ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A PORTABLE 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 TROUBLESHOOT 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 ARE SHOWN ON THE SHEETS OF THE 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, FACING 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.

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 PCMS SHALL CONTAIN A CELLULAR TELEPHONE LINK WHICH WILL ALLOW REMOTE SIGN ACTIVIATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

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.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
144 SIGN MONTH (5)

ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE NUMBER OF PCMS AND DURATIONS WILL VARY THROUGHOUT CONSTRUCTION. SEE TABLE BELOW FOR DETAILS.

DETOUR	MOT PHASE	PCMS DETAILS
315S TO 70E	1-3	1 PCMS FOR 1 MONTH 6 PCMS FOR DURATION OF PHASES 1-3
71N	2	7 PCMS FOR 1 MONTH
71S	2	9 PCMS FOR 1 MONTH
70E	2	12 PCMS FOR 1 MONTH
70W	2	7 PCMS FOR 1 MONTH
1 PCMS FOR 6 MONTHS TO BE USED AT PROJECT ENGINEER'S DISCRETION		

ITEM 614 - BARRIER REFLECTORS AND/OR OBJECT MARKERS

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL AND ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS. TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY: (5)

ITEM 614, BARRIER REFLECTOR, TYPE 1, ONE-WAY 352 EACH
ITEM 614, OBJECT MARKER, ONE-WAY 352 EACH
ITEM 614, INCREASED BARRIER DELINEATION 17,120 FEET

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

ALONG RUNS OF INCREASED BARRIER DELINEATION WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN OF INCREASED BARRIER DELINEATION, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL DELINEATION PANELS OR STACKS OF BARRIER REFLECTORS.

ITEM 614 - REPLACEMENT SIGN

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDNACE 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 SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANITY OF 50 EACH HAS BEEN CARRIED TO THE GENERAL SUMMARY.

DRIVEWAYS/PROPERTY ACCESS

VEHICULAR AND PEDESTRIAN ACCESS TO ALL PROPERTY PARCELS, INCLUDING OTHER COMMERCIAL CONSTRUCTION ENTRANCES ABUTTING THE PROJECT SHALL BE MAINTAINED AT ALL TIMES. IF A PARCEL HAS MORE THAN ONE DRIVEWAY, AT LEAST ONE DRIVEWAY MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. WHERE A PARCEL IS SERVED BY ONLY ONE DRIVEWAY, THE AFFECTED DRIVEWAY MUST BE CONSTRUCTED IN STAGES AND/OR SUPPLEMENTED WITH ITEM 410 IF AUTHORIZED BY THE ENGINEER, SO THAT ACCESS IS NOT DISRUPTED. ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE B SHALL BE ITEMIZED SEPARATELY FOR AUTHORIZATION ONLY BY THE ENGINEER. AN ESTIMATED QUANTITY OF 75 CUBIC YARDS HAS BEEN CARRIED TO THE GENERAL SUMMARY.

SHORT-TERM CLOSURE OF DRIVEWAYS WILL BE PERMITTED IN ACCORDANCE WITH THE SPECIFICATION REQUIREMENTS FOR THE PROTECTIONS OF COMPLETED ASPHALT COURSES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE CONSTRUCTION ACTIVITIES WITH THE ENGINEER AND WITH THE OWNERS AND TENANTS OF ABUTTING PROPERTIES IN ADVANCE OF ANY OPERATIONS WHICH AFFECT ACCESS.

THE CONTRACTOR SHALL NOT AT ANY TIME DURING CONSTRUCTION CLOSE A DRIVEWAY TO THE NATIONWIDE CHILDRENS HOSPITAL PROPERTY.

PRIOR TO ANY DRIVEWAY CLOSURES FOR EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE PRIVATE PROPERTY OWNERS AND TENANTS. THE CONTRACTOR SHALL SUBMIT IN WRITING A SCHEDULE TO THE PROPERTY OWNERS AND TENANTS AFFECTED BY THE WORK. A COPY OF THE LETTER SHALL BE PROVIDED TO THE PROJECT ENGINEER.

UPON INSTALLATION OF CONCRETE APRON AND PAVEMENT AT DRIVES, THE CONTRACTOR SHALL HAVE FIVE (5) DAYS TO COMPLETE THE DRIVEWAY WORK AND REOPEN THE DRIVE. DURING THIS TIME, THE CONTRACTOR SHALL MAINTAIN A SECONDARY ACCESS OR CONSTRUCT THE DRIVE IN PORTIONS IN COMPLIANCE WITH THE PROPERTY OWNERS NEEDS FOR DRIVEWAY ACCESSIBILITY.

THE CONTRACTOR SHALL SUBMIT A LETTER NOTIFYING THE BUSINESSES, OWNERS AND TENANTS AFFECTED BY DRIVEWAY REPLACEMENT ONE WEEK PRIOR TO DRIVEWAY REPLACEMENT.

ITEM 304, BACKFILL OR STEEL PLATES

* THIS NOTE IS APPLICABLE TO CITY STREETS ONLY. *

DURING ALL PARTS OF CONSTRUCTION, TRAFFIC SHALL BE MAINTAINED WHEN L.E.O.'S OR FLAGGERS ARE NOT PRESENT WITH A MINIMUM OF ONE 10 FOOT LANE (NUMBER OF LANES AS SPECIFIED ON THE PLAN SHEETS) USING THE EXISTING, TEMPORARY OR FINAL PAVEMENT. THE CONTRACTOR SHALL COORDINATE WITH THE RELOCATION OF THE EXISTING UTILITIES IN CONFLICT WITHIN THE LOCATION OF THE PROPOSED ROADWAY WIDENING CONSTRUCTION AND INSTALL PROPOSED UTILITIES WHERE APPLICABLE. ALL TRENCHES SHALL BE SECURELY PLATED AND PINNED TO THE PAVEMENT PRIOR TO SHIFTING TRAFFIC ONTO STEEL PLATES.

THE CONTRACTOR SHALL ENSURE THAT ALL DRUMS ARE PLACED ON STABILIZED MATERIAL. USE OF CMS ITEM 304 TO CONSTRUCT TEMPORARY SHOULDERS SHALL BE THE CONTRACTOR'S RESPONSIBILITY AT THE CONTRACTOR'S EXPENSE. STABILIZED AGGREGATE SHOULDER MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH CMS ITEM 304 AND MAY BE REUSED AS THE PAVEMENT AGGREGATE BASE.

PER CITY ORDINANCE, STEEL PLATES ARE NOT PERMITTED DURING WINTER MONTHS. THE CONTRACTOR SHALL BACKFILL ALL TRENCHES IN WINTER MONTHS (DEC. 1 THROUGH MARCH 31).

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616 - WATER 325 M. GAL.

NO.	DESCRIPTION	REV. BY	DATE
5	QUANTITY CHANGES	EMK	11-2-2023

ITEM 614 - WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN

WORK ZONE RAISED PAVEMENT MARKERS, AS PER PLAN, AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614 OR C&MS 621 AS SPECIFIED HEREIN.

- RAISED PAVEMENT MARKERS IN USE DURING THE SNOW-PLOWING SEASON SHALL CONFORM TO 621.
- RAISED PAVEMENT MARKERS IN USE DURING THE NON-SNOW-PLOW SEASON SHALL CONFORM TO EITHER 614 OR TO 621.

THE SNOW-PLOWING SEASON SHALL RUN FROM OCTOBER 15 THROUGH APRIL 1.

IF PROJECT DELAYS, NOT THE FAULT OF ODOT, CAUSE THE WORK TO EXTEND INTO THE SNOW-PLOWING SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WORK ZONE RAISED PAVEMENT MARKERS (WZRPMS) CONFORMING TO C&MS 614, WITH RAISED PAVEMENT MARKERS CONFORMING TO 621, AS DETERMINED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN, INCLUDING FILLING OF ANY DEPRESSIONS CREATED IN THE PAVEMENT AS PER C&MS 621.08.

RESURFACING OF THE TRANSITION AREAS SHALL BE PERFORMED AT THE TIME THAT THE SURFACE COURSE IS BEING APPLIED TO THE ENTIRE PROJECT. PRIOR TO APPLICATION OF THE SURFACE COURSE ON THE PROJECT, THE EXISTING PAVEMENT WITHIN THE TRANSITION AREA SHALL BE REMOVED TO A DEPTH NECESSARY TO REACH THE LEVEL OF THE INTERMEDIATE COURSE OF THE PAVEMENT, AS DETERMINED BY THE ENGINEER.

THE FOLLOWING BID ITEMS SHOULD BE INCLUDED IN THE PLANS:

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE 6,000 SQ YD
ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN 193 EACH

PAYMENT FOR RESURFACING WITHIN THE TRANSITION AREA SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEMS FOR THE WORK REQUIRED, AS PROVIDED FOR IN THE PLANS.

SPRAY THERMOPLASTIC, AS PER PLAN

THE CONTRACTOR SHALL PLACE THE WORK ZONE PAVEMENT MARKINGS, SPRAY THERMOPLASTIC, AS PER PLAN PER ODOT SPECIFICATION 614.11 AND ODOT SPECIFICATION 648 WITH THE EXCEPTION ODOT SPECIFCATION 648.05 SHALL BE MODIFIED TO ALLOW PLACEMENT OF THE MATERIAL AT THE TEMPERATURE OF NOT LESS THAN 35 DEGREES FAHRENHEIT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS AND AT TIMES AS DIRECTED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS PER THE REQUIREMENTS OF C&MS 614.11.

ITEM 614 WORK ZONE LANE LINE, CLASS I SPRAY THERMOPLASTIC, AS PER PLAN 2.21 MILE
ITEM 614 WORK ZONE EDGE LINE, CLASS I SPRAY THERMOPLASTIC, AS PER PLAN 5.98 MILE
ITEM 614 WORK ZONE CHANNELIZING LINE, CLASS I, SPRAY THERMOPLASTIC, AS PER PLAN 11,491 FEET
ITEM 614 WORK ZONE DOTTED LINE, CLASS I, SPRAY THERMOPLASTIC, AS PER PLAN 3,302 FEET

ITEM 614 - REPLACEMENT DRUM

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 300 EACH HAS BEEN CARRIED TO THE GENERAL SUMMARY.

MAINTENANCE OF TRAFFIC NOTES

FRA-70-13.11

ITEM	EXTENSION	FUNDING SPLIT 01/IMS/PV	TOTAL	UNIT	DESCRIPTION	SEE SHEET
254	01000	6000	6000	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"	59
410	12000	200	200	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B	58
607	30001	1000	1000	FT	FENCE, SNOW, AS PER PLAN	58
611	05900	174	174	FT	15" CONDUIT, TYPE B	
611	97010	1405	1405	FT	SLOTTED DRAIN, TYPE 2, 12"	
611	98150	1	1	EACH	CATCH BASIN, NO. 3	
611	98370	3	3	EACH	CATCH BASIN, NO. 6	
611	99500	5	5	EACH	INLET, MISC.: INLET, CAPPED BELOW GRADE	63
614	11000		LS		MAINTAINING TRAFFIC	54
614	11110	2400	2400	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	58
614	11630	17120	17120	FT	INCREASED BARRIER DELINEATION	59
614	12380	12	12	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	58
614	12420		LS		DETOUR SIGNING	60
614	12484	6	6	EACH	WORK ZONE INCREASED PENALTIES SIGN	60
614	12500	50	50	EACH	REPLACEMENT SIGN	59
614	12600	300	300	EACH	REPLACEMENT DRUM	59
614	12801	193	193	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	59
614	13310	352	352	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	59
614	13350	352	352	EACH	OBJECT MARKER, ONE WAY	59
614	18000	50000	50000	EACH	MAINTAINING TRAFFIC, MISC.: BRIDGE DECK AND PAVEMENT PATCHING	62
614	18030	1000	1000	FT	MAINTAINING TRAFFIC, MISC.: CONSTRUCTION FENCE	62
614	18601	144	144	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	59
614	20011	2.21	2.21	MILE	WORK ZONE LANE LINE, CLASS I, 6" SPRAY THERMOPLASTIC, AS PER PLAN	59
614	20056	4.30	4.30	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
614	20560	1.69	1.69	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
614	21100	0.51	0.51	MILE	WORK ZONE CENTERLINE, CLASS I, 642 PAINT	
614	22011	5.98	5.98	MILE	WORK ZONE EDGE LINE, CLASS I, 6" SPRAY THERMOPLASTIC, AS PER PLAN	59
614	22056	9.22	9.22	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	
614	22360	1.22	1.22	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
614	23011	4484	4484	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12" SPRAY THERMOPLASTIC, AS PER PLAN	59
614	23110	12539	12539	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
614	23690	3126	3126	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 6", 642 PAINT	
614	24001	3302	3302	FT	WORK ZONE DOTTED LINE, CLASS I SPRAY THERMOPLASTIC, AS PER PLAN	59
614	24110	1525	1525	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 807 PAINT	
614	24612	2409	2409	FT	WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT	
614	25200	95	95	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
614	30200	6	6	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT	
615	10000		LS		ROADS FOR MAINTAINING TRAFFIC	
615	25000	1545	1545	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	
615	25001	100	100	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 1	62
615	25001	50	50	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2	62
615	25001	20	20	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3	62
615	25001	20	20	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 4	62
616	10000	325	325	MGAL	WATER	59
622	41100	16790	16790	FT	PORTABLE BARRIER, UNANCHORED	
622	41110	1030	1030	FT	PORTABLE BARRIER, ANCHORED	
622	41050	1	1	EACH	PORTABLE BARRIER, "Y" CONNECTOR	
808	18700	72	72	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	60
829	00100	32	32	SNMT	WORK ZONE EGRESS WARNING SYSTEM	60
896	00010	108	108	SNMT	PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS I	62
896	00021	36	36	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	62

NO.	DESCRIPTION	REV. BY	DATE
5	QUANTITY CHANGES	EMK	11-2-2023

CALCULATED EMW
CHECKED RMK

MAINTENANCE OF TRAFFIC GENERAL SUMMARY

FRA-70-13.11

MAINTENANCE OF TRAFFIC SUBSUMMARY

MAINTENANCE OF TRAFFIC PHASE	614 WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL), 24" WIDE HAZARDS	614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	614 BARRIER REFLECTOR, TYPE 1, ONE WAY	614 OBJECT MARKER, ONE WAY	614 INCREASED BARRIER DELINEATION	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	614 WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	614 WORK ZONE CENTER LINE, CLASS I, 642 PAINT	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	614 WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	614 WORK ZONE CHANNELIZING LINE, CLASS III, 6", 642 PAINT	614 WORK ZONE DOTTED LINE, CLASS I, 4", 807 PAINT	614 WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT	614 WORK ZONE STOP LINE, CLASS I, 642 PAINT	614 WORK ZONE ARROW, CLASS I, 642 PAINT	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	622 PORTABLE BARRIER, UNANCHORED	622 PORTABLE BARRIER, ANCHORED	622 PORTABLE BARRIER, "Y" CONNECTOR
	EACH	EACH	EACH	EACH	FT	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	EACH	SY	FT	FT	EACH
PHASE 1	3	139	95	95	4720	1.51			4.44		7958		1110				1545	4720		1
PHASE 2	2	54	74	74	3990	0.70			1.14									3390	600	
PHASE 2A	2	5	7	7				0.26	0.32		193		198		34	3		130	230	
PHASE 2B	2		7	7				0.24	0.25		326		217		61	3		140	200	
PHASE 3A	2		129	129	6430	1.10		0.00	1.69		2139							6430		
PHASE 3B	1		40	40	1980	1.41		0.00	1.64		1923							1980		
PHASE 3C 5							1.69			1.22 5		3126 5		2409 5						
TOTALS	12	193	352 5	352	17120	4.73	1.69 5	0.51	9.48	1.22	12539	3126 5	1525	2409	95	6	1545	16790	1030	1

NO.	DESCRIPTION	REV. BY	DATE
5	QUANTITY CHANGES	EMK	11-2-2023

CALCULATED EMW
CHECKED RMK

FRA-70-13.11

SHEET NUMBER								PARTICIPATION						ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	P1/160	P2/38	P3/190	P4/154	P5/13			01/IMS/04	02/IMS/11										
																		DRAINAGE	
	0.6		2.0		1.0			2.6	1.0					602	20000	3.6	CY	CONCRETE MASONRY	
			13040					13040						605	05110	13040	FT	4" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
		1504		1873				3377						605	06000	3377	FT	4" BASE PIPE UNDERDRAINS	
			6952					6952						605	06020	6952	FT	4" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
	5960			8005				13965						605	11110	13965	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
			200					200						605	13300	200	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
	925	50		1468				2443						605	13410	2443	FT	6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
		75						75						605	14000	75	FT	6" BASE PIPE UNDERDRAINS	
	12555			13514	3703			26069	3703					605	14020	29772	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
		62						62						611	00100	62	FT	4" CONDUIT, TYPE B	
			100					100						611	00400	100	FT	4" CONDUIT, TYPE E, MISC FOR DRAINAGE DISCHARGE CONTINUANCE	
			200					200						611	00406	200	FT	4" CONDUIT, TYPE F	
			100					100						611	00406	100	FT	4" CONDUIT, TYPE F, MISC FOR DRAINAGE DISCHARGE CONTINUANCE	
		30	810	187				1027						611	00410	1027	FT	4" CONDUIT, TYPE F FOR UNDERDRAIN OUTLET	
	355			280	20			635	20					611	00510	655	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
	446	50	21	680				1197						611	00900	1197	FT	6" CONDUIT, TYPE B	
	50	50	7	50				157						611	01100	157	FT	6" CONDUIT, TYPE C	
	50	50		50				150						611	01400	150	FT	6" CONDUIT, TYPE E	
	150	100		250				500						611	01500	500	FT	6" CONDUIT, TYPE F	
			224					224						611	01800	224	FT	8" CONDUIT, TYPE B	
			100					100						611	01800	100	FT	8" CONDUIT, TYPE B, MISC FOR DRAINAGE DISCHARGE CONTINUANCE	
			100					100						611	02000	100	FT	8" CONDUIT, TYPE C, MISC FOR DRAINAGE DISCHARGE CONTINUANCE	
			5					5						611	03300	5	FT	10" CONDUIT, TYPE C	
			21					21						611	03700	21	FT	10" CONDUIT, TYPE F	
			109					109						611	04400	109	FT	12" CONDUIT, TYPE B	
				23				23						611	04400	23	FT	12" CONDUIT, TYPE B, 748.02	
				10				10						611	04600	10	FT	12" CONDUIT, TYPE C	
	578		1807	1125	12			3510	12					611	05900	3522	FT	15" CONDUIT, TYPE B	
			67					67						611	05900	67	FT	15" CONDUIT, TYPE B, 706.02, JOINTS PER 706.11	
	112			244				356						611	05901	356	FT	15" CONDUIT, TYPE B, AS PER PLAN	P1,P4
	101 5		951	138	69			1190 5	69					611	06100	1259 5	FT	15" CONDUIT, TYPE C	
	20			85				105						611	06101	105	FT	15" CONDUIT, TYPE C, AS PER PLAN	P1,P4
					40				40					611	06700	40	FT	15" CONDUIT, TYPE F	
	209 5		450	29				688 5						611	07400	688 5	FT	18" CONDUIT, TYPE B	
				12				12						611	07400	12	FT	18" CONDUIT, TYPE B, 748.06	
	121							121						611	07401	121	FT	18" CONDUIT, TYPE B, AS PER PLAN	P1
			413					413						611	07600	413	FT	18" CONDUIT, TYPE C	
			50	5				50						611	08900	55	FT	21" CONDUIT, TYPE B	
			56					56						611	09100	56	FT	21" CONDUIT, TYPE C	
			86					86						611	09700	86	FT	21" CONDUIT, TYPE F	
			129	10				139						611	10400	139	FT	24" CONDUIT, TYPE B	
				48				48						611	10400	48	FT	24" CONDUIT, TYPE B, 706.02 WITH 706.11 JOINTS	
				50				50						611	13400	50	FT	30" CONDUIT, TYPE B	
				28				28						611	19400	28	FT	42" CONDUIT, TYPE B, 748.06	
	2				1			2	1					611	98150	3	EACH	CATCH BASIN, NO. 3	
	4							4						611	98180	4	EACH	CATCH BASIN, NO. 3A	
	3		13					16						611	98370	16	EACH	CATCH BASIN, NO. 6	
	1							1						611	98371	1	EACH	CATCH BASIN, NO. 6, AS PER PLAN	P1
			8					8						611	98410	8	EACH	CATCH BASIN, NO. 8	
	3							3						611	98411	3	EACH	CATCH BASIN, NO. 8, AS PER PLAN	P1
				2				2						611	98430	2	EACH	CATCH BASIN, NO. 8 WITHOUT APRON	
			1					1						611	98470	1	EACH	CATCH BASIN, NO. 2-2B	
	3				1			3	1					611	98630	4	EACH	CATCH BASIN ADJUSTED TO GRADE	
		1		5				6						611	98631	6	EACH	CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN	P2,P4

NO.	DESCRIPTION	REV. BY	DATE
5	REVISED P-156	CWL	10-31-23

CALCULATED CJC
CHECKED CWL

BIG BUILD MASTER GENERAL SUMMARY

FRA-70-13.11

SHEET NUMBER								PARTICIPATION						ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P1/371	P2/111	P3/193	P4/407	P4/408	P5/14			01/IMS/04	02/IMS/11	05/IMS/14									
																		TRAFFIC CONTROL (CONTINUED)	
		571			68			571	68					644	00700	639	FT	TRANSVERSE/DIAGONAL LINE	
337			400					737						644	00720	737	FT	CHEVRON MARKING	
	48		80					128						644	01200	128	FT	PARKING LOT STALL MARKING	
	12		20					32						644	01300	32	EACH	LANE ARROW	
2			2					4						644	01350	4	EACH	LANE REDUCTION ARROW	
	7		8					15						644	01630	15	EACH	BIKE LANE SYMBOL MARKING	
	7							7						644	19000	7	EACH	SHARED LANE MARKING	
		14						14						644	30000	14	FT	REMOVAL OF PAVEMENT MARKING	
	2		1					3						644	50100	3	EACH	PAVEMENT MARKING, MISC.: BIKE DETECTOR MARKING	P2,P4
	299		505					804						644	50300	804	FT	PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6" (5)	P2,P4
	706		584					1290						644	50300	1290	FT	PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12"	P2,P4
	126		205					331						644	50300	331	FT	PAVEMENT MARKING, MISC.: STOP LINE, 24"	P2,P4
	575		244					819						644	50300	819	FT	PAVEMENT MARKING, MISC.: TRANSVERSE / DIAGONAL LINE, 24"	P2,P4
	123							123						644	50300	123	FT	PAVEMENT MARKING, MISC.: DOTTED LINE, 6"	P2
	0.67		0.93					1.60						644	50400	1.60	MILE	PAVEMENT MARKING, MISC.: EDGE LINE, 6"	P2,P4
	0.57		0.92					1.49						644	50400	1.49	MILE	PAVEMENT MARKING, MISC.: LANE LINE, 6"	P2,P4
	0.23							0.23						644	50400	0.23	MILE	PAVEMENT MARKING, MISC.: CENTER LINE, 4"	P2
		0.05						0.05						644	50400	0.05	MILE	PAVEMENT MARKING, MISC.: CENTER LINE, DOUBLE SOLID, 4"	P3
			0.31					0.31						645	90000	0.31	MILE	PAVEMENT MARKING, MISC.: EDGE LINE, 6", TYPE A1, WITH CONTRAST	P4
	0.06		0.12					0.18						645	90000	0.18	MILE	PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A1, WITH CONTRAST	P2,P4
	0.05							0.05						645	90000	0.05	MILE	PAVEMENT MARKING, MISC.: CENTER LINE, 4", TYPE A1	P2
	280		239					519						645	98000	519	FT	PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12", TYPE A1, WITH CONTRAST	P2,P4
		316			204			316	204					646	10600	520	FT	TRANSVERSE/DIAGONAL LINE	
185								185						646	10620	185	FT	CHEVRON MARKING	
	15		6					21						646	20300	21	EACH	LANE ARROW	
	(5)																		
	8			6				14						647	20610	14	EACH	LANE ARROW, TYPE B90	
				8				8						647	20910	8	EACH	BIKE LANE SYMBOL MARKING, TYPE B90	
	2							2						647	20940	2	EACH	SHARED LANE MARKING, TYPE B90	
				4				4						647	50100	4	EACH	PAVEMENT MARKING, MISC.: TURN QUEUE BOX, TYPE B90	P4
		2						2						647	50100	2	EACH	PAVEMENT MARKING, MISC.: LANE REDUCTION ARROW WITH CONTRAST	P3
				634				634						647	50120	634	FT	PAVEMENT MARKING, MISC.: DOTTED LINE, 6", TYPE B90	P4
				16				16						647	50120	16	FT	PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6", TYPE B90 (5)	P4
	252			199				451						647	50120	451	FT	PAVEMENT MARKING, MISC.: CROSSWALK LINE, 12", TYPE B90	P2,P4
	57			45				102						647	50120	102	FT	PAVEMENT MARKING, MISC.: STOP LINE, 24", TYPE B90	P2,P4
				618				618						647	60020	618	SF	GREEN COLORED PAVEMENT FOR BIKES, TYPE B90	
1.72	(5)	2.03		0.06	0.46		(5)	3.81	0.27	0.19				807	12010	(5) 4.27	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	
1.14		0.76		0.12	0.23			2.02	0.13	0.10				807	12110	2.25	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	
5007		4316						9323						807	12310	9323	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12"	
351		1649						2000						807	12410	2000 (1)	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6"	
4.75		5.96		4.00	0.53			14.71	0.15	0.38				807	14010	15.24	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	
2.13	(5)	4.76		5.69	0.27		(5)	12.58	0.07	0.20				807	14110	(5) 12.85	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
0.11		0.11						0.22						807	14200	0.22	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CENTER LINE	
10284		12495		5427		(1)		28206			(1)			807	14310	28206	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"	
2816		3361		8414				14591						807	14410	14591 (1)	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
7.09	(5)	10.91		9.69	0.8		(5)	27.69	0.22	0.58				850	10010	(5) 28.49	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
2816		3361		8414				14591						850	10110	14591	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
10284		12495		5427				28206						850	10130	28206	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	
2.86		2.80		0.18	0.69			5.84	0.40	0.29				850	20010	6.53	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
351		1649						2000						850	20110	2000	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
5007		4316						9323						850	20130	9323	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE)	

NO.	DESCRIPTION	REV. BY	DATE
1	REVISED PART 5	CWL	10-2-23
5	REVISED PARTS 1,3 & CITY LINES	CWL	11-3-23

CALCULATED CJC
CHECKED CWL

BIG BUILD MASTER GENERAL SUMMARY

FRA-70-13.11

SHEET NUMBER								PARTICIPATION						ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P1/163	P3/197B	P4/158						01/IMS/04											
																		RETAINING WALLS	
																		FOR RETAINING WALL 4W3 GENERAL SUMMARY	*P1/327*
																		FOR RETAINING WALL 4W8 GENERAL SUMMARY	*P1/340*
																		FOR RETAINING WALL 4W10 GENERAL SUMMARY	*P1/345*
																		FOR TEMPORARY SHORING AND WALL GENERAL SUMMARY	*P1/349*
																		FOR RETAINING WALL E2 GENERAL SUMMARY	*P3/194*
																		FOR RETAINING WALL E3 GENERAL SUMMARY	*P3/194*
																		FOR RETAINING WALL E4 GENERAL SUMMARY	*P3/194*
																		FOR RETAINING WALL E7 GENERAL SUMMARY	*P3/195*
																		FOR RETAINING WALL E9 GENERAL SUMMARY	*P3/195*
																		FOR RETAINING WALL 4W13 GENERAL SUMMARY	*P4/306*
																		FOR RETAINING WALL 4W14 GENERAL SUMMARY	*P4/316*
																		FOR RETAINING WALL 4W15 GENERAL SUMMARY	*P4/325*
																		FOR RETAINING WALL 4W16 GENERAL SUMMARY	*P4/336*
																		FOR RETAINING WALL 4W17 GENERAL SUMMARY	*P4/358*
																		FOR RETAINING WALL 4W18 GENERAL SUMMARY	*P4/369*
																		FOR RETAINING WALL 4W22 GENERAL SUMMARY	*P4/377*
																		FOR RETAINING WALL W4 GENERAL SUMMARY	*P5/14A*
																		3 *FOR RETAINING WALL W6 GENERAL SUMMARY* 5	*P5/14B*
																		STRUCTURE OVER 20 FOOT SPAN	
																		FOR FRA-70-1321R GENERAL SUMMARY	*P1/436*
																		FOR FRA-70-1358R GENERAL SUMMARY	*P1/530*
																		FOR FRA-70-1405C GENERAL SUMMARY	*P2/207*
																		FOR FRA-70-1405C CAP GENERAL SUMMARY	*P2/260*
																		FOR FRA-70-1405C AESTHETIC ENHANCEMENT GENERAL SUMMARY	*P2/314*
																		FOR FRA-70-1395C AESTHETIC ENHANCEMENT GENERAL SUMMARY	*P2/370A*
																		FOR FRA-70-1322L GENERAL SUMMARY	*P3/195-196*
																		FOR FRA-70-1323C GENERAL SUMMARY	*P3/196*
																		FOR FRA-70-1358L GENERAL SUMMARY	*P3/197*
																		FOR FRA-70-1373L GENERAL SUMMARY	*P3/197-197A*
																		FOR FRA-70-1358R GENERAL SUMMARY	*P3/197A*
																		FOR FRA-33-1747C GENERAL SUMMARY	*P4/563*
																		FOR FRA-33-1747C CAP GENERAL SUMMARY	*P4/604*
																		FOR FRA-23-1075C GENERAL SUMMARY	*P4/642*
																		FOR FRA-23-1075C AESTHETIC ENHANCEMENT GENERAL SUMMARY	*P4/705*
																		FOR FRA-70-1301L GENERAL SUMMARY	*P5/14*
																		FOR FRA-70-1301R GENERAL SUMMARY	*P5/14-14A*
																		MISCELLANEOUS STRUCTURE	
	LS							*LS*						*202*	*11000*	*LS*		*STRUCTURE REMOVED*	
	LS							*LS*						*202*	*11003*	*LS*		*STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN*	*P3*
	LS							*LS*						*202*	*11201*	*LS*		*PORTIONS OF STRUCTURE REMOVED, AS PER PLAN*	*P3*
	LS							*LS*						*202*	*11201*	*LS*		*PORTIONS OF STRUCTURE REMOVED, AS PER PLAN "A"*	*P3*
	LS							*LS*						*202*	*11201*	*LS*		*PORTIONS OF STRUCTURE REMOVED, AS PER PLAN "B"*	*P3*
	LS							*LS*						*202*	*11201*	*LS*		*PORTIONS OF STRUCTURE REMOVED, AS PER PLAN "C"*	*P3*
	218							*218*						*202*	*22900*	*218*	*SY*	*APPROACH SLAB REMOVED*	
69	*55*	*27*						*151*						*511*	*50211*	*151*	*CY*	*CLASS QC1 CONCRETE, SUBSTRUCTURE, AS PER PLAN*	*P1,P3,P4*
	87							*87*						*511*	*53012*	*87*	*CY*	*CLASS QC2 CONCRETE, MISC.: LOAD DISTRIBUTION SLAB*	*P3*
	6727							*6727*						*512*	*10000*	*6727*	*SY*	*SEALING OF CONCRETE SURFACES*	
	443							*443*						*SPECIAL*	*69098100*	*443*	*FT*	*COVERED WALKWAY SYSTEM*	*P3*

NO.	DESCRIPTION	REV. BY	DATE
3	ADDED W4 & W6	CWL	10-23-23
5	REVISED SHEET #	CWL	11-6-23

CALCULATED CJC
CHECKED CWL

BIG BUILD MASTER GENERAL SUMMARY

FRA-70-13.11

D:\2012\2012048\FRA\77372\ROADWAY\SHEETS\77372G0915.DGN
11/6/2023
7:29:56 AM
QDOTV8ISTD_USER

SHEET NUMBER								PARTICIPATION						ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P1/65	P2/40 (2)	P3/197B	P4/49	P5/14B (3)				01/IMS/04	02/IMS/11										
																		MAINTENANCE OF TRAFFIC	
6000								6000						254	01000	6000	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"	P1
200								200						410	12000	200	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B	P1
1000			1000	(2)				2000 (2)						607	30001	2000 (2)	FT	FENCE, SNOW, AS PER PLAN	P1,P4 (4)
174								174						611	05900	174	FT	15" CONDUIT, TYPE B	
1405								1405						611	97010	1405	FT	SLOTTED DRAIN, TYPE 2, 12"	
1								1						611	98150	1	EACH	CATCH BASIN, NO. 3	
3								3						611	98370	3	EACH	CATCH BASIN, NO. 6	
5								5						611	99500	5	EACH	INLET, MISC.: INLET, CAPPED BELOW GRADE	
2400		944	2000					5344						614	11110	5344	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	P1
			2					2						SPECIAL	61411300	2	EACH	WORK ZONE TRAFFIC SIGNAL	P4
17120			27376					44496						614	11630	44496	FT	INCREASED BARRIER DELINEATION	P1
12		19	13	4				44	4					614	12380	48	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	P1
LS		LS	LS					LS						614	12420	LS		DETOUR SIGNING	P1
			11					11						614	12470	11	EACH	WORK ZONE SPEED LIMIT SIGN	P1
6		9	10					25						614	12484	25	EACH	WORK ZONE INCREASED PENALTIES SIGN	
50		20	50					120						614	12500	120	EACH	REPLACEMENT SIGN	P1
300		50	300					650						614	12600	650	EACH	REPLACEMENT DRUM	P1
			2					2						614	12756	2	EACH	WORK ZONE CROSSOVER LIGHTING SYSTEM	
			3645					3645						614	12800	3645	EACH	WORK ZONE RAISED PAVEMENT MARKER	
193		3504						3697						614	12801	3697	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	P1,P3
				120					120					614	13310	120	EACH	BARRIER REFLECTOR, TYPE 1 (ONE WAY)	
352 (5)		1566					(5)	1918						614	13310	(5) 1918	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	P1
			1440					1440						614	13310	1440	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL	
		29						29						614	13312	29	EACH	BARRIER REFLECTOR, TYPE 2, ONE-WAY	
352 (5)		548		40			(5)	900	40					614	13350	(5) 940	EACH	OBJECT MARKER, ONE WAY	P1
				4					4					614	13600	4	EACH	MAINTENANCE OF TRAFFIC, ONE LANE CLOSURE ON A TWO LANE HIGHWAY	
50000								50000						614	18000	50000	EACH	MAINTAINING TRAFFIC, MISC.: BRIDGE DECK AND PAVEMENT PATCHING	P1
1000								1000						614	18030	1000	FT	MAINTAINING TRAFFIC, MISC.: CONSTRUCTION FENCE	P1
		1000						1000						614	18030	1000	FT	MAINTAINING TRAFFIC, MISC.: PORTABLE WATER FILLED BARRIER PROTECTED PEDESTRIAN WALKWAY	P3
144		89	48					281						614	18601	281	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	P1,P3,P4
2.21								2.21						614	20011	2.21	MILE	WORK ZONE LANE LINE, CLASS I, 6", AS PER PLAN, SPRAY THERMOPLASTIC	P1
4.30		12.87	3.41					20.58						614	20056	20.58	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
			0.62					0.62						614	20200	0.62	MILE	WORK ZONE LANE LINE, CLASS I, 4", 740.06, TYPE I	
1.69			6.24					7.93						614	20560	7.93	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT (5)	
		0.11						0.11						614	21050	0.11	MILE	WORK ZONE CENTER LINE, CLASS I, 807 PAINT, DOUBLE SOLID, WHITE	
0.51								0.51						614	21100	0.51	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
5.98								5.98						614	22011	5.98	MILE	WORK ZONE EDGE LINE, CLASS I, 6", AS PER PLAN, SPRAY THERMOPLASTIC	P1
9.22		25.10	13.08					47.40						614	22056	47.40	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	
			1.42					1.42						614	22200	1.42	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 740.06, TYPE I	
1.22			4.46					5.68						614	22360	5.68	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT (5)	
11491								11491						614	23011	11491	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", AS PER PLAN, SPRAY THERMOPLASTIC	P1
12539 (5)		64782	30704				(5)	108025						614	23110	(5) 108025	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
			275					275						614	23400	275	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 740.06, TYPE I	
3126			5427					8553						614	23690	8553	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT (5)	
3102								3102						614	24001	3102	FT	WORK ZONE DOTTED LINE, CLASS I, AS PER PLAN, SPRAY THERMOPLASTIC	P1
1525 (5)			7974				(5)	9499						614	24100	(5) 9499	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 807 PAINT	
		11051						11051						614	24102	11051	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	
			857					857						614	24400	857	FT	WORK ZONE DOTTED LINE, CLASS I, 740.06, TYPE I	
2409			8872					11281						614	24612	11281	FT	WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT (5)	
			1159					1159						614	25000	1159	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I	
95								95						614	26200	95	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
			53					53						614	26400	53	FT	WORK ZONE STOP LINE, CLASS I, 740.06 TYPE I	
			80					80						614	26610	80	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT (5)	
(2)	639		466					1105						614	27070	1105	FT	WORK ZONE CROSSWALK LINE, CLASS I, 12", 740.06, TYPE I	
		2026						2026						614	28400	2026	FT	WORK ZONE GORE MARKING, CLASS II, 740.06, TYPE I	
6								6						614	30200	6	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT	
		8	12					20						614	30400	20	EACH	WORK ZONE ARROW, CLASS I, 740.06, TYPE I	
	(5)		2					2						614	30650	2	EACH	WORK ZONE ARROW, CLASS III, 642 PAINT	
		3						3						614	98200	3	EACH	WORK ZONE PAVEMENT MARKING, MISC.: 814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING	P3

NO.	DESCRIPTION	REV. BY	DATE
2	TEMP FENCE/BRICK X-WALK TEMP	CWL	10-13-23
3	REVISED P5 SHEET #	CWL	10-23-23
5	REV PARTS 1,3 & ADDED WZ III	CWL	11-6-23

CALCULATED CJC
CHECKED CWL

BIG BUILD MASTER GENERAL SUMMARY

FRA-70-13.11

156
1151

D:\2012\2012048\FRA\77372\ROADWAY\SHEETS\7737200916.DGN
11/6/2023
7:33:57 AM
ODOTV8ISTD_USER

SHEET NUMBER								PARTICIPATION					ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P1/65	P1/163	P2/40	P3/197B	P4/49	P4/158			01/IMS/04	02/IMS/11	03/NHS/10	04/NHS/10	△1						
																	MAINTENANCE OF TRAFFIC (CONTINUED)	
LS				LS				LS					615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
				4600				4600					615	20000	4600	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
			4032					4032					615	20001	△2 4032	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	P3
1545		695		629				2869				△2	615	25000	2869	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	
100			100	200				400					615	25001	400	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 1	P1,P3,P4
50			50	200				300					615	25001	300	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2	P1,P3,P4
20			20	200				240					615	25001	240	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3	P1,P3,P4
20				200				220					615	25001	220	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 4	P1,P4
325				550				875					616	10000	875	MGAL	WATER	P1
			4					4					622	10201	4	EACH	BARRIER TRANSITION, AS PER PLAN	P3
			7279					7279					622	41011	7279	FT	PORTABLE BARRIER, 50", AS PER PLAN	P3
1				2				3					622	41050	3	EACH	PORTABLE BARRIER, "Y" CONNECTOR	
16790			11575					28365				△5	622	41100	△5 28365	FT	PORTABLE BARRIER, UNANCHORED	
				28884				28884					622	41101	28884	FT	PORTABLE BARRIER, UNANCHORED, AS PER PLAN	P4
1030								1030					622	41110	1030	FT	PORTABLE BARRIER, ANCHORED	
72			288	48				408					808	18700	408	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	P1
32								32					829	00100	32	SNMT	WORK ZONE EGRESS WARNING SYSTEM	P1
108				48				156					896	00010	156	SNMT	PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS I	P1
				48				48					896	00020	48	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN	
36								36					896	00021	36	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	P1
																	INCIDENTALS	
	143000							143000					100	51100	143000	EACH	DEPARTMENT'S SHARE OF THE DISPUTE RESOLUTION BOARD	
	LS							LS					108	10000	LS		CPM PROGRESS SCHEDULE	
	7000							7000					SPECIAL	11110100	7000	EACH	DEPARTMENTS SHARE FACILITATED PARTNERING COSTS	P1
	LS		LS		LS			LS					614	11000	LS		MAINTAINING TRAFFIC	
	LS	LS	LS		LS			LS					623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
	LS	LS	LS		LS			LS					624	10000	LS		MOBILIZATION	
	675000	△2							225000	225000	225000	△2	900	00100	675000	△2 EACH	RAILROAD FLAGGING SERVICES	△1

NO.	DESCRIPTION	REV. BY	DATE
1	ADDED RR FLAGGING	CWL	10-2-23
2	BRICK X-WALK/REV. RR FLAGGING	CWL	10-16-23
5	REVISED PB	CWL	11-6-23

CALCULATED CJC
CHECKED CWL

BIG BUILD MASTER GENERAL SUMMARY

FRA-70-13.11

SHEET NUMBER	PARTICIPATION	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
						DRAINAGE	
0.6	0.6	602	20000	0.6	CY	CONCRETE MASONRY	
5960	5960	605	11110	5960	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
100 825	925	605	13410	925	FT	6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
12555	12555	605	14020	12555	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
355	355	611	00510	355	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
50 396	446	611	00900	446	FT	6" CONDUIT, TYPE B	
50	50	611	01100	50	FT	6" CONDUIT, TYPE C	
50	50	611	01400	50	FT	6" CONDUIT, TYPE E	
150	150	611	01500	150	FT	6" CONDUIT, TYPE F	
578	578	611	05900	578	FT	15" CONDUIT, TYPE B	
112	112	611	05901	112	FT	15" CONDUIT, TYPE B, AS PER PLAN	44
101	101 /5	611	06100	101 /5	FT	15" CONDUIT, TYPE C	
20	20	611	06101	20	FT	15" CONDUIT, TYPE C, AS PER PLAN	44
209	209 /5	611	07400	209 /5	FT	18" CONDUIT, TYPE B	
121	121	611	07401	121	FT	18" CONDUIT, TYPE B, AS PER PLAN	44
2	2	611	98150	2	EACH	CATCH BASIN, NO. 3	
4	4	611	98180	4	EACH	CATCH BASIN, NO. 3A	
3	3	611	98370	3	EACH	CATCH BASIN, NO. 6	
1	1	611	98371	1	EACH	CATCH BASIN, NO. 6, AS PER PLAN	44
3	3	611	98411	3	EACH	CATCH BASIN, NO. 8, AS PER PLAN	44
3	3	611	98630	3	EACH	CATCH BASIN ADJUSTED TO GRADE	
2	2	611	98634	2	EACH	CATCH BASIN RECONSTRUCTED TO GRADE	
4	4	611	98840	4	EACH	INLET, NO. 2-A-6	
1	1	611	98870	1	EACH	INLET, NO. 2-A-12	
1	1	611	98880	1	EACH	INLET, NO. 2-A-14	
2	2	611	99111	2	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1, AS PER PLAN "4A"	44
5	5	611	99114	5	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D	
1	1	611	99150	1	EACH	INLET ADJUSTED TO GRADE	
3	3	611	99154	3	EACH	INLET RECONSTRUCTED TO GRADE	
2	2	611	99575	2	EACH	MANHOLE, NO. 3, AS PER PLAN "A"	44
2	2	611	99654	2	EACH	MANHOLE ADJUSTED TO GRADE	
2	2	611	99655	2	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN "A"	44
1	1	611	99660	1	EACH	MANHOLE RECONSTRUCTED TO GRADE	
1	1	611	99661	1	EACH	MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN "A"	44
2 3	5	611	99710	5	EACH	PRECAST REINFORCED CONCRETE OUTLET	
500	500	SPECIAL	61199820	500	LB	MISCELLANEOUS METAL	43
223	223	839	29000	223	FT	TRENCH DRAIN, TYPE A WITH STANDARD GRATE	

NO.	DESCRIPTION	REV. BY	DATE
5	REVISED P-156	CWL	10-31-23

CALCULATED CJC
CHECKED CWL

4A PART 1 GENERAL SUMMARY

FRA-70-13.11

SHEET NO.	602 CONCRETE MASONRY		605 6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC		605 6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC		605 6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC		611 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS		611 6" CONDUIT, TYPE B		611 15" CONDUIT, TYPE C, AS PER PLAN		611 15" CONDUIT, TYPE B		611 15" CONDUIT, TYPE B, AS PER PLAN		611 15" CONDUIT, TYPE C		611 18" CONDUIT, TYPE B		611 18" CONDUIT, TYPE B, AS PER PLAN						611 CATCH BASIN, NO. 3		611 CATCH BASIN, NO. 3A		611 CATCH BASIN, NO. 6		611 CATCH BASIN, NO. 6, AS PER PLAN		
	CY		FT		FT		FT		FT		FT		FT		FT		FT		FT		FT						EACH		EACH		EACH		EACH			
	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04					01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04		
170																											1	1	2	2	1	1	1			
171																															1					
174	0.4	0.2									5	3	12	8	347	231	67	45	61	40	125	84	73	48												
176			1700	1134	276	184	2456	1637	104	69	108	72																								
177			1274	850	219	146	4023	2682	60	40	104	70																								
178			601	401			1054	703	49	33	20	14																								
TOTALS CARRIED TO GENERAL SUMMARY	0.4	0.2	3575	2385	495	330	7533	5022	213	142	237	159	12	8	347	231	67	45	61	40	125	84	73	48					1	1	2	2	2	1	1			

SHEET NO.	611 CATCH BASIN, NO. 8, AS PER PLAN		611 CATCH BASIN ADJUSTED TO GRADE		611 CATCH BASIN RECONSTRUCTED TO GRADE				611 INLET, NO. 2-A-6		611 INLET, NO. 2-A-12		611 INLET, NO. 2-A-14		611 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1, AS PER PLAN		611 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D		611 INLET ADJUSTED TO GRADE		611 INLET RECONSTRUCTED TO GRADE		611 MANHOLE ADJUSTED TO GRADE, AS PER PLAN "A"				611 MANHOLE, NO. 3, AS PER PLAN "A"		611 MANHOLE ADJUSTED TO GRADE		611 MANHOLE RECONSTRUCTED TO GRADE		611 MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN "A"		611 PRECAST REINFORCED CONCRETE OUTLET		839 TRENCH DRAIN, TYPE A WITH STANDARD GRATE	
	EACH		EACH		EACH				EACH		EACH		EACH		EACH		EACH		EACH		EACH		EACH				EACH		EACH		EACH		EACH		EACH		FT	
	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04			01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04			01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04		01/IMS /04		01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04	01/IMS /04
170	2	1							1	1	1		1		1	1	3	2									1	1										
171			2	1	1	1			1	1									1		2	1	1	1					1				1				134	89
176																																			1	1		
178																																			1			
TOTALS CARRIED TO GENERAL SUMMARY	2	1	2	1	1	1			2	2	1		1		1	1	3	2	1		2	1	1	1			1	1	1	1	1		1		2	1	134	89

NO.	DESCRIPTION	REV BY	DATE
5	REVISED P-156	CWL	10-31-23

CALCULATED CJC
CHECKED CWL

DRAINAGE SUBSUMMARY

FRA-70-13.11

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	202 GUARDRAIL REMOVED FT 01/IMS/04	202 GUARDRAIL REMOVED FT 01/IMS/04	202 HEADWALL REMOVED EACH 01/IMS/04	202 HEADWALL REMOVED EACH 01/IMS/04	602 CONCRETE MASONRY CY 01/IMS/04	602 CONCRETE MASONRY CY 01/IMS/04		611 6" CONDUIT, TYPE B FT 01/IMS/04	611 6" CONDUIT, TYPE B FT 01/IMS/04	611 15" CONDUIT, TYPE B FT 01/IMS/04	611 15" CONDUIT, TYPE B FT 01/IMS/04	611 15" CONDUIT, TYPE B, AS PER PLAN FT 01/IMS/04	611 15" CONDUIT, TYPE B, AS PER PLAN FT 01/IMS/04	611 15" CONDUIT, TYPE C, AS PER PLAN FT 01/IMS/04	611 15" CONDUIT, TYPE C, AS PER PLAN FT 01/IMS/04	611 15" CONDUIT, TYPE C FT 01/IMS/04	611 15" CONDUIT, TYPE C FT 01/IMS/04	611 18" CONDUIT, TYPE B FT 01/IMS/04	611 18" CONDUIT, TYPE B FT 01/IMS/04	611 18" CONDUIT, TYPE B, AS PER PLAN FT 01/IMS/04	611 18" CONDUIT, TYPE B, AS PER PLAN FT 01/IMS/04	
GR-1	185	144+49.80 (I-70 EB)	145+75.83 (I-70 EB)	LT	126																					
GR-2	191 , 193	157+86.69 (I-70 EB)	166+33.54 (I-70 EB)	RT	842																					
GR-3	195	169+94.90 (I-70 EB)	170+86.94 (I-70 EB)	RT	95																					
GR-4	201 , 203	183+86.61 (I-70 EB)	191+59.66 (I-70 EB)	RT	789																					
GR-5	205 , 207	192+70.64 (I-70 EB)	197+46.72 (I-70 EB)	RT	479																					
GR-6	213 , 215	265+50.32 (I-71 NB)	270+82.56 (I-71 NB)	RT	518																					
GR-7	219 , 221	45+08.00 (RAMP B5)	148+54.11 (I-70 EB)	LT/RT	343																					
GR-8	223	6004+94.45 (RAMP C6)	6006+06.34 (RAMP C6)	LT	112																					
GR-9	223 , 225	6005+70.08 (RAMP C6)	175+29.31 (I-70 EB)	RT/RT	469																					
GR-10	219	45+08.00 (RAMP B5)	45+35.92 (RAMP B5)	RT	30																					
GR-11	213 , 215	263+12.50 (I-71 NB)	272+00.77 (I-71 NB)	LT	919																					
HR-1	215	269+32.19 (I-71 NB)		LT			1																			
HW-1	213	265+99.00 (I-71 NB)		RT					0.27																	
HW-250	215	270+99.98 (I-71 NB)		LT					0.33																	
P-1	213	D-1	HW-1	RT																	27					
P-105	191	D-105	D-106	RT										20												
P-106	191	D-106	D-110	RT																	68					
P-107	191	D-110	D-107	RT/LT										101												
P-109	191	D-107	D-109	LT										75												
P-112	193	DJ-52	D-112	RT										11												
P-150	203	D-150	D-151	RT										78												
P-151	203	D-151	EX-255	RT/LT												74										
P-152	203	D-152	D-256	RT/LT										76												
P-156	203	D-256	D-156	LT																	8		5			
P-158	219	D-158	DJ-246	RT																					45	
P-163	203	D-163	D-164	LT										76												
P-164	203	D-164	188+99.70 (I-70 EB)	LT										7												
P-242	219	D-242	D-243	LT										47												
P-243	219	D-243	D-158	LT/RT																						
P-244	219	D-244	DJ-246	RT																20						
P-245	185	D-244	D-245	LT																	6					
P-249	215	D-250	D-249	RT																						
P-250	215	D-250	HW-250	LT/RT																						
P-256	203	EX-255	D-256	LT																					76	
P-260	223	D-260	D-55	RT										7												
P-270	197	D-270	D-271	RT								8														
P-271	197	D-271	DJ-35	LT/RT												38										
P-995	219	D-995	D-158	RT										49												
P-996	219	D-996	D-243	LT										31												
TOTALS CARRIED TO SUBSUMMARY ON SHEETS 164,166					2833	1889	1		0.4	0.2		5	3	347	231	67	45	12	8	61	40	125	84	73	48	

