SUBSET 04 - STRUCTURES
INDEX OF DRAWINGS

DRAWING NUMBER	DRAWING TITLE	DRAWING NUMBER	DRAWING TITLE
S-01	STRUCTURES INDEX OF DRAWINGS		
S-02	GENERAL PLAN AND ELEVATION		
S-03	TYPICAL BRIDGE CROSS SECTIONS		
S-04	GENERAL NOTES		
S-05	LAYOUT PLAN		
S-06	BORING LOGS (1 OF 4)		
S-07	BORING LOGS (2 OF 4)		
S-08	BORING LOGS (3 OF 4)		
S-09	BORING LOGS (4 OF 4)		
S-10	WATER HANDLING PLAN		
S-11	ABUTMENT 1 PLAN AND ELEVATION		
S-12	ABUTMENT 2 PLAN AND ELEVATION		
S-13	WINGWALL ELEVATIONS		
S-14	SUBSTRUCTURE DETAILS (1 OF 2)		
S-15	SUBSTRUCTURE DETAILS (2 OF 2)		
S-16	FRAMING PLAN AND DETAILS		
S-17	GIRDER ELEVATION AND DETAILS		
S-18	DECK PLAN AND DETAILS		
S-19	DECK REINFORCEMENT SECTIONS		
S-20	DECK DETAILS		
S-21	APPROACH SLAB DETAILS		
S-22	CONCRETE END BLOCK DETAILS		
S-23	BRIDGE RAIL DETAILS		

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

DESIGNER/DRAFTER: CHECKED BY:

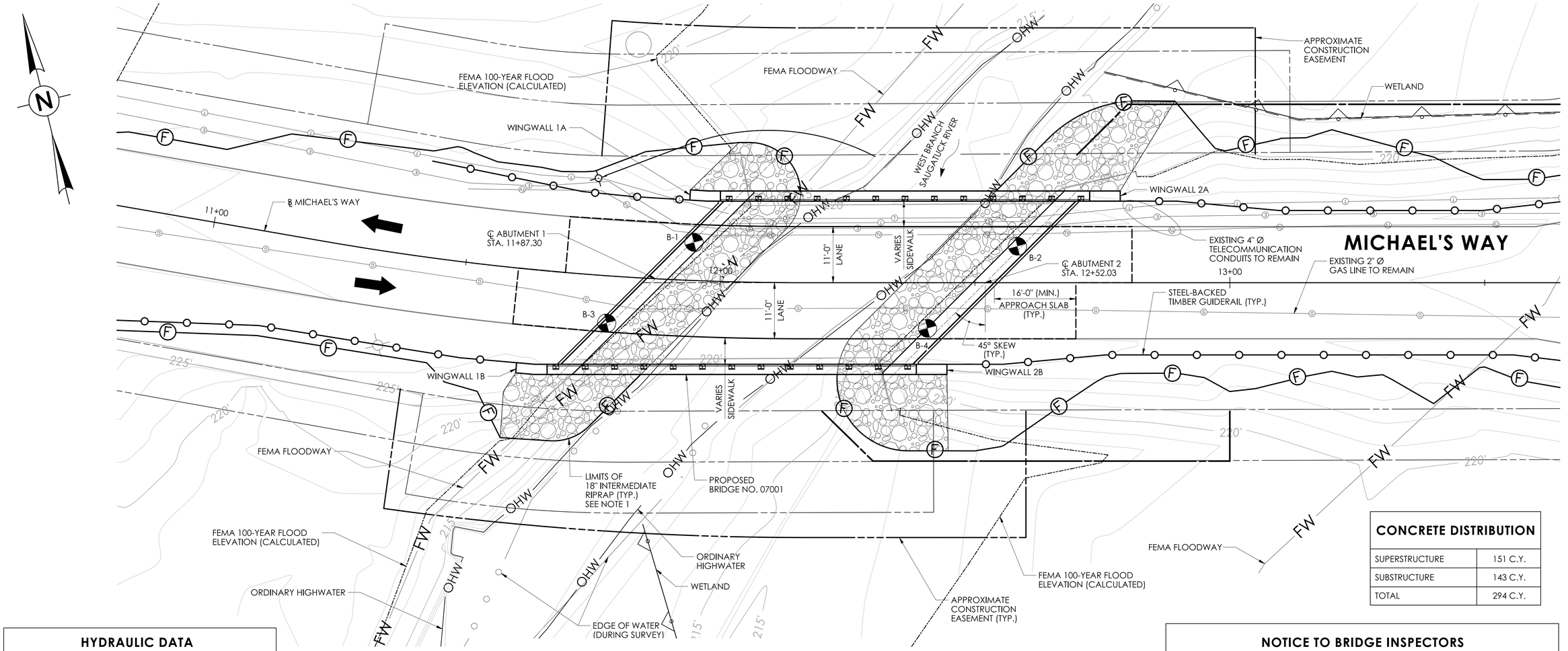
SIGNATURE/
BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: STRUCTURES INDEX OF DRAWINGS

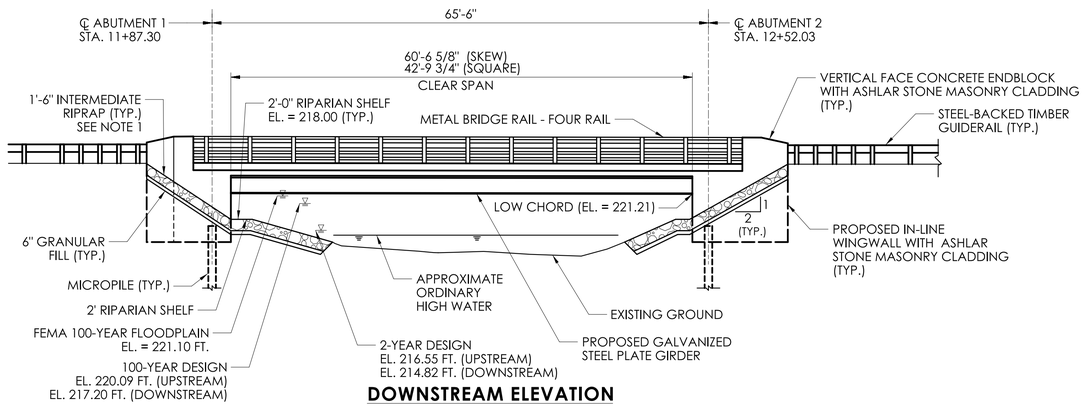
DRAWING NO. S-01
SHEET NO. 04.01

LASTED SAVED BY: mdoreo **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_SubsetCoverSheet.dgn
PLOTTED DATE: 2/27/2023



GENERAL PLAN

SCALE: 1" = 10'



DOWNSTREAM ELEVATION

SCALE: 1" = 10'

CONCRETE DISTRIBUTION

SUPERSTRUCTURE	151 C.Y.
SUBSTRUCTURE	143 C.Y.
TOTAL	294 C.Y.

HYDRAULIC DATA

DRAINAGE AREA	6.25 SQ. MILES
DESIGN FREQUENCY	100 YEAR
DESIGN DISCHARGE	1,530 CFS
AVERAGE DAILY FLOW ELEVATION	211.47 FT (ESTIMATED)
UPSTREAM DESIGN WATER SURFACE ELEVATION	220.09 FT
DOWNSTREAM DESIGN WATER SURFACE ELEVATION	217.20 FT
MAXIMUM SCOUR ELEVATION	204.36 FT
FREQUENCY	500-YEAR
DISCHARGE	1,960 CFS
WORST CASE SCOUR SUB-STRUCTURE UNIT	ABUTMENT 2

TRANSPORTATION DIMENSIONS AND WEIGHT

MEMBER	SHIPPING LENGTH	SHIPPING HEIGHT	SHIPPING WIDTH	SHIPPING WEIGHT
G-1 - G-6	67'-2"	2.17'	1.33'	10,200 LBS

NOTICE TO BRIDGE INSPECTORS

THE DEPARTMENT'S BRIDGE SAFETY PROCEDURES REQUIRE THIS BRIDGE TO INSPECTED FOR, BUT NOT LIMITED TO, ALL APPROPRIATE COMPONENTS INDICATED IN THE GOVERNING MANUALS FOR BRIDGE INSPECTION. ATTENTION MUST BE GIVEN TO INSPECTING THE FOLLOWING SPECIAL COMPONENTS AND DETAILS. (THE LISTING OF COMPONENTS FOR SPECIFIC ATTENTION SHALL NOT BE CONSTRUED TO REDUCE THE IMPORTANCE OF INSPECTION OF ANY OTHER COMPONENT OF THE STRUCTURE). THE FREQUENCY OF INSPECTION OF THIS STRUCTURE SHALL BE IN ACCORDANCE WITH THE GOVERNING MANUALS FOR BRIDGE INSPECTION, UNLESS OTHERWISE DIRECTED BY THE MANAGER OF BRIDGE SAFETY AND EVALUATION.

COMPONENTS OR DETAIL	STRUCTURE SHEET REFERENCE
NONE	NONE

LEGEND

BORING LOCATION

18" INTERMEDIATE RIPRAP

NOTE

1. PLACE 1'-0" OF NATURAL STREAMBED MATERIAL OVER ANY RIPRAP WITHIN THE OHW LIMITS

REV. | DATE | REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

0 10' 20'
HORIZONTAL SCALE 1" = 10'

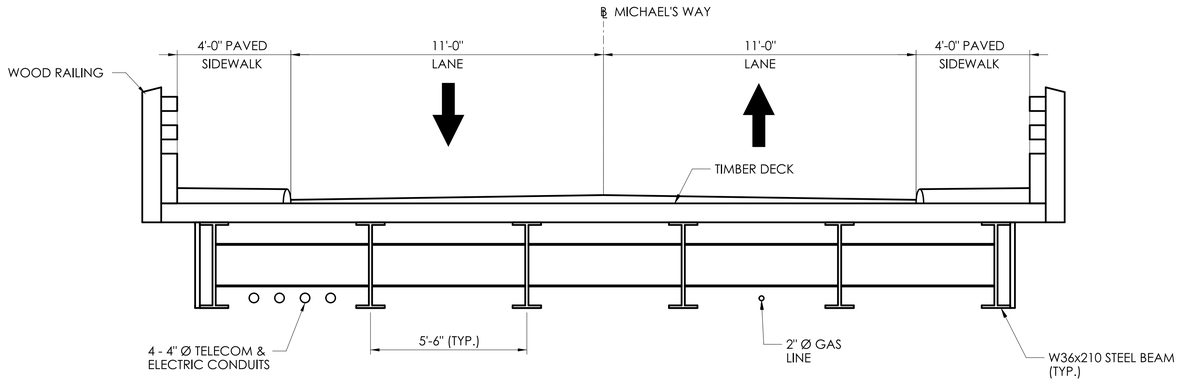
SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: GENERAL PLAN AND ELEVATION

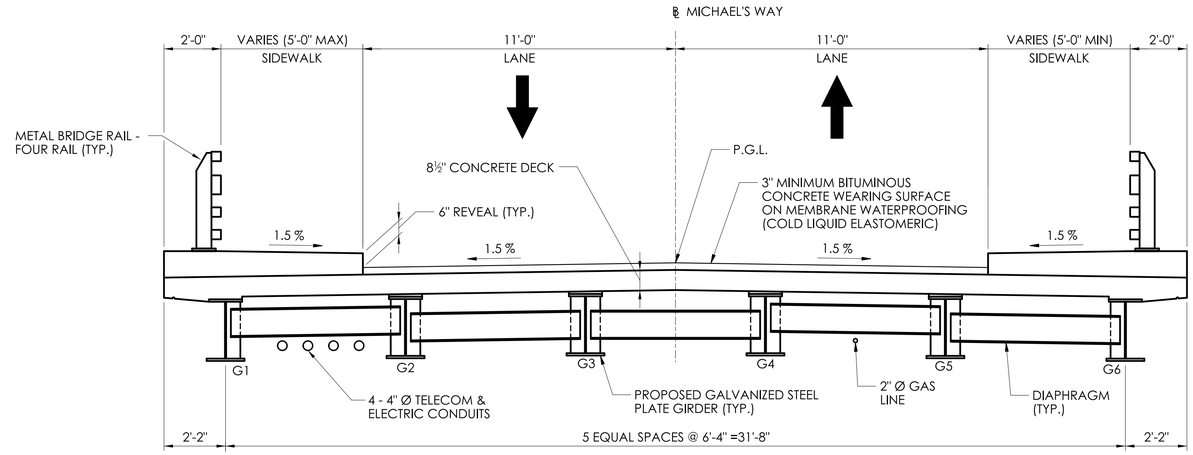
DRAWING NO. S-02
SHEET NO. 04.02

LASTED SAVED BY: mdoreo FILE NAME: M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Bridge_#07001.dgn.dgn
PLOTTED DATE: 2/27/2023



EXISTING BRIDGE CROSS SECTION

SCALE: ⅜" = 1'-0"



PROPOSED BRIDGE CROSS SECTION

SCALE: ⅜" = 1'-0"

REV.	DATE	REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: TYPICAL BRIDGE CROSS SECTIONS

DRAWING NO. S-03
SHEET NO. 04.03

LASTED SAVED BY: cgagne **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Typical_Sections.dgn
PLOTTED DATE: 2/27/2023

GENERAL NOTES

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 818 (2020), SUPPLEMENTAL SPECIFICATIONS DATED JULY 2022, AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS - 8TH EDITION, 2017 AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003) WITH REVISIONS THROUGH 2019.

MATERIAL STRENGTHS:

CONCRETE:
CLASS PCC04462 f'c = 4,000 PSI
CLASS PCC03340 f'c = 3,000 PSI

THE CONCRETE STRENGTH, f'c, USED IN DESIGN OF THE CONCRETE COMPONENTS IS NOTED ABOVE. THE COMPRESSIVE STRENGTH OF THE CONCRETE IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF 6.01 - CONCRETE FOR STRUCTURES, AND M.03 - PORTLAND CEMENT CONCRETE.

REINFORCEMENT:
(ASTM A615 GRADE 60) Fy = 60,000 PSI

STRUCTURAL STEEL:
(ASTM M270 GRADE 50 GALVANIZED) Fy= 50,000 PSI

LIVE LOAD: HL93, LEGAL AND PERMIT VEHICLES

STRUCTURAL STEEL: SEE STRUCTURAL STEEL NOTES FOR DESIGNATIONS AND REQUIREMENTS

BITUMINOUS CONCRETE OVERLAY: THIS SHALL CONSIST OF TWO LIFTS, 2" HMA S0.5 TRAFFIC LEVEL 2 ON 1" HMA S0.25 TRAFFIC LEVEL 2.

SALVAGE: NONE

PILE LOADS: THE VARIOUS GROUP LOADINGS NOTED ON THE SUBSTRUCTURE PLAN SHEETS REFERS TO THE GROUP LOADS AS GIVEN IN THE AASHTO *LRFD BRIDGE DESIGN SPECFICIATIONS.*

DIMENSIONS: WHEN DECIMAL DIMENSIONS 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. THEY HAVE BEEN TAKEN FROM THE ORIGINAL DESIGN DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR REVIEW, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER.

UTILITIES: THE FOLLOWING UTILITIES ARE LOCATED WITHIN THE PROJCET LIMITS AND SHALL BE PROTECTED DURING CONSTRUCTION:

EVERSOURCE GAS
FRONTIER COMMUNICATIONS
EVERSOURCE ELECTRIC

MASH TEST LEVEL: THE FOUR BAR STEEL BRIDGE RAIL MEETS THE TL-4 CRITERIA FOR MASH 2016.

BRIDGE IDENTIFICATION PLACARDS: THE CONTRACTOR SHALL PROVIDE AND INSTALL NEW BRIDGE IDENTIFICATION SIGNS AT THE LEADING END OF EACH BRIDGE PARAPET ON THE TRAFFIC SIDE. THE SIGNS SHALL BE FABRICATED WITH 40 GAUGE ALUMINUM SHEET METAL. THE SIGNS SHALL BE 4" X 12" WITH 3" WHITE REFLECTIVE BLOCK LETTERS ON GREEN SHEETING. EACH SIGN SHALL READ: 07001. ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE BRIDGE SIGNS SHALL BE COVERED UNDER "SIGN FACE-SHEET ALUMINUM (TYPE IX RETROREFLECTIVE SHEETING)". THE FINAL LOCATION AND ATTACHMENT METHOD FOR THE SIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

CONCRETE NOTES

REMAIN-IN-PLACE FORMS: THE USE OF REMAIN-IN-PLACE FORMS ON THIS STRUCTURE IS NOT ALLOWED.

COMPOSITE CONSTRUCTION: NO TEMPORARY INTERMEDIATE SUPPORTS SHALL BE USED DURING THE PLACING AND SETTING OF THE CONCRETE DECK SLAB. TEMPORARY SUPPORTS MAY BE USED FOR STRUCTURAL STEEL ERECTION ONLY. CONSTRUCTION LOADS AND DEAD LOADS WILL BE PERMITTED WHEN DIRECTED BY THE ENGINEER BUT ONLY WHEN THE CONCRETE HAS REACHED A STRENGTH OF f'c=3500psi. LIVE LOADS (TRAFFIC) WILL BE PERMITTED ON THE STRUCTURE AFTER THE CONCRETE HAS REACHED A STRENGTH OF f'c=4000psi.

THE FOLLOWING PAY ITEMS AND CONCRETE CLASSES ARE REQUIRED FOR CAST-IN-PLACE BRIDGE COMPONENTS:

ITEM	BRIDGE COMPONENT	PCC CLASS
ABUTMENTS & WINGWALLS	ABUTMENTS BELOW BEAMS AND WINGWALLS	PCC03340
BRIDGE DECK CONCRETE	BRIDGE DECK, ABUTMENTS ABOVE BEAM SEAT,	PCC04462
SIDEWALK CONCRETE	SIDEWALKS	PCC04462
BRIDGE RAIL CONCRETE	CONCRETE END BLOCKS	PCC04462

EXPOSED EDGES: EXPOSED EDGES SHALL BE BEVELED 1"x1" UNLESS DIMENSIONED OTHERWISE.

CONCRETE COVER: ALL REINFORCEMENT SHALL HAVE TWO INCHES COVER UNLESS DIMENSIONED OTHERWISE.

REINFORCEMENT: ALL REINFORCEMENT SHALL BE EPOXY COATED OTHERSWISE NOTED.

CONSTRUCTION JOINTS: CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.

REV.	DATE	REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

SIGNATURE/ BLOCK:

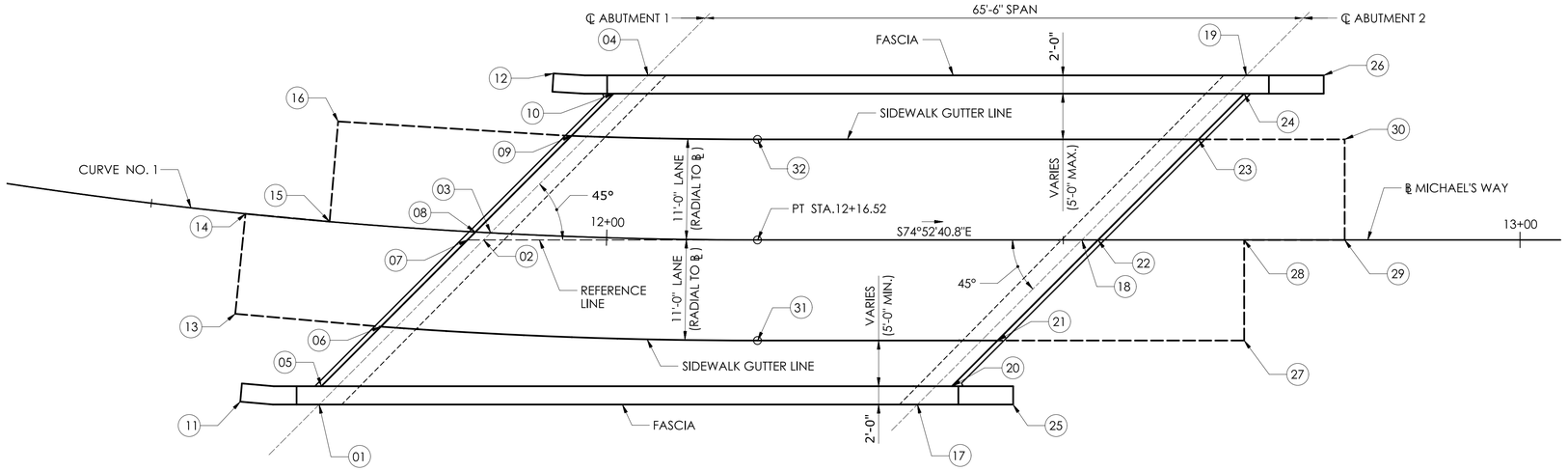
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: GENERAL NOTES

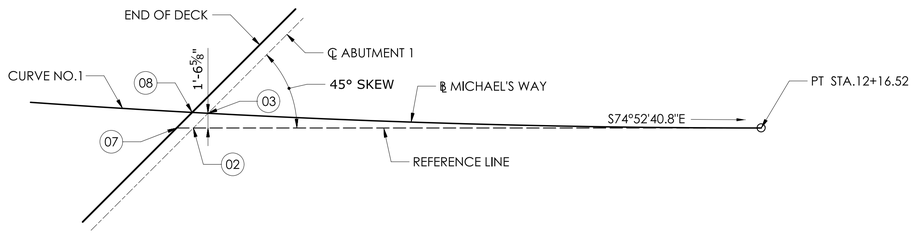
DRAWING NO. S-04
SHEET NO. 04.04

LASTED SAVED BY: mdoreo **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_General_Notes.dgn
PLOTTED DATE: 2/27/2023

CURVE NO. 1	
RADIUS:	550.00'
DELTA:	9°50'13" Left
LENGTH:	94.43'
TANGENT:	47.33'
PI N:	643239.63
E:	825628.44



LAYOUT PLAN
SCALE: ⅛" = 1'-0"



REFERENCE LINE DETAIL
N.T.S.

