ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLE-SHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS SHOWN IN THE DETOUR PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 2 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 50 SIGN MONTHS

PAVEMENT RESTORATION FOR DRAINAGE STRUCTURE INSTALLATIONS

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PAYMENT RESTORATION. FOLLOWING INSTALLATION OF ITEM 611 DRAINAGE STRUCTURES AT THE FOLLOWING LOCATIONS:

* SYSTEM 1 - STA 270+08 = 92 SY
* SYSTEM 2 - STA 277+90 = 32 SY
* SYSTEM 3A - STA 288+06 = 32 SY
* CULVERT #6 - STA 380+49 = 46 SY
* SYSTEM 7 - STA 388+10 = 51 SY
* CULVERT #8 - STA 391+30 = 130 SY
* SYSTEM 9 - STA 410+45 = 81 SY
* SYSTEM 10 - STA 421+03 = 57 SY
* SYSTEM 10B - STA 435+22 = 16 SY
* CULVERT #11 - STA 458+98 = 62 SY
* 12" PIPE CROSSING - STA 459+25 = 16 SY
* SYSTEM 12 - STA 471+86 = 16 SY
* CULVERT #12 - STA 471+91 = 31 SY
* SYSTEM 13 - STA 477+90 = 16 SY
* SYSTEM 13 - STA 478+75 = 16 SY
* SYSTEM 13 - STA 480+00 = 16 SY
* SYSTEM 14 - STA 489+57 = 16 SY
* CULVERT #14 - STA 489+62 = 24 SY
* SYSTEM 15 - STA 496+07 = 16 SY
* CULVERT #15 - STA 496+13 = 20 SY
* CULVERT #16 - STA 503+10 = 81 SY
* CULVERT #17 - STA 14+15 = 20 SY
* TILE CROSSING - STA 35+28 = 16 SY
* CULVERT #18 - STA 35+93 = 61 SY
* CULVERT #19 - STA 46+32 = 51 SY
* CULVERT #20 - STA 51+28 = 8 SY

THE ABOVE QUANTITY IS BASED ON A 301 THICKNESS OF 15.25 INCHES. PAVEMENT REPAIR AREAS ARE BASED ON A MINIMUM TRENCH WIDTH OF 1.3 TIMES THE OUTSIDE DIAMETER OF THE CONDUITS. THE TRENCH SHALL BE FILLED WITH 301 TO MATCH THE ADJACENT ROADWAY SURFACE. PROVIDE ANY MATERIAL USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 301 - ASPHALT CONCRETE BASE, PG64-22 450 CY

REPLACEMENT DRUMS

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 20 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

PAVEMENT FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITY OF WORK ZONE PAVEMENT SHALL BE USED AS DIRECTED BY THE ENGINEER FOR PURPOSES OF MAINTAINING TRAFFIC DURING PIPE AND/OR CULVERT INSTALLATION:

ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B 1000 SY

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

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 (WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

* FOR CONTROLLING THE DETOUR OF TRAFFIC DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE BLOCKAGE OF TRAFFIC IN ONE DIRECTION IS REQUIRED. ON THE DAY OF THE CLOSURE, AND FOR A MINIMUM OF TWO DAYS THEREAFTER, OR AS DIRECTED BY THE ENGINEER, ONE L.E.O. WITH PATROL CAR SHALL BE POSTED AT EACH DETOUR POINT AS SHOWN IN THE PLANS FROM 7:00 AM TO 11:00 AM AND FROM 2:00 PM TO 6:00 PM TO ENSURE THAT ONLY PERMITTED DIRECTIONAL TRAFFIC IS UTILIZING THE ROADWAY IN THE WORK ZONE AREA. THIS REQUIREMENT APPLIES TO THE START OF EACH SECTION, PHASE, STEP, AND WEEKEND CLOSURE AS SHOWN IN THE PLAN.

