

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Eighth Edition 2017 with 2018 Interim Revisions.

DESIGN LOADING

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

TRAFFIC DATA

Current (2020) AADT 610
Future (2040) AADT 730
DHV - % of AADT..... 13
Design Hour Volume..... 95
Heavy Trucks (% of AADT)..... 6
Heavy Trucks (% of DHV)..... 1
Directional Distribution (% of DHV)..... 61
18 kip Equivalent P 2.0..... 10
18 kip Equivalent P 2.5..... 10
Design Speed (mph)..... 45

HYDROLOGIC DATA

Drainage Area 0.50 sq mi
Design Discharge (Q50)..... 34.3 cfs
Check Discharge (Q100)..... 40.1 cfs
Headwater Elevation (Q1.1)..... 378.8 ft
Headwater Elevation (Q25)..... 382.1 ft
Headwater Elevation (Q50)..... 382.5 ft
Headwater Elevation (Q100)..... 384.2 ft

MATERIALS

Concrete:
Precast Class "P"
Reinforcing Steel..... ASTM A 615/A 615M, Grade 60

BASIC DESIGN STRESSES

Precast Concrete..... f 'c = 5000 psi
Reinforcing Steel..... f y = 60,000 psi

LIST OF DRAWINGS

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LOVELL
OXFORD COUNTY
CREEK BRIDGE
OVER
CREEK BROOK
HARBOR ROAD
STATE PROJECT NO. 22248.00
PROJECT LENGTH 0.059 mi.
BRIDGE NO. 3582

UTILITIES

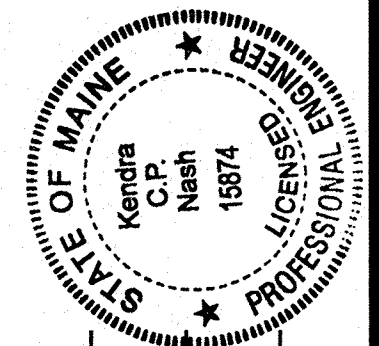
Central Maine Power Company
Consolidated Communications
Charter Cable

MAINTENANCE OF TRAFFIC

The bridge will be closed to traffic using
State routes and State - Aid roads.

PROJECT LOCATION	In Lovell, on Harbor Road, 0.14 mile northeast of the Fryeburg town line. Lat./Long. 44°07'56.1" N 70°55'44.1" W
PROGRAM AREA	Highway Bridges - Traditional
OUTLINE OF WORK	Bridge Culvert Replacement

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
	COMMISSIONER: <i>[Signature]</i> CHIEF ENGINEER: <i>[Signature]</i>	11-20-19

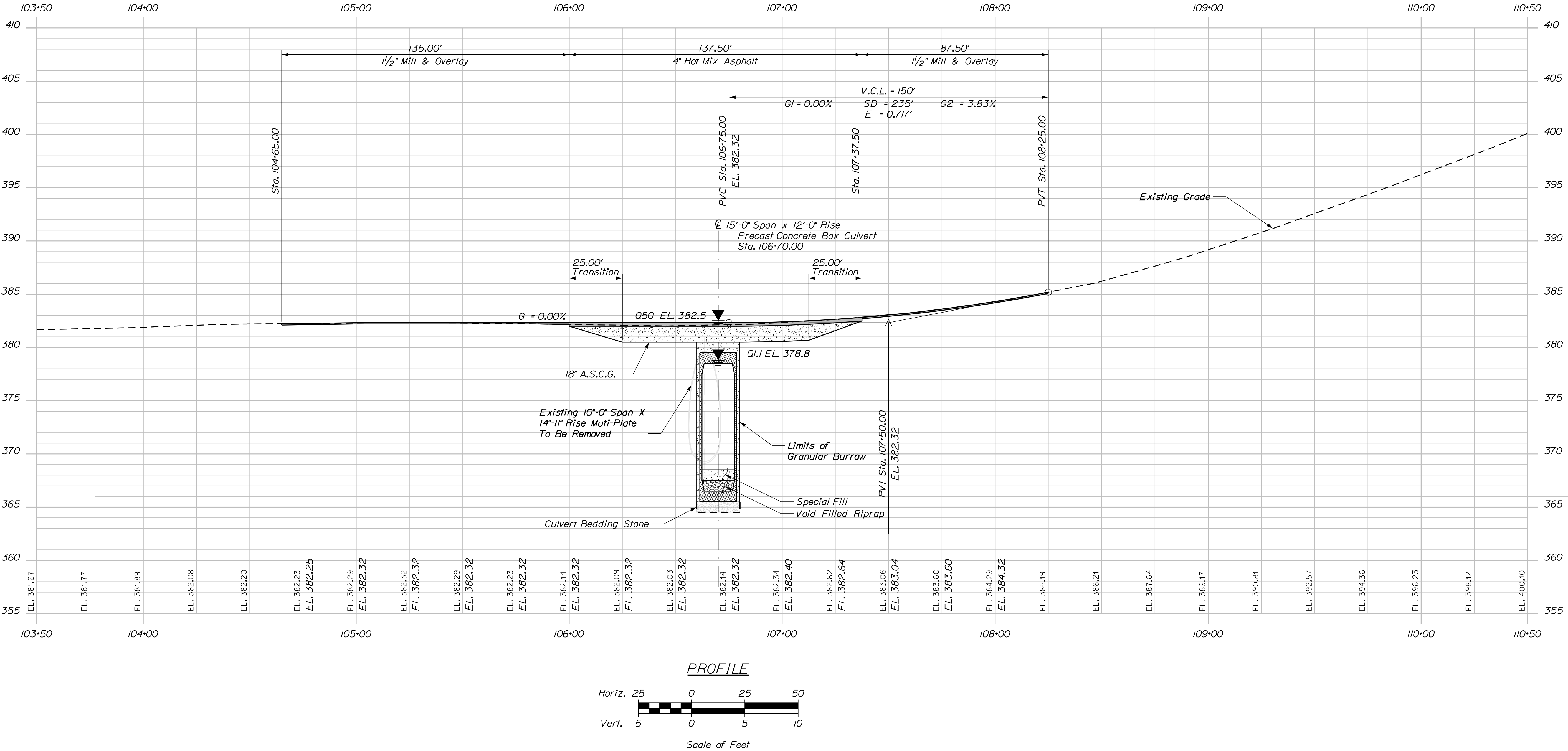


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11/12/2019
DATE

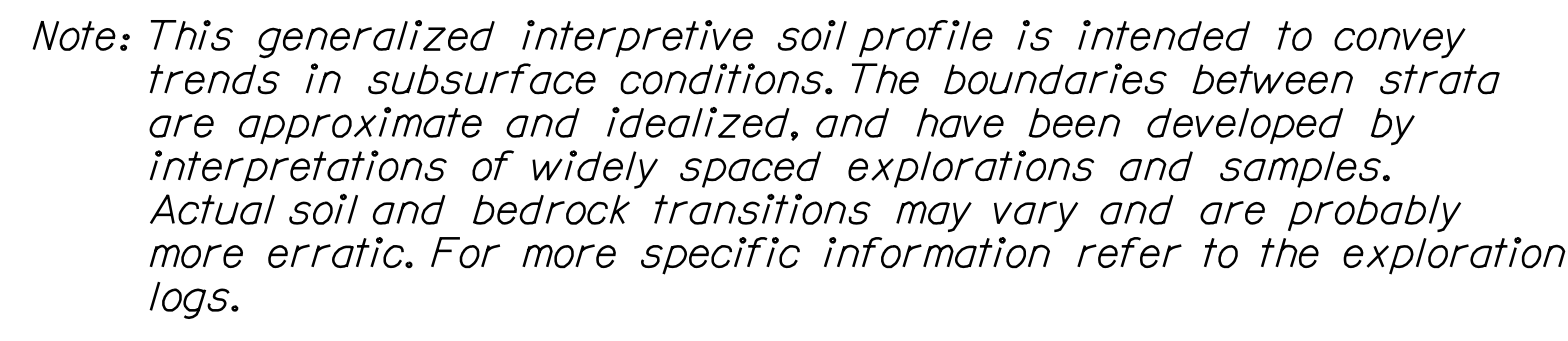
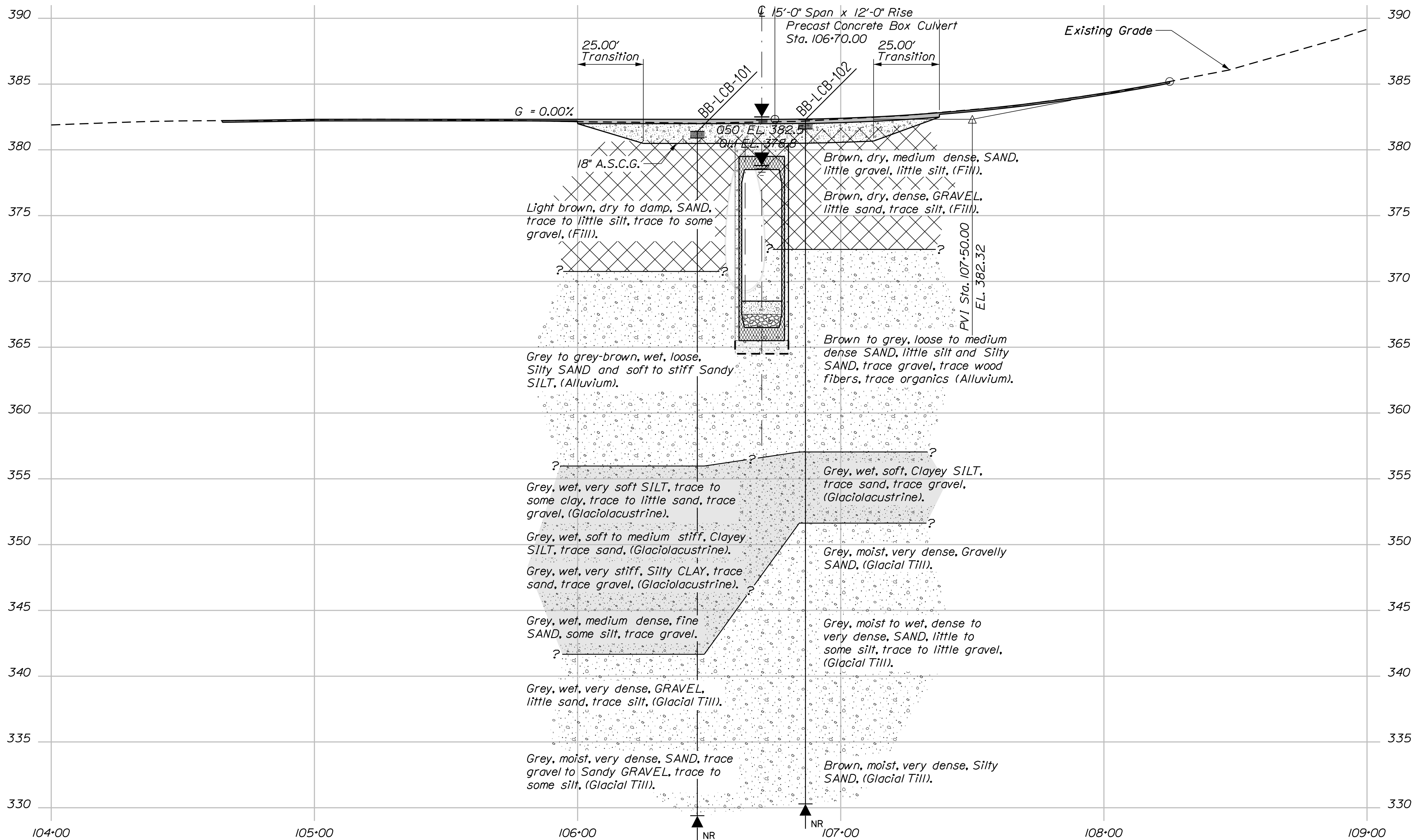
PROJECT INFORMATION	
PROGRAM	BRIDGE PROGRAM
PROJECT MANAGER	MACKENZIE KERSBERGEN
DESIGNER	KENDRA NASH
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

