03 - STRUCTURE
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STATE OF CONNECTICUT
RONALD G. SACCHI
No. 16589
LICENSED
PROFESSIONAL ENGINEER

Ronald Sacchi
GM2 Associates, Inc.
rsacchi@gm2inc.com
2026.08.12 15:51:15-04'00'

REV. | DATE | REVISION DESCRIPTION

SIGNATURE BLOCK:
GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

PROJECT TITLE:
REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER

TOWN(S):
CITY OF MERIDEN

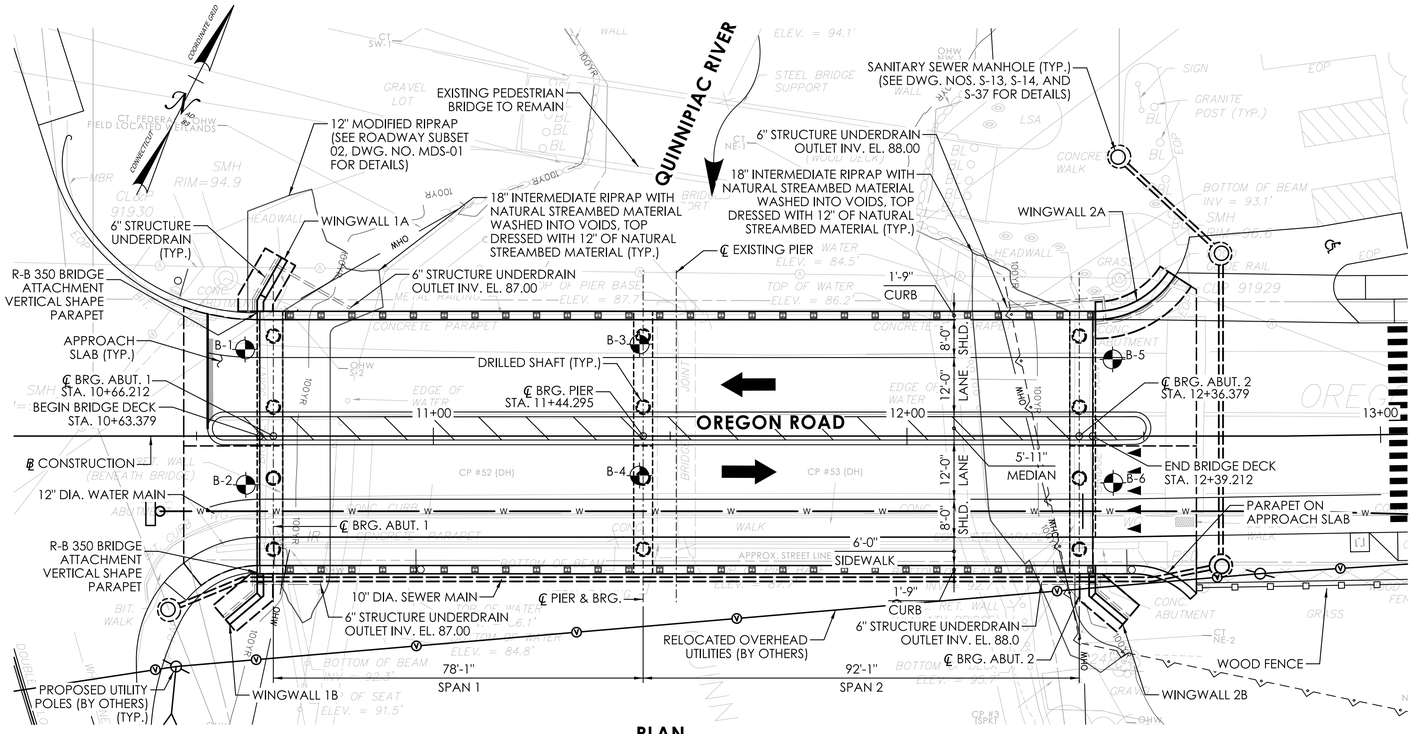
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INDEX OF DRAWINGS

PROJECT NO.:
L079-0004

DRAWING NO.:
S-01

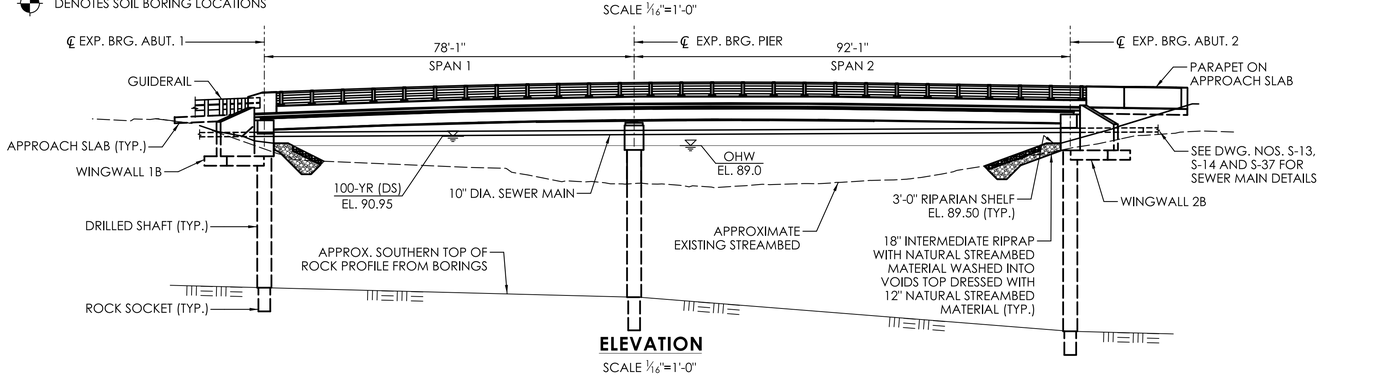
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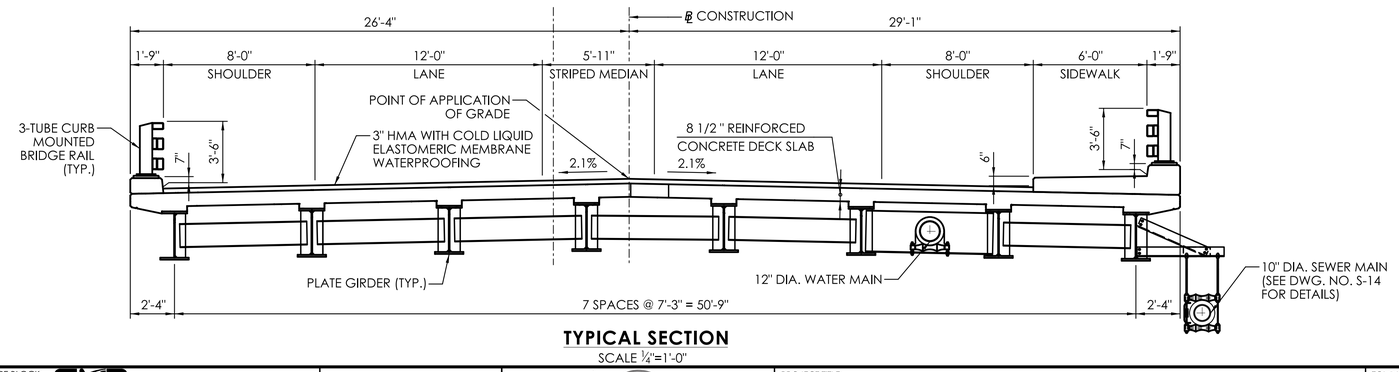
PLAN

SCALE 1/16"=1'-0"



ELEVATION

SCALE 1/16"=1'-0"



TYPICAL SECTION

SCALE 1/4"=1'-0"

GENERAL NOTES:

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 819 (2024) WITH SUPPLEMENTAL SPECIFICATIONS DATED JULY 2025 AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (9TH EDITION - 2020), AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE AND ROADWAY STRUCTURE DESIGN MANUAL (2025).

MATERIAL STRENGTHS:
CONCRETE:
CLASS PCC 03340 .....f'c=3,000 psi
CLASS PCC 04460 .....f'c=4,000 psi
CLASS PCC 04462 .....f'c=4,000 psi
ULTRA HIGH PERFORMANCE CONCRETE.....f'c=14,000 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 SECTION 6.01- CONCRETE FOR STRUCTURES AND M.03- PORTLAND AND HYDRAULIC CEMENT CONCRETE.

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

STRUCTURAL STEEL: (AASHTO M270, GRADE 50)..... fy = 50,000 PSI

LIVE LOAD: HL-93, LEGAL, PERMIT, AND EMERGENCY VEHICLES.

FUTURE PAVING ALLOWANCE: NONE.

STRUCTURAL STEEL: SEE STRUCTURAL NOTES FOR DESIGNATIONS AND REQUIREMENTS.

METALLIZING: STRUCTURAL STEEL SHALL BE METALLIZED IN ACCORDANCE WITH THE SPECIAL PROVISION "METALLIZING STRUCTURAL STEEL (SITE NO. 1)." THE COLOR OF THE TOPCOAT MATERIAL ON THE STRUCTURAL STEEL SHALL CONFORM TO AMS-STD-595 COLOR NO. 26329, (BLUE).

BITUMINOUS CONCRETE OVERLAY: THIS SHALL CONSIST OF TWO LIFTS: THE FIRST SHALL BE "HMA S0.25 TRAFFIC LEVEL 2" (1" THICK) AND THE SECOND LIFT SHALL BE "HMA S0.5 TRAFFIC LEVEL 2" (2" THICK) .

FOUNDATION PRESSURES: THE VARIOUS GROUP LOADINGS NOTED ON THE SUBSTRUCTURE PLAN SHEETS REFER TO THE GROUP LOADS AS GIVEN IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

DIMENSIONS: WHEN DECIMAL DIMENSIONS ARE GIVEN 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 LIMITED SURVEY 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.

EXISTING BRIDGE: THE WORK FOR REMOVAL OF THE EXISTING SUPERSTRUCTURE SHALL BE INCLUDED AND PAID FOR UNDER THE ITEM "REMOVAL OF SUPERSTRUCTURE (SITE NO. 1)". THE WORK FOR REMOVAL OF EXISTING ABUTMENTS, PIER, AND WINGWALLS SHALL BE PAID FOR UNDER ITEM "REMOVAL OF EXISTING MASONRY".

UTILITIES: THE FOLLOWING UTILITIES ARE LOCATED WITHIN THE PROJECT LIMITS AND SHALL BE PROTECTED DURING CONSTRUCTION: (WATER AND SANITARY SEWER - CITY OF MERIDEN. ELECTRIC - EVERSOURCE. FIBER OPTIC - FRONTIER). THE CONTRACTOR SHALL COORDINATE ALL WORK RELATED TO UTILITY RELOCATION WITH THE RESPECTIVE UTILITY COMPANIES.

MASH TEST LEVEL: THE 3-TUBE CURB MOUNTED BRIDGE RAIL WITHOUT SIDEWALK MEETS THE TL-4 CRITERIA FOR MASH 2016. THE 3-TUBE CURB MOUNTED BRIDGE RAIL WITH SIDEWALK MEETS THE TL-4 CRITERIA FOR MASH 2016.

CONCRETE NOTES:

SEE DWG. NO. S-03 FOR CONCRETE NOTES.

NOTICE TO BRIDGE INSPECTORS	
THE DEPARTMENT'S BRIDGE SAFETY PROCEDURES REQUIRE THIS BRIDGE TO BE 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 FOR 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.	
COMPONENT OR DETAIL	STRUCTURE SHEET REFERENCE
FOLLOW NORMAL INSPECTION PROCEDURES	

CONCRETE DISTRIBUTION		
SUPERSTRUCTURE	C.Y.	433
SUBSTRUCTURE	C.Y.	236
FOOTINGS	C.Y.	37
TOTAL	C.Y.	706

INSPECTION OF FIELD WELDS		
METHOD	UNIT	QUANTITY
ULTRASONIC	IN	0
MAGNETIC PARTICLE	IN	0

HYDRAULIC DATA	
DRAINAGE AREA	77.1 SQ. MI.
DESIGN FREQUENCY	100-YR
DESIGN DISCHARGE	6150 CFS
AVERAGE DAILY FLOW ELEVATION (ESTIMATED)	86.71 FT
UPSTREAM DESIGN WATER SURFACE ELEVATION	90.90 FT
DOWNSTREAM DESIGN WATER SURFACE ELEVATION	90.95 FT
MAXIMUM SCOUR ELEVATION	72.2 FT NAVD '88
FREQUENCY	500-YR EVENT
DISCHARGE	8436 CFS
WORST CASE SCOUR SUBSTRUCTURE UNIT	PIER

STEEL BEAM SHIPPING DATA			
MAX SHIPPING LENGTH	MAX SHIPPING HEIGHT	MAX SHIPPING WIDTH	MAX SHIPPING WEIGHT
72'-2"	2'-8"	1'-6"	24550 LBS

REVISION DESCRIPTION | DATE | REV.

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

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TOWN(S): **CITY OF MERIDEN**

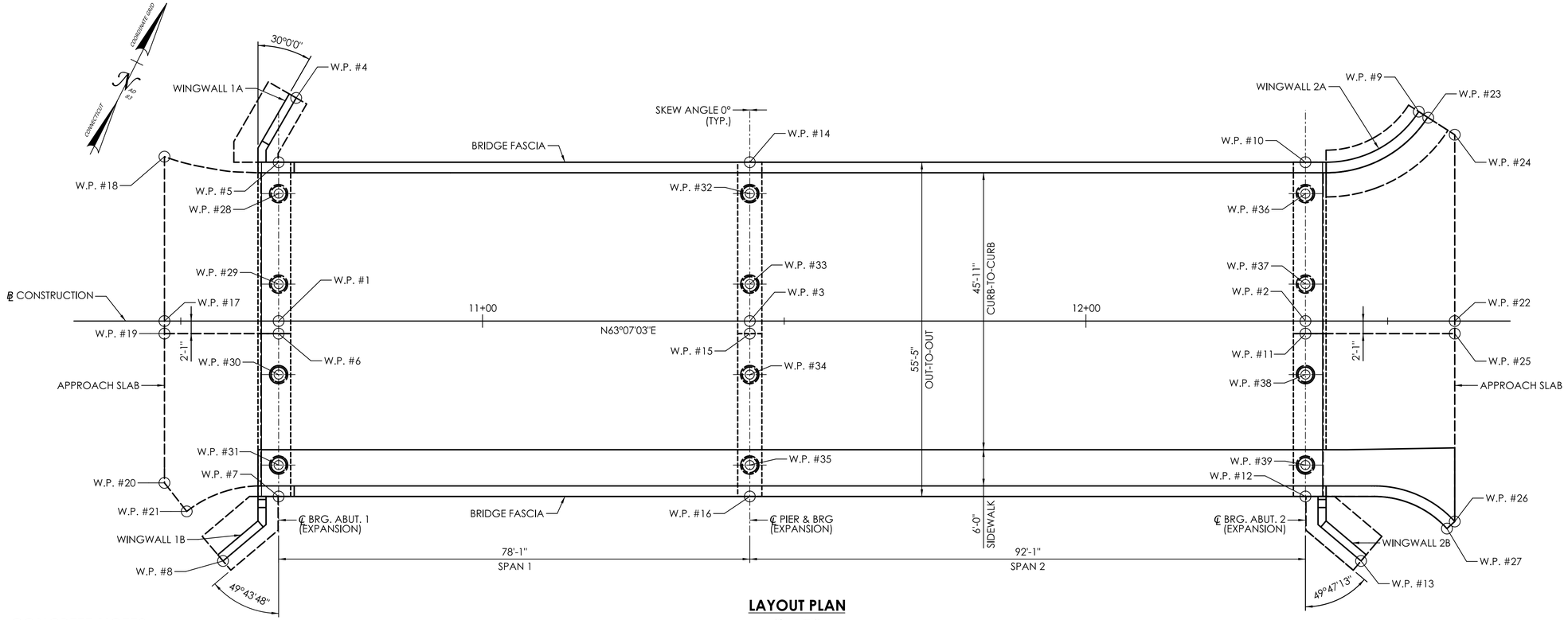
DRAWING TITLE: **GENERAL PLAN**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-02**

SHEET NO.: 03.02

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_GPN.dgn
PLOTTED DATE: 5/12/2026



LAYOUT PLAN

SCALE: 1"=10'

CONCRETE NOTES:

STAY-IN-PLACE FORMS: THE USE OF STAY-IN-PLACE FORMS SHALL BE ALLOWED IN ALL BUT THE FOLLOWING LOCATIONS:
- UNDER THE OVERHANG OUTSIDE OF FASCIA GIRDERS.
- UNDER THE CLOSURE POURS BETWEEN GIRDERS G4 AND G5.

THE PROPOSED GIRDERS HAVE BEEN DESIGNED FOR THE ADDITIONAL WEIGHT OF 15 POUNDS PER SQUARE FOOT FOR THE STAY-IN-PLACE FORMS.

COMPOSITE CONSTRUCTION: NO TEMPORARY INTERMEDIATE SUPPORTS SHALL BE USED DURING THE PLACING AND SETTING OF THE CONCRETE DECK SLAB. CONSTRUCTION LOADS AND DEAD LOADS WILL BE PERMITTED WHEN DIRECTED BY THE ENGINEER BUT ONLY WHEN THE CONTRACTOR'S TEST RESULTS SHOW THAT THE CONCRETE HAS REACHED A STRENGTH OF f'c = 3500 PSI. LIVE LOADS (TRAFFIC) WILL BE PERMITTED ON THE STRUCTURE AFTER THE CONTRACTOR'S TEST RESULTS SHOW THAT THE CONCRETE HAS REACHED A STRENGTH OF f'c = 4000 PSI.

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

ITEM	BRIDGE COMPONENT	PCC CLASS
FOOTING CONCRETE	WINGWALL FOOTINGS	PCC 03340
ABUTMENT AND WALL CONCRETE	ABUTMENT CAP, WINGWALL STEMS, CONCRETE BEARING PEDESTALS, KEEPER BLOCKS AND CHEEKWALLS	PCC 03340
COLUMN AND CAP CONCRETE	PIER CAP, CONCRETE BEARING PEDESTALS AND KEEPER BLOCKS	PCC 04460
BRIDGE DECK CONCRETE	BRIDGE DECK, HAUNCHES AND CURB	PCC 04462
PARAPET CONCRETE	CONCRETE PARAPETS AND END BLOCKS	PCC 04462
BRIDGE SIDEWALK CONCRETE	BRIDGE SIDEWALK AND CURB OVER SIDEWALK	PCC 04462
APPROACH SLAB CONCRETE	APPROACH SLABS	PCC 04460

JOINT SEAL: SEE SPECIAL PROVISIONS.

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: ALL REINFORCEMENT SHALL BE GALVANIZED AFTER FABRICATION UNLESS NOTED OTHERWISE. ALL GALVANIZING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A767, CLASS 1, INCLUDING SUPPLEMENTAL REQUIREMENTS. THE COST OF FURNISHING AND PLACING THIS REINFORCEMENT SHALL BE INCLUDED IN THE ITEM "DEFORMED STEEL BARS - GALVANIZED."

FELT: THE COST OF FURNISHING AND PLACING 15-POUND ROOFING FELT IS INCLUDED IN THE ITEM "BRIDGE DECK CONCRETE."

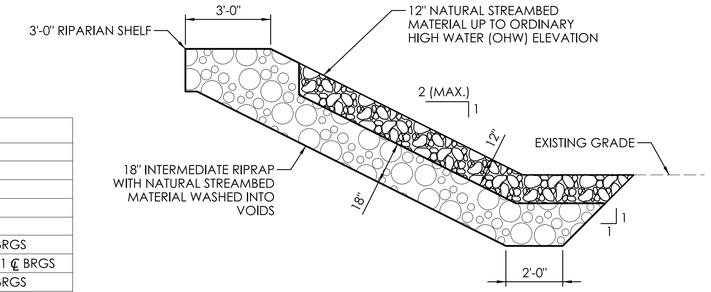
PREFORMED EXPANSION JOINT FILLER: THE COST OF FURNISHING AND INSTALLING PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED IN THE COST OF THE ITEM " ½" PREFORMED EXPANSION JOINT FILLER FOR BRIDGES" OR " 1" PREFORMED EXPANSION JOINT FILLER FOR BRIDGES"

CLOSED CELL ELASTOMER: FURNISHING AND INSTALLING CLOSED CELL ELASTOMER SHALL BE INCLUDED IN THE ITEM "1" CLOSED CELL ELASTOMER."

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

WORKING POINTS

W.P. #	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
1	751083.839	975720.786	10+66.212	0.000'	℄ @ ℄ ABUT. 1 BRGS
2	751160.782	975872.564	12+36.379	0.000'	℄ @ ℄ ABUT. 2 BRGS
3	751119.146	975790.431	11+44.295	0.000'	℄ @ ℄ PIER BRGS
4	751118.154	975706.660	10+69.129	36.994'	OUTSIDE CORNER OF WW1A
5	751107.327	975708.879	10+66.212	26.333'	OUTSIDE FACE OF ABUT. 1 @ ℄ ABUT. 1 BRGS
6	751081.981	975721.728	10+66.212	2.083'	ABUT. 1 CONSTRUCTION JOINT @ ABUT. 1 ℄ BRGS
7	751057.899	975733.936	10+66.212	29.083'	OUTSIDE FACE OF ABUT 1. @ ℄ ABUT. 1 BRGS
8	751044.197	975730.556	10+57.001	39.776'	OUTSIDE CORNER OF WW1B
9	751200.242	975873.608	12+55.152	34.723'	OUTSIDE CORNER OF WW2A
10	751184.270	975860.657	12+36.379	26.333'	OUTSIDE FACE OF ABUT. 2 @ ℄ ABUT. 2 BRGS
11	751158.924	975873.506	12+36.379	2.083'	ABUT. 2 CONSTRUCTION JOINT @ ℄ ABUT. 2 BRGS
12	751134.842	975885.714	12+36.379	29.083'	OUTSIDE FACE OF ABUT. 2 @ ℄ ABUT. 2 BRGS
13	751129.470	975898.764	12+45.589	39.776'	OUTSIDE CORNER OF WW2B
14	751142.633	975778.524	11+44.295	26.333'	OUTSIDE FACE OF PIER CAP @ ℄ PIER BRGS
15	751117.287	975791.373	11+44.295	2.083'	PIER CAP CONSTRUCTION JOINT @ ℄ PIER BRGS
16	751093.205	975803.582	11+44.295	29.083'	OUTSIDE FACE OF PIER CAP @ ℄ PIER BRGS
17	751075.286	975703.913	10+47.295	0.000'	APPROACH SLAB BEGIN
18	751099.597	975691.589	10+47.295	27.256'	APPROACH SLAB BEGIN AT GUTTERLINE
19	751073.427	975704.855	10+47.295	2.083'	APPROACH SLAB BEGIN AT CONSTRUCTION JOINT
20	751051.356	975716.044	10+47.295	26.829'	APPROACH SLAB BEGIN AT GUTTERLINE
21	751048.805	975721.475	10+50.985	31.559'	APPROACH SLAB BEGIN
22	751171.969	975894.630	12+61.119	0.000'	APPROACH SLAB END
23	751200.064	975875.349	12+56.625	33.777'	APPROACH SLAB END AT GUTTERLINE
24	751199.522	975880.662	12+61.119	30.892'	APPROACH SLAB END
25	751170.111	975895.572	12+61.119	2.083'	APPROACH SLAB END AT CONSTRUCTION JOINT
26	751142.330	975909.655	12+61.119	33.230'	APPROACH SLAB END
27	751140.695	975909.032	12+59.823	34.404'	APPROACH SLAB END



INTERMEDIATE RIPRAP DETAIL

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

WORKING POINTS ℄ OF DRILLED SHAFTS

W.P. #	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
28	751102.681	975711.234	10+66.212	21.118'	℄ DRILLED SHAFT @ ABUT. 1
29	751089.302	975718.016	10+66.212	6.118'	℄ DRILLED SHAFT @ ABUT. 1
30	751075.923	975724.799	10+66.212	8.875'	℄ DRILLED SHAFT @ ABUT. 1
31	751062.544	975731.581	10+66.212	23.875'	℄ DRILLED SHAFT @ ABUT. 1
32	751137.988	975780.879	11+44.295	21.133'	℄ DRILLED SHAFT @ PIER
33	751124.609	975787.662	11+44.295	6.125'	℄ DRILLED SHAFT @ PIER
34	751111.230	975794.444	11+44.295	8.875'	℄ DRILLED SHAFT @ PIER
35	751097.851	975801.227	11+44.295	23.875'	℄ DRILLED SHAFT @ PIER
36	751179.624	975863.012	12+36.379	21.118'	℄ DRILLED SHAFT @ ABUT. 2
37	751166.245	975869.794	12+36.379	6.133'	℄ DRILLED SHAFT @ ABUT. 2
38	751152.866	975876.577	12+36.379	8.875'	℄ DRILLED SHAFT @ ABUT. 2
39	751139.487	975883.359	12+36.379	23.867"	℄ DRILLED SHAFT @ ABUT. 2

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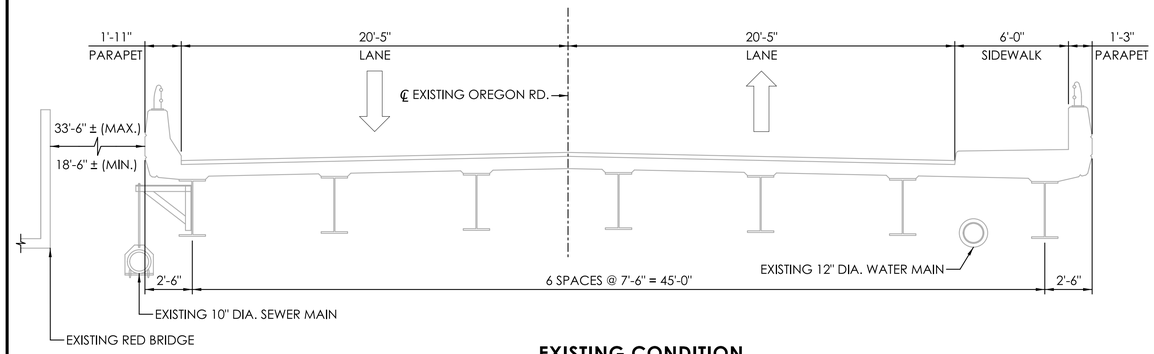
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PROJECT NO.: **L079-0004**

DRAWING NO.: **S-03**

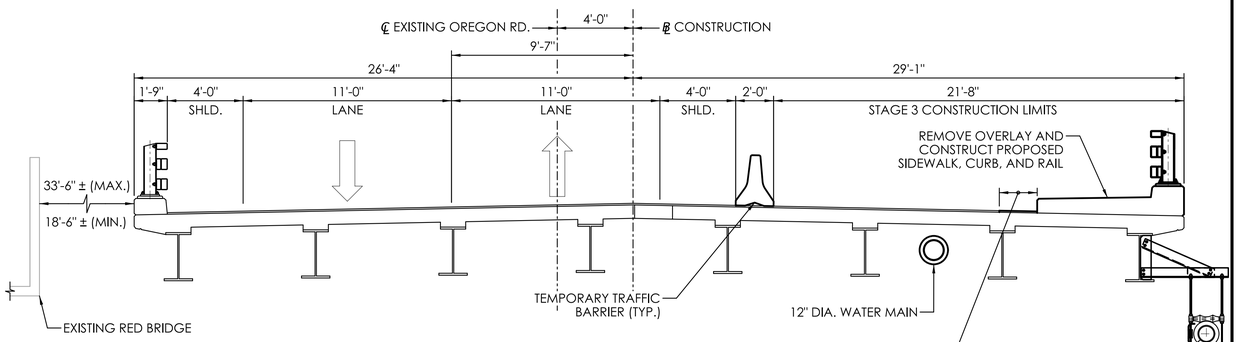
SHEET NO.: 03.03

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PLOTTED DATE: 5/12/2026



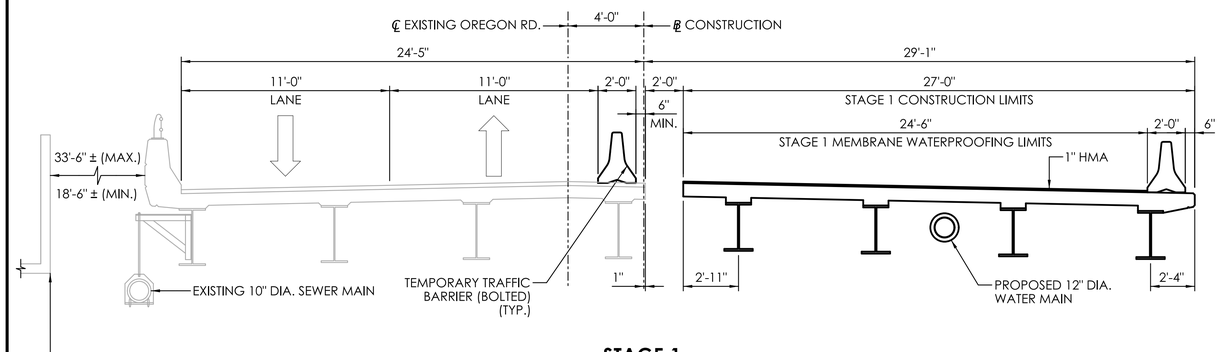
EXISTING CONDITION

SCALE: 3" = 1'-0"



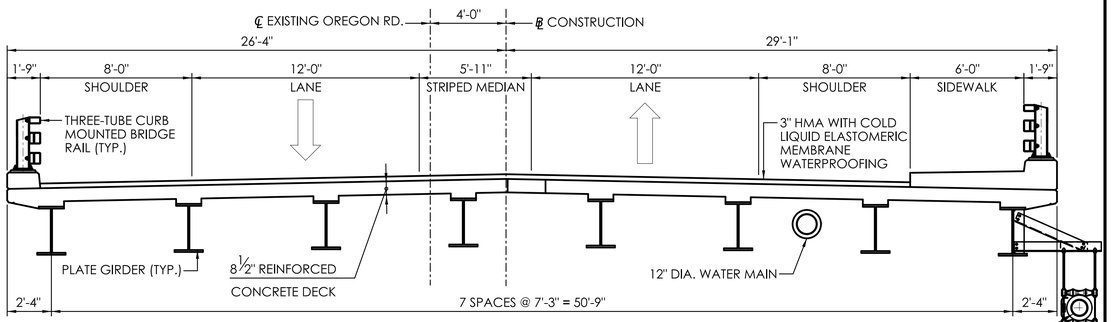
STAGE 3

SCALE: 3" = 1'-0"



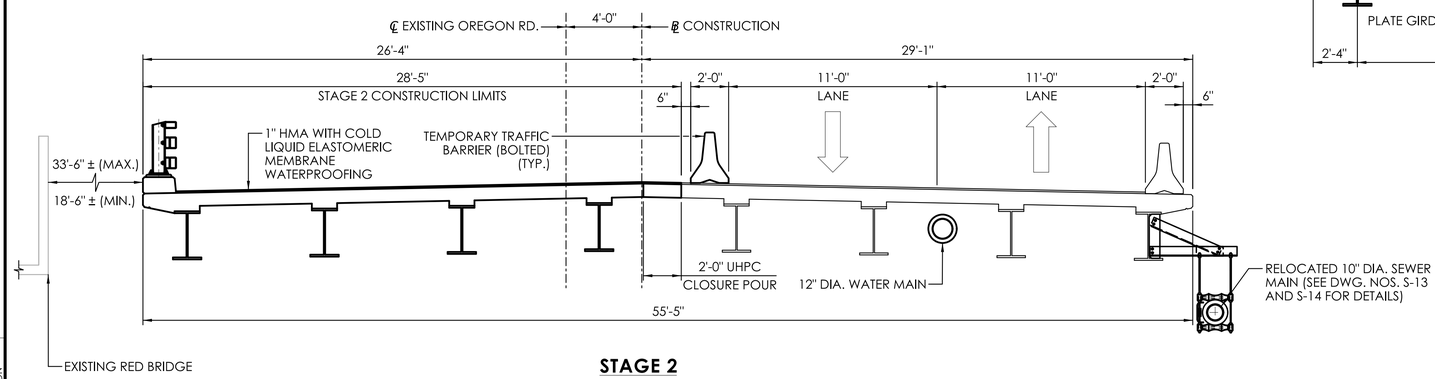
STAGE 1

SCALE: 3" = 1'-0"



FINAL CONDITION

SCALE: 3" = 1'-0"



STAGE 2

SCALE: 3" = 1'-0"

REV.	DATE	REVISION DESCRIPTION

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GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

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TOWN(S):
CITY OF MERIDEN

DRAWING TITLE:
STAGE CONSTRUCTION

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-04**

SHEET NO.: 03.04

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_STG_CON.dgn
PLOTTED DATE: 5/12/2026

Driller:	T. Tetreault	**Connecticut DOT Boring Report**		Hole No.:	B-1
Inspector:	J. Jurnack	Town:	Meriden, Connecticut	Stat./Offset:	10+57/18 L
Engineer:	L. Dwyer	Project No.:	41097	Northing:	751101.004
Start Date:	4-2-25	Route No.:	Rt. 70	Easting:	975704.952
Finish Date:	4-3-25	Bridge No.:	04184	Surface Elevation:	96
Project Description:	Replacement of Bridge 04184 - Oregon Rd. over Quinnipiac River				
Casing Size/Type:	4"/HW, 3"/NW	Sampler Type/Size:	2" O.D.	Core Barrel Type:	NQ
Hammer Wt.:	300lb Fall: 30in.	Hammer Wt.:	140lb Fall: 30in.		
Groundwater Observations:	@7 ft. on 4/2/2025				

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						PAVEMENT STRUCTURE	Asphalt Concrete (approximately 11 inches)	96
						MISC. FILL	Aggregate Base Course (approximately 3 inches)	
	S-1	8 20 18 6	24	14			Dense, brown-gray to red-brown, c-f SAND, some m-f gravel, little silt; PID: 1.3 ppm	
	S-2	3 2 3 4	24	14			Loose, red-brown, c-f SAND, little c-f gravel, trace silt; PID: 0.0 ppm	
5	S-3	4 4 4 4	24	12			Loose, red-brown, c-f SAND, little c-f gravel, little silt; dark brown f SAND at bottom of sample; PID: 0.0 ppm	90
	S-4	4 3 3 4	24	16			Loose, dark brown to red-brown, c-f SAND, some c-f gravel, some silt; PID: 0.0 ppm	
10	S-5	2 1 1 1	24	5			Very loose, dark red-brown, c-f SAND, some silt, little m-f gravel	85
						GRAVELLY SAND	Drill action indicates soil transition at about 13 ft.	
15	S-6	50	4	2			Red-brown, cobble fragments Cobbles encountered from 16.5 to 18.5 ft.	80
20	S-7	13 11 22 8	24	6			Dense, red-brown, c-f SAND, some c-m gravel, trace silt Cobbles encountered from 22.5 to 23 ft.	75
25	S-8	5 7 6 5	24	12			Medium dense, red-brown, c-f SAND over brown-gray, c-f SAND, little f gravel, trace silt	70
30								

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%

Total Penetration in Earth: 40ft Rock: 13ft	NOTES: Environmental soil sample collected from 1 to 7 ft.	Sheet 1 of 2
No. of Soil Samples: 10 No. of Core Runs: 2		SM-001-M REV. 1/02

Driller:	T. Tetreault	**Connecticut DOT Boring Report**		Hole No.:	B-1
Inspector:	J. Jurnack	Town:	Meriden, Connecticut	Stat./Offset:	10+57/18 L
Engineer:	L. Dwyer	Project No.:	41097	Northing:	751101.004
Start Date:	4-2-25	Route No.:	Rt. 70	Easting:	975704.952
Finish Date:	4-3-25	Bridge No.:	04184	Surface Elevation:	96
Project Description:	Replacement of Bridge 04184 - Oregon Rd. over Quinnipiac River				
Casing Size/Type:	4"/HW, 3"/NW	Sampler Type/Size:	2" O.D.	Core Barrel Type:	NQ
Hammer Wt.:	300lb Fall: 30in.	Hammer Wt.:	140lb Fall: 30in.		
Groundwater Observations:	@7 ft. on 4/2/2025				

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
30	S-9	5 8 8 8	24	12		GRAVELLY SAND *(cont'd)*	Medium dense, brown-gray, c-f SAND; micaceous	65
35	S-10	6 9 11 10	24	14			Medium dense, brown-gray, c-f SAND; micaceous	60
						WEATHERED BEDROCK	Drill action indicates weathered bedrock encountered from 38.5 and 40 ft.	
40						BEDROCK	Top of sound bedrock encountered at 40 ft.	55
							Begin rock core at 43 ft.	
45	C-1		60	60	73		Red-brown, c-f grained ARKOSE, massive bedding, intensely to slightly fractured, slightly to freshly weathered, strong; contains some soil at joints, contains quartz veins, loss of water from 46 to 47 ft.; Drill Rate: 3,2,3,3,4 min/ft	50
50	C-2		60	55	85		Pinkish gray, c-m grained CONGLOMERATE, massive bedding, intensely to highly fractured, fresh weathering, strong; Drill Rate: 3,2,3,2,2 min/ft Red-brown, c-f grained ARKOSE, massive bedding, intensely to moderately fractured, slightly to freshly weathered, strong; contains some soil at joints, contains quartz veins, micaceous	45
55							END OF BORING 53ft	40
60								

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%

Total Penetration in Earth: 40ft Rock: 13ft	NOTES: Environmental soil sample collected from 1 to 7 ft.	Sheet 2 of 2
No. of Soil Samples: 10 No. of Core Runs: 2		SM-001-M REV. 1/02

Driller:	T. Tetreault	**Connecticut DOT Boring Report**		Hole No.:	B-2
Inspector:	J. Jurnack	Town:	Meriden, Connecticut	Stat./Offset:	10+57/15 R
Engineer:	L. Dwyer	Project No.:	41097	Northing:	751073.609
Start Date:	4-8-25	Route No.:	Rt. 70	Easting:	975720.582
Finish Date:	4-8-25	Bridge No.:	04184	Surface Elevation:	96
Project Description:	Replacement of Bridge 04184 - Oregon Rd. over Quinnipiac River				
Casing Size/Type:	4"/HW, 3"/NW	Sampler Type/Size:	2" O.D.	Core Barrel Type:	NQ
Hammer Wt.:	300lb Fall: 30in.	Hammer Wt.:	140lb Fall: 30in.		
Groundwater Observations:	@9 ft. on 4/8/2025				

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						PAVEMENT STRUCTURE	Asphalt Concrete (approximately 7 inches)	96
						MISC. FILL	Aggregate Base Course (approximately 2 inches) Loose, dark brown to red-brown, c-f SAND, some m-f gravel, little silt; PID: 0.0 ppm	
	S-1	3 3 4 3	24	12			Medium dense, red-brown, c-f SAND, c-f gravel, little silt; PID: 0.0 ppm	
	S-2	5 5 6 5	24	12				
5	S-3	5 5 2 3	24	16			Loose, dark brown, c-f SAND, some silt, little c-f gravel; contains silt pocket; PID: 0.0 ppm	90
	S-4	3 3 4 3	24	16			Loose, dark brown, c-f SAND, some silt, little c-f gravel; contains orange-brown silt lens; PID: 0.0 ppm Cobbles encountered from 5 to 10 ft.	
10	S-5	4 3 2 2	24	12		SAND	Loose, dark brown, c-f SAND, little m-f gravel, little silt; contains roots and organic odor	85
						GRAVELLY SAND		
15	S-6	11 16 18 20	24	14			Dense, red-brown, c-f SAND and m-f GRAVEL, little silt; f gravel lens observed at bottom of sample Cobbles and boulders encountered from 16 to 20 ft.	80
20	S-7	28 27 18 38	24	8			Dense, dark brown to red-brown, m-f GRAVEL, some c-f sand, little silt Cobbles encountered from 21.5 to 23 ft. Cobbles and boulders encountered from 23 to 25 ft.	75
25	S-8	9 6 12 12	24	0			Medium dense, no recovery Drill action indicates less resistance at 27 ft.	70
30								

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%

Total Penetration in Earth: 38ft Rock: 12ft	NOTES:	Sheet 1 of 2
No. of Soil Samples: 10 No. of Core Runs: 2		SM-001-M REV. 1/02

Driller:	T. Tetreault	**Connecticut DOT Boring Report**		Hole No.:	B-2
Inspector:	J. Jurnack	Town:	Meriden, Connecticut	Stat./Offset:	10+57/15 R
Engineer:	L. Dwyer	Project No.:	41097	Northing:	751073.609
Start Date:	4-8-25	Route No.:	Rt. 70	Easting:	975720.582
Finish Date:	4-8-25	Bridge No.:	04184	Surface Elevation:	96
Project Description:	Replacement of Bridge 04184 - Oregon Rd. over Quinnipiac River				
Casing Size/Type:	4"/HW, 3"/NW	Sampler Type/Size:	2" O.D.	Core Barrel Type:	NQ
Hammer Wt.:	300lb Fall: 30in.	Hammer Wt.:	140lb Fall: 30in.		
Groundwater Observations:	@9 ft. on 4/8/2025				

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
30	S-9	7 6 6 7	24	0		GRAVELLY SAND *(cont'd)*	Medium dense, no recovery	65
35	S-10	50	1	1		WEATHERED BEDROCK	Very dense, red-brown, c-f SAND, some silt, little m-f gravel Cobbles encountered from 35 to 35.5 ft. Drill action indicates weathered bedrock encountered from 36 to 38 ft.	60
40						BEDROCK	Top of sound bedrock encountered at 38 ft. Begin rock core at 40 ft.	55
	C-1		60	60	83		Gray, c-f grained CONGLOMERATE, massive bedding, intensely to moderately fractured, fresh to slightly weathered, strong, soil at joints, micaceous, contains quartz, potassium feldspar, and hornblende. Drill Rate: 3,2,2,2,2 min/ft	50
45	C-2		60	59	87		Gray, c-f grained CONGLOMERATE, massive bedding, intensely to moderately fractured, fresh to slightly weathered, strong, loss of water from 47 to 48 ft., micaceous, contains quartz, potassium feldspar, and hornblende. Drill Rate: 2,1,2,1,3 min/ft Red-brown, m-f grained ARKOSE, medium bedded, highly fractured, fresh to slightly weathered, strong, minor soil at joints	45
50							END OF BORING 50ft	40
55								
60								

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%

Total Penetration in Earth: 38ft Rock: 12ft	NOTES:	Sheet 2 of 2
No. of Soil Samples: 10 No. of Core Runs: 2		SM-001-M REV. 1/02

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

PROJECT TITLE:
REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER

TOWN(S):
CITY OF MERIDEN

DRAWING TITLE:
BORING LOGS - 1

PROJECT NO.:
L079-0004

DRAWING NO.:
S-05
SHEET NO.: 03.05

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_BOR-1.dgn
PLOTTED DATE: 5/12/2026