CALCULATED ATR CHECKED CWL

ESTIMATED QUANTITIES

NO.	DESCRIPTION	REV. BY	DATE
5	REVISED P-156	CWL	10-31-23

FRA-70-13.11

174
1151

D:\2012\2012048\FRA\77372\ROADWAY\SHEETS\77372GQ006.DGN
10/31/2023
1:22:11 PM
QDOTV8ISTD_USER

℄ CONST. I-70 EB
P.I. Sta. 190+20.00
Δ = 16° 45′ 00″ (LT)
Dc = 1° 58′ 21″
R = 2,904.79′
T = 427.65′
L = 849.20′
E = 31.31′
C = 846.17′
C.B. = N 88° 42′ 06″ E
emax = 0.045
P.C. Sta. 185+92.35
P.T. Sta. 194+41.55
D.S. = 60 MPH

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED TMT
CHECKED CWL

PLAN - I-70 EASTBOUND
STA. 187+00.00 TO STA. 192+00.00

FRA-70-13.11

203
1151

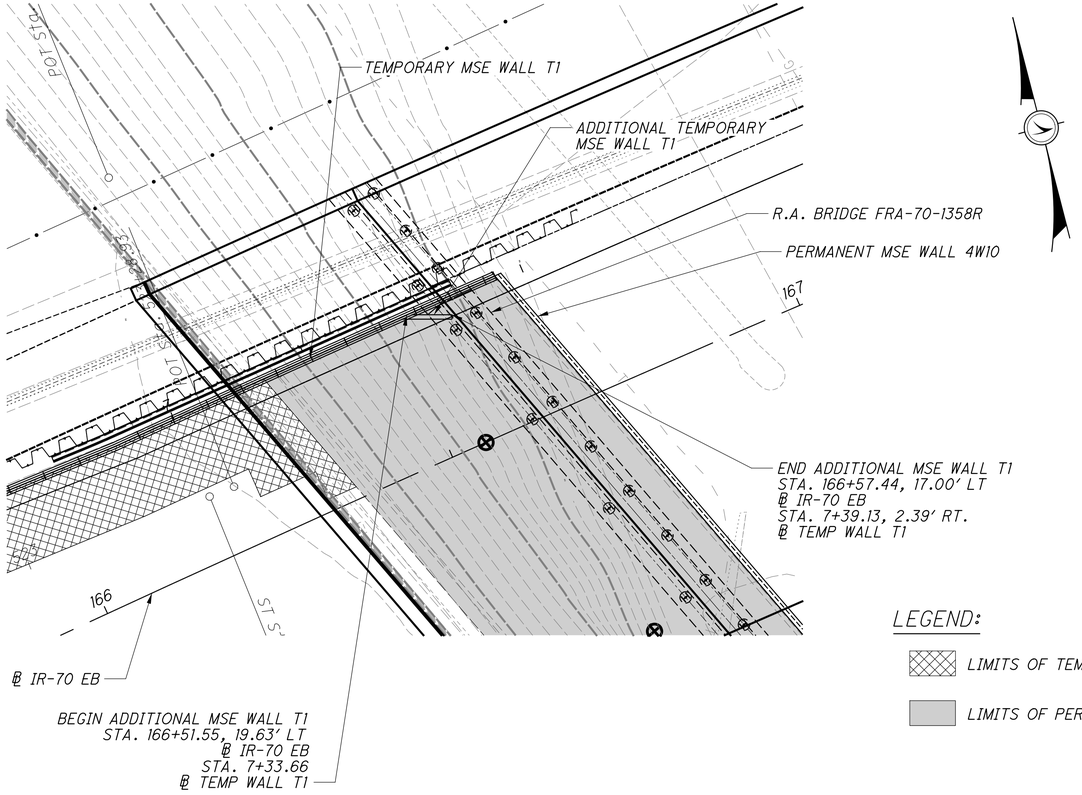
NO.	DESCRIPTION	REV. BY	DATE
5	ADDED I05523 WV	CWL	10-31-23

D:\2012\2012048\FRA77372\ROADWAY\SHEETS\77372SP015.DGN
10/31/2023
9:40:39 AM
ODOTvarisID_USER

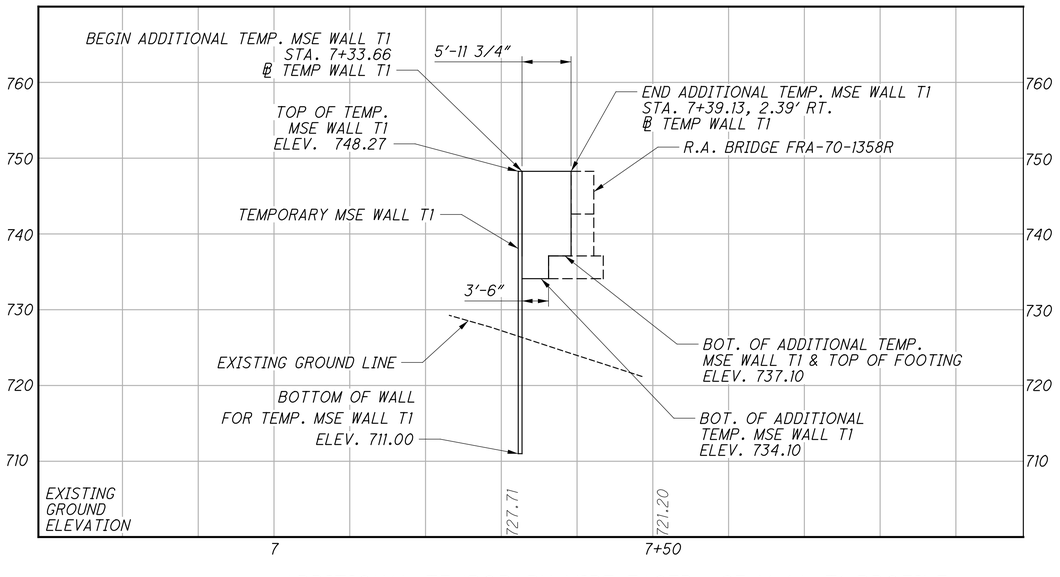
FOR I-70 EB PROFILE, SEE SHEET 204
FOR RETAINING WALL DETAILS, SEE SHEETS 327 - 339
FOR WATER WORK PLANS, SEE SHEETS 361 -362
FOR UNDERDRAIN DETAILS, SEE SHEETS 306-308
FOR LIGHTING PLANS, SEE SHEETS 401-413
FOR ESTIMATED QUANTITIES, SEE SHEETS 169 - 178

------ PROJECT 4R (I05523)
PROJECT 6R (I05588)
PROJECT 4H (I05596)

NOTE "B"
SHOULDER WIDTH VARIES TO MEET SUBSTRUCTURE

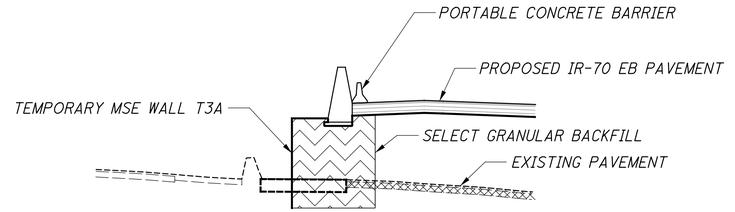


ADDITIONAL TEMPORARY WIRE FACED MSE WALL T1 PLAN



ADDITIONAL TEMPORARY WIRE FACED MSE WALL T1 PROFILE

(ALONG ℄ ADDITIONAL TEMPORARY WALL T1)



TYPICAL SECTION FOR TEMPORARY MSE WALL T1

LEGEND:

- LIMITS OF TEMPORARY WALL T1 EXCAVATION
- LIMITS OF PERMANENT WALL 4W10 EXCAVATION

NOTE:

SEE SHEET 322 PLAN NOTE "ITEM 867 - TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL.

NOTES:

5

FOR CP DATA, SEE SHEETS 353, 354 & 355 / 1151

NO.	DESCRIPTION	REV. BY	DATE
5	REMOVED NOTE 1	WCB	11/1/2023

DESIGN AGENCY
DYNOTEC, INC.
2931 E. DUBLIN-GRANVILLE RD COLUMBUS, OH 43231
614.880.7320 T * WWW.DYNOTECINC.COM

DESIGNED	DRAWN	REVIEWED	DATE
DJK	DJK	EC	3/11/2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
OHK			

FRANKLIN COUNTY
STA. 166+57.44
STA. 166+51.55

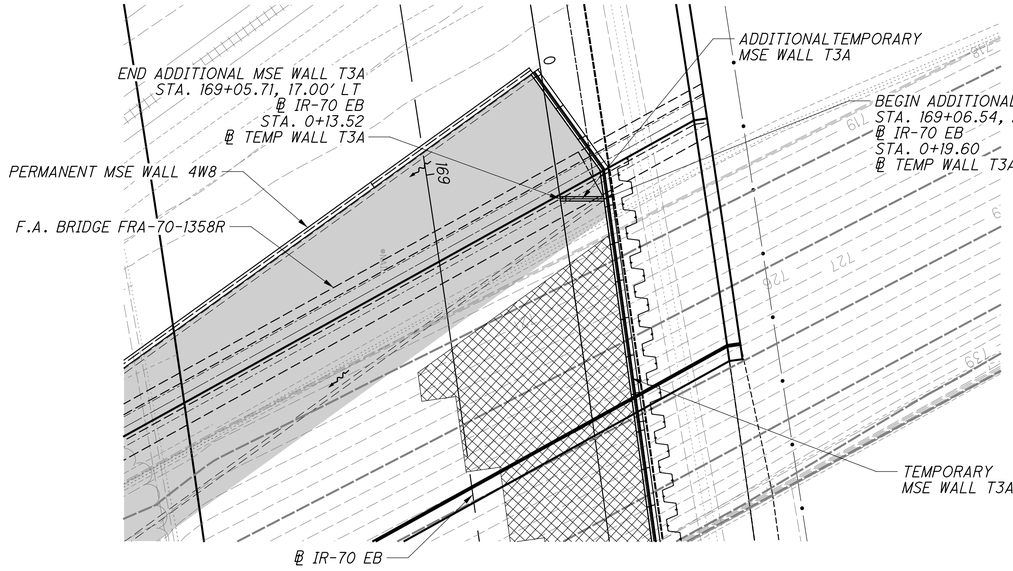
PLAN AND ELEVATON (4 OF 4)
TEMP WIRE FACED MSE WALL T1
BETWEEN BRIDGES FRA-70-1321R AND FRA-70-1358R

FRA-70-13.11
PID No. 77372

4 / 4

356
1151

Plot Driver: C:\ODOTcadd\Standards\pltcfg\ODOTcadd_PDF.pltcfg
Pen Table: N:\Jobs\CADD-Dynotec Projects\ODOT Jobs\11662-South Trench (Structures)\Plotting\77372-South Trench3.tbl
By: plabarbera
11/1/2023 12:54:19 PM
File: N:\Jobs\2011\11662 - South Trench (FRA-70-13.541)\77372-PROJECT 4A (77372)\STRUCTURES\WALL T1\SHEETS\77372_TWP004.dgn



ADDITIONAL TEMPORARY WIRE FACED MSE WALL T3A PLAN

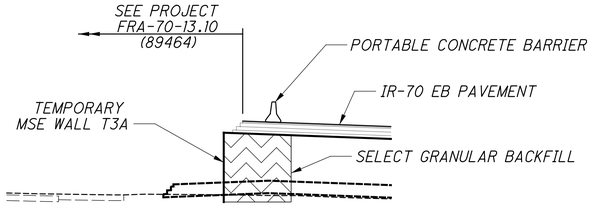
LEGEND:

- LIMITS OF TEMPORARY WALL T3A EXCAVATION
- LIMITS OF PERMANENT WALL 4W8 EXCAVATION

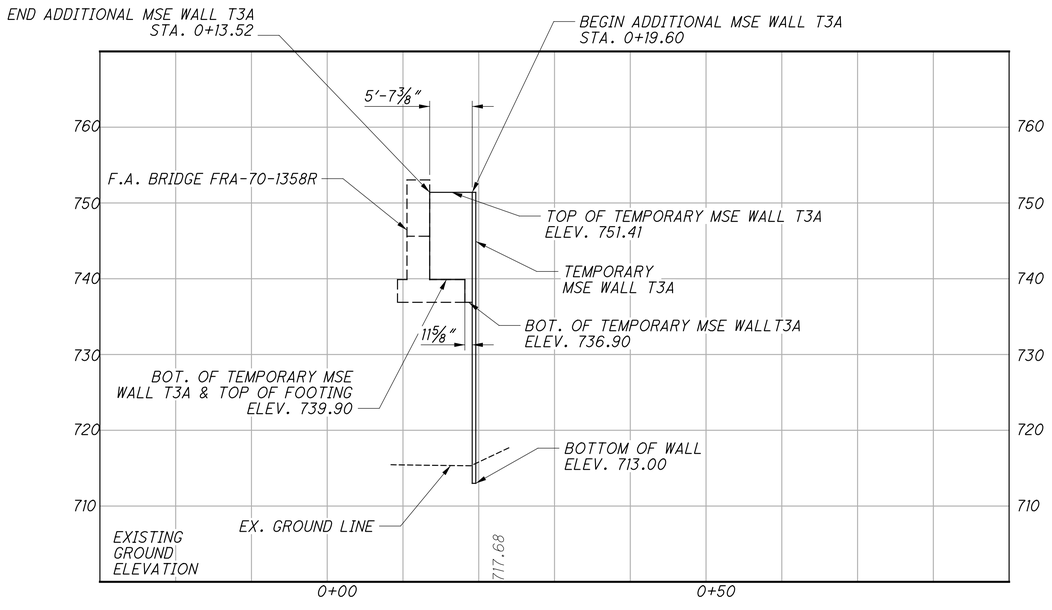
ADDITIONAL WALL T3A BASELINE COORDINATES

0+13.52 N 711835.92 E 1826348.71

0+19.60 N 711829.85 E 1826348.41



ADDITIONAL TEMPORARY MSE WALL T3A PLAN



ADDITIONAL TEMPORARY WIRE FACED MSE WALL T3A PROFILE

(ALONG ℄ ADDITIONAL TEMPORARY WALL T3A)

NOTE:

SEE SHEET 322 PLAN NOTE "ITEM 867 - TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL."

NOTES:

5

FOR CP DATA, SEE SHEETS 357, 358 & 359 / 1151

NO.	DESCRIPTION	REV. BY	DATE
5	REMOVED NOTE 1	WCB	11/1/2023

DESIGN AGENCY
DYNOTEC, INC.
2931 E. DUBLIN-GRANVILLE RD COLUMBUS, OH 43231
614.880.7320 T * WWW.DYNOTECINC.COM

DESIGNED	DRAWN	REVIEWED	DATE
DJK	DJK	EC	3/11/2015
CHECKED	REVISED	STRUCTURE FILE NUMBER	
OHK			

FRANKLIN COUNTY
STA. 169+06.54
STA. 169+05.71

PLAN AND ELEVATION (4 OF 4)
TEMP WIRE FACED MSE WALL T3A
BETWEEN BRIDGES FRA-70-1358R AND FRA-70-1373R.

FRA-70-13.11
PID No. 77372

4 / 4

360
1151

NO.	DESCRIPTION	REV. BY	DATE
5	ADDED 105523 WV & TEST NOTE	CWL	10-31-23

FOR I-70 EB PLANS, SEE SHEETS 183 - 210
FOR RETAINING WALL DETAILS, SEE SHEETS 327 - 339
FOR ESTIMATED QUANTITIES, SEE SHEETS 169 - 178

---------- PROJECT 4R (105523)

NOTES:
1. CITY TESTING LIMITS FOR 20" WATER MAIN TO INCLUDE BETWEEN VALVES INSTALLED IN 4R 105523 PART 1:
FULTON - 19+42.63, 28.56' LT.
LIVINGSTON - 204+25.66, 33.89' RT.

1. 11+21.32, ℄ (WATERLINE) 20" SOLID SLEEVE
2. 11+28.70, ℄ (WATERLINE) 45° HORZ. BEND (ROTATED TO GRADE)
3. 11+38.60, ℄ (WATERLINE) 45° HORZ. BEND
4. 12+15.33, ℄ (WATERLINE) 22.5° HORZ. BEND (ROTATED TO GRADE)
5. 12+40.73, ℄ (WATERLINE) 22.5° HORZ. BEND (ROTATED TO GRADE)
6. 12+46.73, ℄ (WATERLINE) 20" SOLID SLEEVE

STRUCTURE NO. FRA-70-1395C (105523)

RELOCATED 20" WATERLINE

℄ CONST. FULTON ST.

℄ CONST. I-70 WB

PROP. WALL 4W3

WALL 4W2 (105523)

WALL 4W1 (105523)

℄ CONST. LIVINGSTON AVE.

℄ CONST. I-70 EB

℄ CONST. FRONT ST.

℄ CONST. LIVINGSTON AVE.

ex. elec.

℄ CONST. FULTON ST.

RETAINING WALL 4W2 (105523)

PROP. RETAINING WALL NO. 4W3

℄ CONST. I-70 EB

RETAINING WALL 4W1 (105523)

ex. 16" gas
ex. elec.
ex. elec.
ex. 20" water
ex. elec.

D-163
DR-12
P-256

CONNECT TO EX. 20" WATER
STA. 12+46.73
℄ EL. ±726.22

96" rcp

±41.9%

18" MIN.

0.0%

22.0%

ex. 48" cmp casing

CONNECT TO EX. 20" WATER
STA. 11+21.32
℄ EL. ±717.54

45° HORZ. BEND
STA. 11+38.60
℄ EL. 720.63

22.5° HORZ. BEND (ROTATED TO GRADE)
STA. 12+40.73
℄ EL. 726.22

ex. 20" water

ex. 48" cmp casing

45° HORZ. BEND (ROTATED TO GRADE)
STA. 11+28.70
℄ EL. 720.63

22.5° HORZ. BEND (ROTATED TO GRADE)
STA. 12+15.33
℄ EL. 720.63

755 750 745 740 735 730 725 720 715 710

10+00 11+00 12+00 13+00

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED ATR
CHECKED CWL

WATER WORK PLAN AND PROFILE
20" WATERLINE

FRA-70-13.11

361
1151

D:\2012\2012040\FRA\77372\JTLLTIES\SHEETS\77372UP001.DGN
10/31/2023
9:53:38 AM
DOTYBISTD_USER

SHEET NUMBER											PARTICIPATION		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
164	372	373	374	375	376	377	378	379			01/IMS/04							
	494										494		621	00100	494	EACH	RPM	
	494										494		621	54000	494	EACH	RAISED PAVEMENT MARKER REMOVED	
								4			4		625	32000	4	EACH	GROUND ROD	
113											113		626	00102	113	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	
72											72		626	00110	72	EACH	BARRIER REFLECTOR, TYPE 2, ONE-WAY	
							153.5				153.5		630	02100	153.5	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
							193.2				193.2		630	03100	193.2	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
							62.0				62.0		630	04101	62.0	FT	GROUND MOUNTED SUPPORT, NO. 4 POST, AS PER PLAN	370
							10				10		630	08600	10	EACH	SIGN POST REFLECTOR	
								1			1		630	72410	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	
								1			1		630	72420	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	
								15			15		630	75000	15	EACH	SIGN ATTACHMENT ASSEMBLY	
							235.8	12.5			248.3		630	80100	248.3	SF	SIGN, FLAT SHEET	
								537.0			537.0		630	80224	537.0	SF	SIGN, OVERHEAD EXTRUSHEET	
								9			9		630	82000	9	EACH	SIGN BACKING ASSEMBLY	
								1			1		630	84000	1	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TC-21.40	
								1			1		630	84010	1	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TC-21.50	
								2			2		630	84510	2	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
							15				15		630	84900	15	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
							27				27		630	86002	27	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
							11				11		630	87100	11	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	
							3				3		630	87400	3	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
							1				1		630	89706	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30	
							1				1		630	89802	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65	
		249		12		76					337		644	00720	337	FT	CHEVRON MARKING	
			1			1					2		644	01350	2	EACH	LANE REDUCTION ARROW	
		83		27	75						185		646	10620	185	FT	CHEVRON MARKING	
		0.25	0.92	0.36	0.19						1.72		807	12010	1.72	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	
		0.04	0.35	0.54	0.21						1.14		807	12110	1.14	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	
		266	3796	268	677						5007		807	12310	5007	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12"	
			351								351		807	12410	351	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6"	
		1.30	0.39	0.37	0.39	2.30					4.75		807	14010	4.75	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	
		0.53	0.10	0.78	0.58	0.14					2.13		807	14110	2.13	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
		0.11									0.11		807	14200	0.11	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CENTER LINE	
		4492	295	820	1950	2727					10284		807	14310	10284	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"	
			249			2567					2816		807	14410	2816	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
		2.04	0.49	1.15	0.97	2.44					7.09		850	10010	7.09	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
			249			2567					2816		850	10110	2816	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
		4492	295	820	1950	2727					10284		850	10130	10284	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	
		0.29	1.27	0.90	0.40						2.86		850	20010	2.86	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
			351								351		850	20110	351	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
		266	3796	268	677						5007		850	20130	5007	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE)	

NO.	DESCRIPTION	REV. BY	DATE
5	REVISED QUANTITY	AKF	11-2-23

CALCULATED SLB CHECKED AKF

TRAFFIC CONTROL GENERAL SUMMARY

FRA-70-13.11

D:\2012\2012048\FRA\77372\TRAFFIC\SHEETS\77372TG001.DGN
11/2/2023
7:27:15 AM
CDOTV8iSTD_USER

PAVEMENT MARKING SUBSUMMARY - SHEET 1 OF 5

CALCULATED SLB | CHECKED AKF

SHEET NO.	REF. NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 CHEVRON MARKING FT	644 LANE REDUCTION ARROW EACH	646 CHEVRON MARKING FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6" FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12" FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CENTER LINE FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6" FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE) FT		
382	CH	I-70 EB	103+31	111+67	RT													836		1369		836							
382	CH	I-70 EB	103+31	111+67	RT													836				836							
382	EW	I-70 EB	103+31	117+00	RT									1369						1369									
382	LL	I-70 EB	111+67	117+00	RT										533					533									
382	CDW	I-70 EB	114+43	117+00	CEN											257				514	5								
382	LL	I-70 EB	114+43	117+00	LT										257					257									
382	EY	I-70 EB	114+43	117+00	RT								257							257									
383	EY	I-70 EB	117+00	126+96	LT								996							996									
383	EY	I-70 EB	126+96	128+00	LT				104											996					104				
383	LL	I-70 EB	117+00	126+96	LT										996					996									
383	LL	I-70 EB	126+96	128+00	LT						104									996					104				
383	CDW	I-70 EB	117+00	120+00	CEN											300				600	5								
383	CH	I-70 EB	117+00	126+96	RT													996				996							
383	CH	I-70 EB	126+96	128+00	RT							104															104		
383	CH	I-70 EB	117+00	126+96	RT													996				996							
383	CH	I-70 EB	126+96	128+00	RT							104															104		
383	CM	I-70 EB	117+00	126+96	RT	213																							
383	CM	I-70 EB	126+96	128+00	RT			83																					
383	LL	I-70 EB	117+00	126+96	RT										996					996									
383	LL	I-70 EB	126+96	128+00	RT						104														104				
383	EW	I-70 EB	117+00	126+96	RT									996						996									
383	EW	I-70 EB	126+96	128+00	RT					104															104				
384	EY	I-70 EB	128+00	128+28	LT				28																28				
384	LL	I-70 EB	128+00	128+28	LT						28														28				
384	CH	I-70 EB	128+00	128+28	RT							28															28		
384	CH	RAMP C5	5032+37	5032+68	LT																								
384	EY	RAMP C5	5032+68	5041+58	LT								890							890									
384	EY	RAMP C5	5041+58	5046+65	LT				507																507				
384	CH	RAMP C5	5032+38	5032+68	CEN							30															30		
384	CH	RAMP C5	5032+68	5039+05	CEN													637				637							
384	EW	RAMP C5	5039+05	5041+58	CEN									253						253									
384	EW	RAMP C5	5041+58	5046+65	CEN					507															507				
384	CH	RAMP C5	5037+14	5039+05	RT													191				191							
384	CM	RAMP C5	5037+14	5039+05	RT	36																							
384	EW	RAMP C5	5032+39	5032+68	RT					29															29				
384	EW	RAMP C5	5032+68	5037+68	RT									500						500									
384	EY	RAMP C5	3004+39	3011+71	LT								732							732									
384	EW	RAMP C5	3003+00	3011+71	CEN									871						871									
TOTAL						249		83	639	640	236	266		2875	3989	2782	557	4492		10760		4492	1515		266				
TOTAL MILES									0.25		0.04			1.30		0.53	0.11			2.04			0.29						
TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY						249		83	0.25	5	0.04	266		1.30		0.53	0.11	4492		2.04	5	4492	0.29		266				

NO.	DESCRIPTION	REV. BY	DATE
5	REVISED QUANTITY	AKF	11-2-23

FRA-70-13.11

PAVEMENT MARKING SUBSUMMARY - SHEET 3 OF 5

CALCULATED SLB | CHECKED AKF

SHEET NO.	REF. NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 CHEVRON MARKING FT	644 LANE REDUCTION ARROW EACH	646 CHEVRON MARKING FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6" FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12" FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CENTER LINE FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6" FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE) FT		
386	EY	I-70 EB	155+00	159+16	LT				416															416					
386	EY	I-70 EB	159+16	166+31	LT										715							715							
386	EY	I-70 EB	166+31	168+00	LT				169															169					
386	LL	I-70 EB	155+00	159+10	LT						410													410					
386	LL	I-70 EB	159+10	166+34	LT												724					724							
386	LL	I-70 EB	166+34	168+00	LT						166													166					
386	LL	I-70 EB	155+00	158+98	RT						398													398					
386	LL	I-70 EB	158+98	166+38	RT												740					740							
386	LL	I-70 EB	166+38	168+00	RT						162													162					
386	LL	I-70 EB	155+00	158+87	RT						387													387					
386	LL	I-70 EB	158+87	166+41	RT												754					754							
386	LL	I-70 EB	166+41	168+00	RT						159													159					
386	LL	I-70 EB	155+00	158+75	RT						375													375					
386	LL	I-70 EB	158+75	166+45	RT												770					770							
386	LL	I-70 EB	166+45	168+00	RT						155													155					
386	EY	RAMP C5	5059+85	5062+41	LT				256															256					
386	EY	RAMP C5	5062+41	5071+09	LT										868							868							
386	EY	RAMP C5	5071+09	5072+49	LT				140															140					
386	LL	RAMP C5	5059+85	5062+27	LT						242													242					
386	LL	RAMP C5	5062+27	5064+56	LT												229					229							
386	CH	RAMP C5	5064+56	5071+13	LT															657					657				
386	CH	RAMP C5	5071+13	5072+49	LT							136																136	
386	LL	RAMP C5	5059+84	5062+13	CEN						229													229					
386	LL	RAMP C5	5062+13	5071+17	CEN												904					904							
386	LL	RAMP C5	5071+17	5072+49	CEN						132													132					
386	CH	RAMP C5	5069+54	5071+17	LT															163					163				
386	CH	RAMP C5	5071+17	5072+49	LT							132																132	
386	CM	RAMP C5	5069+54	5071+17	LT	12																							
386	CM	RAMP C5	5071+17	5072+49	LT			27																					
386	EW	RAMP C5	5059+83	5061+99	RT											216						216							
386	EW	RAMP C5	5061+99	5071+20	RT					921														921					
386	EW	RAMP C5	5071+20	5072+49	RT											129						129							
TOTAL						12		27	981	921	2815	268			1583	345	4121			820		6049		820	4717		268		
TOTAL MILES									0.36		0.54				0.37		0.78					1.15			0.90				
TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY						12		27	5 0.36		0.54	268			0.37		0.78	5		820		1.15		820	0.90		268		

NO.	DESCRIPTION	REV. BY	DATE
5	REVISED QUANTITY	AKF	11-2-23

FRA-70-13.11

375
1151

D:\2012\2012046\FRA\77372\TRAFFIC\SHEETS\77372TS013.DGN
11/2/2023
7:42:30 AM
CDOT18STD_USER

GENERAL NOTES

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	REVISED	7-17-15
AS-2-15	REVISED	1-18-19
GSD-1-19	REVISED	1-15-21
SBR-1-13	REVISED	7-20-18
SBR-2-13	REVISED	7-20-18

AND THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

800	DATED	1-20-23
832	DATED	10-19-18
869	DATED	10-17-14
894	DATED	4-16-21

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 7TH EDITION, 2014 AND THE ODOT BRIDGE DESIGN MANUAL, 2007 EDITION, INCLUDING REVISIONS THROUGH JULY 2015.

SPECIAL DESIGN SPECIFICATIONS

THIS BRIDGE REQUIRED THE USE OF OF A THREE DIMENSIONAL MODEL USING THE FINITE ELEMENT DESIGN METHOD TO ANALYZE THE STRUCTURE. THE COMPUTER PROGRAM USED FOR STRUCTURAL ANALYSIS WAS MIDAS CIVIL 2015 (VERSION 2.2, BUILD 4/14/2015). THIS PROGRAM WAS USED TO CALCULATE FORCES FOR THE DESIGN OF THE STEEL GIRDERS, CROSSFRAMES AND GIRDER END DIAPHRAGMS AND TO CALCULATE REACTIONS FOR THE DESIGN OF THE BEARINGS AND SUBSTRUCTURES.

DEAD LOAD DISTRIBUTION: THE WEIGHT OF THE STEEL SUPERSTRUCTURE AND CONCRETE DECK WAS APPLIED TO EACH ELEMENT IN THE MODEL BASED ON LOCAL SECTION PROPERTIES AND TRIBUTARY AREA. THE WEIGHT OF THE FUTURE WEARING SURFACE WAS APPLIED EQUALLY TO EACH GIRDER WITHIN A GIVEN SPAN. PARAPET WEIGHT WAS APPLIED TO THE EXTERIOR GIRDERS ONLY WITHIN THE 3D DESIGN MODEL.

LIVE LOAD DISTRIBUTION: THE DESIGN ANALYSIS WAS CARRIED OUT BY APPLYING TRUCK AND LANE LOADS DIRECTLY TO THE FINITE ELEMENT MODEL, RATHER THAN BY USING CALCULATED DISTRIBUTION FACTORS.

OPERATIONAL IMPORTANCE: A LOAD MODIFIER OF 1.05 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN LOADING: HL-93
FUTURE WEARING SURFACE (FWS) = 0.060 KSF

DESIGN DATA:

CONCRETE CLASS QC2 (SUPERSTRUCTURE) - COMPRESSIVE STRENGTH 4.5KSI
CONCRETE CLASS QC5 - COMPRESSIVE STRENGTH 4.0 KSI (DRILLED SHAFT)
CONCRETE CLASS QC1 (SUBSTRUCTURE) - COMPRESSIVE STRENGTH 4.0 KSI (ABUTMENT)
MASS CONCRETE CLASS QC4 (SUBSTRUCTURE) - COMPRESSIVE STRENGTH 4.0 KSI (PIER CAPS AND COLUMNS)
REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI
STRUCTURAL STEEL - ASTM A709 GRADE 50W - YIELD STRENGTH 50 KSI (GIRDERS, CROSSFRAMES, DIAPHRAGMS, STIFFENERS, FIELD SPLICES)
STRUCTURAL STEEL - ASTM A709 GRADE HPS70W - YIELD STRENGTH 70 KSI (TOP AND BOTTOM FLANGES OF HYBRID GIRDER SECTIONS NOTED AS SUCH IN THE PLANS)
STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI (MODULAR JOINTS AND PARAPET SLIDING PLATE JOINTS)
STEEL H-PILES - ASTM A572 GRADE 50 - YIELD STRENGTH 50 KSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2½" CONCRETE COVER
CLASS QC2 CONCRETE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

ITEM 202 - STRUCTURE REMOVED, OVER 20' SPAN

THE EXISTING STRUCTURE SHALL BE REMOVED IN ACCORDANCE WITH CMS ITEM 202. PRIOR TO DEMOLITION OF THE STRUCTURE, THE CONTRACTOR SHALL VERIFY THAT THE EXISTING CITY OF COLUMBUS ELECTRICAL POWER LINE, CARRIED ACROSS THE EXISTING STRUCTURE, HAS BEEN DE-ENERGIZED AND RELOCATED (NEW CONDUIT CONSTRUCTED ONTO FRA-70-1321A STRUCTURE IN PROJECT 4R 105523 PART 1). 5

PILES TO BEDROCK:

DRIVE PILES TO REFUSAL ON BEDROCK. THE DEPARTMENT WILL CONSIDER REFUSAL TO BE OBTAINED WHEN THE PILE PENETRATION IS AN INCH OR LESS AFTER RECEIVING AT LEAST 20 BLOWS FROM THE PILE HAMMER. SELECT THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL.

THE TOTAL FACTORED LOAD PER PILE AND THE ORDER LENGTHS ARE AS FOLLOWS:

LOCATION	SIZE	ORDER LENGTH (FEET)	FACTORED LOAD (KIPS)
REAR ABUT.	HP 12x53	75	341
FRWD. ABUT.	HP 12x53	75	325

USE STEEL POINTS TO PROTECT THE TIPS OF THE PROPOSED STEEL H-PILES AT THE REAR AND FORWARD ABUTMENTS.

PILE SPLICES: IN LIEU OF USING THE FULL PENETRATION BUTT WELDS SPECIFIED IN CMS 507.09 TO SPLICE STEEL H-PILES, THE CONTRACTOR MAY USE A MANUFACTURED H-PILE SPLICER. FURNISH SPLICERS FROM THE FOLLOWING MANUFACTURER:

ASSOCIATED PILE AND FITTING CORPORATION
8 WOOD HOLLOW RD. PLAZA 1
PARSIPPANY, NEW JERSEY 07054

INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED.

DRILLED SHAFTS, 66" DIAMETER, INTO BEDROCK, AS PER PLAN
DRILLED SHAFTS, 72" DIAMETER, ABOVE BEDROCK, AS PER PLAN

MAXIMUM FACTORED LOADS TO BE SUPPORTED BY EACH DRILLED SHAFT AND FACTORED RESISTANCE PROVIDED BY EACH DRILLED SHAFT AT PIERS ARE LISTED BELOW. THIS LOAD IS RESISTED BY TIP RESISTANCE ONLY. CONCRETE FOR DRILLED SHAFTS SHALL BE PER CMS REQUIREMENTS EXCEPT THAT THE MAXIMUM COARSE AGGREGATE SIZE TO BE USED IS NO. 8.

LOCATION	FACTORED LOAD (KIPS)	FACTORED TIP RESISTANCE (KIPS)
PIER 1	3,054	8,992
PIER 2	2,786	8,992
PIER 3	2,611	8,879
PIER 4	2,702	8,879

ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN:

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 509.

GLASS FIBER REINFORCED POLYMER (GFRP) PARAPET STIFFENING BARS SHALL ALSO BE INCLUDED IN THIS ITEM. SEE SHEET 90/101, 91/101 & 92/101 FOR QUANTITIES AND DETAILS.

ITEM 511, CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN

LOCATE THE LOWER CONTACT POINT OF THE OVERHANG FALSEWORK NO MORE THAN 17 INCHES ± 2 IN. ABOVE THE TOP OF THE GIRDER'S BOTTOM FLANGE. THE BRACKET CONTACT POINT LOCATION REQUIREMENTS OF C&MS 508 DO NOT APPLY.

ITEM 513 - STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN:

1. DESCRIPTION

A. THIS WORK CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FURNISH AND ERECT STRUCTURAL STEEL MEMBERS, DESIGNED AS A HYBRID/ MIX OF STEEL MATERIALS CONSISTING OF: ASTM A709, HIGH PERFORMANCE GRADE HSP70W IN COMBINATION WITH GRADE 50W STEEL.

B. THIS WORK SHALL BE PERFORMED PER ITEM 513 STRUCTURAL STEEL MEMBER, LEVEL SIX(6) EXCEPT AS MODIFIED BY THE JUNE, 2011 3RD EDITION OF THE GUIDE FOR HIGHWAY BRIDGE FABRICATION WITH HPS70W STEEL (HPS485W), A SUPPLEMENT TO ANSI/AASHTO AWS D1.5" AND AS MODIFIED BY THESE PLAN NOTES.

2. MATERIALS

A. STEEL FOR GIRDER WEBS AND FLANGES SHALL BE A COMBINATION OF ASTM A709 GRADE HPS70W MANUFACTURED BY THE THERMO-MECHANICAL CONTROLLED PROCESSING (TMCP) OR QUENCHED AND TEMPERED HEAT TREATMENT PROCESSING ALONG WITH ASTM A588/709 GRADE 50W. ALL OTHER STEEL SHALL BE ASTM A709 GRADE 50W.

B. STEEL DESIGNATED CVN SHALL BE IMPACT TESTED TO EXCEED THE TEST VALUES OF ASTM A709 TABLE S1.2 "NON-FRACTURE CRITICAL IMPACT TEST REQUIREMENTS" FOR ZONE 2, TEMPERATURE RANGE.

3. ADDITIONAL FABRICATION RESTRICTIONS / WARNINGS:

A. APPLICATION OF HEAT FOR CURVING AND STRAIGHTENING APPLICATIONS, CAMBER AND SWEEP ADJUSTMENT, OR OTHER REASON HEATING IS LIMITED TO 1100°F/590 C MAXIMUM, AND MUST BE DONE BY PROCEDURES APPROVED BY THE DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE.

B. THE MATCHING SUBMERGED ARC WELDING CONSUMABLES ESAB ENI4 ELECTRODE IN COMBINATION WITH LINCOLN MIL800H, RECOMMENDED IN APPENDIX A OF THE AASHTO GUIDE FOR HIGHWAY BRIDGE FABRICATION WITH HPS70W STEEL, HAS PRODUCED WELDMENT CONTAINING UNACCEPTABLE DISCONTINUITIES IN A SUBSTANTIAL NUMBER OF COMPLETE PENETRATION GROOVE WELDS IN ONE STRUCTURE, BASED ON THE PARAMETERS USED AND EXPERIENCE OF ONE FABRICATOR. EXTREME CAUTION SHOULD BE EXERCISED WHEN USING THIS ELECTRODE/FLUX COMBINATION.

C. CONSIDERATION WILL BE GIVEN TO OTHER WELDING PROCESSES IF A WRITTEN REQUEST IS SUBMITTED TO THE OFFICE OF MATERIALS MANAGEMENT IN ACCORDANCE WITH CMS 108.05. OTHER WELDING PROCESSES MUST BE QUALIFIED AND TESTED AS REQUIRED BY THE REFERENCED SPECIFICATIONS AND THESE NOTES.

D. IN ADDITION TO THE REQUIREMENTS OF ANSI/AASHTO/AWS D1.5 SECTION 5.17. ALL PROCEDURE QUALIFICATION TESTS MUST BE ULTRASONICALLY TESTED IN CONFORMANCE WITH THE REQUIREMENTS OF AWS D1.5, SECTION 6, PART C. EVALUATION MUST BE IN ACCORDANCE WITH AWS D1.5, TABLE 6.3, ULTRASONIC ACCEPTANCE REJECTION CRITERIA TENSILE STRESS. INDICATIONS FOUND AT THE INTERFACE OF THE BACKING BAR MAY BE DISREGARDED, REGARDLESS OF THE DEFECT RATING.

E. WHENEVER MAGNETIC PARTICLE TESTING IS DONE, ONLY THE YOKE TECHNIQUE WILL BE ALLOWED, AS DESCRIBED IN SECTION 6.7.6.2 OF THE ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE, MODIFIED TO TEST USING ALTERNATING CURRENT ONLY. THE PROD TECHNIQUE WILL NOT BE ALLOWED.

4. BASIS OF PAYMENT:

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM	EXT	UNITS	DESCRIPTION
513	10401	POUND	STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN.

ITEM 513 - STRUCTURAL STEEL, MISC.: PARAPET SLIDING PLATE JOINT:

THIS WORK CONSISTS OF FURNISHING, FABRICATING, COATING AND ERECTING STRUCTURAL STEEL PARAPET SLIDING PLATE JOINT ASSEMBLIES PLACED ADJACENT TO, AND IN CONJUNCTION WITH, BRIDGE DECK MODULAR EXPANSION JOINTS FURNISHED UNDER A SEPARATE ITEM. ALL WORK SHALL BE IN ACCORDANCE WITH CMS 513 AND THE PLAN DETAILS. COAT PARAPET SLIDING PLATE ASSEMBLIES IN ACCORDANCE WITH CMS 516.03.

PAYMENT SHALL BE MADE FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE PER EACH PARAPET JOINT ASSEMBLY UNDER ITEM 513 - STRUCTURAL STEEL, MISC.: PARAPET SLIDING PLATE JOINT WHICH PRICE SHALL INCLUDE ALL LABOR, MATERIALS, TOOLS AND INCIDENTALS FOR A COMPLETE FUNCTIONING ASSEMBLY.

ITEM 516 - SPECIAL - MODULAR EXPANSION JOINT

ABUTMENT JOINTS SHALL BE WATSON BOWMAN ACME (WABO MODULAR), DS BROWN (STEELFLEX MODULAR), OR APPROVED ALTERNATE.

THE MANUFACTURER SHALL SUBMIT DESIGN CALCULATIONS SHOWING THAT THE DEVICE CAN MEET THE IMPACT AND FATIGUE DESIGN REQUIREMENTS SET FORTH BY THE CURRENT AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

NO.	DESCRIPTION	REV. BY	DATE
5	REVISED NOTE	CWL	11-6-23

DESIGN AGENCY: GPD GROUP — Glaus, Pyle, Schomer, Burns & DeHaven, Inc. 1801 Watermark Drive, Suite 210, Columbus, OH 43215 614.210.0751

DESIGNED	DRAWN	REVIEWED	DATE
TJW	JLH	DGN	4-21-23
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RHC		2510016	

GENERAL NOTES
BRIDGE NO. FRA-70-1321R
I-70 E.B. OVER THE SCIOTO RIVER

FRA-70-13.11
PID No. 77372

D:\2012\2012040\FRA\77372\STRUCTURES\FRA070_1321R\SHEETS\070_1321RGN001.DGN
11/6/2023
10:45:19 AM
ODOTVBISTD_USER

TRAFFIC CONTROL LEGEND

→	TRAFFIC FLOW
◇	PROPOSED SIGN
◇	EXISTING SIGN TO REMAIN
◇	EXISTING SIGN TO BE REERECTED
⊤	SIGN SUPPORT
▪	RPM (RAISED PAVEMENT MARKER)
S-#	PROPOSED SIGN
R-#	EXISTING SIGN TO BE REMOVED
BI-#	BICYCLE LANE SYMBOL MARKING
BD-#	BICYCLE DETECTOR MARKING
BS-#	SHARED LANE MARKING
CDS-#	CENTER LINE, DOUBLE SOLID
CL-#	CHANNELIZING LINE
CWL-#	CROSSWALK LINE
DL-#	DOTTED LINE, WHITE
ELW-#	EDGE LINE, WHITE
LA-#	LANE ARROW
LL-#	LANE LINE
SL-#	STOP LINE
TLW-#	TRANSVERSE/DIAGONAL LINE, WHITE
TLY-#	TRANSVERSE/DIAGONAL LINE, YELLOW
PS-#	PARKING LOT STALL MARKING
RM-#	EXISTING PARKING METER TO BE REMOVED

ITEM 644 - PAVEMENT MARKING, MISC.: BIKE DETECTOR MARKING

THE BIKE DETECTOR MARKING SHALL BE PLACED IN THE DETECTED BIKE LANE PER CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWING 4305.

ITEM 644 - PAVEMENT MARKING, MISC.: DOTTED LINE, 6"

THIS ITEM SHALL BE 6" WIDE AND SHALL HAVE A 3' SEGMENT WITH A 9' GAP BETWEEN SEGMENTS.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT PRICE BID PER FEET.

5

ITEM 630 - SIGN SUPPORT ASSEMBLY, POLE MOUNTED, AS PER PLAN

FLAT SHEET SIGNS SHALL BE ATTACHED TO THE POLE USING CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWING 4253.

PAYMENT FOR "ITEM 630 - SIGN SUPPORT ASSEMBLY, POLE MOUNTED, AS PER PLAN" SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH. PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND ALL PARTS NECESSARY TO ATTACH ONE SIGN.

ITEM 644 - PAVEMENT MARKING, MISC.: EDGE LINE, 6"
ITEM 644 - PAVEMENT MARKING, MISC.: LANE LINE, 6"
ITEM 645 - PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A1, WITH CONTRAST

THIS ITEM SHALL BE 6" WIDE.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT PRICE BID PER MILE.

ITEM 644 - PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12"
ITEM 645 - PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12", TYPE A1, WITH CONTRAST
ITEM 647 - PAVEMENT MARKING, MISC.: CROSSWALK LINE, 12", TYPE B90

THIS ITEM SHALL BE 12" WIDE.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT PRICE BID PER FEET.

ITEM 644 - PAVEMENT MARKING, MISC.: STOP LINE, 24"
ITEM 644 - PAVEMENT MARKING, MISC.: TRANSVERSE/DIAGONAL LINE, 24"
ITEM 647 - PAVEMENT MARKING, MISC.: STOP LINE, 24", TYPE B90

THIS ITEM SHALL BE 24" WIDE.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT PRICE BID PER FEET.

ITEM 644 - PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6"

THIS ITEM SHALL BE 6" WIDE AND SHALL HAVE A 2' SEGMENT WITH A 6' GAP BETWEEN SEGMENTS.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT PRICE BID PER FEET.

ITEM 644 - PAVEMENT MARKING, MISC.: CENTER LINE, 4"
ITEM 645 - PAVEMENT MARKING, MISC.: CENTER LINE, 4", TYPE A1

THIS ITEM SHALL BE 4" WIDE.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT PRICE BID PER MILE.

5

EXISTING PARKING KIOSKS

THE EXISTING PARKING KIOSKS SHALL REMAIN IN PLAN WHILE ON-STREET PARKING IS PERMITTED. WHEN THE CONTRACTOR IS PLANNING TO RESTRICT ON-STREET PARKING FOR THE DURATION OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY OF COLUMBUS (614-645-3111) 2 WEEKS PRIOR TO THE RESTRICTION. THE CITY OF COLUMBUS WILL BE RESPONSIBLE TO REMOVING THE EXISITNG PARKING KIOSKS.

PAID PARKING OUT OF SERVICE FEES

AS INDICATED IN THE MAINTENANCE OF TRAFFIC PLAN NOTES AND PER COLUMBUS CITY CODE CHAPTER 2155.055 FEES FOR PARKING METERS OUT OF SERVICE, FOR ALL PAID PARKING (WHICH MAY INCLUDE PARKING METERS, KIOSKS, AND MOBILE PAYMENT ONLY ZONES) THAT ARE TAKEN OUT OF SERVICE (BAGGED OR REMOVED) DUE TO THE CONSTRUCTION OF THIS PROJECT, THE COST IS THE RESPONSIBILITY OF THE CONTRACTOR AS A PART OF THIS CONTRACT. WHILE THE ACTUAL PAID PARKING TO BE TAKEN OUT OF SERVICE IS NOT LISTED OR INCLUDED IN THESE PLANS, THE CONTRACTOR IS TO IDENTIFY THE PAID PARKING TO BE REMOVED FROM SERVICE, AND DETERMINE THE COST.

THE CONTRACTOR IS RESPONSIBLE FOR PAYING THE DAILY LOST PAID PARKING REVENUE FOR EACH PAID PARKING SPACE TAKEN OUT OF SERVICE.

TO CALCULATE AN ESTIMATE FOR THE LOST REVENUE, VISIT THE PARKING CALCULATOR AT HTTPS://GIS.COLUMBUS.GOV/PARKINGCALCULATOR. THE PARKING CALCULATOR IS A HELPFUL TOOL TO ASSIST IN PAID PARKING AREAS, ESPECIALLY IN AREAS WHERE THE PARKING SPACES ARE NOT DELINEATED WITH PAVEMENT MARKINGS. BELOW ARE INSTRUCTIONS FOR USING THE PARKING CALCULATOR:

1. SET VARIABLES FOR THE PARKING CALCULATOR:
   - FIND THE PROJECT LOCATION ON THE WEB MAP BY SEARCHING IN THE ADDRESS SEARCH BAR OR ZOOMING TO THE LOCATION.
   - DETERMINE IF THERE IS A MOBILE PAY ONLY ZONE, PARKING METERS ONLY OR BOTH IN THE PROJECT BOUNDARIES, THEN SELECT THE APPLICABLE BUTTON ON THE "PARKING COST REPORT".
   - USE THE DATE RANGE SELECTION TO SPECIFY WHEN METERS WILL BE OUT OF SERVICE. THE APPLICATION WILL AUTO-CALCULATE TO EXCLUDE SUNDAYS/HOLIDAYS WHEN METERS ARE OUT OF SERVICE.
2. SELECT THE AREA IMPACTED BY THE PROJECT:
   - SELECT THE POLYGON BUTTON AND DRAW OR OUTLINE THE AREA OF THE PAID PARKING THAT WILL BE OUT OF SERVICE. THE ERASER BUTTON (JUST BELOW THE POLYGON BUTTON) CAN BE USED TO CLEAR THE CURRENT DRAWING.
   - ONCE AN AREA IS SELECTED, THE CALCULATOR WILL OUTPUT THE TOTAL COST FOR THE DATE RANGE AND AREA SPECIFIED.
3. INTERPRET RESULTS:
   - ONCE YOU HAVE SELECTED YOUR AREA, VIEW THE PARKING COST REPORT, WHICH WILL PROVIDE THE AMOUNT OF PAID PARKING FEES DUE FOR THE LOCATION AND DURATION SELECTED.
   - THIS RATE ONLY INCLUDES THE LOST PAID PARKING REVENUE FEE AND DOES NOT INCLUDE ANY PERMIT FEES ASSESSED BY THE PERMIT OFFICE.

FOR QUESTIONS RELATED TO CALCULATING FEES, CONTACT THE CITY OF COLUMBUS, DIVISION OF PARKING SERVICES AT PARKINGSERVICES@COLUMBUS.GOV FOR ASSISTANCE WITH ESTIMATING THE DAILY PAID PARKING REVENUE RATE. PROVIDE THE PROJECT ODOT PID AND CITY OF COLUMBUS E-PLAN IN THE SUBJECT LINE OF THE EMAIL.

ALL PAID PARKING SPACES ARE FREE ON SUNDAY AND CITY RECOGNIZED HOLIDAYS. THE FOLLOWING ARE CITY RECOGNIZED HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING DAY, PRESIDENTS' DAY, MEMORIAL DAY, JUNETEENTH, INDEPENDENCE DAY, LABOR DAY, VETERANS DAY, THANKSGIVING DAY, AND CHRISTMAS DAY. ALL RATES ARE SUBJECT TO CHANGE BY THE CITY OF COLUMBUS. PLEASE NOTE, IF A HOLIDAY FALLS ON A SUNDAY BUT THE CITY RECOGNIZES THE HOLIDAY ON A MONDAY, THE PARKING IS FREE ON THE ACTUAL HOLIDAY, NOT THE DAY THE CITY RECOGNIZES THE HOLIDAY.

