS "SIGN POST DESIGN GUIDELINE."								46.1	5	60				
						TOTAL		SF 50		FT 60				

114+74 L




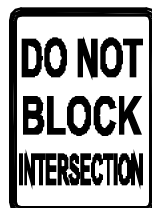




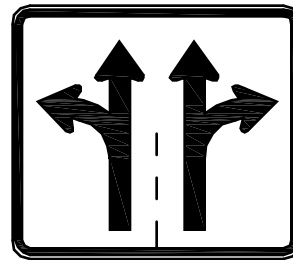



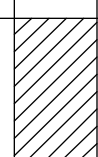


D3-1 SAMPLE SIGN

DESIGN
EXCEPT AS SPECIFIED BELOW, LETTERS, DIGITS, ARROWS, SYMBOLS, SPACING AND TEXT DIMENSIONS SHALL CONFORM WITH THE "STANDARD HIGHWAY SIGNS BOOK - 2012 SUPPLEMENT" AND DESIGNS PRESCRIBED IN THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) ADOPTED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION (FHWA). STREET NAME SIGNS SHALL USE A 12" HIGH BLADE WITH SERIES "C" LETTERING. SPACING BETWEEN LETTERS IN EACH WORD SHALL BE KERNED AT 80%.

MATERIALS
THE MATERIAL FOR THE BLADES SHALL BE FLAT SHEET ALUMINUM WITH A MINIMUM THICKNESS OF 0.125 INCH. THE MOUNTING METHOD FOR STREET NAME SIGNS SHALL USE POST TOP MOUNTING BRACKETS HAVING A 12" SLOT LENGTH. HARDWARE FOR MOUNTING SIGNS TO POST SHALL BE INCIDENTAL TO OTHER ITEMS. THE MINIMUM VERTICAL CLEARANCE IS 8'-0" TO THE BOTTOM OF THE SIGN. FOR POST TOP MOUNTINGS, STREET NAME SIGNS SHALL HAVE TEXT ON BOTH SIDES. STREET NAME SIGNS SHALL HAVE 1.5" CORNER RADI.

COLORS
STREET NAME SIGNS SHALL HAVE REFLECTORIZED WHITE TEXT ON A REFLECTORIZED GREEN BACKGROUND.

SIGN SUMMARY TABLE												
STATION	SIGN LEGEND	SIGN DIMENSIONS				AREA (SF)	NEW SIGN POSTS					MUTCD
		EACH SAVED DEED	WIDTH (in)	HEIGHT (in)	NO. OF POSTS		SQUARE STEEL (in)					
							1.75	2.0	2.5			
							lb/ft					
		1.88	2.42	3.35								
114+92 L		1		30"	30"	6.25	1		15		R1-1	
115+41 L		1		24"	8"	1.33	1		15		D3-1	
		1		30"	8"	1.68					D3-1	
115+70 L		1		24"	36"	6.00	1		15		R10-7	
115+97 R		1		24"	18"	3.00					D11-1 M4-6 MOUNT ON LIGHT POLE	
		1		24"	12"	2.00						
116+25 L		1		30"	30"	6.25					MOUNT ON LIGHT POLE VR-921	
114+92 L		1		30"	30"	6.25			15		R1-1	
117+36 R		1		36"	30"	7.5	2		15		VR-924	
117+80 R		1		30"	30"	6.25	1		16		R1-1	
		1										
		1										
TOTAL		10	2			SF	EA	FT	FT	FT		
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISIONS "SIGN POST DESIGN GUIDELINE."						46.5	6		106			
						TOTAL	SF 46.5			FT 106		

STREET NAME SIGNS NOTES

PRELIMINARY PLANS
MARCH 19, 2015

Essex Junction STP 5300(14)
VT Route 15 - Pearl Street Link

Civil Engineer
Lamoureux & Dickinson
Consulting Engineers, Inc.
14 Morse Drive, Essex, VT 05452
802-878-4450 www.LDengineering.com

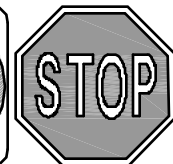


Electrical Engineer
Kirk Engineering Assoc., P.C.
399 Williston Road, Suite 103
Williston, VT 05495
802-655-5731

