

WAR-CR 134-3.76 (TOWNSHIP LINE ROAD)

OVER NEWMANS RUN BRIDGE NO. WAR-CR134-0376 CLEARCREEK TOWNSHIP WAYNE TOWNSHIP WARREN COUNTY, OHIO

PROJECT DESCRIPTION

REPLACEMENT OF TOWNSHIP LINE ROAD STONE ARCH OVER NEWMANS RUN WITH 3-SIDED PRECAST CULVERT INCLUDING APPROACH ROADWAY WORK.

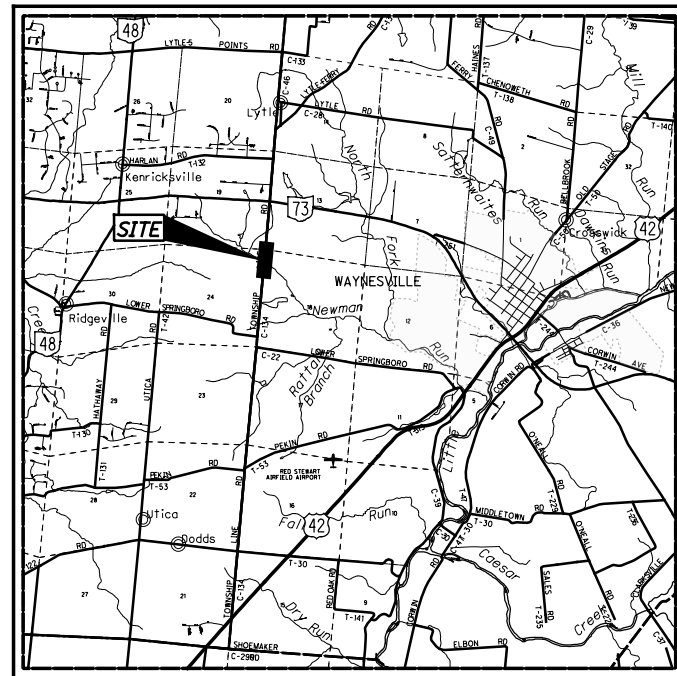
EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 0.66 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.10 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQUIRED)

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING 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 AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 5.



LOCATION MAP

LATITUDE: 39°32'14" LONGITUDE: 84°08'15"



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

DESIGN DESIGNATION

CURRENT ADT (2015)	2500
DESIGN YEAR ADT (20)	N/A
DESIGN HOURLY VOLUME (20)	N/A
DIRECTIONAL DISTRIBUTION	N/A
TRUCKS (24 HOUR B&C)	N/A
DESIGN SPEED	55 MPH
LEGAL SPEED	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
RURAL - LOCAL	
NHS PROJECT	NO

DESIGN EXCEPTIONS

SHOULDER WIDTH, MAXIMUM GRADE

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig



OHIO811, 8-1-1, or 1-800-362-2764 (Non-members must be called directly)

PLAN PREPARED BY:

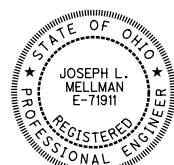


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ENGINEERS SEAL:



SIGNED: Joseph Mellman
DATE: 7/16/2021

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-3.1	1/17/20			800	1/15/21		
CB-1.1	7/19/19			832	10/19/18		
F-2.1	7/20/18						
HW-2.2	7/20/18						
MGS-1.1	1/19/18						
MGS-2.1	1/19/18						
MGS-4.2	7/19/13						
MGS-4.3	1/18/13						
MT-101.60	1/17/20						

APPROVED _____
DATE _____ WARREN COUNTY ENGINEER

APPROVED _____
DATE _____ WARREN COUNTY COMMISSIONER

APPROVED _____
DATE _____ WARREN COUNTY COMMISSIONER

APPROVED _____
DATE _____ WARREN COUNTY COMMISSIONER

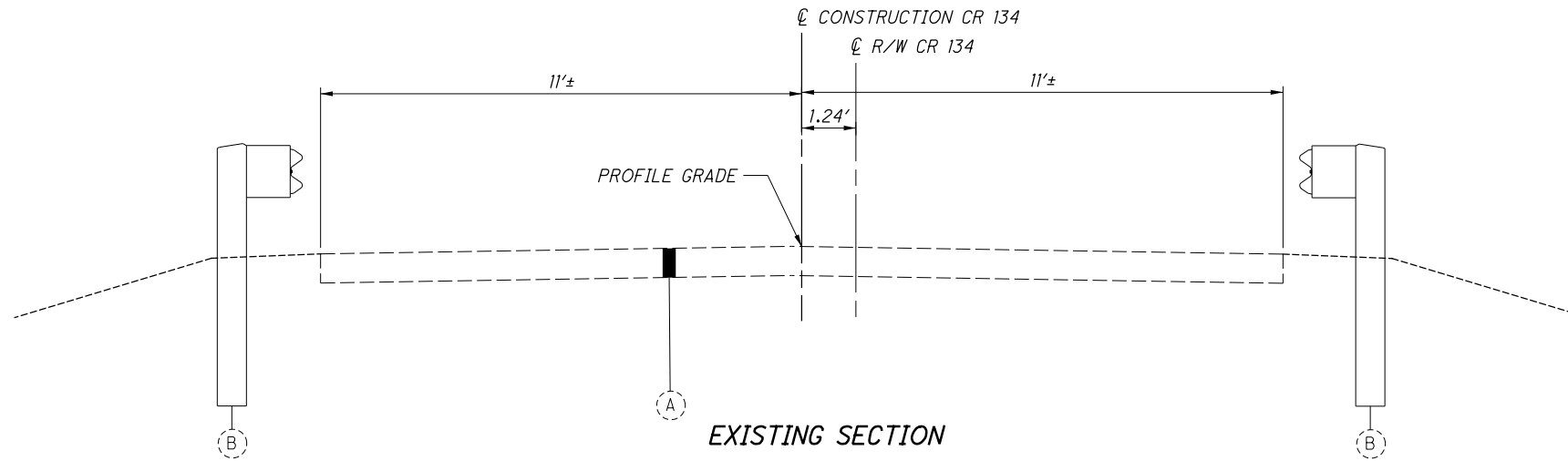
FEDERAL PROJECT NO. N/A

PID NO. N/A

CONSTRUCTION PROJECT NO. N/A

RAILROAD INVOLVEMENT NONE

WAR-CR134-3.76

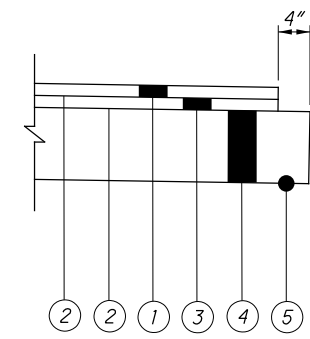
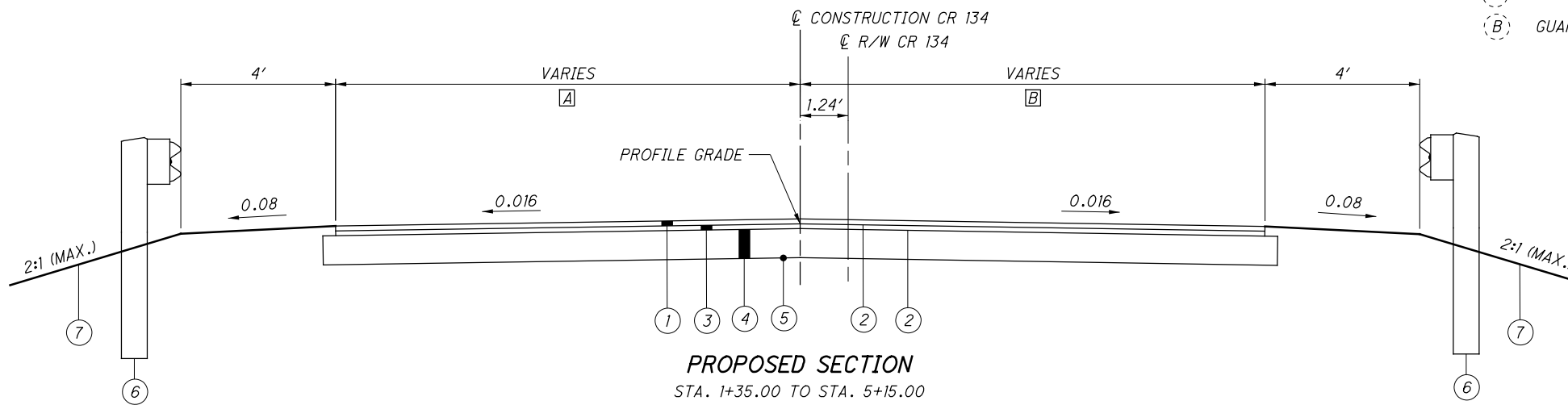


- [A] VARIES 10.8' TO 12.0'
STA. 1+35.00 TO STA. 1+99.32
- 12.0'
STA. 1+99.32 TO STA. 4+73.73
- VARIES 12.0' TO 11.2'
STA. 4+73.73 TO STA. 5+15.00
- [B] VARIES 11.1' TO 12.0'
STA. 1+35.00 TO STA. 1+87.25
- 12.0'
STA. 1+87.25 TO STA. 5+15.00

LEGEND

- ① ITEM 441 - 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448) PG 64-22
- ② ITEM 407 - TACK COAT (APPLIED AT 0.10 GAL/SY)
- ③ ITEM 441 - 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), PG 64-22
- ④ ITEM 301 - 9" ASPHALT CONCRETE BASE, PG 64-22 (APPLY IN TWO EQUAL LIFTS)
- ⑤ ITEM 204 - SUBGRADE COMPACTION
- ⑥ ITEM 606 - GUARDRAIL, TYPE MGS WITH LONG POSTS
- ⑦ ITEM 659 - SEEDING AND MULCHING

- Ⓐ ASPHALT CONCRETE (THICKNESS = 8"±)
- Ⓑ GUARDRAIL



UTILITIES

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

WATER AND SANITARY:

WARREN COUNTY WATER AND SEWER DEPARTMENT
CHRIS WOJNICZ, P.E. LEED AP
DEPUTY SANITARY ENGINEER
513-695-1646

TELECOMMUNICATIONS:

CINCINNATI BELL
NETWORK PLANNING, ENGINEERING AND CONSTRUCTION
221 E. FOURTH ST, 121-900
CINCINNATI, OHIO
BEN OTTEN
SPECIALIST - OUTSIDE PLANT ENGINEER
513-565-1336

TELECOMMUNICATIONS:

CENTURY LINK
20 N. MECHANIC STREET
LEBANON, OH 45036
JORDAN LANGSTON
513-933-3502

TELECOMMUNICATIONS:

CENTURYLINK NATIONAL OPERATIONS - OHIO DIVISION
CHRIS STRAYER
303-886-1299

CABLE TV:

SPECTRUM
10920 KENWOOD RD,
CINCINNATI, OHIO 45242
KENT RIEGER
513-386-5499

ELECTRIC:

DUKE ENERGY
2010 DANA AVENUE
ROOM EF 324
CINCINNATI, OH 45207
TROY DITTMER
513-458-3844

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

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

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: VARIES - SEE TABLE

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID 12B (CONUS)

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE (3402)
COMBINED SCALE FACTOR: 0.99990126
PROJECT SCALE FACTOR: 1.00009875
ORIGIN OF COORD. 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 IN 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.

CLEARING AND GRUBBING

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS	TOTAL
12"	1	0	1
14"	2	0	2
18"	3	0	3
24"	2	0	2

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN SECTION 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS). NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF SECTION 203.05.

SEEDING AND MULCHING

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

659, TOPSOIL	173	CU. YD.
659, SEEDING AND MULCHING	1550	SQ. YD.
659, REPAIR SEEDING AND MULCHING	78	SQ. YD.
659, COMMERCIAL FERTILIZER	0.21	TON
659, LIME	0.33	ACRES
659, WATER	8.37	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.

ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE J, ASTM D4956 TYPE XI REFLECTIVE SHEETING, PER CMS 730.193.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPERATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

RESIDENTIAL DRIVES

ITEM 441 - 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22
ITEM 407 - TACK COAT (APPLIED AT 0.10 GAL/SY)
ITEM 301 - 3/2" ASPHALT CONCRETE BASE, PG 64-22

ITEM 606 - GUARDRAIL, TYPE MGS WITH LONG POSTS

GUARDRAIL POSTS LOCATED OVERTOP OF THE 3-SIDED PRECAST CULVERT SHALL BE CUT AS NECESSARY TO AVOID CONFLICT WITH THE CULVERT. COSTS SHALL BE INCLUDED FOR PAYMENT WITH ITEM 606 - GUARDRAIL, TYPE MGS WITH LONG POSTS.

GRID AND GROUND COORDINATES FOR CONTROL POINTS

ID	GRID		GROUND		ELEVATION	DESCRIPTION
	NORTHING	EASTING	NORTHING	EASTING		
S1	562608.559	1506573.018	562664.116	1506721.792	926.97	Iron Pin in Conc w/ Cap
S2	561809.581	1506488.545	561865.060	1506637.310	892.00	Iron Pin w/ Cap
S3	563537.546	1506622.092	563593.195	1506770.871	921.16	MAG nail
S4	564363.328	1506718.675	564419.059	1506867.463	916.77	MAG nail

CALCULATED
NRP
CHECKED
JLM

GENERAL NOTES

WAR - CR134 - 3.76

3
27

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ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 90 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 4. LIQUIDATED DAMAGES SHALL BE ASSESSED PER CMS 108.07 FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR TWO WEEKS PRIOR TO THE SCHEDULED ROAD CLOSURE. ACCESS TO DRIVEWAYS SHOULD BE MAINTAINED AT ALL TIMES.

