



RESIDENTIAL STREETLIGHT CRITERIA

Clarksville Street Department

December 1, 2009

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This "criteria" shall be interpreted as policy to be used as a **standard operating procedure** for streetlight requests and as a supplement to Article IX – "Required Improvements" Item No. 6 in the **Subdivision Guidelines** which states that "*Street lights are required to be installed by the subdivision developer, inside the City Limits of Clarksville, as per criteria established by the Clarksville Street Department*". A residential development may use overhead power for street lighting or the developer may choose to use underground power with decorative poles. Both options are described in the following sections.

A. Overhead Powered Lighting

Clarksville Department of Electricity (CDE) shall create a street light layout, with approval from the Clarksville Street Department (CSD), for each section of a particular subdivision. The power for streetlights installed in subdivisions without CSD's approval of layout shall not be paid for by CSD. CDE shall install all required streetlights and secure payment from the Developer.

Streetlight spacing shall be governed by a spacing guideline of one streetlight every **400'±** of roadway with special consideration for additional street lights at sharp curves, intersections, and cul-de-sacs. Exceptions to this spacing guideline shall be approved by CSD prior to installation.

Streetlights shall be mounted at 30' above the roadway on 6' arm extensions and shall be of the "cobra head" style, unless otherwise noted. Streetlights shall be 100W High Pressure Sodium (HPS), unless a higher wattage is necessary (with prior approval from the Clarksville Street Department).

Clarksville Street Department will maintain, in coordination with CDE, all approved overhead streetlights installed from overhead power sources.

B. Underground Powered Lighting with Decorative Poles

These Decorative Underground Lighting Standards have been developed for use by electricians, contractors, and developers to assist them with the street lighting installations within the City of Clarksville.

All designs must be approved by the Clarksville Street Department prior to any construction. A detailed lighting plan should be submitted to the Clarksville Street Department as described in the following section.

Please read and become familiar with these standards **before** beginning your project. You should follow these standards as well as any other drawings you are given for a specific project.



If you have questions regarding the content of these standards, please contact:

Clarksville Street Department
199 10th Street
Clarksville, TN 37040
931-645-7464 office
931-645-7472 fax

If you have questions for the Clarksville Department of Electricity regarding underground power, please contact:

Clarksville Department of Electricity
2021 Wilma Rudolph Blvd
Clarksville, TN 37040
931-648-8151 office
931-552-3333 after hours

If the Developer installs underground power in a subdivision, he/she shall be required to coordinate with CDE for providing the necessary power requirements for streetlight installation. The Developer is **required** to furnish and install all decorative streetlight fixtures in a subdivision. The Developer will be **required** to select from the CSD approved list of poles and fixtures

C. Lighting Plan Requirements

The Developer **shall** submit a streetlight layout plan (including spacing, fixture type, lot lines, etc.) to the Clarksville Street Department for approval **before** the installation of any street light poles/fixtures. All layout plans shall be in strict compliance with ADA requirements.

1. The Lighting Plan shall be prepared and submitted digitally in PDF form for CSD review.
2. The Lighting Plan shall be drawn on the final plat layout with light pole locations, lot frontage dimensions and easements shown.
3. The Lighting Plan shall be dated.
4. The Lighting Plan should indicate the location of the nearest existing lights to the development.
5. The Lighting Plan shall have the image of the proposed light fixture and pole style.

6. The typical spacing of lights shall be indicated.
7. Poles shall not be located on top of a pipe.
8. Poles shall not be located in a TVA easement.
9. Spacing of poles should be so as to maximize the illumination of intersections and cul-de-sacs.
10. Typical spacing of decorative poles should be between 180 feet and 220 feet apart in either a staggered or same side formation.
11. Streetlights should be placed either 4-feet from the edge of pavement, if no sidewalk is present, or 1-foot behind the sidewalk as shown in **Figure 1**, Pole Location Detail.
12. The Developer shall submit an "As-Built" survey of the completed streetlight system upon completion of the installation of all streetlights in a section. The "As-Built" plans should indicate the wire sizes, conduit size and mapping grade survey location of all installed equipment including conduit.
13. "As-Built" plans shall be submitted in both digital and hard copy (half-size) formats. Digital submittals shall be geo-referenced .dwg files.
14. Lights shall be installed and functioning with "As-Built" submitted prior to final plat signature.
15. CSD will assume maintenance of decorative streetlights upon final acceptance by this Department.
16. Details for pole footings, trenching for conduit and pull box installation should be followed as shown in **Figure 2, 3 and 4**.

