This lighting checklist represents an agreement between San Marcos Texas Utilities (SMTXU), Bluebonnet Electric Cooperative, Inc. (BBEC), and Pedernales Electric Cooperative, Inc. (PEC). The following represent the guidelines for all roadway lights installed at public roads. SMTX Utilities (SMTXU) will not review lights on private roads or streets. See Section 3 for lights on private roads or streets.

Section 1 – New Installation of Roadway Lights in SMTX Utilities City Limits. An example can be requested from SMTX Utilities at electricpermits@sanmarcostx.gov.

SMTX Utilities will require the following:
1. All lighting shall be 120V single phase.
2. All installations (including underground civil) will be done by the developer.
3. All branch circuits for lights will feed from a pedestal with a minimum of 4 to 6 circuit breakers.
4. All lighting branch circuits shall be designed to have a voltage drop of not more than 5%.
5. All streetlight fixtures with photocells, fuse kits, and poles shall be purchased from SMTXU. Poles are a long lead item so coordination with SMTXU in a timely manner is required. These items are only ordered once payment is received.
6. A photometric lighting plan (that follows AASHTO standards) for all public streets, at 100% lighting coverage and sealed by a P.E. must be provided. Specs for equipment shall be uploaded to additional documents. Uploaded specs must be used for the photometrics lighting plan. Please request the .ies file for the light fixture from SMTXU rep.
7. An electrical riser diagram showing transformer(s), pedestal(s), and lighting circuit(s) that are color-coded (items 7 and 8 must match).
8. A plan drawing showing source locations with color-coded circuits and pedestal/transformers feeding the circuits (items 7 and 8 must match).
9. The permit will not be approved by SMTXU until all documents listed above have been submitted to the Permit Department and payment has been made for poles, streetlights, and fuse kits.

Section 2 – Existing Roadway Lighting in SMTX Utilities City Limits, and where new additional lighting circuits are being added to existing lighting installations.

SMTX Utilities will require the following:
1. SMTXU will only accept all existing roadway lighting circuits starting at the point of the lighting pole.
2. BBEC and PEC shall be responsible for lighting circuits from the source and stop at the lighting pole.
3. New addition lighting circuits shall meet the guidelines in Section 1.

Section 3 – Lighting on Private Roads, Streets, or ETJ.

SMTX Utilities will not be responsible for lights outside SMTXU service territories on private roads, or ETJ areas. SMTX Utilities only reviews Streetlights on Public Streets inside of San Marcos City Limits.

SMTX Utilities will require the following:
1. Customer shall notify SMTXU if this is private vs. public streets, and/or if it is ETJ property.
2. SMTXU does not require photometrics on private roads, or ETJ properties, but will request drawings on streetlights to show how these lights are being fed and location of infrastructure if ownership is required by SMTXU.
3. SMTXU will sell standardized lighting for project to maintain consistency with SMTXU infrastructure, if in the case, SMTXU eventually takes ownership. (i.e.,, the developer can purchase lights with photocells, fuse kits, and poles from SMTXU).
4. Currently, SMTXU will not take ownership of lights in ETJ properties, or outside of city limits on public streetlights. Ownership is with the Electric Utility Company providing power in the area.

Section 4 – These Items are Required Before Receiving Final Certificate of Occupancy

The City of San Marcos and SMTX Utilities will require the following:

1. The City Inspector will inspect the light base and conduit installation (need to coordinate with the planning department at (512) 805-2630).
2. The City Inspector will inspect the light kit installations at final walk through (need to coordinate with the planning department at (512) 805-2630).
3. The Developer shall submit a plat of the lighting section showing streetlight locations to 911addressing@sanmarcostx.gov.
4. The Developer shall submit and email the service territory design drawing (if not already previously submitted) for transformer locations feeding the pedestals to SMTXU.
5. The Developer is responsible for contacting and submitting the 911 addressing and inspections to the Electric Utility Company providing power in the area, to have the lights connected and turned on.
6. Once the Developer confirms all streetlights in the new section are working, the Developer shall send an email to SMTXU at lighting@sanmarcostx.gov and submit the 911 addressing and inspections, requesting SMTXU to confirm the requested streetlights are working. SMTXU shall have up to 15 business days to complete visual inspections.
7. SMTXU shall then provide written email documentation of the streetlight findings to the Developer.
8. On completion of the visual inspection of all streetlights and confirmation lights are properly working, SMTXU shall take ownership of said streetlights in that section and contact the supporting utility to have the section of streetlights transferred to the city’s account.
Alum. Pole Cap With S.S. Screws

2" x 0"  1'-6"

4 1/2" O.D.

