

DRAINAGE (CONT.)

ITEM SPECIAL - MISCELLANEOUS METAL
EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIAL SHALL MEET ITEM 611 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM SPECIAL - MISCELLANEOUS METAL 10,000 LB

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

TEMPORARY DRAINAGE ITEMS
TEMPORARY DRAINAGE ITEMS LABELED ON THE MAINTENANCE OF TRAFFIC PLAN ARE ITEMIZED ON THE MOT PLANS AND CARRIED TO THE GENERAL SUMMARY.

POST CONSTRUCTION STORM WATER TREATMENT
THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

MANUFACTURED WATER QUALITY STRUCTURE
THIS PLAN UTILIZES MANUFACTURED WATER QUALITY STRUCTURES FOR WATER QUALITY TREATMENT. AREAS HAVE BEEN SHOWN IN THE PLANS FOR PLACEMENT OF AN OFF-LINE SYSTEM. PAYMENT FOR THESE DEVICES SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR ITEM 895, MANUFACTURED WATER QUALITY STRUCTURE, TYPE 4.

EXTENDED DETENTION BASIN
THIS PLAN UTILIZES EXTENDED DETENTION BASIN(S) FOR FLOW RESTRICTION. DETENTION BASINS MAY BE USED AS SEDIMENT CONTROL DEVICES DURING CONSTRUCTION. FOLLOWING STABILIZATION OF THE TRIBUTARY AREA, FINAL GRADING OF THE DETENTION BASIN MUST MATCH THE PLANS. THE DETENTION BASIN OUTLET STRUCTURE FOR CONSTRUCTION SEDIMENT CONTROL MUST BE REMOVED AND THE OUTLET STRUCTURE MUST BE MADE TO MATCH THE DESIGN SHOWN IN THE PLANS.

ITEM SPECIAL - GAS VALVE BOX ADJUSTED TO GRADE
ADJUST GAS OR OTHER UTILITY VALVES, INCLUDING MONITORING WELLS, TO GRADE. COORDINATE WITH UTILITY OWNER PRIOR TO PERFORMING WORK. REPLACE DAMAGED CASTINGS IN KIND.

THIS ITEM IS PAID ON A UNIT PRICE BASIS AND INCLUDES ALL LABOR AND MATERIALS TO PERFORM THE WORK AS DESCRIBED.

SURFACE DRAINAGE CONTINGENCY
EVERY EFFORT HAS BEEN MADE TO PROVIDE FOR ADEQUATE CURB INLETS AND PIPE TO PROPERLY ACCOUNT FOR THE SURFACE DRAINAGE. IN THE EVENT THAT ISOLATED LOW AREAS DEVELOP DURING CONSTRUCTION OF THE PROJECT, THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO BE USED AS DIRECTED BY THE ENGINEER:

3	ITEM 611 - 12" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	2,000 FT
	ITEM 611 - 15" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	200 FT
	ITEM 611 - CATCH BASIN, NO. 2-2B, AS PER PLAN	4 EACH
	ITEM 611 - CATCH BASIN, NO. 3A, AS PER PLAN	4 EACH
	ITEM 611 - MANHOLE, NO. 3, AS PER PLAN	4 EACH

PAVEMENT

CONTRACTION AND/OR EXPANSION JOINTS
ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

CONTRACTION JOINTS IN CONCRETE PAVEMENT OR BASE WIDENING
WHERE NEW CONCRETE IS PLACED ADJACENT TO EXISTING CONCRETE, PROVIDE CONTRACTION JOINTS IN THE NEW CONCRETE TO FORM CONTINUOUS JOINTS WITH THOSE IN THE EXISTING CONCRETE.

THE MAXIMUM DISTANCE BETWEEN THE JOINTS IN THE NEW CONCRETE ARE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2, IF NECESSARY, ADDITIONAL JOINTS MAY BE PROVIDED IN THE NEW CONCRETE AT APPROXIMATELY EQUAL INTERVALS BETWEEN EXISTING JOINTS THAT EXCEED THE MAXIMUM SPACING.

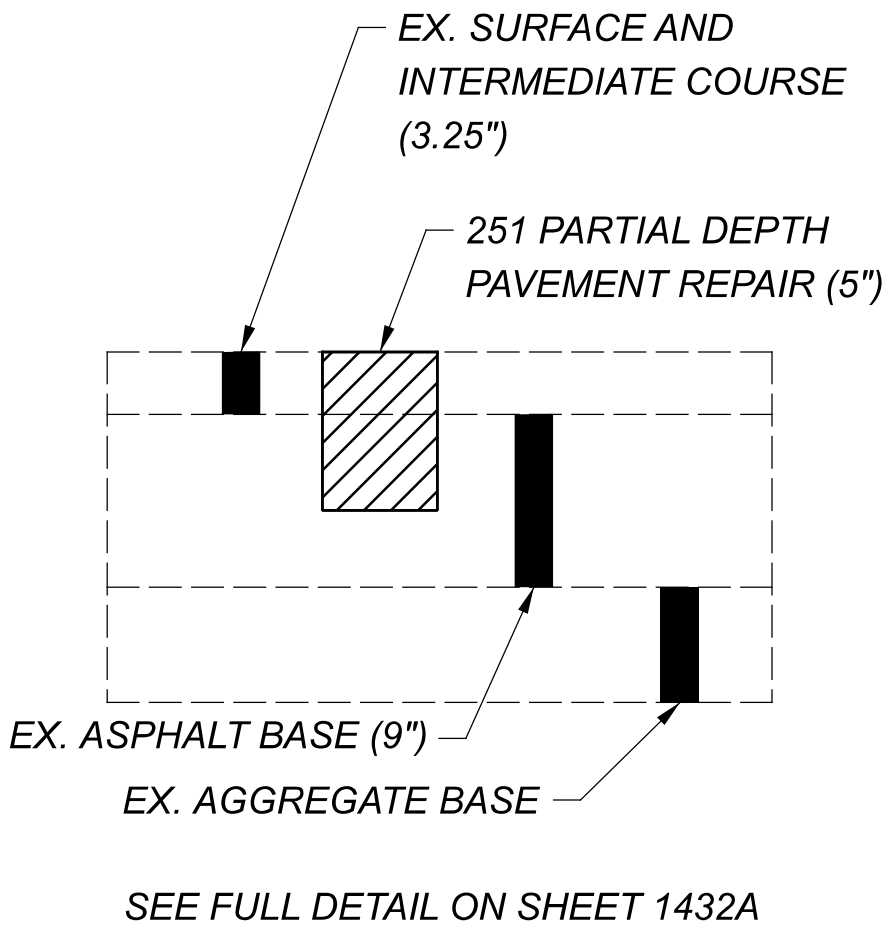
PART-WIDTH CONSTRUCTION
BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1. CONSTRUCT LONGITUDINAL JOINTS PER CMS 401.08(D).

MEDIAN AND/OR CURBING ON APPROACH SLABS
WITHIN THE LIMITS OF THE APPROACH SLAB, TRANSITION THE SHAPE OF THE MEDIAN AND/OR CURBING ON APPROACH SLABS FROM THE STANDARD SECTION ON THE APPROACHES TO THE SECTION USED ON THE BRIDGE.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442)
THE PLANS CALL FOR RESURFACING THE I.R. 90 PAVEMENT BETWEEN THE INNERBELT BRIDGES AND THE ONTARIO STREET BRIDGES AND BETWEEN THE ONTARIO STREET BRIDGES AND THE EAST 9TH STREET BRIDGES. QUANTITIES HAVE BEEN PROVIDED IN THE PAVEMENT SUBSUMMARY FOR THIS WORK.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER TO REPAIR ANY PAVEMENT DEFICIENCIES IN THESE AREAS. SEE DETAIL BELOW FOR A TYPICAL PAVEMENT BUILDUP. THE QUANTITY IS BASED ON AN ASSUMED DEPTH OF FIVE (5) INCHES. FINAL DEPTH IS TO BE DETERMINED BY THE ENGINEER.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442) 180 CY



ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN A
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN B

THIS ITEM SHALL CONSIST OF REPLACING EXISTING PAVEMENT PER ITEM 255 AND THE NOTES BELOW AND DETAILS ON SHEET 1432A.