LOVELL CREEK BRIDGE	TITLE SHEET
------------------------	-------------

SHEET NUMBER
1
OF 18



STATE OF MAINE DEPARTMENT OF TRANSPORTATION	SIGNATURE	
	22248.00	
	WIN	
BRIDGE NO. 3592	022248.00	
	BRIDGE PLANS	
	DATE	
CREEK BRIDGE CREEK BROOK OXFORD COUNTY	BY	DATE
	M. Critchlow	April 2019
	D. Dornen	Aug 2018
LOVELL	P.E. NUMBER	
	DATE	
	FIELD CHANGES	
SHEET NUMBER	4	
	OF 18	
	BRIDGE PLANS	



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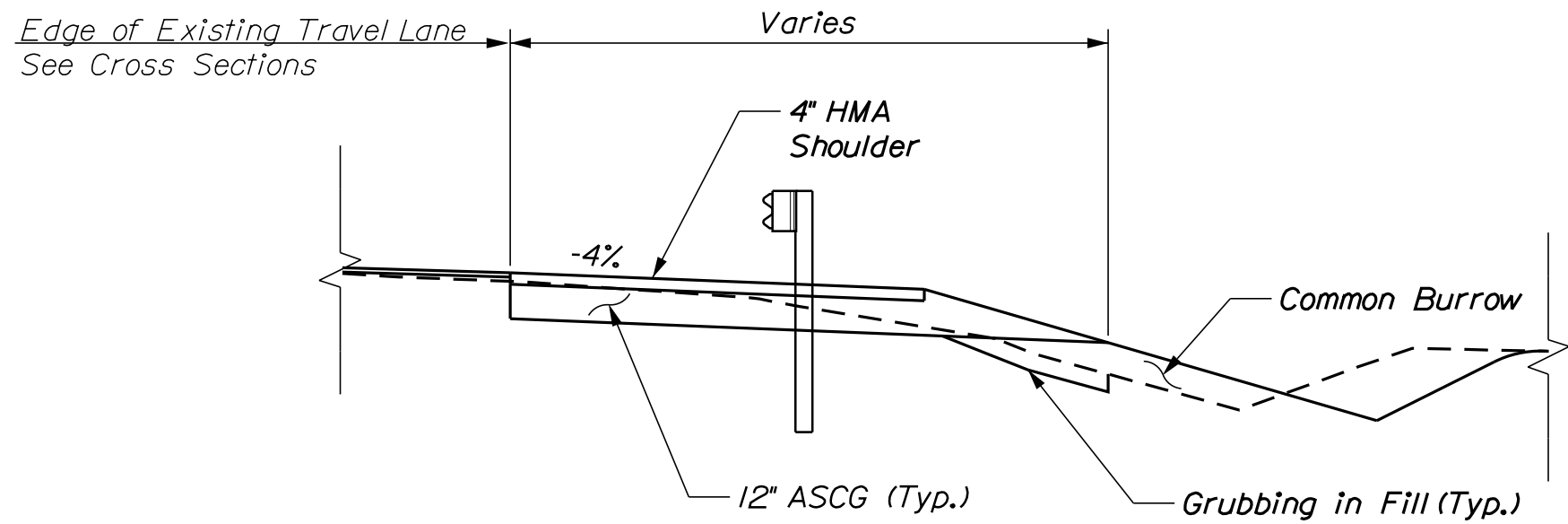
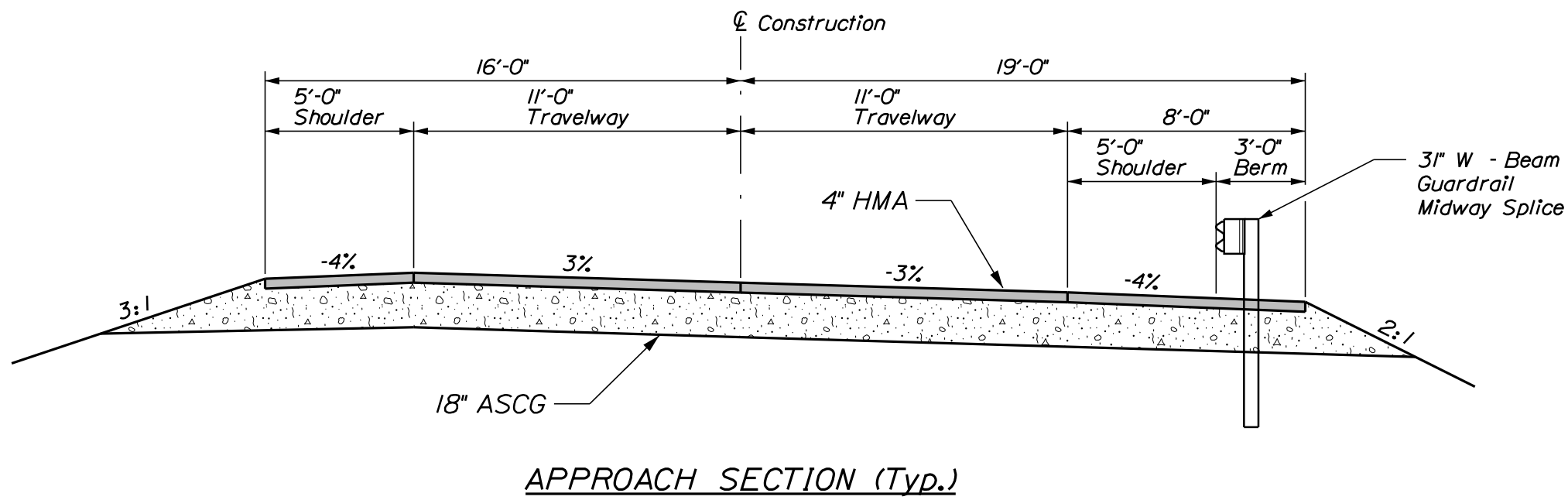
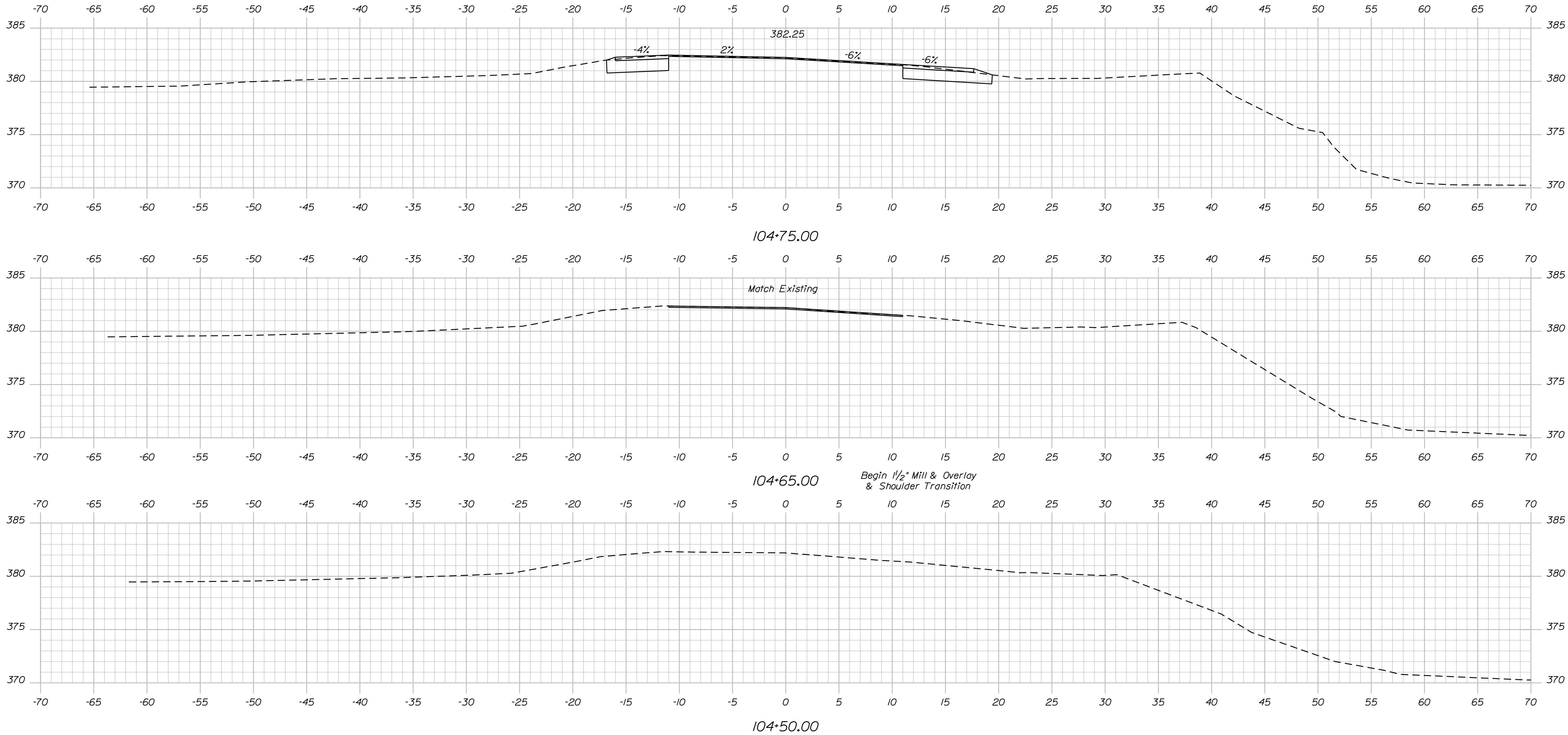
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			CHECKED-REVISED			
			DESIGN2-DETAILED2	KRUSINSKI	T. WHITE	OCT 2019
			DESIGN3-DETAILED3			
BORING LOGS			REVISIONS 1			P.E. NUMBER
			REVISIONS 2			
			REVISIONS 3			
			REVISIONS 4			DATE
			FIELD CHANGES			
STATE OF MAINE						
DEPARTMENT OF TRANSPORTATION						
22248.00						
WIN						
22248.00						
BRIDGE NO. 3582						
BRIDGE PLAN						

Username: matthew.critchlow

Date:11/12/2019

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Division: BRIDGE

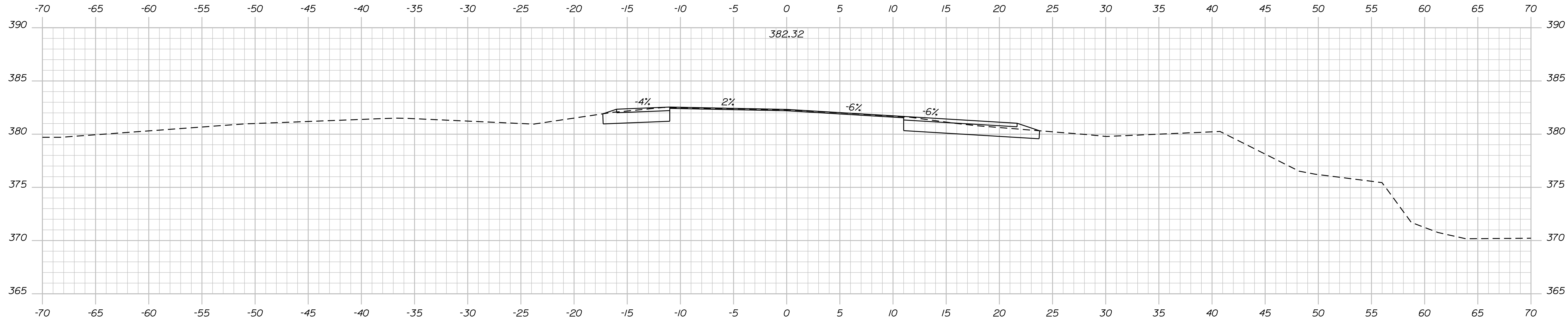


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WIN	022248.00
BRIDGE NO. 3592	BRIDGE PLANS

