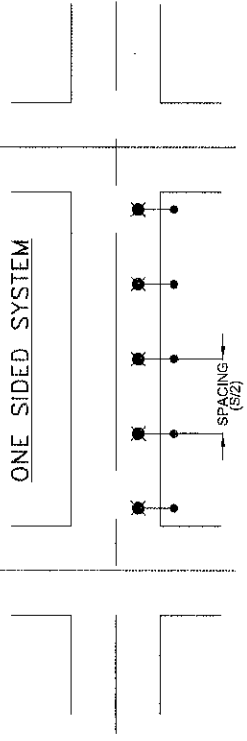


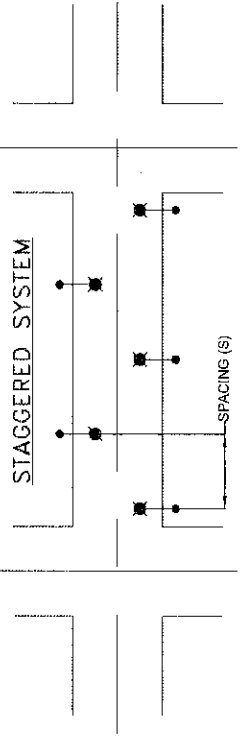
**Standards:**

- Lighting Standards - Latest edition of the IES RP-8 Roadway Lighting;
  - Continuous lighting utilizing illuminance method (Average, uniformity and veiling luminance)
  - Full cutoff Light Emitting Diode luminaires (Cobra Style)
- System Configurations
  - Staggered on local streets, collector streets and two-lane arterials; opposite on four-lane divided arterials or special street designs. One side configurations are allowed, but only when approved by the engineer. All other configuration that deviation from our City Streets Standards will be required to submit full photometric report that meets our Lighting Standards and City of Gilroy's own independent test results of the recommended fixtures on this sheet.
- System Construction Standards
  - Electroliners shall be placed for continuous, permanent lighting systems on streets
  - Underground conduit for streets and walkways shall be PVC Schedule 40 conduit, except for when fiber optic is inside, in which case schedule 80 shall be used.
  - Concrete, bolt-down foundations shall be used (2010 Caltrans ES-6A) for electroliners
  - Pull box shall be installed at each electroliner and every 200 feet (long conduit run).
- Electrical Standards
  - 120 /240 volt, single phase multiple circuits shall be used for all streetlight systems
  - Conductor specification shall be as per all of Section 86-2.08 of the 2010 Caltrans Standard Specifications
  - 2 inch PVC-Schedule 40 conduit
  - Each streetlight shall have its independent photo-cell
  - All street lighting pull box lids shall be a "Mr Steel Security Lid" or an approved equal anti-theft security lid (see EL-X for detail) with "City of Gilroy Street Lighting" inscribed on the pull box lid.
  - All conductors of AWG #14 or larger shall be identified by printed label identifying the UL listing, the insulation type, the voltage rating, the AWG number, and the "City of Gilroy". The embossed label shall read "City of Gilroy". The printed label and the embossed label shall be placed at approximately 90 degrees separation around the center of the conductors. Labels shall appear every one foot interval. Embossed labels shall be between .002" to .003" in depth and shall not damage the conductors. Label heights shall be no less than 3/32" for AWG #8 or larger, and shall be no less than 2/32" for AWG #10.

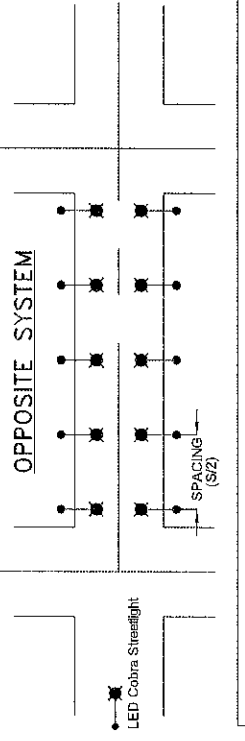
**ONE SIDED SYSTEM**



**STAGGERED SYSTEM**



**OPPOSITE SYSTEM**



LED Cobra Streetlight

**LED STREET LIGHTING FIXTURE**

ROAD CLASSIFICATION	SYSTEM CONFIGURATION	SPACING "S" BY PEDESTRIAN ACTIVITY			MH	STREET LIGHT FIXTURE (OR APPROVED EQUAL)		
		LOW	MED	HIGH		LOW	MED	HIGH
LOCAL STREET (36' F/C TO F/C)	STAGGERED	150	150	150	32	LEOTEK-GC1-60F-MV-NW-2-GY-350	LEOTEK-GC1-60F-MV-NW-2-GY-350	LEOTEK-GC1-60F-MV-NW-2-GY-530
INDUSTRIAL (45' F/C TO F/C)	STAGGERED	150	150	150	32	LEOTEK-GC1-60F-MV-NW-2-GY-350	LEOTEK-GC1-60F-MV-NW-2-GY-350	LEOTEK-GC1-60F-MV-NW-2-GY-530
COLLECTOR (45' F/C TO F/C)	STAGGERED	150	150	150	32	LEOTEK-GC1-60F-MV-NW-2-GY-350	LEOTEK-GC1-60F-MV-NW-2-GY-350	LEOTEK-GC1-60F-MV-NW-2-GY-530
MAJOR ARTERIAL 4-LANE UNDIVIDED ARTERIAL (64' F/C TO F/C)	OPPOSITE	150	150	150	32	LEOTEK-GC1-60F-MV-NW-2-GY-350	LEOTEK-GC1-60F-MV-NW-2-GY-350	LEOTEK-GC1-60F-MV-NW-2-GY-530
MAJOR ARTERIAL 4-LANE DIVIDED ARTERIAL (96' F/C TO F/C)	OPPOSITE	150	150	150	32	LEOTEK-GC1-60F-MV-NW-2-GY-350	LEOTEK-GC1-60F-MV-NW-2-GY-350	LEOTEK-GC1-60F-MV-NW-2-GY-530

**STREETLIGHT CONFIGURATION ROADWAYS**

DRAWN BY: CSG

CHECKED BY:

LAST REVISED: 6/20/14

SCALE:

N.T.S



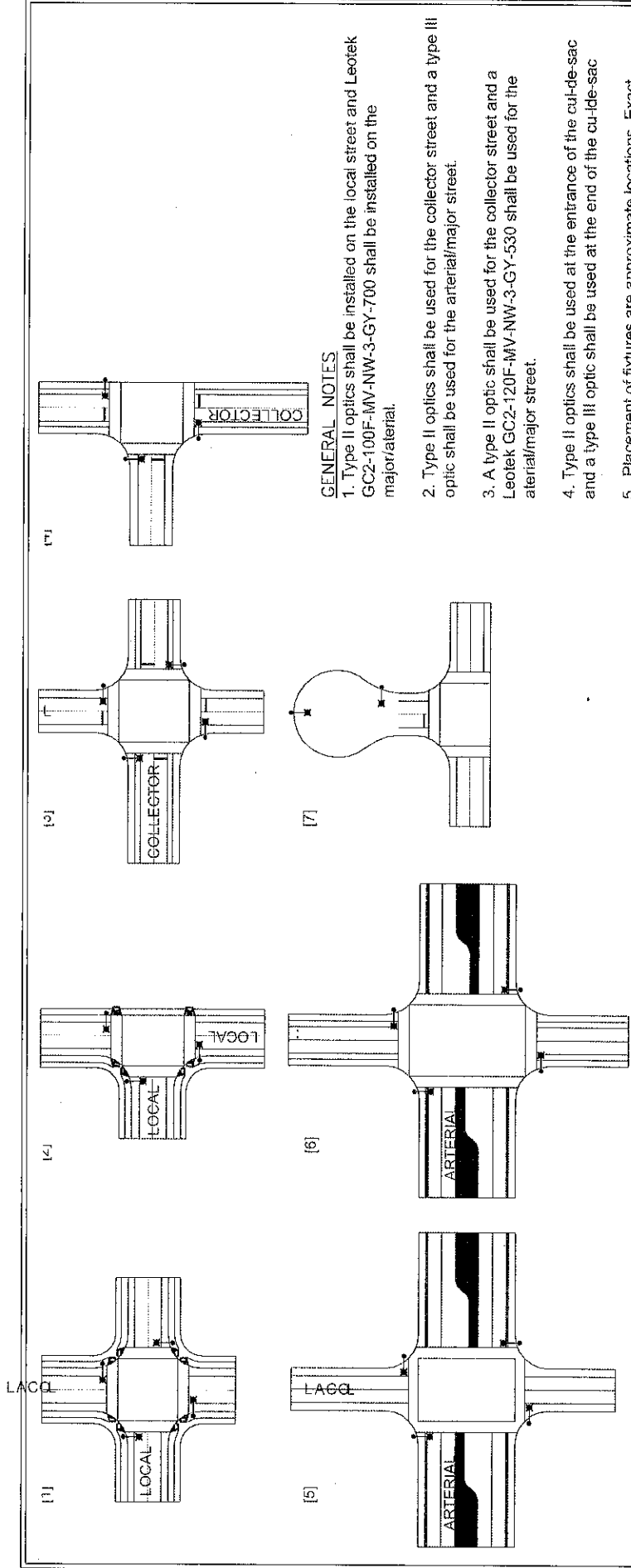
APPROVED: *[Signature]*  
CITY ENGINEER

8-18-14

DATE

SECTION: ELECTRICAL

DRAWING NO.: EL-1



● LED Streetlight

LED STREET LIGHTING FIXTURE

ROAD CLASSIFICATION	STREET LIGHT FIXTURE (OR APPROVED EQUAL)		
	LOW	MED	HIGH
[1] LOCAL TO LOCAL	LEOTEK-GC1-40F-MV-NW-2-GY-350	LEOTEK-GC1-40F-MV-NW-2-GY-530	LEOTEK-GC1-80F-MV-NW-2-GY-350
[2] LOCAL TO LOCAL (T-INTERSECTION)	LEOTEK-GC1-40F-MV-NW-2-GY-350	LEOTEK-GC1-80F-MV-NW-2-GY-350	LEOTEK-GC1-80F-MV-NW-2-GY-530
[3] COLLECTOR TO LOCAL	LEOTEK-GC1-40F-MV-NW-2-GY-530	LEOTEK-GC1-80F-MV-NW-2-GY-530	LEOTEK-GC1-80F-MV-NW-2-GY-530
[4] COLLECTOR TO LOCAL (T-INTERSECTION)	LEOTEK-GC1-40F-MV-NW-2-GY-530	LEOTEK-GC1-80F-MV-NW-2-GY-530	LEOTEK-GC1-80F-MV-NW-2-GY-530
[5] MAJOR ARTERIAL TO LOCAL	LEOTEK-GC1-80F-MV-NW-2-GY-350	LEOTEK-GC1-80F-MV-NW-2-GY-530	LEOTEK-GC2-100F-MV-NW-2-GY-530 (1)
[6] MAJOR ARTERIAL TO COLLECTOR	LEOTEK-GC2-100F-MV-NW-2-GY-350 (2)	LEOTEK-GC2-120F-MV-NW-2-GY-350 (3)	LEOTEK-GC2-120F-MV-NW-2-GY-700 (2)
[7] CUL-DE-SAC	LEOTEK-GC1-40F-MV-NW-2-GY-350 (4)		LEOTEK-GC1-80F-MV-NW-2-GY-530

