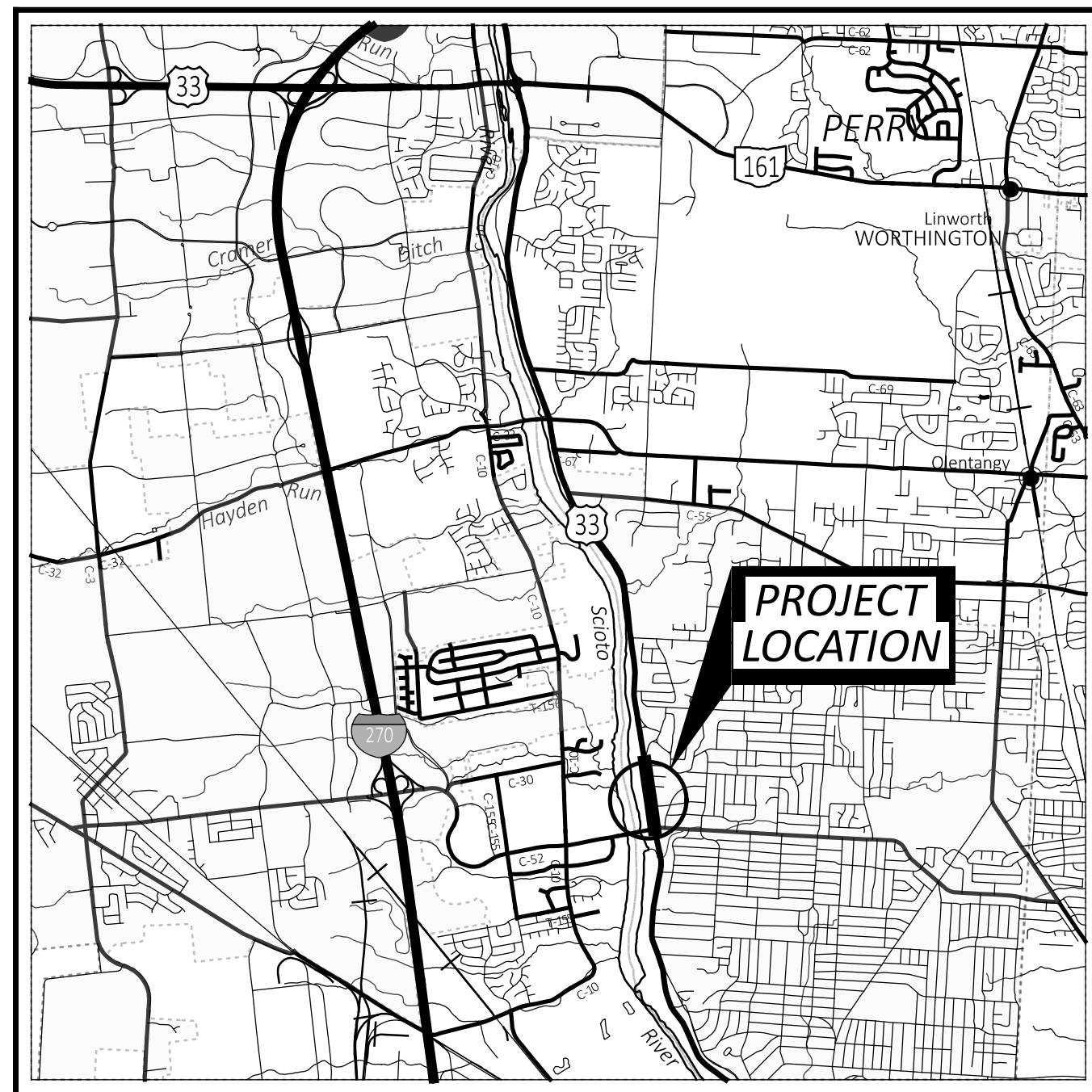


# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## FRA-33-8.75

### CITY OF UPPER ARLINGTON CITY OF COLUMBUS FRANKLIN COUNTY



**LOCATION MAP**

LATITUDE: 40°01'50" LONGITUDE: 83°05'35"



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

**DESIGN DESIGNATION**

CURRENT ADT (2026)	22,800
DESIGN YEAR ADT (2046)	33,900
DESIGN HOURLY VOLUME (2046)	3,390
DIRECTIONAL DISTRIBUTION	52%
TRUCKS (24 HOUR B&C)	2%
DESIGN SPEED	45 MPH
LEGAL SPEED	45 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
03 PRINCIPAL ARTERIAL (URBAN)	
NHS PROJECT	NO

**DESIGN EXCEPTIONS**

NONE REQUIRED

**ADA DESIGN WAIVERS**

NONE REQUIRED

**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)

**INDEX OF SHEETS:**

TITLE SHEET	P.1	STRUCTURES 20 FOOT	P.35-P.36
TYPICAL SECTIONS	P.2-P.3	SPAN AND UNDER	
GENERAL NOTES	P.4-P.5	TEMPORARY RETAINING WALL	P.37-P.39
MAINTENANCE OF TRAFFIC	P.6-P.19	WATER WORK	P.40-P.46
GENERAL SUMMARY	P.20-P.21	TRAFFIC CONTROL PLAN	P.47-P.49
ESTIMATED QUANTITIES	P.22	GEOTECHNICAL PROFILES	P.50-P.57
PLAN AND PROFILES	P.23-P.24	RIGHT OF WAY	RW.01-RW.06
CROSS SECTIONS	P.25-P.31		
GRADING PLAN	P.32		
STORM SEWER PROFILES	P.33-P.34		

FEMA FLOODPLAIN INFORMATION:

FILL TABLE		
U.S. 33		
	ZONE X (SF)	ZONE AE (SF)
WEST	3204	0
EAST	1312	0

SEE P.31 FOR GRADING PLAN

**FEDERAL PROJECT NUMBER**

NON-FEDERAL

**RAILROAD INVOLVEMENT**

NONE

**PROJECT DESCRIPTION**

THIS PROJECT CONSISTS OF THE ABANDONMENT OF THE EXISTING CONCRETE ARCH CULVERT (CFN 1988366) UNDER U.S. 33 AND INSTALLATION OF 108" CONCRETE CONDUIT, FULL DEPTH PAVEMENT REPLACEMENT, REGRADING THE SLOPES AROUND THE CULVERT AND ROADWAY, AS WELL AS STORM SEWER REPLACEMENTS AT THE U.S. 33 AND FISHINGER ROAD INTERSECTION.