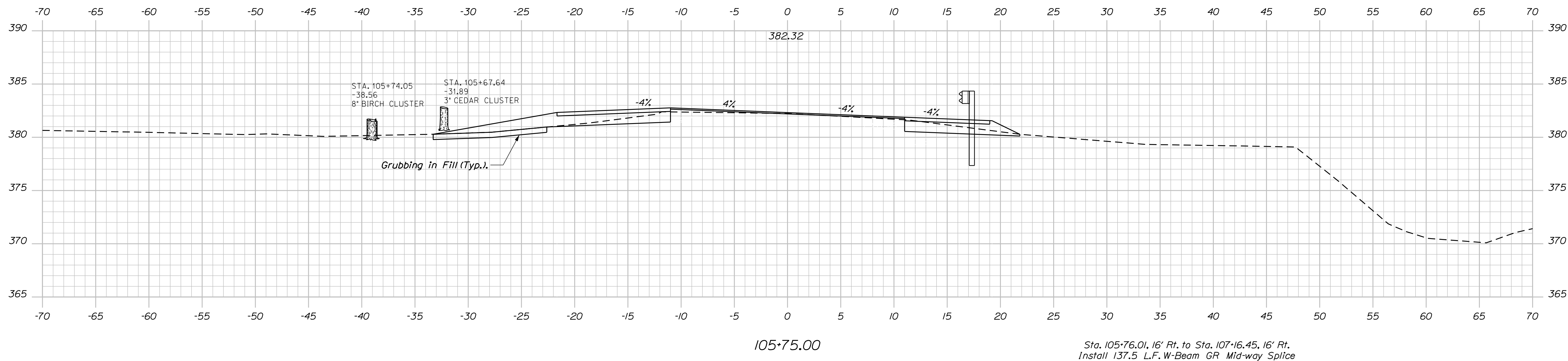
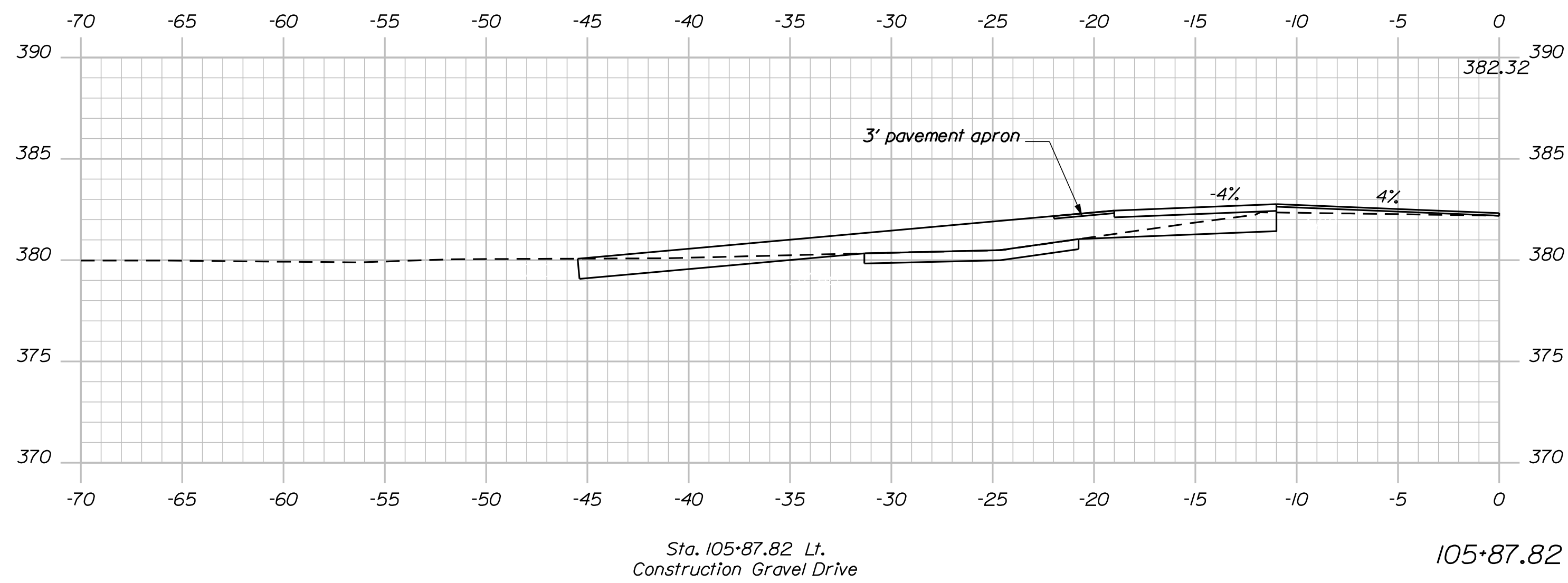
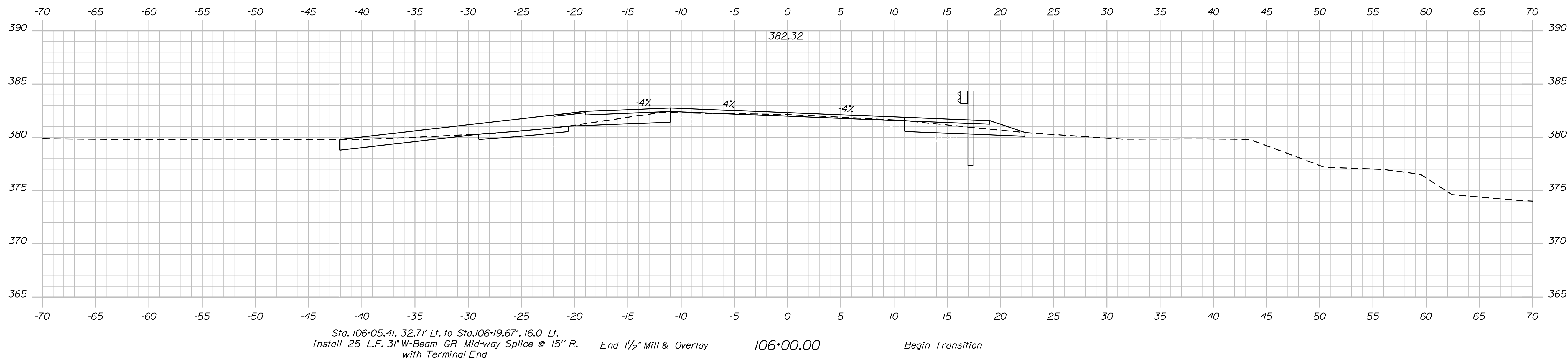
PROJ. MANAGER	M. Kersbergen	BY	M. Critchlow	DATE	April 2019
CHECKED-REVIEWED	K. Nash			SIGNATURE	
DESIGNED-DETAILED			D. Dornen	P.E. NUMBER	
REVISIONS 1				DATE	
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

CREEK BRIDGE	OXFORD COUNTY
CREEK BROOK	
LOVELL	
CROSS SECTIONS	

SHEET NUMBER
7
OF 18



SHEET NUMBER
8
OF 18



STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
	22248.00
BRIDGE NO. 3582	WIN
	022248.00
BRIDGE PLANS	

PROJ. MANAGER	M. Kerckhagen	BY	DATE
DESIGN-DETAILED	K. Nash	M. Critchlow	April 2019
CHECKED-REVIEWED			
DESIGN2-DETAILED2		D. Dornen	Aug. 2018
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
			SIGNATURE
			P.E. NUMBER
			DATE

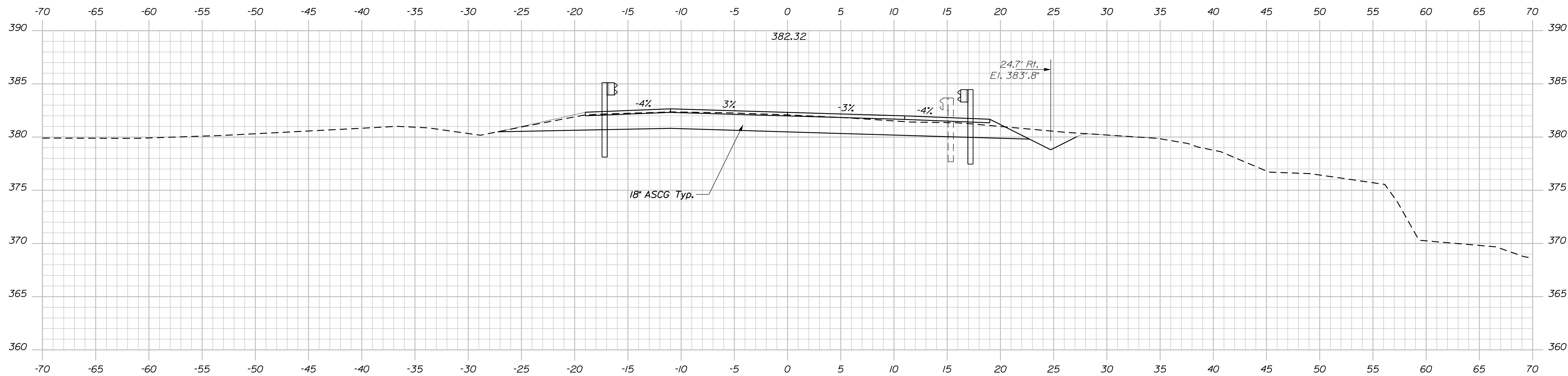
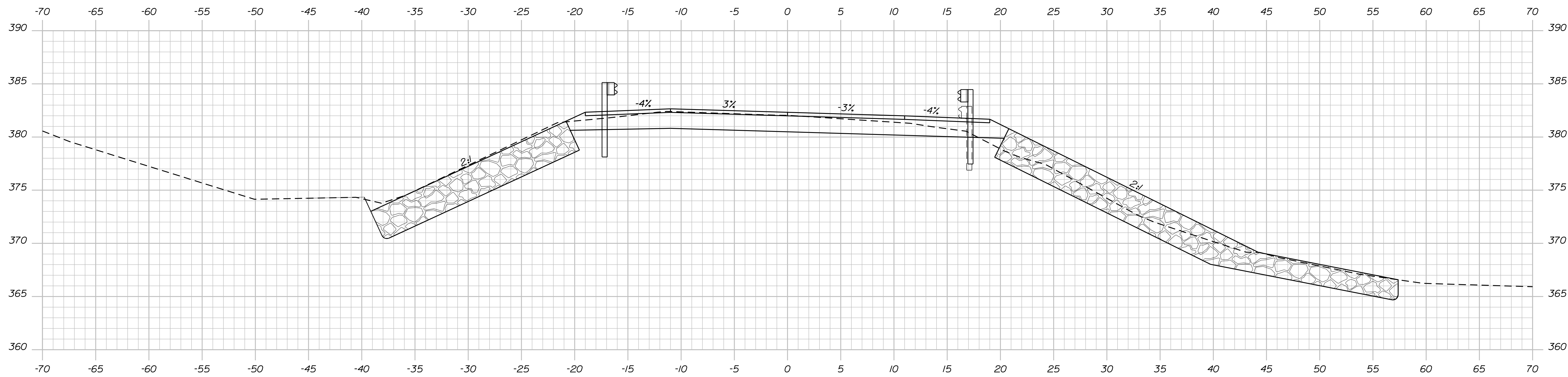
LOVELL	CREEK BRIDGE CREEK BROOK OXFORD COUNTY
CROSS SECTIONS	

