

SHEET NUM.										PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
3	5	7	9	10						01/S>2/04	02/IMS/04	03/IMS/13						
										LS	LS	LS	201	11000	LS		<b>ROADWAY</b>	
				10						10			202	35100	10	FT	CLEARING AND GRUBBING	
		1,126										1,126	SPECIAL	20270130	1,126	FT	PIPE REMOVED, 24" AND UNDER	3
		LS	LS	LS						LS	LS	LS	503	11101	LS		PIPE CLEANOUT OVER 48"	3
																	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	3
																	<b>EROSION CONTROL</b>	
				1.1						1.1			601	32200	1.1	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
7,850										2,526	1,694	3,630	659	10000	7,850	SY	SEEDING AND MULCHING	
1.06										0.34	0.23	0.49	659	20000	1.06	TON	COMMERCIAL FERTILIZER	
1.62										0.52	0.31	0.79	659	31000	1.62	ACRE	LIME	
42.4										13.6	8	20.8	659	35000	42.4	MGAL	WATER	
										3,000	3,000	4,000	832	30000	10,000	EACH	EROSION CONTROL	
																	<b>DRAINAGE</b>	
				0.21						0.21			602	20000	0.21	CY	CONCRETE MASONRY	
				18						18			611	04600	18	FT	12" CONDUIT, TYPE C	
				4						4			611	05200	4	FT	12" CONDUIT, TYPE F, 707.05 TYPE C, 707.21, OR 707.33	
				2						2			611	99574	2	EACH	MANHOLE, NO. 3	
				132						132			899	10000	132	FT	CURED-IN-PLACE PIPE LINER, 12" DIAMETER	
																	<b>STRUCTURE REPAIR (HAM-75-1710)</b>	
		17										17	519	11100	17	SF	PATCHING CONCRETE STRUCTURE	
		876										876	611	96550	876	FT	FIELD PAVING OF EXISTING PIPE, 16'-7"x10'-1" CMP	
		40										40	611	97700	40	SF	CONDUIT, MISC.: REPAIR METHOD A	4
		80										80	611	97700	80	SF	CONDUIT, MISC.: REPAIR METHOD B	4
		250										250	837	10001	250	FT	LINER PIPE, AS PER PLAN, 186"x113" ARCH, 748.06, 707.75	7
		250										250	837	21000	250	FT	BACKFILL FOR LINER PIPE	
																	<b>STRUCTURE REPAIR (HAM-275-0158)</b>	
				374							374		611	96550	374	FT	FIELD PAVING OF EXISTING PIPE, 108" CMP	
																	<b>STRUCTURE REPAIR (HAM-50-2955)</b>	
				278						278			611	96550	278	FT	FIELD PAVING OF EXISTING PIPE, 180" CMP	
				228						228			611	97700	228	SF	CONDUIT, MISC.: REPAIR METHOD A	4
																	<b>MAINTENANCE OF TRAFFIC</b>	
	2											2	614	18601	2	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	5
																	<b>INCIDENTALS</b>	
										LS	LS	LS	614	11000	LS		MAINTAINING TRAFFIC	
										LS	LS	LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER  
MLB

