

STAFF REPORT

Date: March 17, 2015
To: Mayor and Council Members
Through: City Manager *cek*
From: Planning and Neighborhood Services
Subject: Outdoor Lighting Update (Dark Sky Ordinance) 2nd Reading

OPTIONS

An Ordinance of the City Council of the City of Beaumont, California Amending Chapter 8.50 "Outdoor Lighting" of the Beaumont Municipal Code

- 1) **Approve** the 2nd reading of the attached Ordinance amending Chapter 8.50;
- 2) **Modify** and approve the 2nd reading of the attached Ordinance amending Chapter 8.50;
- 3) **Deny** the Ordinance amending Chapter 8.50; **or**
- 4) **Continue** the Ordinance amending Chapter 8.50

ACTIONS

- 1) **Receive the Staff Report**

SUMMARY

- Requiring Solar LED Street Lights
- Requiring Solar LED Park Lighting
- Requiring all new mailbox clusters to have Solar lighting
- Text clean up of Watt to Lumen conversions
- Special Lighting District text cleanup

BACKGROUND

This item was introduced at January 20, 2015 City Council meeting and had the Public Hearing at the March 3, 2015 City Council meeting. The City Council approved the Ordinance at its 1st reading.

FISCAL IMPACT

Reduction in energy costs

Respectfully Submitted;
City Staff

ORDINANCE NO.

**AN ORDINANCE OF THE CITY COUNCIL OF THE
CITY OF BEAUMONT, CALIFORNIA
AMENDING CHAPTER 8.50 "OUTDOOR LIGHTING" OF THE
BEAUMONT MUNICIPAL CODE**

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BEAUMONT,
RIVERSIDE COUNTY, STATE OF CALIFORNIA AS FOLLOWS:

Section 1: Chapter 8.50, entitled "Outdoor Lighting", is hereby amended to the
Beaumont Municipal Code to read as more specifically provided for in Exhibit "A", which
Exhibit is attached hereto and made a part hereof.

Section 2: This Ordinance shall take effect as provided by law.

MOVED AND PASSED upon first reading this 3rd day of March, 2015, by the
following roll call vote:

AYES: Council Members Knight, Lara, Fox, Orozco, White

NOES:

ABSTAIN:

ABSENT:

MOVED, PASSED AND ADOPTED this ___ day of _____, 2015, upon second
reading by the following roll call vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Mayor

ATTEST:

Deputy City Clerk

Exhibit A

Chapter 8.50 **OUTDOOR LIGHTING**

Sections:

8.50.010	Purpose and Intent.
8.50.020	Definitions
8.50.030	Establishment of Lighting Zones.
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8.50.030.2	The Commercial/industrial Lighting Zone.
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8.50.085.3	Parks.
8.50.090	Street Lighting Specifications.
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8.50.090.3	Luminaries.
8.50.090.4	Poles.
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8.50.090.6	Wiring to Pole.
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8.50.090.13	Placement at Intersections.
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8.50.090.17	The Street Types and Layout Requirements
8.50.090.18	Plans.
8.50.090.19	Inspection.

- 8.50.090.20 Monthly O & M Charges.
- 8.50.100 Administration and Enforcement.
- 8.50.100.1 Generally.
- 8.50.100.2 Lighting Plan.
- 8.50.100.3 Appeal.
- 8.50.100.4 Variance for Non-Conforming Lighting.
- 8.50.100.5 Violations and Penalties.

8.50.010 Purpose and Intent. It is the purpose and intent of this Chapter to establish regulation and standards which will reduce light pollution generated by residential, commercial and industrial lighting fixtures and devices, minimize light pollution which has a detrimental effect on the environment and the enjoyment of the night sky, reduce and minimize lighting and lighting practices which cause unnecessary illumination of adjacent properties, correct problems of glare and light trespass, and reduce energy use. (Ord. 1014, May 1, 2012)

8.50.020 Definitions. As used in this Chapter, the following words and phrases shall have the meanings set forth below:

"Glare" light that causes visual discomfort or disability, or loss of visual performance.

"Light fixture" means a complete lighting unit consisting of a lamp or lamps, the lamp holder, reflector, lens, diffuser, ballast and/or other components and accessories, together with parts designed to distribute the light, to position and protect the lamps, and to connect the lamps to the power supply. Sometimes referred to as a "luminaire".

"Light pollution" means any artificial light emitted into the atmosphere, either directly or indirectly by reflection that impacts astronomical research and the enjoyment of the night sky by reflection off of airborne dust, water vapor and other atmospheric particulates.

"Light trespass:" means any artificial light or glare from a light fixture onto neighboring property that interferes with viewing of the night sky, or eliminates the ability to have darkness on the adjacent property, or shines into neighboring windows, properties or structures. Quantitative measurement of light trespass shall be made with a standard yardstick having a length of three (3) feet and a width of 1.5 inches. The yardstick shall be placed at the complainant's property line nearest the light source. The Planning Director or his or her designee shall then determine if a shadow is cast by the light source onto a plain white paper. The light source, yardstick and shadow must be in alignment. Measurements shall not be taken when there is a moon in the night sky.

