



8400 LAGUNA PALMS WAY • ELK GROVE, CALIFORNIA 95758
TEL: 916.683.7111 • FAX: 916.691.2001 • www.elkgrovecity.org

PUBLIC WORKS DEPARTMENT

Modification of or Addition to Improvement Standards and Details

Modification Number: 090905-1

Effective Date of Change: September 16, 2005

Modification:

1. Add standard details ST-11 through ST-19, Street Lights – Zone 2
2. Add standard details ST-20 through ST-27, Street Lights (both Zone 1 and Zone 2 facilities)

All Zone 2 street lights shall be City-furnished with installation by project's contractor. Orders shall be paid for and initiated prior to approval of street lighting plan and/or encroachment permit.

Effect of Modification:

Adds a decorative light standard for use in Zone 2. Zone 2 is the area bounded to the north by Elk Grove Boulevard (inclusive) and to the east and west by Highway 99 and Bruceville Road, respectively. Additionally, modifies County standards regarding the location of street lighting and details for the design and installation of the street lighting system. The City will be the owner and provide all inspection and maintenance of all street lighting within the City effective October 1, 2005.

Request for Modification Initiated By:

Don Crawford

Date

Modification Reviewed for Conformity and Consistency to Standards:

Janet B. B. B.

Manager – Development Engineering

9/22/05

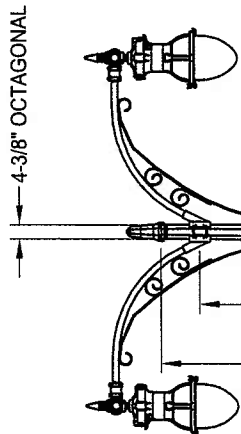
Date

Modification to Improvement Standards Approved:

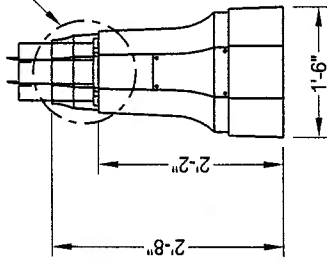
Don Lee

City Engineer

Date



SEE DETAIL A
FOR SHAFT MOUNTING



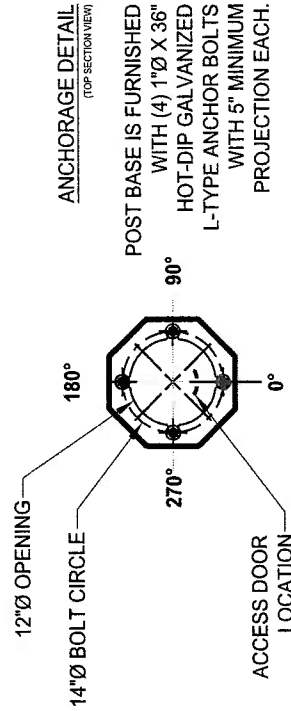
TAPERED OCTAGONAL
STEEL SHAFT

1-PIECE SLIP OVER
TRANSITIONAL COLLAR
(WELDED AT TOP OF
COLLAR TO POLE SHAFT)

3/4"Ø GRADE 5 JOINING
BOLTS, 4 PLACES

BASE

DETAIL A



ANCHORAGE DETAIL
(TOP SECTION VIEW)

POST BASE IS FURNISHED
WITH (4) 1"Ø X 36"
HOT-DIP GALVANIZED
L-TYPE ANCHOR BOLTS
WITH 5" MINIMUM
PROJECTION EACH.

12"Ø OPENING

14"Ø BOLT CIRCLE

90°

270°

ACCESS DOOR
LOCATION

0°

SPECIFICATIONS

POST BASE

THE BASE SHALL BE CAST IRON CONSTRUCTION WITH A TAPERED AND STEPPED OCTAGONAL PATTERN. A 1-PIECE SLIP OVER TRANSITION COLLAR COVERS THE BASE OF THE SHAFT. A DOOR IS LOCATED IN THE BASE FOR ANCHORAGE AND WIRING ACCESS. A GROUND SCREW (5/8") SHALL BE PROVIDED INSIDE THE BASE, OPPOSITE THE ACCESS DOOR.

