

APPENDIX F. Traffic Signal Plans Submittal Checklist

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CITY OF AUBURN TRAFFIC SIGNAL PLANS SUBMITTAL CHECKLIST

This checklist must be submitted with every set of plans for traffic signals improvements. All items on the checklist shall be addressed. If the item is not applicable to this project check the box next to the item labeled "N/A", and provide comment. Items preceded by an asterisk (*) are required for the submittal to be considered complete. If one of these items is missing from the submittal without a valid explanation, the entire submittal will be rejected. Note that this checklist is not intended to be all-inclusive, and fulfillment of this checklist does not alleviate the obligation of the designer to meet all City of Auburn code, regulations, ordinances, and specifications. The purpose of this checklist is to facilitate a more efficient plan review process for the designer and the review team.

Description		Check	N/A	Comments
Required Plan Sheets				
	These are the basic sheets we expect to see in a set of plans. Some sheets may be combined on certain projects, or have different names (for example, storm water profiles shown on the street plan & profile sheets).			
*	Traffic Signal Notes Sheet			
*	Signal Plan Sheets			
*	Installation Notes			
*	Standard Details and Drawings Sheets			
*	Coordination Plan Sheets			
Signal Support				
Signal Support - Signal Support	Galvanized Steel Poles			
	Powder Coat Gloss Black finish			
	Smooth Pole (not fluted)			
	Smooth, Arched Mast Arm			
	Gloss Black Decorative Top included			
	Gloss Black Decorative Base included			
	Black Ball on Decorative top			
Cabinet				
Cabinet	Auburn Spec Cabinet (not ALDOT)			
	Painted Black			
	UPS included			
	8-Phase NEMA Compatible Controller included			
	Ground Mounted Cabinet			
	Interconnect Components specified			
	Preemption Requirements specified			
Power Supply				
Power supply - P	Underground Service designed			
	Future Service Corner/Disconnect Location shown			
	Verified with ALPCo			
	Show existing topography with clearly labeled contours lines			
Signal Heads				
Signal H	Yellow, Aluminum, 12inch signal heads			
	Gelcore ELD specified			
Pedestrian Signals				
Pedestrian Signal	Black, Aluminum heads			
	LED			
	Countdown style			
	Audible pedestrian buttons			
Signage				
Signage	Overhead Blue Street Name Signs specified			
	Overhead Turn Signs specified			
	Overhead Lane Control Signs required			
	Signal Ahead Signs required			
Luminaries				
Luminaries	Black, 250 W HPS over each stop bar			
	Cut-off style Cobra Head Fixture			
	12' Luminaire Arm			
Plans				
Plans-Plans	Traffic Signal Notes Sheet			
	Signal Plan Sheets			
	intersection geometry shown			
	utilities shown			
	pavement markings shown			
	right of way shown			
	Installation Notes Specified for the following: controller/cabinet specs			

[illegible]

SIGNED: _____
(engineer of record)

ENGINEER'S SEAL:

APPENDIX G. Traffic Signal Notes

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APPENDIX G. Traffic Signal Notes

Pavement markings shown are for illustrative purposes unless otherwise noted.

Controller shall be capable of running pedestrian phases.

Mast arm pole shall be galvanized steel, smooth, round poles (not fluted) with an arched mast arm and a powder coated gloss black (P33) finish.

The contractor shall not order the traffic signal material until the shop drawings and design calculations have been reviewed by the City of Auburn and written approval granted.

Poles shall include ornamental pole base and top as per City of Auburn standard.

Ball at top of crown shall be black.

The traffic signal pole assembly includes the pole structure, mast arm, decorative pole base, decorative pole top, luminaire arm and assembly, and miscellaneous hardware incidentals for a complete mast arm pole installation.

Cost of mast arm installation shall include all miscellaneous items, such as washers, bolts and all incidental items to have a complete installation.

Signal heads shall have a minimum clearance of 17' from the bottom of the signal head to the roadway.

Signal heads shall be yellow.

Signal heads shall be 12" LED's.

Luminaire assembly shall be gloss black Phillips Roadstar 130W98LED4K or approved equal.

Pedestrian signal housing shall be gloss black.

Pedestrian signals shall be led countdown signal heads (Lumination PS7-CFF1-01A-18).

Pedestrian pole shall be Holophane Wadsworth Aluminum Sitelink pole (or approved equal) with a powder coated gloss black finish.

Pedestrian signal head clamshell bracket shall be bolted to the pole, not banded.

Uninterruptable power systems (battery back-up systems Clary SP 1000SN+) using the OP72C battery are required for all intersections. The entire ups system and batteries shall be housed in the standard City of Auburn traffic signal controller cabinet unless otherwise approved.

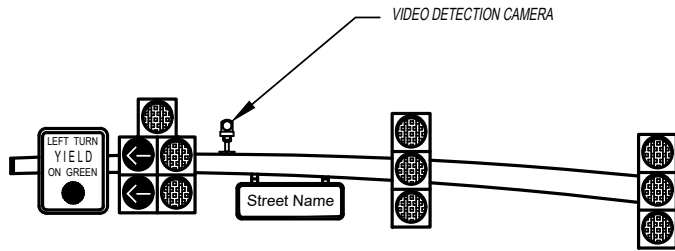
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APPENDIX H. Signal Details and Standard Drawings

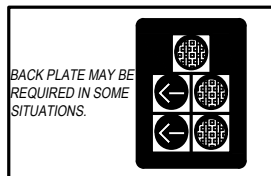
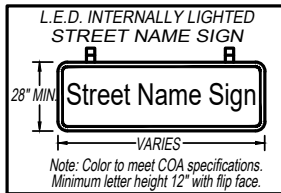
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DECORATIVE MAST ARM DETAILS

PB-5315 Ornamental Pole Top



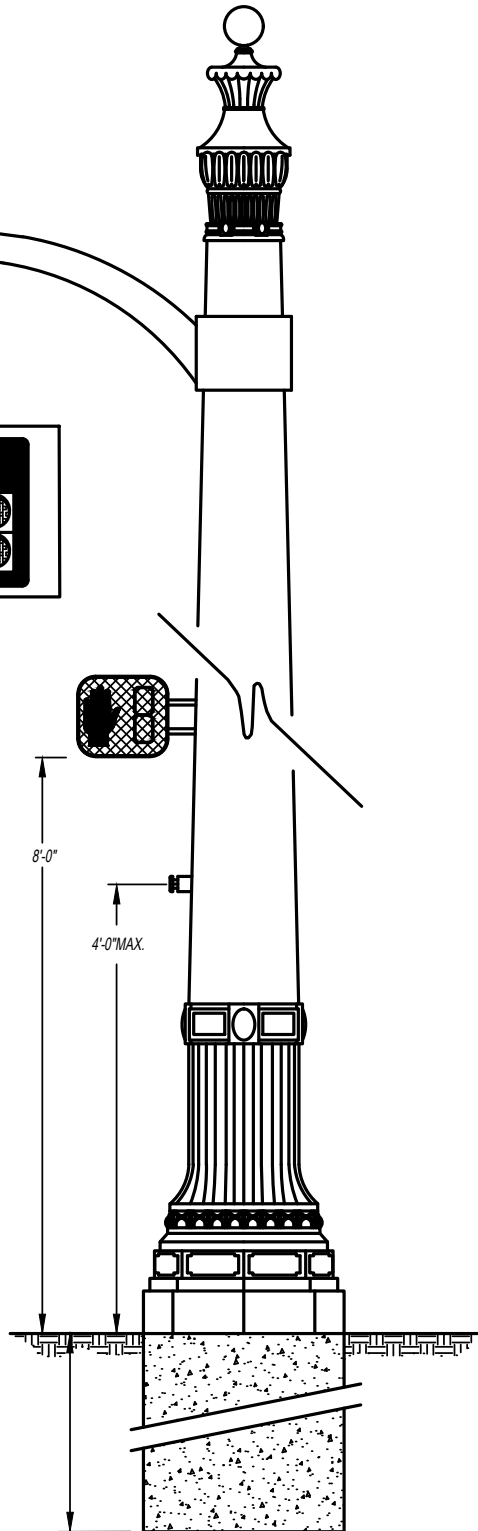
TYPICAL BEST ALIGNMENT FOR SIGNAL MAST ARM INSTALLATION IS LINING UP THE CAMERA IN LINE WITH THE LANE LINE BETWEEN THE LEFT TURN AND THROUGH LANES LEFT TURN DETECTION.



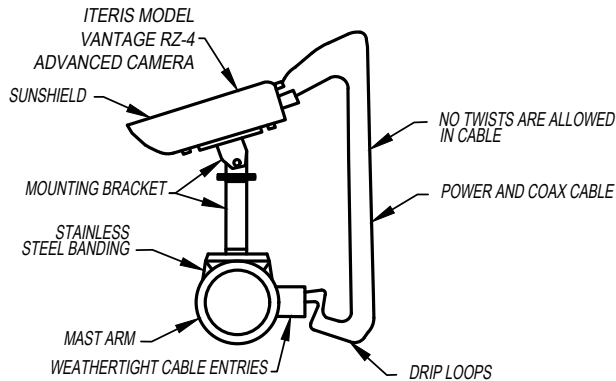
AP-0802 Ornamental Pole Base Fits 8"-12" Dia. Poles -or- PB-5381
Ornamental Base Fits 18"-26" Dia. Poles .

The location of strain poles and mast arm poles shall be in compliance with the AASHTO Roadside Design Guide and ALDOT standards, and approved by the City Engineer.

Concrete for foundations shall comply with the requirements for Class A, Type 2a concrete. Reinforcing steel shall meet the requirements for steel reinforcement and shall be Grade 60 (400) billet steel. Minimum design wind speed shall be based on ALDOT standards. All materials and equipment furnished shall be new, except when the plans specifically provide for there-use of existing equipment.



