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# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

**UNION TOWNSHIP** 

# CLE-32-2.33 (PHASE 8) PART 1 CLERMONT COUNTY

## FOR PART 2, SEE CLE-CR55-OVRPASS (PHASE 9)

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	STANDARD CONSTRUCTION DRAWINGS															SUPPLEMENTAL SPECIFICATIONS				
BP-1.1	7/28/00	DM-4.4	1/15/16	MGS-3.1	1/19/18 HW-2.2	? 7/20/18	HL-50.21	7/15/22	MT-99.60	7/15/16	TC-41 <b>.</b> 30	10/18/13	TC-83.10	1/17/20	800	1/20/23	905	4/17/20		
BP-2.1	1/21/22			MGS-3.2	1/18/13 PSID-1	-13 1/20/23	HL-60.11	7/21/17	MT-101.60	1/17/20	TC-41 <b>.</b> 40	10/18/13	TC-83.20	7/15/22	804	1/20/23	909	10/21/22		
BP-2.2	1/15/21	I-3B, 3B1	7/15/22	MGS-4.2	7/19/13   SBR-1-	20 1/20/23	HL-60.12	7/16/21	MT-101.70	1/17/20	TC-41 <b>.</b> 41	7/19/19	TC-85.10	10/21/22	805	7/16/10	913	4/16/21		
BP-3.1	1/21/22	I-3C, 3C1	7/15/22	MGS-4.3	1/18/13 VPF-1-	90 1/20/23	HL-60.31	1/17/20	MT-101.75	1/17/20	TC-41 <b>.</b> 50	10/18/13	TC-85.20	7/20/18	807	1/21/22	921	4/20/12		
BP-6.1	7/19/13	I-3D	7/15/22	MGS-5.3	7/15/16				MT-101.90	7/17/20	TC-42.10	10/18/13			809	1/20/23	939	1/17/20		
					HL-10.	11 7/15/22	MT-95.30	7/19/19	MT-102.10	1/17/20	TC-42.20	10/18/13	ITS-10 <b>.</b> 11	1/20/23	813	10/19/18	977	4/17/09		
СВ-3	7/16/21	MH-3	7/16/21	RM-1.1	1/15/21 HL-10.	12 1/20/23	MT-95.31	7/19/19	MT-102.20	4/19/19	TC-51.11	1/15/16	ITS-12.50	7/16/21	821	4/20/12				
CB-3A	7/16/21			RM-3.1	7/20/18 HL-10.	13 1/20/23	MT-95.32	4/19/19	MT-103.10	1/21/22	TC-51 <b>.</b> 12	1/15/16	ITS-14.10	1/20/23	<i>832</i>	7/15/22				
CB-5	7/16/21	BP-4.1	7/19/13	RM-4.2	4/17/20 HL-20	.11 10/21/22	MT-95.45	1/17/20	MT-104.10	10/16/15	TC-52.10	10/18/13	ITS-14.11	1/20/23	836	1/19/18				
СВ-6	1/21/22	BP-5.1	7/15/22	RM-4.3	1/21/22 HL-20	.14 4/17/20	MT-95.50	7/21/17	MT-105.10	1/17/20	TC-52 <b>.</b> 20	1/15/21	ITS-15.11	1/20/23	839	7/16/21				
CB-8	7/16/21	BP-7.1	1/21/22	RM-4.4	7/19/19 HL-30	.11 1/15/21	MT-95.61	4/19/19			TC-61 <b>.</b> 30	7/19/19	ITS-18.00	7/16/21	840	4/15/22				
				RM-4.5	7/21/17 HL-30	.21 4/17/20	MT-97.10	4/19/19	TC-12 <b>.</b> 31	4/15/22	TC-65 <b>.</b> 10	1/17/14	ITS-30.11	4/16/21	850	4/15/22				
DM-1.1	7/17/20	F-1.1	7/19/13	RM-4.6	7/19/13 HL-30	.22 1/15/21	MT-98.20	4/19/19	TC-15.116	7/16/21	TC-65.11	7/15/22	ITS-30.13	4/16/21	867	4/15/22				
DM-1.2	7/16/21	F-3.1	7/19/13		HL-30	.31 4/17/20	MT-98.21	1/17/20	TC-21.11	7/16/21	TC-71.10	7/15/22			870	10/21/22				
DM-2.1	1/18/13	F-3.4	7/19/13	AS-1-15	1/20/23 HL-30	.32 4/17/20	MT-98.28	1/17/20	TC-21 <b>.</b> 21	1/20/23	TC-72 <b>.</b> 20	7/20/18			878	1/21/22				
DM-4.1	7/17/20			AS-2-15	1/20/23 HL-30	.41 1/21/22	MT-98.29	1/17/20	TC-21 <b>.</b> 50	4/17/20	TC-73.20	1/17/20			902	7/19/19	SPEC	IAL		
DM-4.2	7/20/12	MGS-1.1	7/16/21	BR-2-15	1/21/22 HL-40	.10 7/17/20	MT-99.20	4/19/19	TC-22.20	1/17/14	TC-74.10	1/20/23			903	7/20/12	PROVI	SIONS		
DM-4.3	1/15/16	MGS-2.1	1/19/18	HW-2.1	7/20/18 HL-40	.20 7/15/22	MT-99.30	1/17/20	TC-41.20	10/18/13	TC-81.22	7/15/22			904	7/15/22	NO	NE		

#### PROJECT DESCRIPTION

THIS PROJECT WILL CREATE A NEW COLLECTOR DISTRIBUTOR ROAD FROM SR-32 AND TIE INTO THE EXISTING RAMP FROM SR-32 TO EASTGATE N DR. IN ADDITION, A NEW RAMP WILL BE CONSTRUCTED FROM SR-32 TO GLEN ESTE-WITHAMSVILLE RD. ACCESS FROM SR 32 AT GLEN ESTE-WITHAMSVILLE ROAD WILL BE REMOVED. THIS IS PHASE 8 OF THE EASTERN CORRIDOR SEGMENT IVA PROJECT.

PROJECT EARTH DISTURBED AREA: 6.63 ACRES ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 2.00 ACRES NOTICE OF INTENT EARTH DISTURBED AREA: 8.63 ACRES

#### LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

#### 2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

## MAINTENANCE OF TRAFFIC ENDORSEMENT

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEETS 11 - 59 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

Tany K Carpbell Tammy K. Campbell, P.E. District 08 Deputy Director

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Jack Marchbanks, PhD Director, Department of Transportation

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#### CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

#### SEEDING AND MULCHING

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THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659,	SOIL ANALYSIS TEST	2	EACH
659,	TOPSOIL	1,060	CU.YD.
659,	SEEDING AND MULCHING	9,54	6 SQ. YD.
659,	REPAIR SEEDING AND MULCHING	477	SQ. YD.
659,	INTER-SEEDING	477	SQ. YD.
659,	COMMERICAL FERTILIZER	1.33	TON
659,	LIME	1.97	ACRES
659,	WATER	53	M GALS
659,	MOWING	21 M	SQ. FT.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

#### ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

#### PART WIDTH CONSTRUCTION

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

#### ITEM 206 - MIXTURE SOILS, AS PER PLAN

OBTAIN SOIL SAMPLES AS OUTLINED IN SUPPLEMENT 1120 FOLLOWING EXCAVATION OR EMBANKMENT PLACEMENT TO THE DESIGN SUBGRADE LEVEL. THE SOIL SAMPLES FOR SUPPLEMENT 1120 TESTING ARE TO BE OBTAINED FROM THE ACTUAL SUBGRADE SOILS. SAMPLING OF THE SOILS OUTSIDE THE ACTUAL STABILIZATION LIMITS OR FROM A BORROW AREA IS PROHIBITED. THE CONSTRUCTION SCHEDULE SHALL INCLUDE SPECIFIC ACTIVITIES FOR SAMPLING AND TESTING OF THE SUBGRADE SOILS FOR ALL PHASES OR PARTIAL PHASES OF CONSTRUCTION. PERFORM THE MIXTURE DESIGN PROCEDURE FOR EACH PHASE AS OUTLINED IN SUPPLEMENT 1120. DURING CONSTRUCTION, OBTAIN FIELD VERIFICATION SAMPLES FOR EACH PHASE OF CONSTRUCTION AND SUBMIT THE TEST RESULTS FOR EACH PHASE AS THE LABORATORY TESTING IS COMPLETE.

#### ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. SEE PLAN SHEET 70 & 71 FOR ADDITIONAL INFORMATION.

ITEM 204 - PROOF ROLLING 11 HOURS.

#### PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT OF WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS) A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRICT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED AS 30 FEET FROM THE EDGE OF PAVEMENT.

SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. EXCEPT AS INDICATED ON SHEET \_\_\_\_ USE OF THESE AREAS FOR DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS AS DEFINED ABOVE WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

#### ITEM 206 - MIXTURE DESIGN FOR CHEMICALLY STABILIZED

#### 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.

#### PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF PIPES.

ITEM 301 ASPHALT CONCRETE BASE, PG64-22, (449) 34 CU. YDS.

THE ABOVE QUANTITY IS BASED ON A 301 THICKNESS OF 12 INCHES AND A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

#### ITEM 606 - IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 2 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. THE FACE OF THE IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2 [60 MPH, 34 IN, (BIDIRECTIONAL)], EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

#### ITEM 202 - REMOVAL MISC.: PRIVATE SIGN AND FOUNDATION

THIS ITEM CONSISTS OF A DUAL STEEL POST SIGN STRUCTURE WITH AN ABOVE GROUND MASONRY FOUNDATION APPROXIMATELY 6' × 12' × 4'. THE SIGN IS LOCATED ON PARCEL 726, JUST NORTH OF SR-32 NEAR STA 159+50, JUST EAST OF FAYARD DR. AS SHOWN ON SHEET 87. THIS ITEM SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL MATERIAL ASSOCIATED WITH THE SIGN, STRUCTURE, AND MASONRY FOUNDATIONS TO ONE FOOT BELOW THE EXISTING GRADE. APPROXIMATE DIMENSIONS OF SIGN FACES ARE 8' × 6'. ANY REMAINING HOLE FROM THE REMOVAL OF THE SIGN SHALL BE FILLED.

#### CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.



#### DRAINAGE DISCHARGE CONTINUANCE

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#### DOCUMENTATION

DRAINAGE DISCHARGE CONTINUANCE	REMOVE THE NEWLY INSTALLED CONDUIT AND ANY EXISTING CONDUIT TO THE RIGHT OF WAY LINE. FOR	ALCULATED MSW CHECKED
FURNISH A DRAINAGE DISCHARGE CONTINUANCE FOR ANY DRAINAGE DISCHARGE DISTURBED BY THE WORK AND NOT SHOWN IN THE PLANS. THE LOCATION, TYPE (CONDUIT ORSWALE), SIZE AND GRADE OF THE DRAINAGE DISCHARGE CONTINUANCE WILL BE AGREED TO BY THE ENGINEER	CONDUIT THAT OUTLETS THROUGH THE CURB RESTORE THE CURB BY FILLING THE HOLE WITH CLASS QC 1 CONCRETE OR REPLACE THE CURB SECTION. FOR CONDUIT THAT OUTLETS TO A STORM SEWER OR DRAINAGE STRUCTURE LEAVE 6 INCHES PROTRUDING OUTSIDE OF THE CONDUIT.	õ
FURNISH AN INSPECTION WELL AT THE RIGHT OF WAY LINE IN ACCORDANCE WITH SCD DM-3.1 FOR EACH DRAINAGE DISCHARGE THAT OUTLETS THROUGH A CURB OPENING, OR INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST IS INCLUDED IN ITEM 611, INSPECTION WELL.	PLUG THE PROTRUDING CONDUIT WITH EITHER A MANUFACTURED CAP OR CLASS QC 1 CONCRETE. FOR CONDUIT THAT OUTLETS TO THE DITCH REMOVE THE EROSION CONTROL PAD. RESTORE ALL AREAS AS REQUIRED. PLUG THE EXISTING CONDUIT REGARDLESS OF SIZE AT THE RIGHT OF WAY LINE WITH CLASS QC 1 CONCRETE AND RESTORE ALL AREAS AS REQUIRED. ALL	
FURNISH A WELL GRADED TRANSITION BETWEEN THE DITCH AND THE SWALEWHEN OUTLETTING A SWALE TO A DITCH.	CONDUIT.	
THE COST FOR THE GRADED TRANSITION IS INCLUDED IN ITEM 203, EMBANKMENT AS PER PLAN	DAM THE SWALE THAT OUTLETS TO THE DITCH AT THE R/W AS DIRECTED BY THE ENGINEER. ALL COSTS ARE INCLUDED IN ITEM 203 EMBANKMENT AS PER PLAN	
FURNISH AN EROSION CONTROL PAD AS SHOWN IN SCD DM-1.1 WHEN OUTLETTING A CONDUIT TO A DITCH. THE COST FOR THE EROSION CONTROL PAD IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE C FOR DRAINAGE	REMOVE THE INSPECTION WELL AND RESTORE ALL AREAS AS REQUIRED. THE COST IS INCLUDED IN ITEM 202, REMOVAL MISC. INSPECTION WELL.	S L L
FURNISH A DRILLED HOLE OR A CURB SECTION WITH A HOLE WHEN OUTLETTING A CONDUIT THROUGH A CURB OPENING. THE COST OF DRILLING, OR FURNISHING THE CURB SECTION WITH HOLE IS INCLUDED IN ITEM 611,	CONDUIT MATERIAL TYPES THE FOLLOWING CONDUIT MATERIAL TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, AND 707.52 SDR35. RAY ITEMS	AL NO1
CONDUIT, MISC TIPE F FOR DRAINAGE DISCHARGE CONTINUANCE.	PAY ITEMS EACH OF THE PAY ITEMS LISTED BELOW FOR CONDUIT MISCELLANEOUS TYPES B, C, E AND F FOR DRAINAGE	
FURNISH A DRILLED CORE HOLE WHEN OUTLETTING INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST OF THE DRILLED CORE HOLE IS INCLUDED IN ITEM 611, CONDUIT. MISC TYPE B FOR DRAINAGE DISCHARGE	DISCHARGE CONTINUANCE INCLUDE CONDUIT SIZES 2 INCH TO 10 INCH. THERE IS NO COST DIFFERENTIATION FOR SIZE IN THESE PAY ITEMS.	Ш С
CONDUIT, MISC THEE B FOR DRAINAGE DISCHARGE CONTINUANCE. DOCUMENTATION THE CONTRACTOR SHALL FURNISH WRITTEN DOCUMENTATION TO THE ENGINEER AND TO THE DISTRICT R/W PERMIT OFFICE. THE DOCUMENTATION INCLUDES THE CONSTRUCTION PROJECT NUMBER, PID, COUNTY, ROUTE, SECTION, LATITUDE AND LONGITUDE OF THE DRAINAGE DISCHARGE AT THE R/W, THE NAME OF PROPERTY OWNER WITH ADDRESS, THE DATE THE DRAINAGE DISCHARGE WAS LOCATED, THE DATE THE DRAINAGE DISCHARGE WAS LOCATED, THE DATE THE DRAINAGE DISCHARGE CONTINUANCE WAS FURNISHED, A DETAILED DESCRIPTION OF THE WORK AND PICTURES OF THE DRAINAGE DISCHARGE CONTINUANCE (IN PDF OR JPEG FORMAT). THE DOCUMENTATION IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE E FOR DRAINAGE DISCHARGE CONTINUANCE OR ITEM 203, EMBANKMENT AS PER PLAN DRAINAGE DISCHARGE CONTINUANCE REMOVAL	THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IN MAKING THE ABOVE DRAINAGE DISCHARGE CONTINUANCE; ITEM 611, 10 FT.CONDUIT, MISC TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE ITEM 611, 10 FT.CONDUIT, MISC TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE ITEM 611, 10 FT.CONDUIT, MISC TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE ITEM 611, 10 FT.CONDUIT, MISC TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE ITEM 611, 10 FT.CONDUIT, MISC TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE ITEM 611, 10 FT.CONDUIT, MISC TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE ITEM 611, 10 FT.CONDUIT, MISC TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE ITEM 611, 10 FT.CONDUIT, MISC TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE ITEM 611, 10 FT.CONDUIT, MISC TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE ITEM 612, 20 FT. REMOVAL MISC CONDUIT ITEM 202, 2 EACH REMOVAL MISC CONDUIT ITEM 203, 50 CUBIC YARD EMBANKMENT AS PER PLAN	
THE ENGINEER MAY REQUIRE THE NEWLY INSTALLED DRAINAGE DISCHARGE CONTINUANCE TO BE REMOVED.		CLE-32-2.33 (PHASE 8)
	****	10A 262

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9	10	10A	67	68	69	71	72	73	77			01/NHS/04		ЕХТ	TOTAL		
LS												LS	201	11000	LS		CLEARING AND GRUBBING
			7 084			524						2 7.608	202	23000	2 7.608	EALH SY	HEADWALL REMOVED
			7,004			842						842	202	23500	842	SY	WEARING COURSE REMOVED
			145			012						145	202	30000	145	SF	WALK REMOVED
			970									970	202	32000	970	FT	CURB REMOVED
			404									404	202	35100	404	FT	PIPE REMOVED, 24" AND UNDER
		8	43									43	202	35200	43	FT	PIPE REMOVED, OVER 24"
			580									580	202	38000	580	FT	GUARDRAIL REMOVED
												7		50100		5400	
												3	202	58100	3	EACH	CATCH BASIN REMOVED
			2,970									2,970	202	98100	2,970	Г I БЛСН	PENCE REMOVED REMOVAL MISC . PRIVATE SIGN AND EL
	1											1	202	98100	1	EACH	REMOVAL MISC. PRIVATE ELAG POLE
		2	$\left\{ \begin{array}{c} \\ \end{array} \right\}$								1	$\gamma$	202	98100	2	FACH	REMOVAL MISC.: INSPECTION WELL
		20	\$								5	20	202	98200	20	FT	REMOVAL MISC.: CONDUIT
			K									·····	uuu	·····	uu	uu	mmmm
		8	Į				7,077					7,077	203	10000	7,077	CY	EXCAVATION
			K				5,016					5,016	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	20000	5,016	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	EMBANKMENT
		50									6	50	203	20001	50	CY	EMBANKMENT, AS PER PLAN
			{			1,946						1,948	204	10000	1,948	ngu	SUBGRADE COMPACTION
11			/									11	204	45000	11	HOUR	PROOF ROLLING
						19,350						19,350	206	10010	19,350	SY	LIME STABILIZED SUBGRADE, 12 INCHE
						501						501	206	10300	501	TON	LIME
						19,350				 		19,350	206	11000	19,350	SY	CURING COAT
LS												LS	206	30001	LS		MIXTURE DESIGN FOR CHEMICALLY STA
				262.5								262 5	606	15050	262.5		CUADDATI TYDE MCS
				625								625	606	15050	625	FT FT	GUARDRAIL, TIFE MGS
				3								3	606	26150	3	FACH	ANCHOR ASSEMBLY MGS TYPE E (MASE
				1								1	606	26550	1	FACH	ANCHOR ASSEMBLY, MGS TYPE T
				3								, 3	606	35002	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY. TYP
					1							1	606	35102	1	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYP
				1								1	606	60022	1	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIR
				2,349								2,349	607	23000	2,349	FT	FENCE, TYPE CLT
				2,349								2,349	607	70000	2,349	FT	FENCELINE SEEDING AND MULCHING
		_															
					1,867							1,867	622	10060	1,867	FT	CONCRETE BARRIER, SINGLE SLOPE, T
					1,498							1,498	622	10120	1,498	FT FT	CONCRETE BARRIER, SINGLE SLOPE, T
					825							825	622	10160	825		CONCRETE BARRIER, SINGLE SLOPE, T
					1/1							1/1	622	10161	///	F I	CONCRETE BARRIER, SINGLE SLOPE, T
		-			019							879	622	10101	079	F I E A C H	CONCRETE BARRIER, SINGLE SLOPE, I
					5							ו 5	622	24040	7		CONCRETE BARRIER END SECTION, TH
					10							10	622	25000	10	FACH	CONCRETE BARRIER END ANCHORAGE
					10							10	622	25004	10	FACH	CONCRETE BARRIER, END ANCHORAGE,
					7							7	622	25050	7	EACH	CONCRETE BARRIER, END ANCHORAGE.
					2							2	622	25051	2	EACH	CONCRETE BARRIER, END ANCHORAGE,
	LS											LS	SPECIAL	69098400	LS		CONSULTANT FOR CONCRETE QUALITY
												LS	878	25000	LS		INSPECTION AND COMPACTION TESTIN
	8										↓ ↓	8	601	21050	8	SY 	TIED CONCRETE BLOCK MAT WITH TYP
				<b> </b>				150			┨────┤	150	601	38501	150	FT	PAVED GUITER, TYPE 3, AS PER PLAN
2											┨───┤	2	659	00100	2	EACH	SUIL ANALYSIS IESI
1,000 9 EAC				[							┨────┤	1,UOU 0 EAC	059 650	10000	1,000 0 E 40		SEEDING AND MULCUING
э,040 Л77											┨───┤	Э,340 Л77	009 650	10000	Э,540 Л77		SEEVING AND MULCHING
411											┨────┤	4//	033	14000	4//	51	NEFAIR SEEDING AND MULCHING
477											+	477	659	15000	<u> </u>	۲Y	INTER-SEEDING
1.33											+ +	1.33	659	20000	1.33	TON	COMMERCIAL FERTILIZER
1.97		1		1							+ +	1.97	6.5.9	31000	1.97	ACRF	LIME
53											+ +	53	65.9	35000	53	MGA/	WATER
21				1								21	659	40000	21	MSF	MOWING
·																	-
				1			1		LS			LS	832	15000	LS		STORM WATER POLLUTION PREVENTION
									LS			LS	832	15002	LS		STORM WATER POLLUTION PREVENTION
									LS			LS	832	15010	LS		STORM WATER POLLUTION PREVENTION
									69,692			69,692	832	30000	69,692	EACH	EROSION CONTROL

