

SHEET NUMBER								PARTICIPATION						ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	CALCULATED LRK	CHECKED PJF
1083	1092	1093		1102	1110	1112		1126	01/IMS/PV	02/IMS/PV	03/IMS/BR	04/IMS/BR	05/IMS/BR								
																		LIGHTING			
																		FOR LIGHTING GENERAL SUMMARY	1040		
																		TRAFFIC SURVEILLANCE			
																		FOR TRAFFIC SURVEILLANCE GENERAL SUMMARY	1021		
																		TRAFFIC CONTROL			
																		FOR TRAFFIC CONTROL GENERAL SUMMARY	936-937		
																		RETAINING WALLS			
																		FOR RETAINING WALL 1 GENERAL SUMMARY	1136		
																		FOR RETAINING WALL 2 GENERAL SUMMARY	1147		
																		NOISE BARRIERS			
64584		43600		48504	42715	76855		41282		317540								SPECIAL NOISE BARRIER (REFLECTIVE)	60610210 317540	SF	1080
	5376									5376								SPECIAL NOISE BARRIER (REFLECTIVE), INFINITY WALL	60610920 5376	SF	1080
																		STRUCTURE 20 FOOT SPAN AND UNDER			
																		FOR 10' X 5' CONCRETE BOX CULVERT GENERAL SUMMARY	911		
																		STRUCTURE OVER 20 FOOT SPAN			
																		FOR SUM-077-0802L/R GENERAL SUMMARY	1158		
																		FOR SUM-077-0810L/R GENERAL SUMMARY	1184		
																		FOR SUM-077-0927R GENERAL SUMMARY	1228		
																		MAINTENANCE OF TRAFFIC			
																		FOR MAINTENANCE OF TRAFFIC GENERAL SUMMARY	85-86		
																		REVISIONS			
																		NO. DATE DESCRIPTION			
																		△ 03/15/21 FIELD OFFICE MONTHS REVISED			
																		INCIDENTALS			
									LS	LS								108 10000 LS CPM PROGRESS SCHEDULE			
									LS	LS								614 11000 LS MAINTAINING TRAFFIC			
									32	4								619 16021 36 MNTH FIELD OFFICE, TYPE C, AS PER PLAN	67		
									LS	LS								623 10000 LS CONSTRUCTION LAYOUT STAKES AND SURVEYING			
									LS	LS								624 10000 LS MOBILIZATION			