D. Material Specifications

1. 2-inch PVC (Schedule 40) conduit or approved alternate.
2. Luminaries/fixtures and poles shall be selected from CSD approved list.
3. Any exceptions shall be approved by the CDS prior to installation.
4. Minimum wire size shall be #12.

E. Required Inspections

The following items shall be inspected and approved by the City prior to acceptance of ownership.

Electrical:

The City requires inspection and approval from the State Electrical Inspector, meeting all state requirements.

Footings:

Excavation shall be complete prior to pouring concrete. This includes conduit, form, rebar, anchor bolts, and ground rod.

The following sections include all poles and fixtures required and approved by the City of Clarksville Street Department. Final selection must be approved by the CSD.

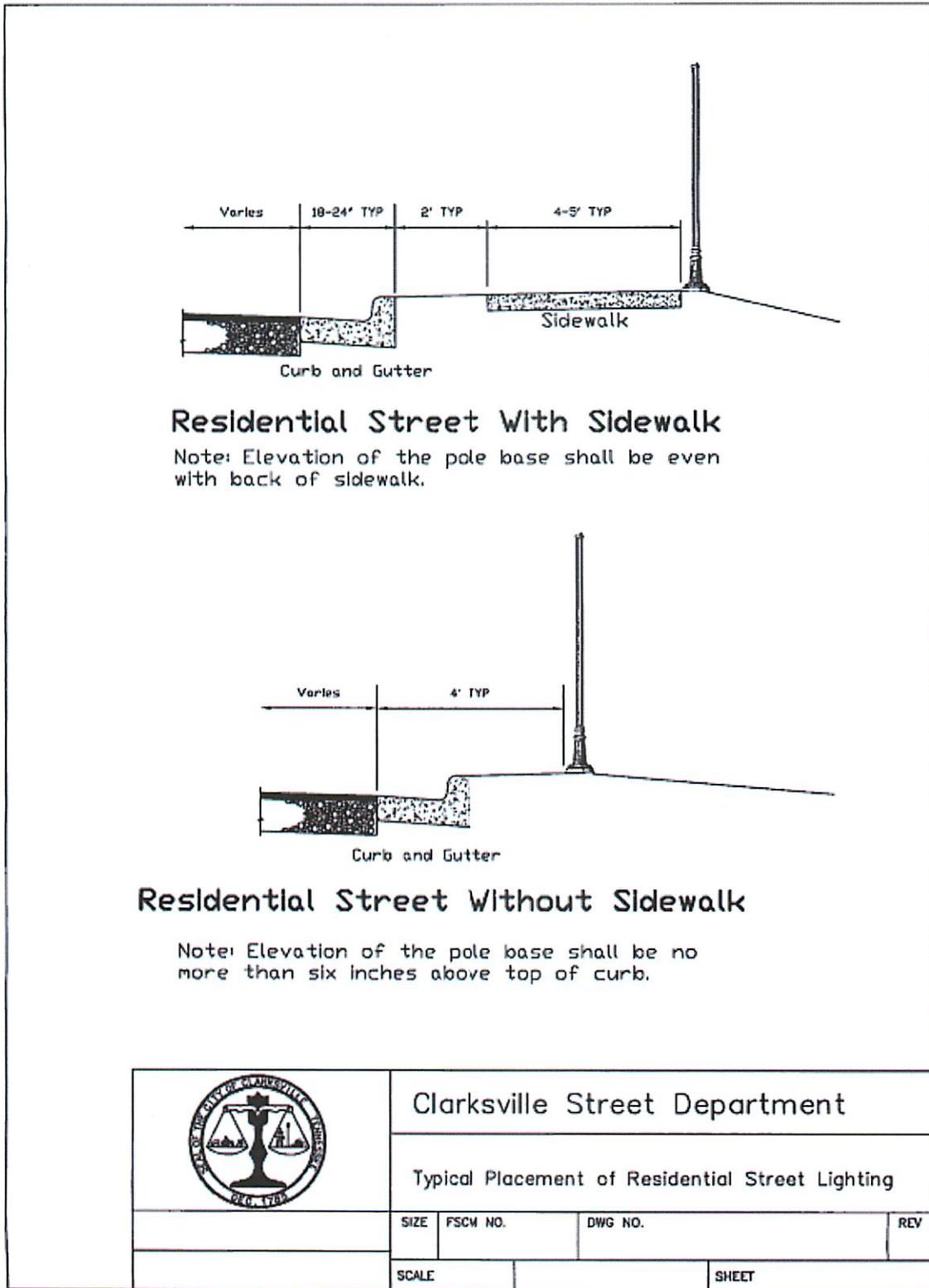


Figure 1 – Pole Location Detail

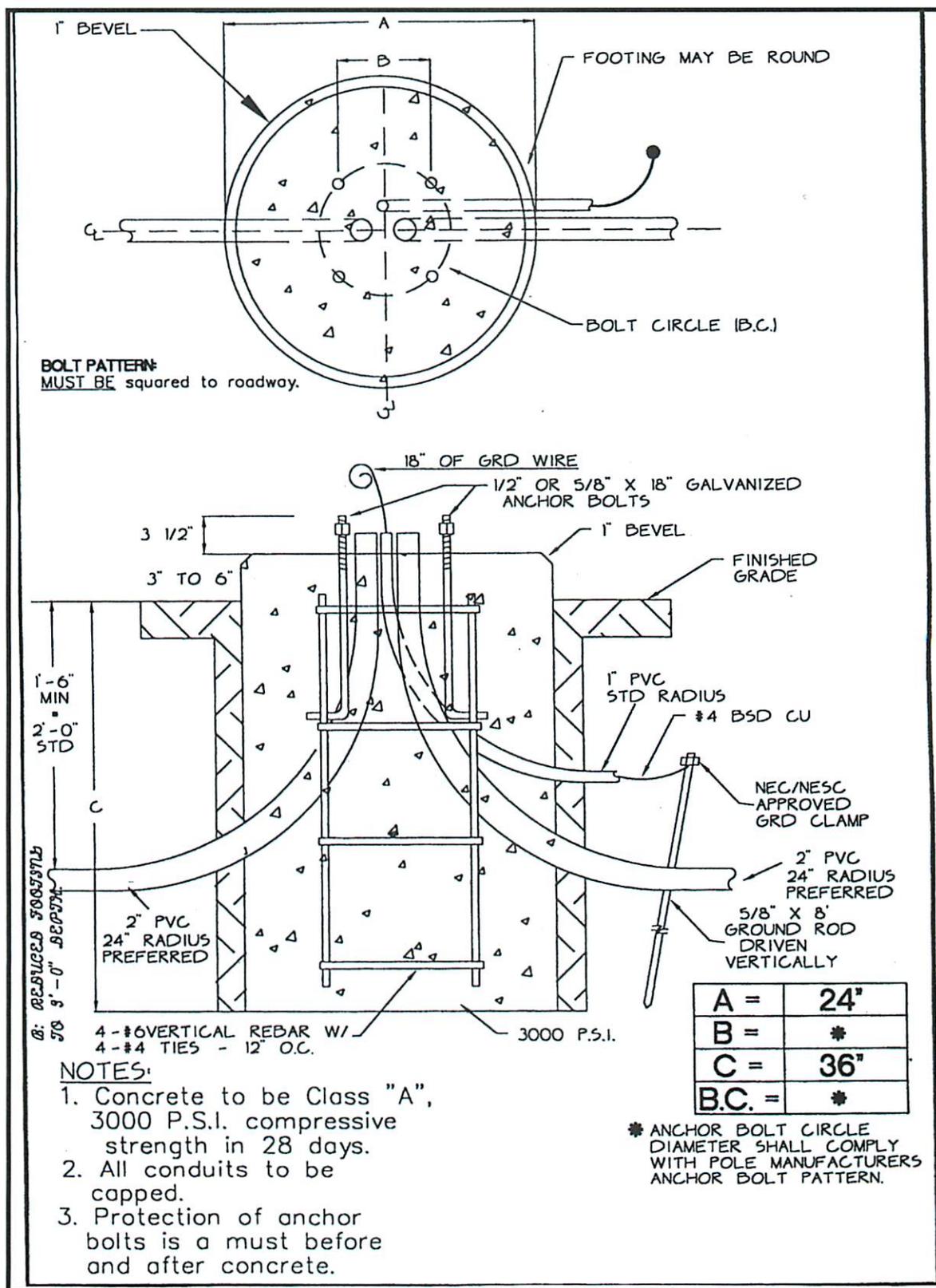
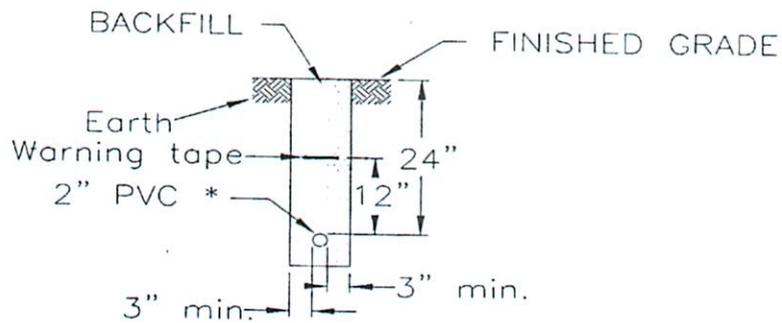