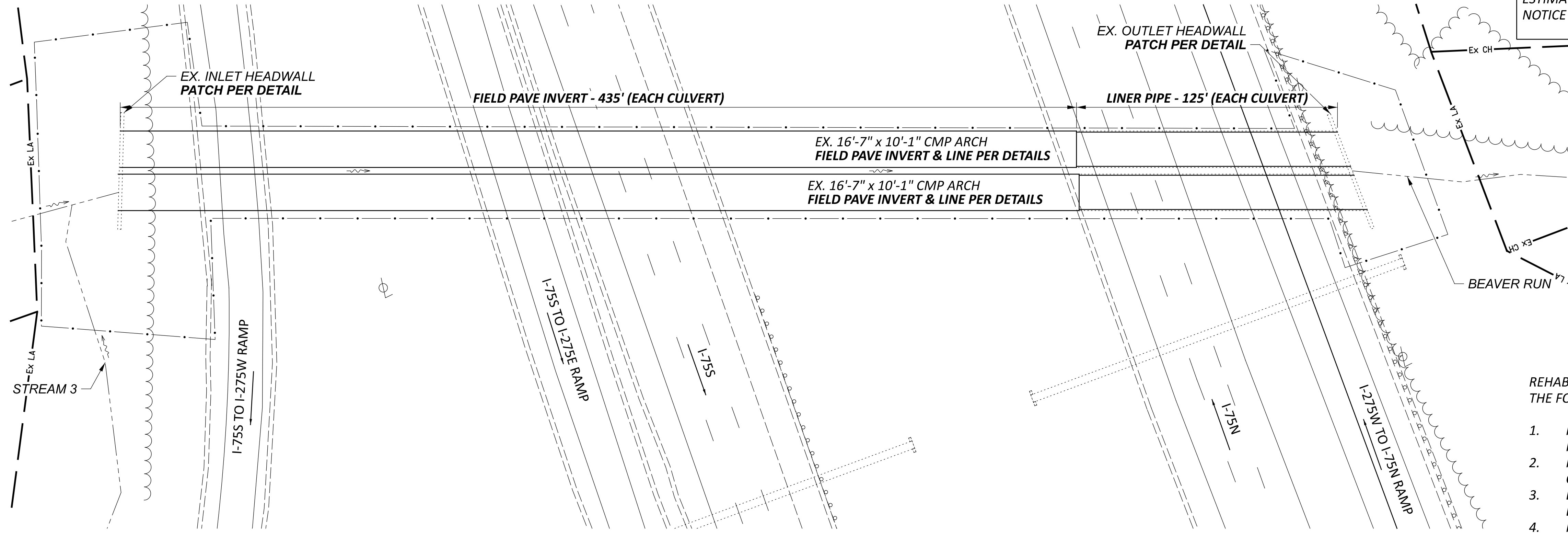
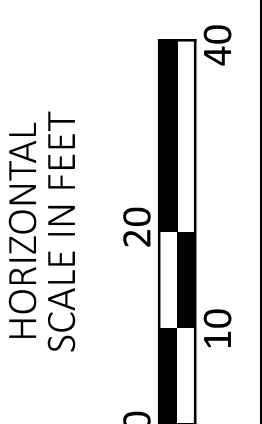
REVIEWER  
TRB 04-16-24

PROJECT ID  
110633

SHEET TOTAL  
06 11

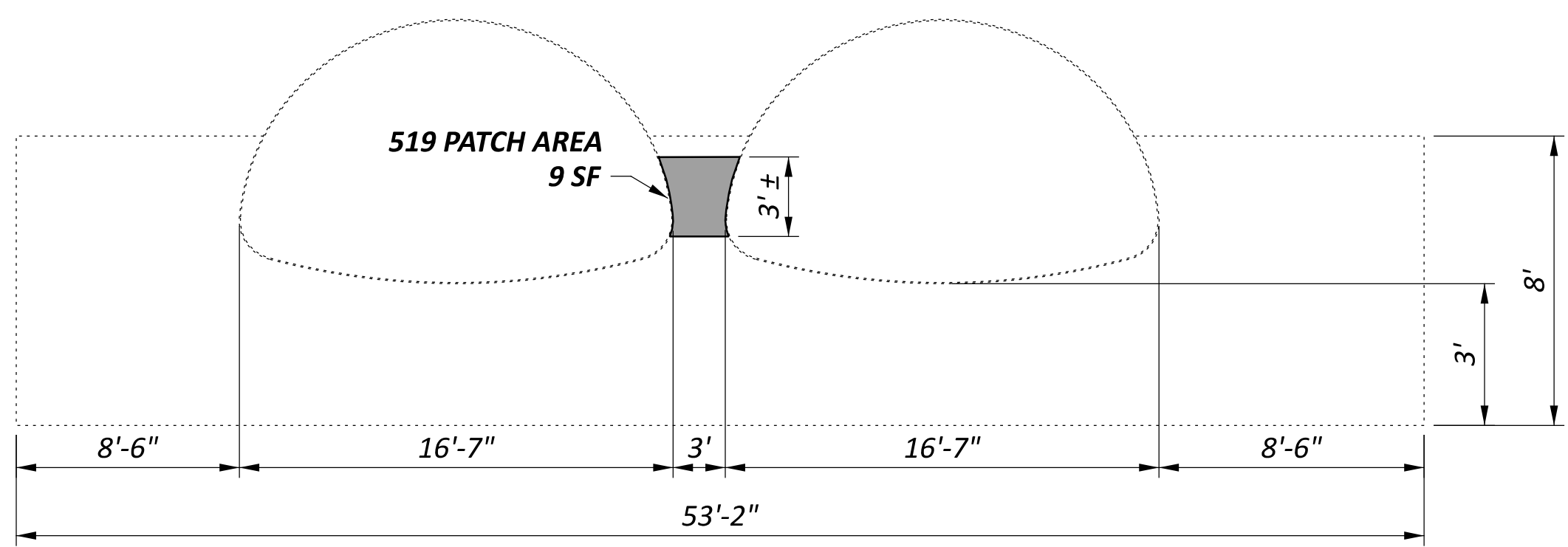


PROJECT EARTH DISTURBED AREA: 0.75 ACRES  
 ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.1 ACRES  
 NOTICE OF INTENT EARTH DISTURBED AREA: NO NOI REQUIRED (ROUTINE MAINTENANCE)

