

04 - BRIDGE DESIGN

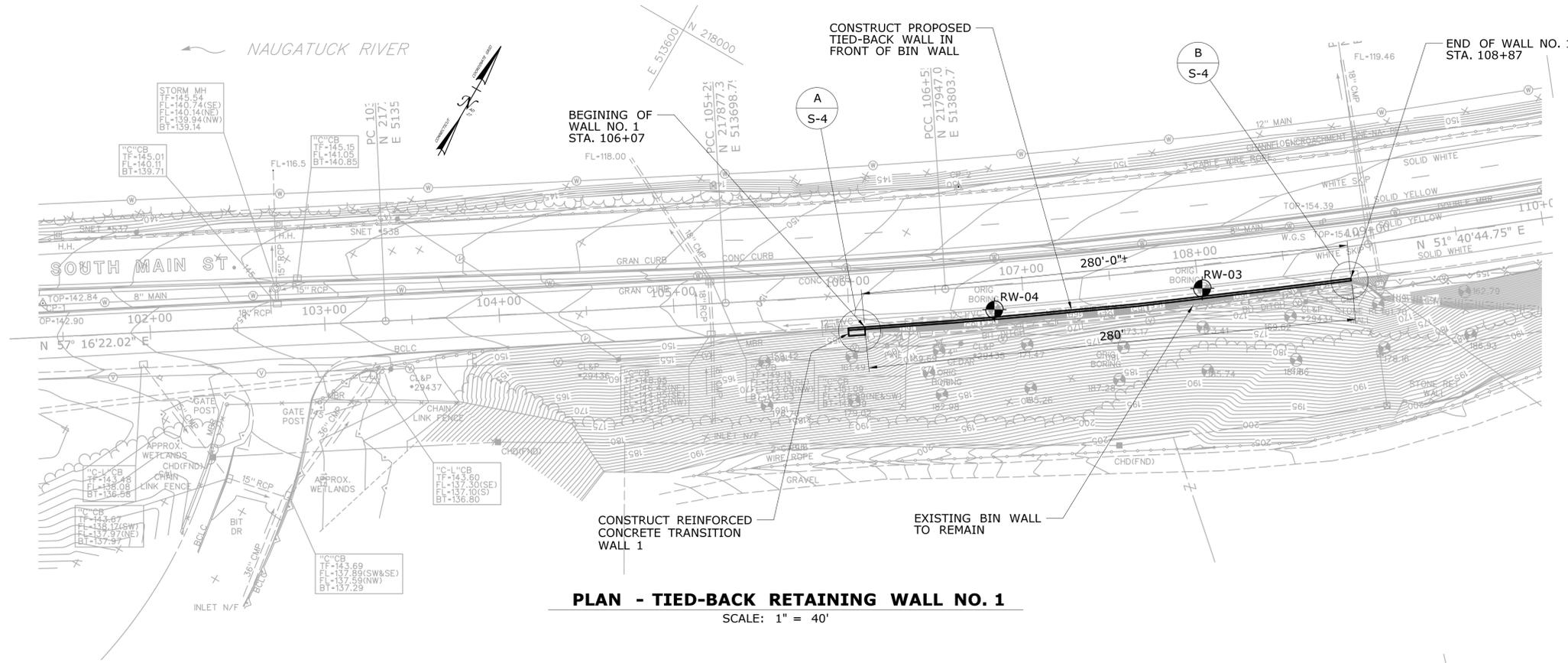
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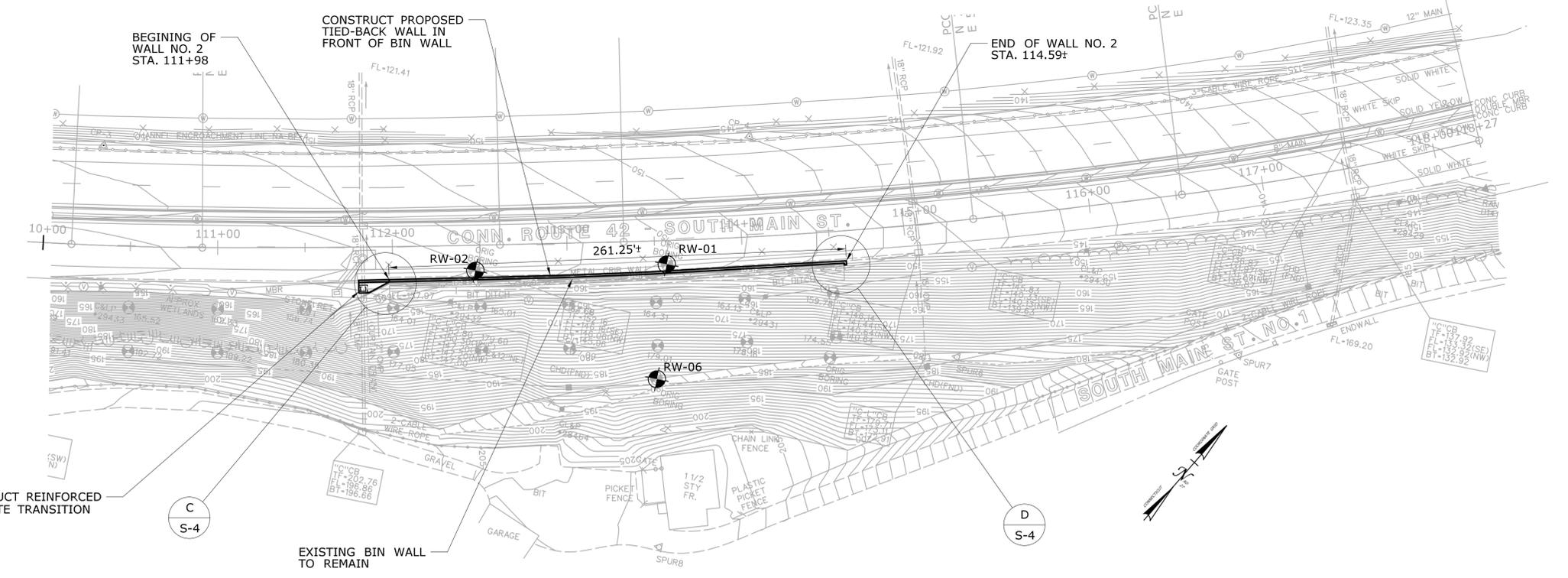
THE DESIGN APPEARS TO CONFORM TO APPLICABLE CRITERIA. APPROVAL IS NOT TO BE CONSTRUED TO MEAN THAT ALL ASPECTS OF THE DESIGN HAVE BEEN PERSONALLY CHECKED BY THE UNDERSIGNED.

TRANSPORTATION PRINCIPAL ENGINEER

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	DESIGNER/DRAFTER: BKC CHECKED BY: BHR SCALE AS NOTED	 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION <small>Filename: ...\\SB-06-122-S-1-Index of Drawing.dgn</small>	SIGNATURE/BLOCK: OFFICE OF ENGINEERING APPROVED BY: 	PROJECT TITLE: REHABILITATION OF TWO RETAINING WALLS ON ROUTE 42	TOWN: BEACON FALLS	PROJECT NO. 06-122 DRAWING NO. S-1 SHEET NO. 04.01
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PLAN - TIED-BACK RETAINING WALL NO. 1
SCALE: 1" = 40'



PLAN - TIED-BACK RETAINING WALL NO. 2
SCALE: 1" = 40'

GENERAL NOTES

- SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 816 (2004), SUPPLEMENTAL SPECIFICATIONS DATED JULY 2012 AND SPECIAL PROVISIONS.
- DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS CUSTOMARY U.S. UNITS 6TH EDITION - 2012, AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003).
- ALLOWABLE DESIGN STRESSES:
CLASS "F" CONCRETE: $F_c = 4000$ PSI MIN.
REINFORCEMENT (ASTM A615 GRADE 60): $F_y = 60000$ PSI
- LIVE LOAD: NOT APPLICABLE.
- FUTURE PAVING ALLOWANCE: NOT APPLICABLE.
- DIMENSIONS: ALL DIMENSIONS SHOWN ON THE PLANS ARE IN INCHES UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE GIVEN IN FEET TO THREE DECIMAL PLACES. WHEN DECIMAL DIMENSIONS/ELEVATIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.
- EXISTING DIMENSIONS: DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY.
- CLASS "F" CONCRETE: CLASS "F" CONCRETE SHALL BE USED FOR THE TIED-BACK WALL.
- JOINT SEAL: PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEM "CLASS F CONCRETE".
- EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1" X 1" UNLESS DIMENSIONED OTHERWISE.
- CONCRETE COVER: ALL REINFORCEMENT SHALL HAVE 2" COVER UNLESS DIMENSIONED OTHERWISE.
- REINFORCEMENT: REINFORCING BARS IN THE TIED-BACK WALLS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A767, CLASS 1. BARS SHALL CONFORM TO ASTM A615, GRADE 60. THESE BARS SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEM, "DEFORMED STEEL BARS-GALVANIZED".
- CONSTRUCTION JOINTS: CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER. SEQUENCE-OF-POUR JOINTS SHALL BE SUBMITTED AND APPROVED IN WRITING BY THE ENGINEER BEFORE PLACING CONCRETE.
- TRAFFIC: ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIAL PROVISIONS "MAINTENANCE AND PROTECTION OF TRAFFIC" AND "PROSECUTION AND PROGRESS."
- SALVAGE: NONE.
- TIEBACK ANCHORS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF TIEBACK ANCHORS AND THEIR CONNECTION INTO THE REINFORCED CONCRETE WALL. THE MINIMUM TIEBACK ANCHOR LOADS SHALL BE SPECIFIED ON DRAWING NO. S-10.

DESCRIPTION OF WORK

1. EXCAVATE EARTH IN FRONT OF EXISTING BIN WALLS.
2. CONSTRUCT REINFORCED CONCRETE TIE-BACK WALLS.
3. INSTALL GROUND ANCHORS.
4. GROUT TIE-BACK POCKETS.