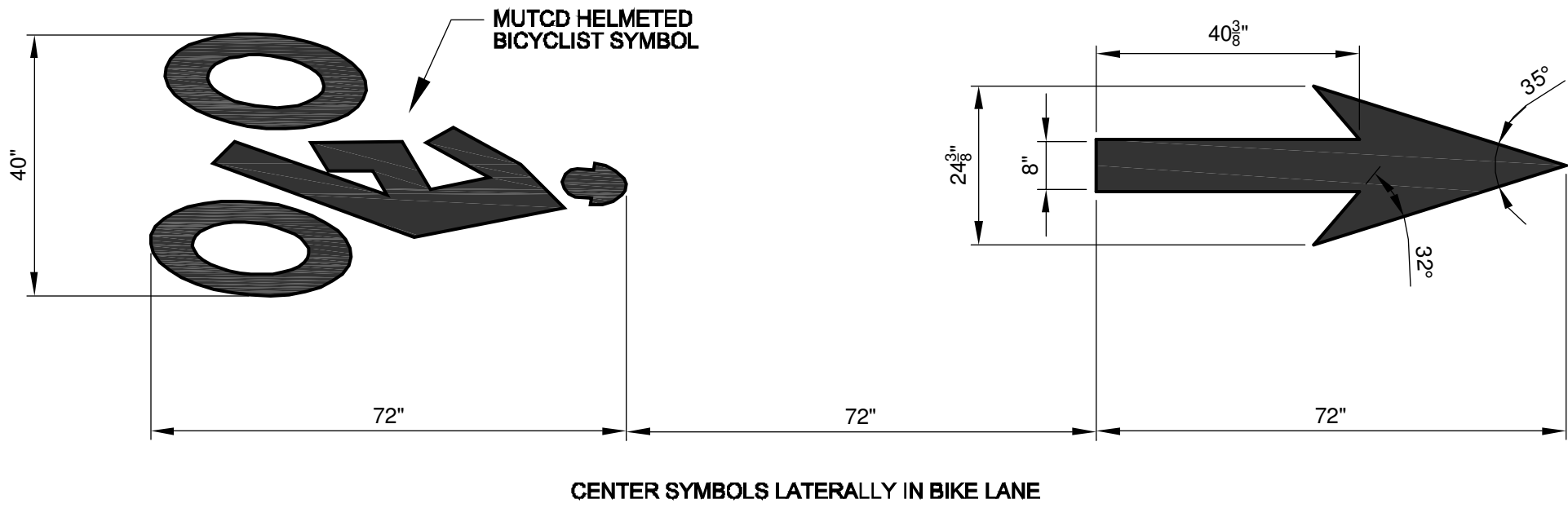
Project No.
14119
Design
RD
Drawn
BH
Date
3-19-15
Scale
NTS
Sheet number

SIGN SUMMARY

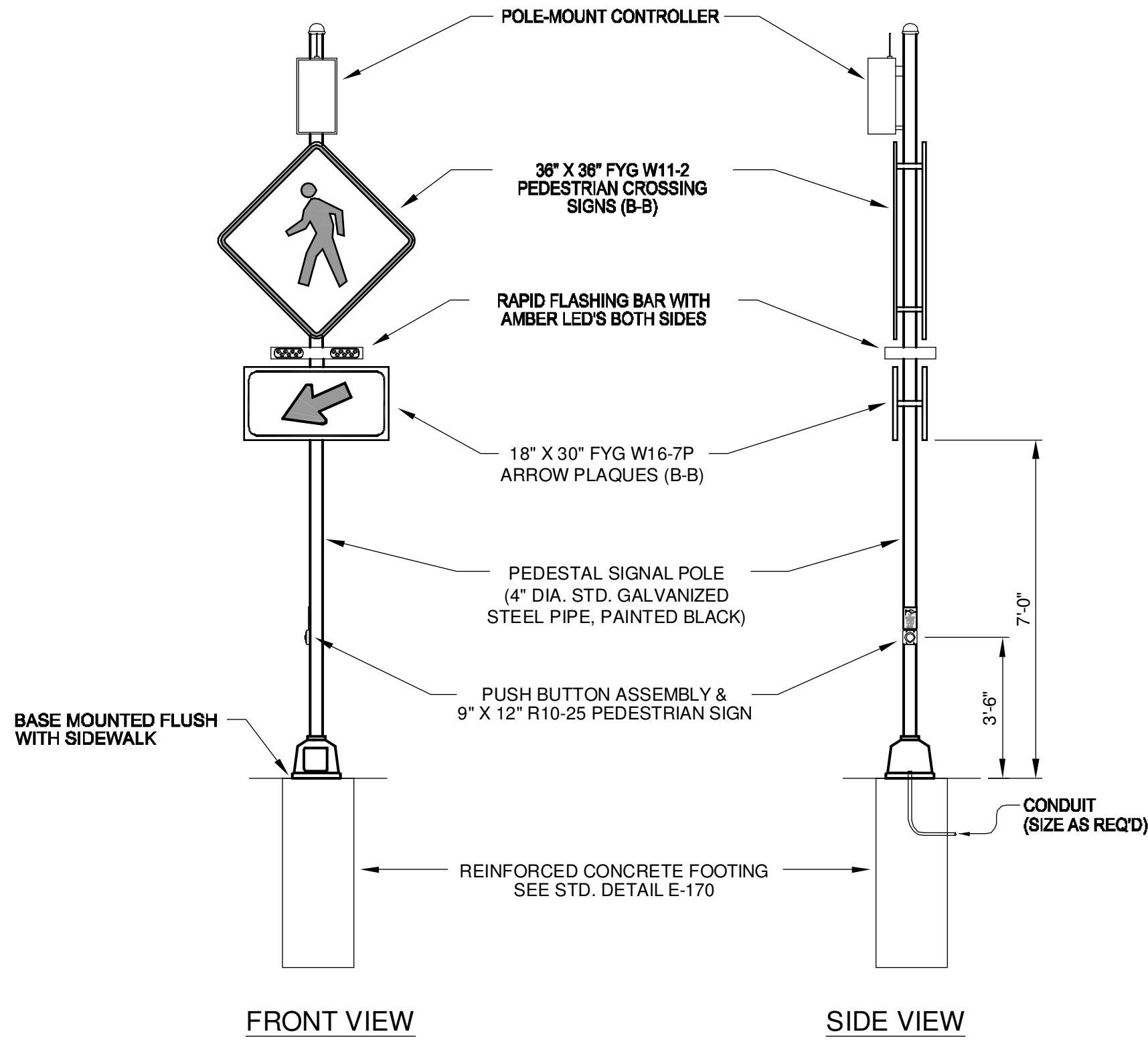
P:\2015\14119\dwg\14119- 47 SIGN SUM-02.dwg, 4/7/2015 2:31:40 PM, 11

