STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Sixth Edition 2012.

DESIGN LOADING

Live Load	HL - 93 Modified

TRAFFIC DATA

Current (2012) AADT	10,310
Future (2032) AADT	12,370
DHV - % of AADT	10
Design Hour Volume	1237
Heavy Trucks (% of AADT)	10
Heavy Trucks (% of DHV)	4
Directional Distribution (% of DHV)	50
18 kip Equivalent P 2.0	565
18 kip Equivalent P 2.5	539
Design Speed (mph)	35

HYDROLOGIC DATA

Drainage Area	328 sq mi
Design Discharge (Q50)	10,134 cfs
Check Discharge (Q100)	11,652 cfs
Headwater Elevation (Q50)	220.75 ft
Headwater Elevation (Q100)	222.10 ft
Discharge Velocity (Q50)	8.3 fps
Discharge Velocity (Q100)	11.3 fps
Headwater Elevation (Q1.1)	215.16 ft
Discharge Velocity (Q1.1)	4.7 fps

MATERIALS

Concrete:	
Barriers, Curbs, Sidewalks & Transition Barriers	Class "LP"
Precast	Class "P"
All Other	Class "A"
Reinforcing (Deck, Backwall)	
Glass Fiber Reinforced Polymer (GFRP)	CSA S807-10, ACI 1440-1R-06
Reinforcing Steel (Abutments, Wingwalls)	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	f 'c = 4350 psi
Precast Abutments	f 'c = 4350 psi
Precast Approach Slabs	f 'c = 4350 psi
Reinforcing Steel	f y = 60,000 psi
Glass Fiber Reinforced Polymer (GFRP):	
Normal Modulus	100 ksi
High Modulus	145 ksi
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 u = 120,000 psi

AUBURN
ANDROSCOGGIN COUNTY
LITTLEFIELDS BRIDGE
OVER
LITTLE ANDROSCOGGIN RIVER
HOTEL ROAD
AC-BR-1928(400)X
PROJECT LENGTH 0.090 mi.
BRIDGE NO. 3338

LIST OF DRAWINGS

MAINTENANCE OF TRAFFIC

Bridge closure with a detour on Kittyhawk Avenue, U.S. Route 202 / Washington Street and Rodman Road.

UTILITIES

Auburn Water and Sewer District
Central Maine Power Company
Fairpoint Communications
Oxford Networks
St. Lawrence & Atlantic Railroad
Time Warner Cable
Unitil Corporation

PROJECT LOCATION:	Littlefields Bridge (#3338), on Hotel Road, over the Little Androscoggin River, located 1.5 miles south of Minot Avenue (Route 11) Latitude: 44°03'50"N Longitude: 70°16'23"W
PROGRAM AREA:	Bridge
OUTLINE OF WORK:	Bridge replacement with approach work.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED | DATE
COMMISSIONER: | 11/29/12
CHIEF ENGINEER: | 11/29/12

SIGNATURE
P.E. NUMBER 10075
DATE 11-26-2012

PROJECT INFORMATION

PROGRAM	BRIDGE PROGRAM
PROJECT MANAGER	NATHANIEL BENOIT
DESIGNER	T. KENDRICK
CONSULTANT	McFARLAND JOHNSON
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 19284.00

AC-BR-1928(400)X

AUBURN
LITTLEFIELDS BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 42

Date:11/26/2012
Username:
Division:
Filename: ...\Final Plans\001_Title.dgn

ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
201.23	REMOVING SINGLE TREE TOP ONLY	2	EA
201.24	REMOVING STUMP	2	LS
202.10	REMOVAL OF EXISTING SUPERSTRUCTURE - PROPERTY OF CONTRACTOR	1	
	(60 TONS STEEL, 75 CY CONCRETE)		LS
202.121	REMOVING EXISTING CONCRETE (110 CY)	1	EA
202.15	REMOVING EXISTING MANHOLE OR CATCH BASIN	1	CY
203.20	COMMON EXCAVATION	920	CY
203.25	GRANULAR BORROW	660	LS
203.61	CONSTRUCT AND REMOVE TEMPORARY ACCESS	1	CY
206.082	STRUCTURAL EXCAVATION - MAJOR STRUCTURES	1300	CY
304.09	AGGREGATE BASE COURSE - CRUSHED	650	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	640	T
403.207	HOT MIX ASPHALT 19.0 MM NOMINAL MAXIMUM SIZE	350	T
403.208	HOT MIX ASPHALT 12.5 MM NOMINAL MAXIMUM SIZE, SURFACE	200	T
403.213	HOT MIX ASPHALT 12.5 MM NOMINAL MAXIMUM SIZE, BASE	180	G
409.15	BITUMINOUS TACK COAT - APPLIED	11	EA
501.231	DYNAMIC LOADING TEST	2	LF
501.48	STEEL H-BEAM PILES 74 LBS/FT, DELIVERED	570	LF
501.481	STEEL H-BEAM PILES 74 LBS/FT, IN PLACE	570	EA
501.90	PILE TIPS	12	EA
501.903	PILE TIPS - ROCK INJECTOR POINT	12	LS
501.92	PILE DRIVING EQUIPMENT MOBILIZATION	1	CY
502.21	STRUCTURAL CONCRETE ABUTMENTS & RETAINING WALLS	28	LS
502.26	STRUCTURAL CONCRETE ROADWAY & SIDEWALK SLAB ON STEEL BRIDGE (240 CY)	1	LS
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALK (18 CY)	1	LS
504.702	STRUCTURAL STEEL FABRICATED & DELIVERED, WELDED (233,000 LBS)	1	LS
504.71	STRUCTURAL STEEL ERECTION (233,000 LBS)	1	LS
505.08	SHEAR CONNECTORS (1980 EA)	1	LS
507.0834	WYOMING STEEL BRIDGE RAILING (355 LF)	1	LS
508.13	MEMBRANE WATERPROOFING (30 SY)	1	LS
512.081	FRENCH DRAINS (133 LF)	1	EA
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	SY
515.20	PROTECTIVE COATING FOR CONCRETE SURFACES	960	SF
518.60	REPAIR OF VERTICAL SURFACES < 7.9 IN.	110	CY
518.61	REPAIR OF VERTICAL SURFACES > 7.9 IN.	1	LF
520.232	EXPANSION DEVICE - ASPHALTIC PLUG JOINT	68	EA
523.52	BEARING INSTALLATION	8	EA
523.5401	LAMINATED ELASTOMERIC BEARINGS, FIXED	4	EA
523.5402	LAMINATED ELASTOMERIC BEARINGS, EXPANSION	4	LS
524.301	TEMPORARY SUPPORTS AND HORIZONTAL SLIDE	1	LS
526.301	TEMPORARY CONCRETE BARRIER, TYPE 1 (60 LINEAR FEET)	1	EA
526.3401	PERMANENT CONCRETE TRANSITION BARRIER, MODIFIED	4	LF
530.30	GLASS FIBER REINFORCED POLYMER, FABRICATED AND DELIVERED	51,000	LF
530.31	GLASS FIBER REINFORCED POLYMER, PLACING	51,000	LS
534.76	PRECAST ABUTMENT (105 CY)	1	LS
534.7601	PRECAST APPROACH SLAB (25 CY)	1	LF
603.179	18 IN. CULVERT PIPE OPTION III	30	LF
603.199	24 IN. CULVERT PIPE OPTION III	17	EA
604.092	CATCH BASIN TYPE BI-C	5	EA
604.15	MANHOLE	1	LF
605.11	12 IN. UNDERDRAIN TYPE C	200	LF
605.15	24 IN. UNDERDRAIN TYPE C	81	EA
606.1721	BRIDGE TRANSITION - TYPE 1	4	LF
606.23	GUARDRAIL TYPE 3C - SINGLE RAIL	300	LF
606.231	GUARDRAIL TYPE 3C - 15 FOOT RADIUS AND LESS	19	EA
606.2602	TERMINAL END - TRAILING END	1	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EA
606.79	GUARDRAIL 350 FLARED TERMINAL	3	LF
609.31	CURB TYPE 3	240	CY
610.08	PLAIN RIPRAP	820	SY
613.319	EROSION CONTROL BLANKET	560	CY
615.07	LOAM	58	UN
618.1301	SEEDING METHOD NUMBER 1 - PLAN QUANTITY	2.5	UN
618.1401	SEEDING METHOD NUMBER 2 - PLAN QUANTITY	1.5	UN
618.1411	SEEDING METHOD NUMBER 3 - PLAN QUANTITY	3	UN
619.1201	MULCH - PLAN QUANTITY	6.5	CY
619.1401	EROSION CONTROL MIX	51	

ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
620.58	EROSION CONTROL GEOTEXTILE	760	SY
621.246	LARGE DECIDUOUS TREES 3-4" GROUP A	15	EA
621.248	LARGE DECIDUOUS TREES 5-6" GROUP A	10	EA
621.255	LARGE DECIDUOUS TREES 8-10" GROUP A	3	EA
621.540	DECIDUOUS SHRUBS 18-24" GROUP A	10	EA
627.733	4 IN. WHITE OR YELLOW PAINTED PAVE MARK LINE	1950	LF
627.75	WHITE OR YELLOW PAVEMENT & CURB MARKING	8.5	SF
629.05	HAND LABOR, STRAIGHT TIME	20	HR
631.12	ALL -PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20	HR
631.171	TRUCK -SMALL (INCLUDING OPERATOR)	20	HR
631.172	TRUCK -LARGE (INCLUDING OPERATOR)	20	HR
631.220	FRONT END LOADER (INCLUDING OPERATOR)	20	HR
635.14	PREFABRICATED CONCRETE MODULAR GRAVITY WALL	390	SF
639.19	FIELD OFFICE TYPE B	1	EA
645.106	DE MOUNT REGULATORY, WARNING, CONFIRMATION, AND ROUTE MARKER ASSEMBLY SIGN	1	EA
645.116	REINSTALL REGULATORY, WARNING, CONFIRMATION, AND ROUTE MARKER ASSEMBLY SIGN	1	EA
652.312	TYPE III BARRICADES	5	EA
652.33	DRUM	50	EA
652.34	CONE	50	EA
652.35	CONSTRUCTION SIGNS	630	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (8 MONTHS)	1	LS
652.38	FLANGERS	300	HR
656.75	TEMPORARY SOIL EROSION & WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS
827.362	GAS MAIN TRENCHING	320	LF
830.10	FURNISH AND INSTALL WATER MAIN BRIDGE CROSSING - PRE -INSULATED	1	LS
830.13	SEWER MAIN BRIDGE CROSSING - PRE -INSULATED	1	LS
845.10	STRUCTURAL STEEL UTILITY SUPPORT - GAS MAIN	1	LS

GENERAL CONSTRUCTION NOTES

1. All utility facilities shall be adjusted by the respective utilities unless otherwise noted. See 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 closed to traffic for a time period specified in the Special Provisions.
4. 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.
5. Loam shall be placed to a nominal depth of 4 inches in lawn areas and 2 inches in all other areas unless otherwise noted.
6. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.
7. 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.
8. An NCHRP350 compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail.
9. 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.
10. Protective coating for Concrete Surfaces shall be applied to the following areas:

    All exposed surfaces of proposed abutments and wingwalls and one (1) foot below the top on the backfill side. All exposed surfaces of concrete curbs, Fascia down to drip notch. All exposed surfaces of Concrete Transition Barriers, Concrete wearing surfaces.
11. 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.
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14. Protective coating for Concrete Surfaces shall be applied to the following areas:

    All exposed surfaces of proposed abutments and wingwalls and one (1) foot below the top on the backfill side. All exposed surfaces of concrete curbs, Fascia down to drip notch. All exposed surfaces of Concrete Transition Barriers, Concrete wearing surfaces.
15. Erosion Control Mix may be substituted in those areas normally receiving loam and seed as directed by the Resident. Placement shall be in accordance with Standard Specification 619, Mulch. Payment will be made under Item 619.1401, Erosion Control Mix.
16. Project information referred to below may be accessed at the following MaineDOT web address: http://www.maine.gov/mdot/contractors/index.shtml.
17. The existing bridge plans 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.
18. A copy of the hydrologic report of the bridge site 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.
19. The project geotechnical report titled "Geotechnical Design Report for the Replacement of Littlefields Bridge over Little Androscoggin River, Hotel Road, Auburn, Maine", MDOT Soils Report No. 2012-08, March 28, 2012 may be accessed at the MaineDOT web address.
20. 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.
21. 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.
22. The existing bridge shall be removed by and become the property of the Contractor. The steel portions of the existing bridge are 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. The Contractor shall field verify all existing utility locations and elevations prior to the pre-cast substructure fabrications and pile driving operations.
24. The temporary access area, approximate station 107+00 to 109+00 left, shall be restored to the original grades with the exception that fill material may be left in place if agreed to by the property owner and approved by the Resident.
25. The survey marker on the southwest corner of the bridge shall be retained. After the existing guardrail is removed, MaineDOT survey crews shall remove the marker.
26. Temporary support of the steel superstructure for bearing installation shall be included in Item 523.52, Bearing Installation.
27. Two reflectorized flexible guardrail markers (Item 606.353) will be installed at each guardrail end.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	N. BENOIT	
DESIGN-DETAILED	J. Poisson	P. Dustin
CHECKED-REVIEWED	D. Kull	R. Joy
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

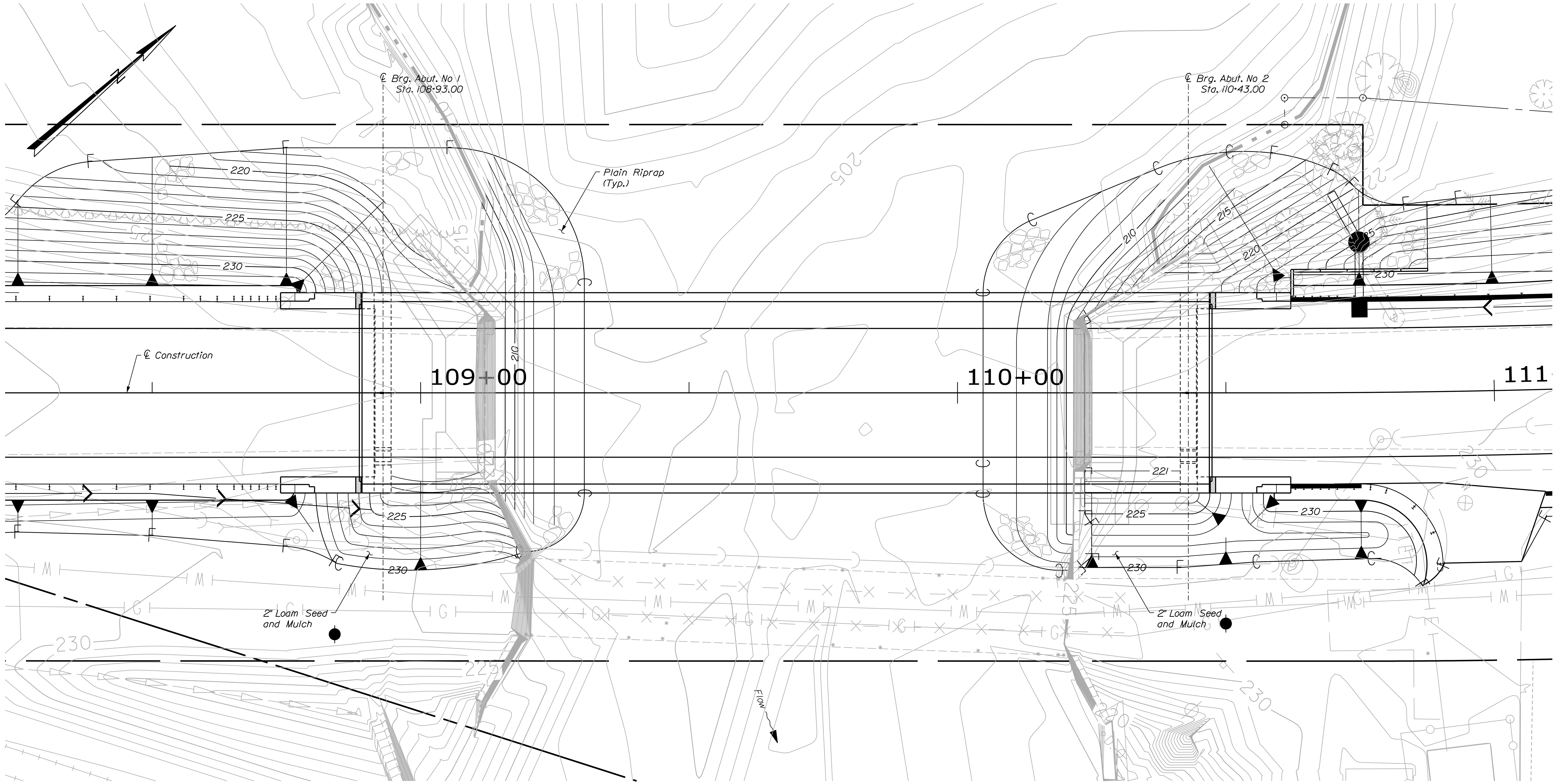
LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

ESTIMATED QUANTITIES AND NOTES

SHEET NUMBER 2

OF 42

Date:12/14/2012 Username: Division: Filename: ...\Mylar\003_Grading_plan.dgn



PLAN

10 0 10 20
Scale in Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

BRIDGE NO. 3338

WIN 19284.00

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	N. BENOIT		
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

GRADING PLAN

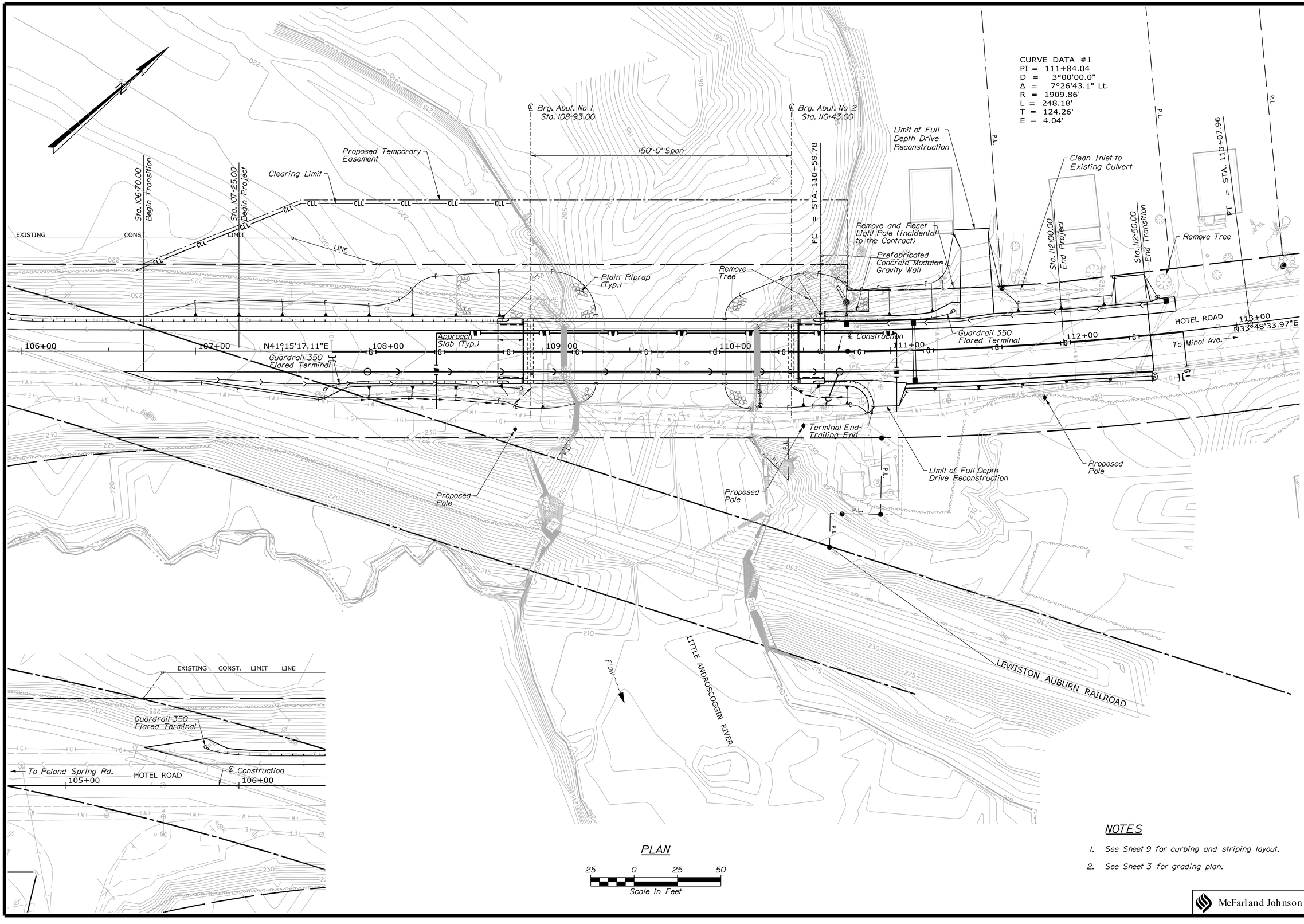
McFarland Johnson

SHEET NUMBER

3

OF 42

Filename: ...\Mylar\004_General_plan.dgn Username: Division: Date:12/14/2012



PLAN

25 0 25 50
Scale in Feet

NOTES

1. See Sheet 9 for curbing and striping layout.
2. See Sheet 3 for grading plan.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

		DATE
PROJ. MANAGER	N. BENOIT	
DESIGN-DETAILED	J. Poisson	P. Dustin
CHECKED-REVIEWED	D. Kull	R. Joy
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

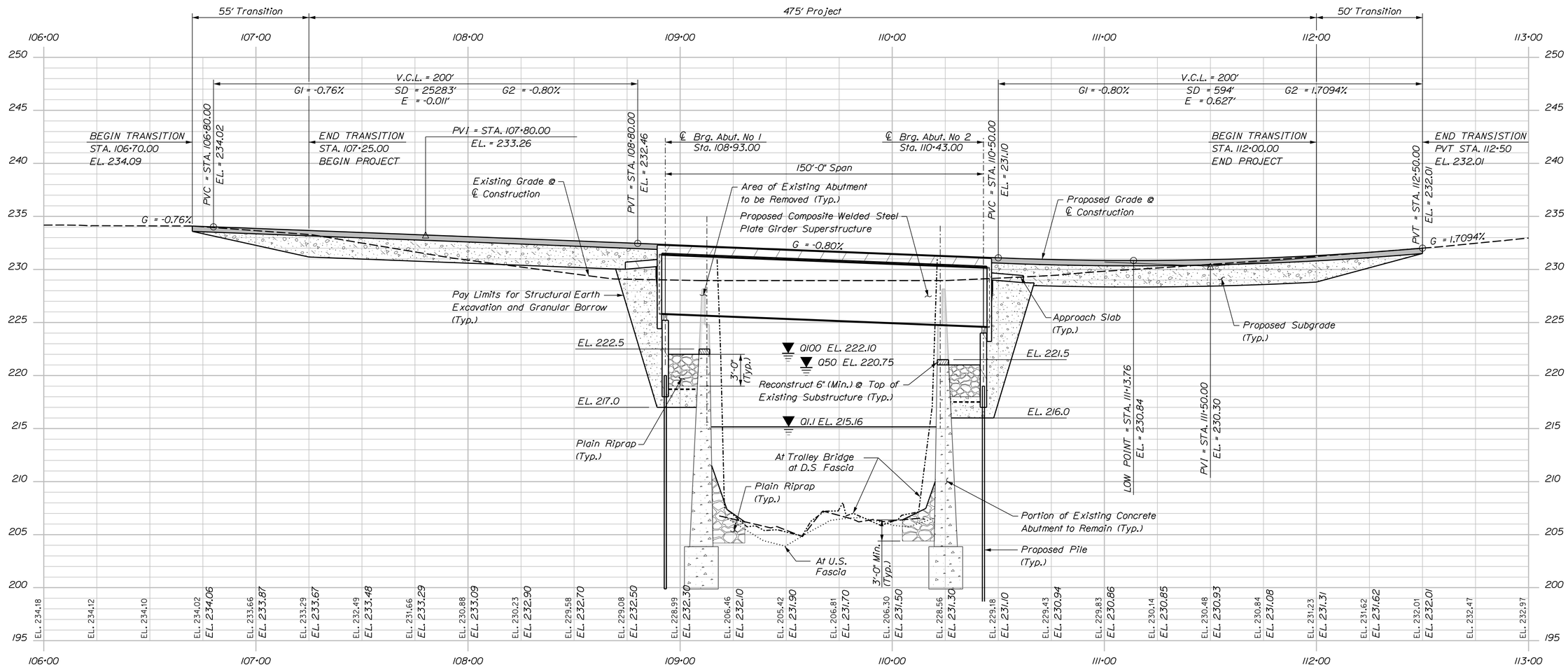
LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

GENERAL PLAN

SHEET NUMBER

4

OF 42



PROFILE

HORIZ. 25 0 25 50

VERT. 5 0 5 10

SCALE

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

PIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

PROJ. MANAGER	N. BENOIT		
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
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REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

PROFILE

SHEET NUMBER

5

OF 42

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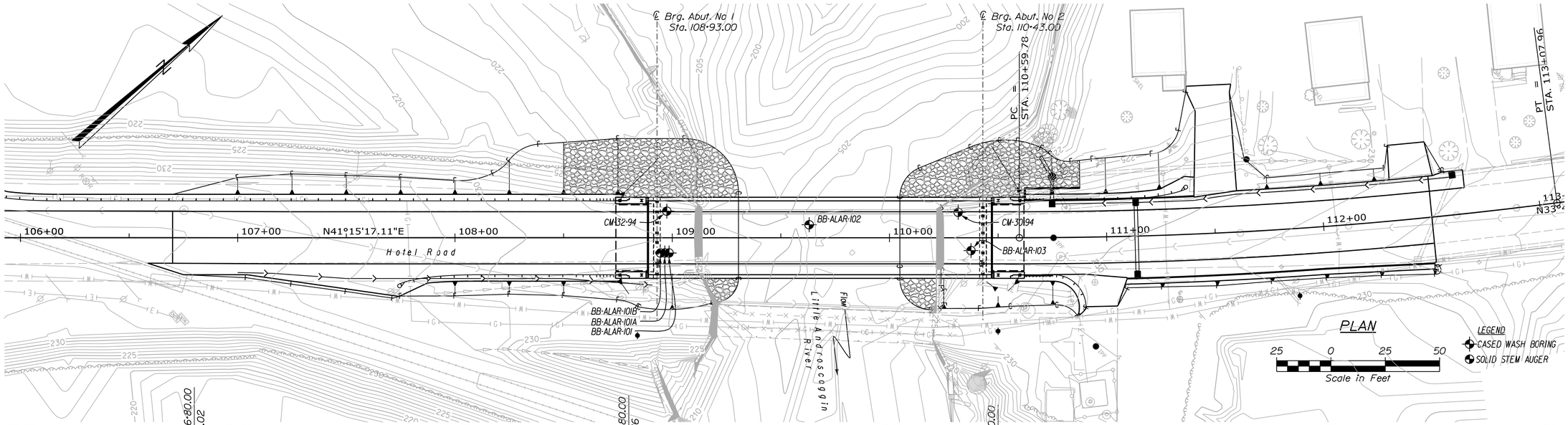

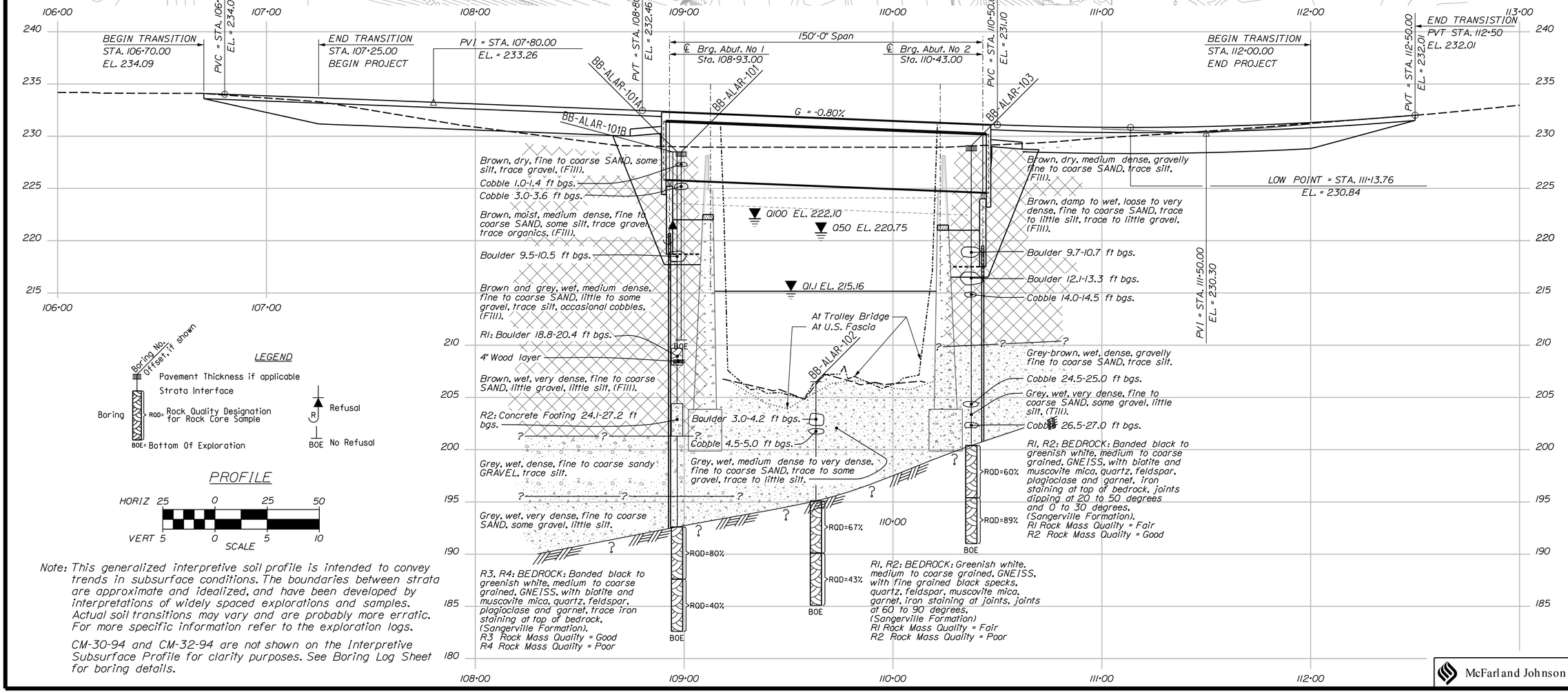

Note: This generalized interpretive soil profile is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretations of widely spaced explorations and samples. Actual soil transitions may vary and are probably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

CM-30-94 and CM-32-94 are not shown on the Interpretive Subsurface Profile for clarity purposes. See Boring Log Sheet for boring details.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	N. BENOIT	
DESIGN-DETAILED	K.MAGUIRE	
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

BORING LOCATION PLAN & INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

6

OF 42

Filename: ...\Mylar\007_BORING LOGS1.dgn

Division:

Username:

Date:12/14/2012

Maine Department of Transportation
Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Littlefields Bridge #3338 carries Hotel Road over Little
Location: Auburn, Maine

Boring No.: BB-ALAR-101B
WIN: 19284.00

Driller:	MaineDOT	Elevation (ft.)	228.5	Auger ID/OD:	5" Dia.
Operator:	Giguere/Giles/Daggett	Datum:	NAVD88	Sampler:	N/A
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	N/A
Date Start/Finish:	10/6/11; 14:00-14:30	Drilling Method:	Solid Stem	Core Barrel:	N/A
Boring Location:	108+94.6, 7.0 ft Rt.	Casing ID/OD:	N/A	Water Level*:	None Observed
Hammer Efficiency Factor: 0.84		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
MU = Unsuccessful Thin Wall Tube Sample attempt
V = Insitu Vane Shear Test, PP = Pocket Penetrometer
MV = Unsuccessful Insitu Vane Shear Test attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = weight of 140lb. hammer
WOR/C = weight of rods or casing
WO1P = Weight of one person
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = (Hammer Efficiency Factor/60%)*N-uncorrected
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA		Cobble at 1.2 ft bgs.	
6.50								222.00	Bottom of Exploration at 6.50 feet below ground surface. BOULDER REFUSAL? Moved to BB-ALAR-101A.	

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-ALAR-101B

Maine Department of Transportation
Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Littlefields Bridge #3338 carries Hotel Road over Little
Location: Auburn, Maine

Boring No.: BB-ALAR-101A
WIN: 19284.00

Driller:	MaineDOT	Elevation (ft.)	228.5	Auger ID/OD:	5" Solid Stem
Operator:	Giguere/Giles/Daggett	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	10/6/11-10/7/11	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	108+96.6, 7.0 ft Rt.	Casing ID/OD:	HW & NW	Water Level*:	None Observed
Hammer Efficiency Factor: 0.84		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
MU = Unsuccessful Thin Wall Tube Sample attempt
V = Insitu Vane Shear Test, PP = Pocket Penetrometer
MV = Unsuccessful Insitu Vane Shear Test attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = weight of 140lb. hammer
WOR/C = weight of rods or casing
WO1P = Weight of one person
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = (Hammer Efficiency Factor/60%)*N-uncorrected
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	228.08	5" Pavement (0.42) Similar to BB-ALAR-101.	
10							SPUN CASE AHEAD		Boulder from 9.5-10.5 ft bgs.	
14	1D	21.6/14	14.00 - 15.80	3/4/3/50(3.6")	7	10			Brown, wet, medium dense, fine to coarse SAND, some gravel, trace silt, occasional cobbles, (Fill). Changed to NW Casing at 15.0 ft bgs.	G#261843 A-1-b, SW-SM WC=11.5%
18.80	R1	19.2/ 19.2	18.80 - 20.40				NQ-2	209.70	R1: BOULDER	
20.40	2D	15.6/14	20.50 - 21.80	11/39/50(3.6")	---			208.10	Brown, wet, very dense, fine to coarse SAND, little gravel, little silt, (Fill).	G#261844 A-3, SP-SM WC=16.1%
24.10	R2	37.2/ 37.2	24.10 - 27.20				NQ-2	204.40	R2: CONCRETE footing	
27.20	3D	24/16	27.50 - 29.50	14/15/15/14	30	42		201.30	Grey, wet, dense, fine to coarse Sandy GRAVEL, trace silt.	G#261845 A-1-a, SW-SM WC=11.3%
33.00								195.50	Grey, wet, very dense, fine to coarse SAND, some gravel, little silt. Roller Coned ahead from 35.25-35.9 ft bgs.	
35	4D R3	6/6 60/56	35.00 - 35.50 35.90 - 40.90	50 RQD = 80%	---		NQ-2			
35.90								192.60	Top of Bedrock at Elev. 192.6 ft. R3:Bedrock: Banded black to greenish white, medium to coarse grained, GNEISS, with biotite and muscovite mica, quartz, feldspar, plagioclase and garnet, breaks along mica layers, cleavage sub-horizontal (0 to 20 degrees) with iron staining, (Sangerville Formation). Rock Mass Quality = Good. R3:Core Times (min:sec) 35.9-36.9 ft (2:45) 36.9-37.9 ft (1:45) 37.9-38.9 ft (2:20) 38.9-39.9 ft (2:25) 39.9-40.9 ft (3:00) 93% Recovery	
40.90	R4	60/60	40.90 - 45.90	RQD = 40%					R4:Bedrock: Silmiar to above with one joint dipping at 80 to 90 degrees and others at 50 degrees. (Sangerville Formation). Rock Mass Quality = Poor. R4:Core Times (min:sec) 40.9-41.9 ft (2:00) 41.9-42.9 ft (2:20) 42.9-43.9 ft (2:40) 43.9-44.9 ft (2:20) 44.9-45.9 ft (2:10) 100% Recovery	
45.90								182.60	Bottom of Exploration at 45.90 feet below ground surface.	

