

# STATE OF MAINE DEPARTMENT OF TRANSPORTATION



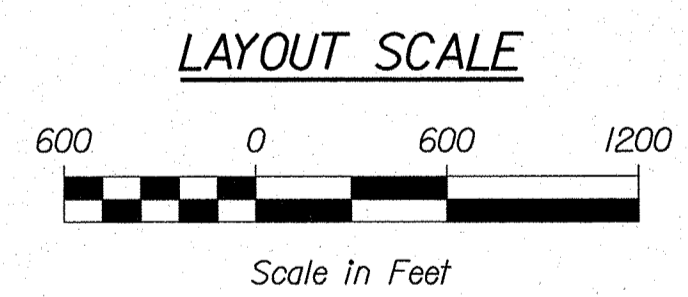
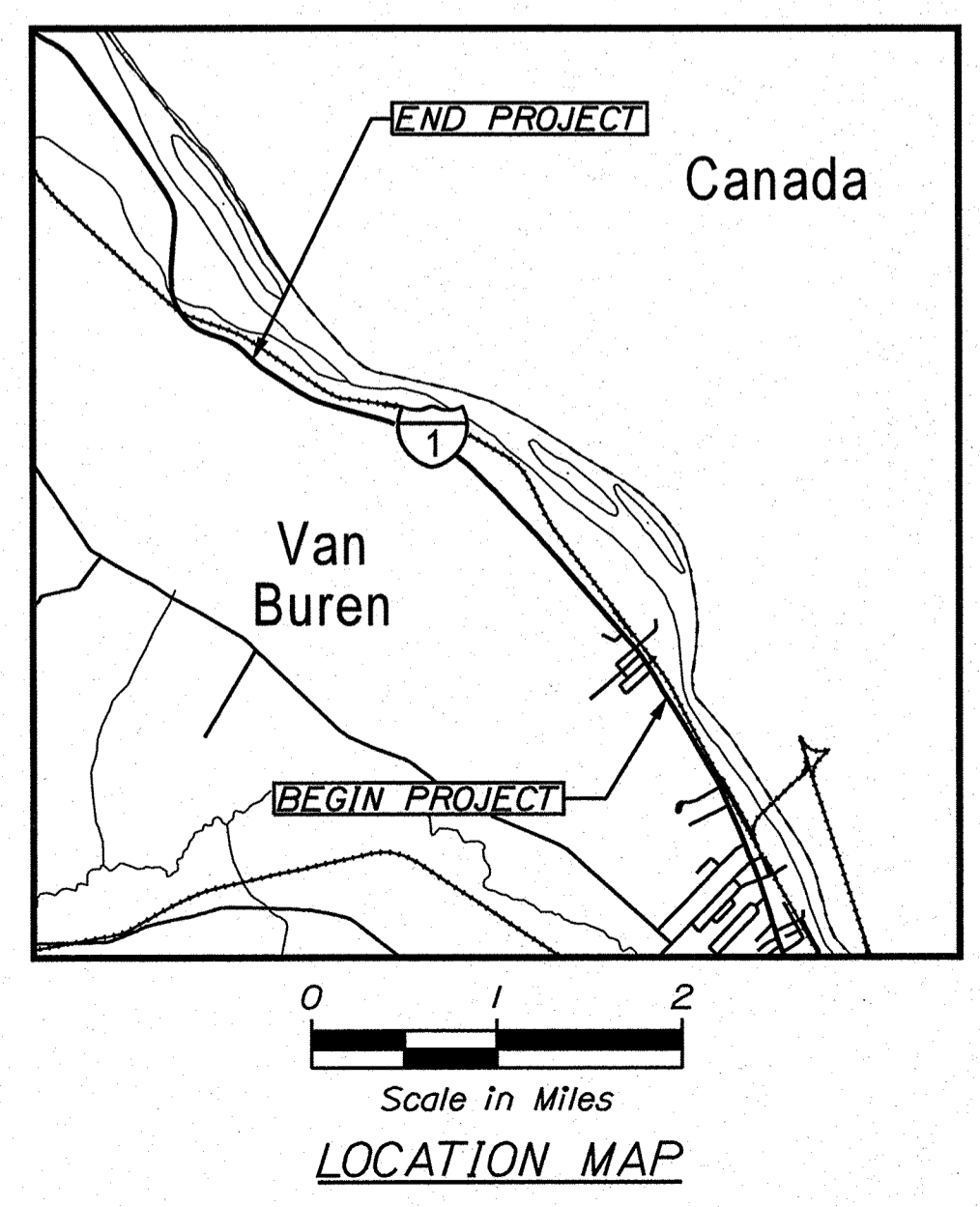
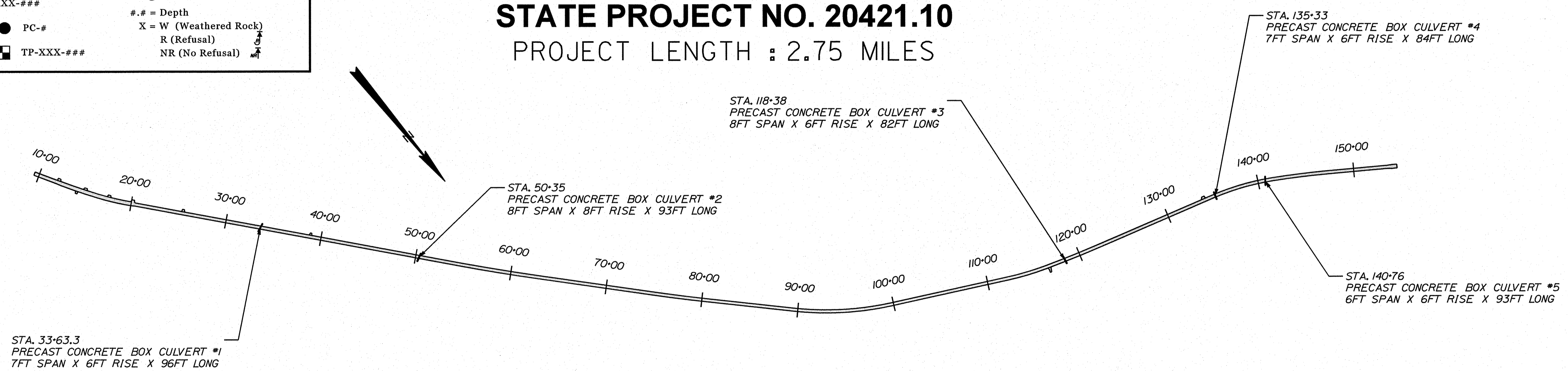
## VAN BUREN AROOSTOOK COUNTY

US ROUTE 1

**STATE PROJECT NO. 20421.10**  
PROJECT LENGTH : 2.75 MILES

PLAN LEGEND			
Town, County, State	-----	Catch Basins	Existing ■ Proposed
Property Lines	-----	Manholes	Existing ○ Proposed ●
R/W Lines-Existing	-----	Proposed Underdrain	-----
R/W Lines-Proposed	-----	Proposed Ditch	-----
Culvert-Existing	-----	Existing Ditch	-----
Culvert Proposed	-----	Utility Poles	Existing ◇ Proposed ◆
Curbing Existing	-----	Fire Hydrants	Existing ⊕ Proposed ⊕
Type 1	-----	Existing Water Line	-----
Type 3	-----	Existing San. Sewer	-----
Type 5	-----	Existing San. Sewer Manhole	⊙
Outline of Bodies of Water	-----	Guardrail-Existing	-----
Exposed Bedrock	-----	Guardrail-Proposed	-----
Buildings	-----	Guardrail-Cable, Other	-----
Trees	Conifer ⊕ Deciduous ⊕	Centerline-Existing	-----
Tree Line	-----	Centerline-Proposed	-----
Clearing Limit Line	-----	Travelway-Existing	-----
Railroad	-----	Travelway-Proposed	-----
Boring	HB-XXX-###	Probe	P-#. #X
Pavement Core	● PC-#	### = Depth	
Test Pit	■ TP-XXX-###	X = W (Weathered Rock)	
		R (Refusal)	
		NR (No Refusal)	

INDEX OF SHEETS	
Description	Sheet No.
Title Sheet	1
Box Culvert #1 Details Sta. 33+63.3	2-3
Box Culvert #2 Details Sta. 50+35	4-5
Box Culvert #3 Details Sta. 118+38	6-7
Box Culvert #4 Details Sta. 135+33	8-9
Box Culvert #5 Details Sta. 140+76	9-11



TRAFFIC DATA	
Current (2022) AADT	1600
Future (2034) AADT	1700
Future (2042) AADT	1760
DHV - % of AADT	10%
Design Hour Volume	176
% Heavy Trucks (AADT)	16%
% Heavy Trucks (DHV)	14%
Directional Distribution (DHV)	51%
Design Speed (mph)	30, 45, 50
Functional Class	Principal Arterial
Corridor Priority	1

<b>PROJECT LOCATION:</b>	Located on Route 1, beginning approximately 0.05 miles South of Monroe Street and extending Northerly 2.75 miles
<b>PROGRAM AREA:</b>	Highway Program
<b>SCOPE OF WORK:</b>	Highway Rehabilitation

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER: <i>[Signature]</i>		11-2-22
CHIEF ENGINEER: <i>[Signature]</i>		11-8-2023

Todd Clark	SIGNATURE	12/06	P.E. NUMBER	10/26/2022	DATE
ROGER SOUCY	TODD CLARK	HOYLE, TANNER			

PROGRAM	PROJECT MANAGER	DESIGNER	CONSULTANT	PROJECT RESIDENT	CONTRACTOR	PROJECT COMPLETION DATE
HIGHWAY	ROGER SOUCY	TODD CLARK	HOYLE, TANNER			

WIN 20421.10 STATE PROJECT NO. 20421.10

VAN BUREN US ROUTE 1	TITLE SHEET
SHEET NUMBER	1

Date:10/26/2022

Username:

Division: BRIDGE

Filename: ...MSTA\001\_Title\_Pre\_By.dgn

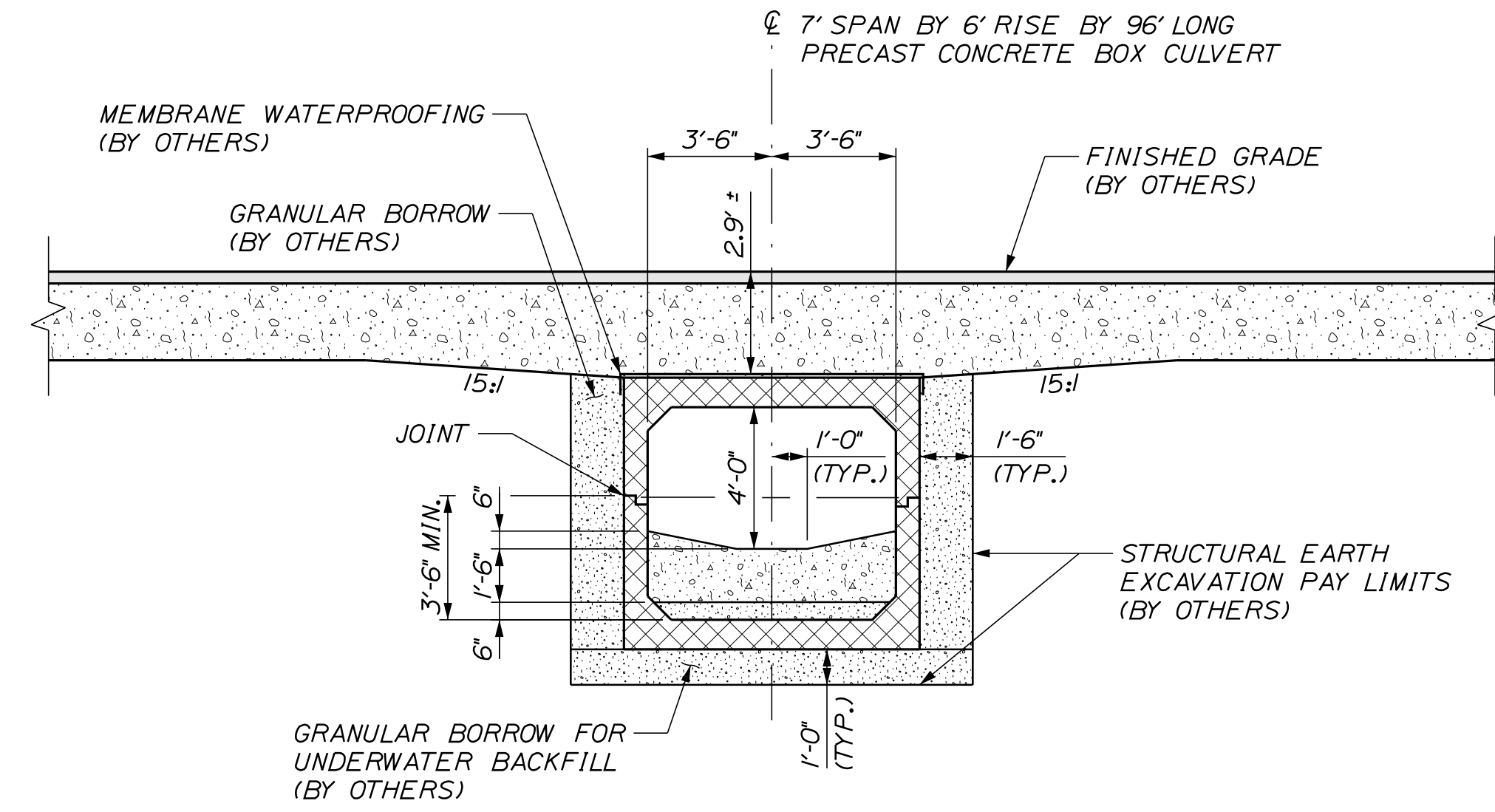


Date: 11/1/2022

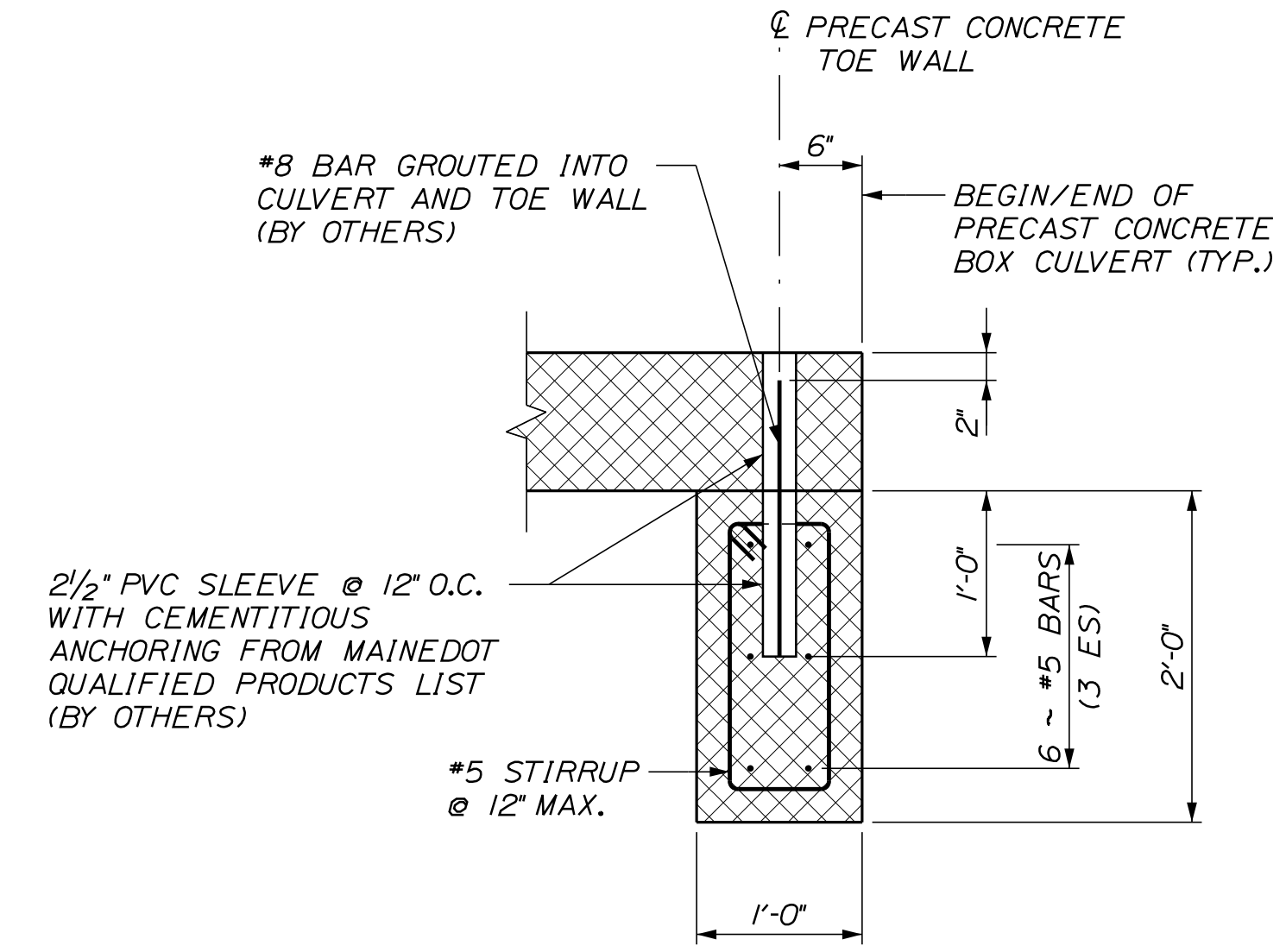
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Division: BRIDGE

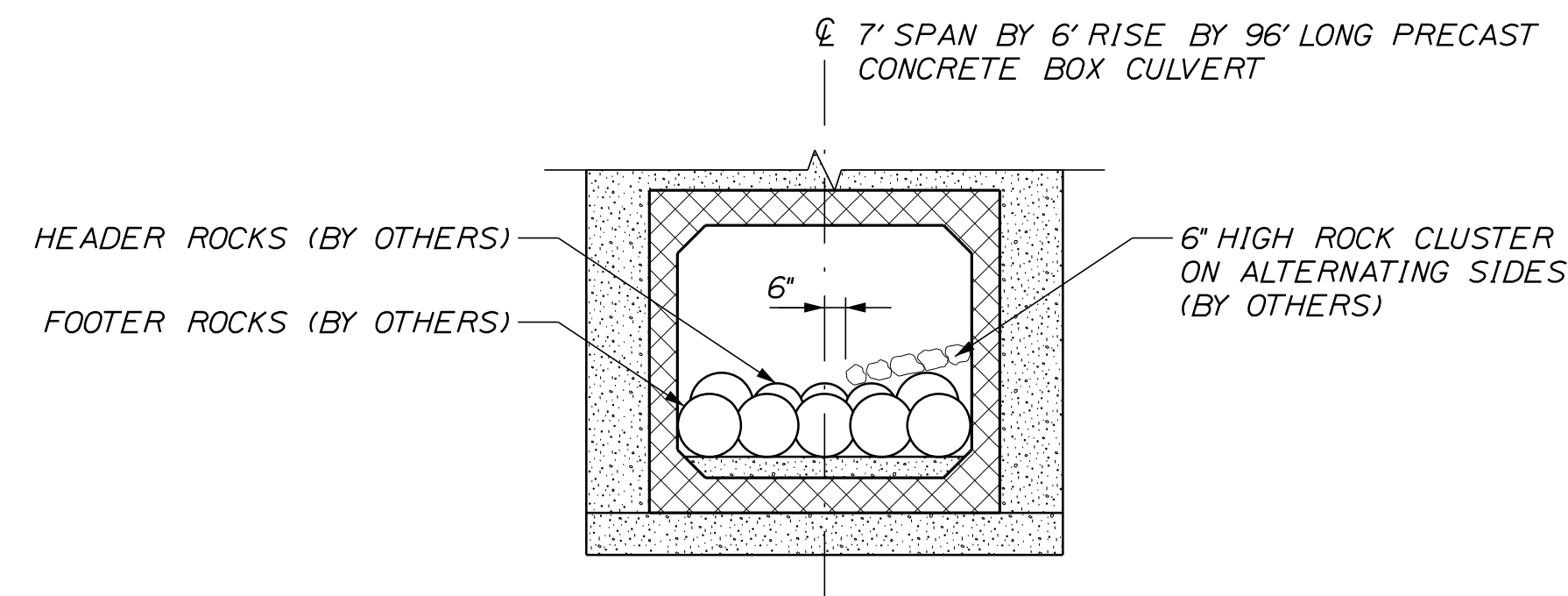
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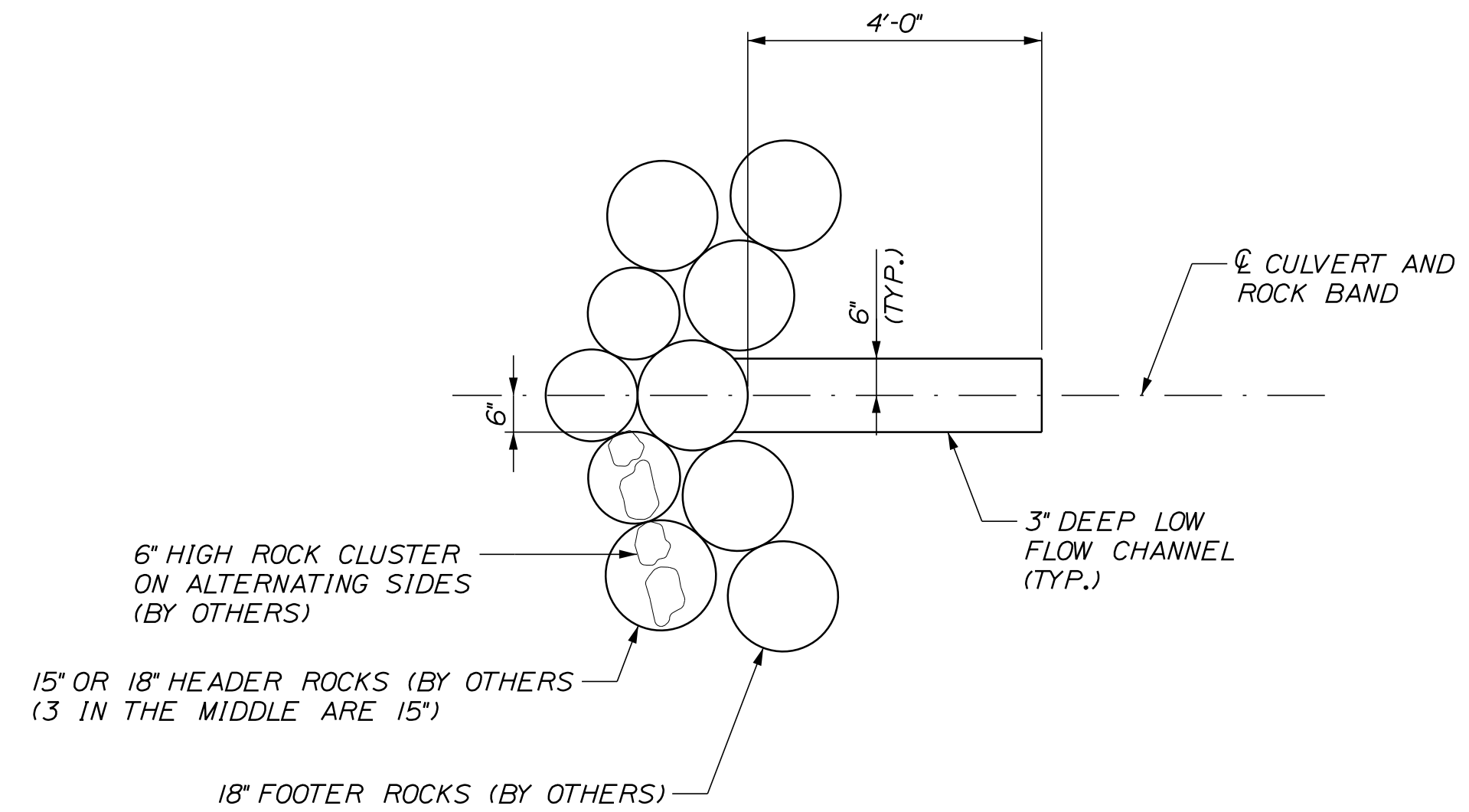
PRECAST CONCRETE BOX CULVERT #1 SECTION



PRECAST CONCRETE BOX CULVERT #1 TOE WALL DETAIL



PRECAST CONCRETE BOX CULVERT #1 STREAM BED SECTION - ROCK BANDS (LOOKING UPSTREAM)



PRECAST CONCRETE BOX CULVERT #1 ROCK BAND DETAIL (BY OTHERS)

NOT TO SCALE

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 STATE PROJECT NO. 20421.10  
 WIN 20421.10  
 HIGHWAY PLANS

PROJ. MANAGER	R. SOURCE	BY	DATE
DESIGN-DETAILED	J.F.M.S.	KDP	
CHECKED-REVIEWED	J.C.	TMC	
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