POST SHAFT

THE POST SHAFT SHALL BE 11-GAUGE STEEL WITH A STEEL PLATE FOR MOUNTING TO THE BASE. THE OCTAGONAL SHAFT TAPERS FROM 8" (FLAT TO FLAT) AT THE BOTTOM TO 4-3/8" AT THE TOP, WITH A DECORATIVE OCTAGONAL FINIAL.

CROSSARM

THE CLAMP ON CROSSARM SHALL BE ALUMINUM PIPE CONSTRUCTION WITH FLAT BAR SCROLLS AND 1-1/2" X 1/2" FLAT BAR CLAMP-ON BRACE. ARMS SHALL HAVE A 2" PIPE SLEEVE FOR LUMINAIRE MOUNTING. THE CROSSARM MEASURES 52" FROM POST TO LUMINAIRE CENTERS. A LUMINAIRE LEVELING FITTER SHALL BE MOUNTED TO THE END OF THE PIPE ARM FOR LUMINAIRE MOUNTING.

FINISH

THE POST SHALL BE SHIPPED FINISHED WITH A STANDARD HOLOPHANE BLACK POWDER COAT FINISH.

NOTE

ALL HARDWARE STAINLESS STEEL. ALL EXTERIOR HARDWARE TAMPER RESISTANT. BASE AND SHAFT TO BE SHIPPED AS A ONE-PIECE UNIT.

ALL LIGHTING SHALL BE CITY FURNISHED. CONTRACTOR SHALL PURCHASE FROM CITY AND CONSTRUCT FOUNDATIONS AND INSTALL.

APPROVED BY:

Paul J. Dan
CITY ENGINEER



DRAWING NUMBER

ST - 11

CITY OF ELK GROVE - PUBLIC WORKS

**STREET LIGHTS - ZONE 2
MEDIAN LOCATION (DUAL ARM)**

9/9/2005 NOT TO SCALE

REVISION BY APPROVED DATE

REVISION	BY	APPROVED	DATE

8" OCTAGONAL

1'-6"
OCTAGONAL

SPECIFICATIONS

POST BASE

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CROSSARM

THE CLAMP ON CROSSARM SHALL BE ALUMINUM PIPE CONSTRUCTION WITH FLAT BAR SCROLLS AND 1-1/2" X 1/2" FLAT BAR CLAMP-ON BRACE. ARMS SHALL HAVE A 2" PIPE SLEEVE FOR LUMINAIRE MOUNTING. THE CROSSARM MEASURES 52" FROM POST TO LUMINAIRE CENTERS. A LUMINAIRE LEVELING FITTER SHALL BE MOUNTED TO THE END OF THE PIPE ARM FOR LUMINAIRE MOUNTING.

FINISH

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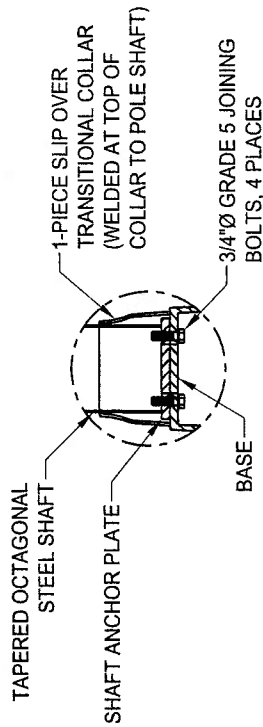
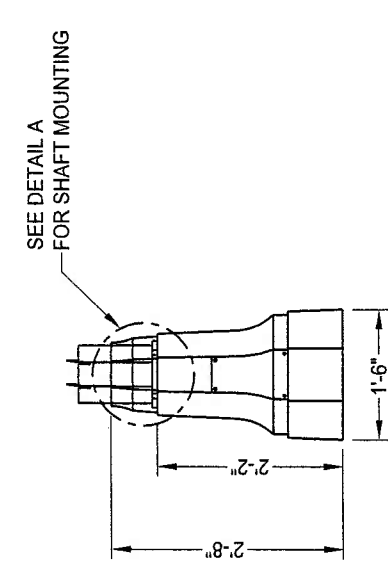
NOTE

ALL HARDWARE STAINLESS STEEL. ALL EXTERIOR HARDWARE TAMPER RESISTANT. BASE AND SHAFT TO BE SHIPPED AS A ONE-PIECE UNIT.

