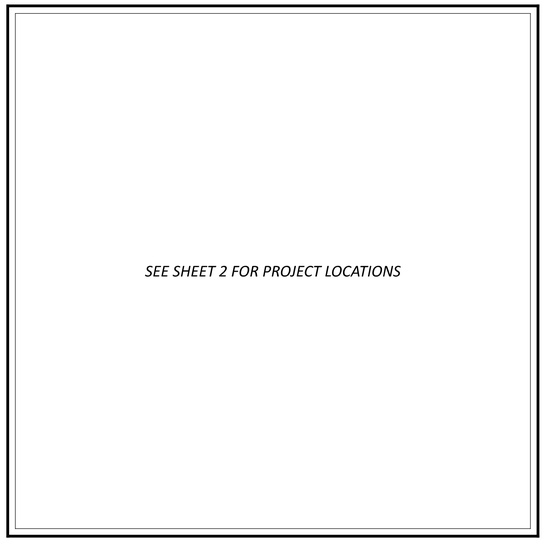


LOCATION MAP

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

HAM INVERTS FY2027

HAMILTON COUNTY
SPRINGFIELD AND SYCAMORE TOWNSHIPS
CITY OF CINCINNATI

INDEX OF SHEETS:

FEDERAL PROJECT NUMBER

E250501

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

REHABILITATE BRIDGE SIZED CULVERTS HAM-275-2453, HAM-747-0198, HAM-126-1700, AND HAM-74-1737.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	** ACRES*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	** ACRES*
NOTICE OF INTENT EARTH DISTURBED AREA:	** ACRES*

** SEE INDIVIDUAL CULVERT SHEETS*

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

Douglas A. Gruver, P.E.
District 08 Deputy Director

Pamela Boratyn
Director, Department of Transportation

DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

NONE

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 8 - ENGINEERING

ENGINEER'S SEAL
DRAINAGE

STANDARD CONSTRUCTION DRAWINGS						*SUPPLEMENTAL SPECIFICATIONS*		*SPECIAL PROVISIONS*
DM-1.1	*1/17/25*					*800-2023*	*1/16/26*	*WATERWAY*
DM-4.3	*1/15/16*					*832*	*7/18/25*	*PERMIT*
DM-4.4	*1/15/16*					*838*	*7/18/25*	*CONDITIONS*
						843	*1/19/24*	*4/24/26*
MT-95.30	*7/18/25*							
MT-95.31	*7/18/25*							
MT-95.41	*7/18/25*							
MT-95.45	*7/21/23*							
MT-98.10	*1/17/20*							
MT-98.20	*4/19/19*							
MT-98.21	*7/21/23*							
MT-98.28	*1/17/20*							
MT-105.10	*1/17/20*							

TITLE SHEET

DESIGN AGENCY

DESIGNER MLB
REVIEWER TRB 04/09/25
PROJECT ID 114660
SHEET P.01 TOTAL 11

ENDANGERED BAT HABITAT REMOVAL

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT, AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT (ESA). FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK 3 INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, TOPSOIL	1,015 CU. YD.
659, SEEDING AND MULCHING	9,147 SQ. YD.
659, COMMERCIAL FERTILIZER	1.24 TON
659, LIME	1.9 ACRES
659, WATER	49.4 M. GAL.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PROPOSED PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, SUCH DETAILS AND DIMENSIONS ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04. BASE THE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

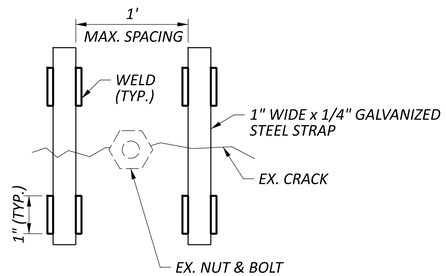
SPECIAL - WELDED STRAP CRACK REPAIR

THE FOLLOWING PROPOSED CRACK REPAIR PROCEDURE SHALL BE FOLLOWED USING THE CRACK REPAIR DETAIL ON THIS SHEET.

ALL CULVERT CRACK REPAIRS SHALL BE COMPLETED PRIOR TO FIELD PAVING OF EXISTING PIPES.

