

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



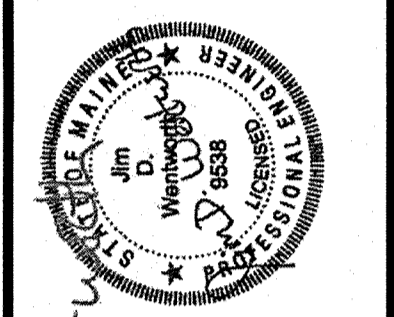
EDDINGTON PENOBSCOT COUNTY

ROUTE 46
JARVIS GORE BRIDGE
PROJECT NO. 018818.00
PROJECT LENGTH: 0.02 MILES
BRIDGE NO. 6571

PLAN LEGEND	
Town, County, State	Centerline-Existing
Property Lines	Centerline-Proposed
R/W Lines-Existing	Travelway-Existing
R/W Lines-Proposed	Travelway-Proposed
Culvert-Existing	Railroad
Culvert Proposed	Catch Basins
Curbing Existing	Manholes
Curbing Proposed	Proposed Underdrain
Type 1	Proposed Ditch
Type 3	Existing Ditch
Type 5	Utility Poles
Outline of Bodies of Water	Fire Hydrants
Ledge	Existing Water Line
Buildings	Existing San. Sewer
Trees	Existing San. Sewer Manhole
Tree Line	Guardrail-Existing
Clearing Limit Line	Guardrail-Proposed
	Guardrail-Cable, Other

INDEX OF SHEETS	
Description	Sheet No.
Title Sheet	1
Special Details - Precast Concrete Box Culvert	2-3

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
	<i>[Signature]</i>	3/23/18
COMMISSIONER:	<i>[Signature]</i>	
CHIEF ENGINEER:	<i>[Signature]</i>	

