

# STATE OF MAINE DEPARTMENT OF TRANSPORTATION

**SPECIFICATIONS**

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Ninth Edition 2020.

**DESIGN LOADING**

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

**STRUCTURE LIST**

Structure	Station
Felts Brook Bridge, No. 6642	55+08
Felts Tributary Bridge, No. 6643	64+14

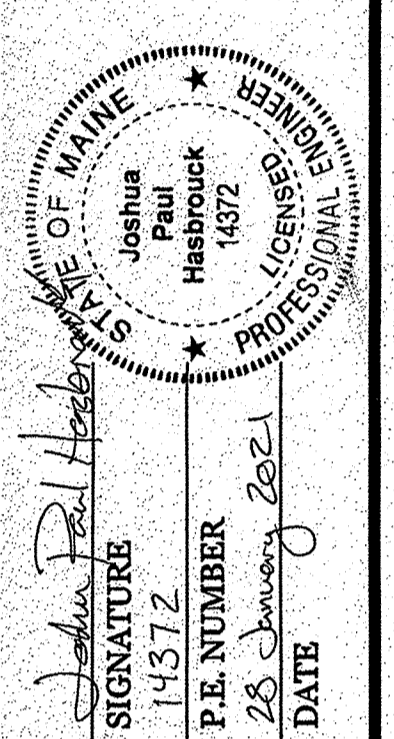


## BREWER-EDDINGTON PENOBSCOT COUNTY I-395/ROUTE 9 CONNECTOR STREAM CROSSINGS FEDERAL AID PROJECT NO. 1891500

**LIST OF DRAWINGS**

Title Sheet.....	1
Precast Box Details - Felts Brook Bridge.....	2
Precast Box Details - Felts Tributary Bridge.....	3
Precast Box Details - Headwall & Toewall.....	4

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER: <i>[Signature]</i>	<i>[Signature]</i>	2-18-21
CHIEF ENGINEER: <i>[Signature]</i>		2-18-21



PROJECT INFORMATION	BRIDGE
PROGRAM	M. WIGHT
PROJECT MANAGER	J. HASBROUCK
DESIGNER	N/A
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN018915.70