SIGN SUMMARY TABLE											
STATION	SIGN LEGEND	SIGN DIMENSIONS			AREA (SF)	NO. OF POSTS	NEW SIGN POSTS				MUTCD
		EACH WAY SAVED	WIDTH (in)	HEIGHT (in)			SQUARE STEEL (in)				
							1.75	2.0	2.5		
							lb/ft				
1.88	2.42	3.35									
118+39 R	 	1	30"	30"	6.25	1		16		R4-11 W16-1P	
118+97 R		1	24"	30"	5.00	1		15		R2-1	
120+50 R	 	1	21"	15"	2.19	1		18		M2-1 M1-5 M1-5	
121+30 R		1	30"	30"	6.25	1		15		W11-8	
122+60 L	 BACK TO BACK	1	24"	8"	1.33	1		16		D3-1 D3-1 R5-1 R1-1	
TOTAL		11				SF	EA	FT	FT	FT	
					46.2	5		80			
					TOTAL	SF		FT			
					46			80			
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."											

SIGN SUMMARY TABLE												
STATION	SIGN LEGEND	SIGN DIMENSIONS				AREA (SF)	NO. OF POSTS	NEW SIGN POSTS				MUTCD
		EACH WAY	WIDTH (in)	HEIGHT (in)	SQUARE STEEL (in)							
					1.75			2.0	2.5			
					lb/ft							
1.88	2.42	3.35										
122+78 L	<div>BACK TO BACK</div> <div></div> <div>ONE WAY</div> <div>ONE WAY</div> <div>BACK TO BACK</div>	2	30" 30"	30" 30"	6.25 6.25	1		16		R5-1 R1-1		
		2	36" 36"	18" 18"	4.50 4.50					R6-1R R6-1L		
122+78 R	<div>Pearl St</div> <div>School St</div>	1	24"	8"	1.33	1		15		D3-1		
		1	30"	8"	1.68					D3-1		
123+96 L	<div>SPEED LIMIT 25</div>	1	24"	30"	5.00					R2-1 MOUNT ON LIGHT POLE		
124+70 L	<div>WEST</div> <div>VERMONT</div> <div>15</div>	1	24"	12"	2.00	1		16		M3-4		
		1	24"	24"	4.00					M1-5		
126+75 L	<div></div> <div>BIKE LANE</div> <div>BEGIN</div>	1	24"	18"	3.00					D11-1 M4-11 MOUNT ON LIGHT POLE		
		1	24"	12"	2.00							
TOTAL		11				SF	EA	FT	FT	FT		
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."						40.5	3		47			
						TOTAL	SF		FT			
SUMMARY SHEET 1 TABLE 1		17				67.1	8		121			
SUMMARY SHEET 1 TABLE 2		12	1			46.1	4		60			
SUMMARY SHEET 1 TABLE 3		10	2			46.5	6		106			
SUMMARY SHEET 2 TABLE 1		11				46.2	7		80			
TOTALS		61	3			200.3	28		414			



BIKE LANE PAVEMENT MARKING DETAIL
NTS



RECTANGULAR RAPID FLASHING BEACON DETAIL
NTS
(STA 122+46 LT & STA 122+39 RT)

PRELIMINARY PLANS
MARCH 19, 2015

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3-19-15
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Sheet number

SIGN SUMMARY