**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA:	0.68 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.25 ACRES
NOTICE OF INTENT, EARTH DISTURBED AREA:	N/A (NOT REQUIRED)
DISTURBED EXISTING IMPERVIOUS AREA (COC):	8000 SF
NEW IMPERVIOUS AREA (COC):	995 SF
<small>(FOR INFORMATION ONLY - CITY OF COLUMBUS DISTURBANCE IS NOT RELEVANT AS THIS IS NOT SOLELY CITY OF COLUMBUS JURISDICTION. SEE CENTERLINE PLAT SHEET RW.02)</small>	

**2023 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 SHEETS P.9 - P.11.

Anthony C. Turowski, P.E.  
District 06 Deputy Director

Pamela Boratyn  
Director, Department of Transportation

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
CB-2-2ABC	7/19/24	MGS-1.1	7/16/21	TC-41.20	10/18/23	800-7/18/25	WATERWAY
		MGS-2.1	1/19/18	TC-41.30	4/21/23	832-7/18/25	PERMITS
DM-1.1	7/17/20	MGS-4.3	1/18/13	TC-42.20	10/18/13	878-1/21/22	CONDITIONS
DM-1.2	7/16/21	MGS-5.3	7/15/16	TC-52.20	1/15/21	902-7/19/19	5/21/25
DM-4.3	1/15/16			TC-61.30	7/19/24		
DM-4.4	1/15/16	HW-2.2	7/20/18	TC-65.10	1/17/14		
				TC-65.11	1/19/24		
MH-1	7/15/22	MT-95.70	7/21/23				
MH-3	7/19/24	MT-101.60	1/16/25				
MH-4	7/16/21	MT-101.70	7/19/24				
		MT-101.75	7/21/23				
BP-3.1	1/19/24	MT-101.90	7/17/20				
BP-5.1	7/15/22	MT-105.10	1/17/20				

ENGINEERS SEAL
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FRA-33-8.75

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 4/13/2026 TIME: 6:24:45 AM USER: bpsopko F:\Jobs\1235-FRA-33-8.75\108081\400-Engineering\Roadway\Sheets\108081\_GTO01.dgn

TITLE SHEET

DESIGN AGENCY	EUTHENICS
DESIGNER	ESM
REVIEWER	BPS
PROJECT ID	108081
SHEET	P.1
TOTAL	57

DOW #22-034

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 3/26/2026 TIME: 9:08:05 AM USER: bpsopko  
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**GENERAL**

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (CURRENT EDITION).

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.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

**ITEM 614 - MAINTAINING TRAFFIC**

THE MAKING OF THIS IMPROVEMENT REQUIRES U.S. 33 TO BE CLOSED TO THRU TRAFFIC. DETOUR SHALL BE PROVIDED AS SHOWN ON SHEETS P.9 AND P.10.

TRAFFIC ON U.S. 33 WILL BE MAINTAINED IN ACCORDANCE WITH THE AFFORMENTIONED DETOUR PLAN AND AS SHOWN ON PLAN SHEETS P.12 - P.19. TRAFFIC CONTROL FOR THE U.S. 33 & FISHINGER ROAD INTERSECTION SHALL ONLY BE IN PLACE WHILE THE WORK IS BEING COMPLETED NEAR THE INTERSECTION AND SHALL BE REMOVED UPON COMPLETION.

LOCAL ACCESS TO ABUTING PROPERTIES AND ADJACENT STREETS SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ABUTING PROPERTIES.

- THIS ITEM SHALL INCLUDE BUT IS NOT LIMITED TO:
- TEMPORARY DRIVE LAYOUT, EARTHWORK, AND DRIVE PIPE
  - TEMPORARY DRIVE REMOVAL
  - TIME LIMITATION ON A DETOUR
  - ROAD CLOSED SIGNS
  - NOTICE OF CLOSURE SIGNS
  - NOTIFICATION OF TRAFFIC RESTRICTIONS

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.

**ITEM 614 - MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR)**

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 45 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEETS P.9 AND P.10. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT AS SHOWN IN THE TABLE BELOW PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

DESCRIPTION OF CRITICAL WORK	CALENDAR DAYS TO COMPLETE	DISINCENTIVE \$ PER DAY	WORK WINDOW	
			START	END
ALL PROJECT WORK EXCEPT EROSION CONTROL	45	\$5,100 PER DAY	CONTRACT EXECUTION DATE	PROJECT COMPLETION DATE

**ITEM 614 - MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)**

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR SPECIAL EVENTS:

CHRISTMAS (OBSERVED), FOURTH OF JULY (OBSERVED), NEW YEAR'S (OBSERVED), LABOR DAY, MEMORIAL DAY, GENERAL/REGULAR ELECTION DAY (NOV.), AND THANKSGIVING.

**1** USGA U.S. SENIOR OPEN AT SCIOTO COUNTRY CLUB (JUNE 29 - JULY 5, 2026)

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR SPECIAL EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR SPECIAL EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY (GEN/REG ELECTION)	5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

DURING THE SAME PERIODS, MAINTAIN PEDESTRIAN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

**ITEM 614 - MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)**

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

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.

NOTICE OF CLOSURE SIGN TIME TABLE

ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP &	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
ROAD	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
CLOSURES	<= 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF CLOSURE IN MM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

**ITEM 614 - MAINTAINING TRAFFIC (ROAD CLOSED SIGN)**

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT 101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC:

- U.S. 33 JUST NORTH OF RIVER PARK DRIVE
- U.S. 33 JUST SOUTH OF EDGEWOOD ROAD

ADDITIONALLY, DURING THE CLOSURE OF THE NORTH LEG OF THE U.S. 33 - FISHINGER ROAD INTERSECTION, A ROAD CLOSED SIGN SHALL BE INSTALLED JUST NORTH OF FISHINGER ROAD.

**ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE**

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH 40 HOURS PATROL CAR FOR ASSISTANCE

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

**NOTIFICATION OF TRAFFIC RESTRICTIONS**

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
ROAD	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
CLOSURES	> 12 HRS & < 2 WKS < 12 HOURS	14 CALENDAR DAYS PRIOR TO CLOSURE 4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE 5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

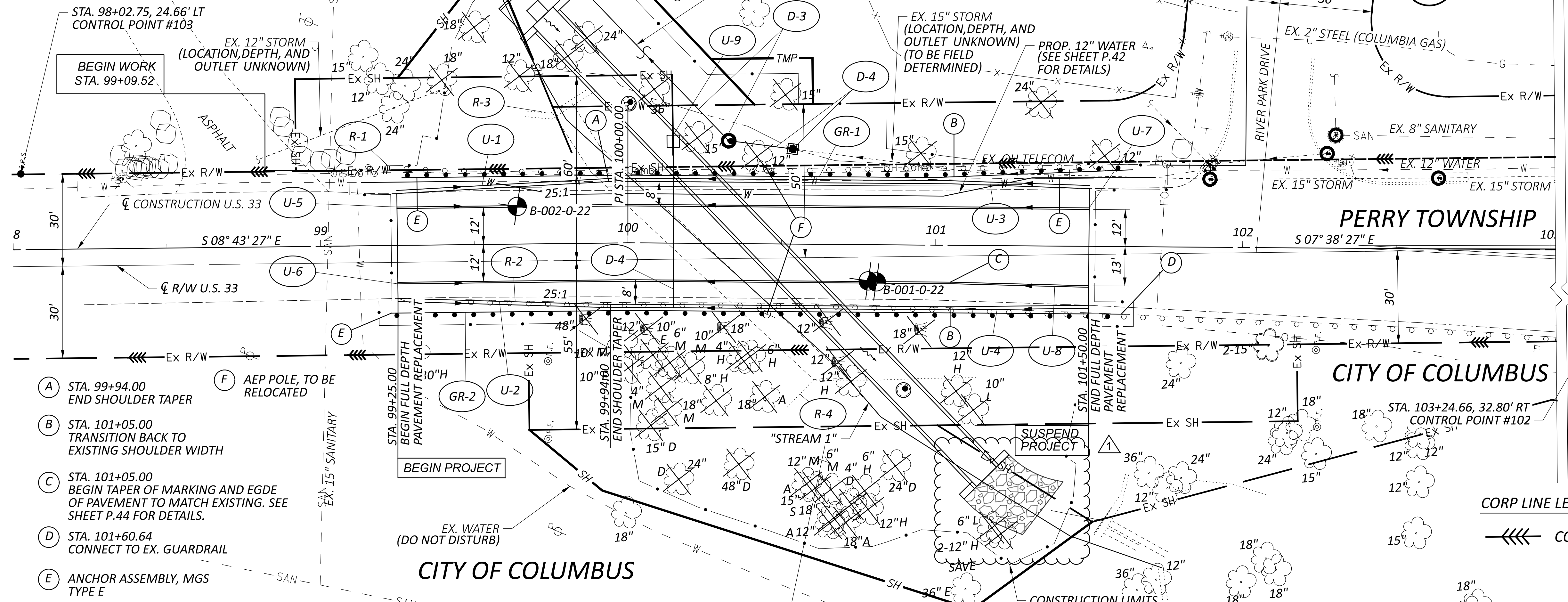
ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.



