SHEET NUMBER																ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	
OFFICE CALCS	16	17	18	19	20	21	38	44	59	60	61	73	74	01/STR/PV	02/STR/OT						
																				LIGHTING	
												54	48	102		625	00451	102	EACH	CONNECTION, FUSED PULL APART, AS PER PLAN	71
												14	14	28		625	00460	28	EACH	CONNECTION, UNFUSED PULL APART	
												18	3	21		625	00480	21	EACH	CONNECTION, UNFUSED PERMANENT	
												14	14	28		625	14501	28	EACH	LIGHT POLE FOUNDATION, 24"X 6' DEEP, AS PER PLAN	71
												9228	7212	16440		625	23100	16440	FT	NO. 2 AWG 600 VOLT DISTRIBUTION CABLE	
												9558	7284	16842		625	23304	16842	FT	NO. 8 AWG 600 VOLT DISTRIBUTION CABLE	
												2640	2049	4689		625	25408	4689	FT	CONDUIT, 2", 725.051	
												36		36		625	25504	36	FT	CONDUIT, 3", 725.051	
													142	142		625	25909	142	FT	CONDUIT, JACKED OR DRILLED, 725.052, AS PER PLAN, 2"	71
												2676	2049	4725		625	29000	4725	FT	TRENCH	
												6	2	8		625	30520	8	EACH	PULL BOX, 725.06, SIZE 7	
												1		1		625	30530	1	EACH	PULL BOX, 725.06, SIZE 18	
												15		15		625	32000	15	EACH	GROUND ROD	
												1		1		625	34001	1	EACH	POWER SERVICE, AS PER PLAN	71
												2676	2049	4725		625	36010	4725	FT	UNDERGROUND MARKING/WARNING TAPE	
													22	22		625	75400	22	EACH	LIGHT POLE REMOVED	
													20	20		625	75500	20	EACH	LIGHT POLE FOUNDATION REMOVED	
													22	22		625	75506	22	EACH	LUMINAIRE REMOVED	
																				LIGHTING ALTERNATES	
												14	14	28		625	10481	28	EACH	LIGHT POLE, DECORATIVE, AS PER PLAN - (ALTERNATE 1) (ODOT STD)	71
												2313	2124	4437		625	23400	4437	FT	NO. 10 AWG POLE AND BRACKET CABLE - (ALTERNATE 1) (ODOT STD)	
												18	16	34		625	27403	34	EACH	LUMINAIRE, POST TOP, SOLID STATE (LED), AS PER PLAN - (ALTERNATE 1) (ODOT STD)	71
												14	14	28		625	10481	28	EACH	LIGHT POLE, DECORATIVE, AS PER PLAN - (ALTERNATE 2) (VALMONT)	71
												2286	2106	4392		625	23400	4392	FT	NO. 10 AWG POLE AND BRACKET CABLE - (ALTERNATE 2) (VALMONT)	
												18	16	34		625	27551	34	EACH	LUMINARIE, DECORATIVE, AS PER PLAN - (ALTERNATE 2) (HOLOPHANE)	71

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SHEET NUMBER																ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	
OFFICE CALCS	16	17	18	19	20	21	38	44	59	60	61	73	74	01/STR/PV	02/STR/OT						
																				TRAFFIC CONTROL	
					416.5	181.25								597.75		630	03100	597.75	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
					60									60		630	08520	60	FT	STREET NAME SIGN SUPPORT, NO. 3 POST	
					74	28								102		630	08600	102	EACH	SIGN POST REFLECTOR	
					139.32	58.69								198.01		630	80100	198.01	SF	SIGN, FLAT SHEET	
					42	20								62		630	84900	62	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
					3	2								5		630	85000	5	EACH	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	
					29	14								43		630	86002	43	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
				0.43										0.43		642	00300	0.43	MILE	CENTER LINE, TYPE 1	
				113										113		643	00400	113	FT	CHANNELIZING LINE, 8"	
				210										210		643	00500	210	FT	STOP LINE	
				1325										1325		643	00620	1325	FT	CROSSWALK LINE, 12"	
				216										216		643	00630	216	FT	CROSSWALK LINE, 24"	
				100										100		643	00700	100	FT	TRANSVERSE/DIAGONAL LINE	
				979										979		643	01200	979	FT	PARKING LOT STALL MARKING	
				4										4		643	01300	4	EACH	LANE ARROW	
				2										2		643	01600	2	EACH	HANDICAP SYMBOL MARKING	
																				TRAFFIC SIGNALS	
									176					155	21	625	25408	176	FT	CONDUIT, 2", 725.051	
									382					205	177	625	25504	382	FT	CONDUIT, 3", 725.051	
									282					212	70	625	25604	282	FT	CONDUIT, 4", 725.051	
									808					563	245	625	29000	808	FT	TRENCH	
									8					5	3	625	30520	8	EACH	PULL BOX, 725.06, SIZE 7	
									4					3	1	625	30530	4	EACH	PULL BOX, 725.06, SIZE 18	
									14					9	5	625	32000	14	EACH	GROUND ROD	
									808					563	245	625	36010	808	FT	UNDERGROUND WARNING/MARKING TAPE	
									12					9	3	630	79101	12	EACH	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	55
									3					3		630	79501	3	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED, AS PER PLAN	55
									10					7	3	630	80511	10	EACH	SIGN, STREET NAME, AS PER PLAN	55
									18					18		630	97800	18	SF	SIGNING, MISC.: BLACK BACKGROUND, FLAT SHEET	55
									20					14	6	632	05007	20	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN, BLACK	55
									2					2		632	05087	2	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN, BLACK	55
									18					10	8	632	20731	18	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	55
									22					16	6	632	25000	22	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
									18					10	8	632	25010	18	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
									18					10	8	632	26001	18	EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN	55
										2624				1646	978	632	40300	2624	FT	SIGNAL CABLE, 3 CONDUCTOR, NO. 14 AWG	
										2696				1686	1010	632	40500	2696	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
										8				5	3	632	64011	8	EACH	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	55
										4				3	1	632	64020	4	EACH	PEDESTAL FOUNDATION	
										86				50	36	632	69800	86	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	
										2				1	1	632	70001	2	EACH	POWER SERVICE, AS PER PLAN	55

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SHEET NUMBER																ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	
OFFICE CALCS	16	17	18	19	20	21	38	44	59	60	61	73	74	01/STR/PV	02/STR/OT						
																				TRAFFIC SIGNALS	
											2			1	1	632	90101	2	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	57
											2			1	1	633	65511	2	EACH	CABINET, TYPE TS-2, AS PER PLAN	58
											2			1	1	633	67100	2	EACH	CABINET FOUNDATION	
											1			1		633	67201	1	EACH	CONTROLLER WORK PAD, AS PER PLAN	58
											2			1	1	633	75001	2	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	58
											10			7	3	809	69101	10	EACH	STOP LINE RADAR DETECTION, AS PER PLAN	58
											2			1	1	809	69123	2	EACH	ATC CONTROLLER, AS PER PLAN	58
																				TRAFFIC SIGNAL ALTERNATES	
										1619				1619		632	40700	1619	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG - (ALTERNATE 1)	
										1				1		632	72101	1	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 2, AS PER PLAN - (ALTERNATE 1)	56
																				(ODOT STD BLACK)	
										1				1		632	79101	1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 2, AS PER PLAN - (ALTERNATE 1)	56
																				(ODOT STD BLACK)	
										1				1		632	79141	1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13, AS PER PLAN - (ALTERNATE 1)	56
																				(ODOT STD BLACK)	
											1			1		632	81700	1	EACH	COMBINATION SIGNAL SUPPORT, MISC.: TYPE TC-81.22, DESIGN 12 POLE, WITH ARMS TC-81.22 DESIGN	56
																				4 AND 2 - (ALTERNATE 1) (ODOT STD. BLACK)	
											1			1		632	81700	1	EACH	COMBINATION SIGNAL SUPPORT, MISC.: TYPE TC-12.31, DESIGN 6 POLE, WITH ARMS TC-81.22 DESIGN 12	57
																				AND 4 - (ALTERNATE 1) (ODOT STD BLACK)	
											3			3		632	89901	3	EACH	PEDESTAL, 8', TRANSFORMER BASE, AS PER PLAN- (ALTERNATE 1)	57
									4					4		625	17901	4	EACH	BRACKET ARM, AS PER PLAN - (ALTERNATE 2) (VALMONT)	55
										1583				1583		632	40700	1583	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG - (ALTERNATE 2)	
										1				1		632	80700	1	EACH	SIGNAL SUPPORT, MISC.: TYPE TC-81.22, DESIGN 2, DECORATIVE, AS PER PLAN - (ALTERNATE 2) (VALMONT)	56
											1			1		632	81700	1	EACH	COMBINATION SIGNAL SUPPORT, MISC.: TYPE TC-81.22, DESIGN 2, DECORATIVE - (ALTERNATE 2) (VALMONT)	56
											1			1		632	81700	1	EACH	COMBINATION SIGNAL SUPPORT, MISC.: TYPE TC-81.22, DESIGN 13, DECORATIVE - (ALTERNATE 2) (VALMONT)	56
											1			1		632	81700	1	EACH	COMBINATION SIGNAL SUPPORT, MISC.: TYPE TC-81.22, DESIGN 12 POLE, WITH ARMS TC-81.22 DESIGN 4 &	57
																				2, DECORATIVE - (ALTERNATE 2) (VALMONT)	
											1			1		632	81700	1	EACH	COMBINATION SIGNAL SUPPORT, MISC.: TYPE TC-12.31, DESIGN 6 POLE, WITH ARMS TC-81.22 DESIGN 12	57
																				& 4, DECORATIVE - (ALTERNATE 2) (VALMONT)	
											3			3		632	89601	3	EACH	PEDESTAL, 8', AS PER PLAN - (ALTERNATE 2) (VALMONT)	57