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

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 WHICH 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 PATROL CAR FOR ASSISTANCE 160 HOURS

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 AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

MAINTENANCE OF TRAFFIC PLAN
GENERAL NOTES

DESIGN AGENCY
DESIGN AGENCY
EGGEMAN ENGINEERING & CONSULTING
6958 OLD CLIFTON RD
SPRINGFIELD, OH 45502
(937) 319-6428

DESIGNER MJH
REVIEWER KAE 7-20-24
PROJECT ID 111381
SHEET P.11 TOTAL 485

UNI/DEL-42-4.92/0.00
MODEL: ill38l_MOT_Notes PAPERSIZE: 34x22 (in.) DATE: 5/6/2025 TIME: 11:06:41 AM USER: mhunt
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SHEET NUM.										PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.8	P.9	P.11	P.12	P.56	P.57	P.55	P.71	P.72	P.82	01/NHS/05	02/NHS/04	03/NHS/04						
																	DRAINAGE (CONT.)	
	50						213				263		611	01400	263	FT	6" CONDUIT, TYPE E	
							223				223		611	01400	223	FT	6" CONDUIT, TYPE E , 706.08	
							30				30		611	02000	30	FT	8" CONDUIT, TYPE C	
	50						172				143	79	611	02500	222	FT	8" CONDUIT, TYPE E	
							809				189	620	611	04400	809	FT	12" CONDUIT, TYPE B	
							6,570				6,570		611	04600	6,570	FT	12" CONDUIT, TYPE C	
							1,024				1,024		611	04900	1,024	FT	12" CONDUIT, TYPE D	
							7,453				7,453		611	05100	7,453	FT	12" CONDUIT, TYPE E	
							114					114	611	05700	114	FT	15" CONDUIT, TYPE A, 706.02, 707.01 (0.188)GALVANIZED), 707.01 ALUMINIZED, 707.21, 707.33, 707.65	
							71					71	611	05900	71	FT	15" CONDUIT, TYPE B	
							2,261				2,261		611	06100	2,261	FT	15" CONDUIT, TYPE C	
							421				421		611	06400	421	FT	15" CONDUIT, TYPE D	
							64				64		611	06400	64	FT	15" CONDUIT, TYPE D , 706.02, 707.33 OR 707.65	
							108					108	611	07200	108	FT	18" CONDUIT, TYPE A , 706.02, 707.01 (0.188) GALVANIZED, 707.01 ALUMINIZED, 707.21, 707.33, 707.65	
							2,052				2,052		611	07600	2,052	FT	18" CONDUIT, TYPE C	
							48				48		611	07400	48	FT	18" CONDUIT, TYPE B	
							135				135		611	07900	135	FT	18" CONDUIT, TYPE D	
							14				14		611	09100	14	FT	21" CONDUIT, TYPE C	
							188				53	135	611	10400	188	FT	24" CONDUIT, TYPE B	
							628				628		611	10600	628	FT	24" CONDUIT, TYPE C	
							192				192		611	10900	192	FT	24" CONDUIT, TYPE D	
							96				96		611	13900	96	FT	30" CONDUIT, TYPE D	
							1,388				1,388		611	16600	1,388	FT	36" CONDUIT, TYPE C	
							12				12		611	16600	12	FT	36" CONDUIT, TYPE C, 706.02	