EXISTING CONCRETE PAVEMENT THICKNESS MAY VARY FROM THAT SHOWN ON THE TYPICAL SECTIONS BY PLUS TWO INCHES OR MINUS ONE INCH. NO ADJUSTMENT IN PAYMENT FOR THIS ITEM SHALL BE MADE PROVIDING THAT THE AVERAGE PAVEMENT THICKNESS IS WITHIN ONE INCH OF THE THICKNESS SHOWN ON THE TYPICAL SECTIONS. ADDITIONAL COMPENSATION SHALL BE MADE BY CHANGE ORDER FOR THE MATERIAL COST OF CONCRETE ONLY WHEN THE AVERAGE THICKNESS EXCEEDS THE ONE INCH MAXIMUM TOLERANCE ABOVE. THE VOLUME OF CONCRETE PAID FOR SHALL BE BASED UPON THE AMOUNT OF CONCRETE ADDITIONAL ABOVE THE ONE INCH TOLERANCE LIMIT.

THE CONTRACTOR SHALL SAW THROUGH THE REMAINING ASPHALT OVERLAY AFTER THE PAVEMENT PLANING OPERATION. THE CONTRACTOR SHALL REMOVE THE EXISTING OVERLAY AND RIGID PAVEMENT WITH CARE SO AS TO NOT DISTURB THE ADJACENT REMAINING CONCRETE PAVEMENT AND OVERLAY.

IF, AFTER REMOVAL OF THE RIGID PAVEMENT THE ENGINEER DETERMINES THAT THE SUBBASE OR SUBGRADE HAS FAILED OR IS PUMPING, THE ENGINEER WILL DIRECT THE CONTRACTOR TO EXCAVATE THE UNSUITABLE MATERIAL AND REPLACE IT WITH COMPACTED 304 AGGREGATE. QUANTITIES OF ITEM 203 - EXCAVATION AND ITEM 304 - AGGREGATE BASE HAVE BEEN PROVIDED TO REPAIR SAID FAILED SUBBASE OR SUBGRADE AREAS.

PAVEMENT REPAIR LESS THAN OR EQUAL TO TEN (10) FEET IN LENGTH SHALL BE PAID FOR UNDER "FULL DEPTH RIGID PAVEMENT REMOVAL AND REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN, A". PAVEMENT REPAIRS GREATER THAN TEN (10) FEET IN LENGTH SHALL BE PAID FOR UNDER "FULL DEPTH RIGID PAVEMENT REMOVAL AND REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN B".

ITEM	UNIT	DESCRIPTION
255	SY	FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN A
255	SY	FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN B
255	FT	FULL DEPTH PAVEMENT SAWING
203	CY	EXCAVATION
304	CY	AGGREGATE BASE

FOR ESTIMATED QUANTITIES, SEE SHEET 167

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN C
ALL REQUIREMENTS OF C&MS 255 SHALL APPLY EXCEPT THE DOWEL BARS, DEFORMED BARS, AND TIEBARS SHALL BE INSTALLED PER THE DETAILS SHOWN ON CITY OF CLEVELAND SCD CONC 1.

IN ADDITION TO THE REQUIREMENTS ABOVE, APPLY THE OTHER REQUIREMENTS FOR ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN A AND B.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN

THIS ITEM IS INTENDED FOR USE AS DIRECTED BY THE ENGINEER FOR PARTIAL DEPTH PAVEMENT REPAIRS TO CITY STREETS.

PAVEMENT REPAIRS SHALL BE COMPLETED USING THE FOLLOWING ITEMS:
ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M
ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)

ITEM 305 - 9" CONCRETE BASE, CLASS QC 1P, AS PER PLAN
ITEM 451 - 12" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN
ITEM 452 - 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN

ALL REQUIREMENTS OF C&MS 305, 451, AND 452 SHALL APPLY EXCEPT THE DOWEL BARS, DEFORMED BARS, AND TIEBARS SHALL BE INSTALLED PER THE DETAILS SHOWN ON CITY OF CLEVELAND SCD CONC 1.

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M
THE COARSE VIRGIN AGGREGATE FOR THIS ITEM SHALL CONSIST OF A BLEND OF 60% MIN. AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE.

ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), AS PER PLAN, PG64-22
PAVING BETWEEN THE MEDIAN BARRIERS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN FROM THE HIGH SIDE BARRIER TO LOW SIDE BARRIER.

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M
THE COARSE VIRGIN AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO A BLEND OF AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO AND LIMESTONE. THE CONTRACTOR SHALL USE A MINIMUM 60% OF ACBFS OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE. AT LEAST 50% OF FINE VIRGIN AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO ACBFS OR TRAP ROCK FROM ONTARIO.

TABLE 442.02-2 APPLIES EXCEPT NO. 4 SIEVE REQUIREMENTS ARE 52 TO 60 TOTAL PERCENT PASSING. FOR THE NO. 4 SIEVE DO NOT EXCEED 63 IN PRODUCTION.

WHEN ACBFS IS USED FOR A FRACTION OF THE COARSE AGGREGATE, PROVIDE A TOTAL ASPHALT BINDER CONTENT GREATER THAN OR EQUAL TO 6.2 PERCENT. IF ACBFS MAKES UP 100% OF THE COARSE AGGREGATE, APPLY THE BINDER CONTENT REQUIREMENTS OF C&MS 442.

ITEM SPECIAL - PRESSURE RELIEF JOINT, TYPE B
THIS ITEM SHALL MEET ALL THE SPECIFICATIONS OF ITEM 451. SEE SCD AS-2-15 AND SCD BP-2.4 FOR DETAILS.

CITY STREET CONTINGENCY
THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDE FOR USED AS DIRECTED BY THE ENGINEER FOR ANY UNANTICIPATED WORK ALONG CITY STREETS:

ITEM 452 - 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	775 SY
ITEM 608 - 6" CONCRETE WALK, AS PER PLAN	4,500 SF
ITEM 608 - CURB RAMP, AS PER PLAN	475 SF
ITEM 609 - CURB, TYPE 6	750 FT

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SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
122	427	428	429	442	447	457	459							01/IMS /04	02/IMS /10	03/IMS /08							
														LS				832	15010	LS		EROSION CONTROL (CONT.)	
														2400000				832	30000	2400000	EACH	STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
							31							31				836	10000	31	SY	EROSION CONTROL	
																					SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1		
																						ENVIRONMENTAL/REMEDATION	
		755												755				SPECIAL	690E65000	755	TON	WORK INVOLVING NON-REGULATED MATERIALS	78
			7550											7550				SPECIAL	690E65016	7550	TON	WORK INVOLVING PETROLEUM CONTAMINATED SOIL	78
			105000											105000				SPECIAL	690E65022	105000	GAL	WORK INVOLVING NON-REGULATED WATER	78
			42000											42000				SPECIAL	690E65024	42000	GAL	WORK INVOLVING REGULATED WATER	78
			LS											LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (CARNEGIE AVENUE, CUY-90-1692, SFN 1807897)	77
			LS											LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E. 22ND STREET, CUY-90-1676, SFN 1807838)	77
			LS											LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E5, CUY-90-1640, SFN 1807773)	77
			LS											LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E6, CUY-77-1593, SFN 1806939)	77
			LS											LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E7, CUY-77-1597L, SFN 1807919)	77
			LS											LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E8, CUY-90-1651L, SFN 1807900)	77
			LS											LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E9, CUY-90-1651R, SFN 1807803)	77
			LS											LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E10, CUY-E14TH-0002SN, SFN 1806912)	77
																						DRAINAGE	
				8.5										8.5				602	20000	8.5	CY	CONCRETE MASONRY	
							25609							25609				605	11110	25609	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
	3700													3700				605	11111	3700	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC, AS PER PLAN	79
	5200													5200				605	12211	5200	FT	6" DEEP PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC, AS PER PLAN	79
							2236							2236				605	13300	2236	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
							40888							40888				605	14020	40888	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
							3620							3620				611	01500	3620	FT	6" CONDUIT, TYPE F	
3579														3579				611	04400	3579	FT	12" CONDUIT, TYPE B	
	2000				3431									5431				611	04401	5431	FT 3	12" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	1163
					270									270				611	04401	270	FT	12" CONDUIT, TYPE B, AS PER PLAN 2, 748.01	1163
				5										5				611	04600	5	FT	12" CONDUIT, TYPE C	
					150									150				611	04601	150	FT 3	12" CONDUIT, TYPE C, AS PER PLAN 2, 706.08 & 706.12	1163
				46										46				611	04900	46	FT	12" CONDUIT, TYPE D	
				2913										2913				611	05900	2913	FT	15" CONDUIT, TYPE B	
				193										193				611	05900	193	FT	15" CONDUIT, TYPE B, 706.02, CLASS V	
				774										774				611	05901	774	FT 3	15" CONDUIT, TYPE B, AS PER PLAN	1163
	200			982										1182				611	05901	1182	FT	15" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	1163
				2566										2566				611	06100	2566	FT	15" CONDUIT, TYPE C	
				51										51				611	06101	51	FT	15" CONDUIT, TYPE C, AS PER PLAN	1163
					145									145				611	06101	145	FT 3	15" CONDUIT, TYPE C, AS PER PLAN 2, 706.08 & 706.12	1163
				134										134				611	06700	134	FT	15" CONDUIT, TYPE F, 707.05 TYPE C, 707.21, OR 707.33	
				742										742				611	07400	742	FT	18" CONDUIT, TYPE B	
				19										19				611	07400	19	FT	18" CONDUIT, TYPE B, 707.35	
				228										228				611	07600	228	FT	18" CONDUIT, TYPE C	
				138										138				611	08200	138	FT	18" CONDUIT, TYPE F, 707.05 TYPE C, 707.21, OR 707.33	
				484	5									489				611	08900	489	FT	21" CONDUIT, TYPE B	
45				466										511				611	10400	511	FT	24" CONDUIT, TYPE B	
				225										225				611	10400	225	FT	24" CONDUIT, TYPE B, 706.02, CLASS V	
					5									5				611	10401	5	FT 3	24" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	1163
				257										257				611	10600	257	FT	24" CONDUIT, TYPE C	
				65										65				611	11900	65	FT	27" CONDUIT, TYPE B	
				147										147				611	13400	147	FT	30" CONDUIT, TYPE B	
				197										197				611	13600	197	FT	30" CONDUIT, TYPE C	
																		611	25201	626	FT 3	66" CONDUIT, TYPE B, AS PER PLAN 2, 706.02 & 706.11	1163
				472										472				611	52902	472	FT	34" X 53" CONDUIT, TYPE B, 706.04	
				90										90				611	96600	90	FT	CONDUIT, BORED OR JACKED, 15" TYPE B	78
					90									90				611	96600	90	FT	CONDUIT, BORED OR JACKED, 66" TYPE B, 706.02 & 706.11	78
				246										246				611	96600	246	FT	CONDUIT, BORED OR JACKED, 66" TYPE C, 706.02 & 706.11	78
				7										7				611	98150	7	EACH	CATCH BASIN, NO. 3	
					33									33				611	98151	33	EACH	CATCH BASIN, NO. 3, AS PER PLAN	1169
				10										10				611	98180	10	EACH	CATCH BASIN, NO. 3A	