NOTE:

FOR 100-YR FLOODPLAIN, SEE SHEET P.32

**CITY OF UPPER ARLINGTON**

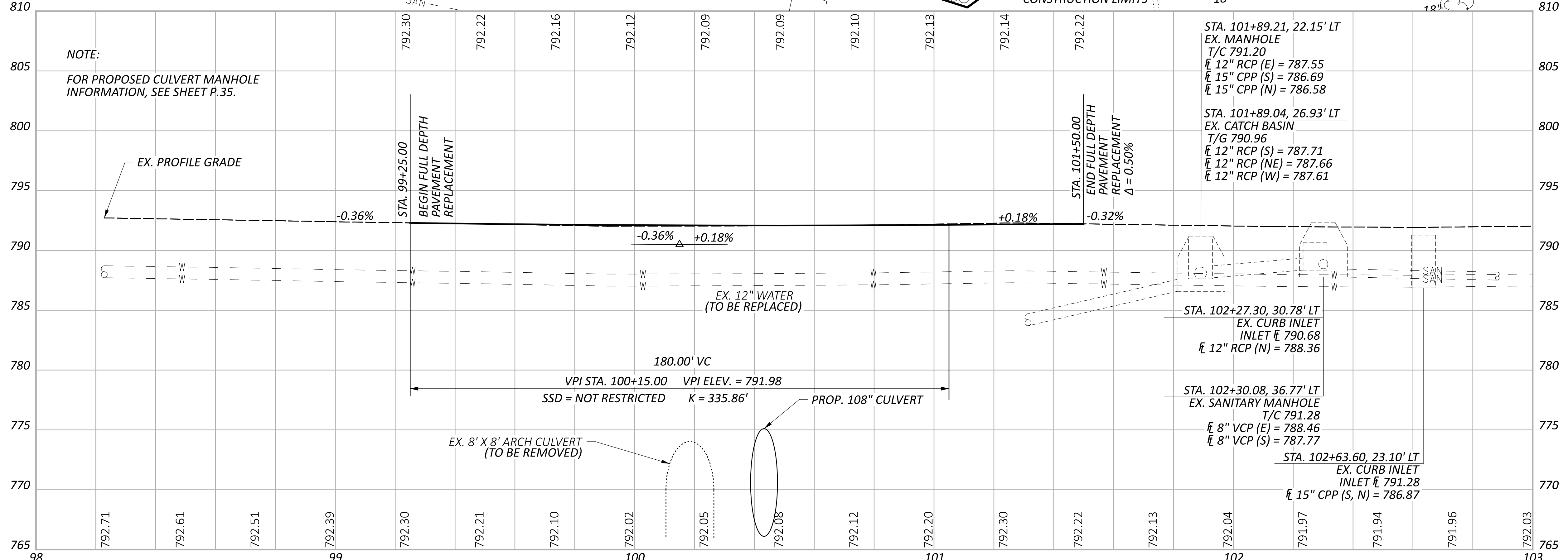
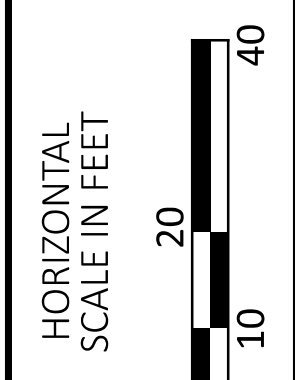
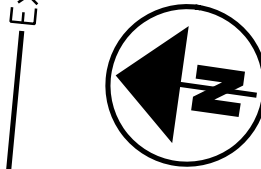


STA. 98+02.75, 24.66' LT CONTROL POINT #103

BEGIN WORK STA. 99+09.52

- (A) STA. 99+94.00 END SHOULDER TAPER
- (B) STA. 101+05.00 TRANSITION BACK TO EXISTING SHOULDER WIDTH
- (C) STA. 101+05.00 BEGIN TAPER OF MARKING AND EDGE OF PAVEMENT TO MATCH EXISTING. SEE SHEET P.44 FOR DETAILS.
- (D) STA. 101+60.64 CONNECT TO EX. GUARDRAIL
- (E) ANCHOR ASSEMBLY, MGS TYPE E
- (F) AEP POLE, TO BE RELOCATED

**CITY OF UPPER ARLINGTON**



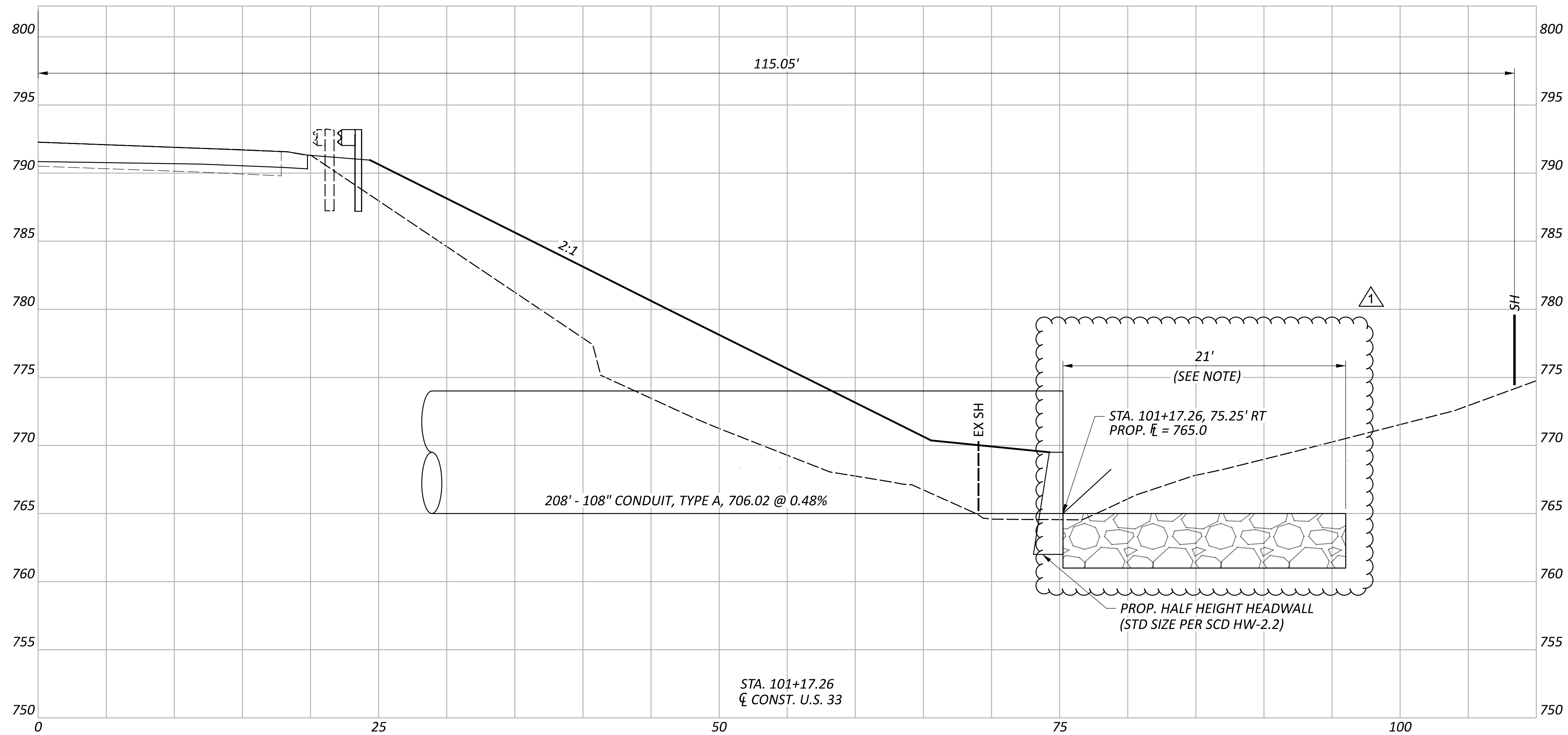
NOTE:  
FOR PROPOSED CULVERT MANHOLE INFORMATION, SEE SHEET P.35.