VIDEO DETECTION CAMERA MOUNTING DETAIL



*** CABLES SHALL BE ROUTED THROUGH BLACK POLE BRACKET OFF THE BACK OF THE MAST ARM.**

STANDARD DETAILS: TRAFFIC

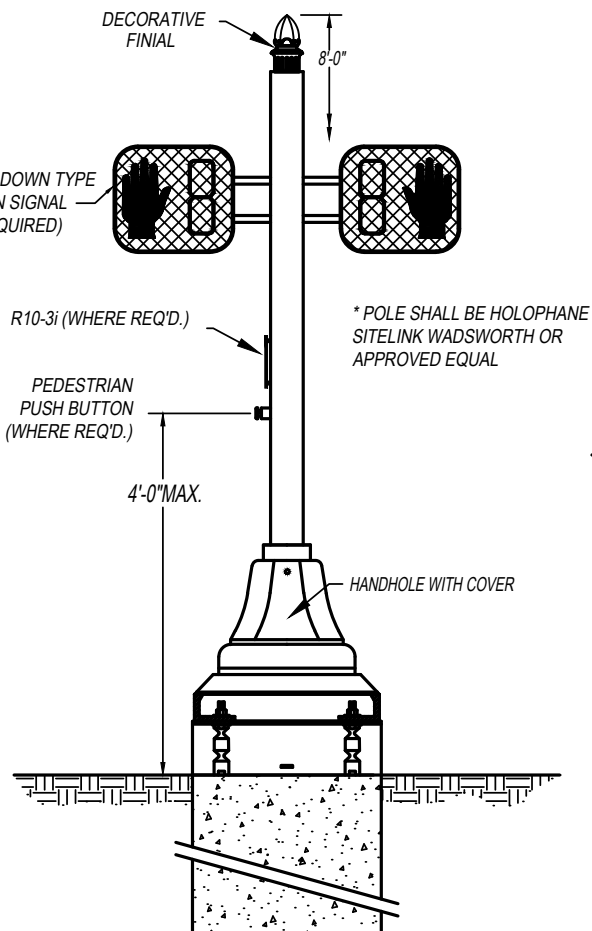
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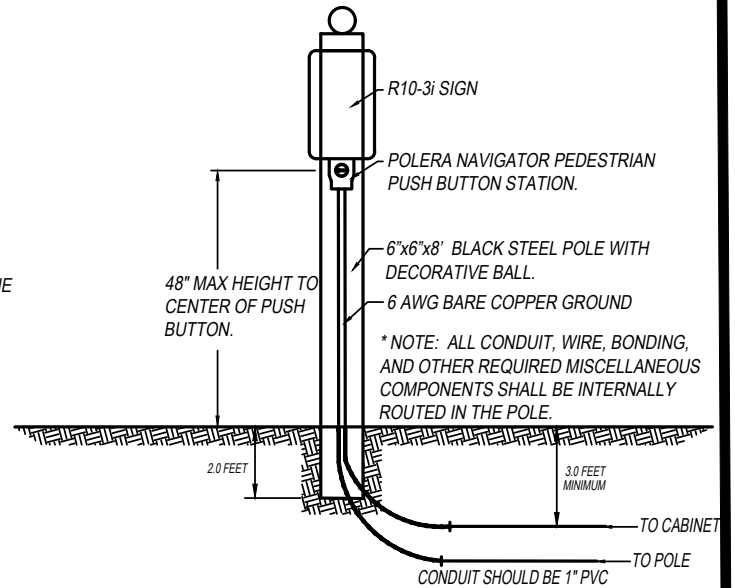
DEPARTMENT: ENGINEERING
SCALE: N.T.S.
DRAWN BY: GINA McCRICKARD
CITY ENGINEER: Alison Frazier
APPVD. BY: Alison Frazier
IMPLEMENTED: 01-01-2022

REVISIONS:

PEDESTRIAN POLE INSTALLATION DETAIL



PEDESTRIAN PUSH BUTTON DETAIL



STANDARD DETAILS: TRAFFIC

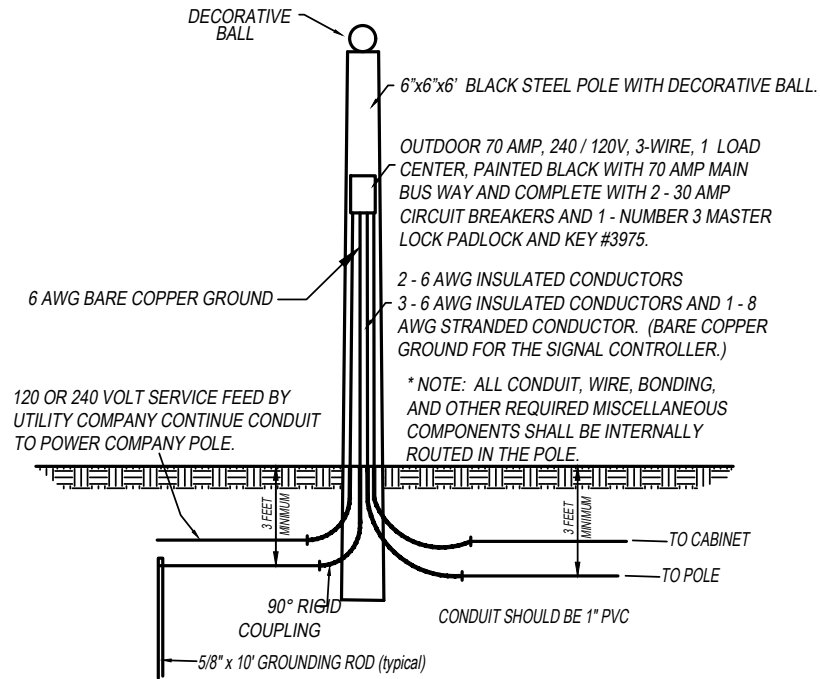
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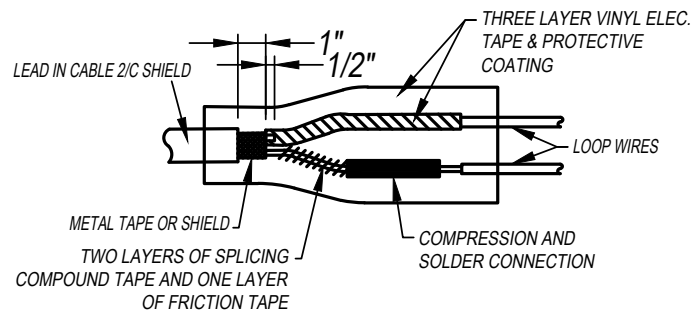
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REVISIONS:

UNDERGROUND POWER SOURCE FOR COMBINATION TRAFFIC SIGNAL AND STREET LIGHTING POLES



LOOP SPLICING DETAIL



STANDARD DETAILS: TRAFFIC

2.02

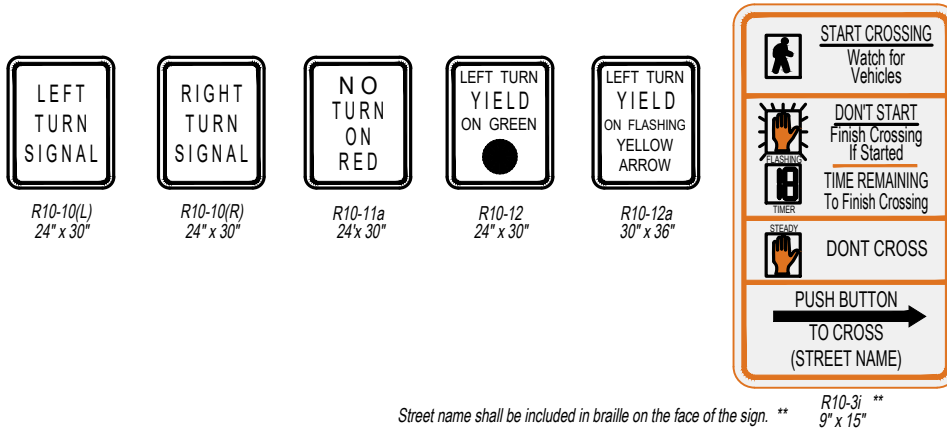


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TYPICAL TRAFFIC SIGNAL SIGNS AND HEADS

DETAIL OF TYPICAL TRAFFIC SIGNAL SIGNS



Street name shall be included in braille on the face of the sign. ** R10-3i ** 9" x 15"

DETAIL OF TYPICAL TRAFFIC SIGNAL HEADS

TYPE 1	TYPE 2	TYPE 3	TYPE 4	TYPE 5	TYPE 6	TYPE 7	TYPE 8	TYPE 9

STANDARD DETAILS: TRAFFIC

2.03



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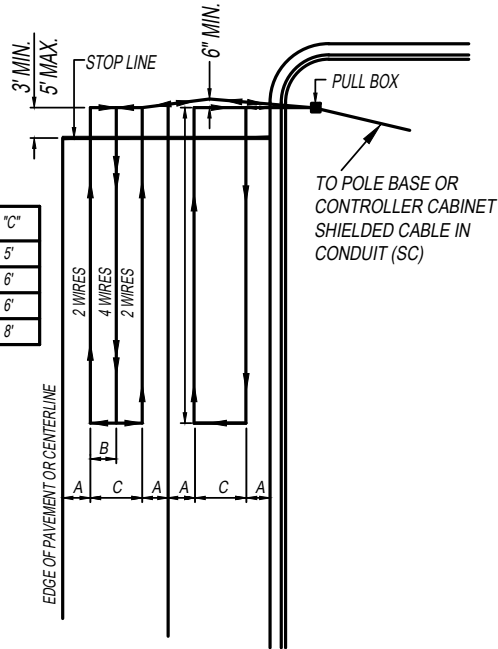
REVISIONS:

LARGE LOOP DETECTOR INSTALLATION DETAIL

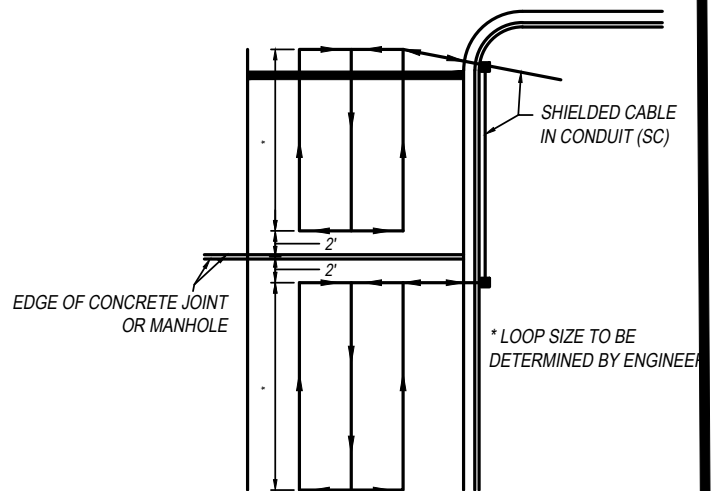
LANE WIDTH	"A"	"B"	"C"
10'	2.5'	2.5'	5'
11'	2.5'	3'	6'
12'	3'	3'	6'
14'	3'	4'	8'

MINIMUM LOOP SEPARATION
WHEN NO LANE LINES ARE
PRESENT IS 3'

ALL LOOPS ARE 40' IN
LENGTH UNLESS OTHERWISE
SPECIFIED.

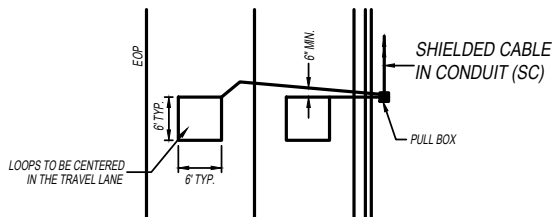


TYPICAL DETAIL OF LOOP DETECTOR WHERE TRANSVERSE CONCRETE JOINTS, MANHOLES ETC. ARE ENCOUNTERED



NOTE:
NO LOOPS ARE TO BE INSTALLED THROUGH, OVER, OR UNDER
TRANSVERSE CONCRETE JOINTS IN CONCRETE PAVEMENT, AND NO
MANHOLES, INLETS, ETC. MAY BE LOCATED WITHIN A LOOP. IF ANY OF
THE ABOVE ARE ENCOUNTERED THE LOCATION OF THE LOOP
MAY BE VARIED SLIGHTLY AS DIRECTED BY THE ENGINEER. IF THE
ABOVE ITEMS ARE UNAVOIDABLE, SMALLER LOOPS AS SHOWN TO THE
RIGHT MAY BE USED. SMALLER LOOPS USED TO REPLACE ONE LARGE
LOOP MAY BE CONNECTED TO ONE CHANNEL.