VAN BUREN  
 US ROUTE 1  
 BOX CULVERT #1 DETAILS  
 STA. 33+63.3

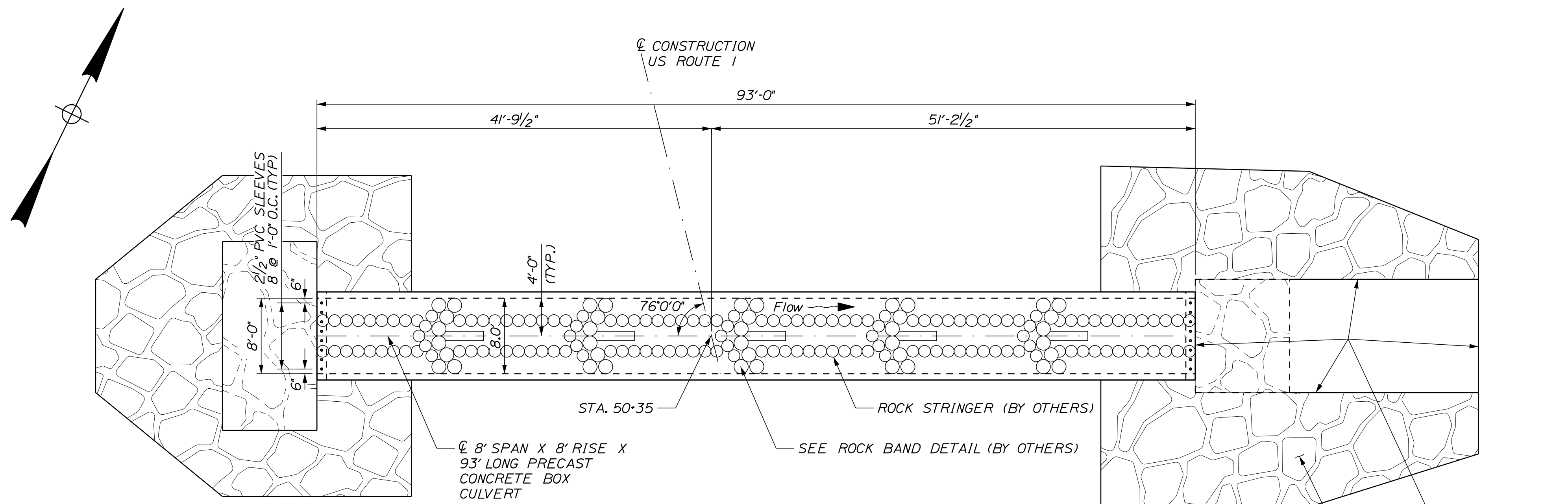
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 3  
 OF 11

Date: 11/1/2022

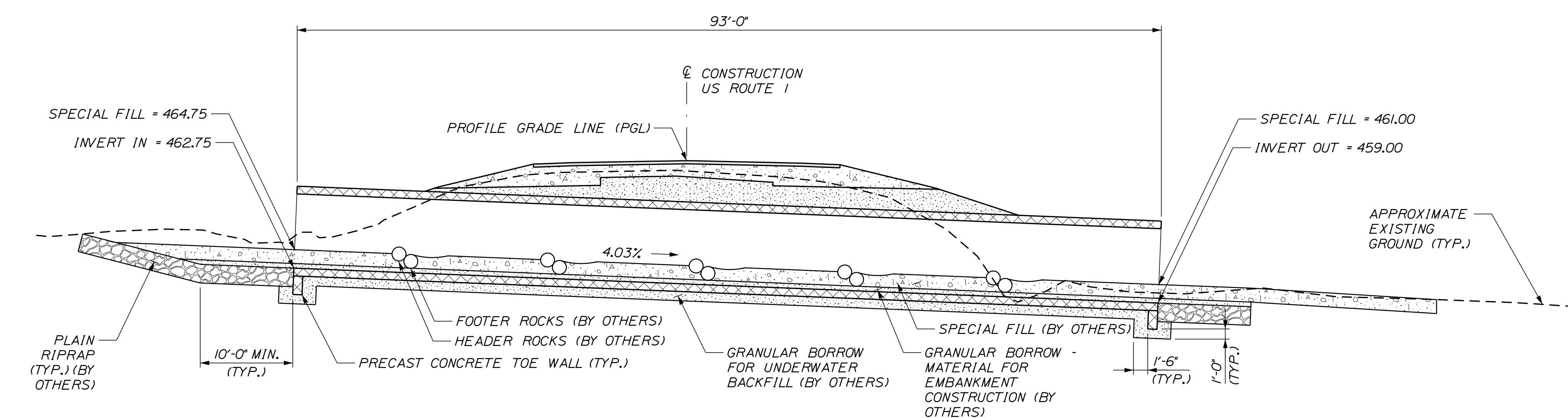
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Division: BRIDGE

Filename: ... \004\_Precast\_50-35\_1\_Prebay.dgn



**PRECAST CONCRETE BOX CULVERT #2**  
**PLAN**  
 (SPECIAL FILL IN CULVERT NOT SHOWN)



**PRECAST CONCRETE BOX CULVERT #2**  
**SECTION**  
 (ALONG  $\phi$  CULVERT)

**PRECAST CONCRETE BOX CULVERT NOTES**

1. THE PRECAST UNITS SHALL BE DESIGNED TO CARRY CONSTRUCTION LOADING WITH A MINIMUM FILL COVER OF 18" OVER THE TOP OF THE UNITS.
2. THE CONSTRUCTION, HANDLING, AND ASSEMBLY OF THE PRECAST UNITS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 534, PRECAST STRUCTURAL CONCRETE, AND WITH THE MANUFACTURER'S SPECIFICATIONS AS APPLICABLE.
3. A "CLAMSHELL" TYPE PRECAST CONCRETE BOX CULVERT SHALL BE USED. HORIZONTAL SEAM WILL BE A MINIMUM OF 4 FT ABOVE INVERT.
4. THE PRECAST CONCRETE BOX CULVERT SHALL BE BEDDED ON A 1-FOOT LAYER OF COMPACTED GRANULAR BORROW MATERIAL FOR UNDERWATER BACKFILL (BY OTHERS).

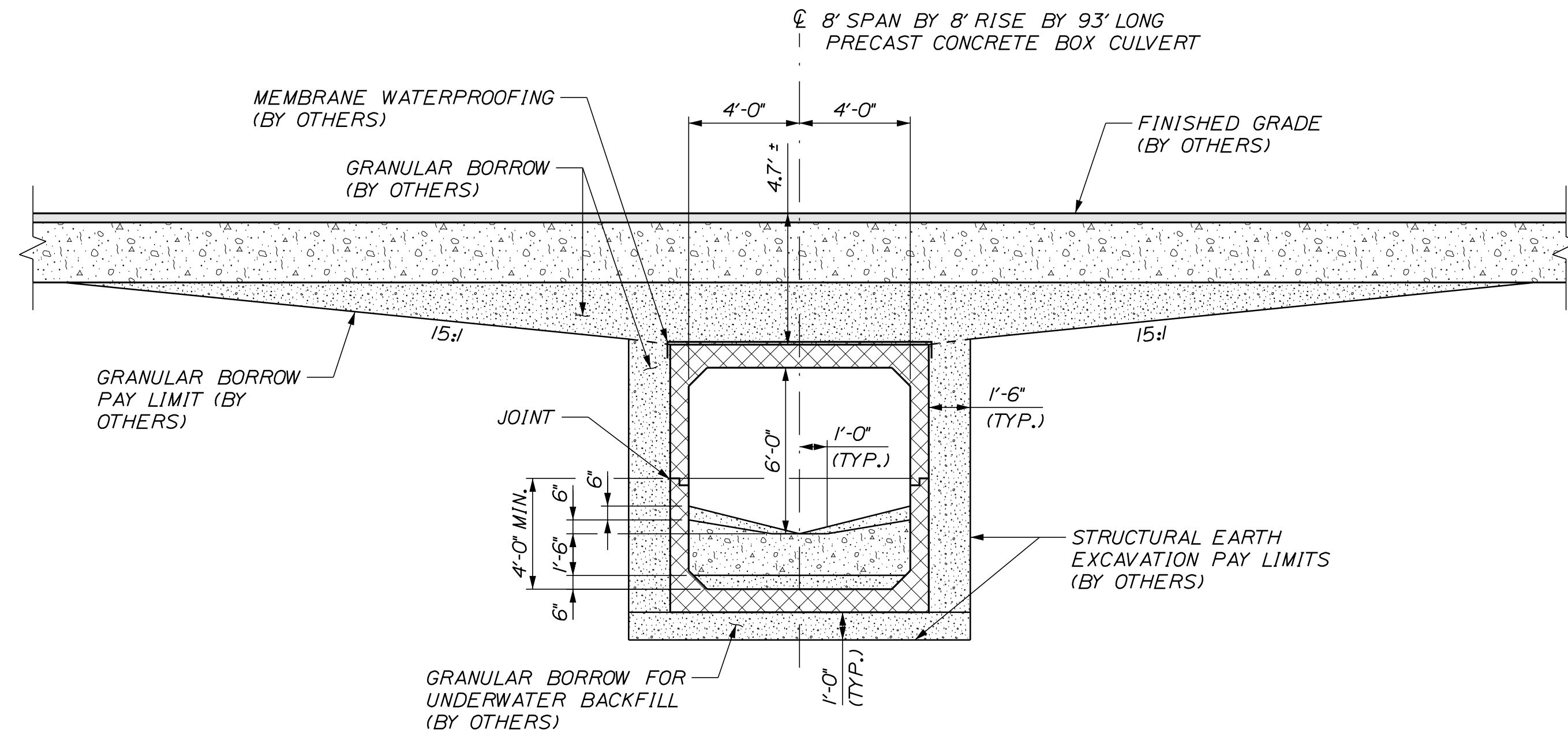
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WIN		20421.10		HIGHWAY PLANS	
PROJ. MANAGER	DESIGN-DETAILED	DESIGNED	CHECKED	DATE	SIGNATURE
R. SOUCY	J.F.M.	J.C.C.	T.M.C.		
DESIGNED	DESIGNED	DESIGNED	DESIGNED		
REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4		
VAN BUREN US ROUTE 1			BOX CULVERT #2 DETAILS STA. 50+35		
SHEET NUMBER			4		
NOT TO SCALE			OF 11		

Date: 11/1/2022

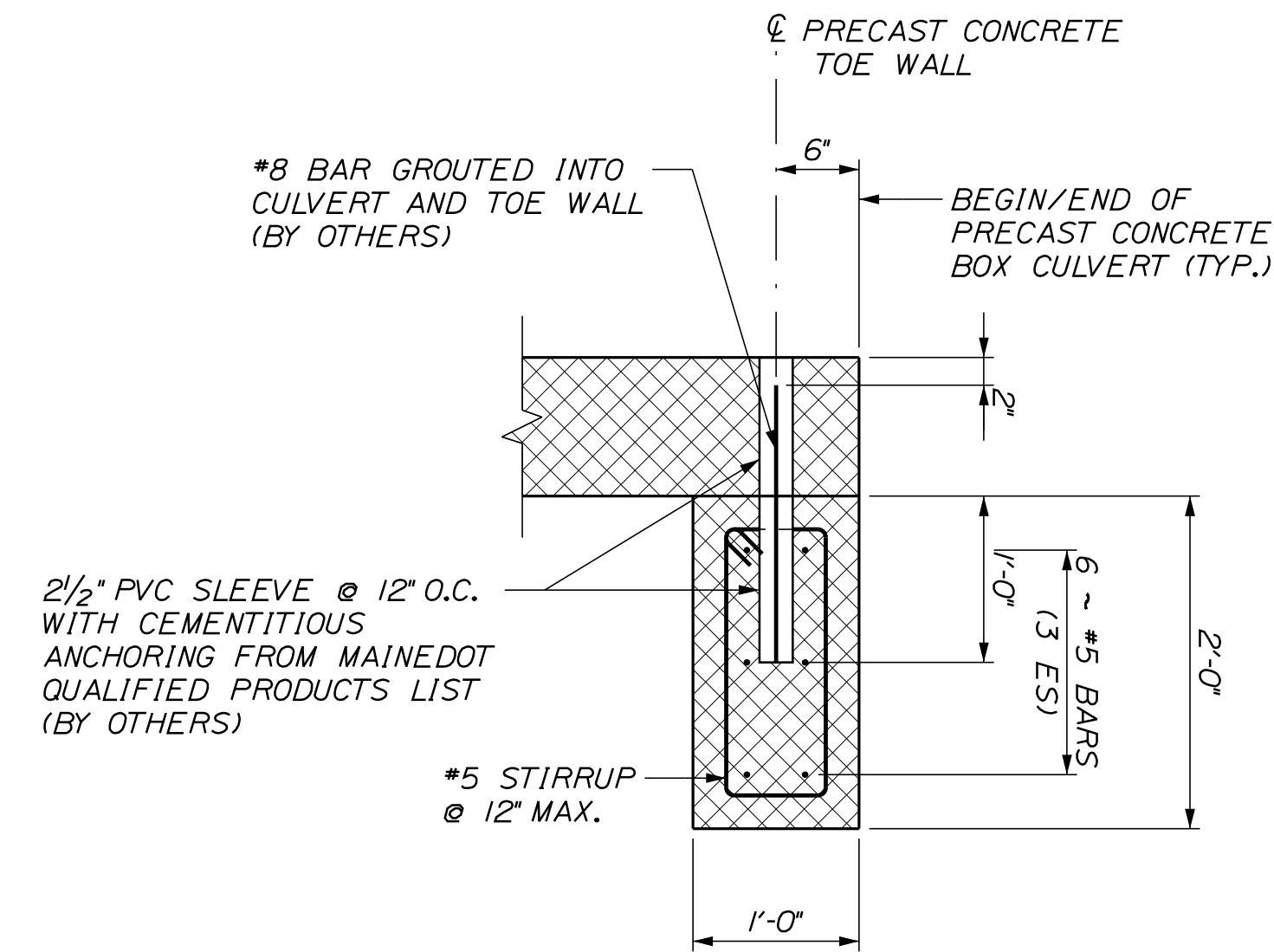
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Division: BRIDGE

