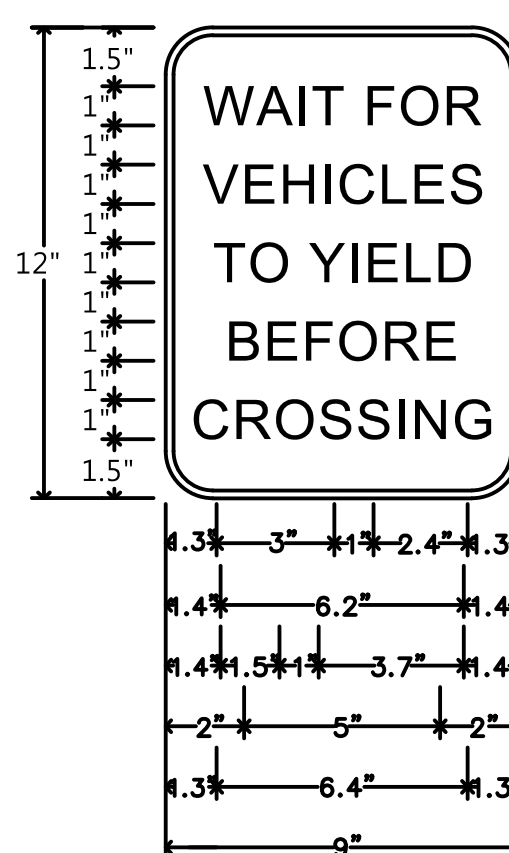


\*REFER TO TC-8804 FOR SERVICE DISCONNECT DETAILS

ASSEMBLY 1  
RECTANGULAR RAPID FLASHING BEACON  
N.T.S.