WORKING POINT COORDINATES TABLE

LOCATION	W.P. #	STA.	OFFSET	NORTH	EAST
ABUTMENT 1	1	11+70.16	20.02 RT	643222.42	825623.11
	2	11+86.56	0.82 RT	643235.11	825645.18
	3	11+87.30	0.00 RT	643235.65	825646.14
	4	12+04.13	17.87 LT	643247.79	825667.26
	5	11+70.23	18.01 RT	643224.29	825623.86
	6	11+76.06	11.00 RT	643228.89	825631.85
	7	11+84.80	0.92 RT	643235.57	825643.48
	8	11+85.62	0.00 RT	643236.18	825644.54
	9	11+95.73	11.00 LT	643243.59	825657.44
	10	12+00.32	15.77 LT	643246.84	825663.10
	11	11+61.84	20.50 RT	643224.98	825614.86
	12	11+93.44	17.74 LT	643250.69	825657.32
ABUTMENT 1 APPROACH SLAB	13	11+60.37	11.00 RT	643234.40	825616.83
	14	11+60.37	0.00 RT	643244.67	825620.76
	15	11+69.62	0.00 RT	643241.43	825629.43
	16	11+69.62	11.00 LT	643251.77	825633.19
ABUTMENT 2	17	12+34.03	18.00 RT	643205.34	825686.34
	18	12+52.03	0.00 RT	643218.02	825708.42
	19	12+70.03	18.00 LT	643230.70	825730.49
	20	12+37.80	16.00 RT	643206.29	825690.50
	21	12+42.80	11.00 RT	643209.81	825696.63
	22	12+53.80	0.00 RT	643217.56	825710.12
	23	12+64.80	11.00 LT	643225.31	825723.61
	24	12+69.80	16.00 LT	643228.83	825729.74
	25	12+44.51	18.00 RT	643202.60	825696.46
	26	12+78.51	18.00 LT	643228.49	825738.67
ABUTMENT 2 APPROACH SLAB	27	12+69.80	11.00 RT	643202.76	825722.70
	28	12+69.80	0.00 RT	643213.38	825725.57
	29	12+80.80	0.00 RT	643210.51	825736.19
	30	12+80.80	11.00 LT	643221.13	825739.06
CURBLINE PT	31	12+16.52	11.00 RT	643216.66	825671.26
	32	12+16.52	11.00 LT	643237.90	825677.00

REVISION DESCRIPTION | DATE | REV.

DESIGNER/DRAFTER: CHECKED BY:

SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: LAYOUT PLAN

DRAWING NO. S-05
SHEET NO. 04.05

LASTED SAVED BY: cgagne **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_WP-Layout_Quantities.dgn
PLOTTED DATE: 2/27/2023

Down To Earth Consulting, LLC 122 Church Street Naugatuck, CT 06770	**CONNDOT BORING LOG**	Hole No.: B-1
	TOWN: WESTON	Line & Station: Not Available
	DRILLER: Mike St. John	Offset: Not Available
	INSPECTOR: A. Barringer	File No.: 0038-022.00
	PROJECT NAME: Bridge 07001 Rehabilitation Michaels Way	
Tel: (203) 683-4155	STATE PROJECT NUMBER: 157-088	N. Coordinate: 643240.56
	BORING CONTRACTOR: New England Boring Contractors, Inc.	E. Coordinate: 825655.29

Surface Elevation: 224.3		Casing			Auger		Mud	Sampler		Core Barrel			
Date Started: 7/13/20	Utilized			X		X			X				X
Date Finished: 7/14/20	Type	BW	NW	HW	Pipe	Solid	Hollow		SS	UP	B (s)	B (d)	NX (s)	NX (d)
Groundwater Observations	Size I.D. (in)			4		4			1.375					
@ - ft after Not Recorded	Hammer (lb)			300		-			140		Type	X	Diamond	
@ ft after	Fall (in)			24		-			30		of Bit		Carbide	

DEPTH	Casing blows per foot	SAMPLE DEPTH IN FEET FROM - TO	NO.	PEN. in	REC. in	Type	BLOWS PER 6 INCHES ON SAMPLER 0 - 6	6 - 12	12 - 18	18 - 24	STRATA CHANGE: DEPTH	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
	3										PAVEMENT	3" Asphalt
	4	1 to 3	1	24	8	SS	9	10	6	5		Medium dense, dark brown, C-F SAND, some Silt, little m-f Gravel
	6											
	32	3 to 5	2	24	4	SS	10	8	7	7		Medium dense, brown, C-F SAND, little m-f Gravel, little Silt
5	24											
	27	5 to 7	3	24	8	SS	6	11	16	11	FILL	Medium dense, dark brown, C-F GRAVEL, some c-f Sand, little Silt
	36											
	37	7 to 9	4	24	10	SS	13	10	7	9		Medium dense, dark brown/light brown, C-F GRAVEL, some c-f Sand, trace Silt
	34											
10	51											
	128	10 to 10.5	5	6	0	SS	50	50/0"			BOULDER	
	542											
	18	12 to 14	6	24	9	SS	8	19	9	7	BURIED TOPSOIL	Medium dense, dark gray to brown, C-F GRAVEL and C-F SAND, little Silt, trace Roots
	4										ALLUVIUM	
15	19	14 to 16	7	24	8	SS	11	7	4	10		Medium dense, brown, C-F SAND, some m-f Gravel, little Silt, trace Roots
	79											
	45											
	42											
	101										TILL	
20	78											
	24	20 to 22	8	24	4	SS	6	52	20	24		Very dense, brown, C-F GRAVEL and C-F SAND, little Silt
	73											
	70											
	47										WEATHERED ROCK (INFERRED)	
25	99											
		25 to 30	1	60	56	C	REC = 56"/60" = 93.3%				BEDROCK	Fair Quality, Hard, Moderately Weathered, gray/black, GRANITIC GNEISS
							RQD = 41"/60" = 68.3%					[Core Times (min/ft): 5.9, 6.5, 7, 5.4, 6.4]
30												
		30 to 35	2	60	58	C	REC = 58"/60" = 96.7%					Poor Quality, Hard, Moderately Weathered, gray/white, GRANITIC GNEISS
							RQD = 23"/60" = 38.3%					[Core Times (min/ft): 6.5, 5.5, 5.3, 6.8, 7]
35												

Casing			Depth	
Size	From	To	Earth	Rock
HW	0	25	25 ft.	15 ft.
			No. of Soil Samples	
			8	

NOTES: 1) Solid stem augers advanced from 0-5 feet, casing then driven from 0-25 feet.
2) Began coring at 25 feet. Driller increased drilling down pressure between 36-38 feet.
3) Boring completed with 2" PVC , grout backfill, and a roadway protective cover.

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated, fluctuations may occur due to other factors.

Hole No. B-1
Sheet 1 of 2

Down To Earth Consulting, LLC 122 Church Street Naugatuck, CT 06770	**CONNDOT BORING LOG**	Hole No.: B-1
	TOWN: WESTON	Line & Station: Not Available
	DRILLER: Mike St. John	Offset: Not Available
	INSPECTOR: A. Barringer	File No.: 0038-022.00
	PROJECT NAME: Bridge 07001 Rehabilitation Michaels Way	
Tel: (203) 683-4155	STATE PROJECT NUMBER: 157-088	N. Coordinate: 643240.56
	BORING CONTRACTOR: New England Boring Contractors, Inc.	E. Coordinate: 825655.29

Surface Elevation: 224.3		Casing			Auger		Mud	Sampler		Core Barrel			
Date Started: 7/13/20	Utilized			X		X			X				X
Date Finished: 7/14/20	Type	BW	NW	HW	Pipe	Solid	Hollow		SS	UP	B (s)	B (d)	NX (s)	NX (d)
Groundwater Observations	Size I.D. (in)			4		4			1.375					
@ - ft after Not Recorded	Hammer (lb)			300		-			140		Type	X	Diamond	
@ ft after	Fall (in)			24		-			30		of Bit		Carbide	

DEPTH	Casing blows per foot	SAMPLE DEPTH IN FEET FROM - TO	NO.	PEN. in	REC. in	Type	BLOWS PER 6 INCHES ON SAMPLER 0 - 6	6 - 12	12 - 18	18 - 24	STRATA CHANGE: DEPTH	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
		35 to 40	3	60	60	C	REC = 60"/60" = 100%					Excellent Quality, Hard, Slightly Weathered, gray/white, GRANITIC GNEISS
							RQD = 56"/60" = 93.3%				BEDROCK	[Core Times (min/ft): 8, 4.1, 4, 4.1, 5.6]
40												
												END OF EXPLORATION AT 40 FEET
45												
50												
55												
60												
65												
70												

Casing			Depth	
Size	From	To	Earth	Rock
HW	0	25	25 ft.	15 ft.
			No. of Soil Samples	
			8	

NOTES:

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated, fluctuations may occur due to other factors.

Hole No. B-1
Sheet 2 of 2

REVISION DESCRIPTION | DATE | REV.

DESIGNER/DRAFTER: CHECKED BY:

SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: BORING LOGS (1 OF 4)

DRAWING NO. S-06
SHEET NO. 04.06

LASTED SAVED BY: dkull **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Boring_Logs.dgn
PLOTTED DATE: 2/27/2023

Down To Earth Consulting, LLC 122 Church Street Naugatuck, CT 06770	**CONNDOT BORING LOG**	Hole No.: B-2
	TOWN: WESTON	Line & Station: Not Available
	DRILLER: Mike St. John	Offset: Not Available
	INSPECTOR: A. Barringer	File No.: 0038-022.00
	PROJECT NAME: Bridge 07001 Rehabilitation Michaels Way	
Tel: (203) 683-4155	STATE PROJECT NUMBER: 157-088	N. Coordinate: 643223.28
	BORING CONTRACTOR: New England Boring Contractors, Inc.	E. Coordinate: 825716.34

		Casing				Auger		Mud	Sampler		Core Barrel			
Surface Elevation: 223.9														
Date Started: 7/8/20	Utilized			X		X			X					X
Date Finished: 7/10/20	Type	BW	NW	HW	Pipe	Solid	Hollow		SS	UP	B (s)	B (d)	NX (s)	NX (d)
Groundwater Observations	Size I.D. (in)			4		4			1.375					
@ 9.8 ft after 41 hours	Hammer (lb)			300		-			140		Type	X	Diamond	
@ ft after	Fall (in)			24		-			30		of Bit		Carbide	

DEPTH	Casing blows per foot	SAMPLE DEPTH IN FEET FROM - TO	NO.	PEN. in	REC. in	Type	BLOWS PER 6 INCHES ON SAMPLER 0 - 6	6 - 12	12 - 18	18 - 24	STRATA CHANGE: DEPTH	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
	3										PAVEMENT	5" Asphalt
	5	1 to 3	1	24	7	SS	9	6	4	5		Loose, brown, C-F GRAVEL and C-F SAND, little Silt
	12											
	23	3 to 5	2	24	9	SS	7	8	5	4		Medium dense, brown, C-F SAND and M-F GRAVEL, little Silt
5	26											
	17	5 to 7	3	24	10	SS	10	7	8	8	FILL	Medium dense, brown, C-F SAND, some c-f Gravel little Silt
	29											
	18	7 to 9	4	24	10	SS	9	8	16	16		Medium dense, dark brown, C-F SAND, some c-f Gravel, little Silt
	20											
10	23											
	15	10 to 12	5	24	7	SS	10	10	7	9	BURIED TOPSOIL	Medium dense, dark brown to gray, M-F GRAVEL and C-F SAND, little Silt
	17										ALLUVIUM	
	24	12 to 13.9	6	23	8	SS	2	5	22	50/5"		Medium dense, dark gray to light brown, C-F SAND, some c-f Gravel, some Silt
	31											
15	32											
	36	15 to 15.1	7	1	0	SS	75/1"					
	57											
	130										TILL	
	93											
20	239											
	140	20 to 21.4	8	17	10	SS	50	53	75/5"			Very dense, light brown, SILT and C-F SAND, little m-f Gravel
	102											
	186										WEATHERED ROCK (INFERRED)	
	161											
25												
		25 to 30	1	60	40	C	REC = 40"/60" = 66.7%				BEDROCK	Poor Quality, Hard, Moderately Weathered, brown/gray, GRANITIC GNEISS
							RQD = 16"/60" = 26.7%					[Core Times (min/ft): 4, 6.5, 5, 5.9, 5.1]
30												
		30 to 35	2	60	58	C	REC = 58"/60" = 96.7%					Poor Quality, Hard, Moderately Weathered, gray/brown, GRANITIC GNEISS
							RQD = 24"/60" = 40%					[Core Times (min/ft): 5.1, 6, 5.5, 7, 4.2]
35												

Casing			Depth	
Size	From	To	Earth	Rock
HW	0	24	25 ft.	15 ft.
			No. of Soil Samples	
			8	

NOTES: 1) Solid stem augers advanced from 0-5 feet, casing then driven from 0-24 feet.
2) Began coring at 25 feet. Driller increased drilling down pressure between 29-30 feet and 34-35 feet. 3) Boring completed with 2" PVC , grout backfill, and a roadway protective cover.

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated, fluctuations may occur due to other factors.

Hole No. B-2
Sheet 1 of 2

Down To Earth Consulting, LLC 122 Church Street Naugatuck, CT 06770	**CONNDOT BORING LOG**	Hole No.: B-2
	TOWN: WESTON	Line & Station: Not Available
	DRILLER: Mike St. John	Offset: Not Available
	INSPECTOR: A. Barringer	File No.: 0038-022.00
	PROJECT NAME: Bridge 07001 Rehabilitation Michaels Way	
Tel: (203) 683-4155	STATE PROJECT NUMBER: 157-088	N. Coordinate: 643223.28
	BORING CONTRACTOR: New England Boring Contractors, Inc.	E. Coordinate: 825716.34

		Casing				Auger		Mud	Sampler		Core Barrel			
Surface Elevation: 223.9														
Date Started: 7/8/20	Utilized			X		X			X					X
Date Finished: 7/10/20	Type	BW	NW	HW	Pipe	Solid	Hollow		SS	UP	B (s)	B (d)	NX (s)	NX (d)
Groundwater Observations	Size I.D. (in)			4		4			1.375					
@ 9.8 ft after 41 hours	Hammer (lb)			300		-			140		Type	X	Diamond	
@ ft after	Fall (in)			24		-			30		of Bit		Carbide	

DEPTH	Casing blows per foot	SAMPLE DEPTH IN FEET FROM - TO	NO.	PEN. in	REC. in	Type	BLOWS PER 6 INCHES ON SAMPLER 0 - 6	6 - 12	12 - 18	18 - 24	STRATA CHANGE: DEPTH	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
		35 to 40	3	60	59	C	REC = 59"/60" = 98.3%					Fair Quality, Hard, Slightly Weathered, gray/black, GRANITIC GNEISS
							RQD = 38"/60" = 63.3%					[Core Times (min/ft): 6.5, 5, 11, 6.8, 12]
											BEDROCK	
40												
												END OF EXPLORATION AT 40 FEET
45												
50												
55												
60												
65												
70												

Casing			Depth	
Size	From	To	Earth	Rock
HW	0	24	25 ft.	15 ft.
			No. of Soil Samples	
			8	

NOTES:

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated, fluctuations may occur due to other factors.

Hole No. B-2
Sheet 2 of 2

REV. | DATE | REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: BORING LOGS (2 OF 4)

DRAWING NO. S-07
SHEET NO. 04.07

LASTED SAVED BY: dkull FILE NAME: M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Boring_Logs.dgn
PLOTTED DATE: 2/27/2023

Down To Earth Consulting, LLC 122 Church Street Naugatuck, CT 06770	**CONNDOT BORING LOG**	Hole No.: B-3
	TOWN: WESTON	Line & Station: Not Available
	DRILLER: Mike St. John	Offset: Not Available
	INSPECTOR: A. Barringer	File No.: 0038-022.00
	PROJECT NAME: Bridge 07001 Rehabilitation Michaels Way	
Tel: (203) 683-4155	STATE PROJECT NUMBER: 157-088	N. Coordinate: 643229.76
	BORING CONTRACTOR: New England Boring Contractors, Inc.	E. Coordinate: 825634.62

Surface Elevation: 224.3		Casing				Auger		Mud	Sampler		Core Barrel			
Date Started: 7/7/20	Utilized			X		X			X					X
Date Finished: 7/8/20	Type	BW	NW	HW	Pipe	Solid	Hollow		SS	UP	B (s)	B (d)	NX (s)	NX (d)
Groundwater Observations	Size I.D. (in)			4		4			1.375					
@ 11 ft after 16 hours	Hammer (lb)			300		-			140		Type	X	Diamond	
@ ft after	Fall (in)			24		-			30		of Bit		Carbide	

DEPTH	Casing blows per foot	SAMPLE DEPTH IN FEET FROM - TO	NO.	PEN. in	REC. in	Type	BLOWS PER 6 INCHES ON SAMPLER 0 - 6	6 - 12	12 - 18	18 - 24	STRATA CHANGE: DEPTH	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
	3										PAVEMENT	4" Asphalt
	11	1 to 3	1	24	7	SS	7	7	9	7		Medium dense, dark brown, C-F GRAVEL and C-F SAND, little Silt
	19											
	16	3 to 5	2	24	5	SS	7	10	12	12		Medium dense, brown, C-F GRAVEL, some c-f Sand, trace Silt
5	9											
	13	5 to 7	3	24	4	SS	16	22	11	10	FILL	Dense, dark brown, C-F GRAVEL, some c-f Sand, trace Silt
	15											
	18	7 to 9	4	24	4	SS	14	14	18	24		Dense, dark brown, C-F GRAVEL, little c-f Sand, trace Silt
	19											
10	126	9 to 9.4	5	5	5	SS	75/5"					Very dense, gray, C-F SAND, little Silt, little m-f Gravel
	113										BOULDER	
	91											
	12	12 to 14	6	24	3	SS	4	5	7	13	BURIED TOPSOIL	Medium dense, dark brown to gray, C-F SAND, some Silt, trace f Gravel, trace Roots
	10											
15	14	14 to 16	7	24	0	SS	19	22	18	23		
	17											
	22	16 to 18	8	24	10	SS	18	19	18	26		Dense, light brown, C-F GRAVEL, some c-f Sand, trace Silt
	20											
	31										TILL	
20	48											
	39	20 to 22	9	24	15	SS	27	19	14	11		Dense, light brown, C-F SAND, some m-f Gravel, little Silt
	33											
	57											
	84											
25	162											
		25 to 30	1	60	49	C	REC = 49"/60" = 81.7%					Fair Quality, Hard, Moderately Weathered, gray/white, GRANITIC GNEISS
							RQD = 38"/60" = 63.3%					[Core Times (min/ft):3.6, 6.1, 7, 9.7, 5.3]
30												
		30 to 35	2	60	59	C	REC = 59"/60" = 98.3%				BEDROCK	Good Quality, Hard, Slightly Weathered, gray/white, GRANITIC GNEISS with QUARTZITE vein (34-35 ft)
							RQD = 47"/60" = 78.3%					[Core Times (min/ft): 4.7, 3, 3.1, 5.6, 6]
35												

Casing			Depth	
Size	From	To	Earth	Rock
HW	0	25	25 ft.	15 ft.
			No. of Soil Samples	
			9	

NOTES: 1) Solid stem augers advanced from 0-5 feet, casing then driven from 0-25 feet. 2) Began coring at 25 feet. Driller increased drilling down pressure between 28.5-30 feet and 32.5-35 feet. 3) Boring completed with 2" PVC , grout backfill, and a roadway protective cover.