"Nuisance lighting" means and includes, but is not limited to, glare, sky glow, light pollution and light trespass.

"Shielded" a light fixture having a housing or optics that prevents a direct view of the light source from normal viewing angles. Types of shielding include:

- i. "Fully shielded" a lighting fixture shielded or constructed so that light rays are only emitted at angles below a horizontal plane passing through the lowest point of the fixture from which it is emitted. Sometimes referred to as a "full-cutoff" fixture;

ii. "Shielded" a light fixture emitting less than two percent (2%) of its light above the horizontal plane;

iii. "Partly shielded" a light fixture emitting less than ten percent (10%) of its light above the horizontal plane. Sometimes referred to as a "semi-cutoff" fixture;

iv. "Unshielded" a light fixture that emits ten percent (10%) or more of its light above the horizontal plane.

"Sky glow" the brightening of the night sky attributable to man-made sources of light.

"Temporary lighting" lighting installed with temporary wiring and operated for less than sixty (60) days in any calendar year. Temporary lighting includes "string lighting", which is any type of lighting and utilizes more than one lamp or bulb connected by a continuous wire and not exceeding 1.5 watts per bulb. Temporary lighting does not include flashing lamps or bulbs unless they are temporary holiday decorations.

(Ord. 1014, May 1, 2012)

8.50.030 **Establishment of Lighting Zones.** There is hereby established three Lighting Zones within the City of Beaumont for the purpose of regulating and establishing standards for the reasonable use of outdoor lighting, the area of which zones are defined on the basis of land use:

8.50.030.1 **The Residential Lighting Zone:** shall consist of all areas of the City zoned exclusively for residential uses;

8.50.030.2 **The Commercial Industrial Lighting Zone:** shall consist of all areas of the City zoned exclusively for commercial and industrial uses;

8.50.030.3 **The Special Use Lighting Zone:** shall consist of specific land uses which require accurate color rendition, as more specifically provided for in Section 8.50.080, below.

(Ord. 1014, May 1, 2012)

8.50.040 **Prohibited Lighting.** The following lighting systems are prohibited in all Lighting Zones, except by special event permit or Conditional Use Permit: aerial lasers, "search light" style lights, mercury vapor lights, flashing lights (unless they are temporary "holiday decorations" as provided for in Section 8.50.050.3 below), low-pressure sodium fixtures, lighting fixtures mounted in such a way as to illuminate a wall, building facade, roof or awning, or aimed only towards a property line, or which interferes with the safe operation of a motor vehicle as determined by the Police Chief or City Engineer, and billboard lighting that is pointed up.

(Ord. 1014, May 1, 2012)

8.50.050 Exempt Lighting. The following outdoor lighting fixtures are exempt from this Chapter:

- 8.50.050.1 Fossil fuel (e.g., gas) lamps;
- 8.50.050.2 Neon;
- 8.50.050.3 Temporary holiday decorations;
- 8.50.050.4 Flag lighting of 150 watts or less;
- 8.50.050.5 Emergency lighting;

8.50.050.6 Internally illuminated signs that have dark backgrounds (opaque or colored) and light lettering (white or colored lighter than the background) so as to minimize glare;

8.50.050.7 Motion detector lighting fixtures, provided (a) that there is no light trespass, (b) the fixtures are mounted within five (5) feet of an entrance or exit door or alcove of a structure, (c) installed no more than eight (8) feet above the ground, (d) illuminated with a maximum of two (2) light bulbs of no more than seventy-five (75) watts each, (e) maximum time the light is on after being triggered is ten (10) minutes, and (f) light cannot be trigger from more than 30 feet away;

8.50.050.8 Exposed string outdoor lighting, provided (a) that they consist exclusively of a white light with a clear bulb, and (b) the installation of such lights shall be limited to the lighting of living landscape features (shrubs and trees) in outside dining areas or within the parking areas of a commercial center or plaza.

(Ord. 1014, May 1, 2012)

8.50.060 Lighting in the Residential Lighting Zone.

8.50.060.1 Generally. All outdoor lighting fixtures shall be installed and operated in conformance with this Chapter, and the California Building Code. The following standards are applicable to all outdoor lighting within the Residential Lighting Zone.

8.50.060.2 Maximum lumens and Shielding. All outdoor lighting shall comply with the following lamp lumen limits and shielding requirements:

- a. *Fully shielded*: 2,250 lumens (or equivalent) maximum;
- b. *Shielded*: 825 lumens (or equivalent) maximum;
- c. *Partly shielded*: none permitted;
- d. *Unshielded*: low voltage (twenty-four (24) volts or less) landscaping lighting only;

e. *Prohibition against adjustable light fixture mounts:* outdoor lighting fixtures shall be permanently installed so as to maintain the shielding requirements, except that low voltage landscaping lighting may use flexible or adjustable mounting systems. (Ord. 1014, May 1, 2012)