- STA. 101+89.21, 22.15' LT EX. MANHOLE  
T/C 791.20  
12" RCP (E) = 787.55  
15" CPP (S) = 786.69  
15" CPP (N) = 786.58
- STA. 101+89.04, 26.93' LT EX. CATCH BASIN  
T/G 790.96  
12" RCP (S) = 787.71  
12" RCP (NE) = 787.66  
12" RCP (W) = 787.61
- STA. 102+27.30, 30.78' LT EX. CURB INLET  
INLET 790.68  
12" RCP (N) = 788.36
- STA. 102+30.08, 36.77' LT EX. SANITARY MANHOLE  
T/C 791.28  
8" VCP (E) = 788.46  
8" VCP (S) = 787.77
- STA. 102+63.60, 23.10' LT EX. CURB INLET  
INLET 791.28  
15" CPP (S, N) = 786.87

**PLAN AND PROFILE**  
STA. 98+00 TO STA. 103+00

DESIGN AGENCY	EUTHENICS 8235 Mohawk Dr., Cleveland, OH 44132
DESIGNER	ESM
REVIEWER	BPS 11/20/25
PROJECT ID	108081
SHEET	P.23
TOTAL	57

**NOTE:**  
 PROPOSED ROCK CHANNEL PROTECTION, TYPE A WITH AGGREGATE FILTER (48" DEEP) IS PROJECTED 21' FROM THE OUTLET ALONG THE PROPOSED CENTERLINE OF THE CULVERT. FOR A MORE ACCURATE REPRESENTATION OF THIS, SEE SHEET P.35



CULVERT CROSS SECTION - U.S. 33  
 PROPOSED OUTLET - STA. 101+17.26

DESIGN AGENCY  
**EUTHENICS**  
 8235 Mohawk Dr., Cleveland, OH 44133

DESIGNER  
 ESM

REVIEWER  
 BPS 11/20/25

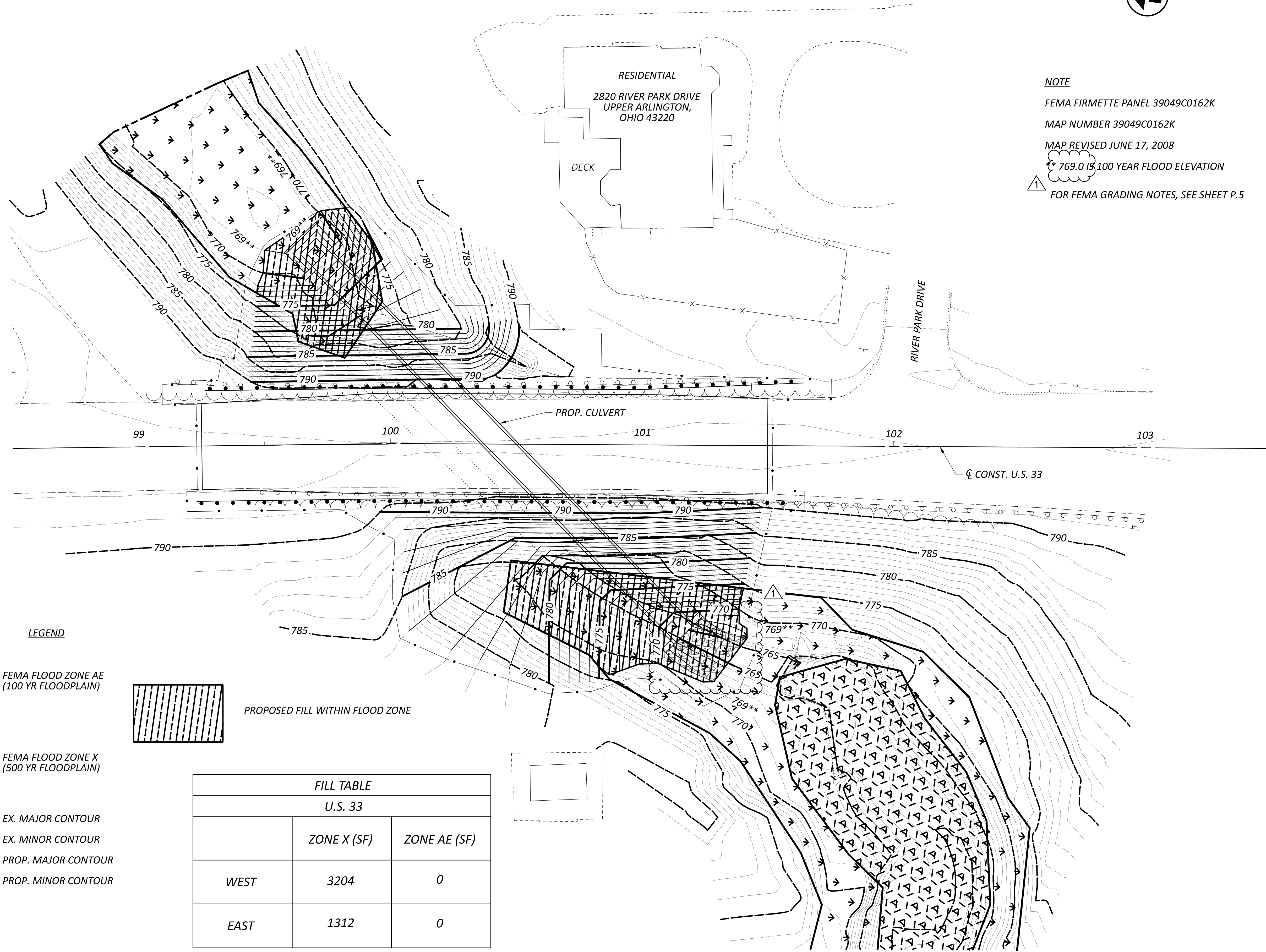
PROJECT ID  
 108081

SHEET TOTAL  
 P.31 57

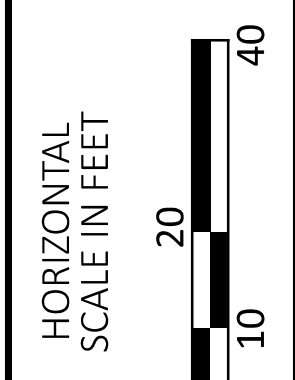
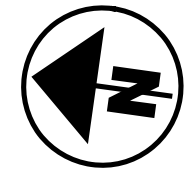
Sheet Totals		
Seeding	Cut	Fill
126	26	208