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated, fluctuations may occur due to other factors.

Hole No. B-3
Sheet 1 of 2

Down To Earth Consulting, LLC 122 Church Street Naugatuck, CT 06770	**CONNDOT BORING LOG**	Hole No.: B-3
	TOWN: WESTON	Line & Station: Not Available
	DRILLER: Mike St. John	Offset: Not Available
	INSPECTOR: A. Barringer	File No.: 0038-022.00
	PROJECT NAME: Bridge 07001 Rehabilitation Michaels Way	
Tel: (203) 683-4155	STATE PROJECT NUMBER: 157-088	N. Coordinate: 643229.76
	BORING CONTRACTOR: New England Boring Contractors, Inc.	E. Coordinate: 825634.62

Surface Elevation: 224.3		Casing				Auger		Mud	Sampler		Core Barrel			
Date Started: 7/7/20	Utilized			X		X			X					X
Date Finished: 7/8/20	Type	BW	NW	HW	Pipe	Solid	Hollow		SS	UP	B (s)	B (d)	NX (s)	NX (d)
Groundwater Observations	Size I.D. (in)			4		4			1.375					
@ 11 ft after 16 hours	Hammer (lb)			300		-			140		Type	X	Diamond	
@ ft after	Fall (in)			24		-			30		of Bit		Carbide	

DEPTH	Casing blows per foot	SAMPLE DEPTH IN FEET FROM - TO	NO.	PEN. in	REC. in	Type	BLOWS PER 6 INCHES ON SAMPLER 0 - 6	6 - 12	12 - 18	18 - 24	STRATA CHANGE: DEPTH	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
		35 to 40	3	60	60	C	REC = 60"/60" = 100%					Excellent Quality, Hard, Slightly Weathered, gray/brown, GRANITIC GNEISS with QUARTZITE vein (36-39 ft)
							RQD = 55"/60" = 91.6%					[Core Times (min/ft): 7, 10, 8.8, 8.1, 7.2]
											BEDROCK	
40												
												END OF EXPLORATION AT 40 FEET
45												
50												
55												
60												
65												
70												

Casing			Depth	
Size	From	To	Earth	Rock
HW	0	25	25 ft.	15 ft.
			No. of Soil Samples	
			9	

NOTES:

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated, fluctuations may occur due to other factors.

Hole No. B-3
Sheet 2 of 2

REV. | DATE | REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: BORING LOGS (3 OF 4)

DRAWING NO. S-08
SHEET NO. 04.08

LASTED SAVED BY: dkull **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Boring_Logs.dgn
PLOTTED DATE: 2/27/2023

Down To Earth Consulting, LLC 122 Church Street Naugatuck, CT 06770	**CONNDOT BORING LOG**	Hole No.: B-4
	TOWN: WESTON	Line & Station: Not Available
	DRILLER: Mike St. John	Offset: Not Available
	INSPECTOR: A. Barringer	File No.: 0038-022.00
	PROJECT NAME: Bridge 07001 Rehabilitation Michaels Way	
Tel: (203) 683-4155	STATE PROJECT NUMBER: 157-088	N. Coordinate: 643212.34
	BORING CONTRACTOR: New England Boring Contractors, Inc.	E. Coordinate: 825695.11

		Casing				Auger		Mud	Sampler		Core Barrel			
Surface Elevation: 224.0														
Date Started: 7/6/20	Utilized			X		X			X					X
Date Finished: 7/7/20	Type	BW	NW	HW	Pipe	Solid	Hollow		SS	UP	B (s)	B (d)	NX (s)	NX (d)
Groundwater Observations	Size I.D. (in)			4		4			1.375					
@ 12 ft river level	Hammer (lb)			300		-			140		Type	X	Diamond	
@ ft after	Fall (in)			24		-			30		of Bit		Carbide	

DEPTH	Casing blows per foot	SAMPLE DEPTH IN FEET FROM - TO	NO.	PEN. in	REC. in	Type	BLOWS PER 6 INCHES ON SAMPLER 0 - 6	6 - 12	12 - 18	18 - 24	STRATA CHANGE: DEPTH	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
	2										PAVEMENT	5" Asphalt
	5	1 to 3	1	24	7	SS	14	9	9	10	FILL	Medium dense, brown, C-F GRAVEL and C-F SAND, little Silt
	9											
	16	3 to 5	2	24	9	SS	13	19	44	15		Very dense, brown, C-F GRAVEL, some c-f Sand, little Silt
5	21											
	13	5 to 7	3	24	3	SS	13	13	9	7		Medium dense, dark brown, C-F SAND, little f Gravel, little Silt
	10											
	12	7 to 9	4	24	5	SS	10	11	8	8		Medium dense, dark brown, C-F SAND and M-F GRAVEL, little Silt
	23											
10	229											
	26	10 to 10.1	5	2	1	SS	75/2"				BOULDER	Very dense, gray/white, C-F GRAVEL fragments, with cobbles and boulders
	24										TILL	
	55											
	58	13 to 14	6	12	6	SS	38	50	50/0"			Very dense, gray/brown, C-F GRAVEL and C-F SAND, little Silt
15	88											
	239	15 to 15.1	7	1	0	SS	50/1"				BOULDERS/ WEATHERED ROCK (inferred)	
	107											
	151											
	163											
20	156											
		20 to 25	1	60	57	C	REC = 57"/60" = 95%				BEDROCK	Fair Quality, Hard, Moderately to Slightly Weathered, close jointed, gray/white, GRANITIC GNEISS [Core Times (min/ft): 6, 7, 6, 6.5, 8]
							RQD = 43.5"/60" = 72.5%					
25												
		25 to 30	2	60	60	C	REC = 60"/60" = 100%					Fair Quality, Hard, Slightly Weathered, close jointed gray/white, GRANITIC GNEISS with QUARTZITE from 28.2-29 feet. [Core Times (min/ft): 4, 8, 6.5, 5, 5]
							RQD = 44.5"/60" = 74%					
30												
		30 to 35	3	60	57	C	REC = 57"/60" = 95%					Fair Quality, Hard, Moderately to Slightly Weathered, very close to close jointed, gray/white, GRANITIC GNEISS with Pegmatite vein [Core Times (min/ft): 3.5, 3, 3, 2.5, 3]
							RQD = 40"/60" = 66.7%					
35												END OF EXPLORATION AT 35 FEET

Casing			Depth	
Size	From	To	Earth	Rock
HW	0	20.5	20 ft.	15 ft.
			No. of Soil Samples	
			7	

NOTES: 1) Solid stem augers advanced from 0-14 feet, casing then driven from 0-20 feet. 2) Began coring at 20 feet. Driller increased drilling down pressure between 21-22 feet, 26-27 feet, and prior to C-3. 3) Borehole not holding water. Driller re-seats casing at 20.5 feet below grade. 4) Boring completed with 2" PVC , grout backfill, and a roadway protective cover.

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated, fluctuations may occur due to other factors.

Hole No. B-4
Sheet 1 of 1

REV. | DATE | REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

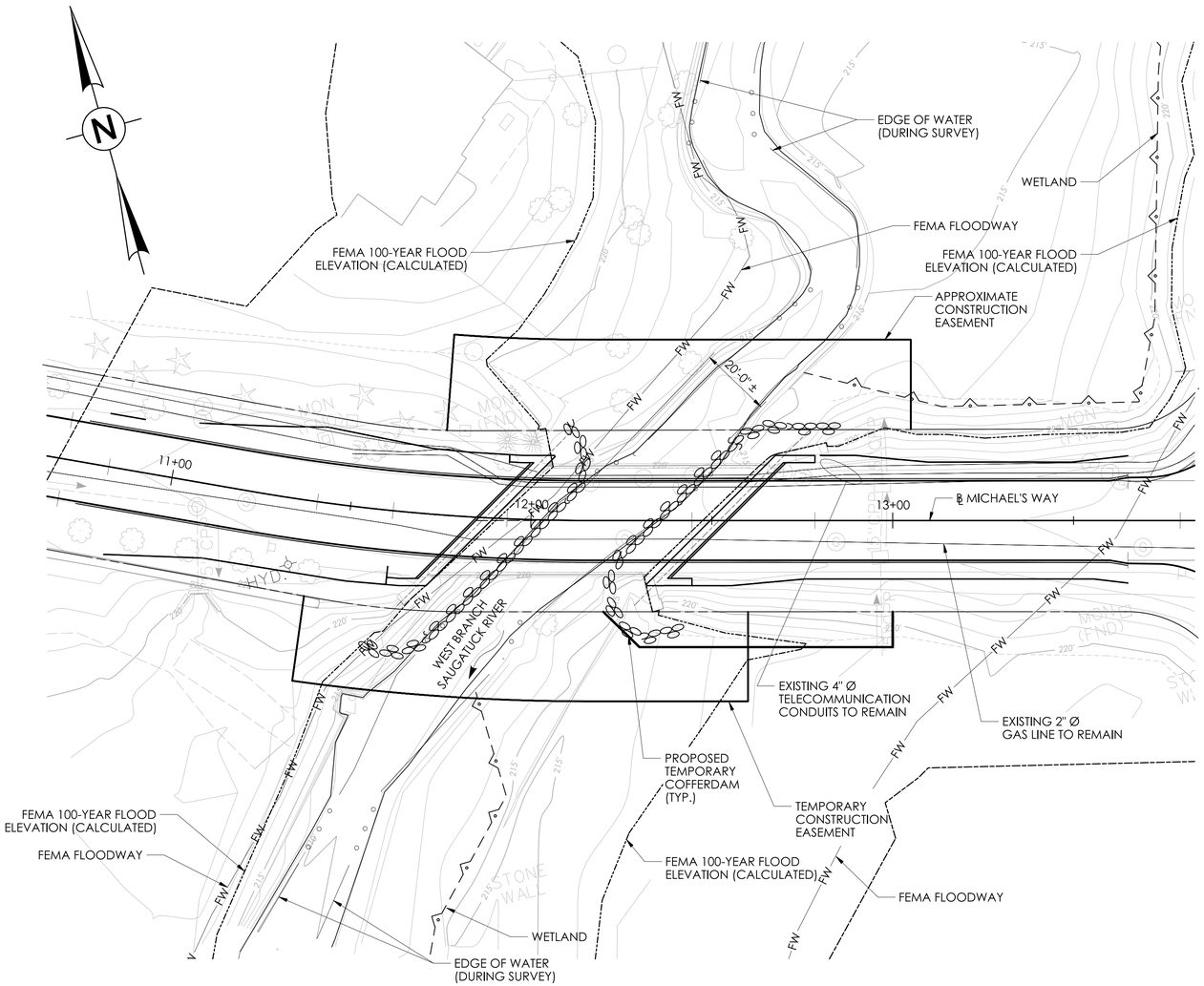
SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: BORING LOGS (4 OF 4)

DRAWING NO. S-09
SHEET NO. 04.09

LASTED SAVED BY: dkull **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Boring_Logs.dgn
PLOTTED DATE: 2/27/2023



WATER HANDLING PLAN

SCALE: 1" = 20'

WATER HANDLING NOTES:

1. THE CONTRACTOR SHALL DESIGN THE TEMPORARY COFFERDAMS AND SUBMIT MEANS AND METHODS OF HANDLING WATER TO THE ENGINEER FOR APPROVAL.
2. THE COST OF THE TEMPORARY COFFERDAMS, TEMPORARY BYPASS PIPES, TEMPORARY DRAINAGE PIPES, STREAM DIVERSION STRUCTURES, PUMPS, AND ANY OTHER NECESSARY INCIDENTAL APPURTENANCES REQUIRED TO HANDLE THE WATER SHALL BE INCLUDED IN THE COST OF THE ITEM "HANDLING WATER".
3. ALL WATER PUMPED FROM WITHIN THE TEMPORARY COFFERDAMS TO BE HANDLED THROUGH THE TEMPORARY SEDIMENTATION BASIN. THE SMALL TEMPORARY SEDIMENTATION BASIN AND PUMP(S) SHALL BE SIZED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. COST OF TEMPORARY SEDIMENTATION BASIN SHALL BE INCLUDED IN THE COST OF ITEM "HANDLING WATER".
4. TOP OF TEMPORARY WATER HANDLING COFFERDAM SHALL BE MINIMUM EL. 217.55.

SUGGESTED CONSTRUCTION SEQUENCE:

1. IMPLEMENT THE DETOUR (SEE DETOUR PLAN).
2. INSTALL SEDIMENTATION CONTROL SYSTEM AND CLEAR AND GRUB SITE AS REQUIRED.
3. INSTALL TEMPORARY COFFERDAMS AND WATER HANDLING.
4. INSTALL TEMPORARY UTILITY SUPPORT SYSTEM. UTILITIES ARE TO REMAIN IN PLACE FOR THE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE PROPER PRECAUTIONS DURING DEMOLITION AND BRIDGE CONSTRUCTION NOT TO DAMAGE EXISTING UTILITIES.
5. EXCAVATE AND DEMOLISH EXISTING BRIDGE STRUCTURE, WHICH INCLUDES COMPLETE REMOVAL OF THE EXISTING SUPERSTRUCTURE, SUSBTRUCTURES, AND STEEL PILES.
6. CONSTRUCT SEDIMENTATION BASINS AND DEWATER SITE AS REQUIRED.
7. INSTALL MICROPILES AND PERFORM MICROPILE TESTS AS REQUIRED.
8. CONSTRUCT PROPOSED ABUTMENT PILE CAPS AND WINGWALLS TO ELEVATIONS SHOWN.
9. ESTABLISH GRADES IN THE STREAMBED AND ALONG BANKS. NOTE THAT THE ABUTMENTS ARE NOT TO BE BACKFILLED UNTIL THE DECK CONSTRUCITON IS COMPLETE AND HAS CURED. STOCKPILE MATERIAL UNDER THE BRIDGE AS REQUIRED PRIOR TO THE SUPERSTRUCTURE INSTALLATION.
10. INSTALL STRUCTURAL STEEL PLATE GIRDERS AND DIAPHRAGMS.
11. TRANSFER UTILITIES FROM THE TEMPORARY UTILITY SUPPORT STRUCTURES TO THEIR PERMANENT LOCATIONS. REMOVE TEMPORARY UTILITY SUPPORT STRUCTURES.
12. CONSTRUCT DECK, END DIAPHRAGMS, AND WINGWALLS PER THE DECK PLACEMENT SEQUENCE PROVIDED.
13. BACKFILL ABUTMENTS AND FINALIZE GRADES IN THE STREAM BED AND ALONG BANKS. REMOVE ALL WATER HANDLING.
14. CONSTRUCT SIDEWALKS, END BARRIERS, AND APPROACH SLABS.
15. INSTALL METAL BRIDGE RAIL - FOUR RAIL.
16. FINALIZE ROADWAY ITEMS AND OPEN BRIDGE TO TRAFFIC.

LEGEND

FW — FW	FEMA FLOODWAY
— v — v — v —	LIMITS OF FEDERAL AND STATE WETLANDS
— OHW —	LIMITS OF ORDINARY HIGH WATER
— o o o —	EDGE OF WATER
	FEMA 100-YR. FLOOD ELEVATION (CALCULATED) LIMIT
	TEMPORARY COFFERDAM

NOTES

1. UNCONFINED INSTREAM WORK WITHIN THE WATERCOURSE IS RESTRICTED TO THE PERIOD FROM JUNE 1 TO SEPTEMBER 30, INCLUSIVE.

TEMPORARY HYDRAULIC SUMMARY DATA

AVERAGE DAILY FLOW (ADF)	12.0 CFS
AVERAGE SPRING FLOW (ASF)	23.0 CFS
2 - YEAR DESIGN FREQUENCY	564 CFS
TEMPORARY DESIGN SURFACE ELEVATION (UPSTREAM)	216.55 FEET
TEMPORARY DESIGN SURFACE ELEVATION (DOWNSTREAM)	214.10 FEET

REV. | DATE | REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

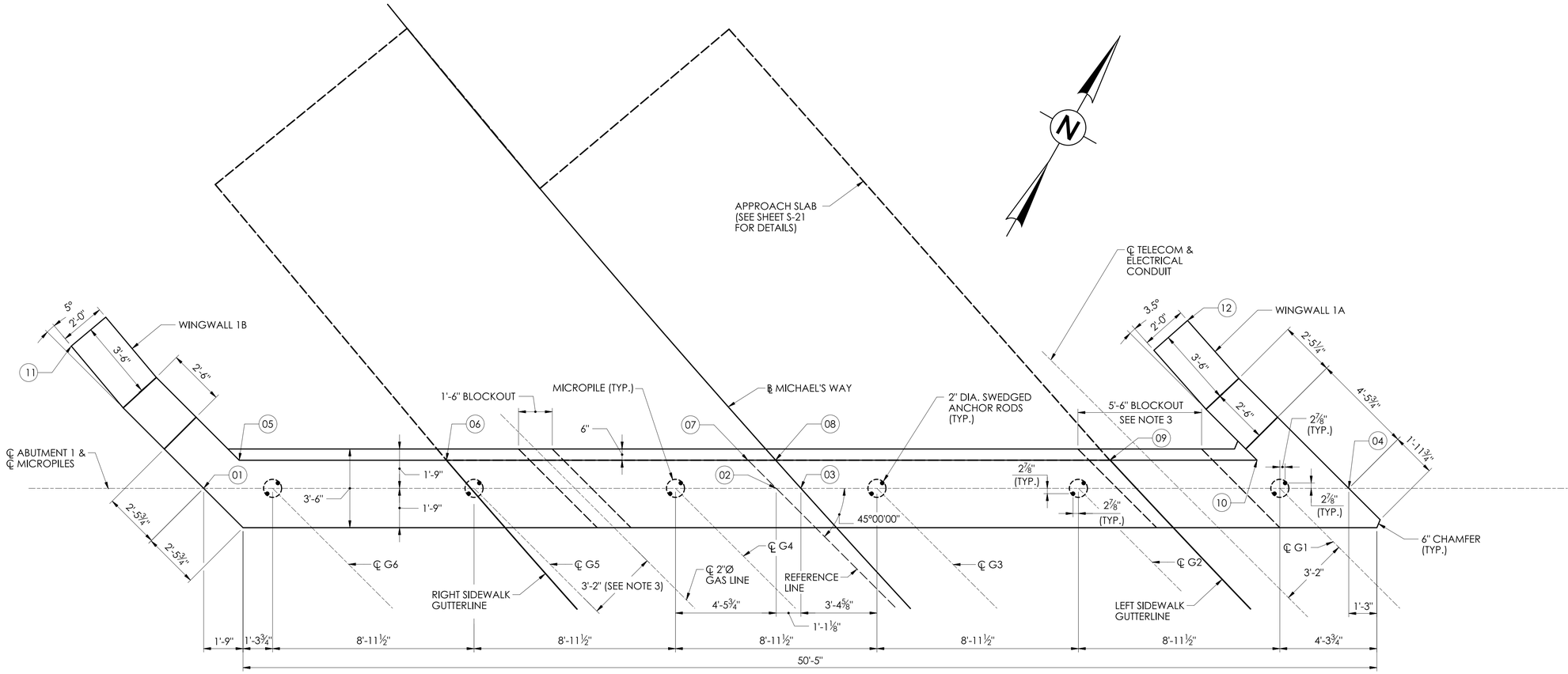
SIGNATURE/
BLOCK:

STATE OF CONNECTICUT
DEPARTMENT
OF
TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: WATER HANDLING PLAN

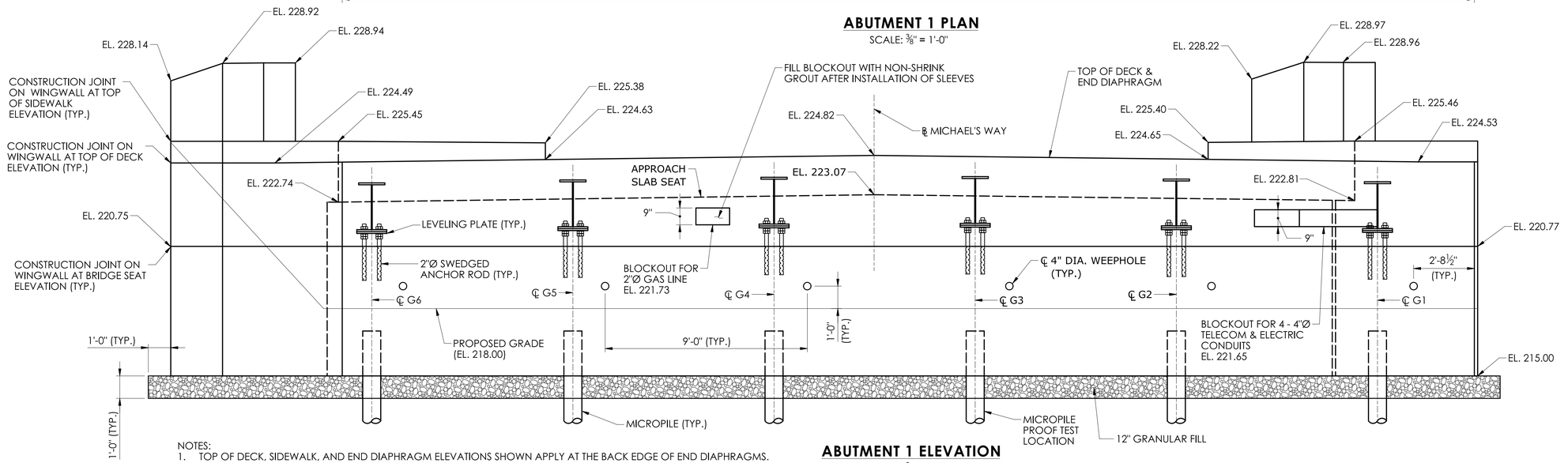
DRAWING NO. S-10
SHEET NO. 04.10

LASTED SAVED BY: mdoreo **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Water_Handling_Plan.dgn
PLOTTED DATE: 2/27/2023



ABUTMENT 1 PLAN

SCALE: ⅜" = 1'-0"



ABUTMENT 1 ELEVATION

SCALE: ⅜" = 1'-0"

LEVELING PLATE TABLE	
PLATE	TOP ELEV.
G1	221.48
G2	221.60
G3	221.71
G4	221.68
G5	221.56
G6	221.43

NOTES:
1. TOP OF DECK, SIDEWALK, AND END DIAPHRAGM ELEVATIONS SHOWN APPLY AT THE BACK EDGE OF END DIAPHRAGMS.
2. METAL BRIDGE RAIL NOT SHOWN FOR CLARITY.
3. THE LOCATION OF BLOCKOUTS MAY BE ADJUSTED AS REQUIRED IN THE FIELD. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY AND CONFIRM ADJUSTED LOCATIONS WORK WITH STEEL FRAMING AND UTILITY SUPPORTS.