1. CLEAN CRACK AND RUSTED AREAS (IF PRESENT) WITH WIRE BRUSH TO REMOVE LOOSE RUST.
2. BEND STRAP ENDS (IF REQUIRED) TO FIT THE CURVATURE OF THE METAL PLATE.
3. ON BOTH SIDES OF THE CRACK, WELD STRAP PERPINDICULAR TO THE CRACK. STRAPS SHALL BE AT A LENGTH SO WELDS CAN BE COMPLETED ON NON-RUSTED METAL (IF PRESENT).
4. PAINT REPAIR AREA IN CONFORMANCE WITH CONDUIT, MISC.: REPAIR METHOD A AT A DISTANCE OF 2" BEYOND THE STRAPS.

FIELD WELDING, METAL STRAPS, AND ALL MISCELLANEOUS ITEMS ASSOCIATED WITH CRACK REPAIR PROCEDURE ARE TO BE INCLUDED FOR PAYMENT UNDER ITEM SPECIAL - WELDED STRAP CRACK REPAIR AND PAINTING OF RUSTED AND CRACK REPAIRED AREAS SHALL BE INCLUDED FOR PAYMENT UNDER ITME 611 - CONDUIT MISC. - REPAIR METHOD A. SEE INDIVIDUAL CULVERT REPAIR SHEETS FOR QUANTITIES ASSOCIATED WITH THIS REPAIR METHOD.



UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER, OR ADJACENT TO, THE WORK AREA.

CINCINNATI SMU COORDINATION - HAM-74-17.37

PRIOR TO BEGINNING OF METAL REPAIR WORK AT HAM-74-17.37 LOCATION, CONTACT CINCINNATI STORMWATER MANAGEMENT UNIT (SMU) TO COORDINATE A SITE VISIT AND OBSERVATION.

NICHOLAS NOBLE
ENGINEER
CINCINNATI STORMWATER MANAGEMENT UTILITY PERMIT & PLAN REVIEW
CELL: 513.314.1954
OFFICE: 513.591.7746

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 25 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. NOTIFY THE ODOT OFFICE OF AVIATION WHEN SUBMITTING FAA FORM 7460-1.

NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND THE ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGIONAL OFFICE
OBSTRUCTION EVALUATION GROUP
10101 HILLWOOD PARKWAY
FORT WORTH, TX 76177
FAX: (817) 222-5920
HTTP://CEAAA.FAA.GOV

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OHIO 43235
OHIO.AIRPORT.PROTECTION@DOT.OHIO.GOV

COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

COFFERDAMS AND EXCAVATION BRACING INSTALLED FOR THE PROJECT ARE FOR DEWATERING THE WORK AREA AND ARE CONSIDERED FILL. COFFERDAMS AND EXCAVATION BRACING DESIGN, CONSTRUCTION, AND REIMBURSEMENT FOR DAMAGE IS BASED ON CMS 503. THE CONTRACTOR MUST COMPLY WITH ANY IN-STREAM RESTRICTION IN THE SPECIAL PROVISIONS WATERWAY PERMIT. ADDING FILL TO THE STREAM TO DEWATER THE WORK AREA REQUIRES A TEMPORARY ACCESS FILL (TAF) SUBMISSION PER THE SPECIAL PROVISIONS.

IF THE CONTRACTOR CHOOSES TO PERFORM 250 LINEAL FEET OR LESS OF THE REHABILITATION WORK REQUIRED IN THE PLANS PER LOCATION: ALL REQUIREMENTS OF CMS 503 APPLY, UNLESS STIPULATED ELSEWHERE IN THIS NOTE.

IF THE CONTRACTOR CHOOSES TO PERFORM MORE THAN 250 LINEAL FEET OF THE REHABILIATION WORK REQUIRED BY THE PLANS PER LOCATION: EVEN IF THE ACTUAL WATER ELEVATON EXCEEDS 3 ABOVE THE STATED ORDINARY HIGH WATER MARK, THE DEPARTMENT WILL ONLY REIMBURSE THE CONTRACTOR FOR RESULTING DAMAGE TO A MAXIMUM OF 250 LINEAL FEET OF WORK PROTECTED BY THE COFFERDAM. ALL OTHER PROVISIONS OF CMS 503 APPLY.

IF THE CONTRACTOR CHOOSES TO IMPACT THE STREAM DURING THE MONTHS OF APRIL THROUGH OCTOBER: ALL REQUIREMENTS OF CMS 503 APPLY, UNLESS STIPULATED ELSEWHERE IN THIS NOTE.