ROAD WILL BE
CLOSED
FOR 90 DAYS
INFO: 513-695-3301

W20-H13-60

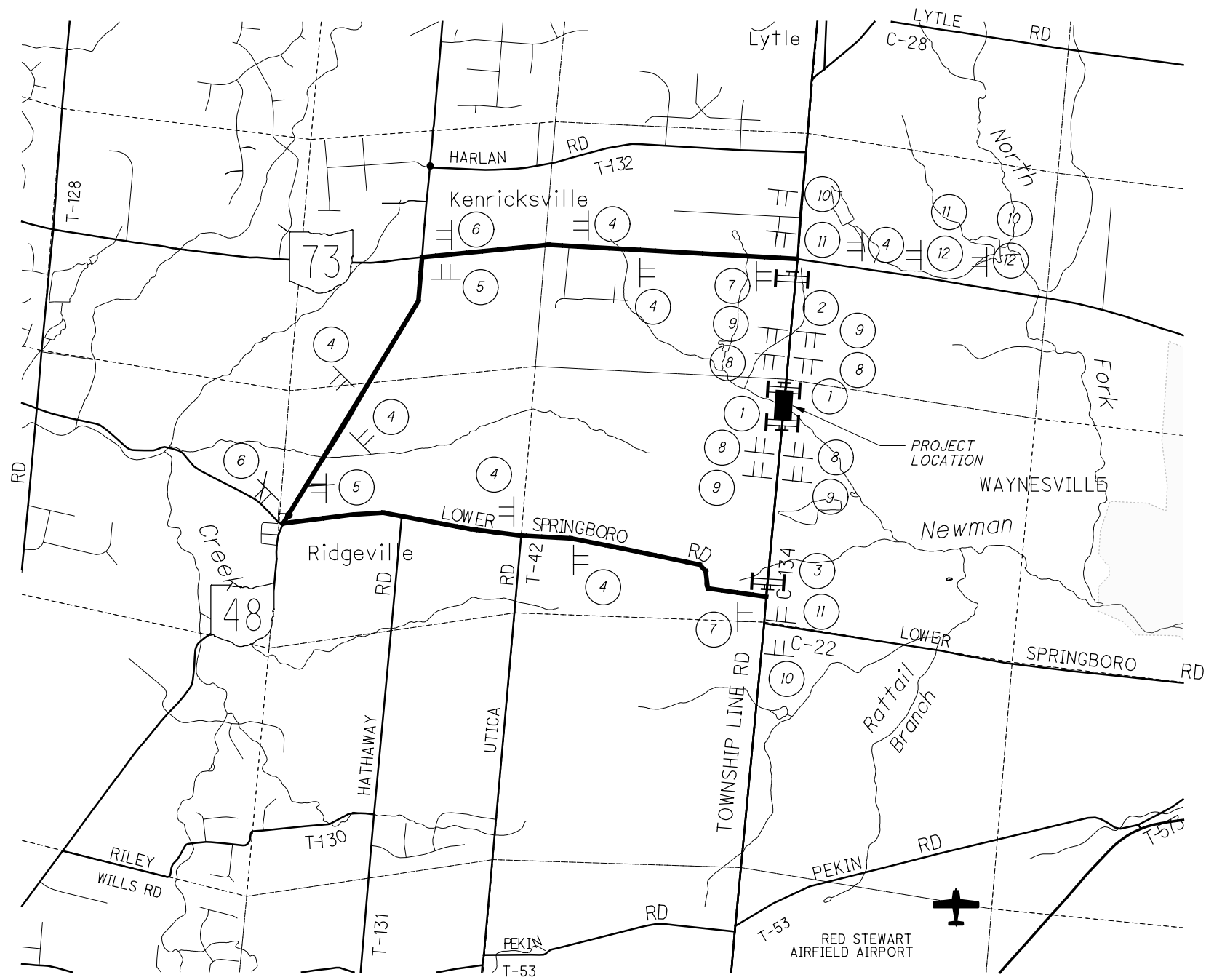
THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 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 ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

CALCULATED
RSH
CHECKED
JLM

MAINTENANCE OF TRAFFIC GENERAL NOTES

WAR - CR134 - 3.76



DETOUR ROUTE

1
ROAD CLOSED
R11-2-48
ON TYPE III BARRICADE

2 OPEN TO ADDRESS 6930
BRIDGE OUT
0.40 MILES AHEAD
LOCAL TRAFFIC ONLY
DETOUR

3 OPEN TO ADDRESS 6850
BRIDGE OUT
0.70 MILES AHEAD
LOCAL TRAFFIC ONLY
DETOUR

4
DETOUR
TOWNSHIP LINE RD
M4-8-12
D3-1
(BLACK ON ORANGE)
M6-3-12

5
DETOUR
TOWNSHIP LINE RD
M4-8-12
D3-1
(BLACK ON ORANGE)
M6-LR-12

6
DETOUR
TOWNSHIP LINE RD
M4-8-12
D3-1
(BLACK ON ORANGE)
M6-LL-12

7
END DETOUR
M4-8a-24

8 TYPE A WARNING LIGHT
ROAD CLOSED AHEAD
500 FEET
W20-3-36
W16-2P

9 TYPE A WARNING LIGHT
ROAD CLOSED AHEAD
1000 FEET
W20-3-36
W16-2P

10 ROAD CLOSED AHEAD
W20-3-36

11 DETOUR AHEAD
W20-2-36

12 TOWNSHIP LINE RD
D3-1
(BLACK ON ORANGE)

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OFFICE CALCS	SHEET NUM.												PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	3	7	9																
	LS													201	11000	LS	CLEARING AND GRUBBING		
		1												202	20010	1	EACH	HEADWALL REMOVED	
		1,051												202	23000	1,051	SY	PAVEMENT REMOVED , ASPHALT	
		132												202	35100	132	FT	PIPE REMOVED, 24" AND UNDER	
		141												202	38000	141	FT	GUARDRAIL REMOVED	
		1												202	58100	1	EACH	CATCH BASIN REMOVED	
		193												202	75000	193	FT	FENCE REMOVED	
			374											203	10000	374	CY	EXCAVATION	
			1,496											203	20000	1,496	CY	EMBANKMENT	
		66												601	32104	66	CY	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC	
		0.31												602	20000	0.31	CY	CONCRETE MASONRY	
		437.5												606	15100	437.5	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
		2												606	26100	2	EACH	ANCHOR ASSEMBLY, TYPE E (LONG POSTS)	
		2												606	26500	2	EACH	ANCHOR ASSEMBLY, TYPE T (LONG POSTS)	
		193												607	15000	193	FT	FENCE, TYPE 47	
		8												626	00110	8	EACH	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL)	
																		EROSION CONTROL	
		173												659	00300	173	CY	TOPSOIL	
		1,550												659	10000	1,550	SY	SEEDING AND MULCHING	
		78												659	14000	78	SY	REPAIR SEEDING AND MULCHING	
		0.21												659	20000	0.21	TON	COMMERCIAL FERTILIZER	
		0.33												659	31000	0.33	ACRE	LIME	
		8.37												659	35000	8.37	MGAL	WATER	
														832	30000	5,000	EACH	EROSION CONTROL	
																		DRAINAGE	
		33												611	04900	33	FT	12" CONDUIT, TYPE D, 706.02	
		111												611	07900	111	FT	18" CONDUIT, TYPE D, 706.02	
		1												611	98470	1	EACH	CATCH BASIN, NO. 2-2B	
																		PAVEMENT	
	1,150													204	10000	1,150	SY	SUBGRADE COMPACTION	
	258													301	46000	258	CY	ASPHALT CONCRETE BASE, PG64-22	
	213													407	10000	213	GAL	TACK COAT	
	46													441	50000	46	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
	42													441	50200	42	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)	
																		TRAFFIC CONTROL	
		0.14												644	00100	0.14	MILE	EDGE LINE, 4"	
		0.07												644	00300	0.07	MILE	CENTER LINE	
																		STRUCTURE 20 FOOT SPAN AND UNDER (WAR-CR134-0376)	
																		FOR ESTIMATED QUANTITIES, SHEE SHEET 22	
																		INCIDENTALS	
														614	11000	LS		MAINTAINING TRAFFIC	
														623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
														624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

WAR - CR134 - 3.76

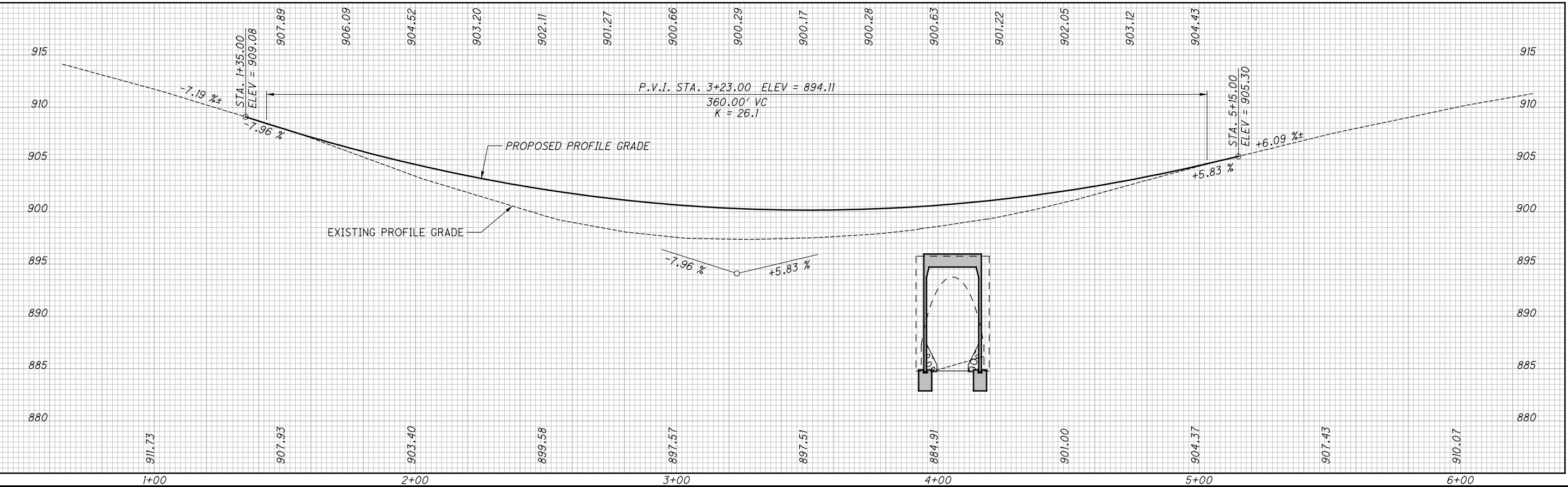
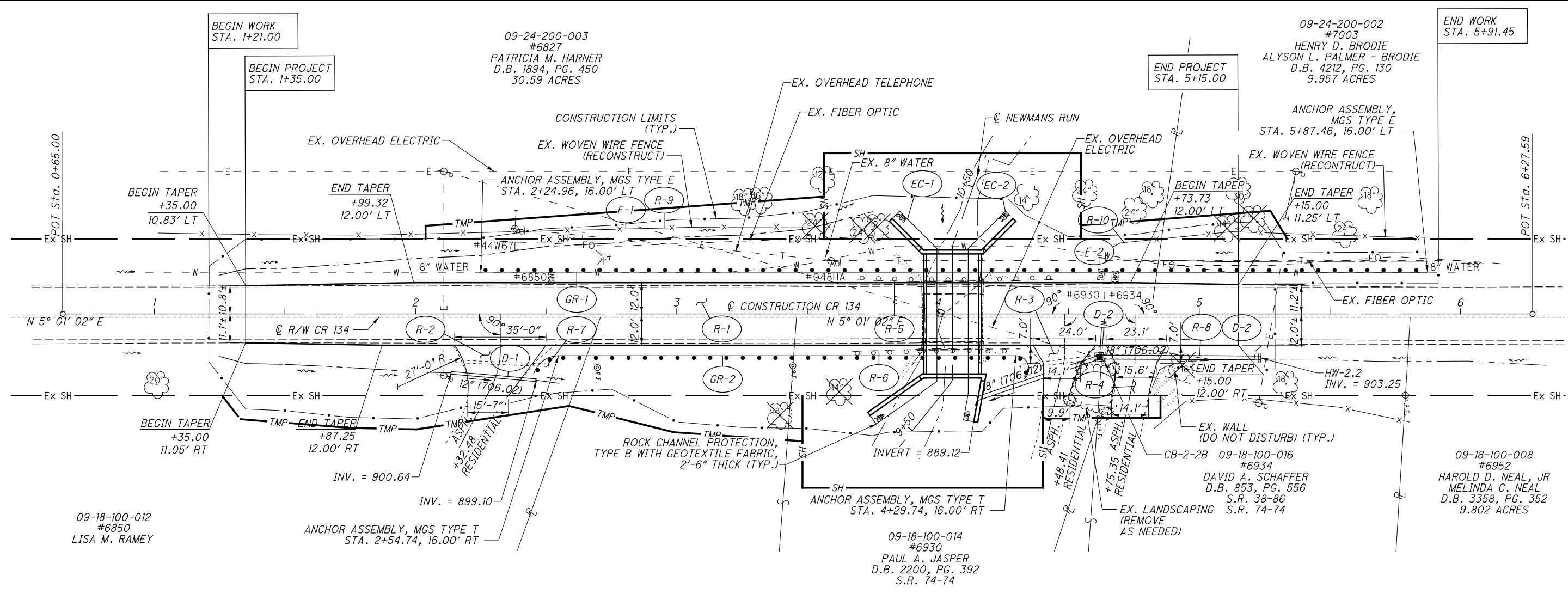
CALCULATED	NRP	CHECKED	JLM
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REF NO.	SHEET NO.	STATION TO STATION				202	202	202	202	202	202	601	602	606	606	606	607	611	611	611	626	644	644		
		EACH	SY	FT	FT	EACH	FT	CY	CY	FT	EACH	EACH	FT	FT	EACH	EACH	EACH	MILE	MILE						
R-1	8	1+35.00	€	TO	5+15.00	€																			
R-2	8	2+32.48	RT																						
R-3	8	4+48.41	RT																						
R-4	8	4+75.35	RT																						
R-5	8	3+67.04	LT	TO	4+44.15	LT				77															
R-6	8	3+67.25	RT	TO	4+31.47	RT				64															
R-7	8	2+10.79	RT	TO	2+50.42	RT																			
R-8	8	4+31.00	RT	TO	5+23.00	RT	1			92															
R-9	8	2+42.78	RT	TO	3+76.66	RT																			
R-10	8	4+69.41	RT	TO	5+27.68	RT																			
GR-1	8	2+24.96	LT	TO	5+87.46	LT																			
GR-2	8	2+45.24	RT	TO	4+32.73	RT																			
F-1	8	2+42.78	RT	TO	3+76.66	RT																			
F-2	8	4+69.41	RT	TO	5+27.68	RT																			
D-1	8	2+13.69	RT	TO	2+46.34	RT																			
D-2	8	4+15.09	RT	TO	5+23.59	RT																			
EC-1	8	3+99.00	LT/RT																						
EC-2	8	4+11.00	LT/RT																						
E-1	19	1+35.00	LT	TO	5+15.00	LT																			
E-2	19	1+35.00	RT	TO	5+15.00	RT																			
C-1	19	1+35.00	€	TO	5+15.00	€																			
TOTALS CARRIED TO GENERAL SUMMARY							1	1,051	132	141	1	193	66	0.31	437.5	2	2	193	33		111	1	8	0.14	0.07

