STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

DESIGN: AASHTO LRFD Bridge Design Specifications, Fifth Edition 2010.

DESIGN LOADING

Live Load ..... HL - 93 Modified for Strength I

TRAFFIC DATA

Current (2012) AADT	16770
Future (2032) AADT	20120
DHV - % of AADT	11
Design Hour Volume	2213
% Heavy Trucks (AADT)	5
% Heavy Trucks (DHV)	2
Directional Distribution (DHV)	50
18 kip Equivalent P 2.0	625
18 kip Equivalent P 2.5	596
Design Speed (mph)	35

HYDROLOGIC DATA

Drainage Area	577 sq mi
Discharge (Q1.1)	2,450 cfs
Discharge (Q25)	13,000 cfs
Design Discharge (Q50)	15,700 cfs
Check Discharge (Q100)	18,900 cfs
Discharge (Q500)	28,000 cfs
*Headwater Elevation (Q1.1)	40.9 ft
*Headwater Elevation (Q25)	45.1 ft
*Headwater Elevation (Q50)	45.8 ft
*Headwater Elevation (Q100)	46.6 ft
*Discharge Velocity (Q1.1)	1.7 fps
*Discharge Velocity (Q25)	6.1 fps
*Discharge Velocity (Q50)	6.8 fps
*Discharge Velocity (Q100)	7.8 fps

* with Sappi Fishway added

MATERIALS

Concrete:	
Curbs, Sidewalk & Transition Barriers	Class "LP"
Seals	Class "S"
All Other	Class "A"
Reinforcing Steel:	
Curbs, Sidewalks, & Transition Barriers	Corrosion Resistant Reinforcing System
All Other	ASTM A 615/A 615M, Grade 60
Structural Steel:	
All Material (except as noted)	ASTM A 709, Grade 50W (unpainted)
High Strength Bolts	ASTM A 325, Type 3

BASIC DESIGN STRESSES

Concrete:	
Class "LP"	f 'c = 5,075 psi
Class "S"	f 'c = 2,900 psi
Class "A"	f 'c = 4,350 psi
Reinforcing Steel:	
ASTM A615/A615M, Grade 60	f y = 60,000 psi
Corrosion Resistant Reinforcing	See Special Provision for Section 503
Structural Steel:	
ASTM A 709, Grade 50W	F y = 50,000 psi
ASTM A 709, Grade 36	F y = 36,000 psi
ASTM A 325	F μ = 120,000 psi

UTILITIES

Privately Owned Dam (Sappi)	
Central Maine Power Company	City of Westbrook
Time Warner Cable	Unitil
Fairpoint	S.D. Warren / Sappi
Portland Water District	

MAINTENANCE OF TRAFFIC

2 lane detour bridge (24 feet curb to curb) with separated 5 foot sidewalk.

WESTBROOK
CUMBERLAND COUNTY
CUMBERLAND MILLS BRIDGES
OVER
PRESUMPSCOT RIVER
CUMBERLAND STREET

FEDERAL AID PROJECT
NO. BH-1106(300)X & BH-1106(400)X
PROJECT LENGTH 0.130 mi.
BRIDGE REPLACEMENT
BRIDGE NO. 1519 & NO.5490

LIST OF DRAWINGS

Title Sheet	1
Estimated Quantities	2
General Notes	3
General Plan 1	4
General Plan 2	5
Profile 1	6
Profile 2	7
Temporary Detour Plan 1	8
Temporary Detour Plan 2	9
Temporary Detour Profile	10
Existing Bridge Removal Plan	11
Boring Location Plan & Interpretive Subsurface Profile	12
Boring Logs	13
Curb Geometry & Drainage Layout Plan 1	14
Curb Geometry & Drainage Layout Plan 2	15
Typical Sections	16
Approach Cross Sections 1-8	17-24
Abutment 1 Seal & Footing	25
Abutment 1 Plan & Elevation	26
Abutment 1 Reinforcement	27
Abutment 1 Wingwall Elevation & Reinforcement	28
Wingwall Sections	29
Wingwall/Island Ret. Wall Sections	30
Abutment 2 Seal & Footing	31
Abutment 2 Plan & Elevation	32
Abutment 2 Reinforcement	33
Abutment 2 Wingwall Elevation & Reinforcement	34
Abutment 3 Seal & Footing	35
Abutment 3 Plan & Elevation	36
Abutment 3 Reinforcement	37
Abutment 3 Wingwall Elevation & Reinforcement	38
Abutment 4 Seal & Footing	39
Abutment 4 Plan & Elevation	40
Abutment 4 Reinforcement	41
Abutment 4 Wingwall Elevation & Reinforcement	42
Island Retaining Wall Plan & Elevation	43
Stacked Granite Wall Details	44
West Span Framing Plan	45
East Span Framing Plan	46
Structural Steel Details	47
West Span Girder Elevation	48
West Camber & Blocking	49
East Span Girder Elevation	50
East Camber & Blocking	51
Superstructure 1	52
Superstructure 2	53
West Bearing Details	54
East Bearing Details	55
Rail Transitions & Details	56
Reinforcement Schedule 1	57
Reinforcement Schedule 2	58
Traffic Control Plan	59
Planting Plan	60
Right-of-Way Map 1	61
Right-of-Way Map 2	62
Water Main Plans & Details	63-68
Sewer Plans & Details	69-73

PROJECT LOCATION:	On Cumberland Street 0.2 Miles North of Main Street. 43°40'59" N 70°21'07" W
PROGRAM AREA:	Bridge
OUTLINE OF WORK:	Two Bridge Replacements with Island Retaining Wall Construction.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED — DATE 10/13/11

COMMISSIONER: [signature]

CHIEF ENGINEER: [signature] — DATE 10-12-11

STATE OF MAINE — TIMOTHY W. MERRITT — No. 9294 — LICENSED PROFESSIONAL ENGINEER

[signature] — SIGNATURE — P.E. NUMBER 9294 — DATE 10/6/11

PROJECT INFORMATION

PROGRAM	BRIDGE PROGRAM
PROJECT MANAGER	B. CONDON
DESIGNER	T. MERRITT
CONSULTANT	STANTEC
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

BH-1106(300)X & BH-1106(400)X WIN 11063.00 & 11064.00

WESTBROOK
CUMBERLAND MILLS BRIDGES

TITLE SHEET

SHEET NUMBER 1 OF 73

Filename: ...\001_TITLE.dgn Division: 1953 Username: STANTEC Date:10/7/2011

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY WIN 11063.00	QUANTITY WIN 11064.00	QUANTITY CITY SEWER	QUANTITY PWD	QUANTITY TOTAL	UNIT
	CATEGORY 1 - BRIDGE PROJECTS & COMMON ITEMS						
201.23	REMOVING SINGLE TREE TOP ONLY	5	3	-	-	8	EA
201.24	REMOVING STUMP	8	3	-	-	11	EA
202.12	REMOVING EXISTING STRUCTURAL CONCRETE	18	12	-	-	30	CY
202.128	REMOVING EXISTING CONCRETE CURBS AND SIDEWALKS	26 CY	19 CY	-	-	1	LS
202.14	REMOVED EXISTING RAILINGS - PROPERTY OF CONTRACTOR	60	60	-	-	120	LF
202.15	REMOVING EXISTING MANHOLE OR CATCH BASIN	4	2	8	-	14	EA
202.19	REM. EXIST. BR. - WEST BRIDGE (Conc./Granite - 450 CY, Steel/Iron - 45 T)	1	-	-	-	1	LS
202.19	REM. EXIST. BR. - EAST BRIDGE (Conc./Granite - 625 CY, Steel/Iron - 57 T)	-	1	-	-	1	LS
202.202	REMOVING PAVEMENT SURFACE	190	85	1650	-	1925	SY
203.20	COMMON EXCAVATION	420	600	-	-	1020	CY
203.25	GRANULAR BORROW FOR UNDERWATER BACKFILL	870	1250	-	-	2120	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES, PLAN QUANTITY	1300	1700	-	-	3000	CY
206.092	STRUCTURAL ROCK EXCAVATION - MAJOR STRUCTURES	300	350	-	-	650	CY
304.09	AGGREGRATE BASE COURSE - CRUSHED	180	340	-	30	550	CY
304.10	AGGREGRATE SUBBASE COURSE - GRAVEL	180	310	-	100	590	CY
403.207	HOT MIX ASPHALT, 19 MM NOMINAL MAX. SIZE	85	130	150	50	415	T
403.2081	12.5 MM POLYMER MODIFIED HMA	93	110	150	-	353	T
403.209	HOT MIX ASPHALT, 9.5 MM NOMINAL MAX. SIZE (SIDEWALKS, DRIVES, INCIDENTALS)	39	66	25	10	140	T
403.213	HOT MIX ASPHALT, 12.5 MM NOMINAL MAX. SIZE, BASE	77	102	95	-	274	T
409.15	BITUMINOUS TACK COAT, APPLIED	45	56	110	-	211	G
502.219	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	331 CY	404 CY	-	-	1	LS
502.22	STR. CONCRETE, ABUTMENTS AND RET. WALLS (PLACED UNDERWATER)	780	1150	-	-	1930	CY
502.26	STR. CONCRETE RW. AND SW. SLAB ON STEEL BRIDGES	98 CY	119 CY	-	-	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLAB	42 CY	43 CY	-	-	1	LS
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS	33 CY	43 CY	-	-	1	LS
502.56	CONCRETE FILL	14	11	-	-	25	CY
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	35,500	41,600	-	-	77,100	LB
503.13	REINFORCING STEEL, PLACING	35,500	41,600	-	-	77,100	LB
504.702	STRUCTURAL STEEL FABRICATED AND DELIVERED, WELDED	86300 LB	119800 LB	-	-	1	LS
504.71	STRUCTURAL STEEL ERECTION	86300 LB	119800 LB	-	-	1	LS
505.08	SHEAR CONNECTORS	1308	1308	-	-	1	LS
507.0831	STEEL BRIDGE RAIL, 4 BAR	88 LF	122 LF	-	-	1	LS
507.0832	STEEL BRIDGE RAIL, 4 BAR, TRAFFIC/BICYCLE	95 LF	132 LF	-	-	1	LS
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE	415 SY	475 SY	-	-	1	LS
510.12	SPECIAL DETOUR - 24' RDWY WIDTH, PED. TRAFFIC SEPARATED	0.5	0.5	-	-	1	LS
511.07	COFFERDAM: ABUTMENT NO. 1, WINGWALLS & STACKED GRANITE	1	-	-	-	1	LS
511.07	COFFERDAM: ABUTMENT NO. 2, WINGWALLS & STACKED GRANITE	1	-	-	-	1	LS
511.07	COFFERDAM: ABUTMENT NO. 3, WINGWALLS & STACKED GRANITE	-	1	-	-	1	LS
511.07	COFFERDAM: ABUTMENT NO. 4, WINGWALLS & STACKED GRANITE	-	1	-	-	1	LS
511.07	COFFERDAM: ISLAND RETAINING WALL	0.5	0.5	-	-	1	LS
512.081	FRENCH DRAINS	202 LF	232 LF	-	-	1	LS
513.22	CRUSHED STONE SLOPE PROTECTION	100	150	-	-	250	SY
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	1	-	-	2	EA
515.20	PROTECTIVE COATING FOR CONCRETE SURFACES	170	210	-	-	380	SY
520.232	EXPANSION DEVICE - ASPHALTIC PLUG JOINT	64	64	-	-	128	LF
523.52	BEARING INSTALLATION	12	12	-	-	24	EA
523.5401	LAMINATED ELASTOMERIC BEARINGS, FIXED	6	6	-	-	12	EA
523.5402	LAMINATED ELASTOMERIC BEARINGS, EXPANSION	6	6	-	-	12	EA
525.325	DRY-LAID STONE RETAINING WALL	312	200	-	-	512	SF
526.34	PERMANENT CONCRETE TRANSITION BARRIER	4	4	-	-	8	EA
527.3031	ENERGY ABSORBING SYSTEM (ET-PLUS - 25 FT. LENGTH)	1	-	-	-	1	EA
527.34	WORK ZONE CRASH CUSHIONS	2	6	-	-	8	UN
603.169	15 INCH CULVERT PIPE OPTION III	156	52	-	-	208	LF
603.189	21 INCH CULVERT PIPE OPTION III	-	46	-	-	46	LF
604.072	CATCH BASIN TYPE AI-C	3.2	2.1	-	-	5.3	EA
604.15	MANHOLE	1.8	-	-	-	1.8	EA
604.18	ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	-	2	-	-	2	EA
604.247	CATCH BASIN TYPE F5-C	1	1	-	-	2	EA
606.1721	BRIDGE TRANSITION - TYPE 1	4	4	-	-	8	EA
606.23	GUARDRAIL TYPE 3C - SINGLE RAIL	130	47	-	-	177	LF
606.232	GUARDRAIL TYPE 3C - OVER 15 FT RADIUS	-	25	-	-	25	LF
606.258	CABLE RELEASING TERMINAL ANCHORAGE	-	1	-	-	1	EA
606.259	ANCHORAGE ASSEMBLY	1	-	-	-	1	EA
606.266	TERMINAL END - SINGLE RAIL - CORROSION RESISTANT STEEL	2	2	-	-	4	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	1	1	-	-	2	EA
606.363	GUARDRAIL, REMOVE AND DISPOSE	49	91	-	-	140	LF
607.16	CHAIN LINK FENCE - 4 FT	76	76	-	-	152	LF
607.34	BRACING ASSEMBLY CHAIN LINK FENCE	3	3	-	-	6	EA
608.26	CURB RAMP DETECTABLE WARNING FIELD	20	40	-	-	60	SF
609.11	VERTICAL CURB TYPE 1	187	74	40	-	301	LF
609.237	TERMINAL CURB TYPE 1-7 FT	3	1	-	-	4	EA
609.247	TERMINAL CURB TYPE 2 -7 FT	2	2	-	-	4	EA
609.31	CURB TYPE 3	43	174	-	-	217	LF
609.441	CURBING REMOVED AND STACKED	225	95	-	-	320	LF
610.08	PLAIN RIPRAP	59	46	-	-	105	CY
610.16	HEAVY RIPRAP	-	54	-	-	54	CY
613.319	EROSION CONTROL BLANKET	40	40	-	-	80	SY
615.07	LOAM	7	9	-	-	16	CY
618.1301	SEEDING METHOD NUMBER 1, PLAN QUANTITY	1	1	-	-	2	UN
619.1201	MULCH, PLAN QUANTITY	1	1	-	-	2	UN
620.58	EROSION CONTROL GEOTEXTILE	180	280	-	-	460	SY

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY WIN 11063.00	QUANTITY WIN 11064.00	QUANTITY CITY SEWER	QUANTITY PWD	QUANTITY TOTAL	UNIT
621.037	EVERGREEN TREES (5 - 6 FT) GROUP A	46	-	-	-	46	EA
621.046	EVERGREEN TREES (8 - 10 FT) GROUP A	5	-	-	-	5	EA
621.285	SMALL DECIDUOUS TREES (3 - 3 1/2 INCH CAL.) B&B GROUP A	5	-	-	-	5	EA
621.287	LARGE DECIDUOUS TREES (3 - 3 1/2 INCH CAL.) B&B GROUP A	5	-	-	-	5	EA
621.401	EVERGREEN SHRUBS (2 - 2 1/2 FT CAL.) GROUP A	6	-	-	-	6	EA
621.546	DECIDUOUS SHRUBS (2 - 3 FT) GROUP A	18	-	-	-	18	EA
621.80	ESTABLISHMENT PERIOD	1	-	-	-	1	LS
627.733	4 INCH WHITE OR YELLOW PAVEMENT MARKING LINE	1400	1500	-	-	2900	LF
627.75	WHITE OR YELLOW PAVEMENT & CURB MARKING	160	176	-	-	336	SF
627.76	TEMPORARY PAVEMENT MARKING LINE, WHITE OR YELLOW	0.5	0.5	-	-	1	LS
627.77	REMOVE PAVEMENT MARKINGS	500	500	-	-	1000	SF
629.05	HAND LABOR, STRAIGHT TIME	30	30	-	-	60	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	50	50	-	-	100	HR
631.14	GRADER (INCLUDING OPERATOR)	30	30	-	-	60	HR
631.15	ROLLER, EARTH AND BASE COURSE (INCLUDING OPERATOR)	30	30	-	-	60	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	70	70	-	-	140	HR
637.071	DUST CONTROL	0.5	0.5	-	-	1	LS
639.18	FIELD OFFICE TYPE A	0.5	0.5	-	-	1	EA
652.312	TYPE III BARRICADES	2	4	-	-	6	EA
652.33	DRUM	16	56	-	-	72	EA
652.34	CONE	16	16	-	-	32	EA
652.35	CONSTRUCTION SIGNS	102	148	-	-	250	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	350	395	-	-	1	LS
652.38	FLAGGERS	600	1700	-	200	2500	HR
652.41	PORTABLE - CHANGEABLE MESSAGE SIGN	-	-	2	-	2	EA
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	0.5	0.5	-	-	1	LS
659.10	MOBILIZATION	1	1	-	-	2	LS
824.304	FIRE HYDRANT SERVICE, ADJUST TO GRADE	-	1	-	-	1	EA

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
	CATEGORY 2 - PORTLAND WATER DISTRICT		
203.25	GRANULAR BORROW	100	CY
625.01	WATER LINE SYSTEM- TEMPORARY	1	LS
822.3213	4 INCH CLASS 52 DUCTILE IRON PIPE PUSH ON JOINT	40	LF
822.3225	6 INCH CLASS 52 DUCTILE IRON PIPE PUSH ON JOINT	20	LF
822.3405	8 INCH CLASS 52 DUCTILE IRON PIPE PUSH ON JOINT	40	LF
822.3605	12 INCH CLASS 52 DUCTILE IRON PIPE PUSH ON JOINT	470	LF
822.3631	12 INCH CLASS 52 DUCTILE IRON PIPE PUSH ON JOINT - PREINSULATED	135	LF
822.3632	12 INCH CLASS 52 DUCTILE IRON PIPE RESTRAINED JOINT - PREINSULATED	260	LF
823.31	12 INCH GATE VALVE	4	EA
823.325	8 INCH GATE VALVE	1	EA
823.331	6 INCH GATE VALVE	1	EA
823.335	4 INCH GATE VALVE	1	EA
823.34	BLOW OFF VALVE ASSEMBLY - TEMPORARY	2	EA
823.341	AIR RELEASE VALVE - 1 INCH	2	EA
824.30	FIRE HYDRANT	1	EA
845.10	STRUCTURAL STEEL UTILITY SUPPORT - WATER MAIN	1	LS
	CATEGORY 3 - CITY SEWER		
202.1913	REMOVAL AND DISPOSAL OF ASBESTOS CEMENT PIPE	25	LF
603.169	15 INCH CULVERT PIPE OPTION III	170	LF
603.179	18 INCH CULVERT PIPE OPTION III	375	LF
604.1311	4 FT DIAMETER CATCH BASIN	37	VF
604.1321	5 FT DIAMETER CATCH BASIN	9	VF
604.1531	60 INCH MANHOLE	9	VF
604.1541	72 INCH MANHOLE	7	VF
608.451	RECONSTRUCT CONCRETE SIDEWALK	35	SY
615.071	LOAM, SEED, MULCH	1	LS
801.03	TEST PITS	8	EA
801.19	15 INCH PVC SANITARY SEWER (SDR-35)	430	LF
801.53	SEWER BEDDING RELIEF DRAIN	50	LF
803.138	CONNECT 4", 6", 8", 12" SEWER SERVICES	260	LF
803.1711	SEWER MANHOLE - 6 FOOT DIAMETER	11	VF
803.1732	SEWER MANHOLE - 4 FOOT DIAMETER	36	VF
827.30	ROCK EXCAVATION, REMOVE AND REFILL	100	CY
827.31	UNSUITABLE SOIL EXCAVATION, REMOVE AND REFILL	1000	CY
827.311	UNSUITABLE SOIL EXCAVATION, REMOVE AND REFILL - B G	50	CY
827.33	TRENCH INSULATION	200	LF
890.01	SPECIAL WORK NO. 1 - TRAFFIC ISLAND REMOVE AND REPLACE	1	LS
	CATEGORY 4 - UNITIL GAS MAIN		
625.147	10" PIPE SLEEVE, INSTALLATION ONLY	66	LF
631.231	CRANE - 45 TON CAPACITY (INCLUDING OPERATOR)	40	HR
827.362	GAS MAIN TRENCHING	583	LF
845.10	STRUCTURAL STEEL UTILITY SUPPORT - GAS MAIN	1	LS
890.021	SPECIAL WORK NO. 2 - TEMPORARY GAS MAIN SUPPORT	1	LS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE PLANS

BRIDGE NO. 1519 & NO.5490

		BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	DOT	DOT	9/12/2011
CHECKED-REVIEWED	TWM	DOT	9/12/2011
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

ESTIMATED QUANTITIES

SHEET NUMBER

2

OF 73

Stantec

Filename: ...\002_QTYS.dgn Division: 1953 Username: STANTEC Date:10/13/2011

GENERAL CONSTRUCTION NOTES

1. All aerial utility facilities shall be adjusted by the respective utilities unless otherwise noted. The City of Westbrook's Combined Sewer Separation Project, Portland Water District's water main replacement, and Unitil's gas main replacement are part of this contract. See Section 104 special provisions for more details.

2. For easements, construction limits, and right-of-way lines, refer to Right-of-Way Map.

3. During construction, the road will be detoured across a temporary bridge as specified in the Special Provisions. There will also be a signed truck detour.

4. Place a 24 inch wide strip of Temporary Erosion Control Blanket on the side slopes along the top of the riprap and behind the wingwalls.

5. All embankment material, except as otherwise shown, shall be Granular Borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.

6. The clearing limits as shown on the plans are approximate. The exact limits will be established in the field by the Resident. Payment for clearing will be considered incidental to related Contract items.

7. Place loam 4 inches deep on all new or reconstructed sideslopes, or as directed by the Resident.

8. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.

9. In areas where the Resident directs the Contractor not to excavate to the subgrade line shown on the plans, payment for removing existing pavement, grubbing, shaping, ditching, and compacting the existing subbase and layers of new subbase 6 inches or less thick will be made under appropriate equipment rental items.

10. Stones which cannot be rolled or compacted into the surface of the shoulder shall be removed by hand raking. Payment for hand raking will be considered incidental to Item 304.10, Aggregate Subbase Course - Gravel.

11. An NCHRP350 compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail.

12. Extended-use Erosion Control Blanket, seeded gutters, riprap downspouts, and other gutters lined with Stone Ditch Protection shall be constructed after paving and shoulder work is completed, where it is apparent that runoff will cause continual erosion. Payment will be made under the appropriate Contract items.

13. Protective Coating for Concrete Surfaces shall be applied to the following areas:
- All exposed surfaces of concrete curbs and sidewalks
- Fascia down to drip notch
- All exposed surfaces of Concrete Transition Barriers

14. Place riprap on slopes steeper than 2H:1V, or as directed by the Resident.

15. Project information referred to below may be accessed at the following MaineDOT web address: http://maine.gov/mdot/contractors/*projecttbl

16. Bidders and Contractors may obtain a copy of the existing bridge plans which may be accessed at the MaineDOT web address. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations, which may have been made to the bridge during its life span.

17. Bidders and Contractors may obtain a copy of the hydrologic report of the bridge site which may be accessed at the MaineDOT web address. The hydrologic report is based on the Department's interpretation of information obtained for the subject site. No assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.

18. Bidders and Contractors may obtain a copy of the project geotechnical report, "Cumberland Mills West & East Bridges over Presumpscot River," Report No. 2011-03, January 26, 2011, which may be accessed at the MaineDOT web address.

19. Geotechnical Information furnished or referred to in this plan set is for the use of the Bidders and the Contractor. No assurance is given that the information or interpretations will be representative of actual subsurface conditions at the time of construction. MaineDOT shall not be responsible for the Bidder's and Contractor's interpretations of, or conclusions drawn from, the Geotechnical Information. The boring logs contained in the plan set present factual and interpretive subsurface information collected at discrete locations. Data provided may not be representative of the subsurface conditions between boring locations.

20. Quantities included for pay items measured and paid for by Lump Sum are estimated quantities and are provided by MaineDOT for informational purposes only. Lump Sum pay items will be paid for at the Contract Bid amount, with no addition or reduction in payment to the Contractor if the actual final quantities are different from the MaineDOT provided estimated quantities, except as follows:
a. If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items, will take precedence.
b. If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.
c. If a design change results in changes to estimated quantities for Lump Sum pay items, price adjustments will be made in accordance with Standard Specifications Section 109.7, Equitable Adjustments to Compensation.

21. The Contractor shall submit a Bridge Demolition Plan to the Resident at least 10 business days prior to the start of demolition work. The plan shall outline the methods and equipment to be used to remove and dispose of all materials included in the existing bridge. No work related to the removal of the bridge shall be undertaken by the Contractor until MaineDOT has reviewed the Bridge Demolition Plan for appropriateness and completeness. Payment for all work necessary for developing, submitting and finalizing the Demolition Plan will be considered incidental to the bridge removal pay item.

22. The existing bridge shall be removed by and become the property of the Contractor. The steel portions of the existing bridge may be coated with a lead-based paint system. The Contractor is responsible for the containment, proper management and disposal of all lead-contaminated hazardous waste generated by the process of demolishing the bridge. The Contractor is responsible for implementing appropriate OSHA mandated personal protection standards related to this process. Once the existing bridge is removed, the Contractor is solely responsible for the care, custody and control of the components of the existing bridge and any hazardous waste generated as a result of the storage, recycling or disposal of the bridge components, including lead-coated steel. The Contractor shall recycle or reuse the steel in accordance with the Maine Department of Environmental Protection's "Maine Hazardous Waste Management Regulations," Chapter 850. A copy of this regulation is available at MaineDOT's offices on Child Street in Augusta. Payment for all labor, materials, equipment and other costs required to remove and dispose of the existing bridge will be considered incidental to the bridge removal pay item.

23. A Maine Department of Environmental Protection (MDEP) database review suggested some petroleum contamination issues adjacent to the project. However, the scope of work for this project suggests petroleum or hazardous waste should not be encountered. However, in light of the urban nature of the area and reported spills, the contractor shall employ appropriate health and safety measures to protect its workers against hazards associated with working near petroleum-impacted soils. Furthermore, the Contractor shall remain alert for any additional evidence of contamination. If the Contractor encounters evidence of soil or groundwater contamination, the Contractor shall secure the excavation, stop work in the contaminated area, and immediately notify the Resident. The Resident shall contact the Hydrogeologist in MDOT's Environmental Office at 207-624-3100 and the Maine Department of Environmental Protection at 800-482-0777. Work may only continue with authorization from the Resident.

24. Any necessary cleaning of existing pavement prior to paving shall be incidental to the related paving items.

25. No existing drainage shall be abandoned, removed or plugged without approval from the Resident.

26. Any necessary cutting of existing pipes or drainage structures to fit proposed pipe or drainage structures shall not be paid for separately and will be considered incidental to the new pipe or drainage structure.

27. Any base pavement not surfaced before winter will require temporary pavement markings matching the final condition.

28. The Contractor will be responsible for maintaining all existing mailboxes to ensure that the mail will be deliverable. No separate payment will be made for this work; it shall be considered incidental to the contract.

29. Any damage to the slopes caused by the Contractor's equipment, personnel, or operation shall be repaired to the satisfaction of the resident. All work, equipment and materials required to make repairs shall be at the Contractor's expense.

30. All work shall be done in accordance with the Maine Department of Transportation's Best Management Practices for Erosion Control & Sediment Control, February, 2008.

31. Landscaping items are included in the contract and shall be located in the field by the Resident prior to planting.

32. All exposed edges of concrete shall be chamfered 5/8" ± 1/8".

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

BY	DATE
JTS	5/23/2011
DDT	9/12/2011
JTS	9/12/2011

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	TWM	BY
DESIGN-DETAILED	GAB	JTS
CHECKED-REVIEWED	TWM	DDT
DESIGN2-DETAILED2	DDT	JTS
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

GENERAL NOTES

SHEET NUMBER

3

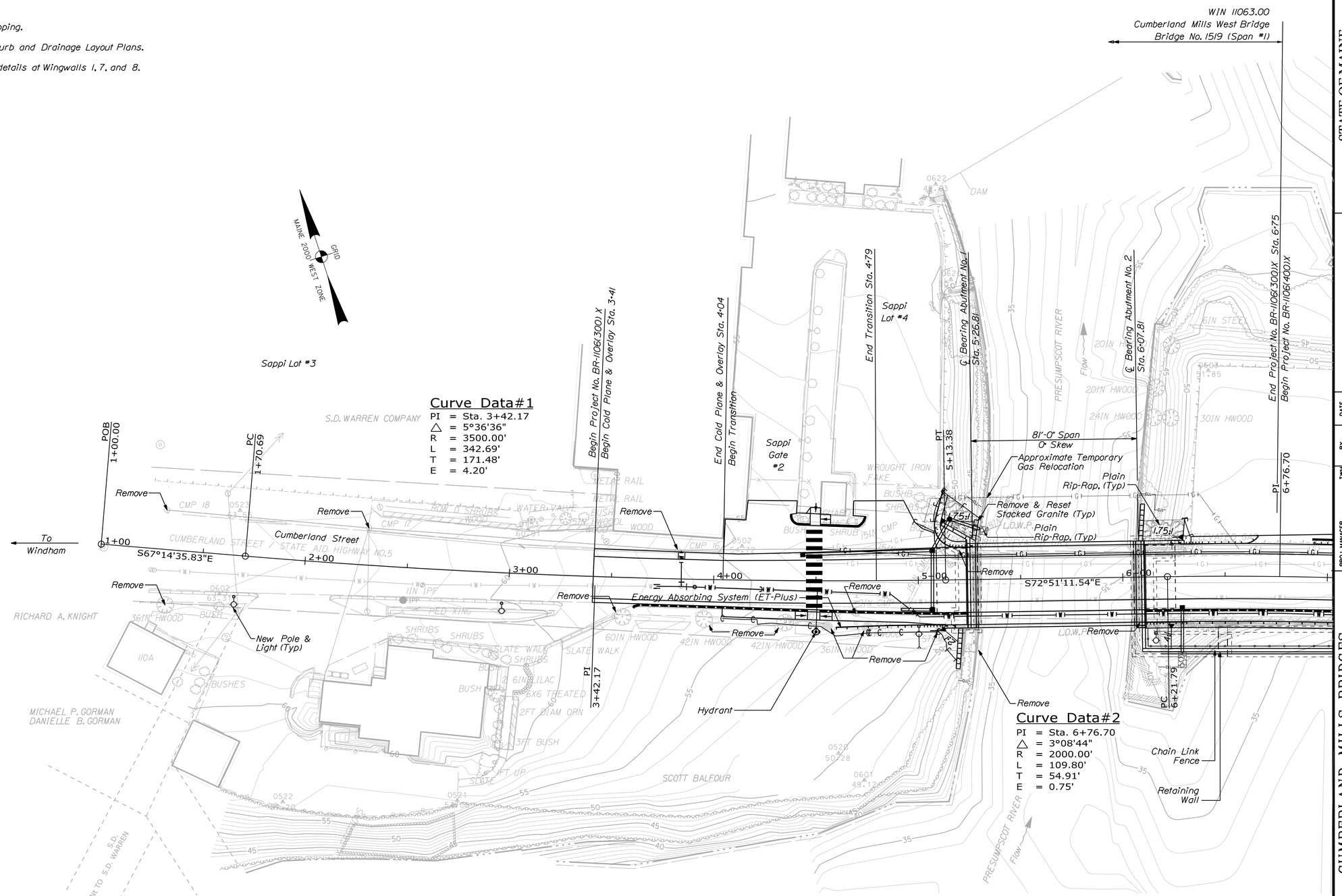
OF 73

Filename: ...\003_GEN_NOTES.dgn Username: STANTEC Division: 1953 Date:10/12/2011

Filename: ...\004_PLAN_01.dgn Username: STANTEC Date:10/10/2011 Division: 1953

Notes:

1. See Sheet 11 for wetlands mapping.
2. See Sheets 14 and 15 for Curb and Drainage Layout Plans.
3. See Sheet 56 for Guardrail details at Wingwalls 1, 7, and 8.



PLAN

25 0 25 50

SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	TWM	BY	DATE
PROJ. MANAGER	TWM	GJB	12/10/2010
DESIGN-DETAILED	TWM	GJB	01/27/11
CHECKED-REVIEWED	MCF	GJB	
DESIGN2-DETAILED2		-	-
DESIGN3-DETAILED3		-	-
REVISIONS 1		-	-
REVISIONS 2		-	-
REVISIONS 3		-	-
REVISIONS 4		-	-
FIELD CHANGES		-	-

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

GENERAL PLAN 1

SHEET NUMBER

4

OF 73

Stantec

Filename: ...\005_PLAN_02.dgn Division: 1953 Username: STANTEC Date:10/10/2011

WIN 11064.00
Cumberland Mills East Bridge
Bridge No. 5490 (Span #2)

DAM GATE LOCATED ABOVE WATER LEVEL
WALKWAY EXTENDING FROM DAM GATE
BRICK 3 STORY MILL/APPROX. @ WATER LEVEL
MAINE 2000 WEST ZONE GRID
TRASH BOOM
PRESUMPSCOT RIVER Flow
S.D. WARREN COMPANY
Sappi Lot #5
Sappi Gate #3
Sappi Lot #7
Sappi Lot #8
MMC REALTY CORP.
WESTBROOK MAINE MED
CUMBERLAND STREET
HARNOIS AVE.
To Portland
DO NOT ENTER BIN ASHE

End Project No. BR-1106(300)X Sta. 6+75
Begin Project No. BR-1106(400)X
℄ Bearing Abutment No. 3 Sta. 7+45.02
℄ Bearing Abutment No. 4 Sta. 8+44.02
Begin Transition Sta. 8+97
99'-0" Span
0° Skew
End Transition Sta. 10+07
Begin Cold Plane & Overlay
End Cold Plane & Overlay Sta. 10+28
End Project No. BR-1106(400)X
POE 11+59.34

Plain Rip-Rap, (Typ)
Terminal End W/ Anchor Assembly
PI 6+76.70
Remove Guardrail
Plain Rip-Rap (Typ)
Remove & Reset Stacked Granite (Typ)
Terminal End
Remove
Plain Rip-Rap (Typ)
Remove
Adjust To Grade
CRT
PI 9+32.06
Adjust To Grade
See Sewer Plans
See Water Main Plans
Chain Link Fence
Retaining Wall
PC 6+21.79
PT 7+31.59
Heavy Rip-Rap
Terminal End
See Sewer Plans
PC 8+59.22
Remove
PT 10+04.51
Removed and Reset (By Others)

6+00 7+00 8+00 S69°42'27.79"E 9+00 10+00 11+00 S55°18'06.88"E

Curve Data#2
PI = Sta. 6+76.70
△ = 3°08'44"
R = 2000.00'
L = 109.80'
T = 54.91'
E = 0.75'

Curve Data#3
PI = Sta. 9+32.06
△ = 10°24'21"
R = 800.00'
L = 145.29'
T = 72.85'
E = 3.31'

Notes:
1. See Sheet 11 for wetlands mapping.
2. CRT=Cable Releasing Terminal
3. See Sheets 14 and 15 for Curb and Drainage Layout Plans.
4. See Sheet 56 for Guardrail details at Wingwalls 1, 7, and 8.

PLAN
25 0 25 50
SCALE

Stantec

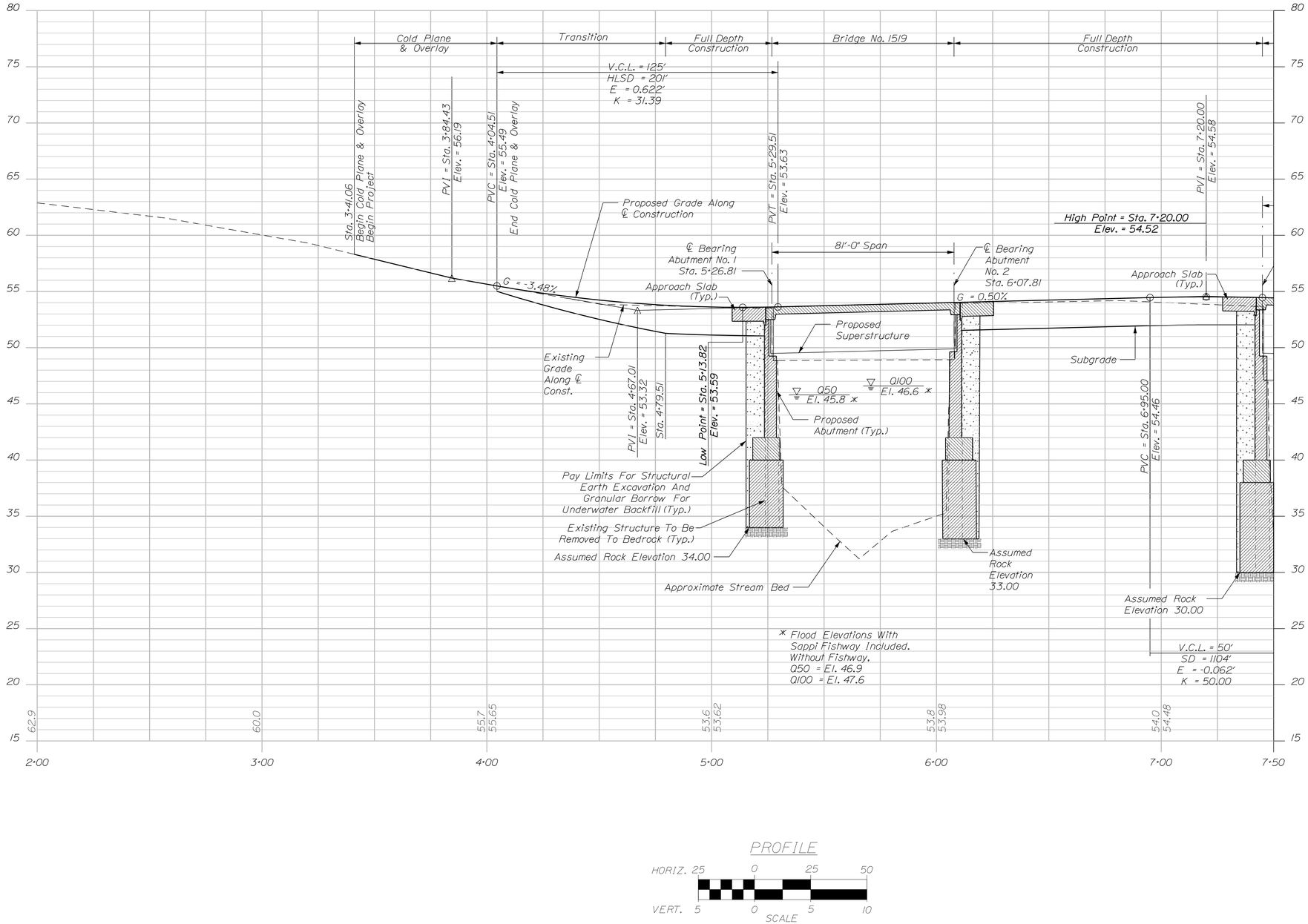
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BH-1106(300)X & BH-1106(400)X
WIN 11063.00 & 11064.00
BRIDGE NO. 1519 & NO.5490
BRIDGE PLANS

PROJ. MANAGER	TWM	BY	DATE
DESIGN-DETAILED	TWM	GJB	12/10/2010
CHECKED-REVIEWED	MCF	GAB	01/27/11
DESIGN2-DETAILED2			SIGNATURE
DESIGN3-DETAILED3			
REVISIONS 1			P.E. NUMBER
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			DATE
FIELD CHANGES			

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

GENERAL PLAN 2

SHEET NUMBER
5
OF 73



PROFILE

HORIZ. 25 0 25 50

VERT. 5 0 5 10

SCALE

Stantec

PROJ. MANAGER			
DESIGN-DETAILED	TWM	GJB	12/10/2010
CHECKED-REVIEWED	MCF	GAB	01/27/11
DESIGN2-DETAILED2	-	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1		-	-
REVISIONS 2		-	-
REVISIONS 3		-	-
REVISIONS 4		-	-
FIELD CHANGES		-	-

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

PROFILE 1

SHEET NUMBER

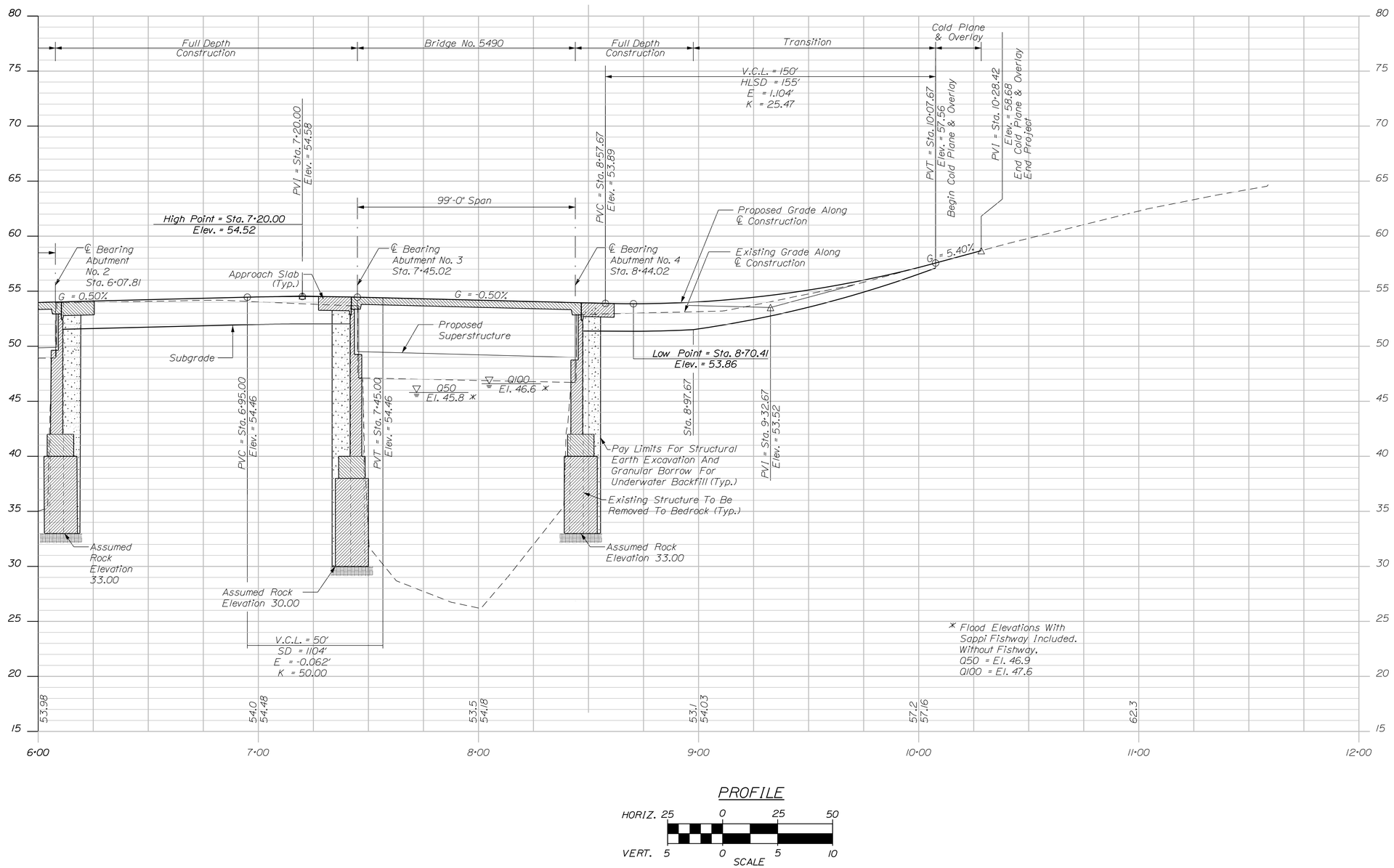
6

OF 73

Username: STANTEC Date:10/12/2011

Division: 1953

Filename: ...\006_PROFILE_01.dgn



PROFILE

HORIZ. 25 0 25 50

VERT. 5 0 5 10

SCALE

Filename: ...\007_PROFILE_02.dgn Division: 1953 Username: STANTEC Date:10/12/2011

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

PROJ. MANAGER	TWM	BY	DATE
DESIGN-DETAILED	TWM	GJB	12/10/2010
CHECKED-REVIEWED	MCF	GAB	01/27/11
DESIGN2-DETAILED2	-	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1		REVISION2	-
REVISIONS 2		REVISION3	-
REVISIONS 3		REVISION4	-
REVISIONS 4		FIELD CHANGES	-

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

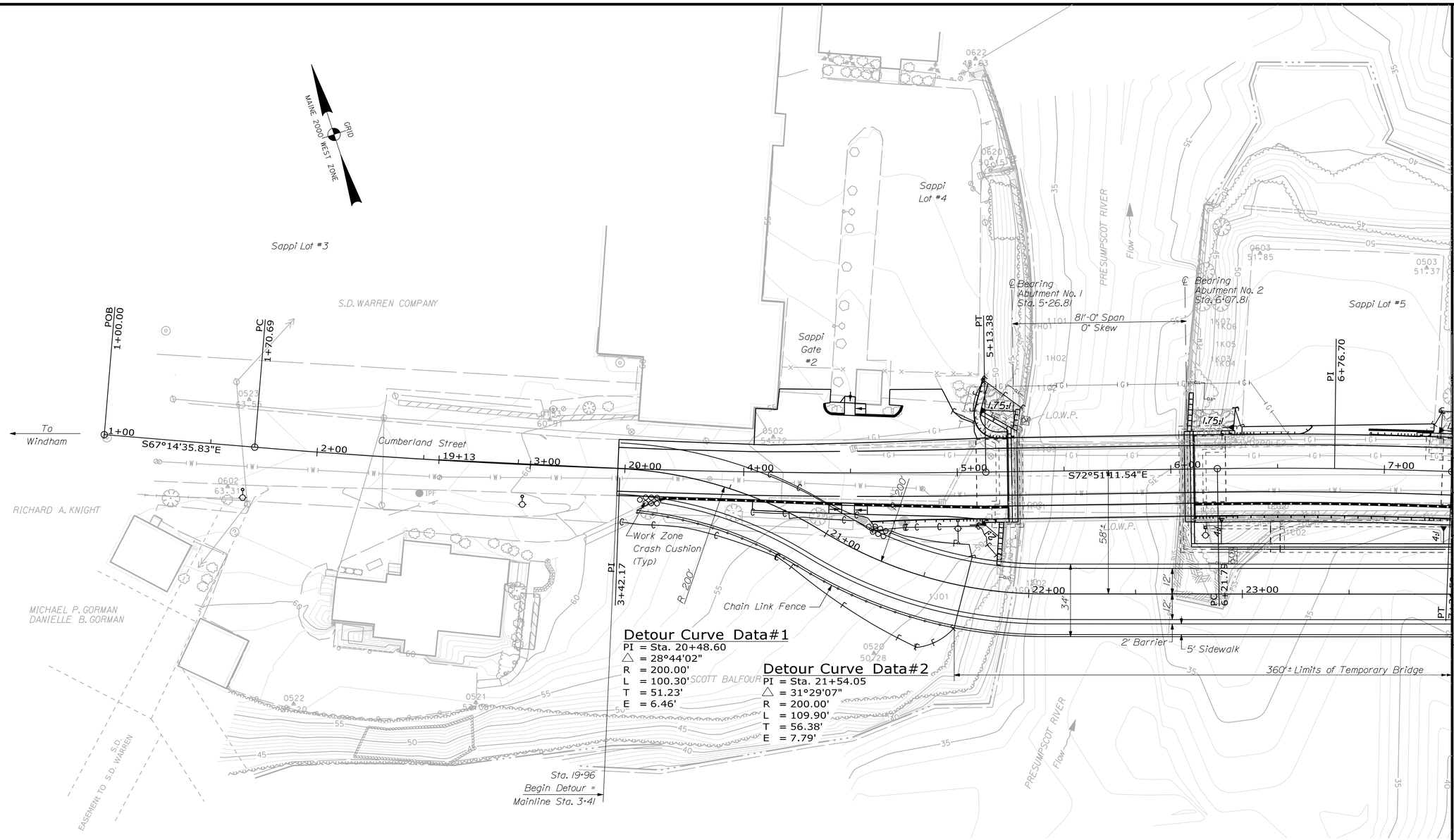
PROFILE 2

SHEET NUMBER

7

OF 73

Stantec



Detour Curve Data#1
PI = Sta. 20+48.60
△ = 28°44'02"
R = 200.00'
L = 100.30'
T = 51.23'
E = 6.46'

Detour Curve Data#2
PI = Sta. 21+54.05
△ = 31°29'07"
R = 200.00'
L = 109.90'
T = 56.38'
E = 7.79'

PLAN
25 0 25 50
SCALE

DETOUR NOTES

1. The geometry shown reflects minimum requirements for WB-40 truck turning movements.
2. This detour plan is provided for reference only. Actual detour design may vary. The Contractor is responsible for the design of the temporary detour.
3. See Special Provisions Section 510. Special Detours for detour requirements.
4. Access shall be maintained to Sappi Gate #2/Lot 4, Sappi Lot #5, and to Sappi Gate #3 right side.
5. Access shall be maintained to the Elms drive at Sta. 20+00 Right.
6. The Maine Medical drive at Sta. 26+75 Right shall be maintained as a Right Hand Turn Only exit.
7. See sheet 11 for wetlands mapping.
8. The detour bridge may be used as a work bridge to construct Island Retaining Wall in order to facilitate aerial utility relocation.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

PROJ. MANAGER				
DESIGN-DETAILED	TWM	GJB	12/10/2009	SIGNATURE
CHECKED-REVIEWED	MCF	GAB	01/27/11	
DESIGN2-DETAILED2	-	-	-	P.E. NUMBER
DESIGN3-DETAILED3				
REVISIONS 1	-	REVISION2	-	
REVISIONS 2		REVISION3	-	DATE
REVISIONS 3		REVISION4	-	
REVISIONS 4		FIELD CHANGES	-	

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

TEMPORARY DETOUR PLAN 1

SHEET NUMBER
8
OF 73

Username: STANTEC Date:10/10/2011
Division: 1953
Filename: ...\008_Detour_PLAN_01.dgn

Filename: ...\009_Detour_PLAN_02.dgn Division: 1953 Username: STANTEC Date:10/10/2011

GRID
MAINE 2000 WEST ZONE

Notes:
1. See sheet 11 for wetlands mapping.
2. See Sheet 8 For Detour Notes.

S.D. WARREN COMPANY

t No. 1
6.81

℄ Bearing
Abutment No. 2
Sta. 6+07.81

81'-0" Span
0° Skew

Sappi Lot #5

℄ Bearing
Abutment No. 3
Sta. 7+45.02

99'-0" Span
0° Skew

℄ Bearing
Abutment No. 4
Sta. 8+44.02

Sappi Gate #3

PI 6+76.70

PI 9+32.06

1.75:1

S72°51'11.54"E

6+00 7+00 8+00 9+00 10+00 11+00 28+00

S69°42'27.79"E

S59°18'06.88"E

POE 11+59.34

28+33

Cumberland Street

To Portland

Right Hand Turn / Exit Only

PC 6+21.78

PT 7+31.59

PC 10+59.22

PT 10+04.51

58'±

55'±

34'

12'

4'

2' Barrier

5' Sidewalk

360'± Limits of Temporary Bridge

21" Cor III

Sappi Lot #7

MMC REALTY CORP.

Sappi Lot #8

0603 51.85
0503 51.37
0607 47.02
0154 66.18
0600 64.23
0510 66.17
0528 53.71
0611 53.89

Detour Curve Data#3
PI = Sta. 25+30.66
△ = 23°32'57"
R = 200.00'
L = 82.20'
T = 41.69'
E = 4.30'

Detour Curve Data#4
PI = Sta. 26+36.51
△ = 36°05'02"
R = 200.00'
L = 125.96'
T = 65.15'
E = 10.34'

Sta. 26+96
End Detour =
Maineline Sta. 10+28

PLAN

25 0 25 50
SCALE

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	BY	DATE
DESIGN-DETAILED	TWM	12/10/2009
CHECKED-REVIEWED	MCF	01/27/11
DESIGN2-DETAILED2		-
DESIGN3-DETAILED3		-
REVISIONS 1	-	-
REVISIONS 2		-
REVISIONS 3	REVISION3	-
REVISIONS 4	REVISION4	-
FIELD CHANGES	-	-

SIGNATURE

P.E. NUMBER

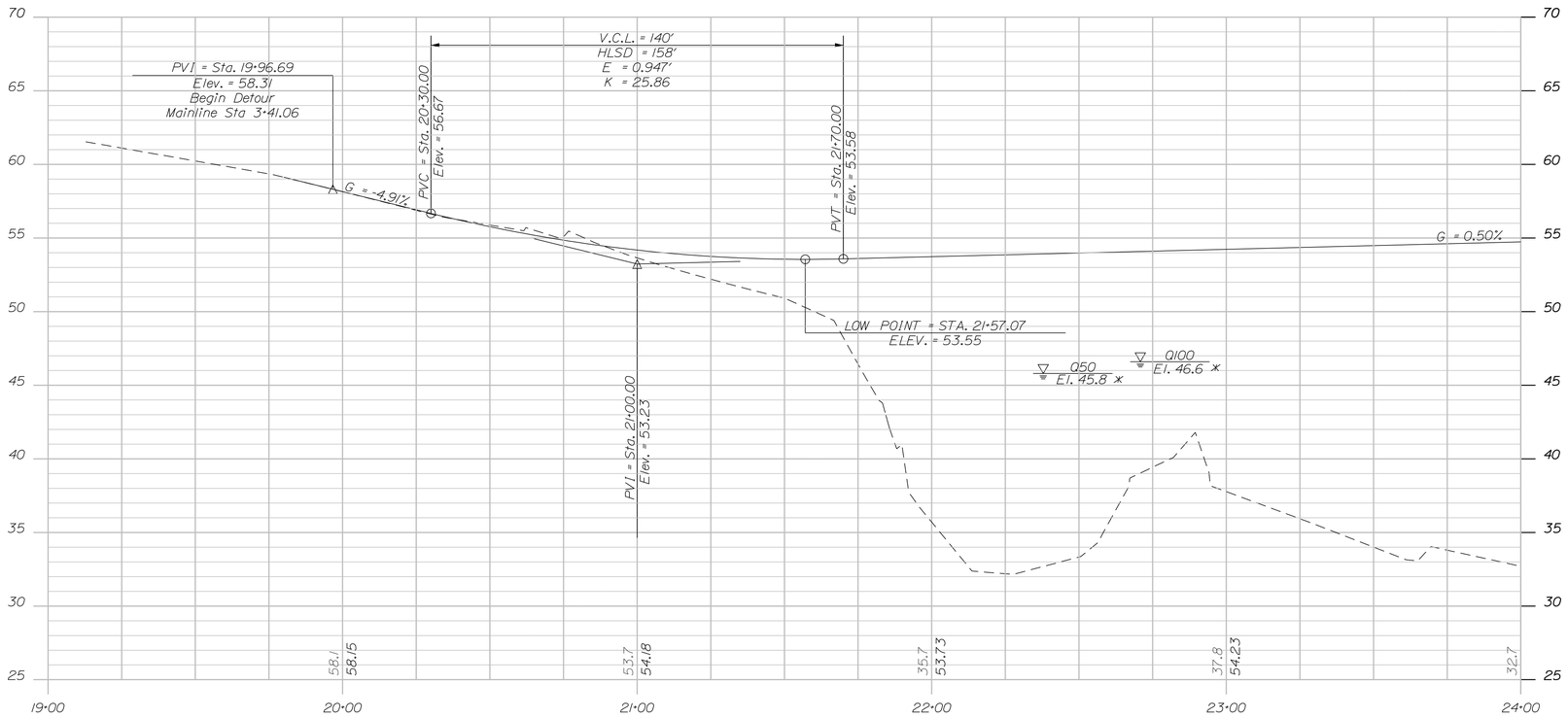
DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

TEMPORARY DETOUR PLAN 2

SHEET NUMBER
9
OF 73

Username: STANTEC Date:10/10/2011
Division: 1953
Filename: ...\010_DETOUR_PROFILE_01.dgn



DETOUR NOTES

1. This detour profile is provided for reference only. Actual detour design may vary. The Contractor is responsible for the design of the temporary detour.

2. See Special Provisions Section 510, Special Detours for detour requirements.

3. Added embankment over the existing clay sewer line in Sappi Lot*7 shall be limited.

*Flood Elevations With Sappi Fishway Included. Without Fishway, Q50 = El. 46.9 Q100 = El. 47.6

PROFILE

HORIZ. 25 0 25 50

VERT. 5 0 5 10

SCALE

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	TWM	BY	DATE
CHECKED-REVIEWED	MCF	GAB	12/10/2010
DESIGN2-DETAILED2		GAB	01/27/11
DESIGN3-DETAILED3	-	SIGNATURE	
REVISIONS 1	-	-	-
REVISIONS 2	-	P.E. NUMBER	
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	DATE	

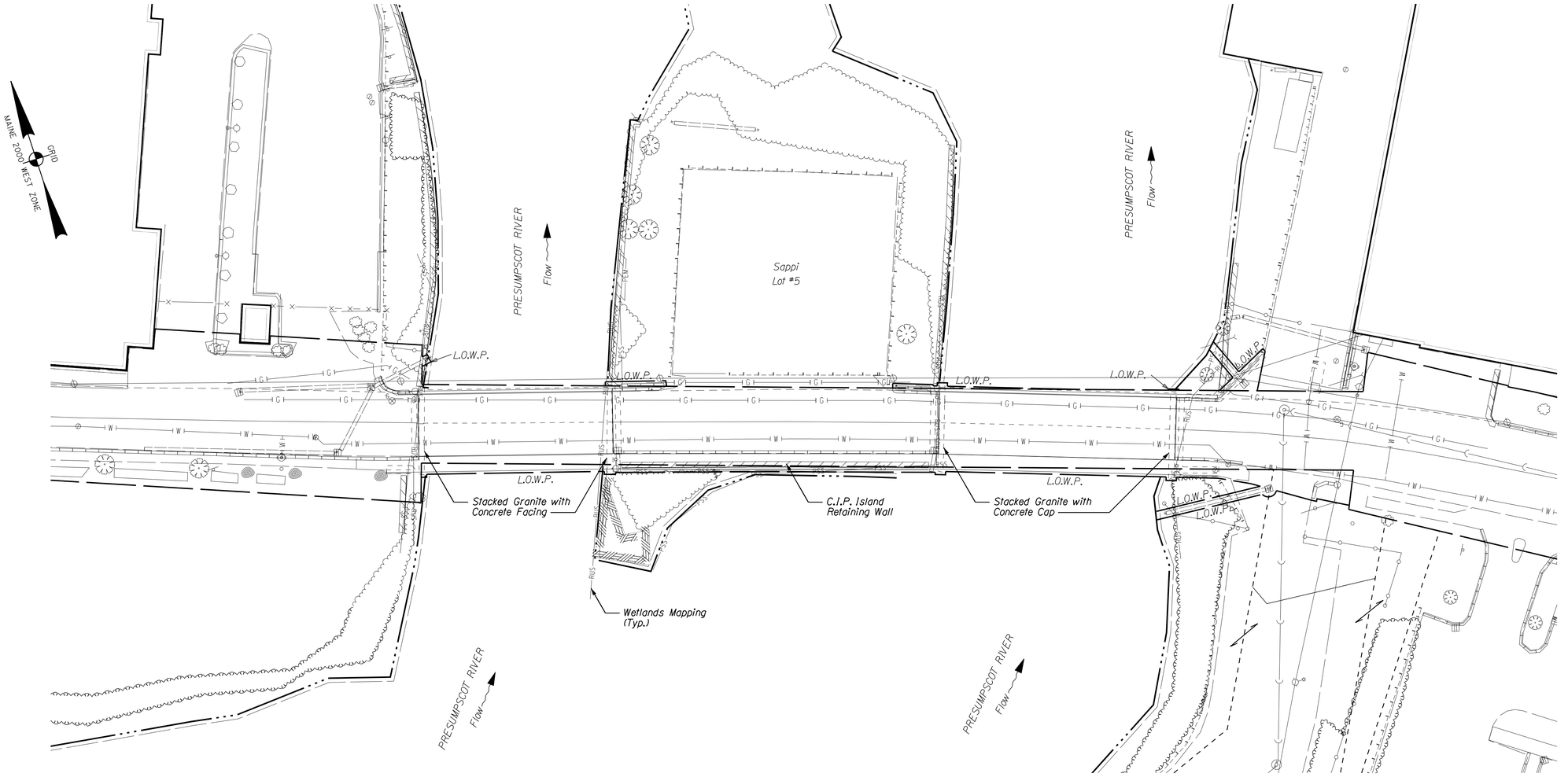
CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

TEMPORARY DETOUR PROFILE

SHEET NUMBER

10

OF 73



EXISTING BRIDGE REMOVAL PLAN

25 0 25 50

SCALE

NOTES:

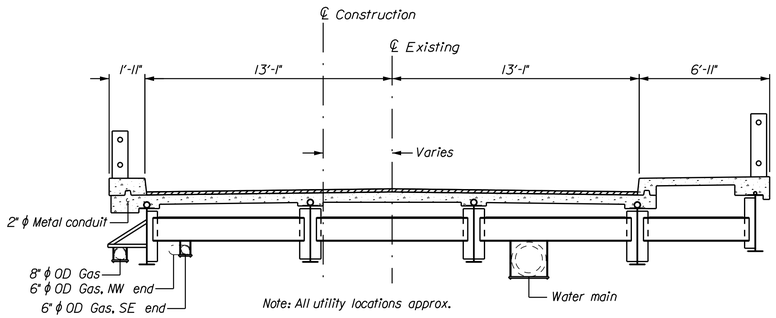
1. Removal of existing bridge shall be paid for lump sum. The following work shall be incidental:

   - Demolition access other than from the temporary bridge.
   - Removal of the entire bridges including the decks, railing, girders, abutments and wingwalls.
   - Removal of the lighting on the bridges.

2. Stacked granite lining the channel banks adjacent to the wingwalls shall be removed and restacked to allow wingwall demolition and wingwall construction. This shall be paid for under separate items. The contractor shall use the larger, better quality stones from the existing abutments for the channel wall reconstruction. Remaining granite may be used as rip-rap.

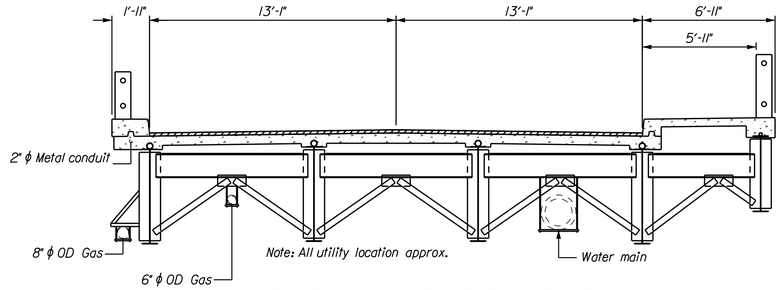
3. Existing abutments shall be removed in their entirety.