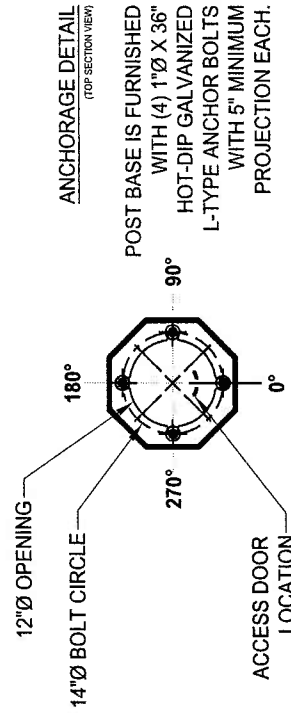
ALL LIGHTING SHALL BE CITY FURNISHED. CONTRACTOR SHALL PURCHASE FROM CITY AND CONSTRUCT FOUNDATIONS AND INSTALL.

DESCRIPTION

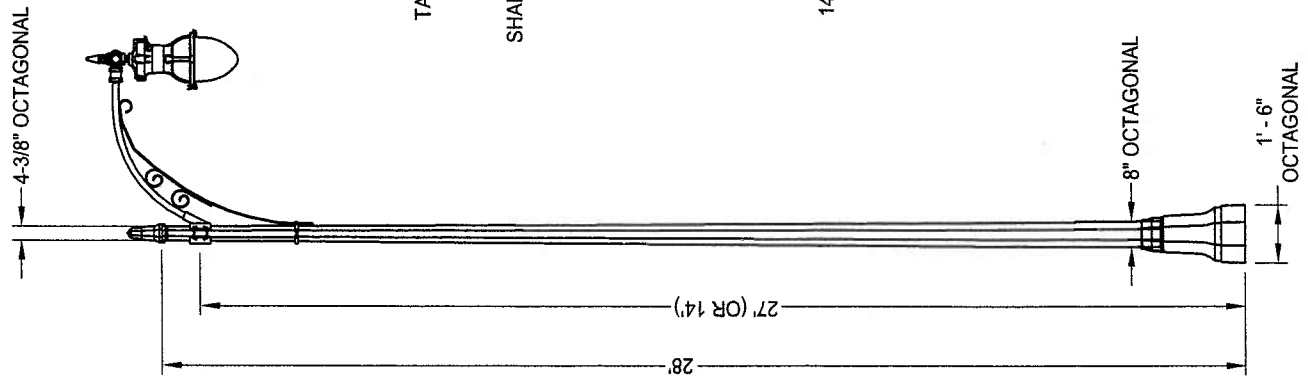
THE ESPLANADE LUMINAIRE IS STYLED TO REPLICATE THE "TEARDROP" LUMINAIRES THAT LIGHTED BOULEVARDS IN THE FIRST HALF OF THIS CENTURY. DESIGNED FOR LIGHT CONTROL AND EASE OF INSTALLATION AND MAINTENANCE, THE ESPLANADE HAS A PRECISION OPTICAL SYSTEM FOR TRUE STREET LIGHTING PERFORMANCE.
FOR COMPLETE LUMINAIRE SPECIFICATIONS, SEE STANDARD DETAIL ST - 14 AND ST - 15.



DETAIL A



ANCHORAGE DETAIL
(TOP SECTION VIEW)



APPROVED BY:
Rout 2 June
CITY ENGINEER



DRAWING NUMBER

ST - 12

CITY OF ELK GROVE - PUBLIC WORKS

STREET LIGHTS - ZONE 2
ARTERIAL (REDUCED MEDIAN) AND COLLECTOR
STREET LIGHT POLE

9/9/2005 NOT TO SCALE

REVISION	BY	APPROVED	DATE

SPECIFICATIONS

POST DESCRIPTION

THE LIGHTING POST SHALL BE ALL ALUMINUM, ONE-PIECE CONSTRUCTION, WITH A CLASSIC FLUTED BASE DESIGN. THE SHAFT SHALL BE Ø4" SMOOTH. THE POST SHALL BE SHIPPED WITH A STANDARD HALOPHANE BLACK POWDER COAT FINISH.