GENERAL SUMMARY - 3

DESIGN AGENCY

Michael Baker
INTERNATIONAL

DESIGNER

KJM

REVIEWER

KGJ 05/22/24

PROJECT ID

82382

SHEET

405

TOTAL

2696

[illegible]

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET	
428	1399	1400	1688	1689										01/IMS /04	02/IMS /10	03/IMS /08								
2														2				638	98000	2	EACH	WATER WORK (CONT.)		
	2													2				638	98000	2	EACH	WATER WORK, MISC.: 30" VALVE ASSEMBLY COMPLETE (CLEVELAND WATER)		1381
300000	2													2				638	98000	2	EACH	WATER WORK, MISC.: 36" CUTTING IN SLEEVE (CLEVELAND WATER)		1380
	3													300000				638	98000	300000	EACH	WATER WORK, MISC.: CLEVELAND WATER DEPARTMENT CHARGES		1374
	2													3				638	98000	3	EACH	WATER WORK, MISC.: CONCRETE PIER		1426
														2				638	98000	2	EACH	WATER WORK, MISC.: SLEEVE FOR ABUTMENT WALL - 12" DIP LINE (CLEVELAND WATER)		1429
	2													2				638	98000	2	EACH	WATER WORK, MISC.: SLEEVE FOR ABUTMENT WALL - 24" STEEL LINE (CLEVELAND WATER)		1429
	2													2				638	98000	2	EACH	WATER WORK, MISC.: STEEL TO DIP TRANSITION (CLEVELAND WATER)		1429
		507												507				638	98600	507	FT	WATER WORK, MISC.: 12" INSULATION FOR BRIDGE (CLEVELAND WATER)		1381
		354												354				638	98600	354	FT	WATER WORK, MISC.: 24" INSULATION FOR BRIDGE (CLEVELAND WATER)		1381
		354												354				638	98600	354	FT	WATER WORK, MISC.: 24" POLYURETHANE COATED CEMENT LINED STEEL		1380
																						LIGHTING		
			2											2				202	75704	2	EACH	REMOVAL OF EXISTING CONTROL CENTER AND FOUNDATION		
			2											2				202	75800	2	EACH	DISCONNECT EXISTING CIRCUIT		
			12	154										166				625	00450	166	EACH	CONNECTION, FUSED PULL APART		
			77											77				625	00460	77	EACH	CONNECTION, UNFUSED PULL APART		
			15											15				625	00470	15	EACH	CONNECTION, UNFUSED BOLTED		
			123	84										207				625	00480	207	EACH	CONNECTION, UNFUSED PERMANENT		
			4											4				625	10494	4	EACH	LIGHT POLE, LOW MAST, ALM50		
			2											2				625	10494	2	EACH	LIGHT POLE, LOW MAST, ATLM50		
				44										44				625	10500	44	EACH	LIGHT POLE, MISC.: 15' ROUND TAPERED FIBERGLASS STREETLIGHT		1686
				33										33				625	10500	33	EACH	LIGHT POLE, MISC.: 30' ROUND TAPERED FIBERGLASS STREETLIGHT		1686
				32										32				625	10614	32	EACH	LIGHT POLE ANCHOR BOLTS ON STRUCTURE		
			1											1				625	11000	1	EACH	LIGHT TOWER, BB80		
			2											2				625	11200	2	EACH	LIGHT TOWER, BB100		
			2 1											2 1				625	11300	2 1	EACH	LIGHT TOWER, BB110		
			3											3				625	12000	3	EACH	LIGHT TOWER, BBB80		
			8											8				625	12200	8	EACH	LIGHT TOWER, BBB100		
2			1											1				625	12400	1	EACH	LIGHT TOWER, BBB120		
			1											1				625	12900	1	EACH	LIGHT TOWER, BBBB60		
			1											1				625	13100	1	EACH	LIGHT TOWER, BBBB90		
			2											2				625	13200	2	EACH	LIGHT TOWER, BBBB100		
			1											1				625	13500	1	EACH	LIGHT TOWER, MISC.: TOWER LIGHTING RING WITH 4 LUMINAIRE MOUNTS		1685
				58										58				625	14000	58	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP		
			2											2				625	14200	2	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP		
			4											4				625	14307	4	EACH	MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN		1685
			2											2				625	15000	2	EACH	LIGHT TOWER FOUNDATION, 36" X 15' DEEP		
			10											10				625	15100	10	EACH	LIGHT TOWER FOUNDATION, 36" X 20' DEEP		
			4											4				625	15200	4	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP		
			1											1				625	15400	1	EACH	LIGHT TOWER FOUNDATION, 42" X 25' DEEP		
			1											1				625	15700	1	EACH	LIGHT TOWER FOUNDATION, MISC.: 42" X 20' DEEP		1685
			2											2				625	15700	2	EACH	LIGHT TOWER FOUNDATION, MISC.: 48" X 25' DEEP		1685
			30556	16375										46931				625	23200	46931	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE		
				49071										49071				625	23304	49071	FT	NO. 8 AWG 600 VOLT DISTRIBUTION CABLE		
				159										159				625	23308	159	FT	DISTRIBUTION CABLE, MISC.: NO. 4 / 0 AWG 2400 VOLT DISTRIBUTION CABLE		1686
			900											900				625	23400	900	FT	NO. 10 AWG POLE AND BRACKET CABLE		
				4950										4950				625	23410	4950	FT	NO. 12 AWG POLE AND BRACKET CABLE		
			7444											7444				625	24320	7444	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES		
				1796										1796				625	25012	1796	FT	CONDUIT, 3/4", 725.051		
			1304	1123										2427				625	25300	2427	FT	CONDUIT, 1-1/2", 725.04		
			116											116				625	25404	116	FT	CONDUIT, 2-1/2", 725.04		
				8541										8541				625	25408	8541	FT	CONDUIT, 2", 725.051		
			712											712				625	25504	712	FT	CONDUIT, 3", 725.051		
				43										43				625	25802	43	FT	CONDUIT, CONCRETE ENCASED, 2", 725.051		
				132										132				625	25803	132	FT	CONDUIT, CONCRETE ENCASED, AS PER PLAN (2-2" CONDUIT, 725.051)		1686
				1974										1974				625	25803	1974	FT	CONDUIT, CONCRETE ENCASED, AS PER PLAN (4-2" CONDUIT, 725.051)		1686
			3876											3876				625	25902	3876	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3"		
2				63										63				625	26253	63	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN (CPP LED COBRA HEAD)		1686
			64											64				625	26263	64	EACH	LUMINAIRE, HIGH MAST, SOLID STATE (LED), AS PER PLAN (480V)		1685
			6											6				625	26273	6	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN (480V)		1685