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DESCRIPTION	SEE SHEET NO.	CALCULATED MSW CHECKED MHT
ROADWAY		
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BILIZED SOILS, AS PER PLAN	9	RAL
STS 1 2016)		SENE
PE 1 PE 2		0
ECTIONAL) [60 MPH/24 IN]		
YPE B YPE C		
YPE D YPE D, AS PER PLAN A	10	
YPE D, AS PER PLAN B PE B	10	
PE D REINFORCED, TYPE B		
REINFORCED, TYPE D		
REINFORCED, TYPE D, AS PER PLAN	10	
CONTROL INCLUDING TESTING AND INSPECTION G OF UNBOUND MATERIALS	10	
EROSION CONTROL		
	10	.33 8)
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N PLAN N INSPECTIONS		60
N INSPECTION SOFTWARE		262

DESCRIPT	UNIT	GRAND	ITEM	ITEM	<b>PART</b> .	<b>I</b>		1	UM。 1		SH			$\sim$	(	
		TOTAL	EXT		01/NHS/04					75	73	71	68	10A	10	9
DRAINAGE													$\left\{ \begin{array}{c} \\ \\ \end{array} \right\}$	- -		
CONCRETE MASONRY	СҮ	0.5	20000	602	0.5						0.5		$\sum_{i=1}^{i}$			
6" SHALLOW PIPE UNDERDRAINS	FT	2,390	11100	605	2,390					2,390			$\overline{\mathbf{A}}$			
6" UNCLASSIFIED PIPE UNDERDRAINS	FT	200	13300	605	200								2		200	
6" BASE PIPE UNDERDRAINS	FT	9,200	14000	605	9,200					9,200			$\sum_{i=1}^{n}$			
4" CONDUIT, TYPE F	FT	200	00406	611	200								$\sum_{i=1}^{i}$		200	
		400	00510	0.11	100					100			ζ		(	
6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	FI	492	00510	6//	492					492	20		Ϋ́			
6" LUNDUIT, TYPE B	FI	20	00900	6//	20						20		<───			
15" LONDUIT, TYPE B	F I	1,422	05900	6//	1,422						1,422		3			
15 CONDUIT, TTPE B, TUB.UZ, JUINTS PER TUB.IT	F I	151 66	05900	611	151 66						131 66		$\frac{1}{2}$			
13 CONDOIT, TIFE C		00	00100	011	00						00		3		(	
		216		611	216						216		<u>}</u>			
ZI CONDUIT, ITTE B		210	16400	611	210 1E						210 1E		{			
SO CONDUIT, TIFE B, JOINTS FER TOO.II	F I	40	10400	011	43						40		<u>}</u>			
		$\sim$	07400										<u>}</u>	10		
CONDUIT, MISC. TYPE B FOR DRAINAGE DISCHARGE LO	FI	10	97400	6//	10								ζ	10	(	
LONDUIT, MISL. TYPE L FOR DRAINAGE DISCHARGE LO	FI	10	97400	6//	. 10								<u>}</u>	10		
CONDUIT, MISC.: TYPE E FOR DRAINAGE DISCHARGE CO	FI	10	97400	6//	10								2	10		
CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHARGE CO	<i>F 1</i>	10	97400	611	, 10								ζ	10	(	
													ý			
CATCH BASIN, NO. 3	EACH	2	98150	611	2						2		ζ			
CATCH BASIN, NO. 3A	EACH	1	98180	611	1						1		ζ		(	
CATCH BASIN, NO. 5	EACH	5	98300	611	5						5		2			
													ζ			
CATCH BASIN, NO. 6	EACH	4	98370	611	4						4		3			
CATCH BASIN, NO. 2-2B	EACH	1	98470	611	1						1		2			
CATCH BASIN RECONSTRUCTED TO GRADE	EACH	1	98634	611	1						1		ζ			
CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	EACH	2	98635	611	2						2		5		(	
INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B	EACH	1	99094	611	1						1		$\mathcal{L}$			
													$\boldsymbol{\zeta}$			
INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C	EACH	3	99104	611	3						3		)			
INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D	EACH	2	99114	611	2						2		$\langle \rangle$			
INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS	EACH	3	99115	611	3						3		3			
MANHOLE, NO. 3	EACH	7	99574	611	7						7		Ź			
MANHOLE RECONSTRUCTED TO GRADE	EACH	2	99660	611	2						2		$\boldsymbol{\zeta}$			
													5		Ó	
PRECAST REINFORGED CONCRETE OUTLET	FACH	~~~~	~~ <del>99710</del> ~	~~6H~~	man								2		4	
INSPECTION WELL	EACH	2	99720	611	2								3	2		
TRENCH DRAIN, TYPE B WITH STANDARD GRATE	upper	335	30000	839	335						335		ý –	·····	(	
PAVEMENT		7.4		7.04	7.											
ASPHALI CONCRETE BASE, PG64-22, (449)	CY		56000	301	34					<u> </u>						)4
ASPHALI CONCRETE BASE, PG64-22, (449)	CY	5,083	56000	302	5,083							5,083				
AGGREGATE BASE	CY	4,574	20000	304	4,574							4,574				
NON-TRACKING TACK COAT	GAL	3,308	20000	407	3,308							3,308				
ANTI-SEGREGATION EQUIPMENT	CY	886	00100	442	886							886				
ASPHALI CONCRETE SURFACE COURSE, 12.5 MM, TYPE	CY	789	10000	442	789							789				
ASPHALI CONCRETE INTERMEDIATE COURSE, 19 MM, TYI	CY	925	10100	442	925							925				
11" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1	SY	2,679	14110	452	2,679							2,679				
CURB, TYPE 4-A	FT	19	24000	609	19								19			
CURB, TYPE 4-C	FT	1,254	24510	609	1,254								1,254			
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DESCRIPTION	SEE Sheet No.	CALCULATED MSW CHECKED MHT
DRAINAGE		
DNAINAOL		
DRAINS		
NDERDRAINS		
NS		
R UNDERDRAIN OUTLETS		
06.02, JOINTS PER 706.11		
OINTS PER 706.11		
	$\sim$	
FOR DRAINAGE DISCHARGE CONTINUANCE	10A	
FOR DRAINAGE DISCHARGE CONTINUANCE	10A	
FOR DRAINAGE DISCHARGE CONTINUANCE FOR DRAINAGE DISCHARGE CONTINUANCE	10A 10A	MAF
		SUM
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JCTED TO GRADE		2 V
JCTED TO GRADE, AS PER PLAN	10	
E SLOPE BARRIER, TYPE B		Z
E SLOPE BARRIER, TYPE C		Ш (5
E SLOPE BARRIER, TYPE D		
E SLOPE BARRIER, TYPE D, AS PER PLAN	161	
D TO GRADE		
DNCRETE OUTLET		
NITH STANDARD CRATE		
ITTT STANDARD UNATE		
PAVEMENT		
E, PG64-22, (449) E, PG64-22, (449)		
AT PMENT		
FACE COURSE 12 5 MM TYPE & (AAG)		
ERMEDIATE COURSE, 19 MM, TYPE A (446)		
ICRETE PAVEMENT, CLASS QC 1P		
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		GRAND	ITEM	1754	PART.						JM.	EET NU	SH					
		TOTAL	EXT	IIEM	01/NHS/04									189	167	166	165	76
6" CUTTING-IN SLEEVE	EACH	2	08704	638	2													2
WATER WORK, MISC.:6" DUCTILE IRON W	FT	20	98600	638	20													20
MANHOLE ADJUSTED TO GRADE	EACH	1	99654	611	1													1
NO. 1/0 AWG 2400 VOLT DISTRIBUTION	FT	2,800	22900	625	2,800									2,800				
CONDUIT, 2", 725.051	FT	660	25408	625	660									660				
TRENCH, 30" DEEP	FT	660	29010	625	660									660				
PULL BOX, 725.08, 18" PULL BOX, 725.08, 32", AS PER PLAN	EACH EACH	2	<u> </u>	625 625	2									2				
PUILL BOX REMOVED	FACH	1	31510	625	1									1				
GROUND ROD. AS PER PLAN	EACH	1	32001	625	1									1				
POWER SERVICE, AS PER PLAN	EACH	1	34001	625	1									1				
PULL BOX CLEANED	EACH	1	39520	625	1									1				
OVERHEAD SIGN SUPPORT FOUNDATION,	EACH	1	70082	630	1									1				
CABINET FOUNDATION, AS PER PLAN	EACH	1	67101	633	1									1				
ITS DEVICE, MISC.: REMOVE AND RELOC	EACH	1	65990	809	1									1				
	ΓΛΟΙΙ	200	00100	621	200										200			
RPM RAISED PAVEMENT MARKER REMOVED	EACH	209	54000	621 621	209										209			
TAISED TAVEMENT MARKEN REMOVED	LACIT	200	54000	021	200										200			
GROUND ROD	EACH	6	32000	625	6												6	
BARRIER REFLECTOR, TYPE 1, ONE-WAY BARRIER REFLECTOR, TYPE 2, ONE-WAY	EACH EACH	110 15	00102 00110	626 626	110 15											110 15		
GROUND MOUNTED SUPPORT, NO. 3 PO	FI		03100	630	56	m	m	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~	~~~~~	~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	$\sim$		$\sim$		(
OVERHEAD SIGN SUPPORT, TYPE TC-12.	EACH	2	72330	630	2												2	{
OVERHEAD SIGN SUPPORT, TYPE TC-12.	EACH		72340	630		uu	h	·····	·····	·····	·····	·····	·····	·····	h	·····		{
	ΓΛΟΙΙ	2	72410	670	2												2	
OVERHEAD SIGN SUPPORT, TIPE TC-15. OVERHEAD SIGN SUPPORT TYPE TC-15	ΕΔΟΗ	2	72410	630	2												1	
SIGN. FLAT SHEET	SF	19	80100	630	19												19	
SIGN, GROUND MOUNTED EXTRUSHEET	SF	28	80200	630	28												28	
SIGN, OVERHEAD EXTRUSHEET	SF	793	80224	630	793												793	
SIGN, TEMPORARY OVERLAY	SF	234	80300	630	234												234	
CONCRETE MEDIAN BARRIER SIGN BRACK	EACH	2	81021	630	2												2	
CONCRETE BARRIER MEDIAN OVERHEAD RIGID OVERHEAD SIGN SUPPORT FOUND	EACH EACH	3	84010 84510	630 630	3 4												<u> </u>	
REMOVAL OF GROUND MOUNTED SIGN A	ЕЛСН	Δ	84900	630	Δ												Δ	
REMOVAL OF GROUND MOUNTED MAJOR	EACH	3	85400	630	3												3	
REMOVAL OF GROUND MOUNTED POST S	EACH	7	86002	630	7												7	
REMOVAL OF GROUND MOUNTED STRUCT	EACH	6	86102	630	6												6	
REMOVAL OF OVERHEAD MOUNTED SIGN	EACH	2	87100	630	2												2	
REMOVAL OF OVERHEAD MOUNTED SIGN	EACH	2	87400	630	2												2	
REMOVAL OF OVERHEAD SIGN SUPPORT REMOVAL OF OVERHEAD SIGN SUPPORT	EACH EACH	2	89706 89802	630 630	2												2	
		1 20	00104	£11	1 20											1 20		
LOOL LINE, O	MILE MII F	4.JZ 2 91	00104	044 644	4.JZ 2 91											4.32 2 91		
CHANNELIZING LINE. 12"	FT	842	00404	644	842											842		
CHEVRON MARKING	FT	154	00720	644	154											154		
UUTIEU LINE, 6"	<i>F1</i>	379	01510	644	379											379		