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SHEET NUMBER																ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	
OFFICE CALCS	16	17	18	19	20	21	38	44	59	60	61	73	74	01/STR/PV	02/STR/OT						
																				TRAFFIC SIGNAL ALTERNATES (WRIGHT STREET)	
										585					585	632	40700	585	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG - (ALTERNATE 1)	
										1					1	632	80700	1	EACH	SIGNAL SUPPORT, MISC.: TYPE TC-81.22, DESIGN 2, AS PER PLAN - (ALTERNATE 1) (ODOT STD. BLACK)	56
											2				2	632	81700	2	EACH	COMBINATION SIGNAL SUPPORT, MISC.: TYPE TC-81.22, DESIGN 2, AS PER PLAN (ALTERNATE 1) (ODOT STD. BLACK)	56
											1				1	632	89601	1	EACH	PEDESTAL, 8', AS PER PLAN - (ALTERNATE 1)	57
									2						2	625	17901	2	EACH	BRACKET ARM, AS PER PLAN - (ALTERNATE 2) (VALMONT)	55
										570					570	632	40700	570	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG - (ALTERNATE 2)	
										1					1	632	80700	1	EACH	SIGNAL SUPPORT, MISC.: TYPE TC-81.22, DESIGN 2, DECORATIVE, AS PER PLAN - (ALTERNATE 2) (VALMONT)	56
											2				2	632	81700	2	EACH	COMBINATION SIGNAL SUPPORT, MISC.: TYPE TC-81.22, DESIGN 2, DECORATIVE - (ALTERNATE 2) (VALMONT)	56
											1				1	632	89601	1	EACH	PEDESTAL, 8', AS PER PLAN - (ALTERNATE 2) (VALMONT)	57
																				RETAINING WALLS	
	20													20		530	50020	20	FT	RETAINING WALL, MISC.: 8" BLOCK	46
																				MAINTENANCE OF TRAFFIC	
41														41		410	12000	41	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
														3		SPECIAL	614I1300	3	EACH	WORK ZONE TRAFFIC SIGNAL	7
														LS		614	12420	LS		DETOUR SIGNING	8,9
20														0.43		614	21000	0.43	MILE	WORK ZONE CENTER LINE, CLASS I	
														20		616	10000	20	MGAL	WATER	
																				INCIDENTALS	
														LS		108	10000	LS		CPM PROGRESS SCHEDULE	
														LS		614	11000	LS		MAINTAINING TRAFFIC	
														8		619	16010	8	MNTH	FIELD OFFICE, TYPE B	
														LS		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
														LS		624	10000	LS		MOBILIZATION	

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MAINTENANCE OF TRAFFIC SIGNAL (CONT.)

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 4 HOURS AND SHALL NOT INCLUDE THE HOURS OF 7 TO 9 AM AND 4 TO 6 PM, ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS.

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

1. TIME OF NOTIFICATION OF MALFUNCTION;

2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;

3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;

4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;

5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 625 BRACKET ARM, AS PER PLAN - (ALTERNATE 2) (VALMONT)

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN THE OHIO DEPARTMENT OF TRANSPORTATION ITEM 625 HIGHWAY LIGHTING, EXCEPT AS HERIN MODIFIED.

THE BRACKET ARM SHALL BE THE VALMONT BURNSVILLE BRACKET ARM, 2', AND BE GALVANIZED WITH A BLACK FINISH, PER ODOT SUPPLEMENTAL SPECIFICATION 916.

THE BRACKET ARM SHALL BE WRAPPED TO PROTECT THE FINISH DURING SHIPPING, UNLOADING AND INSTALLATION. THE CONTRACTOR IS TOTALLY RESPONSIBLE TO PROVIDE ADEQUATE PROTECTION FOR THE FINISH OF THE ARMS. IF THE FINISH IS DAMAGED DURING HANDLING, THE CONTRACTOR SHALL REPAIR THE FINISH PER THE MANUFACTURER'S RECOMMENDATIONS.

PAYMENT FOR ITEM 625 BRACKET ARM, AS PER PLAN – (ALTERNATE 2) (VALMONT) FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 630 SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT SPECIFICATIONS ITEM 630 AND 730, THE CONTRACTOR SHALL RIGIDLY ATTACH A SIGN TO THE MAST ARM. THE SIGN HANGER ASSEMBLY SHALL HAVE A BLACK POWDER COAT FINISH AND BE DESIGNED WITHOUT SET SCREWS, PIPE THREADS, RETAINER RINGS, AND SCREW LOCK BUCKLES. THE SADDLE USED TO FASTEN THE SUPPORT MEMBER TO THE MAST ARM SHALL ALSO HAVE A MULTI–TOOTH MOUNTING SURFACE TO INHIBIT MOVEMENT OR ROTATION. THIS ITEM SHALL INCLUDE ALL NECESSARY HARDWARE, FASTENERS, AND ACCESSORIES. ALL NECESSARY HARDWARE, FASTENERS, AND ACCESSORIES SHALL BE STAINLESS STEEL AND HAVE A BLACK FINISH.

PAYMENT FOR ITEM 630 SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

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

IN ADDITION TO THE REQUIREMENTS OF ODOT SPECIFICATIONS ITEM 630 AND 730, THE CONTRACTOR SHALL RIGIDLY ATTACH A SIGN TO THE TRAFFIC POLE. THE POLE MOUNTED SUPPORT ASSEMBLY SHALL HAVE A BLACK FINISH. THIS ITEM SHALL INCLUDE ALL NECESSARY HARDWARE, FASTENERS, AND ACCESSORIES. ALL NECESSARY HARDWARE, FASTENERS, AND ACCESSORIES SHALL BE STAINLESS STEEL.

PAYMENT FOR ITEM 630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED, AS PER PLAN SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 630 SIGN, STREET NAME, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 630 TRAFFIC SIGNS AND SIGN SUPPORTS, EXCEPT AS HEREIN MODIFIED.

THE WORK SHALL INCLUDE THE PAINTING OF THE BACK OF THE MAST ARM MOUNTED STREET NAME SIGNS FLAT BLACK. THIS ITEM SHALL ALSO INCLUDE ALL NECESSARY HARDWARE FOR INSTALLATION TO THE MAST ARMS. THE EXPOSED HARDWARE SHALL BE STAINLESS STEEL, THE TYPE OF PAINT SHALL BE APPROVED BY THE ENGINEER PRIOR TO USE AND SHALL BE CAPABLE TO ADHERE TO ALUMINUM AND STAINLESS STEEL.

THE CONTRACTOR TO PROVIDE A MOCK UP OF THE STREET NAME SIGN PRIOR TO MANUFACTURING TO ALLOW THE ENGINEER TO APPROVE THE ACTUAL SIZE, FONT, AND COLORS.

PAYMENT FOR ITEM 630 SIGN, STREET NAME, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 630 SIGNING, MISC.: BLACK BACKGROUND, FLAT SHEET

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN THE OHIO DEPARTMENT OF TRANSPORTATION ITEM 630 TRAFFIC SIGNS AND SIGN SUPPORTS, EXCEPT AS HEREIN MODIFIED.

THE WORK SHALL INCLUDE A BLACK BACKGROUND, FLAT SHEET TO BE MOUNTED TO THE BACK OF ALL R3–5 AND R3–7 SIGNS ONLY. THE BLACK BACKGROUND SHALL BE 2" LARGER ON ALL SIDES (INCLUDING RADIUS CORNERS) THAN THE SIGN PLACED IN THE FRONT, UNLESS OTHERWISE DIMENSIONED ON THE PLANS. THE CONTRACTOR IS TO SUBMIT THE DRAWINGS SHOWING HOW THE BLACK BACKGROUND WILL BE USED FOR EACH SIGN PRIOR TO MANUFACTURING.

PAYMENT FOR ITEM 630 BLACK BACKGROUND, FLAT SHEET, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT SQUARE FOOT PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 632 VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12 INCH LENS, 1-WAY, POLYCARBONATE, AS PER PLAN, BLACK
ITEM 632 VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12 INCH LENS, 1-WAY, POLYCARBONATE, AS PER PLAN, BLACK

IN ADDITION TO THE REQUIREMENTS OF C&MS 632 AND 732, THE FOLLOWING REQUIREMENTS SHALL APPLY:

1. SIGNAL HEADS SHALL BE CONSTRUCTED OF BLACK POLYCARBONATE PLASTIC AND VISORS SHALL BE CONSTRUCTED OF BLACK POLYCARBONATE PLASTIC WITH VISORS AS SPECIFIED AND MEET ITE SPECIFICATIONS.

2. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.

3. ALL UPPER SIGNAL SUPPORT HARDWARE AND PIPING UP TO AND INCLUDING THE WIRE INLET FITTING SHALL BE FERROUS METAL.

4. PIPE, SPACERS AND FITTINGS SHOULD BE CONSTRUCTED OF GALVANIZED STEEL, OR ALUMINUM, AND HAVE A BLACK FINISH, INCLUDING THE MAST ARM ATTACHMENT STEEL CABLES.

5. THE ENTRANCE FITTING SHALL BE OF THE TRI–STUD DESIGN WITH SERRATED RINGS IN ORDER TO ACHIEVE POSITIVE LOCKING.

ITEM 632 VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12 INCH LENS, 1-WAY, POLYCARBONATE, AS PER PLAN, BLACK
ITEM 632 VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12 INCH LENS, 1-WAY, POLYCARBONATE, AS PER PLAN, BLACK (CONT.)