Driller: T. Tetreault/P. Michaud	**Connecticut DOT Boring Report**		Hole No.: B-3
Inspector: J. Jurnack	Town: Meriden, Connecticut		Stat./Offset: 11+44/21 L
Engineer: L. Dwyer	Project No.: 41097		Northing: 751143.232
Start Date: 4-11-25	Route No.: Rt. 70		Easting: 975779.233
Finish Date: 5-13-25	Bridge No.: 04184		Surface Elevation: 98
Project Description: Replacement of Bridge 04184 - Oregon Rd. over Quinnipiac River			
Casing Size/Type: 4"/HW, 3"/NW	Sampler Type/Size: 2" O.D.		Core Barrel Type: NQ
Hammer Wt.: 300lb Fall: 30in.	Hammer Wt.: 140lb Fall: 30in.		
Groundwater Observations: @11.9 ft. on 4/11/2025, @12 ft on 5/13/2025			

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						PAVEMENT STRUCTURE	Asphalt Concrete (approximately 2.5 inches) Concrete (approximately 8.5 inches)	95
5							Gap between bottom of bridge deck and water.	90
10								85
15						GRAVELLY SAND	Mudline located about 17 ft. below bridge deck. Begin sampling at 20 ft.	80
20	S-1	12 8 10 3	24	4			Medium dense, dark brown with black and red-brown, c-f SAND, some c-f gravel, little silt	
	S-2	4 6 5 3	24	18			Medium dense, dark brown c-f SAND, little m-f gravel, trace silt, black sand lens with organic-like odor at bottom of spoon Cobbles encountered from 24 to 25 ft.	75
25	S-3	7 3 5 4	24	10			Loose, orange-brown, c-f SAND	70
30								

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%

Total Penetration in Earth: 18ft Rock: 18ft	NOTES: Boring offset about 6 ft. west of bridge joint.	Sheet 1 of 2
No. of Soil Samples: 5 No. of Core Runs: 3		SM-001-M REV. 1/02

Driller: T. Tetreault/P. Michaud	**Connecticut DOT Boring Report**		Hole No.: B-3
Inspector: J. Jurnack	Town: Meriden, Connecticut		Stat./Offset: 11+44/21 L
Engineer: L. Dwyer	Project No.: 41097		Northing: 751143.232
Start Date: 4-11-25	Route No.: Rt. 70		Easting: 975779.233
Finish Date: 5-13-25	Bridge No.: 04184		Surface Elevation: 98
Project Description: Replacement of Bridge 04184 - Oregon Rd. over Quinnipiac River			
Casing Size/Type: 4"/HW, 3"/NW	Sampler Type/Size: 2" O.D.		Core Barrel Type: NQ
Hammer Wt.: 300lb Fall: 30in.	Hammer Wt.: 140lb Fall: 30in.		
Groundwater Observations: @11.9 ft. on 4/11/2025, @12 ft on 5/13/2025			

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
30	S-4	3 3 4 4	24	12		GRAVELLY SAND *(cont'd)*	Loose, red-brown, c-f SAND Drill action indicates weathered bedrock encountered from 33 to 35 ft.	65
35	S-5	50	1	1		BEDROCK	Red-brown, probable bedrock fragments Top of sound bedrock encountered at 35 ft. Begin rock core at 38 ft.	60
40	C-1		60	55	85		Red-brown, c-f grained ARKOSE, massive bedded, intensely to moderately fractured, fresh to slightly weathered, strong, minor soil at joints from 38 to 39 ft., contains a quartz vein, no water return from 42 to 43 ft. Drill rate: 2,2,2,2,3 min/ft	55
45	C-2		60	60	79		Red-brown, c-f grained ARKOSE, massive bedded, intensely to moderately fractured, fresh to slightly weathered, strong, contains a quartz vein, no water return from 44 to 48 ft. Drill rate: 2,2,2,2,3 min/ft	50
50	C-3		60	55	87		Red-brown, c-f grained ARKOSE, massive bedded, intensely to moderately fractured, fresh to slightly weathered, strong, contains quartz veins, no water return for full core run. Drill rate: 2,2,2,2,3 min/ft	45
55							END OF BORING 53ft	40
60								

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%

Total Penetration in Earth: 18ft Rock: 18ft	NOTES: Boring offset about 6 ft. west of bridge joint.	Sheet 2 of 2
No. of Soil Samples: 5 No. of Core Runs: 3		SM-001-M REV. 1/02

Driller: T. Tetreault	**Connecticut DOT Boring Report**		Hole No.: B-4
Inspector: J. Jurnack	Town: Meriden, Connecticut		Stat./Offset: 11+43/17 R
Engineer: L. Dwyer	Project No.: 41097		Northing: 751113.447
Start Date: 4-10-25	Route No.: Rt. 70		Easting: 975794.701
Finish Date: 4-10-25	Bridge No.: 04184		Surface Elevation: 98
Project Description: Replacement of Bridge 04184 - Oregon Rd. over Quinnipiac River			
Casing Size/Type: 4"/HW, 3"/NW	Sampler Type/Size: 2" O.D.		Core Barrel Type: NQ
Hammer Wt.: 300lb Fall: 30in.	Hammer Wt.: 140lb Fall: 30in.		
Groundwater Observations: @12 ft. on 4/10/2025			

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						PAVEMENT STRUCTURE	Asphalt Concrete (approximately 3 inches) Concrete (approximately 8 inches)	95
5							Gap between bottom of bridge deck and water.	90
10								85
15						GRAVELLY SAND	Mudline located about 17 ft. below bridge deck. Begin sampling at 20 ft.	80
20	S-1	12 12 12 19	24	5			Medium dense, dark red-brown, c-f GRAVEL, little c-f sand, trace silt Cobbles and boulders encountered from 20 to 25 ft.	75
25	S-2	5 4 3 3	24	12			Loose, orange-brown, c-f SAND, trace silt, trace f gravel	70
30								

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%

Total Penetration in Earth: 22ft Rock: 16ft	NOTES: Boring offset about 7 ft. west of bridge joint.	Sheet 1 of 2
No. of Soil Samples: 4 No. of Core Runs: 3		SM-001-M REV. 1/02

Driller: T. Tetreault	**Connecticut DOT Boring Report**		Hole No.: B-4
Inspector: J. Jurnack	Town: Meriden, Connecticut		Stat./Offset: 11+43/17 R
Engineer: L. Dwyer	Project No.: 41097		Northing: 751113.447
Start Date: 4-10-25	Route No.: Rt. 70		Easting: 975794.701
Finish Date: 4-10-25	Bridge No.: 04184		Surface Elevation: 98
Project Description: Replacement of Bridge 04184 - Oregon Rd. over Quinnipiac River			
Casing Size/Type: 4"/HW, 3"/NW	Sampler Type/Size: 2" O.D.		Core Barrel Type: NQ
Hammer Wt.: 300lb Fall: 30in.	Hammer Wt.: 140lb Fall: 30in.		
Groundwater Observations: @12 ft. on 4/10/2025			

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
30	S-3	9 6 4 5	24	12		GRAVELLY SAND *(cont'd)*	Medium dense, red-brown, c-f SAND, some f gravel, trace silt over brown, c-f SAND	65
35	S-4	2 1 1 2	24	8		WEATHERED BEDROCK	Very loose, brown, c-f SAND, trace f gravel Drill action indicates weathered bedrock encountered from 37 to 39 ft.	60
40	C-1		60	52	90	BEDROCK	Top of sound bedrock encountered at 39 ft. Begin rock core at 40 ft. Red-brown, c-f grained ARKOSE, massive bedding, intensely to moderately fractured, freshly weathered, strong; loss of water from 40 to 41 ft., contains quartz veins; Drill Rate: 3,2,2,2,2 min/ft	55
45	C-2		60	60	94		Red-brown, c-f grained ARKOSE, massive bedding, intensely to moderately fractured, freshly weathered, strong; loss of water from 48 to 50 ft., contains quartz veins; Drill Rate: 1,2,2,2,2 min/ft	50
50	C-3		60	60	96		Red-brown, c-f grained ARKOSE, massive bedding, intensely to moderately fractured, freshly weathered, strong, contains quartz veins; Drill Rate: 1,2,2,2,3 min/ft	45
55							END OF BORING 55ft	40
60								

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%

Total Penetration in Earth: 22ft Rock: 16ft	NOTES: Boring offset about 7 ft. west of bridge joint.	Sheet 2 of 2
No. of Soil Samples: 4 No. of Core Runs: 3		SM-001-M REV. 1/02

REVISION DESCRIPTION | DATE | REV.

SIGNATURE BLOCK:
GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

PROJECT TITLE:
REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER

TOWN(S):
CITY OF MERIDEN

DRAWING TITLE:
BORING LOGS - 2

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-06**

SHEET NO.: 03.06

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_BOR-2.dgn
PLOTTED DATE: 5/12/2026

Driller:	T. Tetreault	**Connecticut DOT Boring Report**		Hole No.:	B-5
Inspector:	J. Jurnack	Town:	Meriden, Connecticut	Stat./Offset:	12+42/9 L
Engineer:	L. Dwyer	Project No.:	41097	Northing:	751180.197
Start Date:	4-3-25	Route No.:	Rt. 70	Easting:	975869.719
Finish Date:	4-4-25	Bridge No.:	04184	Surface Elevation:	97
Project Description:	Replacement of Bridge 04184 - Oregon Rd. over Quinnipiac River				
Casing Size/Type:	4"/HW, 3"/NW	Sampler Type/Size:	2" O.D.	Core Barrel Type:	NQ
Hammer Wt.:	300lb Fall: 30in.	Hammer Wt.:	140lb Fall: 30in.		
Groundwater Observations:	@10 ft. on 4/3/2025				

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						PAVEMENT STRUCTURE	Asphalt Concrete (approximately 11 inches)	95
						MISC. FILL	Aggregate Base Course (approximately 4 inches)	
	S-1	6 7 6 5	24	12			Medium dense, red-brown, c-f SAND, some silt, little m-f gravel; contains asphalt fragments; PID: 0.0 ppm	
5	S-2	5 10 8 12	24	4			Medium dense, dark brown to red-brown, c-f SAND, some c-f gravel, some silt; PID: 0.0 ppm	
	S-3	3 10 8 7	24	12			Medium dense, red-brown, c-f SAND, some c-f gravel, little silt; contains pocket of gray f-c SAND, some c gravel, little silt; PID: 1.2 ppm	90
	S-4	4 5 3 3	24	14			Loose, red-brown, c-f SAND, some silt, little c-m gravel; contains orange coloring; PID: 0.0 ppm	
10						SILTY SAND		
	S-5	2 1 3 3	24	16			Loose, red-brown, c-f SAND, some m-f gravel, some silt; contains fractured rock fragments	85
15	S-6	9 50	10	0			Very dense, no recovery Boulder encountered from 15 to 18 ft.	80
20	S-7	24 50	12	14		WEATHERED BEDROCK	Very dense, red-brown, completely weathered BEDROCK, trace bedding; micaceous and contains gray f sand lenses	75
						BEDROCK		
25	C-1		60	60	88		Sound bedrock encountered at about 22.5 ft.. Begin rock core at 25 ft. Red-brown, m-f grained ARKOSE, thickly to massive bedding, highly to moderately fractured, freshly weathered, strong; contains quartz veins; Drill Rate: 3,3,2,3,2 min/ft Pinkish gray, c-f grained CONGLOMERATE,	70
30								

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%

Total Penetration in Earth: 22.5ft Rock: 12.5ft No. of Soil Samples: 7 No. of Core Runs: 2	NOTES: Environmental soil sample collected from 1 to 9 ft.	Sheet 1 of 2 SM-001-M REV. 1/02

Driller:	T. Tetreault	**Connecticut DOT Boring Report**		Hole No.:	B-5
Inspector:	J. Jurnack	Town:	Meriden, Connecticut	Stat./Offset:	12+42/9 L
Engineer:	L. Dwyer	Project No.:	41097	Northing:	751180.197
Start Date:	4-3-25	Route No.:	Rt. 70	Easting:	975869.719
Finish Date:	4-4-25	Bridge No.:	04184	Surface Elevation:	97
Project Description:	Replacement of Bridge 04184 - Oregon Rd. over Quinnipiac River				
Casing Size/Type:	4"/HW, 3"/NW	Sampler Type/Size:	2" O.D.	Core Barrel Type:	NQ
Hammer Wt.:	300lb Fall: 30in.	Hammer Wt.:	140lb Fall: 30in.		
Groundwater Observations:	@10 ft. on 4/3/2025				

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
30	C-2		60	58.5	91	BEDROCK *(con't)*	massive bedding, intensely to highly fractured, freshly weathered, strong; Drill Rate: 2,2,3,3,2 min/ft Red-brown, m-f grained ARKOSE, thickly to massive bedding, intensely to moderately fractured, freshly weathered, strong; water loss from 32 to 33 ft.	65
35							END OF BORING 35ft	60
40								55
45								50
50								45
55								40
60								

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%

Total Penetration in Earth: 22.5ft Rock: 12.5ft No. of Soil Samples: 7 No. of Core Runs: 2	NOTES: Environmental soil sample collected from 1 to 9 ft.	Sheet 2 of 2 SM-001-M REV. 1/02

Driller:	T. Tetreault	**Connecticut DOT Boring Report**		Hole No.:	B-6
Inspector:	J. Jurnack	Town:	Meriden, Connecticut	Stat./Offset:	12+42/18 R
Engineer:	L. Dwyer	Project No.:	41097	Northing:	751156.645
Start Date:	4-7-25	Route No.:	Rt. 70	Easting:	975882.647
Finish Date:	4-7-25	Bridge No.:	04184	Surface Elevation:	97
Project Description:	Replacement of Bridge 04184 - Oregon Rd. over Quinnipiac River				
Casing Size/Type:	4"/HW, 3"/NW	Sampler Type/Size:	2" O.D.	Core Barrel Type:	NQ
Hammer Wt.:	300lb Fall: 30in.	Hammer Wt.:	140lb Fall: 30in.		
Groundwater Observations:	@10 ft. on 4/7/2025				

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						PAVEMENT STRUCTURE	Asphalt Concrete (approximately 8 inches)	95
						MISC. FILL	Aggregate Base Course (approximately 2 inches)	
	S-1	3 5 6 6	24	18			Medium dense, red-brown, c-f SAND, some silt, little c-f gravel; contains pink foam piece and brick fragments; PID: 0.0 ppm	
5	S-2	57 15 8 6	24	8			Medium dense, dark red-brown, c-f SAND, some silt, trace m-f gravel; PID: 0.0 ppm	
	S-3	5 4 5 7	24	4			Very dense, gray, c-m GRAVEL, little c-f sand; PID: 0.0 ppm Cobbles and boulders encountered from 2 to 5 ft.	90
	S-4	3 1 2 3	24	16			Loose, dark red-brown, c-f SAND, some silt, trace c gravel; PID: 0.4 ppm	
10						SILTY SAND		
	S-5	2 3 2 3	24	5			Loose, red-brown, c-f SAND, some c-f gravel, some silt; PID: 0.2 ppm Loose, red-brown, c-f SAND and SILT, trace m-f gravel; contains roots; PID: 1.2 ppm Cobbles encountered from 5 to 10 ft.	85
15	S-6	9 20 11 12	24	8			Loose, red-brown, c-f SAND and SILT, some m-f gravel; contains roots, organic odor, and pocket of red-brown SILT, trace f sand; contains black lens Cobbles and boulders encountered from 10 to 15 ft.	80
						GRAVELLY SAND	Dense, red-brown, c-f SAND, some c-m gravel, little silt Boulders encountered from 15 to 20 ft.	
20	S-7	17 15 15 23	24	12			Dense, red-brown, m-f GRAVEL and c-f SAND, trace silt Boulders encountered from 23 to 25 ft.	75
25	S-8	32 48 34 40	24	12			Very dense, red-brown, c-f GRAVEL, some c-f sand, some silt; contains rock fragments	70
30								

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%

Total Penetration in Earth: 39ft Rock: 11ft No. of Soil Samples: 11 No. of Core Runs: 2	NOTES:	Sheet 1 of 2 SM-001-M REV. 1/02

Driller:	T. Tetreault	**Connecticut DOT Boring Report**		Hole No.:	B-6
Inspector:	J. Jurnack	Town:	Meriden, Connecticut	Stat./Offset:	12+42/18 R
Engineer:	L. Dwyer	Project No.:	41097	Northing:	751156.645
Start Date:	4-7-25	Route No.:	Rt. 70	Easting:	975882.647
Finish Date:	4-7-25	Bridge No.:	04184	Surface Elevation:	97
Project Description:	Replacement of Bridge 04184 - Oregon Rd. over Quinnipiac River				
Casing Size/Type:	4"/HW, 3"/NW	Sampler Type/Size:	2" O.D.	Core Barrel Type:	NQ
Hammer Wt.:	300lb Fall: 30in.	Hammer Wt.:	140lb Fall: 30in.		
Groundwater Observations:	@10 ft. on 4/7/2025				

Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	RQD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
30	S-9	11 13 14 13	24	18		GRAVELLY SAND *(con't)*	Medium dense, brown, c-f SAND, little f gravel, trace silt	65
35	S-10	8 12 13 9	24	14			Medium dense, brown, c-f SAND, little m-f gravel, trace silt	60
40	S-11	50	0	1		BEDROCK	Top of sound bedrock encountered at 39 ft. Begin rock core at 40 ft. Maroon bedrock fragments	55
45	C-1		60	58.5	82		Red-brown, c-f grained ARKOSE, massive bedding, intensely to slightly fractured, slightly to freshly weathered, strong; contains soil at joints and quartz veins; Drill Rate: 3,2,2,2,2 min/ft	50
50	C-2		60	50	93		Red-brown, c-f grained ARKOSE, massive bedding, intensely to slightly fractured, slightly to freshly weathered, strong; contains soil at joints and quartz veins; Drill Rate: 3,2,2,2,3 min/ft	45
55							END OF BORING 50ft	40
60								

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%

Total Penetration in Earth: 39ft Rock: 11ft No. of Soil Samples: 11 No. of Core Runs: 2	NOTES:	Sheet 2 of 2 SM-001-M REV. 1/02

REVISION DESCRIPTION | DATE | REV.

SIGNATURE BLOCK:
GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

PROJECT TITLE:
REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER

TOWN(S):
CITY OF MERIDEN

DRAWING TITLE:
BORING LOGS - 3

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-07**

SHEET NO.: 03.07

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_BOR-3.dgn
PLOTTED DATE: 5/12/2026

DEMOLITION AND ERECTION NOTES:

1. ALL DEMOLITION PLANS SHOWN ON THE DRAWINGS ARE CONCEPTUAL. THE CONTRACTOR IS REQUIRED TO SUBMIT DETAILED WORKING DRAWINGS OUTLINING THEIR DEMOLITION PLAN IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN THE SPECIAL PROVISION "REMOVAL OF SUPERSTRUCTURE (SITE NO. 1)".
2. DURING THE DEMOLITION WORK, THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURES UNTIL ALL DEMOLITION IS COMPLETE.
3. ALL MATERIALS RELATED TO THE DEMOLITION SHALL BECOME PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE ALL MATERIAL FROM THE JOB SITE AND LEGALLY DISPOSE OF THEM. THE METHOD OF DEBRIS REMOVAL, TRANSPORTATION AND DISPOSAL SHALL BE APPROVED BY THE ENGINEER.
4. ALL DEMOLITION WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIAL PROVISIONS "REMOVAL OF SUPERSTRUCTURE (SITE NO. 1)", "PROSECUTION AND PROGRESS", "MAINTENANCE AND PROTECTION OF TRAFFIC" AND THE STANDARD SPECIFICATION "REMOVAL OF EXISTING MASONRY".
5. THE CONTRACTOR SHALL INSTALL DEBRIS SHIELDS AND TAKE PRECAUTIONS TO ENSURE THAT NO DEBRIS WILL FALL IN THE QUINNIPIAC RIVER DURING DEMOLITION.
6. THE SUPERSTRUCTURE AND SUBSTRUCTURE SHALL BE REMOVED BY CUTTING, SPLITTING OR IMPACT HAMMER METHODS. BLASTING WILL NOT BE ALLOWED.
7. FOR SUBSTRUCTURE DEMOLITION DETAILS AND NOTES, SEE SUBSTRUCTURE DEMOLITION DRAWINGS.
8. TRAFFIC CLOSURES ON OREGON ROAD SHALL BE IN ACCORDANCE WITH THE MAINTENANCE AND PROTECTION OF TRAFFIC PLANS AND/OR IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
9. ALL WORK AND COSTS ASSOCIATED WITH THE CONSTRUCTION OF LEVELING PADS FOR CRANE PLACEMENT, CONCRETE BARRIER RELOCATION, MATERIALS AND LABOR INCIDENTAL TO THE CONSTRUCTION IS INCLUDED IN THE COST OF THE RESPECTIVE PAY ITEMS "REMOVAL OF SUPERSTRUCTURE (SITE NO. 1)" AND/OR "STRUCTURAL STEEL (SITE NO. 1)".
10. THE SEQUENCE OF CONSTRUCTION SHOWN ON THIS DRAWING AND ON DWG. NO. S-10, INCLUDING STAGING AREAS FOR CRANES AND MATERIAL, ARE SHOWN TO ILLUSTRATE AND DEMONSTRATE A SUGGESTED SEQUENCE OF ERECTION USED DURING DESIGN. THE CONTRACTOR SHALL DETERMINE THE ACTUAL MEANS AND METHODS OF CONSTRUCTION AND PREPARE AND SUBMIT TO THE ENGINEER FOR REVIEW, WORKING DRAWINGS IN ACCORDANCE WITH SECTION 1.05 OF THE STANDARD SPECIFICATIONS.
11. CRANE SIZE AND DIMENSIONS SHOWN SCHEMATICALLY ARE BASED ON A GROVE GMK5250XL-1 CRANE. PICK RADIUS AND PICK WEIGHTS ARE APPROXIMATE AND INCLUDES THE WEIGHT OF THE PICK AND 10 KIPS ALLOWANCE FOR RIGGING AND ERECTION HARDWARE.
12. CONTRACTOR SHALL PROVIDE TIMBER CRIBBING BELOW CRANE OUTRIGGER PADS AS REQUIRED TO PROTECT EXISTING PAVEMENT ON OREGON ROAD AND ROUTE 70 (RIVER ROAD).

ANTICIPATED MAXIMUM LOADS DURING DEMOLITION:

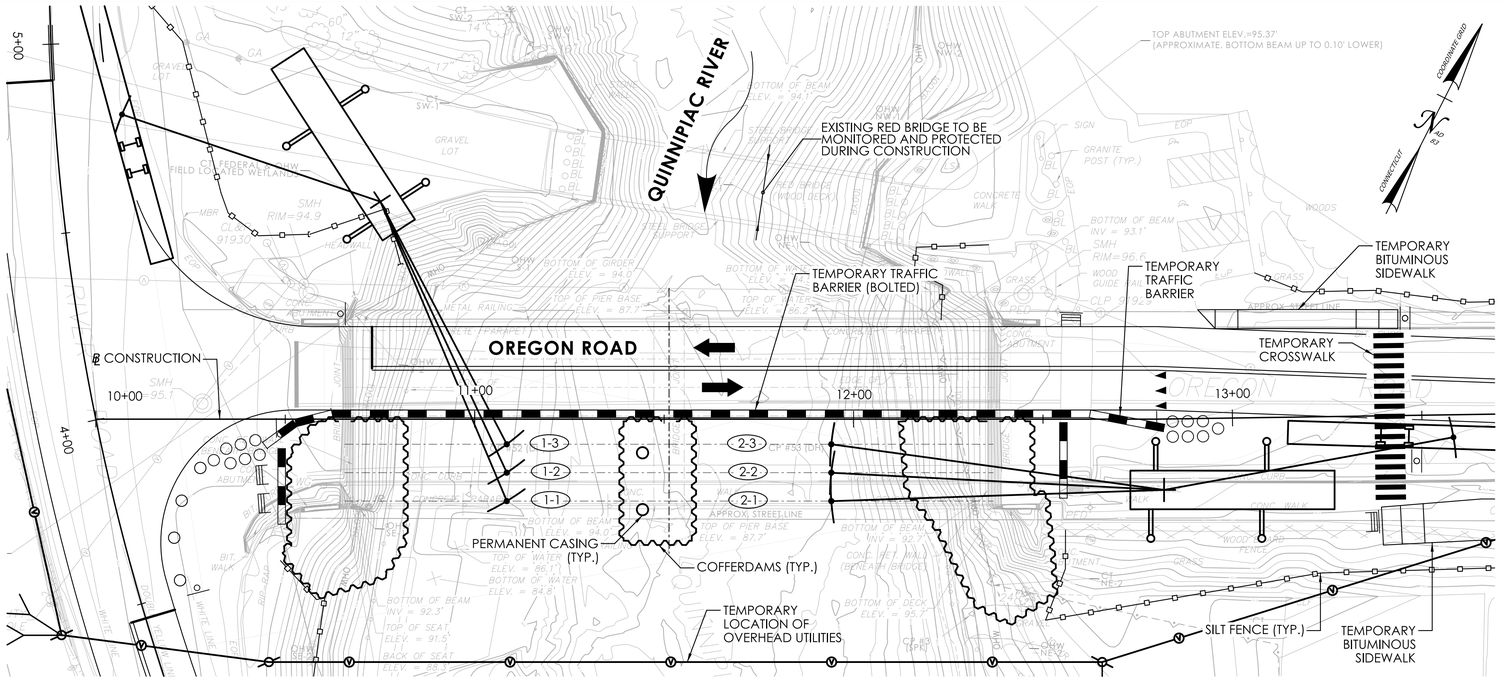
SECTION	WEIGHT (KIP)	RADIUS (FT)
(2-3)	35	89

ANTICIPATED MAXIMUM LOADS DURING ERECTION:

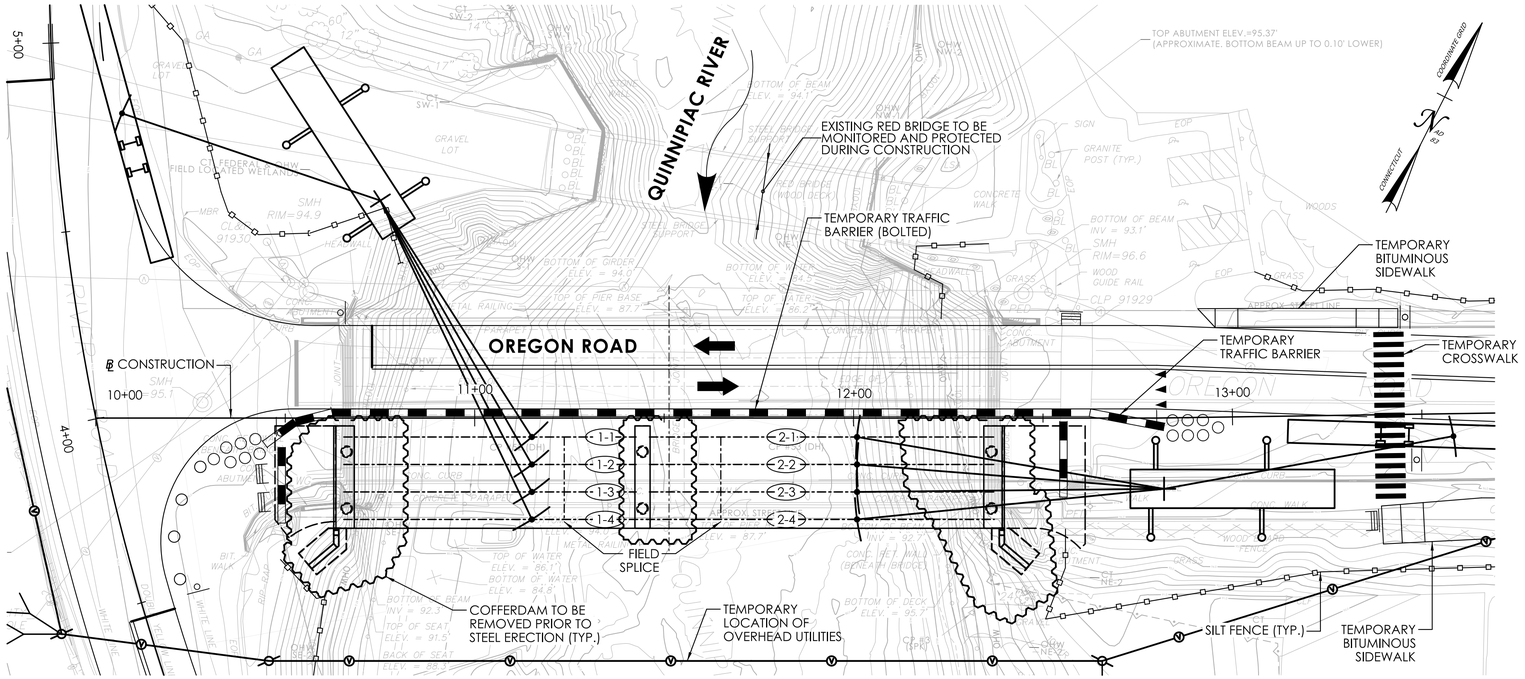
SECTION	WEIGHT (KIP)	RADIUS (FT)
(1-4)	38	94

UTILITY NOTES:

1. OVERHEAD ELECTRIC UTILITIES (EVERSOURCE ELECTRIC) - THESE WILL BE TEMPORARILY RELOCATED (BY OTHERS) ONTO THE RELOCATED UTILITY POLES #91928, #91929, AND #91930 SOUTH AND EAST OF THE BRIDGE PRIOR TO CONSTRUCTION. FOLLOWING BRIDGE CONSTRUCTION, POLES #91929 AND #91930 WILL BE RELOCATED PERMANENTLY CLOSE TO THE BRIDGE AS INDICATED IN DWG. NO. S-02.
2. WATER MAIN -
   A. THE EXISTING WATER MAIN SUPPORTED ON THE BRIDGE WILL BE CUT AND CAPPED ON THE EAST APPROACH BEFORE STAGE 1. THE FINAL WATER MAIN WILL BE INSTALLED AND CONNECTED TO THE EXISTING ON THE EAST APPROACH AT THE END OF STAGE 1. THE CONTRACTOR SHALL COORDINATE WITH THE TOWN AS NEEDED.
   B. THE WATER MAIN ON THE EAST APPROACH OF OREGON ROADWAY WILL BE OPERATIONAL DURING CONSTRUCTION. THE CONTRACTOR SHALL PROTECT THE EXISTING WATER MAIN DURING CONSTRUCTION. TEST PITS SHALL BE PERFORMED BY THE CONTRACTOR AS NEEDED TO LOCATE THE WATER MAIN IN PROXIMITY TO THE COFFERDAMS.
3. SEWER MAIN - REFER TO DWG. NOS. S-13, S-14, AND S-37 FOR RELOCATION OF SEWER MAIN PERMANENTLY. THE CONTRACTOR SHALL COORDINATE WITH THE TOWN AS NEEDED.
4. THE WATER MAIN AND SEWER MAIN INSTALLED IN STAGE 1 SHALL NOT BE MADE OPERATIONAL UNTIL THE STAGE 1 DECK IS COMPLETELY CURED.



STAGE 1 - DEMOLITION



STAGE 1 - ERECTION

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE: 1" = 20'-0"

PROJECT TITLE:
REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER

TOWN(S):
CITY OF MERIDEN

DRAWING TITLE:
DEMOLITION AND ERECTION - STAGE 1

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-08**
SHEET NO.: 03.08

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_STG1_D&E.dgn
PLOTTED DATE: 5/12/2026

NOTES

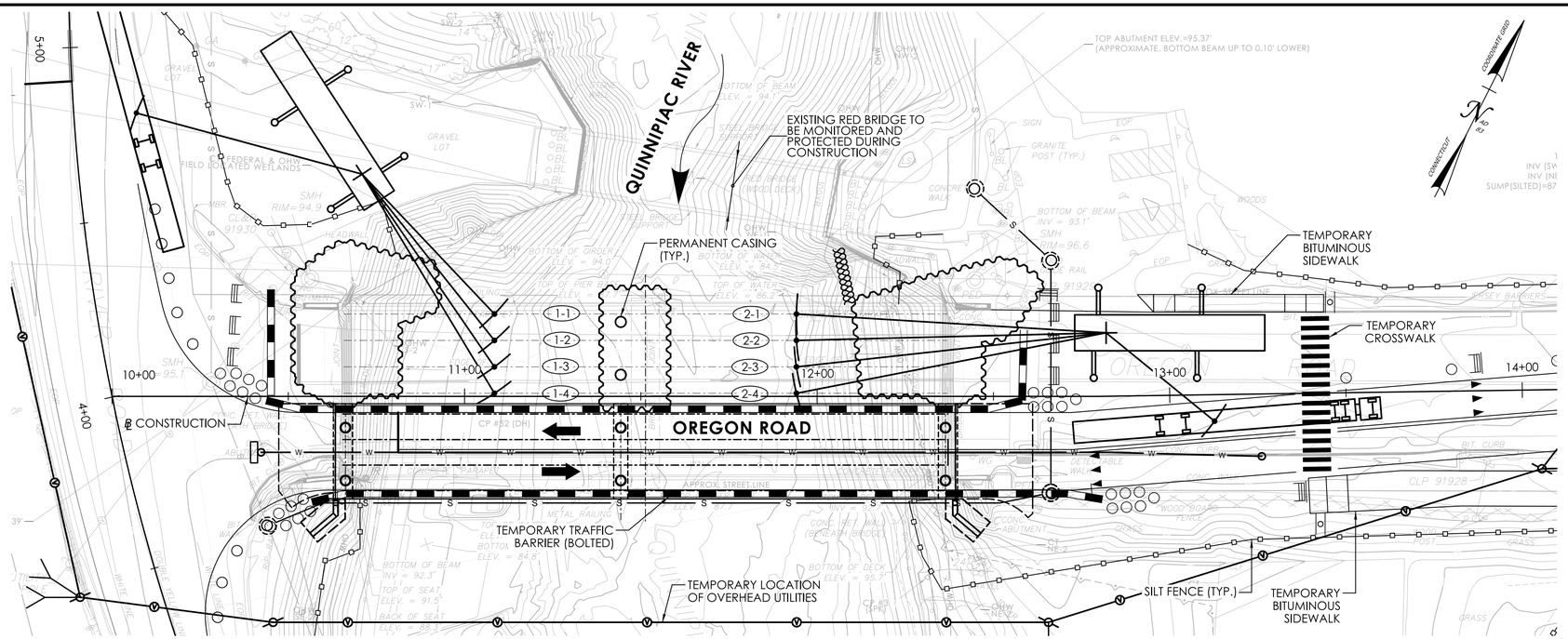
1. FOR DEMOLITION AND ERECTION NOTES, SEE DWG. NO. S-08.
2. THE SEQUENCE OF CONSTRUCTION SHOWN ON THIS DRAWING AND ON DWG. NO. S-10, INCLUDING STAGING AREAS FOR CRANES AND MATERIAL, ARE SHOWN TO ILLUSTRATE AND DEMONSTRATE A SUGGESTED SEQUENCE OF ERECTION USED DURING DESIGN. THE CONTRACTOR SHALL DETERMINE THE ACTUAL MEANS AND METHODS OF CONSTRUCTION AND PREPARE AND SUBMIT TO THE ENGINEER FOR REVIEW, WORKING DRAWINGS IN ACCORDANCE WITH SECTION 1.05 OF THE STANDARD SPECIFICATIONS.

ANTICIPATED MAXIMUM LOADS DURING DEMOLITION:

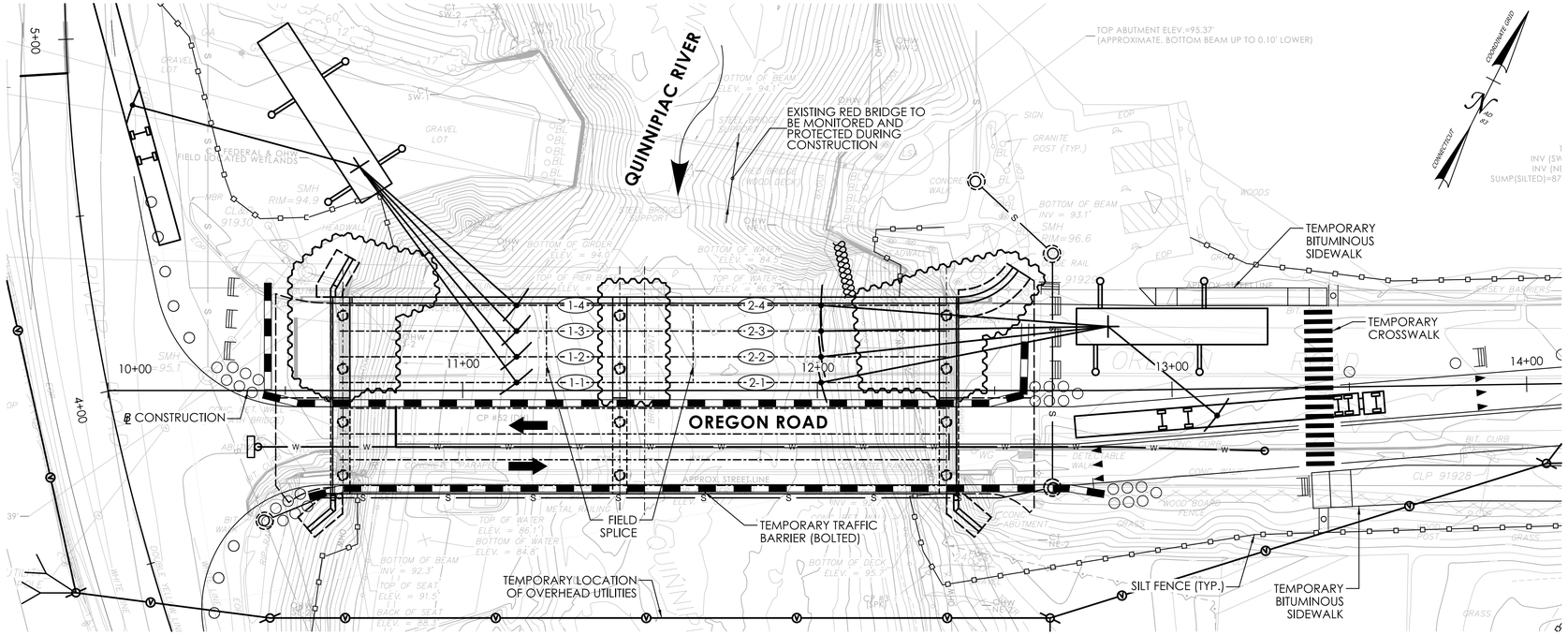
SECTION	WEIGHT (KIP)	RADIUS (FT)
(2-4)	35	90

ANTICIPATED MAXIMUM LOADS DURING ERECTION:

SECTION	WEIGHT (KIP)	RADIUS (FT)
(1-1)	38	76



STAGE 2 - DEMOLITION



STAGE 2 - ERECTION

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE: 1" = 20'-0"

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

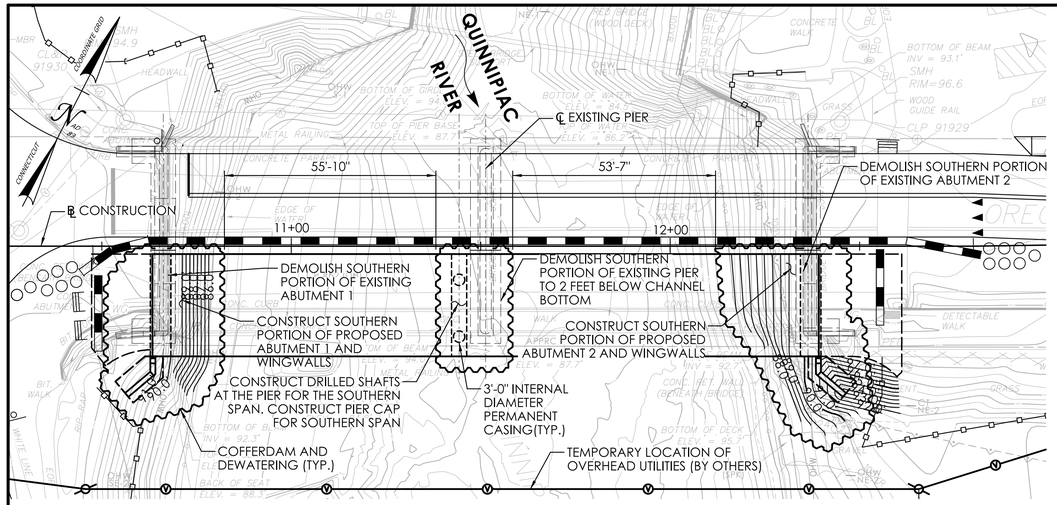
DRAWING TITLE: **DEMOLITION AND ERECTION - STAGE 2**

PROJECT NO.: **L079-0004**

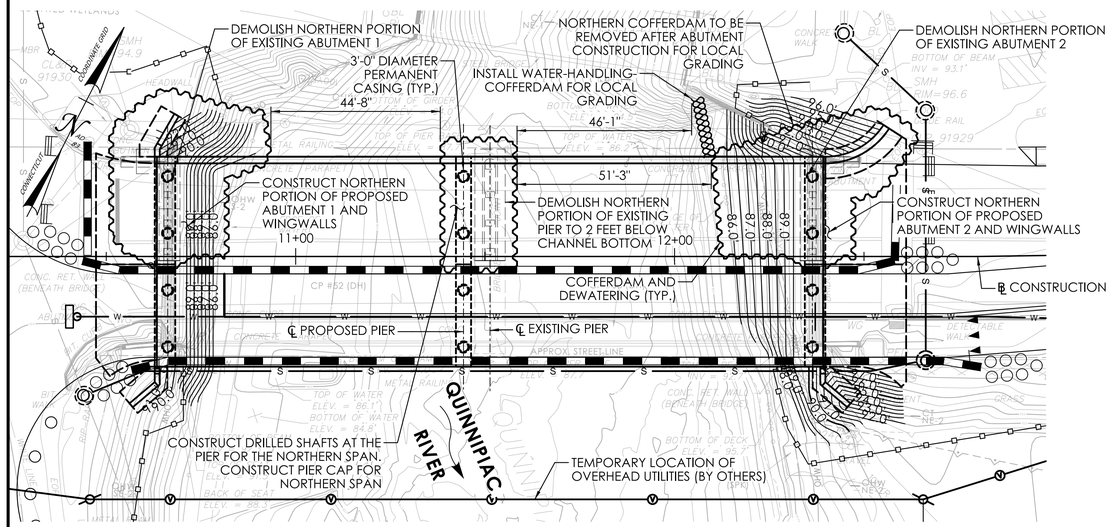
DRAWING NO.: **S-09**

SHEET NO.: 03.09

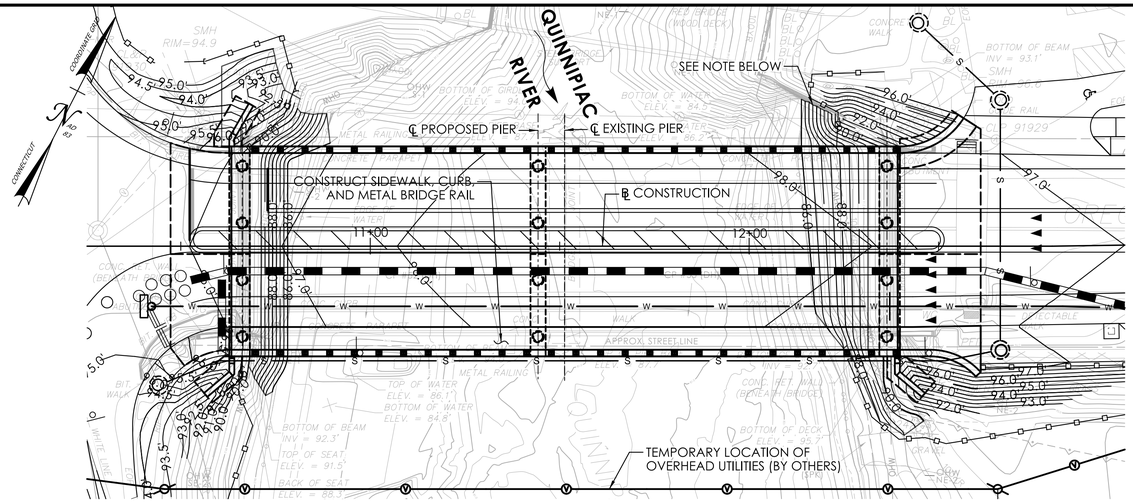
LASTED SAVED BY: PBarbosa **FILE NAME:** M:_41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_STG2_D&E.dgn
PLOTTED DATE: 5/12/2026



STAGE 1
SCALE: 1" = 20'-0"



STAGE 2
SCALE: 1" = 20'-0"



STAGE 3
SCALE: 1" = 20'-0"

NOTE:
THE EXISTING BOTTOM OF WALL ELEVATION FOR THE RED BRIDGE IS UNKNOWN. THE CONTRACTOR SHALL ENSURE THE RED BRIDGE WALL IS STABLE AND NOT UNDERMINED DURING EXCAVATION FOR THE RIPRAP. TEST PITS MAY NEED TO BE PERFORMED BEHIND THE WALL TO IDENTIFY THE BOTTOM OF THE WALL.