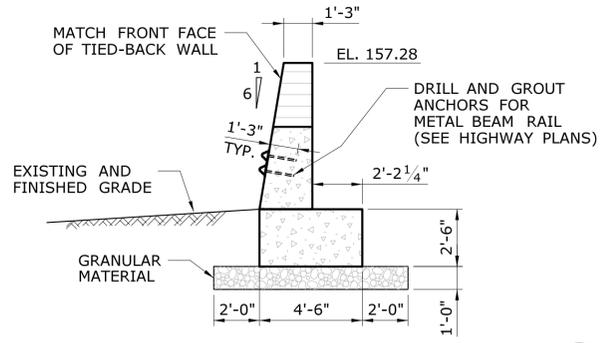
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 3/1/2013	DESIGNER/DRAFTER: BKC	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p> <p>Filename: ...\\SB-06-122-S-2-Bin Wall Rehabilitation-General Plan.dgn</p>	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING	PROJECT TITLE: REHABILITATION OF TWO RETAINING WALLS ON ROUTE 42	TOWN: BEACON FALLS	PROJECT NO. 06-122
					CHECKED BY: BHR		APPROVED BY: <i>[Signature]</i>		DRAWING TITLE: TIED-BACK WALLS GENERAL PLAN	DRAWING NO. S-2
					SCALE AS NOTED					SHEET NO. 04.02

Driller: A. Conant		Connecticut DOT Boring Report			Hole No.: RW-04							
Inspector: G. Arzt		Town: Beacon Falls			Stat./Offset: 106+84/13.6' Rt							
Engineer: R. Pion		Project No.: 0006-0122			Northing: 217951							
Start Date: 7-26-12		Route No.: 42			Easting: 513834							
Finish Date: 7-26-12		Bridge No.:			Surface Elevation: 152.3							
Project Description: Retaining Wall Reconstruction												
Casing Size/Type:		Sampler Type/Size: SS 1 3/8 in ID			Core Barrel Type:							
Hammer Wt.: Fall: in.		Hammer Wt.: 140 Fall: 30in.										
Groundwater Observations: @dry after 0 hours												
Depth (ft)	SAMPLES						Elevation (ft)					
	Sample Type/No.	Blows on Sampler per 6 inches			Pen. (in.)	Rec. (in.)		RQD %	Generalized Strata Description	Material Description and Notes		
	S-1	10	14	27	18	24		16			Pavement Structure Glacial Till	Gray c-f SAND, some c-f gravel, trace silt
	S-2	3	21	37	48	24		14				Gray f-c SAND, little c-f gravel, trace silt
	S-3	6	22	35	37	24		16				Gray f-c SAND, little silt, little f-c gravel, with cobbles
	S-4	17	28	32	39	24		20				Gray f-c SAND, little silt, little f-c gravel, with cobbles
S-5	7	31	54	57	24	22	Gray f-c SAND, little silt, little f-c gravel, with cobbles					
END OF BORING 22ft												
Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%							Sheet 1 of 1					
Total Penetration in Earth: 22ft Rock: 0ft		NOTES: Pavement structure consists of 5" of bituminous concrete pavement with no discernable subbase Drilled using open hole technique to 19 feet.					Sheet 1 of 1					
No. of Soil Samples: 5		No. of Core Runs: 0					SM-001-M REV. 1/02					

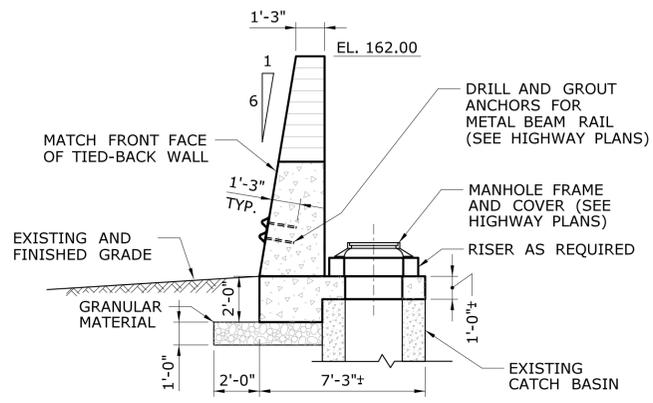
Driller: T. Mallory		Connecticut DOT Boring Report			Hole No.: RW-06							
Inspector: G. Arzt		Town: Beacon Falls			Stat./Offset: 113+47/78.6' Rt							
Engineer: R. Pion		Project No.: 0006-0122			Northing: 218326							
Start Date: 8-1-12		Route No.: 42			Easting: 514395							
Finish Date: 8-1-12		Bridge No.:			Surface Elevation: 188.4							
Project Description: Retaining Wall Reconstruction												
Casing Size/Type:		Sampler Type/Size: SS 1 3/8 in ID			Core Barrel Type: NQ2							
Hammer Wt.: Fall: in.		Hammer Wt.: 140 Fall: 30in.										
Groundwater Observations: @8 after 0 hours												
Depth (ft)	SAMPLES						Elevation (ft)					
	Sample Type/No.	Blows on Sampler per 6 inches			Pen. (in.)	Rec. (in.)		RQD %	Generalized Strata Description	Material Description and Notes		
	S-1	17	15	15	9	24		2			Bituminous Pavement GLACIAL TILL	Brown c-f SAND, little f-c gravel, trace silt
	S-2	10	12	16	22	24		14				Gray f-c SAND, little f-c gravel, little silt
	S-3	16	18	22	26	24		14				Gray f-c SAND, little f-c gravel, little silt
	S-4	17	20	18	26	24		16				Gray f-c SAND, little silt, trace f gravel
	S-5	15	22	25	23	24		18				Gray f-c SAND, little silt, trace f-c gravel
	S-6	14	16	18	48	24		18				Gray f-c SAND, little silt, trace f-c gravel
	S-7	19	26	29	34	24		8				Gray c-f SAND, little c-f gravel, trace silt
	S-8	24	31	36	31	24		8				Gray c-f SAND, little c-f gravel, trace silt
S-9	22	23	23	31	24	16	Gray c-f SAND, little c-f gravel, little silt					
Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%							Sheet 1 of 2					
Total Penetration in Earth: 60ft Rock: 5ft		NOTES: The bituminous pavement encountered is the surface of a paved drainage swale Rollerbit from 58 to 60'					Sheet 1 of 2					
No. of Soil Samples: 11		No. of Core Runs: 1					SM-001-M REV. 1/02					

Driller: T. Mallory		Connecticut DOT Boring Report			Hole No.: RW-06								
Inspector: G. Arzt		Town: Beacon Falls			Stat./Offset: 113+47/78.6' Rt								
Engineer: R. Pion		Project No.: 0006-0122			Northing: 218326								
Start Date: 8-1-12		Route No.: 42			Easting: 514395								
Finish Date: 8-1-12		Bridge No.:			Surface Elevation: 188.4								
Project Description: Retaining Wall Reconstruction													
Casing Size/Type:		Sampler Type/Size: SS 1 3/8 in ID			Core Barrel Type: NQ2								
Hammer Wt.: Fall: in.		Hammer Wt.: 140 Fall: 30in.											
Groundwater Observations: @8 after 0 hours													
Depth (ft)	SAMPLES						Elevation (ft)						
	Sample Type/No.	Blows on Sampler per 6 inches			Pen. (in.)	Rec. (in.)		RQD %	Generalized Strata Description	Material Description and Notes			
	S-10	15	22	33	100	24		20			GLACIAL TILL (cont)	Gray c-f SAND, little c-f gravel, little silt	
	S-11	80	62	41	54	24		10				BEDROCK	Gray c-f SAND, little c-f gravel, trace silt
	C-1				60	55.5		0				Gray white highly fractured, medium bedded gneiss Core times in min per foot 10.5, 10, 9, 10.5, 14.5	
END OF BORING 65ft													
Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%							Sheet 2 of 2						
Total Penetration in Earth: 60ft Rock: 5ft		NOTES: The bituminous pavement encountered is the surface of a paved drainage swale Rollerbit from 58 to 60'					Sheet 2 of 2						
No. of Soil Samples: 11		No. of Core Runs: 1					SM-001-M REV. 1/02						

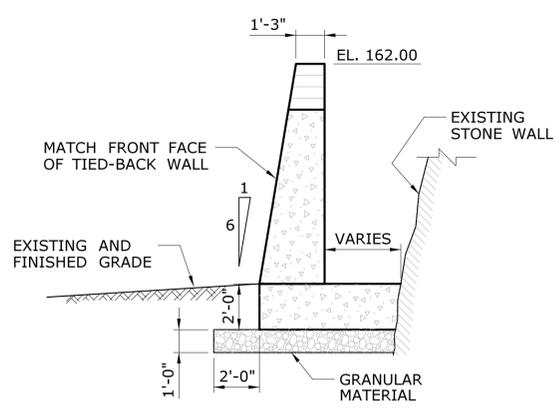
DESIGNER/DRAFTER: BKC	 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/ BLOCK: 	PROJECT TITLE: REHABILITATION OF TWO RETAINING WALLS ON ROUTE 42	TOWN: BEACON FALLS	PROJECT NO. 06-122
CHECKED BY: BHR		APPROVED BY:	DRAWING TITLE: BORING LOG 2	DRAWING NO. S-4	
SCALE AS NOTED	Plotted Date: 3/1/2013	Filename: ...\\SB-06-122-S-4-Boring-Log-2.dgn		SHEET NO. 04.04	



SECTION - TRANSITION WALL 1
SCALE: 1/4" = 1'-0"

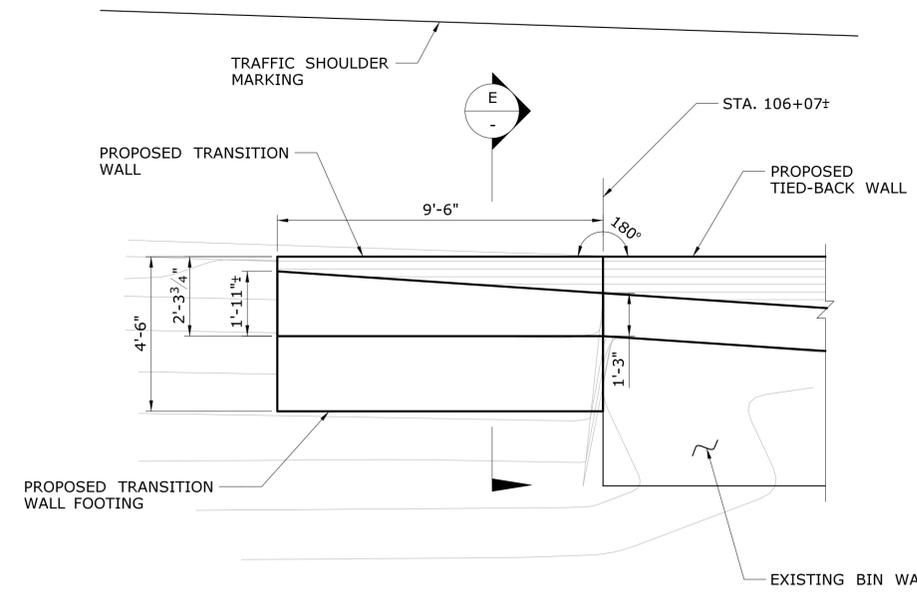


SECTION - TRANSITION WALL 2
SCALE: 1/4" = 1'-0"