6. ALL SIGNAL HEADS BE RIGIDLY MOUNTED TO THE MAST ARM WITH THE YELLOW LENS LOCATED IN FRONT OF THE MAST ARM.

7. ALUMINUM BACKPLATES SHALL BE IN ACCORDANCE WITH THE C&MS AND INCLUDE A FLUORESCENT YELLOW REFLECTIVE BORDER.

8. THE LIGHT EMITTING DIODE (LED) SIGNAL LAMP UNITS SHALL MEET THE REQUIREMENTS OF C&MS 732.04–C. THE CONTRACTOR SHALL PROVIDE THE ENGINEER, IN WRITING, WITH THE LED MANUFACTURER NAME, SERIAL NUMBER, PART NUMBER, DESCRIPTION OF LAMP, AND DATE OF MANUFACTURE FOR ALL LED UNITS THAT ARE TO BE USED IN THE SIGNAL HEAD PRIOR TO INSTALLATION, FOR ACCEPTANCE AND WARRANTY PURPOSES.

9. SIGNAL HEADS SHALL HAVE A MINIMUM WALL THICKNESS OF 0.117 INCHES.

10. SIGNAL HEADS SHALL INCLUDE CUTAWAY TYPE VISORS UNLESS OTHERWISE SPECIFIED IN THE PLANS.

11. APPLY A BEAD OF SILICONE TO THE SIGNAL HEAD, WASHER, AND ENTRANCE ADAPTER SERRATIONS TO PREVENT WATER INTRUSION. ALSO, FILL THE SPACE BETWEEN CONCENTRIC SERRATION RINGS ON THE TOP OF THE SIGNAL HEAD TO COMPLETELY EXCLUDE WATER FROM THE SPACE BETWEEN THE CONCENTRIC RINGS.

12. ALL SIGNAL HEADS SHALL BE FIELD LOCATED AND APPROVED BY THE ENGINEER BEFORE FINAL WIRING.

PAYMENT FOR ITEM 632 VEHICULAR SIGNAL HEAD, (LED), 3–SECTION, 12 INCH, 1–WAY, POLYCARBONATE, AS PER PLAN, BLACK AND ITEM 632 VEHICULAR SIGNAL HEAD, (LED), 5–SECTION, 12 INCH, 1–WAY, POLYCARBONATE, AS PER PLAN, BLACK SHALL BE MADE FOR COMPLETE SIGNAL HEAD FURNISHED AND INSTALLED, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS, AND NEW ATTACHMENT HARDWARE.

ITEM 632 PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 632 AND 732 THE FOLLOWING SHALL APPLY:

1. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF BLACK POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.

2. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.

3. PIPE, SPACERS AND FITTINGS SHALL BE CONSTRUCTED OF GALVANIZED STEEL AND SHALL BE PAINTED BLACK PER ODOT SS 916.

4. THE PEDESTRIAN SIGNAL HEAD SHALL BE OF THE LED COUNTDOWN TYPE.

5. NEW ATTACHMENT HARDWARE AND FITTINGS SHALL BE USED.

6. THE LIGHT EMITTING DIODE (LED) SIGNAL LAMP UNITS SHALL MEET THE REQUIREMENTS OF C&MS 732.04–C. THE CONTRACTOR SHALL PROVIDE THE VILLAGE, IN WRITING, WITH THE LED MANUFACTURER NAME, SERIAL NUMBER, PART NUMBER, DESCRIPTION OF LAMP, AND DATE OF MANUFACTURE FOR ALL LED UNITS THAT ARE TO BE USED IN THE SIGNAL HEAD PRIOR TO INSTALLATION, FOR ACCEPTANCE AND WARRANTY PURPOSES.

PAYMENT FOR ITEM 632 PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN SHALL BE MADE FOR THE NUMBER OF COMPLETE SIGNAL HEAD FURNISHED AND INSTALLED, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS AND NEW ATTACHMENT HARDWARE.

ITEM 632 PEDESTRIAN PUSHBUTTON, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT SPECIFICATIONS 632 AND 732, THE FOLLOWING REQUIREMENTS SHALL APPLY:

1. THE BULL DOG PUSHBUTTON ASSEMBLY SHALL A DIE CAST ALUMINUM BODY PAINTED BLACK PER ODOT SS 916 AND A 316 STAINLESS STEEL BUTTON.

2. THE PUSHBUTTON SHALL HAVE PIEZO DRIVEN SOLID STATE SWITCH.

3. THE PUSHBUTTON ASSEMBLY SHALL HAVE AN INTEGRAL INDICATOR LIGHT THAT ILLUMINATES WHEN THE BUTTON IS PUSHED.

4. THE PUSHBUTTON SHALL SOUND A TONE WHEN THE BUTTON IS PUSHED AND SOUND A DIFFERENT TONE WHEN THEN BUTTON IS RELEASED.

PAYMENT FOR ITEM 632 PEDESTRIAN PUSHBUTTON, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 632 SIGNAL SUPPORT FOUNDATION, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT SPECIFICATIONS 632 TRAFFIC SIGNAL EQUIPMENT, THE SIGNAL SUPPORT FOUNDATIONS SHALL BE INSTALLED PER 632.14.

PRIOR TO ORDERING THE SIGNAL SUPPORTS, THE CONTRACTOR SHALL CONTACT OUPS TO HAVE ALL THE UTILITIES LOCATED IN THE FIELD. THE CONTRACTOR SHALL HYDRO–EXCAVATE POLE FOUNDATIONS TO ENSURE ABSENCE OF CONFLICTS WITH POLE LOCATIONS. IF THE CONTRACTOR FAILS TO DO THIS PRIOR TO ORDERING, ANY CHANGES TO THE POLES OR MAST ARMS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE AND WILL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY FOR EACH SUPPORT FURNISHED, IN PLACE, COMPLETE AND ACCEPTED.

ITEM 632 POWER SERVICE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT SPECIFICATIONS 632 AND 732 AND SCD TC–83.10, THE FOLLOWING REQUIREMENTS SHALL APPLY:

1. THE METER BASE MOUNTING HEIGHT SHALL BE NO MORE THAN 5 FEET HIGH TO THE CENTER OF THE METER BASE FROM THE GROUND.

2. THE CONTRACTOR SHALL SUPPLY THE NECESSARY METER BASES. THE CONTRACTOR WILL OBTAIN A 120/240 VOLT, 60 AMP SERVICE – 120 VOLT TO THE CONTROLLER CABINET.

3. ALL POWER SERVICES SHALL BE METERED. THE METER SHALL HAVE A LEVER OPERATED BYPASS.

4. THE METER AND DISCONNECT SWITCH SHALL BE LOCATED ON THE SIDE OF THE CONTROLLER CABINET.

DISCONNECT SWITCH ENCLOSURES FURNISHED IN ACCORDANCE WITH CMS ITEM 632, POWER SERVICE, AS PER PLAN, SHALL INCLUDE A PADLOCK EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNON 660, WITH LOCK BODY OF BRONZE OR BRASS AND KEYING SHALL BE TO THE STATE MASTER.

THE CONTRACTOR SHALL CONTACT AES OHIO FOR INFORMATION REGARDING THE METER BASE INSTALLATION PRIOR TO ORDERING POLES AND CABINET. THE VOLTAGE SUPPLIED SHALL BE NOMINALLY 120/240 VOLTS (120 VOLTS FOR THE SIGNAL).

PAYMENT FOR ITEM 632 POWER SERVICE, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT EACH BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