SHEET NUMBER

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OF 18

Sta. 105+75.00 to Sta. 106.00.00



Sta. 106+19.67, 16' Lt. to Sta. 107+30.08, 16' Lt.
Install 112.5 L.F. 31" GR Mid-way Splice

End Transition

Begin Project

STATE OF MAINE	
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BRIDGE NO. 3582	WIN
	022248.00
BRIDGE PLANS	

PROJ. MANAGER	M. Kerstbergen	BY	DATE
DESIGN-DETAILED	K. Nash	M. Critchlow	April 2019
CHECKED-REVIEWED			
DESIGN2-DETAILED2	D. Barron		Aug 2018
DESIGN3-DETAILED3			
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

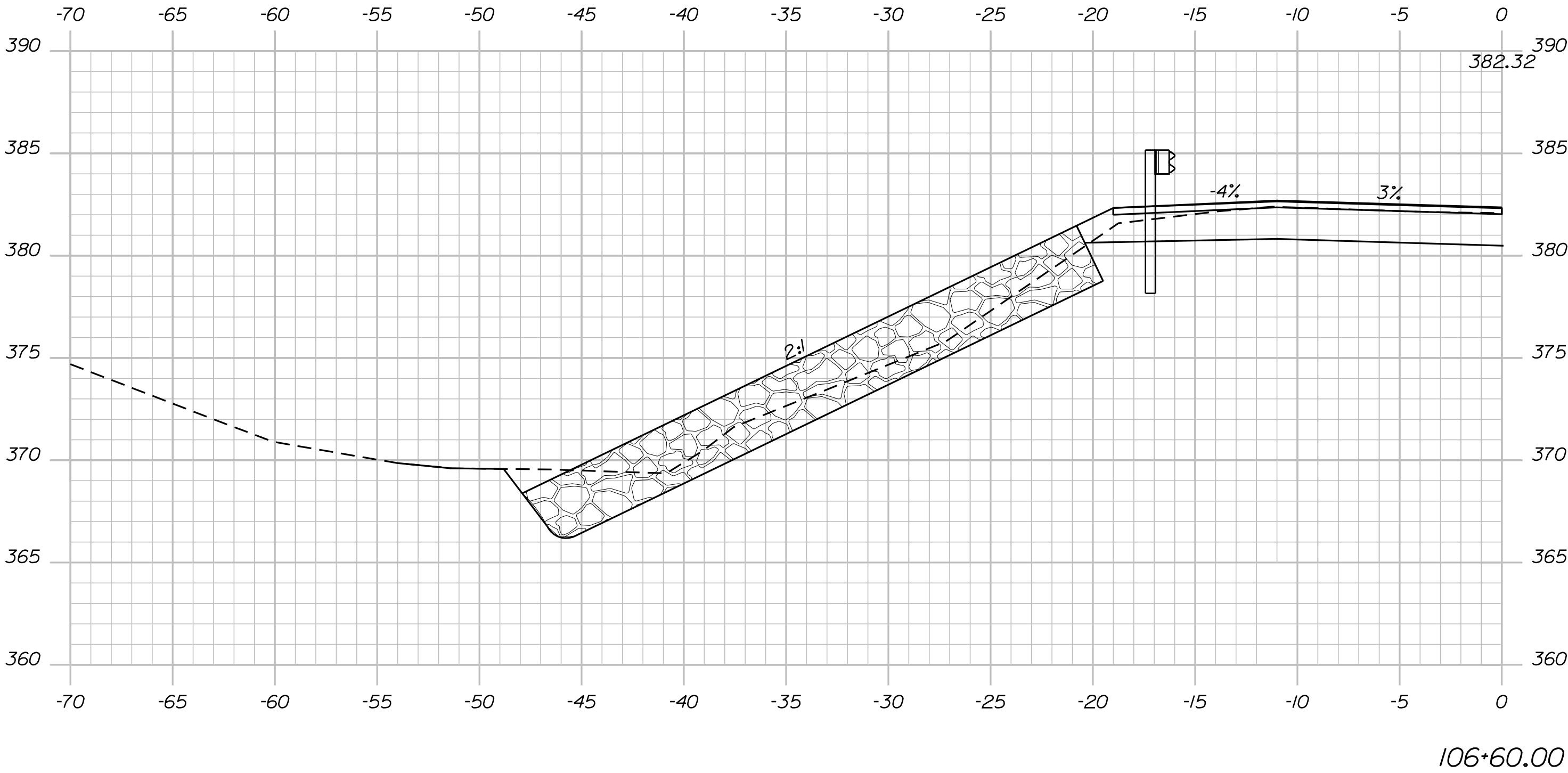
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CROSS SECTIONS	

SHEET NUMBER

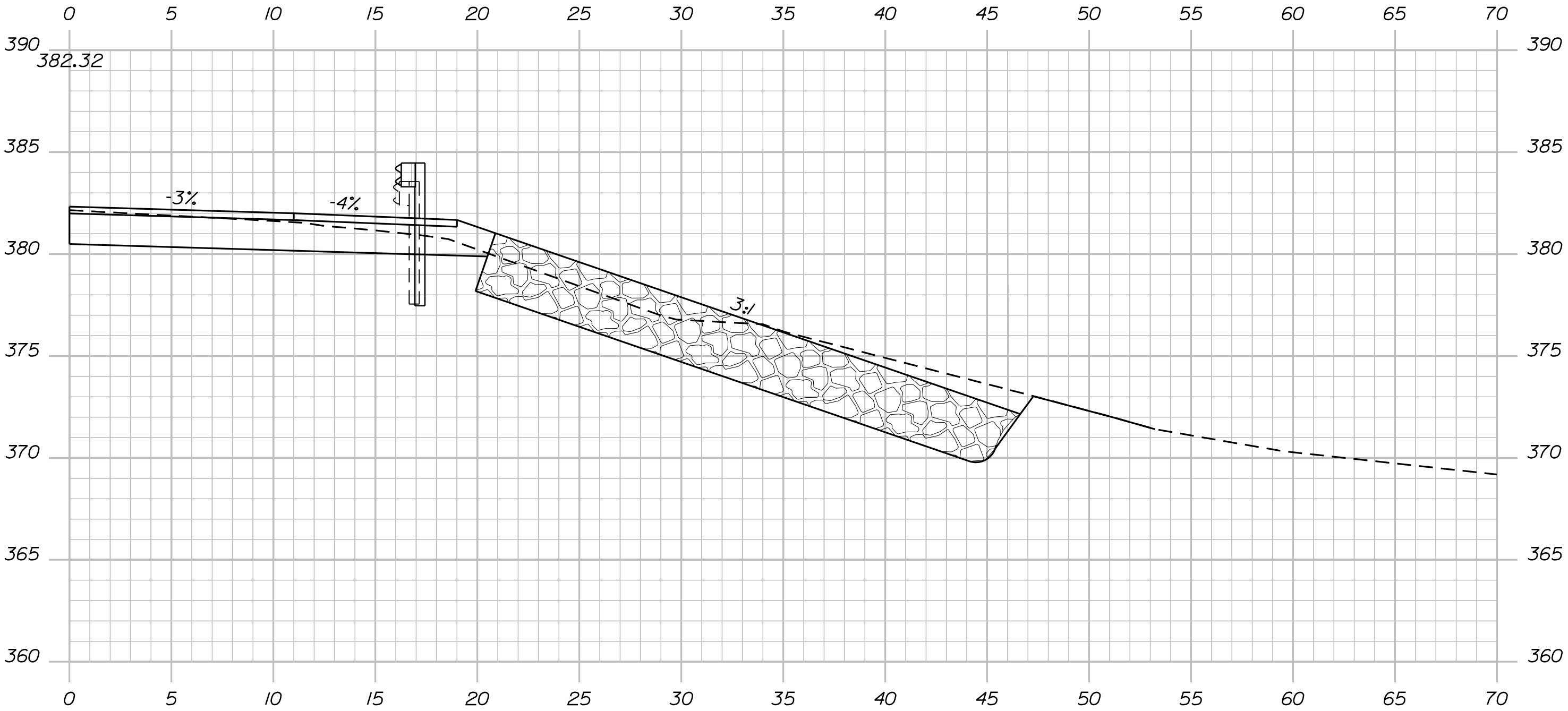
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OF 18

Sta. 106+25.00 to Sta. 106+50.00



106+60.00



106+80.00

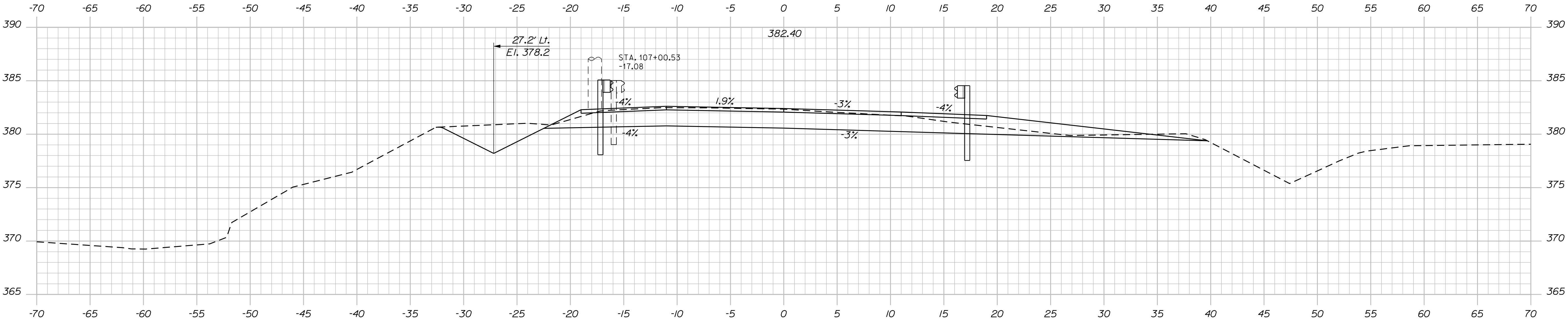
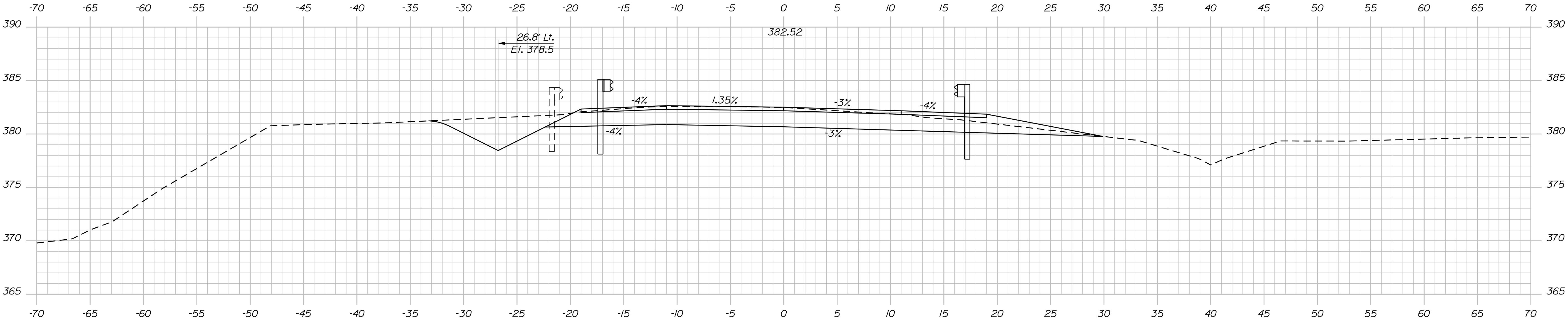
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	WIN	
BRIDGE NO. 3592		BRIDGE PLANS
CREEK BRIDGE CREEK BROOK OXFORD COUNTY LOVELL	PROJ. MANAGER	DATE
	CHECKED-REVIEWED	DATE
	DESIGNED-DETAILED	DATE
	REVISIONS 1	DATE
	REVISIONS 2	DATE
CROSS SECTIONS	REVISIONS 3	DATE
	REVISIONS 4	DATE
	FIELD CHANGES	DATE
	DATE	DATE
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Username: matthew.critchlow