THIS COST IS TO BE INCLUDED IN THE BID FOR THIS PROJECT AS A PART OF ITEM 614 MAINTENANCE OF TRAFFIC, LUMP SUM.

AT THE TIME THE CONTRACTOR SUBMITS FOR THE STREET OCCUPANCY/EXCAVATION PERMIT, ALONG WITH THE PAID PARKING IDENTIFICATION NUMBERS TO BE INCLUDED ON THE PERMIT REQUEST FORM, THE CONTRACTOR IS TO PROVIDE A LISTING OF THE METER IDENTIFICATION NUMBERS AND MOBILE PAYMENT ZONE NUMBERS AND THE NUMBER OF DAYS THAT EACH PAID PARKING SPACE IS TO BE OUT OF SERVICE, TO THE DEPARTMENT OF PUBLIC SERVICE PERMIT OFFICE. THE PERMIT OFFICE WILL VERIFY THAT THE HOURLY RATES ARE CORRECT AND CALCULATE THE COST OF THE PERMIT.

ANY QUESTIONS ABOUT THIS SPECIAL PROVISION ARE TO BE SUBMITTED THROUGH THE OWNER AGENCY OFFERING THE SOLICITATION OF THIS BID AS A PRE-BID QUESTION.

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH	AKF	11-1-23

CALCULATED SLB
CHECKED AKF

TRAFFIC CONTROL NOTES / LEGEND

FRA-70-14.05C

D:\2012\2012048\FRA\105596\TRAFFIC\SHEETS\105596TN001.DGN
11/1/2023
9:21:48 AM
ODOTV8ISTD_USER

LAYOUT OF PAVEMENT MARKINGS FOR MAINTENANCE OF TRAFFIC RESTORATION

ALTHOUGH PERMANENT PAVEMENT MARKINGS ARE TO BE INSTALLED AT THE END OF CONSTRUCTION, PAVEMENT MARKING PLAN SHEETS HAVE NOT BEEN INCLUDED IN THE CONTRACT PLANS FOR THE AREAS OF PAVEMENT MARKING RESTORATION DUE TO MAINTENANCE OF TRAFFIC LIMITS ON THE SURFACE STREETS. IN LIEU OF A PAVEMENT MARKING PLAN, THE CONTRACTOR SHALL, PRIOR TO THE START OF CONSTRUCTION, PREPARE AN INVENTORY LOG OF ALL EXISTING PAVEMENT MARKINGS FOR USE IN RESTORING THE MARKINGS AT THE END OF CONSTRUCTION. THE CONTRACTOR SHALL DELIVER TWO (2) COPIES OF THE INVENTORY AND LOG TO THE DISTRICT BEFORE BEGINNING ANY PAVEMENT REMOVALS.

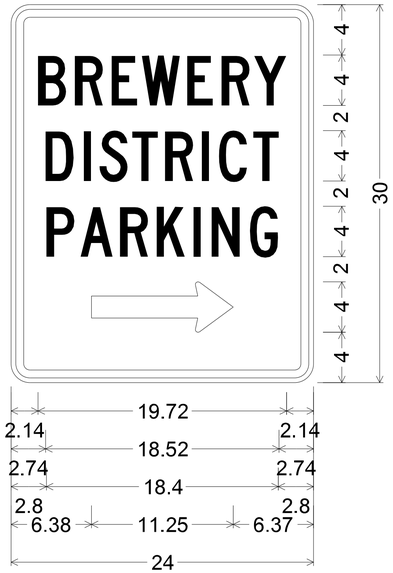
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF THE VARIOUS FINAL PAVEMENT MARKINGS IN ACCORDANCE WITH SECTION 641.06.

UNLESS DIRECTED OTHERWISE BY THE DISTRICT, THE FINAL PAVEMENT MARKINGS SHALL BE RESTORED IN THEIR ORIGINAL PATTERNS AND LOCATION. FINAL LOCATION OF ALL PAVEMENT MARKINGS (PRE-LINE LAYOUT) SHALL BE APPROVED BY THE DISTRICT IN THE FIELD.

THE TABLE TO THE RIGHT PROVIDES ESTIMATED QUANTITIES BASED ON THE PRESENT LOCATIONS OF THE EXISTING PAVEMENT MARKINGS WITHIN THE PROJECT MAINTENANCE OF TRAFFIC LIMITS.

THE COST OF LOGGING AND PREMARKING SHALL BE INCLUDED FOR THE VARIOUS PAVEMENT MARKING ITEMS. NO SEPARATE PAYMENT SHALL BE MADE.

REF. NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 PARKING LOT STALL MARKING FT	644 LANE ARROW EACH	644 BIKE LANE SYMBOL MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6" FT	644 PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12" FT	644 PAVEMENT MARKING, MISC.: TRANSVERSE / DIAGONAL LINE, 24" FT	644 PAVEMENT MARKING, MISC.: EDGE LINE, 6" FT	644 PAVEMENT MARKING, MISC.: LANE LINE, 6" FT	646 LANE ARROW EACH
LA	RAMP C5	5084+74		LT									1
LA	RAMP C5	5085+47		LT									1
LA	RAMP C5	5086+08		LT									1
LA	RAMP C5	5086+73		LT									1
LA	RAMP C5	5087+40		LT									1
LA	RAMP C5	5088+06		LT									1
LA	RAMP C5	5088+06		LT									1
LA	RAMP C5	5088+70		LT									1
LA	RAMP C5	5088+70		LT									1
LA	RAMP C5	5089+36		LT									1
LA	RAMP C5	5089+36		LT									1
LA	RAMP C5	5090+02		LT									1
LA	RAMP C5	5090+02		LT									1
LA	RAMP C5	5090+69		LT									1
LA	RAMP C5	5090+69		LT									1
LL	FULTON ST	19+47	22+10	LT								263	
LL	FULTON ST	19+47	22+10	RT								263	
EW	FULTON ST	19+47	22+10	LT							263		
EW	FULTON ST	19+47	22+10	LT							263		
BI	FULTON ST	19+72		LT			1						
TW	FULTON ST	19+54	19+75	LT						113			
PS	FULTON ST	20+73		RT	8								
PS	FULTON ST	20+96		RT	8								
PS	FULTON ST	21+19		RT	8								
PS	FULTON ST	21+42		RT	8								
PS	FULTON ST	21+65		RT	8								
PS	FULTON ST	21+88		RT	8								
BI	FULTON ST	27+25		LT			1						
EW	FULTON ST	26+50	30+00	LT							350		
LL	FULTON ST	26+50	30+00	LT								350	
EW	FULTON ST	26+50	30+99	CEN							449		
EW	FULTON ST	26+50	30+99	RT							449		
EW	FULTON ST	26+88	29+40	RT							268		
BI	FULTON ST	29+75		LT			1						
EW	FULTON ST	29+75	30+99	RT							124		
DW	FULTON ST	30+00	30+99	LT				99					
CH	FULTON ST	30+00	30+99	LT					99				
LA	FULTON ST	30+21		LT		1							
LA	FULTON ST	30+70		LT		1							
LA	FULTON ST	30+70		LT		1							
TOTALS					48	3	3	99	99	113	2166	876	15
TOTALS (MILE)											0.42	0.17	
TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY					48	3	3	99	99	113	0.42	0.17	15



1.50" Radius, 0.63" Border, 0.38" Indent, White on Brown;
[BREWERY] C 2K;
[DISTRICT] C 2K;
[PARKING] C 2K;
Standard Arrow Custom 11.25" X 4.00" 0°;

SIGNCAD DETAIL

ALL DIMENSIONS SHOWN ARE IN INCHES.

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH	AKF	11-1-23

CALCULATED SLB CHECKED AKF

TRAFFIC CONTROL NOTES

FRA-70-14.05C

D:\2012\2012048\FRA\105956\TRAFFIC\SHEETS\105956TN002.DGN
11/1/2023
9:56:47 AM
ODOT\81STD_USER

SHEET NUMBER											PARTICIPATION			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	109		112	113	114		115	116	117	148	01/IMS/04								
							12	123.7	49.5		185.2			630	02100	185.2	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
								91.7	175.8		267.5			630	03100	267.5	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
									29.2		29.2			630	08004	29.2	FT	ONE WAY SUPPORT, NO. 3 POST	
									4		4			630	08600	4	EACH	SIGN POST REFLECTOR	
										4	4			630	79101	4	EACH	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	130
								3		8	11			630	79501	11	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED, AS PER PLAN	130
							2.3	78.7	108.9	24.0	213.9			630	80100	213.9	SF	SIGN, FLAT SHEET	
										8	8			630	80500	8	EACH	SIGN, DOUBLE FACED, STREET NAME	
							19	19			38			630	84900	38	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
							2				2			630	85100	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
							6	14			20			630	86002	20	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
							3	2			5			630	87500	5	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
										LS	LS			630	97800	LS		SIGNING, MISC.: TRAFFIC SIGNAL SIGNS	130
	48										48			644	01200	48	FT	PARKING LOT STALL MARKING	
	3		2	3	4						12			644	01300	12	EACH	LANE ARROW	
	3			4							7			644	01630	7	EACH	BIKE LANE SYMBOL MARKING	
			6	1							7			644	19000	7	EACH	SHARED LANE MARKING	
				2							2			644	50100	2	EACH	PAVEMENT MARKING, MISC.: BIKE DETECTOR MARKING	108
	99			120	80						299			644	50300	299	FT	PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6"	108
	99		38	152	417						706			644	50300	706	FT	PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12" 5	108
			33	93							126			644	50300	126	FT	PAVEMENT MARKING, MISC.: STOP LINE, 24"	108
	113		185	236	41						575			644	50300	575	FT	PAVEMENT MARKING, MISC.: TRANSVERSE / DIAGONAL LINE, 24"	108
			123								123			644	50300	123	FT	PAVEMENT MARKING, MISC.: DOTTED LINE, 6"	108
	0.42		0.05	0.18	0.02						0.67			644	50400	0.67	MILE	PAVEMENT MARKING, MISC.: EDGE LINE, 6"	108
	0.17		0.13	0.12	0.15						0.57			644	50400	0.57	MILE	PAVEMENT MARKING, MISC.: LANE LINE, 6"	108
			0.16	0.04	0.03						0.23			644	50400	0.23	MILE	PAVEMENT MARKING, MISC.: CENTER LINE, 4"	108
			0.04	0.02							0.06			645	90000	0.06	MILE	PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A1, WITH CONTRAST	108
			0.03	0.02							0.05			645	90000	0.05	MILE	PAVEMENT MARKING, MISC.: CENTER LINE, 4", TYPE A1	108
			173	107							280			645	98000	280	FT	PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12", TYPE A1, WITH CONTRAST	108
	15										15			646	20300	15	EACH	LANE ARROW	
			5	3							8			647	20610	8	EACH	LANE ARROW, TYPE B90	
			1	1							2			647	20940	2	EACH	~~SHARED LANE MARKING, TYPE B90~~	
			126	126							252			647	50120	252	FT	PAVEMENT MARKING, MISC.: CROSSWALK LINE, 12", TYPE B90 5	108
			34	23							57			647	50120	57	FT	PAVEMENT MARKING, MISC.: STOP LINE, 24", TYPE B90	108

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH	AKF	11-1-23

CALCULATED SLB CHECKED AKF

TRAFFIC CONTROL GENERAL SUMMARY

FRA-70-14.05C

D:\2012\20120481\FRA\120596\TRAFFIC\SHEETS\120596TG001.DGN
11/1/2023
9:33:29 AM
DOT\ABISTID.USER

PAVEMENT MARKING SUBSUMMARY - SHEET 1 OF 3

CALCULATED SLB | CHECKED AKF

SHEET NO.	REF. NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 LANE ARROW EACH	644 BIKE LANE SYMBOL MARKING EACH	644 SHARED LANE MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE DETECTOR MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6" FT	644 PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12" FT	644 PAVEMENT MARKING, MISC.: STOP LINE, 24" FT	644 PAVEMENT MARKING, MISC.: TRANSVERSE / DIAGONAL LINE, 24" FT	644 PAVEMENT MARKING, MISC.: DOTTED LINE, 6" FT	644 PAVEMENT MARKING, MISC.: EDGE LINE, 6" FT	644 PAVEMENT MARKING, MISC.: LANE LINE, 6" FT	644 PAVEMENT MARKING, MISC.: CENTER LINE, 4" FT	645 PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A1, WITH CONTRAST FT	645 PAVEMENT MARKING, MISC.: CENTER LINE, 4", TYPE A1 FT	645 PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12", TYPE A1, WITH CONTRAST FT	5 647 LANE ARROW, TYPE B90 EACH	647 SHARED LANE MARKING, TYPE B90 EACH	647 PAVEMENT MARKING, MISC.: CROSSWALK LINE, 12", TYPE B90 FT	647 PAVEMENT MARKING, MISC.: STOP LINE, 24", TYPE B90 FT	5
118	BS-1	HIGH ST.	145+98		LT			1																		
118	BS-2	HIGH ST.	146+02		RT			1																		
118	TLY-1	HIGH ST.	145+69	146+50	LT/RT								10													
118	TLW-5	HIGH ST.	145+38	145+66	RT								34													
118	LL-1	HIGH ST.	145+40	145+69	LT											29										
118	LL-2	HIGH ST.	143+00	146+50	RT											350										
118	CDS-1	HIGH ST.	145+69	146+50	LT												81									
118	CDS-2	HIGH ST.	143+00	146+50	LT/RT												350									
118	ELW-22	HIGH ST.	145+40	146+50	RT										110											
118	DL-1	HIGH ST.	145+69	146+50	LT									81												
119	ELW-23	HIGH ST.	146+50	148+02	RT										152											
119	LA-1	HIGH ST.	147+73		RT	1																				
119	LA-2	HIGH ST.	147+90		RT	1																				
119	BS-3	HIGH ST.	146+58		LT			1																		
119	BS-4	HIGH ST.	147+78		LT			1																		
119	BS-5	HIGH ST.	146+62		RT			1																		
119	BS-6	HIGH ST.	147+87		RT			1																		
119	CL-1	HIGH ST.	147+64	148+02	RT						38															
119	SL-1	HIGH ST.	148+04		RT							33														
119	TLW-7	HIGH ST.	146+50	148+02	RT								108													
119	TLY-2	HIGH ST.	146+50	147+52	LT/RT								33													
119	LL-3	HIGH ST.	146+92	148+02	LT											110										
119	LL-4	HIGH ST.	146+50	148+02	RT											152										
119	CDS-3	HIGH ST.	146+50	148+04	LT												154									
119	CDS-4	HIGH ST.	146+50	147+52	RT/LT												102									
119	LL-5	HIGH ST.	149+22	150+50	LT													128								
119	LL-6	HIGH ST.	149+22	150+05	RT													83								
119	CDS-5	HIGH ST.	149+22	150+50	RT														128							
119	CL-2	HIGH ST.	149+22	150+50	LT															128						
119	CL-2A	HIGH ST.	150+05	150+50	RT															45						
119	DL-2	HIGH ST.	146+50	146+92	LT									42												
119	LA-3	HIGH ST.	149+52		CEN																1					
119	LA-3A	HIGH ST.	149+95		CEN																1					
119	LA-4	HIGH ST.	150+36		CEN																1					
119	LA-4A	HIGH ST.	150+26		RT																1					
119	LA-4B	HIGH ST.	150+26		RT																1					
119	BS-7	HIGH ST.	149+70		RT																	1				
119	CWL-1	HIGH ST.	148+99		LT/RT																		126			
119	SL-2	HIGH ST.	149+20		LT/RT																			34		
119	CDS-6	LIVINGSTON AVE.	206+34	207+54	CEN												120									
TOTAL FEET						2		6			38	33	185	123	262	641	807	211	128	173	5	1	126	34		
TOTAL MILES															0.05	0.13	0.16	0.04	0.03							
TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY						2		6			38	33	185	123	0.05	0.13	0.16	0.04	0.03	173	5	1	126	34		

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH	AKF	11-1-23

FRA-70-14.05C

SHEET NO.	REF. NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 LANE ARROW EACH	644 BIKE LANE SYMBOL MARKING EACH	644 SHARED LANE MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE DETECTOR MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6" FT	644 PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12" FT	644 PAVEMENT MARKING, MISC.: STOP LINE, 24" FT	644 PAVEMENT MARKING, MISC.: TRANSVERSE / DIAGONAL LINE, 24" FT	644 PAVEMENT MARKING, MISC.: DOTTED LINE, 6" FT	644 PAVEMENT MARKING, MISC.: EDGE LINE, 6" FT	644 PAVEMENT MARKING, MISC.: LANE LINE, 6" FT	644 PAVEMENT MARKING, MISC.: CENTER LINE, 4" FT	645 PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A1, WITH CONTRAST FT	645 PAVEMENT MARKING, MISC.: CENTER LINE, 4", TYPE A1 FT	645 PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12", TYPE A1, WITH CONTRAST FT	647 LANE ARROW, TYPE B90 EACH	647 SHARED LANE MARKING, TYPE B90 EACH	647 PAVEMENT MARKING, MISC.: CROSSWALK LINE, 12", TYPE B90 FT	647 PAVEMENT MARKING, MISC.: STOP LINE, 24", TYPE B90 FT	5
119	BI-2	LIVINGSTON AVE.	207+48		RT		1																		
119	BS-10	LIVINGSTON AVE.	209+13		RT			1																	
119	SL-3	LIVINGSTON AVE.	207+56		RT							21													
119	TLY-3	LIVINGSTON AVE.	208+98	209+53	LT								74												
119	TLW-1	LIVINGSTON AVE.	207+24	207+54	LT								25												
119	TLW-6	LIVINGSTON AVE.	209+08	209+55	RT								32												
119	ELW-3	LIVINGSTON AVE.	206+34	207+40	LT										106										
119	ELW-4	LIVINGSTON AVE.	206+34	207+54	LT										120										
119	ELW-5	LIVINGSTON AVE.	206+34	206+54	RT										20										
119	ELW-6	LIVINGSTON AVE.	206+92	207+54	RT										62										
119	ELW-7	LIVINGSTON AVE.	208+98	209+55	LT										57										
119	ELW-10	LIVINGSTON AVE.	209+08	209+55	RT										47										
119	BD-2	LIVINGSTON AVE.	207+53		RT				1																
119	LL-16	LIVINGSTON AVE.	208+98	209+55	RT											57									
119	BI-1	LIVINGSTON AVE.	207+35		LT		1																		
119	DL-2	LIVINGSTON AVE.	206+54	207+54	RT					100															
120	LA-6	HIGH ST.	152+68		CEN	1																			
120	LA-6A	HIGH ST.	153+09		CEN	1																			
120	LA-7	HIGH ST.	153+47		CEN	1																			
120	CL-4	HIGH ST.	152+38	153+70	LT						132														
120	SL-6	HIGH ST.	152+36		LT/RT							32													
120	LL-9	HIGH ST.	152+38	154+00	LT											162									
120	LL-10	HIGH ST.	152+38	154+00	RT											162									
120	CDS-9	HIGH ST.	152+38	154+00	RT												162								
120	LL-7	HIGH ST.	150+50	151+05	RT													55							
120	CDS-8	HIGH ST.	150+50	151+05	RT														55						
120	CL-3	HIGH ST.	150+50	151+02	LT															52					
120	CL-3A	HIGH ST.	150+50	151+05	RT															55					
120	LA-5	HIGH ST.	150+79		CEN																1				
120	LA-5A	HIGH ST.	150+75		RT																1				
120	LA-5B	HIGH ST.	150+75		RT																1				
120	BS-8	HIGH ST.	150+53		LT																	1			
120	CWL-2	HIGH ST.	151+32		LT/RT																		126		
120	SL-5	HIGH ST.	151+07		RT																			23	
120	BI-3	FULTON ST.	23+07		LT		1																		
120	BI-4	FULTON ST.	24+87		LT		1																		
120	DL-3	FULTON ST.	23+00	23+20	LT					20															
120	CL-5	FULTON ST.	23+00	23+20	RT						20														
120	SL-7	FULTON ST.	23+22		LT/RT							40													
120	TLW-2	FULTON ST.	24+67	24+75	RT								23												
120	TLW-2A	FULTON ST.	24+72	26+00	LT								33												
120	TLW-4	FULTON ST.	26+00	26+50	RT								49												
120	ELW-15	FULTON ST.	23+00	23+08	LT										8										
120	ELW-18	FULTON ST.	24+67	26+50	LT										183										
120	ELW-18A	FULTON ST.	24+72	26+00	LT										128										
120	ELW-19	FULTON ST.	24+67	26+50	RT										183										
120	LL-11	FULTON ST.	23+00	23+20	LT											20									
120	LL-12	FULTON ST.	24+67	26+50	LT											183									
120	BD-1	FULTON ST.	22+19		LT				1																
TOTAL FEET						3	4	1	2	120	152	93	236		914	584	162	55	55	107	3	1	126	23	
TOTAL MILES															0.18	0.12	0.04	0.02	0.02						
TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY						3	4	1	2	120	152	93	236		0.18	0.12	0.04	0.02	0.02	107	3	1	126	23	

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH	AKF	11-1-23

CALCULATED SLB
CHECKED AKF

PAVEMENT MARKING SUBSUMMARY - SHEET 2 OF 3

FRA-70-14.05C

PAVEMENT MARKING SUBSUMMARY - SHEET 3 OF 3

CALCULATED SLB
CHECKED AKF

SHEET NO.	REF. NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 LANE ARROW EACH	644 BIKE LANE SYMBOL MARKING EACH	644 SHARED LANE MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE DETECTOR MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6" FT	644 PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12" FT	644 PAVEMENT MARKING, MISC.: STOP LINE, 24" FT	644 PAVEMENT MARKING, MISC.: TRANSVERSE / DIAGONAL LINE, 24" FT	644 PAVEMENT MARKING, MISC.: DOTTED LINE, 6" FT	644 PAVEMENT MARKING, MISC.: EDGE LINE, 6" FT	644 PAVEMENT MARKING, MISC.: LANE LINE, 6" FT	644 PAVEMENT MARKING, MISC.: CENTER LINE, 4" FT	645 PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A1, WITH CONTRAST FT	645 PAVEMENT MARKING, MISC.: CENTER LINE, 4", TYPE A1 FT	645 PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12", TYPE A1, WITH CONTRAST FT	5 647 LANE ARROW, TYPE B90 EACH	647 SHARED LANE MARKING, TYPE B90 EACH	647 PAVEMENT MARKING, MISC.: CROSSWALK LINE, 12", TYPE B90 FT	647 PAVEMENT MARKING, MISC.: STOP LINE, 24", TYPE B90 FT	5
121	LA-8	HIGH ST.	154+68		CEN	1																			
121	LA-9	HIGH ST.	155+24		CEN	1																			
121	CL-6	HIGH ST.	154+00	155+81	RT						181														
121	CL-7	HIGH ST.	257+26	258+72	LT						146														
121	LL-13	HIGH ST.	154+00	259+20	LT											520									
121	LL-14	HIGH ST.	154+00	155+81	RT											181									
121	CDS-10	HIGH ST.	154+00	155+31	RT/LT												131								
122	LA-10	FULTON ST.	22+92		RT	1																			
122	LA-10A	FULTON ST.	22+44		RT	1																			
122	DL-4	FULTON ST.	22+20	23+00	LT					80															
122	CL-8	FULTON ST.	22+10	23+00	RT						90														
122	TLW-3	FULTON ST.	22+10	23+00	LT								41												
122	ELW-20	FULTON ST.	22+10	23+00	LT										90										
122	ELW-21	FULTON ST.	22+10	22+20	LT										10										
122	LL-15	FULTON ST.	22+10	23+00	LT											90									
TOTAL FEET						4				80	417		41		100	791	131								
TOTAL MILES															0.02	0.15	0.03								
TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY						4				80	417		41		0.02	0.15	0.03								

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH	AKF	11-1-23

FRA-70-14.05C

D:\2012\2012048\FRA\120596\TRAFFIC\SHEETS\120596TS003.DGN
11/1/2023
9:54:12 AM
DOT\ABISTID_USER

PLOT.CEL

ms consultants, inc.
msconsultants.com

ODOT'S CONCRETE BARRIER INLETS

PER ODOT'S STANDARD CONSTRUCTION DRAWINGS FOR CONCRETE BARRIER INLET DETAILS, THE STATION AND OFFSET IS CALLED OUT TO THE CENTER OF THE GRATE. THE GRATE ELEVATION CALLED OUT IN THE STORM SEWER PROFILES AND CROSS SECTIONS ARE TO THE CENTER EDGE OF THE GRATE WHERE IT ABUTS TO THE FACE OF BARRIER.

BENCHING OF FOUNDATION SLOPES

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

ITEM 607 - GATE REBUILT, AS PER PLAN

IN PROJECT 6R (FRA-71-14.36), THE GATES TO THE PUMP STATIONS, (1) AT THE SANITARY PUMP STATION, (2) AT THE STORM PUMP STATION, WHERE REMOVED AND STORED ON SITE AT SAID PUMP STATIONS, ARE TO BE REBUILT IN PROJECT 6A AS PART OF THE SITE AND ROADWAY RESTORATION. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE PUMP STATIONS BY CITY OFFICIALS AT ALL TIMES. NEW GATE POST SHALL BE USED, REPLACING EXISTING IN-KIND. SEE GATE DETAIL IN MISC. DETAIL SHEETS.

THE COST FOR THE ALL ABOVE LABOR AND MATERIAL FOR THE RECONSTRUCTION OF EXISTING GATES SHALL BE INCLUDED IN THE COST FOR:
ITEM - 607 GATE REBUILT, AS PER PLAN

ITEM 202 - GATE REMOVED FOR REUSE, AS PER PLAN

THE CONTRACTOR SHALL TAKE CARE IN REMOVING THE EXISTING GATE FOR STORAGE (ON SITE ST THE PUMP STATION IT WAS REMOVED FROM) UNTIL THE SITE IS READY FOR THE GATE TO BE REBUILT. IF THE GATE IS DAMAGED DURING THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL REPLACE THE DAMAGED SECTION OR GATE AT THE COST TO THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PUMP STATION BY CITY OFFICIALS AT ALL TIMES.

THE COST FOR ALL OF THE ABOVE LABOR AND MATERIAL FOR THE REMOVAL AND STORAGE OF EXISTING GATES SHALL BE INCLUDED IN THE COST FOR:
ITEM 202 GATE REMOVED FOR REUSE, AS PER PLAN

ITEM 203 - EMBANKMENT, AS PER PLAN

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE BRIDGE ABUTMENT APPROACH EMBANKMENT AT THE FOLLOWING LOCATIONS:

Item 203 Embankment, as per Plan			
Alignment	Structure	Location	Embankment, as per Plan (CY)
BLPRD3	FRA-70-1323C	Forward	2984
BLPRD3	FRA-70-1358L	Rear	2345
BLPRD3	FRA-70-1323C	Rear	1961
BLPI070WB	FRA-70-1322L	Forward	1840
BLPI070WB	FRA-70-1358L	Rear	2565
BLPI070WB	FRA-70-1358L	Forward	7220
BLPI070WB	FRA-70-1373L	Rear	5073
BLPTEI70WB	FRA-70-1322L	Rear	924
TOTAL			24912

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN "A"

FOR THE EXISTING RETAINING WALL BETWEEN TRANSITIONAL D3 (W) AND TRANSITIONAL I-70WB, THE CONTRACTOR SHALL REMOVE THE WALL THREE FEET BELOW THE PROPOSED GRADE.

THE COST FOR THE ALL ABOVE LABOR AND MATERIAL FOR THE REMOVAL OF A PORTION OF THE EXISTING WALL SHALL BE INCLUDED IN THE LUMP SUM (LS) COST FOR:
ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN "A"

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN "B"

THE EXISTING MSE WALL BETWEEN I-71SB AND I-70WB, EAST OF SHORT STREET SHALL BE BURIED IN THIS PROJECT WITH THE FOLLOWING EXCEPTION. THE MOMENT SLAB WITH ADJOINING PARAPET SHELL BE REMOVED.

THE COST FOR THE ALL ABOVE LABOR AND MATERIAL FOR THE REMOVAL OF THE MSE WALL'S MOMENT SLAB AND PARAPET SHALL BE INCLUDED IN THE LUMP SUM (LS) COST FOR:
ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN "B"

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN "C"

THE EXISTING SHEET PILING WALL RUNNING ALONG THE NORTH SIDE OF RAMP D7 SHALL BE REMOVED THREE FEET BELOW PROPOSED GRADE.

THE COST FOR THE ALL ABOVE LABOR AND MATERIAL FOR THE REMOVAL OF THE SHEET PILING WALL SHALL BE INCLUDED IN THE LUMP SUM (LS) COST FOR:
ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN "C"

ITEM 202 - STRUCTURE REMOVED OVER 20 FOOT SPAN, AS PER PLAN

THE CONTRACTOR SHALL REMOVE THE ENTIRE FRA-70-1309 BRIDGE STRUCTURE PER ODOT'S C&MS ITEM 202.03 WITH THE FOLLOWING EXCEPTIONS.

THE FORWARD AND REAR ABUTMENT BACKWALLS SHALL BE REMOVED DOWN TO THE BEAM SEAT AND ARE PART OF THE PAY ITEM.

FOR THE WING WALLS DISPOSITION AND REMOVAL LIMITS, SEE THE ROADWAY PLANS AND CROSS SECTIONS. THE WING WALLS WILL HAVE A SEPERATE PAY ITEM IF A REMOVAL IS REQUIRED.

THE COST FOR THE ALL ABOVE LABOR AND MATERIAL FOR THE REMOVAL OF THE STRUCTURE SHALL BE INCLUDED IN THE LUMP SUM (LS) COST FOR:
ITEM 202 - STRUCTURE REMOVED OVER 20 FOOT, AS PER PLAN

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

THE EXISTING WING WALLS FOR THE EXISTING RAMP BC (SR315SB TO I-70EB BRIDGE OVER I-71SB), BRIDGE NO. FRA-70-1309, THE CONTRACTOR SHALL REMOVE PORTIONS OF THE WALL THREE FEET BELOW THE PROPOSED GRADE AS CALLED OUT ON THE PLAN AND CROSS SECTIONS.

THE EXISTING SOLDIER PILE WALL FOR THE EXISTING PIER 5 FOR FRA-71-1503L, SOUTH OF EX. RAMP BC, SHALL BE REMOVED TO 3.0 FEET BELOW PROPOSED GRADE.

THE COST FOR THE ALL ABOVE LABOR AND MATERIAL FOR THE REMOVAL OF A PORTION OF THE EXISTING WALL SHALL BE INCLUDED IN THE LUMP SUM (LS) COST FOR:
ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

ITEM 601 - SLOPE PROTECTION MISC.: VEGETATED GEOCELL, AS PER PLAN

THE CONTRACTOR SHALL FURNISH AND INSTALL A VEGETATED GEOCELL AND ALL APPURTENANCES FOR SLOPES GREATER THAN 2:1. THE CELL DEPTH SHALL BE 4". THE CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S INSTALLATION DETAILS AND SPECIFICATIONS.

THE FOLLOWING SUPPLIERS CAN PROVIDE THE NEW GEOCELLS.

GEOWEB 3D VEGETATED SLOPE PROTECTION
PRESTO GEOSYSTEMS
670 N. PERKINS ST., P.O.BOX 2399
APPLETON, WISCONSIN 54912-2399
800-548-3424
EMAIL: INFO@PRESTOGRO.COM

BASELOK GEOCELL
INDUSTRIAL FABRICS, INC.
510 O'NEAL LANE EXT.
BATON ROUGE, LA 70819
800-848-4500
WWW.BASELOK.COM

TYPAR GEOCELL GS FOR SLOPE PROTECTION
BERRY GLOBAL INC.
70 OLD HICKORY BLVD.
OLD HICKORY, TN 37138
800-544-5519
EMAIL: GEOS@TYPAR.COM

(OR APPROVED EQUAL)

BASIS OF PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR REQUIRED TO INSTALL THE GEOCELLS AND BACKFILL WITH TOPSOIL. ALL COST SHALL BE INCLUDED IN THE SQUARE YARD UNIT PRICE OF ITEM 601 - SLOPE PROTECTION MISC.: VEGETATED GEOCELL, AS PER PLAN.

NO.	DESCRIPTION	REV. BY	DATE
5	NOTE REMOVED	ACW	11/6/23

CALCULATED CHECKED

GENERAL NOTES

FRA-70-13.10

ms consultants, inc.

TRAFFIC INCIDENT MANAGEMENT (TIM) DURING MOT

OHIO TIM IS OHIO'S TRAFFIC INCIDENT MANAGEMENT PROGRAM WHICH IS COMMITTED TO MAINTAINING THE SAFE AND EFFECTIVE FLOW OF TRAFFIC DURING EMERGENCIES AS TO PREVENT FURTHER DAMAGE, INJURY OR UNDUE DELAY OF THE MOTORING PUBLIC. IN ADDITION TO COMPLYING WITH THE PROVISION OF OMUTCD CHAPTER 6I, CONTROL OF TRAFFIC THROUGH TRAFFIC INCIDENT MANAGEMENT AREAS, THE CONTRACTOR SHALL ACTIVELY PARTICIPATE IN TIM PLANNING AND IMPLEMENTATION AS OUTLINED BELOW.

1. SUPERINTENDENT SHALL IDENTIFY THE INDIVIDUAL PERSONS ON THE PROJECT WHO WILL, OR MAY NEED TO, PERFORM THE DUTIES HEREIN. AT A MINIMUM, INCLUDE THE SUPERINTENDENT, FOREMEN AND SUPERVISORS (OR EQUIVALENT) AS WELL AS THE WORKSITE TRAFFIC SUPERVISOR (WTS; IF APPLICABLE TO THE PROJECT). THESE INDIVIDUALLY IDENTIFIED PERSONS SHALL COLLECTIVELY BE KNOWN AS CONTRACTOR TRAFFIC INCIDENT MANAGEMENT (TIM) CONTACTS. NOTIFY THE PROJECT ENGINEER OF THE CONTRACTOR TIM CONTACTS (ALONG WITH CONTACT INFORMATION FOR EACH) AT OR BEFORE THE PRECONSTRUCTION MEETING.

2. SUPERINTENDENT SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY CONTRACTOR TIM CONTACT IS ADDED, REMOVED OR THE CONTACT INFORMATION CHANGES OVER THE COURSE OF THE PROJECT.

3. PRIOR THE FIRST DAY OF WORK IN THE FIELD, EACH CONTRACTOR TIM CONTACT ON THE PROJECT SHALL HAVE ATTENDED AND SUCCESSFULLY COMPLETED OHIO TIM TRAINING PROVIDED BY THE DEPARTMENT OR DESIGNEE. TRAINING INFORMATION CAN BE FOUND AT WWW.OHIOTIM.COM.

4. SUPERINTENDENT, AT A MINIMUM, SHALL ATTEND AND ACTIVELY PARTICIPATE IN A DEPARTMENT SCHEDULED TIM MEETING BEFORE CONSTRUCTION WORK BEGINS AND BEFORE EACH PHASE CHANGE. THESE MEETINGS WILL RESULT IN A DEPARTMENT ISSUED PROJECT SPECIFIC TRAFFIC INCIDENT MANAGEMENT PLAN (TIMP). AT THE TIM MEETINGS THE ATTENDING CONTRACTOR TIM CONTACTS SHALL:

A. COLLABORATE WITH ODOT AND SAFETY FORCES;

B. SHARE PROJECT SPECIFIC DETAILS THAT IMPACT TIM RESPONDERS; AND

C. RECOMMEND WAYS TO INCORPORATE NECESSARY EMERGENCY ACCESS AND OTHER TIM ELEMENTS FOR TIM RESPONDERS GIVEN PROJECT SPECIFIC WORK BEING COMPLETED AND PROJECT SPECIFIC PHASING.

5. CONTRACTOR TIM CONTACTS SHALL IMPLEMENT COMPONENTS OF THE RESULTING TIMP (SUCH AS APPROVED EMERGENCY INGRESS/EGRESS POINTS, ETC), AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH 109.05.

6. CONTRACTOR TIM CONTACTS SHALL PERFORM, AT A MINIMUM, THE FOLLOWING FUNCTIONS WHEN AN INCIDENT/CRASH OCCURS:

A. IF OBSERVED OR PRESENT WHEN OCCURS, CALL 911 AND THEN NOTIFY THE TRAFFIC MANAGEMENT CENTER (TMC) TO PROVIDE THE FOLLOWING:

I. LOCATION, INCLUDING MILEPOST NUMBER AND DIRECTION OF TRAVEL

II. NUMBER AND TYPE OF VEHICLES INVOLVED, IF KNOWN

III. ESTIMATED EXTENT OF DAMAGE OR INJURY, IF KNOWN

IV. ESTIMATED NUMBER OF PATIENTS INVOLVED, IF KNOWN

V. ANY POTENTIAL HAZARDOUS CONDITIONS, IF KNOWN

VI. THE PLACARD NUMBER ON ANY HAZARDOUS MATERIALS PLACARD FROM A SAFE DISTANCE, IF APPLICABLE AND VISIBLE

B. FOLLOWING AN INCIDENT/CRASH:

I. INITIATE TRAFFIC MANAGEMENT/PROVIDE TEMPORARY TRAFFIC CONTROL AS INDICATED IN THE TIMP, AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH 109.05.

II. RECOMMEND ROADWAY REPAIR NEEDS.

III. PROVIDE REPAIR RESOURCES AND INITIATE REPAIRS, AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH 109.05.

IV. ATTEND AND PARTICIPATE IN AN AFTER ACTION REVIEW (AAR).

ALL COSTS, UNLESS OTHERWISE SPECIFIED, RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 614, MAINTAINING TRAFFIC. FAILURE TO PERFORM THE REQUIREMENTS OF THIS PLAN NOTE WILL RESULT IN A DAILY FINE OF 2% OF ITEM 614, MAINTAINING TRAFFIC AND MAY RESULT IN ONE OR MORE CONTRACTOR TIM CONTACTS BEING REMOVED FROM THE LIST OF OHIO TIM TRAINED INDIVIDUALS (AT THE SOLE DISCRETION OF THE OHIO TIM EXECUTIVE COMMITTEE). IN THE EVENT AN INDIVIDUAL IS REMOVED FROM THE OHIO TIM TRAINED LIST, THE INDIVIDUAL WILL BE REMOVED FROM CONTRACTOR TIM CONTACT RESPONSIBILITIES ON ALL PROJECTS.

ITEM 614 - WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN

WORK ZONE RAISED PAVEMENT MARKERS, AS PER PLAN, AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614 OR C&MS 621 AS SPECIFIED HEREIN.

- RAISED PAVEMENT MARKERS IN USE DURING THE SNOW-PLOWING SEASON SHALL CONFORM TO 621.

- RAISED PAVEMENT MARKERS IN USE DURING THE NON-SNOW-PLOW SEASON SHALL CONFORM TO EITHER 614 OR 621.

THE SNOW-PLOWING SEASON SHALL RUN FROM OCTOBER 15 THROUGH APRIL 1.

IF PROJECT DELAYS, NOT THE FAULT OF ODOT, CAUSE THE WORK TO EXTEND INTO THE SNOW-PLOWING SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WORK ZONE RAISED PAVEMENT MARKERS (WZRPMS) CONFORMING TO C&MS 614, WITH RAISED PAVEMENT MARKERS CONFORMING TO 621, AS DETERMINED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN, INCLUDING FILLING ANY DEPRESSIONS CREATED IN THE PAVEMENT AS PER C&MS 621.08.

RESURFACING OF THE TRANSITION AREAS SHALL BE PERFORMED AT THE TIME THAT THE SURFACE COURSE IS BEING APPLIED TO THE ENTIRE PROJECT. PRIOR TO APPLICATION OF THE SURFACE COURSE ON THE PROJECT, THE EXISTING PAVEMENT WITHIN THE TRANSITION AREA SHALL BE REMOVED TO A DEPTH NECESSARY TO REACH THE LEVEL OF THE INTERMEDIATE COURSE OF THE PAVEMENT, AS DETERMINED BY THE ENGINEER. AN ESTIMATED QUANTITY HAS BEEN PROVIDED IN THE MAINTENANCE OF TRAFFIC SUBSUMMARY.

PAYMENT FOR RESURFACING WITHIN THE TRANSITION AREA SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEMS FOR THE WORK REQUIRED, AS PROVIDED FOR IN THE PLANS.

ITEM 614 - WORK ZONE RAISED PAVEMENT MARKERS ON CONCRETE SURFACES

RAISED PAVEMENT MARKERS IN WORK ZONES, INSTALLED ON TO CONCRETE SURFACES, SHALL BE ITEM 614 WORK ZONE RAISED PAVEMENT MARKERS. WZRPMS ARE INTENDED FOR USE ONLY DURING THE NON-SNOW-PLOWING SEASON. WZRPMS SHALL NOT BE PROVIDED DURING THE SNOW-PLOWING SEASON.

THE SNOW-PLOWING SEASON SHALL RUN FROM OCTOBER 15 THROUGH APRIL 1.

WHERE A TEMPORARY ALIGNMENT WILL REMAIN IN USE THROUGH THE WINTER, THE WZRPMS SHALL BE REMOVED PRIOR TO THE BEGINNING OF THE SNOW-PLOWING SEASON AND REPLACED APPROXIMATELY APRIL 1, OR AS OTHERWISE DETERMINED BY THE ENGINEER.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKERS.

ESTIMATED QUANTITIES OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER HAVE BEEN PROVIDED IN THE MAINTENANCE OF TRAFFIC SUBSUMMARIES AND CARRIED TO THE GENERAL SUMMARY.

ITEM 614 - WORK ZONE PAVEMENT MARKING, MISC.: ROUTE SHIELDS

THIS ITEM SHALL COMPLY WITH ODOT SUPPLEMENTAL SPECIFICATION 814 AND SHALL INCLUDE THE REMOVAL OF THE ROUTE SHIELD MARKINGS UPON COMPLETION OF THE PROJECT, IF APPLICABLE.

5

APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S)

PORTIONS OF THE MOT PLANS AS DESCRIBED BELOW HAVE APPROVED MOT EXCEPTION(S) PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

APPROVED MOT EXCEPTION(S) INCLUDE:
- 3 YEAR CLOSURE OF SR 315 SB TO I-70 EB RAMP.
- 6 MONTH CLOSURE OF I-70 WB TO SR 315 NB
- MONITOR TRAFFIC CONDITIONS FOR POSSIBLE CONFIGURATION ADJUSTMENTS AT THE I-670 EB TO I-71 SB RAMP.

A MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD A MINIMUM OF 30 CALENDAR DAYS PRIOR TO IMPLEMENTATION OF EACH APPROVED MOT EXCEPTION. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER AND CITY OF COLUMBUS WORK ZONE TRAFFIC MANAGER AS WELL AS THE CONTRACTOR, WORKSITE TRAFFIC SUPERVISOR (WTS) AND ANY SUBCONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

IN ADDITION TO ANY NOTIFICATIONS REQUIRED IN OTHER NOTES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 3 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE SO THAT THE PROJECT ENGINEER CAN SEND EMAIL NOTIFICATION TO THE OFFICE OF ROADWAY ENGINEERING, STATEWIDE TMC, DWZTM AND SPECIAL HAULING PERMITS AT LEAST 2 BUSINESS DAYS IN ADVANCE OF THE IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE. REFERENCE "EXCEPTION REQUEST APPROVAL DATED 01/24/2023 FOR PID 77372" IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTION(S) LISTED ABOVE SHALL BE APPROVED IN WRITING BY THE MOT EXCEPTION COMMITTEE (MOTEC). IN THE EVENT THAT SUCH CHANGES ARE PROPOSED, THE REQUEST SHALL BE COORDINATED THROUGH THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE DESIRED IMPLEMENTATION DATE. IF THE DISTRICT AGREES WITH THE PROPOSED CHANGES THE DWZTM SHALL SEEK APPROVAL FROM THE MOTEC. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.

NOTIFICATIONS DURING CLOSURE REQUIRED

A DESIGNATED ON-SITE POINT OF CONTACT SHOULD COMMUNICATE WITH THE TMC AS THE STATUS OF THE CLOSURE CHANGES.