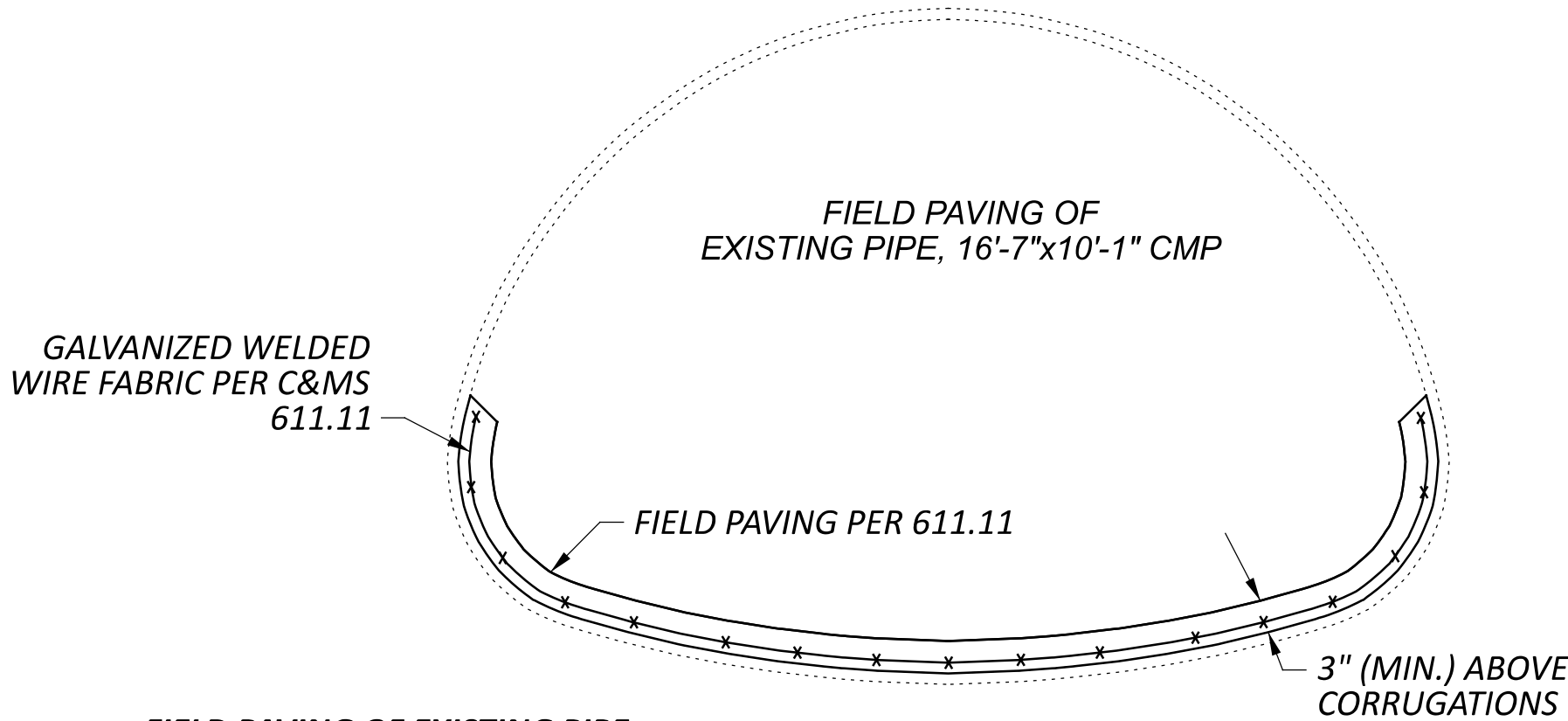


REHABILITATE BRIDGE SIZE CULVERT HAM-75-1710 BY PERFORMING THE FOLLOWING WORK:

1. REMOVE BLOCKAGE AND DEBRIS FROM INLET AND CLEAN INTERIOR OF SEDIMENT AND DEBRIS.
2. FIELD PAVE PER CMS 611.11 AT LOCATIONS DEPICTED ON THE PLANS.
3. LINE PORTIONS OF PIPE AS DEPICTED ON THE PLANS WITH LINER PIPE AFTER FIELD PAVING IS COMPLETE.
4. REPAIR DETERIORATED AREAS OF STEEL AS DEPICTED ON THE PLANS WITH METHODS A, B, OR C PER NOTES ON GENERAL NOTES SHEET.
5. PATCH INLET AND OUTLET HEADWALL WITH 519 PATCHING.