Figure 2 – Pole Footing Detail

NOTES

1. ALL TRENCHES SHALL MEET OSHA STANDARDS.
2. TRENCH DEPTHS & WIDTHS GIVEN ARE THE MINIMUM WORKING REQUIREMENTS.
3. ALL EXCAVATED AND OTHER MATERIALS SHALL BE PLACED AT LEAST 2' FROM EDGE OF THE TRENCH.
4. ALL SELECTED BACKFILL SHALL BE FREE FROM STONES, ROCK, OR OTHER MATERIAL WHICH MIGHT DAMAGE THE CONDUIT SYSTEM. SELECTED BACKFILL SHALL CONTAIN NO SOLID MATERIAL LARGER THAN 2" IN DIAMETER. IF NATIVE SOILS ARE NOT SUITABLE, #67 CRUSHED GRAVEL SHALL BE SUBSTITUTED 3" ABOVE AND 3" BELOW CONDUIT.
5. A MINIMUM OF 12" VERTICAL & HORIZONTAL CLEARANCE IS REQUIRED BETWEEN AND CONDUIT OF OTHER UTILITIES. UNLESS THE SAID UTILITY HAS A GREATER CLEARANCE REQUIREMENT.
6. CONDUIT CROSSING UNDER DRAINAGE DITCHES OR SMALL CREEKS SHALL HAVE 4" CONCRETE ENCASEMENT. THE LENGTH OF THE ENCASEMENT SHALL BE DETERMINED IN THE FIELD
7. ALL BACKFILL SHALL BE #67 CRUSHED GRAVEL UNDER PAVED AREAS.



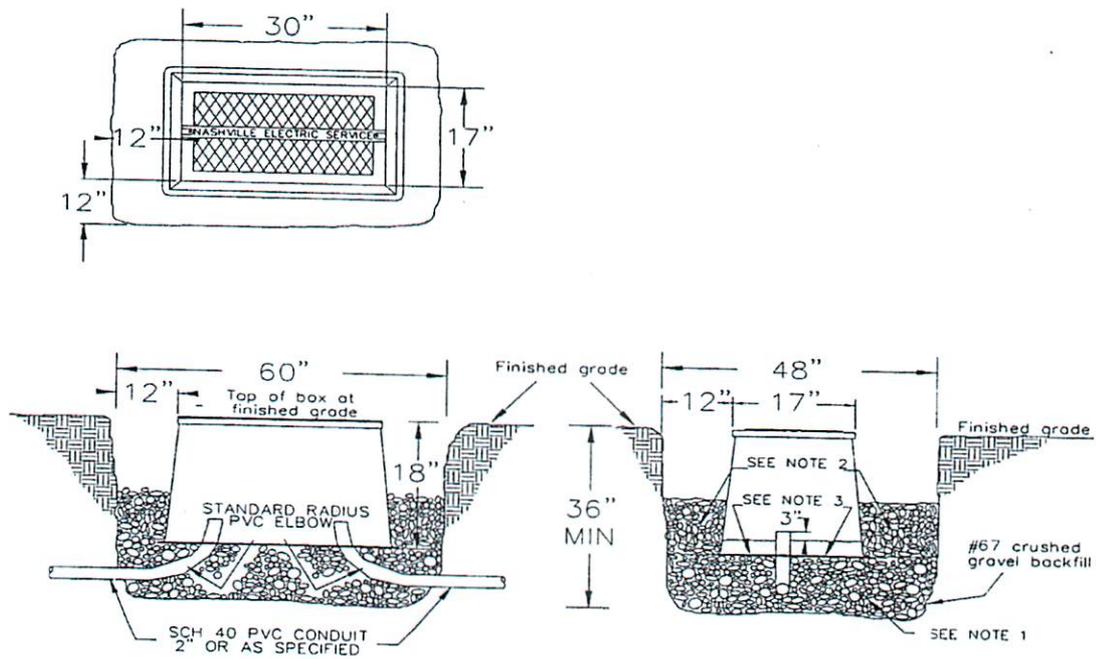
* 1 1/4" PVC MAY BE USED IF AUTHORIZED BY CUSTOMER ENGINEERING PERSONNEL.

	TRENCH REQUIREMENTS ROADWAY LIGHTING	SCALE: NONE	
		STANDARD	ISSUE
		SLS-0007	B

Figure 3 – Trenching Detail

NOTES

1. Backfill with #67 crushed gravel to within 24" of finished grade.
2. Install box and backfill to within 12" of finished grade with #67 crushed gravel.
3. Backfill inside box within 3" of the top of the conduit with #67 crushed gravel.
4. Finished grade must be within 1" of the top of the pull box.