WATER HANDLING NOTES

1. THE SUGGESTED METHOD OF CONTROLLING WATER DURING CONSTRUCTION CONSISTS OF TEMPORARY WATER-HANDLING-COFFERDAMS AND "COFFERDAM AND DEWATERING" AS SHOWN ON THIS DRAWING.
2. THIS SUGGESTED WATER HANDLING SCHEME IS FOR THE CONSTRUCTION OF PROPOSED ABUTMENTS, PIER, WINGWALLS, AND THE PROPOSED RIPRAP IN FRONT OF ABUTMENTS. THE INSTALLATION OF TEMPORARY WATER-HANDLING-COFFERDAM TO HANDLE WATER FOR ANY OTHER CONSTRUCTION ACTIVITIES IS NOT PERMITTED.
3. THE ELEVATION OF THE TOP OF COFFERDAM WITHIN THE OHW SHALL BE 89.5' (MIN.). ALL OTHER TOP ELEVATIONS OF COFFERDAM SHALL BE 1FT HIGHER THAN RETAINED EARTH ELEVATION.
4. SUBSTANTIAL DEWATERING EFFORT MAY BE NEEDED DEPENDING ON THE CONTRACTOR'S CHOSEN METHOD FOR PIER REMOVAL.
5. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW THE PROPOSED PLAN FOR WATER HANDLING AND METHODS OF CONSTRUCTION AND REMOVAL OF SUBSTRUCTURE.
6. NO WORK SHALL BEGIN UNTIL ALL APPROVALS HAVE BEEN OBTAINED FROM THE ENGINEER.

TIME-OF-YEAR BMP NOTES:

1. ALL UNCONFINED IN-WATER WORK SHOULD BE RESTRICTED TO THE PERIOD FROM JULY 1 TO SEPTEMBER 30, INCLUSIVE. DURING THIS PERIOD, IT IS ALSO IMPORTANT THAT THE STREAM CHANNEL REMAINS OPEN AND PASSABLE TO FISH.
2. MANY SPECIES OF DIADROMOUS FISH MIGRATE AT NIGHT AND BRIGHT ARTIFICIAL LIGHTS MAY INTERFERE WITH THEIR MIGRATION. DURING THE SPRING MIGRATION PERIOD FROM APRIL 1 TO JUNE 30, ARTIFICIAL LIGHTING FOR CONSTRUCTION RELATED ACTIVITIES SHOULD NOT BE DIRECTED ON TO THE WATER SURFACE.
3. LOUD CONSTRUCTION ACTIVITIES LIKE JACK HAMMERING MAY ALSO INTERFERE WITH FISH MIGRATIONS AND SHOULD BE PROHIBITED FROM SUNSET TO SUNRISE FROM APRIL 1 TO JUNE 30, INCLUSIVE. LOUD CONSTRUCTION NOISES ARE DEFINED AS THOSE EXCEEDING 90 DECIBELS, AS MEASURED ABOVE THE WATER'S SURFACE AT THE POINT CLOSEST TO THE SOURCE OF THE NOISE.
4. FORMAL PARKING AND FISHING ACCESS SHOULD BE MAINTAINED. IF CONSTRUCTION WILL IMPEDE RECREATIONAL ACCESS OR ACCESS FOR STOCKING, PLEASE COORDINATE WITH FISHERIES.

SUGGESTED SEQUENCE OF CONSTRUCTION:

THE FOLLOWING IS A SUGGESTED SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT THEIR SEQUENCE OF CONSTRUCTION TO THE ENGINEER FOR APPROVAL PRIOR TO START OF WORK.

PRE-STAGE

1. RELOCATE EXISTING OVERHEAD UTILITIES (BY OTHERS).
2. INSTALL SEDIMENTATION CONTROL SYSTEM (SCS) AND EXCLUSIONARY FENCING.
3. CONDUCT WOOD TURTLE AND EASTERN BOX TURTLE SWEEP OF SITE BY HERPETOLOGIST.
4. INSTALL DEBRIS SHIELD.

STAGE 1

1. INSTALL MAINTENANCE AND PROTECTION OF TRAFFIC ON OREGON ROAD FOR STAGE 1.
2. RELOCATE OREGON ROAD TRAFFIC ONTO NORTHERN PORTION OF THE EXISTING BRIDGE.
3. TEMPORARILY CUT AND CAP 12" DIAMETER WATER MAIN AT NORTHEAST APPROACH.
4. DEMOLISH SPAN 1 OF SOUTHERN PORTION OF SUPERSTRUCTURE OF THE EXISTING BRIDGE.
5. INSTALL DRILLED SHAFTS AT THE PIER.
6. DEMOLISH SPAN 2 OF SOUTHER PORTION OF SUPERSTRUCTURE OF THE EXISTING BRIDGE.
7. INSTALL COFFERDAMS AT THE PIER FOR THE SOUTHERN SPAN.
8. DEMOLISH SOUTHERN PORTION OF THE EXISTING PIER TO LIMITS SHOWN.
9. CONSTRUCT SOUTHERN PORTION OF THE PIER CAP.
10. INSTALL COFFERDAMS AT SOUTHERN PORTION OF ABUTMENTS.
11. DEMOLISH SOUTHERN PORTION OF THE EXISTING ABUTMENTS AND WINGWALLS.
12. CONSTRUCT STAGE 1 PORTION OF PROPOSED ABUTMENTS AND WINGWALLS.
13. BACKFILL NEWLY CONSTRUCTED ABUTMENTS AND WINGWALLS.
14. REMOVE COFFERDAMS.
15. INSTALL BEARINGS AND ERECT PROPOSED STRUCTURAL STEEL.
16. CONSTRUCT CONCRETE DECK AND INSTALL TEMPORARY BARRIER.
17. CONNECT 12" DIAMETER WATER MAIN TO EXISTING AT THE EAST APPROACH.
18. INSTALL PROPOSED 10" SEWER MAIN.
19. CONSTRUCT PORTIONS OF APPROACH SLAB.
20. APPLY MEMBRANE WATERPROOFING AND BITUMINOUS CONCRETE OVERLAY WITHIN PROPOSED LIMITS.

STAGE 2

1. SHIFT OREGON ROAD TRAFFIC ONTO NEWLY CONSTRUCTED STAGE 1 PORTION.
2. DEMOLISH SPAN 1 OF NORTHERN PORTION OF SUPERSTRUCTURE OF THE EXISTING BRIDGE.
3. INSTALL DRILLED SHAFTS AT THE PIER.
4. DEMOLISH SPAN 2 OF NORTHERN PORTION OF SUPERSTRUCTURE OF THE EXISTING BRIDGE.
5. INSTALL COFFERDAMS AT THE PIER FOR THE NORTHERN SPAN.
6. DEMOLISH NORTHERN PORTION OF THE EXISTING PIER.
7. CONSTRUCT NORTHERN PORTION OF THE PIER CAP.
8. INSTALL COFFERDAMS AT NORTHERN PORTION OF ABUTMENTS.
9. DEMOLISH REMAINING PORTION OF THE EXISTING ABUTMENTS AND WINGWALLS.
10. CONSTRUCT STAGE 2 PORTION OF PROPOSED ABUTMENTS AND WINGWALLS.
11. BACKFILL NEWLY CONSTRUCTED ABUTMENTS AND WINGWALLS.
12. REMOVE COFFERDAMS.
13. INSTALL BEARINGS AND ERECT PROPOSED STRUCTURAL STEEL.
14. CONSTRUCT CONCRETE DECK, CURB AND METAL BRIDGE RAIL.
15. CONSTRUCT REMAINING PORTION OF APPROACH SLAB.
16. APPLY MEMBRANE WATERPROOFING AND BITUMINOUS CONCRETE OVERLAY.

STAGE 3

1. SHIFT OREGON ROAD TRAFFIC ONTO NEWLY CONSTRUCTED STAGE 2 PORTION.
2. CONSTRUCT SIDEWALK, CURB, AND METAL BRIDGE RAIL ON SOUTHERN PORTION OF BRIDGE.
3. REMOVE SEDIMENTATION CONTROL SYSTEM UPON PERMANENT STABILIZATION.

PROTECTION PROTOCOLS FOR THE WOOD AND EASTERN BOX TURTLE:

1. NO IN-STREAM ACTIVITY OR BANK DISTURBANCE WITHIN THE WATERWAY DURING THE TURTLES DORMANT PERIOD (NOVEMBER 1 - MARCH 31).
2. TO PREVENT TURTLE ACCESS AND ENTRY INTO THE WORK ZONE BETWEEN APRIL 1 - OCTOBER 31 THE CONTRACTOR MUST ADHERE TO THE FOLLOWING:
   A. INSTALL EXCLUSIONARY FENCING AT LEAST 20 INCHES TALL AND IT MUST BE SECURED TO AND REMAIN IN CONTACT WITH THE GROUND AND BE REGULARLY MAINTAINED (AT LEAST BI-WEEKLY AND AFTER MAJOR WEATHER EVENTS).
   B. PRIOR TO CONSTRUCTION, ALL TURTLES OCCURRING WITHIN FENCED WORK AREA WILL BE RELOCATED TO SUITABLE HABITAT OUTSIDE THE DISTURBANCE AREA.
   C. THE CONTRACTOR MUST SEARCH THE WORK AREA EACH MORNING PRIOR TO WORK BEING DONE AND ANY TURTLES ENCOUNTERED WITHIN THE IMMEDIATE WORK AREA SHALL BE CAREFULLY MOVED TO AN ADJACENT AREA OUTSIDE OF THE EXCLUSIONARY FENCING. THESE ANIMALS ARE PROTECTED BY LAW AND NO ANIMALS SHOULD BE REMOVED FROM THE SITE.
   D. UPON COMPLETION OF CONSTRUCTION ALL EXCLUSIONARY FENCING MUST BE REMOVED IN ITS ENTIRETY AS SOON AS THE AREA IS STABLE TO ALLOW FOR REPTILE AND AMPHIBIAN PASSAGE TO RESUME.

PAY ITEM NOTES:

1. WATER-HANDLING COFFERDAMS SHALL BE PAID FOR UNDER THE ITEM "HANDLING WATER" AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH SPECIAL PROVISIONS FOR ITEM "HANDLING WATER."
2. COFFERDAMS AND DEWATERING FOR WORKING IN THE DRY SHALL BE PAID UNDER THE ITEM "COFFERDAM AND DEWATERING."

TEMPORARY HYDRAULIC DATA	
AVERAGE DAILY FLOW	176 CFS
AVERAGE SPRING FLOW	269 CFS
2-YEAR FREQUENCY DISCHARGE	1793 CFS
TEMPORARY DESIGN DISCHARGE	2750 CFS
TEMPORARY DESIGN FREQUENCY	5-YEAR
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	89.2 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	89.1 FT

REVISION DESCRIPTION | DATE | REV

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

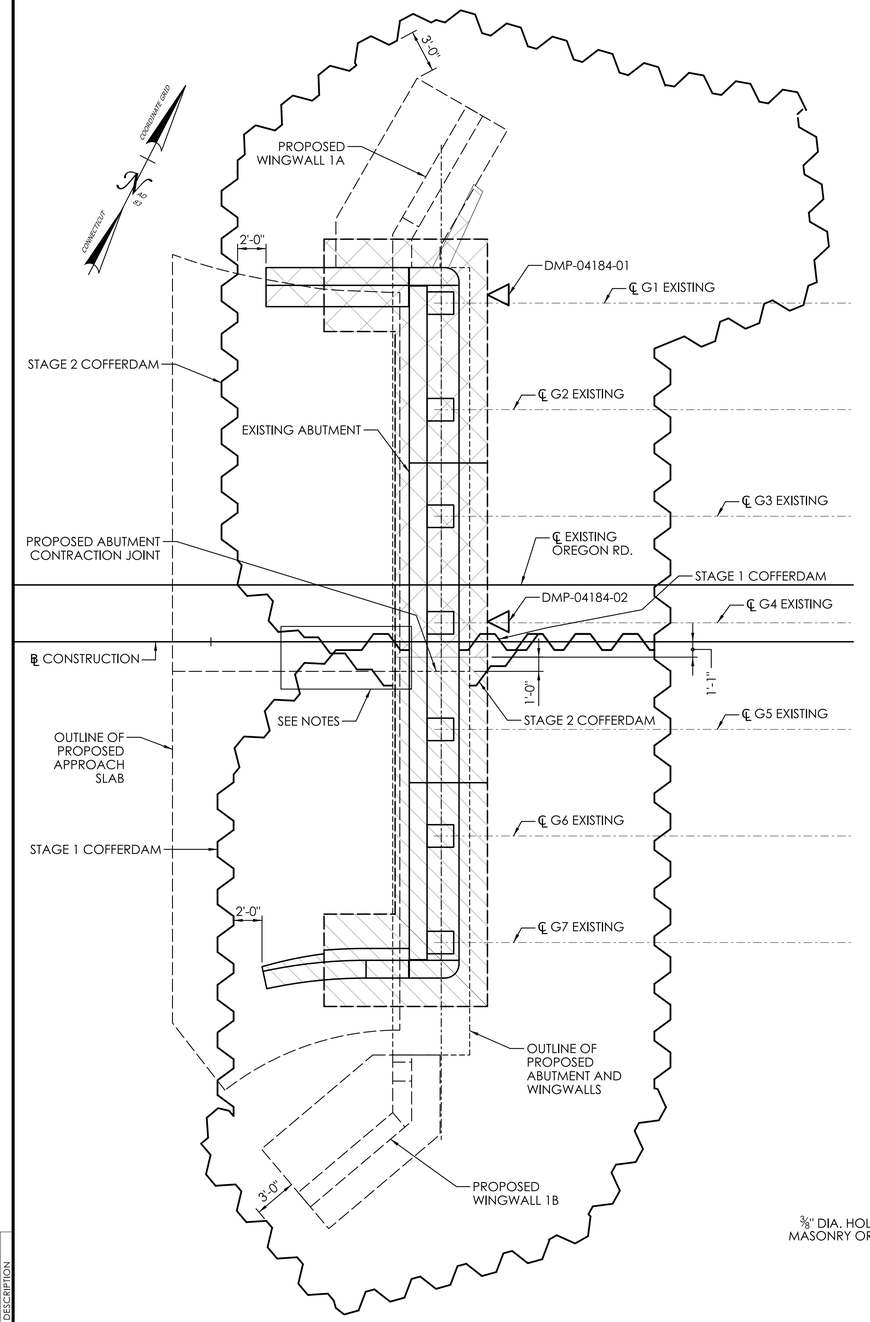
DRAWING TITLE: **WATER HANDLING PLAN**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-10**

SHEET NO.: 03.10

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_WH_PLAN.dgn
PLOTTED DATE: 5/12/2026

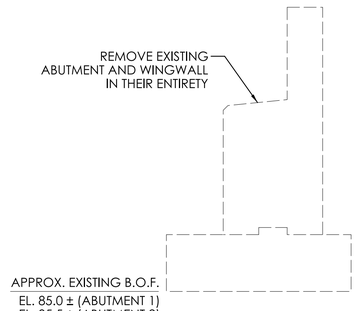


EXISTING ABUTMENT 1 - DEMO PLAN

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

LEGEND

- STAGE 1 DEMOLITION LIMITS
- STAGE 2 DEMOLITION LIMITS
- COFFERDAM AND DEWATERING
- DEFORMATION MONITORING POINT

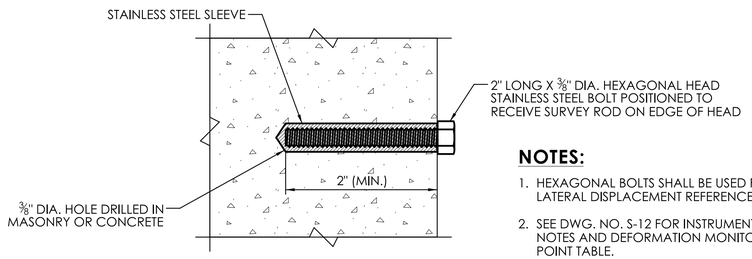


EXISTING ABUTMENT TYPICAL SECTION

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

NOTES:

1. IT IS ANTICIPATED THAT THE COFFERDAM MAY NEED TO BE POSITIVELY CONNECTED TO THE EXISTING OR PROPOSED ABUTMENT TO PROVIDE AN ENCLOSURE. COST FOR THE COFFERDAMS AND DEWATERING WILL BE PAID UNDER THE ITEM "COFFERDAM AND DEWATERING".
2. IF ANY PORTION OF THE COFFERDAM NEEDS TO BE LEFT IN PLACE DUE TO STAGING, THE COST FOR THE MATERIAL WILL BE PAID UNDER THE ITEM "COFFERDAM MATERIAL LEFT IN PLACE". COFFERDAM SHALL NOT BE LEFT IN PLACE IN REGULATED AREAS.
3. THE CONCEPT SHOWN ON THIS SHEET ASSUMES THAT A PORTION OF THE COFFERDAM WILL NEED TO BE INSTALLED UNDER THE PROPOSED APPROACH SLAB IN STAGE 1. THIS SECTION OF THE COFFERDAM SHALL BE LEFT-IN-PLACE.
4. THE CONTRACTOR MAY CHOOSE A DIFFERENT COFFERDAM LAYOUT BASED ON THEIR MEANS AND METHODS. THE COFFERDAM SHALL BE DESIGNED IN A MANNER THAT ALLOWS ACCESS TO STAGE 1 ABUTMENT AT THE CONSTRUCTION JOINT FOR INSTALLATION OF MECHANICAL COUPLERS.
5. COFFERDAMS INSTALLED IN THE FRONT OF THE ABUTMENTS SHALL BE REMOVED AFTER CHANNEL WORK AND PRIOR TO STEEL ERECTION.



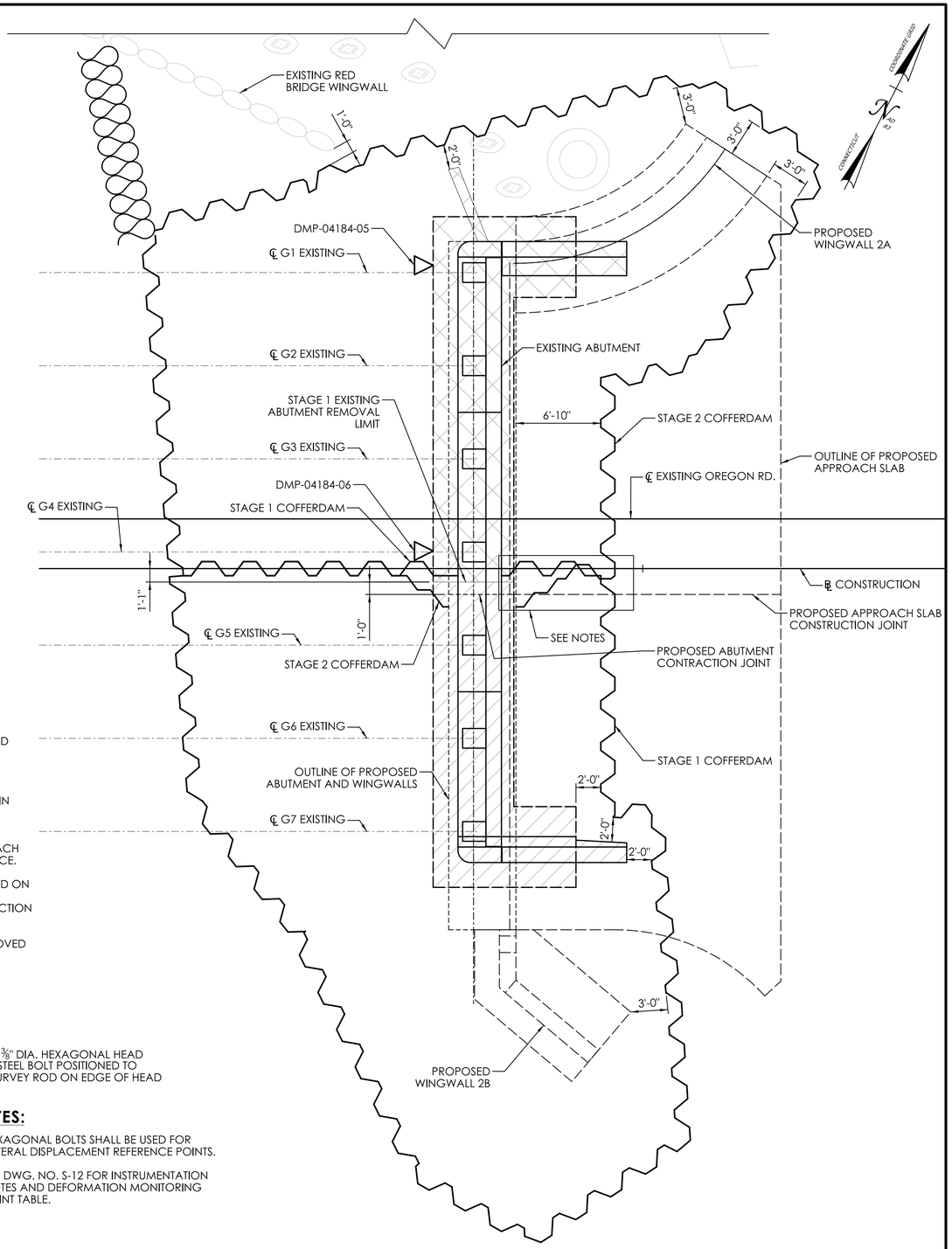
DEFORMATION MONITORING IN VERTICAL MASONRY OR CONCRETE SURFACE FOR MANUAL MONITORING OPTION

DEFORMATION MONITORING POINT (DMP)

SCALE: N.T.S

NOTES:

1. HEXAGONAL BOLTS SHALL BE USED FOR LATERAL DISPLACEMENT REFERENCE POINTS.
2. SEE DWG. NO. S-12 FOR INSTRUMENTATION NOTES AND DEFORMATION MONITORING POINT TABLE.



EXISTING ABUTMENT 2 - DEMO PLAN

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

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD, GLASTONBURY, CT 06033

DESIGNER/DRAFTER: AC CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

DRAWING TITLE: **EXISTING ABUTMENT DEMOLITION**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-11**

SHEET NO.: 03.11

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\.41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_ABUT_DEMO.dgn

PLOTTED DATE: 3/12/2026

GENERAL NOTES

1. SEE NOTES ON DWG. NO. S-08 AND S-09.

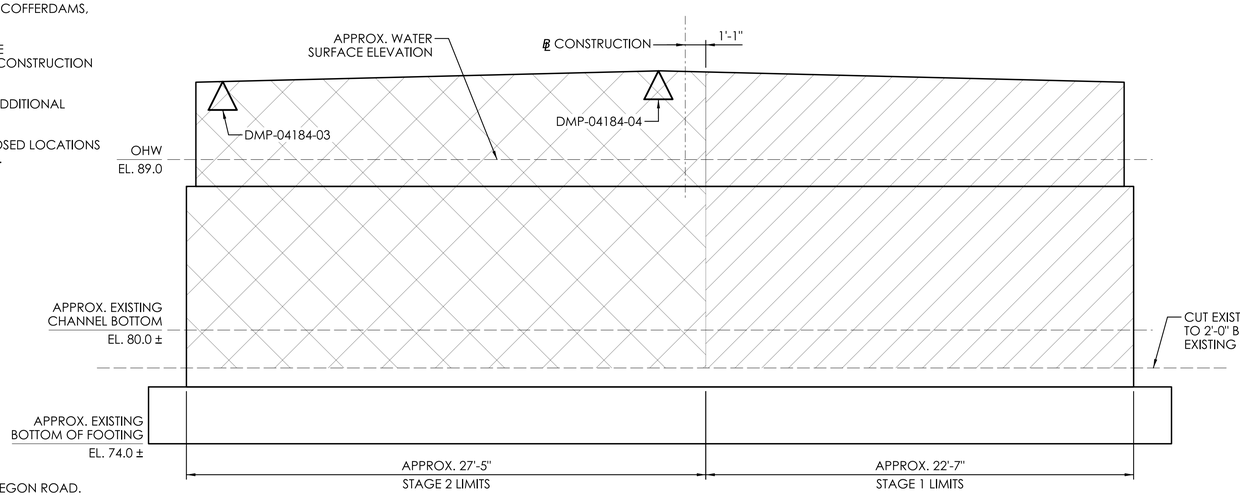
INSTRUMENTATION NOTES:

1. SURVEY DEFORMATION MONITORING POINTS (DMP) SHALL CONSIST OF A 3/8-INCH DIA. X 2-INCH LONG STAINLESS STEEL SOCKET HEAD CAP BOLT, SCREWED INTO A 3/8-INCH DIA. X 1 ½-INCH LONG TAMP-IN SCREW ANCHOR (SEE DETAIL) OR A PRISM ASSEMBLY MONITORED BY AN AUTOMATED TOTAL STATION (AMTS).
2. INSTALL DMP'S ON THE EXISTING ABUTMENTS AND PIER CAPS JUST BELOW THE EXISTING BRIDGE SEAT OR TOP OF PIER CAP, AT LOCATIONS SHOWN ON THIS DRAWING. OBTAIN BASELINE READINGS PRIOR TO COMMENCEMENT OF DEMOLITION, INSTALLATION OF COFFERDAMS, AND ANY EXCAVATION.
3. DMP'S SHALL BE INSTALLED SUCH THAT THE MONITORING POINT WILL NOT BE REMOVED/DAMAGED DURING DEMOLITION AND ARE NOT OBSCURED BY CONSTRUCTION ACTIVITIES.
4. REFER TO SPECIAL PROVISION 0714999A "MONITORING STRUCTURES" FOR ADDITIONAL INFORMATION.
5. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW THE PROPOSED LOCATIONS OF THE DMP'S FOR THE EXISTING RED BRIDGE ABUTMENTS AND WINGWALLS.

DEFORMATION MONITORING POINT (DMP)	
MONITORING POINT ID	LOCATION (SEE INSTRUMENTATION NOTE 3)
DMP-04184-01	WEST ABUTMENT - NORTH END
DMP-04184-02	WEST ABUTMENT - SOUTH END
DMP-04184-03	PIER - NORTH END
DMP-04184-04	PIER - SOUTH END
DMP-04184-05	EAST ABUTMENT - NORTH END
DMP-04184-06	EAST ABUTMENT - SOUTH END
DMP-04184-07	RED BRIDGE WEST ABUTMENT
DMP-04184-08	RED BRIDGE SOUTHWEST WINGWALL
DMP-04184-09	RED BRIDGE EAST ABUTMENT
DMP-04184-10	RED BRIDGE SOUTHEAST WINGWALL
TOTAL NUMBER OF DMP: 10	

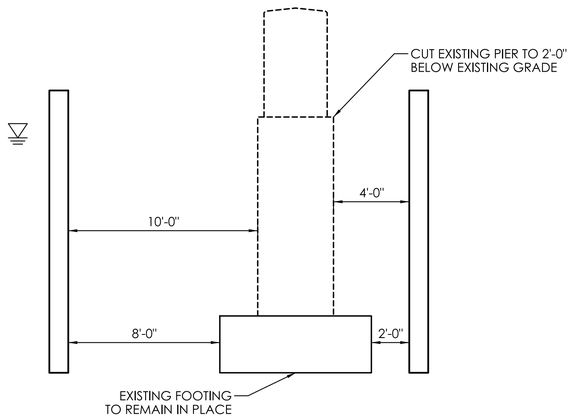
SUGGESTED CONSTRUCTION APPROACH

1 INSTALL MPT FOR STAGE 1 AND RELOCATE TRAFFIC TO NORTH SIDE OF OREGON ROAD.
2 CUT AND CAP WATER MAIN ON NE APPROACH.
3. INSTALL DMP AS INDICATED IN PLANS ON RED BRIDGE.
4. DEMOLISH SPAN 1 – STAGE 1 OF EXISTING BRIDGE.
5. USE DRILL RIG TO INSTALL DRILLED SHAFTS AT THE PIER FROM SPAN 2 OF EXISTING BRIDGE.
6. DEMOLISH SPAN 2 – STAGE 1 OF EXISTING BRIDGE.
7. INSTALL DMP AS INDICATED IN PLANS ON OREGON ROAD BRIDGE.
8. USE CRANES TO INSTALL COFFERDAM AROUND PIER AND ABUTMENTS.
9. USE HANOVER POND BOAT LAUNCH TO INSTALL AND ANCHOR FLOATING DOCKS AT PIER.
10. DEWATER COFFERDAMS. SUBSTANTIAL DEWATERING EFFORT MAY BE NEEDED DEPENDING ON THE CONTRACTOR'S CHOSEN METHOD FOR PIER REMOVAL.
11. ACCESS PIER FROM FLOATING DOCK USING LADDER. CONSTRUCT A TEMPORARY PLATFORM ANCHORED TO COFFERDAM. DEMOLISH EXISTING PIER TO 2 FEET BELOW MUDLINE.
12. CONSTRUCT PIER CAP FOR STAGE 1.
13. REMOVE EXISTING ABUTMENTS. INSTALL DRILLED SHAFTS AT ABUTMENTS FOR STAGE 1 USING DRILL RIG PLACED BEHIND THE ABUTMENTS.
14. CONSTRUCT ABUTMENTS AND WINGWALLS FOR STAGE 1. PERFORM GRADING IN FRONT OF ABUTMENTS AND WINGWALLS.
15. REMOVE COFFERDAMS.
16. ERECT STRUCTURAL STEEL ON TOP OF BEARINGS. CONSTRUCT BRIDGE DECK.
17. CONNECT WATER MAIN TO EXISTING AT EAST APPROACH. RELOCATE SEWER MAIN FROM NORTH TO SOUTH.
18. CONSTRUCT APPROACH SLAB AND INSTALL PAVEMENT.
19. REPEAT STEPS 1 TO 18 FOR STAGE 2 CONSTRUCTION.
20. CONSTRUCT UHPC CLOSURE POUR AND RELOCATE TRAFFIC TO INSTALL SIDEWALK, CURB AND RAILING AT THE SOUTHERN SIDE OF BRIDGE.
21. INSTALL FINAL LIFT OF PAVEMENT.
22. OPEN NEW BRIDGE TO TRAFFIC.



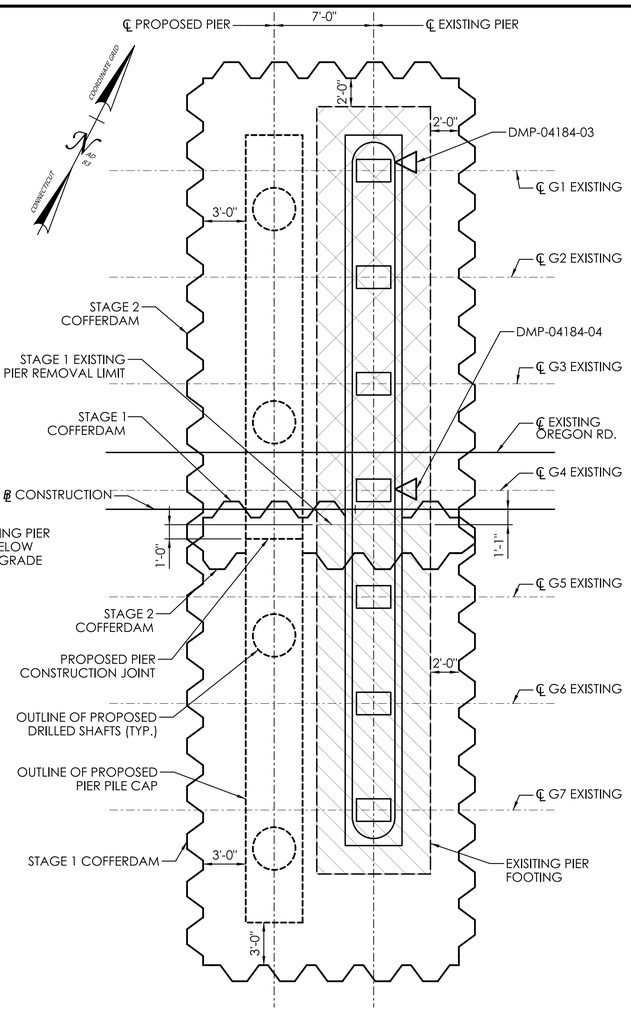
EXISTING PIER - WEST ELEVATION

SCALE: ¼" = 1'-0"



EXISTING PIER - CROSS SECTION

SCALE: ¼" = 1'-0"



EXISTING PIER - DEMOLITION PLAN

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

LEGEND

- STAGE 1 DEMOLITION LIMITS
- STAGE 2 DEMOLITION LIMITS
- COFFERDAM AND DEWATERING
- DEFORMATION MONITORING POINT

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD, GLASTONBURY, CT 06033
DESIGNER/DRAFTER: AC CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

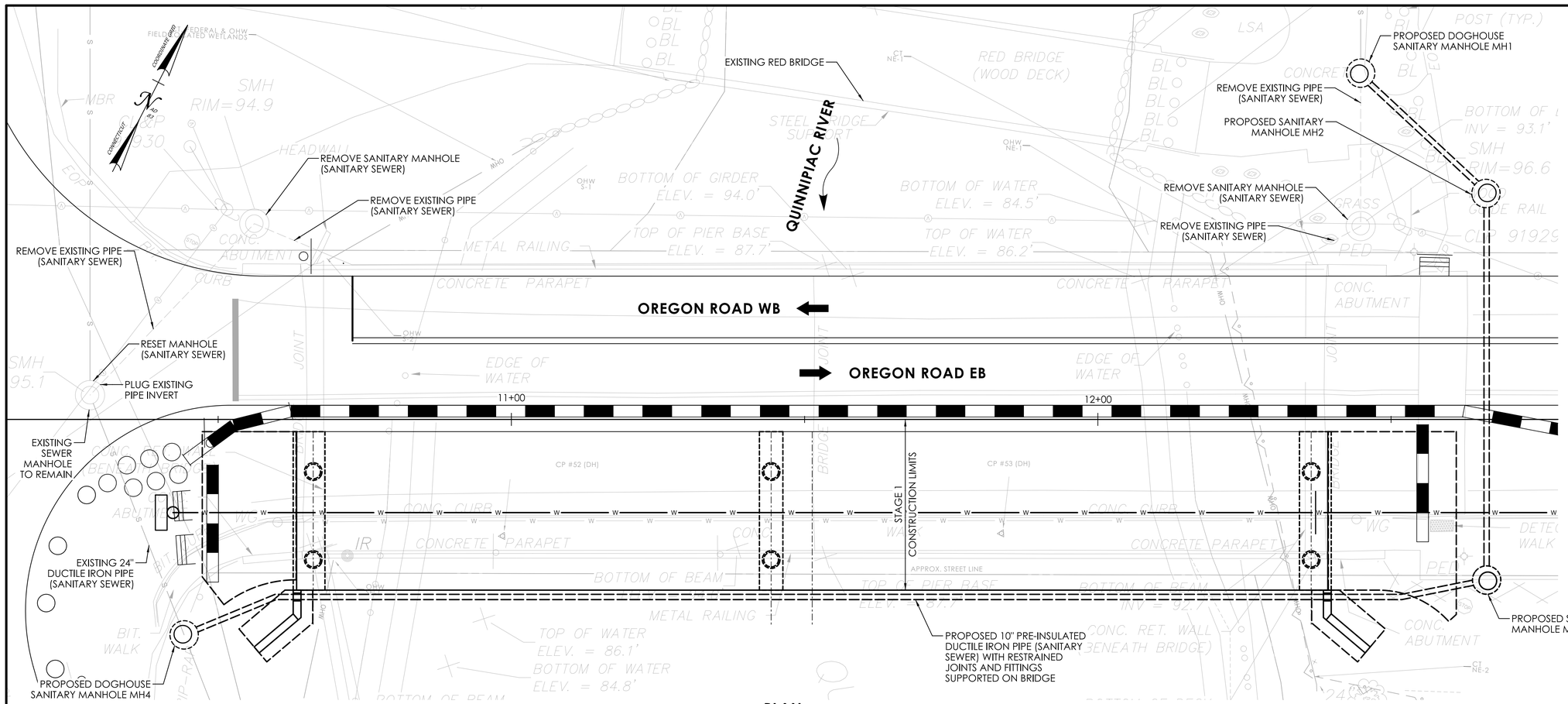
DRAWING TITLE: **EXISTING PIER DEMOLITION**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-12**

SHEET NO.: 03.12

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_PIER_DEMO.dgn
PLOTTED DATE: 5/12/2026



SUGGESTED CONSTRUCTION STAGES:

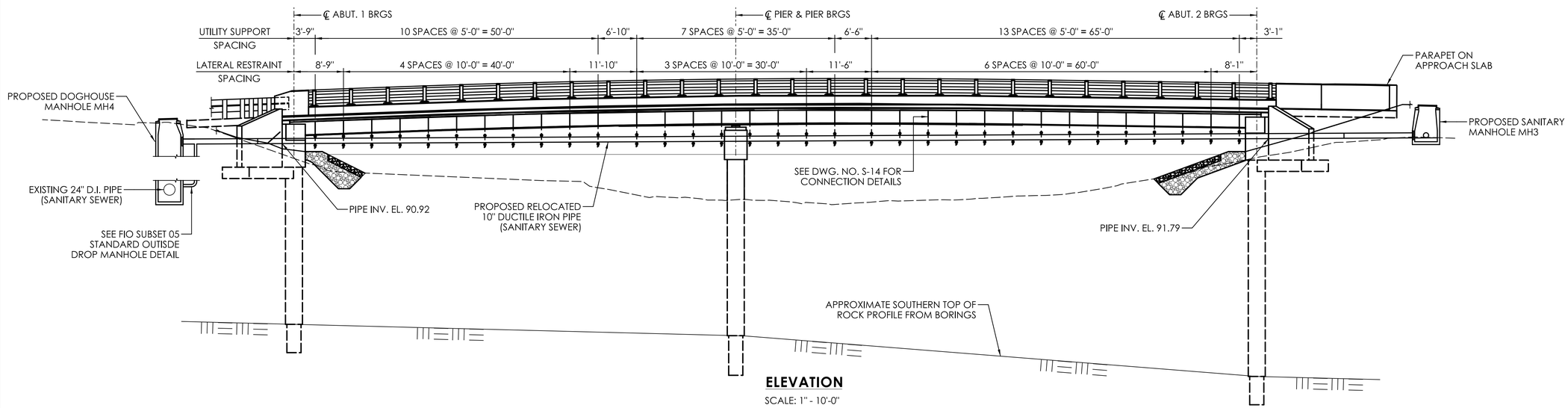
1. CONSTRUCT STAGE 1 OF THE PROPOSED BRIDGE INCLUDING SUPPORTS FOR THE 10" SEWER MAIN ALONG GIRDER G8.
2. CONSTRUCT PORTIONS OF THE SEWER MAIN BETWEEN MANHOLES MH2 AND MH3.
3. CONSTRUCT DOGHOUSE MANHOLE MH4.
4. CONSTRUCT DOGHOUSE MANHOLE MH1 NORTH OF EXISTING NE MANHOLE NEXT TO BRIDGE. CONNECT MH1 TO EXISTING SEWER MAIN AND PLUG NE INVERT ON EXISTING ROUTE 70 MANHOLE.
5. REMOVE EXISTING SEWER MAIN MANHOLES WEST AND EAST OF BRIDGE AND THE SEWER MAIN ATTACHED TO EXISTING BRIDGE GIRDER G1.
6. DEMOLISH NORTH PORTION OF EXISTING BRIDGE ALONG WITH WALLS SUPPORTING EXISTING SEWER MAIN.
7. CONSTRUCT STAGE 2 OF PROPOSED BRIDGE.

GENERAL NOTES:

1. LOCATIONS OF DOGHOUSE MANHOLES MH1 AND MH4 ARE APPROXIMATE. CONTRACTOR TO VERIFY IN FIELD PRIOR TO CONSTRUCTION.
2. TEMPORARY TRAFFIC CLOSURES WILL BE REQUIRED DURING INSTALLATION OF SEWER LINE BETWEEN MANHOLES MH2 AND MH3. CONTRACTOR TO COORDINATE WITH TOWN AT LEAST TWO WEEKS PRIOR TO CLOSURE.