IF THE CONTRACTOR CHOOSES TO IMPACT THE STREAM AT ANY TIME IN THE MONTHS OF NOVEMBER THROUGH MARCH: EVEN IF THE ACTUAL WATER ELEVATION EXCEEDS 3 FEET ABOVE THE STATED ORDINARY HIGH WATER MARK, THE DEPARTMENT WILL NOT REIMBURSE THE CONTRACTOR FOR RESULTING DAMAGE TO THE WORK PROTECTED BY THE COFFERDAM. ALL OTHER REQUIREMENTS OF CMS 503 APPLY.

SPECIAL - COMPOSITE FIBER WRAP SYSTEM

IN THE AREA OF PIPE SPECIFIED ON THE PLAN, CONTRACTOR SHALL CREATE SMOOTH INTERIOR SURFACE OF THE ENTIRE INTERIOR CIRCUMFERENCE OF THE EXISTING CORRUGATED METAL PIPE UTILIZING A NON-STRUCTURAL SPRAY APPLIED LINER PER SS 833, TROWELABLE MORTAR PER SS 843, PNEUMATICALLY PLACED CONCRETE PER CMS 520, OR OTHER METHOD APPROVED BY THE ENGINEER. ANY EXISTING HOLES IN THE METAL THAT ARE LEAKING BACKFILL OR MOISTURE SHALL BE FILLED WITH EXPANDABLE FOAM, HYDRAULIC CEMENT, OR OTHER APPROVED METHODS AS NECESSARY, PRIOR TO MATERIAL BEING PLACED TO CREATE SMOOTH INTERIOR SURFACE.

ONCE SMOOTH INTERIOR CIRCUMFERENCE HAS BEEN INSTALLED AND CURED PER THE MANUFACTURERS SPECIFICATIONS (IF NECESSARY), THE ENTIRE CIRCUMFERENCE OF THE PIPE SHALL BE LINED WITH FIBER REINFORCED POLYMER (FRP) THROUGHOUT THE REPAIR AREA. THE TOTAL THICKNESS OF THE MATERIAL FOR THE SMOOTH INTERIOR AND THE FRP TOGETHER SHALL NOT EXCEED 3" ABOVE THE TOP OF THE PIPE CORRUGATIONS.

COAT ALL FRP WITH AN EPOXY URETHANE SEALER PER CSM 512. COLOR SHALL BE FEDERAL COLOR 17778. ALL FRP INSTALLATION SHALL BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND PROPOSAL NOTE 519.

PAYMENT FOR THE ABOVE DESCRIBED WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEM 519 - SPECIAL - COMPOSITE FIBER WRAP SYSTEM.

ITEM 601 - SLOPE PROTECTION, MISC.: FILLING VOIDS WITH EXPANSIVE POLYURETHANE
ITEM 611 - CONDUIT, MISC.: FILLING VOIDS WITH EXPANSIVE POLYURETHANE

THIS ITEM SHALL INCLUDE FILLING VOIDS UNDER THE EXISTING CONCRETE RIPRAP SLAB AND WHERE THERE IS ACTIVE LEAKING THROUGH BOLT HOLES AND SEAMS.

THE VOID IS TO BE FILLED WITH A HYDRO-INSENSITIVE, EXPANDING HIGH DENSITY POLYURETHANE SYSTEM SUCH AS: URETEK 486 STAY, PRIME RESINS - PRIME FLEX 985, OR AN APPROVED EQUAL.

PLACEMENT OF THE MATERIAL SHALL BE AS DIRECTED BY THE POLYURETHANE SYSTEM MANUFACTURER AND AS APPROVED BY THE ENGINEER.

ALTERNATIVE PROCEDURES OR MATERIALS MEETING THE DESIGN INTENT OF THE REPAIR DETAILS MAY BE APPROVED AT THE ENGINEER'S DISCRETION.

IN CONDUITS, WORK SHALL BE COMPLETED PRIOR TO any OTHER METAL SURFACE OR LINING REPAIRS.

ALL MATERIALS, LABOR, AND INDICENTALS REQUIRED TO FILL THE VOID SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 611 - CONDUIT, MISC.: FILLING VOIDS WITH EXPANSIVE POLYURETHANE.

MEASUREMENT FOR PAYMENT SHALL BE THE VOLUME OF UN-EXPANDED POLYURETHANE PLACED, MULTIPLIED BY THE EXPECTED RATIO AS PUBLISHED BY THE MANUFACTURER.