<p>NON-TRAFFIC PULL BOX STREET LIGHTING INSTALLATION DETAIL</p>	SCALE: NONE	
	STANDARD SL-0006	ISSUE A

Figure 4 – Pull Box Detail



Decorative Luminaries/Fixtures

Hadco VS-15 Independence	Page 13
Hadco VS-601 Homeland	Page 14
Holophane Utility Arlington	Page 15
Holophane Utility Tucson	Page 16
GE Cobra Head Fixture	Page 17



Hadco V15 Independence
100W HPS – Type III

Design Criteria: **12' post**

Typical Spacing Range: **180' – 220' (Same side or staggered pattern)**

Ordering Guide: **C0237B**
Drawing Number: **C0237-DWG09**

Post(s) Used: **Hadco P-1565**
 Hadco P-2060
 Holophane North Yorkshire
 Holophane Wadsworth



Hadco V601 Homeland
100W HPS – Type III

Design Criteria: 12' post

Typical Spacing Range: 180' – 220' (Same side or staggered pattern)

Ordering Guide: C0237A
Drawing Number: C0237-DWG06

Post(s) Used: Hadco P-1565
Hadco P-2060
Holophane North Yorkshire
Holophane Wadsworth



Holophane Utility Arlington
100W HPS – Type III

Design Criteria: **12' post**

Typical Spacing Range: **180' – 220' (Same side or staggered pattern)**

Catalogue Number: **UARU100HP12BP3**

Post(s) Used: **Hadco P-1565
Hadco P-2060
Holophane North Yorkshire
Holophane Wadsworth**



Holophane Utility Tucson
100W HPS – Type III

Design Criteria: **12' post**

Typical Spacing Range: **180' – 220' (Same side or staggered pattern)**

Catalogue Number: **UAG100HP12FB3NSB**

Post(s) Used: **Hadco P-1565**
 Hadco P-2060
 Holophane North Yorkshire
 Holophane Wadsworth



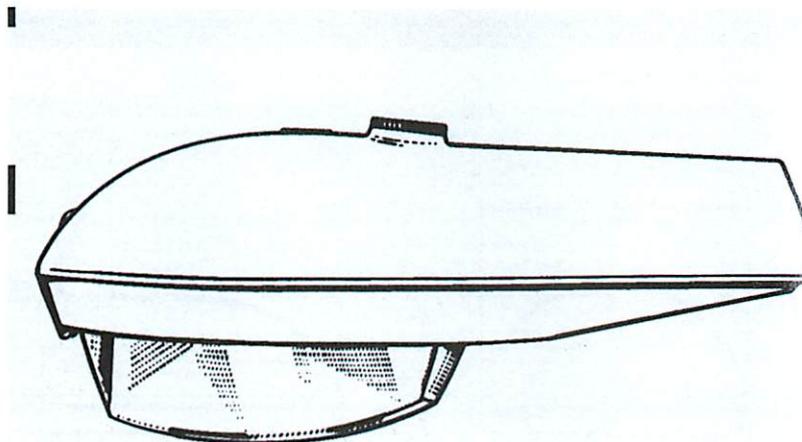
GE M-250R2 Luminaire
100W HPS – Type III

Design Criteria: **30' post with 6' arm**

Typical Spacing Range: **400' (Same side or staggered pattern)**

Catalogue Number: **M2RR10S1N2AMS2**

Post(s) Used: **Wood Pole (30' mounting height)**
 Hapco 21-587 (30' mounting height)