1891500  
BREWER-EDDINGTON  
I-395/ROUTE 9 CONNECTOR  
TITLE SHEET

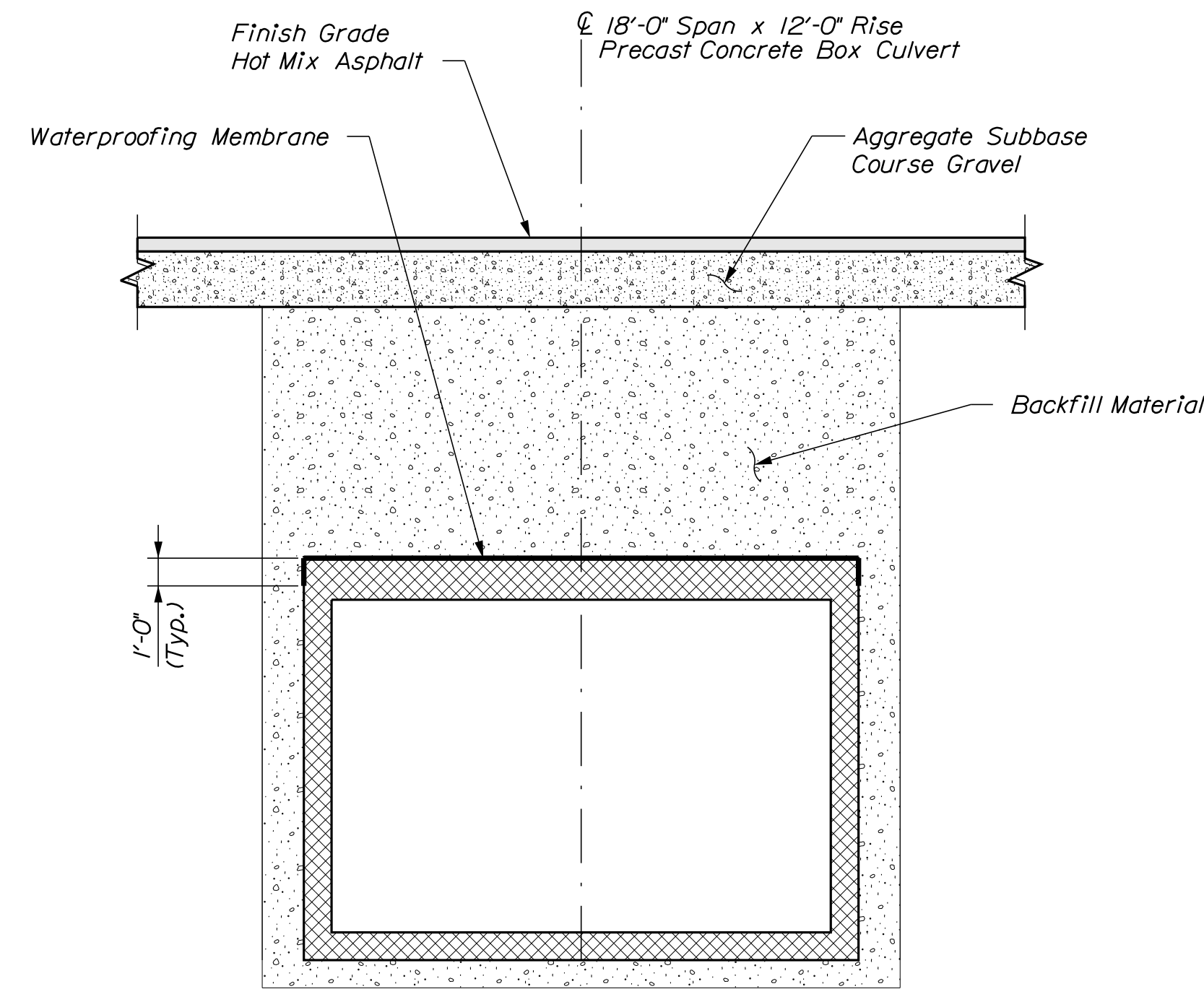
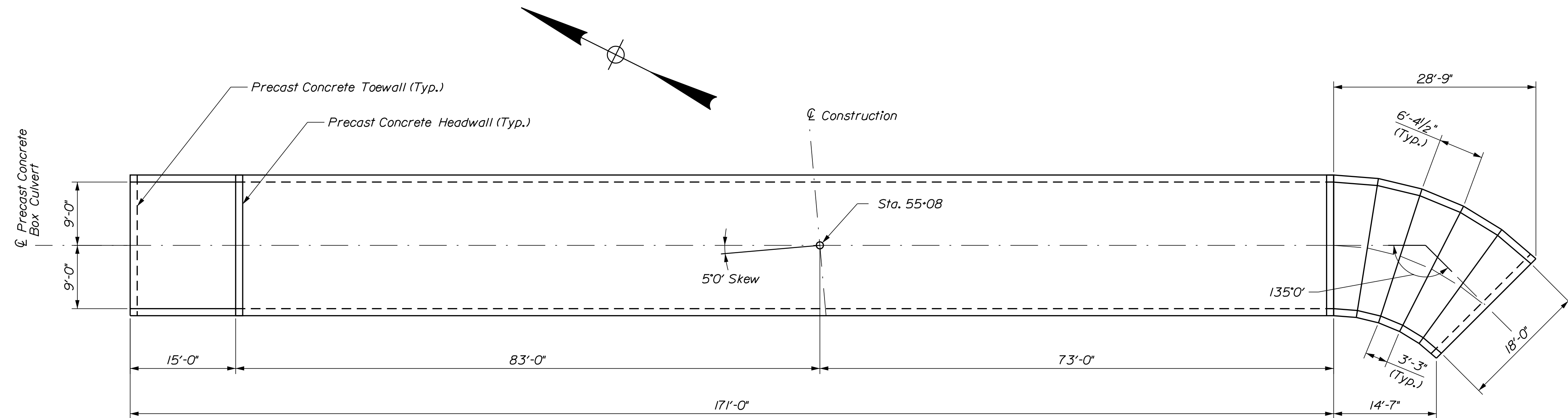
**PROJECT LOCATION** Starting in Brewer at the intersection of I-395 and Wilson Street (Route 1A). Ending in Eddington on Route 9 approximately 1000' west of where Route 9 crosses Meadow Brook.