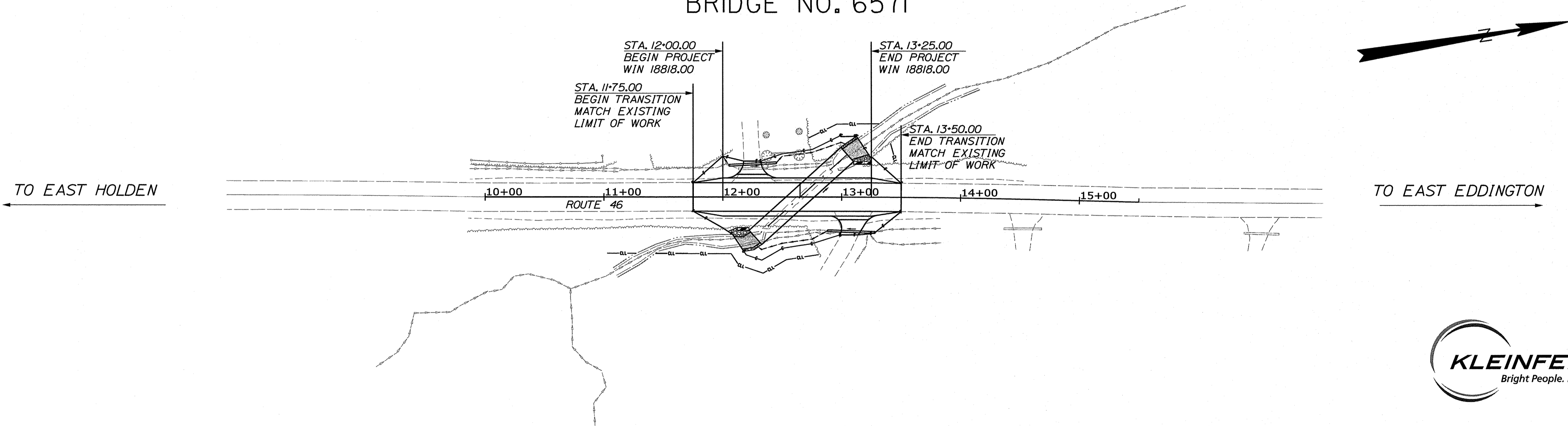


<i>[Signature]</i>	SIGNATURE
9538	P.E. NUMBER
3-12-2018	DATE

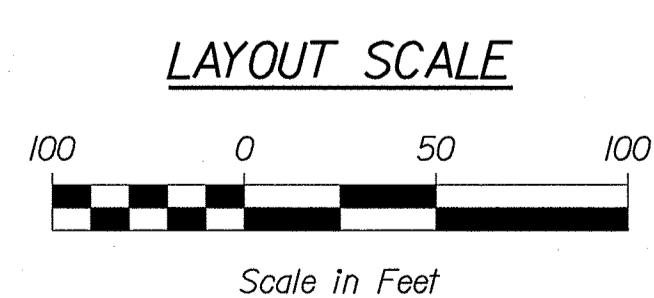
PROGRAM	HIGHWAY
PROJECT MANAGER	RANDALL BARROWS
DESIGNER	TRAVIS WOLFEL
CONSULTANT	KLEINFELDER
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

EDDINGTON
 JARVIS GORE BRIDGE
 TITLE SHEET

SHEET NUMBER
1
 OF 3



TRAFFIC DATA	
Current (2018) AADT	3020
Future (2038) AADT	3320
DHV - % of AADT	11%
Design Hour Volume	365
% Heavy Trucks (AADT)	18%
% Heavy Trucks (DHV)	18%
Directional Distribution (DHV)	55%
18 kip Equivalent P 2.0	481
18 kip Equivalent P 2.5	458
Design Speed (mph)	45
Corridor Priority	2



PROJECT LOCATION:	EDDINGTON, ROUTE 46, 0.53 OF MILE NORTH OF SWEETS HILL ROAD
PROGRAM AREA:	HIGHWAY
SCOPE OF WORK:	LARGE CULVERT REPLACEMENT

WIN 018818.00

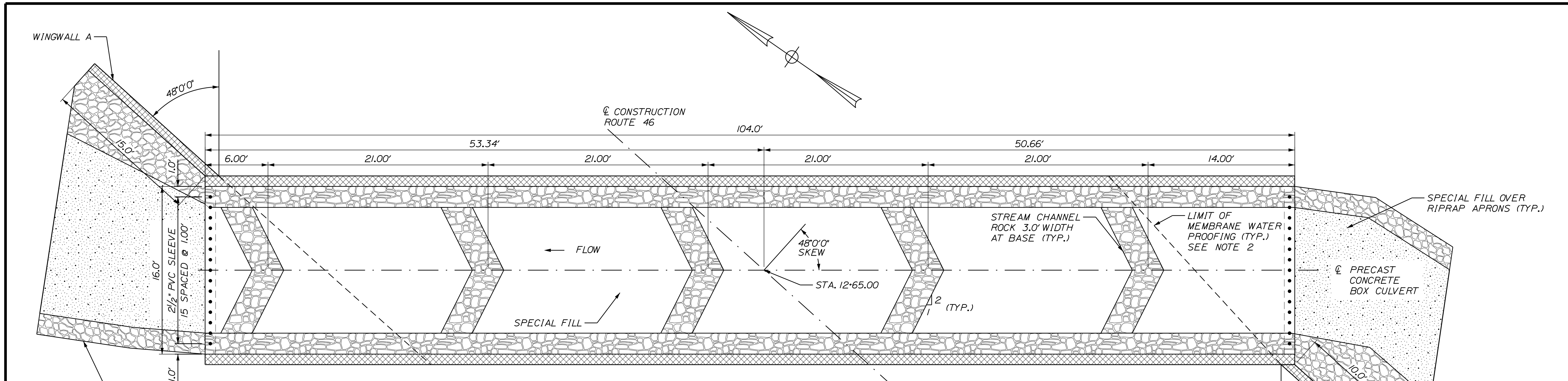
Date: 3/12/2018
 Username: TWolfel
 Division: HIGHWAY
 Filename: ... \001_ Title.dgn