GENERAL NOTES

- Type II optics shall be installed on the local street and Leotek GC2-100F-MV-NW-3-GY-700 shall be installed on the major/arterial.
- Type II optics shall be used for the collector street and a type III optic shall be used for the arterial/major street.
- A type II optic shall be used for the collector street and a Leotek GC2-120F-MV-NW-3-GY-530 shall be used for the arterial/major street.
- Type II optics shall be used at the entrance of the cul-de-sac and a type III optic shall be used at the end of the cul-de-sac.
- Placement of fixtures are approximate locations. Exact location will be determined by the Engineer.
- Placement of any street lights in any non-City Standard street will require a full photometric report and must meet the latest edition of the IESNA RP-8-00 recommended lighting values and the City of Gilroy's independent lighting values produced by the recommended luminaires on this sheet.
- Individual independent photocells shall be installed for each streetlight.
- Conductor specification shall be as per all of Section 86-2.08 of the 2010 Caltrans Standard Specifications.
- All pull boxes shall be a Anti-Theft type (see EL-X)
- Lighting configuration is not applicable to signalized intersections.

DRAWN BY: CSG  
 CHECKED BY:  
 LAST REVISED: 6/20/14  
 SCALE: N.T.S.

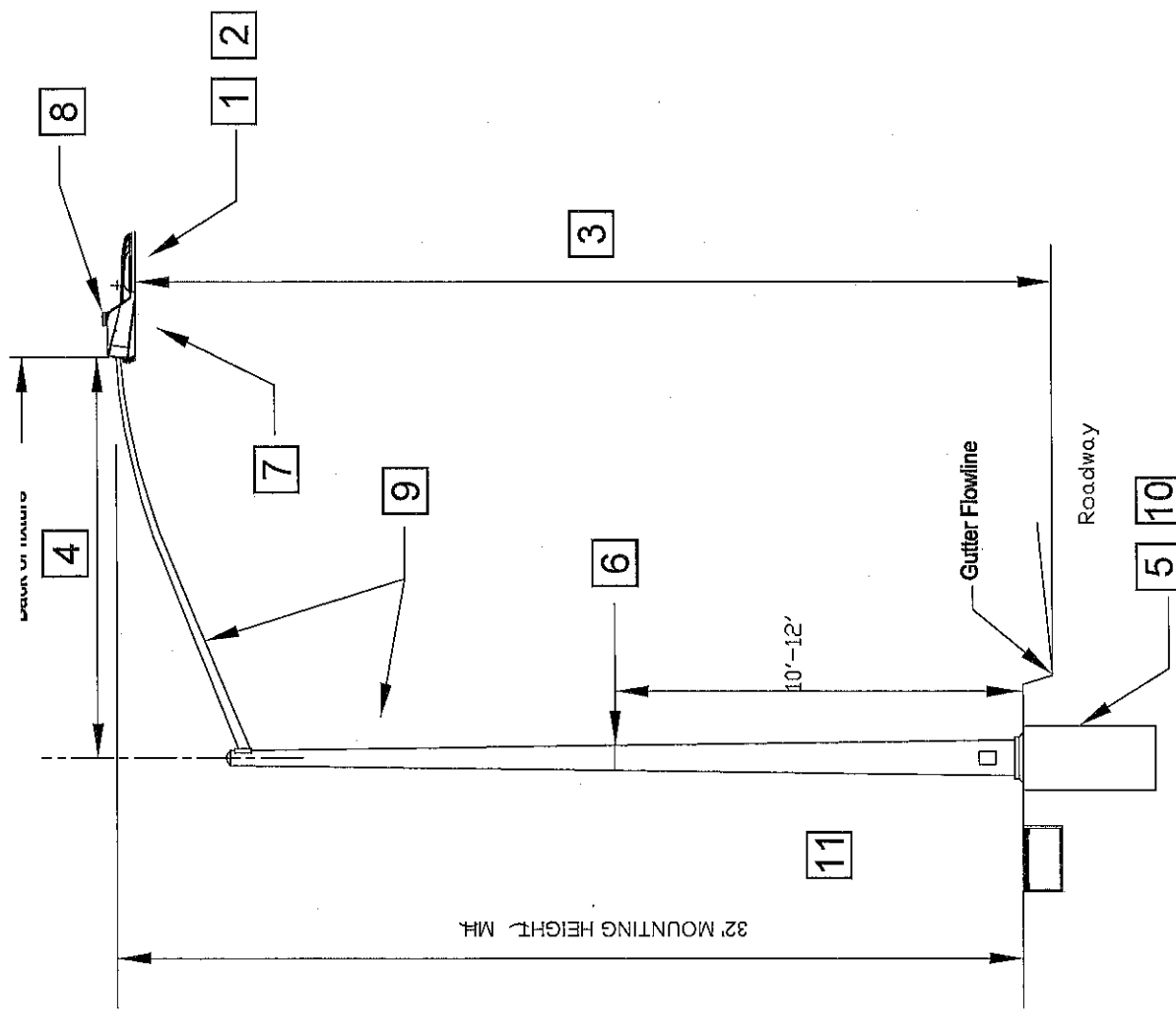
SECTION: ELECTRICAL  
 DRAWING NO.: EL-2

STREETLIGHT CONFIGURATION INTERSECTIONS

APPROVED BY: *[Signature]*  
 CITY ENGINEER

DATE: 8-18-14

CITY OF GILROY



**NOTES**

1. Luminaires have the following characteristics based on IES Luminaire Classifications
  - a.) Vertical Light Distribution - Medium
  - b.) Lateral Light Distribution - Type III
  - c.) Control of Light Distribution above maximum candle power - full cutoff
2. Light source shall be Light Emitting Diode (LED).
3. All LED fixture heads shall be installed perpendicular to the road surface.
4. See Detail EL-1B
5. Concrete, bolt-down foundations for electroliers
6. All Electrolier Poles are to be numbered with photo-reflective numbers placed 10' to 12' above grade and facing the street. (To be coordinated with the City on numbering)
7. All LED fixtures shall have a wattage sticker as per ANSI Standard C136.15 (Identifying the fixture technology)
8. Luminaire shall have an independent photocell
9. Pole and mast arm shall be spun aluminum or galvanized steel. (An optional powder-coat paint finish may be applied at the discretion of the City Engineer)
10. Refer to 2010 Caltrans Standard Details ES-7N for foundation detail.
11. Pull box lid shall be anti-theft type per City Detail. Pull box lid shall have "City of Gilroy Streetlighting" inscribed on the lid.

**CONSTRUCTION NOTES**


1. A fiberglass or polypropylene pull rope shall be left in all empty conduits.
2. No mechanical means shall be used to pull wires smaller than No. 1AWG
3. Fusible links shall be located in the pull box adjacent to each electrolier.
4. At the installation of each LED fixture a 24-hour burn-in test shall be conducted.