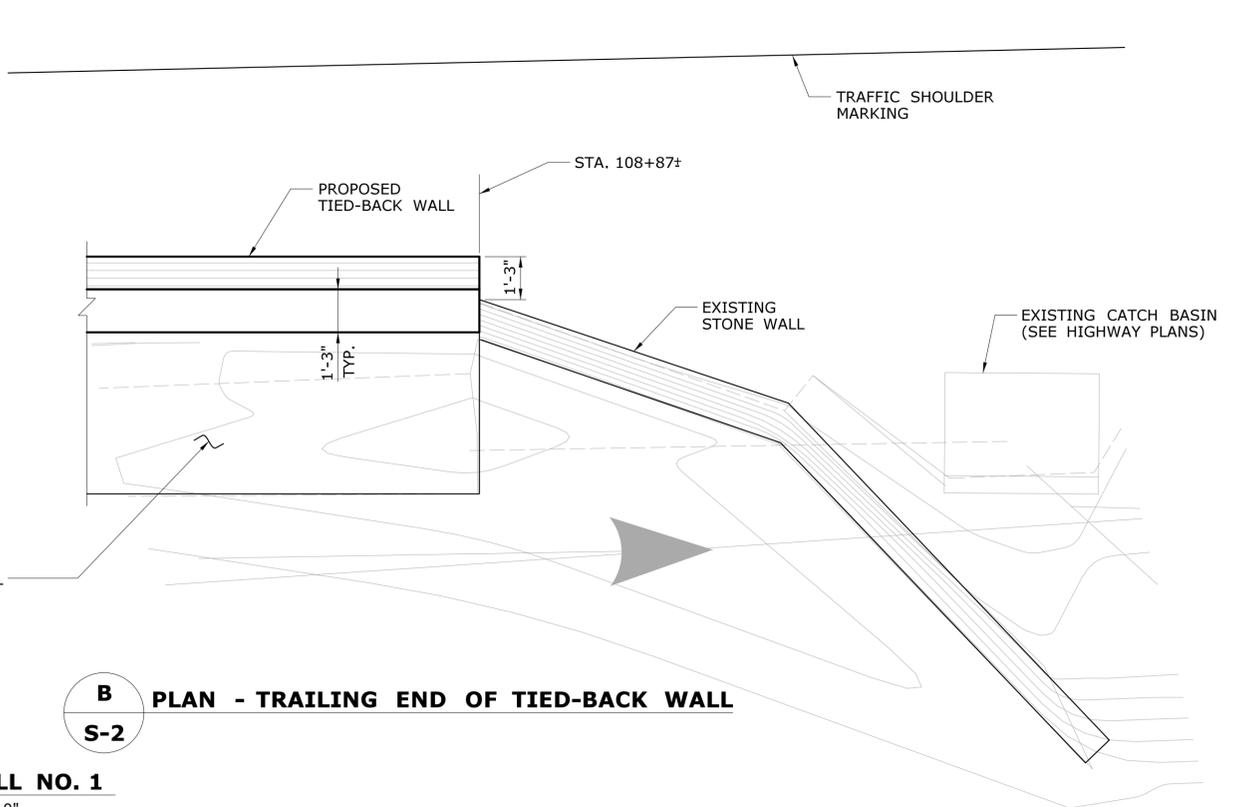


SECTION - TRANSITION WALL 2
SCALE: 1/4" = 1'-0"

NOTES
ALL RAIL ANCHORAGE
WILL BE PAID FOR UNDER
THE APPLICABLE HIGHWAY ITEMS

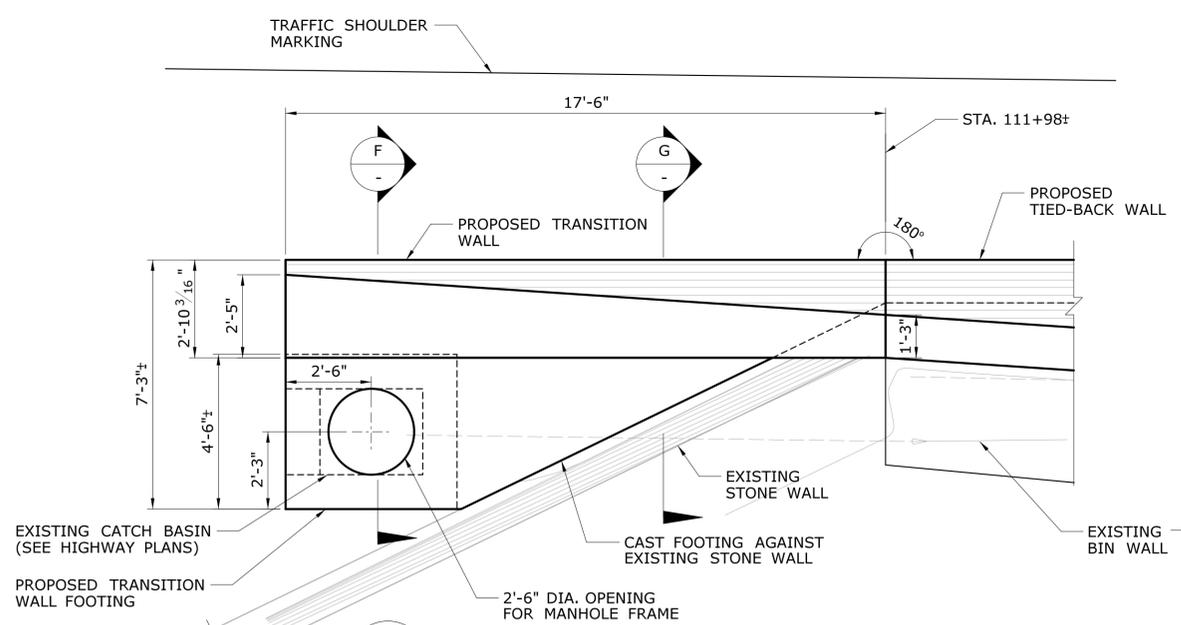


A PLAN - TRANSITION WALL AT LEADING END
S-2

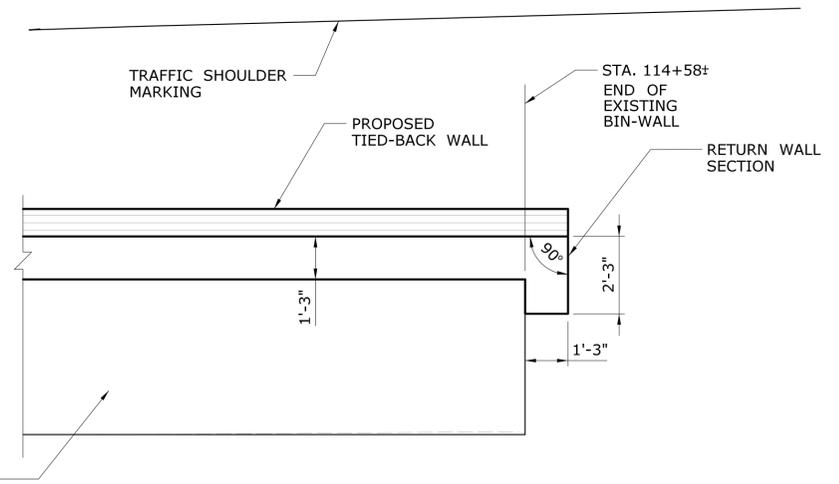


B PLAN - TRAILING END OF TIED-BACK WALL
S-2

RETAINING WALL NO. 1
SCALE: 3/8" = 1'-0"



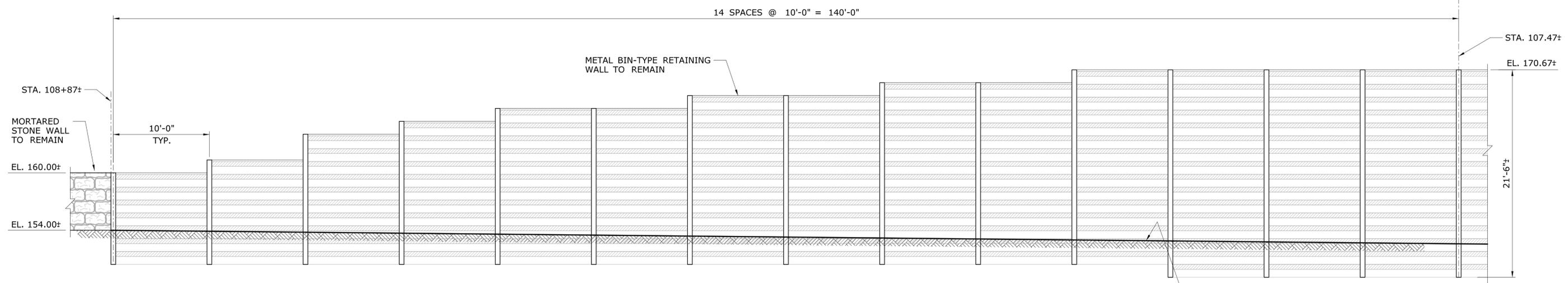
C PLAN - TRANSITION WALL AT LEADING END
S-2



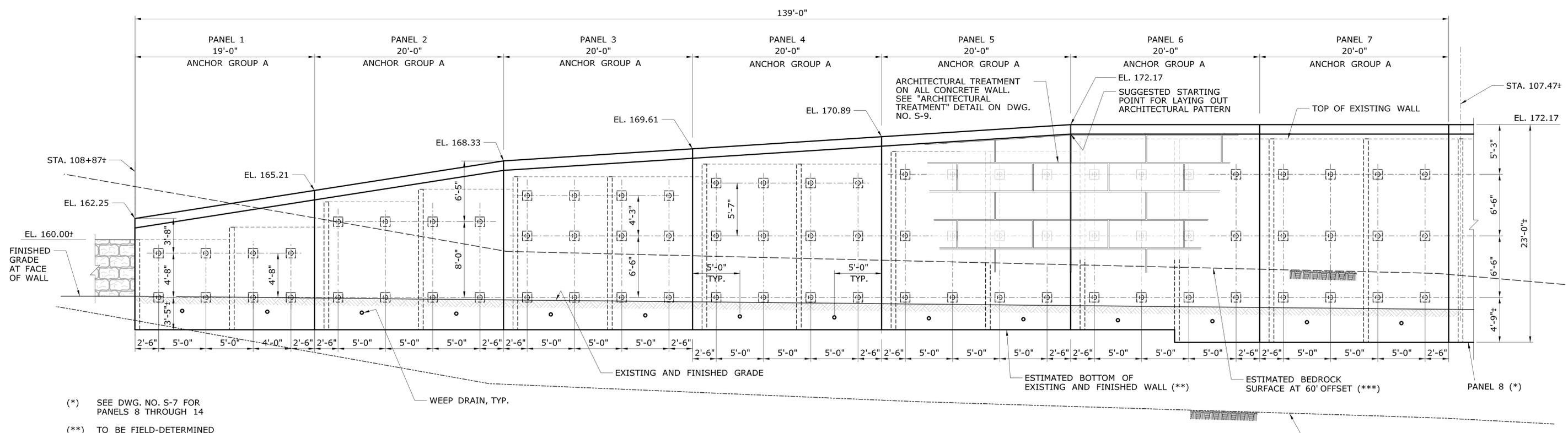
D PLAN - WALL RETURN AT TRAILING END
S-2