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-ALAR-101A

Maine Department of Transportation
Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Littlefields Bridge #3338 carries Hotel Road over Little
Location: Auburn, Maine

Boring No.: CM-32-94
WIN: 19284.00

Driller:	MaineDOT	Elevation (ft.)	228.6	Auger ID/OD:	N/A
Operator:	Clyde Mann (Ret).	Datum:		Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	1994	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	108+97.5, 12.3 ft Lt.	Casing ID/OD:	NW	Water Level*:	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SPUN AHEAD			
5	1D		5.00 - 7.00		17			Medium dense, brown, gravelly silty SAND, with cobbles and boulders.	
11.50	2D		11.50 - 13.50		25		217.10		
15	MD		15.00 - 17.00		10				
20.00	3D		20.00 - 22.00		4		208.60	4" Wood layer.	
20.30							208.30	Loose to medium, brown, gravelly, medium to fine SAND with cobbles and boulders.	
25	4D		25.00 - 27.00		13				
30.10	R1	36/36	30.10 - 33.10			CORE	198.50	CONCRETE	
33.10	R2	24/24	33.10 - 35.10			CORE	195.50	BEDROCK	
34.10							194.50	Bottom of Exploration at 34.10 feet below ground surface.	

Remarks:

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

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Page 1 of 1
Boring No.: CM-32-94

Maine Department of Transportation
Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Littlefields Bridge #3338 carries Hotel Road over Little
Location: Auburn, Maine

Boring No.: BB-ALAR-101
WIN: 19284.00

Driller:	MaineDOT	Elevation (ft.)	228.5	Auger ID/OD:	5" Solid Stem
Operator:	Giguere/Giles/Daggett	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	10/6/11; 07:30-15:00	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	108+98.6, 7.0 ft Rt.	Casing ID/OD:	HW & NW	Water Level*:	None Observed
Hammer Efficiency Factor: 0.84		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
MU = Unsuccessful Thin Wall Tube Sample attempt
V = Insitu Vane Shear Test, PP = Pocket Penetrometer
MV = Unsuccessful Insitu Vane Shear Test attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = weight of 140lb. hammer
WOR/C = weight of rods or casing
WO1P = Weight of one person
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = (Hammer Efficiency Factor/60%)*N-uncorrected
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	228.08	5" Pavement (0.42) Brown, dry, fine to coarse SAND, some silt, trace gravel, (description from soil on auger flights), (Fill). Cobble from 1.0-1.4 ft bgs. Cobble from 3.0-3.6 ft bgs.	
5	1D	24/12	5.00 - 7.00	5/5/5/6	10	14			Brown, moist, medium dense, fine to coarse SAND, some silt, trace gravel, trace organics, (Fill).	G#261840 A-2-4, SM WC=14.3%
10	2D	24/14	10.00 - 12.00	8/9/10/9	19	27	46		Brown, wet, medium dense, fine to coarse SAND, some gravel, little silt, (Fill).	G#261841 A-2-4, SM WC=7.7%
							58			
							90			
							92			
14.00							88	214.50		
15	3D	24/15	15.00 - 17.00	15/13/7/8	20	28	59		Grey, wet, medium dense, fine to coarse SAND, little gravel, trace silt. Changed to NW Casing at 15.0 ft bgs.	G#261842 A-1-b, SP-SM WC=15.1%
							70			
							33			
18.00							208	210.50	Bottom of Exploration at 18.00 feet below ground surface. Casing was too crooked to work boring, abandon hole, moved to BB-ALAR-101A.	

Remarks:

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Page 1 of 1
Boring No.: BB-ALAR-101

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AC-BR-1928(400)X
BRIDGE NO. 3338 | WIN 19284.00 | BRIDGE PLANS

PROJ. MANAGER	N. BENOIT	BY	DATE
DESIGN-DETAILED	K.MAGUIRE	T.WHITE	May 2012
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

BORING LOGS (1 OF 2)

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Littlefields Bridge #3338 carries Hotel Road over Little
Location: Auburn, Maine

Boring No.: BB-ALAR-102
WIN: 19284.00

Driller:	MaineDOT	Elevation (ft.): 206.5	Auger ID/OD: N/A
Operator:	Giguere/Giles/Doggett	Datum: NAVD88	Sampler: Standard Split Spoon
Logged By:	B. Wilder	Rig Type: CME 45C	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	10/7/11, 10/11/11	Drilling Method: Cased Wash Boring	Core Barrel: NQ-2"
Boring Location:	109+63.1, 6.0 ft Lt.	Casing ID/OD: HW & NW	Water Level*: River Boring

Hammer Efficiency Factor: 0.84 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions:
D = Split Spoon Sample
WS = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample attempt
V = Insitu Vane Shear Test. PP = Pocket Penetrometer
WV = Unsuccessful Insitu Vane Shear Test attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. hammer
WOR = Weight of rods or casing
WOC = Weight of one person
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_u = Unconfined Compressive Strength (psf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = (Hammer Efficiency Factor/60%)*N-uncorrected
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Shear Strength (psf) or ROD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/14	0.00 – 2.00	WOH/4/9/50	13	18	SPUN CASE			Grey, wet, medium dense, gravelly, fine to coarse SAND, trace silt. Roller Coned ahead to 6.0 ft bgs.	GM261846 A-1-b, SW-SM WC=10.4%
										Changed to NW Casing at 2.0 ft bgs.	
										Boulder from 3.0-4.2 ft bgs.	
5										Cobble from 4.5-5.0 ft bgs.	
	20	24/20	6.50 – 8.50	7/15/16/23	31	43				Grey, wet, dense, fine to coarse SAND, some gravel, little silt.	GM261847 A-1-b, SW-SM WC=11.0%
10											
	30	16.8/13	10.00 – 11.40	30/30/50(4.8")	---					Grey, wet, very dense, fine to coarse SAND, some gravel, little silt.	
	R1	60/60	11.40 – 16.40	ROD = 67%			NQ-2	195.10		Top of Bedrock at Elev. 195.1 ft.	11.40
15										R1:Bedrock: Greenish white, medium to coarse grained, GNEISS, with fine grained black specks, quartz, feldspar, muscovite mica and garnet, iron staining at joints, joints dipping at 60 degrees. (Sangerville Formation). Rock Mass Quality = Fair. R1:Core Times (min:sec) 11.4-12.4 ft (1:34) 12.4-13.4 ft (2:20) 13.4-14.4 ft (2:30) 14.4-15.4 ft (2:30) 15.4-16.4 ft (4:20) 100% Recovery	
	R2	60/60	16.40 – 21.40	ROD = 43%						R2:Bedrock: Similar to above, with joints at 60 to 90 degrees. (Sangerville Formation). Rock Mass Quality = Poor. R2:Core Times (min:sec) 16.4-17.4 ft (2:00) 17.4-18.4 ft (2:30) 18.4-19.4 ft (2:25) 19.4-20.4 ft (2:30) 20.4-21.4 ft (4:10) 100% Recovery	
20								185.10			21.40
										Bottom of Exploration at 21.40 feet below ground surface.	
25											

Remarks:
11.0 " Concrete Deck.
26.8 ft from Bridge Deck to Ground.

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Page 1 of 1
Boring No.: BB-ALAR-102

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Littlefields Bridge #3338 carries Hotel Road over Little
Location: Auburn, Maine

Boring No.: CM-30-94
WIN: 19284.00

Driller:	MaineDOT	Elevation (ft.): 228.6	Auger ID/OD: N/A
Operator:	Clyde Mann (Ret).	Datum:	Sampler: Standard Split Spoon
Logged By:	B. Wilder	Rig Type: CME 45C	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	1994	Drilling Method: Cased Wash Boring	Core Barrel: NQ-2"
Boring Location:	110+31.8, 11.7 ft Lt.	Casing ID/OD: NW	Water Level*: None Observed

Definitions:
D = Split Spoon Sample
WS = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
V = Insitu Vane Shear Test
RSA = Solid Stem Auger
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_u = Unconfined Compressive Strength (psf)
$S_{u(lab)}$ = 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
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Shear Strength (psf) or ROD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0						SPUN AHEAD				
5	10		5.00 – 7.00		5				Loose, brown, silty fine to medium SAND, some gravel.	
10	20		10.00 – 12.00		>50		218.60			10.00
									Dense, brown, gravelly SAND with cobbles and boulders.	
15	30		15.00 – 17.00		>50					
20	40		20.00 – 21.08		>50					
25	MD	1/1	25.00 – 25.08		>50	CORE	203.52		CONCRETE	25.08
	R1	60.2/60	25.08 – 30.10							
30	R2		30.20 – 34.20			CORE	198.40		BEDROCK	30.20
							194.40			34.20
35									Bottom of Exploration at 34.20 feet below ground surface.	
40										
45										
50										

Remarks:

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Page 1 of 1
Boring No.: CM-30-94

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Littlefields Bridge #3338 carries Hotel Road over Little
Location: Auburn, Maine

Boring No.: BB-ALAR-103
WIN: 19284.00

Driller:	MaineDOT	Elevation (ft.): 229.1	Auger ID/OD: 5" Solid Stem
Operator:	Giguere/Giles/Doggett	Datum: NAVD88	Sampler: Standard Split Spoon
Logged By:	B. Wilder	Rig Type: CME 45C	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	10/5/11 07:30-13:30	Drilling Method: Cased Wash Boring	Core Barrel: NQ-2"
Boring Location:	110+37.5, 5.9 ft Rt.	Casing ID/OD: HW & NW	Water Level*: None Observed

Hammer Efficiency Factor: 0.84 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions:
D = Split Spoon Sample
WS = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample attempt
V = Insitu Vane Shear Test. PP = Pocket Penetrometer
WV = Unsuccessful Insitu Vane Shear Test attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. hammer
WOR = Weight of rods or casing
WOC = Weight of one person
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_u = Unconfined Compressive Strength (psf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = (Hammer Efficiency Factor/60%)*N-uncorrected
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Shear Strength (psf) or ROD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							SSA	228.60		6" Pavement	0.50
	10	24/18	1.00 – 3.00	12/13/8/9	21	29				Brown, dry, medium dense, Gravelly fine to coarse SAND, trace silt.	GM261848 A-1-a, SW-SM WC=1.9%
5	20	24/13	5.00 – 7.00	2/3/3/3	6	8				Brown, damp, loose, fine to coarse SAND, little silt, little gravel.	GM261849 A-2-4, SM WC=7.1%
10							45			Boulder from 9.7-10.7 ft bgs.	
	30	4.8/4.8	11.70 – 12.10	50	---		10			Brown, damp, very dense, fine to coarse SAND, little silt, trace gravel. Boulder from 11.7-11.9 ft bgs. Roller Coned ahead to 14.5 ft bgs.	GM261850 A-3, SP-SM WC=15.1%
							12				
15	40	24/20	14.50 – 16.50	5/9/9/8	18	25	16			Cobble from 14.0-14.5 ft bgs. Brown, wet, medium dense, fine to coarse SAND, trace silt, trace gravel.	GM261851 A-3, SP-SM WC=18.4%
							38				
							30	210.60			18.50
20	50	24/14	20.00 – 22.00	6/24/12/30	36	50	42			Grey-brown, wet, dense, Gravelly fine to coarse SAND, trace silt. Roller Coned ahead to 24.0 ft bgs.	GM261852 A-1-a, SW-SM WC=10.5%
							30				
							32				
							36				
							50				
25	60	12/12	25.50 – 26.50	40/60	---		24			Cobble from 24.5-25.0 ft bgs.	
							73			Grey, wet, very dense, fine to coarse SAND, some gravel, little silt. (Till). Cobble from 26.5-27.0 ft bgs.	GM261853 A-1-b, SM WC=8.7%
							69				
							107				
							116				
30	R1	60/57	28.70 – 33.70	ROD = 60%			96	200.40		Roller Coned ahead to 28.7 ft bgs.	28.70
							58			Top of Bedrock at Elev. 200.4 ft.	
							82			R1:Bedrock: Banded black to greenish white, medium to coarse grained, GNEISS, with biotite and muscovite mica, quartz, feldspar, plagioclase and garnet, iron staining at top of bedrock, joints dipping at 20 to 50 degrees and 0 to 30 degrees. (Sangerville Formation). Rock Mass Quality = Fair. R1:Core Times (min:sec) 28.7-29.7 ft (3:35) 29.7-30.7 ft (5:15) 30.7-31.7 ft (4:20) 31.7-32.7 ft (4:17) 32.7-33.7 ft (4:25) 95% Recovery	
35							100 NQ-2				
	R2	52.8/ 52.8	33.70 – 38.10	ROD = 89%						R2:Bedrock: Similar to above, joints dipping at 15 to 30 degrees. (Sangerville Formation). Rock Mass Quality = Good. R2:Core Times (min:sec) 33.7-34.7 ft (4:05) 34.7-35.7 ft (4:00) No water return 35.7-36.7 ft (4:10) No water return 36.7-37.7 ft (4:15) 37.7-38.1 ft (4:00) 100% Recovery Core Blocked	
40								191.00			38.10
										Bottom of Exploration at 38.10 feet below ground surface.	
45											
50											

Remarks:

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
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Page 1 of 1
Boring No.: BB-ALAR-103

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00
BRIDGE NO. 3338
BRIDGE PLANS

PROJ. MANAGER	N. BENOIT	BY	DATE
DESIGN-DETAILED	K.MAGUIRE	T. WHITE	MAR 2012
CHECKED-REVIEWED			SIGNATURE
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			P.E. NUMBER
REVISIONS 1			DATE
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

BORING LOGS (2 OF 2)

SHEET NUMBER
8
OF 42

McFarland Johnson

Filename: ...\Mylar\008_BORING LOGS2.dgn Division: Username: Date:12/14/2012

CURVE DATA #1
PI = 111+84.04
D = 3°00'00.0"
Δ = 7°26'43.1" Lt.
R = 1909.86'
L = 248.18'
T = 124.26'
E = 4.04'

℄ Brg. Abut. No 1
Sta. 108+93.00

℄ Brg. Abut. No 2
Sta. 110+43.00

150'-0" Span

PC = STA. 110+59.78

PT = STA. 113+07.96

EXISTING CONST. LIMIT LINE

CLL

106+00 107+00 N41°15'17.11"E 108+00 109+00 110+00 111+00 112+00 113+00

℄ Construction

HOTEL ROAD

N33°48'33.97"E

To Minot Ave.

LEWISTON AUBURN RAILROAD

LITTLE ANDROSCOGGIN RIVER

FLOW

EXISTING CONST. LIMIT LINE

To Poland Spring Rd.

105+00 106+00 ℄ Construction 107+(

HOTEL ROAD

PLAN

25 0 25 50

Scale in Feet

CURB LAYOUT TABLE

ITEM 609.31 - CURB TYPE 3 - MOLD 2

STA. 110+62.1, LT. 17.0' TO STA. 111+40.9, LT. 17.0'
STA. 110+62.1, RT. 17.0' TO STA. 110+75.1, RT. 17.0'
STA. 111+09.1, RT. 19.0' TO STA. 112+00.0, RT. 19.0'
STA. 112+00, RT. 19.0' TO STA. 112+49.3, RT. 20.9' (MATCH EXISTING)

LEGEND

SWEL Solid White Edge Line

DYCL Double Yellow Center Line

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

PROJ. MANAGER	N. BENOIT		DATE
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

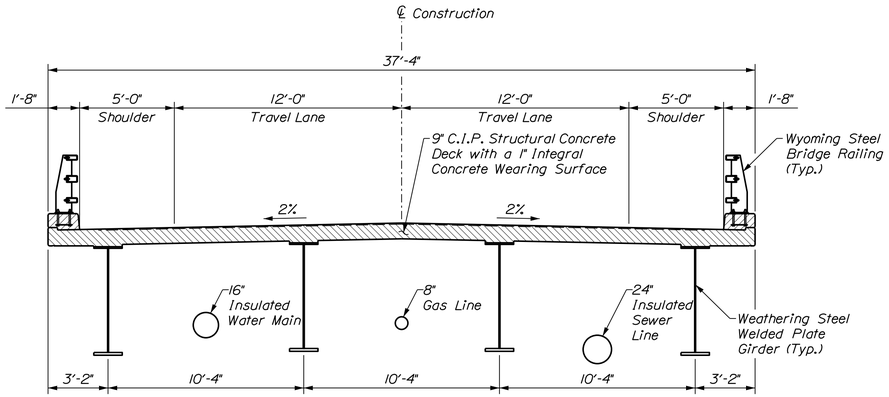
LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

CURBING AND STRIPING PLAN

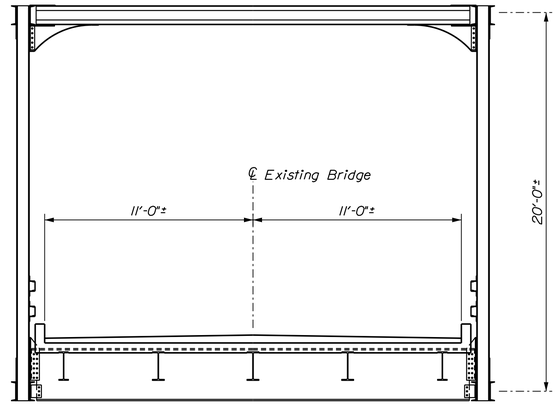
SHEET NUMBER

9

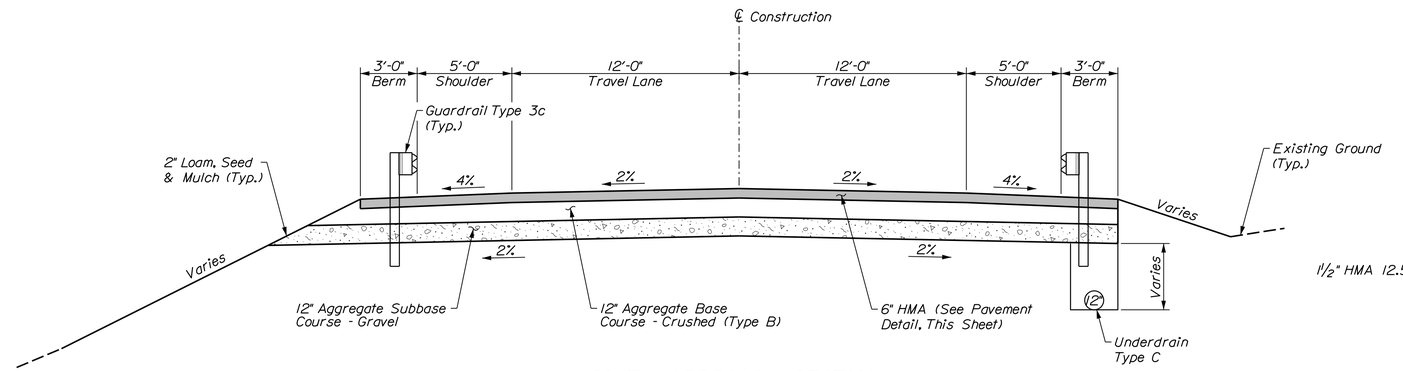
OF 42



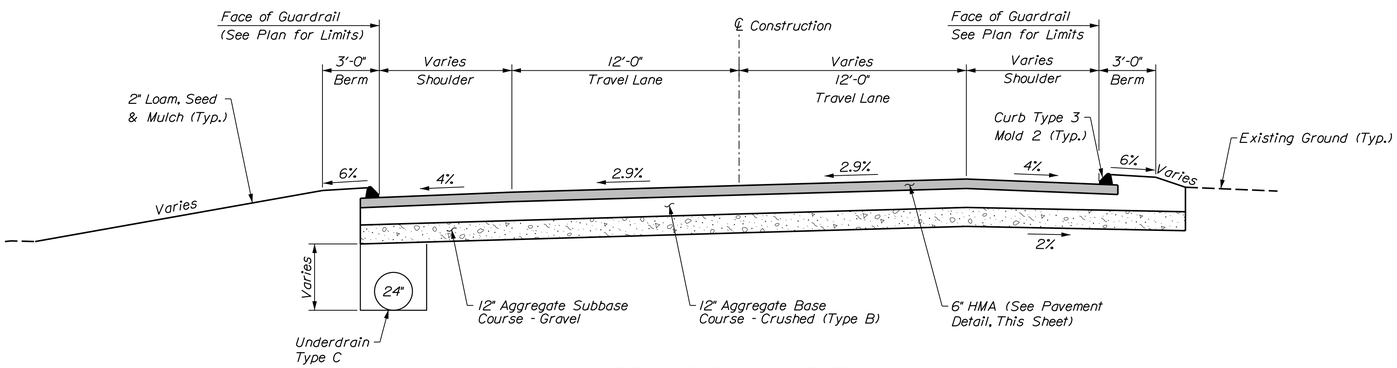
PROPOSED BRIDGE SECTION



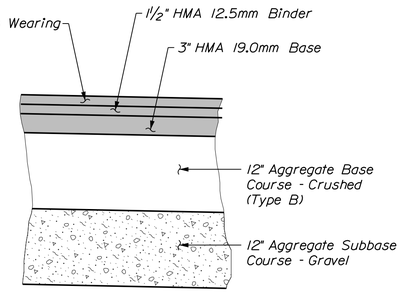
EXISTING BRIDGE SECTION



SOUTH APPROACH SECTION
(Sta. 106+70.00 to Sta. 108+91.75)



NORTH APPROACH SECTION
(Sta. 110+47.25 to Sta. 112+50.00)



PAVEMENT DETAIL

NOTES

1. For typical sections with riprap, see Cross Sections.
2. For water and sewer details, see Sheets 38 through 40 and Special Provisions.
3. For gas line details, see Special Provisions.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	N. BENOIT	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

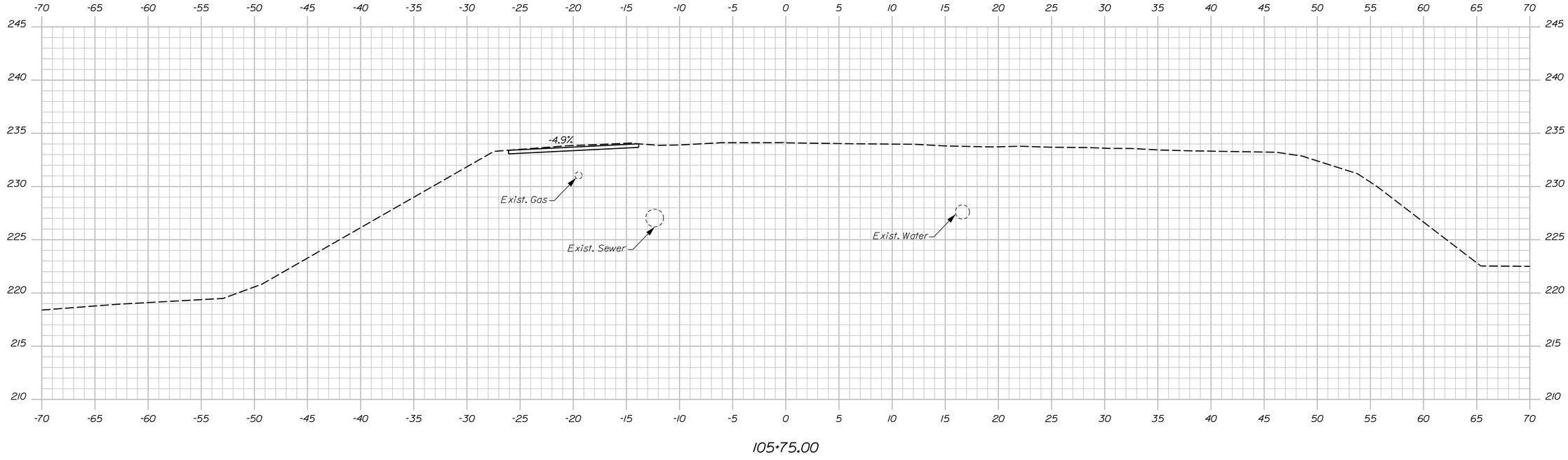
DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

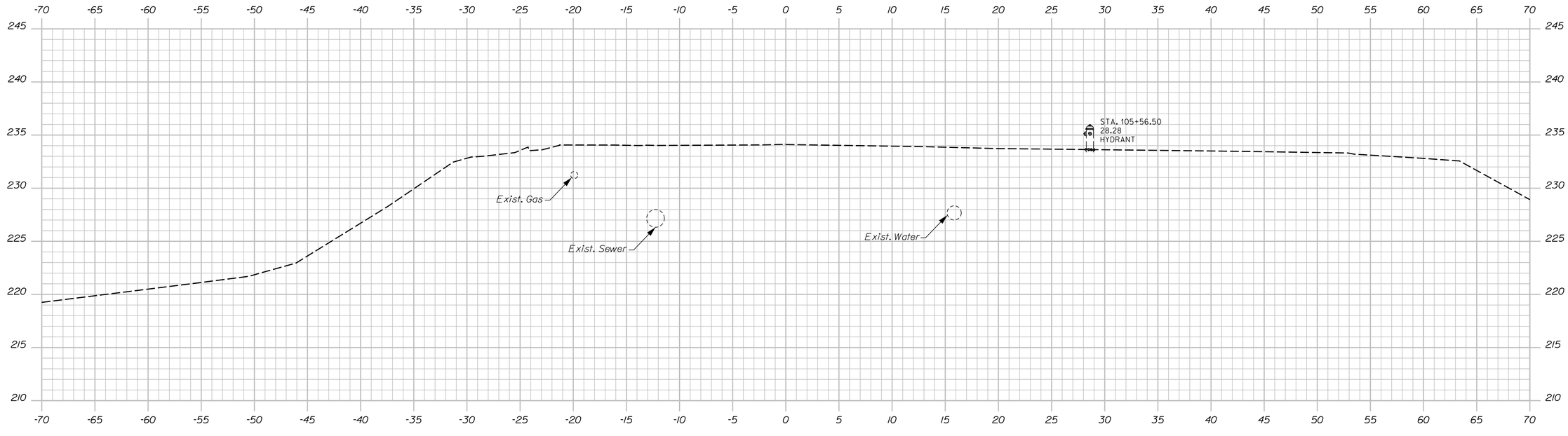
TYPICAL SECTIONS

SHEET NUMBER
10
OF 42

Filename: ...\Mylar\010_Typical_sect.dgn Division: Username: Date:12/14/2012



105+75.00



105+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

PROJ. MANAGER	N. BENOIT			
DESIGN-DETAILED	J. Poisson	P. Dustin		
CHECKED-REVIEWED	D. Kull	R. Joy		
DESIGN2-DETAILED2				
DESIGN3-DETAILED3				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

CROSS SECTIONS (1 OF 13)

SHEET NUMBER

11

OF 42

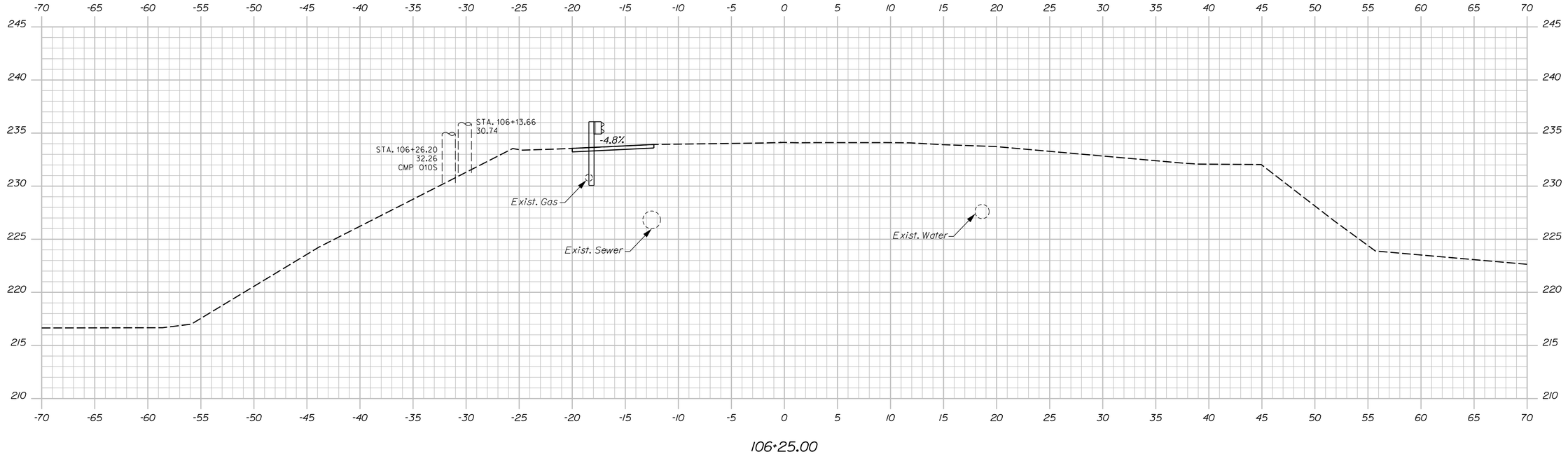
Sta. 105+50.00 to Sta. 105+75.00

Date:12/14/2012

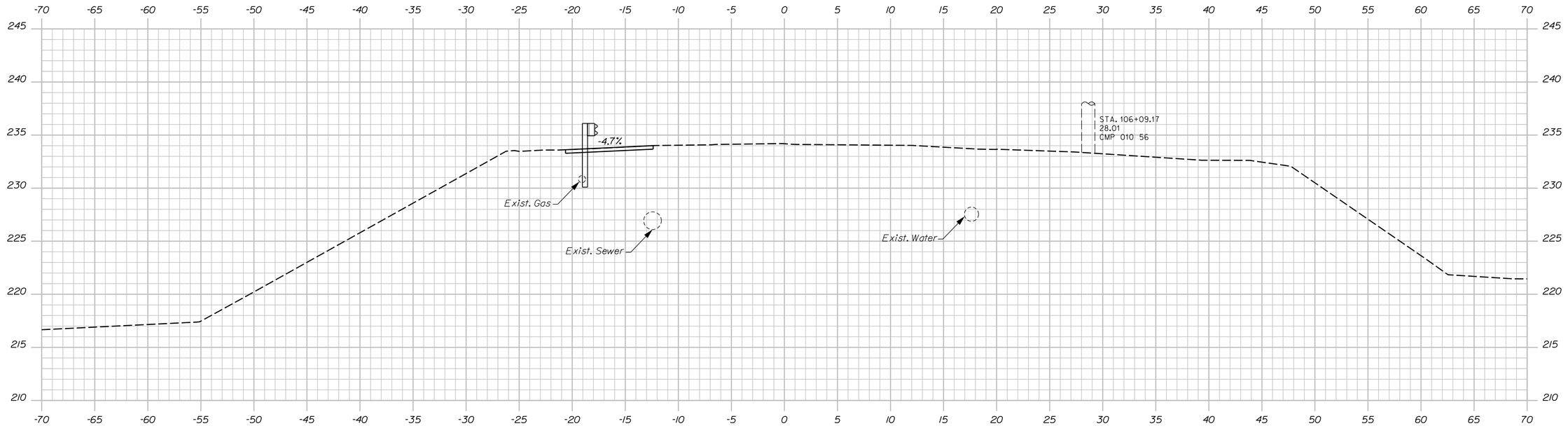
Username:

Division:

Filename: ...\Mylar\011_Cross_Sections.dgn



106+25.00



106+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	N. BENOIT	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

CROSS SECTIONS (2 OF 13)

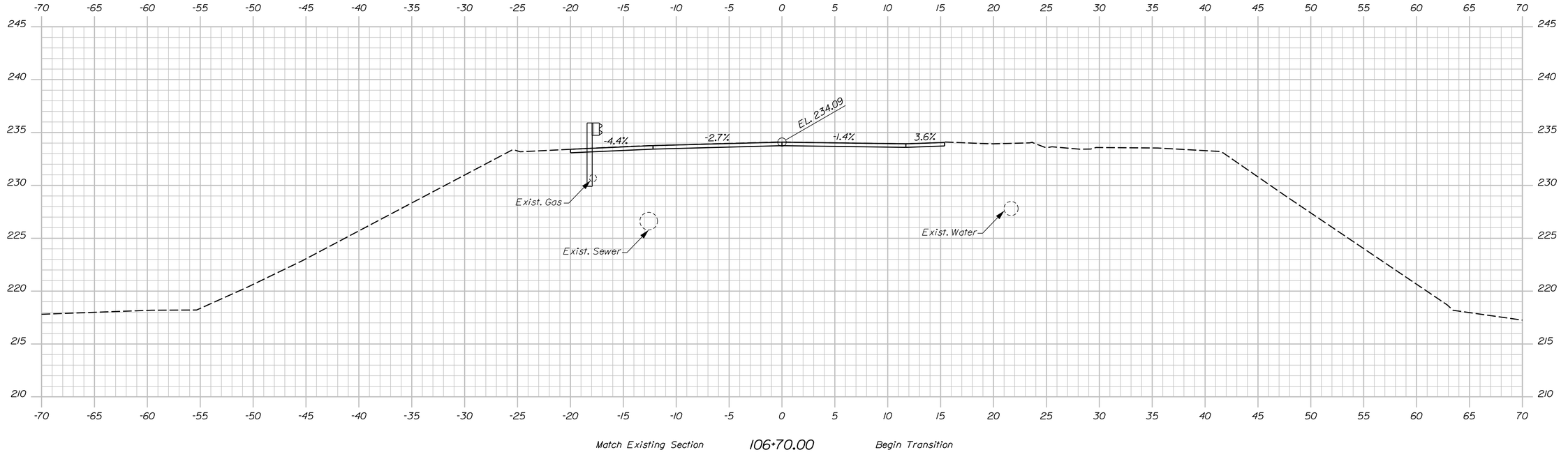
SHEET NUMBER

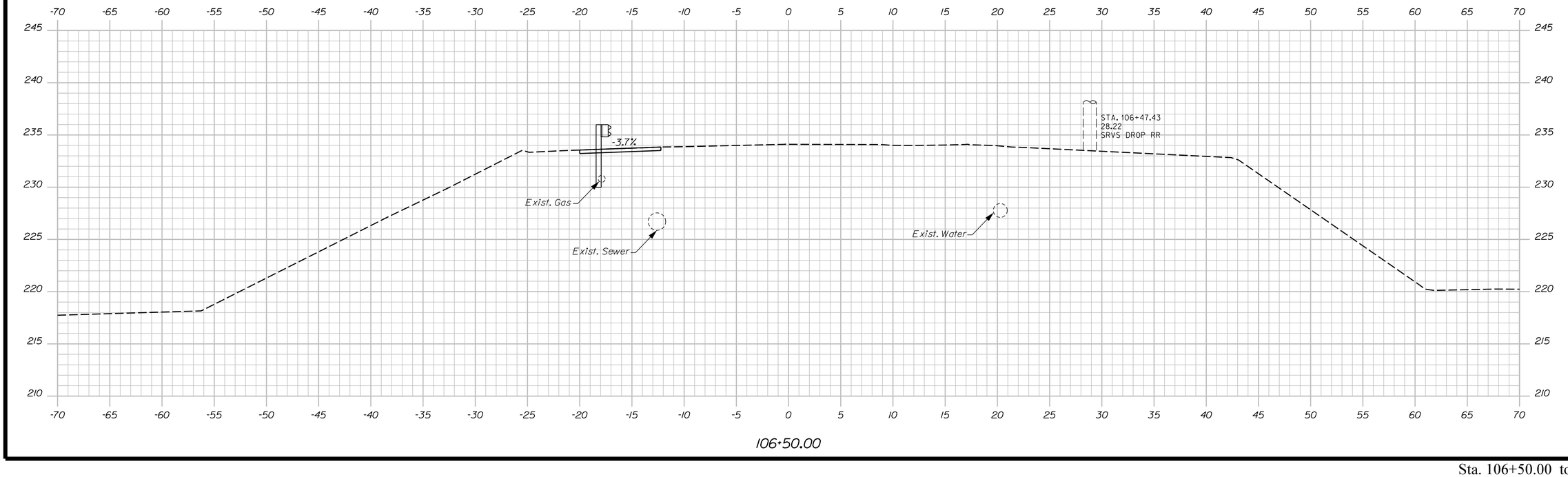
12

OF 42

Sta. 106+00.00 to Sta. 106+25.00

Filename: ...\Mylar\011_Cross_Sections.dgn Division: Username: Date:12/14/2012





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338 — BRIDGE PLANS

PROJ. MANAGER	N. BENOIT		
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

CROSS SECTIONS (3 OF 13)