REVISION DESCRIPTION | DATE | REV.

DESIGNER/DRAFTER: CHECKED BY:

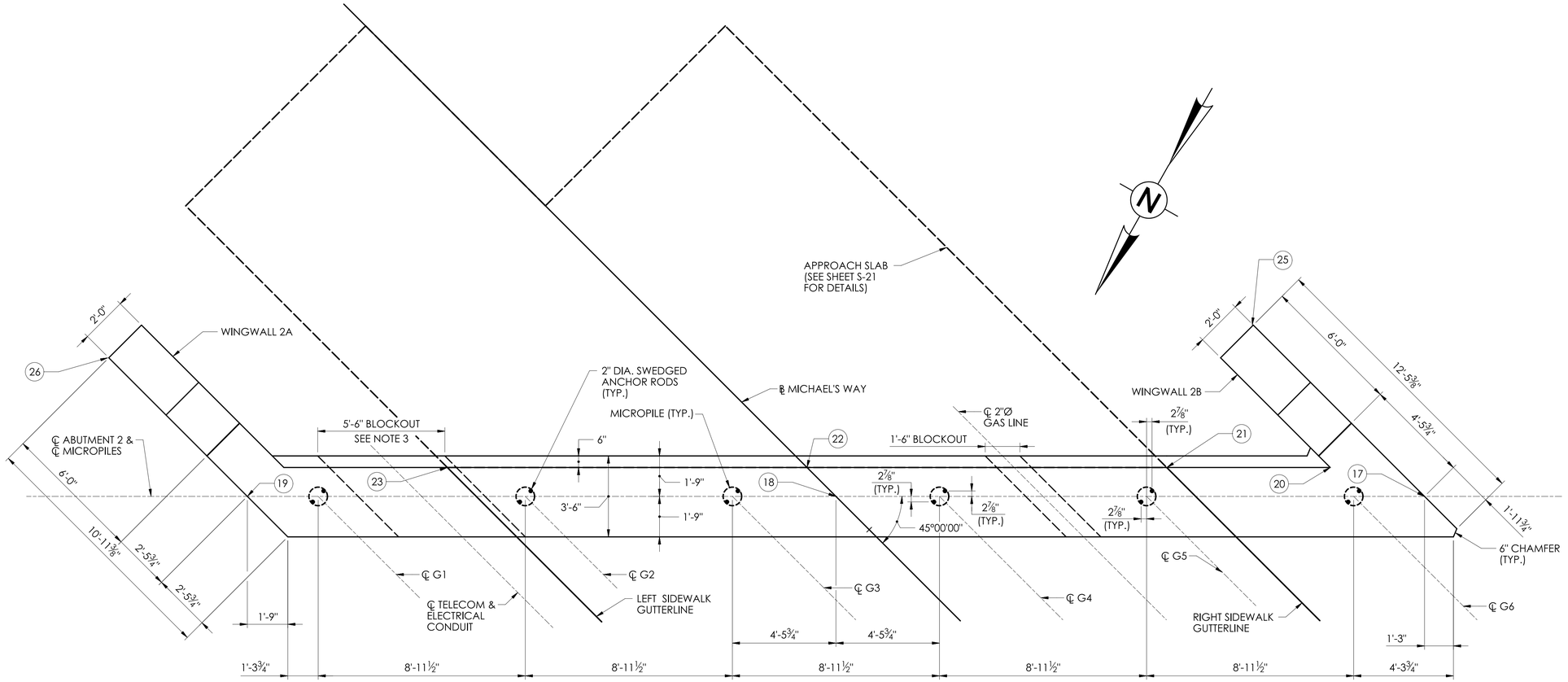
SIGNATURE/
BLOCK:

STATE OF CONNECTICUT
DEPARTMENT
OF
TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: ABUTMENT 1 PLAN AND ELEVATION

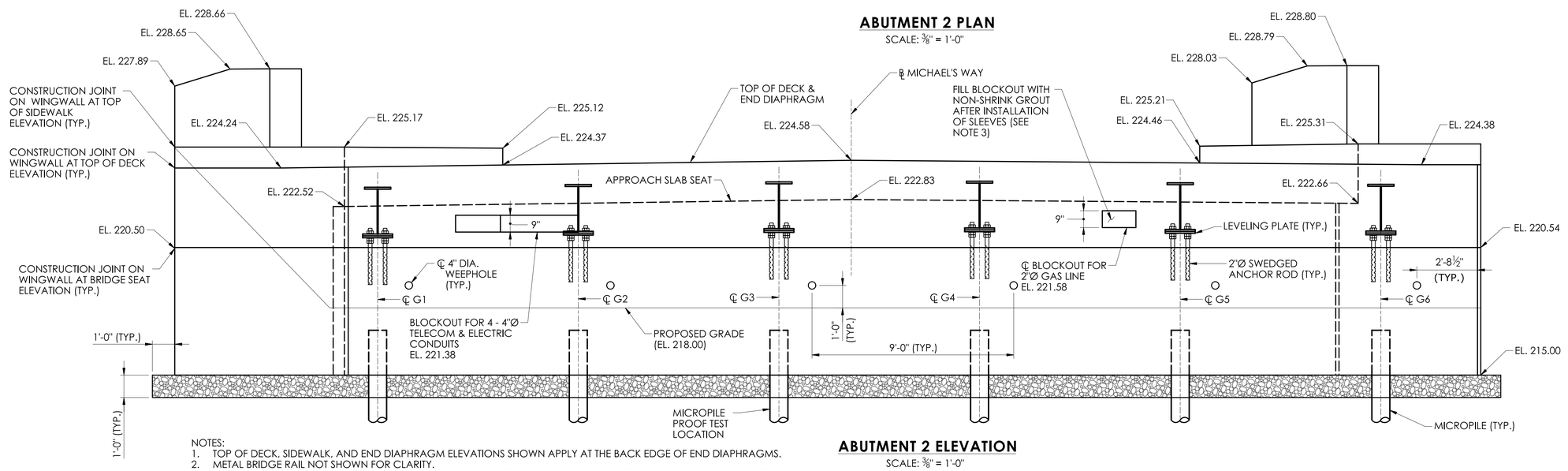
DRAWING NO. S-11
SHEET NO. 04.11

LASTED SAVED BY: dkull **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Abut.dgn
PLOTTED DATE: 2/27/2023



ABUTMENT 2 PLAN

SCALE: ⅜" = 1'-0"



ABUTMENT 2 ELEVATION

SCALE: ⅜" = 1'-0"

LEVELING PLATE TABLE	
PLATE	TOP ELEV.
G1	221.21
G2	221.33
G3	221.45
G4	221.48
G5	221.41
G6	221.34

NOTES:
1. TOP OF DECK, SIDEWALK, AND END DIAPHRAGM ELEVATIONS SHOWN APPLY AT THE BACK EDGE OF END DIAPHRAGMS.
2. METAL BRIDGE RAIL NOT SHOWN FOR CLARITY.
3. THE LOCATION OF BLOCKOUTS MAY BE ADJUSTED AS REQUIRED IN THE FIELD. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY AND CONFIRM ADJUSTED LOCATIONS WORK WITH STEEL FRAMING AND UTILITY SUPPORTS.

REVISION DESCRIPTION | DATE | REV.

DESIGNER/DRAFTER: CHECKED BY:

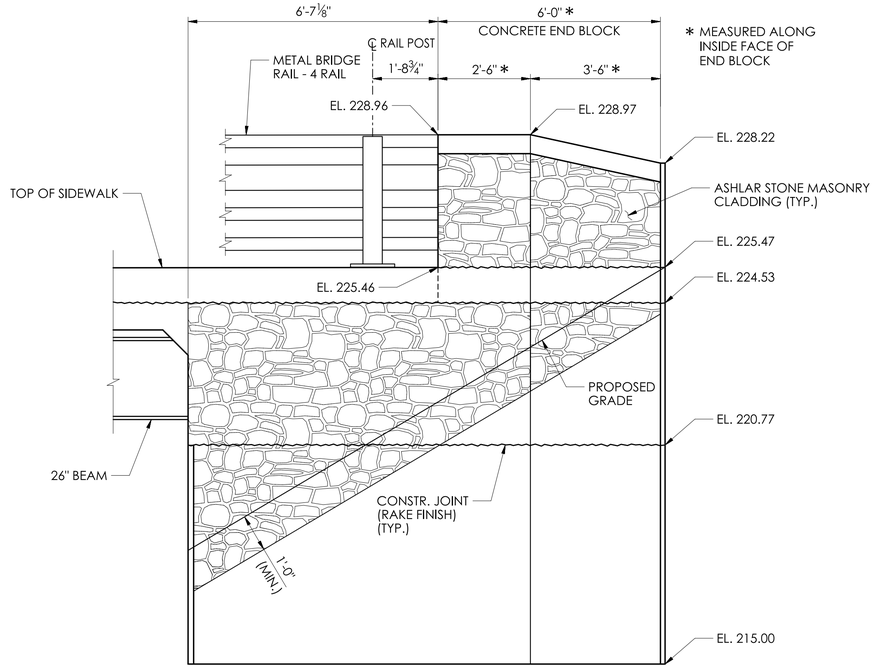
SIGNATURE/
BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: ABUTMENT 2 PLAN AND ELEVATION

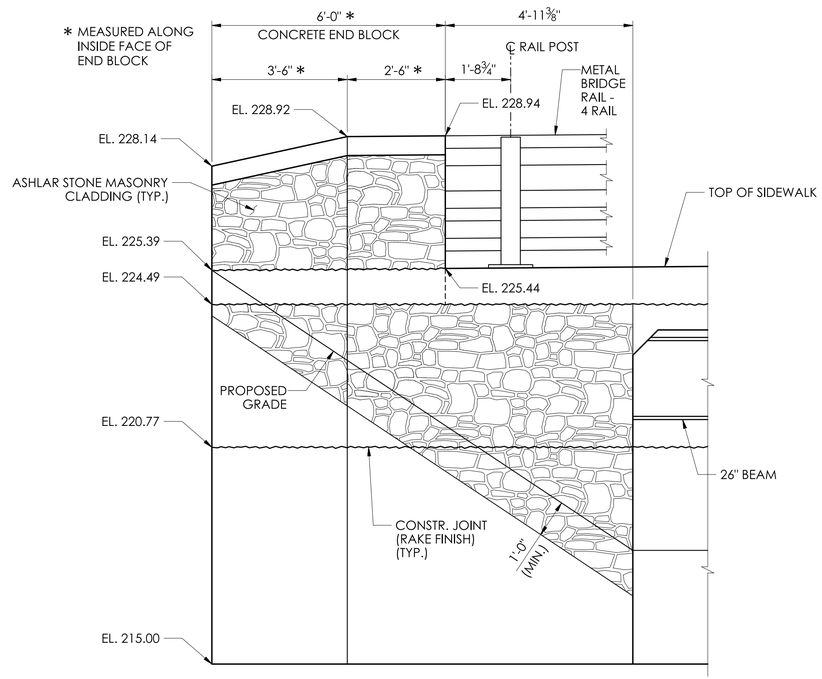
DRAWING NO. S-12
SHEET NO. 04.12

LASTED SAVED BY: dkull **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Abut.dgn
PLOTTED DATE: 2/27/2023



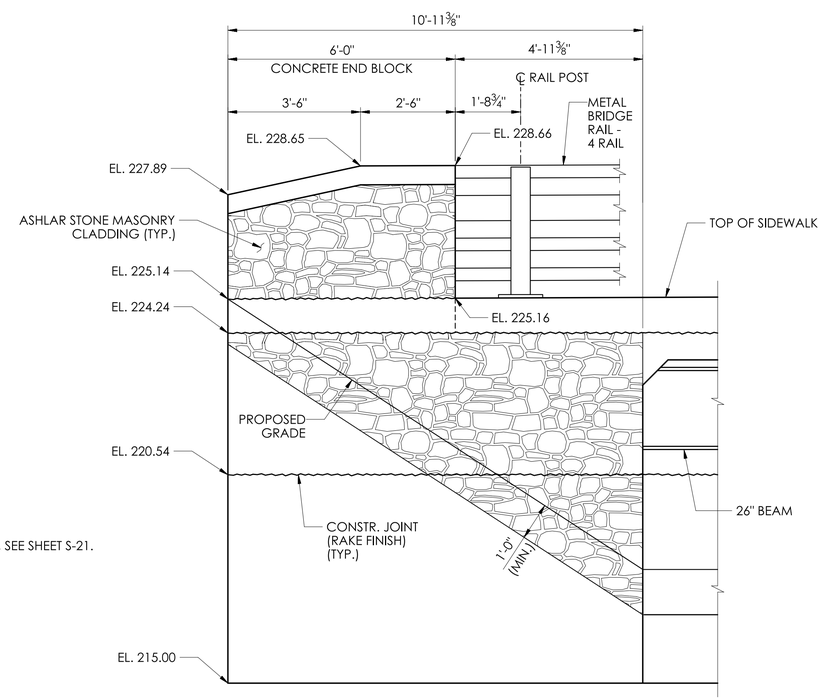
WINGWALL 1A ELEVATION

SCALE: ½" = 1'-0"



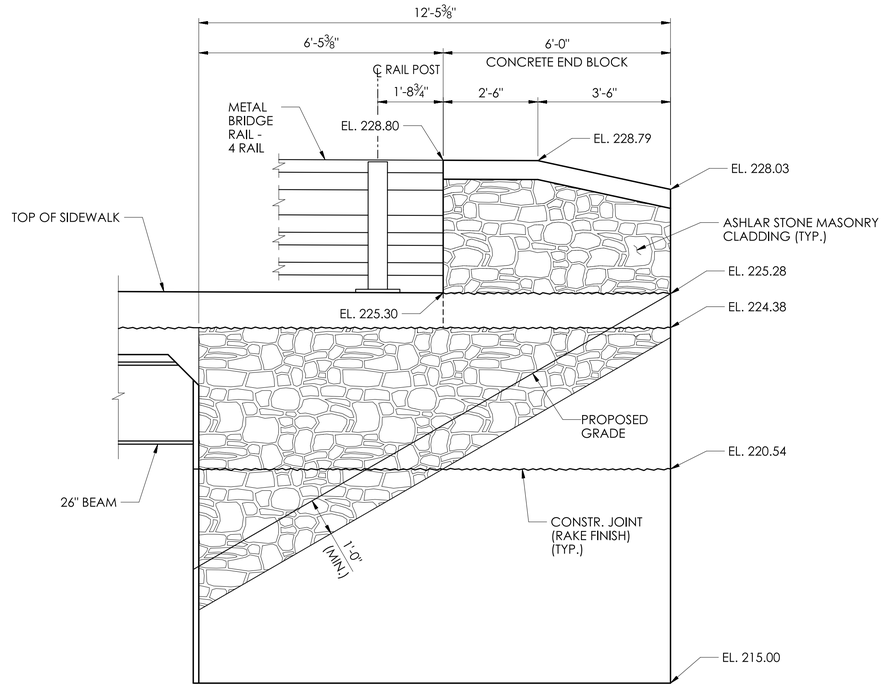
WINGWALL 1B ELEVATION

SCALE: ½" = 1'-0"



WINGWALL 2A ELEVATION

SCALE: ½" = 1'-0"



WINGWALL 2B ELEVATION

SCALE: ½" = 1'-0"

NOTES

1. FOR CONCRETE END BLOCK DETAILS, SEE SHEET S-21.

REV.	DATE	REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

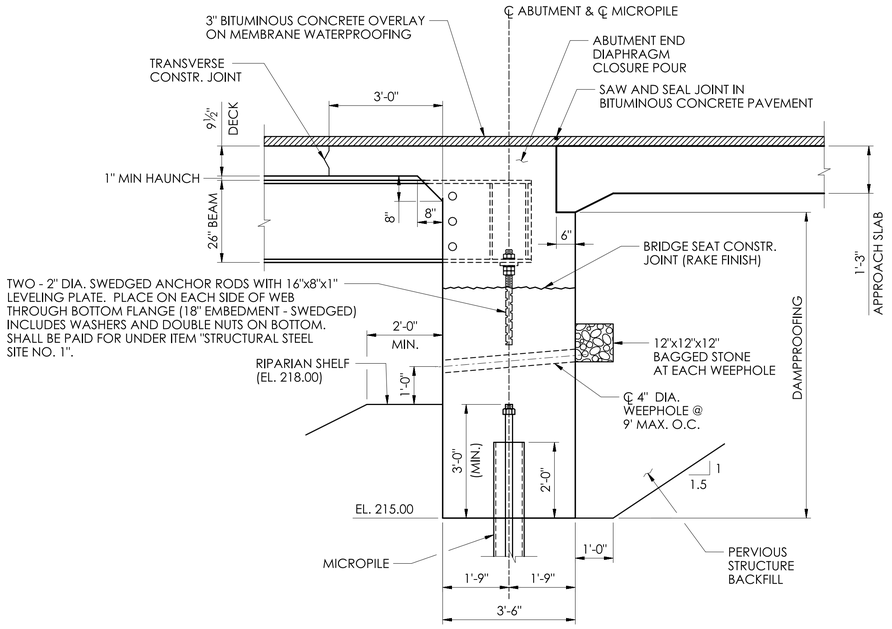
SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: WINGWALL ELEVATIONS

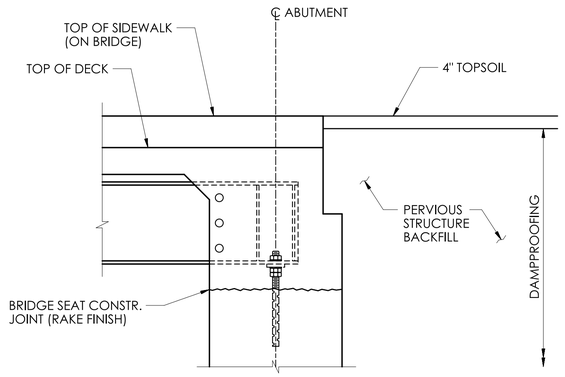
DRAWING NO. S-13
SHEET NO. 04.13

LASTED SAVED BY: cgagne **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Wing_Elev.dgn
PLOTTED DATE: 2/27/2023