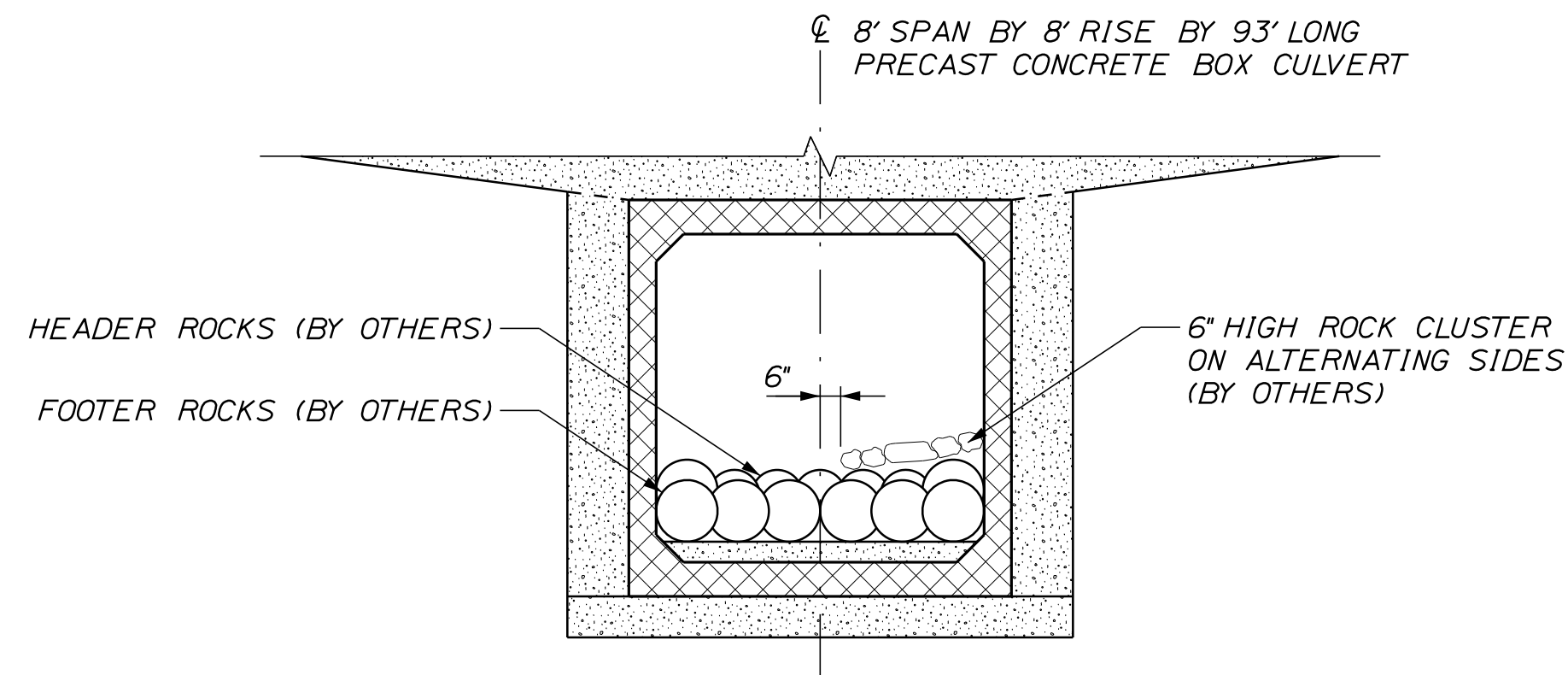
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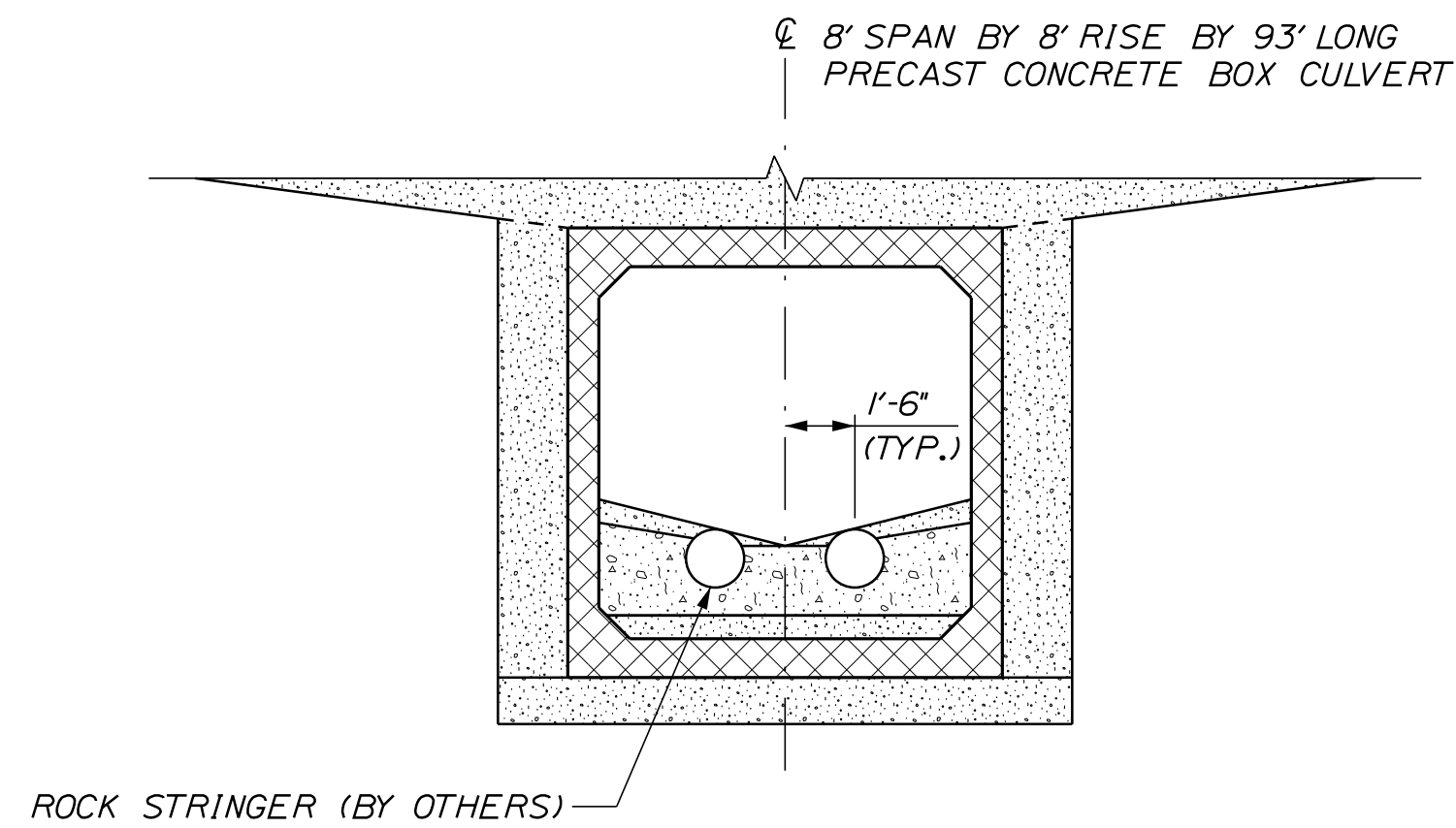
PRECAST CONCRETE BOX CULVERT #2 SECTION



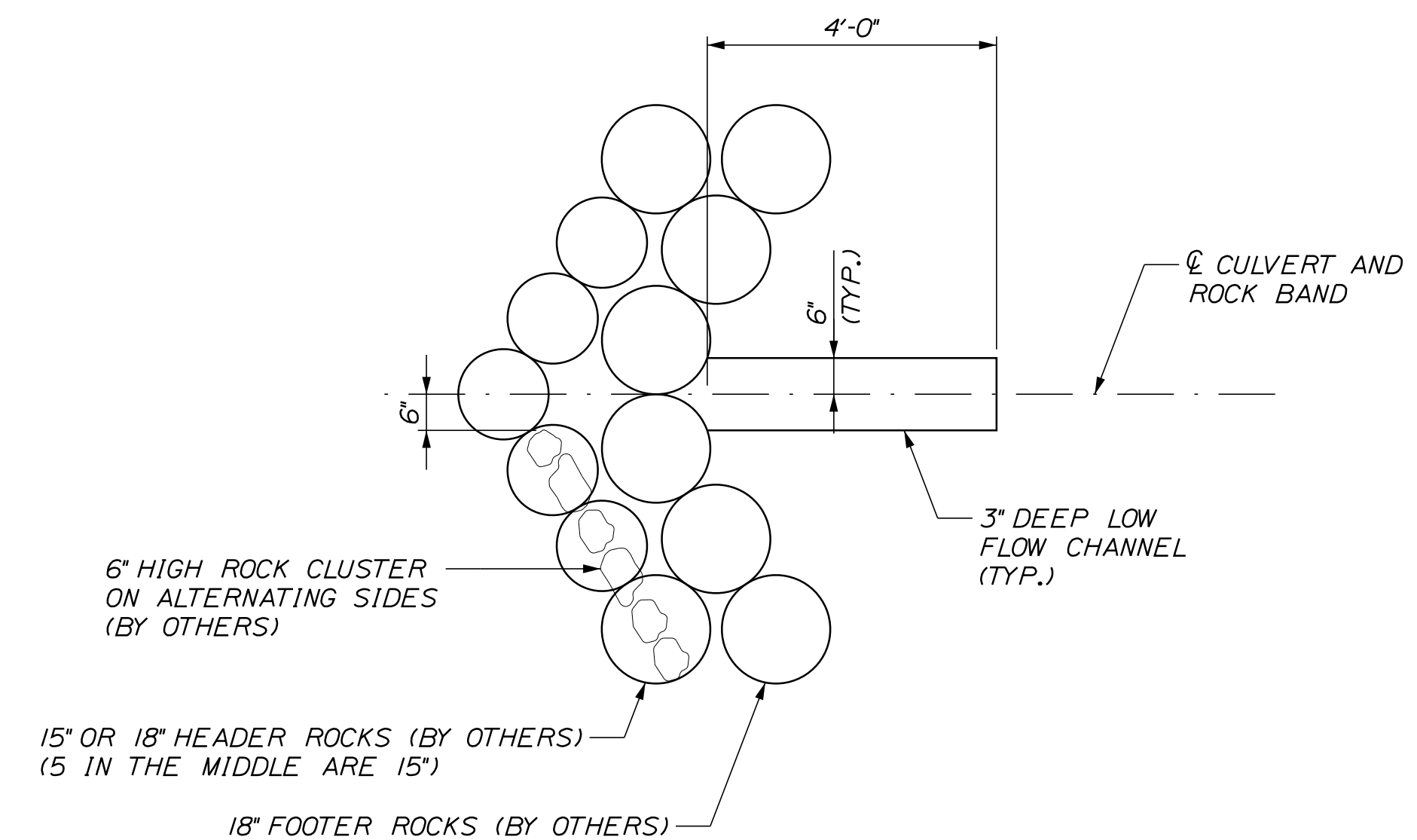
PRECAST CONCRETE BOX CULVERT #2 TOE WALL DETAIL



PRECAST CONCRETE BOX CULVERT #2 STREAM BED SECTION - ROCK BANDS (LOOKING UPSTREAM)



PRECAST CONCRETE BOX CULVERT #2 STREAM BED SECTION - BETWEEN ROCK BANDS (LOOKING UPSTREAM)



PRECAST CONCRETE BOX CULVERT #2 ROCK BAND DETAIL (BY OTHERS)