PLAN

SCALE: 1" - 10'-0"



ELEVATION

SCALE: 1" - 10'-0"

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033

DESIGNER/DRAFTER: AC CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

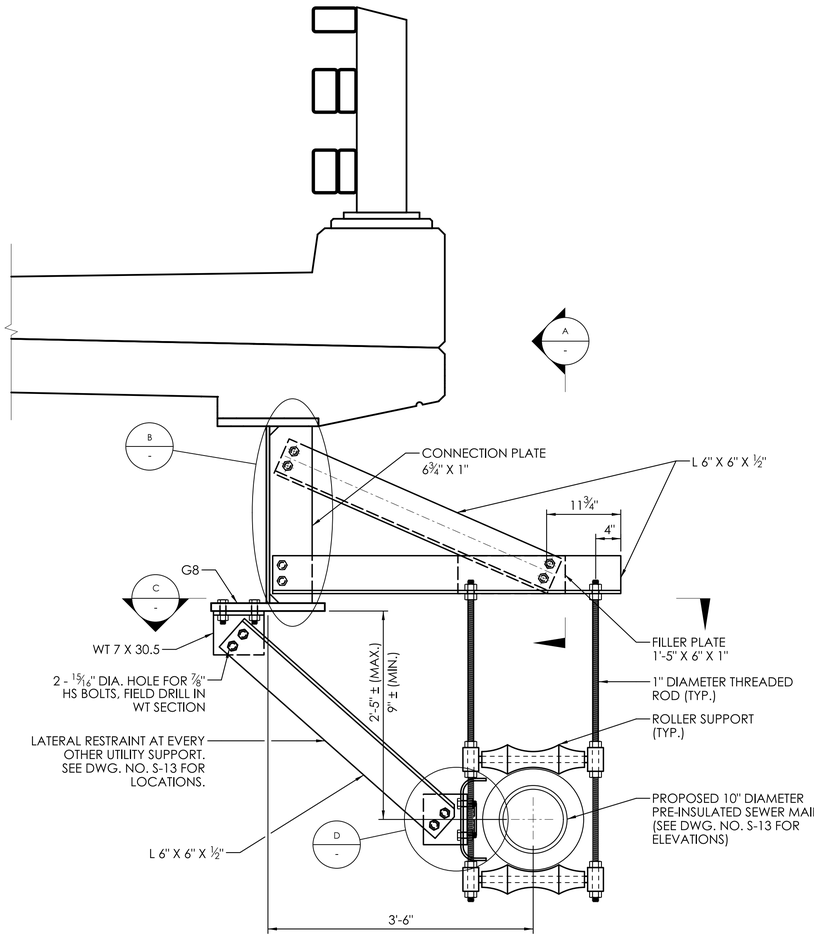
DRAWING TITLE: **SEWER MAIN RELOCATION PLAN**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-13**

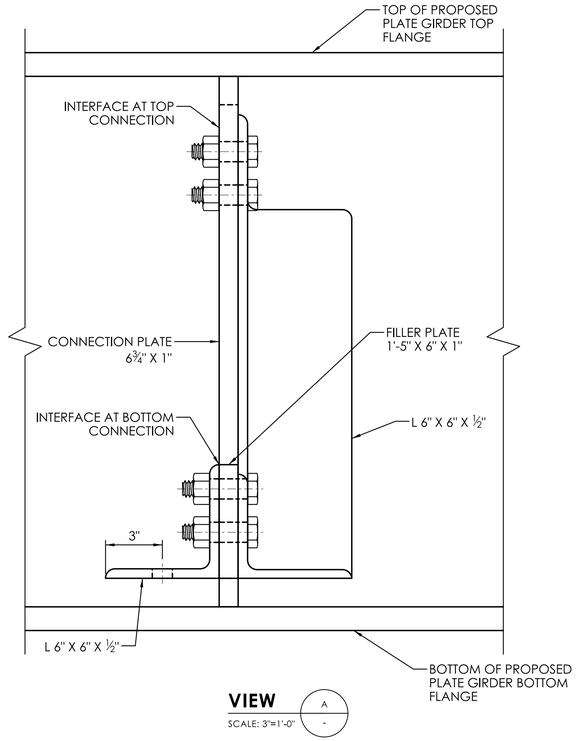
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PLOTTED DATE: 5/12/2026

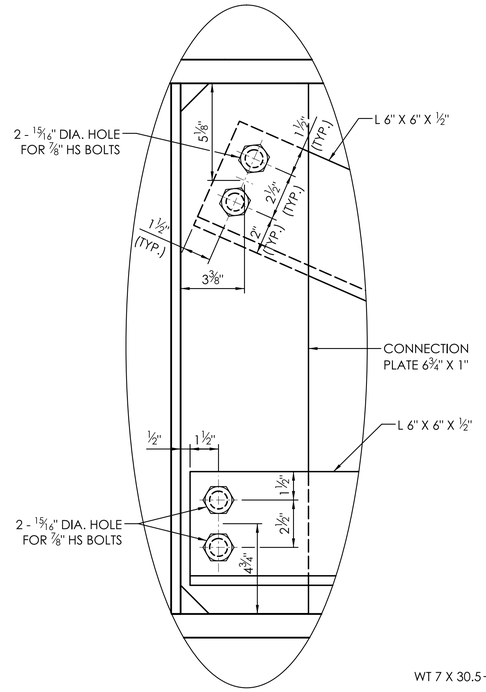


SEWER MAIN SUPPORT DETAILS

SCALE: 1" = 1'-0"



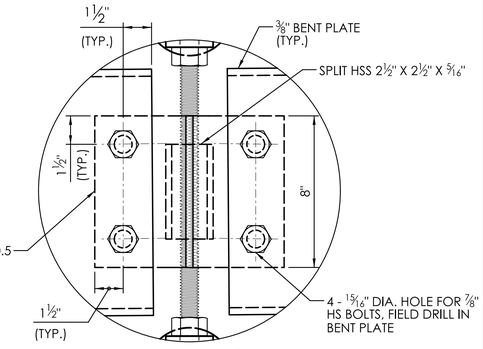
VIEW A (-)
SCALE: 3"=1'-0"



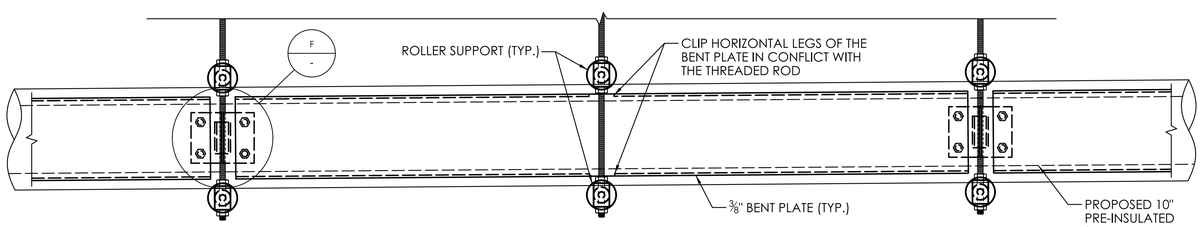
DETAIL B (-)
SCALE: 3"=1'-0"

SEWER MAIN NOTES:

1. 10" DIAMETER PRE-INSULATED SEWER MAIN AND ROLLER SUPPORTS SHALL BE PAID FOR UNDER THE ITEM "10" DUCTILE IRON PIPE (SANITARY SEWER)".
2. ALL THREADED ROADS SHALL CONFORM TO ASTM F1554 GR. 55.
3. ALL THREADED RODS SHALL HAVE HEAVY HEX NUT AND ONE HARDENED STEEL WASHER UNDER THE TURNED ELEMENT. NUTS SHALL CONFORM TO ASTM A563. HARDENED STEEL WASHERS SHALL CONFORM TO ASTM F436.
4. ALL ANGLES, FILLER PLATES, AND PLATES FOR SEWER MAIN SUPPORT SHALL CONFORM TO ASTM A36. COST FOR FURNISHING AND INSTALLING ANGLES, FILLER PLATES, AND PLATES SHALL BE INCLUDED IN THE COST OF "STRUCTURAL STEEL."
5. ALL HIGH STRENGTH BOLTS SHALL BE 7/8" DIA. ASTM F3125 GRADE A325, TYPE I AND HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM F2239.
6. ALL STEEL SHAPES, PLATES AND HOLLOW STRUCTURAL SECTIONS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE TO ASTM A123.
7. COST FOR FURNISHING AND INSTALLING ROLLER SUPPORTS AND INSULATION FOR THE SEWER MAIN SHALL BE INCLUDED IN THE ITEM "10" DUCTILE IRON PIPE (SANITARY SEWER)."

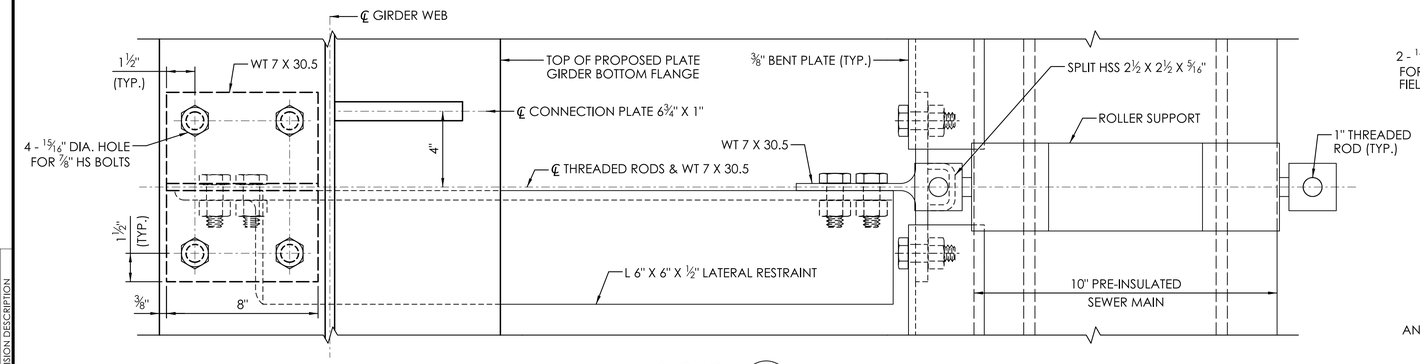


DETAIL F (-)
SCALE: 3"=1'-0"

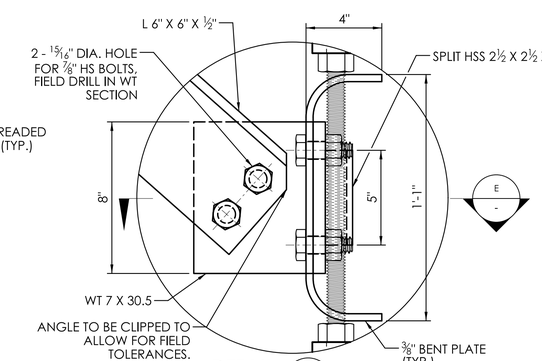


SEWER MAIN SUPPORT ELEVATION

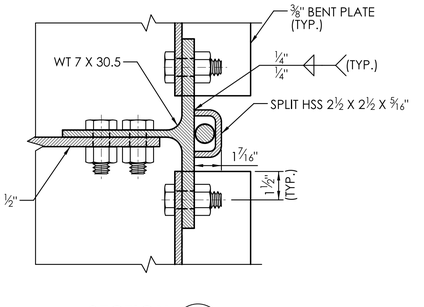
SCALE: 1" = 1'-0"



SECTION C (-)
SCALE: 3"=1'-0"



DETAIL D (-)
SCALE: 3"=1'-0"



SECTION E (-)
SCALE: 3"=1'-0"

REVISION DESCRIPTION | DATE | REV.

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
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SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

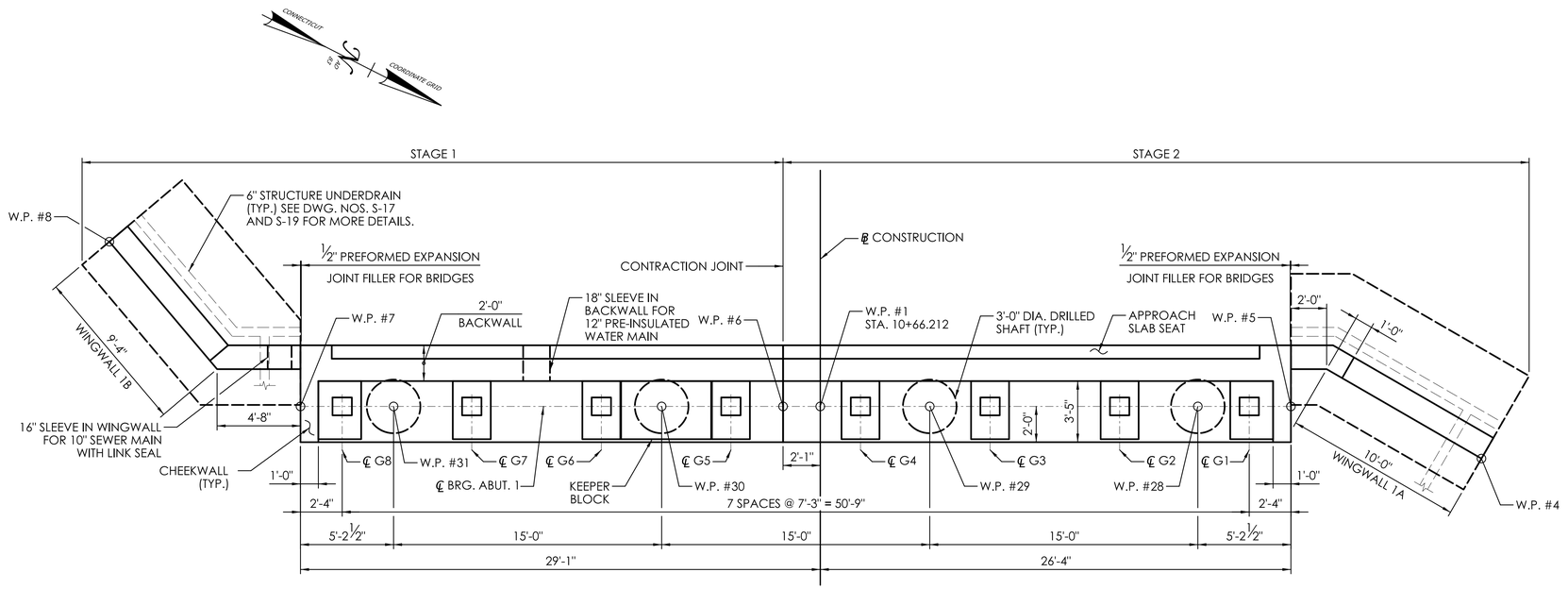
TOWN(S): **CITY OF MERIDEN**

DRAWING TITLE: **SEWER MAIN SUPPORT DETAILS**

PROJECT NO.: **L079-0004**

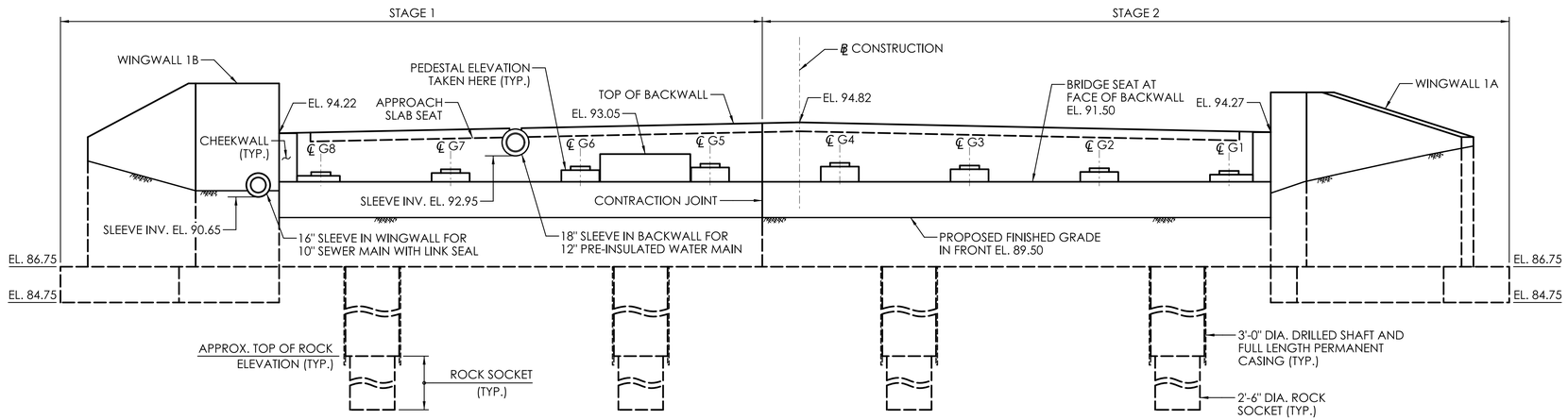
DRAWING NO.: **S-14**
SHEET NO.: 03.14

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PLOTTED DATE: 5/12/2026



PLAN

SCALE: ¼" = 1'-0"



ELEVATION

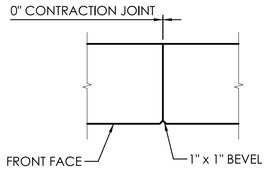
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ABUTMENT NOTES:

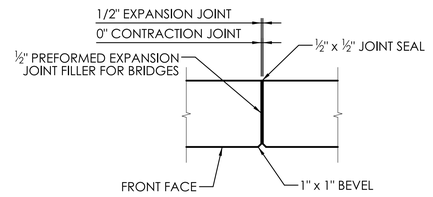
1. FOR ABUTMENT DETAILS SEE DWG. NO. S-18.
2. FOR PEDESTAL AND KEEPER BLOCK DETAILS SEE DWG. NO. S-22.
3. THE COST OF THE PERMANENT CASINGS FOR DRILLED SHAFTS SHALL BE PAID UNDER THE ITEM "PERMANENT CASING (3'-0" DIAMETER)."

DRILLED SHAFT W.P. #	TOP OF DRILLED SHAFT EL.	APPROX. TOP OF ROCK EL.	MIN. ROCK SOCKET LENGTH
28	86.75	56.0 ±	5 FT
29	86.75	57.0 ±	5 FT
30	86.75	58.0 ±	5 FT
31	86.75	59.0 ±	5 FT

GIRDER	PEDESTAL ELEVATION
G1	91.90
G2	92.05
G3	92.20
G4	92.35
G5	92.30
G6	92.15
G7	91.99
G8	91.84



AT ABUTMENT



AT WINGWALL

NOTES:

1. NO REINFORCEMENT SHALL PASS THROUGH EXPANSION OR CONTRACTION JOINTS. REINFORCEMENTS SHALL PASS THROUGH CONSTRUCTION JOINTS.
2. AT ABUTMENT, JOINT SEAL TO EXTEND FROM TOP OF FOOTING TO TOP OF BACKWALL AND HORIZONTALLY ALONG TOP OF BACKWALL.
3. AT WINGWALLS, JOINT SEAL TO EXTEND FROM TOP OF FOOTING TO TOP OF PARAPET AND HORIZONTALLY ALONG THIS JOINT TO OUTSIDE FACE OF PARAPET AND HORIZONTALLY ALONG THIS JOINT TO THE OUTSIDE FACE OF WALL.
4. REINFORCING TO HAVE 2" COVER EXCEPT WHERE SHOWN OTHERWISE.

VERTICAL STEM JOINT DETAIL

N.T.S

REVISION DESCRIPTION | DATE | REV.

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER

TOWN(S): CITY OF MERIDEN

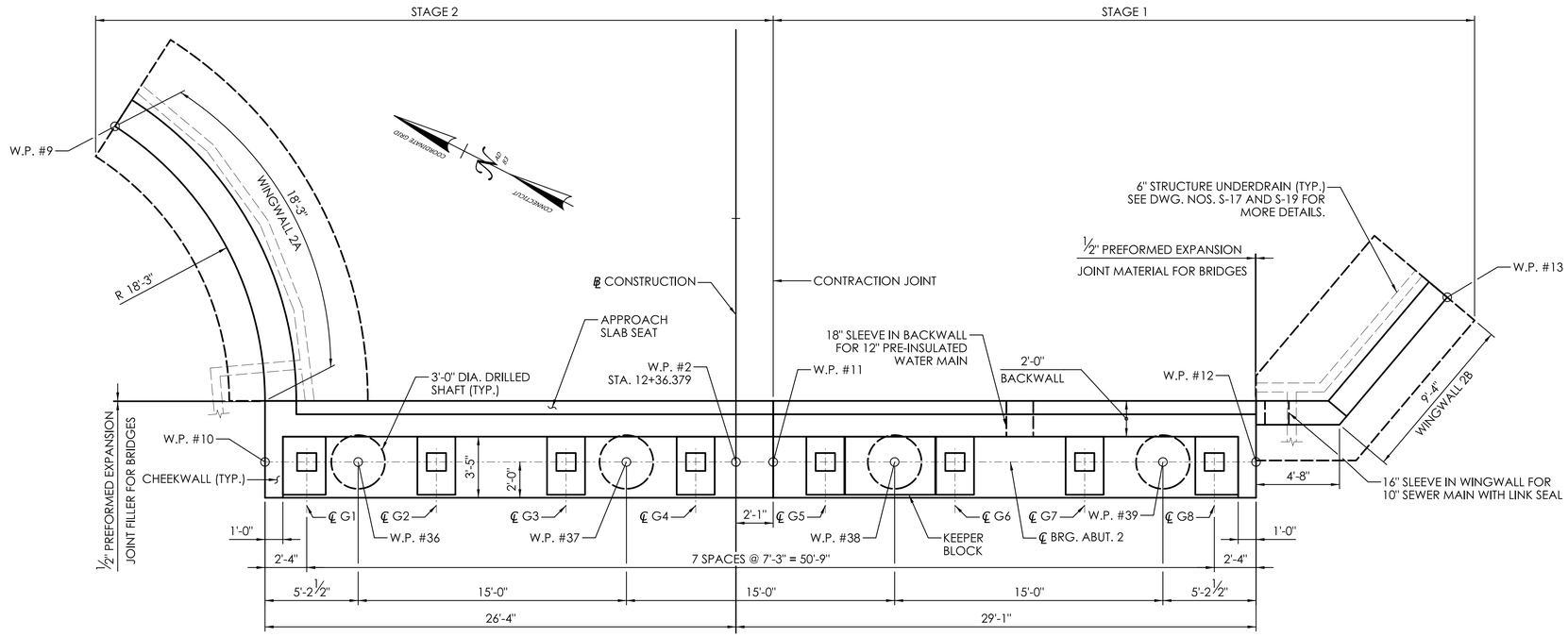
DRAWING TITLE: ABUTMENT NO. 1 PLAN AND ELEVATION

PROJECT NO.: L079-0004

DRAWING NO.: S-15

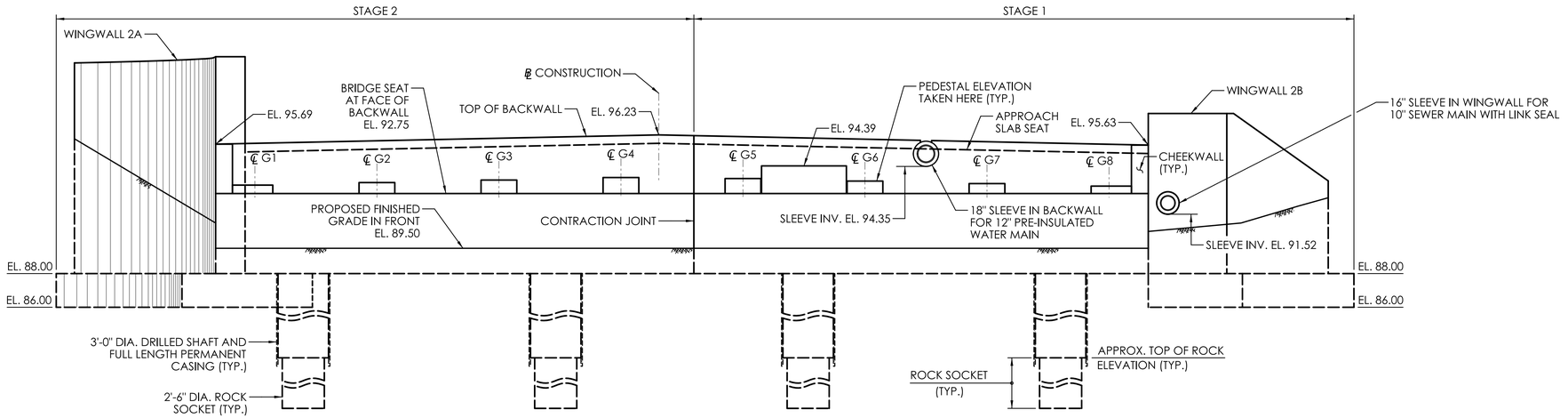
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PLOTTED DATE: 5/12/2026



PLAN

SCALE: ¼" = 1'-0"



ELEVATION

SCALE: ¼" = 1'-0"

ABUTMENT NOTES:

1. SEE NOTES ON DWG. NO. S-15.

DRILLED SHAFT W.P. #	TOP OF DRILLED SHAFT EL.	APPROX. TOP OF ROCK EL.	MIN. ROCK SOCKET LENGTH
36	88.00	74.5 ±	5 FT
37	88.00	66.3 ±	5 FT
38	88.00	58.0 ±	5 FT
39	88.00	49.8 ±	5 FT

GIRDER	PEDESTAL ELEVATION
G1	93.25
G2	93.40
G3	93.55
G4	93.70
G5	93.64
G6	93.49
G7	93.34
G8	93.19

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033

DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

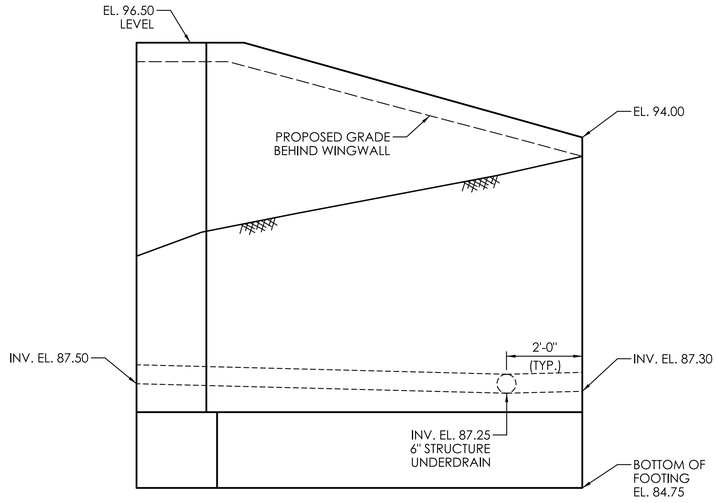
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PROJECT NO.: **L079-0004**

DRAWING NO.: **S-16**

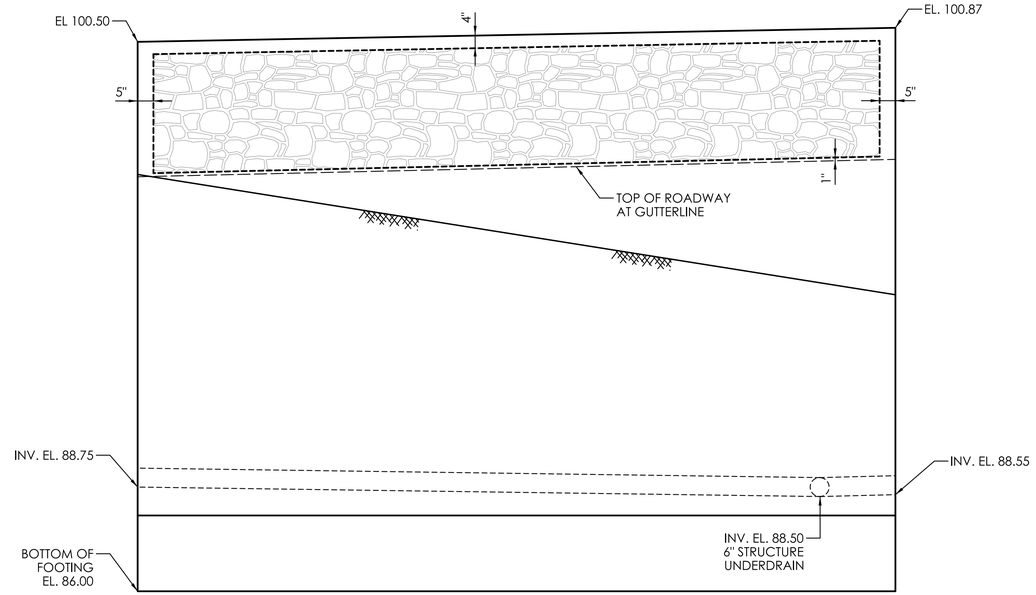
SHEET NO.: 03.16

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PLOTTED DATE: 5/12/2026



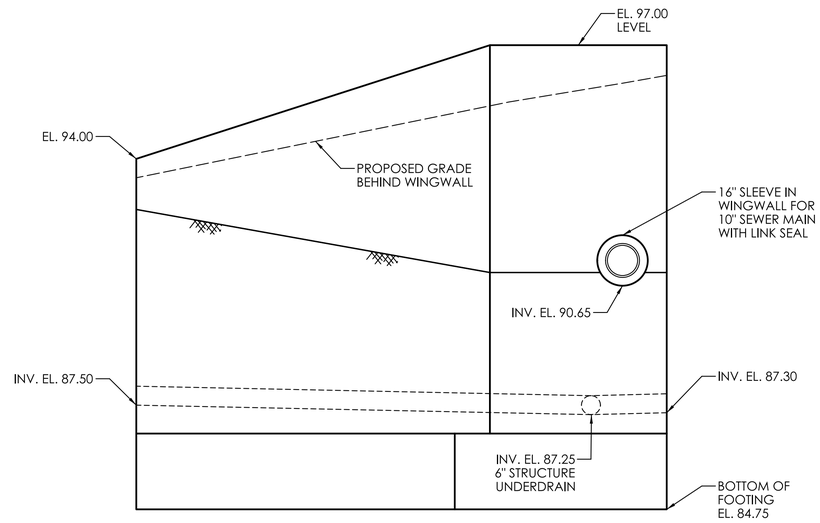
WINGWALL 1A DEVELOPED ELEVATION

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



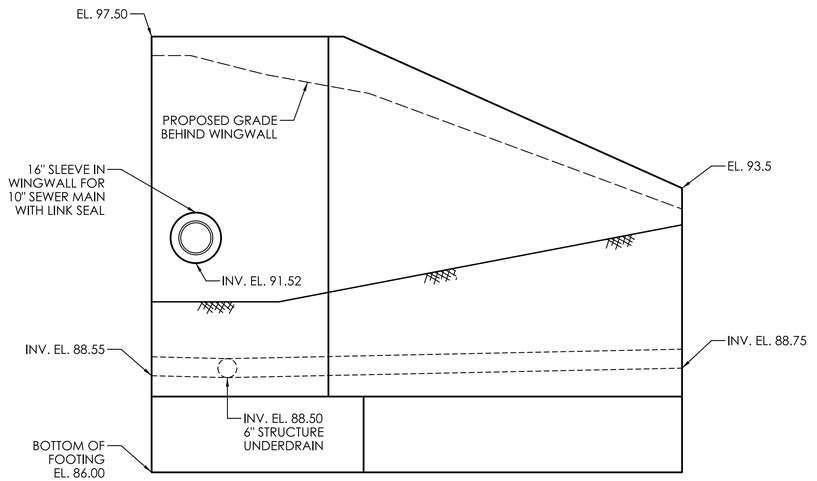
WINGWALL 2A DEVELOPED ELEVATION

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



WINGWALL 1B DEVELOPED ELEVATION

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



WINGWALL 2B DEVELOPED ELEVATION

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

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033

DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE:
REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER

TOWN(S):
CITY OF MERIDEN

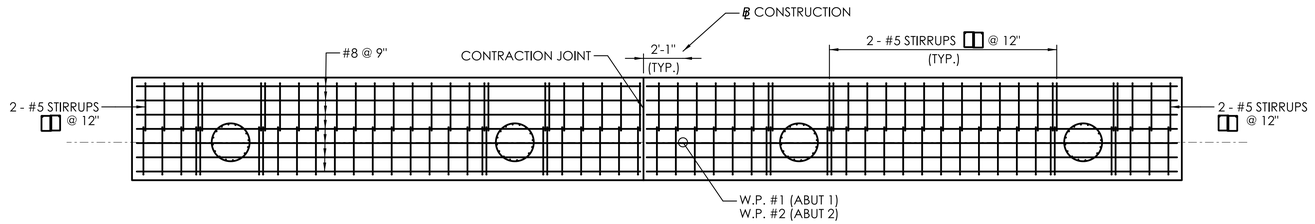
DRAWING TITLE:
WINGWALL ELEVATIONS

PROJECT NO.:
L079-0004

DRAWING NO.:
S-17

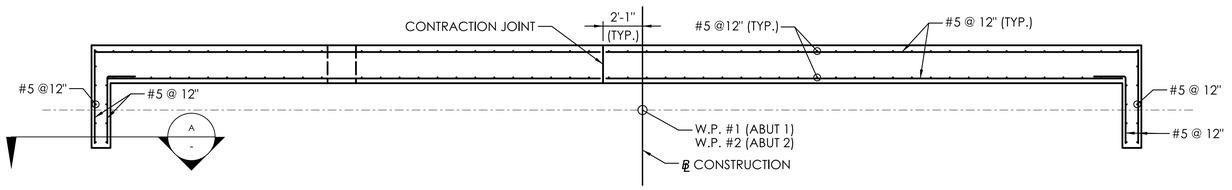
SHEET NO.:
03.17

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_WW_ELEV.dgn
PLOTTED DATE: 5/12/2026



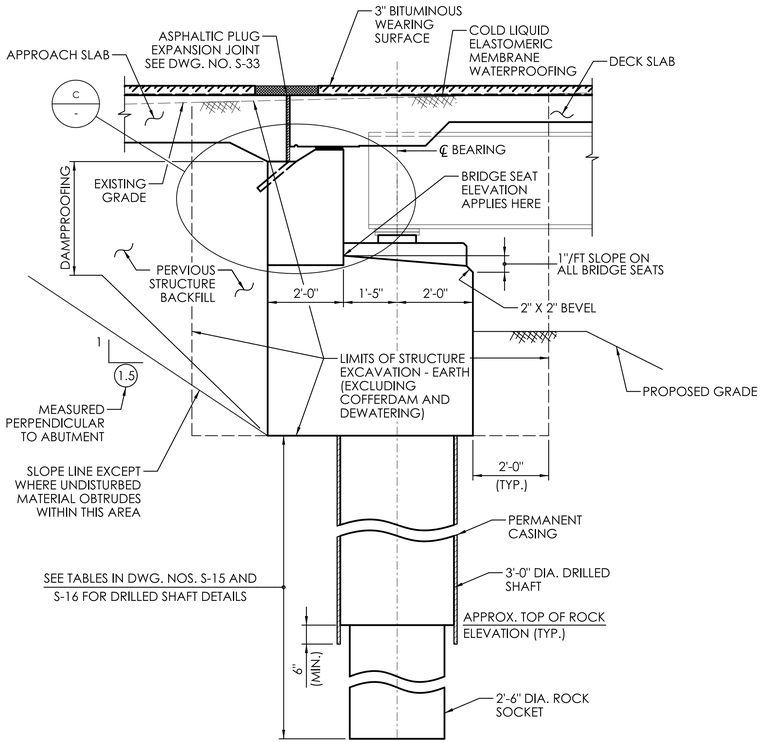
TYPICAL STEM REINFORCEMENT - PLAN

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



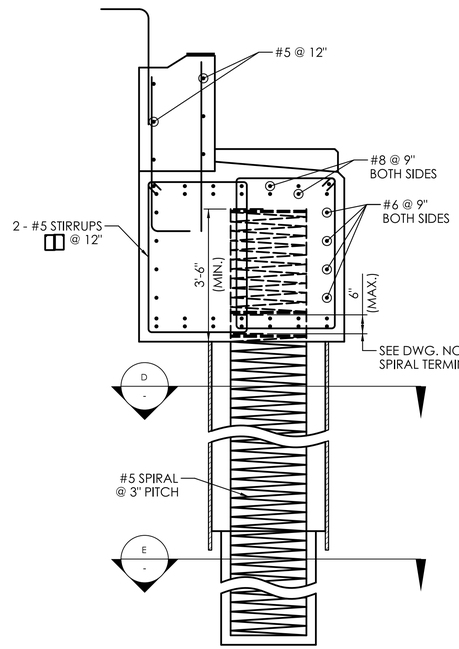
TYPICAL BACKWALL REINFORCEMENT - PLAN

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



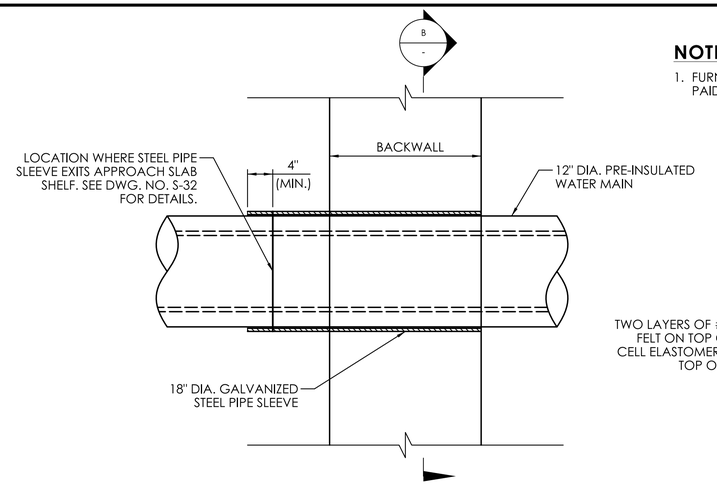
ABUTMENT TYPICAL SECTION

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



ABUTMENT REINFORCEMENT

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

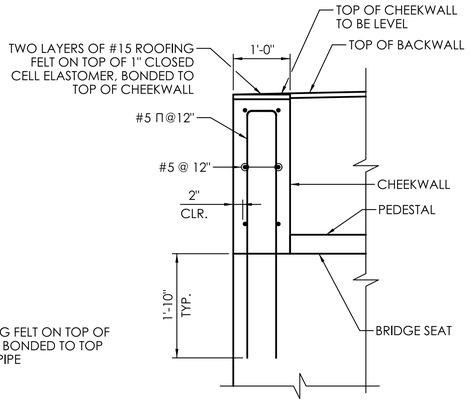


WATERMAIN DETAIL AT BACKWALL

SCALE: 1"=1'-0"

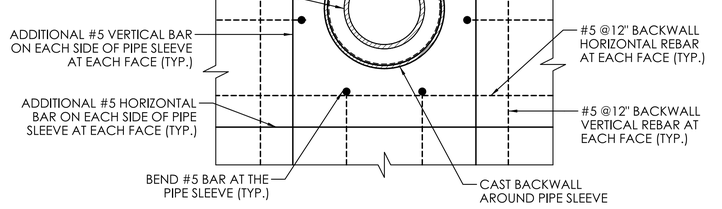
NOTES:

1. FURNISHING AND INSTALLATION OF ACCESS TUBES SHALL BE PAID FOR UNDER THE ITEM "ACCESS TUBES".



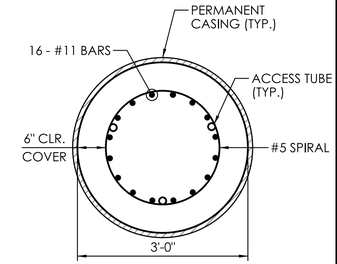
SECTION A -

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



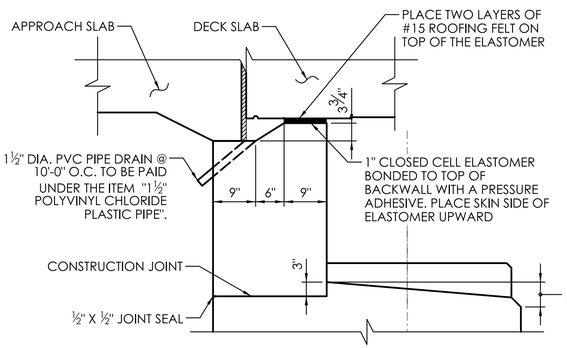
SECTION B -

SCALE: 1"=1'-0"



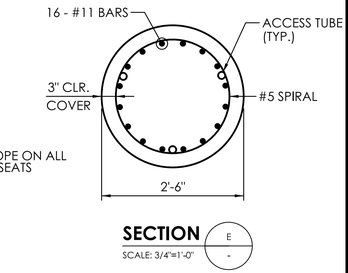
SECTION D -

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



BACKWALL DETAIL C -

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



SECTION E -

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

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

DRAWING TITLE: **ABUTMENT DETAILS**

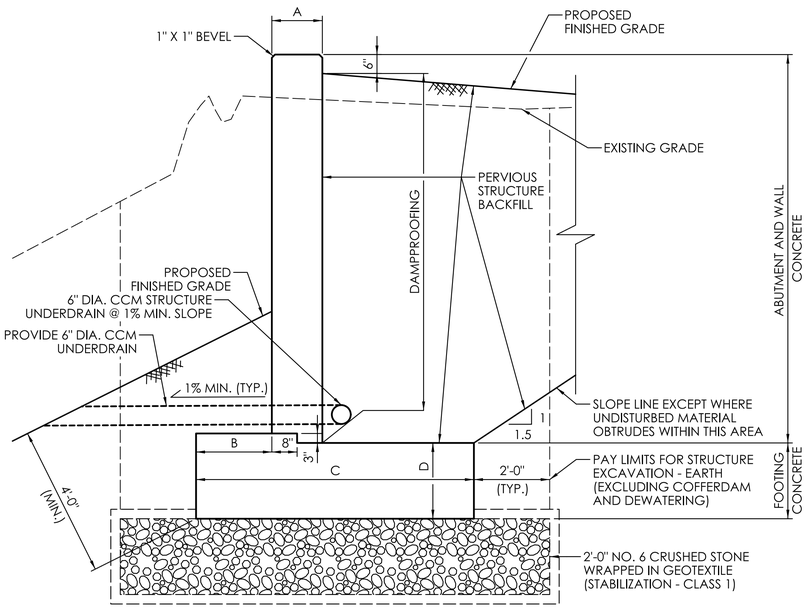
PROJECT NO.: **L079-0004**

DRAWING NO.: **S-18**

SHEET NO.: 03.18

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_ABUT_DET.dgn
PLOTTED DATE: 5/12/2026

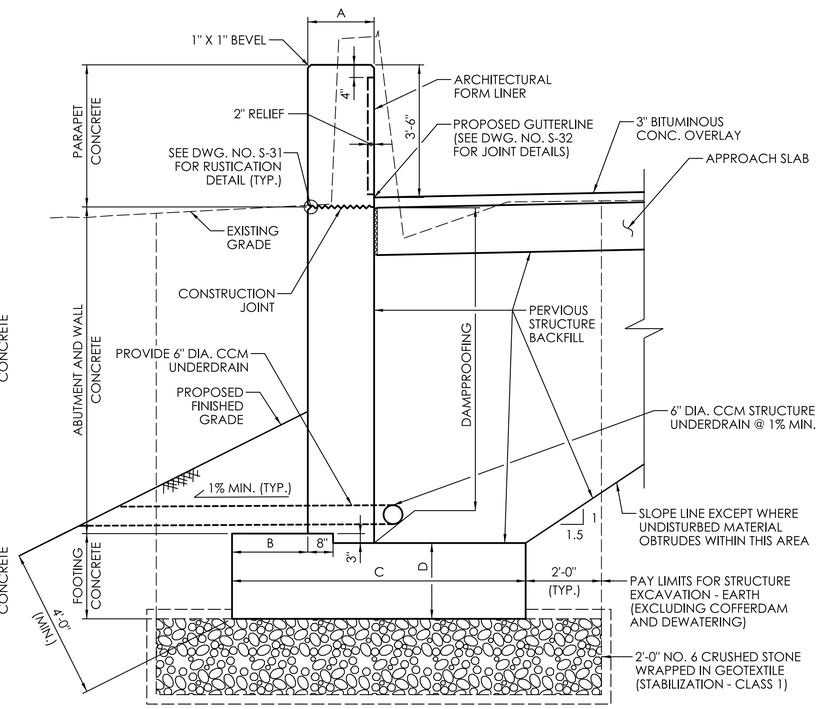
WALL NO.	A	B	C	D	MAX. DESIGN BEARING PRESSURES (KSF)	
					SERVICE	STRENGTH
1A	1'-4"	2'-0"	7'-4"	2'-0"	1.35	1.98
1B	1'-4"	2'-0"	7'-4"	2'-0"	1.51	2.19
2A	1'-9"	2'-0"	7'-9"	2'-0"	1.71	2.37
2B	1'-4"	2'-0"	7'-4"	2'-0"	1.43	2.03