Date: 3/12/2018

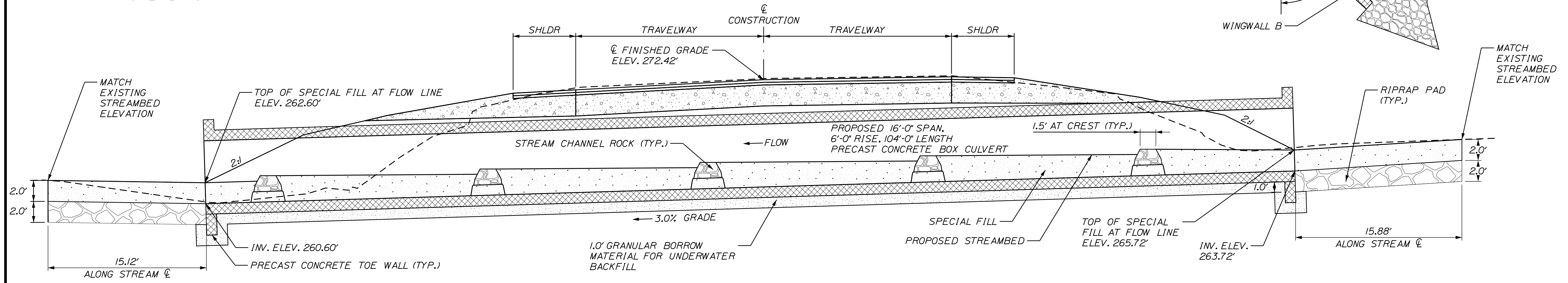
Username: T.Wolfel

Division: HIGHWAY

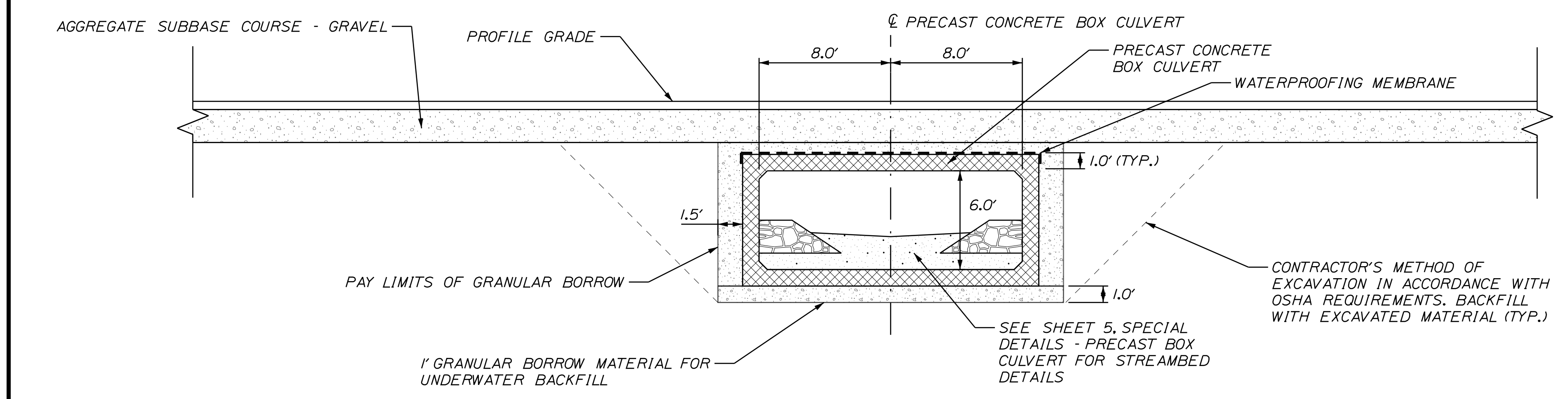
Filename: ... \002_Culvert Details.dgn



PLAN VIEW
N.T.S.



TRANSVERSE SECTION
(ALONG CENTERLINE OF PRECAST CONCRETE BOX CULVERT)
N.T.S.