SMALL LOOP DETECTOR INSTALLATION DETAIL



STANDARD DETAILS: TRAFFIC

2.04



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SCALE: N.T.S.
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APPVD. BY: Alison Frazier
IMPLEMENTED: 01-01-2022

REVISIONS:

TYPICAL PEDESTRIAN LIGHT POLE DETAIL

NOTE:

1. DETAIL IS TYPICAL FOR FIXTURE TYPE 'PL'.
2. CONTRACTOR SHALL COORDINATE ANCHOR BOLT ORIENTATION SO THAT ALL HANDHOLES ARE SAME AND "SITELINK" POLE SLOT IS EXACTLY ADJACENT AND PARALLEL TO STREET. 180° SHALL BE AT STREET SIDE AND HANDHOLE SHALL BE AT 0° OPPOSITE STREET. NO EXCEPTIONS TO THIS CORRECT POLE INSTALLATION.
3. THE SKIRT ASSEMBLY SHALL CONSISTS OF 17" DIAMETER x 1/2" THICK STEEL PLATE WITH A 7" TALL ALUMINUM 'SKIRT' ATTACHED WITH STAINLESS STEEL SCREWS. THE SKIRT PLATE SHALL HAVE HOLES CORRESPONDING TO THE ANCHOR PLATE WIREWAY AND ANCHOR BOLTS. THE 7" TALL SKIRT ASSEMBLY SHALL REST UPON THE LEVEL BREAKAWAY ANCHOR BOLTS (TRANSP0 4100, 1-8 THREAD) 'FLOATING ABOVE GRADE AND PROVIDING A PLATFORM FOR THE 17" DIAMETER CLAMSHELL BASE. THE SHAFT ANCHOR PLATE SHALL REST UPON THE SKIRT PLATE, FASTENED WITH THE APPROPRIATE HARDWARE. THE CLAMSHELL BASE SHALL BE FITTED AROUND THE SHAFT AND REST UPON THE SKIRT ASSEMBLY.

SEE MANUFACTURERS SPECIFICATIONS

CITY OF AUBURN STANDARD
PEDESTRIAN LIGHT POLE.
HOLOPHANE "SITELINK"

SKIRT ASSEMBLY

FINISH GRADE

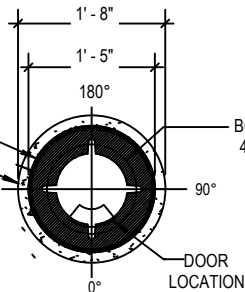
LIGHT POLE BASE.

CONCRETE BASE.

3/4" HOT-DIP GALVANIZED L-
TYPE ANCHOR BOLTS. FOUR
(4) REQUIRED.

CONDUIT AND WIRING
AS REQUIRED.

STREET SIDE AT 180°



SECTION A-A

0'-2"

0'-7"

3'-0"

4'-0"

FOUR (4) #5 VERTICAL
REBAR WITH #3 TIES AT
12" INTERVALS.
CENTERED IN CONCRETE
WITH 3" SEPARATION ALL
AROUND.

CONCRETE BASE
1'-8" DIAMETER

STANDARD DETAILS: TRAFFIC

2.05

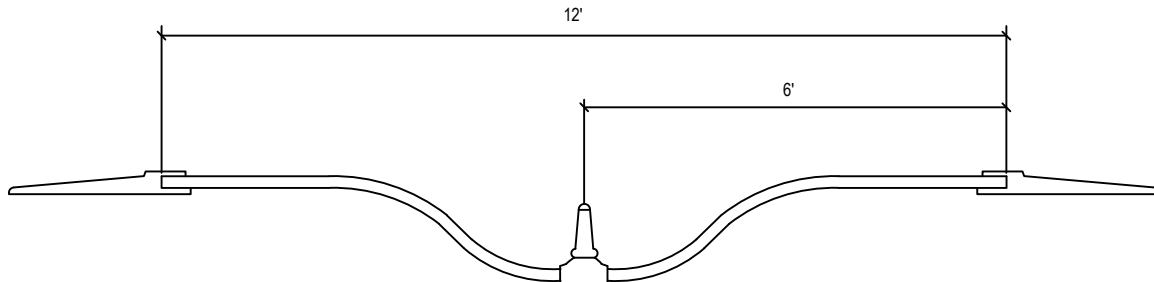


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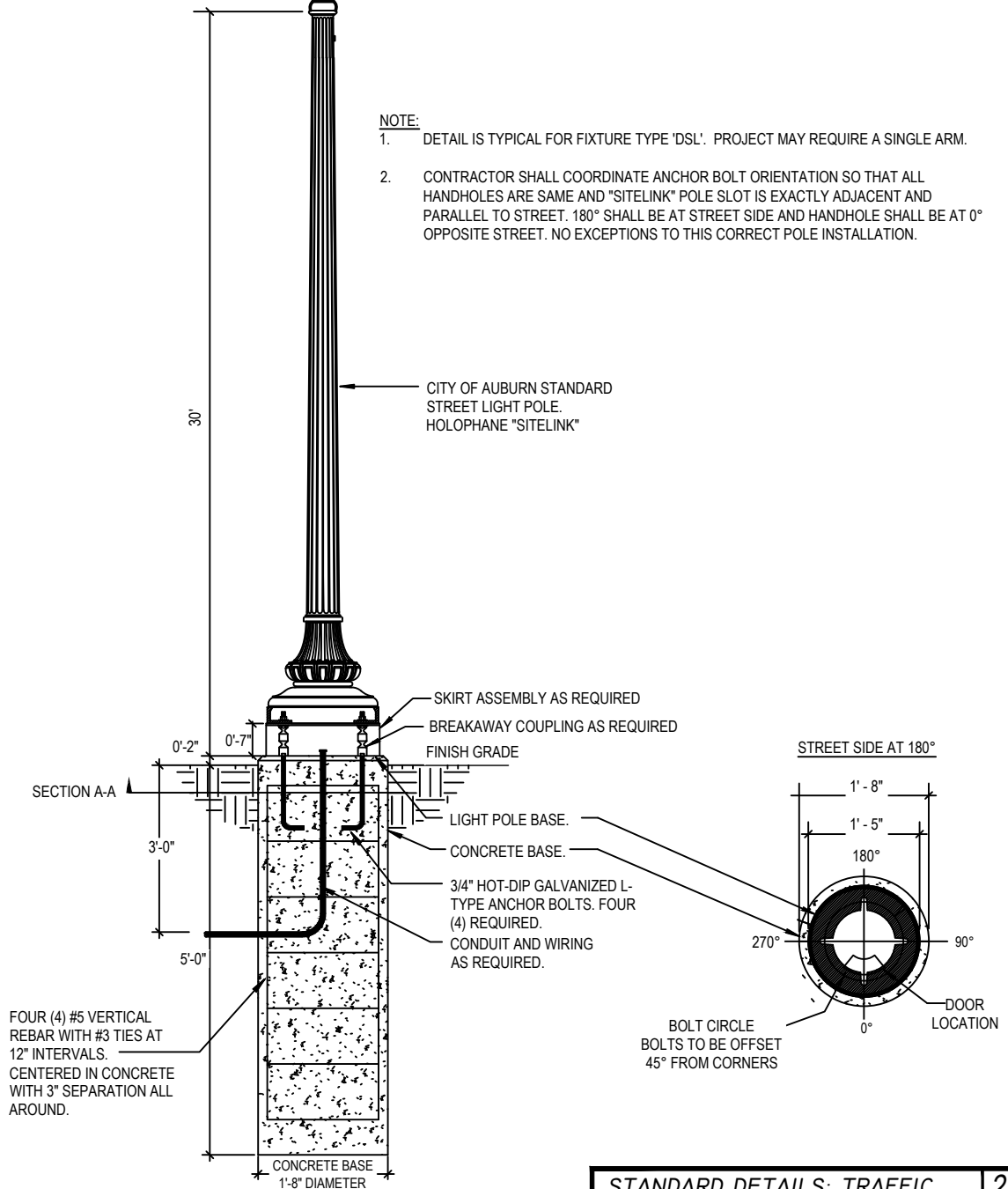
REVISIONS:

TYPICAL STREET LIGHT POLE DETAIL



NOTE:

1. DETAIL IS TYPICAL FOR FIXTURE TYPE 'DSL'. PROJECT MAY REQUIRE A SINGLE ARM.
2. CONTRACTOR SHALL COORDINATE ANCHOR BOLT ORIENTATION SO THAT ALL HANDHOLES ARE SAME AND "SITELINK" POLE SLOT IS EXACTLY ADJACENT AND PARALLEL TO STREET. 180° SHALL BE AT STREET SIDE AND HANDHOLE SHALL BE AT 0° OPPOSITE STREET. NO EXCEPTIONS TO THIS CORRECT POLE INSTALLATION.



STANDARD DETAILS: TRAFFIC

2.06



City of Auburn




DEPARTMENT: ENGINEERING	REVISIONS:
SCALE: N.T.S.	
DRAWN BY: GINA MCCRICKARD	
CITY ENGINEER: Alison Frazier	
APPVD. BY: Alison Frazier	
IMPLEMENTED: 01-01-2022	

TYPICAL LIGHT POLE SPECIFICATION

DEVELOPER REQUIREMENTS

1. THE DEVELOPER WILL BE RESPONSIBLE FOR THE INDIVIDUAL DESIGNS OF EACH ENCLOSURE AREA OR INCORPORATING LIGHTING INTO THE EXISTING ENCLOSURE AREA DESIGNS.
2. REFER TO SECTION 5.6 "STREET LIGHTING IN THE CITY OF AUBURN ENGINEERING DESIGN AND CONSTRUCTION MANUAL FOR FULL REQUIREMENTS.
3. PROVISIONS FOR FUTURE FIXTURES LOCATIONS ASSIGNED TO THE ENCLOSURE MUST BE ACCOMMODATED IN THE ELECTRICAL DESIGN. THIS MAY INCLUDE BUT NOT LIMITED TO, INCREASED CONDUIT SIZE, SPARE CONDUIT, INCREASE WIRE SIZE, SPARE WIRE, JUNCTION BOXES, WIRE LABELS AT ALL JUNCTIONS, STUB OUTS, AND OTHER MISCELLANEOUS ACCOMMODATIONS.
4. DEVELOPER MUST CONFIRM IF ANY OF MASTER PLAN WORK HAS BEEN DONE AT HIS SPECIFIC LOCATION. VERIFY IF PANEL ENCLOSURE HAS BEEN INSTALLED AND ANY POLE LIGHTS THAT MAY BE IN PLACE. COORDINATE ALL NEW ELECTRICAL WORK WITH OWNER REPRESENTATIVE.