CALCULATED	NRP
	CHECKED
JLM	
SUBSUMMARY	
WAR - CR134 - 3.76	
7 27	

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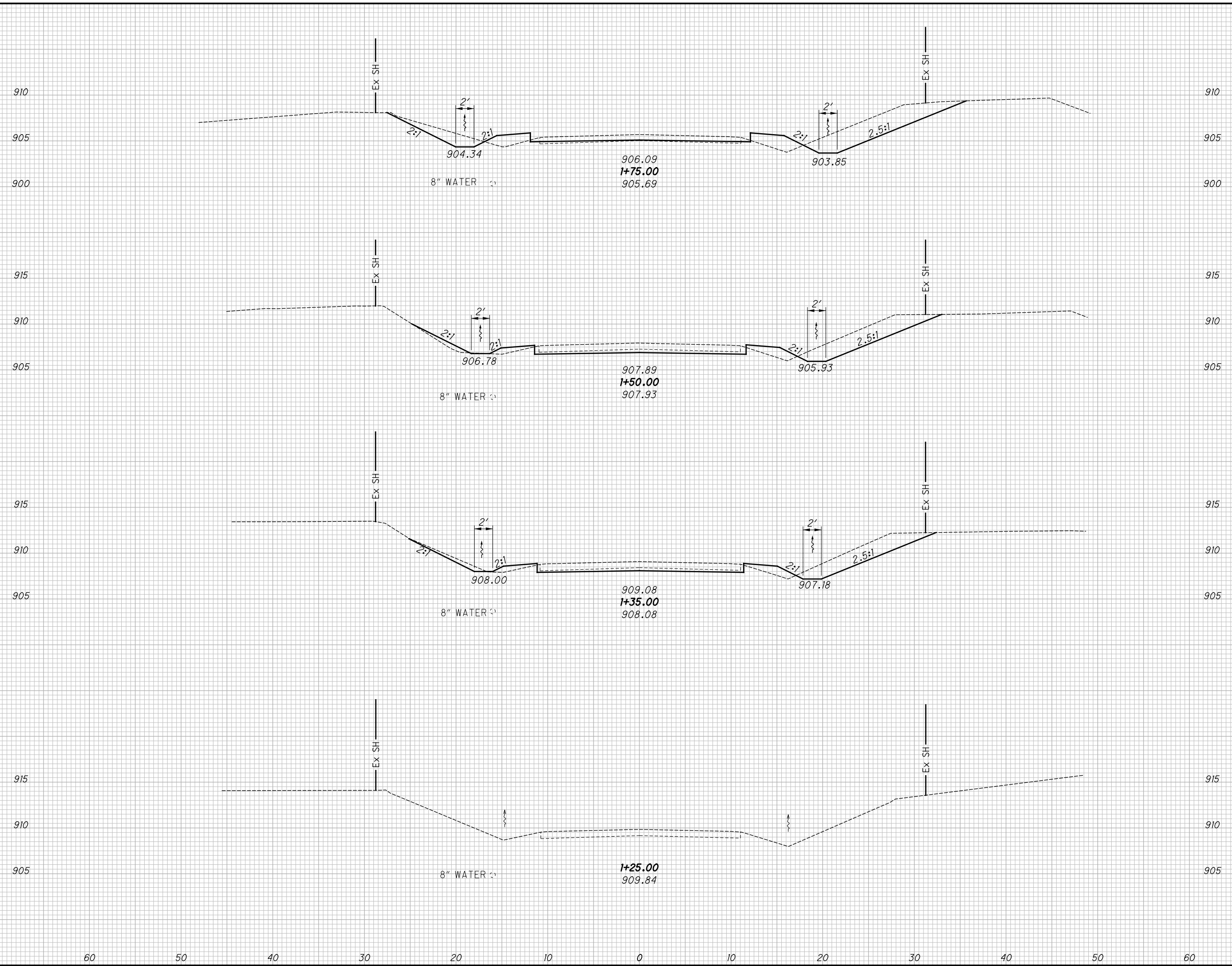
CALCULATED: JLM
 NRP:
 CHECKED: JLM

PLAN AND PROFILE - CR 134
STA. 0+65.00 TO STA. 6+27.59

WAR-CR134-3.76

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SEEDING	
END WIDTH	SO. YDS.
193	0
60	21
50	37
40	62
30	110
20	42

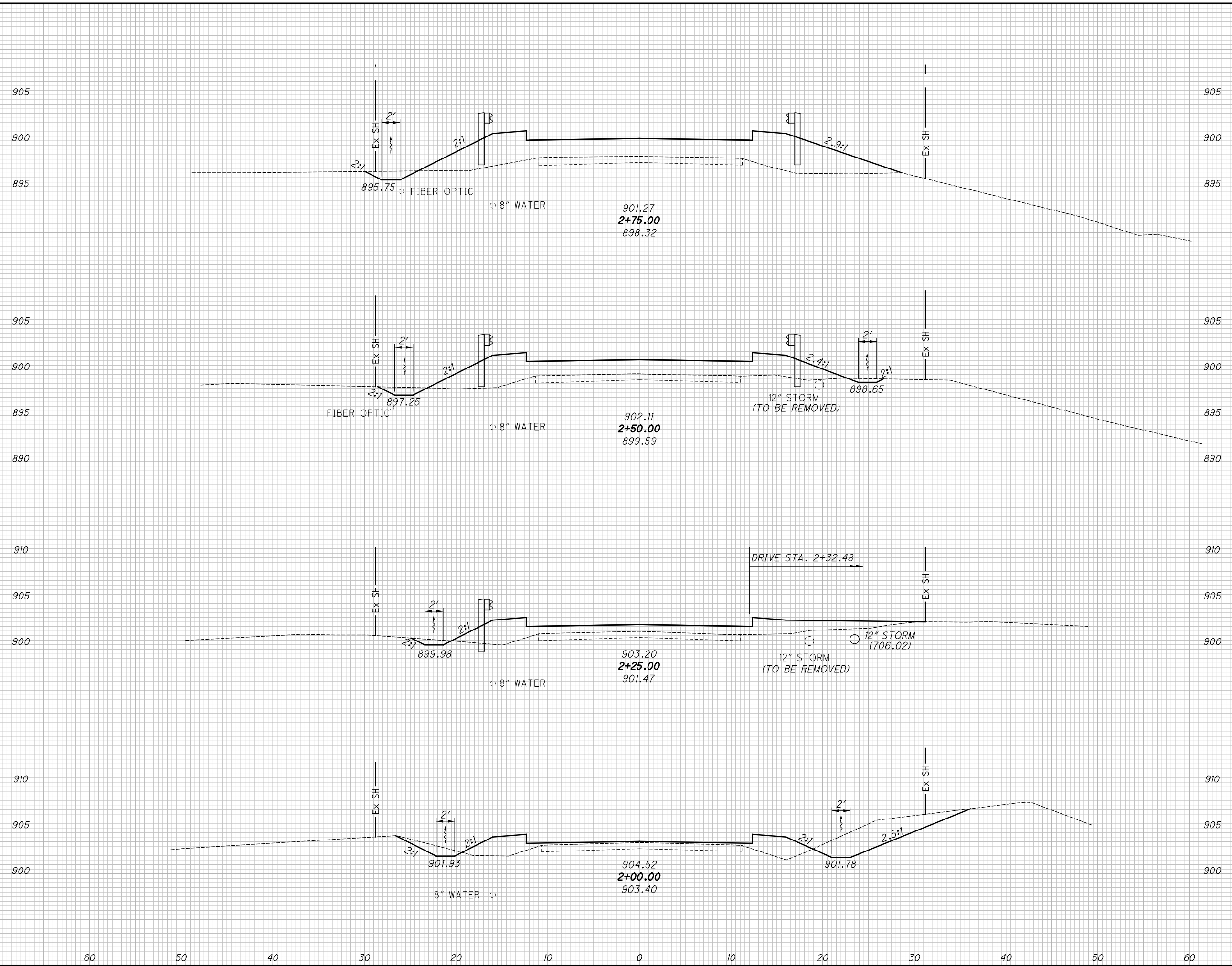


END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
910	39	15		
905			32	11
900				
915	31	8		
910			17	4
905				
915	30	6		
910			6	1
905				
915	0	0		
910				
905				
915			55	16

CROSS SECTIONS
STA. 1+25.00 TO STA. 1+75.00
 CALCULATED NRP
 CHECKED JLM
 9
 27
WAR - CR134 - 3.76

o:\Warren Cnty Eng\015436A.00 - BR_CR0134-0376_Township_Line\15436_Design\Roadway\Sheets\15436_xs002.dgn XS_SHEET_temporary_model_name_2 3/30/2023 3:46:08 PM jmelman

SEEDING	END	
	WIDTH	SO. YDS.
	36	94
	32	63
	13	75
	41	115
	347	



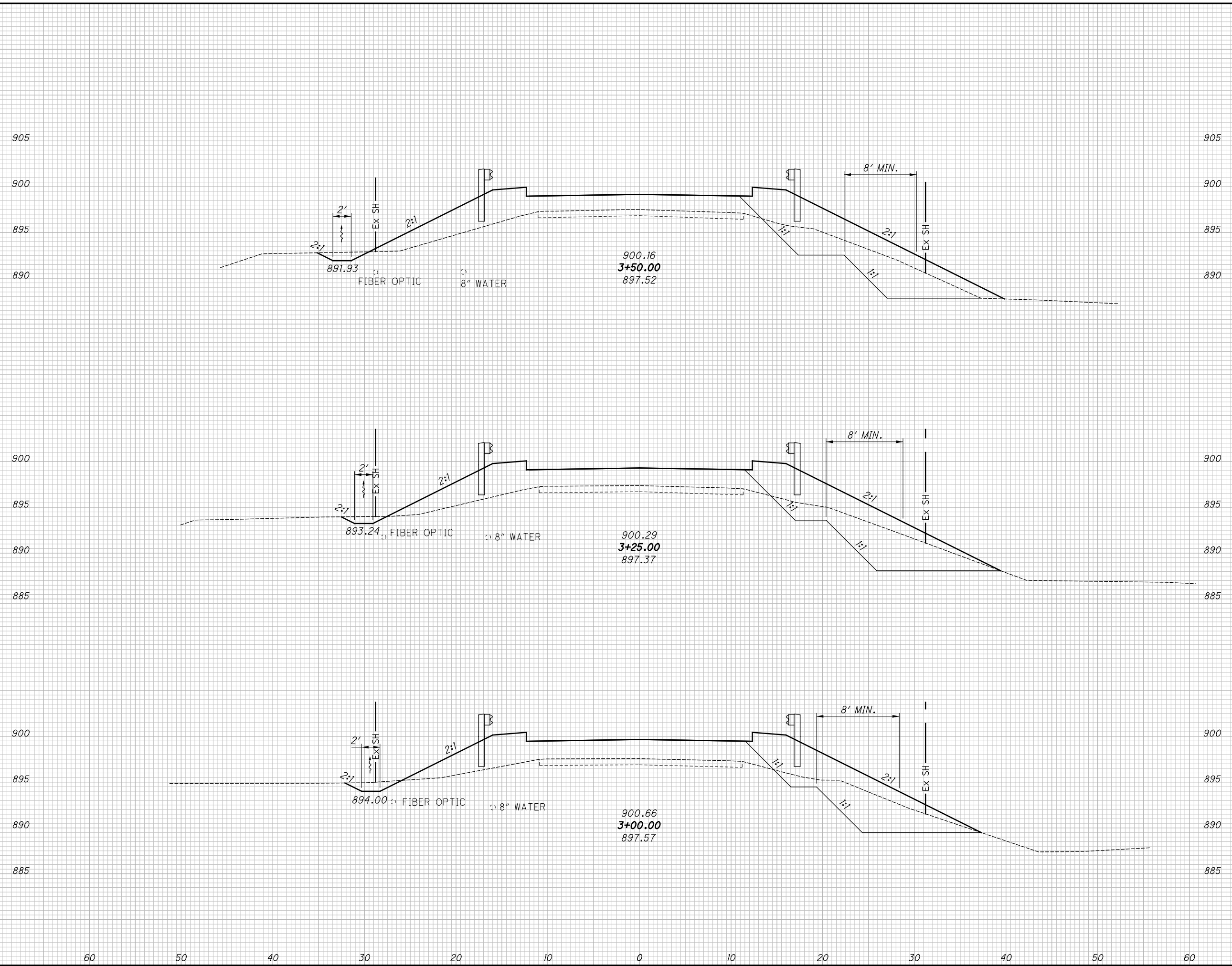
END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
36	4	135	4	107
94	4	97	3	76
32	2	68	17	51
63	35	43	34	27
13			58	261

CROSS SECTIONS
STA. 2+00.00 TO STA. 2+75.00
WAR - CR134 - 3.76

10
27

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SEEDING	
END WIDTH	SO. YDS.
60	407
50	118
40	49
30	140
20	52
10	149
0	55
10	149
20	52
30	140
40	49
50	118
60	407

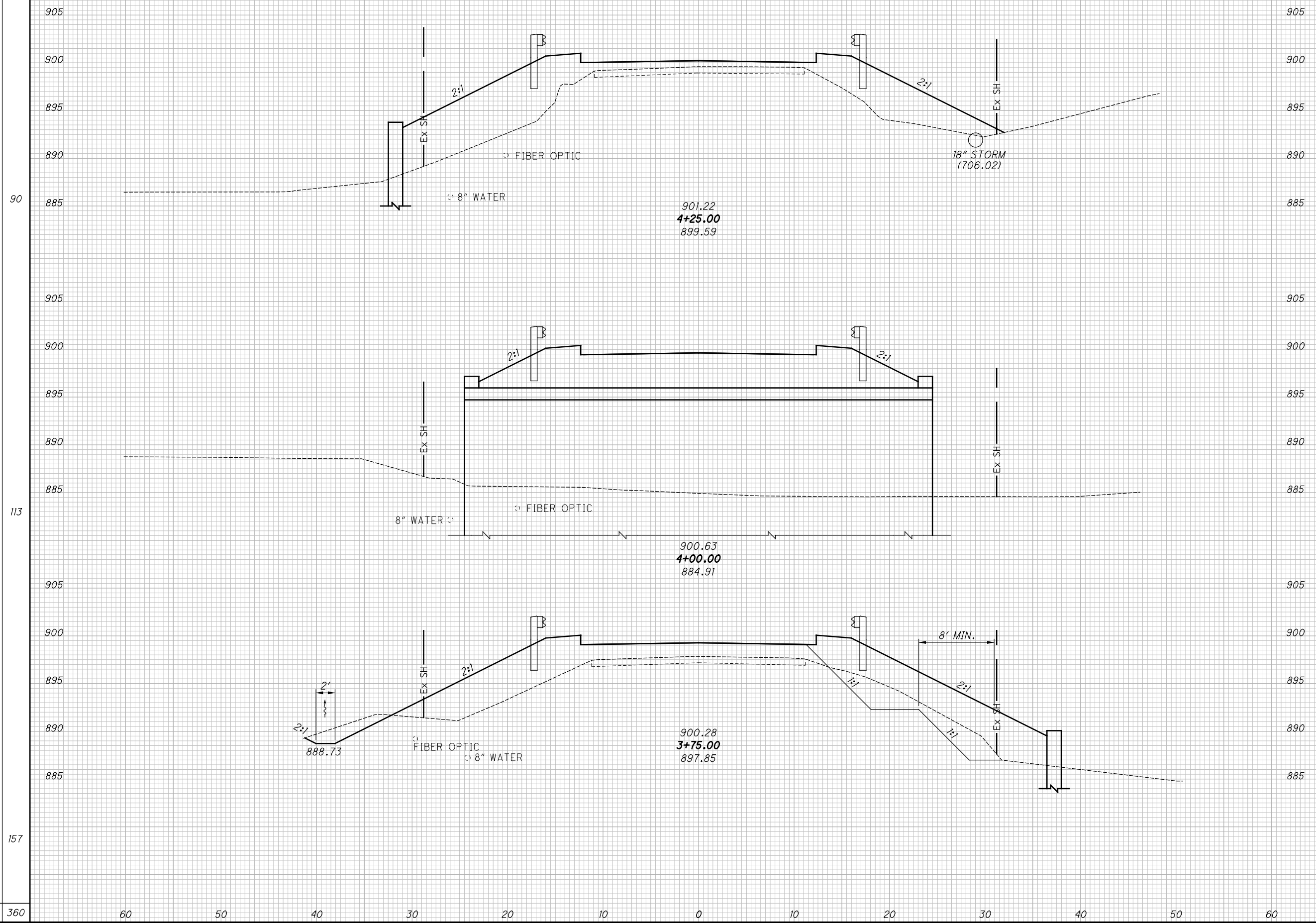


END AREA		VOLUME	
CUT	FILL	CUT	FILL
59	213	56	196
63	210	54	189
53	198	26	154
		136	539

CALCULATED NRP	CHECKED JLM		
CROSS SECTIONS STA. 3+00.00 TO STA. 3+50.00			
WAR-CR134-3.76			
<table border="1" style="margin: auto;"> <tr> <td style="padding: 5px;">11</td> </tr> <tr> <td style="padding: 5px;">27</td> </tr> </table>		11	27
11			
27			