MATERIALS

THE BASE SHALL BE HEAVY WALL, CAST ALUMINUM PRODUCED FROM CERTIFIED ASTM 356.1 INGOT PER ASTM B-179-95A OR ASTM B26-95. THE STRAIGHT SHAFTS SHALL BE EXTRUDED FROM ALUMINUM, ASTM 6061 ALLOY, HEAT TREATED TO A T6 TEMPER. ALL HARDWARE SHALL BE TAMPER RESISTANT STAINLESS STEEL. ANCHOR BOLTS TO BE COMPLETELY HOT DIP GALVANIZED.

CONSTRUCTION

THE SHAFT SHALL BE DOUBLE WELDED TO THE BASE CASTING AND SHIPPED AS ONE PIECE FOR MAXIMUM STRUCTURAL INTEGRITY. THE SHAFT SHALL BE CIRCUMFERENTIALLY WELDED INSIDE THE BASE CASTING AT THE TOP OF THE ACCESS DOOR, AND EXTERNALLY WHERE THE SHAFT EXITS THE BASE. ALL EXPOSED WELDS BELOW 8" SHALL BE GROUND SMOOTH. ALL WELDING SHALL BE PER ANSII/AWS D1.2-90. ALL WELDERS SHALL BE CERTIFIED PER SECTION 5 OF ANSII/AWS D1.2-90.

DIMENSIONS

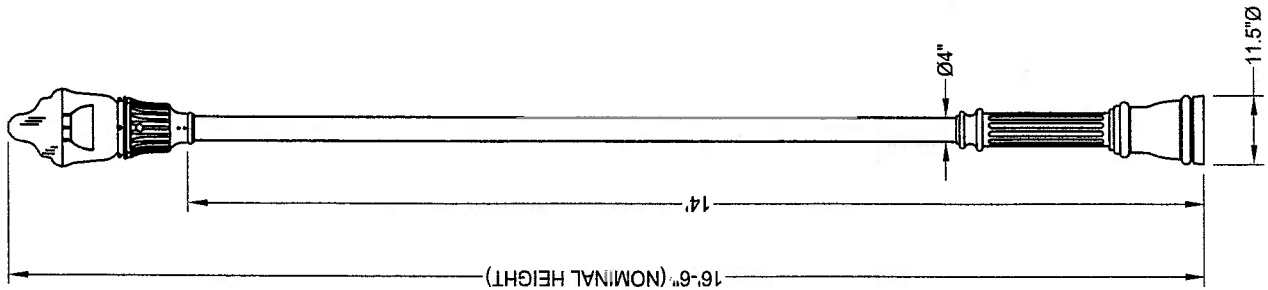
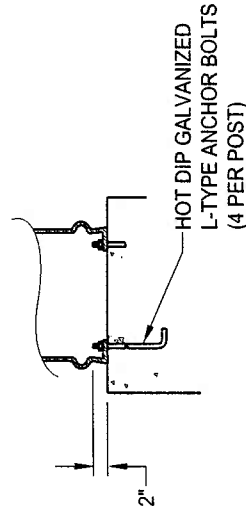
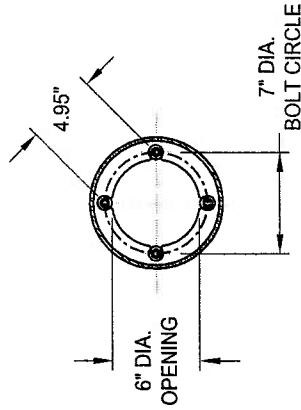
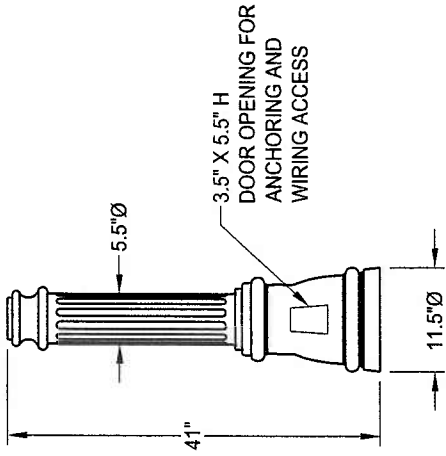
THE POST SHALL BE 14' IN HEIGHT WITH AN 11-1/2" DIAMETER BASE. THE SHAFT DIAMETER SHALL BE 4". AT THE TOP OF THE POST, AN INTEGRAL 3" O.D. TENON WITH A TRANSITIONAL DONUT SHALL BE PROVIDED FOR LUMINAIRE MOUNTING.