Alum. Pipe 2" Schedule 80
Alloy 6063-T6 (2 3/8" O.D.)

Arm Assembly is A85505
Includes Bracket Fitting # 40919
Cast Alum. Bracket Fitting And Adapter
Part # 40919 and 41019
Alloy A356-T6 With 1/2"-13NC Stainless
Steel Hardware

26'-0"
Mounting Height

Tapered Alum. Tube
156° Wall Alloy 6063-T6
Satin Finish

NOTE:
1. Pole is Designed Per 2001 AASHTO Specification For Hapco A85505 Arm Supporting Luminaire With An EPA OF 2.0 SF And A Weight Of 55 Lbs At 90mph.

Anchor Bolts By Others

2.3/4"

Ground Lug Tapped 1/2"-13NC Opposite
Handhole Ø

Flush Reinforced Handhole (4" x 8") With
Cover And Stainless Steel Button Head
Socket Screws Integral Center Pin Installed
At The Factory

Base Flange (87630) Alloy 356-T6

REF 12792 & 17803

WARNING: DO NOT INSTALL LIGHTING POLES WITHOUT LUMINAIRES

hapco

Abingdon, Va.

CUSTOMER Austin Energy

SHEET 32

DATE 09/20/2007

BY GM

REV. NO. B17802
RTA
Round Tapered Aluminum Pole with Arms
Single Mast — 4-Bolt Base

A Mounting Height

B Wall Thickness
Tapered Aluminum Tube
Alloy 6063-T6

Finish
01 = Satin Aluminum
BA = Black Powder Coat
BH = White Powder Coat
BM = Dark Bronze Powder Coat
BV = Dark Green Powder Coat
GC = Gray Powder Coat
** = Specify Finish

Handhole

C Butt Diameter
4-Bolt Base
With Bolt Covers

WARNING:
Do not install light pole without luminaire.

Satin Aluminum or Powder Coated Finish per Customer Specification.

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<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>J</th>
<th>LUM.</th>
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<td>F BOLT SIZE</td>
<td>G BASE SQ.</td>
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<td>10-11</td>
<td>10.5</td>
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EPA Notes: Effective Projected Area (EPA) in square feet. EPA calculated using wind velocity (mpfh) indicated in accordance with 2009 AASHO LRFD using a 25 year design life. Maximum EPA is based on the luminaire weight shown. Increased luminaire weight may reduce the maximum EPA. If weight is exceeded, or if other design life or code is required, please consult the factory.

RTA25C7B4M16
CATALOG NUMBER

Pole
Shaft and arm will be constructed of seamless extruded tube of 6063 Aluminum Alloy per the requirements of ASTM B221. The shaft assembly shall be full-length heat treated after base veld to produce a T6 temper.

Base Style
4-Bolt Cast Aluminum
Base Flange of Alloy
356-T6 with Aluminum
Bolt Covers (Alloy 356-F)
and Stainless Steel Hex
Head-Attaching Screws.

Handhole
Reinforced, 4" x 6" curved Cast Aluminum Frame (Alloy
356-T6) with Aluminum Door and (2) SS Hex Head
Screws. Reinforced Frame will contain a tapped 3/8"-
16NC Grounding Provision.

Anchorage
Anchorage Kit will include four (4) L-shaped
Steel Anchor Bolts
conforming to AASHO MS-14-90 Grade 55. Ten
Inch (10") of threaded end will be galvanized
per ASTM A153.
Kits will contain four (4)
Hex Nuts, four (4) Lock
Washers, and four (4)
Flat Washers
(all components
Galvanized Steel). A bolt
circle template will be
provided.