Date:11/12/2019

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Division: BRIDGE



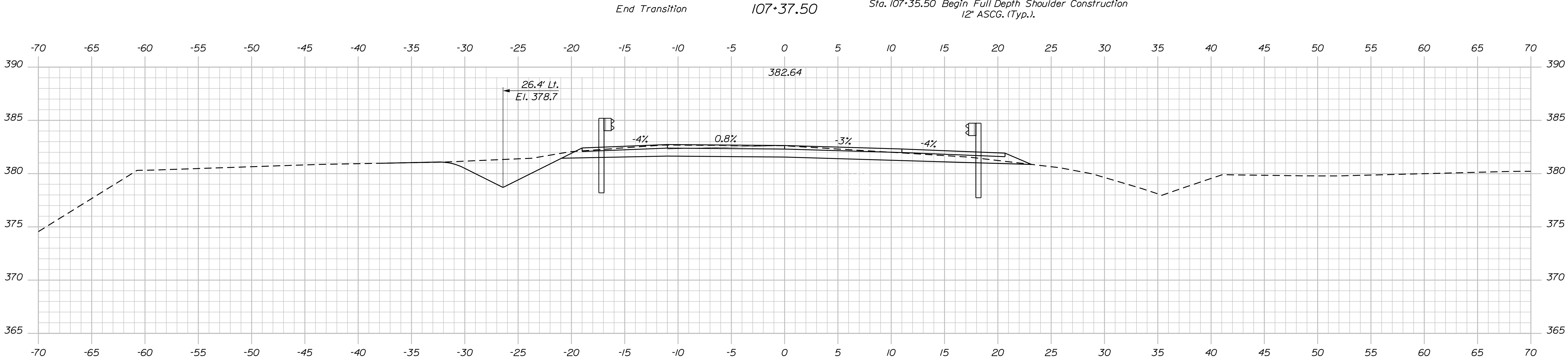
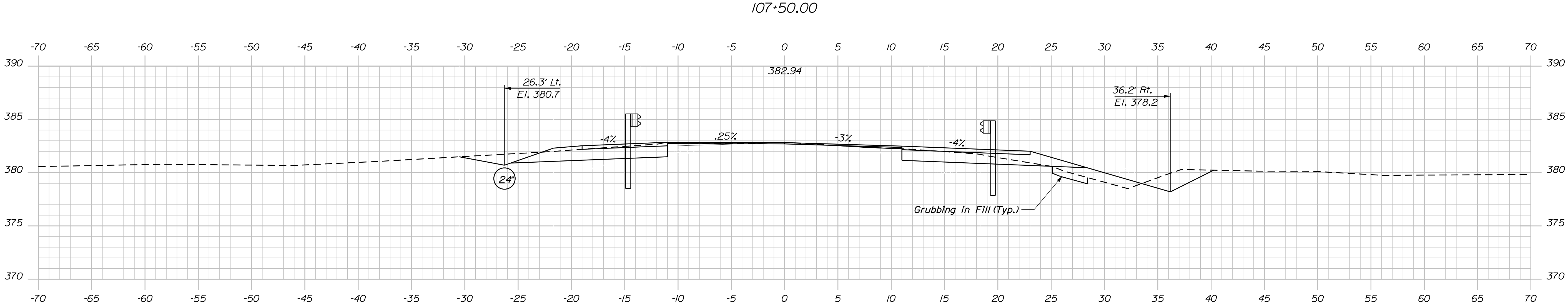
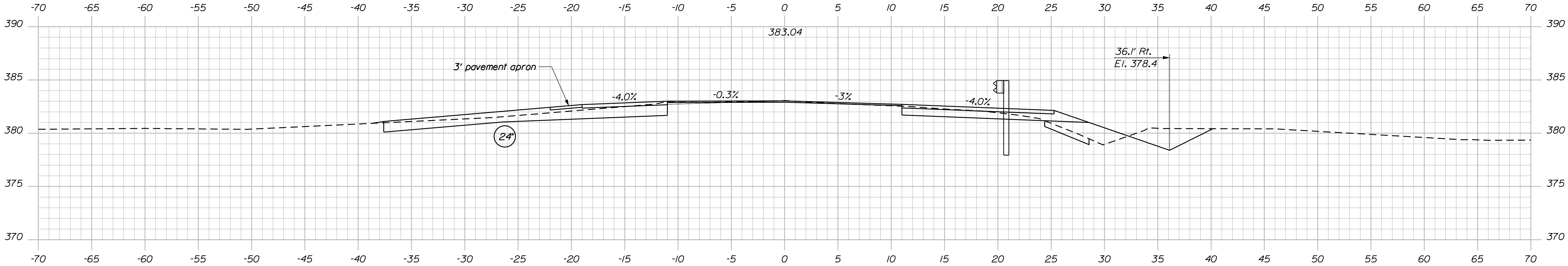
STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
22248.00	
WIN	022248.00
BRIDGE NO. 3592	BRIDGE PLANS

PROJ. MANAGER	M. Kersbergen	BY	M. Critchlow	DATE	April 2019
DESIGN-DETAILED	K. Nash	CHECKED-REVIEWED	D. Dornen	SIGNATURE	
DESIGN-DETAILED		DESIGN-DETAILED		P.E. NUMBER	
REVISIONS 1		REVISIONS 2		DATE	
REVISIONS 3		REVISIONS 4			
FIELD CHANGES					

CREEK BRIDGE	OXFORD COUNTY
CREEK BROOK	
LOVELL	
CROSS SECTIONS	

SHEET NUMBER
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OF 18

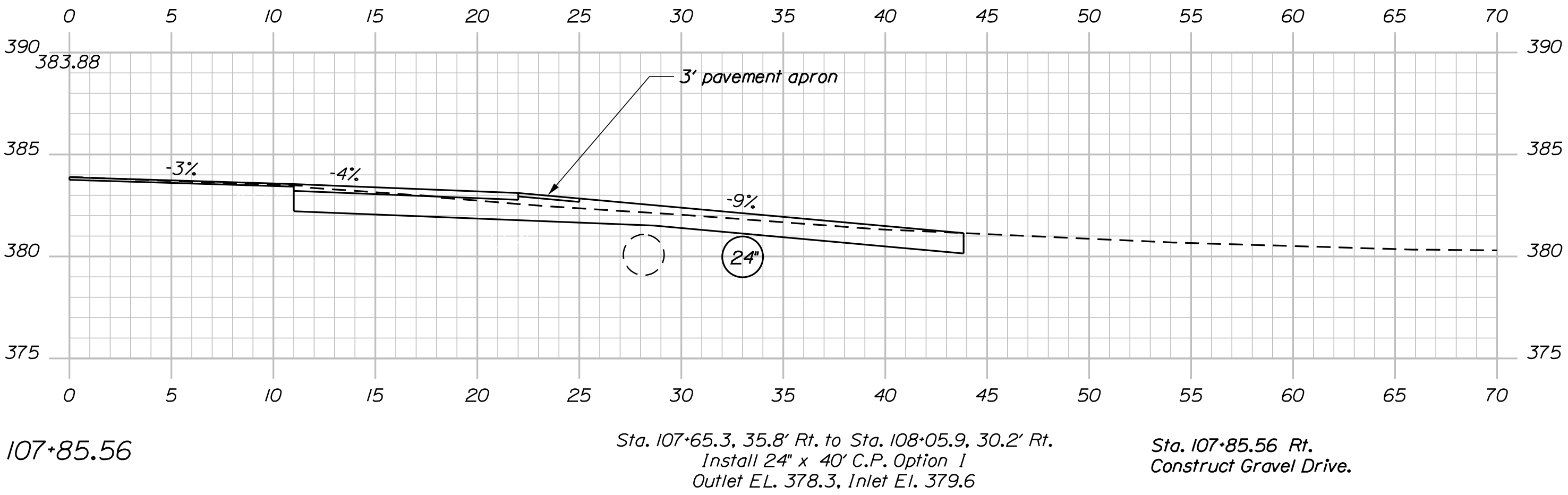
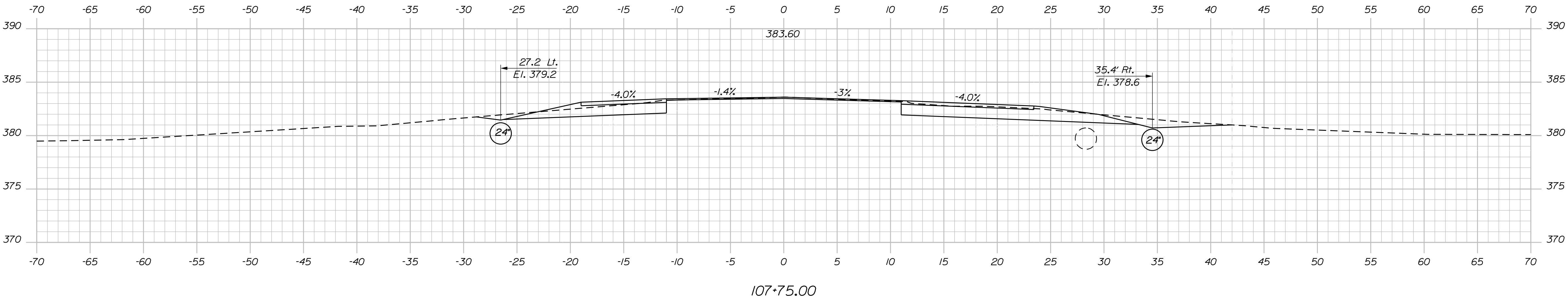
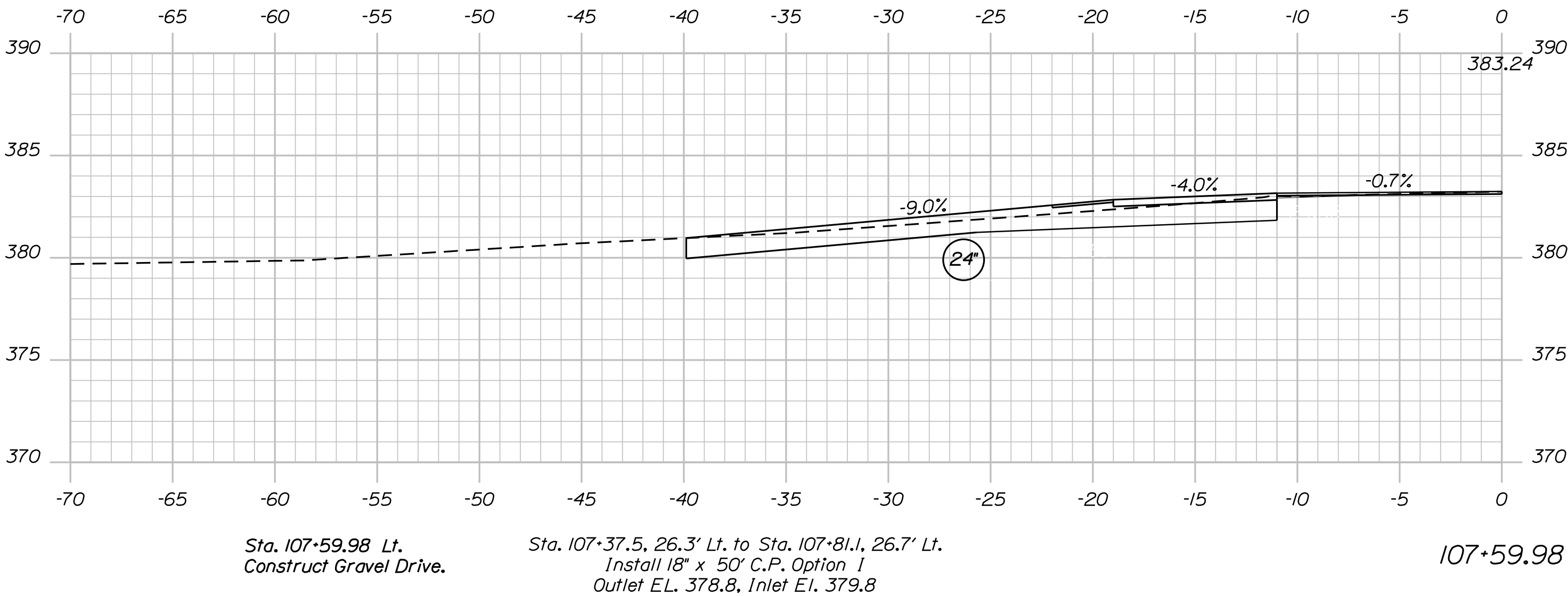
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Sta. 107+30.08, 16.0' Lt. to Sta. 107+44.67, 32.64' Lt.
Install 25 LF of 31" W-Beam Guardrail-Midway Splice
With 15' Radius with Terminal End.

