1000
STREETLIGHTS

7/24/2009

~	SL	General Streetlighting
~	AL100FL-AL400FL	Area Light, Floodlight Installation, Wood Pole Mounted
~	AL100HL	Area Light, High Light Installation, Wood Pole Mounted
~	DL100A	Decorative Area Lighting, Single Acorn, Fiberglass Pole
~	DL100AT	Decorative Area Lighting, Twin Acorn, Fiberglass Pole
~	DL100SH	Decorative Area Lighting, Shepherds Hook
~	SLARM4-SLARM22	Streetlight Mast Arm Installation, Wood Pole Mounted
~	SLF	Streetlight Foundation, Steel - 6" Diameter
N	SLPT	Streetlight Pole Tagging
C	SLR	Secondary OH to UG Riser Assembly for Streetlight Feeder
~	SL100-SL400	Streetlight Luminaire Installation, Wood Pole Mounted
~	SL100P3	Post Top Luminaire w/ Fiberglass Direct Burial Standard
~	SL100SA-SL400SA	Streetlight Installation, Single Arm Al Std, 25' or 32' Mt. Ht.
~	SL100SF-SL400SF	Streetlight Installation, Single Arm 29' 8", Fiberglass Std.
~	SL150SD-SL400SD	Streetlight Installation, Twin Arm, Al Std., 32' Mt. Ht.

N New Standard
R Redrawn Standard
C Changed Standard
~ No Change

GENERAL STREETLIGHTING

TRAFFIC SAFETY IS THE PRIMARY REASON FOR THE INSTALLATION OF ROADWAY LIGHTING AND SHOULD BE GIVEN FIRST CONSIDERATION IN THE DESIGN OF ALL NEW LIGHTING SYSTEMS.

Design of streetlighting shall in all instances be based, as nearly as practical, on the I.E.S. Code for Roadway Lighting (I.E.S. - Illuminating Engineering Society – is the organization which deals with the professional viewpoint in all types of illumination – interior and exterior; homes, buildings, factories, recreational areas, farms, airports, roadways). Using a base consisting of scientific findings, and experience of its members, I.E.S. provides the standards for roadway lighting. The Roadway Lighting Committee of I.E.S. provides most of the background and text of "American National Standard Practice for Roadway Lighting" which is used as the basic guide by lighting and highway engineers.

I. STREETLIGHTING LUMINAIRES

The following Schedule outlines the District's High Pressure Sodium (HPS) sizes and types of applications:

Watts	Size Lumens Initial	Size Lumens Average	Ballast Types	Application
100	9,500	8,550	NPF Reactor	Yard Light (Hi-lite), Streetlight, Post-Top, Floodlight
150	16,000	14,400	NPF Reactor	Streetlight
200	22,000	19,800	HPF Reactor	Streetlight, Floodlight
400	50,000	45,000	HPF Reactor	Streetlight, Floodlight

Luminaires are obtained for use in individually-controlled or group-controlled systems. Individually controlled luminaires are equipped with twist-lock receptacle for photoelectric control.

Luminaires operate on the following voltages: 120, 240, and 480 volts. The preferred rating is 120 volts. Any others must be approved by Engineering Department streetlighting section and must be marked as such on luminaire.

Luminaires with external (pole-mounted) ballasts are not applied in new installations.

II. LAMPS

New high pressure sodium vapor lamps shall be of the type:

"Clear High Pressure Sodium Vapor" 100 Watt, 150 Watt, 200 Watt and 400 Watt. Do not use "Coated" or "Diffuse Coated" lamps.

High pressure sodium vapor lamps are intended to be group replaced once every four years. All lamp bases are imprinted with numbers and letters for date coding purposes. Each lamp shall be date coded before mounting into the luminaire. Date coding can be done by scratching one letter which represents "the month installed" and one number which represents "the year installed." Should lamp failure occur within one year of installation the lamp shall be returned to the manufacturer for full salvage. See sheet 3 for additional details on date coding.