							648				648		611	16900	648	FT	36" CONDUIT, TYPE D	
							80					80	611	19400	80	FT	42" CONDUIT, TYPE B	
							34				34		611	19600	34	FT	42" CONDUIT, TYPE C	
							580				580		611	21100	580	FT	48" CONDUIT, TYPE C	
							814				814		611	24000	814	FT	60" CONDUIT, TYPE C	
							175					175	611	52200	175	FT	14" X 23" CONDUIT, TYPE A, 706.04	
							62					62	611	52202	62	FT	14" X 23" CONDUIT, TYPE B, 706.04	
							192				192		611	52206	192	FT	14" X 23" CONDUIT, TYPE D, 706.04	
							112					112	611	52300	112	FT	19" X 30" CONDUIT, TYPE A, 706.04	
							68				68		611	52306	68	FT	19" X 30" CONDUIT, TYPE D, 706.04	
							244					244	611	52400	244	FT	22" X 34" CONDUIT, TYPE A, 706.04	
							56					56	611	52500	56	FT	24" X 38" CONDUIT, TYPE A, 706.04	
							71					71	611	52502	71	FT	24" X 38" CONDUIT, TYPE B, 706.04	
							62				62		611	52504	62	FT	24" X 38" CONDUIT, TYPE C, 706.04	
							60					60	611	52700	60	FT	29" X 45" CONDUIT, TYPE A, 706.04	
							64				64		611	52706	64	FT	29" X 45" CONDUIT, TYPE D, 706.04	
							73					73	611	53102	73	FT	43" X 68" CONDUIT, TYPE B, 706.04	
							60				60		611	53201	60	FT	48" X 76" CONDUIT, TYPE A, 706.04, AS PER PLAN	
							88					88	611	53300	88	FT	53" X 83" CONDUIT, TYPE A, 706.04	
	100										100		611	97400	100	FT	CONDUIT, MISC.:TYPE E FOR DRAINAGE CONTINUANCE	P.9
	100										100		611	97400	100	FT	CONDUIT, MISC.:TYPE F FOR DRAINAGE CONTINUANCE	P.9
	200										200		611	97400	200	FT	CONDUIT, MISC.:CONDUIT REMOVAL FOR DRAINAGE CONTINUANCE	P.9
								7			7		611	98390	7	EACH	CATCH BASIN, NO. 7	
								48			48		611	98410	48	EACH	CATCH BASIN, NO. 8	
								1			1		611	98434	1	EACH	CATCH BASIN, NO. 8A	
								70			70		611	98470	70	EACH	CATCH BASIN, NO. 2-2B	
								2			2		611	98510	2	EACH	CATCH BASIN, NO. 2-3	
								1			1		611	98540	1	EACH	CATCH BASIN, NO. 2-4	
								19			19		611	99574	19	EACH	MANHOLE, NO. 3	
																	PAVEMENT	
300										300			251	01041	300	SY	PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), AS PER PLAN	P.8
			1,500						46,289	47,789			254	01000	47,789	SY	PAVEMENT PLANING, ASPHALT CONCRETE (VARIABLE DEPTH, 1.5" AVG.)	
						63,839				63,839			255	20000	63,839	FT	FULL DEPTH PAVEMENT SAWING	
15		450							16,999	14,596	2,868		301	56000	17,464	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
				510	519				18,134	14,883	4,280		304	20001	19,163	CY	AGGREGATE BASE, AS PER PLAN	P.8
				47	28					75			407	10000	75	GAL	TACK COAT	
			120						18,552	15,984	2,688		407	20000	18,672	GAL	NON-TRACKING TACK COAT	