CONTACT THE TMC:
- IF THE CLOSURE IS POSTPONED OR CANCELLED
- AT THE TIME THE CLOSURE IS IMPLEMENTED
- AT THE TIME THE CLOSURE IS REMOVED AND ALL LANES RESTORED
- IF THE CLOSURE WILL NOT BE OPENING ON TIME

CONTACT CAN BE MADE WITH THE TMC IN THE FOLLOWING WAYS:
- PHONE: 1-614-387-2438 OR 1-800-884-4030
- EMAIL: STATEWIDETMC@DOT.OHIO.GOV
- RADIO: XDOT MAIN

NO.	DESCRIPTION	REV. BY	DATE
5	NOTE REVISED	KWR	11/6/23

MAINTENANCE OF TRAFFIC - GENERAL NOTES

FRA-70-13.10

CALCULATED TAG CHECKED JML

SHEET NO.	LOCATION	STATION TO STATION				614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE 1, ONE WAY EACH	614 OBJECT MARKER, ONE WAY EACH	614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN EACH	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, WHITE FT/MI	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, YELLOW FT/MI	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT FT/MI	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT FT	614 WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE GORE MARKING, CLASS II, 740.06, TYPE I FT	614 WORK ZONE CENTER LINE, CLASS I, 807 PAINT, DOUBLE SOLID, WHITE FT/MI	614 WORK ZONE ARROW, CLASS I, 740.06, TYPE I (5) EACH	614 WORK ZONE PAVEMENT MARKING, MISC.:814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING EACH	622 PORTABLE BARRIER, 50", AS PER PLAN FT	622 PORTABLE BARRIER, UNANCHORED FT	622 BARRIER TRANSITION, AS PER PLAN EACH	630 SIGN ATTACHMENT ASSEMBLY EACH	630 SIGN, TEMPORARY OVERLAY SF	630 REMOVAL OF STRUCTURE MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL EACH	690 SPECIAL -COVERED WALKWAY SYSTEM FT	606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) EACH	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH
	PHASE 1																											
100	SCIOTO BIKEWAY																									159		
101	SCIOTO BIKEWAY	2+00	CL	4+38	CL																					284		
105	I-70 EB	108+67	LT	109+67	LT				10				200															
106		109+67	LT	119+62	CL				50				995															
		109+67	LT	119+62	RT				50				995															
	I-70 EB	111+66	LT	119+62	LT				40		796																	
		111+66	RT	118+23	RT				33	657																		
		112+00	CL																				72		3			
107		119+62	LT	130+00	LT				52		1038																	
		119+62	CL	130+00	LT				52				1038															
		119+62	RT	127+76	RT				41				811															
	I-70 EB	121+28	LT			1																						
		121+47	CL																				49.5		2			
		121+60	LT	127+00	LT		33	11												549								
		124+56	RT	128+19	RT				9				363															
		128+19	RT	130+00	RT					181																		
	I-70 WB	123+59	RT	127+41	RT		24	8												382	1							
108		130+00	RT	133+59	RT						359																	
	I-70 EB	130+00	RT	136+60	CL				17				660															
		130+00	LT	133+59	LT					359																		
111		193+17	LT			1																						
	I-70 EB	193+42	LT	197+88	LT		27	9												446								
		193+00	RT	198+00	RT						500																	
	I-70 WB	193+91	RT	198+00	RT		24	8												409								
		194+00	CL																				9		1			
112		198+00	LT	199+60	LT		9	3												160								
	I-70 WB	198+00	LT	208+00	LT						1000																	
		199+60	LT			1																						
113		208+00	RT	3218+00	RT				50		1000																	
	I-70 WB	3210+38	RT	3218+00	LT				76				1524															
		3213+40	LT	3218+00	LT				12				460															
114		3218+00	LT	3226+40	LT				21				840															
		3218+00	LT	3220+19	LT				11				219															
	I-70 WB	3218+00	LT	3223+20	LT				26				520															
		3218+00	RT	3220+19	RT				11		219																	
		3220+20	LT	3226+78	LT									658														
		3226+40	LT	3226+78	LT						38																	
	PHASE 2																											
129		376+80	RT	386+00	RT						920																	
	SR 315 SB	376+80	RT	382+80	RT	1	39	13												600								
		378+50	CL																				12		1			
		376+34	RT	377+91	RT	1	12	4												157								
	SR 315 NB	379+80	RT	382+20	RT	1	18	6												240								
130		386+00	RT	396+00	RT						1000																	
	SR 315 SB	391+00	CL																				12		1			
		392+93	RT	396+00	RT									307														
	TOTALS THIS SHEET									1197	6870																	
	TOTALS CARRIED TO SHEET 59E					6	186	62	561	0.23	1.30		8625	965						2943	1		155		8	443		

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM REVISED	KWR	11/6/23

CALCULATED MJB
CHECKED JML

MAINTENANCE OF TRAFFIC SUBSUMMARY

FRA-70-13.10

MAINTENANCE OF TRAFFIC SUBSUMMARY

SHEET NO.	LOCATION	STATION TO STATION		614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE 1, ONE WAY EACH	614 OBJECT MARKER, ONE WAY EACH	614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN EACH	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, WHITE FT/MI	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, YELLOW FT/MI	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT FT/MI	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT FT	614 WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE GORE MARKING, CLASS II, 740.06, TYPE I FT	614 WORK ZONE CENTER LINE, CLASS I, 807 PAINT, DOUBLE SOLID, WHITE FT/MI	614 WORK ZONE ARROW, CLASS I, 740.06, TYPE I (5) EACH	614 WORK ZONE PAVEMENT MARKING, MISC.:814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING EACH	622 PORTABLE BARRIER, 50', AS PER PLAN FT	622 PORTABLE BARRIER, UNANCHORED FT	622 BARRIER TRANSITION, AS PER PLAN EACH	630 SIGN ATTACHMENT ASSEMBLY EACH	630 SIGN, TEMPORARY OVERLAY SF	630 REMOVAL OF STRUCTURE MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL EACH	690 SPECIAL -COVERED WALKWAY SYSTEM FT	606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) EACH	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH
	PHASE 2																									
131	SR 315 SB	396+00 RT	399+49 RT						349			349														
	SR 315 SB/NB																				12		1			
134	I-70 EB	415+30 RT	424+00 RT									870														
		419+00 RT	424+00 RT					500																		
		420+50 RT																			67.5		2			
135	I-70 EB	424+00 RT	201+00 RT									160														
		424+00 RT	209+00 RT					960																		
136	I-70 EB	209+00 RT	213+55 RT					455																		
		213+55 RT	220+00 RT				17				656		341													
		218+00 RT	220+00 RT				5				200															
137	I-70 EB	220+00 RT	225+06 RT				25				1012		67													
		227+40 RT																			30		1			
138	I-70 EB	241+34 RT	242+00 RT				6				132															
139	I-70 EB	242+00 RT	252+00 RT				100				2000															
		244+00 RT	252+00 RT				40	800																		
		244+34 RT	252+00 RT				38		766																	
	I-70 WB	251+89 LT	252+00 LT				2				22															
140	I-70 EB	252+00 RT	5028+39 LT				22				436															
		252+00 RT	5034+37 RT				104	1037			1037															
		252+00 RT	5034+37 LT				52		1037																	
		5028+39 LT	5034+37 LT				5			599																
	I-70 WB	119+70 RT	130+00 RT				52				1030															
		119+70 RT	126+82 RT				36				712															
		122+11 RT	130+00 RT		48	16	40		789									789								
		122+11 RT	127+00 LT				13				489															
		124+57 LT	129+70 LT				26				1026															
		126+82 RT	129+21 RT		15	5												239								
		126+82 RT	130+00 RT					318																		
		127+00 LT	130+18 LT						318																	
		129+21 LT		1																						
		129+70 LT	130+18 LT					48																		
141	I-71 NB TO I-70 WB	130+18 LT	133+47 LT					329	329																	
	I-70 WB	130+00 RT	130+85 LT		6	2												85								
		130+00 RT	133+13 RT				16				313															
		130+00 RT	140+00 RT				100	1000	1000																	
		130+85 RT		1																						
		133+13 RT	136+60 RT				3			347																
	TOTALS THIS SHEET							5447	4588	946																
	TOTALS CARRIED TO SHEET 59E			2	69	23	702	1.03	0.87	0.18	9065	1379	408					1113			110		4			

CALCULATED MJB
CHECKED JML

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM REVISED	KWR	11/6/23

FRA-70-13.10

MAINTENANCE OF TRAFFIC SUBSUMMARY

SHEET NO.	LOCATION	STATION	TO STATION	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE 1, ONE WAY EACH	614 OBJECT MARKER, ONE WAY EACH	614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN EACH	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, WHITE FT/MI	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, YELLOW FT/MI	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT FT/MI	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT FT	614 WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE GORE MARKING, CLASS II, 740.06, TYPE I FT	614 WORK ZONE CENTER LINE, CLASS I, 807 PAINT, DOUBLE SOLID, WHITE FT/MI	614 WORK ZONE ARROW, CLASS I, 740.06, TYPE I EACH	614 WORK ZONE PAVEMENT MARKING, MISC.:814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING EACH	622 PORTABLE BARRIER, 50", AS PER PLAN FT	622 PORTABLE BARRIER, UNANCHORED FT	622 BARRIER TRANSITION, AS PER PLAN EACH	630 SIGN ATTACHMENT ASSEMBLY EACH	630 SIGN, TEMPORARY OVERLAY SF	630 REMOVAL OF STRUCTURE MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL EACH	690 SPECIAL -COVERED WALKWAY SYSTEM FT	606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) EACH	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH
	PHASE 2																									
141	I-70 EB	5034+37 LT	5044+41 LT				9		1004	1004																
		5034+37 RT	5039+05 RT				12				468															
		5034+37 RT	5037+14 RT					277																		
		5039+05 RT	5044+41 RT					536																		
142	I-70 WB	140+00 RT	148+00 RT					800	800																	
		140+28 CL																			370		3			
		145+90 LT																							1	
		5044+41 LT	5052+91 LT				7	850		850																
		5044+41 RT	5051+59 RT						718																	
		5051+59 RT	5052+91 RT				4				132															
143	I-70 WB	148+00 LT	158+00 LT					1000																		
		148+00 RT	158+00 RT		120	40			1000								1000									
		3041+50 CL																				1				
		3048+24 CL																				1				
	I-70 EB	148+53 RT	158+00 RT						947																	
		150+29 RT	158+00 RT					771																		
	I-70 EB TO I-70EB/I-71NB	5052+91 LT	5056+60 LT						369																	
		5052+91 LT	5055+20 LT				2			229																
		5052+91 RT	5055+20 RT				6				229															
		5057+76 CL																			40.5		2			
	I-71 SB	253+26 RT	257+93 RT				24		467		467															
144	I-70 WB	158+00 RT	168+00 RT		120	40		1000	1000								1000									
		161+25 CL																			530		5			
		162+50 RT	168+00 RT		33	11												550								
	I-70 EB	158+00 RT	168+00 RT					1000	1000																	
	I-70 EB TO I-70EB/I-71NB	5064+85 LT	5072+49 LT				7			764																
		5067+40 LT	5072+49 LT						509																	
		5069+55 CL																			81		2			
		5071+67 LT	5072+49 LT				2				82															
	I-71 SB	257+95 RT	266+77 RT				22				860															
		257+95 RT	268+53 RT						1058																	
145	I-71 SB	268+53 RT	279+06 RT						1053																	
		272+95 LT	279+06 LT				93	611			1212															
		277+90 RT	279+06 RT		9	3												116								
	I-70 WB	168+00 RT	175+10 RT		45	15												710								
		168+00 RT	178+00 RT		120	40	100	1000	1000								1000									
		169+50 RT	178+00 RT				42				850															
		170+52 CL																				2				
		175+10 RT		1																						
	I-70 EB	168+00 RT	178+00 RT						1000																	
		168+00 RT	170+66 RT					266																		
		174+50 CL																			102		2			
		170+66 RT	178+00 RT				32				734															
	I-71 NB	5072+49 LT	5075+07 LT						258																	
		5072+49 LT	5073+96 LT				2			147																
		5072+49 LT	5074+89 LT				6				240															
		5075+07 LT	5078+25 LT				11				318															
		5073+96 LT	5082+25 LT				34				829															
		5074+89 LT	5082+25 LT					736																		
	TOTALS THIS SHEET							8847	12183	2994																
	TOTALS CARRIED TO SHEET 59E			1	447	149	415	1.68	2.31	0.57	6421	0					3000	1376			1124	4	14		1	

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM REVISED	KWR	11/6/23

CALCULATED MJB
CHECKED JML

FRA-70-13.10

MAINTENANCE OF TRAFFIC SUBSUMMARY

FRA-70-13.10

SHEET NO.	LOCATION	STATION	TO STATION	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE 1, ONE WAY EACH	614 OBJECT MARKER, ONE WAY EACH	614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN EACH	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, WHITE FT/MI	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, YELLOW FT/MI	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT FT/MI	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT FT	614 WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE GORE MARKING, CLASS II, 740.06, TYPE I FT	614 WORK ZONE CENTER LINE, CLASS I, 807 PAINT, DOUBLE SOLID, WHITE FT/MI	614 WORK ZONE ARROW, CLASS I, 740.06, TYPE I (5) EACH	614 WORK ZONE PAVEMENT MARKING, MISC.:814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING EACH	622 PORTABLE BARRIER, 50", AS PER PLAN FT	622 PORTABLE BARRIER, UNANCHORED FT	622 BARRIER TRANSITION, AS PER PLAN EACH	630 SIGN ATTACHMENT ASSEMBLY EACH	630 SIGN, TEMPORARY OVERLAY SF	630 REMOVAL OF STRUCTURE MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL EACH	690 SPECIAL -COVERED WALKWAY SYSTEM FT	606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) EACH	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH
	PHASE 2																									
146		6000+65 LT	6002+77 CL					212																		
	MOUND ST. TO I-71 SB	6000+65 RT	6001+61 RT				3				96															
		6001+61 RT	6004+33 RT						272																	
	I-71 SB	279+06 LT	280+04 LT				3				98															
		279+06 RT	188+17 LT						995																	
		280+04 LT	188+17 LT					897																		
		279+06 RT	188+17 RT		60	20												995								
	I-70 WB	178+00 RT	188+00 RT		120	40	57	1000	1000		1000						1000									
	I-70 EB	178+00 RT	188+00 RT				56	1000	1000		2000															
147	I-71 SB	188+00 LT	3198+00 RT				25	1000	1000																	
		188+00 LT	3195+61 RT		45	15												761								
		3194+00 CL																			102		2			
		3195+61 RT		1																						
	I-70 WB	188+00 RT	198+00 RT		120	40	25	1000	1000		1000						1000									
		193+52 RT	3198+00 RT		27	9												448								
	I-70 EB	188+00 RT	198+00 RT		120	40	126	1000	1000		2000						1000									
148	I-71 SB	198+00 LT	208+00 LT					1000																		
		198+00 LT	205+32 LT										105													
		198+00 LT	207+50 LT				24				950															
		198+00 LT		1																						
		207+50 LT	208+00 LT									50														
		205+35 LT																			61		2			
	I-70 WB	198+00 LT	205+32 LT				37				732															
		198+00 LT	201+73 LT				19				373															
		201+73 LT	208+00 LT				6			627																
		198+00 LT	203+94 LT				30		594																	
	I-70 EB	198+00 LT	200+00 LT						200																	
		198+00 LT	198+50 LT		3	1											50									
		198+00 RT	202+00 RT				10				400															
		198+08 RT																			6		1			
	I-71 NB	198+00 RT	202+00 RT				10				400															
		198+00 RT	199+00 RT					100																		
149	I-71 SB/I-70 WB	208+00 LT	218+00 LT				8	1000		1000		1000														
150	I-71 SB/I-70 WB	3218+00 L/R														3										
		3218+00 LT	3226+78 LT					878																		
		3218+00 LT	3220+19 LT									219														
		3218+00 RT	3223+19 RT				4			519																
		3218+40 LT	3226+78 LT									838														
151A	MOUND ST	23+53 RT	27+74 RT									64			4											
	PHASE 2A																									
152A	I-71 SB	253+26 RT	258+00 RT				12				474		60													
		258+00 RT	268+52 RT				26				1020		358													
153	I-71 SB	268+48 RT	279+06 RT				9		711				446													
		272+95 RT	275+06 RT				2			211																
		268+48 RT	277+90 RT				28				934															
		277+90 RT	279+06 RT		6	2		116										116								
		277+90 LT	279+06 LT		6	2												116								
154	I-71 SB	178+22 LT	188+17 RT						995																	
		178+22 LT	188+17 LT		60	20		995										995								
	MOUND ST. TO I-71 SB	6000+65 RT	6002+63 RT	1	12	4												198								
	TOTALS THIS SHEET							10198	8767	2357																
	TOTALS CARRIED TO SHEET 59E			3	579	193	520	1.93	1.66	0.45	11477	2171	969		4	3	3050	3629			169		5			

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM REVISED	KWR	11/6/23

CALCULATED MJB
CHECKED JML

PLOT.CEL

ms consultants, inc.
msconsultants.com

MAINTENANCE OF TRAFFIC SUBSUMMARY

SHEET NO.	LOCATION	STATION	TO STATION	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE 1, ONE WAY EACH	614 OBJECT MARKER, ONE WAY EACH	614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN EACH	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, WHITE FT/MI	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, YELLOW FT/MI	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT FT/MI	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT FT	614 WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE GORE MARKING, CLASS II, 740.06, TYPE I FT	614 WORK ZONE CENTER LINE, CLASS I, 807 PAINT, DOUBLE SOLID, WHITE FT/MI	614 WORK ZONE ARROW, CLASS I, 740.06, TYPE I EACH	614 WORK ZONE PAVEMENT MARKING, MISC.:814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING EACH	622 PORTABLE BARRIER, 50", AS PER PLAN FT (5)	622 PORTABLE BARRIER, UNANCHORED FT	622 BARRIER TRANSITION, AS PER PLAN EACH	630 SIGN ATTACHMENT ASSEMBLY EACH	630 SIGN, TEMPORARY OVERLAY SF	630 REMOVAL OF STRUCTURE MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL EACH	690 SPECIAL -COVERED WALKWAY SYSTEM FT	606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) EACH	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH
155	I-71 SB	188+00 LT	195+71 LT	1	45	15												771								
		188+00 LT	198+00 LT					1000	1000																	
		193+00 LT	194+50 LT	1	15	3												150								
156	I-71 SB	198+00 LT	198+52 LT				1	52			52															
	PHASE 2B																									
156A	I-70 WB TO SR 315 NB	55+12 RT	63+00 RT					788																		1
		55+12 LT	56+97 LT				6				185															
		56+97 LT	63+00 LT				9		603																1	1
	I-70 WB	145+98 LT	148+00 LT				6				202		51													
156B	I-70 WB	148+00 LT	158+00 LT					1000																		
		148+00 LT	153+17 LT				27				1034		73													
		153+17 LT	158+00 LT									483														
156C	I-70 WB	158+00 LT	162+28 LT					428				428														
		161+28 CL																		6						
156D	I-70 WB	174+52 CL																		4	30		1			
156E	SR 315 SB	373+87 LT	376+85 LT				16																			
		373+87 LT	376+85 RT				16																			
		373+87 LT	381+50 CL				39				763															
		376+85 LT	378+50 LT				9				165															
		376+85 RT	381+50 RT				24		465																	
		378+50 LT	381+50 LT			4				300																
	I-70 WB TO SR 315 NB	63+00 LT	71+00 LT				34		800																	
		63+00 RT	69+54 RT				26	654																		
		65+08 LT	71+00 RT		59	12											600									
		65+90 RT		1																						
		69+54 RT	71+00 RT				8				146															
	SR 315 NB	381+45 RT	381+50 RT								5															
156F	SR 315 SB	381+50 LT	382+15 LT							65																
		381+50 CL	385+15 CL				19				365															
		381+50 RT	382+15 RT				4		65																	
		382+15 RT	385+15 RT				16																			
	SR 315 NB	381+50 RT	382+10 RT		6	2											60		1							
		381+50 RT	384+00 RT				28		250		250															
		381+50 RT	382+77 RT								127															
	PHASE 2C																									
156K	SR 315 SB	380+79 RT	381+50 RT		2	2											71									
	I-70 WB TO SR 315 NB	69+27 RT	71+00 RT	1	12	4												173								
156L	SR 315 SB	381+50 RT	382+20 RT	1	2	2											70									
	SR 315 NB	381+50 RT	382+20 RT		6	2												70 (5)								
	TOTALS THIS SHEET							3922	3183	365						(5)		(5)								
	TOTALS CARRIED TO SHEET 59E			5	147	46	288	0.74	0.60	0.07	3294	911	124				801	1164	1	10	30		1		1	2

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM & QTY REVISED	KWR	11/6/23

CALCULATED MJB
CHECKED JML

FRA-70-13.10

ms consultants, inc.

MAINTENANCE OF TRAFFIC SUBSUMMARY

SHEET NO.	LOCATION	STATION	TO STATION	614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE 1, ONE WAY EACH	614 OBJECT MARKER, ONE WAY EACH	614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN EACH	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, WHITE FT/MI	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, YELLOW FT/MI	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT FT/MI	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT FT	614 WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE GORE MARKING, CLASS II, 740.06, TYPE I FT	614 WORK ZONE CENTER LINE, CLASS I, 807 PAINT, DOUBLE SOLID, WHITE FT/MI	614 WORK ZONE ARROW, CLASS I, 740.06, TYPE I EACH	614 (5) WORK ZONE PAVEMENT MARKING, MISC.:814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING EACH	622 PORTABLE BARRIER, 50", AS PER PLAN FT	622 PORTABLE BARRIER, UNANCHORED FT	622 BARRIER TRANSITION, AS PER PLAN EACH	630 SIGN ATTACHMENT ASSEMBLY EACH	630 SIGN, TEMPORARY OVERLAY SF	630 REMOVAL OF STRUCTURE MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL EACH	690 SPECIAL -COVERED WALKWAY SYSTEM FT	606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) EACH	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH
	PHASE 3																									
170	I-70 WB	251+89 LT	129+68 LT					979																		
		251+89 LT	125+45 LT				5			586																
		251+89 LT	130+00 LT				8			1011																
		251+89 LT	126+82 RT				6			693																
		251+89 LT	130+00 LT						1011																	
		123+60 RT	127+41 RT		24	8												381								
		125+45 LT	129+70 LT				11				425															
		125+45 LT	130+00 LT				11				455															
		126+82 RT	130+00 LT				16				636															
		121+83 LT	130+00 RT	1	48	16												800								
171	I-70 WB	3023+33 RT	3025+46 RT				5				213															
		3023+33 RT	3033+09 RT				8			976																
		3023+33 RT	3026+04 RT				6				271															
		3025+46 RT	3033+09 RT					763																		
		3026+04 RT	3033+09 RT						705																	
	I-71 NB TO I-70 WB	130+00 LT	133+47 LT				8		347		347															
	I-70 EB TO I-70EB/I-71NB	5034+37 LT	5034+97 LT		3	1												60								
172	I-70 EB	145+00 LT	146+26 LT						126																	
		145+00 CL	148+00 CL				3			300																
		145+00 RT	148+00 RT					300																		
		146+26 LT	148+00 LT								174															
	I-70 WB	3033+09 LT	3039+51 LT					642																		
		3033+09 RT	3040+41 RT				6		732	732																
		3039+51 LT	3040+41 LT				4				90															
	I-70 WB TO SR 315 NB	3035+29 RT	147+66 LT					539																		
		3035+29 RT	147+66 RT						539																	
		146+67 LT	147+66 RT									99														
	I-70 WB TO RICH/TOWN ST	836+00 CL	840+27 CL					427																		
		836+00 RT	839+53 RT						353																	
		839+53 RT	840+27 RT				2				74															
		3039+51 LT	3040+41 LT										42													
	I-71NB/I-70 EB	5051+63 LT	5052+91 RT						128																	
		5051+66 LT	5052+91 RT									125														
	SR 315 SB TO I-70 EB	55+04 CL	63+00 CL				10		796																	
		55+04 LT	56+79 LT				4				175															
		56+79 LT	63+00 LT					621																		
	TOTALS THIS SHEET							4271	4737	4298																
	TOTALS CARRIED TO SHEET 59E			1	75	25	113	0.81	0.90	0.81	2860	224	42					1241								

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM REVISED	KWR	11/6/23

CALCULATED MJB
CHECKED JML

FRA-70-13.10

SHEET NO.	LOCATION	STATION TO STATION		614	614	614	614	614	614	614	614	614	614	614	614	614	622	622	622	630	630	630	630	690	606	606
				WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	BARRIER REFLECTOR, TYPE 1, ONE WAY	OBJECT MARKER, ONE WAY	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, WHITE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, YELLOW	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	WORK ZONE GORE MARKING, CLASS II, 740.06, TYPE I	WORK ZONE CENTER LINE, CLASS I, 807 PAINT, DOUBLE SOLID, WHITE	WORK ZONE ARROW, CLASS I, 740.06, TYPE I (5)	WORK ZONE PAVEMENT MARKING, MISC.:814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING	PORTABLE BARRIER, 50", AS PER PLAN	PORTABLE BARRIER, UNANCHORED	BARRIER TRANSITION, AS PER PLAN	SIGN ATTACHMENT ASSEMBLY	SIGN, TEMPORARY OVERLAY	REMOVAL OF STRUCTURE MOUNTED SIGN AND REERECTION	REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL	SPECIAL -COVERED WALKWAY SYSTEM	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	BRIDGE TERMINAL ASSEMBLY, TYPE 1
				EACH	EACH	EACH	EACH	FT/MI	FT/MI	FT/MI	FT	FT	FT	FT/MI	EACH	EACH	FT	FT	EACH	EACH	SF	EACH	EACH	FT	EACH	EACH
173	I-70 EB	148+00 LT	158+00 LT						1000																	
		148+00 LT	153+17 LT				13				1034															
		148+00 CL	158+00 RT				8			1000																
		148+00 RT	148+53 RT					53	53																	
		148+00 RT	150+47 RT									247														
		148+00 RT	158+00 RT					1000																		
		148+53 RT	155+00 RT				32				1249															
		153+17 LT	158+00 LT				4			483																
		155+00 RT	158+00 RT				3			300																
	I-70 EB TO I-70EB/I-71 NB	5055+20 L/C	5062+77 L/C				12			1514																
		5056+60 LT	5062+77 LT						617																	
		5056+70 RT	5062+77 RT					607																		
	I-70 WB	3040+41 LT	3050+51 LT					1010																		
		3040+41 LT	3041+42 CL				5				101		38													
		3040+41 CL	3041+42 CL				5				101															
		3040+41 RT	3050+51 RT				8		1010	1010																
		3041+42 CL	3050+51 CL									909														
	I-70 WB/I-71SB TO 315 NB	147+66 CL	157+78 CL					1012																		
		147+66 RT	154+39 RT									673														
		147+66 RT	157+78 RT						1012																	
		149+53 RT													1											
		154+39 RT													1											
		154+39 RT	157+78 RT				3			339																
	I-71 SB	253+26 RT	257+92 RT				4			466		466														
174	I-70 EB	158+00 LT	168+00 LT				8		1000	1000																
		158+00 RT	168+00 RT				16	1000		2000																
	I-70 EB TO FULTON ST	5062+77 LT	5072+49 LT						972																	
		5062+77 LT	5064+55 LT				1			178																
		5062+77 CL	5072+49 CL				8			972																
		5062+77 RT	5072+49 RT					972																		
		5064+55 LT	5072+49 LT				20				794															
		5069+55 LT	5072+49 LT				7				294															
	I-70 WB	3050+51 LT	3060+85 LT					1034																		
		3050+51 CL	3052+60 CL									209														
		3050+51 RT	3060+85 LT				9			1034																
		3050+51 RT	3058+07 RT						756																	
		3052+60 CL	3060+85 CL								825															
		3054+59 CL	3060+85 LT				16				626															
		3058+07 RT	3060+85 RT				7				278															
	I-70 WB/I-71SB TO 315 NB	157+78 CL	165+25 CL					747																		
		157+78 RT	168+00 RT				9		1022	1022																
		165+25 CL	168+00 CL				7				275															
	I-71 SB	257+92 RT	268+53 RT				9			1061																
		257+92 CL	260+10 CL									218														
		260+10 CL	266+77 CL				6			667																
		261+13 LT													1											
		264+21 LT													1											
		266+77 CL	268+53 CL								176															
TOTALS THIS SHEET								7435	7442	13046																
TOTALS CARRIED TO SHEET 59E							219	1.41	1.41	2.47	5753	2722	38		4											

MAINTENANCE OF TRAFFIC SUBSUMMARY

CALCULATED MJB
CHECKED JML

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM REVISED	KWR	11/6/23

FRA-70-13.10

59B / 702

PLOT.CEL

ms consultants, inc.
msconsultants.com

www.msconsultants.com

MAINTENANCE OF TRAFFIC SUBSUMMARY

SHEET NO.	LOCATION	STATION		TO STATION		614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE 1, ONE WAY EACH	614 OBJECT MARKER, ONE WAY EACH	614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN EACH	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, WHITE FT/MI	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, YELLOW FT/MI	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT FT/MI	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT FT	614 WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE GORE MARKING, CLASS II, 740.06, TYPE I FT	614 WORK ZONE CENTER LINE, CLASS I, 807 PAINT, DOUBLE SOLID, WHITE FT/MI	614 WORK ZONE ARROW, CLASS I, 740.06, TYPE I EACH	614 (5) WORK ZONE PAVEMENT MARKING, MISC.:814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING EACH	622 PORTABLE BARRIER, 50", AS PER PLAN FT	622 PORTABLE BARRIER, UNANCHORED FT	622 BARRIER TRANSITION, AS PER PLAN EACH	630 SIGN ATTACHMENT ASSEMBLY EACH	630 SIGN, TEMPORARY OVERLAY SF	630 REMOVAL OF STRUCTURE MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL EACH	690 SPECIAL -COVERED WALKWAY SYSTEM FT	606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) EACH	606 BRIDGE TERMINAL ASSEMBLY, TYPE I EACH
175	I-70 EB	168+00	LT	178+00	LT						1000																	
		168+00	RT	178+00	RT				24			3000																
		168+00	RT	170+00	RT					200																		
		170+00	RT	178+00	RT								800															
	I-70 EB TO FULTON ST	5072+49	LT	5075+08	LT						259																	
		5072+49	LT	5074+89	LT				4				140															
		5074+89	LT	5082+25	LT					736																		
		5075+08	LT	5082+25	LT				20				817															
	FULTON ST OFF RAMP	5072+49	LT	5074+89	LT				6				240															
		5072+49	CL	5074+89	CL				2			240																
		5072+49	RT	5074+89	RT					240																		
	I-71 SB	268+47	RT	279+06	RT				9			1059	1059															
		272+95	CL	279+06	CL				15	611			611															
		276+24	RT	279+06	RT						282																	
	MOUND ST TO I-70 WB	6999+76	CL	7007+00	CL					724																		
		6999+76	RT	7003+21	RT				9				345															
		7003+21	LT	7007+00	LT				5		379																	
	I-70 WB	3060+85	CL	3064+27	CL								342															
		3060+85	RT	178+22	CL				9			1028																
		3060+85	RT	173+10	RT				13				515		126													
		3064+27	CL	178+22	CL					686																		
		168+00	CL	173+10	CL				13				510															
		168+00	RT	178+22	RT				9		1022	1022																
176	I-70 EB	178+00	LT	188+00	LT				8		1000	1000																
		178+00	RT	188+00	RT				16			2000																
		178+00	RT	184+00	RT				15				1200															
		178+00	RT	188+00	RT					1000																		
	I-70 WB	178+22	LT	178+97	LT					75																		
		178+22	CL	188+17	CL				8			995																
		178+22	RT	181+00	RT				2			278																
		178+22	RT	188+17	RT						995																	
		178+97	LT	186+00	LT				18				703															
	I-70 WB TO I-71 SB	279+06	CL	280+04	LT				3				98															
		279+06	RT	188+00	LT				8			994																
		279+06	RT	279+78	RT						72																	
		279+78	RT	285+87	LT				15				609															
		280+04	LT	188+17	LT					896																		
		186+00	LT	188+17	LT				2			217																
	RAMP D6	6000+65	CL	6002+77	CL					212																		
		6000+65	RT	6001+63	RT				2				98															
		6001+63	RT	6004+33	RT						270																	
177	I-70 EB	188+00	LT	198+00	LT				8		1000	1000																
		188+00	RT	193+30	RT				4			530																
		188+00	RT	198+00	RT				8	1000		1000		1000														
		193+06	LT	194+15	LT	1	9	3												109								
		193+30	RT	198+00	RT									470														
	I-70 WB	188+17	LT	3198+00	RT				8	983		983																
		188+17	RT	3198+00	RT				16		983	1966																
		193+62	RT	197+90	RT		54	18											428		2							
TOTALS THIS SHEET										7363	7262	17312																
TOTALS CARRIED TO SHEET 59E						1	63	21	280	1.39	1.38	3.28	8087	1470	126				428	109	2							

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM REVISED	KWR	11/6/23

CALCULATED MJB
CHECKED JML

FRA-70-13.10

59C / 702

ms consultants, inc.

34" x 22"

Model: Sheet View: FENCE_VIEW1
Printed: 11/6/2023 @ 11:00:07 AM By: kryan
File: \\msconsultants.com\files\Production\03\60\06634_6A\mot\sheets\89464_MS008.dgn

MAINTENANCE OF TRAFFIC SUBSUMMARY

SHEET NO.	LOCATION	STATION TO STATION		614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE 1, ONE WAY EACH	614 OBJECT MARKER, ONE WAY EACH	614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN EACH	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, WHITE FT/MI	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, YELLOW FT/MI	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT FT/MI	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT FT	614 WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE GORE MARKING, CLASS II, 740.06, TYPE I FT	614 WORK ZONE CENTER LINE, CLASS I, 807 PAINT, DOUBLE SOLID, WHITE FT/MI	614 WORK ZONE ARROW, CLASS I, 740.06, TYPE I (5) EACH	614 WORK ZONE PAVEMENT MARKING, MISC.:814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING EACH	622 PORTABLE BARRIER, 50", AS PER PLAN FT	622 PORTABLE BARRIER, UNANCHORED FT	622 BARRIER TRANSITION, AS PER PLAN EACH	630 SIGN ATTACHMENT ASSEMBLY EACH	630 SIGN, TEMPORARY OVERLAY SF	630 REMOVAL OF STRUCTURE MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL EACH	690 SPECIAL -COVERED WALKWAY SYSTEM FT	606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) EACH	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH
178	I-70 EB	198+00 LT	202+00 LT						400																	
	I-70 EB	198+00 LT	202+00 LT				3			400																
	I-70 EB	198+00 RT	202+00 RT				3			400		400														
	I-70 EB	198+00 RT	199+00 RT									100														
	I-70 EB	198+00 RT	202+00 RT					400																		
	I-70 WB	3198+00 RT	3208+00 RT				24	1000	1000	3000																
179	I-70 WB	3208+00 RT	3218+00 LT				16	1000		2000																
	I-70 WB	3208+00 RT	3218+00 RT				8		1000	1000																
180	I-70 WB	3218+00 LT	3226+79 LT					879																		
	I-70 WB	3218+00 LT	3226+79 LT				7			879																
	I-70 WB	3218+00 LT	3220+19 LT				2			219																
	I-70 WB	3218+00 RT	3223+19 RT				4		519	519																
	I-70 WB	3220+19 LT	3226+37 LT				15				618															
	I-70 WB	3226+37 LT	3226+79 LT						42																	
181	SR 315 SB	373+87 LT	381+50 CL				6			763																
	SR 315 SB	376+81 LT	378+59 LT				5				178															
	SR 315 SB	376+81 RT	381+50 RT				9				469															
	SR 315 SB	378+59 LT	381+50 LT				2			291																
	SR 315 SB TO I-70 EB	63+00 CL	70+98 CL				4		798																	
	SR 315 SB TO I-70 EB	63+00 LT	66+33 LT					333																		
	SR 315 SB TO I-70 EB	66+33 LT	70+28 LT				10				395															
	I-70 WB TO SR 315 NB	68+52 RT	70+93 RT				6				241															
	I-70 WB TO SR 315 NB	69+54 RT	70+98 RT						144																	
	SR 315 NB	831+90 CL	836+00 CL					410																		
	SR 315 NB	831+90 RT	832+70 RT				2				80															
	SR 315 NB	832+70 RT	836+00 RT						330																	
182	SR 315 SB	381+50 LT	382+28 LT							78																
	SR 315 SB	381+50 CL	385+15 CL				3			365																
	SR 315 SB	381+50 RT	394+06 RT								1256															
	SR 315 SB	381+50 RT	382+10 RT						60																	
	SR 315 SB	394+06 RT	399+50 RT				5			544																
	SR 315 NB	381+50 RT	384+00 RT				2		250	250																
PHASE 3A																										
183	I-70 EB	415+24 RT	424+00 RT				14	876	876	1752																
184	I-70 EB	424+00 RT	209+00 RT				16	960	960	1920																
185	I-70 EB	209+00 RT	220+00 RT				18		1100	2200																
	I-70 EB	209+00 RT	213+57 RT					457																		
	I-70 EB	213+57 RT	217+98 RT				22				882															
	I-70 EB	217+98 RT	220+00 RT					202				202														
186	I-70 EB	220+00 RT	231+00 RT				44	1100	1100	2200																
	I-70 EB	220+00 RT	225+07 RT									507														
TOTALS THIS SHEET								7617	8579	18780																
TOTALS CARRIED TO SHEET 59E							251	1.44	1.62	3.56	4119	1209														

CALCULATED MJB
CHECKED JML

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM REVISED	KWR	11/6/23

FRA-70-13.10

59D
702

ms consultants, inc.
msconsultants.com
www.msconsultants.com

Model: Sheet View: FENCE_VIEW1
Printed: 11/6/2023 @ 11:03:18 AM By: kryan
File: \\msconsultants.com\files\Production\03\60\06634_6A\mot\sheets\89464_MS009.dgn

34" x 22"

ms consultants, inc.

MAINTENANCE OF TRAFFIC SUBSUMMARY

SHEET NO.	LOCATION	STATION TO STATION		614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE 1, ONE WAY EACH	614 OBJECT MARKER, ONE WAY EACH	614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN EACH	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, WHITE FT/MI	614 WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT, YELLOW FT/MI	614 WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT FT/MI	614 WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT FT	614 WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT FT	614 WORK ZONE GORE MARKING, CLASS II, 740.06, TYPE I FT	614 WORK ZONE CENTER LINE, CLASS I, 807 PAINT, DOUBLE SOLID, WHITE FT/MI	614 WORK ZONE ARROW, CLASS I, 740.06, TYPE I EACH	614 (5) WORK ZONE PAVEMENT MARKING, MISC.:814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING EACH	622 PORTABLE BARRIER, 50", AS PER PLAN FT	622 PORTABLE BARRIER, UNANCHORED FT	622 BARRIER TRANSITION, AS PER PLAN EACH	630 SIGN ATTACHMENT ASSEMBLY EACH	630 SIGN, TEMPORARY OVERLAY SF	630 REMOVAL OF STRUCTURE MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL EACH	690 SPECIAL -COVERED WALKWAY SYSTEM FT	606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) EACH	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH
187	I-70 EB	231+00 RT	242+00 RT				18		1100	2200																
		231+00 RT	235+64 RT					464																		
		235+64 RT	242+00 RT								636															
		241+00 RT	242+00 RT				3	100			100															
187A	I-70 EB	242+00 RT	252+00 RT				8		1000	1000																
		242+00 RT	246+79 RT				4			479																
		242+00 RT	244+01 RT				5				402															
		242+00 RT	250+08 RT					808																		
		244+01 RT	252+00 RT				7			799																
		246+79 RT	252+00 RT											521												
187B	I-70 EB	252+00 RT	130+00 LT				9		1022	1022																
		252+00 RT	252+37 RT											37												
		252+00 RT	5032+14 CL				7			813																
		252+00 RT	5034+19 RT					1014																		
		252+37 RT	5032+56 LT				20				819		319													
		252+37 RT	128+19 CL				20				819															
		128+19 CL	130+00 CL					181																		
		5032+14 L/C	5034+19 L/C				5		205		205															
187C	I-70 EB	130+00 L/R	140+00 L/R				8	1000	1000	1000																
	I-70 EB TO DOWNTOWN	5034+19 LT	5044+51 LT						1032																	
		5034+19 CL	5039+05 CL				12				486															
	I-70 EB TO I-71 SB	5034+19 RT	3005+24 CL					553																		
		3002+47 LT	3004+36 LT				5				189															
		3004+36 LT	3005+24 LT				1		88																	
187D	I-70 EB	140+00 L/R	145+00 L/R				4	500	500	500																
	I-70 EB TO DOWNTOWN	5044+51 LT	5051+77 LT						726																	
		5044+51 CL	5051+59 CL					708																		
		5051+59 C/R	5052+91 C/R				3				264															
		5051+62 RT	5052+91 RT					129																		
		5051+72 LT	5052+91 LT				3				119															
		5051+77 LT	5052+91 LT								114															
		5051+79 LT	5052+91 LT				1		112																	
187E	I-70 EB TO DOWNTOWN	5052+91 LT	5056+60 LT						369																	
		5052+91 LT	5055+20 LT				6				458															
		5052+91 C/R	5055+26 C/R				6				470															
		5052+91 RT	5053+10 RT					19																		
TOTALS THIS SHEET							155	1.04	1.35	1.48	5081		319	0.11												
TOTALS FROM SHEET 55				6	186	62	561	0.23	1.30		8625	965						2943	1		155		8	443		
TOTALS FROM SHEET 56				2	69	23	702	1.03	0.87	0.18	9065	1379	408					1113			110		4			
TOTALS FROM SHEET 57				1	447	149	415	1.68	2.31	0.57	6421	0				(5)	3000	1376			1124	4	14		1	
TOTALS FROM SHEET 58				3	579	193	520	1.93	1.66	0.45	11477	2171	969		4	3	3050	3629	(5)		169		5			
TOTALS FROM SHEET 59				5	147	46	288	0.74	0.60	0.07	3294	911	124				801	1164	1	10	30		1		1	2
TOTALS FROM SHEET 59A				1	75	25	113	0.81	0.90	0.81	2860	224	42					1241								
TOTALS FROM SHEET 59B							219	1.41	1.41	2.47	5753	2722	38		4											
TOTALS FROM SHEET 59C				1	63	21	280	1.39	1.38	3.28	8087	1470	126			(5)	428	109	2							
TOTALS FROM SHEET 59D							251	1.44	1.62	3.56	4119	1209							(5)							
TOTALS CARRIED TO GENERAL SUMMARY				19	1566	519	3504	25.10		12.87	64782	11051	2026	0.11	8	3	7279	11575	4	10	1587	4	32	443	2	2

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM & QTY REVISED	KWR	11/6/23

CALCULATED MJB
CHECKED JML

FRA-70-13.10

59E
702

PLOT.CEL

ms consultants, inc.
msconsultants.com

www.msconsultants.com

Ohio DOT Workspace
70\71 East Interchange 6A

1" 0 0.5"

PDF: ohdot\V8i
PDF: 60-06634_6A_Columbus

Batchplot Spec: \\msconsultants.com\files\production\03\60\06634_6A\standards\plotdir\batchplt.606
Pen Table: \\msconsultants.com\files\Standards\ustn\ohdot\V8i\ms\plotting\pen\V8i_ms_std.tbl
Plot Driver: \\msconsultants.com\files\Standards\ustn\ohdot\v8i\ms\plotting\PDF.pltcfg

34" x 22"

View: FENCE_VIEW1
By: awhite

Model: Sheet
Printed: 11/6/2023 @ 7:45:01 AM
File: \\msconsultants.com\files\Production\03\60\06634_6A\roadway\sheets\894640G006.dgn

SHEET NUM.														PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
59E	117	167B	203	421	425	426	427	428						01/IMS/04						
																			TRAFFIC CONTROL	
					679									679	621	00100	679	EACH	RPM (TWO-WAY, WHITE/RED)	
							8							8	625	32000	8	EACH	GROUND ROD (TRAFFIC CONTROL)	
	6	6	174											186	626	00102	186	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL	
			64											64	626	00110	64	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL	
								72						72	630	02100	72	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
							189							189	630	03100	189	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
							31							31	630	04100	31	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
							38.8							38.8	630	06500	38.8	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	
							22							22	630	07000	22	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	
							8							8	630	08600	8	EACH	SIGN POST REFLECTOR	
							2							2	630	09000	2	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
							2							2	630	72410	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	
							2							2	630	72420	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	
10														10	630	75000	10	EACH	SIGN ATTACHMENT ASSEMBLY	
							2							2	630	79500	2	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
							1							1	630	79604	1	EACH	SIGN SUPPORT ASSEMBLY, BRIDGE MOUNTED, TYPE 2	
							155.3	4.5						159.8	630	80100	159.8	SF	SIGN, FLAT SHEET	
							96							96	630	80200	96	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
							996.5							996.5	630	80224	996.5	SF	SIGN, OVERHEAD EXTRUSHEET	
1,587														1,587	630	80300	1,587	SF	SIGN, TEMPORARY OVERLAY	
							56.3							56.3	630	80400	56.3	SF	SIGN, PERMANENT OVERLAY	
							1							1	630	84010	1	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	
							2							2	630	84500	2	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
							7							7	630	84510	7	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
						9		1						10	630	84900	10	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
						2								2	630	85400	2	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
						13		1						14	630	86002	14	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
						5								5	630	86102	5	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
4														4	630	86320	4	EACH	REMOVAL OF STRUCTURE MOUNTED SIGN AND REERECTION	
						3								3	630	87100	3	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	
				1		15								16	630	87400	16	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
						1								1	630	87500	1	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
						1								1	630	89706	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30	
						2								2	630	89802	2	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65	
						2								2	630	89804	2	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-15.115	
32				3										35	630	89894	35	EACH	REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL	
					571									571	644	00700	571	FT	TRANSVERSE/DIAGONAL LINE	
								14						14	644	30000	14	FT	REMOVAL OF PAVEMENT MARKING	
								0.05						0.05	644	50400	0.05	MILE	PAVEMENT MARKING, MISC.: CENTERLINE, DOUBLE SOLID, 4" (5) (5)	421
					316									316	646	10600	316	FT	TRANSVERSE/DIAGONAL LINE	
					2									2	647	50100	2	EACH	PAVEMENT MARKING, MISC.: LANE REDUCTION ARROW WITH CONTRAST (5)	421
					2.03									2.03	807	12010	2.03	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	
					0.76									0.76	807	12110	0.76	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	
					4,316									4,316	807	12310	4,316	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12"	
					1,649									1,649	807	12410	1,649	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6"	
					5.96									5.96	807	14010	5.96	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	
					4.76									4.76	807	14110	4.76	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
					0.11									0.11	807	14200	0.11	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CENTER LINE	
					12,495									12,495	807	14310	12,495	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"	
					3,361									3,361	807	14410	3,361	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
					10.91									10.91	850	10010	10.91	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
					3,361									3,361	850	10110	3,361	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
					12,495									12,495	850	10130	12,495	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	
					2.8									2.8	850	20010	2.8	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
					1,649									1,649	850	20110	1,649	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
					4,316									4,316	850	20130	4,316	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE)	

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM/DESCRIPTION CHANGES	ACW	11/6/23

CALCULATED T.A.Z
CHECKED JML

GENERAL SUMMARY

FRA-70-13.10

PLOT.CEL

ms consultants, inc.
msconsultants.com

www.msconsultants.com
Ohio DOT Workspace
70\71 East Interchange 6A

1" 0 0.5"

Batchplot Spec: \\msconsultants.com\files\production\03\60\06634.6A\standards\plotdrv\batchplt.spc
Pen Table: \\msconsultants.com\files\Standards\usln\ohdot\V8\ms\plotting\pen\V8i_ms_std.tbl
Plot Driver: \\msconsultants.com\files\Standards\usln\ohdot\v8i\ms\plotting\PDF.pltcfg
DGN: ohdot\V8i
DCF: 60-06634_6A_Columbus

34" x 22"

View: FENCE_VIEW1
By: awhite
Model: Sheet @ 7:59:55 AM
Printed: 11/6/2023
File: \\msconsultants.com\files\Production\03\60\06634_6A\roadway\sheets\894646G0009.dgn

SHEET NUM.														PART. 04/NHS/10	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
480	538																			
																			STRUCTURE OVER 20 FOOT SPAN (FRA-070-1322L) (CONT.)	
16														16	516	13600	16	SF	1" PREFORMED EXPANSION JOINT FILLER	
238														238	516	13900	238	SF	2" PREFORMED EXPANSION JOINT FILLER	
5														5	518	12200	5	EACH	SCUPPERS, INCLUDING SUPPORTS	
120														120	518	21200	120	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
129														129	518	40000	129	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
39														39	518	40010	39	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
130														130	518	51200	130	FT	PIPE DOWNSPOUT, INCLUDING SPECIALS, (10")	
180														180	524	94919	180	FT	DRILLED SHAFTS, 60" DIAMETER, INTO BEDROCK, AS PER PLAN	479
537														537	524	94931	537	FT	DRILLED SHAFTS, 66" DIAMETER, ABOVE BEDROCK, AS PER PLAN	479
290														290	526	30010	290	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")	
115														115	526	90010	115	FT	TYPE A INSTALLATION	
48														48	846	00110	48	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	
24														24	869	00101	24	EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARINGS, AS PER PLAN	479
12														12	894	10000	12	EACH	THERMAL INTEGRITY PROFILING (TIP) TEST	479
																			STRUCTURE OVER 20 FOOT SPAN (FRA-070-1323C)	
	LUMP													LUMP	202	11003	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	535
	745													745	202	22900	745	SY	APPROACH SLAB REMOVED	
	10,500													10,500	202	23500	10,500	SY	WEARING COURSE REMOVED	
	278													278	202	32800	278	SY	CONCRETE SLOPE PROTECTION REMOVED	
	14													14	202	98100	14	EACH	REMOVAL MISC.:PILE REMOVED, EXISTING STRUCTURE	535
	3,242													3,242	503	21101	3,242	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN	535
	LUMP													LUMP	505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
	6,350													6,350	507	00100	6,350	FT	STEEL PILES HP10X42, FURNISHED	
	5,890													5,890	507	00150	5,890	FT	STEEL PILES HP10X42, DRIVEN	
	92													92	507	93300	92	EACH	STEEL POINTS OR SHOES	
	881,328													881,328	509	10001	881,328	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	536
	1,710													1,710	511	34447	1,710	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN	536
	360													360	511	34450	360	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
	394													394	511	44112	394	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	
	596													596	511	45602	596	CY	CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH QC/QA	
	277													277	511	46012	277	CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING	
	579													579	511	46512	579	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
	843													843	512	10001	843	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)	536
	2,389													2,389	512	10100	2,389	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
	51													51	512	33000	51	SY	TYPE 2 WATERPROOFING	
	355,667	4												4 355,667	513	10300	355,667	4 LB	STRUCTURAL STEEL MEMBERS, LEVEL 5	
	2,213,561													2,213,561	513	10401	2,213,561	LB	STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX(6) FABRICATION, AS PER PLAN	536
	12,801													12,801	513	20000	12,801	EACH	WELDED STUD SHEAR CONNECTORS	
	29,490													29,490	514	00060	29,490	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
	29,490													29,490	514	00066	29,490	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
	134													134	SPECIAL	51612400	134	FT	MODULAR EXPANSION JOINT	536
	377													377	516	13600	377	SF	1" PREFORMED EXPANSION JOINT FILLER	
	216													216	516	13900	216	SF	2" PREFORMED EXPANSION JOINT FILLER	
	5													5	518	12200	5	EACH	SCUPPERS, INCLUDING SUPPORTS	
	481													481	518	21200	481	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
	361													361	518	40000	361	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
	45													45	518	40010	45	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
	49													49	518	51200	49	5 FT	PIPE DOWNSPOUT, INCLUDING SPECIALS (10")	
	156	5												5 156	524	94919	156	FT	DRILLED SHAFTS, 60" DIAMETER, INTO BEDROCK, AS PER PLAN	537
	496													496	524	94931	496	FT	DRILLED SHAFTS, 66" DIAMETER, ABOVE BEDROCK, AS PER PLAN	537
	351													351	526	30010	351	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")	
	134													134	526	90010	134	FT	TYPE A INSTALLATION	
	56													56	846	00110	56	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	
	30													30	869	00101	30	EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARINGS, AS PER PLAN	537
	12													12	894	10000	12	EACH	THERMAL INTEGRITY PROFILING (TIP) TEST	537

NO.	DESCRIPTION	REV. BY	DATE
4	QUANTITY CHANGES	ACW	10/30/23
5	QUANTITY CHANGES	ACW	11/6/23

CALCULATED TAZ
CHECKED DEA

GENERAL SUMMARY

FRA-70-13.10

196
702

ms consultants, inc.

PLOT.CEL

ms consultants, inc.
msconsultants.com

SHEET NUM.												PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
48	49	50	52	54	59E	117	167B	198	200	693	Office	01/IMS/04						
																	MISCELLANEOUS STRUCTURE	
								LUMP				LUMP	202	11000	LS		STRUCTURE REMOVED	
								LUMP				LUMP	202	11003	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	35
								LUMP				LUMP	202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	35
								LUMP				LUMP	202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN "A"	35
								LUMP				LUMP	202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN "B"	35
								LUMP				LUMP	202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN "C"	35
								218				218	202	22900	218	SY	APPROACH SLAB REMOVED	
											55	55	511	50211	55	CY	CLASS QC1 CONCRETE, SUBSTRUCTURE, AS PER PLAN	34
										87		87	511	53012	87	CY	CLASS QC2 CONCRETE, MISC.:LOAD DISTRIBUTION SLAB	695
						372	222		6,133			6,727	512	10000	6,727	SY	SEALING OF CONCRETE SURFACES	
					443							443	SPECIAL	69098100	443	FT	COVERED WALKWAY SYSTEM	52
																	MAINTENANCE OF TRAFFIC	
		944										944	614	11110	944	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
					19							19	614	12380	19	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
	LUMP											LUMP	614	12420	LS		DETOUR SIGNING	
	9											9	614	12484	9	EACH	WORK ZONE INCREASED PENALTIES SIGN	
20												20	614	12500	20	EACH	REPLACEMENT SIGN	
50												50	614	12600	50	EACH	REPLACEMENT DRUM	
					3,504							3,504	614	12801	3,504	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	51
					1,566							1,566	614	13310	1,566	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
29												29	614	13312	29	EACH	BARRIER REFLECTOR, TYPE 2, ONE WAY	
29					519							548	614	13350	548	EACH	OBJECT MARKER, ONE WAY	
			1,000									1,000	614	18030	1,000	FT	MAINTAINING TRAFFIC, MISC.: PORTABLE WATER FILLED BARRIER PROTECTED PEDESTRIAN WALKWAY	52
		89										89	614	18601	89	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	50
					12.87							12.87	614	20056	12.87	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
					0.11							0.11	614	21050	0.11	MILE	WORK ZONE CENTER LINE, CLASS I, 807 PAINT, DOUBLE SOLID, WHITE	
					25.1							25.1	614	22056	25.1	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	
					64,782							64,782	614	23110	64,782	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
					11,051							11,051	614	24102	11,051	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	
					2,026							2,026	614	28400	2,026	FT	WORK ZONE GORE MARKING, CLASS II, 740.06, TYPE I	
					8							8	614	30400	8 5	EACH	WORK ZONE ARROW, CLASS I, 740.06, TYPE I 5	
					3 5						5	3	614	98200	3	EACH	WORK ZONE PAVEMENT MARKING, MISC: 814 INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING	51
				4,032								4,032	615	20001	4,032	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	54
				100								100	615	25001	100	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 1	54
				50								50	615	25001	50	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2	54
				20								20	615	25001	20	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3	54
					4							4	622	10201	4	EACH	BARRIER TRANSITION, AS PER PLAN	52
					7,279							7,279	622	41011	7,279 5	FT	PORTABLE BARRIER, 50", AS PER PLAN	52
					11,575 5						5	11,575	622	41100	11,575	FT	PORTABLE BARRIER, UNANCHORED	
	288											288	808	18700	288	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
																	INCIDENTALS	
												LUMP	614	11000	LS		MAINTAINING TRAFFIC	
												LUMP	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
												LUMP	624	10000	LS		MOBILIZATION	

NO.	DESCRIPTION	REV. BY	DATE
5	QUANTITY/DESCRIPTION CHANGES	ACW	11/6/23

CALCULATED T.A.Z
CHECKED LM/JML

GENERAL SUMMARY

FRA-70-13.10

197B
702

ms consultants, inc.

Ohio DOT Workspace
70\71 East Interchange 6A
www.msconsultants.com

Batchplot Spec: \\msconsultants.com\files\production\03\60\06634_6A\standards\plotdrv\batchplt.pc6
Pen Table: \\msconsultants.com\files\Standards\usin\ohdot\V8i\ms\plotting\pen\V8i_ms_std.tbl
Plot Driver: \\msconsultants.com\files\Standards\usin\ohdot\v8i\ms\plotting\PDF.pltcfg
DGN: ohdot\V8i
DCF: 60-06634_6A_Columbus

Model: Sheet
Printed: 11/6/2023 @ 8:33:10 AM
File: \\msconsultants.com\files\Production\03\60\06634_6A\roadway\sheets\8946460012.dgn
View: FENCE_VIEW1
By: awhite

34" x 22"

ITEM 630 - GROUND MOUNTED SUPPORT, NO. 4 POST

ITEM 630 - GROUND MOUNTED SUPPORT, NO. 4 POST SHALL BE AS PER C&MS 630 WITH THE CLARIFICATION THAT ALL POSTS SHALL BE SQUARE SHAPED. NO U-CHANNEL POSTS SHALL BE USED.

ITEM 644 - PAVEMENT MARKING, MISC. CENTER LINE, 4"

THIS ITEM SHALL BE AS PER CITY OF COLUMBUS SPECIFICATIONS 641 AND 644.

PAYMENT FOR THIS SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER MILE.

