

GENERAL

ROUNDING (G101)

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

UTILITIES (G102A)

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

COMMUNICATION GAS
DOYLESTOWN TELEPHONE DOMINION
81 N. PORTAGE STREET 320 SPRINGSIDE DRIVE, SUITE 320
DOYLESTOWN, OH 44230 AKRON, OH 44333
330.658.2121 800.362.7557

ELECTRIC
OHIO EDISON
ATTN: KEVIN MCCLUSKY
2600 SOUTH ERIE STREET
MASSILLON, OH 44646
330.830.7083

THE AFOREMENTIONED UTILITY COMPANIES AND AGENCIES HAVE VARIOUS FACILITIES IN THE AREA THAT WILL REMAIN IN PLACE DURING CONSTRUCTION.

EXTREME CAUTION SHOULD BE EXERCISED IN AREAS WITH UTILITIES. SECTIONS 105.07 AND 107.16 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS REQUIRE, AMONG OTHER THINGS, THAT THE CONTRACTOR COOPERATE WITH ALL UTILITIES LOCATED WITHIN THE LIMITS OF THIS CONSTRUCTION PROJECT AND TAKE RESPONSIBILITY FOR THE PROTECTION OF THE UTILITY PROPERTY AND SERVICES.

EXISTING PLANS (G103)

EXISTING PLANS ENTITLED STA/WAY/SUM-17.80/0.00/0.00 (1956) MAY BE INSPECTED IN THE ODOT DISTRICT THREE OFFICE IN ASHLAND.

SURVEYING PARAMETERS (G105)

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE THE PROJECT COORDINATE CONTROL TABLE ON THE CENTERLINE PLAT SHEET FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL
POSITIONING METHOD: GPS OBSERVATIONS PER THE ODOT VRS NETWORK
MONUMENT TYPE: REBAR WITH CAPS SET

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID12B

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE – NORTH ZONE (3401) SCALED BY A COMBINED GRID SCALE AND ELEVATION PROJECT ADJUSTMENT FACTOR ABOUT THE GRID ORIGIN N=0, E=0 COORDINATE
COMBINED SCALE FACTOR: UNITLESS GRID TO PROJECT ADJUSTMENT FACTOR (PAF)

MULTIPLIER = 1.00010332
GRID (METERS) TO PROJECT (U.S. SURVEY FEET)
MULTIPLIER = 3.281172309
ORIGIN OF COORDINATE SYSTEM: N=0, E=0 COORDINATE

PROJECT COORDINATE UNITS ARE IN U.S. SURVEY FEET, GRID COORDINATE UNITS ARE IN METERS. USE THE FOLLOWING CONVERSION FACTOR:
1 METER = 39.37 INCHES = 3.280833333 U.S. SURVEY FEET

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

WORK LIMITS (G106)

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ROUTINE MAINTENANCE

BETWEEN THE TIME THAT BIDS ARE TAKEN AND THE START OF CONSTRUCTION, THE MAINTAINING AGENCY MAY ENTER UPON THE PROJECT AND PERFORM ROUTINE MAINTENANCE SUCH AS CRACK SEALING, PATCHING, AND BERM AND SHOULDER REPAIR. THE EFFECTS, IF ANY, OF THE PERFORMANCE OF ROUTINE MAINTENANCE SHALL BE CONSIDERED AS INHERENT IN WORK OF THE CHARACTER PROVIDED FOR IN THE PLAN AND THE RESULTING CONDITIONS SHALL NOT BE CONSIDERED AS DIFFERING MATERIALLY FROM THOSE EXISTING AT THE TIME BIDS WERE TAKEN.

FENCE LENGTHS (G119)

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

ENVIRONMENTAL COMMITMENTS

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. THE CONTRACTOR SHALL NOT REMOVE TREES UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

ODOT WILL OBTAIN AND ADHERE TO ALL APPROPRIATE WATERWAY PERMITS PRIOR TO ANY WORK BELOW THE ORDINARY HIGH WATER MARK OF ANY WATERWAY AND ALL SPECIAL PROVISIONS FOR WATERWAY PERMITS WILL BE INCLUDED IN THE PROJECT PLANS.