SHEET NUMBER

13

OF 42

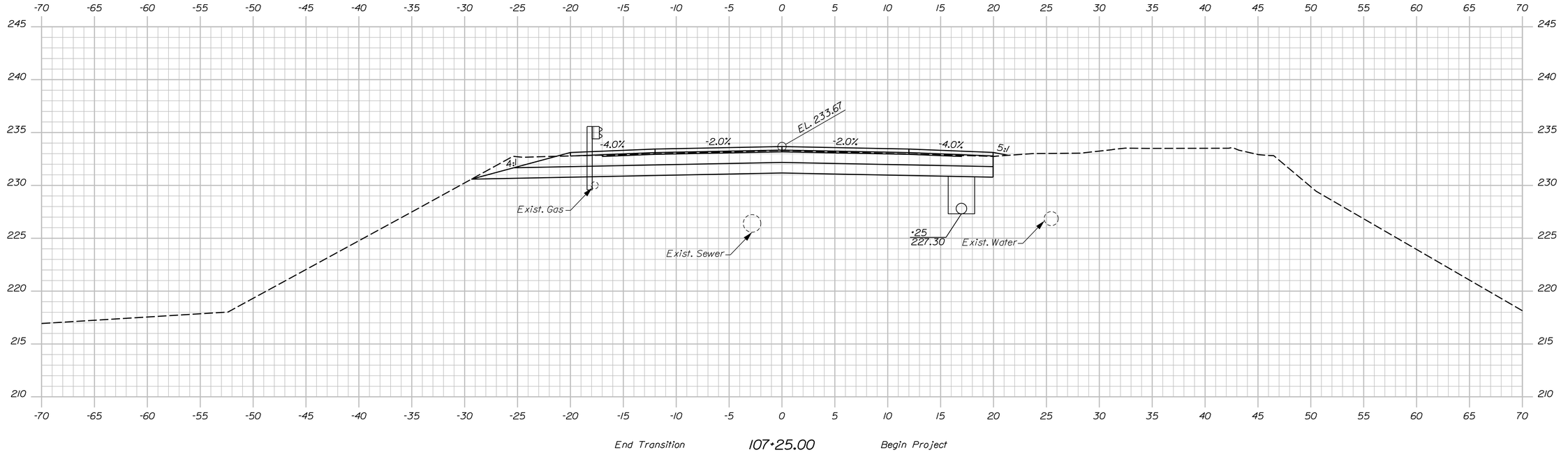
Sta. 106+50.00 to Sta. 106+75.00

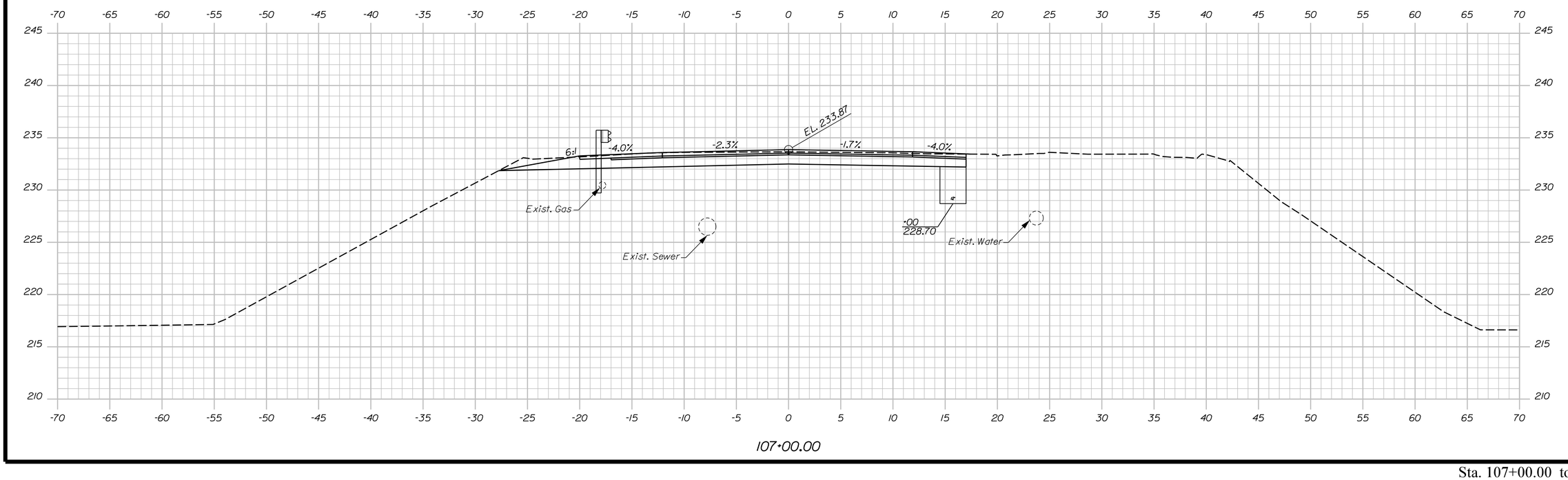
Date:12/14/2012

Username:

Division:

Filename: ...\Mylar\011_Cross_Sections.dgn





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

PROJ. MANAGER	N. BENOIT		DATE
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	SIGNATURE
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			P.E. NUMBER
REVISIONS 1			
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

CROSS SECTIONS (4 OF 13)

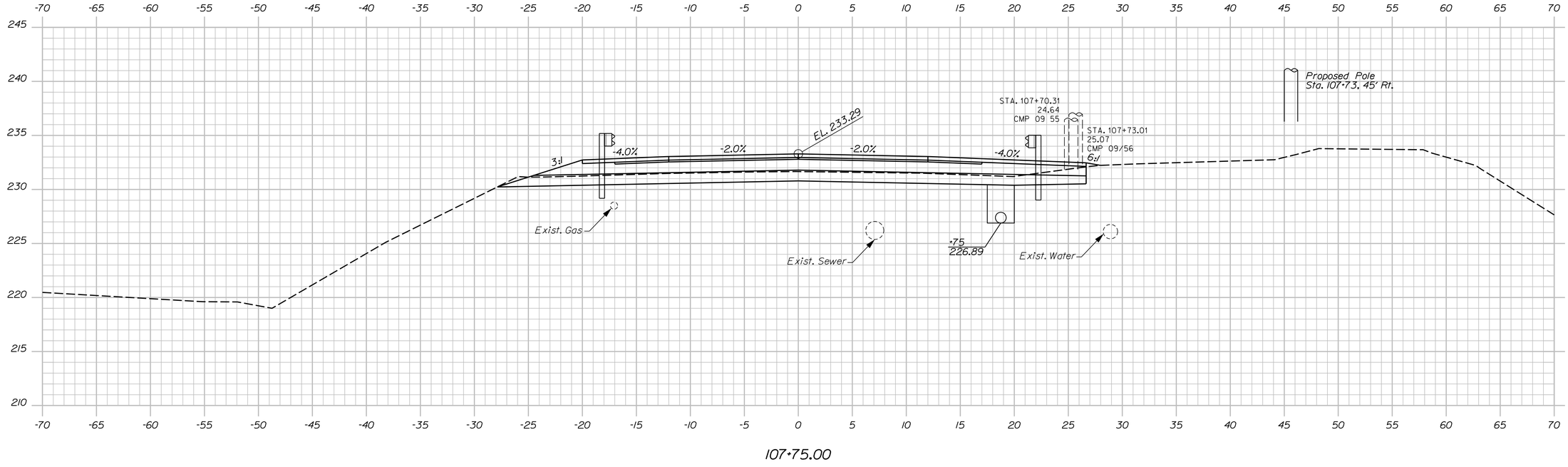
SHEET NUMBER

14

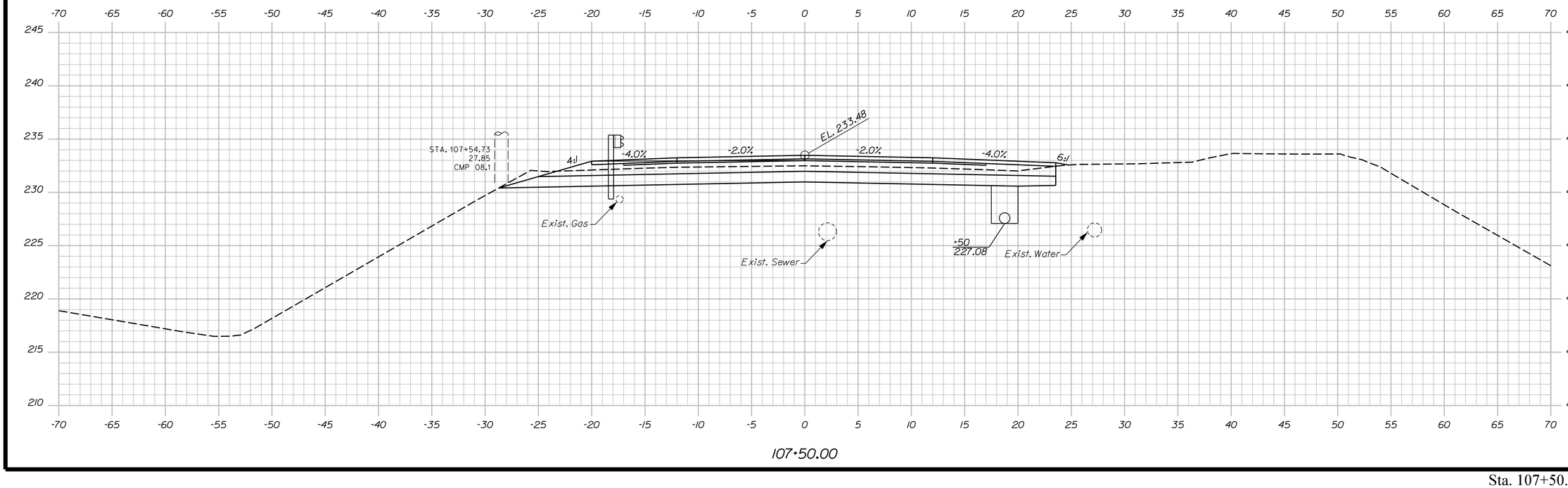
OF 42

Sta. 107+00.00 to Sta. 107+25.00

Filename: ...\Mylar\011_Cross_Sections.dgn Division: Username: Date:12/14/2012



107+75.00



107+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	N. BENOIT	DATE
PROJ. MANAGER		
DESIGN-DETAILED	J. Poisson	P. Dustin
CHECKED-REVIEWED	D. Kull	R. Joy
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

CROSS SECTIONS (5 OF 13)

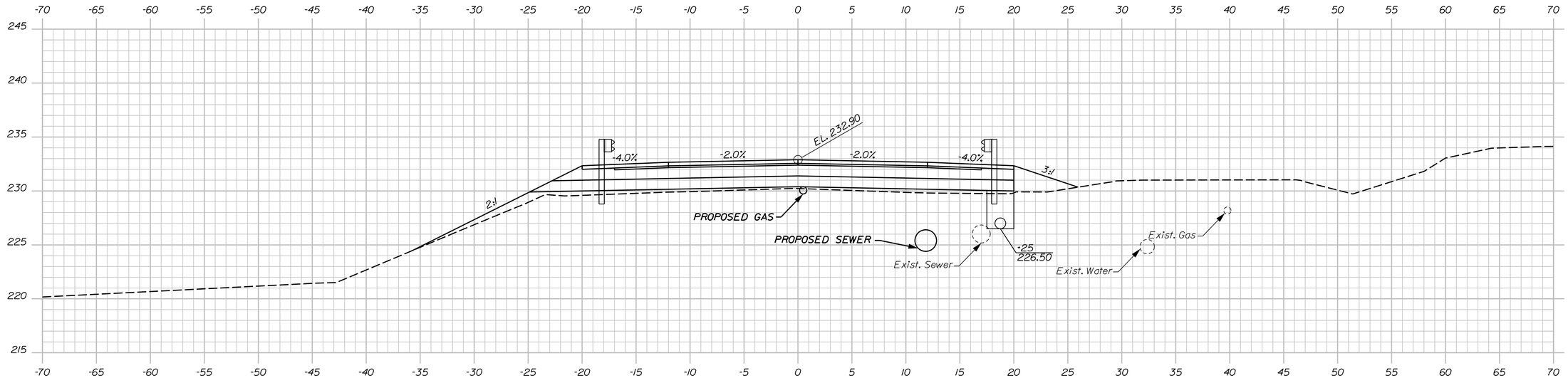
SHEET NUMBER

15

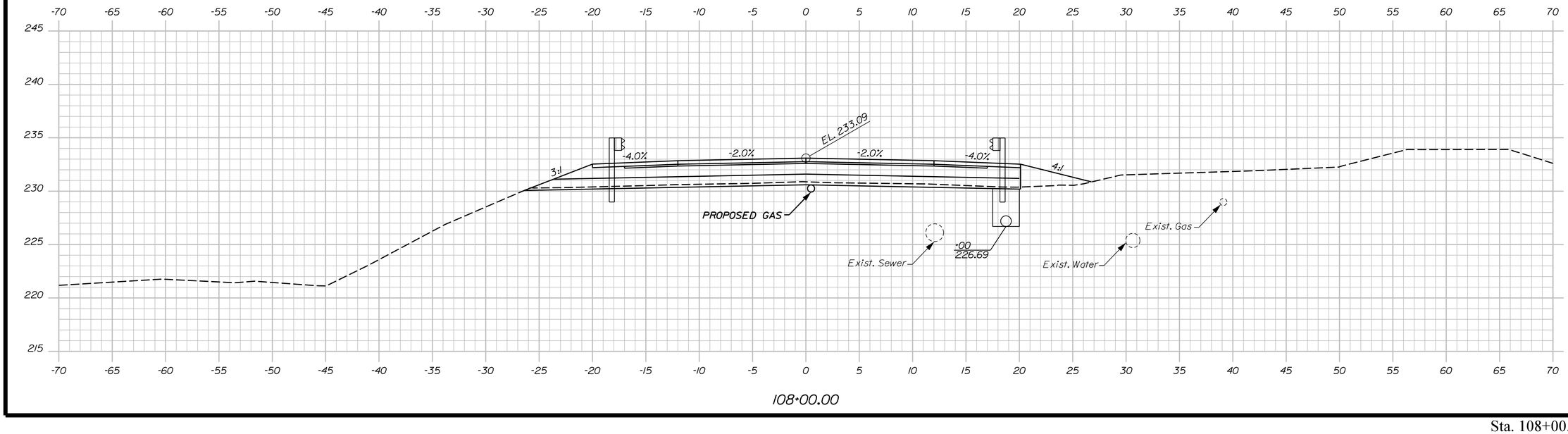
OF 42

Sta. 107+50.00 to Sta. 107+75.00

Filename: ...\Mylar\011_Cross_Sections.dgn Division: Username: Date:12/14/2012



108+25.00



108+00.00

Sta. 108+00.00 to Sta. 108+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

PROJ. MANAGER	N. BENOIT	BY	DATE
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

CROSS SECTIONS (6 OF 13)

SHEET NUMBER

16

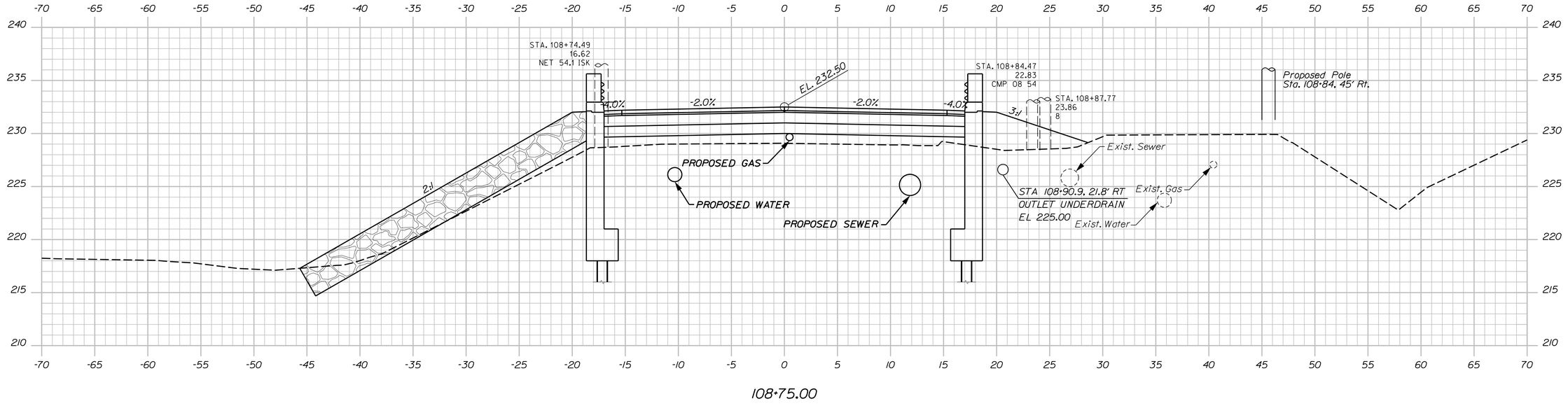
OF 42

Username:

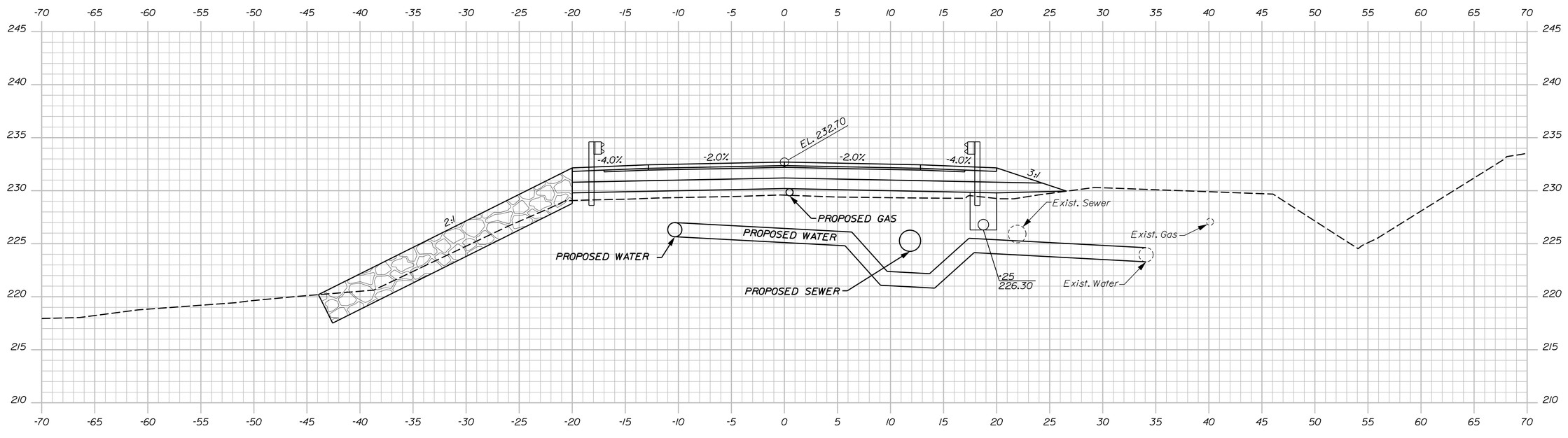
Date:12/14/2012

Division:

Filename: ...\Mylar\011_Cross_Sections.dgn



108+75.00



108+50.00

Sta. 108+50.00 to Sta. 108+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	N. BENOIT	DATE
PROJ. MANAGER	J. Poisson	P. Dustin
DESIGN-DETAILED	D. Kull	R. Joy
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

CROSS SECTIONS (7 OF 13)

SHEET NUMBER

17

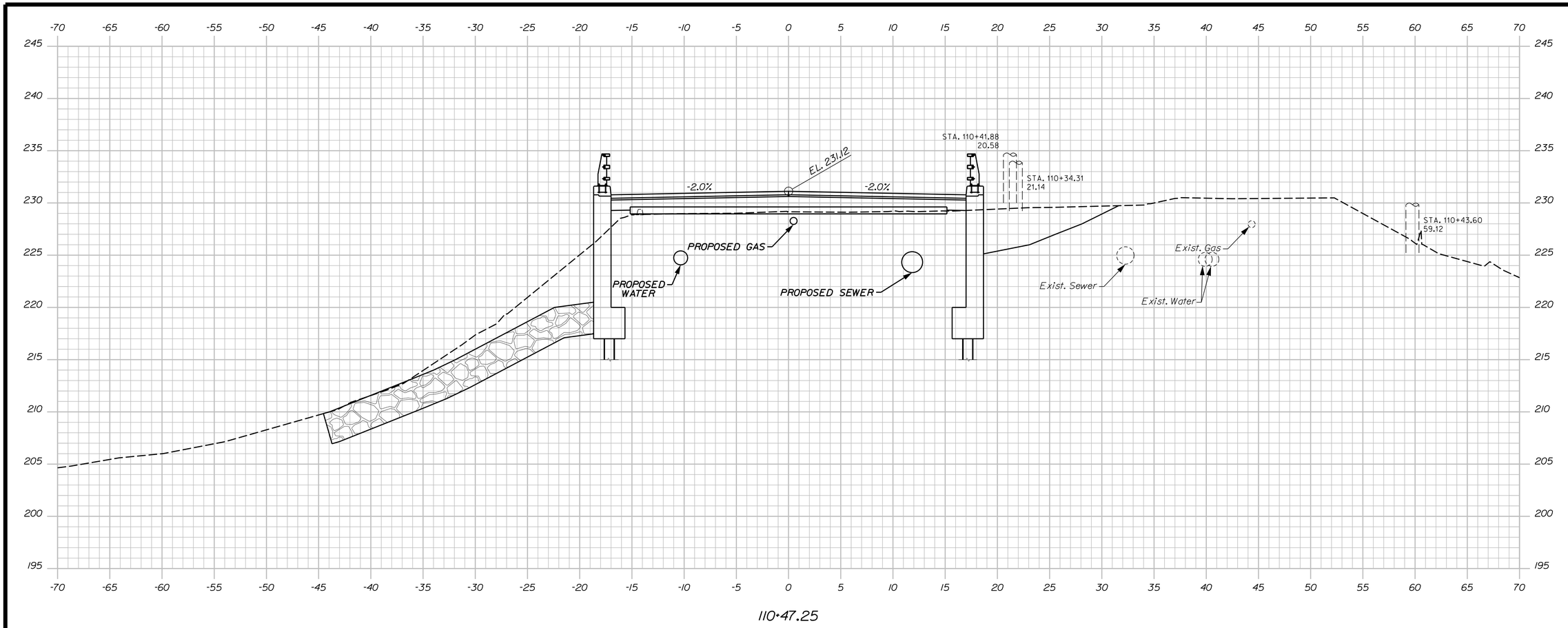
OF 42

Date:12/14/2012

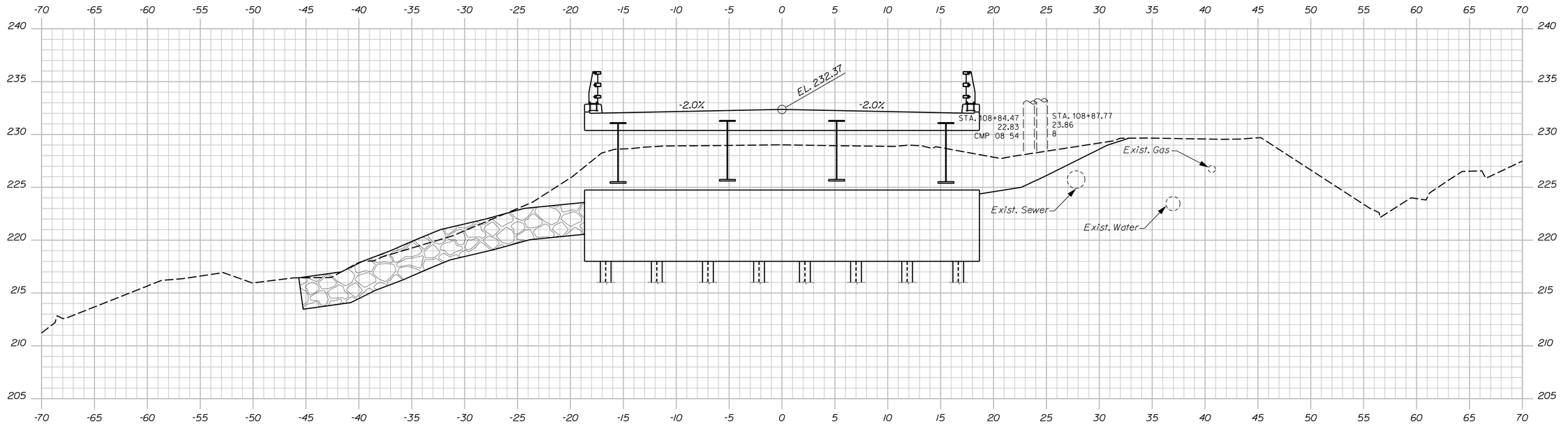
Username:

Division:

Filename: ...\Mylar\011_Cross_Sections.dgn



110+47.25



108+91.75

Sta. 108+91.75 to Sta. 110+47.25

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	N. BENOIT	BY	DATE
PROJ. MANAGER	J. Poisson	P. Dustin	
DESIGN-DETAILED	D. Kull	R. Joy	
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

CROSS SECTIONS
(8 OF 13)

SHEET NUMBER

18

OF 42

Date:12/14/2012

Username:

Division:

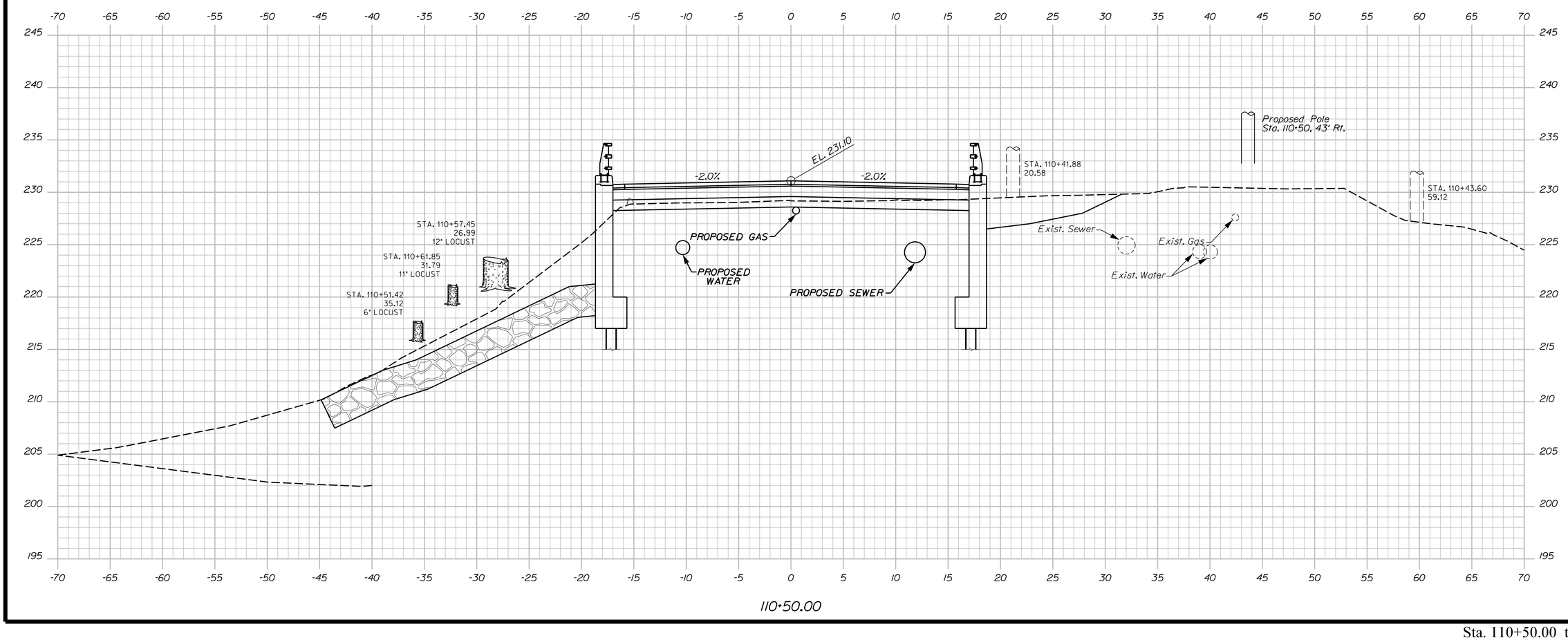
Filename: ...\Mylar\011_Cross_Sections.dgn

Username:

Date:12/14/2012

Division:

Filename: ...\Mylar\011_Cross_Sections.dgn



PROJ. MANAGER	N. BENOIT	BY	DATE
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338 BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

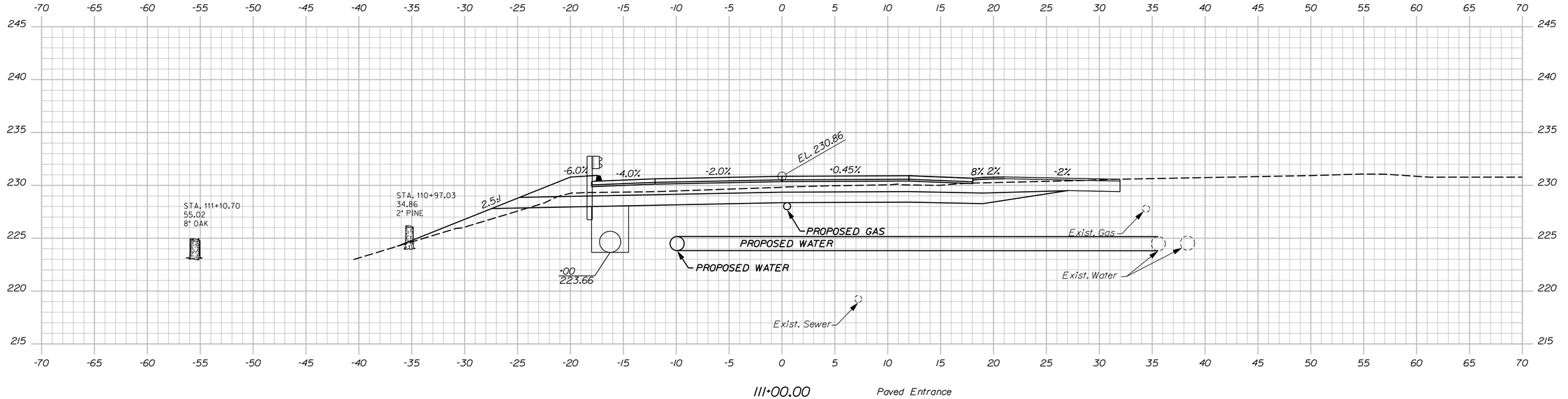
CROSS SECTIONS (9 OF 13)

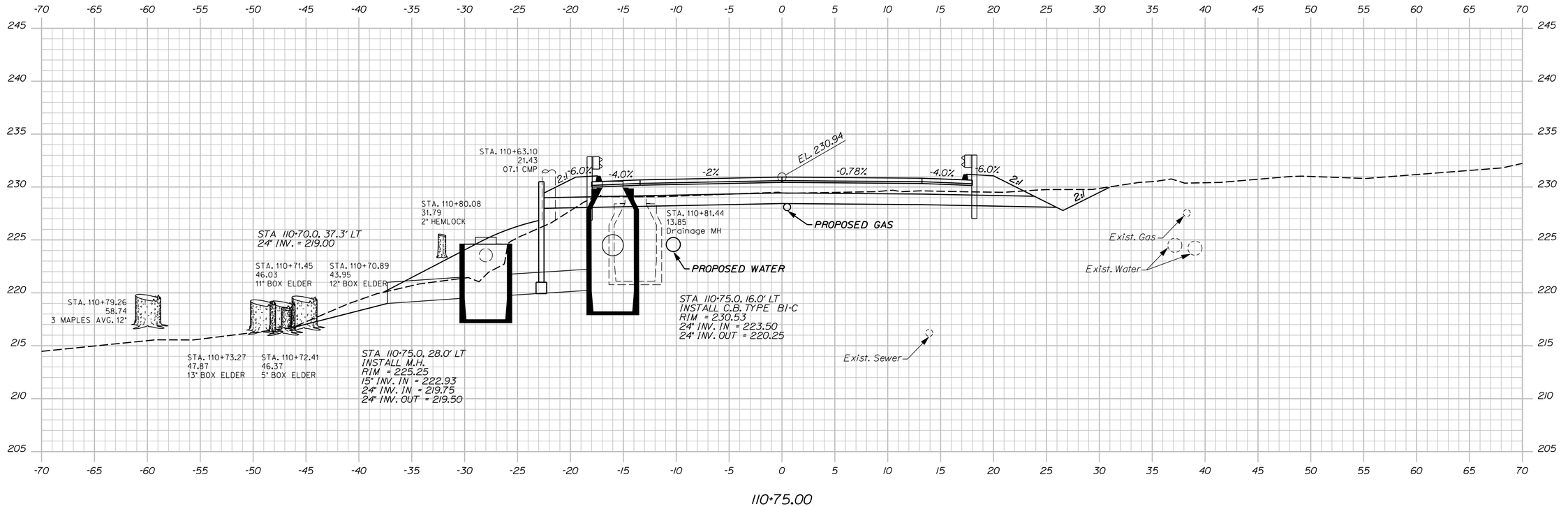
SHEET NUMBER

19

OF 42

Sta. 110+50.00 to Sta. 110+50.00





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338 — BRIDGE PLANS

PROJ. MANAGER	N. BENOIT		
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN — ANDROSCOGGIN COUNTY

CROSS SECTIONS (10 OF 13)