SHEET NUMBER  
**1**  
OF 4

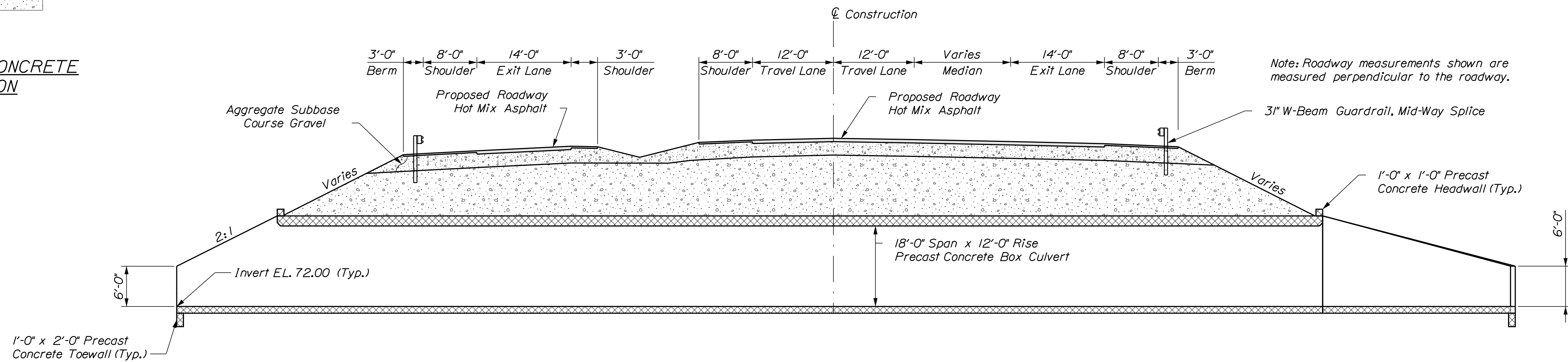
Date: 1/28/2021  
Username: common  
Division: HIGHWAY  
Filename: \\70\BRIDGE\MSTA\001\_Title.dgn

**PRECAST CONCRETE BOX CULVERT NOTES**

1. The minimum fill cover is 9.18'± at Sta. 55+3.55±; 62.42'± Lt. (Edge of Shoulder, Ramp 'D')
2. The maximum fill cover is 11.70'± at Sta. 54+98.1±;  $\bar{C}$  Roadway
3. The precast units shall be designed to carry construction loadings with a minimum fill cover of 18 inches on top of the units.
4. Backfill material in final construction will vary, and includes lightweight fill in some areas. For design, assume Granular Borrow material will be used for all structures.
5. The bedding detail underneath the box will vary based on soil conditions, but will be a minimum of 1' of granular material. Additional geotechnical information may be requested from the Department if required for design.
6. All surfaces of the precast concrete units, except horizontal surfaces that are facing downwards while in storage, shall be coated with Protective Coating for Concrete Surfaces meeting the requirements of Standard Specifications Section 515. Protective Coating will not be paid for separately, but will be incidental to the precast concrete box culvert.