GENERAL SUMMARY

DESIGN AGENCY
2800 Corporate Exchange Drive, Suite 250,
Columbus, OH 43231

DESIGNER SKG

REVIEWER DFD 07/30/24

PROJECT ID 111381

SHEET P.48 TOTAL 485

UNI/DEL-42-4.92/0.00

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DRAINAGE SUBSUMMARY - STORM SEWERS

REF NO.	SHEET NO.	STATION TO STATION					601 RIPRAP		601 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	602 CONCRETE MASONRY	611 6" CONDUIT, TYPE E	611 6" CONDUIT, TYPE E, 706.08		611 8" CONDUIT, TYPE E	611 12" CONDUIT, TYPE B	611 12" CONDUIT, TYPE C	611 18" CONDUIT, TYPE B	611 15" CONDUIT, TYPE C	611 24" CONDUIT, TYPE C	611 14" X 23" CONDUIT, TYPE B, 706.04	611 24" X 38" CONDUIT, TYPE B, 706.04	611 24" X 38" CONDUIT, TYPE C, 706.04	611 CATCH BASIN, NO. 8	611 CATCH BASIN, NO. 2-3	611 CATCH BASIN, NO. 2-2B	611 MANHOLE, NO. 3	670 DITCH EROSION PROTECTION
							SY		CY	CY	FT	FT		FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	SY
		U.S. 42																									
D5A1	100	363+19	LT	TO	363+00	LT						21															
D5A	100	363+00	LT	TO	362+81	LT						21														1	
D5A2	99-100	362+81	LT	TO	361+00	LT						181															
D6A	100	369+05	RT	TO	372+00	RT					12					295										1	
D6B	100	372+00	RT	TO	374+30	RT										230										1	
D6C	100-101	374+30	RT	TO	377+25	RT					8					295										1	
D6D	101	377+25	RT	TO	380+25	RT										300										1	
D6E	101	380+25	RT	TO	380+25	RT										18										1	
D6EMH	101	380+25	RT	TO	380+61	RT										36											1
D6K	101	380+61	RT	TO	380+75	RT								20												1	
D6J	100	369+14	LT	TO	372+00	LT					22					286										1	
D6I	100	372+00	LT	TO	374+30	LT										230										1	
D6H	100-101	374+30	LT	TO	377+30	LT					10					300										1	
D6G	101	377+30	LT	TO	380+25	LT										295										1	
D6F	101	380+25	LT	TO	380+25	RT									64											1	
D7A	101	381+00	LT	TO	382+00	LT										100										1	
D7B	101	382+00	LT	TO	382+50	LT										50										1	
D7C	101	382+50	LT	TO	385+50	LT										300										1	
D7D	101	385+50	LT	TO	387+75	LT										225										1	
D7E	101-102	387+75	LT	TO	388+19	LT												44								1	
D7F	102	388+19	LT	TO	388+67	RT	3			0.44												71	14				1	
D7G	102	388+67	RT	TO	389+00	RT			2	0.44													48				1	
D7K	101	381+00	RT	TO	383+30	RT										230										1	
D7J	101	383+30	RT	TO	386+30	RT										300										1	
D7I	101	386+30	RT	TO	388+00	RT												170								1	
D7H	102	388+00	RT	TO	388+67	RT												67								1	
D8A	102	401+00	RT	TO	398+00	RT										300								1			126
D8B	102	398+00	RT	TO	397+25	RT										75										1	
D8C	102	397+25	RT	TO	394+25	RT													300					1			140
D8D	102	394+25	RT	TO	394+25	RT				0.46									7					1			125
D8E	102	394+25	RT	TO	391+38	RT													260							1	
D9A	103	408+50	LT	TO	409+25	LT												75						1			125
D9B	103	409+25	LT	TO	409+70	LT												45						1			56
D9C	103	409+70	LT	TO	410+45	LT												75						1			
D9D	103	410+45	LT	TO	410+45	RT														62					1		
D9E	103	410+45	RT	TO	410+54	RT					16			79											1		
D8F	102	390+60	LT	TO	390+60	RT											48										
TOTALS CARRIED TO DRAINAGE SUMMARY							3		2	2	68	223		99	64	3,865	48	476	567	62	71	62	6	2	21	5	572

UNI/DEL-42-4.92/0.00

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DESIGN AGENCY
E.L. ROBINSON ENGINEERING
1468 West 9th St, Suite 800 Cleveland, Ohio
950 Goodale Blvd, Suite 180 Grandview Heights, Ohio

DESIGNER CDS
REVIEWER CTW 07/30/24
PROJECT ID 111381
SHEET P.68 TOTAL 485

DRAINAGE QUANTITIES SUMMARY

SHEET NO.	202 Headwall Removed	202 Pipe Removed, 24" And Under	202 Pipe Removed, Over 24"	202 Structure Removed	202 Catch Basin Removed		601 Riprap	601 Tied Concrete Block Mat With Type 2 Underlayment	601 Rock Channel Protection, Type B With Filter	601 Rock Channel Protection, Type C With Filter		602 Concrete Masonry	602 Concrete Masonry, As Per Plan	605 4" Base Pipe Underdrains		611 4" Conduit, Type E	611 4" Conduit, Type F	611 6" Conduit, Type E	611 6" Conduit, Type E, 706.08	611 8" Conduit, Type C	611 8" Conduit, Type E		611 12" Conduit, Type B	611 12" Conduit, Type C	611 12" Conduit, Type D	611 12" Conduit, Type E
	Each	FT	FT	Each	Each		SY	SY	CY	CY		CY	CY	FT		FT	FT	FT	FT	FT	FT		FT	FT	FT	FT
63	11	20,969	19	1	56																					
64	4	552	50	1	1			53	20	17		12	7													
65																									1024	
66																									213	
67									21	10		6												1288		
68							3			2		2						68	223		99		64	3865		
69							5			5		3				39		105			73		295	728		5883
70														645			39	40		30			450	689		1570
TOTALS	15	21521	69	2	57		8	53	41	34		23	7	645		39	39	213	223	30	172		809	6570	1237	7453