III. PHOTOELECTRIC CONTROLS

Photoelectric controls, generally 120 Volt, 1000 Watt and equipped with twist-lock base, are normally used in the District's system. In some installations those of the duo-voltage type (120/240 Volt, 1000 Watt) are existing. Twist-lock type photoelectric relays are designed to see the light from one direction only, and should be installed so the window faces approximately north. This is important as direct exposure to the sun may damage the light cell. Should installations be encountered where existing signs, other lights, etc. interfere with the proper operation of the unit, the photoelectric relay may be rotated slightly to position the window away from the objectionable source of light to provide proper operation.

IV. MOUNTING OF STREETLIGHTING LUMINAIRES

The standard mast arm for mounting of streetlighting luminaires on wood poles is the "Upsweep" type mast arm.

The following kinds are available for use with high pressure sodium vapor streetlights:

1) The Cantilever type (no tie rods)

2) The Double-Guy type (two tie rods)

3) The Truss type (two tie rods)

V. CIRCUITS AND THEIR APPLICATION

Various types of streetlighting circuits and combinations thereof exist on the system. Since these circuits and their associated switching components vary as to condition, and since the amount of streetlight replacement to be done will determine the changes to be made in the circuit, it will be necessary to analyze each circuit for the most practical solution. Group controlled systems will be removed where possible.

Application of Multiple Systems

- Individual Photocell Control

For new installations of luminaires either on distribution poles or on streetlight poles that can be supplied by individual drops from distribution poles, the standard system shall consist of multiple luminaires with individual photocell control.

- Group-Controlled Systems

The group-multiple installation is intended primarily for supplying groups of luminaires by means of multiple circuits extending from luminaire pole to luminaire pole, either overhead or underground.

Group-multiple circuits normally operate at 120 volts. Consult Engineering Department streetlight section for use of other voltages.

VI. NEW STREETLIGHTING POLES

Existing wood distribution poles should be utilized as much as is practical, maintaining proper clearance, climbing space and working space. The locations of additional poles for streetlighting should be carefully chosen at property lines, with ample driveway clearance to avoid future relocation.

VII. DATE CODING OF LAMPS

All high pressure sodium lamps are manufactured with a series of letters and numbers stamped on their bases, as shown below, to provide a method of date coding the lamps when they are actually placed in service. The letters are arranged to correspond to the months of the year and the numbers are used to indicate the last digit of the year of installation (Examples: Month – Sept. = S, Feb. = F, Dec. = D, Year – 1981 = 1, 1982 = 2, 1983 = 3).

VIII. INSTALLATION OF LAMPS IN THE FIELD

All lamps shall be date coded, at the time of installation, by scratching the appropriate letter and number with a screwdriver to indicate the month and year installed.

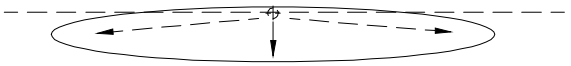
IX. REMOVAL OF LAMPS IN THE FIELD

All lamps removed from service shall be returned to stores unbroken for inspection and proper disposal by stores.

NOTE:

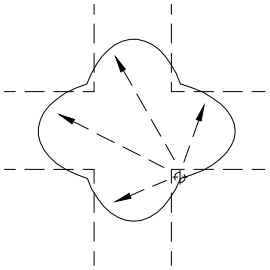
Instructions for inspection and disposal of failed lamps by stores, lamp warranty period, and related procedures are included in a letter from Materials Control.

X. LIGHTING TYPES



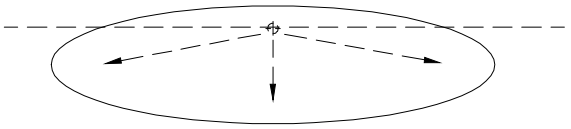
I.E.S. TYPE II

FOR USE ON NARROW TO MEDIUM WIDTH STREET USING MAST ARM MOUNTED LUMINAIRE. MOUNT AT RIGHT ANGLE (90°) WITH CENTERLINE OF STREET.