CALCULATED A.J.H
CHECKED C.C.E

TRAFFIC SIGNAL GENERAL NOTES

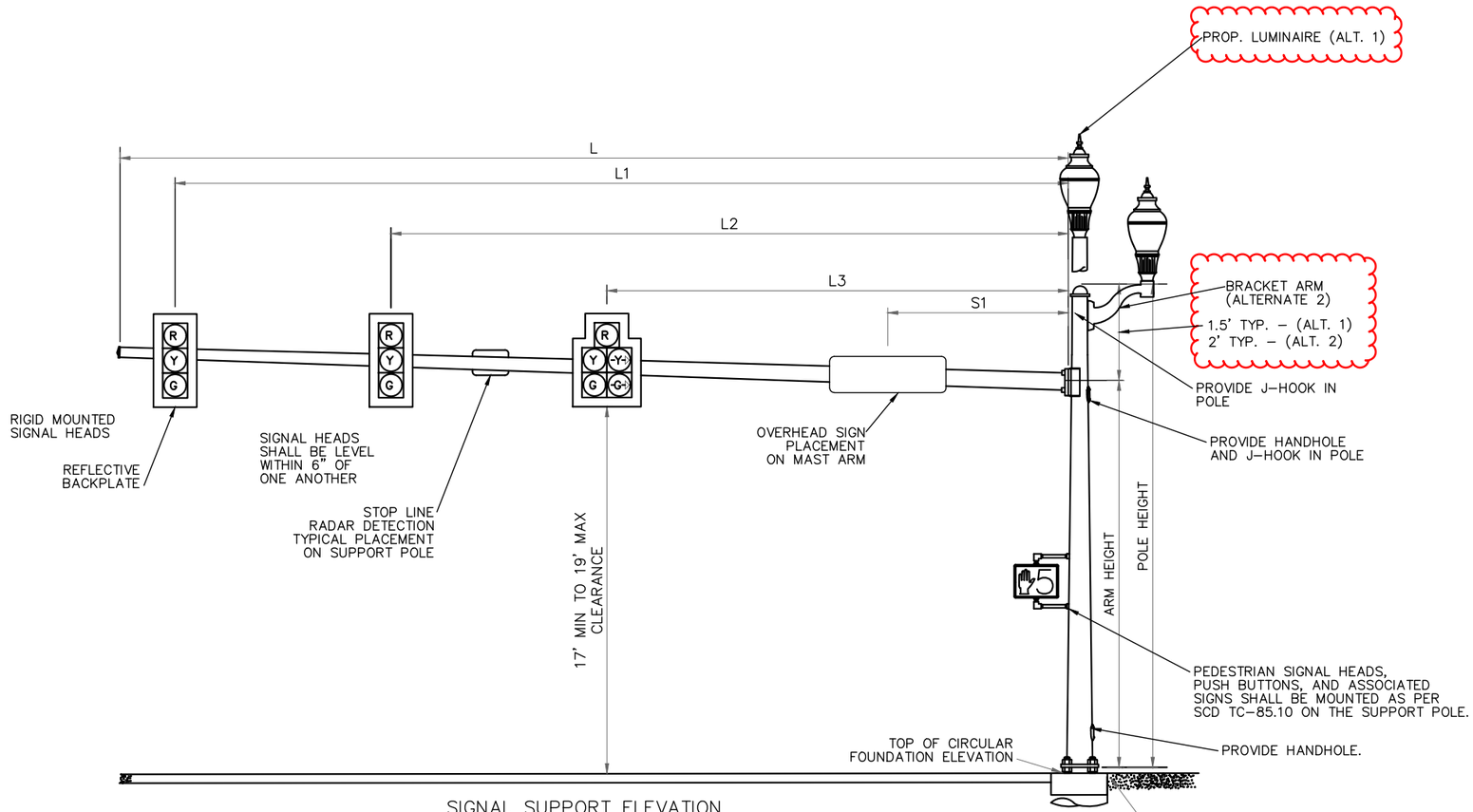
MIA HIGH STREET IMPROVEMENTS

SHEET NO.	LOCATION	SIDE	625 BRACKET ARM, AS PER PLAN - (ALTERNATE 2) (VALMONT) EACH	625 CONDUIT, 2", 725.051 FT	625 CONDUIT, 3", 725.051 FT	625 CONDUIT, 4", 725.051 FT	625 TRENCH FT	625 PULL BOX, 725.06, SIZE 7 EACH	625 PULL BOX, 725.06, SIZE 18 EACH	625 GROUND ROD EACH	625 UNDERGROUND WARNING/MARKING TAPE FT	630 SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN EACH	630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED, AS PER PLAN EACH	630 SIGN, STREET NAME, AS PER PLAN EACH	630 SIGNING, MISC.: BLACK BACKGROUND, FLAT SHEET SF	632 VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN, BLACK EACH	632 VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN, BLACK EACH			
	"WRIGHT STREET" - (100% LOCAL FUNDS)																				
62, 63	738+87.91 (SP-1)	LT								1		1		1		2					
62, 63	738+25.45 (SP-2)	LT	1							1		1		1		2					
62, 63	738+90.61 (SP-3)	RT	1							1		1		1		2					
62	738+75.94 (PBx1)	LT						1													
62	738+39.78 (PBx2)	LT						1													
62	738+76.11 (PBx3)	RT						1													
62	738+35.25 (PBx4)	RT							1												
62	738+31.44 (PS-1)	RT								1											
62, 64	SP-1 TO PBx1	LT			17		17				17										
62, 64	PBx1 TO PBx2	LT			36		36				36										
62, 64	SP-2 TO PBx2	LT			18		18				18										
62, 64	PBx2 TO PBx4	LT, RT				70	70				70										
62, 64	PS-1 TO PBx4	RT		6			6				6										
62, 64	SP-3 TO PBx3	RT			19		19				19										
62, 64	PBx3 TO PBx4	RT			41		41				41										
62, 64	PBx4 TO CONTROLLER	RT			46		23			1	23										
62, 64	CONTROLLER TO POWER SERVICE	RT		15			15				15										
	"BRIDGE STREET & TROY PIKE"																				
66, 67	726+25.94 (SP-1)	LT								1		1		1		2					
66, 67	725+74.32 (SP-2)	LT	1							1		1		1		2					
66, 67	726+22.08 (SP-3)	RT	1							1		2		2		3	1				
66, 67	724+14.44 (SP-4)	LT	1							1		4	1	2	17.5	4	1				
66, 67	724+65.17 (SP-5)	RT	1							1		1	1	1		3					
66	726+14.86 (PBx1)	LT						1													
66	725+67.30 (PBx2)	LT						1													
66	726+24.29 (PBx3)	RT						1													
66	725+64.71 (PBx4)	RT							1												
66	724+45.54 (PBx5)	LT						1													
66	724+92.51 (PBx6)	RT							1												
66	724+74.09 (PBx7)	RT							1												
66	723+68.12 (PBx8)	RT						1													
66	725+68.62 (PS-1)	RT								1											
66	724+90.91 (PS-2)	RT								1											
66	723+59.14 (PS-3)	RT								1			1								
66, 68	SP-5 TO PBx7	RT			13		13				13										
66, 68	PS-3 TO PBx8	RT		9			9				9										
66, 68	PBx8 TO PBx7	RT		106			106				106										
66, 68	SP-4 TO PBx5	LT			31		31				31										
66, 68	PBx5 TO PBx7	LT, RT				71	71				71										
66, 68	PBx7 TO CONTROLLER	RT				12	12				12										
66, 68	SP-1 TO PBx1	LT			14		14				14										
66, 68	PBx1 TO PBx2	LT			51		51				51										
66, 68	SP-2 TO PBx2	LT			13		13				13										
66, 68	PBx2 TO PBx4	LT, RT				44	44				44										
66, 68	SP-3 TO PBx3	RT			11		11				11										
66, 68	PBx3 TO PBx4	RT			63		63				63										
66, 68	PS-1 TO PBx4	RT		4			4				4										
66, 68	PBx4 TO PBx6	RT				76	76				76										
66, 68	PS-2 TO PBx6	RT		7			7				7										
66, 68	PBx6 TO CONTROLLER	RT			9	9	9			1	9										
66, 68	CONTROLLER TO POWER SERVICE	RT		29			29				29										
	LOCAL FUNDED TOTAL		6	21	177	70	245	3	1	5	245	3	0	3	0	6	0				
	FEDERAL FUNDED TOTAL		0	155	205	212	563	5	3	9	563	9	3	7	18	14	2				
	TOTALS CARRIED TO GENERAL SUMMARY		6	176	382	282	808	8	4	14	808	12	3	10	18	20	2				

CALCULATED AJH
CHECKED CCE

SUBSUMMARY - TRAFFIC SIGNAL

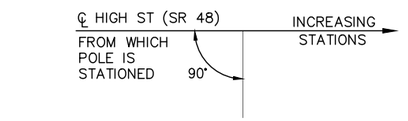
MIA HIGH STREET IMPROVEMENTS

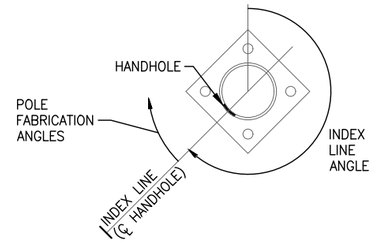


SIGNAL SUPPORT ELEVATION (TYPICAL)

NOTE:
- ALL BASE BID MAST ARMS SHALL HAVE A 6"–12" RISE AFTER ERECTION.
- ALL DECORATIVE MAST ARMS (ALTERNATE 2) SHALL HAVE A 60" UPSWEEP.

PEDESTRIAN POLE ORIENTATION DETAIL

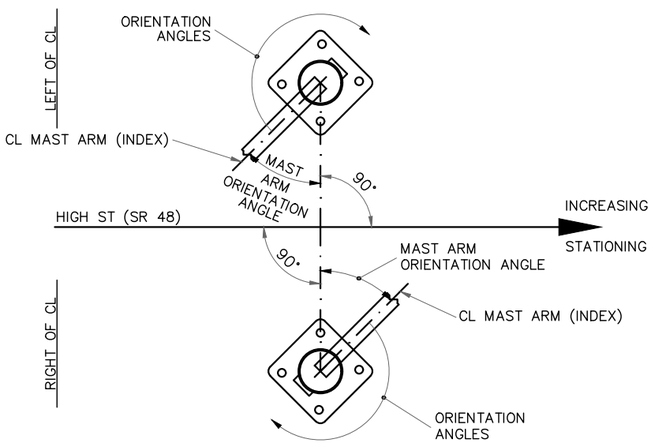




PEDESTAL POLE DATA

POLE NUMBER	STATION	OFFSET (FEET) AND SIDE	POLE HEIGHT (FT.)	INDEX LINE ANGLE (DEG.)	ANGLES (DEG) FROM INDEX LINE (ALL ANGLES MEASURES CLOCKWISE ↻)				
					SIGNAL CONDUIT ELL		PEDESTRIAN SIGNAL		PEDESTRIAN PUSHBUTTON
*PS–1	738+31.44	32.51' RT	8'	230	270		130/220		130/220