**ELECTROLIER DETAIL**

DRAWN BY: CSG	SCALE: N.T.S.
CHECKED BY:	
LAST REVISED: 6/20/14	
SECTION: ELECTRICAL	
DRAWING NO.: EL-3	

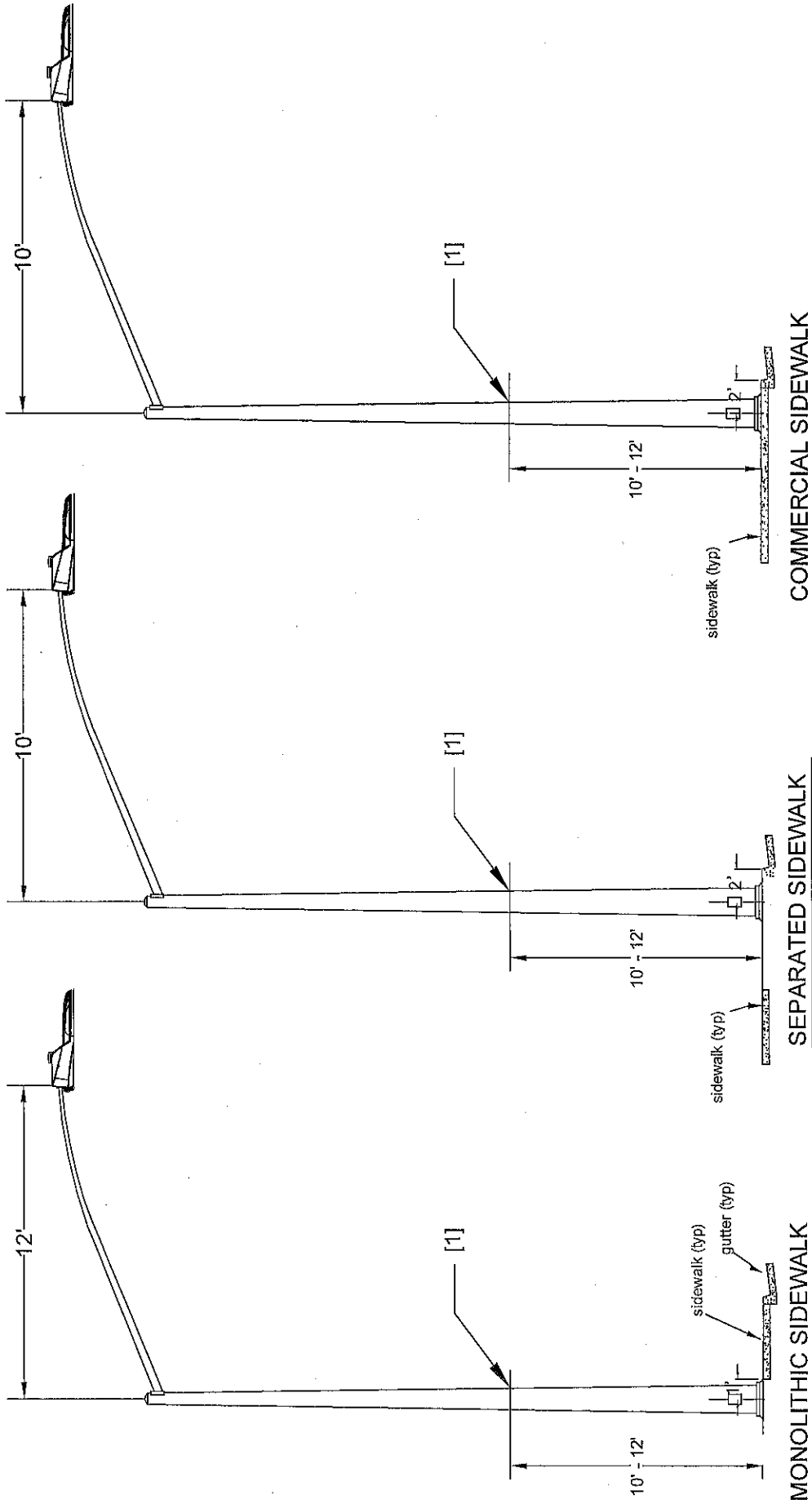
APPROVED BY: *[Signature]* DATE: 8-18-14

CITY ENGINEER



**NOTES**

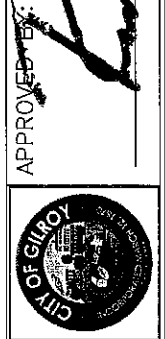
1. All Streetlight poles are to be numbered. (To be coordinated with the City on numbering)



**ELECTROLIER PLACEMENT**

DRAWN BY: CSG  
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 LAST REVISED: 6/20/14

SCALE: N.T.S.



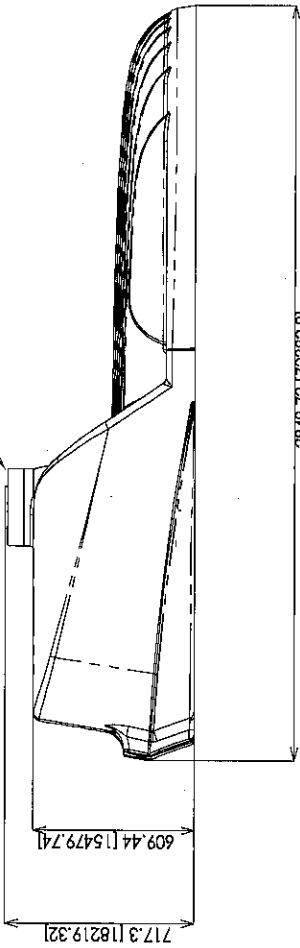
APPROVED BY: *[Signature]*  
 ENGINEER

8-18-14  
 DATE

SECTION: ELECTRICAL  
 DRAWING NO.: EL-4

# LED STREETLIGHT SPECIFICATION

PHOTOELECTRIC CONTROL



## LUMINAIRE SPECIFICATIONS

**LUMINAIRE SPECIFICATION:** Die cast aluminum housing with universal four-bolt slip fitter mounts to 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter mast arm. Cooling fins maintain LED junction temperature assuring long LED life and efficiency. Electrical components are accessed without tools and are mounted on removable power door. Power door features quick electrical disconnects to terminal block and LED board. Photocontrol receptacle is standard and can be aimed without tools.

**Light Emitting Diode:** Hi-flux/Hi-power white LEDs produce a minimum of 95% of initial intensity at 100,000 hours of life. LEDs are tested in accordance with IESNA LM-80 testing procedures. They have a mean correlated color temperature of 4300K (standard). LEDs are 100% mercury and lead free.

**Optical System:** Micro-lens system produce IESNA Type 2 or Type 3 distributions. Luminaire is classified as Full-Cutoff with 0% total lumens above 90 degrees. (see EL-10 for application)

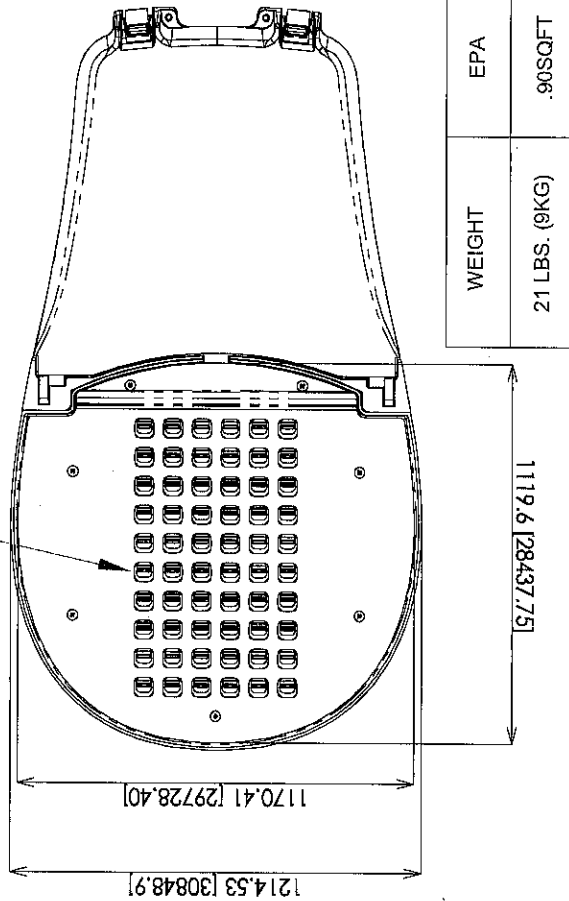
**Electrical Supply:** Power supply features a minimum power factor of .90 and <20% Total Harmonic Distortion (THD). EMC meets and exceeds FCC CFR Part 15. Transient voltage complies with ANSI C62.41 CAT.A. Power supply is field adjustable to 350mA, 530mA or 700mA drive current. Standard factory setting is 700mA. Integral surge protector is tested per ANSI/IEEE C62.45 procedures based on ANSI/IEEE C62.41.2 definitions for standard and optional waveforms for location Category C-High.

**Finish:** Housing receivers a fade and abrasion resistant, epoxy polyester powder coat, light gray finish standard.

**Listings/Ratings/Warranties/ Patents:** Luminaires are UL listed for use in wet locations in the United States and Canada. Optical systems maintain an IP66 rating. Ten-year limited warranty is standard on all components. Patents pending.

**Photometry:** Proof shall be provided that all luminaires are photometrically tested by certified independent testing laboratories in accordance with IESNA LM-79 testing procedures.

NUMBER OF DIODES WILL VARY DEPENDING ON APPLICATION. PLEASE SEE SHEET "EL-9 and EL-10" FOR DETAILS ON SPECIFIC MODEL



# LED STREET LIGHT SPECIFICATION

DRAWN BY: CSG  
 CHECKED BY:  
 LAST REVISED: 6/20/14  
 SCALE: N.T.S

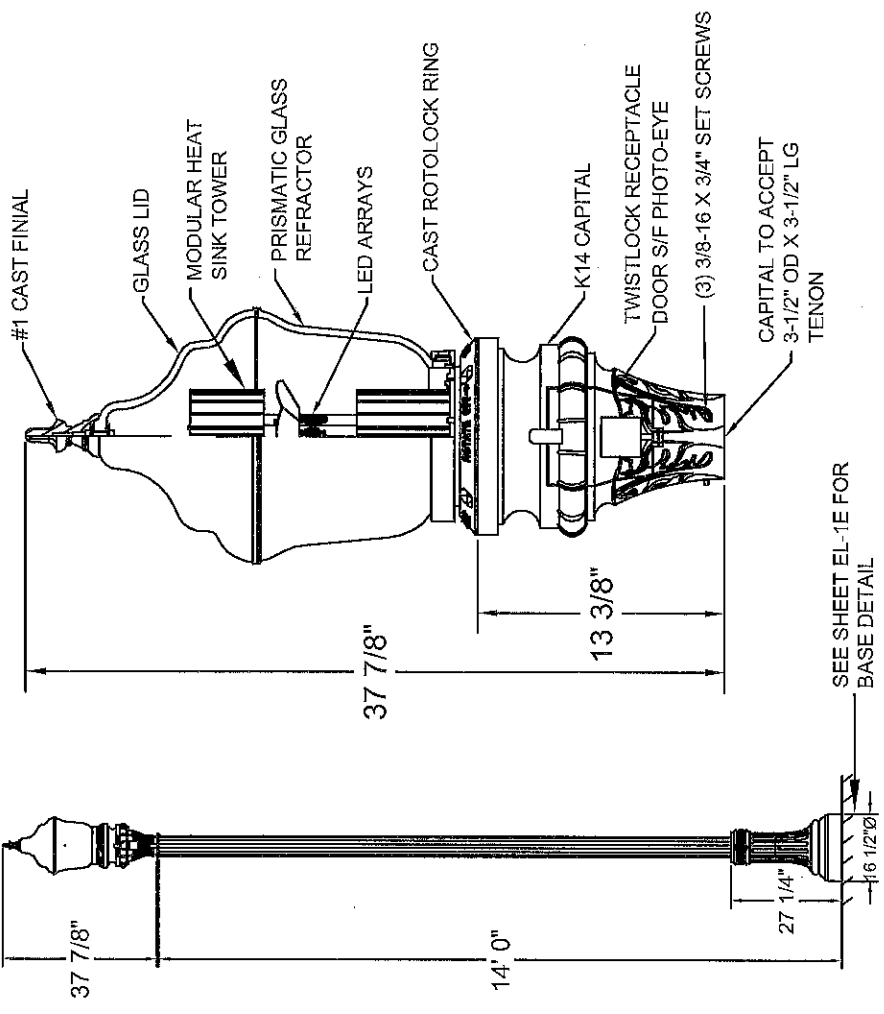
SECTION: ELECTRICAL

DRAWING NO.: EL-5

APPROVED BY: *Paul S. ...*  
 CITY ENGINEER

DATE: 8-18-14





**LUMINAIRE SPECIFICATIONS**

CATALOGUE NO.: K445R-TAGR-IV-100(SSL)  
-120-277V-K14-PR (OR APPROVED EQUAL)