4. The bridges shall be removed and reconstructed one at a time with the east bridge done first. Sappi access must be maintained to the island Lot #5 until the fishway is operational in May 2013. See section 202 Special Provision for additional details.



EXISTING BRIDGE SECTION (WEST SPAN)

SCALE 1/4 " = 1'-0"



EXISTING BRIDGE SECTION (EAST SPAN)

SCALE 1/4 " = 1'-0"

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490 — BRIDGE PLANS

PROJ. MANAGER	TWM	BY	DATE
DESIGN-DETAILED	GAB	JTS	5/23/2011
CHECKED-REVIEWED	TWM	TEK	5/23/2011
DESIGN2-DETAILED2			SIGNATURE
DESIGN3-DETAILED3	-	-	P.E. NUMBER
REVISIONS 1	REVISION1	-	-
REVISIONS 2	REVISION2	-	-
REVISIONS 3	REVISION3	-	-
REVISIONS 4	REVISION4	-	-
FIELD CHANGES	-		DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

EXIST. BRIDGE REMOVAL PLAN

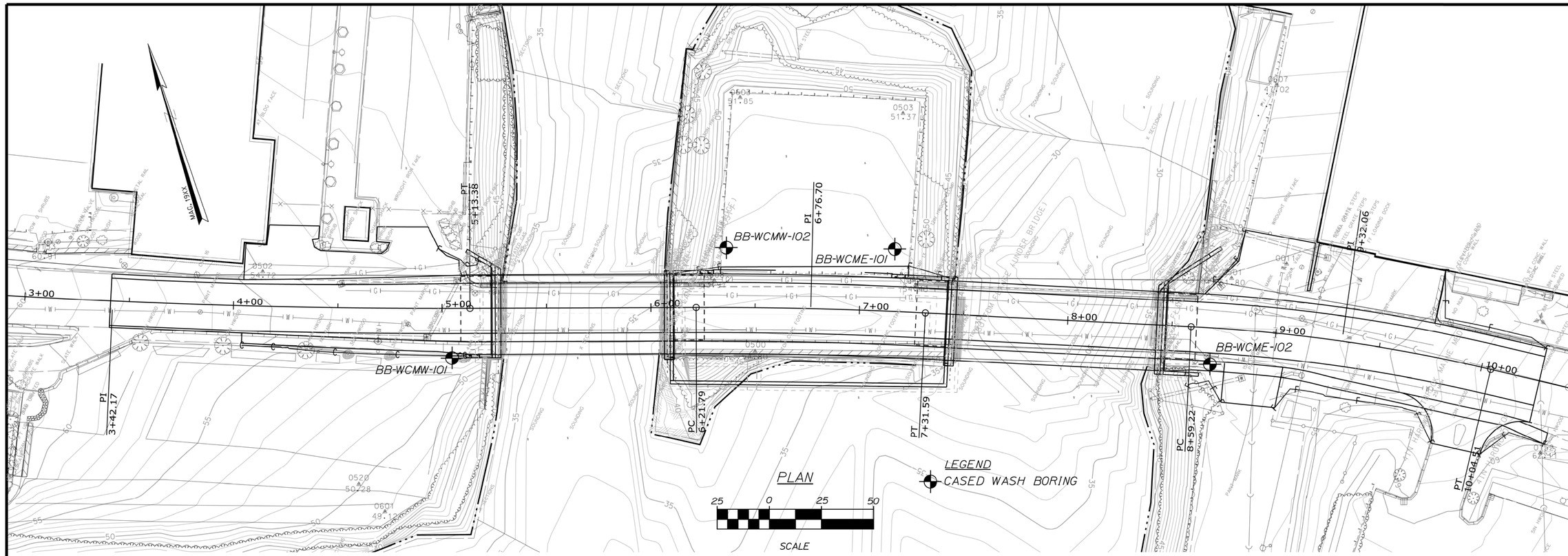
SHEET NUMBER

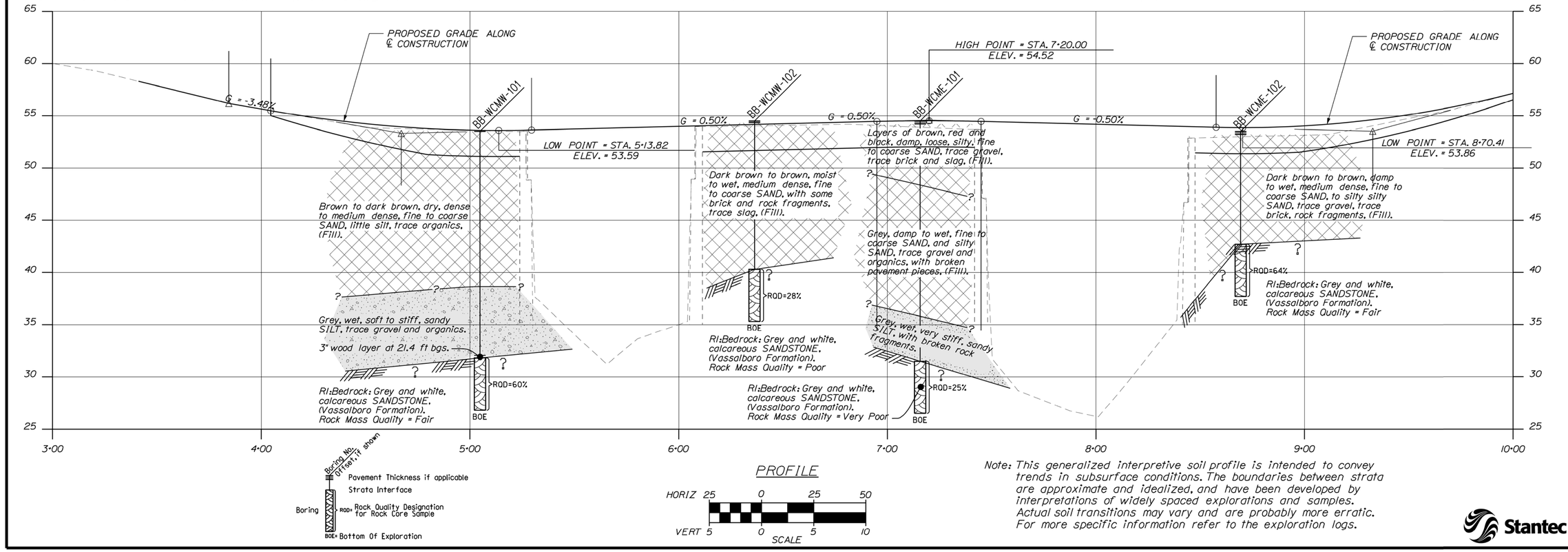
11

OF 73

Filename: ...\011_EXIST_BR_REMOV_PLAN.dgn Division: 1953 Username: STANTEC Date:10/10/2011

Username: STANTEC Date:9/30/2011
Division: 1953
Filename: ...\012_BOR_INTRP_SS.dgn





Boring No.
Offset, if shown
Pavement Thickness if applicable
Strata Interface
Boring
ROD= Rock Quality Designation for Rock Core Sample
BOE= Bottom Of Exploration

PROFILE
HORIZ 25 0 25 50
VERT 5 0 5 10
SCALE

Note: This generalized interpretive soil profile is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretations of widely spaced explorations and samples. Actual soil transitions may vary and are probably more erratic. For more specific information refer to the exploration logs.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1106(300)X & BR-1106(400)X

WIN #11063.00 & #11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

STATE OF MAINE · Kathleen Maguire · 7120 · LICENSED PROFESSIONAL ENGINEER

	BY	DATE
PROJ. MANAGER	J. Wentworth	
DESIGN-DETAILED	K. MAGUIRE	
CHECKED-REVIEWED		
DESIGN2-DETAILED2	T. WHITE	JAN 2011
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7120
P.E. NUMBER
10/4/2011
DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

BORING LOCATION PLAN & INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
12
OF 73

Filename: ...\013_BOR_LOGS.dgn Division: 1953 Username: STANTEC Date:9/30/2011

Maine Department of Transportation — Boring No.: BB-WCMW-101

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Cumberland Mills West Bridge
Location: Westbrook, Maine
PIN: 11063.00

Driller:	MaineDOT	Elevation (ft.):	53.5	Auger ID/OD:	5" SSA
Operator:	C. Mann	Datum:	NGVD	Sampler:	Standard Split Spoons
Logged By:	K. Maguire	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	6/23/04–6/23/04	Drilling Methods:	Cased Wash Boring	Core Barrel:	NQ
Boring Location:	S+04.8, 23.7 Rt.	Casing ID/OD:	3.5/3.0"	Water Level*:	None Observed

Definitions: D = Split Spoon Sample; W = Unsuccessful Split Spoon Sample attempt; U = Thin Wall Tube Sample; R = Rock Core Sample; V = Insitu Vane Shear Test; SSA = Solid Stem Auger; S_u = Insitu Field Vane Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf); q_u = Unconfined Compressive Strength (ksf); $S_{u(qp)}$ = Lab Vane Shear Strength (psf); WOH = weight of 140lb. hammer; WOR = weight of rods; WOC = weight of casing; WC = water content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; C = Grain Size Analysis; CC = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Strength Lithology of RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	53.5		Brown, dry, fine to coarse SAND, little silt.	
5	1D	24/2	5.00 – 7.00	8/18/17/8	35	40			Dark brown, dry, dense, fine to coarse SAND, little silt, trace organics.	
10	WD	24/0	10.00 – 12.00	7/7/9/9	16	16			No recovery.	
15	2D	24/20	15.00 – 17.00	4/1/1/1	2	15	15.00		Grey, wet, soft, sandy SILT, trace gravel and organics.	Gt#76151 A-4; ML WC=29.1%
20	3D	24/8	20.00 – 22.00	4/4/12/50(1.2)	16	22			Grey, wet, very stiff, sandy SILT, wood layer (3") in bottom of spoon, rock in nose of spoon.	
	R1	60/54	21.70 – 26.70	RQD = 60%		024 ND	21.70		024 blows for 0.5'	
25							31.80		Top of Bedrock at Elev. 31.8 ft. Bedrock: Grey and white, calcareous SANDSTONE, (Vassalboro Formation). Rock Mass Quality = Fair. R1: Bedrock Core Times (min/sec) 21.-22.7: (5:42) 22.7-23.7' (5:50) 23.7-24.7' (6:23) 24.7-25.7' (5:03) 25.7-26.7' (5:30) 90% Recovery	
30							26.80		Bottom of Exploration at 26.70 feet below ground surface.	
35										
40										
45										
50										

Remarks:

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1

Boring No.: BB-WCMW-101

Maine Department of Transportation — Boring No.: BB-WCMW-102

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Cumberland Mills West Bridge
Location: Westbrook, Maine
PIN: 11063.00

Driller:	MaineDOT	Elevation (ft.):	54.5	Auger ID/OD:	5" SSA
Operator:	C. Mann	Datum:	NGVD	Sampler:	Standard Split Spoons
Logged By:	K. Maguire	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	6/23/04–6/23/04	Drilling Methods:	Cased Wash Boring	Core Barrel:	NQ
Boring Location:	6+36.4, 28.6 Lt.	Casing ID/OD:	3.5/3.0"	Water Level*:	None Observed

Definitions: D = Split Spoon Sample; W = Unsuccessful Split Spoon Sample attempt; U = Thin Wall Tube Sample; R = Rock Core Sample; V = Insitu Vane Shear Test; SSA = Solid Stem Auger; S_u = Insitu Field Vane Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf); q_u = Unconfined Compressive Strength (ksf); $S_{u(qp)}$ = Lab Vane Shear Strength (psf); WOH = weight of 140lb. hammer; WOR = weight of rods; WOC = weight of casing; WC = water content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; C = Grain Size Analysis; CC = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Strength Lithology of RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	54.33		2" Pavement	
	1D	24/10	2.00 – 4.00	6/10/23/21	33		0.17		Dark brown, moist, dense, fine to coarse SAND with some brick, and rock fragments. (Fill).	
5	2D	24/14	5.00 – 7.00	13/11/7/4	18	22			Dark brown, moist, medium dense, fine to coarse SAND with some brick, trace slag. (Fill).	
						36			Obstruction at 6.5' bgs.	
						192				
						094			Washed ahead to 10.0' bgs.	
10	3D	24/6	10.00 – 12.00	2/3/8/10	11	8			Brown, wet, medium dense, fine to coarse SAND with brick. (Fill).	
						12				
						13				
						9				
15	R1	60/60	14.20 – 19.20	RQD = 28%		023 ND	40.30		023 blows for 0.2'.	
							14.20		Top of Bedrock at Elev. 40.3 Ft. Bedrock: Grey and white, calcareous SANDSTONE, (Vassalboro Formation). Rock Mass Quality = Poor. R1: Bedrock Core Times (min/sec) 14.2-15.2' (4:30) 15.2-16.2' (4:27) 16.2-17.2' (4:30) 17.2-18.2' (5:50) 18.2-19.2' (5:15) 100% Recovery	
20							35.30			
							19.20		Bottom of Exploration at 19.20 feet below ground surface.	
25										
30										
35										
40										
45										
50										

Remarks:

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1

Boring No.: BB-WCMW-102

Maine Department of Transportation — Boring No.: BB-WCME-101

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Cumberland Mills East Bridge
Location: Westbrook, Maine
PIN: 11064.00

Driller:	MaineDOT	Elevation (ft.):	54.5	Auger ID/OD:	5" SSA
Operator:	C. Mann	Datum:	NGVD	Sampler:	Standard Split Spoon
Logged By:	K. Maguire	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	6/22/04–6/22/04	Drilling Methods:	Cased Wash Boring	Core Barrel:	NQ
Boring Location:	7+15.7, 29.9 Lt.	Casing ID/OD:	3.0/3.5"	Water Level*:	None Observed

Definitions: D = Split Spoon Sample; W = Unsuccessful Split Spoon Sample attempt; U = Thin Wall Tube Sample; R = Rock Core Sample; V = Insitu Vane Shear Test; SSA = Solid Stem Auger; S_u = Insitu Field Vane Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf); q_u = Unconfined Compressive Strength (ksf); $S_{u(qp)}$ = Lab Vane Shear Strength (psf); WOH = weight of 140lb. hammer; WOR = weight of rods; WOC = weight of casing; WC = water content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; C = Grain Size Analysis; CC = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Strength Lithology of RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	54.20		Pavement	
	1D	24/12	2.00 – 4.00	7/4/4/3	8		0.30		Layers of brown, red and black, damp, loose, silty fine to coarse SAND, trace gravel, trace brick and slag. (Fill).	
5	2D	24/13	5.00 – 7.00	3/4/2/2	6	6			Grey, damp, loose, silty fine to coarse SAND, trace gravel and organics.	Gt#76152 A-2-4, SM WC=16.0%
						6				
						9				
10	3D	24/6	10.00 – 12.00	4/3/3/2	6	8			Grey, wet, loose, fine to coarse SAND, some silt, trace gravel and organics, with broken pavement pieces. (Fill).	
						5				
						3				
						6				
15	4D	24/8	15.00 – 17.00	3/5/4/4	9	5			Grey, wet, loose, fine to coarse SAND, some silt, trace gravel. (Fill).	Gt#76453 A-2-4, SM WC=20.6%
						14				
						12				
						15				
20						34	35.90			
	5D	10/6	20.00 – 20.83	35/55(.35)	---	35 094	18.60		Grey, wet, hard, sandy SILT with broken rock fragments. Washed ahead 2.5'.	
						23				
						50/5"				
25	R1	60/60	23.00 – 28.00	RQD = 25%		ND	32.00		Tricone cored ahead to 23.0' bgs. Top of Bedrock at Elev. 32.0 ft. Bedrock: Grey and white, calcareous SANDSTONE, (Vassalboro Formation). Rock Mass Quality = Very Poor. R1: Bedrock Core Times (min/sec) 23.0-24.0' (6:15) 24.0-25.0' (6:10) 25.0-26.0' (5:50) 26.0-27.0' (6:30) 27.0-28.0' (7:00) 100% Recovery	
							22.50			
30							26.50		Bottom of Exploration at 28.00 feet below ground surface.	
							28.00			
35										
40										
45										
50										

Remarks:

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1

Boring No.: BB-WCME-101

Maine Department of Transportation — Boring No.: BB-WCME-102

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Cumberland Mills East Bridge
Location: Westbrook, Maine
PIN: 11064.00

Driller:	MaineDOT	Elevation (ft.):	54.5	Auger ID/OD:	5" SSA
Operator:	C. Mann	Datum:	NGVD	Sampler:	Standard Split Spoon
Logged By:	K. Maguire	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	6/24/04–6/24/04	Drilling Methods:	Cased Wash Boring	Core Barrel:	NQ
Boring Location:	8+69.4, 17.5 Rt.	Casing ID/OD:	3.0/3.5"	Water Level*:	None Observed

Definitions: D = Split Spoon Sample; W = Unsuccessful Split Spoon Sample attempt; U = Thin Wall Tube Sample; R = Rock Core Sample; V = Insitu Vane Shear Test; SSA = Solid Stem Auger; S_u = Insitu Field Vane Shear Strength (psf); T_v = Pocket Torvane Shear Strength (psf); q_u = Unconfined Compressive Strength (ksf); $S_{u(qp)}$ = Lab Vane Shear Strength (psf); WOH = weight of 140lb. hammer; WOR = weight of rods; WOC = weight of casing; WC = water content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; C = Grain Size Analysis; CC = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Strength Lithology of RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	53.20		4" Pavement	
							0.30			
5	1D	24/6	5.00 – 7.00	4/16/5/4	21	6			Dark brown, damp, medium dense, fine to coarse SAND, little silt, trace brick and rock fragments. (Fill).	
						6			Change to brown silty fine to coarse SAND in nose of spoon.	
						8				
10						11				
	2D R1	10/6 60/60	10.00 – 10.83 10.83 – 15.80	10/31(10.3) RQD = 64%	---	028 ND	42.70		028 blows for 0.8'. Brown, wet, medium dense, fine to coarse silty SAND, trace gravel. Spoon bounce at 10.8' bgs.	Gt#76154 A-4, SM WC=16.2%
							10.80		Top of Bedrock at Elev. 42.7 Ft. Bedrock: Grey and white, calcareous SANDSTONE, (Vassalboro Formation). Rock Mass Quality = Fair. R1: Bedrock Core Times (min/sec) 10.8-12.8' (6:05) 12.8-13.8' (6:10) 13.8-14.8' (6:20) 14.8-15.8' (5:50) 100% Recovery	
15							37.70			
							15.80		Bottom of Exploration at 15.80 feet below ground surface.	
20										
25										
30										
35										
40										
45										
50										

Remarks:

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1

Boring No.: BB-WCME-102

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1106(300)X & BR-1106(400)X

WIN #11063.00 & #11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

STATE OF MAINE — Kathleen Maguire — 7120 — REGISTERED PROFESSIONAL ENGINEER

SIGNATURE		
P.E. NUMBER	7120	
DATE	10/4/2011	

PROJ. MANAGER	J. Wentzell	BY	DATE
DESIGN-DETAILED	K. MAGUIRE	T. WHITE	JAN 2011
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

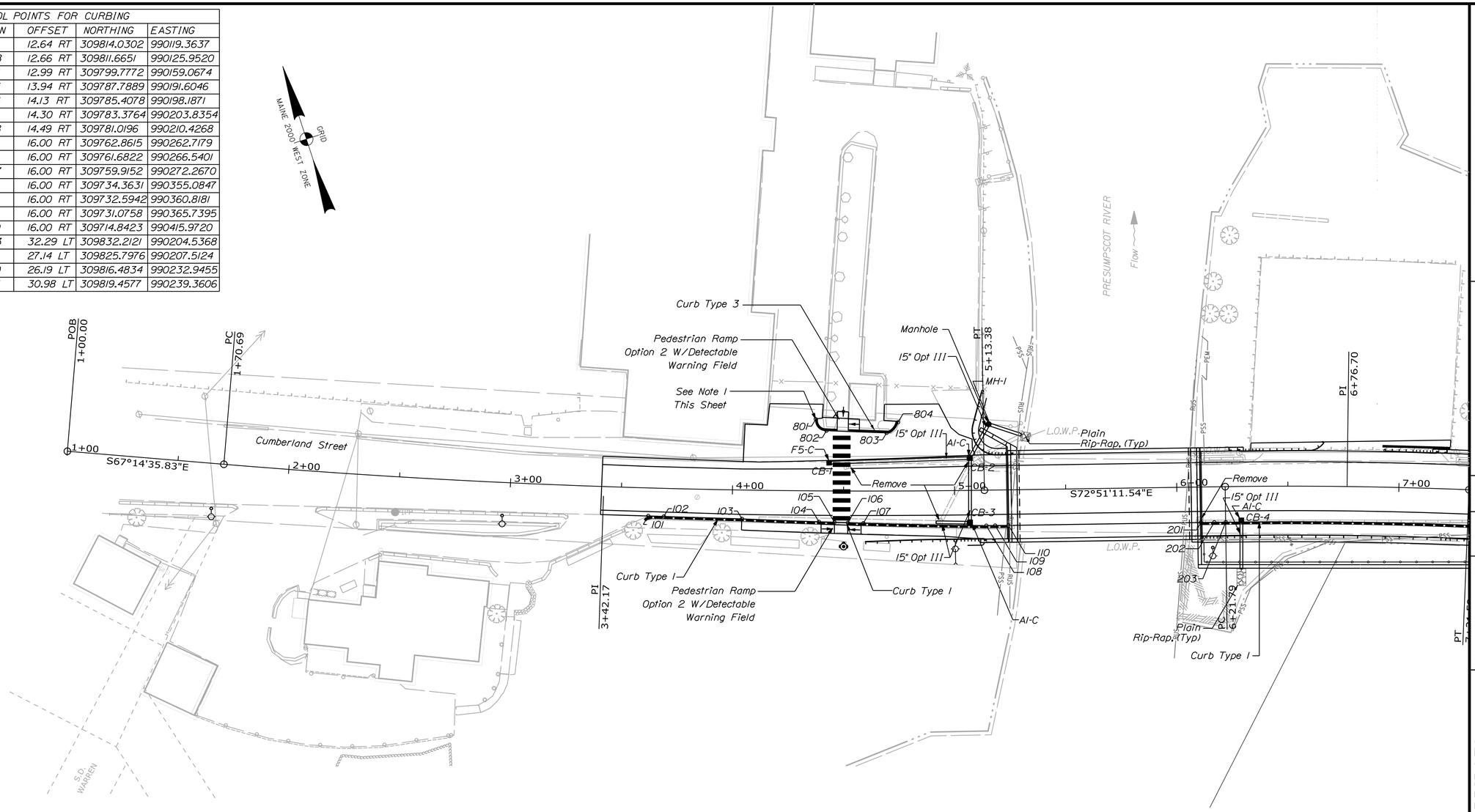
CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

BORING LOGS

SHEET NUMBER 13 OF 73

Stantec

CONTROL POINTS FOR CURBING				
POINT	STATION	OFFSET	NORTHING	EASTING
101	3+62.41	12.64 RT	309814.0302	990119.3637
102	3+69.38	12.66 RT	309811.6651	990125.9520
103	4+04.44	12.99 RT	309799.7772	990159.0674
104	4+38.97	13.94 RT	309787.7889	990191.6046
105	4+45.94	14.13 RT	309785.4078	990198.1871
106	4+51.91	14.30 RT	309783.3764	990203.8354
107	4+58.88	14.49 RT	309781.0196	990210.4268
108	5+13.98	16.00 RT	309762.8615	990262.7179
109	5+17.98	16.00 RT	309761.6822	990266.5401
110	5+23.97	16.00 RT	309759.9152	990272.2670
201	6+10.64	16.00 RT	309734.3631	990355.0847
202	6+16.64	16.00 RT	309732.5942	990360.8181
203	6+21.79	16.00 RT	309731.0758	990365.7395
204	6+75.00	16.00 RT	309714.8423	990415.9720
801	4+37.23	32.29 LT	309832.2121	990204.5368
802	4+42.11	27.14 LT	309825.7976	990207.5124
803	4+69.39	26.19 LT	309816.4834	990232.9455
804	4+74.63	30.98 LT	309819.4577	990239.3606



PLAN

25 0 25 50

SCALE

Curve Data

Point	Radius	Length
801 - 802	5.00'	7.85'
803 - 804	5.00'	7.85'

Item 609.11 Vertical Curb Type 1

Point	Length
102 - 103	35.18'
103 - 104	34.68'
107 - 108	55.92'
108 - 109	4.00'
202 - 203	5.15'
203 - 204	51.90'

Item 609.237 Terminal Curb Type 1 - 7 FT

Point	Length
101 - 102	7.00'
104 - 105	7.00'
106 - 107	7.00'

Item 609.247 Terminal Curb Type 2 - 7 FT

Point	Length
109 - 110	6.00'
201 - 202	6.00'

Item 609.31 Curb Type 3

Point	Length
801 - 802	7.85'
802 - 803	27.09'
803 - 804	7.85'

DRAINAGE STRUCTURE SCHEDULE							
STRUCTURE	LOCATION	TYPE	RIM	INV. IN	INV. IN	INV. OUT	COMMENTS
CB-1	STA. 4+44.09, 12.70 LT.	F5-C	54.94	-	-	50.94	
CB-2	STA. 5+07.13, 14.51 LT.	Al-C	53.21	47.26 (W)	46.80 (S)	46.30	
CB-3	STA. 5+06.79, 14.57 RT.	Al-C	53.21	48.90	-	48.40	
CB-4	STA. 6+28.97, 15.31 RT.	Al-C	53.78	-	-	48.42	
MH-1	STA. 5+15.74, 29.71 LT.		52.15	43.70	-	43.20	

Note:
1. Existing Asphalt Curb To Be Removed Under Item 629.05 Hand Labor. The Proposed Asphalt Wheelchair Ramp Shall Be Paid For Under Item 403.209.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	TWM	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	TWM	GJB	12/10/2009
CHECKED-REVIEWED	MCF	GAB	01/27/11
DESIGN2-DETAILED2	-		
DESIGN3-DETAILED3		-	-
REVISIONS 1	REVISION1		-
REVISIONS 2	REVISION2		-
REVISIONS 3	REVISION3		-
REVISIONS 4	REVISION4		-
FIELD CHANGES	-		-

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

CURB GEOMETRY & DRAINAGE LAYOUT PLAN 1

SHEET NUMBER

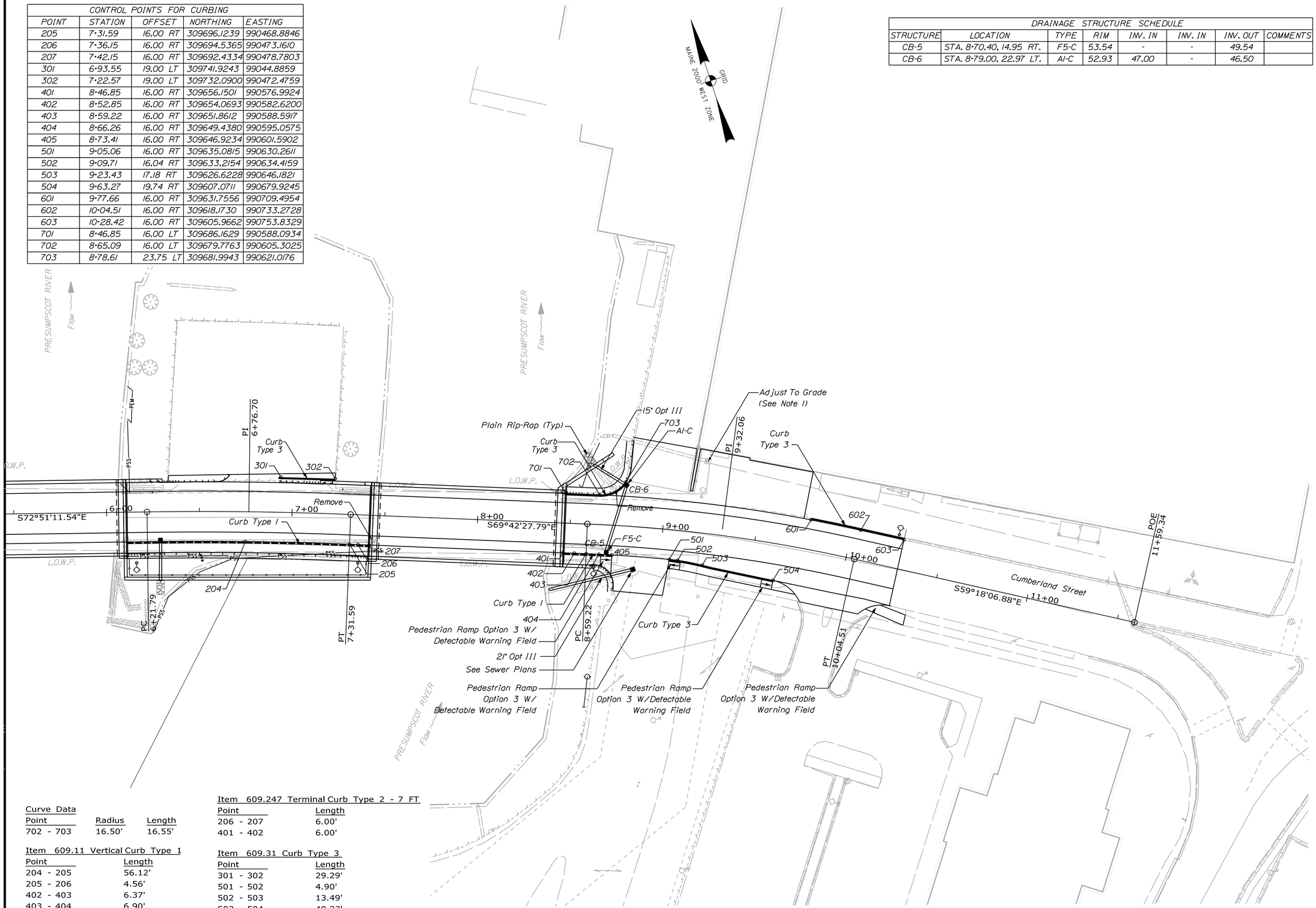
14

OF 73

Filename: ...\014_Curb-Geo_Drn-Plan_01.dgn Division: 1953 Username: STANTEC Date:10/10/2011

CONTROL POINTS FOR CURBING				
POINT	STATION	OFFSET	NORTHING	EASTING
205	7+31.59	16.00 RT	309696.1239	990468.8846
206	7+36.15	16.00 RT	309694.5365	990473.1610
207	7+42.15	16.00 RT	309692.4334	990478.7803
301	6+93.55	19.00 LT	309741.9243	99044.8859
302	7+22.57	19.00 LT	309732.0900	990472.4759
401	8+46.85	16.00 RT	309656.1501	990576.9924
402	8+52.85	16.00 RT	309654.0693	990582.6200
403	8+59.22	16.00 RT	309651.8612	990588.5917
404	8+66.26	16.00 RT	309649.4380	990595.0575
405	8+73.41	16.00 RT	309646.9234	990601.5902
501	9+05.06	16.00 RT	309635.0815	990630.2611
502	9+09.71	16.04 RT	309633.2154	990634.4159
503	9+23.43	17.18 RT	309626.6228	990646.1821
504	9+63.27	19.74 RT	309607.0711	990679.9245
601	9+77.66	16.00 RT	309631.7556	990709.4954
602	10+04.51	16.00 RT	309618.1730	990733.2728
603	10+28.42	16.00 RT	309605.9662	990753.8329
701	8+46.85	16.00 LT	309686.1629	990588.0934
702	8+65.09	16.00 LT	309679.7763	990605.3025
703	8+78.61	23.75 LT	309681.9943	990621.0176

DRAINAGE STRUCTURE SCHEDULE							
STRUCTURE	LOCATION	TYPE	RIM	INV. IN	INV. IN	INV. OUT	COMMENTS
CB-5	STA. 8+70.40, 14.95 RT.	F5-C	53.54	-	-	49.54	
CB-6	STA. 8+79.00, 22.97 LT.	AI-C	52.93	47.00	-	46.50	



PLAN

25 0 25 50

SCALE

Curve Data

Point	Radius	Length
702 - 703	16.50'	16.55'

Item 609.11 Vertical Curb Type 1

Point	Length
204 - 205	56.12'
205 - 206	4.56'
402 - 403	6.37'
403 - 404	6.90'

Item 609.237 Terminal Curb Type 1 - 7 FT

Point	Length
404 - 405	7.00'

Item 609.247 Terminal Curb Type 2 - 7 FT

Point	Length
206 - 207	6.00'
401 - 402	6.00'

Item 609.31 Curb Type 3

Point	Length
301 - 302	29.29'
501 - 502	4.90'
502 - 503	13.49'
503 - 504	40.23'
601 - 602	27.38'
602 - 603	23.89'
701 - 702	18.36'
702 - 703	16.55'

Note:
1. Cleaning Existing Catch Basin Is Incidental To The Adjustment.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	TWM	BY	DATE
PROJ. MANAGER	TWM	GJB	12/10/2009
DESIGN-DETAILED	TWM	GJB	01/27/11
CHECKED-REVIEWED	MCF	GAB	SIGNATURE
DESIGN2-DETAILED2		-	P.E. NUMBER
DESIGN3-DETAILED3		-	DATE
REVISIONS 1		-	REVISION1
REVISIONS 2		-	REVISION2
REVISIONS 3		-	REVISION3
REVISIONS 4		-	REVISION4
FIELD CHANGES		-	

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

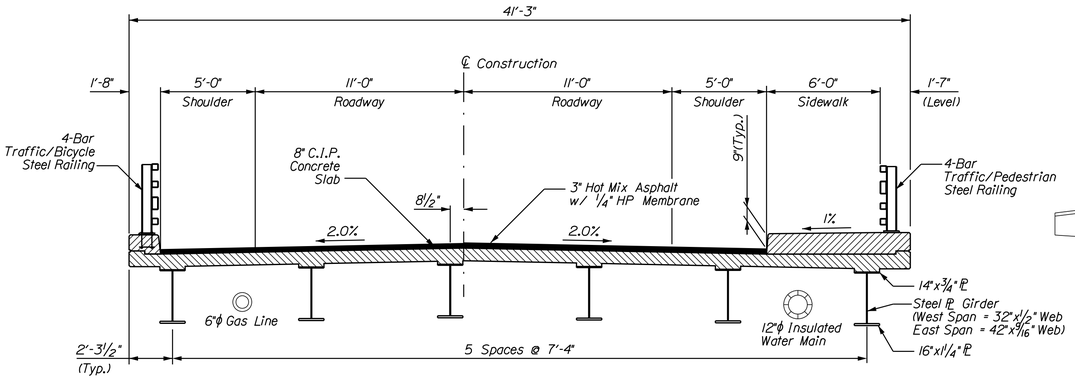
CURB GEOMETRY & DRAINAGE LAYOUT PLAN 2

SHEET NUMBER

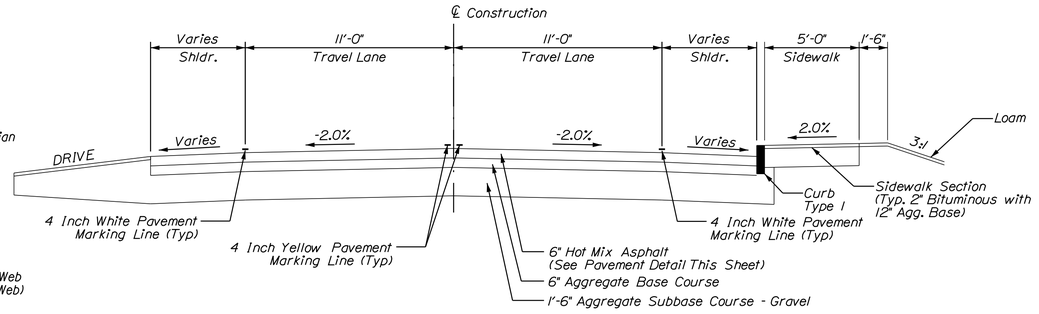
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OF 73

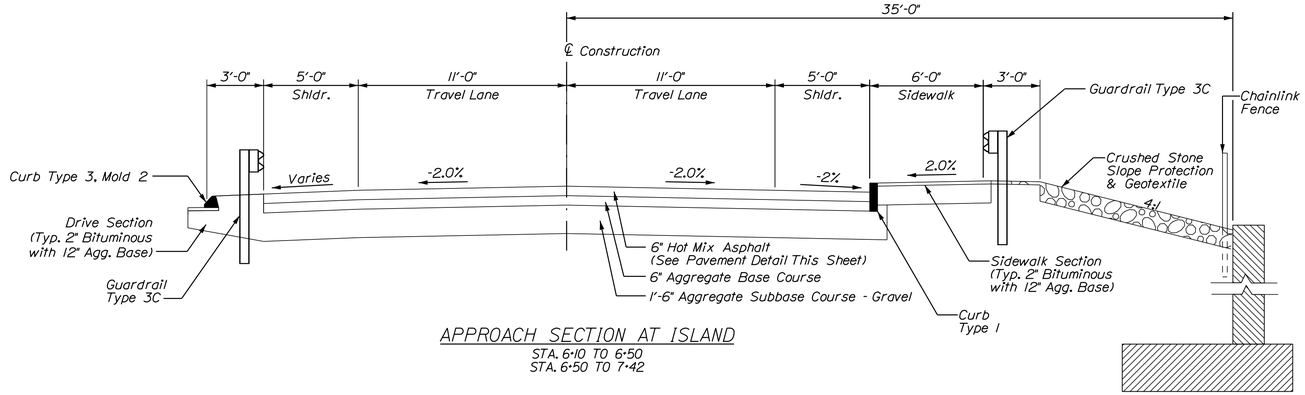
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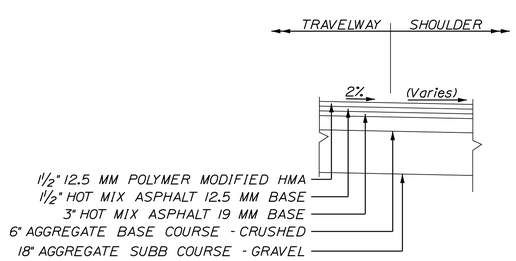
PROPOSED BRIDGE SECTION
(EAST & WEST SPAN)



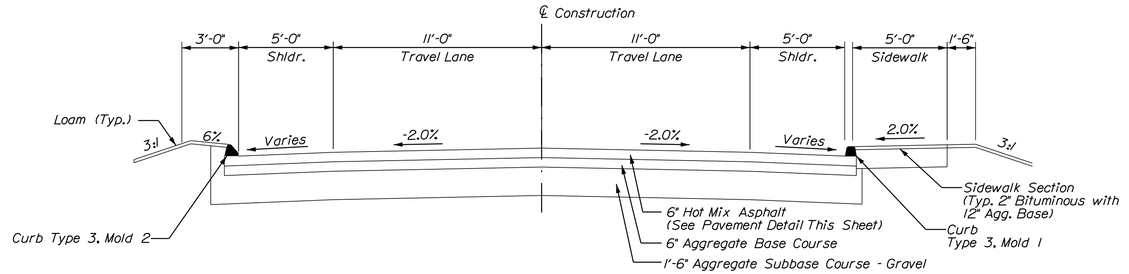
WEST APPROACH SECTION
STA. 4+04 TO 5+23



APPROACH SECTION AT ISLAND
STA. 6+10 TO 6+50
STA. 6+50 TO 7+42



PAVEMENT DETAIL
N.T.S.



EAST APPROACH SECTION
STA. 8+46 TO 10+07

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE PLANS

BRIDGE NO. 1519 & NO.5490

PROJ. MANAGER	TWM
DESIGN-DETAILED	GAB
CHECKED-REVIEWED	TWM
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	-

BY	DATE	REVISIONS
JTS	5/23/2011	REVISION1
TEK	5/23/2011	REVISION2
	-	REVISION3
	-	REVISION4
-	-	FIELD CHANGES

SIGNATURE

P.E. NUMBER

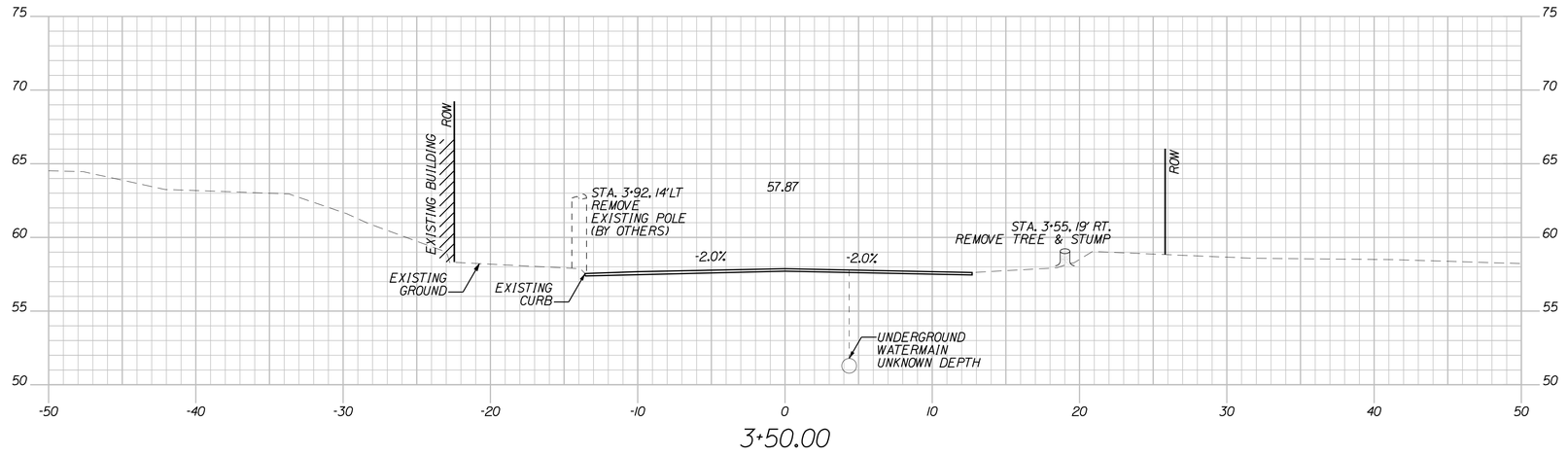
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CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

TYPICAL SECTIONS

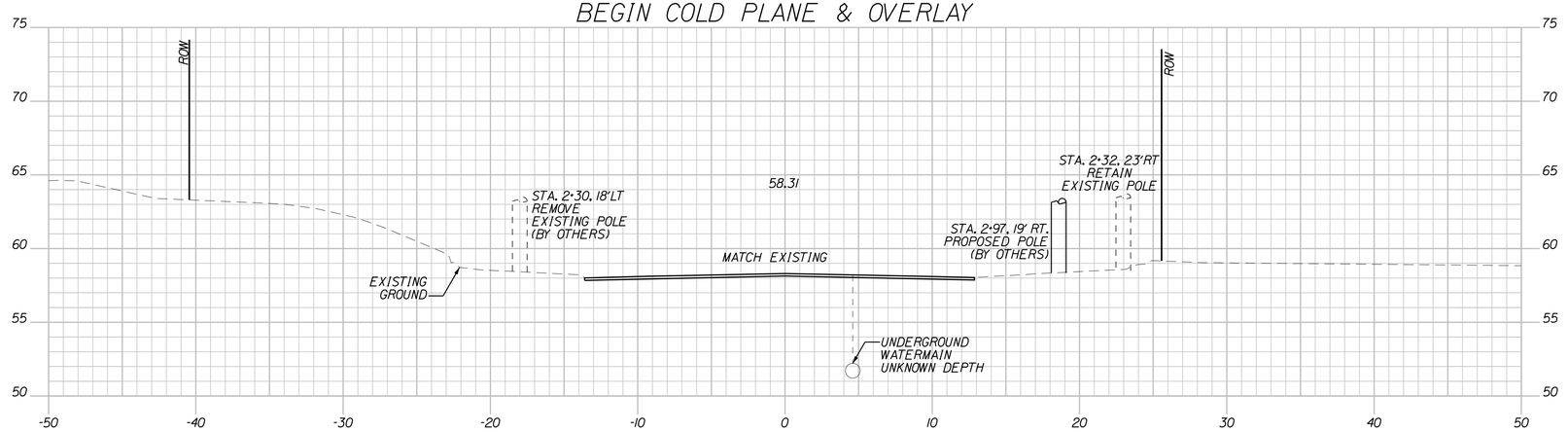
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OF 73

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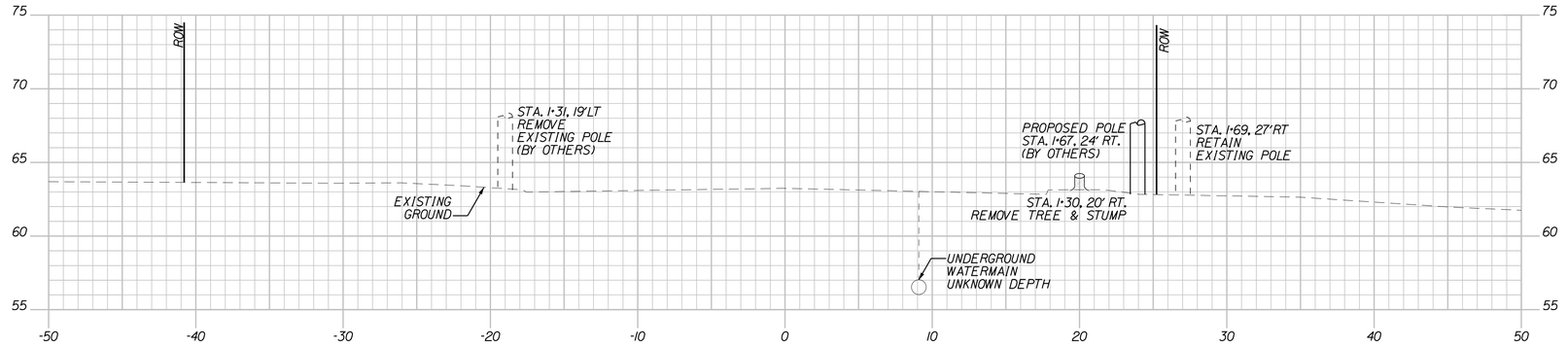


3+50.00

STA. 3+41.06
BEGIN COLD PLANE & OVERLAY



3+41.06



1+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	BY	DATE
TMM		
	ISM	5/09/2011
	GAE	5/23/2011
	-	-

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	
DESIGN-DETAILED	ISM
CHECKED-REVIEWED	MCF
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	-

REVISIONS 1	NEW SHEET
REVISIONS 2	REVISION2
REVISIONS 3	REVISION3
REVISIONS 4	REVISION4
FIELD CHANGES	-

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

APPROACH CROSS SECTIONS 1

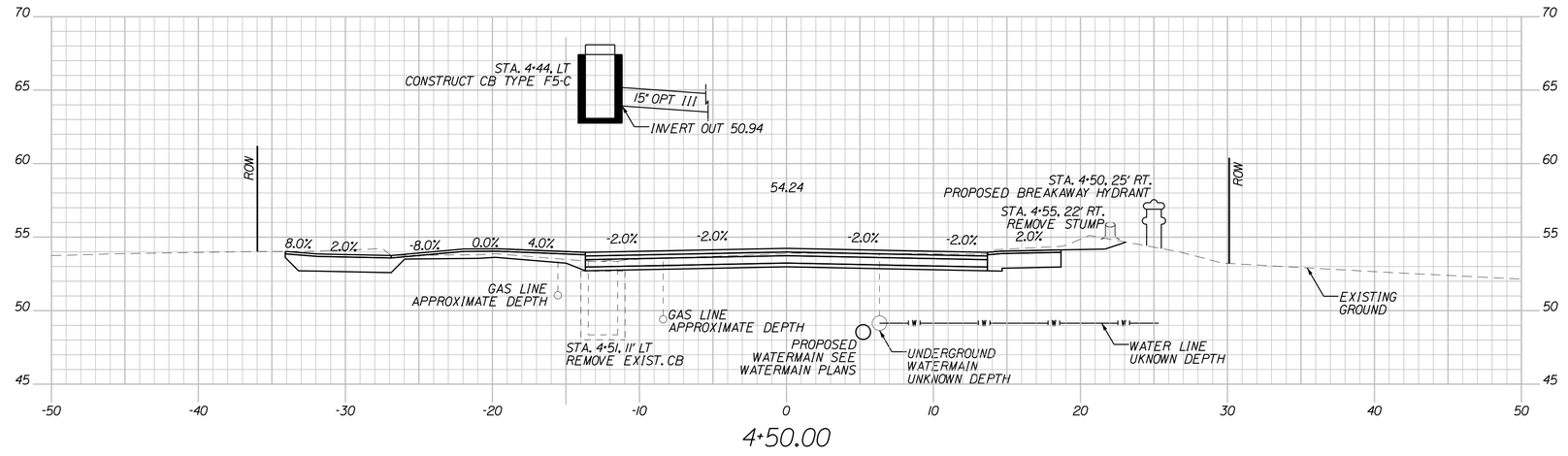
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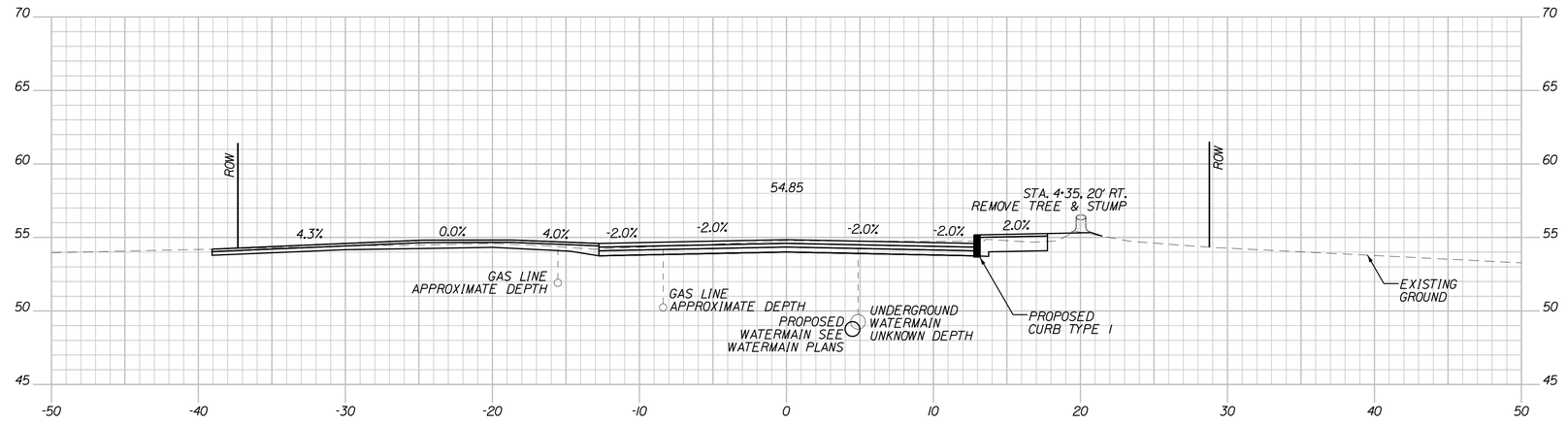
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Stantec

Filename: ...\017_XS_01.dgn Division: 1953 Username: STANTEC Date:10/10/2011

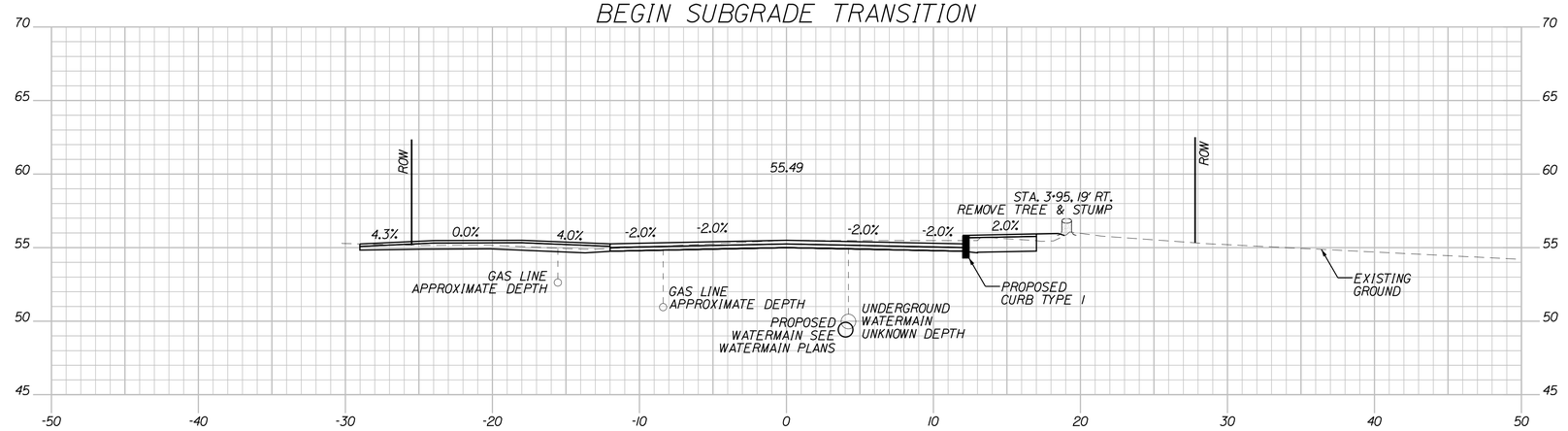


4+50.00



4+25.00

STA. 4+04.51 - END COLD PLANE & OVERLAY
BEGIN SUBGRADE TRANSITION



4+04.51

NOTE:
1. SEE SHEETS 14 AND 15 FOR DRAINAGE AND CURBING SUMMARY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE PLANS

BRIDGE NO. 1519 & NO.5490

	BY	DATE
TWM	ISM	5/09/2011
	GAE	5/23/2011
PROJ. MANAGER		SIGNATURE
DESIGN-DETAILED	ISM	
CHECKED-REVIEWED	MCF	
DESIGN2-DETAILED2		P.E. NUMBER
DESIGN3-DETAILED3	-	-
REVISIONS 1	-	NEW SHEET
REVISIONS 2	-	REVISION2
REVISIONS 3	-	REVISION3
REVISIONS 4	-	REVISION4
FIELD CHANGES	-	DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

APPROACH CROSS SECTIONS 2

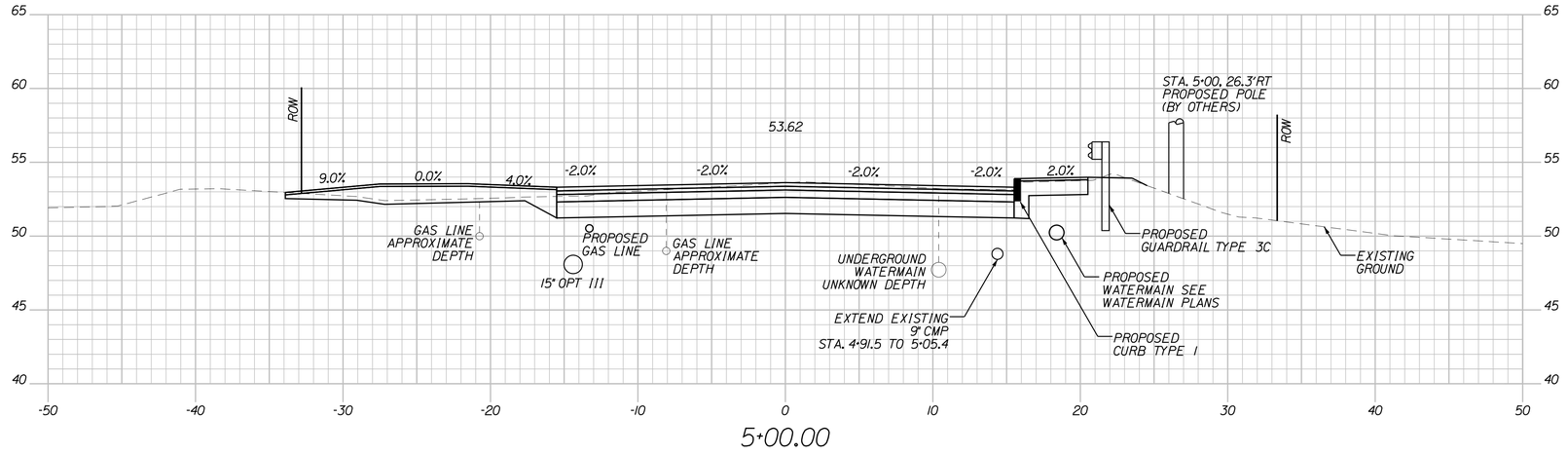
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18

OF 73

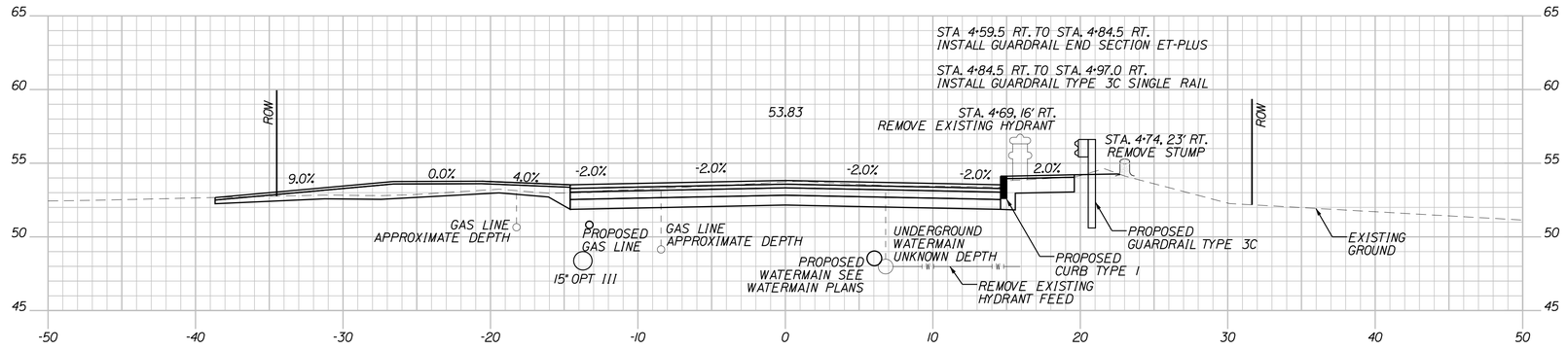
Stantec

Filename: ...\018_XS_02.dgn Division: 1953 Username: STANTEC Date:10/10/2011



5+00.00

STATION 4+79.51 END SUBGRADE TRANSITION



4+75.00

NOTE:
1. SEE SHEETS 14 AND 15 FOR DRAINAGE AND CURBING SUMMARY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

PROJ. MANAGER	TNM		
DESIGN-DETAILED	ISM	ISM	5/09/2011
CHECKED-REVIEWED	MCF	GAE	5/23/2011
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1	-	-	-
REVISIONS 2	-	-	-
REVISIONS 3	-	-	-
REVISIONS 4	-	-	-
FIELD CHANGES	-	-	-
NEW SHEET			
REVISION2			
REVISION3			
REVISION4			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

APPROACH CROSS SECTIONS 3

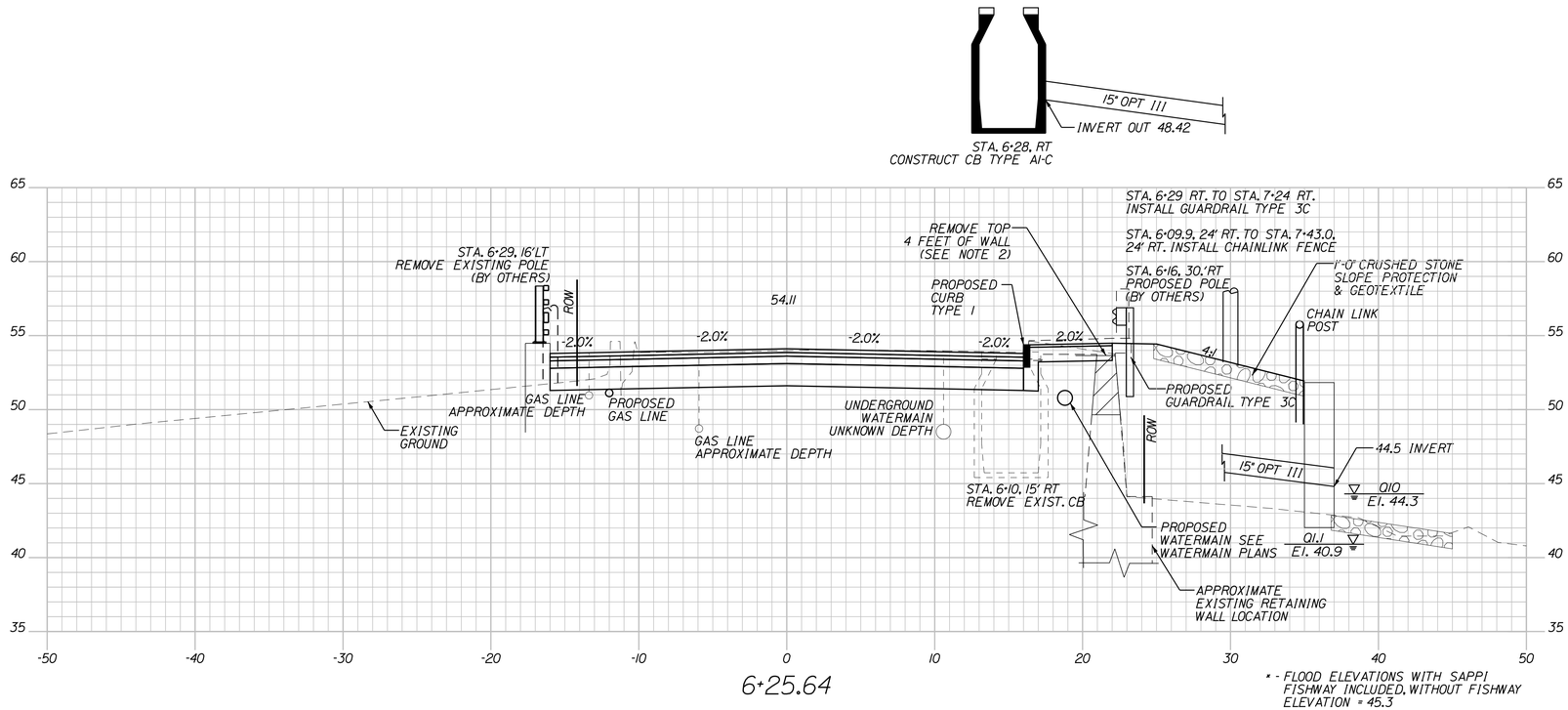
SHEET NUMBER

19

OF 73

Stantec

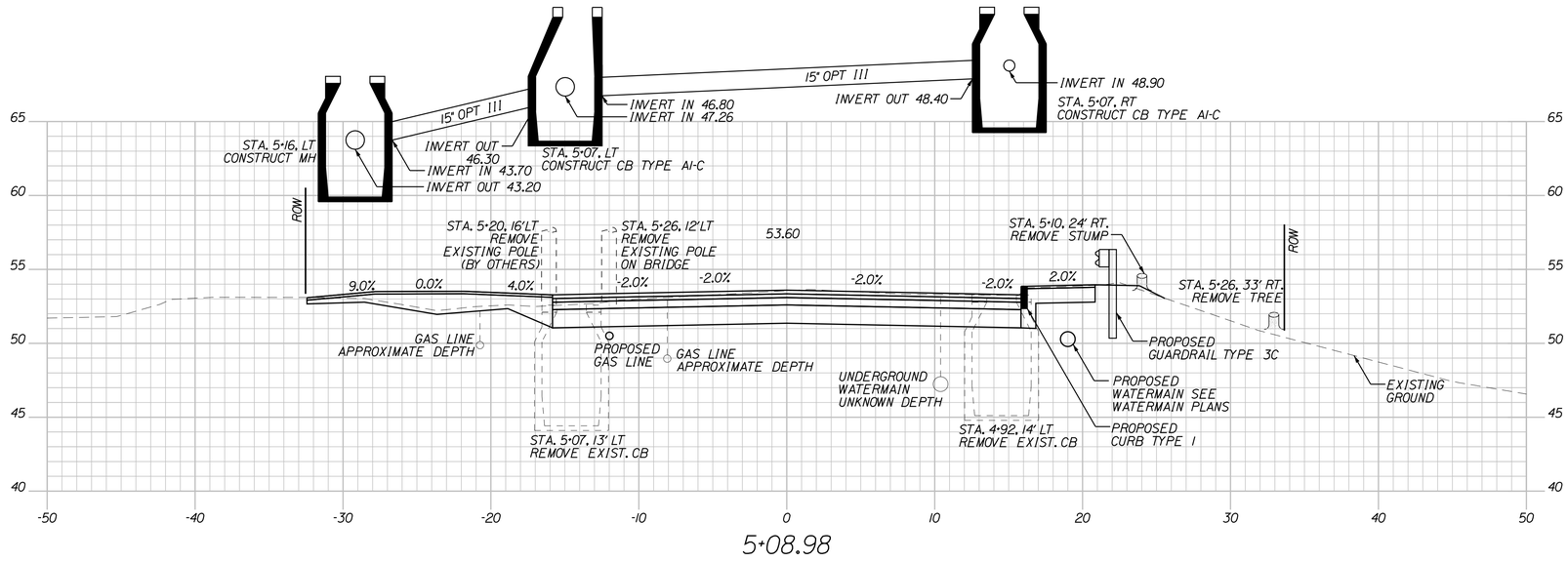
Username: STANTEC Date:10/10/2011
Division: 1953
Filename: ...\019_XS_03.dgn