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DESCRIPTION	SEE Sheet NO.	CALCULATED MSW CHECKED MHT
WATER WORK		
ER MAIN AND DUCTILE IRON FITTINGS (CCWRD ITEM 2110)	207	
SANITARY SEWER		
TRAFFIC SURVEILLANCE NBLE		
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	188	<b>&gt;</b>
	188	AR
IS PEDESTAL		M M
E DMS OR DEVICE	188 188	SUR
TRAFFIC CONTROL		<b>AL</b>
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		Ċ
DESIGN 10		
DESIGN 12		
DESIGN 1		
DESIGN 7 DESIGN 2		
, AS PER PLAN N SUPPORT FOUNDATION, TYPE TC-21.50	163	
ON		
DISPOSAL SN AND DISPOSAL		
PORT AND DISPOSAL AL BEAM SUPPORT AND DISPOSAL D REERECTION		.33 8)
D DISPOSAL D DISPOSAL, TYPE TC-12.30		32-2 SE
D DISPOSAL, TYPE TC-7.65		Р¦⊓ НШ
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	SELECT GRAWULAR BACKFILL PER	
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SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	GROUND ROD	GROUND MOUNTED SUPPROT, NO. 3 POST		OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 10	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	SIGN, FLAT SHEET	SIGN, GROUND MOUNTED EXTRUSHEET	SIGN, OVERHEAD EXTRUSHEET	SIGN, TEMPORARY OVERLAY	CONCRETE MEDIAN BARRIER SIGN BRACKET, AS PER PLAN	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TC-21.50	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	REMOVAL OF GROUND MOUNTED
							EACH	FT		EACH	EACH	EACH	EACH	SF	SF	SF	SF	EACH	EACH	EACH	EAC
170	R-1 OS-1 R-2	RAMP F RAMP F SR 32	121+08 122+39 122+70	RT RT LT	ADV. OVHD.	156 X 132	1			1						143			1		1
171			NO ASSOCIATED C	UANTITIES	 S							2									
172			NO ASSOCIATED G	QUANTITIES	5	1			-			3									
												<u>}</u>									
173	OS-2 RR-1	RAMP F RAMP F	139+50 139+53	RT RT	ADV. OVHD.		1			1		$\frac{2}{2}$							1		
												2									-
174	R-3	RAMP F	144+75	RT																	1
175	R-4	RAMP F	148+50	RT					-			3									1
	<i>R-</i> 5	RAMP F	150+50	RI								ξ									
176	R-6 0S-3	RAMP F RAMP F	153+50 154+00	RT LT / RT	EXIT THRU EXIT OVHD.	156 X 60 204 X 60	1					) } }				65 85	60		1	1	
									-			3									
1//	R-7 S-1	RAMP F RAMP F	158+56 158+56	RI RT	D10-H8	12 X 12						X		1				1			
	S-2	RAMP F	159+48 161+50	RT	E5-H1d W21-5AP	48 X 84		28				Ş		0	28			1			
	3-3		101+35		WZI-JAR	JO X JO		20				<u>}</u>		9							
178	05-4 5-4	SR 32 RAMP F	163+50 166+60	LT LT	EXIT OVHD. W21-5BR	240 X 96 36 X 36	1	28					1	9		160	58		EXIST	1	
179	R-8	SR 32	173+50	LT					- - -			5 7 7									
180	<i>0S-5</i>	SR 32	191+00	LT	ADV. OVHD.	204 X 120	1				1	$\frac{1}{2}$				170	58			1	
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262



3. FOR SIGN ELEVATION VIEW, SEE SHEET 186

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CLE-(PH)

180

262



	CALCULATED 0 5 hjf 2.5 10 CHECKED HORIZONTAL 0 CCHECKED SCALE IN FEET
RAMP F	SIGN ELEVATION VIEW SR 32 - RAMP F
	CLE-32-2.33 (PHASE 8)
	182 262







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## STATE OF OHIO DEPARTMENT OF TRANSPORTATION

# CLERMONT COUNTY

## FOR PART 1, SEE CLE-32-2.33 (PHASE 8)

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STANDARD CONSTRUCTION DRAWINGS						
	SEE DART 1				SEE PART I	
	JLLIANTI					
					SPECIAL	
					PROVISIONS	
					SEE PART 1	

## PROJECT DESCRIPTION

THIS PROJECT WILL CREATE A NEW PARTIAL SERVICE INTERCHANGE ALONG SR-32 BY WIDENING AND EXTENDING GLEN ESTE-WITHAMSVILLE ROAD OVER SR-32. IN ADDITION, THE OFF RAMP CONNECTING SR-32 TO GLEN ESTE-WITHAMSVILLE ROAD WILL BE COMPLETED. AT-GRADE ACCESS TO SR-32 AT GLEN ESTE-WITHAMSVILLE ROAD WILL BE REMOVED. THIS IS PHASE 9 OF THE EASTERN CORRIDOR SEGMENT IVA PROJECT.

PROJECT EARTH DISTURBED AREA:9.24 ACRESESTIMATED CONTRACTOR EARTH DISTURBED AREA:5.71 ACRESNOTICE OF INTENT EARTH DISTURBED AREA:14.95 ACRES

## LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

## 2023 SPECIFICATIONS

ENGINEERS SEAL:

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

## MAINTENANCE OF TRAFFIC ENDORSEMENT

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEETS 17 - 19 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

![](_page_17_Picture_17.jpeg)

![](_page_17_Picture_18.jpeg)

OHIO811, 8-1-1, or 1-800-362-2764 (Non-members must be called directly)

PLAN PREPARED BY:

![](_page_17_Picture_21.jpeg)

400 W. NATIONWIDE BLVD., SUITE 225 COLUMBUS, OH 43215

Tany K Carpell Tammy K. Campbell, P.E. District 08 Deputy Director

ck Marchbanks, PhD

Director, Department of Transportation

FEDERAL PROJECT NO.	E200 (428)	
PID NO.	103957	
CONSTRUCTION PROJECT NO.		
RAILROAD INVOLVEMENT	NONE	
CLE-CR55-OVRPASS	(PHASE 9)	
	1 53	

#### CLEARING AND GRUBBING

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS. IN ADDITION, UNLESS SPECIFICALLY DESIGNATED AS "DO NOT DISTURB" (DND) IN THE PLANS, REMOVE ALL TREES, STUMPS, AND BUSHES WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS	TOTAL
18″	19	0	19
30″	3	0	3

#### SEEDING AND MULCHING

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THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659,	SOIL ANALYSIS TEST	2	EACH
659,	TOPSOIL	1,002	CU. YD.
659,	SEEDING AND MULCHING	9,025	SQ. YD.
659,	REPAIR SEEDING AND MULCHING	451	SQ. YD.
659,	INTER-SEEDING	451	SQ. YD.
659,	COMMERICAL FERTILIZER	1.26	TON
659,	LIME	1.86	ACRES
659,	WATER	50	M GALS
659.	MOWING	20	M SQ. FT.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

#### ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

#### ITEM SPECIAL: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION

ALL CONCRETE SHALL BE TESTED. ALL TESTING, INSPECTION AND QUALITY CONTROL FOR CONCRETE, NOT INCLUDED UNDER QC/QA PAY ITEMS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A CONCRETE TESTING CONSULTANT WITH PREVIOUS EXPERIENCE AND FAMILIARITY IN ODOT PROCEDURES, CONCRETE TESTING REQUIREMENTS AND CONCRETE TESTING DOCUMENTATION. AT LEAST 30 DAYS PRIOR TO CONCRETE PLACEMENT, SUBMIT TO THE ENGINEER FOR APPROVAL, THE PROPOSED CONCRETE TESTING CONSULTANT ALONG WITH THE RESUMES OF THE PROPOSED TESTING PERSONNEL.

TESTING CONCRETE FOR STRUCTURES AND PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE PERFORMED AS OUTLINED IN CONSTRUCTION AND MATERIAL SPECIFICATIONS 455.