SHEET NUMBER

20

OF 42

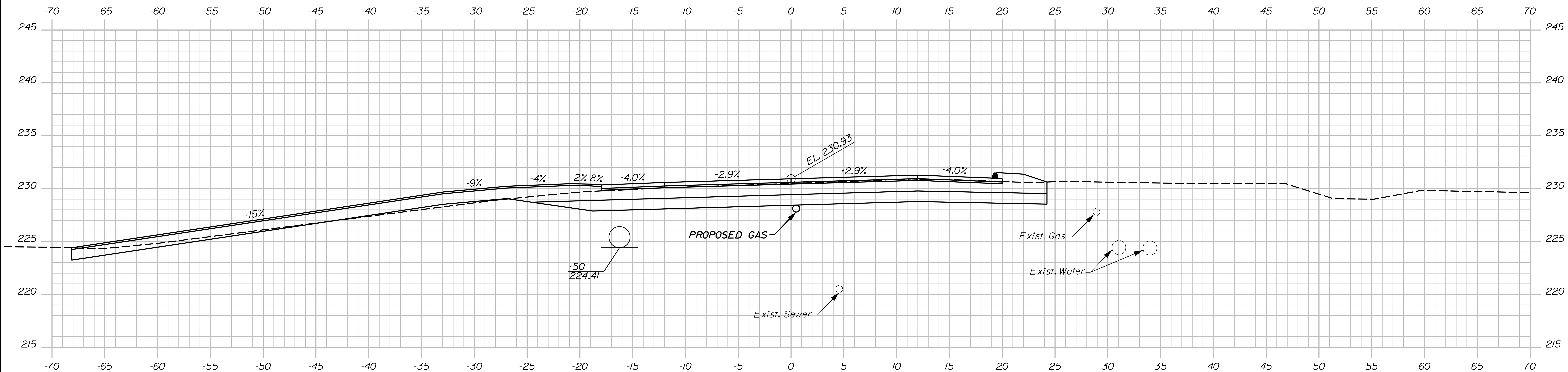
Sta. 110+75.00 to Sta. 111+00.00

Date:12/14/2012

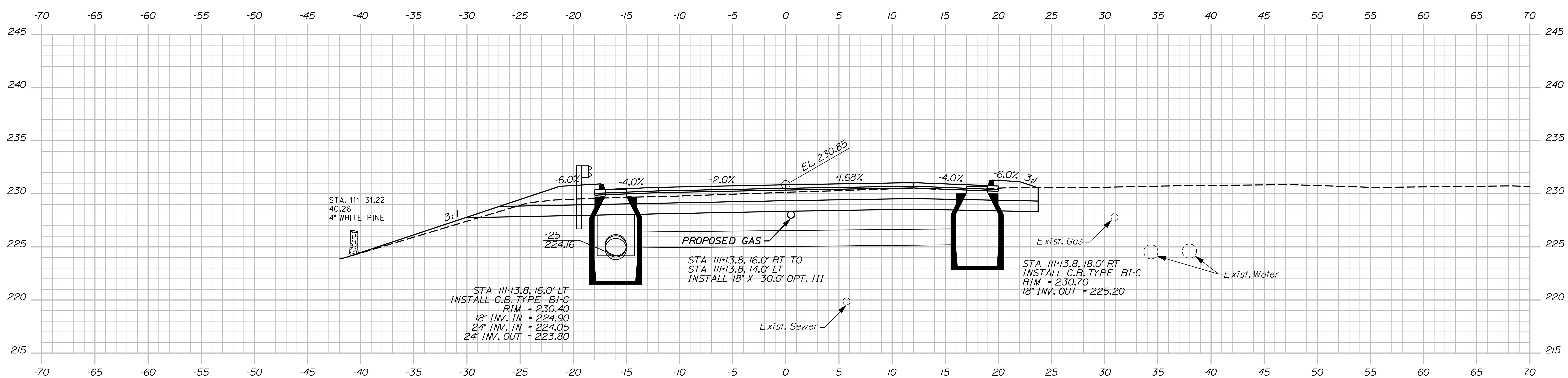
Username:

Division:

Filename: ...\Mylar\011_Cross_Sections.dgn



Paved Entrance 111+50.00



111+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

BRIDGE NO. 3338 | WIN 19284.00 | BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	N. BENOIT		
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

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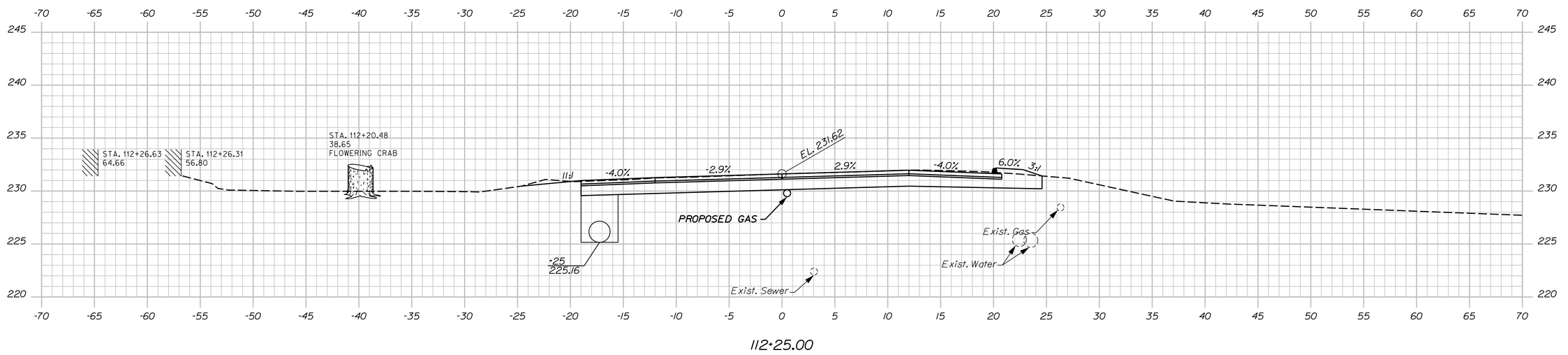
DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

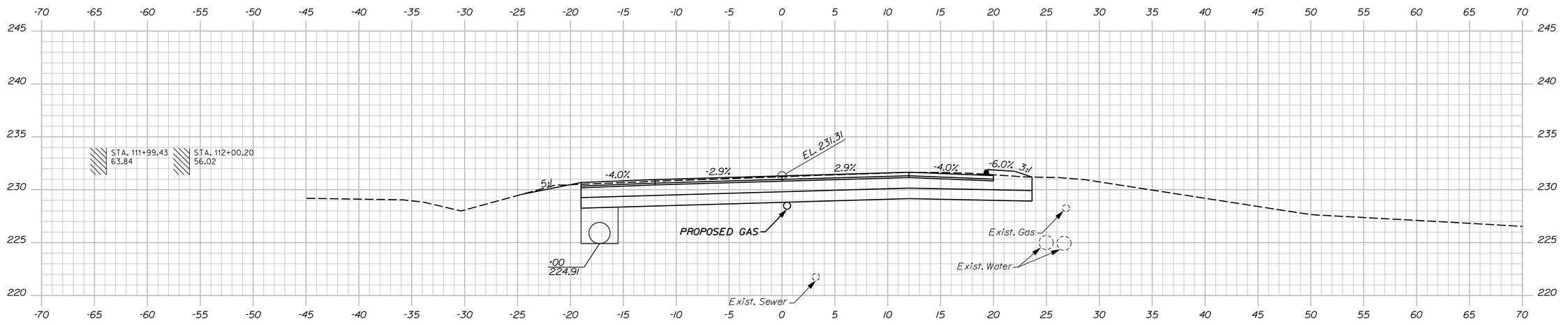
CROSS SECTIONS (11 OF 13)

SHEET NUMBER
21
OF 42

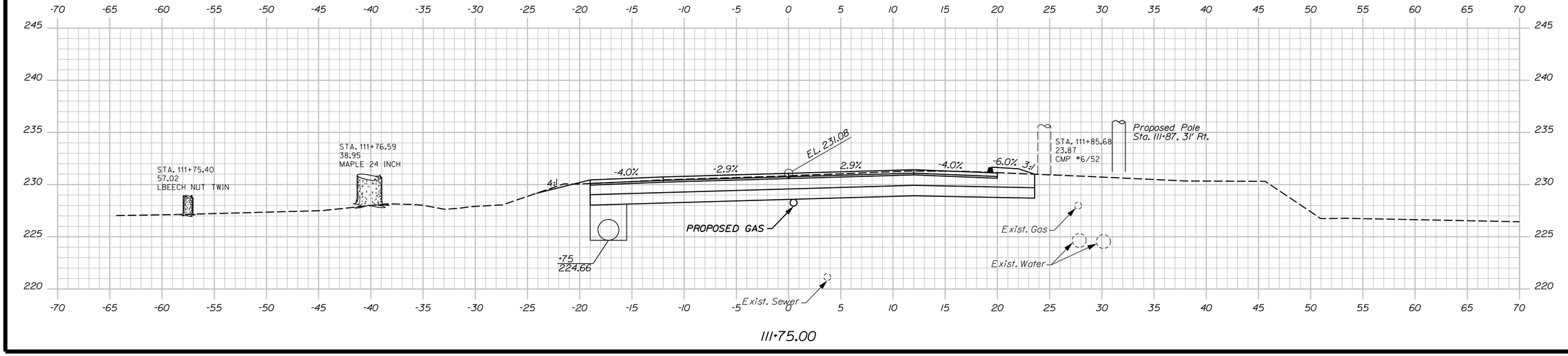
Sta. 111+25.00 to Sta. 111+50.00



112+25.00



End Project 112+00.00 Begin Transition



111+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

PROJ. MANAGER	N. BENOIT		
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

CROSS SECTIONS
(12 OF 13)

SHEET NUMBER

22

OF 42

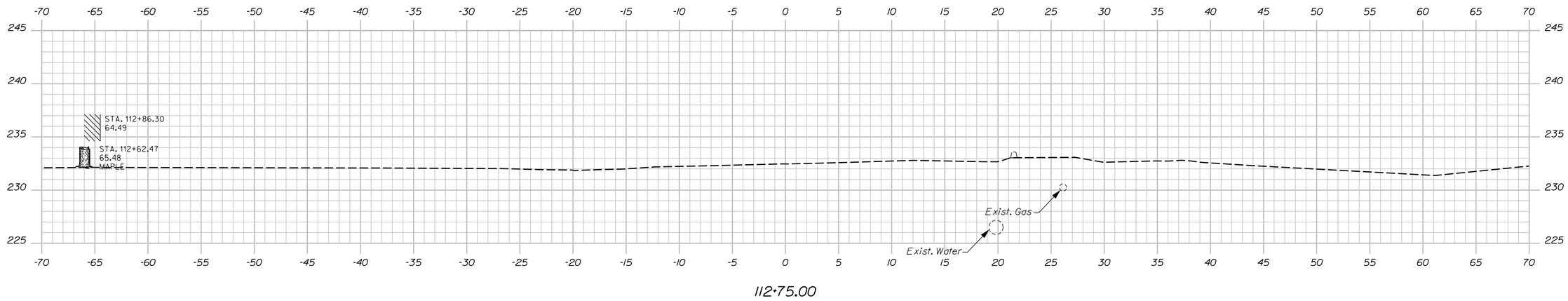
Date:12/14/2012

Username:

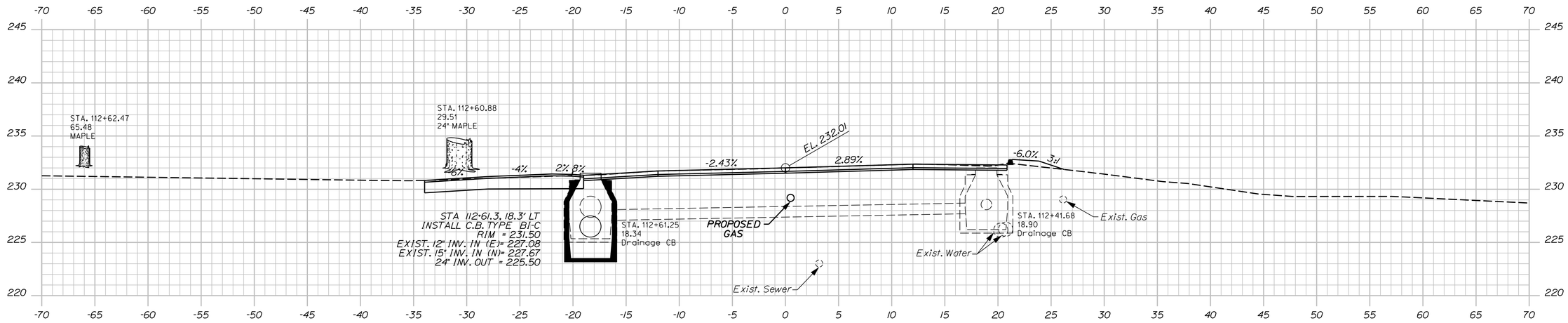
Division:

Filename: ...\Mylar\011_Cross_Sections.dgn

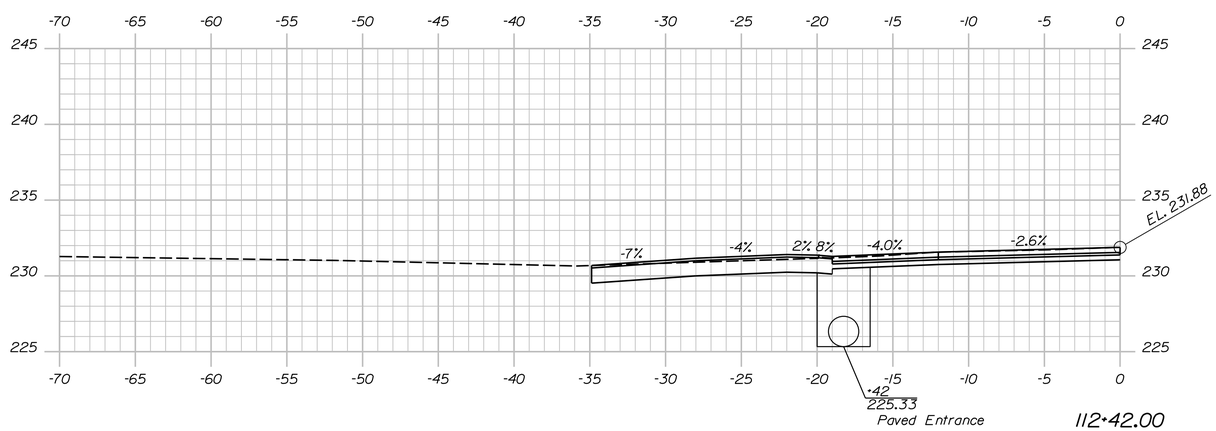
Sta. 111+75.00 to Sta. 112+25.00



112+75.00



End Transition 112+50.00 Match Existing Roadway



112+42.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

PROJ. MANAGER	N. BENOIT		
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

CROSS SECTIONS
(13 OF 13)

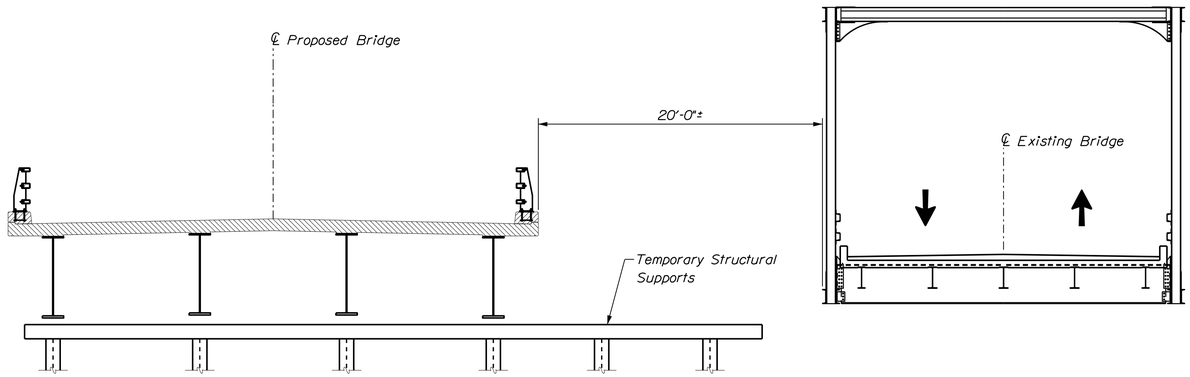
SHEET NUMBER

23

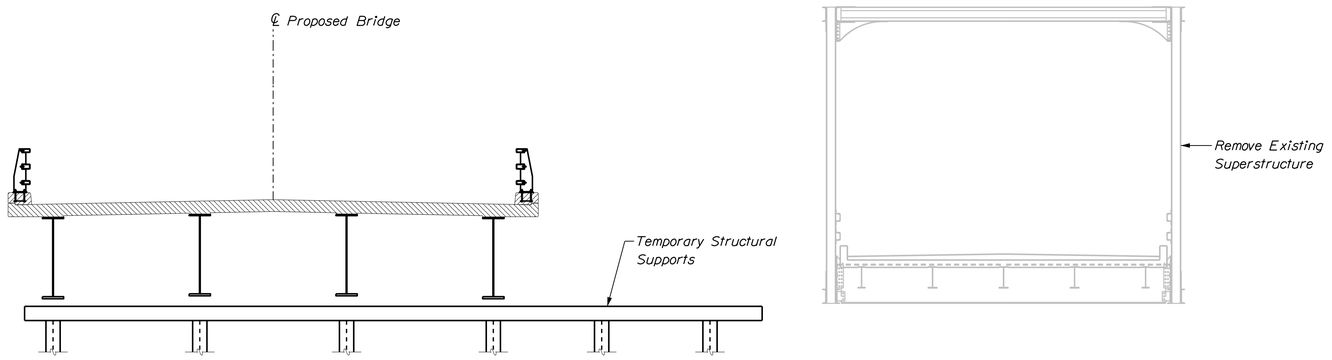
OF 42

Sta. 112+42.00 to Sta. 112+75.00

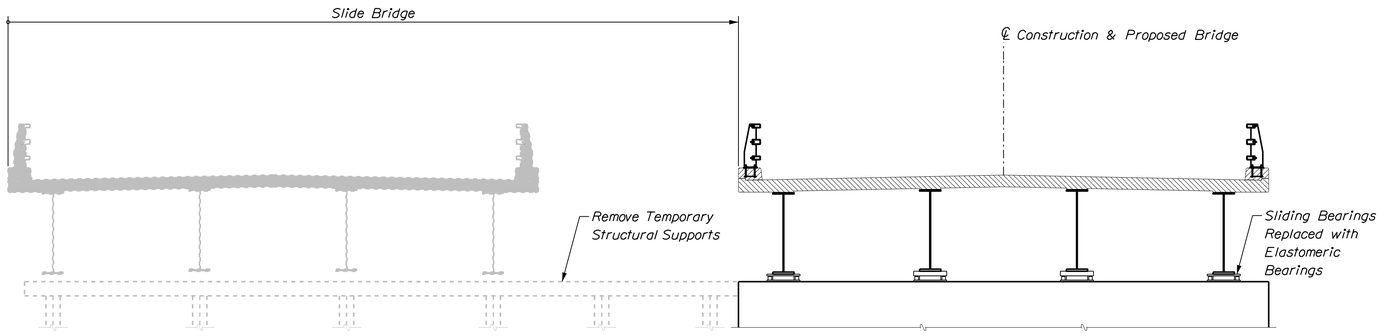
Filename: ...\Mylar\011_Cross_Sections.dgn Division: Username: Date:12/14/2012



STAGE I



STAGE II



STAGE III

STAGED CONSTRUCTION DETAILS

STAGE I CONSTRUCTION (PRIOR TO CLOSURE)

1. Secure temporary work area.
2. Construct temporary bents.
3. Construct new superstructure on temporary bents.

STAGE II CONSTRUCTION (DURING CLOSURE)

1. Close existing bridge and detour traffic.
2. Remove existing superstructure.
3. Cutoff existing abutments and wingwalls.
4. Place precast stem and wingwalls.
5. Construct precast modular retaining wall.

STAGE III CONSTRUCTION (DURING CLOSURE)

1. Slide the bridge to final location.
2. Place approach slabs.
3. Complete roadway construction.

NOTES

1. Existing foundations not shown for clarity.
2. See Special Provisions for all utility work.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338 BRIDGE PLANS

PROJ. MANAGER	N. BENOIT	BY	DATE
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

CONCEPTUAL STAGED CONSTRUCTION DETAILS

SHEET NUMBER

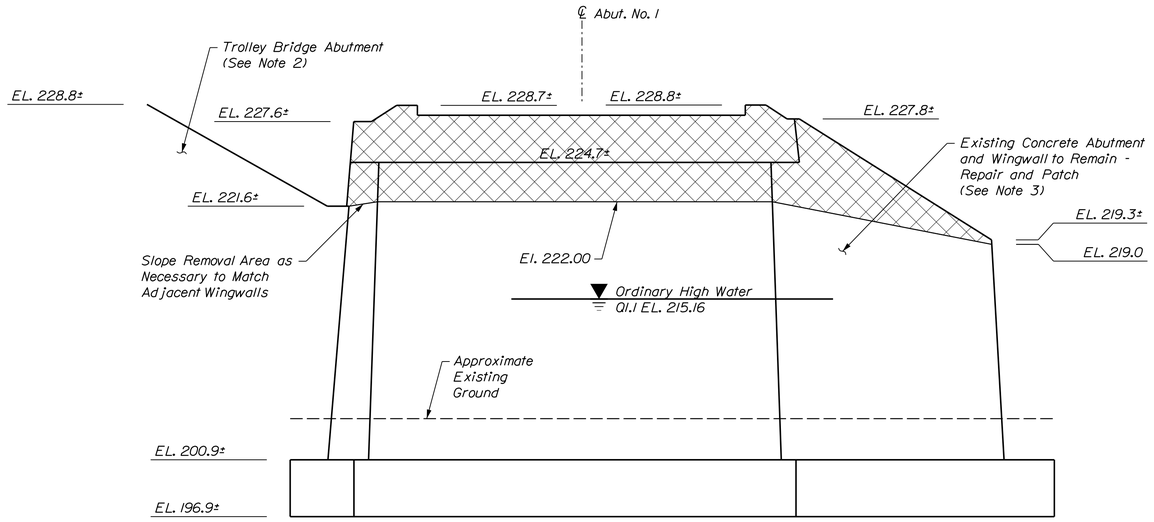
24

OF 42

Username: Date:12/14/2012

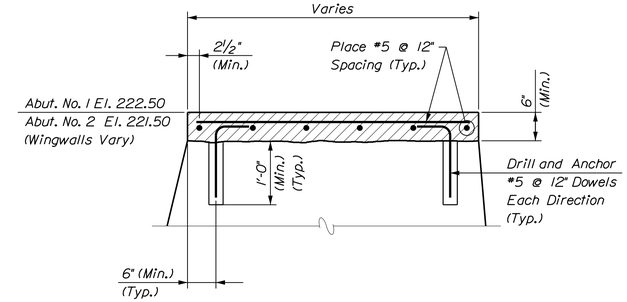
Division:

Filename: ...\Mylar\024_Stoged_sect.dgn



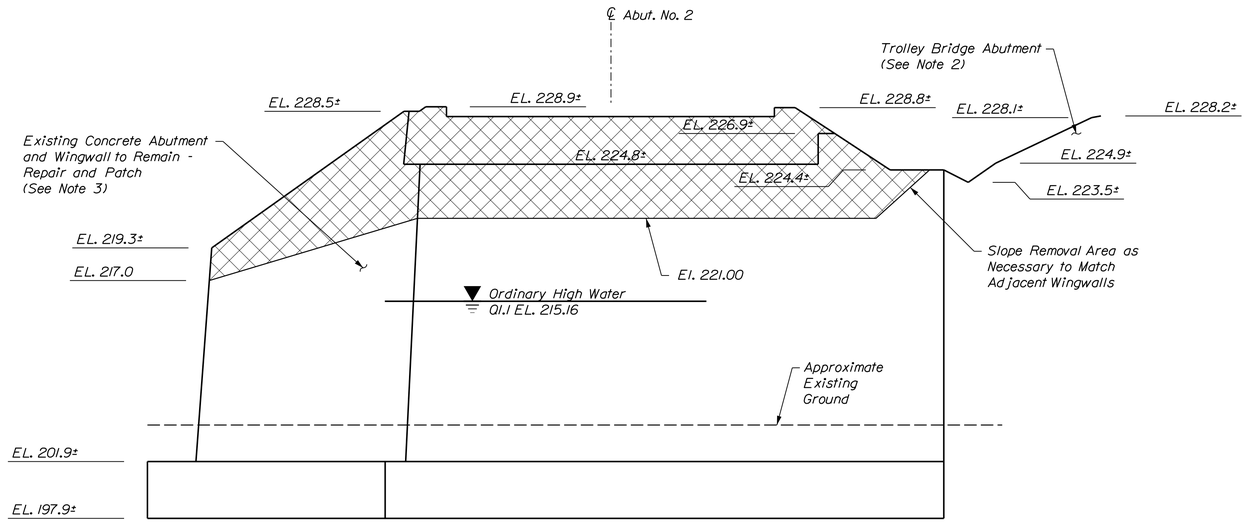
ABUTMENT NO. I DEMOLITION AND REPAIR (ELEVATION)

Not to Scale



TYPICAL SUBSTRUCTURE RECONSTRUCTION SECTION

Not to Scale



ABUTMENT NO. 2 DEMOLITION AND REPAIR (ELEVATION)

Not to Scale

LEGEND

- Demolition Area
- Cast-in-Place Concrete

NOTES

1. Demolition of existing abutments and wings paid for under item 202.121, "Removing Existing Concrete".
2. Contractor shall avoid damaging existing structures to remain during demolition and removal operations. Any damage to existing structures to remain shall be repaired to their original condition at no additional cost to the Department.
3. Concrete repair and patching of existing substructure to be performed as directed by the Resident. Patching of concrete to be included under the items 518.60 and 518.61, "Repair of Vertical Surfaces < 7.9 in." and "Repair of Vertical Surfaces, ≥ 7.9 in.".
4. Dimensions are approximate and shall be field verified.
5. Concrete repair quantities in the contract are estimated values based on assumed conditions.
6. Drilling and anchoring of reinforcing dowels into the existing concrete abutments and wingwalls, and furnishing and placing required reinforcing steel shall be incidental to item 502.21, "Structural Concrete, Abutments & Retaining Walls".

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

PROJ. MANAGER	N. BENOIT		DATE
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

SUBSTRUCTURE REMOVAL

SHEET NUMBER

25

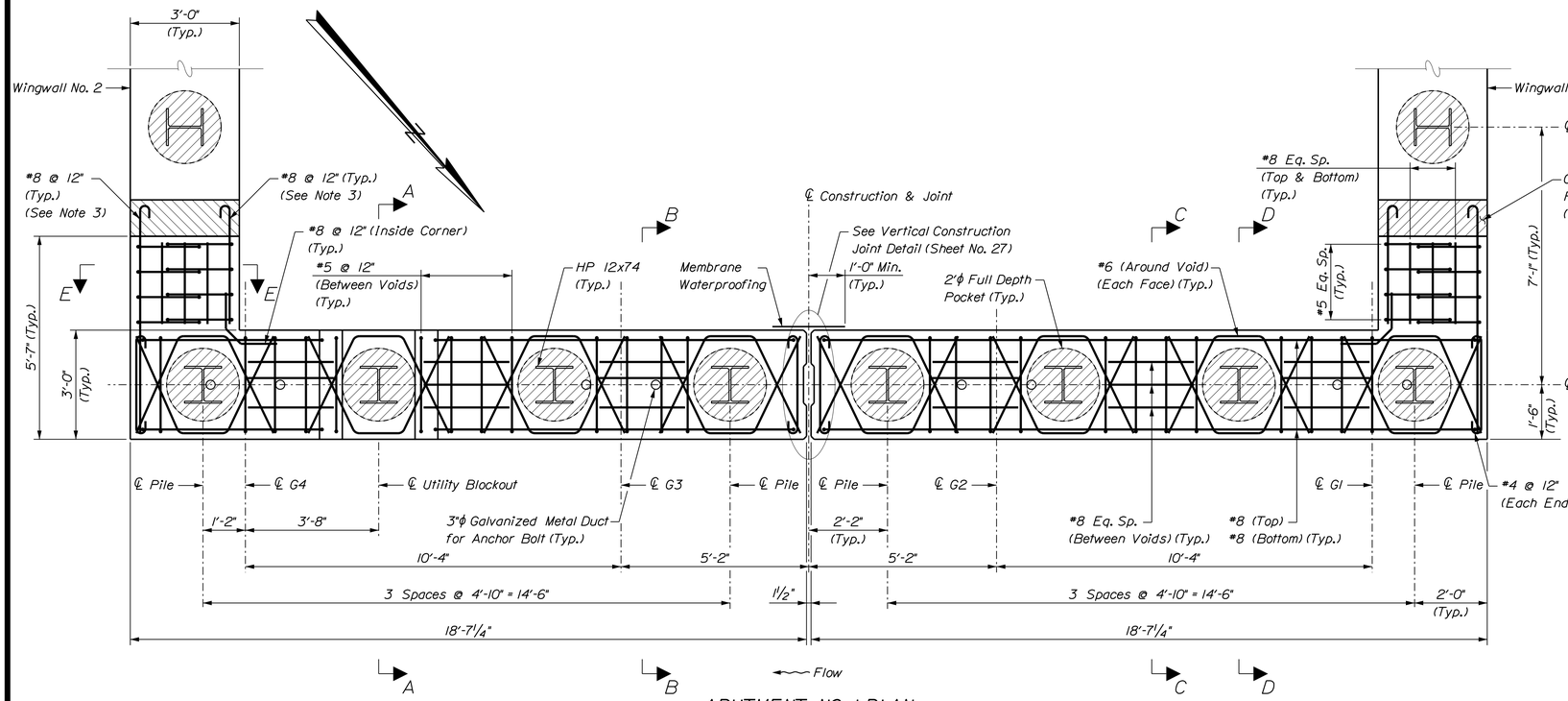
OF 42

Date:12/14/2012

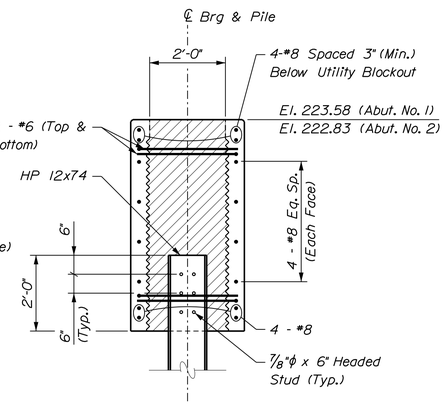
Username:

Division:

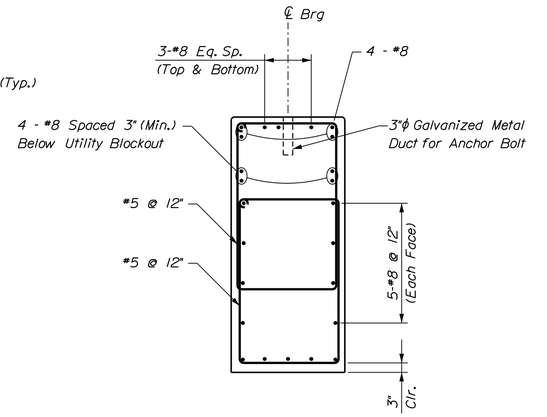
Filename: ...\025_Existing_Bridge_demo.dgn



ABUTMENT NO. 1 PLAN



SECTION A-A



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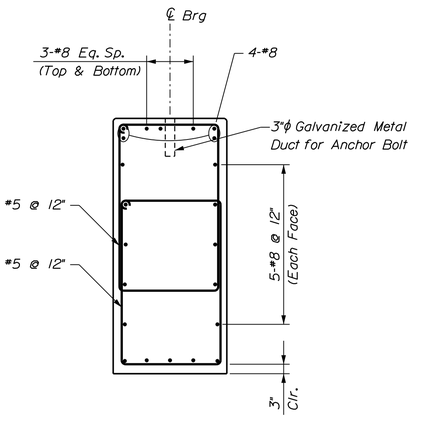
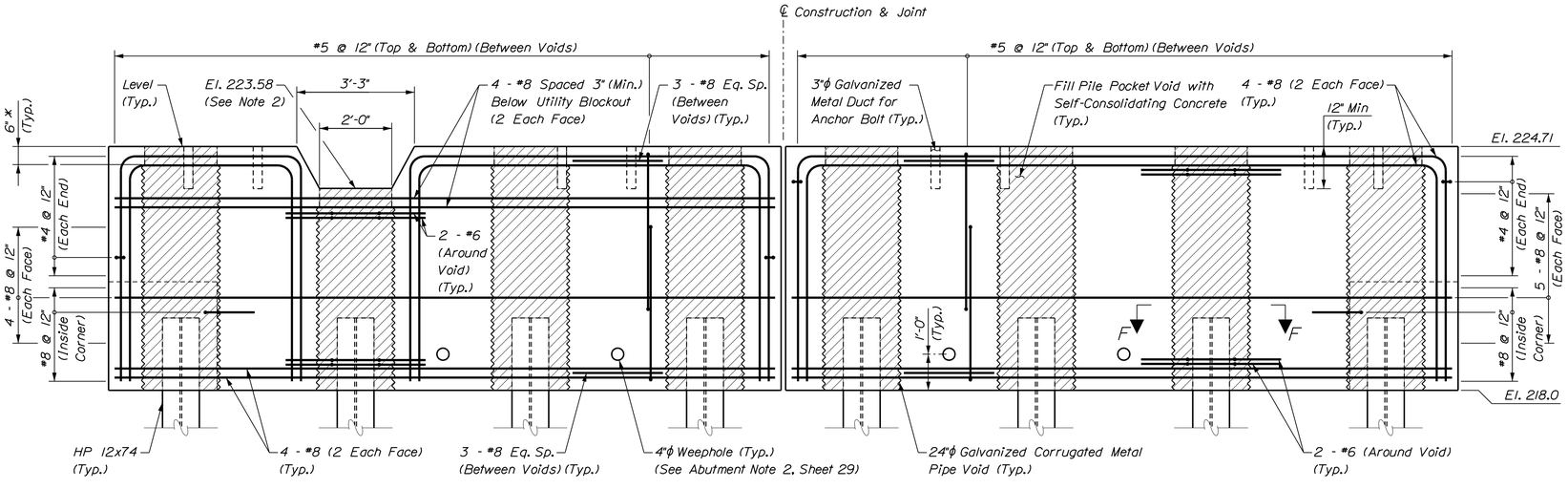


SECTION C-C



ABUTMENT NO. 1 ELEVATION

* Form Top 6" with Removable Form to Eliminate Exposed Corrugated Steel on the Top of the Abutment (Typ.)

