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ROUNDING

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

UTILITIES

AEP OHIO HORIZON (GLO FIBER)
 ATTN: CLARKE SAUNDERS ATTN: JON DREITZLER
 38831 STATE ROUTE 7 PO BOX 480
 REEDSVILLE, OH 45772 CHIILICOTHE, OH 45601
 PH:740-985-3054 PH:740-606-0937
 EMAIL:CMSAUNDERS@AEP.COM EMAIL:JON.DREITZLER@GLOFIBER.COM

ODOT DISTRICT 9 TRAFFIC ROSS COUNTY WATER
 ATTN: JD HARRIS ATTN: KEVIN CHESTER
 650 EASTERN AVE. 663 FAIRGROUNDS RD.
 CHILLICOTHE, OH 45601 CHIILICOTHE, OH 45601
 PH:740-773-2691 PH:740-774-4117
 EMAIL:JOSEPH.HARRIS@DOT.OHIO.GOV EMAIL: KCHESTER@ROSSCOWATER.ORG

CHARTER COMMUNICATIONS
 ATTN: ZAC HATMACHER
 32 ENTERPRISE PLACE DR.
 CHILLICOTHE, OH 45601
 PH:740-648-3108
 EMAIL:ZACHARY.HATMACHER@CHARTER.COM

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET P.20F THE PLANS 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: STATIC GNSS NETWORK WITH LEVELING
 MONUMENTR TYPE: ODOT TYPE B

VERTICAL POSITIONING
 ORTHOMETRIC HEIGHT DATUM: NAVD88
 GEOID: GEOID 18

HORIZONTAL POSITIONING (OCCS)
 OHIO COUNTY COORDINATE SYSTEM
 REFERENCE FRAME: NAD83 (2011 ADJ (2010.0 EPOCH))
 ELLIPSOID: GRS80
 COORDINATE SYSTEM: ODOT LDP - ROSS COUNTY
 MAP PROJECTION: LAMBERT CONFORMAL CONIC 1 PARALLEL
 CENTRAL LATITUDE: 39° 21' 00.00000" N
 CENTRAL LONGITUDE: 83° 00' 00.00000" W
 FALSE NORTHING: 100,000 (Meters)
 FALSE EASTING: 50,000 (Meters)
 PROJECTION SCALE FACTOR: 1.000033 (Published)

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

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.

SEEDING AND MULCHING

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

ITEM 659, SOIL ANALYSIS TEST	2 EACH
ITEM 659, TOPSOIL	547 CY
ITEM 659, SEEDING AND MULCHING	4922 SY
ITEM 659, REPAIR SEEDING AND MULCHING	247 SY
ITEM 659, INTER-SEEDING	247 SY
ITEM 659, COMMERCIAL FERTILIZER	1.11 TON
ITEM 659, LIME	1.02 ACRE
ITEM 659, WATER	28 MGAL

APPLY SEEDING AND MULCHING S 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.

CLEARING AND GRUBBING, AS PER PLAN

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING, AS PER PLAN. ALL TREES NEEDING REMOVED HAVE BEEN FELLED BY ODOT. REMOVE FELLED TREES INCLUDING ALL REMAINING LIMBS, TRUNKS, AND STUMPS. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS	TOTAL
18"			
30"		2	2
48"			
60"			

PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND REMOVALS

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

ITEM 301 - ASPHALT CONCRETE BASE, PG64-22 5 CU. YDS.

THE ABOVE QUANTITY IS BASED ON A 301 THICKNESS OF 4" 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 SPECIAL - BOLLARD

THIS ITEM SHALL CONSIST OF CONSTRUCTING STEEL BOLLARDS AS PER STANDARD CONSTRUCTION DRAWING RM-5.1. THE BOLLARDS SHALL BE PERMANENT AND NON-HINGED OR NON-REMOVABLE.

SEE SHEET P.23FOR PLACEMENT DETAILS

PAYMENT FOR THIS WORK, INCLUDING THE CONCRETE FOUNDATION, SHALL INCLUDE ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO PERFORM THE WORK.

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

- SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.
- EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS WILL BE DETERMINED BY THE ENGINEER. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05.

IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.
- COMPACT THE SUBGRADE ACCORDING TO 204.03.
- THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

PROOF ROLLING THE COMPACTED SUBGRADE ACCORDING TO 204.06.
- EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.
- PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.
- FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR FOR USE AS DIRECTED BY THE ENGINEER:

204, EXCAVATION OF SUBGRADE: 100 CY
 204, GEOTEXTILE FABRIC, TYPE D: 500 SY
 204, GRANULAR MATERIAL, TYPE C: 100 CY

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

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

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, 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, NOTIFY THE ENGINEER 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, NOTIFY THE ENGINEER 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 IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

ITEM 878 - INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS

INSPECTION, COMPACTION TESTING, REPORTS AND ALL OTHER REQUIREMENTS STATED IN SS878 SHALL BE PERFORMED FOR ALL APPLICABLE UNBOUND MATERIALS. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENRAL SUMMARY FOR PERFORMANCE OF THIS WORK.