TOTALS CARRIED TO GENERAL SUMMARY

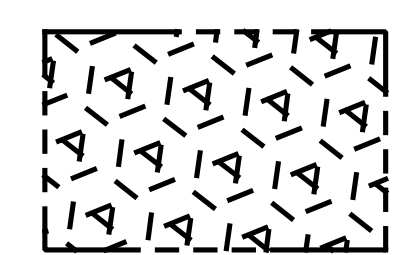
1746	881	2465
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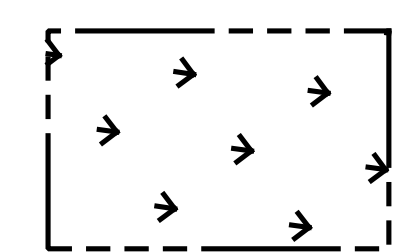
**NOTE**  
 FEMA FIRMETTE PANEL 39049C0162K  
 MAP NUMBER 39049C0162K  
 MAP REVISED JUNE 17, 2008  
 \*\* 769.0 IS 100 YEAR FLOOD ELEVATION  
 ▲ FOR FEMA GRADING NOTES, SEE SHEET P.5



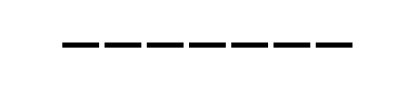
**LEGEND**



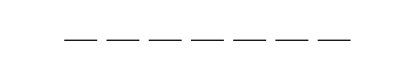
FEMA FLOOD ZONE AE  
 (100 YR FLOODPLAIN)



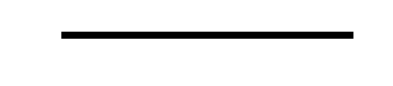
FEMA FLOOD ZONE X  
 (500 YR FLOODPLAIN)



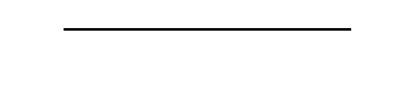
EX. MAJOR CONTOUR



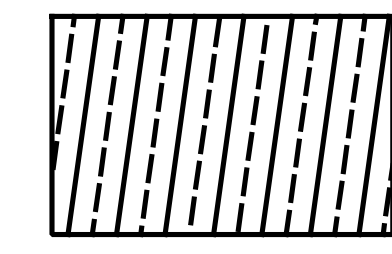
EX. MINOR CONTOUR



PROP. MAJOR CONTOUR



PROP. MINOR CONTOUR



PROPOSED FILL WITHIN FLOOD ZONE

FILL TABLE		
U.S. 33		
	ZONE X (SF)	ZONE AE (SF)
WEST	3204	0
EAST	1312	0

U.S. 33 GRADING PLAN  
 FEMA FIRM PANEL 0162K

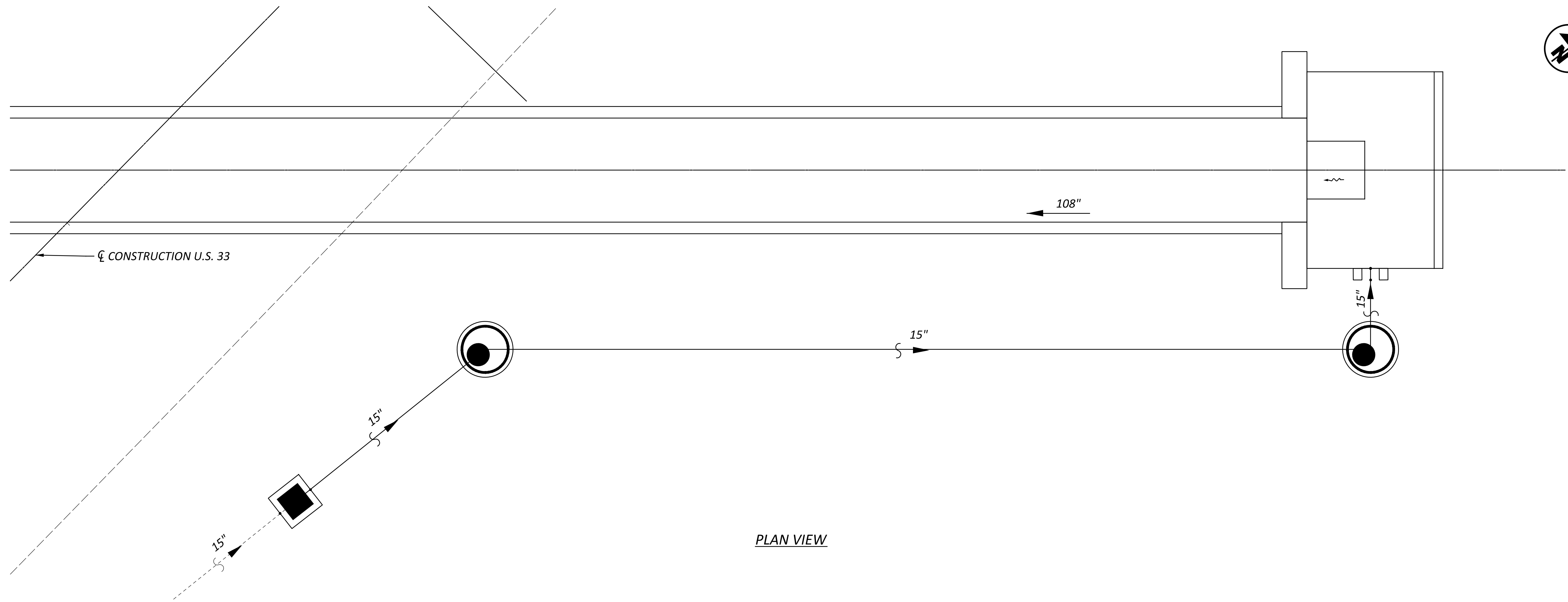
DESIGN AGENCY  
**EUTHENICS**  
 8235 Mohawk Dr. | Cleveland, OH 44132