PEDESTRIAN LIGHTING FIXTURE SCHEDULE

SYMBOL	MANUFACTURER & CATALOG NUMBER	LAMP	WATTS	MOUNTING	VOLTS	REMARKS
PL 	HOLOPHANE GVD3-P30-40K-MVOLT-SPL-GL3-BK (LIGHT FIXTURE) WDA-12-SL4-17D-C03-BWKT-BK-ABG (POLE)	LED 4000K	60	POLE	120	DECORATIVE LED LUMINAIRE WITH: CAST ALUMINUM HOUSING (BLACK FINISH); BOROSILICATE GLASS REFRACTOR; TYPE 3 DISTRIBUTION; INTEGRAL 400 MILLI-AMP LED DRIVER. MOUNT FIXTURE ON 12' STRAIGHT ALUMINUM, SITELINK POLE.
PB 	HOLOPHANE GVD3-P30-40K-MVOLT-SPL-GL3-BK (LIGHT FIXTURE) WDA-12-FTJ-19S-C03-BK-ABG (POLE) FPH-380 FLAG POLE HOLDER	LED 4000K	60	POLE	120	DECORATIVE LED LUMINAIRE WITH: CAST ALUMINUM HOUSING (BRONZE FINISH); BOROSILICATE GLASS REFRACTOR; TYPE 3 DISTRIBUTION; INTEGRAL 400 MILLI-AMP LED DRIVER. MOUNT FIXTURE ON 12' CLASSIC TAPERED AND FLUTED ALUMINUM POLE WITH BRONZE FINISH, WITH RECEPTACLE INSIDE HANDHOLE AND ONE NEAR TOP OF POLE. FLAG POLE HOLDER AT 96" A.F.G.
PLR 	HOLOPHANE GVD3-P30-40K-MVOLT-SPL-GL3-BK (LIGHT FIXTURE) WDA-12-SL4-17D-C03-BWKT-BK-FGB-R132 (POLE)	LED 4000K	60	POLE	120	DECORATIVE LED LUMINAIRE WITH: CAST ALUMINUM HOUSING (BLACK FINISH); BOROSILICATE GLASS REFRACTOR; TYPE 3 DISTRIBUTION; INTEGRAL 400 MILLI-AMP LED DRIVER. MOUNT FIXTURE ON 12' STRAIGHT ALUMINUM, SITELINK POLE WITH RECEPTACLE INSIDE HANDHOLE AND ONE AT 11'-0" ABOVE BOTTOM OF POLE.

STREET LIGHTING FIXTURE SCHEDULE

SYMBOL	MANUFACTURER & CATALOG NUMBER	LAMP	WATTS	MOUNTING	VOLTS	REMARKS
DSL	HOLOPHANE ATB0 P304 MVOLT R3 BK P7 (LIGHT FIXTURE - (2)) WDA 30 SL6 17D C05 BK RP132A, BHC 72IN 2A TN SL6 BK, FGIUS, BWKT 1700R 1200BC 100AB, TRANSP0, AB RFD325929 (POLE (1) & ROADWAY ARM (2)).	LED 4000K	124	POLE	120	"AUTOBAHN" LED LUMINAIRE (2@180") WITH CAST ALUMINUM HOUSING, BLACK FINISH, TYPE III DISTRIBUTION, INTEGRAL LED DRIVER, 30' DECORATIVE POLE & BASE. RECEPTACLE INSIDE HANDHOLE AND TOP OF POLE. 6' ROADWAY ARM (2).

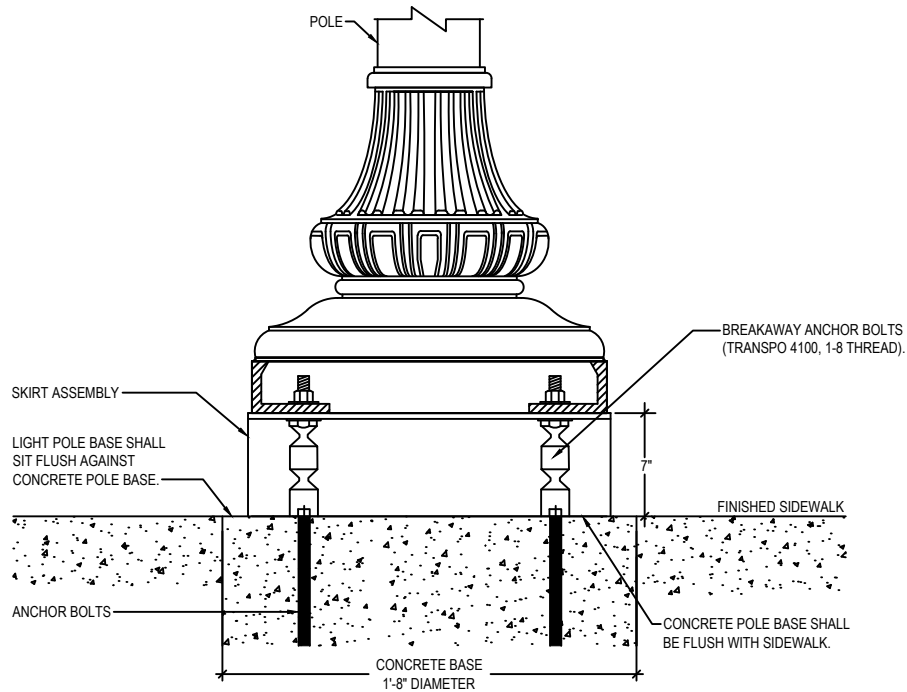
STANDARD DETAILS: TRAFFIC

2.07



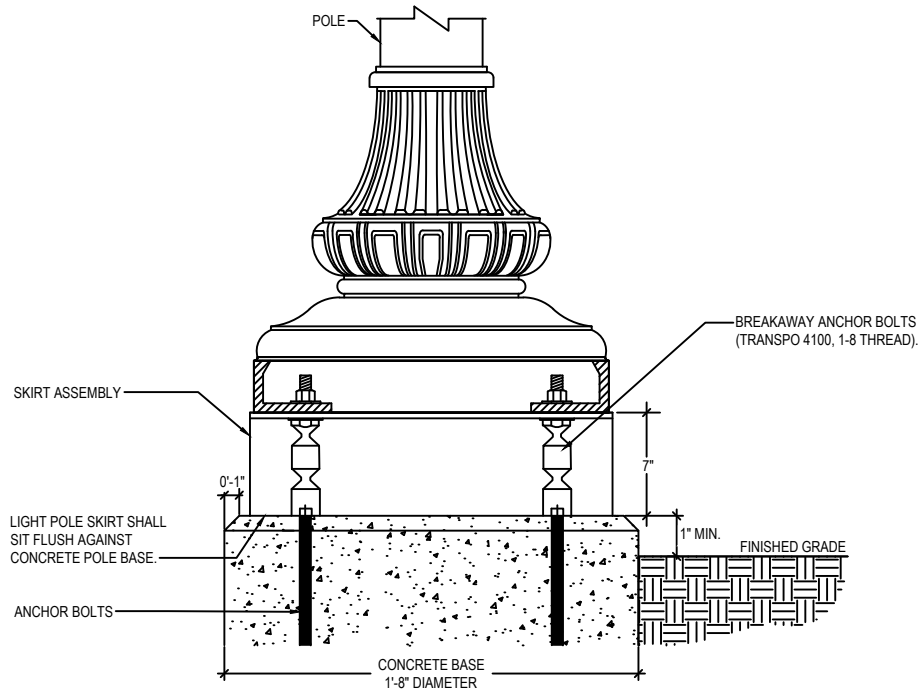
DEPARTMENT: ENGINEERING	REVISIONS:
SCALE: N.T.S.	
DRAWN BY: GINA MCCRICKARD	
CITY ENGINEER: Alison Frazier	
APPVD. BY: Alison Frazier	
IMPLEMENTED: 01-01-2022	

POLE BASE DETAIL



POLEBASE INSTALLED ON SIDEWALK

ENLARGED TYPICAL POLEBASE DETAIL



POLEBASE INSTALLED ON GRADE

ENLARGED TYPICAL POLEBASE DETAIL

STANDARD DETAILS: TRAFFIC

2.08

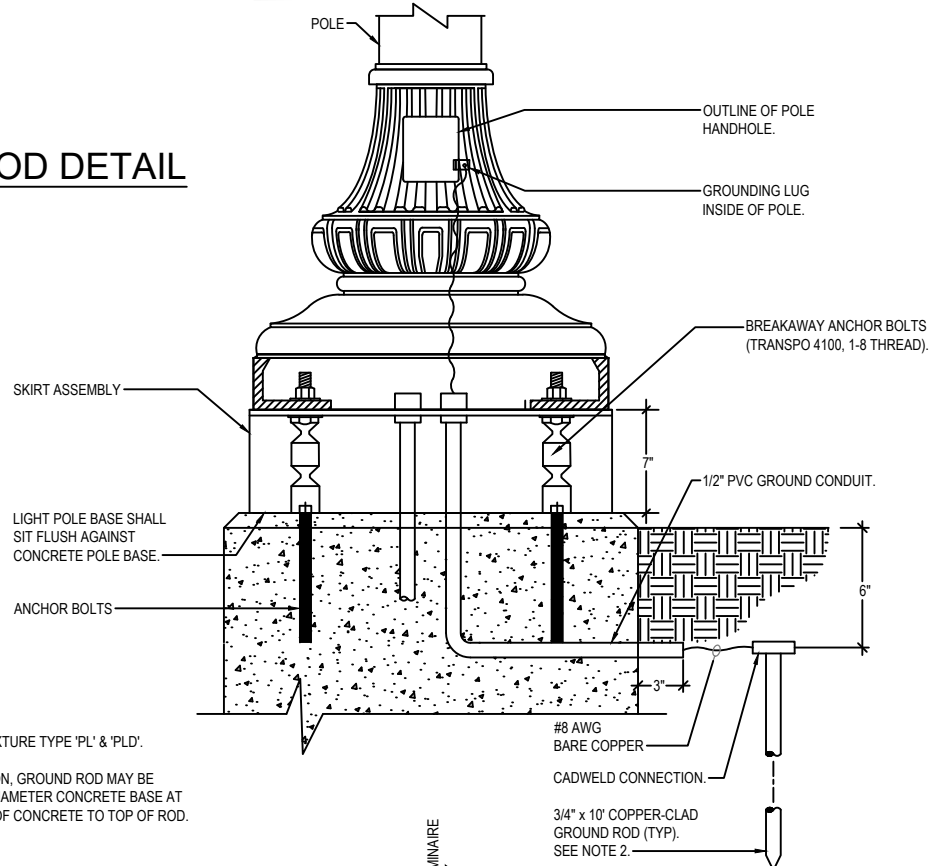


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REVISIONS:

POLE BASE DETAIL

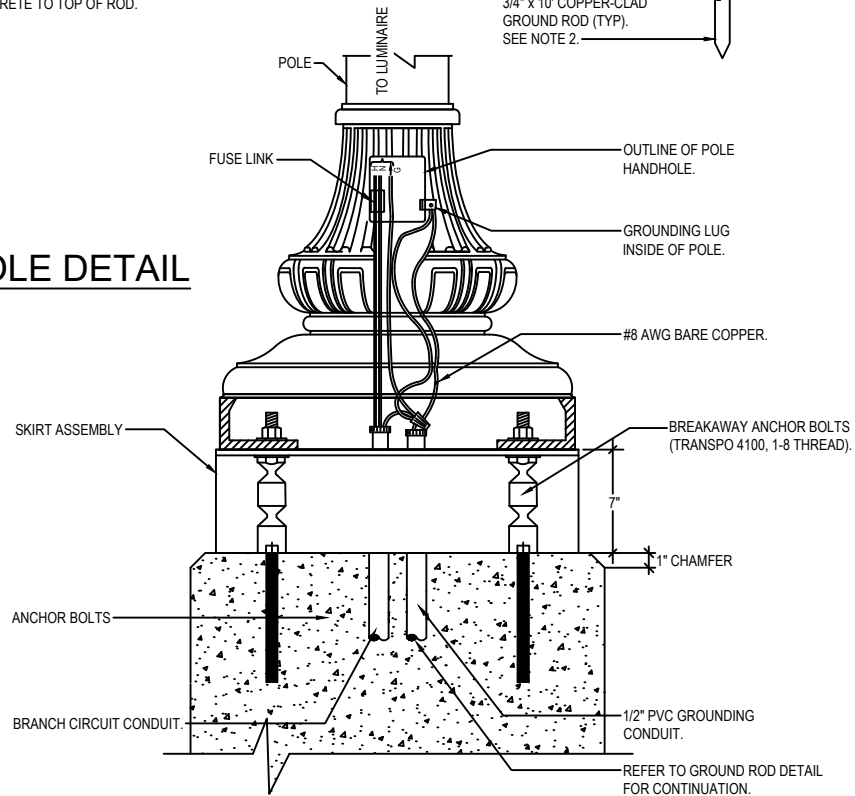
GROUND ROD DETAIL



NOTE:

1. DETAIL TYPICAL FOR FIXTURE TYPE 'PL' & 'PLD'.
2. AT CONTRACTOR OPTION, GROUND ROD MAY BE INSTALLED INSIDE 20" DIAMETER CONCRETE BASE AT LEAST 18" BELOW TOP OF CONCRETE TO TOP OF ROD.