THROUGH THE CONTRACTOR, THE CONSULTANT SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONCRETE PLACED IS IN ACCORDANCE WITH THE SPECIFICATIONS. SUCH WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE ODOT CONSTRUCTION INSPECTION MANUAL OF PROCEDURES FOR CONCRETE. THE CONCRETE CONSULTANT SHALL PROVIDE THE NECESSARY TRAINED TECHNICIAN(S) AND EQUIPMENT AND SHALL FURNISH THE PROJECT ENGINEER WITH TWO (2) COPIES OF ALL TEST RESULTS WITHIN 24 HOURS AFTER COMPLETION OF CONCRETE PLACEMENT.

THE TECHNICIANS SHALL BE ACI LEVEL 1 CERTIFIED AND WILL BE REQUIRED TO DEMONSTRATE HIS/HER COMPETENCE AND EXPERIENCE LEVELS TO THE ENGINEER PRIOR TO BEGINNING WORK. THE ENGINEER WILL ORDER THE CONTRACTOR TO REPLACE ANY TECHNICIAN THAT IS NOT VERSED IN THE REQUIRED TESTING PROCEDURE.

THE TECHNICIAN SHALL VERBALLY NOTIFY THE ODOT PROJECT ENGINEER OF ANY FAILING TESTS AND SHALL SUBMIT FOLLOW-UP WRITTEN NOTIFICATION TO THE PROJECT ENGINEER OF REMEDIAL ACTION(S) TAKEN. TESTS SHALL BE TAKEN AS SPECIFIED WITHIN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, CONCRETE MANUAL OR APPROPRIATE SUPPLEMENTAL SPECIFICATION AS LISTED IN THE PROPOSAL GOVERNING THE PROJECT. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO MAKE IMMEDIATE CORRECTIONS OR ADJUSTMENTS TO THE CONCRETE MIX VIA DIRECT COMMUNICATION WITH THE CONCRETE SUPPLIER'S PLANT PERSONNEL TO MAINTAIN UNINTERRUPTED COMPLIANCE WITH THE SPECIFICATIONS UPON NOTIFICATION OF CONCRETE MIX NON-COMPLIANCE BY THE CONSULTANT TECHNICIAN. THE PROJECT ENGINEER MAY REQUIRE MORE FREQUENT TESTING AS CONDITIONS WARRANT.

UPON COMPLETION OF DAILY CONCRETE PLACEMENT(S), THE CONCRETE CONSULTANT SHALL PROVIDE THE PROJECT ENGINEER WITH DAILY TEST REPORTS, TE-45'S, INSPECTORS DAILY REPORT AND SUPPORTING DOCUMENTATION FOR EACH ITEM OF CONCRETE WORK PERFORMED SEPARATED BY MIX DESIGN. SUBSEQUENTLY, UPON COMPLETION OF AN ENTIRE CONCRETE SPECIFICATION ITEM, THE CONCRETE CONSULTANT SHALL ALSO PROVIDE THE PROJECT ENGINEER WITH TWO (2) COPIES OF AN ADDITIONAL INSPECTION REPORT BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHICH CONTAINS THE TESTING RESULTS SUMMARY FOR EACH ITEM BY CONTRACT REFERENCE NUMBER AND THE CONSULTANT'S CONCLUSIONS RELATIVE TO SPECIFICATION COMPLIANCE FOR ALL CONCRETE TESTING WORK.

THE ODOT PROJECT ENGINEER RESERVES THE RIGHT TO MAKE UNANNOUNCED QUALITY-CONTROL TESTS TO VERIFY PROCEDURES USED AND RESULTS BEING OBTAINED BY THE CONTRACTOR.

#### ITEM SPECIAL: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION (CONTINUED)

THE CONCRETE TECHNICIAN SHALL WORK UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, WHO WILL MONITOR THE CONCRETE TEST RESULTS. THE FINAL INSPECTION REPORTS FOR EACH COMPLETED ITEM SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO, CERTIFYING THAT ALL CONCRETE TESTS PROVIDED BY THE CONTRACTOR MET APPLICABLE CONTRACT REQUIREMENTS. A FINAL REPORT ISSUED BY THE CONSULTING FIRM SHALL CONTAIN A CERTIFIED STATEMENT OF COMPLIANCE WITH ODOT SPECIFICATIONS AND ANY OTHER CONCLUSIONS REGARDING THE CONCRETE MATERIALS INCORPORATED INTO THE PROJECT. SUCH STATEMENT SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO. AND, THE CONCRETE CONSULTANT SHALL BE REQUIRED TO ATTEND MONTHLY PROGRESS MEETINGS AS REQUIRED BY THE PROJECT ENGINEER.

ADDITIONALLY, THE CONTRACTOR SHALL BE REQUIRED TO KEEP A POSTED LIST OF BEAM AND CYLINDER IDENTIFICATION NUMBERS FOR THE PURPOSE OF IDENTIFYING THE CORRESPONDING PLACEMENT LOCATION AND CONCRETE SPECIFICATION ITEM.

PAYMENT SHALL BE BID AS LUMP SUM FOR ITEM SPECIAL STRUCTURES: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION. THE ITEM WILL BE PAID FOR AS FOLLOWS:

THE TECHNICIAN SHALL HAVE THE FULL EFFECT AND AUTHORITY OF AN ODOT PROJECT INSPECTOR IN DETERMINING ACCEPTABILITY OF MATERIAL AND CONCRETE PLACEMENT PRACTICES.

#### ITEM 202 - REMOVAL MISC.: PRIVATE SIGN AND FOUNDATION

THIS ITEM CONSISTS OF REMOVING ANY TYPE OF ABOVE GROUND SIGN FOUNDATION AS WELL AS THE COMPLETE ABOVE GROUND SIGN STRUCTURE. THE SIGN LOCATIONS, FOUNDATION TYPES, AND APPROXIMATE SIZES ARE AS LISTED IN THE CHART BELOW. THIS ITEM SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL MATERIAL ASSOCIATED WITH THE SIGN AND FOUNDATION TO ONE FOOT BELOW THE EXISTING GRADE. ANY REMAINING HOLE FROM THE REMOVAL OF THE SIGN SHALL BE FILLED.

REFERENCE NO.	SHEET NO.	PARCEL NO.	LOCATION
R-7	57	141	EAST OF GLEN ESTE WITHAMSVILLE STA 14+89 AND SOUTH OF PRIVATE DRIVE
<i>R-27</i>	57	141	EAST OF GLEN ESTE WITHAMSVILLE STA 15+58 AND NORTH OF PRIVATE DRIVE
R-29	57	430	EAST OF GLEN ESTE WITHAMSVILLE STA 16+95 AND NORTH OF PRIVATE DRIVE
R-36	58	430	EAST OF GLEN ESTE WITHAMSVILLE STA 18+70 AND SOUTH OF SR-32
R-78	59	817	WEST OF GLEN ESTE WITHAMSVILLE STA 25+45 AND SOUTH OF EASTGATE NORTH
R-80	59	710	WEST OF GLEN ESTE WITHAMSVILLE STA 25+45 AND SOUTH OF EASTGATE NORTH
R-101	62	143	SOUTH OF EASTGATE SOUTH STA 55+45 AN WEST OF GLEN ESTE WITHAMSVILLE
R-102	62	146	NORTH OF EASTGATE SOUTH STA 54+83 AN WEST OF GLEN ESTE WITHAMSVILLE
R-103	62	146	NORTH OF EASTGATE SOUTH STA 55+25 AN WEST OF GLEN ESTE WITHAMSVILLE
R-127	64	150	SOUTH EASTGATE NORTH STA 48+45 AND EAST OF GLEN ESTE WITHAMSVILLE
R-142	67	710	SOUTH OF RAMP R STA 144+35 AND NORTH OF SR-32 (EAST OF GEW)

![](_page_18_Figure_31.jpeg)

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO. OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IT IS IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT. OR EXISTING APPURTENANCE TO BE CONNECTED. DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

#### CLEAN WATER CONNECTIONS TO SANITARY SEWERS

ROOF DRAINS, FOUNDATION DRAINS, DRAIN TILES, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SYSTEM ARE PROHIBITED.

#### PONDING

FENCE LENGTHS

THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS TO ALL AREAS THAT HOLD WATER AFTER CONSTRUCTION OF THE CURB RAMPS. THESE AREAS INCLUDE ANY AND ALL AREAS WITHIN THE PEDESTRIAN RIGHT-OF-WAY APPROACHING AND LEAVING THE NEWLY CONSTRUCTED CURB RAMP. AREAS OF PONDING CANNOT BE IDENTIFIED UNTIL AFTER ADEQUATE RAINFALL HAS OCCURRED AND REPAIR TO THESE AREAS WILL NOT OCCUR UNTIL AFTER SUCH TIME.

#### TYING INTO EXISTING DRAINAGE STRUCTURES

WHEN A PROPOSED CONDUIT IS BEING TIED INTO AN EXISTING DRAINAGE STRUCTURE, THE HOLE BEING MADE IN THE EXISTING STRUCTURE TO RECEIVE THE PROPOSED CONDUIT SHALL BE A CORED HOLE. FOR CONDUITS OVER 24", THE HOLE CAN BE NEATLY SAWED INSTEAD OF CORED.

THE COST OF TYING INTO AN EXISTING DRAINAGE STRUCTURE SHALL BE INCLUDED IN THE COST OF INSTALLING ITEM 611 CONDUIT. 

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

#### **REVIEW OF DRAINAGE FACILITIES**

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE. REPRESENTATIVES OF THE STATE AND THE CONTRACTOR. ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

#### EXISTING SUBSURFACE DRAINAGE

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE.

UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

601, TIED CONCRETE WITH TYPE 1 UND 605, 6" UNCLASSIFIED 605, AGGREGATE DRAI 611, 6" CONDUIT, TYPE 611, PRECAST REINFOR

#### POST CONSTRUCTION STORM WATER TREATMENT

BMPS HAVE BEEN PROVIDED FOR OTHER PHASES OF THE SEGMENT IVA PROJECT TO ACCOUNT FOR ALL OF THE PROJECTS' EDA ACTIVITIES. THERE ARE NO PROPOSED BMPS FOR THIS PHASE OF THE PROJECT.

#### ITEM 204 - GRANULAR MATERIAL, TYPE C, AS PER PLAN

PROVIDE, PLACE AND COMPACT GRANULAR MATERIAL TYPE C CONSISTING OF CRUSHED CARBONATE STONE AT LOCATIONS AND LIMITS INDICATED. ALL REQUIREMENTS OF ITEM 204 APPLY TO THIS ITEM.