DESIGNER  
 ESM

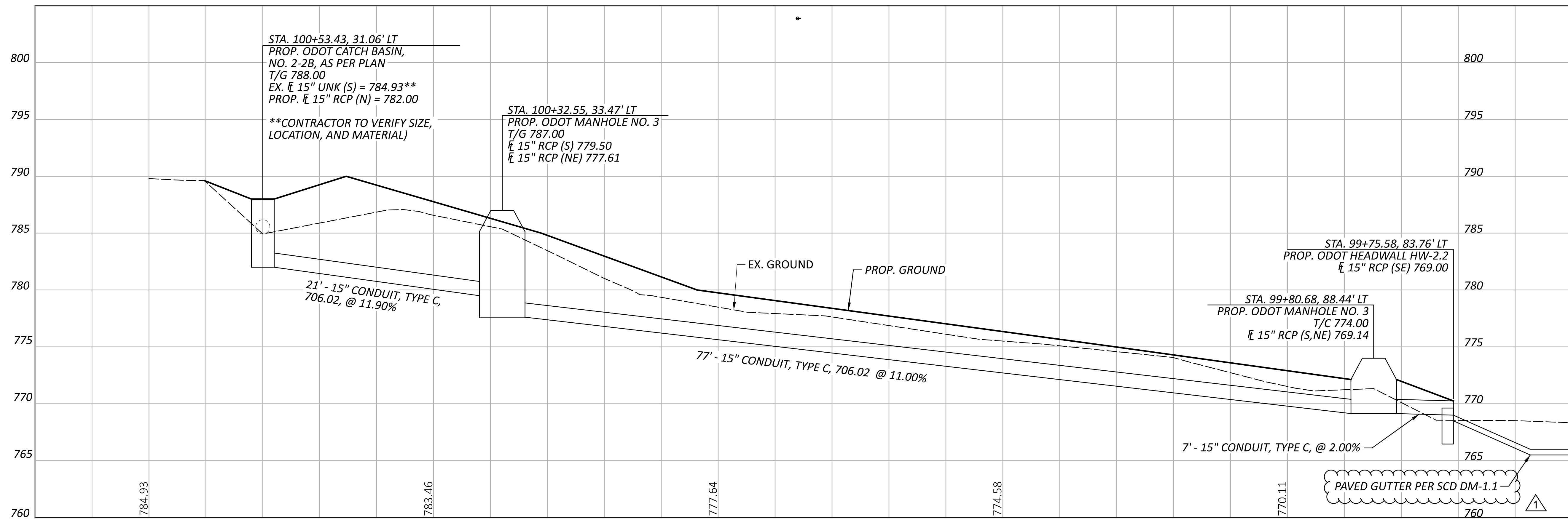
REVIEWER  
 BPS 11/20/25

PROJECT ID  
 108081

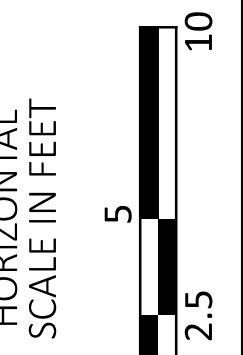
SHEET TOTAL  
 P.32 57



PLAN VIEW



PROFILE VIEW



STORM SEWER PROFILES  
 U.S. 33 TO PROPOSED INLET

DESIGN AGENCY

**EUTHENICS**  
 8255 Mohawk Dr., Cleveland, OH 44136

DESIGNER

COM

REVIEWER

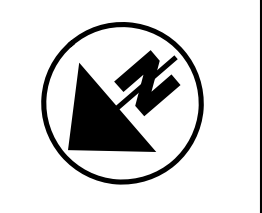
BPS 11/20/25

PROJECT ID

108081

SHEET TOTAL

P.34 57

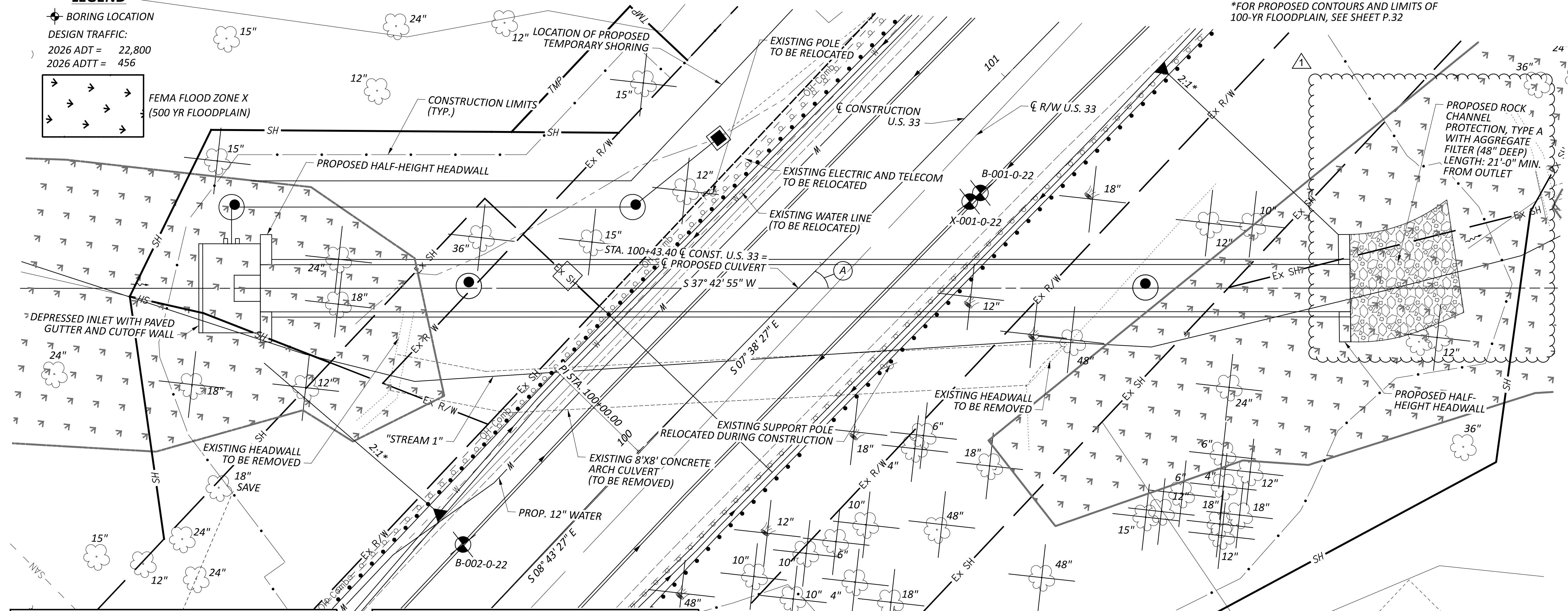


FOR CULVERT QUANTITIES, SEE SHEET P.36

\*FOR PROPOSED CONTOURS AND LIMITS OF 100-YR FLOODPLAIN, SEE SHEET P.32

**LEGEND**

- BORING LOCATION
- DESIGN TRAFFIC:  
2026 ADT = 22,800  
2026 ADTT = 456
- FEMA FLOOD ZONE X (500 YR FLOODPLAIN)



**EXISTING STRUCTURE**

TYPE: 8'x8' CONCRETE ARCH CULVERT WITH 20' OF 84" CORRUGATED METAL PIPE EXTENSION UPSTREAM. REINFORCED CONCRETE HEADWALL AT OUTLET. RUBBLE STONE MASONRY HEADWALL AT INLET.