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SEEDING	
END WIDTH	SO. YDS.
360	157
60	58
60	23
60	42



END AREA	VOLUME	
	CUT	FILL
0	192	0
0	153	20
43	240	47
	67	552

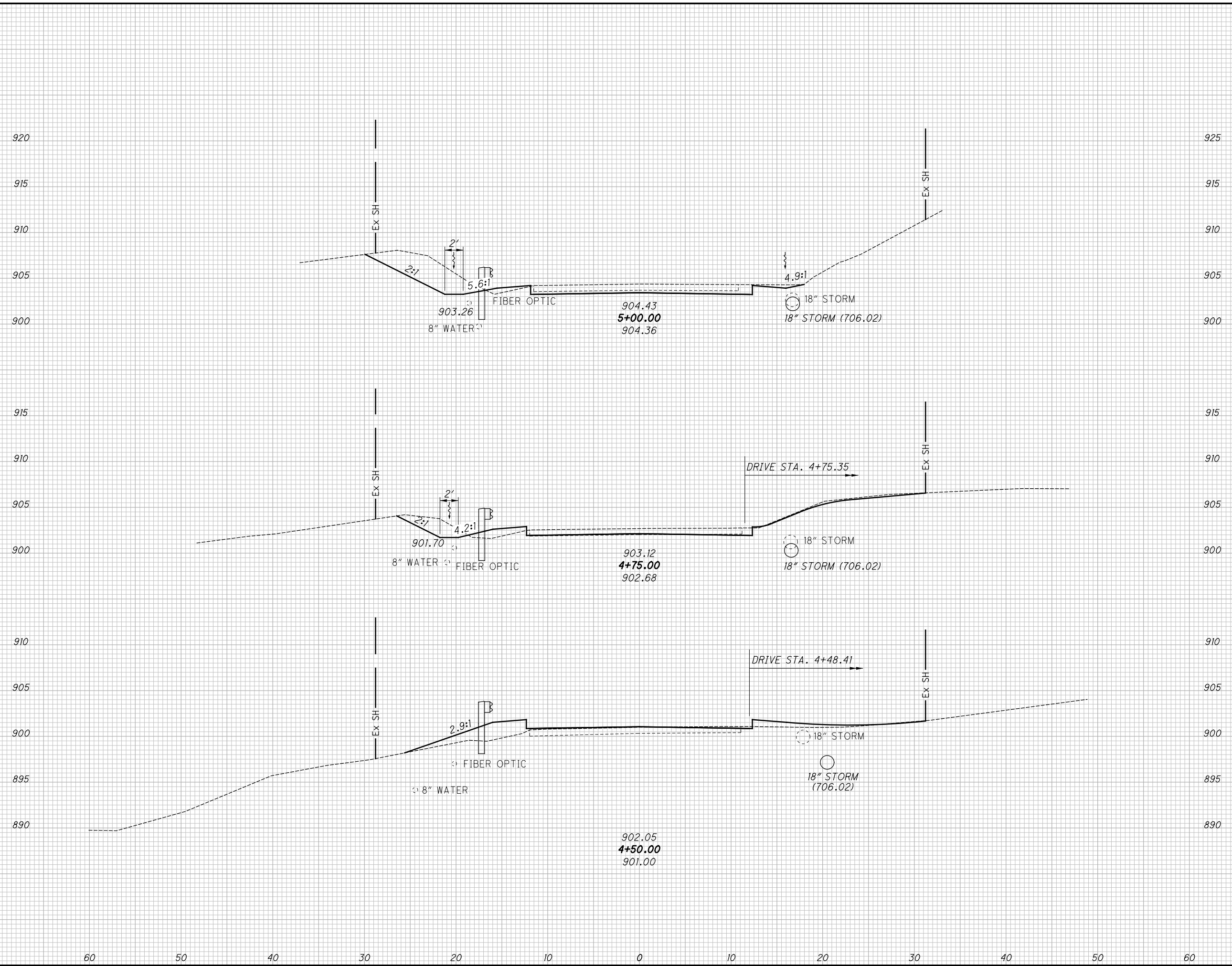
**CROSS SECTIONS
STA. 3+75.00 TO 4+25.00**

WAR - CR134 - 3.76

12
27

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SEEDING	
END WIDTH	SO. YDS.
25	56
15	40
14	78
174	

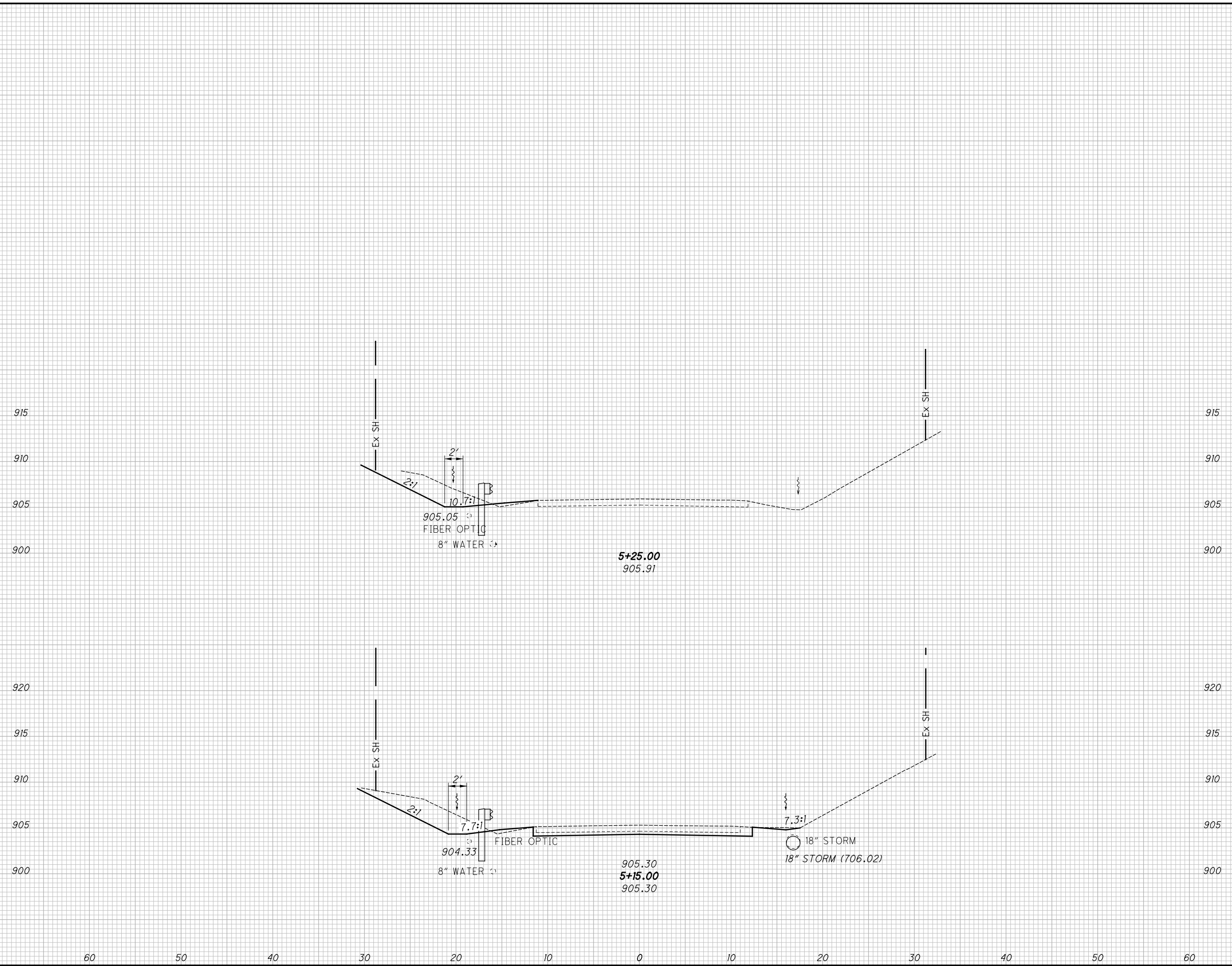


END AREA		VOLUME	
CUT	FILL	CUT	FILL
36	2	23	3
13	5	6	19
0	35	0	105
		29	127

CROSS SECTIONS
STA. 4+50.00 TO STA. 5+00.00
WAR - CR134 - 3.76
 CALCULATED NRP
 CHECKED JLM
 13
 27

O:\Warren_Cnty_Eng\015436A.00 - BR_CR0134-0376_Township_Line\15436_Design\Roadway\Sheets\15436_xs006.dgn XS_SHEET_temporary_model_name_6 3/30/2023 3:46:11 PM jmelman

SEEDING	
END WIDTH	SO. YDS.
69	
43	
26	
20	

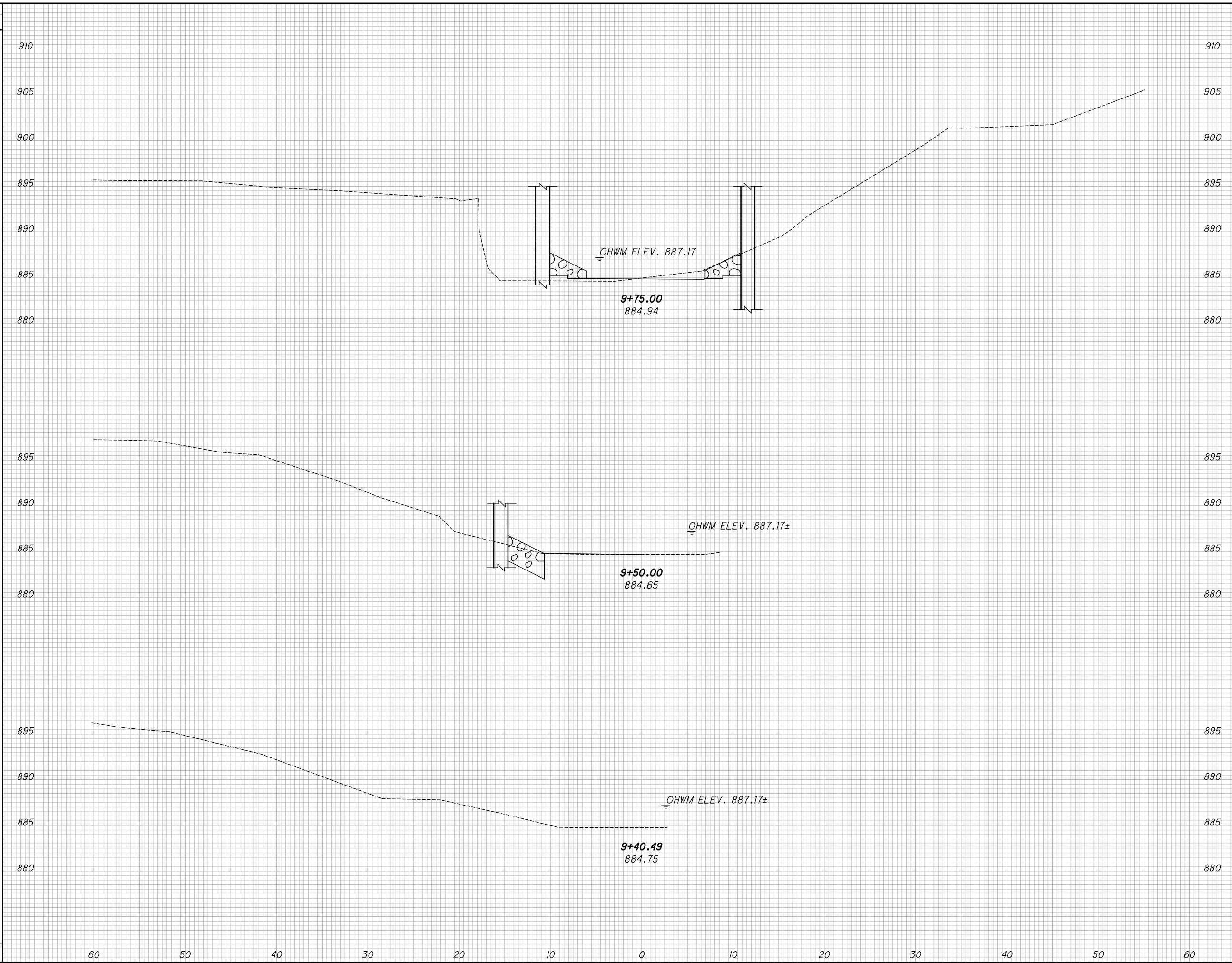


END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
69				
43				
26				
20	20	1		
			10	0
	33	1		
			19	1
			29	1

CALCULATED	CHECKED		
NRP	JLM		
CROSS SECTIONS			
STA. 5+15.00 TO STA. 5+25.00			
WAR-CR134-3.76			
<table border="1"> <tr> <td>14</td> </tr> <tr> <td>27</td> </tr> </table>		14	27
14			
27			

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SEEDING	
END WIDTH	SO. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED	CHECKED
NRP	JLM