ITEM 201 – CLEARING AND GRUBBING (G108B)

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL 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
6"	1	0	1
8"	2	0	2
10"	2	0	2
14"	1	0	1
22"	1	0	1

ITEM 202 – FENCE REMOVED FOR REUSE, AS PER PLAN

THIS ITEM SHALL BE USED FOR REMOVING A PORTION OF EXISTING RIGHT OF WAY FENCE ON THE EAST SIDE OF STATE ROUTE 21. THE FENCE SHALL BE REMOVED PRIOR TO CONSTRUCTION AND SHALL BE REBUILT AFTER GRADING AND SEEDING ARE COMPLETED. THE COST OF REBUILDING THE EXISTING RIGHT OF WAY FENCE SHALL BE INCLUDED UNDER THIS ITEM.

PAYMENT FOR THE ABOVE SHALL BE MADE AT THE UNIT BID PRICE PER FOOT FOR ITEM 202 – FENCE REMOVED FOR REUSE, AS PER PLAN, AND WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NEEDED TO COMPLETE THE WORK.

DRAINAGE

EXISTING CULVERT VERIFICATION

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

REVIEW OF DRAINAGE FACILITIES (D114)

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.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES (D104)

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.

IF IT 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 CONDUIT 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.

DESIGN DATA

-CONCRETE CLASS QC1: COMPRESSIVE STRENGTH 4,000 PSI
-REINFORCED STEEL – ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI

ITEM 511 – CLASS QC1 CONCRETE, MISC.: JUNCTION CHAMBER REPAIR

THIS ITEM SHALL BE USED TO FILL IN THE EXISTING 42 IN. DIAMETER HOLE IN THE NORTHERN WALL OF THE EXISTING JUNCTION CHAMBER. SEE THE CULVERT DETAILS SHEETS FOR ADDITIONAL DETAILS.

THE COARSE AGGREGATE SHALL BE LIMESTONE.

ALL EXISTING SURFACES WITH WHICH THE CONCRETE IS TO BOND SHALL BE CLEANED BY ABRASIVE BLASTING. THESE SURFACES SHALL BE MADE FREE OF SPALLS, LAITANCE, PAINT, RUST, AND OTHER CONTAMINANTS DETRIMENTAL TO ACHIEVING AN ADEQUATE BOND.

PAYMENT FOR THE ABOVE SHALL BE MADE AT THE UNIT BID PRICE PER CUBIC YARD FOR THE ABOVE LISTED ITEMS AND WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NEEDED TO COMPLETE THE WORK.

ITEM SPECIAL – PIPE CLEANOUT (D121)

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17. ALL SEWERS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CLEANOUT OF THE PIPE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - PIPE CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

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

SPECIAL - PIPE CLEANOUT OVER 48" 273 FT (01/NHS/CV)

ITEM 611 – RESIDENTIAL AND COMMERCIAL DRAINAGE CONNECTIONS

EXISTING ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEW CONDUIT REQUIRED TO REPLACE OR EXTEND THE EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER.

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

PAYMENT FOR ALL LABOR AND MATERIALS WILL BE PERFORMED BY CHANGE ORDER.

ITEM 611 – CONDUIT MISC.: VIDEO LOG

PRIOR TO THE ACCEPTANCE OF THE PIPE CLEANOUT BY THE ENGINEER AND THE APPLICATION OF THE PIPE LINER, A VIDEO LOG OF THE DRAINAGE SYSTEM SHALL BE PERFORMED.

IF A BLOCKAGE IS ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND THE VIDEO LOG SHALL BE SUSPENDED UNTIL THE PIPE HAS BEEN THOROUGHLY CLEANED OUT.

IF A COLLAPSE OR FAILURE IN THE PIPE IS ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND THE VIDEO LOG AND NOTIFY THE ENGINEER. PAYMENT FOR REPLACEMENT OF ANY SECTION OF THE TRUNK LINE SHALL BE APPROVED BY THE DISTRICT DESIGN ENGINEER. PAYMENT FOR REPLACEMENT OF ANY SECTION OF TRUNK LINE SHALL BE PROVIDED IN A SUPPLEMENTAL AGREEMENT AS PER CMS 109.05.

THE VIDEO LOG OF THE DRAINAGE SYSTEM LINE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 611 - CONDUIT MISC.: VIDEO LOG. THIS PRICE SHALL INCLUDE THE COST OF MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE ABOVE STATED WORK.

