STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Eighth Edition 2017.

DESIGN LOADING

Live Load ..... HL - 93 Modified for Strength 1

TRAFFIC DATA

Current (2019) AADT	810
Future (2039) AADT	890
DHV - % of AADT	12
Design Hour Volume	107
% Heavy Trucks (AADT)	34
% Heavy Trucks (DHV)	27
Directional Distribution (DHV)	53
18 kip Equivalent P 2.0	430
18 kip Equivalent P 2.5	409
Design Speed (mph)	50

HYDROLOGIC DATA

Drainage Area	51 sq mi
Design Discharge (Q50)	4988 cfs
Check Discharge (Q100)	5751 cfs
Headwater Elevation (Q50)	1196.35 ft
Headwater Elevation (Q100)	1197.20 ft
Discharge Velocity (Q50)	2.74 fps
Discharge Velocity (Q100)	2.96 fps
Headwater Elevation (Q1.1)	1189 ft
Discharge Velocity (Q1.1)	1.09 fps
Headwater Elevation (Q25)	1195.45 ft

MATERIALS

Concrete:	
Curbs	Class "LP"
All Other	Class "A"
Reinforcing:	
Plain Reinforcing Steel	ASTM A 615/A 615M, Grade 60
Stainless Reinforcing Steel	ASTM A 955, Grade 75
Structural Steel:	
All Materal (except as noted)	ASTM 709, Grade 50W (unpainted)
High Strength Bolts	ASTM F3125, Grade A325

BASIC DESIGN STRESSES

Concrete:	
Class "A"	f'c = 4,000 psi
Class "LP"	f 'c = 5,000 psi
Reinforcing:	
Plain Reinforcing Steel	fy = 60,000 psi
Stainless Reinforcing Steel	f y = 75,000 psi
Structural Steel:	
ASTM A709, Grade 50	Fy = 50,000 psi
ASTM F3125, Grade A325	F μ = 127,000 psi

JIM POND TWP
FRANKLIN COUNTY
ALDER STREAM BRIDGE
OVER
ALDER STREAM
ROUTE 27

STATE PROJECT 23104.00
PROJECT LENGTH 0.10 mi.
BRIDGE NO. 3265

ERDMAN ANTHONY

LIST OF DRAWINGS

UTILITIES

Central Maine Power Company
Somerset Telephone Company

MAINTENANCE OF TRAFFIC

Maintain alternating one-way traffic using temporary one-lane bridge with temporary signals.

PROJECT LOCATION:	Alder Stream Bridge #3265 carries Route 27 over Alder Stream. Lat./Long. 45°-15'-15" N, 70°-32'-49" W
PROGRAM AREA:	Bridge Program
OUTLINE OF WORK:	Bridge Replacement with approximately 215 ft. of approach work

WIN 23104.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED

COMMISSIONER: [signature] DATE 7-29-21

CHIEF ENGINEER: [signature] DATE 7-27-21

STATE OF MAINE
CHRISTOPHER GEORGE SICHAK
No. 13848
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE [signature]
13848
P.E. NUMBER
07/01/2021
DATE

PROJECT INFORMATION

PROGRAM	BRIDGE PROGRAM
PROJECT MANAGER	MICHAEL WIGHT
DESIGNER	CHRIS SICHAK
CONSULTANT	ERDMAN ANTHONY
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

JIM POND TWP
ALDER STREAM BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 41

Filename: ...\00\Bridge\MSTA\001_Title.dgn Division: BRIDGE Username: LindoT Date:7/9/2021

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.19	REMOVE EXISTING BRIDGE (430 CY)	1	LS
202.202	REMOVING PAVEMENT SURFACE	725	SY
203.20	COMMON EXCAVATION	819	CY
203.24	COMMON BORROW	46	CY
203.25	GRANULAR BORROW	397	CY
203.33	SPECIAL FILL	94	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES, PLAN QUANTITY	417	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	570	CY
403.2081	12.5 MM POLYMER MODIFIED HMA	140	TON
403.213	HOT MIX ASPHALT 12.5 MM BASE	230	TON
403.2131	12.5 MM POLYMER MODIFIED HMA BASE	70	TON
409.15	BITUMINOUS TACK COAT, APPLIED	100	GAL
461.131	TEMPORARY PAVEMENT	140	TON
501.231	DYNAMIC LOADING TEST	4	EA
501.54	STEEL H-BEAM PILES 117 LBS/FT, DELIVERED	840	LF
501.541	STEEL H-BEAM PILES 117 LBS/FT, IN PLACE	840	LF
501.90	PILE TIPS	10	EA
501.92	PILE DRIVING EQUIPMENT MOBILIZATION	1	LS
502.219	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS (131 CY)	1	LS
502.26	STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLAB ON STEEL BRIDGES (135 CY)	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLAB (23 CY)	1	LS
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (18 CY)	1	LS
502.77	FRP BRIDGE DRAIN-TYPE F	2	EA
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	6881	LB
503.13	REINFORCING STEEL, PLACING	6881	LB
503.26	STAINLESS STEEL REINFORCEMENT, FABRICATED AND DELIVERED	55505	LB
503.27	STAINLESS STEEL REINFORCEMENT, PLACING	55505	LB
504.702	STRUCTURAL STEEL FABRICATED AND DELIVERED, WELDED (195700 LB)	1	LS
504.71	STRUCTURAL STEEL ERECTION (195700 LB)	1	LS
505.08	SHEAR CONNECTORS (910 EA)	1	LS
507.0821	STEEL BRIDGE RAILING, 3 BAR (255 LF)	1	LS
507.0822	STEEL APPROACH RAILING, 3 BAR	4	EA
510.10	SPECIAL DETOUR, 16 FOOT ROADWAY WIDTH VEHICULAR AND PEDESTRIAN TRAFFIC NOT SEPARATED	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (691 SY)	1	LS
526.301	TEMPORARY CONCRETE BARRIER, TYPE 1 (100 LF)	1	LS
527.34	WORK ZONE CRASH CUSHIONS	4	UN
606.1301	31" W-BEAM GUARDRAIL - MIDWAY SPLICE - SINGLE FACED	740	LF
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EA
610.08	PLAIN RIPRAP	1224	CY
610.213	VOID-FILLED RIPRAP	283	CY
613.319	EROSION CONTROL BLANKET	57	SY
615.07	LOAM	100	CY
618.14	SEEDING METHOD NUMBER 2	20	UN
619.12	MULCH	20	UN
619.14	EROSION CONTROL MIX	109	CY
620.58	EROSION CONTROL GEOTEXTILE	1530	SY
620.66	DRAINAGE GEOCOMPOSITE	134	SY
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	2250	LF
627.78	TEMPORARY 4" PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	1320	LF
629.05	HAND LABOR, STRAIGHT TIME	40	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.15	ROLLER, EARTH AND BASE COURSE (INCLUDING OPERATOR)	10	HR
631.172	TRUCK-LARGE (INCLUDING OPERATOR)	10	HR
639.18	FIELD OFFICE, TYPE A	1	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
652.31	TYPE I BARRICADE	20	EA
652.312	TYPE III BARRICADE	20	EA
652.33	DRUM	17	EA
652.34	CONE	20	EA
652.35	CONSTRUCTION SIGNS	280	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (180 CD)	1	LS
652.38	FLAGGERS	200	HR
652.41	PORTABLE-CHANGEABLE MESSAGE SIGN	2	EA
656.75	TEMPORARY SOIL EROSION AND POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

GENERAL CONSTRUCTION NOTES

1. For easements, construction limits and right of way lines, refer to Right of Way Map.
2. 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 Contract items.
3. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
4. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.
5. 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.
6. All embankment material, except as otherwise shown, placed below EL. 1196.35 shall be Granular Borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.
7. Place riprap on side slopes up to EL. 1196.35.
8. Place loam 2 inches deep on all new or reconstructed side slopes or as directed by the Resident.
9. 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 Specifications Section 619, Mulch. Payment will be made under Item No. 619.14, Erosion Control Mix.
10. Place a 24-in. wide strip of Temporary Erosion Control Blanket on the side slopes along the top of the riprap and behind the wingwalls.
11. 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.
12. Protective Coating for Concrete Surfaces shall be applied to the following areas:

    All exposed surfaces of concrete curbs. Fascias down to the drip notch. Top of abutment backwalls and to one foot below the Top of backwalls on the back side.
13. Project information referred to below may be accessed at the following MaineDOT web address: http://www.maine.gov/mdot/contractors/.
14. 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.
15. The hydrologic report of the bridge site may be accessed at the MaineDOT web address. The hydrologic report is based on MaineDOT's interpretation of the 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.
16. The project geotechnical report titled: Geotechnical Design Report for the Replacement of Alder Stream Bridge, Jim Pond Township, Maine, dated 3/25/2021, may be accessed at the MaineDOT web address.
17. 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 construction site. MaineDOT will not be responsible for the Bidders' or 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 the boring locations.
18. 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.
19. In mill and overlay areas, erosion at the top of the existing embankment slope shall be addressed by placing at least 6" of Erosion Control Mix and No. 2 Seed, each approved by Environmental Staff. Well established, vegetated slope below the erosion shall be left undisturbed as much as possible.

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF\MW\NB	TLVRP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2	C. SICHAK		
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

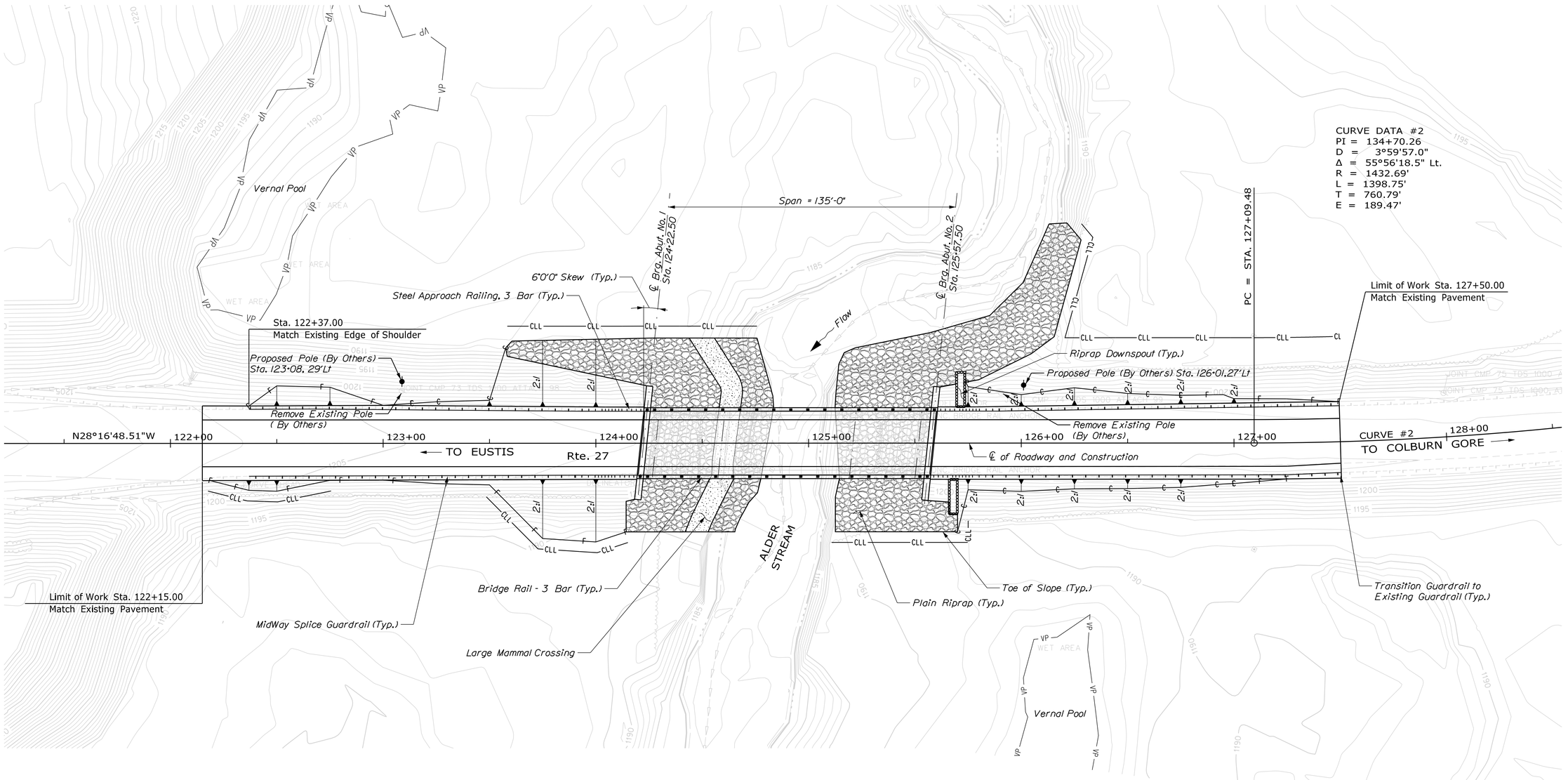
ESTIMATED QUANTITIES AND
GENERAL CONSTRUCTION NOTES

SHEET NUMBER

2

OF 41

Filename: ...\Bridge\MSTA\002_Estimate.dgn Username: LindoT Division: BRIDGE Date:7/13/2021



PLAN

25 0 25 50

Scale of Feet

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT		
DESIGN-DETAILED	EF\MYV\NB	BY	TL\RP
CHECKED-REVIEWED	C. SICHAK	BY	C. SICHAK
DESIGN2-DETAILED2	LED2		
DESIGN3-DETAILED3	LED3		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE 6\2021 6\2021

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

GENERAL PLAN

SHEET NUMBER

3

OF 41

Filename: ...\00\Bridge\MSTA\003_BDPlan.dgn Division: BRIDGE Username: LindoT Date:7/9/2021

LIMIT OF WORK STA. 122+15.00
MATCH EXISTING PAVEMENT

135'-0"

25'-0" Transition

295'-0" Full Depth Reconstruction

25'-0" Transition

55'-0"

LIMIT OF WORK STA. 127+50.00
MATCH EXISTING PAVEMENT

122+00 123+00 124+00 125+00 126+00 127+00 128+00

1230 1225 1220 1215 1210 1205 1200 1195 1190 1185 1180 1175 1170 1165 1160 1155 1150

PVI = STA. 122+15.00
ELEV. = 1206.43

PVC = STA. 122+60.00
ELEV. = 1205.69

V.C.L. = 100'
SD = 398'
E = 0.142'

STA. 123+50.00
Begin Transition

STA. 123+75.00
End Transition
Begin Full Depth
Reconstruction

PVT = STA. 123+60.00
ELEV. = 1204.63

PVI = STA. 123+10.00
ELEV. = 1204.88

Existing Grade

G = -1.63%

130'-0"
1.5" HMA Mill & Overlay Existing

5'-0" OF 3" HMA

Subgrade (TYP.)

Approach Slab (TYP.)

Abutment (TYP.)

Existing Abutment To Be Removed (TYP.)

Existing Piles To Remain (TYP.)

Concrete Jacket (TYP.)

Protective Aggregate Cushion

6" Special Fill

Plain Riprap Void Filled with Special Fill

℄ Brg., Abut. No. 1
Sta. 124+22.50
ELEV. = 1204.31

71'-6"
6" HMA

G = -0.50%

Superstructure

135'-0" Span

EL. 1196.63

3:1±

1.75

3:1±

10' Wide (Min.)
Large Mammal
Crossing @ 2.0%

Approximate
Existing Streambed

PVC = STA. 125+55.00
ELEV. = 1203.65

℄ Brg., Abut. No. 2
Sta. 125+57.50
ELEV. = 1203.64

EL. 1195.95

2.5±

10±

Limits of Structural Excavation
and Granular Borrow (TYP.)

Steel H-Pile (TYP.)

Plain Riprap (Typ.)

Remove Existing Piers to
12" Below Bottom of Riprap
(Typ.)

Finished Grade

LOW POINT
STA. 125+95.43
ELEV. = 1203.55

PVI = STA. 126+05.00
ELEV. = 1203.40

136'-6"
6" HMA

V.C.L. = 100'
SD = 370'
E = 0.155'

STA. 126+70.00
Begin Transition
End Full Depth
Reconstruction

STA. 126+95.00
End Transition

PVI = STA. 127+00.00
ELEV. = 1204.10

HIGH POINT
STA. 126+98.90
ELEV. = 1203.93

G = -0.77%

50'-0"
1.5" HMA Mill &
Overlay
Existing

5'-0" OF 3" HMA

PVI = STA. 127+50.00
ELEV. = 1203.71

PVI = STA. 127+45.00
ELEV. = 1203.75

PVT = STA. 127+
ELEV. = 120

V.C.L. = 90'
SD = 752'
E = -0.172'

EL. 1206.73 EL. 1206.23 EL. 1206.26 EL. 1205.80 EL. 1205.85 EL. 1205.46 EL. 1205.46 EL. 1205.14 EL. 1205.13 EL. 1204.87 EL. 1204.87 EL. 1204.63 EL. 1204.68 EL. 1204.41 EL. 1204.55 EL. 1204.18 EL. 1204.43 EL. 1203.96 EL. 1204.30 EL. 1189.75 EL. 1204.18 EL. 1182.41 EL. 1204.05 EL. 1182.27 EL. 1203.93 EL. 1188.83 EL. 1203.80 EL. 1198.67 EL. 1203.68 EL. 1203.69 EL. 1203.57 EL. 1203.64 EL. 1203.55 EL. 1203.77 EL. 1203.60 EL. 1203.95 EL. 1203.73 EL. 1203.96 EL. 1203.88 EL. 1203.91 EL. 1203.93 EL. 1203.80 EL. 1203.87 EL. 1203.71 EL. 1203.71 EL. 1203.65 EL. 1203.59

122+00 123+00 124+00 125+00 126+00 127+00 128+00

PROFILE

HOR. 25 0 25 50
VER. 5 0 5 10
Scale

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT		
DESIGN-DETAILED	EF\MY\MB	TL\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

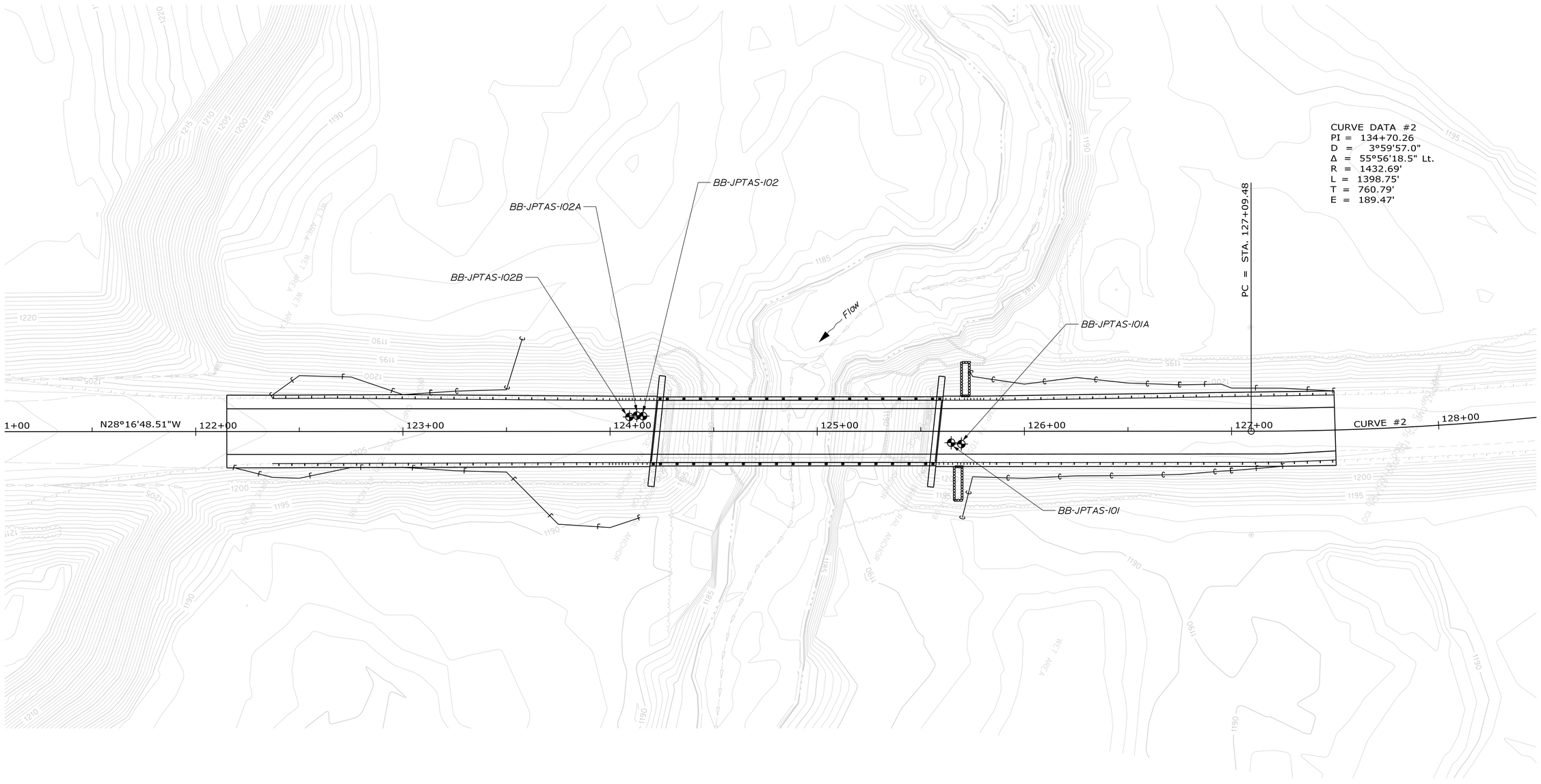
ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

PROFILE

SHEET NUMBER

4

OF 41



LEGEND

CASED WASH BORING

PLAN

25 0 25 50

Scale of Feet

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHEL WOHL	BY	DATE
DESIGN-DETAILED	EF\MY\NB	TL\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

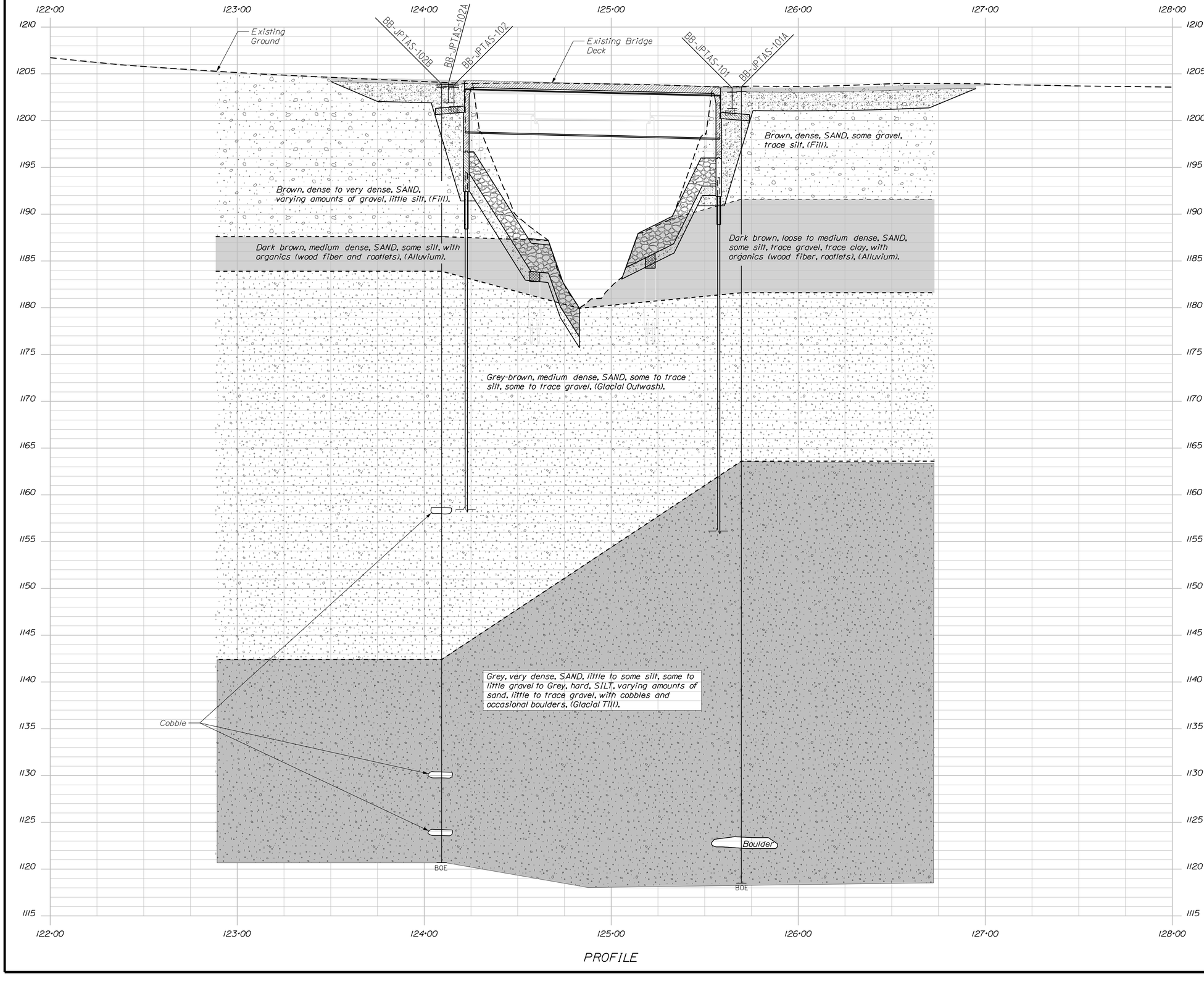
ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

BORING LOCATION PLAN

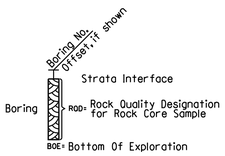
SHEET NUMBER

5

OF 41



LEGEND



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.

PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF\MY\NB	TL\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

6

OF 41

Usernam: LindoT Date:7/9/2021

Division: BRIDGE

Filename: ...\MSTA\007_Boring Log-1.dgn

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Projects: Alder Stream Bridge #3265 carries Route 27 over Alder Stream
Locations: Jim Pond Township, Maine

Boring No.: BB-JPTAS-101
WIN: 023104

Drillers:	New England Boring Contractors	Elevation (ft.):	1203.5	Auger ID/OD:	5" Solid-Stem
Operators:	M. Porter	Datums:	NAVD88	Samplers:	Standard Split Spoon
Logged By:	J. McElroy	Rig Types:	Mobile B-53	Hammer Wt./Falls:	140 lbs/30"
Date Start/Finish:	02/11/2020	Drilling Methods:	Solid Stem Auger	Core Barrels:	N/A
Boring Location:	Sta. 125+69.6, 5.7 ft Rt	Casing ID/OD:	N/A	Water Level *:	None observed.
Hammer Efficiency Factors:	0.904	Hammer Types:	Automatic ☐ Hydraulic ☐	Rope & Cathead ☐	

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field 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
WOP = Weight of One Person
$S_{u(PP)}$ = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(FV)60}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60%-uncorrected
T_v = Pocket Torvane 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.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	1203.0		6" of Pavement.	
										Fill.	
								1201.7			-0.5
								1201.3		Concrete.	-1.8
										Bottom of Exploration at 2.2 feet below ground surface. Auger refusal at 2.2 ft bgs while advancing through concrete.	-2.2
5											
10											
15											
20											
25											

Remarks:
Autohammer SN NEBCD-24 Calibrated 7/12/2019.
bgs = below ground surface.

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-JPTAS-101

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Projects: Alder Stream Bridge #3265 carries Route 27 over Alder Stream
Locations: Jim Pond Township, Maine

Boring No.: BB-JPTAS-101A
WIN: 023104

Drillers:	New England Boring Contractors	Elevation (ft.):	1203.6	Auger ID/OD:	5" Solid-Stem
Operators:	M. Porter	Datums:	NAVD88	Samplers:	Standard Split Spoon
Logged By:	J. McElroy	Rig Types:	Mobile B-53	Hammer Wt./Falls:	140 lbs/30"
Date Start/Finish:	02/11/2020 - 02/24/2020	Drilling Methods:	Solid Stem Auger	Core Barrels:	N02 2"
Boring Location:	Sta. 125+69.6, 6.3 ft Rt	Casing ID/OD:	PW 5"/5.5" / HW 4"/4.5"	Water Level *:	19.5 feet during drilling
Hammer Efficiency Factors:	0.904	Hammer Types:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field 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
WOP = Weight of One Person
$S_{u(PP)}$ = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(FV)60}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60%-uncorrected
T_v = Pocket Torvane 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.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	1203.1		6" of Pavement.	
										Augered to 5 ft bgs. Soils similar to boring BB-JPTAS-101 from 0 to 2.2 ft bgs (Fill).	-0.5
5	10	24/24	5.00 - 7.00	13/17/16/17	33	50	82			Brown, damp, dense, SAND, some gravel, trace silt, (Fill).	GTX #551287 A-1-b, SP WC=3.2%
							90				
							108				
							115				
10							131				
	20	24/16	10.00 - 12.00	16/16/12-7	28	42	65			Similar to above, except moist.	
							55	191.6			-12.0
							44				
							46				
15							78				
	30	24/9	15.00 - 17.00	14/5/4/3	9	14	73			Dark brown, moist, medium dense, SAND, some silt, trace gravel, trace clay, with organics (wood fiber and rootlets), (Stream Alluvium).	GTX #551292 A-2-4, SP WC=33.5%
							50				
							37				
							46				
20							56				
	40	24/19	20.00 - 22.00	1/1/1/1	2	3	65			Brown-grey, wet, very loose, fine SAND, some silt, trace gravel, trace organics (wood fiber), (Stream Alluvium).	
							64				
							82	180.6			-22.0
							100				
25							79				
	50	24/9	25.00 - 27.00	8/8/9/10	17	26	40			Brown, wet, medium dense, SAND, little gravel, trace silt, (Glacial Outwash).	
							68				
							69				
30							79				
	60	24/7	30.00 - 32.00	7/4/5/5	9	14	81			Similar to above.	GTX #551288 A-1-b, SP WC=15.4%
							68				
							71				
							78				
35							101				
	70	24/5	35.00 - 37.00	9/8/8/7	16	24	75	168.6		Brown, wet, medium dense, Silty SAND, some gravel, (Glacial Outwash).	-35.0
							62				
							65				
							72				
40							93				
	80	24/10	40.00 - 42.00	7/7/15/17	22	33	80	163.6		Brown-grey, wet, dense, SAND, some gravel, trace silt, (Glacial Outwash).	-40.0 GTX #551989 A-1-b, SP WC=13.7%
							113				
							160				
							166				
45							168				
	90	24/2	45.00 - 47.00	38/19/9/8	28	42	129			Grey, wet, dense, Sandy GRAVEL, trace silt, (Glacial Outwash).	
							141				
							160				
50							213	155.6			-48.0
							394				
	100	17/17	50.00 - 51.42	58/68/75-5"	- -		129			Grey, moist, very dense, SAND, some silt, some gravel, (Glacial Till).	GTX #551290 A-2-4, SM WC=6.8%
							115			Advanced casing by drill then drive.	
							248				
55							151				
							191				
	110	6/6	55.00 - 55.50	112-6"	- -		84			Similar to above.	
							110				
							125				
							159				
60							197				
	120	6/6	60.00 - 60.50	129-6"	- -		130			Grey, moist, hard, SILT, little sand, trace gravel, (Glacial Till).	GTX #551291 A-4, ML WC=15.6%
							110				
							99				
							122				
65							199				

Remarks:
See Page 2 of 2 for continuation of Boring BB-JPTAS-101A to the right.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.
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Page 1 of 2
Boring No.: BB-JPTAS-101A

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Projects: Alder Stream Bridge #3265 carries Route 27 over Alder Stream
Locations: Jim Pond Township, Maine

Boring No.: BB-JPTAS-101A
WIN: 023104

Drillers:	New England Boring Contractors	Elevation (ft.):	1203.6	Auger ID/OD:	5" Solid-Stem
Operators:	M. Porter	Datums:	NAVD88	Samplers:	Standard Split Spoon
Logged By:	J. McElroy	Rig Types:	Mobile B-53	Hammer Wt./Falls:	140 lbs/30"
Date Start/Finish:	02/11/2020 - 02/24/2020	Drilling Methods:	Solid Stem Auger	Core Barrels:	N02 2"
Boring Location:	Sta. 125+69.6, 6.3 ft Rt	Casing ID/OD:	PW 5"/5.5" / HW 4"/4.5"	Water Level *:	19.5 feet during drilling
Hammer Efficiency Factors:	0.904	Hammer Types:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

Definitions:
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HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140 lb Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person
$S_{u(PP)}$ = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(FV)60}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60%-uncorrected
T_v = Pocket Torvane 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.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
65	130	3/3	65.00 - 65.25	50-3"	- -		145			Gray, moist, hard, sandy SILT, little gravel, (Glacial Till).	
							117				
							132				
							146				
							235				
70	140	3/3	70.00 - 70.25	68-3"	- -		120			Similar to above, except wet.	
							132				
							145				
							273				
							583				
75	150	2/2	75.00 - 75.17	100-2"	- -		327 (REF)			Similar to above. PW casing refusal. Placed HW casing.	
80	MD RT	0/0 27/8	80.70 - 80.70 - 82.95	50-0"	- -		N02 - 68-3"			Boulder.	
85	MD	1/0	85.00 - 85.08	50-0"	- -			118.5		HW casing refusal. Drive shoe broke.	-85.1
										Bottom of Exploration at 85.1 feet below ground surface. No Refusal.	
90											
95											
100											

Remarks:
Autohammer SN NEBCD-24 Calibrated 7/12/2019.
bgs = below ground surface.
Water level measured on 02-21-2020 prior to start of drilling.

See Page 2 of 2 for continuation of Boring BB-JPTAS-101A to the left.

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Page 2 of 2
Boring No.: BB-JPTAS-101A

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EFMY\NB	TLYRP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

BORING LOGS
(1 of 2)

SHEET NUMBER
7
OF 41

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Alder Stream Bridge #3265 carries Route 27 over Alder Stream
Location: Jim Pond Township, Maine

Boring No.: BB-JPTAS-102
WIN: 023104

Driller:	S. W. Cole Explorations, LLC	**Elevation (ft.)**	1203.8	**Auger ID/OD:**	5" Solid-Stem
Operator:	K. Hanscom	**Datum:**	NAVD88	**Sampler:**	Standard Split Spoon
Logged By:	E. Walker	**Rig Type:**	Diedrich D-50 Track Mounted	**Hammer Wt./Fall:**	140 lbs/30"
Date Start/Finish:	11-20-2019	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	Sta. 124+15.9, 7.1 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None observed.
Hammer Efficiency Factor: 0.977		**Hammer Type:**	Automatic ☒ Hydraulic ☐		Rope & Cathead ☐

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample Attempt
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V = Field Vane Shear Test, PP = Pocket Penetrometer
MV = Unsuccessful Field 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
WOP = Weight of One Person

S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf)
q_u = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = (Hammer Efficiency Factor/60)*N-uncorrected

T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Sample Information

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.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	1D	16/16	0.30 - 1.63	64/49/50-4"	- -		SSA	1203.8		3" of Pavement.	
										Brown, damp, very dense, Gravelly SAND, trace silt. (Fill).	
								1201.8			
								1201.5		Concrete.	
										Bottom of Exploration at 2.3 feet below ground surface. Auger head broke at 2.3 ft bgs while advancing through concrete; auger recovered. No Refusal.	
5											
10											
15											
20											
25											

Remarks:
Autohammer SN 367 Calibrated 7/29/2019.
bgs = below ground surface.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.
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Page 1 of 1
Boring No.: BB-JPTAS-102

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Alder Stream Bridge #3265 carries Route 27 over Alder Stream
Location: Jim Pond Township, Maine

Boring No.: BB-JPTAS-102A
WIN: 023104

Driller:	S. W. Cole Explorations, LLC	**Elevation (ft.)**	1203.9	**Auger ID/OD:**	5" Solid-Stem
Operator:	K. Hanscom	**Datum:**	NAVD88	**Sampler:**	Standard Split Spoon
Logged By:	E. Walker	**Rig Type:**	Diedrich D-50 Track Mounted	**Hammer Wt./Fall:**	140 lbs/30"
Date Start/Finish:	11-20-2019	**Drilling Method:**	Cased Wash	**Core Barrel:**	N/A
Boring Location:	Sta. 124+12.9, 7.4 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None observed.
Hammer Efficiency Factor: 0.977		**Hammer Type:**	Automatic ☒ Hydraulic ☐		Rope & Cathead ☐

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MV = Unsuccessful Field 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
WOP = Weight of One Person

S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf)
q_u = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = (Hammer Efficiency Factor/60)*N-uncorrected

T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Sample Information

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.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	1203.7		3" of Pavement	
										Augered to 2 ft bgs. Soils similar to boring BB-JPTAS-102 from 0 to 2 ft bgs. (Fill).	
								1201.9		**Bottom of Exploration at 2.0 feet below ground surface.** Concrete encountered; offset boring. No Refusal.	
5											
10											
15											
20											
25											

Remarks:
Autohammer SN 367 Calibrated 7/29/2019.
bgs = below ground surface.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.
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Page 1 of 1
Boring No.: BB-JPTAS-102A

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Projects: Alder Stream Bridge #3265 carries Route 27 over Alder Stream
Locations: Jim Pond Township, Maine

Boring No.: BB-JPTAS-102B
WIN: 023104

Drillers	S. W. Cole Explorations, LLC	**Elevation (ft.)**	1203.9	**Auger ID/OD:**	5" Solid-Stem
Operators	K. Hanscom/J. Lee	**Datums**	NAVD88	**Samplers**	Standard Split Spoon
Logged By:	E. Walker/J. McElroy	**Rig Types**	Diedrich D-50 Track Mounted	**Hammer Wt./Falls**	140 lbs/30"
Date Start/Finish:	11-20-2019/12-13-2019	**Drilling Methods**	Cased Wash	**Core Barrels**	N02 (2")
Boring Locations	Sta. 124+09.3, 6.8 ft Lt.	**Casing ID/ODs**	HW 4.5"/4" NW 3.5"/3"	**Water Level *s**	10.9 feet (during drilling)
Hammer Efficiency Factors 0.977		**Hammer Types**	Automatic ☒ Hydraulic ☐		Rope & Cathead ☐

Definitions:
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U = Thin Wall Tube Sample
MU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
MV = Unsuccessful Field Vane Shear Test Attempt

R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140 lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person

S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf)
q_u = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60)*N-uncorrected

T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Sample Information

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.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	1203.9		4" of Pavement	
										Augered to 5 ft bgs. Soils similar to boring BB-JPTAS-102 and BB-JPTAS-1024 from 0 to 2 ft bgs. (Fill).	
								1201.9			
5	10	24/18	5.00 - 7.00	17/23/22/21	45	73				Brown, damp, very dense, Gravelly SAND, little silt. (Till).	GTX*534406 A-1-b, SM WC=2.9%
10	20	24/19	10.00 - 12.00	12/15/11/20	26	42				Brown, damp, dense, SAND, some gravel, little silt. (Till).	
							68				
							74				
							107				
15							115				
							102				
	30	24/19	15.00 - 17.00	19/23/12/18	35	57	74			30/A: Similar to above except moist.	
							97	1187.8		30/B: Dark brown, moist, medium dense, SAND, some silt, with organics (wood fibers and rootlets), (Stream Alluvium).	GTX*534419 WC=22.0% Organic Content=4.5%
							131				
							89				
20							66	1183.9		Grey-brown, wet, medium dense, SAND, little gravel, little silt, (Glacial Outwash).	GTX*534411 A-1-b, SM WC=13.3%
	40	24/12	20.00 - 22.00	5/5/5/4	10	16	42				
							49				
							50				
							55				
25							76				
	50	24/8	25.00 - 27.00	9/8/8/22	16	26	58			Grey, wet, medium dense, SAND, trace silt, trace fine gravel, (Glacial Outwash).	GTX*311078
							55				
							101				
							87				
30							74			Drill action suggests gravel layer from 29 to 29.5 fet bgs.	
	60	24/3	30.00 - 32.00	6/6/6/7	12	20	70			Grey-brown, wet, medium dense, fine SAND, some silt, (Glacial Outwash).	GTX*311078
							95				
							119				
							120				
35							104				
	MD	24/0	35.00 - 37.00	6/6/6/7	12	20	79			No recovery.	
							83				
							105				
							121				
40							96				
	70	24/3	40.00 - 42.00	5/5/7/8	12	20	89			Grey-brown, wet, medium dense, SAND, little silt, (Glacial Outwash).	GTX*311078
							116				
							115				
							143				
45							128				
	80	24/4	45.00 - 47.00	8/12/10/8	22	36	127			Similar to above, except trace silt.	GTX*311078
							135				
							151				
							181				
50							139				
	90	24/14	50.00 - 52.00	5/8/6/7	14	23	114			Grey, wet, medium dense, fine SAND, little silt, (Glacial Outwash).	
							163				
							170				
							174				
55							187				
	100	24/20	55.00 - 57.00	6/8/7/8	15	24	181			100/A Grey, wet, medium dense, fine SAND, little silt, layered with 100/B grey, wet, very stiff, SILT, little fine sand, (Glacial Outwash).	GTX*534407 A-2-4, SM WC=21.0% GTX*534408 A-4, ML WC=19.7%
							161				
							146				
							291			Drill action suggests gravels or cobbles from 58 to 60 ft bgs.	
60							322				
	110	20/10	60.00 - 61.67	5/5/16/50-2"	21	34	112			110/A: Grey, wet, medium dense, fine to medium SAND, little silt, little gravel, (Glacial Outwash).	
							213	1142.4		110/B: Grey, wet, very dense, SAND, some silt, little gravel, (Glacial Till). Boulder from 61.7 to 63 ft bgs.	61.5
							409				
							144				
65							159				

Remarks:

See Page 2 of 2 for continuation of Boring BB-JPTAS-102B to the right.

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Page 1 of 2
Boring No.: BB-JPTAS-102B

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Projects: Alder Stream Bridge #3265 carries Route 27 over Alder Stream
Locations: Jim Pond Township, Maine

Boring No.: BB-JPTAS-102B
WIN: 023104

Drillers	S. W. Cole Explorations, LLC	**Elevation (ft.)**	1203.9	**Auger ID/ODs**	5" Solid-Stem
Operators	K. Hanscom/J. Lee	**Datums**	NAVD88	**Samplers**	Standard Split Spoon
Logged By:	E. Walker/J. McElroy	**Rig Types**	Diedrich D-50 Track Mounted	**Hammer Wt./Falls**	140 lbs/30"
Date Start/Finish:	11-20-2019/12-13-2019	**Drilling Methods**	Cased Wash	**Core Barrels**	N02 (2")
Boring Locations	Sta. 124+09.3, 6.8 ft Lt.	**Casing ID/ODs**	HW 4.5"/4" NW 3.5"/3"	**Water Level *s**	10.9 feet (during drilling)
Hammer Efficiency Factors 0.977		**Hammer Types**	Automatic ☒ Hydraulic ☐		Rope & Cathead ☐

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$S_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf)
q_u = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60)*N-uncorrected

T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Sample Information

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.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
65	120	9/9	65.00 - 65.75	48/50-3"	- -		OPEN			Grey, wet, very dense, SAND, little gravel, little silt, (Glacial Till). Frequent cobbles from 65.7 to 70 ft bgs.	GTX*534409 A-1-b, SM
70	130	10/10	70.00 - 70.83	75/50-4"	- -					Grey, wet, hard, Sandy SILT, trace gravel, (Glacial Till). Cobble.	
75	140	17/14	75.00 - 76.42	30/45/50-5"	- -					Similar to above. Placed NW Casing. Advanced by drill then drive. Grey, wet, very dense, Silty SAND, little gravel, well bonded, (Till).	GTX*534410 A-4, ML WC=15.7%
80	MD	3/0	80.00 - 80.25	50-3"	- -					No recovery. Cobble.	
								1120.7		NW casing refusal. Drive shoe broke.	83.2
85										Bottom of Exploration at 83.2 feet below ground surface.	
90											
95											
100											

Remarks:
Autohammer SN 367 Calibrated 7/29/2019.
bgs = below ground surface.
0 to 70 ft bgs drilled 11-20-2019 to 11-21-2019.
Water level measured on 11-21-2019 prior to start of drilling.

See Page 1 of 2 for continuation of Boring BB-JPTAS-102B to the left.