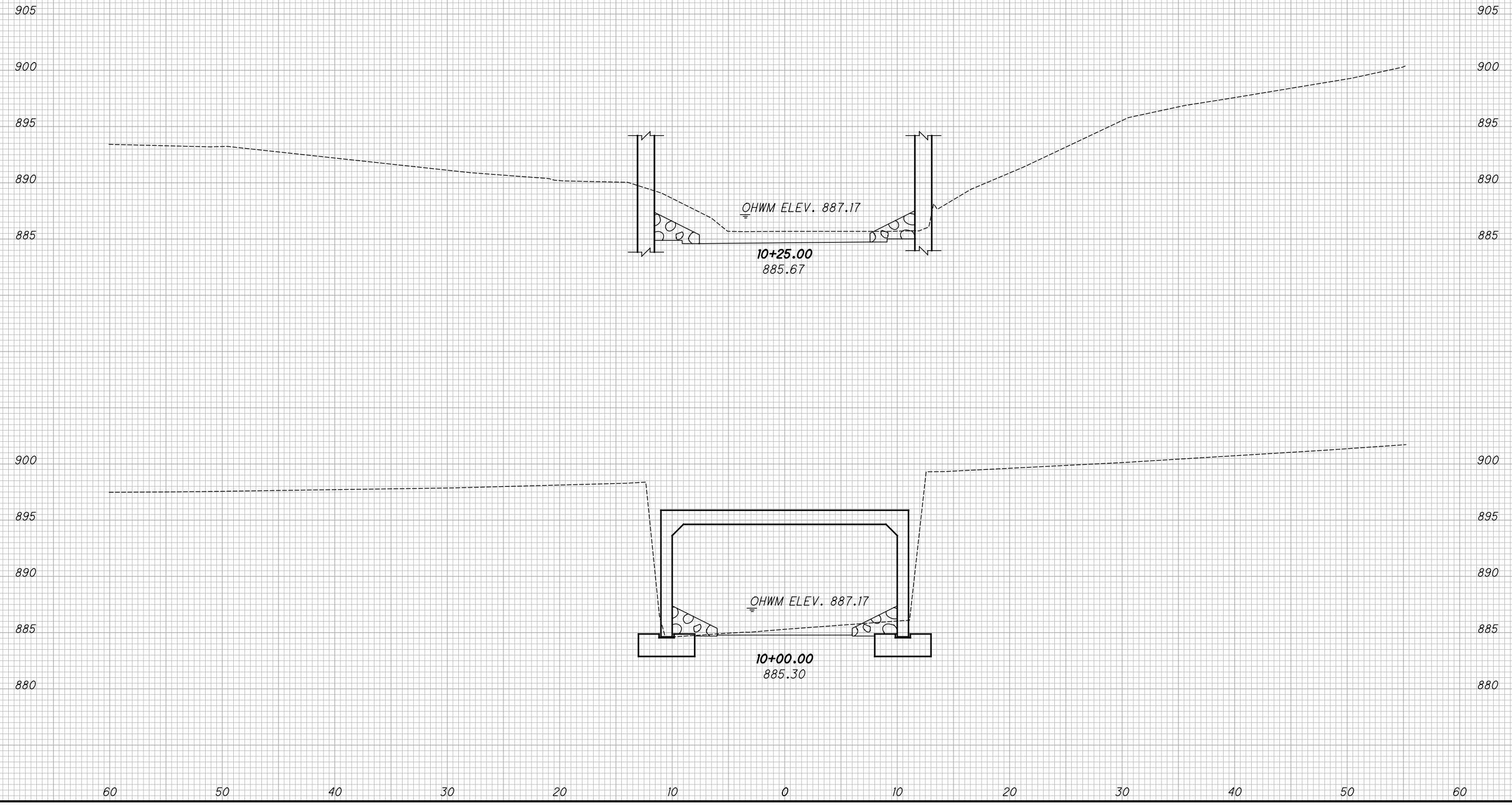
CHANNEL CROSS SECTIONS
 STA. 9+40.49 TO STA. 9+75.00

WAR - CR134 - 3.76

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SEEDING	
END WIDTH	SO. YDS.

END AREA		VOLUME		CALCULATED NRP	CHECKED JLM
CUT	FILL	CUT	FILL		



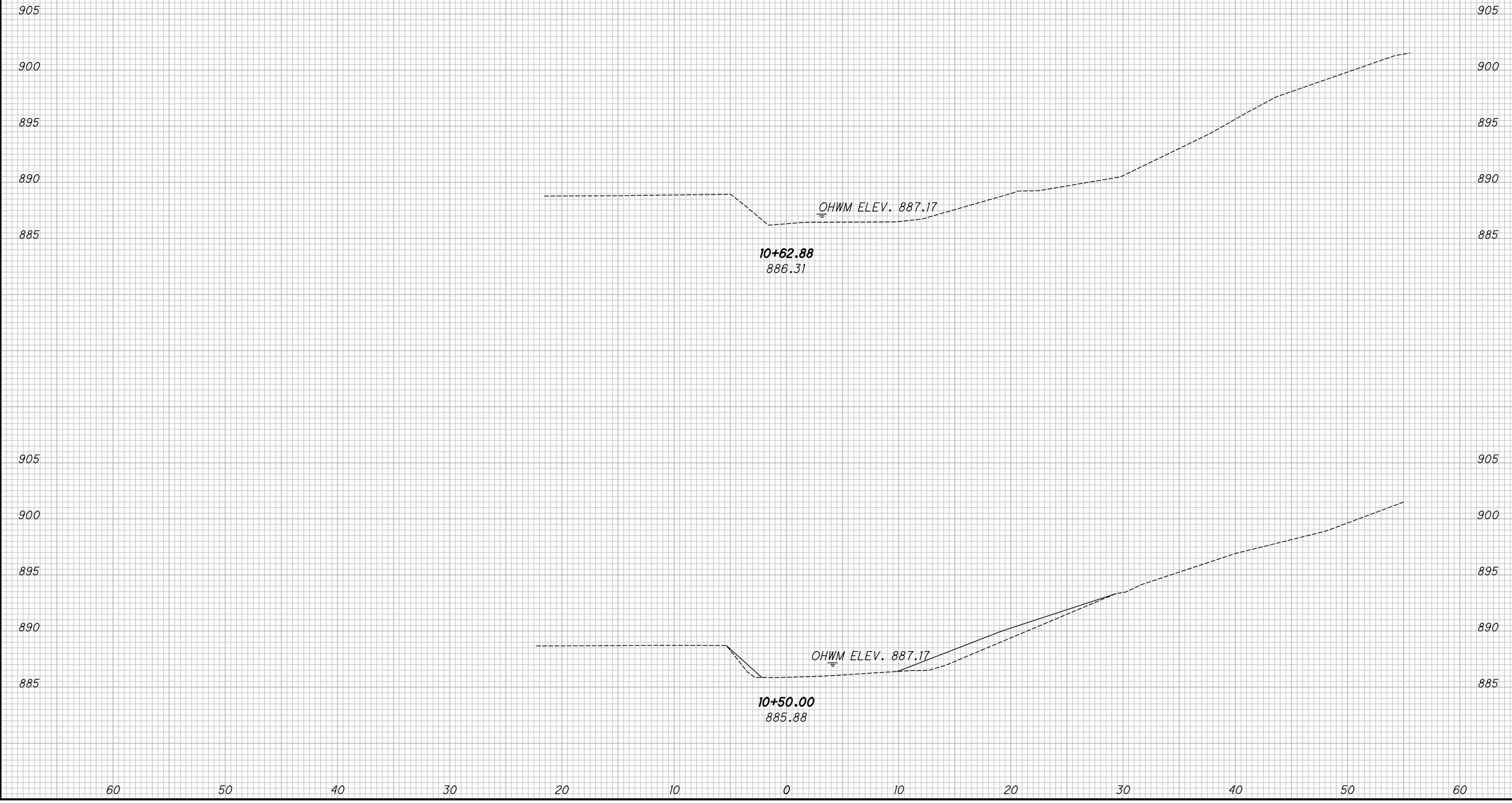
CHANNEL CROSS SECTIONS
STA. 10+00.00 TO STA. 10+25.00

WAR - CR134 - 3.76

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SEEDING	
END WIDTH	SO. YDS.

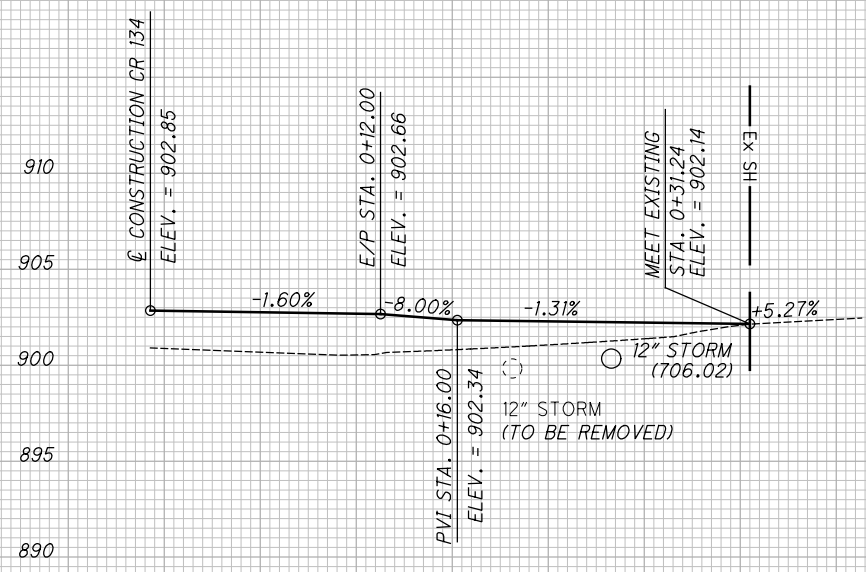
END AREA		VOLUME		CALCULATED	
CUT	FILL	CUT	FILL	NRP	CHECKED



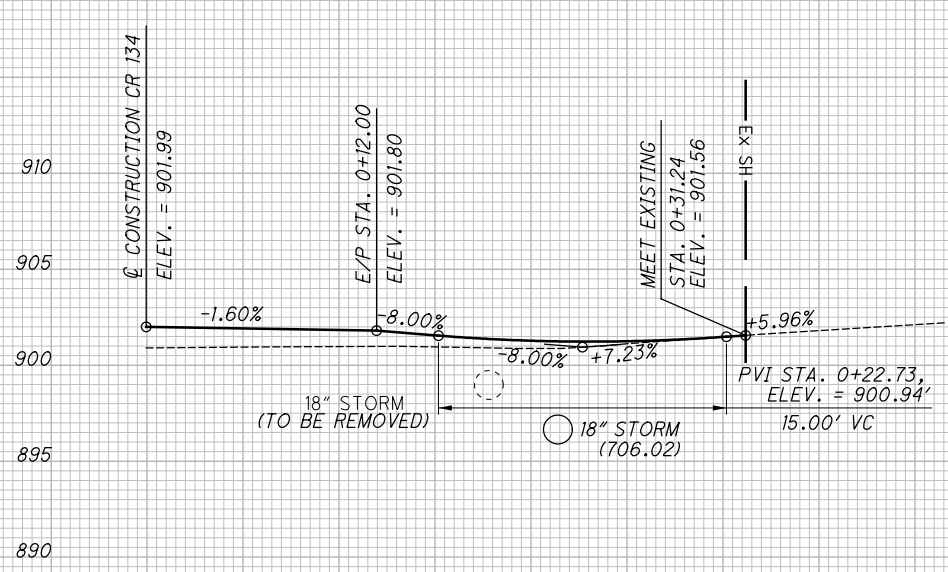
CHANNEL CROSS SECTIONS
STA. 10+50.00 TO STA. 10+62.88

WAR - CR134 - 3.76

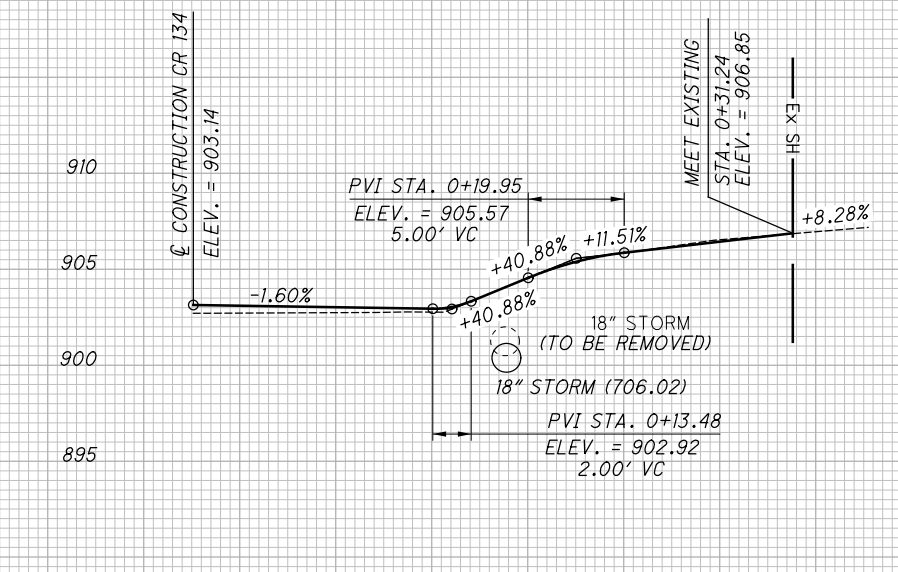
17
27



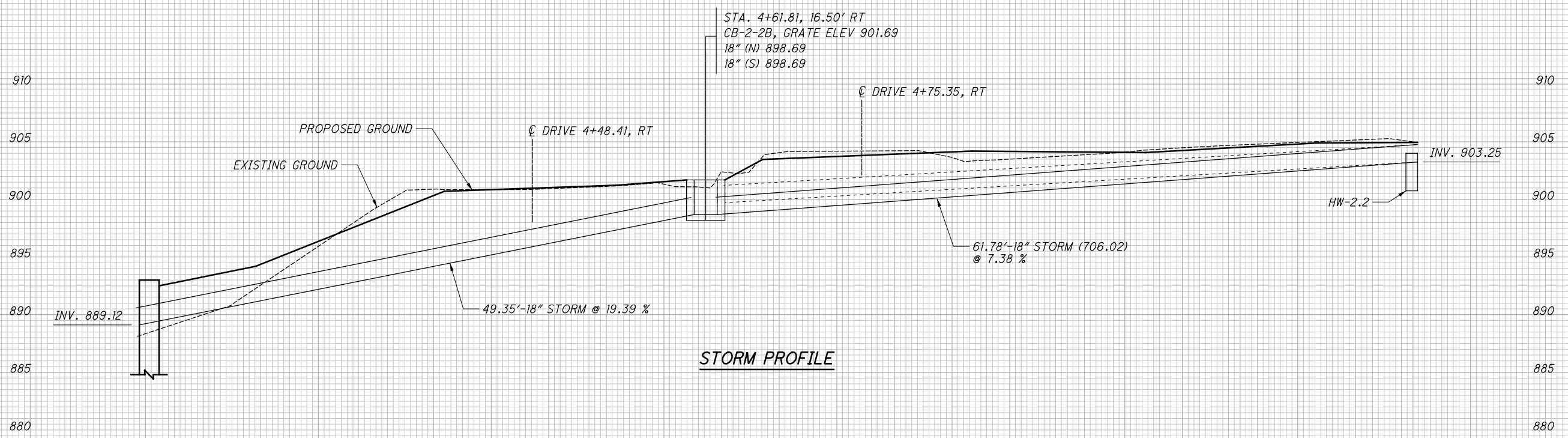
DRIVE STA. 2+32.48, RT.



DRIVE STA. 4+48.41, RT.



DRIVE STA. 4+75.35, RT.