*PEDESTAL SHALL INCLUDE A DUAL MOUNTING BRACKET FOR THE MOUNTING OF THE PEDESTRIAN PUSHBUTTONS AND PEDESTRIAN SIGNS



MAST ARM TABLE

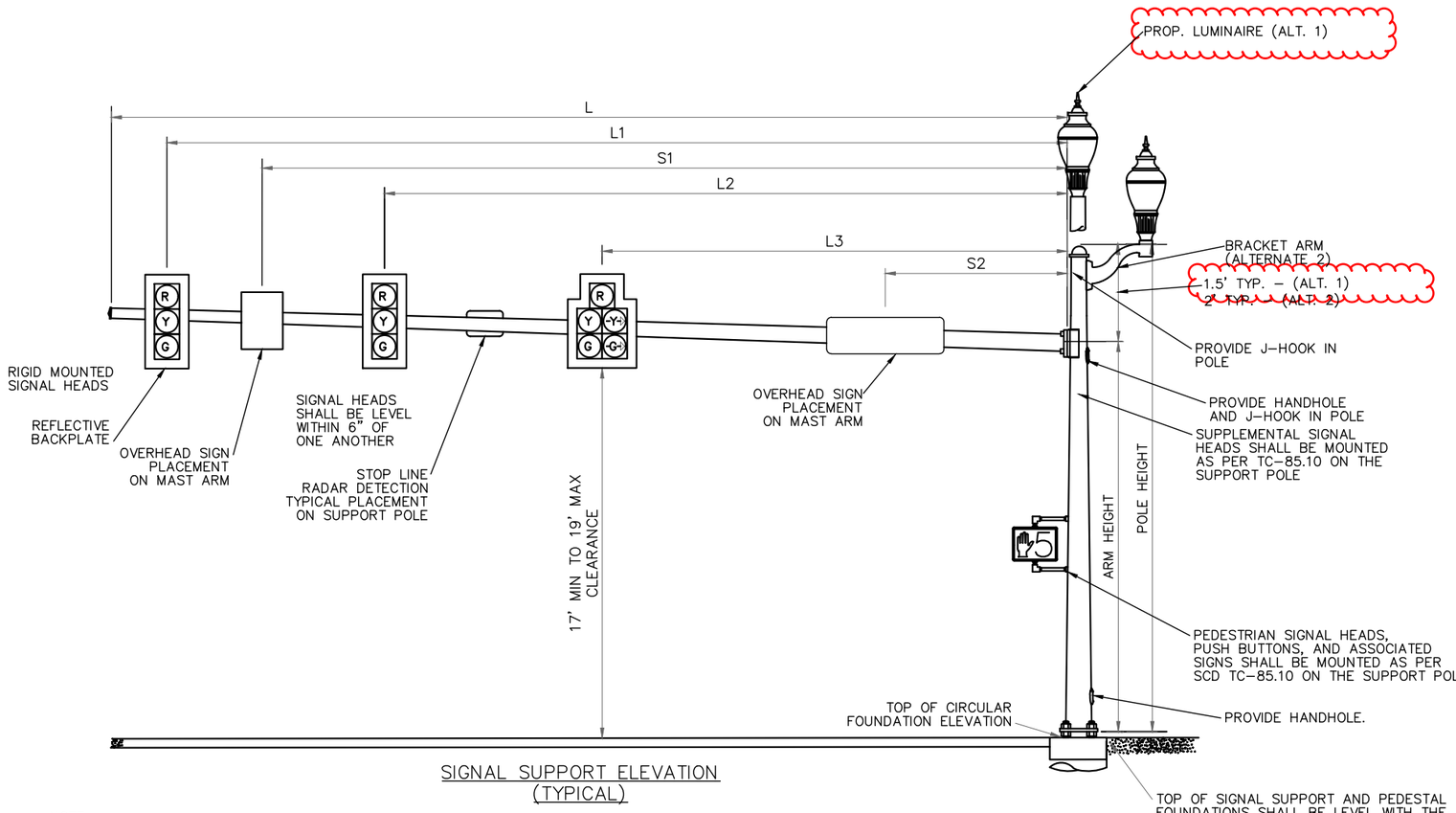
SUPPORT NO.	STATION	OFFSET	TOP OF FOUNDATION ELEVATION	SIGNAL SUPPORT DETAILS – (ALT. 1)					SIGNAL SUPPORT DETAILS (ALT. 2)				SIGNAL SUPPORT DETAILS					ORIENTATION ANGLES FROM MAST ARM							
				DESIGN TYPE	DESIGN NO.	POLE HEIGHT (ALT. 1)	MAST ARM ATTACHMENT HEIGHT (ALT. 1)	LUMINAIRE MOUNTING HEIGHT (ALT. 1)	POLE HEIGHT (ALT. 2)	MAST ARM ATTACHMENT HEIGHT (ALT. 2)	BRACKET ARM ATTACHMENT HEIGHT (ALT. 2)	LUMINAIRE MOUNTING HEIGHT (ALT. 2)	L	L1	L2	L3	S1	MAST ARM A ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN BUTTON	SIGNAL CONDUIT ELL	LUMINAIRE CONDUIT ELL	BRACKET ARM (ALTERNATE 2)	BASE HANDHOLE	MAST ARM HANDHOLE
						FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG
SP–1	738+87.91	23.0 LT	926.01	TC–81.22	2	22.5	21	–	*18	*16	–	–	32	29.0	21.0	–	11	90	0/90	0/90	25	–	–	180	180
SP–2	738+25.45	23.0 LT	927.26	TC–81.22	2	21.5	20	21.5	*17	*15	*16	*17	24	20.0	10.0	–	5.0	0	180/270	180/270	255	85	180	180	180
SP–3	738+90.61	23.0 RT	926.81	TC–81.22	2	21.5	20	21.5	*17	*15	*16	*17	24	20.5	10.5	–	5.0	0	180/270	180/270	250	90	180	180	180

*ALTERNATE 2 DETAILS REPLACES ALTERNATE 1 DETAILS AS SHOWN IN TABLE

CALCULATED AJH CHECKED CCE

WRIGHT STREET TRAFFIC SIGNAL PLAN

MIA HIGH STREET IMPROVEMENTS

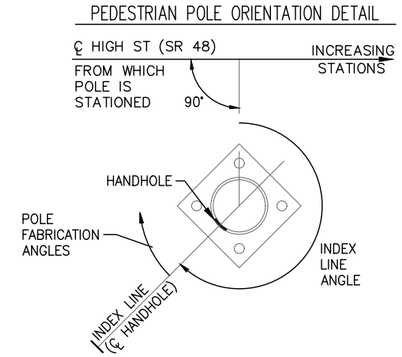


SIGNAL SUPPORT ELEVATION (TYPICAL)

NOTE:

- ALL BASE BID MAST ARMS SHALL HAVE A 6"–12" RISE AFTER ERECTION.
- ALL DECORATIVE MAST ARMS (ALTERNATE 2) SHALL HAVE A 60" UPSWEEP.

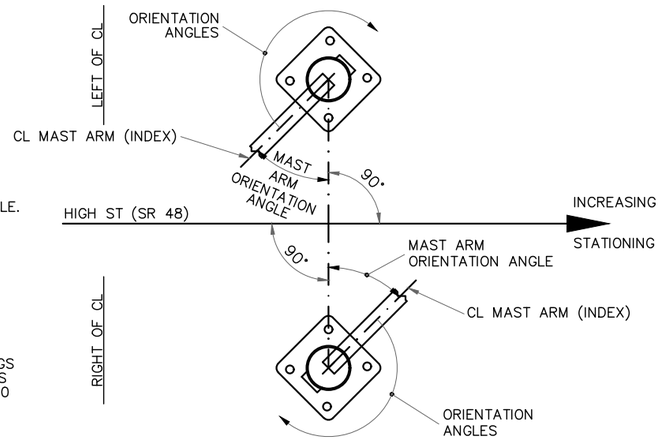
PEDESTRIAN POLE ORIENTATION DETAIL



PEDESTAL POLE DATA

POLE NUMBER	STATION	OFFSET (FEET) AND SIDE	POLE HEIGHT (FT.)	INDEX LINE ANGLE (DEG.)	ANGLES (DEG) FROM INDEX LINE (ALL ANGLES MEASURES CLOCKWISE ↻)				
					SIGNAL CONDUIT ELL		PEDESTRIAN SIGNAL		PEDESTRIAN PUSHBUTTON
*PS–1	725+68.62	23.49' RT	8'	270	30		180/270		180/270
PS–2	724+90.91	28.51' RT	8'	180	345		180		180
PS–3	723+59.14	28.50' RT	8'	180	280		180		180

*PEDESTAL SHALL INCLUDE A DUAL MOUNTING BRACKET FOR THE MOUNTING OF THE PEDESTRIAN PUSHBUTTONS AND PEDESTRIAN SIGNS



MAST ARM TABLE

SUPPORT NO.	STATION	OFFSET	TOP OF FOUNDATION ELEVATION	SIGNAL SUPPORT DETAILS– (ALT. 1)						SIGNAL SUPPORT DETAILS (ALT. 2)				SIGNAL SUPPORT DETAILS							ORIENTATION ANGLES FROM MAST ARM								
				DESIGN TYPE	POLE DESIGN NO.	MAST ARM DESIGN NO.	POLE HEIGHT (ALT. 1)	MAST ARM ATTACHMENT HEIGHT (ALT. 1)	LUMINAIRE MOUNTING HEIGHT (ALT. 1)	POLE HEIGHT (ALT. 2)	MAST ARM ATTACHMENT HEIGHT (ALT. 2)	BRACKET ARM ATTACHMENT HEIGHT (ALT. 2)	LUMINAIRE MOUNTING HEIGHT (ALT. 2)	L	L1	L2	L3	S1	S2	S3	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN BUTTON	SIGNAL CONDUIT ELL	LUMINAIRE CONDUIT ELL	BRACKET ARM (ALTERNATE 2)	BASE HANDHOLE	MAST ARM HANDHOLE
							FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG
1	726+25.94	22.67' LT	924.16	TC–81.22	2	2	21.5	20	–	*17	*15	–	–	30	26	16	–	8	8	8	90	–	0/90	0/90	40	–	–	180	180
2	725+74.32	30.50' LT	922.95	TC–81.22	2	2	22.5	21	22.5	*18	*16	*17	*18	30	27	17	–	9	9	9	0	–	0/270	0/270	0	245	*180	180	180
3	726+22.08	33.13' RT	924.25	TC–12.31	6	4	21.5	20	21.5	*17	*15	*16	*17	35	31.5	21.5	–	9.5	9.5	9.5	0	–	0/270	0/270	10	60	*180	180	180
–	–	–	–	–	–	12	–	20	–	–	*15	–	–	40	36	26	–	13	13	13	–	270	–	–	–	–	–	–	–
4	724+14.44	22.75' LT	922.41	TC–81.22	12	4	22	20.5	22	*17.5	*15.5	*16.5	*17.5	37	33.5	24.5	15.5	9	9	9	270	–	–	–	0	160	*270	180	180
–	–	–	–	–	–	2	–	20.5	–	–	*15.5	–	–	23	19.5	9.5	–	4.5	4.5	4.5	–	0	–	–	–	–	–	–	–
5	724+65.17	50.44' RT	923.87	TC–81.22	13	13	20.5	19	20.5	*18	*14	*17	*18	51	48	38	–	15	15	15	0	–	–	–	90	185	*180	180	180