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 2 of 2
Boring No.: BB-JPTAS-102B

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00
WIN 23104.00
BRIDGE NO. 3265 BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF.MY.NB	TLV/RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

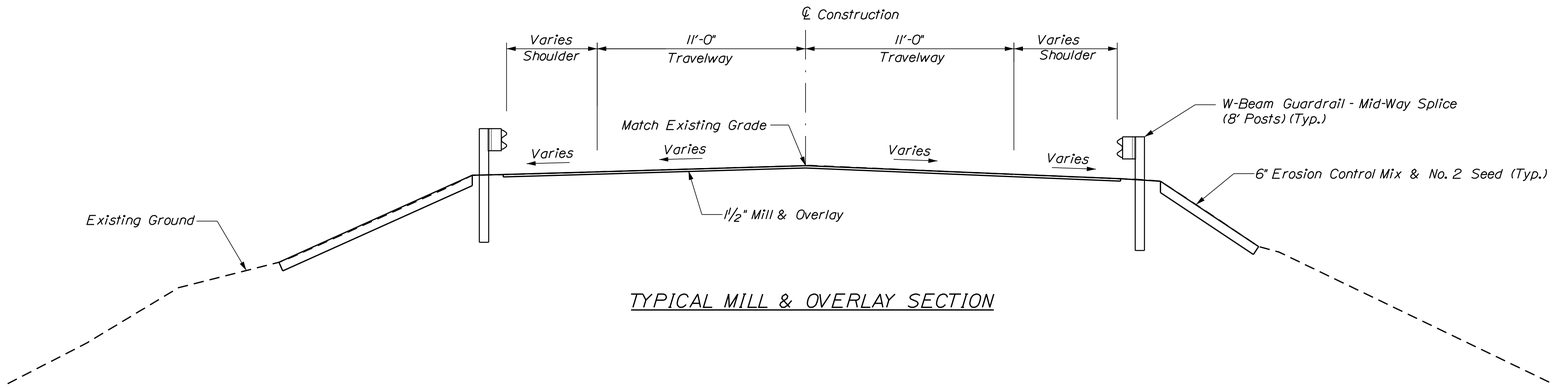
DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

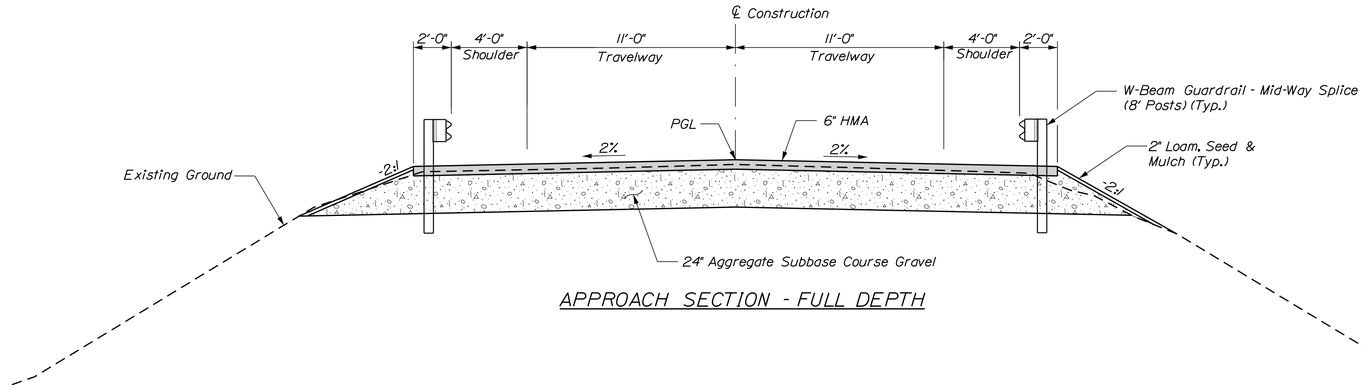
BORING LOGS
(2 of 2)

SHEET NUMBER
8
OF 41

ERDMAN ANTHONY



TYPICAL MILL & OVERLAY SECTION



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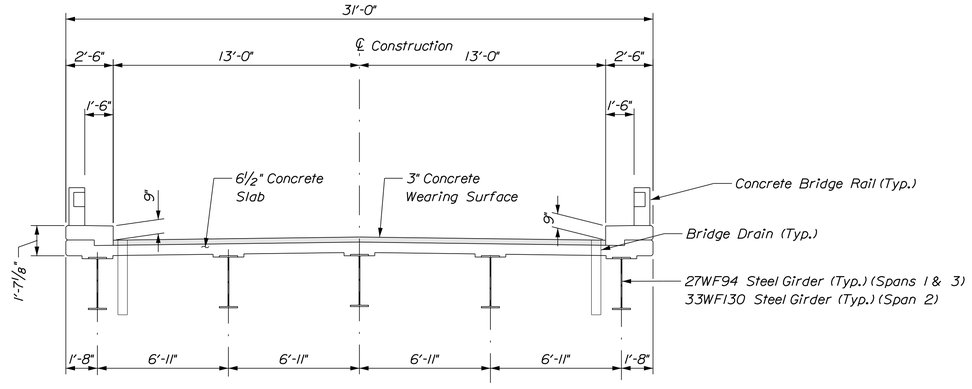

EXISTING BRIDGE SECTION

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT		
DESIGN-DETAILED	EF\MPV\MB	TLV/RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

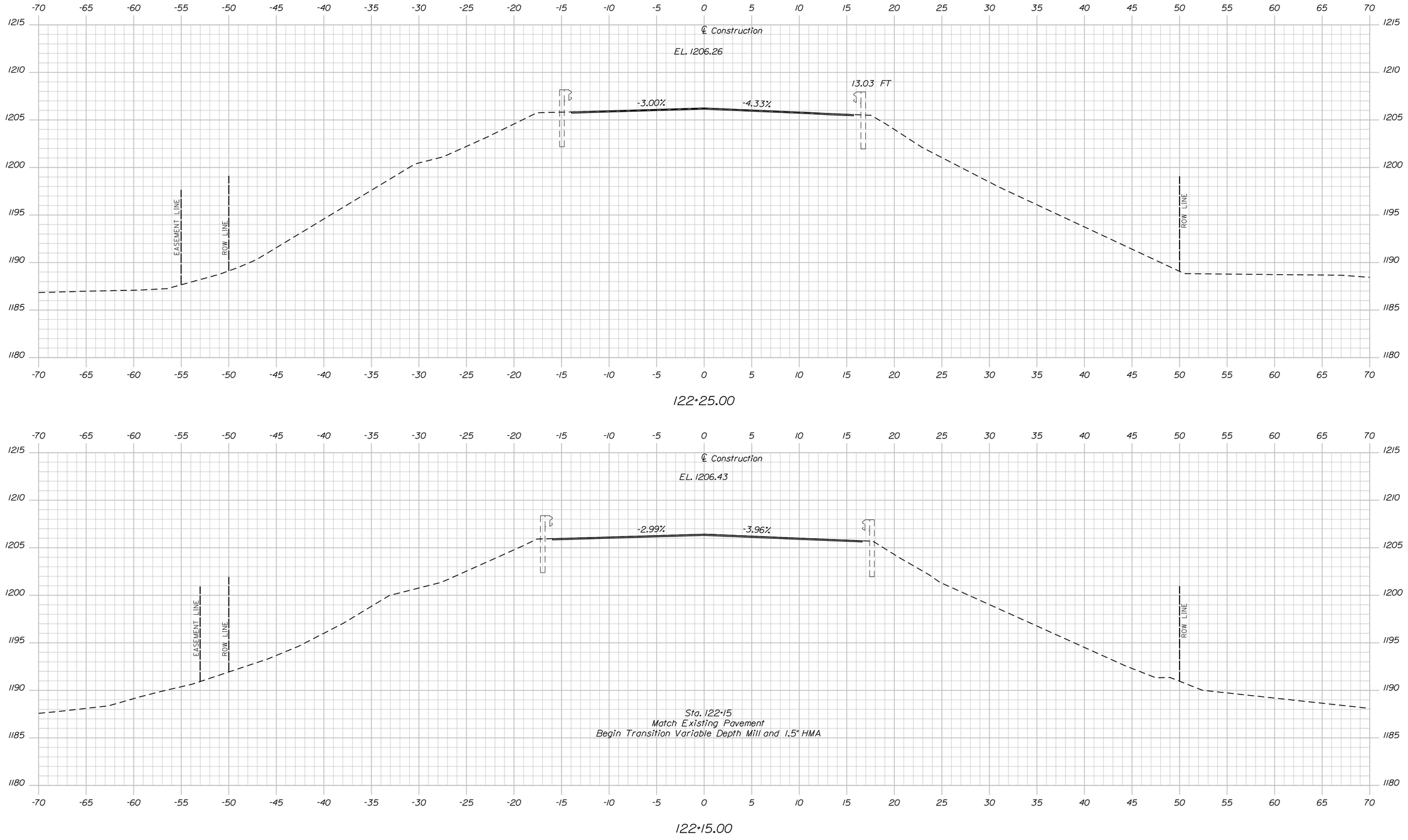
TYPICAL SECTIONS

SHEET NUMBER

9

OF 41

Filename: ...\Bridge\MSTA\009_Btypicol.dgn Division: BRIDGE Username: LindaT Date:7/9/2021



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF\MW\MB	TLYRP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

122+15.00 CROSS SECTIONS 122+25.00

SHEET NUMBER

10

OF 41

ERDMAN ANTHONY

Username: LindoT Date:7/9/2021

Division: BRIDGE

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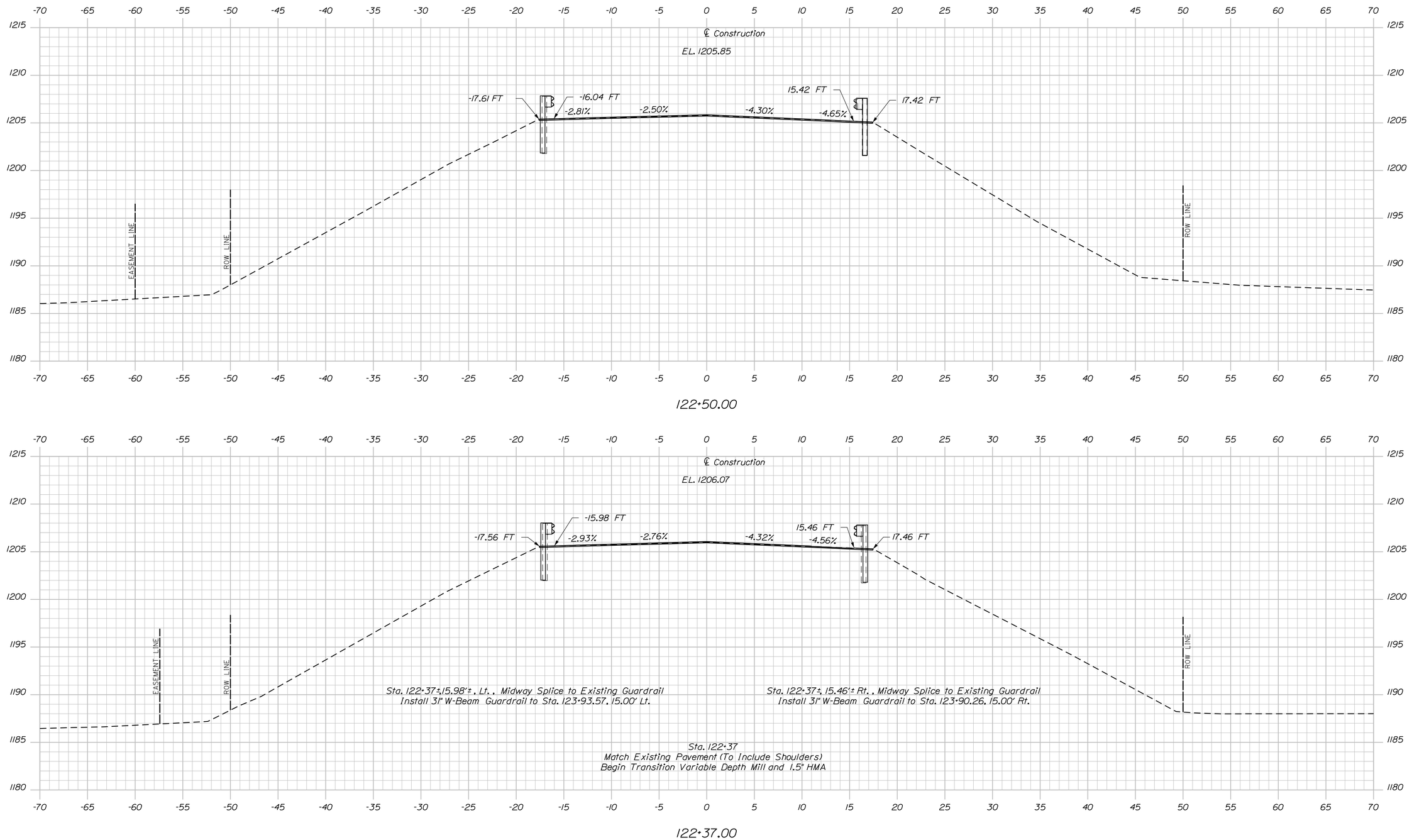

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EFMW\NB	TL\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
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REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

122+37.00 CROSS SECTIONS 122+25.00

SHEET NUMBER

11

OF 41

ERDMAN ANTHONY

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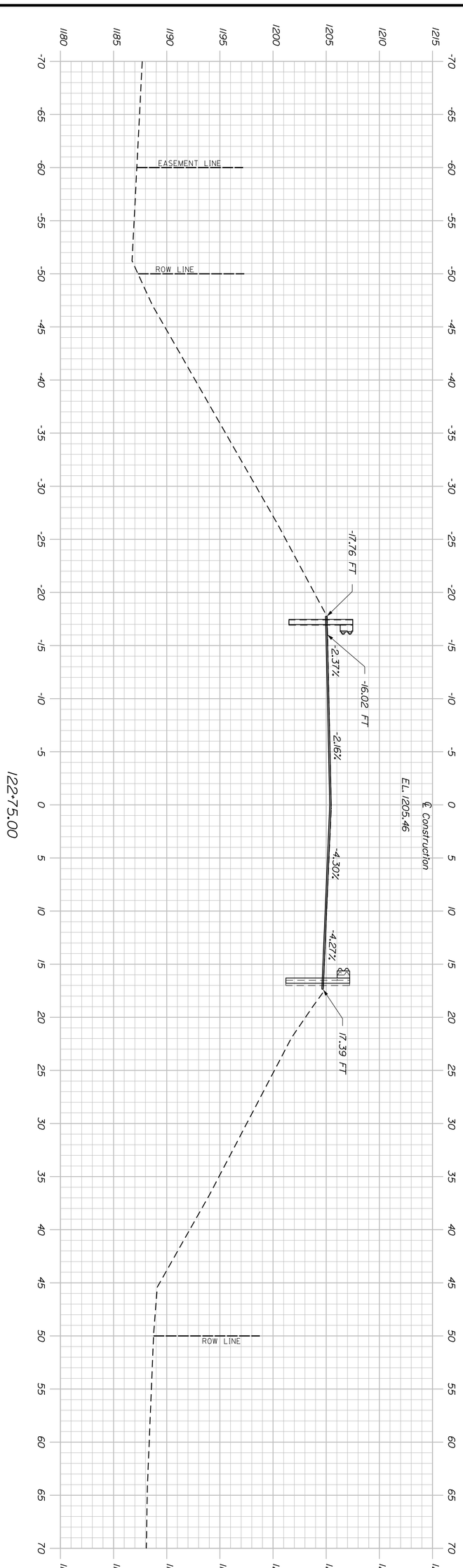
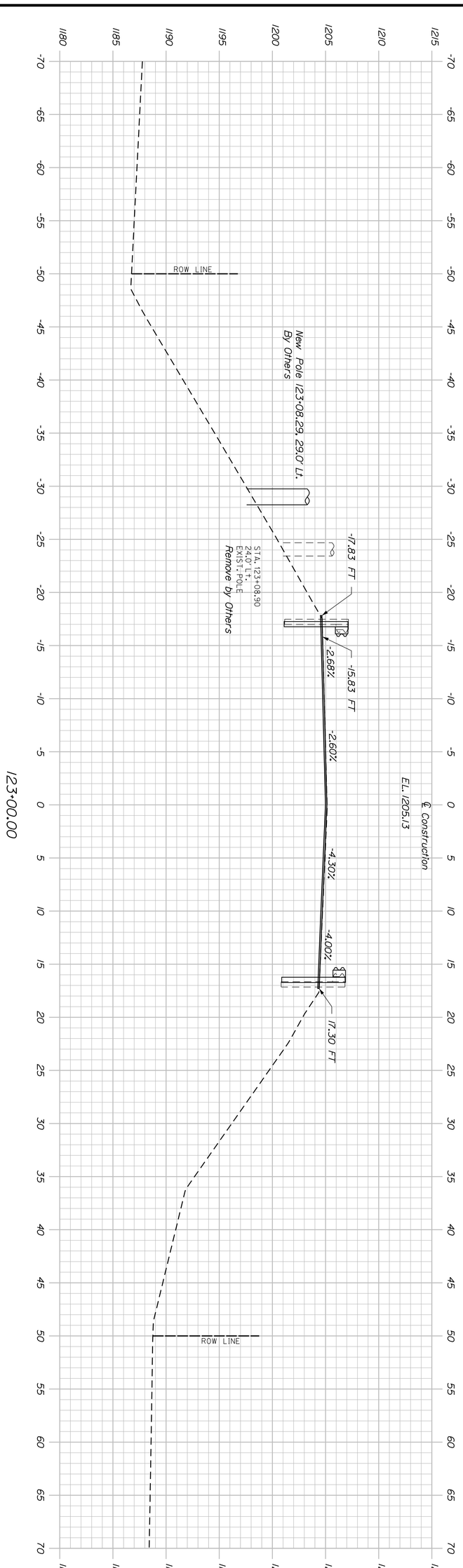




ERDMAN ANTHONY

SHEET NUMBER 12 OF 41

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

122+75.00 CROSS SECTIONS 123+00.00

PROJ. MANAGER MICHAEL WIGHT		BY	DATE
DESIGN-DETAILED	EF\MY\NB	TL\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

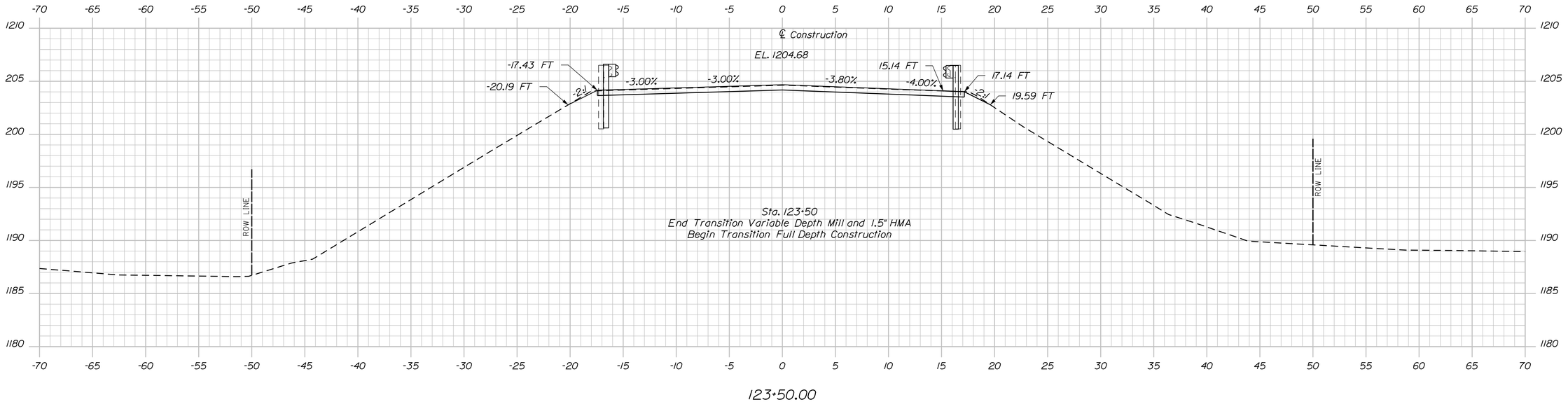
P.E. NUMBER

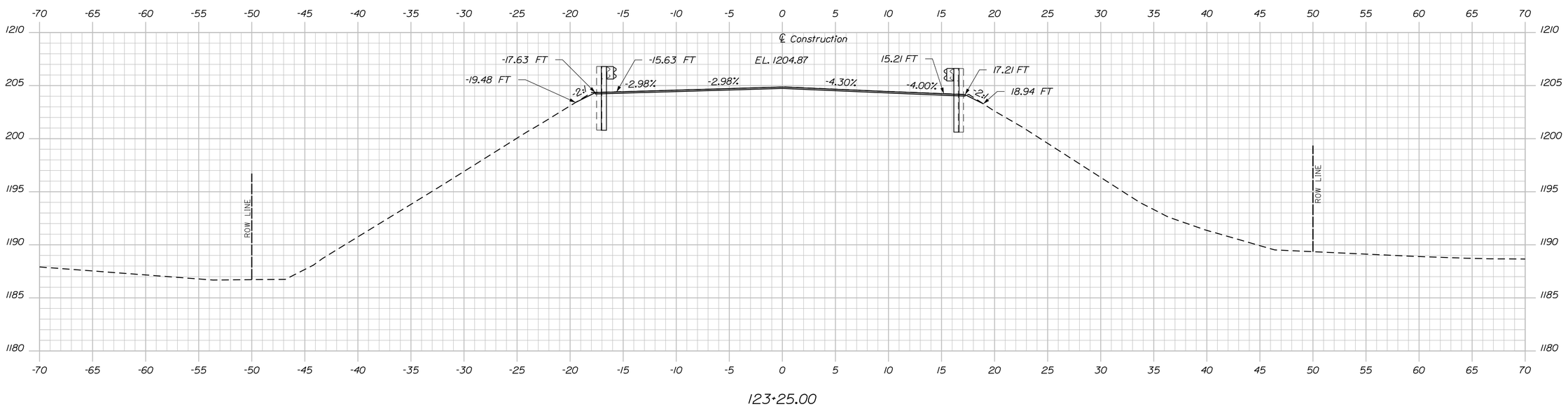
DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

BRIDGE NO. 3265 WIN 23104.00 BRIDGE PLANS





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF\MW\MB	TLV\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

123+25.00 CROSS SECTIONS 123+50.00

SHEET NUMBER

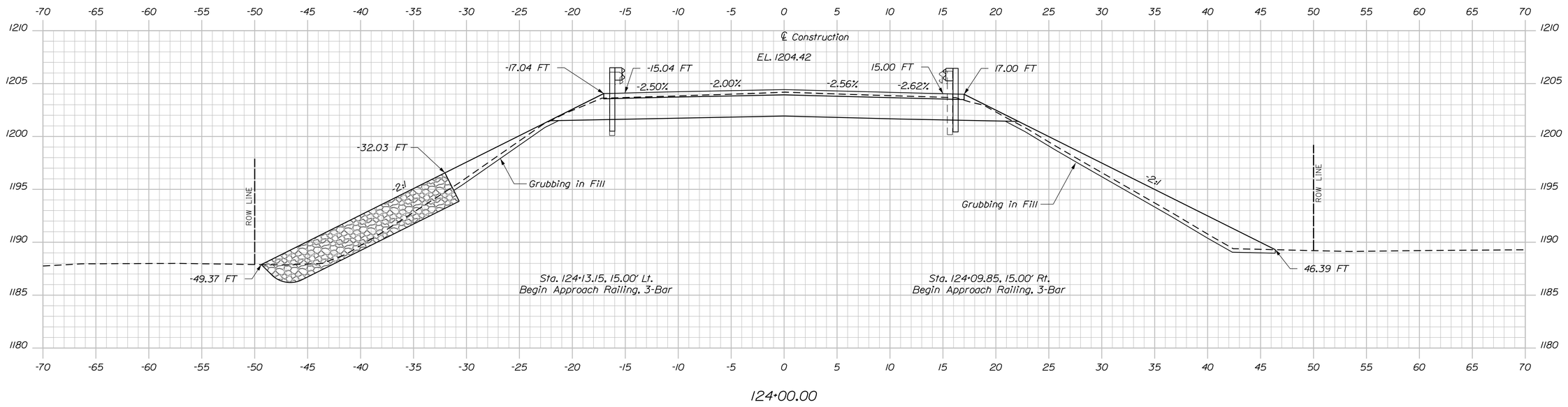
13

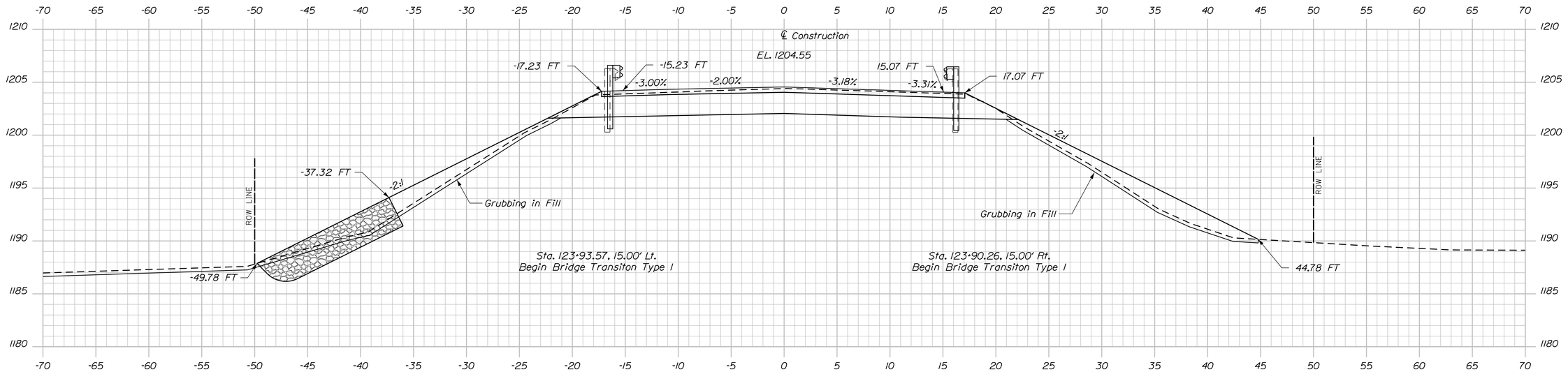
OF 41

ERDMAN ANTHONY

Username: LindoT Date:7/9/2021

Filename: ...\Bridge\MSTA\013_Xsect_04.dgn Division: BRIDGE





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	MICHAEL WIGHT		
DESIGN-DETAILED	EF\MY\NB	TL\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