8.50.060.3 Height Limit. Lights mounted on poles or structures intended primarily for mounting lights shall not exceed a mounting height of forty percent (40%) of the horizontal distance of the light pole from the property line, up to a maximum of sixteen (16) feet high, whichever is lower; except that lighting attached to single family residences shall not exceed the height of the roof eave. (Ord. 1014, May 1, 2012)

8.50.060.4 Total Lamp Power Limit. This subsection applies to all outdoor lighting, whether attached to a building, poles or other structures. The maximum allowable lighting limit per lot in the Residential Lighting Zone shall be determined by multiplying the area (square footage) of the lot by 0.03, the allowable lamp wattage per square foot of lot area. (Ord. 1014, May 1, 2012)

8.50.060.5 Nonconforming Lighting. All outdoor light fixtures existing and legally installed prior to the effective date of this Chapter shall be deemed non-conforming and are exempt from the requirements of this Chapter except that non-conforming lighting fixtures shall not be structurally altered, reconstructed or replaced so as to extend their useful life. In the event that any non-conforming lighting fixture is structurally altered, reconstructed or replaced, such fixture shall be made to conform to the requirements of this Chapter. Additionally, should it be determined that a non-conforming light fixture results in light trespass, the Planning Director may require that the light be shielded, filtered, redirected, replaced with a less intense light source, removed or a combination thereof, to eliminate light trespass. Alternatively, a variance may be applied for. (Ord. 1014, May 1, 2012)

8.50.070 Lighting in the Commercial/Industrial Zone.

8.50.070.1 Generally. All outdoor lighting fixtures shall be installed and operated in conformance with this Chapter, and the Uniform Building and Electrical Codes. The following standards are applicable to all outdoor lighting within the Commercial/Industrial Zone: (Ord. 1014, May 1, 2012)

8.50.070.2 Maximum Lumen and Shielding. All outdoor lighting shall comply with the following lamp lumen limits and shielding requirements:

- a. *Fully shielded:* 60,000 lumens (or equivalent) maximum;
- b. *Shielded:* 1,500 lumens (or equivalent) maximum;
- c. *Partly shielded:* 825 lumens (or equivalent) maximum;
- d. *Unshielded:* low voltage (twenty-four (24) volts or less) landscape and ornamental lighting;
- e. *Prohibition against adjustable light fixture mounts:* outdoor lighting fixtures shall be permanently installed so as to maintain the shielding requirements, except that landscape and ornamental lighting may use flexible or adjustable mounting systems.

(Ord. 1014, May 1, 2012, Ord. 1029, 12/18/12)

8.50.070.3 Height Limit. Lights mounted on poles or structures intended primarily for mounting lights shall not exceed a mounting height of forty (40%) of the horizontal distance of the light pole from the property line, up to a maximum of twenty (20) feet high, whichever is lower; except that lighting attached to single story building shall not exceed the height of the roof eave. Poles shall be appropriately scaled for small buildings and lots. Fixtures shall be in scale with the proposed height. (Ord. 1014, May 1, 2012)

8.50.070.4 Total Lamp Power Limit. This subsection applies to all outdoor lighting, whether attached to a building, poles or other structures. The maximum allowable lighting limit per parcel in the Commercial/Industrial Zone shall be determined by multiplying the area (square footage) of the parcel by 0.05, the allowable lamp wattage per square foot of parcel area. Project scale may require closer spacing and lower wattage. (Ord. 1014, May 1, 2012)

8.50.070.5 Lighting Curfew. Outdoor lighting systems in the Commercial/Industrial Zone shall be turned off or reduced in lighting by at least fifty percent (50%) beginning at 10:00 p.m. or close of business, whichever is later, until dawn or the start of business, whichever is sooner. The reduction shall be determined as an overall average for the parcel. When possible, the lighting system shall be turned off rather than reduced in lighting level. Lighting shall be equipped with controls for photocell on and timer off. Exceptions to the lighting curfew are as follows:

- a. When there is only one (1) conforming lighting fixture for the parcel; or
- b. When a law or regulation requires lighting for steps and stairs; or
- c. When, in the opinion of the Planning Director, reduced lighting levels at a given location will cause unacceptable increased risk and design levels must be maintained.

(Ord. 1014, May 1, 2012)

8.50.070.6 Nonconforming Lighting. All outdoor light fixtures existing and legally installed prior to the effective date of this Chapter shall be deemed non-conforming and are exempt from the requirements of this Chapter except that non-conforming lighting fixtures shall not be structurally altered, reconstructed or replaced so as to extend their useful life.