WINGWALLS 1A, 1B AND 2B TYPICAL SECTION

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

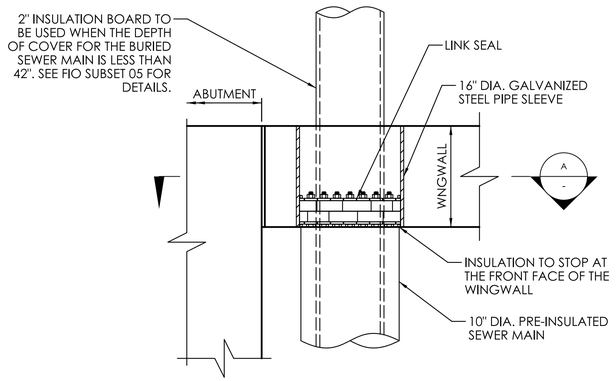
SEE TABLE FOR DIMENSIONS AND MAXIMUM DESIGN BEARING PRESSURES



WINGWALL 2A TYPICAL SECTION

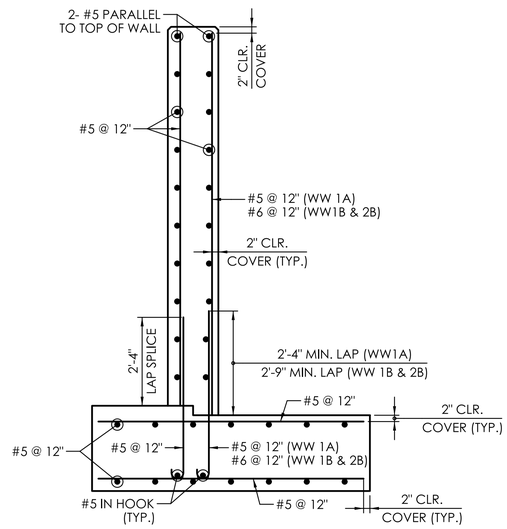
SCALE: 1/2"=1'-0"

SEE TABLE FOR DIMENSIONS AND MAXIMUM DESIGN BEARING PRESSURES



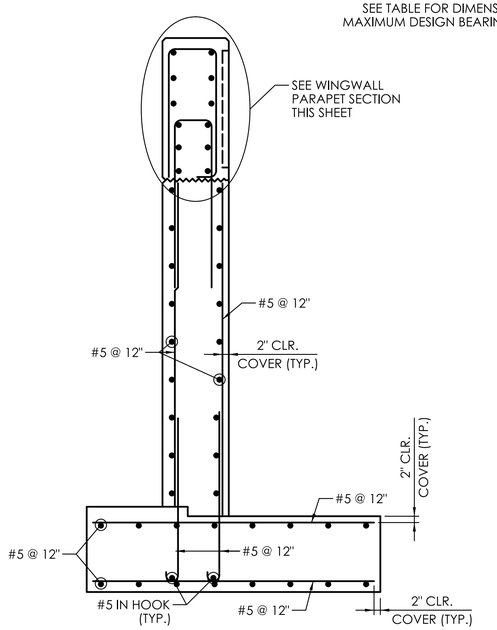
SEWER MAIN DETAIL AT WINGWALL

SCALE: 1"=1'-0"



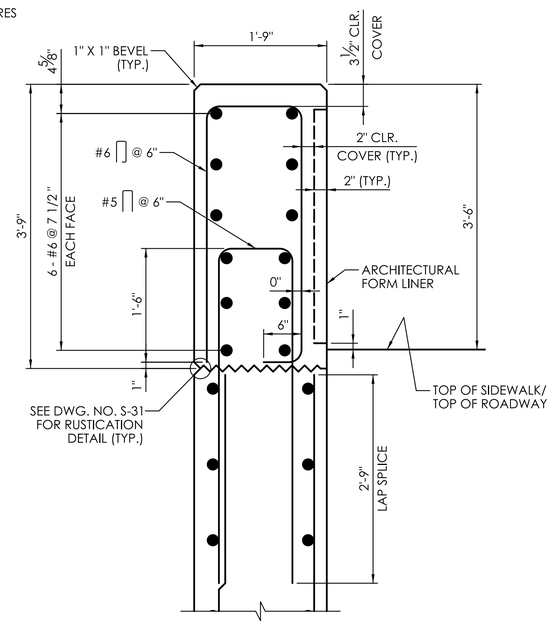
WINGWALLS 1A, 1B AND 2B REINFORCEMENT DETAILS

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



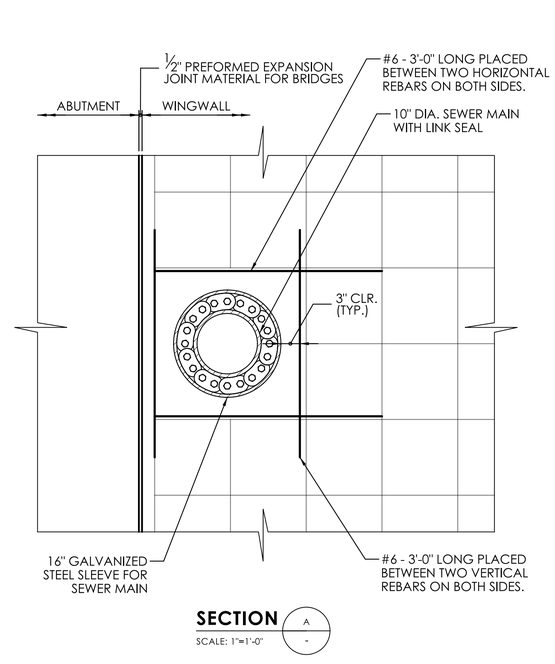
WINGWALL 2A REINFORCEMENT DETAILS

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



WINGWALL PARAPET SECTION

SCALE: 1"=1'-0"



SECTION A - A

SCALE: 1"=1'-0"

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033

DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

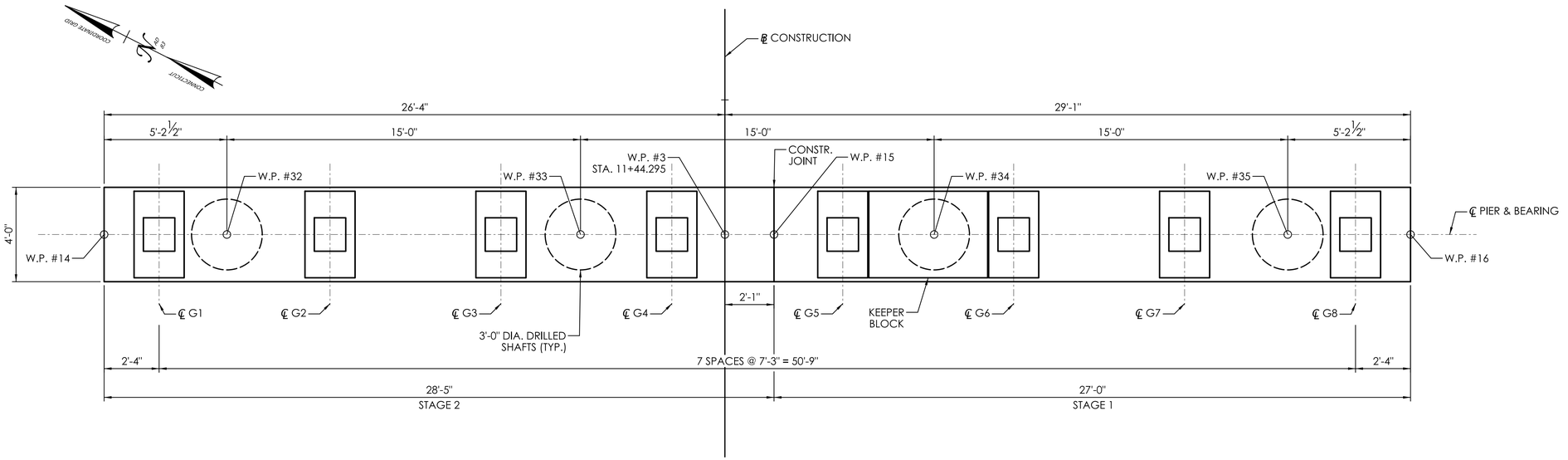
DRAWING TITLE: **WINGWALL DETAILS**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-19**

SHEET NO.: 03.19

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\.41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_WW_DET.dgn
PLOTTED DATE: 5/12/2026



PLAN

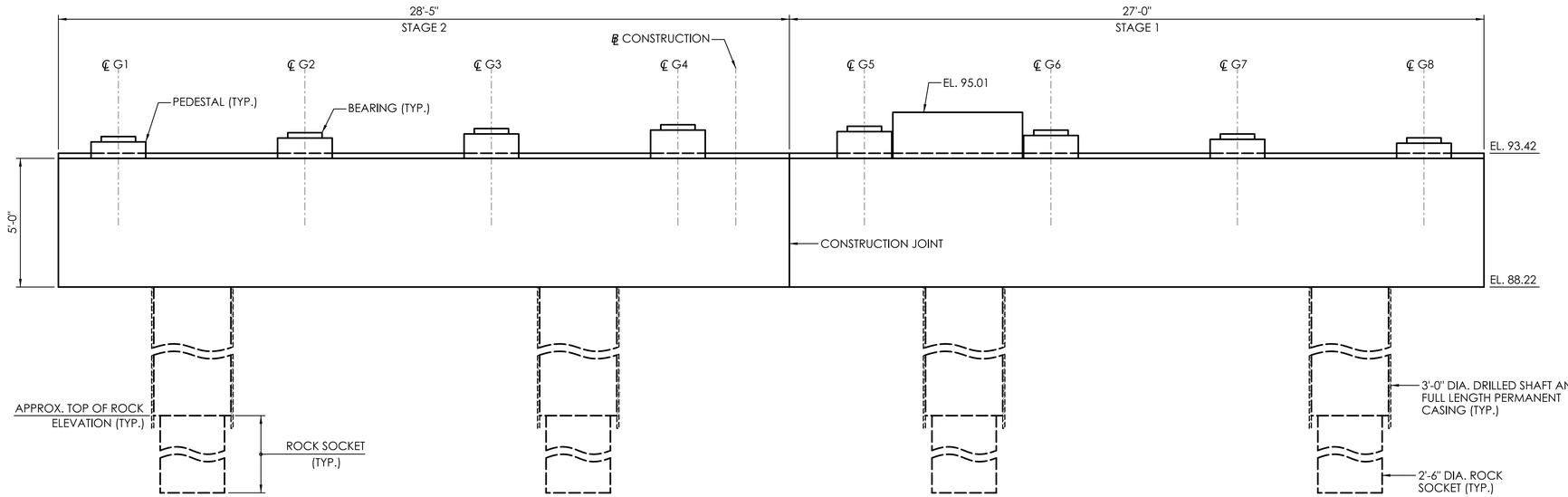
SCALE: 3/8"=1'-0"

PIER NOTES:

1. FOR LAYOUT PLAN, SEE DWG. NO. S-03.
2. FOR PEDESTAL AND KEEPER BLOCK DETAILS, SEE DWG. NO. S-23.
3. FOR BEARING DETAILS, SEE DWG. NO. S-25.
4. THE PERMANENT CASINGS AT THE PIER SHALL BE FIELD PAINTED 1 FOOT FROM MUDLINE TO THE TOP. THE COST FOR FIELD PAINTING SHALL BE INCLUDED UNDER THE ITEM "PERMANENT CASING (3'-0" DIAMETER)."

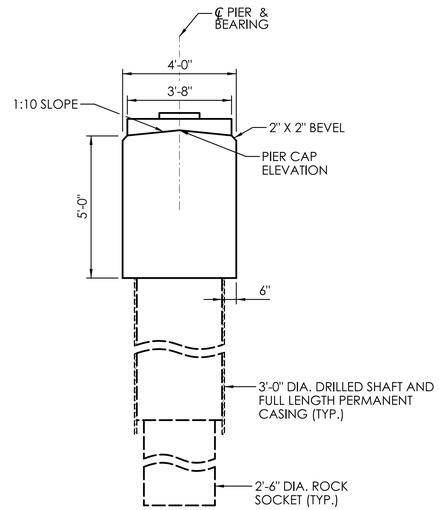
DRILLED SHAFT W.P. #	TOP OF SHAFT ELEVATION	APPROXIMATE TOP OF ROCK ELEVATION	MIN. ROCK SOCKET LENGTH
32	88.22	63.0 ±	7 FT
33	88.22	61.0 ±	7 FT
34	88.22	59.0 ±	7 FT
35	88.22	57.0 ±	7 FT

GIRDER	PEDESTAL ELEVATION
G1	93.86
G2	94.01
G3	94.16
G4	94.31
G5	94.26
G6	94.10
G7	93.95
G8	93.80



ELEVATION

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



TYPICAL SECTION

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

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033

DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

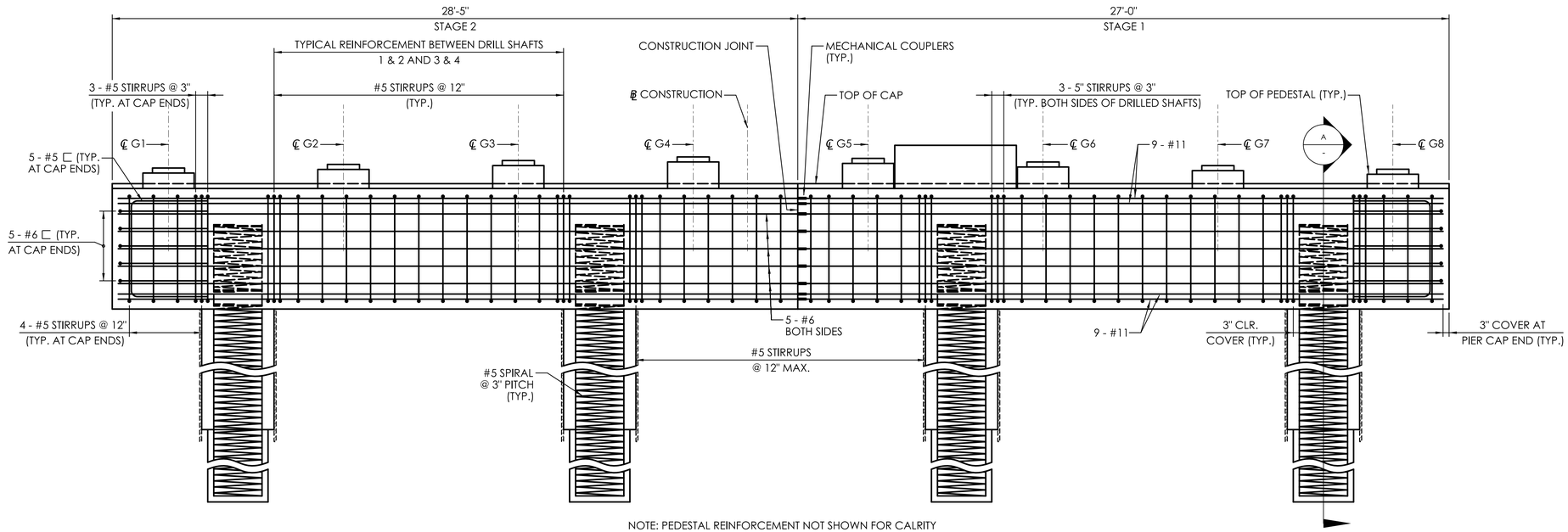
DRAWING TITLE: **PIER PLAN AND ELEVATION**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-20**

SHEET NO.: 03.20

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_PIER.dgn
PLOTTED DATE: 5/12/2026



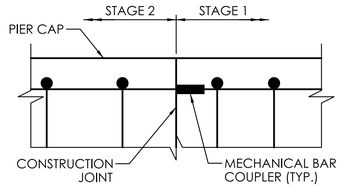
NOTE: PEDESTAL REINFORCEMENT NOT SHOWN FOR CALRITY

PIER REINFORCEMENT - ELEVATION

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

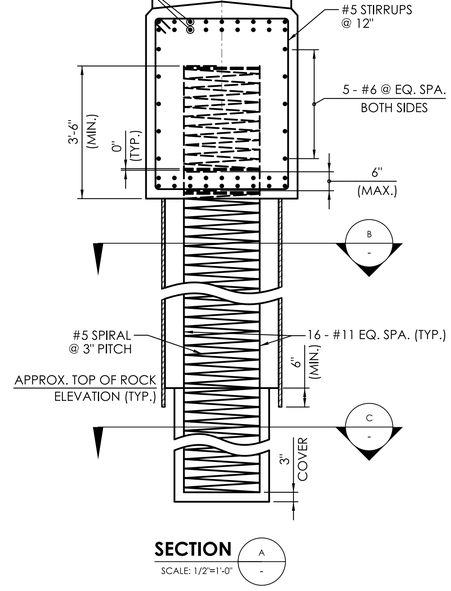
NOTES:

1. MECHANICAL COUPLERS FOR NO. 6 BARS SHALL BE PAID UNDER THE ITEM "#6 MECHANICAL COUPLERS".
2. MECHANICAL COUPLERS FOR NO. 11 BARS SHALL BE PAID UNDER THE ITEM "#11 MECHANICAL COUPLERS".



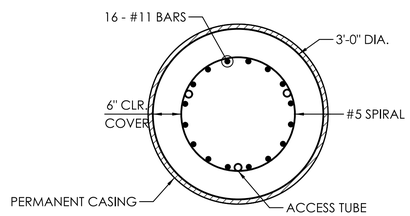
PIER CONSTRUCTION JOINT DETAIL

SCALE: 1"=1'-0"



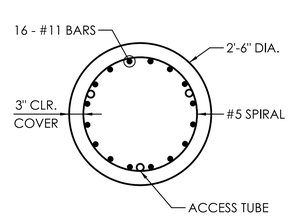
SECTION A

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



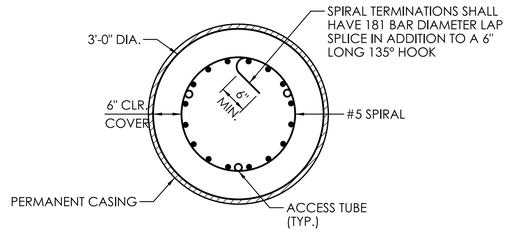
SECTION B

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



SECTION C

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



SPIRAL TERMINATION DETAIL

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

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033

DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

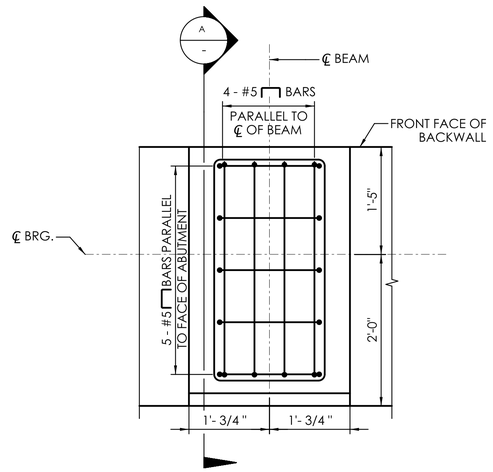
DRAWING TITLE: **PIER DETAILS**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-21**

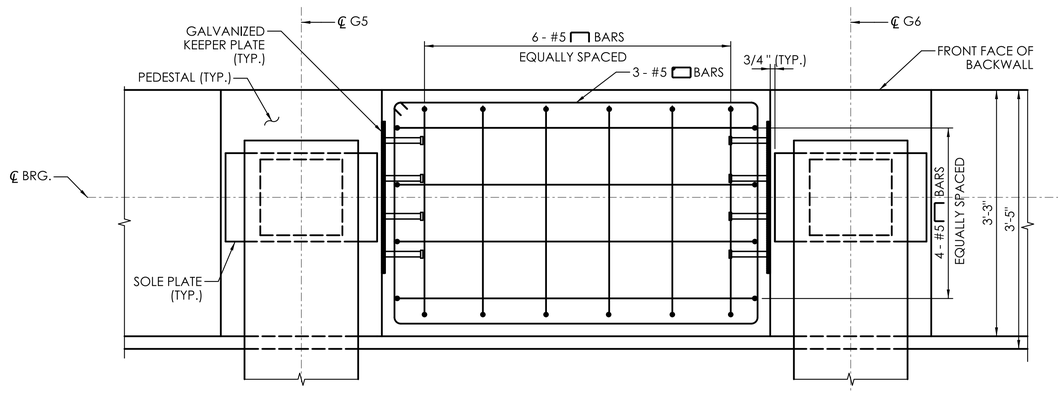
SHEET NO.: 03.21

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_PIER_DET.dgn
PLOTTED DATE: 5/12/2026



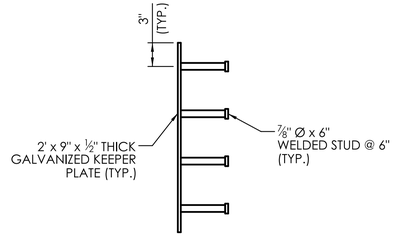
ABUTMENT CONCRETE PAD PLAN

SCALE: 1" = 1'-0"



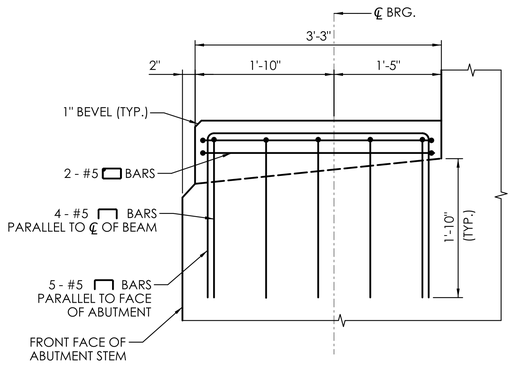
ABUTMENT KEEPER BLOCK PLAN

SCALE: 1" = 1'-0"



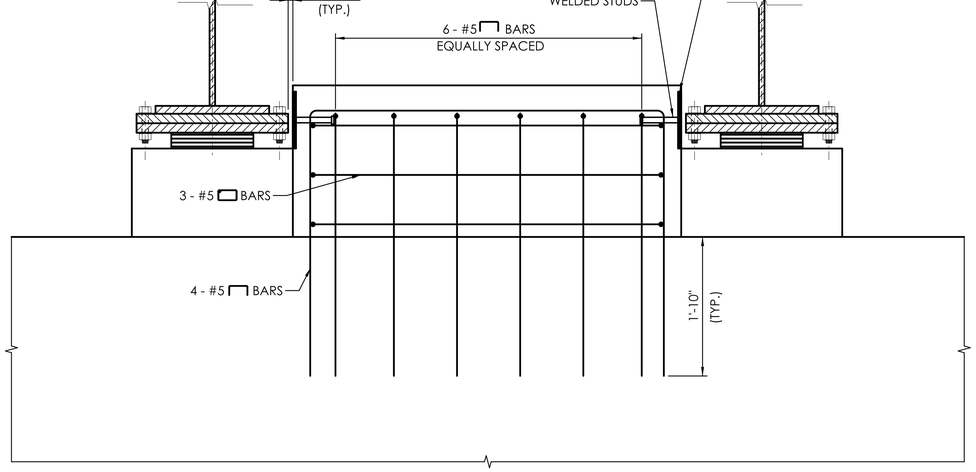
KEEPER PLATE DETAILS

NOT TO SCALE



SECTION A - A

SCALE: 1" = 1'-0"



ABUTMENT KEEPER BLOCK ELEVATION

SCALE: 1" = 1'-0"

KEEPER BLOCK NOTES:

1. 2' x 9" x ½" THICK STEEL PLATE SHALL BE PAID FOR UNDER ITEM "STRUCTURAL STEEL".
2. ⅞" DIA. x 6" WELDED STUDS SHALL BE PAID FOR UNDER ITEM "SHEAR CONNECTORS".

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: AC CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

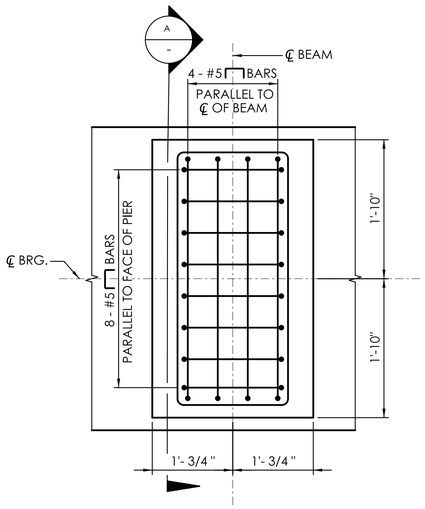
DRAWING TITLE: **KEEPER BLOCK DETAILS AT ABUTMENTS**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-22**

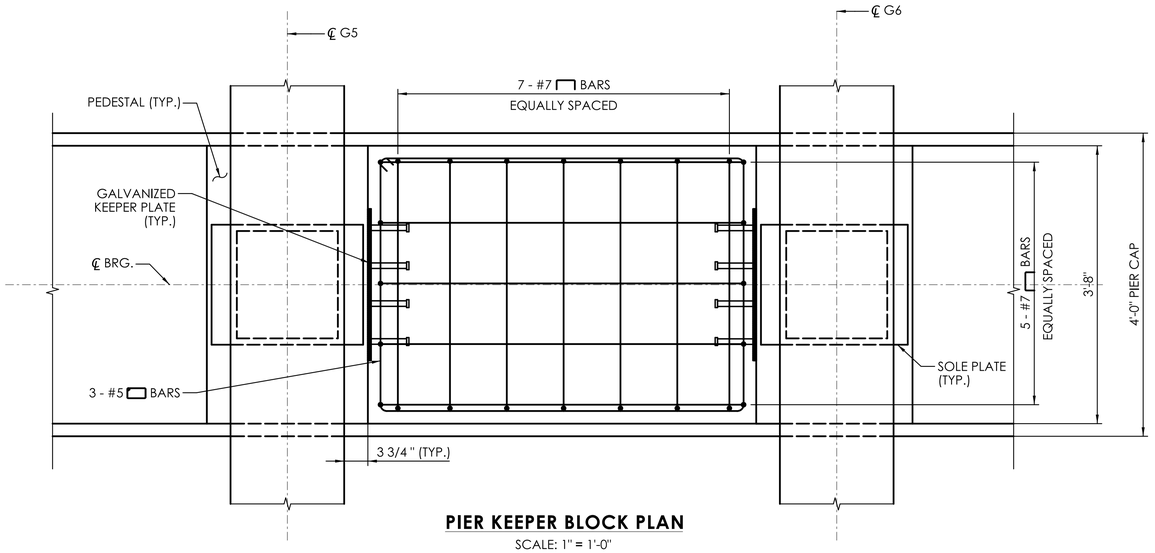
SHEET NO.: 03.22

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\.41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_KEEP_DET_ABUT.dgn
PLOTTED DATE: 5/12/2026



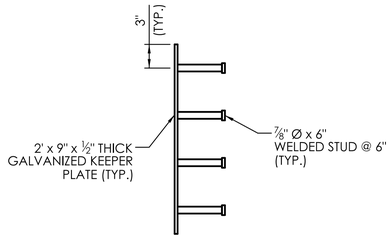
PIER CONCRETE PAD PLAN

SCALE: 1" = 1'-0"



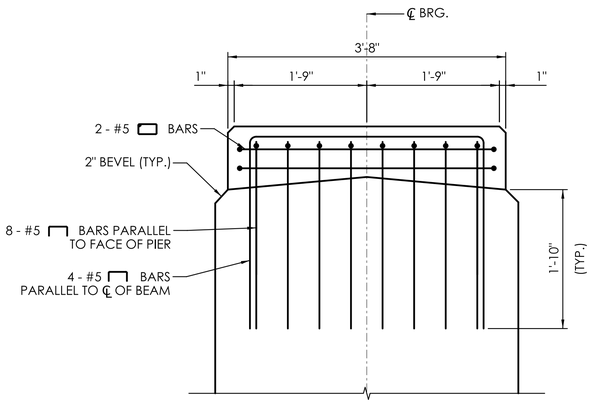
PIER KEEPER BLOCK PLAN

SCALE: 1" = 1'-0"



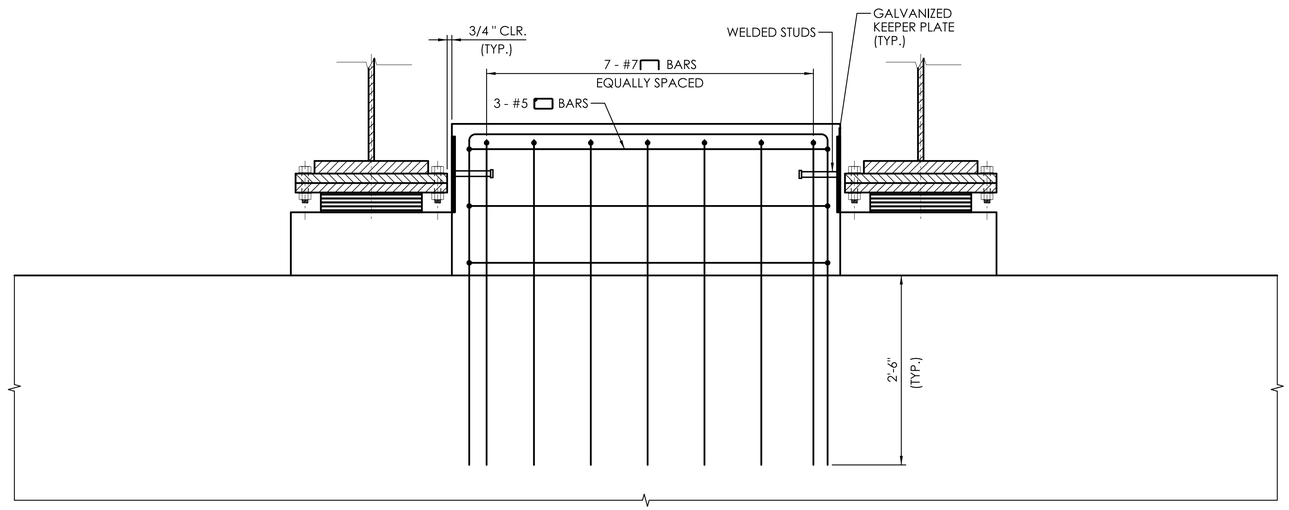
KEEPER PLATE DETAILS

NOT TO SCALE



SECTION A - A

SCALE: 1" = 1'-0"



PIER KEEPER BLOCK ELEVATION

SCALE: 1" = 1'-0"

KEEPER BLOCK NOTES:

1. 2' x 9" x ½" THICK STEEL PLATE SHALL BE PAID FOR UNDER ITEM "STRUCTURAL STEEL".
2. ⅞" DIA. x 6" WELDED STUDS SHALL BE PAID FOR UNDER ITEM "SHEAR CONNECTORS".

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: AC CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

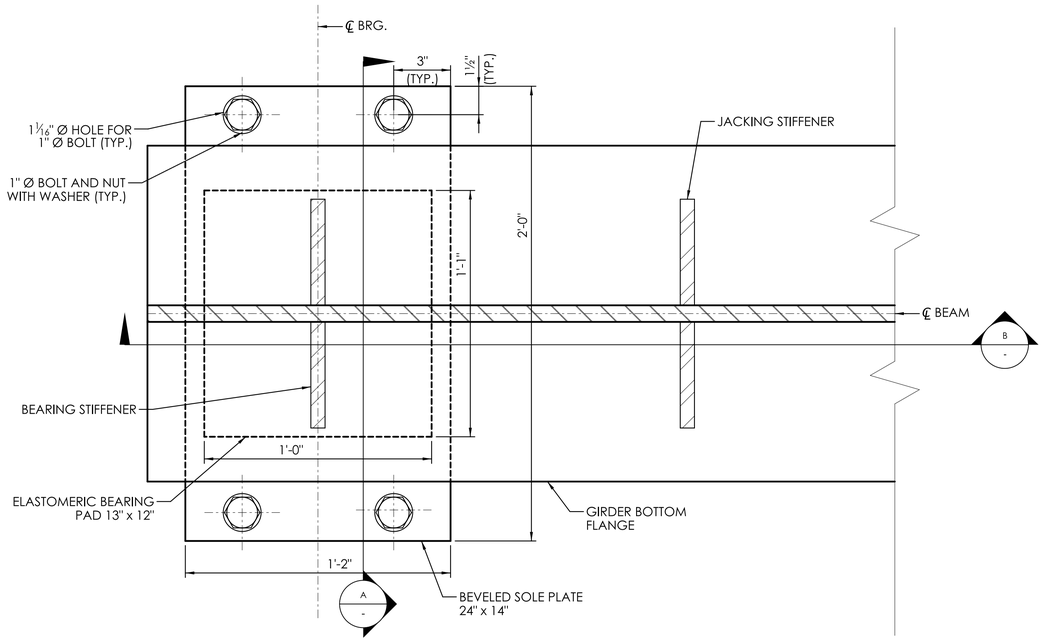
DRAWING TITLE: **KEEPER BLOCK DETAILS AT PIER**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-23**

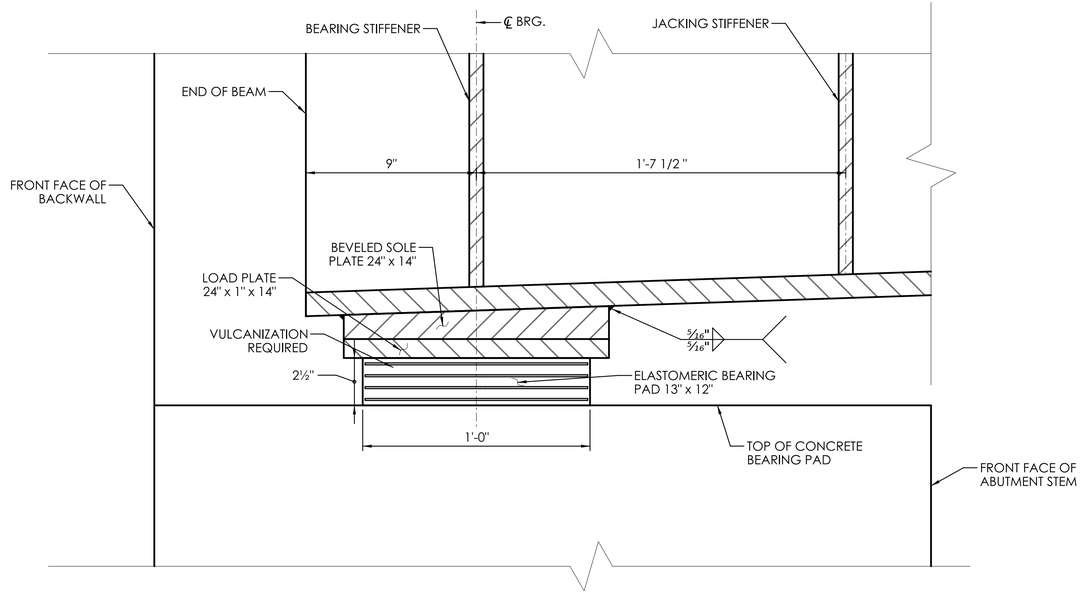
SHEET NO.: 03.23

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_KEEP_DET_PIER.dgn
PLOTTED DATE: 5/12/2026



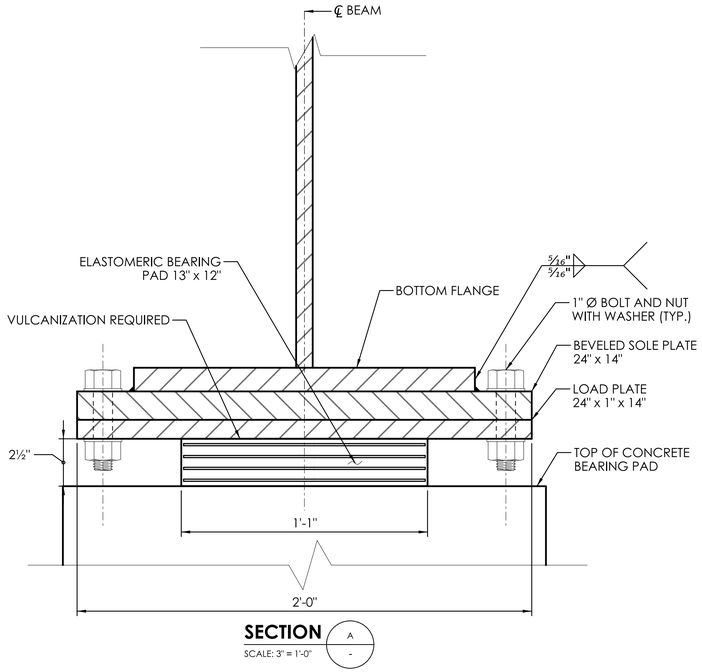
BEARING PLAN AT ABUTMENT

SCALE: 3" = 1'-0"



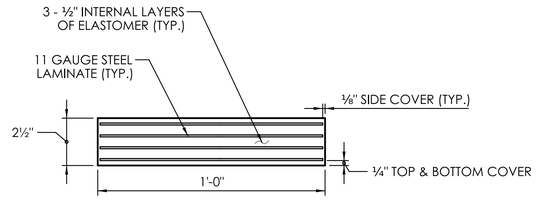
SECTION B

SCALE: 3" = 1'-0"



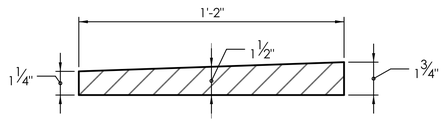
SECTION A

SCALE: 3" = 1'-0"



ELASTOMERIC BEARING PAD DETAIL AT ABUTMENT

SCALE: 3" = 1'-0"



BEVELED SOLE PLATE DETAIL AT ABUTMENT

NOT TO SCALE

ELASTOMERIC BEARING NOTES

1. ELASTOMERIC BEARING PADS SHALL BE GRADE 3 VIRGIN NEOPRENE, HARDNESS (SHORE "A" DUROMETER) OF 60.
2. THE COST OF THE BEARING, INCLUDING NUTS, BOLTS AND WASHERS SHALL BE PAID UNDER ITEM 0521021A "STEEL LAMINATED ELASTOMERIC BEARINGS".
3. DESIGN LOADS: (DESIGN METHOD = DESIGN METHOD A) UNFACTORED DESIGN LOADS:
   MAXIMUM DEAD LOAD 56 KIPS
   MAXIMUM LIVE LOAD (+ IMPACT) 83 KIPS
4. THE ENDS OF THE GIRDERS SHALL BE VERTICAL UNDER FULL DEAD LOAD AND GRADE.
5. ALL EXTERNAL STEEL PLATES SHALL CONFORM TO AASHTO M270 GRADE 50 T2. THE COST OF THE BEVELED SOLE PLATE SHALL BE INCLUDED UNDER ITEM "STRUCTURAL STEEL (SITE NO. 1)" AND THE COST OF THE LOAD PLATES SHALL BE INCLUDED UNDER ITEM "STEEL LAMINATED ELASTOMERIC BEARINGS".
6. THE TOP OF THE BEARING SHALL BE VULCANIZED UNDER HEAT AND PRESSURE TO A STEEL TOP PLATE TO FACILITATE INSTALLATIONS. THE TOP PLATE SHALL BE BOLTED TO A BEVELED SOLE PLATE. FIELD WELDING IS NOT ALLOWED.
7. BEARINGS SHALL BE INSTALLED AT TEMPERATURES AS SPECIFIED IN SPECIAL PROVISION FOR ITEM "STEEL LAMINATED ELASTOMERIC BEARINGS".

JACKING NOTES

1. GIRDER DESIGN JACKING LOADS ARE SERVICE LOADS AND INCLUDE DL AND HL-93 LL PLUS IMPACT.
   DEAD LOAD 56 KIPS
   LIVE LOAD (+ IMPACT) 83 KIPS
2. PERMIT VEHICLES SHALL BE RESTRICTED FROM CROSSING THE BRIDGE DURING JACKING OPERATIONS.