GENERAL SUMMARY

SUM-77 / 277 / 224
VARIOUS

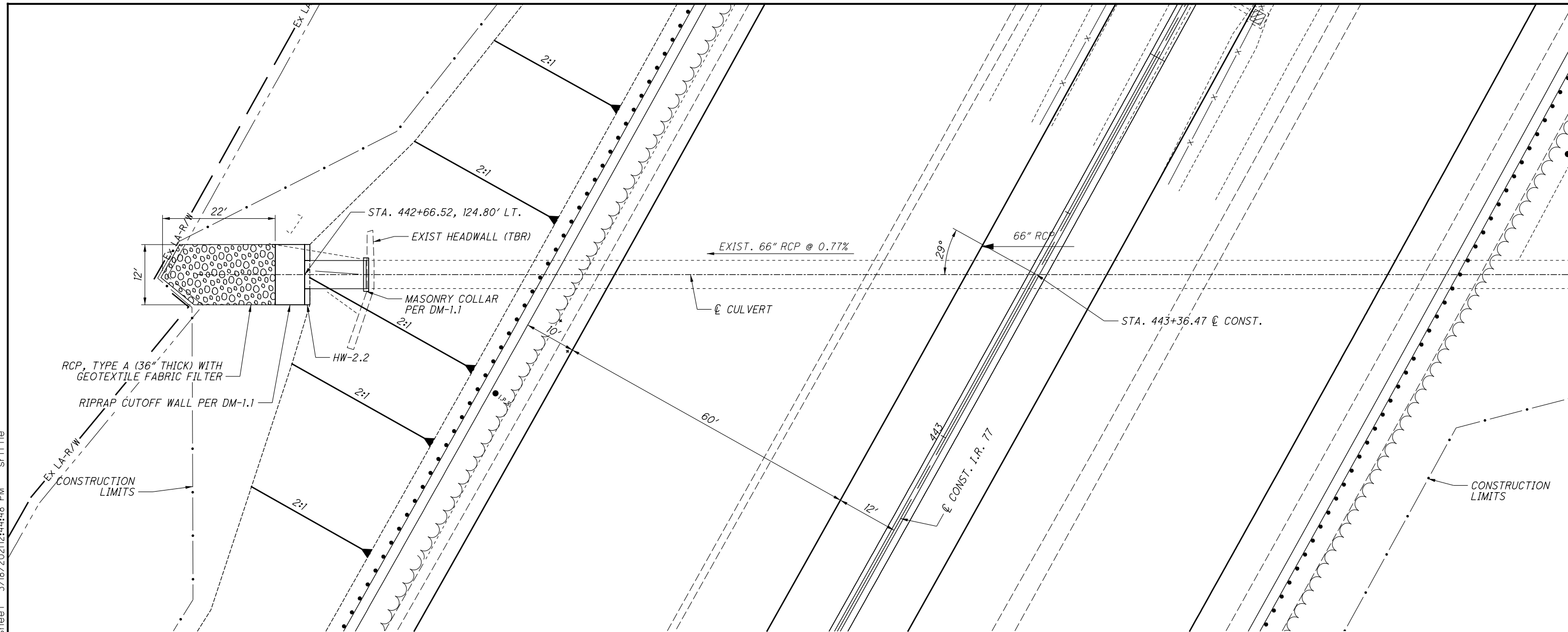
406
1288

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CALCULATED
SSR
CHECKED
DLT

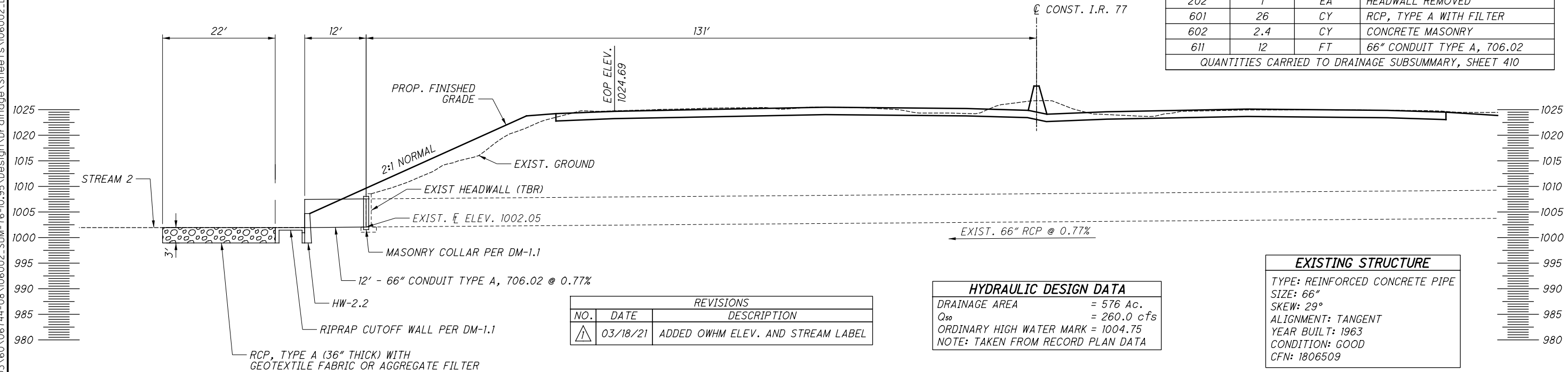
0 5 10 20
HORIZONTAL
SCALE IN FEET



CULVERT DETAIL
177 STA. 443+36

NOTES:
1. NO WORK IS PROPOSED FOR THE INLET SIDE OF THE EXISTING CULVERT.

ESTIMATED QUANTITIES			
ITEM	QUAN	UNIT	DESCRIPTION
202	1	EA	HEADWALL REMOVED
601	26	CY	RCP, TYPE A WITH FILTER
602	2.4	CY	CONCRETE MASONRY
611	12	FT	66" CONDUIT TYPE A, 706.02
QUANTITIES CARRIED TO DRAINAGE SUBSUMMARY, SHEET 410			