RETAINING WALL NO. 2
SCALE: 3/8" = 1'-0"

DESIGNER/DRAFTER: BKC		SIGNATURE/ BLOCK: OFFICE OF ENGINEERING	PROJECT TITLE: REHABILITATION OF TWO RETAINING WALLS ON ROUTE 42	TOWN: BEACON FALLS	PROJECT NO. 06-122
CHECKED BY: BHR		APPROVED BY: <i>BHR</i>	DRAWING TITLE: LEADING AND TRAILING END DETAILS	SHEET NO. 04.05	
SCALE AS NOTED	Plotted Date: 3/1/2013	Filename: ...SB-06-122-S-5-Leading and Trailing End Details.dgn			



ELEVATION 01 - EXISTING BIN-TYPE RETAINING WALL NO. 1
SCALE: 3/16" = 1'-0"

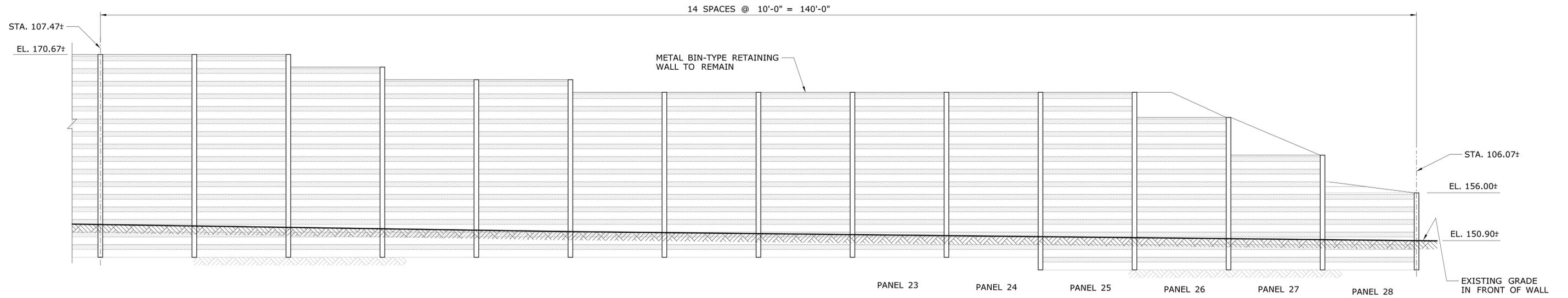


ELEVATION 01 - PROPOSED REINFORCED CONCRETE TIED-BACK WALL NO. 1
SCALE: 3/16" = 1'-0"

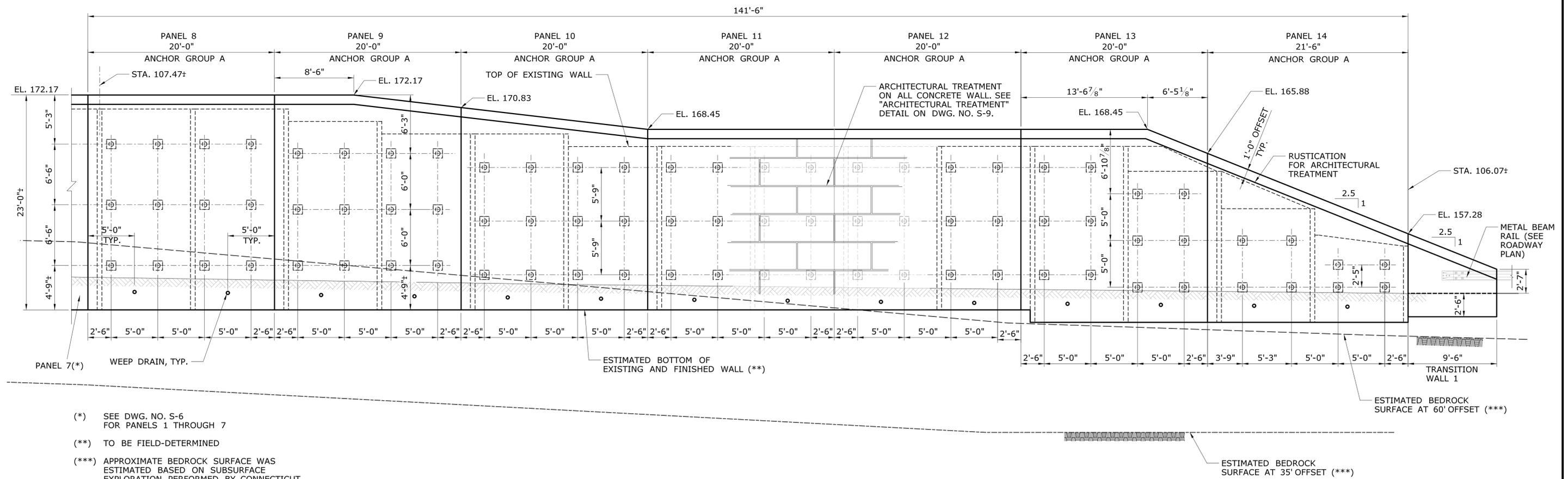
(*) SEE DWG. NO. S-7 FOR PANELS 8 THROUGH 14
 (**) TO BE FIELD-DETERMINED
 (***) APPROXIMATE BEDROCK SURFACE WAS ESTIMATED BASED ON SUBSURFACE EXPLORATION PERFORMED BY CONNECTICUT DEPARTMENT OF TRANSPORTATION

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: BKC CHECKED BY: BHR SCALE AS NOTED	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION Filename: ...\\SB-06-122-S-6-Bln Wall No. 1 Elevation 01.dgn	SIGNATURE/BLOCK: OFFICE OF ENGINEERING APPROVED BY: 	PROJECT TITLE: REHABILITATION OF TWO RETAINING WALLS ON ROUTE 42	TOWN: BEACON FALLS	PROJECT NO. 06-122 DRAWING NO. S-6 SHEET NO. 04.06
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 3/1/2013			

DRAWING TITLE:
TIED-BACK WALL NO. 1
ELEVATION - 01



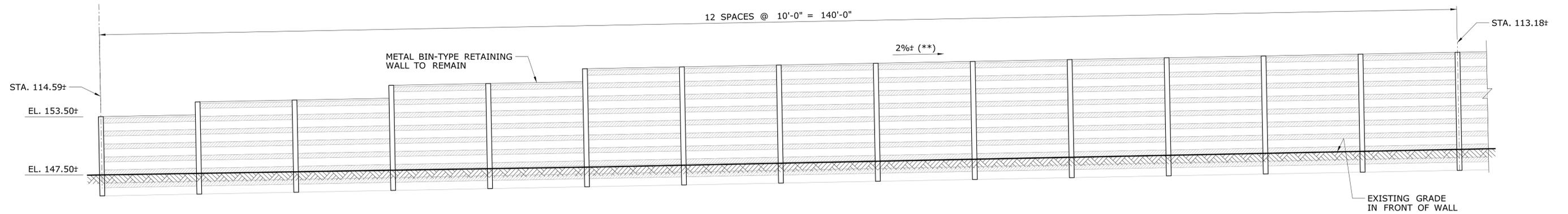
ELEVATION 02 - EXISTING BIN-TYPE RETAINING WALL NO. 1
SCALE: 3/16" = 1'-0"



ELEVATION 02 - PROPOSED REINFORCED CONCRETE TIED-BACK WALL NO. 1
SCALE: 3/16" = 1'-0"

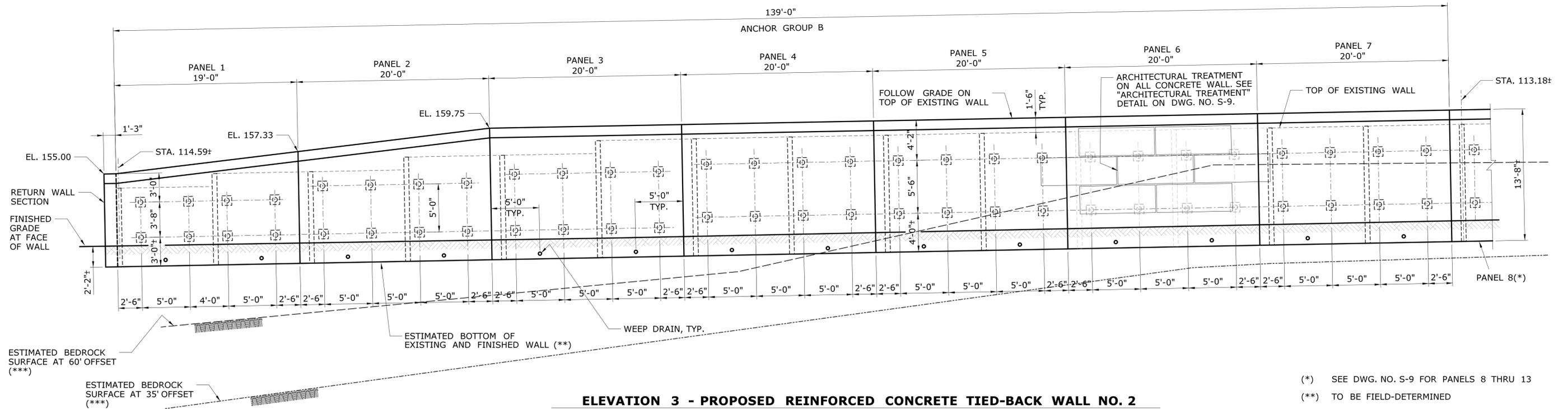
- (*) SEE DWG. NO. S-6 FOR PANELS 1 THROUGH 7
- (**) TO BE FIELD-DETERMINED
- (***) APPROXIMATE BEDROCK SURFACE WAS ESTIMATED BASED ON SUBSURFACE EXPLORATION PERFORMED BY CONNECTICUT DEPARTMENT OF TRANSPORTATION