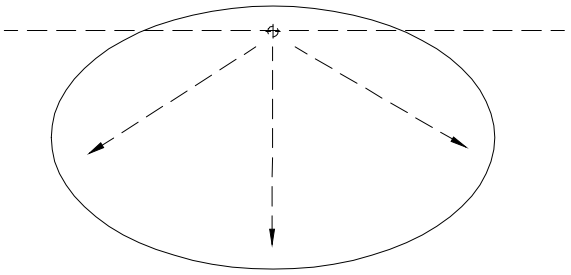
I.E.S. TYPE II 4-WAY

FOR USE AT INTERSECTIONS WHEN ONLY ONE MAST ARM MOUNTED LUMINAIRE CAN BE USED. MOUNT LUMINAIRE AS NEAR AS POSSIBLE TO CENTER OF INTERSECTION.



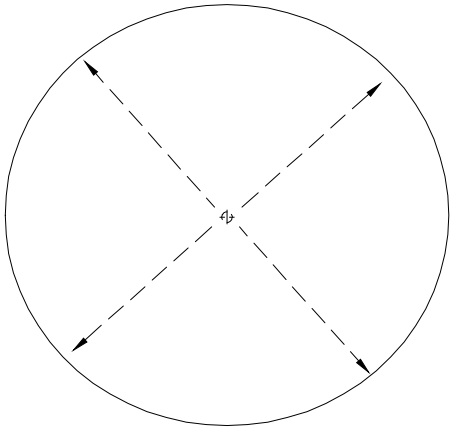
I.E.S. TYPE III

1. FOR USE ON WIDE WIDTH STREETS USING MAST ARM MOUNTED LUMINAIRES. MOUNT AT RIGHT ANGLE (90°) WITH CENTERLINE OF STREET.



I.E.S. TYPE IV

FOR USE IN SUBDIVISION CUL-DE-SACS USING SPECIALIZED COBRAHEAD LUMINAIRES. AIM LUMINAIRE AS NEAR AS POSSIBLE TO CENTER OF CUL-DE-SAC.



I.E.S. TYPE V

FOR YARD LIGHTS (AL100HL) AND POST TOP LUMINAIRES WHEN LOCATED IN CENTER OF AREA TO BE ILLUMINATED.

FLOODLIGHTS

TO BE USED FOR PARKING LOTS, STORAGE AREAS, ETC. NOT TO BE USED FOR STREET LIGHTING.

ALWAYS TAKE INTO ACCOUNT UNINTENTIONAL LIGHT TRESPASS ON SURROUNDING AREAS PRIOR TO INSTALLATION.

FLOODLIGHTS USED BY CLARK PUBLIC UTILITES HAVE A BEAM SPREAD OF 65° BOTH VERTICALLY & HORIZONTALLY

AIMING OF FLOODLIGHT SHOULD BE 1/2 TO 2/3 OF DISTANCE ACROSS AREA TO BE ILLUMINATED.