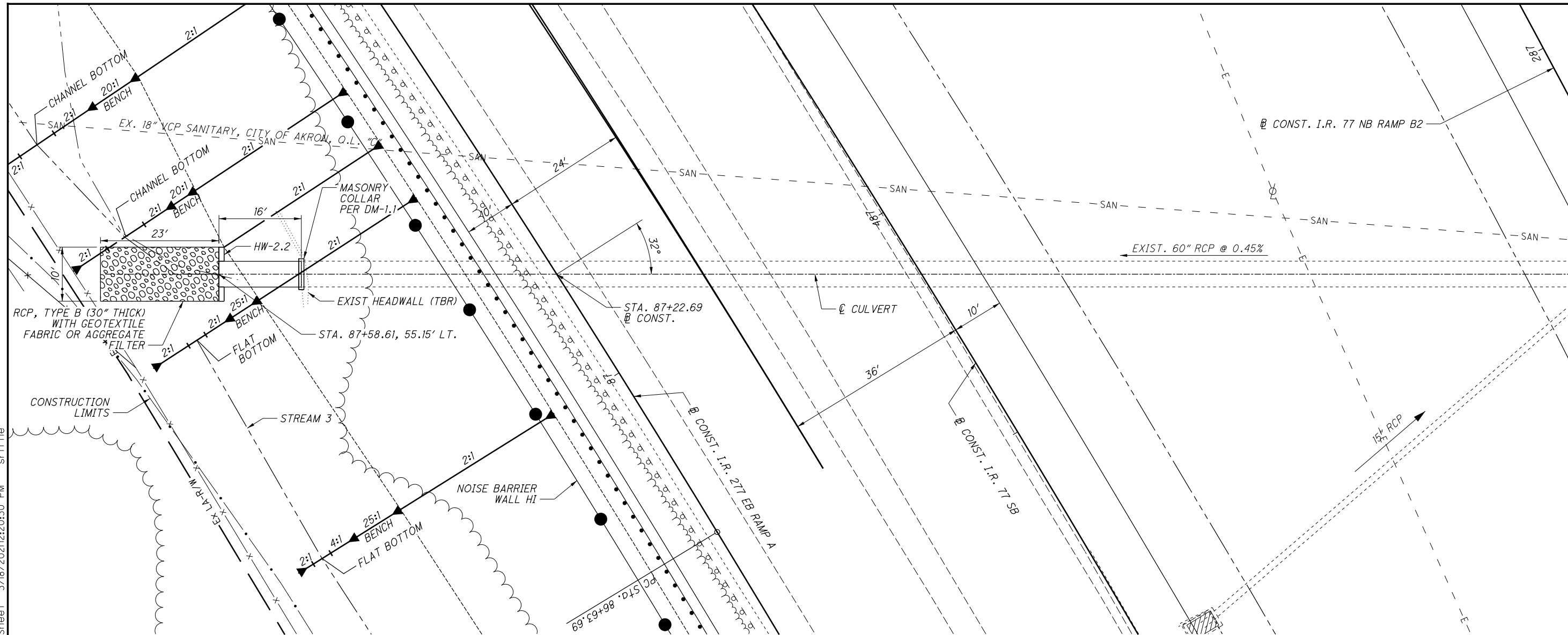


REVISIONS		
NO.	DATE	DESCRIPTION
1	03/18/21	ADDED OWHM ELEV. AND STREAM LABEL

HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 576 Ac.
Q ₅₀	= 260.0 cfs
ORDINARY HIGH WATER MARK	= 1004.75
NOTE: TAKEN FROM RECORD PLAN DATA	

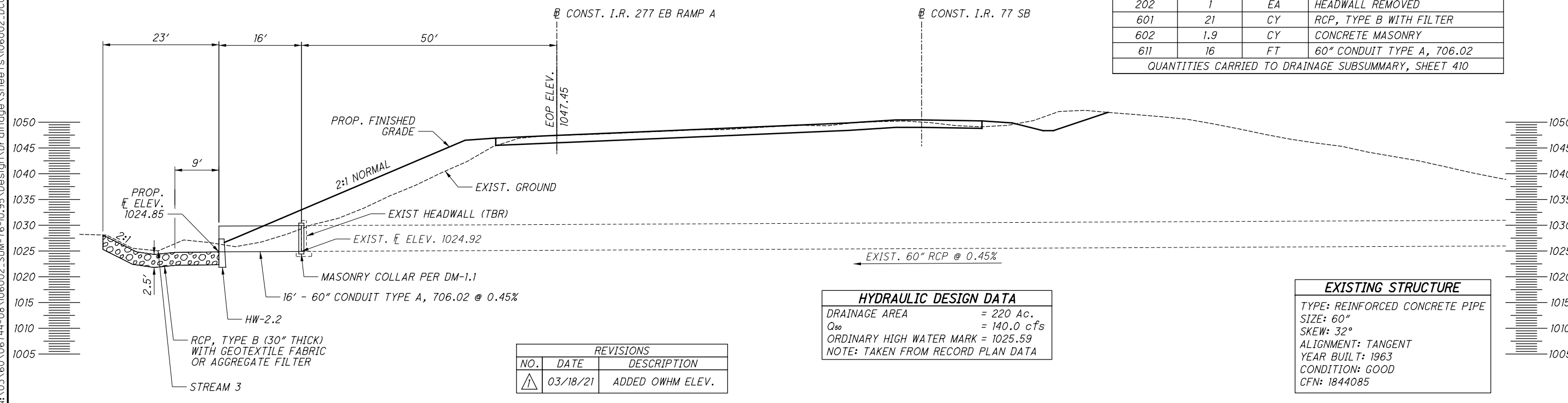
EXISTING STRUCTURE	
TYPE:	REINFORCED CONCRETE PIPE
SIZE:	66"
SKEW:	29°
ALIGNMENT:	TANGENT
YEAR BUILT:	1963
CONDITION:	GOOD
CFN:	1806509

SUM-77 / 277 / 224
VARIOUS



NOTES:
1. NO WORK IS PROPOSED FOR THE INLET SIDE OF THE EXISTING CULVERT.