STORM PROFILE

CALCULATED
NRP
CHECKED
JLM

DRIVE AND STORM PROFILES

WAR - CR134 - 3.76

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PAVEMENT MARKING LEGEND

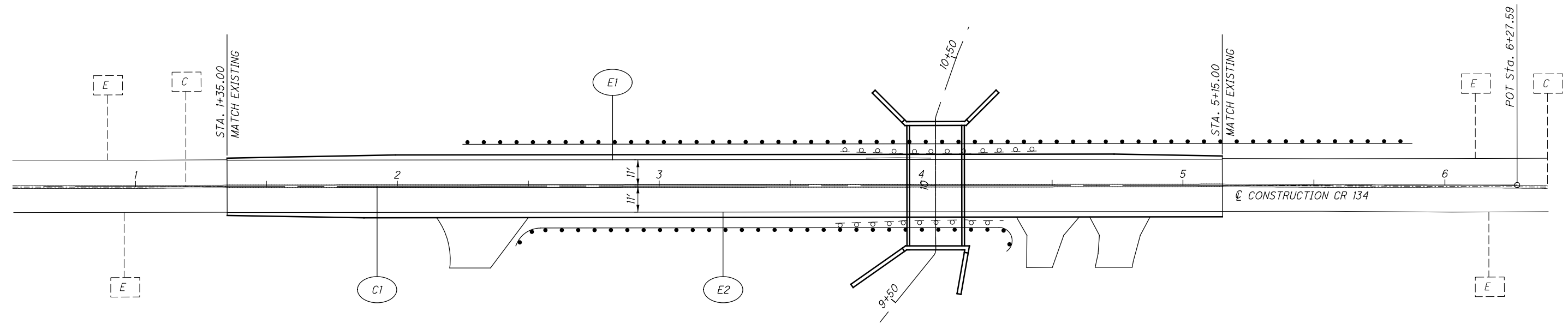
- C ITEM 644 - CENTER LINE (DOUBLE SOLID)
- E ITEM 644 - EDGE LINE (4" WHITE)
- EXISTING PAVEMENT MARKINGS

N



0 20 40
HORIZONTAL
SCALE IN FEET

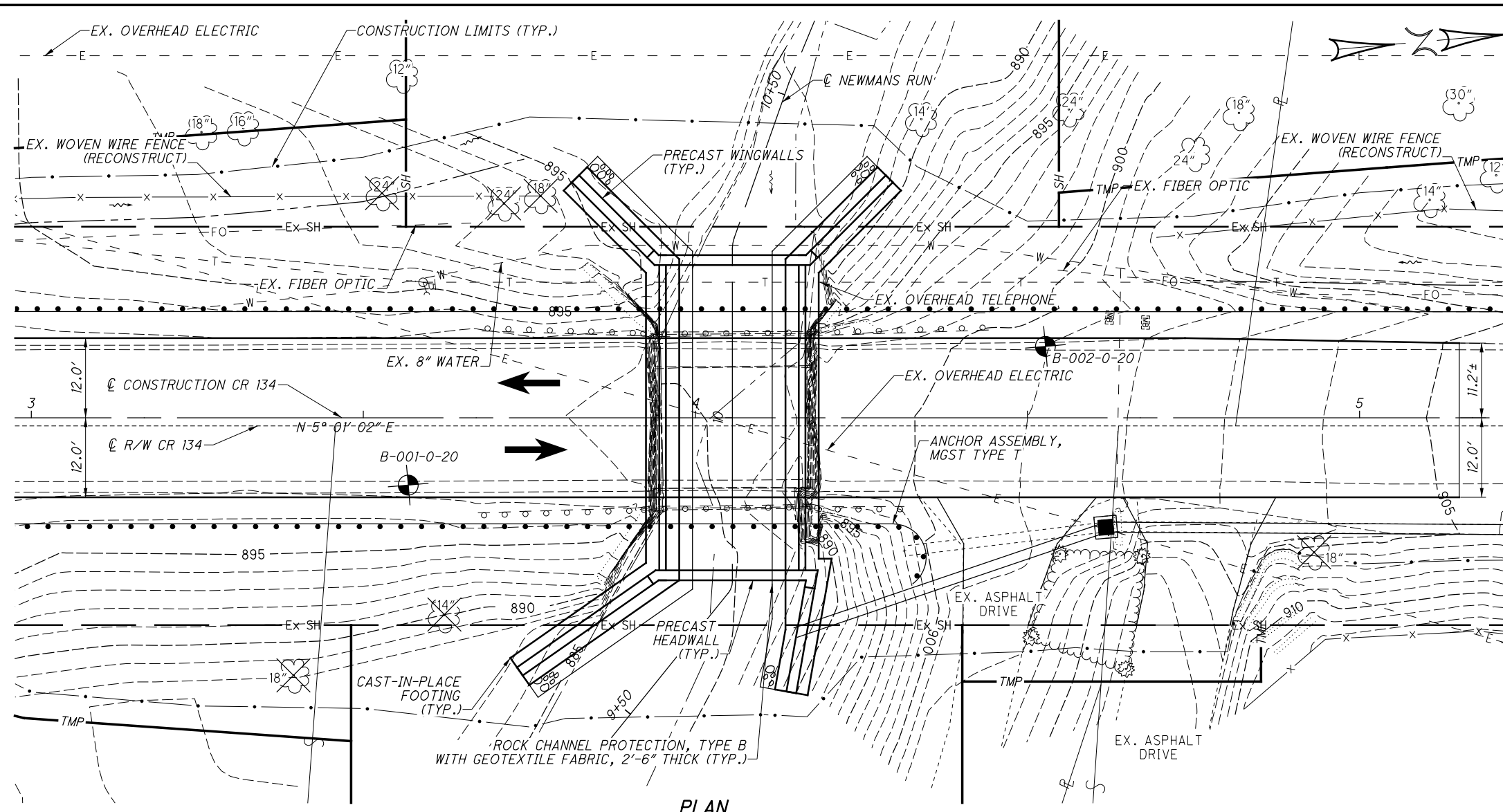
CALCULATED	RSH
CHECKED	JLM



TRAFFIC CONTROL - CR 134
STA. 0+65.00 TO STA. 6+27.59

WAR - CR134 - 3.76

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BENCHMARK DATA	
BM #1 STA. -0+88.65	ELEV. 921.16 , OFFSET 12.42' , LT.
BM #2 STA. 7+42.49	ELEV. 916.77 , OFFSET 11.58' , RT.

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 3/21

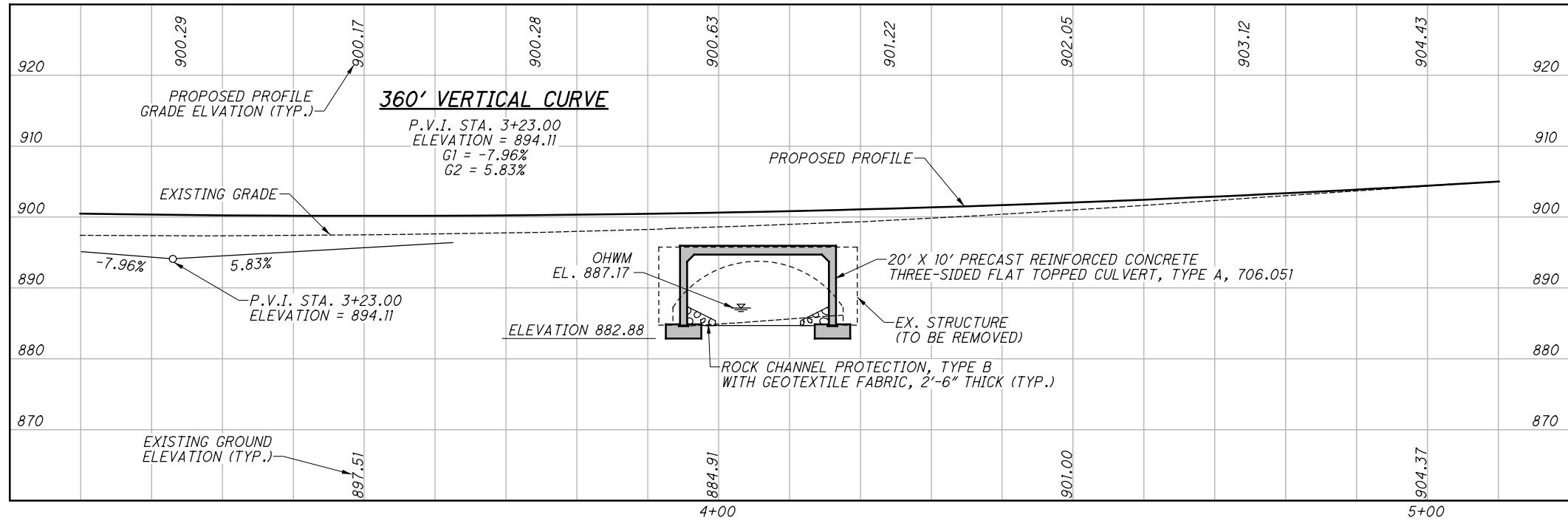
NOTES
 1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

DESIGN TRAFFIC:
 2015 ADT = 2,500

LEGEND
 ◈ BORING LOCATION

EXISTING STRUCTURE	
TYPE:	STONE MASONRY CULVERT
SPANS:	24'-0"
ROADWAY:	22'-0"± F/F RAILING
LOADING:	UNKNOWN
SKEW:	0°00'00"±
WEARING SURFACE:	ASPHALT
APPROACH SLABS:	NONE
ALIGNMENT:	TANGENT
CROWN:	3/16"± PER FOOT
STRUCTURAL FILE NUMBER:	8332991
DATE BUILT:	1920
DISPOSITION:	TO BE REPLACED

PROPOSED STRUCTURE	
TYPE:	PRECAST REINFORCED 3-SIDED FLAT TOP CULVERT WITH PRECAST HEADWALLS
SPANS:	20'-0" SPAN X 10'-0" RISE
ROADWAY:	24'-0"
LOADING:	HL-93 AND 60 PSF FUTURE WEARING SURFACE
SKEW:	0°00'00"
WEARING SURFACE:	ASPHALT CONCRETE
APPROACH SLABS:	NONE
ALIGNMENT:	TANGENT
CROWN:	0.016 FT/FT
STRUCTURAL FILE NUMBER:	8332992
DECK AREA:	N/A
COORDINATES:	LATITUDE 39°32'13.56"N LONGITUDE 84°08'15.33"W



DESIGN AGENCY: LIB Inc. • 2500 Newmark Drive, Mansfield, OH 44842, (937) 295-5100 fax • libinc.com
 DATE: 6/21
 REVIEWED: DWS
 DRAWN: JLM
 DESIGNED: JLM
 CHECKED: NRP
 STRUCTURE FILE NUMBER: 8332992
 WARREN COUNTY STA. 3+94.73 STA. 4+16.40
SITE PLAN
 BRIDGE NO. WAR-CR134-3.76
 C.R. 134 OVER NEWMANS RUN
WAR - CR134-3.76
 1 / 8
 20 / 27

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GENERAL NOTES:

DESIGN SPECIFICATIONS

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

OPERATIONAL IMPORTANCE

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN DATA

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

DESIGN LOADING

HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/FT².

FOUNDATION BEARING RESISTANCE:

WINGWALL FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM SERVICE LOAD PRESSURE OF 4.7 KIPS PER SQUARE FOOT AND A MAXIMUM STRENGTH LOAD PRESSURE OF 6.3 KIPS PER SQUARE FOOT. THE FACTORED BEARING RESISTANCE IS 20 KIPS PER SQUARE FOOT.

ITEM 511 - CONCRETE HEADWALLS/ WINGWALLS, AS PER PLAN

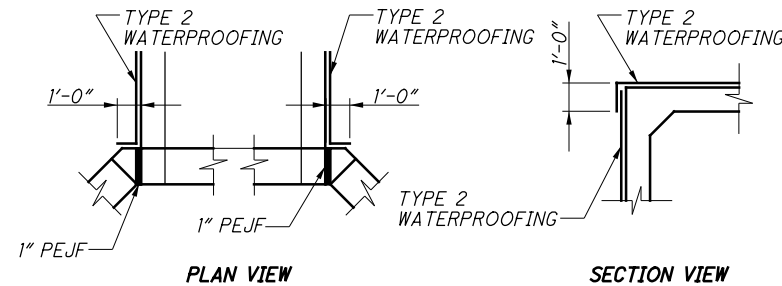
HEADWALLS AND WINGWALLS SHALL BE PRECAST AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH C&MS 511. HEADWALLS AND WINGWALLS SHALL BE DESIGNED PER THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020. DESIGN PARAMETERS SHALL BE PER THE "REPORT OF GEOTECHNICAL EXPLORATION CR 134 NEWMAN RUN (WAR-CR 134-0376) BRIDGE REPLACEMENT" INCLUDED WITH THE BID DOCUMENTS. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM PRICE.

FOOTINGS

FOOTINGS SHALL EXTEND A MINIMUM OF 3 INCHES INTO BEDROCK OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.

WATERPROOFING

TYPE 2 WATERPROOFING, PER CMS 512.08 AND 711.25, SHALL EXTEND VERTICALLY DOWN THE ENTIRE SIDES OF THE PRECAST CULVERT SECTIONS AND BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST 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.