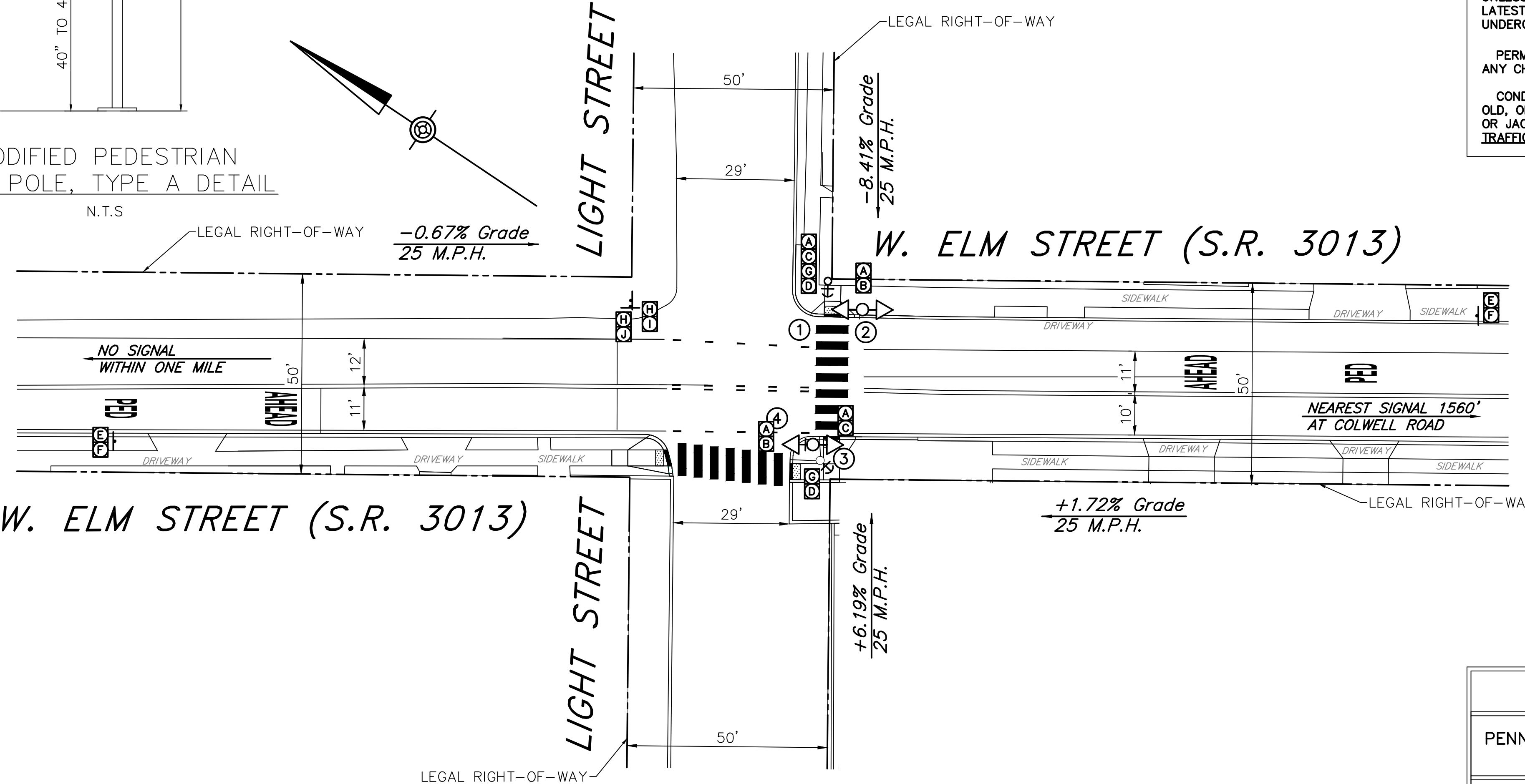


SIGN "H" DETAIL  
NOT TO SCALE

0.4" Radius, 0.4" Border, Black on White;  
"WAIT FOR" D; "VEHICLES" D;  
"TO YIELD" D; "BEFORE" D;  
"CROSSING" D;  
Table of widths and spaces

W	A	I	T
1.3	0.9	0.3	0.7
F	O	R	D
1.0	0.6	0.2	0.7
V	E	H	I
1.4	0.8	0.2	0.6
C	L	E	S
1.4	0.6	0.2	0.7
T	O		
1.4	0.6	0.2	0.7
Y	E	L	D
1.0	0.8	0.2	0.6
B	E	F	O
2.0	0.7	0.2	0.6
R	O	S	S
1.3	0.7	0.2	0.7

MODIFIED PEDESTRIAN  
STUB POLE, TYPE A DETAIL  
N.T.S.



SIGN TABULATION			
PLAN SYMBOL	SERIES NUMBER	SIZE	REMARKS
*A	W11-15	36"X36"	COMBINED BICYCLE/PEDESTRIAN
*B	W16-7P	30"X18"	DIAGONAL DOWNWARD POINTING ARROW PLAQUE (LEFT)
*C	W16-7P	30"X18"	DIAGONAL DOWNWARD POINTING ARROW PLAQUE (RIGHT)
*D	R10-25	9"X12"	PUSH BUTTON TO TURN ON WARNING LIGHTS
*E	W11-2	30"X30"	PEDESTRIAN
*F	W16-9P	24"X12"	AHEAD PLAQUE
*G	SPECIAL	9"X12"	WAIT FOR VEHICLES TO YIELD BEFORE CROSSING
*H	R9-3	18"X18"	NO PEDESTRIAN CROSSING
*I	R9-3BPL	18"X12"	USE CROSSWALK LEFT
*J	R9-3BPR	18"X12"	USE CROSSWALK RIGHT

\* SIGNS TO CONSIST OF FLUORESCENT YELLOW GREEN (REFLECTORIZED) BACKGROUND COLOR

GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF THE DEPARTMENT OF TRANSPORTATION.

ALL MAINTENANCE WORK INCLUDING TRIMMING OF TREES, NECESSARY FOR PROPER VISIBILITY OF THE SIGNALS IS THE RESPONSIBILITY OF THE PERMITTEE.