POLE HANDHOLE DETAIL



NOTE:

1. DETAIL TYPICAL FOR FIXTURE TYPE AS REQUIRED.

STANDARD DETAILS: TRAFFIC

2.09



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ELECTRICAL NOTES

ENCLOSURE NOTES

1. ENCLOSURE SHALL BE FREESTANDING ON CONCRETE PAD, RAINPROOF-NEMA 3R, STEEL (G90), PAINTED BLACK (RAL 9017), HINGED AND LOCKABLE OUTSIDE DOOR, HINGED DEAD-FRONT INSIDE COVER. ALL INTERNAL WIRING AND CONNECTIONS SHALL BE BY MANUFACTURER. MUST BE UL "SERVICE ENTRANCE" RATED. SIZE AS REQUIRED. ALL CIRCUIT BREAKERS (MAIN & BRANCH) AND H-O-A SWITCH SHALL BE ACCESSIBLE INSIDE ENCLOSURE WITH DEAD-FRONT COVER CLOSED. MILBANK OR APPROVED EQUIVALENT.
2. CONTACTOR SHALL BE 100 AMP 2 POLE. ELECTRICALLY HELD WITH 120 VOLT COIL, OPEN TYPE. THIS CONTACTOR SHALL CONTROL "ON-OFF" OF ALL CIRCUITS IN PANEL 'SL'.
3. HAND-OFF-AUTO (H-O-A) SWITCH SHALL BE 120 VOLT 20 AMP RATED AND SHALL OPERATE AS FOLLOWS:

"HAND"- CONTACTOR IS CLOSED AND PANEL 'SL' IS ENERGIZED.

"OFF"-CONTACTOR IS OPEN AND PANEL 'SL' IS DEENERGIZED.

"AUTO"-PHOTOCELL CONTROLS CONTACTOR AND "ON-OFF" OF PANEL 'SL'.
4. PHOTOCELL SHALL BE SPST 120 VOLT TO CONTROL CONTACTOR AND "ON-OFF" OF PANEL 'SL'. PHOTOCELL SHALL BE MOUNTED INSIDE OF ENCLOSURE WITH GLASS WINDOW TO DETECT OUTSIDE LIGHT.
5. CIRCUIT BREAKER (SIZE AS NOTED), SEPARATE OPEN TYPE, 10K AIC. ACCESSIBLE ON INSIDE HINGED COVER WITH LABEL DESCRIBING FUNCTION.
6. UTILITY COMPANY ELECTRIC METER. MOUNT SOCKET INSIDE ENCLOSURE WITH METER VISIBLE ON OUTSIDE. COORDINATE REQUIREMENTS WITH UTILITY COMPANY. METER MOUNTING HEIGHT SHALL BE BETWEEN 48" AND 60" ABOVE FINISH GRADE TO CENTER OF METER.
7. PANEL, 120/240VOLT 1 PHASE 3 WIRE, CIRCUIT BREAKER LOAD CENTER TYPE. REFER TO PANELBOARD SCHEDULE FOR CIRCUIT BREAKERS. BREAKERS SHALL BE ACCESSIBLE ON INSIDE HINGED COVER. PROVIDE DIRECTORY OR LABELS.
8. CONTRACTOR SHALL FURNISH AND INSTALL ONE (1) 3" c. 36" DEEP. ALABAMA POWER COMPANY WILL FURNISH AND INSTALL CONDUCTORS. COORDINATE CONNECTION REQUIREMENTS.
9. ALL ENCLOSURE COMPONENTS AND INTERNAL WIRING BETWEEN COMPONENTS SHALL BE DONE BY ENCLOSURE MANUFACTURER.
10. THIS IS A STANDARD ELECTRICAL ENCLOSURE FOR CITY OF AUBURN AND MAY INCLUDE EQUIPMENT NOT USED ON THIS PROJECT.
11. SERVICE TERMINATION LUGS.

GENERAL NOTES

12. ALL ELECTRICAL WORK AND MATERIAL SHALL CONFORM TO THE LATEST EDITION OF THE N.E.C. AND THE REQUIREMENTS OF THE STATE AND LOCAL AUTHORITY HAVING JURISDICTION.
13. WIRING SYSTEM SHALL CONSIST OF COPPER WIRING INSTALLED IN CONDUIT, MINIMUM WIRE SIZE SHALL BE #12 AWG. MINIMUM CONDUIT SIZE SHALL BE 3/4".
14. ALL CONDUCTORS SHALL BE TYPE THHN.
15. CONDUIT SHALL BE SIZED IN ACCORDANCE WITH TABLE 1, CHAPTER 9 OF N.E.C.
16. CONTRACTOR SHALL PROVIDE ALL MATERIAL NECESSARY TO FINALIZE A NEAT, COMPLETE AND PROPERLY WORKING ELECTRICAL SYSTEM WHICH CONFORMS TO ALL LOCAL CODES AND THE NATIONAL ELECTRICAL CODE AS PER PLANS, AND SPECS.
17. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS PRIOR TO BID DATE OR CONSTRUCTION DATE, AS HE SHALL BE RESPONSIBLE FOR SAME.
18. EXACT LOCATION OF EXISTING UNDERGROUND UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
19. CUTTING OF EXISTING PAVEMENT IS NOT ALLOWED FOR ROUTING OF NEW CIRCUITS/CONDUITS. PROVIDE DIRECTIONAL HORIZONTAL BORING MINIMUM 36" BELOW GRADE AS REQUIRED.
20. FLAG HOLDER SHALL BE INSTALLED 8'-0" ABOVE GRADE IF REQUIRED.
21. REQUIRED CHAMFER SHALL BE CONSTRUCTED USING CHAMFER STRIP. IT MAY NOT BE HAND TOOLED.
22. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF PEDESTRIAN LIGHTS WITH OWNER REPRESENTATIVE PRIOR TO INSTALLATION.
23. CONTRACTOR SHALL SCHEDULE ALL INSPECTIONS WITH OWNER REPRESENTATIVES AS REQUIRED IN THE CITY OF AUBURN ENGINEERING DESIGN AND CONSTRUCTION MANUAL.
24. SERVICE VOLTAGE AT EACH ELECTRICAL ENCLOSURE SHALL BE 120 / 240 VOLT, 1 PHASE, 3 WIRE. SERVICE SHALL BE UNDERGROUND BY ALABAMA POWER.
25. ENCLOSURE LOCATIONS ARE GENERAL. COORDINATE EXACT LOCATIONS WITH OWNER REPRESENTATIVE AND ALABAMA POWER COMPANY PRIOR TO INSTALLATION.
26. EACH ENCLOSURE SHALL HAVE (1) SPARE 2-INCH CONDUIT STUBBED OUT 5' AND CAPPED. COORDINATE EXACT LOCATION WITH THE CITY OF AUBURN.

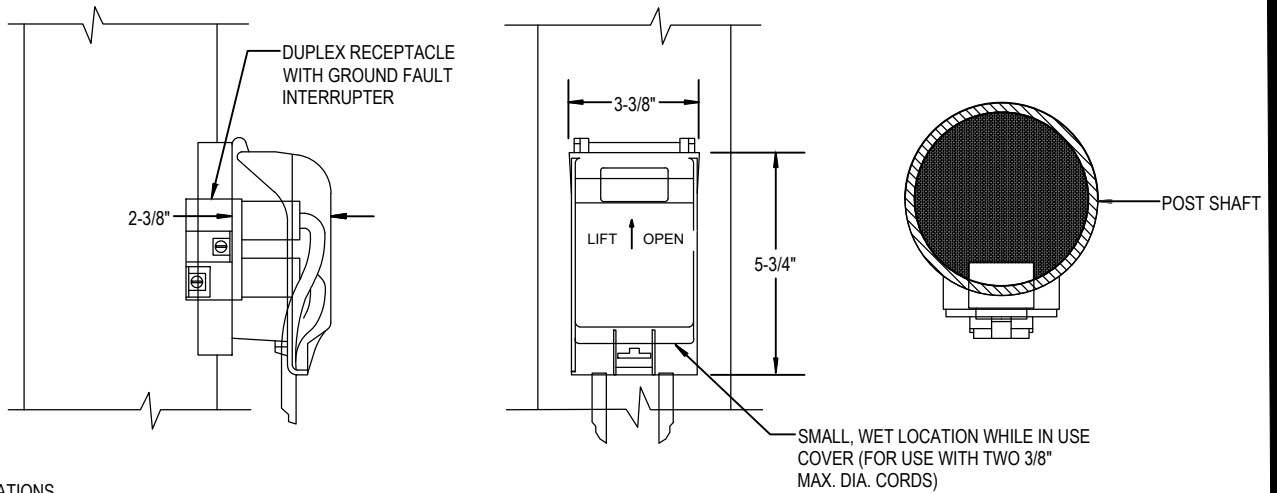
STANDARD DETAILS: TRAFFIC

2.10



DEPARTMENT: ENGINEERING	REVISIONS:
SCALE: N.T.S.	
DRAWN BY: GINA MCCRICKARD	
CITY ENGINEER: Alison Frazier	
APPVD. BY: Alison Frazier	
IMPLEMENTED: 01-01-2022	

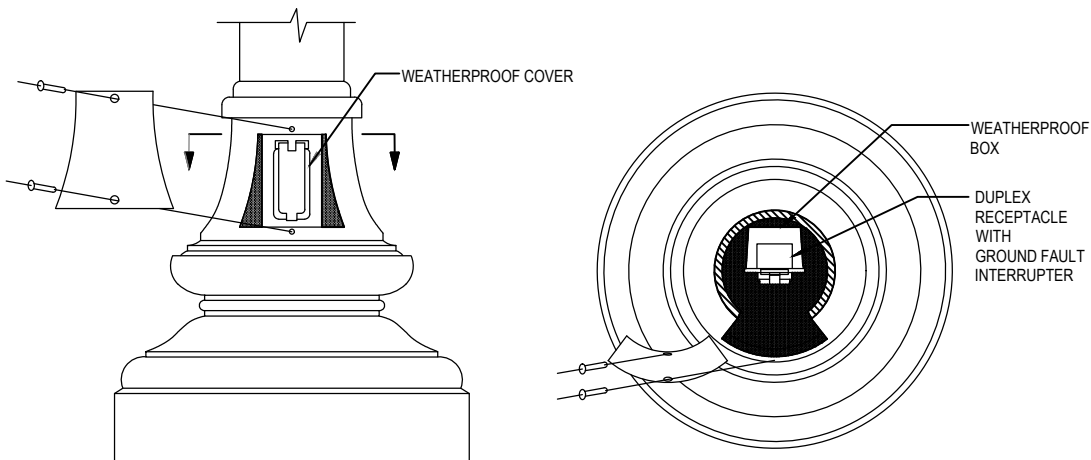
WEATHERPROOF RECEPTACLE - EXTERNAL POST SHAFT LOCATION



SPECIFICATIONS

A 20 AMP, 125 VOLT, GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE SHALL BE MOUNTED IN THE POST. THE RECEPTACLE SHALL BE UL LISTED ACCORDING TO E-48380 AND UL 943 CLASS A AND UL 498. THE RECEPTACLE SHALL HAVE A CAST ALUMINUM, LOCKABLE, UL LISTED COVER THAT IS SUITABLE FOR WET LOCATIONS WHILE IN USE AND COMPLIES WITH NEC ARTICLE 410-57(B). THE COVER SHALL ACCEPT MOST COMMON CORD SETS UP TO 3/8" DIAMETER (14/3). THE RECEPTACLE AND COVER SHALL MOUNT TO AN OUTLET OPENING, IN THE POST SHAFT, WITH A GASKET AND STAINLESS STEEL SCREWS. HOLOPHANE FGIUS-SBKH. LOCATE THIS RECEPTACLE 11' ABOVE BOTTOM OF POLE. THIS RECEPTACLE SHALL BE MOUNTED 11'-0" ABOVE BOTTOM OF POLE BASE.

