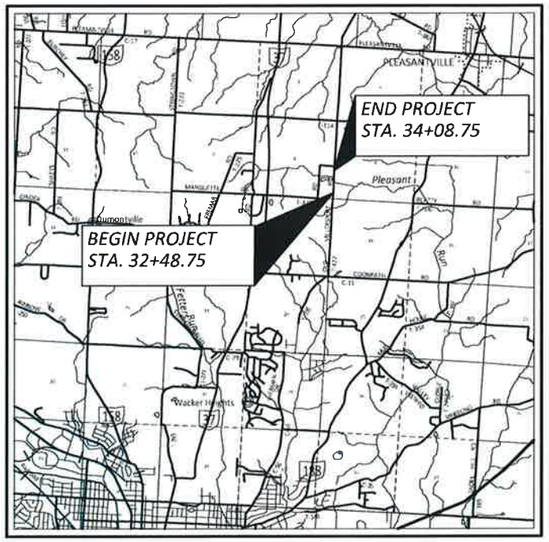
FAIRFIELD COUNTY ENGINEER

PLE-32 FAI-TR427-1.272

OLD MILLERSPORT ROAD
BRIDGE REPLACEMENT PROJECT



LOCATION MAP

LATITUDE: N39°47'07" LONGITUDE: N82°33'26"

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROUTES
OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2024)	636
DESIGN YEAR ADT (2044)	731
DESIGN SPEED	55 MPH
LEGAL SPEED	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
RURAL LOCAL ROAD	
NHS PROJECT	NO

INDEX OF SHEETS:

FEDERAL PROJECT NUMBER

NONE

PROJECT DESCRIPTION

THE PROPOSED IMPROVEMENTS CONSIST OF THE REPLACEMENT OF THE EXISTING PLEASANT RUN BRIDGE WITH PRECAST CONCRETE BOX CULVERT WITH WINGWALLS, AND IMPROVEMENT OF BRIDGE APPROACHES.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INLDUING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY.

APPROVED _____
DATE 2-18-25 FAIRFIELD COUNTY ENGINEER

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:

Michael Baker INTERNATIONAL
250 WEST STREET, SUITE 420
COLUMBUS, OH 43215
PHONE: (614) 538-7601
MBAKERINTL.COM

ENGINEERS SEAL:

STATE OF OHIO
PAUL J. LANDRY
E-62193
REGISTERED PROFESSIONAL ENGINEER

02/10/2025

STANDARD CONSTRUCTION DRAWINGS

							SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-3.1	01/19/24						800	~~07/19/24~~	01/17/25
BP-4.1	07/19/13						832	07/19/24	
							940	04/17/15	
DM-4.2	07/20/12								
DM-4.3	01/15/16								
DM-4.4	01/15/16								
MGS-1.1	07/16/21								
MGS-2.1	01/19/18								
MGS-2.4	07/19/19								
MGS-4.1	01/20/17								
MGS-4.2	07/19/13								
MT-101.60	04/21/23								
RM-1.1	01/20/23								

WE THE COMMISSIONERS OF FAIRFIELD COUNTY IN FORMAL SESSION, HEREBY APPROVE THESE PLANS.

APPROVED _____
DATE _____ COMMISSIONER

APPROVED _____
DATE _____ COMMISSIONER

APPROVED _____
DATE 2/18/25 COMMISSIONER

Michael Baker INTERNATIONAL

OPWC DQAB10

CONSTRUCTION PROJECT NO. NONE

RAILROAD INVOLVEMENT NONE

PLE-32 FAI-TR427-1.272

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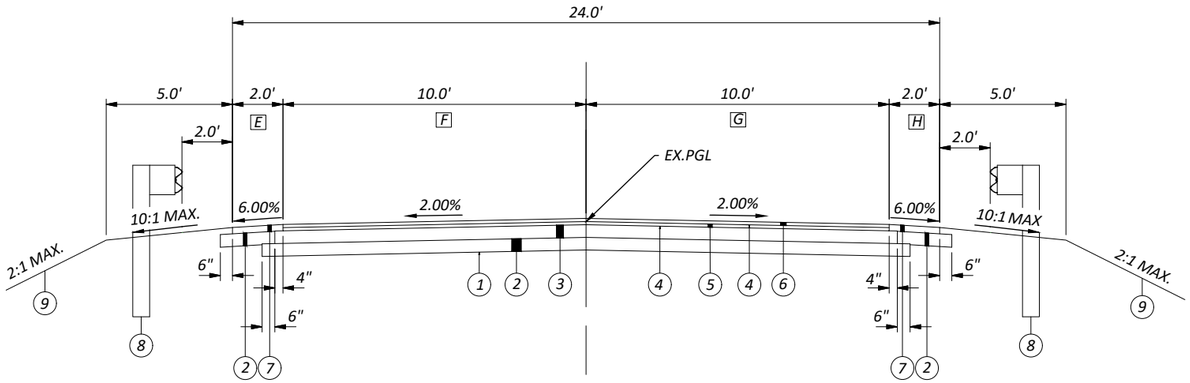
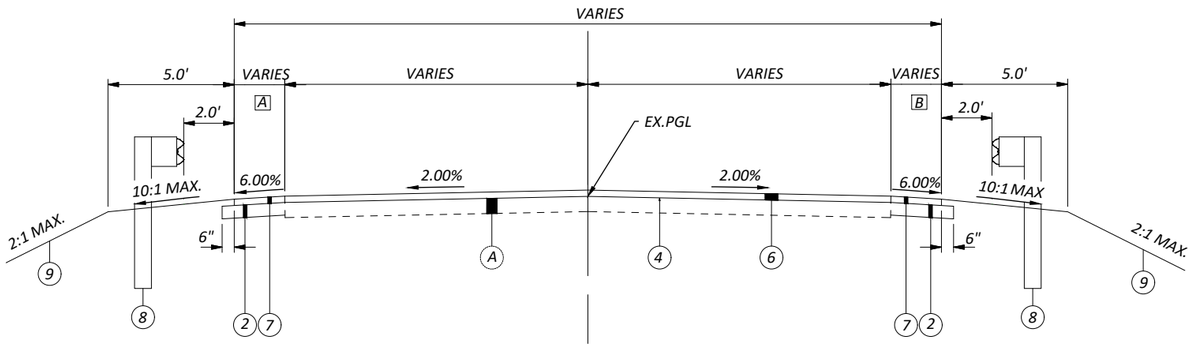


TYPICAL FULL DEPTH SECTION

STA. 32+48.75 TO STA. 34+08.75 = 160'



TYPICAL RESURFACING SECTION

STA. 32+25.00 TO STA. 32+48.75 = 23.75'
STA. 34+08.75 TO STA. 34+35.00= 26.25'

A — *2.0' FROM STA. 34+08.75 TO STA. 34+25.00 = 16.25'*
2.0' FROM STA. 34+25.00 TO EXISTING STA. 34+35.0 = 10.0'

B — *EXISTING STA. 32+25.00 TO 2.0' AT STA. 32+35.00 = 10.0'*
2.0' FROM STA. 32+35.00 TO STA. 32+48.75 = 13.75'

E — *TAPERS FROM EXISTING AT STA. 32+48.75 TO 2.00' AT STA. 32+87.50 = 38.75'*
2.0' FROM STA. 32+87.50 TO STA. 34+08.75 = 121.25'

F — *TAPERS FROM 9.11'(±) AT STA. 32+48.75 TO 10.00' AT STA. 33+03.75 = 55.0'*
10.0' FROM STA. 33+03.75 TO STA. 33+83.75 = 80.0'
TAPERS FROM 10.0' AT STA. 33+83.75 TO 8.36'(±) AT STA. 34+08.75 = 25.0'

G — *TAPERS FROM 8.48'(±) AT STA. 32+48.75 TO 10.0' AT STA. 32+73.75= 25.0'*
10' FROM STA. 32+73.75 TO STA. 33+53.75 = 80.0'
TAPERS FROM 10.0' AT STA. 33+53.75 TO 9.09'(±) AT STA. 34+08.75 = 55.0'

H — *2.0' FROM STA. 32+48.75 TO STA. 33+53.75 = 105.0'*
TAPERS FROM 2.0' AT STA. 33+53.75 TO EXISTING AT STA. 34+08.75 = 55.0'

LEGEND

1. *ITEM 204 - SUBGRADE COMPACTION*
2. *ITEM 304 - 6" AGGREGATE BASE*
3. *ITEM 301 - 6" ASPHALT CONCRETE BASE, PG64-22*
4. *ITEM 407 - NON-TRACKING TACK COAT*
5. *ITEM 441 - 1 ½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)*
6. *ITEM 441 - 1 ½" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22*
7. *ITEM 411 - 3" STABILIZED CRUSHED AGGREGATE, AS PER PLAN*
8. *ITEM 606 - GUARDRAIL, TYPE MGS*
9. *ITEM 659 - SEEDING AND MULCHING*
- A — *EXISTING ROADWAY MATERIALS*

NOTES

1. *SEE SHEET 7 FOR GUARDRAIL LIMITS AND QUANTITIES*

CALCULATED AKA CHECKED KMD

Michael Baker INTERNATIONAL

TYPICAL SECTIONS

PLE-32 FAI-TR427-1.272

ENGINEER DEFINED

DULY AUTHORIZED AGENT OF THE FAIRFIELD COUNTY ENGINEER ACTING WITHIN THE SCOPE OF HIS/HER AUTHORITY FOR PURPOSES OF ENGINEERING AND ADMINISTRATION OF THE CONTRACT.

CONTRACTOR DEFINED

THE INDIVIDUAL, FIRM, OR CORPORATION CONTRACTING WITH THE FAIRFIELD COUNTY ENGINEER FOR PERFORMANCE OF PRESCRIBED WORK, ACTING DIRECTLY OR THROUGH A DULY AUTHORIZED REPRESENTATIVE AND QUALIFIED UNDER THE PROVISIONS OF 5525.02 TO 5525.09, ORC, AND ANY AMENDMENTS THERETO.

CONTINGENCY QUANTITIES

THE CONTRACTORS SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER.

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

SOUTH CENTRAL POWER COMPANY
ATTN: ZACHERY A. REED, P.E.
DIRECTOR OF ENGINEERING
720 MILL PARK DR
LANCASTER, OH 43130
O 740-689-6150
C 740-415-4274
zreed@southcentralpower.com

SOUTH CENTRAL POWER
ATTN: CASEY VALENTINE
TRANSMISSION PROJECT MANAGER
C: 740-823-1334
valentine@southcentralpower.com

COLUMBIA GAS TRANSMISSION TC
ENERGY
ATTN: LORIN SMITH
C: 614-989-4798
lorin_smith@tcenergy.com

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 7 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD:	ODOT VRS
MONUMENT TYPE:	A

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM:	NAVD88
GEOID:	GEOID12B

HORIZONTAL POSITIONING

REFERENCE FRAME:	NAD83 (2011)
ELLIPSOID:	GRS80
MAP PROJECTION:	LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM:	OHIO STATE PLANE (SOUTH ZONE)
COMBINED SCALE FACTOR:	N/A
ORIGIN OF COORDINATE SYSTEM:	0,0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE U.S. SURVEY 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.

STREAM CHANNEL EXCAVATION

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL FROM THE STREAM CHANNEL. THIS PERTAINS TO ANY EXCAVATION OPERATIONS, SUCH AS FOUNDATION, PIER, OR ABUTMENT EXCAVATION, CHANNEL CLEANOUT, EXCAVATION FOR ROCK CHANNEL PROTECTION, AND REMOVAL OF ANY TEMPORARY FILL ASSOCIATED WITH CONSTRUCTION OPERATIONS.

INSTREAM WORK

INSTREAM WORK WILL BE LIMITED TO WHERE PRACTICABLE AND ONLY CLEAN, NON-ERODIBLE MATERIAL WILL BE USED FOR CAUSEWAYS, COFFERDAMS, OR OTHER EQUIPMENT ACCESS PADS. THIS TEMPORARY PLACED MATERIAL WILL BE REMOVED AND THE STREAM BOTTOM RESTORED TO NEAR NATURAL CONDITIONS WHEN THE WORK IS COMPLETED.

ITEM 201 - CLEARING AND GRUBBING

ALL TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING, EXCEPT THOSE OTHERWISE DESIGNATED BY THE ENGINEER. LANDOWNERS SHALL BE ALLOWED TO SALVAGE THE WOOD FROM TREES BEING REMOVED FROM THEIR PROPERTY. TREES DESIGNATED AS BEING SALVAGED FOR WOOD SHALL BE CUT ABOVE THE BASE AND PLACED OUTSIDE OF THE RIGHT-OF-WAY.