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BLOCK MAT	
DERLAYMENT	4 SQ.YD
D PIPE UNDERDRAINS	100 FT.
INS	100 FT.
PE F	100 FT.
RCED CONCRETE OUTLET	2 EACH

#### ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN

THIS ITEM SHALL FOLLOW ALL DETAILS ON RM-4.5 EXCEPT THAT THE BASE SHALL EXTEND BELOW THE PAVEMENT SURFACE OR FINISHED GRADE AS SHOWN IN THE TYPICAL SECTIONS. THE BARRIER SHALL BE PLACED DIRECTLY ON AN AGGREGATE BASE OF A DEPTH AS SHOWN IN THE TYPICAL SECTIONS.

![](_page_19_Picture_33.jpeg)

#### ITEM SPECIAL - MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARD-WARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS. BOLTS. AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03. AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS. BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION. AND THE CONTRACTOR SHALL BE RE-SPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PER-MANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH. FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, (SINGLE) (DOUBLE).

#### GRADE CHANGES

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING APPURTENANCE TO BE CONNECTED DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN SEWER SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED SEWER WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS. IF IT IS DETERMINED THAT THE PROPOSED SEWER WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED SEWER WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

GRADES AND ELEVATIONS SHOWN ON THE PLANS SHALL NOT BE REVISED UNDER ANY CIRCUMSTANCES WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE ENGINEER. INVERT ELEVATIONS SHALL NOT DEVIATE FROM THE PLAN ELEVATION BY MORE THAN 0.05 FOOT. FAILING TO MEET THE ABOVE REQUIREMENTS IS CAUSE FOR REJECTION OF THE AFFECTED SECTION OF SEWER.

#### ITEM 202 - REMOVAL MISC.: MODULAR BLOCK LANDSCAPE WALL

THIS ITEM CONSISTS OF REMOVING A MODULAR BLOCK WALL USED FOR LANDSCAPING WITH A MAXIMUM EXPOSED HEIGHT OF APPROXIMATELY TWO FEET. THIS ITEM SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL WALL UNITS AND ANY ASSOCIATED MATERIALS ABOVE AND BELOW GROUND. BACKFILL OF HOLES IS NOT NECESSARY AS THE AREA WILL BE COVERED BY THE GENERAL PROPOSED GRADING WORK.

#### ITEM 421 - MICROSURFACING, SURFACE COURSE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 421, THE FOLLOWING SHALL APPLY. REPLACE THE CONTENT OF SECTION 421.05 WEATHER LIMITATIONS WITH THE FOLLOWING: "APPLY THE MIXTURE ONLY WHEN IT IS NOT RAINING, PAVEMENT HAS NO STANDING WATER, AND THE EXISTING PAVEMENT SURFACE AND ATMOSPHERIC TEMPERATURE IS A MINIMUM OF 50°F (10°C) AND RISING AND THERE IS NO FORECAST OF AN ATMOSPHERIC TEMPERATURE BELOW 40°F (4°C) WITHIN 24 HOURS FROM THE TIME THE MIXTURE IS APPLIED. DO NOT APPLY THE MIXTURE BETWEEN THE HOURS OF 7 PM TO 7 AM FROM SEPTEMBER 1 TO APRIL 30 UNLESS APPROVED BY THE ODOT DISTRICT 8 TEST LAB ENGINEER."

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#### DRAINAGE DISCHARGE CONTINUANCE

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FURNISH A DRAINAGE DISCHARGE CONTINUANCE FOR ANY DRAINAGE DISCHARGE DISTURBED BY THE WORK AND NOT SHOWN IN THE PLANS. THE LOCATION, TYPE (CONDUIT ORSWALE), SIZE AND GRADE OF THE DRAINAGE DISCHARGE CONTINUANCE WILL BE AGREED TO BY THE ENGINEER

FURNISH AN INSPECTION WELL AT THE RIGHT OF WAY LINE IN ACCORDANCE WITH SCD DM-3.1 FOR EACH DRAINAGE DISCHARGE THAT OUTLETS THROUGH A CURB OPENING, OR INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST IS INCLUDED IN ITEM 611, INSPECTION WELL.

FURNISH A WELL GRADED TRANSITION BETWEEN THE DITCH AND THE SWALEWHEN OUTLETTING A SWALE TO A DITCH. THE COST FOR THE GRADED TRANSITION IS INCLUDED IN ITEM 203, EMBANKMENT AS PER PLAN

FURNISH AN EROSION CONTROL PAD AS SHOWN IN SCD DM-1.1 WHEN OUTLETTING A CONDUIT TO A DITCH. THE COST FOR THE EROSION CONTROL PAD IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE.

FURNISH A DRILLED HOLE OR A CURB SECTION WITH A HOLE WHEN OUTLETTING A CONDUIT THROUGH A CURB OPENING. THE COST OF DRILLING, OR FURNISHING THE CURB SECTION WITH HOLE IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE.

FURNISH A DRILLED CORE HOLE WHEN OUTLETTING INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST OF THE DRILLED CORE HOLE IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE.

#### DOCUMENTATION

THE CONTRACTOR SHALL FURNISH WRITTEN DOCUMENTATION TO THE ENGINEER AND TO THE DISTRICT R/W PERMIT OFFICE. THE DOCUMENTATION INCLUDES THE CONSTRUCTION PROJECT NUMBER, PID, COUNTY, ROUTE, SECTION, LATITUDE AND LONGITUDE OF THE DRAINAGE DISCHARGE AT THE R/W, THE NAME OF PROPERTY OWNER WITH ADDRESS, THE DATE THE DRAINAGE DISCHARGE WAS LOCATED, THE DATE THE DRAINAGE DISCHARGE CONTINUANCE WAS FURNISHED, A DETAILED DESCRIPTION OF THE WORK AND PICTURES OF THE DRAINAGE DISCHARGE CONTINUANCE (IN PDF OR JPEG FORMAT). THE DOCUMENTATION IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE E FOR DRAINAGE DISCHARGE CONTINUANCE OR ITEM 203, EMBANKMENT AS PER PLAN

DRAINAGE DISCHARGE CONTINUANCE REMOVAL THE ENGINEER MAY REQUIRE THE NEWLY INSTALLED DRAINAGE DISCHARGE CONTINUANCE TO BE REMOVED.

REMOVE THE NEWLY INSTALLED CONDUIT AND ANY EXISTING CONDUIT TO THE RIGHT OF WAY LINE. FOR CONDUIT THAT OUTLETS THROUGH THE CURB RESTORE THE CURB BY FILLING THE HOLE WITH CLASS QC 1 CONCRETE OR REPLACE THE CURB SECTION. FOR CONDUIT THAT OUTLETS TO A STORM SEWER OR DRAINAGE STRUCTURE LEAVE 6 INCHES PROTRUDING OUTSIDE OF THE CONDUIT. PLUG THE PROTRUDING CONDUIT WITH EITHER A MANUFACTURED CAP OR CLASS QC 1 CONCRETE. FOR CONDUIT THAT OUTLETS TO THE DITCH REMOVE THE EROSION CONTROL PAD. RESTORE ALL AREAS AS REQUIRED. PLUG THE EXISTING CONDUIT REGARDLESS OF SIZE AT THE RIGHT OF WAY LINE WITH CLASS QC 1 CONCRETE AND RESTORE ALL AREAS AS REQUIRED. ALL COSTS ARE INCLUDED IN ITEM 202, REMOVAL MISC. CONDUIT.

DAM THE SWALE THAT OUTLETS TO THE DITCH AT THE R/W AS DIRECTED BY THE ENGINEER. ALL COSTS ARE INCLUDED IN ITEM 203, EMBANKMENT AS PER PLAN

REMOVE THE INSPECTION WELL AND RESTORE ALL AREAS AS REQUIRED. THE COST IS INCLUDED IN ITEM 202, REMOVAL MISC. INSPECTION WELL.

CONDUIT MATERIAL TYPES THE FOLLOWING CONDUIT MATERIAL TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, AND 707.52 SDR35.

#### PAY ITEMS

EACH OF THE PAY ITEMS LISTED BELOW FOR CONDUIT MISCELLANEOUS TYPES B, C, E AND F FOR DRAINAGE DISCHARGE CONTINUANCE INCLUDE CONDUIT SIZES 2 INCH TO 10 INCH. THERE IS NO COST DIFFERENTIATION FOR SIZE IN THESE PAY ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IN MAKING THE ABOVE DRAINAGE DISCHARGE CONTINUANCE:

ITEM 611, 1 EACH INSPECTION WELL ITEM 611, 5 FT.CONDUIT, MISC TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE ITEM 611, 5 FT.CONDUIT, MISC TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE ITEM 611, 5 FT.CONDUIT, MISC TYPE E FOR DRAINAGE DISCHARGE CONTINUANCE ITEM 611, 5 FT.CONDUIT, MISC TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE ITEM 202, 10 FT. REMOVAL MISC CONDUIT ITEM 202, 1 EACH REMOVAL MISC INSPECTION WELL ITEM 203, 50 CUBIC YARD EMBANKMENT AS PER PLAN A

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GENERAL NOTES
CLE-CR55-OVRPASS (PHASE 9)