REV. DATE REVISION DESCRIPTION SHEET NO.	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	DESIGNER/DRAFTER: BKC	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING	PROJECT TITLE: REHABILITATION OF TWO RETAINING WALLS ON ROUTE 42	TOWN: BEACON FALLS	PROJECT NO. 06-122
		CHECKED BY: BHR		APPROVED BY: 		DRAWING TITLE: TIED-BACK WALL NO. 1 ELEVATION - 02	DRAWING NO. S-7
Plotted Date: 3/1/2013		SCALE AS NOTED	Filename: ...\\SB-06-122-S-7.Bln Wall No. 1 Elevation 02.dgn			SHEET NO. 04.07	



ELEVATION 3 - EXISTING BIN-TYPE RETAINING WALL NO. 2

SCALE: 3/16" = 1'-0"



ELEVATION 3 - PROPOSED REINFORCED CONCRETE TIED-BACK WALL NO. 2

SCALE: 3/16" = 1'-0"

- (*) SEE DWG. NO. S-9 FOR PANELS 8 THRU 13
- (**) TO BE FIELD-DETERMINED
- (***) APPROXIMATE BEDROCK SURFACE WAS ESTIMATED BASED ON SUBSURFACE EXPLORATION PERFORMED BY CONNECTICUT DEPARTMENT OF TRANSPORTATION

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

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Plotted Date: 3/1/2013

DESIGNER/DRAFTER:
BKC

CHECKED BY:
BHR

SCALE AS NOTED



SIGNATURE/BLOCK:
OFFICE OF ENGINEERING

APPROVED BY:
[Signature]

PROJECT TITLE:
REHABILITATION OF TWO RETAINING WALLS ON ROUTE 42

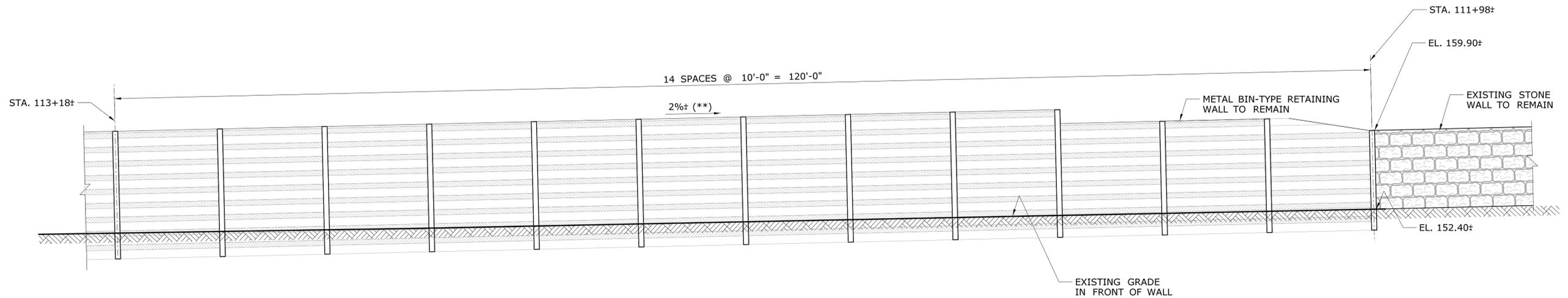
TOWN:
BEACON FALLS

DRAWING TITLE:
TIED-BACK WALL NO. 2 ELEVATION - 01

PROJECT NO.
06-122

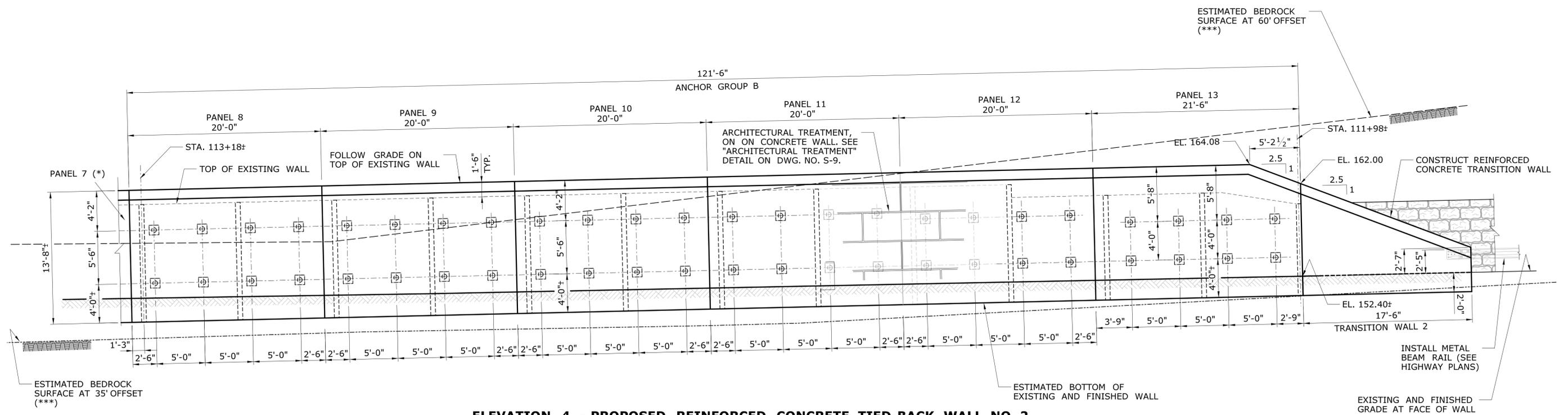
DRAWING NO.
S-8

SHEET NO.
04.08



ELEVATION 4 - EXISTING BIN-TYPE RETAINING WALL NO. 2

SCALE: 3/16" = 1'-0"

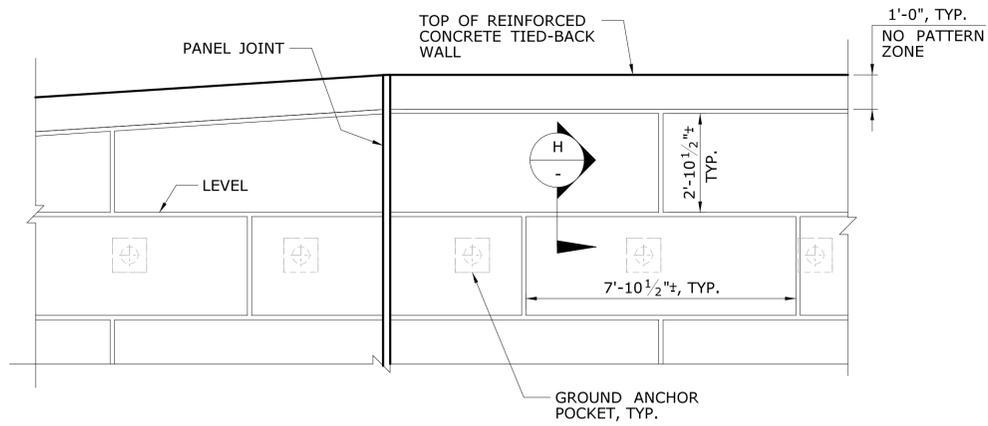


ELEVATION 4 - PROPOSED REINFORCED CONCRETE TIED-BACK WALL NO. 2

SCALE: 3/16" = 1'-0"

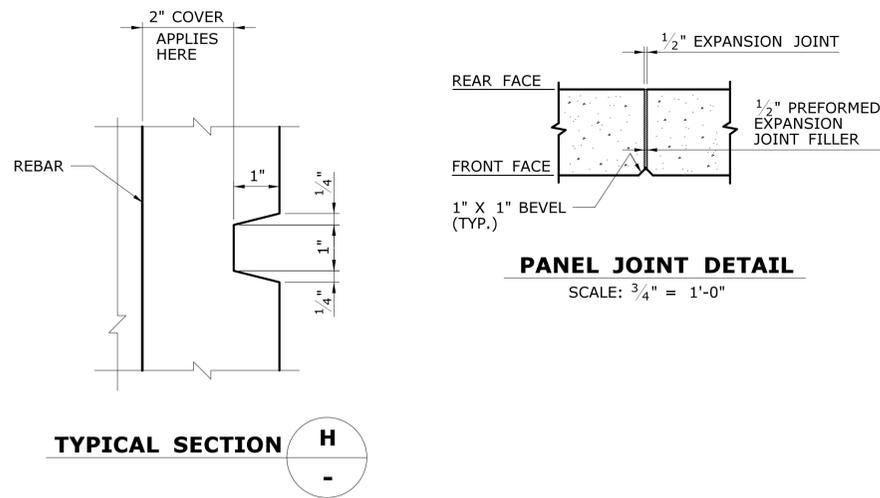
- (*) SEE DWG. NO. S-8 FOR PANELS 1 THRU 7
- (**) TO BE FIELD-DETERMINED
- (***) APPROXIMATE BEDROCK SURFACE WAS ESTIMATED BASED ON SUBSURFACE EXPLORATION PERFORMED BY CONNECTICUT DEPARTMENT OF TRANSPORTATION

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CHECKED BY: BHR	SCALE AS NOTED	APPROVED BY: 		DRAWING TITLE: TIED-BACK WALL NO. 2 ELEVATION - 02		SHEET NO. 04.09	
REV. DATE - - - - - - - - - - - - - - -	REVISION DESCRIPTION - - - - -	SHEET NO. - - - - -	Plotted Date: 3/1/2013	Filename: ...SB_06_122_S-9_Bln Wall No. 2 Elevation 02.dgn			



TYPICAL DETAIL - ARCHITECTURAL TREATMENT

SCALE: 3/8" = 1'-0"



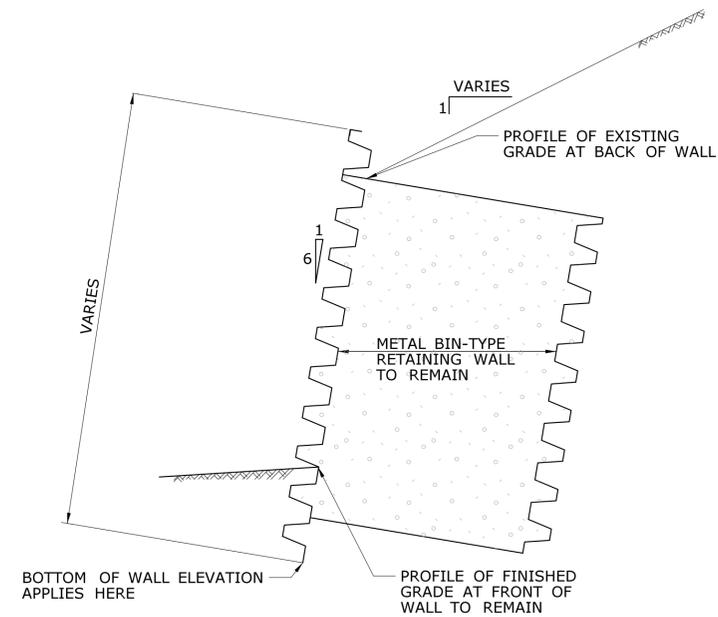
PANEL JOINT DETAIL

SCALE: 3/4" = 1'-0"