WEATHERPROOF RECEPTACLE - INTERNAL BASE LOCATION



SPECIFICATIONS

A 20 AMP, 125 VOLT, GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE SHALL BE MOUNTED INSIDE THE POST BASE, FACING TOWARD THE ACCESS DOOR. THE RECEPTACLE SHALL BE UL LISTED ACCORDING TO E-48380 AND UL 943 CLASS A AND UL 498. THE RECEPTACLE SHALL BE MOUNTED IN A CAST ALUMINUM BOX AND COVER THAT IS SUITABLE FOR WET LOCATIONS WHILE NOT IN USE. THE RECEPTACLE AND COVER SHALL MOUNT TO A OUTLET BOX WITH A GASKET AND STAINLESS STEEL SCREWS. HOLOPHANE RB/GFI/WPC

NOTES:

1. RECEPTACLES MUST BE WIRED ON SEPARATE CIRCUIT FROM LIGHT.
2. RECEPTACLES ARE TYPICALLY INSTALLED FOR USE BY AUTHORIZED PERSONNEL FOR SPECIAL EVENTS, DECORATIVE SEASONAL LIGHTING AND OWNER MAINTENANCE PURPOSES.

STANDARD DETAILS: TRAFFIC

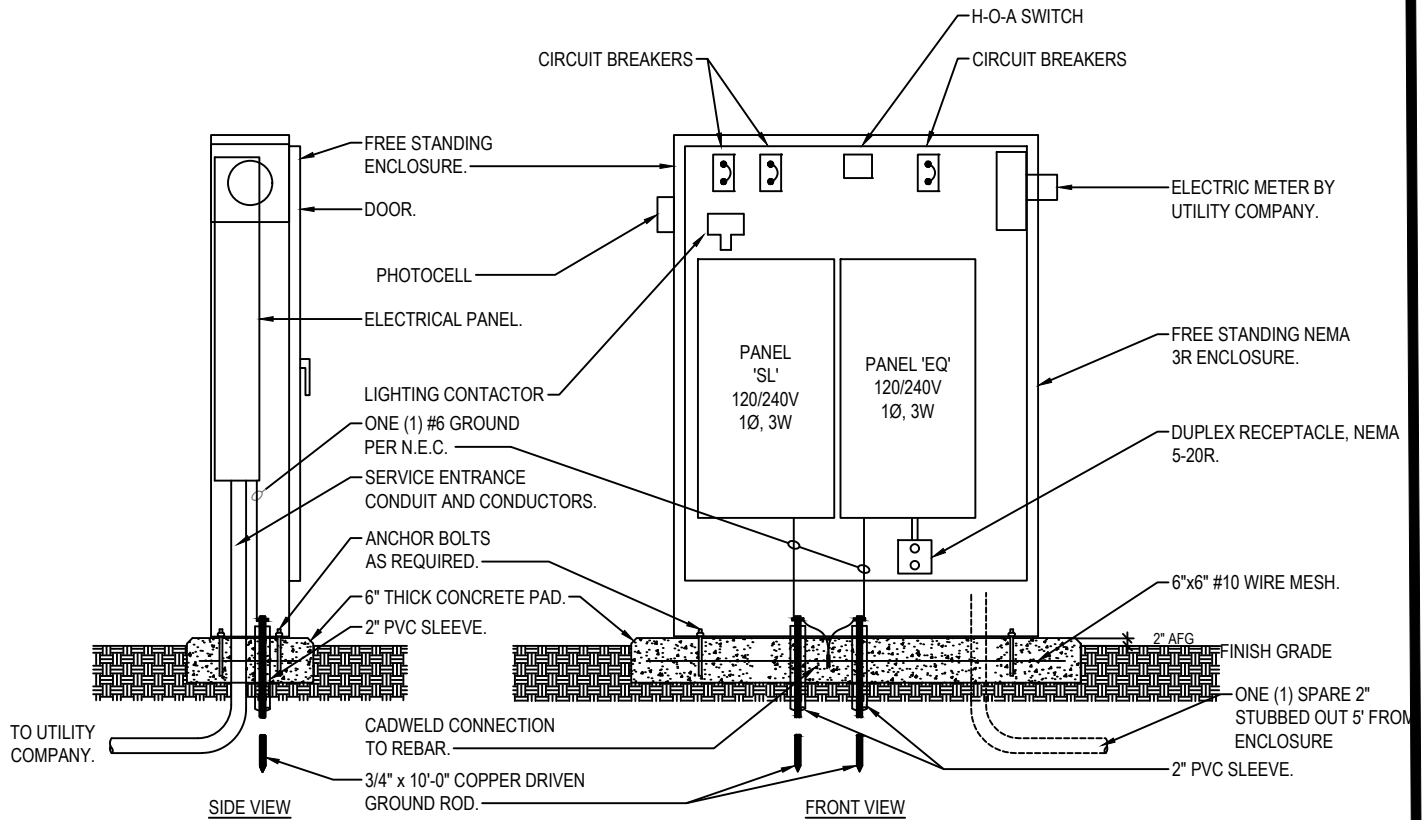
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IMPLEMENTED: 01-01-2022

REVISIONS:

PANEL ENCLOSURE DETAIL - TYPICAL



STANDARD DETAILS: TRAFFIC

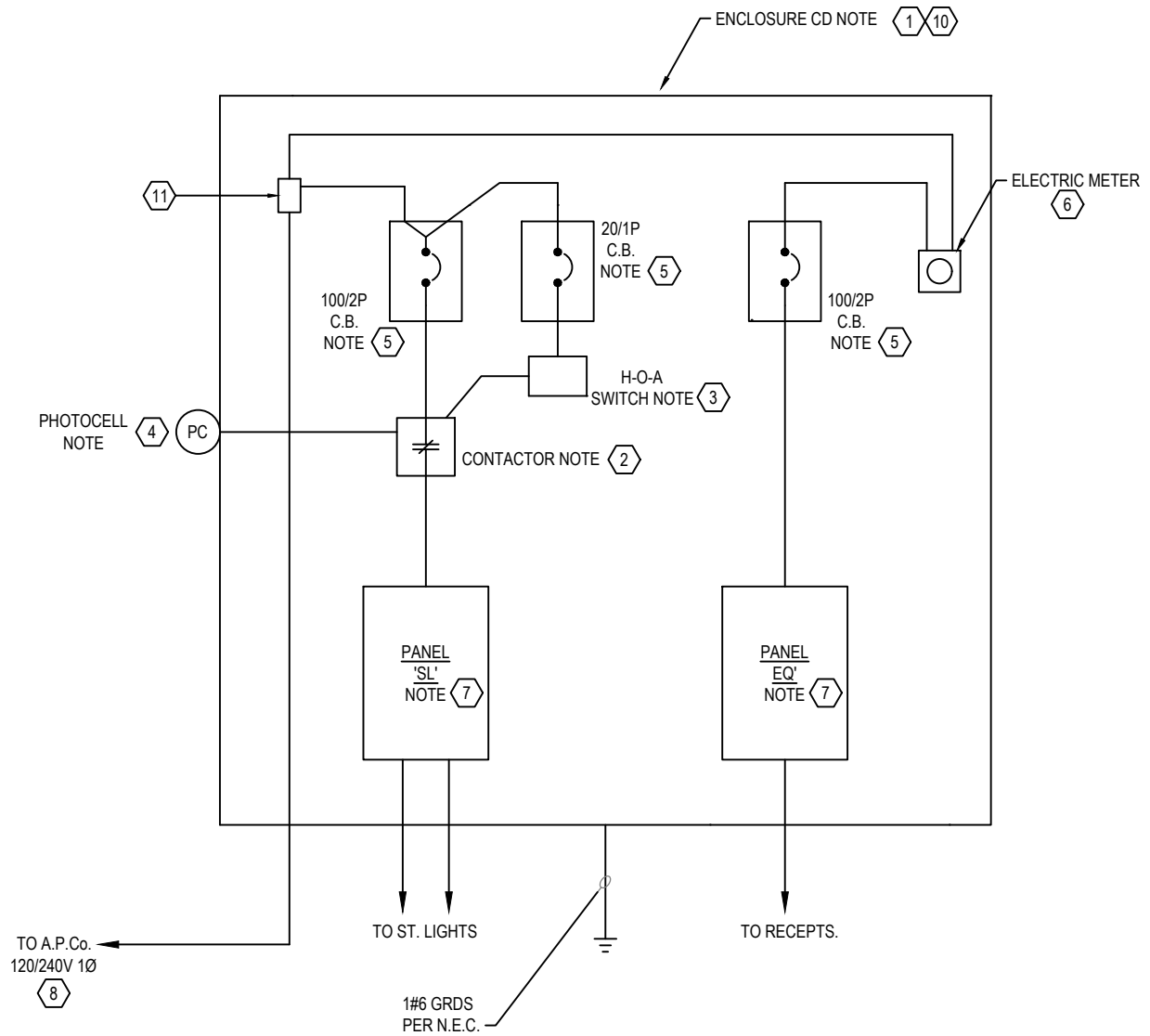
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REVISIONS:

EQUIPMENT INSIDE ENCLOSURE - TYPICAL



STANDARD DETAILS: TRAFFIC

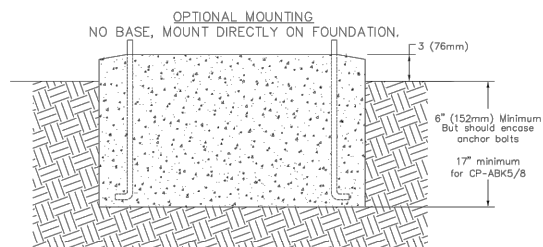
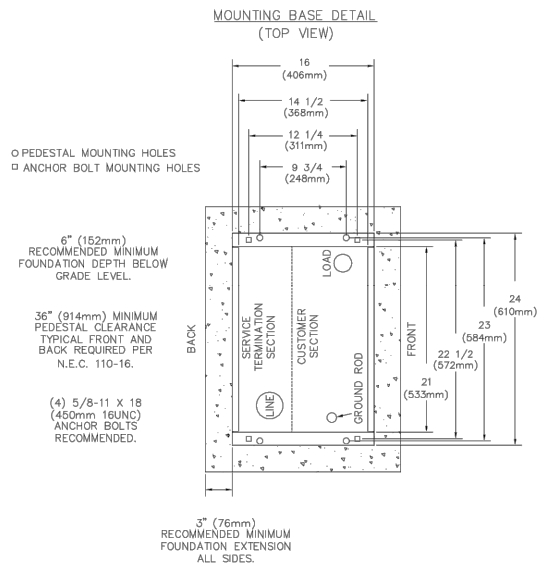
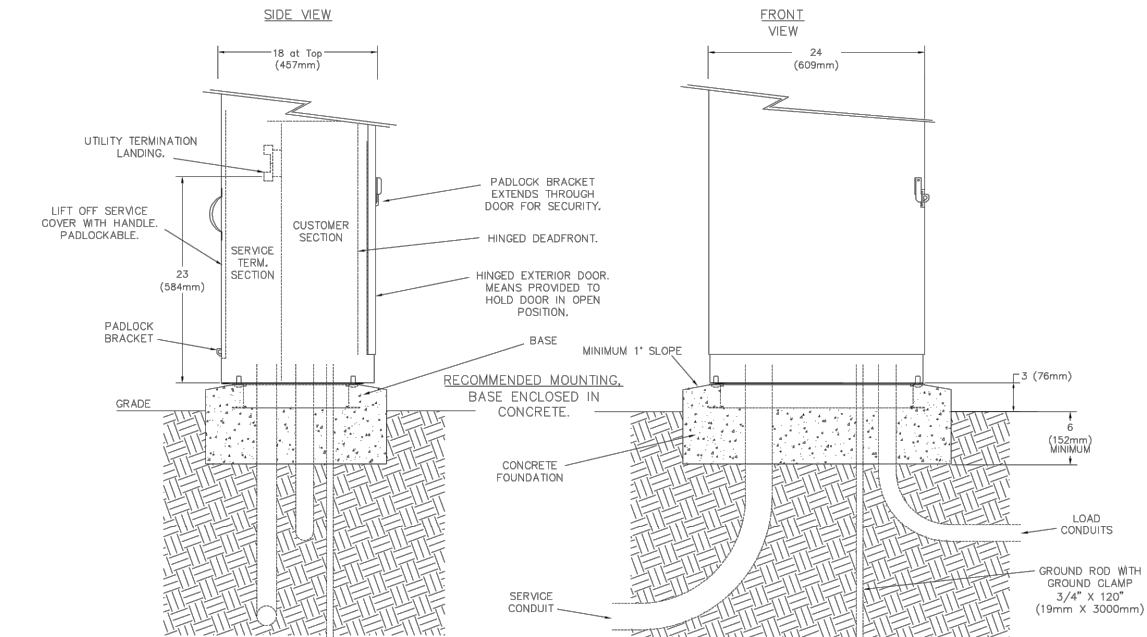
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 APPVD. BY: Alison Frazier
 IMPLEMENTED: 01-01-2022

REVISIONS:

TYPICAL "B" AND "M" SIZE CONSTRUCTION & INSTALLATION

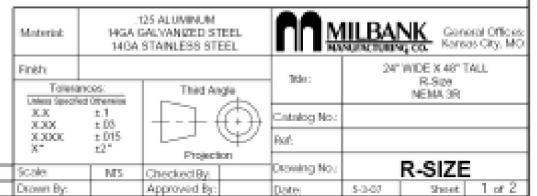


STANDARD DETAILS: TRAFFIC

2.14



DEPARTMENT: ENGINEERING	REVISIONS:
SCALE: N.T.S.	
DRAWN BY: GINA MCCRICKARD	
CITY ENGINEER: Alison Frazier	
APPVD. BY: Alison Frazier	
IMPLEMENTED: 01-01-2022	



TYPE A

120/240 VAC, 1-phase, 3-wire; 200 Amps Maximum, (see Main circuit breaker rating)
Rainproof - Type 3R, Galvanized (G90) steel Enclosure, painted BLACK (RAL 9017)
Enclosed Industrial Control - Suitable ONLY for Use as Service Equipment
The short circuit current rating is 10,000 RMS symmetrical amperes maximum at 240volts maximum, in accordance with the table below, but is limited to the lowest short circuit rating of any installed circuit breaker. Watthour meter is not included in the short circuit rating. Replacement circuit breakers must be of the same type and rating.

WATERED CROOK DIRECTORY (TABLE 23)				WATERED CROOK DIRECTORY (TABLE 24)			
No.	Amp.	Poles	Circuit Description	No.	Amp.	Poles	Circuit Description
1	20	1	RECEPTS	2	20	1	RECEPTS
3	20	1	RECEPTS	4	20	1	RECEPTS
5	20	1	RECEPTS	6	20	1	RECEPTS
7	20	1	RECEPTS	8	20	1	RECEPTS
9	20	1	RECEPTS	10	20	1	RECEPTS
11	20	1	RECEPTS	12	20	1	RECEPTS
13				14			
15				16			
17				18			
19				20			
21				22			
23				24			

AIC RATING	MAIN (METERED)	BRANCHES (METERED)
10	Siemens type BQ	Siemens type BQ, QP

No.	Amp.	Poles	Circuit Description	No.	Amp.	Poles	Circuit Description
1	20	1	STREET LTS	2	20	1	STREET LTS
3	20	1	STREET LTS	4	20	1	STREET LTS
5	20	1	STREET LTS	6	20	1	STREET LTS
7	20	1	STREET LTS	8	20	1	STREET LTS
9	20	1	STREET LTS	10	20	1	STREET LTS
11	20	1	STREET LTS	12	20	1	STREET LTS
13				14			
15				16			
17				18			
19				20			
21				22			
23				24			

AIC RATING	MAIN (UNMETERED)	BRANCHES (UNMETERED)
22	Siemens type BQ	Siemens type BQ, QP

Circuit breaker handle trip position is between "ON" and "OFF". To reset breaker, move handle to the full "OFF" position, then to full "ON".

FIELD WIRED CONNECTORS					BUS CONNECTIONS					For Equipment Ground ONLY. multiple conductors in a single opening are permissible as indicated below		
		SLOTTED HEAD SCREWS			THREADFORMING SCREWS							
Socket Size	Torque Lb.-In.	AWG Wire Size	Torque, Small Hole	Lb.-In. Large Hole	SCREW	MAT'L	Torque, Lb.-In.		AWG Wire Size	Small Hole	Large Hole	
5/16"	275	#14-10	20	35	10-24	AL	30					
3/8"	375	#8	25	40	10-24	CU	50		#14-10	1-2	1-2	
1/2"	500	#6	35	45	1/2-20	AL	50		#10	1	1	
9/16"	600	#4	-	45	1/2-20	CU	72		#8 - 6	1	1	
		#3-1/0	-	50					#4 - 1/0	1	3	

Shipping may loosen electrical connections. CHECK TIGHTNESS BEFORE ENERGIZING.

BONDED NEUTRAL – Remove neutral load conductors for test purposes only!
FIELD INSTALLED conductors shall be 60°C, 75°C, or 90°C, sized to 60°C rating for 110 amps or less; and 75°C or 90°C for 125 amps and above.



Sheet 1 of 2



STANDARD DETAILS: TRAFFIC

2.16

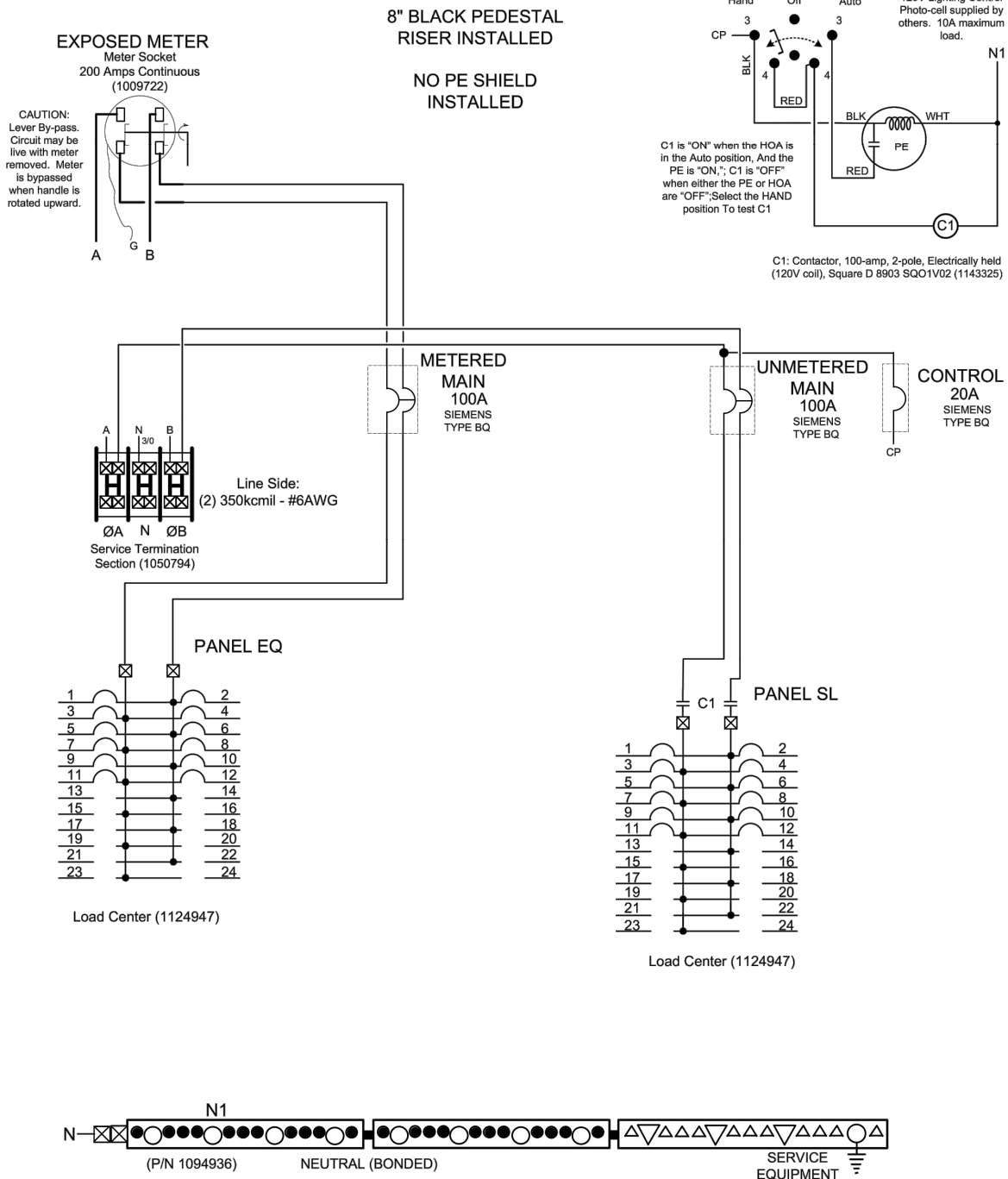


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DRAWN BY: GINA McCRICKARD
CITY ENGINEER: Alison Frazier
APPVD. BY: Alison Frazier
IMPLEMENTED: 01-01-2022

Catalog Number:
CP3B5212BRBKS1

TYPE A

120/240 VAC, 1-phase, 3-wire; 200 Amps Maximum, (see Main circuit breaker rating)
Rainproof - Type 3R, 304 Galvanized (G90) steel Enclosure, painted BLACK (RAL 9017)
Enclosed Industrial Control - Suitable ONLY for Use as Service Equipment



Sheet 2 of 2



STANDARD DETAILS: TRAFFIC

2.17



DEPARTMENT: ENGINEERING
SCALE: N.T.S.
DRAWN BY: GINA MCCRICKARD
CITY ENGINEER: Alison Frazier
APPVD. BY: Alison Frazier
IMPLEMENTED: 01-01-2022

REVISIONS:

SP Series Specifications

ELECTRICAL

Input

Voltage 120 VAC +12%, -29%
(without battery discharge)

Frequency 48 to 62 Hz

Output

Voltage 120 VAC +3%

Frequency 50 or 60 Hz

Rating: SP 1000 SR/SN 1,250 VA/875 Watts
SP 1250 SR/SN PLUS 1,250 VA/875 Watts¹
SP 2000SR/SN/U 2,000 VA/1400 Watts

Crest Factor Ratio @50% Load Up to 4.8:1
(Non-linear Load and @75% Load Up to 3.2:1
< 5% THD) Typical @100% Load Up to 2.4:1

Total Harmonic Distortion (THD) 4.0% Max.