ITEM 647 - PAVEMENT MARKING, MISC.: LANE REDUCTION ARROW WITH CONTRAST

5

IN ADDITION TO THE REQUIREMENTS OF C&MS SECTION 647, THIS ITEM SHALL INCLUDE BLACK CONTRAST MARKINGS AROUND THE ARROW ACCORDING TO THE MANUFACTURERS RECOMMENDATION.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH

REMOVAL OF EXISTING OVERHEAD SIGNS AND OVERLAYS

UPON REMOVAL OF THE MAINTENANCE OF TRAFFIC CONDITONS AND PLACING TRAFFIC INTO ITS FINAL ALIGNMENT, REMOVE AND DISPOSE OF THE EXISTING OVERHEAD GUIDE SIGN OVERLAYS FOR EAST I.R. 70 ON SOUTHBOUND S.R. 315 BETWEEN EXIT 3 AND THE NEIL AVE. EXIT. ALSO REMOVE AND DISPOSE OF THE EXISTING OVERHEAD GUIDE SIGN "TO I.R. 70 EAST LEFT LANE" LOCATED ON THE SIGN TRUSS SOUTH OF EXIT 1F. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 630 - REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL 1 EACH
ITEM 630 - REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL 3 EACH

NO.	DESCRIPTION	REV. BY	DATE
5	NOTES REVISED	KWR	11/6/23

CALCULATED CHECKED

TRAFFIC CONTROL GENERAL NOTES

FRA-70-13.10

ms consultants, inc.
msconsultants.com

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM REVISED	KWR	11/6/23

PAVEMENT MARKING AND RPM SUBSUMMARY (ODOT)

SHEET NO.	LOCATION	STATION TO STATION FROM		TO		621 RPM (TWO-WAY, WHITE/RED) EACH	621 RPM (ONE WAY, WHITE) EACH	621 RPM (TWO WAY, YELLOW/RED) EACH	644 TRANSVERSE/DIAGONAL LINE FT	646 TRANSVERSE/DIAGONAL LINE FT (5)	647 PAVEMENT MARKING, MISC.:LANE REDUCTION ARROW WITH CONTRAST EACH	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT/MI	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT/MI	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6" FT/MI	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12" FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6" FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CENTER LINE, DOUBLE SOLID (WHITE) FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6" FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT/MI	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT/MI	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE) FT
432	I-70 EB	BEGIN		211+00	RT													2038						2038				
		BEGIN		211+00	RT												2038							2038				
		BEGIN		211+00	RT		17												2038					2038				
		BEGIN		211+00	RT		17												2038					2038				
433	I-70 EB	211+00	RT	224+00	RT													1300						1300				
		211+00	RT	224+00	RT		11												1300					1300				
		211+00	RT	224+00	RT		11												1300					1300				
		211+00	RT	213+57	RT												257							257				
		213+57	RT	217+99	RT																442				442			
		217+96	RT	224+00	RT												604							604				
		217+99	RT	224+00	RT																	601	601					
		224+00	RT	104+00	LT													1233						1233				
		224+00	RT	104+00	LT		10												1233					1233				
		224+00	RT	104+00	LT		10												1233					1233				
		224+00	RT	225+04	RT																	104	104					
		224+00	RT	103+30	RT												1164							1164				
		103+30	RT	104+00	RT																70				70			
434	I-70 EB	104+00	RT	116+00	LT													1200						1200				
		104+00	RT	116+00	LT		10												1200					1200				
		104+00	RT	114+43	LT		9												1043					1043				
		104+00	RT	111+67	RT																767				767			
		111+67	RT	116+00	RT												433							433				
		111+67	RT	116+00	RT		4												433					433				
		114+43	CL	116+00	CL		2													157				314				
435	I-70 EB	116+00	LT	126+98	LT													1098						1098				
		116+00	LT	126+98	LT		9												1098					1098				
		116+00	CL	120+00	CL		3													400				800				
		116+00	RT	5031+36	RT												1098							1098				
		116+00	CL	5031+36	BL		9												1098					1098				
		120+00	CL	126+98	CL/RT	18			177												698				698			
		120+00	RT	5031+36	LT	18															698				698			
		126+98	LT	128+00	LT								102														102	
		126+98	LT	128+00	LT		1							102													102	
		126+98	CL/RT	128+00	CL/RT	3				95					102													102
		5031+36	LT	5032+00	LT	2									64													64
		5031+36	BL	5032+00	BL									64													64	
		5031+36	RT	5032+00	RT							64															64	
	I-70 WB	3012+60	RT	3018+51	RT		5												591					591				
		3012+60	RT	3020+16	RT		6												756					756				
		3012+60	RT	3020+55	RT		7												795					795				
		3012+60	RT	3020+55	RT												795							795				
		3012+60	RT	3020+55	RT													795						795				
		3018+51	RT	3020+55	RT	5															408				408			
		3020+16	RT	3020+55	RT	2															78				78			
		3020+55	RT	3021+19	RT	3									128													128
		3020+55	RT	3021+19	RT	3									128													128
		3020+55	RT	3021+19	RT		1							64													64	
		3020+55	RT	3021+19	RT							64															64	
		3020+55	RT	3021+19	RT								64														64	
		3021+19	RT	3022+00	RT												81							81				
		3021+19	RT	3022+00	RT													81						81				
		3021+19	RT	3022+00	RT		1												81					81				
		3021+19	RT	3022+00	RT	2															162				162			
		3021+19	RT	3022+00	RT	2															162				162			
		TOTAL FEET										128	166	230			6470	7745	16237	557				31566			524	
TOTALS CARRIED TO SHEET 425						58	143		177	95		0.02	0.03	0.04	422		1.23	1.47	3.08	0.11	3485	705	705	5.98	3485		0.10	422

CALCULATED MJB
CHECKED DRB

FRA-70-13.10

ms consultants, inc.

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM REVISED	KWR	11/6/23

SHEET NO.	LOCATION	STATION TO STATION FROM		TO		621 RPM (TWO-WAY, WHITE/RED) EACH	621 RPM (ONE WAY, WHITE) EACH	621 RPM (TWO WAY, YELLOW/RED) EACH	644 TRANSVERSE/DIAGONAL LINE FT	646 TRANSVERSE/DIAGONAL LINE FT	647 (5) PAVEMENT MARKING, MISC.:LANE REDUCTION ARROW WITH CONTRAST EACH	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT/MI	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT/MI	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6" FT/MI	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12" FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6" FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CENTER LINE, DOUBLE SOLID (WHITE) FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6" FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT/MI	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT/MI
436		128+00	LT	128+26	LT								26														26
	I-70 EB	128+00	LT	128+26	LT		1							26													26
		128+00	CL	128+26	CL	2									26												
		3022+00	RT	3022+85	RT												85							85			
		3022+00	RT	3022+85	RT	2															85				85		
		3022+00	RT	3022+85	RT	2															85				85		
		3022+00	RT	3022+85	RT	2															85				85		
	I-70 WB	3022+00	RT	3022+85	RT	2															85				85		
		3022+00	RT	3026+70	RT			6										470						470			
		3022+00	RT	3028+13	RT		6												613					613			
		3022+85	RT	3028+13	RT												528							528			
		3022+85	RT	3028+13	RT													528						528			
		3022+85	RT	3026+70	RT												385							385			
		5032+00	BL	5032+14	BL		1							14													14
		5032+00	LT	5032+56	LT	2									56												
		5032+14	BL	5032+67	BL	1									53												
		5032+56	LT	5032+67	LT			1					11														11
	RAMP C5	5032+67	BL	5039+05	BL	16															638				638		
		5032+67	LT	5041+58	LT			11										891						891			
		5039+05	BL	5041+58	BL												253							253			
		5041+58	LT	5044+00	LT			3					242														242
		5041+58	BL	5044+00	BL							242															242
		5032+00	RT	5032+67	RT							67															67
		5032+67	RT	3005+24	BL												716							716			
	RAMP C3	5037+13	BL	3004+36	LT	5															192				192		
		5037+13	CL	3004+36	LT				38																		
		3004+36	LT	3005+24	LT			2										88						88			
437		542+39	RT	548+60	RT			8										621						621			
		542+39	BL	548+79	BL												640							640			
		546+44	BL	548+69	RT																	225	225				
	TRANS I-70 WB	548+60	RT	152+00	RT			4					340														340
		548+79	BL	152+00	BL							321															321
		548+69	RT	152+00	RT											331										331	
		149+57	RT								1																
	RAMP BC	58+03	BL/LT	60+00	BL/LT			3				197	197														394
		5044+00	LT	5051+75	LT			10					775														775
		5044+00	BL	5051+54	BL							754															754
		5051+72	LT	5055+29	LT	9									357												
		5051+80	LT	5057+00	LT								520														520
	RAMP C5	5051+54	BL	5055+29	BL	9									375												
		5051+75	LT	5055+29	LT	9									354												
		5055+29	LT	5057+00	LT		1							171													171
		5055+29	BL	5057+00	BL		1							171													171
	RAMP A5	5017+36	LT	5055+29	RT	9									368												
		5017+36	LT	5057+00	RT							542															542
		831+90	BL	842+03	BL												1013							1013			
		831+90	RT	832+71	RT	2															81				81		
	TRANS RAMP D3 N	832+71	RT	3039+37	LT			8										678						678			
		3039+37	LT	3041+36	BL	5															199				199		
		3041+36	BL	3041+94	BL																	58	58				
		842+03	BL	3044+00	LT							197															197
		3037+68	BL	3039+37	BL												169							169			
		3037+68	RT	3041+79	RT													411						411			
		3037+68	RT	3041+87	RT		4												419					419			
	TRANS RAMP D3 W	3039+37	RT	3041+36	BL	5															199				199		
		3041+79	RT	3044+00	RT								221														221
		3041+87	RT	3044+00	RT		2							213													213
		3041+94	BL	3044+00	BL											206										206	
		TOTAL FEET										2320	2332	595			3789	3687	1032					8508			5247
	TOTALS CARRIED TO SHEET 425					82	16	56	38		1	0.44	0.44	0.11	1589	537	0.72	0.70	0.20		1649	283	283	1.61	1649	537	0.99

PAVEMENT MARKING AND RPM SUBSUMMARY (ODOT)

FRA-70-13.10

CALCULATED MJB
CHECKED DRB

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM REVISED	KWR	11/6/23

PAVEMENT MARKING AND RPM SUBSUMMARY (ODOT)

SHEET NO.	LOCATION	STATION TO STATION FROM		TO		621 RPM (TWO-WAY, WHITE/RED) EACH	621 RPM (ONE WAY, WHITE) EACH	621 RPM (TWO WAY, YELLOW/RED) EACH	644 TRANSVERSE/DIAGONAL LINE FT	646 TRANSVERSE/DIAGONAL LINE FT	647 (5) PAVEMENT MARKING, MISC.:LANE REDUCTION ARROW WITH CONTRAST EACH	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT/MI	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT/MI	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6" FT/MI	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12" FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6" FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CENTER LINE, DOUBLE SOLID (WHITE) FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6" FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT/MI	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT/MI
438	I-70 WB	152+00	BL	159+57	BL							757															757
		152+00	RT	159+35	RT								735														735
		152+00	RT	154+39	RT											239										239	
		154+39	RT								1																
		154+39	RT	159+46	RT		4							507													507
		159+35	RT	164+00	RT													465						465			
		159+46	RT	164+00	RT		4												454					454			
		159+57	BL	164+00	BL												443							443			
	RAMP C5	5057+00	LT	5062+47	LT								547														547
		5057+00	LT	5062+33	LT		4							533													533
		5057+00	BL	5062+19	BL		4							519													519
		5057+00	RT	5062+06	RT							506															506
		5062+47	LT	5069+00	LT													653						653			
		5062+33	LT	5064+56	LT		2												223					223			
		5062+19	BL	5069+00	BL		6												681					681			
		5062+06	RT	5069+00	RT												694							694			
		5064+56	LT	5069+00	LT	11															444				444		
	RAMP D3	3044+00	LT	3052+86	LT							886															886
		3044+00	BL	3052+55	BL											855										855	
		3044+00	RT	3052+64	RT		7							864													864
		3044+00	RT	3052+53	RT								853														853
		3052+53	RT	3057+00	RT			4										447						447			
		3052+55	BL	3052+75	BL	1									20												
		3052+64	RT	3057+00	RT		4												436					436			
		3052+75	BL	3057+00	BL	11															425				425		
		3052+86	LT	3057+00	LT												414							414			
		3054+55	BL	3057+00	LT	6															245				245		
439	I-71 SB	278+00	RT	279+00	RT																100				100		
		278+00	LT	279+00	LT	3															100				100		
		278+00	RT	279+00	RT			1										100						100			
		278+00	RT	279+00	RT		1												100					100			
	RAMP C5	5069+00	LT	5071+08	LT													208						208			
		5069+00	LT	5071+12	LT	5															212				212		
		5069+00	BL	5071+16	BL		2												216					216			
		5069+00	RT	5071+20	RT												220							220			
		5069+56	LT	5071+14	LT	4															158				158		
		5069+56	LT	5071+13	LT				11																		
		5071+08	LT	5074+25	LT								317														317
		5071+12	LT	5074+29	LT	8									317												
		5071+13	LT	5074+34	LT					94																	
		5071+14	LT	5074+37	LT	8									323												
		5071+16	BL	5074+42	BL		3							326													326
		5071+20	RT	5074+47	RT							327															327
		5074+25	LT	5074+86	LT													61						61			
		5074+29	LT	5074+86	LT	1															57				57		
		5074+34	LT	5074+86	LT				30																		
		5074+37	LT	5074+89	LT	1															52				52		
		5074+42	BL	5074+89	BL		1												47					47			
		5074+47	RT	5074+89	RT												42							42			
	RAMP D3/ RAMP D7	3057+00	LT	3058+68	LT												168							168			
		3057+00	LT	3058+71	LT	4															171				171		
		3058+68	LT	3061+56	LT							288															288
		3058+71	LT	3061+63	LT	7									292												
		3061+56	LT	7007+00	BL												653							653			
		3061+63	LT	3064+27	LT	7															264				264		
		3064+27	LT	7007+00	RT			5										385						385			
		TOTAL FEET										2764	2452	2749			2634	2319	2157					7110			7965
TOTALS CARRIED TO SHEET 425						77	42	10	41	94	1	0.52	0.46	0.52	952	1094	0.50	0.44	0.41		2228			1.35	2228	1094	1.51

CALCULATED MJB
CHECKED DRB

FRA-70-13.10

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM REVISED	KWR	11/6/23

SHEET NO.	LOCATION	STATION TO STATION FROM		TO		621 RPM (TWO-WAY, WHITE/RED) EACH	621 RPM (ONE WAY, WHITE) EACH	621 RPM (TWO WAY, YELLOW/RED) EACH	644 TRANSVERSE/DIAGONAL LINE FT	646 TRANSVERSE/DIAGONAL LINE FT	647 PAVEMENT MARKING, MISC.:LANE REDUCTION ARROW WITH CONTRAST EACH	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT/MI	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT/MI	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6" FT/MI	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12" FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6" FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CENTER LINE, DOUBLE SOLID (WHITE) FT/MI	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6" FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT/MI	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT/MI	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE) FT
439		3057+00	BL	3058+71	BL																171				171			
		3057+00	RT	3058+78	RT		2												178					178				
		3057+00	RT	3058+04	RT													104						104				
	I-70 WB	3058+04	RT	3058+81	RT	2			25												77				77			
		3058+71	BL	3061+75	BL	8									304													304
		3058+78	RT	3061+80	RT		3							302													302	
		3058+81	RT	3061+85	RT	8				127					304													304
		3061+75	BL	3064+27	BL																252				252			
		3061+80	RT	3068+56	RT		6												676					676				
		3061+85	RT	3066+00	RT	10			92												415				415			
		3064+27	BL	3068+53	BL												426							426				
		3068+56	RT	177+15	BL		1							156													156	
		3068+53	BL	177+11	LT							158															158	
		164+00	BL	165+22	BL												122							122				
		164+00	RT	165+22	RT		1												122					122				
		164+00	RT	166+09	RT													209						209				
		165+22	BL	166+02	BL	2															80				80			
		165+22	RT	166+05	RT	2															83				83			
	RAMP D3/I-70 WB	166+02	BL	169+04	BL	8									302													302
		166+05	RT	169+08	RT	8									303													303
		166+09	RT	169+13	RT								304														304	
		169+04	BL	173+07	BL	10															403				403			
		169+08	RT	175+61	RT	16															653				653			
		169+13	RT	175+64	RT													651						651				
		175+61	RT	177+01	RT	4									140													140
		175+64	RT	177+22	RT								158														158	
		177+01	RT	177+19	RT											18										18		
		177+11	BL	178+00	BL												89							89				
		177+15	RT	178+00	RT		1												85					85				
		177+19	RT	178+00	RT																	81	81					
		177+22	RT	178+00	RT													78						78				
440		178+00	BL	178+97	BL												97							97				
		178+00	RT	191+00	RT		11												1300					1300				
	I-70 WB	178+00	RT	191+00	RT																	1300	1300					
		178+00	RT	191+00	RT													1300						1300				
		178+97	LT	185+02	LT	15			198												605				605			
		185+02	LT	191+00	LT																	598	598					
		279+00	BL	280+04	BL																104				104			
		279+00	RT	191+00	LT		11												1285					1285				
	I-71 SB	279+00	RT	279+83	RT													83						83				
		279+83	RT	285+87	RT	15															604				604			
		280+04	BL	191+00	LT												1175							1175				
	RAMP D6	6001+00	RT	6001+61	RT	1															61				61			
441		191+00	LT	192+97	LT												197							197				
		191+00	LT	192+97	LT		2												197					197				
	I-70 WB	191+00	LT	192+97	LT																	197	197					
		191+00	BL	192+97	BL		2												197					197				
		191+00	RT	192+97	RT																	197	197					
		191+00	RT	192+97	RT													197						197				
442	SR 315 SB						14												1625					1625				
						32															1625				1625			
	TOTAL FEET											158	462	458			2106	2622	5665					10393			1078	
	TOTALS THIS SHEET					141	54		315	127		0.03	0.09	0.09	1353	18	0.40	0.50	1.07		5133	2373	2373	1.97	5133	18	0.20	1353
	TOTALS SHEET 422					58	143		177	95		0.02	0.03	0.04	422		1.23	1.47	3.08	0.11	3485	705	705	5.98	3485		0.10	422
	TOTALS SHEET 423					82	16	56	38		1	0.44	0.44	0.11	1589	537	0.72	0.70	0.20		1649	283	283	1.61	1649	537	0.99	1589
	TOTALS SHEET 424					77	42	10	41	94	1	0.52	0.46	0.52	952	1094	0.50	0.44	0.41		2228			1.35	2228	1094	1.51	952
	TOTALS CARRIED TO GENERAL SUMMARY						679		571	316	2	2.03		0.76	4316	1649	5.96		4.76	0.11	12495	3361	3361	10.91	12495	1649	2.80	4316

CALCULATED MJB
CHECKED DRB

PAVEMENT MARKING AND RPM SUBSUMMARY (ODOT)

FRA-70-13.10

NO.	DESCRIPTION	REV. BY	DATE
5	ITEM REVISED	KWR	11/6/23

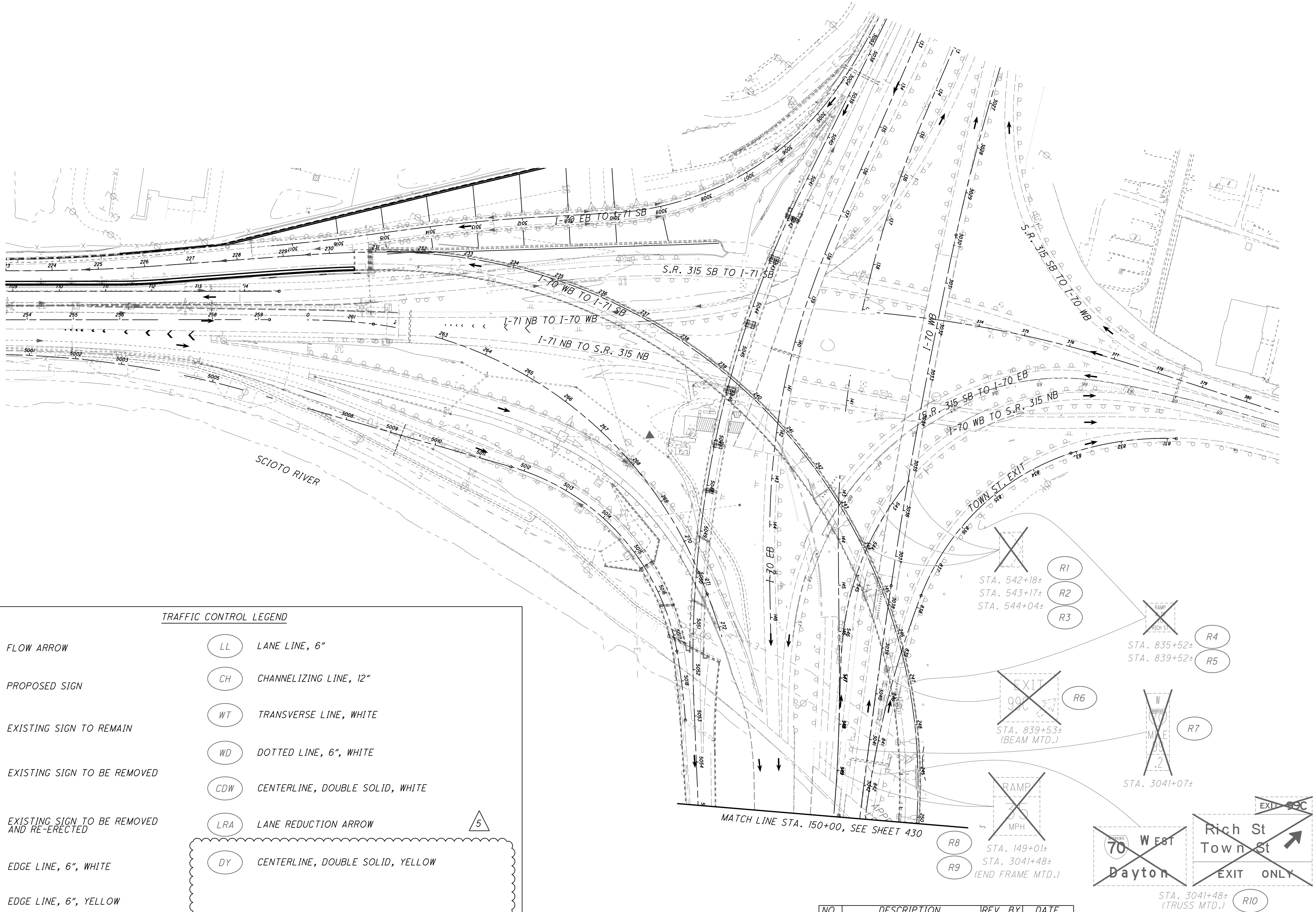
SIGNING AND PAVEMENT MARKING SUBSUMMARY (CITY)

SHEET NO.	LOCATION	STATION		TO	STATION		644 PAVEMENT MARKING, MISC.: CENTER LINE, DOUBLE SOLID, 4" (5) FT/MI	644 REMOVAL OF PAVEMENT MARKING FT
443	SHORT STREET	10+24	CL		13+00	CL	276	
	REMOVALS							
443	SHORT STREET	13+00	RT					7
443	SHORT STREET	13+20	RT					7
TOTAL FEET							276	14
TOTAL MILES							0.05	
TOTALS							0.05	14
TOTALS CARRIED TO GENERAL SUMMARY							0.05	14

REF NO.	SHEET NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 2 POST FT	630 SIGN, FLAT SHEET SF	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH
S1	443	SHORT ST	10+25	LT	CP-114.01D	12" X 18"	12.0	1.50		
S2	443	SHORT ST	10+35	RT	SIGN BY OTHERS		12.0			
S3	443	SHORT ST	11+33	RT	SIGN BY OTHERS		12.0			
S4	443	SHORT ST	11+50	LT	CP-114.01D	12" X 18"	12.0	1.50		
S5	443	SHORT ST	12+25	RT	SIGN BY OTHERS		12.0			
S6	443	SHORT ST	13+00	LT	CP-114.01D	12" X 18"	12.0	1.50		
			REMOVALS							
R1	443	SHORT ST	13+00	RT					1	1
TOTALS CARRIED TO GENERAL SUMMARY							72.0	4.5	1	1

CALCULATED KWR CHECKED DRB

FRA-70-13.10



TRAFFIC CONTROL LEGEND

Symbol	Description	Symbol	Description
→	FLOW ARROW	LL	LANE LINE, 6"
	PROPOSED SIGN	CH	CHANNELIZING LINE, 12"
	EXISTING SIGN TO REMAIN	WT	TRANSVERSE LINE, WHITE
	EXISTING SIGN TO BE REMOVED	WD	DOTTED LINE, 6", WHITE
	EXISTING SIGN TO BE REMOVED AND RE-ERECTED	CDW	CENTERLINE, DOUBLE SOLID, WHITE
WE	EDGE LINE, 6", WHITE	LRA	LANE REDUCTION ARROW (5)
YE	EDGE LINE, 6", YELLOW	DY	CENTERLINE, DOUBLE SOLID, YELLOW

NO.	DESCRIPTION	REV. BY	DATE
5	REVISED LEGEND	KWR	11/6/23

SIGNING REMOVALS
I-70/I-71 STA. 133+00 TO 150+00

HORIZONTAL SCALE IN FEET 0 50 100 200

CALCULATED | CHECKED

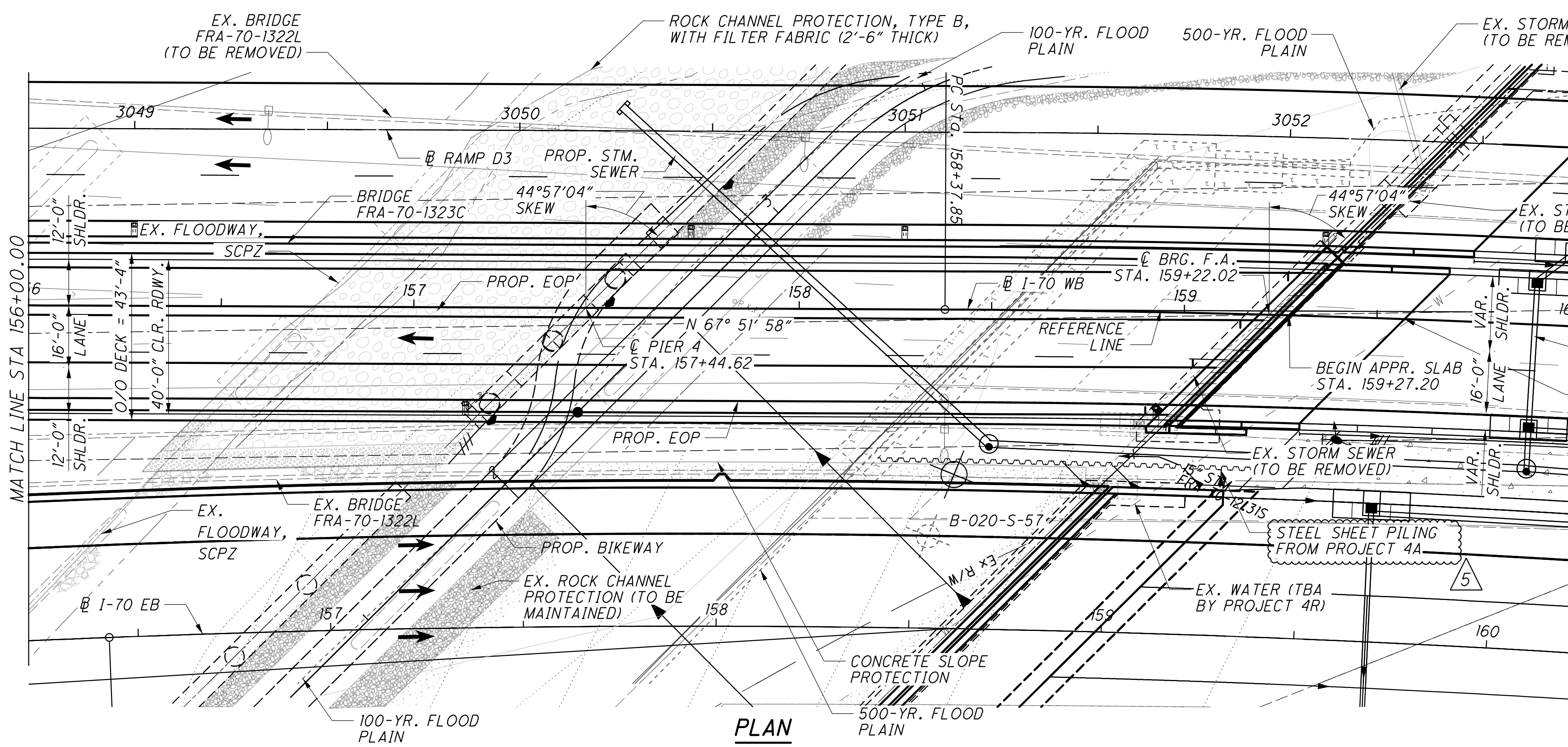
FRA-70-13.10

ms consultants, inc.
msconsultants.com
www.msconsultants.com
PLOT.CEL
Model: Sheet View: FENCE_VIEW1
Printed: 11/6/2023 @ 8:59:27 AM By: kryan
File: \\msconsultants.com\files\Production\03\60\06634_6A\traffic\sheets\89464TM002.dgn
34" x 22"

HORIZONTAL CURVE DATA

I-70 WB - CURVE C19
P.I. Sta. 167+89.88
Δ = 29° 03' 49" (RT)
Dc = 1° 33' 36"
R = 3,672.81'
T = 952.03'
L = 1,863.05'
E = 121.38'
PC Sta. 158+37.85
PT Sta. 177+00.90
V (des) = 60 MPH
e (max) = 0.038
WIDENING = N/A

● 10'-0" REQUIRED MINIMUM VERTICAL CLEARANCE
POINT A = 21.64' ACTUAL MINIMUM VERTICAL CLEARANCE



PLAN

LEGEND

PROJECT BORING LOCATION

HISTORIC BORING LOCATION

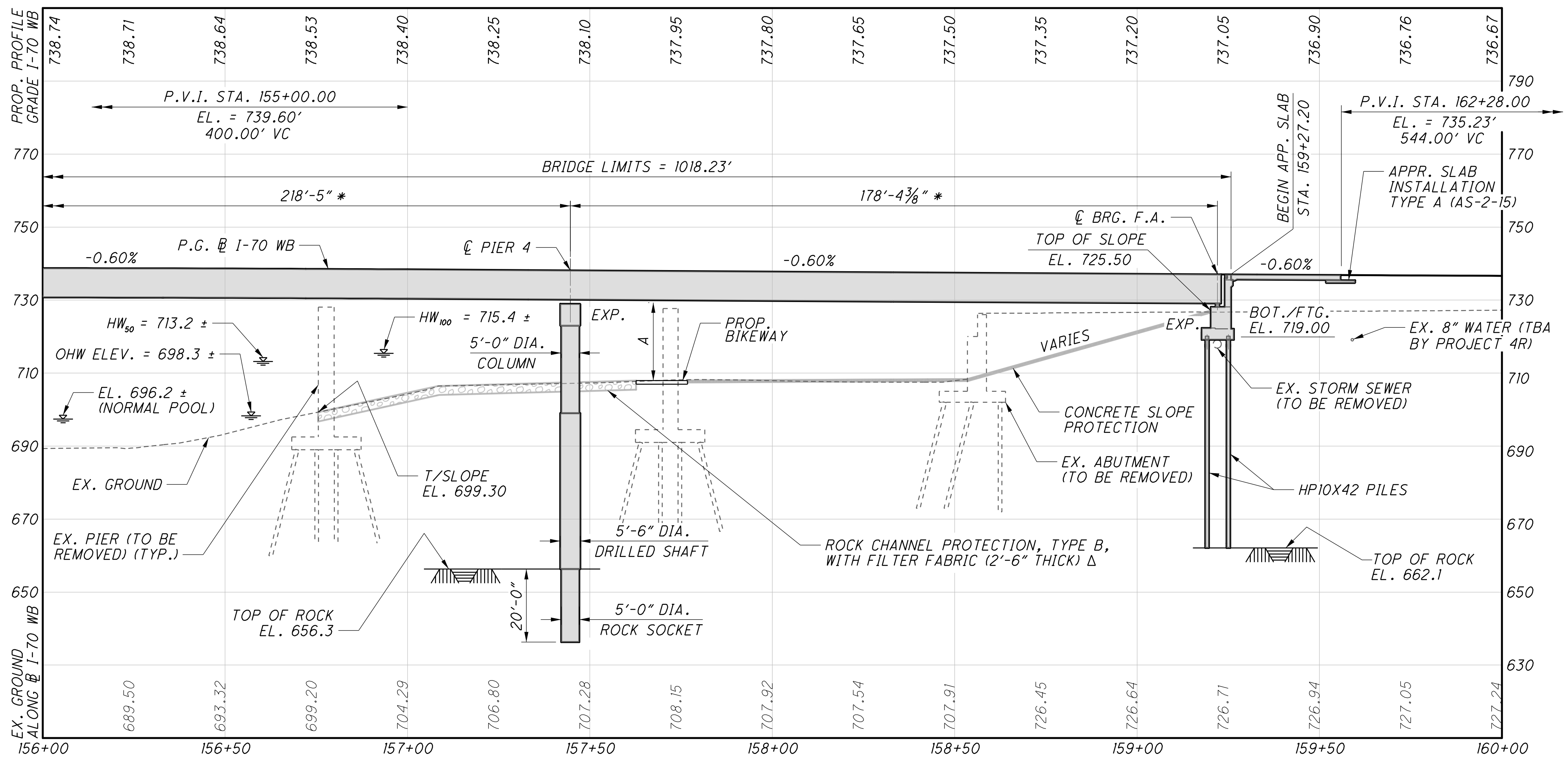
* DISTANCE MEASURED ALONG REFERENCE LINE

** FOR BORING LOCATIONS, SEE BRIDGE NO. FRA-70-1323C PLANS

Δ ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER FABRIC PAID FOR UNDER ROADWAY ITEM 601.

CONCRETE SLOPE PROTECTION

ROCK CHANNEL SLOPE PROTECTION



BRIDGE PROFILE ALONG ℄ I-70 WB

TOP OF ROCK ELEVATION (**)			
BORING	TOP OF BEDROCK	STATION	OFFSET
B-113-9-13	656.3	158+60.61	104.79' LT.
B-114-1-13	662.1	160+53.06	96.75' LT.

NO.	DESCRIPTION	REV. BY	DATE
5	EDITED CALLOUT	ACW	11/6/23

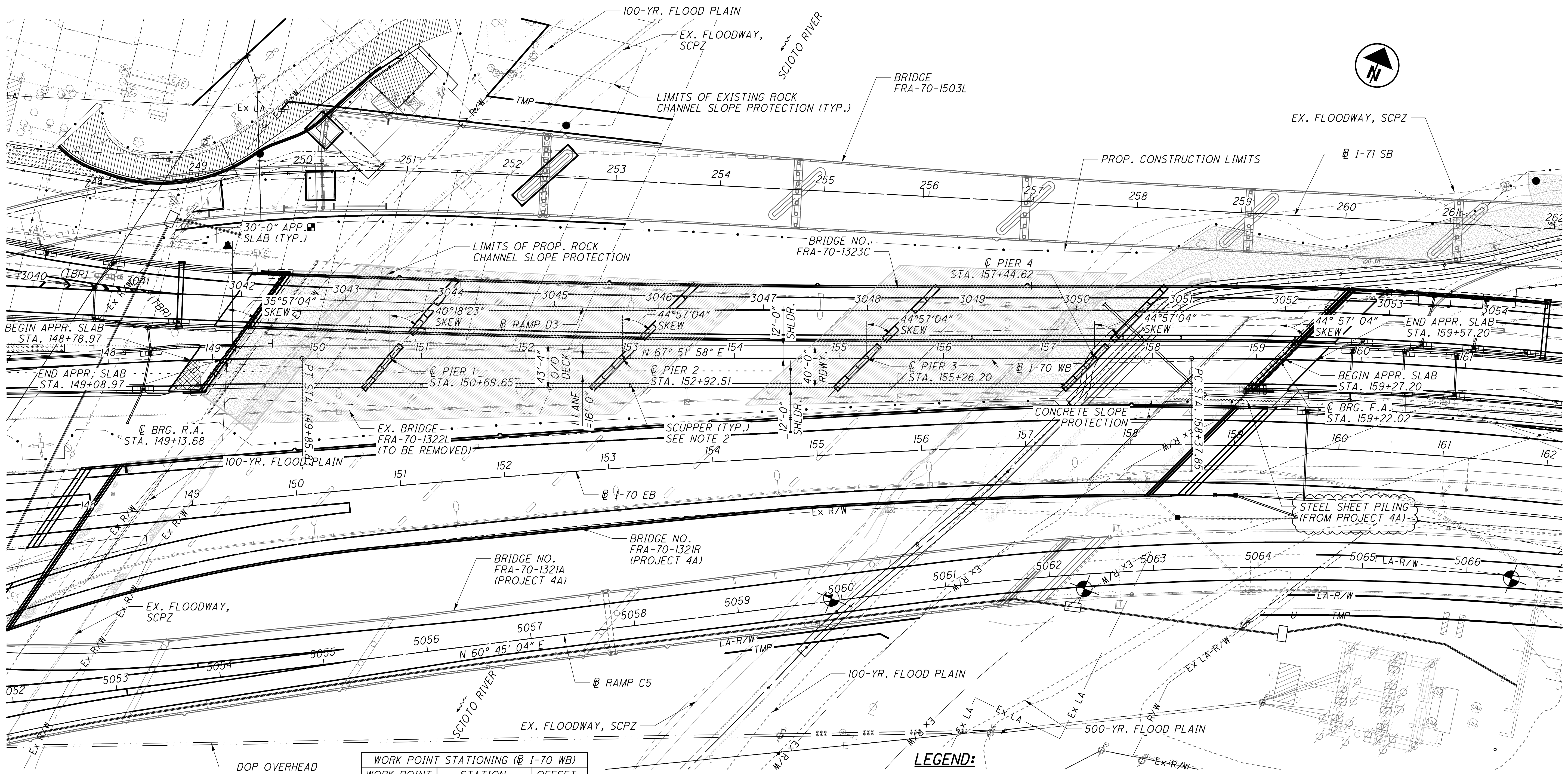
DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

DESIGNED	DRAWN	REVIEWED	DATE
LAW	KRM	WER	3/06/23
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TVB	---	2510027	

FRANKLIN COUNTY
STA. 149+08.97
STA. 159+27.20

SITE PLAN (3 OF 3)
BRIDGE NO. FRA-70-1322L
I-70 WB OVER SCIOTO RIVER

FRA-70-13.10
PID No. 77372



PLAN

WORK POINT STATIONING (℄ I-70 WB)		
WORK POINT	STATION	OFFSET
WP #1	149+14.28	0.78' LT.
WP #2	150+69.65	0.00'
WP #3	152+92.51	0.00'
WP #4	155+26.20	0.00'
WP #5	157+44.62	0.00'
WP #6	159+22.96	0.99' LT.

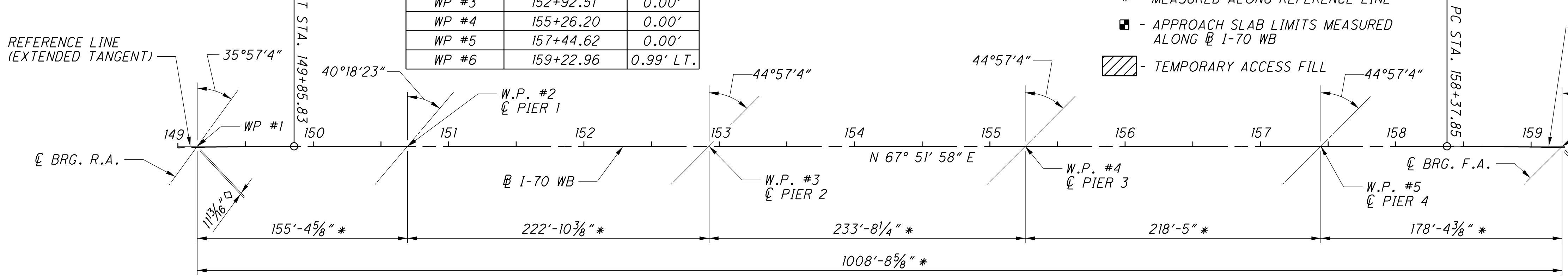
LEGEND:

◇ - DIMENSION FROM REFERENCE LINE TO ℄ I-70 W.B. MEASURED ALONG ℄ BEARINGS.

* - MEASURED ALONG REFERENCE LINE

▣ - APPROACH SLAB LIMITS MEASURED ALONG ℄ I-70 WB

▨ - TEMPORARY ACCESS FILL



REFERENCE LINE DIAGRAM

NOTES:

1. FOR HORIZONTAL CURVE DATA, SEE SHEETS 1/58 THRU 3/58.
2. FOR SCUPPER LOCATIONS AND DETAILS SEE SHEETS 51/58 THRU 53/58.

NO.	DESCRIPTION	REV. BY	DATE
5	EDITED CALLOUT	ACW	11/6/23

GENERAL PLAN AND REFERENCE LINE DIAGRAM
BRIDGE NO. FRA-70-1322L
I-70 WB OVER SCIOTO RIVER

FRA-70-13.10
PID No. 77372

DESIGN AGENCY: ms consultants, inc. 2221 Schrock Road Columbus, Ohio 43229

DESIGNED	CHECKED	DRAWN	REVIEWED	DATE
LAW	TVB	KRM	WER	3/06/23

REVISED: ---
STRUCTURE FILE NUMBER: 2510027

4/58
476/702

Model: Sheet View: FENCE_VIEW1
Printed: 11/6/2023 @ 9:51:40 AM By: awhite
File: \\msconsultants.com\files\Production\03\60\06634_6A\structures\FRA070_1322L\sheets\070_1322L_GP001.dgn
Batchplot Spec: \\msconsultants.com\files\production\03\60\06634_6A\standards\plotdrv\batchplt.spc_ohdot.tbl
Pen Table: \\msconsultants.com\files\Production\03\60\06634_6A\deliverables\00 Current Addendums\Addendum R5 Shared\ms_std.tbl
Plot Driver: \\msconsultants.com\files\Standards\ustn\ohdot\v8i\ms\plotting\PDF_pltcfg
34" x 22"

ESTIMATED QUANTITIES

CALC:	ELS/DBL	DATE:	12/07/21
CHECK:	ATM	DATE:	12/07/21

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET REF.
202	11003	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				1	5/70
202	22900	745	SY	APPROACH SLAB REMOVED				745	
202	23500	10,500	SY	WEARING COURSE REMOVED				10,500	
202	32800	278	SY	CONCRETE SLOPE PROTECTION REMOVED	278				
202	98100	14	EACH	REMOVAL MISC.: PILE REMOVED, EXISTING STRUCTURE	14				
503	21101	3,242	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN	3,242				6/70
505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION				1	
507	00100	6,350	FT	STEEL PILES HP10X42, FURNISHED	6,350				
507	00150	5,890	FT	STEEL PILES HP10X42, DRIVEN	5,890				
507	93300	92	EACH	STEEL POINTS OR SHOES	92				
509	10001	881,328	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	106,589	191,582	581,813	1,344	6/70 25/70 67/70
511	34447	1,710	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN			1,710		6/70
511	34450	360	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			360		
511	44112	394	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	394				
511	45602	596	CY	CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH QC/QA		596			
511	46012	277	CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING	277				
511	46512	579	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	579				
512	10001	843	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)	751	92			6/70
512	10100	2,389	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		320	2,069		
512	33000	51	SY	TYPE 2 WATERPROOFING	51				
513	10300	355,667 (4)	LB	STRUCTURAL STEEL MEMBERS, LEVEL FIVE			355,667 (4)		
513	10401	2,213,561	LB	STRUCTURAL STEEL MEMBERS, HYBRID GIRDER, LEVEL SIX (6) FABRICATION, AS PER PLAN			2,213,561		6/70 32/70
513	20000	12,801	EACH	WELDED STUD SHEAR CONNECTORS			12,801		
514	00060	29,490	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			29,490		
514	00066	29,490	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			29,490		
516	12400	134	FT	SPECIAL - MODULAR EXPANSION JOINT				134	6/70 7/70
516	13600	377	SF	1" PREFORMED EXPANSION JOINT FILLER				377	
516	13900	216	SF	2" PREFORMED EXPANSION JOINT FILLER				216	
518	12200	5	EACH	SCUPPERS, INCLUDING SUPPORTS			5		
518	21200	481	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	481				
518	40000	361	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	361				
518	40010	45	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	45				
518	51200	49	FT	PIPE DOWNSPOUT, INCLUDING SPECIALS (10")			49		
524	94919	156 (5)	FT	DRILLED SHAFTS, 60" DIAMETER, INTO BEDROCK, AS PER PLAN		156 (5)			7/70
524	94931	496	FT	DRILLED SHAFTS, 66" DIAMETER, ABOVE BEDROCK, AS PER PLAN		496			7/70
526	30010	351	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")				351	61/70 62/70
526	90010	134	FT	TYPE A INSTALLATION				134	
601	21000	280	SY	CONCRETE SLOPE PROTECTION *	280				
601	32104	4,358	CY	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC *	995	3,363			
SPECIAL	690E98400	LS		SPECIAL - EMERGENCY ACTION PLAN COORDINATION **				1	5/70
846	00110	56	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM				56	
869	00101	30	EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARINGS, AS PER PLAN	10	20			7/70
894	10000	12	EACH	THERMAL INTEGRITY PROFILING (TIP) TEST		12			7/70

LEGEND:

* QUANTITY CARRIED TO EROSION CONTROL IN THE GENERAL SUMMARY.

** QUANTITY CARRIED TO ROADWAY IN THE GENERAL SUMMARY.

NO.	DESCRIPTION	REV. BY	DATE
4	QUANTITY CHANGES	ACW	10/30/23
5	QUANTITY CHANGES	ACW	11/6/23

DESIGN AGENCY: ms consultants, inc. 2221 Schrock Road Columbus, Ohio 43229

REVIEWED GLG/YSJ DATE 03/08/23 STRUCTURE FILE NUMBER 2510026

DRAWN ELS REVISED

DESIGNED ELS CHECKED ABD

ESTIMATED QUANTITIES
BRIDGE NO. FRA-70-1323C
RAMP D3 OVER SCIOTO RIVER

FRA-70-13.10
PID No. 77372

ITEM 614 - WORK ZONE INCREASED PENALTIES SIGN (R11-H5A)

R11-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUT-DOWNS.

THE SIGNS ON THE MAINLINE SHALL BE DUAL MOUNTED UNLESS NOT PHYSICALLY POSSIBLE. THE FIRST SIGN SHALL BE PLACED BETWEEN THE ROAD WORK AHEAD (W20-1) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS. SIGNS ON THE MAINLINE SHALL BE R11-H5A-48. SIGNS USED ON THE RAMPS SHALL BE R11-H5A-24. R11-H5A-24 SIGNS MAY BE USED IN THE MEDIAN IN LIEU OF R11-H5A-48 SIGNS IF IT IS NOT PHYSICALLY POSSIBLE TO PROVIDE R11-H5A-48 SIGNS IN THE MEDIAN.

THE R11-H5a-48 SIGN SHALL BE MOUNTED ON 2 NO. 3 POSTS LOCATED WITHIN CLEAR ZONES.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE RETROREFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF C&MS 730.19.

WORK ZONE INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614, WORK ZONE INCREASED PENALTIES SIGN 10 EACH

ITEM 614 - DETOUR SIGNING

SIZE AND PLACEMENT OF DETOUR SIGNS (M4-9) SHOULD FOLLOW THE REQUIREMENTS OF THE OMUTCD SECTION 6F.03, SECTION 2A.11 AND TABLE 6F.01 UNLESS OTHERWISE SPECIFIED IN THE PLANS.

DETOUR SIGNING SHALL PROVIDED DRIVERS ADEQUATE TIME TO CLEARLY READ THE SIGNS AND MAKE THE PROPER DECISIONS AT EACH REQUIRED TURNING MOVEMENT. THE DESIGNATED DETOUR ROUTE SHALL BE SIGNED IN ACCORDANCE WITH THE REQUIREMENTS BELOW:

- APPROXIMATELY 1500 FEET PRIOR TO TIP OF THE PAINTED GORE AT AN INTERCHANGE WHEN EXITING A HIGH SPEED (45 MPH OR HIGHER) FACILITY.

- AT OR NEAR THE EXISTING SIGN IN THE GORE OF AN INTERCHANGE RAMP.

- AT OR NEAR THE FIRST EXISTING LANE ASSIGNMENT SIGN ON AN INTERCHANGE EXIT RAMP.

- AT OR NEAR THE EXISTING LANE ASSIGNMENT SIGN OR EXISTING ROUTE MARKER AT THE END OF AN EXIT RAMP.

- APPROXIMATELY 500 FEET PRIOR TO A REQUIRED TURN AT AN INTERSECTION NOT CONTROLLED BY A STOP SIGN (FOR 45 MPH OR HIGHER ONLY).

- AT OR NEAR THE EXISTING LANE ASSIGNMENT SIGN OR EXISTING ROUTE MARKER AT AN INTERSECTION.

- EVERY TWO BLOCKS ALONG A TANGENT SECTION BETWEEN TURNING MOVEMENTS WITHIN A CITY.

- AT ANY OTHER INTERSECTION OR DECISION POINT WHERE THE DETOUR ROUTE IS CONTRARY TO THE NORMAL, EXPECTED TURNING MANEUVER OR OTHERWISE UNCLEAR.

DETOUR SIGNS SHALL BE PLACED, WHEN POSSIBLE, NEXT TO BUT NOT BLOCKING EXISTING ROUTE MARKERS OR LANE ASSIGNMENT SIGNS. DETOUR SIGNS SHALL NOT OBSCURE OR BE OBSCURED BY OTHER EXISTING OR TEMPORARY SIGNS.

DETOUR SIGNS SHALL BE ERECTED AND/OR UNCOVERED PRIOR TO THE ROAD OR RAMP BEING CLOSED TO TRAFFIC BUT NO EARLIER THAN FOUR HOURS PRIOR TO THE CLOSURE. DETOUR SIGNS SHALL BE COVERED AND/OR REMOVED NO LATER THAN FOUR HOURS FOLLOWING THE ROAD OR RAMP RE-OPENING TO TRAFFIC.

PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FOR ALL MATERIALS, LABOR, INCIDENTALS, AND EQUIPMENT FOR FURNISHING, PROPER SIGN PLACEMENT AND SIZING, TIMELY ERECTING AND/OR UNCOVERING OF SIGNS, MAINTAINING SIGNS, AND TIMELY COVERING AND/OR REMOVING SIGNS AND SUPPORTS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 - DETOUR SIGNING LS

ITEM 622 - PORTABLE BARRIER, UNANCHORED, AS PER PLAN

THE CONTRACTOR SHALL INSTALL GLARE SHIELDS ON PORTABLE BARRIER WITH OPPOSING TRAFFIC RUNNING ON EACH SIDE OF THE BARRIER.

THE GLARE SCREEN SHALL BE CONSTRUCTED USING ONE OF THE SCREENS PROVIDED ON THE APPROVED LIST, AVAILABLE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE.

PADDLE OR INTERMITTENT TYPE GLARE SCREENS SHALL BE DESIGNED USING A 20 DEGREE CUT-OFF ANGLE BASED ON TANGENT ALIGNMENT. THAT SPACING SHALL BE USED THROUGHOUT THE BARRIER LENGTH WITHOUT REGARD TO BARRIER CURVATURE.

THE GLARE SCREEN SYSTEM SHALL BE SECURELY FASTENED TO THE 32-INCH PORTABLE BARRIER USING THE HARDWARE AND PROCEDURES SPECIFIED BY THE MANUFACTURER.