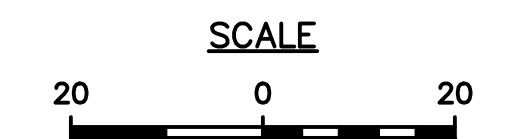
ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING ARE CONSIDERED PART OF THE PERMIT AND SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH PUBLICATION NO. 212.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF THE LATEST AMENDMENT TO ACT 287, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, DATED DECEMBER 20, 1974.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC-8800 SERIES.



LEGEND

- PEDESTAL
- ▭ CURB RAMP
- ⊕ PEDESTRIAN PUSHBUTTON/SIGN
- ⬆ RECTANGULAR RAPID FLASHING BEACON
- ⊕ SIGN/IDENTIFYING LETTER

ACCESSIBLE PEDESTRIAN SIGNAL (APS) OPERATION NOTES:

FLASHER SHALL BE EQUIPPED WITH ACCESSIBLE PEDESTRIAN SIGNALS (APS) WITH THE FOLLOWING FEATURES:

1. ADA COMPLIANT PUSHBUTTON WITH CONFIRMATION LED INDICATOR AND TONE.
2. A TACTILE DIRECTIONAL ARROW ALIGNED PARALLEL TO THE CROSSING.
3. A PUSH BUTTON LOCATOR TONE. THE LOCATOR TONE SHALL HAVE A DURATION OF 0.15 SECONDS AND REPEAT AT 1 SECOND INTERVALS. SHALL BE INTENSITY RESPONSIVE TO AMBIENT SOUND, AND AUDIBLE 6 TO 12 FEET FROM THE PUSH BUTTON.
4. WHEN THE FLASH PERIOD STARTS THE PEDESTRIAN PUSH BUTTON UNIT SHALL BEGIN THE SPEECH MESSAGE "YELLOW LIGHTS ARE FLASHING, WAIT FOR VEHICLES TO YIELD. YELLOW LIGHTS ARE FLASHING, WAIT FOR VEHICLES TO YIELD".

RECTANGULAR RAPID FLASHING BEACON (RRFB) OPERATION NOTES:

1. RRFB SHALL CONFORM TO THE FEDERAL HIGHWAY ADMINISTRATION'S (FHWA) INTERIM APPROVAL OF RRFBs AT CROSSWALKS (1A-21).
2. RRFB SHALL DISPLAY TWO RAPIDLY FLASHED YELLOW INDICATIONS UPON ACTUATION.
3. EACH OF THE YELLOW INDICATIONS SHALL PROVIDE 75 FLASHING SEQUENCES PER MINUTE. THE RRFB SHALL OPERATE IN ACCORDANCE TO THE FLASHING SEQUENCE DETAILED IN THE FHWA INTERIM APPROVAL (1A-21) CONDITION 5B. THE FLASH RATE OF EACH INDIVIDUAL RRFB INDICATION, AS APPLIED OVER THE FULL FLASHING SEQUENCE, SHALL NOT BE BETWEEN 5 AND 30 FLASHES PER SECOND TO AVOID FREQUENCIES THAT MAY CAUSE SEIZURES.
4. TO MINIMIZE EXCESSIVE GLARE DURING NIGHTTIME CONDITIONS, AN AUTOMATIC SIGNAL DIMMING DEVICE SHOULD BE USED TO REDUCE THE BRILLIANCE OF THE RRFB INDICATIONS.
5. LIGHT INTENSITY OF THE YELLOW LED INDICATIONS DURING DAYTIME CONDITIONS SHALL MEET THE SPECIFICATIONS OF THE SOCIETY OF AUTOMOTIVE ENGINEERS STANDARD J595 DATED JANUARY 2005 FOR PEAK LUMINOUS INTENSITY (CANDELAS) FOR CLASS 1.
6. RRFB SIGNALS SHALL BE DARK UNTIL ACTIVATED BY PUSH BUTTON. PUSH BUTTON TO BE EQUIPPED WITH CONFIRMATION LED AND TONE. REFER TO ACCESSIBLE PEDESTRIAN SIGNAL OPERATION NOTES FOR FURTHER DETAILS.
7. THE RRFB ASSEMBLY SHALL BE SOLAR POWERED WITH LINE POWER BACKUP.
8. UPON PUSH BUTTON ACTIVATION, THE RRFB SHALL FLASH FOR A PERIOD OF 16 SECONDS. THE TIMER SHALL RESET UPON EACH NEW PUSH BUTTON ACTIVATION.
9. EACH RRFB SIGNAL SHALL BE EQUIPPED WITH A PILOT LIGHT ON THE SIDE OF THE DEVICE THAT SHALL BE ILLUMINATED DURING THE FLASH PERIOD. THE PILOT LIGHTS SHALL BE ADJUSTED SO THEY ARE VISIBLE TO CROSSING PEDESTRIANS. COMPLY WITH MUTCD INTERIM APPROVAL 1A-21 REGARDING THE PILOT LIGHT INTEGRATION.