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50         -				5	101									707	611	00510	5		6" CONDUIT, TTPE F FOR UNDERDRAIN
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HO         HO<				423										423	611	07400	423	FT	18" CONDUIT, TYPE B
102         103         104         105 <td></td> <td></td> <td></td> <td>410</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>410</td> <td>611</td> <td>07400</td> <td>410</td> <td>FT</td> <td>18" CONDUIT, TYPE B, 706.02, JOINTS</td>				410										410	611	07400	410	FT	18" CONDUIT, TYPE B, 706.02, JOINTS
201         201         201         201         201         611         6400         201         FT         241 CORDUT, TYPE B           360         368         940         811         9405         51         347 CORDUT, TYPE B           368         940         811         9405         51         347 CORDUT, TYPE B           5         940         811         9405         51         347 CORDUT, TYPE B           5         940         811         9405         51         147 CORDUT, MULT, TYPE B         151           5         940         51         940         51         147 CORDUT, MULT, TYPE B         151         940           5         940         5         71         CORDUT, MULT, TYPE B         151         940           6         940         950         5         71 <cordut, b<="" mult,="" td="" type="">         151         940           6         940         940         64</cordut,>				148										148	611	07600	148	FT	18" CONDUIT, TYPE C
400         400         60         87         24' CARUT, TYRE C           250         <				201										201	611	10400	201	FT	24" CONDUIT, TYPE B
750         750 <td></td> <td></td> <td></td> <td>406</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>406</td> <td>611</td> <td>10600</td> <td>406</td> <td>FT</td> <td>24" CONDUIT, TYPE C</td>				406										406	611	10600	406	FT	24" CONDUIT, TYPE C
5         610         8/420         5         81         CORRENT, MSC 1 THE 0 YOH DAMAGE           5         6         7         60         8         7490         5         FT         CORRENT, MSC 1 THE 0 YOH DAMAGE           5         6         8         7490         5         FT         CORRENT, MSC 1 THE 0 YOH DAMAGE           5         6         8         8490         5         FT         CORRENT, MSC 1 THE 0 YOH DAMAGE           5         6         8         8490         9400         5         FT         CORRENT, MSC 1 THE 0 YOH DAMAGE           6         6         8         8490         9400         5         FT         CORRENT, MSC 1 THE 0 YOH DAMAGE           1 <td></td> <td></td> <td></td> <td>250 598</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>250 598</td> <td>611 611</td> <td>13400 13600</td> <td>250 598</td> <td>FT FT</td> <td>30" CONDUIT, TYPE B 30" CONDUIT, TYPE C</td>				250 598										250 598	611 611	13400 13600	250 598	FT FT	30" CONDUIT, TYPE B 30" CONDUIT, TYPE C
5       5       611       97400       5       F1       COMMENT, MISC 11 YEE & FOR UMANANA 5         5       611       97400       5       F1       COMMENT, MISC 11 YEE & FOR UMANANA 5         6       6       6       6       6       7       97400       5       F1       COMMENT, MISC 11 YEE & FOR UMANANA 5         6 <t< td=""><td></td><td></td><td>5</td><td></td><td>~~~~~</td><td>· · · · · ·</td><td>~~~~~</td><td>~~~~~</td><td><math>\sim</math></td><td><math>\gamma \gamma \gamma \gamma \gamma \gamma</math></td><td>*****</td><td>*****</td><td>~~~~~</td><td>5</td><td>611</td><td>97400</td><td>5</td><td>FT</td><td>CONDUIT. MISC.: TYPE B FOR DRAINAG</td></t<>			5		~~~~~	· · · · · ·	~~~~~	~~~~~	$\sim$	$\gamma \gamma \gamma \gamma \gamma \gamma$	*****	*****	~~~~~	5	611	97400	5	FT	CONDUIT. MISC.: TYPE B FOR DRAINAG
5         6         81         67400         5         FT         COMULT, MISC. IT WE F FOR BRANK           6			5											5	611	97400	5	FT	CONDUIT, MISC.: TYPE C FOR DRAINAG
5         6         8         9         9         6         7         CONUNT, MISC. 1 THE F. F. CR. BRANNAL           1         1         1         0			5											5	611	97400	5	FT	CONDUIT, MISC.: TYPE E FOR DRAINAG
6         7         6         7         6         6         6         8         8         7         6         6         6         8         7         6         6         6         8         8         7         6         6         6         8         8         7         1         6         1 <th1< th=""> <th1< th=""> <th1< th=""> <th1< th=""></th1<></th1<></th1<></th1<>			5											5	611	97400	5	FT	CONDUIT, MISC.: TYPE F FOR DRAINAG
6         6         6         61         8889         6         EACH         CATCH BASH, NO, 3A           1         1         1         1         1         1         5800         CATCH BASH, NO, 6         6           1         1         1         67         9840         1         EACH         CATCH BASH, NO, 6           1         1         67         9840         1         EACH         CATCH BASH, NO, 2         28           1         1         67         9840         1         EACH         CATCH BASH, NO, 2         28           1         1         67         9850         1         EACH         CATCH BASH, NO, 2         28           1         1         67         9853         1         EACH         CATCH BASH, NO, 2         28           1         1         67         98055         1         EACH         CATCH BASH, NO, 2         28           1         1         67         98055         1         EACH         CATCH BASH, NO, 2         28           1         68         39525         1         S864         11         EACH         MARCLE ADJSTED TO GARA           1         68         39525			uu	HA	m	<u> </u>	$\dots$	$\dots$	$\dots$	·····	<u>u</u>	uu	uu	y	1611	98150	mp	EACH	CATCH BASIN, NO. 3
I         I         I         I         I         I         I         FERR         CALVER MASKIN, NO. 6           I         I         I         I         I         I         I         FERR         CALVER MASKIN, NO. 6           I         I         I         I         I         I         FERR         CALVER MASKIN, NO. 7-9-3           I         I         I         I         I         I         I         FERR         CALVER MASKIN, NO. 7-9-3           I         I         I         I         I         I         I         FERR         CALVER MASKIN, NO. 7-9-3           I         I         I         I         I         I         I         I         FERR         CALVER MASKIN, NO. 7-9-3           I         I         I         I         I         I         I         I         FERR         CALVER MASKIN, NO. 7-9-3           I         I         I         I         I         I         I         FERR         CALVER MASKIN, MASKINE TO GRADE           I         I         I         I         I         I         FERR         CALVER MASKIN, MASKINE TO GRADE           I         I         I         I         <				6										6	611	98180	6	EACH	CATCH BASIN, NO. 3A
1       1       671       671       98410       1       EXCH       CATCH BASIN, NO. 8         1       1       1       1       1       1       1       EXCH       CATCH BASIN, NO. 2-28         1       2       1       1       611       98510       1       EXCH       CATCH BASIN, NO. 2-3         2       1       611       98510       1       EXCH       CATCH BASIN, NO. 2-3         1       1       61       98510       1       EXCH       CATCH BASIN, MASINED TO CRADE         1       611       61       98625       1       EXCH       CATCH BASIN MASINED TO CRADE         10       10       1       611       98644       1       EXCH       MANOLE RECONSTRUCTO TO CRADE         2       2       2       2       2       1 <t< td=""><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td>611</td><td>98370</td><td>1</td><td>EACH</td><td>CATCH BASIN, NO. 6</td></t<>				1										1	611	98370	1	EACH	CATCH BASIN, NO. 6
i         i				1										1	611	98410	1	EACH	CATCH BASIN, NO. 8
I         I         End         Besto         I         EndH         Catch Basin, No.2-3           I         I         I         Besto         I         EndH         Catch Basin, No.2-3           I         I         Besto         I         Besto         I         EndH         Catch Basin, No.2-3           I         B         Besto         I         Besto         I         EndH         Catch Basin, No.2-3           I         B         Besto         I         Besto         I         EndH         Catch Basin, No.2-3           I         B         Besto         I         Besto         I         EndH         Catch Basin, No.2-3           I         B         B         Besto         I         EndH         Catch Basin, No.2-3           I         B         B         B         B         B         I         EndH         EndH <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>611</td> <td>98470</td> <td>1</td> <td>EACH</td> <td>CATCH BASIN, NO. 2-2B</td>				1										1	611	98470	1	EACH	CATCH BASIN, NO. 2-2B
2         2         611         2         611				1										1	611	98510	1	EACH	CATCH BASIN, NO. 2-3
I         I         GI         GI         GI         GI         GI         EACH         CAICH PASIN RECORDINCED TO GRAPE           II         II         II         III         IIII         IIII         IIII         IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII				2										2	611	98630	2	EACH	CATCH BASIN ADJUSTED TO GRADE
15         17         15         611         995/4         15         EACH         MANDLE, NO. 3           2         2         611         99660         2         EACH         MANDLE RECONSTRUCTED TO GRADE           2         611         99660         2         EACH         MANDLE RECONSTRUCTED TO GRADE           2         611         99620         1         EACH         MANDLE RECONSTRUCTED TO GRADE           1         611         99720         1         EACH         MANDLE RECONSTRUCTED TO GRADE           1         611         99720         1         EACH         MANDLE RECONSTRUCTED TO GRADE           1         611         99720         1         EACH         MANDLE RECONSTRUCTED TO GRADE           1         611         99720         1         EACH         MANDLE RECONSTRUCTED TO GRADE           1         611         99720         1         EACH         MANDLE RECONSTRUCTED TO GRADE           2         3,525         3,525         302         50000         3,525         CY         ASPHALT CONCRETE BASE, PG64-22, 1           2,642         2,642         2,642         2,642         0000         2,9         CY         ASPHALT CONCRETE BASE, PG64-22, 1           2				1										1	611	98635	1	EACH	CATCH BASIN RECONSTRUCTED TO GRA
Image: Construct of the second sec				15										15	611	99574	15	EACH	MANHOLE, NO. 3
2         2         01         98200         2         EACH         MANUALE RELOPSING/TED 100 HABE           1         611         9870         1         EACH         PRECEDENT PLANINGLE PLOYSED CONCRETE OUTLING           1         611         99720         1         EACH         PRECEDENT PLANINGLE PLOYSED CONCRETE OUTLING           1         611         99720         1         EACH         PRECEDENT WELL           1         611         99720         1         EACH         INSPECTION WELL           1         611         99720         1         EACH         INSPECTION WELL           1         611         99720         1         EACH         INSPECTION WELL           1         3,869         3,869         3,869         CY         ASPHALT CONCRETE BASE           1         2,642         2,642         407         20000         3,869         CY         ASCREATE BASE           1         16,19         16,19         16,19         421         10011         16,19         SY         MICROSURFACING, SURFACE OURSE, A           1         16,19         16,19         10011         16,19         SY         MICROSURFACING, SURFACE OURSE, A           1         10,15															6//	99654	11	EACH	MANHOLE ADJUSTED TO GRADE
2         1         6         9370         1         64         9370         1         644         9370         1         644         9370         1         644         9370         1         644         9370         1         644         9370         1         644         9370         1         640         9370         1         640         9370         1         640         9370         1         640         9370         1         640         9370         1         640         9370         1         640         9370         1         640         9370         1         640         9370         1         640         9370         1         640         9370         1         640         9370         1         640         9370         1         640         9370         1         640         9370         1         1         641         9370         1         640         1         641         9370         1         647         944         1         660         3,669         3,669         3,669         3,669         3,669         3,669         1         661         1         661         1         661         1         661 <th< td=""><td></td><td>2</td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td><td>611</td><td>99660</td><td>2</td><td>EACH</td><td>MANHOLE RELONSTRUCTED TO GRADE</td></th<>		2		2										2	611	99660	2	EACH	MANHOLE RELONSTRUCTED TO GRADE
Constraint         Constra		2		m	m	m	$\sim$	m	$\sim$	$\sim$	m	m			611	00720		EACH	TRECASE REPRESED CONCRETE OUT
Image: Constraint of the state of		(	<u> </u>	hun	h	<u> </u>	uu	uu		·····	h	uu	h	·····		<i>33720</i>	huin		
1       1       1       1       1       254       01000       431       51       FAREWRITELINING, ASTRALT CONCRETE BASE         1       1       3,852       3,852       3,869       302       56000       3,859       CY       ASTRALT CONCRETE BASE       FREE FREE FREE FREE FREE FREE FREE FREE								471						471	254	01000	471	CV/	
Image: Constraint of the state of								431						431	254	01000	431		PAVEMENT PLANING, ASPHALT CONCRE
Image: Constraint of the second se								3,525						3,525	302	36000	3,525		ASPHALT CONCRETE BASE, PG04-22, (
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Image: Solution of the								16 119						16 119	407	10011	16 119	SY	MICROSUREACING SURFACE COURSE
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Image: Constraint of the state of the s								10						10	1 1 1	50300	10		ASPUALT CONCRETE INTERMEDIATE CO
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Image: style s								176						176	452	12010	176	SY	8" NON-REINFORCED CONCRETE PAVEM
Image: Constraint of the state of the s								243						243	452	14110	243	SY	11" NON-REINFORCED CONCRETE PAVEM
Image: style styl								108						108	452	19001	108	SY	VARIABLE THICKNESS NON-REINFORCEL
Image: style styl						84	188							272	609	12000	272	FT	COMBINATION CURB AND GUTTER, TYP
Image: style styl							82							82	609	14000	82	FT	CURB, TYPE 2-A
Image: style styl						764	462							1,226	609	24510	1,226	FT	CURB, TYPE 4-C
180       180       180       609       26001       180       FT       CURB, TYPE 6, AS PER PLAN         101       609       58000       101       SY       9" CONCRETE TRAFFIC ISLAND						845	1,156							2,001	609	26000	2,001	FT	CURB, TYPE 6
50 51 101 609 58000 101 SY 9" CONCRETE TRAFFIC ISLAND						180						[		180	609	26001	180	FT FT	CURB, TYPE 6, AS PER PLAN
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DESCRIPTION	SEE Sheet No.	CALCULATED MSW CHECKED GHM
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SHEET NO	STA	TION	EXCA VA TION	EMBANKMENT	EMBANKMENT, AS PER PLAN	GRANULAR MATERIAL, TYPE B, APP	
	FROM	ТО	СҮ	СҮ	CY	ingu	
	GLEN ESTE-W	ITHAMSVILLE					
68	12+50.00	13+50.00	18	18			
70	14+00.00	15+00.00	- 76	1918			
71	17+00.00	17+50.00	18	7340			
72	18+00.00	18+50.00	22	1484	4011		
73	18+80.98	10100.00		7707	2084		
74	19+13.07				42.3	2120	
75	21+19.30		_	_	-	-	
76	21+51.39		3		679	2200	
77	22+00.00		7		4390		
78	22+50.00		16		4028		
79	23+00.00		31	3553			
80	23+50.00		25	3429			
81	24+00.00	24+50.00	9	5887			
82	25+00.00	25+50.00		4001			
83	26+00.00	26+50.00		2239			
84	27+00.00	27+50.00	3	925			
85	28+00.00	29+00.00	206	149			
86	29+50.00	30+50.00	348	22			
87	31+00.00	32+00.00	39	12			
			070	07.405	15 015	4 700	
	GLEN ESTE-WITHAM	SVILLE SUBTOTAL:	830	27,405	15,615	4,320	ť
	EASTGAT	E SOUTH					
88	53+00.00	53+50.00	16	5			
89	54+00.00	54+50.00	28	192			
90	55+00.00	55+50.00	12	684			
	EASTGATE SOL	ITH SUBTOTAL:	56	881			
	EASIGAT	E NORTH		7			
91	40+50.00	40+01.00	0	5			
93	47+00.00	47+50.00	222	5			
94	43+00.00	43+50.00	364				
95	44+00.00	44+50.00	296				
96	45+00.00	45+50.00	72	143			
97	46+00.00	46+50.00		521			
98	47+00.00	48+25.00		400			
99	48+50.00	48+80.00	9	110			
	EASTGATE NOR	TH SUBTOTAL:	1059	1182			