NOT TO SCALE

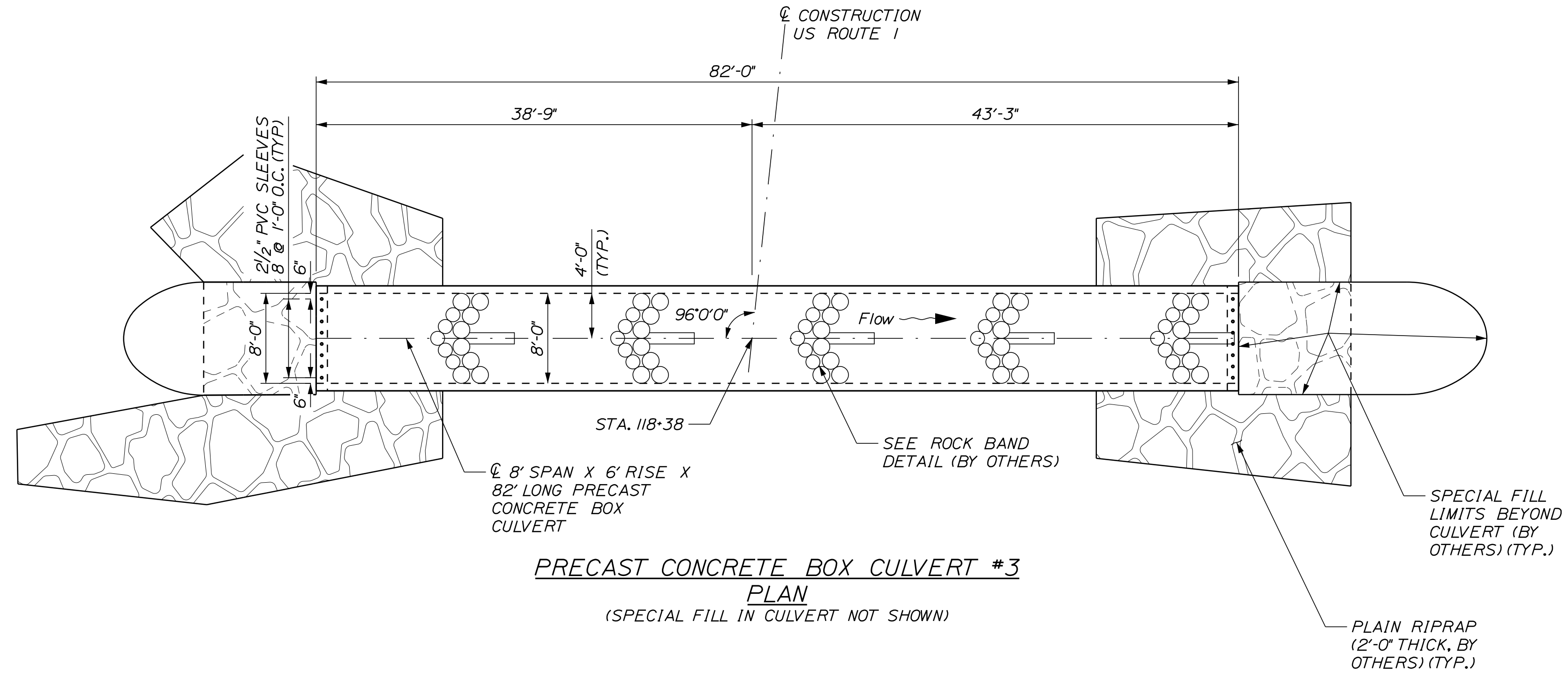
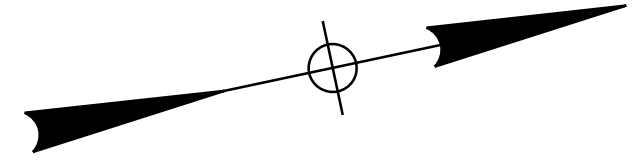
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PROJ. MANAGER		R. SOURCE		DATE		SIGNATURE		P.E. NUMBER	
DESIGN-DETAILED	JEMS	KDP	DATE						
CHECKED-REVIEWED	JCC	TMC	DATE						
DESIGN-DETAILED	JCC		DATE						
REVISIONS 1			DATE						
REVISIONS 2			DATE						
REVISIONS 3			DATE						
REVISIONS 4			DATE						
FIELD CHANGES									
VAN BUREN		US ROUTE 1		BOX CULVERT #2 DETAILS		STA. 50+35		SHEET NUMBER	
								5	
								OF 11	

Date: 11/1/2022

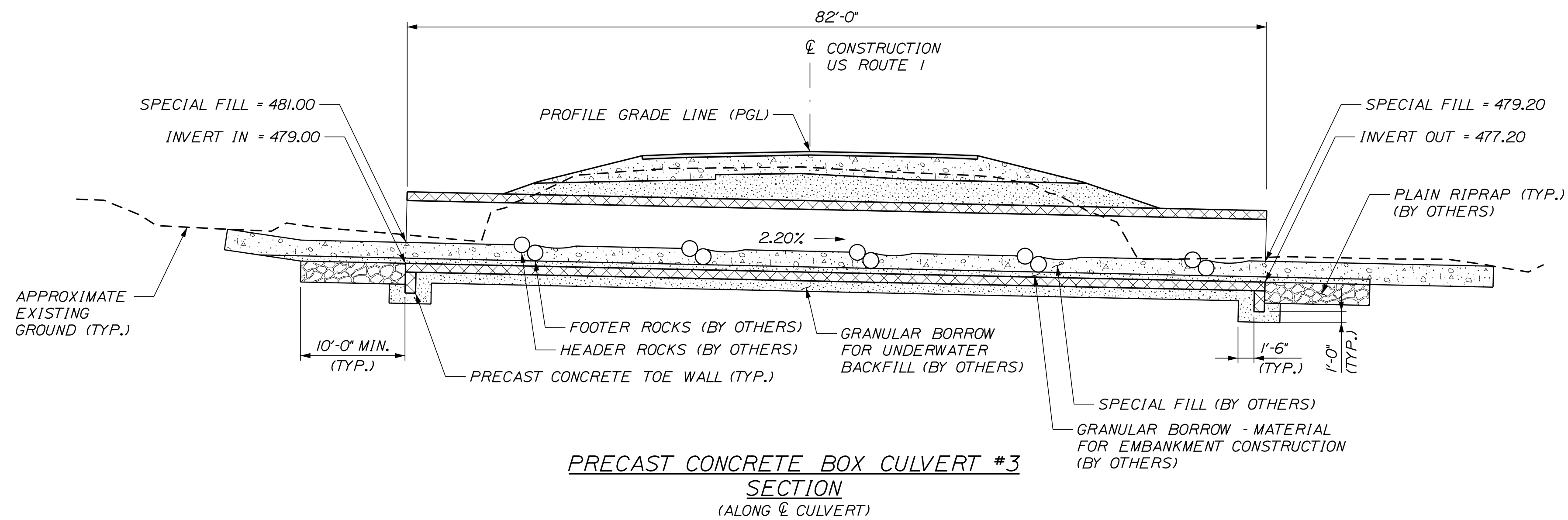
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Division: BRIDGE

Filename: ... \006\_Precast\_118-38\_1\_Prebay.dgn



**PRECAST CONCRETE BOX CULVERT #3**  
**PLAN**  
 (SPECIAL FILL IN CULVERT NOT SHOWN)



**PRECAST CONCRETE BOX CULVERT #3**  
**SECTION**  
 (ALONG CULVERT)

**PRECAST CONCRETE BOX CULVERT NOTES**

1. THE PRECAST UNITS SHALL BE DESIGNED TO CARRY CONSTRUCTION LOADING WITH A MINIMUM FILL COVER OF 18" OVER THE TOP OF THE UNITS.
2. THE CONSTRUCTION, HANDLING, AND ASSEMBLY OF THE PRECAST UNITS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 534, PRECAST STRUCTURAL CONCRETE, AND WITH THE MANUFACTURER'S SPECIFICATIONS AS APPLICABLE.
3. A "CLAMSHELL" TYPE PRECAST CONCRETE BOX CULVERT SHALL BE USED. HORIZONTAL SEAM WILL BE A MINIMUM OF 3.5 FT ABOVE INVERT.
4. THE PRECAST CONCRETE BOX CULVERT SHALL BE BEDDED ON A 1-FOOT LAYER OF COMPACTED GRANULAR BORROW MATERIAL FOR UNDERWATER BACKFILL (BY OTHERS).

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 STATE PROJECT NO. 20421.10

WIN  
 20421.10  
 HIGHWAY PLANS

PROJ. MANAGER	R. SOURCE	BY	DATE
DESIGN DETAILED	JMS	KDP	
CHECKED/REVIEWED	JCC	TMC	
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

VAN BUREN  
 US ROUTE 1  
 BOX CULVERT #3 DETAILS  
 STA. 118+38

SHEET NUMBER

6

OF 11

NOT TO SCALE

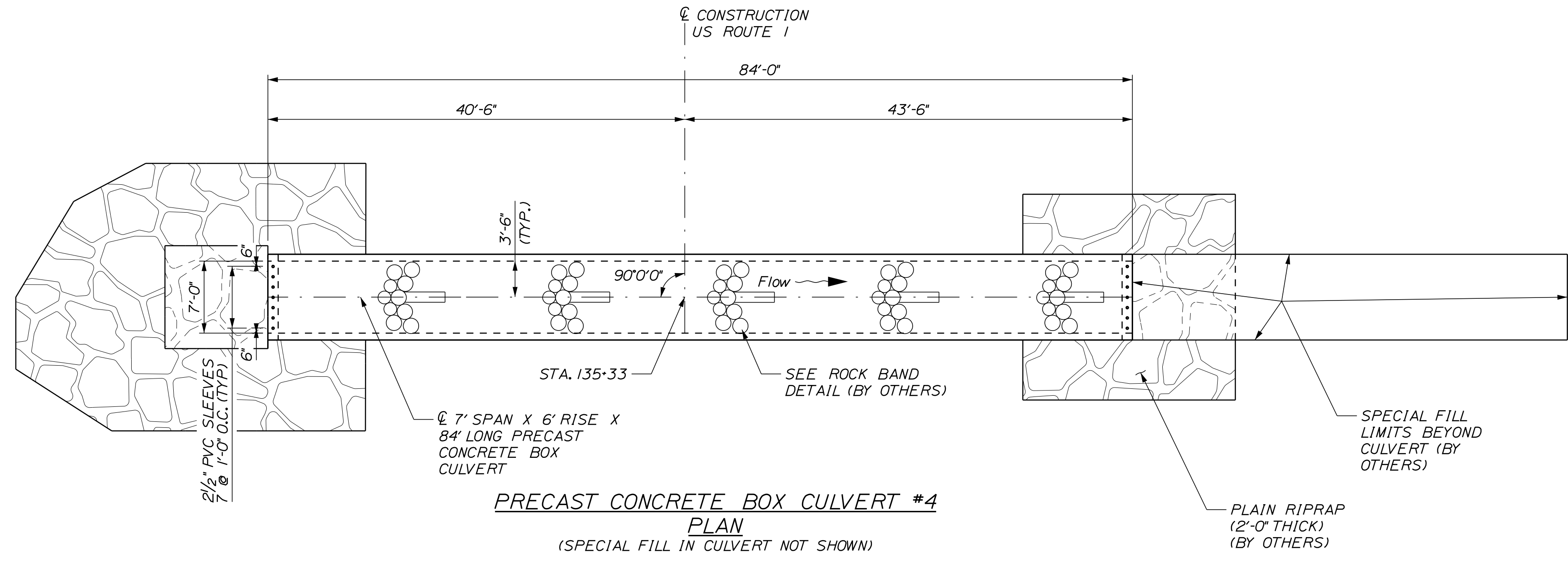
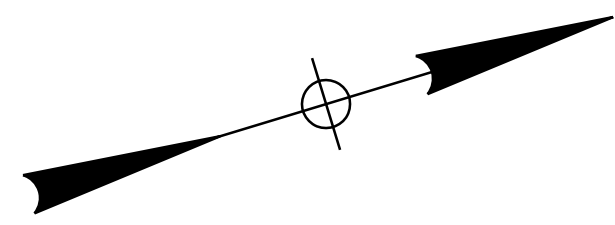


Date: 11/1/2022

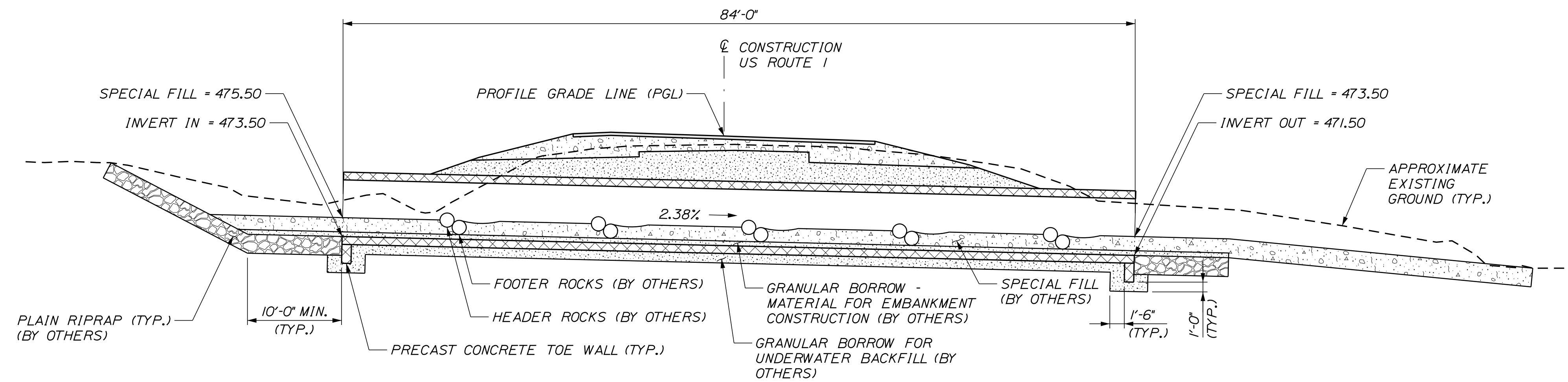
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Division: BRIDGE