ITEM 204 - UNSUITABLE FOUNDATION SOILS

IF UNSUITABLE FOUNDATION SOILS ARE ENCOUNTERED IN THE AREAS OF THE PROPOSED ROADBED OR STRUCTURES, THEY SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL. THE LOCATIONS AND DIMENSIONS WILL BE AS DETERMINED BY THE ENGINEER.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY, TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 204, EXCAVATION OF SUBGRADE	50 CY
ITEM 204, GRANULAR MATERIAL, TYPE F	50 CY
ITEM 204, GEOTEXTILE FABRIC	100 SY

ITEM 204 - PROOF ROLLING, AS PER PLAN

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR MAY UTILIZE A FULLY LOADED DUMP TRUCK, APPROVED BY THE ENGINEER, IN LIEU OF THE PROOF ROLLER REQUIREMENTS LISTED IN SPECIFICATION 204.06 A-G. ALL OTHER REQUIREMENTS PER 204.06 SHALL STILL APPLY.

ITEM 204, PROOF ROLLING	1 HOUR

ITEM 407 - NON-TRACKING TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. FOR ESTIMATING PURPOSES ONLY, THE PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF:

ITEM 407, NON-TRACKING TACK COAT	**0.065 GAL/SY**

ITEM 411 - STABILIZED CRUSHED AGGREGATE, AS PER PLAN

THE CRUSHED MATERIAL PROVIDED FOR THIS ITEM SHALL BE CRUSHED LIMESTONE.

ITEM 441 - ASPHALT CONCRETE

THE HOT MIX ASPHALT MIXTURE SHALL BE COMPOSED OF AGGREGATE, ASPHALT BINDER, AND MODIFIERS (WHERE SPECIFIED) MEETING OHIO DEPARTMENT OF TRANSPORTATION (ODOT) REQUIREMENTS. PRIOR TO PRODUCING HOT MIX ASPHALT FOR THIS CONTRACT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, A JOB MIX FORMULA (JMF) OR BITUMINOUS CONCRETE DATA SHEET, 48 HOURS PRIOR TO PLACEMENT OF ANY ASPHALT.

THE JMF SHALL INCLUDE THE MIX TYPE PROPOSED FOR USE, AGGREGATE TYPE AND GRADATION, PRECENTAGE OF ASPHALT BINDER BY WEIGHT OF MIXTURE, GRADE OF ASPHALT BINDER, DESCRIPTION AND SOURCE MODIFIER (IF APPLICABLE), AND UNIT WEIGHT OF THE MIXTURE. THE JMF, OR DATA SHEET, SHALL HAVE PREVIOUSLY BEEN APPROVED FOR USE ON ODOT WORK.

ITEM 659 - SEEDING AND MULCHING

THE FOLLOWING QUANTITIES SHALL BE USED AS DIRECTED BY THE ENGINEER AND ARE CARRIED TO THE GENERAL SUMMARY TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

ITEM 659, SOIL ANALYSIS TEST	1 EACH
ITEM 659, REPAIR SEEDING AND MULCHING	100 SY
ITEM 659, COMMERCIAL FERTILIZER	0.056 TON
ITEM 659, LIME	0.13 ACRE
ITEM 659, WATER	4 MGAL

EROSION CONTROL

THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING PERIMETER FILTER FABRIC FENCE ALONG BOTH SIDES OF THE ROADWAY DURING CONSTRUCTION. CONTRACTOR SHALL ADHERE TO ODOT SUPPLEMENTAL SPECIFICATION 832 AND ODOT SCD DM-4.4 FOR PROPER INSTALLATION PROCEDURES.

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE PLACED BY THE CONTRACTOR WITH THE ENGINEERS CONCURRENCE FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

ITEM 690, EROSION CONTROL (PERIMETER FILTER FABRIC FENCE)	200 LF

CALCULATED AKA CHECKED KMD

Michael Baker INTERNATIONAL

GENERAL NOTES

PLE-32 FAI-TR427-1.272

ITEM 614 - MAINTAINING TRAFFIC

NOTICE OF CLOSURE SIGNS SHALL BE ERECTED BY THE ENGINEER IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE PLACED ON PERMANENT POST. NO TEMPORARY SIGNS WILL BE PERMITTED. THE CONTRACTOR SHALL GIVE AT LEAST A TWO WEEK NOTICE TO THE ENGINEER IN ORDER TO ERECT THESE SIGNS.

THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN STANDARD 48" x 30" "ROAD CLOSED" SIGNS, SIGN SUPPORTS, BARRICADES, GATES, AND LIGHTS, AS DETAILED IN STANDARD CONSTRUCTION DRAWINGS MT-101.60 DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

ACCESS TO LOCAL PROPERTY OWNERS SHALL BE MAINTAINED AT ALL TIMES.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

FARM DRAINS

NOTICE OF CLOSURE SIGNS SHALL BE ERECTED BY THE ENGINEER IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE PLACED ON PERMANENT POST. NO TEMPORARY SIGNS WILL BE PERMITTED. THE CONTRACTOR SHALL GIVE AT LEAST A TWO WEEK NOTICE TO THE ENGINEER IN ORDER TO ERECT THESE SIGNS.

ALL FARM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION WILL BE EITHER REPAIRED OR PROVIDED WITH UNOBSTRUCTED OUTLETS.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES SHALL BE OUTLETTED INTO THE ROADWAY DITCHES BY ITEM 611 CONDUIT, TYPE F. THE OPTIMUM OUTLET, INVERT ELEVATION SHALL BE ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS INTO THE LIMITS OF CONSTRUCTION SHALL BE INTERCEPTED BY ITEM 611 CONDUIT, TYPE F AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OR REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENT.

EROSION CONTROL PADS AND ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET AND OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWINGS DM-1.1 EXCEPT WHEN THEY OUTLET INTO DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANIMAL GUARDS AND ANY NECESSARY BENDS, TEE OR OTHER FITTINGS SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 611- 4" CONDUIT, TYPE F	*50 FT*
ITEM 611- 6" CONDUIT, TYPE F	*50 FT*

CALCULATED AKA
CHECKED KMD

Michael Baker INTERNATIONAL

GENERAL NOTES

PLE-32 FAI-TR427-1.272

SHEET NUM.												PART.	ALT	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
3	4	6	7	14									(X)		EXT	TOTAL			
																		ROADWAY	
LS														201	11000	LS		CLEARING AND GRUBBING	
		346												202	23000	346	SY	PAVEMENT REMOVED	
			132											202	38000	132	FT	GUARDRAIL REMOVED	
				7										203	10000	7	CY	EXCAVATION	
				231										203	20000	231	CY	EMBANKMENT	
		399												204	10000	399	SY	SUBGRADE COMPACTION	
50														204	13000	50	CY	EXCAVATION OF SUBGRADE	
50														204	30050	50	CY	GRANULAR MATERIAL, TYPE F	
1														204	45000	1	HOUR	PROOF ROLLING	
100														204	50000	100	SY	GEOTEXTILE FABRIC	
			200											606	15050	200	FT	GUARDRAIL, TYPE MGS	
			2											606	25550	2	EACH	ANCHOR ASSEMBLY, MGS TYPE A	
			2											606	26550	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
			4											626	00110	4	EACH	BARRIER REFLECTOR, TYPE 2, BI-DIRECTIONAL	
																		EROSION CONTROL	
1														659	00100	1	EACH	SOIL ANALYSIS TEST	
		620												659	10000	620	SY	SEEDING AND MULCHING	
100														659	14000	100	SY	REPAIR SEEDING AND MULCHING	
		0.06												659	20000	0.06	TON	COMMERCIAL FERTILIZER	
		0.13												659	31000	0.13	ACRE	LIME	
		4												659	35000	4	MGAL	WATER	
200														SPECIAL	69098100	200	FT	EROSION CONTROL (PERIMETER FILTER FABRIC FENCE)	3
			20											670	00710	20	SY	DITCH EROSION PROTECTION MAT, TYPE A	
	50													611	00406	50	FT	4" CONDUIT, TYPE F	4
	50													611	01500	50	FT	6" CONDUIT, TYPE F	4
																		PAVEMENT	
		60												301	56000	60	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
		79												304	20000	79	CY	AGGREGATE BASE	
		46												407	20000	46	GAL	NON-TRACKING TACK COAT	
		7												411	10001	7	CY	STABILIZED CRUSHED AGGREGATE, AS PER PLAN	3
		19												441	50000	19	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
		15												441	50200	15	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)	
																		STRUCTURE 20 FOOT SPAN AND UNDER (FAI-TR427-1.272)	
				1										202	11001	LS		STRUCTURE REMOVED, AS PER PLAN	14
				18										203	98000	18	CY	ROADWAY, MISC.: SAND, AS PER PLAN	14
				1										503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
				138										503	21100	138	CY	UNCLASSIFIED EXCAVATION	
				9,936										509	10000	9,936	LB	EPOXY COATED STEEL REINFORCEMENT	
				27										511	46010	27	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING	
				77										511	46510	77	CY	CLASS QC1 CONCRETE, FOOTING	
				95										512	10100	95	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
				220										512	33000	220	SY	TYPE 2 WATERPROOFING	
				53										516	13600	53	SF	1" PREFORMED EXPANSION JOINT FILLER	
				39										518	21200	39	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
				128										601	32104	128	CY	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC	
				52										611	96449	52	FT	16' X 7' CONDUIT, TYPE A, 706.05, AS PER PLAN	14
																		INCIDENTALS	
														614	11000	LS		MAINTAINING TRAFFIC	
														623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
														624	10000	LS		MOBILIZATION	

CALCULATED AKA CHECKED KMD

Michael Baker INTERNATIONAL

GENERAL SUMMARY

PLE-32 FAI-TR427-1.272

ITEM 441 - 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22

STA. 32+25.00 TO STA. 32+48.75 = 23.75'
23.75' LENGTH X (17.56) WIDTH X (1.5"/12) DEPTH = 52.13 CF/27= 1.93 CY

STA. 32+48.75 TO STA. 34+08.75 = 160.0'
160.0' LENGTH X (19.44') WIDTH X (1.5"/12) DEPTH = 388.86 CF/27= 14.41 CY

STA. 34+08.75 TO STA. 34+35.00 =26.25'
26.25' LENGTH X (17.82) WIDTH X (1.5"/12) DEPTH = 58.48 CF/27= 2.17 CY

TOTAL 19 CY

ITEM 441 - 1½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)

STA. 32+48.75 TO STA. 34+08.75 = 160.0'
160.0' LENGTH X (19.44') WIDTH X (1.5"/12) DEPTH = 388.86 CF/27= 14.41 CY

TOTAL 15 CY

ITEM 301 - 6" ASPHALT CONCRETE BASE , PG 64-22

STA. 32+48.75 TO STA. 34+08.75 = 160.0'
160.0' LENGTH X (19.44'+0.33'+0.33') WIDTH X (6"/12) DEPTH = 1608 CF/27= 59.56 CY

TOTAL 60 CY

ITEM 304 - 6" AGGREGATE BASE

PAVEMENT TYPICAL

STA. 32+48.75 TO STA. 34+08.75 = 160.0'
160.0' LENGTH X (19.44'+0.83'+0.83') WIDTH X (6"/12) DEPTH = 1688 CF/27= 62.52 CY

LEFT SHOULDER

STA. 32+48.75 TO STA. 34+08.75 = 160.0'
AVERAGE SHOULDER WIDTH = 1.89'
160' LENGTH X (1.89'+0.50') WIDTH X (6.0"/12) DEPTH =191.72 CF/27= 7.10 CY

STA. 34+08.75 TO STA. 34+35.00 =26.25'
AVERAGE SHOULDER WIDTH = 1.79'
26.25' LENGTH X (1.79'+0.50') WIDTH X (6.0"/12) DEPTH =30.06 CF/27= 1.12 CY

RIGHT SHOULDER

STA. 32+25.00 TO STA. 32+48.75 = 23.75'
AVERAGE SHOULDER WIDTH = 2.05'
23.75' LENGTH X (2.05'+0.50') WIDTH X (6.0"/12) DEPTH =30.28 CF/27= 1.12 CY

STA. 32+48.75 TO STA. 34+08.75 = 160.0'
AVERAGE SHOULDER WIDTH = 1.77'
160.0' LENGTH X (1.77'+0.50') WIDTH X (6.0"/12) DEPTH =181.6 CF/27= 6.73 CY

TOTAL 79 CY

ITEM 204 - SUBGRADE COMPACTION

STA. 32+48.75 TO STA. 34+08.75 =160.0'
160.0' LENGTH X (19.44'+1.5'+1.5') WIDTH = 3590.4 SF/9= 398.94 SY

TOTAL 399 SY

ITEM 407 - NON-TRACKING TACK COAT

FOR INTERMEDIATE COURSE

STA. 32+48.75 TO STA. 34+08.75 = 160.0'
160.0' LENGTH X (19.44') WIDTH = 3110.4 SF/9= 345.6 SY X(0.065 GAL/SY) = 22.46 GAL

FOR BASE COURSE

STA. 32+48.75 TO STA. 34+08.75 = 160.0'
160.0' LENGTH X (19.44'+0.33'+0.33') WIDTH = 3216.0 SF/9= 357.3 SY X(0.065 GAL/SY) = 23.23 GAL

TOTAL 46 GAL

ITEM 411 - STABILIZED CRUSHED AGGREGATE, AS PER PLAN

LEFT SHOULDER

STA. 32+48.75 TO STA. 34+08.75 = 160.0'
AVERAGE SHOULDER WIDTH = 1.89'
160' LENGTH X (1.89') WIDTH X (3.0"/12) DEPTH =75.6 CF/27= 2.80 CY