*ALTERNATE BID 2 DETAILS REPLACES ALTERNATE BID 1 DETAILS AS SHOWN IN TABLE

CALCULATED AJH CHECKED CCE

BRIDGE STREET & TROY PIKE TRAFFIC SIGNAL PLAN

MIA HIGH STREET IMPROVEMENTS

SYMBOL SCHEDULE

MARK	LAMP TYPE	VOLTS	SOURCE AND WATTAGE BALLAST	DESCRIPTION	MFR. AND CATALOG SERIES
A ●>	LED	120–277V	78 WATT	DECORATIVE: GRANVILLE LED III PREMIER POST TOP LUMINAIRE	HOLOPHANE GRANVILLE III LED WITH VALMONT LIGHT POLE OR APPROVED EQUAL PER PLAN NOTE FIXTURE: GPD3 P40 40K MVOLT MS GL3 BK RB BK POLE:16 SHARP FLUTED 15' POLE–P9–FP/GV–(2)BANNER ARMS–(2) FLAG HOLDERS–FST–HN17AC–1"AB
B ●>	LED	120–277V	78 WATT	DECORATIVE: GRANVILLE LED III PREMIER POST TOP LUMINAIRE W/ HOUSE SHIELD	HOLOPHANE GRANVILLE III LED WITH VALMONT LIGHT POLE OR APPROVED EQUAL PER PLAN NOTE FIXTURE: GPD3 P40 40K MVOLT MS GL3 BK RB BK GVDHSS90 POLE:16 SHARP FLUTED 15' POLE–P9–FP/GV–(2)BANNER ARMS–(2) FLAG HOLDERS–FST–HN17AC–1"AB
□				PC & PG STYLE POLYMER CONCRETE BOX & COVER, OPEN BASE BOX, 36" DEPTH, LIGHTING LOGO	PULL BOX, 725.06 *SIZES LISTED BELOW

LUMINAIRES NOTES:

1A–7, 1A–9, 1A–13 TO 1A–17
1A–21 TO 1A–27, 1A–31 TO 1A–34 "A" FIXTURES
1D–3, 1D–4, 1D–5, 1D–8, 1D–14,
1D–20 TO 1D–26, 1D–30

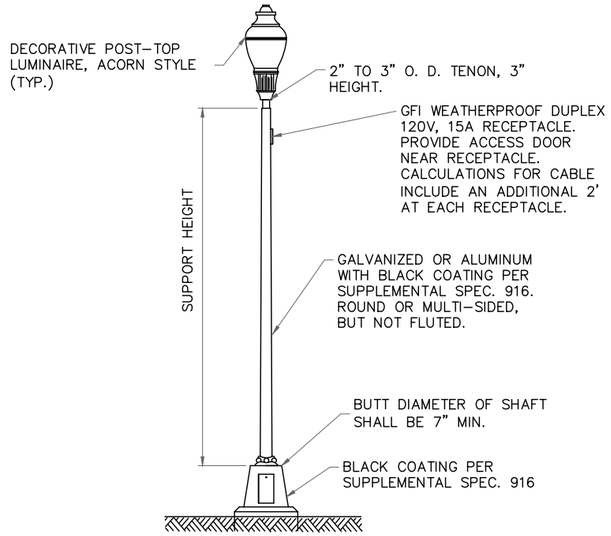
1D–1, 1D–6, 1D–10, 1D–12,
1D–16, 1D–18, 1D–28, 1D–32 "B" FIXTURES
1A–2, 1A–5, 1A–11, 1A–19, 1A–29

ELECTRICAL GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM WITH THE REQUIREMENTS OF THE MOST RECENT VERSION OF THE OHIO BUILDING CODE, THE N.E.C. AND N.F.P.A. STANDARD NO. 70, AND IS SUBJECT TO THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION.
2. ALL NOTED MOUNTING HEIGHTS ARE FROM FINISHED GRADE TO CENTER OF DEVICE UNLESS OTHERWISE NOTED.
3. THREE No. 8 AWG. AND NO. 2 AWG. 600 VOLT DISTRIBUTION CABLES SHALL BE USED FOR SUPPLYING POWER TO THE POLES.
4. THREE No. 10 AWG. POLE AND BRACKET CABLES SHALL BE USED TO SUPPLY POWER TO THE LUMINAIRE.
5. THREE No. 10 AWG. POLE AND BRACKET CABLES SHALL BE USED TO SUPPLY POWER TO THE OUTLET.

GENERAL NOTES

1. CONDUIT PLACEMENT IN ELECTRICAL DRAWINGS ARE DRAWN FOR CLARITY. ACTUAL CONDUIT SHOULD BE INSTALLED IN EXISTING RIGHT–OF–WAYS. COORDINATE EXACT CONDUIT ROUTES WITH THE ENGINEER TO AVOID CONFLICT WITH WATER SERVICE VALVES, SIGNAGE, CURBS, TREES AND OTHER LANDSCAPING.
2. CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND MISCELLANEOUS CONDUIT AND PIPES PRIOR TO DIGGING. ANY DAMAGE TO UNDERGROUND UTILITIES WHEN DIGGING MUST BE REPAIRED BY THIS CONTRACTOR. NOTE: ALL REPAIRS AND MODIFICATIONS SHALL BE CLOSELY COORDINATED WITH OWNING UTILITIES OFFICIALS.
3. STUB CONDUIT THROUGH PULL BOX SIDEWALLS. USE A MANUFACTURES RECOMMENDED WALL PUNCH AS NECESSARY FOR CONDUIT KNOCKOUTS. SIZE KNOCKOUT ONE TRADE SIZE LARGER THAN CONDUIT TO ALLOW FOR CONDUIT MOVEMENT. COORDINATE WITH THE ENGINEER FOR LOCATIONS. MOUNT BOX SUCH THAT THE TOP OF THE BOX WILL BE FLUSH WITH THE TOP OF FINISH SURFACE.
4. CONTRACTOR TO SUPPLY/INSTALL/WIRE ELECTRIC SERVICE ENCLOSURE WITH CONTENTS AND FOUNDATION.
5. THE LOCATION OF UNDERGROUND CONDUIT, SHALL BE MARKED BY USE OF CONTINUOUS IDENTIFYING TAPE BURIED IN THE TRENCH ABOVE THE LINE. THE IDENTIFYING TAPE SHALL BE AN INERT MATERIAL, APPROXIMATELY 6" WIDE, COMPOSED OF POLYETHYLENE PLASTIC, HIGHLY RESISTANT TO ALKALIS, ACID OR OTHER CHEMICAL COMPONENTS LIKELY TO BE ENCOUNTERED IN SOILS. THE TAPE SHALL BE BRIGHT YELLOW WITH IDENTIFYING PRINTING "ELECTRIC" IN BLACK LETTERS, ONE SIDE ONLY. TAPES SHALL BE SUPPLIED IN CONTINUOUS ROLLS WITH IDENTIFYING LETTERING REPEATED THE FULL LENGTH OF THE TAPE. IDENTIFYING TAPES SHALL BE BURIED IN THE ELECTRIC LINE TRENCH WITH ONE STRIP PLACED APPROXIMATELY DOWN THE CENTERLINE AND LOCATED APPROXIMATELY 8" TO 12" BELOW FINISHED GRADE. THE TAPE SHALL BE PLACED IN THE TRENCH WITH THE PRINTED SIDE UP AND SHALL BE ESSENTIALLY PARALLEL WITH THE FINISHED SURFACE. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THAT THE TAPE IS NOT PULLED, DISTORTED OR OTHERWISE MISPLACED IN COMPLETING THE TRENCH BACKFILL. TAPE SHALL BE ALLEN SYSTEM'S TERRA TAPE, TECTA TAPE OR EQUAL AS APPROVED BY THE ENGINEER.