**INLET HEADWALL PATCHING DETAIL**  
(NOT TO SCALE)



**FIELD PAVING OF EXISTING PIPE**

FIELD PAVE THE EXISTING PIPE PER THE REQUIREMENTS OF 611.11. PROVIDE A 2:1 SLOPE AT THE TOP OF THE PAVED INVERT TO PREVENT WATER FROM SITTING ON THE TOP EDGE AS SHOWN IN THE PLAN DETAIL.

DUE TO THE EXCESSIVE SEDIMENT AND DEBRIS AT THIS LOCATION, THE PIPE CLEANOUT PRIOR TO FIELD PAVING OF THE EXISTING PIPE IS ITEMIZED SEPARATELY AND SHALL BE PAID FOR USING THE PAY ITEM PIPE CLEANOUT. SEE NOTE ON THIS SHEET FOR ADDITIONAL INFORMATION.

**PIPE CLEANOUT**

THIS ITEM SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - PIPE CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17. ALL SEWERS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

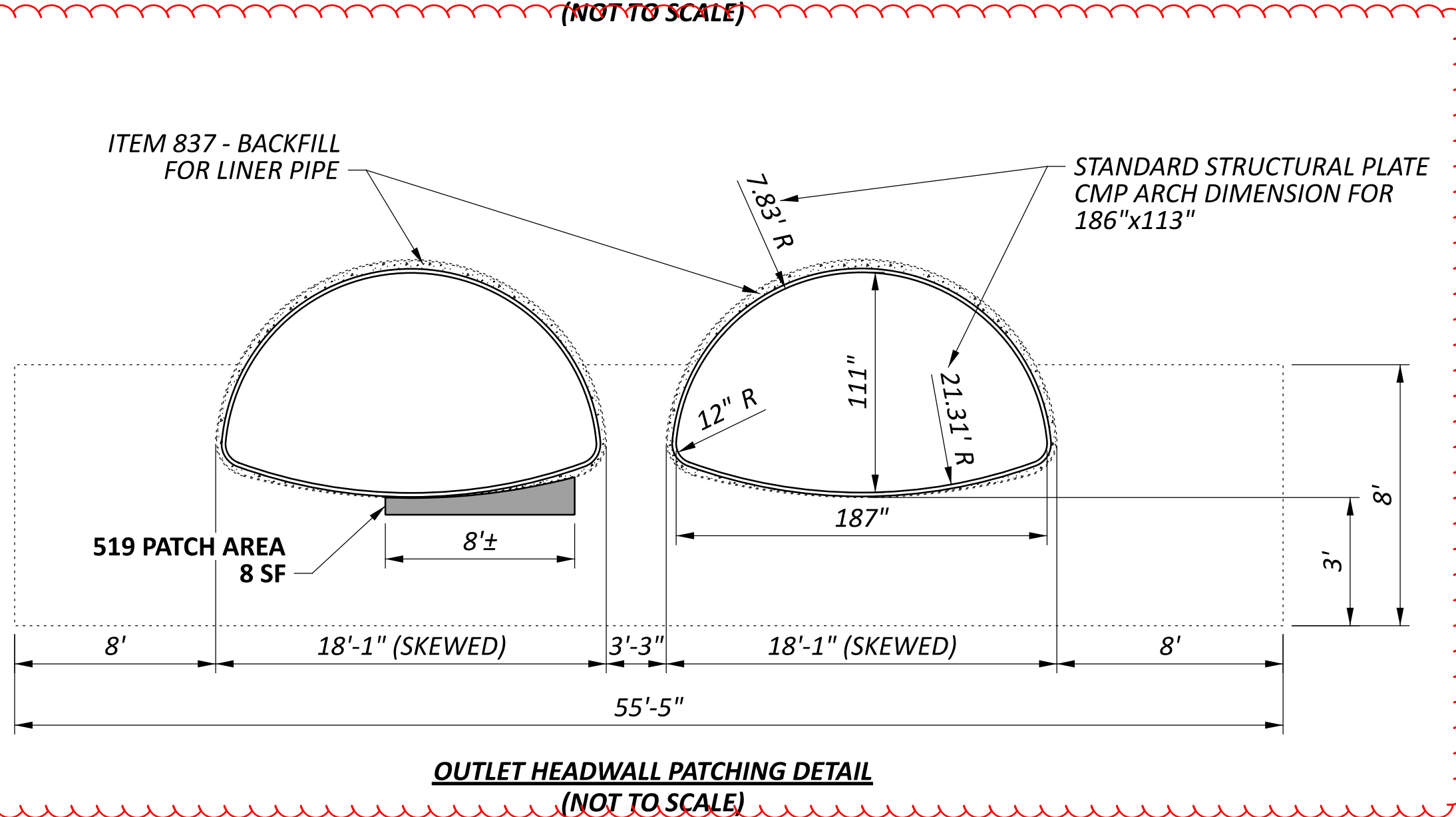
**LINER PIPE, AS PER PLAN**

LINE THE EXISTING PIPE PER THE REQUIREMENTS OF SS 837. THE PROPOSED LINER PIPE SIZES AS SHOWN IN THESE PLANS ARE THE MINIMUM STANDARD CMP ARCH DIMENSIONS AND MUST HAVE A SMOOTH INTERIOR FOR HYDRAULIC PURPOSES. THE LINER SHALL MATCH THE EXISTING PIPE AS CLOSELY AS POSSIBLE ALLOWING SUFFICIENT ROOM FOR FLOW BYPASS DURING CONSTRUCTION AS WELL AS FOR BACKFILLING THE ANNULAR ARE BETWEEN BOTH THE HOST AND THE LINER PIPE.

THE CONTRACTOR MAY MODIFY THE DIMENSIONS IN ORDER TO ALLOW THE LINER PIPE TO FIT WITHIN THE EXISTING HOST PIPE MINIMUM DIMENSIONS AS LISTED IN THE "EXISTING CMP HOST PIPE CONDITIONS" NOTE ON SHEET 8, PROVIDED THEY