STA. 34+08.75 TO STA. 34+35.00 = 26.25'
AVERAGE SHOULDER WIDTH = 1.79'
26.25' LENGTH X (1.79') WIDTH X (3.0"/12) DEPTH =11.75 CF/27= 0.43 CY

RIGHT SHOULDER

STA. 32+25.00 TO STA. 32+48.75 = 23.75'
AVERAGE SHOULDER WIDTH = 2.05'
23.75' LENGTH X (2.05') WIDTH X (3.0"/12) DEPTH =12.17 CF/27= 0.45 CY

STA. 32+48.75 TO STA. 34+08.75 = 160.0'
AVERAGE SHOULDER WIDTH = 1.77'
160.0' LENGTH X (1.77') WIDTH X (3.0"/12) DEPTH =70.8 CF/27= 2.63 CY

TOTAL 7 CY

ITEM 202 - PAVEMENT REMOVED (FULL DEPTH WORK)

STA. 32+48.75 TO STA. 34+08.75 = 160.0'
AVERAGE WIDTH OF PAVEMENT = 19.44'
160.0' LENGTH X 19.44' WIDTH = 3110.4 SF/9= 345.6 SY

TOTAL 346 SY

ITEM 659 - SEEDING AND MULCHING

PER CROSS SECTION SHEETS = 620 SY

TOTAL 620 SY

ITEM 659 - COMERCIAL FERTILIZER

5580 SF X 20 LB/ 1,000 SF X 1 TON/ 2,000 LB = 0.056 TON

TOTAL 0.056 TON

ITEM 659- LIME

5580 SF / 43,560 ACRE/SF = 0.128 ACRE

TOTAL 0.13 ACRE

ITEM 659 - WATER

(5580 SF X 300 GAL / 1,000 SF X 1 MGAL/ 1,000 GAL) X 2 APPLICATIONS = 3.348 MGAL

TOTAL 4 MGAL

BEGIN PROJECT STA. 32+48.75
BEGIN WORK STA. 32+25.00
END PROJECT STA. 34+08.75
END WORK STA. 34+35.00

LINDA A. AND CRAIG C. GOODMAN
4048 OLD MILL RD. NE
LANCASTER, OHIO 43130
(MAILING ADDRESS)
P.N. 028-01599-30
OR 1505, PG. 3399
18.792 AC

STEVEN R. BOYER
4140 OLD MILLERSPORT RD.
LANCASTER, OHIO 43130
(MAILING ADDRESS)
P.N. 028-01613-00
OR 1503, PG. 1646
128.62 AC

FEEMAN FAMILY FARM, LLC
P.O. BOX 674
LANCASTER, OHIO 43130
(MAILING ADDRESS)
P.N. 028-01606-00
INST. NO. 202300015109
10.037 AC

EX.GAS (DND)
ANCHOR ASSEMBLY MGS TYPE T
ANCHOR ASSEMBLY MGS TYPE A
EX.POLE
CONST. LIMITS
BEGIN SHOULDER TAPER STA. 32+48.75, 9.86' LT
BEGIN PAVEMENT TAPER 9.11' LT
END SHOULDER TAPER STA. 32+87.50, 12.0' LT
END PAVEMENT TAPER STA. 33+03.75, 10.0' LT
PROP. 16'x7' BOX CULVERT
PLEASANT RUN
BEGIN PAVEMENT TAPER STA. 33+83.75, 10.0' LT
END PAVEMENT TAPER STA. 34+03.75, 8.36' LT
BEGIN SHOULDER TAPER STA. 34+25.00, 10.36' LT
END SHOULDER TAPER STA. 34+35.00, 9.96' LT
CP#1
CP#2
CP#3
GR-1
GR-2
R-1
R-2
SD-1
25:1
5:1
60.0'
9.11'
8.48'
8.36'
9.96'
N 02°56'58" E
℄ T.R. 427 OLD MILLERSPORT RD NE
T24"
BEGIN SHOULDER TAPER STA. 32+25.00, 10.63' RT
END SHOULDER TAPER STA. 32+35.00, 10.36' RT
BEGIN PAVEMENT TAPER STA. 32+48.75, 8.48' RT
END PAVEMENT TAPER STA. 32+73.75, 10.00' RT
BEGIN PAVEMENT TAPER STA. 33+53.75, 10.00' RT,
BEGIN SHOULDER TAPER STA. 33+53.75, 12.00 RT
END PAVEMENT TAPER STA. 34+08.75, 9.09' RT,
END SHOULDER TAPER STA. 34+08.75, 9.76 RT

LEGEND
- TAPER JOINT
- FULL DEPTH PAVEMENT
- ROCK CHANNEL PROTECTION

CONTROL POINTS (NAD83 OHIO STATE PLANES, SOUTH ZONE, US FOOT)

NO.	STATION	OFFSET (+/-)	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP #1	32+71.46	-33.32	650242.421	1952369.286	954.128	IPINS RED FCEO CONTROL CAP
CP #2	34+17.63	-34.77	650388.473	1952375.357	954.321	IPINS RED FCEO CONTROL CAP
CP #3	35+48.25	-27.65	650518.559	1952389.184	955.945	IPID 5/8" KNISLEY ORANGE CAP

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED AKA
CHECKED KMD

PROPOSED
EXISTING
EXIST. GRADE
PROP. GRADE
K = 46.316
P.V.I. STA 32+48.75 ELEV = 958.45'
30.00' VC
K = 20.906
P.V.I. STA 33+45.25 ELEV = 958.75'
60.00' VC
K = 13.421
P.V.I. STA 34+08.75 ELEV = 957.12'
30.00' VC
-1.69% -0.34% 0.31% -2.56% -0.32% -0.22%
20.75' 160.00 26.25'
BEGIN TAPER JOINT, STA. 32+25.00, EL.958.53
BEGIN FULL DEPTH STA. 32+48.75, EL.958.37
PROP. 16' X 7' BOX CULVERT
END FULL DEPTH STA. 34+08.75, EL.956.99
END TAPER JOINT, STA. 34+35.00, EL.957.04
958.48 958.49 958.55 958.61 958.67 958.59 958.32 957.86 957.36 957.09
963.13 962.07 961.00 960.20 959.47 958.95 958.61 958.38 958.37 958.38 958.47 951.60 952.66 958.25 957.73 957.22 957.01 957.05 957.04 957.23
31+00 32+00 33+00 34+00 35+00

REF NO.	STATION	TO STATION	SIDE	202 GUARDRAIL REMOVED FT	606 GUARDRAIL, TYPE MGS FT	606 ANCHOR ASSEMBLY, MGS TYPE A EACH	609 ANCHOR ASSEMBLY, MGS TYPE T EACH	626 BARRIER REFLECTOR, TYPE 2, BI-DIRECTIONAL EACH	670 DITCH EROSION PROTECTION MAT, TYPE A SY
R-1	33+03.20	33+69.06	LT	66.00				2	20
R-2	32+87.63	33+53.53	RT	66.00				2	20
GR-1	32+75.00	34+50.00	LT		100	1	1		
GR-2	32+09.86	33+84.97	RT		100	1	1		
SD-1	33+40.00	33+70.00	RT						
TOTALS CARRIED TO GENERAL SUMMARY				132	200	2	2	4	40

PLAN AND PROFILE
STA. 31+00.00 TO STA. 35+00.00

PLE-32 FAI-TR427-1.272

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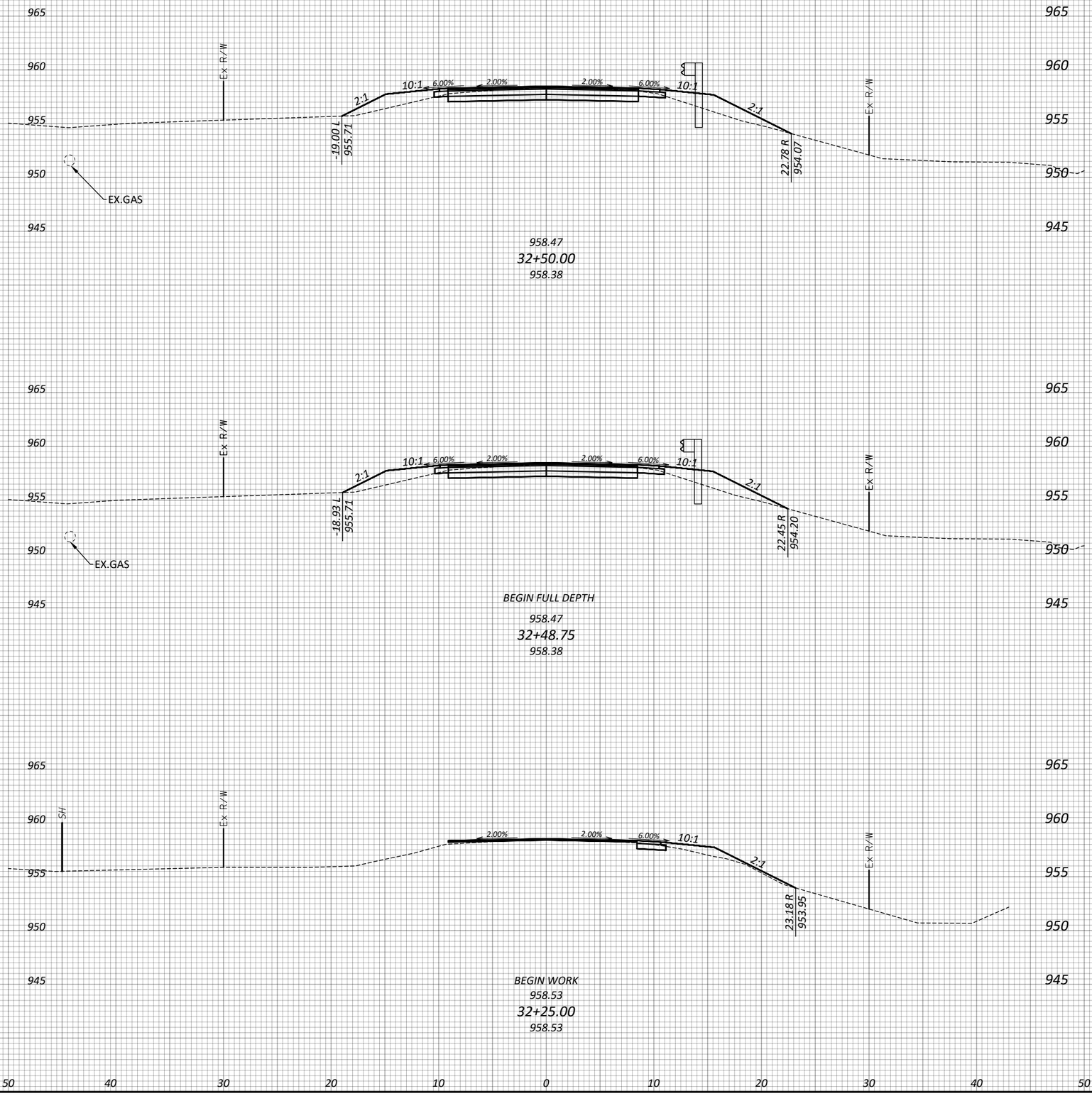
SEEDING	
END WIDTH	SQ. YDS.
22.7	3.1
22.4	47.4
13.5	0.0
	50.5



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0.0	18.8	0.0	0.9
0.0	18.2	0.0	10.2
0.0	4.9	0.0	0.0
		0.0	11.1