123+75.00 CROSS SECTIONS 124+00.00

SHEET NUMBER

14

OF 41

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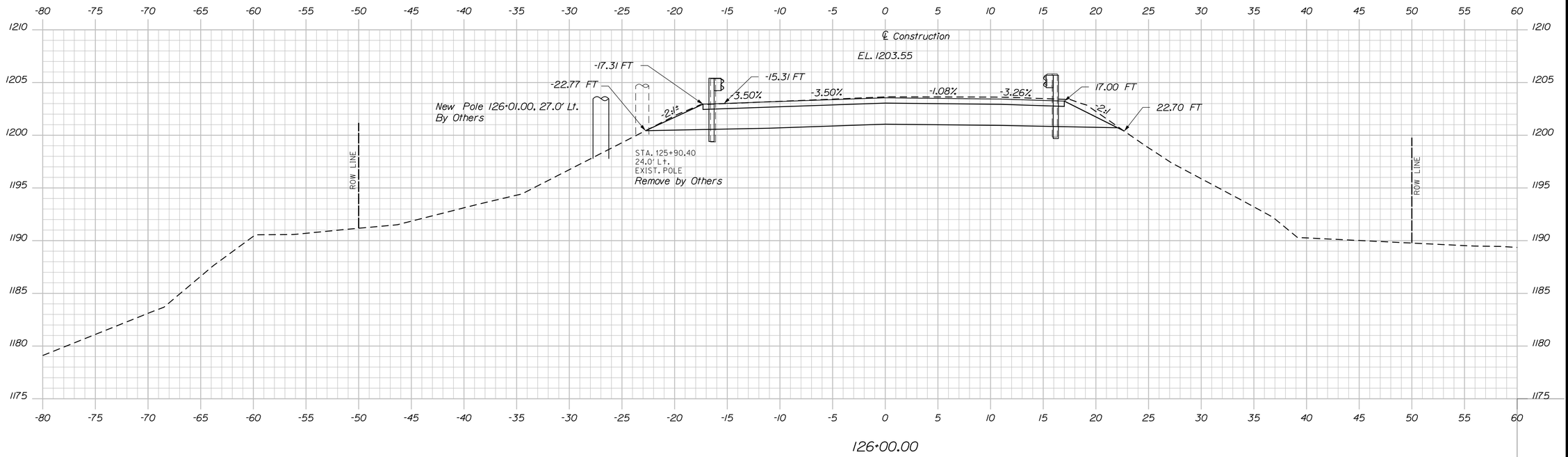

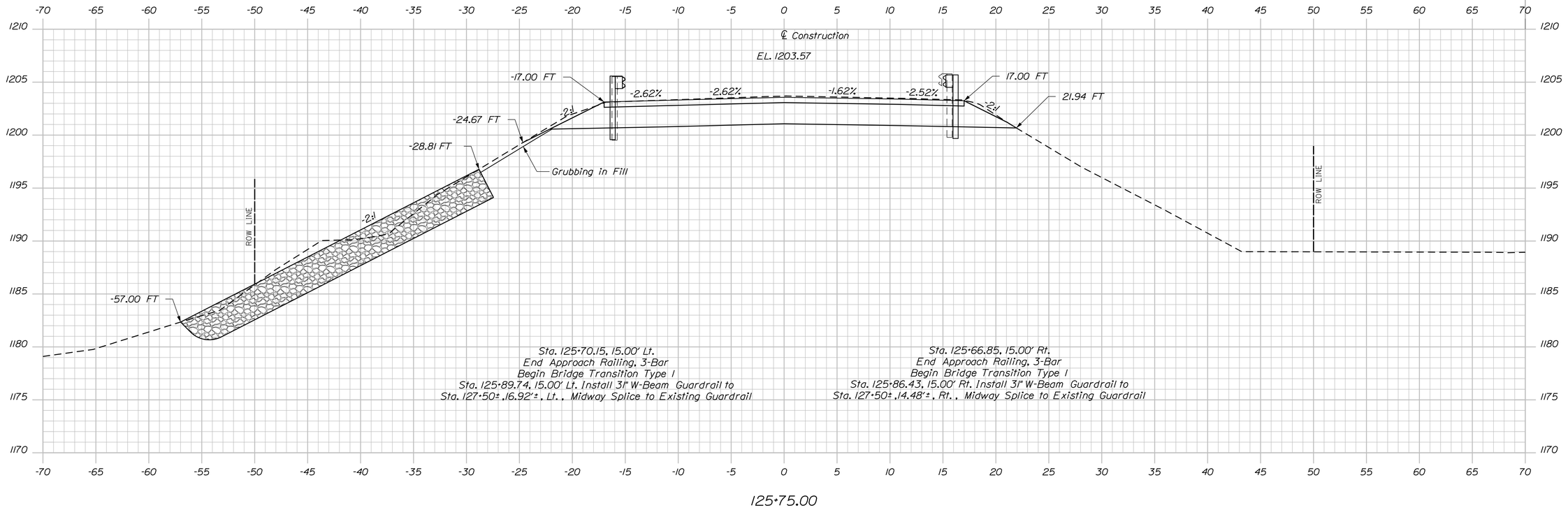

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE PLANS

BRIDGE NO. 3265

PROJ. MANAGER	MICHAEL WIGHT		
DESIGN-DETAILED	EF\MY\NB	BY	DATE
CHECKED-REVIEWED	C. SICHAK	TL\RP	6\2021
DESIGN2-DETAILED2		C. SICHAK	6\2021
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REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

125+75.00 CROSS SECTIONS 126+00.00

SHEET NUMBER

15

OF 41

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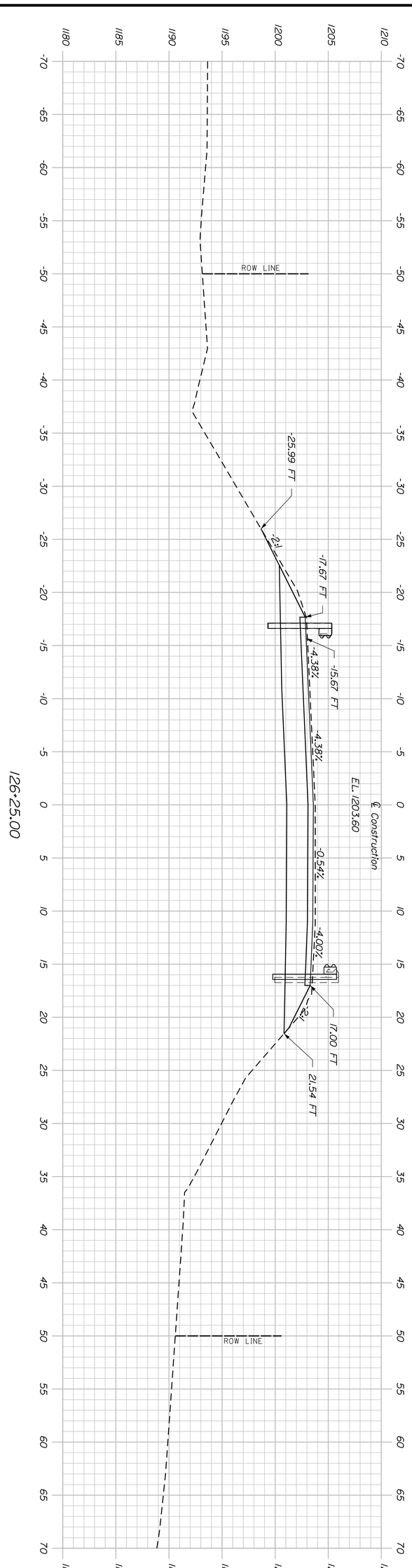
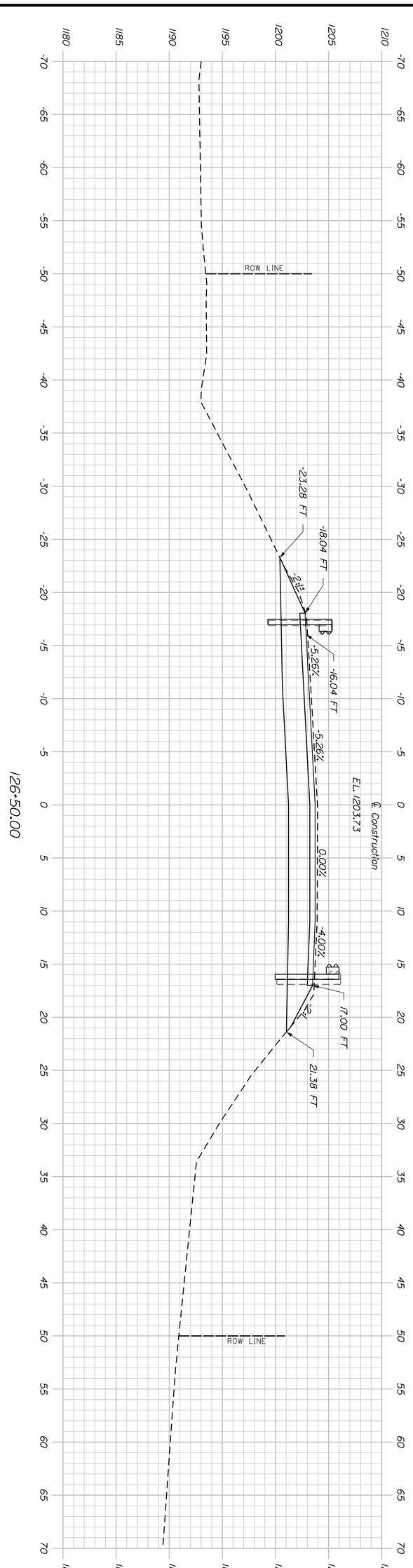




ERDMAN ANTHONY

SHEET NUMBER 16 OF 41

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

2+00.00 CROSS SECTIONS 3+00.00

PROJ. MANAGER MICHAEL WIGHT		BY	DATE
DESIGN-DETAILED	EF\MY\NB	TL\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

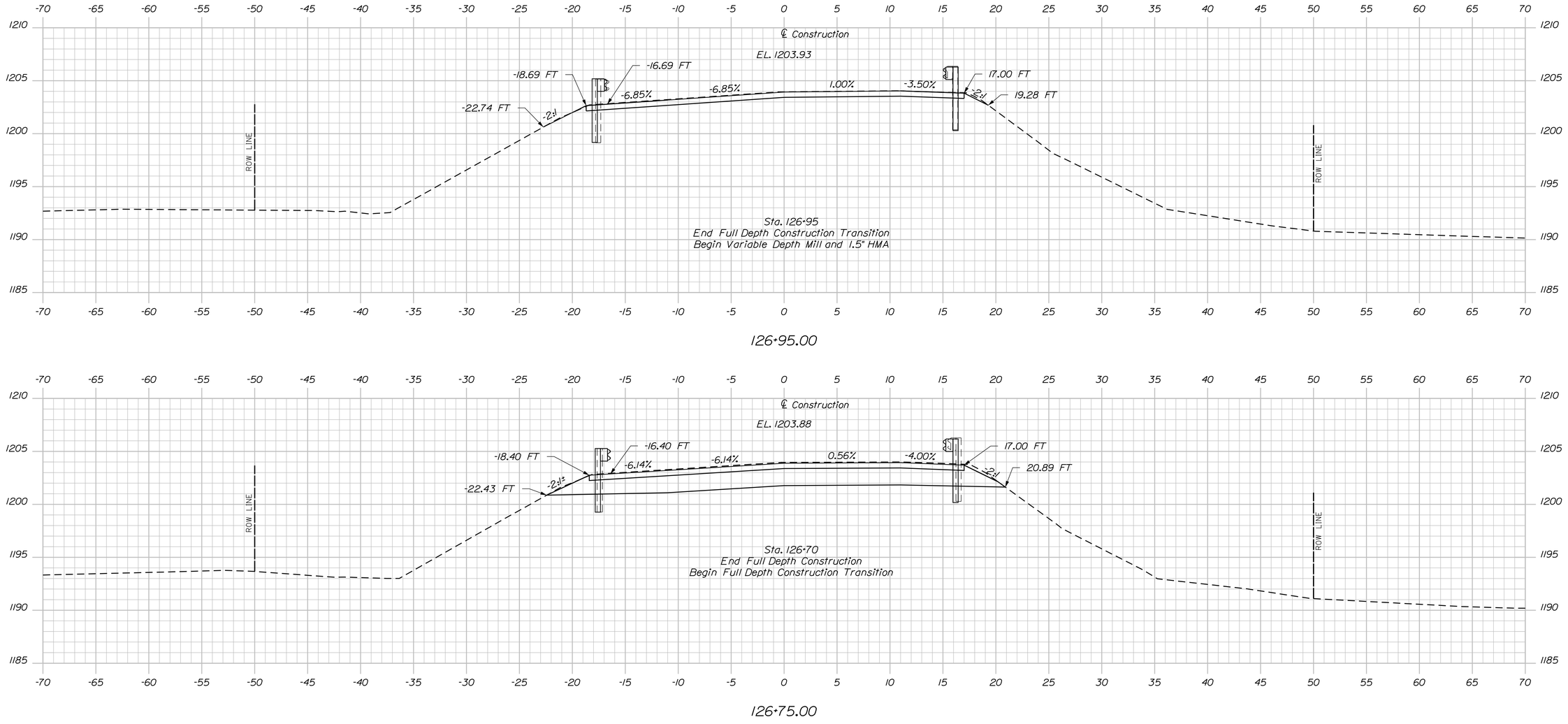
P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

BRIDGE NO. 3265 WIN 23104.00 BRIDGE PLANS



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT		
DESIGN-DETAILED	EF MYYNB	6\2021	
CHECKED-REVIEWED	C. SICHAK	6\2021	
DESIGN2-DETAILED2			
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REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BY | DATE

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

126+75.00 CROSS SECTIONS 126+95.00

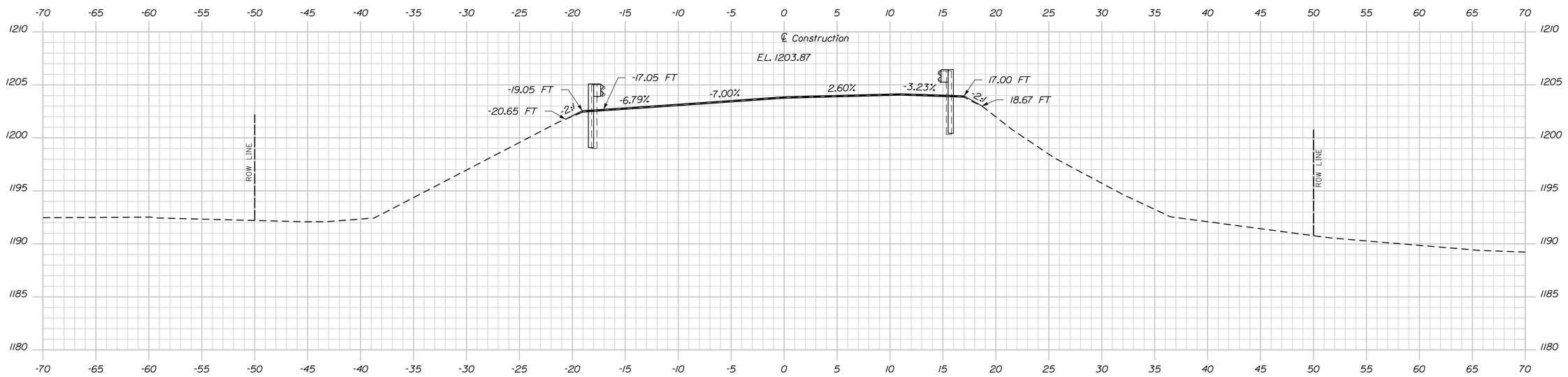
SHEET NUMBER

17

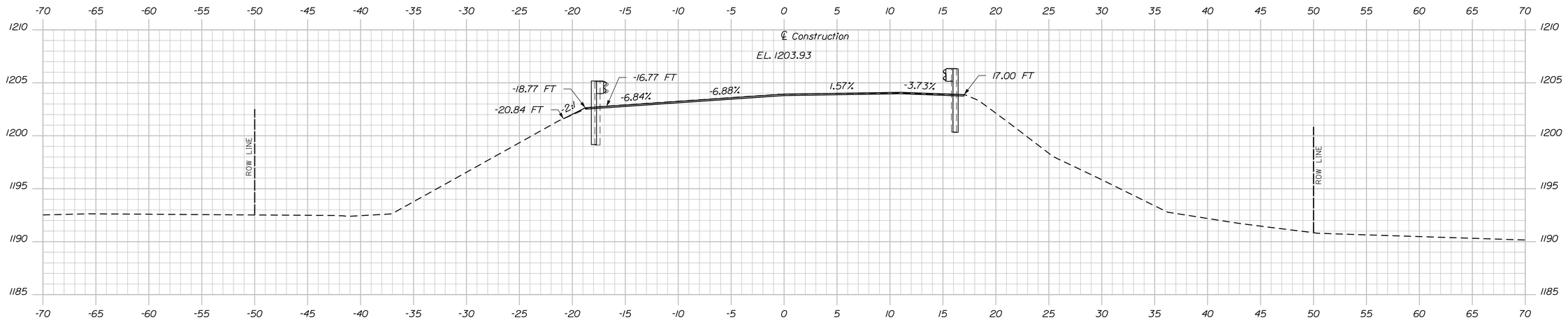
OF 41

ERDMAN ANTHONY

Filename: ...\Bridge\MSTA\017_Xsect_08.dgn Division: BRIDGE Username: LindoT Date:7/9/2021



127+25.00



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ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF\MW\MB	TLV/RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
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REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

2+00.00 CROSS SECTIONS 3+00.00

SHEET NUMBER

18

OF 41

Username: LindoT Date:7/9/2021

Division: BRIDGE

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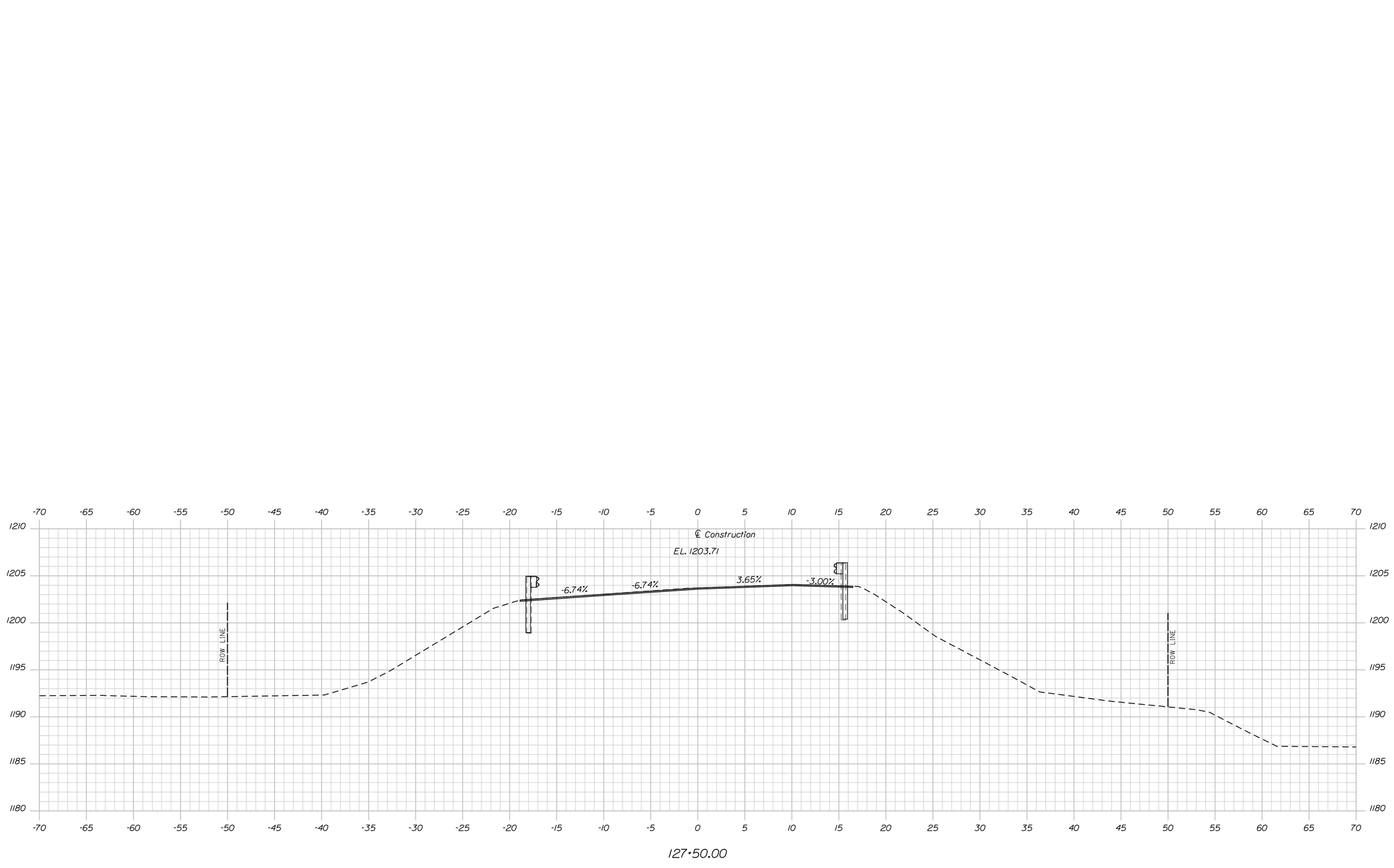

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF\MFV\MB	TLV/RP	6\2021
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DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

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DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN
BRIDGE NO. 3265 **23104.00** BRIDGE PLANS

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

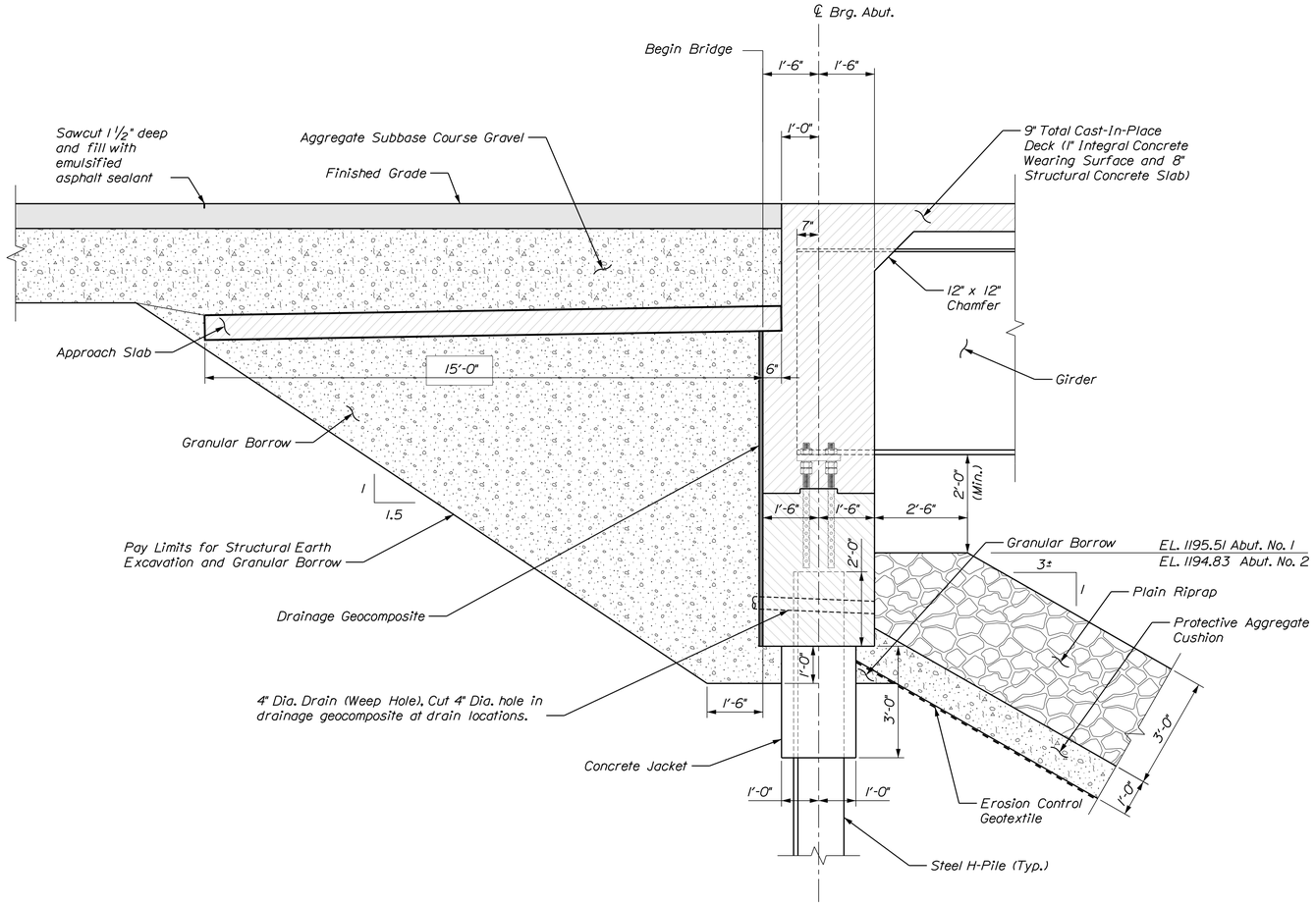
127+50.00 CROSS SECTIONS *127+50.00*

SHEET NUMBER

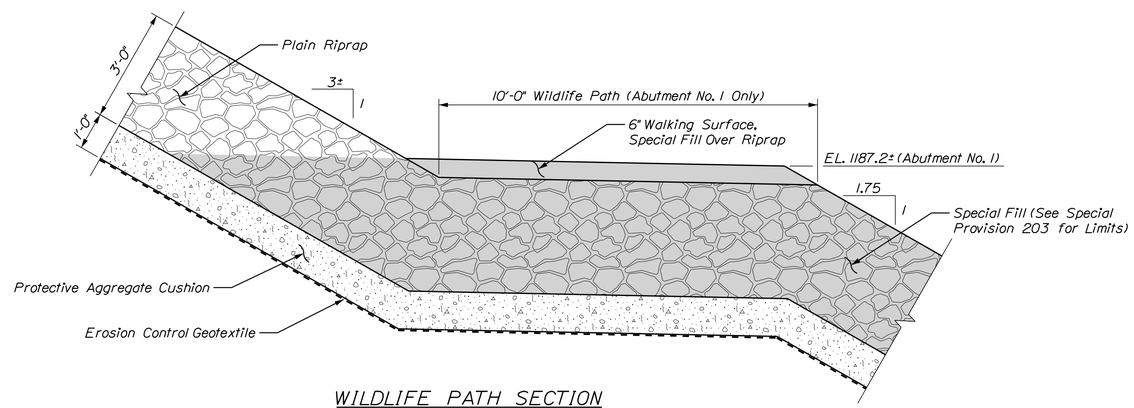
19

OF 41

ERDMAN ANTHONY



TYPICAL ABUTMENT SECTION



WILDLIFE PATH SECTION

NOTES

1. Transverse sawcuts in the pavement at the ends of approach slabs shall be sealed with emulsified asphalt sealing compound conforming to Specification 702.12. The sawcut and emulsified asphalt sealing shall not be paid for directly but considered incidental to related Contract items.