* - FLOOD ELEVATIONS WITH SAPPI FISHWAY INCLUDED. WITHOUT FISHWAY ELEVATION = 45.3

NOTE:
1. SEE SHEETS 14 AND 15 FOR DRAINAGE AND CURBING SUMMARY

2. ADDITIONAL WALL REMOVAL MAY BE NECESSARY TO AVOID GUARDRAIL CONFLICTS.



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE PLANS

BRIDGE NO. 1519 & NO.5490

PROJ. MANAGER	TWM			
DESIGN-DETAILED		ISM	5/09/2011	DATE
CHECKED-REVIEWED		MCF	5/23/2011	SIGNATURE
DESIGN2-DETAILED2			-	P.E. NUMBER
DESIGN3-DETAILED3			-	DATE
REVISIONS 1		NEW SHEET	-	-
REVISIONS 2		REVISION2	-	-
REVISIONS 3		REVISION3	-	-
REVISIONS 4		REVISION4	-	-
FIELD CHANGES		-	-	-

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

APPROACH CROSS SECTIONS 4

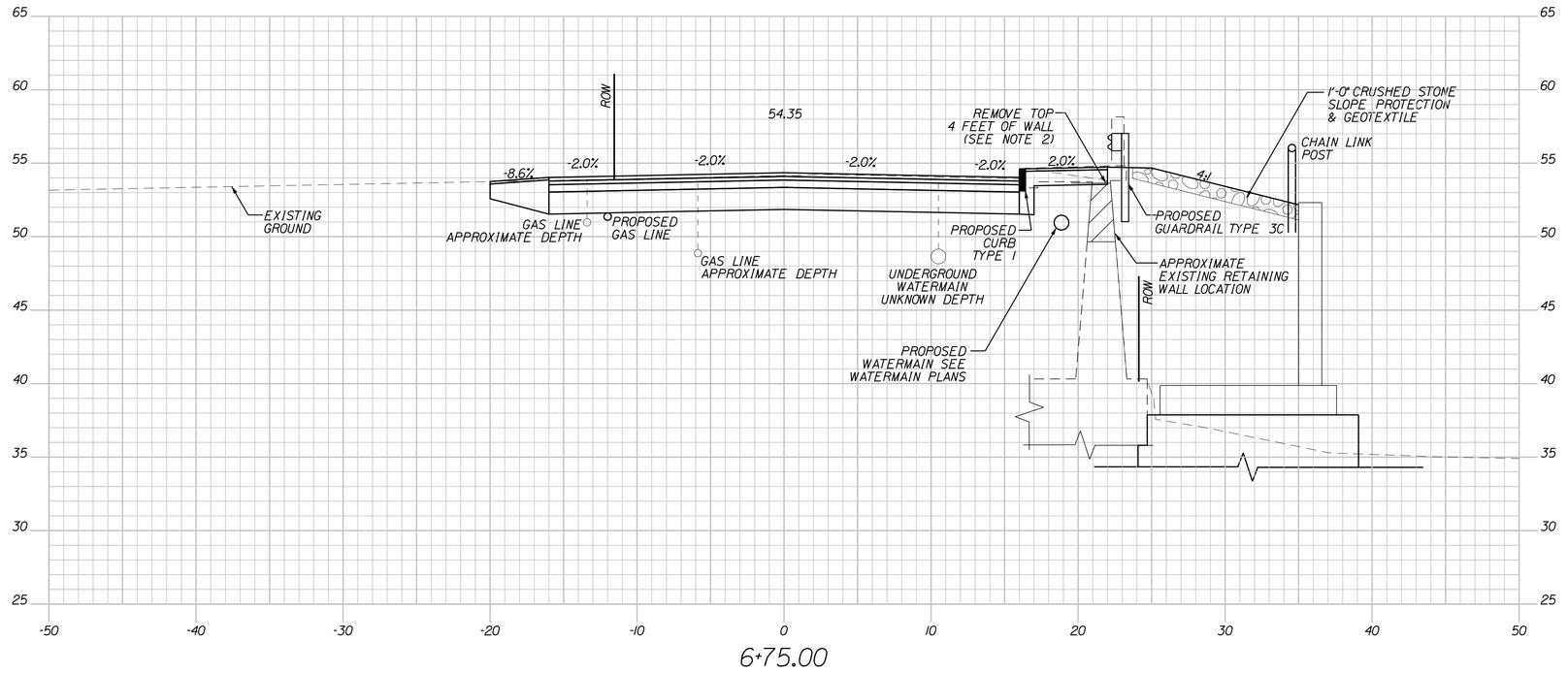
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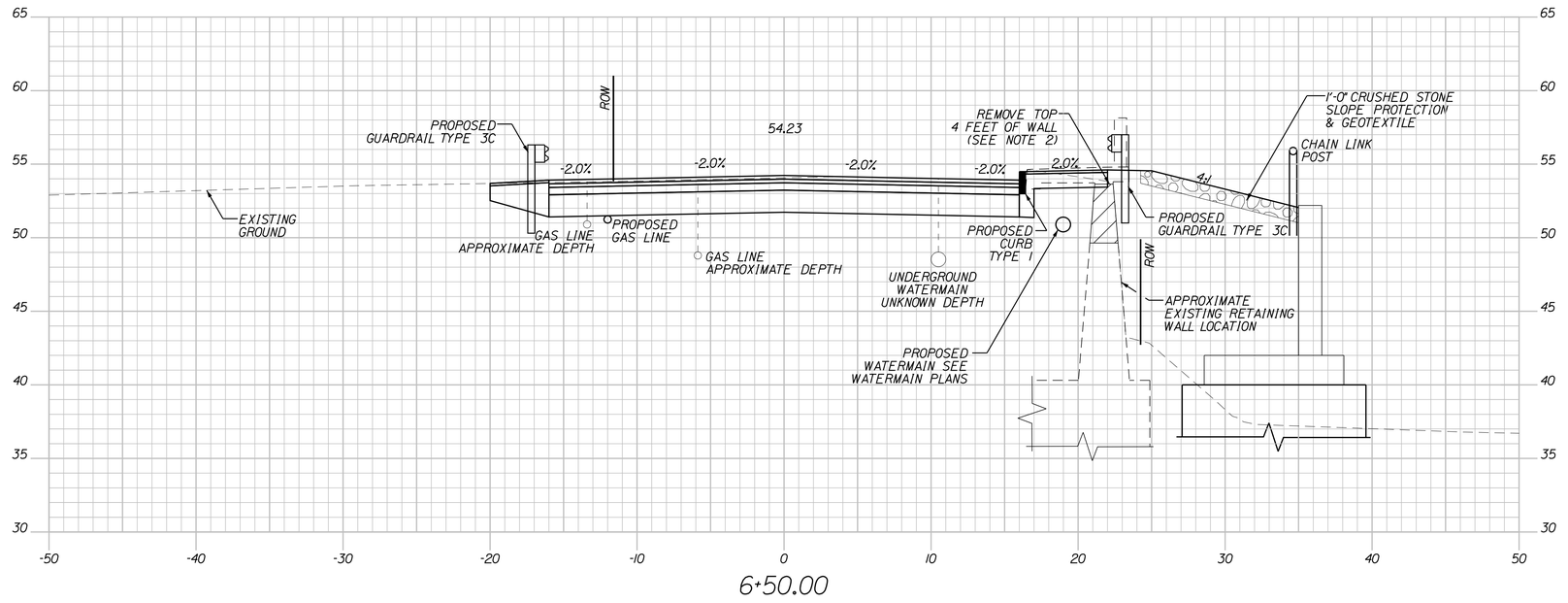
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OF 73

Stantec

Username: STANTEC Date:10/10/2011
Division: 1953
Filename: ...\020_XS_04.dgn





NOTE:
1. SEE SHEETS 14 AND 15 FOR DRAINAGE AND CURBING SUMMARY

2. ADDITIONAL WALL REMOVAL MAY BE NECESSARY TO AVOID GUARDRAIL CONFLICTS.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	ISM	5/09/2011	
CHECKED-REVIEWED	MCF	5/23/2011	SIGNATURE
DESIGN2-DETAILED2			
DESIGN3-DETAILED3	-	-	P.E. NUMBER
REVISIONS 1	NEW SHEET	-	-
REVISIONS 2	REVISION2	-	-
REVISIONS 3	REVISION3	-	DATE
REVISIONS 4	REVISION4	-	-
FIELD CHANGES	-	-	-

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

APPROACH CROSS SECTIONS 5

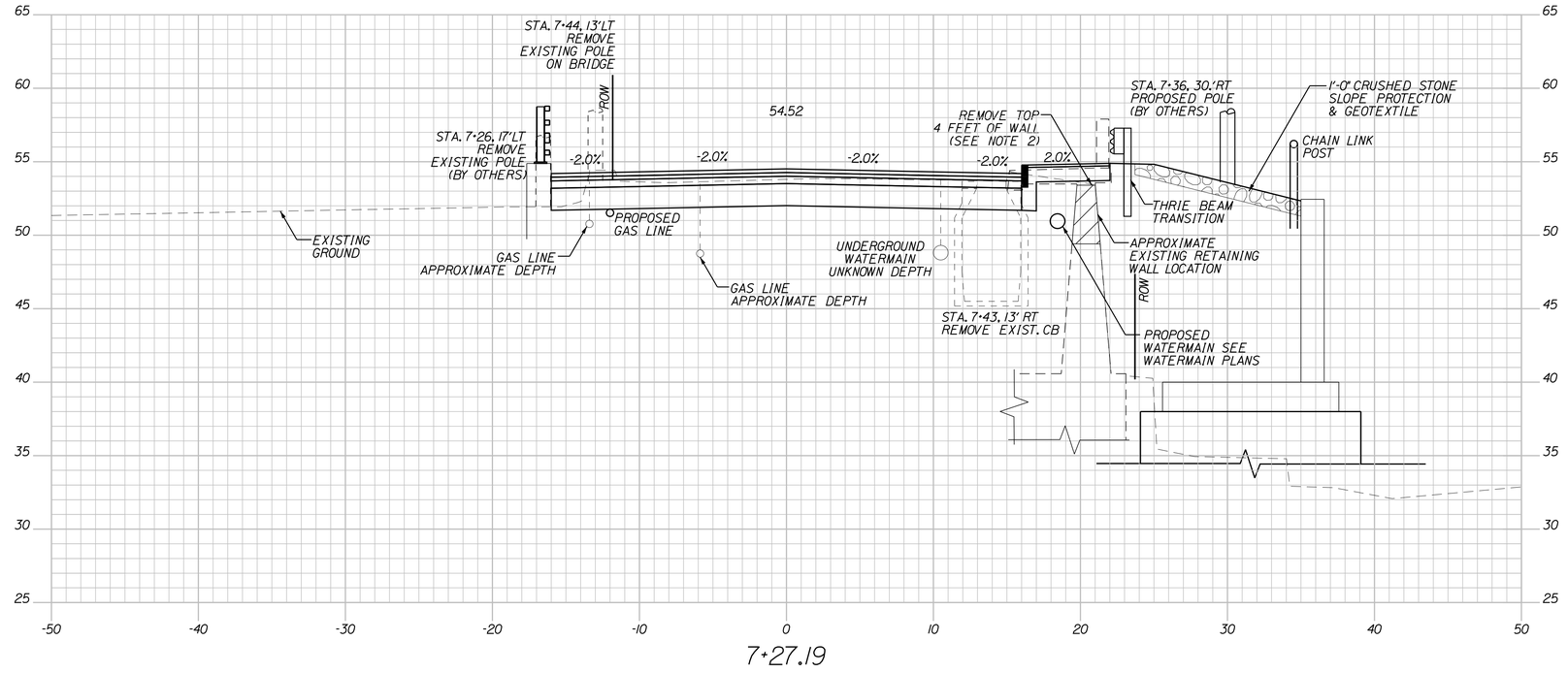
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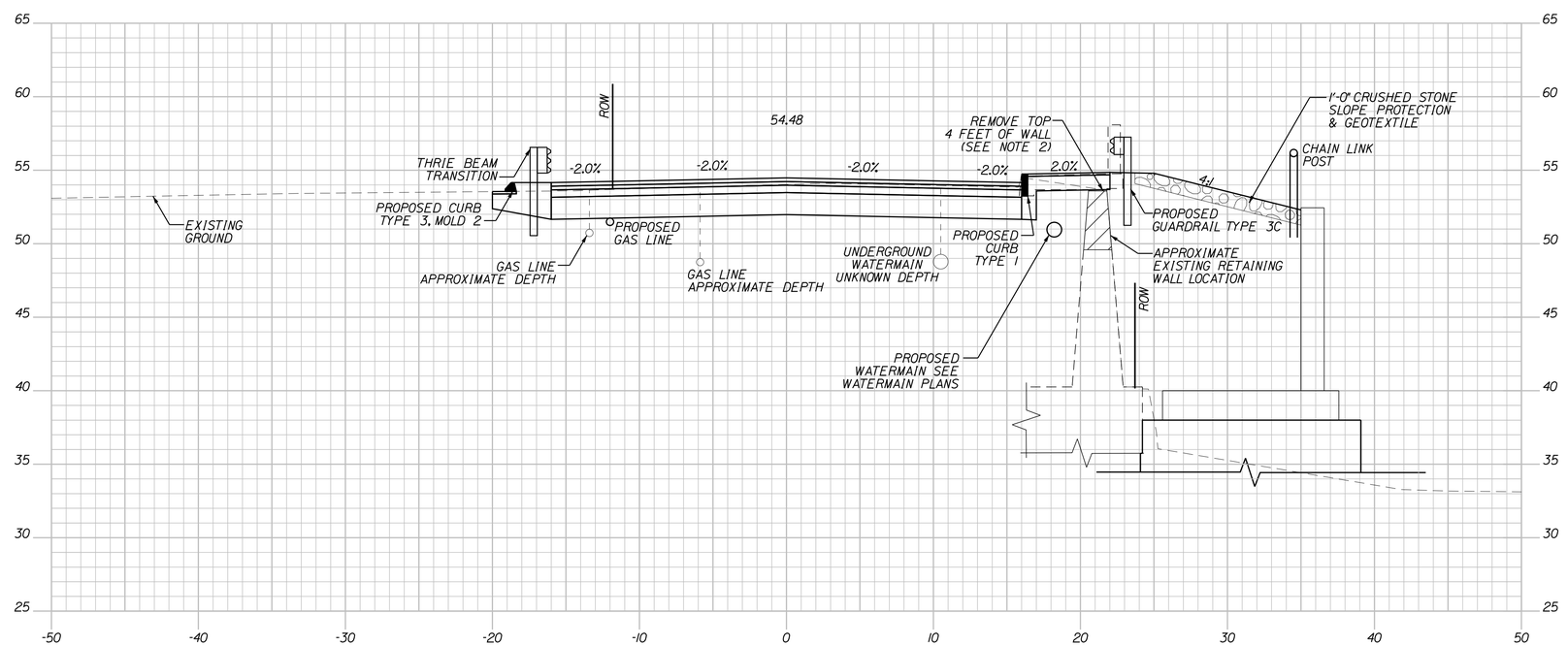
OF 73

Stantec

Username: STANTEC Date:10/10/2011
Division: 1953
Filename: ...\021_XS_05.dgn



7+27.19



7+00.00

NOTE:
1. SEE SHEETS 14 AND 15 FOR DRAINAGE AND CURBING SUMMARY

2. ADDITIONAL WALL REMOVAL MAY BE NECESSARY TO AVOID GUARDRAIL CONFLICTS.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE PLANS

BRIDGE NO. 1519 & NO.5490

PROJ. MANAGER			
DESIGN-DETAILED	ISM	5/09/2011	SIGNATURE
CHECKED-REVIEWED	MCF	5/23/2011	
DESIGN2-DETAILED2			P.E. NUMBER
DESIGN3-DETAILED3	-	-	
REVISIONS 1	NEW SHEET	-	DATE
REVISIONS 2	REVISION2	-	
REVISIONS 3	REVISION3	-	
REVISIONS 4	REVISION4	-	
FIELD CHANGES	-	-	

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

APPROACH CROSS SECTIONS 6

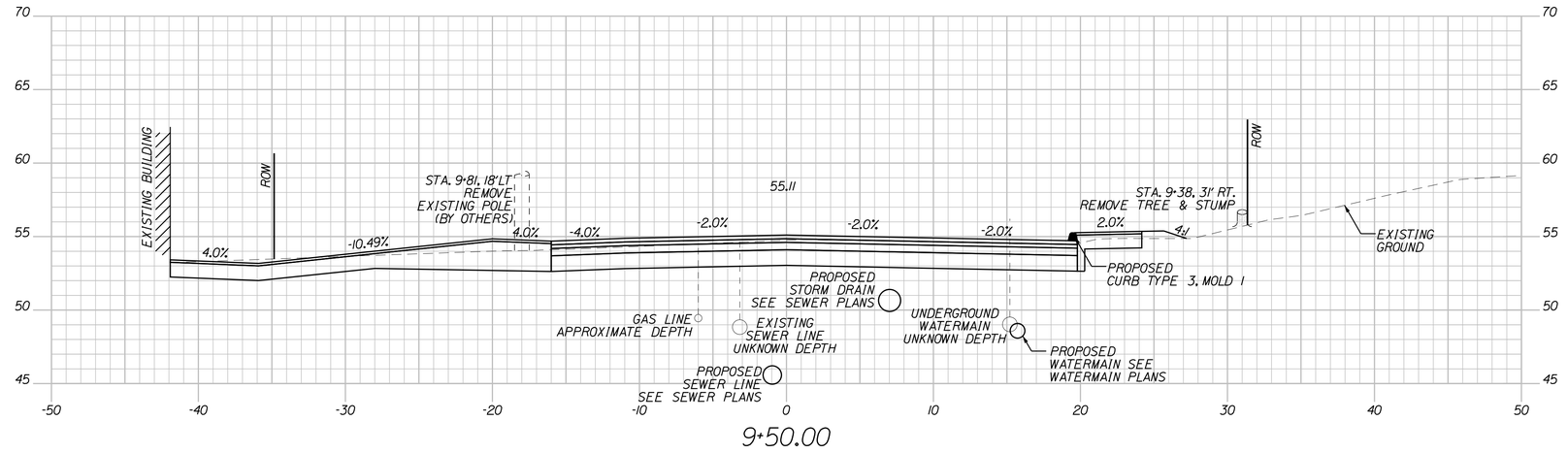
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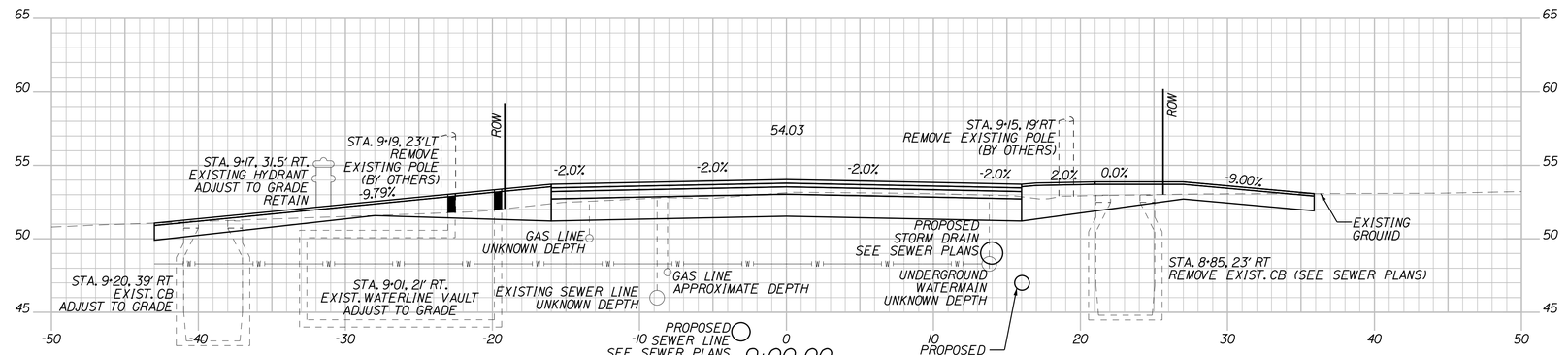
OF 73

Stantec

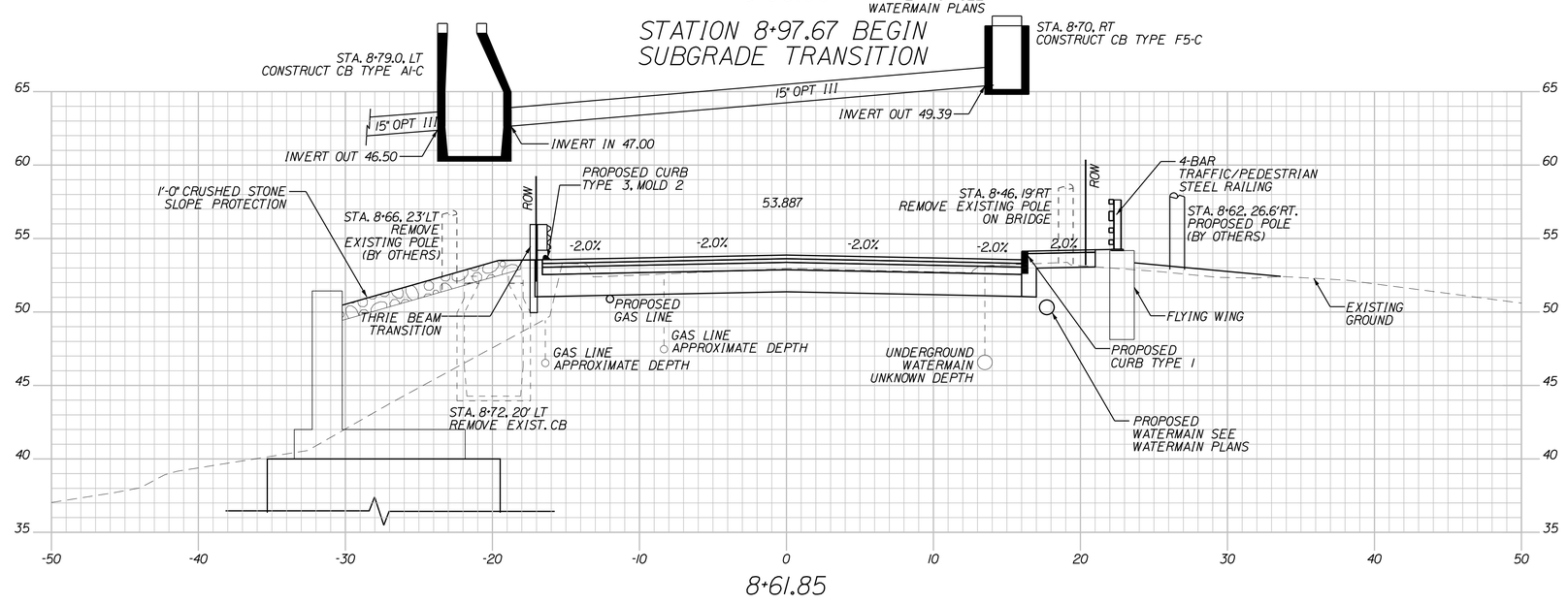
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Division: 1953
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NOTE:
1. SEE SHEETS 14 AND 15 FOR DRAINAGE AND CURBING SUMMARY



STATION 8+97.67 BEGIN SUBGRADE TRANSITION



STA. 8+63, 82'RT.
PROPOSED POLE
(BY OTHERS)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	TYPE	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	TYPE	ISM	5/09/2011
CHECKED-REVIEWED	TYPE	GAE	5/23/2011
DESIGN2-DETAILED2	-	-	-
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	NEW SHEET	-	-
REVISIONS 2	REVISION2	-	-
REVISIONS 3	REVISION3	-	-
REVISIONS 4	REVISION4	-	-
FIELD CHANGES	-	-	-

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

APPROACH CROSS SECTIONS 7

SHEET NUMBER

23

OF 73

Stantec

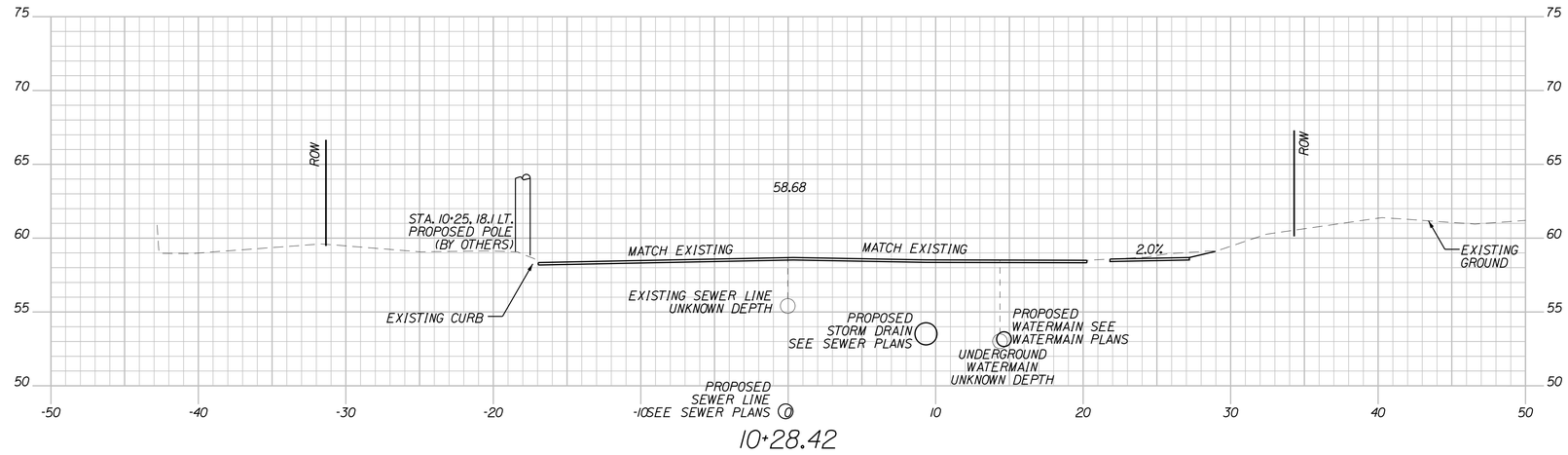
Username: STANTEC Date:10/10/2011

Division: 1953

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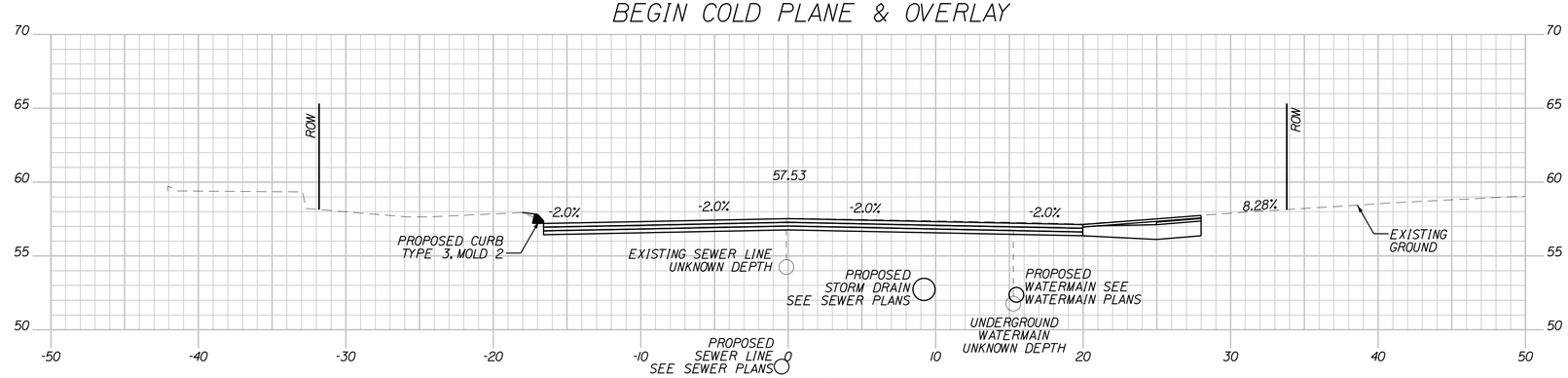
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Date:10/10/2011

STA. 10+28.42 END COLD PLANE & OVERLAY
MATCH EXISTING PAVEMENT & CURB

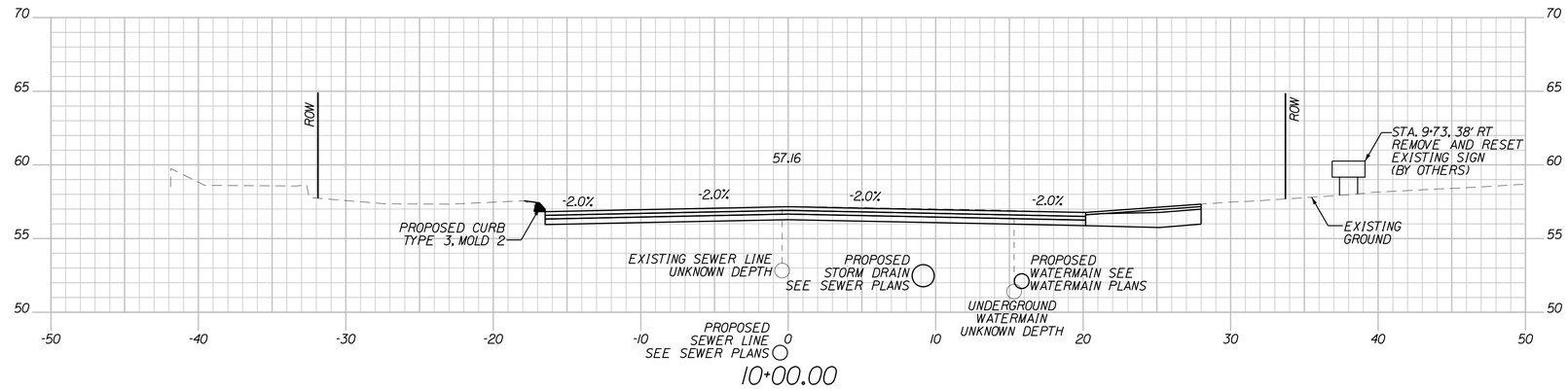


10+28.42

STA. 10+07.67 END SUBGRADE TRANSITION
BEGIN COLD PLANE & OVERLAY



10+07.00



10+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	INIT	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	ISM	ISM	5/09/2011
CHECKED-REVIEWED	MCF	GAE	5/23/2011
DESIGN2-DETAILED2			
DESIGN3-DETAILED3	-	-	-
REVISIONS 1	-	NEW SHEET	-
REVISIONS 2	-	REVISION2	-
REVISIONS 3	-	REVISION3	-
REVISIONS 4	-	REVISION4	-
FIELD CHANGES	-	-	-

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

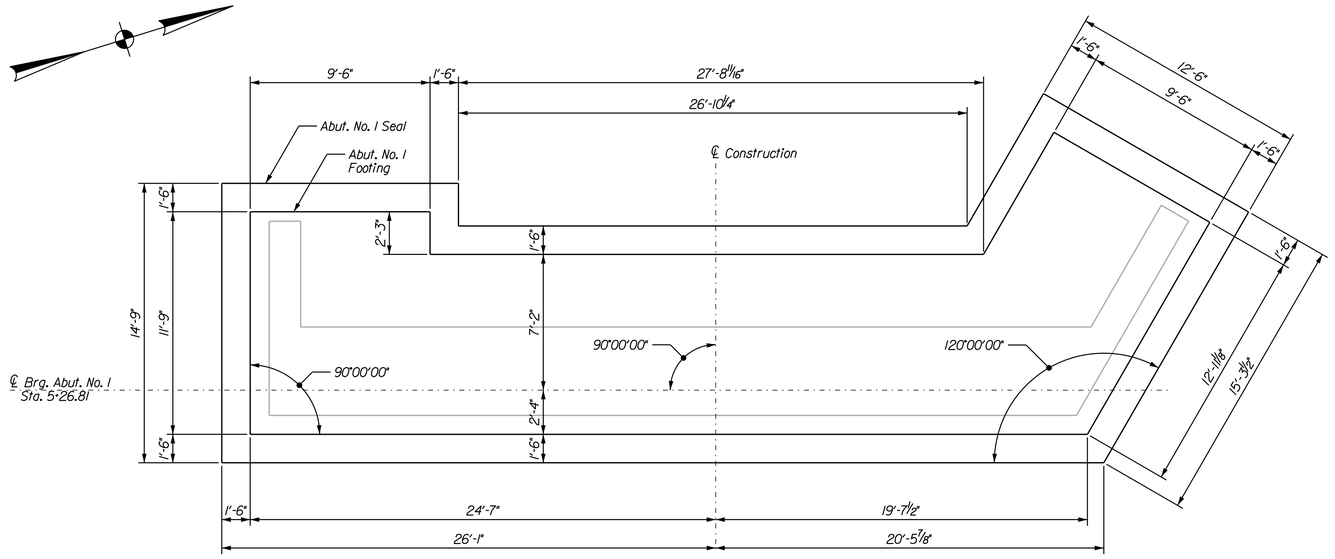
APPROACH CROSS SECTIONS 8

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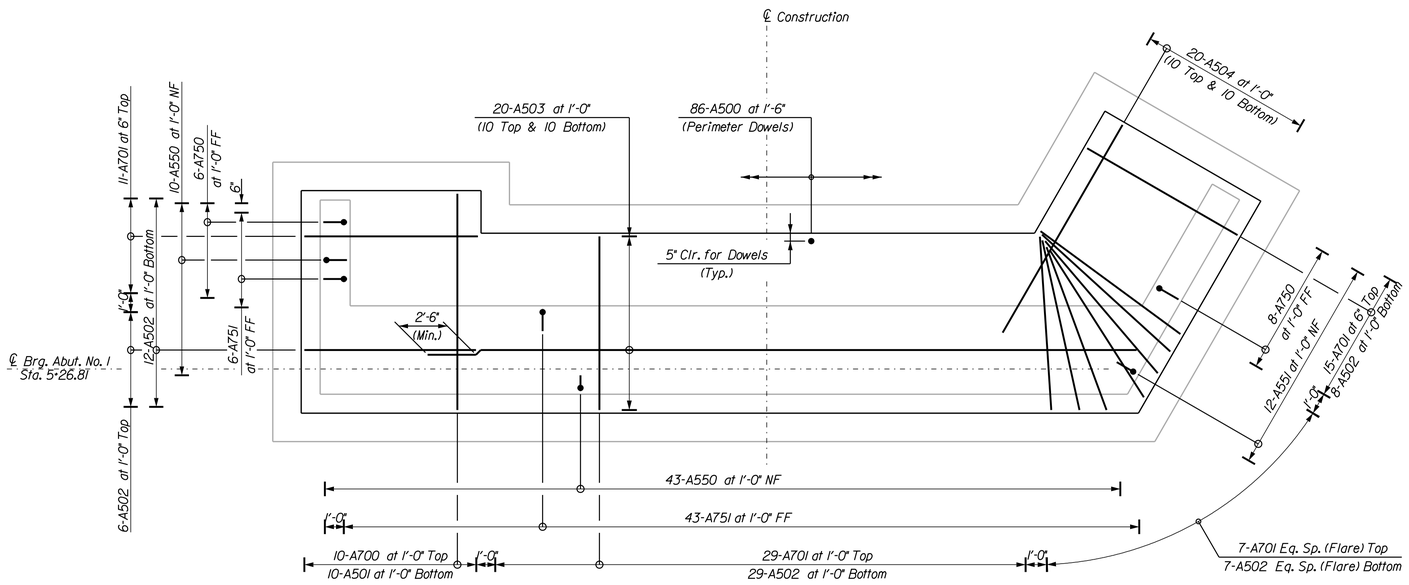
24

OF 73

Stantec



PLAN - ABUTMENT NO. 1 SEAL & FOOTING



PLAN - ABUTMENT NO. 1 FOOTING REINFORCEMENT

SEAL NOTES

1. The seal concrete placement dimensions represent the minimum seal size necessary to meet design requirements and are not based on the use of any particular sheet pile section.

2. The horizontal pay limit for seal concrete shall be to the dimensions shown on the plans. No additional payment will be made for concrete placed outside of these limits.

3. When sheet piling is used for seal cofferdams, appropriate rolled corners shall be used, and the inside face of the sheet piling shall be at or outside of the seal concrete dimensions shown.

4. The depth of the seal is set for a water elevation of 45.3 which corresponds to the predicted Q10 water surface elevation based on hydraulic modeling that assumed the Sappi fishway is not in place and freshest and main channel dam flash boards are in place. If the water elevation at the time of construction is higher, the depth of the seal shall be adjusted. If it can be shown by the Contractor, that dam geometry or operating conditions will be different than assumed, a lower design water surface elevation shall be submitted to the Resident for new seal depth design. The Sappi fishway is to be operational by May 2013.

5. The method of placing dowels in the seal concrete shall be approved by the Resident.

6. The seal concrete shall be placed on bedrock cleaned of all weathered rock, fractured rock, and soil. Prior to placing the seal, the bearing surface shall be washed with high pressure water and air. Where the bedrock surface slope exceeds 4H:1V, the bedrock surface shall be benched in level steps or made completely level. The bedrock bearing surface beneath the near face of the footing placed above the seal shall have a level surface of 3 feet minimum measured perpendicular to the face.

7. Blasting shall be conducted in accordance with Section 105.2.6 of the MaineDOT Standard Specifications. The Contractor shall conduct pre-and post-blast surveys, as well as blast vibration monitoring at nearby residences and bridge structures in accordance with industry standards at the time of the blast.

7. After removal of fractured bedrock and before the seal is placed, the surface of the excavated surface shall be inspected and approved by the Resident. The minimum excavation for stability is governed by note 8 below. Additionally, at localized peaks of hard bedrock, the Contractor is required to remove any bedrock that projects up within three feet of the top of the finished seal. In lieu of removing the bedrock, if approved by the Resident, the Contractor may increase the height of the affected seal for the entire length of the abutment and its adjoining wingwalls. Payment for all costs of the rock removal, including all costs associated with blasting if used, shall be considered paid for under Pay Item No. 206.092 Structural Rock Excavation - Major Structures.

8. The maximum factored applied seal bearing pressure is 13.6 ksf.

9. Multiple steps in the bedrock may be required due to the overall elevation change from the front to back of the ledge profile, as well as localized steep surface slopes.

10. The top of seal elevations at abutments are designed for a maximum water elevation of 45.3 feet. At this water elevation, in order to provide sufficient resistance to buoyancy, the top of seal elevations require that the maximum average bottom of seal elevation be less than or equal to the following:

Location	Maximum Average Bottom of Seal Elevation
Abutment 1	El. 35.6
Abutment 2	El. 35.4
Abutment 3	El. 32.0
Abutment 4	El. 35.5

If the average elevation of the bottom surface of the seal exceeds the respective limits, the pertinent information shall be forwarded to the Resident for new seal depth design. These elevation limits for the bottoms of the seals apply to the respective wingwalls and adjacent section of island retaining wall, as well as the abutments. The Contractor shall adequately vent the cofferdams to ensure the maximum water surface elevation remains at 45.3 feet or below.

ABUTMENT & RETAINING WALL NOTES

1. Reinforcing steel shall have a minimum concrete cover of 2 inches in the walls and 3 inches cover in the footings unless otherwise noted.

2. Cover joints where waterstops are not required in accordance with Standard Detail 502(01).

3. Place 4 inch diameter drains in breastwall and wingwalls at 10-ft maximum spacing. The exact location will be determined by the Resident.

4. Construct French Drains behind the abutments, wingwalls, and retaining walls in accordance with Standard Specification Section 512, French Drains.

5. Structural Earth Excavation, Abutments and Retaining Walls, required more than 12 inches below the bottom of the structure, will be paid for in accordance with Standard Specifications Section 206, Structural Excavation.

6. Abutments, wingwalls, and their footings shall be backfilled with Granular Borrow for Underwater Backfill. Pay limits will be the structural excavation limits in cut areas and a vertical plane located 10 feet behind the walls in fill areas.

7. The maximum factored applied footing pressure is 14.0 ksf.

8. The Contractor shall install Transition Barrier vertical closed stirrups as shown in Standard Details Section 526, prior to the placement of the curb concrete.

9. Provide 3 additional stirrups in the curbs at each Transition Barrier location.

10. Payment for all work and materials to install Preformed Joint Filler against the inside faces of the parapets shall be incidental to Item 502.22.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

PROJ. MANAGER	TWM	BY	DATE
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

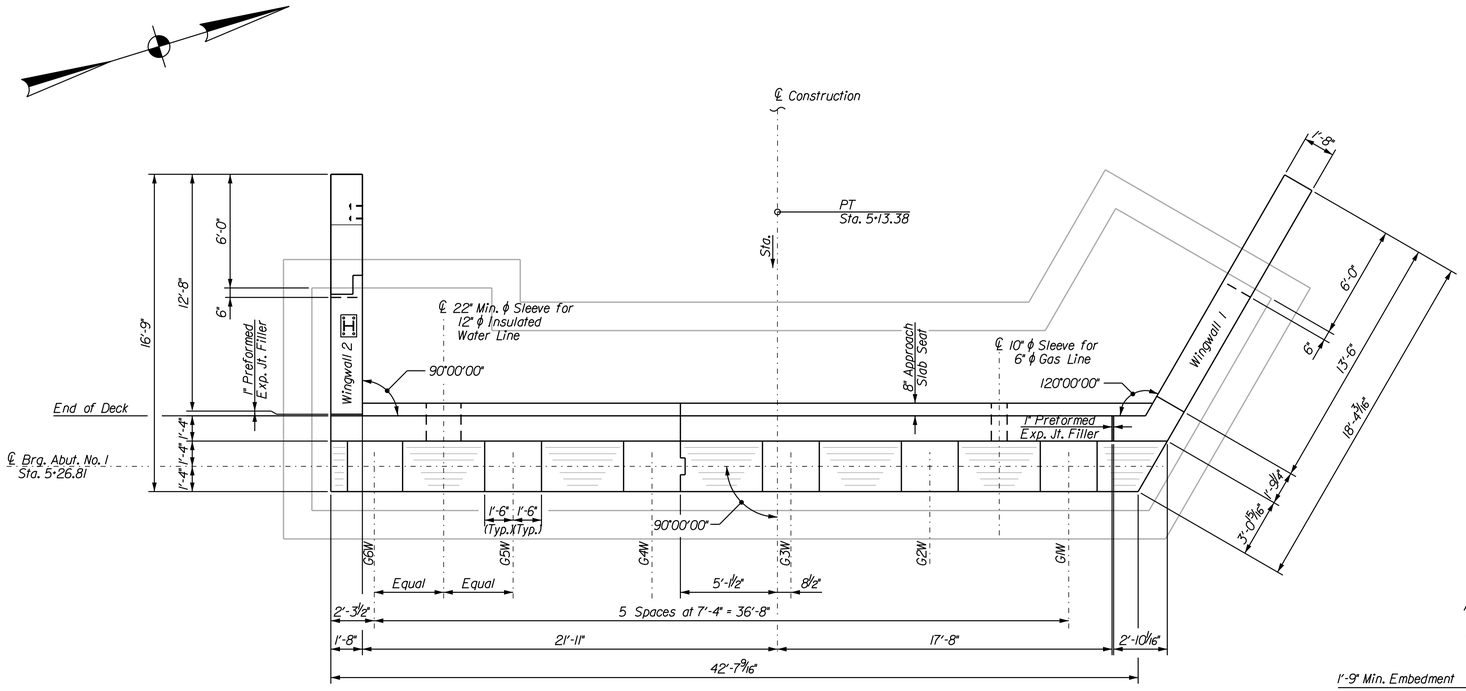
ABUTMENT 1 SEAL & FOOTING

SHEET NUMBER

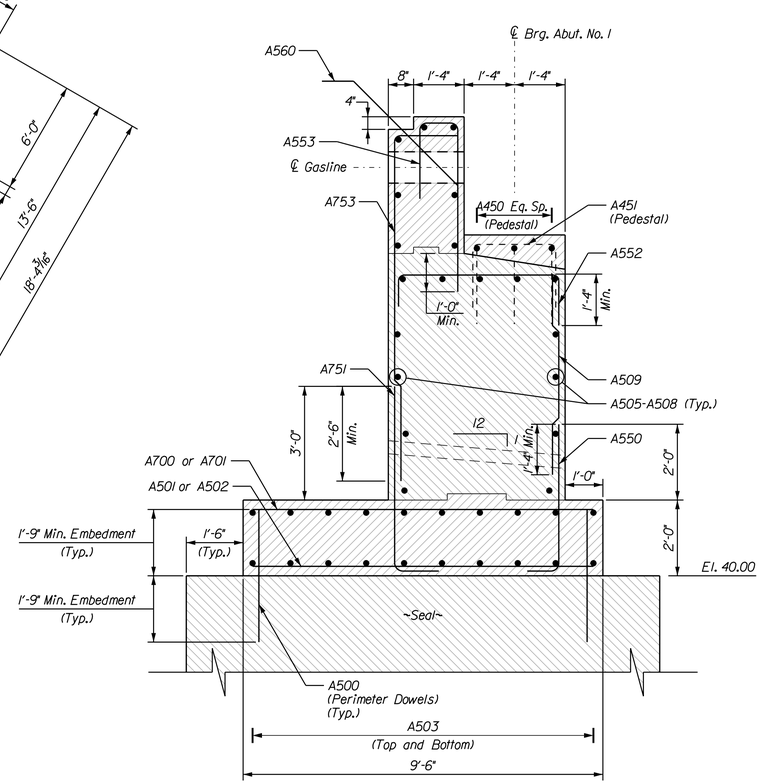
25

OF 73

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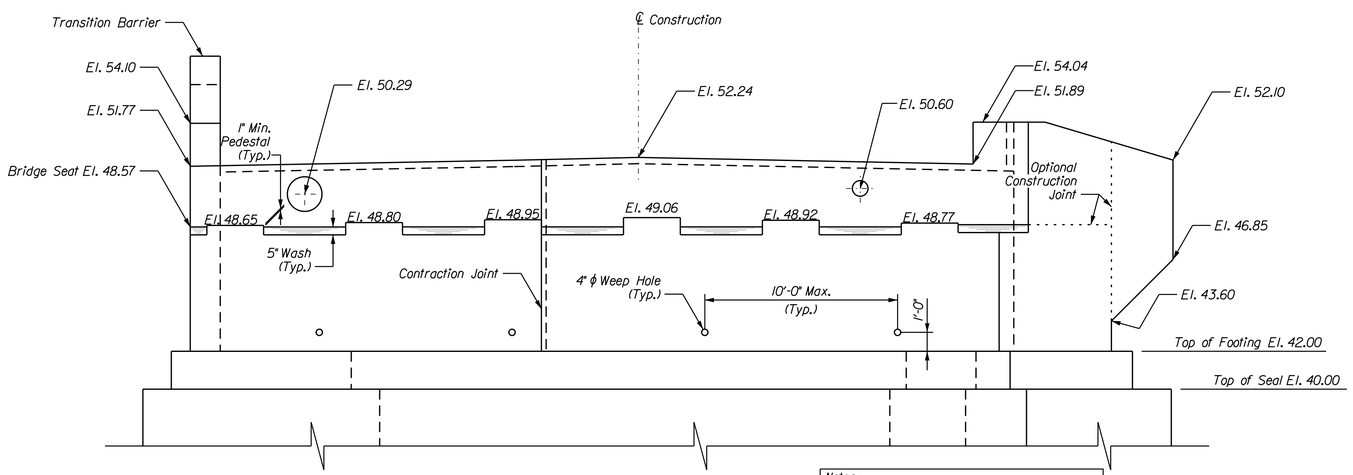


PLAN - ABUTMENT NO. 1



NOTE: See sheet 53 for slab over backwall details.

SECTION - ABUTMENT NO. 1



ELEVATION - ABUTMENT NO. 1

Notes:

1. Unless otherwise noted, all elevations are for both near face and far face.
2. See sheet 25 for Abutment and Seal Notes.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	INIT	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

ABUTMENT 1 PLAN & ELEVATION

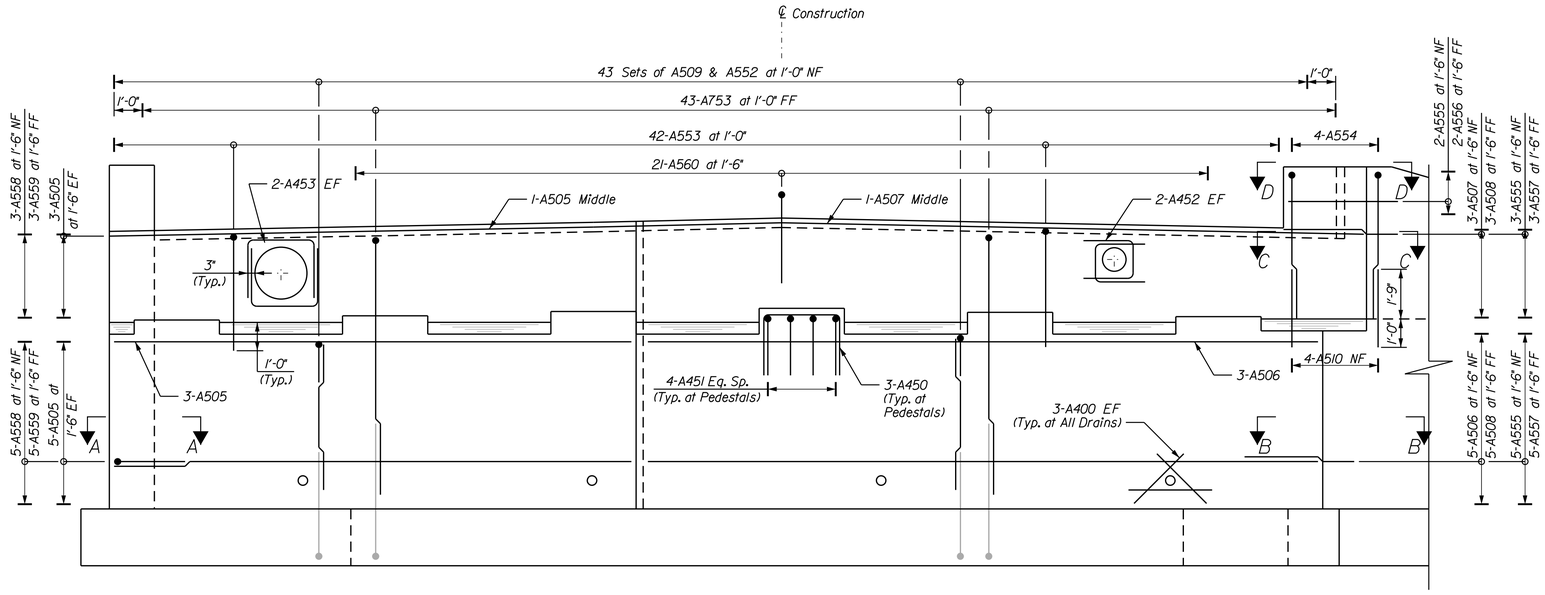
SHEET NUMBER

26

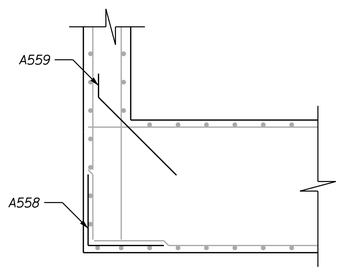
OF 73

Stantec

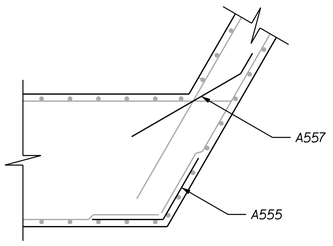
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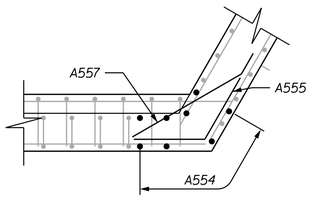
ELEVATION - ABUTMENT NO. 1 REINFORCEMENT



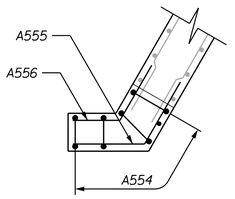
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	INIT	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

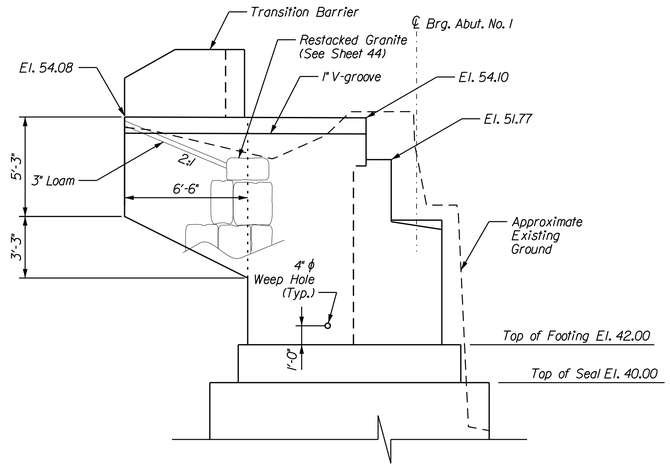
ABUTMENT 1 REINFORCEMENT

SHEET NUMBER

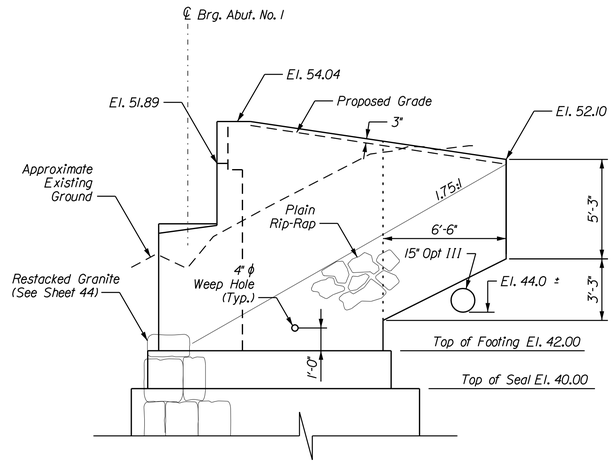
27

OF 73

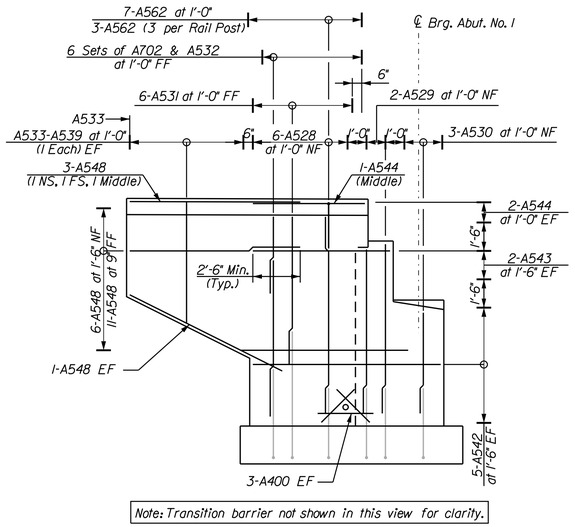
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ELEVATION - WINGWALL NO. 2

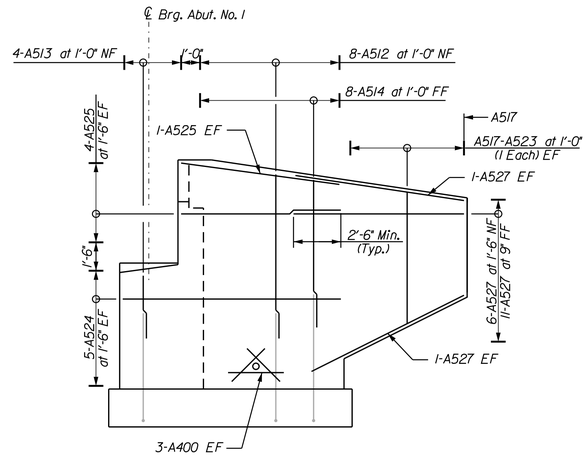


ELEVATION - WINGWALL NO. 1



Note: Transition barrier not shown in this view for clarity.

ELEVATION - WINGWALL NO. 2 REINFORCEMENT



ELEVATION - WINGWALL NO. 1 REINFORCEMENT

Notes:

1. Refer to Sheet 29 for Wingwall Sections.
2. Refer to Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

TWM	BY	DATE
PROJ. MANAGER	TEK	
DESIGN-DETAILED	TWM	5/23/2011
CHECKED-REVIEWED	DDT	9/12/2011
DESIGN2-DETAILED2	JTS	9/12/2011
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

ABUT. 1 WINGWALL ELEV. & REINF.