Filename: ... \008\_Precast\_135+33\_1\_Prebuy.dgn



**PRECAST CONCRETE BOX CULVERT #4**  
**PLAN**  
 (SPECIAL FILL IN CULVERT NOT SHOWN)



**PRECAST CONCRETE BOX CULVERT #4**  
**SECTION**  
 (ALONG CULVERT)

**PRECAST CONCRETE BOX CULVERT NOTES**

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2. THE CONSTRUCTION, HANDLING, AND ASSEMBLY OF THE PRECAST UNITS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 534, PRECAST STRUCTURAL CONCRETE, AND WITH THE MANUFACTURER'S SPECIFICATIONS AS APPLICABLE.
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STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 STATE PROJECT NO. 20421.10  
 WIN 20421.10  
 HIGHWAY PLANS

PROJ. MANAGER	DESIGN DETAILED	CHECKED-REVIEWED	DESIGN DETAILED	DESIGN DETAILED	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES	R. SOURCE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
										KDP	TMC				

**VAN BUREN**  
**US ROUTE 1**  
**BOX CULVERT #4 DETAILS**  
**STA. 135+33**

SHEET NUMBER

**8**

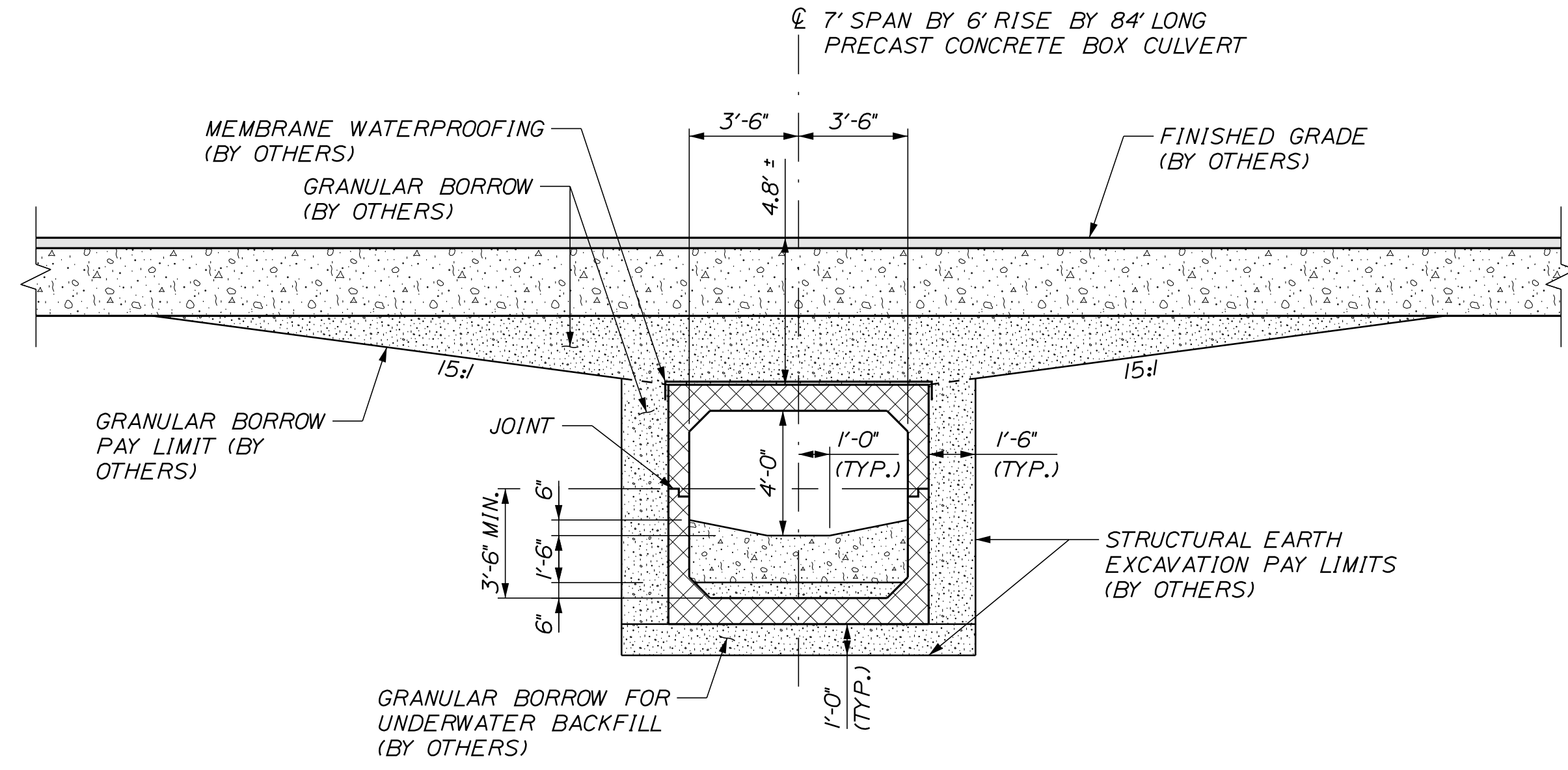
OF 11

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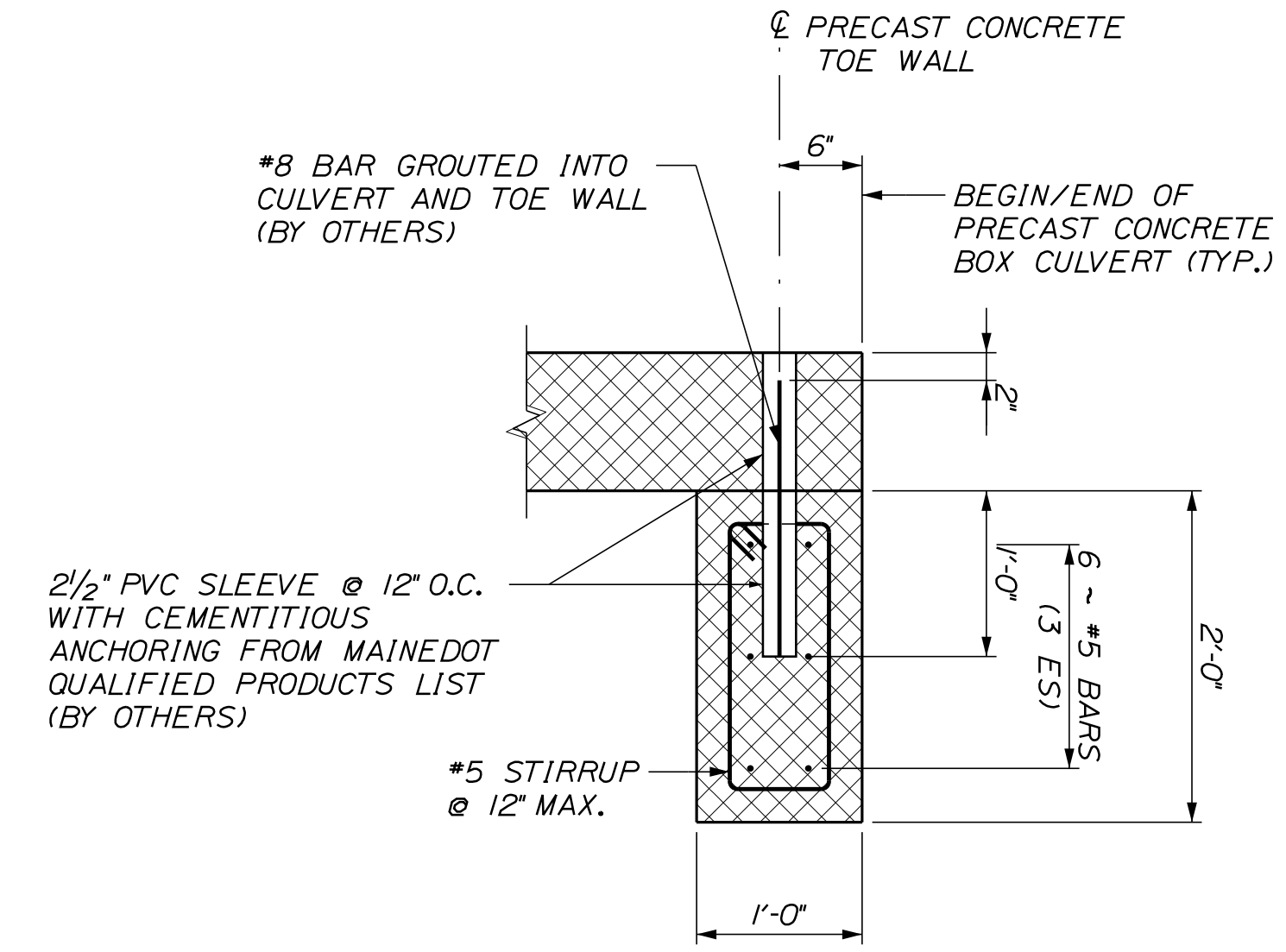
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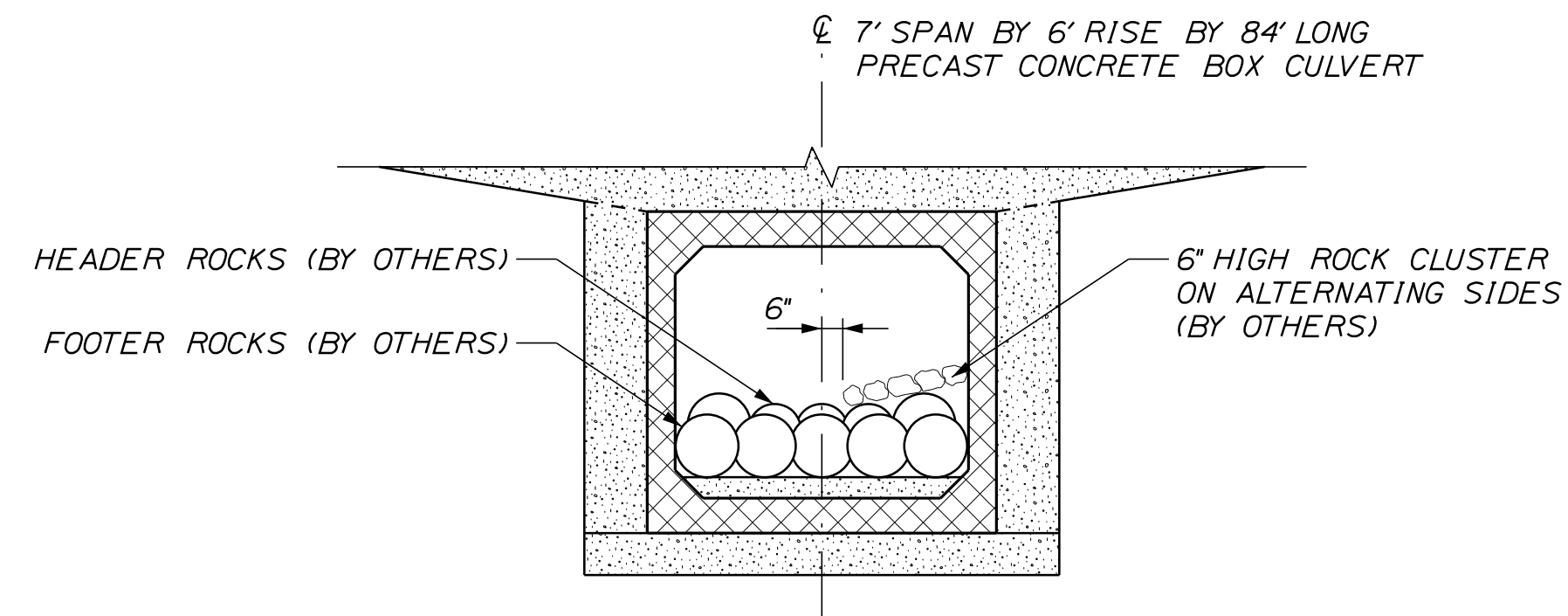
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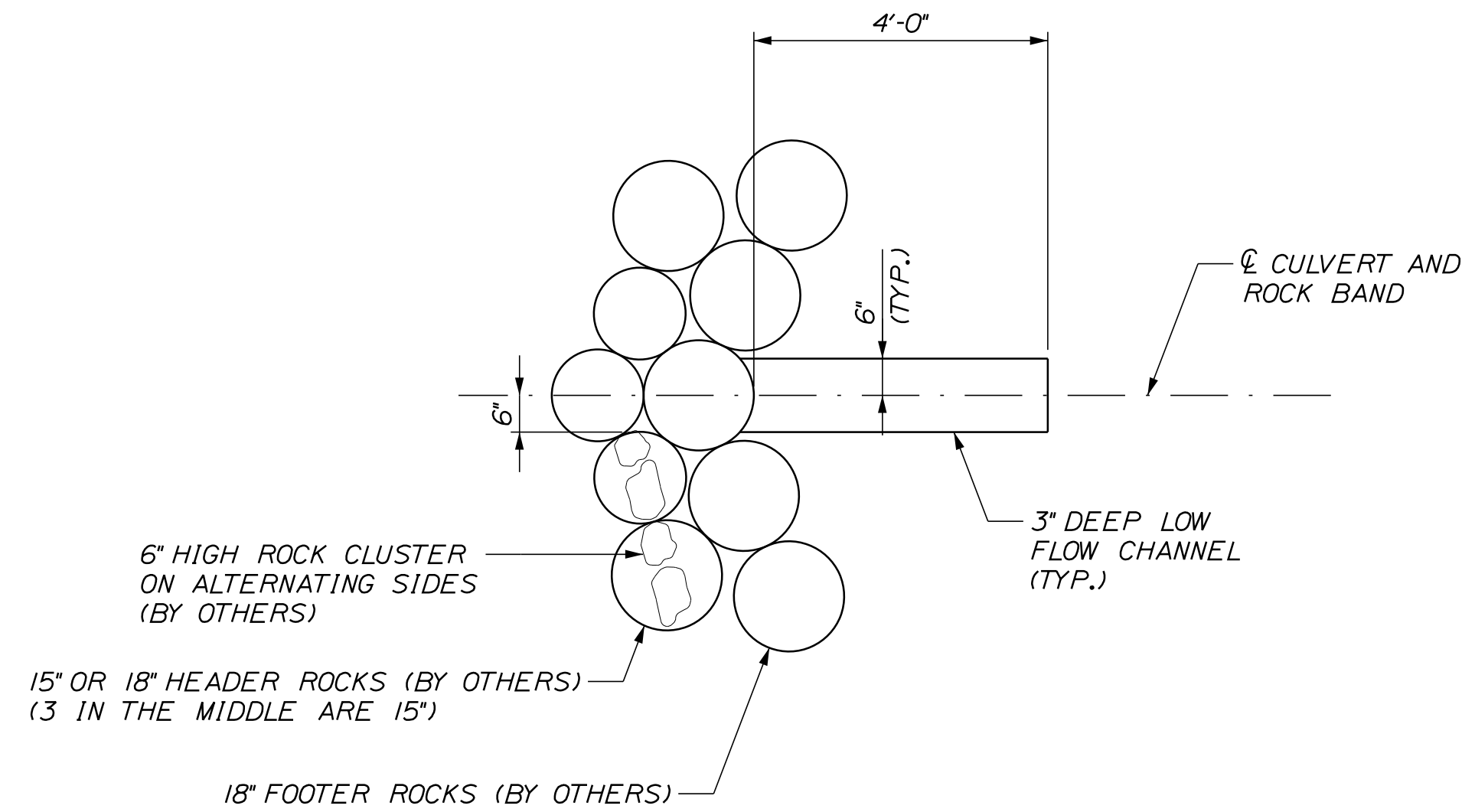
PRECAST CONCRETE BOX CULVERT #4  
SECTION