REV. | DATE | REVISION DESCRIPTION

SIGNATURE BLOCK:
GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033
DESIGNER/DRAFTER: AC CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE:
REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER

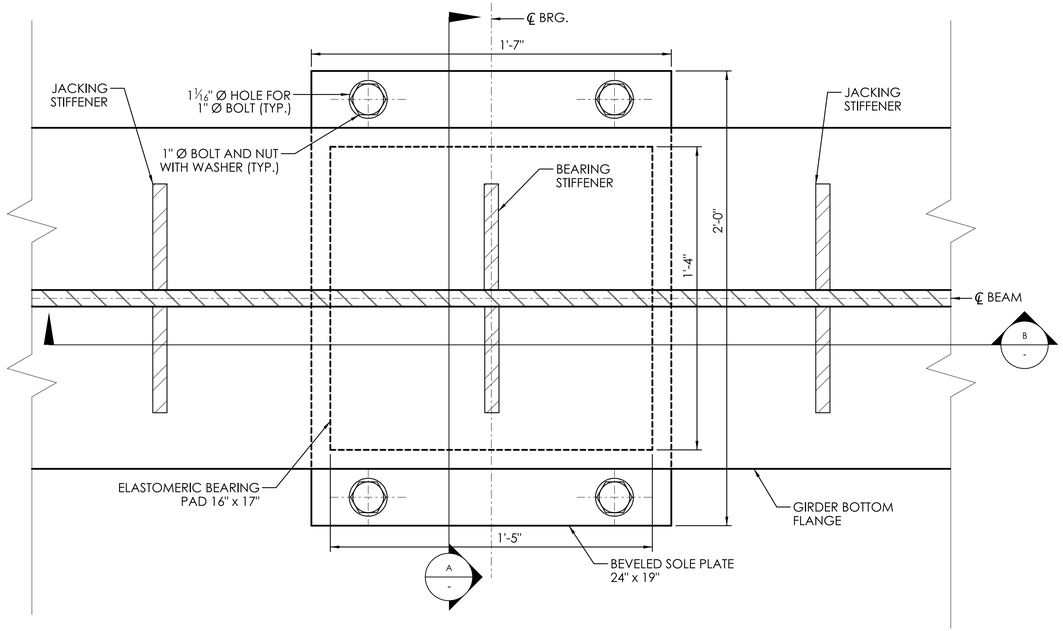
TOWN(S):
CITY OF MERIDEN

DRAWING TITLE:
BEARING DETAILS AT ABUTMENTS

PROJECT NO.: **L079-0004**

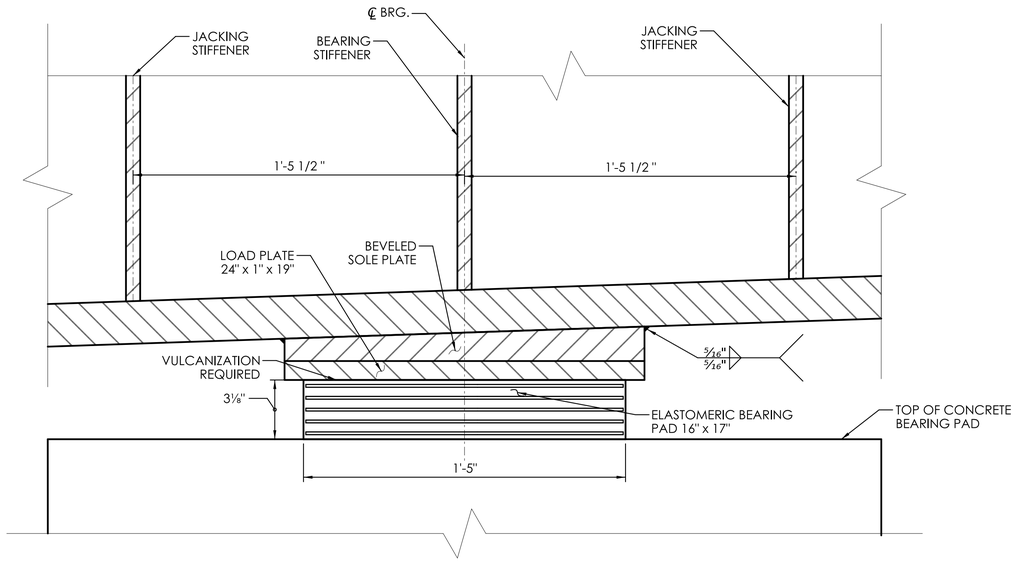
DRAWING NO.: **S-24**
SHEET NO.: 03.24

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_BRG_DET_ABUT.dgn
PLOTTED DATE: 5/12/2026



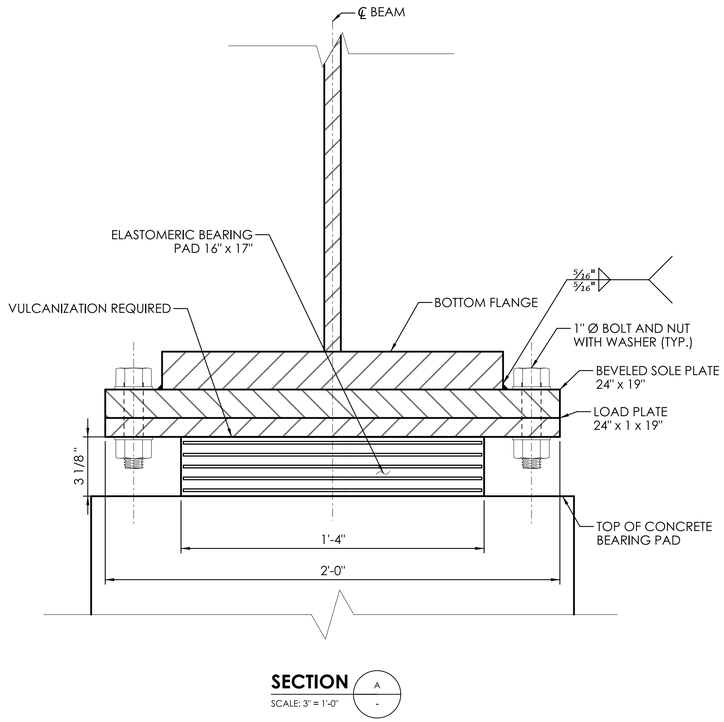
BEARING PLAN AT PIER

SCALE: 3" = 1'-0"



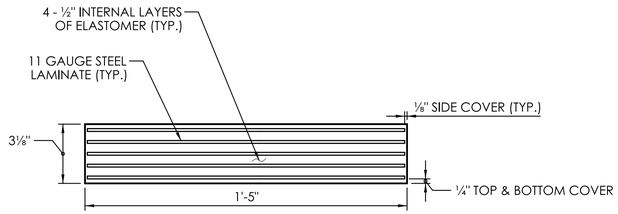
SECTION B

SCALE: 3" = 1'-0"



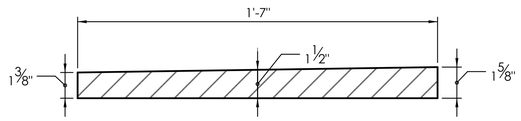
SECTION A

SCALE: 3" = 1'-0"



ELASTOMERIC BEARING PAD DETAIL AT PIER

SCALE: 3" = 1'-0"



BEVELED SOLE PLATE DETAIL AT PIER

NOT TO SCALE

ELASTOMERIC BEARING NOTES

1. ELASTOMERIC BEARING PADS SHALL BE GRADE 3 VIRGIN NEOPRENE, HARDNESS (SHORE "A" DUROMETER) OF 60.
2. THE COST OF THE BEARING, INCLUDING NUTS, BOLTS AND WASHERS SHALL BE PAID UNDER ITEM 0521021A "STEEL LAMINATED ELASTOMERIC BEARINGS"
3. DESIGN LOADS: (DESIGN METHOD = DESIGN METHOD A) UNFACTORED DESIGN LOADS:
   MAXIMUM DEAD LOAD 177 KIPS
   MAXIMUM LIVE LOAD (+ IMPACT) 145 KIPS
4. THE ENDS OF THE GIRDERS SHALL BE VERTICAL UNDER FULL DEAD LOAD AND GRADE.
5. ALL EXTERNAL STEEL PLATES SHALL CONFORM TO AASHTO M270 GRADE 50 T2. THE COST OF THE BEVELED SOLE PLATE SHALL BE INCLUDED UNDER ITEM "STRUCTURAL STEEL (SITE NO. 1)" AND THE COST OF THE LOAD PLATES SHALL BE INCLUDED UNDER ITEM "STEEL LAMINATED ELASTOMERIC BEARINGS".
6. THE TOP OF THE BEARING SHALL BE VULCANIZED UNDER HEAT AND PRESSURE TO A STEEL TOP PLATE TO FACILITATE INSTALLATIONS. THE TOP PLATE SHALL BE BOLTED TO A BEVELED SOLE PLATE. FIELD WELDING IS NOT ALLOWED.
7. BEARINGS SHALL BE INSTALLED AT TEMPERATURES AS SPECIFIED IN SPECIAL PROVISION FOR ITEM "STEEL LAMINATED ELASTOMERIC BEARINGS".

JACKING NOTES

1. GIRDER DESIGN JACKING LOADS ARE SERVICE LOADS AND INCLUDE DL AND HL-93 LL PLUS IMPACT.
   DEAD LOAD 177 KIPS
   LIVE LOAD (+ IMPACT) 145 KIPS
2. PERMIT VEHICLES SHALL BE RESTRICTED FROM CROSSING THE BRIDGE DURING JACKING OPERATIONS.

REV. | DATE | REVISION DESCRIPTION

SIGNATURE BLOCK:
GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033
DESIGNER/DRAFTER: AC CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

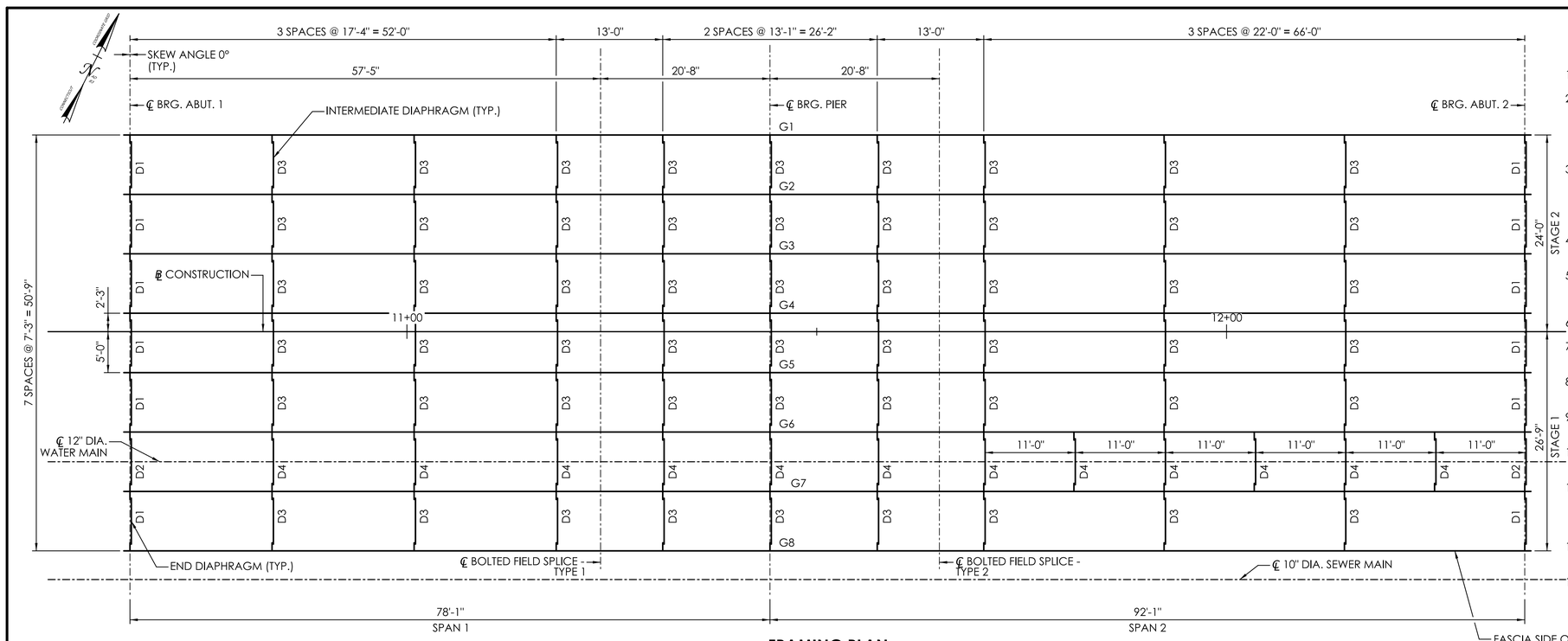
DRAWING TITLE: **BEARING DETAILS AT PIER**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-25**

SHEET NO.: 03.25

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_BRG_DET_PIER.dgn
PLOTTED DATE: 5/12/2026

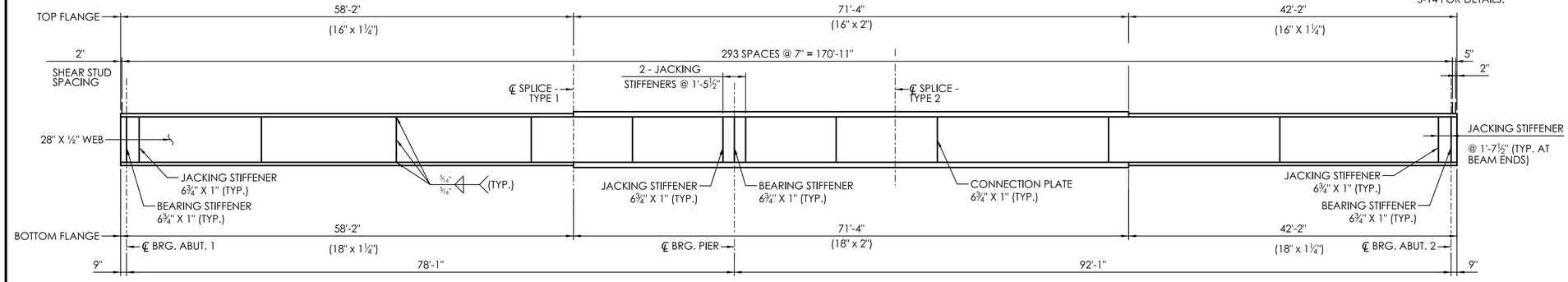


FRAMING PLAN

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

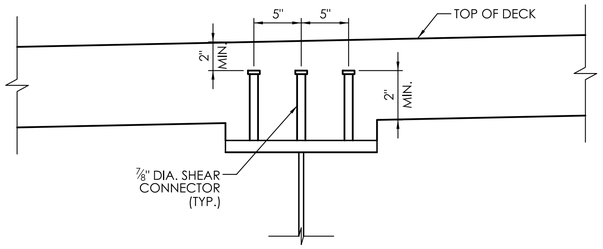
STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270, GRADE 50 T2.
2. WELDING, WELDING PROCEDURES, WELDING INSPECTION, AND TESTING METHODS SHALL MEET THE ANSI/AASHTO/AWS D1.5 - BRIDGE WELDING CODE, UNLESS OTHERWISE NOTED ON THE PLANS. THE FREQUENCY, QUANTITY, AND TYPE OF NON-DESTRUCTIVE TESTING OF SHOP AND FIELD WELDS SHALL BE IN ACCORDANCE WITH D1.5 AND ANY ADDITIONAL REQUIREMENTS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
3. BOLTED FIELD SPLICES, OTHER THAN THOSE INDICATED ON THE PLANS, WILL NOT BE ALLOWED EXCEPT WITH THE WRITTEN PERMISSION OF THE ENGINEER PRIOR TO THE SUBMISSION OF SHOP DRAWINGS. 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. WELDED FIELD SPLICES WILL NOT BE ALLOWED.
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. BEARING STIFFENERS AND THE ENDS OF GIRDERS SHALL BE VERTICAL AFTER THE APPLICATION OF FULL DEAD LOADS.
9. 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 THE STABILITY OF ALL STRUCTURAL ELEMENTS UNTIL THE TOTAL STRUCTURE IS IN BEING.
11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ANY ADDITIONAL TEMPORARY BRACING REQUIRED TO MAINTAIN THE GEOMETRY OF THE INDIVIDUAL GIRDERS, AS WELL AS THE TOTAL STEEL STRUCTURE, THROUGHOUT ALL PHASES OF CONSTRUCTION INCLUDING PLACEMENT OF THE CONCRETE DECK.
12. THE TOP OF THE TOP FLANGE OF THE GIRDER SHALL BE MASKED OFF FROM METALLIZING, SEALING AND TOPCOATS. THIS SURFACE SHALL BE COATED WITH A ZINC-RICH PRIMER ONLY.
13. BEARING PLATES FOR ELASTOMERIC BEARINGS SHALL BE METALLIZED, SEALED AND TOP COATED AFTER VULCANIZATION. ELASTOMERIC BEARING PADS SHALL BE MASKED PROPERLY TO AVOID DAMAGE DURING THE METALLIZING, SEALER AND TOPCOAT APPLICATION.



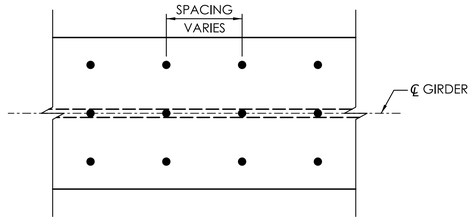
TYPICAL BEAM ELEVATION

NOT TO SCALE



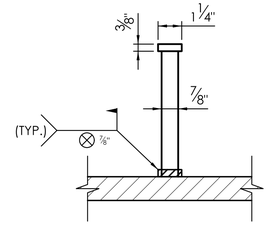
SHEAR CONNECTOR DETAIL

SCALE: 1 ½"=1'-0"



SHEAR CONNECTOR PLAN

SCALE: 1 ½"=1'-0"



STUD CONNECTOR DETAIL

SCALE: 3"=1'-0"

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

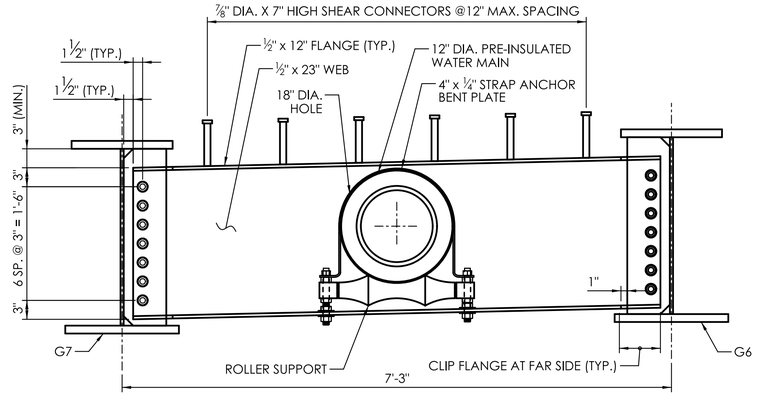
DRAWING TITLE: **FRAMING PLAN AND ELEVATION**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-26**

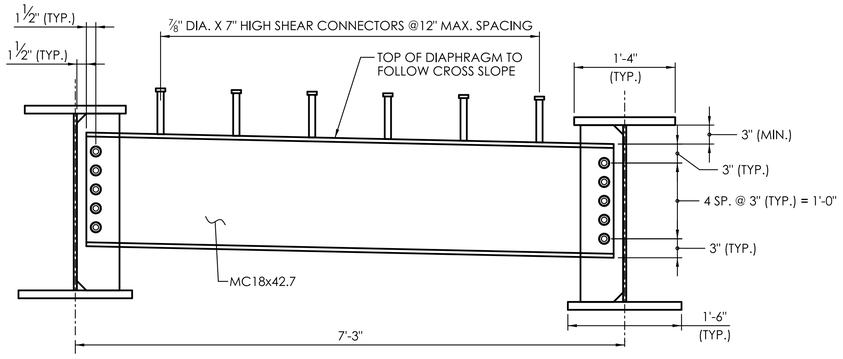
SHEET NO.: 03.26

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_FRM.dgn
PLOTTED DATE: 5/12/2026



ELEVATION - END DIAPHRAGM D2 (BAY 6)

SCALE: 1" = 1'-0"

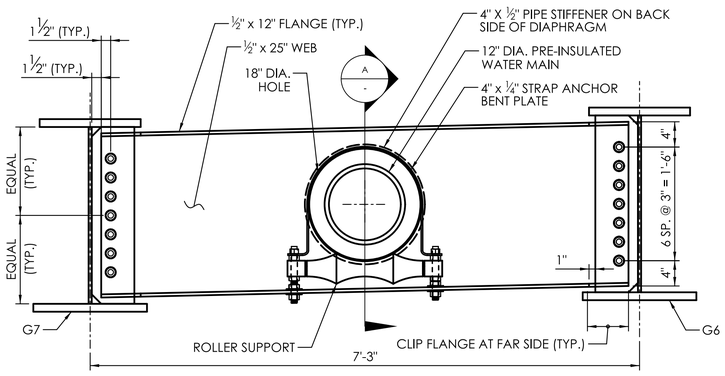


ELEVATION - END DIAPHRAGM D1

SCALE: 1" = 1'-0"

ELEVATION - INTERMEDIATE DIAPHRAGM D3

SCALE: 1" = 1'-0"



ELEVATION - INTERMEDIATE DIAPHRAGM D4 (BAY 6)

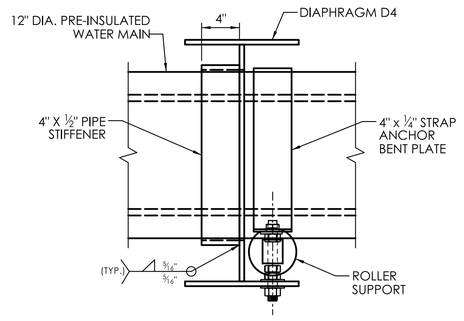
SCALE: 1" = 1'-0"

DIAPHRAGM NOTES:

1. CENTERLINE OF BOLT HOLES SHALL BE VERTICAL.
2. HOLES IN CONNECTION PLATES MAY BE FIELD DRILLED FOR 7/8" DIA. BOLTS FOR (A) CONNECTION PLATES IN THE DIAPHRAGMS IN THE CLOSURE POUR BAY AND (B) WHERE THE DIFFERENTIAL "STRUCTURE STEEL DEFLECTIONS" OF ADJACENT GIRDERS EXCEEDS 3/4" (SEE CAMBER TABLE ON DWG. NO. S-29). FOR ALL OTHER CONNECTION PLATES, 1 1/16" DIA. (OVERSIZED) HOLES FOR 7/8" DIA. BOLTS SHALL BE USED.
3. ALL BOLTED CONNECTIONS ARE SLIP CRITICAL WITH CLASS 'B' SURFACE CONDITIONS.
4. LOCATIONS OF HOLES IN CONNECTION PLATES TO BE DETERMINED BY FABRICATOR.
5. BOLTS IN THE DIAPHRAGMS IN THE CLOSURE POUR BAY SHALL ONLY BE FINGER-TIGHTENED PRIOR TO POURING THE DECK SLAB AND THEN FULLY TIGHTENED IMMEDIATELY AFTER COMPLETING THE POUR.

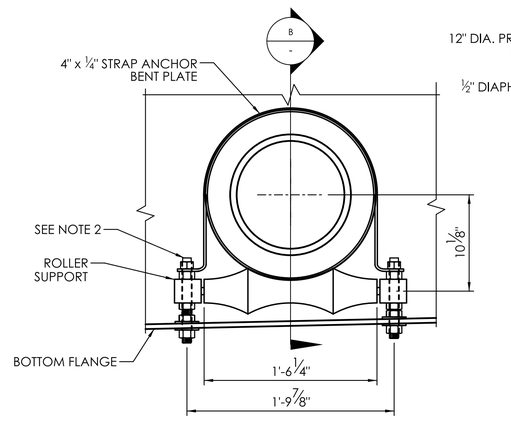
WATER MAIN NOTES:

1. 12" DIAMETER PRE-INSULATED WATER MAIN AND ROLLER SUPPORTS SHALL BE PAID FOR UNDER THE ITEM " FURNISH AND INSTALL PRE-INSULATED 12" DUCTILE IRON WATER MAIN ON BRIDGE".
2. SPACING AND HOLE SIZE FOR THE BOLTS TO BE DETERMINED BASED ON THE ACTUAL ROLLER USED.

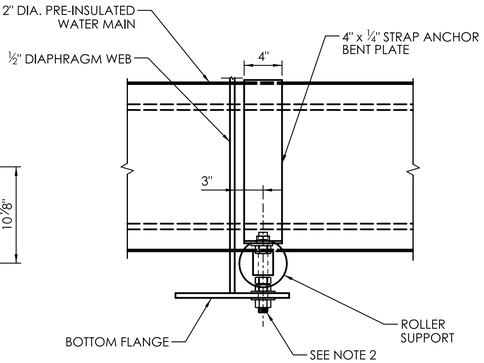


SECTION A

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



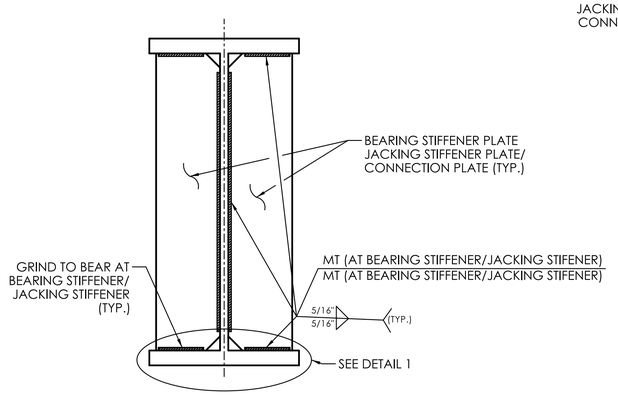
ELEVATION



SECTION B

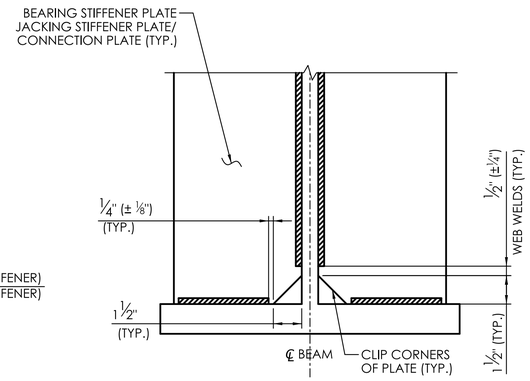
PROPOSED ROLLER SUPPORT DETAIL

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



BEARING STIFFENER/JACKING STIFFENER CONNECTION PLATE DETIAL

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



NOTE: DETAIL IS SHOWN FOR BOTTOM FLANGE. TOP FLANGE SIMILAR.

DETAIL 1
CLIP AND WELD TERMINATION DETAIL

SCALE: 3" = 1'-0"

REVISION DESCRIPTION | DATE | REV.

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: SKS CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

DRAWING TITLE: **STEEL DETAILS - 1**

PROJECT NO.: **L079-0004**

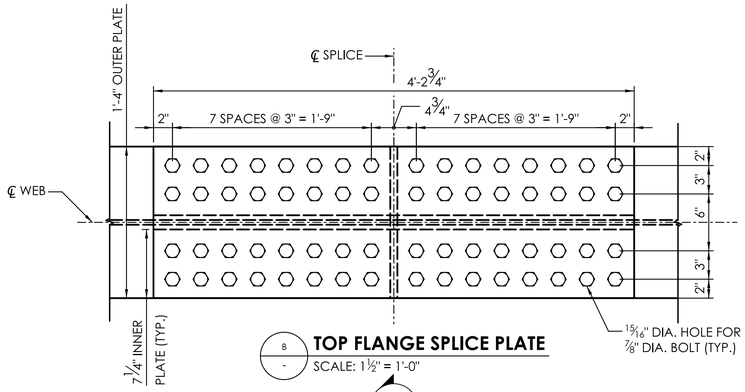
DRAWING NO.: **S-27**

SHEET NO.: 03.27

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PLOTTED DATE: 5/12/2026

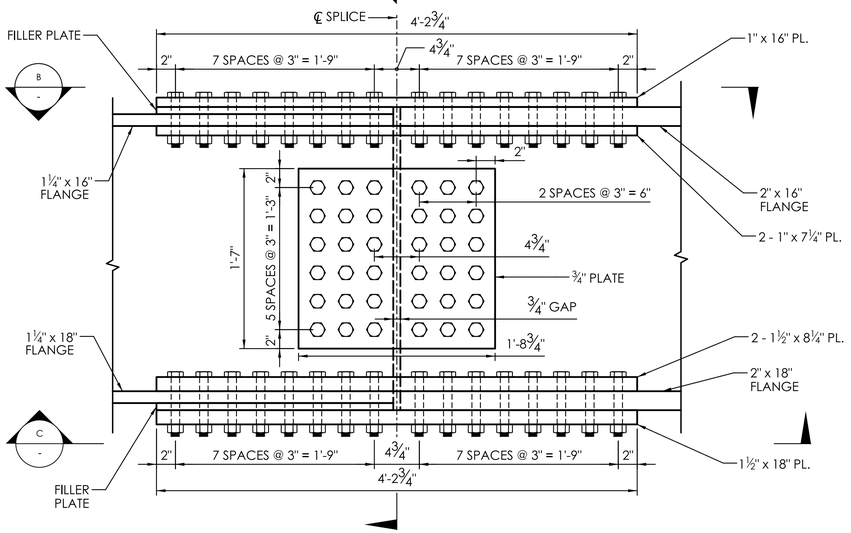
BOLTED FIELD SPLICE NOTES:

1. FOR LOCATION OF BOLTED FIELD SPLICES, SEE BEAM ELEVATION ON DWG. NO. S-26.
2. ALL HIGH STRENGTH BOLTS SHALL BE ⅞" DIA. ASTM F3125 GRADE A325, TYPE I AND BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM F2239.
3. ALL HOLES FOR SPLICE PLATES SHALL BE 15/16" DIA. FOR ⅞" DIA. BOLTS.
4. ALL BOLTED FIELD SPLICES SHALL BE "SLIP CRITICAL" CONNECTIONS WITH 'CLASS B' SURFACE CONDITIONS. STEEL FABRICATOR IS RESPONSIBLE FOR PREPARING SPLICE CONTACT AREAS TO SATISFY AASHTO REQUIREMENTS FOR 'CLASS B' SURFACE CONDITIONS.
5. ALL FAYING SURFACES SHALL BE BLAST CLEANED TO SSPC SP6.
6. BOLT HEADS SHALL FACE UPWARD ON FLANGE SPLICES AND SHALL FACE OUTWARD ON FASCIA GIRDER WEB SPLICES.
7. BOLT LENGTHS SHALL BE SUCH THAT THREADS ARE EXCLUDED FROM THE SHEAR PLANE.
8. ALL FASTENERS SHALL HAVE HEAVY HEX NUT AND ONE HARDENED WASHER UNDER THE TURNED ELEMENT. HARDENED STEEL WASHERS SHALL CONFORM TO ASTM F436 (HOT DIPPED GALVANIZED). NUTS SHALL MEET THE REQUIREMENTS OF ASTM A563 GRADE DH (HOT DIPPED GALVANIZED).
9. ALL SPLICE AND FILLER PLATES SHALL BE FREE FROM BURRS, NICKS, AND GOUGES.

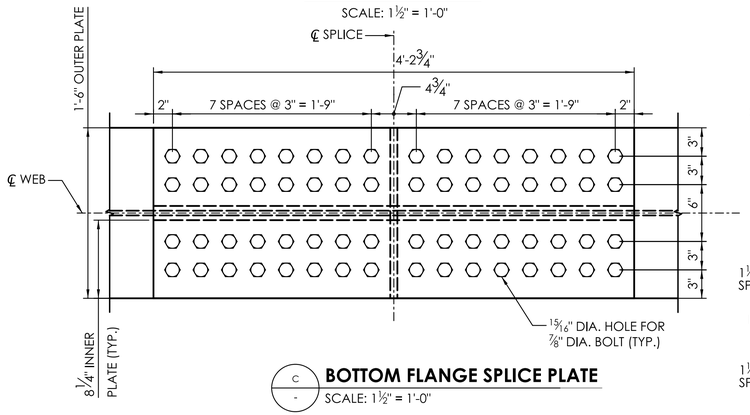


B - **TOP FLANGE SPLICE PLATE**
SCALE: 1½" = 1'-0"

A -

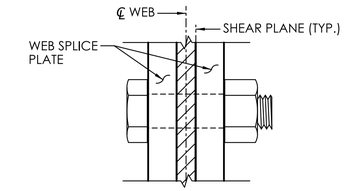


B - C - **WEB SPLICE DETAIL**
SCALE: 1½" = 1'-0"

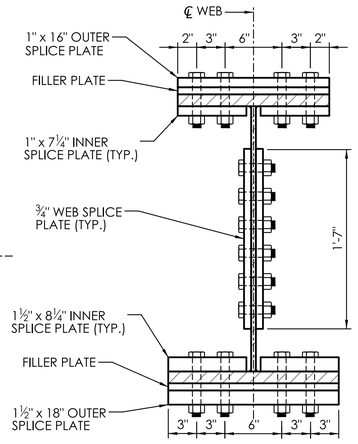


C - **BOTTOM FLANGE SPLICE PLATE**
SCALE: 1½" = 1'-0"

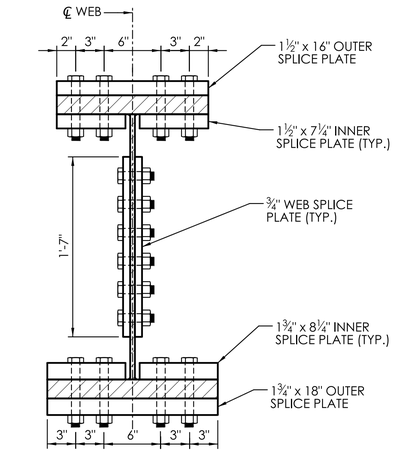
BOLTED FIELD SPLICE - TYPE 1



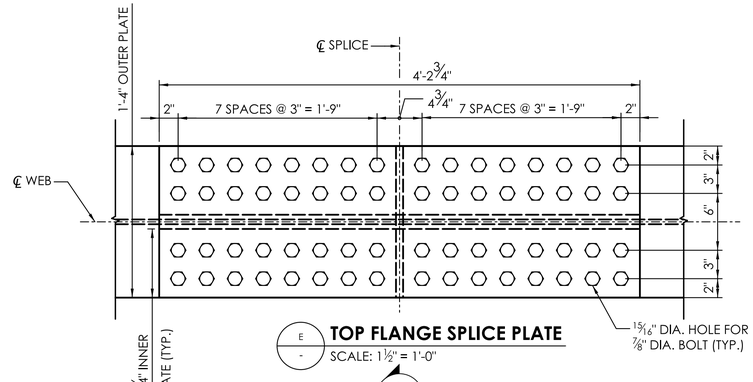
BOLT SHEAR PLANE DETAIL
SCALE: 6" = 1'-0"



A - **SPLICE DETAIL SECTION (TYPE 1)**
SCALE: 1½" = 1'-0"

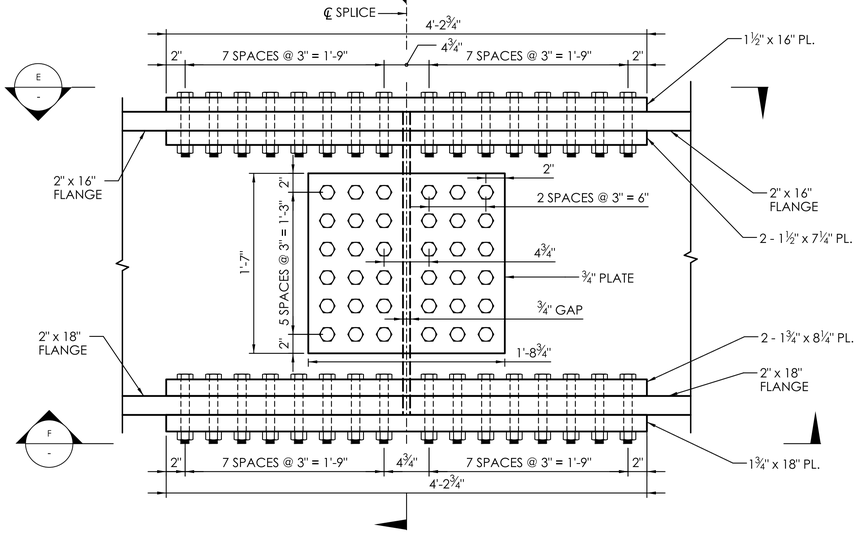


D - **SPLICE DETAIL SECTION (TYPE 2)**
SCALE: 1½" = 1'-0"

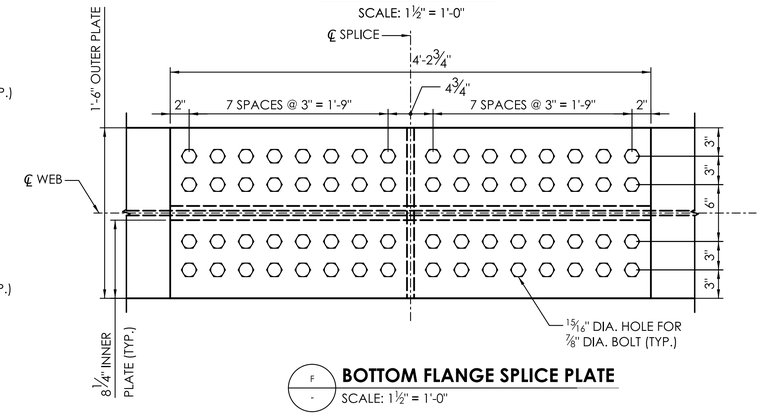


E - **TOP FLANGE SPLICE PLATE**
SCALE: 1½" = 1'-0"

D -



E - F - **WEB SPLICE DETAIL**
SCALE: 1½" = 1'-0"



F - **BOTTOM FLANGE SPLICE PLATE**
SCALE: 1½" = 1'-0"

BOLTED FIELD SPLICE - TYPE 2

REVISION DESCRIPTION | DATE | REV.

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: SKS CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

DRAWING TITLE: **STEEL DETAILS - 2**

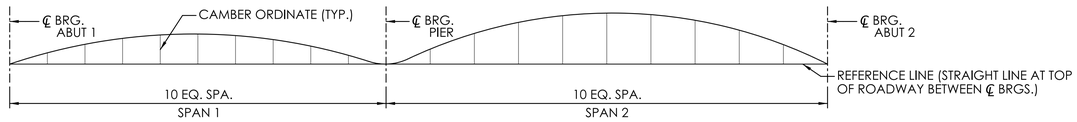
PROJECT NO.: **L079-0004**

DRAWING NO.: **S-28**
SHEET NO.: 03.28

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_STL_DET-2.dgn
PLOTTED DATE: 5/12/2026

CAMBER TABLE

GIRDER NO.		SPAN 1											SPAN 2									
		℄ BRG	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	℄ BRG	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	℄ BRG
G1	STRUCTURAL STEEL DEFLECTION	0.00	0.07	0.13	0.17	0.17	0.14	0.10	0.05	0.00	-0.02	0.00	0.11	0.26	0.42	0.55	0.64	0.67	0.61	0.46	0.25	0.00
	ADD. NON COMPOSITE DL DEFLECTION	0.00	0.23	0.42	0.55	0.56	0.50	0.37	0.21	0.07	-0.02	0.00	0.20	0.53	0.89	1.21	1.44	1.54	1.43	1.10	0.60	0.00
	COMPOSITE DL DEFLECTION	0.00	0.08	0.15	0.20	0.20	0.18	0.14	0.08	0.03	-0.01	0.00	0.07	0.19	0.32	0.44	0.51	0.54	0.50	0.38	0.21	0.00
	TOTAL DL DEFLECTION	0.00	0.39	0.70	0.92	0.93	0.82	0.61	0.34	0.10	-0.05	0.00	0.38	0.98	1.63	2.20	2.60	2.75	2.53	1.95	1.06	0.00
	VERTICAL CURVE ORDINATE	0.00	1.20	2.21	3.05	3.61	3.85	3.74	3.31	2.54	1.44	0.00	1.68	2.90	3.65	3.94	3.77	3.14	2.35	1.57	0.78	0.00
	ADDITIONAL CAMBER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL CAMBER	0.00	1.59	2.91	3.97	4.54	4.67	4.35	3.65	2.64	1.39	0.00	2.06	3.88	5.28	6.14	6.37	5.89	4.89	3.52	1.84	0.00
G2	STRUCTURAL STEEL DEFLECTION	0.00	0.09	0.16	0.20	0.21	0.18	0.13	0.06	0.01	-0.02	0.00	0.12	0.30	0.48	0.64	0.74	0.78	0.71	0.54	0.29	0.00
	ADD. NON COMPOSITE DL DEFLECTION	0.00	0.26	0.47	0.60	0.63	0.56	0.42	0.24	0.08	-0.02	0.00	0.23	0.60	1.00	1.36	1.62	1.73	1.60	1.24	0.67	0.00
	COMPOSITE DL DEFLECTION	0.00	0.08	0.14	0.17	0.18	0.16	0.12	0.07	0.02	-0.01	0.00	0.07	0.18	0.31	0.42	0.49	0.52	0.47	0.36	0.20	0.00
	TOTAL DL DEFLECTION	0.00	0.43	0.77	0.98	1.02	0.91	0.67	0.38	0.11	-0.05	0.00	0.42	1.08	1.79	2.42	2.86	3.03	2.79	2.14	1.17	0.00
	VERTICAL CURVE ORDINATE	0.00	1.20	2.21	3.05	3.61	3.85	3.74	3.31	2.54	1.44	0.00	1.68	2.90	3.65	3.94	3.77	3.14	2.35	1.57	0.78	0.00
	ADDITIONAL CAMBER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL CAMBER	0.00	1.62	2.98	4.03	4.64	4.75	4.41	3.68	2.65	1.39	0.00	2.10	3.98	5.44	6.36	6.63	6.17	5.14	3.71	1.95	0.00
G3	STRUCTURAL STEEL DEFLECTION	0.00	0.09	0.16	0.20	0.21	0.18	0.13	0.06	0.01	-0.02	0.00	0.12	0.30	0.48	0.64	0.74	0.78	0.71	0.54	0.29	0.00
	ADD. NON COMPOSITE DL DEFLECTION	0.00	0.26	0.47	0.60	0.63	0.56	0.42	0.24	0.08	-0.02	0.00	0.23	0.60	1.00	1.36	1.62	1.73	1.60	1.24	0.67	0.00
	COMPOSITE DL DEFLECTION	0.00	0.08	0.14	0.17	0.18	0.16	0.12	0.07	0.02	-0.01	0.00	0.07	0.18	0.31	0.42	0.49	0.52	0.47	0.36	0.20	0.00
	TOTAL DL DEFLECTION	0.00	0.43	0.77	0.98	1.02	0.91	0.67	0.38	0.11	-0.05	0.00	0.42	1.08	1.79	2.42	2.86	3.03	2.79	2.14	1.17	0.00
	VERTICAL CURVE ORDINATE	0.00	1.20	2.21	3.05	3.61	3.85	3.74	3.31	2.54	1.44	0.00	1.68	2.90	3.65	3.94	3.77	3.14	2.35	1.57	0.78	0.00
	ADDITIONAL CAMBER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL CAMBER	0.00	1.62	2.98	4.03	4.64	4.75	4.41	3.68	2.65	1.39	0.00	2.10	3.98	5.44	6.36	6.63	6.17	5.14	3.71	1.95	0.00
G4	STRUCTURAL STEEL DEFLECTION	0.00	0.08	0.14	0.17	0.18	0.15	0.11	0.05	0.00	-0.02	0.00	0.11	0.27	0.43	0.57	0.66	0.69	0.62	0.48	0.26	0.00
	ADD. NON COMPOSITE DL DEFLECTION	0.00	0.26	0.47	0.60	0.63	0.56	0.42	0.24	0.08	-0.02	0.00	0.23	0.60	1.00	1.36	1.62	1.73	1.60	1.24	0.67	0.00
	COMPOSITE DL DEFLECTION	0.00	0.08	0.14	0.17	0.18	0.16	0.12	0.07	0.02	-0.01	0.00	0.07	0.18	0.31	0.42	0.49	0.52	0.47	0.36	0.20	0.00
	TOTAL DL DEFLECTION	0.00	0.41	0.75	0.95	0.99	0.88	0.65	0.36	0.11	-0.05	0.00	0.41	1.04	1.74	2.34	2.77	2.93	2.70	2.07	1.13	0.00
	VERTICAL CURVE ORDINATE	0.00	1.20	2.21	3.05	3.61	3.85	3.74	3.31	2.54	1.44	0.00	1.68	2.90	3.65	3.94	3.77	3.14	2.35	1.57	0.78	0.00
	ADDITIONAL CAMBER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL CAMBER	0.00	1.61	2.96	3.99	4.60	4.72	4.39	3.67	2.64	1.39	0.00	2.09	3.95	5.39	6.29	6.54	6.07	5.06	3.64	1.91	0.00
G5	STRUCTURAL STEEL DEFLECTION	0.00	0.08	0.14	0.17	0.18	0.15	0.11	0.05	0.00	-0.02	0.00	0.11	0.27	0.43	0.57	0.66	0.69	0.62	0.48	0.26	0.00
	ADD. NON COMPOSITE DL DEFLECTION	0.00	0.26	0.47	0.60	0.63	0.56	0.42	0.24	0.08	-0.02	0.00	0.23	0.60	1.00	1.36	1.62	1.73	1.60	1.24	0.67	0.00
	COMPOSITE DL DEFLECTION	0.00	0.08	0.14	0.17	0.18	0.16	0.12	0.07	0.02	-0.01	0.00	0.07	0.18	0.31	0.42	0.49	0.52	0.47	0.36	0.20	0.00
	TOTAL DL DEFLECTION	0.00	0.41	0.75	0.95	0.99	0.88	0.65	0.36	0.11	-0.05	0.00	0.41	1.04	1.74	2.34	2.77	2.93	2.70	2.07	1.13	0.00
	VERTICAL CURVE ORDINATE	0.00	1.20	2.21	3.05	3.61	3.85	3.74	3.31	2.54	1.44	0.00	1.68	2.90	3.65	3.94	3.77	3.14	2.35	1.57	0.78	0.00
	ADDITIONAL CAMBER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL CAMBER	0.00	1.61	2.96	3.99	4.60	4.72	4.39	3.67	2.64	1.39	0.00	2.09	3.95	5.39	6.29	6.54	6.07	5.06	3.64	1.91	0.00
G6	STRUCTURAL STEEL DEFLECTION	0.00	0.09	0.16	0.20	0.21	0.18	0.12	0.06	0.00	-0.03	0.00	0.13	0.32	0.53	0.69	0.81	0.85	0.77	0.59	0.32	0.00
	ADD. NON COMPOSITE DL DEFLECTION	0.00	0.26	0.47	0.60	0.63	0.56	0.42	0.24	0.08	-0.02	0.00	0.23	0.60	1.00	1.36	1.62	1.73	1.60	1.24	0.67	0.00
	COMPOSITE DL DEFLECTION	0.00	0.09	0.16	0.20	0.21	0.19	0.14	0.08	0.03	-0.01	0.00	0.08	0.22	0.36	0.48	0.57	0.60	0.55	0.42	0.23	0.00
	TOTAL DL DEFLECTION	0.00	0.44	0.79	1.01	1.05	0.93	0.68	0.38	0.10	-0.06	0.00	0.44	1.13	1.88	2.54	3.00	3.18	2.93	2.25	1.22	0.00
	VERTICAL CURVE ORDINATE	0.00	1.20	2.21	3.05	3.61	3.85	3.74	3.31	2.54	1.44	0.00	1.68	2.90	3.65	3.94	3.77	3.14	2.35	1.57	0.78	0.00
	ADDITIONAL CAMBER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL CAMBER	0.00	1.64	3.01	4.05	4.66	4.77	4.43	3.69	2.64	1.38	0.00	2.13	4.04	5.54	6.48	6.77	6.32	5.28	3.82	2.01	0.00
G7	STRUCTURAL STEEL DEFLECTION	0.00	0.09	0.16	0.20	0.21	0.18	0.12	0.06	0.00	-0.03	0.00	0.13	0.32	0.53	0.69	0.81	0.85	0.77	0.59	0.32	0.00
	ADD. NON COMPOSITE DL DEFLECTION	0.00	0.26	0.47	0.60	0.63	0.56	0.42	0.24	0.08	-0.02	0.00	0.23	0.60	1.00	1.36	1.62	1.73	1.60	1.24	0.67	0.00
	COMPOSITE DL DEFLECTION	0.00	0.09	0.16	0.20	0.21	0.19	0.14	0.08	0.03	-0.01	0.00	0.08	0.22	0.36	0.48	0.57	0.60	0.55	0.42	0.23	0.00
	TOTAL DL DEFLECTION	0.00	0.44	0.79	1.01	1.05	0.93	0.68	0.38	0.10	-0.06	0.00	0.44	1.13	1.88	2.54	3.00	3.18	2.93	2.25	1.22	0.00
	VERTICAL CURVE ORDINATE	0.00	1.20	2.21	3.05	3.61	3.85	3.74	3.31	2.54	1.44	0.00	1.68	2.90	3.65	3.94	3.77	3.14	2.35	1.57	0.78	0.00
	ADDITIONAL CAMBER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL CAMBER	0.00	1.64	3.01	4.05	4.66	4.77	4.43	3.69	2.64	1.38	0.00	2.13	4.04	5.54	6.48	6.77	6.32	5.28	3.82	2.01	0.00
G8	STRUCTURAL STEEL DEFLECTION	0.00	0.11	0.19	0.24	0.25	0.22	0.15	0.08	0.01	-0.03	0.00	0.14	0.34	0.55	0.74	0.86	0.90	0.82	0.63	0.34	0.00
	ADD. NON COMPOSITE DL DEFLECTION	0.00	0.23	0.42	0.54	0.56	0.50	0.37	0.21	0.07	-0.02	0.00	0.20	0.53	0.89	1.21	1.44	1.54	1.43	1.10	0.60	0.00
	COMPOSITE DL DEFLECTION	0.00	0.10	0.18	0.23	0.25	0.22	0.17	0.10	0.03	-0.01	0.00	0.09	0.24	0.40	0.54	0.63	0.67	0.61	0.47	0.26	0.00
	TOTAL DL DEFLECTION	0.00	0.44	0.80	1.01	1.06	0.94	0.69	0.39	0.11	-0.05	0.00	0.43	1.11	1.84	2.48	2.93	3.11	2.86	2.20	1.20	0.00
	VERTICAL CURVE ORDINATE	0.00	1.20	2.21	3.05	3.61	3.85	3.74	3.31	2.54	1.44	0.00	1.68	2.90	3.65	3.94	3.77	3.14	2.35	1.57	0.78	0.00
	ADDITIONAL CAMBER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL CAMBER	0.00	1.64	3.01	4.06	4.67	4.78	4.44	3.70	2.65	1.39	0.00	2.11	4.01	5.49	6.43	6.70	6.25	5.22	3.77	1.98	0.00



CAMBER DIAGRAM

N.T.S

REVISION DESCRIPTION | DATE | REV.