ITEM 878 - INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS LUMP

SURVEY MONUMENT VERIFICATION

BOTH PRE AND POST CONSTRUCTION SURVEY MONUMENTATION VERIFICATION SHALL BE PERFORMED AS DETAILED IN THE SPECIFICATIONS. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR PERFORMANCE OF THIS WORK:

ITEM 623 - PRECONSTRUCTION SURVEY MONUMENT VERIFICATION LUMP

ITEM 623 - POST CONSTRUCTION SURVEY MONUMENT VERIFICATION LUMP

WATERWORK

THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING WATER LINES PER THE CROSSINGS AND CONNECTIONS TO EXISTING PIPES NOTE ABOVE PRIOR TO ANY PAVEMENT OR STORM SEWER CONSTRUCTION. IF THE PROPOSED STORM SEWER WILL BE IN CONFLICT WITH THE EXISTING WATER LINE THE CONTRACTOR SHALL INFORM THE ENGINEER AND CONTACT THE ROSS COUNTY WATER COMPANY. ANY WATER LINE RELOCATIONS NECESSARY SHALL BE PERFORMED BY THE ROSS COUNTY WATER COMPANY.

POST CONSTRUCTION STORM WATER TREATMENT

VEGETATED FILTER STRIP

THIS PLAN UTILIZES VEGETATED FILTER STRIPS FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AND ITEM 670, SLOPE EROSION PROTECTION TO ALL DISTURBED AREAS DESIGNATED AS VEGETATED FILTER STRIPS, THE EDGE OF SHOULDER, AND THE FORESLOPE AS SPECIFIED IN THE PLANS.

DESIGN AGENCY	
ARCADIS	
1975 HUNTINGTON VALLEY BLVD, STE 100 COLUMBIA, OHIO 43061 614.985.9100 www.arcadis.com	
DESIGNER	NRS
REVIEWER	JDC
PROJECT ID	122885
SHEET	P.5
TOTAL	46

SHEET NUMBER										PART.	ALT	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
P.3	P.5	P.6	P.9	P.10	P.11	P.19	P.23	P.26		01/NFP	(X)		EXT	TOTAL			
	LS		3,162	109				193		LS		201	11001	LS		ROADWAY	P.5
			25							3,355		202	23000	3,355	SY	PAVEMENT REMOVED	
			1,210							109		202	35100	109	FT	PIPE REMOVED, 24" DIAMETER AND UNDER	
										25		202	38000	25	FT	GUARDRAIL REMOVED	
										1,210		202	75000	1,210	FT	FENCE REMOVED	
						3,279				3,279		203	10000	3,279	CY	EXCAVATION	
						47,721				47,721		203	20000	47,721	CY	EMBANKMENT	
			21,123				30	226		21,379		204	10000	21,379	SY	SUBGRADE COMPACTION	
100										100		204	13000	100	CY	EXCAVATION OF SUBGRADE	
100										100		204	30020	100	CY	GRANULAR MATERIAL, TYPE C	
			8							8		204	45000	8	HOUR	PROOF ROLLING	
500										500		204	50000	500	SY	GEOTEXTILE FABRIC	
							47			47		607	98000	47	FT	FENCE, MISC.:WOODEN SLAT FENCE	P.31
	LS									LS		623	50000	LS		PRECONSTRUCTION SURVEY MONUMENT VERIFICATION AND REPORT	
	LS									LS		623	51000	LS		POST CONSTRUCTION SURVEY MONUMENT VERIFICATION AND REPORT	
6										6		623	39500	6	EACH	MONUMENT ASSEMBLY ADJUSTED TO GRADE	
2										2		623	40000	2	EACH	MONUMENT ASSEMBLY REMOVED AND RESET	
6										6		623	40500	6	EACH	REFERENCE MONUMENT, TYPE A	
	LS						4			4		SPECIAL	69050600	4	EACH	BOLLARD	P.5
										LS		878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
																EROSION CONTROL	
				6						6		601	21050	6	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
				71						71		601	32204	71	CY	ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC	
2										2		659	00100	2	EACH	SOIL ANALYSIS TEST	
547					6					553		659	00300	553	CY	TOPSOIL	
4,922										4,922		659	10000	4,922	SY	SEEDING AND MULCHING	
247										247		659	14000	247	SY	REPAIR SEEDING AND MULCHING	
247										247		659	15000	247	SY	INTER-SEEDING	
1.11										1.11		659	20000	1.11	TON	COMMERCIAL FERTILIZER	
1.02										1.02		659	31000	1.02	ACRE	LIME	
28										28		659	35000	28	MGAL	WATER	
						51				51		670	00500	51	SY	SLOPE EROSION PROTECTION	
					LS					LS		832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
					LS					LS		832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
					LS					LS		832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
					60,000					60,000		832	30000	60,000	EACH	EROSION CONTROL	
																DRAINAGE	
				0.3						0.3		602	20000	0.3	CY	CONCRETE MASONRY	
				9,554						9,554		605	14000	9,554	FT	6" BASE PIPE UNDERDRAINS	
				86						86		611	00510	86	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
				4						4		611	04400	4	FT	12" CONDUIT, TYPE B, 707.33	
				161						161		611	04600	161	FT	12" CONDUIT, TYPE C	
				150						150		611	05900	150	FT	15" CONDUIT, TYPE B	
				4						4		611	05900	4	FT	15" CONDUIT, TYPE B, 707.33	
				257						257		611	07400	257	FT	18" CONDUIT, TYPE B	
				1						1		611	98470	1	EACH	CATCH BASIN, NO. 2-2B	
				1						1		611	98504	1	EACH	CATCH BASIN, NO. 2-2C	
				2						2		611	99574	2	EACH	MANHOLE, NO. 3	
				3						3		611	99710	3	EACH	PRECAST REINFORCED CONCRETE OUTLET	
																PAVEMENT	
	5		409							414		301	56000	414	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
			3,454					7	38	3,499		304	20000	3,499	CY	AGGREGATE BASE	
			280							280		407	20000	280	GAL	NON-TRACKING TACK COAT	
								6		6		441	70500	6	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	
			102							102		442	10000	102	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	
										170		442	10100	170	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	
			170						30	30		452	12010	30	SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
			1,825							1,825		609	28000	1,825	FT	CURB, TYPE 7	