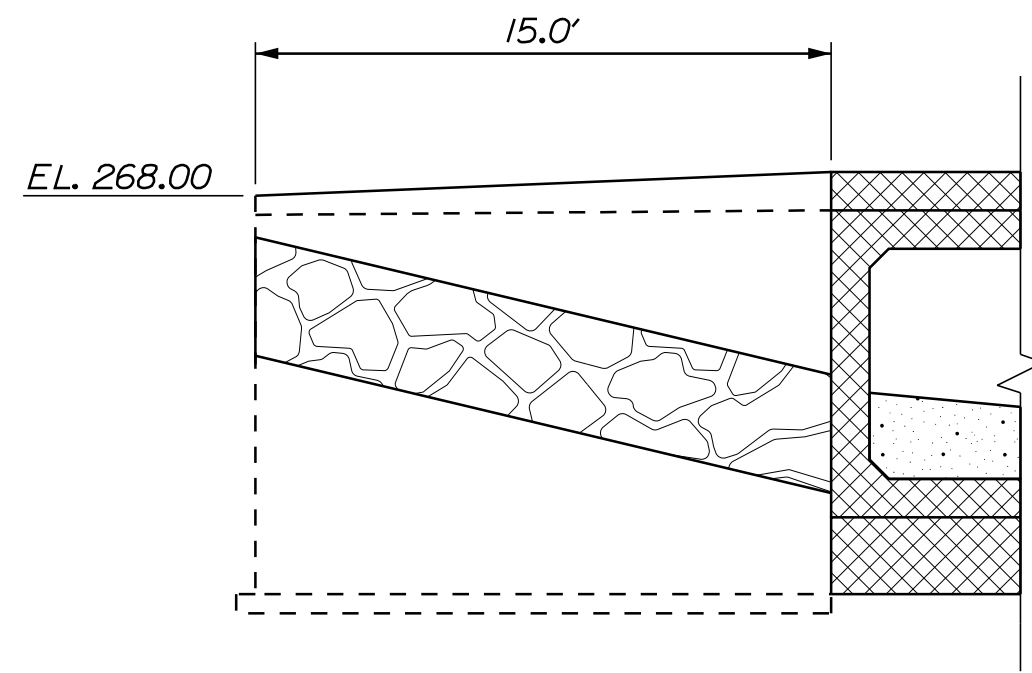


TYPICAL SECTION
N.T.S.