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
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CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
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REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

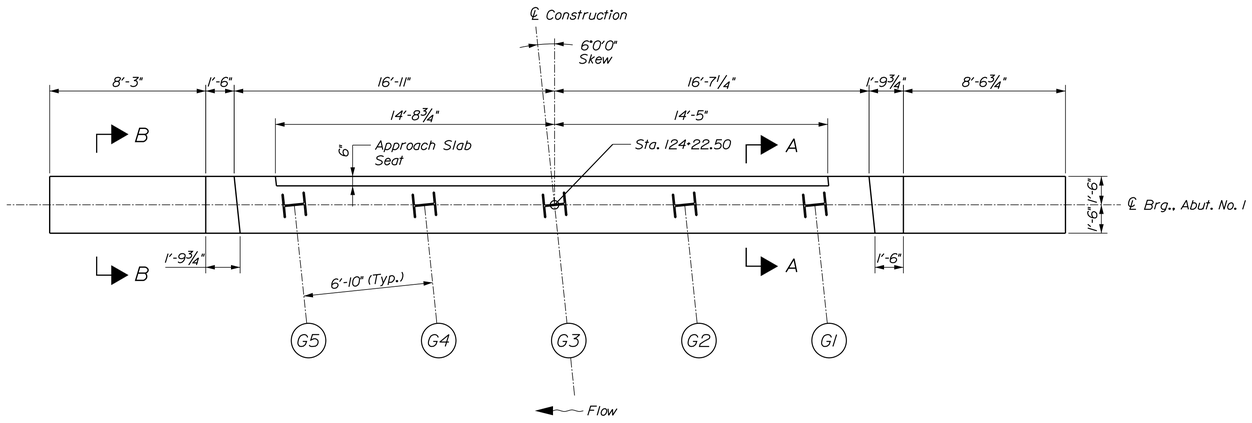
TYPICAL ABUTMENT SECTION AND NOTES

SHEET NUMBER

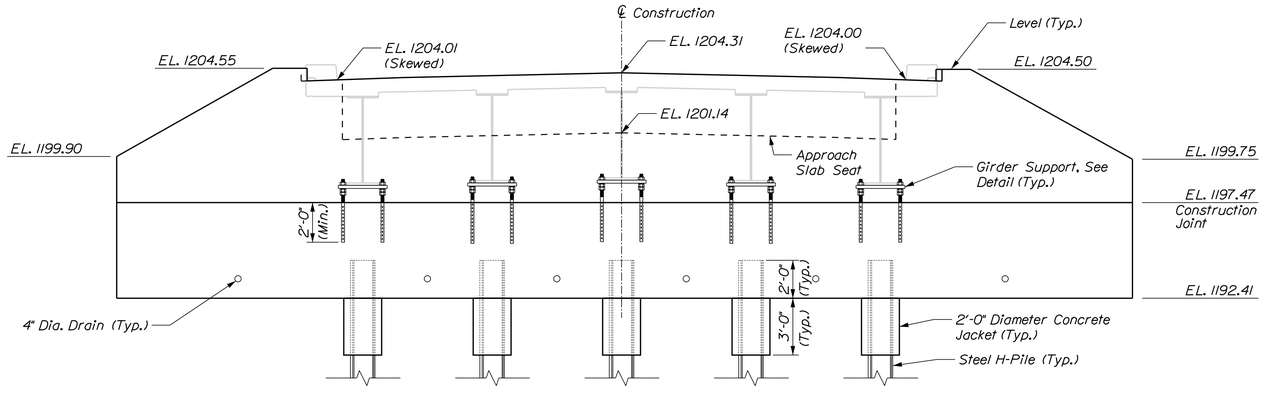
20

OF 41

Filename: ...\MSTA\020_Abutment_Typical.dgn Division: BRIDGE Username: LindoT Date:7/9/2021



ABUTMENT NO. 1 PLAN



ABUTMENT NO. 1 ELEVATION

ABUTMENT NOTES

1. Reinforcing steel shall have a minimum concrete cover of 2 inches in the walls unless otherwise noted.
2. Cover joints where waterstops are not required in accordance with Standard Details Section 502(01).
3. Abutments, wingwalls and their footings shall be backfilled with Granular Borrow. Pay limits will be the structural excavation limits in cut areas and a vertical plane located 10 feet behind the walls in fill areas.
4. Install drainage geocomposite behind the abutments and wingwalls up to the approach slab seat elevation.
5. Payment for the concrete jackets around the tops of the H-Piles will be considered incidental to Contract Item 502.219, Structural Concrete Abutment and Retaining Walls. No separate payment will be made. Fill concrete may be used for the concrete jackets.
6. Place 4-in. diameter drains in the breastwall and wingwalls at 10-ft maximum spacing. The exact location will be determined by the Resident.
7. See Sheet No. 23 for SECTION A-A and SECTION B-B.

PILE NOTES

1. The maximum factored pile load is 231 kips at the Strength V Limit State.
2. H-pile material shall be ASTM A572, Grade 50.
3. Estimate of piles required:
   a. Abutment No. 1: 5 ~ HP 14 x 117 @ 75 feet
   b. Abutment No. 2: 5 ~ HP 14 x 117 @ 82 feet

   The order lengths of the piles shall include an additional 10 feet of length for each test pile to accommodate dynamic pile testing equipment and variability in the subsurface.
4. All piles shall be equipped with a pile tip in accordance with Standard Specifications Subsections 501.048, Prefabricated Pile Tips and 711.10, H-Beam Piles, Splices and Tips.
5. Piles shall be driven to a minimum tip elevation of 1130 (Abutment 1), 1120 (Abutment 2) or deeper in accordance with Standard Specification Section 501.
6. Piles shall not be out of position shown by more than 2 inches in any direction.
7. Cobbles and boulders may be encountered at either of the proposed abutment locations and impede pile driving operations. If obstructions are encountered prior to reaching the minimum tip, then they may be cleared by preaugering, predrilling, down-hole hammers or by conventional excavation methods for near surface obstructions. Alternative methods to clear obstructions may be used as approved by the Resident. Removal of obstructions, cobbles and boulders shall be made incidental to related Contract Items.
8. The Contractor shall perform and submit 2 wave equation analyses, 1 at each abutment, 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. Approval of the proposed driving equipment by the Department will be based on Department-conducted wave equation analyses and the criteria in Section 501 of the Standard Specifications.
9. The Contractor shall perform 4 dynamic load tests, 2 at each abutment, with 24-hour (minimum) restrike tests to confirm the nominal resistance of the piles. The dynamic pile load test at each abutment will be completed on the first production pile driven and the second test is at the direction of the Resident. The required nominal resistance for the pile is the factored axial pile load divided by a resistance factor of 0.65 per LRFD Specifications.

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00
BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF\MY\NB	TL\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

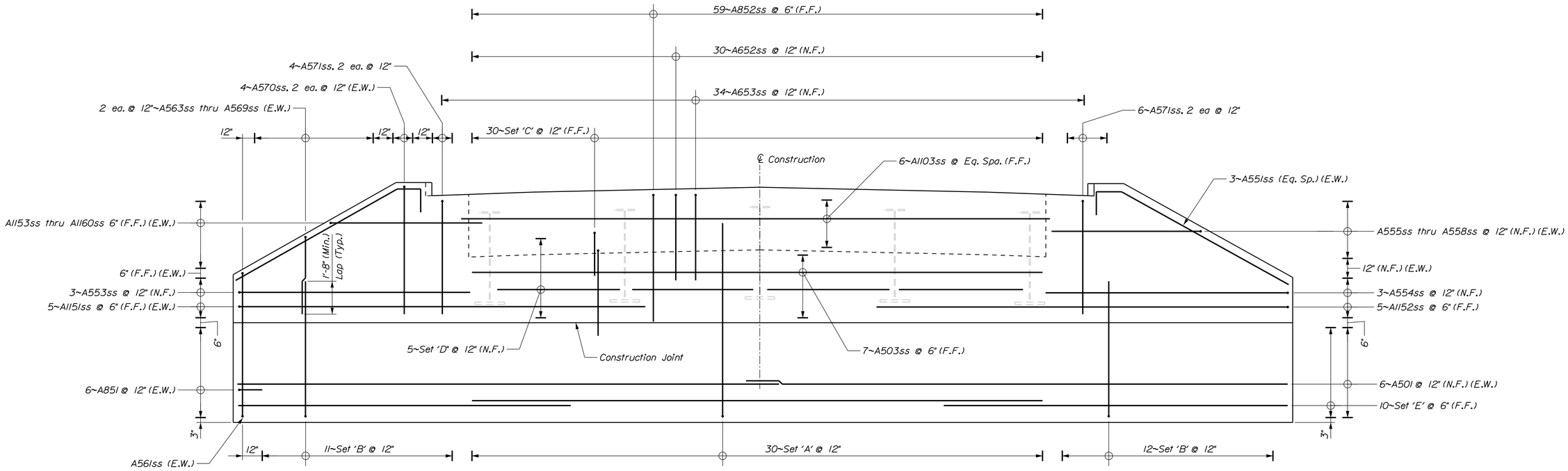
DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

ABUTMENT NO. 1
PLAN AND ELEVATION

SHEET NUMBER
21
OF 41

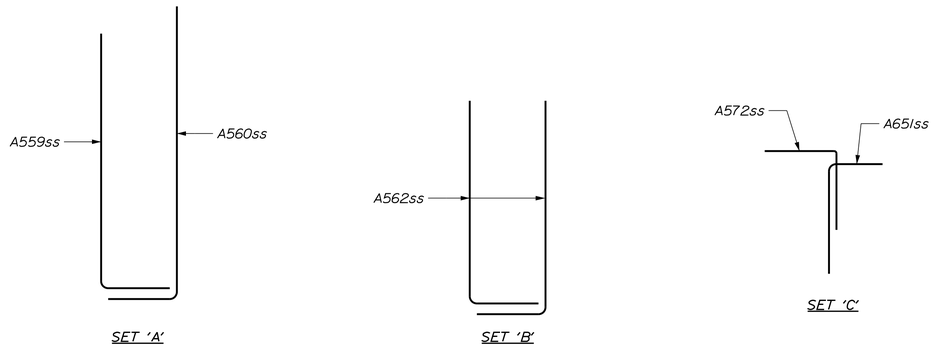
Filename: ...\MSTA\021_Abutment_No1-Plan.dgn Username: LindoT Division: BRIDGE Date:7/9/2021



ABUTMENT NO. 1 REINFORCEMENT ELEVATION

LEGEND:

N.F. = Near Face
F.F. = Far Face
E.F. = Each Face
E.W. = Each Wingwall
Eq. Sp. = Equal Space



ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT		
DESIGN-DETAILED	EF\MY\NB	BY	DATE
CHECKED-REVIEWED	C. SICHAK	TL\RP	6\2021
DESIGN2-DETAILED2		C. SICHAK	6\2021
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

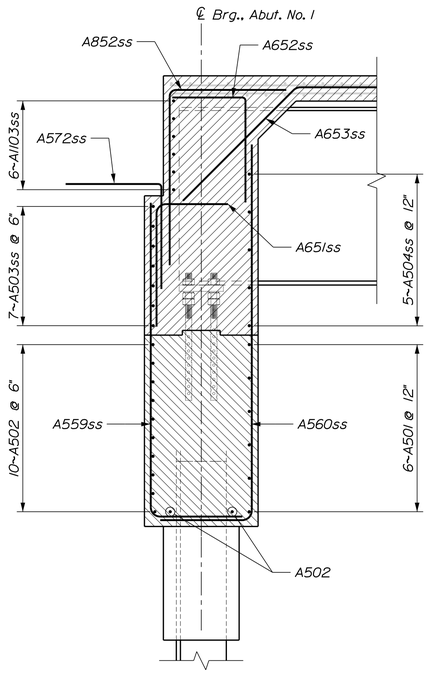
ABUTMENT NO. 1
REINFORCING

SHEET NUMBER

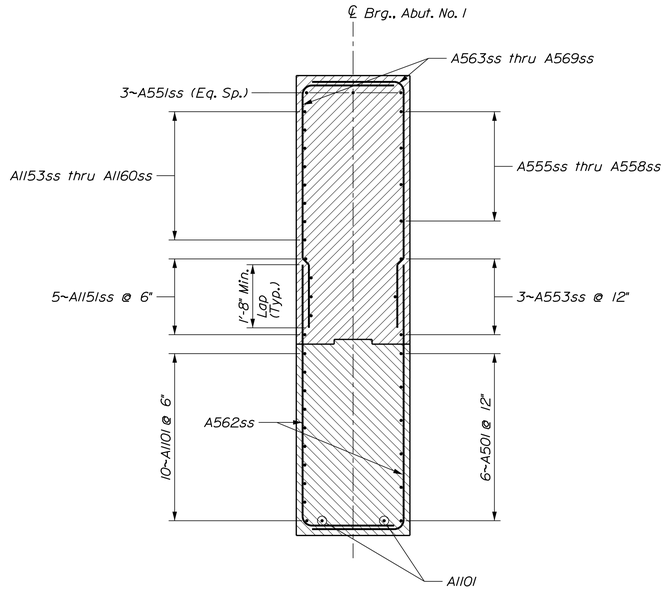
22

OF 41

Filename: ...\022_Abutment_No1-Reinforcement.dgn Division: BRIDGE Username: LindoT Date:7/9/2021



ABUTMENT NO. 1 SECTION A-A



ABUTMENT NO. 1 WINGWALL SECTION B-B

Filename: ...\023_Abutment_No1-Sections.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
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DESIGN3-DETAILED3			
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FIELD CHANGES			

SIGNATURE

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DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

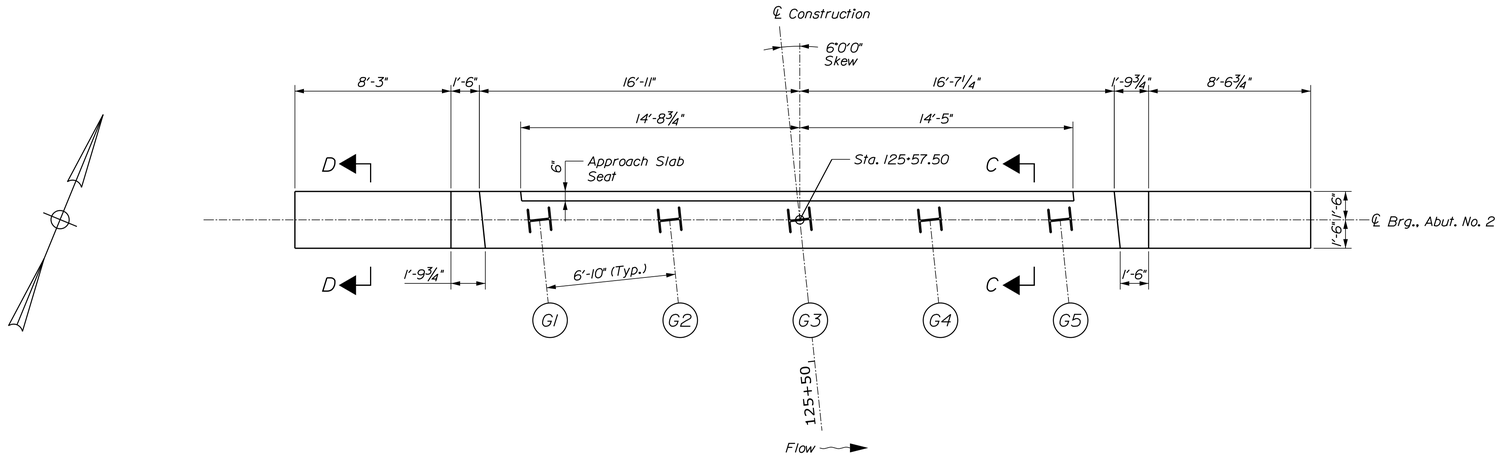
ABUTMENT NO. 1
SECTIONS

SHEET NUMBER

23

OF 41

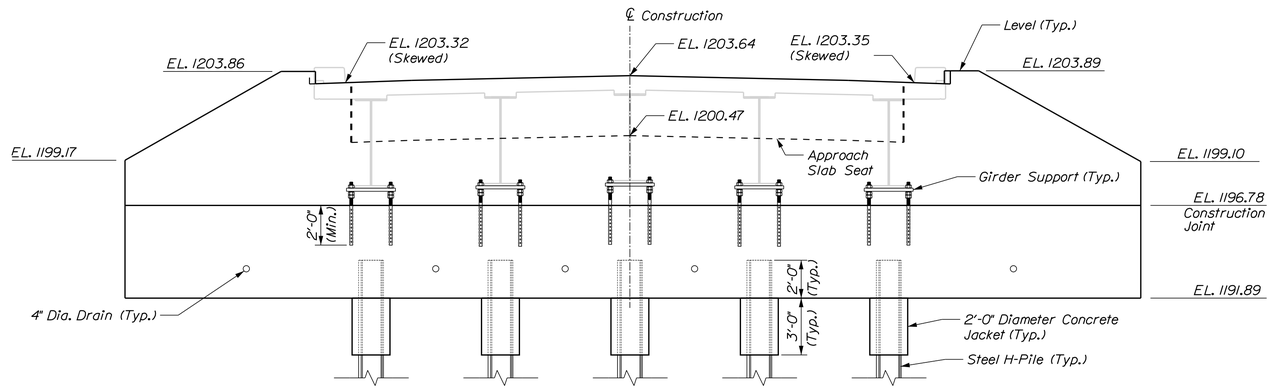
ERDMAN ANTHONY



ABUTMENT NO. 2 PLAN

ABUTMENT NOTES

1. See Sheet No. 26 for SECTION C-C and SECTION D-D.



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

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BRIDGE NO. 3265

BRIDGE PLANS

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ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

ABUTMENT NO. 2 PLAN AND ELEVATION

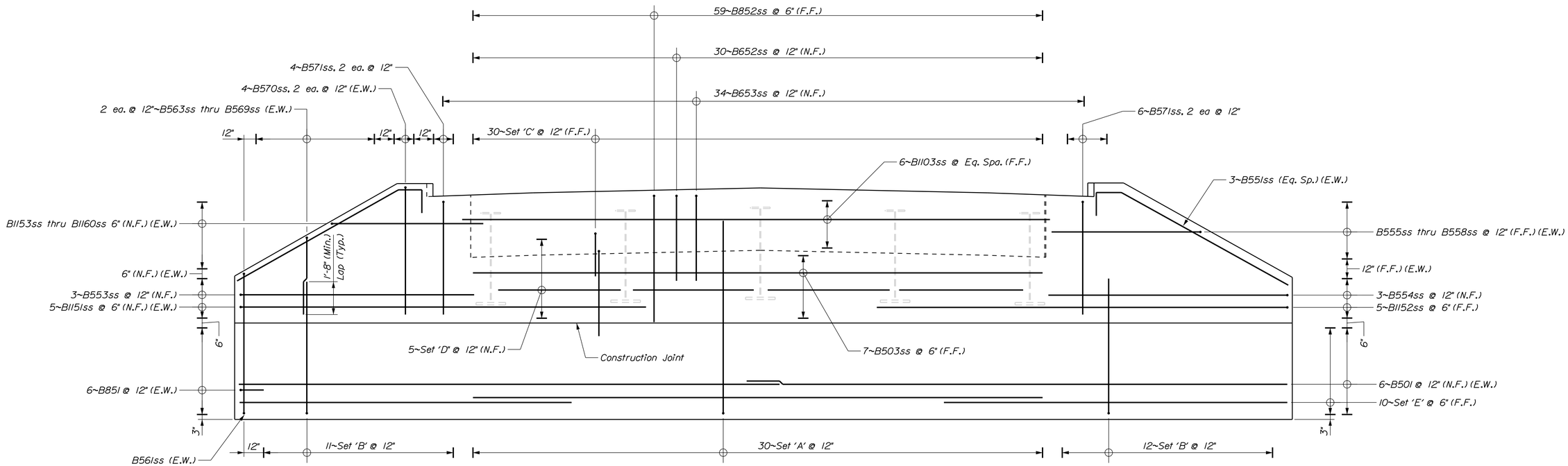
SHEET NUMBER

24

OF 41

ERDMAN ANTHONY

Filename: ...\MSTA\024_Abutment_No2-Plan.dgn Division: BRIDGE Username: LindaT Date:7/9/2021



ABUTMENT NO. 2 REINFORCEMENT ELEVATION

LEGEND:

N.F. = Near Face
F.F. = Far Face
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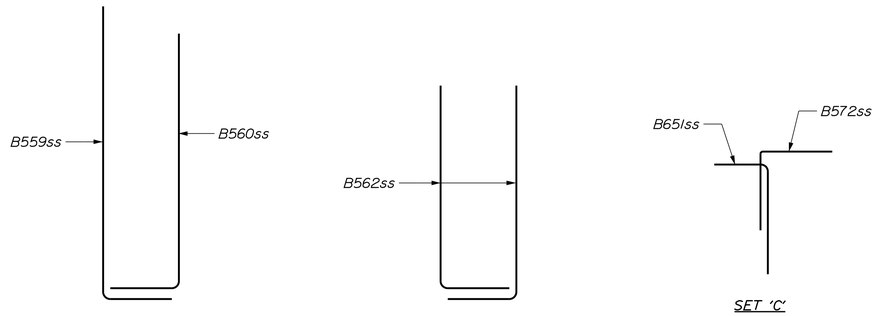
E.W. = Each Wingwall
Eq. Sp. = Equal Space



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
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DESIGN3-DETAILED3			
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FIELD CHANGES			

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ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