QUANTITY: TOWER ARRAY GLASS REFRACTOR

OPTICAL SYSTEM: TYPE IV  
100W  
SOLID STATE LIGHTING

IES CLASSIFIC.: K14  
120/277V  
TEXTURED BLACK  
CW TWISTLOCK RECEPTACLE  
(PHOTO-EYE BY OTHERS)

**POLE SPECIFICATIONS**

CATALOGUE NO.: KM20SFE-14' (OR APPROVED EQUAL)

QUANTITY: SHALLOW FLUTED EXTRUDED SHAFT &  
CAST ALUM. BASE

MATERIAL: 14' 0"  
5" Ø

HEIGHT: 16 1/2" Ø

POLE TIP: TEXTURED BLACK

POLE BUTT: ACCEPT 3 1/2" L x 3 1/2" O.D TENON

PAINT: MOUNTING:

**DECORATIVE LED STREET LIGHTING FIXTURE**

ROAD CLASSIFICATION	SYSTEM CONFIGURATION	SPACING BY PEDESTRIAN ACTIVITY	POLE HEIGHT	LOCAL STREET
	STAGGERED	LOW 100 MED 100 HIGH 100	14	
				K445R-TAGR-IV-98(SSL)-120-277V-K14-PR
				K445R-TAGR-IV-100(SSL)-120-277V-K14-PR

**DECORATIVE STREETLIGHT**

APPROVED BY: *[Signature]*  
CITY ENGINEER



8-18-14

DATE

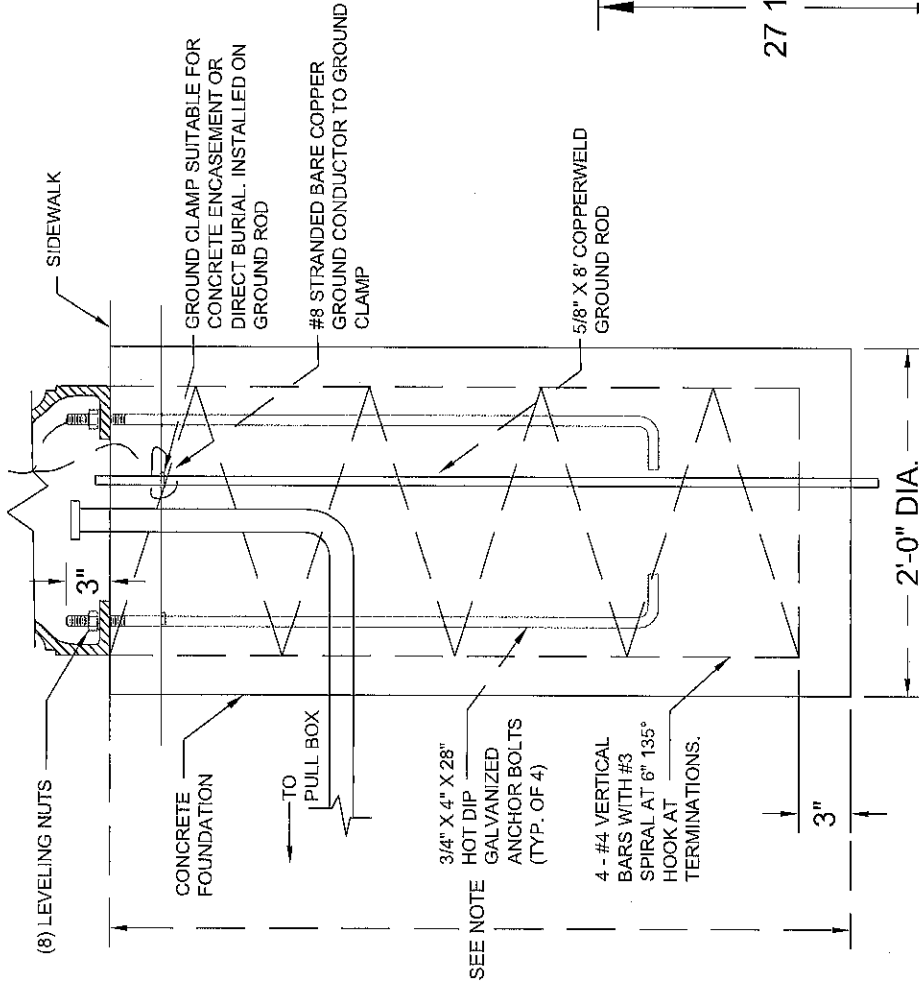
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CHECKED BY:  
LAST REVISED: 6/20/14

SCALE: N.T.S

SECTION: ELECTRICAL

DRAWING NO.: EL-6

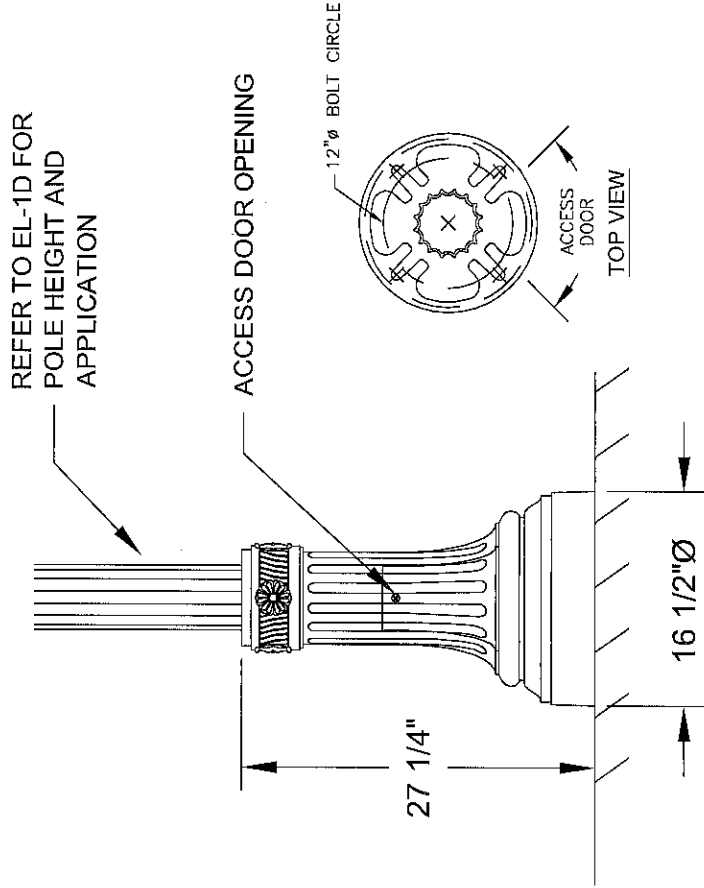
# BASE DETAIL



NOTES: DIMENSION IS 4' FOR 14' POLES AND 5' FOR 23' POLES

# INSTALLATION

The one-piece post shall be provided with four 3/4" diameter, L-type anchor bolts to be installed on a 12" diameter bolt circle. A door shall be provided in the base for anchorage and wiring access. A grounding screw shall be provided inside the base opposite the door.



# DECORATIVE STREETLIGHT BASE

DRAWN BY: CSG  
 CHECKED BY:  
 LAST REVISED: 6/20/14  
 SCALE: N.T.S.