**PROPOSED TYPICAL PRECAST CONCRETE BOX TRANSVERSE SECTION**



**PROPOSED TYPICAL PRECAST CONCRETE BOX LONGITUDINAL SECTION**

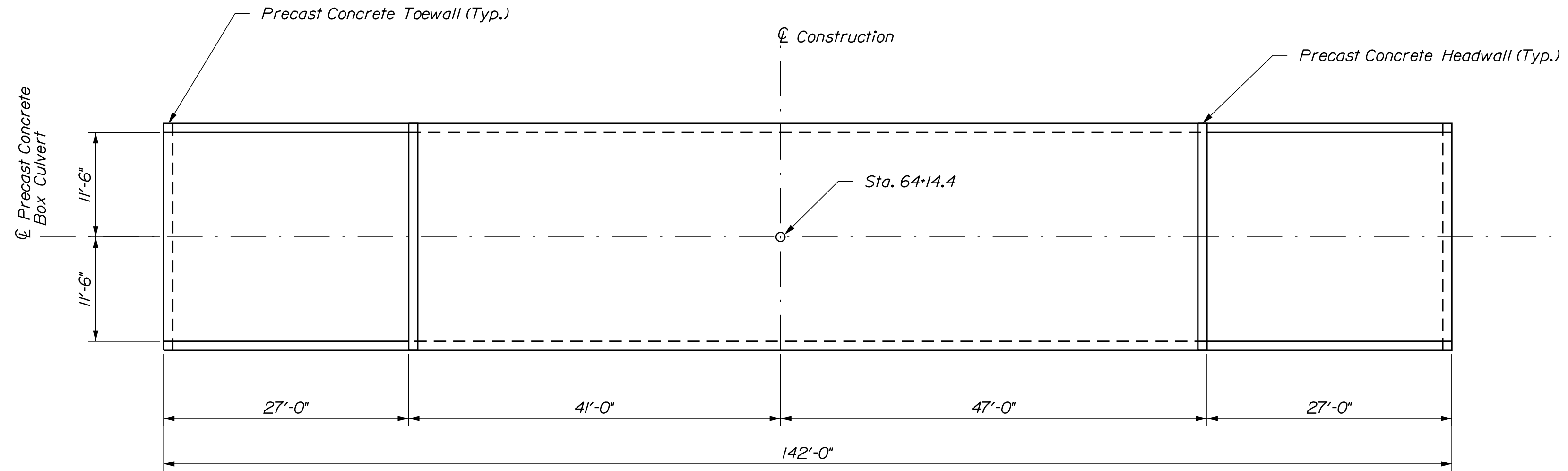
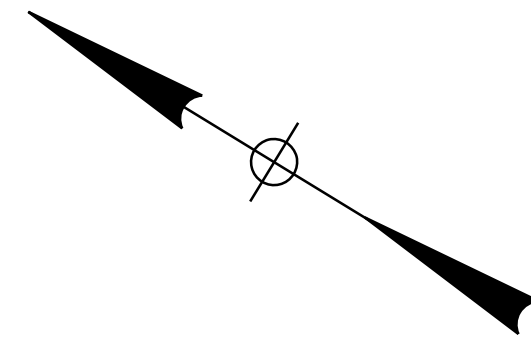
Section Along  $\bar{C}$  of Concrete Box at Sta. 55+08 Skewed 5° Ahead on Left

Filename: ... \002\_Btypical\_FeltsBrook.dgn Division: BRIDGE Username: Richard.Mayer Date: 1/17/2021