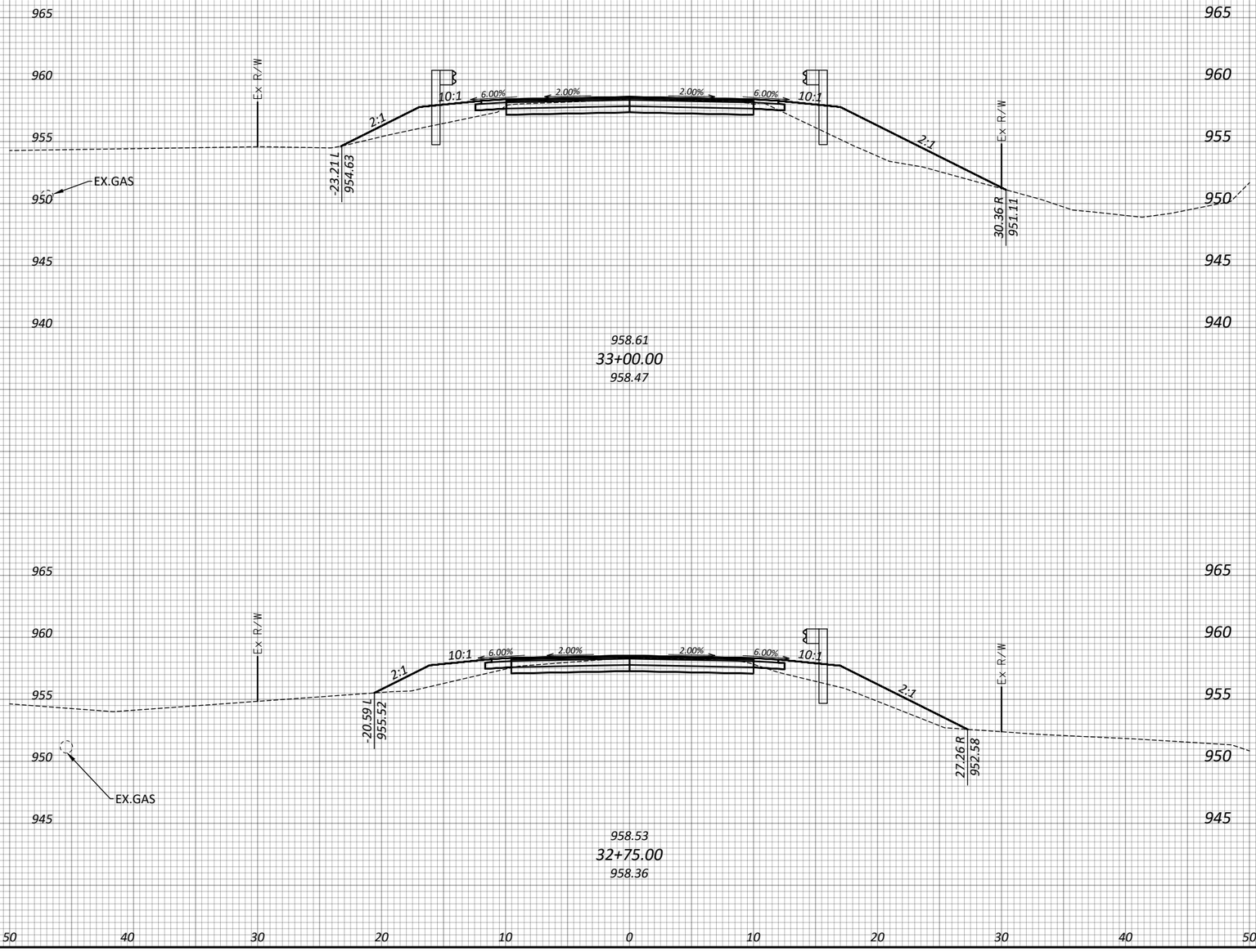
CALCULATED AKA

CHECKED KMD

CROSS SECTIONS
STA. 32+25.00 TO STA. 32+50.00

PLE-32 FAI-TR427-1.272

SEEDING	
END WIDTH	SQ. YDS.
32.1	149.7
26.5	81.4
	68.3



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0.0	41.4		
0.0	29.2	0.0	32.7
		0.0	22.2
		0.0	54.9

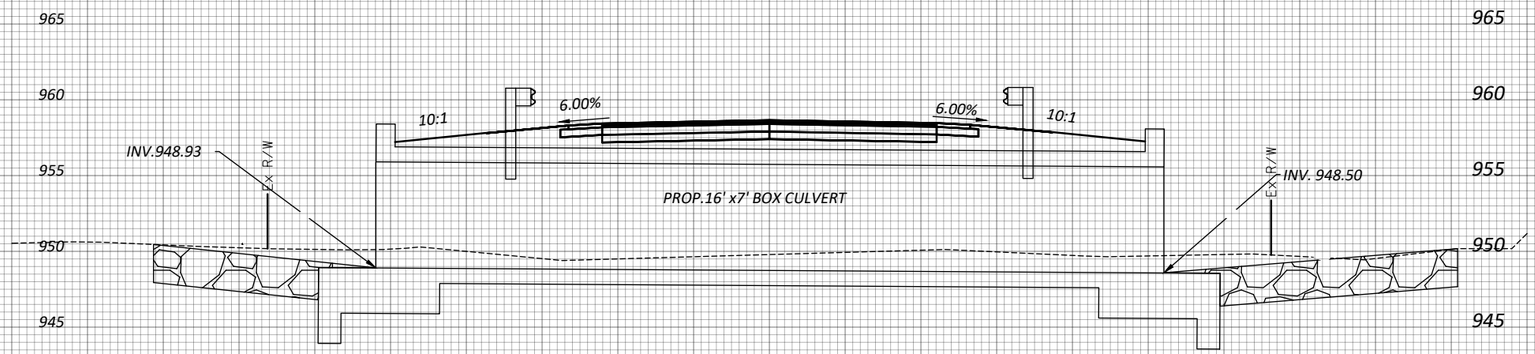
CALCULATED AKA | CHECKED KMD

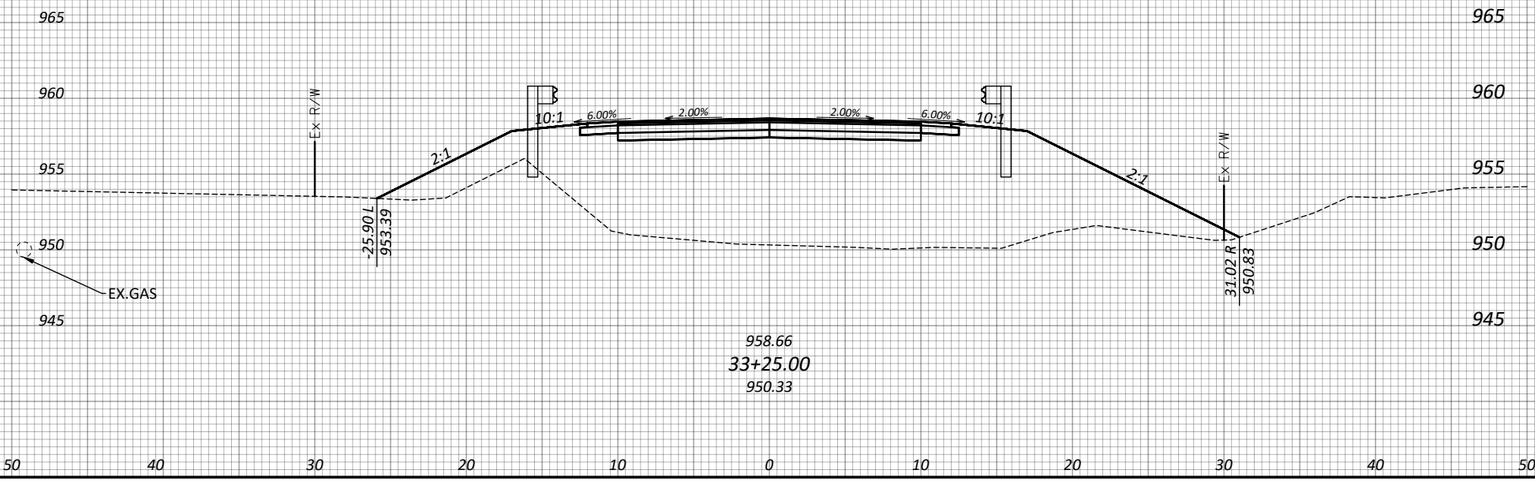
Michael Baker INTERNATIONAL

CROSS SECTIONS
STA. 32+75.00 TO STA. 33+00.00

PLE-32 FAI-TR427-1.272

SEEDING	
END WIDTH	SQ. YDS.
23.1	
	12.4
35.7	
	94.2
	106.6





END AREA		VOLUME	
CUT	FILL	CUT	FILL
0.0	41.7		
0.0	53.9		
		0.0	6.7
		0.0	44.1
		0.0	50.8

CALCULATED AKA | CHECKED KMD

Michael Baker INTERNATIONAL

CROSS SECTIONS
STA. 33+25.00 TO STA. 33+28.80

PLE-32 FAI-TR427-1.272

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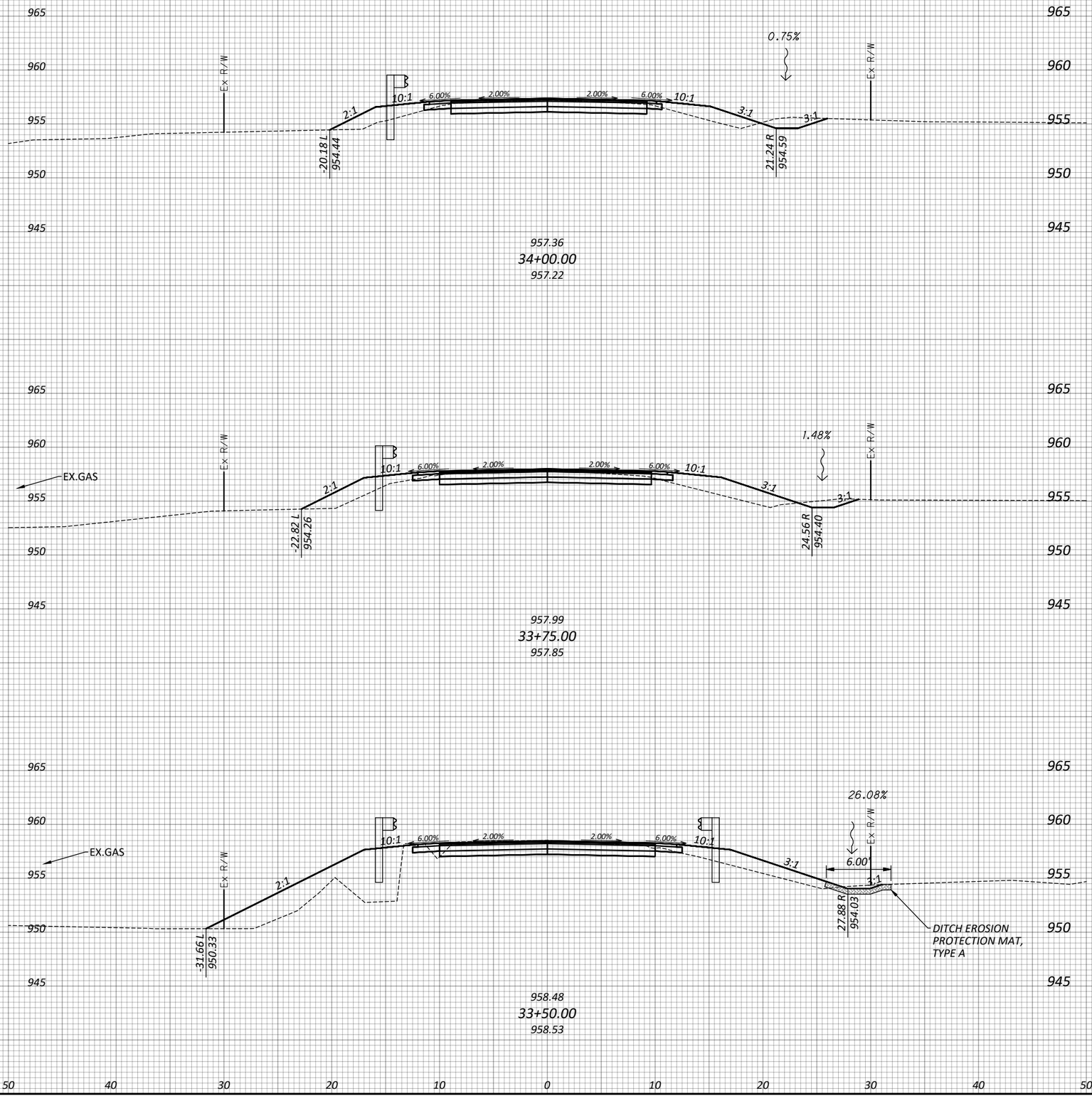
SEEDING	
END WIDTH	SQ. YDS.
26.2	77.8
29.8	98.5
41.1	75.6
	251.9