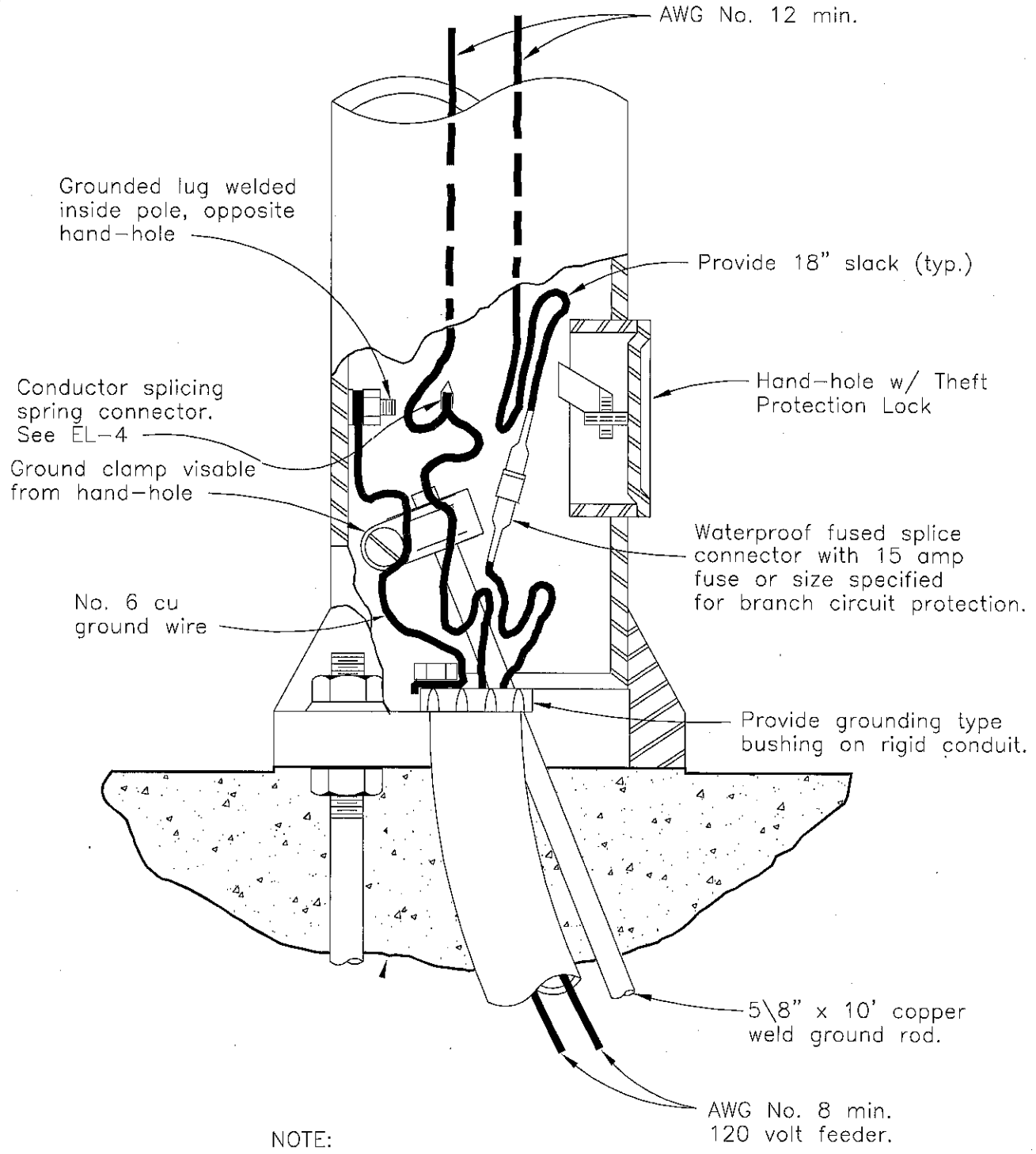
SECTION: ELECTRICAL

DRAWING NO.: EL-7

APPROVED BY: *Paul Gordon*  
 CITY ENGINEER

DATE: 8-18-14





NOTE:  
Seal all conduit with duct seal.

# STREET LIGHTING CONNECTION (120 V)

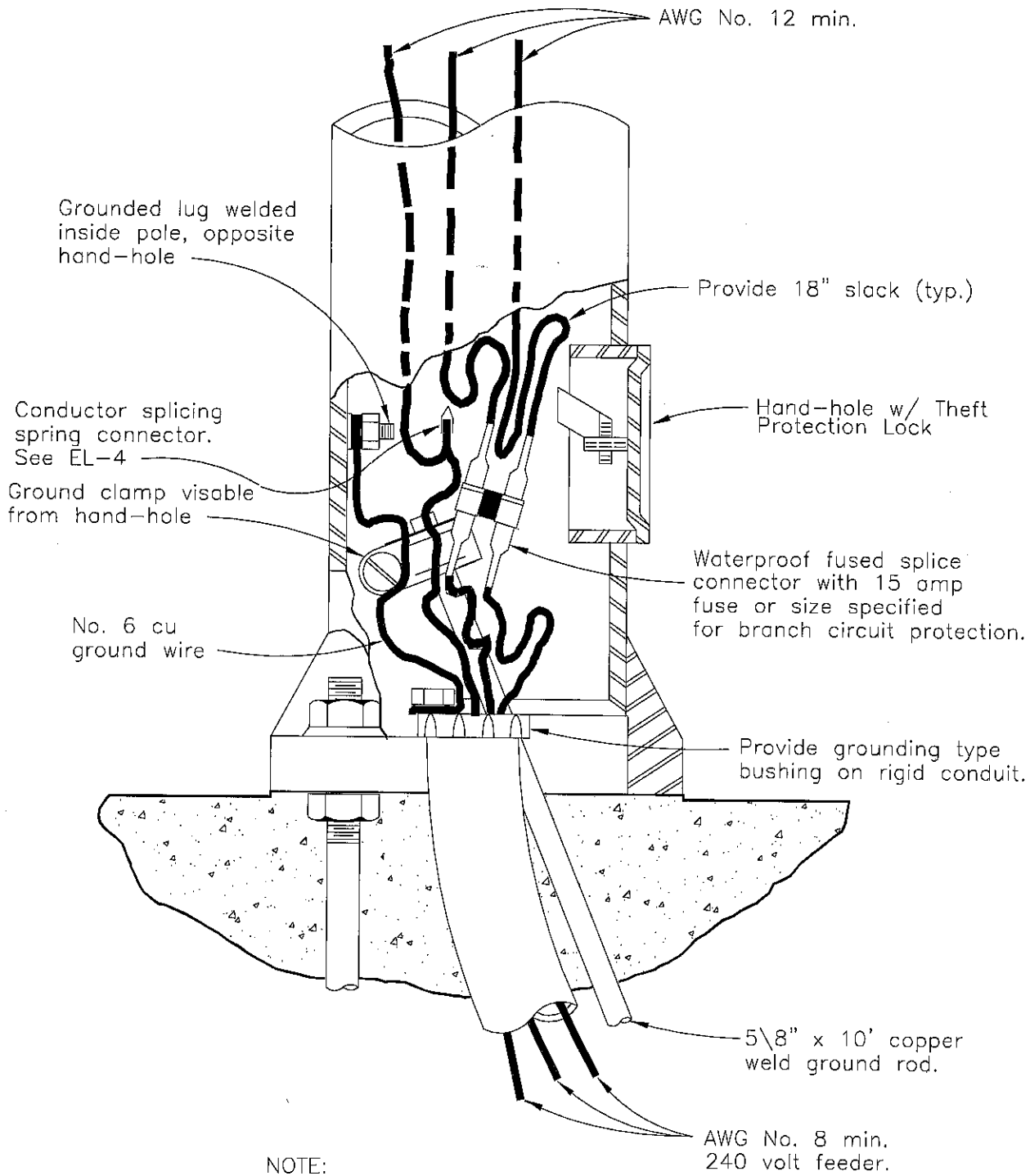
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CHECKED BY:	N.T.S.
LAST REVISED: 6/20/14	

SECTION:	<b>ELECTRICAL</b>
DRAWING NO.:	<b>EL-8</b>



APPROVED BY: *[Signature]* 8-18-14  
CITY ENGINEER DATE





NOTE:  
Seal all conduit  
with duct seal.

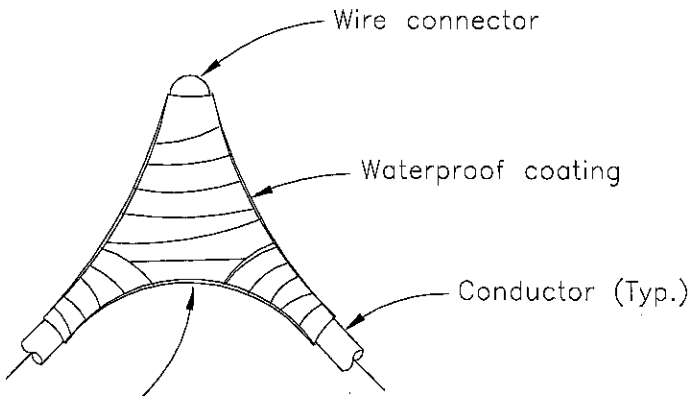
# STREET LIGHTING CONNECTION (240 V)

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CHECKED BY:	N.T.S.
LAST REVISED: 6/20/14	



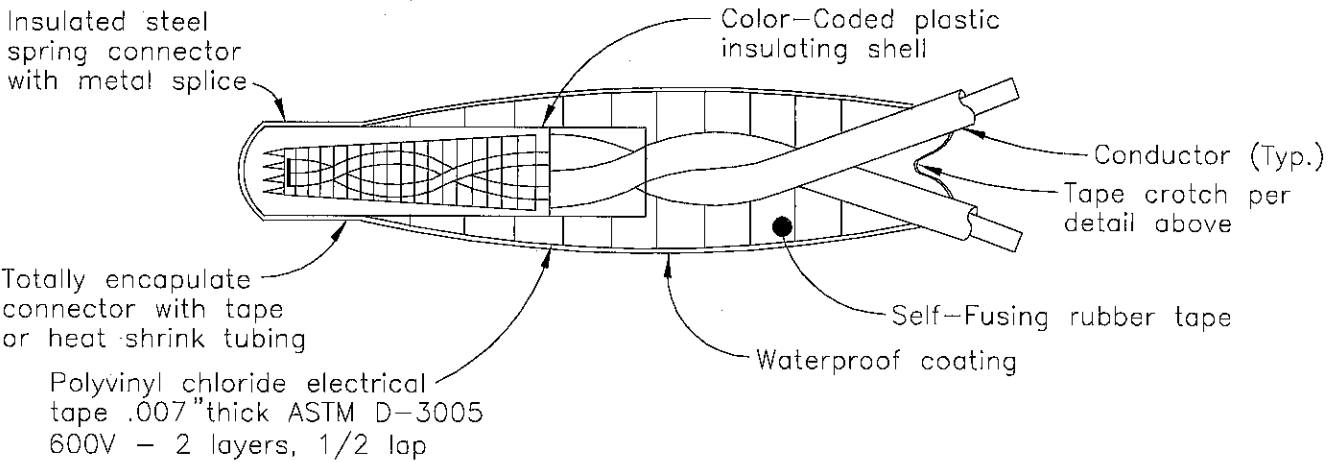
APPROVED BY: *Paul S. ...*  
CITY ENGINEER DATE 8-18-14

SECTION:  
**ELECTRICAL**  
DRAWING NO.: **EL-9**



Rubber and plastic tape carefully worked in to crotch to provide watertight joint.

DETAIL: CROTCH



Totally encapsulate connector with tape or heat shrink tubing

Polyvinyl chloride electrical tape .007" thick ASTM D-3005 600V - 2 layers, 1/2 lap

DETAIL: SPLICE WITH INSULATING SPRING CONNECTOR

NOTES:

1. Paint all taped splices with electrical waterproof coating.
2. Heat shrink tubing (Rated 600V AC) may be used in lieu PVC electrical tape for insulated spring connectors.
3. Do not exceed spring connector manufacturers AWG copper wire splicing combination recommendations.