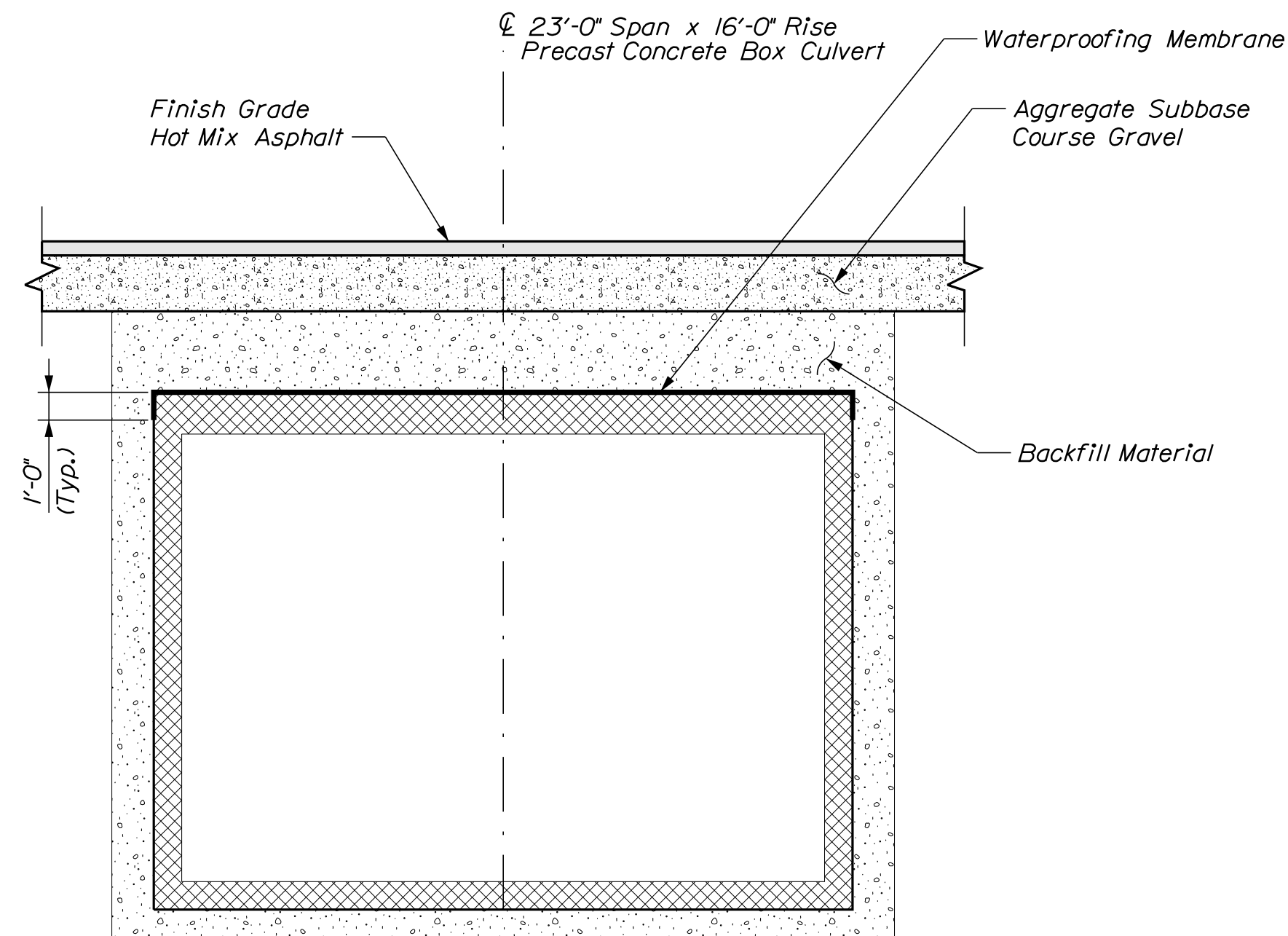
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		1891500	
BRIDGE NO. 6642		WIN 018915.70	
I-395/ROUTE 9 CONNECTOR FELTS BROOK (55+08)		PRECAST BOX DETAILS - FELTS BROOK BRIDGE	
PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN DETAILED	J. HASBROUCK	R. MAYER	OCT. 2020
CHECKED/REVIEWED	R. MYERS	D. SHAW	OCT. 2020
DESIGNS DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
		SIGNATURE	DATE
		P.E. NUMBER	DATE
SHEET NUMBER		BRIDGE PLANS	
2			
		OF 4	