END AREA		VOLUME	
CUT	FILL	CUT	FILL
4.0	18.1		
2.6	25.5	3.06	20.2
0.8	61.5	1.57	40.3
		0.31	40.5
		4.94	101

CALCULATED AKA
CHECKED KMD

Michael Baker INTERNATIONAL

CROSS SECTION
STA. 33+50.00 TO STA. 34+00.00

PLE-32 FAI-TR427-1.272

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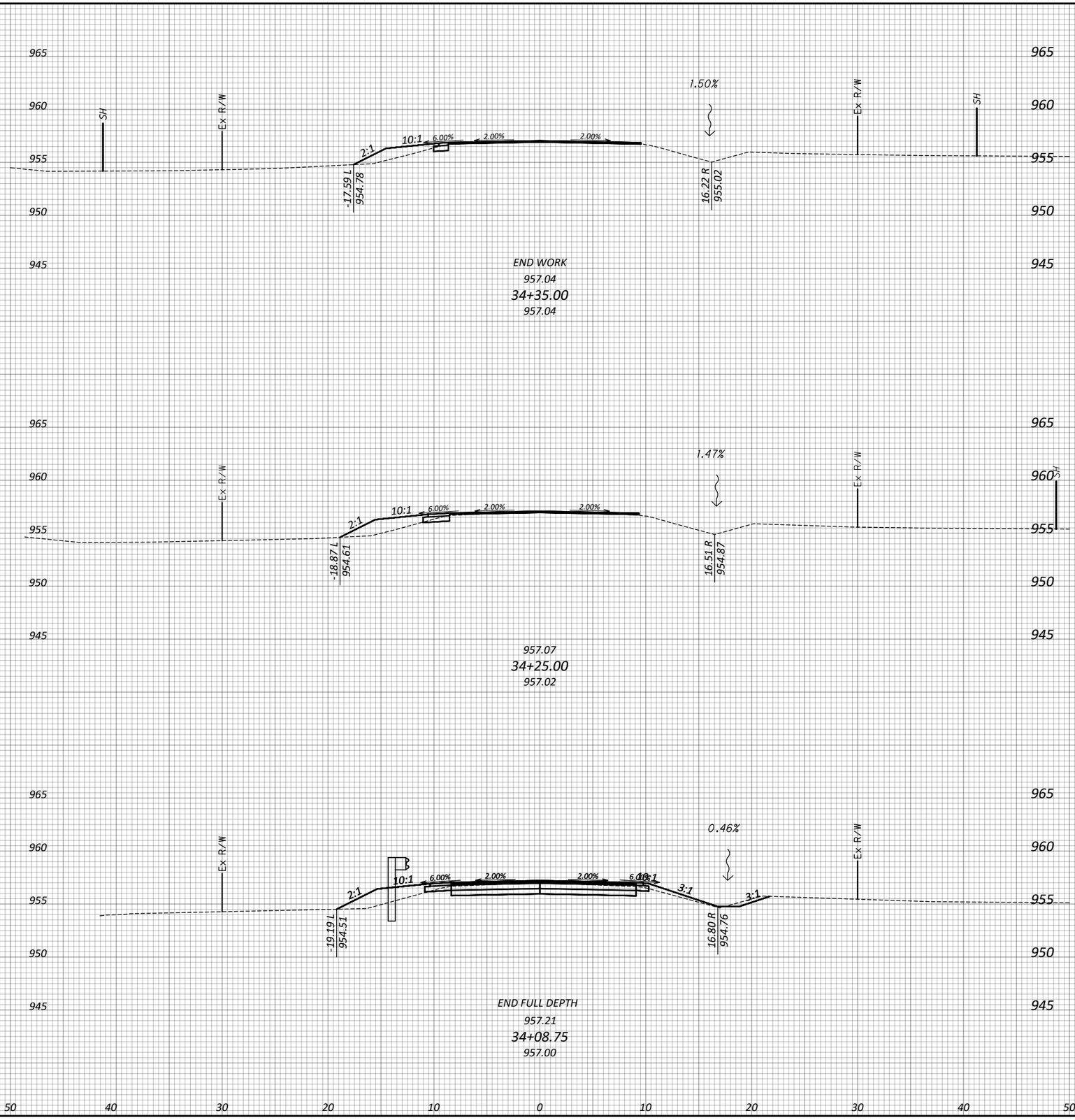
SEEDING	
END WIDTH	SQ. YDS.
8.4	
	9.6
8.8	
	27.6
	21.8
	23.3
	60.5



ITEM 203- EXCAVATION = 7.0 CY
ITEM 203- EMBANKMENT = 231 CY
ITEM 659- SEEDING AND MULCHING = 620 SY

TOTALS CARRIED TO GENERAL SUMMARY

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0.0	5.6		
		0.0	2.4
0.0	7.4		
		0.33	5.5
1.1	10.8		
		0.83	4.7
		1.16	12.6

CALCULATED AKA
CHECKED KMD

Michael Baker INTERNATIONAL

CROSS SECTIONS
STA. 34+08.75 TO STA. 34+35.00

PLE-32 FAI-TR427-1.272

12
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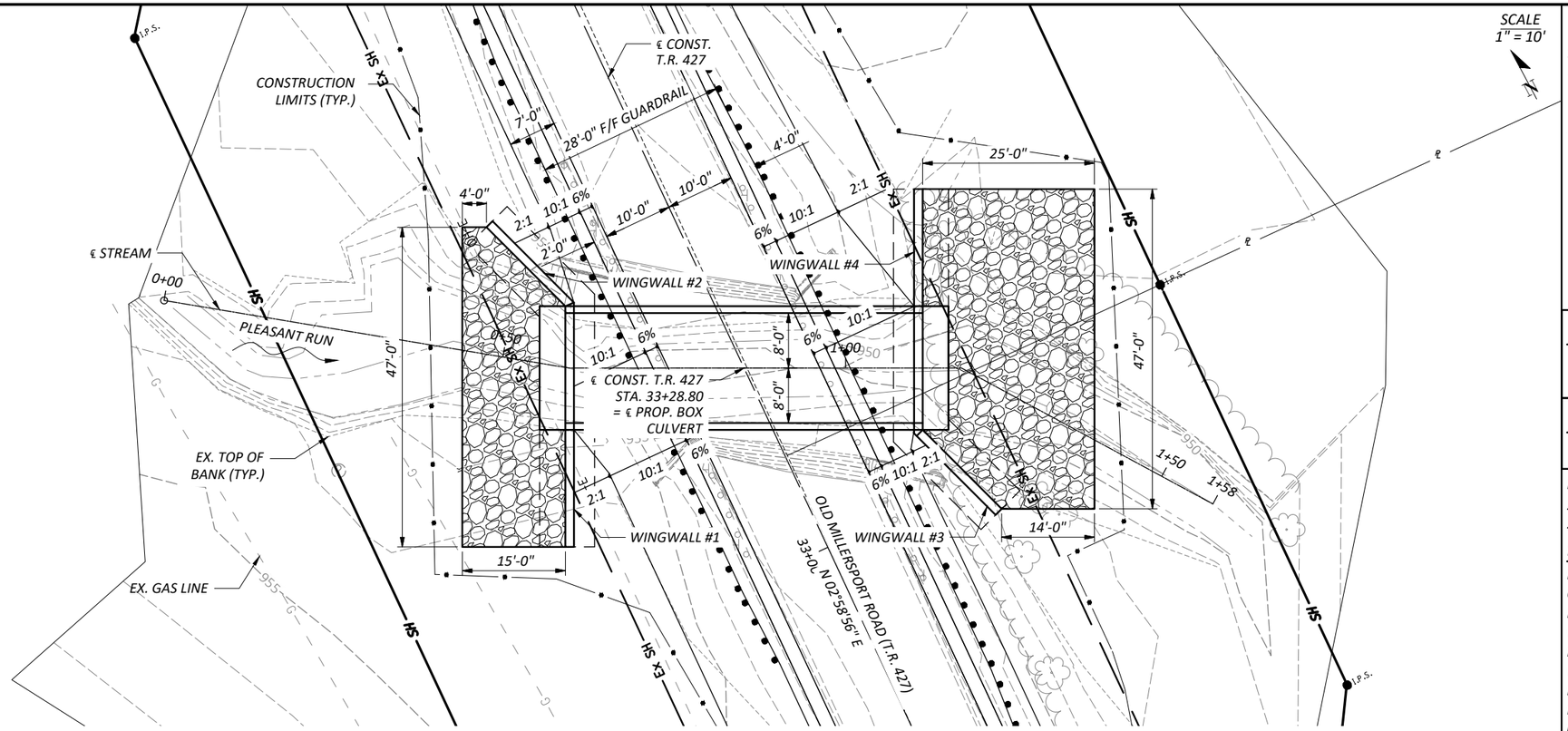
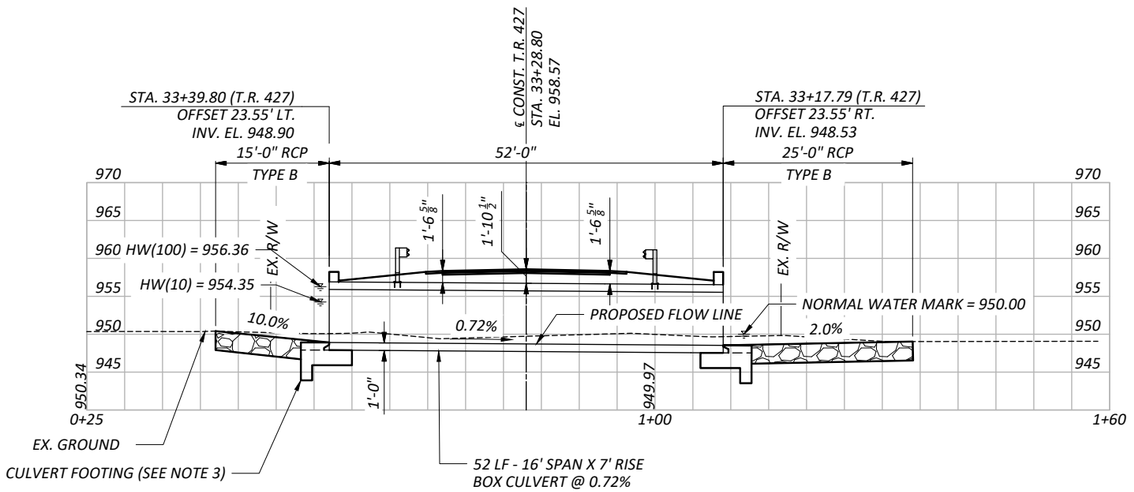


PLAN

LEGEND

ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC, 2'-6" THICK (TYP.)



STREAM PROFILE

NOTES

1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES ARE TO REMAIN UNLESS NOTED OTHERWISE.
3. SLOPE BOTH BOX CULVERT FOOTINGS WITH THE SLOPE OF THE BOX CULVERT.

BORING LOCATIONS

BORING #1 ELEV. 959.00, LATITUDE 39.785526, LONGITUDE -82.557300
BORING #2 ELEV. 958.00, LATITUDE 39.785368, LONGITUDE -82.557260

BENCHMARK DATA

SEE SHEET 7

DESIGN TRAFFIC:
2024 ADT = 636
2044 ADT = 731

HYDRAULIC DATA

DRAINAGE AREA = 1.51 SQ. MILES

Q (10) =	361 CFS	Q (100) =	740 CFS
EXIST. STRUCTURE		PROP. STRUCTURE	
V (10) =	3.94 FPS	V (10) =	4.53 FPS
HW (10) =	954.69	HW (10) =	954.35
V (100) =	6.76 FPS	V (100) =	7.93 FPS
HW (100) =	957.04	HW (100) =	956.36

EXIST. LOW CHORD EL. 956.17(+) (AT INLET)
PROP. LOW CHORD EL. 956.12 (AT INLET)
STRUCTURE CLEARS THE 10 YEAR DESIGN HW BY 1.43 FEET.

EXISTING STRUCTURE

TYPE: SINGLE SPAN STEEL BEAM BRIDGE
SPANS: 28'-11 1/2"(±)
ROADWAY: 20'-0"(±) F/F SAFETY CURB
LOADING: UNKNOWN
SKEW: 38°00'00"(±) LEFT FORWARD
WEARING SURFACE: 3 1/4"(±) ASPHALT OVERLAY
APPROACH SLABS: NONE
ALIGNMENT: TANGENT
CROWN: 0.0156(±) FT/FT
STRUCTURAL FILE NUMBER: 2334321
DATE BUILT: 1988
DISPOSITION: TO BE REPLACED

PROPOSED STRUCTURE

TYPE: 16' X 7' PRECAST REINFORCED CONCRETE BOX CULVERT
SPANS: N/A
ROADWAY: 24'-0" TOE/TOE PARAPET
LOADING: HL93
SKEW: 25°00'00" LEFT FORWARD
WEARING SURFACE: ASPHALT CONCRETE
APPROACH SLABS: NONE
ALIGNMENT: TANGENT
CROWN: 0.0200 FT/FT
COORDINATES: LATITUDE N 39°47'7.61"
LONGITUDE W 82°33'26.20"

Michael Baker INTERNATIONAL

DESIGNED BDC | DRAWN BDC | REVIEWED NDK | DATE 01/21/2025
CHECKED PJL | REVISED PJL | STRUCTURE FILE NUMBER 2334322

SITE PLAN
BRIDGE NO. FAI-TR427-1.272
OLD MILLERSPORT ROAD OVER PLEASANT RUN

PLE-32
FAI-TR427-1.272

1 / 5

13
18

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DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATION" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN DATA: THE FOLLOWING DESIGN DATA IS ASSUMED:

INTERNAL ANGLE OF FRICTION OF BACKFILL SOIL, φ_{bf} = 30°
TOTAL UNIT WEIGHT OF BACKFILL SOIL = 120 PCF
INTERNAL ANGLE OF FRICTION (DRAINED), FOUNDATION SOIL, φ_f = 28°
UNDRAINED SHEAR STRENGTH (COHESIVE), FOUNDATION SOIL, S_{uf}= 1500 PSF
UNIT WEIGHT OF CONCRETE = 150 PCF
SLOPE OF BACKFILL = 2:1
HEIGHT OF LIVE LOAD SURCHARGE = 2 FT
CONCRETE - COMPRESSIVE STRENGTH 4000 PSI (FOOTING, WINGWALL AND FORESLOPE WALL)

REINFORCING STEEL - ASTM A615, A616, OR A617 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI (ALL REINFORCING SHALL BE EPOXY COATED)

BASED ON THE ASSUMED DESIGN DATA, THE WINGWALLS ACHIEVE FACTORED BEARING RESISTANCES THAT ARE GREATER THAN THEIR RESPECTIVE BEARING PRESSURES. IF A BACKFILL MATERIAL WITH A HIGHER INTERNAL ANGLE OF FRICTION OR A LIGHTER TOTAL UNIT WEIGHT IS USED; OR IF A FOUNDATION SOIL WITH A HIGHER DRAINED INTERNAL ANGLE OF FRICTION OR A HIGHER UNDRAINED SHEAR STRENGTH IS ENCOUNTERED; THEN THE STABILITY OF THE WINGWALLS IS SATISFACTORY.