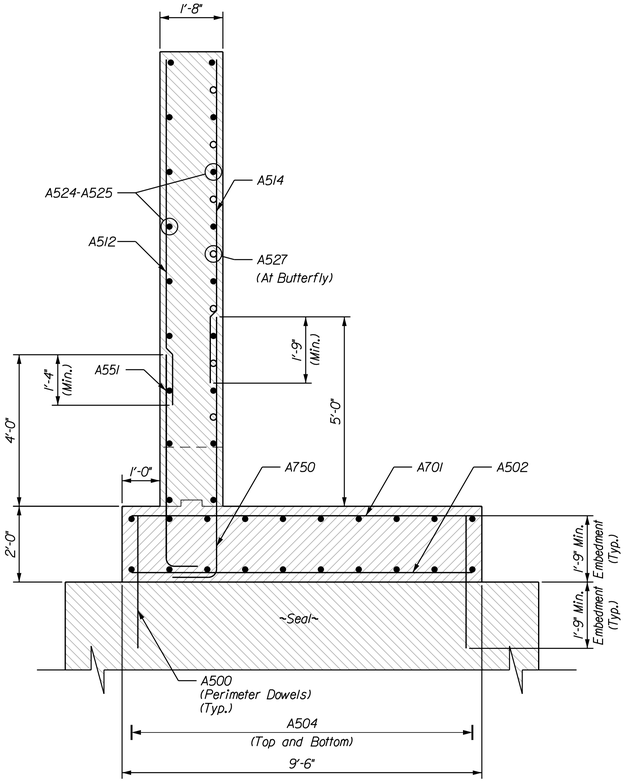
SHEET NUMBER

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OF 73

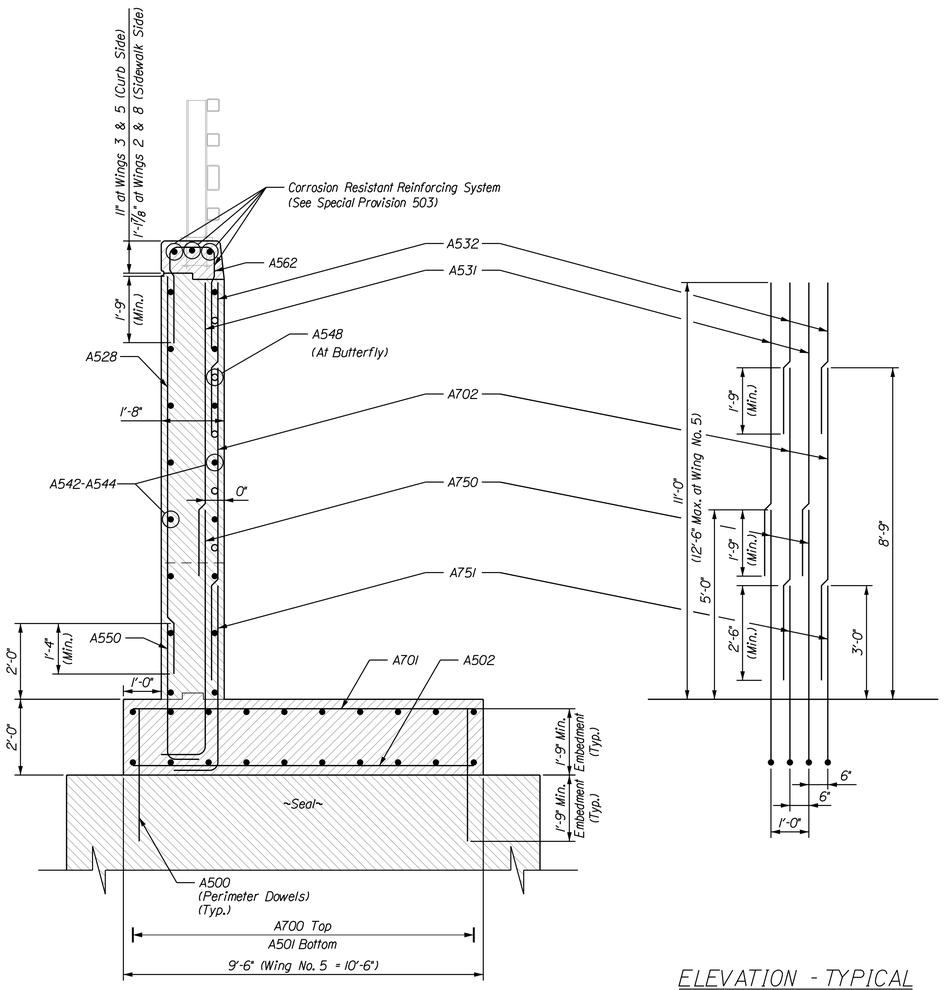
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Filename: ...\029_WING_SEC_01.dgn Division: 1953 Username: STANTEC Date:10/10/2011



SECTION - WINGWALL NO. 1

Wingwall 1 Shown, Wingwall 7 Similar
Wingwall 7 Prefix = D



SECTION - WINGWALL NO. 2

Wingwall 2 Shown, Wingwall 3, 5 & 8 Similar
Wingwall 3 Prefix = B
Wingwall 5 Prefix = C
Wingwall 8 Prefix = D

ELEVATION - TYPICAL REINFORCEMENT PATTERN

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	TWM	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3	-	-	
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

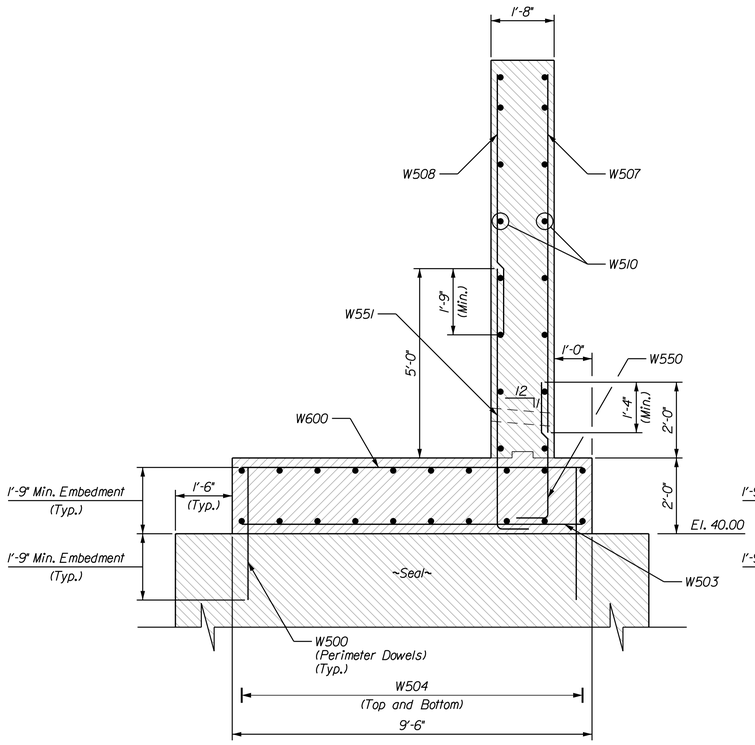
CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

WINGWALL SECTIONS 1

SHEET NUMBER

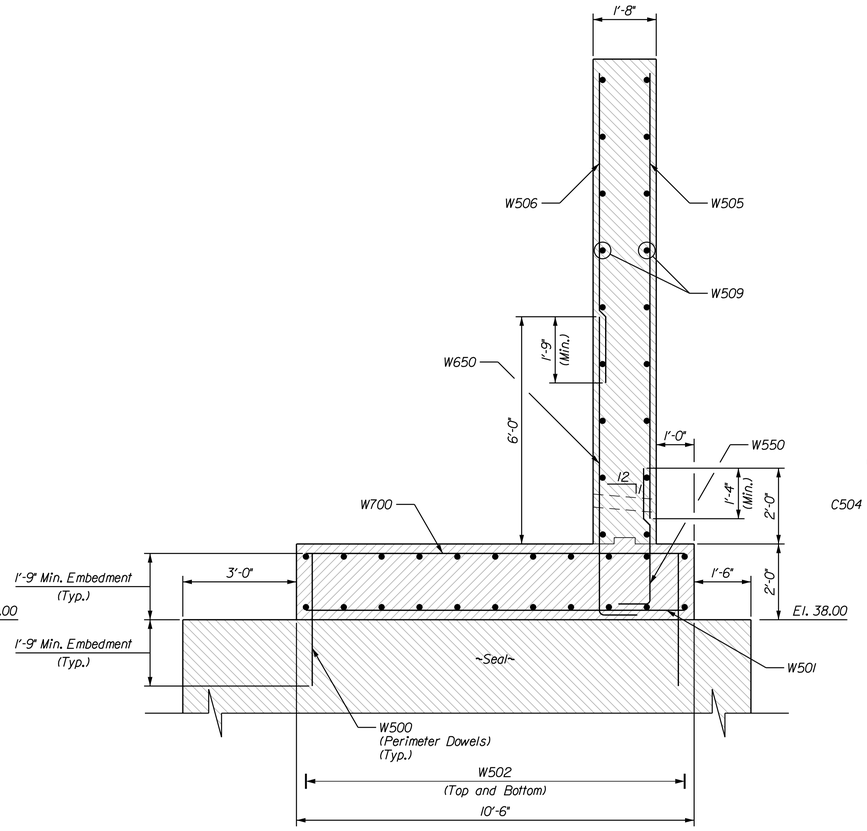
29

OF 73



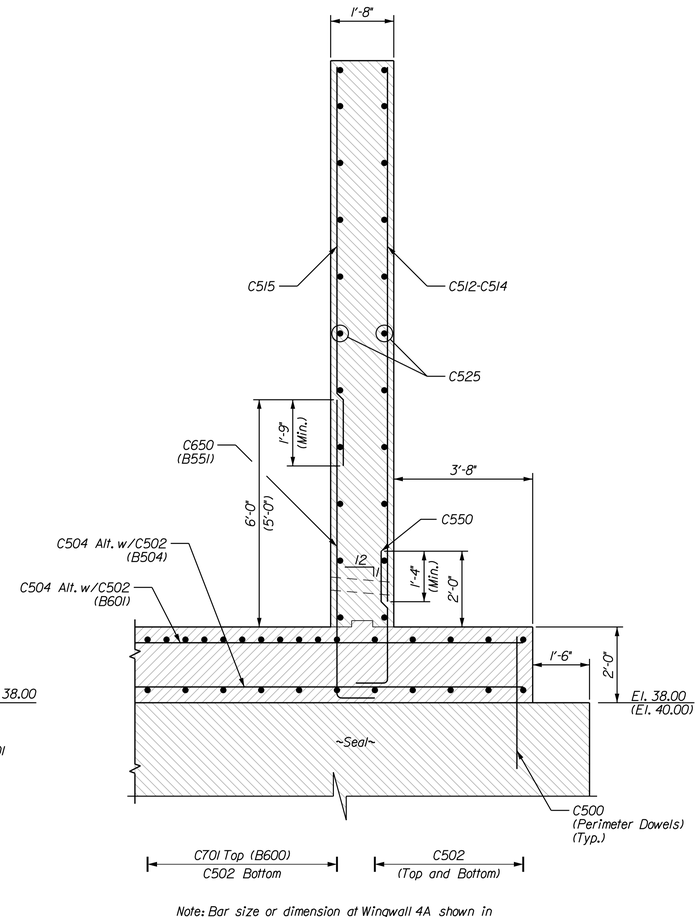
SHORT ISLAND RETAINING WALL SECTION

Short Island Retaining Wall Section Shown, Wingwall 4B Similar
Wingwall 4B Prefix = B



TALL ISLAND RETAINING WALL SECTION

Tall Island Retaining Wall Section Shown, Wingwall 6B Similar
Wingwall 6B Prefix = C



Note: Bar size or dimension at Wingwall 4A shown in parenthesis, eg. (B501), when different from Wingwall 6A.

SECTION - WINGWALL NO. 6A

Wingwall 6A Shown, Wingwall 4A Similar
Wingwall 4A Prefix = B

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

TWM	BY	DATE
	JTS	5/23/2011
	DDT	9/12/2011
	JTS	9/12/2011

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	TWM
DESIGN-DETAILED	TEK
CHECKED-REVIEWED	TWM
DESIGN2-DETAILED2	DDT
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

WINGWALL/ISLAND RET. WALL SECTIONS

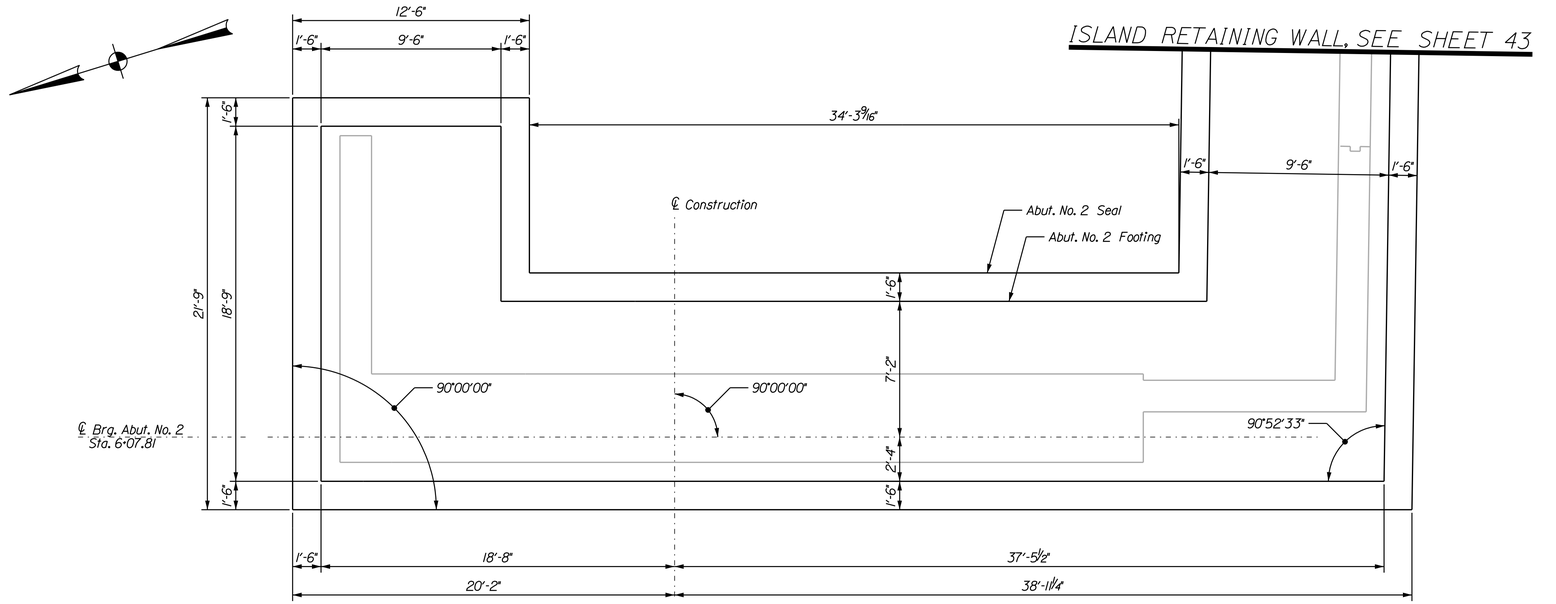
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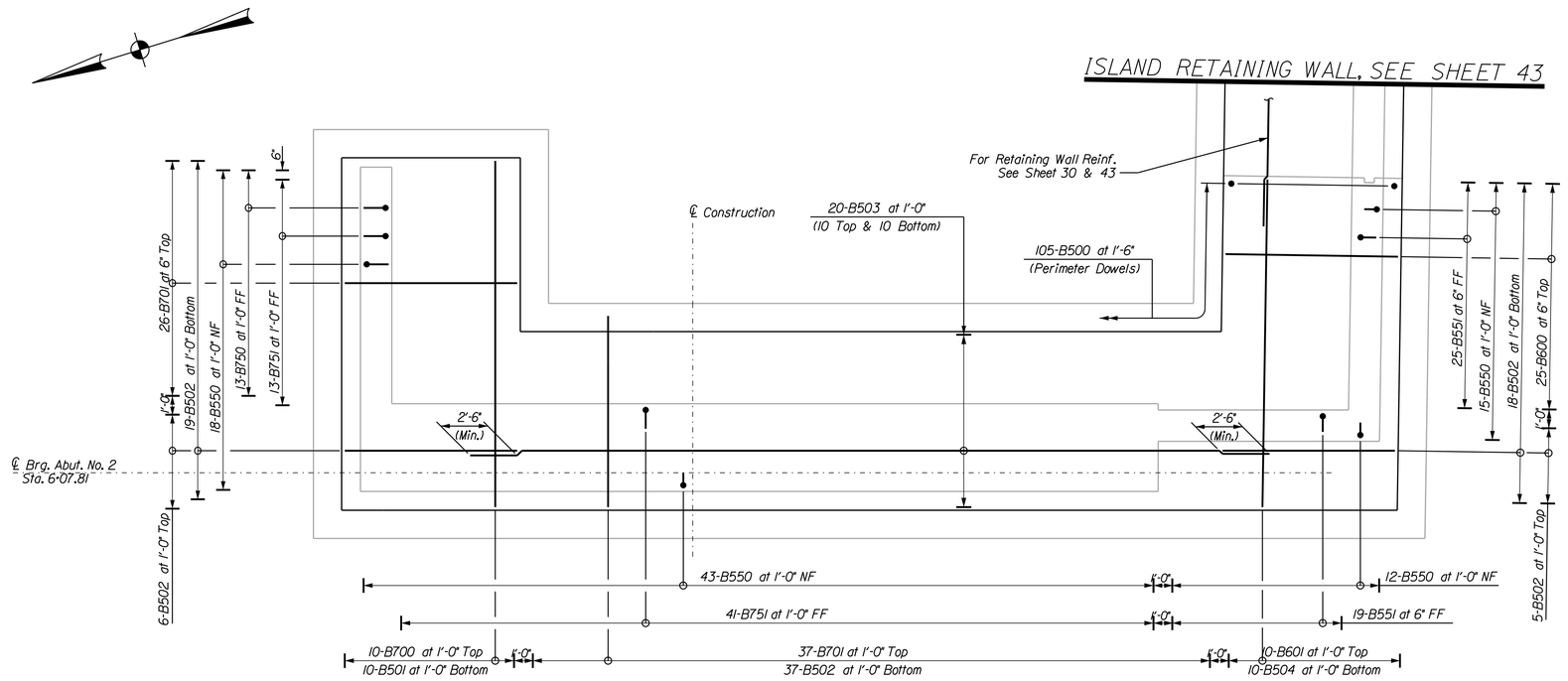
OF 73

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Username: STANTEC Date:10/10/2011
Division: 1953
Filename: ...\031_ABUT2_FTG.dgn



PLAN - ABUTMENT NO. 2 SEAL & FOOTING



PLAN - ABUTMENT NO. 2 FOOTING REINFORCEMENT

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE PLANS

BRIDGE NO. 1519 & NO.5490

PROJ. MANAGER			
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

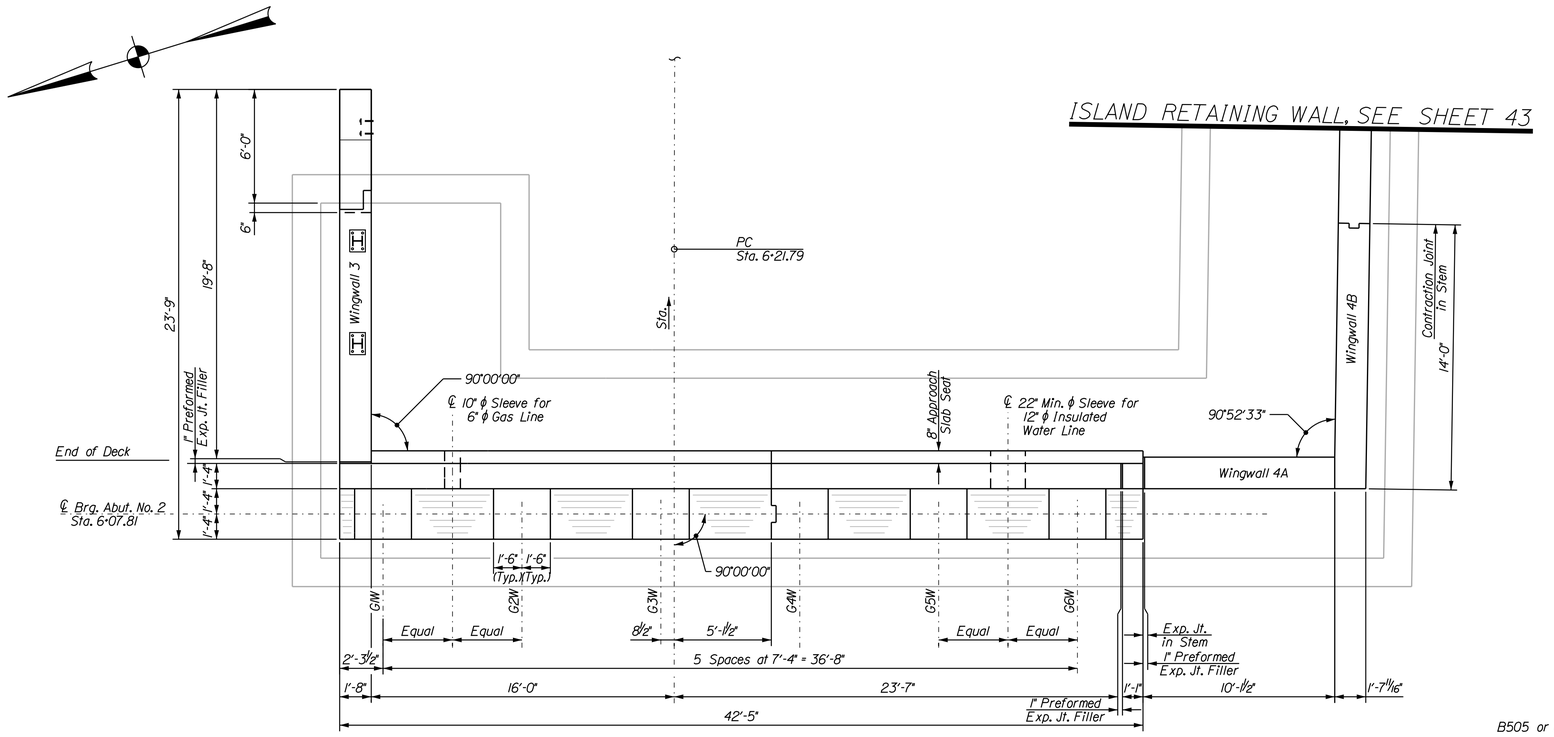
ABUTMENT 2 SEAL & FOOTING

SHEET NUMBER

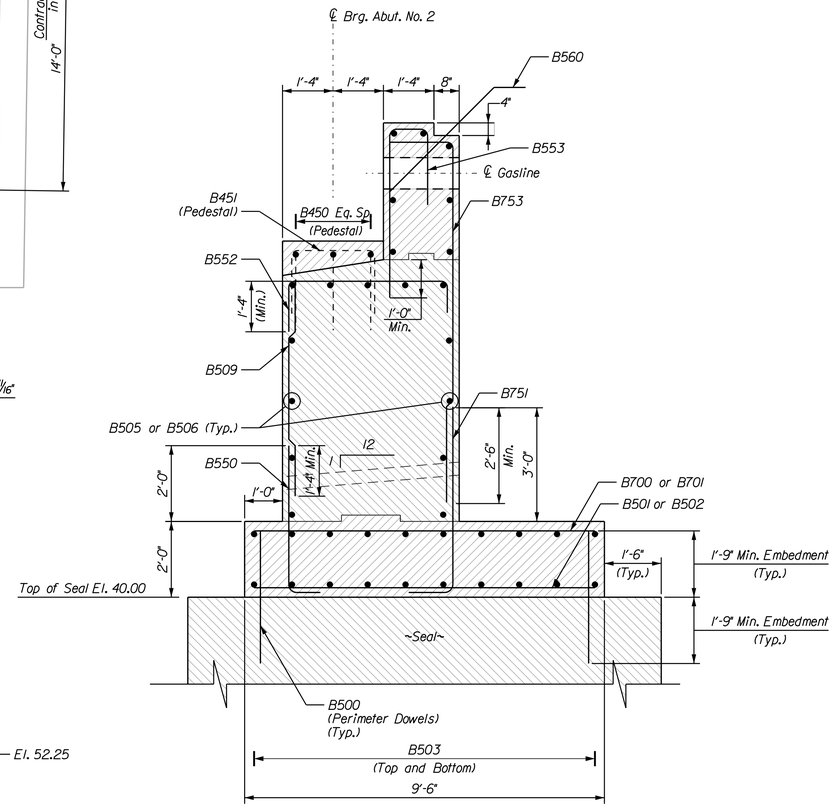
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OF 73

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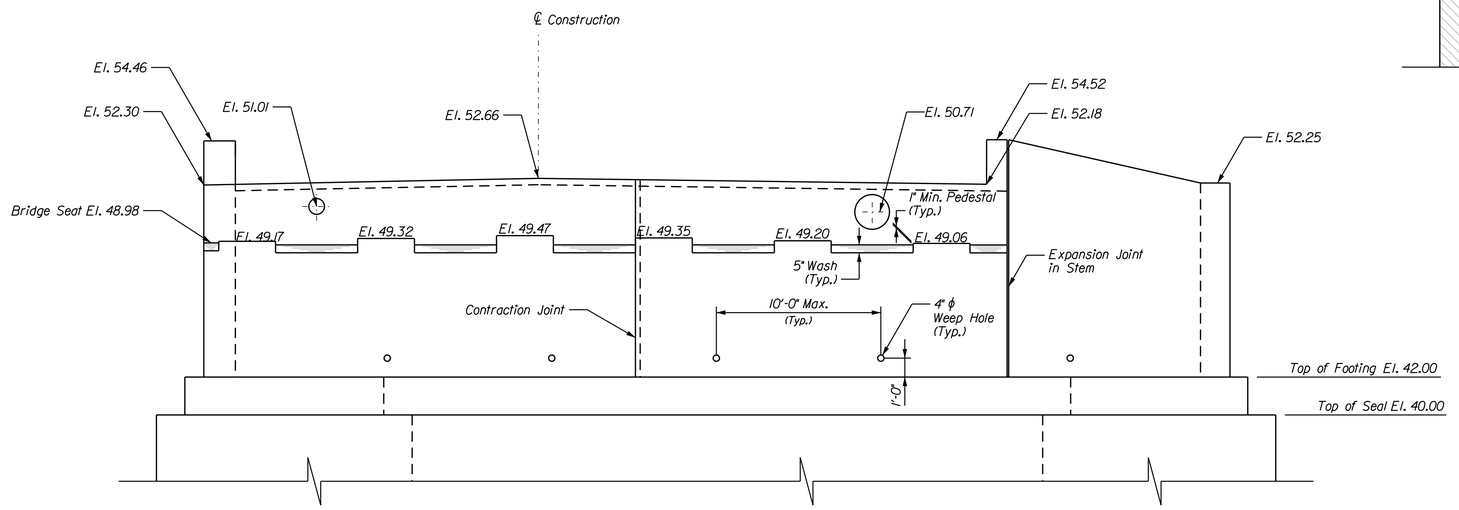


PLAN - ABUTMENT NO. 2



Note: See sheet 53 for slab over backwall details.

SECTION - ABUTMENT NO. 2



ELEVATION - ABUTMENT NO. 2

Notes:

1. Unless otherwise noted, all elevations are for both near face and far face.

2. See sheet 25 for Abutment and Seal Notes.

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

PROJ. MANAGER	TWM
DESIGN-DETAILED	TEK
CHECKED-REVIEWED	TWM
DESIGN2-DETAILED2	DDT
DESIGN3-DETAILED3	

	BY	DATE
REVISIONS 1	JTS	5/23/2011
REVISIONS 2	DDT	9/12/2011
REVISIONS 3	JTS	9/12/2011
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

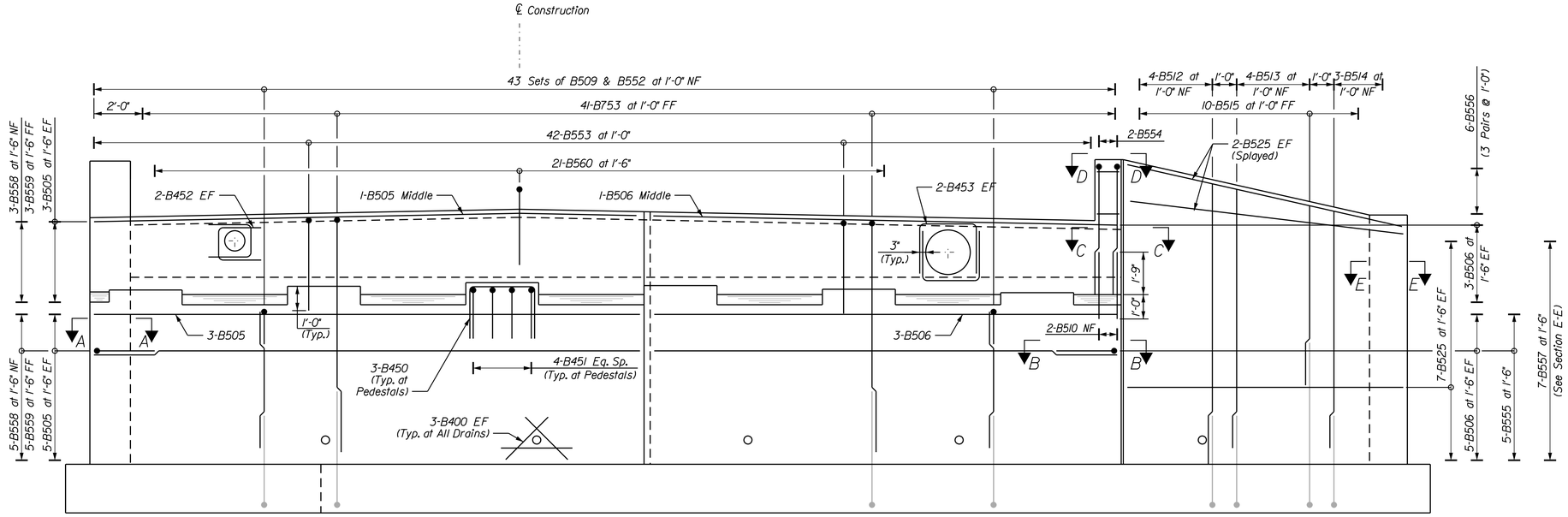
ABUTMENT 2 PLAN & ELEVATION

SHEET NUMBER

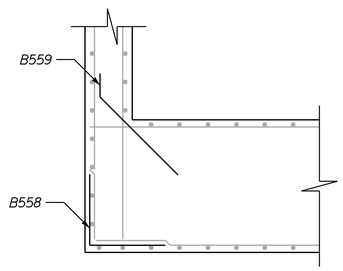
32

OF 73

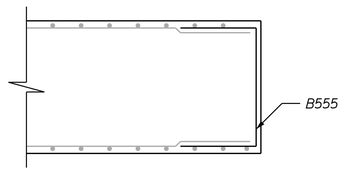
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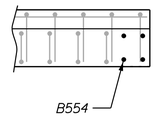
ELEVATION - ABUTMENT NO. 2 REINFORCEMENT



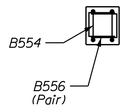
SECTION A-A



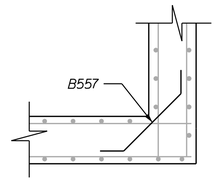
SECTION B-B
(Wingwall 4A Not Shown)



SECTION C-C
(Wingwall 4A Not Shown)



SECTION D-D
(Wingwall 4A Not Shown)



SECTION E-E

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	TWM	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

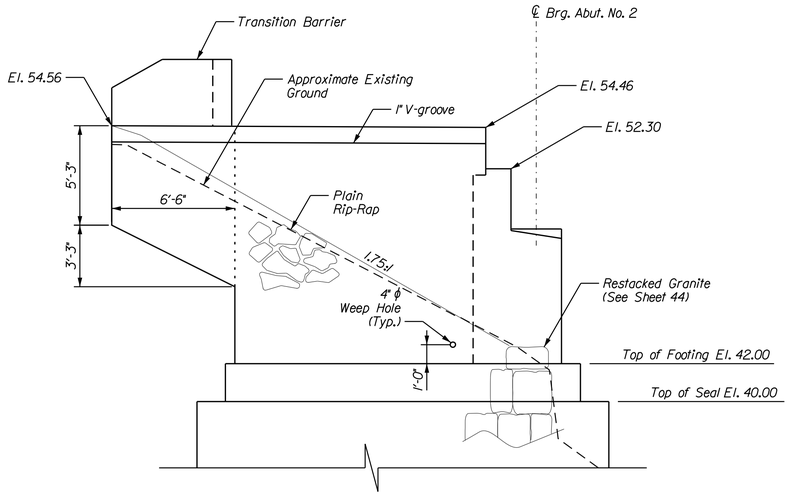
CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

ABUTMENT 2 REINFORCEMENT

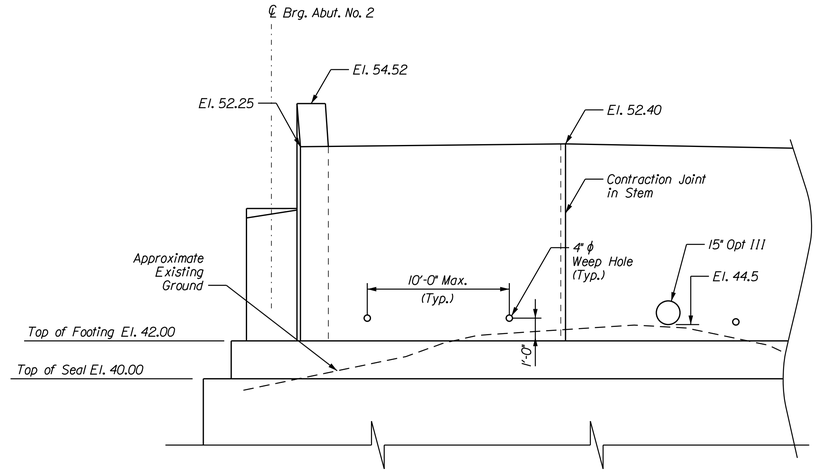
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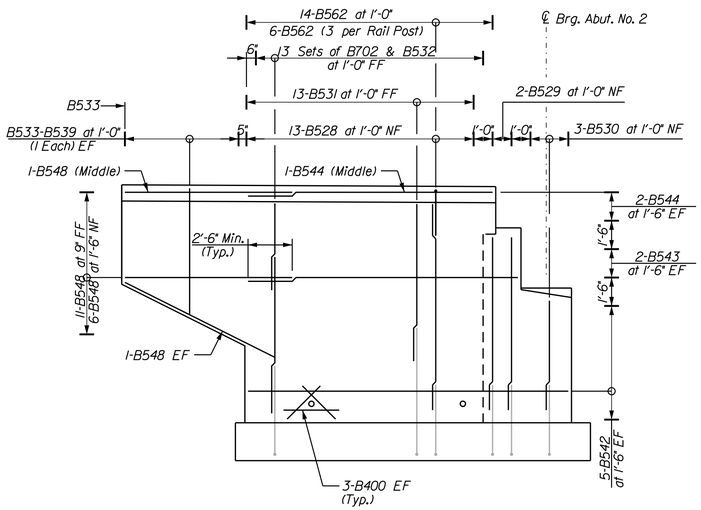
OF 73



ELEVATION - WINGWALL NO. 3

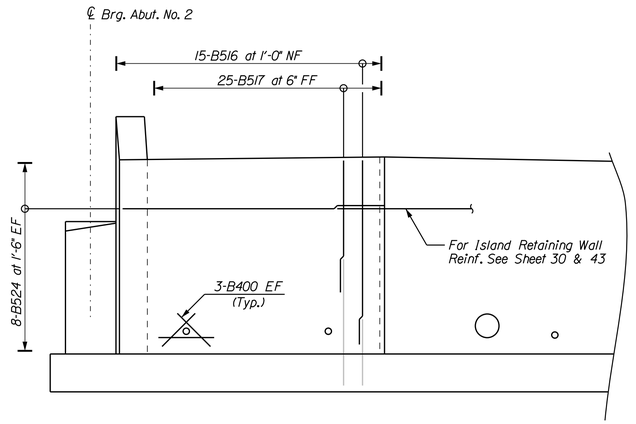


ELEVATION - WINGWALL NO. 4



Note: Transition barrier not shown in this view for clarity.

ELEVATION - WINGWALL NO. 3 REINFORCEMENT



ELEVATION - WINGWALL NO. 4 REINFORCEMENT

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

ABUT. 2 WINGWALL ELEV. & REINF.

SHEET NUMBER

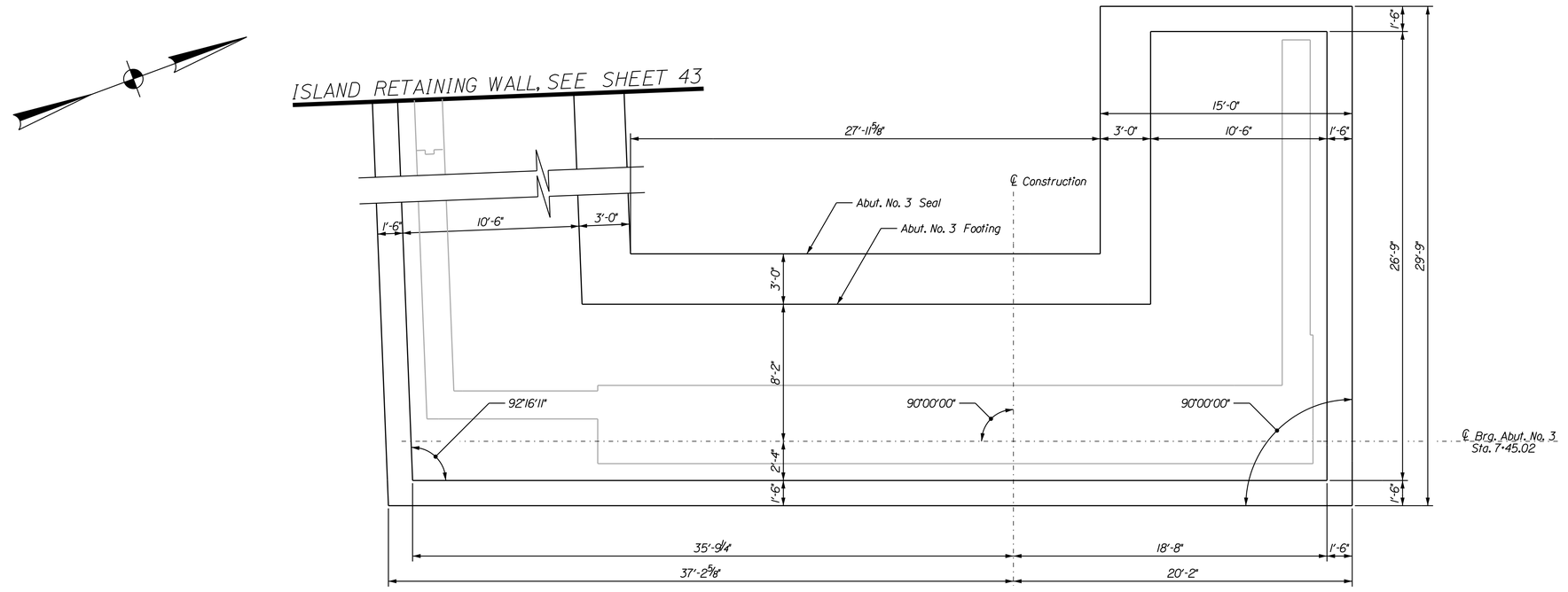
34

OF 73

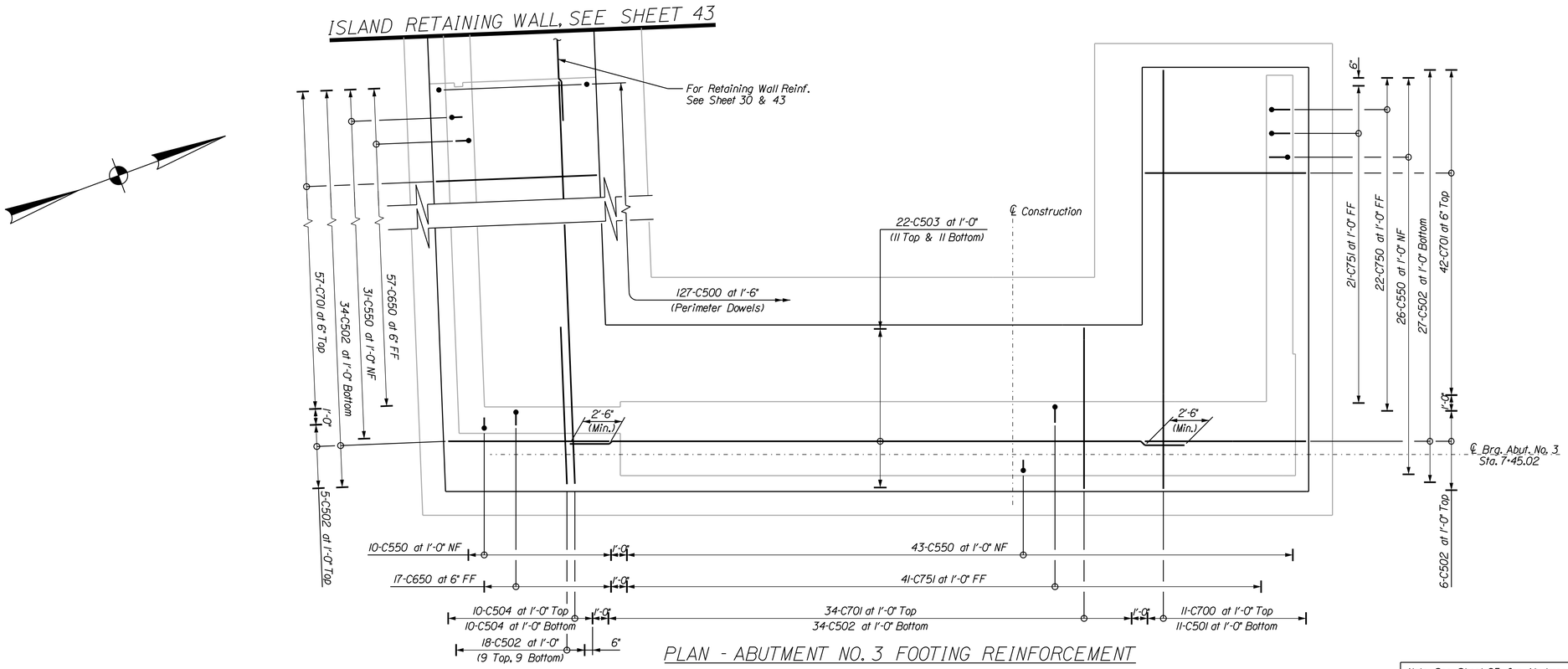
Username: STANTEC Date:10/10/2011

Division: 1953

Filename: ...\034_ABUT2_WING.dgn



PLAN - ABUTMENT NO. 3 SEAL & FOOTING



PLAN - ABUTMENT NO. 3 FOOTING REINFORCEMENT

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

PROJ. MANAGER	TWM	BY	DATE
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

ABUTMENT 3 SEAL & FOOTING

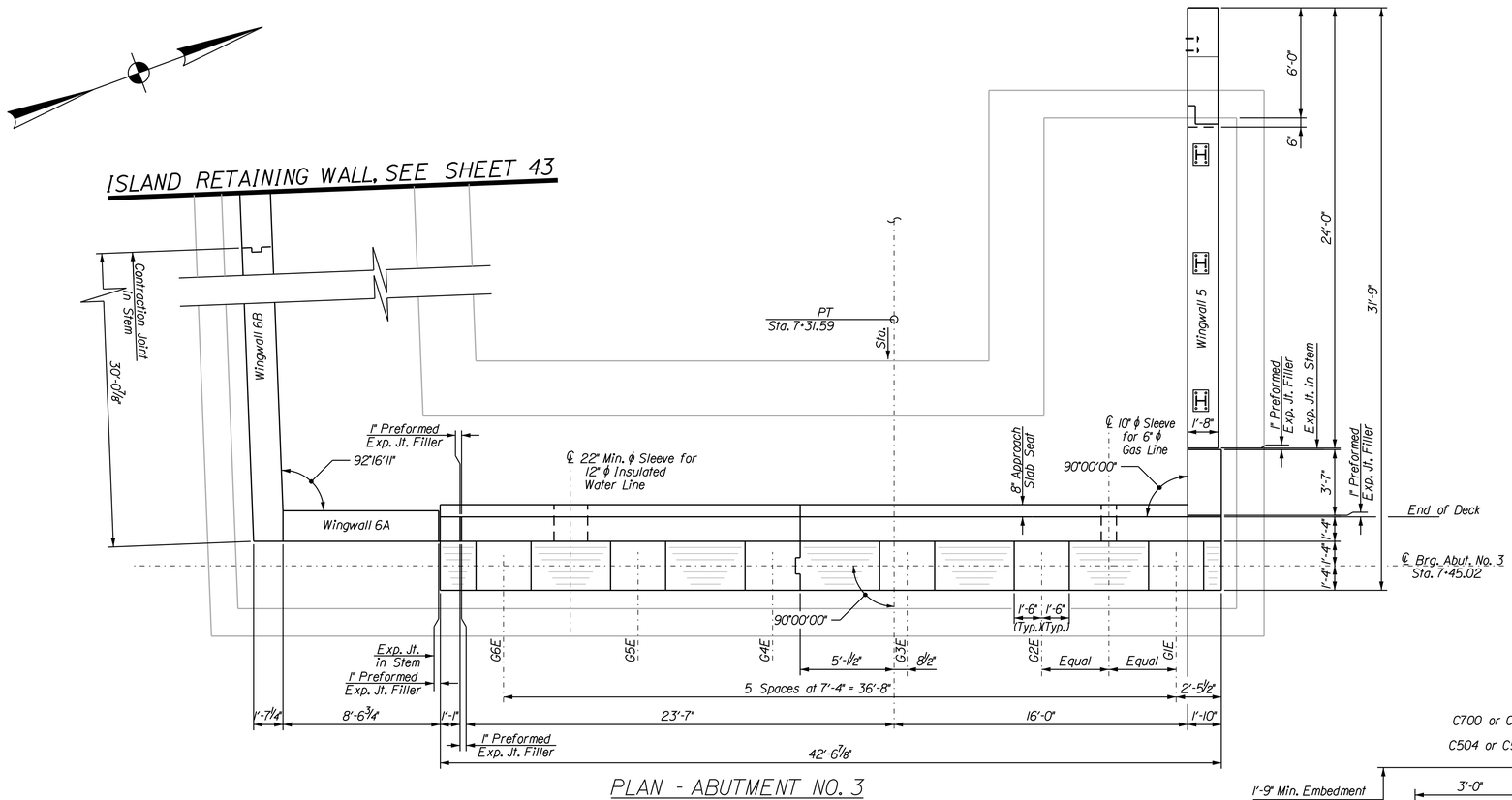
SHEET NUMBER

35

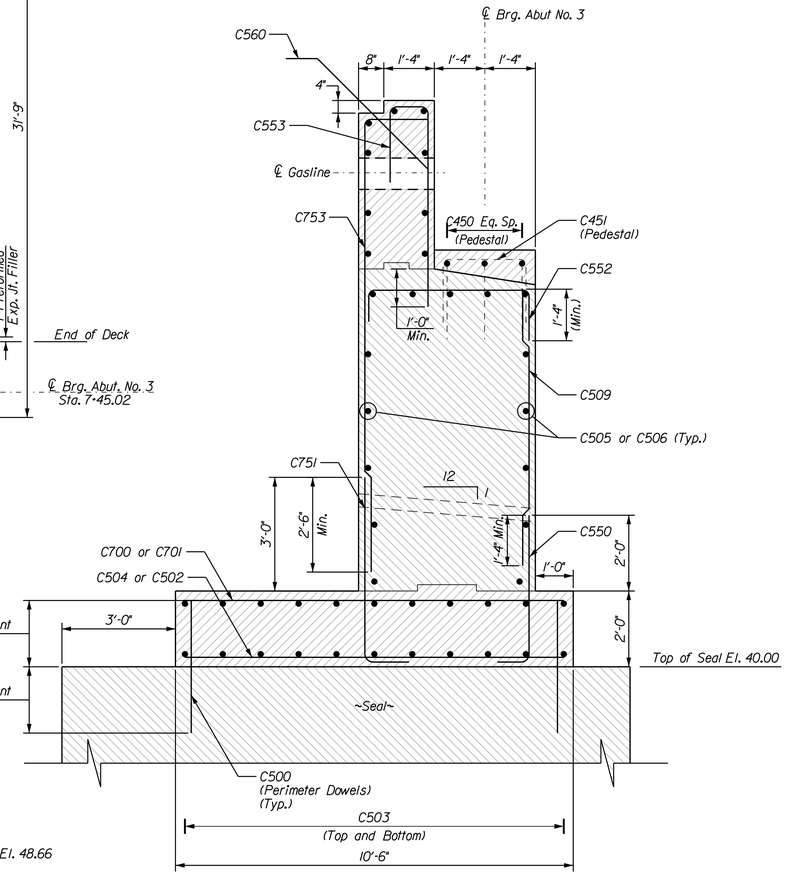
OF 73

Filename: ...\035_ABUT3_FTG.dgn Division: 1953 Username: STANTEC Date:10/10/2011

Filename: ...\036_ABUT3_PLAN_ELEV.dgn Division: 1953 Username: STANTEC Date:10/10/2011

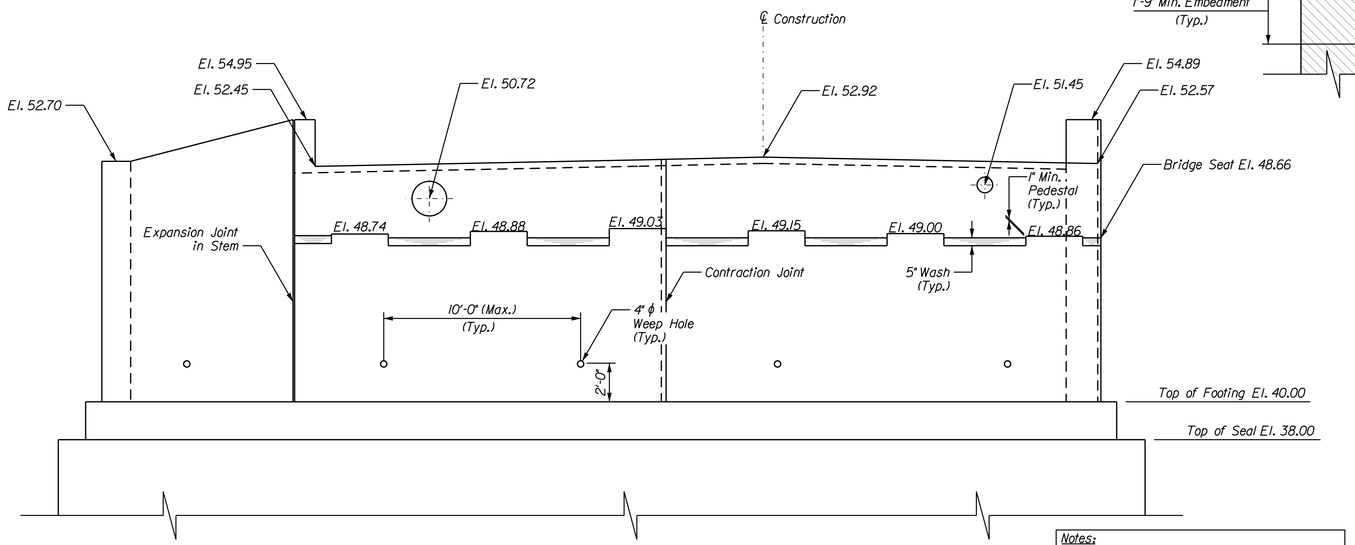


PLAN - ABUTMENT NO. 3



NOTE: See sheet 53 for slab over backwall details.

SECTION - ABUTMENT NO. 3



ELEVATION - ABUTMENT NO. 3

Notes:

1. Unless otherwise noted, all elevations are for both near face and far face.
2. See sheet 25 for Abutment and Seal Notes.

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	TWM	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

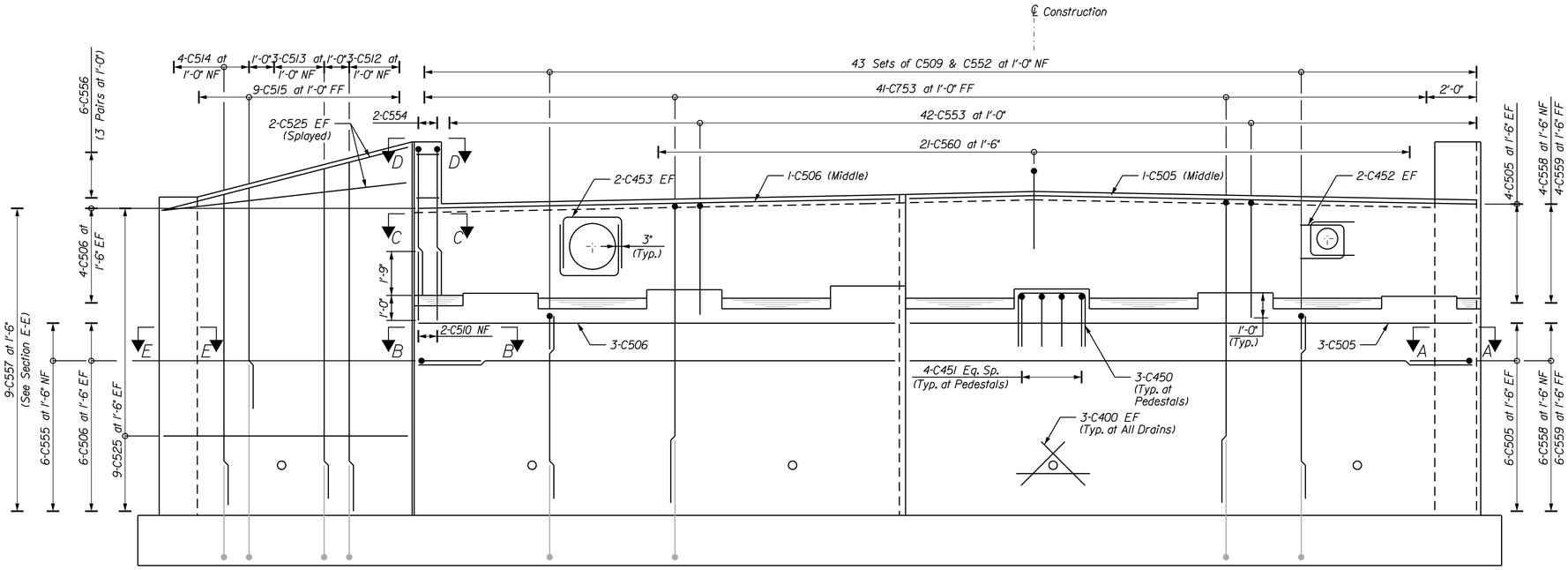
ABUTMENT 3 PLAN & ELEVATION

SHEET NUMBER

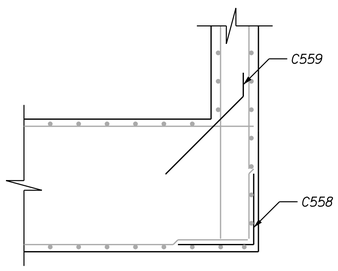
36

OF 73

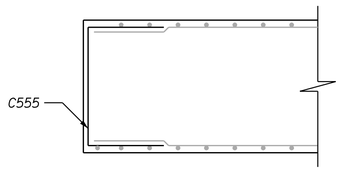
Username: STANTEC Date:10/10/2011
Division: 1953
Filename: ...\037_ABUT3_ELEV_REINF.dgn



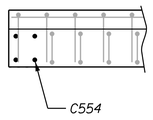
ELEVATION - ABUTMENT 3 REINFORCEMENT



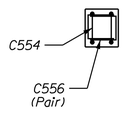
SECTION A-A



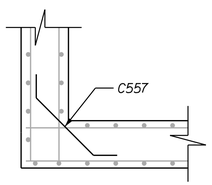
SECTION B-B
(Wingwall 6A Not Shown)



SECTION C-C
(Wingwall 6A Not Shown)



SECTION D-D
(Wingwall 6A Not Shown)



SECTION E-E

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	TWM	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

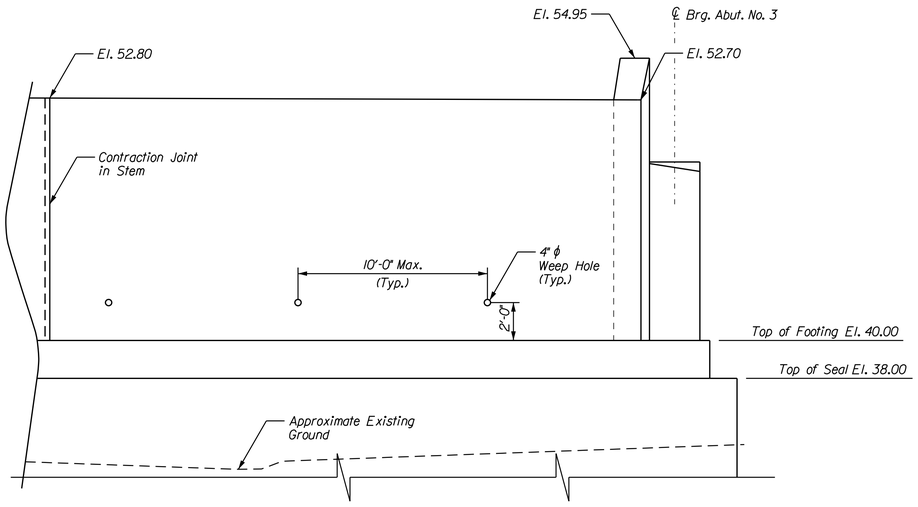
CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

ABUTMENT 3 REINFORCEMENT

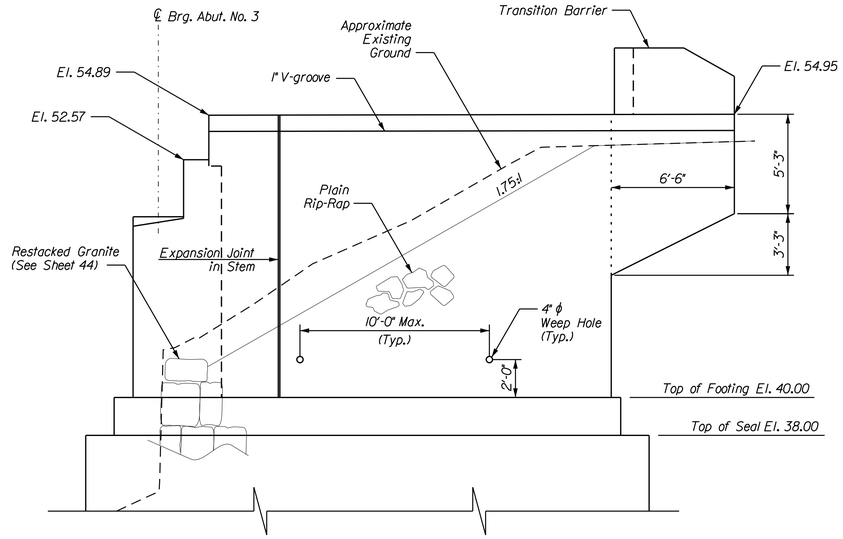
SHEET NUMBER

37

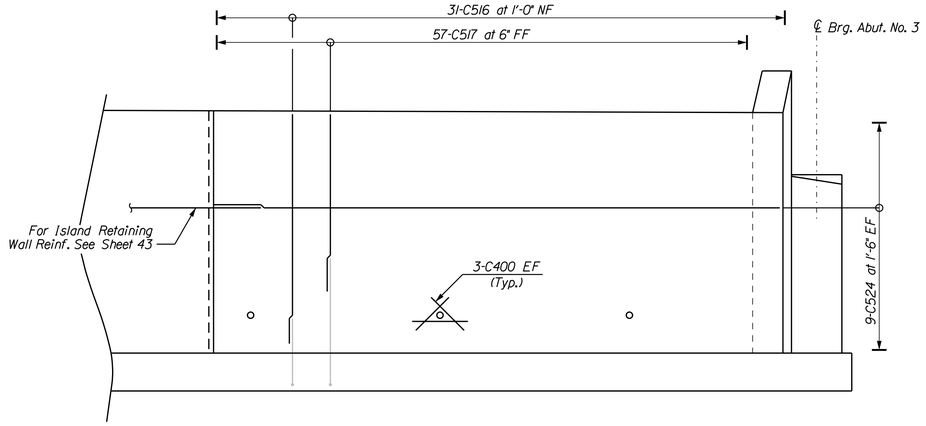
OF 73



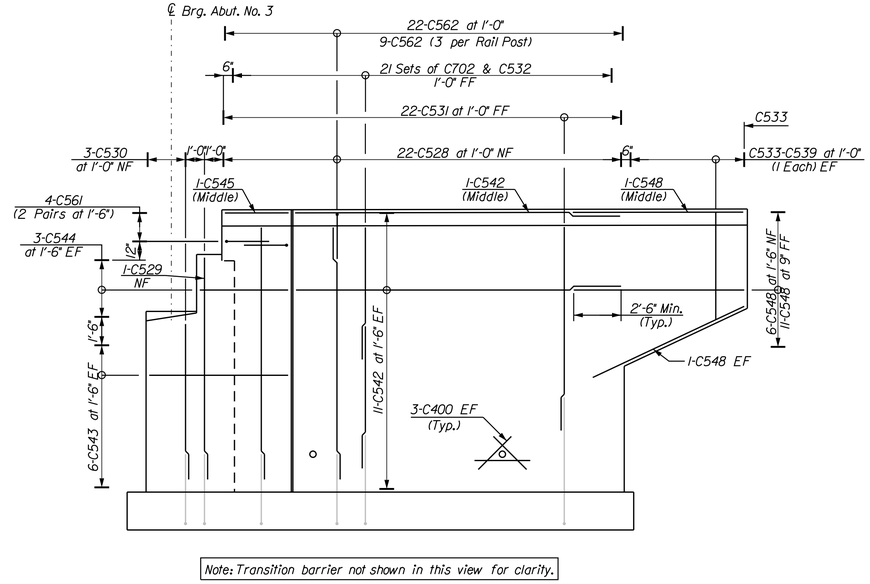
ELEVATION - WINGWALL NO. 6



ELEVATION - WINGWALL NO. 5



ELEVATION - WINGWALL NO. 6 REINFORCEMENT



Note: Transition barrier not shown in this view for clarity.

ELEVATION - WINGWALL NO. 5 REINFORCEMENT

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

PROJ. MANAGER	THM	BY	DATE
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	THM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

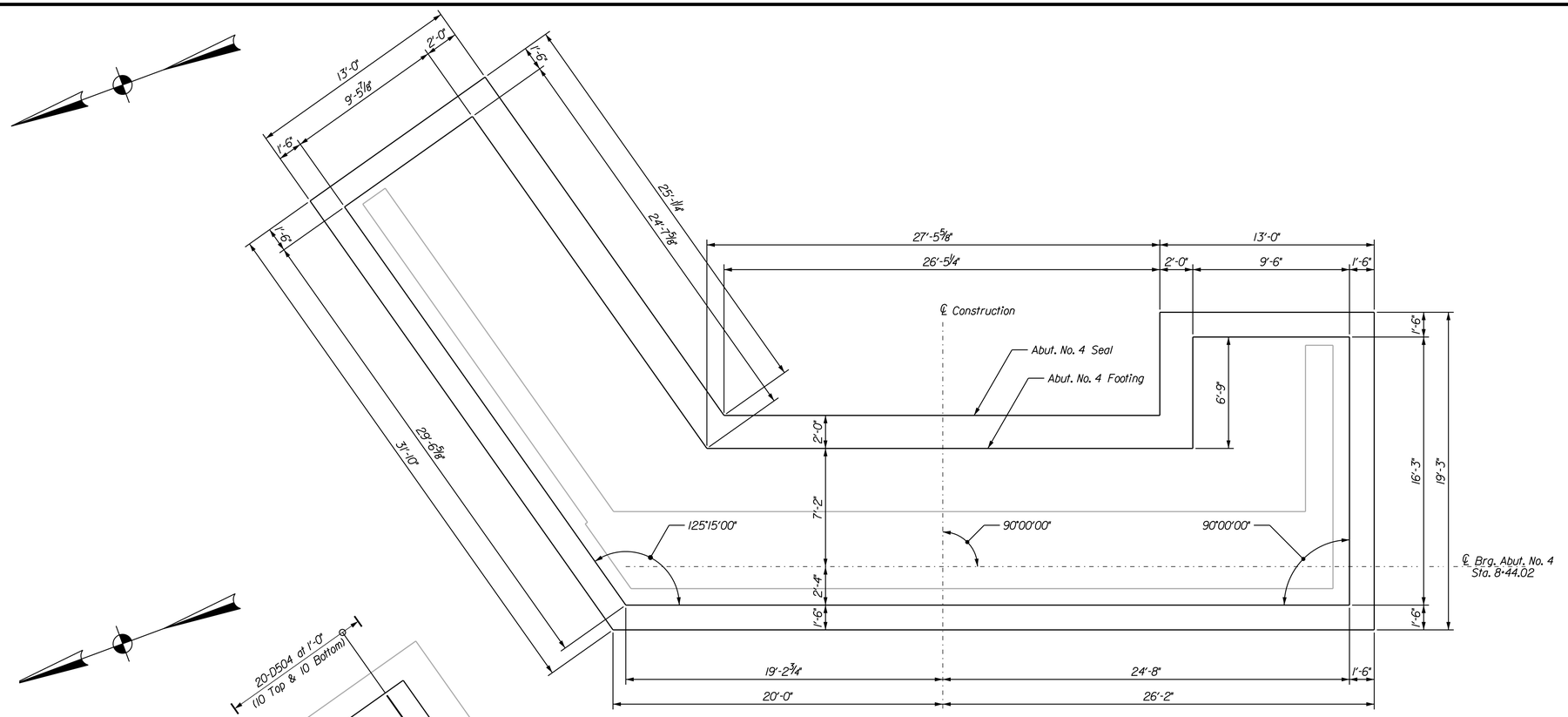
ABUT. 3 WINGWALL ELEV. & REINF.