GENERAL NOTES

DESIGN AGENCY

DESIGNER	MLB
REVIEWER	TRB 04/09/25
PROJECT ID	114660
SHEET	P.03
TOTAL	11

HAM INVERTS FY2027

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SHEET NUM.										PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
			3	5	7	9	10	11		01/S>2	02/IMS	03/IMS	04/NHS						
																		ROADWAY	
					LS						LS			201	11000	LS		CLEARING AND GRUBBING (HAM-74-1737)	
						LS							LS	201	11000	LS		CLEARING AND GRUBBING (HAM-126-1700)	
							LS					LS		201	11000	LS		CLEARING AND GRUBBING (HAM-275-2453)	
								LS		LS				201	11000	LS		CLEARING AND GRUBBING (HAM-747-0198)	
						427							427	SPECIAL	20270130	427	FT	PIPE CLEANOUT OVER 48"	9
						18							18	202	98500	18	CY	REMOVAL MISC.: GABION BASKETS	9
					LS						LS			503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (HAM-74-1737)	3
						LS							LS	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (HAM-126-1700)	3
							LS					LS		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (HAM-275-2453)	3
								LS		LS				503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN (HAM-747-0198)	3
																		EROSION CONTROL	
			1,015							204	462	220	129	659	00300	1,015	CY	TOPSOIL	
			9,147							1,839	4,162	1,984	1,162	659	10000	9,147	SY	SEEDING AND MULCHING	
			1.24							0.25	0.56	0.27	0.16	659	20000	1.24	TON	COMMERCIAL FERTILIZER	
			1.9							0.38	0.86	0.41	0.25	659	31000	1.9	ACRE	LIME	
			49.4							9.9	22.5	10.7	6.3	659	35000	49.4	MGAL	WATER	
			8,000							2,000	2,000	2,000	2,000	832	30000	8,000	EACH	EROSION CONTROL	
																		STRUCTURE 20 FOOT SPAN AND UNDER (HAM-74-1737)	
					71						71			509	26000	71	LB	GALVANIZED STEEL REINFORCEMENT	
					68						68			510	10000	68	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
					2						2			511	46011	2	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN	8
					46						46			519	11100	46	SF	PATCHING CONCRETE STRUCTURE	
					5						5			601	21150	5	CY	SLOPE PROTECTION, MISC. FILLING VOIDS WITH EXPANSIVE POLYURETHANE	3
					15						15			601	34000	15	CY	ROCK CHANNEL PROTECTION, TYPE A WITHOUT FILTER	
					40						40			601	34400	40	CY	ROCK CHANNEL PROTECTION, WITH GROUT, TYPE A	
					350						350			611	97700	350	SF	CONDUIT, MISC.: REPAIR METHOD A	4
					62						62			611	97700	62	SF	CONDUIT, MISC.: REPAIR METHOD B	4
																		STRUCTURE 20 FOOT SPAN AND UNDER (HAM-126-1700)	
						427							427	611	96550	427	FT	FIELD PAVING OF EXISTING PIPE, 144" CMP	
						395							395	611	97700	395	SF	CONDUIT, MISC.: REPAIR METHOD A	4
						10							10	611	97700	10	SF	CONDUIT, MISC.: REPAIR METHOD B	4
						2							2	SPECIAL	69098000	2	EACH	WELDED STRAP CRACK REPAIR	3
						18							18	838	20700	18	CY	GABIONS	
																		STRUCTURE 20 FOOT SPAN AND UNDER (HAM-275-2453)	
						15,840						15,840		SPECIAL	51900100	15,840	SF	COMPOSITE FIBER WRAP SYSTEM	3
						235						235		611	97700	235	SF	CONDUIT, MISC.: REPAIR METHOD A	4
						50						50		611	97700	50	SF	CONDUIT, MISC.: REPAIR METHOD B	4
						5						5		611	97600	5	CY	CONDUIT, MISC.: FILLING VOIDS WITH EXPANSIVE POLYURETHANE	3
						4						4		SPECIAL	69098000	4	EACH	WELDED STRAP CRACK REPAIR	3
																		STRUCTURE 20 FOOT SPAN AND UNDER (HAM-747-0198)	
								236		236				611	97700	236	SF	CONDUIT, MISC.: REPAIR METHOD A	4
								72		72				611	97700	72	SF	CONDUIT, MISC.: REPAIR METHOD B	4
								4		4				SPECIAL	69098000	4	EACH	WELDED STRAP CRACK REPAIR	3
																		MAINTENANCE OF TRAFFIC	
				4						1	1	1	1	614	12380	4	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
				2								2		614	18601	2	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	5
				300						75	75	75	75	622	41100	300	FT	PORTABLE BARRIER, UNANCHORED	
																		INCIDENTALS	
										LS	LS	LS	LS	614	11000	LS		MAINTAINING TRAFFIC	
										LS	LS	LS	LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