GENERAL SUMMARY

DESIGN AGENCY
ARCADIS
 1975 HUNTINGTON PARK BLVD, STE 100
 COLUMBIA, MD 21046
 410.326.7000
 www.arcadis.com

DESIGNER
SMG

REVIEWER
JDC 12/29/25

PROJECT ID
122885

SHEET TOTAL
P.7 46

GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

1. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.
 - A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.
 - B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.
2. CONDUITS.
 - A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.
 - B. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.
 - C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
 - D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
3. WIRE FOR GROUNDING AND BONDING.
 - A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:

THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.
 - B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.
4. GROUND ROD.
 - A. A 3/4-INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.
 - B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.

5. POWER SERVICE AND DISCONNECT SWITCH.

- A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE.
 - B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.
6. PAYMENT - ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH C&MS 631.06. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

625, POWER SERVICE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING IS ADDED.

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

POWER COMPANY: AEP OHIO

ADDRESS: 1500 GRANVILLE RD., NEWARK, OH 43055

PHONE #: 614-883-6802

CONTACT NAME: BRENT GATES

THE ENGINEER SHALL ENSURE THAT EACH POWER SERVICE ELECTRICAL ENERGY ACCOUNT IS IN THE NAME OF AND THAT THE BILLING ADDRESS IS TO THE MAINTAINING AGENCY NOTED IN THE PLANS. THIS SHALL BE DONE NOT ONLY FOR EACH NEW POWER SERVICE ESTABLISHED BY THIS PROJECT BUT ALSO FOR EACH EXISTING POWER SERVICE, SINCE THERE MAY BE A REASSIGNMENT OF THE RESPONSIBILITY FOR AN EXISTING SERVICE AS A RESULT OF THE WORK PERFORMED BY THIS PROJECT.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625 LUMINAIRE, CONVENTIONAL, SOLID-STATE (LED), AS PER PLAN, 240 V, TYPE II

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AS FOLLOWS:

ASSURE THE LUMINAIRE HAS A NOMINAL POWER OF 65-120 WATTS, A NOMINAL COLOR TEMPERATURE OF 3000K AND BE 240 VOLTS.

ASSURE THE LUMINAIRE HAS A HOUSE SIDE SHIELD.

SUPPLY ONE OF THE FOLLOWING LUMINAIRES, OR AN APPROVED EQUAL:

AEL, ATBM-P20-MVOLT-R2-3K-HSS
 COOPER, VERD-CA2-90-730-U-T2-AP-10K-HSS

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH "LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625 LUMINAIRE, HIGH MAST, SOLID-STATE (LED), AS PER PLAN, 240 V, TYPE V

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AS FOLLOWS:

ASSURE THE LUMINAIRE HAS A NOMINAL COLOR TEMPERATURE OF 3000K AND BE 240 VOLT.

ASSURE THE LUMINAIRE HAS A HOUSE SIDE SHIELD.