Vibration Damper
When determined necessary by Hapco, a Vibration
Damper will be factory-installed inside the pole shaft.
Customer specification of the damper is available.
SMOOTH FINISHED CONCRETE W/ 3/4" CHAMBER EDGE

2" PVC, SCH.40 CONDUIT
HC-1#6 GRD.
CADWELD CONNECTION

5-#5 BARS W/ 3/8 SPIRAL HOOP, 6" PITCH
3000 PSI CONCRETE

3/4" x 10' COPPER CLAD GRD. ROD, BOND TO POLE BASE USING #65CB COPPER

NOTE:
FILL EXCAVATED AREA BELOW PAD WITH COMPACTED GRANULAR MATERIAL MANUFACTURED FROM CRUSHED STONE OR OTHER GRANULAR MATERIAL APPROVED BY ENGINEER.

STREET LIGHT CONCRETE BASE

The City of San Marcos
Engineering and Capital

STANDARD DETAILS
N.T.S

DRAWING: T:/DETAILS/STREET LIGHT BASE

DATE: NOVEMBER 9, 2011
NOTES:

1. MATERIAL: HOT DIP GALVANIZED STEEL.

2. ALL WELDED SEAMS SHALL BE CONTINUOUS.

3. BOLTS SHALL BE INSTALLED IN CONNECTION PLATE WITH BOLT HEAD UP.

4. FOUNDATION PIER MAY BE CIRCULAR OR OCTAGONAL.

5. CORE DRILL HOLES 18".

6. SET FOUNDATION BEHIND CURB PER CONSTRUCTION PRINT DETAIL.

7. SET TOP PLATE OF FOUNDATION 1/4" RISER FROM TOP OF CURB IN R.O.W.

8. INSTALL BELL ENDS FLUSH WITH TOP PLATE.

9. INSTALL CONCRETE AROUND BASE FROM BOTTOM OF CORE DRILL HOLE TO BOTTOM OF PIPE WINDOW. CONCRETE SHALL BE 5 SACK, CLASS A, 3/4" TO 1-1/2" AGGREGATE.

10. FILL INSIDE BASE WITH SAND TO TOP PLATE.

11. WRAP FOUNDATION WITH 25' OF #6 MHD SOLID COPPER. INSERT #6 THROUGH CONDUIT WINDOW AND LEAVE 24" ABOVE TOP PLATE OF FOUNDATION.
SPECIFICATIONS:

1. ALL HOUSING COMPONENTS (HOUSING, LENS FRAME, DOOR) ARE LOW COPPER DIE-CAST ALUMINUM, FLAT TEMPERED GLASS LENS.
2. PHILIPS LUMILEDS REBEL LEDS (120 LEDS), 70 COLOR RENDERING INDEX (CRI), INJECTION MOLDED, ACRYLIC OPTICAL PLATES, IP66 RATED LED ARRAY.
3. PHILIPS ADVANCE XITANIUM LED DRIVER, CLASS 1, OUTDOOR RATED (IP66), >90% POWER FACTOR.
4. OPERATING TEMPERATURE RANGE IS -40°C to +40°C.
5. >L70 @ 80,000 hrs @ 25°C (DRIVER 100,000 HRS).
6. <20% THD.
7. MANUFACTURED TO ISO 9001:2000 STANDARDS, RoHS, VIBRATION TESTED TO ANSI C136.31 FOR BRIDGE APPLICATIONS, ETL/CETL LISTED TO UL 1598 & UL8750 STANDARDS.
8. MAX EPA: 0.82 SQ.FT.
9. WEIGHT: 32 LBS.
10. EQUIVALENT TO 250 HPS.

PRODUCT DETAILS:

COLOR: GRAY
OPTICS: TYPE II
COLOR TEMPERATURE: 4000K
VOLTAGE 120-277 VAC
DRIVE CURRENT: 530Ma
PHOTO CONTROL: TWIST-LOCK RECEPTACLE
DIMMING CONTROLS: NONE
SURGE SUPRESSION: ADDITIONAL 10kV BIL
HOUSE SIDE SHIELD: NONE

ORDERING GUIDE (PHILIPS HADCO): 55995E LUMINAIRE OR APPROVED EQUIVALENT

40.25” COBRA HEAD LED LIGHT

The City of San Marcos
Engineering and Capital Improvements

STANDARD DETAILS
N.T.S

DRAWING: T:/DETAILS/40.25 IN COBRA HEAD LIGHT

DATE: APRIL 2012