HAM INVERTS FY2027

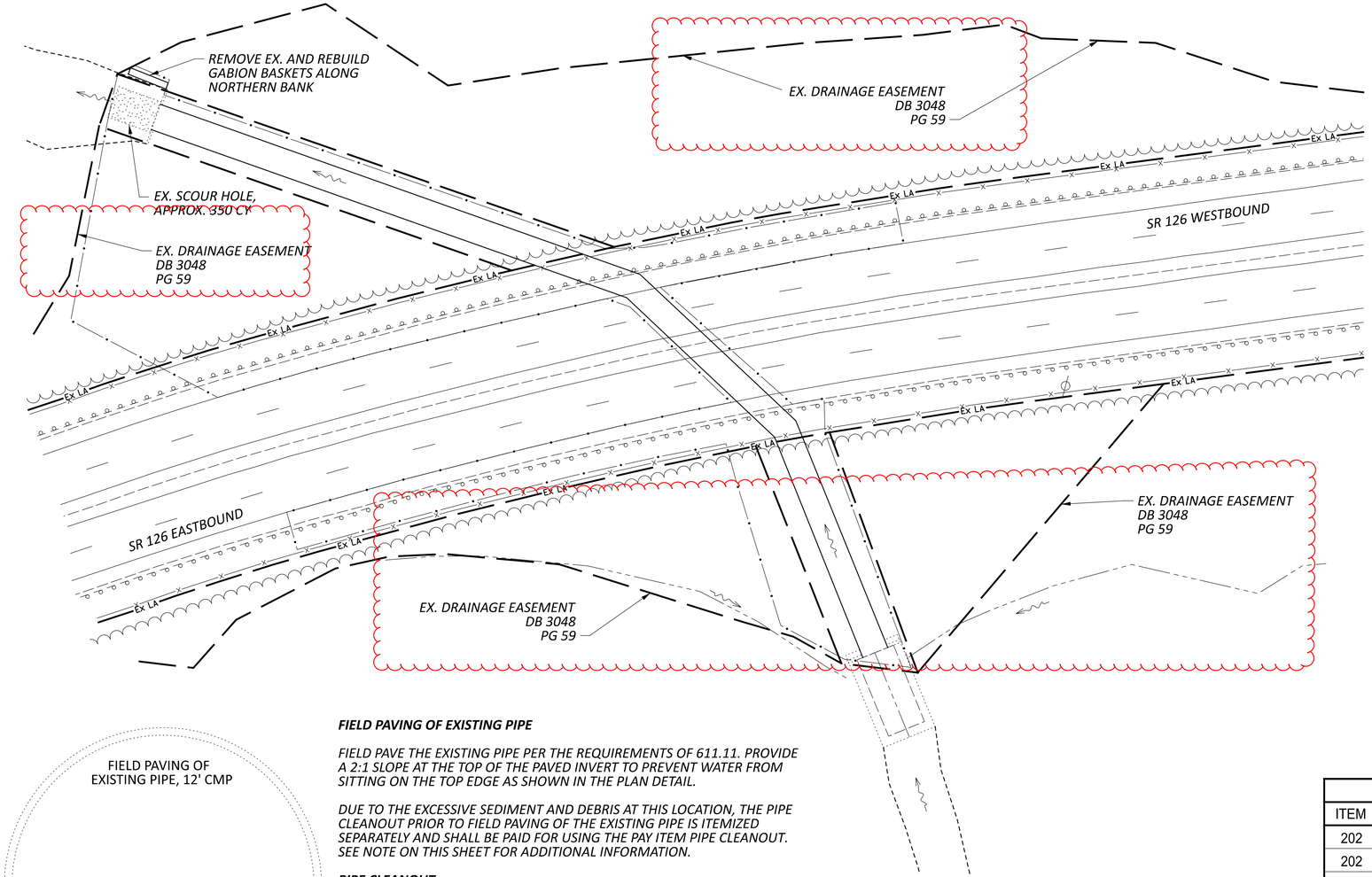
DESIGN AGENCY

DESIGNER MLB

REVIEWER TRB 04/09/25

PROJECT ID 114660

SHEET P.06 TOTAL 11



PROJECT EARTH DISTURBED AREA: 0.72 ACRES
ESTIMATED CONTRACTOR EARTH DISTRUBED AREA: 0.1 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: NO NOI REQUIRED