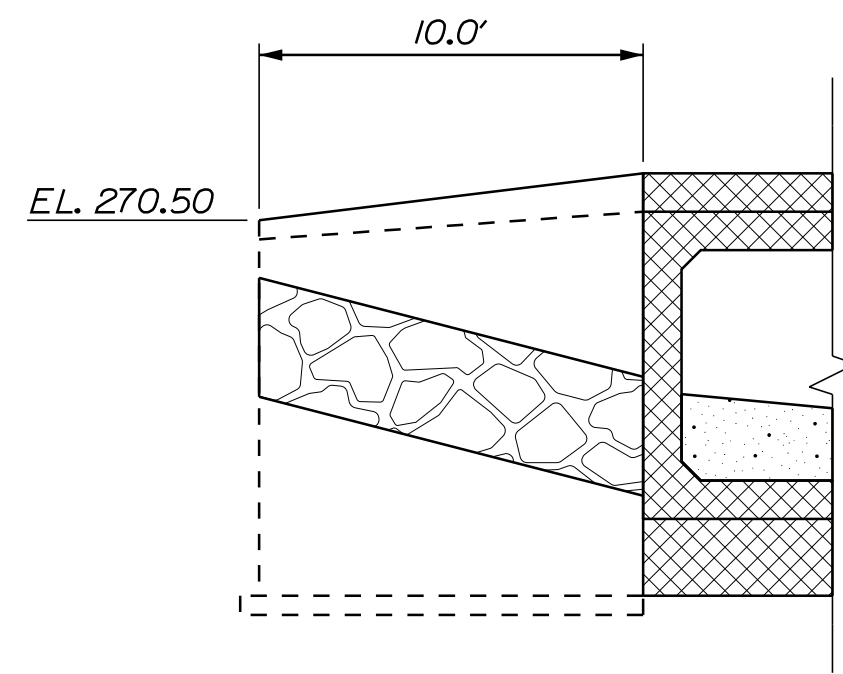
PRECAST CONCRETE BOX NOTES

1. THE PRECAST UNITS SHALL BE DESIGNED TO CARRY CONSTRUCTION LOADINGS WITH MINIMUM FILL COVER OF 18" OVER THE TOP OF THE UNITS.
2. INSTALL SHEET MEMBRANE WATERPROOFING OVER THE TOP AND TO 12" DOWN THE EXTERIOR SIDES OF THE PRECAST UNITS WITHIN THE LIMITS OF THE BACKFILL OVER THE TOP OF THE STRUCTURE.
3. THE PRECAST CONCRETE BOX CULVERT SHALL BE BEDDED ON A 1-FOOT LAYER OF COMPACTED GRANULAR BORROW MATERIAL MEETING THE REQUIREMENTS FOR UNDERWATER BACKFILL.
4. COFFERDAMS ARE TO BE PLACED AT BOTH THE DOWNSTREAM AND UPSTREAM ENDS OF THE PRECAST CONCRETE BOX CULVERT TO ALLOW FOR THE CONSTRUCTION OF THE PRECAST CONCRETE BOX CULVERT IN THE DRY.
5. RIPRAP WILL BE USED TO INSLOPE AROUND THE CULVERT ENDS AT BOTH THE INLET AND OUTLET. SEE PLAN AND PROFILE FOR LOCATIONS.
6. ALL REBAR IS INCIDENTAL TO ITEM 534.71, PRECAST CONCRETE BOX CULVERT.
7. A "CLAMSHELL" PRECAST CONCRETE BOX CULVERT SHALL BE USED, SEAM HEIGHT MUST ALLOW FOR CONSTRUCTION OF FULL HEIGHT BANKLINES AS SHOWN.
8. VOIDS IN THE RIPRAP APRONS SHALL BE FILLED WITH SPECIAL FILL WATERED-IN AND TAMPED PRIOR TO COVERING WITH 2 FT OF SPECIAL FILL.
9. THE CULVERT SHALL BE LINED WITH 2 FEET OF SPECIAL FILL IN ACCORDANCE WITH SPECIAL PROVISION 203 AND STREAM CHANNEL ROCK IN ACCORDANCE WITH SPECIAL PROVISION 610.

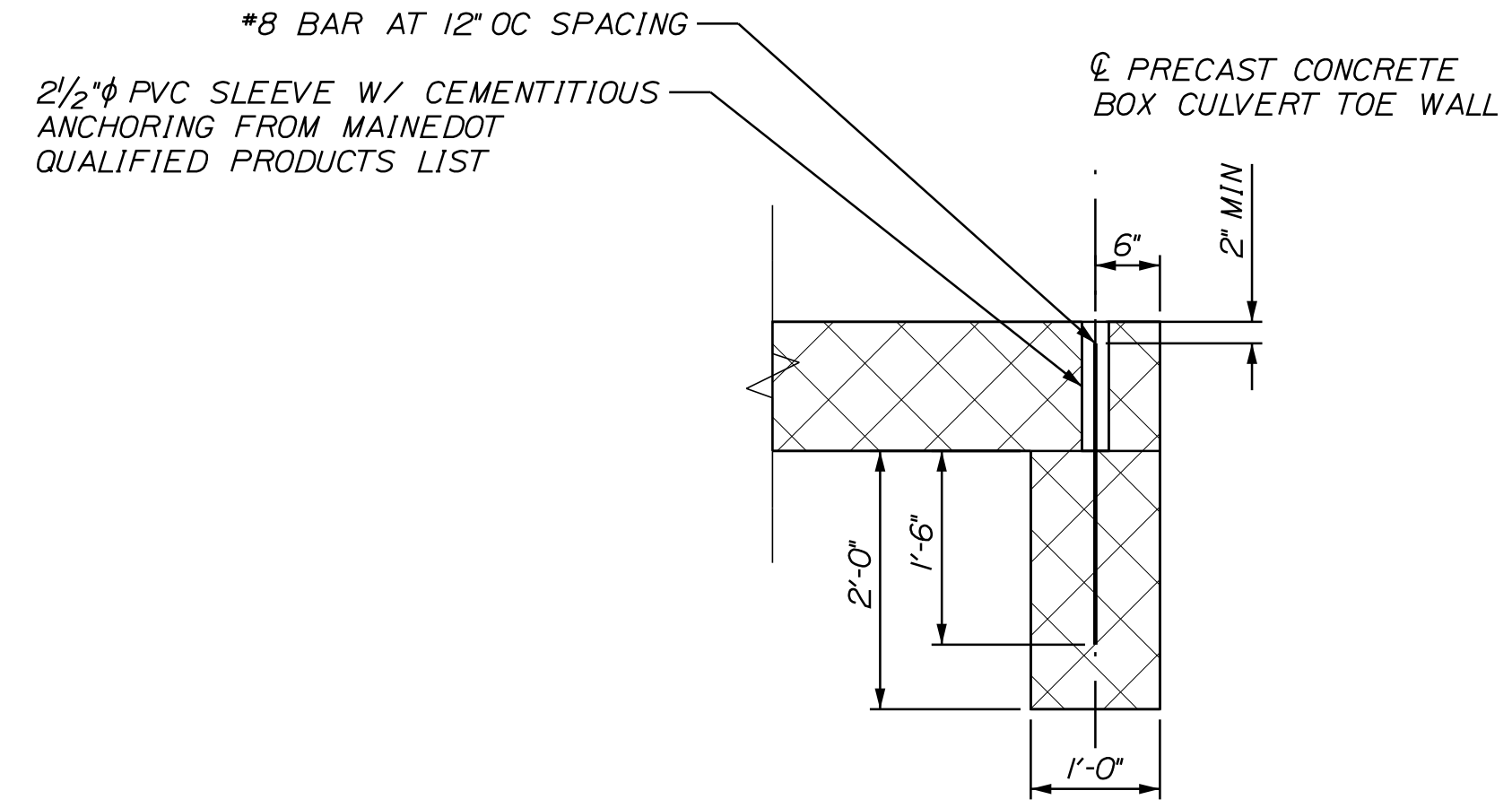
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		018818.00	
EDDINGTON		ROUTE 46		JARVIS GORE BRIDGE	
SPECIAL DETAILS -		PRECAST BOX CULVERT			
SHEET NUMBER		2			
BRIDGE NO. 6571		WIN		018818.00	
HIGHWAY PLANS					