Sta. 107+16.45, 16' Rt. to Sta. 107+54.21, 20' Rt.
Install 31" W-Beam GR Mid-way Splice Flared Terminal

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	22248.00		WIN		022248.00		BRIDGE NO. 3592		BRIDGE PLANS		
	SIGNATURE		P.E. NUMBER		DATE						
	M. Critchlow		D. Dornen								
CREEK BRIDGE		CREEK BROOK		OXFORD COUNTY		LOVELL		CROSS SECTIONS		SHEET NUMBER	
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										OF 18	



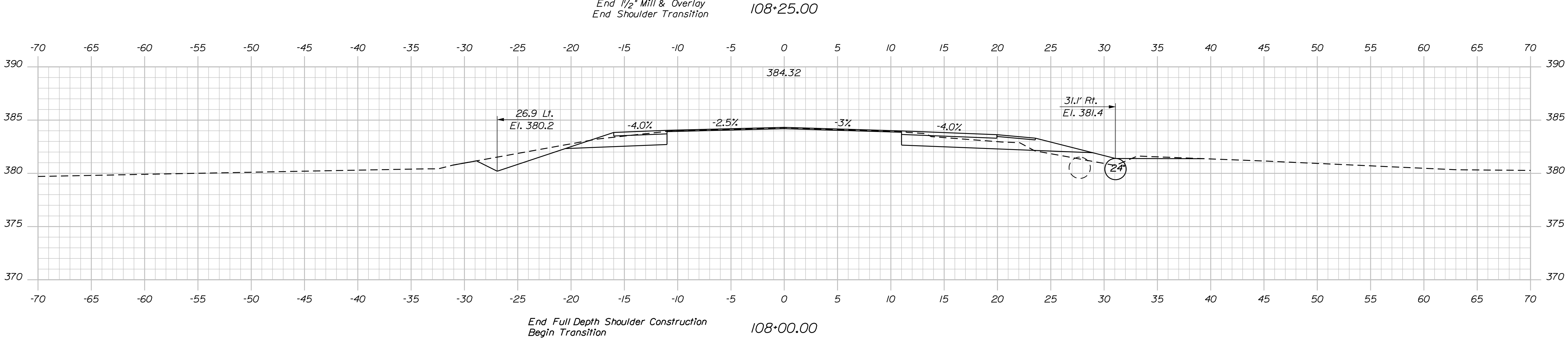
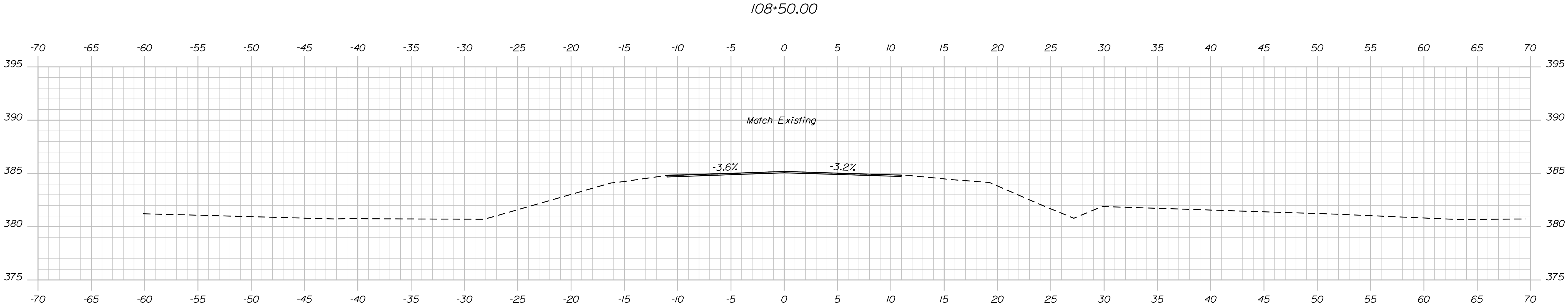
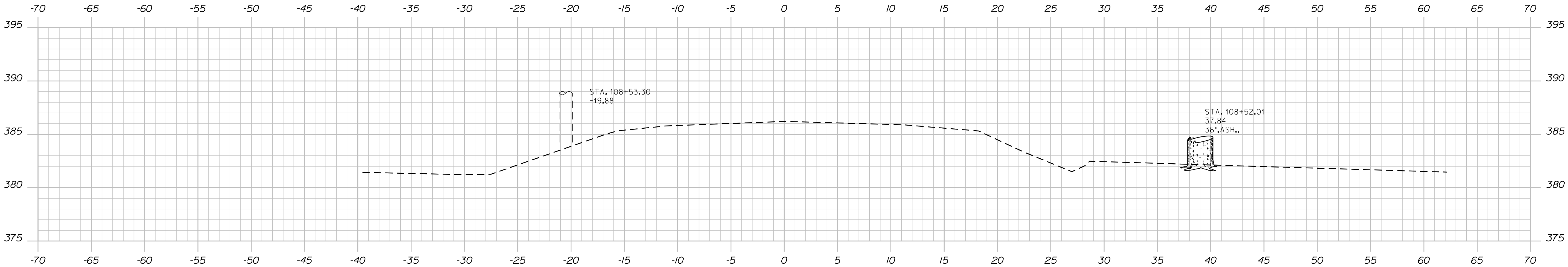
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BY		DATE		SIGNATURE		P.E. NUMBER		DATE		FIELD CHANGES		OF 18	
M. Kersbergen		M. Critchlow		April 2019		Aug 2018							
K. Nish													
DESIGN-DETAILED		DESIGN-REVIEWED		DESIGN-DETAILED		DESIGN-REVIEWED		DESIGN-DETAILED		DESIGN-REVIEWED			
REVISIONS 1		REVISIONS 2		REVISIONS 3		REVISIONS 4							

Date:11/12/2019

Username: matthew.critchlow

Division: BRIDGE

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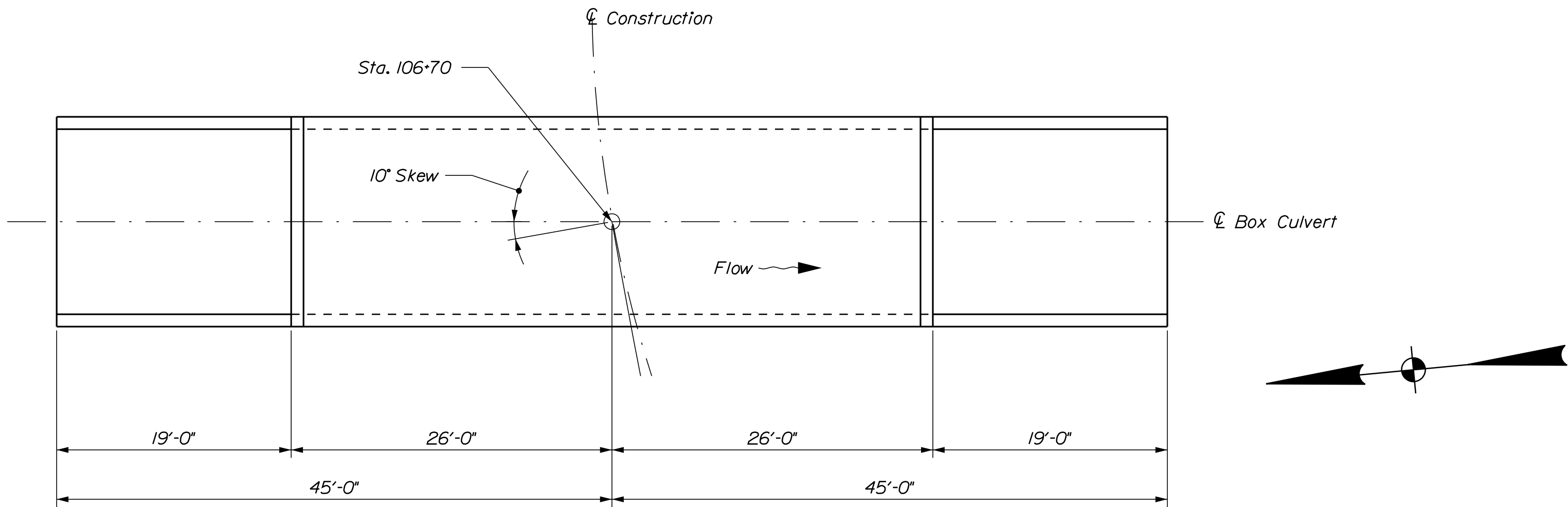


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BRIDGE NO. 3592		BRIDGE PLANS