In the event that any non-conforming lighting fixture is structurally altered, reconstructed or replaced, such fixture shall be made to conform to the requirements of this Chapter. Additionally, should it be determined that a non-conforming light fixture results in light trespass, the Planning Director may require that the light be shielded, filtered, redirected, replaced with a less intense light source, removed or a combination thereof, to eliminate light trespass. Alternatively, a variance may be applied for. (Ord. 1014, May 1, 2012)

8.50.080 Special Use Zone.

8.50.080.1 Generally. The Special Use Area shall consist of specific land uses where the use of the space or area requires colors to be rendered as accurately as possible. Such uses may include, but are not limited to:

- a. Automobile sales lots;
- b. Outdoor recreation facilities (e.g. tennis courts, driving ranges, ball fields);
- c. Outdoor advertising displays;
- d. Service stations;
- g. Industrial areas where higher pole heights are required to avoid interference with vehicle operations;

8.50.080.2 Minor Plot Plan Required. A Minor Plot Plan ("MPP") for outdoor lighting in a Special Use Area shall be applied for and obtained from the Planning Director, upon written application therefore and the payment of an administrative fee. To obtain a MPP, applicants shall demonstrate that the proposed lighting installation:

- a. Is not within the Residential Lighting Zone;
- b. Utilizes fully-shielded, side shielded and internally-shielded light fixtures to the maximum extent practicable;
- c. Includes measures to mitigate light trespass and artificial sky glow.

8.50.080.3 Lighting Curfew. Outdoor lighting systems in the Commercial/Industrial Zone shall be turned off or reduced in lighting by at least fifty percent (50%) beginning at 10:00 p.m. or close of business, whichever is later, until dawn or the start of business, whichever is sooner. The reduction shall be determined as an overall average for the parcel. When possible, the lighting system shall be turned off rather than reduced in lighting level. Lighting shall be equipped with controls for photocell on and timer off. (Ord. 1014, May 1, 2012)

8.50.085 Parks and Trails Lighting Specifications.

8.50.085.1 Generally. The following specifications shall apply to all public and private sidewalks, pedestrian trails, bicycle paths, and equestrian trails (collectively, "trails"), and public parks. (Ord. 1014, May 1, 2012)

8.50.085.2 Trails. Overhead lighting shall be placed on poles not more than sixteen (16) feet in height, illuminating only the trail itself plus an additional area of not more than five (5) feet in width on either side of the trail, with a total lamp power limit of 0.040 watts per square foot. (Ord. 1014, May 1, 2012)

8.50.085.3 Parks. Overhead lighting in parks shall be placed on poles not more than sixteen (16) feet in height, with a total lamp power limit of 0.020 watts per square foot; however solar/LED lighting is preferred in parks and will be reviewed on a project basis. (Ord. 1014, May 1, 2012)

8.50.085.4 Shared Public Lighting. Where street lights occur adjacent to parks and/or trails add an additional arm and light fixture to illuminate the adjacent park/trail area.

8.50.090 Street Lighting Specifications.

8.50.090.1 Generally. The following specifications apply to all street lighting in the City, on all public and private roadways. The City has adopted the Southern California Edison (SCE) rate standards; scheduled rates LS-3 and LS-2. The City will accept the option of re-lamping. This rate schedule is for collector roads, arterial roads and highways. LS-3 is a metered system with a special rate. It may be combined with the sprinkler controller meter pedestal, in most cases. The in-tract streetlights on residential roads will be LS-2, fed from the nearest Point of Contact with SCE. The developer of each tract map or parcel map will pay the City to install the street lighting system. The street lighting system will be wholly-owned and installed by the City. The LS-3 systems shall consist of a two-inch conduit from the SCE source to a meter pedestal to the lights per approved layouts. All work performed shall be by a Licensed Electrical Contractor. All inspections shall be by the City of Beaumont. All new installations of street lights utilizing previously approved plans on collector roads shall utilize LED type luminaries; new installations in new tracts and collector roads shall be LED type luminaires and powered via solar power utilizing battery backup. These solar powered lights shall be referred to as "solar/LED lights" herein. (Ord. 1014, May 1, 2012)

8.50.090.2 LED Fixture Standard. LED Luminaries to have rated life of 70,000 hours, 5000k color, Dark Sky approval, readily available replacement parts, and bird barrier spikes installed.

8.50.090.3 Solar/LED Assembly. The specified and test brand is Sol Lighting, style 10/10 and 20/20 with top mount photovoltaic/battery assembly. This assembly is to have an LED luminaire, solar panel(s), locking vented battery enclosure, articulating solar panel mount, maintenance-free 100Ah sealed gel cell battery(s) sized for 3 nights of operation without charging, and a system controller capable of dimming LED and regulating battery charge voltage. There shall be 2 standard types of these solar/LED assemblies; a 2057 lumen [SOL#Z-1-XF-3-E-30-D-H-2] and a 4169 lumen [SOL#Z-1-TF-3-E-74-D-H-2] version. Both shall be designed to operate for a minimum of 3 nights without charging once fully charged.