ESTIMATED QUANTITIES			
ITEM	QUAN	UNIT	DESCRIPTION
202	1	EA	HEADWALL REMOVED
601	21	CY	RCP, TYPE B WITH FILTER
602	1.9	CY	CONCRETE MASONRY
611	16	FT	60" CONDUIT TYPE A, 706.02
QUANTITIES CARRIED TO DRAINAGE SUBSUMMARY, SHEET 410			



HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 220 Ac.
Q_{50}	= 140.0 cfs
ORDINARY HIGH WATER MARK	= 1025.59
NOTE: TAKEN FROM RECORD PLAN DATA	

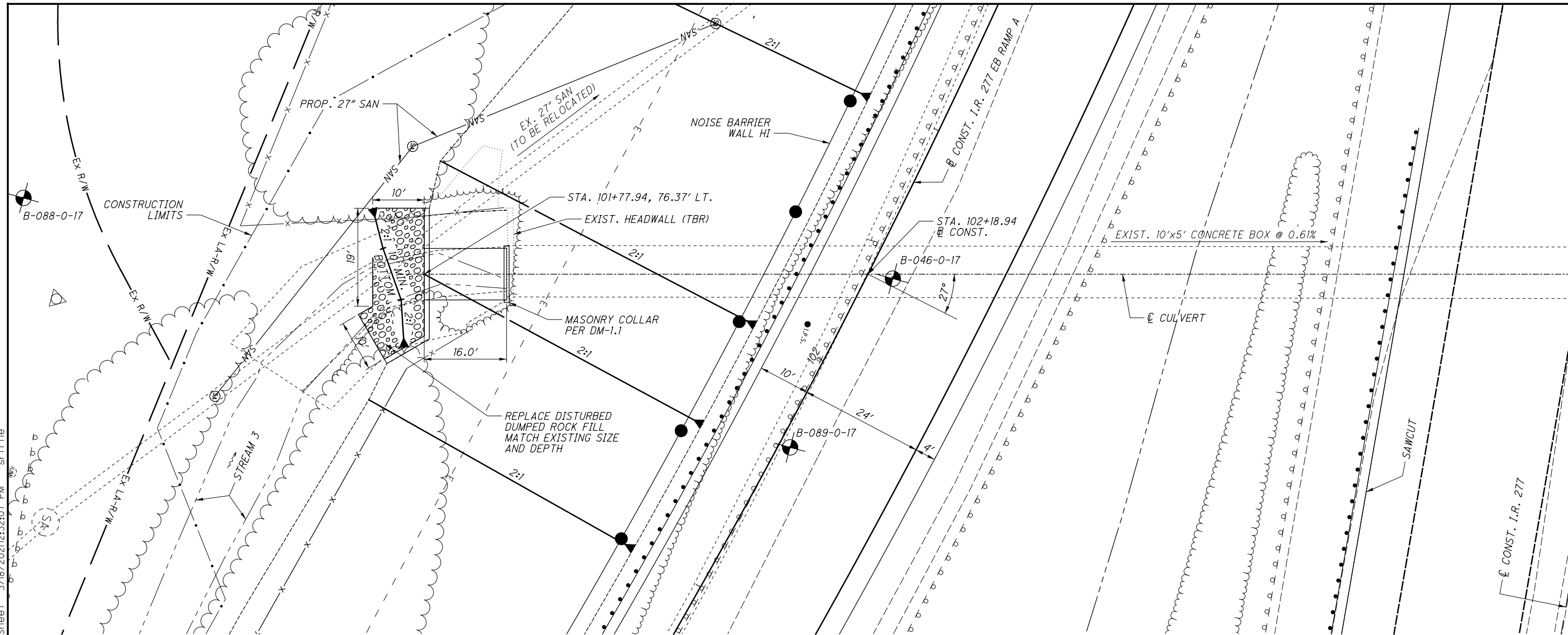
EXISTING STRUCTURE	
TYPE: REINFORCED CONCRETE PIPE	
SIZE: 60"	
SKEW: 32°	
ALIGNMENT: TANGENT	
YEAR BUILT: 1963	
CONDITION: GOOD	
CFN: 1844085	

REVISIONS		
NO.	DATE	DESCRIPTION
1	03/18/21	ADDED OWHM ELEV.