**PRECAST CONCRETE BOX CULVERT NOTES**

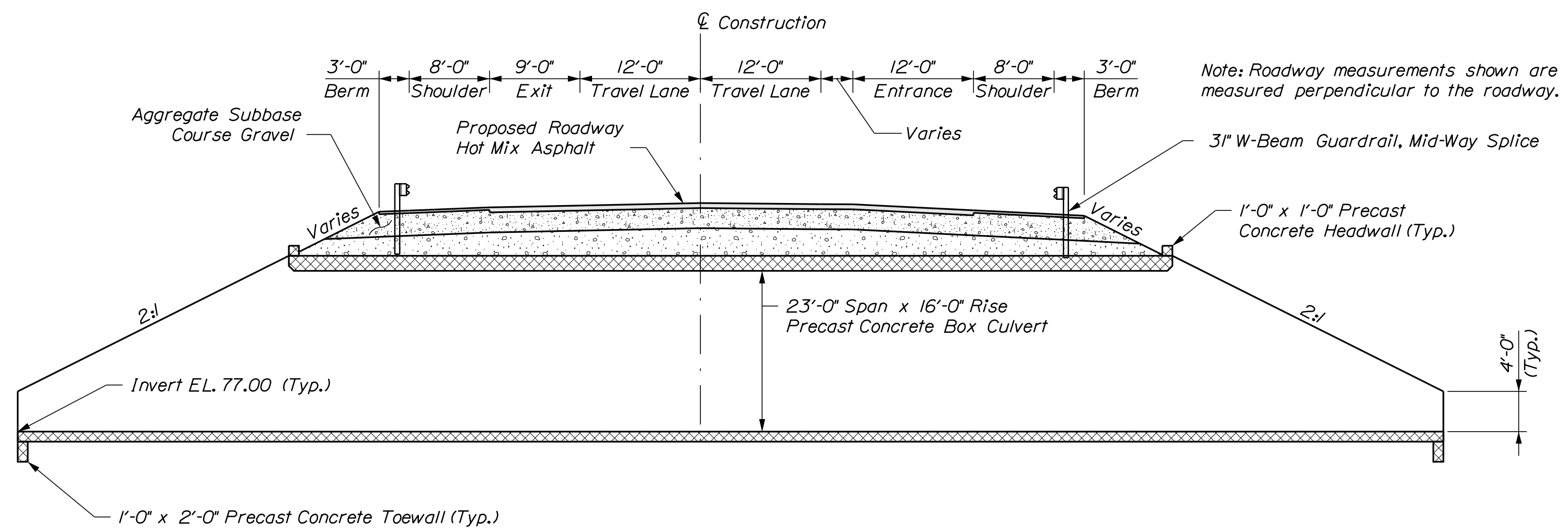
1. The minimum fill cover is 4.19'± at Sta. 64+1.88± ; 35'± Rt. (Edge of Shoulder, Ramp 'F')
2. The maximum fill cover is 5.52'± at Sta. 64+26.88± ; CL Roadway
3. The precast units shall be designed to carry construction loadings with a minimum fill cover of 18 inches on top of the units.
4. Backfill material in final construction will vary, and includes lightweight fill in some areas. For design, assume Granular Borrow material will be used for all structures.
5. The bedding detail underneath the box will vary based on soil conditions, but will be a minimum of 1' of granular material. Additional geotechnical information may be requested from the Department if required for design.
6. All surfaces of the precast concrete units, except horizontal surfaces that are facing downwards while in storage, shall be coated with Protective Coating for Concrete Surfaces meeting the requirements of Standard Specifications Section 515. Protective Coating will not be paid for separately, but will be incidental to the precast concrete box culvert.



**PROPOSED PRECAST CONCRETE BOX PLAN**



**PROPOSED TYPICAL PRECAST CONCRETE BOX TRANSVERSE SECTION**



**PROPOSED TYPICAL PRECAST CONCRETE BOX LONGITUDINAL SECTION**

Section Along CL of Concrete Box at Station 64+14.4

Date: 1/7/2021

Username: Richard.Mayer

Division: BRIDGE

Filename: ... \003\_Btypical\_FeltsBrookTrib.dgn

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

1891500

BRIDGE NO. 018915.70  
WIN

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	M. WIGHT	BY	DATE
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CHECKED/REVIEWED	R. MYERS	D. SHAW	OCT. 2020
DESIGN DETAILED			
REVISIONS 1			
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

I-395/ROUTE 9 CONNECTOR

FELTS BROOK TRIBUTARY (64 + 14)