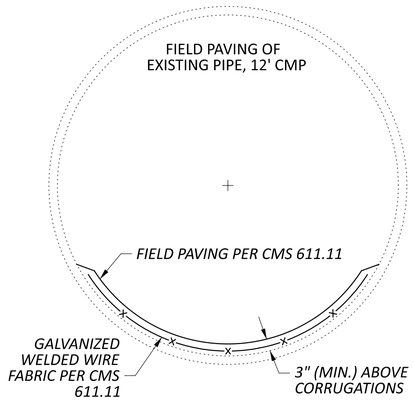
HORIZONTAL SCALE IN FEET
0 15 30 60

REHABILITATE CULVERT HAM-126-1700 BY PERFORMING THE FOLLOWING WORK:

1. *CLEAN CULVERT OF ROCK AND DEBRIS AND UTILIZE REMOVED ROCK TO FILL SCOUR HOLE AT OUTLET.*
2. *REPAIR CRACKS USING FLAT BARS.*
3. *PAVE INVERT WITH REINFORCED CONCRETE.*
4. *COAT ALL CRACK RETROFIT AREAS WITH METHOD A AND REPAIR RUSTED AREAS IDENTIFIED ON THE PLANS USING REPAIR METHOD A, METHOD B, OR METHOD C.*

EXISTING STRUCTURE

TYPE:		ROUND CMP
SIZE:		12' DIAMETER x 427' LONG
SKEW:		48° R.F.
ALIGNMENT:		TANGENT
STRUCTURE FILE NUMBER (SFN):		3105059
DATE BUILT:		1970
CONDITION:		FAIR
COORDINATES:	LATITUDE:	39.241186
	LONGITUDE:	-84.299363
STREAM NAME:		COOPER CREEK
OHWM:		658.95 (CULVERT INVERT = 657.95)



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.

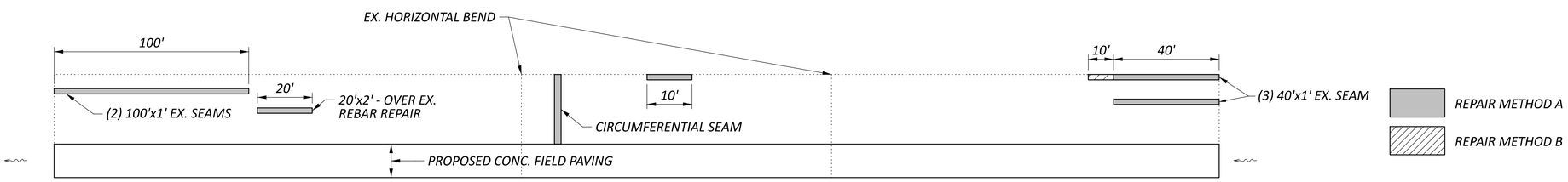
PIPE CLEANOUT

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 MAY BE UTLIZED TO FILL SCOUR HOLE AT OUTLET END. ONCE SCOUR HOLE IS FILLED, 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.

ESTIMATED QUANTITIES (CARRIED TO GENERAL SUMMARY)

ITEM	QUANTITY	UNIT	DESCRIPTION
202	427	FT	PIPE CLEANOUT OVER 48"
202	18	CY	REMOVAL MISC.: GABION BASKETS
503	LS	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN
611	427	FT	FIELD PAVING OF EXISTING PIPE, 144" CMP
611	395	SF	CONDUIT, MISC: CMP REPAIR METHOD A
611	10	SF	CONDUIT, MISC: CMP REPAIR METHOD B
690	2	EA	CONDUIT, MISC: WELDED STRAP CRACK REPAR
838	18	CY	GABIONS