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0 5 10 15 20
 HORIZONTAL SCALE IN FEET
 CALCULATED SSR CHECKED DLT



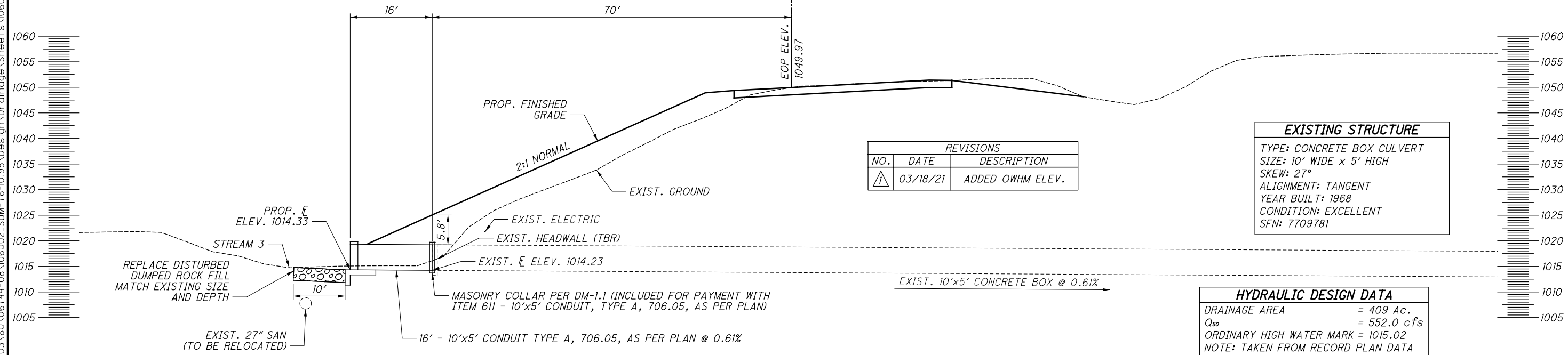
**CULVERT DETAIL
 RAMP A STA. 102+19**

**SUM-77 / 277 / 224
 VARIOUS**

910
 1288

- NOTES:
- NO WORK IS PROPOSED FOR THE OUTLET SIDE OF THE EXISTING CULVERT.
 - THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH ITEM 611 EXCEPT THAT THE NEW CULVERT SHALL BE CAST-IN-PLACE. PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR ITEM 611 - 10'x5' CONDUIT TYPE A, 706.05, AS PER PLAN.

SEE SHEET 911 FOR ESTIMATED QUANTITIES
 SEE SHEETS 911 - 915 FOR HEADWALL DETAILS



REVISIONS		
NO.	DATE	DESCRIPTION
1	03/18/21	ADDED OWHM ELEV.

EXISTING STRUCTURE	
TYPE:	CONCRETE BOX CULVERT
SIZE:	10' WIDE x 5' HIGH
SKEW:	27°
ALIGNMENT:	TANGENT
YEAR BUILT:	1968
CONDITION:	EXCELLENT
SFN:	7709781