CONDUCTOR SPLICING SPRING CONNECTOR

DRAWN BY: CSG	SCALE:
CHECKED BY:	N.T.S.
LAST REVISED: 6/20/14	

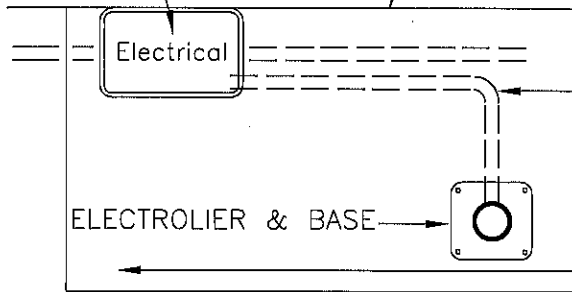


APPROVED BY: *Paul Sorenson*  
 CITY ENGINEER DATE: 8-18-14

SECTION: ELECTRICAL  
 DRAWING NO.: EL-10

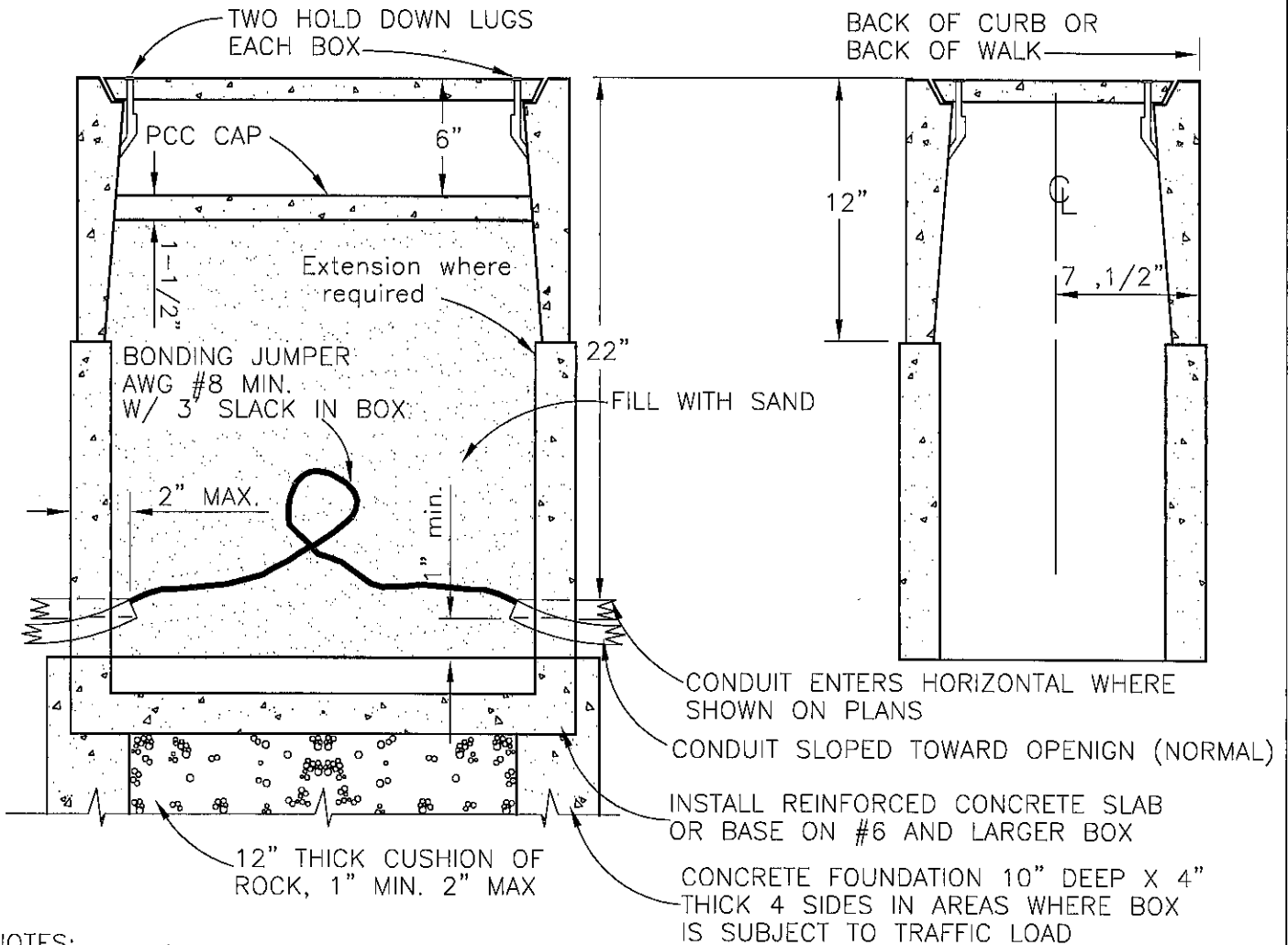
INSCRIBE COVER "ELECTRICAL"  
"STREET LIGHTING" "TRAFFIC SIGNAL"  
OR AS APPROPRIATE

BACK OF CURB  
OR BACK OF WALK



1 1/2" FOR STREET LIGHTING, 2"  
FOR TRAFFIC SIGNALS, OR AS SHOWN  
OTHERWISE ON THE PLANS

EXTEND FOUNDATION CAP TO  
INCLUDE PULL BOX (SIZE TO  
BE DETERMINED IN FIELD)



NOTES:

1. SEE PULL BOX DIMENSION CHART EL-13B FOR MINIMUM REQUIREMENT OF ROCK FOR DRY WELL.
2. CONDUIT SHALL RUN FROM BOX TO BOX WITHOUT UNNECESSARY BENDS.
3. INSTALL CONDUIT TRUE TO GRADE AND PARALLEL WITH CURB. INSTALL PULL BOX WITH TOP TRUE TO GRADE FROM TOP OF CURB TO SIDEWALK.

# CONCRETE PULL BOX INSTALLATION

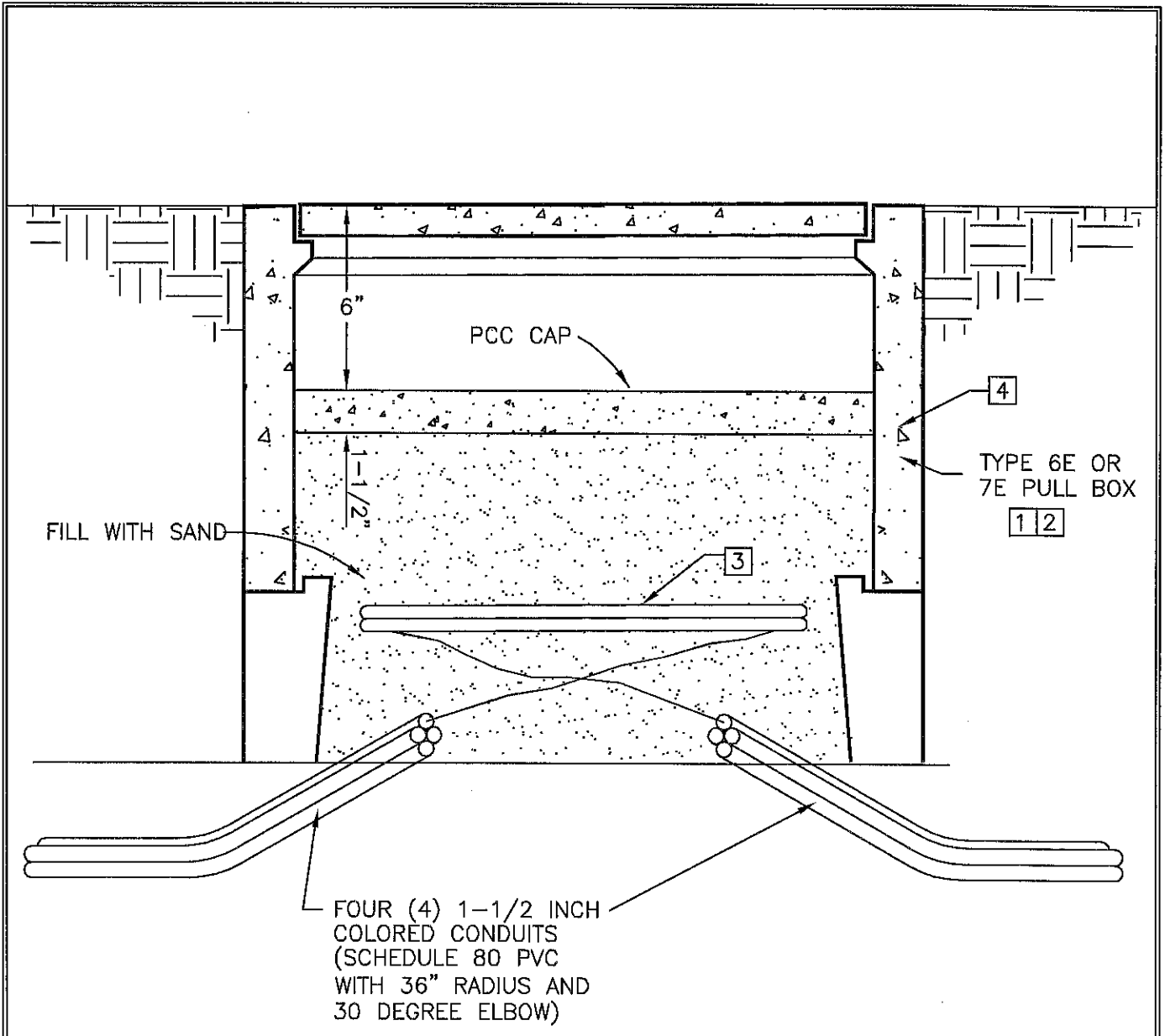
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CHECKED BY:	N.T.S.
LAST REVISED: 7/28/14	

SECTION:  
**ELECTRICAL**

DRAWING NO.: **EL-11**



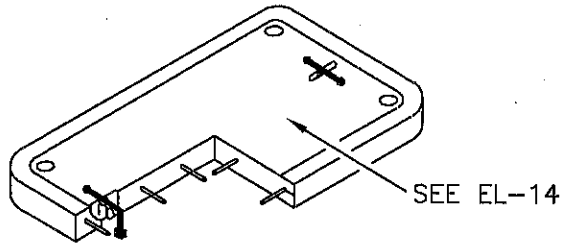
APPROVED BY: *[Signature]* 8-18-14  
CITY ENGINEER DATE