FOR DIRECTIONS ON HOW TO INSTALL THE GLARE SCREEN AND THE BARRIER, SEE THE MANUFACTURER'S INSTRUCTIONS.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 622 - PORTABLE BARRIER, UNANCHORED, AS PER PLAN.

WEEKLY MAINTENANCE OF TRAFFIC MEETING

AFTER THE INITIAL PRE-MAINTENANCE OF TRAFFIC MEETING, THE CONTRACTOR SHALL MEET WITH THE PROJECT ENGINEER ON A WEEKLY BASIS TO GO OVER A DETAILED MAINTENANCE OF TRAFFIC REPORT OF AT LEAST 7 CALENDAR DAYS. THIS MEETING SHOULD BE HELD ON THE SAME DAY AND TIME OF EACH WEEK.

THE CONTRACTOR WILL PROVIDE TO THE PROJECT ENGINEER A WRITTEN DETAIL OF THE INFORMATION REQUIRED BY THE NOTIFICATION OF TRAFFIC RESTRICTIONS NOTE PRIOR TO THE MEETING.

IN ADDITION TO THE DETAILED MAINTENANCE OF TRAFFIC REPORT THE CONTRACTOR SHALL GIVE A GENERAL LOOK AHEAD OF AN ADDITIONAL 2 WEEKS OF UPCOMING WORK ACTIVITIES. THIS WILL INCLUDE ANY NOTIFICATION REQUIREMENTS FOR RESTRICTIONS THAT HAVE A DURATION GREATER THAN 12 HOURS.

PRE-MAINTENANCE OF TRAFFIC MEETING

A PRE-MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD (MINIMUM 14 WORK DAYS) PRIOR TO WORK BEGINNING OR ANY CHANGE OF PHASING. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER (d06.mot@dot.ohio.gov) AS WELL AS THE CONTRACTOR AND ANY OF HIS SUB-CONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL. FOR COLUMBUS SECTIONS OF ROADWAY, ALSO INCLUDE THE TEMPORARY CONTROL COORDINATOR (614-645-6269 OR 614-645-5845) FROM THE CITY OF COLUMBUS TRANSPORTATION DIVISION.

COORDINATION WITH ADJACENT PROJECTS

THE CONTRACTOR SHALL COORDINATE WORK WITH ODOT AND THE CONTRACTORS ON THE ADJACENT PROJECTS.

- FRA-70/71-12.68/14.86 PROJECT 4R PART 1 (PID 105523)
- FRA-71-14.36 PROJECT 6R PART 2 (PID 105523)
- FRA-70-13.11 PROJECT 4A PART 1 (PID 77372)
- FRA-70-14.05C PROJECT 4H PART 2 (PID 77372)
- FRA-70-13.01 PROJECT 6A PART 3 (PID 77372)
- FRA-70-13.01 (1301 BRIDGES OVER 315) PART 5 (PID 77372)

COORDINATION SHALL BE MADE TO PREVENT CONFLICTING ADVANCE WARNING SIGNS, CONFLICTING DETOUR ROUTES, OVERLAPING/CONFLICTING LANE CLOSURES, AND TO ENSURE THAT A MINIMUM DISTANCE OF 2 MILES BETWEEN ADJACENT LANE CLOSURES IS MAINTAINED. THIS IS NOT AN EXHAUSTIVE LIST OF COORDINATION ITEMS THAT MAY NEED TO BE RESOLVED BETWEEN PROJECTS. THE DEPARTMENT RESERVES THE RIGHT TO DECIDE WHICH PROJECT'S ACTIVITIES TAKE PRECEDENCE. PROJECTS THAT HAVE ACTIVITIES DELAYED DUE TO CONFLICTS WILL CONSIDER THIS AN EXCUSABLE, NON-COMPENSABLE DELAY PER 108.06.B. ON PROJECTS THAT HAVE ACTIVITIES DELAYED DUE TO CONFLICTS WHERE THE CONTRACTOR FAILED TO MEET THE NOTIFICATION REQUIREMENTS, THE DELAYS SHALL NOT BE CONSIDERED EXCUSABLE OR COMPENSABLE.

ATTENDANCE AT DEPARTMENT ORDERED TRAFFIC COORDINATION MEETINGS BETWEEN ADJACENT PROJECTS SHALL BE CONSIDERED MANDATORY FOR EACH PROJECT'S SUPERINTENDENT AND WORKSITE TRAFFIC SUPERVISOR (WTS), AND INCIDENTAL TO THE LUMP SUM MAINTENANCE OF TRAFFIC PAYMENT ITEM

5

ESTIMATED QUANTITIES

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY FOR TEMPORARY PAVEMENT MARKINGS PLACED ON THE PROPOSED SURFACE COURSE IN THE PERMANENT TRAFFIC PATTERN PRIOR TO THE INSTALLATION OF THE PERMANENT PAVEMENT MARKINGS. TEMPORARY PAVEMENT MARKINGS SHALL BE INSTALLED PER THE REQUIREMENTS OF 614.11, AS DIRECTED BY THE ENGINEER.

ITEM 614 - WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	6.24 MILE
ITEM 614 - WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	4.46 MILE
ITEM 614 - WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	5427 FT
ITEM 614 - WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT	8872 FT
ITEM 614 - WORK ZONE STOP LINE, CLASS III, 642 PAINT	80 FT
ITEM 614 - WORK ZONE ARROW, CLASS III, 642 PAINT	2 EACH

NO.	DESCRIPTION	DATE	REV. BY
5	ADDED NOTE	AKF	11-1-23

CALCULATED DSM CHECKED AKF

MAINTENANCE OF TRAFFIC NOTES

FRA-70-14.05

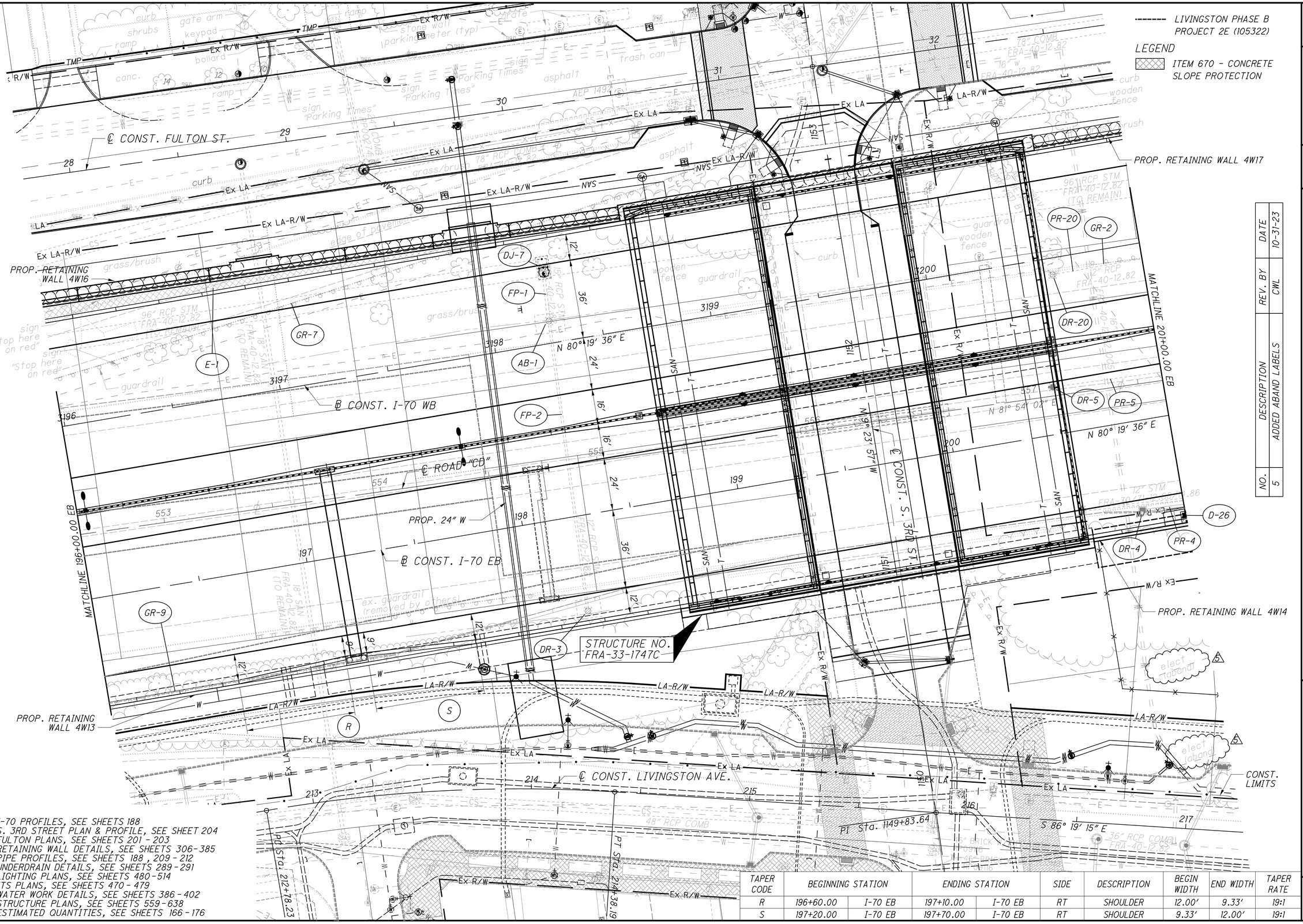
SHEET NUMBER										PARTICIPATION		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
42	43	44	45	46	47	48	50		260	01/IMS/04							
	2	1,000								1000		607	30001	1000	FT	FENCE, SNOW, AS PER PLAN	44
		2000								2000		614	11110	2000	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
	2									2		SPECIAL	614E11300	2	EACH	WORK ZONE TRAFFIC SIGNAL	43
							27376			27376		614	11630	27376	FT	INCREASED BARRIER DELINEATION	
							13			13		614	12380	13	EACH	WORK ZONE IMPACT ATTENTUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
				LS						LS		614	12420	LS		DETOUR SIGNING	
			11							11		614	12470	11	EACH	WORK ZONE SPEED LIMIT SIGN	
				10						10		614	12484	10	EACH	WORK ZONE INCREASED PENALTIES SIGN	
			50							50		614	12500	50	EACH	REPLACEMENT SIGN	
	300									300		614	12600	300	EACH	REPLACEMENT DRUM	
2										2		614	12756	2	EACH	WORK ZONE CROSSOVER LIGHTING SYSTEM	
							3645			3645		614	12800	3645	EACH	WORK ZONE RAISED PAVEMENT MARKER	
							1440			1440		614	13310	1440	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL	
			48							48		614	18601	48	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	45
							3.41			3.41		614	20056	3.41	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
							0.62			0.62		614	20200	0.62	MILE	WORK ZONE LANE LINE, CLASS I, 4", 740.06, TYPE I	
				6.24						6.24		614	20560	6.24	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
							13.08			13.08		614	22056	13.08	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	
							1.42			1.42		614	22200	1.42	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 740.06, TYPE I	
				4.46						4.46		614	22360	4.46	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
							30704			30704		614	23110	30704	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
							275			275		614	23400	275	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 740.06, TYPE I	
				5427						5427		614	23690	5427	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
							7974			7974		614	24100	7974	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 807 PAINT	
							857			857		614	24400	857	FT	WORK ZONE DOTTED LINE, CLASS I, 740.06, TYPE I	
				8872						8872		614	24612	8872	FT	WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT	
							1159			1159		614	25000	1159	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I	
							53			53		614	26400	53	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
				80						80		614	26610	80	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
									466	466		614	27070	466	FT	WORK ZONE CROSSWALK LINE, CLASS I, 12", 740.06, TYPE I	
							12			12		614	30400	12	EACH	WORK ZONE ARROW, CLASS I, 740.06, TYPE I	
				2						2		614	30650	2	EACH	WORK ZONE ARROW, CLASS III, 642 PAINT	
LS										LS		615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
							4600			4600		615	20000	4600	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
							255		374	629		615	25000	629	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	
						200				200		615	25001	200	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 1	48
						200				200		615	25001	200	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2	48
						200				200		615	25001	200	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3	48
						200				200		615	25001	200	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 4	48
			550							550		616	10000	550	MGAL	WATER	
							2			2		622	41050	2	EACH	PORTABLE BARRIER, "Y" CONNECTOR	
							28884			28884		622	41101	28884	FT	PORTABLE BARRIER, UNANCHORED, AS PER PLAN	46
			48							48		808	18700	48	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
					48					48		896	00010	48	SNMT	PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS I	
					48					48		896	00020	48	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN	

NO.	DESCRIPTION	REV. BY	DATE
2	REV. NOTE/BRICK X-WALK TEMP.	CWL	10-13-23
5	ADDED WZ CLASS III	CWL	11-3-23

CALCULATED DSM
CHECKED AKF

MAINTENANCE OF TRAFFIC GENERAL SUMMARY

FRA-70-14.05



NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABELS	CWL	10-31-23

TAPER CODE	BEGINNING STATION		ENDING STATION		SIDE	DESCRIPTION	BEGIN WIDTH	END WIDTH	TAPER RATE
R	196+60.00	I-70 EB	197+10.00	I-70 EB	RT	SHOULDER	12.00′	9.33′	19:1
S	197+20.00	I-70 EB	197+70.00	I-70 EB	RT	SHOULDER	9.33′	12.00′	19:1

FOR I-70 PROFILES, SEE SHEETS 188
FOR S. 3RD STREET PLAN & PROFILE, SEE SHEET 204
FOR FULTON PLANS, SEE SHEETS 201 - 203
FOR RETAINING WALL DETAILS, SEE SHEETS 306-385
FOR PIPE PROFILES, SEE SHEETS 188 , 209 - 212
FOR UNDERDRAIN DETAILS, SEE SHEETS 289 - 291
FOR LIGHTING PLANS, SEE SHEETS 480-514
FOR ITS PLANS, SEE SHEETS 470 - 479
FOR WATER WORK DETAILS, SEE SHEETS 386 - 402
FOR STRUCTURE PLANS, SEE SHEETS 559-638
FOR ESTIMATED QUANTITIES, SEE SHEETS 166 - 176

HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED TMT
CHECKED CWL

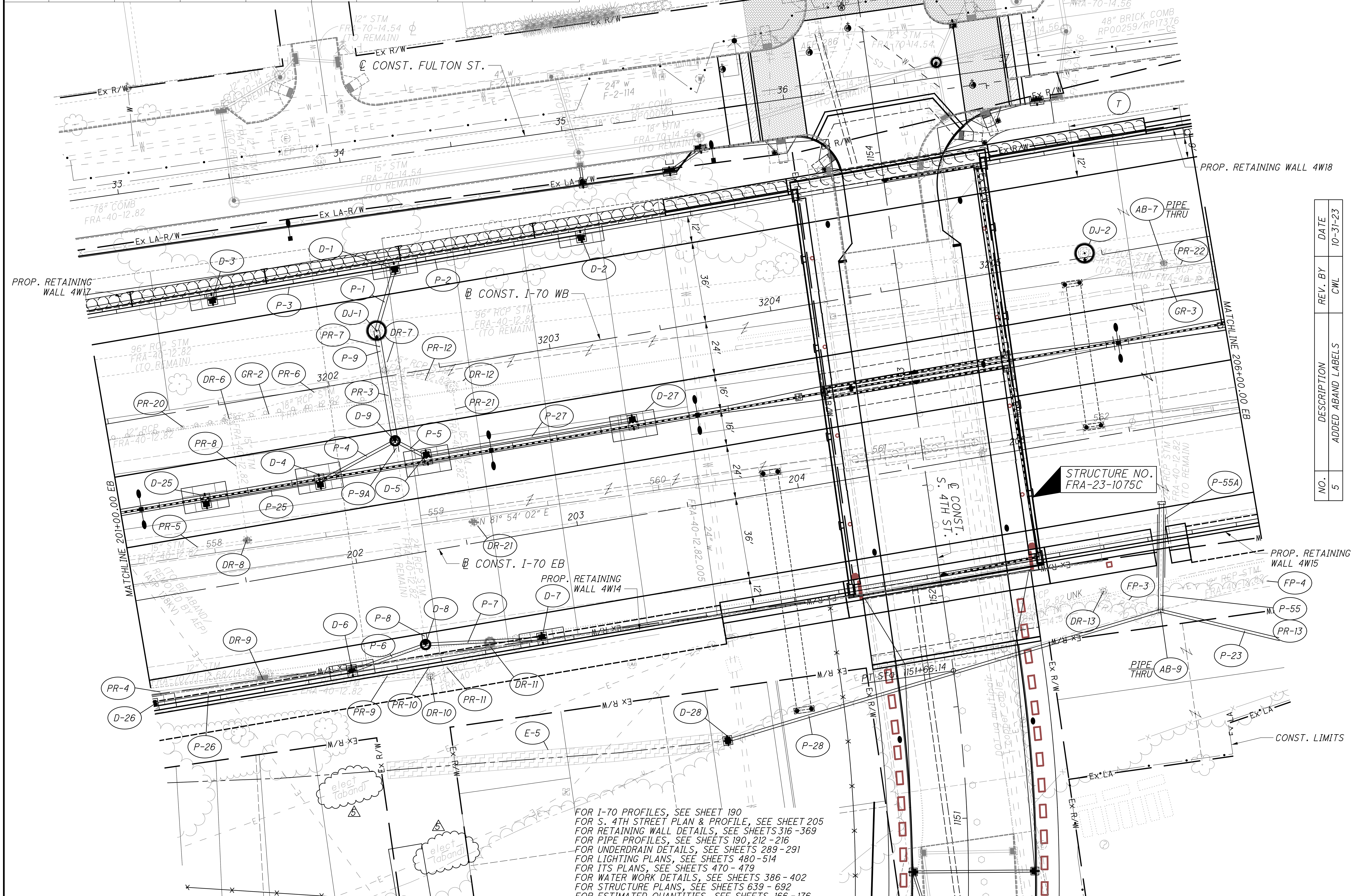
PLAN - I-70
STA. 196+00.00 EB TO STA. 201+00.00 EB

FRA-70-14.05

187
855

D:\2015\201537\FRA\96053\ROADWAY\SHEETS\96053GP003.DGN
10/31/2023
12:16:11 PM
ODOTVBISTD_USER

TAPER CODE	BEGINNING STATION		ENDING STATION		SIDE	DESCRIPTION	BEGIN WIDTH	END WIDTH	TAPER RATE
T	3205+45.00	I-70 WB	3205+95.00	I-70 WB	LT	SHOULDER	12.00'	9.33'	19:1



FOR I-70 PROFILES, SEE SHEET 190
FOR S. 4TH STREET PLAN & PROFILE, SEE SHEET 205
FOR RETAINING WALL DETAILS, SEE SHEETS 316 - 369
FOR PIPE PROFILES, SEE SHEETS 190, 212 - 216
FOR UNDERDRAIN DETAILS, SEE SHEETS 289 - 291
FOR LIGHTING PLANS, SEE SHEETS 480 - 514
FOR ITS PLANS, SEE SHEETS 470 - 479
FOR WATER WORK DETAILS, SEE SHEETS 386 - 402
FOR STRUCTURE PLANS, SEE SHEETS 639 - 692
FOR ESTIMATED QUANTITIES, SEE SHEETS 166 - 176

NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABELS	CWL	10-31-23

CALCULATED TMT
CHECKED CWL

PLAN - I-70
STA. 201+00.00 EB TO STA. 206+00.00 EB

FRA-70-14.05

SEEDING	
END WIDTH	SQ. YDS.
	220
34	
	314
	79
0	
·	534

ITEM 202 - PAVEMENT REMOVED

ITEM 202 - PAVEMENT REMOVED, ASPHALT

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

PROJECT 4R (105523) LIVINGSTON (PHASE B)

760 / 750 / 740 / 730 / 720

PROP RET. WALL NO. 4W17

DR-4
STA. 200+80.86 (I-70 EB), 41.36' RT
EX CB, GRATE ELEV 730.06
EX 12" E 726.06
EX 6" W 727.08

D-26
STA 201+00.00 (I-70 EB), 46.42' RT
I-3-D, APP, GRATE ELEV 728.16
15" (E) 725.15
6" UD (W) 725.65

96" rcp

729.58 **3200+98.80** 730.29

729.19

726.7

729.05 **201+00.00** 731.03

729.44 **201+00.00** 731.09

elec.

PROP RET. WALL NO. 4W14

66.4' RT

48:1

2:1

EX R/W

D-26

DR-4

81.5' RT

℄=743.3

elec. (aband)

5

760 / 750 / 740 / 730 / 720

MATCHLINE A-A

MEET WALK (LIV-PHASE B)

EX LA

elec.

elec. (aband)

120 140 160

SEE STRUCTURE FRA-33-1747

elec.

730.04 **3200+48.80** 731.43

729.66

727.1

729.37 **200+50.00** 731.23

729.75 **200+50.00** 731.18

96" rcp

AH RESUME SEEDING STA. 200+50.00 BK

EX R/W

57:1

MATCHLINE A-A

760 / 750 / 740 / 730 / 720 / 710

SEE STRUCTURE FRA-33-1747

730.64 **3199+98.80** 730.92

730.26

727.5

729.82 **200+00.00** 731.43

730.20 **200+00.00** 731.48

96" rcp

SEE STRUCTURE FRA-33-1747

NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABEL	CWL	10-31-23

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		1557	787
811	390		
		1556	767
869	438		
		2299	406
1614	0		
·	·	5412	1960

CALCULATED ATR
CHECKED TMT

CROSS SECTIONS I.R. 70 STA. 200+00.00 TO STA. 201+00.00

FRA-70-14.05

212
855

D:\2015\2015370\FRA\960853\ROADWAY\SHEETS\960853XS001.DGN
10/31/2023
12:53:54 PM
CDOT\ATRITD_USER

SEEDING END WIDTH	SEEDING SQ. YDS.
89	1278
81	
45	

NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABEL	CWL	10-31-23

D-1
STA 3202+37.60 (I-70 WB), 46.42' LT
I-3-D, GRATE ELEV 727.77
15" (E) 723.42
15" (W) 723.42
18" (S) 723.17
6" UD (W) 724.79
6" UD (E) 724.79
6" UD (S) 723.92

DR-7
STA. 3202+25.53 (I-70 WB), 2.92' LT
EX CB, GRATE ELEV 728.78
EX 24" N 723.38
EX 18" W 723.88
EX 15" E 724.85

DJ-1
STA 3202+24.99 (I-70 WB), 20.91' LT
MH RECONSTRUCTED TO GRADE, APP "B"
SLAB ELEV 727.63
30" (S) 722.20
18" (N) 723.03
EX MH, RIM ELEV 736.29
EX 96" E 718.25
EX 96" W 718.25
EX 24" S 723.24 (TBR)

DR-21
STA. 202+54.81 (I-70 EB), 9.15' LT
EX INLET, GRATE ELEV 730.91
EX 15" N 727.09
EX 6" 727.09

DR-12
STA. 3202+53.95 (I-70 WB), 9.44' RT
EX INLET, GRATE ELEV 730.51
EX 15" NW 725.01
EX 15" S 726.86
EX 6" 725.01

D-9
STA 3202+24.88 (I-70 WB), 29.00' RT
MH-3, APP "B"
SLAB ELEV 726.45
15" (SW) 723.95
15" (SE) 723.95
30" (N) 722.45
24" (S) 722.95

DR-11
STA. 202+52.65 (I-70 EB), 47.01' RT
EX CB, GRATE ELEV 730.27
EX 12" W 724.67
EX 6" E 727.29

D-5
STA 3202+37.60 (I-70 WB), 37.34' RT
I-3-C1, APP
INLET ELEV LT 727.90
INLET ELEV RT 728.15
15" (W) 724.18
15" (E) 724.18
6" UD (N) 725.15
6" UD (W) 725.15
6" UD (E) 725.15

ITEM 202 - PAVEMENT REMOVED

ITEM 202 - PAVEMENT REMOVED, ASPHALT

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

PROJECT 4R (105523)
LIVINGSTON (PHASE B)

PROP RET. WALL NO. 4W17

PROP RET. WALL NO. 4W14

P-1
29'-18" TYPE B @ 0.50%

P-5
16'-15" TYPE B @ 1.44%

MASONRY COLLAR PER DM-1.1

P-9A
5'-24" TYPE B @ 0.2%

P-9
50'-30" TYPE B @ 0.50%

P-7
15" TYPE B

ex. 15" stm (TBR)

ex. 24" stm (TO REMAIN)

729.04
3202+48.80
729.00

728.65

728.93

729.31
202+50.00
731.16

729.61

66.3' RT
48:1
2:1
2:1
48:1
97.3' RT
℄=736.6
elec
(aband)
5

MATCHLINE E-E

D-4
STA 201+89.92 (I-70 EB), 37.34' LT
I-3-C1, APP
INLET ELEV RT 728.08
INLET ELEV LT 727.97
15" (E) 724.55
15" (W) 724.55
6" UD (N) 725.32
6" UD (S) 725.32
6" UD (W) 725.32

D-6
STA 201+89.92 (I-70 EB), 46.42' RT
I-3-D, APP, GRATE ELEV 727.96
15" (E) 724.79
15" (W) 724.79
6" (S) 725.56
6" UD (N) 725.29
6" UD (W) 725.29
6" UD (E) 725.29

D-8
STA 202+24.22 (I-70 EB), 41.00' RT
MH-3, APP "B"
SLAB ELEV 726.42
15" (SW) 724.40
15" (SE) 724.40
24" (N) 723.65
6" UD (NE) 724.27

DR-10
STA. 202+23.93 (I-70 EB), 55.39' RT
EX CB, GRATE ELEV 728.78
EX 12" NE 723.92
EX 15" W 723.86
EX 24" N 723.20
EX 15" S 723.68

PROP RET. WALL NO. 4W17

PROP RET. WALL NO. 4W14

P-3
15" TYPE B

96" rcp

D-4

D-8

D-6

DR-10

P-6
35'-15" TYPE B @ 1.12%

P-8
5'-24" TYPE B @ 0.2%

MASONRY COLLAR PER DM-1.1

ex. 24" stm (TO REMAIN)

729.08
3201+98.80
729.27

728.69

728.83

729.22
202+00.00
730.92

202+00.00
731.00

66.4' RT
48:1
2:1
2:1
48:1
92.8' RT
℄=738.5
elec
(aband)
5

MATCHLINE D-D

MEET EXISTING 174.3' RT.

MEET EXISTING 128.4' RT.

DV-5

4:1

48:1

D-3
STA 3201+55.00 (I-70 WB), 46.42' LT
I-3-D, GRATE ELEV 727.97
15" (E) 723.83
6" (W) 724.33
6" UD (W) 724.99
6" UD (S) 724.33

DR-8
STA. 201+53.65 (I-70 EB), 18.33' LT
EX INLET, GRATE ELEV 730.62
EX 15" W 726.62
EX 15" N 726.62
EX 6" 726.62

DR-6
STA. 3201+53.52 (I-70 WB), 6.89' RT
EX INLET, GRATE ELEV 730.22
EX 18" E 724.72
EX 15" S 726.08
EX 12" W 725.97
EX 6" 724.72

D-25
STA 201+38.29 (I-70 EB), 37.34' LT
I-3-C1, APP
INLET ELEV RT 728.15
INLET ELEV LT 728.35
15" (E) 725.15
6" UD (N) 725.65
6" UD (W) 725.65
6" UD (S) 725.65

DR-9
STA. 201+50.05 (I-70 EB), 44.19' RT
EX CB, GRATE ELEV 729.92
EX 12" W 725.73
EX 15" E 725.48
EX 6" E 726.94
EX 6" W 726.94
EX 6" N 725.94

PROP RET. WALL NO. 4W17

PROP RET. WALL NO. 4W14

D-3

DR-6

D-25

DR-8

DR-9

EX R/W

(TBR)

P-26
15" TYPE B

729.26
3201+48.80
729.98

728.87

728.87

729.26
201+50.00
730.93

201+50.00
730.85

66.4' RT
48:1
2:1
2:1
EX R/W
88.0' RT
℄=740.5
elec
(aband)
5

MATCHLINE D-D

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
908	579	1782	1081
928	618	1700	1108
870	460	1665	998
·	·	5147	3187

CALCULATED ATR
CHECKED TMT

CROSS SECTIONS I.R. 70
STA. 201+50.00 TO STA. 202+50.00

FRA-70-14.05

213
855

D:\2015\2015370\FRA\960853\ROADWAY\SHEETS\960853XS001.DGN
10/31/2023
12:54:12 PM
ODOT v8i STD_USER

SEEDING END WIDTH	SEEDING SQ. YDS.
0	
97	
	439
	61
	378
	75
·	817

ITEM 202 - PAVEMENT REMOVED

ITEM 202 - PAVEMENT REMOVED, ASPHALT

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

PROJECT 4R (105523)
LIVINGSTON (PHASE B)

MATCHLINE H-H

760 / 750 / 740 — 120 — 140 — 160

760
elec.
740
730
720

SEE STRUCTURE FRA-23-1075

AH
BK
SUSPEND SEEDING STA. 204+00.00

96" rcp

729.77
3203+98.80
742.54

729.38

727.1

730.04

730.43
204+00.00
732.27

204+00.00
732.48

272:1

SEE STRUCTURE FRA-23-1075

MATCHLINE H-H

elec. (aband) 5

elec. (aband) 5

P-28

D-28
STA 203+50.00 (I-70 EB), 105.94' RT
CB-8 W/O APRON
GRATE ELEV 733.25
15" (E) 730.25

D-27
STA 3203+30.90 (I-70 WB), 37.34' RT
I-3-C1, APP
INLET ELEV LT 728.14
INLET ELEV RT 728.63
15" (W) 725.00
6" UD (E) 725.50

PROP RET. WALL NO. 4W17

D-27

96" rcp

726.1

729.38
3203+48.80
731.50

729.00

729.53

729.92
203+50.00
731.80

203+50.00
732.09

66.3' RT
48:1
2:1

PROP RET. WALL NO. 4W14

D-28

elec. (aband) 5

104.9' RT
℄=733.5

D-2
STA 3203+22.00 (I-70 WB), 46.42' LT
I-3-D, GRATE ELEV 727.97
15" (W) 723.84
6" (E) 724.34
6" UD (E) 724.99
6" UD (S) 724.34

PROP RET. WALL NO. 4W17

D-2

96" rcp

15" TYPE B

P-27

726.4

729.14
3202+98.80
729.82

728.76

729.16

729.55
203+00.00
731.55

203+00.00
731.49

D-7
STA 202+76.00 (I-70 EB), 46.42' RT
I-3-D, APP, GRATE ELEV 728.16
15" (W) 725.00
6" UD (N) 725.50
6" UD (E) 725.50

66.3' RT
48:1
2:1

PROP RET. WALL NO. 4W14

D-7

elec. (aband) 5

2:1
48:1

elec. (aband)
102.06' RT
℄=734.6

elec. (aband) 5

NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABEL	CWL	10-31-23

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		3083	0
1562	1438		
		2512	1910
1151	625		
		2007	1123
1017	588		
·	·	7602	3033

CALCULATED ATR
CHECKED TMT

CROSS SECTIONS I.R. 70
STA. 203+00.00 TO STA. 204+00.00

FRA-70-14.05

214
855

0:\2015\2015370\FRA\96853\ROADWAY\SHEETS\96853XS001.DGN
10/31/2023
12:54:32 PM
ODOTV8I5TD_USER

NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABEL	CWL	10-31-23

SEEDING END WIDTH	SEEDING SQ. YDS.
72	408
	453
91	
0	
·	861

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		1981	2019
1140	1091		
		2648	2234
1720	1322		
		3230	0
1768	0		
·	·	7859	4253

CALCULATED ATR
CHECKED TMT

CROSS SECTIONS I.R. 70
STA. 204+50.00 TO STA. 205+50.00

FRA-70-14.05

215
855

AB-9
205+50.16 (I-70 EB), 81.21' RT
CB ABANDONED, APP
EX CB, GRATE ELEV 730.50
EX 24" N 725.60 (TO BE REMOVED)
EX 15" NW 725.45 (TO BE FILLED & PLUGGED)
EX 12" E 726.00 (TO BE FILLED & PLUGGED)
15" (W) 727.00
15" (SE) 727.00
24" (N) 725.60

DJ-2
STA 3205+42.38 (I-70 WB), 1.89' LT
MH RECONSTRUCTED TO GRADE, APP "B"
SLAB ELEV 728.48
EX MH, RIM ELEV 738.71
EX 96" E 718.39
EX 96" W 718.39
EX 24" SE 725.56

SEE STRUCTURE FRA-23-1075

DJ-2

731.76
3205+48.80
734.85

731.37

728.1

205+50.00
733.90

732.17

732.55
ex. 24" rcp
205+50.00
733.51

MASONRY COLLAR PER DM-1.1

P-55
48'-24" TYPE B, 706.02
W/706.11 JOINTS @ 0.29%

96:1

AB-9 PIPE THRU

P-55A
28'-42" TYPE B, 748.06
(0.5" WALL THICKNESS)
(END SEALS PER ODOT SPEC. 638.11)

SEE STRUCTURE FRA-23-1075

RESUME SEEDING
STA. 205+00.00

AH
BK

96" rcp

730.96
3204+98.80
748.89

730.58

728.3

205+00.00
733.45

731.43

731.81
205+00.00
733.06

156:1

MATCHLINE 1-1

elec (aband)
P-28

EX LA

MATCHLINE 1-1

96" rcp

730.29
3204+48.80
751.67

729.91

727.6

204+50.00
733.10

730.69

731.07
204+50.00
732.67

SEE STRUCTURE FRA-23-1075

ITEM 202 - PAVEMENT REMOVED

ITEM 202 - PAVEMENT REMOVED, ASPHALT

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

PROJECT 4R (105523)

0:\2015\2015370\FRA\96853\ROADWAY\SHEETS\96853XS001.DGN
10/31/2023
12:54:51 PM
ODOTV81STD_USER

NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABEL	CWL	10-31-23

SEEDING END WIDTH	SEEDING SQ. YDS.
73	417
73	406
73	411
75	
·	1234

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		463	1925
274	1034		
		562	1892
		333	1009
		1234	1944
1000	1090		
·	·	2259	5761

CALCULATED ATR
CHECKED TMT

DR-14
STA. 206+75.33 (I-70 EB), 68.31' RT
EX INLET, GRATE ELEV 734.40
EX 12" W 729.00 (TO BE FILLED & PLUGGED)

RET. WALL NO. 7W5 (103487)
PROP RET. WALL NO. 4W15
96:1
EX LA
P-24
15" TYPE C
DR-14
elec (aband)
5
96" rcp
734.20
3206+98.80
737.10
734.36
207+00.00
735.42
734.75
207+00.00
734.90

D-23
STA 206+29.03 (I-70 EB), 115.00' RT
MH-3 W/ DROP PIPE
RIM ELEV 754.45
15" (NW) 729.58
15" (E) 743.85
12" (S) 746.71
MASONRY COLLAR PER DM-1.1 P-23A
5'-12" TYPE C @ 49.96%

HR-1
STA. 206+30.34 (I-70 EB), 81.34 RT
EX HW, ELEV 732.80
EX 12" CMP S 732.80 (TO BE FILLED & PLUGGED)

RET. WALL NO. 7W5 (103487)
PROP RET. WALL NO. 4W15
96:1
D-23
HR-1
ex. 12" cmp (TO BE FILLED & PLUGGED)
elec (aband)
5
P-23
86'-15" TYPE C, APP @ 3.01%
730.7
96" rcp
733.39
3206+48.80
736.04
733.00
206+50.00
734.98
733.65
734.03
206+50.00
734.38

AB-7
STA. 3205+76.51 (I-70 WB), 8.43' RT
CB ABANDONED, APP
EX CB, GRATE ELEV 731.96
EX 15" RCP E 727.73 (TBR)
EX 24" RCP S 725.15
EX 24" RCP W 725.15

PROP RET. WALL NO. 4W18
PROP RET. WALL NO. 4W15
96:1
AB-7
PIPE THRU
729.9
ex. 15" rcp (TO REMAIN)
ex. 24" rcp stm. (TO REMAIN)
elec (aband)
P-23
15" TYPE B
732.19
732.91
96" rcp
732.57
3205+98.80
734.67
206+00.00
734.46
733.29
206+00.00
733.97

ITEM 202 - PAVEMENT REMOVED
ITEM 202 - PAVEMENT REMOVED, ASPHALT
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP
PROJECT 4R (105523)
PROJECT 2G (103487)

120 100 80 60 40 20 0 20 40 60 80 100 120

CROSS SECTIONS I.R. 70
STA. 206+00.00 TO STA. 207+00.00

FRA-70-14.05

216
855

D:\2015\2015370\FRA\96853\ROADWAY\SHEETS\96853XS001.DGN
10/31/2023
12:55:10 PM
ODOT\V81STD_USER

NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABEL	CWL	10-31-23

SEEDING END WIDTH	SEEDING SQ. YDS.
77	414
77	428
77	428
·	1270

D-11
STA 3208+50.95 (I-70 WB), 40.00' LT
MH-3, APP "A"
RIM ELEV 732.23
15" (W) 729.49
15" (S) 729.49
6" UD (S) 731.73

DR-1
STA 3208+50.37 (I-70 WB), 7.66' LT
EX CB, GRATE ELEV 732.39
EX 15" S 729.07

DJ-3
STA 3208+50.85 (I-70 WB), 4.51' RT
MH RECONSTRUCTED TO GRADE, APP "A"
RIM ELEV 732.91
15" (S) 728.89
15" (N) 729.00
EX MH, RIM 734.36
EX 96" W 720.70
EX 96" E 720.70
EX 24" SE 729.37
EX. 15" N 729.00 (TBR)

D-13
STA 3208+50.95 (I-70 WB), 29.00' RT
MH-3, APP "A"
RIM ELEV 732.43
15" (N) 729.39
15" (S) 729.39
6" UD (N) 731.93

D-12
STA 208+51.26 (I-70 EB), 37.34' LT
I-3-C1
INLET ELEV RT 735.24
INLET ELEV LT 735.53
15" (N) 729.64
6" UD (S) 731.26
6" UD (E) 732.26

RET. WALL NO. 7W5 (103487)
PROP RET. WALL NO. 4W15
36:1
D-11
DR-1
DJ-3
D-13
D-12
P-11 47'-15" TYPE B @ 1.05%
ex. 15" stm (TBR)
P-13 22'-15" TYPE B @ 2.22%
P-12 15'-15" TYPE B @ 1.67%
736.65
3208+49.69
741.79
735.98
208+50.00
736.96
736.36
208+50.00
736.50
elec (aband)
EX LA

RET. WALL NO. 7W5 (103487)
PROP RET. WALL NO. 4W15
35:1
HR-2
STA. 207+68.76 (I-70 EB), 83.94 RT
EX HW, ELEV 734.09
EX 12" CMP S 734.09 (TO BE FILLED & PLUGGED)
ex. 12" cmp (TO BE FILLED & PLUGGED)
P-10 15" TYPE B
96" rcp
735.85
3207+99.36
740.04
735.53
208+00.00
736.50
735.91
208+00.00
736.02
elec (aband)
EX LA

D-24
STA 207+67.52 (I-70 EB), 115.00' RT
MH-3, RIM ELEV 754.25
15" (W) 746.61
12" (S) 746.86

D-10
STA 3207+50.00 (I-70 WB), 46.42' LT
I-3-D, APP, GRATE ELEV 733.79
15" (E) 730.00
6" UD (S) 730.50
6" UD (E) 730.50

RET. WALL NO. 7W5 (103487)
PROP RET. WALL NO. 4W15
MASONRY COLLAR PER DM-1.1
D-24
49:1
D-10
P-24A 5'-12" TYPE C @ 49.98%
96" rcp
735.02
3207+49.03
738.38
734.99
207+50.00
735.97
735.37
207+50.00
735.52
elec (aband)
EX LA

ITEM 202 - PAVEMENT REMOVED
ITEM 202 - PAVEMENT REMOVED, ASPHALT
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP
PROJECT 4R (105523)
PROJECT 2G (103487)

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		244	2064
104	1178		
		250	2092
166	1081		
		363	1969
226	1045		
·	·	857	6125

CALCULATED ATR
CHECKED TMT

CROSS SECTIONS I.R. 70
STA. 207+50.00 TO STA. 208+50.00

FRA-70-14.05

217
855

D:\2015\20153709\FRA\960853\ROADWAY\SHEETS\960853XS001.DGN
10/31/2023
12:55:26 PM
DOTV81STD_USER

NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABEL	CWL	10-31-23

SEEDING END WIDTH	SEEDING SQ. YDS.
0	
52	165
60	353
67	386
72	904

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		364	327
191	348		
		344	1181
181	928		
		316	1832
160	1051		
·	·	1024	3340

CALCULATED ATR
CHECKED TMT

CROSS SECTIONS I.R. 70
STA. 209+00.00 TO STA. 210+00.00

FRA-70-14.05

218
855

AH
END SEEDING
STA. 210+26.50
BK

RET. WALL
NO. 7W5 (103487)

D-16
STA 209+90.00 (I-70 EB), 54.42' RT
I-3-D, APP, GRATE ELEV 736.21
15" (E) 732.54
15" (SE) 732.54
15" (W) 732.54
6" UD (N) 733.04
6" UD (E) 733.23

PROP RET. WALL
NO. 4W15

29:1

D-16

60.5' RT
℄=736.6

elec
(aband)

738.62
3210+00.67
742.72

96" rcp

737.25

737.63
210+00.00
738.04

210+00.00
738.47

AB-6
STA. 209+61.67 (I-70 EB), 6.42 LT
INLET ABANDONED, APP
EX INLET, GRATE ELEV 736.19
EX 21" W 730.83
EX 21" E 730.83

D-18
STA 209+70.36 (I-70 EB), 52.00' RT
MH-3, APP "B"
SLAB ELEV 734.36
15" (E) 732.24
21" (N) 731.74
12" (S) 731.74

AB-8
STA. 209+68.30 (I-70 EB), 75.51 RT
INLET ABANDONED
EX CB, GRATE ELEV 737.69
EX 21" RCP N 731.86 (TBR)
EX 12" RCP S 731.86
12" (N) 731.86

AB-6 PIPE THRU
AB-8 PIPE THRU

ø 21" stm.
(TO REMAIN)

21" stm.
(TO REMAIN)

ex. 12" rcp
(TO REMAIN)

ex. cb
(TO REMAI

MASONRY COLLAR
PER DM-1.1

P-18
5'-21" TYPE B @ 0.4%

P-18A
24'-12" TYPE B, 748.02, @ 0.51%

P-18B
12'-18" TYPE B, 748.06
(0.375" WALL THICKNESS)
(END SEALS PER ODOT SPEC. 638.11)

738.03
3209+50.34
743.09

736.83

737.21
209+50.00
737.56

209+50.00
737.96

736.40

736.79
209+00.00
737.16

209+00.00
737.44

737.37
3209+00.01
742.61

ITEM 202 - PAVEMENT REMOVED

ITEM 202 - PAVEMENT REMOVED, ASPHALT

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

PROJECT 2E (105322)
PROJECT 2G (103487)

120 100 80 60 40 20 0 20 40 60 80 100 120

D:\2015\2015370\FRA\96853\ROADWAY\SHEETS\96853XS001.DGN
10/31/2023
12:55:43 PM
ODOTV81STD_USER

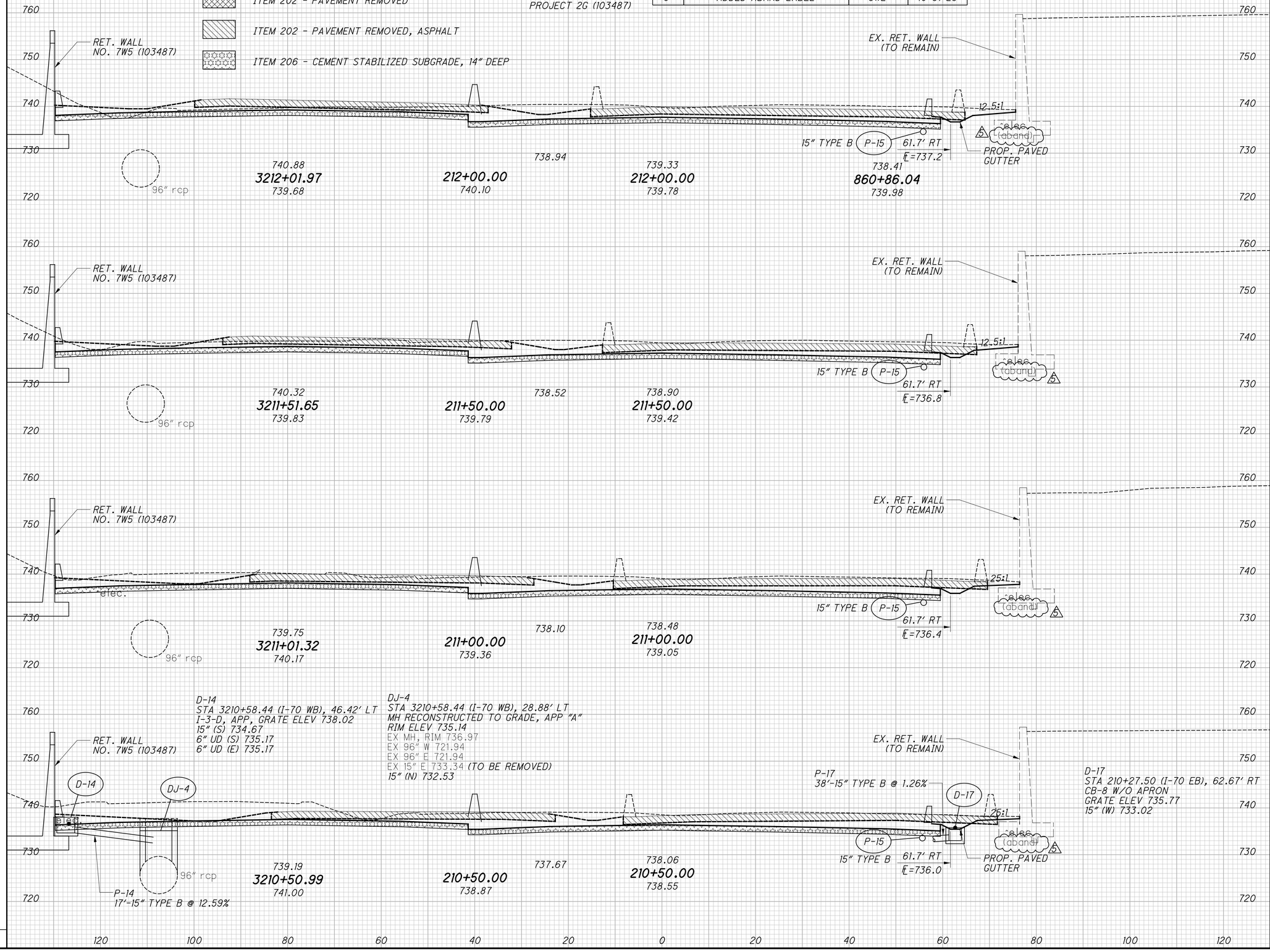
NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABEL	CWL	10-31-23

ITEM 202 - PAVEMENT REMOVED

ITEM 202 - PAVEMENT REMOVED, ASPHALT

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

PROJECT 2E (105322)
PROJECT 2G (103487)



SEEDING	
END WIDTH	SQ. YDS.
.	.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		331	4
188	2		
		356	4
197	2		
		370	5
203	3		
		375	7
202	5		
.	.	1432	20

CALCULATED ATR
CHECKED TMT

CROSS SECTIONS I.R. 70
STA. 210+50.00 TO STA. 212+00.00

FRA-70-14.05

219
855

D:\2015\2015370\FRA\96853\ROADWAY\SHEETS\96853XS001.DGN
10/31/2023
12:55:59 PM
ODOTV8I5TD_USER

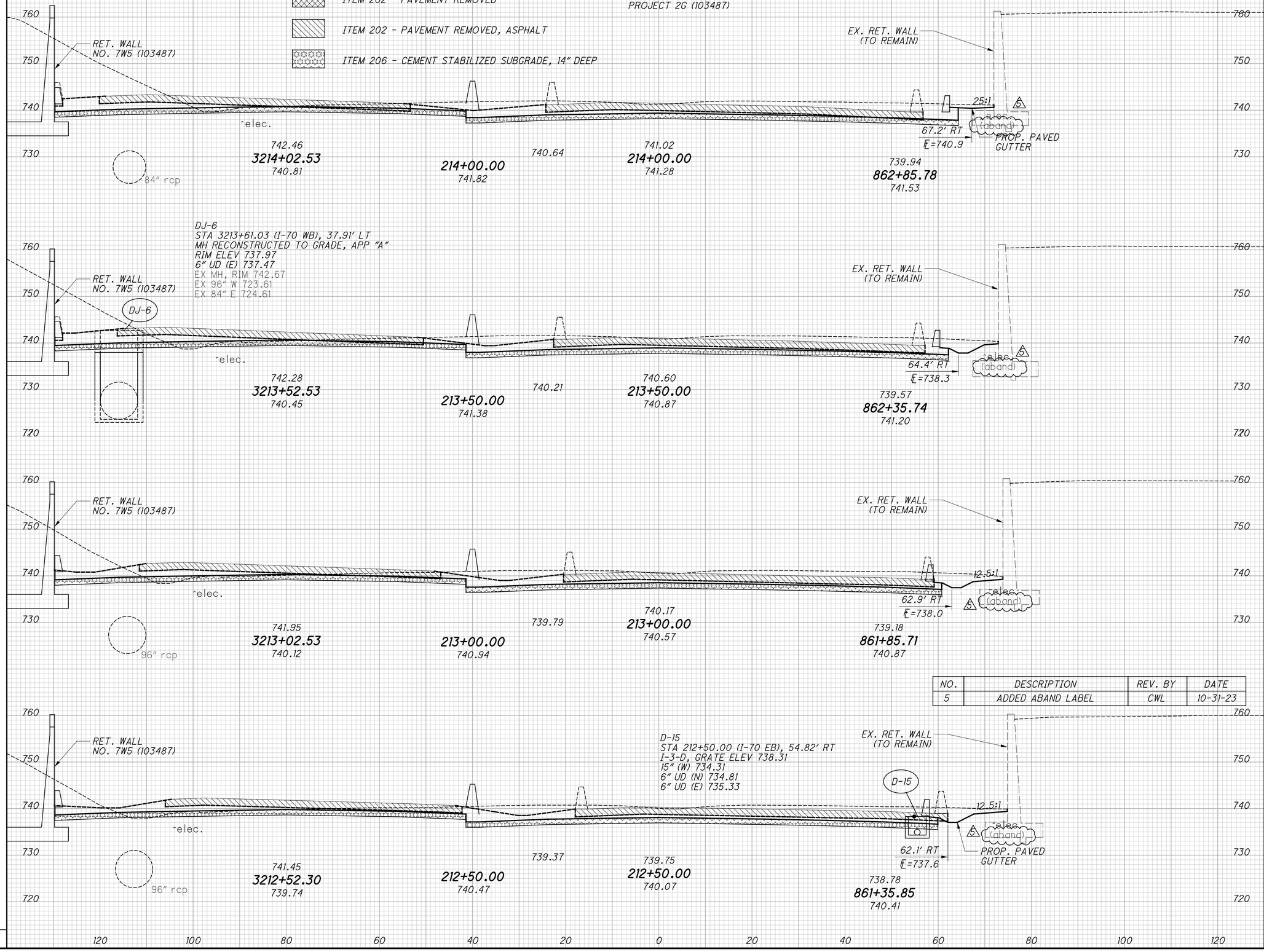
SEEDING	
END WIDTH	SQ. YDS.
.	.