NOTES

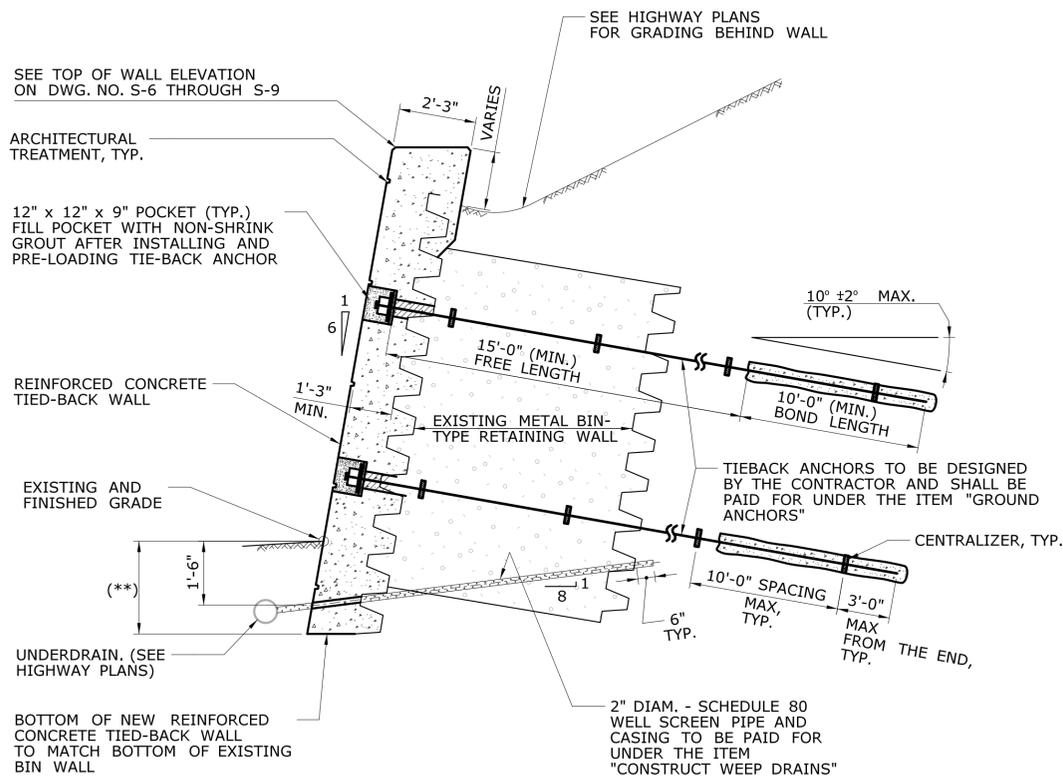
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF GROUND ANCHORS AND THEIR CONNECTIONS INTO THE REINFORCED CONCRETE WALL. THE MINIMUM FACTORED ANCHOR LOADS (FAL) FOR THE ANCHORS SHALL BE AS FOLLOW:
ANCHOR GROUP A (WALL NO. 1) = 40 KIPS
ANCHOR GROUP B (WALL NO. 2) = 30 KIPS
2. THE FIRST TWO ANCHORS INSTALLED ON EACH WALL SHALL BE PERFORMANCE-TESTED AS WELL AS 5% OF THE REMAINING PRODUCTION ANCHORS ON THAT WALL. THE PERFORMANCE TESTING SHALL BE DISTRIBUTED THROUGHOUT THE VARIOUS WALL LEVELS AND ANCHOR LOCATIONS.

ALL REMAINING ANCHORS SHALL BE PROOF-TESTED. PERFORMANCE TEST AND PROOF TEST OF ANCHORS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISION FOR "GROUND ANCHORS", "PERFORMANCE TEST FOR GROUND ANCHORS" AND "PROOF TEST FOR GROUND ANCHORS".
3. THE COST OF DESIGNING AND CONSTRUCTING THE GROUND ANCHORS SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEM "GROUND ANCHORS". THE COST OF PERFORMANCE TESTING SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEM "PERFORMANCE TEST FOR GROUND ANCHORS". THE COST OF PROOF TESTING SHALL BE INCLUDED FOR PAYMENT UNDER THE ITEM "PROOF TEST FOR GROUND ANCHORS".
4. THE CONTRACTOR SHALL BE RESPONSIBLE IN VERIFYING THE ACCURACY OF ALL EXISTING ELEVATIONS SHOWN IN THESE DRAWINGS BEFORE COMMENCING WITH THE CONSTRUCTION OF THE REINFORCED CONCRETE TIED-BACK WALLS.
5. PRIOR TO EXCAVATION AT THE FRONT FACE OF EXISTING RETAINING WALLS, THE CONTRACTOR SHALL PERFORM DIFFERENTIAL SURVEY TO DETERMINE THE ELEVATION OF THE EXISTING GRADE ALONG THE FRONT FACE OF THE WALL. THE CONTRACTOR SHALL MAINTAIN THE SAME GRADE PROFILE AT THE FRONT FACE OF THE TIED-BACK WALLS.



TYPICAL SECTION - EXISTING CONDITION

SCALE: 3/8" = 1'-0"



TYPICAL SECTION - WALL ANCHORAGE

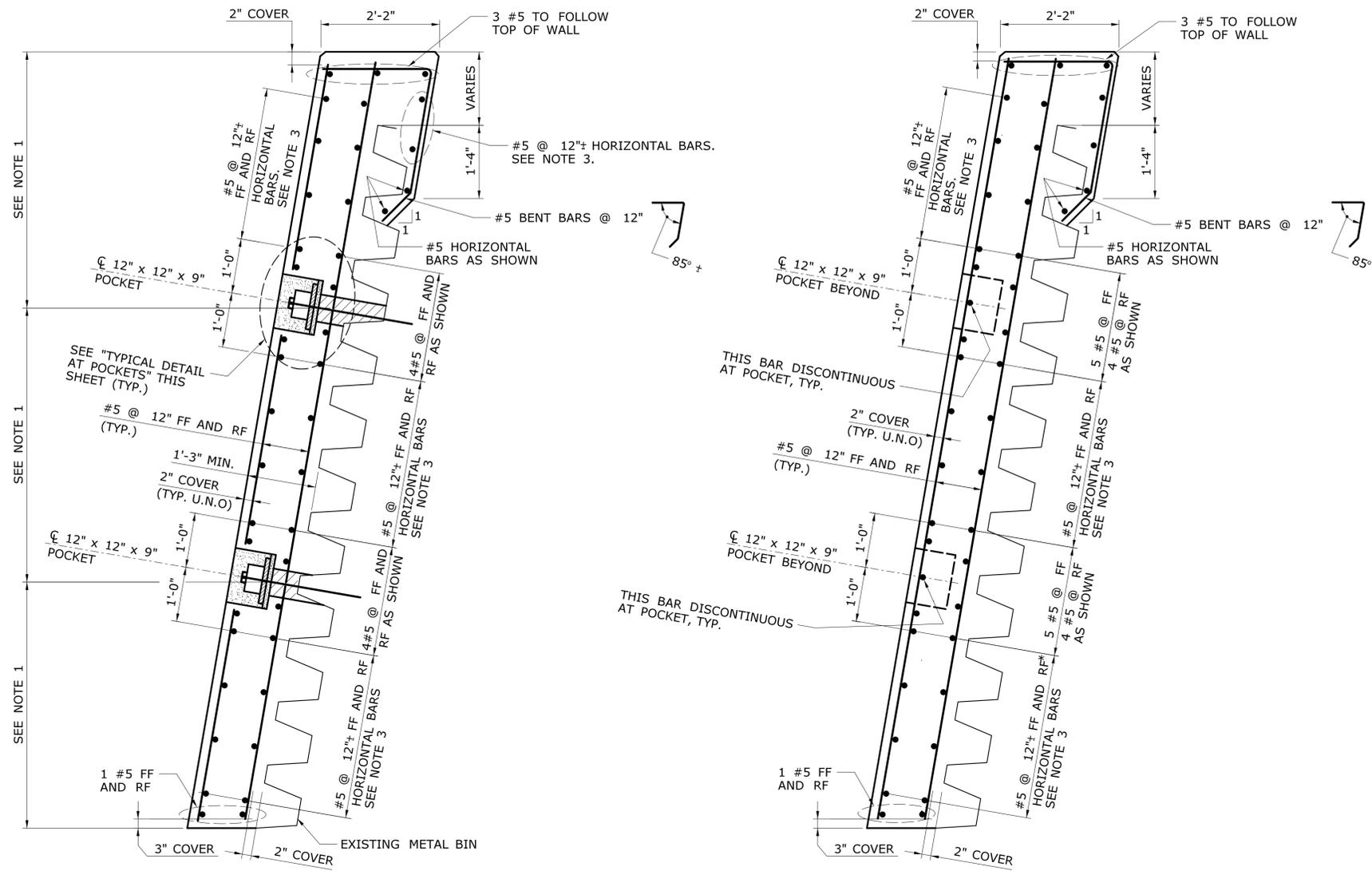
SCALE: 3/8" = 1'-0"

(**) TO BE FIELD-DETERMINED

DESIGN BEARING PRESSURES

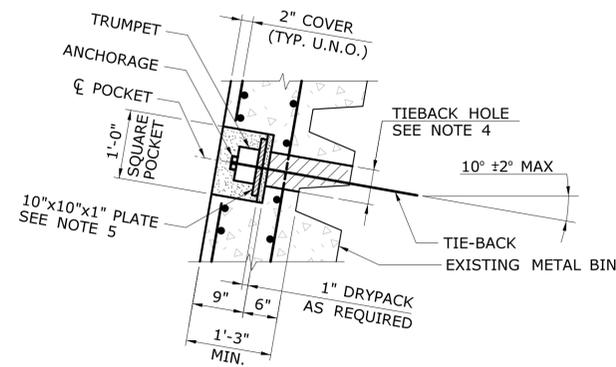
SERVICE LIMIT STATE	2.0 KSF.
STRENGTH LIMIT STATE	2.7 KSF.