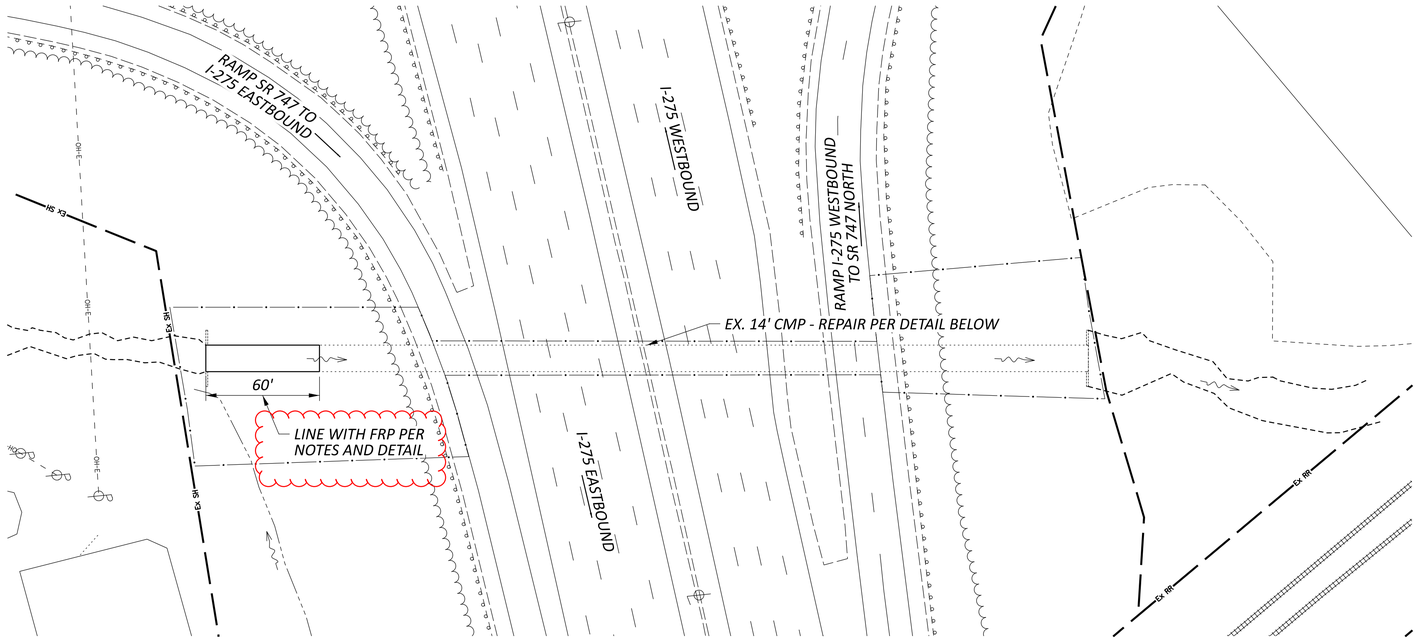


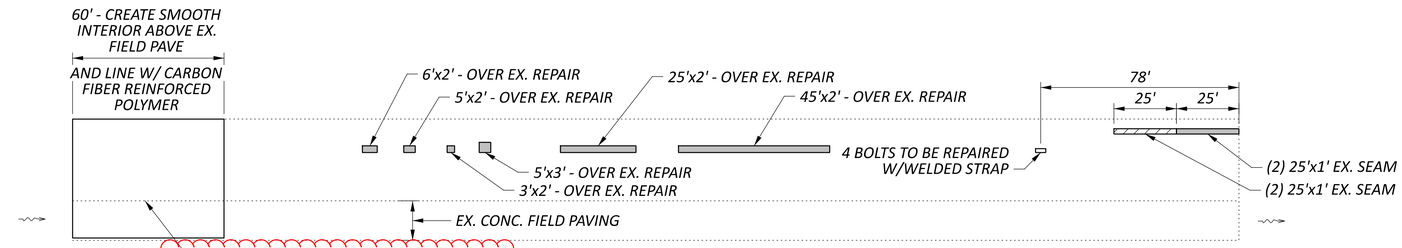
HAM-126-1700
CULVERT PLAN & DETAIL

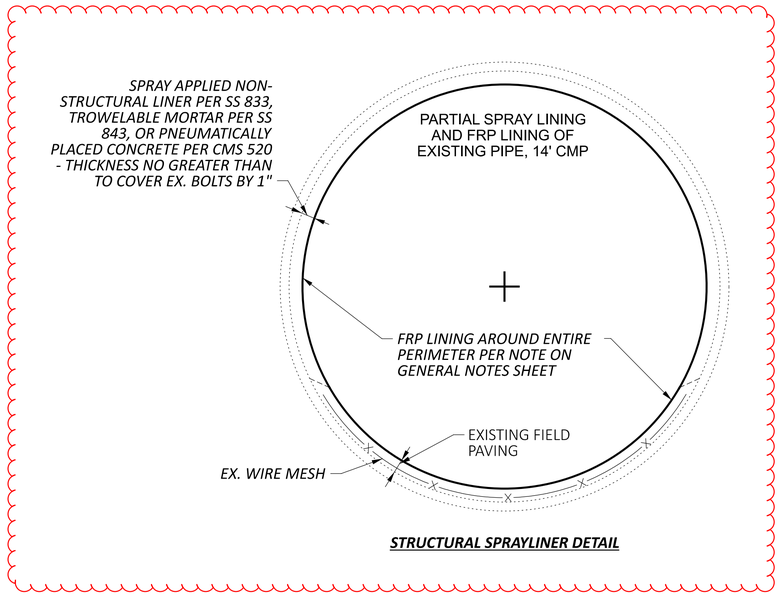
DESIGN AGENCY

DESIGNER MLB
REVIEWER TRB 04/09/25
PROJECT ID 114660
SHEET P.09 TOTAL 11

HAM INVERTS FY2027







STRUCTURAL SPRAYLINER DETAIL

PROJECT EARTH DISTURBED AREA: 0.53 ACRES
ESTIMATED CONTRACTOR EARTH DISTRUBED AREA: -- ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: NO NOI REQUIRED

HORIZONTAL SCALE IN FEET
0 20 40 80

REHABILITATE CULVERT HAM-275-2453 BY PERFORMING THE FOLLOWING WORK:

1. *REPAIR CRACKS USING FLAT BARS.*
2. *COAT ALL CRACK RETROFIT AREAS WITH METHOD A AND REPAIR AREAS OF RUSTED STEEL ABOVE THE EXISTING PAVED INVERT AS IDENTIFIED IN THE PLANS THAT NEED REPAIR USING METHOD A, METHOD B, OR METHOD C.*
3. *AT 60 FOOT AREA SHOWN IN PLANS, CREATE SMOOTH SURFACE ON INTERIOR OF EXISTING CULVERT ABOVE EXISTING CONCRETE FIELD PAVING AND WRAP ENTIRE INTERIOR WITH FIBER REINFORCED POLYMER.*
4. *INJECT ACVTIVELY LEAKING JOINTS AND BOLTS WITH EXPANSIVE POLYURETHANE.*

EXISTING STRUCTURE

TYPE:		*ROUND CMP*
SIZE:		*14' DIAMETER x 466' LONG*
SKEW:		*13° L.F.*