SHEET NO.	611 15" Conduit, Type A, 706.02, 707.01 (0.188)GALVANIZED), 707.01 ALUMINIZED, 707.21, 707.33, 707.65	611 15" Conduit, Type B	611 15" Conduit, Type C	611 15" Conduit, Type D	611 15" Conduit, Type D, 706.02, 707.33 OR 707.65		611 18" Conduit, Type A, 706.02, 707.01 (0.188) GALVANIZED, 707.01 ALUMINIZED, 707.21, 707.33, 707.65	611 18" Conduit, Type C	611 18" Conduit, Type D	611 18" Conduit, Type B	611 21" Conduit, Type C		611 24" Conduit, Type B	611 24" Conduit, Type C	611 24" Conduit, Type D		611 30" Conduit, Type D		611 36" Conduit, Type C	611 36" Conduit, Type C, 706.02	611 36" Conduit, Type D		611 42" Conduit, Type B	611 42" Conduit, Type C		611 48" Conduit, Type C
	FT	FT	FT	FT	FT		FT	FT	FT	FT	FT		FT	FT	FT		FT		FT	FT	FT		FT	FT		FT
63																										
64	114						108																			
65				421	64				135						192		96				648					
66				41																						
67		71	1485					680			14		188	61					1388	12				14		580
68			476							48				567												
69			300					1372															80	20		
70																										
TOTALS	114	71	2261	462	64		108	2052	135	48	14		188	628	192		96		1388	12	648		80	34		580

SHEET NO.	611 60" Conduit, Type C		611 14" X 23" Conduit, Type A, 706.04	611 14" X 23" Conduit, Type B, 706.04	611 14" X 23" Conduit, Type D, 706.04		611 19" X 30" Conduit, Type A, 706.04	611 19" X 30" Conduit, Type D, 706.04		611 22" X 34" Conduit, Type A, 706.04		611 24" X 38" Conduit, Type A, 706.04	611 24" X 38" Conduit, Type B, 706.04	611 24" X 38" Conduit, Type C, 706.04		611 29" X 45" Conduit, Type A, 706.04	611 29" X 45" Conduit, Type D, 706.04		611 43" X 68" Conduit, Type B, 706.04	611 48" X 76" Conduit, Type A, 706.04, As Per Plan	611 53" X 83" Conduit, Type A, 706.04					
	FT		FT	FT	FT		FT	FT		FT		FT	FT	FT		FT	FT		FT	FT	FT					
63																										
64			175				112			244		56				60				60	88					
65					192			68									64									
66																										
67	814																		73							
68				62									71	62												
69																										
70																										
TOTALS	814		175	62	192		112	68		244		56	71	62		60	64		73	60	88					