GENERAL SUMMARY - 6	
DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
KJM	
REVIEWER	
KGJ 05/22/24	
PROJECT ID	
82382	
SHEET	TOTAL
408	2696

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
1688	1689	1782											01/IMS /04	02/IMS /10	03/IMS /08																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

GENERAL SUMMARY - 7

DESIGN AGENCY

Michael BakerINTERNATIONAL

DESIGNER

KJM

REVIEWER

KGJ 05/22/24

PROJECT ID

82382

SHEET

409

TOTAL

2696

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
125	1455	1485	1678	1782									01/IMS /04	02/IMS /10	03/IMS /08																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															

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SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
120	125	1455	1468	1485	1493									01/IMS /04	02/IMS /10	03/IMS /08							
				6										6				630	72410	6	EACH	TRAFFIC CONTROL (CONT.)	
				6										6				630	72420	6	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	
				1										1				630	72430	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 3	
				1										1				630	72550	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 13	
	26			61										87				630	75000	87	EACH	SIGN ATTACHMENT ASSEMBLY	
				2										2				630	79100	2	EACH	SIGN HANGER ASSEMBLY, MAST ARM	
				112										112				630	79500	112	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
				18										18				630	79604	18	EACH	SIGN SUPPORT ASSEMBLY, BRIDGE MOUNTED, TYPE 2	
	146.0			4044.7										4190.7				630	80100	4190.7	SF	SIGN, FLAT SHEET	
				899.5										899.5				630	80200	899.5	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
	1026.0			7235.5										8261.5				630	80224	8261.5	SF	SIGN, OVERHEAD EXTRUSHEET	
	781.3													781.3				630	80300	781.3	SF	SIGN, TEMPORARY OVERLAY	
				6										6				630	80501	6	EACH	SIGN, DOUBLE FACED, STREET NAME, AS PER PLAN	1449
				5										5				630	84010	5	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	
	2			4										6				630	84500	6	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
				27										27				630	84510	27	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
	1				229									230				630	84900	230	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
				5										5				630	85000	5	EACH	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	
				2										2				630	85100	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
				14										14				630	85400	14	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
				198										198				630	86002	198	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
				2										2				630	86010	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION	
	2			28										30				630	86102	30	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
				1										1				630	86270	1	EACH	REMOVAL OF GROUND MOUNTED PIPE SUPPORT AND STORAGE	
	5													5				630	87000	5	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND STORAGE	
	5													5				630	87100	5	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	
	20				69									89				630	87400	89	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
				248										248				630	87500	248	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
				1										1				630	87510	1	EACH	REMOVAL OF POLE MOUNTED SIGN AND STORAGE	
				3										3				630	87520	3	EACH	REMOVAL OF POLE MOUNTED SIGN AND REERECTION	
				18										18				630	89702	18	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	
				1										1				630	89804	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-15.115	
	33													33				630	89894	33	EACH	REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL	
	4													4				630	89898	4	EACH	REMOVAL OF TEMPORARY OVERLAY SIGN AND STORAGE	
95970														95970				642	30000	95970	FT	REMOVAL OF PAVEMENT MARKING	
70														70				642	30020	70	EACH	REMOVAL OF PAVEMENT MARKING	
			1.33											1.33				644	00100	1.33	MILE	EDGE LINE, 4"	
1.96		7.62												9.58				644	00104	9.58	MILE	EDGE LINE, 6"	
0.46			2.04											2.50				644	00200	2.50	MILE	LANE LINE, 4"	
2.20		3.69												5.89				644	00204	5.89	MILE	LANE LINE, 6"	
0.04		0.17	1.56											1.77				644	00300	1.77	MILE	CENTER LINE	
517			5365											5882				644	00400	5882	FT	CHANNELIZING LINE, 8"	
1153		9020												10173				644	00404	10173	FT	CHANNELIZING LINE, 12"	
			1161											1161				644	00500	1161	FT	STOP LINE	
		53	4348											4401				644	00620	4401	FT	CROSSWALK LINE, 12"	
			1219											1219				644	00621	1219	FT	CROSSWALK LINE, 12", AS PER PLAN	1449
		2687	1466											4153				644	00700	4153	FT	TRANSVERSE/DIAGONAL LINE	
74		1026	473											1573				644	00720	1573	FT	CHEVRON MARKING	
			581											581				644	00900	581	SF	ISLAND MARKING	
			2960											2960				644	01200	2960	FT	PARKING LOT STALL MARKING	
16		10	136											162				644	01300	162	EACH	LANE ARROW	
			2											2				644	01350	2	EACH	LANE REDUCTION ARROW	
		11												11				644	01360	11	EACH	WRONG WAY ARROW	
			2											2				644	01370	2	EACH	TWO WAY LEFT TURN ARROW	
257			3053											3310				644	01500	3310	FT	DOTTED LINE, 4"	
2449		2420												4869				644	01510	4869	FT	DOTTED LINE, 6"	
			1448											1448				644	01514	1448	FT	DOTTED LINE, 8"	
		1365												1365				644	01520	1365	FT	DOTTED LINE, 12"	
			6											6				644	01630	6	EACH	BIKE LANE SYMBOL MARKING	

GENERAL SUMMARY - 9

DESIGN AGENCY

Michael Baker
INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET
411

TOTAL
2696

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
1455	1468	1642												01/IMS /04	02/IMS /10	03/IMS /08							
																		644	19000	4	EACH	TRAFFIC CONTROL (CONT.)	
	4													4				644	50300	38	FT	PAVEMENT MARKING, MISC.: BIKE LANE CROSSWALK	1449
	38													38				644	60000	1034	SF	GREEN COLORED PAVEMENT FOR BIKE LANES	
	1034													1034				646	10000	0.14	MILE	EDGE LINE, 4"	
	0.14													0.14				646	10010	1.90	MILE	EDGE LINE, 6"	
1.90														1.90									
	0.42													0.42				646	10100	0.42	MILE	LANE LINE, 4"	
1.48														1.48				646	10110	1.48	MILE	LANE LINE, 6"	
	0.35													0.35				646	10200	0.35	MILE	CENTER LINE	
	241													241				646	10300	241	FT	CHANNELIZING LINE, 8"	
3018														3018				646	10310	3018	FT	CHANNELIZING LINE, 12"	
	33													33				646	10400	33	FT	STOP LINE	
	56													56				646	10510	56	FT	CROSSWALK LINE, 12"	
310	188													498				646	10600	498	FT	TRANSVERSE/DIAGONAL LINE	
222														222				646	10620	222	FT	CHEVRON MARKING	
	5													5				646	20300	5	EACH	LANE ARROW	
2687														2687				646	20504	2687	FT	DOTTED LINE, 6"	
	4													4				646	20600	4	EACH	BIKE LANE SYMBOL MARKING	
	2													2				646	20650	2	EACH	SHARED LANE MARKING	
	876													876				646	60100	876	SF	GREEN COLORED PAVEMENT FOR BIKE LANES	
		4												4				625	00480	4	EACH	CONNECTION, UNFUSED PERMANENT	
		756												756				625	25408	756	FT	CONDUIT, 2", 725.051	
		448												448				625	25504	448	FT	CONDUIT, 3", 725.051	
		152												152				625	25604	152	FT	CONDUIT, 4", 725.051	
		4010												4010				625	25802	4010	FT	CONDUIT, CONCRETE ENCASED, 4", 725.051	
		675												675				625	25910	675	FT	CONDUIT CLEANED AND CABLES REMOVED	
		2824												2824				625	29000	2824	FT	TRENCH	
		447												447				625	29400	447	FT	TRENCH IN PAVED AREA	
		12												12				625	30510	12	EACH	PULL BOX, 725.06, SIZE 4	
		28												28				625	30530	28	EACH	PULL BOX, 725.06, SIZE 18	
		65												65				625	32000	65	EACH	GROUND ROD	
		3271												3271				625	36011	3271	FT	UNDERGROUND WARNING/MARKING TAPE, AS PER PLAN	1638
		58												58				630	79101	58	EACH	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	1638
		4												4				630	79500	4	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
		254.0												254.0				630	80100	254.0	SF	SIGN, FLAT SHEET	
		30												30				630	80511	30	EACH	SIGN, STREET NAME, AS PER PLAN	1638
		4												4				632	04000	4	EACH	VEHICULAR SIGNAL HEAD, MISC.: (LED), 3-SECTION, 8" LENS, 1-WAY, POLYCARBONATE, YELLOW (BICYCLE)	1640
		87												87				632	05006	87	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, YELLOW	
		12												12				632	05086	12	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, YELLOW	
		56												56				632	20731	56	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	1640
		62												62				632	20750	62	EACH	ACCESSIBLE PEDESTRIAN PUSHBUTTON	
		103												103				632	25000	103	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
		56												56				632	25010	56	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
		8775												8775				632	40300	8775	FT	SIGNAL CABLE, 3 CONDUCTOR, NO. 14 AWG	
		8775												8775				632	40500	8775	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
		10250												10250				632	40700	10250	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
		30												30				632	64010	30	EACH	SIGNAL SUPPORT FOUNDATION	
		28												28				632	64020	28	EACH	PEDESTAL FOUNDATION	
		8												8				632	64950	8	EACH	TEST HOLE PERFORMED	
		450												450				632	68200	450	FT	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG	
		450												450				632	69200	450	FT	POWER CABLE, 2 CONDUCTOR, NO. 4 AWG	
		7												7				632	70001	7	EACH	POWER SERVICE, AS PER PLAN 2	1639
		9												9				632	70200	9	EACH	CONDUIT RISER, 1" DIAMETER	
		10												10				632	72111	10	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 4, AS PER PLAN	1640
		8												8				632	72131	8	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12, AS PER PLAN	1640
		8												8				632	72141	8	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13, AS PER PLAN	1640
		2												2				632	72151	2	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 14, AS PER PLAN	1640
		2												2				632	86121	2	EACH	STRAIN POLE, TYPE TC-81.11, DESIGN 8, AS PER PLAN	1640
		14												14				632	89901	14	EACH	PEDESTAL, 8', TRANSFORMER BASE, AS PER PLAN	1640