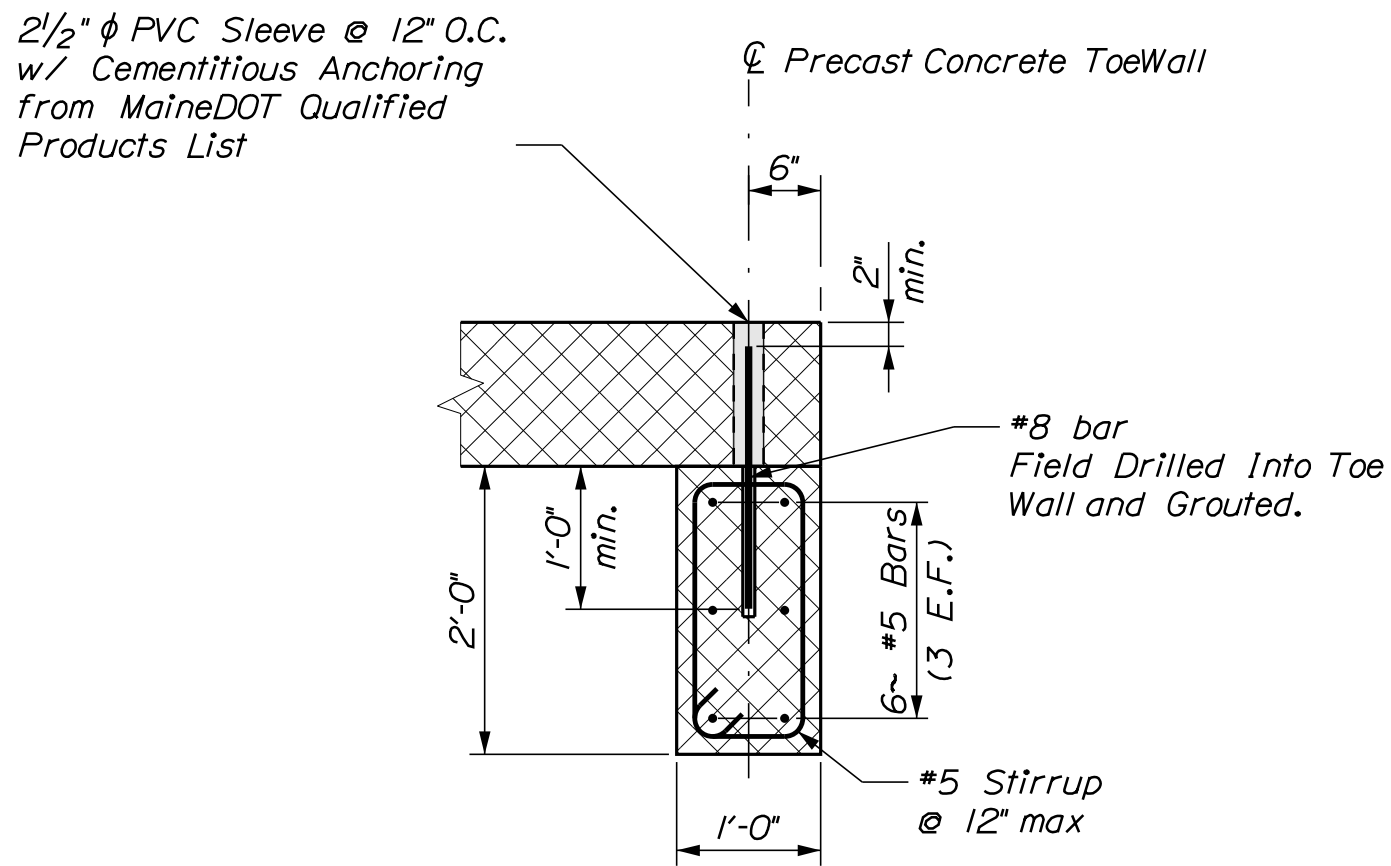
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DESIGNED-REVIEWED K. Nash	D. Dornen	Aug 2018	P.E. NUMBER
DESIGNED-REVIEWED K. Nash	D. Dornen	Aug 2018	DATE
DESIGNED-REVIEWED K. Nash	D. Dornen	Aug 2018	FIELD CHANGES

CREEK BRIDGE CREEK BROOK LOVELL	OXFORD COUNTY	CROSS SECTIONS

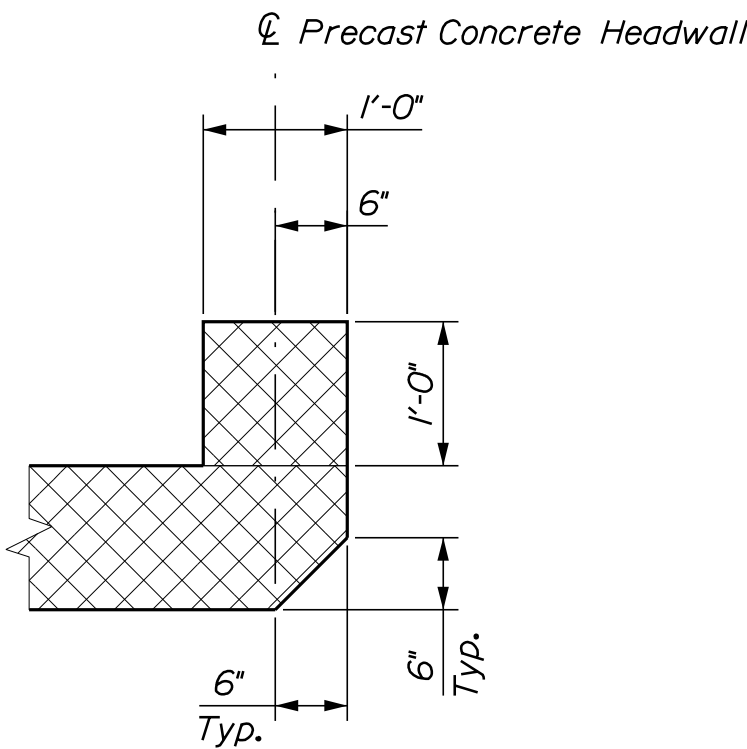
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OF 18



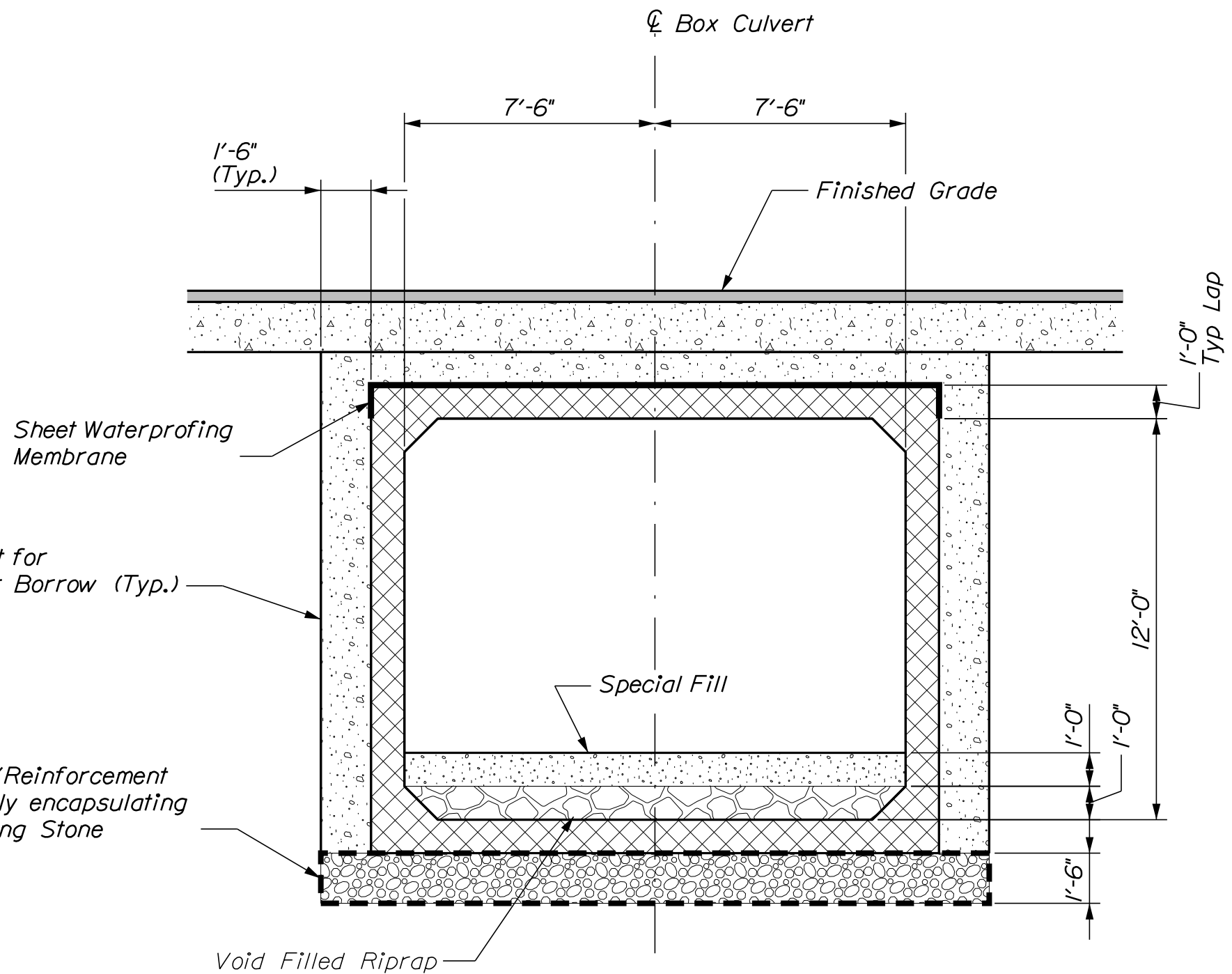
PRECAST CONCRET BOX CULVERT PLAN



PRECAST CONCRETE TOEWALL DETAIL



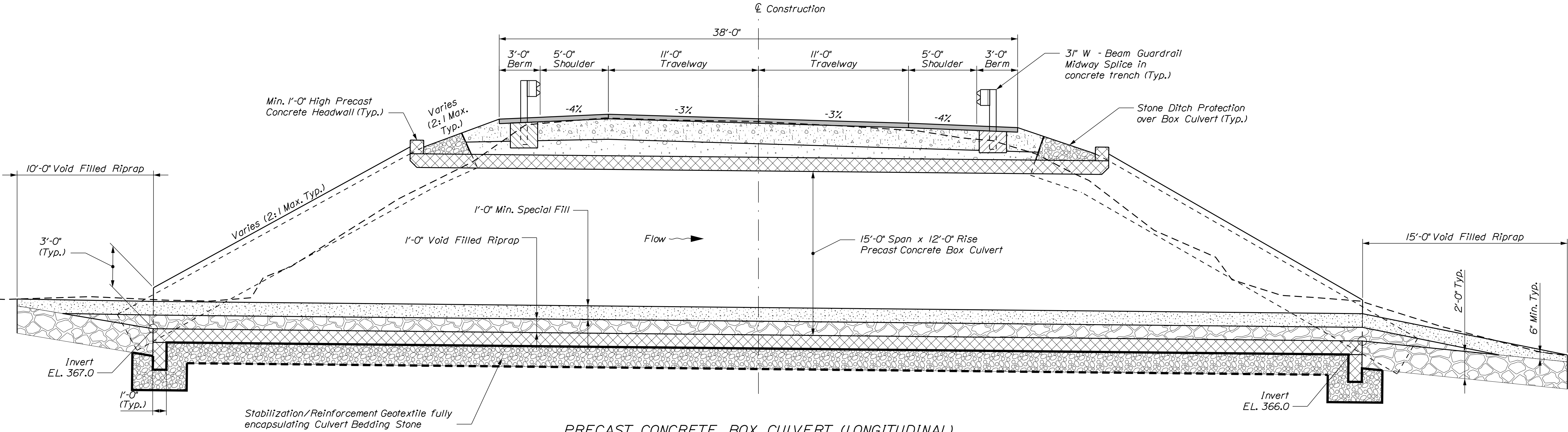
PRECAST CONCRETE HEADWALL DETAIL



PRECAST CONCRETE BOX CULVERT SECTION

PRECAST CONCRETE BOX CULVERT NOTES

1. Stabilization / Reinforcement Geotextile shall fully encapsulate the crushed stone. Minimum lap length shall be 2'-0".
2. Concrete headwalls and toewalls will be paid for under item No. 534.71, Precast Concrete Box Culvert.
3. The pre-cast units shall be designed to carry construction loadings with a minimum fill cover of 18" over the top of the units.