TYPICAL ABUTMENT SECTION

SCALE: ½" = 1'-0"

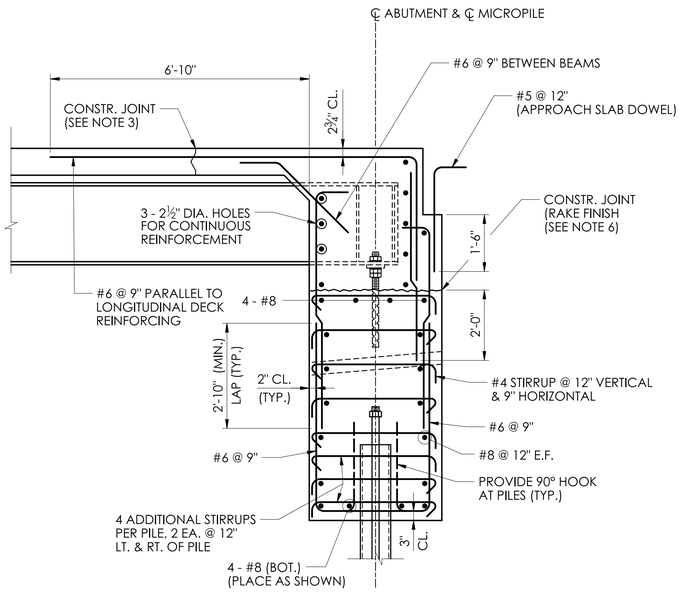


TYPICAL ABUTMENT SECTION (AT SIDEWALK)

SCALE: ½" = 1'-0"

INTEGRAL ABUTMENT CONSTRUCTION NOTES:

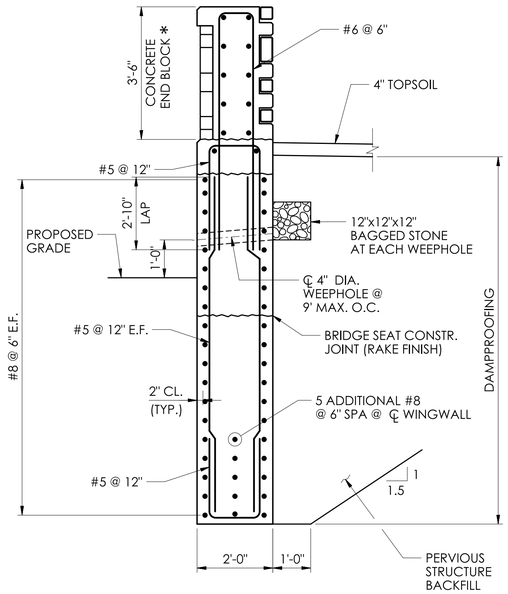
1. ALL REINFORCEMENT SHALL BE EPOXY COATED.
2. DECK SLAB REINFORCEMENT NOT SHOWN FOR CLARITY, CONTINUE DECK SLAB REINFORCEMENT TO BACK OF ABUTMENT.
3. THE CONTRACTOR SHALL FOLLOW THE DECK PLACEMENT SEQUENCE AS SHOWN ON S-18.
4. ALL CONCRETE SHALL CONTAIN SUPERPLASTICIZER TO ENSURE ADEQUATE CONSOLIDATION.
5. BOTH ABUTMENTS SHALL BE BACKFILLED SIMULTANEOUSLY. NO MORE THAN 12 INCHES OF DIFFERENTIAL BACKFILL SHALL BE PERMITTED. BACKFILLING SHALL NOT BEGIN UNTIL THE ABUTMENT AND DECK CONSTRUCTION IS COMPLETE AND THE DECK HAS CURED.
6. THE CONTRACTOR MAY USE MECHANICAL REINFORCING BAR SPLICERS IN LIEU OF TENSION LAP SPLICES TO FACILITATE CONSTRUCTION. HOWEVER, NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR THE USE OF MECHANICAL REINFORCING BAR SPLICERS.
7. THE TOP OF THE APPROACH SLAB SHALL MATCH THE TOP OF ABUTMENT DIAPHRAGM ELEVATION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STABILITY OF THE ABUTMENTS AND STEEL GIRDERS UNTIL DECK IS CURED.
9. THE COST OF 12"x12"x12" BAGGED STONE AT EACH WEEPHOLE TO BE INCLUDED IN THE ITEM "PERVIOUS STRUCTURE BACKFILL". THE COST OF 4" DIA. WEEPHOLES @ 10' MAX. O.C. TO BE INCLUDED IN THE ITEM "CLASS 'F' CONCRETE".



TYPICAL ABUTMENT REINFORCEMENT SECTION

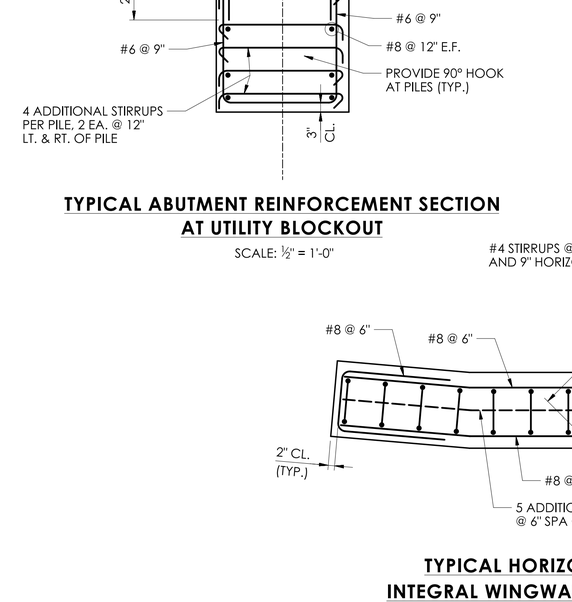
SCALE: ½" = 1'-0"

* FOR CONCRETE END BLOCK DETAILS, SEE SHEET S-22



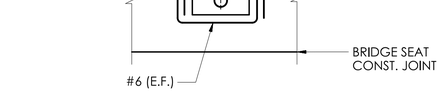
TYPICAL VERTICAL SECTION INTEGRAL WINGWALL REINFORCEMENT

SCALE: ½" = 1'-0"



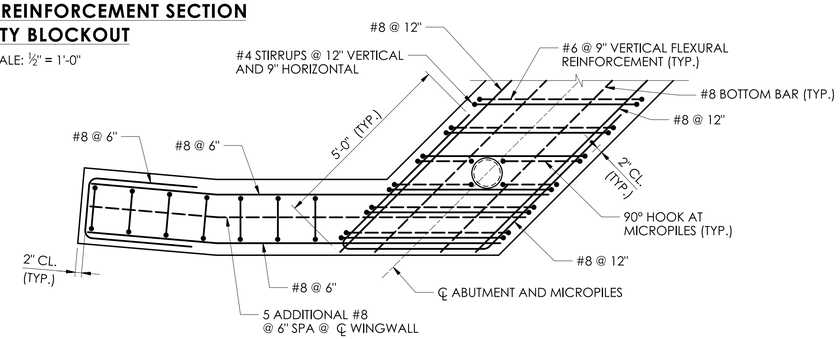
TYPICAL ABUTMENT REINFORCEMENT SECTION AT UTILITY BLOCKOUT

SCALE: ½" = 1'-0"



ABUTMENT REINFORCEMENT AT 2" GAS MAIN

SCALE: ½" = 1'-0"



TYPICAL HORIZONTAL SECTION INTEGRAL WINGWALL REINFORCEMENT

SCALE: ½" = 1'-0"

REV.	DATE	REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

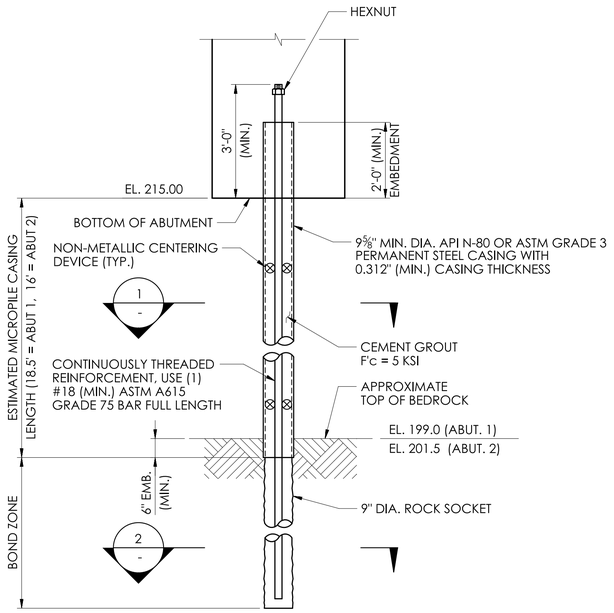
SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: SUBSTRUCTURE DETAILS (1 OF 2)

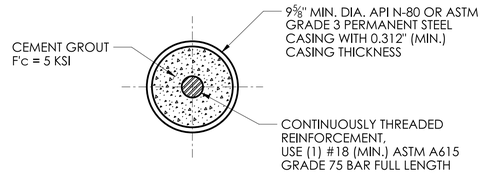
DRAWING NO. S-14
SHEET NO. 04.14

LASTED SAVED BY: dwhite **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Sub_Details.dgn
PLOTTED DATE: 2/27/2023



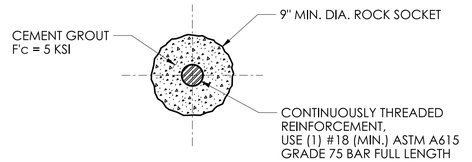
TYPICAL MICROPILE

SCALE: ½" = 1'-0"



SECTION 1

SCALE: 1½" = 1'-0"



SECTION 2

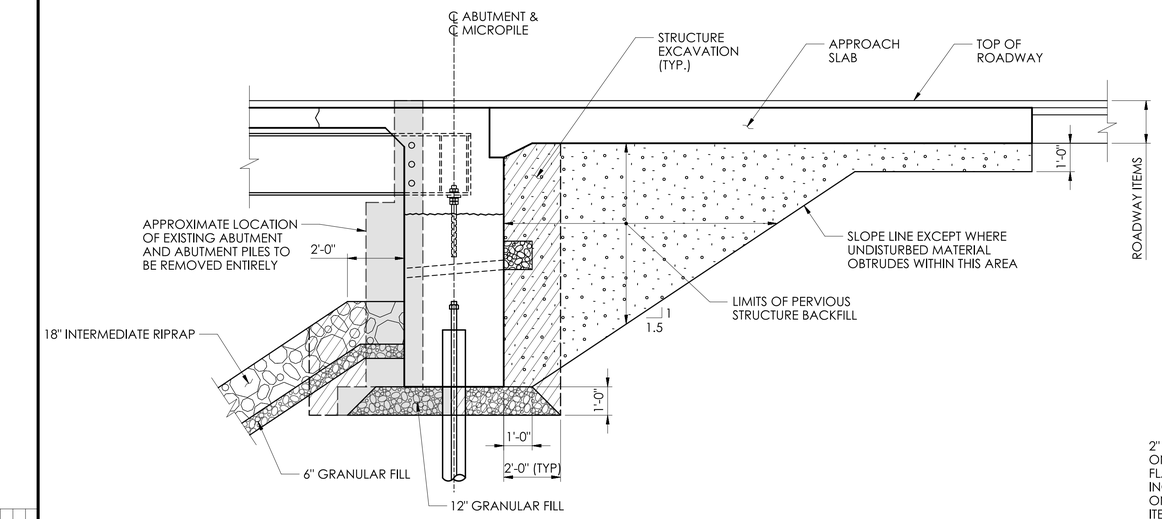
SCALE: 1½" = 1'-0"

MICROPILE NOTES:

1. THE MICROPILE SECTIONS PROVIDED ON THESE DRAWINGS WERE USED TO ESTABLISH THE LOADS AND RESISTANCES SHOWN IN THE TABLE BELOW. THE MICROPILE SHALL BE DESIGNED BY THE CONTRACTOR ACCORDING TO THE LATEST CTDOT SPECIFICATIONS.
2. FOR MICROPILE LOCATIONS, SEE SHEET S-11 & S-12.
3. THE MICROPILES SHALL BE DESIGNED USING PERMANENT STEEL CASINGS. THE CASING SHALL EXTEND INTO BEDROCK.
4. THE MICROPILE CASING SHALL BE INSTALLED WITH NO CASING JOINTS WITHIN 10 FEET BELOW THE BOTTOM OF ABUTMENT.

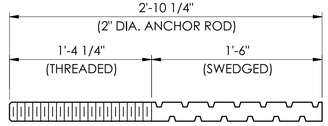
MAXIMUM DESIGN PILE LOADS

	AXIAL	SHEAR	MOMENT
SERVICE LIMIT STATE	246 KIPS	44 KIPS	172 KIP-FT
STRENGTH LIMIT STATE	298 KIPS	61 KIPS	247 KIP-FT
ULTIMATE PILE CAPACITY	426 KIPS	--	--



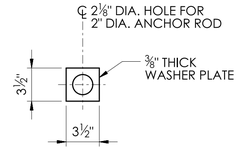
TYPICAL EARTHWORK PAY LIMITS

(ABUTMENT 2 SHOWN, ABUTMENT 1 SIMILAR)
(SECTION CUT PERPENDICULAR TO ABUTMENT)
SCALE: ⅜" = 1'-0"



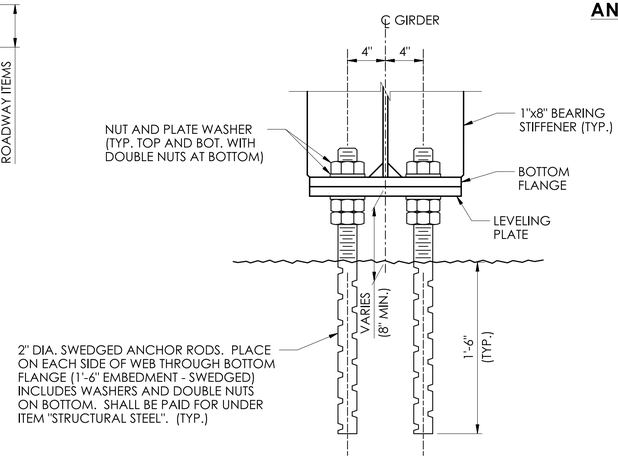
ANCHOR ROD DETAIL

SCALE: 1½" = 1'-0"



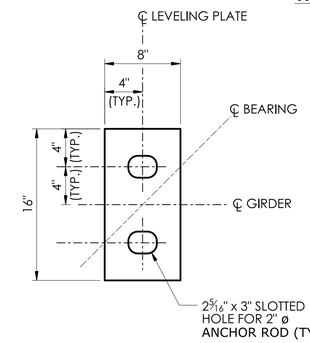
WASHER PLATE DETAIL

SCALE: 1½" = 1'-0"



TYPICAL GIRDER BEARING ELEVATION

SCALE: 1½" = 1'-0"



LEVELING PLATE (16"x8"x1")

SCALE: 1½" = 1'-0"

REV.	DATE	REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

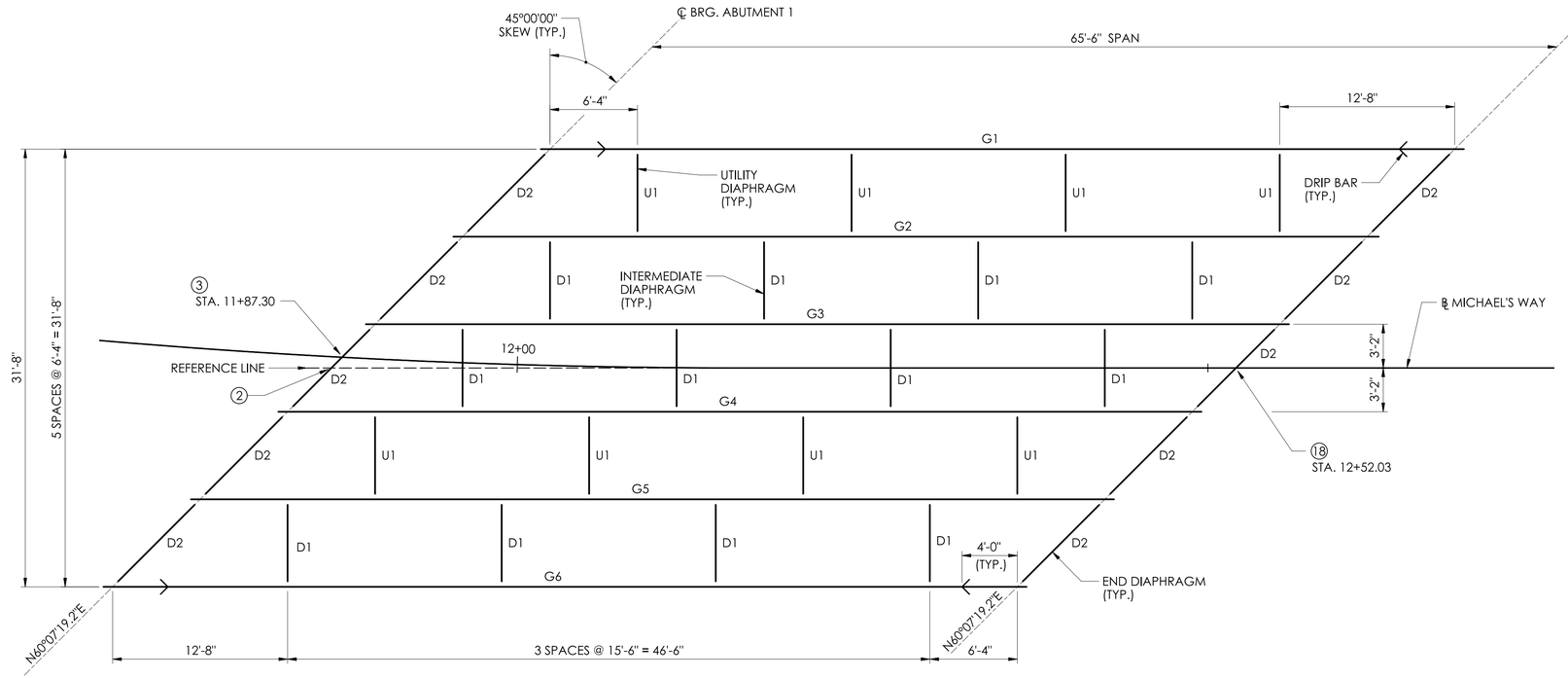
SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: SUBSTRUCTURE DETAILS (2 OF 2)

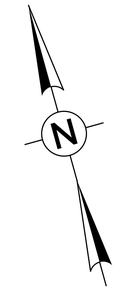
DRAWING NO. S-15
SHEET NO. 04.15

LASTED SAVED BY: clkull **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Sub_Details.dgn
PLOTTED DATE: 2/27/2023



FRAMING PLAN

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



CAMBER TABLE (INCHES)

GIRDER MARK		CL BRG. ABUT. 1	0.10 L	0.20 L	0.30 L	0.40 L	0.50 L	0.60 L	0.70 L	0.80 L	0.90 L	CL BRG. ABUT. 2
G1 & G6	STRUCTURAL STEEL DEFLECTION	0.00	0.14	0.26	0.36	0.42	0.44	0.42	0.36	0.26	0.14	0.00
	ADDITIONAL DEAD LOAD DEFLECTION	0.00	0.61	1.15	1.57	1.84	1.93	1.84	1.57	1.15	0.61	0.00
	COMPOSITE DEAD LOAD DEFLECTION	0.00	0.17	0.32	0.43	0.51	0.53	0.51	0.43	0.32	0.17	0.00
	TOTAL DEAD LOAD CAMBER	0.00	0.91	1.72	2.36	2.76	2.90	2.76	2.36	1.72	0.91	0.00
	VERTICAL CURVE ORDINATE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EXTRA CAMBER	0.00	0.13	0.26	0.39	0.52	0.66	0.52	0.39	0.26	0.13	0.00
	TOTAL CAMBER	0.00	1.95	3.71	5.11	6.05	6.46	6.05	5.11	3.71	1.95	0.00
G2-G4	STRUCTURAL STEEL DEFLECTION	0.00	0.14	0.26	0.36	0.42	0.44	0.42	0.36	0.26	0.14	0.00
	ADDITIONAL DEAD LOAD DEFLECTION	0.00	0.61	1.15	1.57	1.84	1.93	1.84	1.57	1.15	0.61	0.00
	COMPOSITE DEAD LOAD DEFLECTION	0.00	0.17	0.32	0.43	0.51	0.53	0.51	0.43	0.32	0.17	0.00
	TOTAL DEAD LOAD CAMBER	0.00	0.91	1.72	2.36	2.76	2.90	2.76	2.36	1.72	0.91	0.00
	VERTICAL CURVE ORDINATE	0.00	0.14	0.13	0.09	0.07	0.06	0.05	0.03	0.02	0.01	0.00
	EXTRA CAMBER	0.00	0.00	0.14	0.30	0.46	0.60	0.48	0.36	0.24	0.12	0.00
	TOTAL CAMBER	0.00	1.96	3.71	5.11	6.05	6.46	6.05	5.11	3.71	1.95	0.00