PRECAST CONCRETE BOX CULVERT #4  
TOE WALL DETAIL



PRECAST CONCRETE BOX CULVERT #4  
STREAM BED SECTION - ROCK BANDS  
(LOOKING UPSTREAM)



PRECAST CONCRETE BOX CULVERT #4  
ROCK BAND DETAIL (BY OTHERS)

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

STATE PROJECT NO. 20421.10

WIN  
20421.10  
HIGHWAY PLANS

PROJ. MANAGER	R. SOURCE	BY	DATE
DESIGN-DETAILED	J.F.M.S.	KDP	
CHECKED-REVIEWED	J.C.	TMC	
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

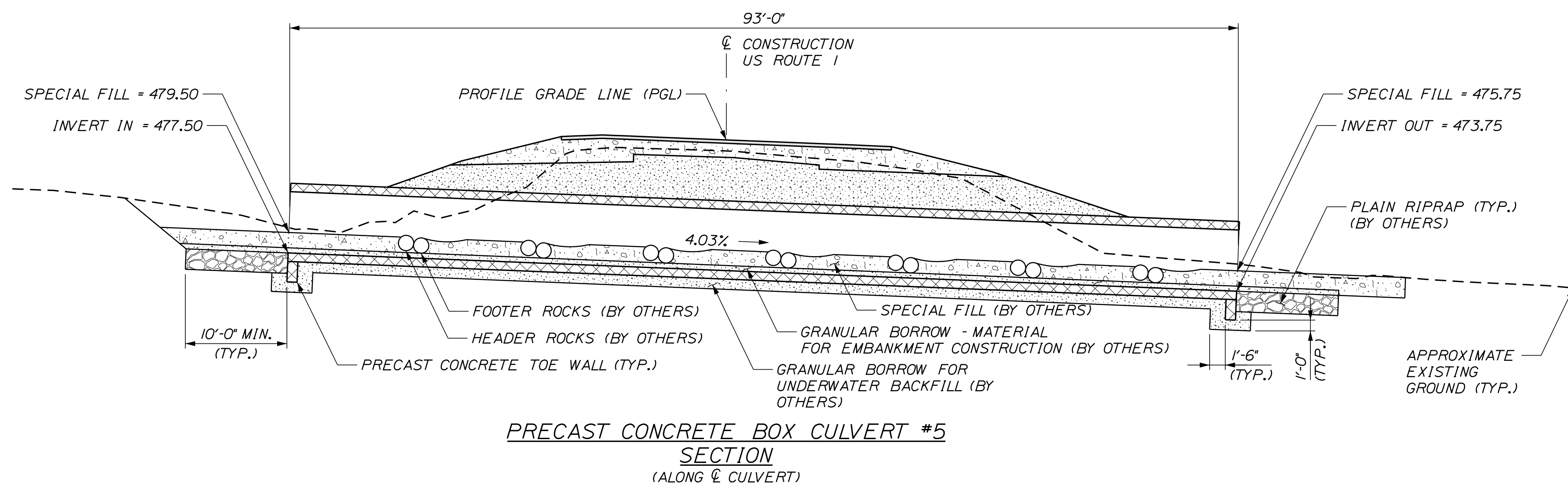
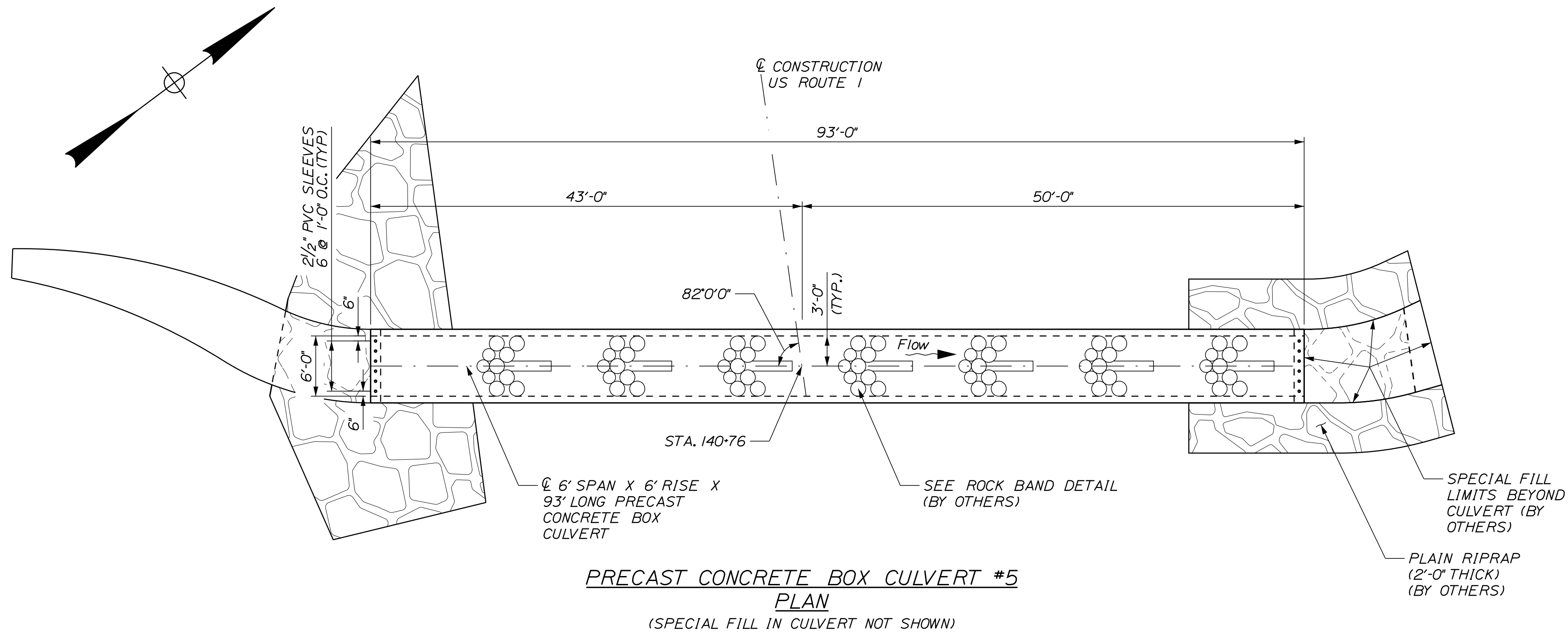
VAN BUREN  
US ROUTE 1  
BOX CULVERT #4 DETAILS  
STA. 135+33

SHEET NUMBER

9

OF 11

NOT TO SCALE



**PRECAST CONCRETE BOX CULVERT NOTES**

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PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGN-DETAILED	DESIGN-REVIEWED	DESIGN-REVIEWED	BY	DATE
	JMS	JCC	JCC	JCC	JCC	KDP	
						TMC	
							SIGNATURE
							P.E. NUMBER
							DATE
							FIELD CHANGES