BREWER-EDDINGTON PENOBSCOT COUNTY

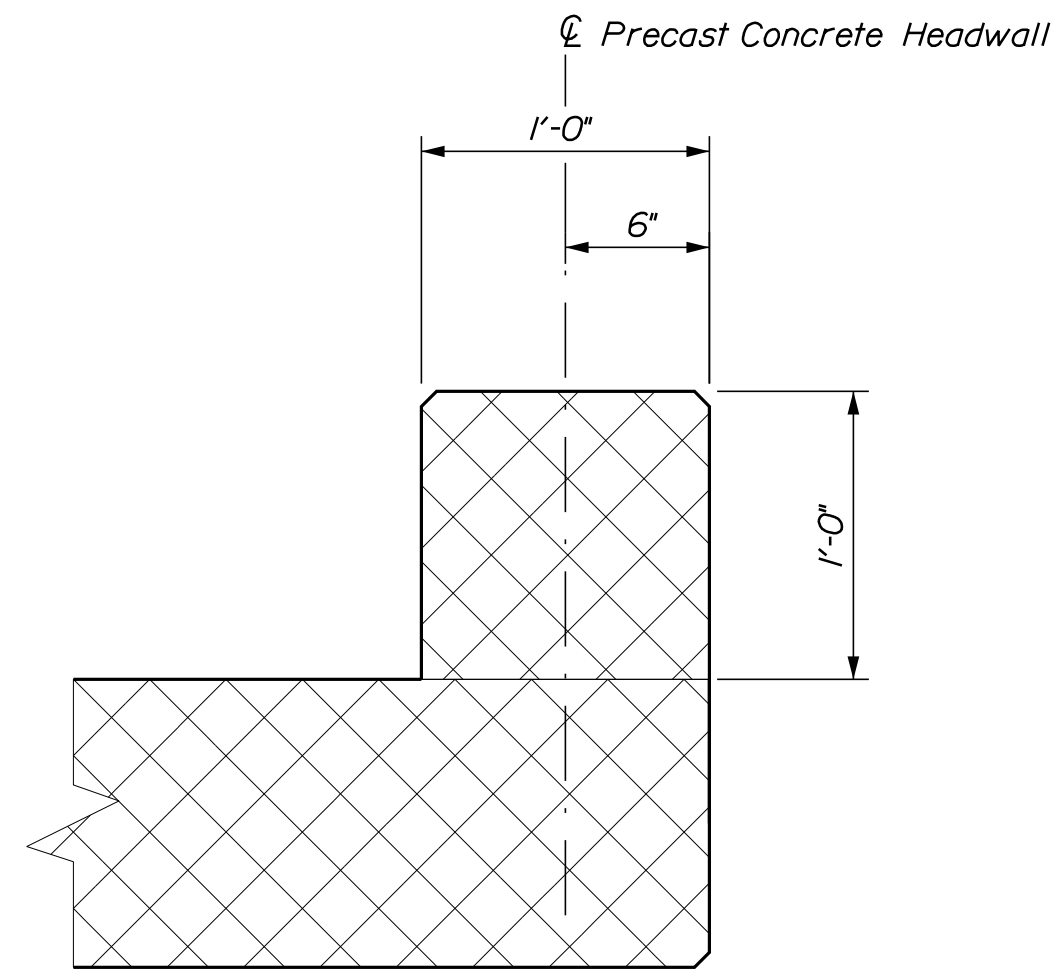
PRECAST BOX DETAILS -

FELTS TRIBUTARY BRIDGE

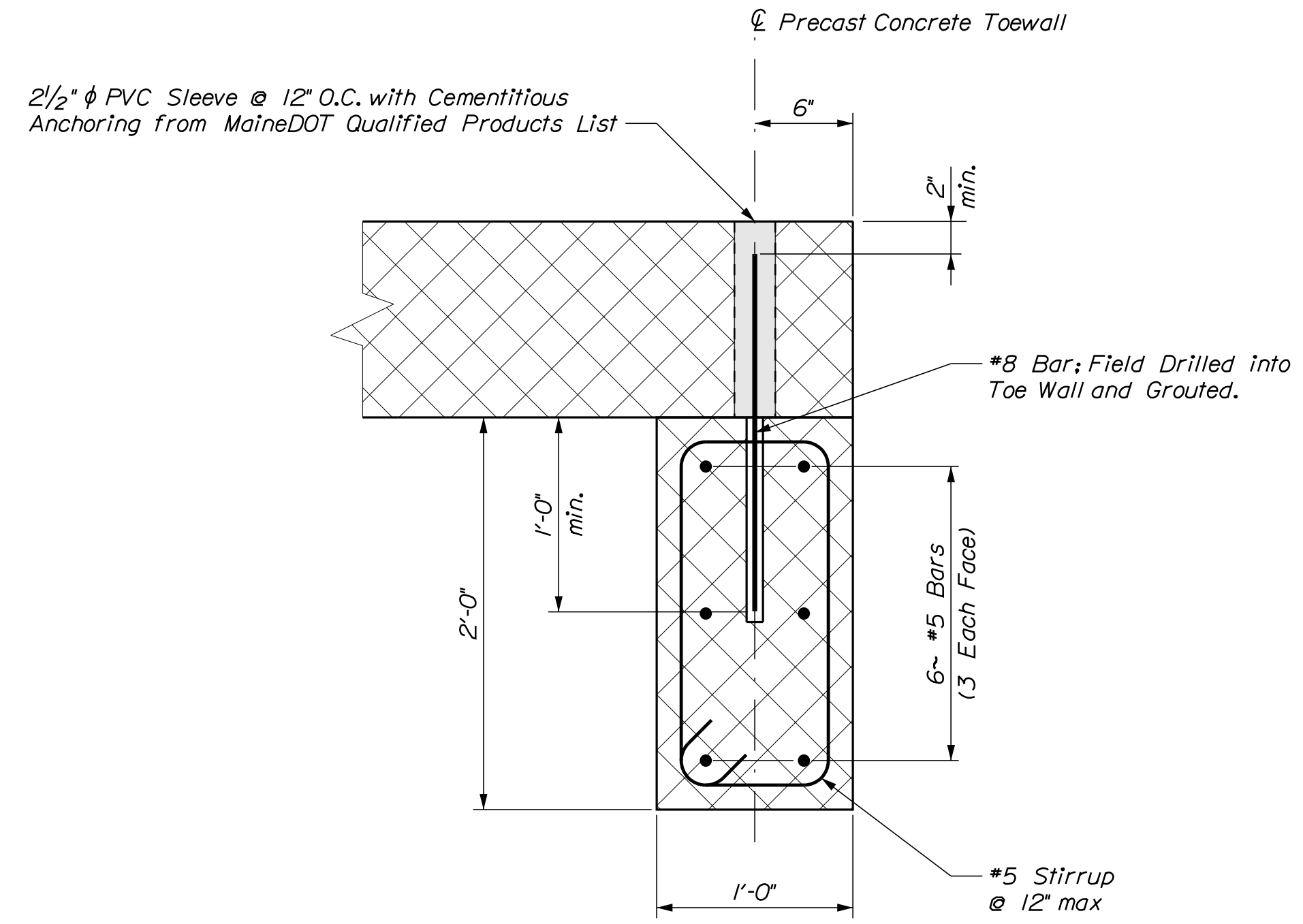
SHEET NUMBER

3

OF 4



PRECAST CONCRETE HEADWALL DETAIL



PRECAST CONCRETE TOEWALL DETAIL

SHEET NUMBER

4

OF 4

I-395/ROUTE 9 CONNECTOR  
 VARIOUS BRIDGES  
 BREWER-EDDINGTON PENOBSCOT COUNTY  
**PRECAST BOX DETAILS -  
 HEADWALL & TOEWALL**

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN-DETAILED	J. HASBROUCK	R. MAYER	OCT. 2020
CHECKED-REVIEWED	R. MYERS	D. SHAW	OCT. 2020
DESIGN-DETAILED			
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SIGNATURE  
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**1891500**  
 WIN  
 BRIDGE NO. 018915.70  
 BRIDGE PLANS