GENERAL SUMMARY - 10	
DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
KJM	
REVIEWER	
KGJ 05/22/24	
PROJECT ID	
82382	
SHEET	TOTAL
412	2696

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
429	1642	1806	1839										01/IMS /04	02/IMS /10	03/IMS /08								
																			TRAFFIC SIGNALS (CONT.)				
	14												14				632	90010	14	EACH	PEDESTAL, MISC.: PEDESTAL 15', TRANSFORMER BASE	1640	
	8												8				632	90101	8	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	1638	
	7												7				633	65511	7	EACH	CABINET, TYPE TS-2, AS PER PLAN	1641	
	7												7				633	67100	7	EACH	CABINET FOUNDATION		
	6												6				633	67200	6	EACH	CONTROLLER WORK PAD		
	7												7				809	69123	7	EACH	ATC CONTROLLER, AS PER PLAN	1641	
																					TRAFFIC SIGNALS ALTERNATES 1		
	7												7			X	633	45001	7	EACH	GPS (GLOBAL POSITIONING SYSTEM) CLOCK ASSEMBLY, AS PER PLAN (GENERIC) (ALTERNATE 1)	1641	
	7												7			X	633	45001	7	EACH	GPS (GLOBAL POSITIONING SYSTEM) CLOCK ASSEMBLY, AS PER PLAN (ELTEC) (ALTERNATE 2)	1641	
																					TRAFFIC SIGNALS ALTERNATES 2		
	20												20			X	809	69101	20	EACH	STOP LINE RADAR DETECTION, AS PER PLAN (GENERIC) (ALTERNATE 1)	1638	
	20												20			X	809	69101	20	EACH	STOP LINE RADAR DETECTION, AS PER PLAN (ITERIS) (ALTERNATE 2)	1638	
																					LANDSCAPING		
			75										75				511	53010	75	CY	CLASS QC1 CONCRETE, MISC.: GATEWAY MONUMENT SIGN	1827	
			LS										LS				607	98200	LS		FENCE, MISC.: BRIDGE 13 SCREEN WALL PANELS	1832-1835	
			LS										LS				607	98200	LS		FENCE, MISC.: GATEWAY MONUMENT SIGN SCREEN WALL PANELS	1832	
			961										961				608	98000	961	SF	WALKWAY, MISC.: PAVERS OVER CONCRETE (BRICK 1)	1825	
			743										743				608	98000	743	SF	WALKWAY, MISC.: PAVERS OVER CONCRETE (BRICK 2)	1825	
			110										110				608	98000	110	SF	WALKWAY, MISC.: PAVERS OVER CONCRETE (BRICK 3)	1825	
			1847										1847				608	98000	1847	SF	WALKWAY, MISC.: PAVERS OVER CONCRETE (BRICK 4)	1825	
		243											243				661	00501	243	CY	MULCH, AS PER PLAN	1804	
		48400											48400				661	31000	48400	GAL	LANDSCAPE WATERING		
		9											9				661	40100	9	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, AMERICAN SYCAMORE (POC)		
		5											5				661	40100	5	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, BUR OAK (QMA)		
		7																					

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
120	427	428	429	435	489	1839								01/IMS /04	02/IMS /10	03/IMS /08																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

GENERAL SUMMARY - 12	
DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
KJM	
REVIEWER	
KGJ 05/22/24	
PROJECT ID	
82382	
SHEET	TOTAL
414	2696

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GENERAL SUMMARY - 13

DESIGN AGENCY

Michael Baker
INTERNATIONAL

DESIGNER

KJM

REVIEWER

KG I 05/22/24

PROJECT ID:

22282

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415 | 2696

SHEET NO.	201	202	202	202	204	204	204	251	251	254	254	254	255	255	255	407	441	441	442	442	442	452	452	605	605	608	608	609	611	611	611	611	611	611	614	614	614	614	614			
	CLEARING AND GRUBBING	CONCRETE BARRIER REMOVED	BUILDING DEMOLISHED, AS PER PLAN (103-26-003 , 303)	REMOVAL MISC.: BURIED TRACK	EXCAVATION OF SUBGRADE	GRANULAR MATERIAL, TYPE B	GEOTEXTILE FABRIC	PARTIAL DEPTH PAVEMENT REPAIR (442)	PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN	PAVEMENT PLANING, ASPHALT CONCRETE (1.5")	PAVEMENT PLANING, ASPHALT CONCRETE (3")	PAVEMENT PLANING, ASPHALT CONCRETE (3.25")	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN A	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN B	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN C	NON-TRACKING TACK COAT	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG70-22M	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	NON-REINFORCED CONCRETE PAVEMENT, MISC.: SURCHARGE FOR CLASS MS CONCRETE	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC, AS PER PLAN	6" DEEP PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC, AS PER PLAN	6" CONCRETE WALK, AS PER PLAN	CURB RAMP, AS PER PLAN	CURB, TYPE 6	12" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	15" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	CATCH BASIN, NO. 3A, AS PER PLAN	CATCH BASIN, NO. 2-2B, AS PER PLAN	MANHOLE, NO. 3, AS PER PLAN	SPECIAL - MISCELLANEOUS METAL	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	INCREASED BARRIER DELINEATION	WORK ZONE INCREASED PENALTIES SIGN	REPLACEMENT SIGN	WORK ZONE CROSSTOVER LIGHTING SYSTEM			
	LS	FT	LS	FT	CY	CY	SY	CY	CY	SY	SY	SY	SY	SY	SY	GAL	CY	CY	CY	CY	CY	SY	SY	FT	FT	SF	SF	FT	FT	FT	EACH	EACH	EACH	LB	HOUR	FT	EACH	EACH	EACH	EACH		
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MODEL: Sheet-01 PAPER SIZE: 34x22 (in.) DATE: 9/24/2025 TIME: 12:23:59 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland OH\01 Projects\ODOT\District12\823824\

[illegible]

LOCAL DRAINAGE SUBSUMMARY - 1

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
MJB	
REVIEWER	
KGJ	05/22/24
PROJECT ID	
82382	
SHEET	TOTAL
444	2696

REF NO.	SHEET NO.	STATION				SIDE	CFN	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	61
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ITEM 638 - 30" STEEL PIPE ENCASMENT, OPEN CUT, AS PER PLAN

FURNISH AND INSTALL A 30" STEEL CASING PIPE WITH A 15" INTERIOR CONDUIT ACCORDING TO ITEMS 638 AND 611 THROUGH AND EXTENDING 10' BEYOND MSE WALL. SELECT GRANULAR FILL.