SHEET NUMBER

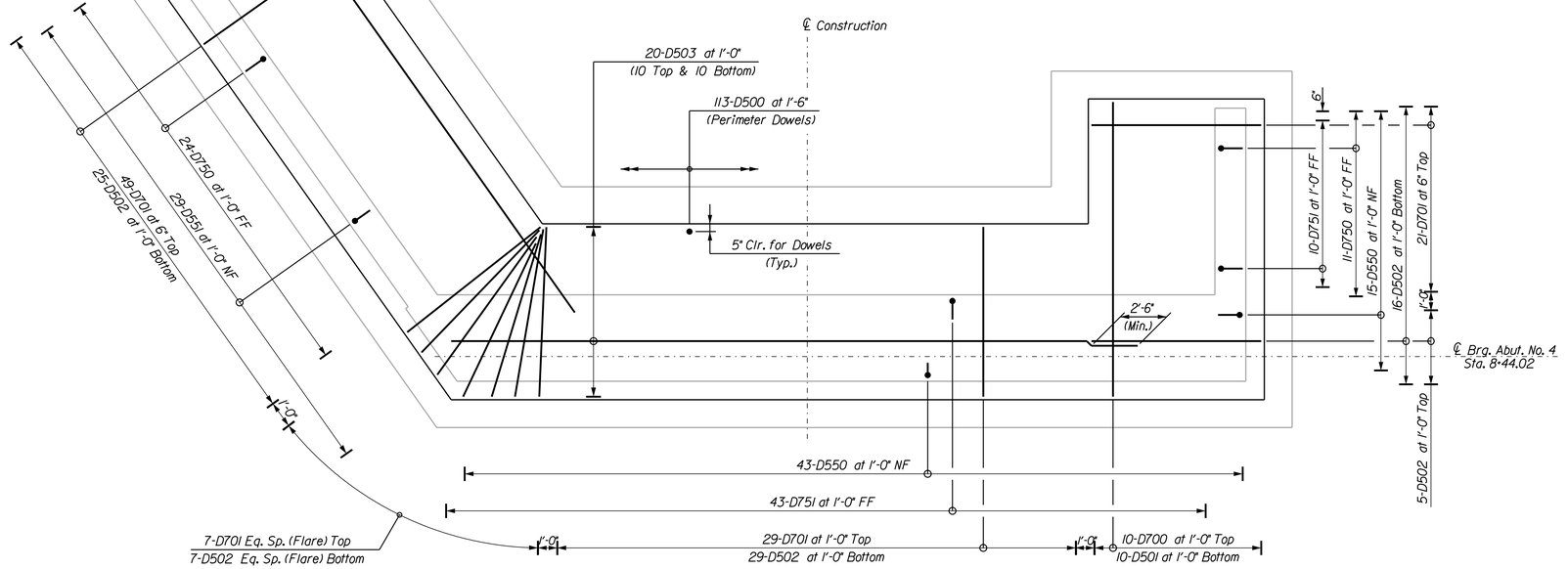
38

OF 73

Filename: ...\038_ABUT3_WING.dgn Username: STANTEC Division: 1953 Date:10/10/2011



PLAN - ABUTMENT NO. 4 SEAL & FOOTING



PLAN - ABUTMENT NO. 4 FOOTING REINFORCEMENT

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	TWM	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011 SIGNATURE
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			P.E. NUMBER
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			DATE
REVISIONS 4			
FIELD CHANGES			

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

ABUTMENT 4 SEAL & FOOTING

SHEET NUMBER

39

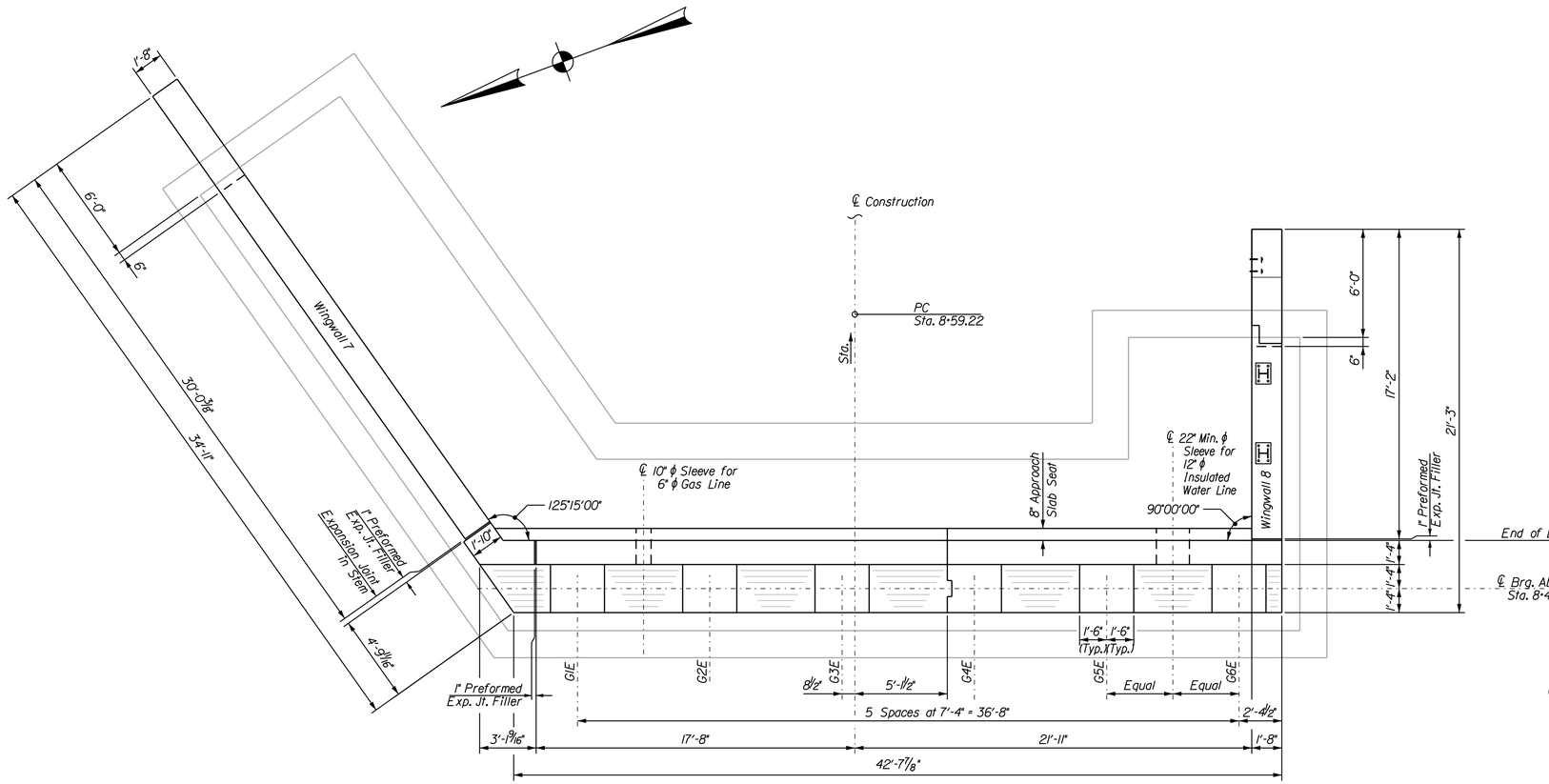
OF 73

Username: STANTEC Date:10/10/2011

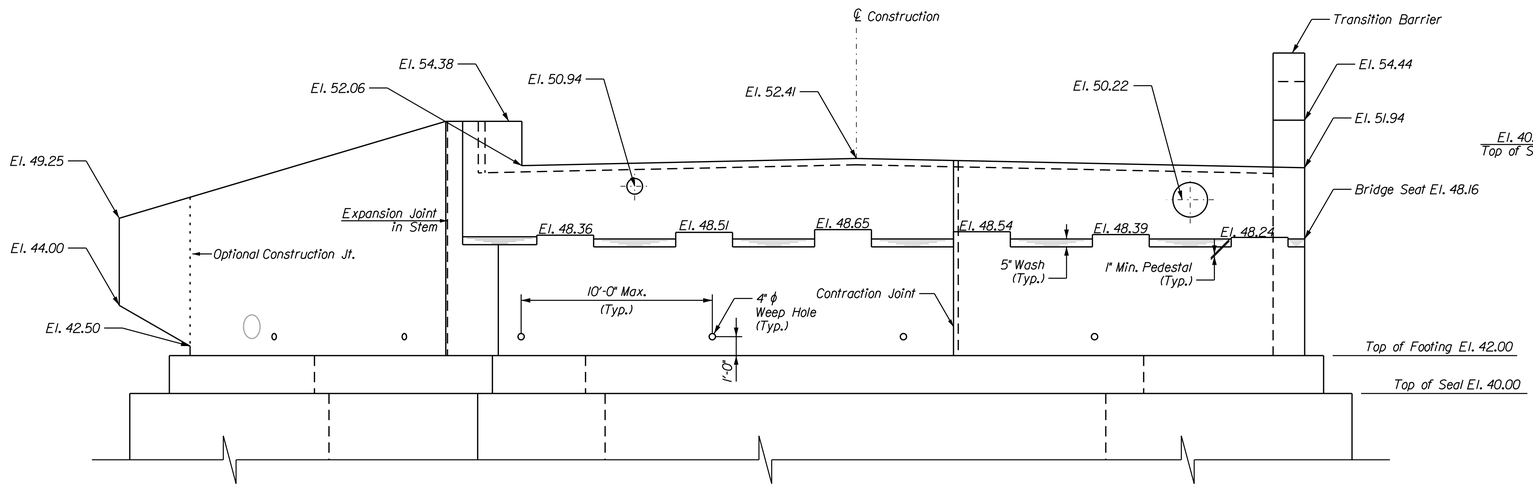
Division: 1953

Filename: ...\039_ABUT4_FTG.dgn

Filename: ...\040_ABUT4_PLAN_ELEV.dgn Division: 1953 Username: STANTEC Date:10/10/2011



PLAN - ABUTMENT NO. 4

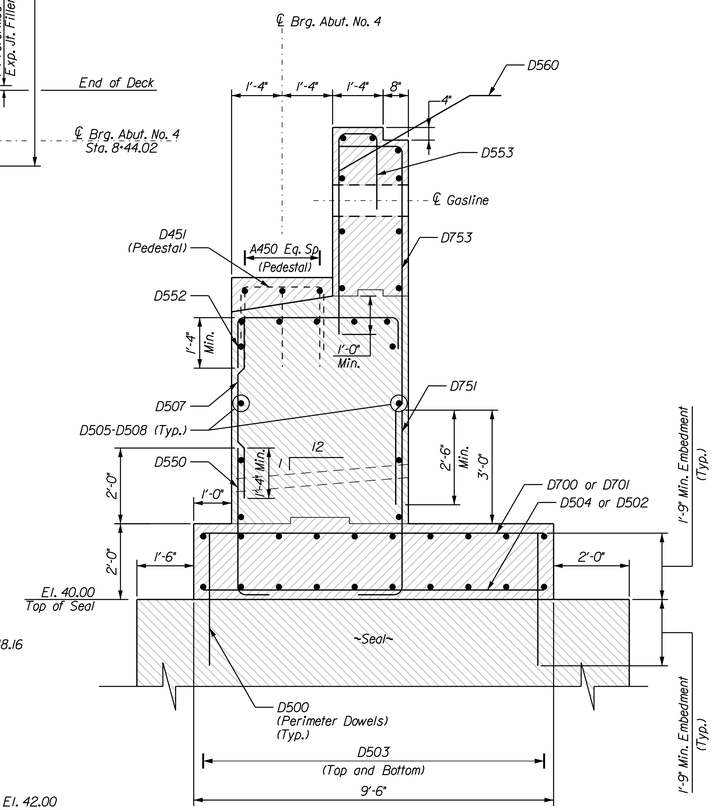


ELEVATION - ABUTMENT NO. 4

Notes:

1. Unless otherwise noted, all elevations are for both near face and far face.

2. See sheet 25 for Abutment and Seal Notes.



Note: See sheet 53 for slab over backwall details.

SECTION - ABUTMENT NO. 4

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

TWM	BY	DATE
TEK	JTS	5/23/2011
TWM	DDT	9/12/2011
DDT	JTS	9/12/2011

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	
DESIGN-DETAILED	TEK
CHECKED-REVIEWED	TWM
DESIGN2-DETAILED2	DDT
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

ABUTMENT 4 PLAN & ELEVATION

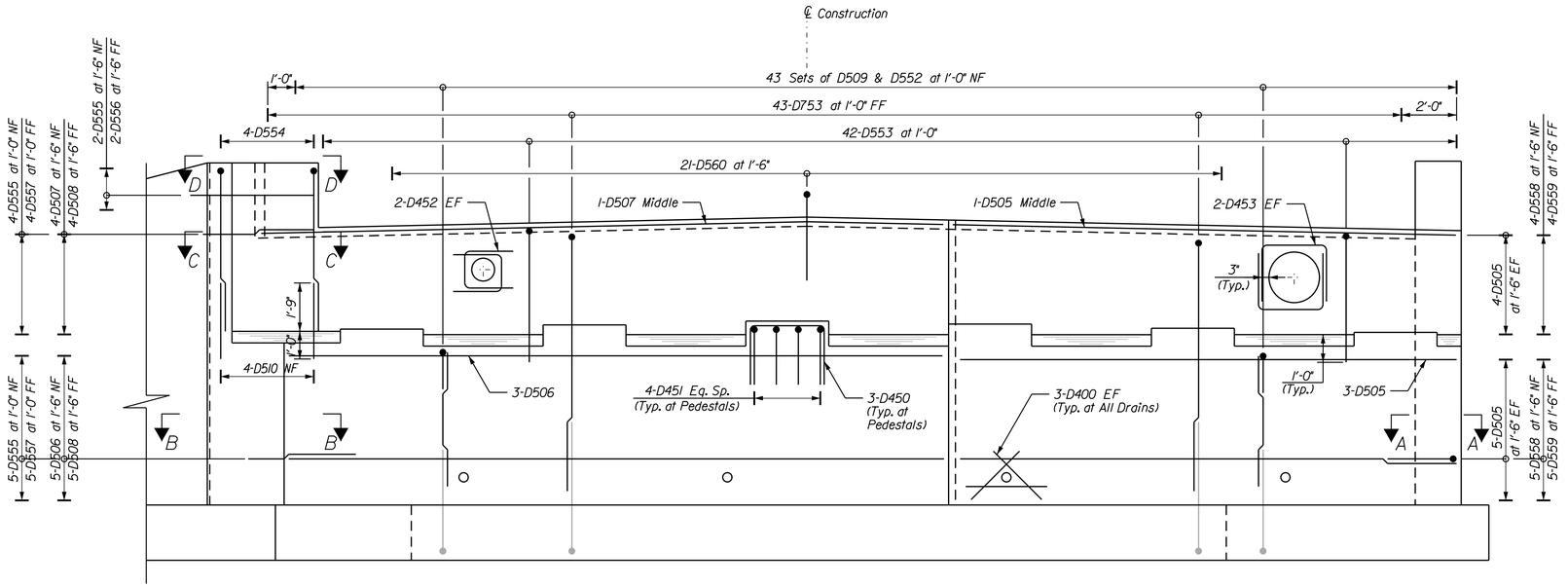
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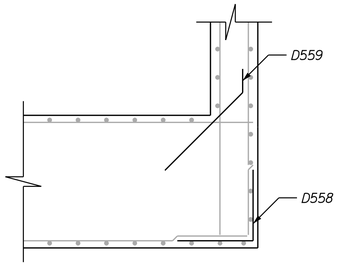
OF 73

Stantec

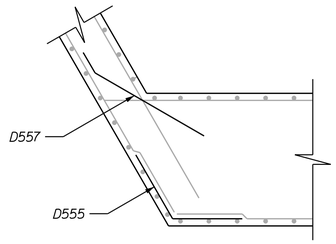
Username: STANTEC Date:10/10/2011
Filename: ...\041_ABUT4_ELEV_REINF.dgn Division: 1953



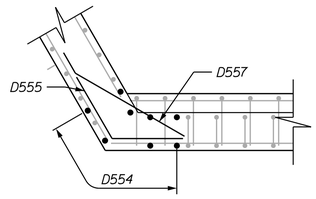
ELEVATION - ABUTMENT NO. 4 REINFORCEMENT



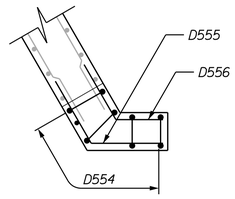
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490 — BRIDGE PLANS

	TYPE	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

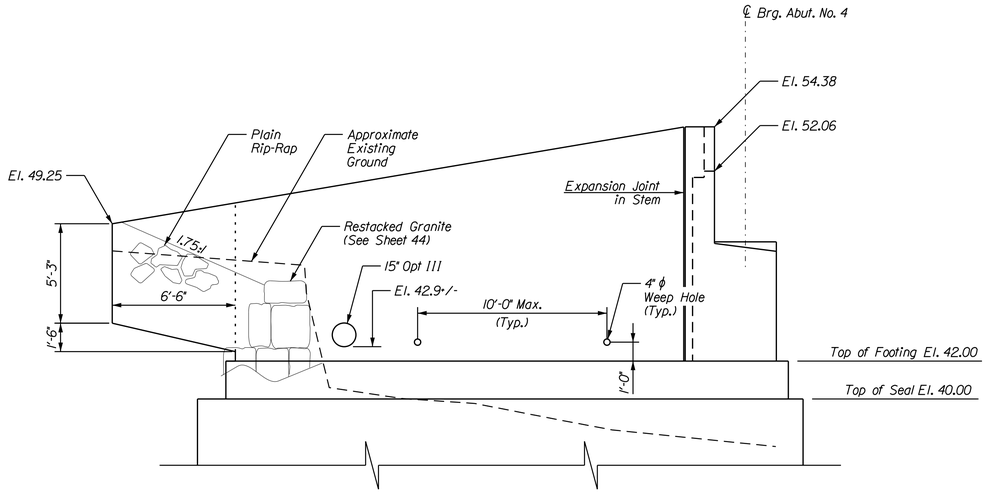
CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

ABUTMENT 4 REINFORCEMENT

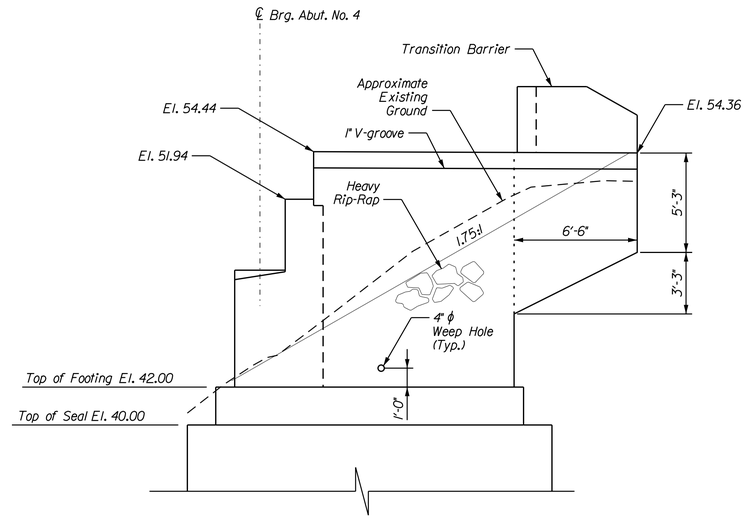
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41

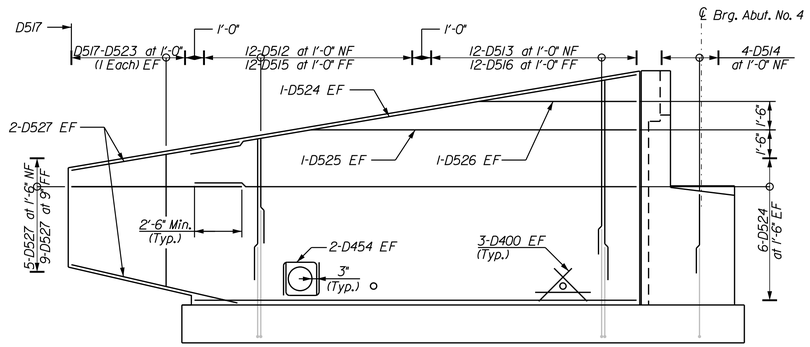
OF 73



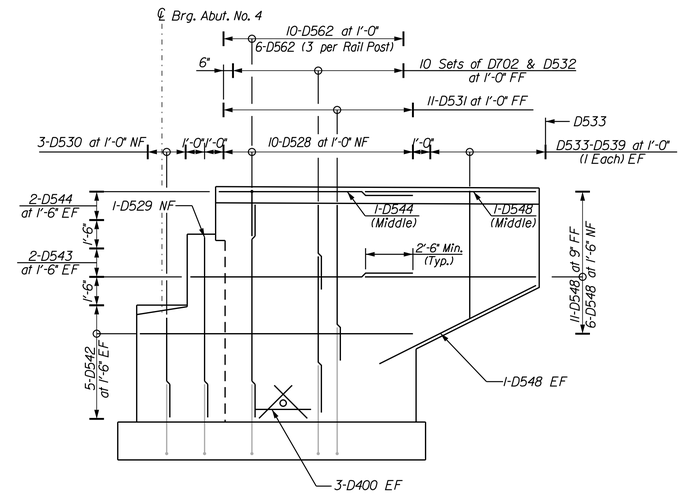
ELEVATION - WINGWALL NO. 7



ELEVATION - WINGWALL NO. 8



ELEVATION - WINGWALL NO. 7 REINFORCEMENT



Note: Transition barrier not shown in this view for clarity.

ELEVATION - WINGWALL NO. 8 REINFORCEMENT

Note: See Sheet 25 for Abutment and Seal Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

ABUT. 4 WINGWALL ELEV. & REINF.

SHEET NUMBER

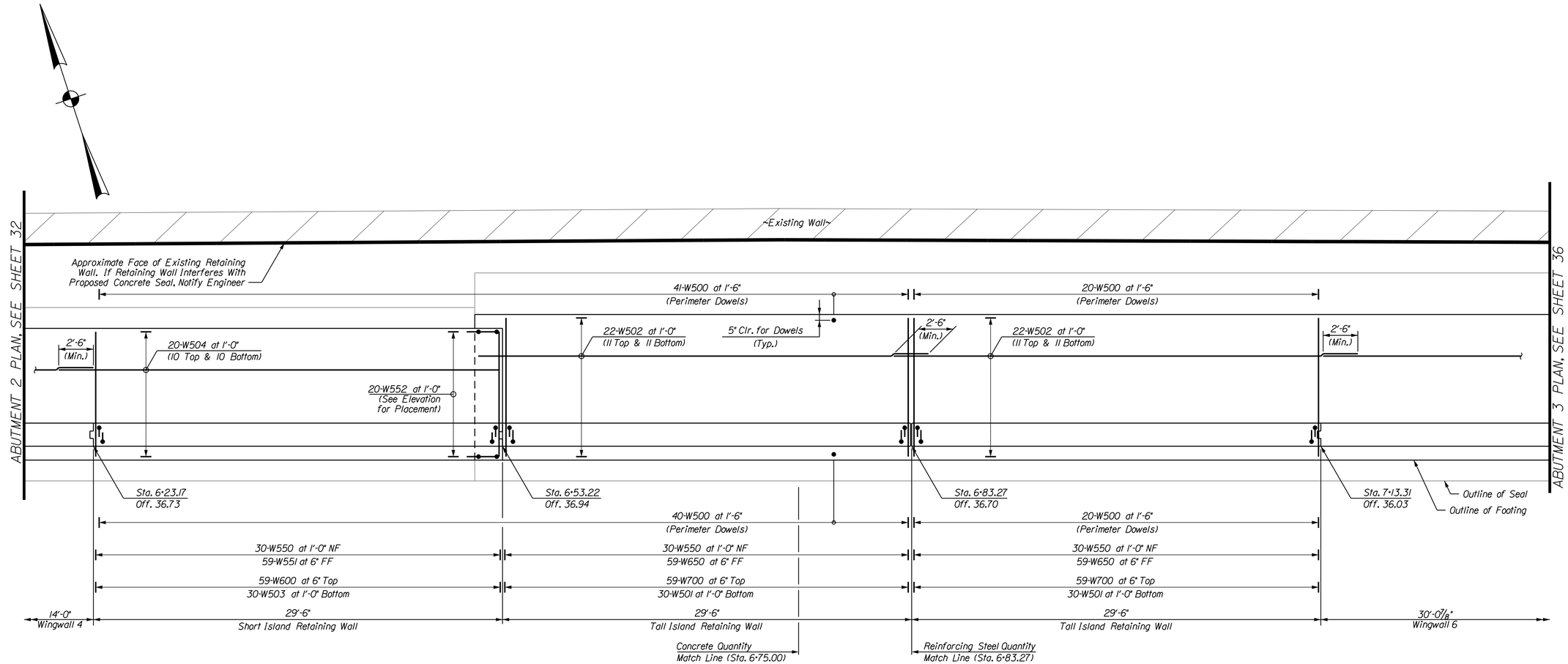
42

OF 73

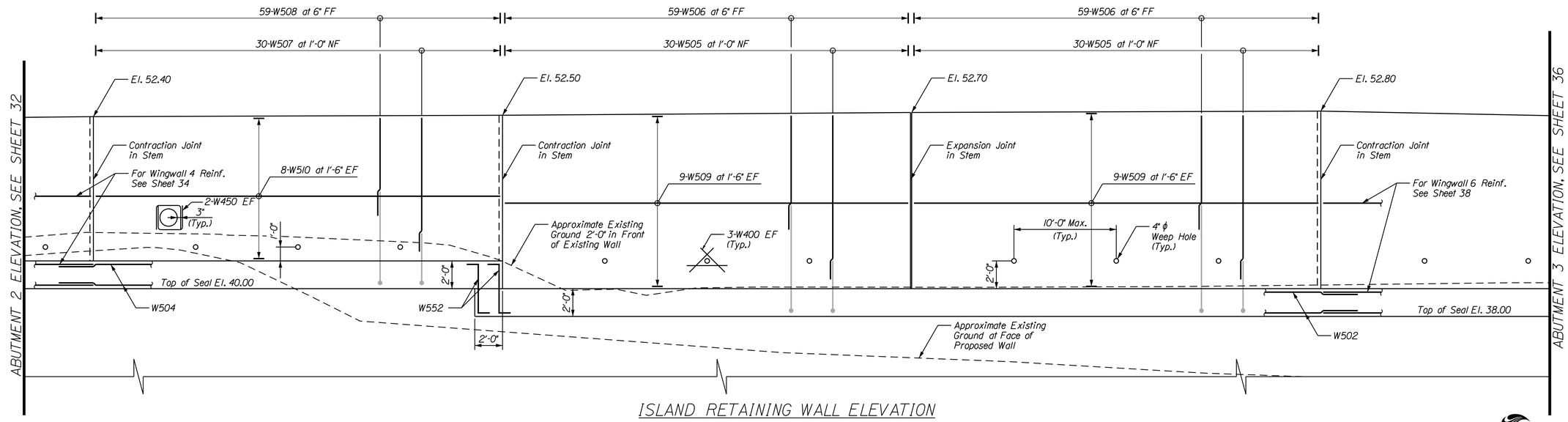
Username: STANTEC Date:10/10/2011

Division: 1953

Filename: ...\042_ABUT4_WING.dgn



ISLAND RETAINING WALL PLAN



ISLAND RETAINING WALL ELEVATION

Note: See Sheet 25 for Abutment and Retaining Wall Notes.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

TWM	BY	DATE
TEK	JTS	5/23/2011
TWM	DDT	9/12/2011
DDT	JTS	9/12/2011

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	
DESIGN-DETAILED	TEK
CHECKED-REVIEWED	TWM
DESIGN2-DETAILED2	DDT
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

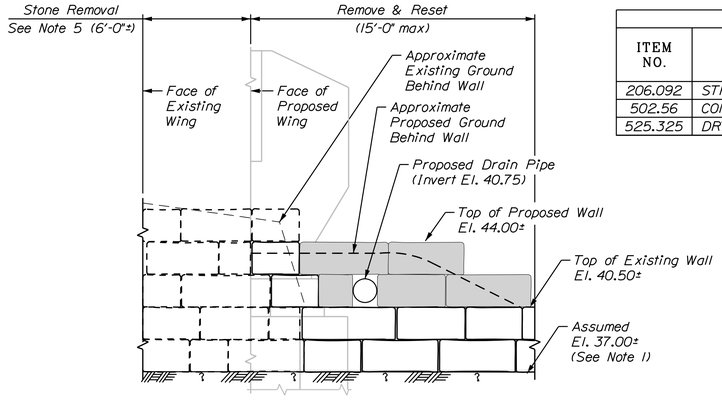
ISLAND RETAINING WALL PLAN & ELEVATION

SHEET NUMBER

43

OF 73

Filename: ...\043_RET_WALL_01.dgn Division: 1953 Username: STANTEC Date:10/10/2011



WING 1 - STACKED GRANITE WALL ELEVATION

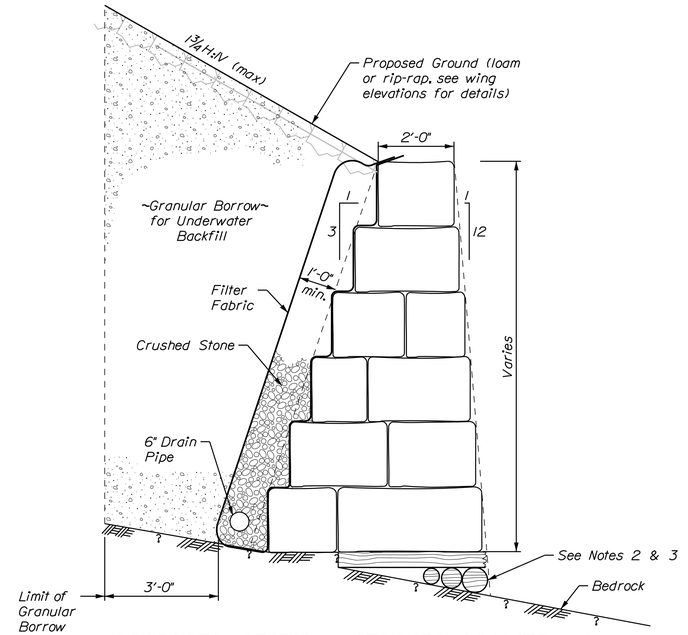
ESTIMATED QUANTITIES (INCLUDED IN SHEET 2 TOTALS)								
ITEM NO.	DESCRIPTION	QUANTITY						UNIT
		WING No. 1	WING No. 2	WING No. 3	WING No. 5	WING No. 7	TOTAL	
206.092	STRUCTURAL ROCK EXCAVATION - MAJOR STRUCTURES	4	5	5	4	7	25	CY
502.56	CONCRETE FILL	4	5	5	4	7	25	CY
525.325	DRY-LAID STONE RETAINING WALL	90	150	72	90	110	512	SF

STACKED GRANITE RETAINING WALL NOTES

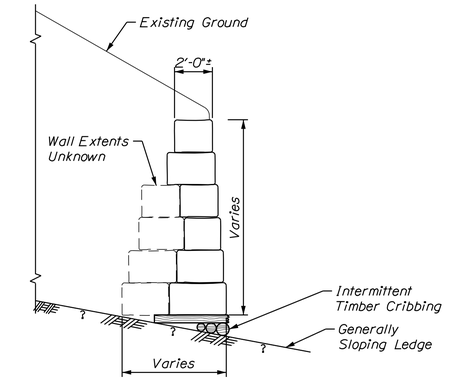
1. Existing timber cribbing is intermittent; some sections bear directly on ledge.
2. Timber cribbing shall be re-used as directed by the Resident Engineer. If timber cribbing is not suitable for re-use, construct lean concrete leveling pad, or bench bedrock as described in Note 3. Timber crib works shall not be re-used on wall sections taller than 6 feet.
3. For portions of the proposed wall constructed directly on bedrock, the bedrock shall be cleaned of all weathered rock, fractured rock, and soil. Where the bedrock surface slope exceeds 4H:1V, the bedrock surface shall be benched in level steps or made completely level.
4. Larger, quarried stones from the existing bridge abutments shall be used in the front face and all bottom courses of the proposed wall.
5. Stones removed, but not reset, shall be incidental to Item 202.19, Removing Existing Bridge.

LEGEND

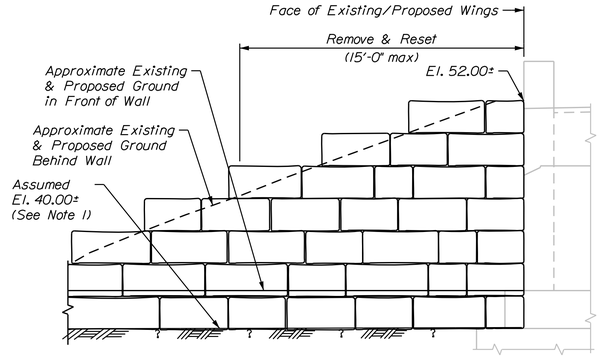
- Remove & Reset (if required)
- Remove Existing
- Proposed Stone (Relocated from Removal Areas)



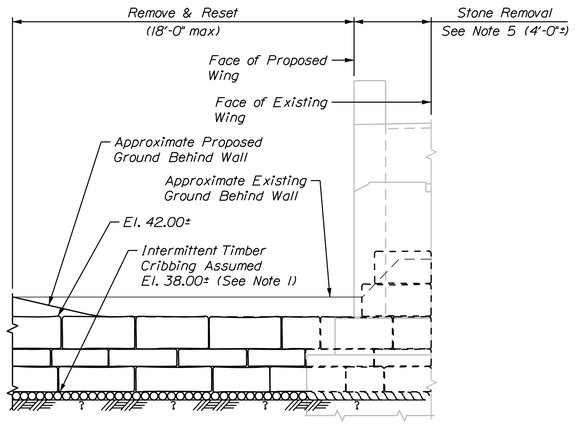
PROPOSED SECTION - STACKED GRANITE WALL



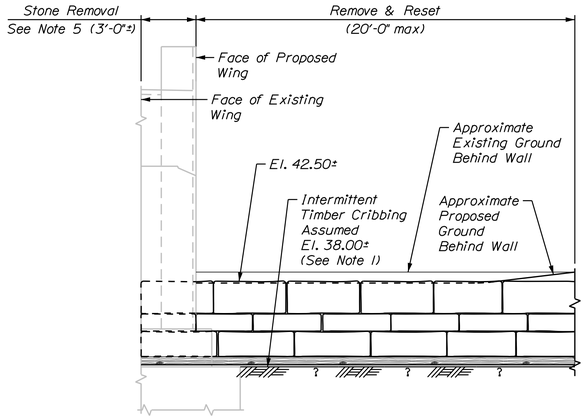
EXISTING SECTION - STACKED GRANITE WALL



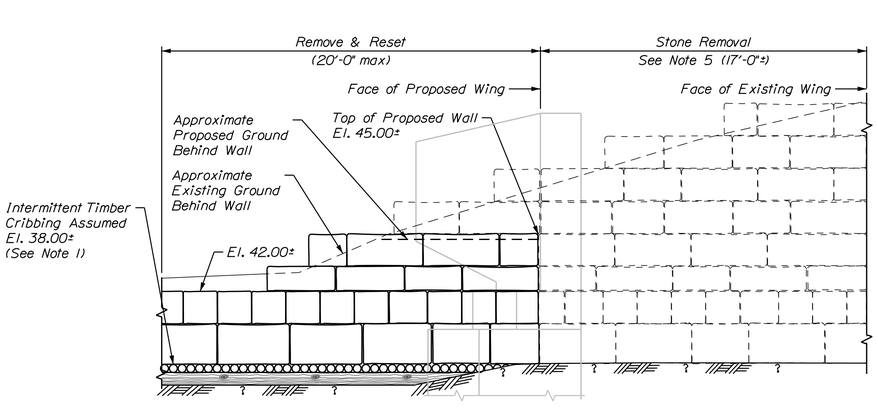
WING 2 - STACKED GRANITE WALL ELEVATION



WING 3 - STACKED GRANITE WALL ELEVATION



WING 5 - STACKED GRANITE WALL ELEVATION



WING 7 - STACKED GRANITE WALL ELEVATION

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE PLANS

BRIDGE NO. 1519 & NO.5490

PROJ. MANAGER			
DESIGN-DETAILED	TEK	5/23/2011	SIGNATURE
CHECKED-REVIEWED	TWM	9/12/2011	
DESIGN2-DETAILED2	DDT	9/12/2011	P.E. NUMBER
DESIGN3-DETAILED3			
REVISIONS 1			DATE
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

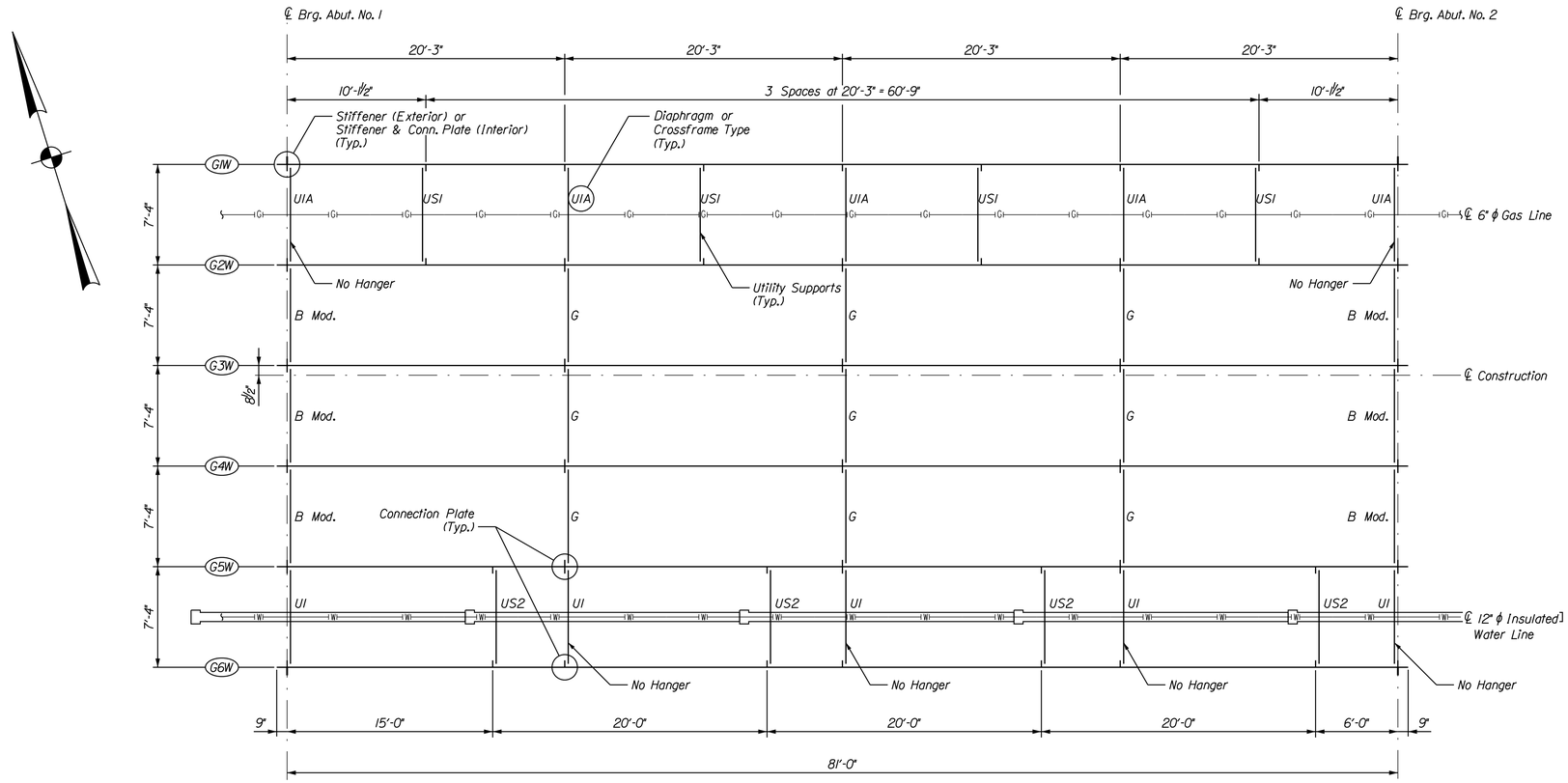
STACKED GRANITE WALL DETAILS 1

SHEET NUMBER

44

OF 73

Filename: ...\044_STACKED_GRANITE_01.dgn Division: 1953 Username: STANTEC Date:10/12/2011



FRAMING PLAN - WEST SPAN

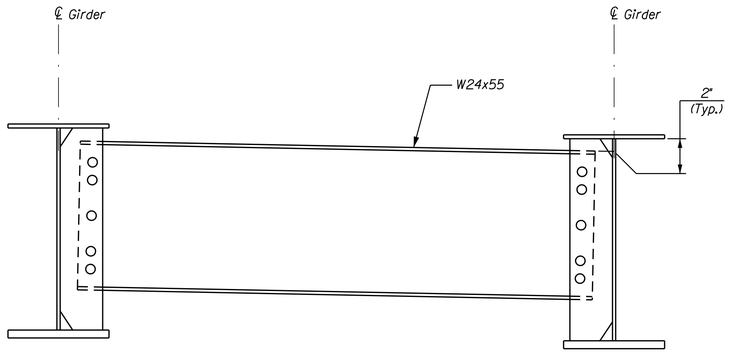
(DIMENSIONS ARE HORIZONTAL)

Notes:

1. Refer to sheet 47 for Crossframe Type UIA & UI and Utility Support Type USI & US2.
2. Pipe hanger and saddles required at all utility supports (USI & US2) and utility crossframes (UI & UIA) unless noted as "No Hanger".

STRUCTURAL STEEL NOTES

1. Camber ordinates, as shown, are computed to compensate for all dead load deflections and for the curvature of the finished grade profile.
2. No transverse butt-weld splices will be allowed in the flange plates or web plates within 10 feet or 10% of the span length (whichever is greater) from the points of maximum negative moment or maximum positive moment. Butt-weld splices in flanges shall be not less than 3 feet from transverse butt-welds in the web plates and no transverse web or flange butt-welds shall be located within 3 feet of other transverse welds (e.g. connection plates to web welds) on either flange or web. No transverse butt-weld splices will be allowed in areas of stress reversal.
3. Sections of flange plates or web plates between transverse shop splices or between a transverse shop splice and a field splice shall be not less than 40 feet in length unless otherwise shown on the plans.
4. Bearing stiffeners shall be plumb after erection and dead loading of the structure. Intermediate web stiffeners may be either plumb or normal to the top flange.
5. Crossframe or diaphragm connection plates may be either plumb or normal to the top flange.
6. For details of diaphragm and crossframe types B, G & H, see MaineDOT standard details, pages 504(15) and 504(17).
7. If Precast Concrete Deck Panels are used to construct the superstructure slab, the heads of the shear connectors shall extend a minimum of 2 inches above the top of the panels.
8. Girder ends and end cross frames shall be coated to a distance of 10 feet from the centerline of bearing at the abutments in accordance with Special Provision, Section 506, Protective Coating - Steel.



CROSS FRAME TYPE "B Mod."

(SEE STANDARD DETAIL SECTION 504 FOR INFORMATION NOT SHOWN)

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	GAB	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

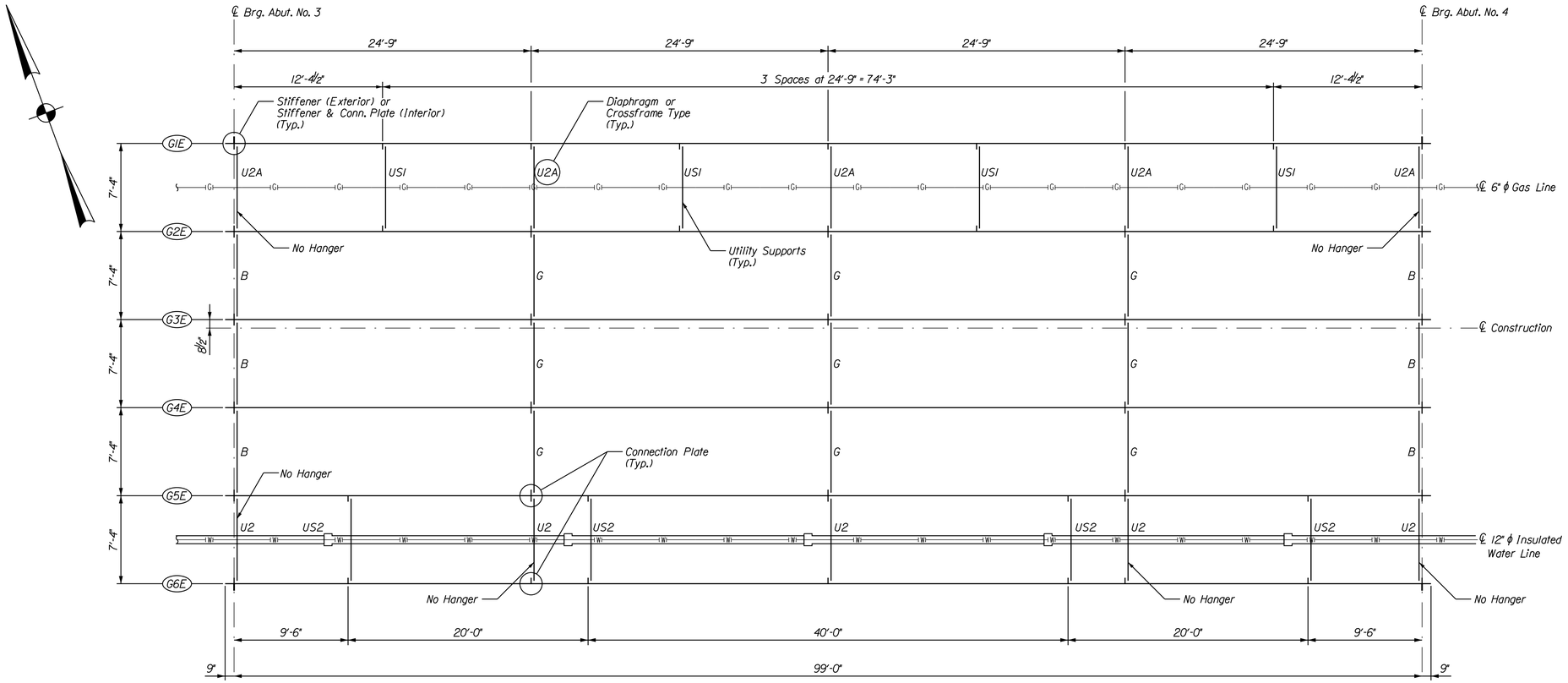
WEST SPAN FRAMING PLAN

SHEET NUMBER

45

OF 73

Username: STANTEC Date:10/12/2011 Division: 1953 Filename: ...\045_FRAMING_01.dgn



FRAMING PLAN - EAST SPAN
(DIMENSIONS ARE HORIZONTAL)

Notes:

1. Refer to sheet 47 for Crossframe Type U2A & U2 and Utility Support Type USI & US2.
2. Pipe hanger and saddles required at all utility supports (USI & US2) and utility crossframes (UI & UIA) unless noted as "No Hanger".

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	BY	DATE
TWM	JTS	5/23/2011
	DDT	9/12/2011
	JTS	9/12/2011

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	TWM
DESIGN-DETAILED	GAB
CHECKED-REVIEWED	TWM
DESIGN2-DETAILED2	DDT
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

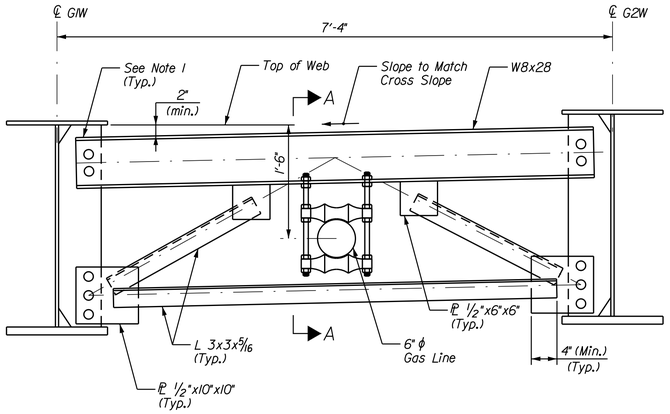
EAST SPAN FRAMING PLAN

SHEET NUMBER

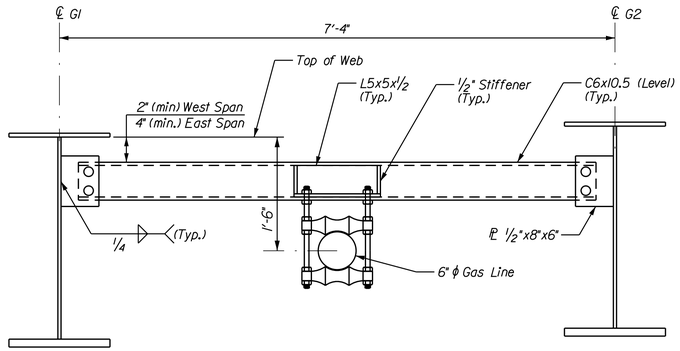
46

OF 73

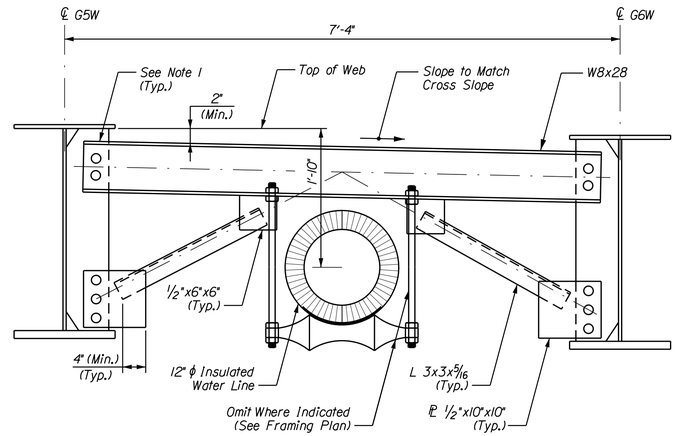
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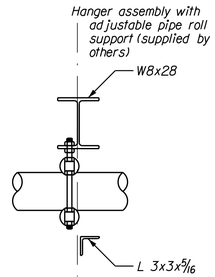
CROSSFRAME TYPE "U1A"
(SEE STANDARD DETAIL SECTION 504 FOR INFORMATION NOT SHOWN)



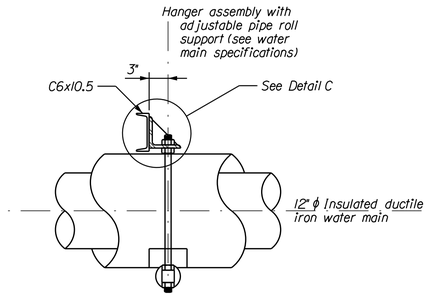
UTILITY SUPPORT TYPE "US1"
(SEE STANDARD DETAIL SECTION 504 FOR INFORMATION NOT SHOWN)



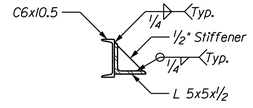
CROSS FRAME TYPE "U1"
(SEE STANDARD DETAIL SECTION 504 FOR INFORMATION NOT SHOWN)



SECTION A-A



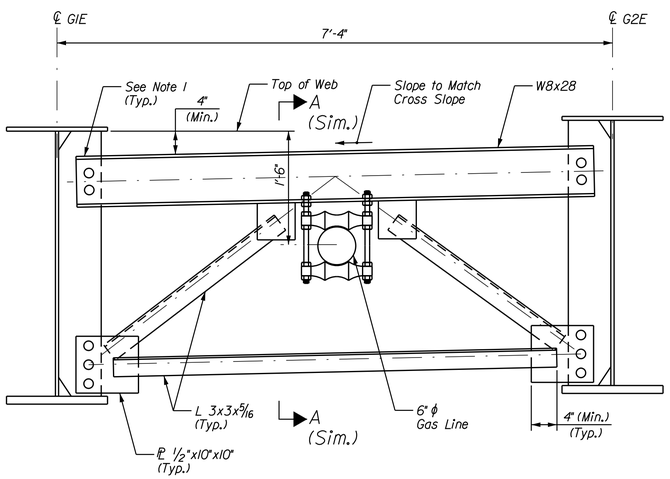
SECTION B-B



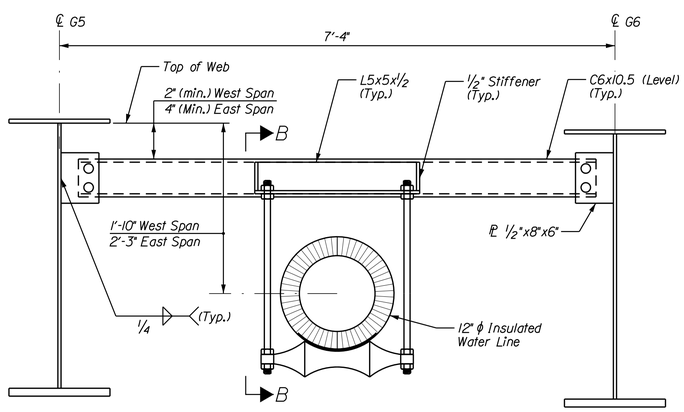
DETAIL C

Notes:

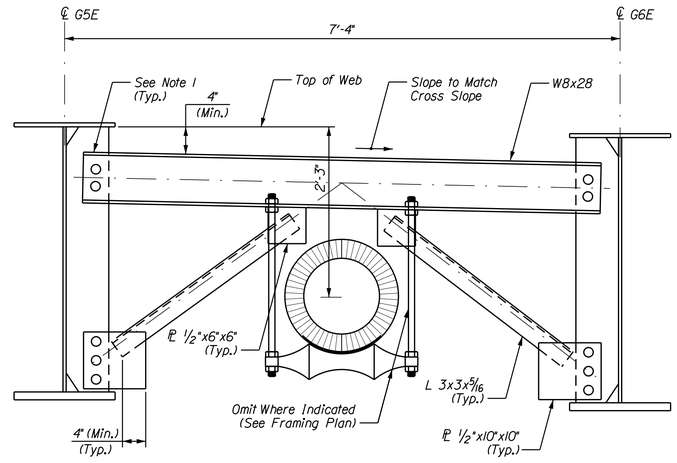
1. Cope top and bottom flange on far side (cut and chip only) (Typ.).
2. East Span details shown, West Span details similar.



CROSSFRAME TYPE "U2A"
(SEE STANDARD DETAIL SECTION 504 FOR INFORMATION NOT SHOWN)



UTILITY SUPPORT TYPE "US2"
(SEE STANDARD DETAIL SECTION 504 FOR INFORMATION NOT SHOWN)



CROSSFRAME TYPE "U2"
(SEE STANDARD DETAIL SECTION 504 FOR INFORMATION NOT SHOWN)

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	INIT.	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	GAB	JTS	5/23/2011
CHECKED-REVIEWED	TWM	TEK	9/12/2011
DESIGN2-DETAILED2	TEK	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

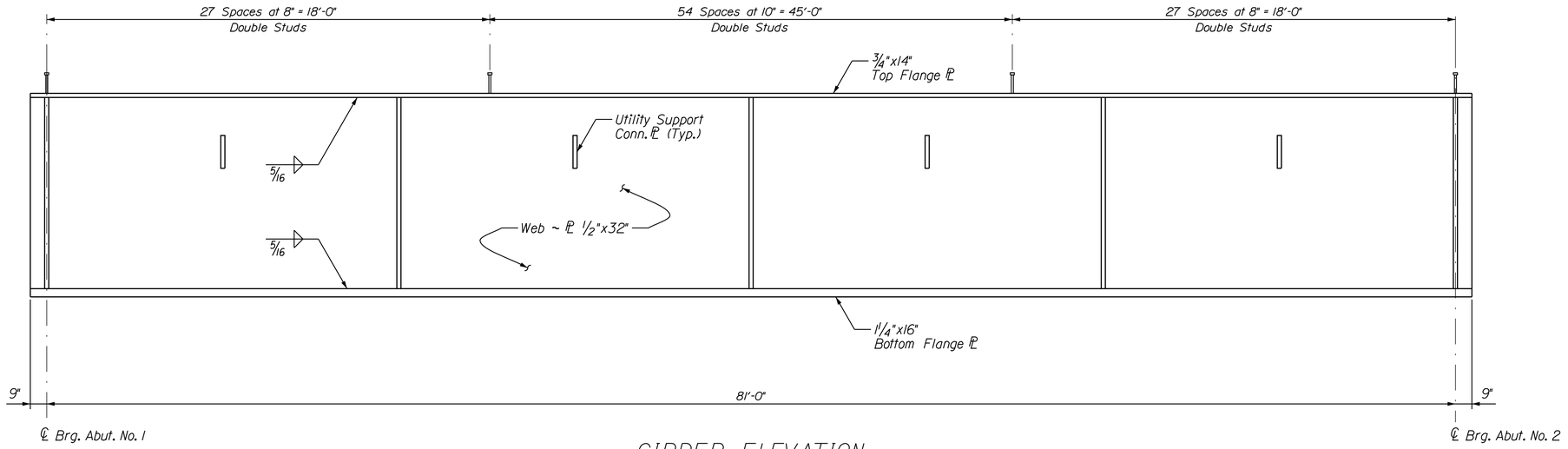
STRUCTURAL STEEL DETAILS

SHEET NUMBER

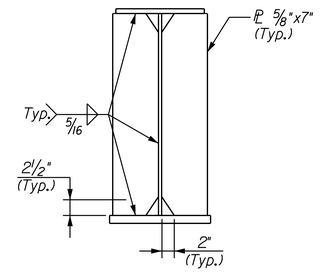
47

OF 73

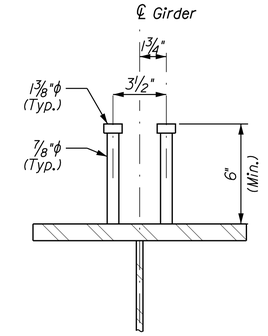
Username: STANTEC Date:10/10/2011
Division: 1953
Filename: ...\047_STRUCT_STEEL_DETS.dgn



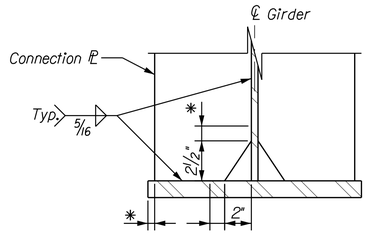
GIRDER ELEVATION



END CROSSFRAME
CONNECTION PLATE DETAIL

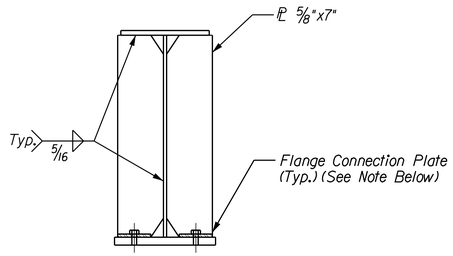


SHEAR CONNECTOR LAYOUT



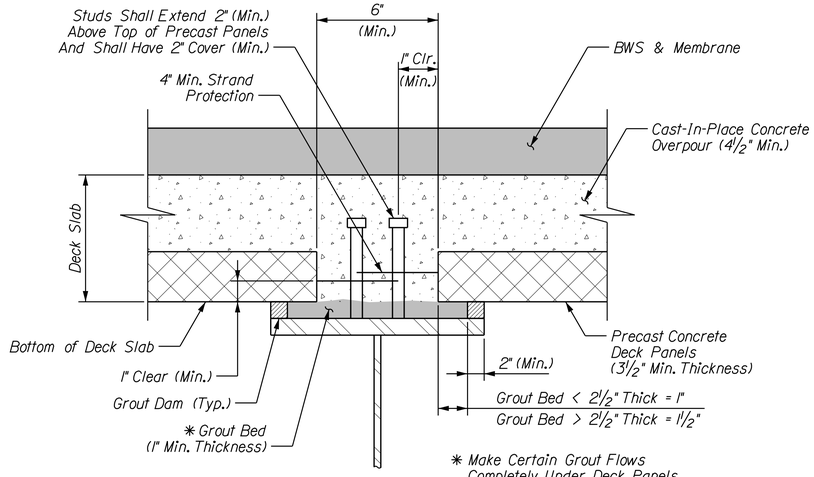
* No weld for 1/2" min., 11/16" max.

WELD TERMINATION
AND COPING DETAIL



Note: For tension flange connection detail for diaphragms and crossframes, see Standard Detail 504(21).