UNI/DEL-42-4.92/0.00

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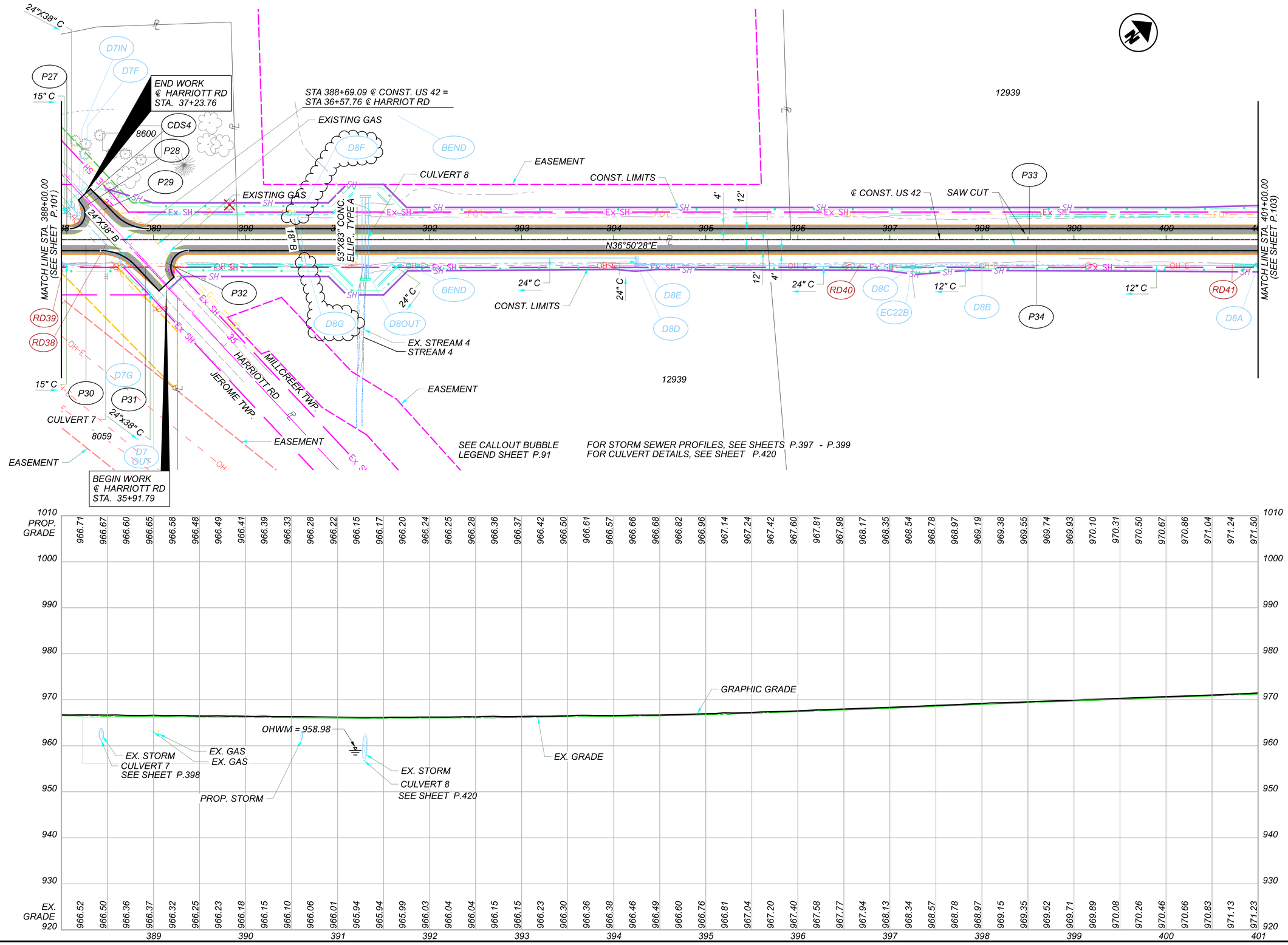
DESIGN AGENCY
E.L. ROBINSON ENGINEERING
1468 West 9th St, Suite 800 Cleveland, Ohio
950 Goodale Blvd, Suite 180 Grandview Heights, Ohio

DESIGNER CTW
REVIEWER ENB 07/30/24
PROJECT ID 111381
SHEET P.71 TOTAL 485



HORIZONTAL SCALE IN FEET
0 25 50 100

PLAN AND PROFILE
STA 388+00 TO STA 401+00

DESIGN AGENCY

JMT
2900 Corporate Exchange Drive, Suite 250,
Columbus, OH 43231

DESIGNER SKG
REVIEWER DFD 07/30/24
PROJECT ID 111381
SHEET P.102 TOTAL 485

UNI/DEL-42-4.92/0.00

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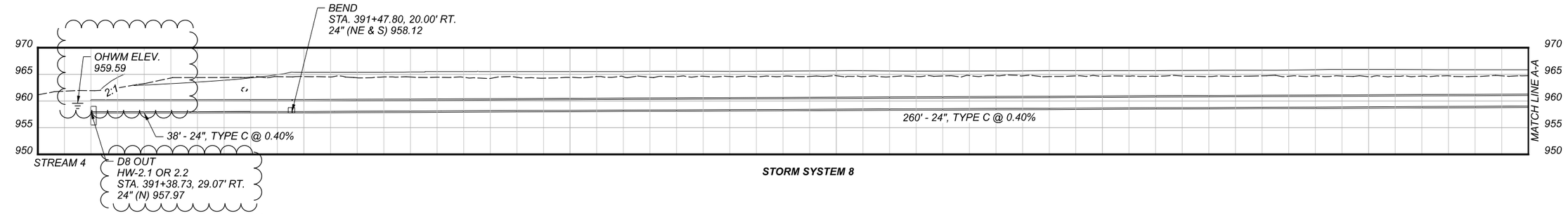