Decorative Poles

Hadco P-1565 Page 19

Hadco P-2060 Page 20

Hapco 21-587 Aluminum Page 21

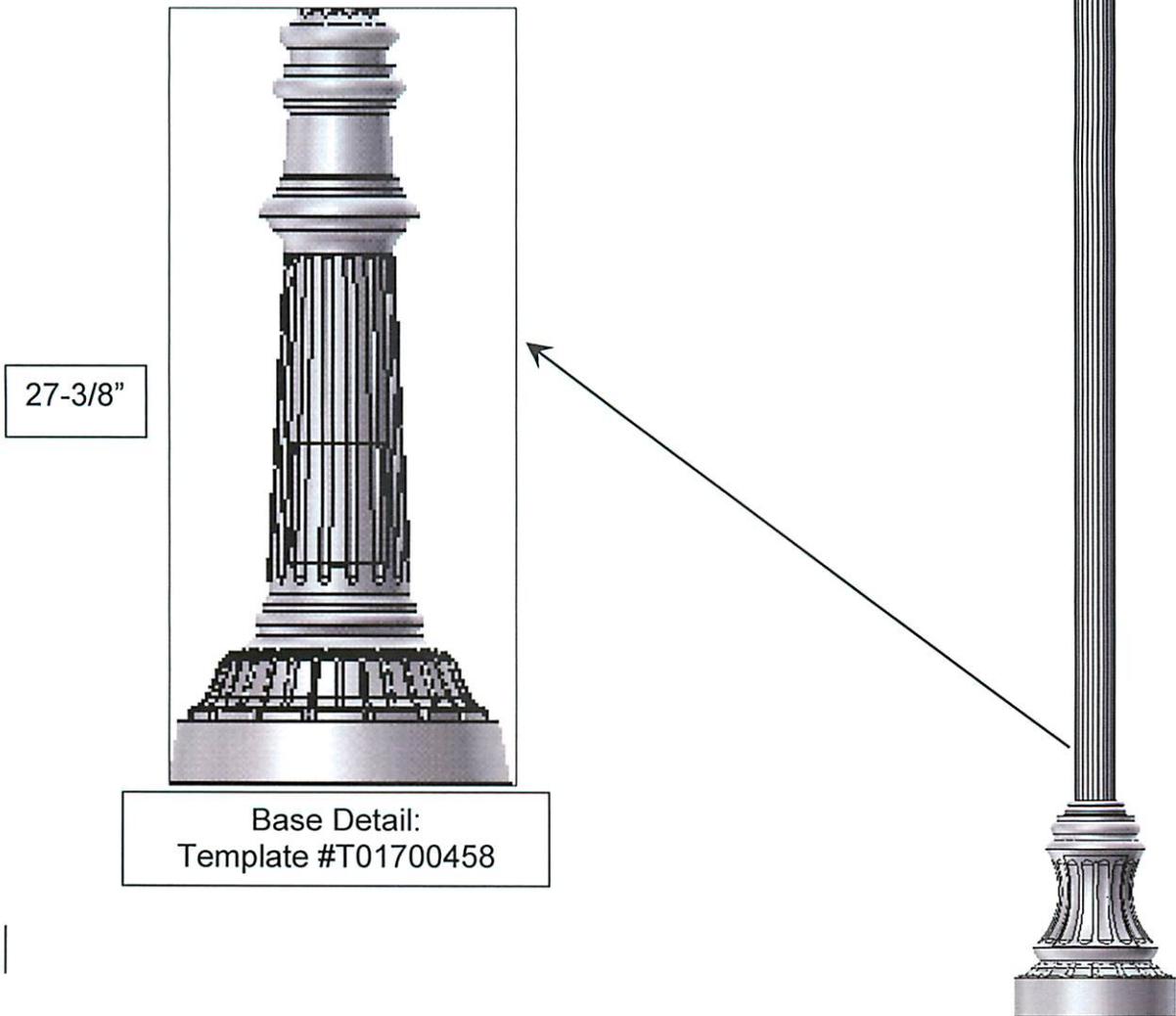
Holophane North Yorkshire Page 22

Holophane Wadsworth Page 23



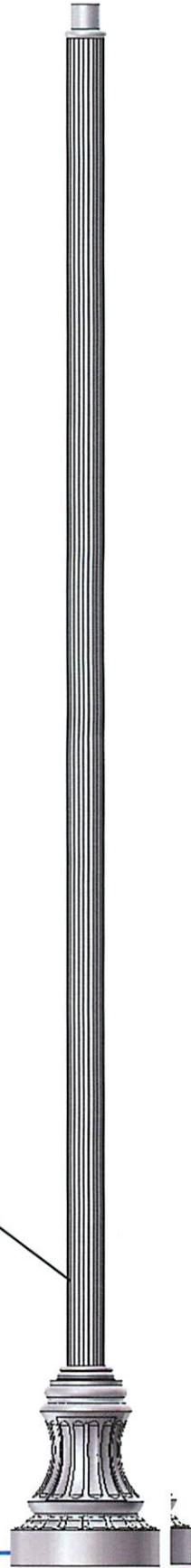
Hadco 12' Fluted
P-1565

Ordering Guide: CP0237
Drawing Number: C0237-DWG01
Luminaire(s) Used: All (except GE M-250R2)



Hadco 12' Fluted
P-2060

Ordering Guide: CP0237A
Drawing Number: C0237-DWG02
Luminaire(s) Used: All (except GE M-250R2)



21"