Dynamic Response ±4% for 100% Step Load Change
0.5 ms Recovery Time

Overload 110% for 10 sec;
200% for .05 sec

UPS Protection Input and Output Short Circuit;
Input and Output Overload;
Excessive Battery Discharge

ENVIRONMENTAL

Operating Temp. -40°C to +74°C (-40F to +165°F)

Humidity 0% to 95% Non-condensing

Altitude Sea Level to 10,000 ft (some
derating of temp. w/altitude > 6,000 ft)

MECHANICAL

Input Hardwired to PIM

Outputs Hardwired to PIM, w/single 15 Amp
Receptacle on back of UPS

Cabinet NEMA, 332 or CBO-123 Cabinet
Style Configurations Available;
NEMA 3R Type II and Type III
Optional

CUSTOM Options

Consult Factory for other Custom options

DESIGN

Standard Features Power Factor Corrected Input;
Fully Regenerative;
True On-Line Continuous Power;
Low Distortion Sinewave Output;
Designed for Non-linear Loads;
Extended Brownout Protection;
EIA/RS232 Data Interface

Specifications Meets FCC Class A, IEEE
587/ANSI C62.41, IEC 555 @
120 VAC and NEMA Stds

MTBF Inverter: > 100,000 hrs
System w/Bypass: 150,000 hrs
Calculated from Component Spec

Typical Recharge 48-72 hrs (more time required
Time to 85% with extended battery option)
Capacity @ Less than 20 hrs with optional
100% Load Fast Battery Charger

CONTROLS AND INDICATORS

Ramping LEDs Battery Level; Load Level
Single LEDs AC In; Inverter On; Low Battery
and Summary Alarm; Alarm Silence

Control Panel Power On; Cold Start; Test; Alarm
Silence; Event Counter (w/Reset);
Hour Meter; Battery Disconnect

Audible Alarms Utility Interrupt; Inverter Failure;
Overload; Low Battery; Self Test

Serial Interface for Full Interactive Remote Computer
EIA 232. Optional Monitoring and Control of Most
NTCIP and TCP/IP Features Including Load Control
via Standard RJ45 (requires optional monitoring
Connector software); NTCIP and TCP/IP
Ready

Contact Closures Open Collector for Remote
("D" connector) Annunciation of Power Up,
Power Down, On Battery, Low
Battery and Alarms

Specifications subject to change without prior notice.



Uninterruptible Power for Traffic Signal Applications - 1000, 1250 and 2000VA

Model	VA	Watts	Input Current (A)	Output Current (A)	Backup Time 100% / 50% Load	Unit Weight (lbs)	Rackmount H x W x D (in)
SP1000SN/SR ²	1,250	875	8.8	10.4	1.5 hrs. / 3.25 hrs.	20	3.50 x 19.0 x 13.0 (2U)
SP1250SN/SR Plus ^{1,2}	1,250	875	8.8	10.4	1.5 hrs. / 3.25 hrs.	20	3.50 x 19.0 x 13.0 (2U)
SP2000SN/SR ²	2,000	1400	18.0	20.0	15.0 min. / 35.0 min.	30	5.25 x 19.0 x 17.0 (3U)
SP1250U	1,250	875	8.8	10.4	1.5 hrs. / 3.25 hrs.	20	3.50 x 19.0 x 13.0 (2U)
SP2000U	2,000	1400	18.0	20.0	15.0 min / 35.0 min	30	5.25 x 19.0 x 17.0 (3U)

Note 1 Supports 1400 watt peak load for 10 seconds or less, intended for yellow incandescent applications.

Note 2 Requires Clary PIM30C, G, R, or GR for traffic applications.

CLARY
The Continuous Power Company™

Clary Corporation
150 E Huntington Drive Monrovia, Ca 91016
Tel: 800.442.5278 • Fax: 626.305.0254
• www.clary.com

Made in the USA

P/N 520-13481
08/04/06-Ver. 1.4

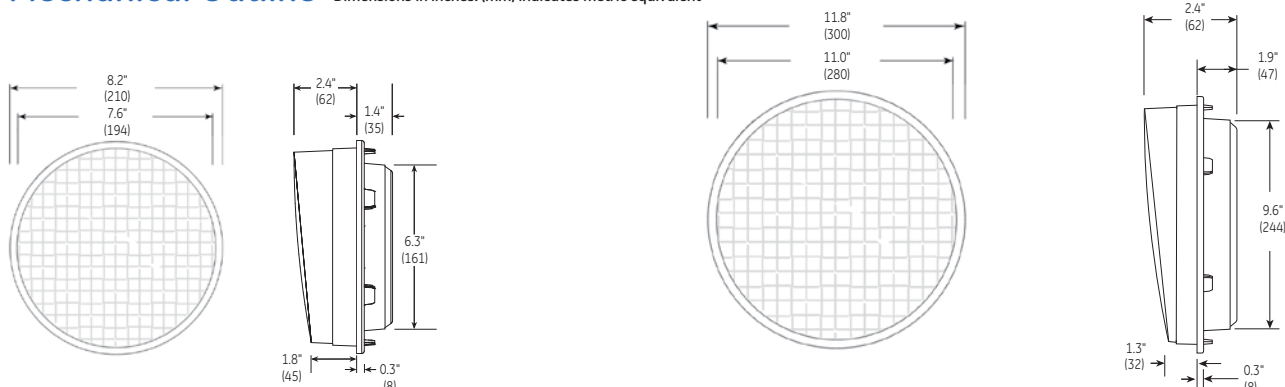
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RX11 LED Signal Modules

- 8 and 12 inch

Mechanical Outline

Dimensions in inches. (mm) indicates metric equivalent



Design Compliance

Test Type	Compliance
Luminous Intensity	ITE VTCSH-STD Part 2 - July 1998
Chromaticity	ITE VTCSH-STD Part 2 - July 1998
Moisture Resistance	NEMA STD 250 Type 4 - 1991
Mechanical Vibration	MIL-STD-883 Method 2007
Electronic Noise	FCC Title 47 Sub. B Sec 15 ¹
Transient Voltage Protection	ITE VTCSH-STD Part 2 - July 1998
Controller Compatibility	NEMA TS-2-1992
Wiring	National Electric Code

¹ Class A

Operating Specifications

Parameter	Rating
Operating Temperature Range	-40 to + 74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90 %
Total Harmonic Distortion (THD)	< 20 %
Voltage Turn-off (VTO)	45 V
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	16 AWG, Color Coded with Strain Relief

Product Information

Model Number	Size (in)	AC Voltage	Power (W)	Wavelength (nm)	Maintained Intensity (Cd)
		Nominal	Nominal	Dominant	Minimum ²
DR4-RTFB-20A	8	120V - 60 Hz	5	626	133
DR4-YTFB-20A	8	120V - 60 Hz	13	589	267 ³
DR4-GTFB-20A	8	120V - 60 Hz	6	508	267
DR4-GCFB-20A	8	120V - 60 Hz	6	508	267
DR6-RTFB-20A ⁴	12	120V - 60 Hz	10	626	339
DR6-YTFB-20A	12	120V - 60 Hz	22	589	678 ³
DR6-GTFB-20A	12	120V - 60 Hz	12	508	678
DR6-GCFB-20A	12	120V - 60 Hz	12	508	678

Options :

- Q : Quick Connect
- S : Medium Base Socket
- F : In-line Fuse

Standard product equipped with spade connectors.

² Measured at +2.5°H -2.5°V, T₀ = 25°C.

³ Actual intensity less than ITE VTCSH-STD Part 2 - July 1998.

⁴ May exceed maximum intensity of ITE VTCSH-STD Part 2 - July 1998.

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For customer service & technical support, contact:
1-888-MY-GE-LED (1.888.694.3533)

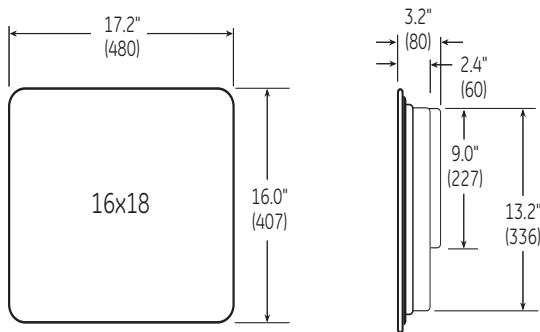
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LED Array Pedestrian Countdown Signals

- 16 X 18 inch module

Mechanical Outline

Dimensions in inches. (mm) indicates metric equivalent



Design Compliance

Test type	Compliance
Luminous intensity	ITE Pedestrian Traffic Control Signal Indication - Part 2: Light Emitting Diode (LED) Pedestrian Traffic Signal Modules Section 4.1.1 (applies to: Hand & Person only)
Chromaticity	ITE PTCSI-STD - Part 2
Moisture Resistance	NEMA STD 250 Type 4 - 1991
Mechanical Vibration	MIL-STD-883 Method 2007
Electronic Noise	FCC Title 47 Sec 15 Sub. B ¹
Transient Voltage Protection	ITE PTCSI-STD - Part 2
Controller Compatibility	NEMA TS-2-1992
Wiring	National Electric Code

¹ Class A

Operating Specifications

Parameter	Rating
Operating Temperature Range	-40 to +74°C (-40 to +165°F)
Operating Voltage Range	80 to 135 V (60Hz AC)
Power Factor (PF)	> 90 %
Total Harmonic Distortion (THD)	< 20 %
Voltage Turn-Off (VTO)	45 V
Lens & Shell Material	UV Stabilized Polycarbonate
Wiring	16 AWG, Color Coded with Strain Relief
LED Color	Hand: Portland Orange Person: Lunar White Countdown: Portland Orange

Product Information

Model Number	Operating Cycle	Configuration	Symbol			AC Voltage Nominal	Power (W)			Figure
			Hand	Person	Countdown		Hand	Person	Countdown	
PS7-CFF1-01A-18 ²	Clearance	Overlay/ Countdown	Full	Full	2 Rows/ 9" high	120V - 60Hz	9	8	5	A
PS7-CFL1-01A	Overlay	Overlay	Full	Full	-	120V - 60Hz	9	8	-	B

² Full MUTCD Compliance

Standard product shipped with spade connectors.

Test Conditions: T_a = 25°C

Options: Q - Quick Connect, MB - For GTE Winkomatic (16 7/8" x 16 1/4") Housing,

MC - For Econolite (18" x 15 5/8") Housing.

Figure A



Figure B



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