INTERMEDIATE CROSSFRAME
CONNECTION PLATE DETAIL



* Make Certain Grout Flows Completely Under Deck Panels to Ensure Proper Bearing

PRECAST PANEL HAUNCH DETAIL
(Use of Precast Panels is optional)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

PROJ. MANAGER	TWM	BY	
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

WEST SPAN GIRDER ELEVATION

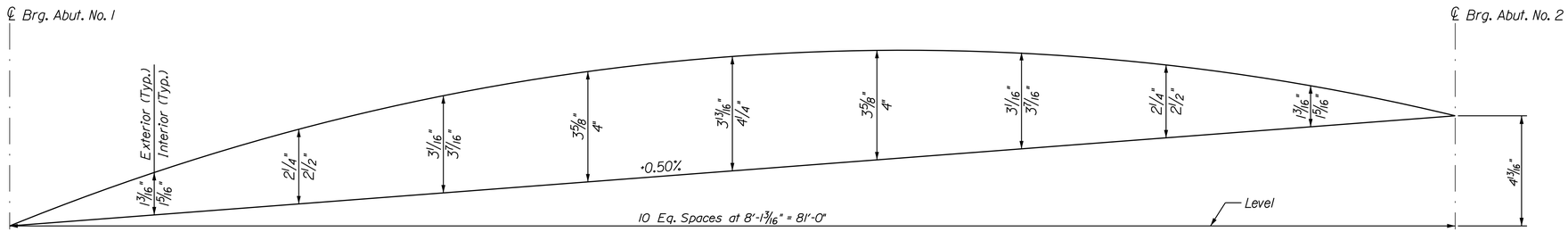
SHEET NUMBER

48

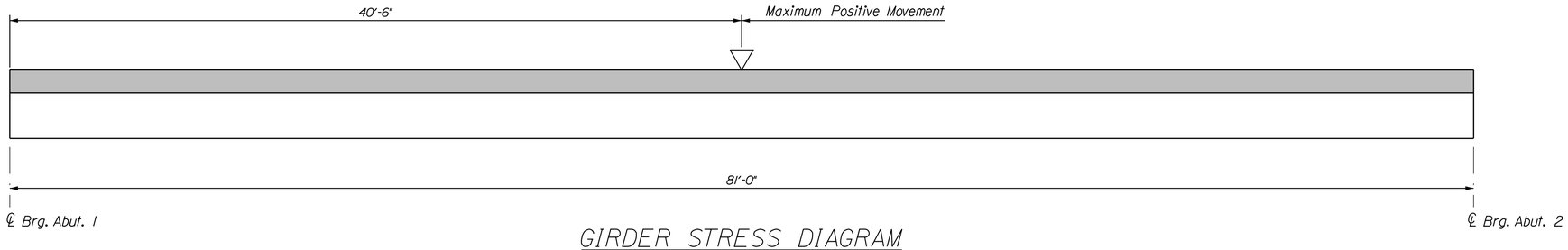
OF 73

Stantec

Filename: ...\048_WEST_GIRDER ELEV.dgn Username: STANTEC Division: 1953 Date:10/12/2011



CAMBER DIAGRAM



GIRDER STRESS DIAGRAM

(The shaded area is in compression
The remaining area is in tension)

TABLE OF DEFLECTIONS FOR EXTERIOR GIRDERS (Inches)

	℄ Brg. Abut. 1	8.1'	16.2'	24.3'	32.4'	40.5'	48.6'	56.7'	64.8'	72.9'	℄ Brg. Abut. 2
Steel DL	0	0.199	0.377	0.516	0.604	0.635	0.604	0.516	0.377	0.199	0
Non-Composite DL	0	0.720	1.363	1.865	2.185	2.294	2.185	1.865	1.363	0.720	0
Composite DL	0	0.268	0.507	0.694	0.813	0.854	0.813	0.694	0.507	0.268	0
Total DL	0	1.187	2.247	3.075	3.602	3.783	3.602	3.075	2.248	1.187	0

TABLE OF DEFLECTIONS FOR INTERIOR GIRDERS (Inches)

	℄ Brg. Abut. 1	8.1'	16.2'	24.3'	32.4'	40.5'	48.6'	56.7'	64.8'	72.9'	℄ Brg. Abut. 2
Steel DL	0	0.199	0.377	0.516	0.604	0.635	0.604	0.516	0.377	0.199	0
Non-Composite DL	0	0.877	1.660	2.273	2.662	2.795	2.662	2.273	1.660	0.877	0
Composite DL	0	0.249	0.472	0.646	0.757	0.794	0.757	0.646	0.472	0.249	0
Total DL	0	1.325	2.509	3.435	4.023	4.224	4.023	3.435	2.509	1.325	0

BOTTOM OF SLAB ELEVATIONS

	℄ Brg. Abut. 1	8.1'	16.2'	24.3'	32.4'	40.5'	48.6'	56.7'	64.8'	72.9'	℄ Brg. Abut. 2
Girder 1	52.38	52.50	52.61	52.71	52.79	52.84	52.87	52.87	52.85	52.82	52.78
Girder 2	52.52	52.66	52.78	52.89	52.97	53.02	53.05	53.05	53.02	52.98	52.93
Girder 3	52.67	52.80	52.93	53.03	53.11	53.17	53.20	53.19	53.17	53.13	53.07
Girder 4	52.55	52.68	52.81	52.91	53.00	53.05	53.08	53.08	53.05	53.01	52.95
Girder 5	52.40	52.54	52.66	52.77	52.85	52.90	52.93	52.93	52.90	52.86	52.81
Girder 6	52.26	52.38	52.49	52.59	52.67	52.72	52.75	52.75	52.74	52.70	52.66

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	INITIALS	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

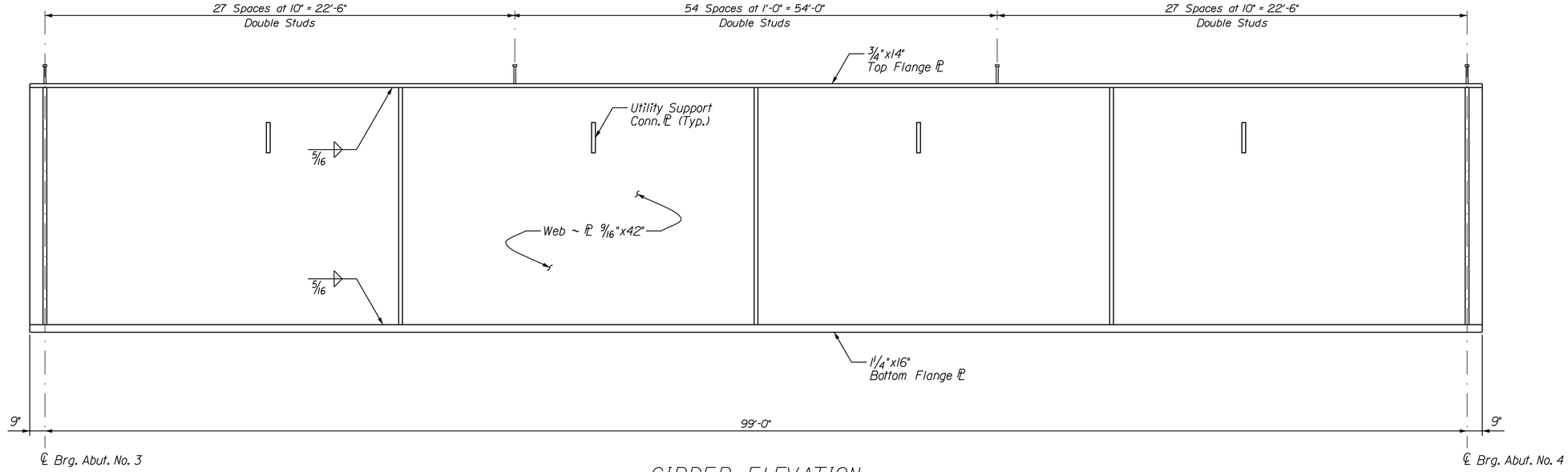
WEST CAMBER & BLOCKING

SHEET NUMBER

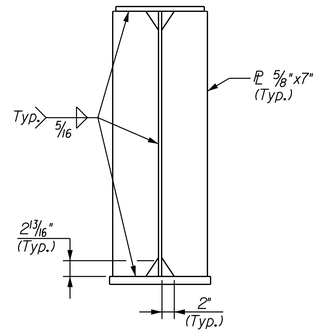
49

OF 73

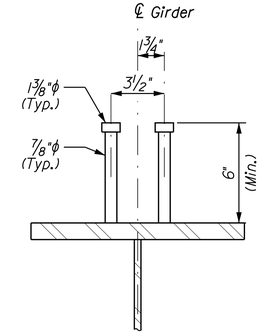
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Division: 1953
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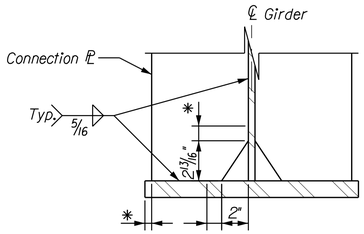
GIRDER ELEVATION



END CROSSFRAME CONNECTION PLATE DETAIL

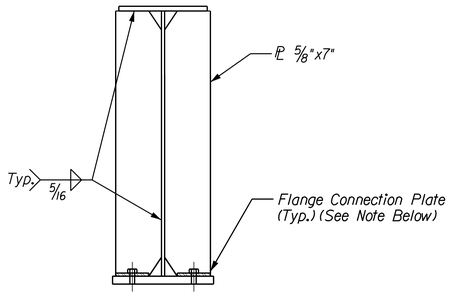


SHEAR CONNECTOR LAYOUT



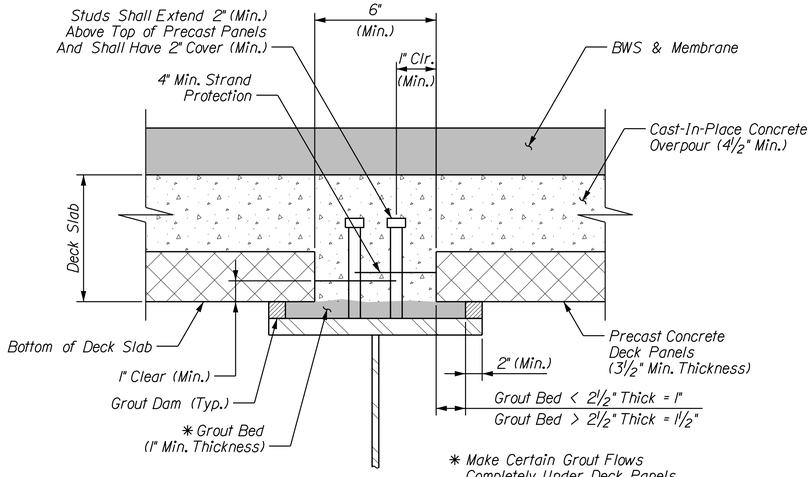
* No weld for 1/2" min., 11/16" max.

WELD TERMINATION AND COPING DETAIL



Note: For tension flange connection detail for diaphragms and crossframes, see Standard Detail 504(21).

INTERMEDIATE CROSSFRAME CONNECTION PLATE DETAIL



PRECAST PANEL HAUNCH DETAIL

(Use of Precast Panels is optional)

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

PROJ. MANAGER	THM	BY	DATE
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	THM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

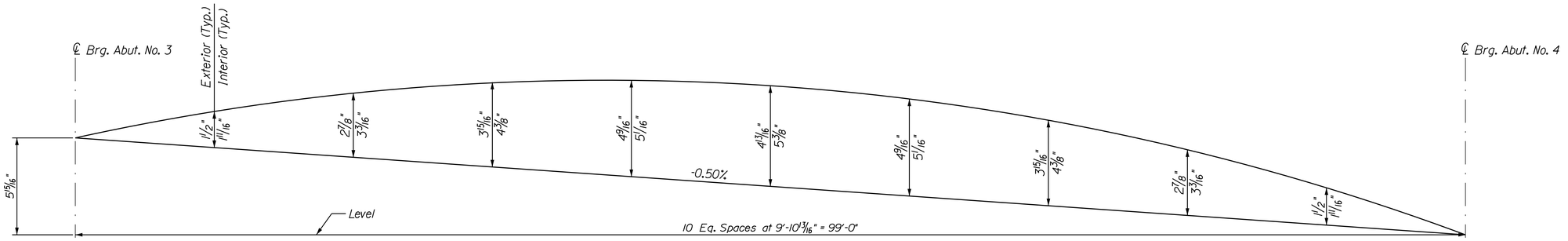
EAST SPAN GIRDER ELEVATION

SHEET NUMBER

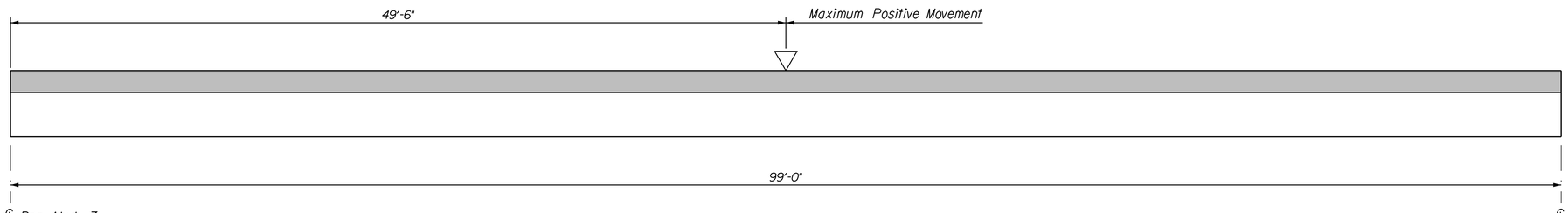
50

OF 73

Filename: ...\050_EAST_GIRDER ELEV.dgn Division: 1953 Username: STANTEC Date:10/12/2011



CAMBER DIAGRAM



GIRDER STRESS DIAGRAM

(The shaded area is in compression
The remaining area is in tension)

TABLE OF DEFLECTIONS FOR EXTERIOR GIRDERS (Inches)

	℄ Brg. Abut. 3	+9.9'	+19.8'	+29.7'	+39.6'	+49.5'	+59.4'	+69.3'	+79.2'	+89.1'	℄ Brg. Abut. 4
Steel DL	0	0.282	0.533	0.730	0.855	0.897	0.855	0.730	0.533	0.282	0
Non-Composite DL	0	0.875	1.655	2.265	2.653	2.786	2.653	2.265	1.655	0.875	0
Composite DL	0	0.356	0.673	0.922	1.079	1.133	1.079	0.922	0.673	0.356	0
Total DL	0	1.513	2.861	3.917	4.587	4.816	4.587	3.917	2.861	1.513	0

TABLE OF DEFLECTIONS FOR INTERIOR GIRDERS (Inches)

	℄ Brg. Abut. 3	+9.9'	+19.8'	+29.7'	+39.6'	+49.5'	+59.4'	+69.3'	+79.2'	+89.1'	℄ Brg. Abut. 4
Steel DL	0	0.282	0.533	0.730	0.855	0.897	0.855	0.730	0.533	0.282	0
Non-Composite DL	0	1.066	2.016	2.760	3.232	3.394	3.232	2.760	2.016	1.066	0
Composite DL	0	0.332	0.628	0.859	1.006	1.057	1.006	0.859	0.628	0.332	0
Total DL	0	1.680	3.177	4.349	5.093	5.348	5.093	4.349	3.177	1.680	0

BOTTOM OF SLAB ELEVATIONS

	℄ Brg. Abut. 3	+9.9'	+19.8'	+29.7'	+39.6'	+49.5'	+59.4'	+69.3'	+79.2'	+89.1'	℄ Brg. Abut. 4
Girder 1	53.21	53.26	53.30	53.33	53.32	53.29	53.22	53.13	53.01	52.87	52.71
Girder 2	53.36	53.42	53.48	53.51	53.51	53.48	53.41	53.31	53.18	53.03	52.86
Girder 3	53.50	53.57	53.62	53.66	53.66	53.63	53.56	53.46	53.33	53.17	53.01
Girder 4	53.38	53.45	53.51	53.54	53.54	53.51	53.44	53.34	53.21	53.06	52.89
Girder 5	53.24	53.31	53.36	53.39	53.39	53.36	53.29	53.19	53.06	52.91	52.74
Girder 6	53.09	53.14	53.19	53.21	53.20	53.17	53.11	53.01	52.89	52.75	52.60

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STATE OF MAINE
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BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

TWM	BY	DATE
	TEK	5/23/2011
	TWM	9/12/2011
	DDT	9/12/2011
	JTS	

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	TEK
DESIGN-DETAILED	TWM
CHECKED-REVIEWED	DDT
DESIGN2-DETAILED2	JTS
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

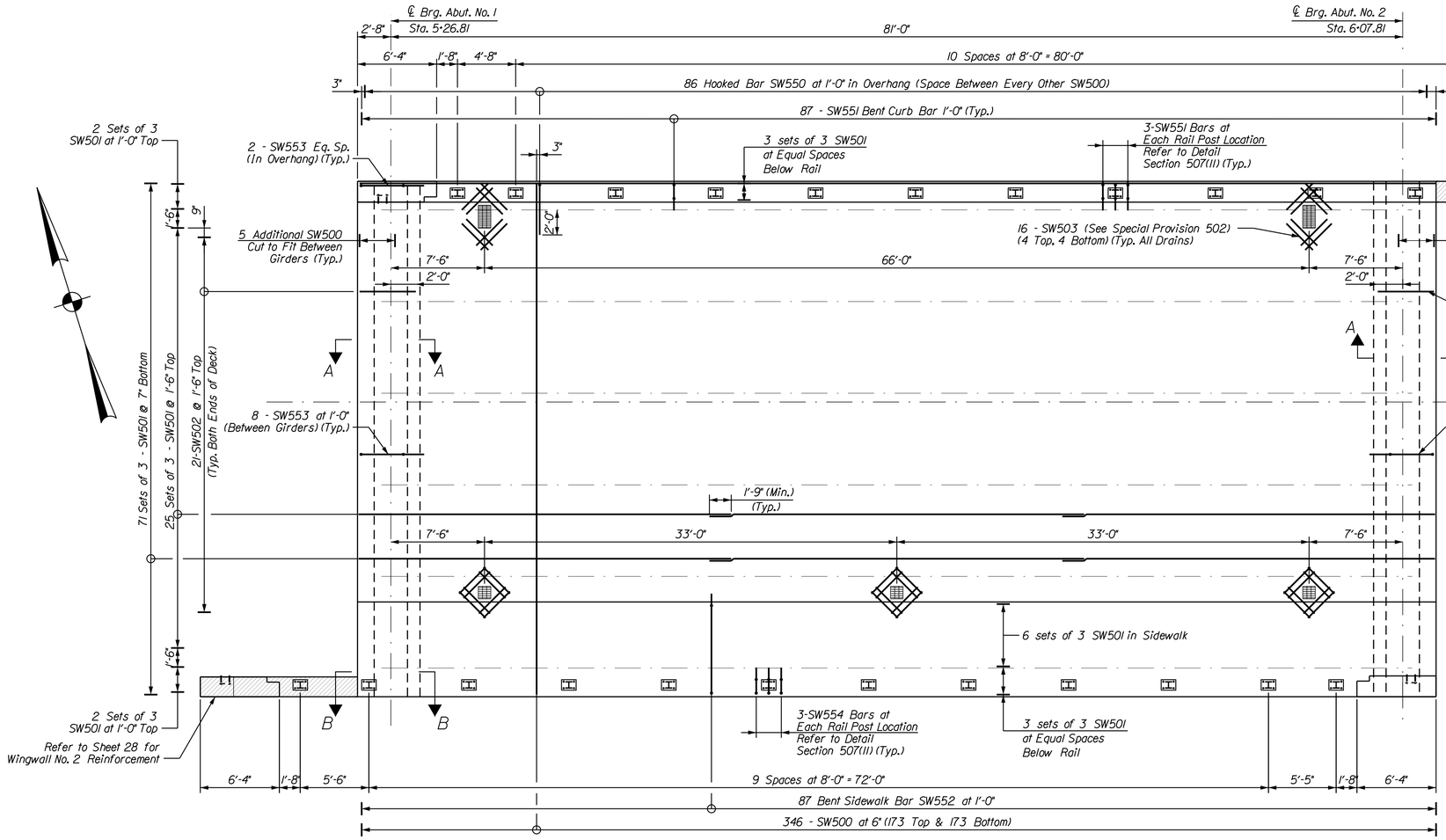
EAST CAMBER & BLOCKING

SHEET NUMBER

51

OF 73

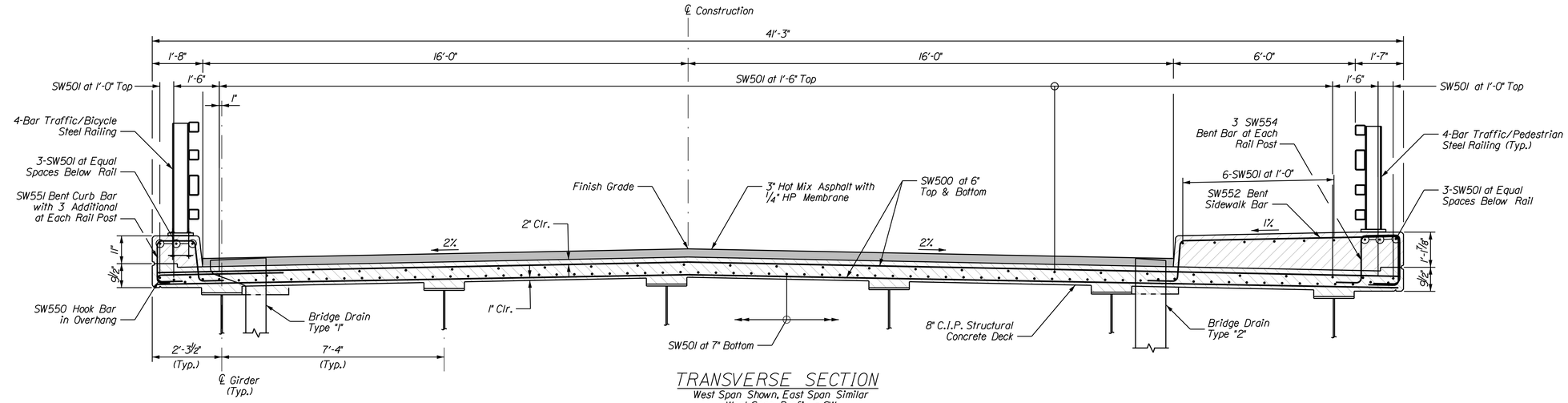
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SUPERSTRUCTURE PLAN - WEST SPAN

SUPERSTRUCTURE NOTES

1. For Section A-A and B-B, refer to sheet 53.
2. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.
3. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
4. The superstructure slab concrete for each span shall be placed continuously and shall be kept plastic until the entire placement has been made.
5. At the Contractor's option, Precast Deck Panels may be used in place of the full depth cast-in-place slab in accordance with Special Provision 502, Structural Concrete - Precast Deck Panels, and in accordance with the Standard Details.
6. Payment for the reinforcing steel fabricated, delivered, and placed in the cast-in-place portion of the structural concrete slab, sidewalk and curb will be considered incidental to the appropriate Section 502 pay item.
7. The theoretical blocking used for design of the structure is 3¼ inches at the centerline of bearings of the abutments. Refer to Standard Detail 502(02) for blocking details.
8. The Contractor shall install Transition Barrier vertical closed stirrups, as shown in Standard Details Section 526, prior to the placement of the curb or sidewalk concrete.
9. Provide 3 additional stirrups in the curbs at each Transition Barrier location.
10. Reinforcing steel in the curbs, sidewalks, and transition barriers shall incorporate a corrosion resistant reinforcing system conforming to the requirements of Special Provision 503.



TRANSVERSE SECTION

West Span Shown, East Span Similar
West Span Prefix = SW
East Span Prefix = SE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE PLANS

BRIDGE NO. 1519 & NO.5490

PROJ. MANAGER	TWM
DESIGN-DETAILED	TEK
CHECKED-REVIEWED	TWM
DESIGN2-DETAILED2	DDT
DESIGN3-DETAILED3	

NO.	DESCRIPTION	BY	DATE
1	REVISIONS 1	JTS	5/23/2011
2	REVISIONS 2	DDT	9/12/2011
3	REVISIONS 3	JTS	9/12/2011
4	REVISIONS 4		
	FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

SUPERSTRUCTURE PLAN 1

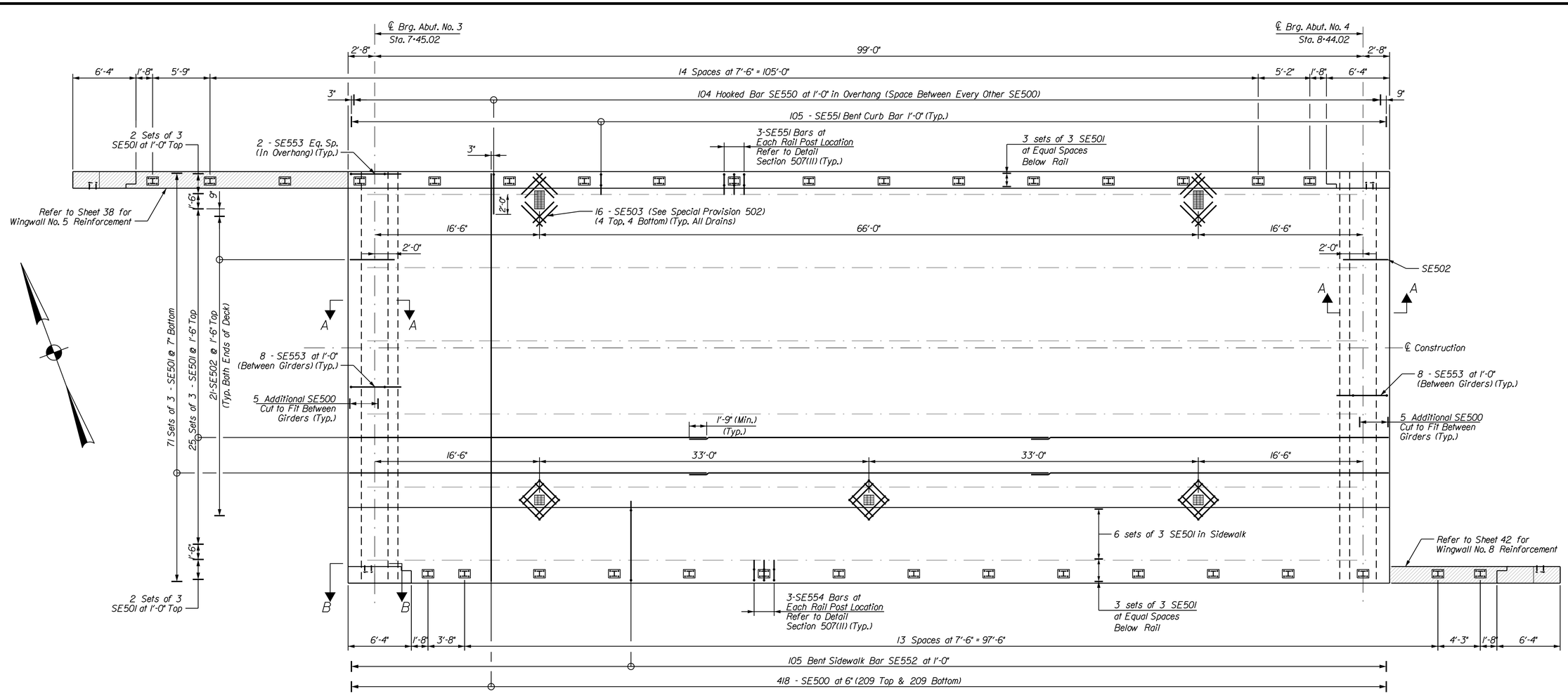
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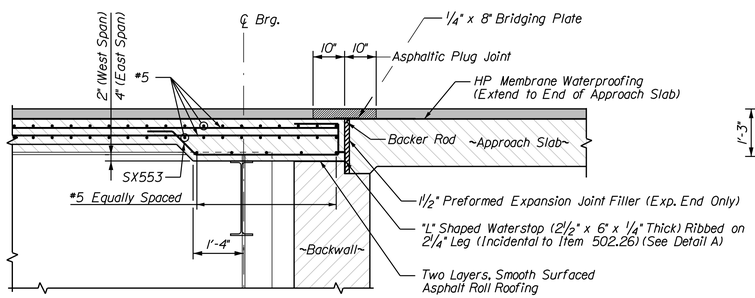
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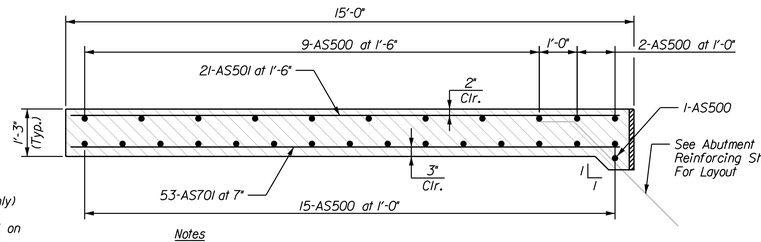


SUPERSTRUCTURE PLAN - EAST SPAN



SECTION A-A

Note: X = W for West Span
X = E for East Span

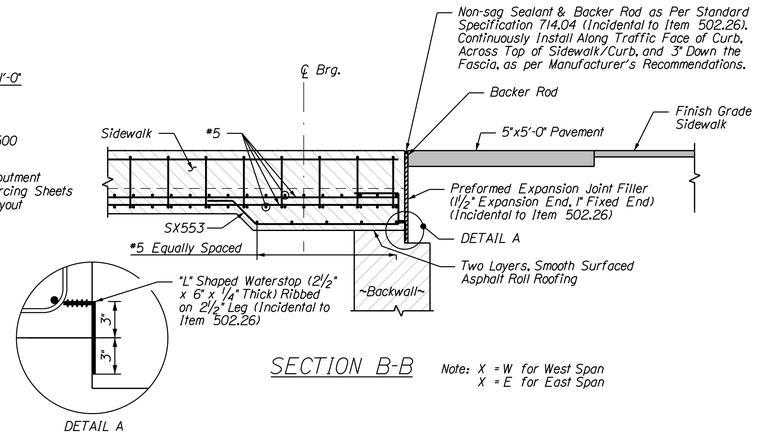


Notes

1. The 6"ϕ Gas Line shall be placed in a 10"ϕ steel sleeve under the approach slab. See Section 625 for further details.

2. Approach slab is 31 feet wide.

TYPICAL APPROACH SLAB SECTION



SECTION B-B

Note: X = W for West Span
X = E for East Span

PROJ. MANAGER	TWM
DESIGN-DETAILED	TEK
CHECKED-REVIEWED	TWM
DESIGN2-DETAILED2	DDT
DESIGN3-DETAILED3	

	BY	DATE
REVISIONS 1	JTS	5/23/2011
REVISIONS 2	DDT	9/12/2011
REVISIONS 3	JTS	9/12/2011
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE PLANS

BRIDGE NO. 1519 & NO.5490

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

SUPERSTRUCTURE PLAN 2

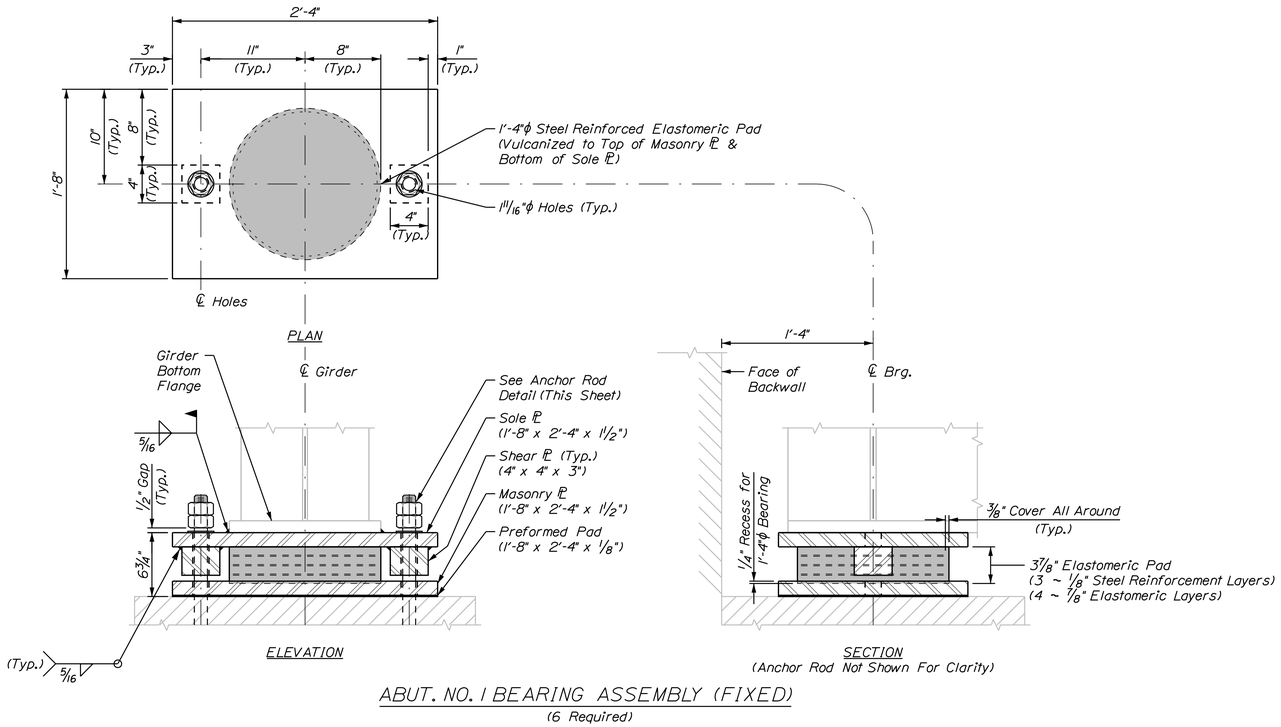
SHEET NUMBER

53

OF 73

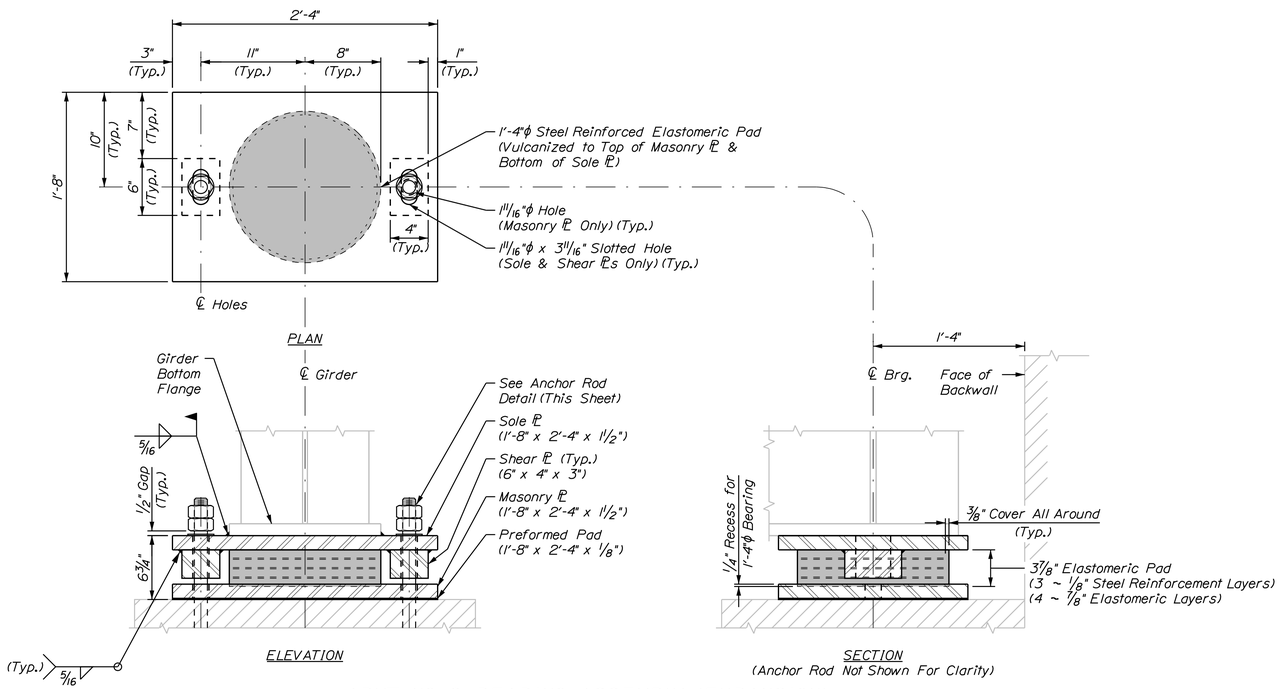
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ABUT. NO. 1 BEARING ASSEMBLY (FIXED)

(6 Required)



ABUT. NO. 2 BEARING ASSEMBLY (EXPANSION)

(6 Required)

ELASTOMERIC BEARING NOTES

1. The elastomer shall have a nominal hardness of 60 durometer on the Hardness (Shore A) scale (shear modulus 130 to 200 psi).

2. Vulcanizing of the elastomer to the steel plates shall be done during the primary mold process.

3. Masonry plates, sole plates and shear pins shall meet the requirements of ASTM A 709/A 709M, Grade 50 or 50W. Anchor rods shall meet the requirements of ASTM F 1554, Grade 55 and shall be swedged on the embedded portion of the rod.

4. Masonry plates shall be galvanized in accordance with Section 506. Sole plates for steel superstructures shall be treated in the same manner as the structural steel. Anchor rods, washers, nuts and shear pins shall be galvanized to ASTM A 153 or ASTM B 695, Class 50, Type I.

5. All bearings shall be marked prior to shipping. The marks shall include the bearing location on the bridge and a direction arrow that points upstation. All marks shall be permanent and shall be visible after the bearing is installed.

6. Bearings shall be covered during transit.

7. The bearings are designed so that the superstructure may be erected when the ambient air temperature is within the range of 65 °F and 90 °F. If the ambient air temperature is outside this range, the bearings shall be reset as directed by the Resident.

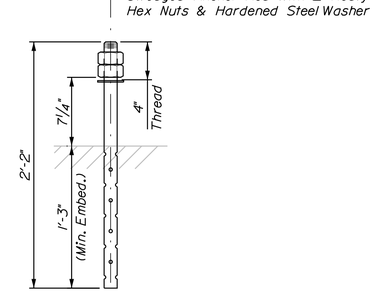
8. All necessary precautions shall be taken to protect bearing components from field weld flash and spatter. Heat from welding operations shall be controlled such that steel adjacent to the elastomer does not exceed 200 °F. The temperature shall be verified by the use of temperature indicating crayons or other suitable means.

9. Upset the threads on the anchor rods after assembly of the bearing.

10. Shop testing of bearings shall be per MaineDOT Standard Specification 523.

SERVICE I DESIGN LOADS - DESIGN METHOD A

LOCATION	ABUT. 1 & 2	ABUT. 3 & 4
NON-COMPOSITE DEAD LOAD	38 KIPS	48 KIPS
SUPERIMPOSED DEAD LOAD	20 KIPS	25 KIPS
MAX. LIVE LOAD	69 KIPS	74 KIPS
LL CONCURRENT W/MAX ROTATION	52 KIPS	55 KIPS
DESIGN ROTATION	0.018 RAD.	0.016 RAD.
THERMAL EXPANSION (ΔT = 125 °F)	0.79 IN	0.97 IN
LONG-TERM COMPRESSIVE DEFLECTION	0.12 IN	0.10 IN



ANCHOR ROD DETAIL

(24 Required)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	BY	DATE	SIGNATURE
DESIGNED	DOT	9/12/2011	
DETAILED	DOT	9/12/2011	
CHECKED	TWM		
REVIEWED	TWM		

P.E. NUMBER

DATE

PROJ. MANAGER	TWM
DESIGN-DETAILED	DOT
CHECKED-REVIEWED	TWM
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

WEST BEARING DETAILS

SHEET NUMBER

54

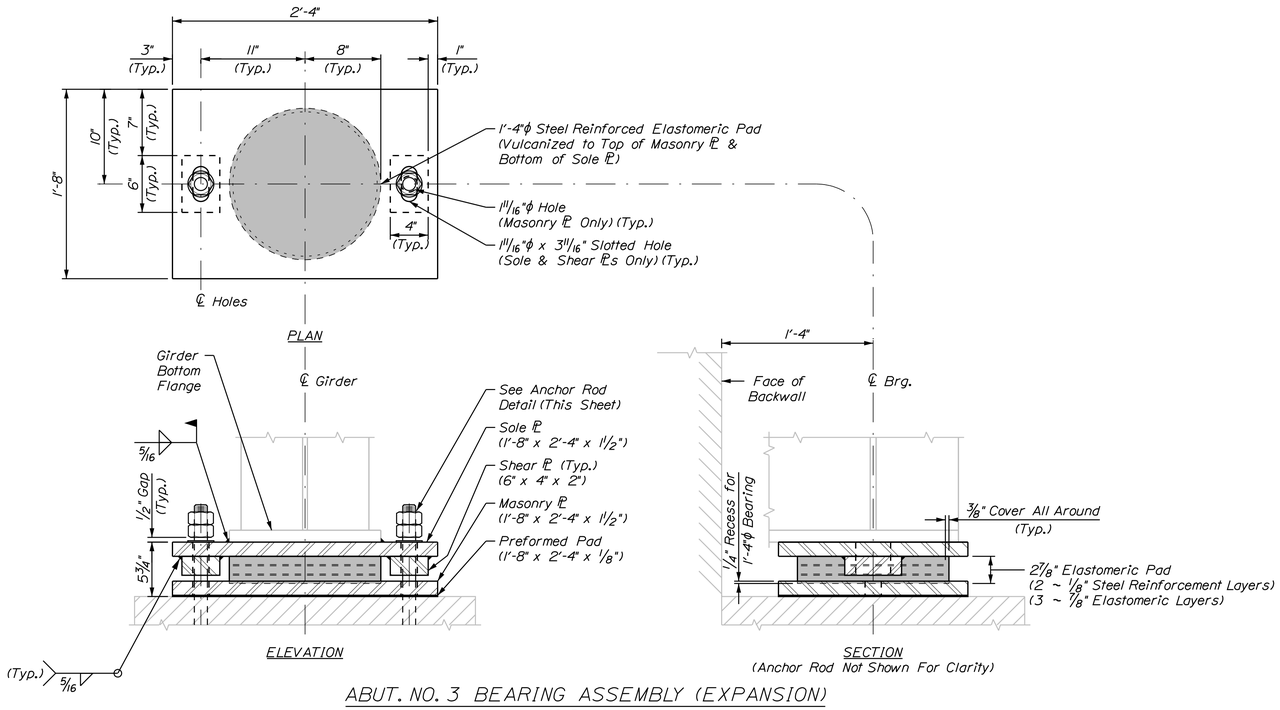
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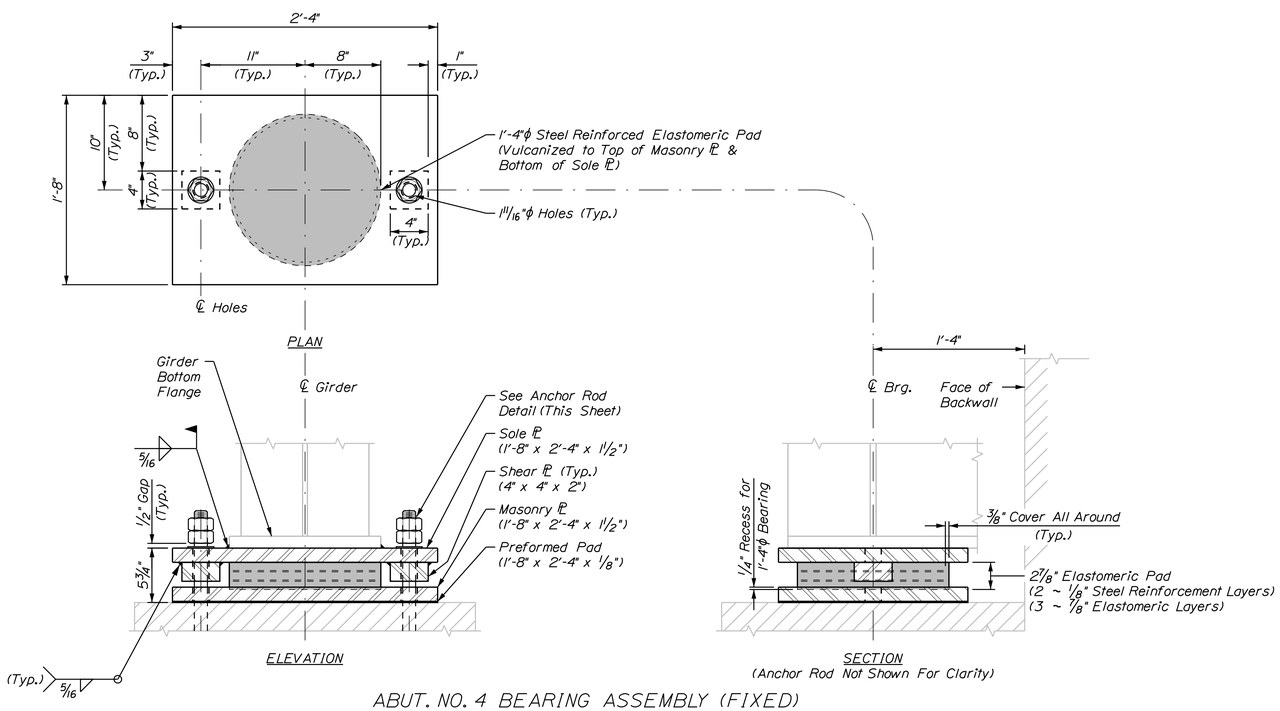
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Note: See Sheet 54 for Bearing Notes & Load Tables.



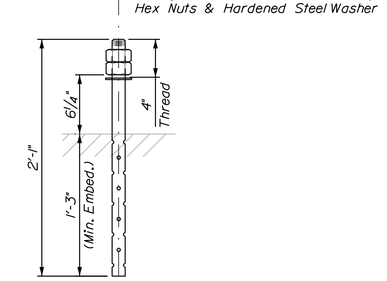
ABUT. NO. 3 BEARING ASSEMBLY (EXPANSION)

(6 Required)



ABUT. NO. 4 BEARING ASSEMBLY (FIXED)

(6 Required)



ANCHOR ROD DETAIL

(24 Required)

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	BY	DATE	SIGNATURE
TWM			
DESIGN-DETAILED	DOT	9/12/2011	
CHECKED-REVIEWED	DOT	9/12/2011	
DESIGN2-DETAILED2			P.E. NUMBER
DESIGN3-DETAILED3			
REVISIONS 1			DATE
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
PROJ. MANAGER			

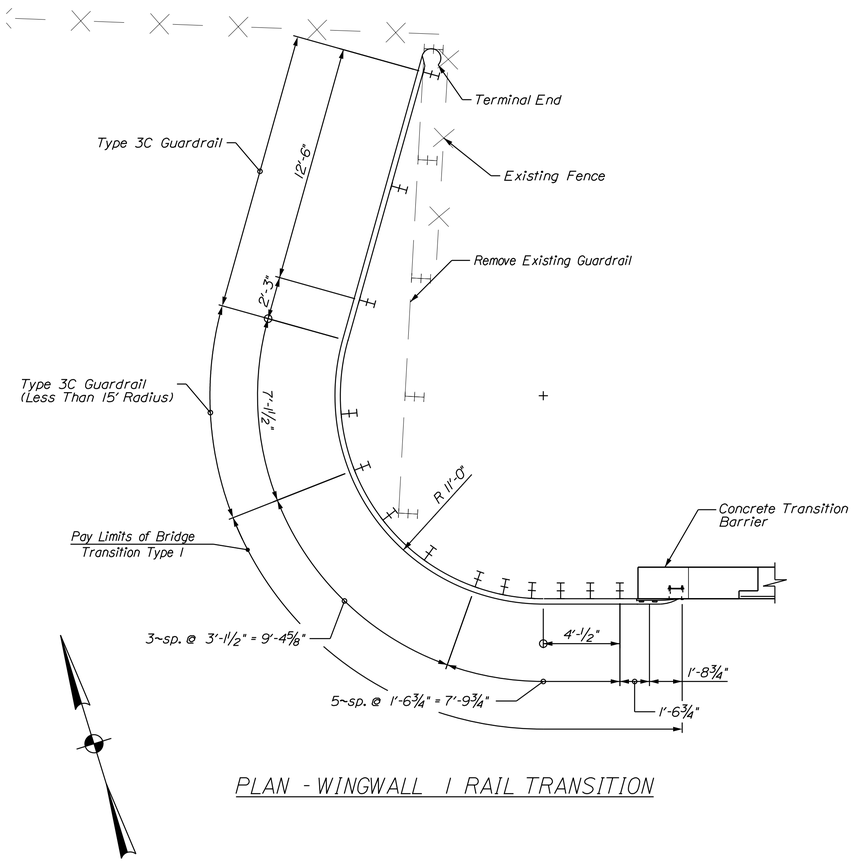
CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

EAST BEARING DETAILS

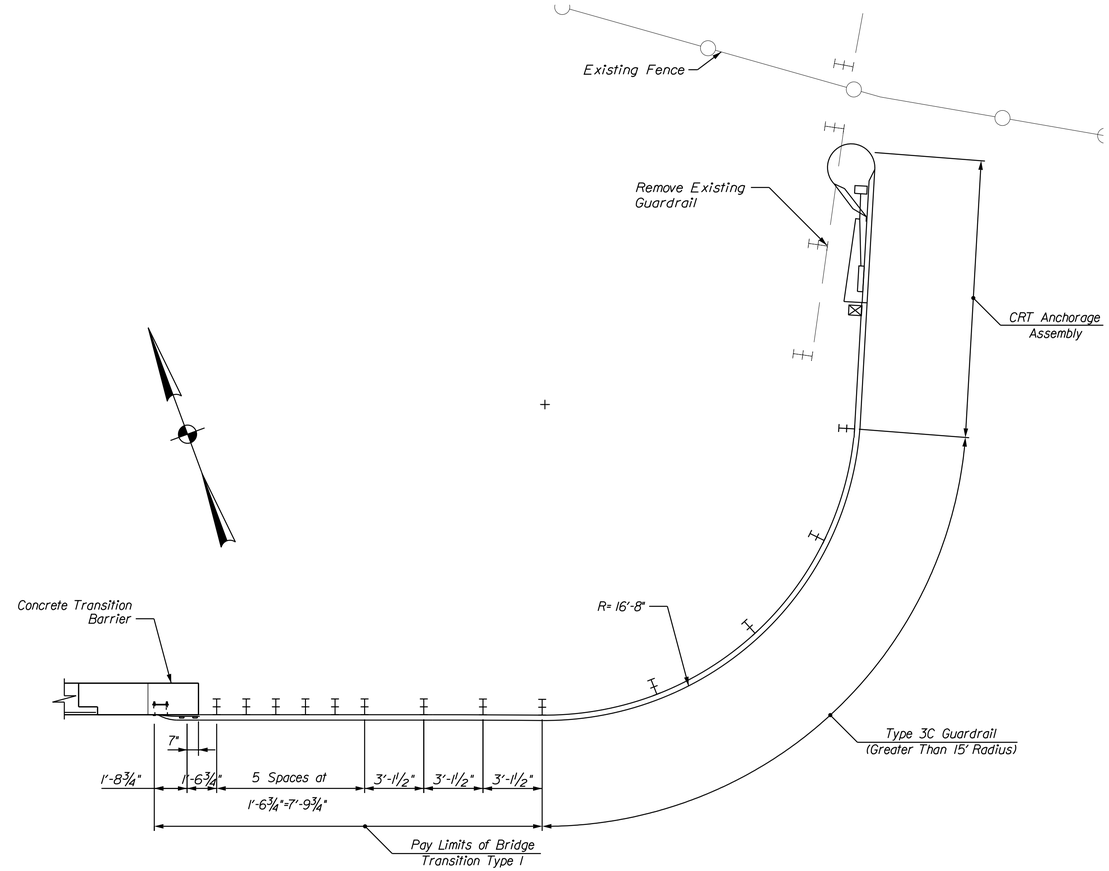
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OF 73



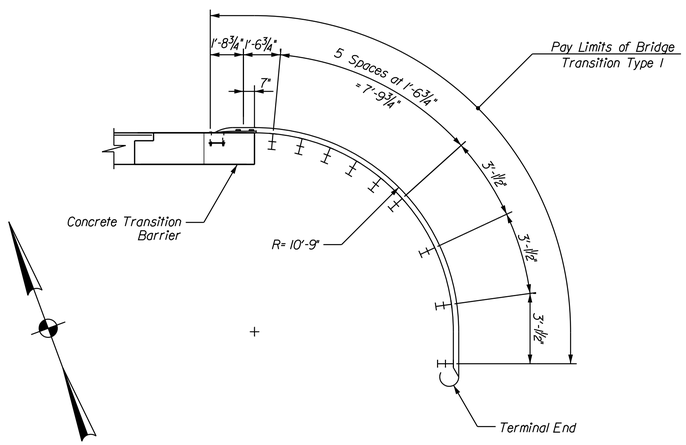
PLAN - WINGWALL 1 RAIL TRANSITION



PLAN - WINGWALL 7 RAIL TRANSITION

RAIL TRANSITION NOTES

1. For rail elevation, see Standard Detail Plate 606(25).
2. Rail Transitions shall be parallel with the roadway, unless shown otherwise on this sheet, or the General Plans.



PLAN - WINGWALL 8 RAIL TRANSITION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	TWM	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	TEK	JTS	5/23/2011
CHECKED-REVIEWED	TWM	DDT	9/12/2011
DESIGN2-DETAILED2	DDT	JTS	9/12/2011
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

RAIL TRANSITIONS & DETAILS

SHEET NUMBER

56

OF 73

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Filename: ...\056_RAIL_TRANS_DETS.dgn Division: 1953 Username: STANTEC Date:10/10/2011

STRAIGHT BARS

MARK	QTY.	LENGTH	LOCATION
Abutment No. 1			
A400	36	2'-6"	Weepers
A500	86	3'-6"	Seal Dowel
A501	10	11'-3"	Horizontal - Footing
A502	62	9'-0"	Horizontal - Footing
A503	20	37'-6"	Horizontal - Footing
A504	20	12'-9"	Horizontal - Footing
A505	20	18'-2"	Horizontal - Abutment
A506	8	23'-11"	Horizontal - Abutment
A507	4	25'-5"	Horizontal - Abutment
A508	8	26'-5"	Horizontal - Abutment
A509	43	5'-3"	Vertical - Abutment
A510	4	2'-9"	Vertical - Abutment
A512	8	9'-4"	Vertical - Wingwall 1
A513	4	3'-4"	Vertical - Wingwall 1
A514	8	8'-9"	Vertical - Wingwall 1
A517	2	4'-11"	Vertical - Flying Wing 1
A518	2	5'-7"	Vertical - Flying Wing 1
A519	2	6'-3"	Vertical - Flying Wing 1
A520	2	6'-11"	Vertical - Flying Wing 1
A521	2	7'-7"	Vertical - Flying Wing 1
A522	2	8'-3"	Vertical - Flying Wing 1
A523	2	8'-10"	Vertical - Flying Wing 1
A524	10	11'-6"	Horizontal - Wingwall 1
A525	10	8'-5"	Horizontal - Wingwall 1
A527	21	9'-0"	Horizontal - Flying Wing 1
A528	6	10'-6"	Vertical - Wingwall 2
A529	2	9'-0"	Vertical - Wingwall 2
A530	3	5'-9"	Vertical - Wingwall 2
A531	6	7'-11"	Vertical - Wingwall 2
A532	6	4'-2"	Vertical - Wingwall 2
A533	2	4'-11"	Vertical - Flying Wing 2
A534	2	5'-5"	Vertical - Flying Wing 2
A535	2	5'-11"	Vertical - Flying Wing 2
A536	2	6'-5"	Vertical - Flying Wing 2
A537	2	6'-11"	Vertical - Flying Wing 2
A538	2	7'-5"	Vertical - Flying Wing 2
A539	2	7'-11"	Vertical - Flying Wing 2
A542	10	9'-11"	Horizontal - Wingwall 2
A543	4	7'-3"	Horizontal - Wingwall 2
A544	5	5'-11"	Horizontal - Wingwall 2
A548	22	9'-0"	Horizontal - Flying Wing 2
A700	10	11'-3"	Horizontal - Top Footing
A701	62	9'-0"	Horizontal - Top Footing
A702	6	8'-3"	Vertical - Wingwall
Approach Slabs			
AS500	54	30'-6"	Transverse - Top & Bot.
AS501	42	14'-6"	Longitudinal - Top
AS701	106	14'-6"	Longitudinal - Bottom
Deck			
SW500	356	40'-11"	Transverse - Top & Bot.
SW501	336	29'-10"	Longitudinal - Top & Bot.
SW502	42	4'-6"	Deck Ends
SW503	80	3'-0"	Deck Drains
Note: Deck, curb, & sidewalk reinforcing bars are not included in 503 items. See Note 6 on Sheet 52.			
MARK	QTY.	LENGTH	LOCATION

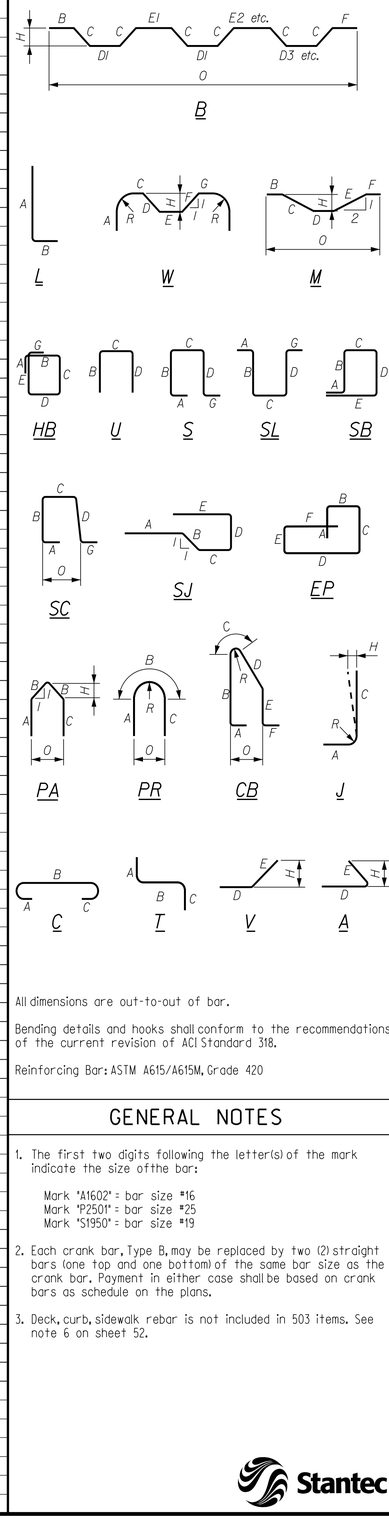
MARK	QTY.	LENGTH	LOCATION
Abutment No. 2			
A400	36	2'-6"	Weepers
B500	105	3'-6"	Seal Dowel
B501	10	18'-3"	Horizontal - Footing
B502	85	9'-0"	Horizontal - Footing
B503	20	42'-6"	Horizontal - Footing
B504	10	17'-2"	Horizontal - Footing
B505	20	22'-5"	Horizontal - Abutment
B506	20	19'-3"	Horizontal - Abutment
B509	43	5'-8"	Vertical - Abutment
B510	2	2'-9"	Vertical - Abutment
B512	4	11'-6"	Vertical - Wingwall 4
B513	4	10'-8"	Vertical - Wingwall 4
B514	3	9'-10"	Vertical - Wingwall 4
B515	10	9'-0"	Vertical - Wingwall 4
B516	15	9'-7"	Vertical - Wingwall 4
B517	25	6'-11"	Vertical - Wingwall 4
B524	16	13'-8"	Horizontal - Wingwall 4
B525	18	11'-4"	Horizontal - Wingwall 4
B528	13	10'-10"	Vertical - Wingwall 3
B529	2	9'-7"	Vertical - Wingwall 3
B530	3	6'-2"	Vertical - Wingwall 3
B531	13	8'-4"	Vertical - Wingwall 3
B532	13	4'-6"	Vertical - Wingwall 3
B533	2	4'-11"	Vertical - Flying Wing 3
B534	2	5'-5"	Vertical - Flying Wing 3
B535	2	5'-11"	Vertical - Flying Wing 3
B536	2	6'-5"	Vertical - Flying Wing 3
B537	2	6'-11"	Vertical - Flying Wing 3
B538	2	7'-5"	Vertical - Flying Wing 3
B539	2	7'-11"	Vertical - Flying Wing 3
B542	10	16'-11"	Horizontal - Wingwall 3
B543	4	14'-3"	Horizontal - Wingwall 3
B544	5	12'-11"	Horizontal - Wingwall 3
B548	20	9'-0"	Horizontal - Flying Wing 3
B600	25	9'-0"	Horizontal - Top Footing
B601	19	17'-2"	Horizontal - Top Footing
B700	10	18'-3"	Horizontal - Top Footing
B701	63	9'-0"	Horizontal - Top Footing
B702	13	8'-3"	Vertical - Wingwall
Island Retaining Wall			
W400	36	2'-6"	Weepers
W500	81	3'-6"	Dowel
W501	30	10'-0"	Footing
W502	22	32'-0"	Footing
W503	30	9'-0"	Footing
W504	20	31'-9"	Footing
W505	30	12'-0"	Vertical - Wall
W506	59	8'-5"	Vertical - Wall
W507	30	9'-8"	Vertical - Wall
W508	59	7'-1"	Vertical - Wall
W509	18	29'-1"	Horizontal - Wall
W510	16	29'-1"	Horizontal - Wall
W600	59	9'-0"	Footing
W700	59	10'-0"	Footing
MARK	QTY.	LENGTH	LOCATION

BENT BARS

MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
Abutment No. 1														
A450	18	6'-8"	U		2'-0"	2'-8"	2'-0"							Pedestal
A451	24	6'-4"	U		2'-0"	2'-4"	2'-0"							Pedestal
A452	4	4'-10"	U		1'-9"	1'-4"	1'-9"							Backwall - Gasline
A453	4	6'-4"	U		2'-0"	2'-4"	2'-0"							Backwall - Waterline
A550	53	4'-7"	L	3'-9"	10"									Hook - Footing
A551	12	6'-7"	L	5'-9"	10"									Hook - Footing
A552	43	6'-6"	U		10"	4'-4"	1'-4"							Abutment
A553	42	7'-1"	U		1'-6"	1'-0"	4'-7"							Backwall
A554	4	9'-8"	U		3'-5"	1'-0"	5'-3"							Pilaster
A555	10	5'-0"	V				2'-6"	2'-6"			2'-2"			Corner
A556	2	4'-2"	V				2'-6"	1'-8"			1'-5 1/2"			Corner
A557	8	5'-4"	V				4'-6"	10"			5"			Corner
A558	8	5'-0"	L	2'-6"	2'-6"									Corner
A559	8	5'-0"	V				4'-2"	10"			7"			Corner
A560	21	4'-8"	V				3'-10"	10"			7"			Backwall-to-Approach Slab
A562	10	6'-6"	U		2'-8"	1'-2"	2'-8"							Top of Wing
A750	14	7'-11"	L	6'-9"	1'-2"									Hook - Footing
A751	49	5'-11"	L	4'-9"	1'-2"									Hook - Footing
A753	43	10'-5"	L	9'-3"	1'-2"									Abutment
Abutment No. 2														
B450	18	6'-8"	U		2'-0"	2'-8"	2'-0"							Pedestal
B451	24	6'-4"	U		2'-0"	2'-4"	2'-0"							Pedestal
B452	4	4'-10"	U		1'-9"	1'-4"	1'-9"							Backwall - Gasline
B453	4	6'-4"	U		2'-0"	2'-4"	2'-0"							Backwall - Waterline
B550	88	4'-7"	L	3'-9"	10"									Hook - Footing
B551	44	7'-7"	L	6'-9"	10"									Hook - Footing
B552	43	6'-6"	U		10"	4'-4"	1'-4"							Abutment
B553	42	7'-0"	U		1'-6"	1'-0"	4'-6"							Backwall
B554	2	9'-8"	U		3'-5"	1'-0"	5'-3"							Pilaster
B555	5	9'-2"	U		2'-6"	4'-2"	2'-6"							Corner
B556	6	2'-6"	U		9"	1'-0"	9"							Corner
B557	7	4'-6"	W	0"		0"	10"	3'-8"	10"	0"	7"		0"	Corner
B558	8	5'-0"	L	2'-6"	2'-6"									Corner
B559	8	5'-0"	V				4'-2"	10"			7"			Corner
B560	21	4'-8"	V				3'-10"	10"			7"			Backwall-to-Approach Slab
B562	20	6'-6"	U		2'-8"	1'-2"	2'-8"							Top of Wing
B750	13	7'-11"	L	6'-9"	1'-2"									Hook - Footing
B751	54	5'-11"	L	4'-9"	1'-2"									Hook - Footing
B753	41	10'-10"	L	9'-8"	1'-2"									Abutment
Island Retaining Wall														
W450	4	5'-3"	U		1'-9"	1'-9"	1'-9"							Drain Pipe - Wall
W550	60	4'-7"	L	3'-9"	10"									Hook - Footing
W551	59	7'-7"	L	6'-9"	10"									Hook - Footing
W552	20	5'-2"	T	10"	3'-6"	10"								Step - Footing
W650	59	8'-9"	L	7'-9"	1'-0"									Hook - Footing
Deck														
SW550	86	4'-9"	C	7"	4'-2"	0"								Overhang
SW551	123	5'-7"	SC	10"	1'-4"	1'-2"	1'-5"			10"		1'-4 1/2"		Curb
SW552	87	11'-10"	SC	10"	1'-7"	7'-2"	1'-5"			10"		7'-3 1/2"		Sidewalk
SW553	88	7'-0"	SJ	10"	10"	3'-9"	9"	10"						Deck End
SW554	36	6'-0"	SC	10"	1'-7"	1'-2"	1'-7"			10"		1'-4 1/2"		Sidewalk
Note: Deck, curb, & sidewalk reinforcing bars are not included in 503 items. See Note 6 on Sheet 52.														