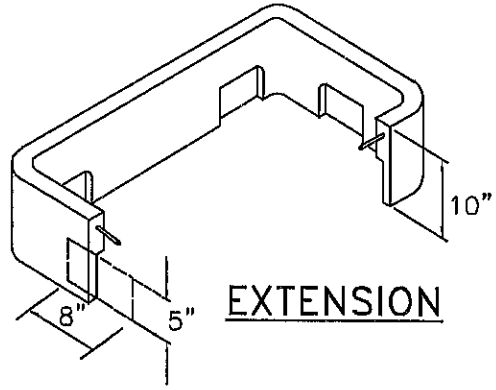
PULL BOX DIMENSIONS

1. TYPE 6E PULL BOX - 36" X 23" X 24"
2. TYPE 7E PULL BOX - 48" X 31" X 24"
3. PROVIDE CONDUCTOR SLACK:  
     6' MIN FOR COPPER CONDUCTORS  
     10' MIN FOR FIBER OPTIC CONDUCTOR
4. SEE DETAIL EL-13 FOR PULL BOX DETAIL

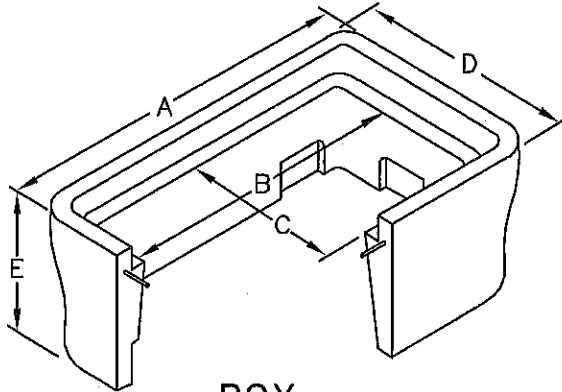
<h1 style="margin: 0;">PULL BOX-INTERCONNECT COMMUNICATION</h1>		DRAWN BY: CSG	SCALE:
		CHECKED BY:	N.T.S.
		LAST REVISED: 9/23/14	
APPROVED BY: 		SECTION: <h2 style="margin: 0;">ELECTRICAL</h2>	
		DRAWING NO.: <b>EL-12</b>	
CITY ENGINEER		DATE: <b>8-18-14</b>	



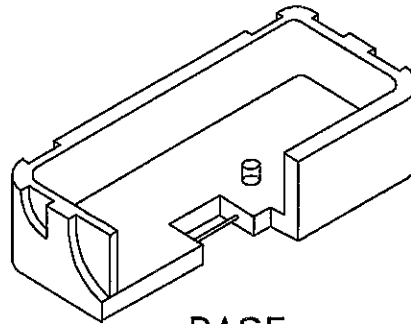
**COVER**



**EXTENSION**



**BOX**



**BASE**

DIMENSION	NO. 3-1/2	NO. 5	NO. 6	NO. 7	NO. 8
A	15"±	25"±	36"±	48"±	52"±
B	15"±	21"±	30"±	34"	46"±
C	9"±	11"±	12"±	22"	28"±
D	14"±	15"±	23"±	31"	34"±
E	12"±	12"±	12"±	14"	34"±
△	1.8 cu.ft.	2.6 cu.ft.	5.3 cu.ft.	7.7 cu.ft.	12.2 cu.ft.
EXTENSION			12"	10"	

**NOTES:**

1. PULL BOXES NOT TO BE INSTALLED IN AREAS SUBJECT TO TRAFFIC UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.

△ = MINIMUM CUBIC FEET OF CLEAN CRUSHED ROCK, SIZED 1" MIN TO 2" MAX. ROCK PER DRY WELL: ONE FOOT THICK BY LENGTH TIMES WIDTH OF APPLICABLE BOX.

**CONCRETE PULL BOX**

DRAWN BY: CSG  
 CHECKED BY:  
 LAST REVISED: 9/23/2014  
 SCALE: N.T.S.

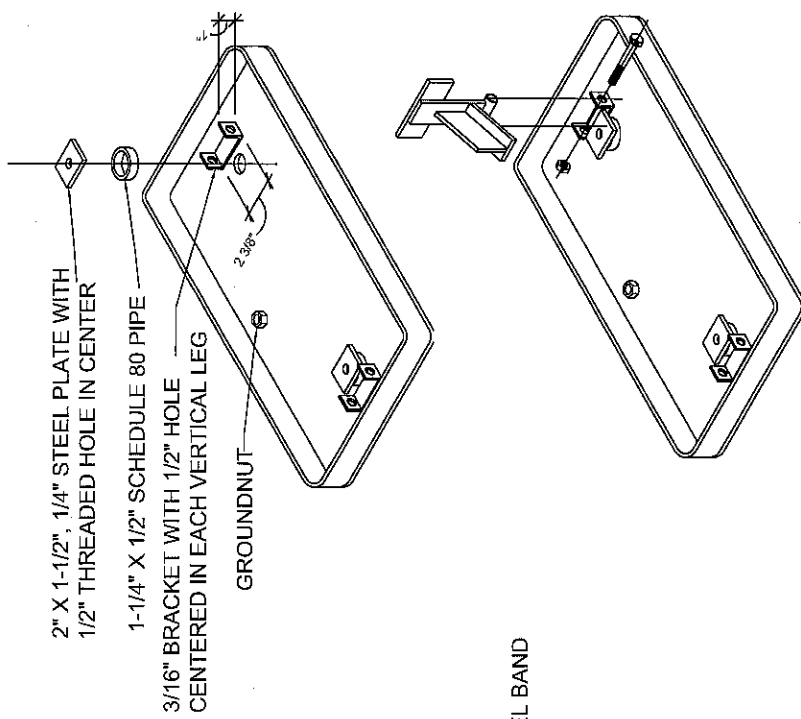


APPROVED BY:

*[Signature]* 8-18-14  
 CITY ENGINEER DATE

SECTION:  
**ELECTRICAL**

DRAWING NO.: **EL-13**



2" X 1-1/2", 1/4" STEEL PLATE WITH  
1/2" THREADED HOLE IN CENTER

1-1/4" X 1/2" SCHEDULE 80 PIPE

3/16" BRACKET WITH 1/2" HOLE  
CENTERED IN EACH VERTICAL LEG

GROUNDNUT

GALVANIZED 1/4" DIAMOND  
PLATE STEEL LID WITH BLACK  
POLYURETHANE FINISH

1" DIAMETER HOLE EACH  
SIDE FOR 1/2" X 1-1/2"  
SECURITY BOLT

1-1/2" X 1/4" CONTINUOUS STEEL BAND

MR STEEL SECURITY LID	A	B
# LA1	14 3/4"	8 1/2"
# 3 1/2 T	14 7/8"	9 3/4"
# 3 1/2	15 1/4"	10"
# 5	20 5/8"	10 1/2"
# LA2	21 1/4"	11 3/8"
# 7	23 1/4"	13 3/4"
# LA3	29 3/4"	13 3/4"
# 9	30 1/2"	17 1/2"
# 40	35 1/2"	24"
# 44	43 1/8"	21 1/4"
# 48	47 3/4"	30 1/8"

ELECTRICAL PROPERTIES OF INVATI 6750 UV BLACK POLYUREA LINING MATERIAL		
ELECTRICAL PROPERTIES	English	AVERAGE VALUE
ELECTRICAL RESISTIVITY	1.00e+10 - 1.00e+13 ohm-cm	3.37e+12 ohm-cm
SURFACE RESISTANCE	1.00e+10 - 1.00e+12 ohm	3.70e+11 ohm
DIELECTRIC CONSTANT	4.10 - 7.10	5.73
DIELECTRIC STRENGTH	787 - 1240 kV/in	1084 kV/in
DISSIPATION FACTOR	0.0240 - 0.200	0.0577
COMPARATIVE TRACKING INDEX	600 V	600 V

ANTI-THEFT PULL BOX COVER DETAIL

DRAWN BY: CSG  
CHECKED BY:  
LAST REVISED: 7/28/2014

SCALE:

N.T.S

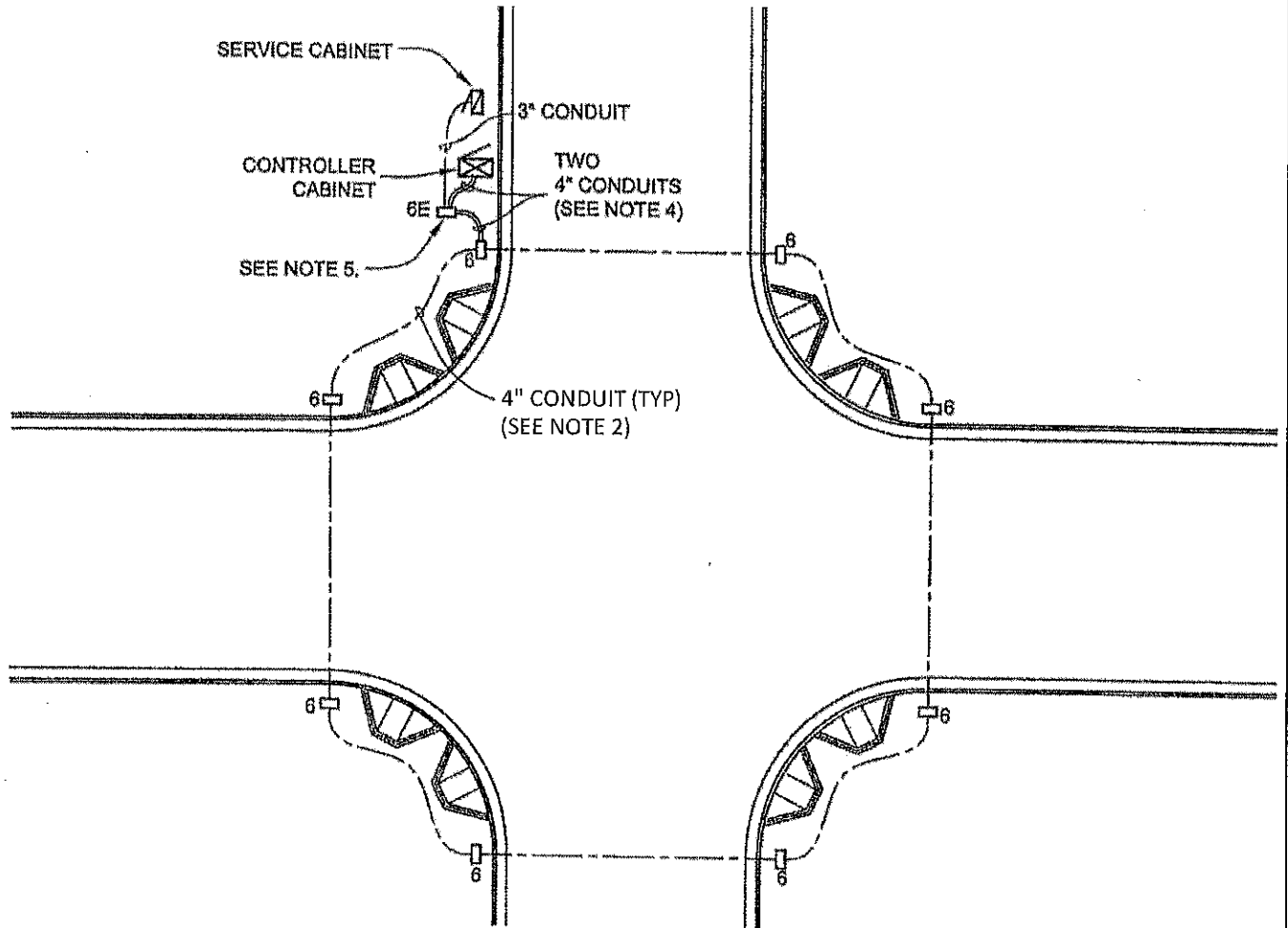
APPROVED BY: *[Signature]*  
CITY ENGINEER