FLASHING WARNING DEVICE

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION  
ENGINEERING DISTRICT 6-0

COUNTY: MONTGOMERY

MUNICIPALITY: PLYMOUTH TOWNSHIP

INTERSECTION: WEST ELM STREET (SR 3013) &  
LIGHT STREET

REVIEWED: \_\_\_\_\_ DATE \_\_\_\_\_

MUNICIPAL OFFICIAL \_\_\_\_\_ DATE \_\_\_\_\_

RECOMMENDED: \_\_\_\_\_

DISTRICT TRAFFIC ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

NO.	REVISION	DES./REVW.	DATE	REVW.	DATE	RECOM.	DATE
1							
2							
3							
4							
5							
6							
7							
8							



MISCELLANEOUS ITEMS

ITEM NO.	QUAN.	UNIT	DESCRIPTION	LOCATION
0608-0001	1	LS	MOBILIZATION	AS SHOWN ON PLANS
0960-0001	668	LF	4 INCH WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS	AS SHOWN ON PLANS
0960-0002	20	LF	4 INCH YELLOW HOT THERMOPLASTIC PAVEMENT MARKINGS	AS SHOWN ON PLANS
0960-0021	112	LF	24 INCH WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS	AS SHOWN ON PLANS
0941-0001	2	EACH	RESET SIGNS	AS SHOWN ON PLANS
0971-0001	2	EACH	REMOVE SIGNS	AS SHOWN ON PLANS
0960-0112	2	EACH	WHITE HOT THERMOPLASTIC LEGEND "PED"	AS SHOWN ON PLANS
0960-0142	1	EACH	WHITE HOT THERMOPLASTIC LEGEND, "AHEAD"	AS SHOWN ON PLANS
9000-0001	2	EACH	SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON ASSEMBLY	AS SHOWN ON PLANS

FLAT SHEET ALUMINUM SIGN TABULATION

SYMBOL	SERIES	SIZE	AREA EACH (SQ. FT.)	REMARKS	QUANTITY EACH		ITEM NUMBER			
					POST MOUNTED	POLE MOUNTED	0931 0001	0935 0001	0936 0200	
A	W11-15	36"X36"	9	COMBINED BICYCLE/PEDESTRIAN		4		36		
B	W16-7P	30"X18"	3.75	DIAGONAL DOWNWARD POINTING ARROW PLAQUE (LEFT)		2		7.5		
C	W16-7P	30"X18"	3.75	DIAGONAL DOWNWARD POINTING ARROW PLAQUE (RIGHT)		2		7.5		
D	R10-25	9"X12"	0.75	PUSH BUTTON TO TURN ON WARNING LIGHTS		2		1.5		
E	W11-2	30"X30"	6.25	PEDESTRIAN	2		12.5			
F	W16-9P	24"X12"	2	AHEAD PLAQUE	2		4			
G	SPECIAL	9"X12"	0.75	WAIT FOR VEHICLES TO YIELD BEFORE CROSSING		2		1.5		
H	R9-3	18"X18"	2.25	NO PEDESTRIAN CROSSING		2				4.5
I	R9-3BPL	18"X12"	1.5	USE CROSSWALK LEFT		1				1.5
J	R9-3BPR	18"X12"	1.5	USE CROSSWALK RIGHT		1				1.5
<b>TOTALS</b>					4	16	16.5	54	7.5	

DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
6-0	MONTGOMERY	3013		2 OF 2	
PLYMOUTH TOWNSHIP					
REVISION NUMBER	REVISIONS			DATE	BY

TRAFFIC SIGNAL NOTES

DO NOT MODIFY INSTALLATION WITHOUT PRIOR WRITTEN APPROVAL.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ARE PART OF THE PERMIT. INSTALL AND MAINTAIN IN ACCORDANCE WITH PUBLICATION 212.

POST MOUNTED SIGNALS: INSTALL WITH A MINIMUM SIGNAL HEAD CLEARANCE OF 2 FEET BEHIND FACE OF CURB OR EDGE OF SHOULDER; AND 8 FEET ABOVE SIDEWALK OR PAVEMENT GRADE.

OVERHEAD SIGNALS: INSTALL WITH A MINIMUM SIGNAL HEAD CLEARANCE OF 2 FEET BEHIND FACE OF CURB OR EDGE OF SHOULDER. PROVIDE A MINIMUM SIGNAL HEAD CLEARANCE OF 16 FEET ABOVE ROADWAY; RIGIDLY MOUNT, TOP AND BOTTOM; AND EQUIP WITH BACKPLATES. PROVIDE A MINIMUM HORIZONTAL DISTANCE OF 8 FEET BETWEEN SIGNALS AS MEASURED AT RIGHT ANGLES TO THE APPROACH.

DETERMINE WITH A PENNDOT REPRESENTATIVE, THE EXACT LOCATION OF DETECTORS PRIOR TO INSTALLATION.

CONSULT WITH LOCAL OFFICIALS AND UTILITIES TO RESOLVE CONFLICTS PRIOR TO CONSTRUCTION.

COMPLY WITH PROVISIONS OF ACT 181, FOR PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, DATED MARCH 29, 2007.



**LEGEND**

		PEDESTAL/POLE/IDENTIFYING NUMBER
		CURB RAMP
		PEDESTRIAN PUSHBUTTON/IDENTIFYING NUMBER
		RECTANGULAR RAPID FLASHING BEACON/IDENTIFYING NUMBER
		SIGN/IDENTIFYING LETTER
		CONTROLLER CABINET
		LUMINAIRE ARM
		SOLID WHITE LINE/WDTH
		DEW/4" DEW/4" DOTTED WHITE EXTENSION LINE/WDTH
		DEY/4" DEY/4" DOTTED YELLOW EXTENSION LINE/WDTH
		JUNCTION BOX

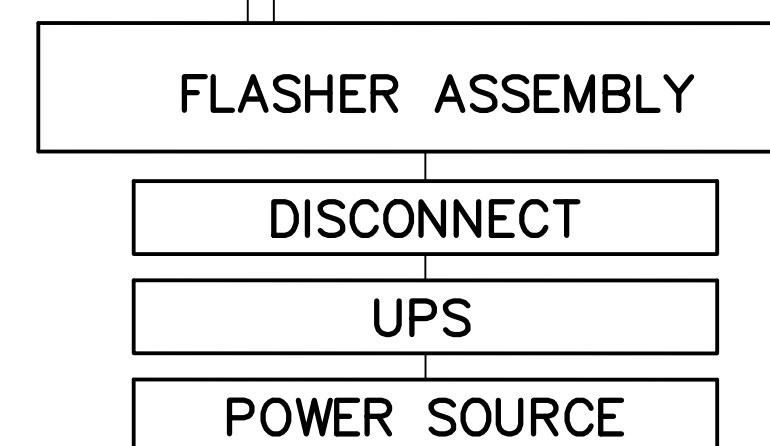
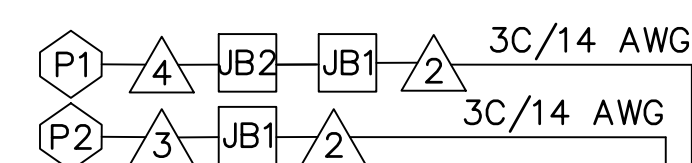
ELECTRICAL DISTRIBUTION SYSTEM