WATERPROOFING DETAILS

ABBREVIATIONS

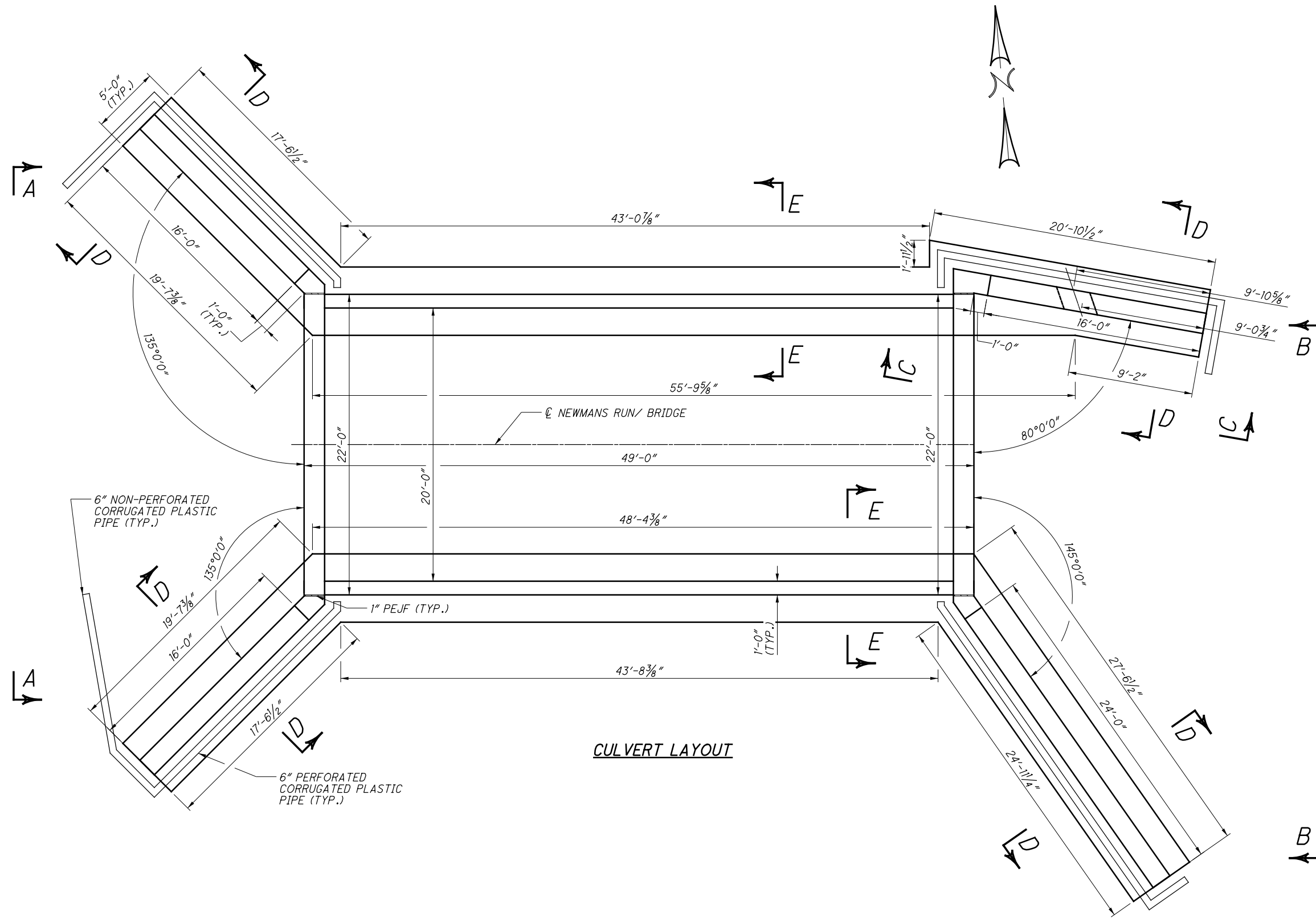
- ABUT. = ABUTMENT
- ADT = AVERAGE DAILY TRAFFIC
- ADTT = AVERAGE DAILY TRUCK TRAFFIC
- A.S. = APPROACH SLAB
- APPR. = APPROACH
- B = BASELINE
- BRG. = BEARING
- C/C = CENTER TO CENTER
- CLR. = CLEAR
- C.J. = CONSTRUCTION JOINT
- C.I.P. = CAST-IN-PLACE
- CL = CENTERLINE
- CLR. = CLEAR
- CMS = CONSTRUCTION AND MATERIAL SPECIFICATIONS
- CONC. = CONCRETE
- CONSTR. = CONSTRUCTION
- DIA. = DIAMETER
- E.F. = EACH FACE
- EL. = ELEVATION
- EQ. = EQUAL
- EX. = EXISTING
- EXP. = EXPANSION
- F.A. = FORWARD ABUTMENT
- F.F. = FAR FACE
- F/F = FACE TO FACE
- FT. = FEET
- FWD. = FORWARD
- HWE = HIGH WATER ELEVATION
- IN. = INCHES
- IN-BET. = IN-BETWEEN
- INCR. = INCREMENT
- JT. = JOINT
- L.F. = LEFT FORWARD
- LT. = LEFT
- MID. = MIDDLE
- MIN. = MINIMUM
- N.F. = NEAR FACE
- NB = NORTHBOUND
- NO. = NUMBER
- NPCCP = NON-PERFORATED CORRUGATED PLASTIC PIPE
- O/O = OUT TO OUT
- OHWM = ORDINARY HIGH WATER MARK
- PCB = PORTABLE CONCRETE BARRIER
- PCPP = PERFORATED CORRUGATED PLASTIC PIPE
- PEJF = PREFORMED EXPANSION JOINT FILLER
- P = PLATE
- PRESS. = PRESSURE
- PROP. = PROPOSED
- PVI = POINT OF VERTICAL INTERSECTION
- R.A. = REAR ABUTMENT
- RAD. = RADIUS
- RD. = ROAD
- REF. = REFERENCE
- REQ'D = REQUIRED
- RT. = RIGHT
- SB = SOUTHBOUND
- SER. = SERIES
- SHLDR. = SHOULDER
- SPA. = SPACES
- SQ. = SQUARE
- STA. = STATION
- STR = STRAIGHT
- SUPER. = SUPERSTRUCTURE
- TEMP. = TEMPORARY
- T&B = TOP AND BOTTOM
- T/T = TOE TO TOE
- TYP. = TYPICAL
- U.N.O. = UNLESS NOTED OTHERWISE
- VAR. = VARIES
- VERT. = VERTICAL
- W/ = WITH
- W.W. = WINGWALL

WAR - CR134-3.76	STRUCTURE GENERAL NOTES	BRIDGE NO. WAR-CR134-0376 C.R. 134 OVER NEWMAN'S RUN	DESIGN AGENCY LIB Inc. • 2500 Newmark Drive Miamingburg, OH 45342 (937) 296-5000 (tel.) • (937) 296-5100 (fax) • libinc.com
2 / 8	21 27	DATE 6/21	REVIEWED DWS
		DRAWN JLM	DESIGNED JLM
		CHECKED NRP	REVISSED
			STRUCTURE FILE NUMBER 8332992

ESTIMATED QUANTITIES						
ITEM	ITEM EXTENSION	TOTAL	UNIT	DESCRIPTION	GENERAL	AS PER PLAN SHEET NUMBER
202	11004	LUMP		STRUCTURE REMOVED	LUMP	
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING	LUMP	
503	21300	LUMP		UNCLASSIFIED EXCAVATION	LUMP	
509	10000	6297	POUND	EPOXY COATED REINFORCING STEEL, GRADE 60	6297	
511	46510	65	CU YD	CLASS QC1 CONCRETE, FOOTING	65	
511	81200	LUMP		CONCRETE HEADWALL/ WINGWALLS, AS PER PLAN	LUMP	2/8
512	33000	245	SQ YD	TYPE 2 WATERPROOFING	245	
512	10100	118	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	118	
516	13600	77	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	77	
518	21200	17	CU YD	POROUS BACKFILL WITH GEOTEXTILE FABRIC	17	
518	40000	76	FOOT	6" PERFORATED CORRUGATED PLASTIC PIPE	76	
518	40012	34	FOOT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	34	
611	70000	49	FOOT	20' X 10' PRECAST REINFORCED CONCRETE THREE-SIDED FLAT TOPPED CULVERT, TYPE A, 706.051	49	

QUANTITIES COMPUTED BY: JLM 6/21
 QUANTITIES CHECKED BY: NRP 6/21

DESIGNED JLM CHECKED NRP	DRAWN JLM REVISED	REVIEWED DWS	DATE 6/21	 DESIGN AGENCY JLB Inc. • 2500 Newmark Drive Marietta, OH 45754 1937 254-0000 (tel) • 1937 254-5100 (fax) • JLBinc.com
		STRUCTURE FILE NUMBER 8332992		
ESTIMATED QUANTITIES BRIDGE NO. WAR-CR134-0376 C.R. 134 OVER NEWMANS RUN				WAR - CR134 - 3.76
3 / 8				



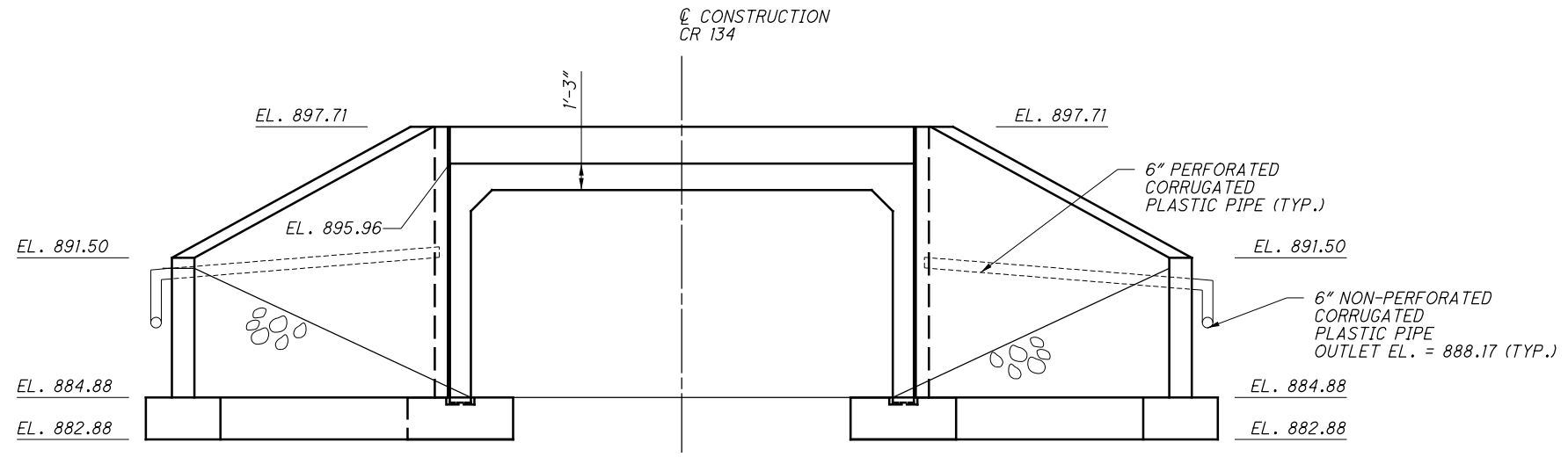
CULVERT LAYOUT

NOTES:

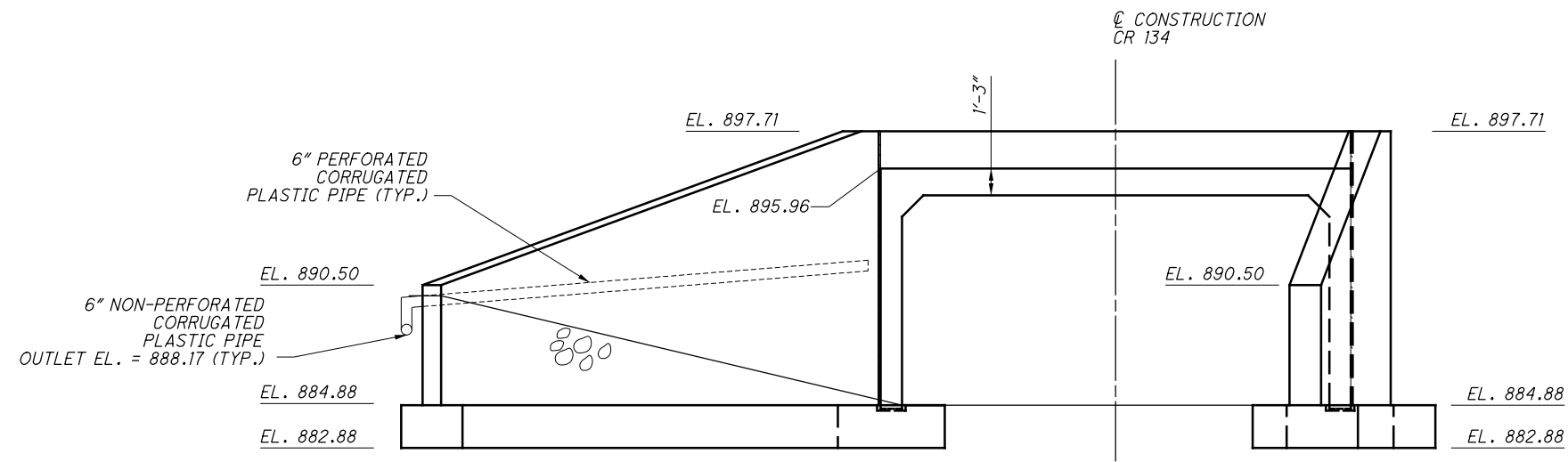
1. FOR ELEVATIONS A-A AND B-B, SEE SHEET 5 / 8.
2. FOR ELEVATION C-C AND SECTIONS D-D AND E-E, SEE SHEET 6 / 8.
3. FOR FOOTING PLAN, SEE SHEET 7 / 8.
4. WINGWALL FOOTINGS AT CONNECTION TO PRECAST WINGWALLS SHALL BE ADJUSTED AS NEEDED BASED ON THE DESIGN (BY OTHERS) AND THE TYPE OF PRECAST WINGWALL SYSTEM USED.

WAR - CR134 - 3.76	CULVERT DETAILS BRIDGE NO. WAR-CR134-0376 C.R. 134 OVER NEWMANS RUN	DESIGN AGENCY JLB JLB Inc. • 2500 Newmark Drive Miamisburg, OH 45342 1937 295-0000 (tel) • (937) 295-5100 (fax) • jlb@jlb.com																				
4 / 8	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">DESIGNED</td> <td style="width: 25%;">DATE</td> <td style="width: 25%;">REVIEWED</td> <td style="width: 25%;">DATE</td> </tr> <tr> <td style="text-align: center;">JLM</td> <td style="text-align: center;">6/21</td> <td style="text-align: center;">DWS</td> <td style="text-align: center;">6/21</td> </tr> <tr> <td style="text-align: center;">CHECKED</td> <td colspan="3">STRUCTURE FILE NUMBER</td> </tr> <tr> <td style="text-align: center;">NRP</td> <td colspan="3" style="text-align: center;">8332992</td> </tr> </table>	DESIGNED	DATE	REVIEWED	DATE	JLM	6/21	DWS	6/21	CHECKED	STRUCTURE FILE NUMBER			NRP	8332992			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">DRAWN</td> <td style="width: 50%; text-align: center;">REVIS</td> </tr> <tr> <td style="text-align: center;">JLM</td> <td style="text-align: center;">REVISED</td> </tr> </table>	DRAWN	REVIS	JLM	REVISED
DESIGNED	DATE	REVIEWED	DATE																			
JLM	6/21	DWS	6/21																			
CHECKED	STRUCTURE FILE NUMBER																					
NRP	8332992																					
DRAWN	REVIS																					
JLM	REVISED																					
23	27																					

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ELEVATION A-A (INLET)



ELEVATION B-B (OUTLET)

DESIGN AGENCY
 LUB Inc. • 2500 Newmark Drive
 Marietta, OH 45754
 1937 254-0000 (tel) • 1937 254-5100 (fax) • lubinc.com