LEGEND

Cast-in-Place Concrete

NOTES

1. For precast and pile notes, see Sheet 29.
2. Form utility blockout as required to accomodate proposed sewer line.
3. Adjust spacing of #8 Hooks to avoid inerference with wingwall hooks.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

PROJ. MANAGER	N. BENOIT	BY	DATE
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			SIGNATURE
DESIGN3-DETAILED3			
REVISIONS 1			P.E. NUMBER
REVISIONS 2			
REVISIONS 3			DATE
REVISIONS 4			
FIELD CHANGES			

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

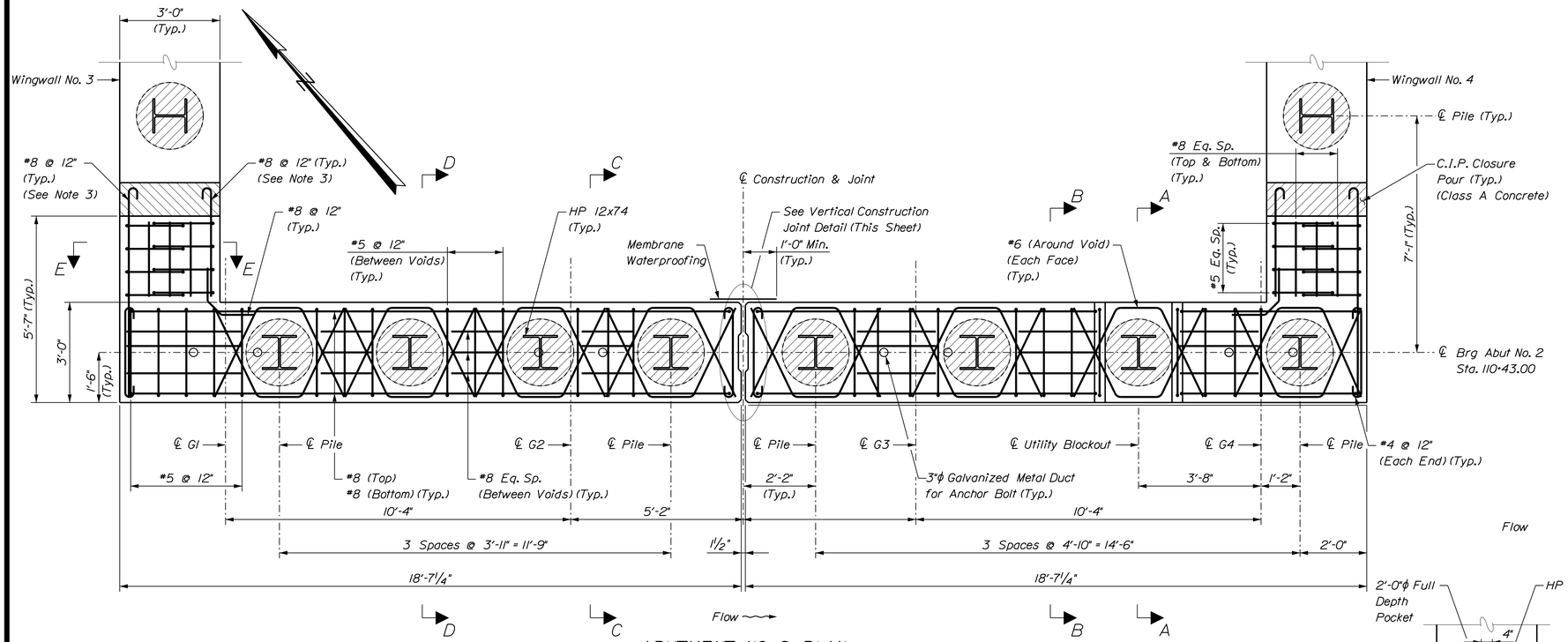
PRECAST ABUTMENT NO. 1

SHEET NUMBER

26

OF 42

Date:12/14/2012
Username:
Division:
Filename: ...\Mylar\026_Sub_abut.dgn



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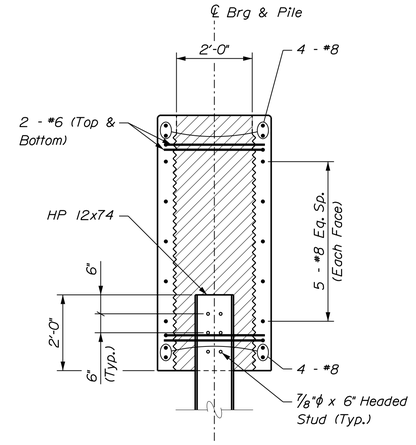

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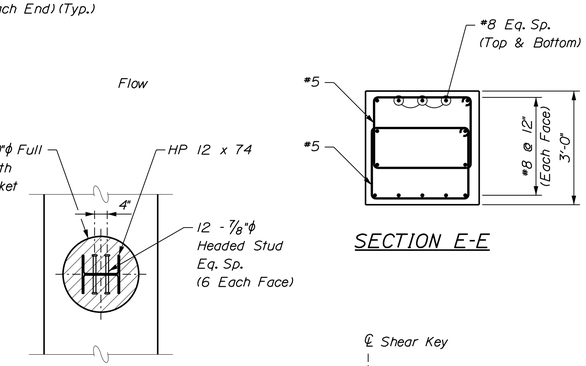
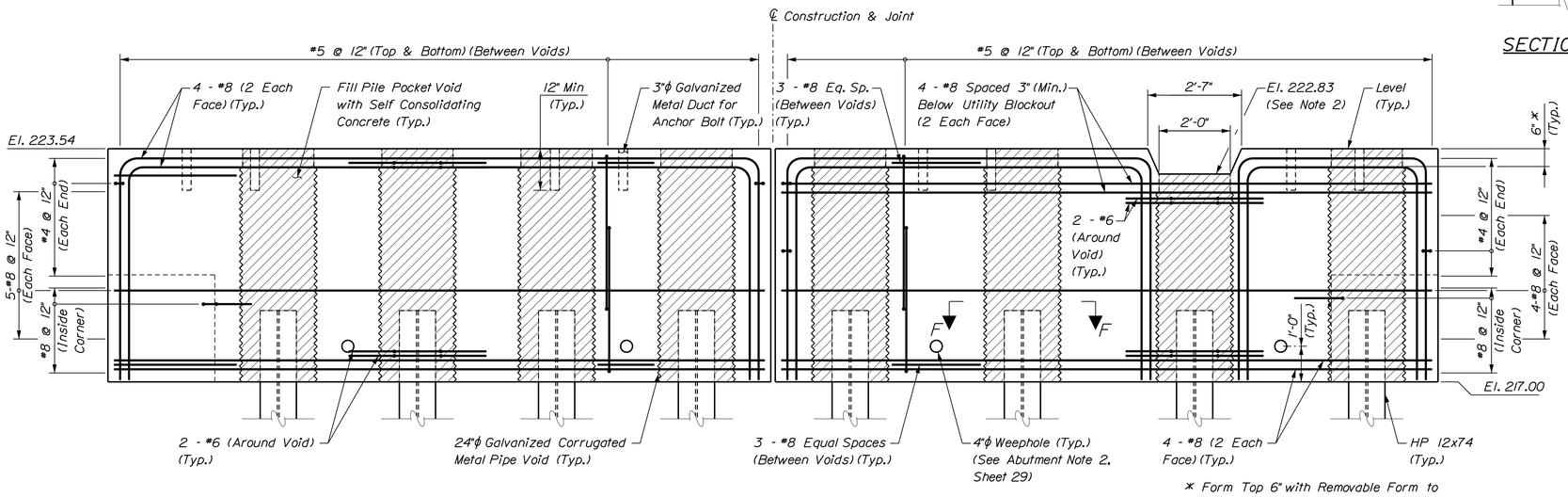


SECTION F-F

SECTION E-E



ABUTMENT NO. 2 ELEVATION

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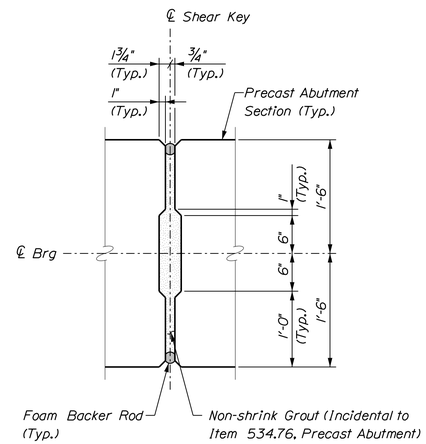


VERTICAL CONSTRUCTION JOINT DETAIL

LEGEND

Cast-in-Place Concrete

NOTES

1. For precast abutment and pile notes, see Sheet 29.
2. Form utility blockout as required to accomodate proposed sewer line.
3. Adjust spacing of #8 hooks to avoid interference with wingwall hooks.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

PROJ. MANAGER	N. BENOIT		
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

P.E. NUMBER

SIGNATURE

DATE

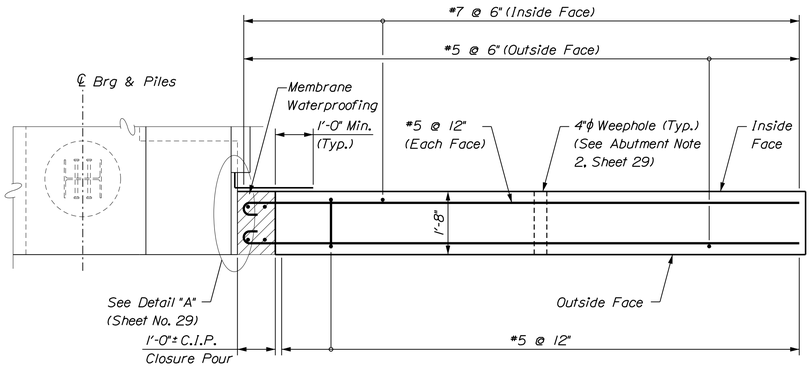
LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

PRECAST ABUTMENT NO. 2

SHEET NUMBER 27

OF 42

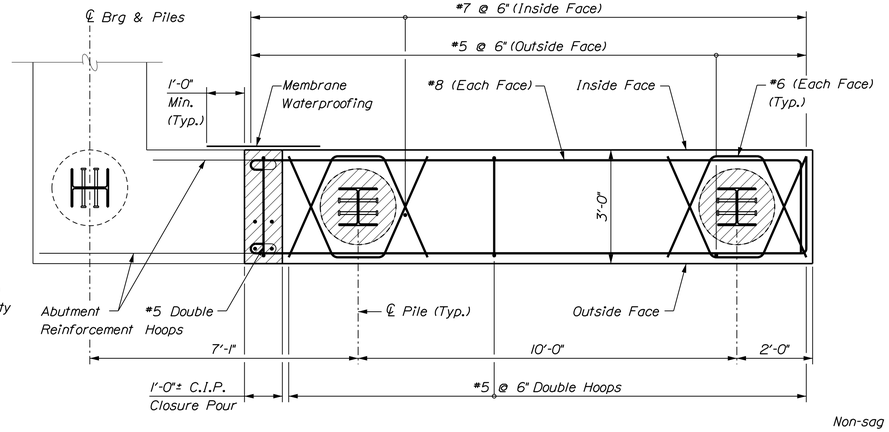
Filename: ...\Mylar\027_Sub_abut.dgn Division: Username: Date:12/14/2012



SECTION I-I

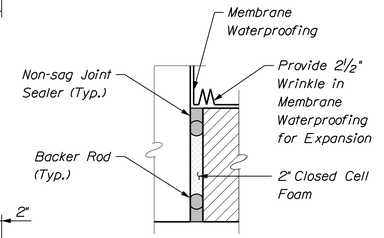
(Wingwalls No. 1 & 4 Shown, Wingwalls No. 2 & 3 Similar)

Note: Bridge deck curb and approach slab not shown for clarity

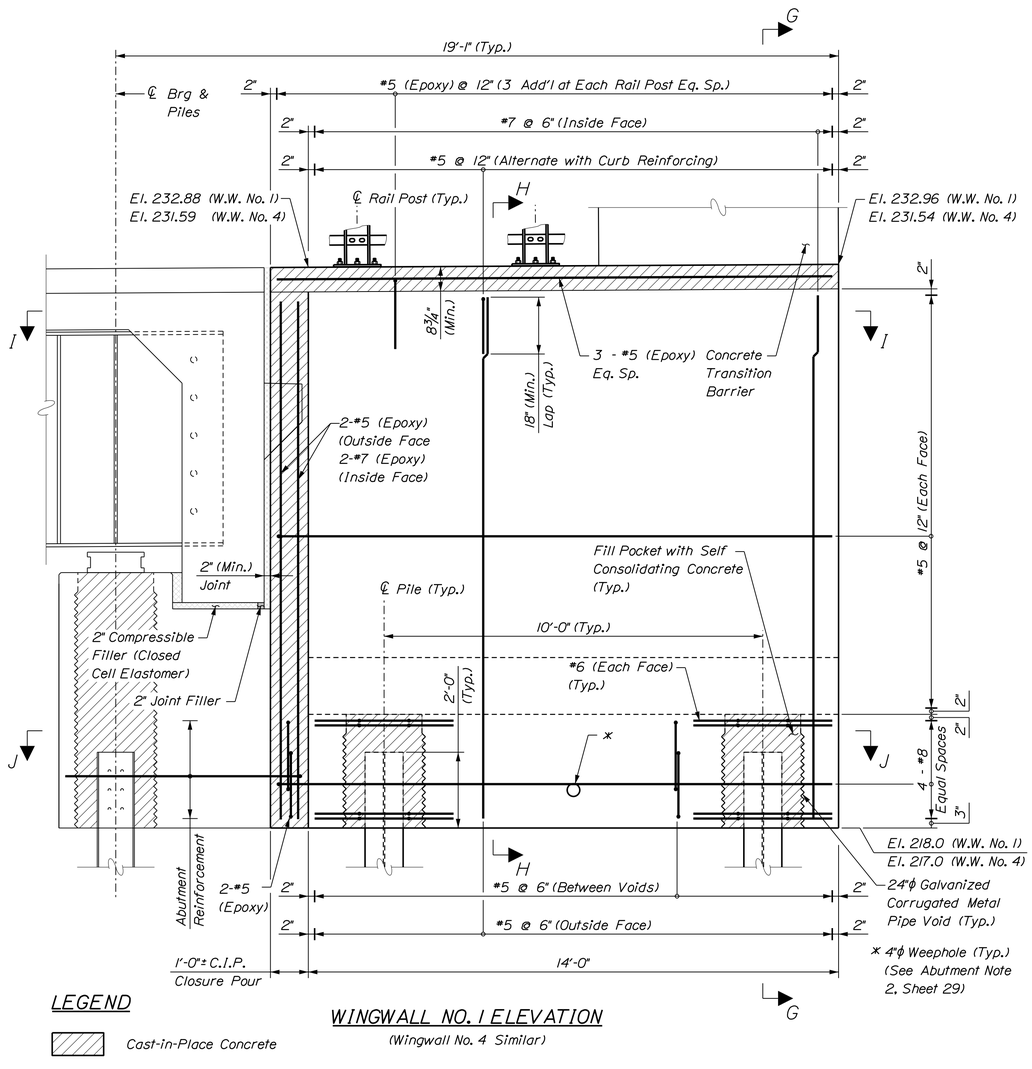


SECTION J-J

(Wingwalls No. 1 & 4 Shown, Wingwalls No. 2 & 3 Similar)



DETAIL "A"

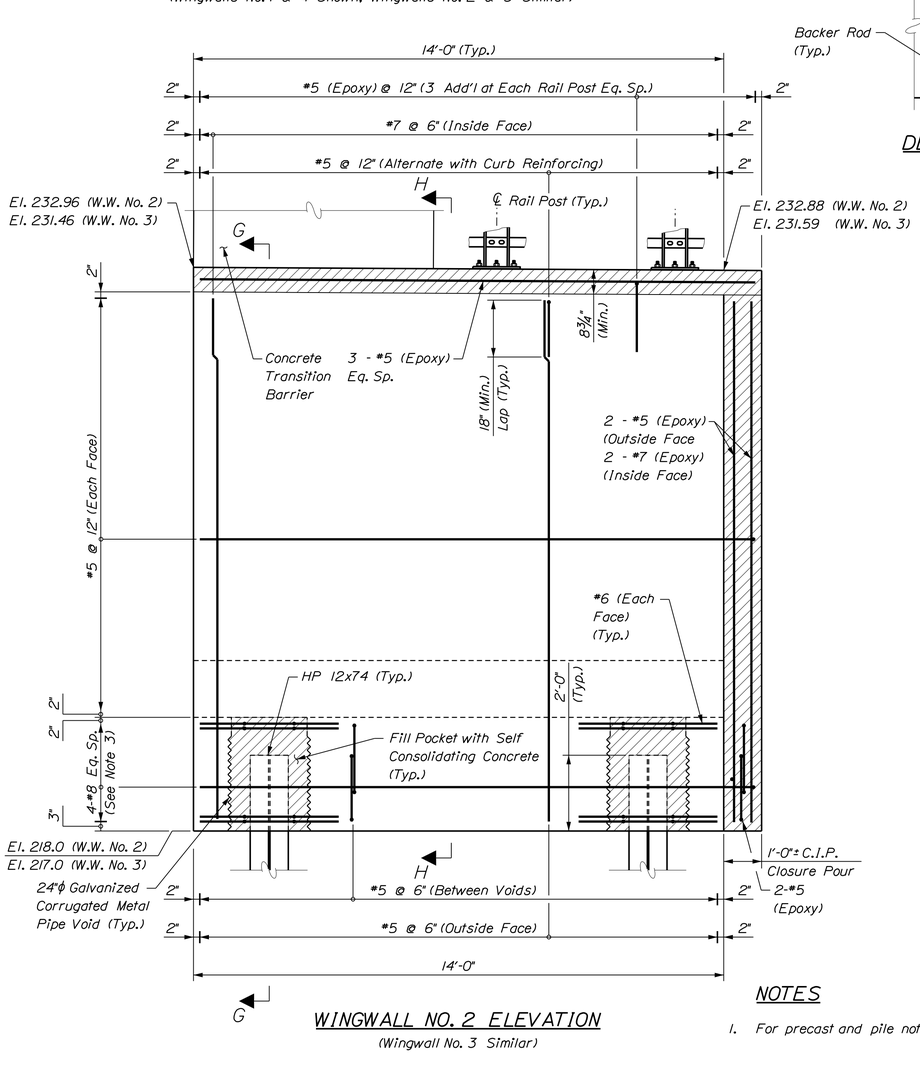


LEGEND

Cast-in-Place Concrete

WINGWALL NO. 1 ELEVATION

(Wingwall No. 4 Similar)



WINGWALL NO. 2 ELEVATION

(Wingwall No. 3 Similar)

NOTES

1. For precast and pile notes, see Sheet 29.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	N. BENOIT	
DESIGN-DETAILED	J. Poisson	
CHECKED-REVIEWED	D. Kull	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

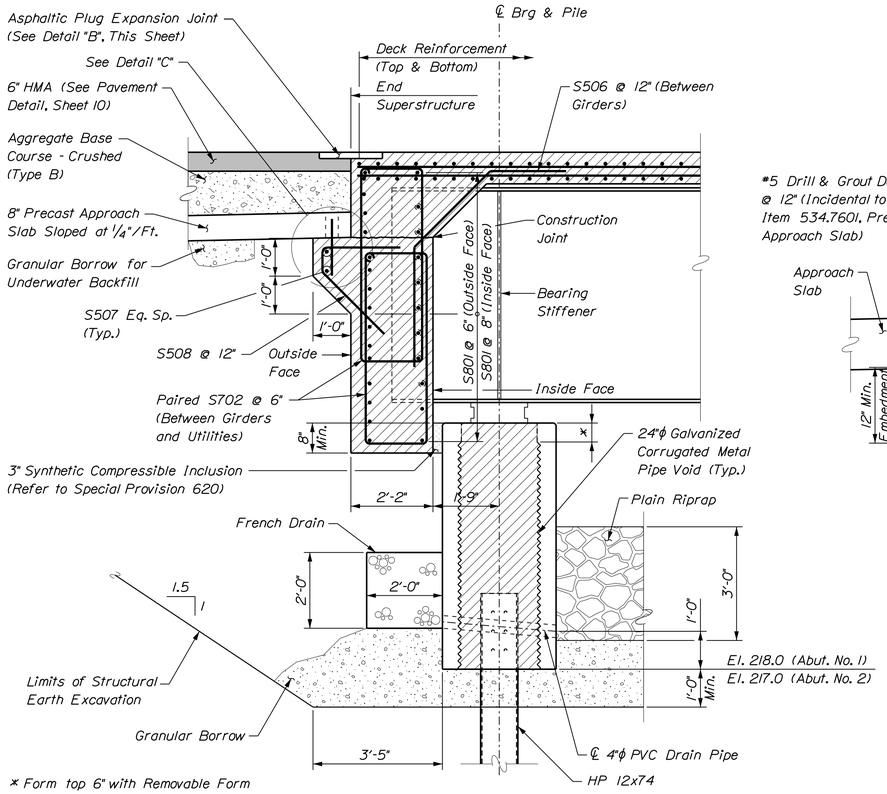
WINGWALL DETAILS (1 OF 2)

SHEET NUMBER

28

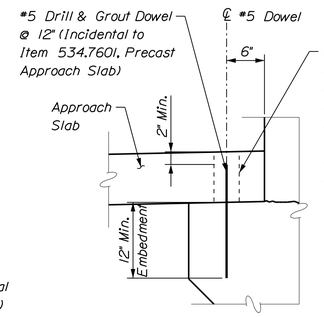
OF 42

Filename: ...\Mylar\028_Sub_wing.dgn Division: Username: Date:12/14/2012

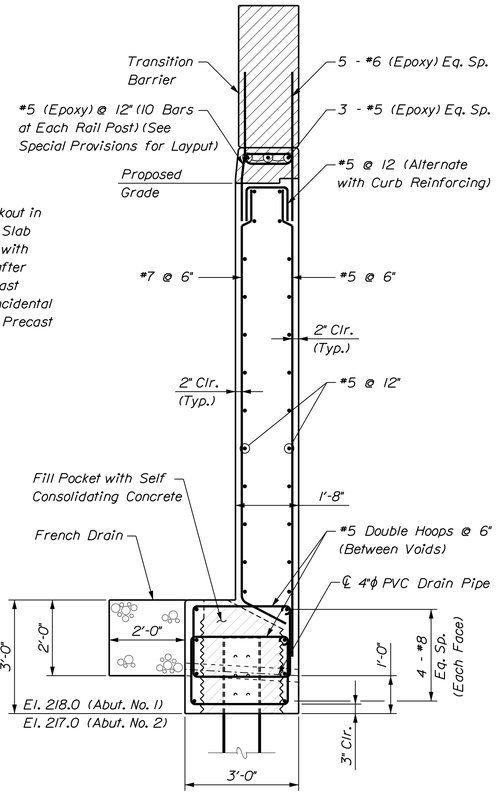


* Form top 6" with Removable Form to Eliminate Exposed Steel on the Top of the Element.

TYPICAL ABUTMENT SECTION



DETAIL "C"



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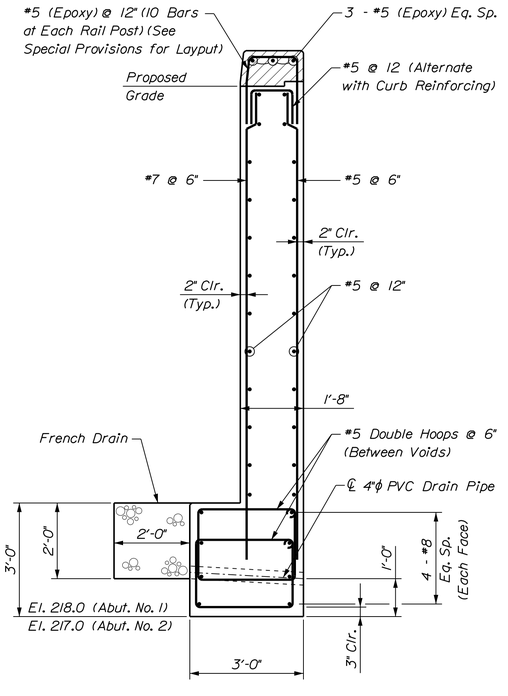
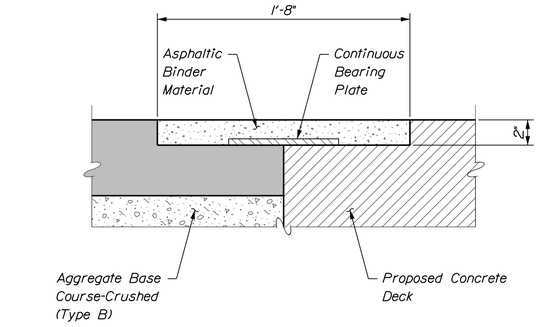


SECTION H-H



DETAIL "B"

LEGEND

Cast-in-Place Concrete

ABUTMENT, WINGWALL AND APPROACH SLAB NOTES

1. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
2. Reinforcing for C.I.P. closure pours, curb reinforcing, rail curbs and transition barriers shall be epoxy coated.
3. Reinforcing steel for G.I. closure pours, curb reinforcing and existing substructure reconstruction is incidental to Item 502.49, Structural Concrete Curbs and Sidewalk and Item 502.21, Structural Concrete, Abutments & Retaining Walls.
4. Place 4 inch diameter drains in abutment and wingwalls at 10 feet maximum spacing. The exact horizontal location will be determined by the Precast Manufacturer.
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. Granular Borrow shall be graded to the proper elevations and thoroughly compacted prior to setting the precast approach slabs.
7. To ensure an accurate match with the superstructure, the concrete curb portions of the wingwalls shall be placed after the superstructure is set in its final position on the abutments.
8. The Contractor shall install Transition Barrier vertical closed stirrups as shown in the Special Provisions prior to the placement of the curb concrete.
9. Provide 10 stirrups in the curbs at each bridge rail post location.
10. For bridge rail post spacing on deck, see Sheet No. 35.
11. For utility penetration and blockout details, see Sheet No. 37.
12. See Standard Drawing 520 for reinforcing layout in transition barrier.

PILE NOTES

1. The maximum factored pile load is 316 kips (including 0 kips allowed for downdrag).
2. Estimate of piles required:
   - Abutment No. 1: 8 - HP 12 x 74 @ 4'-10" spacing
   - Abutment No. 2: 8 - HP 12 x 74 @ variable spacing
   - Wingwalls: 4 - HP 12 x 74 @ 10'-0" spacing
3. Piles shall not be out of position shown by more than 2 inches in any direction.
4. The Contractor shall perform and submit a wave equation analysis for review and acceptance by the Resident. The maximum allowable driving stress is 0.90 times Fy. The submittal analyses shall include the proposed stopping criteria based on the wave equation analysis and the proposed driving system. The stopping criteria shall include the blows per inch and the number of 1 inch driving intervals at which pile installation may be terminated. The cost of performing the wave equation analysis will be considered incidental to Item No. 501.92, Pile Driving Equipment Mobilization.
5. The Contractor shall perform one (1) dynamic load test per abutment to confirm the ultimate capacity of the piles. The required nominal resistance for the pile is the factored axial pile load divided by a resistance factor of 0.65 per LRFD Specifications. The dynamic test shall be performed on the first production pile driven at each abutment.
6. All piles at Abutment 2 shall be equipped with Rock Injector HP-80500 pile tips manufactured by Associated Pile & Fitting LLC or approved equal. Pile tips shall be attached according to the manufacturer's recommendations and in accordance with Specifications Section 501.
7. H-PILES material shall be ASTM A572, Grade 50.
8. Piles shall be driven to bedrock in accordance with Section 501 of the Standard Specifications.
9. It is anticipated that the Contractor may encounter obstructions during pile driving operations. Clearing of obstructions shall be specified in Section 501 of the Standard Specifications. The method of clearing obstructions shall be approved by the Resident. The cost of clearing obstructions shall be considered incidental to related Contract Items.
10. The existing bridge abutments consist of reinforced concrete. There is a potential that existing abutments will obstruct pile driving operations at the proposed abutment locations. Obstructions may be cleared as specified in Section 501 of the Standard Specifications by conventional excavation methods, preboring, predrilling, or down-hole hammers. Alternative methods to clear obstructions may be used as approved by the Resident. Work to clear or excavate obstructions or portions of the pre-existing abutments will be considered incidental to the contract pay item for piles in place.
11. Due to the presence of sloping bedrock at the site, pile walking during driving is possible. No compensation will be made for piles which need to be removed and redriven due to the Contractor's pile driving operation.
12. No splicing of pile will be permitted.

PRECAST NOTES

1. The estimated weight of each precast abutment module is 47 KIPS (without concrete in voids).
2. Abutment stem reinforcing shall be placed, and upper section of CPM adjusted, to avoid interference with anchor bolt ducts.
3. Sheet membrane waterproofing shall be placed a minimum of 1' on either side of approach slab construction joints.
4. Use 24" Galvanized corrugated metal pipe for pile pockets.
5. Galvanized metal ducts shall be used at all anchor bolt locations except those that fall in pile pockets. These locations may be field drilled once pocket concrete has achieved 3000 psi compressive strength.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

PROJ. MANAGER	N. BENOIT		DATE
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	SIGNATURE
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			P.E. NUMBER
REVISIONS 1			
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

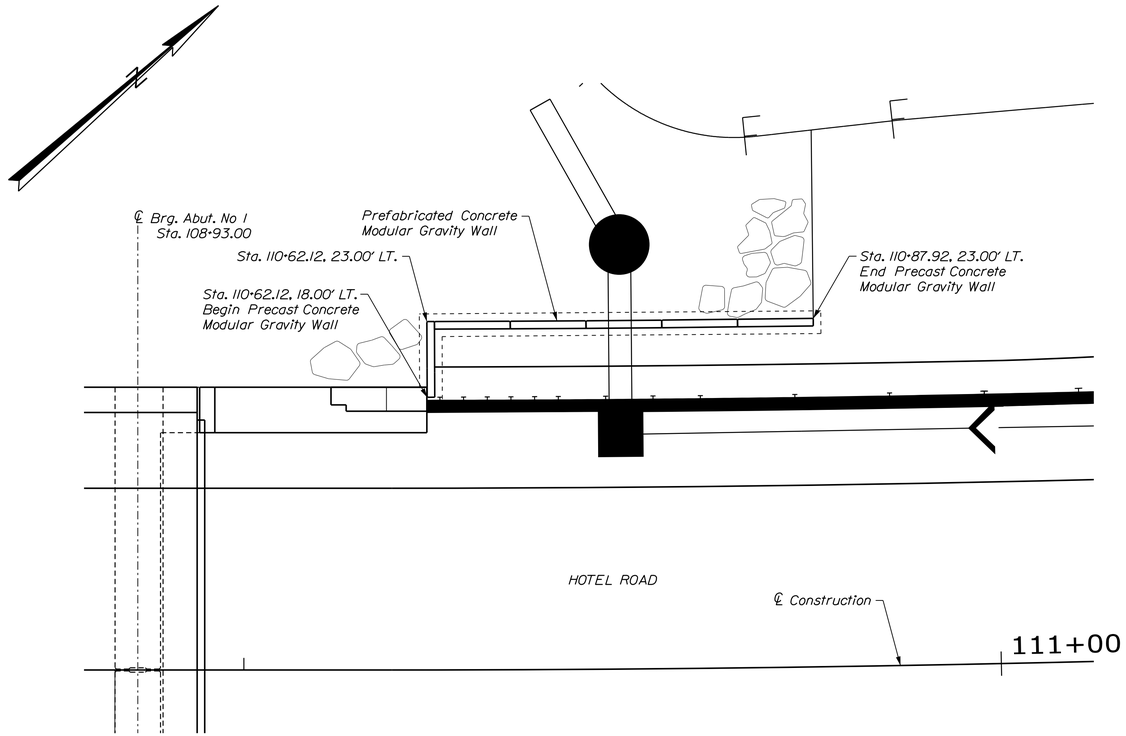
LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

WINGWALL DETAILS (2 OF 2)

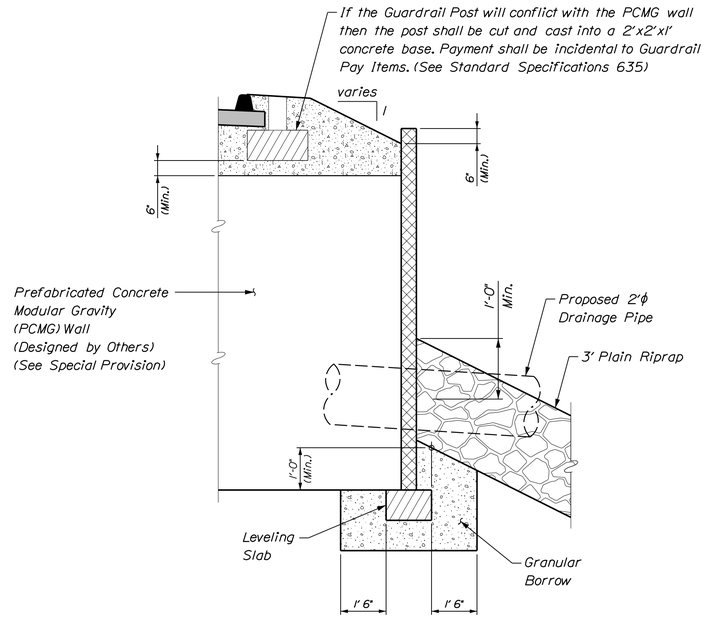
SHEET NUMBER 29 OF 42

McFarland Johnson

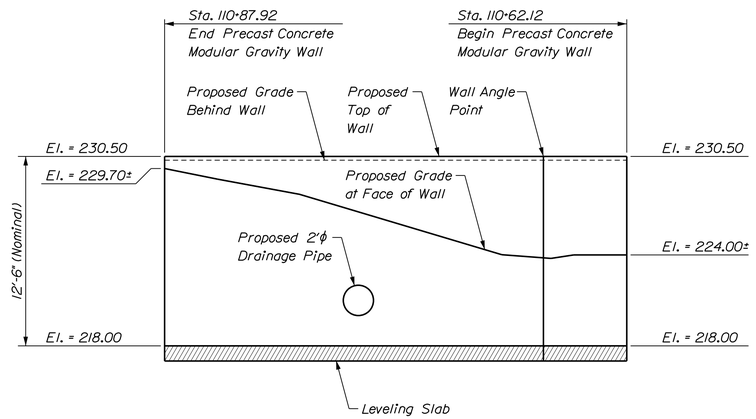
Date:12/14/2012
Username:
Division:
Filename: ...\Mylar\029_Sub_wing.dgn



PREFABRICATED CONCRETE MODULAR GRAVITY WALL - PLAN



PREFABRICATED CONCRETE MODULAR GRAVITY WALL - TYPICAL SECTION



PREFABRICATED CONCRETE MODULAR GRAVITY WALL - FRONT ELEVATION

NOTES

1. The Contractor shall provide a Precast Concrete Modular Gravity (PCMG) wall in accordance with Special Provision 635. The PCMG shall be designed and stamped by a Registered Professional Engineer and the design shall be submitted to the Resident for review. Plan details are shown for estimating purposes only.
2. The precast units shall be manufactured by the following, or equal:

   "T-Wall" as manufactured by a licensed manufacturer of Neel Company.
   "DoubleWal" as manufactured by a licensed manufacturer of DoubleWal Corp., Plainville, Connecticut.
3. The factored bearing pressure for PCMG walls shall not exceed the factored bearing resistance of 6 ksf for the strength limit state for wall system for wall system bases less than 8 feet wide and 7ksf for bases 8.5 to 14 feet wide. The factored bearing pressure for the service limit state shall not exceed the factored bearing resistance of 6 ksf.
4. Concrete testing shall be in accordance with Standard Specification 535.
5. A one foot wide drainage geotextile fabric hall be secured to the back of the units at all horizontal and vertical joints for the full height of the wall. Payment for the drainage geotextile fabric shall be considered incidental to Pay Item 635.14.
6. Concrete testing shall be done in accordance with Standard Specification 535.
7. The high water elevation for hydrostatic design condition is El. 222.0 feet.
8. Cofferdams for the PCMG wall installation will be considered incidental to project items.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338 BRIDGE PLANS

	N. BENOIT	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

MODULAR WALL DETAILS

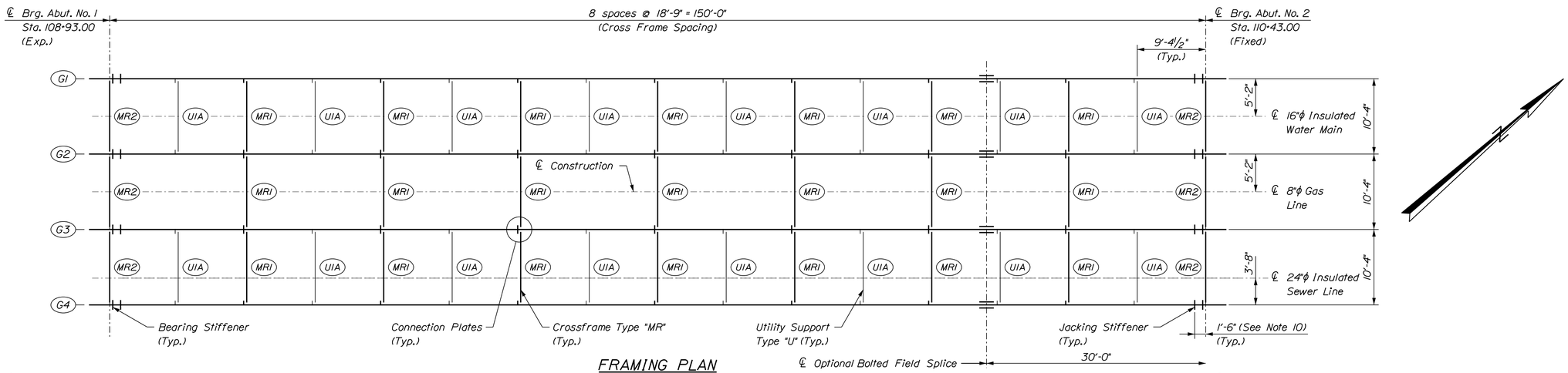
SHEET NUMBER

30

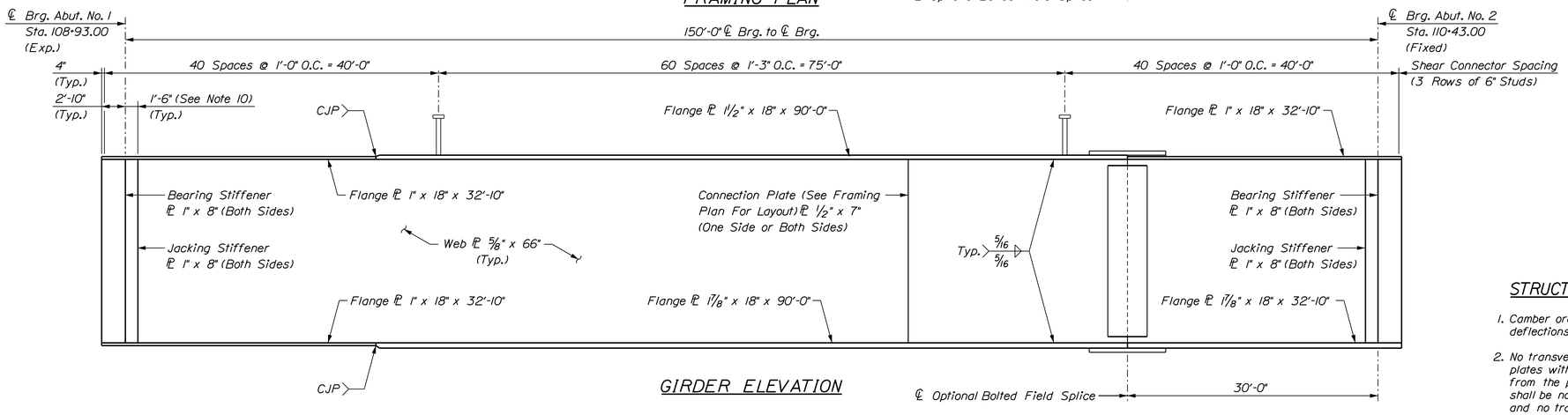
OF 42

McFarland Johnson

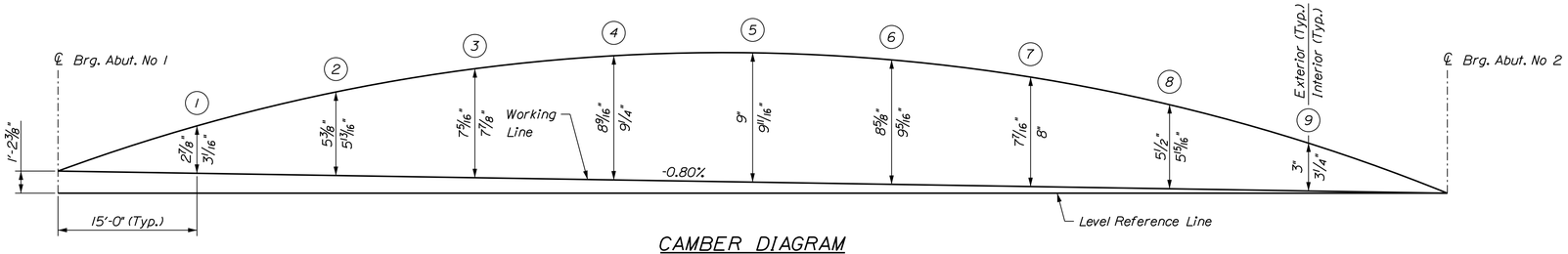
Filename: ...\Mylar\030_RetainingWall.dgn Division: Username: Date:12/14/2012



FRAMING PLAN



GIRDER ELEVATION



CAMBER DIAGRAM

Dead Load Deflections (Inches) - Exterior Girders (G1 & G4)											
	Abut. No. 1	1st Tenth	2nd Tenth	3rd Tenth	4th Tenth	5th Tenth	6th Tenth	7th Tenth	8th Tenth	9th Tenth	Abut. No. 2
Steel	0.00	0.51	0.96	1.31	1.53	1.61	1.54	1.32	0.99	0.53	0.00
Fluid Concrete	0.00	1.69	3.16	4.31	5.03	5.30	5.07	4.37	3.25	1.76	0.00
Superimposed	0.00	0.35	0.67	0.91	1.07	1.13	1.08	0.93	0.69	0.37	0.00
Utilities	0.00	0.31	0.58	0.78	0.92	0.96	0.92	0.79	0.59	0.32	0.00

Dead Load Deflections (Inches) - Interior Girders (G2 & G3)											
	Abut. No. 1	1st Tenth	2nd Tenth	3rd Tenth	4th Tenth	5th Tenth	6th Tenth	7th Tenth	8th Tenth	9th Tenth	Abut. No. 2
Steel	0.00	0.51	0.96	1.31	1.53	1.61	1.54	1.32	0.99	0.53	0.00
Fluid Concrete	0.00	2.06	3.87	5.27	6.16	6.48	6.19	5.34	3.98	2.15	0.00
Superimposed	0.00	0.28	0.54	0.74	0.86	0.90	0.87	0.75	0.55	0.30	0.00
Utilities	0.00	0.23	0.43	0.59	0.69	0.72	0.69	0.60	0.44	0.24	0.00

Bottom of Slab Elevations											
Girder	Abut. No. 1	1st Tenth	2nd Tenth	3rd Tenth	4th Tenth	5th Tenth	6th Tenth	7th Tenth	8th Tenth	9th Tenth	Abut. No. 2
1	231.21	231.25	231.26	231.24	231.19	231.10	230.95	230.77	230.55	230.29	230.01
2	231.42	231.48	231.52	231.52	231.148	231.38	231.24	231.05	230.81	230.53	230.22
3	231.42	231.48	231.52	231.52	231.48	231.38	231.24	231.05	230.81	230.53	230.22
4	231.21	231.25	231.26	231.24	231.19	231.40	230.95	230.77	230.55	230.29	230.01

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 percent of the span length (whichever is greater) from the point of 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. See welded splice transition detail on Sheet 32.
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 20 feet in length unless otherwise shown on the plans.
4. Bearing stiffeners shall be plumb after erection and dead loading of the structure.
5. Cross frame or diaphragm connection plates may be either plumb or normal to the top flange.
6. Filler plates may be steel conforming to the requirements of A709, Grade 36.
7. For cross frame and utility support details, see Sheet 33.
8. Diaphragm connection plates shall be welded to the bottom flange in lieu of the bolted "Tension Flange Connection" shown in Standard Detail 504(21). All connection plates shall be welded to the top and bottom flanges using a 5/16" weld. See Connection Plate Detail on Sheet 32.
9. Optional bolted field splice connections shall be made using 7/8" ASTM A 325 H.S. bolts. Hole size shall be 15/16" diameter. Bolt threads shall be excluded from the shear planes of the field splice connections.
10. Location of jacking stiffeners can be modified to accommodate location of temporary jacking.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	BY	DATE
N. BENOIT		
PROJ. MANAGER	J. Poisson	
DESIGN-DETAILED	P. Dustin	
CHECKED-REVIEWED	D. Kull	
DESIGN2-DETAILED2	R. Joy	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

FRAMING PLAN & GIRDER ELEVATION

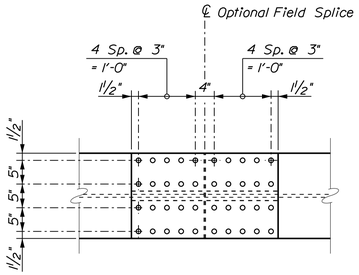
SHEET NUMBER 31 OF 42

Date:12/14/2012

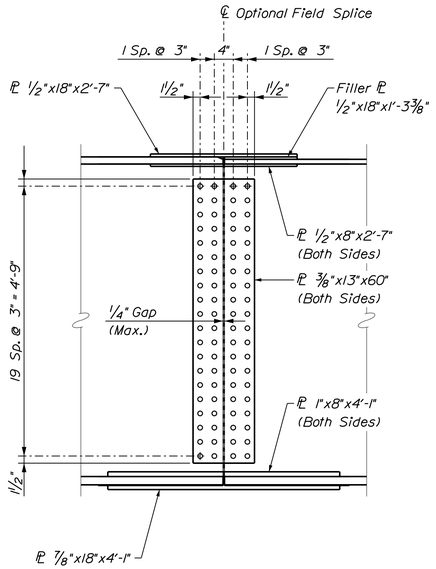
Username:

Division:

Filename: ...\Mylar\031_Framing_plan.dgn



TOP VIEW



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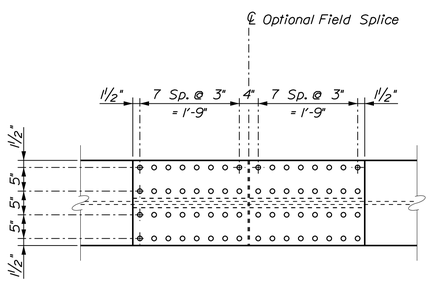
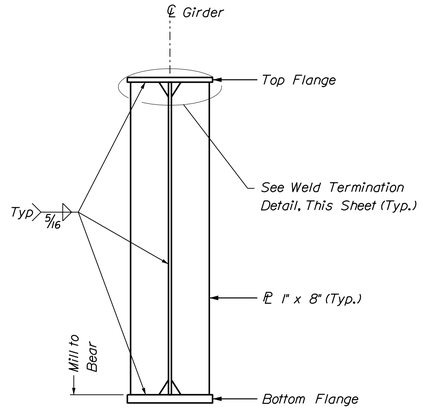
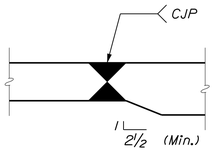


BOTTOM VIEW

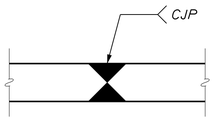
GIRDER SPLICE



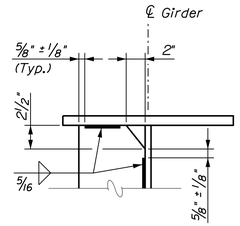
BEARING AND JACKING STIFFENER



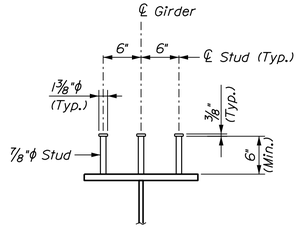
FLANGE THICKNESS TRANSITION



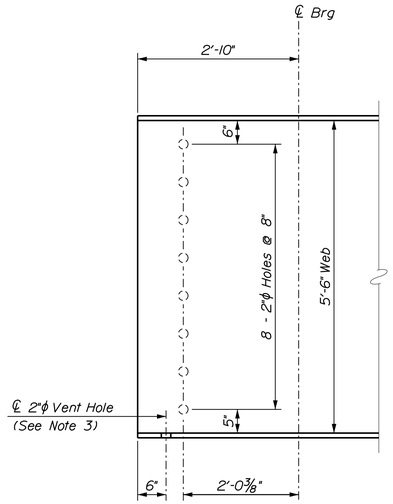
FLANGE OR WEB BUTT WELD



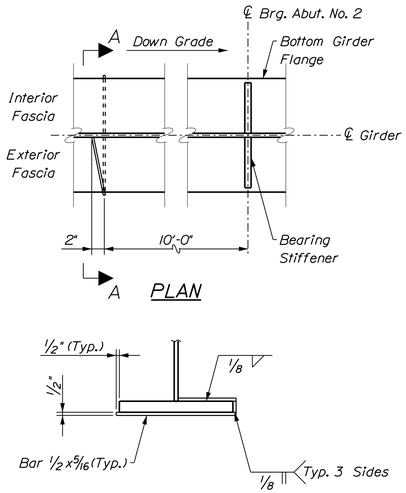
WELD TERMINATION DETAIL



SHEAR CONNECTOR DETAIL

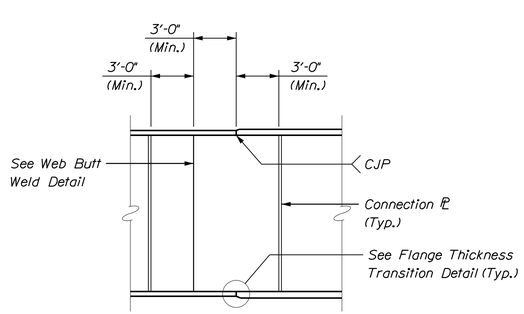


TYPICAL GIRDER END DETAIL

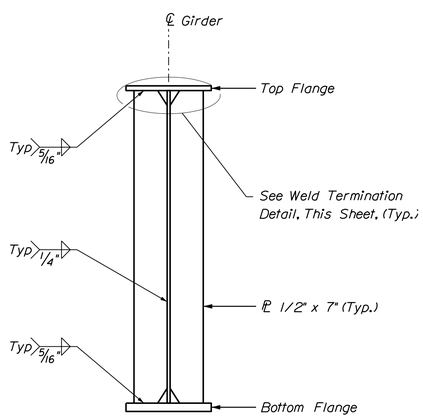


SECTION A-A

DRIP PLATE DETAIL
(Low End of Girders Only)



WELDED SPLICE TRANSITION



CONNECTION PLATE DETAIL

NOTES

1. Butt welds at web and flange splices shall be ground flush in longitudinal direction of girder.
2. Studs shall project a minimum of 2" above the bottom of the slab.
3. Place a 2"ϕ vent hole through bottom flange of girder at 6" off ℄ web on each side.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	N. BENOIT	BY	DATE
PROJ. MANAGER	J. Poisson	P. Dustin	
DESIGN-DETAILED	D. Kull	R. Joy	
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

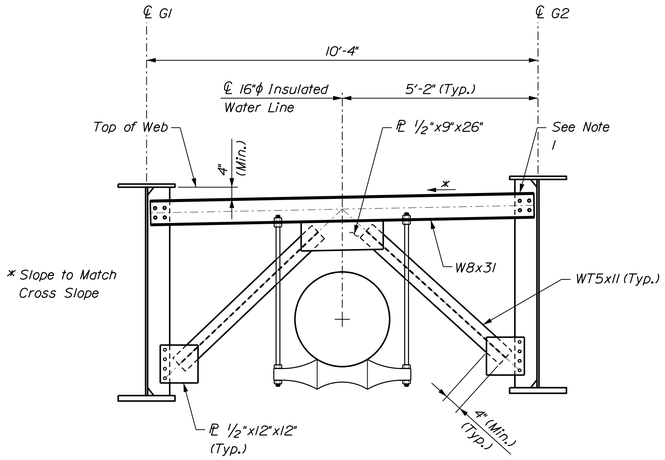
DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

GIRDER DETAILS

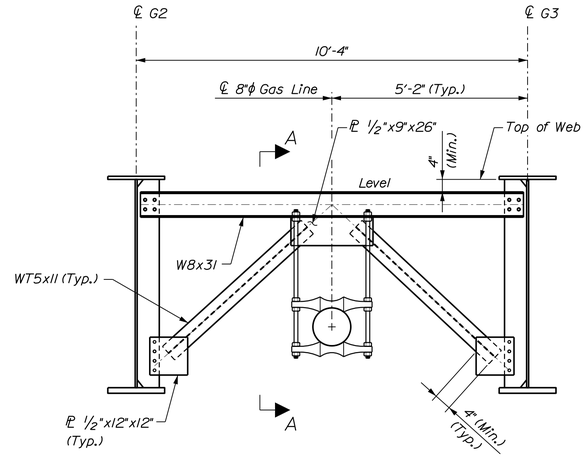
SHEET NUMBER
32
OF 42

Filename: ...\Mylar\032_Steel_det.dgn Division: Username: Date:12/14/2012



CROSS FRAME TYPE "MR1"

(See Standard Detail Section 504 for Information not Shown)



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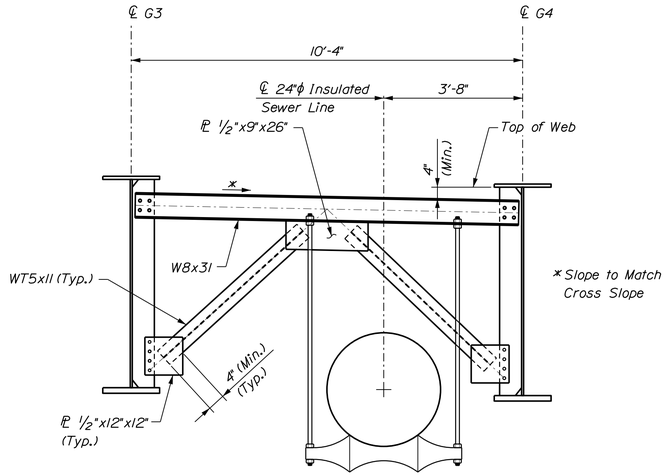

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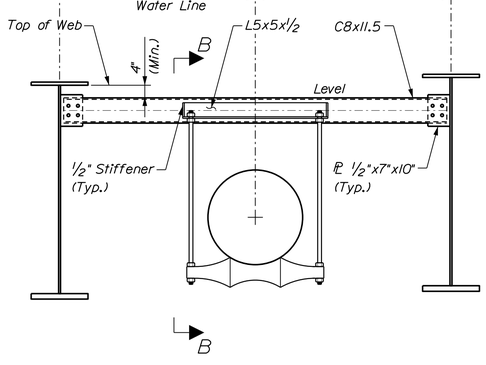

CROSS FRAME TYPE "UIA"

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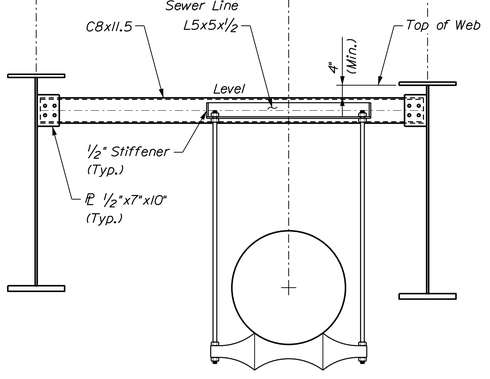

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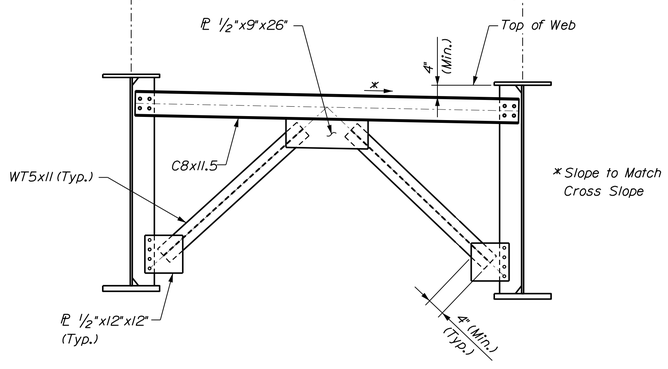

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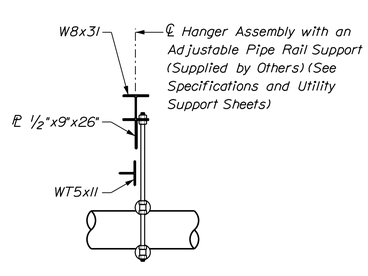
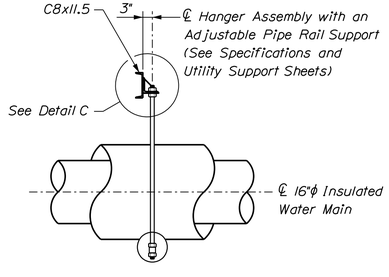


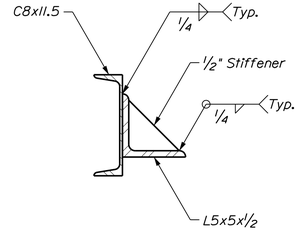
SECTION A-A

(Gas Line Shown, Water and Sewer Lines Similar)



SECTION B-B

(Water Line Shown, Sewer Line Similar)



Detail "C"

NOTES

1. For additional utility information, see Sheets 38 - 41.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	N. BENOIT	
DESIGN-DETAILED	J. Posson	
CHECKED-REVIEWED	D. Kull	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1	P. Dustin	
REVISIONS 2	R. Joy	
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

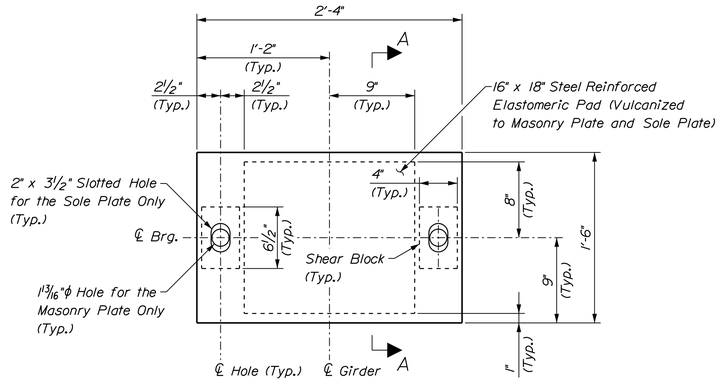
DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

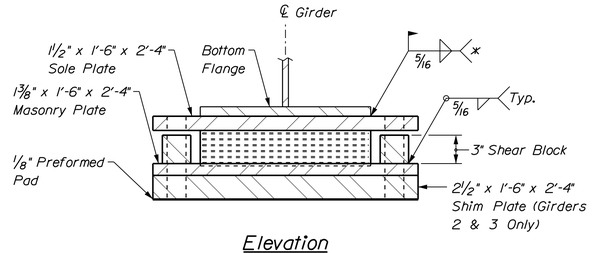
CROSS FRAME DETAILS

SHEET NUMBER 33 OF 42

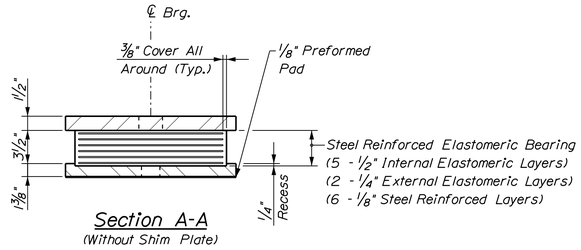
Filename: ...\Mylar\033_Framing_det.dgn Division: Username: Date:12/14/2012



Plan



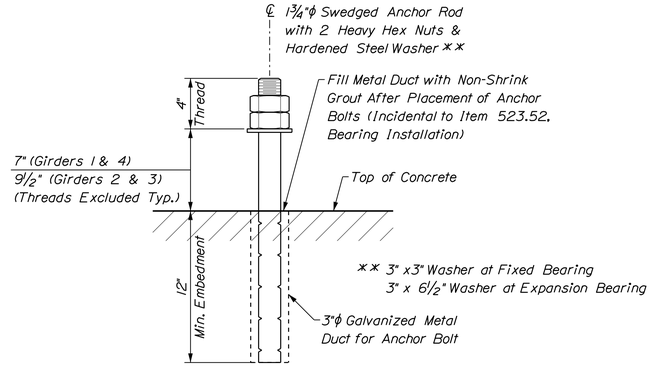
Elevation



Section A-A
(Without Shim Plate)

* Welds Shall Terminate ¼" from Edge of Sole Plate

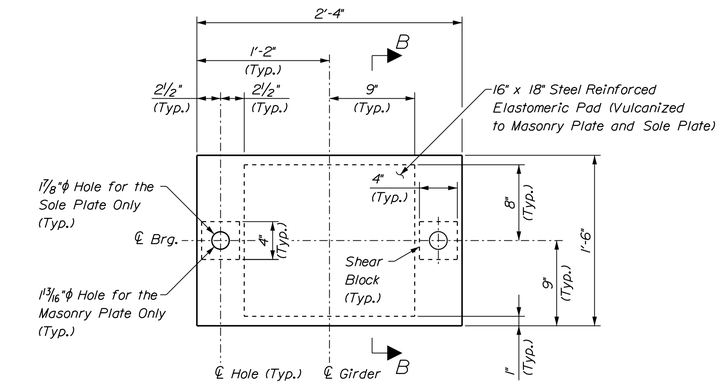
ABUTMENT NO. 1 BEARING ASSEMBLY (EXPANSION)



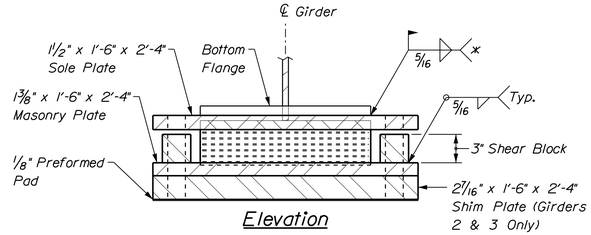
ANCHOR ROD DETAIL

BEARING DESIGN LOADS AND MOVEMENTS

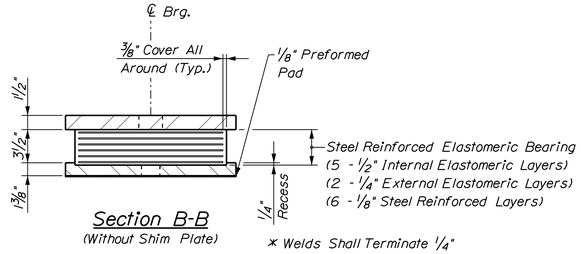
Brg. Type	VERTICAL REACTIONS (kips)			Horiz. Load - Long. (kips)	Horiz. Load - Trans. (kips)	MOVEMENTS (in.)	
	Dead Load	Live Load	Total			Long.	Trans.
Fixed	220.0	145.0	365.0	131.3	*	0.00	0.125
Exp.	220.0	145.0	365.0	0.00	*	1.37	0.25



Plan



Elevation



Section B-B
(Without Shim Plate)

* Welds Shall Terminate ¼" from Edge of Sole Plate

ABUTMENT NO. 2 BEARING ASSEMBLY (FIXED)

ELASTOMERIC BEARING NOTES

1. Elastomer shall have a hardness of 60 durometer and a shear modulus between 100 and 130 psi.
2. Vulcanizing of the elastomer to the steel plates shall be done during the primary mold process.
3. Upset the threads on the anchor rods after assembly. Provide ⅛" gap between anchor nuts and hardened steel washer.
4. Masonry plates, sole plates and shear blocks shall meet the requirements of ASTM A 709/A 709M, Grade 50 or 50W. Anchor rods shall meet the requirements or ASTM F 1554, Grade 55 and shall be swedged on the embedded portion of the rod.
5. Bearings shall be covered during transit.
6. 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 blocks shall be galvanized to ASTM A 153 or ASTM B 695, Class 50, Type I.
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 bearings shall be marked prior to shipping. The marks shall include the bearing location on the bridge, and a direction arrow that points up-station. All marks shall be permanent and shall be visible after the bearing is installed.
9. All necessary precautions shall be taken to protect bearing components from field weld flash and splatter. 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.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

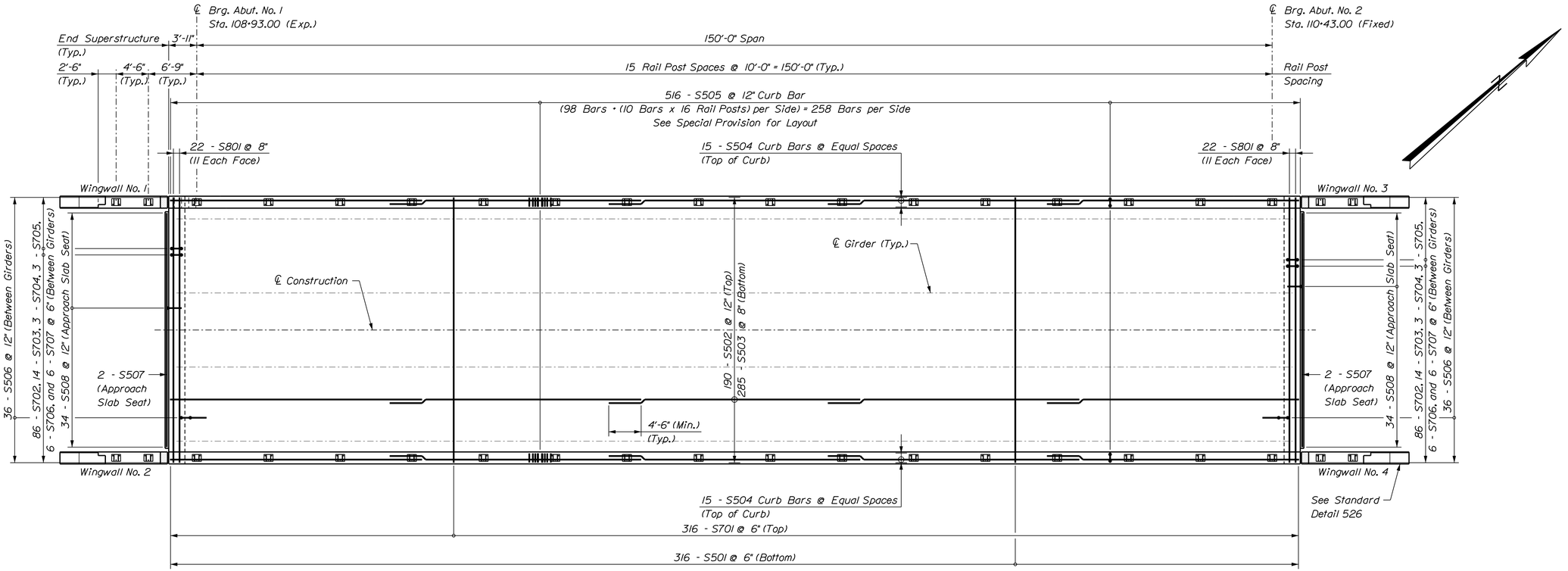
PROJ. MANAGER	N. BENOIT			
DESIGN-DETAILED	J. Poisson	P. Dustin		
CHECKED-REVIEWED	D. Kull	R. Joy	SIGNATURE	
DESIGN2-DETAILED2				P.E. NUMBER
DESIGN3-DETAILED3				
REVISIONS 1				DATE
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

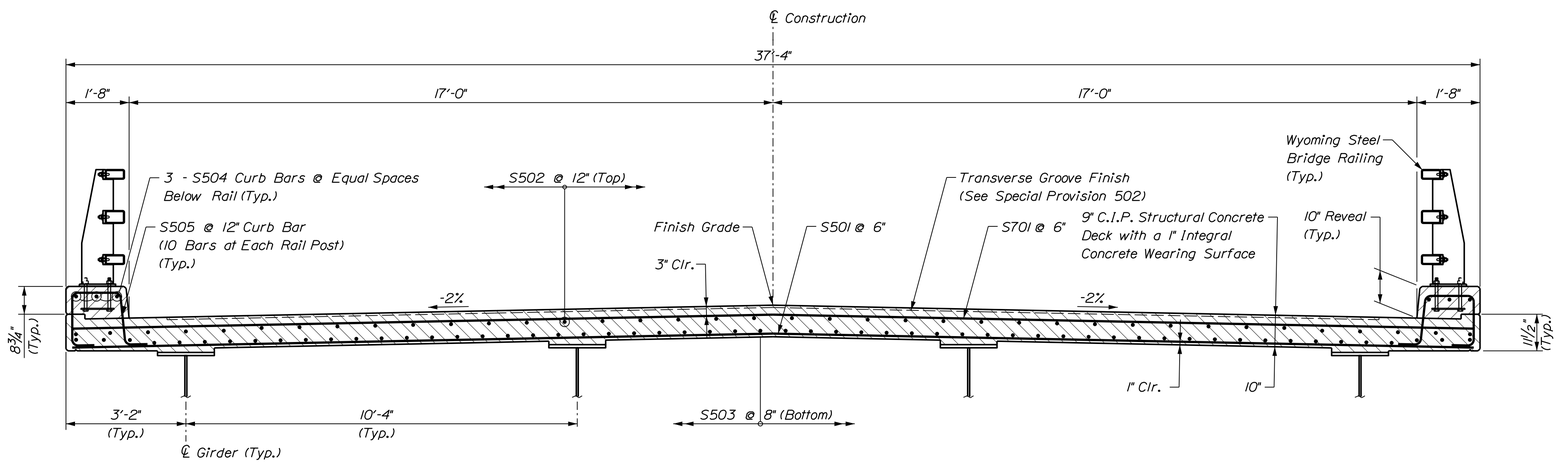
BEARING DETAILS

SHEET NUMBER
34
OF 42

Date:12/14/2012
Username:
Division:
Filename: ...\Mylar\034_Bearings_det.dgn



SUPERSTRUCTURE PLAN



TRANSVERSE SECTION

REINFORCING NOTES

1. Superstructure reinforcing shall be glass fiber reinforced polymer (GFRP) with a minimum guaranteed tensile strength and a minimum tensile modulus of elasticity as follows:

Deck Bar	Tensile Strength (ksi)	Tensile Modulus of Elasticity (ksi)
Top Transverse	145	9000
Bottom Transverse	145	9000
Longitudinal	100	7600
Rail Post	145	9000
Backwall Transverse	145	9000
Backwall Stirrups	145	9000
All Others	100	7600

2. GFRP Reinforcing minimum lap splices and development lengths shall be as follows:

Deck Bar	Minimum Lap Splice	Minimum Development Length
Top Transverse	3'-6"	2'-7"
Bottom Tranverse	5'-0"	3'-11"
Longitudinal	4'-6"	3'-6"

SUPERSTRUCTURE NOTES

1. Form a one inch V-groove on the fascia at the horizontal joint between the curb and slab.
2. Reinforcing shall have a minimum concrete cover of 2 inches unless otherwise noted.
3. The superstructure slab concrete (excluding the backwall diaphragm) shall be placed continuously and shall be kept plastic until the entire placement has been made.
4. The theoretical blocking used for design of the structure is 4 inches (2½" Clr.) at the centerline of bearings of the abutments. Refer to Standard Detail 502 (02) for blocking details.
5. Precast deck panels are prohibited from use by the contractor.