LEGEND

D#	DIAPHRAGM TYPE #
G#	GIRDER NO. #
(X)	WORK POINT
<	DRIP BAR

STRUCTURAL STEEL NOTES

1. ALL STRUCTURAL STEEL (LOW ALLOY) SHALL CONFORM TO AASHTO M270 GRADE 50 T2 AND SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123.
2. WELDING DETAILS, PROCEDURES AND TESTING METHODS SHALL CONFORM TO THE LATEST ANSI/AASHTO/AWS D1.5 - BRIDGE WELDING CODE, UNLESS OTHERWISE NOTED ON THE PLANS.
3. FIELD SPLICES WILL NOT BE ALLOWED EXCEPT WITH THE WRITTEN PERMISSION OF THE ENGINEER PRIOR TO THE SUBMISSION OF SHOP PLANS. IF ALLOWED, THESE SPLICES SHALL BE DESIGNED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE COST OF THESE SPLICES, INCLUDING THE COST OF DESIGN, SHALL BE AT NO EXTRA EXPENSE TO THE STATE.
4. ALL WEB TO FLANGE, WEB TO BEARING STIFFENER AND BEARING STIFFENER TO FLANGE FILLET WELDS SHALL BE INSPECTED BY THE MAGNETIC PARTICLE METHOD.
5. MULTIPLE PASS WELDS, INSPECTED BY THE MAGNETIC PARTICLE METHOD, SHALL HAVE EACH PASS OR LAYER INSPECTED AND ACCEPTED BEFORE PROCEEDING TO THE NEXT PASS OR LAYER, AS DETERMINED BY THE ENGINEER.
6. SHOP FLANGE SPLICES SHALL BE LOCATED A MINIMUM OF 6 INCHES FROM WEB SPLICES.
7. FLANGE OR WEB SPLICES SHALL BE LOCATED A MINIMUM OF 6 INCHES FROM STIFFENERS AND CONNECTION PLATES.
8. ENDS OF BEAMS SHALL BE VERTICAL AFTER THE APPLICATION OF FULL DEAD LOADS.
9. THE STRUCTURAL STEEL FABRICATORS SHALL BE CERTIFIED UNDER THE AISC CERTIFICATION PROGRAM CATEGORY BRIDGE FABRICATOR INTERMEDIATE (IBR).
10. THE CONTRACTOR SHALL TAKE THE PROPER PRECAUTIONS TO ENSURE STABILITY OF ALL STRUCTURE ELEMENTS UNTIL THE TOTAL STRUCTURE IS IN BEING.
11. ALL BOLTED CONNECTIONS SHALL BE SLIP-CRITICAL WITH CLASS B FAYING SURFACES AND MADE WITH ASTM A325, TYPE 3, 7/8" DIAMETER HIGH STRENGTH BOLTS.

REV.	DATE	REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

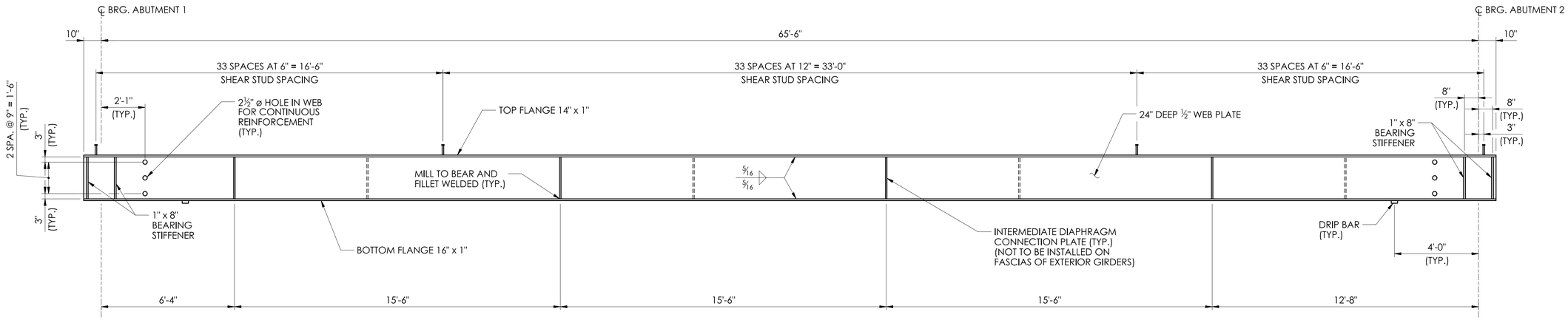
SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: FRAMING PLAN AND DETAILS

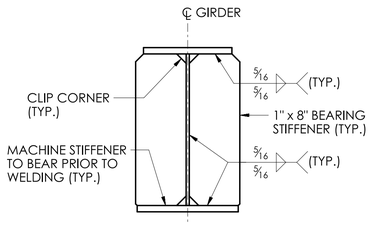
DRAWING NO. S-16
SHEET NO. 04.16

LASTED SAVED BY: cgagne **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_FramingPlan.dgn
PLOTTED DATE: 2/27/2023



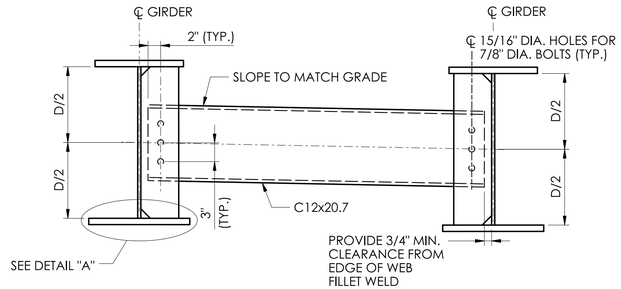
TYPICAL GIRDER ELEVATION

SCALE: ⅜" = 1'-0"



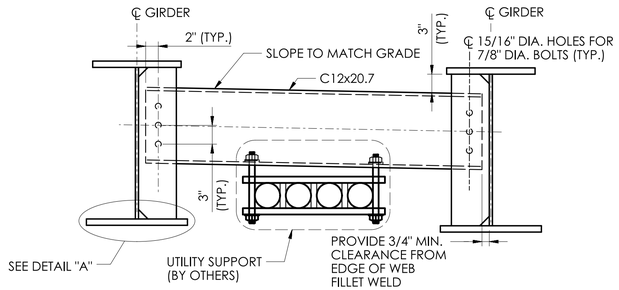
BEARING STIFFENER DETAIL

SCALE 1"=1'-0"



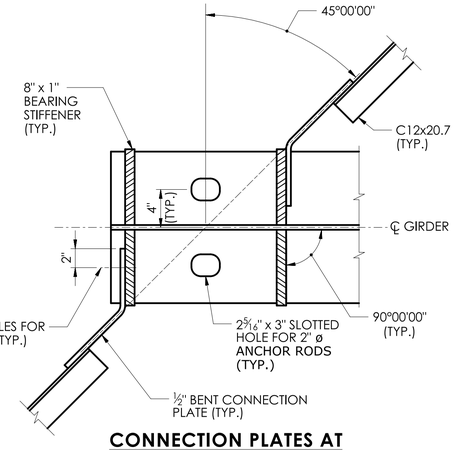
INTERMEDIATE DIAPHRAGM (D1)

SCALE 1"=1'-0"



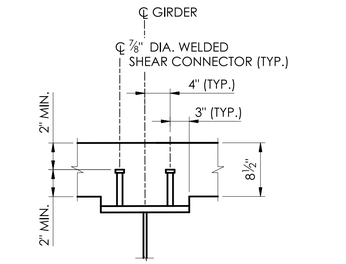
UTILITY DIAPHRAGM (U1)

SCALE 1"=1'-0"



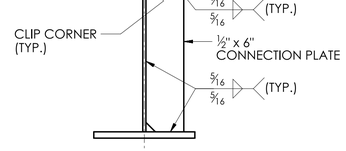
CONNECTION PLATES AT END BEARING DIAPHRAGMS

SCALE: 1½" = 1'-0"



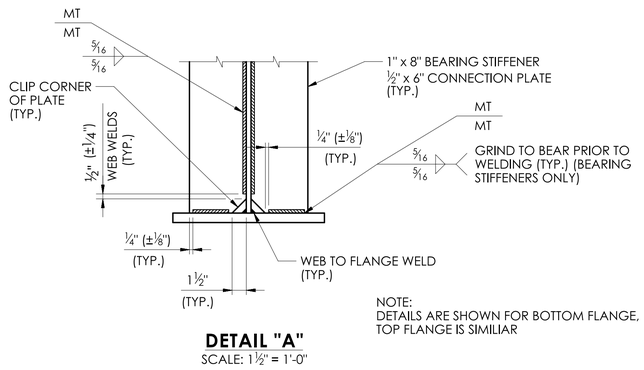
WELDED SHEAR STUD CONNECTOR DETAIL

SCALE 1"=1'-0"



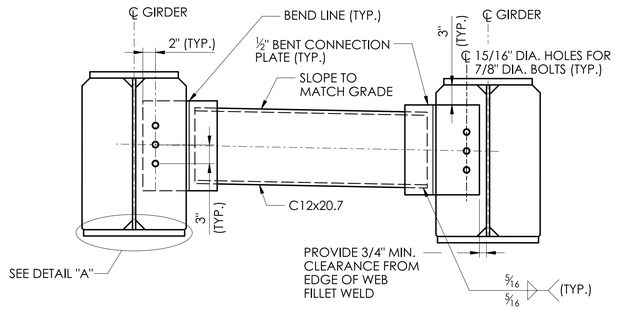
CONNECTION PLATE DETAIL

SCALE 1"=1'-0"



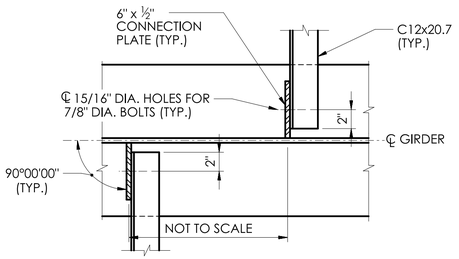
DETAIL "A"

SCALE: 1½" = 1'-0"



END DIAPHRAGM (D2)

SCALE 1"=1'-0"



CONNECTION PLATES AT INTERMEDIATE DIAPHRAGMS

SCALE: 1½" = 1'-0"

REV.	DATE	REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

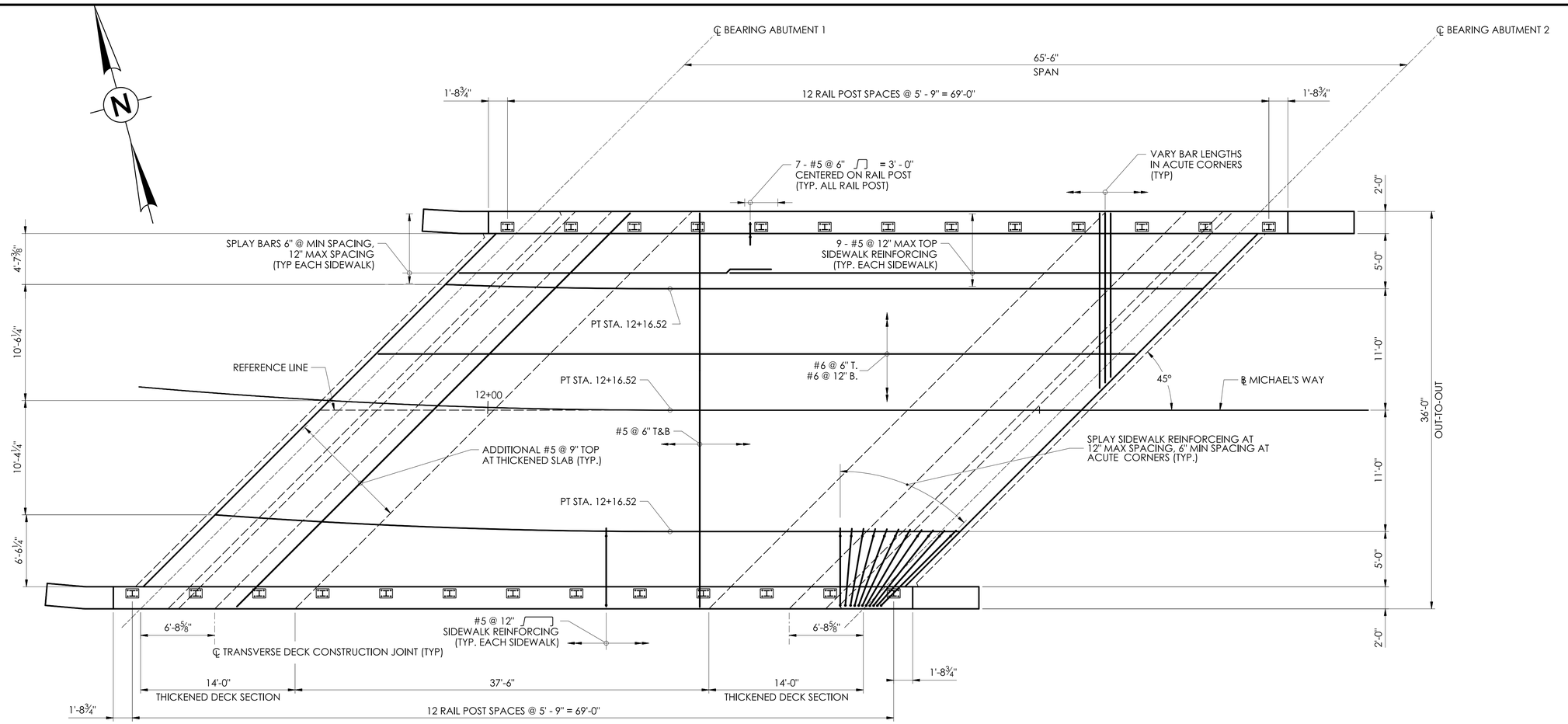
SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: GIRDER ELEVATION AND DETAILS

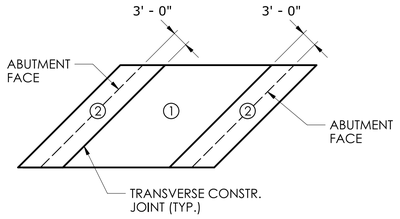
DRAWING NO. S-17
SHEET NO. 04.17

LASTED SAVED BY: cgagne **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Girder_Details.dgn
PLOTTED DATE: 2/27/2023



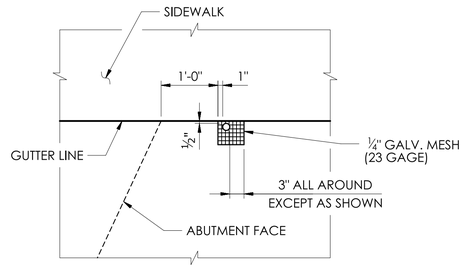
DECK PLAN

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



DECK PLACEMENT SEQUENCE

NOT TO SCALE



NOTE:
THE COST OF FURNISHING AND INSTALLING 1/4" SQUARE GALVANIZED WIRE MESH SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR "HMA S0.25"

PLAN

SCALE: ¾" = 1'-0"

FINISHED DECK ELEVATIONS ALONG CENTERLINE OF GIRDER

GIRDER MARK	CL BRG. ABUT. 1	0.10 L	0.20 L	0.30 L	0.40 L	0.50 L	0.60 L	0.70 L	0.80 L	0.90 L	CL BRG. ABUT. 2
G1	224.55	224.52	224.49	224.46	224.43	224.41	224.38	224.35	224.33	224.30	224.27
G2	224.67	224.64	224.61	224.58	224.56	224.53	224.50	224.48	224.45	224.42	224.39
G3	224.77	224.76	224.73	224.70	224.68	224.65	224.62	224.60	224.57	224.54	224.52
G4	224.75	224.76	224.75	224.73	224.70	224.68	224.65	224.62	224.60	224.57	224.54
G5	224.63	224.65	224.66	224.65	224.63	224.61	224.58	224.55	224.53	224.50	224.47
G6	224.50	224.54	224.56	224.57	224.56	224.53	224.51	224.48	224.46	224.43	224.40

NOTE:
ELEVATIONS ARE APPLIED AT THE TOP OF THE CONCRETE DECK SLAB.

REVISION DESCRIPTION | DATE | REV.

DESIGNER/DRAFTER: CHECKED BY:

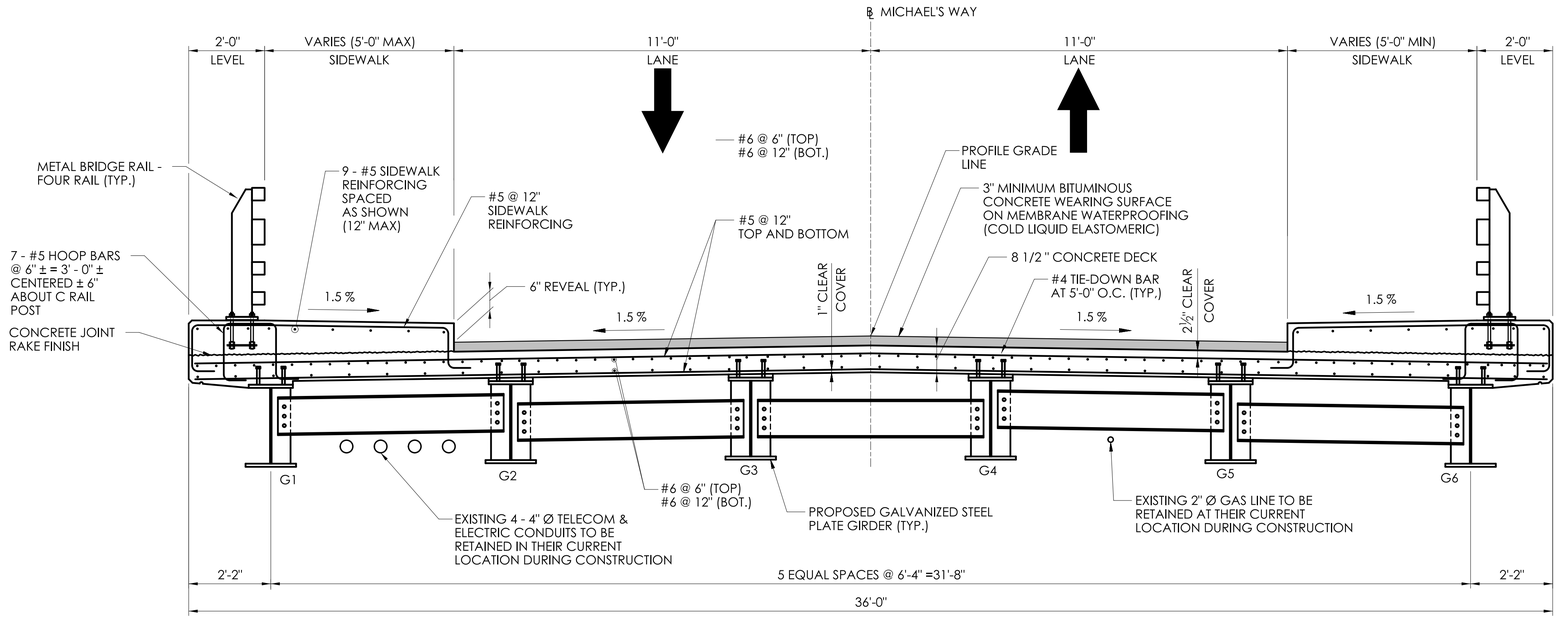
SIGNATURE/
BLOCK:

STATE OF CONNECTICUT
DEPARTMENT
OF
TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: DECK PLAN AND DETAILS

DRAWING NO. S-18
SHEET NO. 04.18

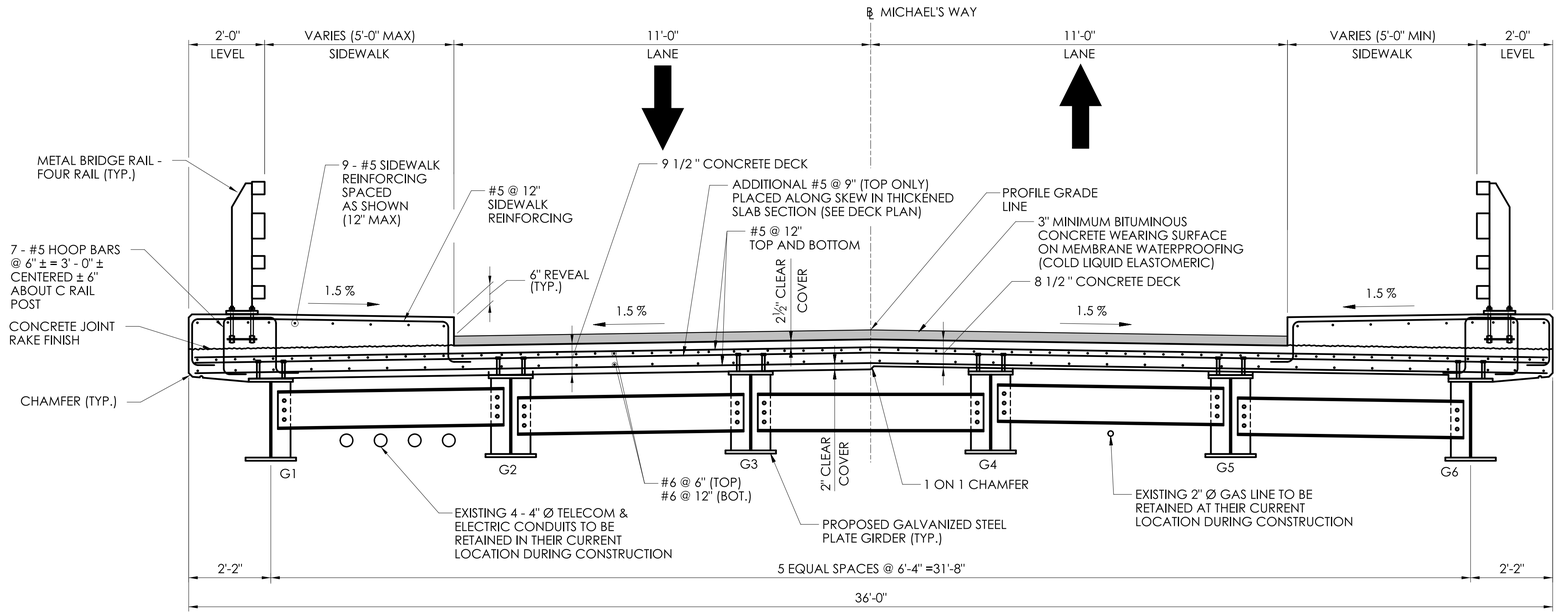
LASTED SAVED BY: smerkwan **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_DeckPlan.dgn
PLOTTED DATE: 2/27/2023



DECK REINFORCEMENT SECTION

SCALE: ½" = 1'-0"

NOTE: TIE DOWN BARS NOT SHOWN FOR CLARITY



DECK REINFORCEMENT AT THICKENED SLAB SECTION

SCALE: ½" = 1'-0"

NOTE: TIE DOWN BARS NOT SHOWN FOR CLARITY

REV.	DATE	REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

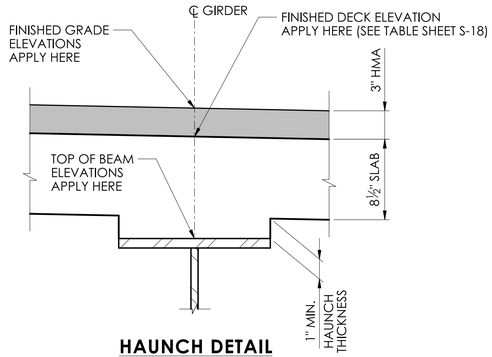
SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

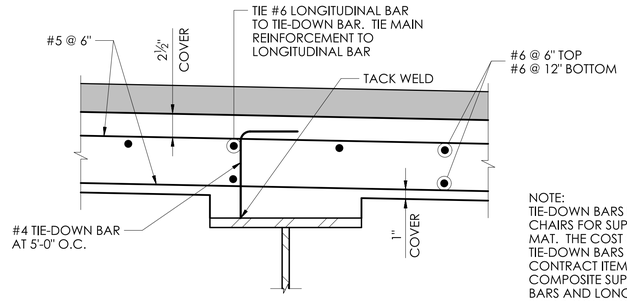
PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: REINFORCEMENT SECTIONS

DRAWING NO. S-19
SHEET NO. 04.19

LASTED SAVED BY: dwhite **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Reinforcement_Sections.dgn
PLOTTED DATE: 2/27/2023

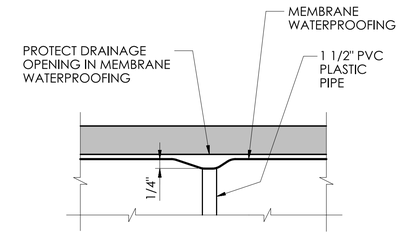


HAUNCH DETAIL
SCALE: 1½" = 1'-0"

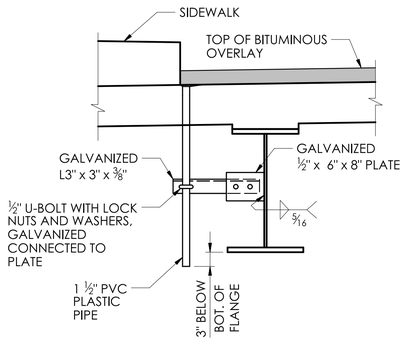


NOTE:
TIE-DOWN BARS DO NOT EXCLUDE THE USE OF CHAIRS FOR SUPPORTING THE REINFORCEMENT MAT. THE COST OF FURNISHING AND PLACING TIE-DOWN BARS TO BE INCLUDED IN THE CONTRACT ITEM "PRECAST CONCRETE/STEEL COMPOSITE SUPERSTRUCTURE". TIE-DOWN BARS AND LONGITUDINAL BARS SHALL CLEAR SHEAR CONNECTORS.

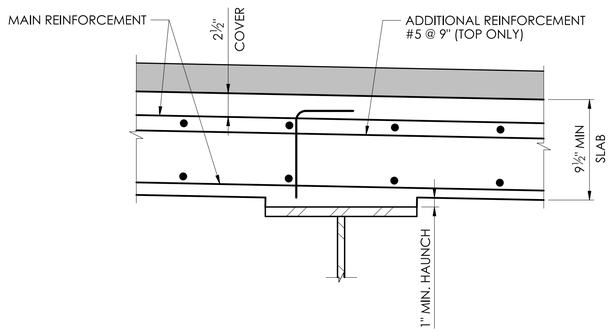
TIE-DOWN FOR SLAB REINFORCEMENT
SCALE: 1½" = 1'-0"
NOTE: SHEAR STUDS NOT SHOWN FOR CLARITY



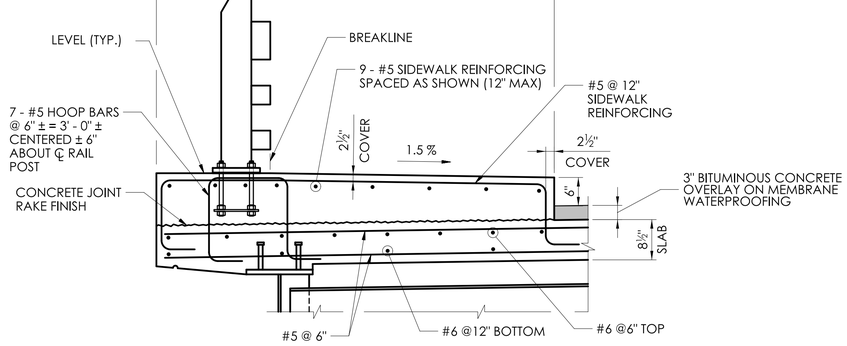
TYPICAL DRAIN DETAIL
NOT TO SCALE



DECK WEEPHOLE DETAIL
SCALE: ¾" = 1'-0"



THICKENED SLAB SECTION
SCALE: 1½" = 1'-0"
NOTE: SHEAR STUDS NOT SHOWN FOR CLARITY



TYPICAL SIDEWALK SECTION
SCALE: ¾" = 1'-0"
NOTE: 8½" SLAB SECTION SHOWN, THICKENED SLAB SIMILAR

REV.	DATE	REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

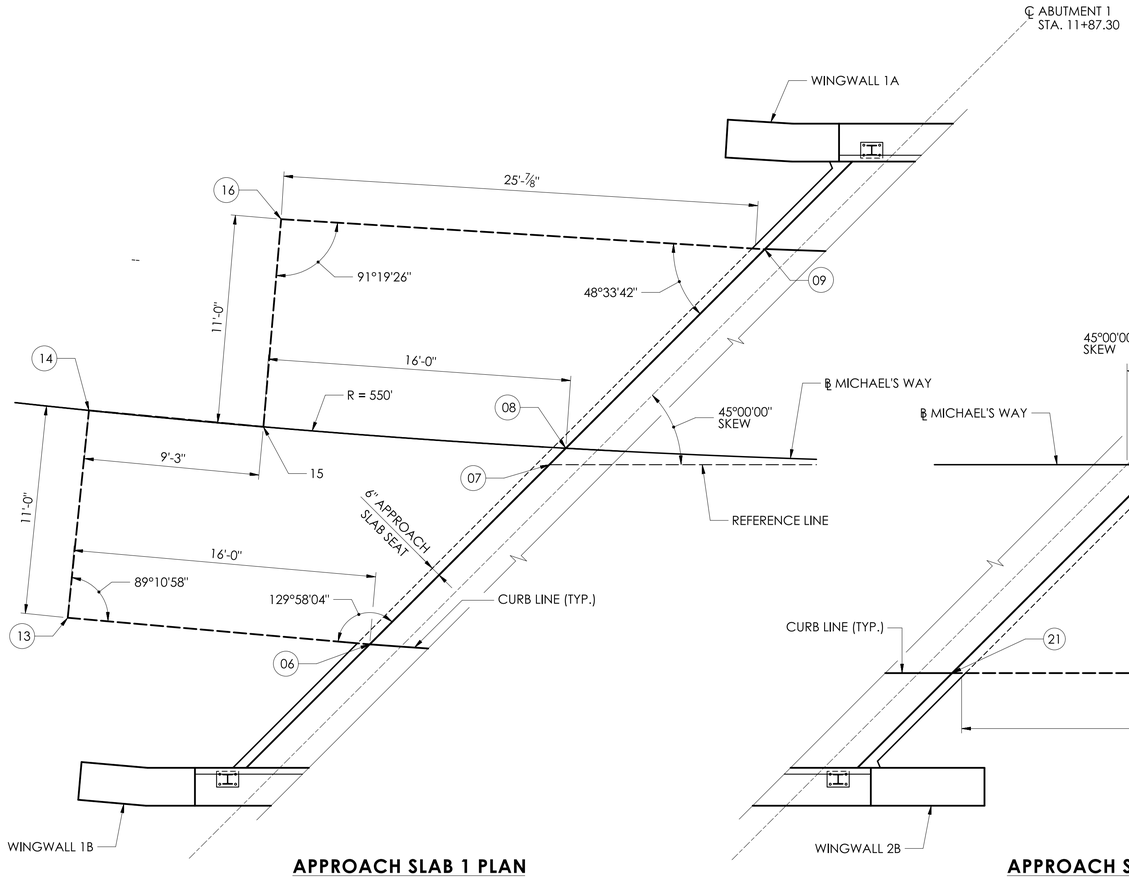
SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: DECK DETAILS

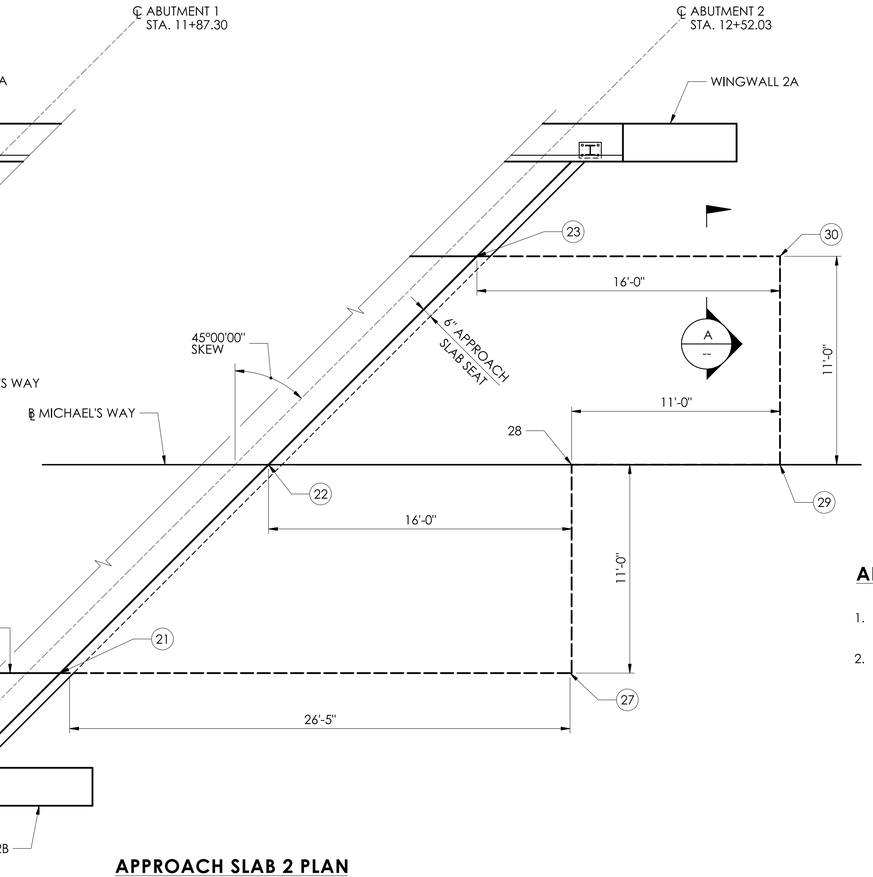
DRAWING NO. S-20
SHEET NO. 04.20

LASTED SAVED BY: dkull **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_DeckPlan.dgn
PLOTTED DATE: 2/27/2023



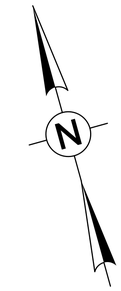
APPROACH SLAB 1 PLAN

SCALE: ¼" = 1'-0"



APPROACH SLAB 2 PLAN

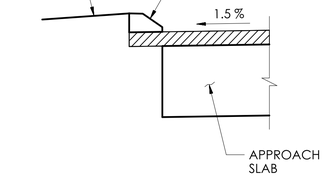
SCALE: ¼" = 1'-0"



APPROACH SLAB ELEVATION TABLE	
W.P. #	ELEVATION
6	224.63
8	224.82
9	224.65
13	224.51
14	224.68
15	224.76
16	224.59
21	224.46
22	224.58
23	224.37
27	224.28
28	224.45
29	224.40
30	224.24

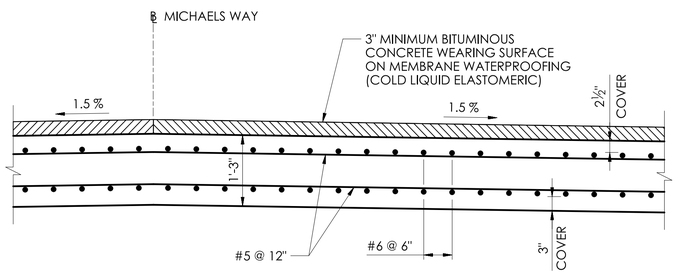
APPROACH SLAB NOTES:

1. ALL REINFORCEMENT IN APPROACH SLABS SHALL BE EPOXY COATED AND INCLUDED IN THE ITEM FOR "DEFORMED STEEL BARS - EPOXY COATED".
2. ALL CONCRETE IN THE APPROACH SLABS SHALL BE CLASS "F" CONCRETE.



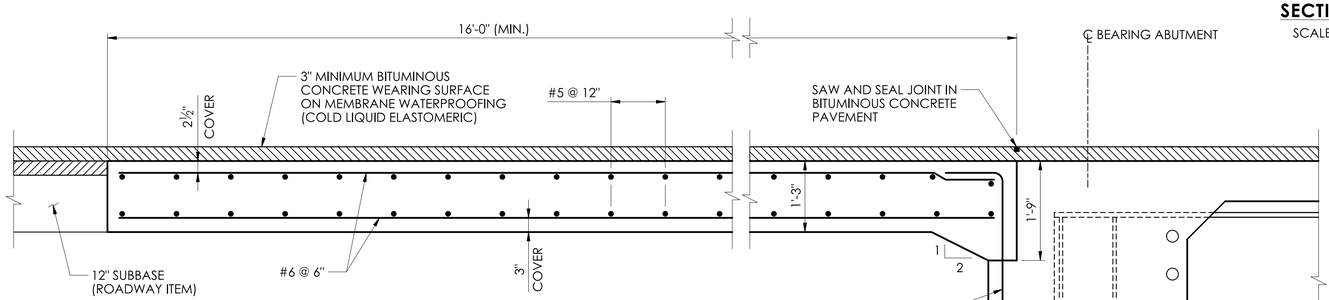
SECTION A-A

SCALE: ¾" = 1'-0"



TRANSVERSE APPROACH SLAB SECTION

SCALE: ¾" = 1'-0"



LONGITUDINAL APPROACH SLAB SECTION

SCALE: ¾" = 1'-0"

REV.	DATE	REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

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BLOCK:

STATE OF CONNECTICUT
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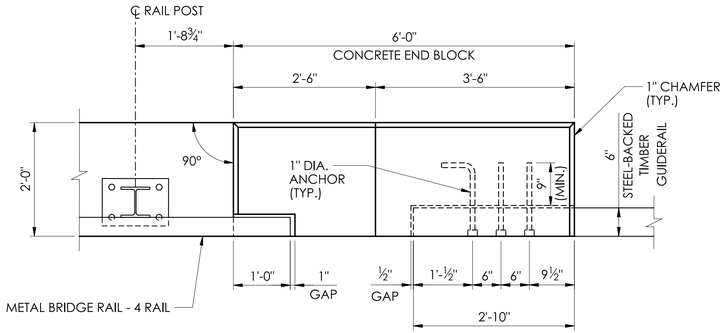
TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: APPROACH SLAB DETAILS

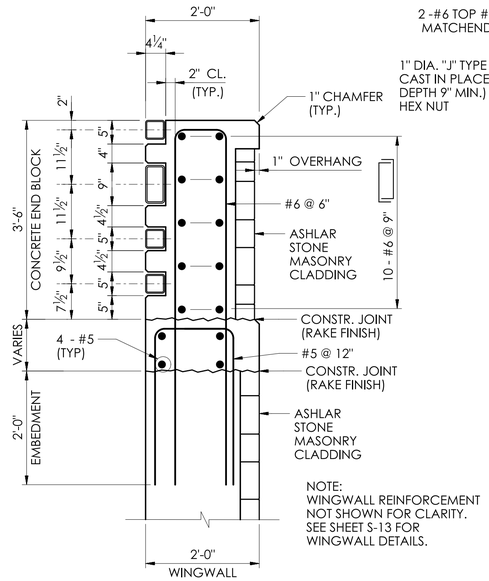
DRAWING NO. S-21
SHEET NO. 04.21

LASTED SAVED BY: dwhite **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Appr_Slab_Details.dgn
PLOTTED DATE: 2/27/2023



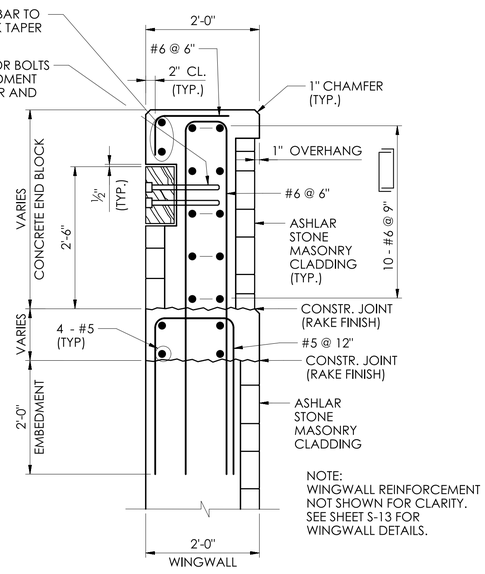
PLAN AT U-BACK WINGWALL

SCALE: ¾" = 1'-0"