ITEM 202 - PAVEMENT REMOVED

ITEM 202 - PAVEMENT REMOVED, ASPHALT

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP

PROJECT 2E (105322)
PROJECT 2G (103487)



NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABEL	CWL	10-31-23

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		246	21
141	12		
		286	17
168	6		
		306	8
162	3		
		307	5
170	2		
.	.	1145	51

CALCULATED ATR
CHECKED TMT

CROSS SECTIONS I.R. 70
STA. 212+50.00 TO STA. 214+00.00

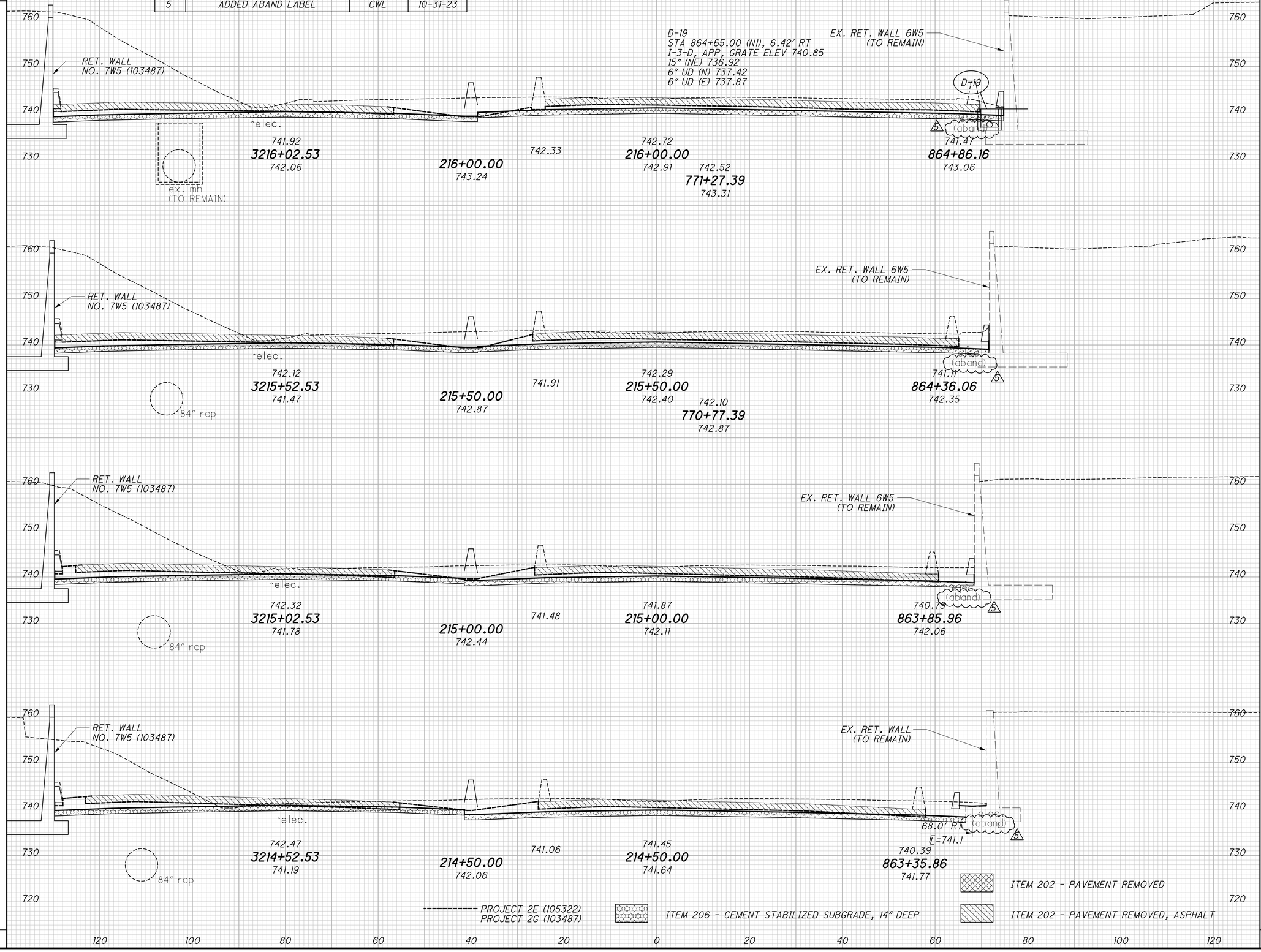
FRA-70-14.05

220
855

01\2015\20153701\FRA\96853\ROADWAY\SHEETS\96853XS001.DGN
10/31/2023
12:56:17 PM
ODOTV81STD_USER

NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABEL	CWL	10-31-23

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		207	12
119	5		
		228	7
127	3		
		228	7
119	5		
		226	15
125	11		
.	.	889	41

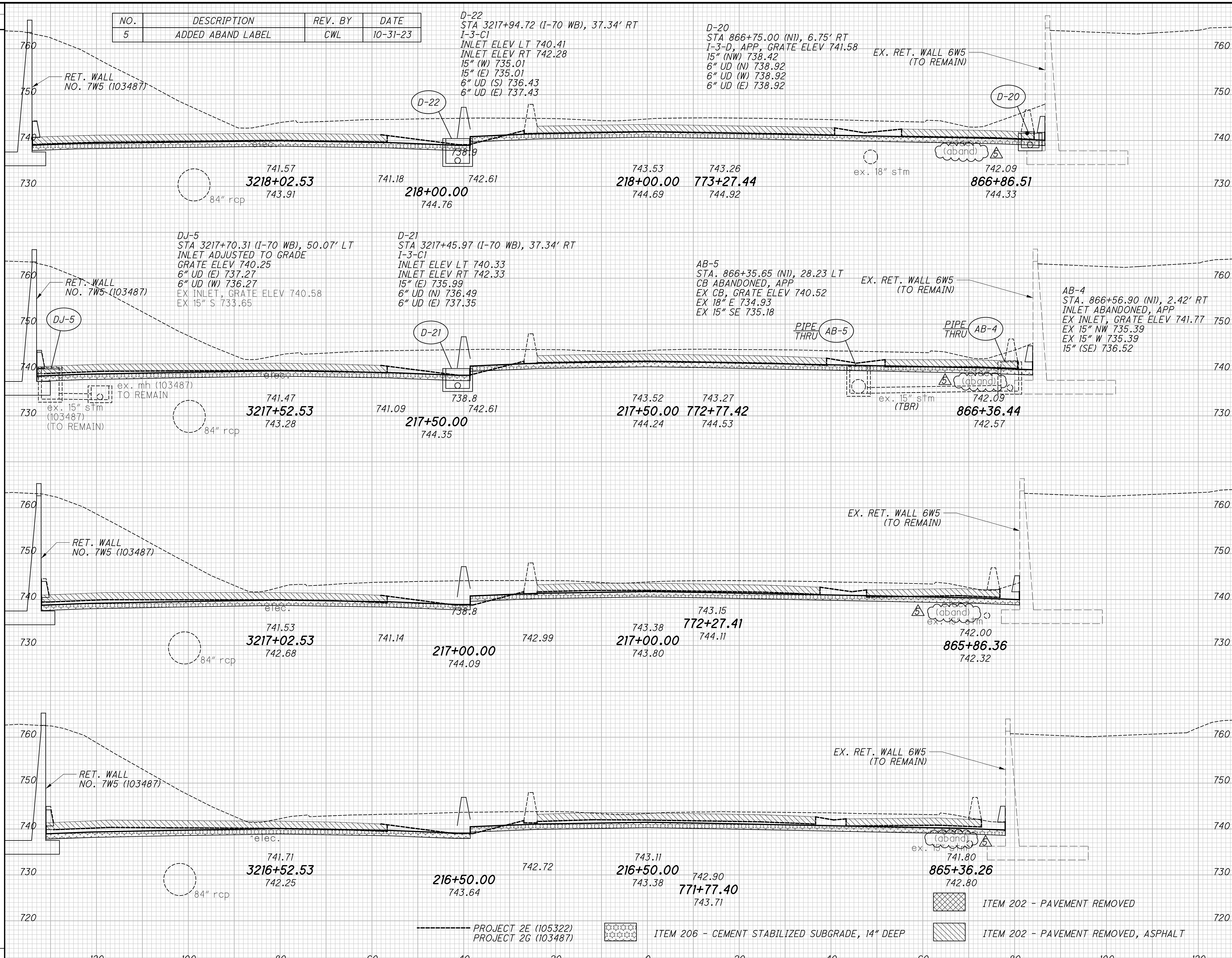
CALCULATED ATR
CHECKED TMT

CROSS SECTIONS I.R. 70
STA. 214+50.00 TO STA. 216+00.00

FRA-70-14.05

221
855

NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABEL	CWL	10-31-23



D-22
STA 3217+94.72 (I-70 WB), 37.34' RT
I-3-C1
INLET ELEV LT 740.41
INLET ELEV RT 742.28
15" (W) 735.01
15" (E) 735.01
6" UD (S) 736.43
6" UD (E) 737.43
D-20
STA 866+75.00 (NI), 6.75' RT
I-3-D, APP, GRATE ELEV 741.58
15" (NW) 738.42
6" UD (N) 738.92
6" UD (W) 738.92
6" UD (E) 738.92
EX. RET. WALL 6W5
(TO REMAIN)
RET. WALL
NO. 7W5 (103487)
84" rcp
ex. 18" stm
(aband)
741.57
3218+02.53
743.91
741.18
218+00.00
744.76
742.61
743.53
218+00.00
744.69
743.26
773+27.44
744.92
742.09
866+86.51
744.33
DJ-5
STA 3217+70.31 (I-70 WB), 50.07' LT
INLET ADJUSTED TO GRADE
GRATE ELEV 740.25
6" UD (E) 737.27
6" UD (W) 736.27
EX INLET, GRATE ELEV 740.58
EX 15" S 733.65
D-21
STA 3217+45.97 (I-70 WB), 37.34' RT
I-3-C1
INLET ELEV LT 740.33
INLET ELEV RT 742.33
15" (E) 735.99
6" UD (N) 736.49
6" UD (E) 737.35
AB-5
STA. 866+35.65 (NI), 28.23 LT
CB ABANDONED, APP
EX CB, GRATE ELEV 740.52
EX 18" E 734.93
EX 15" SE 735.18
AB-4
STA. 866+56.90 (NI), 2.42' RT
INLET ABANDONED, APP
EX INLET, GRATE ELEV 741.77
EX 15" NW 735.39
EX 15" W 735.39
15" (SE) 736.52
PIPE THRU
ex. mh (103487)
TO REMAIN
ex. 15" stm
(103487)
(TO REMAIN)
ex. 15" stm
(TBR)
741.47
3217+52.53
743.28
741.09
217+50.00
744.35
738.8
742.61
743.52
217+50.00
744.24
743.27
772+77.42
744.53
742.09
866+36.44
742.57
741.53
3217+02.53
742.68
741.14
217+00.00
744.09
742.99
743.38
217+00.00
743.80
743.15
772+27.41
744.11
742.00
865+86.36
742.32
741.71
3216+52.53
742.25
216+50.00
743.64
742.72
743.11
216+50.00
743.38
742.90
771+77.40
743.71
741.80
865+36.26
742.80
elec.
PROJECT 2E (105322)
PROJECT 2G (103487)
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEEP
ITEM 202 - PAVEMENT REMOVED
ITEM 202 - PAVEMENT REMOVED, ASPHALT

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
				26	2
		55	7		
				104	17
		57	11		
				123	23
		76	14		
				168	20
		105	8		
.	.	.	.	421	62

CALCULATED ATR
CHECKED TMT

CROSS SECTIONS I.R. 70
STA. 216+50.00 TO STA. 218+00.00

FRA-70-14.05

222
855

D:\2015\2015370\FRA\96053\ROADWAY\SHEETS\96053XS001.DGN
10/31/2023
12:56:50 PM
ODOTV8ISTD_USER

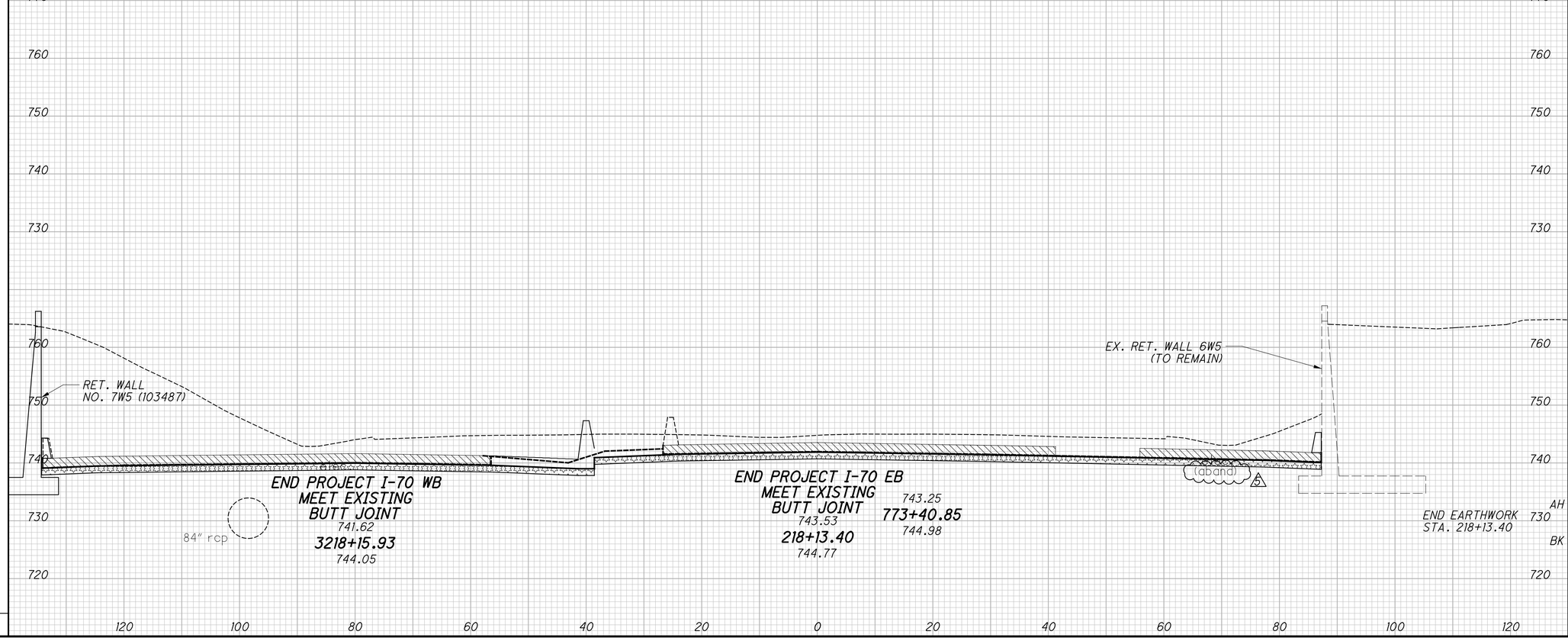
SEEDING	
END WIDTH	SQ. YDS.
.	.

ITEM 202 - PAVEMENT REMOVED

ITEM 202 - PAVEMENT REMOVED, ASPHALT

PROJECT 2E (105322)
PROJECT 2G (103487)

NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABEL	CWL	10-31-23



END AREA		VOLUME	
CUT	FILL	CUT	FILL
AH	0	0	
BK	51	0	
.	.	0	0

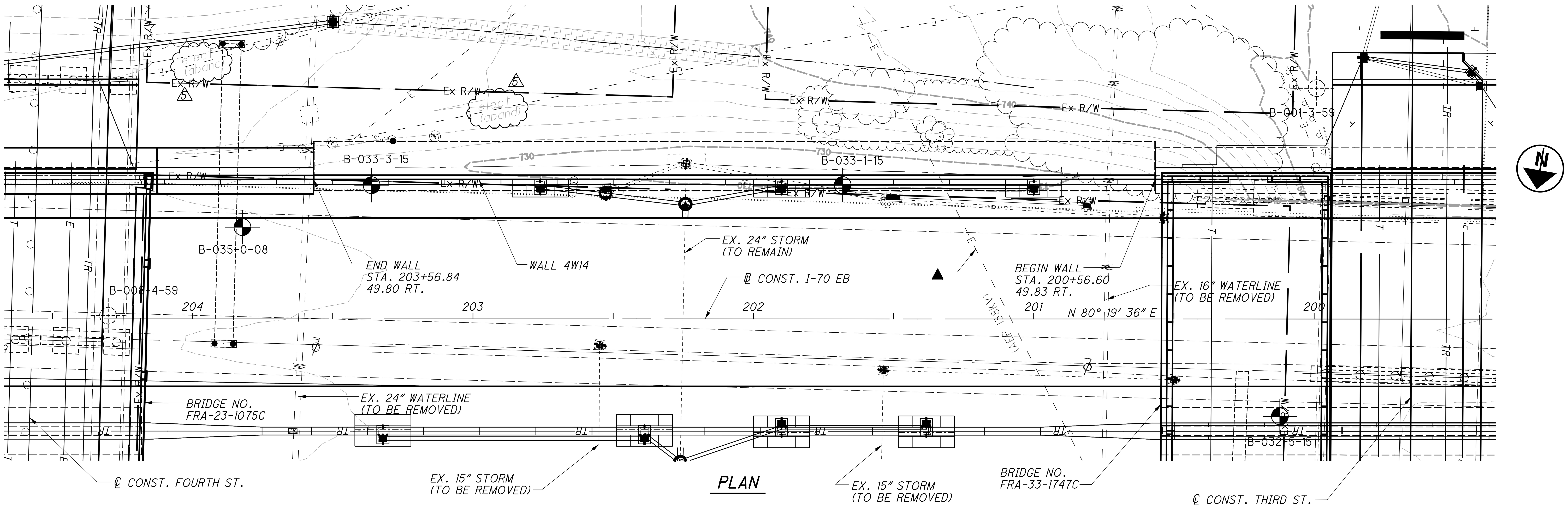
CALCULATED ATR
CHECKED TMT

CROSS SECTIONS I.R. 70
STA. 218+13.40

FRA-70-14.05

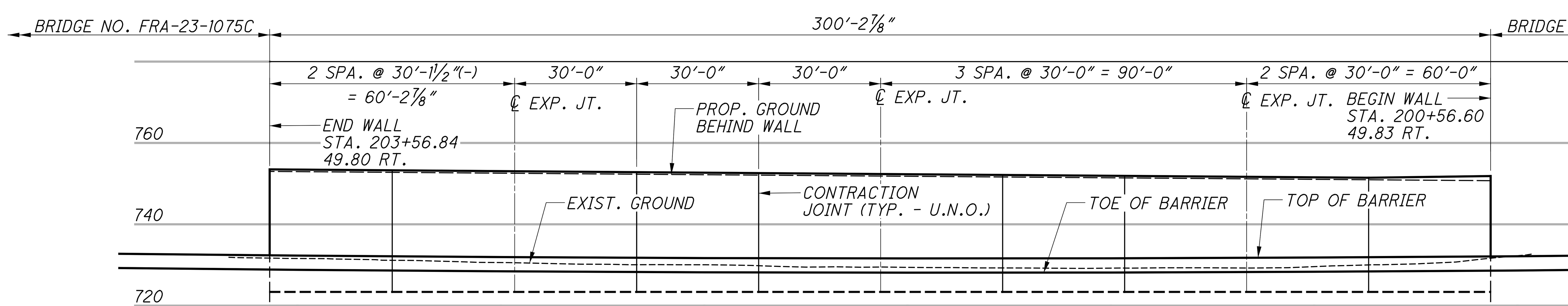
223
855

D:\2015\2015370\FRA\96853\ROADWAY\SHEETS\96853XS001.DGN
10/31/2023
12:57:07 PM
ODOTV81STD_USER



PLAN

TOP OF WALL ELEVATION	753.50	753.27	753.04	752.82	752.59	752.36	752.13	751.91	751.68	751.45	751.86



TOE OF BARRIER ELEVATION	728.81	728.44	728.21	728.11	728.15	728.33	728.65

700

EXIST. GROUND ELEVATION	731.71	731.32	730.70	730.23	730.07	729.65	729.50	729.30	729.18	729.32	729.35	730.10	731.65

203 202 201

ELEVATION

LEGEND:

- ▲ INDICATES TO BE ABAND/REMOVED BY AEP
- PROJECT BORING LOCATION
- HISTORIC BORING LOCATION

NOTES:

1. NO VALUE ENGINEERING CHANGE PROPOSAL (VECP) SHALL BE CONSIDERED FOR THIS WALL TYPE.
2. STATIONS AND OFFSETS GIVEN TO ℄ OF CONST. I-70 EB.
3. TOP OF WALL ELEVATIONS GIVEN TO THE BOTTOM OF THE KNEEWALL AT CONTRACTION AND EXPANSION JOINT LOCATIONS.
4. FOR FENCE DETAILS ON TOP OF THE KNEE WALL, SEE THE AESTHETIC ENHANCEMENT PLANS.
5. WALL LIMITS INCLUDE 1" P.E.J.F. AT EACH END OF THE WALL.
6. SEE GENERAL RETAINING WALL DETAILS AND NOTES, STARTING ON SHEET. 300/855

NO.	DESCRIPTION	REV. BY	DATE
5	ADDED ABAND LABELS	CWL	10-31-23

D:\2015\2015370\FRA\96053\STRUCTURES\WALL_4W14\SHEETS\96053_4W14WP001.DGN
10/31/2023
1:09:20 PM
ODOTV8ISTD_USER

DESIGN AGENCY
GPD GROUP®
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.
1801 Watermark Drive, Suite 210, Columbus, OH 43215 614.210.0751

DESIGNED	DRAWN	REVIEWED	DATE
DGN	RPR	TJW	4-21-23
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DJC			

SITE PLAN

CAST-IN-PLACE WALL 4W14
SOUTHSIDE OF I-70 EB FROM FRA-33-1747C TO FRA-23-1075C

FRA-70-14.05
PID No. 96053

TRAFFIC CONTROL LEGEND

→	TRAFFIC FLOW
◇	PROPOSED SIGN
◇	EXISTING SIGN TO REMAIN
◇	EXISTING SIGN TO BE REERECTED
⊤	SIGN SUPPORT
▬	PROPOSED TRUSS SIGN SUPPORT
▬	PROPOSED CANTILEVER SIGN SUPPORT
▬	EXISTING TRUSS SIGN SUPPORT TO REMAIN
▬	EXISTING CANTILEVER SIGN SUPPORT TO REMAIN
■	RPM (RAISED PAVEMENT MARKER)
S-#	PROPOSED SIGN
R-#	EXISTING SIGN TO BE REMOVED
OSS-#	OVERHEAD SIGN SUPPORT
BI	BICYCLE LANE SYMBOL MARKING
CH	CHANNELIZING LINE
CM	CHEVRON MARKING
CW	CROSSWALK LINE
DW	DOTTED LINE, WHITE
EW	EDGE LINE, WHITE
EY	EDGE LINE, YELLOW
LA	LANE ARROW
LL	LANE LINE
SL	STOP LINE
TW	TRANSVERSE/DIAGONAL LINE, WHITE
QB	TURN QUEUE BOX
GP	GREEN COLORED PAVEMENT FOR BIKE LANES
BD	BICYCLE DETECTOR MARKING
LR	LANE REDUCTION ARROW

ITEM 644 - PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6"
ITEM 647 - PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6", TYPE B90

THIS ITEM SHALL BE 6" WIDE AND SHALL HAVE A 2' SEGMENT WITH A 6' GAP BETWEEN SEGMENTS.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT PRICE BID PER FEET.

ITEM 644 - PAVEMENT MARKING, MISC.: EDGE LINE, 6"
ITEM 644 - PAVEMENT MARKING, MISC.: LANE LINE, 6"
ITEM 645 - PAVEMENT MARKING, MISC.: EDGE LINE, 6", TYPE A1, WITH CONTRAST
ITEM 645 - PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A1, WITH CONTRAST

THIS ITEM SHALL BE 6" WIDE.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT PRICE BID PER MILE.

ITEM 630 - STREET NAME SIGN SUPPORT, AS PER PLAN

PAYMENT FOR THIS ITEM SHALL BE EACH AT THE CONTRACT UNIT PRICE FOR ITEM 630 - STREET NAME SIGN SUPPORT, AS PER PLAN AND SHALL INCLUDE FURNISHING AND INSTALLING THE SIGN SUPPORTS, FOUNDATIONS, AND ALL MISCELLANEOUS HARDWARE NEEDED TO COMPLETELY INSTALL THE ASSEMBLY.

THE DETAILS SHOWN ON SHEET 405 SHALL BE UTILIZED FOR THE STREET NAME SIGN SUPPORT.

ITEM 630 - SIGN SUPPORT ASSEMBLY, POLE MOUNTED, AS PER PLAN

FLAT SHEET SIGNS SHALL BE ATTACHED TO THE POLE USING CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWING 4253.

PAYMENT FOR "ITEM 630 - SIGN SUPPORT ASSEMBLY, POLE MOUNTED, AS PER PLAN" SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH. PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND ALL PARTS NECESSARY TO ATTACH ONE SIGN.

REFERENCE LOCATION SIGNS

THE LOCATION OF REFERENCE LOCATION SIGNS ON THE PLANS ARE APPROXIMATE AND A MORE PRECISE LOCATION WILL BE PROVIDED BY THE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 30 DAYS IN ADVANCE OF THE PLANNED DATE OF REFERENCE LOCATION SIGN INSTALLATION. THE ENGINEER WILL CONTACT THE OFFICE OF TECHNICAL SERVICES WHICH WILL LOCATE THE LONGITUDINAL POSITION OF REFERENCE LOCATION SIGNS BY MEANS OF A PAINT MARK ON THE PAVEMENT EDGE. ALTERNATE MARKS WILL NOT BE PROVIDED ON DIVIDED HIGHWAYS AND THE CONTRACTOR SHALL SET REFERENCE LOCATION SIGNS FOR THE OPPOSITE ROADWAY ACROSS FROM THE PROVIDED MARK. DELINEATORS WHOSE NORMAL POSITION FALLS WITHIN 50 FEET OF A REFERENCE LOCATION SIGN SHALL BE OMITTED.

5

ITEM 647 - PAVEMENT MARKING, MISC.: DOTTED LINE, 6", TYPE B90

THIS ITEM SHALL BE 6" WIDE AND SHALL HAVE A 3' SEGMENT WITH A 9' GAP BETWEEN SEGMENTS.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT PRICE BID PER FEET.

ITEM 644 - PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12"
ITEM 645 - PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12", TYPE A1, WITH CONTRAST
ITEM 647 - PAVEMENT MARKING, MISC.: CROSSWALK LINE, 12", TYPE B90

THIS ITEM SHALL BE 12" WIDE.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT PRICE BID PER FEET.

ITEM 644 - PAVEMENT MARKING, MISC.: STOP LINE, 24"
ITEM 644 - PAVEMENT MARKING, MISC.: TRANSVERSE/DIAGONAL LINE, 24"
ITEM 647 - PAVEMENT MARKING, MISC.: STOP LINE, 24", TYPE B90

THIS ITEM SHALL BE 24" WIDE.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT PRICE BID PER FEET.

ITEM 644 - PAVEMENT MARKING, MISC.: BIKE DETECTOR MARKING

THE BIKE DETECTOR MARKING SHALL BE PLACED IN THE DETECTED BIKE LANE PER CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWING 4305.

5

PAID PARKING OUT OF SERVICE FEES

AS INDICATED IN THE MAINTENANCE OF TRAFFIC PLAN NOTES AND PER COLUMBUS CITY CODE CHAPTER 2155.055 FEES FOR PARKING METERS OUT OF SERVICE, FOR ALL PAID PARKING (WHICH MAY INCLUDE PARKING METERS, KIOSKS, AND MOBILE PAYMENT ONLY ZONES) THAT ARE TAKEN OUT OF SERVICE (BAGGED OR REMOVED) DUE TO THE CONSTRUCTION OF THIS PROJECT, THE COST IS THE RESPONSIBILITY OF THE CONTRACTOR AS A PART OF THIS CONTRACT. WHILE THE ACTUAL PAID PARKING TO BE TAKEN OUT OF SERVICE IS NOT LISTED OR INCLUDED IN THESE PLANS, THE CONTRACTOR IS TO IDENTIFY THE PAID PARKING TO BE REMOVED FROM SERVICE, AND DETERMINE THE COST.

THE CONTRACTOR IS RESPONSIBLE FOR PAYING THE DAILY LOST PAID PARKING REVENUE FOR EACH PAID PARKING SPACE TAKEN OUT OF SERVICE.

TO CALCULATE AN ESTIMATE FOR THE LOST REVENUE, VISIT THE PARKING CALCULATOR AT_ HTTPS://GIS.COLUMBUS.GOV/PARKINGCALCULATOR. THE PARKING CALCULATOR IS A HELPFUL TOOL TO ASSIST IN PAID PARKING AREAS, ESPECIALLY IN AREAS WHERE THE PARKING SPACES ARE NOT DELINEATED WITH PAVEMENT MARKINGS. BELOW ARE INSTRUCTIONS FOR USING THE PARKING CALCULATOR:

1. SET VARIABLES FOR THE PARKING CALCULATOR:
   - FIND THE PROJECT LOCATION ON THE WEB MAP BY SEARCHING IN THE ADDRESS SEARCH BAR OR ZOOMING TO THE LOCATION.
   - DETERMINE IF THERE IS A MOBILE PAY ONLY ZONE, PARKING METERS ONLY OR BOTH IN THE PROJECT BOUNDARIES, THEN SELECT THE APPLICABLE BUTTON ON THE "PARKING COST REPORT".
   - USE THE DATE RANGE SELECTION TO SPECIFY WHEN METERS WILL BE OUT OF SERVICE. THE APPLICATION WILL AUTO-CALCULATE TO EXCLUDE SUNDAYS/HOLIDAYS WHEN METERS ARE OUT OF SERVICE.
2. SELECT THE AREA IMPACTED BY THE PROJECT:
   - SELECT THE POLYGON BUTTON AND DRAW OR OUTLINE THE AREA OF THE PAID PARKING THAT WILL BE OUT OF SERVICE. THE ERASER BUTTON (JUST BELOW THE POLYGON BUTTON) CAN BE USED TO CLEAR THE CURRENT DRAWING.
   - ONCE AN AREA IS SELECTED, THE CALCULATOR WILL OUTPUT THE TOTAL COST FOR THE DATE RANGE AND AREA SPECIFIED.
3. INTERPRET RESULTS:
   - ONCE YOU HAVE SELECTED YOUR AREA, VIEW THE PARKING COST REPORT, WHICH WILL PROVIDE THE AMOUNT OF PAID PARKING FEES DUE FOR THE LOCATION AND DURATION SELECTED.
   - THIS RATE ONLY INCLUDES THE LOST PAID PARKING REVENUE FEE AND DOES NOT INCLUDE ANY PERMIT FEES ASSESSED BY THE PERMIT OFFICE.

FOR QUESTIONS RELATED TO CALCULATING FEES, CONTACT THE CITY OF COLUMBUS, DIVISION OF PARKING SERVICES AT PARKINGSERVICES@COLUMBUS.GOV FOR ASSISTANCE WITH ESTIMATING THE DAILY PAID PARKING REVENUE RATE. PROVIDE THE PROJECT ODOT PID AND CITY OF COLUMBUS E-PLAN IN THE SUBJECT LINE OF THE EMAIL.

ALL PAID PARKING SPACES ARE FREE ON SUNDAY AND CITY RECOGNIZED HOLIDAYS. THE FOLLOWING ARE CITY RECOGNIZED HOLIDAYS: NEW YEAR'S DAY, MARTIN LUTHER KING DAY, PRESIDENTS' DAY, MEMORIAL DAY, JUNETEENTH, INDEPENDENCE DAY, LABOR DAY, VETERANS DAY, THANKSGIVING DAY, AND CHRISTMAS DAY. ALL RATES ARE SUBJECT TO CHANGE BY THE CITY OF COLUMBUS. PLEASE NOTE, IF A HOLIDAY FALLS ON A SUNDAY BUT THE CITY RECOGNIZES THE HOLIDAY ON A MONDAY, THE PARKING IS FREE ON THE ACTUAL HOLIDAY, NOT THE DAY THE CITY RECOGNIZES THE HOLIDAY.

THIS COST IS TO BE INCLUDED IN THE BID FOR THIS PROJECT AS A PART OF ITEM 614 MAINTENANCE OF TRAFFIC, LUMP SUM.

AT THE TIME THE CONTRACTOR SUBMITS FOR THE STREET OCCUPANCY/EXCAVATION PERMIT, ALONG WITH THE PAID PARKING IDENTIFICATION NUMBERS TO BE INCLUDED ON THE PERMIT REQUEST FORM, THE CONTRACTOR IS TO PROVIDE A LISTING OF THE METER IDENTIFICATION NUMBERS AND MOBILE PAYMENT ZONE NUMBERS AND THE NUMBER OF DAYS THAT EACH PAID PARKING SPACE IS TO BE OUT OF SERVICE, TO THE DEPARTMENT OF PUBLIC SERVICE PERMIT OFFICE. THE PERMIT OFFICE WILL VERIFY THAT THE HOURLY RATES ARE CORRECT AND CALCULATE THE COST OF THE PERMIT.

ANY QUESTIONS ABOUT THIS SPECIAL PROVISION ARE TO BE SUBMITTED THROUGH THE OWNER AGENCY OFFERING THE SOLICITATION OF THIS BID AS A PRE-BID QUESTION.

EXISTING PARKING KIOSKS

THE EXISTING PARKING KIOSKS SHALL REMAIN IN PLAN WHILE ON-STREET PARKING IS PERMITTED. WHEN THE CONTRACTOR IS PLANNING TO RESTRICT ON-STREET PARKING FOR THE DURATION OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY OF COLUMBUS (614-645-3111) 2 WEEKS PRIOR TO THE RESTRICTION. THE CITY OF COLUMBUS WILL BE RESPONSIBLE TO REMOVING THE EXISITNG PARKING KIOSKS.

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH	AKF	11-1-23

CALCULATED SLB
CHECKED AKF

TRAFFIC CONTROL NOTES / LEGEND

FRA-70-14.05

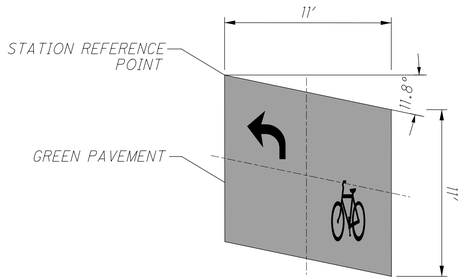
ITEM 647 - PAVEMENT MARKING, MISC.: TURN QUEUE BOX, TYPE B90

THIS ITEM SHALL MEET THE REQUIRMENTS OF ITEM 647, TYPE B90.

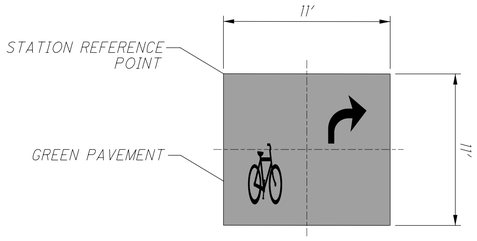
PAYMENT FOR THIS ITEM SHALL BE EACH AT THE CONTRACT UNIT PRICE FOR ITEM 647 - PAVEMENT MARKING, MISC.: TURN QUEUE BOX, TYPE B90.

INCLUDED IN THE PAY ITEM SHALL BE THE ITEM 644 - 4" WHITE BORDER FOR ALL SIDES OF THE QUEUE BOX.

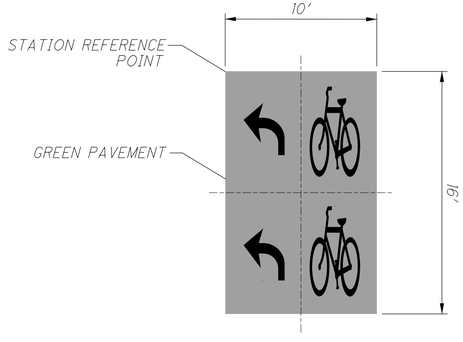
THE FOLLOWING DETAILS SHALL BE UTILIZED FOR THE TURN QUEUE BOXES.



SKEWED LEFT TURN QUEUE BOX
N.T.S.



RIGHT TURN QUEUE BOX
N.T.S.



LEFT TURN QUEUE BOX
N.T.S.

LAYOUT OF PAVEMENT MARKINGS FOR MAINTENANCE OF TRAFFIC RESTRAINT

ALTHOUGH PERMANENT PAVEMENT MARKINGS ARE TO BE INSTALLED AT THE END OF CONSTRUCTION, PAVEMENT MARKING PLAN SHEETS HAVE NOT BEEN INCLUDED IN THE CONTRACT PLANS FOR THE AREAS OF PAVEMENT MARKING RESTORATION DUE TO MAINTENANCE OF TRAFFIC LIMITS ON THE SURFACE STREETS. IN LIEU OF A PAVEMENT MARKING PLAN, THE CONTRACTOR SHALL, PRIOR TO THE START OF CONSTRUCTION, PREPARE AN INVENTORY LOG OF ALL EXISTING PAVEMENT MARKINGS FOR USE IN RESTORING THE MARKINGS AT THE END OF CONSTRUCTION. THE CONTRACTOR SHALL DELIVER TWO (2) COPIES OF THE INVENTORY AND LOG TO THE DISTRICT BEFORE BEGINNING ANY PAVEMENT REMOVALS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF THE VARIOUS FINAL PAVEMENT MARKINGS IN ACCORDANCE WITH SECTION 641.06.

UNLESS DIRECTED OTHERWISE BY THE DISTRICT, THE FINAL PAVEMENT MARKINGS SHALL BE RESTORED IN THEIR ORIGINAL PATTERNS AND LOCATION. FINAL LOCATION OF ALL PAVEMENT MARKINGS (PRE-LINE LAYOUT) SHALL BE APPROVED BY THE DISTRICT IN THE FIELD.

THE TABLE TO THE RIGHT PROVIDES ESTIMATED QUANTITIES BASED ON THE PRESENT LOCATIONS OF THE EXISTING PAVEMENT MARKINGS WITHIN THE PROJECT MAINTENANCE OF TRAFFIC LIMITS.

THE COST OF LOGGING AND PREMARKING SHALL BE INCLUDED FOR THE VARIOUS PAVEMENT MARKING ITEMS. NO SEPARATE PAYMENT SHALL BE MADE.

REF. NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 PARKING LOT STALL MARKING FT	644 LANE ARROW EACH	644 PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6" FT	644 PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12" FT	644 PAVEMENT MARKING, MISC.: STOP LINE, 24" FT	644 PAVEMENT MARKING, MISC.: TRANSVERSE / DIAGONAL LINE, 24" FT	644 PAVEMENT MARKING, MISC.: EDGE LINE, 6" FT	644 PAVEMENT MARKING, MISC.: LANE LINE, 6" FT	645 PAVEMENT MARKING, MISC.: EDGE LINE, 6", TYPE A1 FT	645 PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A1 FT	646 LANE ARROW EACH	647 BIKE LANE SYMBOL MARKING, TYPE B90 EACH
LA	RAMP C5	5088+06		RT											1	
LA	RAMP C5	5088+72		RT											1	
LA	RAMP C5	5089+38		RT											1	
LA	RAMP C5	5090+70		RT											1	
PS	FULTON ST	22+80		RT	8											
PS	FULTON ST	22+57		RT	8											
PS	FULTON ST	22+34		RT	8											
PS	FULTON ST	22+11		RT	8											
PS	FULTON ST	21+88		RT	8											
PS	FULTON ST	21+65		RT	8											
PS	FULTON ST	21+42		RT	8											
PS	FULTON ST	21+19		RT	8											
PS	FULTON ST	20+96		RT	8											
PS	FULTON ST	20+73		RT	8											
LA	FULTON ST	21+26		RT		1										
LA	FULTON ST	21+84		RT		1										
LA	FULTON ST	22+40		RT		1										
LA	FULTON ST	22+98		RT		1										
DW	FULTON ST	23+58	24+43	LT			85									
DW	FULTON ST	23+58	24+43	LT			85									
DW	FULTON ST	23+58	24+43	LT			85									
DW	FULTON ST	40+27	41+27	LT			100									
CH	FULTON ST	21+03	23+28	RT				225								
SL	FULTON ST	23+32		LT/RT					48							
TW	FULTON ST	19+54	19+75	LT						12						
TW	FULTON ST	19+75	23+28	LT						164						
EW	FULTON ST	19+75	23+28	LT							353					
EW	FULTON ST	19+75	23+28	LT							353					
EW	FULTON ST	36+95	40+27	LT							332					
EW	FULTON ST	37+10	41+07	LT							397					
LL	FULTON ST	19+87	21+03	RT								116				
LL	FULTON ST	19+87	23+28	LT								341				
LL	FULTON ST	36+95	40+96	LT								401				
LL	FULTON ST	36+95	40+96	RT								401				
EW	FULTON ST	19+54	19+75	LT									21			
EW	FULTON ST	19+54	19+75	LT									21			
LL	FULTON ST	19+55	19+75	LT										20		
LL	FULTON ST	19+55	19+75	RT										20		
BI	FULTON ST	21+43		LT												1
BI	FULTON ST	23+13		LT												1
BI	FULTON ST	37+11		LT												1
BI	FULTON ST	40+18		LT												1
TW	3RD ST	1157+00	1157+80	LT						30						
EW	3RD ST	1157+00	1157+80	LT							80					
EW	3RD ST	1157+00	1157+80	LT							80					
LL	3RD ST	1155+63	1157+80	LT								217				
LL	3RD ST	1155+63	1157+80	RT								217				
LL	3RD ST	1155+63	1157+80	RT								217				
LA	3RD ST	1159+06		LT											1	
LA	3RD ST	1159+65		LT											1	
BI	3RD ST	1157+54		LT												1
EW	4TH ST	1154+84	1155+19	LT							35					
EW	4TH ST	1154+84	1155+19	LT							35					
LL	4TH ST	1154+84	1156+75	RT								191				
LL	4TH ST	1154+84	1156+75	LT								191				
BI	4TH ST	1155+01		LT												1
TOTALS					80	4	355	225	48	206	1665	2292	42	40	6	6
TOTALS (MILE)											0.32	0.44	0.01	0.01		
TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY					80	4	355	225	48	206	0.32	0.44	0.01	0.01	6	6

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH	AKF	11-1-23

CALCULATED SLB CHECKED AKF

TRAFFIC CONTROL NOTES

FRA-70-14.05

SHEET NUMBER											PARTICIPATION			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFIC CALCS		404	409	413	414	415	416	417	418	458	01/IMS/04								
			438								438			621	00100	438	EACH	RPM	
			438								438			621	54000	438	EACH	RAISED PAVEMENT MARKER REMOVED	
									7		7			625	32000	7	EACH	GROUND ROD	
99											99			626	00102	99	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	
						50.0	135.6	218.0			403.6			630	02100	403.6	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
						64.8	106.4	99.6			270.8			630	03100	270.8	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
									79.4		79.4			630	07000	79.4	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	
									150.8		150.8			630	07500	150.8	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22	
									39.5		39.5			630	07600	39.5	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	
									197.6		197.6			630	08000	197.6	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W12X30	
							28.7				28.7			630	08004	28.7	FT	ONE WAY SUPPORT, NO. 3 POST	
							3	2			5			630	08600	5	EACH	SIGN POST REFLECTOR	
									18		18			630	09000	18	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
									1		1			630	72330	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 10	
									3		3			630	72420	3	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	
										7	7			630	79101	7	EACH	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	446
						1					1			630	79500	1	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
								2		4	6			630	79501	6	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED, AS PER PLAN	403
						112.0	102.7	102.3		46.8	363.8			630	80100	363.8	SF	SIGN, FLAT SHEET	
									1239.0		1239.0			630	80200	1239.0	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
									369.0		369.0			630	80224	369.0	SF	SIGN, OVERHEAD EXTRUSHEET	
									51.0		51.0			630	80400	51.0	SF	SIGN, PERMANENT OVERLAY	
										3	3			630	80500	3	EACH	SIGN, DOUBLE FACED, STREET NAME	
						4					4			630	81020	4	EACH	CONCRETE MEDIAN BARRIER SIGN BRACKET	
									12		12			630	82000	12	EACH	SIGN BACKING ASSEMBLY	
									3		3			630	84010	3	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TC-21.50	
									18		18			630	84500	18	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
									4		4			630	84510	4	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
						5	29	16			50			630	84900	50	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
						1		4			5			630	85400	5	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
						9	24	7			40			630	86002	40	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
								4			4			630	86102	4	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
						17					17			630	87100	17	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	
						4		5			9			630	87400	9	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
								11			11			630	87500	11	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
						1		1			2			630	89706	2	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30	
						4		1			5			630	89802	5	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65	
										LS	LS			630	95000	LS		SIGNING, MISC.: TRAFFIC SIGNAL SIGNS	445
			400								400			644	00720	400	FT	CHEVRON MARKING	
		80									80			644	01200	80	FT	PARKING LOT STALL MARKING	
		4	16								20			644	01300	20	EACH	LANE ARROW	
			2								2			644	01350	2	EACH	LANE REDUCTION ARROW	
			8								8			644	01630	8	EACH	BIKE LANE SYMBOL MARKING	
			1								1			644	50100	1	EACH	~~PAVEMENT MARKING, MISC.: BIKE DETECTOR MARKING~~	403
		355	150								505			644	50300	505	FT	PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6"	403
		225	359								584			644	50300	584	FT	PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12"	403
		48	157								205			644	50300	205	FT	PAVEMENT MARKING, MISC.: STOP LINE, 24"	403
		206	38								244			644	50300	244	FT	PAVEMENT MARKING, MISC.: TRANSVERSE / DIAGONAL LINE, 24" 5	403
		0.32	0.61								0.93			644	50400	0.93	MILE	PAVEMENT MARKING, MISC.: EDGE LINE, 6"	403
		0.44	0.48								0.92			644	50400	0.92	MILE	PAVEMENT MARKING, MISC.: LANE LINE, 6"	403
		0.01		0.30							0.31			645	90000	0.31	MILE	PAVEMENT MARKING, MISC.: EDGE LINE, 6", TYPE A1, WITH CONTRAST	403
		0.01		0.11							0.12			645	90000	0.12	MILE	PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A1, WITH CONTRAST	403
				239							239			645	98000	239	FT	PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12", TYPE A1, WITH CONTRAST	403
		6									6			646	20300	6	EACH	LANE ARROW	

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH	AKF	11-1-23

CALCULATED SLB
CHECKED AKF

TRAFFIC CONTROL GENERAL SUMMARY

FRA-70-14.05

SHEET NUMBER											PARTICIPATION			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	404				413	414					01/IMS/04								
						6					6			647	20610	6	EACH	LANE ARROW, TYPE B90	
	6					2					8			647	20910	8	EACH	BIKE LANE SYMBOL MARKING, TYPE B90	
						4					4			647	50100	4	EACH	~~PAVEMENT MARKING, MISC.: TURN QUEUE BOX, TYPE B90~~	404
						634					634			647	50120	634	FT	PAVEMENT MARKING, MISC.: DOTTED LINE, 6", TYPE B90	403
						16					16			647	50120	16	FT	PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6", TYPE B90	403
																		5	
						199					199			647	50120	199	FT	PAVEMENT MARKING, MISC.: CROSSWALK LINE, 12", TYPE B90	403
						45					45			647	50120	45	FT	PAVEMENT MARKING, MISC.: STOP LINE, 24", TYPE B90	403
						618					618			647	60020	618	SF	GREEN COLORED PAVEMENT FOR BIKES, TYPE B90	
					0.06						0.06			807	12010	0.06	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	
					0.12						0.12			807	12110	0.12	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	
					4.00						4.00			807	14010	4.00	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	
					5.69						5.69			807	14110	5.69	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
					5427						5427			807	14310	5427	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"	
					8414						8414			807	14410	8414	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
					9.69		5				9.69		5	850	10010	9.69	5 MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
					~~8,414~~						~~8414~~			850	10110	~~8414~~	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
					5427						5427			850	10130	5427	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	
					0.18						0.18			850	20010	0.18	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH & QUANTITY	AKF	11-1-23

CALCULATED SLB CHECKED AKF

TRAFFIC CONTROL GENERAL SUMMARY

FRA-70-14.05

SHEET NO.	REF. NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 CHEVRON MARKING FT	644 LANE ARROW EACH	644 LANE REDUCTION ARROW EACH	644 BIKE LANE SYMBOL MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE DETECTOR MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6" FT	644 PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12" FT	644 PAVEMENT MARKING, MISC.: STOP LINE, 24" FT	644 PAVEMENT MARKING, MISC.: TRANSVERSE / DIAGONAL LINE, 24" FT	644 PAVEMENT MARKING, MISC.: EDGE LINE, 6" FT	644 PAVEMENT MARKING, MISC.: LANE LINE, 6" FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE 12" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6" FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT		
419	EW	I-70 EB	162+80	166+00	RT															320					320						
419	LL	I-70 EB	154+53	166+00	LT																1147				1147						
419	LL	I-70 EB	162+80	166+00	RT																320				320						
420	EW	I-70 EB	166+00	166+44	RT															44					44						
420	EW	I-70 EB	169+56	173+51	RT															395					395						
420	EW	I-70 EB	173+51	178+00	RT															449					449						
420	LL	I-70 EB	166+00	166+30	LT																30				30						
420	LL	I-70 EB	166+00	166+40	RT																40				40						
420	LL	I-70 EB	169+37	178+00	LT																863				863						
420	LL	I-70 EB	169+46	178+00	RT																854				854						
420	LL	I-70 EB	169+51	178+00	RT																849				849						
420	LL	I-70 EB	171+00	178+00	CEN																700				700						
420	CH	I-70 EB	173+51	177+59	RT																	408					408				
420	CH	I-70 EB	173+51	177+59	RT																	408					408				
420	DW	I-70 EB	177+59	178+00	RT																		41			41					
420	EW	I-70 EB	166+44	169+56	RT												312											312			
420	LL	I-70 EB	166+40	169+51	RT													311										311			
420	LL	I-70 EB	166+30	169+46	LT													316										316			
421	EY	I-70 EB	181+00	190+00	LT														900						900						
421	EW	I-70 EB	178+00	190+00	RT															1200					1200						
421	LL	I-70 EB	178+00	190+00	LT																1200				1200						
421	LL	I-70 EB	178+00	190+00	CEN																1200				1200						
421	LL	I-70 EB	178+00	190+00	RT																1200				1200						
421	LL	I-70 EB	178+00	190+00	RT																1200				1200						
421	DW	I-70 EB	178+00	183+59	RT																		559			559					
421	EY	I-70 WB	184+08	190+11	RT														603						603						
421	EW	I-70 SB / I-70 WB	284+07	190+11	CEN/RT															685					685						
421	LL	I-70 WB	180+00	190+11	CEN																1011				1011						
421	DW	I-70 WB	180+00	190+11	RT																		1011			1011					
421	LL	I-70 SB / I-70 WB	280+84	190+11	RT/LT																1011				1011						
421	CH	I-70 SB / I-70 WB	280+84	185+50	RT/LT																	552					552				
421	CH	I-70 SB / I-70 WB	280+84	185+50	RT/LT																	552					552				
421	DW	I-70 WB	185+50	190+11	LT																		461			461					
422	EY	I-70 EB	190+00	202+00	LT														1200						1200						
422	EW	I-70 EB	190+00	202+00	RT															1200					1200						
422	LL	I-70 EB	190+00	195+70	LT																570				570						
422	LL	I-70 EB	190+00	202+00	CEN																1200				1200						
422	LL	I-70 EB	190+00	191+73	RT																173				173						
422	LL	I-70 EB	190+00	202+00	RT																1200				1200						
422	LR	I-70 EB	195+70		LT			1																							
422	DW	I-70 EB	191+73	202+00	RT																		1027			1027					
422	EY	I-70 WB	190+11	3201+99	RT														1188						1188						
422	EW	I-70 WB	190+11	3201+99	LT															1188					1188						
422	DW	I-70 WB	190+11	3201+99	RT																		1188			1188					
422	LL	I-70 WB	190+11	3201+99	CEN																1188				1188						
422	LL	I-70 WB	190+11	3201+99	LT																1188				1188						
422	DW	I-70 WB	190+11	3201+99	LT																		1188			1188					
TOTALS CARRIED TO SHEET 413								1									312	627	3891	5481	17144	1920	5475	26516	5475	1920	939				