ITEM 611 – CONDUIT MISC.: VIDEO LOG 273 FT (01/NHS/CV)

ITEM 611 – FARM DRAINS (D107)

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE (RIGHT OF WAY) (CONSTRUCTION) LIMITS BY ITEM 611 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLET INTO THE ROADWAY DITCH BY 611 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 611, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

EROSION CONTROL PADS AND ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANIMAL GUARDS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

PAYMENT FOR ALL LABOR AND MATERIALS WILL BE PERFORMED BY CHANGE ORDER.


ITEM 611 – CATCH BASIN, NO. 4, AS PER PLAN

THIS ITEM SHALL BE USED TO CONSTRUCT THE ACCESS TO THE TOP OF JUNCTION CHAMBER AT THE OUTLET END OF THE CULVERT. FURNISH A CATCH BASIN, NO. 4 WITH CAST-IN-PLACE CONCRETE, AND WITHOUT BOTTOM CONCRETE SLAB AND CONCRETE APRON, IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING CB-4. FURNISH STEPS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MH-1. CATCH BASIN STEPS WILL BE ITEMIZED SEPARATELY. SEE CULVERT DETAILS SHEETS FOR DIMENSIONS AND ADDITIONAL INFORMATION. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID PER EACH FOR ITEM 611 – CATCH BASIN, NO. 4, AS PER PLAN, AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

GENERAL NOTES

WAY-21-1-1.86


MODEL: GEN NOTES: 1, PAPER: 17x11 (in.) DATE: 4/25/2022 TIME: 10:49:54 AM USER: amellen
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DESIGN AGENCY	DISTRICT 3
ENGINEERING TEAM TWO	
DESIGNER	ACM
REVIEWER	KRB 12-29-20
PROJECT ID	110923
SUBSET	TOTAL
1	3
SHEET	TOTAL
P.2	21

SHEET NUM.				PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
2	3	4	7	01/NHS/CV							
										ROADWAY	
			LS	LS	201	11000	LS			CLEARING AND GRUBBING	
			1.1	1.1	202	11301	1.1	CY		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	3
			1	1	202	20010	1	EACH		HEADWALL REMOVED	
			27	27	202	32700	27	SY		GUTTER REMOVED	
			51	51	202	35200	51	FT		PIPE REMOVED, OVER 24"	
273				273	SPECIAL	20270130	273	FT		PIPE CLEANOUT OVER 48"	2
			50	50	202	75201	50	FT		FENCE REMOVED FOR REUSE, AS PER PLAN	2
			100	100	203	10000	100	CY		EXCAVATION	
			200	200	203	20000	200	CY		EMBANKMENT	
										EROSION CONTROL	
			79	79	601	11000	79	SY		RIPRAP, TYPE D	
			27	27	601	21050	27	SY		TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
	2			2	659	00100	2	EACH		SOIL ANALYSIS TEST	
	39			39	659	00300	39	CY		TOPSOIL	
	353			353	659	10000	353	SY		SEEDING AND MULCHING	
	18			18	659	14000	18	SY		REPAIR SEEDING AND MULCHING	
	18			18	659	15000	18	SY		INTER-SEEDING	
	0.05			0.05	659	20000	0.05	TON		COMMERCIAL FERTILIZER	
	0.07			0.07	659	31000	0.07	ACRE		LIME	
	2			2	659	35000	2	MGAL		WATER	
			85	85	670	00520	85	SY		SLOPE EROSION PROTECTION MAT, TYPE B	
				2,500	832	30000	2,500	EACH		EROSION CONTROL	
										DRAINAGE	
			20	20	611	22200	20	FT		54" CONDUIT, TYPE A, 707.02 (0.138)	
273				273	611	97400	273	FT		CONDUIT, MISC.: VIDEO LOG	2
			1	1	611	98231	1	EACH		CATCH BASIN, NO. 4, AS PER PLAN	2
			9	9	611	98690	9	EACH		CATCH BASIN, MISC.: CATCH BASIN STEPS	3
										STRUCTURE 20 FOOT SPAN AND UNDER (WAY-21-1.86) OPTION A: SPRAY APPLIED STRUCTURAL LINER	
			LS	LS	503	11100	LS			COFFERDAMS AND EXCAVATION BRACING	
			118	118	509	10000	118	LB		EPOXY COATED REINFORCING STEEL	
			44	44	510	10000	44	EACH		DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
			1	1	511	53010	1	CY		CLASS QC1 CONCRETE, MISC.: JUNCTION CHAMBER REPAIR	2
			1.33	1.33	602	20000	1.33	CY		CONCRETE MASONRY	
			273	273	833	10000	273	FT		CONDUIT RENEWAL USING SPRAY APPLIED STRUCTURAL LINER, ROUND CONDUIT (54" DIAMETER)	
										STRUCTURE 20 FOOT SPAN AND UNDER (WAY-21-1.86) OPTION B: CURED-IN-PLACE PIPE LINER	
			LS	LS	503	11100	LS			COFFERDAMS AND EXCAVATION BRACING	
			118	118	509	10000	118	LB		EPOXY COATED REINFORCING STEEL	
			44	44	510	10000	44	EACH		DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
			1	1	511	53010	1	CY		CLASS QC1 CONCRETE, MISC.: JUNCTION CHAMBER REPAIR	2
			1.33	1.33	602	20000	1.33	CY		CONCRETE MASONRY	
			273	273	899	10000	273	FT		CURED-IN-PLACE PIPE LINER (54" DIAMETER)	
										MAINTENANCE OF TRAFFIC	
		24		24	614	11110	24	HOURL		LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		LS		LS	614	12420	LS			DETOUR SIGNING	
										INCIDENTALS	
				LS	614	11000	LS			MAINTAINING TRAFFIC	
				LS	623	10000	LS			CONSTRUCTION LAYOUT STAKES AND SURVEYING	
				LS	624	10000	LS			MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY
DISTRICT 3