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

PROJ. MANAGER	N. BENOIT		
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

TRANSVERSE SECTION & DECK PLAN

SHEET NUMBER

35

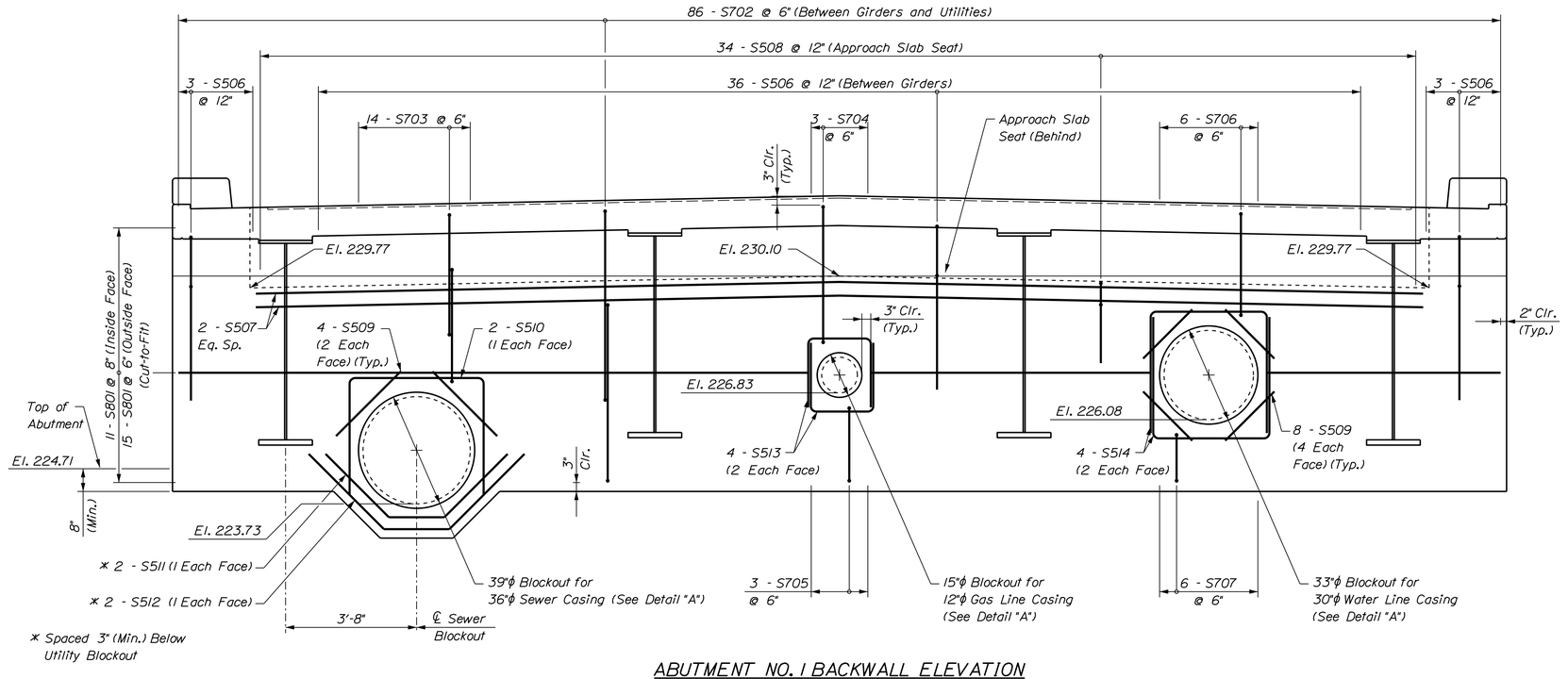
OF 42

Username:

Division:

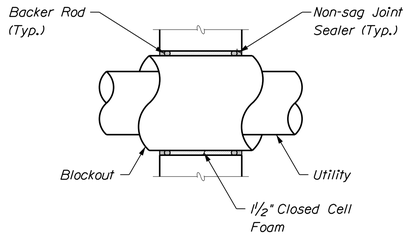
Filename: ...\Mylar\035_Sup_plan.dgn

Date:12/14/2012

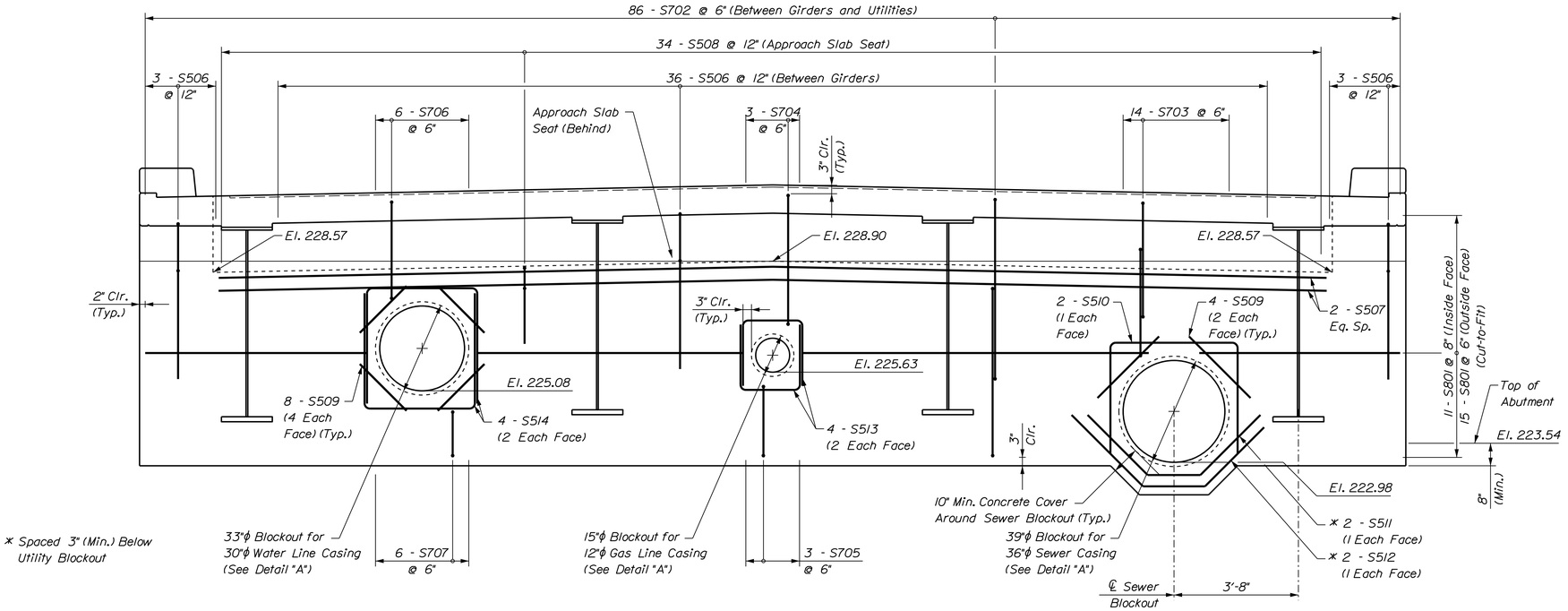


ABUTMENT NO. 1 BACKWALL ELEVATION

(Deck Reinforcing not Shown for Clarity)



DETAIL "A"



ABUTMENT NO. 2 BACKWALL ELEVATION

(Deck Reinforcing not Shown for Clarity)

McFarland Johnson

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	N. BENOIT	
DESIGN-DETAILED	J. Poisson	
CHECKED-REVIEWED	D. Kull	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3	R. Joy	
REVISIONS 4	P. Dustin	
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

SUPERSTRUCTURE DETAILS

SHEET NUMBER

36

OF 42

Date:12/14/2012

Username:

Division:

Filename: ...\Mylar\036_Sup_backwall.dgn

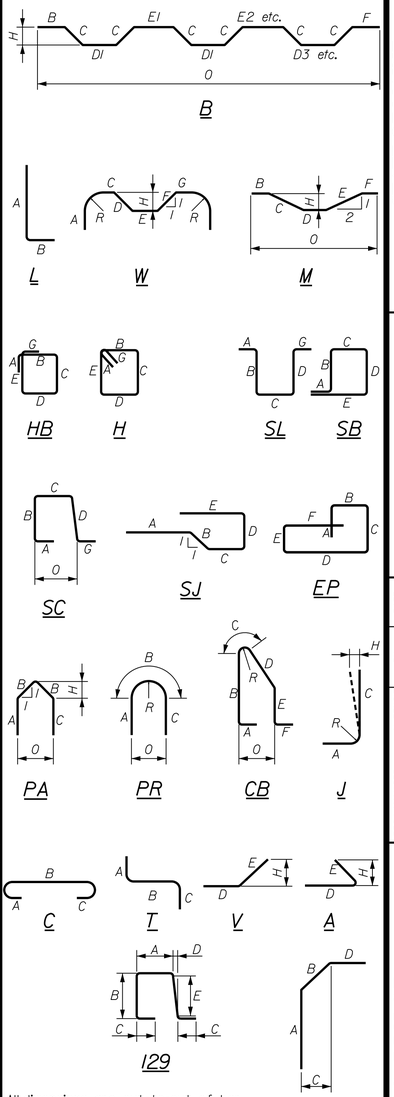
STRAIGHT BARS

MARK	QTY.	LENGTH	LOCATION
Superstructure			
S501**	316	37'-0"	Deck - Transverse Bottom
S502	190	35'-1"	Deck - Longitudinal Top
S503	285	35'-1"	Deck - Longitudinal Bottom
S504	30	35'-1"	Deck Curb - Longitudinal Top
S507	4	32'-6"	Backwall - Approach Slab Seat
S509	24	2'-6"	Backwall - Sewer, Water Blockouts
S701**	316	37'-0"	Deck - Transverse Top
S801**	52	37'-0"	Backwall - Longitudinal

BENT BARS

MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
Superstructure														
S505**	516	5'-11"	S	1'-0"	1'-4"	1'-3"	1'-4"			1'-0"				Deck Curb - Rail Posts
S506	72	7'-3"	105	3'-2"	2'-1"	1'-6"	2'-0"							Backwall - Coping
S508	68	6'-0"	129	0'-7 1/2"	2'-0"	0	1'-8"	1'-8"						Backwall - Sewer, Water Blockouts Top
S510	4	10'-3"	S	0"	3'-3"	3'-9"	3'-3"			0"				Backwall - Sewer Blockout Top
S511	4	8'-3"	M		0"	2'-6"	1'-7"	2'-6"	0"		1'-9"			Backwall - Sewer Blockout Bottom
S512	4	7'-8"	M		0"	2'-11"	1'-10"	2'-11"	0"		2'-1"			Backwall - Sewer Blockout Bottom
S513	8	12'-2"	S	0"	1'-11"	1'-9"	1'-11"			0"				Backwall - Gas Blockout Top, Bottom
S514	8	10'-1"	S	0"	3'-5"	3'-3"	3'-5"			0"				Backwall - Water Blockout Top, Bottom
S702**	172	15'-10"	HB	1'-2"	1'-9"	5'-0"	1'-9"	5'-0"		1'-2"				Backwall - Vertical Top, Bottom
S703**	28	12'-2"	HB	1'-2"	1'-9"	3'-2"	1'-9"	3'-2"		0'-8"				Backwall - Vertical above Sewer
S704**	6	13'-6"	HB	1'-2"	1'-10"	3'-10"	1'-10"	3'-10"		1'-2"				Backwall - Vertical above Gas
S705**	6	10'-0"	HB	1'-2"	1'-9"	2'-1"	1'-9"	2'-1"		1'-2"				Backwall - Vertical below Gas
S706**	12	11'-4"	HB	1'-2"	1'-9"	2'-9"	1'-9"	2'-9"		1'-2"				Backwall - Vertical above Water
S707**	12	8'-6"	HB	1'-2"	1'-9"	1'-4"	1'-9"	1'-4"		1'-2"				Backwall - below Water

TYPE - BENDING DIAGRAMS



All dimensions are out-to-out of bar.

Bar details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.

Reinforcing Bar: Glass Fiber Reinforced Polymer (GFRP) (See Special Provisions)

GENERAL NOTES

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

   Mark "A502" = bar size #5
   Mark "P805" = bar size #8
   Mark "S650" = bar size #6

2. Bars Noted with ** are to have a tensile strength of 145 ksi and a tensile modulus of elasticity of 9000 ksi. All other bars are to have a tensile strength of 100 ksi and a tensile modulus of elasticity of 7600 ksi.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	N. BENOIT	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	J. Poisson	P. Dustin	
CHECKED-REVIEWED	D. Kull	R. Joy	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

GFRP REINFORCING BAR SCHEDULE

SHEET NUMBER

37

OF 42

Username:

Division:

Date:12/14/2012

Filename: ...\037_Reinforcing_Schedule.dgn

150'-0" Span

16" PRE-INSULATED DI WATER INV @ ABUTMENT NO 1 =226.50'

UTILTY WORK BY CONTRACTOR TO 5 FEET BEYOND APPROACH SLAB

16" PRE- INSULATED DI WATER INV @ ABUTMENT NO 2 =225.50'

WATER CONNECTION AND TIE-IN WORK BY AUBURN WATER DISTRICT

APPROXIMATE LOCATION OF NATURAL GAS LINE BY OTHERS

WATER CONNECTION AND TIE-IN WORK BY AUBURN WATER DISTRICT

16" DI PRE-INSULATED WATER MAIN

106+00 107+00 108+00 109+00 110+00 111+00 112+00 113+00

SMH

24" PRE-INSULATED HDPE SEWER INV @ ABUTMENT NO 1 =224.06'

24" HDPE PRE-INSULATED SEWER MAIN

24" PRE-INSULATED HDPE SEWER INV @ ABUTMENT NO 2 =223.31'

SEWER MANHOLE AND NEW HDPE GRAVITY SEWER BY AUBURN SEWERAGE DISTRICT

SEWER MANHOLE CONNECTION AND MAIN TO WETWELL BY AUBURN SEWERAGE DISTRICT

P.L.

PLAN
SCALE: 1"=25'

GRAPHIC SCALE
25 0 12.5 25 50 75
(IN FEET)
1 inch = 25 ft.

NOTES:
1. REFER TO MDOT DRAWINGS FOR APPROACH AND BRIDGE WORK.
2. REFER TO DRAWING S-1 FOR PIPE HANGER REQUIREMENTS.
3. CONTRACTOR SHALL COORDINATE CONNECTIONS TO NEW WATER AND SEWER MAINS WITH OWNER.
4. REFER TO GENERAL NOTE #20 FOR UTILITY SHOP DRAWING SUBMITTAL REQUIREMENTS.

50' TRANSITION | 475' PROJECT | 50' TRANSITION

106+00 107+00 108+00 109+00 110+00 111+00 112+00 113+00

250 245 240 235 230 225 220 215 210 205 200 195

WORK BY AUBURN WATER AND SEWERAGE DISTRICT

EXTEND 5'-0" BEYOND EDGE OF APPROACH SLAB--TYP BOTH ENDS

EXISTING GRADE AT CONSTRUCTION

℄ BRG ABUT NO 1 STA 108+93.00

℄ BRG ABUT NO 2 STA 110+43.00

150' SPAN

WORK BY AUBURN WATER AND SEWERAGE DISTRICT

EXTEND 5'-0" BEYOND EDGE OF APPROACH SLAB--TYP BOTH ENDS

APPROACH SLAB

PROPOSED GRADE AT CONSTRUCTION

30" SCH 40 STEEL CASING PIPE FOR WATER (TYP EACH SIDE)

BENDS AND CONNECTIONS GREATER THAN 5' FROM APPROACH SLAB TO BE COMPLETED BY AUBURN WATER AND SEWERAGE DISTRICT (TYP EACH SIDE)

PROPOSED SUBGRADE (TYP)

EL=222.5'

Q100 EL=222.10'

Q50 EL=220.75'

EL=221.5'

16" PRE-INSULATED DI WATER INV @ ABUTMENT NO 1 =226.50'

24" PRE-INSULATED HDPE SEWER INV @ ABUTMENT NO 1 =224.06'

Q1.1 EL=215.16'

16" PRE-INSULATED DI WATER INV @ ABUTMENT NO 2 =225.50'

36" SCH 40 STEEL CASING PIPE FOR SEWER (TYP EACH SIDE)

24" PRE-INSULATED HDPE SEWER INV @ ABUTMENT NO 2 =223.31'

AT TROLLY BRIDGE

PORTION OF EXISTING CONCRETE ABUTMENT TO REMAIN (TYP)

PROPOSED PILE (TYP)

NO	SUBMISSIONS/REVISIONS	APP'D	DATE
1			
2			
3			
4			

DRAWN BY: RJB2
CHECKED BY: JDP
DATE: 11-27-12
APPROVED BY: JDP
DATE: 11-27-12
BOOK NO.
PROJECT NO: 12622A
SCALE: AS NOTED

STATE OF MAINE JEFFREY O. PREBLE NO. 8390 REGISTERED PROFESSIONAL ENGINEER

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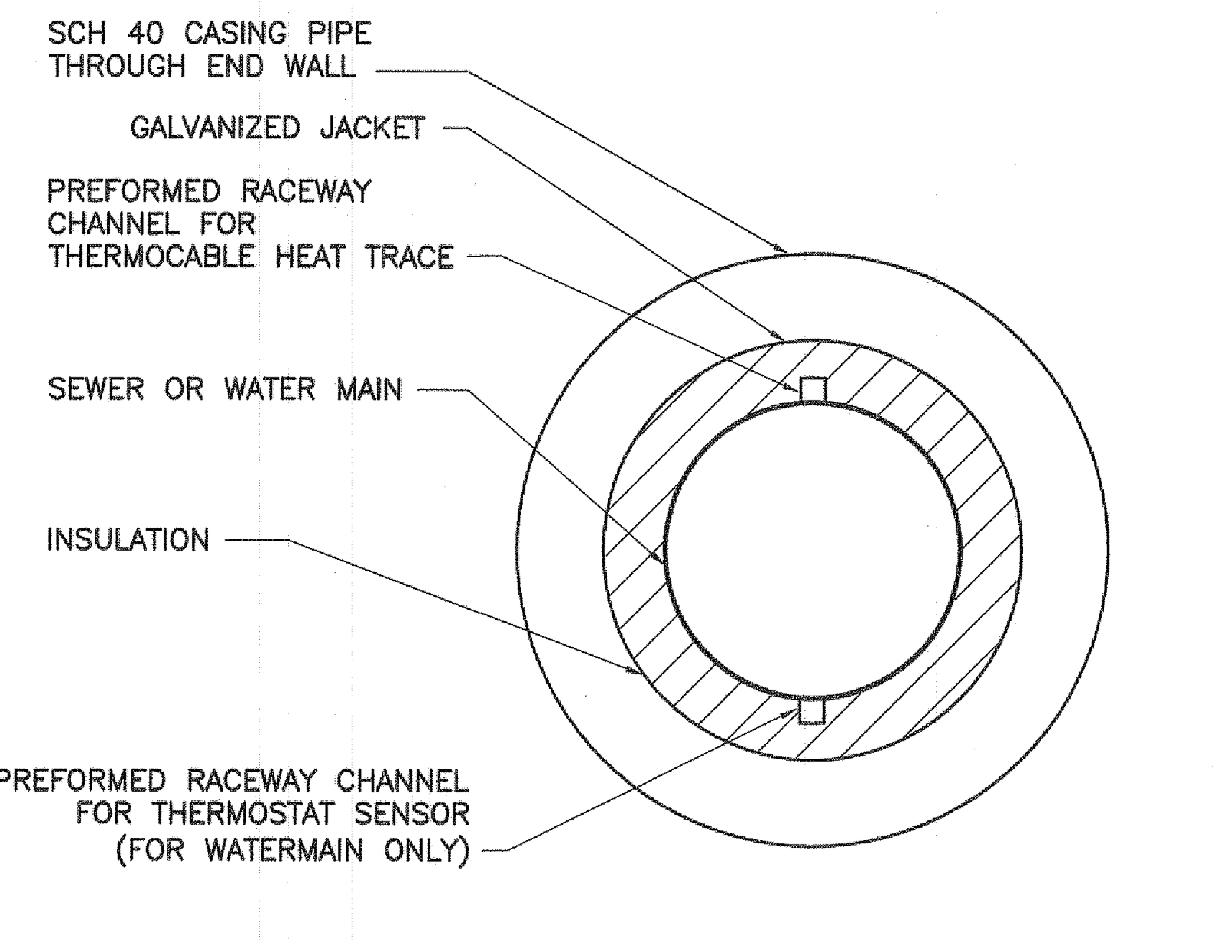
AUBURN WATER AND SEWERAGE DISTRICT
LITTLEFIELDS BRIDGE
WATER AND SEWER IMPROVEMENTS
AUBURN, MAINE

PLAN AND PROFILE

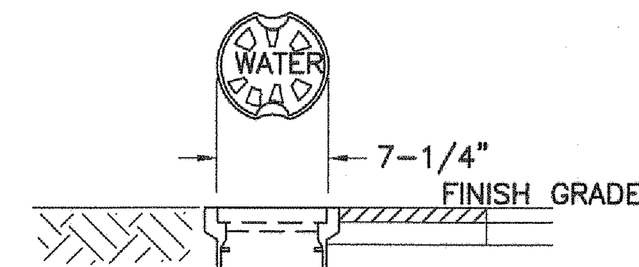
DRAWING
C-1

GENERAL NOTES:

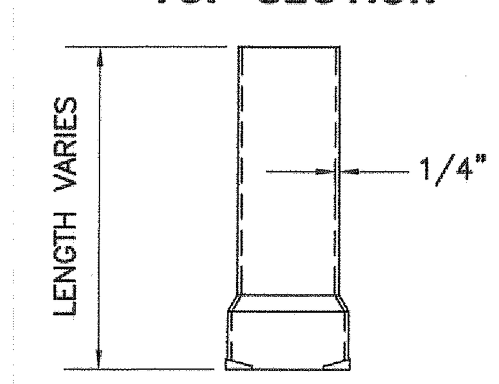
1. THE LOCATIONS OF ALL EXISTING DRAINS, SEWERS, WATER MAINS, POWER LINES, TELEPHONE CABLES AND OTHER UTILITIES ARE APPROXIMATE ONLY. FIELD LOCATIONS SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO STARTING THE WORK. TEST PITS SHALL BE MADE AS NECESSARY TO VERIFY LOCATION AND DEPTH OF EXISTING UTILITIES.
2. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHERS. REFER TO SPECIFICATION SECTION 01050.
3. UNDERGROUND STRUCTURES, CABLES, PIPELINES AND POWER POLES LOCATED ADJACENT TO THE TRENCH EXCAVATIONS SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. DAMAGE TO ANY SUCH STRUCTURES, CABLES, AND PIPELINES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE OWNERS OF THE STRUCTURES, CABLES, PIPELINES, AND POWER POLES.
4. WATER SERVICE SHALL BE MAINTAINED TO ALL CUSTOMERS THROUGHOUT THE CONSTRUCTION PERIOD EXCEPT DURING SCHEDULED SHUTDOWNS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF THE NEW WATER MAIN. LAYOUT SHALL BE REVIEWED AND ACCEPTED BY OWNER AND ENGINEER. THE NEW WATER MAIN MUST BE LOCATED WITHIN THE RIGHTS-OF-WAY. THE WATER MAIN IS TO BE LOCATED A MINIMUM OF 10' FROM THE EXISTING SEWER. (GRAVITY & FORCEMAIN)
6. MINIMUM DEPTH OF COVER FOR WATER MAINS SHALL BE 5'-6" AND MAXIMUM DEPTH OF COVER SHALL BE 7'-0" UNLESS SHOWN OTHERWISE ON THE DRAWINGS. THE NEW WATER MAINS SHALL GENERALLY FOLLOW THE GROUND CONTOUR. ABRUPT CHANGES IN GRADE SHALL BE AVOIDED.
7. NEW MAINS SHALL BE DUCTILE IRON PIPE WITH MECH LOCK PIPE WITH RESTRAINED JOINTS UNLESS SHOWN OTHERWISE ON THE DRAWINGS. ALL FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT, UNLESS OTHERWISE REQUIRED FOR JOINT RESTRAINT OR SHOWN ON THE DRAWINGS.
8. WATER TEST SHALL BE COMPILED BY THE AUBURN WATER DISTRICT. CONTRACTOR TO COORDINATE WITH AND ASSIST THE AUBURN WATER DISTRICT CREW DURING TESTING.
9. ALL WATER MAINS AND VALVES THAT ARE TO BE ABANDONED WILL BE REMOVED OR PUMPED FULL WITH GROUT OR FLOWABLE FILL.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION OF EROSION. ALL DISTURBED EARTH SURFACES ARE TO BE STABILIZED IN THE SHORTEST PRACTICAL TIME AND TEMPORARY EROSION CONTROL DEVICES SHALL BE EMPLOYED UNTIL SUCH TIME AS ADEQUATE SOIL STABILIZATION HAS BEEN ACHIEVED. TEMPORARY STORAGE OF EXCAVATED MATERIAL IS TO BE IN A MANNER THAT WILL MINIMIZE EROSION. (THE CONTRACTOR SHALL DISPOSE OF UNSUITABLE EXCAVATED MATERIAL AT A SITE PROVIDED BY HIM WHICH IS IN COMPLIANCE WITH ALL STATE AND LOCAL LAWS). MATERIALS AND METHODS USED FOR TEMPORARY EROSION CONTROL SHALL BE SPECIFIED AS IN THE LATEST EDITION OF THE "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES" PREPARED BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION. REFER TO SPECIFICATION SECTION 02270.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESETTING ALL EXISTING PROPERTY MONUMENTATION THAT IS DISTURBED BY HIS OPERATIONS AT NO EXPENSE TO THE OWNER. THIS WORK IS TO BE DONE BY A LAND SURVEYOR REGISTERED IN THE STATE OF MAINE.
12. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
13. PROVIDE 2 INCHES RIGID INSULATION OVER WATER LINES, WHEN COVER IS ALLOWED BY THE ENGINEER, TO BE LESS THAN 6.0 FEET OVER MAINS AND SERVICES.
14. DO NOT SCALE DRAWINGS UNLESS OTHERWISE NOTED.
15. ALL WATER MAIN WITHIN 3 FT OF A STORM DRAIN WILL BE INSULATED
16. NEW SEWER MAIN SHALL BE 24" HDPE (DR17) PRE-INSULATED.
17. CONTRACTOR SHALL COORDINATE CONNECTIONS WITH AUBURN WATER AND SEWERAGE DISTRICT PERSONNEL.
18. SEE MDOT PLANS FOR PHASING AND BRIDGE CONSTRUCTION DETAILS.
19. POWER FOR HEAT TRACE SYSTEM SHALL BE OBTAINED FROM RIVER STATION PUMP STATION. AUBURN SEWERAGE DISTRICT TO INSTALL POWER FEED CONTROLS, CONDUIT AND WIRE TO WITHIN 5 FT. OF APPROACH SLAB.
20. THE CONTRACTOR SHALL PREPARE A SHOP DRAWING FOR REVIEW AND APPROVAL BY MDOT, THE AUBURN WATER AND SEWERAGE DISTRICT, AND THE ENGINEER OUTLINING THE SEQUENCING OF THE PROPOSED UTILITY WORK. THE SEQUENCING PLAN SHALL INCLUDE DETAILS FOR HANGING THE PIPES ON THE BRIDGE, INSTALLATION OF THE CASING PIPES AND CONNECTING THE CASING PIPES AND CARRYING PIPE TO THE CARRYING PIPES ON THE BRIDGE.