PRECAST CONCRETE BOX CULVERT (LONGITUDINAL)

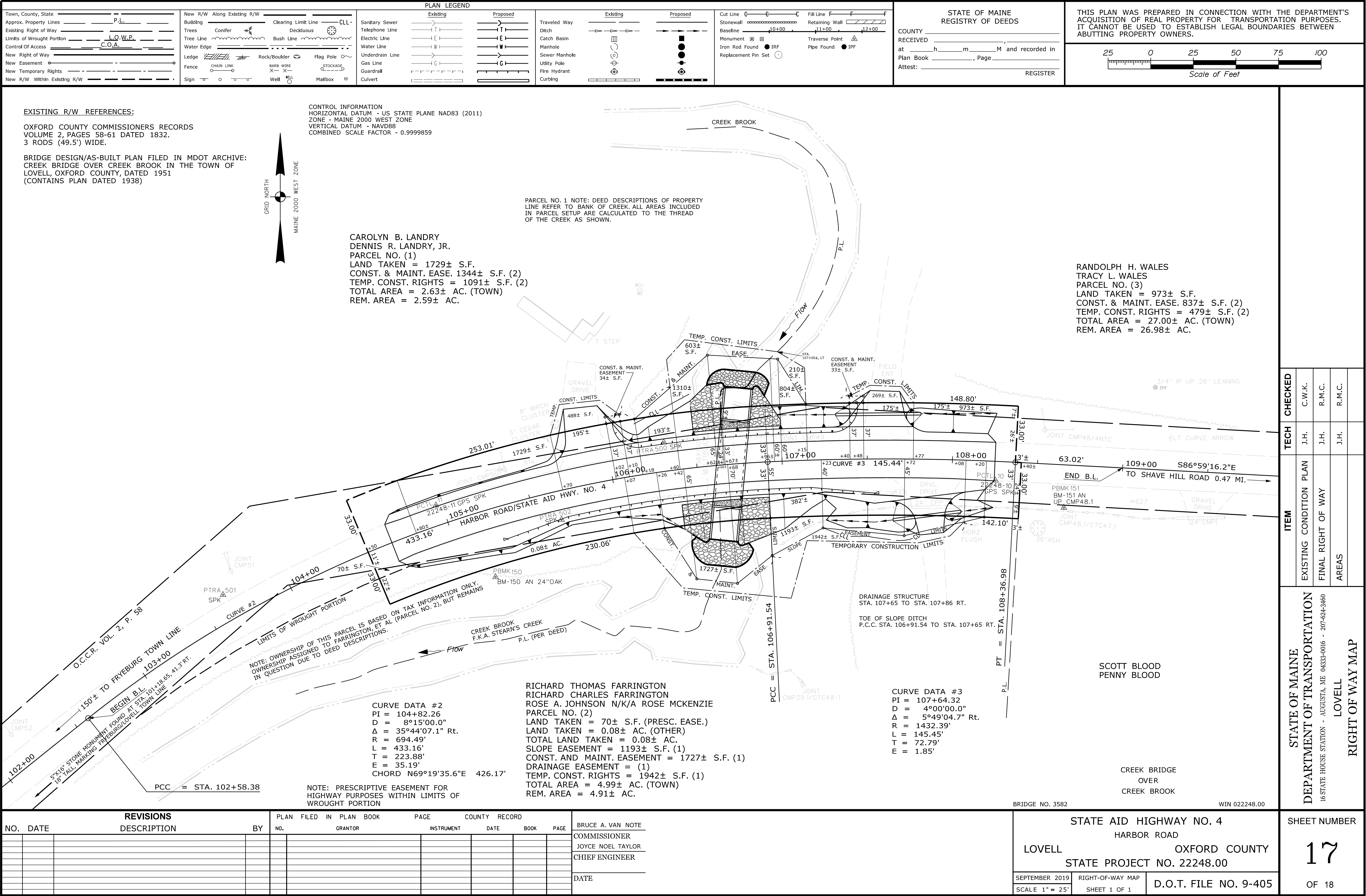
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PROJ. MANAGER		DESIGN-DETAILED		CHECKED-REVIEWED		DESIGN-DETAILED		REVISIONS 1		REVISIONS 2		REVISIONS 3	
M. Kersbergen		K. Nish		M. Critchlow		D. Dornen		Aug 2018		Aug 2018		Aug 2018	
BY		DATE		SIGNATURE		P.E. NUMBER		DATE		DATE		DATE	
M. Kersbergen		K. Nish		M. Critchlow		D. Dornen		Aug 2018		Aug 2018		Aug 2018	
FIELD CHANGES		REVISIONS 4		REVISIONS 5		REVISIONS 6		REVISIONS 7		REVISIONS 8		REVISIONS 9	
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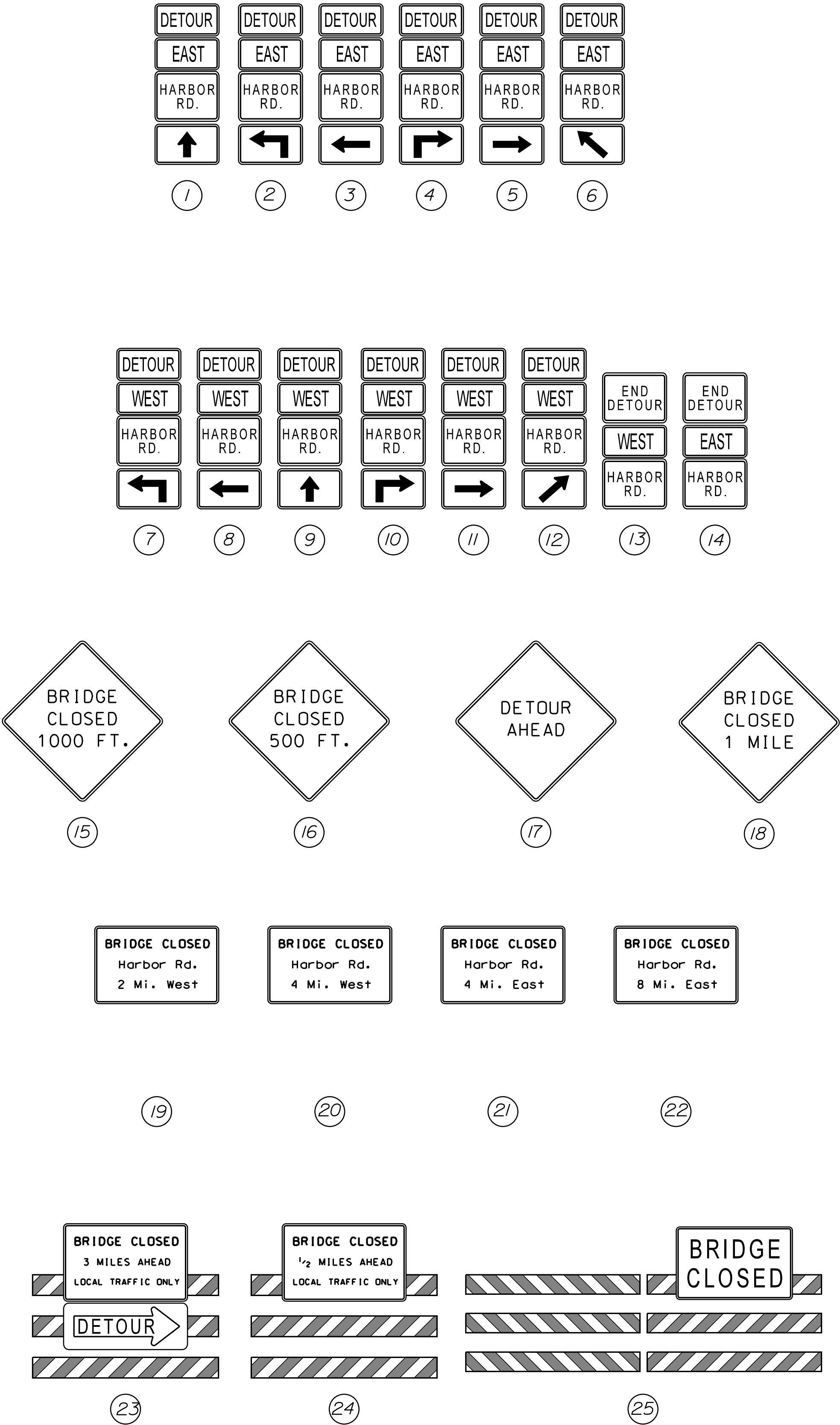
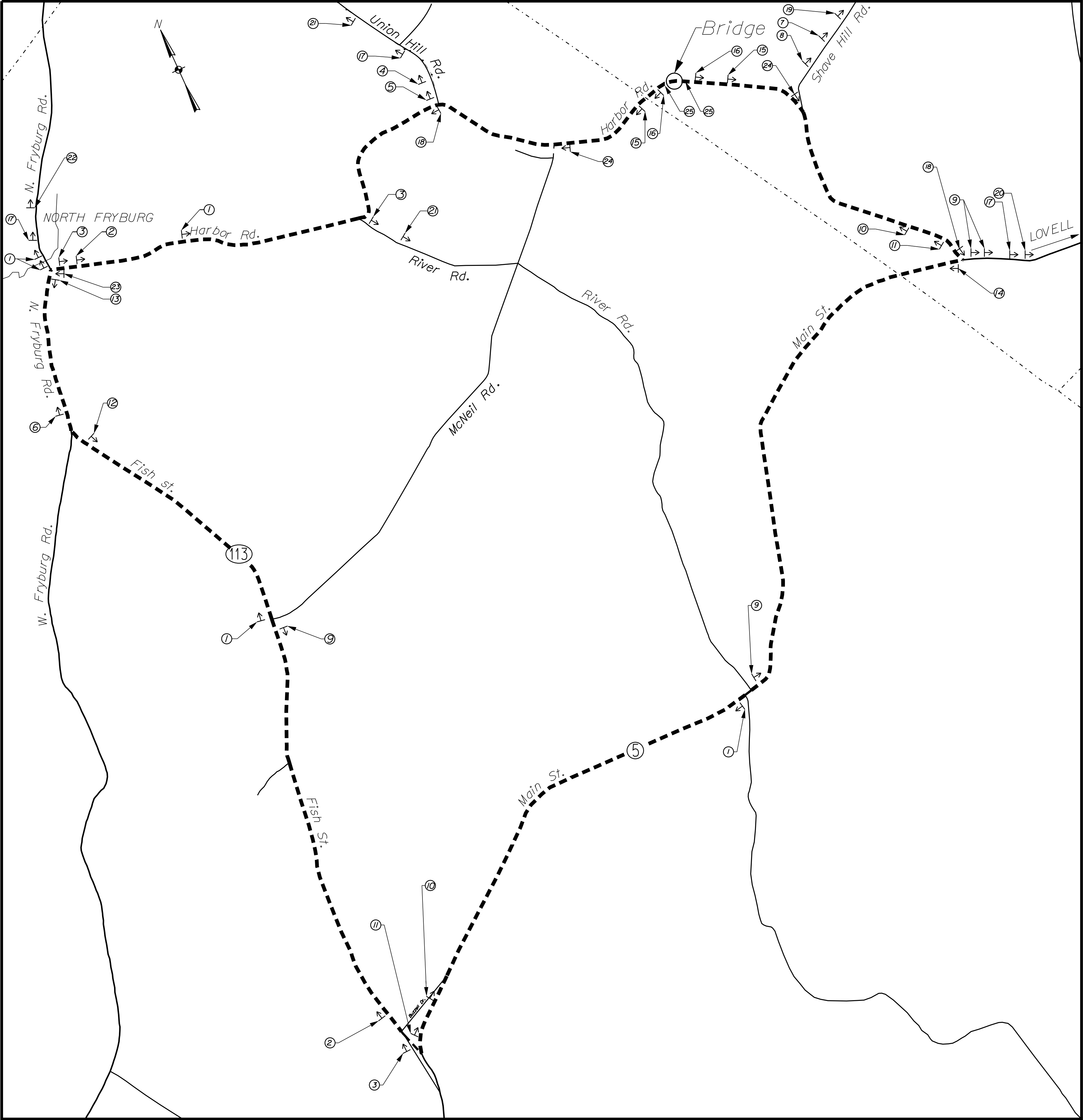
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Username: matthew.critchlow

Division: BRIDGE

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STATE OF MAINE DEPARTMENT OF TRANSPORTATION	22248.00	
	WIN	022248.00
	BRIDGE NO. 3592	HIGHWAY PLANS
CREEK BRIDGE CREEK BROOK LOVELL	OXFORD COUNTY	DATE
		BY
		PROJ. MANAGER
		CHECKED-REVIEWED
DETOUR MAP	SHEET NUMBER	DESIGN-DETAILED
		DESIGNS DETAILED
		REVISIONS 1
		REVISIONS 2
18	OF 18	REVISIONS 3
		REVISIONS 4
		FIELD CHANGES
		DATE