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033

DESIGNER/DRAFTER: PBR CHECKED BY: GA

NOT TO SCALE

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

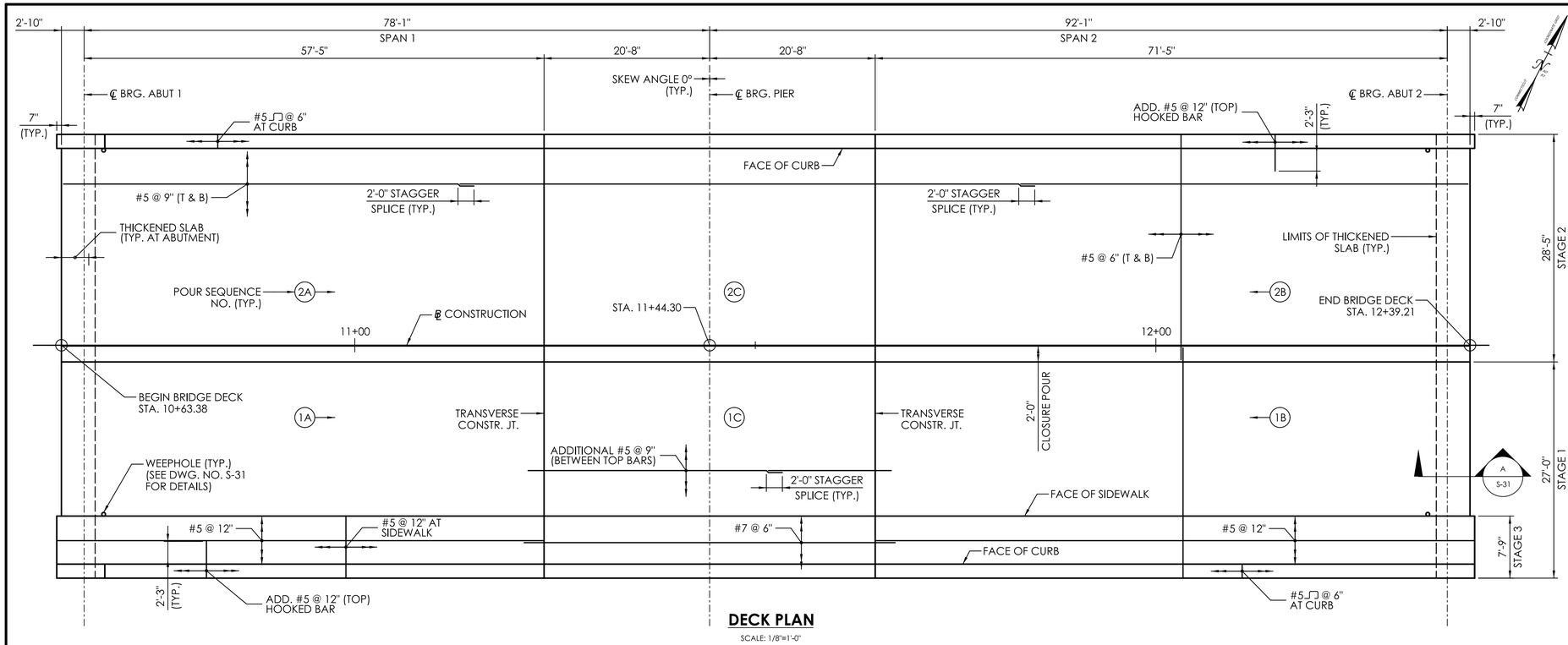
DRAWING TITLE: **CAMBER TABLE**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-29**

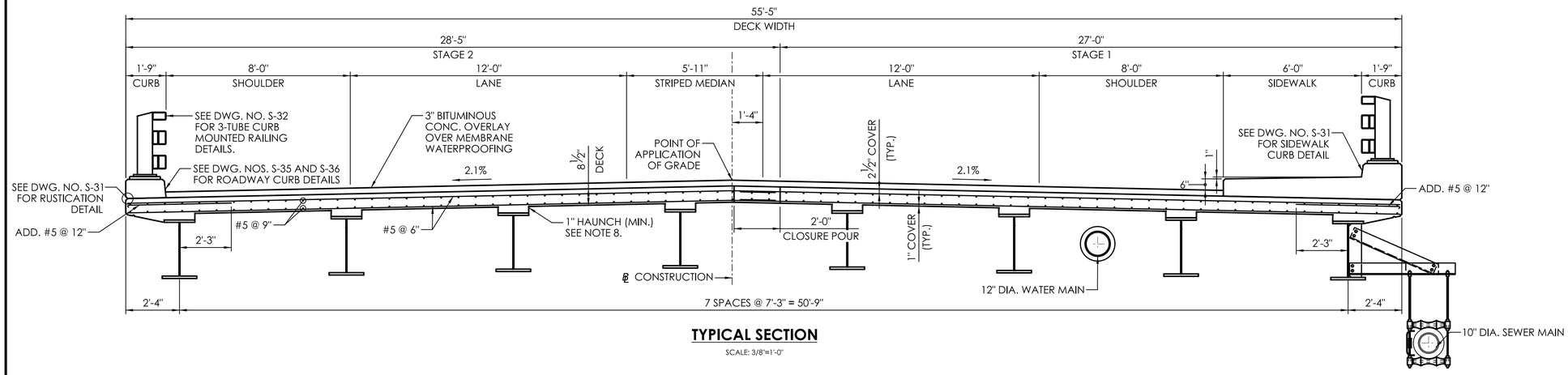
SHEET NO.: 03.29

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_CAMBER.dgn
PLOTTED DATE: 5/12/2026



DECK PLAN

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



TYPICAL SECTION

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

NOTES:

1. PCC 04462 CLASS CONCRETE SHALL BE USED THROUGHOUT THE ENTIRE DECK INCLUDING CURB AND SIDEWALK AS SHOWN ON THE SLAB PLAN.
2. ALL REINFORCEMENT IN THE SUPERSTRUCTURE, INCLUDING DECK, CURB AND SIDEWALK, SHALL BE GALVANIZED AND SHALL BE PAID FOR UNDER THE ITEM " DEFORMED STEEL BARS - GALVANIZED".
3. MAIN REINFORCEMENT SHALL BE PLACED PERPENDICULAR TO THE GIRDERS.
4. MEMBRANE WATERPROOFING SHALL BE SPRAY-APPLIED AND SHALL BE PAID FOR UNDER THE ITEM "MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC)". SEE SPECIAL PROVISIONS.
5. FOR CONSTRUCTION STAGING DETAILS, SEE DWG. NO. S-04.
6. ADDITIONAL BRACING OF THE GIRDERS MAY BE REQUIRED DURING THE PLACEMENT OF THE SLAB. SEE STANDARD SPECIFICATIONS FOR ADDITIONAL BRACING REQUIRED.
7. CONCRETE FOR THE CLOSURE POUR SHALL BE PAID UNDER THE ITEM "ULTRA HIGH PERFORMANCE CONCRETE".
8. THE MINIMUM HAUNCH THICKNESS SHALL BE MEASURED FROM THE TOP OF THE BOLTED FIELD SPLICE - TYPE 2 PLATE. SEE DWG. NOS. S-26 AND S-28 FOR FIELD SPLICE LOCATIONS AND DETAILS.

POUR SEQUENCE NOTES:

1. A MINIMUM OF FIVE DAYS SHALL ELAPSE BETWEEN TWO CONSECUTIVE POURS.
2. A MINIMUM COMPRESSIVE STRENGTH OF 2800 PSI SHALL BE OBTAINED IN A POUR SECTION PRIOR TO PLACING CONCRETE IN THE NEXT POUR SECTION.
3. ALL CONCRETE SHALL BE KEPT IN FLUID CONDITION UNTIL THE ENTIRE POUR IS COMPLETED.
4. A DECK POURING SEQUENCE DIFFERENT FROM THAT SHOWN MAY NOT BE USED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.

FINISHED DECK ELEVATIONS ALONG ℄ GIRDERS

GIRDER	℄ BRG. ABUT 1	SPAN 1									℄ BRG. PIER	SPAN 2									℄ BRG. ABUT 2
		0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L		0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	
G1	95.84	96.14	96.44	96.71	96.97	97.20	97.39	97.57	97.71	97.82	97.91	97.98	98.01	98.00	97.95	97.86	97.74	97.60	97.46	97.32	97.19
G2	95.99	96.30	96.59	96.86	97.12	97.35	97.55	97.72	97.86	97.98	98.06	98.13	98.16	98.15	98.10	98.01	97.89	97.75	97.61	97.48	97.34
G3	96.14	96.45	96.74	97.02	97.27	97.50	97.70	97.87	98.01	98.13	98.21	98.28	98.31	98.30	98.25	98.17	98.04	97.90	97.76	97.63	97.49
G4	96.29	96.60	96.89	97.17	97.42	97.65	97.85	98.02	98.16	98.28	98.36	98.43	98.46	98.45	98.40	98.32	98.19	98.05	97.92	97.78	97.64
G5	96.23	96.54	96.83	97.11	97.36	97.59	97.79	97.96	98.10	98.22	98.31	98.38	98.40	98.39	98.35	98.26	98.13	98.00	97.86	97.72	97.58
G6	96.08	96.39	96.68	96.96	97.21	97.44	97.64	97.81	97.95	98.07	98.16	98.22	98.25	98.24	98.20	98.11	97.98	97.84	97.71	97.57	97.43
G7	95.93	96.24	96.53	96.81	97.06	97.29	97.49	97.66	97.80	97.92	98.01	98.07	98.10	98.09	98.04	97.96	97.83	97.69	97.56	97.42	97.28
G8	95.78	96.09	96.38	96.66	96.91	97.14	97.34	97.51	97.65	97.77	97.85	97.92	97.95	97.94	97.89	97.81	97.68	97.54	97.40	97.27	97.13

REVISION DESCRIPTION | DATE | REV.

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

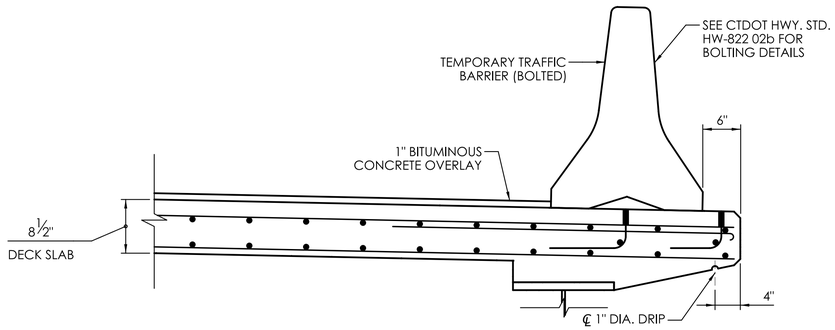
DRAWING TITLE: **DECK PLAN**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-30**

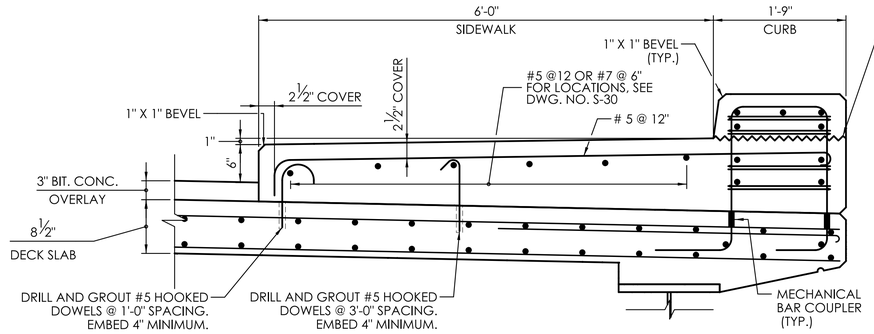
SHEET NO.: 03.30

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_DECK.dgn
PLOTTED DATE: 5/12/2026



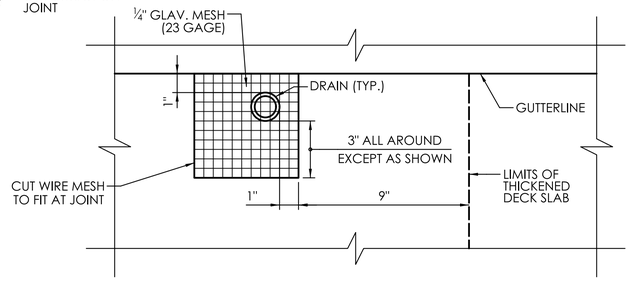
SIDEWALK DETAIL DURING STAGE 2

SCALE: 1"=1'-0"



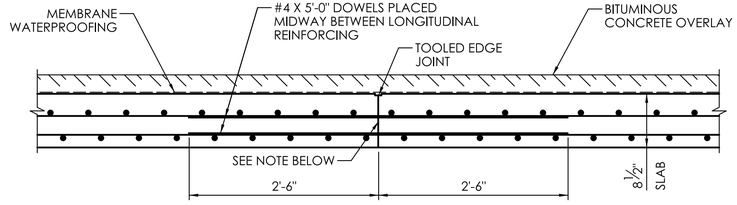
SIDEWALK DETAIL DURING STAGE 3

SCALE: 1"=1'-0"



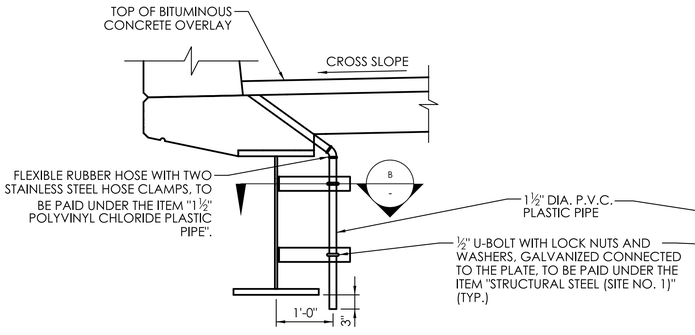
DECK WEEPHOLE OVERLAY INTERFACE

SCALE: 3"=1'-0"



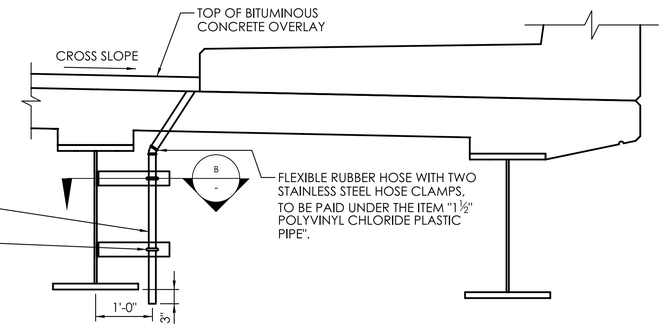
TRANSVERSE CONSTRUCTION JOINT SECTION

SCALE: 1"=1'-0"



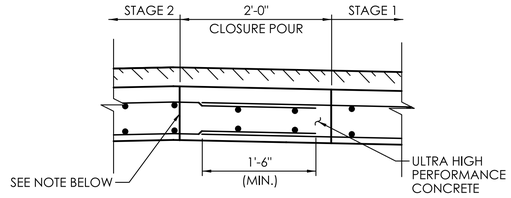
DECK WEEPHOLE DETAILS AT ROADWAY CURB

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



DECK WEEPHOLE DETAILS AT SIDEWALK

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

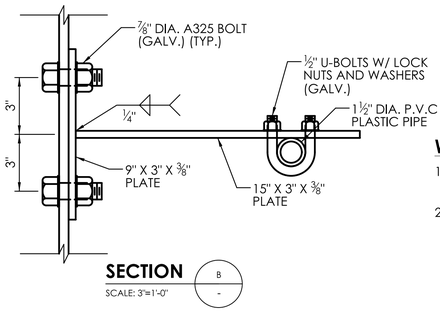


CLOSURE POUR DETAIL

SCALE: 1"=1'-0"

TRANSVERSE CONSTRUCTION JOINT AND CLOSURE POUR NOTE:

1. ROUGHEN SURFACE, BLAST CLEAN THEN APPLY A NEAT CEMENT GROUT OR OTHER SUITABLE BONDING MATERIAL IMMEDIATELY PRIOR TO PLACING ADJACENT POUR.



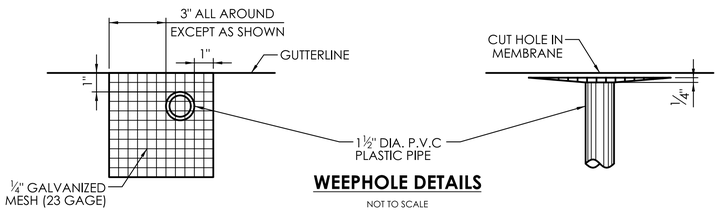
SECTION

SCALE: 3"=1'-0"

B
-

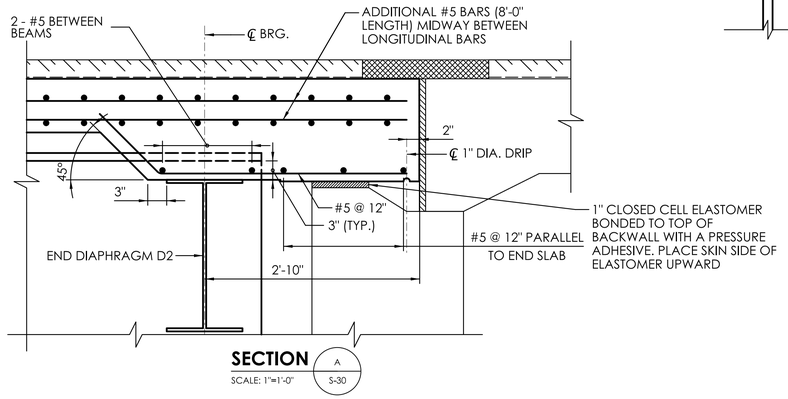
WEEPHOLE NOTES

1. SEE PLAN ON DWG. NO. S-30 FOR LOCATIONS OF DRAINS.
2. THE COST OF FURNISHING AND INSTALLING ¼" SQUARE GALVANIZED WIRE MESH SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR "HMA S0.25".



WEEPHOLE DETAILS

NOT TO SCALE



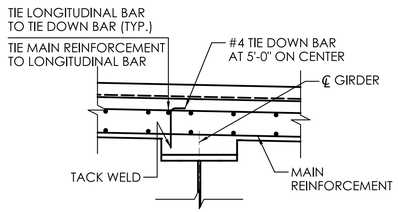
SECTION

SCALE: 1"=1'-0"

A
S-30

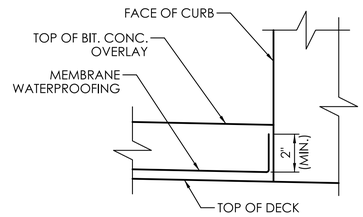
TIE DOWN NOTES

1. TIE-DOWN BARS DO NOT EXCLUDE THE USE OF CHAIRS FOR SUPPORTING THE REINFORCEMENT MAT.
2. THE COST OF FURNISHING AND PLACING TIE-DOWN BARS TO BE INCLUDED IN THE CONTRACT ITEM "DEFORMED STEEL BARS - GALVANIZED".
3. TIE-DOWN BARS AND LONGITUDINAL BARS SHALL CLEAR SHEAR CONNECTORS.



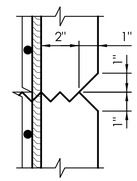
TIE DOWN FOR SLAB REINFORCEMENT

NOT TO SCALE



TREATMENT OF MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC) AT GUTTER

NOT TO SCALE



RUSTICATION DETAIL

NOT TO SCALE

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033

DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

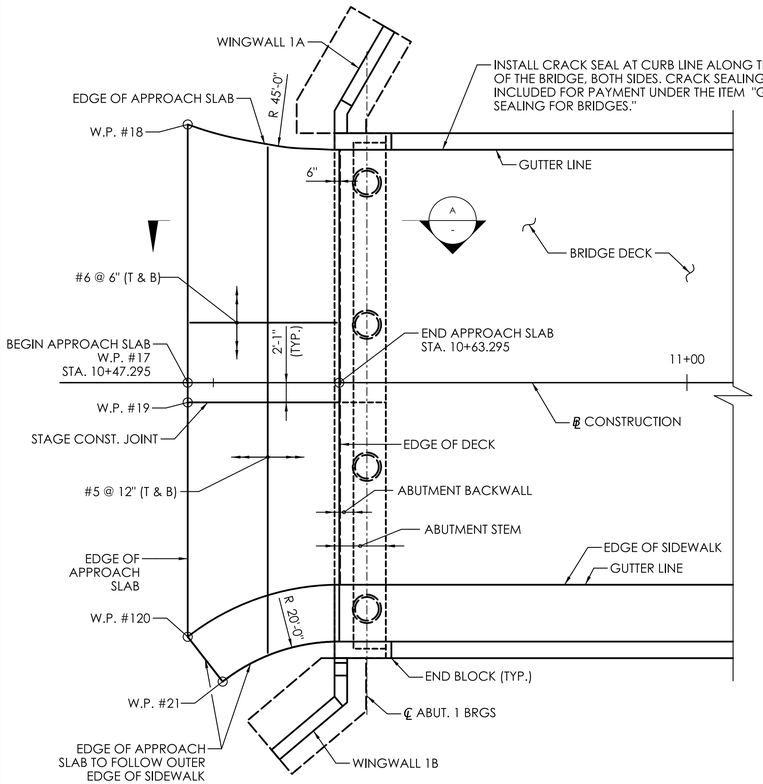
DRAWING TITLE: **MISCELLANEOUS DECK DETAILS**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-31**

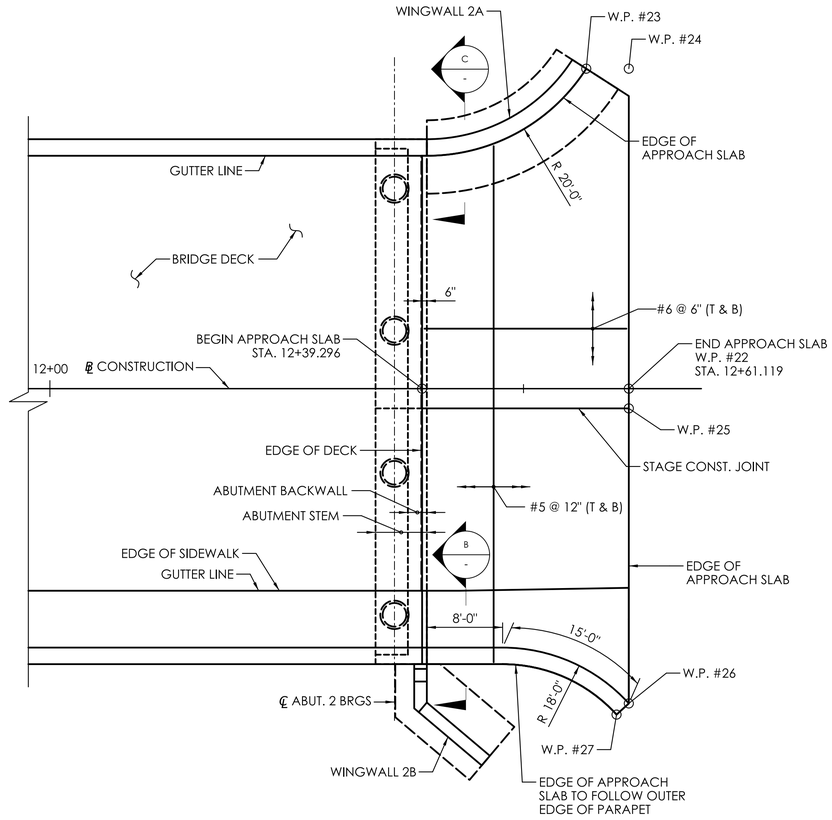
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PLOTTED DATE: 5/12/2026



APPROACH SLAB 1 PLAN

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

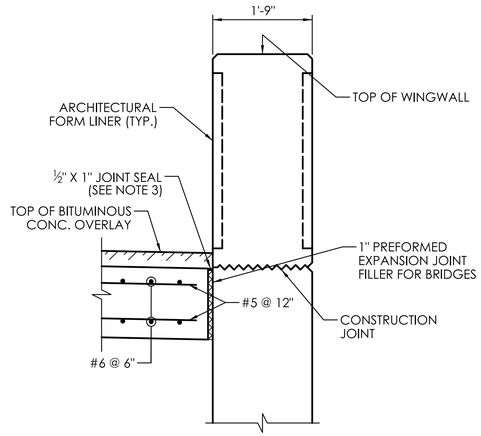


APPROACH SLAB 2 PLAN

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

NOTES:

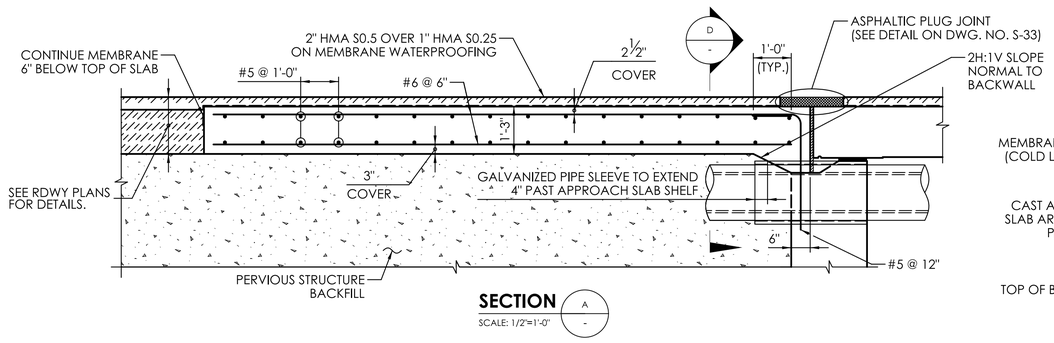
1. SEE DWG. NO. S-30 FOR DECK PLAN DETAILS.
2. MECHANICAL COUPLERS FOR NO. 5 BARS SHALL BE PAID UNDER THE ITEM 0602865 "#5 MECHANICAL COUPLERS".
3. ½" X 1" JOINT SEAL SHALL BE PAID UNDER ITEM 0601123 "APPROACH SLAB CONCRETE"



SECTION C

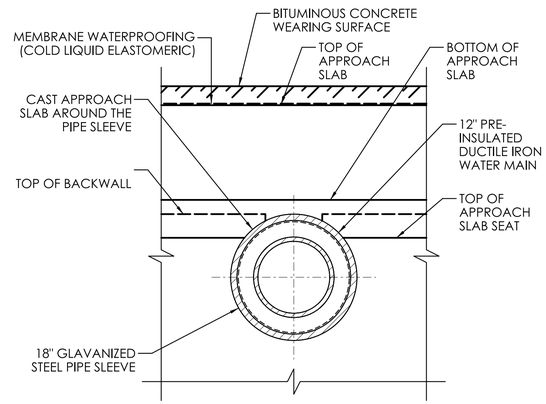
SCALE: 3/4"=1'-0"

NOTE: SEE DWG. NO. S-19 FOR WINGWALL REBAR DETAILS.



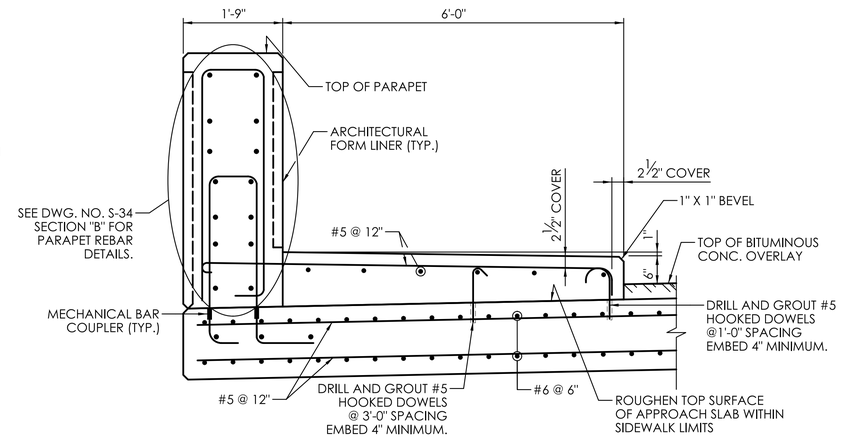
SECTION A

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



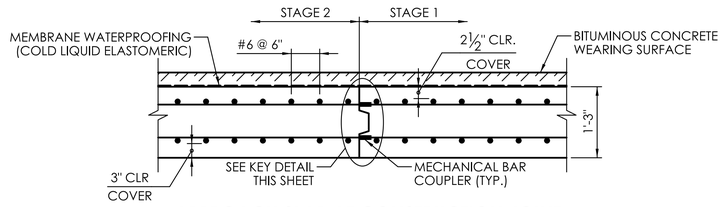
SECTION D

SCALE: 1"=1'-0"



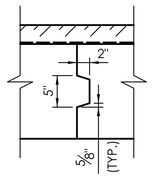
SECTION B

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



APPROACH SLAB AT CONSTRUCTION JOINT

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



KEY DETAIL

SCALE: 1"=1'-0"

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033

DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

DRAWING TITLE: **APPROACH SLAB DETAILS**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-32**

SHEET NO.: 03.32

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\.41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_APP_SLAB_DET.dgn
PLOTTED DATE: 3/12/2026

BITUMINOUS CONCRETE PLACEMENT AT ASPHALTIC PLUG JOINTS (APJ)

1. THE REQUIREMENTS OF SPECIAL PROVISION SECTION 4.06 SHALL BE MET EXCEPT IN LIEU OF DENSITY TESTING, THE METHODS DESCRIBED BELOW SHALL BE FOLLOWED TO ASSURE PROPER COMPACTION.
2. TOP LIFT MUST BE UNIFORM THICKNESS; INTERMEDIATE LIFTS CAN BE PLACED AT 1¼" TO 2½"COMPACTED.
3. REQUIREMENTS FOR PROPER COMPACTION:
   a. MINIMUM 265°F DELIVERY TEMPERATURE OF MATERIAL. PLACE AND SPREAD MATERIAL BEFORE IT COOLS TO 260°F. MATERIAL BELOW TEMPERATURE REQUIREMENT WILL BE REJECTED.
   b. COMPACT NON-SURFACE LIFTS WITH VIBRATORY PLATE COMPACTOR MEETING THE FOLLOWING REQUIREMENTS:
      i. DESIGNED TO COMPACT ASPHALT
      ii. EQUIPPED WITH A WATER TANK
      iii. CENTRIFUGAL FORCE 3200 LBS TO 6000 LBS
      iv. WEIGHS MINIMUM 160 LBS (WITHOUT WATER)
      v. MINIMUM 4400 VIBRATIONS PER MINUTE
   c. COMPACT TOP LIFT WITH 3 1/2 TO 4 1/2 TON DOUBLE DRUM ROLLER, DESIGNED TO COMPACT BITUMINOUS CONCRETE.
   d. PROVIDE NUMBER OF PASSES BASED ON LIFT THICKNESS AS FOLLOWS:

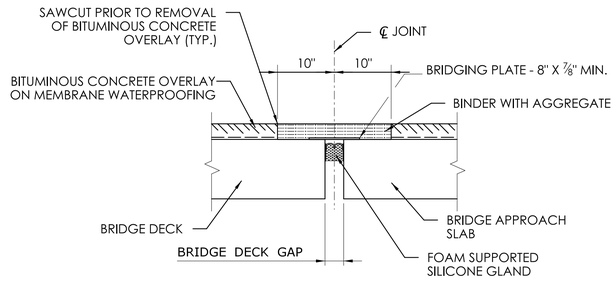
LIFT THICKNESS (INCHES)	NUMBER OF PASSES
1 1/4 TO 1 1/2	8
1 1/2 TO 2	10
2 TO 2 1/2	12

   e. ADDITIONAL COMPACTING EQUIPMENT MAY BE REQUIRED TO COMPLETE LIFT COMPACTION BEFORE MATERIAL COOLS TO 180°F.
   f. AT CORNERS OR OTHER AREAS INACCESSIBLE TO PLATE TAMPER, HAND TAMP 20 TIMES MINIMUM BEFORE MATERIAL COOLS TO 180°F.
4. ALTERNATE EQUIPMENT MAY BE REQUESTED AS A SUPPLEMENT TO CONTRACTOR'S QC PLAN. THE EQUIPMENT AND PROCEDURES MUST BE APPROVED BY THE ENGINEER PRIOR TO USE.
5. IF THESE METHODS ARE NOT PERFORMED TO THE SATISFACTION OF THE ENGINEER, DENSITY VERIFICATION MAY BE REQUIRED WHEREIN THE CONTRACTOR SHALL PROVIDE DENSITY TESTING WITH A QC NUCLEAR DENSITY GAUGE OR COLLECT CORE SAMPLES AS SPECIFIED IN SECTION 4.06.

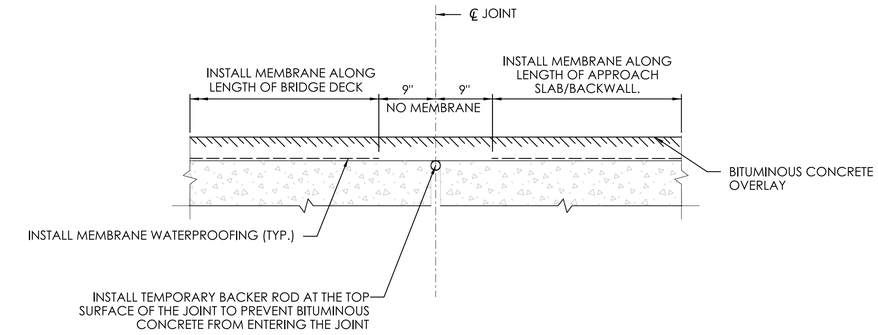
ASPHALTIC PLUG EXPANSION JOINT SYSTEM NOTES

1. A BRIDGING PLATE SHALL BE USED TO SPAN THE GAP BETWEEN TWO DECK ENDS OR THE JOINT BETWEEN A DECK END AND A CONCRETE APPROACH SLAB.
2. DISCONTINUE THE INSTALLATION OF THE BRIDGING PLATE WHERE THE APPROACH SLAB IS DISCONTINUED (TYPICALLY IN THE ROADWAY SHOULDERS). SEE "ASPHALTIC PLUG EXPANSION JOINT SYSTEM" SPECIAL PROVISION.
3. NEW STEEL BRIDGING PLATES SHALL BE A MINIMUM OF ¼" THICK BY 8" WIDE. FOR JOINT OPENINGS WHICH EXCEED 3", A ⅜" THICK BY 12" WIDE PLATE WILL BE REQUIRED
4. NO BRIDGING PLATE SHALL BE USED AT THE FOLLOWING LOCATIONS:
   A. JOINT BETWEEN A DECK END AND A CONCRETE APPROACH PAVEMENT
   B. WHERE A BRIDGE DECK END MEETS A BITUMINOUS APPROACH PAVEMENT
5. TEMPORARY CLOSED CELL BACKER ROD DIAMETER SHALL BE DETERMINED AFTER MEASURING THE JOINT OPENING, THE ROD SHALL BE 25% LARGER THAN THE JOINT OPENING.
6. INSTALLATION OF MEMBRANE WITHIN THE LIMITS SHOWN TO BE PAID UNDER THE ITEM, "MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC)".
7. THE FURNISHING AND PLACING OF HMA TO BE INCLUDED FOR PAYMENT UNDER THEIR RESPECTIVE ITEMS.
8. SAW-CUTTING AND REMOVAL OF PAVEMENT FOR JOINT INSTALLATION TO BE INCLUDED FOR PAYMENT UNDER THE ITEM "ASPHALTIC PLUG EXPANSION JOINT SYSTEM".
9. INSTALLATION OF FOAM SUPPORTED SILICONE GLAND TO BE PAID UNDER THE ITEM "PREFORMED JOINT SEAL".
10. ASPHALTIC PLUG EXPANSION JOINT SYSTEMS MAY BE INSTALLED ONLY WITHIN THE TEMPERATURE RANGE SPECIFIED IN THE SPECIAL PROVISION "ASPHALTIC PLUG EXPANSION JOINT SYSTEM". REFERENCE THE RANGE OF THERMAL MOVEMENT FOR THE SELECTED JOINT PRODUCT IN THE TABLE FOR "INSTALLATION RESTRICTIONS" IN THE SPECIAL PROVISION.
11. EXPLORATION OF PAVEMENT THICKNESS AND JOINT LOCATION TO BE INCLUDED IN THE ITEM 0520036A "ASPHALTIC PLUG EXPANSION JOINT SYSTEM".
12. FOAM SUPPORTED SILICONE GLAND SHALL BE INCLUDED FOR PAYMENT UNDER ITEM "PREFORMED JOINT SEAL."