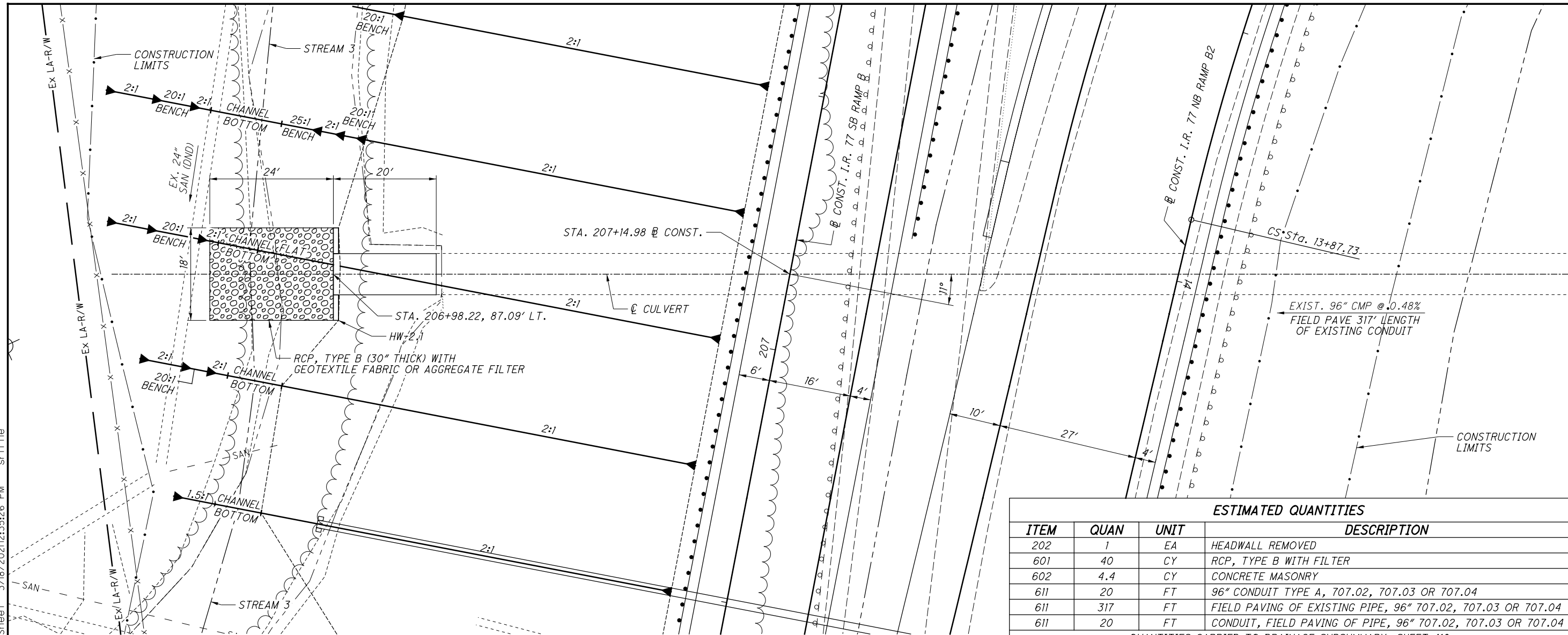
HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 409 Ac.
Q ₅₀	= 552.0 cfs
ORDINARY HIGH WATER MARK	= 1015.02
NOTE: TAKEN FROM RECORD PLAN DATA	

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CALCULATED
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0 5 10 20
HORIZONTAL
SCALE IN FEET

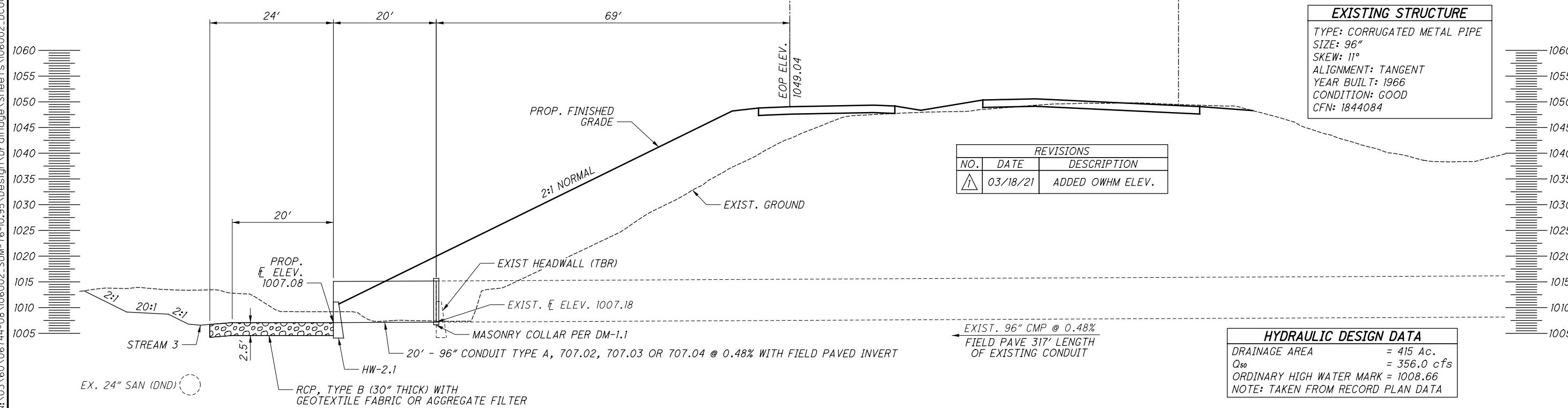


ESTIMATED QUANTITIES			
ITEM	QUAN	UNIT	DESCRIPTION
202	1	EA	HEADWALL REMOVED
601	40	CY	RCP, TYPE B WITH FILTER
602	4.4	CY	CONCRETE MASONRY
611	20	FT	96" CONDUIT TYPE A, 707.02, 707.03 OR 707.04
611	317	FT	FIELD PAVING OF EXISTING PIPE, 96" 707.02, 707.03 OR 707.04
611	20	FT	CONDUIT, FIELD PAVING OF PIPE, 96" 707.02, 707.03 OR 707.04

QUANTITIES CARRIED TO DRAINAGE SUBSUMMARY, SHEET 410

CULVERT DETAIL
RAMP B STA. 207+15

NOTES:
1. NO WORK IS PROPOSED FOR THE INLET SIDE OF THE EXISTING CULVERT.