ENGINEERING
TEAM TWO

DESIGNER
ACM

REVIEWER
KRB 12-06-21

PROJECT ID
110923

SHEET TOTAL
P.6 | 21

WAY-21-1.86 ESTIMATED QUANTITIES: OPTION A (01/NHS/CV)

ITEM	QUANTITY	UNIT	DESCRIPTION
201	LS		CLEARING AND GRUBBING
202	1.1	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
202	1	EACH	HEADWALL REMOVED
202	27	SY	GUTTER REMOVED
202	51	FT	PIPE REMOVED, OVER 24"
202	50	FT	FENCE REMOVED FOR REUSE, AS PER PLAN
203	100	CY	EXCAVATION
203	200	CY	EMBANKMENT
503	LS		COFFERDAMS AND EXCAVATION BRACING
509	118	LB	EPOXY COATED REINFORCING STEEL
510	44	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT
511	1	CY	CLASS QC1 CONCRETE, MISC.: JUNCTION CHAMBER REPAIR
601	79	SY	RIPRAP, TYPE D
601	27	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT
602	1.33	CY	CONCRETE MASONRY
611	20	FT	54" CONDUIT, TYPE A, 707.02 (0.138)
611	1	EACH	CATCH BASIN, NO. 4, AS PER PLAN
611	9	EACH	CATCH BASIN, MISC.: CATCH BASIN STEPS
670	85	SY	SLOPE EROSION PROTECTION MAT, TYPE B
833	273	FT	CONDUIT RENEWAL USING SPRAY APPLIED STRUCTURAL LINER, ROUND CONDUIT (54" DIAMETER)

WAY-21-1.86 ESTIMATED QUANTITIES: OPTION B (01/NHS/CV)

ITEM	QUANTITY	UNIT	DESCRIPTION
201	LS		CLEARING AND GRUBBING
202	1.1	CY	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
202	1	EACH	HEADWALL REMOVED
202	27	SY	GUTTER REMOVED
202	51	FT	PIPE REMOVED, OVER 24"
202	50	FT	FENCE REMOVED FOR REUSE, AS PER PLAN
203	100	CY	EXCAVATION
203	200	CY	EMBANKMENT
503	LS		COFFERDAMS AND EXCAVATION BRACING
509	118	LB	EPOXY COATED REINFORCING STEEL
510	44	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT
511	1	CY	CLASS QC1 CONCRETE, MISC.: JUNCTION CHAMBER REPAIR
601	79	SY	RIPRAP, TYPE D
601	27	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT
602	1.33	CY	CONCRETE MASONRY
611	20	FT	54" CONDUIT, TYPE A, 707.02 (0.138)
611	1	EACH	CATCH BASIN, NO. 4, AS PER PLAN
611	9	EACH	CATCH BASIN, MISC.: CATCH BASIN STEPS
670	85	SY	SLOPE EROSION PROTECTION MAT, TYPE B
899	273	FT	CURED-IN-PLACE PIPE LINER (54" DIAMETER)