BACKFILL LIMITATION: THE BACKFILL BEHIND THE WINGWALLS SHALL NOT BE PLACED HIGHER THAN THE ELEVATION OF THE SOIL ABOVE THETOE. WHEN THE SOIL ABOVE THE TOE IS AT ITS FINISHED ELEVATION, THE REMAINDER OF THE BACKFILL MAY BE PLACED

PRECAST CONCRETE: PRECAST WINGWALLS SHALL NOT BE USED ON THIS PROJECT.

ITEM 202 - STRUCTURE REMOVED, AS PER PLAN: THE REMOVAL OF THE STRUCTURE WILL INCLUDE ALL STRUCTURES OR SECONDARY STRUCTURES ENCOUNTERED AT THE LOCATION OF THE PROPOSED STRUCTURE. ALL EXISTING STRUCTURE MATERIAL SHALL BE REMOVED. BOTH REAR AND FORWARD ABUTMENT SHALL BE REMOVED FOR THE CONSTRUCTION OF THIS PROJECT. THE STRUCTURE WILL NOT BE SHIFTED TO ALLOW ABUTMENT/ABUTMENTS TO REMAIN.

ITEM 203 - ROADWAY, MISC.: SAND, AS PER PLAN: FURNISH SAND PER 703.02 OF THE CMS . PLACE A LIFT OF SAND ON TYPE 2 WATERPROOFING BEFORE BACKFILLING.

ITEM 203 ROADWAY, MISC.: SAND, AS PER PLAN 18 CY

ITEM 511 - CLASS QC1 CONCRETE, RETAINING/WINGWALL - NOT INCLUDED IN FOOTING: BASIS OF PAYMENT: ALL LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO CONSTRUCT THE FOOTINGS, CUTOFF WALLS, AND WINGWALLS SHALL BE INCLUDED WITH ITEM 511 - CLASS QC1 CONCRETE, REATAINING/WINGWALL NOT INCLUDING FOOTING . PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED WITH ITEM 509 - EPOXY COATED REINFORCING STEEL.

FOUNDATION BEARING RESISTANCE: WINGWALL FOOTINGS, AS DESIGNED , PRODUCE A MAXIMUM SERVICE LIMIT STATE BEARING PRESSURE OF 1.58 KIPS PER SQUARE FOOT AND A MAXIMUM STRENGTH LIMIT STATE BEARING PRESSURE OF 2.95 KIPS PER SQUARE FOOT. THE FACTORED BEARING RESISTANCE IS 3.60 KIPS PER SQUARE FOOT.

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE): ALL EXPOSED FORESLOPE WALL AND WINGWALL CONCRETE SHALL BE SEALED WITH EPOXY-URETHANE SEALER. THE LIMITS SHALL BE AS SHOWN IN THE DIAGRAMS BELOW. PAYMENT FOR THE EPOXY-URETHANE SEALER SHALL BE PER ITEM 512 - SEALING OF CONCRETE SURFACES.

ITEM 512 - TYPE 2 MEMBRANE WATERPROOFING: TYPE 2 WATERPROOFING, PER CMS 512.09 AND 711.25, SHALL EXTEND VERTICALLY DOWN THE ENTIRE SIDES OF THE PRECAST CULVERT SECTIONS FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.

GENERAL NOTES

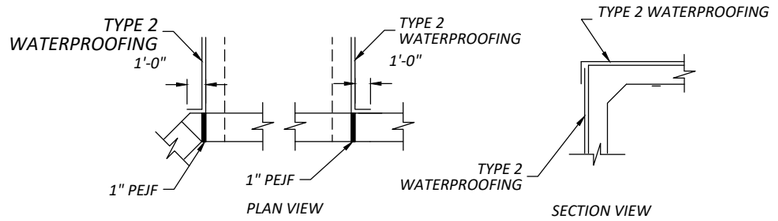
TYPE 2 WATERPROOFING, PER CMS 512.09 AND 711.25 SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.

ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER: PREFORMED EXPANSION JOINT FILLER (PEJF) CONFORMING TO CMS 705.03, 1 INCH THICK, SHALL BE PLACED ABOVE THE FOOTING BETWEEN THE SIDES OF THE BOX CULVERT AND THE ENDS OF THE WINGWALLS. PAYMENT FOR MATERIALS AND INSTALLATION SHALL BE INCLUDED WITH ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER.

ITEM 518 - POROUS BACKFILL WITH GEOTEXTILE FABRIC: 1'-6" THICK SHALL BE PLACED BEHIND THE WINGWALLS ONLY AND SHALL EXTEND TO 12" BELOW THEEMBANKMENT SURFACE. GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6" ABOVE THE TOP ELEVATION OF THE WEEPHOLE.

WEEPHOLES SHALL BE PLACED 6" TO 12" ABOVE THE NORMAL WATER ELEVATION OR GROUND LINE AND SHALL HAVE A MAXIMUM SPACING OF 10'-0". A MINIMUM OF ONE WEEPHOLE SHALL BE PROVIDED PER WINGWALL.

ITEM 611 - 16' X 7' CONDUIT, TYPE B, 706.05, AS PER PLAN, DESIGN COVER 2 FT: BOX CULVERT SHALL BE DESIGNED PER THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, CURRENT EDITION, FOR THE HL-93 LOADING WITH 2 FEET OF COVER. DIMENSIONS OF BOX CULVERT SHALL ADHERE TO DETAILS SHOWN ON THESE PLANS. SHOP DRAWINGS AND A LOAD RATING SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO SHALL BE SUBMITTED TO THE FAIRFIELD COUNTY ENGINEER'S OFFICE FOR APPROVAL, PRIOR TO CASTING OF CONCRETE BOX. THE LOAD RATING PREPARED BY THE BOX CULVERT FABRICATOR SHALL BE PER ODOT AND COUNTY STANDARDS ON A FORM APPROVED BY THE COUNTY.



ITEM 512 - WATERPROOFING DETAILS

LIMITS OF ITEM 512-SEALING CONCRETE SURFACES

Ⓐ - SEAL ENTIRE CONCRETE SURFACE AREA

LEGEND:

C.J.	CONSTRUCTION JOINT	N.F.	NEAR FACE
CLR.	CLEAR	SER.	SERIES
DIA.	DIAMETER	STR.	STRAIGHT
E.F.	EACH FACE	(T)	TOP
F.F	FAR FACE	(B)	BOTTOM
MAX.	MAXIMUM	T&B	TOP AND BOTTOM
MIN.	MINIMUM	TYP.	TYPICAL
PEJF	PREFORMED EXPANSION JOINT FILLER	PROP.	PROPOSED
		EX.	EXISTING
		CONST.	CONSTRUCTION

ESTIMATED QUANTITIES

ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION
202	11001	LUMP		STRUCTURE REMOVED, AS PER PLAN
203	98000	18	CU. YD.	ROADWAY, MISC.: SAND, AS PER PLAN
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING
503	21100	138	CU. YD.	UNCLASSIFIED EXCAVATION (WINGWALL FOOTING)
509	10000	9936	LB.	EPOXY COATED REINFORCING STEEL
511	46010	25	CU. YD.	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING
511	46510	85	CU. YD.	CLASS QC1 CONCRETE, FOOTING
512	10100	95	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	33000	220	SQ. YD.	TYPE 2 MEMBRANE WATERPROOFING
516	13600	53	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER
518	21200	39	CU. YD.	POROUS BACKFILL WITH GEOTEXTILE FABRIC
601	32104	128	CU. YD.	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC
611	96449	52	FT.	16'-0" X 7'-0" CONDUIT, TYPE A, 706.05, AS PER PLAN

NOTE: TOTALS CARRIED TO GENERAL SUMMARY SHEET

Michael Baker INTERNATIONAL

DESIGNED BDC | DRAWN BDC | REVIEWED NDK | DATE 01/21/2025
CHECKED PJL | REVISED PJL | STRUCTURE FILE NUMBER 2334322

CULVERT DETAILS - GENERAL NOTES
BRIDGE NO. FAI-TR427-1.272
OLD MILLERSPORT ROAD OVER PLEASANT RUN

PLE-32
FAI-TR427-1.272

2 / 5

14
18

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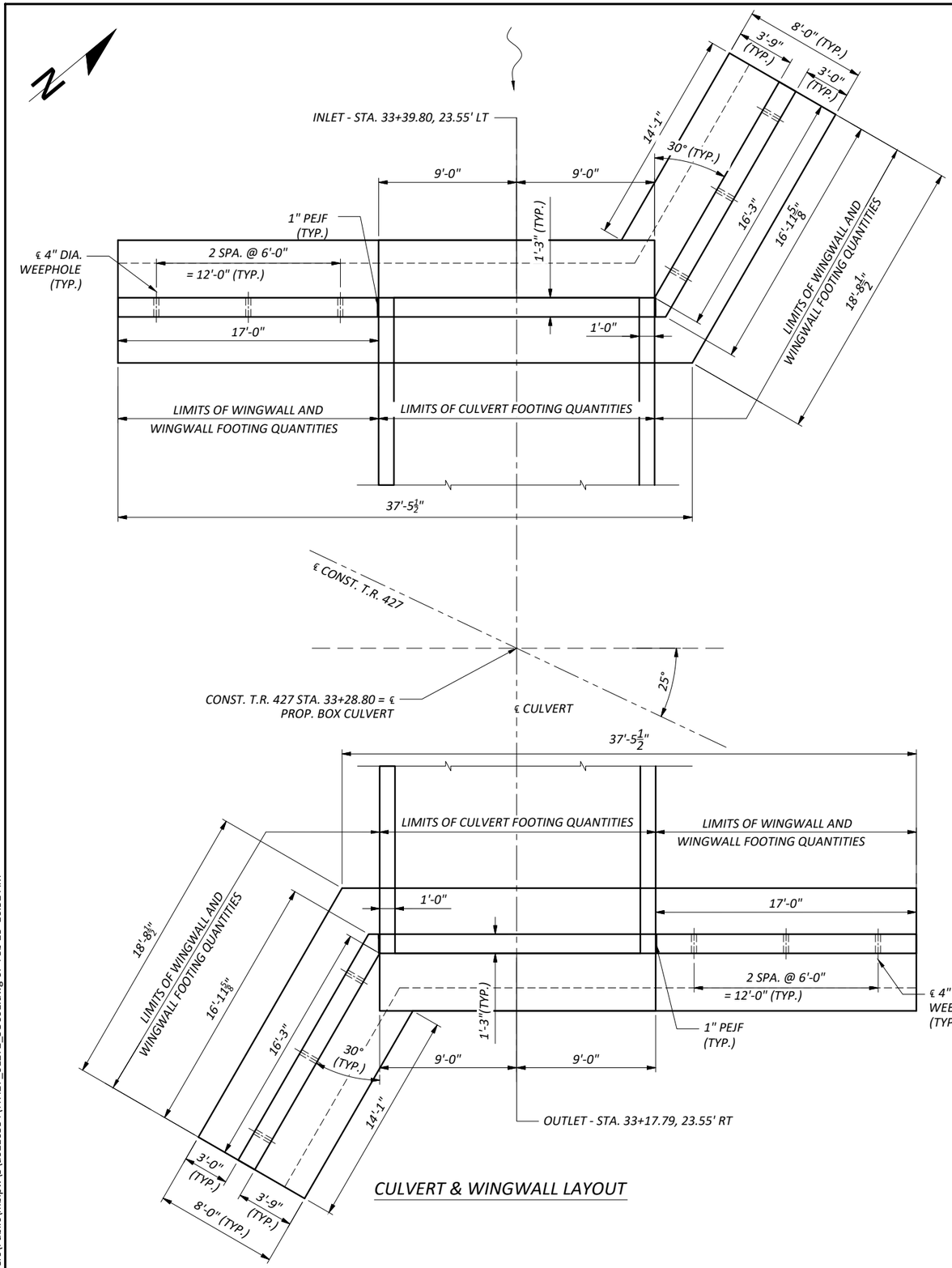
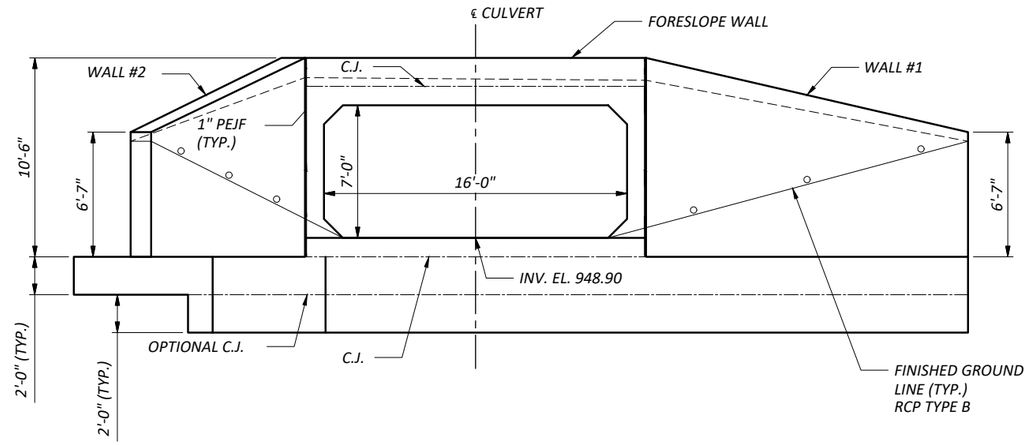
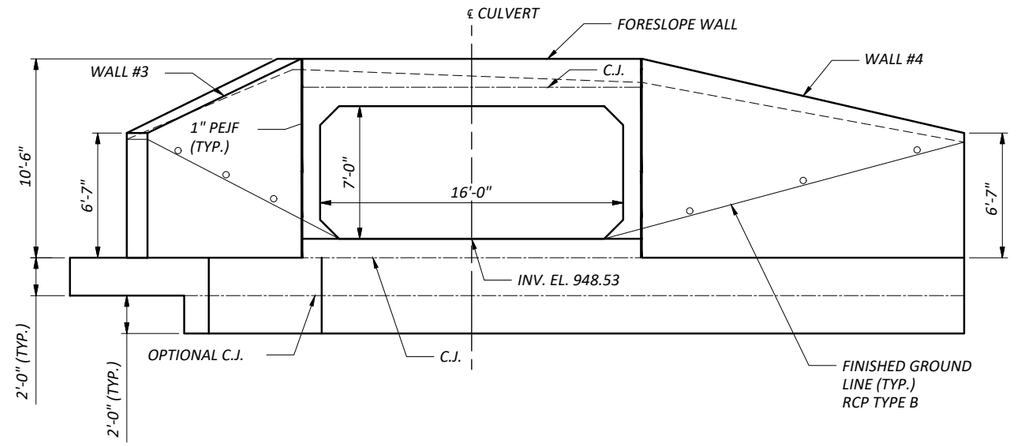