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![](_page_24_Figure_0.jpeg)

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+. . . . . . . . . . 879.12 16+50.00 TBR 18" TYPE B 872.46 STA 16+00.00, 26.06' RT MH-3, RIM ELEV 877.17 18" (S) 865.63 12" (E) 872.00 STA 18" (N) 865.63 [CB-3] STA |CB-3 |12" ( 6" (N TBR A 16+0 I, GRAT TEX 94 876.  $V \wedge |V| |O$ . 0 0 . 88  $-\mathcal{O}$ 15 " CP N 86 • \_\_\_\_ \_\_\_\_ 117-12" TYPE B @ 8.64% ( )  $\bigcirc$ ++++++ ----TBR 877.69 **16+00.00** 873.05 8" PLA 875 870 60 70

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U 18" TYPE B 876.33 15+30.47 873.92 TBR

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16+00.00, 37.19' R 3A, GRATE ELEV 870 (W) 872.95	₹ 7 6.95			550	5	877	GLEN ESTE WITHAMSVILLE RD. .47 TO STA.16+50.00
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						END	AREA	VOL	UME	TED.
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#### STRUCTURE GENERAL NOTES

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS: *REVISED 07/17/2015* AS-1-15 AS-2-15 REVISED 01/18/2019 BR-2-15 REVISED 01/22/2022 REVISED 01/15/2021 PSID-1-13 SBR-1-20 REVISED 07/17/2020 VPF-1-90 REVISED 07/20/2018

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION: DATED 01/21/2022 800

#### **DESIGN SPECIFICATIONS:**

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THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

#### **OPERATIONAL IMPORTANCE:**

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

#### DESIGN LOADING:

VEHICULAR LIVE LOAD: HL-93 FUTURE WEARING SURFACE (FWS) OF 0.060 KSF PEDESTRIAN LIVE LOAD: 0.075 KSF

#### DESIGN DATA:

CONCRETE CLASS QC2: COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1: COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

STEEL H-PILES - ASTM A572 - YIELD STRENGTH 50 KSI

CONCRETE FOR PRESTRESSED BEAMS: COMPRESSIVE STRENGTH (FINAL) - 10.0 KSL COMPRESSIVE STRENGTH (RELEASE) - 8.0 KSI

WELDED WIRE FABRIC - YIELD STRENGTH - 70 KSI

#### PRESTRESSING STRAND:

AREA = 0.217 SQUARE INCHES ULTIMATE STRENGTH = 270 KSI INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

#### MONOLITHIC WEARING SURFACE:

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

#### NON-USE OF ASBESTOS-CONTAINING MATERIALS:

THE CONTRACTOR SHALL AT NO TIME INCORPORATE ANY MATERIALS WHICH ARE COMPOSED OF OR CONTAIN ANY AMOUNTS OF ASBESTOS. THE SUBSTITUTION OF MATERIALS WHICH CONTAIN ANY AMOUNTS OF ASBESTOS WILL IN NO CIRCUMSTANCES BE ACCEPTABLE. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF CERTIFICATION ASSERTING THAT NO ASBESTOS CONTAINING MATERIALS WERE USED IN ANY PORTION OF THE CONSTRUCTION.

#### PILE DRIVING:

THE MINIMUM RATED ENERGY OF THE HAMMER USED TO INSTALL THE PILES SHALL BE 43.000 FOOT-POUNDS. ENSURE THAT STRESSES IN THE PILES DURING DRIVING DO NOT EXCEED 45,000 POUNDS PER SQUARE INCH.

#### **PILE DRIVING CONSTRAINTS:**

PRIOR TO DRIVING PILES AT THE ABUTMENTS, CONSTRUCT THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS UP AT A 1:1 SLOPE FROM THE TOP OF HEEL OF THE FOOTING TO THE SUBGRADE ELEVATION AND FOR A MINIMUM DISTANCE OF 250 FEET BEHIND THE ABUTMENTS. DO NOT BEGIN THE INSTALLATION OF THE ABUTMENT PILES UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED AND A 175 CALENDAR DAY WAITING PERIOD HAS ELAPSED. THE ENGINEER MAY ADJUST THE LENGTH OF THE WAITING PERIOD BASED ON SETTLEMENT PLATFORM READINGS. AFTER THE SPECIFIED WAITING PERIOD HAS ELAPSED. DRIVE ABUTMENT PILES TO REFUSAL ON BEDROCK. AFTER THE FOOTING AND THE BREASTWALL HAVE BEEN CONSTRUCTED, CONSTRUCT THE EMBANKMENT IMMEDIATELY BEHIND THE ABUTMENTS UP TO THE BEAM SEAT ELEVATION AND ON A 1:1 SLOPE UP TO THE SUBGRADE ELEVATION PRIOR TO SETTING THE BEAMS ON THE ABUTMENTS. FOR LOCATIONS OF SETTLEMENT PLATFORMS, SEE GENERAL NOTE "ITEM SPECIAL -SETTLEMENT PLATFORM".

#### 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 AND TO MEET THE REQUIREMENTS STATED IN THE PILE DRIVING NOTE ON THIS SHEET.

THE TOTAL FACTORED LOAD IS 377 KIPS PER PILE FOR THE REAR AND FORWARD ABUTMENT PILES. THE TOTAL FACTORED LOAD IS 299 KIPS PER PILE FOR THE PIER PILES.

REAR ABUTMENT PILES: HP12x53 PILES 50 FEET LONG, ORDER LENGTH

PIER PILES: HP12x53 PILES 55 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT PILES: HP12x53 PILES 55 FEET LONG, ORDER LENGTH

#### **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.

#### **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 3.05 KIPS.

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

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 INCHES.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65 INCHES.

<u> ITEM 203 – EMBANKMENT, AS PER PLAN & ITEM 203 – GRANULAR</u> EMBANKMENT. TYPE B. AS PER PLAN:

FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT BETWEEN STATIONS 17+80 TO 18+80 AND 21+51 TO 22+51. SEE ROADWAY PLANS FOR DETAILS AND PAYMENT.

![](_page_31_Figure_45.jpeg)