ABUTMENT NO. 2 REINFORCING

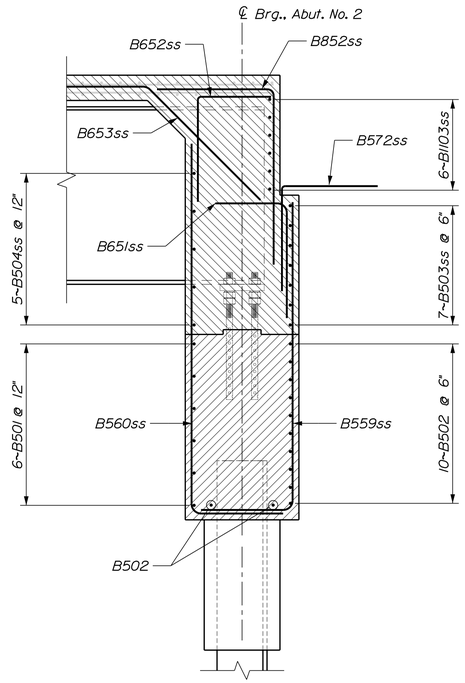
SHEET NUMBER

25

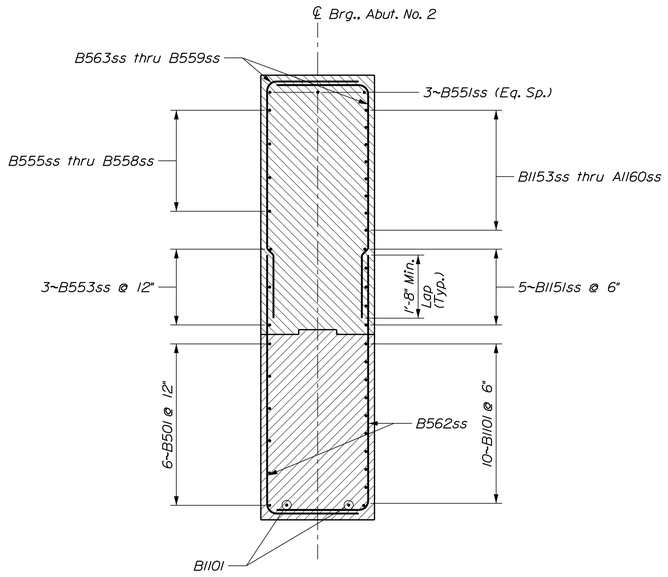
OF 41

ERDMAN ANTHONY

Filename: ...\025_Abutment_No2-Reinforcement.dgn Division: BRIDGE Username: LindoT Date:7/9/2021



ABUTMENT NO. 2 SECTION C-C



ABUTMENT NO. 2 WINGWALL SECTION D-D

Username: LindoT Date:7/9/2021

Filename: ...\026_Abutment_No2-Sections.dgn Division: BRIDGE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

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BRIDGE NO. 3265 BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF\MFV\MB	TLV\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

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DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

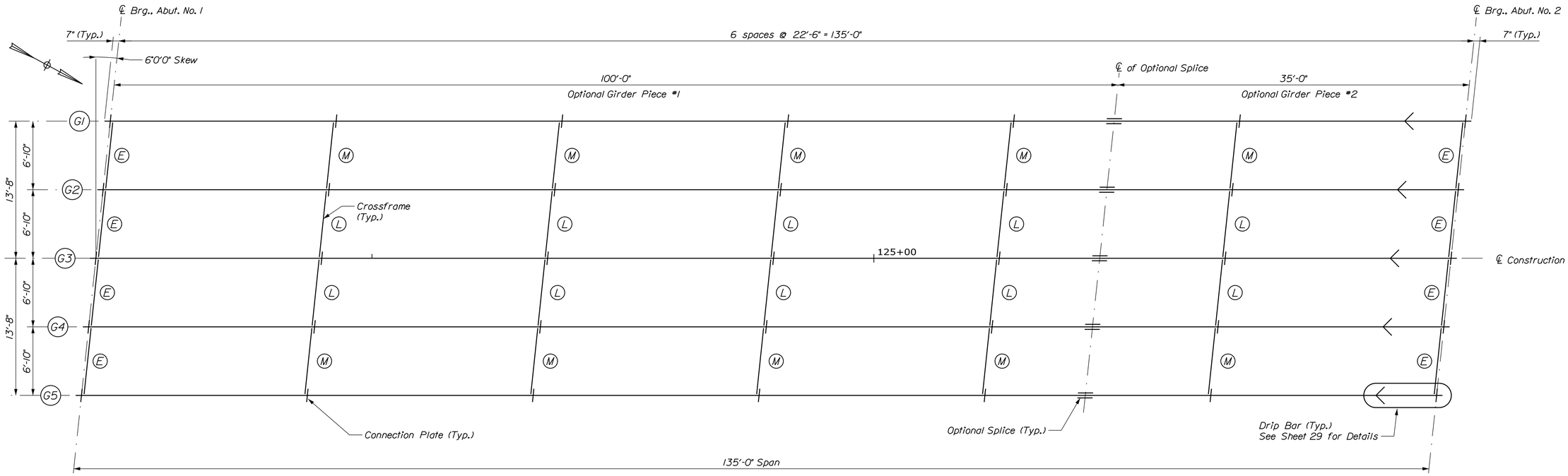
ABUTMENT NO. 2
SECTIONS

SHEET NUMBER

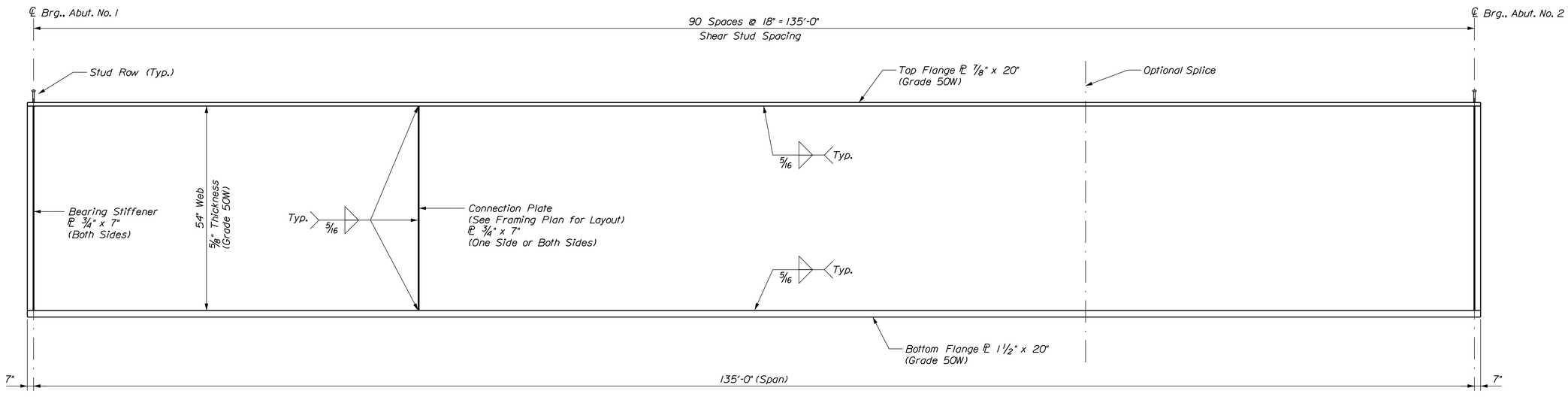
26

OF 41

ERDMAN ANTHONY



FRAMING PLAN



BEAM ELEVATION AND STUD LAYOUT

182 Studs per Girder (910 Studs Total)

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT		
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REVISIONS 2			
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REVISIONS 4			
FIELD CHANGES			

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P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

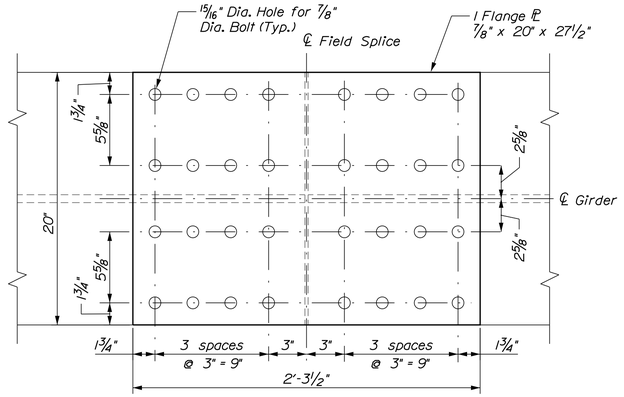
FRAMING PLAN

SHEET NUMBER

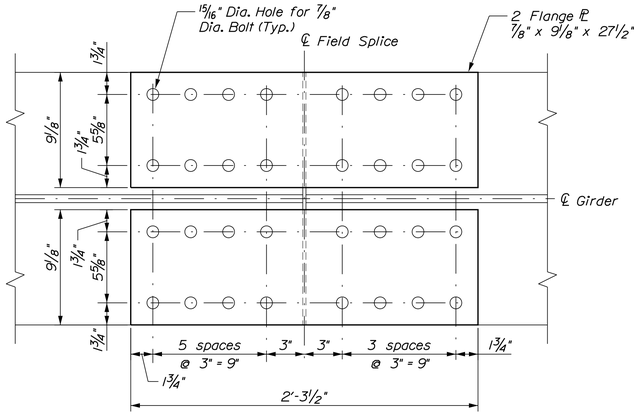
27

OF 41

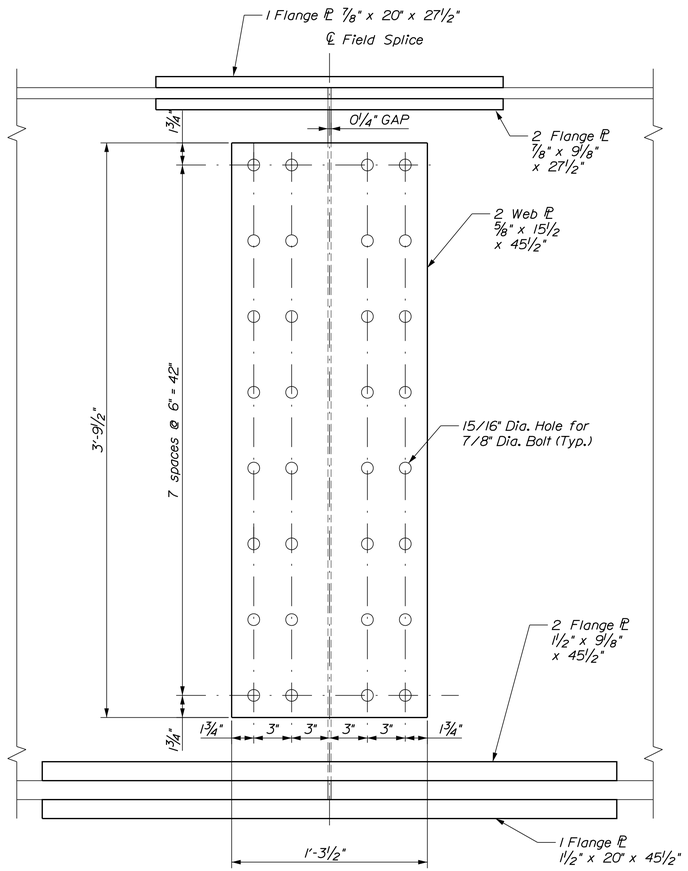
Filename: ...\00\Bridge\MSTA\027_Framing.dgn Division: BRIDGE Username: LindoT Date:7/9/2021



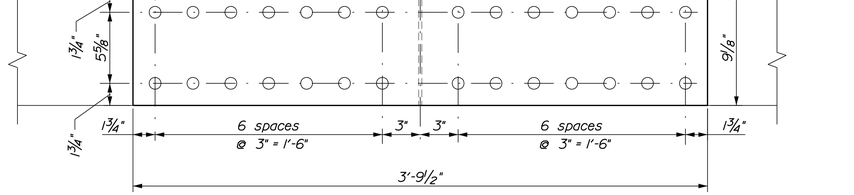
TOP SPLICE PLATE OUTSIDE



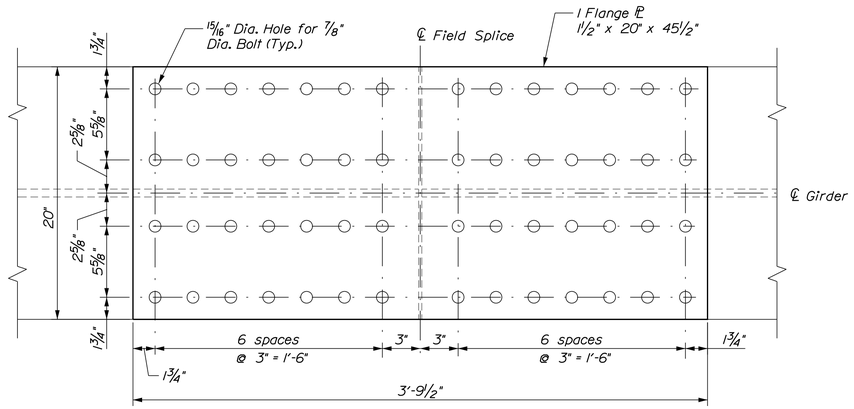
TOP SPLICE PLATE INSIDE



SPLICE ELEVATION VIEW



BOTTOM SPLICE PLATE INSIDE



BOTTOM SPLICE PLATE OUTSIDE

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 points of maximum negative moment or maximum positive moment. Butt weld splices in flanges shall be not less than one foot from transverse butt welds in the web plates and no transverse web or flange butt welds shall be located within one foot of other transverse welds (e.g. connection plates to web welds) on either flange or web. No transverse butt weld splices will be allowed in areas of stress reversal.
3. Sections of flange plates or web plates between transverse shop splices or between a transverse shop splice and a field splice shall be at least 10 feet in length unless otherwise shown on the Plans.
4. Bearing stiffeners shall be plumb after erection and dead loading of the structure. Intermediate web stiffeners may be either plumb or normal to the top flange.
5. Crossframe or diaphragm connection plates may be either plumb or normal to the top flange.
6. Girder ends and diaphragms or cross frames within 10 feet of the centerline of bearing at the abutments shall be coated with a Zinc Rich Coating System, in accordance with Standard Specifications Section 506, Shop Applied Protective Coating - Steel. The color shall be Federal Standard 595B, Color No. 30045 (Brown). NEPCOAT Qualified Products List C may be used.
7. After placement of the superstructure concrete, thoroughly clean the abutments of all stains with a method approved by the Resident. Payment will be considered incidental to related Contract items.
8. Provide a "drip bar" on the high side of each abutment on all girders in accordance with the Standard Details, Section 504.
9. Structural steel was designed with a vertical construction load of 50 lb/sf and a lateral wind velocity of 115 mph.
10. Bolted field splice connections shall be made using 7/8" diameter ASTM F3125, Grade A325 high strength bolts. Bolt hole size shall be 15/16" diameter. Field splice bolt threads shall be excluded from the shear plane.
11. Bolted diaphragms or cross frame connections shall be made using 7/8" diameter, ASTM F3125, Grade A325 Type 3 H.S. bolts. Hole size shall be 15/16" diameter. The minimum edge distance shall be 1½" unless otherwise shown. Oversized or short-slotted holes are not permitted. Bolt threads shall be excluded from the shear plane of cross frame or diaphragms connections.
12. Ends of girder webs shall be vertical under full dead load.
13. Girder bearing assemblies will be paid for under the structural steel items.

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

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BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT		
DESIGN-DETAILED	EF\MY\NB	TL\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2	EF\MY\NB		
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BY | DATE

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

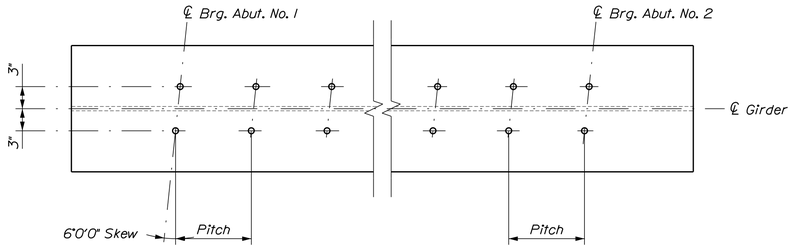
STRUCTURAL STEEL DETAILS (1 OF 2)

SHEET NUMBER

28

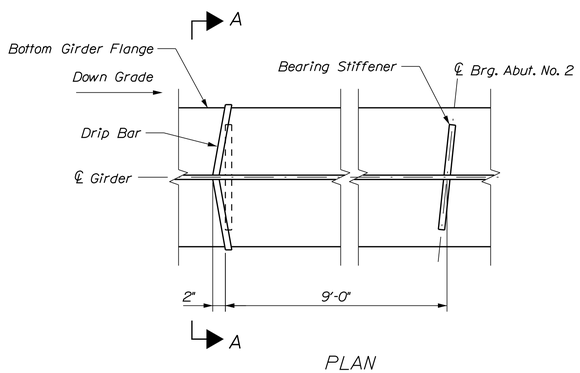
OF 41

Filename: ...\028_StrucuralSteel-Detoils-1.dgn Division: BRIDGE Username: LindoT Date:7/9/2021

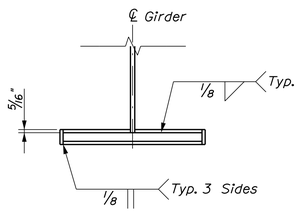


Note:
1. See Girder Elevation on Sheet No. 28 for shear connector pitch.

STUD LAYOUT PLAN



PLAN



SECTION A-A

DRIP BAR DETAIL
(Abutment No. 2 Typical)

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

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BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
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FIELD CHANGES			

SIGNATURE

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DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

STRUCTURAL STEEL DETAILS
(2 OF 2)

SHEET NUMBER

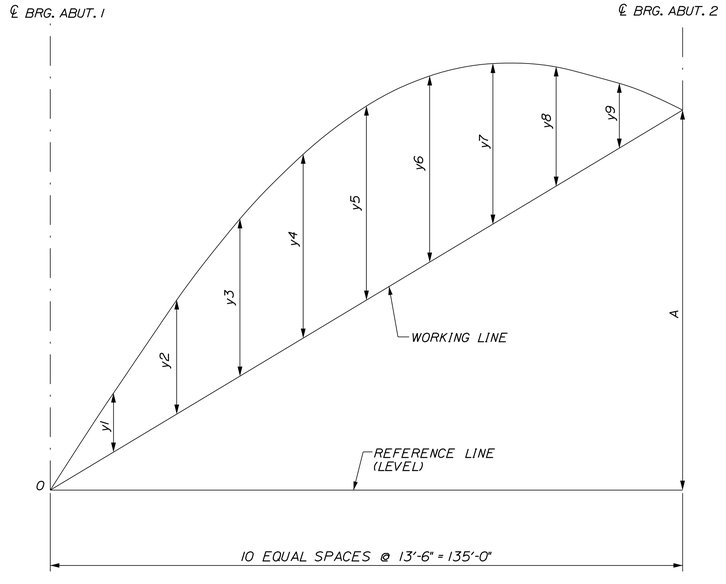
29

OF 41

Filename: ...\029_StrucuralSteel-Details-2.dgn Division: BRIDGE Username: LindoT Date:7/9/2021

Bottom of Slab Elevations (w/ Deflections)											
	CL BRG. ABUT. 1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	CL BRG. ABUT. 2
G1	1203.287	1204.134	1204.867	1205.431	1205.753	1205.844	1205.638	1205.168	1204.482	1203.606	1202.617
G2	1203.423	1203.433	1203.433	1203.419	1203.384	1203.330	1203.251	1203.151	1203.032	1202.897	1202.753
G3	1203.560	1203.570	1203.571	1203.558	1203.523	1203.469	1203.390	1203.289	1203.169	1203.034	1202.890
G4	1203.423	1203.435	1203.436	1203.424	1203.389	1203.335	1203.256	1203.155	1203.034	1202.898	1202.753
G5	1203.287	1203.300	1203.303	1203.291	1203.257	1203.203	1203.124	1203.022	1202.900	1202.763	1202.617

Table of Camber Ordinates Per Span ("COS") (in)											
	CL BRG. ABUT. 1	y1	y2	y3	y4	y5	y6	y7	y8	y9	CL BRG. ABUT. 2
G1	0.000	1.492	2.806	3.838	4.474	4.731	4.501	3.838	2.823	1.497	0.000
G2	0.000	1.495	2.813	3.853	4.486	4.743	4.510	3.845	2.827	1.494	0.000
G3	0.000	1.507	2.830	3.881	4.512	4.767	4.535	3.865	2.834	1.500	0.000
G4	0.000	1.521	2.853	3.914	4.550	4.804	4.573	3.896	2.851	1.511	0.000
G5	0.000	1.546	2.888	3.953	4.606	4.856	4.623	3.944	2.883	1.534	0.000



CAMBER DIAGRAM

(Interior Shown, Exterior Similar. See tables above)

Table of Camber Dimensions (ft)	
Girder	A
G1	-0.670
G2	-0.670
G3	-0.670
G4	-0.670
G5	-0.670

CAMBER & DEFLECTION NOTES

1. Camber ordinates, as shown, are computed to compensate for all dead load deflections and for the curvature of the finished grade profile.