SPANS: 11'-9" ± CLEAR SPAN (MEASURED ALONG  $\phi$  U.S. 33)

CULVERT FILE NUMBER: 1988366

DATE BUILT: 1934

DISPOSITION: TO BE REPLACED

**PROPOSED STRUCTURE**

TYPE: 108" CONCRETE CONDUIT ON NEW ALIGNMENT. REPLACE EXISTING HEADWALLS WITH HALF-HEIGHT HEADWALLS. PIPE DIAMETER HAS BEEN INCREASED BEYOND WHAT IS HYDRAULICALLY REQUIRED FOR FUTURE LINING.

SPANS: 12'-7" (MEASURED ALONG  $\phi$  U.S. 33)

STRUCTURE FILE NUMBER: 2531040

COORDINATES: LATITUDE 40°01'57.33" N  
LONGITUDE 83°05'32.81" W

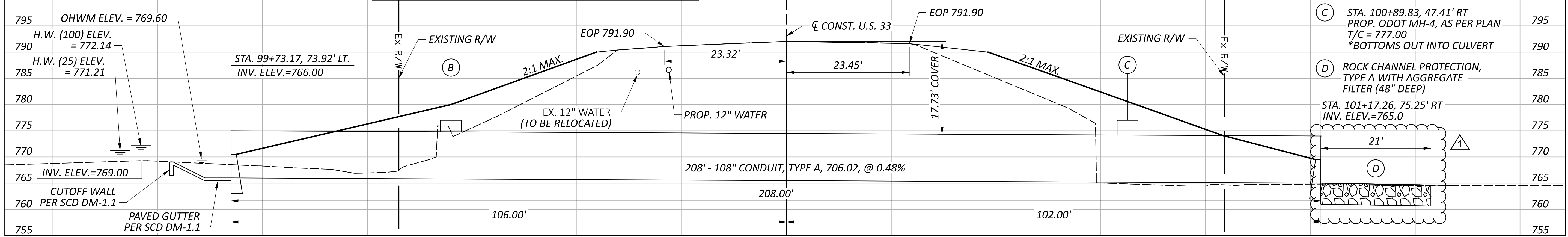
**HYDRAULIC DATA**

DRAIN AREA = 143 ACRES	DESIGN SERVICE LIFE = 75 YR
Q (25) = 230 CFS	ABRASION LEVEL = 6
V (25) = 9.42 FT/S	PH = 8.0*
Q (100) = 300 CFS	*VALUE FROM ODOT L&D VOL. 2 FIGURE 1002-2.
V (100) = 10.25 FT/S	NO FLOW AT TIME OF SURVEY.

**PLAN**

(A) 45° 37' 05"

(B) STA. 100+00.00, 45.81' LT  
PROP. ODOT MH-4, AS PER PLAN  
T/C = 777.00  
\*BOTTOMS OUT INTO CULVERT



FOR PAVED GUTTER DETAIL, SEE SHEET P.36

**PROFILE ALONG  $\phi$  CULVERT**

FRA-33-8.75

MODEL: Untitled Sheet PAPER SIZE: 34x22 (in.) DATE: 3/22/2026 TIME: 4:33:02 AM USER: bpsopko  
F:\Jobs\1235-FRA-33-8.75\108081\400-Engineering\Structures\SFN\_1988366\Sheets\108081\_SFN\_1988366\_SPO06.dgn

CULVERT SITE PLAN  
FRA-33-8.75  
U.S. 33 OVER "STREAM 1"

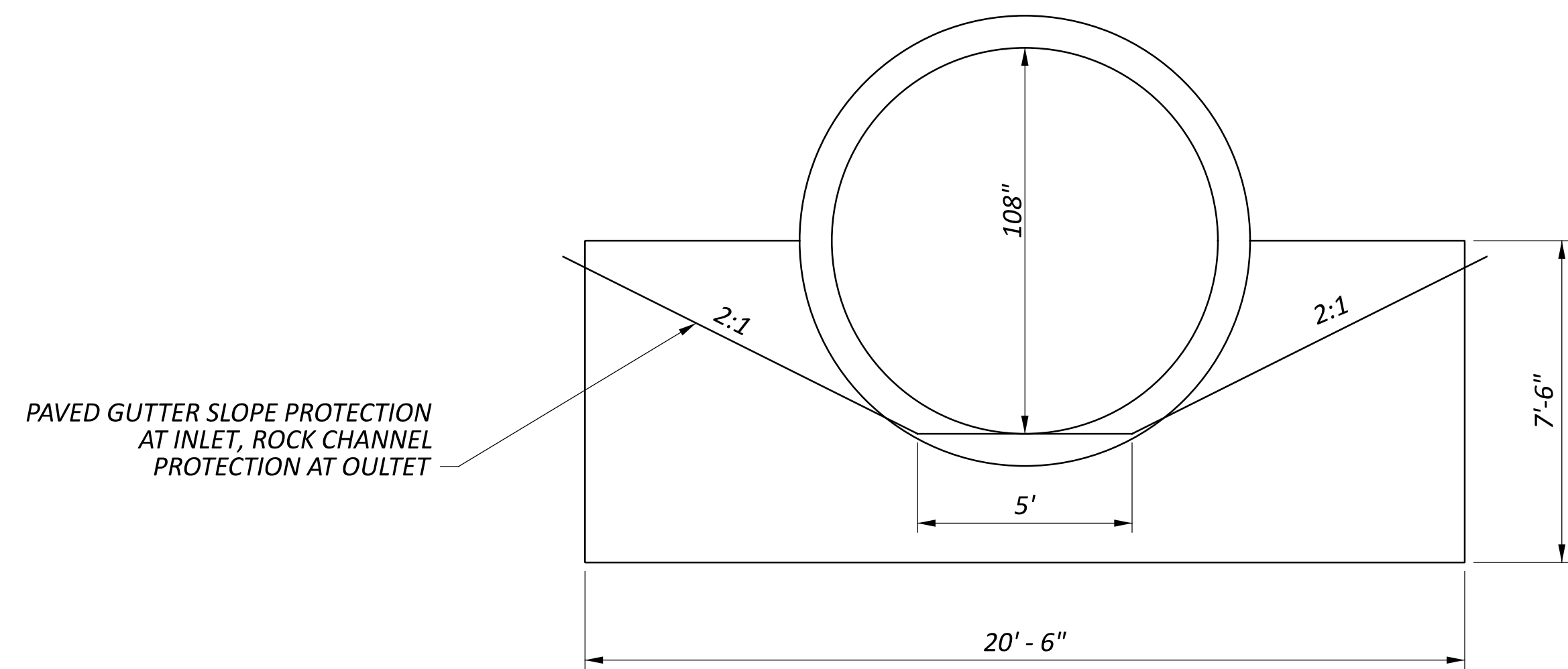
SFN	1988366
DESIGN AGENCY	EUTHENICS 8235 Mohawk Dr.   Cleveland, OH 44138
DESIGNER	LAB
CHECKER	OOS
REVIEWER	
PROJECT ID	108081
SUBSET	1
TOTAL	2
SHEET	P.35
TOTAL	57