Base Detail:
Template #T01700498

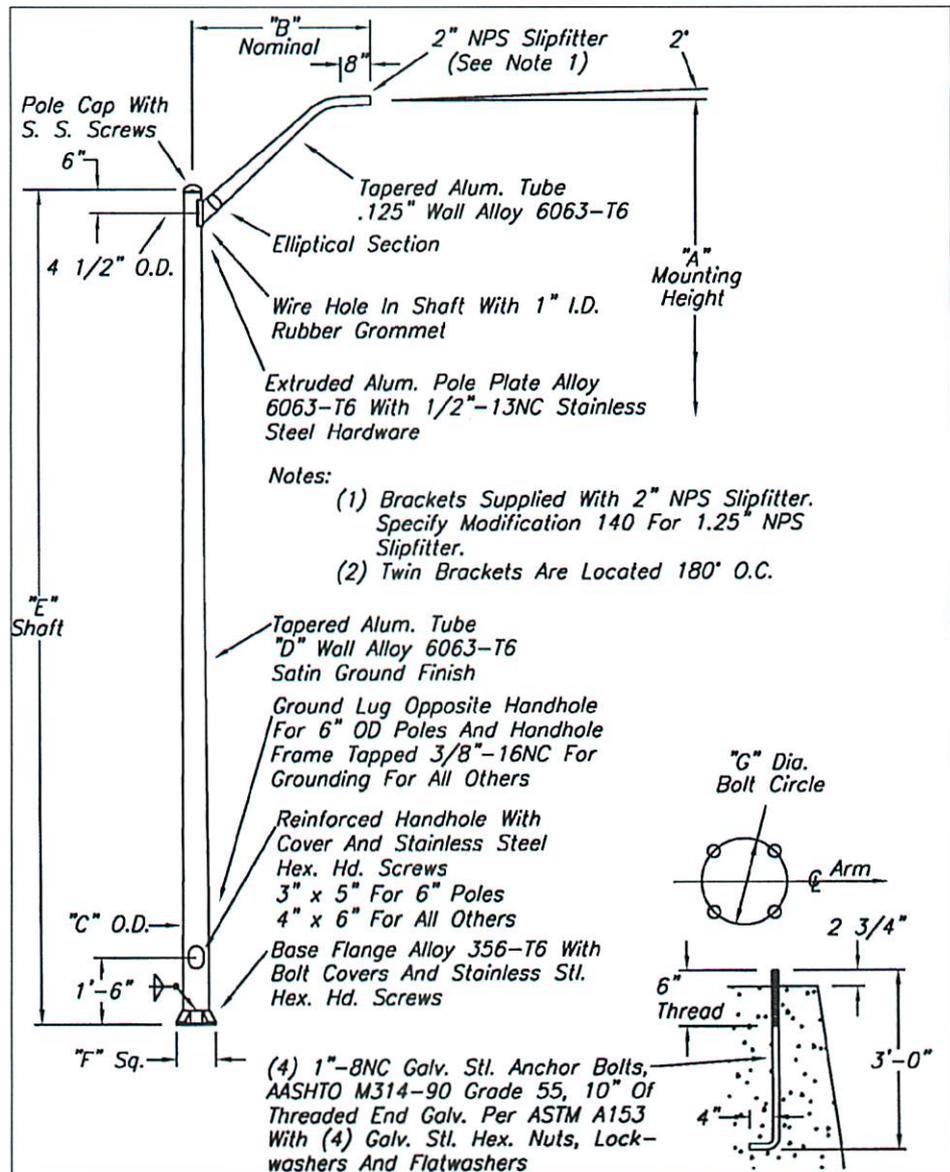
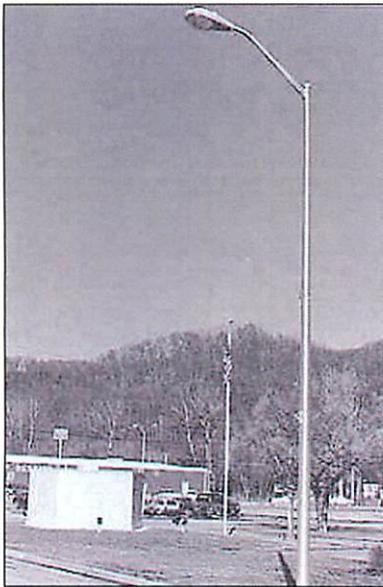