DEMONSTRATE THAT 111 SF OF CROSS SECTIONAL AREA IS MAINTAINED WITHIN THE INSIDE DIAMETER OF THE LINER PIPE. THE DETAIL ON THIS SHEET DEPICTS DIMENSIONS MODIFIED FROM A STANDARD 186"x113" STRUCTURAL STEEL CMP ARCH SHAPE THAT ALLOWS FOR ADDITIONAL SPACE BETWEEN SMALLEST HOST PIPE DIMENSIONS AND OUTSIDE WALL OF LINER PIPE WHILE MAINTAININT THE MINIMUM 111 SF OF CROSS-SECTIONAL AREA.

DUE TO THE EXCESSIVE SEDIMENT AND DEBRIS AT THIS LOCATION, THE PIPE CLEANOUT PRIOR TO FIELD PAVING OF THE EXISTING PIPE IS ITEMIZED SEPARATELY AND SHALL BE PAID FOR USING THE PAY ITEM PIPE CLEANOUT. SEE NOTE ON THIS SHEET FOR ADDITIONAL INFORMATION.

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	1,126	FT	PIPE CLEANOUT OVER 48"
503	LS	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN
519	17	SF	PATCHING CONCRETE STRUCTURES
611	876	FT	FIELD PAVING OF EXISTING PIPE, 16'-7"x10'-1" CMP ARCH
611	80	SF	CONDUIT, MISC. REPAIR METHOD A
611	40	SF	CONDUIT, MISC. REPAIR METHOD B
837	250	SF	LINER PIPE, AS PER PLAN, 186"x113" ARCH, 748.06, 707.75
837	250	FT	BACKFILL FOR LINER PIPE



**OUTLET HEADWALL PATCHING DETAIL**  
(NOT TO SCALE)

EXISTING STRUCTURE	
TYPE:	CMP ARCH
SIZE:	TWIN 16'-7"x10'-1" CMP ARCH, 563' LONG
SKEW:	20° L.F.
ALIGNMENT:	TANGENT
DATE BUILT:	1960
CONDITION:	POOR
SFN:	3111229
COORDINATES:	LATITUDE: 39.293817 LONGITUDE: -84.441414
OHWM:	577.8 (CULVERT INVERT = 575.8)
STREAM NAME:	BEAVER RUN
OHWM:	580 (STREAM INVERT = 579±)
STREAM NAME:	STREAM 3