CULVERT & WINGWALL LAYOUT



INLET ELEVATION

TYPE B HEADWALL



OUTLET ELEVATION

TYPE B HEADWALL

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Michael Baker INTERNATIONAL

DESIGNED	DRAWN	REVIEWED	DATE
BDC	BDC	NDK	01/21/2025
CHECKED	REVISED	STRUCTURE FILE NUMBER	
PJL	PJL	2334322	

CULVERT DETAILS - WINGWALLS & FOOTINGS

BRIDGE NO. FAI-TR427-1.272

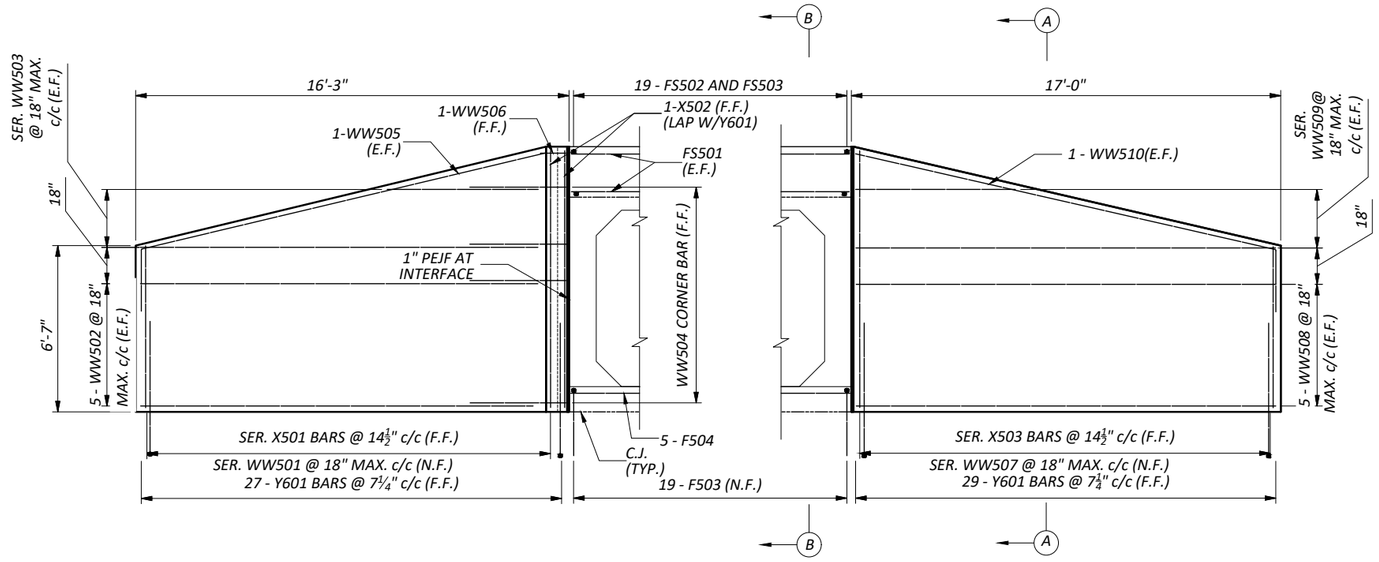
OLD MILLERSPORT ROAD OVER PLEASANT RUN

PLE-32

FAI-TR427-1.272

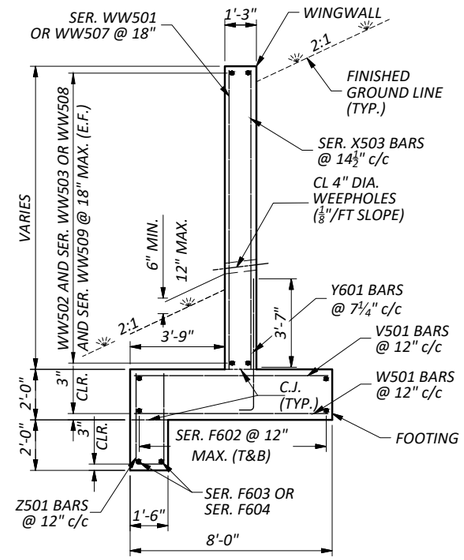
3 / 5

15 / 18



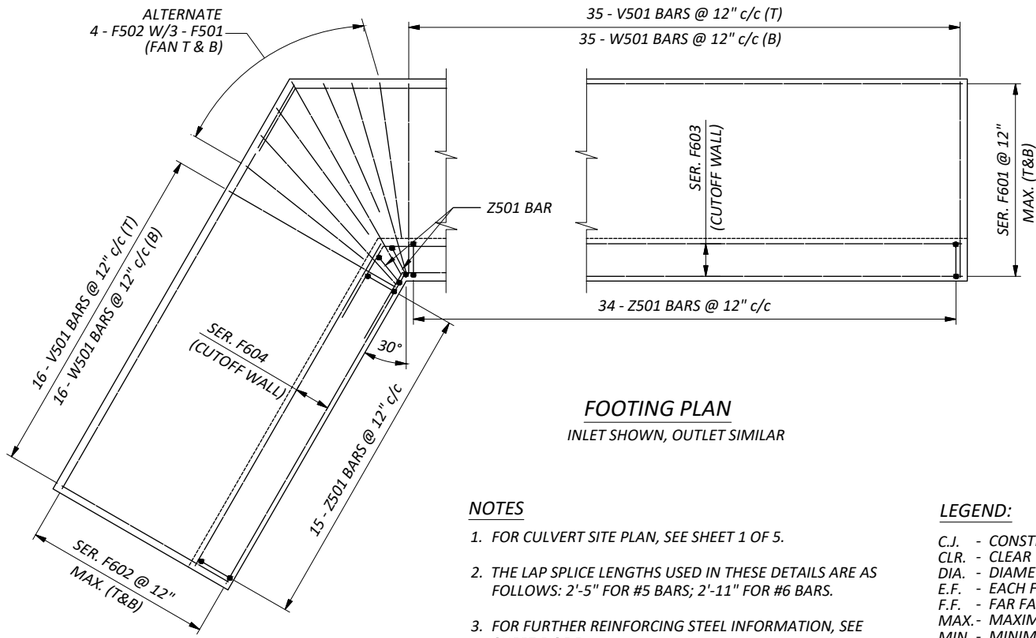
WINGWALL ELEVATION

INLET SHOWN, OUTLET SIMILAR
(FOOTING NOT SHOWN)



SECTION A-A

(POROUS BACKFILL NOT SHOWN FOR CLARITY)



FOOTING PLAN

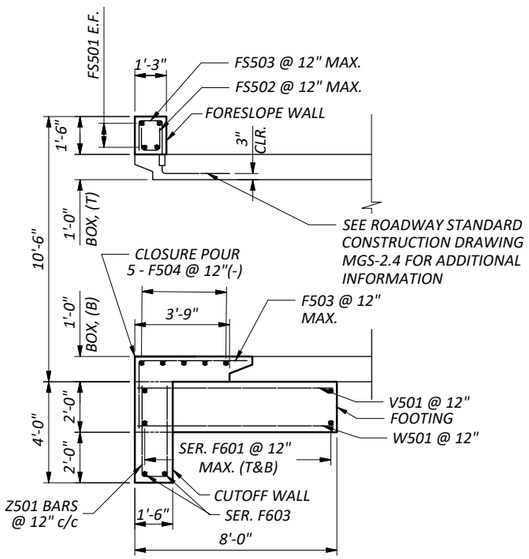
INLET SHOWN, OUTLET SIMILAR

NOTES

1. FOR CULVERT SITE PLAN, SEE SHEET 1 OF 5.
2. THE LAP SPLICE LENGTHS USED IN THESE DETAILS ARE AS FOLLOWS: 2'-5" FOR #5 BARS; 2'-11" FOR #6 BARS.
3. FOR FURTHER REINFORCING STEEL INFORMATION, SEE SHEET 5 OF 5.
4. EACH FORESLOPE WALL SHALL BE CAST WITH THE PREFABRICATED BOX SECTION BY THE SUPPLIER. ALL LABOR AND MATERIALS NECESSARY FOR THE CONSTRUCTION OF THE FORESLOPE WALLS SHALL BE INCLUDED WITH ITEM 611 FOR PAYMENT.
5. PROVIDE 2" OF CLEAR COVER FOR ALL REINFORCEMENT, UNLESS NOTED OTHERWISE.

LEGEND:

C.J.	- CONSTRUCTION JOINT	N.F.	- NEAR FACE
CLR.	- CLEAR	SER.	- SERIES
DIA.	- DIAMETER	STR.	- STRAIGHT
E.F.	- EACH FACE	(T)	- TOP
F.F.	- FAR FACE	(B)	- BOTTOM
MAX.	- MAXIMUM	T&B	- TOP AND BOTTOM
MIN.	- MINIMUM	TYP.	- TYPICAL
PEJF	- PREFORMED EXPANSION JOINT FILLER	INC.	- INCREMENT



SECTION B-B

(CULVERT INLET BEVEL SHOWN)

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Michael Baker INTERNATIONAL

DESIGNED BDC | DRAWN BDC | CHECKED PJL | REVIEWED NDK | REVISED PJL | DATE 01/21/2025

STRUCTURE FILE NUMBER 2334322

CULVERT DETAILS - WINGWALLS & FOOTINGS

FAI-TR427-1.272

OLD MILLERSPORT ROAD OVER PLEASANT RUN

PLE-32
FAI-TR427-1.272

4 / 5

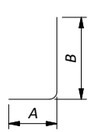
16 / 18

INLET HEADWALL

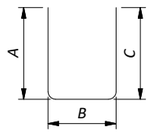
TYPE B HEADWALL INLET REINFORCING SCHEDULE											
MARK	NUMBER TOTAL	LENGTH	WEIGHT (LBS.)	TYPE	DIMENSIONS A	B	C	D	E	R	SER INC.
WINGWALLS											
	1	6'-5"									
X501	SER. OF	TO	122	STR.							3 5/8"
	14	10'-4"									
X502	2	10'-4"	22	STR.							
	1	6'-5"									
X503	SER. OF	TO	131	STR.							3 3/8"
	15	10'-4"									
Y601	56	6'-2"	519	1	1'-0"	5'-4"					
	1	6'-5"									
WW501	SER. OF	TO	105	STR.							4 1/4"
	12	10'-4"									
WW502	10	15'-11"	166	STR.							
	2	6'-0"									
WW503	SER. OF	TO	69	STR.							4'-11 1/2"
	3	15'-11"									
WW504	8	3'-4"	28	19	0'-10"	1'-3"	2'-2"				
WW505	2	18'-8"	39	19	16'-4"	0'-7"	2'-4"				
WW506	1	1'-1"	1	STR.							
	1	6'-5"									
WW507	SER. OF	TO	114	STR.							3 15/16"
	13	10'-4"									
WW508	10	16'-8"	174	STR.							
	2	5'-7"									
WW509	SER. OF	TO	70	STR.							5'-6 1/2"
	3	16'-8"									
WW510	2	19'-1"	40	19	16'-9"	0'-7"	2'-4"				
FOOTING & CUTOFF WALL											
V501	51	7'-8"	408	STR.							
W501	51	7'-8"	408	STR.							
Z501	51	8'-1"	430	2	3'-7"	1'-2"	3'-7"				
F501	6	6'-11"	43	STR.							
F502	8	5'-5"	45	STR.							
F503	19	6'-11"	137	1	4'-4"	2'-8"					
F504	5	17'-8"	92	STR.							
	2	35'-5"			32'-6"						
F601	SER. OF	TO	1020	19		1'-6"	2'-6"				6 1/8"
	9	40'-0"			37'-1"						
	2	14'-0"									
F602	SER. OF	TO	438	STR.							6 5/8"
	9	18'-5"									
	1	35'-5"			32'-6"						
F603	SER. OF	TO	108	19	TO	1'-6"	2'-6"				9 15/16"
	2	36'-3"			33'-4"						
	1	14'-0"									
F604	SER. OF	TO	43	STR.							8"
	2	14'-8"									
FORESLOPE WALL											
FS501	4	17'-8"	74	STR.							
FS502	19	3'-0"	59	2	1'-2"	0'-11"	1'-2"				
FS503	19	3'-2"	63	2	1'-2"	0'-11"	1'-4"				
		TOTAL:	4968	LBS.							