ERDMAN ANTHONY

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DEPARTMENT OF TRANSPORTATION

23104.00

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ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

CAMBER DIAGRAM

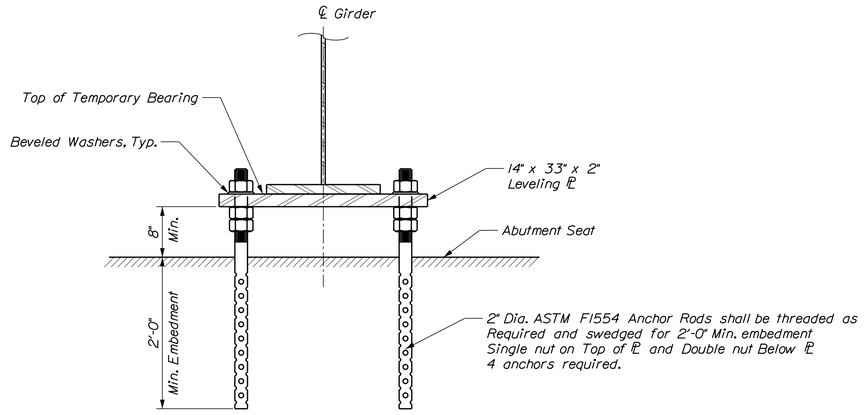
SHEET NUMBER

30

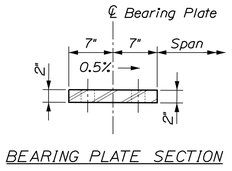
OF 41

Filename: ...\00\Bridge\MSTA\030_Camber.dgn Username: LindoT Division: BRIDGE Date:7/9/2021

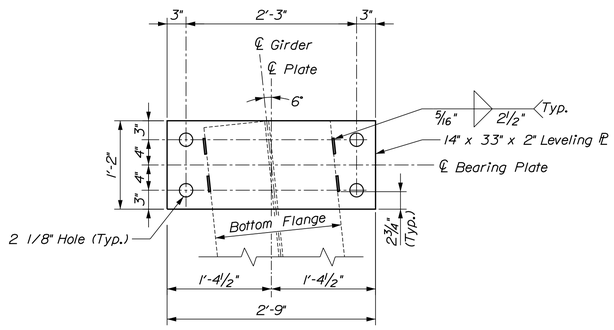
Top of Temporary Bearings (ft.)		
Girder	Abutment No. 1	Abutment No. 2
G1	1198.38	1197.71
G2	1198.52	1197.85
G3	1198.65	1197.98
G4	1198.52	1197.85
G5	1198.38	1197.71



BEARING ASSEMBLY ELEVATION



BEARING PLATE SECTION



BEARING PLATE PLAN

BEARING ASSEMBLY DETAILS

Filename: ...\MSTA\031_Bearing Details.dgn Division: BRIDGE Username: LindoT Date:7/9/2021

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

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BRIDGE NO. 3265 BRIDGE PLANS

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ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

BEARING DETAILS

SHEET NUMBER

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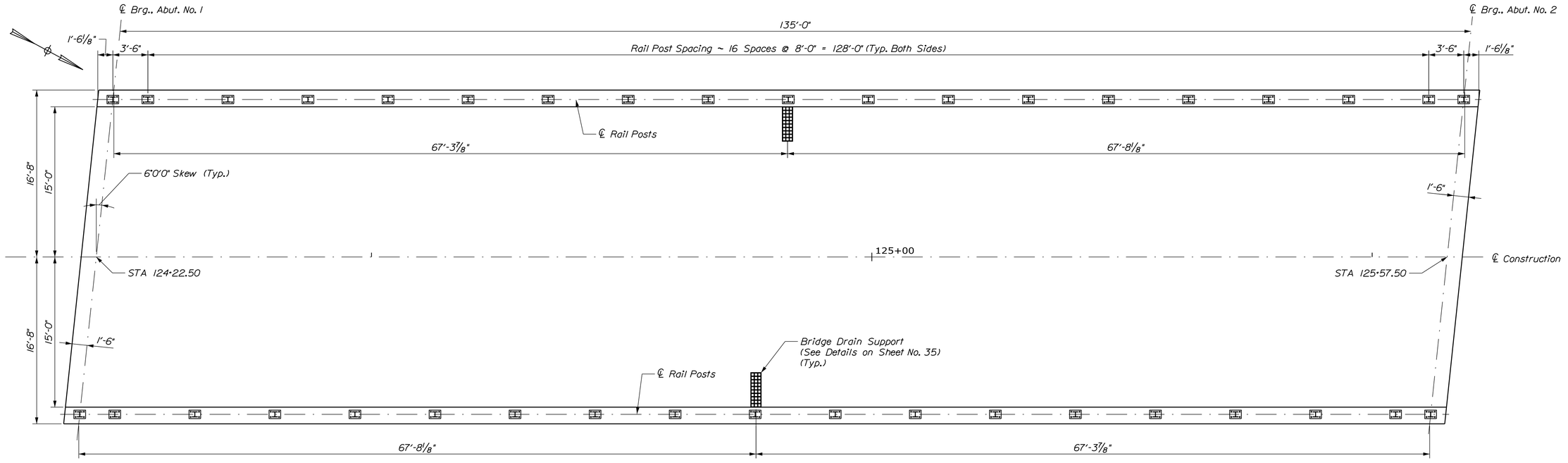
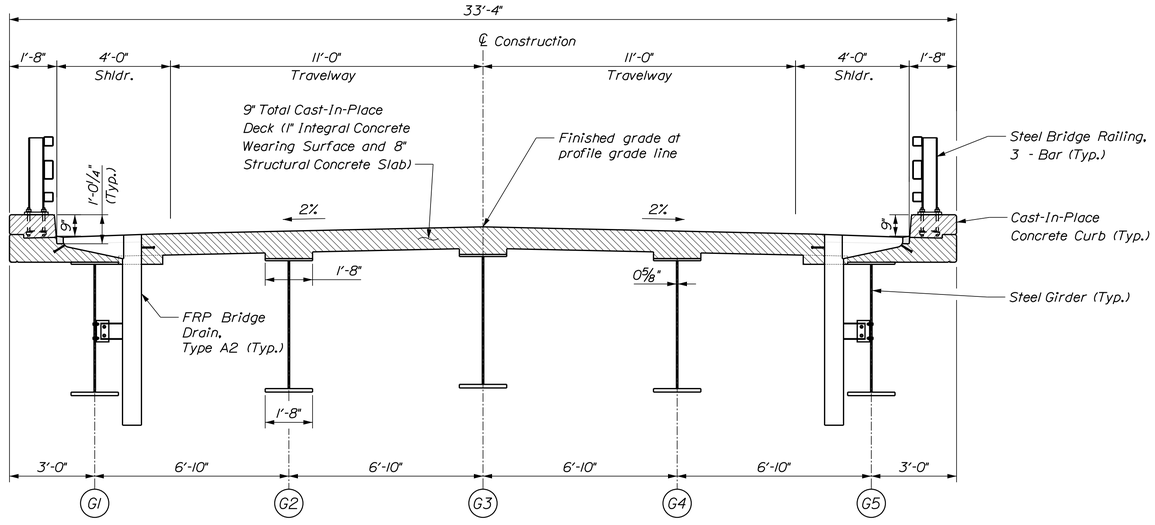
OF 41

ERDMAN ANTHONY



SUPERSTRUCTURE PLAN



TRANSVERSE SECTION

SUPERSTRUCTURE NOTES

1. The theoretical blocking used for design of the structure is 2½ inches at the centerline of bearing of the abutments. Refer to Standard Detail 502(03) for blocking details.
2. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
3. Form a one-inch V-groove on the fascias at the horizontal joint between the curb and slab.
4. The superstructure slab concrete for each span shall be placed in one continuous operation and shall be kept plastic until the entire placement has been made.
5. The use of Precast Concrete Deck Panels will not be allowed on this project.

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF\MY\NB	TLV\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

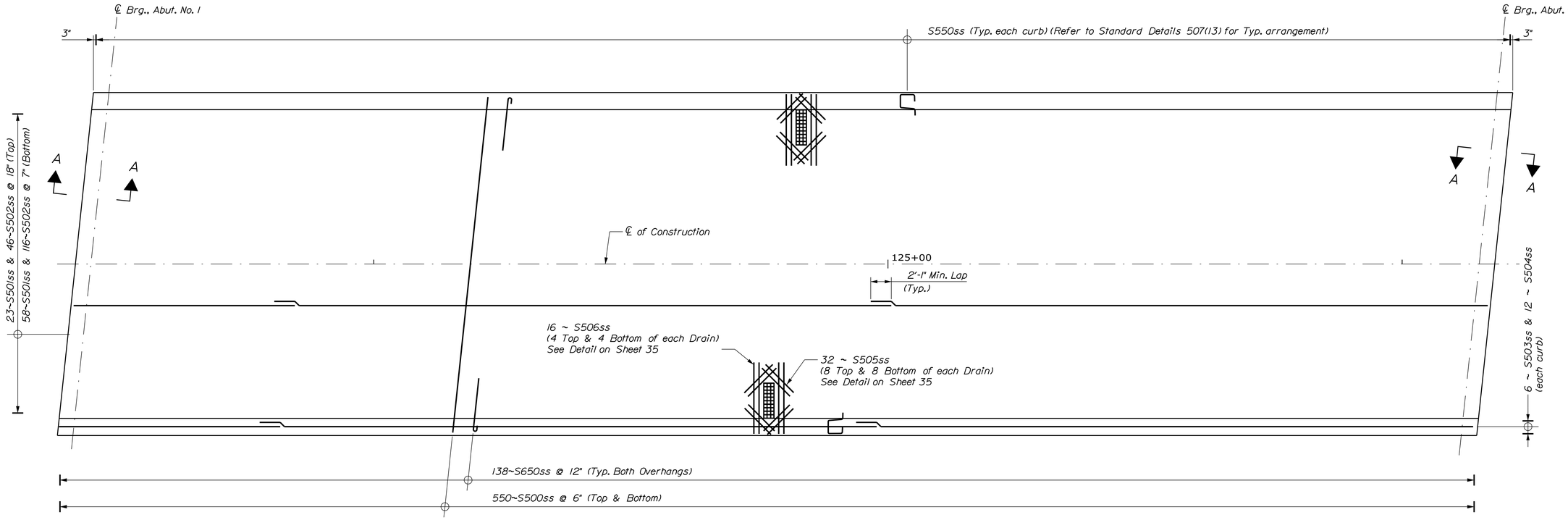
SUPERSTRUCTURE

SHEET NUMBER

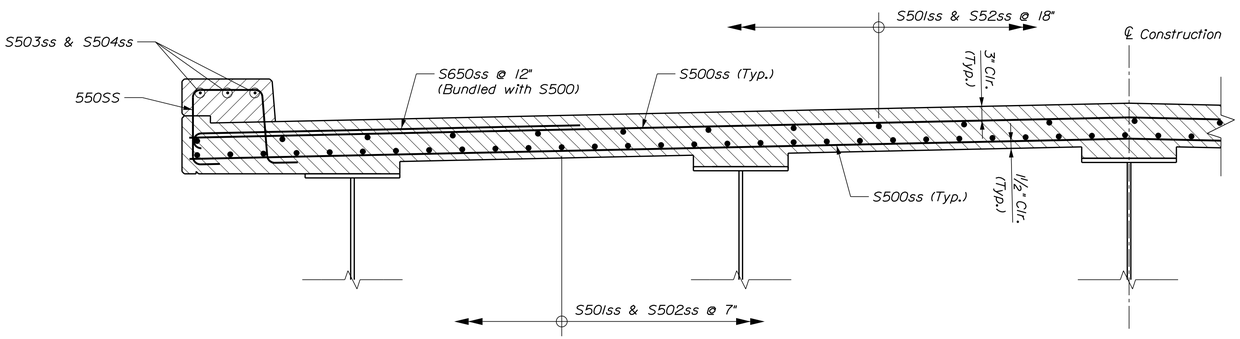
32

OF 41

Filename: ...\MSTA\032_Superstructure.dgn Division: BRIDGE Username: LindoT Date:7/9/2021

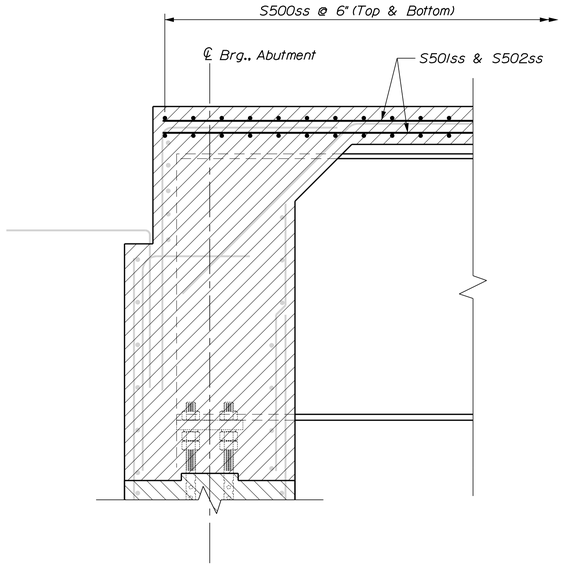


SUPERSTRUCTURE REINFORCING PLAN



PARTIAL TRANSVERSE REINFORCING SECTION

Symmetrical about ℄ Construction



SECTION A-A

Note: Abutment reinforcing shown screened for clarity

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF\MW\NB	TLV\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

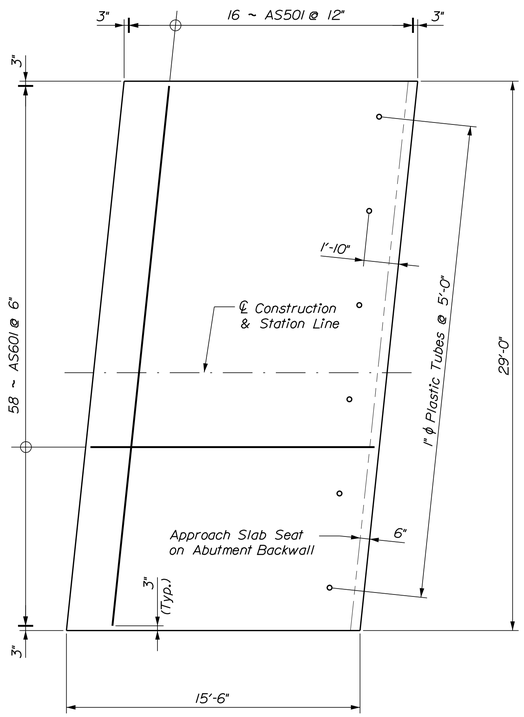
SUPERSTRUCTURE REINFORCING

SHEET NUMBER

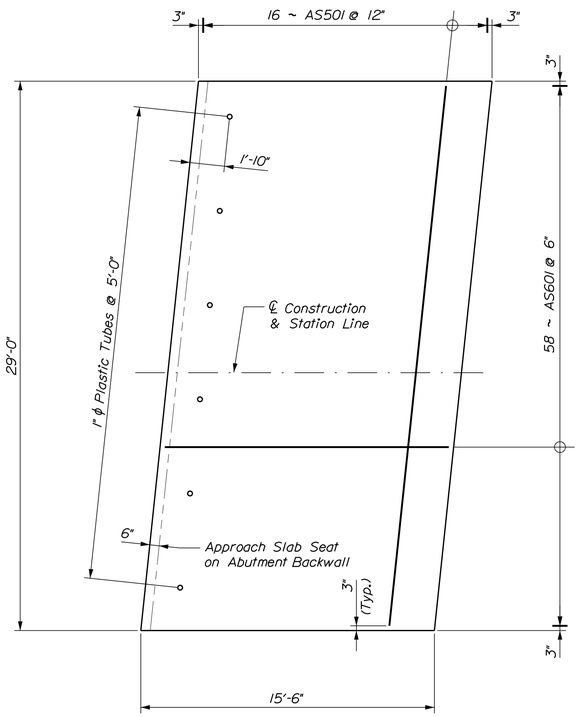
33

OF 41

Filename: ...\033_Superstructure Rebar.dgn Division: BRIDGE Username: LindoT Date:7/9/2021

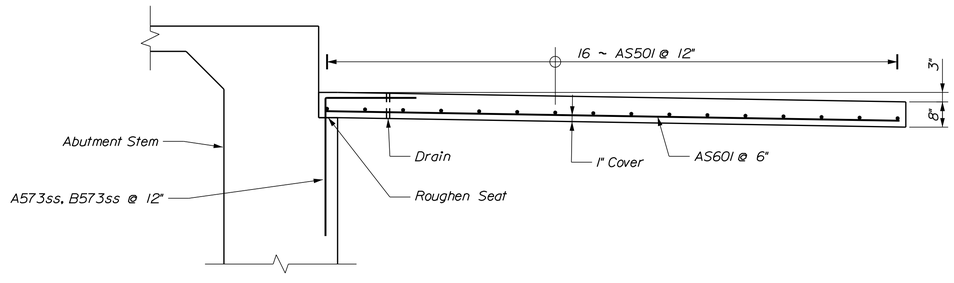


SOUTH APPROACH



NORTH APPROACH

APPROACH SLAB REINFORCEMENT PLAN



CONCRETE APPROACH SLAB SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF\MPV\MB	TL\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

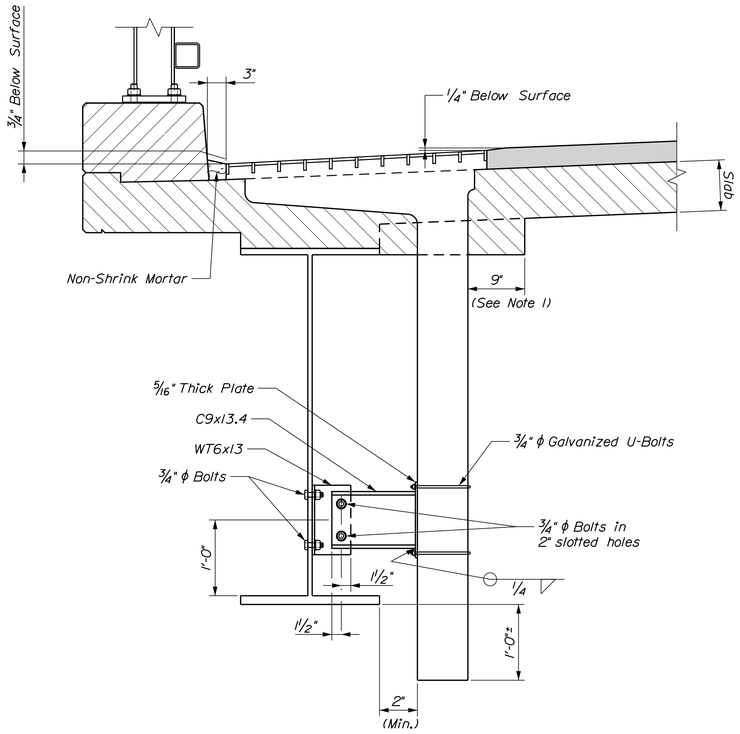
APPROACH SLAB DETAILS

SHEET NUMBER

34

OF 41

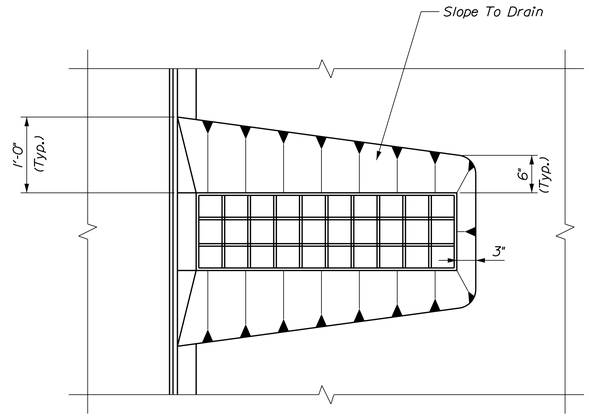
ERDMAN ANTHONY



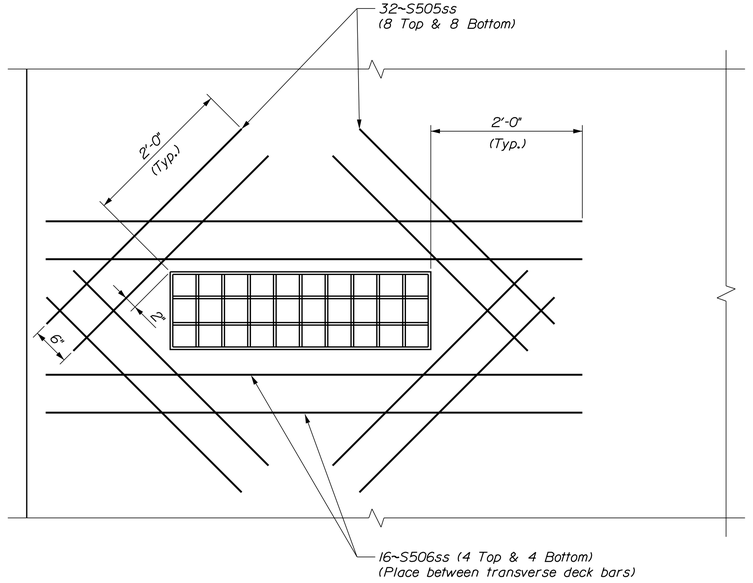
BRIDGE DRAIN - TYPE A2 - ELEVATION AT CURB

NOTE:

1. If the minimum thickness of concrete below the drain pan is 2 inches or less, the concrete shall be thickened as shown.



BRIDGE DRAIN - PLAN



DECK DRAIN REINFORCING PLAN

Deck reinforcement not shown for clarity

Note: Cut Longitudinal Bars and Transverse Bars as Necessary
(Top & Bottom)

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT		
DESIGN-DETAILED	EF\MW\NB	6\2021	
CHECKED-REVIEWED	C. SICHAK	6\2021	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

BRIDGE DRAIN DETAILS

SHEET NUMBER

35

OF 41

Filename: ...\MSTA\035_Bridge Drain.dgn Division: BRIDGE Username: LindoT Date:7/9/2021

STRAIGHT BARS

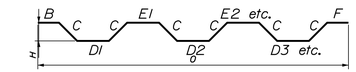
MARK	QTY.	LENGTH	LOCATION
ABUTMENT NO. 1 - PLAIN BAR			
A501	12	27'-5"	Abutment Horiz.
A502	12	27'-4"	Abutment Horiz.
A1101	12	20'-9"	Abutment Horiz.
A1102	12	21'-1"	Abutment Horiz.
ABUTMENT NO. 1 - STAINLESS STEEL			
A503ss	7	27'-4"	Abutment Horiz.
A504ss	20	6'-4"	Between Girders
A1103ss	6	29'-8"	Abutment
SUPERSTRUCTURE - STAINLESS STEEL			
S500ss	550	33'-0"	Transverse Deck
S501ss	81	20'-8"	Longitudinal Deck
S502ss	162	60'-0"	Longitudinal Deck
S503ss	6	20'-8"	Longitudinal Curb
S504ss	12	60'-0"	Longitudinal Curb
S505ss	32	3'-0"	Bridge Drain
S506ss	16	7'-0"	Bridge Drain
APPROACH SLAB - PLAIN BAR			
AS501	32	28'-8"	Approach Slab
AS601	116	15'-2"	Approach Slab

MARK	QTY.	LENGTH	LOCATION
ABUTMENT NO. 2 - PLAIN BAR			
B501	12	27'-5"	Abutment Horiz.
B502	12	27'-4"	Abutment Horiz.
B1101	12	20'-9"	Abutment Horiz.
B1102	12	21'-1"	Abutment Horiz.
ABUTMENT NO. 2 - STAINLESS STEEL			
B503ss	7	27'-4"	Abutment Horiz.
B504ss	20	6'-4"	Between Girders
B1103ss	6	29'-8"	Abutment

BENT BARS

MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
ABUTMENT NO. 1 - PLAIN BAR														
A851	6	5'-6"	S	0'-0"	1'-6"	2'-6"	1'-6"	0'-0"	-		-	-	-	Ends of Wingwall
ABUTMENT NO. 1 - STAINLESS STEEL														
A551ss	3	14'-2"	R	9'-3"	1'-2"	3'-9"	-	-	-	-	4'-6"	-	-	Parapet
A552ss	3	14'-5"	R	9'-6"	1'-2"	3'-9"	-	-	-	-	4'-7"	-	-	Parapet
A553ss	3	14'-11"	L	12'-5"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A554ss	3	15'-3"	L	12'-9"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A555ss	2	13'-3"	L	10'-9"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A556ss	2	11'-5"	L	8'-11"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A557ss	2	9'-8"	L	7'-2"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A558ss	2	7'-11"	L	5'-5"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A559ss	30	10'-8"	L	8'-2"	2'-6"	-	-	-	-	-	-	-	-	Abutment
A560ss	30	12'-4"	L	9'-10"	2'-6"	-	-	-	-	-	-	-	-	Abutment
A561ss	4	12'-0"	S	0'-0"	2'-6"	7'-0"	2'-6"	-	-	0'-0"	-	-	-	Wingwall
A562ss	46	9'-6"	L	7'-0"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A563ss	4	4'-11"	L	2'-5"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A564ss	4	5'-6"	L	3'-0"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A565ss	4	6'-1"	L	3'-7"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A566ss	4	6'-7"	L	4'-1"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A567ss	4	7'-2"	L	4'-8"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A568ss	4	7'-9"	L	5'-3"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A569ss	4	8'-3"	L	5'-9"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A570ss	8	9'-1"	L	6'-7"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A571ss	10	8'-6"	L	6'-0"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A572ss	30	4'-2"	L	2'-0"	2'-2"	-	-	-	-	-	-	-	-	Abut. To Approach Slab
A651ss	30	5'-7"	L	3'-5"	2'-2"	-	-	-	-	-	-	-	-	Abutment
A652ss	30	5'-6"	L	3'-6"	2'-0"	-	-	-	-	-	-	-	-	Abutment
A653ss	34	7'-2"	V	-	-	-	3'-0"	4'-2"	-	-	3'-0"	-	-	Angle @ Abut. To Deck
A852ss	59	8'-2"	L	5'-2"	3'-0"	-	-	-	-	-	-	-	-	Abutment to Deck
A1151ss	5	23'-3"	L	20'-9"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A1152ss	5	23'-7"	L	21'-1"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A1153ss	2	22'-5"	L	19'-11"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A1154ss	2	21'-6"	L	19'-0"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A1155ss	1	11'-4"	L	8'-10"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A1156ss	1	10'-6"	L	8'-0"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A1157ss	1	9'-7"	L	7'-1"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A1158ss	1	8'-9"	L	6'-3"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A1159ss	1	7'-10"	L	5'-4"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
A1160ss	1	6'-11"	L	4'-5"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
SUPERSTRUCTURE - STAINLESS STEEL														
S550ss	390	5'-8"	S	0'-10"	1'-4"	1'-4"	1'-4"	-	-	0'-10"	-	-	-	Curb Stirrup
S650ss	276	6'-11"	C	0'-8"	6'-3"	0'-0"	-	-	-	-	-	-	-	Deck Overhang

TYPE - BENDING DIAGRAMS



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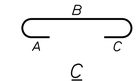

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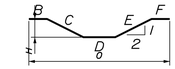

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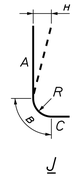

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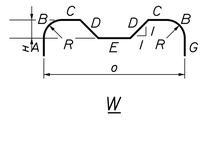

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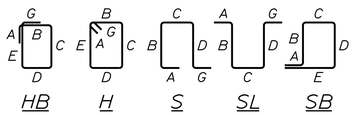
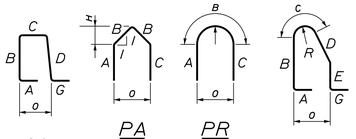
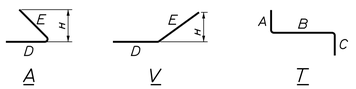
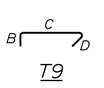






A V T



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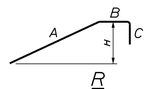


R

All dimensions are out-to-out of bar.