SUPPLY ONE OF THE FOLLOWING LUMINAIRES, OR AN APPROVED EQUAL:

HOLOPHANE, HMLED4_P3_30K_MVOLT_AW_HMED4D120
 CHM, CLED2-08C-GY-3070-HO-T4-A

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH "LUMINAIRE, HIGH MAST, SOLID STATE (LED), AS PER PLAN" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**625 LIGHT POLE (INSTALLATION ONLY), AS PER PLAN (CONVENTIONAL AT18B40)
 625 LIGHT POLE (INSTALLATION ONLY), AS PER PLAN (LIGHT TOWER B45)**

LIGHT POLES /BRACKET ARMS AND LIGHT TOWERS WILL BE AVAILABLE ON THIS PROJECT FOR PICKUP BY THE CONTRACTOR. THE CONTRACTOR SHALL CONTACT DUSTIN PFEIFER AT 740-774-8943 TO OBTAIN THIS MATERIAL. THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO PICK UP THE MATERIAL FROM ODOT'S DISTRICT 9 FACILITY, 650 EASTERN AVE, CHILLICOTHE, OH 45601. ALL ITEMS SHALL BE INSTALLED PER ODOT'S STANDARDS AND SPECIFICATIONS.

LIGHT TOWER SHALL BE AS PER HL-10.31, EXCEPT THAT THEY SHALL BE SIZED TO PROVIDE A FINAL LUMINAIRE MOUNTING HEIGHT OF 45 FEET.

625 LIGHT TOWER FOUNDATION, MISC.: 36" X 10' DEEP

THIS ITEM SHALL BE AS PER ITEM 625, LIGHT TOWER FOUNDATION WITH A 36" DIAMETER AND 10' DEPTH.

625 ARC FLASH CALCULATIONS AND LABEL, ROS-US35/US50 INTERCHANGE TP

ODOT SUPPLEMENTAL SPECIFICATION 825 ARC-FLASHING HAZARD CALCULATIONS AND EQUIPMENT LABEL IS THE CONSTRUCTION ITEM FOR SUCH LABELING LOCATED AT THE POWER SERVICE.

REF. NO.	SHEET NO.	STATION TO STATION	SIDE	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	
				EACH	EACH	EACH	EACH	FT	FT	FT	EACH	EACH	FT	EACH	EACH	EACH	FT	EACH	
CIRCUIT A																			
AA-6		4+01.3	LT			1		1					1			1			
AA-6 TO AA-5								408			131			131				131	
AA-5		4+16.0	LT			1		1					1			1			
AA-5 TO AA-4								414			133			133				133	
AA-4		4+11.1	RT			1		1					1			1			
AA-4 TO AA-3								414			133			133				133	
AA-3		3+68.1	RT			1		1					1			1			
AA-3 TO AA-2								648			211			211				211	
AA-2		1+94.1	RT			1		1					1			1			
AA-2 TO AA-1								450			145			145				145	
AA-1		0+40.8	RT			1		1					1			1			
AA-1 TO LCC-A								60			15			15				15	
LCC-A		102+29.7	LT																
CIRCUIT B																			
AB-5		3+53.4	LT			1		1					1			1			
AB-5 TO AB-4								378			121			121				121	
AB-4		2+63.3	LT			1		1					1			1			
AB-4 TO AB-3								375			120			120				120	
AB-3		1+53.3	LT			1		1					1			1			
AB-3 TO AB-2								372			119			119				119	
AB-2		0+75.5	LT			1		1					1			1			
AB-2 TO AB-1								426			137			137				137	
AB-1		100+28.4	RT			1		1					1			1			
AB-1 TO PB-2								153			46			46				46	
PB-2		100+75.0	RT											1					
PB-2 TO PB-1								360			115			115				115	
PB-1		102+27.4	RT											1					
PB-1 TO LCC-A								285			90			90				90	
LCC-A		102+29.7	LT																
CIRCUIT C																			
AC-4		108+61.6	RT	2	1		1			144		1			1				
AC-4 TO AC-3								606			197			197				197	
AC-3		106+86.8	RT	2	1		1			144		1			1				
AC-3 TO AC-2								636			207			207				207	
AC-2		104+80.5	RT	2	1		1			144		1			1				
AC-2 TO AC-1								522			169			169				169	
AC-1		103+12.1	RT	2	1		1			144		1			1				
AC-1 TO PB-1								375			120			120				120	
PB-1		101+91.3	RT																
PB-1 TO LCC-A								285											
LCC-A		102+29.7	LT													1		1	
TOTALS CARRIED TO GENERAL SUMMARY				8	4	11	4	11	7,167	576	2,209	4	11	2,209	2	15	1	2,209	1

LIGHTING SUBSUMMARY