STRAIGHT BARS								BENT BARS															
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
Abutment No. 3				**Abutment No. 4**				**Abutment No. 3**														
C400	60	2'-6"	Weepers	D400	42	2'-6"	Weepers	C450	18	6'-8"	U		2'-0"	2'-8"	2'-0"							Pedestal
								C451	24	6'-4"	U		2'-0"	2'-4"	2'-0"							Pedestal
C500	127	3'-6"	Seal Dowel	D500	113	3'-6"	Seal Dowel	C452	4	4'-10"	U		1'-9"	1'-4"	1'-9"							Backwall - Gasline
C501	11	26'-3"	Horizontal - Footing	D501	10	15'-9"	Horizontal - Footing	C453	4	6'-4"	U		2'-0"	2'-4"	2'-0"							Backwall - Waterline
C502	124	10'-0"	Horizontal - Footing	D502	82	9'-0"	Horizontal - Footing															
C503	22	38'-9"	Horizontal - Footing	D503	20	37'-0"	Horizontal - Footing	C550	100	4'-7"	L	3'-9"	10"									Hook - Footing
C504	20	33'-6"	Horizontal - Footing	D504	20	29'-4"	Horizontal - Footing															
C505	24	22'-7"	Horizontal - Abutment	D505	22	18'-1"	Horizontal - Abutment	C552	43	6'-6"	U		10"	4'-4"	1'-4"							Abutment
C506	24	19'-3"	Horizontal - Abutment	D506	8	23'-9"	Horizontal - Abutment	C553	42	7'-8"	U		1'-6"	1'-0"	5'-2"							Backwall
				D507	5	25'-8"	Horizontal - Abutment	C554	2	10'-7"	U		3'-7"	1'-0"	6'-0"							Pilaster
				D508	9	25'-6"	Horizontal - Abutment	C555	6	9'-2"	U		2'-6"	4'-2"	2'-6"							Corner
C509	43	7'-4"	Vertical - Abutment	D509	43	4'-10"	Vertical - Abutment	C556	6	2'-6"	U		9"	1'-0"	9"							Corner
C510	2	2'-9"	Vertical - Abutment	D510	4	2'-9"	Vertical - Abutment	C557	9	4'-6"	W	0"		0"	10"	3'-8"	10"	0"	7"		0"	Corner
								C558	10	5'-0"	L	2'-6"	2'-6"									Corner
C512	3	13'-11"	Vertical - Wingwall 6	D512	12	7'-6"	Vertical - Wingwall 7	C559	10	5'-0"	V				4'-2"	10"			7"			Corner
C513	3	13'-2"	Vertical - Wingwall 6	D513	12	9'-6"	Vertical - Wingwall 7	C560	21	4'-10"	V				4'-0"	10"			5"			Backwall-to-Approach Slab
C514	4	12'-5"	Vertical - Wingwall 6	D514	4	4'-6"	Vertical - Wingwall 7	C561	4	6'-6"	U		2'-6"	1'-6"	2'-6"							Pilaster - Wing 5
C515	9	8'-10"	Vertical - Wingwall 6	D515	12	6'-11"	Vertical - Wingwall 7	C562	31	6'-6"	U		2'-8"	1'-2"	2'-8"							Top of Wing
C516	31	11'-11"	Vertical - Wingwall 6	D516	12	8'-11"	Vertical - Wingwall 7															
C517	57	9'-4"	Vertical - Wingwall 6	D517	2	4'-11"	Vertical - Flying Wing 7	C650	74	8'-9"	L	7'-9"	1'-0"									Hook - Footing
				D518	2	5'-4"	Vertical - Flying Wing 7															
				D519	2	5'-9"	Vertical - Flying Wing 7	C750	22	7'-11"	L	6'-9"	1'-2"									Hook - Footing
				D520	2	6'-2"	Vertical - Flying Wing 7	C751	62	5'-11"	L	4'-9"	1'-2"									Hook - Footing
				D521	2	6'-7"	Vertical - Flying Wing 7															
				D522	2	6'-11"	Vertical - Flying Wing 7	C753	41	13'-2"	L	12'-0"	1'-2"									Abutment
				D523	2	7'-4"	Vertical - Flying Wing 7															
C524	18	29'-8"	Horizontal - Wingwall 6	D524	14	23'-4"	Horizontal - Wingwall 7	**Abutment No. 4**														
C525	22	9'-9"	Horizontal - Wingwall 6	D525	2	17'-2"	Horizontal - Wingwall 7	D450	18	6'-8"	U		2'-0"	2'-8"	2'-0"							Pedestal
				D526	2	8'-4"	Horizontal - Wingwall 7	D451	24	6'-4"	U		2'-0"	2'-4"	2'-0"							Pedestal
				D527	18	9'-0"	Horizontal - Flying Wing 7	D452	4	4'-10"	U		1'-9"	1'-4"	1'-9"							Backwall - Gasline
C528	22	13'-2"	Vertical - Wingwall 5	D528	10	10'-8"	Vertical - Wingwall 8	D453	4	6'-4"	U		2'-0"	2'-4"	2'-0"							Backwall - Waterline
C529	1	11'-9"	Vertical - Wingwall 5	D529	1	9'-2"	Vertical - Wingwall 8	D454	4	5'-3"	U		1'-9"	1'-9"	1'-9"							Drain Pipe - Wall
C530	3	7'-10"	Vertical - Wingwall 5	D530	3	5'-4"	Vertical - Wingwall 8	D550	58	4'-7"	L	3'-9"	10"									Hook - Footing
C531	22	10'-7"	Vertical - Wingwall 5	D531	11	8'-1"	Vertical - Wingwall 8	D551	29	6'-7"	L	5'-9"	10"									Hook - Footing
C532	21	6'-10"	Vertical - Wingwall 5	D532	10	4'-4"	Vertical - Wingwall 8	D552	43	6'-6"	U		10"	4'-4"	1'-4"							Abutment
C533	2	4'-11"	Vertical - Flying Wing 5	D533	2	4'-11"	Vertical - Flying Wing 8	D553	42	7'-8"	U		1'-6"	1'-0"	5'-2"							Backwall
C534	2	5'-5"	Vertical - Flying Wing 5	D534	2	5'-5"	Vertical - Flying Wing 8	D554	4	10'-7"	U		3'-7"	1'-0"	6'-0"							Pilaster
C535	2	5'-11"	Vertical - Flying Wing 5	D535	2	5'-11"	Vertical - Flying Wing 8	D555	11	5'-0"	V				2'-6"	2'-6"			2'-2"			Corner
C536	2	6'-4"	Vertical - Flying Wing 5	D536	2	6'-4"	Vertical - Flying Wing 8	D556	2	4'-2"	V				2'-6"	1'-8"			1'-5 1/4"			Corner
C537	2	6'-10"	Vertical - Flying Wing 5	D537	2	6'-10"	Vertical - Flying Wing 8	D557	9	5'-4"	V				4'-6"	10"			5"			Corner
C538	2	7'-3"	Vertical - Flying Wing 5	D538	2	7'-4"	Vertical - Flying Wing 8	D558	9	5'-0"	L	2'-6"	2'-6"									Corner
C539	2	7'-9"	Vertical - Flying Wing 5	D539	2	7'-10"	Vertical - Flying Wing 8	D559	9	5'-0"	V				4'-2"	10"			7"			Corner
								D560	21	4'-10"	V				4'-0"	10"			5"			Backwall-to-Approach Slab
C542	23	17'-2"	Horizontal - Wingwall 5	D542	10	14'-5"	Horizontal - Wingwall 8	D562	18	6'-6"	U		2'-8"	1'-2"	2'-8"							Top of Wing
C543	12	7'-4"	Horizontal - Wingwall 5	D543	4	11'-9"	Horizontal - Wingwall 8															
C544	6	4'-8"	Horizontal - Wingwall 5	D544	5	10'-3"	Horizontal - Wingwall 8															
C545	1	3'-4"	Horizontal - Wingwall 5																			
								D750	35	7'-11"	L	6'-9"	1'-2"									Hook - Footing
								D751	53	5'-11"	L	4'-9"	1'-2"									Hook - Footing
C548	20	9'-0"	Horizontal - Flying Wing 5	D548	20	9'-0"	Horizontal - Flying Wing 8															
								D753	43	10'-7"	L	9'-5"	1'-2"									Abutment
								Island Retaining Wall														
								W550	30	4'-7"	L	3'-9"	10"									Hook - Footing
C700	21	26'-3"	Horizontal - Top Footing	D700	10	15'-9"	Horizontal - Top Footing															
C701	133	10'-0"	Horizontal - Top Footing	D701	106	9'-0"	Horizontal - Top Footing															
C702	21	33'-6"	Vertical - Wingwall	D702	10	8'-3"	Vertical - Wingwall															
								W650	59	8'-9"	L	7'-9"	1'-0"									Hook - Footing
Approach Slabs				**Island Retaining Wall**																		
AS500	54	30'-6"	Transverse - Top & Bot.	W400	18	2'-6"	Weepers	**Deck**														
AS501	42	14'-6"	Longitudinal - Top					SE550	104	4'-9"	C	7"	4'-2"	0"								Overhang
				W500	40	3'-6"	Dowel	SE551	150	5'-7"	SC	10"	1'-4"	1'-2"	1'-5"			10"		1'-4 1/2"		Curb
AS701	106	14'-6"	Longitudinal - Bottom	W501	30	10'-0"	Footing	SE552	105	11'-10"	SC	10"	1'-7"	7'-2"	1'-5"			10"		7'-3 1/2"		Sidewalk
				W502	22	32'-0"	Footing	SE553	88	7'-4"	SJ	10"	1'-0"	3'-9"	11"	10"						Deck End
								SE554	45	6'-0"	SC	10"	1'-7"	1'-2"	1'-7"			10"		1'-4 1/2"		Sidewalk
SE500	428	40'-11"	Transverse - Top & Bot.					**Note: Deck, curb, & sidewalk reinforcing bars are not included in 503 items. See Note 6 on Sheet 52.**														
SE501	336	35'-10"	Longitudinal - Top & Bot.	W505	30	12'-0"	Vertical - Wall															
SE502	42	4'-6"	Deck Ends	W506	59	8'-5"	Vertical - Wall															
SE503	80	3'-0"	Deck Drains																			
Note: Deck, curb, & sidewalk reinforcing bars are not included in 503 items. See Note 6 on Sheet 52.				W509	18	29'-1"	Horizontal - Wall															
				W700	59	10'-0"	Footing															
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

TYPE - BENDING DIAGRAMS



All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318.

Reinforcing Bar: ASTM A615/A615M, Grade 420

GENERAL NOTES

1. The first two digits following the letter(s) of the mark indicate the size of the bar:

   Mark "A1602" = bar size #16
   Mark "P2501" = bar size #25
   Mark "S1950" = bar size #19

2. Each crank bar, Type B, may be replaced by two (2) straight bars (one top and one bottom) of the same bar size as the crank bar. Payment in either case shall be based on crank bars as schedule on the plans.

3. Deck, curb, sidewalk rebar is not included in 503 items. See note 6 on sheet 52.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE PLANS

BRIDGE NO. 1519 & NO.5490

	SIGNATURE	P.E. NUMBER	DATE
PROJ. MANAGER			
DESIGN-DETAILED			
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

	DATE	BY

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

REINFORCEMENT SCHEDULE 2

SHEET NUMBER

58

OF 73

Stantec

Filename: ...\058_REBAR_SCHED_02.dgn Division: 1953 Username: STANTEC Date: 10/10/2011

Filename: ...\059_TCP_Plan.dgn Division: 1953 Username: STANTEC Date:10/10/2011

Legend

SIGN

General Notes

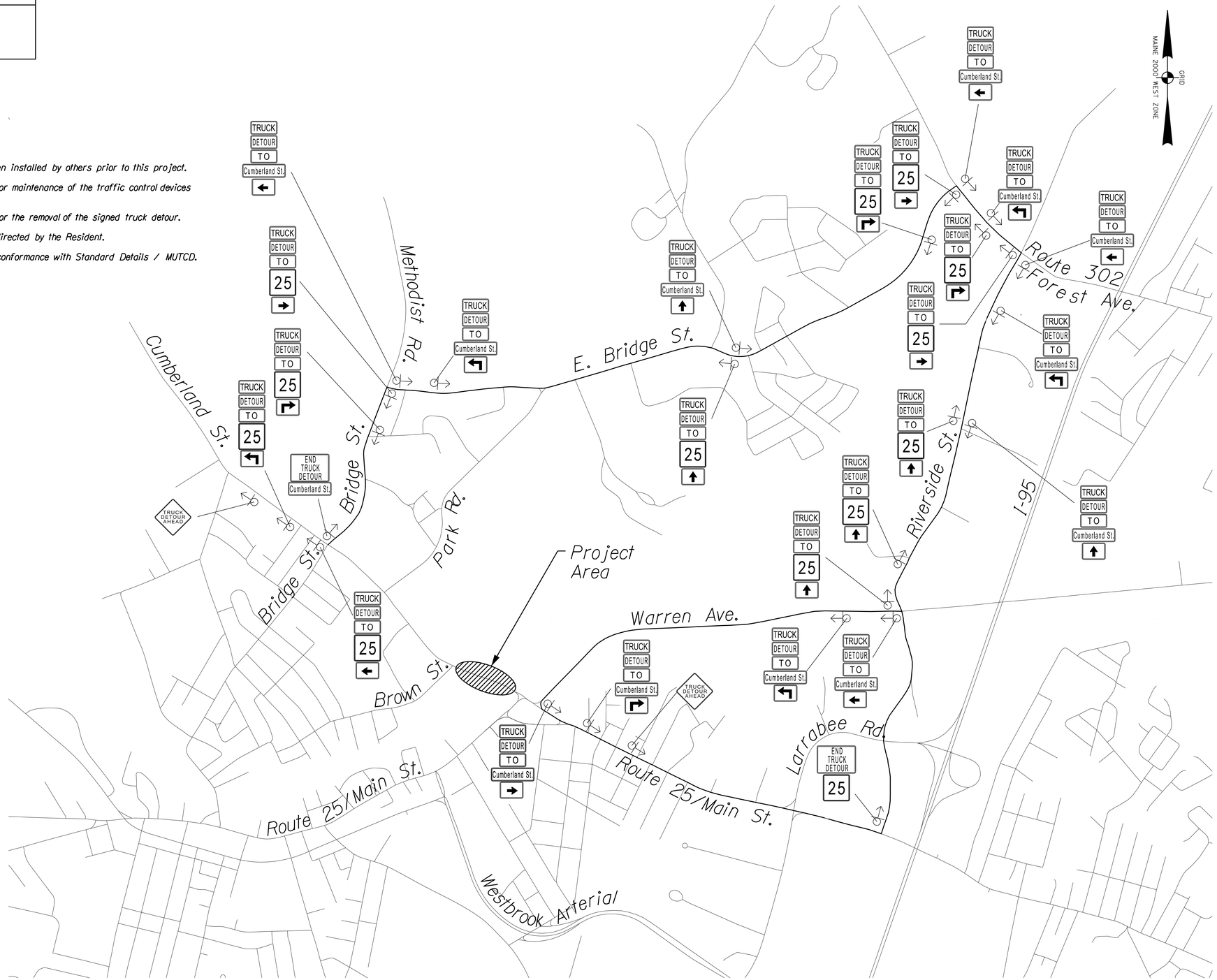
1) This signed truck detour has been installed by others prior to this project.

2) Contractor shall be responsible for maintenance of the traffic control devices under section 652.

3) Contractor shall be responsible for the removal of the signed truck detour.

4) Other signs may be needed as directed by the Resident.

5) All signs and sizes must be in conformance with Standard Details / MUTCD.



Truck Detour

PLAN

800 0 800 1600

SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	TWM	
DESIGN-DETAILED		9/27/2011
CHECKED-REVIEWED	TWM	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

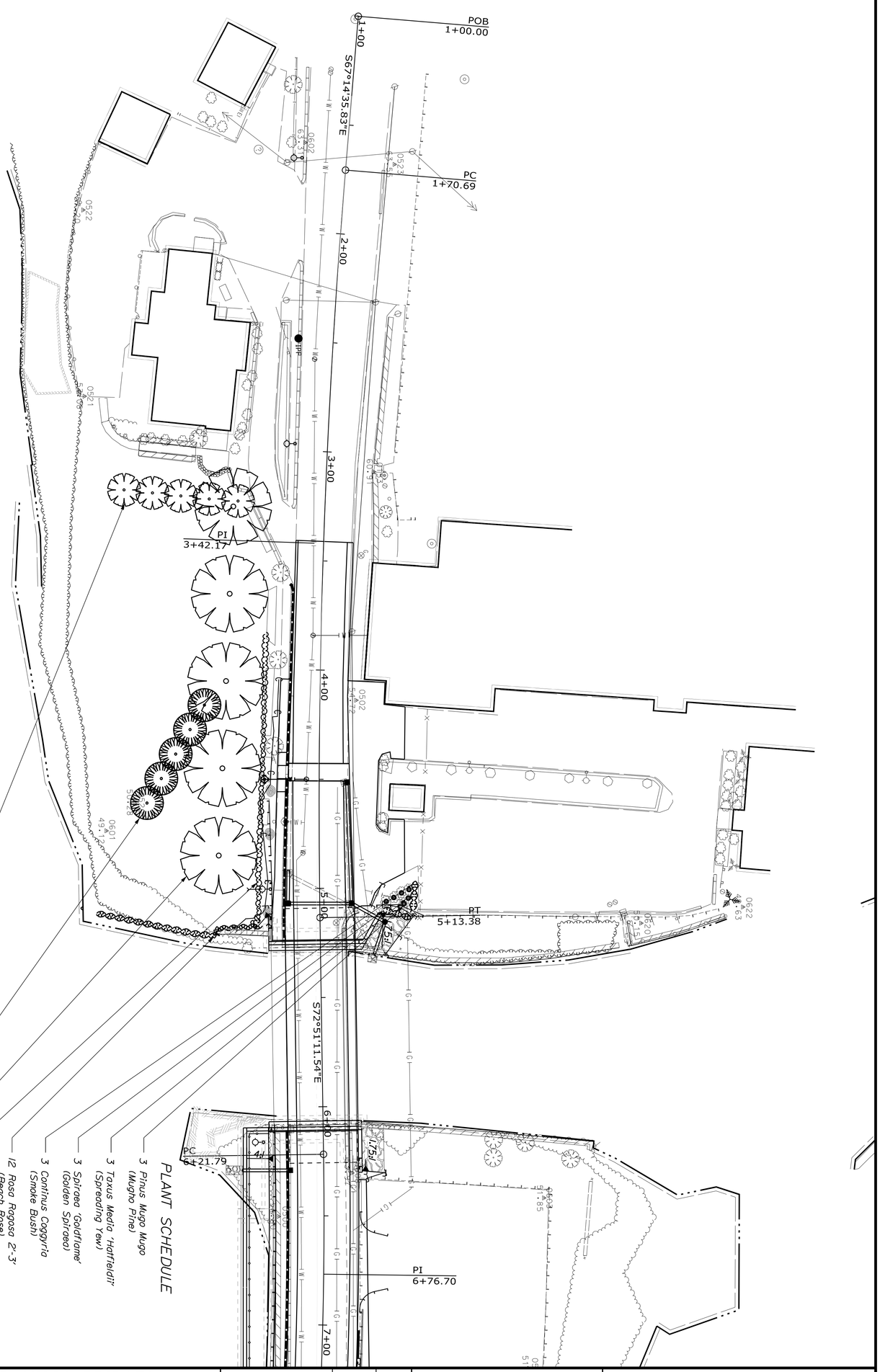
TRAFFIC CONTROL PLAN

SHEET NUMBER

59

OF 73

Stantec



PLANT SCHEDULE

- 3 *Pinus Mugo Mugo* (Mugho Pine)
- 3 *Taxus Media 'Hatfieldii'* (Spreading Yew)
- 3 *Spiraea 'Goldflame'* (Golden Spiraea)
- 3 *Continus Coggyria* (Smoke Bush)
- 12 *Rosa Rugosa* 2'-3' (Beach Rose)
- 46 *Thuja Ntara* 5'-6' (Dark Arborvitae) B&B
- 5 *Ulmus 'Valley Forge'* 3-½" CAL (Hybrid Elm)
- 5 *Pinus Stobus* 8'-10' (Eastern White Pine) (could be temporary or relocated)
- 5 *Malus' Snowdrift'* 3-½" CAL (White Flowering Crabapple) (could be temporary or relocated)

* Final location of all plant material to be flagged by Maine DOT Landscape Architect in field.

CUMBERLAND MILLS BRIDGES
PRESUMPSCOT RIVER
WESTBROOK CUMBERLAND COUNTY

PLANTING PLAN

PROJ. MANAGER	B. Condon	BY	DATE
DESIGN-DETAILED			AUG 2011
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1106(300)X & BH-1106(400)X

WIN 11063.00 & 11064.00

BRIDGE NO. 1519 & NO.5490 BRIDGE PLANS

SHEET NUMBER 60 OF 73

A) EXISTING RIGHT OF WAY REFERENCES
1) CUMBERLAND STREET
A) CUMBERLAND COUNTY COMMISSIONERS RECORDS
VOLUME 3, PAGE 391
1808 2 & 4 RODS WIDE (33'& 66')
B) CUMBERLAND COUNTY COMMISSIONERS RECORDS
VOLUME 3, PAGE 445
1808 2 & 4 RODS WIDE (33'& 66')
C) CUMBERLAND COUNTY COMMISSIONERS RECORDS
VOLUME 3, PAGE 449
1808 2 & 4 RODS WIDE (33'& 66')
D) PRESCRIPTIVE EASEMENT FOR
HIGHWAY PURPOSES WITHIN LIMITS OF
WROUGHT PORTION (L.O.W.P.)
2) HARNDIS AVENUE (F/K/A WARREN AVENUE)
A) CITY OF WESTBROOK
PROPOSED RELOCATION OF WARREN AVENUE
FROM CUMBERLAND TO MAIN STREET
PLAN DATE - OCTOBER 24, 1922
BY H.W. FOSTER
ON FILE IN THE CITY OF WESTBROOK, ENGINEERING OFFICE
B) AS-BUILT PLANS
1) STATE HIGHWAY COMMISSION (S.H.C.) - BRIDGE DIVISION
CUMBERLAND MILLS BRIDGE OVER
PRESUMPSCOT RIVER
WESTBROOK, CUMBERLAND COUNTY
PLAN DATE - SEPTEMBER 1951
REEL 22, PLAN NO. 58, PLAN 36-50
C) CONTROL INFORMATION
1) HORIZONTAL DATUM - US STATE PLANE NAD(83) 1996
ZONE - MAINE 2000 WEST ZONE
VERTICAL DATUM - NAVD 88
COMBINED SCALE FACTOR - 0.9999775
D) TAX MAP
1) CITY OF WESTBROOK
TAX MAPS 40 & 45

GRID
MAINE 2000 WEST ZONE

S.D. WARREN COMPANY
D/B/A SAPPI FINE PAPER NORTH AMERICA
PARCEL NO. (2)
LAND TAKEN = 191± S.F. (PRESC. EASE.)
LAND TAKEN = 0.13± AC. (OTHER)
TOTAL LAND TAKEN = 0.14± AC.
CONST. & MAINT. EASE. = 1,881± S.F. (4)
DRAINAGE EASE. = (2)
TEMP. CONST. RIGHTS = 0.07± AC. (4)
TOTAL AREA = 194.7± AC. (PER CITY)
REM. AREA = 194.56± AC.
TAX MAP/LOT - 45/1

BIOMASS COGENERATION FACILITY
SITE AND EASEMENT AREAS
S.D. WARREN CO.
A DIVISION OF SCOTT PAPER CO.
CUMBERLAND MILLS, MAINE
DRAWING NO. F-842A
PLAN DATE - JANUARY 15, 1982, REVISED TO JANUARY 15, 1982
CUMBERLAND COUNTY REGISTRY OF DEEDS (C.C.R.D.)
PLAN BOOK 133, PAGE 7
PLAN RECORDING DATE - JANUARY 28, 1982

PLAN OF CUMBERLAND MILLS VILLAGE
SHOWING THE PROPERTY OF THE ESTATE OF S.D. WARREN
SURVEYED BY H.W. FOSTER
CUMBERLAND MILLS
PLAN DATE - NOVEMBER 1888
CUMBERLAND COUNTY REGISTRY OF DEEDS (C.C.R.D.)
PLAN BOOK 6, PAGE 47
PLAN RECORDING DATE - AUGUST 24, 1889

INDEX MAP OF THE PROPERTY OF THE
S.D. WARREN MILL TRUST
SHEET NO. 5
PLAN DATE - APRIL 1, 1918
LAST REVISION DATE - AUGUST 23, 1921

COMPOSITE BOUNDARY PLAN
ALONG WARREN AVE., CUMBERLAND STREET & PARK ROAD
LAND OF S.D. WARREN CO. MILL SITE
WESTBROOK, MAINE
COUNTY OF CUMBERLAND
CLIENT: SMITH ROBERTS CORPORATION
PROJECT NO. 94-5337.01

PRESUMPSCOT RIVER
FLOW
CONST. & MAINT. EASE.
381± S.F. (GUARD RAIL & SLOPE)
CONST. & MAINT. EASE.
424± S.F. (RET. WALL)
TEMP. CONST. LTS.
185± S.F.
TEMP. CONST. LTS.
315± S.F.
TEMP. CONST
1,760± S.F.
LIMITS
89.62'
111.06'
395'±
S.H.C. CONSTRUCTED
CATCH BASIN & DRAINAGE OUTLET
SEE BRIDGE AS-BUILT PLAN
(SEE NOTE B)
PIN 11063.00
CUMBERLAND MILLS WEST BRIDGE
BRIDGE NO. 1519
L.O.W.P.
TEMP. CONST. LIMITS
229± S.F.
TEMP.
ROAD
EASE.
0.14± AC.
LIMITS
TEMP. ROAD EASE. LIMITS
0.25± AC.
P.I.
107.06'
TO WINDHAM
BEGIN B.L.
CUMBERLAND STREET/STATE AID HIGHWAY NO. 5
TEMP. CONST. LIMITS
105± S.F.
RICHARD A. KNIGHT
ITEM NO. (1)
TEMP. CONST. RIGHTS = 105± S.F. (1)
TOTAL AREA = 0.06± AC. (PER CITY)
TAX MAP/LOT - 39/5
MICHAEL P. GORMAN
DANIELLE B. GORMAN
TAX MAP/LOT - 39/6
APPROX. LOCATION OF A 25' EASEMENT FOR WARREN FROM S.D. WARREN TO MICHAEL P. GORMAN & DANIELLE B. GORMAN RECORDED IN BK. 4910, PG. 166
25' EASEMENT FOR MICHAEL P. GORMAN & DANIELLE B. GORMAN
EASEMENT TO S.D. WARREN
BROWN STREET
SCOTT A. BALFOUR
PARCEL NO. (3)
LAND TAKEN = 163± S.F. (PRESC. EASE.)
LAND TAKEN = 977± S.F. (OTHER)
TOTAL LAND TAKEN = 1,140± S.F.
TEMP. CONST. RIGHTS = 229± S.F. (1)
TEMP. ROAD EASE. = 0.14± AC. (1)
TOTAL AREA = 2.1± AC. (CALC.)
REM. AREA. = 2.07± AC.
TAX MAP/LOT - 40/206
S.D. WARREN FLOWAGE RIGHTS
SEE C.C.R.D. BOOK 4910, PAGE 166
TO FLOW TO ELEVATION 45.1 FEET
ABOVE MEAN LOW WATER MARK AT
PORTLAND, MAINE
PRESUMPSCOT RIVER
FLOW
S.D. WARREN COMPANY
D/B/A SAPPI FINE PAPER NORTH AMERICA
PARCEL NO. (4)
LAND TAKEN = 981± S.F. (PRESC. EASE.)
LAND TAKEN = 0.24± AC. (OTHER)
TOTAL LAND TAKEN = 0.26± AC.
TEMP. CONST. RIGHTS = 345± S.F. (1)
TEMP ROAD EASE. = 0.25± AC. (1)
TOTAL AREA = 3.4± AC. (CALC.)
REM. AREA.= 3.14± AC.
TAX MAP/LOT - 45/1
HOUSE LOTS
COTTAGE PLACE
CUMBERLAND STREET & BROWN STREET
S.D. WARREN - CUMBERLAND MILLS, ME
DRAWING NO. F-412
CUMBERLAND MILLS WEST & EAST BRIDGE
OVER
PRESUMPSCOT RIVER
BRIDGE NO. 1519 & 5490 PIN 11063.00 - 11064.00

SYMBOLS
(WELL) - DRAINING LAST LINE
CONSTRUCTION LIMIT LINE
PROPERTY LINE - R.L. -
LIMITS OF WROUGHT PORTION (L.O.W.P.)
IP or ● P.F. (IRON PIPE or PIN FOUND)
S.T. (SEPTIC TANK)
(ROW MONUMENT)
BM (TRAVERSE POINT)
W WATER LINE
G GAS LINE
E ELECTRIC LINE
T TELEPHONE LINE
SEWER LINE
NEW RIGHT OF WAY
EXISTING RIGHT OF WAY
NEW ROW WITHIN EXIST. ROW
CONTROL OF ACCESS

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	G.L.L.	C.W.K.
PROP. LINES	G.L.L.	
AREAS	G.L.L.	N.T.A.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
WESTBROOK
RIGHT OF WAY MAP

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

REVISIONS
NO. DATE DESCRIPTION BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD
NO. GRANTOR INSTRUMENT DATE BOOK PAGE

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
CHRISTOPHER W. KNIGHT 2257
PROFESSIONAL LAND SURVEYOR

To the best of my knowledge and belief the Highway Right of Way lines depicted hereon are based upon a survey conforming to the Standards of Practice promulgated by the Maine Board of Licensure for Professional Land Surveyors 02-360 CMR, Chapter 90; Exceptions: (1) No separate survey report, (2) Monumentation only as shown on plan. See sheet X of this plan set for coordinates. (3) Other boundary lines, including lines between abutters are approximate and for general reference purposes only.

STATE AID HIGHWAY NO. 5
CUMBERLAND STREET
WESTBROOK CUMBERLAND COUNTY
FEDERAL AID PROJECT NO. BH-1106(300)X
FEDERAL AID PROJECT NO. BH-1106(400)X
AUGUST 2011 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 3-576
SCALE 1" = 25' | SHEET 1 OF 2

SHEET NUMBER
61
OF 73

Filename: ...\061_RWPLAN1.dgn Division: 1953 Username: STANTEC Date:10/11/2011

Filename: ...\062_RWPLAN2.dgn Division: 1953 Username: STANTEC Date:10/11/2011

S.D. WARREN COMPANY
D/B/A SAPPI FINE PAPER NORTH AMERICA
PARCEL NO. (2)
LAND TAKEN = 191± S.F. (PRESC. EASE.)
LAND TAKEN = 0.13± AC. (OTHER)
TOTAL LAND TAKEN = 0.14± AC.
CONST. & MAINT. EASE. = 1,881± S.F. (4)
DRAINAGE EASE. = (2)
TEMP. CONST. RIGHTS = 0.07± AC. (4)
TOTAL AREA = 194.7± AC. (PER CITY)
REM. AREA = 194.56± AC.
TAX MAP/LOT - 45/1

A) EXISTING RIGHT OF WAY REFERENCES
1) CUMBERLAND STREET
A) CUMBERLAND COUNTY COMMISSIONERS RECORDS
VOLUME 3, PAGE 391
1808 2 & 4 RODS WIDE (33' & 66')
B) CUMBERLAND COUNTY COMMISSIONERS RECORDS
VOLUME 3, PAGE 445
1808 2 & 4 RODS WIDE (33' & 66')
C) CUMBERLAND COUNTY COMMISSIONERS RECORDS
VOLUME 3, PAGE 449
1808 2 & 4 RODS WIDE (33' & 66')
D) PRESCRIPTIVE EASEMENT FOR
HIGHWAY PURPOSES WITHIN LIMITS OF
WROUGHT PORTION (L.O.W.P.)
2) HARNOIS AVENUE (F/K/A WARREN AVENUE)
A) CITY OF WESTBROOK
PROPOSED RELOCATION OF WARREN AVENUE
FROM CUMBERLAND TO MAIN STREET
PLAN DATE - OCTOBER 24, 1922
BY H.W. FOSTER
ON FILE IN THE CITY OF WESTBROOK, ENGINEERING OFFICE
B) AS-BUILT PLANS
1) STATE HIGHWAY COMMISSION (S.H.C.) - BRIDGE DIVISION
CUMBERLAND MILLS BRIDGE OVER
PRESUMPSCOT RIVER
WESTBROOK, CUMBERLAND COUNTY
PLAN DATE - SEPTEMBER 1951
REEL 22, PLAN NO. 58, PLAN 36-50
C) CONTROL INFORMATION
1) HORIZONTAL DATUM - US STATE PLANE NAD(83) 1996
ZONE - MAINE 2000 WEST ZONE
VERTICAL DATUM - NAVD 88
COMBINED SCALE FACTOR - 0.9999775
D) TAX MAP
1) CITY OF WESTBROOK
TAX MAPS 40 & 45

PLAN OF PROPERTY
PLAN OF LAND BORDERED BY MAIN STREET,
CUMBERLAND STREET AND WARREN AVENUE
FOR S. D. WARREN CO, DIVISION OF SCOTT PAPER CO.
BY H.I. & E.C. JORDAN
PLAN DATE JANUARY 13, 1978
PLAN FILE NO. 1924
CUMBERLAND COUNTY REGISTRY OF DEEDS (C.C.R.D.)
PLAN BOOK 120, PAGE 40
PLAN RECORDING DATE - AUGUST 1, 1978

CITY OF WESTBROOK
TAX MAP/LOT - 40/2

PRESUMPSCOT RIVER
FLOW
GRID
MAINE 2000 WEST ZONE

WARREN AVE AND CUMBERLAND STREET SEWER
CITY OF WESTBROOK
SURVEYED BY H.W. FOSTER
DATED AUGUST 1894

S.H.C. CONSTRUCTED
CATCH BASIN & DRAINAGE OUTLET
SEE BRIDGE AS-BUILT PLAN (NOTE B)

CONST. & MAINT. EASE.
411± S.F. (RET. WALL)

CONST. & MAINT. EASE.
665± S.F. (WING WALL & GUARDRAIL)

TEMP. CONST. LIMITS

111.06'
108.22'
107.06'
127.63'
159'±
139'±
95'±
61'±
64'±
40'±
25'±
395'±
905± S.F.
250± S.F. TEMP. CONST. LTS.
345± S.F. CONST. LTS.
0.25± AC
TEMP. ROAD
EASE.
LIMITS
L.O.W.P.
PIN 11064.00
CUMBERLAND MILLS EAST BRIDGE
BRIDGE NO. 5490
S.H.C. CONSTRUCTED
CATCH BASIN & DRAINAGE OUTLET
SEE BRIDGE AS-BUILT PLAN (NOTE B)
END B.L.
CUMBERLAND STREET/STATE AID HIGHWAY NO. 5
CUMBERLAND STREET/STATE HIGHWAY "A12"
TO PORTLAND
P.L.

PLAN AND PROFILE
CITY OF WESTBROOK
SEWER PROVIDING ADDED
CAPACITY FOR OUTFALL NO. 4
BY H. W. FOSTER
DATED AUGUST 30, 1935
REVISED TO - JUNE 1948
ON FILE AT THE CITY OF WESTBROOK
DRAWING NO. 348

EXISTING CONDITIONS PLAN
FOR MAINE MEDICAL CENTER
BY OWEN HASKELL
PLAN DATE - FEBRUARY 14, 2006
JOB NO. 2005-316 WE

PLAN OF LAND
OWNED BY MARGARET M. KILLIAN
BY C.H. BARRON
PLAN DATE - APRIL 1949
CUMBERLAND COUNTY REGISTRY OF DEEDS
PLAN BOOK 45, PAGE 20
RECORDING DATE - JULY 10, 1956

PLAN
WARREN CONGREGATIONAL CHURCH
PROPOSED POLICE SITE
DATED AUGUST 27, 1976
ON FILE AT THE CITY OF WESTBROOK

S.D. WARREN COMPANY
D/B/A SAPPI FINE PAPER NORTH AMERICA
PARCEL NO. (4)
LAND TAKEN = 981± S.F. (PRESC. EASE.)
LAND TAKEN = 0.24± AC. (OTHER)
TOTAL LAND TAKEN = 0.26± AC.
TEMP. CONST. RIGHTS = 345± S.F. (1)
TEMP ROAD EASE. = 0.25± AC. (1)
TOTAL AREA = 3.4± AC. (CALC.)
REM. AREA.= 3.14± AC.
TAX MAP/LOT - 45/1

MMC REALTY CORP.
PARCEL NO. (5)
LAND TAKEN = 371± S.F.
TEMP. CONST. RIGHTS = 250± S.F. (1)
REM. AREA = 1.69± AC. (PER CITY)
TAX MAP/LOT - 40/203

CUMBERLAND REALTY
LIMITED PARTNERSHIP
TAX MAP/LOT - 40/148

HARNOIS AVENUE/STATE HIGHWAY "A12"
F/K/A WARREN AVE (WEST)

FORMER LOCATION OF WARREN AVE (EAST)
CITY OF WESTBROOK, MAINE
OFFICE OF CITY ENGINEER
RIGHT OF WAY PLAN OF
APPROVED PLAN OF JANUARY 15, 1959
FILE NO. S.P.-71 SHEET 1 OF 5

ALTA/ACSM LAND TITLE SURVEY
"PROPOSED RITE AID PHARMACY"
FOR KILLAM, ASSOCIATES NEW ENGLAND
BY TITCOMB ASSOCIATES
PLAN DATE - MARCH 7, 1996
LAST REVISION DATE - APRIL 4, 1996
JOB NO. 95041 WK

LAND TITLE SURVEY
FOR COYNE OPERATED, INC
BY OWEN HASKELL, INC.
PLAN DATE SEPTEMBER 24, 1992
JOB NO. 92169 WE

PLAN OF PROPERTY
FOR S.D. WARREN CO.
DIVISION OF SCOTT PAPER CO.
BY H.I. & E.C. JORDAN - SURVEYORS
PLAN DATE - JANUARY 13, 1978
LAST REVISION DATE - SEPTEMBER 24, 1992

CUMBERLAND MILLS WEST & EAST BRIDGE
OVER
PRESUMPSCOT RIVER
BRIDGE NO. 1519 & 5490 PIN 11063.00 - 11064.00

SYMBOLS
IP or ● IPF (IRON PIPE or PIN FOUND)
S.T. (SEPTIC TANK)
(ROW MONUMENT)
(TRAVERSE POINT)
WATER LINE
GAS LINE
ELECTRIC LINE
TELEPHONE LINE
SEWER LINE
(WELL)
BREAKING BAT LINE
CONSTRUCTION LIMIT LINE
ASSESSOR LOT LINE
LIMITS OF WROUGHT PORTION (L.O.W.P.)
NEW RIGHT OF WAY
EXISTING RIGHT OF WAY
NEW ROW WITHIN EXIST. ROW
CONTROL OF ACCESS

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	G.L.L.	C.W.K.
PROP. LINES	G.L.L.	G.L.L.
AREAS	G.L.L.	N.T.A.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
WESTBROOK
RIGHT OF WAY MAP

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
CHRISTOPHER W. KNIGHT
2257
PROFESSIONAL
LAND SURVEYOR

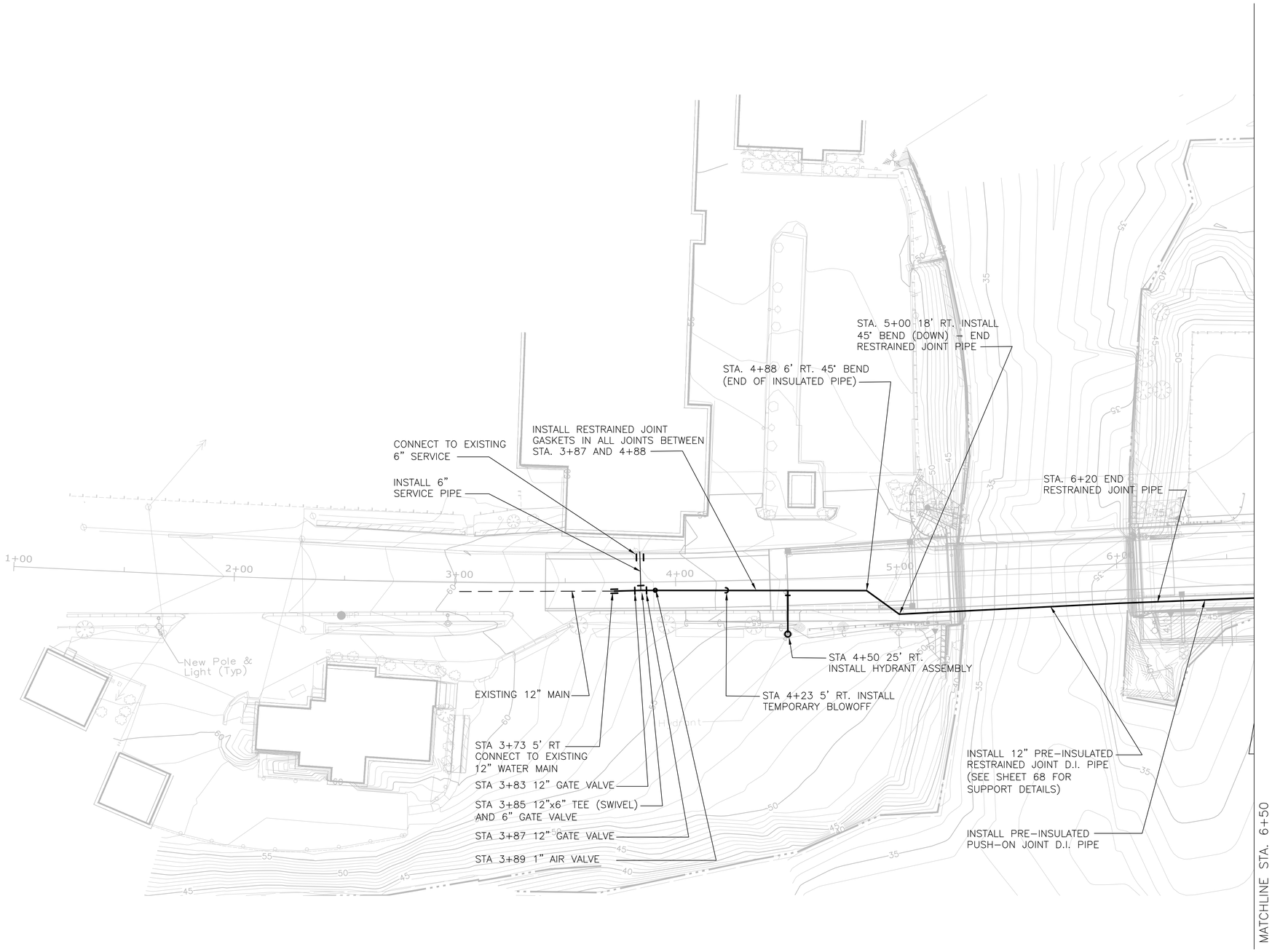
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STATE AID HIGHWAY NO. 5
CUMBERLAND STREET
WESTBROOK CUMBERLAND COUNTY
FEDERAL AID PROJECT NO. BH-1106(300)X
FEDERAL AID PROJECT NO. BH-1106(400)X

AUGUST 2011 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 3-576
SCALE 1" = 25' | SHEET 2 OF 2

SHEET NUMBER
62
OF 73

CURVE DATA #1
PI = 3+42.17
D = 1^38'13.28"
' = 5^36'35.71" Lt.
R = 3500'
L = 342.69'
T = 171.48'
E = 4.20'



PLAN

25 0 25 50
Scale of Feet

NOTES:

1. ALL PIPING BETWEEN STA. 3+73 AND STA. 4+23 SHALL BE INSTALLED IN A 10 HR MAX. SHUTDOWN. THE CONTRACTOR SHALL PRE-FABRICATE PIPE & FITTINGS TO ACCOMMODATE THIS TIME CONSTRAINT. THIS PIPING SHALL BE INSTALLED PRIOR TO ANY BRIDGE DEMOLITION.
2. INSTALL TEMPORARY BLOW-OFF ON EXISTING 12" MAIN AT STA. 8+95 14' LT. THIS PIPING SHALL BE INSTALLED PRIOR TO ANY BRIDGE DEMOLITION.
3. TEMPORARY WATER MAINS CAN ONLY BE ACTIVE BETWEEN APRIL 15 AND OCTOBER 15.
4. ALL NON-INSULATED BURIED DUCTILE IRON PIPE AND FITTINGS SHALL BE POLYWRAPPED PER SPECIFICATIONS.
5. P.W.D. WILL INSTALL A BACKFLOW DEVICE AT THE EXISTING HYDRANT CONNECTION FEEDING THE TEMPORARY SERVICE.

STATE OF MAINE
TIMOTHY J. MCMULLIN
9385
LICENSED PROFESSIONAL ENGINEER

CUMBERLAND MILLS BRIDGES
WATER MAIN REPLACEMENT
GENERAL PLAN 1

Portland Water District
ASSET MANAGEMENT & PLANNING DEPT.
225 DOUGLASS STREET P.O. 3553 PORTLAND, MAINE 04104-3553

DESIGN: TM
DRAWN: SM
CHECK:
APPROVED: TM
DATE: 9-1-11
SCALE: 1" = 25'

REV. NO.	DATE	DRWN	CHKD	REMARKS

SHEET NUMBER
63
OF 73

CURVE DATA #2
PI = 6+76.70
D = 2^51'53.24"
Δ = 3^08'43.75" Rt.
R = 2000'
L = 109.80'
T = 54.91'
E = 0.75'

CURVE DATA #2
PI = 9+32.06
D = 7^09'43.10"
Δ = 10^24'20.91" Rt.
R = 800'
L = 145.29'
T = 72.85'
E = 3.31'

PLAN
25 0 25 50
Scale of Feet

CONNECT 2" TEMPORARY MAIN @ METER LOCATION IN BUILDING

END 4" TEMPORARY MAIN

CONNECT TO EXISTING 8" FIRE SERVICE

INSTALL 8" D.I. SERVICE PIPE

CONNECT TO EXISTING 4" DOMESTIC SERVICE

STA. 7+33 END RESTRAINED JOINT PIPE

2" VALVE (TYP)

INSTALL 4" D.I. SERVICE PIPE

CONNECT 4" TEMPORARY MAIN TO P.W.D. HYDRANT – WARREN AVE. @ CUMBERLAND ST. (275' S.E. OF THIS LOCATION)

INSTALL 4" TEMPORARY MAIN

STA. 8+75 12" – 45° VERTICAL BEND (END OF PIPE INSULATION)

STA. 8+70 18' RT. 12" – 45° VERTICAL BEND (END OF RESTRAINED JOINT PIPE)

STA. 9+34 15' RT. 12X4 TEE & 4" GATE VALVE

STA. 9+06 16' RT. 12X8 TEE & 8" GATE VALVE

STA. 8+88 17' RT. 12" GATE VALVE

EXISTING 24"X12" REDUCER

INSTALL 12" PRE-INSULATED PUSH-ON JOINT D.I. PIPE

INSTALL 12" PRE-INSULATED RESTRAINED JOINT D.I. PIPE (SEE SHEET 68 FOR SUPPORT DETAILS)

INSTALL 12" D.I. PIPE

CONNECT TO EXISTING 12" MAIN
INSTALL 12" GATE VALVE

INSTALL
1" AIR VALVE

MATCHLINE STA. 6+50

STATE OF MAINE
TIMOTHY J. MCMULLIN
9385
REGISTERED PROFESSIONAL ENGINEER

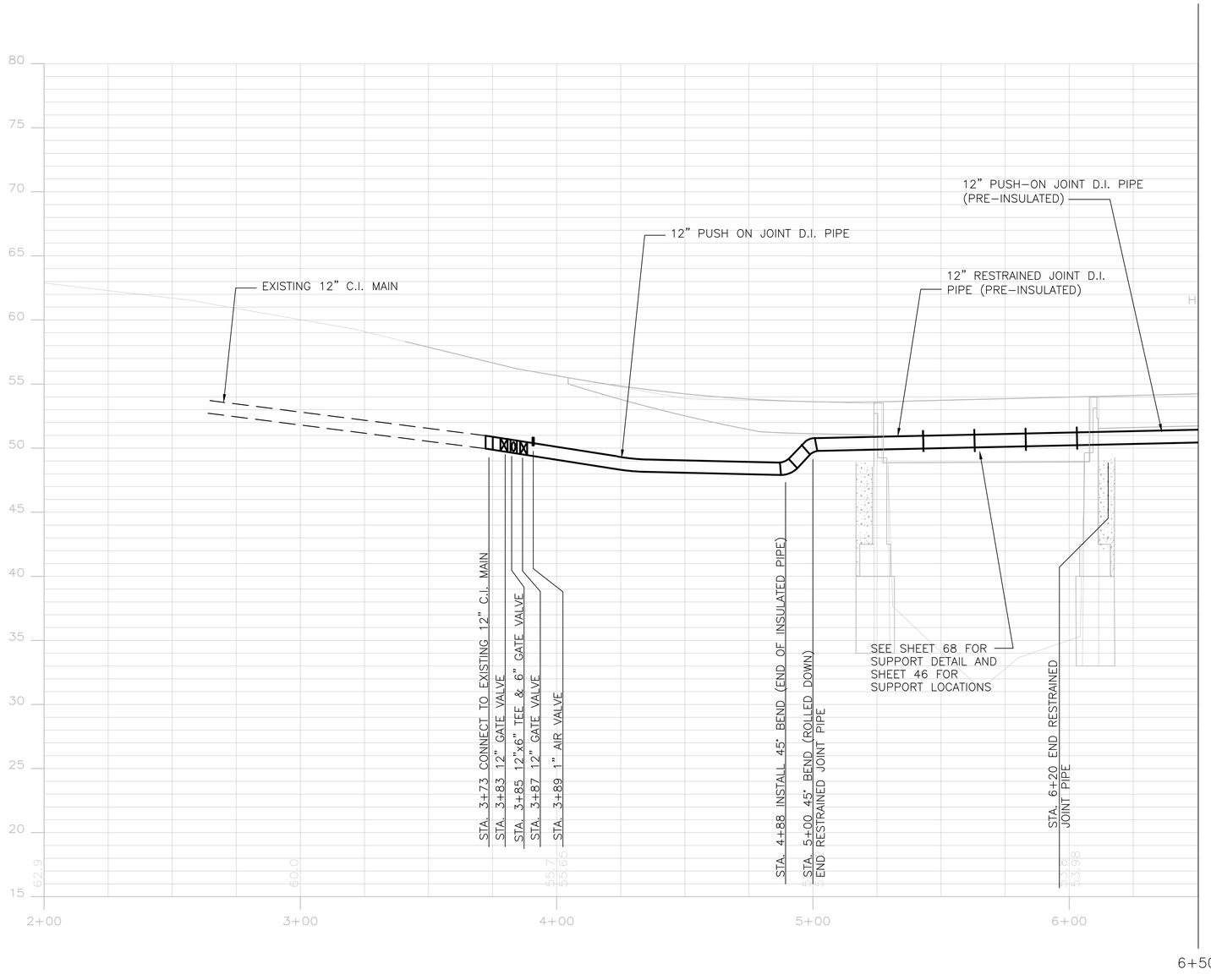
CUMBERLAND MILLS BRIDGES
WATER MAIN REPLACEMENT
GENERAL PLAN 2

Portland Water District
ASSET MANAGEMENT & PLANNING DEPT.
225 DOUGLASS STREET P.O. 3553 PORTLAND, MAINE 04104-3553

DESIGN: TM
DRAWN: SM
CHECK:
APPROVED: TM
DATE: 9-1-11
SCALE: 1" = 25'

REV. NO.	DATE	DRWN	CHKD	REMARKS

SHEET NUMBER
64
OF 73



PROFILE

25 0 25 50

Scale of Feet

STATE OF MAINE
TIMOTHY J. MCMULLIN
9385
REGISTERED PROFESSIONAL ENGINEER

CUMBERLAND MILLS BRIDGES
WATER MAIN REPLACEMENT
PROFILE 1

Portland Water District
ASSET MANAGEMENT & PLANNING DEPT.
225 DOUGLASS STREET P.O. 3553 PORTLAND, MAINE 04104-3553

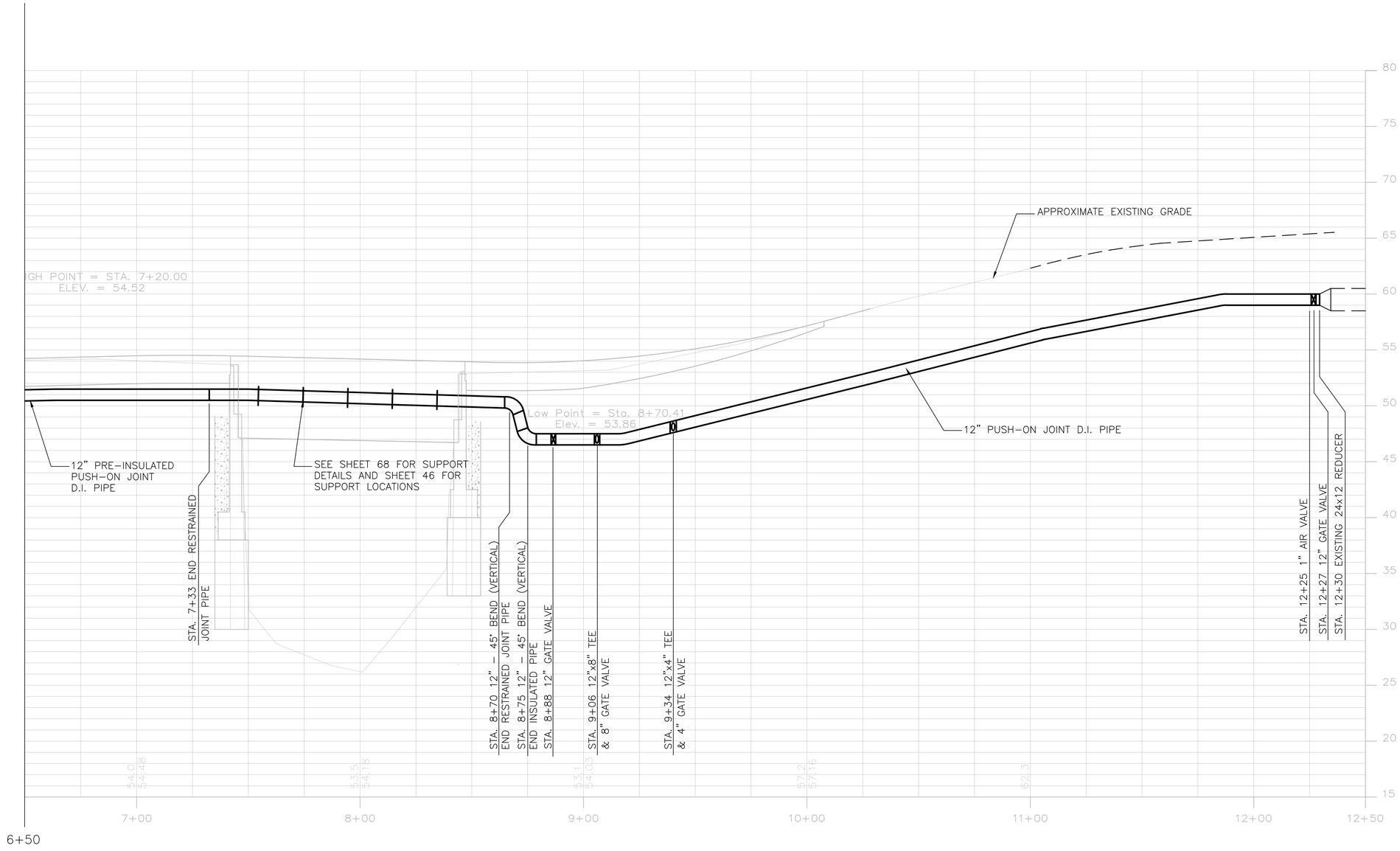
DESIGN: TM
DRAWN: SM
CHECK:
APPROVED: TM
DATE: 8-1-11
HORIZONTAL SCALE: 1" = 25'
VERTICAL SCALE: 1" = 5'

REV. NO.	DATE	DRWN	CHK'D	REMARKS

SHEET NUMBER

65

OF 73



PROFILE

25 0 25 50

Scale of Feet

STATE OF MAINE
TIMOTHY J. MCMULLIN
9385
REGISTERED PROFESSIONAL ENGINEER

CUMBERLAND MILLS BRIDGES
WATER MAIN REPLACEMENT
PROFILE 2

Portland Water District
ASSET MANAGEMENT & PLANNING DEPT.
225 DOUGLASS STREET P.O. 3553 PORTLAND, MAINE 04104-3553

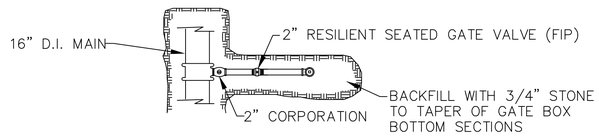
DESIGN: TM
DRAWN: SM
CHECK:
APPROVED: TM
DATE: 9-1-11
HORIZONTAL SCALE: 1" = 25'
VERTICAL SCALE: 1" = 5'

REV. NO.	DATE	DRWN	CHK'D	REMARKS

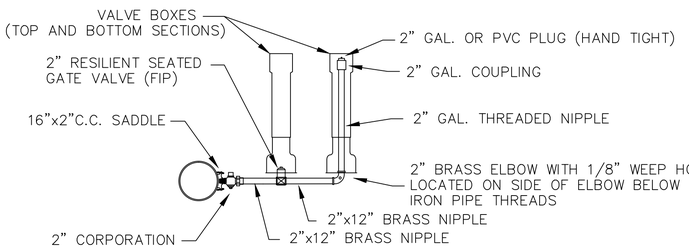
SHEET NUMBER

66

OF 73

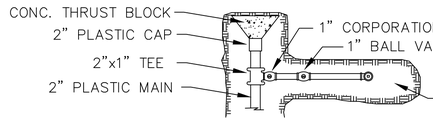


TOP VIEW

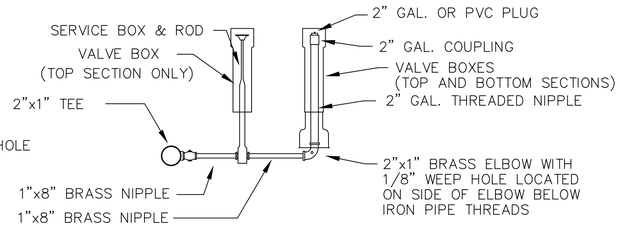


SIDE VIEW

SIDE-ARM BLOW-OFF 4" & LARGER MAINS

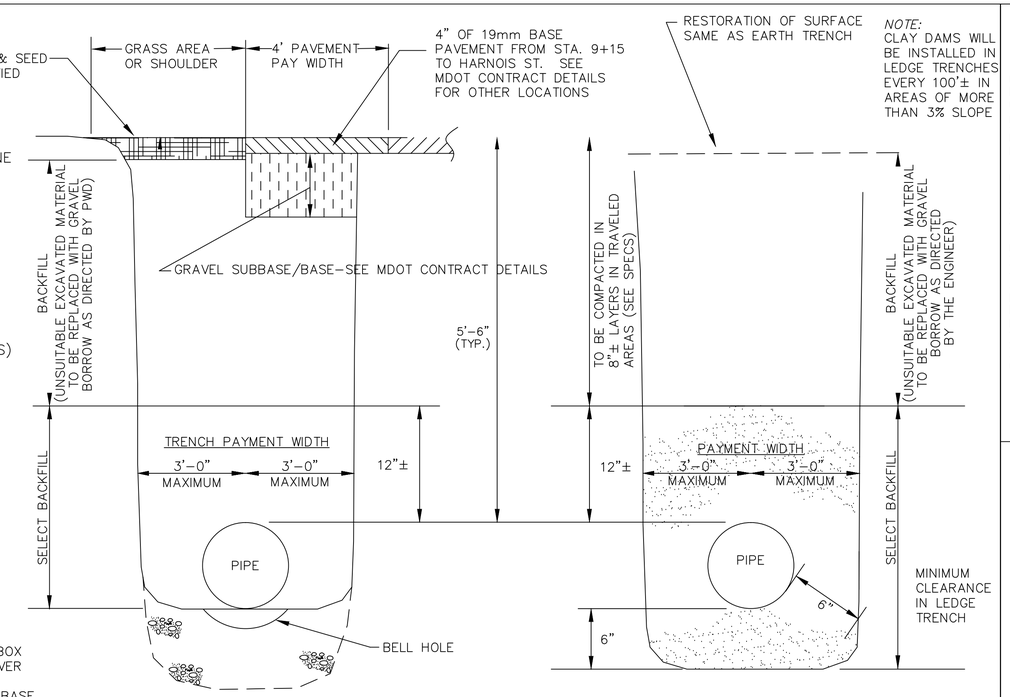


TOP VIEW



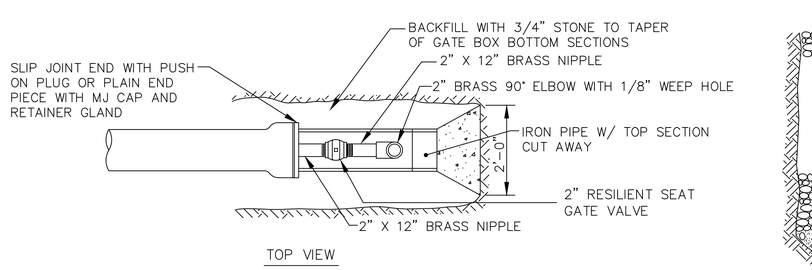
SIDE VIEW

SIDE-ARM BLOW-OFF 2" MAIN

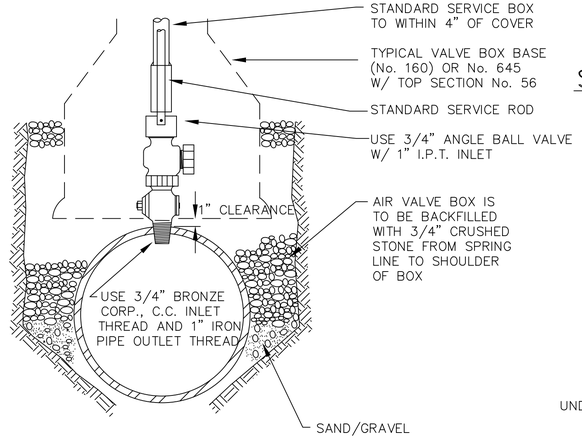


SECTION THRU EARTH TRENCH

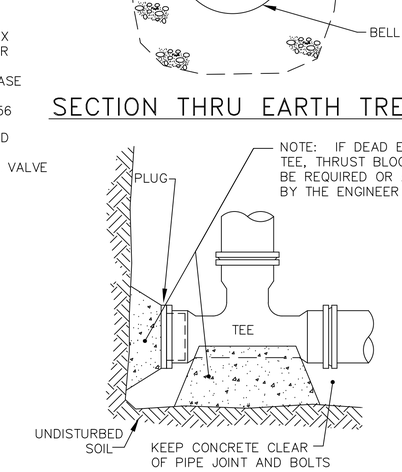
SECTION THRU LEDGE TRENCH



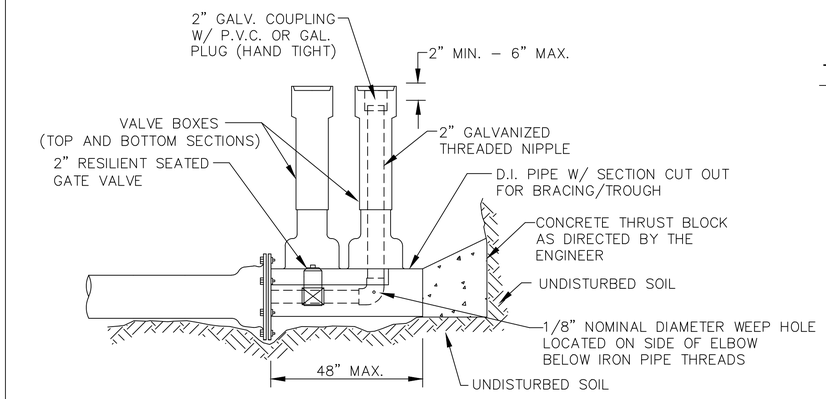
TOP VIEW



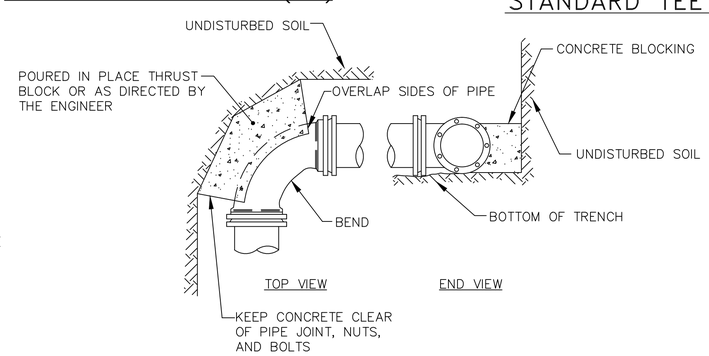
TYPICAL AIR VALVE (1")