8.50.090.4 Poles. All poles will be round steel tapered poles with a bronze. On interior streets the builder can select the street light color or use the basic City color The Type A is a 30-watt and will be installed on a twenty-three-foot pole, with a six-foot arm upswept three (3) feet for a luminaire mounting height of twenty-six (26) feet. The Type C-1, C-2 and D is a 4169 lumen fixture and will be mounted on a twenty-three foot pole with a eight foot arm upswept five (5) feet for a luminaire mounting height of twenty eight (28) feet. All arms are to be hot dipped galvanized steel or aluminum with a rain cap. Colored arms may be baked powder coating. Poles must have a minimum eighty (80) miles per hour wind factor and sustain a 1.3 gust factor. The approved manufacturer is Valmont, Inc. All poles will be identified on the pole label with the letters "BMT" to signify they are part of the City of Beaumont street lighting

system. Type B pole is a specially approved custom pole and has a specific luminaire. (Ord. 1014, May 1, 2012)

8.50.090.5 Pole Bases. All poles will have a thirty-inch round or square in-ground base with a depth of forty-eight (48) inches from top of curb, and a minimum forty-two (42) inches of concrete base depth. There will be four (4) one-inch anchor bolts thirty-six (36) inches long with a four-inch turn. Washers will be installed above and below the one-inch pole-mounting flange. Anchor bolts, washers and nuts will all be hot dipped galvanized steel per pole manufacturer specifications. All poles are to be placed behind the curb with a center of pole measurement of eighteen (18) inches from the face of curb to the center of pole. In projects with a "rolled" curb or a "wedge" curb streetlights may be placed behind the sidewalk if necessary. Concrete for pole bases shall be a public works design mix with test strength of 3250 PSI.

8.50.090.6 Wiring to Pole. Where solar/LED style lights are not utilized, wiring to pole will be two (2) #12 THWN stranded (one (1) red and one (1) black) ran down through pole, in one-inch schedule 40 PVC underground to an eleven (11) inches wide by seventeen (17) inches long by twelve-inch deep concrete hand hole with concrete cover marked "street lights" behind the sidewalk or next to the pole, in the sidewalk. All pull boxes shall have locks for the covers. Install a #6 copper wire through the one-inch PVC and ground below the top washer on one of the pole flanges with one-inch threaded nuts. In the same box provide 2 Fusetron GEB-II-II fuse holders with five (5) amp 250-volt midget fuses on the power conductors (black and red). All fuse holders shall be taped with a fifty percent (50%) overlay, and a minimum of three (3) layers. Two (2) coatings of "scotch coat" shall be applied to all taped connections, for waterproofing. At the luminaire leave twelve (12) inches of slack wire as a service loop. All wire shall be copper.

8.50.090.7 The Main Wiring. Where solar/LED style lights are not utilized system shall be one-inch schedule 40 PVC run behind the curb, or shall be trenched with a minimum depth of eighteen (18) inches, in the parkway and twenty-four (24) inches under any street, or be four (4) inches below four (4) inches of concrete. At all times there must be a one-inch separation between the installed conduit and the concrete above it. On regular curb installations, with cut out or depressed driveway approaches, conduits run behind the curb must not be installed in the approach pour. Concrete pull boxes sized eleven (11) inches by seventeen (17) inches by twelve (12) inches will be placed behind the sidewalk at each pole and placed in long runs at a distance of three hundred (300) feet. The same pull boxes will be used for street crossings and branch wiring terminations. A pull box must be installed on at least one side of each street crossing, and all street crossing shall be run at a ninety-degree angle with the main flow of the street. All Main wiring between the street lights, and the meter will be one (1) #8 THWN Black, one (1) #8 THWN Red, and one (1) #8 THWN Green. Midblock lights are fed by one (1) #8 THWN Blue, and one (1) #8 THWN Yellow, in the same conduit. All terminations and splices will have epoxy seal packs installed on each connection in the pull boxes. All terminations will be made up with 3M brand Blue wire nuts. Ground wires do not require epoxy seal packs. All wire shall be copper. When wire nuts are used in the luminaire installation they must be securely taped. All wiring shall be #8 to three (3) or more poles. When wiring under the LS-2 system with two (2) poles or less the wire shall be #12 to the hand holes and to the Point of Contact. Use approved fuse holders at Point of Contact with SCE. (Ord. 1014, May 1, 2012)

8.50.090.8 The Circuitry and Voltage Drop. On the wire, shall not exceed five percent (5%) to the last light on the run or in any circumstance. The #8 THWN wire will have a breaker rated at fifty (50) amps and be a two-pole rated breaker. If a large number of lights are fed off one (1) pedestal and it is necessary to run two (2) radial circuits, install a second fifty-amp two-pole breaker to feed the second set of lights. The main switching of all lights will be the photocell at each light. Wire must be oversized to allow for voltage drop, use #6 THWN or #4 THWN when necessary. Circuit designs are about three thousand (3,000) plus feet for #8 THWN wire, and may extend to over four thousand (4,000) feet depending on connected load. (Ord. 1014, May 1, 2012)