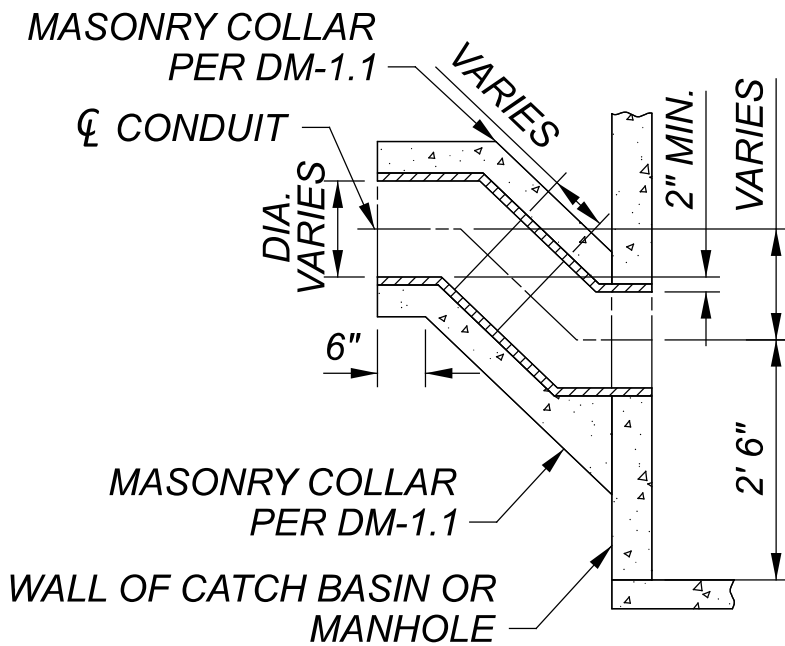
STEEL CASING PIPE SHALL BE ACCORDING TO 748.06. CONDUIT MATERIAL MUST BE REINFORCED CONCRETE PIPE PER 706.02. PROVIDE PREMIUM JOINTS PER 706.11 AND WRAP THE PIPE JOINTS IN GEOTEXTILE FABRIC, TYPE A, PER 712.09.

PAYMENT FOR REINFORCED CONCRETE PIPE, PREMIUM JOINTS, GEOTEXTILE FABRIC, STEEL CASING, HARDWOOD BLOCKING OR STAINLESS STEEL CHOCKS, BULKHEAD, LDCC FILL, EXCAVATION AND ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 638 - 30" STEEL PIPE ENCASMENT, OPEN CUT, AS PER PLAN.

ITEM 611 – MANHOLE, AS PER PLAN 2
ITEM 611 – CATCH BASIN, AS PER PLAN 2
ITEM 611 – INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN 2

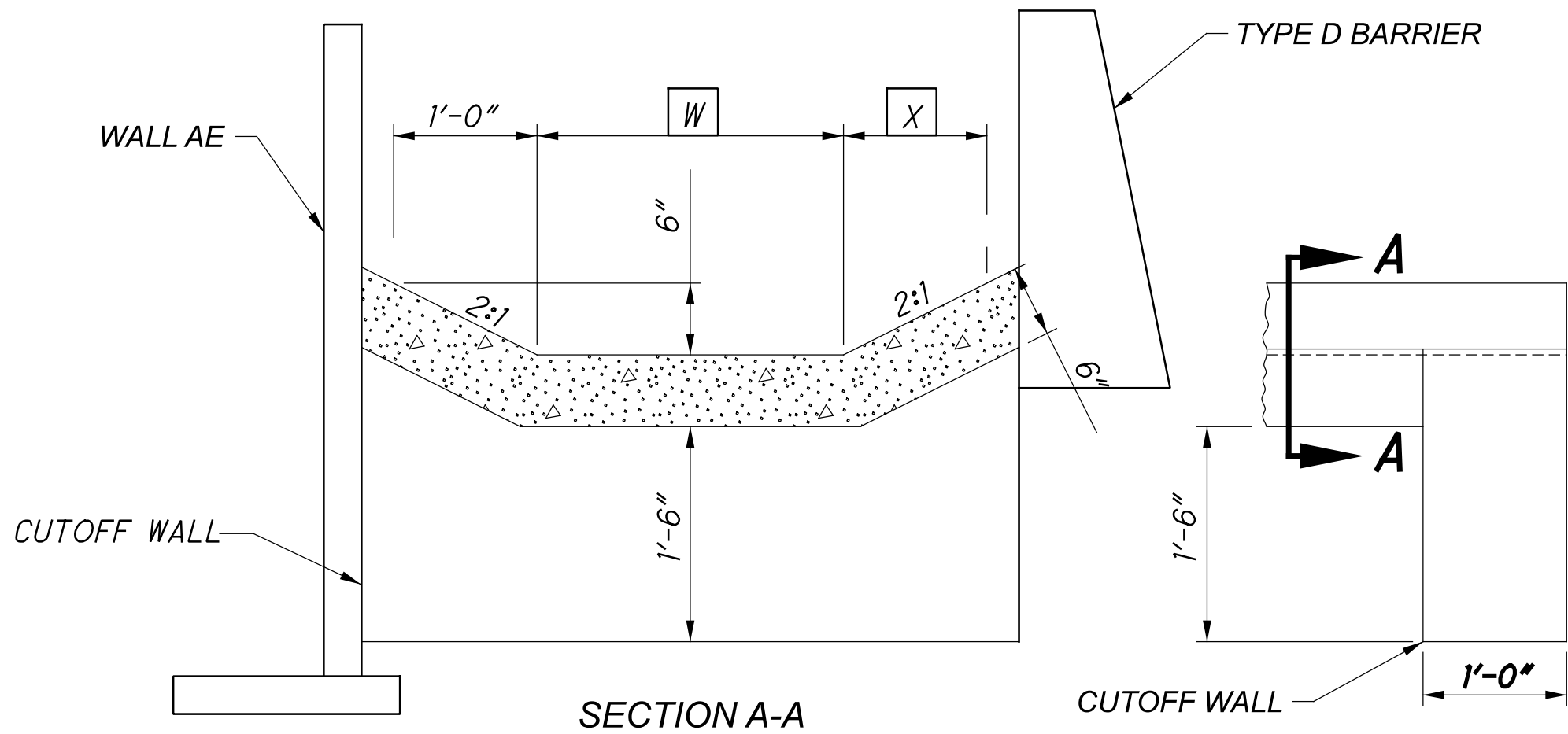
CONSTRUCT MANHOLES, CATCH BASINS AND INLETS AS PER PLAN 2 PER CMS 611 AND APPLICABLE STANDARD CONSTRUCTION DRAWINGS EXCEPT THAT A SUMP AND TRAP SHALL BE PROVIDED AS SHOWN HEREIN. TRAPS SHALL BE CONSTRUCTED OF TWO PREFABRICATED 45 DEGREE BENDS OR TWO PAIRS OF 22.5 DEGREE CUT CONDUIT TO FORM A 45 DEGREE BEND. IF RIGID PIPE IS USED, THERE SHALL BE SUFFICIENT LENGTH OF CONDUIT BETWEEN THE BENDS TO ENSURE THAT THE CROWN OF THE OUTLET PIPE AT THE STRUCTURE IS AT LEAST 2 INCHES LOWER THAN THE FLOWLINE ELEVATION OF THE OUTLET PIPE AT ITS PLAN INDICATED ELEVATION. INSTALL MASONRY COLLARS AT EACH BEND PER SCD DM-1.1.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 611 MANHOLES, CATCH BASINS, AND INLETS AS PER PLAN 2, EACH, AND SHALL INCLUDE ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE.



ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN

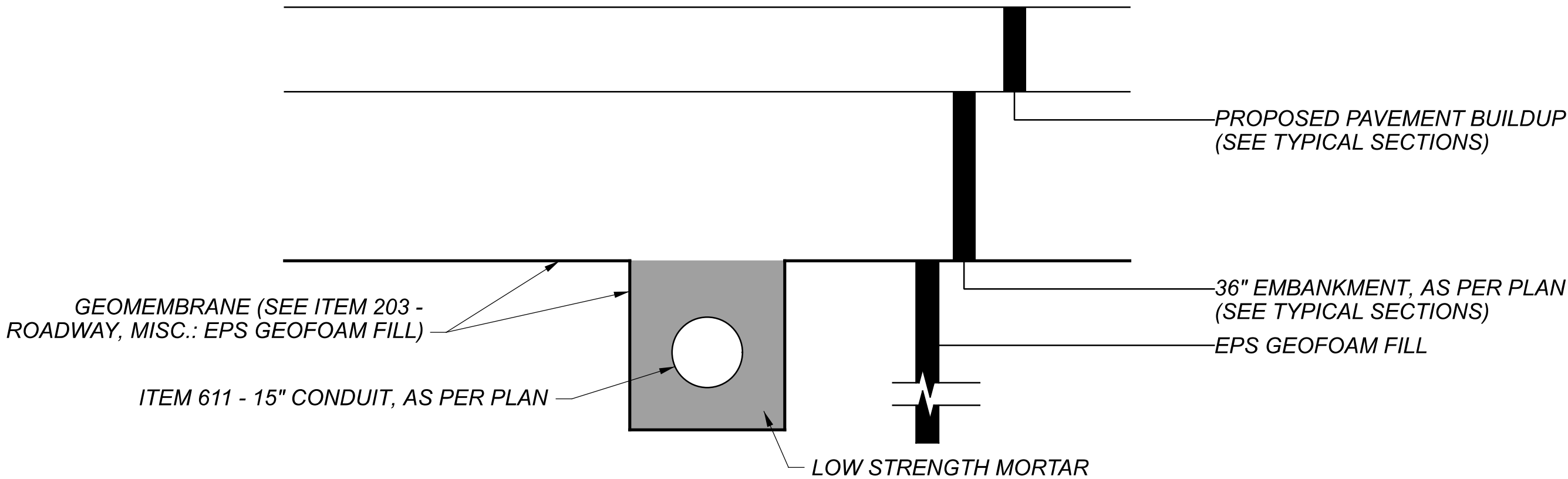
RECONSTRUCT MANHOLE PER CMS 611 EXCEPT THAT THE COVER SHALL BE ONE THAT CAN BE AND IS BOLTED CLOSED PER THE MANUFACTURER'S INSTRUCTIONS.



- W** VARIES 0' TO 2' STA. 437+52 TO STA. 437+89
2' STA. 437+89 TO 438+17
- X** 1' STA. 437+52 TO STA. 437+89
VARIES 1' TO 2.8' STA. 437+89 TO STA. 438+17

ITEM 601 - PAVED GUTTER, TYPE 1-2, AS PER PLAN

CONSTRUCT PAVED GUTTER PER SCD DM-2.1 EXCEPT THAT THE DIMENSIONS SHALL FOLLOW THE DETAIL ABOVE.



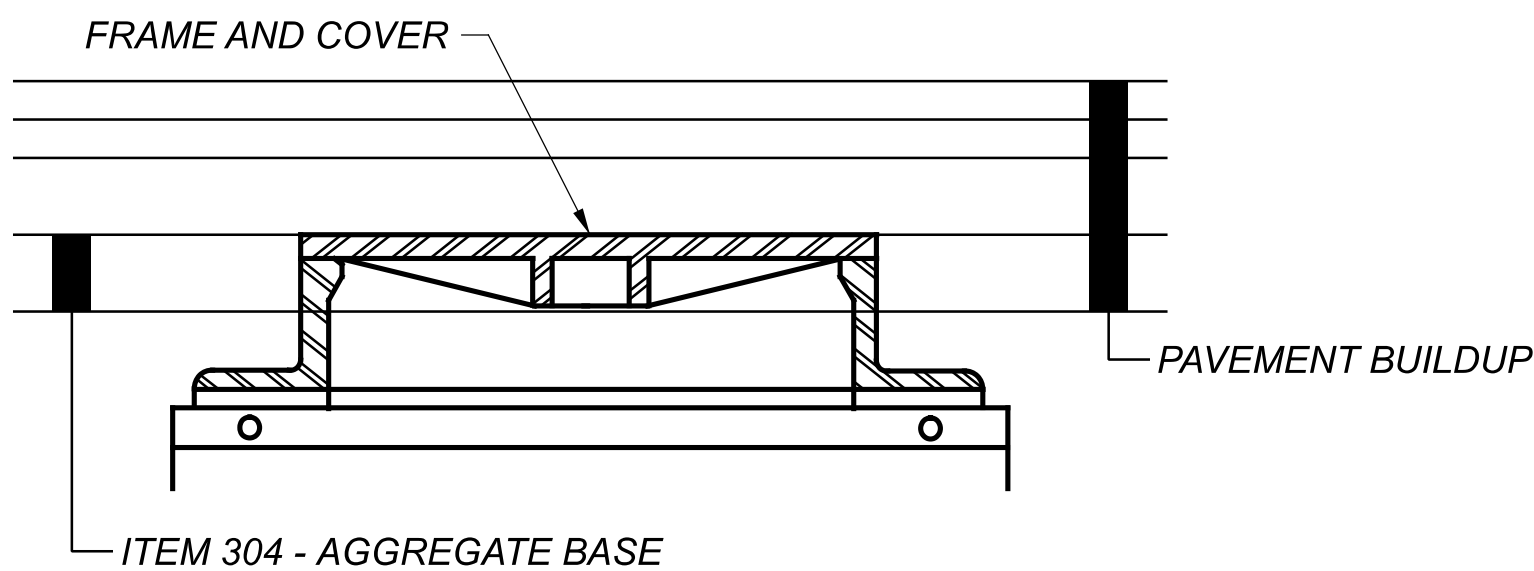
ITEM 611 - 15" CONDUIT, AS PER PLAN

ITEM 611 - 15" CONDUIT, AS PER PLAN

CONSTRUCT CONDUIT ACCORDING TO CMS 611 THROUGH THE LIMITS OF AND EXTENDING 10' BEYOND THE EPS GEOFOAM FILL EXCEPT THAT THE CONDUIT MATERIAL MUST BE REINFORCED CONCRETE PIPE PER 706.02 WITH PREMIUM JOINTS PER 706.11.

LINE THE TRENCH THROUGH THE EPS GEOFOAM FILL WITH GEOMEMBRANCE PER ITEM 203 - ROADWAY, MISC.: EPS GEOFOAM FILL. THE BEDDING AND BACKFILL SHALL BE LOW STRENGTH MORTAR PER 613 PER THE DETAIL ON THIS SHEET, UP TO THE TOP OF THE EPS GEOFOAM FILL.

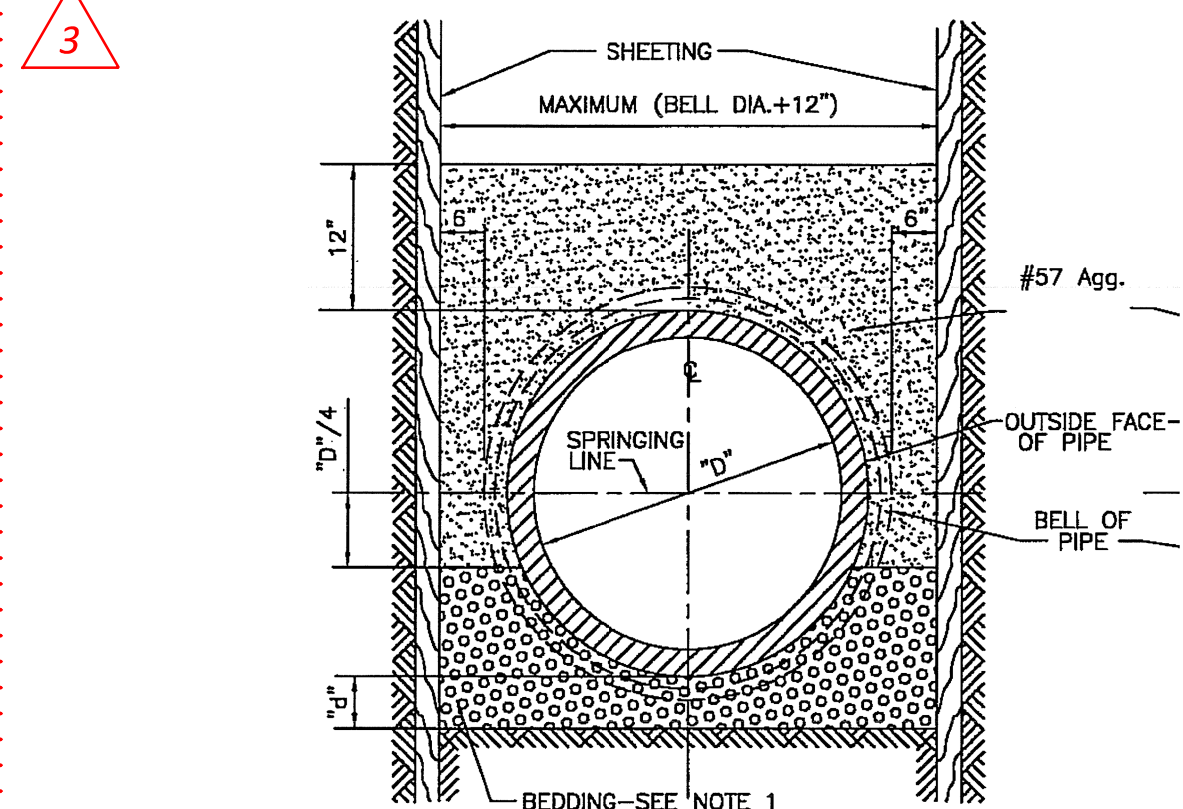
PAYMENT FOR THE PIPE, PREMIUM JOINTS, LOW STRENGTH MORTAR, EXCAVATION AND ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 611 - 15" CONDUIT, AS PER PLAN. GEOMEMBRANCE AND EPS GEOFOAM FILL SHALL BE PAID FOR UNDER ITEM 203 - ROADWAY, MISC.: EPS GEOFOAM FILL.