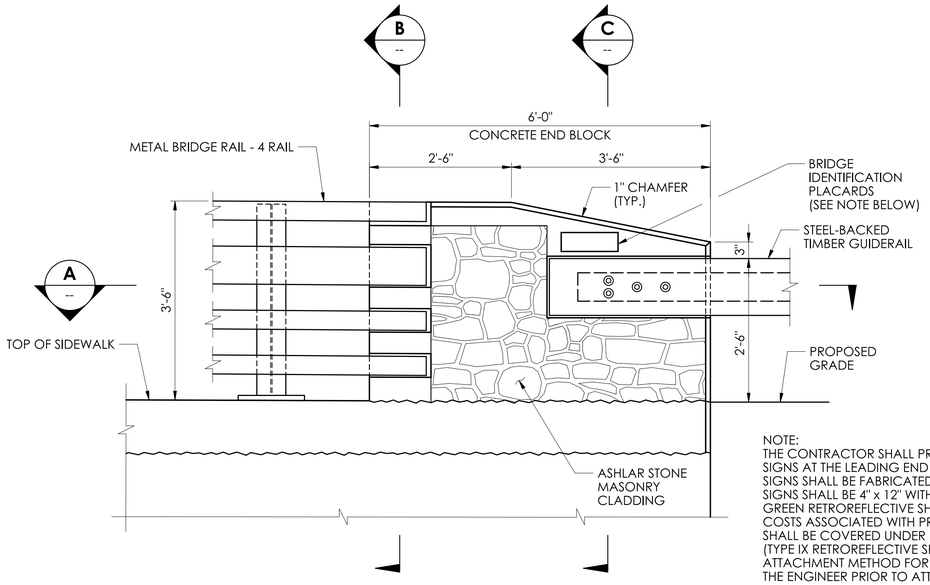
SECTION B

SCALE: ¾" = 1'-0"



SECTION C

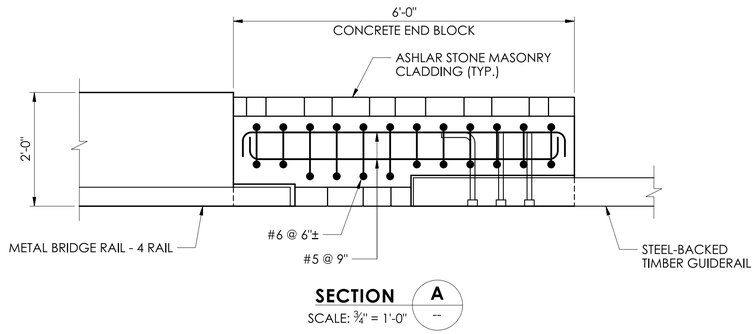
SCALE: ¾" = 1'-0"



NOTE:
THE CONTRACTOR SHALL PROVIDE AND INSTALL NEW BRIDGE IDENTIFICATION SIGNS AT THE LEADING END OF EACH END BLOCK ON THE TRAFFIC SIDE. THE SIGNS SHALL BE FABRICATED WITH 40 GAUGE ALUMINUM SHEET METAL. THE SIGNS SHALL BE 4" x 12" WITH 3" WHITE RETROREFLECTIVE BLOCK LETTERS ON GREEN RETROREFLECTIVE SHEETING. EACH SIGN SHALL READ 07001. ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE BRIDGE SIGNS SHALL BE COVERED UNDER ITEM #1208931 - SIGN FACE SHEET ALUMINUM (TYPE IX RETROREFLECTIVE SHEETING). THE FINAL LOCATION AND ATTACHMENT METHOD FOR THE SIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO ATTACHMENT.

U-BACK WINGWALL ELEVATION

SCALE: ¾" = 1'-0"

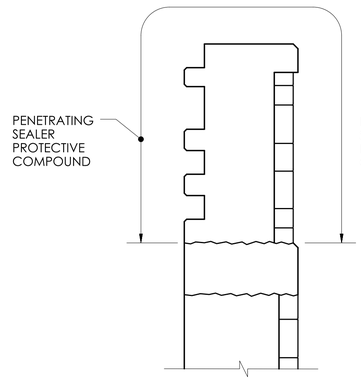


SECTION A

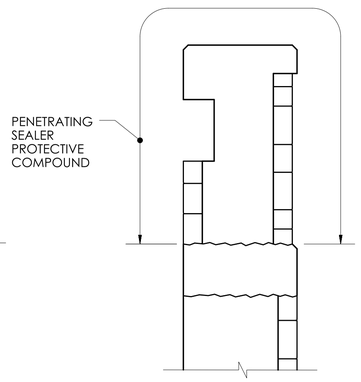
SCALE: ¾" = 1'-0"

END BLOCK NOTES:

1. TOP OF END BLOCK AND TERMINAL CONNECTOR INSERT GROUP SHALL BE SLOPED TO MATCH THE PROFILE GRADE.
2. RAILWAY ELEMENTS SHALL BE PAID FOR UNDER THE APPLICABLE ROADWAY ITEMS.
3. ALL RAIL ANCHORAGE MATERIAL REQUIRED FOR END ATTACHMENT SHALL BE PAID FOR UNDER THE APPLICABLE ROADWAY ITEM.
4. DRILLING AND GROUTING ANCHORAGE BOLTS WILL BE PAID FOR UNDER THE GENERAL COST OF THE WORK OF INSTALLING STEEL-BACKED TIMBER GUIDE RAIL - BRIDGE ATTACHMENT.
5. DRILLING THROUGH REINFORCEMENT WILL NOT BE ALLOWED. ADJUST THE REINFORCEMENT AS NECESSARY PRIOR TO POURING CONCRETE FOR END BLOCK.



SECTION AT METAL BRIDGE RAIL - 4 RAIL



SECTION AT STEEL-BACKED TIMBER GUIDERAIL - BRIDGE ATTACHMENT

LIMITS OF PENETRATING SEALER PROTECTIVE COMPOUND AT END BLOCK

SCALE: ¾" = 1'-0"

NOTE:
PENETRATING SEALER PROTECTIVE COMPOUND SHALL BE APPLIED PRIOR TO INSTALLING METAL BRIDGE RAIL - 4 RAIL AND STEEL-BACKED TIMBER GUIDERAIL - BRIDGE ATTACHMENT.

REV. | DATE | REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

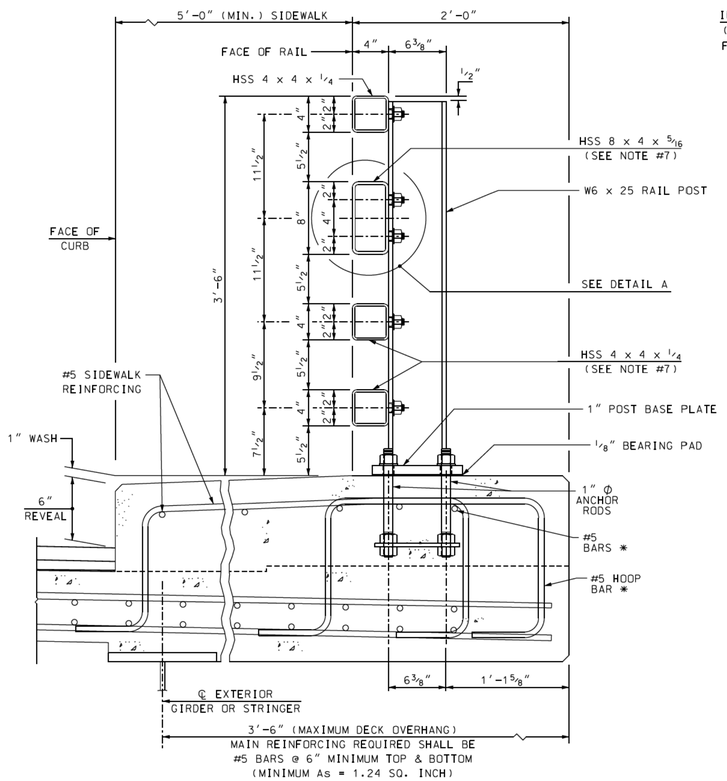
SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

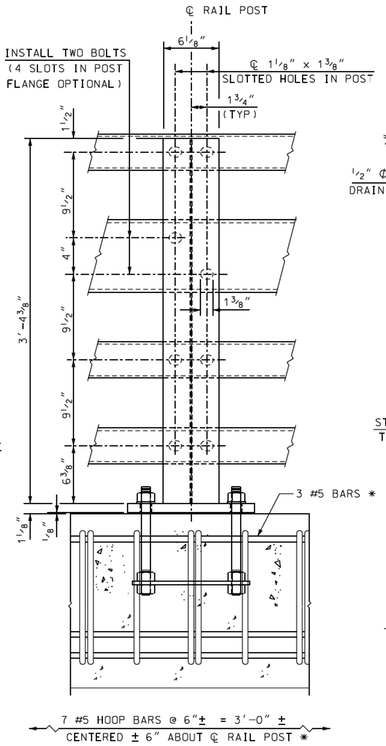
PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: CONCRETE END BLOCK DETAILS

DRAWING NO. S-22
SHEET NO. 04.22

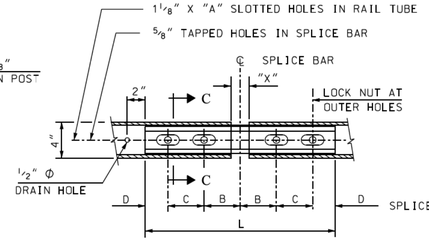
LASTED SAVED BY: smerkwan **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Parapet_Details.dgn
PLOTTED DATE: 2/27/2023



SECTION VIEW

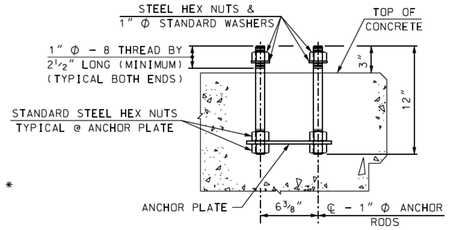


BACK ELEVATION VIEW



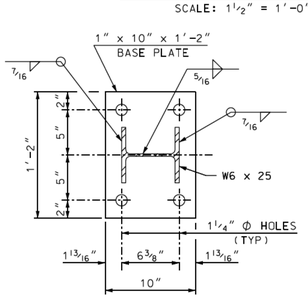
RAIL SPLICE (BOTTOM VIEW)

SCALE: 1 1/2" = 1'-0"



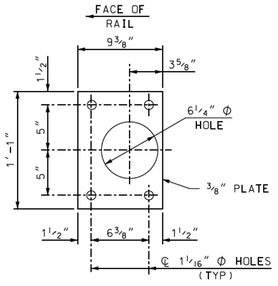
POST ANCHOR ASSEMBLY

SCALE: 1 1/2" = 1'-0"



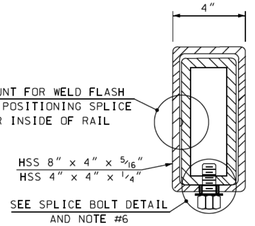
POST BASE PLATE

SCALE: 1 1/2" = 1'-0"

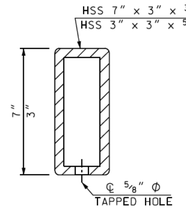


ANCHOR PLATE

SCALE: 1 1/2" = 1'-0"



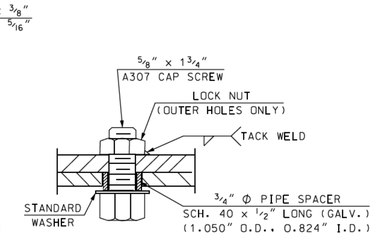
SECTION C-C



SPLICE BAR SECTION

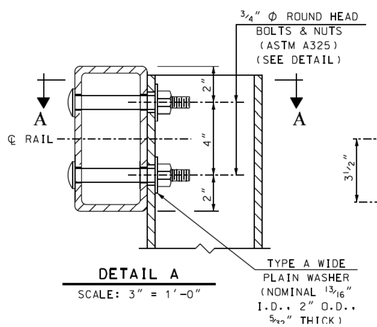
RAIL SPLICE DETAILS

SCALE: 3" = 1'-0"



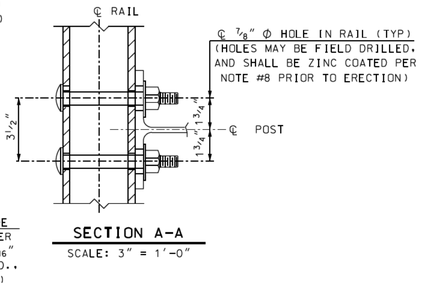
SPLICE BOLT DETAIL

SCALE: 6" = 1'-0"



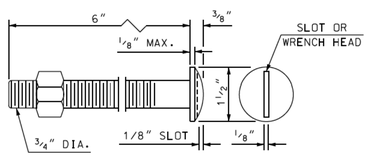
DETAIL A

SCALE: 3" = 1'-0"



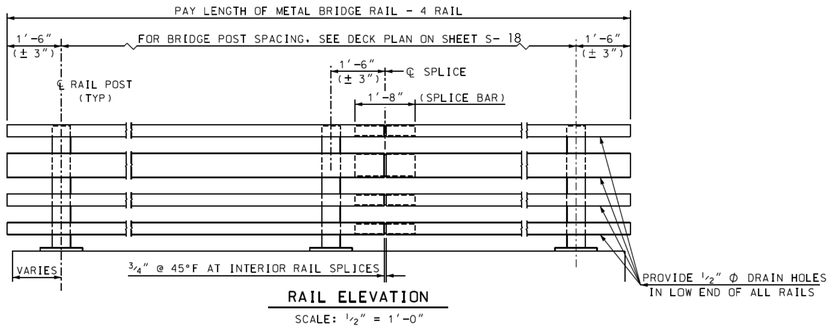
SECTION A-A

SCALE: 3" = 1'-0"



A325 ROUND HEAD BOLT DETAIL

SCALE: 6" = 1'-0"



RAIL ELEVATION

SCALE: 1/2" = 1'-0"

POST ASSEMBLY

SCALE: 1 1/2" = 1'-0"

SPLICE BAR DIMENSION TABLE						
T	A	B	C	D	X	L
INTERIOR	2 1/2"	4"	4"	2"	3/4"	1'-8"

T = TOTAL MOVEMENT OF BRIDGE

RAIL NOTES

(1) METAL BRIDGE RAIL - 4 RAIL. SHALL INCLUDE POSTS, BASE PLATES, ANCHOR PLATES, ANCHOR RODS, PREFORMED PADS, RAIL ASSEMBLY BOLTS, NUTS, WASHERS, STUDS, STRUCTURAL TUBING, SPLICE BARS, PIPE SPACERS, ALL APPURTENANCES, AND GALVANIZING.

(2) BRIDGE RAIL POSTS SHALL BE SET NORMAL (90 DEGREES) TO THE PROFILE GRADE, EXCEPT ON GRADES OVER 5% WHERE POSTS SHALL BE SET VERTICAL.

(3) ENDS OF RAIL TUBE SECTIONS SHALL BE SAWED OR MILLED AND SHALL BE TRUE AND SMOOTH. ALL CUT EDGES OF ALL MATERIAL SHALL BE GROUND SMOOTH.

(4) EACH PIECE OF RAIL TUBING SHALL BE ATTACHED TO A MINIMUM OF THREE (3) POSTS.

(5) BOLT HOLES SHALL BE DRILLED OR PUNCHED. FLAME CUTTING MAY BE USED TO FINISH SLOTTED HOLES IF MECHANICALLY GUIDED.

(6) AT INTERIOR SPLICES, PIPE SPACERS SHALL BE USED ON ONLY ONE SIDE OF THE SPLICE TO ALLOW MOVEMENT ON THAT SIDE. AT EXPANSION SPLICES, AND AT AT END SPLICES, PIPE SPACERS SHALL BE USED ON BOTH SIDES OF THE SPLICE TO ALLOW MOVEMENT ON EACH SIDE. ALL RAILS IN A SPLICE SHALL RECIEVE THE SAME TREATMENT.

(7) MILL OR SHOP TRANSVERSE WELDS SHALL NOT BE PERMITTED ON ANY RAIL ELEMENT. RAIL ELEMENTS USED ON CURVES SHALL USE 3/8" WALL TUBES AND SHALL BE SHOP FORMED TO THE REQUIRED CURVATURE.

(8) NO PUNCHING, DRILLING, CUTTING OR WELDING SHALL BE PERMITTED AFTER GALVANIZING, EXCEPT AS ALLOWED IN DETAILS A. DAMAGED AREAS OF GALVANIZING SHALL BE THOROUGHLY CLEANED, PRETREATED, AND PAINTED WITH TWO COATS OF ORGANIC ZINC-RICH GALVANIZING REPAIR PAINT, HAVING A MINIMUM 92% ZINC BY WEIGHT, TO A THICKNESS EQUAL TO THE ORIGINAL COATING, ACCORDING TO ASTM A780.

(9) NUTS FOR 1" Ø THREADED ANCHOR RODS CONNECTING THE BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.

(10) THREADS FOR ANCHOR RODS MAY BE ROLLED OR CUT. IF CUT THREADS ARE USED, BOLT DIAMETER SHALL NOT BE LESS THAN NOMINAL DIAMETER. IF ROLLED THREADS ARE USED, ROD DIAMETER SHALL NOT BE LESS THAN ROOT DIAMETER OF THREADS.

(11) THIS BRIDGE RAIL SYSTEM WAS SUCCESSFULLY CRASH TESTED FOR AASHTO PL2 IN 1994 BY THE NEW ENGLAND TRANSPORTATION CONSORTIUM AND ACCEPTED AS NCHRP 350 TL-4 PER FHWA LETTER HMHS-B50, MARCH 11, 1999.

MATERIAL NOTES

(12) STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500, GRADE B. STRUCTURAL STEEL TUBING. RAIL TUBING SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH REQUIREMENTS OF 15 FT. LBS. AT 0°F. FOR ASTM A500, GRADE B. THE TEST SAMPLES SHALL BE TAKEN AFTER FORMING THE TUBES. CHARPY V-NOTCH IS NOT REQUIRED FOR SPLICE TUBES.

(13) RAIL POSTS AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A572 GR 50, EXCEPT ANCHOR PLATES MAY BE ASTM A36.

(14) DETAIL A BOLTS SHALL BE ASTM A325 OR A449. ALL OTHER BOLTS AND NUTS SHALL CONFORM TO ASTM A307 AND ASTM 563 GRADE A RESPECTIVELY OR BETTER, EXCEPT THAT ASTM A307 NUTS MAY BE USED ON THE BOTTOM OF ANCHOR ASSEMBLY. WASHERS SHALL BE HARDENED STEEL COMMERCIAL TYPE A PLAIN WIDE WASHERS AND SHALL MEET THE DIMENSIONAL REQUIREMENTS OF A.N.S.I. B18.22. ANCHOR RODS SHALL CONFORM TO ASTM A449.

(15) ALL STEEL COMPONENTS (EXCEPT STAINLESS) SHALL BE GALVANIZED AFTER FABRICATION IN COMPLIANCE WITH AASHTO M232 (ASTM A153) AND AASHTO M111 (ASTM A123). THE GALVANIZING KETTLE SHALL HAVE 0.05 TO 0.09 PERCENT NICKEL. GALVANIZED SURFACES SHALL HAVE A UNIFORM APPEARANCE AND GALVANIZED MATERIAL SHALL BE PROPERLY STORED. IF PAINTING IS REQUIRED SEE SPECIAL PROVISIONS FOR 708.

(16) PREFORMED BEARING PADS (1/8" THICK) SHALL CONFORM TO AASHTO M251.

REV. | DATE | REVISION DESCRIPTION

DESIGNER/DRAFTER: CHECKED BY:

SIGNATURE/ BLOCK:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER: 0157-0088
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 07001 MICHAEL'S WAY OVER WEST BRANCH SAUGATUCK RIVER
TOWN(S): WESTON
DRAWING TITLE: BRIDGE RAIL DETAILS

DRAWING NO. S-23
SHEET NO. 04.23

LASTED SAVED BY: dkull **FILE NAME:** M:\DDE\Worksets\CTDOT\0157-0088\Bridge\Contract_Plans\SB_CP_0157_0088_Bridge_Rail_Details.dgn
PLOTTED DATE: 2/27/2023