8.50.090.9 The Meter Pedestal and Point of Contact. Where solar/LED style lights are not used, the meter pedestal will be an enclosed "traffic signal" type. It will be rated 120/240 - one (1) phase three-wire, and have four (4) jaws. The minimum amperage will be one hundred (100). The maximum AIC rating is 10,000AIC. If the number of lights on one (1) circuit exceeds the capacity of the breaker, add a second one. If the number of lights exceeds a load of 100 amps, use a 200-amp meter with the same specifications. The meter pedestal will be fed from the nearest SCE pull box with three-inch schedule 40 PVC, verify location with the area SCE planner. If there is a landscape sprinkler clock, which controls solenoids only, no booster pumps, it may be added to the street light meter pedestal. This saves the need for two (2) different meters. All meter pedestals require three (3) one-inch PVC ninety-degree stub outs for future wiring of lighting or sprinkler timing clocks. The meter pedestal is only required with LS-3 street lights. Under LS-2 the Point of Contact is the nearest available SCE power, a hand hole, transformer pad or other junction point. When required the SCE meter coordination, SCE Service application, SCE fees, City of Beaumont electrical permit and the City of Beaumont service account setup is the responsibility of the Contractor. The Point of Contact for the LS-2 street lights shall be interconnected with SCE with two-inch schedule 40 PVC, with twenty-four-inch radius sweeps, thirty (30) inches of cover, and a 3/4-inch pull rope. Fuses shall be installed in the Point of Contact pull box, SCE will provide #2 wire to the first hand hole. A 5/8-inch copper-clad ground rod will be installed in the Point of Contact hand hole and the #8 ground wire will clamped to the rod with a "football or acorn style" ground clamp.

8.50.090.10 Layout of Poles. Will be based on the following street width design:

A. 36, 40 and 44 foot streets. These are Local/Collector Streets, will be 30 watt luminaire. 30 watt will be used on interior streets of tracts at intersections, knuckles and cul-de-sacs.

1. For RESIDENTIAL streets the only lights to be installed are at intersections, knuckles, cul-de-sacs, or bends where other street lights are not visible. A midblock light shall be permitted in areas in which the block is longer than 1,000 feet. A 2057 lumen fixture is to be installed on a Type A twenty-three-foot pole with a mounting height of twenty-six feet. The arm is to be six (6) feet long. When installed the minimum average foot-candles on the lanes of travel will not be less than .37 foot-candles. The average divided by the minimum will be in a ratio of 6:1. The minimum foot-candles will be .06. Refer to pole standard 1, Type A. Additional lighting may be permitted per Section 8.50.090.11 for pedestrian conflict areas such as around parks, schools and public meeting places.

2. For COMMERCIAL streets only 4169 lumen fixtures and poles can be used. The minimum average foot-candles on the lanes of travel will not be less than .84 foot-candles. The average divided by the minimum will be in a ratio of 6:1. The minimum foot-candles will be .16. The maximum spacing will be two hundred twenty (200) feet with stagger or straight spacing. See diagram 9.A.2 for photometric layouts. Refer to pole standard 3, Type C-1 or Type C-2.

3. For RURAL streets the only lights to be installed are at intersections, knuckles, cul-de-sacs, bends, or other conflict areas as determined necessary by the Director of Planning. A 2057 lumen fixture is to be installed on a Type A twenty-three-foot pole with a mounting height of twenty-six feet. The arm is to be six (6) feet long. When installed the minimum average foot-candles on the lanes of travel will not be less than .37 foot-candles. The average divided by the minimum will be in a ratio of 6:1. The minimum foot-candles will be .06. See diagrams 9.A.1A for photometric layouts. Refer to pole standard 1, Type A.

B. 56 and 64 foot streets. These are Divided Collector or Secondary Highways, will be 4169 lumens

1. For RESIDENTIAL streets the minimum average foot-candles on the lanes of travel will not be less than .66 foot-candles. The average divided by the minimum will be in a ratio of 4:1. The minimum foot-candles will be .16. The maximum spacing will be two hundred (200) feet with a straight or stagger spacing. Use a 4169 lumens luminaire. Refer to pole standard 3, Type C-1 or Type C-2.

2. For COMMERCIAL streets the minimum average foot-candles on the lanes of travel will not be less than 1.12 foot-candles. The average divided by the minimum will be in a ratio of 4: 1. The minimum foot-candles will be .28. The maximum spacing will be two hundred (200) feet with a stagger or straight spacing. Use a 4169 lumens luminaire. Refer to pole standard 3, Type C-1 or Type C-2.

3. For RURAL streets the only lights to be installed are at intersections, knuckles, cul-de-sacs, bends, or other conflict areas as determined necessary by the Director of Planning. When installed the minimum average foot-candles on the lanes of travel will not be less than 1.12 foot-candles. The average divided by the minimum will be in a ratio of 4: 1. The minimum foot-candles will be .28. Use a 4169 lumens luminaire. Refer to pole standard 3, Type C-1 or Type C-2.

C. 76 foot and wider streets. These are Major or Arterial Highway or urban alternate streets, will be 4169 lumens luminaire.

1. For RESIDENTIAL streets the minimum average foot-candles on the lanes of travel will not be less than .84 foot-candles. The average divided by the minimum will be at a ratio of 3: 1. The minimum foot-candles will be .28. The maximum spacing will be two hundred (200) feet with a stagger or straight spacing. Use a 4169 lumen luminaire. Refer to pole standard 3, Type C-1 or Type C-2.