DESIGNER/DRAFTER: BKC/MWW	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: <i>[Signature]</i>	PROJECT TITLE: <p>REHABILITATION OF TWO RETAINING WALLS ON ROUTE 42</p>	TOWN: <p>BEACON FALLS</p>	PROJECT NO. 06-122 DRAWING NO. S-10 SHEET NO. 04.10
CHECKED BY: BHR					
SCALE AS NOTED	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED. Plotted Date: 3/1/2013	FILENAME: ...\\SB-06-122-S-10-Tied-back Wall Details.dgn			



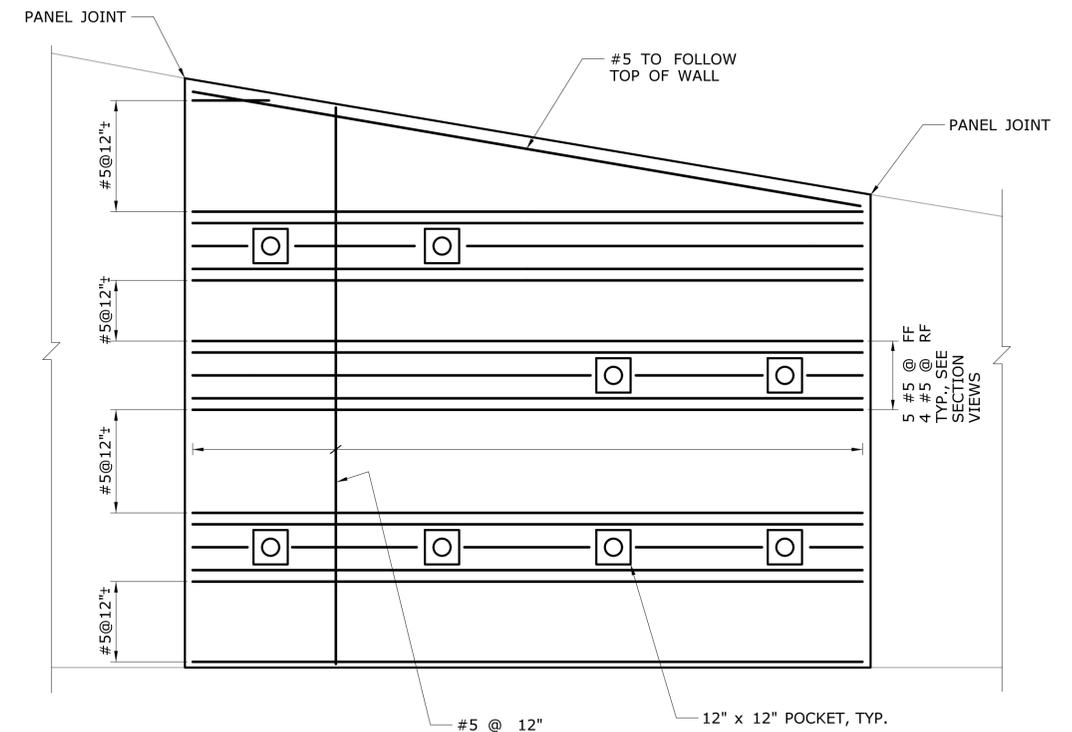
TYPICAL SECTIONS - WALL REINFORCEMENT

SCALE: 3/4" = 1'-0"



TYPICAL DETAIL AT POCKETS

SCALE: 3/4" = 1'-0"



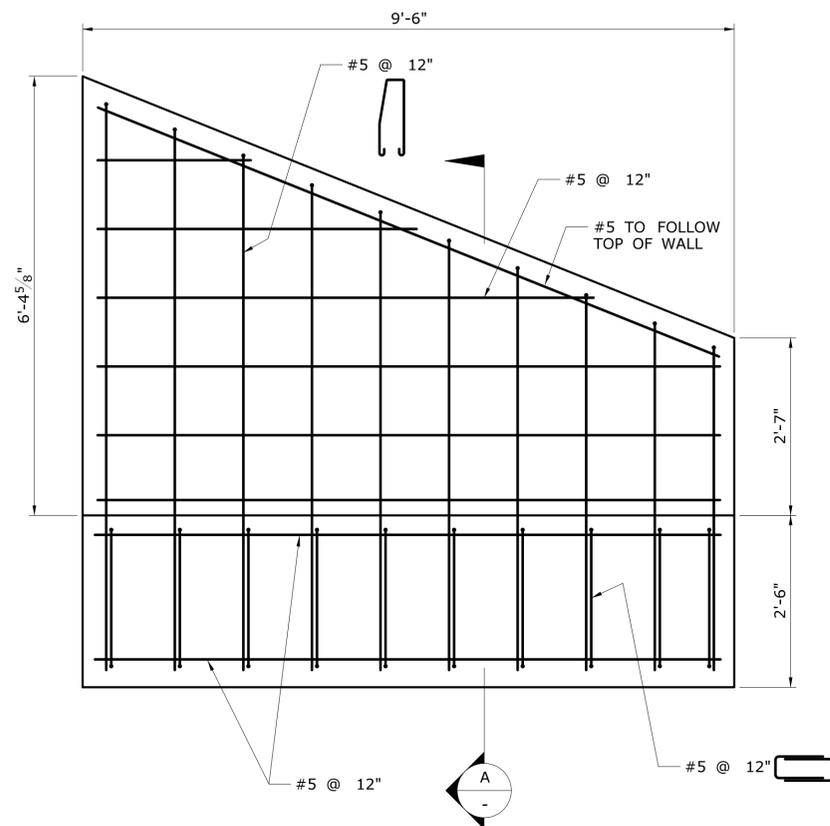
TYPICAL ELEVATION - TIED-BACK WALL REINFORCEMENT

N.T.S.

NOTES

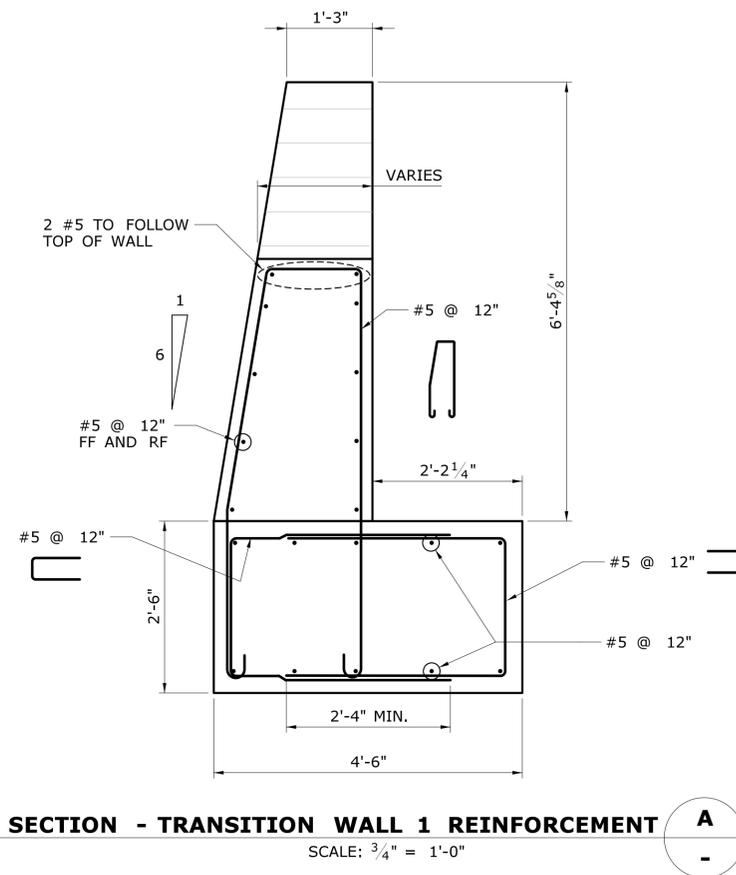
1. REFER TO DRAWING S-6, S-7, S-8 AND S-9 FOR THE DIMENSIONS AT INDIVIDUAL PANELS.
2. STANDARD ABBREVIATION SHALL BE AS FOLLOWS:
FF - FRONT FACE
RF - REAR FACE
U.N.O. - UNLESS NOTED OTHERWISE
3. BARS SHALL BE SPACED EVENLY AT AREAS WHERE AN EXACT SPACING OF 12 INCHES ON CENTERS CANNOT BE ACHIEVED.
4. REINFORCING BARS MAY BE CUT IN THE FIELD IN ACCORDANCE WITH THE PLAN AND SHALL BE TOUCHED UP WITH ZINC PAINT IN ACCORDANCE WITH ASTM A780.
5. THE DIAMETER OF TIE-BACK HOLE SHALL BE AS PER MANUFACTURER'S SPECIFICATION, NOT TO EXCEED 6 INCHES.
6. A MINIMUM OF 10"x10"x1" BEARING PLATE SHALL BE PROVIDED CONFORMING TO THE REQUIREMENTS OF ASTM A36, HOT-DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A153, THE BEARING PLATE SHOWN IN THIS DRAWING SHALL BE INCORPORATED IN THE FULL DETAIL OF THE TIE-BACK ANCHORAGE SYSTEM TO BE DESIGNED BY THE TIE-BACK MANUFACTURER.