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH	AKF	11-1-23

CALCULATED SLB CHECKED AKF

PAVEMENT MARKING SUBSUMMARY - SHEET 1 OF 5

FRA-70-14.05

410
855

D:\2015\20153720\FRA\96053\TRAFFIC\SHEETS\96053TS028.DGN
11/1/2023
12:20:33 PM
QDOTY81STD_USER

SHEET NO.	REF. NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 CHEVRON MARKING FT	644 LANE ARROW EACH	644 LANE REDUCTION ARROW EACH	644 BIKE LANE SYMBOL MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE DETECTOR MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6" FT	644 PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12" FT	644 PAVEMENT MARKING, MISC.: STOP LINE, 24" FT	644 PAVEMENT MARKING, MISC.: TRANSVERSE / DIAGONAL LINE, 24" FT	644 PAVEMENT MARKING, MISC.: EDGE LINE, 6" FT	644 PAVEMENT MARKING, MISC.: LANE LINE, 6" FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE 12" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6" FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT		
423	EY	I-70 EB	202+00	213+00	LT														1100						1100					
423	EW	I-70 EB	202+00	213+00	RT															1100					1100					
423	LL	I-70 EB	202+00	213+00	CEN																1100				1100					
423	LL	I-70 EB	202+00	213+00	RT																1100				1100					
423	DW	I-70 EB	202+00	213+00	RT																			1100		1100				
423	DW	I-70 EB	208+60	213+00	RT																			440		440				
423	LR	I-70 EB	202+11		LT			1																						
423	EY	I-70 WB	3201+99	3213+03	RT														1104						1104					
423	EW	I-70 WB	3201+99	3213+03	LT															1104					1104					
423	LL	I-70 WB	3206+00	3213+03	RT																703				703					
423	DW	I-70 WB	3201+99	3206+00	RT																			401		401				
423	LL	I-70 WB	3201+99	3213+03	CEN																1104				1104					
423	LL	I-70 WB	3201+99	3213+03	LT																1104				1104					
423	LL	I-70 WB	3206+00	3213+03	LT																703				703					
423	DW	I-70 WB	3201+99	3206+00	LT																			401		401				
424	EY	I-70 EB	213+00	226+00	LT														1300						1300					
424	EW	I-70 EB	213+00	213+84	RT															84					84					
424	EW	I-70 EB	223+55	226+00	RT															245					245					
424	LL	I-70 EB	213+00	226+00	CEN/LT																1300				1300					
424	LL	I-70 EB	213+00	215+13	RT																213				213					
424	CH	I-70 EB	213+84	215+13	RT																	129					129			
424	CH	I-70 EB	218+13	223+55	RT																	542					542			
424	TW	I-70 EB	218+13	223+55	RT	118																								
424	DW	I-70 EB	213+00	218+13	RT																			513		513				
424	DW	I-70 EB	213+00	213+84	RT																			84		84				
424	EW	RAMP C4	775+21	778+56	RT															335					335					
424	LL	RAMP C4	770+41	778+56	RT/CEN																815				815					
424	CH	RAMP C4	770+41	775+21	RT																	480					480			
424	CH	RAMP C4	773+41	778+56	LT																	515					515			
424	EY	RAMP N1	868+71	870+30	LT														159						159					
424	EW	RAMP N1	862+68	870+30	CEN/RT															762					762					
424	CH	RAMP N1	862+68	868+71	LT																	603					603			
424	TW	RAMP N1	862+68	868+71	LT	282																								
424	EY	I-70 WB	3213+03	3226+00	RT														1297						1297					
424	EW	I-70 WB	3213+03	3226+00	LT															1297					1297					
424	LL	I-70 WB	3213+03	3218+16	RT																513				513					
424	LL	I-70 WB	3213+03	3226+00	CEN/RT																1297				1297					
424	LL	I-70 WB	3213+03	3220+18	LT																715				715					
424	LL	I-70 WB	3213+03	3226+00	LT																1297				1297					
424	CH	I-70 WB	3220+18	3226+00																		582					582			
424	CH	I-70 WB	3220+18	3226+00																		582					582			
425	EY	I-70 EB	226+00	226+60	LT														60						60					
425	EW	I-70 EB	226+00	226+60	LT															60					60					
425	LL	I-70 EB	226+00	226+60	RT																60				60					
425	EY	I-70 WB	3226+00	3228+00	RT/LT														200						200					
425	EW	I-70 WB	3226+39	3228+00	LT															161					161					
425	LL	I-70 WB	3226+00	3228+00	RT/LT																200				200					
425	CH	I-70 WB	3226+00	3226+39	LT																	39					39			
425	EY	RAMP Q4	875+18	881+69	RT														651						651					
425	EW	RAMP Q4	874+83	881+69	RT															686					686					
425	LL	RAMP Q4	874+83	881+69	RT																686				686					
425	CH	RAMP Q4	874+83	875+18	RT																	35					35			
TOTALS CARRIED TO SHEET 413						400		1											5871	5834	12910	3507	2939	24615	2939	3507				

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH	AKF	11-1-23

CALCULATED SLB
CHECKED AKF

PAVEMENT MARKING SUBSUMMARY - SHEET 2 OF 5

FRA-70-14.05

PAVEMENT MARKING SUBSUMMARY - SHEET 3 OF 5

SHEET NO.	REF. NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 CHEVRON MARKING FT	644 LANE ARROW EACH	644 LANE REDUCTION ARROW EACH	644 BIKE LANE SYMBOL MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE DETECTOR MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6" FT	644 PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12" FT	644 PAVEMENT MARKING, MISC.: STOP LINE, 24" FT	644 PAVEMENT MARKING, MISC.: TRANSVERSE / DIAGONAL LINE, 24" FT	644 PAVEMENT MARKING, MISC.: EDGE LINE, 6" FT	644 PAVEMENT MARKING, MISC.: LANE LINE, 6" FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE 12" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6" FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT		
426	EW	FULTON ST.	24+72	28+00	LT										328															
426	EW	FULTON ST.	24+72	28+00	LT										328															
426	EW	FULTON ST.	26+00	28+00	RT										200															
426	LL	FULTON ST.	24+72	28+00	LT											328														
426	LL	FULTON ST.	26+00	28+00	RT											200														
426	BI	FULTON ST.	25+00		LT				1																					
426	BI	FULTON ST.	27+50		LT				1																					
427	EW	FULTON ST.	28+00	30+65	LT										265															
427	EW	FULTON ST.	28+00	30+27	LT										227															
427	EW	FULTON ST.	28+00	30+65	RT										265															
427	EW	FULTON ST.	32+19	33+00	RT										81															
427	EW	FULTON ST.	32+17	33+00	LT										83															
427	EW	FULTON ST.	32+17	33+00	LT										83															
427	LL	FULTON ST.	28+00	33+00	LT											500														
427	LL	FULTON ST.	28+00	33+00	RT											500														
427	DW	FULTON ST.	30+34	30+84	LT						50																			
427	SL	FULTON ST.	30+79		LT/RT								40																	
427	BI	FULTON ST.	30+00		LT				1																					
427	BI	FULTON ST.	32+34		LT				1																					
427	EW	3RD ST.	1154+08	1154+50	LT										42															
427	EW	3RD ST.	1154+08	1154+50	LT										42															
427	LL	3RD ST.	1154+08	1154+50	CEN											42														
427	CH	3RD ST.	1154+08	1154+50	RT							42																		
427	CH	3RD ST.	1154+08	1154+50	RT							42																		
427	CH	3RD ST.	1153+27	1153+69	RT							49																		
427	CM	3RD ST.	1154+08	1154+50	LT									18																
427	LA	3RD ST.	1154+36		LT		1																							
427	LA	3RD ST.	1154+36		RT		1																							
427	LA	3RD ST.	1154+36		RT		1																							
427	LA	3RD ST.	1154+36		RT		1																							
427	SL	3RD ST.	1154+06		LT/RT								48																	
427	BI	3RD ST.	1154+36		LT				1																					
428	LL	FULTON ST.	33+00	35+77	RT											277														
428	LL	FULTON ST.	33+00	35+77	LT											277														
427	EW	FULTON ST.	33+00	33+61	LT										61															
427	EW	FULTON ST.	33+00	34+77	LT										177															
428	SL	FULTON ST.	35+79		LT/RT								40																	
428	BI	FULTON ST.	37+24		LT				1																					
428	BI	FULTON ST.	34+79		LT				1																					
428	DW	FULTON ST.	34+77	35+77	LT						100																			
428	BD	FULTON ST.	35+76		LT					1																				
429	SL	3RD ST.	1150+43		LT/RT								29																	
TOTALS CARRIED TO SHEET 413							4		7	1	150	133	157	18	2182	2124														

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH	AKF	11-1-23

CALCULATED SLB
CHECKED AKF

FRA-70-14.05

SHEET NO.	REF. NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 CHEVRON MARKING FT	644 LANE ARROW EACH	644 LANE REDUCTION ARROW EACH	644 BIKE LANE SYMBOL MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE DETECTOR MARKING EACH	644 PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6" FT	644 PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12" FT	644 PAVEMENT MARKING, MISC.: STOP LINE, 24" FT	644 PAVEMENT MARKING, MISC.: TRANSVERSE / DIAGONAL LINE, 24" FT	644 PAVEMENT MARKING, MISC.: EDGE LINE, 6" FT	644 PAVEMENT MARKING, MISC.: LANE LINE, 6" FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT	807 WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW) FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (WHITE) FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE 12" FT	807 WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6" FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT) FT	850 GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE) FT		
430	LA	3RD ST.	1154+74		LT		1																							
430	LA	3RD ST.	1154+74		RT		1																							
430	LA	3RD ST.	1154+74		RT		1																							
430	LA	3RD ST.	1154+74		RT		1																							
430	LA	3RD ST.	1155+10		LT		1																							
430	LA	3RD ST.	1155+10		RT		1																							
430	LA	3RD ST.	1155+10		RT		1																							
430	LA	3RD ST.	1155+10		RT		1																							
430	LA	3RD ST.	1155+48		LT		1																							
430	LA	3RD ST.	1155+48		RT		1																							
430	LA	3RD ST.	1155+48		RT		1																							
430	LA	3RD ST.	1155+48		RT		1																							
430	BI	3RD ST.	1155+48		LT				1																					
430	LL	3RD ST.	1154+50	1155+63	CEN											113														
430	CH	3RD ST.	1154+50	1155+63	RT							113																		
430	CH	3RD ST.	1154+50	1155+63	RT							113																		
430	EW	3RD ST.	1154+50	1157+00	LT										250															
430	EW	3RD ST.	1154+50	1157+00	LT										250															
430	CM	3RD ST.	1154+50	1157+00	LT									20																
431	LL	4TH ST.	1150+35	1151+66	CEN											131														
431	LL	4TH ST.	1150+35	1151+66	RT											131														
431	EW	4TH ST.	1150+28	1151+66	LT										138															
431	EW	4TH ST.	1150+45	1151+66	LT										121															
431	EW	4TH ST.	1150+45	1151+66	LT										121															
431	EW	4TH ST.	1150+28	1151+66	RT										138															
TOTALS FROM THIS SHEET							12		1			226		20	1018	375													
TOTALS CARRIED FROM SHEET 410								1									312	627	3891	5481	17144	1920	5475	26516	5475	1920	939		
TOTALS CARRIED FROM SHEET 411						400		1											5871	5834	12910	3507	2939	24615	2939	3507			
TOTALS CARRIED FROM SHEET 412							4		7	1	150	133	157	18	2182	2124													
TOTAL						400	16	2	8	1	150	359	157	38	3200	2499	312	627	9762	11315	30054	5427	8414	51131	8414	5427	939		
TOTAL MILES															0.61	0.48	0.06	0.12	4.00		5.69		5	9.69			0.18		
TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY						400	16	2	8	1	150	359	157	38	0.61	0.48	0.06	0.12	4.00		5.69	5427	8414	9.69	8414	5427	0.18		

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH & QUANTITY	AKF	11-1-23

CALCULATED SLB
CHECKED AKF

PAVEMENT MARKING SUBSUMMARY - SHEET 4 OF 5

FRA-70-14.05

413
855

D:\2015\20153701\FRA\962053\TRAFFIC\SHEETS\962053TS023.DGN
11/1/2023
12:34:33 PM
QUOTVB1STD_USER

SHEET NO.	REF. NO.	LOCATION	STATION FROM	STATION TO	SIDE	645 PAVEMENT MARKING, MISC.: EDGE LINE, 6", TYPE A1, WITH CONTRAST FT	645 PAVEMENT MARKING, MISC.: LANE LINE, 6", TYPE A1, WITH CONTRAST FT	645 PAVEMENT MARKING, MISC.: CHANNELIZING LINE, 12", TYPE A1, WITH CONTRAST FT	647 LANE ARROW, TYPE B90 EACH	647 BIKE LANE SYMBOL MARKING, TYPE B90 EACH	647 PAVEMENT MARKING, MISC.: TURN QUEUE BOX, TYPE B90 EACH	647 PAVEMENT MARKING, MISC.: DOTTED LINE, 6", TYPE B90 FT	647 PAVEMENT MARKING, MISC.: BIKE LANE DOTTED LINE, 6", TYPE B90 FT	647 PAVEMENT MARKING, MISC.: CROSSWALK LINE, 12", TYPE B90 FT	647 PAVEMENT MARKING, MISC.: STOP LINE, 24", TYPE B90 FT	647 GREEN COLORED PAVEMENT FOR BIKES, TYPE B90 SF
426	LL	FULTON ST.	24+72	26+00	RT		128									
426	DW	FULTON ST.	23+48	24+43	LT							95				
426	DW	FULTON ST.	23+48	24+43	LT							95				
427	QB	FULTON ST.	30+90		RT						1					
427	GP	FULTON ST.	30+17	30+90	LT/RT											618
427	DW	FULTON ST.	31+31	31+90	LT							59				
427	DW	FULTON ST.	31+31	31+90	LT							59				
427	EW	3RD ST.	1152+75	1152+84	LT	9										
427	EW	3RD ST.	1152+75	1152+84	LT	9										
427	CH	3RD ST.	1152+75	1152+84	RT			9								
427	CW	3RD ST.	1153+04		LT/RT									88		
427	QB	3RD ST.	1153+40		LT						1					
427	DW	3RD ST.	1153+04	1153+69	LT							65				
427	DW	3RD ST.	1153+04	1153+69	LT							65				
428	LL	4TH ST.	1153+75	1153+91	CEN		16									
428	LL	4TH ST.	1153+75	1153+91	RT		16									
428	DW	4TH ST.	1153+75	1153+91	LT								16			
428	SL	4TH ST.	1153+93		LT/RT										45	
428	CW	4TH ST.	1154+07		LT/RT									111		
428	QB	4TH ST.	1154+53		LT						1					
428	DW	4TH ST.	1154+07	1154+63	LT							56				
428	DW	4TH ST.	1154+07	1154+63	LT							56				
429	EW	3RD ST.	1150+45	1152+75	LT	230										
429	EW	3RD ST.	1150+53	1152+63	LT	210										
429	EW	3RD ST.	1150+60	1150+75	LT	16										
429	EW	3RD ST.	1150+60	1150+75	LT	16										
429	EW	3RD ST.	1150+60		LT	7										
429	EW	3RD ST.	1150+75		LT	7										
429	EW	3RD ST.	1150+50	1152+75	RT	225										
429	EW	3RD ST.	1150+50	1150+75	RT	27										
429	EW	3RD ST.	1150+50	1150+75	RT	27										
429	EW	3RD ST.	1150+50		RT	7										
429	EW	3RD ST.	1150+75		RT	7										
429	CH	3RD ST.	1150+45	1152+75	RT			230								
429	LA	3RD ST.	1150+75		RT				1							
429	LA	3RD ST.	1151+38		RT				1							
429	LA	3RD ST.	1152+00		RT				1							
429	LA	3RD ST.	1152+63		RT				1							
429	DW	3RD ST.	1150+45	1150+95	LT							50				
429	BI	3RD ST.	1150+63		LT					1						
429	BI	3RD ST.	1152+63		LT					1						
429	QB	3RD ST.	1149+52		LT						1					
431	LL	4TH ST.	1151+66	1153+75	CEN		209									
431	LL	4TH ST.	1151+66	1153+75	RT		209									
431	EW	4TH ST.	1151+66	1153+62	LT	196										
431	EW	4TH ST.	1151+66	1153+75	LT	209										
431	EW	4TH ST.	1151+66	1153+41	LT	175										
431	EW	4TH ST.	1151+66	1153+62	RT	196										
431	DW	4TH ST.	1153+41	1153+75	LT							34				
431	BI	4TH ST.	1150+54		LT				1							
431	BI	4TH ST.	1153+06		LT				1							
TOTAL						1573	578	239	6	2	4	634	16	199	45	618
TOTAL MILES						0.30	0.11									
TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY						0.30	0.11	239	6	2	4	634	16	199	45	618

NO.	DESCRIPTION	DATE	REV. BY
5	REVISED WIDTH	AKF	11-1-23

CALCULATED SLB
CHECKED AKF

PAVEMENT MARKING SUBSUMMARY - SHEET 5 OF 5

FRA-70-14.05

SHEET NUM.														PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
12	85											132	OFFICE CALCS	02/IMS/11	05/IMS/14						
																				STRUCTURE OVER 20 FOOT SPAN (FRA-70-1301R) (CONT.)	
														LUMP		503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
	479													479		503	21100	479	CY	UNCLASSIFIED EXCAVATION	
														LUMP		505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
	1,700													1,700		507	00100	1,700	FT	STEEL PILES HP10X42, FURNISHED	
	1,615													1,615		507	00150	1,615	FT	STEEL PILES HP10X42, DRIVEN	
	4,890													4,890		507	00200	4,890	FT	STEEL PILES HP12X53, FURNISHED	
	4,450													4,450		507	00250	4,450	FT	STEEL PILES HP12X53, DRIVEN	
	266													266		507	92200	266	FT	PREBORED HOLES	
	105													105		507	93300	105	EACH	STEEL POINTS OR SHOES	
	408,419													408,419		509	10000	408,419	LB	EPOXY COATED REINFORCING STEEL	
	948													948		511	34446	948	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
	172													172		511	34451	172	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN	83
	236													236		511	41012	236	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS	
	173													173		511	44112	173	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	
	303													303		511	46512	303	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
	1,835													1,835		512	10100	1,835	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
	1,553,954													1,553,954		513	10301	1,553,954	LB	STRUCTURAL STEEL MEMBERS, LEVEL 5, AS PER PLAN	84
	7,926													7,926		513	20000	7,926	EACH	WELDED STUD SHEAR CONNECTORS	
	10,859													10,859		514	00060	10,859	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
	10,859													10,859		514	00066	10,859	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
	65													65		516	10010	65	FT	ARMORLESS PREFORMED JOINT SEAL	
	127													127		516	11210	127	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	
	104													104		516	13600	104	SF	1" PREFORMED EXPANSION JOINT FILLER	
	43													43		516	13900	43	SF	2" PREFORMED EXPANSION JOINT FILLER	
	137													137		518	21200	137	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
	178													178		518	40000	178	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
	28													28		518	40010	28	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
	176													176		526	25010	176	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")	
	212													212		526	30010	212	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")	
	64													64		526	90010	64	FT	TYPE A INSTALLATION	
	64													64		526	90030	64	FT	TYPE C INSTALLATION	
	1													1		625	33000	1	EACH	STRUCTURE GROUNDING SYSTEM	
	27													27		846	00110	27	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	
	28													28		869	00100	28	EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARINGS	
																				RETAINING WALLS (MSE W4)	
											5	6		6		203	20001	6	CY	EMBANKMENT, AS PER PLAN	
												427		427		203	35110	427	CY	GRANULAR MATERIAL, TYPE B	
												9,226		9,226		509	10000	9,226	LB	EPOXY COATED REINFORCING STEEL	
												78		78		511	53012	78	CY	CLASS QC2 CONCRETE, MISC.:MOMENT SLAB AND PARAPET WITH QC/QA	
												530		530		512	10100	530	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
												91		91		516	13600	91	SF	1" PREFORMED EXPANSION JOINT FILLER	
												409		409		516	13900	409	SF	2" PREFORMED EXPANSION JOINT FILLER	
												20		20		601	21000	20	SY	CONCRETE SLOPE PROTECTION	
												3,252		3,252		840	20000	3,252	SF	MECHANICALLY STABILIZED EARTH WALL	
												1,139		1,139		840	21000	1,139	CY	WALL EXCAVATION	
												491		491		840	22000	491	SY	FOUNDATION PREPARATION	
												1,666		1,666		840	23000	1,666	CY	SELECT GRANULAR BACKFILL	
												543		543		840	25010	543	FT	6" DRAINAGE PIPE, PERFORATED	
												22		22		840	25020	22	FT	6" DRAINAGE PIPE, NON-PERFORATED	
												277		277		840	26000	277	FT	CONCRETE COPING	
												3,252		3,252		840	26050	3,252	SF	AESTHETIC SURFACE TREATMENT	
												5		5		840	27000	5	DAY	ON-SITE ASSISTANCE	
												LS		LS		840	28000	LS		SGB INSPECTION AND COMPACTION TESTING	

NO.	DESCRIPTION	REV. BY	DATE
4	ITEM TYPE CHANGED	ACW	07/30/23
5	DELETED ITEM/QUANTITY	ACW	11/6/23

CALCULATED DNO
CHECKED DLT

GENERAL SUMMARY

FRA-70-13.01

N:\03\60\08353\105430_FRA-70-13.01\Design\Roadway\Sheets\105430_GG003.dgn Sheet 11/6/2023 11:09:54 AM awhite

SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
									12	132	OFFICE CALCS	02/IMS/11	05/IMS/14						
																		RETAINING WALLS (MSE W6)	
										122		122		512	10100	122	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) 5	
										1,005		1,005		840	20000	1,005	SF	MECHANICALLY STABILIZED EARTH WALL	
										227		227		840	21000	227	CY	WALL EXCAVATION	
										111		111		840	22000	111	SY	FOUNDATION PREPARATION	
																		3	
										479		479		840	23000	479	CY	SELECT GRANULAR BACKFILL	
										156		156		840	25010	156	FT	6" DRAINAGE PIPE, PERFORATED	
										24		24		840	25020	24	FT	6" DRAINAGE PIPE, NON-PERFORATED	
										73		73		840	26000	73	FT	CONCRETE COPING	
										1,005		1,005		840	26050	1,005	SF	AESTHETIC SURFACE TREATMENT	
										5		5		840	27000	5	DAY	ON-SITE ASSISTANCE	
										LS		LS		840	28000	LS		SGB INSPECTION AND COMPACTION TESTING	
																		MAINTENANCE OF TRAFFIC	
									4			4		614	12380	4	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
									120			120		614	13310	120	EACH	BARRIER REFLECTOR, TYPE 1 (ONE WAY)	
									40			40		614	13350	40	EACH	OBJECT MARKER, ONE WAY	
									4			4		614	13600	4	EACH	MAINTENANCE OF TRAFFIC, ONE LANE CLOSURE ON A TWO LANE HIGHWAY	

NO.	DESCRIPTION	REV. BY	DATE
3	ADDED QUANTS FOR WALL	ACW	07/23/23
5	DELETED ITEM/QUANTITY	ACW	11/6/23

CALCULATED DNO
CHECKED DLT

GENERAL SUMMARY

FRA-70-13.01

14B
137

N:\03\60\08353\105430_FRA-70-13.0\Design\Roadway\Sheets\105430_GG004.dgn Sheet 11/6/2023 11:00:33 AM awhite

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:
AS-1-15 DATED (REVISED) 7/17/15
AS-2-15 DATED (REVISED) 1/18/19
EXJ-4-87 DATED (REVISED) 1/19/18
SBR-1-13 DATED (REVISED) 7/20/18

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS. 2017 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN LOADINGS

HL-93 DESIGN LOADING
FUTURE WEARING SURFACE (FWS) OF 10 LBS./SQ. FT.

DESIGN DATA

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A709, GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI

EXISTING STRUCTURAL STEEL - ASTM A36 - YIELD STRENGTH 20,000 PSI

DECK PROTECTION METHOD

CLASS HP CONCRETE
EPOXY COATED REINFORCING STEEL
2" CONCRETE COVER
SEALING OF CONCRETE SURFACES

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

CUT LINE CONSTRUCTION JOINT PREPARATION

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

DECK PLACEMENT DESIGN ASSUMPTIONS

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 1.13 KIPS FOR A TOTAL MACHINE LOAD OF 9.0 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA BEAM TO THE FACE OF THE SAFETY HANDRAIL OF 65".

SUBSTRUCTURE CONCRETE REMOVAL

REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

UTILITY LINES

THE UTILITIES SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITIES ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS INCLUDING PARAPETS, RAILINGS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, CROSS FRAMES, ETC.). THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (STEEL BEAM), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS.

DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G., FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

EXISTING WELDED ATTACHMENTS: REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20' SPAN, AS PER PLAN. FOR MODIFICATIONS TO OR EXTENSIONS OF EXISTING CONCRETE SUBSTRUCTURE MEMBERS WHERE AESTHETICS IS A CONCERN, INCLUDE THE FOLLOWING NOTES IN AN ITEM 202, AS PER PLAN NOTE.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

ITEM 511 CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN

GLASS FIBER REINFORCED POLYMER (G.F.R.P.) BARS SHALL BE USED FOR DIAGONAL REINFORCEMENT AS SHOWN IN THE PLANS. PAYMENT FOR G.F.R.P. BARS SHALL BE INCIDENTAL TO THE COST OF ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN.

ITEM 513 - STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN

AN ALLOWANCE OF 2520 LBS IS INCLUDED IN THE CONTRACT DOCUMENTS FOR REMOVAL AND REPLACEMENT IN KIND OF DETERIORATED STEEL CROSSFRAMES AT BOTH ABUTMENTS AND INTERNAL HINGE. COST TO REMOVE DETERIORATED MEMBERS IS INCIDENTAL TO ITEM 513 - STRUCTURAL STEEL FOR REHABILITATION, AS PER PLAN.

ITEM 516 - RESET BEARING, AS PER PLAN

A CONTINGENCY QUANTITY OF 12 EACH IS INCLUDED IN THE CONTRACT DOCUMENTS FOR RESETTING OF ALL EXISTING BEARINGS AT BOTH ABUTMENTS. BEARINGS WILL BE RESET AS PER THE REQUIREMENTS OF ITEM 516 - RESET BEARING, AS PER PLAN.

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT OBTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING. AN ALLOWANCE OF 200 S.F. IS INCLUDED IN THE CONTRACT DOCUMENTS TO PATCH DEFICIENT AREAS OF THE CONCRETE SUBSTRUCTURES. AREAS REQUIRING PATCHING WILL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER AND REPAIRED AS PER THE REQUIREMENTS OF ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN.

INSPECTION OF EXISTING STRUCTURAL STEEL

THE ENGINEER WILL VISUALLY INSPECT ALL EXISTING BUTT-WELDED SPLICES AND/OR TOP FLANGE COVER PLATE FILLET WELDS TO ENSURE THE WELDS, PLATES AND BEAMS ARE FREE OF DEFECTS AND CRACKS. IF NECESSARY, REMOVE ALL DECK SLAB HAUNCH FORMS IMMEDIATELY ADJACENT TO SUCH WELDS THAT MAY INTERFERE WITH THE ENGINEER'S INSPECTION. THE INSPECTION WILL NOT TAKE PLACE UNTIL THE TOP FLANGES ARE CLEANED ACCORDING TO 511.10, BUT IT WILL BE DONE BEFORE THE DECK SLAB REINFORCEMENT IS INSTALLED. THE DEPARTMENT WILL PAY FOR THE COST ASSOCIATED WITH THIS INSPECTION WITH ITEM 511, CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK. THE ENGINEER WILL REPORT ALL CRACKS FOUND TO THE OFFICE OF CONSTRUCTION ADMINISTRATION, BRIDGE CONSTRUCTION SPECIALIST, ALONG WITH SPECIFIC INFORMATION ON LOCATION OF THE CRACKS, LENGTH, AND DEPTH SO AN EVALUATION AND REPAIR OR REPLACEMENT RECOMMENDATION CAN BE MADE.

PAINTING AND SEALING OPERATIONS

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT EPOXY-URETHANE SEALER, PAINT, OR OTHER MATERIALS USED TO REPAIR, CLEAN, SEAL, OR TREAT ANY BRIDGE STRUCTURE FROM ENTERING ANY STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE.

ITEM SPECIAL - MISC.: VERTICAL CLEARANCE

AFTER ALL CONSTRUCTION HAS BEEN COMPLETED, A REGISTERED SURVEYOR WILL TAKE VERTICAL CLEARANCE MEASUREMENTS AT LOCATIONS INDICATED ON THE APPROVED ODOT FORM (AVAILABLE IN THE DISTRICT 4 STRUCTURES AND PAVEMENT OFFICE). THE FINAL MEASUREMENTS SHALL BE RECORDED ON THE FORM AND SUBMITTED TO THE PROJECT ENGINEER AND THE DISTRICT 4 STRUCTURES AND PAVEMENT ENGINEER. THE RECORD SHALL BEAR THE SEAL OF THE LICENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS.

ASBESTOS NOTIFICATION

AN ASBESTOS SURVEY OF THE FRA-70-1301L, SFN 2504677 AND FRA-70-1301R, SFN 2504766 BRIDGES WAS CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. THE SURVEY DETERMINED THAT ASBESTOS IS PRESENT AT THE BRIDGES.

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORMS, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, WILL BE PROVIDED TO THE SUCCESSFUL BIDDER. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO:

OHIO EPA/DIVISION OF AIR POLLUTION CONTROL
CENTRAL DISTRICT OFFICE
P.O. BOX 1049
COLUMBUS, OHIO 43216-1049
KELLY TOTH
PHONE: 614-728-3778
FAX: 614-728-3898

AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR REHABILITATION. THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE ENGINEER.

INFORMATION REQUIRED ON THE FORM WILL INCLUDE: 1) THE CONTRACTORS NAME AND ADDRESS, 2) THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL AND 3) A DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHOD(S) TO BE USED.

THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM.

BASIS OF PAYMENT:
THE CONTRACTOR SHALL FURNISH ALL THE FEES LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE OEPA NOTIFICATION OF DEMOLITION AND RENOVATION FORM AND PROPERLY REMOVE, ENCAPSULATE, HANDLE, TRANSPORT AND DISPOSE OF ASBESTOS CONTAINING MATERIALS IN A LANDFILL LICENSED BY THE LOCAL HEALTH DEPARTMENT AND PERMITTED BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY DIVISION OF AIR POLLUTION CONTROL TO ACCEPT ASBESTOS CONTAINING MATERIAL. PAYMENT FOR THIS WORK SHALL BE MADE AT THE CONTRACT PRICE BID OF LUMP SUM.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 PORTIONS OF STRUCTURE REMOVED OVER 20 FOOT SPAN, AS PER PLAN.

5

PROPOSED WORK

REMOVE AND REPLACE CONCRETE DECK, APPROACH SLABS AND PARAPETS INCLUDING EXPANSION JOINTS.

INSTALL SHEAR STUDS TO EXISTING BEAMS AND GIRDERS.

REPLACE ACCESS DOORS TO STEEL BOX PIER CAP.

PATCH DETERIORATED CONCRETE AS DIRECTED BY THE ENGINEER.

REPLACE DETERIORATED STRUCTURAL STEEL AS DIRECTED BY THE ENGINEER.

RESET BEARINGS AS DIRECTED BY THE ENGINEER.

NO.	DESCRIPTION	REV. BY	DATE
5	UPDATED NOTE	ACW	11/6/23

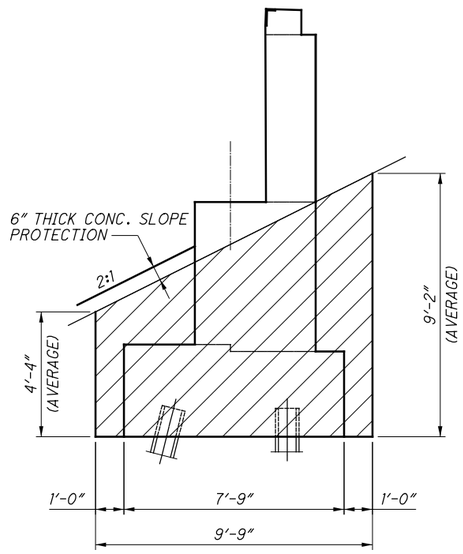
DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

DESIGNED ATM | DRAWN ATM | CHECKED DEA | REVIEWED YSJ | DATE 3/8/2023 | REVISED . | STRUCTURE FILE NUMBER 2504677

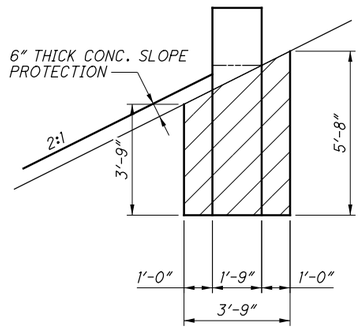
GENERAL NOTES

BRIDGE NO. FRA-70-1301L
WESTBOUND I-70 OVER S.R. 315

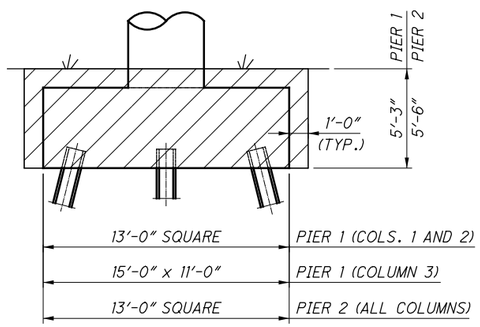
FRA-70-13.01
PID No. 77372



FORWARD ABUTMENT SECTION
LENGTH = 82'-0"



FORWARD ABUTMENT WINGWALL SECTION
LENGTH = 7'-11" (EACH SIDE)



TYPICAL PIER SECTION

LIMITS OF EXCAVATION

▨ - ITEM 503, UNCLASSIFIED EXCAVATION

ASBESTOS NOTIFICATION

AN ASBESTOS SURVEY OF THE FRA-70-1301L, SFN 2504677 AND FRA-70-1301R, SFN 2504766 BRIDGES WAS CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. THE SURVEY DETERMINED THAT ASBESTOS IS PRESENT AT THE BRIDGES.

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORMS, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, WILL BE PROVIDED TO THE SUCCESSFUL BIDDER. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO:

OHIO EPA/DIVISION OF AIR POLLUTION CONTROL
CENTRAL DISTRICT OFFICE
P.O. BOX 1049
COLUMBUS, OHIO 43216-1049
KELLY TOTH
PHONE: 614-728-3778
FAX: 614-728-3898

AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR REHABILITATION. THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE ENGINEER.

INFORMATION REQUIRED ON THE FORM WILL INCLUDE: 1) THE CONTRACTORS NAME AND ADDRESS, 2) THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL AND 3) A DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHOD(S) TO BE USED.

5

BASIS OF PAYMENT:
THE CONTRACTOR SHALL FURNISH ALL THE FEES LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE OEPA NOTIFICATION OF DEMOLITION AND RENOVATION FORM AND PROPERLY REMOVE, ENCAPSULATE, HANDLE, TRANSPORT AND DISPOSE OF ASBESTOS CONTAINING MATERIALS IN A LANDFILL LICENSED BY THE LOCAL HEALTH DEPARTMENT AND PERMITTED BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY DIVISION OF AIR POLLUTION CONTROL TO ACCEPT ASBESTOS CONTAINING MATERIAL. PAYMENT FOR THIS WORK SHALL BE MADE AT THE CONTRACT PRICE BID OF LUMP SUM.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 PORTIONS OF STRUCTURE REMOVED OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 5, AS PER PLAN

THE GIRDERS SHALL BE DETAILED FOR A NO-LOAD FIT (NLF).

GIRDERS MAY BE HEAT CURVED PER CMS 513.15 EXCEPT HEAT CURVING SHALL CONFORM TO THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATION, CURRENT EDITION. IF HEAT CURVING IS USED, THE FABRICATOR SHALL ACCOUNT FOR EXPECTED LOSS OF CAMBER PER THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, CURRENT EDITION.

ITEM SPECIAL - SETTLEMENT PLATFORMS:

SPECIFICATIONS:

DESCRIPTION:
THIS ITEM CONSISTS OF FURNISHING, CONSTRUCTING, AND MAINTAINING SETTLEMENT PLATFORMS AND OBTAINING SETTLEMENT READINGS AS REQUIRED BY THE PLANS OR AS DIRECTED BY THE ENGINEER. AT THE OPTION AND EXPENSE OF THE CONTRACTOR, ADDITIONAL SETTLEMENT PLATFORMS MAY BE INSTALLED AT ADDITIONAL LOCATIONS ACCEPTED BY ENGINEER.

SETTLEMENT READINGS SHALL BE TAKEN WEEKLY DURING CONSTRUCTION AND DURING ANY SPECIFIED WAITING PERIOD. THE READINGS SHALL BE PLOTTED UTILIZING THE SETTLEMENT PLATFORM READINGS EXCEL SPREADSHEET AS DEVELOPED BY ODOT'S OFFICE OF GEOTECHNICAL ENGINEERING. A COPY OF EACH CUMULATIVE PLOT SHALL BE SENT TO ODOT, AFTER EACH SETTLEMENT READING IS RECORDED.

VIBRATING WIRE SETTLEMENT MONITORING PLATFORMS MAY BE CONSIDERED IN LIEU OF THE CONVENTIONAL SETTLEMENT PLATFORMS. THE CONTRACTOR SHALL PROVIDE DETAILS OF THE PROPOSED VIBRATING WIRE SETTLEMENT PLATFORMS AS WELL AS DESIGN DRAWINGS OF THE PROPOSED PLATFORM AND CABLING LAYOUT TO ODOT AT LEAST 14 DAYS PRIOR TO CONSTRUCTION.

THE DESIGN DRAWINGS SHALL ILLUSTRATE THE PROPOSED SETTLEMENT VIBRATING WIRE SETTLEMENT PLATFORM LOCATIONS WITH ALL EXISTING AND PROPOSED SITE FEATURES TO VERIFY THE PROPOSED CABLING SHALL NOT CONFLICT WITH EXISTING FACILITIES, PROPOSED FACILITIES OR UTILITIES.

THE CONTRACTOR SHALL IDENTIFY, SET AND MAINTAIN AN APPROPRIATE NUMBER OF FIXED BENCHMARKS, REFERENCE POINTS, ETC. TO FACILITATE THE SURVEYING OF THE SETTLEMENT PLATFORMS.

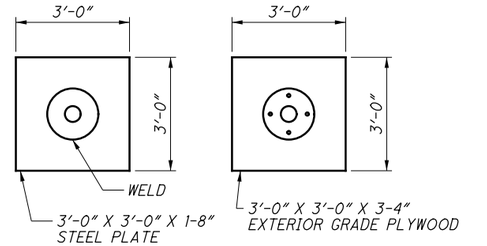
MATERIALS:
SOUND LUMBER SUCH AS 3#4" EXTERIOR GRADE PLYWOOD SHALL BE USED FOR THE BASE. THE PIPE SHALL BE 2-1#2" STANDARD BLACK PIPE WITH THREADED FITTINGS AS SHOWN ON THE PLANS. A STEEL PLATE 3'-0"x 3'-0"x1#8" MAY BE SUBSTITUTED FOR THE LUMBER, AT THE CONTRACTOR'S OPTION.

ITEM SPECIAL - SETTLEMENT PLATFORMS (CONTINUED):

CONSTRUCTION METHODS: THE PLATFORM SHALL CONFORM TO THE DETAILS SHOWN ON THE PLANS. SETTLEMENT PLATFORMS SHALL BE PLACED AT THE BOTTOM OF THE MSE WALL FILL AT THE LOCATION INDICATED BELOW, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IF EXISTING PAVEMENT IS ENCOUNTERED AT THE SPECIFIED LOCATIONS, THE PAVEMENT (INCLUDING ANY BASE MATERIAL) SHALL BE REMOVED AND THE SETTLEMENT PLATFORM SHALL BE SET ON THE EXPOSED SUBGRADE. THE PLATFORM SHALL BE SET ON A LEVEL SURFACE. THE PIPE SHALL BE FIRMLY SECURED TO THE PLATFORM AND SHALL BE MAINTAINED IN A PLUMB POSITION DURING CONSTRUCTION OF THE MSE WALL. THE PIPE SHALL BE MARKED AT INTERVALS TO FACILITATE MEASUREMENT OF THE DEPTH OF FILL. SETTLEMENT PLATFORMS SHALL BE ANCHORED BY STAKES DRIVEN AT EACH CORNER TO PREVENT OVERTURNING.

THE CONTRACTOR SHALL PROTECT SETTLEMENT PLATFORMS FROM CONSTRUCTION TRAFFIC/ACTIVITIES USING APPROPRIATE METHODS SUCH AS BARRICADES, CONES, GUARD-STAKES WITH HIGH VISIBILITY RIBBON, ETC. THE CONTRACTOR SHALL STOP WORK IN ANY LOCATION WHERE THE SETTLEMENT PLATFORM HAS BEEN DISTURBED OR DAMAGED. PLATFORMS OR PIPES DAMAGED OR DISPLACED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR PROPER CONDITION AT CONTRACTOR'S EXPENSE.

PRIOR TO PAVING: THE TOP OF THE SETTLEMENT PLATFORM PIPE SHALL BE CUT OFF TWO FEET BELOW THE FINISHED SURFACE OF THE SUBGRADE OR FINISHED GROUND SURFACE. WHICHEVER IS APPLICABLE.



SETTLEMENT PLATFORM
NOT TO SCALE

WAITING PERIOD:
THE ENGINEER WILL CONSIDER THE WAITING PERIOD COMPLETE WHEN CONSECUTIVE SETTLEMENT READINGS, RECORDED AFTER WALL CONSTRUCTION IS COMPLETE AND AT LEAST ONE WEEK (168 HOURS) APART, RESULT IN ELEVATION DIFFERENCES EQUAL TO OR LESS THAN 1/8 INCH.

SEE PILE DRIVING CONSTRAINTS NOTES FROM STRUCTURE GENERAL NOTES SHEET FOR MORE INFORMATION REGARDING WAITING PERIOD.

METHOD OF MEASUREMENT:
THE DEPARTMENT WILL MEASURE SETTLEMENT PLATFORMS BY THE NUMBER EACH, COMPLETE IN PLACE.

BASIS OF PAYMENT:
THE UNIT PRICE BID FOR ITEM SPECIAL - SETTLEMENT PLATFORM SHALL INCLUDE FURNISHING, CONSTRUCTING, AND MAINTAINING SETTLEMENT PLATFORMS AND OBTAINING SETTLEMENT READINGS AS REQUIRED BY THE PLANS OR AS DIRECTED BY THE ENGINEER. PAYMENT SHALL NOT BE MADE FOR SETTLEMENT PLATFORMS WHICH BECOME USELESS DUE TO DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS.

ITEM SPECIAL - SETTLEMENT PLATFORMS (CONTINUED):

LOCATION INFORMATION:

REAR ABUTMENT AT STA 137+20
FORWARD ABUTMENT AT STA 142+42

ITEM 256 - BONDED PATCHING OF PORTLAND CEMENT CONCRETE PAVEMENT, TYPE A, AS PER PLAN:

THIS ITEM CONSISTS OF PATCHING THE DECK AND APPROACH SLABS OF THE EXISTING BRIDGE TO MAINTAIN A SATISFACTORY RIDING SURFACE COURSE FOR TRAFFIC UNTIL THE EXISTING BRIDGE IS TO BE REMOVED. A CONTINGENCY QUANTITY OF 11,000 SF IS BASED ON PATCHING 10% OF THE EXISTING DECK EVERY YEAR FOR THREE YEARS. PATCHING QUANTITY SHALL BE USED AS DIRECTED BY THE ENGINEER. ALL PROVISIONS OF CMS 256 SHALL APPLY.

ABBREVIATIONS

ABUT.	-	ABUTMENT	N.T.S.	-	NOT TO SCALE
APPR.	-	APPROACH	NE	-	NORTHEAST
B.F.	-	BACK FACE	NO.	-	NUMBER
℄	-	BASELINE	NW	-	NORTHWEST
BOT.	-	BOTTOM	O/O	-	OUT-TO-OUT
BRG.	-	BEARING	P.E.J.F.	-	PREFORMED EXPANSION JOINT FILLER
C.J.	-	CONSTRUCTION JOINT	P.G.	-	PROPOSED GRADE
C.P.P.	-	CORRUGATED PLASTIC PIPE	ℙ	-	PALTE
C/C	-	CENTER TO CENTER	PROP.	-	PROPOSED
℄	-	CENTERLINE	PT.	-	POINT
CLR.	-	CLEAR	R	-	RADIUS
CONN.	-	CONNECTION	R.A.	-	REAR ABUTMENT
CONSTR.	-	CONSTRUCTION	RT.	-	RIGHT
CONT.	-	CONTRACTION	SAN.	-	SANITARY
DIA.	-	DIAMETER	SB	-	SOUTHBOUND
E.F.	-	EACH FACE	SHLDR.	-	SHOULDER
EA.	-	EACH	SPA.	-	SPACES
EB	-	EASTBOUND	S.R.	-	STATE ROUTE
EL./ELEV.	-	ELEVATION	STA.	-	STATION
EOP	-	EDGE OF PAVEMENT	STD.	-	STANDARD
E.S.	-	EQUAL SPACING	SW	-	SOUTHWEST
EQ.	-	EQUAL	T/ROCK	-	TOP OF ROCK
EX.	-	EXISTING	T/SLOPE	-	TOP OF SLOPE
EXP.	-	EXPANSION	T/WALL.	-	TOP OF WALL
F.A.	-	FORWARD ABUTMENT	TEMP.	-	TEMPORARY
F.F.	-	FRONT FACE	TYP.	-	TYPICAL
℉	-	FLOW LINE	VAR.	-	VARIES
FWD.	-	FORWARD	W.P.	-	WORK POINT
JT.	-	JOINT	W.R.T.	-	WITH RESPECT TO
LT.	-	LEFT	W/	-	WITH
MAX,	-	MAXIMUM	WB	-	WESTBOUND
MEAS.	-	MEASURED	WW	-	WINGWALL
MIN.	-	MINIMUM			

NO.	DESCRIPTION	REV. BY	DATE
5	UPDATED NOTE	ACW	11/6/23

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

DESIGNED	DRAWN	REVIEWED	DATE
SJR/ATM	SJR/ATM	YSJ	11/5/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DEA	.	2504767	

GENERAL NOTES (2 OF 2)
BRIDGE NO. FRA-70-1301R
EASTBOUND I-70 OVER S.R. 315

FRA-70-13.01
PID No. 105430

5 / 58

8.4
137

N:\03\60\08353\105430_FRA-70-13.01\Design\Structures\FRA070_1301R\Sheets\070_1301R_SN002.dgn Sheet 11/6/2023 12:56:48 PM awhite

ESTIMATED QUANTITIES

CALC.	DATE
DBL	2/15/2023
CHK'D	DATE
ATM	2/21/2023

ITEM	ITEM EXT.	UNIT	DESCRIPTION	TOTAL	SHT. REF.
			MSE WALL W4		
203	20001	CY	EMBANKMENT, AS PER PLAN	6	4/58
203	35110	CY	GRANULAR MATERIAL, TYPE B △5	427	
509	10000	LB	EPOXY COATED REINFORCING STEEL	9,226	55/58 58/58
511	53012	CY	CLASS QC2 CONCRETE, MISC.: MOMENT SLAB AND PARAPET WITH QC/QA	78	55/58
512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	530	51/58
516	13600	SF	1" PREFORMED EXPANSION JOINT FILLER	91	
516	13900	SF	2" PREFORMED EXPANSION JOINT FILLER	409	
601	21000	SY	CONCRETE SLOPE PROTECTION	20	
840	20000	SF	MECHANICALLY STABILIZED EARTH WALL	3,252	
840	21000	CY	WALL EXCAVATION	1,139	
840	22000	SY	FOUNDATION PREPARATION	491	
840	23000	CY	SELECT GRANULAR BACKFILL	1,666	
840	25010	FT	6" DRAINAGE PIPE, PERFORATED	543	
840	25020	FT	6" DRAINAGE PIPE, NON-PERFORATED	22	
840	26000	FT	CONCRETE COPING	277	
840	26050	SF	AESTHETIC SURFACE TREATMENT	3,252	
840	27000	DAY	ON-SITE ASSISTANCE	5	
840	28000	LS	SGB INSPECTION AND COMPACTION TESTING	LS	

ESTIMATED QUANTITIES

CALC.	DATE
DBL	2/17/2023
CHK'D	DATE
ATM	2/21/2023

ITEM	ITEM EXT.	UNIT	DESCRIPTION	TOTAL	SHT. REF.
			MSE WALL W6		
					△5
512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	122	
840	20000	SF	MECHANICALLY STABILIZED EARTH WALL	1,005	
840	21000	CY	WALL EXCAVATION	227	
840	22000	SY	FOUNDATION PREPARATION	111	
840	23000	CY	SELECT GRANULAR BACKFILL	479	
840	25010	FT	6" DRAINAGE PIPE, PERFORATED	156	
840	25020	FT	6" DRAINAGE PIPE, NON-PERFORATED	24	
840	26000	FT	CONCRETE COPING	73	
840	26050	SF	AESTHETIC SURFACE TREATMENT	1,005	
840	27000	DAY	ON-SITE ASSISTANCE	5	
840	28000	LS	SGB INSPECTION AND COMPACTION TESTING	LS	

NO.	DESCRIPTION	REV. BY	DATE
5	QUANTITY CHANGED	ACW	10/23/23

DESIGN AGENCY
ms consultants, inc.
2221 Schrock Road
Columbus, Ohio 43229

DESIGNED	DRAWN	REVIEWED	DATE
DBL	DBL	YSJ	11/5/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DEA	.	2504767	

MSE WALL ESTIMATED QUANTITIES
BRIDGE NO. FRA-70-1301R
EASTBOUND I-70 OVER S.R. 315

FRA-70-13.01
PID No. 105430

53/58

132/137