EXISTING STRUCTURE
 TYPE: CORRUGATED METAL PIPE
 SIZE: 96"
 SKEW: 11°
 ALIGNMENT: TANGENT
 YEAR BUILT: 1966
 CONDITION: GOOD
 CFN: 1844084

REVISIONS		
NO.	DATE	DESCRIPTION
1	03/18/21	ADDED OWHM ELEV.

HYDRAULIC DESIGN DATA
 DRAINAGE AREA = 415 Ac.
 Q_{50} = 356.0 cfs
 ORDINARY HIGH WATER MARK = 1008.66
 NOTE: TAKEN FROM RECORD PLAN DATA

SUM-77 / 277 / 224
VARIOUS

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1288

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ITEM 606 - SPECIAL - NOISE WALL BARRIER (REFLECTIVE)

NOISE WALL CONSTRUCTION SHALL ADHERE TO ODOT STANDARD DRAWING NBS-1-09. UNLESS OTHERWISE NOTED HEREIN, ALL GENERAL NOTES LISTED IN THE STANDARD SHALL APPLY FOR THE DESIGN SPECIFICATIONS, DESIGN LOADS, MATERIALS, ETC. FOR THESE WALLS. THOSE ITEMS THAT DEVIATE FROM THE NOTES LISTED IN THE STANDARD ARE DESCRIBED BELOW.

MATERIAL SPECIFICATIONS:

FOAM BACKER ROD:
THE BACKER ROD SHALL BE AN EXPANDED, CLOSED CELL POLYETHYLENE FOAM. THE BACKER ROD DIAMETER SHALL BE 1-1/4" φ. OTHER BACKUP MATERIALS (PAPER, ROPE AND OPEN CELL FOAM) ARE NOT ACCEPTABLE. FURNISH FOAM BACKER ROD MEETING ASTM D5249 TYPE 1 OR TYPE 3.

SHOP DRAWINGS:

PROVIDE SHOP DRAWINGS FOR ALL NOISE WALL COMPONENTS THAT REQUIRE SHOP FABRICATION. INCLUDE THE FABRICATION SCHEDULE FOR ALL NOISE BARRIER WALL COMPONENTS IN THE PROJECT PROGRESS SCHEDULE AS REQUIRED BY C&MS 108.02.

THE SHOP DRAWINGS SHALL BE SIGNED, SEALED AND DATED BY AN OHIO REGISTERED ENGINEER. ALL MODIFICATIONS TO THE STRUCTURAL DESIGN OF THE PANELS, POSTS, BASE PLATES OR ANCHORAGES PROVIDED BY THIS STANDARD DRAWING SHALL BE CLEARLY NOTED ON THE SHOP DRAWINGS AND BE ACCOMPANIED WITH SUPPORTING CALCULATIONS STAMPED BY TWO OHIO REGISTERED ENGINEERS. DEPARTMENT ACCEPTANCE OF THE SHOP DRAWINGS AND SUPPORTING CALCULATIONS DOES NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS AND OMISSIONS FOUND AFTER ACCEPTANCE OF THE SUBMITTAL.

THE CONTRACTOR SHALL PROVIDE AN ELECTRONIC COPY OF A WRITTEN ACCEPTANCE LETTER THAT DOCUMENTS ACCEPTANCE OF THE SHOP DRAWINGS INCLUDING CONFIRMATION OF FIELD VERIFICATION, AS REQUIRED, AND DESCRIPTIONS OF ISSUES RESOLVED BETWEEN THE CONTRACTOR, THE FABRICATOR AND THE DEPARTMENT. BY ACCEPTING THESE DRAWINGS, THE CONTRACTOR REPRESENTS TO THE DEPARTMENT THAT ALL DIMENSIONS AND ELEVATIONS OF CONDITIONS SHOWN ON THE PLANS HAVE BEEN FIELD MEASURED AND VERIFIED, AND THAT THESE SHOP DRAWINGS COMPLY WITH ALL THE MATERIALS REQUIREMENTS, CONSTRUCTION REQUIREMENTS AND CONTRACT REQUIREMENTS. THE CONTRACTOR FURTHER REPRESENTS THAT THESE DRAWINGS HAVE BEEN COORDINATED AND VERIFIED WITH THE DETAILS OF THE WORK TO BE PERFORMED BY OTHER FABRICATORS AND ENTITIES ON THE PROJECT. DELAYS TO THE CONTRACTOR FOR INCORRECT FABRICATION AS A RESULT OF FAILURE TO COORDINATE OR PERFORM THIS ACCEPTANCE ARE NON-EXCUSABLE ACCORDING TO C&MS 108.06.E.