SECTION: ELECTRICAL

DRAWING NO.: EL-14



8-18-14  
DATE



**NOTES:**

1. TRAFFIC SIGNALS TO BE DESIGNED BASED ON LATEST EDITION OF CALTRANS' SIGNAL AND LIGHTING DESIGN GUIDE, UNLESS CITY STANDARDS SPECIFY OTHERWISE.
2. LOOP INTERSECTION WITH 3" CONDUIT ACROSS ALL INTERSECTION APPROACH LEGS.
3. INSTALL TYPE 332 CONTROLLER CABINET WITH TYPE 2070 SIGNAL CONTROLLER.
4. INSTALL TWO 4" CONDUITS BETWEEN CONTROLLER CABINET AND FIRST PULL BOX ON THE 3" CONDUIT INTERSECTION LOOP.
5. FIRST PULL BOX BETWEEN CONTROLLER CABINET AND THE INTERSECTION SHOULD BE NO SMALLER THAN NO. 6E.
6. ALL MAST ARM SIGNAL HEADS SHALL BE SIDE MOUNTED (MAS TYPE).
7. DESIGN SIGNS FOR ALL APPROACHES. LETTERS TO BE 8" UPPERCASE, 6" LOWER CASE, CLEARVIEW FONT, TYPE 4 TYPEFACE.

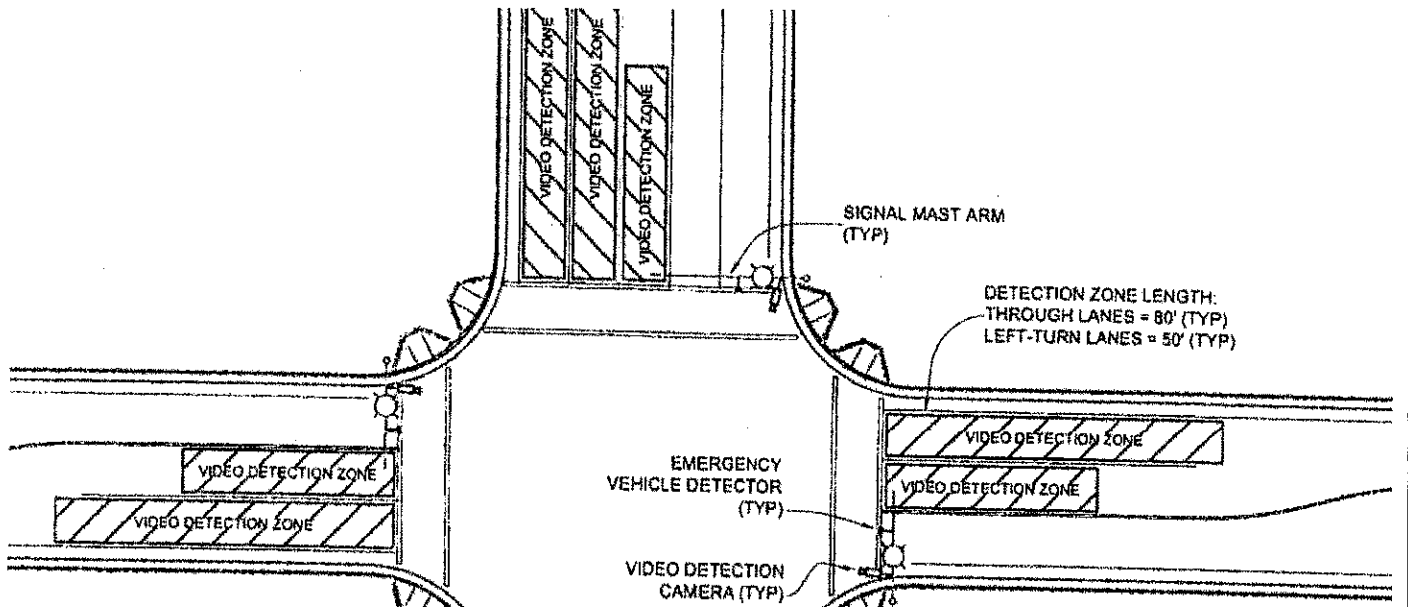
**TRAFFIC SIGNAL - BASIC SIGNAL DESIGN**

DRAWN BY: CSG	SCALE:
CHECKED BY:	N.T.S.
LAST REVISED: 6/20/14	



APPROVED BY: *[Signature]*  
 CITY ENGINEER  
 DATE: 8-18-14

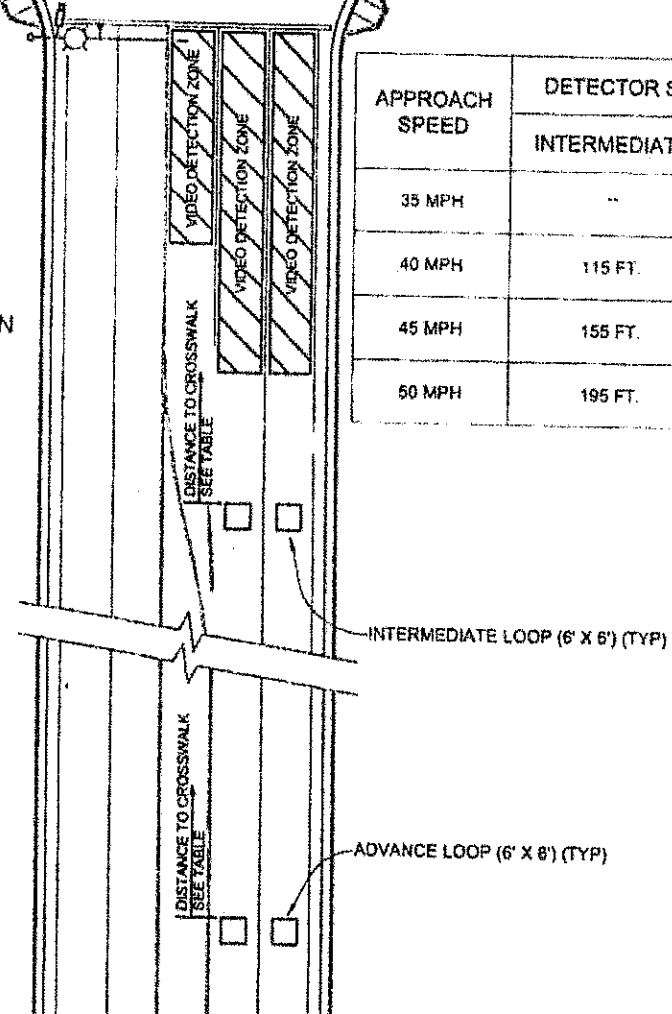
SECTION:  
**ELECTRICAL**  
 DRAWING NO.: **EL-15**



**NOTES:**

1. THE PRESENCE OF VEHICLES AND BICYCLES SHALL BE DETECTED BY MEANS OF VIDEO DETECTION, UNLESS DIRECTED OTHERWISE BY THE CITY OF GILROY.
2. UNLESS GEOMETRIC CONSTRAINTS REQUIRE OTHERWISE, VIDEO DETECTION CAMERAS SHALL BE MOUNTED ON LUMINAIRE MAST ARMS.
3. NEW AND MODIFIED TRAFFIC SIGNALS SHALL INCLUDE AN EMERGENCY VEHICLE PREEMPTION SYSTEM. EMERGENCY VEHICLE DETECTORS SHOULD BE MOUNTED ON SIGNAL MAST ARMS, UNLESS GEOMETRIC CONSTRAINTS REQUIRE OTHERWISE.
4. INTERMEDIATE AND ADVANCE LOOPS SHALL BE 6'x6' SQUARE TYPE A (OR ROUND TYPE E) LOOPS, CUT AND INSTALLED PER CALTRANS GUIDELINES.
5. ADVANCE VEHICLE DETECTION NOT REQUIRED FOR APPROACHES WITH POSTED SPEEDS BELOW 35 MPH.

APPROACH SPEED	DETECTOR SET-BACK DISTANCE	
	INTERMEDIATE	ADVANCE
35 MPH	--	185 FT.
40 MPH	115 FT.	230 FT.
45 MPH	155 FT.	285 FT.
50 MPH	195 FT.	345 FT.



# TRAFFIC SIGNAL - DETECTION

DRAWN BY: CSG  
 CHECKED BY:  
 LAST REVISED: 6/20/14  
 SCALE: N.T.S.

SECTION:  
**ELECTRICAL**  
 DRAWING NO.: **EL-16**



APPROVED BY:  
*Paul S. ...*  
 CITY ENGINEER  
 DATE: **8-18-14**