ESTIMATED QUANTITIES

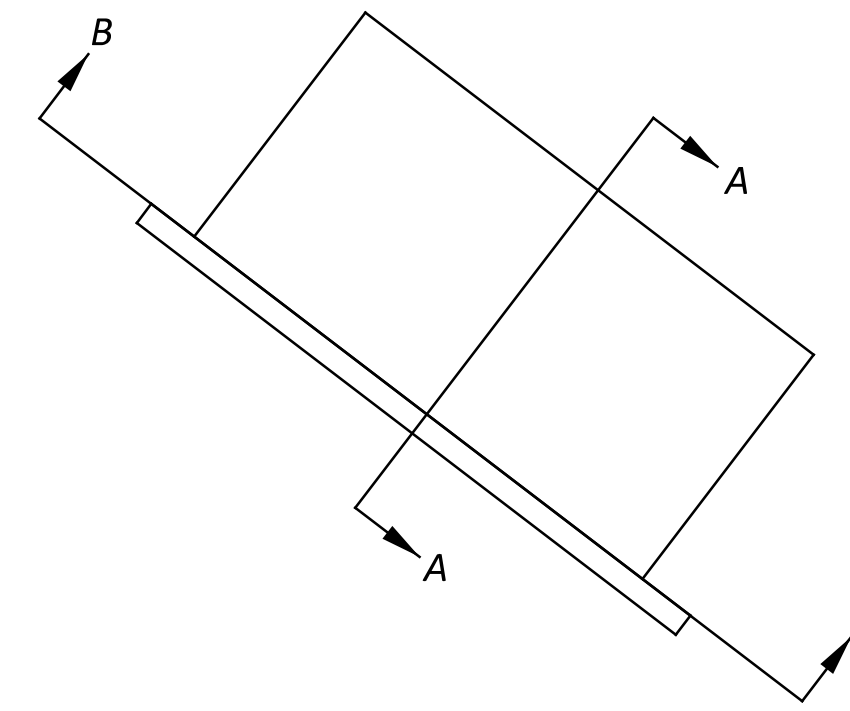
ITEM	ITEM EXT	QUANTITY	UNIT	DESCRIPTION
202	11004	1	EACH	STRUCTURE REMOVED
601	11000	21	SY	RIPRAP, TYPE D
601	32010	64	CY	ROCK CHANNEL PROTECTION, TYPE A WITH AGGREGATE FILTER
602	20000	13.6	CY	CONCRETE MASONRY
611	32000	208	FT	108" CONDUIT, TYPE A, 706.02
611	99601	2	EACH	MANHOLE, NO.4, AS PER PLAN

NOTE: TOTALS CARRIED TO GENERAL SUMMARY SHEET

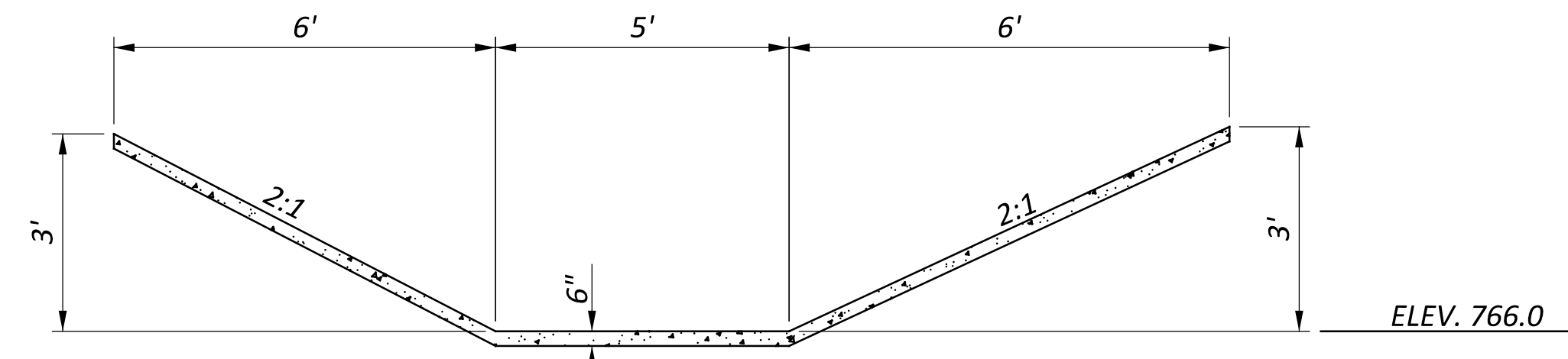
CULVERT QUANTITY TABLE



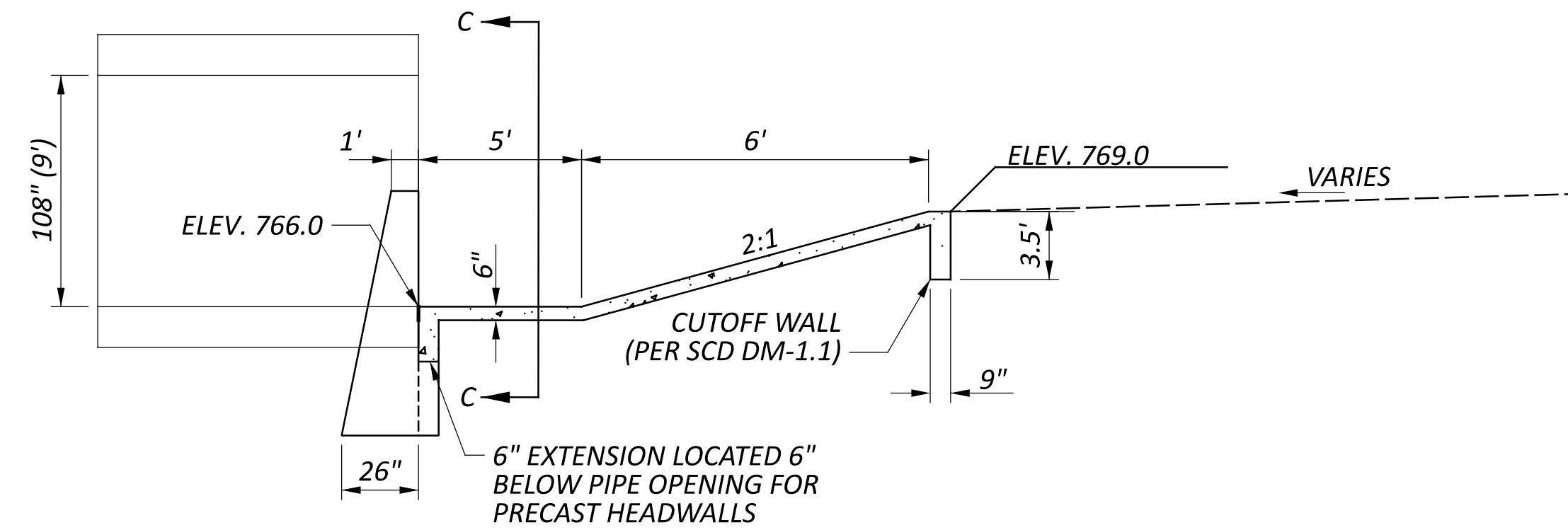
SECTION C-C  
 DIMENSIONS AND SLOPES APPLY TO BOTH INLET AND OUTLET



PAVED GUTTER DETAIL AT INLET  
 NOT TO SCALE



SECTION B-B  
 NOT TO SCALE



SECTION A-A  
 NOT TO SCALE

NOTES:

1. PAVED GUTTER DETAIL APPLIES TO THE INLET ONLY.