INSTALLATION

THE POST SHALL BE PROVIDED WITH FOUR, HOT DIP GALVANIZED L-TYPE ANCHOR BOLTS TO BE INSTALLED ON AN 8" DIAMETER BOLT CIRCLE. A DOOR SHALL BE PROVIDED IN THE BASE FOR ANCHORAGE AND WIRING ACCESS. A GROUNDING SCREW (5/8") SHALL BE PROVIDED INSIDE THE BASE OPPOSITE THE DOOR.

NOTE

ALL LIGHTING SHALL BE CITY FURNISHED. THE CONTRACTOR SHALL PURCHASE FROM CITY AND CONSTRUCT FOUNDATIONS AND INSTALL.



9/19/2005	NOT TO SCALE		
REVISION	BY	APPROVED	DATE

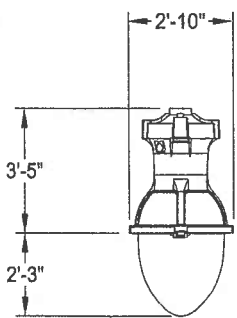
CITY OF ELK GROVE - PUBLIC WORKS

STREET LIGHTS - ZONE 2
PEDESTRIAN TRAILS AND RESIDENTIAL STREETS

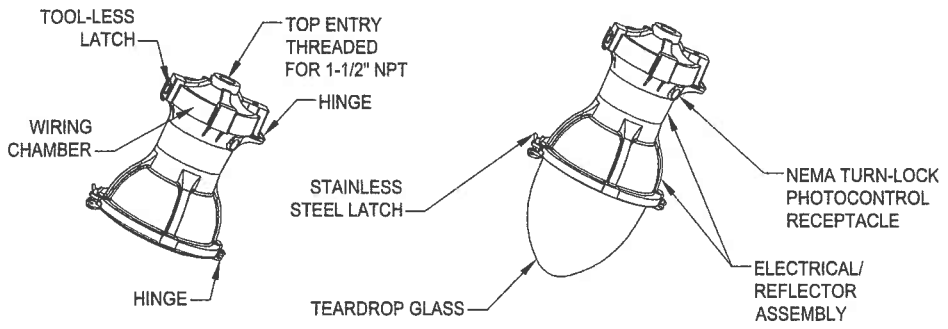
APPROVED BY:
[Signature]
CITY ENGINEER

DRAWING NUMBER
ST - 13





MAXIMUM EFFECTIVE PROJECTED AREA - 2.37 FT²
MAXIMUM WEIGHT - 66 LBS



COVER TYPE	BALLAST TYPE	VOLTAGE	HOUSING COLOR	OPTICS
ESU =	(MOGUL BASE)	12 = 120 VOLT	BLACK	4 = TEARDROP ASYMMETRIC (OPTIONS)
ESPLANADE	100HP = 100W HPS			6 = SAG CLEAR SYMMETRIC
UTILITY	15AHP = 150W 55V HPS			7 = SAG CLEAR ASYMMETRIC
	250HP = 250 W HPS			

OPTIONS
 DS = DEEP SKIRT
 SS = SHALLOW SKIRT
 PS = PROTECTED STARTER (HPS ONLY)
 R = TURN-LOCK PHOTOCONTROL RECEPTACLE (REQUIRED)

SPECIFICATIONS

DESCRIPTION

THE ESPLANADE LUMINAIRE IS STYLED TO REPLICATE THE "TEARDROP" LUMINAIRES THAT LIGHTED BOULEVARDS IN THE FIRST HALF OF THIS CENTURY. DESIGNED FOR LIGHT CONTROL AND EASE OF INSTALLATION AND MAINTENANCE, THE ESPLANADE HAS A PRECISION OPTICAL SYSTEM FOR TRUE STREET LIGHTING PERFORMANCE.