Hapco 30' Aluminum Pole B21 Series

Catalogue Number: **21-587**

Design Criteria: **30' post with 6' arm**

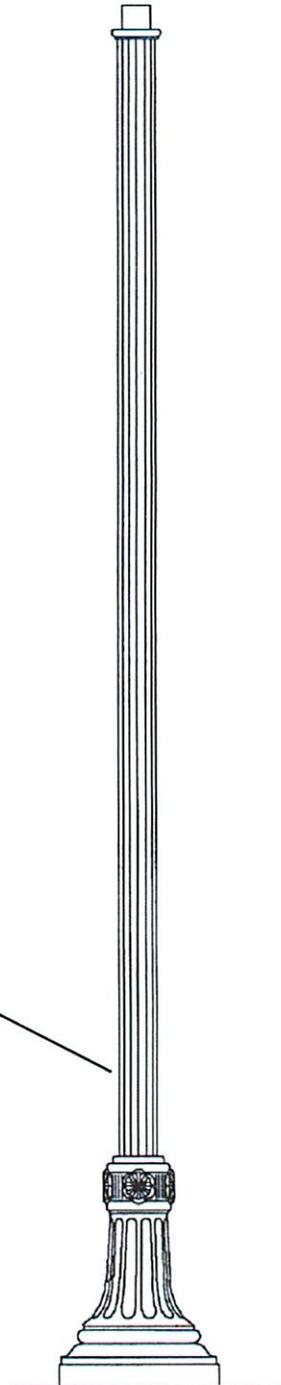
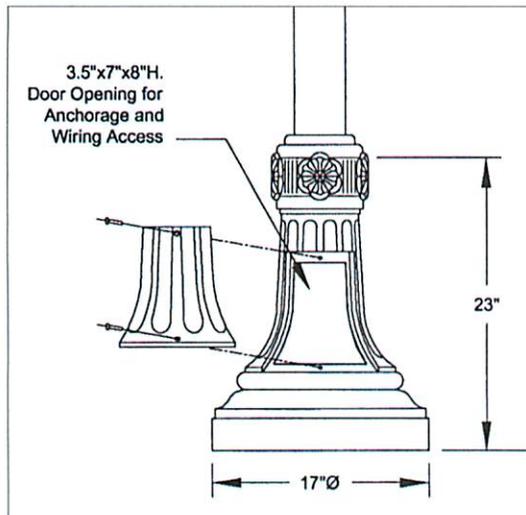
Luminaire(s) Used: **GE M-250R2**



Holophane 12' Fluted
North Yorkshire

Catalogue Number: **NY12F4/17-CA/Black**

Luminaire(s) Used: **All (except GE M-250R2)**

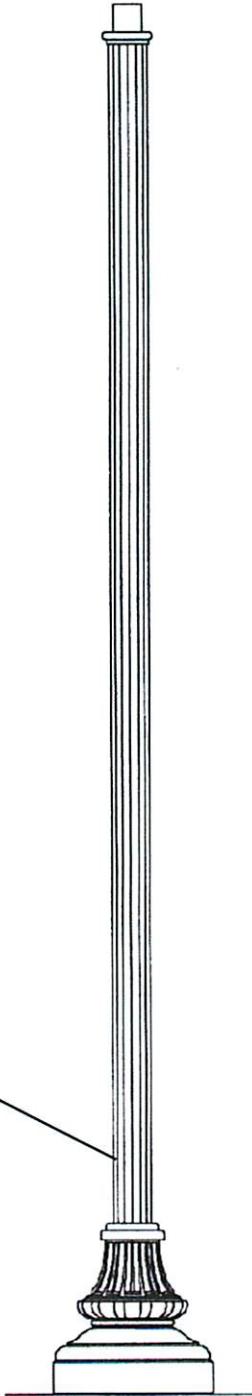
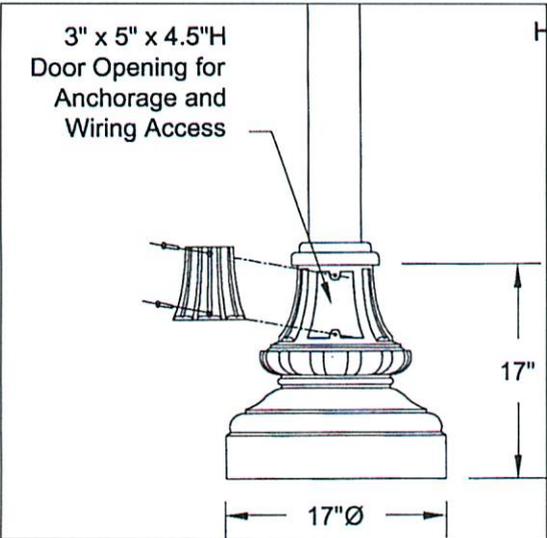


NY12F4/17-CA/finish
4" dia. fluted shaft
8', 10', 12', 14'

**Holophane 12' Fluted
Wadsworth**

Catalogue Number: **W12F4/17-CA/Black**

Luminaire(s) Used: **All (except GE M-250R2)**



W12F4/17-CA/finish
4" dia. fluted shaft
8', 10', 12', 14'