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 3/1/2013	DESIGNER/DRAFTER: BKC	CHECKED BY: BHR	SCALE AS NOTED	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p> <p>Filename: ...\\SB_06_122_S-11_Tied-back_Wall_Reinforcement_Details.dgn</p>	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING	APPROVED BY: 	PROJECT TITLE: REHABILITATION OF TWO RETAINING WALLS ON ROUTE 42	TOWN: BEACON FALLS	PROJECT NO. 06-122
DRAWING TITLE: WALL REINFORCEMENT TYPICAL DETAILS													
SHEET NO. 04.11													



TRANSITION WALL 1 - INFORCEMENT

SCALE: $\frac{3}{4}'' = 1'-0''$



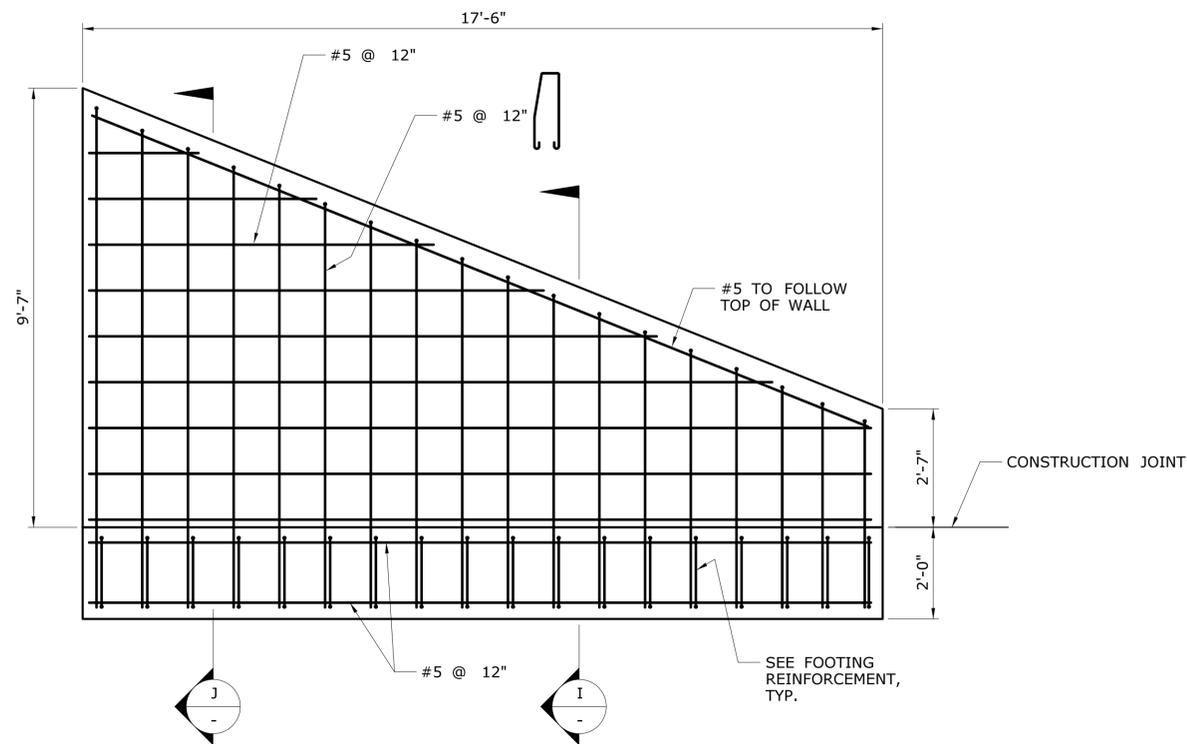
SECTION - TRANSITION WALL 1 REINFORCEMENT

SCALE: $\frac{3}{4}'' = 1'-0''$

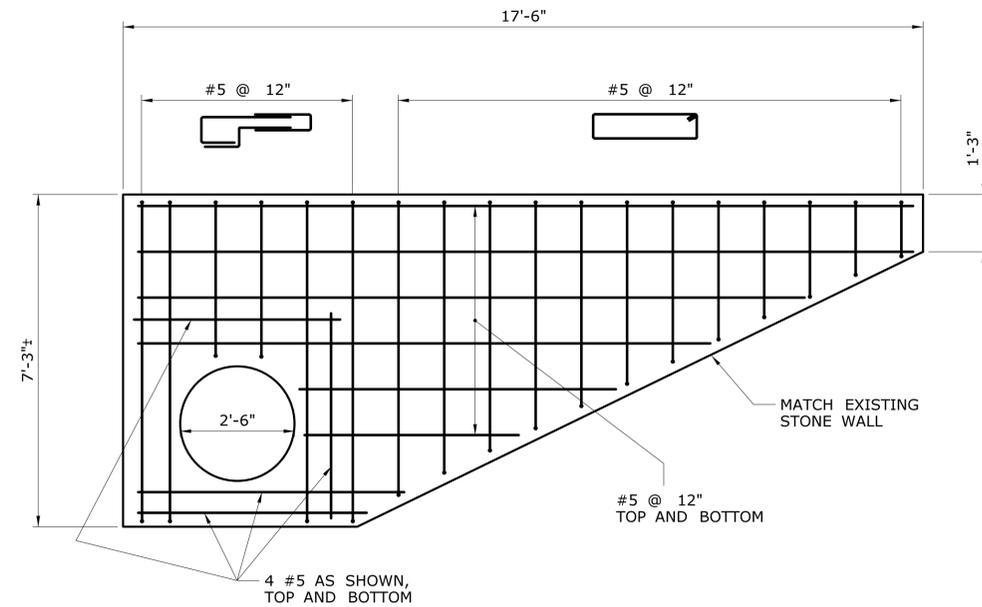
NOTES

1. REINFORCING BARS MAY BE CUT IN THE FIELD IN ACCORDANCE WITH THE PLAN AND SHALL BE TOUCHED UP WITH ZINC PAINT IN ACCORDANCE WITH ASTM A780.
2. CONCRETE COVER: ALL FOOTING REINFORCEMENT SHALL HAVE 3" COVER UNLESS OTHERWISE DIMENSIONED. ALL OTHER REINFORCEMENT SHALL HAVE 2" COVER UNLESS OTHERWISE DIMENSIONED.

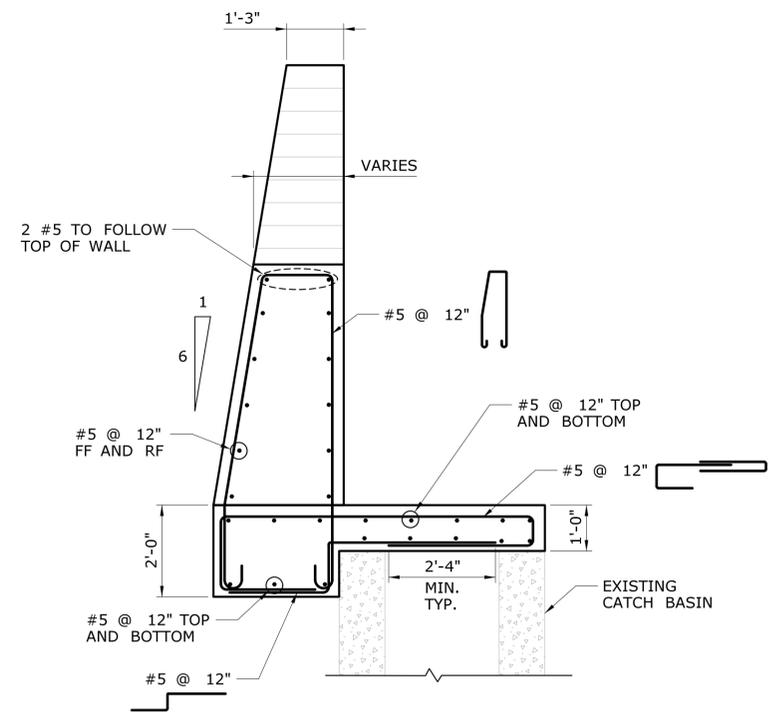
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: BKC CHECKED BY: BHR SCALE AS NOTED	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: 	PROJECT TITLE: REHABILITATION OF TWO RETAINING WALLS ON ROUTE 42	TOWN: BEACON FALLS	PROJECT NO. 06-122 DRAWING NO. S-12 SHEET NO. 04.12
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 3/1/2013	Filename: ...\\SB-06-122-S-12-Transition-Walls-1-Reinforcement.dgn		



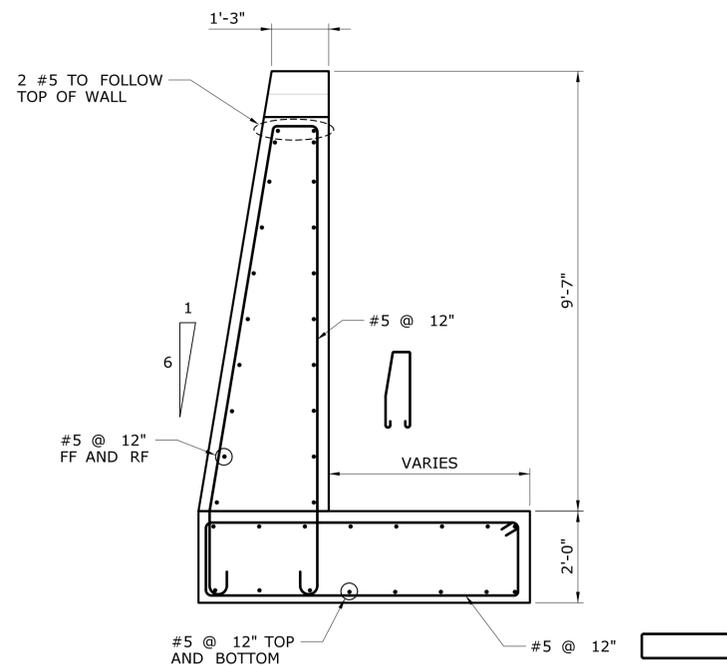
TRANSITION WALL 2 - REINFORCEMENT
SCALE: 1/2" = 1'-0"



TRANSITION WALL 2 - FOOTING REINFORCEMENT
SCALE: 1/2" = 1'-0"



SECTION - TRANSITION WALL 2 REINFORCEMENT
SCALE: 1/2" = 1'-0"



SECTION - TRANSITION WALL 2 REINFORCEMENT
SCALE: 1/2" = 1'-0"

NOTES

1. REINFORCING BARS MAY BE CUT IN THE FIELD IN ACCORDANCE WITH THE PLAN AND SHALL BE TOUCHED UP WITH ZINC PAINT IN ACCORDANCE WITH ASTM A780.
2. CONCRETE COVER: ALL FOOTING REINFORCEMENT SHALL HAVE 3" COVER UNLESS DIMENSIONED OTHERWISE. ALL OTHER REINFORCEMENT SHALL HAVE 2" COVER UNLESS DIMENSIONED OTHERWISE.

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
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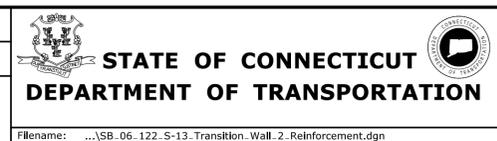
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 3/1/2013

DESIGNER/DRAFTER:
BKC

CHECKED BY:
BHR

SCALE AS NOTED



SIGNATURE/BLOCK:
OFFICE OF ENGINEERING

APPROVED BY:
[Signature]

PROJECT TITLE:
REHABILITATION OF TWO RETAINING WALLS ON ROUTE 42

TOWN:
BEACON FALLS

DRAWING TITLE:
TRANSITION WALL 2 REINFORCEMENT

PROJECT NO.
06-122

DRAWING NO.
S-13

SHEET NO.
04.13