WIRING CHAMBER

THE WIRING CHAMBER HAS A 1-1/2 INCH, GASKETED, NPT THREADED ENTRY FOR PENDANT MOUNTING. A STAINLESS STEEL SET SCREW LOCKS THE UNIT IN POSITION. A THREE STATION TERMINAL BLOCK WILL ACCEPT #14 THROUGH #2 WIRES AND IS PREWIRED TO ONE HALF OF THE PLUG ASSEMBLY THAT CONNECTS TO THE REMOVABLE ELECTRICAL MODULE.

ELECTRICAL / REFLECTOR ASSEMBLY

THE ELECTRICAL / REFLECTOR ASSEMBLY HINGES DOWN FROM THE WIRING CHAMBER FOR EASE IN WIRING AND TO FACILITATE THE REMOVAL OF THE ELECTRICAL MODULE. THE ASSEMBLY IS SECURED IN PLACE BY A STAINLESS STEEL LATCH. THE UNITIZED ELECTRICAL MODULE CONSISTS OF THE BALLAST MOUNTED TO AN ALUMINUM PLATE THAT IS EASILY REMOVED BY LOOSENING TWO SCREWS IN KEYHOLE SLOTS. THE DISCONNECT PLUG CONNECTS THE BALLAST TO THE TERMINAL BLOCK IN THE WIRING CHAMBER. THE SOCKET IS STREET LIGHTING GRADE WITH NICKEL PLATED LAMP GRIP SHELL, CENTER CONTACT BACKED BY A COILED SPRING AND GLAZED PORCELAIN BODY. THE ANODIZED AND BRIGHTENED REFLECTOR IS FORMED WITH FLUTES TO CONTROL VOLTAGE RISE IN THE LAMP AND TO WORK IN CONJUNCTION WITH THE REFRACTOR TO PROVIDE THE DESIRED DISTRIBUTION OF LIGHT.

REFRACTOR / DOOR ASSEMBLY

THE CAST ALUMINUM DOOR CRADLES A TEARDROP OR SAG SHAPED, THERMAL RESISTANT BOROSILICATE GLASS REFRACTOR THAT CONTROLS THE LIGHT TO PROVIDE AN I.E.S. SYMMETRIC OR ASYMMETRIC CUT OFF DISTRIBUTION. THE COMBINATION OF REFLECTOR, REFRACTOR AND VERTICAL BURNING LAMP MAXIMIZE EFFICIENCY AND UNIFORMITY OF ILLUMINATION WHILE CONTROLLING LUMINAIRE BRIGHTNESS. THE REFRACTOR ASSEMBLY AND DECORATIVE SKIRT (WHEN APPLICABLE) ASSEMBLY HINGES FROM THE ELECTRICAL / REFLECTOR ASSEMBLY AND IS LATCHED BY A STAINLESS STEEL, CAPTIVE, WING NUT ASSEMBLY.

BALLAST

(REFER TO BALLAST DATA SHEET FOR SPECIFIC OPERATING CHARACTERISTICS)
 150 WATT AND BELOW 120 VOLT HIGH PRESSURE SODIUM (HPS) BALLASTS ARE HIGH POWER FACTOR REACTOR TYPE. ALL OTHER 150 WATT AND BELOW ARE HIGH POWER FACTOR AUTOTRANSFORMER TYPE. 250 AND 400 WATT HPS BALLASTS ARE LEAD TYPE.
 ALL METAL HALIDE (MH) BALLASTS ARE PEAK LEAD AUTOTRANSFORMER TYPE.

FINISH / MATERIAL

THE LUMINAIRE IS FINISHED WITH POLYESTER POWDER PAINT APPLIED AFTER A SEVEN STAGE PRETREATMENT PROCESS TO INSURE MAXIMUM DURABILITY. ALL CASTINGS UTILIZE ALLOY #356 ALUMINUM FOR MAXIMUM CORROSION RESISTANCE AND ALL EXPOSED HARDWARE IS STAINLESS STEEL.


CUL/U.L. LISTING

CUL/U.L. LISTING SUITABLE FOR WET LOCATIONS AT 40 DEGREES C.

9/13/2005		NOT TO SCALE	
REVISION	BY	APPROVED	DATE

CITY OF ELK GROVE - PUBLIC WORKS

STREET LIGHTS - ZONE 2
ARTERIAL - MEDIAN & SIDE MOUNTED
STREET LIGHT FIXTURE

APPROVED BY:

 CITY ENGINEER

DRAWING NUMBER
ST- 14