OULET HEADWALL

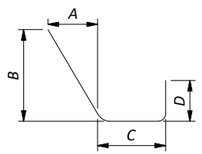
TYPE B HEADWALL OUTLET REINFORCING SCHEDULE											
MARK	NUMBER TOTAL	LENGTH	WEIGHT (LBS.)	TYPE	DIMENSIONS A	B	C	D	E	R	SER INC.
WINGWALLS											
	1	6'-5"									
X501	SER. OF	TO	122	STR.							3 5/8"
	14	10'-4"									
X502	2	10'-4"	22	STR.							
	1	6'-5"									
X503	SER. OF	TO	131	STR.							3 3/8"
	15	10'-4"									
Y601	56	6'-2"	519	1	1'-0"	5'-4"					
	1	6'-5"									
WW501	SER. OF	TO	105	STR.							4 1/4"
	12	10'-4"									
WW502	10	15'-11"	166	STR.							
	2	6'-0"									
WW503	SER. OF	TO	69	STR.							4'-11 1/2"
	3	15'-11"									
WW504	8	3'-4"	28	19	0'-10"	1'-3"	2'-2"				
WW505	2	18'-8"	39	19	16'-4"	0'-7"	2'-4"				
WW506	1	1'-1"	1	STR.							
	1	6'-5"									
WW507	SER. OF	TO	114	STR.							3 15/16"
	13	10'-4"									
WW508	10	16'-8"	174	STR.							
	2	5'-7"									
WW509	SER. OF	TO	70	STR.							5'-6 1/2"
	3	16'-8"									
WW510	2	19'-1"	40	19	16'-9"	0'-7"	2'-4"				
FOOTING & CUTOFF WALL											
V501	51	7'-8"	408	STR.							
W501	51	7'-8"	408	STR.							
Z501	51	8'-1"	430	2	3'-7"	1'-2"	3'-7"				
F501	6	6'-11"	43	STR.							
F502	8	5'-5"	45	STR.							
F503	19	6'-11"	137	1	4'-4"	2'-8"					
F504	5	17'-8"	92	STR.							
	2	35'-5"			32'-6"						
F601	SER. OF	TO	1020	19		1'-6"	2'-6"				6 1/8"
	9	40'-0"			37'-1"						
	2	14'-0"									
F602	SER. OF	TO	438	STR.							6 5/8"
	9	18'-5"									
	1	35'-5"			32'-6"						
F603	SER. OF	TO	108	19	TO	1'-6"	2'-6"				9 15/16"
	2	36'-3"			33'-4"						
	1	14'-0"									
F604	SER. OF	TO	43	STR.							8"
	2	14'-8"									
FORESLOPE WALL											
FS501	4	17'-8"	74	STR.							
FS502	19	3'-0"	59	2	1'-2"	0'-11"	1'-2"				
FS503	19	3'-2"	63	2	1'-2"	0'-11"	1'-4"				
		TOTAL:	4968	LBS.							



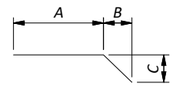
TYPE-1



TYPE-2



TYPE-10



TYPE-19

NOTES:

1. ALL DIMENSIONS ARE OUT TO OUT.
2. TYPE 'STR' INDICATES A STRAIGHT BAR.
3. THE BAR SIZE NUMBER INDICATED IN THE 'MARK' COLUMN. THE FIRST DIGIT OF EACH MARK INDICATED THE BAR SIZE NUMBER. FOR EXAMPLE, WW501 IS A #5 BAR SIZE.
4. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
5. ALL REINFORCING STEEL CLEARANCES ARE 2" UNLESS NOTED OTHERWISE.

Michael Baker INTERNATIONAL

DESIGNED BDC | DRAWN BDC | REVIEWED NDK | DATE 01/21/2025 | CHECKED PJL | REVISED | STRUCTURE FILE NUMBER 2334322

REINFORCING STEEL LIST
FAI-TR427-1.272
OLD MILLERSPORT ROAD OVER PLEASANT RUN

PLE-32
FAI-TR427-1.272

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17
18

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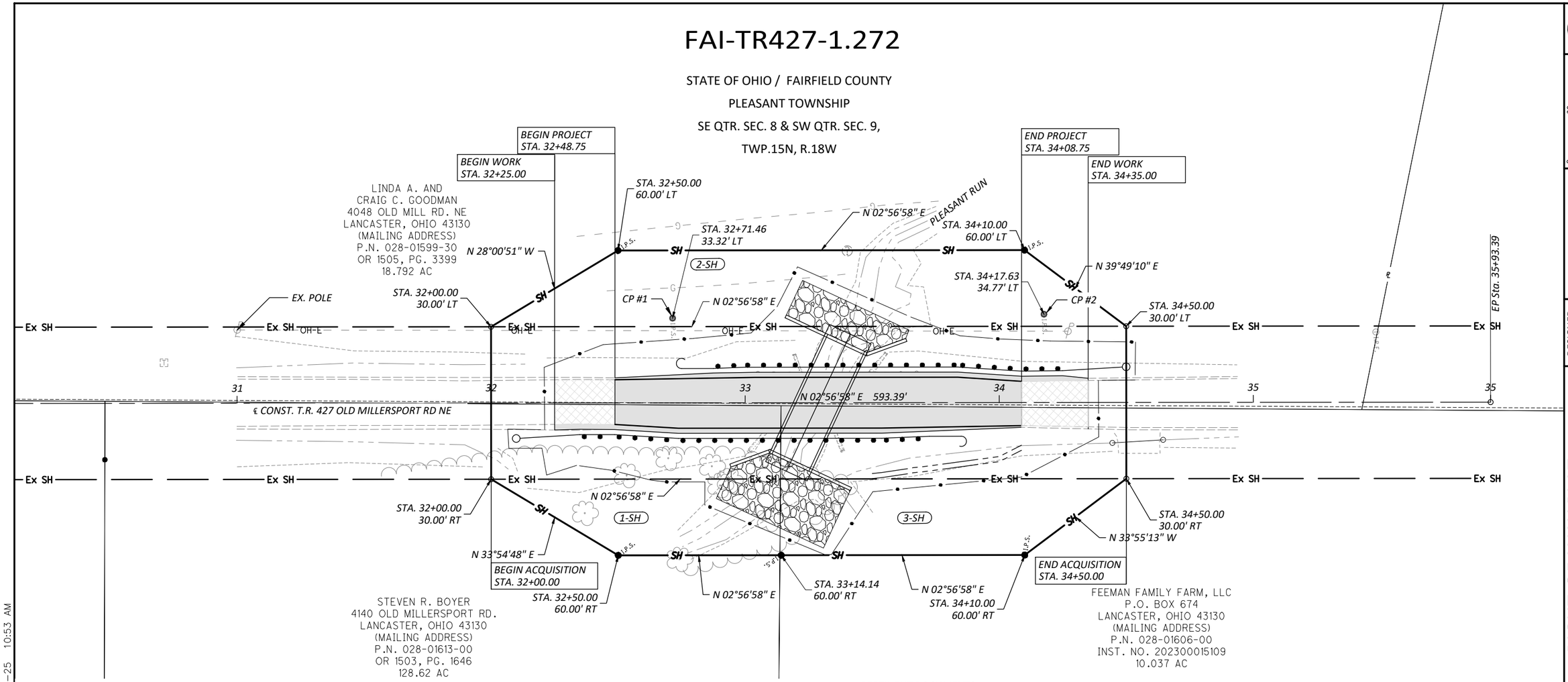
FAI-TR427-1.272

STATE OF OHIO / FAIRFIELD COUNTY

PLEASANT TOWNSHIP

SE QTR. SEC. 8 & SW QTR. SEC. 9,

TWP.15N, R.18W



LEGEND

Ditch / Creek (Ex)
Ditch / Creek (Pr)
Tree Line (Ex)
Section Line
Fence Line (Ex)
Fence Line (Pr)
Center Line
Standard Highway Ease.(Ex) Ex SH
Guardrail (Ex)
Guardrail (Pr)
Construction Limits
Edge of Pavement (Ex)
Edge of Pavement (Pr)
Water Valve (Ex)
Utility Valve Unknown (Ex.)
Edge of Shoulder (Ex)
Telephone Pole (Ex)
Power Pole (Ex)
Edge of Shoulder (Pr)
Light Pole (Ex)
Property Line Symbol , Example
Break Line Symbol , Example
Tree (Pr) , Tree (Ex) , Shrub (Ex)
Tree (Remove) , Shrub (Remove)
Evergreen (Ex) , Stump
Evergreen (Remove) , Stump (Remove)
Wetland (Pr) , Grass (Pr) , Aerial Target
Post (Ex) , Mailbox (Ex) , Mailbox (Pr)
Light (Ex) , Telephone Marker (Ex)
Fire Hydrant (Ex) , Water Meter (Ex)

MONUMENT LEGEND

RAILROAD SPIKE FOUND
IRON PIN FOUND W/ ID CAP
⅝" x 30" LONG REBAR W/ YELLOW PLASTIC CAP MARKED "FCEO SURVEY BOUNDARY"

TYPES OF TITLE LEGEND:

SH = STANDARD HIGHWAY EASEMENT

BASIS OF BEARING

BEARINGS ARE BASED ON THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83 (2011) AND THE WEST LINE OF SECTION 9 AS BEING N 03°19'32" E AND ARE USED TO DENOTE ANGLES ONLY.

PERTINENT DOCUMENTS

FAIRFIELD COUNTY TAX MAPS
REFERENCED DEEDS OF RECORD AND CORRESPONDING PLATS OF SURVEY

I HEREBY CERTIFY THAT THIS PLAT DEPICTS AN ACTUAL FIELD SURVEY PREPARED BY THE FAIRFIELD COUNTY ENGINEER'S OFFICE AND UNDER THE SUPERVISION OF JEREMIAH D. UPP, P.S. - 8531 IN JULY 2024

PROFESSIONAL LAND SURVEYOR NO. 8531 DATE

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

ALL AREA IN ACRES

NO. OF STRUCTURES = 0
NO. OF PROPERTY OWNERS = 3
NO. OF EASEMENT TAKES = 3

NET RESIDIUE = RECORD AREA - TOTAL PRO - NET TAKE NET TAKE = GROSS TAKE - PRO IN TAKE (c) = CALCULATED

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF BOARD OF FAIRFIELD COUNTY, OHIO UNLESS OTHERWISE SHOWN.

PARCEL NO.	OWNER	OWNERS RECORD	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS	AS ACQUIRED INSTRUMENT NO.
1-SH	STEVEN R. BOYER	OR 1503, PG. 1646	280161300	128.620	0.689	0.140	0.079	0.061	NO		127.870	LOCAL		
2-SH	LINDA A. AND CRAIG C. GOODMAN	OR 1505, PG. 3399	280159930	18.792	1.215	0.315	0.174	0.141	NO	17.436		LOCAL		
3-SH	FEEMAN FAMILY FARM, LLC	INS. 202300015109	280160600	10.037	0.256	0.171	0.090	0.081	NO		9.700	LOCAL		

REV. BY	DATE	DESCRIPTION

FIELD REVIEW BY DATE:
OWNERSHIP VERIFIED BY DATE:
DATE COMPLETED DATE:

HORIZONTAL SCALE IN FEET: 0, 10, 20, 40

Michael Baker INTERNATIONAL

DESIGNED BDC
REVIEWED PJL

RIGHT-OF-WAY PLAT
FAI-TR427-1.272
OLD MILLERSPORT TOAD OVER PLEASANT RUN

PLE-32
FAI-T0427-1.272

1 / 1

18 / 18

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