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

Reinforcing Bar: ASTM A 955, Grade 75

GENERAL NOTES

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

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

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

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE PLANS

BRIDGE NO. 3265

	BY	DATE
PROJ. MANAGER	MICHAEL WIGHT	
DESIGN-DETAILED	EF.WY.NB	6\2021
CHECKED-REVIEWED	C. SICHAK	6\2021
DESIGN2-DETAILED2	C. SICHAK	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

REINFORCING SCHEDULE (1 of 2)

SHEET NUMBER

36

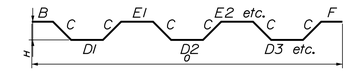
OF 41

Filename: ...\MSTA\036_Rebar Schedule-1.dgn Division: BRIDGE Username: LindoT Date:7/9/2021

BENT BARS

MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
							ABUTMENT NO. 2 - PLAIN BAR							
B851	6	5'-6"	S	0'-0"	1'-6"	2'-6"	1'-6"	-	-	0'-0"	-	-	-	Ends of Wingwall
							ABUTMENT NO. 2 - STAINLESS STEEL							
B551ss	3	14'-2"	R	9'-3"	1'-2"	3'-9"	-	-	-	-	4'-7"	-	-	Parapet
B552ss	3	14'-6"	R	9'-7"	1'-2"	3'-9"	-	-	-	-	4'-8"	-	-	Parapet
B553ss	3	14'-11"	L	12'-5"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B554ss	3	15'-3"	L	12'-9"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B555ss	2	13'-3"	L	10'-9"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B556ss	2	11'-6"	L	9'-0"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B557ss	2	9'-9"	L	7'-3"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B558ss	2	7'-11"	L	5'-5"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B559ss	30	10'-6"	L	8'-0"	2'-6"	-	-	-	-	-	-	-	-	Abutment
B560ss	30	12'-3"	L	9'-9"	2'-6"	-	-	-	-	-	-	-	-	Abutment
B561ss	4	11'-11"	S	0'-0"	2'-6"	6'-11"	2'-6"	-	-	0'-0"	-	-	-	Wingwall
B562ss	46	9'-5"	L	6'-11"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B563ss	4	5'-0"	L	2'-6"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B564ss	4	5'-6"	L	3'-0"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B565ss	4	6'-1"	L	3'-7"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B566ss	4	6'-8"	L	4'-2"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B567ss	4	7'-3"	S	4'-9"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B568ss	4	7'-9"	L	5'-3"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B569ss	4	8'-4"	L	5'-10"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B570ss	8	8'-11"	L	6'-5"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B571ss	10	8'-6"	L	6'-0"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B572ss	30	4'-2"	L	2'-0"	2'-2"	-	-	-	-	-	-	-	-	Abut. To Approach Slab
B651ss	30	5'-7"	L	3'-5"	2'-2"	-	-	-	-	-	-	-	-	Abutment
B652ss	30	5'-6"	L	3'-6"	2'-0"	-	-	-	-	-	-	-	-	Abutment
B653ss	34	7'-2"	V	-	-	-	3'-0"	4'-2"	-	-	3'-0"	-	-	Angle @ Abut. To Deck
B852ss	59	8'-2"	L	5'-2"	3'-0"	-	-	-	-	-	-	-	-	Abutment to Deck
B1151ss	5	23'-3"	L	20'-9"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B1152ss	5	23'-7"	L	21'-1"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B1153ss	2	22'-5"	L	19'-11"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B1154ss	2	21'-6"	L	19'-0"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B1155ss	1	11'-4"	L	8'-10"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B1156ss	1	10'-5"	L	7'-11"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B1157ss	1	9'-7"	L	7'-1"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B1158ss	1	8'-8"	L	6'-2"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B1159ss	1	7'-9"	L	5'-3"	2'-6"	-	-	-	-	-	-	-	-	Wingwall
B1160ss	1	6'-11"	L	4'-5"	2'-6"	-	-	-	-	-	-	-	-	Wingwall

TYPE - BENDING DIAGRAMS



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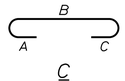

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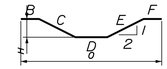

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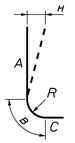

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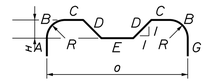
L



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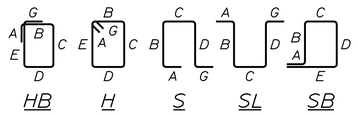
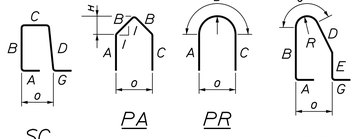
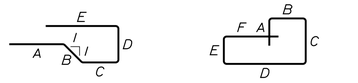
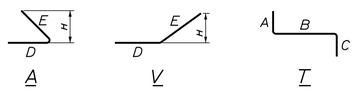
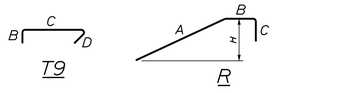










All dimensions are out-to-out of bar.

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

Reinforcing Bar: ASTM A 955, Grade 75

GENERAL NOTES

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

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

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

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265

BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE	
DESIGN-DETAILED	EFM\YNB	TL\RP	6\2021	
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021	
DESIGN2-DETAILED2				
DESIGN3-DETAILED3				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

REINFORCING SCHEDULE (2 of 2)

SHEET NUMBER

37

OF 41

Filename: ...\MSTA\037_Rebar Schedule-2.dgn Division: BRIDGE Username: LindoT Date:7/9/2021

Filename: ...\Bridge\MSTA\038_DetourPlan.dgn Username: LindoT Date:7/9/2021 Division: BRIDGE

URSA MAJOR, LLC

EXISTING HIGHWAY DITCH DRAINAGE EASEMENT ACQUIRED AS PART OF S.H.C. FILE NO. 4-75

EXISTING SLOPE EASE. LIMITS

EXISTING CHANNEL DIVERSION LIMITS

EXISTING CHANNEL DIVERSION ACQUIRED AS PART OF S.H.C. FILE NO. 4-75

Flow

PC = STA. 127+09.48

CURVE DATA #2
PI = 134+70.26
D = 3°59'57.0"
Δ = 55°56'18.5" Lt.
R = 1432.69'
L = 1398.75'
T = 760.79'
E = 189.47'

EXISTING HIGHWAY DITCH DRAINAGE EASEMENT ACQUIRED AS PART OF S.H.C. FILE NO. 4-75

Temporary Stop Bar and Signals

1+00 N28°16'48.51"W 122+00 123+00 Rte. 27 124+00 125+00 126+00 127+00 CURVE #2 128+00

ROUTE 27 STATE HIGHWAY "41" THE ARNOLD TRAIL

EUSTIS

COLBURN GORE ⇨

Work Zone Crash Cushion (Typ.)

Temporary Barrier (Typ.)

EXISTING HIGHWAY DITCH DRAINAGE EASEMENT ACQUIRED AS PART OF S.H.C. FILE NO. 4-75

EXISTING CHANNEL DIVERSION ACQUIRED AS PART OF S.H.C. FILE NO. 4-75

One Lane Temporary Bridge (Contractor Designed)

Temporary Sheet Pile Wall (Typ.)

ALDER STREAM

EXISTING CHANNEL DIVERSION LIMITS

URSA MAJOR, LLC

URSA MAJOR, LLC

16'-0" (Min.)
Maintain One Way Travel Lane

DETOUR BRIDGE TRANSVERSE SECTION
SCALE: 1/4" = 1'-0"

PLAN

25 0 25 50
Scale of Feet

NOTE:
The intent of this drawing is to show a conceptual layout for the placement of the temporary detour features. Actual location for placement of the various features shall be determined by the Contractor and be in conformance with MaineDOT requirements.

ERDMAN ANTHONY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

WIN 23104.00

BRIDGE NO. 3265 BRIDGE PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF\MY\NB	TL\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

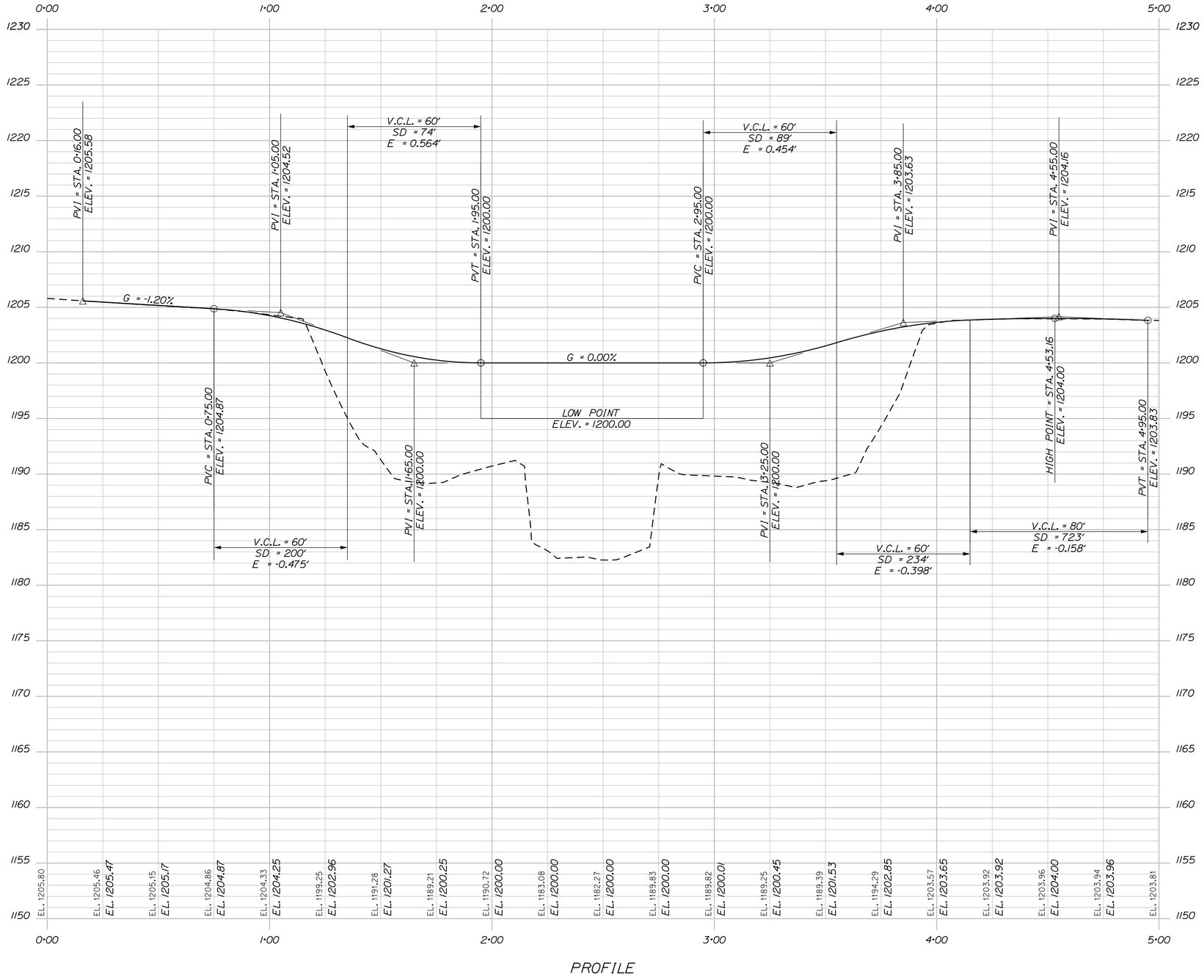
P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

SPECIAL DETOUR

SHEET NUMBER
38
OF 41



PROFILE

HOR. 25 0 25 50

VER. 5 0 5 10

Scale

NOTE:

The intent of this drawing is to show a conceptual layout for the placement of the temporary detour features. Actual location for placement of the various features shall be determined by the Contractor and be in conformance with MaineDOT requirements.

ERDMAN ANTHONY

Username: LindoT Date:7/9/2021

Filename: ...\MSTA\039_Profile-Detour.dgn Division: BRIDGE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23104.00

BRIDGE NO. 3265

WIN 23104.00

HIGHWAY PLANS

PROJ. MANAGER	MICHAEL WIGHT	BY	DATE
DESIGN-DETAILED	EF\MW\MB	TL\RP	6\2021
CHECKED-REVIEWED	C. SICHAK	C. SICHAK	6\2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ALDER STREAM BRIDGE
ALDER STREAM
JIM POND TWP FRANKLIN COUNTY

DETOUR PROFILE

SHEET NUMBER

39

OF 41

PLAN LEGEND

Town, County, State	New R/W Along Existing R/W		Existing	Proposed		Existing	Proposed
Approx. Property Lines P.L.	Building	Clearing Limit Line	Sanitary Sewer		Traveled Way		
Existing Right of Way	Trees Conifer	Deciduous	Telephone Line		Ditch		
Limits of Wrought Portion L.O.W.P.	Tree Line	Bush Line	Electric Line		Catch Basin		
Control Of Access C.O.A.	Water Edge		Water Line		Manhole		
New Right of Way	Ledge	Rock/Boulder Flag Pole	Underdrain Line		Sewer Manhole		
New Easement	Fence CHAIN LINK	BARB WIRE STOCKADE	Gas Line		Utility Pole		
New Temporary Rights	Sign	Well WELL Mailbox	Guardrail		Fire Hydrant		
New R/W Within Existing R/W			Culvert		Curbing		

Cut Line C—C—C Fill Line F—F—F
Stonewall Retaining Wall
Baseline 10+00 11+00 12+00
Monument Traverse Point
Iron Rod Found ● IRF Pipe Found ● IPF
Replacement Pin Set ⊙

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ABUTTING PROPERTY OWNERS.

25 0 25 50 75 100
Scale of Feet

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and
recorded in Plan Bk _____, Pg._____
Attest: _____
REGISTER

GRID NORTH
NAD83(2011) MAINE 2000 WEST ZONE
NAD83
COMBINED FACTOR 0.9999287064

URSA MAJOR, LLC
ITEM NO. (1)
SLOPE EASE. = 0.12± AC. (3)
TOTAL AREA = VAST ACREAGE

EXISTING SLOPE EASE. LIMITS
EXISTING SLOPE EASE. LIMITS
EXISTING SLOPE EASEMENT ACQUIRED AS PART OF S.H.C. FILE NO. 4-75, MAY 1961
EXISTING HIGHWAY DITCH DRAINAGE EASEMENT ACQUIRED AS PART OF S.H.C. FILE NO. 4-75 STA. 122+40 LT.
EXISTING SLOPE EASE. LIMITS
SLOPE EASE. LIMITS 251± S.F.
SLOPE EASE. LIMITS 1300± S.F.
SLOPE EASE. LIMITS 0.08± AC.
EXISTING CHANNEL DIVERSION LIMITS
EXISTING CHANNEL DIVERSION ACQUIRED AS PART OF S.H.C. FILE NO. 4-75
EXISTING CHANNEL DIVERSION LIMITS
SLOPE E
WET AREA
WET AREA
WET AREA
JOINT CMP 73 TDS 1000 ATTACH 98
JOINT CMP 72 TDS 1000 ATTACH 97
119+00 120+00 BEGIN B.L. 121+00 122+00 123+00 124+00 125+00
TO EUSTIS
NOTE: BASE LINE ESTABLISHED UNDER FEDERAL AID PROJECT NO. S-0237(8) 1961
ROUTE 27 STATE HIGHWAY "41" THE ARNOLD TRAIL
N28°16'48.5"W 609.48'
Old value 4.830sft
Old value 4.730sft
MOSTLY SOFTWOODS
4" BIRCH CLUMP
4" BIRCH CLUMP
10" PINE
EXISTING SLOPE EASEMENT ACQUIRED AS PART OF S.H.C. FILE NO. 4-75, MAY 1961
EXISTING SLOPE EASE. LIMITS
EXISTING SLOPE EASE. LIMITS
325± S.F. SLOPE EASE. LIMITS
EXISTING HIGHWAY DITCH DRAINAGE EASEMENT ACQUIRED AS PART OF S.H.C. FILE NO. 4-75 STA. 122+40 RT.
TEMP. ROAD LIMITS
0.21± AC.
EXISTING CHANNEL DIVERSION ACQUIRED AS PART OF S.H.C. FILE NO. 4-75
TEMP. ROAD LIMITS
EXISTING CHANNEL DIVERSION LIMITS
EXISTING CHANNEL DIVERSION LIMITS
ALDER STREAM
ALDER STREAM BRIDGE OVER ALDER STREAM
BRIDGE NO. 3265
WIN 023104.00

URSA MAJOR, LLC
ITEM NO. (2)
SLOPE EASE. = 325± S.F. (1)
TEMP. ROAD RIGHTS = 0.21± AC. (1)
TOTAL AREA = VAST ACREAGE

EXISTING RIGHT OF WAY REFERENCES

S.H.C. FILE NO. 4-75 SHEETS 1 & 2, MAY 1961
S.H.C. FILE NO. 4-29 SHEETS 2 & 3, MAY 1938

ITEM	CHECKED	TECH
EXISTING CONDITION PLAN	PNS	PNS
FINAL RIGHT OF WAY	PNS	
AREAS		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460
JIM POND TOWNSHIP (T1-R5 WBKP)
RIGHT OF WAY MAP

REVISIONS

NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

BRUCE A. VAN NOTE
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

STATE HIGHWAY "41"
ROUTE 27 THE ARNOLD TRAIL
JIM POND TOWNSHIP (T1-R5 WBKP) FRANKLIN COUNTY
STATE PROJECT NO. 23104.00

MARCH 2021 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 4-286
SCALE 1"= 25' | SHEET 1 OF 2

SHEET NUMBER
40
OF 41

PLAN LEGEND

Town, County, State	New R/W Along Existing R/W	Sanitary Sewer	Traveled Way
Approx. Property Lines P.L.	Building	Telephone Line	Ditch
Existing Right of Way	Clearing Limit Line	Electric Line	Catch Basin
Limits of Wrought Portion L.O.W.P.	Trees Conifer / Deciduous	Water Line	Manhole
Control Of Access C.O.A.	Tree Line / Bush Line	Underdrain Line	Sewer Manhole
New Right of Way	Water Edge	Gas Line	Utility Pole
New Easement	Ledge / Rock/Boulder / Flag Pole	Guardrail	Fire Hydrant
New Temporary Rights	Fence CHAIN LINK / BARB WIRE / STOCKADE	Culvert	Curbing
New R/W Within Existing R/W	Sign / Well / Mailbox		

Existing / Proposed

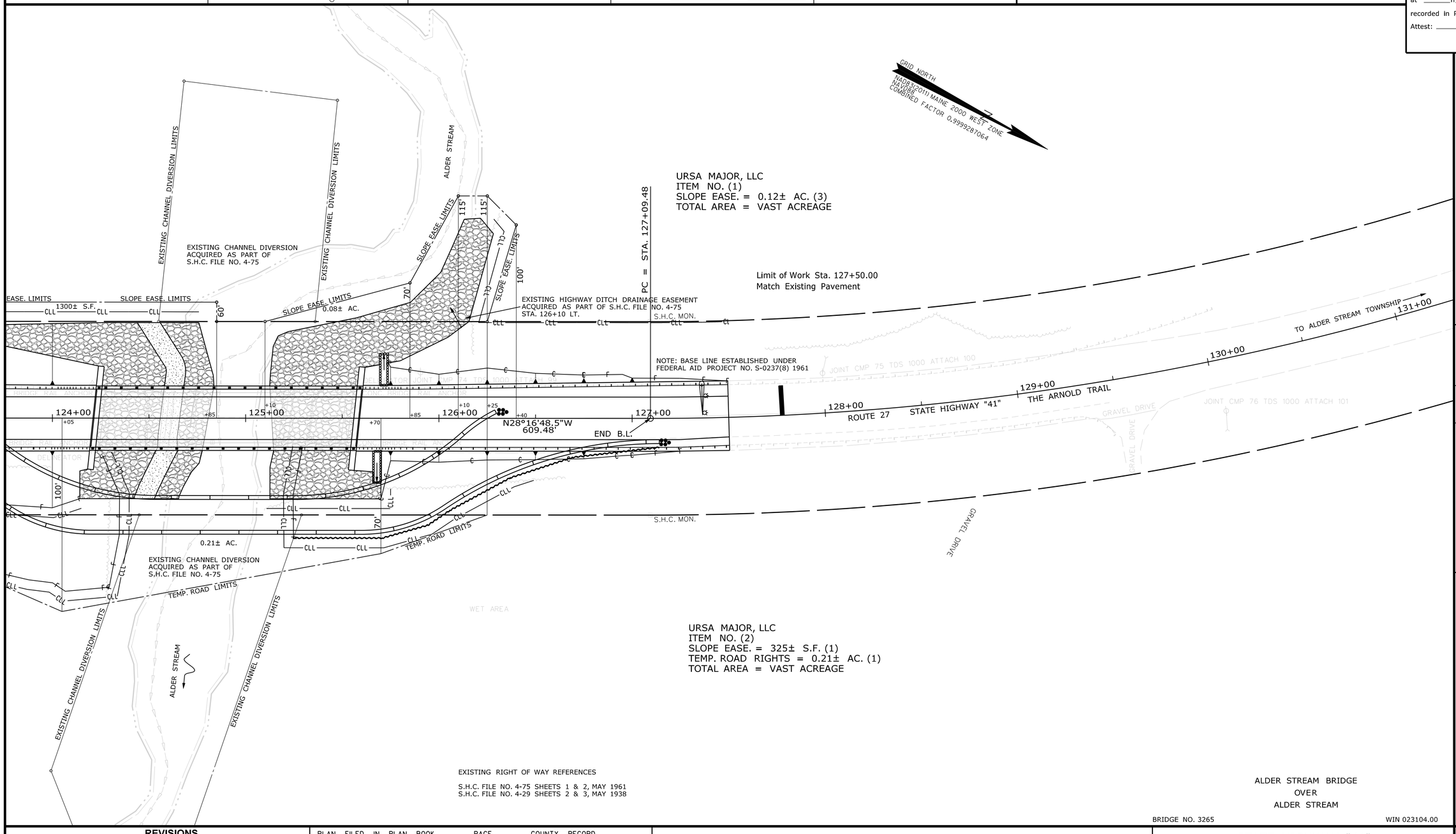
Cut Line / Fill Line
Stonewall / Retaining Wall
Baseline 10+00 11+00 12+00
Monument / Traverse Point
Iron Rod Found ● IRF / Pipe Found ● IPF
Replacement Pin Set

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ABUTTING PROPERTY OWNERS.

25 0 25 50 75 100
Scale of Feet

STATE OF MAINE REGISTRY OF DEEDS

COUNTY _____
RECEIVED _____, _____
at _____h _____m _____M and
recorded in Plan Bk _____, Pg. _____
Attest: _____
REGISTER



EXISTING RIGHT OF WAY REFERENCES

S.H.C. FILE NO. 4-75 SHEETS 1 & 2, MAY 1961
S.H.C. FILE NO. 4-29 SHEETS 2 & 3, MAY 1938

ALDER STREAM BRIDGE
OVER
ALDER STREAM

BRIDGE NO. 3265 WIN 023104.00

TECH	CHECKED
PNS	PNS

ITEM	
EXISTING CONDITION PLAN	
FINAL RIGHT OF WAY	
AREAS	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460

JIM POND TOWNSHIP (T1-R5 WBKP)
RIGHT OF WAY MAP

REVISIONS

NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

BRUCE A. VAN NOTE
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

STATE HIGHWAY "41"
ROUTE 27 THE ARNOLD TRAIL
JIM POND TOWNSHIP (T1-R5 WBKP) FRANKLIN COUNTY
STATE PROJECT NO. 23104.00

MARCH 2021 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 4-286
SCALE 1" = 25' | SHEET 2 OF 2

SHEET NUMBER
41
OF 41