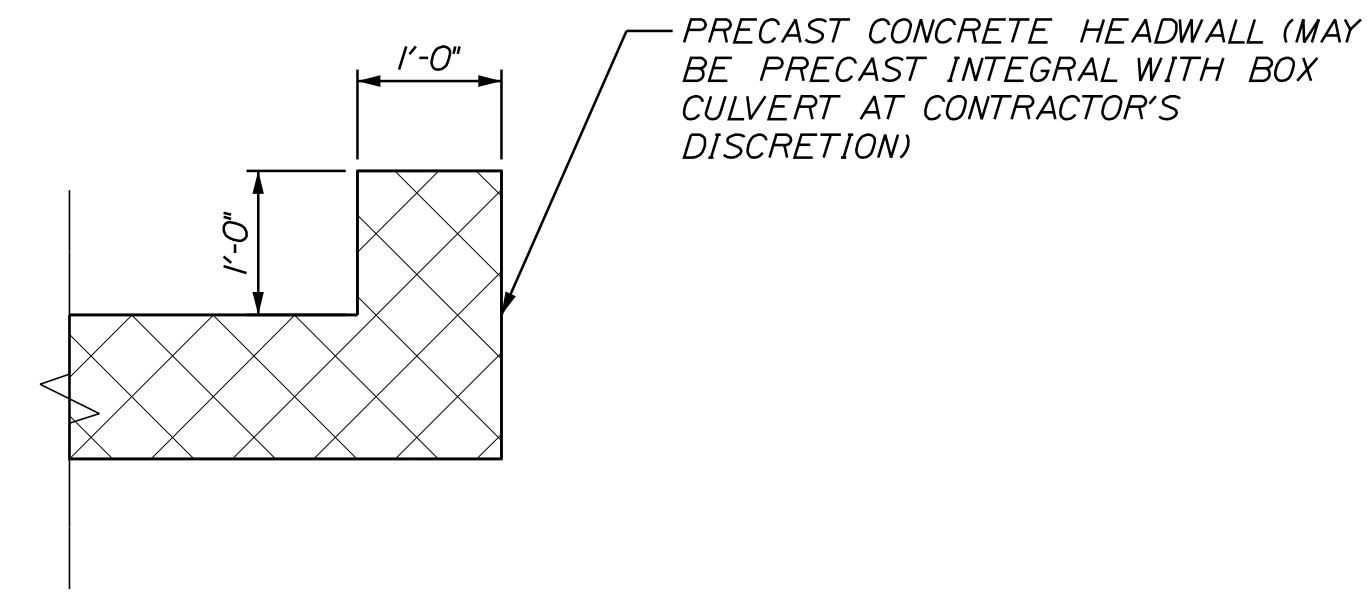
WINGWALL A ELEVATION
N.T.S.