ALIGNMENT:		*TANGENT*
STRUCTURE FILE NUMBER (SFN):		*3112187*
DATE BUILT:		*1960*
CONDITION:		*FAIR*
COORDINATES:	*LATITUDE:*	*39.294566*
	LONGITUDE:	*-84.464142*
STREAM NAME:		*SPRINGDALE TRIBUTARY*
OHWM:		*625.35 (CULVERT INVERT = 624.35)*

ESTIMATED QUANTITIES (CARRIED TO GENERAL SUMMARY)

ITEM	QUANTITY	UNIT	DESCRIPTION
503	LS	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN
519	15,840	SF	COMPOSITE FIBER WRAP SYSTEM
611	235	SF	CONDUIT, MISC: CMP REPAIR METHOD A
611	50	SF	CONDUIT, MISC: CMP REPAIR METHOD B
611	5	CY	CONDUIT, MISC: FILLING VOIDS WITH EXPANSIVE POLYURETHANE
690	4	EA	SPECIAL - WELDED STRAP CRACK REPAIR

HAM-275-2453
CULVERT PLAN & DETAIL

DESIGN AGENCY

DESIGNER MLB
REVIEWER TRB 04/09/25
PROJECT ID 114660
SHEET P.10 TOTAL 11

HAM INVERTS FY2027

MODEL: Sheet_Survfit PAPERSIZE: 34x22 (in.) DATE: 6/23/2026 TIME: 3:00:21 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: Maxwell.Bailey@dot.ohio.gov WORKSPACE: OHDOTCEv02 WORKSET: 114660 PRODUCT: OpenRoadsDesigner 24.00.00.205
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 08\Hamilton\114660\d00-Engineering\Drainage\Sheets\114660_DP003_HAM-275-2453.dgn