DESCRIPTION	AWG TO ELECTRICAL CABLE, COPPER, 1 CONDUCTOR	1 INCH CONDUIT	2 INCH CONDUIT	3 INCH CONDUIT	TRENCH AND BACKFILL, TYPE I	TRENCH AND BACKFILL, TYPE II	TRENCH AND BACKFILL, TYPE III	TRENCH AND BACKFILL, TYPE IV	SIGNAL CABLE 14 AWG - 3 CONDUCTOR	SIGNAL CABLE 14 AWG - 5 CONDUCTOR	SIGNAL CABLE 14 AWG - 7 CONDUCTOR	JUNCTION BOX JB - 26	JUNCTION BOX JB - 27	ELECTRICAL SERVICE - TYPE C	DETECTOR LEAD IN CABLE
ITEM NUMBER	0910 4057	0954 0011	0954 0012	0954 0013	0954 0151	0954 0152	0954 0153	0954 0154	0954 0201	0954 0202	0954 0203	0954 0301	0954 0302	0954 0403	0956 0001
UNIT	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	EACH	EACH	EACH	L.F.
LOCATION															
POWER SOURCE TO C.C.															
JB1 TO STRUCTURE 2				12					12						
JB1 TO STRUCTURE 3				6					6						
JB1 TO JB2				34		34			34						
JB2 TO STRUCTURE 1				6					6						
JB2 TO STRUCTURE 4				14					14						
<b>TOTALS</b>				72		34			72			2			

TRAFFIC SIGNAL/SIGN SUPPORTS

STRUCTURE NO.	ITEM NUMBER		ROUTE	STATION	SIDE	OFFSET	MAST ARM												PEDESTAL SHAFT			
	0951-4021	9000-0001					ARM A						ARM C						H	K		
							H	K	L	SIGNAL LOCATION			SIGNAL LOCATION			W	L	X			Z	
		1	SR 3013	1+86.94	RT	17.42														14	7	
		1	SR 3013	1+98.96	LT	16.40														14	7	
		1	SR 3013	1+97.11	LT	20.35															6	
		1	SR 3013	1+95.62	RT	24.44															6	
<b>TOTALS</b>	2	2																				

VERTICAL POLES AND MAST ARMS TO BE DESIGNED BY MANUFACTURER TO ADEQUATELY SUPPORT LOADS AS SHOWN ON THE PLAN OR MAXIMUM LOAD REQUIREMENTS ESTABLISHED BY AASHTO SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, WHICH EVER IS GREATER.



WIRING DIAGRAM

LEGEND

- SIGNAL HEAD
- PEDESTRIAN PUSH BUTTON
- JUNCTION BOX
- TRAFFIC SIGNAL SUPPORT

3c/14 - (NO. OF CONDUCTORS/SIZE AWG)

FLASHING WARNING DEVICE

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION  
ENGINEERING DISTRICT 6-0

COUNTY : MONTGOMERY

MUNICIPALITY : PLYMOUTH TOWNSHIP

INTERSECTION : WEST ELM STREET (SR 3013) & LIGHT STREET

REVIEWED : \_\_\_\_\_

MUNICIPAL OFFICIAL \_\_\_\_\_ DATE \_\_\_\_\_

RECOMMENDED : \_\_\_\_\_

DISTRICT TRAFFIC ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_