WINGWALL B ELEVATION
N.T.S.



PRECAST CONCRETE TOE WALL DETAIL
N.T.S.



PRECAST CONCRETE HEAD WALL DETAIL
N.T.S.

PREFABRICATED CONCRETE MODULAR GRAVITY WALL NOTES:

1. THE CONTRACTOR SHALL PROVIDE PREFABRICATED CONCRETE MODULAR GRAVITY (PCMG) WALLS IN ACCORDANCE WITH STANDARD SPECIFICATION 674. THE PCMG WALLS SHALL BE DESIGNED AND STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE AND THE DESIGN SHALL BE SUBMITTED TO THE RESIDENT FOR REVIEW AND ACCEPTANCE. PLAN DETAILS SHOWN FOR ESTIMATING PURPOSES ONLY.
2. THE PRECAST UNITS SHALL BE MANUFACTURED BY THE FOLLOWING, OR EQUAL: "T-WALL" AS MANUFACTURED BY A LICENSED MANUFACTURER OF NEEL COMPANY OR "DOUBLEWAL" AS MANUFACTURED BY A LICENSED MANUFACTURER OF DOUBLEWAL CORP.
3. FOR PCMG WALLS CONSTRUCTED ON GRANULAR SOILS:
AT THE STRENGTH LIMIT STATE, THE FACTORED BEARING PRESSURE SHALL NOT EXCEED THE FACTORED BEARING RESISTANCE OF 8.0 KSF.
AT THE SERVICE LIMIT STATE, THE FACTORED BEARING PRESSURE SHALL NOT EXCEED THE FACTORED BEARING RESISTANCE OF 5.0 KSF.
4. THE PCMG WALLS SHALL BE DESIGNED CONSIDERING A TRAFFIC SURCHARGE EQUAL TO 2 FEET OF FILL PLACED ON THE BACKFILL SURFACE. THE UNIT WEIGHT OF THE FILL USED FOR SURCHARGE CALCULATIONS SHALL BE AS OUTLINED IN STANDARD SPECIFICATIONS 674. STABILITY ANALYSES CONSIDERING TRAFFIC SURCHARGE SHALL BE PERFORMED IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE AASHTO STANDARD DESIGN SPECIFICATIONS FOR HIGHWAY BRIDGES.
5. CONCRETE TESTING SHALL BE DONE IN ACCORDANCE WITH STANDARD SPECIFICATION 535.
6. A 1 FOOT WIDE DRAINAGE GEOTEXTILE FABRIC SHALL BE SECURED TO THE BACK OF THE UNITS AT ALL HORIZONTAL AND VERTICAL JOINTS FOR THE FULL HEIGHT OF THE WALL. PAYMENT FOR THE DRAINAGE GEOTEXTILE FABRIC SHALL BE CONSIDERED INCIDENTAL TO PAY ITEM 674.10

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
018818.00
WIN
018818.00
BRIDGE NO. 6571
HIGHWAY PLANS

DESIGN-DETAILED	T. WOLFEL	3/2018	SIGNATURE
CHECKED-REVIEWED	K. WOOD	3/2018	P.E. NUMBER
DESIGN-DETAILED			DATE
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

PROJ. MANAGER	R. BARROWS	BY	DATE
DESIGN-DETAILED	T. WOLFEL	T. WOLFEL	3/2018
CHECKED-REVIEWED	K. WOOD	J. WENTWORTH	3/2018
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

EDDINGTON
ROUTE 46
JARVIS GORE BRIDGE
SPECIAL DETAILS -
PRECAST BOX CULVERT

SHEET NUMBER
3
OF 3