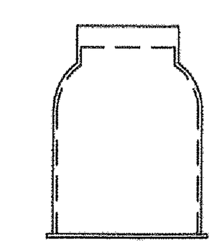
PREINSULATED PIPE CROSS SECTION
NTS



TOP SECTION

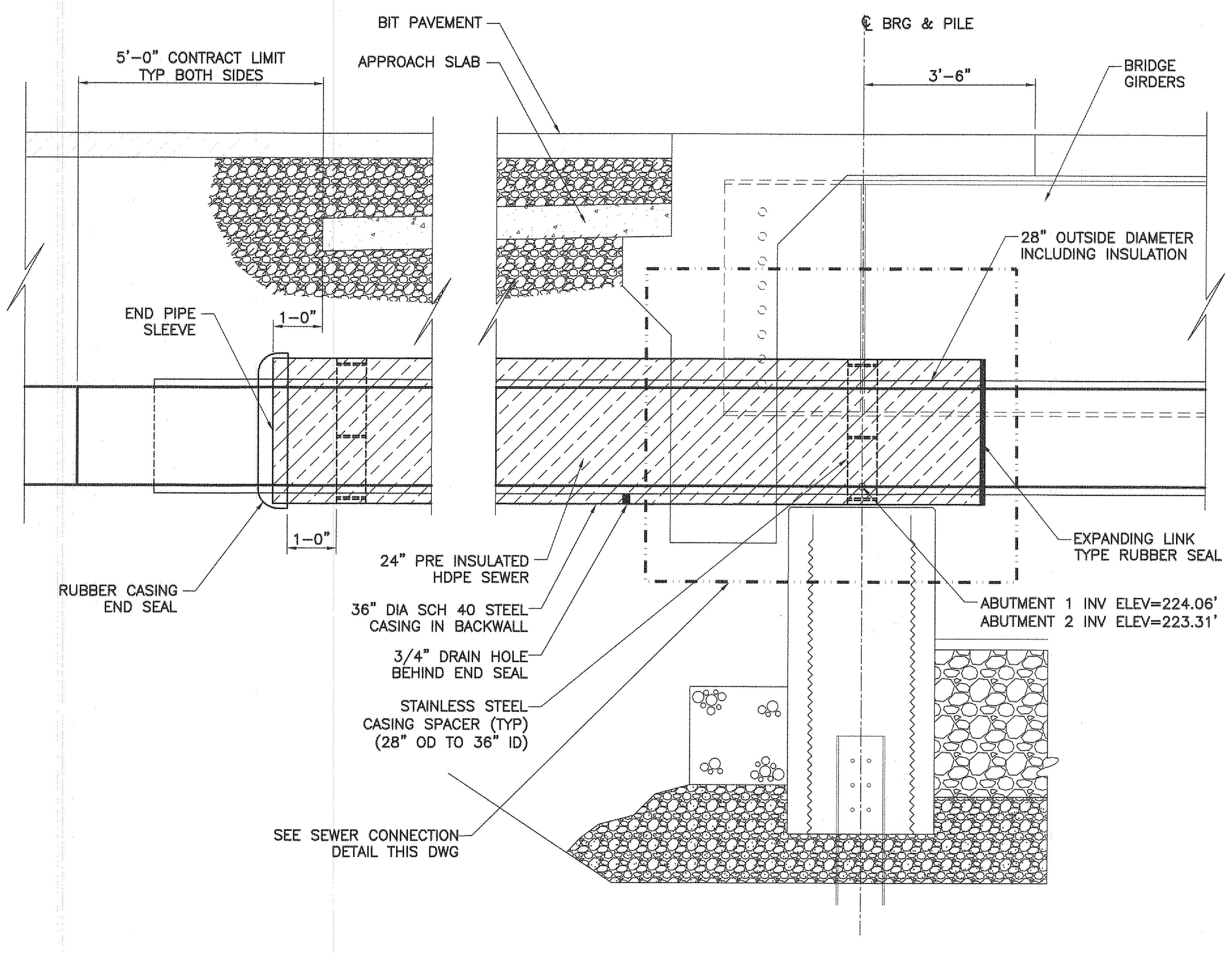


MID-SECTION

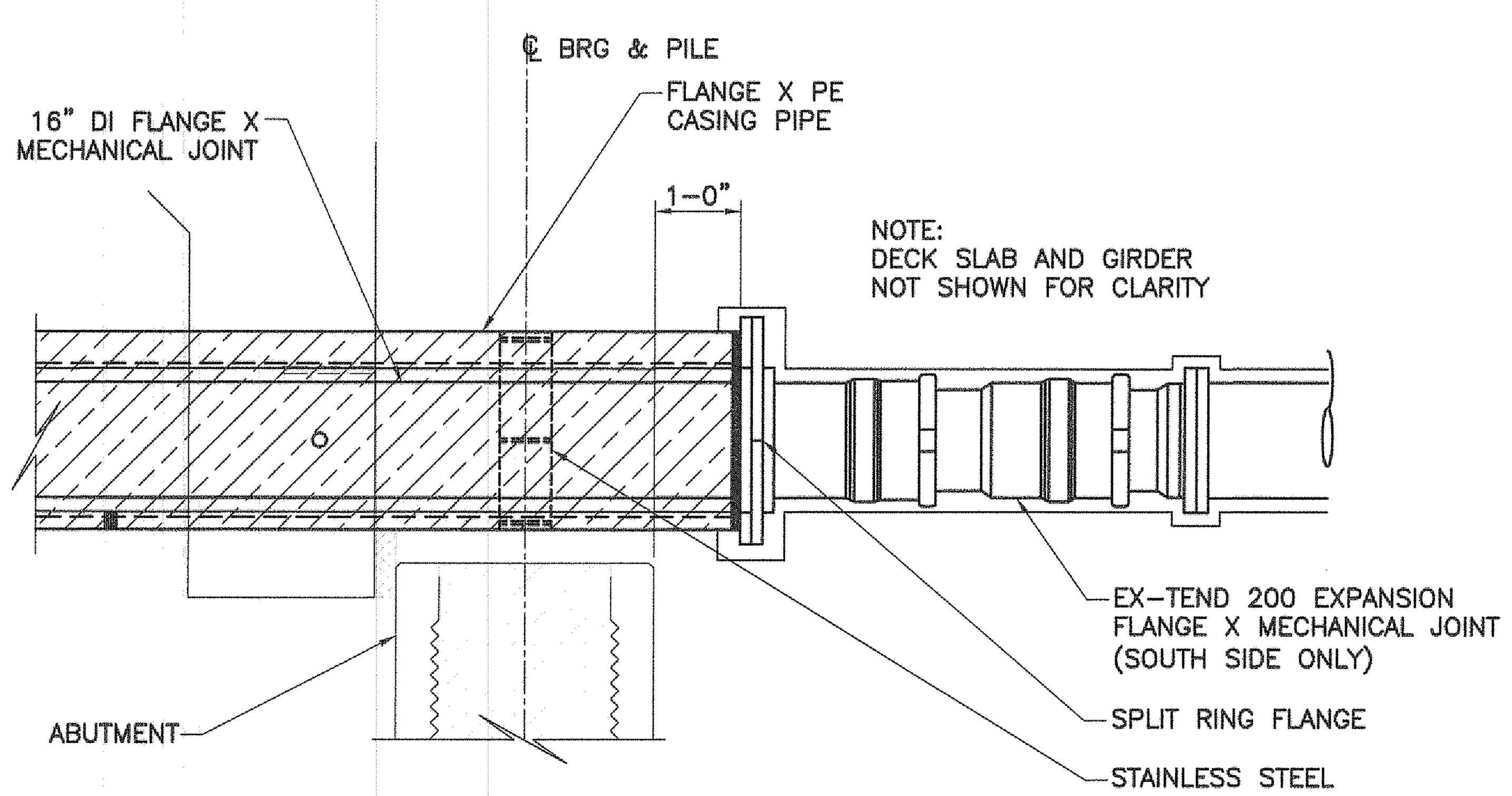


BOTTOM SECTION

VALVE BOX DETAIL
SCALE: NTS



TYPICAL ABUTMENT SECTION @ SEWER
NTS



CASING DETAIL
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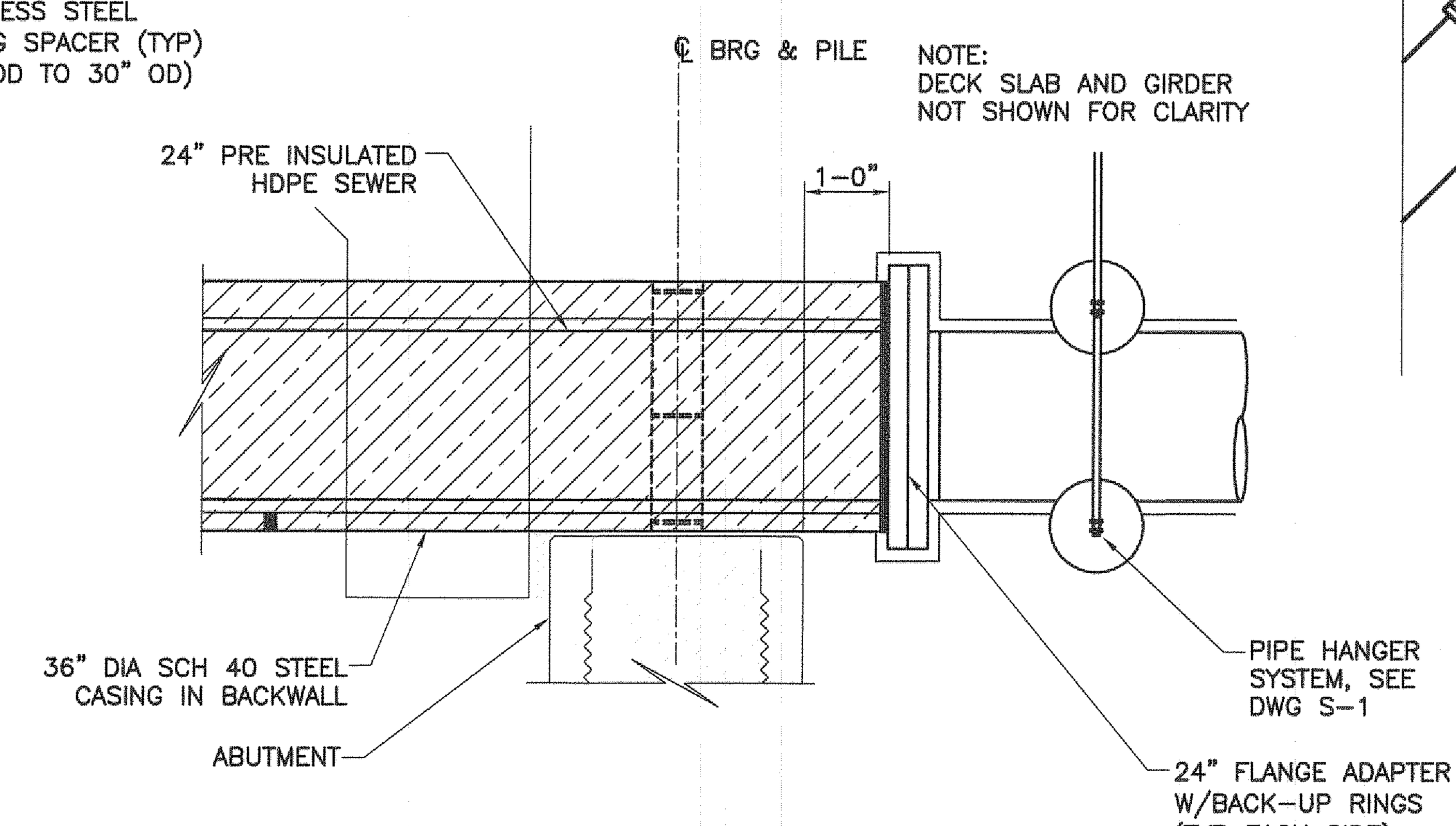

SEWER CONNECTION DETAIL
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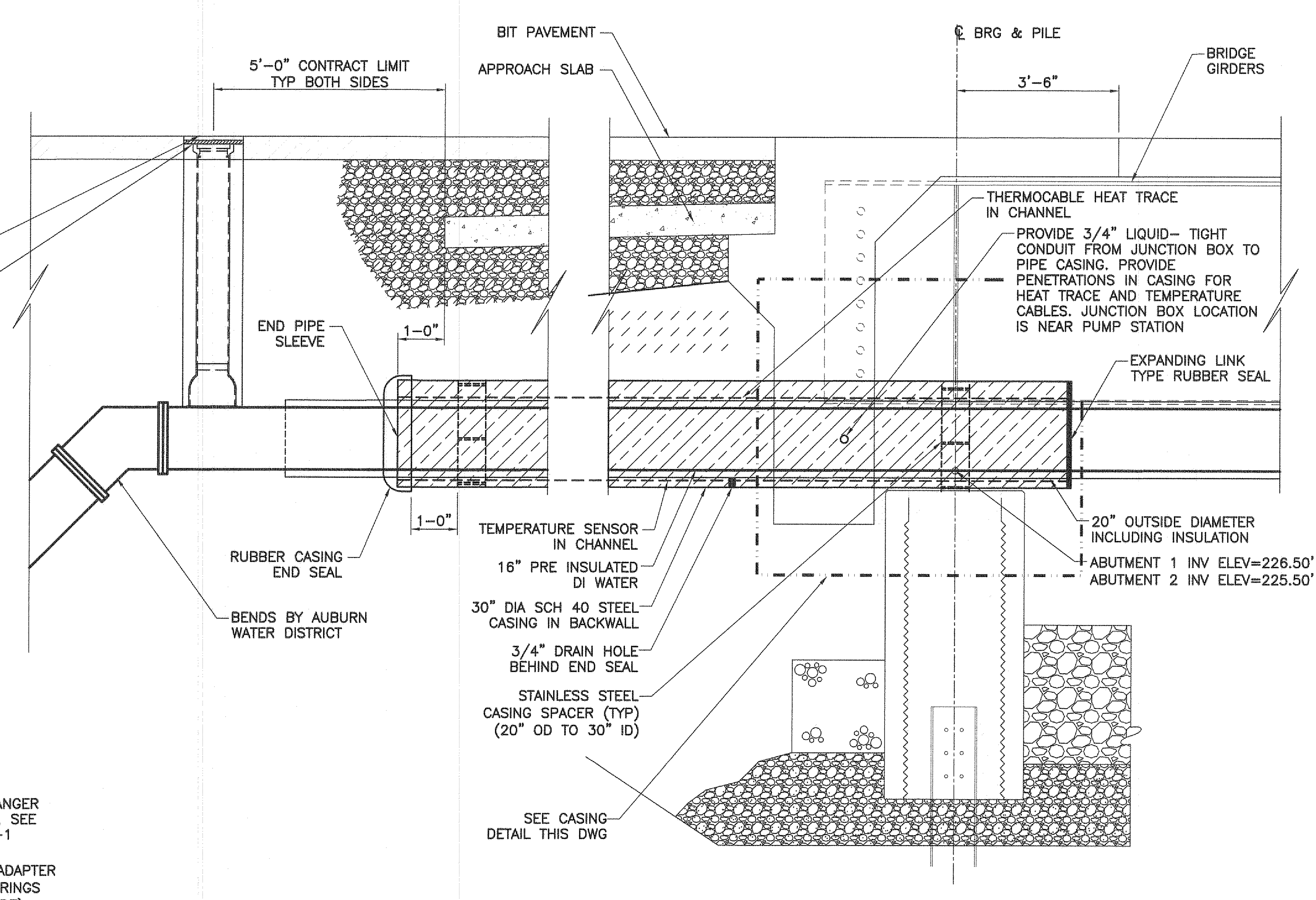

TYPICAL ABUTMENT SECTION @ WATER
NTS

NO	SUBMISSIONS/REVISIONS	APP'D	DATE

DRAWN BY RJB2
CHECKED BY JDP
DATE 11-27-12
APPROVED BY JCE
DATE 11-27-12
BOOK NO.
PROJECT NO. 12622A
SCALE AS NOTED

STATE OF MAINE — JEFFREY D. PREBLE — LICENSED — PROFESSIONAL ENGINEER

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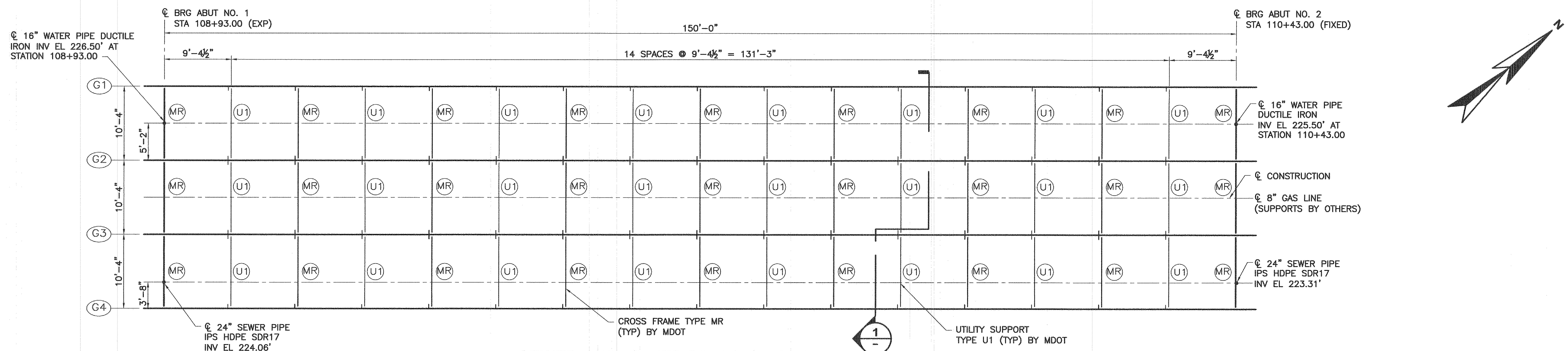
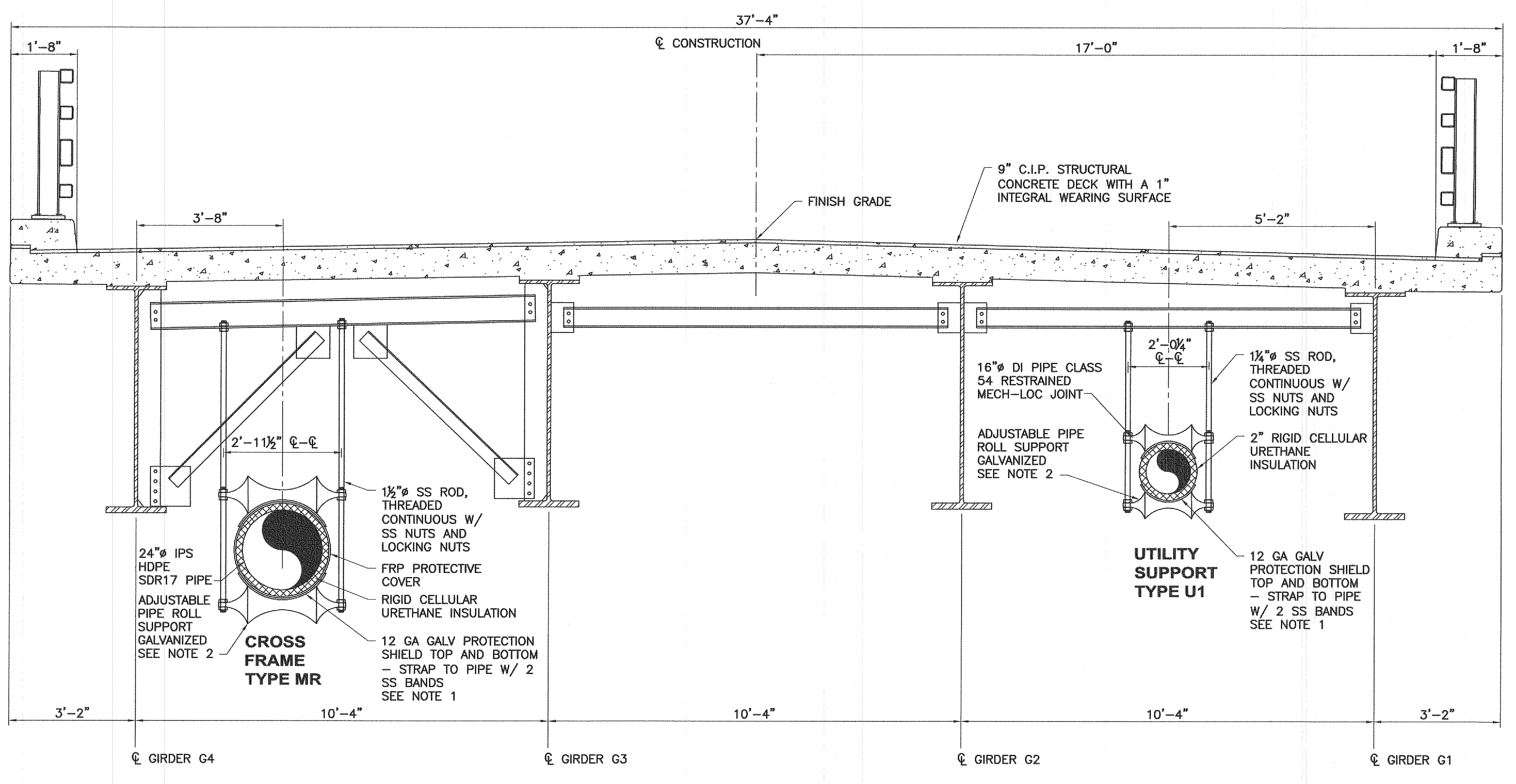
AUBURN WATER AND SEWERAGE DISTRICT
LITTLEFIELDS BRIDGE
WATER AND SEWER IMPROVEMENTS
AUBURN, MAINE

DETAILS I

DRAWING
C-2



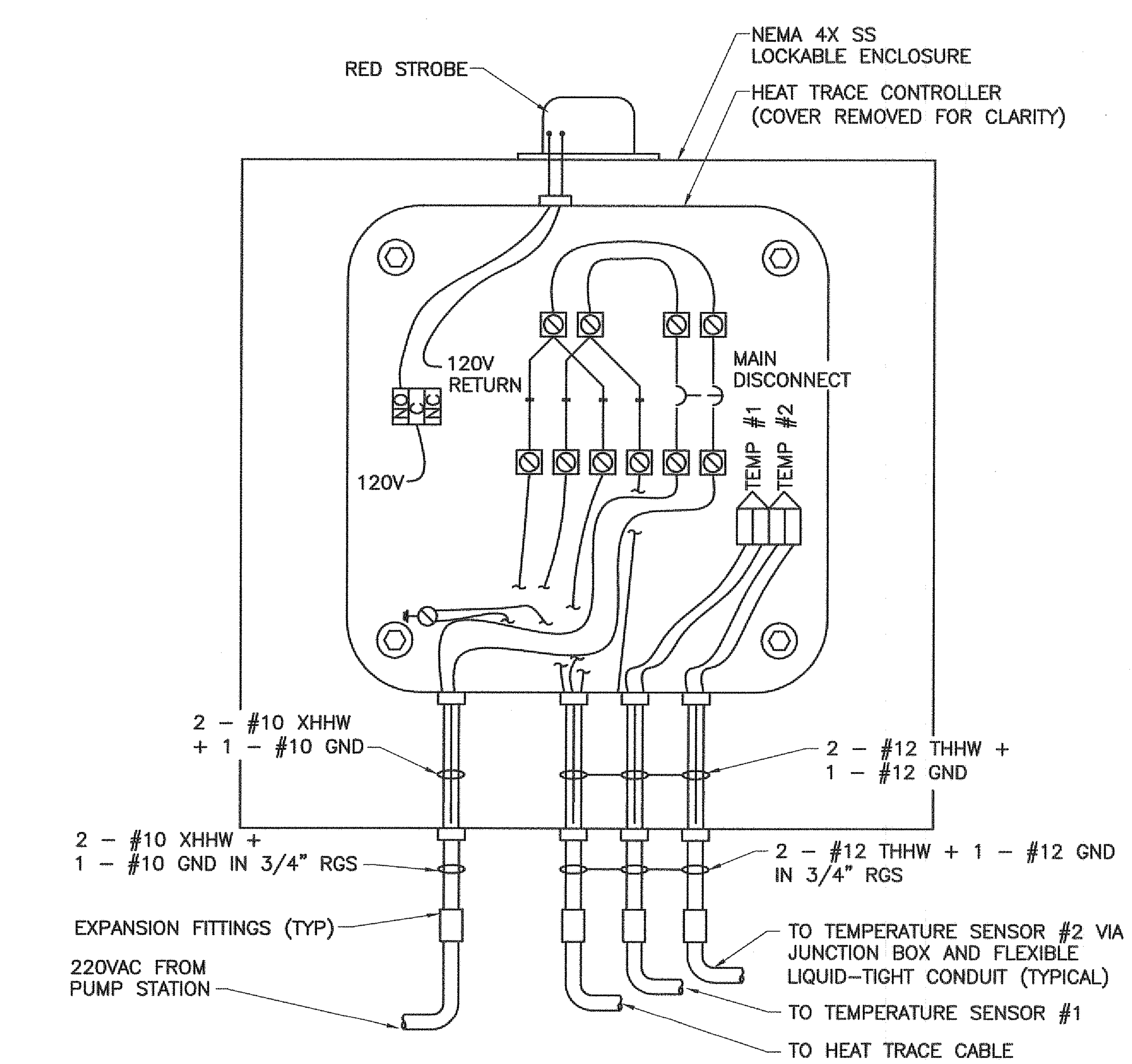
SEWER AND WATER PIPE SUPPORT PLAN
SCALE: 1/8"=1'-0"



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

NOTES:

1. 12 GA GALVANIZED PROTECTION SHIELD SHALL BE 24" IN LENGTH CENTERED ON EACH PIPE SUPPORT. SHIELD SHALL BE "ANVIL" FIG: 167 OR EQUIVALENT.
2. PROVIDE PIPE ROLL SUPPORT AS REQUIRED FOR 24" AND 16" DIA PIPES WITH 2" OF PERIMETER INSULATION. SUPPORTS TO BE "ANVIL" FIG: 171 AND 177 OR EQUIVALENT FOR TOP AND BOTTOM.
3. SUPPORT BRACKET SHOWN SUPPORTS GRAVITY LOAD ONLY AND ALLOWS PIPE TO MOVE LATERALLY AND LONGITUDINALLY.
4. THE WATER AND SEWER PIPES SHALL BE INSTALLED STRAIGHT WITH NO VARIATIONS IN HORIZONTAL ALIGNMENT.
5. THE WATER AND SEWER PIPES SHALL BE SUPPORTED EVERY 9'-4½" ON CENTER. MAXIMUM LOADING ON EACH BRIDGE CROSS FRAME TYPE MR AND UTILITY SUPPORT TYPE U DUE TO 24"ø SEWER IS 2,500 POUNDS AND DUE TO 16"ø WATER IS 2,100 POUNDS.
6. BRIDGE DIMENSIONS AND ELEVATIONS ARE BASED ON MDOT PLANS AUBURN ANDROSCOGGIN COUNTY LITTLEFIELD BRIDGE OVER THE LITTLE ANDROSCOGGIN RIVER HOTEL ROAD BRIDGE NO. 3338.
7. CONTRACTOR SHALL INSTALL PIPE HANGERS FOR 24"ø SEWER AND 16"ø WATER PIPES TO CROSS FRAME TYPE MR AND UTILITY SUPPORT TYPE U1. TYPE MR CROSSFRAME FOR SEWER SHOWN AND WATER TYPE MR CROSS FRAME IS SIMILAR. TYPE U1 CROSS FRAME FOR WATER IS SHOWN AND FOR SEWER TYPE U1 CROSS FRAME IS SIMILAR.



SCHEMATIC DIAGRAM-HEAT TRACE CONTROLLER (BY AUBURN WATER AND SEWER DISTRICTS)
NTS

NO	SUBMISSIONS/REVISIONS	APP'D	DATE
	FOR REVIEW	WJF	10-12

DRAWN BY RAO
CHECKED BY WJF
DATE 11-27-12
APPROVED BY WJF
DATE 11-27-12
BOOK NO.
PROJECT NO. 12622A
SCALE AS NOTED

STATE OF MAINE — WALTER ... — PROFESSIONAL ENGINEER

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AUBURN WATER AND SEWERAGE DISTRICT
LITTLEFIELDS BRIDGE
WATER AND SEWER IMPROVEMENTS
AUBURN, MAINE

WATER AND SEWER PIPE SUPPORTS PLAN AND SECTION

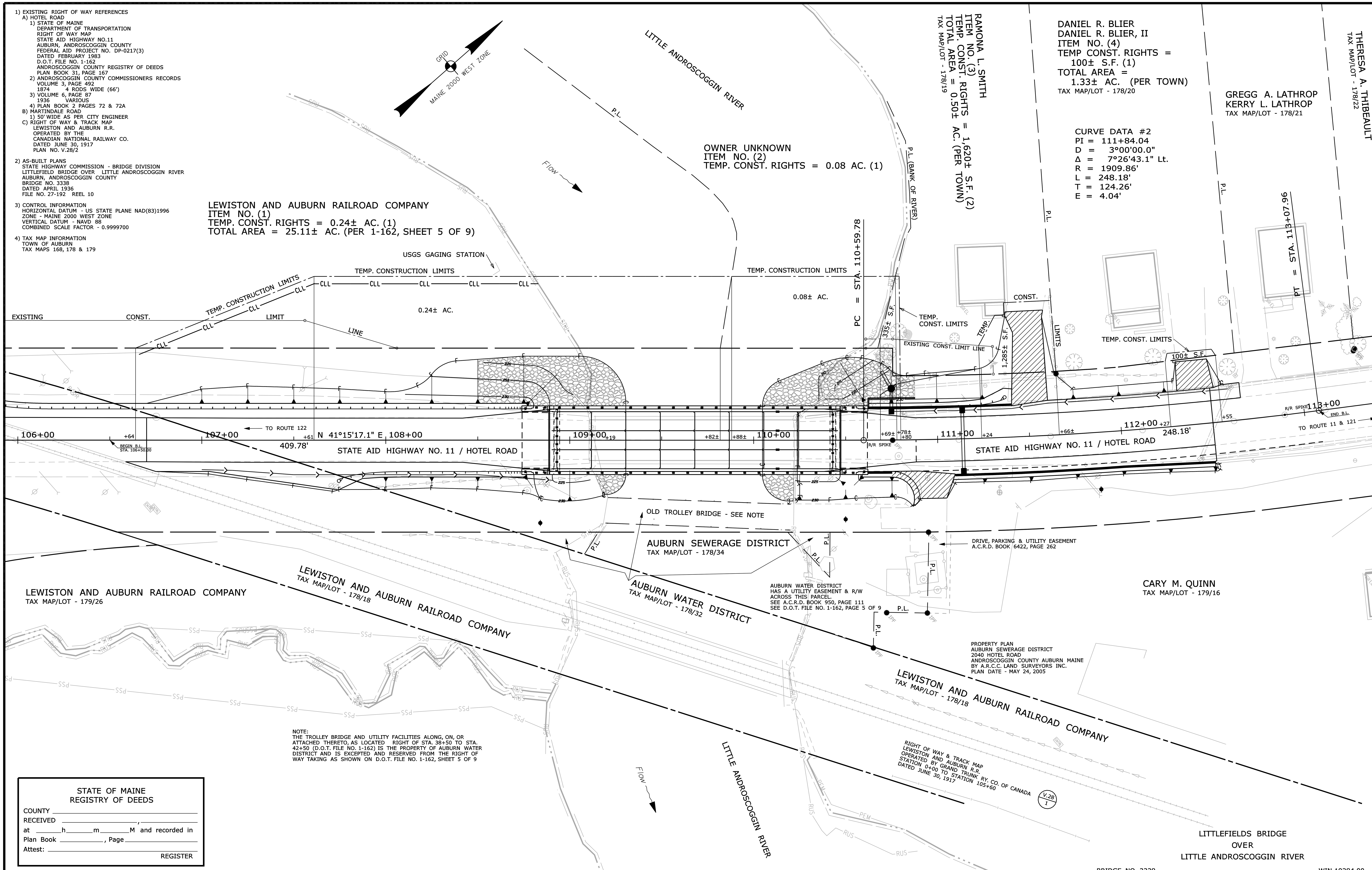
DRAWING
S-1

1) EXISTING RIGHT OF WAY REFERENCES
   A) HOTEL ROAD
      1) STATE OF MAINE
         DEPARTMENT OF TRANSPORTATION
         RIGHT OF WAY MAP
         STATE AID HIGHWAY NO.11
         AUBURN, ANDROSCOGGIN COUNTY
         FEDERAL AID PROJECT NO. DP-0217(3)
         DATED FEBRUARY 1983
         D.O.T. FILE NO. 1-162
         ANDROSCOGGIN COUNTY REGISTRY OF DEEDS
         PLAN BOOK 31, PAGE 167
      2) ANDROSCOGGIN COUNTY COMMISSIONERS RECORDS
         VOLUME 3, PAGE 492
         1874 4 RODS WIDE (66')
      3) VOLUME 6, PAGE 87
         1936 VARIOUS
      4) PLAN BOOK 2 PAGES 72 & 72A
   B) MARTINDALE ROAD
      1) 50' WIDE AS PER CITY ENGINEER
   C) RIGHT OF WAY & TRACK MAP
      LEWISTON AND AUBURN R.R.
      OPERATED BY THE
      CANADIAN NATIONAL RAILWAY CO.
      DATED JUNE 30, 1917
      PLAN NO. V.28/2

2) AS-BUILT PLANS
   STATE HIGHWAY COMMISSION - BRIDGE DIVISION
   LITTLEFIELD BRIDGE OVER LITTLE ANDROSCOGGIN RIVER
   AUBURN, ANDROSCOGGIN COUNTY
   BRIDGE NO. 3338
   DATED APRIL 1936
   FILE NO. 27-192 REEL 10

3) CONTROL INFORMATION
   HORIZONTAL DATUM - US STATE PLANE NAD(83)1996
   ZONE - MAINE 2000 WEST ZONE
   VERTICAL DATUM - NAVD 88
   COMBINED SCALE FACTOR - 0.9999700

4) TAX MAP INFORMATION
   TOWN OF AUBURN
   TAX MAPS 168, 178 & 179



STATE OF MAINE
REGISTRY OF DEEDS

COUNTY ______________________
RECEIVED ______________________,________
at ______h______m______M and recorded in
Plan Book ____________, Page__________
Attest: ______________________
REGISTER

LITTLEFIELDS BRIDGE
OVER
LITTLE ANDROSCOGGIN RIVER

BRIDGE NO. 3338 WIN 19284.00

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

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. 11
HOTEL ROAD
AUBURN ANDROSCOGGIN COUNTY
FEDERAL AID PROJECT NO. BR-1928(400)X

AUGUST 2012 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 1- 312
SCALE 1" = 25' | SHEET 1 OF 1

SHEET NUMBER
1
OF -

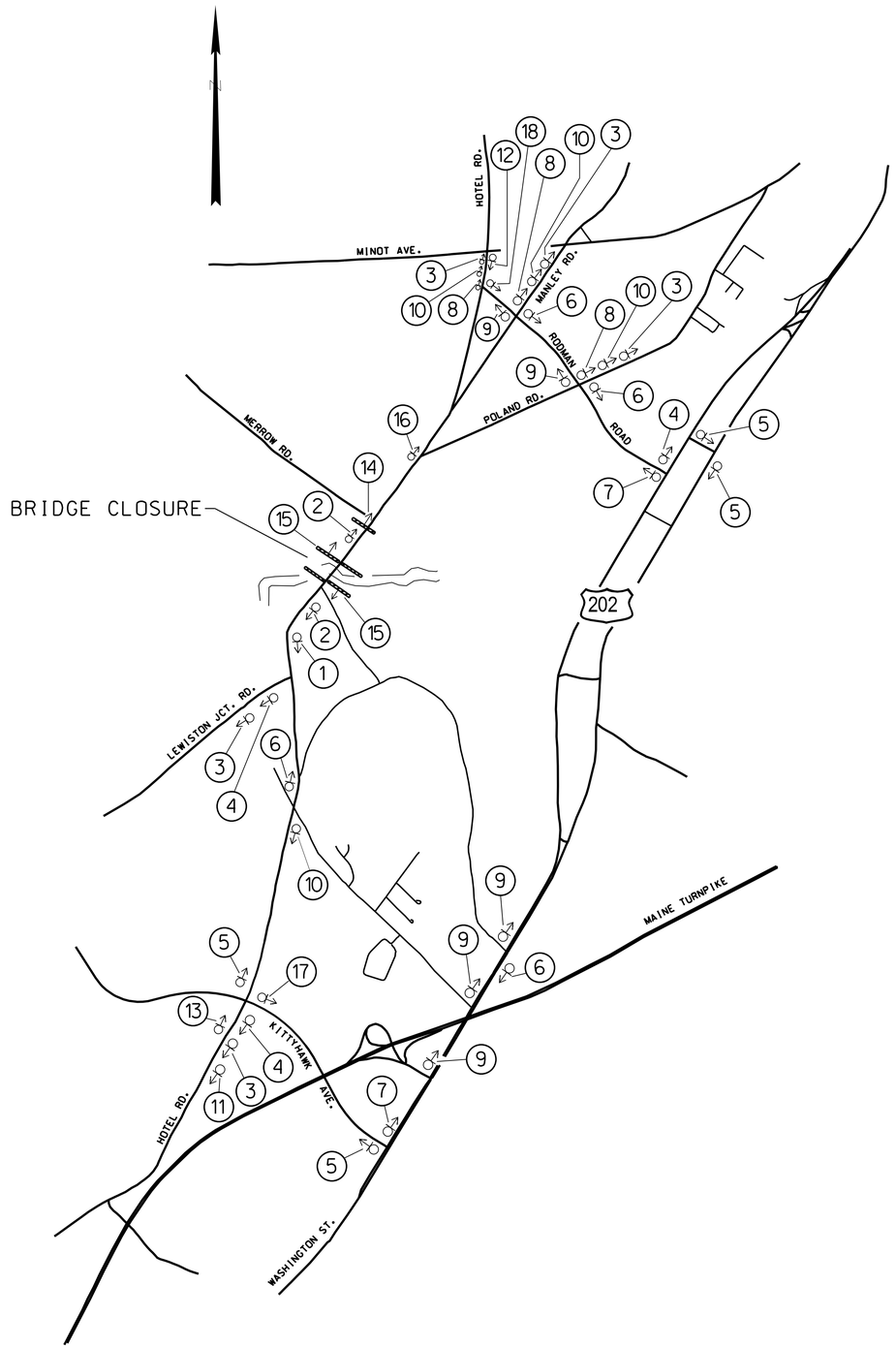
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
AUBURN
RIGHT OF WAY MAP

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

SYMBOLS

Filename: ...\00\ROW\MSTA\001_RWPLAN1.dgn Division: BRIDGE Username: Nathaniel.Benoit Date:11/15/2012

1. ROAD CLOSED 1000 FT. — 48" x 48"
2. ROAD CLOSED 500 FT. — 48" x 48"
3. DETOUR AHEAD — 48" x 48"
4. Hotel Road 36" x 12" / EAST 24" x 12" / DETOUR → 30" x 24"
5. Hotel Road 36" x 12" / EAST 24" x 12" / DETOUR ← 30" x 24"
6. Hotel Road 36" x 12" / EAST 24" x 12" / DETOUR ↑ 30" x 24"
7. Hotel Road 36" x 12" / WEST 24" x 12" / DETOUR → 30" x 24"
8. Hotel Road 36" x 12" / WEST 24" x 12" / DETOUR ← 30" x 24"
9. Hotel Road 36" x 12" / WEST 24" x 12" / DETOUR ↑ 30" x 24"
10. BRIDGE CLOSED 1 MILE AHEAD — 60" x 24"
11. BRIDGE CLOSED 2 MILES AHEAD — 60" x 24"
12. Hotel Road 36" x 12" / EAST 24" x 12" / END DETOUR 30" x 24"
13. Hotel Road 36" x 12" / WEST 24" x 12" / END DETOUR 30" x 24"
14. ROAD CLOSED 1000 FT. AHEAD LOCAL TRAFFIC ONLY — 60" x 30"
15. ROAD CLOSED — 48" x 30"
16. BRIDGE CLOSED ½ MILE AHEAD — 60" x 24"
17. Hotel Road 36" x 12" / WEST 24" x 12" / 21" x 15"
18. Hotel Road 36" x 12" / EAST 24" x 12" / 21" x 15"



NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AC-BR-1928(400)X

WIN 19284.00

BRIDGE NO. 3338

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	N. BENOIT	
DESIGN-DETAILED		
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

LITTLEFIELDS BRIDGE
LITTLE ANDROSCOGGIN RIVER
AUBURN ANDROSCOGGIN COUNTY

DETOUR SIGNING PLAN

SHEET NUMBER

42

OF 42