STANDARD TEE BLOCKING

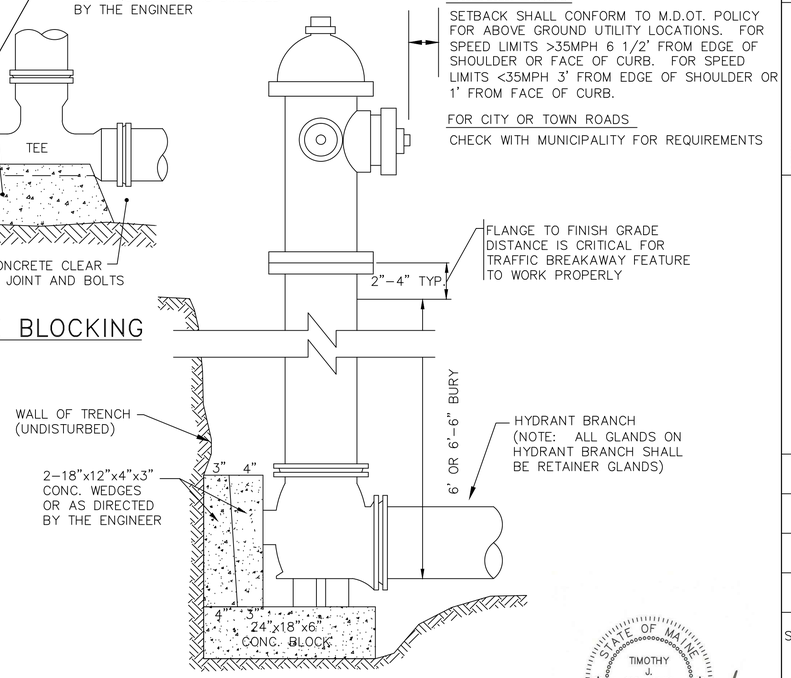


STANDARD 2" BLOW OFF



TOP VIEW END VIEW

STANDARD BEND BLOCKING



TYPICAL HYDRANT INSTALLATION DETAIL

STATE OF MAINE
TIMOTHY J. MCMULLIN
9385
REGISTERED PROFESSIONAL ENGINEER

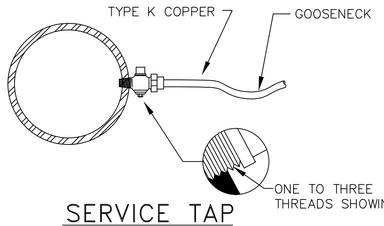
CUMBERLAND MILLS BRIDGES
WATER MAIN REPLACEMENT
STANDARD WATER DETAILS

Portland Water District
ASSET MANAGEMENT & PLANNING DEPT.
225 DOUGLASS STREET P.O. 3553 PORTLAND, MAINE 04104-3553

DESIGN: JDW
DRAWN: JDW
CHECK:
APPROVED: TM
DATE: 8-19-11
SCALE: NTS

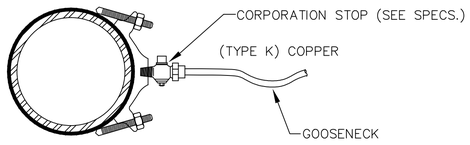
REV. NO.	DATE	DRWN	CHKD	REMARKS
3	JUL 06	JRS	JRS	ADDED BLOCKING PLANE NOTE TO HYDRANT BASE
2	MAY 06	JRS	JRS	REVISED TRENCH DETAIL
1	DEC 03	RS	TM	SIDE ARE BLOWOFF DETAILS ADDED

SHEET NUMBER
67
OF 73



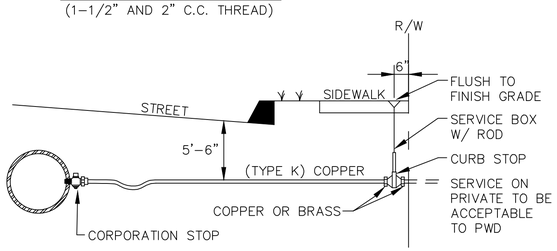
SERVICE TAP

(3/4" AND 1" C.C. THREAD)

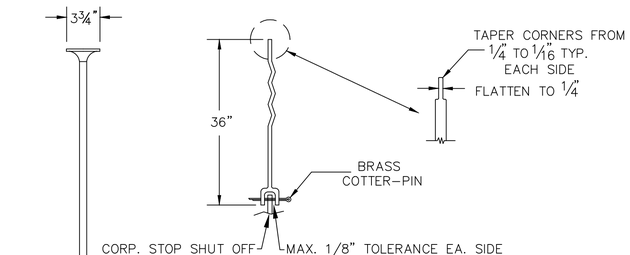


SERVICE SADDLE

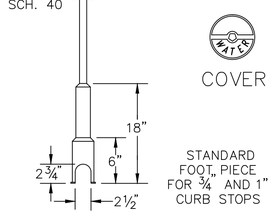
(1-1/2" AND 2" C.C. THREAD)



TYPICAL SERVICE CONNECTION

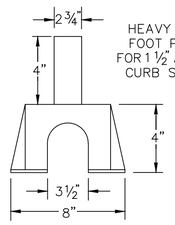


SERVICE ROD



SERVICE BOX

COVER

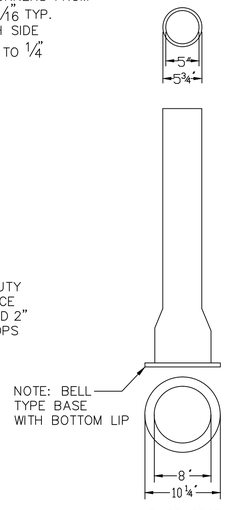


FOOT PIECE

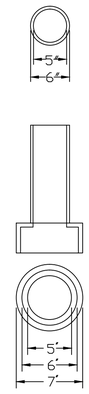
NOTE : ANY EXTENSION OF SERVICE BOX REQUIRES:

1) 1" FEMALE IRON PIPE COUPLING
2) 1" THREADED PIPE

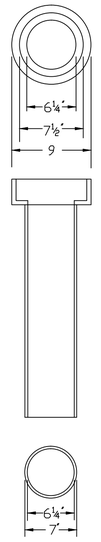
(THIS IS TO BE A NON-WELDED, TWO PIECE ARRANGEMENT. SLIP ON ADAPTERS ARE NOT PERMISSIBLE.)



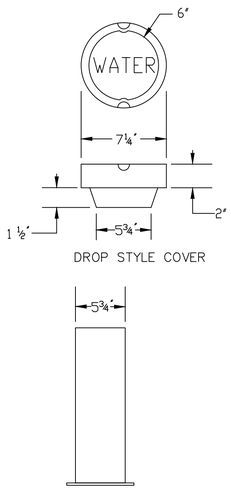
BASE SECTION
NO. 645



INTERMEDIATE
SECTION NO.58



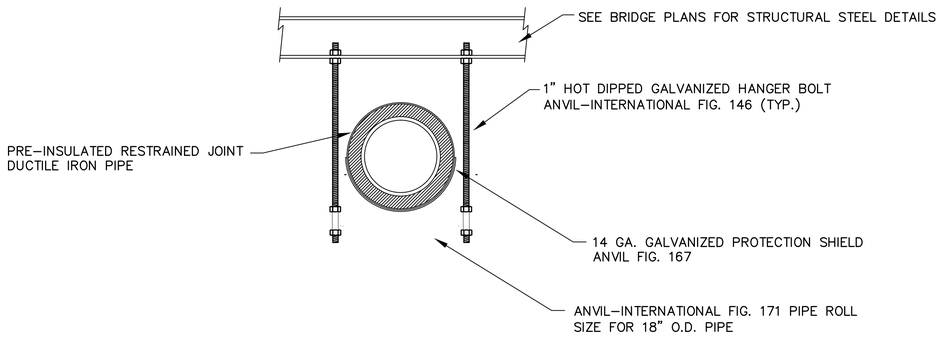
TOP SECTION
NO.56



DROP STYLE COVER

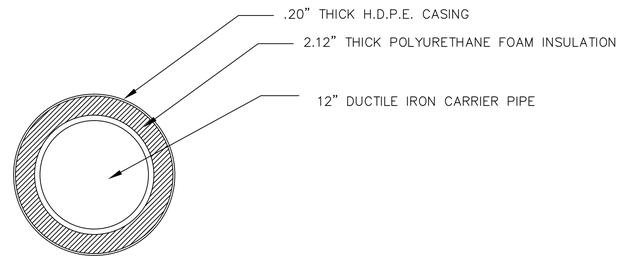
(NUMBERS ARE FOR 5 1/4" BUFFALO VALVE BOXES)
(BASE SECTION MAY BE USED AS INTERMEDIATE SECTION)

VALVE BOX & COVER



TYPICAL WATER MAIN BRIDGE SUPPORT

1" = 1'-0"



PRE-INSULATED WATER MAIN DETAIL

NTS

Portland Water District
ASSET MANAGEMENT & PLANNING DEPT.
225 DOUGLASS STREET P.O. 3553 PORTLAND, MAINE 04104-3553

CUMBERLAND MILLS BRIDGES
WATER MAIN REPLACEMENT
STANDARD WATER DETAILS

DESIGN: ____ DRAWN: NMM CHECK: ____ APPROVED: TM DATE: 8-19-11 SCALE: NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS
2	OCT 07	DW	DW	DELETED NOTES FOR BYPASS AND PIT BACKFLOW
1	JAN 07	RS	RS	NOTE REQUIRING LIP ON VALVE BOX BOTTOM SECTION
				DELETED BYPASS DRAWING

STATE OF MAINE
TIMOTHY J. MCMULLIN
9385
REGISTERED PROFESSIONAL ENGINEER

SHEET NUMBER

68

OF 73

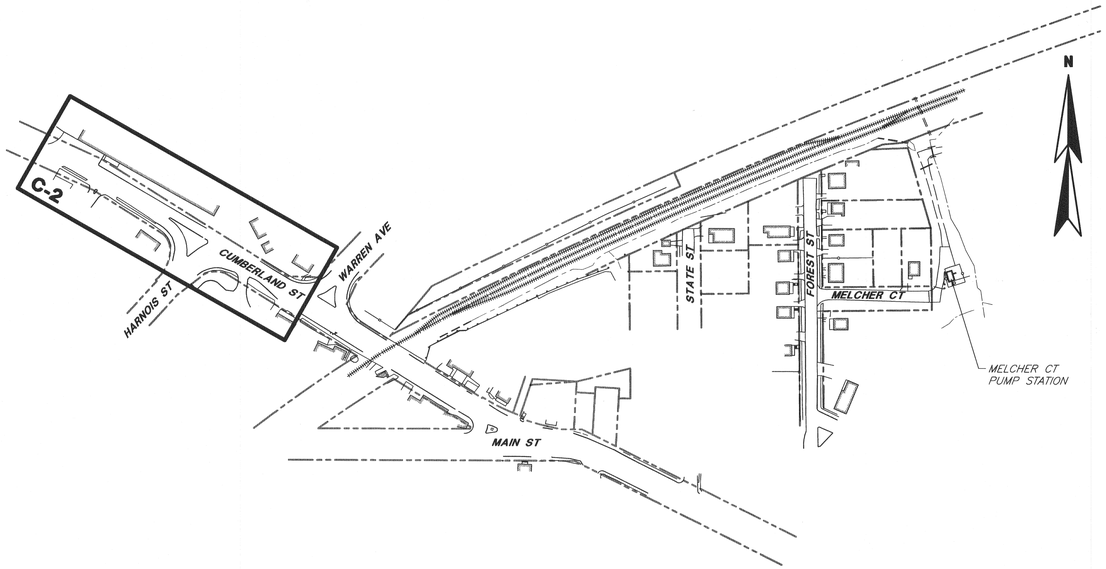
LAST SAVED BY: RYAN.BEISAW 9/30/2011 11:22 AM

GENERAL NOTES

1. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO ENSURE THAT ALL WASTEWATER FLOWS ARE MAINTAINED DURING CONSTRUCTION. GRAVITY OR PUMPED BYPASSES AND OTHER MEANS OF MAINTAINING FLOW SHALL BE SUBJECT TO THE REVIEW AND ACCEPTANCE OF THE ENGINEER. THE CONTRACTOR SHALL COORDINATE ANY TEMPORARY STOPPAGES OR BYPASSES WITH THE OWNER AND ENGINEER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE DISPOSAL OF FLOWS RESULTING FROM PRECIPITATION AND HIS DEWATERING OPERATIONS.
3. CONTRACTOR TO NOTE THAT, IN GENERAL, ALL EXISTING CONDITION INFORMATION ON THE DRAWINGS ARE SHOWN WITH A LIGHTER LINE WEIGHT AND WITH A SLANTED TYPE TEXT.
4. THE CONTRACTOR WILL ENCOUNTER ASBESTOS CEMENT PIPE DURING THE INSTALLATION OF SMH-1 AND POSSIBLY IN OTHER AREAS DURING EXECUTION OF THE WORK. CONTRACTOR SHALL CONFORM TO ALL APPLICABLE PROVISIONS OF OSHA AND ALL OTHER FEDERAL, STATE AND LOCAL REGULATIONS WHEN HANDLING, REMOVING AND DISPOSING OF ASBESTOS CEMENT PIPE. A BID ITEM HAS BEEN INCLUDED FOR THE REMOVAL AND DISPOSAL OF ASBESTOS CEMENT PIPE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF ALL PROPOSED WORK AS SHOWN ON THE DRAWINGS. THE ENGINEER WILL PROVIDE POINTS THAT DEFINE HORIZONTAL CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THIS PROVIDED LAYOUT INFORMATION THROUGHOUT THE COURSE OF CONSTRUCTION. REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
6. IN GENERAL, THE GIVEN STRUCTURE LOCATIONS ARE TO THE OUTSIDE FACE OF THE STRUCTURE FOUNDATION WALL, NOT FOOTINGS. RADII SHOWN FOR ROADS ARE TO EDGE OF PAVEMENT.
7. THE LOCATION AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO, THE OWNER AND ENGINEER. THE CONTRACTOR SHALL LIMIT HIS ACTIVITIES TO THESE AREAS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING AND RESETTING ALL EXISTING PROPERTY MONUMENTATION DISTURBED BY HIS OPERATIONS. THIS WORK SHALL BE DONE BY A LAND SURVEYOR REGISTERED IN THE STATE OF MAINE, AT NO ADDITIONAL COST TO THE OWNER.
9. WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DISTANCES FROM THE DRAWINGS. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
10. ALL ROAD AND PARKING AREA SURFACES SHALL PITCH 1/4 INCH PER FOOT MINIMUM UNLESS OTHERWISE NOTED.
11. ALL AREAS THAT ARE EXCAVATED, FILLED, OR OTHERWISE DISTURBED BY THE CONTRACTOR AND ARE NOT TO BE PAVED SHALL BE LOAMED, GRADED, LIMED, FERTILIZED, SEEDED AND MULCHED, UNLESS OTHERWISE NOTED. THE TOP 4 INCHES OF SOIL SHALL BE LOAM. REFER TO SPECIFICATION SECTION 02485, LOAM AND SEED.
12. THE CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL AND DRAINAGE MEASURES IN ALL AREAS OF WORK, AND CONFINE SOIL SEDIMENT TO WITHIN THE LIMITS OF EXCAVATION AND GRADING.
13. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY HAY BALE FILTERS TO PREVENT ENTRY OF SEDIMENT FROM RUNOFF WATERS DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL COLLECTED SEDIMENT, AND THAT WHICH COLLECTS IN THE STORM DRAIN SYSTEM.
14. BORING LOGS FOR THE PROJECT SITE ARE INCLUDED IN APPENDIX A OF THE SPECIFICATIONS..
15. ALL ELEVATIONS REFER TO THE NAVD 1988 DATUM. ORIENTATION IS GRID NORTH MAINE STATE PLANE COORDINATE SYSTEM. PROJECT BENCH MARK WILL BE PROVIDED BY THE ENGINEER.
16. CONTRACTOR SHALL NOT TRACK OR SPILL EARTH, DEBRIS OR OTHER CONSTRUCTION MATERIAL ON PUBLIC OR PRIVATE STREETS AND PLANT DRIVES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE ASSOCIATED CLEAN UP.
17. ALL CATCH BASINS, MANHOLES, VALVE PITS, VALVE BOXES AND OTHER BURIED FACILITIES WITH SURFACE ACCESS SHALL BE ADJUSTED TO MATCH FINAL GRADES, UNLESS OTHERWISE INDICATED.
18. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS AND EXCESS EXCAVATED MATERIAL FROM WITHIN THE CONSTRUCTION LIMIT OF WORK, TO A SUITABLE SITE PROVIDED BY THE CONTRACTOR, IN COMPLIANCE WITH ALL STATE AND LOCAL REGULATIONS. ANY EXCESS SUITABLE MATERIAL MAY REMAIN ON SITE AT THE REQUEST OF THE OWNER.
19. CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY HIS CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, TO THE SATISFACTION OF THE OWNER AND ENGINEER.
20. WHERE EXISTING PAVEMENT IS REMOVED AND REPLACED, MATCH EXISTING GRADES TO THE EXTENT POSSIBLE. COORDINATE FINE GRADING WITH THE ENGINEER.
21. THE CONTRACTOR SHALL ASCERTAIN THE LOCATION AND SIZE OF EXISTING PIPING AND UTILITIES IN THE FIELD BY TEST PIT EXCAVATION PRIOR TO COMMENCING INSTALLATION OF ANY OF THE NEW PIPING AFFECTED. WHERE NEW PIPE CONNECTS TO EXISTING PIPING OR STRUCTURAL PENETRATION, CONTRACTOR SHALL VERIFY ELEVATION BY TEST PIT, AS REQUIRED, PRIOR TO INSTALLATION OF ANY OF THE ASSOCIATED/AFFECTED NEW PIPING. IDENTIFIED CONFLICTS WITH EXISTING PIPING AND UTILITIES WILL BE REVIEWED WITH THE ENGINEER PRIOR TO COMMENCING INSTALLATION. THE HORIZONTAL ALIGNMENT OF NEW PIPING MAY BE ADJUSTED IN THE FIELD SUBJECT TO PRIOR REVIEW AND ACCEPTANCE OF THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY LAYOUT OF ALL PROPOSED WORK AS SHOWN ON THE DRAWINGS AND REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
22. TRENCH INSULATION SHALL BE USED WHERE DEPTH OF COVER IS LESS THAN 5 FEET.
23. MANHOLES ARE 4 FEET IN DIAMETER UNLESS OTHERWISE NOTED. THE TOP OF MANHOLE FRAMES SHALL BE SET FLUSH WITH FINISH GRADE, UNLESS OTHERWISE NOTED ON DRAWINGS.
24. REFER TO SPECIFICATION SECTION 02200 FOR PIPE AND STRUCTURE BEDDING AND BACKFILL REQUIREMENTS.
25. COMPACTION TESTS WILL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION SECTION 02200. ANY SETTLEMENT OCCURRING WITHIN ONE YEAR OF FINAL COMPLETION OF THE WORK SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST.
26. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
27. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. TEST PITS SHALL BE USED AS REQUIRED.
28. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED.
29. CONTRACTOR SHALL RE-SHAPE INVERTS AS REQUIRED WHEN CONNECTING INTO EXISTING MANHOLES.

GENERAL NOTES (cont.)

29. WHERE POSSIBLE, WATER LINES SHOULD BE INSTALLED OVER WASTEWATER LINES. A MINIMUM SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE WASTEWATER LINE SHALL BE MAINTAINED, IF POSSIBLE. WHERE A WATER LINE CROSSES UNDER A WASTEWATER LINE, A FULL LENGTH OF PIPE SHALL BE CENTERED ABOVE THE WATER LINE SO THAT BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE.
30. ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO ANY TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. DAMAGE TO ANY SUCH STRUCTURES CAUSED BY OR RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE OWNER.
31. WHENEVER PROPOSED STRUCTURES ARE LOCATED PARTLY WITHIN A PAVED AREA AND PARTLY IN A NON-PAVED AREA, A BITUMINOUS CONCRETE PAVED APRON 2-FEET WIDE SHALL BE SUPPLIED AROUND THE PROPOSED COVER. PAVEMENT SHALL SLOPE AWAY FROM THE COVER.



OVERALL SITE PLAN
NTS

LEGEND

EXISTING		PROPOSED
	PROPERTY/ROW LINE	
	SETBACK LINE	
	EASEMENT LINE	
	CENTERLINE	
	EDGE OF PAVEMENT	
	CURBING	
	EDGE OF GRAVEL	
122	CONTOUR	124
	BUILDING	
	STONEWALL	
	TREELINE	
	CHAIN LINK FENCE	
	STOCKADE FENCE	
	BARB WIRE FENCE	
	RETAINING WALL	
	GUARDRAIL	
8"S	SEWER	8"S
8"FM	SEWER FORCE MAIN	8"FM
6"G	GAS	6"G
8"W	WATER	8"W
15"SD	STORM DRAIN	15"SD
6"UD	UNDERDRAIN	6"UD
12" CMP	CULVERT	12" CMP
UGE	UNDERGROUND ELECTRIC	UGE
OHE	OVERHEAD ELECTRIC	OHE
	IRON PIPE/REBAR	
	DRILLHOLE	
	MONUMENT	
	SURVEY CONTROL POINT	
x 124.6	SPOT ELEVATION	x 132.5
SMH	SEWER MANHOLE	SMH
DMH	DRAINAGE MANHOLE	DMH
CB CB	CATCH BASIN	CB CB
EMH	ELECTRIC MANHOLE	EMH
TMH	TELEPHONE MANHOLE	TMH
	SHUTOFF VALVE	
	WATER SERVICE SHUTOFF	
	YARD HYDRANT	
	HYDRANT	
	UTILITY POLE	
	UTILITY POLE W/ GUY	
	UTILITY POLE W/ LIGHT	
	LIGHT POLE	
	BOLLARD	
	CONIFEROUS TREE	
	DECIDUOUS TREE	
	SHRUB	
	EDGE OF WATER	
	STREAM	
	EDGE OF WETLANDS	
	WETLANDS	
	DRAINAGE FLOW	
	DRAINAGE SWALE	
	PAVEMENT MARKINGS	
	SIGN	
MB	MAILBOX	
	TEMPORARY BENCH MARK	
TP-2	TEST PIT	
B-3	TEST BORING	
P-4	TEST PROBE	
MW-5	MONITORING WELL	
	LIMIT OF WORK	
	SILT FENCE	
	RIPRAP	
	RAILROAD	
	MATCHLINE	
	ROCK OUTCROP	

NO	SUBMISSIONS/REVISIONS	APP'D	DATE
1	ISSUED FOR BIDDING	KRO	9/30/11
2			
3			
4			
5			

DRAWN BY: RPB
CHECKED BY: SLG
DATE
APPROVED BY: KRO
DATE: 9/30/11
BOOK NO.
PROJECT NO: 11022E
SCALE: AS NOTED

KEVIN R. OBERY No. 6088 REGISTERED PROFESSIONAL ENGINEER STATE OF MAINE 9/30/11

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CUMBERLAND STREET SEWER SEPARATION
WESTBROOK, MAINE

GENERAL NOTES, LEGEND & OVERALL SITE PLAN

DRAWING C-1
69 OF 73

G:\DWGS\11022-WESTBROOK\11022E-FD\CIV\11022E C-1.DWG | C-1 | 1:1 | ---- | 9/30/2011 12:14:40 PM | RYAN.BEISAW

LAST SAVED BY: RYAN.BEISAW 10/3/2011 1:41 PM

NOTE:
SEE PIPE TRENCH DETAIL ON DWG C-5 FOR SPECIAL PIPE BEDDING REQUIREMENTS FOR GRAVITY SEWER PIPE

STA 110+27, 3' RT
CONSTRUCT 5'ø DMH-2
18" INV IN=48.72'
18" INV OUT=48.47'
6" INV IN=49.50'

SEWER BEDDING RELIEF DRAIN – SEE DWG C-5 FOR DETAIL

CB #15
RIM=51.53'
SUMP=46.90'
21" INV OUT=47.80'

CB #4
RIM= 51.03'
SUMP=47.50'
18" INV OUT=48.10'

REMOVE EXISTING SMH & CAP EXISTING SEWERS AS NEEDED

6" C.I. GAS MAIN – TO BE ABANDONED BY GAS UTILITY BY JUNE 1, 2012

6" C.S. HIGH PRESSURE GAS MAIN

SMH #10
RIM=52.23'
14" INV OUT=42.70'
15" INV IN=42.70'
8" INV IN=45.50'

SMH-1 110+00

SMH-2 111+00

112+00

113+00

114+00

115+00

116+00

CUMBERLAND STREET

EXISTING TRAFFIC ISLAND TO BE REMOVED AND REPLACED – SEE DETAIL, DWG C-3

CB #16
RIM=52.13'
SUMP=48.40'
DEEP SAND
21" INV OUT=48.40'

TO BE REPLACED UNDER MAINE DOT CONTRACT DRAWINGS

INSTALL 18" SD
L=32' S=.010

STA 110+00, 24' RT
CONSTRUCT 5'ø CB-1
18" INV IN=48.15'
21" INV OUT=47.90'

CONTRACTOR TO VERIFY LINE IS STILL IN SERVICE PRIOR TO RECONNECTING

SERVICE TO OLD POLICE STATION

ESPLANADE

PAVED DRIVE

PAVED WALK

INSTALL 18" SD
L=321' S=.0365

INSTALL 12'± STUB OF 18" STORM DRAIN...EXTEND STUB BEYOND TRAFFIC ISLAND FOR FUTURE CONNECTION AND CAP

INSTALL 15" SD
L=55' S=.0020

SILL=64.78'

TEST PIT REQUIRED, TYP

APPROXIMATE LIMIT OF PAVEMENT MILLING AND OVERLAY PAVEMENT

INSTALL 15" SD
L=42' S=.0020

INSTALL 15" SD
L=27' S=.0020

STA 113+53, 19' LT
CONSTRUCT CB-4
15" INV IN=61.00'
15" INV OUT=60.75'

STA 113+53, 8' RT
CONSTRUCT 6'ø DMH-3
15" (NORTH) INV IN=60.7'
15" INV IN=61.00'
18" INV IN=60.70'
18" INV OUT=60.45'

TBM: SPIKE IN CMP POLE #8 ELEV=67.09'

SILL=67.04'

STA 113+90, 44' LT
CONSTRUCT SMH
15" INV IN=56.40'
15" INV OUT=56.30'

INSTALL 15" SEWER
L=49' S=.0082

SMH #9
RIM=66.08'

SMH-4

CB #12
RIM=65.58'
SUMP=59.70'
STANDING WATER=61.60'

CONTRACTOR AND OWNER TO DETERMINE WHICH PIPES INTO MH ARE ACTIVE PRIOR TO SETTING SMH-3

STA 113+99, 22' LT
CONSTRUCT CB-5
15" INV OUT=61.08'

FFE=67.66'

FFE=67.59'

SILL=69.66'

CB #9
RIM=67.15'
SUMP=62.80'
STANDING WATER=63.40'

PAVED DRIVE

BITUMINOUS CURB

TELEPHONE BOX

SIGN

FLAGPOLE

CMP #5.1 W/CONDUIT

P-201

CB

6" CS GAS

6" CI GAS

SMH-3

CB #13
RIM=65.11'
SUMP=60.32'

CAP EXISTING 8" CLAY (TYP)

CB #10
RIM=65.13'
SUMP=62.90'

CMP #6 W/ CONDUIT

GRANITE CURB

PAVED WALK

CMP #5

PAVED DRIVE

GATE

WOOD STEPS

PORCH

FFE=72.89'

CONCRETE SIDEWALK WITH GRANITE CURB

1.2'ø STEEL COLUMN ON CONC PAD

INSTALL 10'± OF 15" SEWER AND RECONNECT TO EXISTING 12" SEWER USING A 15"x12" PVC REDUCER AND A FERNCO TYPE COUPLING
L=10' S=.0144

STA 114+04, 40" RT
CONSTRUCT CB-6
15" INV IN=61.36'
15" INV OUT=61.11'

HARNOIS STREET

CB #11
RIM=64.21'
SUMP=58.60'

B-104

CONTRACTOR TO VERIFY MH HAS NO ACTIVE SERVICES AND REMOVE MH

STA 113+81, 61' RT
CONSTRUCT CB-7
15" INV OUT=61.41'

INSTALL 15" SD
L=27' S=.0020

MATCH LINE

C-3

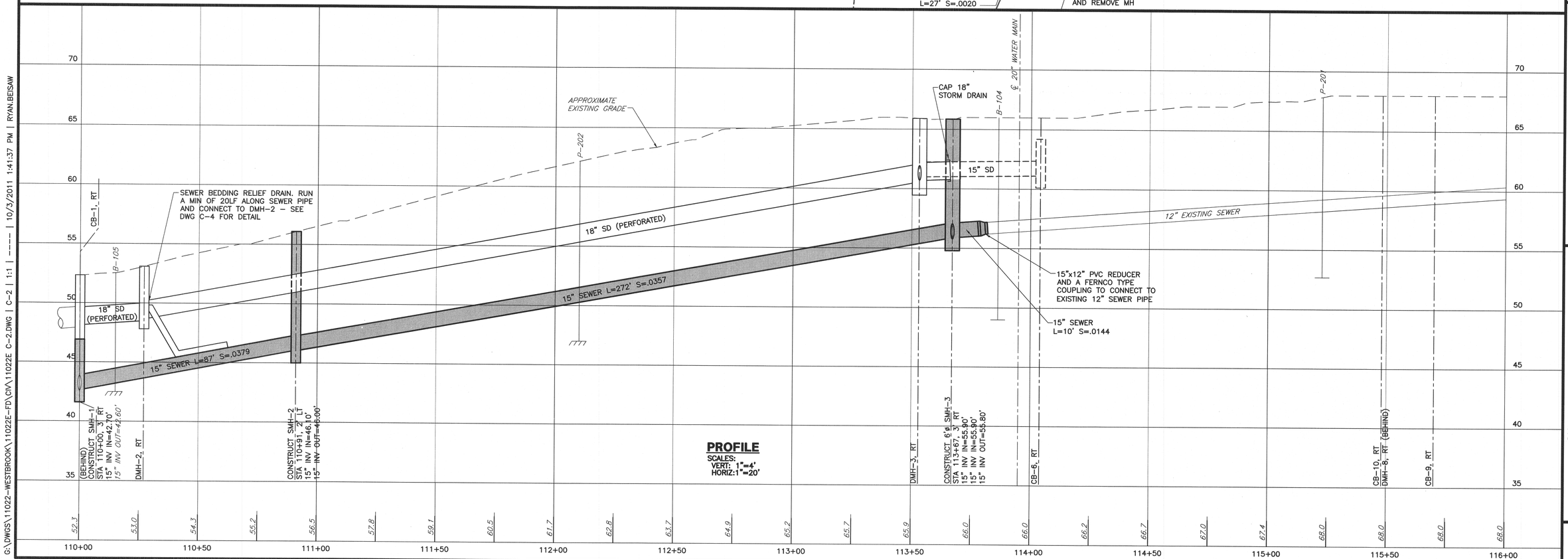
PLAN
SCALE: 1"=20'

N

NO	SUBMISSIONS/REVISIONS	APP'D	DATE
1	ISSUED FOR BIDDING	KRO	9/30/11

DRAWN BY: RPB
CHECKED BY: SLG
DATE:
APPROVED BY: KRO
DATE: 9/30/11
BOOK NO.
PROJECT NO. 11022E
SCALE AS NOTED

KEVIN R. OBERY No. 6688 REGISTERED PROFESSIONAL ENGINEER STATE OF MAINE



PROFILE
SCALES:
VERT: 1"=4'
HORIZ:1"=20'

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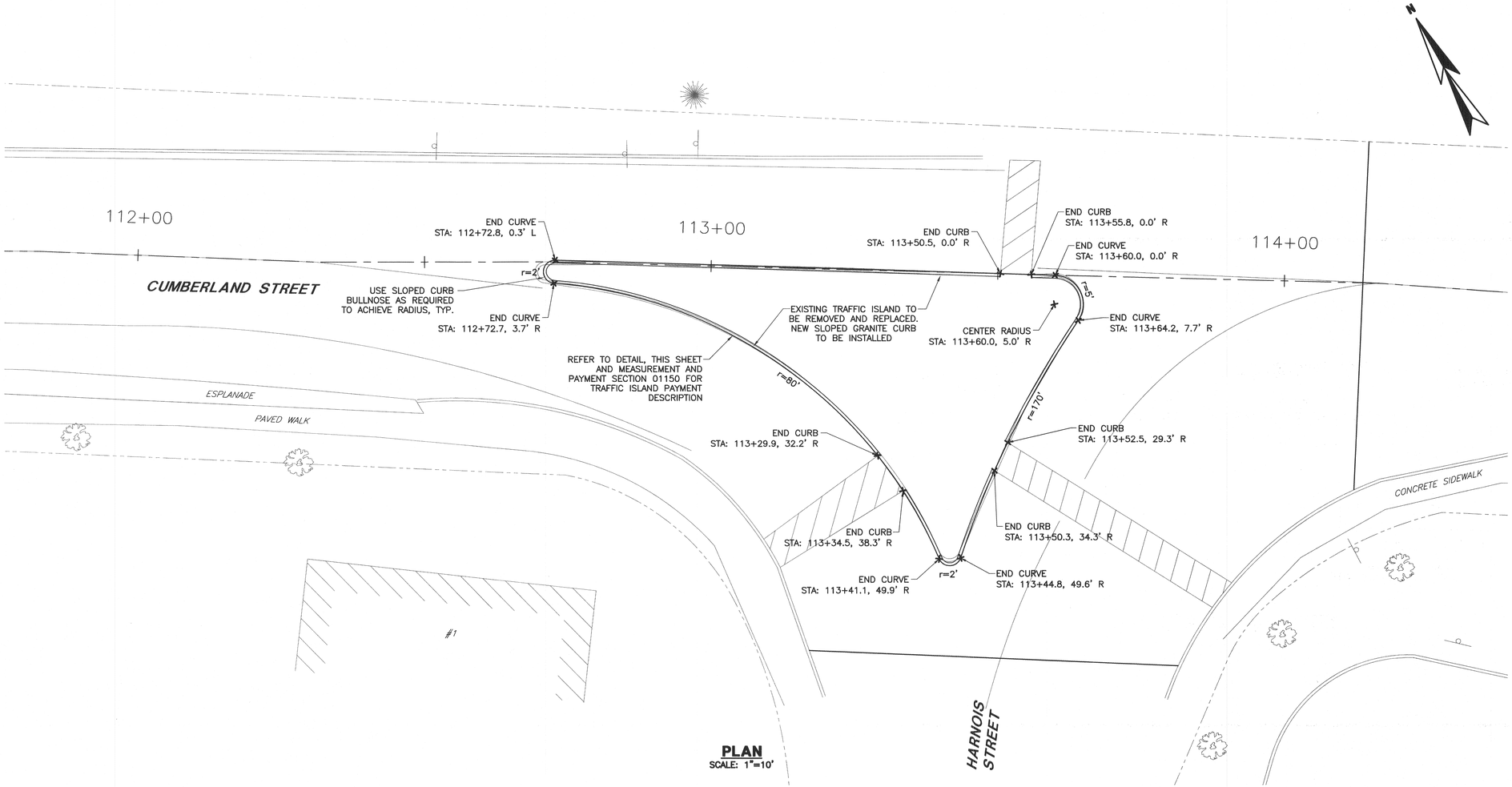
CUMBERLAND STREET
SEWER SEPARATION
WESTBROOK, MAINE

PLAN AND PROFILE – CUMBERLAND STREET
STA 110+00 TO STA 116+00

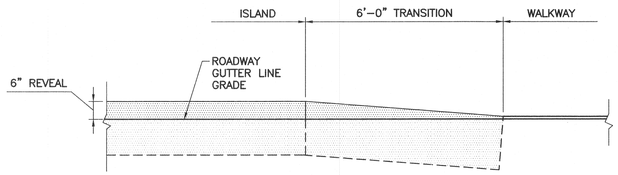
DRAWING
C-2
70 OF 73

G:\DWGS\11022-WESTBROOK\11022E-FD\CIV\11022E C-2.DWG | C-2 | 1:1 | ----- | 10/3/2011 1:41:37 PM | RYAN.BEISAW

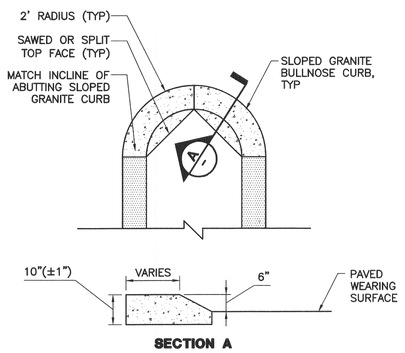
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PLAN
SCALE: 1"=10'

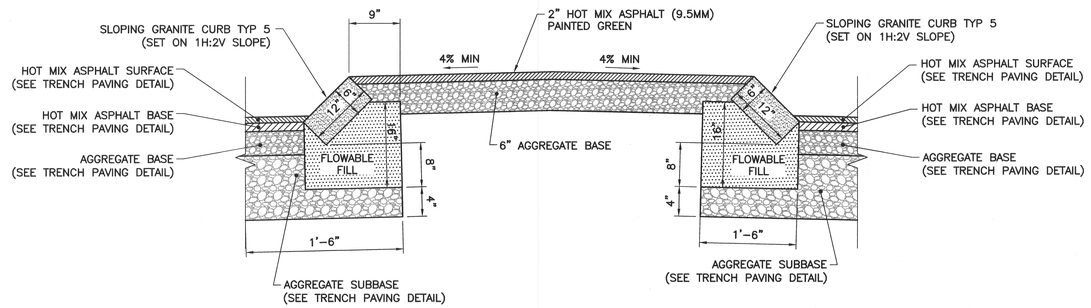


GRANITE CURB TRANSITION
NTS



SECTION A

SLOPED GRANITE CURB BULLNOSE
SCALE: NTS



TRAFFIC ISLAND DETAIL
NTS

NO	SUBMISSIONS/REVISIONS	APP'D	DATE
1	ISSUED FOR BIDDING	KRO	9/30/11

DRAWN BY: RPB
CHECKED BY: SLG
DATE:
APPROVED BY: KRO
DATE: 9/30/11
BOOK NO.
PROJECT NO. 11022E
SCALE: AS NOTED

STATE OF MAINE
KEVIN R. OBERY
No. 6088
REGISTERED PROFESSIONAL ENGINEER

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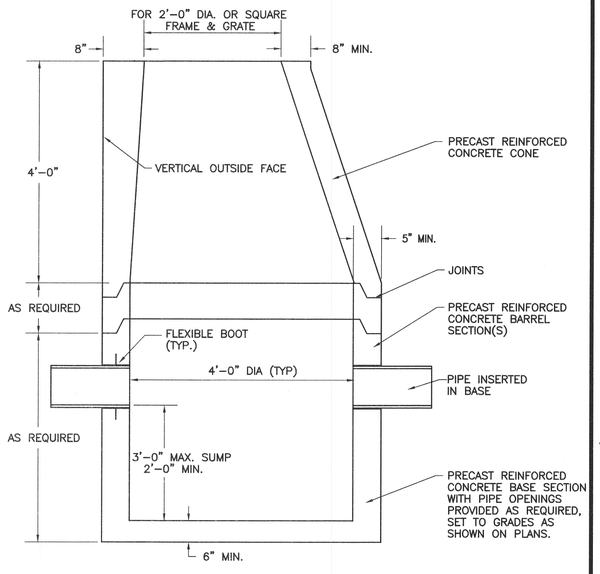
CUMBERLAND STREET
SEWER SEPARATION
WESTBROOK, MAINE

TRAFFIC ISLAND REPLACEMENT PLAN & DETAILS

DRAWING
C-3
71 OF 73

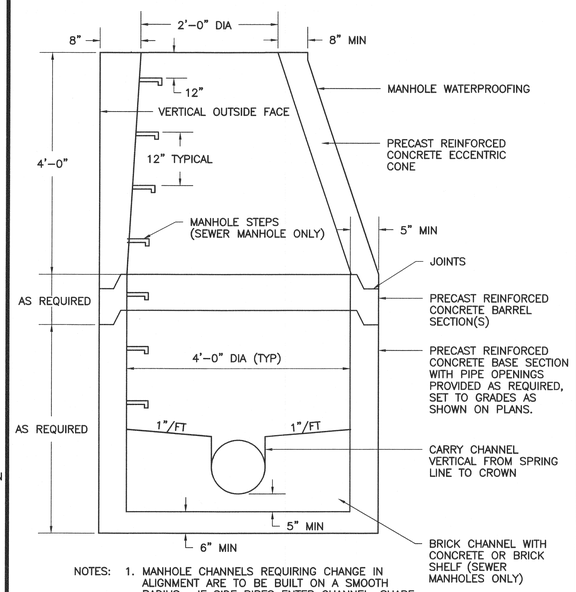
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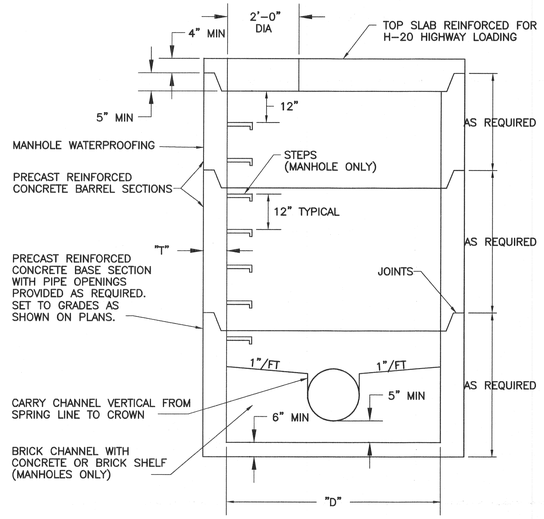
NOTE: USE FLAT SLAB TOP CATCH BASIN WHERE REQUIRED TO MATCH GRADE.

4 FT CATCH BASIN
NTS



NOTES:
1. MANHOLE CHANNELS REQUIRING CHANGE IN ALIGNMENT ARE TO BE BUILT ON A SMOOTH RADIUS. IF SIDE PIPES ENTER CHANNEL, SHAPE TO RECEIVE ADDED SIDE FLOW.
2. USE FLAT SLAB TOP MANHOLE WHEN THE DIFFERENCE BETWEEN INVERT AND RIM IS LESS THAN 6'-0" AND WHEN MANHOLE DIAMETER IS GREATER THAN 4'-0".

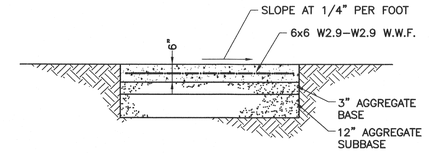
TYPICAL 4-FT MANHOLE
NTS



NOTES:
1. MANHOLE CHANNELS REQUIRING CHANGE IN ALIGNMENT ARE TO BE BUILT ON A SMOOTH RADIUS. IF SIDE PIPES ENTER CHANNEL, SHAPE TO RECEIVE ADDED SIDE FLOW.
2. CATCH BASINS TO HAVE 2' TO 3' DEEP SUMP.

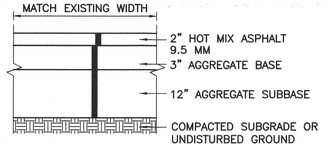
DIAMETER ("D")	MAX PIPE DIAMETER STRAIGHT THRU TO 45° DEFLECTION	MINIMUM WALL THICKNESS ("T")
48"	UP TO 30" O.D.	5"
60"	UP TO 44" O.D.	6"
72"	UP TO 51" O.D.	7"
96"	UP TO 72" O.D.	9"

FLAT SLAB TOP MANHOLE AND CATCH BASIN
NTS



NOTE: SAWCUT CONTROL JOINTS AT 5'-0" CENTERS (2" DEEP)

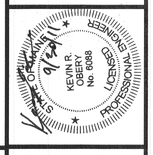
CONCRETE SIDEWALK REPAIR DETAIL
NTS

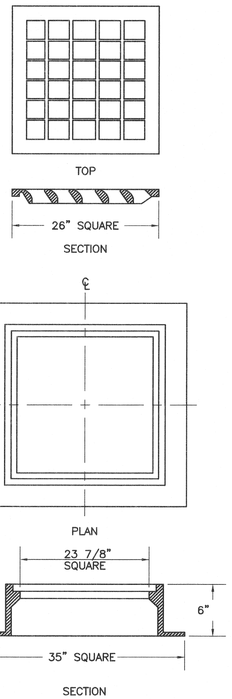


PAVED SIDEWALK REPAIR DETAIL
NTS

NO	SUBMISSIONS/REVISIONS	APP'D	DATE
1	ISSUED FOR BIDDING	KRO	9/30/11
2			
3			
4			

DRAWN BY: RPB
CHECKED BY: SLG
DATE
APPROVED BY: KRO
DATE: 9/30/11
BOOK NO.
PROJECT NO: 11022E
SCALE: AS NOTED

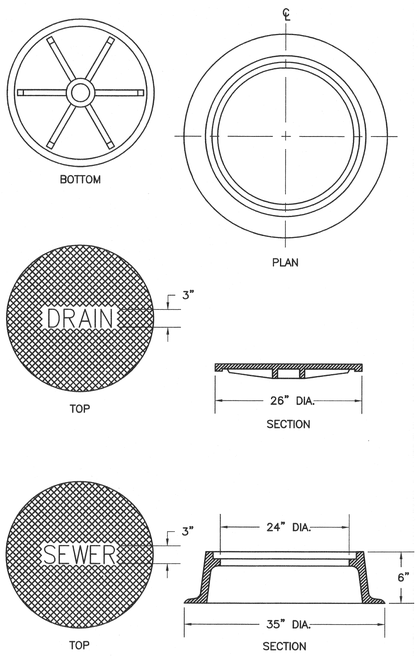




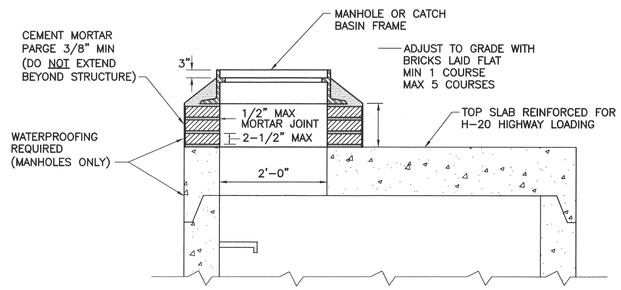
CASCADE GRATE AND FRAME
NTS

NOTES:

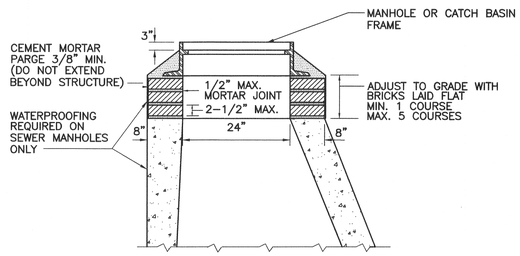
TRIM FLANGES ON FRAME AS NECESSARY TO FIT TOP OF PRECAST STRUCTURE



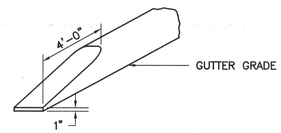
MANHOLE COVER AND FRAME
NTS



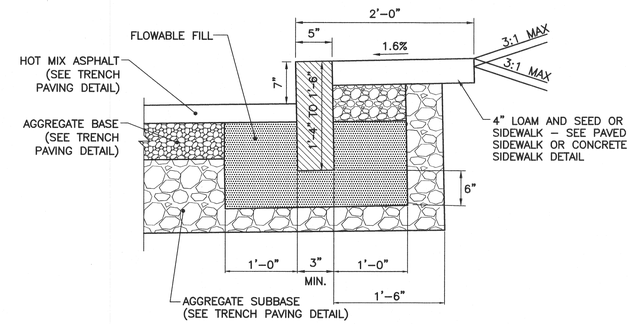
FLAT SLAB TOP MANHOLE AND CATCH BASIN FRAME INSTALLATION
NTS



MANHOLE AND CATCH BASIN FRAME INSTALLATION
NTS



BITUMINOUS TERMINAL CURB
NTS



GRANITE CURB REPAIR DETAIL
NTS

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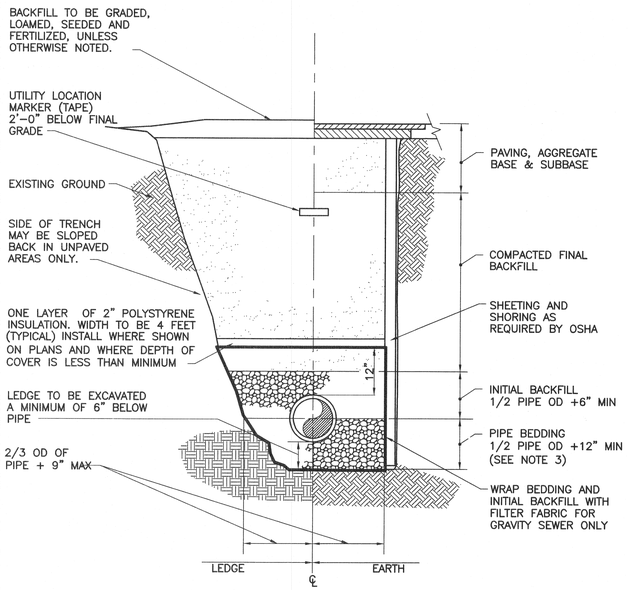
CUMBERLAND STREET
SEWER SEPARATION
WESTBROOK, MAINE

DETAILS I

DRAWING C-4
72 OF 73

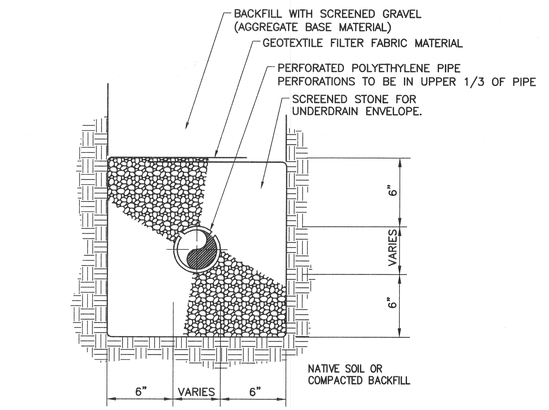
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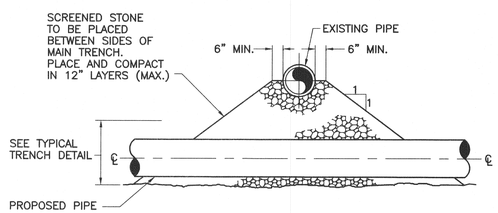


NOTES:
1. ALL EXCAVATION MUST MEET OSHA STANDARDS
2. INSTALL 3 FOOT LONG IMPERVIOUS MATERIAL DAM IN BEDDING/INITIAL BACKFILL MATERIAL EVERY 100' TO PREVENT TRENCH GROUND WATER FROM BEING CHANNELED ALONG BEDDING/INITIAL BACKFILL.
3. PIPE BEDDING TO EXTEND 6" BELOW STORM DRAIN AND FORCE MAIN PIPE, BUT 12" BELOW GRAVITY SEWER PIPE.
4. SEE SPECIFICATIONS FOR BEDDING AND BACKFILL REQUIREMENTS.

PIPE TRENCH DETAIL
NTS

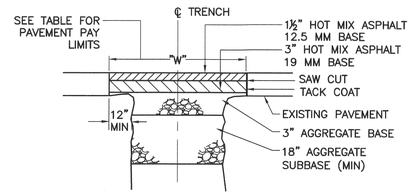


TYPICAL PERFORATED STORM AND FOUNDATION DRAIN BEDDING DETAIL
NTS



NOTE:
JOINTS ON EACH PIPE TO BE AS FAR FROM INTERSECTION AS POSSIBLE

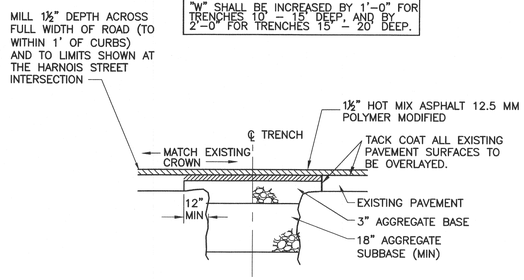
PIPE CROSSING DETAIL
NTS



INITIAL TRENCH PAVING - CUMBERLAND ST (WITH OVERLAY)
NTS

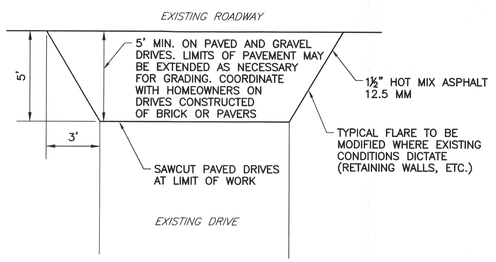
PAVEMENT PAY UNITS	
PIPE I.D.	"W" (FOR 0' – 10' DEEP)
6" – 15"	8'–0"
16" – 21"	9'–0"

"W" SHALL BE INCREASED BY 1'–0" FOR TRENCHES 10' – 15' DEEP, AND BY 2'–0" FOR TRENCHES 15' – 20' DEEP.

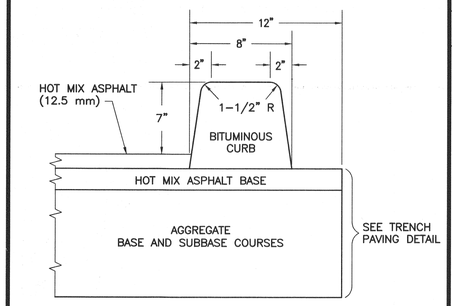


NOTE: MILLING AND OVERLAY TO STOP 1 FOOT FROM EXISTING CURBS.

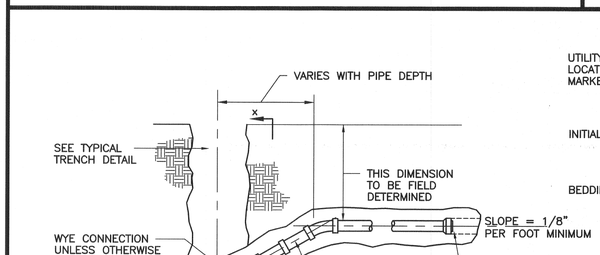
FINAL OVERLAY PAVING - CUMBERLAND ST
NTS

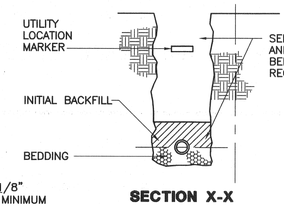


TYPICAL DRIVE APRON
NTS



BITUMINOUS CONCRETE CURB
NTS

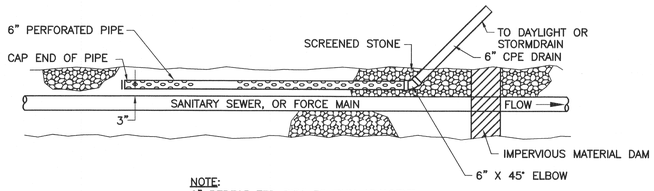




SECTION X-X

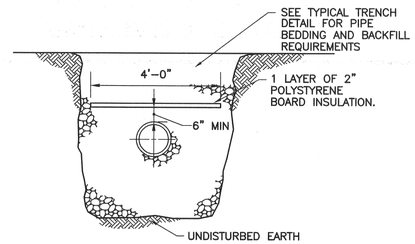
NOTES: 1. SANITARY SERVICE CONNECTIONS TO BE 6" DIAMETER UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
2. EXTEND SERVICE 4' BEYOND BACK OF SIDEWALK (MIN.)
3. CONNECTIONS MAY EXTEND TO THE BUILDING FOUNDATION AT THE DIRECTION OF THE ENGINEER.

SANITARY SEWER SERVICE CONNECTION DETAIL
NTS



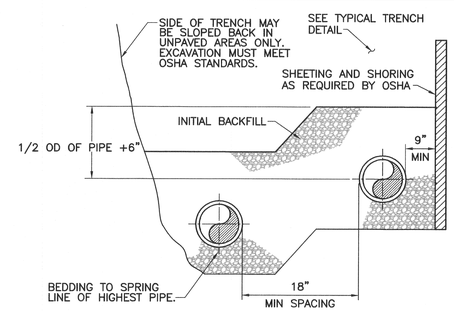
NOTE:
6" PERFORATED PIPE TO RUN ADJACENT TO SEWER FOR A MINIMUM OF 20 FEET

SEWER BEDDING RELIEF DRAIN DETAIL
NTS



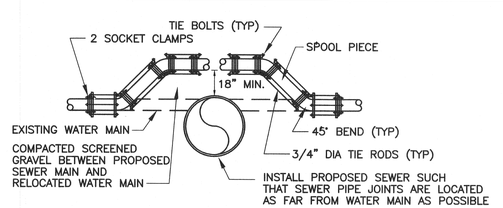
NOTE: TRENCH PIPE INSULATION TO BE USED WHERE DEPTH OF COVER IS LESS THAN 5 FEET OR AS DIRECTED BY THE ENGINEER.

TRENCH PIPE INSULATION DETAIL
NTS



NOTES: 1. THIS SECTION IS SHOWN FOR TWO PIPES. IT IS TO BE USED FOR ANY NUMBER OF PIPES.
2. SEE SPECIFICATIONS FOR BEDDING AND BACKFILL MATERIALS AND COMPACTED BACKFILL REQUIREMENTS.
3. PIPE SPACING SHOWN IS TYPICAL UNLESS OTHERWISE INDICATED.
4. SEE SPECIFICATION SECTION 01150 – MEASUREMENT AND PAYMENT FOR PAY WIDTH REQUIREMENTS.

MULTIPLE PIPE TRENCH
NTS



NOTES: 1. WATER MAIN MATERIALS TO BE CLASS 52 DUCTILE IRON. JOINT RESTRAINT TO BE BY MECHANICAL JOINT WITH RETAINER GLANDS, OR WITH TIE BOLTS AS SHOWN.
2. TIE RODS, TIE BOLTS, SOCKET CLAMPS AND BRIDLES SHALL BE COATED WITH A BITUMINOUS PAINT AFTER ASSEMBLY OR IF NECESSARY PRIOR TO ASSEMBLY.
3. TIE RODS: 10" DIA WATER MAIN OR LARGER – 4 REQUIRED.
8" DIA WATER MAIN OR SMALLER – 2 REQUIRED.
4. EXISTING WATER MAINS TO BE RELOCATED OVER NEW SEWERS WHEREVER SUFFICIENT GROUND COVER EXISTS (5' MINIMUM COVER).
5. COORDINATE WITH THE PORTLAND WATER DISTRICT.

WATER MAIN RELOCATION DETAIL
NTS

NO	SUBMISSIONS/REVISIONS	APP'D	DATE
1	ISSUED FOR BIDDING	KRO	9/30/11

DRAWN BY RPB
CHECKED BY SLG
DATE
APPROVED BY KRO
DATE 9/30/11
BOOK NO.
PROJECT NO. 11022E
SCALE AS NOTED

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CUMBERLAND STREET SEWER SEPARATION
WESTBROOK, MAINE

DETAILS II

DRAWING C–5
73 OF 73

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