2. For COMMERCIAL streets the minimum average foot-candles on the lanes of travel will not be less than 1.3 foot-candles. The average divided by the minimum will be at a ratio of 3: 1. The minimum foot-candles will be .40. The maximum spacing will be one hundred eighty (180) feet with a stagger or straight spacing. Use a 4169 lumen luminaire. Refer to pole standard 3, Type C-1 or Type C-2.

3. If the street has a raised median, the preferred placement of the luminaries is doubled up on the poles mounted in the median. This is the most economical and best layout. This would be when a developer is responsible for the whole street width improvement.

4. If the street has a painted median, the placement of the luminaries is on the sides of the streets, not in the painted median. This is when the developer is responsible for one-half (1/2) the street improvement and the other half is a different developer's responsibility.

5. For RURAL streets the only lights to be installed are at intersections, knuckles, cul-de-sacs, bends, or other conflict areas as determined necessary by the Director of Planning. When installed the minimum average foot-candles on the lanes of travel will not be less than 1.3 foot-candles. The average divided by the minimum will be at a ratio of 3: 1. The minimum foot-candles will be .40. Use a 4169 lumen luminaire. Refer to pole standard 3, Type C-1 or Type C-2. (~~Ord. 1014, May 1, 2012~~, Ord. 1029, December 18, 2012)

8.50.090.11 Layout of Poles at Pedestrian Conflict Areas for Residential Neighborhoods. Will include but are not limited to intersections, marked crosswalks, cul-de-sacs, knuckles, areas around parks, schools, gang-style mailbox locations and public meeting places. Where Type A poles are required, the layout will be twenty-six-foot poles with 2057 lumen luminaries spaced at one hundred ninety (190) feet, straight or stagger spacing, with all mid-block lights installed. The minimum average foot-candles are .37 foot-candles on all lanes of traffic. The average divided by the minimum will be at a ratio of 6: 1. The minimum foot-candles shall not be less than .06 foot-candles. When required foot candles cannot be meet due to wider streets a Type D (2057 lumen) pole shall be allowed with a maximum spacing of two hundred forty (200) feet with a stagger or straight spacing. Refer to pole standard 2, Type D. (~~Ord. 1014, May 1, 2012~~, Ord. 1029, December 18, 2012)

8.50.090.12 Special Decorative Fixtures. Will follow the same foot-candle requirements and must be separately calculated for the proper spacing. Due to our dark sky policy, the City of Beaumont Public Works Director or his or her designee must approve all substitutions to prevent any lighting above ninety (90) degrees. All decorative shall be called Type B. All new decorative design projects, solar/LED style lights shall be utilized. (Ord. 1014, May 1, 2012)

8.50.090.13 Placement at Intersections. The poles are to be installed at the back of curb radius, not ever in a radii of the corner. All poles shall be five (5) feet from a driveway approach, fire hydrant, traffic light, crossing signals, or any street signage or safety marker. (Ord. 1014, May 1, 2012)

8.50.090.14 Location of Poles. Poles are to be placed at or as near as possible to property lines on all residential streets. (Ord. 1014, May 1, 2012)

8.50.090.15 Substitutions. All specifications are subject to "or equal" substitutions, and must be approved in advance by the City of Beaumont Public Works Director or his or her designee. (Ord. 1014, May 1, 2012)

8.50.090.16 Street Light Curfew. All mid-block lights on fifty-six-, sixty-four- and seventy-six-foot roads will be turned off by a electronic time clock at the meter pedestal, or via digital control in solar/LED unit. The time clock will be rated 30 amps and have a 30- amp two-pole breaker installed to feed the time clock. The specified clock model is # ETI04C Intermatic or equal. All lights will still have a photocell and the time clock will control the operation of the photocell. Two (2) extra #8 wires will be pulled in these conduits (1-#8 THWN Blue, and 1-#8 THWN Yellow). No deviation from the color

code will EVER be allowed. (Ord. 1014, May 1, 2012)8.50.090.17 The Street Types and Layout Requirements are as follows:

MINIMUM AVERAGE HORIZONTAL FOOT CANDLES

Types of Street	Width of Street	Commercial	Residential
Major or Arterial Highway or Urban Alternate	76 Feet and Wider	1.3 fc (3: 1) Ratio	0.84 fc (3: 1) Ratio
Divided Collector Street or Secondary Highway	56 and 64 Feet	1.2 fc (4: 1) Ratio	0.66 fc (4: 1) Ratio
Local and Collector Streets	36, 40 and 44 Feet	0.84 fc (6: 1) Ratio	0.37 fc (6: 1) Ratio

Note 1: Ratio is overall average foot-candles divided by the minimum foot-candles.

Note 2: Special layout on the Local and Collector Streets for residential applications. See #9 A.I and # 10 above for more information.