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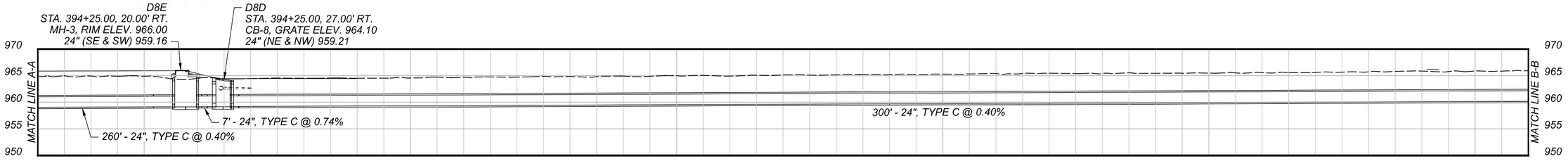

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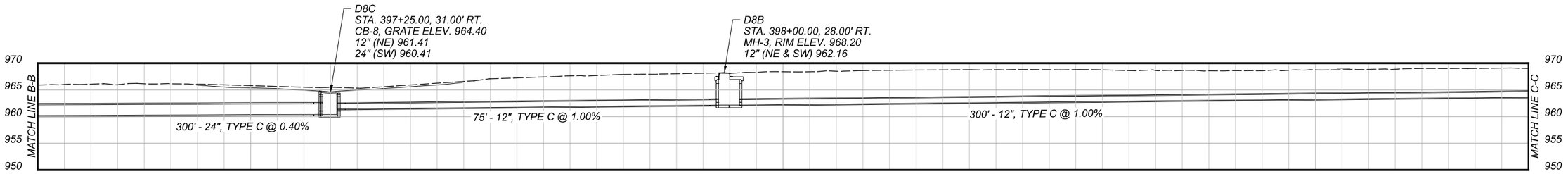

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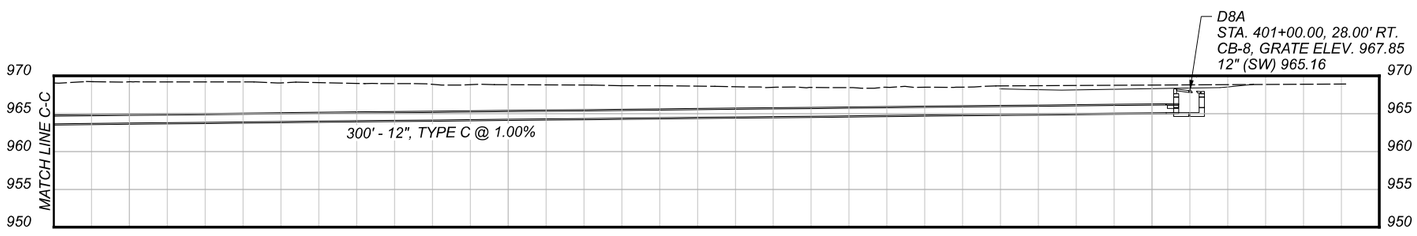

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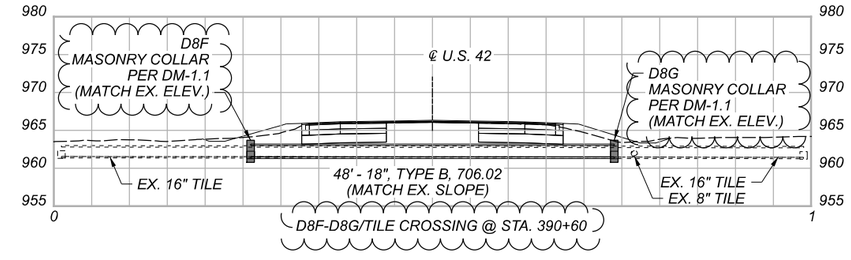

STORM SEWER PROFILES

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DESIGNER
CTW

REVIEWER
ENB 07/30/24

PROJECT ID
111381

SHEET P.399 TOTAL 485