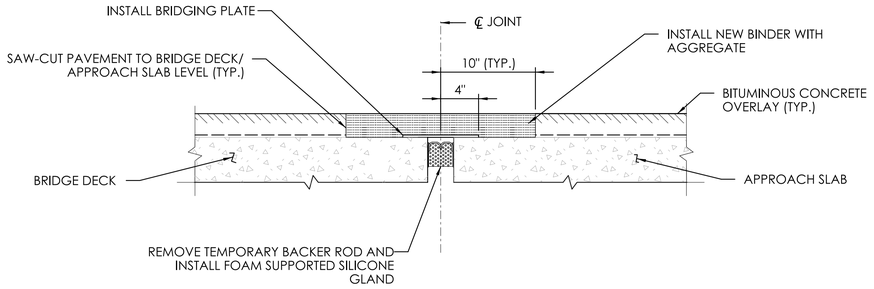
DESIGN THERMAL MOVEMENT RANGE AND ADJUSTMENT FOR INSTALLATION TEMPERATURE		
EXP. JOINT SYSTEM INSTALL TEMPERATURE (°F)	ADJUSTMENT TO PERPENDICULAR JOINT OPENING (INCH)	
	A1	A2
40°	0.060	0.071
50°	0.000	0.000
60°	-0.060	-0.071
70°	-0.120	-0.141
80°	-0.180	-0.212



TYPICAL SECTION
ASPHALTIC PLUG EXPANSION JOINT SYSTEM
NOT TO SCALE



PLACEMENT OF PAVEMENT ALONG THE BRIDGE
NOT TO SCALE



INSTALL ASPHALTIC PLUG EXPANSION JOINT
NOT TO SCALE

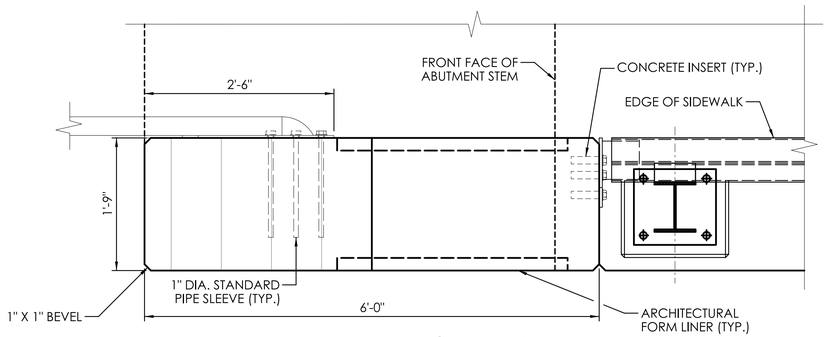
INSTALL ASPHALTIC PLUG EXPANSION JOINT
NOT TO SCALE

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: GB CHECKED BY: GA
NOT TO SCALE
SEAL OF MERIDEN

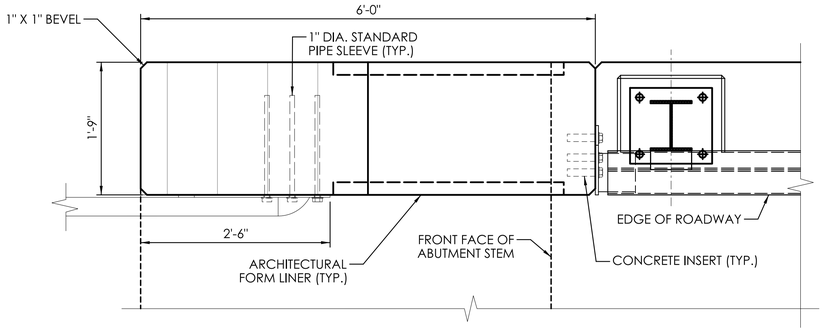
PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**
TOWN(S): **CITY OF MERIDEN**
DRAWING TITLE: **ASPHALTIC PLUG DETAILS**
PROJECT NO.: **L079-0004**
DRAWING NO.: **S-33**
SHEET NO.: 03.33

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\.41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_APJ_DET.dgn
PLOTTED DATE: 5/12/2026



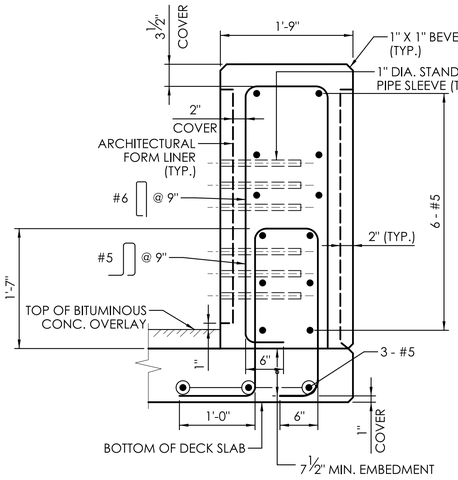
PLAN AT SIDEWALK

SCALE: 1"=1'-0"



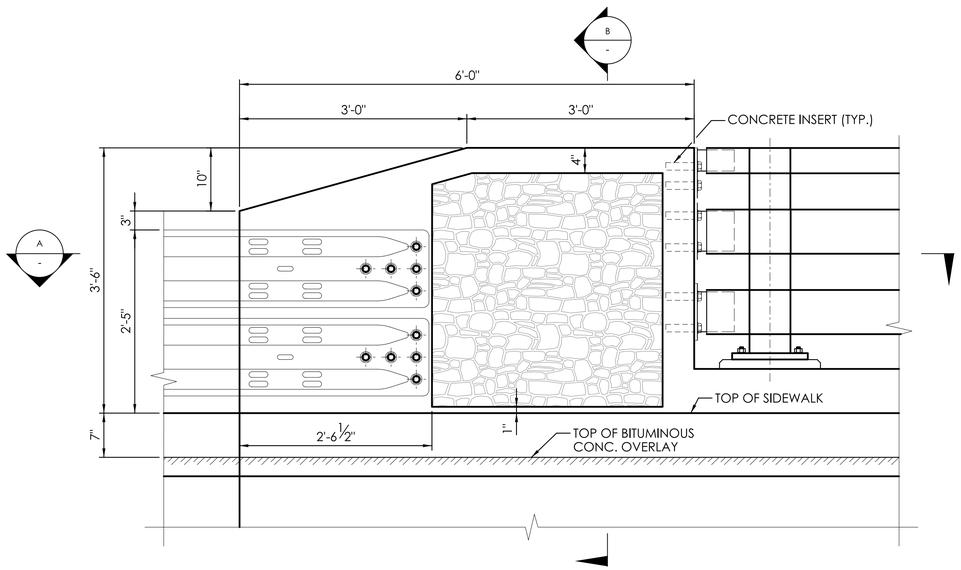
PLAN AT ROADWAY

SCALE: 1"=1'-0"



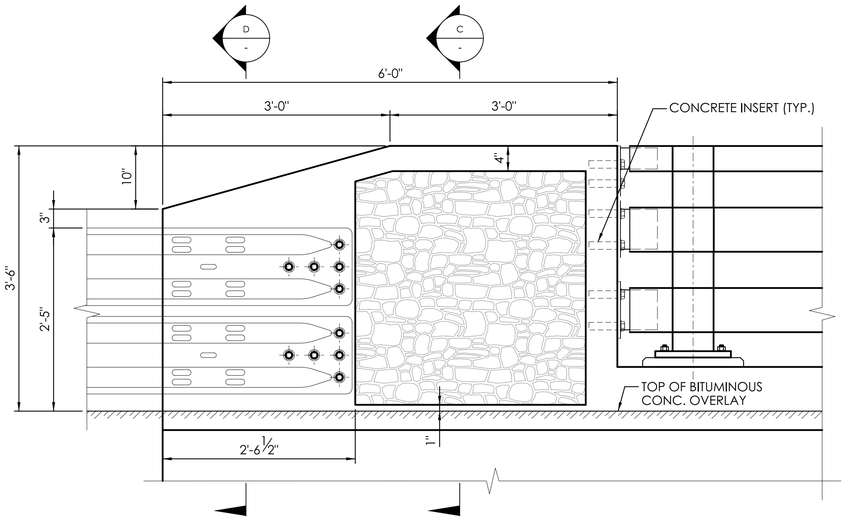
SECTION (C)

SCALE: 1"=1'-0"



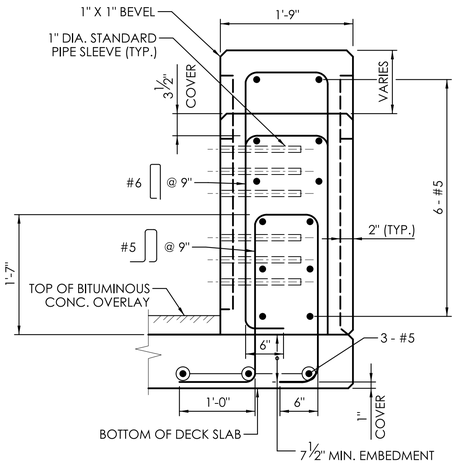
ELEVATION AT SIDEWALK

SCALE: 1"=1'-0"



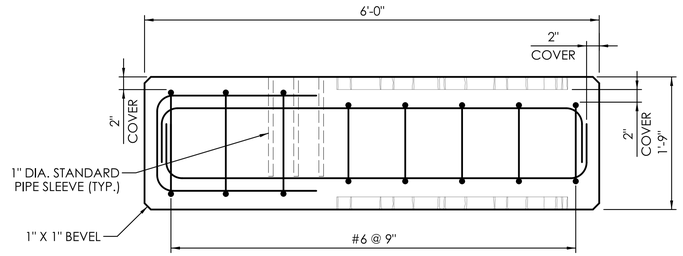
ELEVATION AT ROADWAY

SCALE: 1"=1'-0"



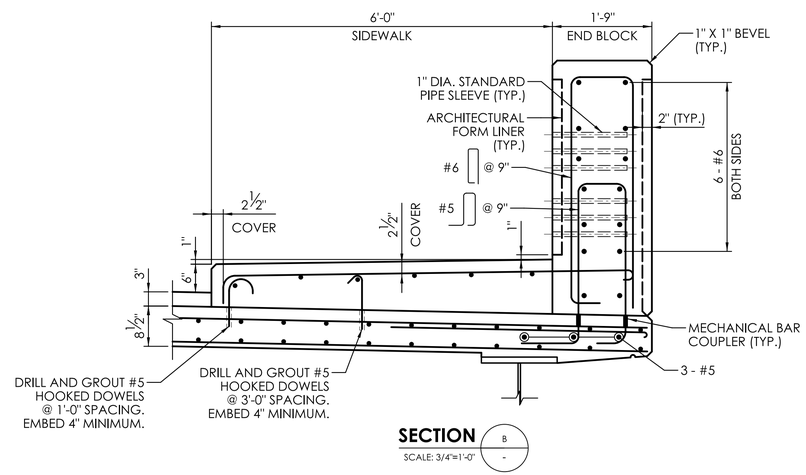
SECTION (D)

SCALE: 1"=1'-0"



SECTION (A)

SCALE: 1"=1'-0"



SECTION (B)

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

REVISION DESCRIPTION | DATE | REV.

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033

DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

DRAWING TITLE: **END BLOCK DETAILS**

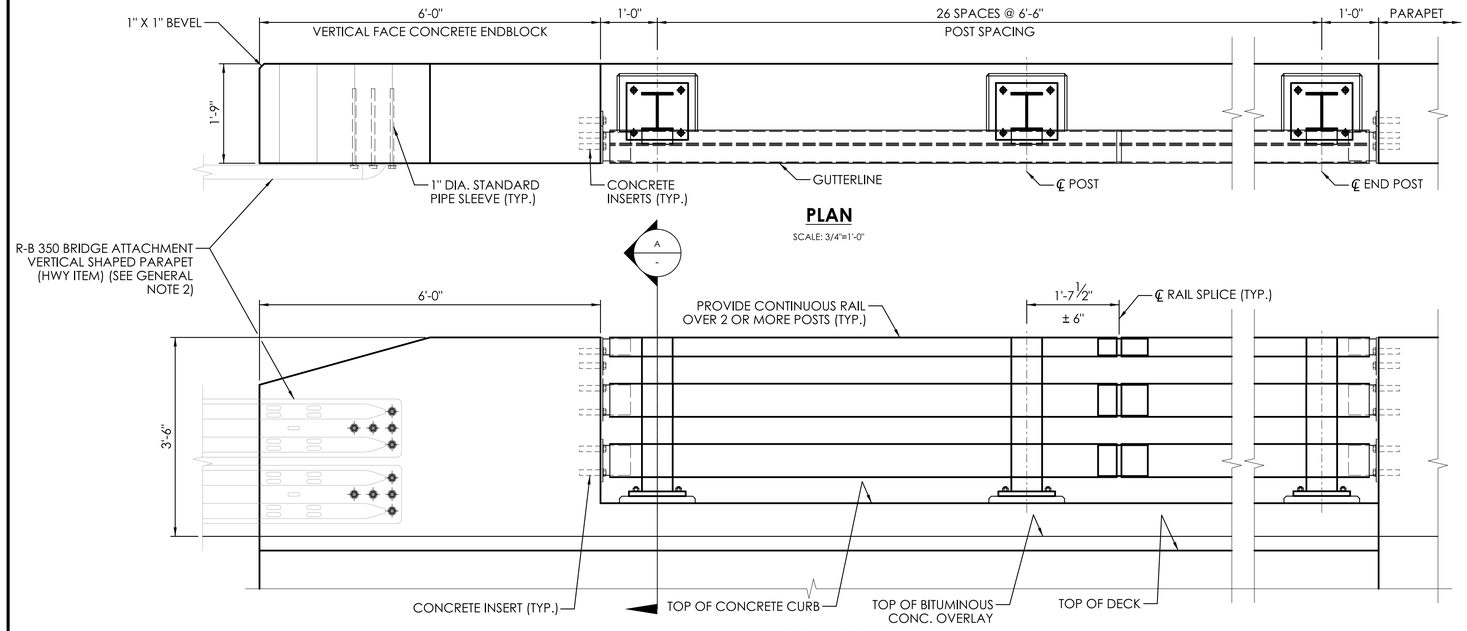
PROJECT NO.: **L079-0004**

DRAWING NO.: **S-34**

SHEET NO.: 03.34

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PLOTTED DATE: 5/12/2026

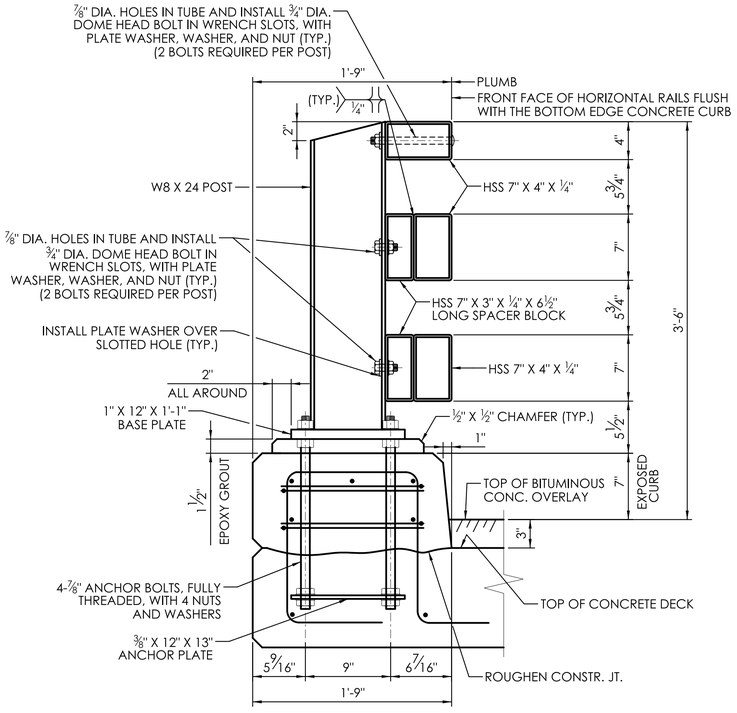


PLAN

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

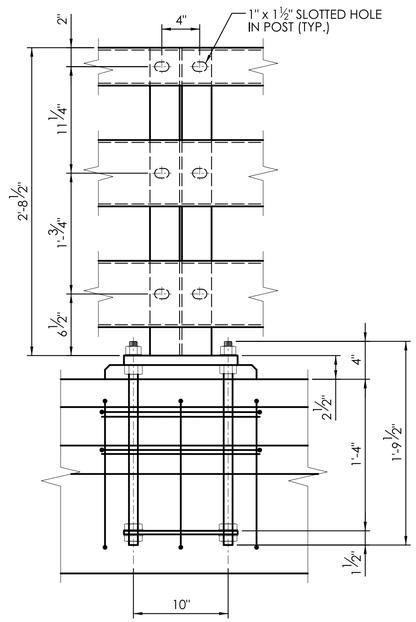
ELEVATION

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



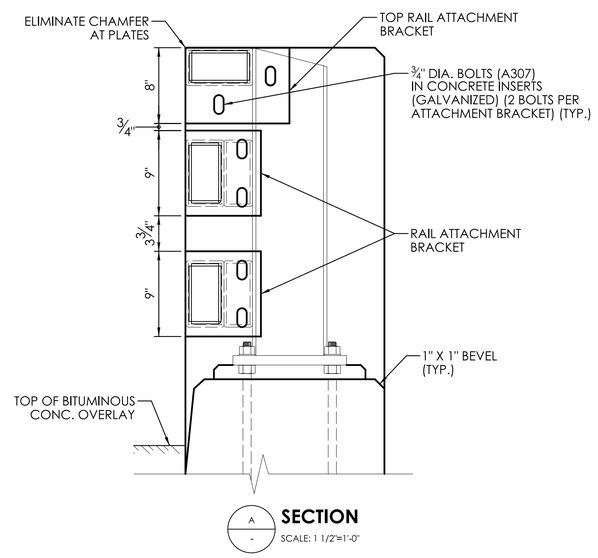
TYPICAL SECTION AT POST

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



ELEVATION AT POST

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



SECTION

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

BRIDGE RAIL NOTES:

1. THE 3-TUBE CURB MOUNTED BRIDGE RAIL HAS BEEN EVALUATED AT TEST LEVEL 4 (TL-4) AND COMPLIES WITH MASH 2016.
2. CONCRETE FOR THE CURB AND ENDBLOCK SHALL BE CLASS PCC04462. THE COMPRESSIVE STRENGTH OF THE CONCRETE, BASED ON TEST CYLINDERS, SHALL BE NO LESS THAN 4,000 PSI PRIOR TO INSTALLING THE EPOXY GROUT BELOW THE BASE PLATES. PRIOR TO ALLOWING THE RAIL, CURB AND ENDBLOCK TO BE PLACED IN SERVICE FOR THE PROTECTION OF VEHICULAR TRAFFIC, THE COMPRESSIVE STRENGTH OF THE GROUT, BASED ON STRENGTH GAIN OVER TIME LISTED IN THE GROUT MANUFACTURER'S DATA SHEET, SHALL BE NO LESS THAN 5,000 PSI.
3. THE REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60 AND BE HOT-DIP GALVANIZED.
4. THE 1 IN. DIAMETER PIPE SHALL CONFORM TO ASTM A53, GRADE B OR ASTM A501 AND SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A123.
5. HOLLOW STRUCTURAL SHAPES SHALL CONFORM TO ASTM A500 GRADE C OR ASTM A501, GRADE B.
6. ALL OTHER STEEL SHALL CONFORM TO ASTM A572, GRADE 50 UNLESS NOTED OTHERWISE.
7. THE SILICON CONTENT OF THE STEEL USED FOR THE EXPOSED MEMBERS AND PLATE COMPONENTS SHALL FALL WITHIN THE RANGE OF 0 TO 0.04% OR 0.15% TO 0.25%.
8. ALL STEEL SHAPES, PLATES AND HOLLOW STRUCTURAL SECTIONS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123.
9. THE ANCHOR BOLTS SHALL CONFORM TO ASTM F1554, GRADE 105. THE NUTS SHALL CONFORM TO ASTM A563, GRADE DH. THE WASHERS SHALL CONFORM TO ASTM F436. THE BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM F2329.
10. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM F3125 GRADE A325, TYPE 1. NUTS SHALL CONFORM TO ASTM A563, GRADE DH. CIRCULAR, FLAT, HARDENED STEEL WASHERS SHALL CONFORM TO ASTM F436. THE BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM F2329 OR ASTM B695, CLASS 55.
11. DOME HEAD BOLTS WITH WRENCH SLOTS USED FOR THE TOP RAIL SHALL CONFORM TO ASTM F3125 GRADE A325, TYPE 1 OR ASTM A449, GRADE 1. SUBSTITUTION OF DOME HEAD BOLTS WITH BOLTS MEETING DIFFERENT MATERIAL REQUIREMENTS IS NOT PERMITTED. NUTS SHALL CONFORM TO ASTM A563, GRADE DH. CIRCULAR, FLAT, HARDENED STEEL WASHERS SHALL CONFORM TO ASTM F436. THE BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM F2329 OR ASTM B695, CLASS 55.
12. RAIL ELEMENTS SHALL BE FABRICATED TO THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE STRUCTURE. POSTS SHALL BE INSTALLED NORMAL TO GRADE IN THE LONGITUDINAL DIRECTION AND VERTICAL IN THE TRANSVERSE DIRECTION.
13. ALL BRIDGE RAIL MATERIALS, INCLUDING ANCHOR PLATES, ANCHOR BOLTS, CONCRETE INSERTS, HARDWARE AND EPOXY GROUT, SHALL BE PAID FOR UNDER THE ITEM "3-TUBE CURB MOUNTED BRIDGE RAIL".

CONCRETE INSERT NOTES:

1. THE CONCRETE INSERTS SHALL BE HOT-DIP GALVANIZED, EXPANDED COIL CONCRETE INSERTS WITH A CLOSED-BACK. THE INSERTS SHALL BE THREADED TO RECEIVE ¾" DIA. ASTM A307 BOLTS. THE INSERTS SHALL MEET THE FOLLOWING REQUIREMENTS:

   MINIMUM INSERT LENGTH = 4½"
   MINIMUM SAFE WORKING LOAD IN TENSION = 4000 LBS.

GENERAL NOTES:

1. PENETRATING SEALER PROTECTIVE COMPOUND SHALL BE APPLIED TO ALL EXPOSED FACES OF THE CURB AND SIDEWALK.
2. SEE CTDOT HWY. STD. HW-910 01 AND HW-910 07 FOR LEADING END HARDWARE AND CONNECTION DETAILS.

REV. | DATE | REVISION DESCRIPTION

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

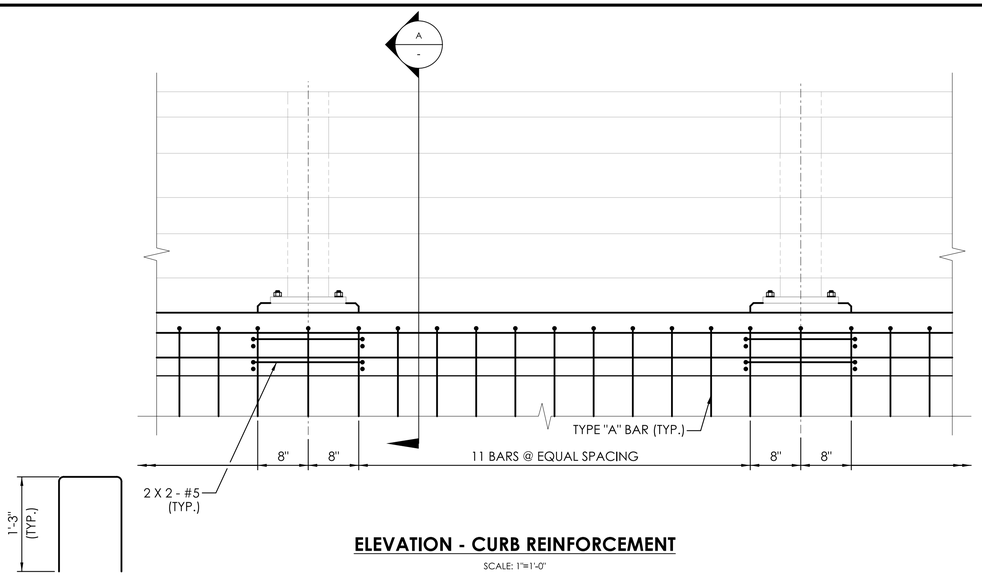
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PROJECT NO.: **L079-0004**

DRAWING NO.: **S-35**

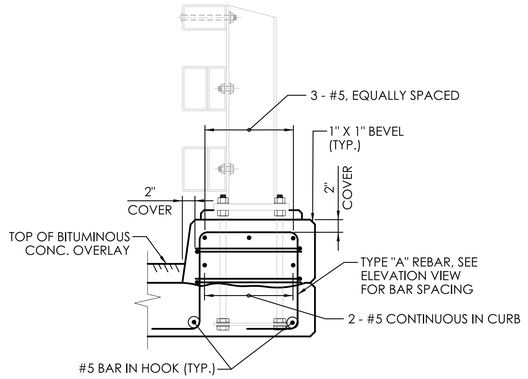
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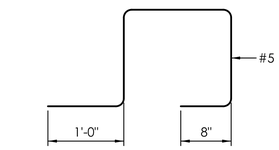
ELEVATION - CURB REINFORCEMENT

SCALE: 1"=1'-0"



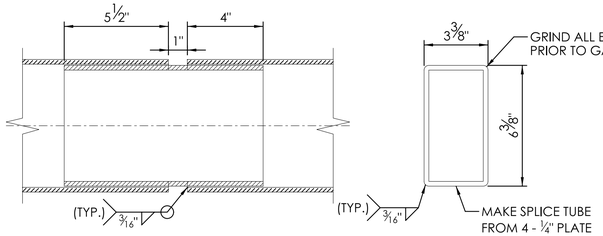
SECTION

SCALE: 1"=1'-0"



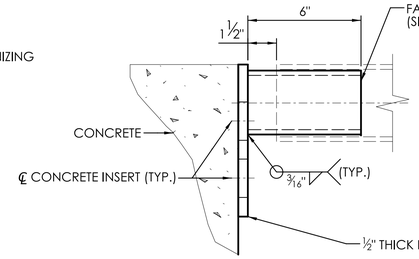
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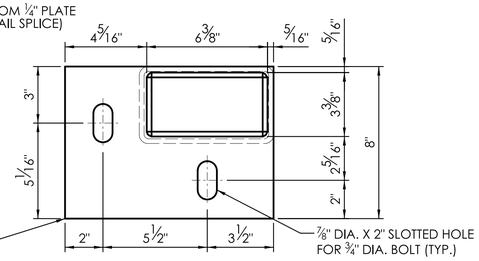
NOT TO SCALE



RAIL SPLICE DETAILS

SCALE: 3"=1'-0"





TOP RAIL ATTACHMENT BRACKET

SCALE: 3"=1'-0"

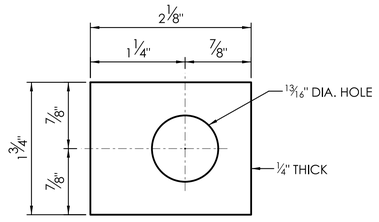
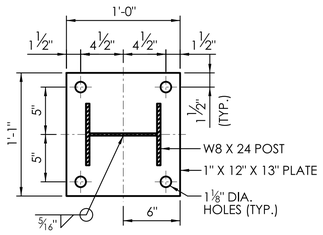


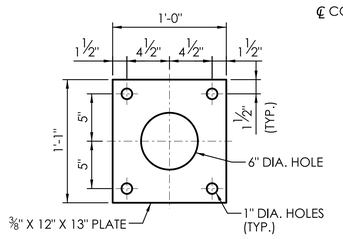
PLATE WASHER "C"

SCALE: FULL SCALE



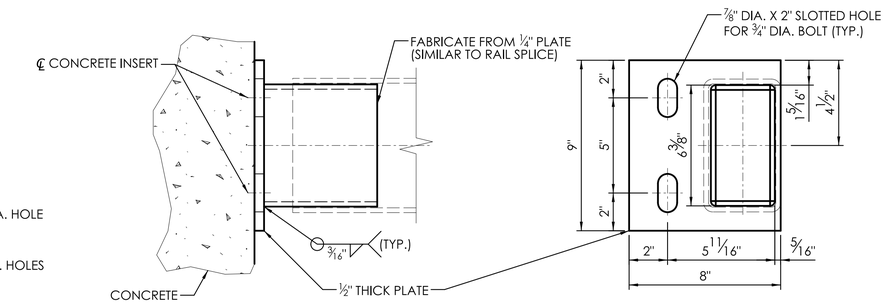
BASE PLATE DETAIL

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



ANCHOR PLATE DETAIL

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



RAIL ATTACHMENT BRACKET

SCALE: 3"=1'-0"

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER

TOWN(S): CITY OF MERIDEN

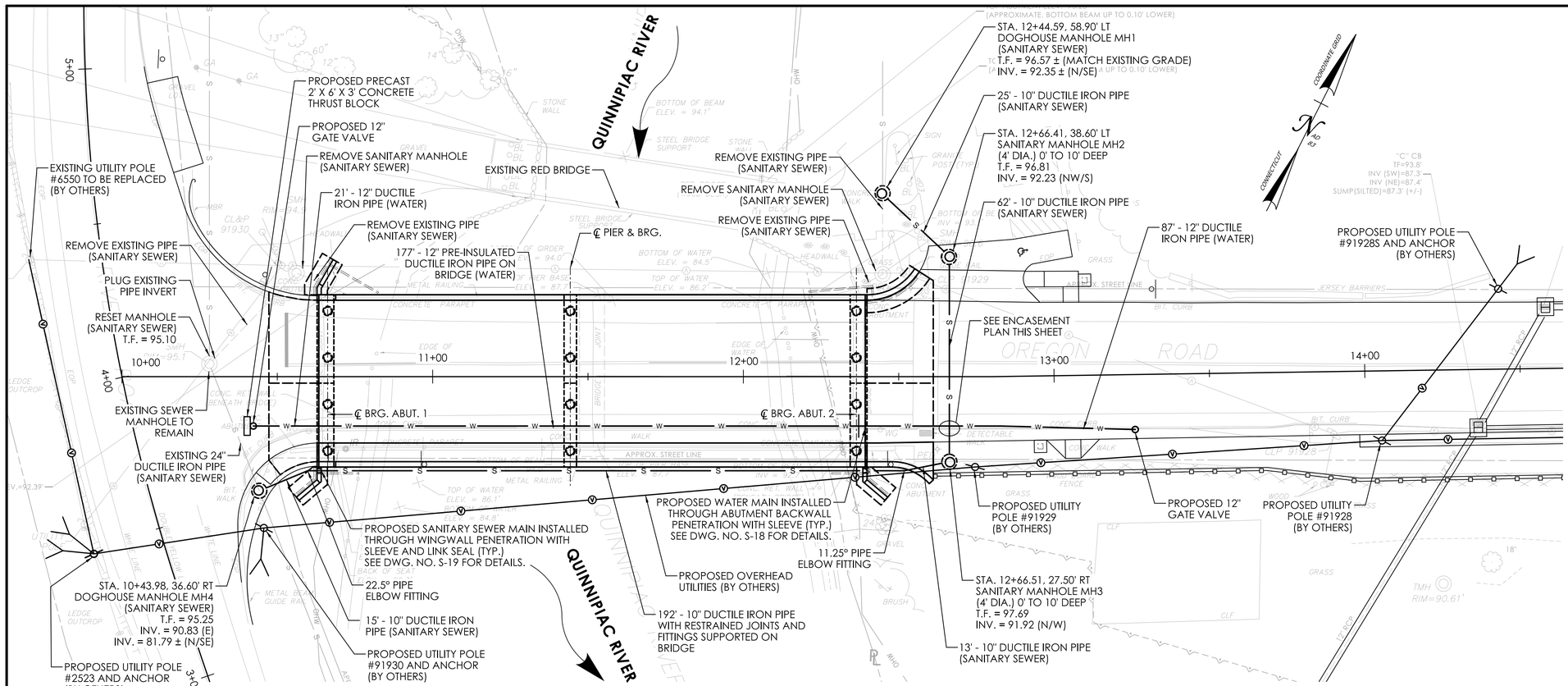
DRAWING TITLE: RAILING DETAILS - 2

PROJECT NO.: L079-0004

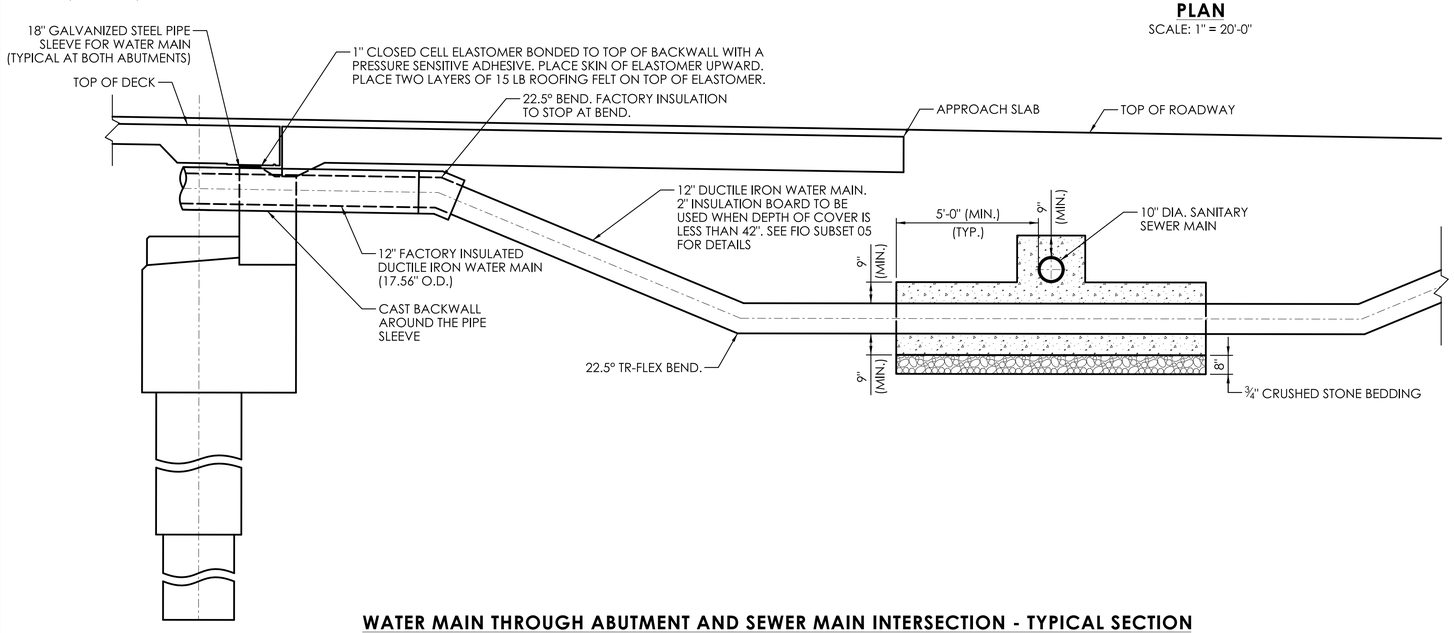
DRAWING NO.: S-36

SHEET NO.: 03.36

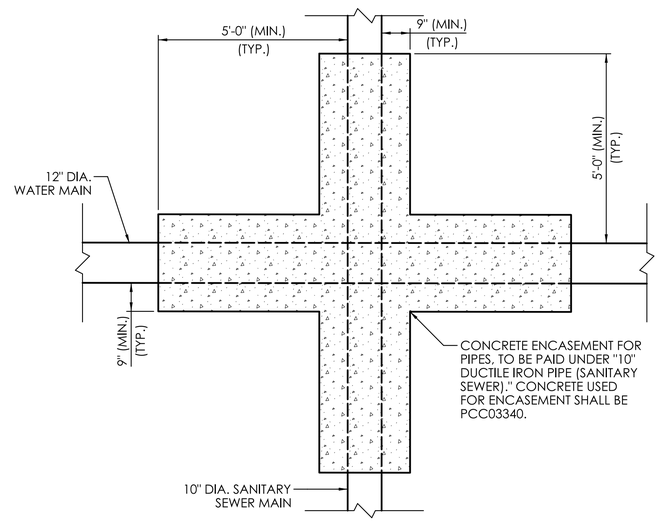
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PLOTTED DATE: 5/12/2026



PLAN
SCALE: 1" = 20'-0"



WATER MAIN THROUGH ABUTMENT AND SEWER MAIN INTERSECTION - TYPICAL SECTION
NOT TO SCALE



ENCASEMENT PLAN
SCALE: ½" = 1'-0"

UTILITY NOTES:

1. LOCATIONS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ON THE PLANS. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES IN THE FIELD PRIOR TO ANY WORK BY PERFORMING TEST PITS.
2. FINAL LOCATIONS OF ANY VALVES, BENDS OR APPURTENANCES SHALL BE AT THE DIRECTION OF THE CITY OF MERIDEN. CONTRACTOR TO COORDINATE.
3. PAVEMENT REPAIR, IF REQUIRED, SHALL BE INSTALLED TO CITY OF MERIDEN REQUIREMENTS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING WATER SAMPLES TAKEN BY CITY OF MERIDEN WATER REPRESENTATIVE.
5. CITY OF MERIDEN WATER AND SEWER DEPARTMENT SHALL BE CONSULTED PRIOR TO ANY WORK RELEVANT TO THE SAME.
6. ALL EXISTING DUCTILE IRON PIPE WATER MAIN AND SEWER MAIN SECTIONS AND APPURTENANCES REMOVED FROM THE PROJECT LIMITS SHALL BE DISPOSED OFF BY THE CONTRACTOR.
7. THE UTILITY POLES OWNED BY EVERSOURCE WILL BE RELOCATED AFTER THE PROJECT IS COMPLETED BY THE CONTRACTOR. CITY OF MERIDEN WILL COORDINATE WITH EVERSOURCE PRIOR TO PROJECT COMPLETION AS NEEDED FOR THE FINAL LOCATIONS OF POLES #91929 AND #91930.

PAY ITEM NOTES:

1. FURNISHING AND INSTALLATION OF THE 10" DIAMETER SEWER MAIN SHALL BE PAID FOR UNDER THE ITEM "10" DUCTILE IRON PIPE (SANITARY SEWER)".
2. REMOVAL OF EXISTING SEWER MAIN, BOTH BURIED AND THOSE ATTACHED TO THE BRIGE GIRDER, SHALL BE PAID UNDER "REMOVE EXISTING PIPE (SANITARY SEWER)".
3. REMOVAL OF BURIED WATER MAIN AND THOSE SUPPORTED BY THE BRIDGE SHALL BE PAID UNDER "FURNISH AND INSTALL PRE-INSULATED 12" DUCTILE IRON WATER MAIN ON BRIDGE".
4. FURNISHING AND INSTALLATION OF THE 12" WATER MAIN SHALL BE PAID UNDER "FURNISH AND INSTALL PRE-INSULATED 12" DUCTILE IRON WATER MAIN ON BRIDGE".
5. FURNISHING AND INSTALLATION OF THE DOGHOUSE MANHOLES SHALL BE PAID UNDER "DOGHOUSE MANHOLE (SANITARY SEWER)".
6. FURNISHING AND INSTALLATION OF THE SANITARY MANHOLES SHALL BE PAID UNDER "SANITARY MANHOLE (4' DIA.) 0' TO 10' DEEP".
7. THE PRECAST 2' X 3' X 6' CONCRETE THRUST BLOCK SHALL BE PAID UNDER THE ITEM "FURNISHING AND INSTALLING 12" DUCTILE IRON PIPE, VALVES AND MISCELLANEOUS FITTINGS."
8. THE 12" GATE VALVES AND TEST PITS REQUIRED TO IDENTIFY THE WATER MAIN ON THE APPROACHES SHALL BE PAID UNDER THE ITEM "FURNISHING AND INSTALLING 12" DUCTILE IRON PIPE, VALVES AND MISCELLANEOUS FITTINGS."
9. THE SANITARY SEWER INVERT PLUGS SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS PAY ITEMS, AND WILL NOT BE PAID FOR SEPARATELY.

REVISION DESCRIPTION | DATE | REV.

SIGNATURE BLOCK: GM2 ASSOCIATES, INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033
DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE: **REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER**

TOWN(S): **CITY OF MERIDEN**

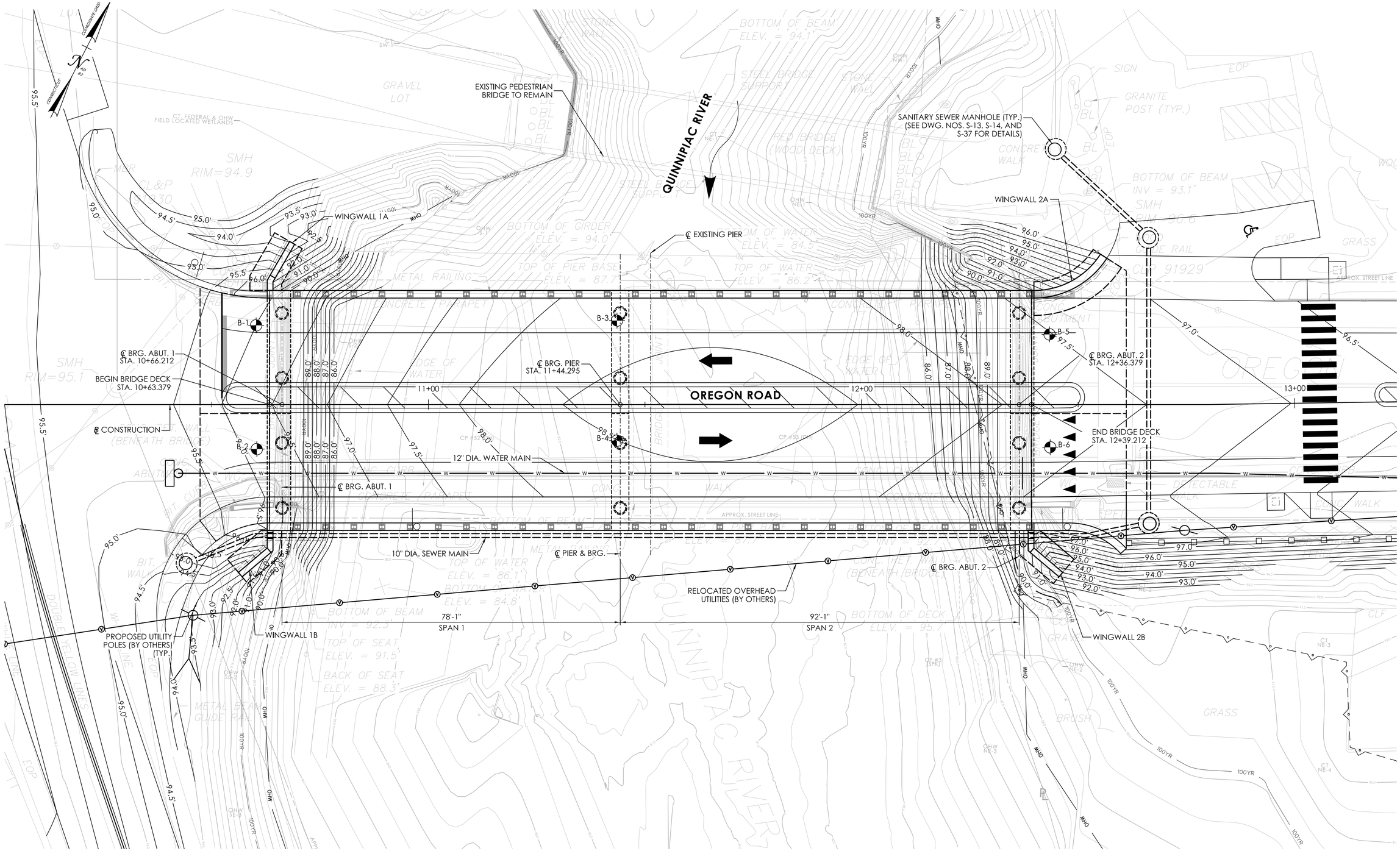
DRAWING TITLE: **UTILITY PLAN**

PROJECT NO.: **L079-0004**

DRAWING NO.: **S-37**

SHEET NO.: 03.37

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PLOTTED DATE: 5/12/2026



DENOTES SOIL BORING LOCATIONS

PLAN
NOT TO SCALE

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033

DESIGNER/DRAFTER: PBR CHECKED BY: GA

SCALE AS NOTED

PROJECT TITLE:
REPLACEMENT OF BRIDGE NO. 04184 CARRYING OREGON ROAD OVER QUINNIPIAC RIVER

TOWN(S):
CITY OF MERIDEN

DRAWING TITLE:
BRIDGE GRADING PLAN

PROJECT NO.:
L079-0004

DRAWING NO.:
S-38

SHEET NO.:
03.38

LASTED SAVED BY: PBarbosa **FILE NAME:** M:\41097_Oregon_Rd_Meriden\300_Engineering & Design\310-Bridge\Contract Plans\SB_CP_41097_04184_GRD.dgn
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