ALL ELECTRONIC DOCUMENTS SHALL BE IN PORTABLE DOCUMENT FORMAT (PDF). SHOP DRAWINGS SHALL BE SUBMITTED IN 11" X 17" SHEET SIZE AND ACCEPTANCE LETTERS SHALL BE SUBMITTED IN 8 1/2" X 11" SHEET SIZE.

CONCRETE NOISE BARRIER PANELS AND POSTS:

EVERY PRODUCER OF PRECAST CONCRETE NOISE BARRIER COMPONENTS SUPPLIED TO THE PROJECT SHALL BE CERTIFIED IN ACCORDANCE WITH SUPPLEMENT 1073. THE DEPARTMENT WILL NOT ACCEPT PRECAST COMPONENTS FROM NON-CERTIFIED PLANTS. THE CONCRETE SUPPLIED FOR CONCRETE POSTS AND PANELS SHALL MEET THE REQUIREMENTS SPECIFIED ABOVE UNDER SECTION 6, MATERIAL SPECIFICATIONS.

NOISE BARRIERS REQUIRE A REINFORCED INTEGRAL CAP (COPING) ON THE TOP OF THE TOP PANELS AND INTEGRAL REINFORCED CONCRETE CAP ON TOP OF THE POSTS.

REMOVE LEACHING OR EFFLORESCENCE THAT OCCURS PRIOR TO FINAL ACCEPTANCE OF THE ENTIRE PROJECT AND RESEAL THE AREA AT NO EXPENSE TO THE DEPARTMENT. THIS SHALL ALSO APPLY IN AREAS WHERE A PARTIAL ACCEPTANCE OF THE COMPLETED WALLS MAY HAVE BEEN GRANTED.

THE FOLLOWING REQUIREMENTS FOR THE CONCRETE MIX DESIGN FOR POSTS AND FINIALS IS REQUIRED:

- a. IN ADDITION TO THE SECTION 6. MATERIAL SPECIFICATIONS, CONCRETE, OF THE GENERAL NOTES FOR ITEM SPECIAL - NOISE BARRIERS, FROM THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF STRUCTURAL ENGINEERING STANDARD DRAWING NBS-1-09 - NOISE BARRIER SPECIFICATIONS FOR GROUND MOUNTED APPLICATIONS, THE CONCRETE MIX DESIGN FOR POSTS, AND FINIALS SHALL CONTAIN A PERMANENT, NON-SOLUBLE CRYSTALLINE CAPILLARY WATERPROOFING ADMIXTURE. PENETRON, BASF MASTERLITE 300D, SIKa WT-240P AND SIKa MIX AE-6 ARE ODOT APPROVED CONCRETE WATERPROOFING ADMIXTURES.

ITEM 606 - SPECIAL - NOISE BARRIER (REFLECTIVE), INFINITY WALL

PANEL IDS 1-14 OF NOISE BARRIER E SHALL BE MANUFACTURED AND DELIVERED TO THE PROJECT SITE BY NOISE WALL BARRIER (NWB) LLC. THE CONTRACTOR IS DIRECTED TO CONTACT JIM THOMPSON OF NWB AT 614-429-7635 TO COORDINATE PROJECT SCHEDULES INCLUDING, BUT NOT LIMITED TO, MANUFACTURE AND DELIVERY OF NOISE BARRIER PANELS. NWB SHALL PROVIDE THE INFINITY NOISE BARRIER PANELS AT THE SAME COST AS ITEM - 606 NOISE BARRIER (REFLECTIVE). THE PROVIDED NOISE BARRIER PANELS SHALL MATCH DETAILS IN NBS-1-09. THE PANELS SHALL MATCH THE PANEL SIZES IN THE NOISE WALL SHOP DRAWINGS AND SHALL MATCH COLOR AND TEXTURE OF CONCRETE PANELS IN THE REMAINDER OF THE WALL SECTION. INSTALLATION OF THESE PANELS WILL BE PERFORMED BY THE PRIME CONTRACTOR. THE POSTS SHALL BE PROVIDED BY THE CONCRETE NOISE WALL SUPPLIER, NOT NWB.

PAYMENT FOR THESE SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE FOOT ITEM 606 - SPECIAL - NOISE BARRIER (REFLECTIVE), INFINITY WALL, UNLESS OTHERWISE NOTED, AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

REVISIONS		
NO.	DATE	DESCRIPTION
△	03/23/21	PHONE NUMBER REVISED

CALCULATED
RFV
CHECKED
DGN

NOISE BARRIER GENERAL NOTES

SUM - 77 / 277 / 224

1080
1288