(Ord. 1014, May 1, 2012)

8.50.090.18 Plans. All standards are subject to substitution of brand name for an approved equal. These specifications are a guideline. Street improvement plans must be submitted to the City of Beaumont Public Works Department. The location, aiming, fixture, pole, solar/LED assembly and base detail to be shown on one set of drawings for each street lighting project. The City's Application and inspections fees will be set by resolution. The plans shall not be approved until the review fee is paid and no inspection shall be scheduled before the inspection fees have been paid. Developer shall submit (3) full sets of plans for review and will be notified once review is complete. (Ord. 1014, May 1, 2012)

8.50.090.19 Inspection. The developer shall provide the City inspector with an onsite signed set of plans for inspection purposes. All sites shall have "Dig Alert" called forty-eight (48) hours prior to excavation and encroachment permits from the City when necessary. (Ord. 1014, May 1, 2012)

8.50.090.20 Monthly O & M Charges. On all private street systems the City will charge the owner or Home Owners Association for the street lighting usage based on the SCE LS-I rates. These charges will be monthly and will include an energy charge, a service charge and a maintenance charge. No charges shall be levied on solar/LED style lights. (Ord. 1014, May 1, 2012)

8.50.095 **Diagrams and Exhibits.** All Diagrams and Exhibits referenced in this chapter shall be kept on file in the Office of the Director of Planning. (Ord. 1029, December 18, 2012)

8.50.100 **Administration and Enforcement.**

8.50.100.1 Generally. The Planning Director or his or her designee shall administer and enforce the provisions of this Chapter. Any person who wishes to appeal any order, decision or determination made by the Planning Director or his or her designee shall do so in accordance with this Chapter. From time-to-time the Planning Director or his or her designee may recommend, and the City Council may adopt by resolution, as deemed necessary, appropriate fees, rules and regulations to implement the provisions of this Chapter. Such rules and regulations shall have the force of law and failure to comply shall be considered a violation of this Chapter. Such rules and regulations shall be implemented with the intent of minimizing light pollution, glare and trespass, and reducing energy use. (Ord. 1014, May 1, 2012)

8.50.100.2 Lighting Plan. Outdoor lighting plans shall be submitted, accompanied by application, review and inspection fees, to the Planning Director or his or her designee for all commercial, industrial, institutional and residential development for review. The Planning Director or his or her designee shall determine whether the plans comply with the applicable provisions of this Chapter, and shall be approved if in compliance, except that applications for outdoor lighting in the Special Use Zone may be subject to review and approval of a Conditional Use Permit by the Planning Commission. (Ord. 1014, May 1, 2012)

8.50.100.3 Appeal. An applicant may appeal the determination of the Planning Director or his or her designee within fifteen (15) days to the Planning Commission.. The applicant may appeal the Planning Commission's decision to deny or conditionally-approve a CUP within fifteen (15) days thereafter to the City Council, and the City Council's determination shall be final and conclusive for all proposes. (Ord. 1014, May 1, 2012)

8.50.100.4 Variance for Non-Conforming Lighting. In the event the Planning Director or his or her designee determines that a non-conforming lighting fixtures results in light trespass, the responsible party shall shield, filter, redirect or replace the light with a less intense light source, or remove the light to eliminate the light trespass. Corrective action shall be taken within ten (10) days after the determination. The Planning Director or his or her designee may grant additional time (not to exceed ninety (90) days) to remedy the light trespass for hardship ("hardship" shall mean that there is a degree of difficulty in accessibility to the fixture, financial difficulty or cost of correcting the light trespass). A variance may be granted only if the following findings supported by substantial evidence can be made:

- a. There are special circumstances or conditions applying to the land, building or outdoor light fixture(s) for which the variance is sought, which circumstances or conditions are peculiar to such land, building or outdoor light fixtures and do not generally apply to the land, buildings or outdoor light fixtures in the neighborhood; and
- b. The granting of a variance will generally be in harmony with the intent of this Chapter and will not be injurious to the neighborhood or otherwise detrimental to the public welfare.

The Planning Director shall make a determination of the variance request and notify the applicant in writing of his/her decision. The Planning Director's determination may be appealed by any person to the Planning Commission within fifteen (15) days of the decision. Alternatively, the Planning Director may forward the request to the Planning Commission because of the degree of light trespass, the cost of correction or other similar issues. (Ord. 1014, May 1, 2012)

8.50.100.5 Violations and Penalties. It shall be unlawful for any person to install, erect, construct, operate, enlarge, alter, replace, move, improve or convert any outdoor lighting fixtures or structure, or cause the same to be done, contrary to or in violation of any provision of this Chapter.

a. Any person who violates the provisions of this Chapter shall first receive a correction notice for the first violation in any given calendar year. The notice shall specify the nature of the offense, the date of occurrence and the required correction.

b. In the discretion of the Enforcement Officer, any person violating the provisions of this Chapter shall be issued an Administrative Citation pursuant to Beaumont Municipal Code Chapter 1.17 or shall be guilty of an infraction pursuant to Beaumont Municipal Code Chapter 1.16. In either case, the amount of the fine shall be the appropriate amount set forth in Section 1.16.030 of this Code. Each such violation shall be deemed a separate offense as specified in Section 1.16.040.

Notwithstanding the above, a first offense may be charged and prosecuted as a misdemeanor, punishable by a fine of \$1,000.00, or six (6) months in jail, or both. (Ord. 1014, May 1, 2012)