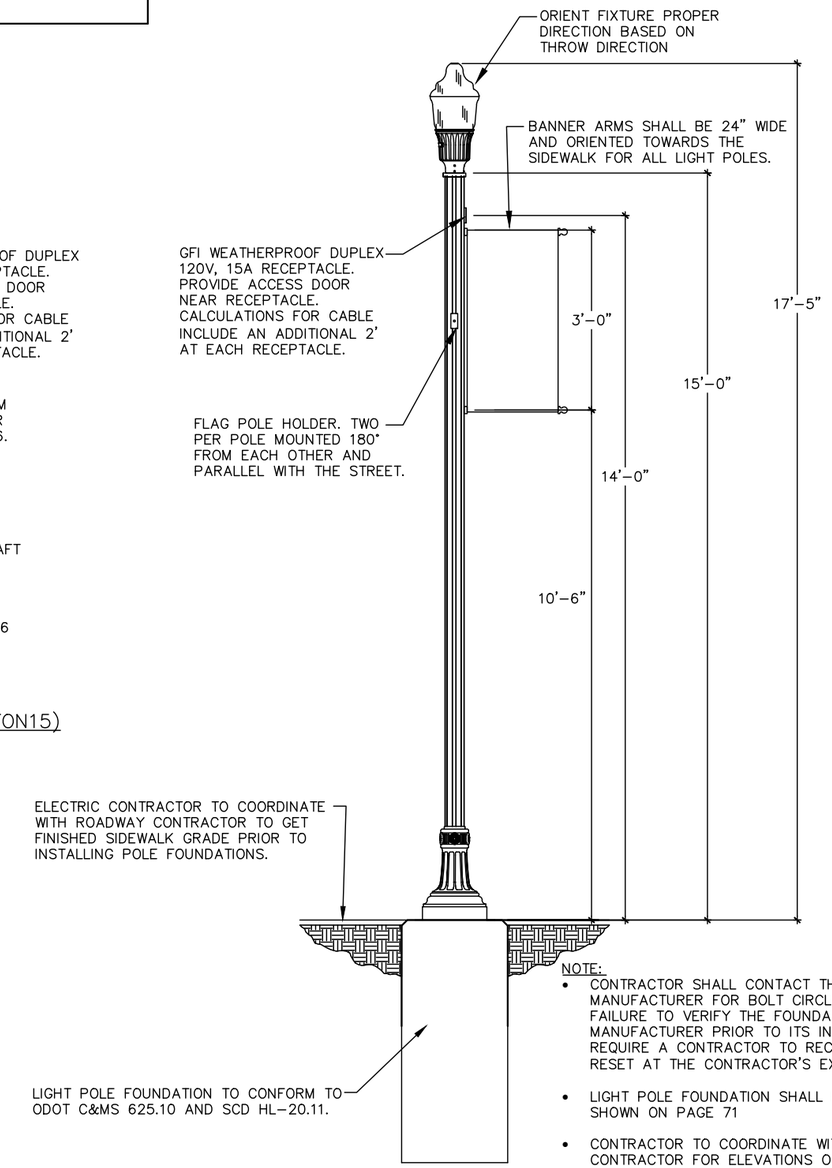


LIGHT POLE, DECORATIVE – (ALTERNATE 1) (ATON15)

PULLBOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE* (725.06)
PBx1	724+10.43	LT	21.75'	7
PBx2	724+65.00	RT	54.68'	7
PBx3	725+78.27	LT	31.80"	7
PBx4	726+25.50	RT	30.69'	7
PBx5	734+52.72	RT	22.00'	7
PBx6	735+00.33	LT	29.50'	18
PBx7	735+24.54	RT	22.00'	7
PBx8	738+21.43	LT	22.72'	7
PBx9	738+94.50	RT	23.07'	7

*ALL PULL BOXES SHALL BE ODOT SCD HL–30.11.



NOTE:
- CONTRACTOR SHALL CONTACT THE POLE MANUFACTURER FOR BOLT CIRCLE DIMENSIONS. FAILURE TO VERIFY THE FOUNDATION WITH THE MANUFACTURER PRIOR TO ITS INSTALLATION WILL REQUIRE A CONTRACTOR TO RECONSTRUCT, OR RESET AT THE CONTRACTOR'S EXPENSE.
- LIGHT POLE FOUNDATION SHALL FOLLOW THE DETAIL SHOWN ON PAGE 71
- CONTRACTOR TO COORDINATE WITH ROADWAY CONTRACTOR FOR ELEVATIONS OF SIDEWALK TO ENSURE THE FOUNDATION WILL BE FLUSH WITH THE SIDEWALK.

LIGHT POLE, DECORATIVE – (ALTERNATE 2) (VALMONT)

CALCULATED AJH CHECKED CCE

STREET LIGHTING NOTES AND DETAILS

MIA HIGH STREET IMPROVEMENTS

REF NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	625 CONNECTION, FUSED PULL APART, AS PER PLAN	625 CONNECTION, UNFUSED PULL APART	625 CONNECTION, UNFUSED PERMANENT	625 LIGHT POLE, DECORATIVE, AS PER PLAN - (ALTERNATE 1) (ODOT STD.)	625 LIGHT POLE, DECORATIVE, AS PER PLAN - (ALTERNATE 2) (VALMONT)	625 LIGHT POLE FOUNDATION, 24" X 6' DEEP, AS PER PLAN	625 NO. 2 AWG 600 VOLT DISTRIBUTION CABLE	625 NO. 8 AWG 600 VOLT DISTRIBUTION CABLE	625 NO. 10 AWG POLE AND BRACKET CABLE - (ALTERNATE 1) (ODOT STD.)	625 NO. 10 AWG POLE AND BRACKET CABLE - (ALTERNATE 2) (VALMONT)	625 CONDUIT, 2", 725.051	625 CONDUIT, 3", 725.051	625 LUMINAIRE, POST TOP, SOLID STATE (LED), AS PER PLAN, ACORN STYLE, REFRACTIVE GLASS, 4000K, BLACK FINISH - (ALTERNATE 1) (ODOT STD.)	625 LUMINAIRE, DECORATIVE, AS PER PLAN - (ALTERNATE 2) (HOLOPHANE)	625 TRENCH	625 PULL BOX, 725.06, SIZE 7	625 PULL BOX, 725.06, SIZE 18	625 GROUND ROD	625 POWER SERVICE, AS PER PLAN	625 UNDERGROUND WARNING/MARKING TAPE
					EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	EACH	EACH	FT	EACH	EACH	EACH	EACH	FT
1A-2	76	LT	HIGH STREET (SR 48)	724+14.44	3								96	90			1	1						
C-2A	76	LT	HIGH STREET (SR 48)	724+10.43 TO 725+78.27								36			4				4					4
PBx1	76	LT	HIGH STREET (SR 48)	724+10.43																1				
C-2B	76	LT	HIGH STREET (SR 48)	724+10.43 TO 725+78.27								534			173				173					173
1A-5	76	LT	HIGH STREET (SR 48)	725+74.32	3								96	87			1	1						
C-10	76	LT	HIGH STREET (SR 48)	725+74.32 TO 725+78.27								36			4				4					4
PBx3	76	LT	HIGH STREET (SR 48)	725+78.27			3													1				
C-11	76	LT	HIGH STREET (SR 48)	725+78.27 TO 727+04.90								420			127				127					127
1A-7	76	LT	HIGH STREET (SR 48)	727+04.90	3	1		1	1	1			138	138			1	1				1		
C-12	76	LT	HIGH STREET (SR 48)	727+04.90 TO 729.03.69							645	645			199				199					199
1A-9	76	LT	HIGH STREET (SR 48)	729.03.69	3	1		1	1	1			138	138			1	1				1		
C-13	76, 77	LT	HIGH STREET (SR 48)	729.03.69 TO 730+54.80							504	504			152				152					152
1A-11	77	LT	HIGH STREET (SR 48)	730+54.80	3	1		1	1	1			138	138			1	1				1		
C-14	77	LT	HIGH STREET (SR 48)	730+54.80 TO 731+99.74							483	483			145				145					145
1A-13	77	LT	HIGH STREET (SR 48)	731+99.74	3	1		1	1	1			138	138			1	1				1		
C-15	77	LT	HIGH STREET (SR 48)	731+99.74 TO 733+27.18							432	432			128				128					128
1A-15	77	LT	HIGH STREET (SR 48)	733+27.18	3	1		1	1	1			138	138			1	1				1		
C-16	77	LT	HIGH STREET (SR 48)	733+27.18 TO 734+64.76							480	480			144				144					144
1A-17	77	LT	HIGH STREET (SR 48)	734+70.76	3	1		1	1	1			138	138			1	1				1		
C-17	77	LT	HIGH STREET (SR 48)	734+70.76 TO 735+00.33							117	117			31				31					31
1D-1	76	RT	HIGH STREET (SR 48)	723+45.98	3	1		1	1	1			138	138			1	1				1		
C-1	76	RT	HIGH STREET (SR 48)	723+45.98 TO 724+65.00							402	402			126				126					126
1D-3	76	RT	HIGH STREET (SR 48)	724+65.17	3								93	90			1	1						
C-3	76	RT	HIGH STREET (SR 48)	724+65.17 TO 724+65.00								36			4				4					4
PBx2	76	RT	HIGH STREET (SR 48)	724+65.00			3													1				
C-4	76	RT	HIGH STREET (SR 48)	724+65.00 TO 725+08.46							207	207			56				56					56
1D-4	76	RT	HIGH STREET (SR 48)	725+08.46	3	1		1	1	1			138	138			1	1				1		
C-5	76	RT	HIGH STREET (SR 48)	725+08.46 TO 726+25.50							405	405			119				119					119
1D-6	76	RT	HIGH STREET (SR 48)	726+22.08	3								96	87			1	1						
C-6	76	RT	HIGH STREET (SR 48)	726+22.08 TO 726+25.50								36			4				4					4
PBx4	76	RT	HIGH STREET (SR 48)	726+25.50			3													1				
C-7	76	RT	HIGH STREET (SR 48)	726+25.50 TO 727+96.04							558	558			173				173					173
1D-8	76	RT	HIGH STREET (SR 48)	727+96.04	3	1		1	1	1			138	138			1	1				1		
C-8	76	RT	HIGH STREET (SR 48)	727+96.04 TO 729+72.25							579	579			177				177					177
1D-10	76	RT	HIGH STREET (SR 48)	729+72.25	3	1		1	1	1			138	138			1	1				1		
C-9	76, 77	RT	HIGH STREET (SR 48)	729+72.25 TO 731+19.06							489	489			147				147					147
1D-12	77	RT	HIGH STREET (SR 48)	731+19.06	3	1		1	1	1			138	138			1	1				1		
C-19	77	RT	HIGH STREET (SR 48)	731+19.06 TO 732+50.60							444	444			132				132					132
1D-14	77	RT	HIGH STREET (SR 48)	732+50.60	3	1		1	1	1			138	138			1	1				1		
C-20	77	RT	HIGH STREET (SR 48)	732+50.60 TO 733+94.34							483	483			145				145					145
1D-16	77	RT	HIGH STREET (SR 48)	733+94.34	3	1		1	1	1			138	138			1	1				1		
C-21	77	RT	HIGH STREET (SR 48)	733+94.34 TO 734+52.72							198	198			58				58					58
PBx5	77	RT	HIGH STREET (SR 48)	734+52.72																1				
C-22	77	RT, LT	HIGH STREET (SR 48)	734+52.72 TO 735+00.33							225	225			70				70					70
PBx6	77	LT	HIGH STREET (SR 48)	735+00.33			6														1			
C-18	77	LT	HIGH STREET (SR 48)	735+00.33 TO 735+00.44							168	84				18			18					18
PS-1	77	LT	HIGH STREET (SR 48)	735+00.44							1200	600										1	1	
C-23	77	LT	HIGH STREET (SR 48)	735+00.44 TO 735+00.33							168	84				18			18					18
C-24	77	LT	HIGH STREET (SR 48)	735+00.33 TO 736+51.27							492	492			152				152					152
1A-19	77	LT	HIGH STREET (SR 48)	736+51.27	3	1		1	1	1			138	138			1	1				1		
C-25	77	LT	HIGH STREET (SR 48)	736+51.27 TO 738+21.43							549	549			170				170					170
PBx8	77	LT	HIGH STREET (SR 48)	738+21.43			3													1				
TOTALS CARRIED TO GENERAL SUMMARY					54	14	18	14	14	14	9228	9558	2313	2286	2640	36	18	18	2676	6	1	15	1	2676