VAN BUREN  
US ROUTE 1  
BOX CULVERT #5 DETAILS  
STA. 140+76

SHEET NUMBER

10

OF 11

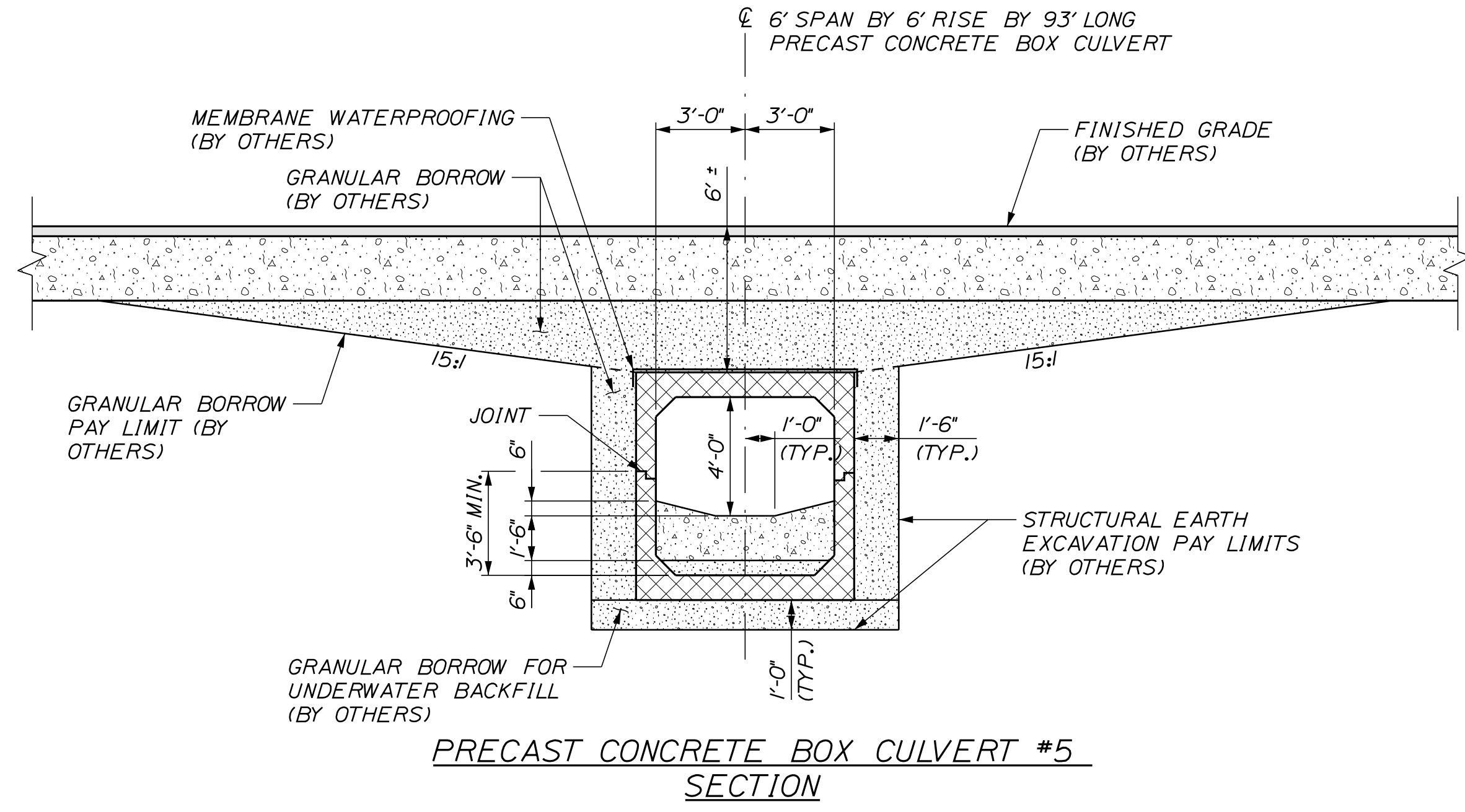
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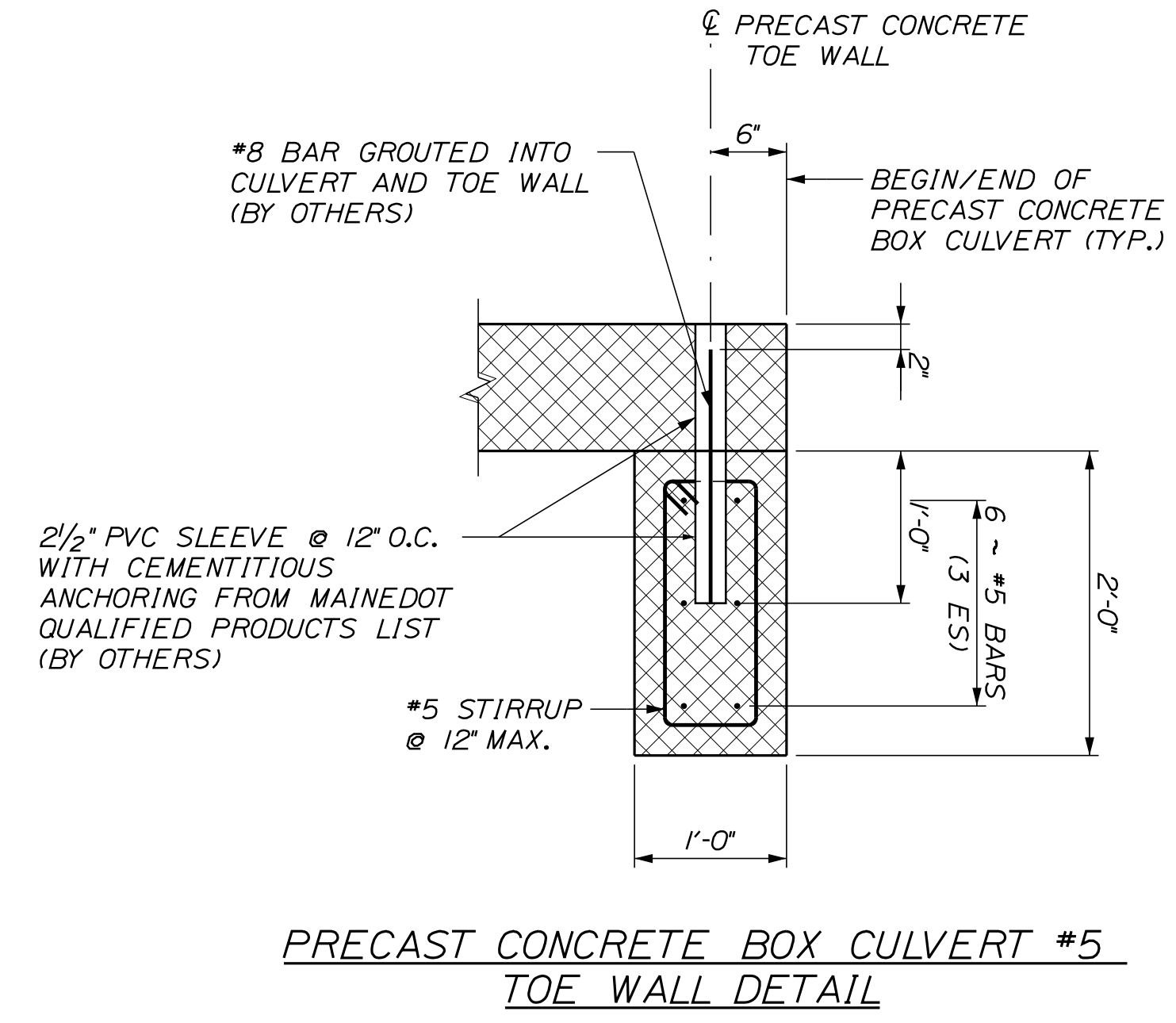
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Division: BRIDGE

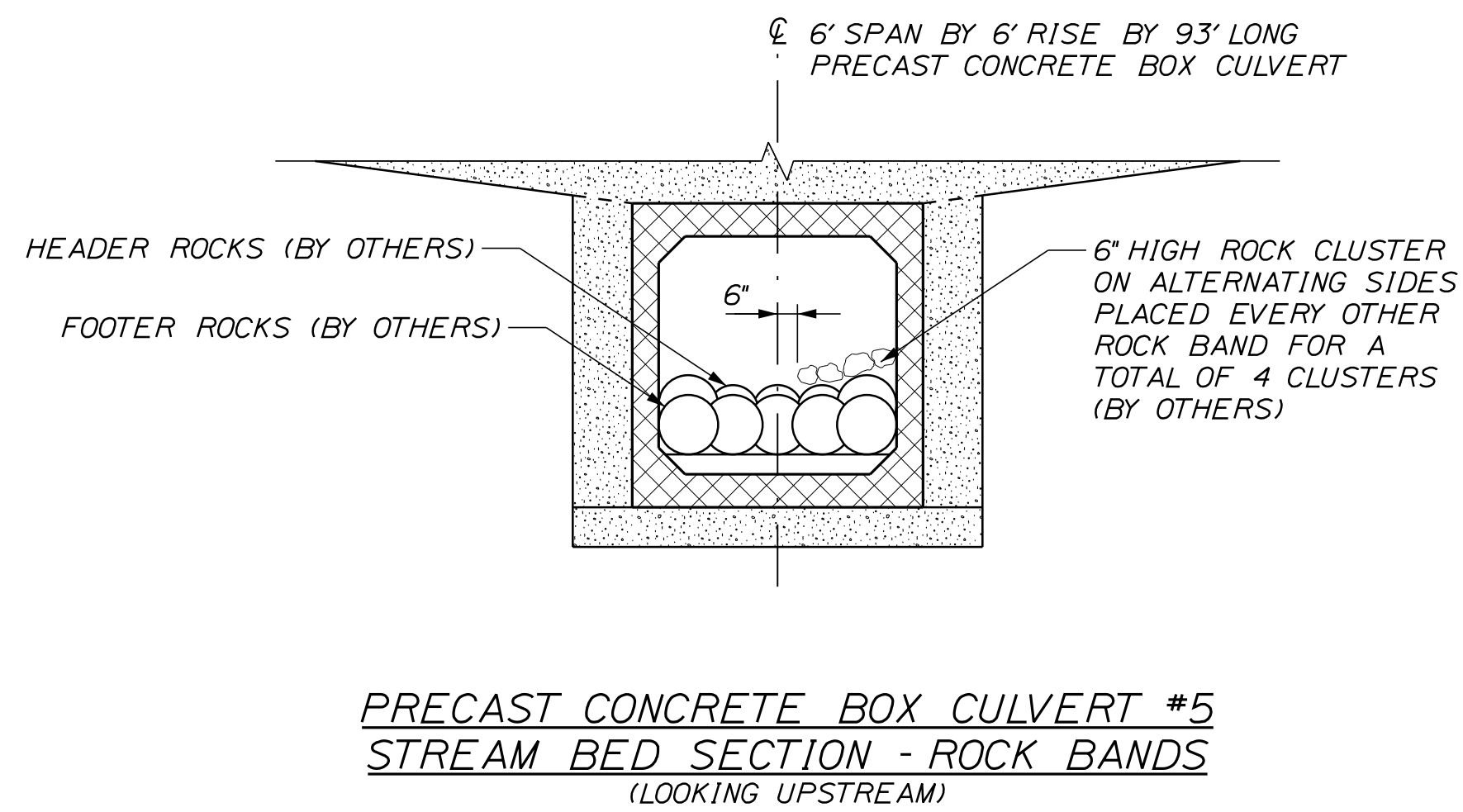
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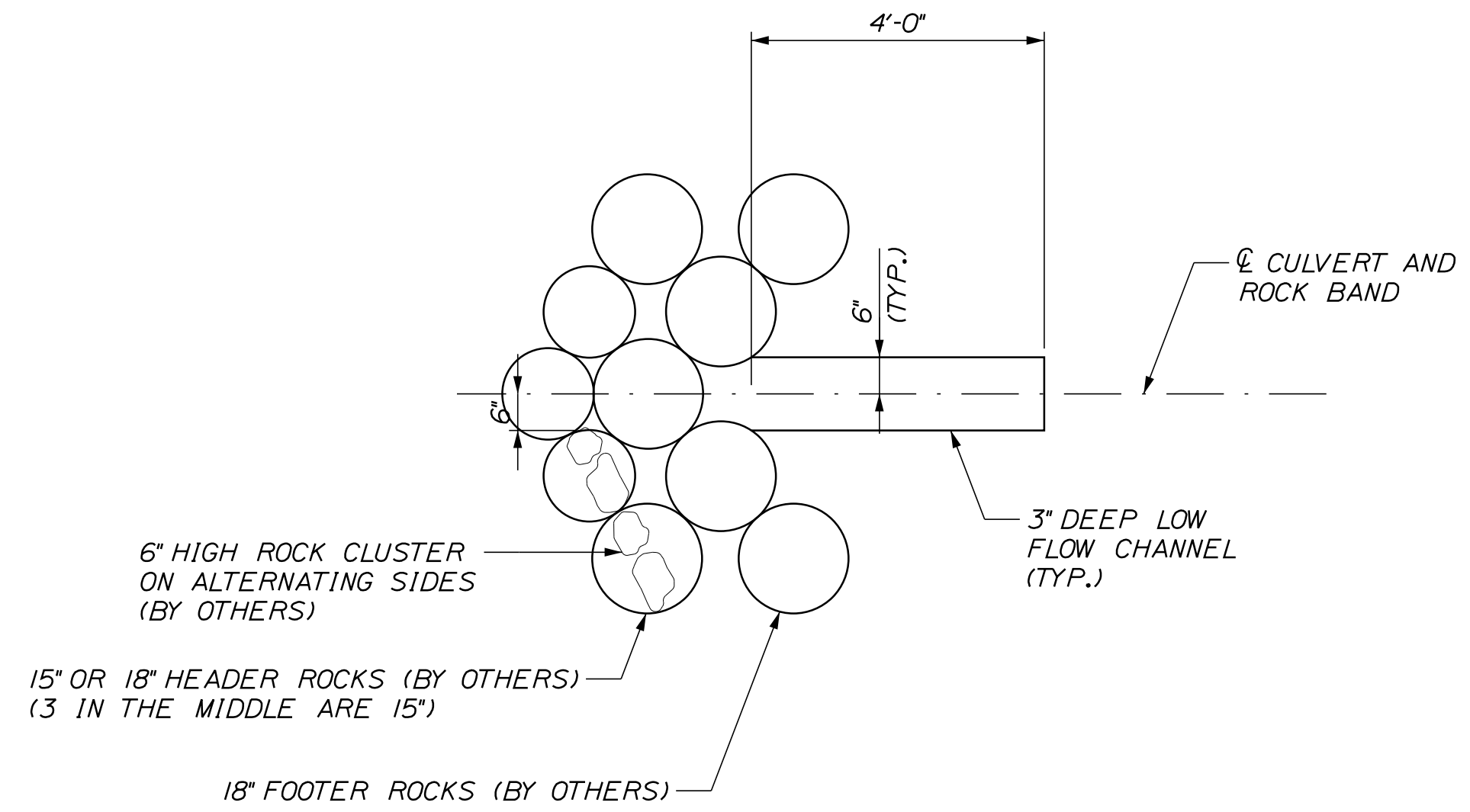
PRECAST CONCRETE BOX CULVERT #5  
SECTION



PRECAST CONCRETE BOX CULVERT #5  
TOE WALL DETAIL



PRECAST CONCRETE BOX CULVERT #5  
STREAM BED SECTION - ROCK BANDS  
(LOOKING UPSTREAM)



PRECAST CONCRETE BOX CULVERT #5  
ROCK BAND DETAIL (BY OTHERS)

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
STATE PROJECT NO. 20421.10  
WIN 20421.10  
HIGHWAY PLANS

PROJ. MANAGER	R. SOURCE	BY	DATE
DESIGN-DETAILED	J.F.M.S.	KDP	
CHECKED-REVIEWED	J.C.C.	TMC	
DESIGN-DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

VAN BUREN  
US ROUTE 1  
BOX CULVERT #5 DETAILS  
STA. 140+76

SHEET NUMBER

11

OF 11

NOT TO SCALE