ITEM 611 - MANHOLE, NO. 3, AS PER PLAN 3 &
ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN 2

ITEM 611 - MANHOLE, NO. 3, AS PER PLAN 3
ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN 2

CONSTRUCT/RECONSTRUCT MANHOLE PER CMS 611 EXCEPT THAT THE FRAME AND COVER SHALL BE BURIED BENEATH THE PAVEMENT LAYERS WITH THE TOP OF THE FRAME AND COVER FLUSH WITH THE TOP OF THE ITEM 304 AGGREGATE BASE AND THE COVER SHALL BE SOLID.

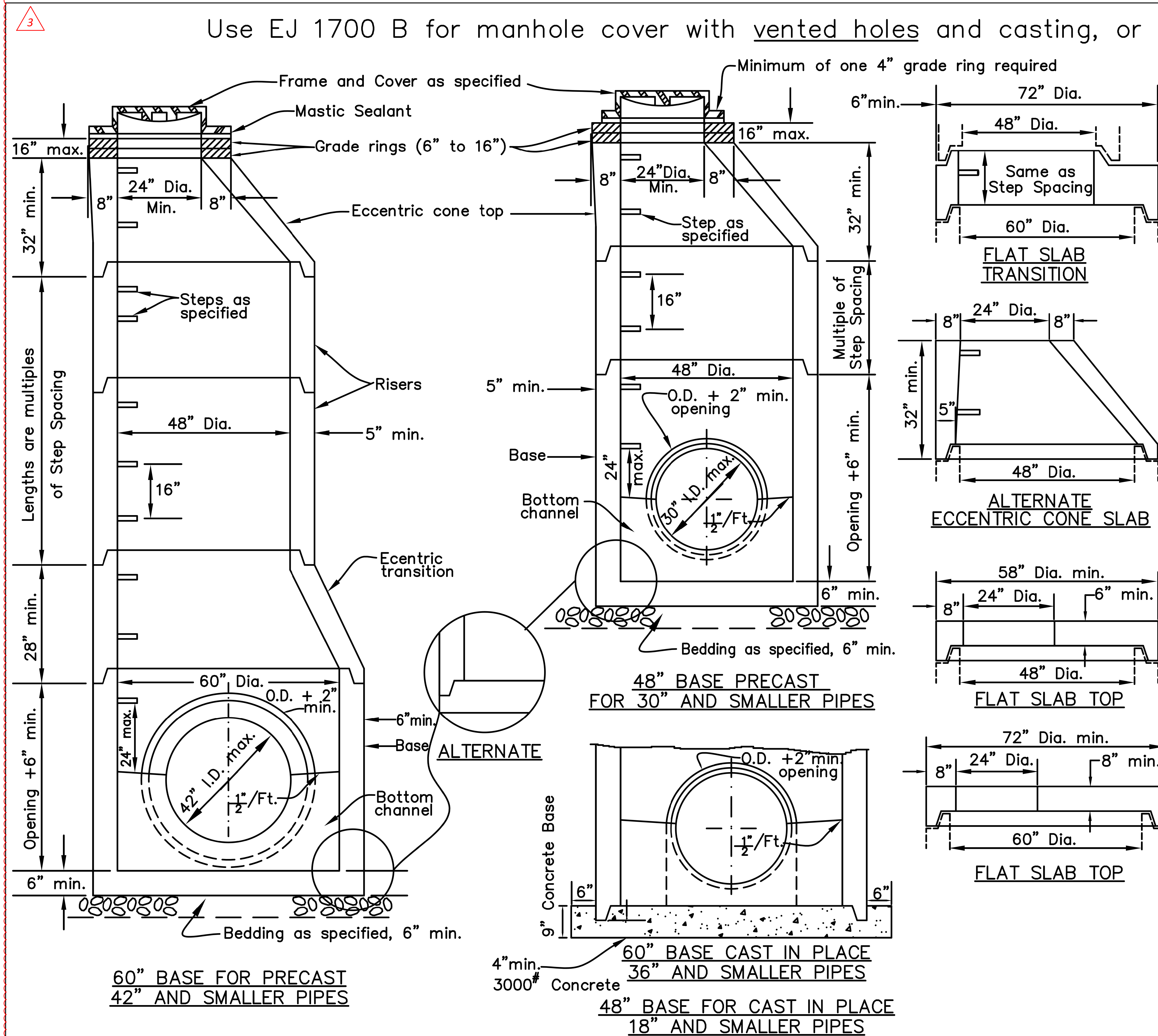


TYPICAL SECTION
PIPE SEWERS IN
ORDINARY EARTH BEDDING

ITEM 611 - XX" CONDUIT, AS PER PLAN 2

CONSTRUCT CONDUIT ACCORDING TO CMS 611 EXCEPT THAT TRENCH BACKFILL IN PAVED AREAS SHALL BE CLEVELAND 50 LSM AND BEDDING MATERIAL SHALL BE COARSE NATURAL AGGREGATE COMPLYING WITH 703.01 WITH THE FOLLOWING PROVISIONS:

- 4" BEDDING DEPTH "d" OF NO. 57 GRANULAR MATERIAL FOR 8" TO 24" PIPE
- 6" BEDDING DEPTH "d" OF NO. 5 GRANULAR MATERIAL FOR 27" TO 60" PIPE
- 8" BEDDING DEPTH "d" OF NO. 4 GRANULAR MATERIAL FOR PIPE SIZES GREATER THAN 60". THE MINIMUM DEPTH OF THE BEDDING SHALL BE 2" BELOW THE PIPE BELLS, IF ANY, BUT IN NO CASE SHALL THE BEDDING BE LESS THAN 8".
- SERVICE CONNECTIONS SHALL HAVE A 3" MINIMUM BEDDING DEPTH OF NO. 57 GRANULAR MATERIAL



NOTES:

Sections of the precast manholes shall be cast and assembled with either all tongue or all groove ends up. Lift holes may be provided in each section for handling.

TOP AND TRANSITION (or reducer) sections may be either eccentric cones, concentric cone or flat slab.

BASES for Manholes are shown with monolithic floor and riser which may be cast in one or two operations. A permissible alternate is to cast and ship the floor and barrel separately. Openings for inlet and outlet pipes shall be provided, either when the unit is cast or later, to meet project requirements. Bottom channels may be formed of concrete precast in the base or by field construction. Bases may also be poured in place.

OPENINGS IN RISER SECTIONS for sewer pipes shall be prefabricated. Flexible connections shall be provided for sanitary, storm and combined sewers. Premium seals shall meet A.S.T.M. C-923.

BRICK shall conform to ASTM C-32.

JOINT SEALS between precast manhole sections on sewers shall be resilient and flexible gasket joints per A.S.T.M. C443—or latest edition.

MANHOLE JOINTS and GRADE RINGS shall be sealed externally and between the grade rings with a layer of mastic compound such as Faberlite, Kent Seal or equal.

MATERIALS for bases and other precast sections, including reinforcement not specified hereon, shall comply with the specifications.

LANDING PLATFORMS as shown on the Landing Details shall be installed in manholes that are over 28 feet deep to the invert with a maximum vertical spacing of 20 feet.

SEAL lift holes with approved concrete plugs.

PRECAST MANHOLE shall conform to the requirements of A.S.T.M. C-478.

GASKETS or SLEEVES to be installed for pipe connections.

MANHOLE FRAMES – external or internal chimney seals are required on all new manholes.

A minimum 3" vertical wall is required below the casting for installation of chimney seals.

REVISIONS:

UNIFORM STANDARDS: CLEVELAND – CUYAHOGA COUNTY – NORTHEAST OHIO REGIONAL SEWER DISTRICT

SCALE
No ScaleDATE
1998

PRECAST CONCRETE MANHOLE 42" PIPE OR SMALLER

MODIFIED (2023)

DRAINAGE DETAILS
ITEM 611 – MANHOLE, NO. 3, AS PER PLAN

DESIGN AGENCY

Michael Baker
INTERNATIONALDESIGNER
JAR

REVIEWER
GJ 05/22/24

PROJECT ID	82382
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MEET	TOTAL
1170	2696