CALCULATED AJH
CHECKED CCE

SUBSUMMARY - LIGHTING

MIA HIGH STREET IMPROVEMENTS

SUBSUMMARY - LIGHTING

CALCULATED AJH
CHECKED CCE

REF NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	625 CONNECTION, FUSED PULL APART, AS PER PLAN EACH	625 CONNECTION, UNFUSED PULL APART EACH	625 CONNECTION, UNFUSED PERMANENT EACH	625 LIGHT POLE, DECORATIVE, AS PER PLAN - (ALTERNATE 1) (ODOT STD.) EACH	625 LIGHT POLE, DECORATIVE, AS PER PLAN - (ALTERNATE 2) (VALMONT) EACH	625 LIGHT POLE FOUNDATION, 24" X 6' DEEP, AS PER PLAN EACH	625 NO. 2 AWG 600 VOLT DISTRIBUTION CABLE FT	625 NO. 8 AWG 600 VOLT DISTRIBUTION CABLE FT	625 NO. 10 AWG POLE AND BRACKET CABLE - (ALTERNATE 1) (ODOT STD.) FT	625 NO. 10 AWG POLE AND BRACKET CABLE - (ALTERNATE 2) (VALMONT) FT	625 CONDUIT, 2", 725.051 FT	625 CONDUIT, JACKED OR DRILLED, 725.052, AS PER PLAN, 2" FT	625 LUMINAIRE, POST TOP, SOLID STATE (LED), AS PER PLAN, ACORN STYLE, REFRACTIVE GLASS, 4000K, BLACK FINISH - (ALTERNATE 1) (ODOT STD.) EACH	625 LUMINAIRE, DECORATIVE, AS PER PLAN - (ALTERNATE 2) (HOLOPHANE) EACH	625 TRENCH FT	625 PULL BOX, 725.06, SIZE 7 EACH	625 GROUND ROD EACH	625 UNDERGROUND WARNING/MARKING TAPE FT	625 LIGHT POLE REMOVED EACH	625 LIGHT POLE FOUNDATION REMOVED EACH	625 LUMINAIRE REMOVED EACH
C-26	77	LT	HIGH STREET (SR 48)	738+21.43 TO 738+25.45								36			4				4			4				
1A-21	77	LT	HIGH STREET (SR 48)	738+25.45	3								96	87			1	1								
C-27	77	LT	HIGH STREET (SR 48)	738+21.43 TO 739+73.59							486	486			154				154			154				
1A-23	77	LT	HIGH STREET (SR 48)	739+73.59	3	1		1	1	1			138	138			1	1			1					
C-28	77, 78	LT	HIGH STREET (SR 48)	739+73.59 TO 741+38.40							543	543			165				165			165				
1A-25	78	LT	HIGH STREET (SR 48)	741+38.40	3	1		1	1	1			138	138			1	1			1					
C-35	78	LT	HIGH STREET (SR 48)	741+38.40 TO 743+03.14							546	546			166				166			166				
1A-27	78	LT	HIGH STREET (SR 48)	743+03.14	3	1		1	1	1			138	138			1	1			1					
C-36	78	LT	HIGH STREET (SR 48)	743+03.14 TO 744+36.97							450	450			134				134			134				
1A-29	78	LT	HIGH STREET (SR 48)	744+36.97	3	1		1	1	1			138	138			1	1			1					
C-37	78	LT	HIGH STREET (SR 48)	744+36.97 TO 745+72.38							453	453			135				135			135				
1A-31	78	LT	HIGH STREET (SR 48)	745+72.38	3	1		1	1	1			138	138			1	1			1					
C-41	78	LT	HIGH STREET (SR 48)	745+72.38 TO 747+14.28							474	474				142										
1A-33	78	LT	HIGH STREET (SR 48)	747+14.28	3	1		1	1	1			138	138			1	1			1					
C-42	78	LT, RT	HIGH STREET (SR 48)	747+14.28 TO 747+95.62							327	327			93				93			93				
1A-34	78	RT	HIGH STREET (SR 48)	747+95.62	3	1		1	1	1			138	138			1	1			1					
C-29	77	LT, RT	HIGH STREET (SR 48)	735+00.33 TO 735+24.54							183	183			56				56			56				
PBx7	77	RT	HIGH STREET (SR 48)	735+24.54																1						
C-30	77	RT	HIGH STREET (SR 48)	735+24.54 TO 735+57.77							123	123			33				33			33				
1D-18	77	RT	HIGH STREET (SR 48)	735+57.77	3	1		1	1	1			138	138			1	1			1					
C-31	77	RT	HIGH STREET (SR 48)	735+57.77 TO 737+50.94							630	630			194				194			194				
1D-20	77	RT	HIGH STREET (SR 48)	737+50.94	3	1		1	1	1			138	138			1	1			1					
C-32	77	RT	HIGH STREET (SR 48)	737+50.94 TO 738+94.50							486	486			146				146			146				
1D-22	77	RT	HIGH STREET (SR 48)	738+90.61	3								96	87			1	1								
C-33	77	RT	HIGH STREET (SR 48)	738+90.61 TO 738+94.50								36			4				4			4				
PBx9	77	RT	HIGH STREET (SR 48)	738+94.50			3													1						
C-34	77, 78	RT	HIGH STREET (SR 48)	738+94.50 TO 740+65.51							537	537			171				171			171				
1D-24	78	RT	HIGH STREET (SR 48)	740+65.51	3	1		1	1	1			138	138			1	1			1					
C-38	78	RT	HIGH STREET (SR 48)	740+65.51 TO 742+16.07							498	498			150				150			150				
1D-26	78	RT	HIGH STREET (SR 48)	742+16.07	3	1		1	1	1			138	138			1	1			1					
C-39	78	RT	HIGH STREET (SR 48)	742+16.07 TO 743+63.02							489	489			147				147			147				
1D-28	78	RT	HIGH STREET (SR 48)	743+63.02	3	1		1	1	1			138	138			1	1			1					
C-40	78	RT	HIGH STREET (SR 48)	743+63.02 TO 745+02.03							465	465			139				139			139				
1D-30	78	RT	HIGH STREET (SR 48)	745+02.03	3	1		1	1	1			138	138			1	1			1					
C-43	78	RT	HIGH STREET (SR 48)	745+02.03 TO 746+58.21							522	522			158				158			158				
1D-32	78	RT	HIGH STREET (SR 48)	746+58.21	3	1		1	1	1			138	138			1	1			1					
LB1	76	RT	HIGH STREET (SR 48)	724+95.16																				1		1
LB2	77	LT	HIGH STREET (SR 48)	733+29.56																				1		1
LR1	76	LT	HIGH STREET (SR 48)	725+64.84																				1	1	1
LR2	76	RT	HIGH STREET (SR 48)	726+68.94																				1	1	1
LR3	76	LT	HIGH STREET (SR 48)	727+71.07																				1	1	1
LR4	76	RT	HIGH STREET (SR 48)	728+78.82																				1	1	1
LR5	76	LT	HIGH STREET (SR 48)	729+76.42																				1	1	1
LR6	77	RT	HIGH STREET (SR 48)	731+03.74																				1	1	1
LR7	77	LT	HIGH STREET (SR 48)	732+01.25																				1	1	1
LR8	77	LT	HIGH STREET (SR 48)	734+02.39																				1	1	1
LR9	77	RT	HIGH STREET (SR 48)	735+16.17																				1	1	1
LR10	77	LT	HIGH STREET (SR 48)	736+13.46																				1	1	1
LR11	77	RT	HIGH STREET (SR 48)	737+01.23																				1	1	1
LR12	77	LT	HIGH STREET (SR 48)	737+92.39																				1	1	1
LR13	77	RT	HIGH STREET (SR 48)	738+83.26																				1	1	1
LR14	77	LT	HIGH STREET (SR 48)	739+84.45																				1	1	1
LR15	78	RT	HIGH STREET (SR 48)	740+99.97																				1	1	1
LR16	78	LT	HIGH STREET (SR 48)	742+25.93																				1	1	1
LR17	78	RT	HIGH STREET (SR 48)	743+29.96																				1	1	1
LR18	78	LT	HIGH STREET (SR 48)	744+61.36																				1	1	1
LR19	78	RT	HIGH STREET (SR 48)	745+89.21																				1	1	1
LR20	78	LT	HIGH STREET (SR 48)	747+10.62																				1	1	1
TOTALS CARRIED TO GENERAL SUMMARY					48	14	3	14	14	14	7212	7284	2124	2106	2049	142	16	16	2049	2	14	2049	22	20	22

MIA HIGH STREET IMPROVEMENTS