REVIEWED DATE
 DWS 6/21
 STRUCTURE FILE NUMBER
 8332992

DRAWN
 JLM
 REVISED

DESIGNED
 JLM
 CHECKED
 NRP

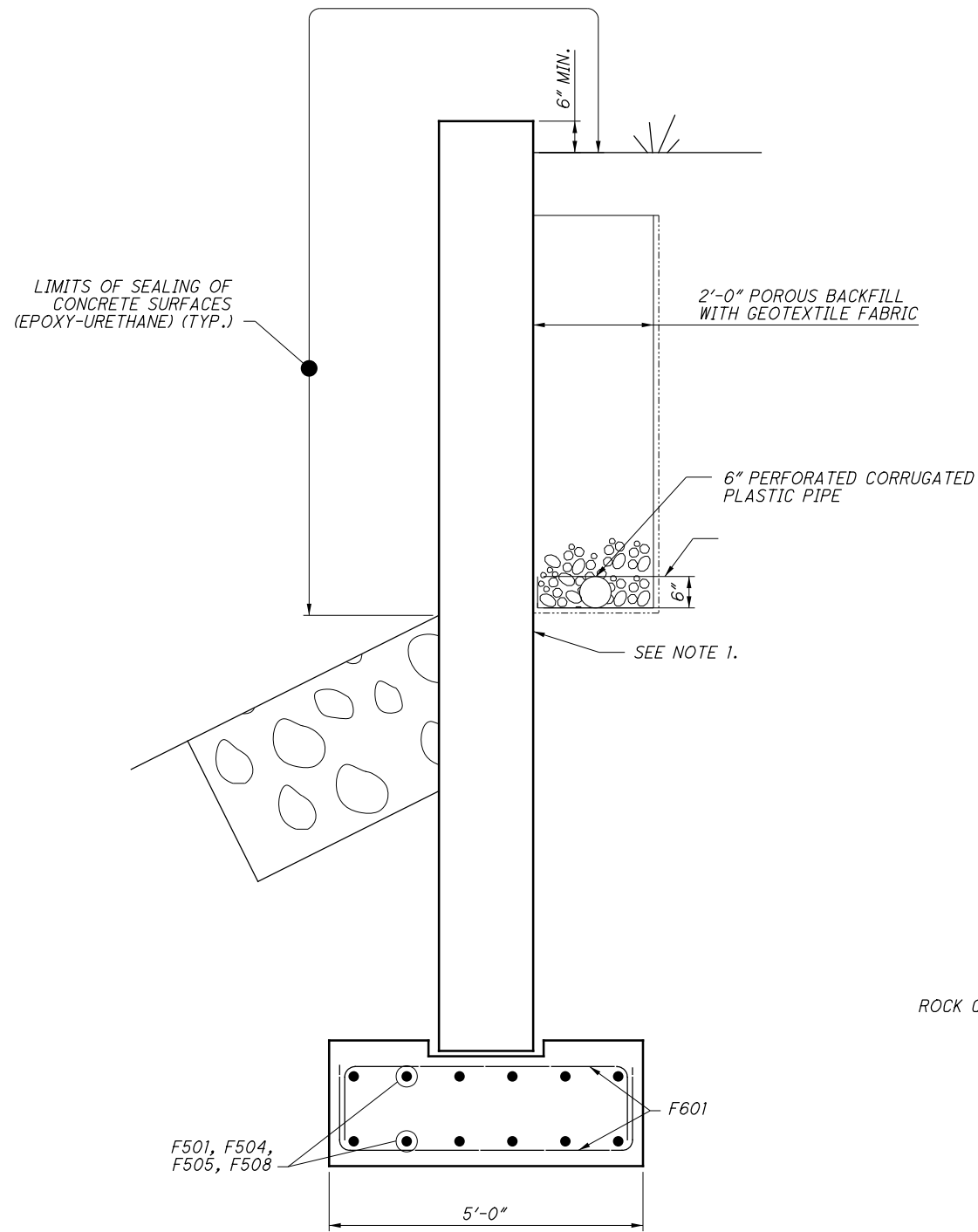
CULVERT DETAILS
 BRIDGE NO. WAR-CR134-0376
 C.R. 134 OVER NEWMANS RUN

WAR - CR134 - 3.76

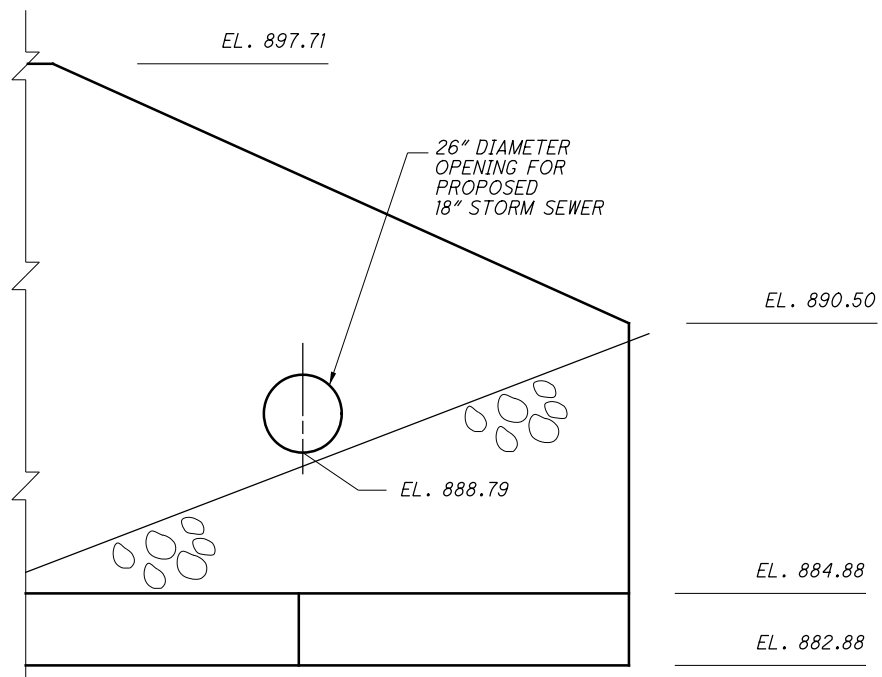
5 / 8

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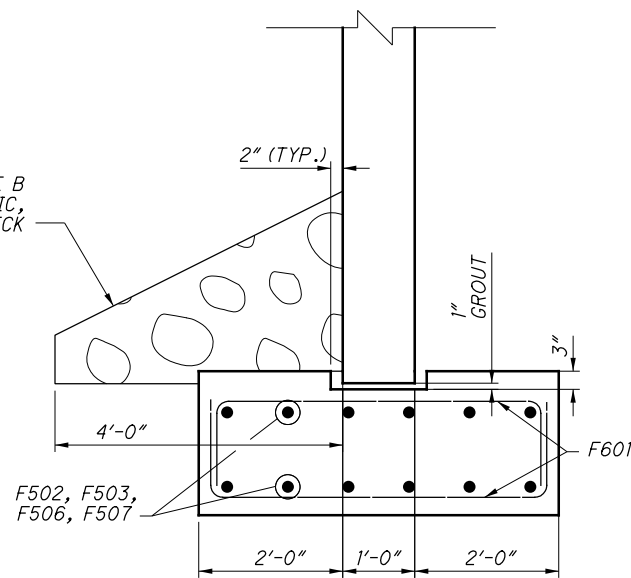


SECTION D-D



ELEVATION C-C

ROCK CHANNEL PROTECTION, TYPE B
WITH GEOTEXTILE FABRIC,
2'-6" THICK

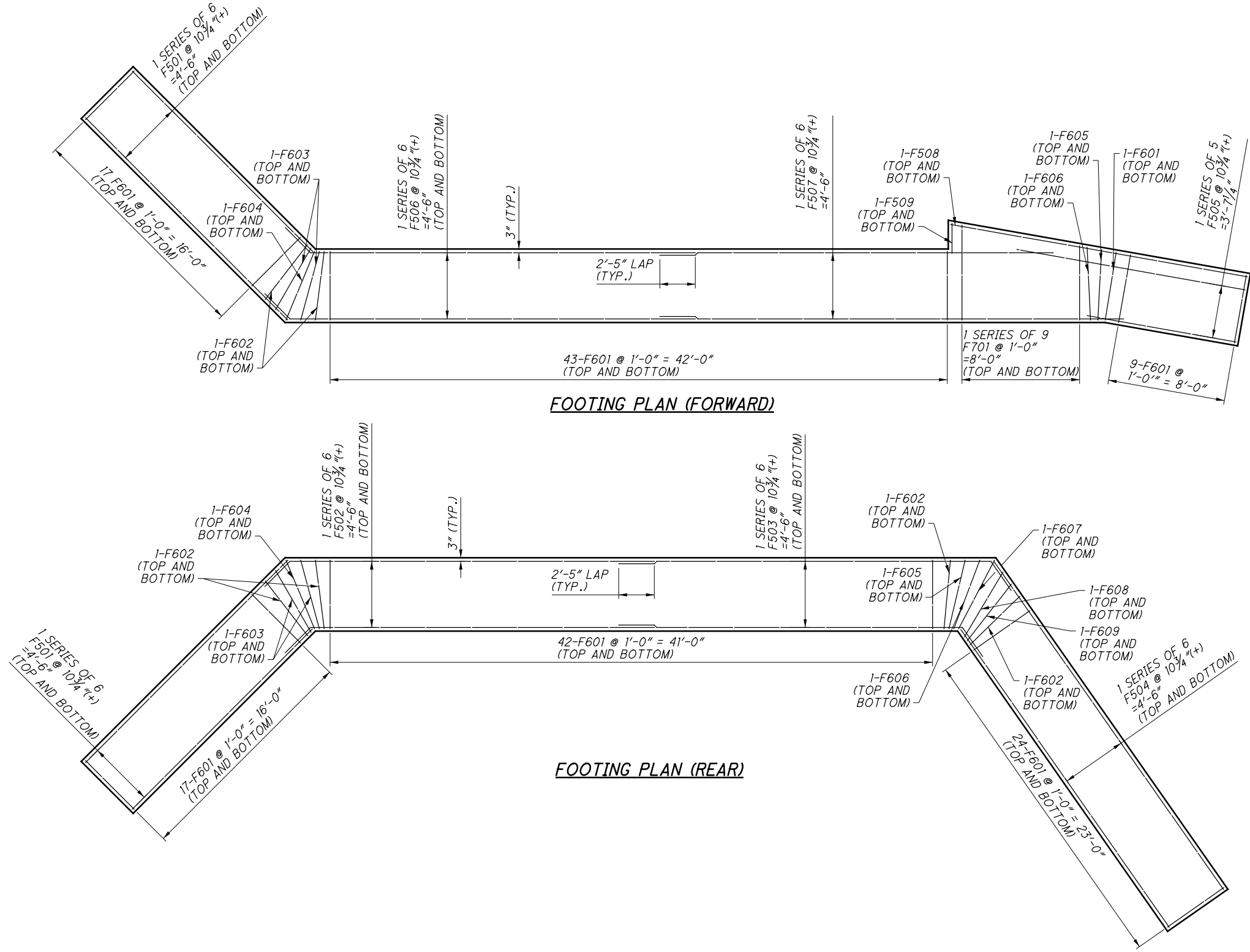


SECTION E-E

NOTES:

1. SEE SHEET 2 / 8 FOR ADDITIONAL NOTES FOR THE DESIGN AND CONSTRUCTION OF THE PRECAST WINGWALLS.
2. GROUT OPENING IN WINGWALL AROUND PROPOSED STORM SEWER IN ACCORDANCE WITH C&MS 611.10 B. COSTS SHALL BE INCIDENTAL TO ITEM 611 18" CONDUIT TYPE D.
3. FOR REINFORCING LIST, SEE SHEET 8 / 8.
4. THE EDGE FACES OF THE CULVERT, 1 FT INSIDE OF THE CULVERT, AND ALL EXPOSED SURFACES OF THE HEADWALL SHALL BE SEALED WITH EPOXY-URETHANE IN ADDITION TO THE SEALING LIMITS SHOWN ON THIS SHEET.
5. WINGWALL FOOTINGS AT CONNECTION TO PRECAST WINGWALLS SHALL BE ADJUSTED AS NEEDED BASED ON THE DESIGN (BY OTHERS) AND THE TYPE OF PRECAST WINGWALL SYSTEM USED.

DESIGN AGENCY LJB Inc. • 2500 Newmark Drive Miamisburg, OH 45342 1937 254-0000 (tel.) • (937) 254-5100 (fax) • LJBinc.com		DATE 6/21	REVIEWED DWS	DESIGNED JLM	DRAWN JLM	FILE NUMBER STRUCTURE
			8332992	NRP	REVISED	8332992
CULVERT DETAILS						
BRIDGE NO. WAR-CR134-0376 C.R. 134 OVER NEWMANS RUN						
WAR - CR134-3.76						
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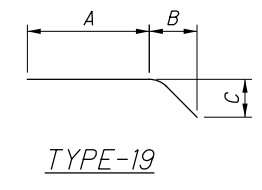
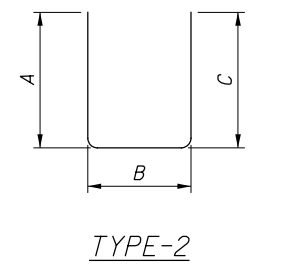
NOTES:
 1. FOR REINFORCING LIST, SEE SHEET 8 / 8.

WAR - CR134 - 3.76 BRIDGE NO. WAR - CR134 - 0376 C.R. 134 OVER NEWMANS RUN	DESIGNED JLM	DRAWN JLM	REVIEWED DWS	DATE 6/21	DESIGN AGENCY LUB Inc. • 2500 Newmark Drive Marietta, OH 45754 1937 256-0000 (tel) • (937) 256-5100 (fax) • LubInc.com
	CHECKED NRP	REVISED	STRUCTURE FILE NUMBER 8332992	FILE NUMBER 8332992	

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MARK	NUMBER		TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS					
	REAR	FORWARD					A	B	C	D	E	R
FOOTINGS												
	4			17'-4"								
F501	SERIES OF		24	TO	460	STR						5"
	6			19'-5"								
	2			25'-8"			23'-3"					
F502	SERIES OF		12	TO	332	19	TO	1'-8 1/2"	1'-8 1/2"			4 3/16"
	6			27'-5"			25'-0"					
	2			25'-8"			23'-3"					
F503	SERIES OF		12	TO	335	19	TO	1'-4 1/2"	2'-0"			5 3/8"
	6			27'-11"			25'-6"					
	2			24'-9"								
F504	SERIES OF		12	TO	325	STR						6"
	6			27'-3"								
	2			10'-3"								
F505	SERIES OF		10	TO	136	STR						1'-4 1/2"
	5			15'-9"								
	2			28'-5"			26'-0"					
F506	SERIES OF		12	TO	367	19	TO	1'-8 1/2"	1'-8 1/2"			4 3/8"
	6			30'-3"			27'-10"					
	2			26'-9"								
F507	SERIES OF		12	TO	365	STR						11 3/8"
	6			31'-6"								
F508	2	2		20'-6"	43	STR						
F509	2	2		2'-0"	4	STR						
F601	166	140	306	7'-0"	3217	2	1'-4"	4'-8"	1'-4"			
F602	8	4	12	7'-1"	128	2	1'-4"	4'-8 1/2"	1'-4"			
F603	4	4	8	7'-2"	86	2	1'-4"	4'-10"	1'-4"			
F604	2	2	4	7'-5"	45	2	1'-4"	5'-0 1/2"	1'-4"			
F605	2	2	4	7'-2"	43	2	1'-4"	4'-9 1/2"	1'-4"			
F606	2	2	4	7'-4"	44	2	1'-4"	4'-11 1/2"	1'-4"			
F607	2		2	7'-7"	23	2	1'-4"	5'-3"	1'-4"			
F608	2		2	7'-6"	23	2	1'-4"	5'-1 1/2"	1'-4"			
F609	2		2	7'-3"	22	2	1'-4"	4'-10 1/2"	1'-4"			
	2			7'-5"				5'-0 1/2"				
F701	SERIES OF		18	TO	299	2	1'-4"	TO	1'-4"			2 1/8"
	9			8'-10"				6'-5 1/2"				
				TOTAL	6297							
				TOTAL	6,297							

BENDING DIAGRAMS



- NOTES:**
1. ALL REINFORCING STEEL BARS SHALL BE EPOXY COATED.
 2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
 3. RADIUS DIMENSION "R" IS TO THE OUTSIDE OF THE BAR.
 4. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER.
 5. ALL REINFORCING CLEARANCES ARE 2" UNLESS OTHERWISE NOTED IN THE PLANS.

REINFORCING LIST

BRIDGE NO. WAR-CR 134-0376
OVER NEWMANS RUN

WAR - CR134 - 3.76

DESIGNED: JLM
CHECKED: NRP

DRAWN: JLM
REVISED:

REVIEWED: DWS
DATE: 6/21

STRUCTURE FILE NUMBER: 8332992

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