Clark Public Utilities

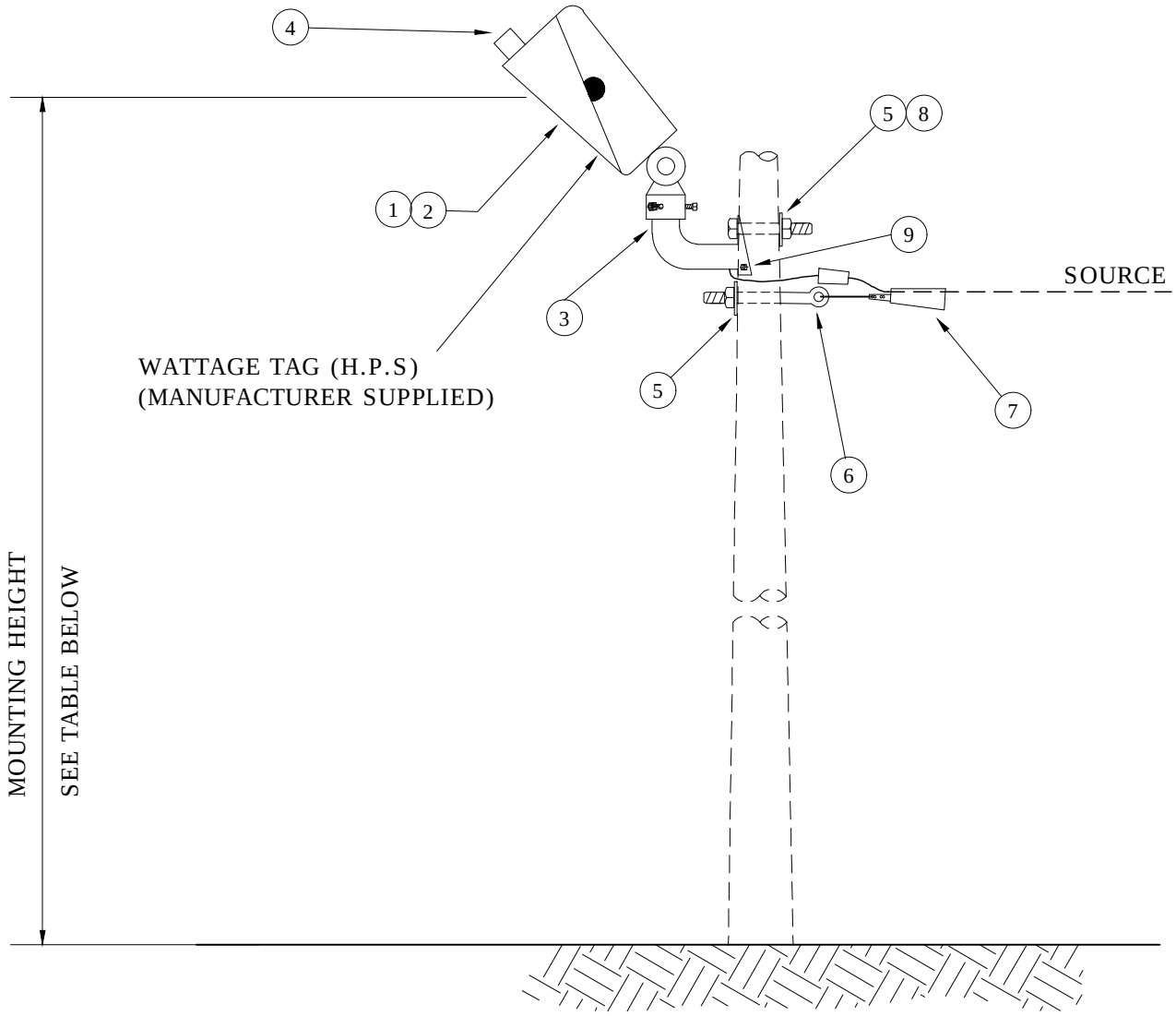
CONSTRUCTION STANDARDS

GENERAL STREET LIGHTING
LIGHT PATTERNS

REVISIONS			
R	DATE	ENGR	OPS
0	2/23/00	HWH	MA
1	8/24/04	LB	AH

△0

PAGE:		CAD FILE:	APP: WAH	SECTION
1 of 1	SL5	SL5	DATE: 8/13/04	1000



Size in Watts	Recommended Mounting Heights		
	Preferred	Minimum	Maximum
100	25 Ft.	20 Ft.	27 Ft.
200	30 Ft.	20 Ft.	32 Ft.
400	35 Ft.	25 Ft.	37 Ft.

REV 1: CHANGED TITLE TO "AREA LIGHT"

ITEM NO.	DESCRIPTION	SL100FW		SL200FW		SL400FW	
		QTY.	S/N	QTY.	S/N	QTY.	S/N
1	Lamp, Sodium (HPS)	1	1745	1	1747	1	821
2	Luminaire, FloodLight, Sodium (HPS)	1	1742	1	1743	1	858
3	Bracket, FloodLight, PM1, Single Pole Mt.	1	211	1	211	1	211
4	Relay, Photo Ext., 120V	1	1107	1	1107	1	1107
5	Washer, Square Flat 5/8" 2 1/4" x 2 1/4"	2	1412	2	1412	2	1412
6	Bolt, Eye 5/8" x 12"	1	107	1	107	1	107
7	Clamp, Wedge 6-1 Solid Bale	1	310	1	310	1	310
8	Bolt, Machine, Galv., 5/8" x 12"	1	155	1	155	1	155
9	Screw, Lag 1/2" x 3" Drive Point	2	1131	2	1131	2	1131

Clark Public Utilities

CONSTRUCTION STANDARDS

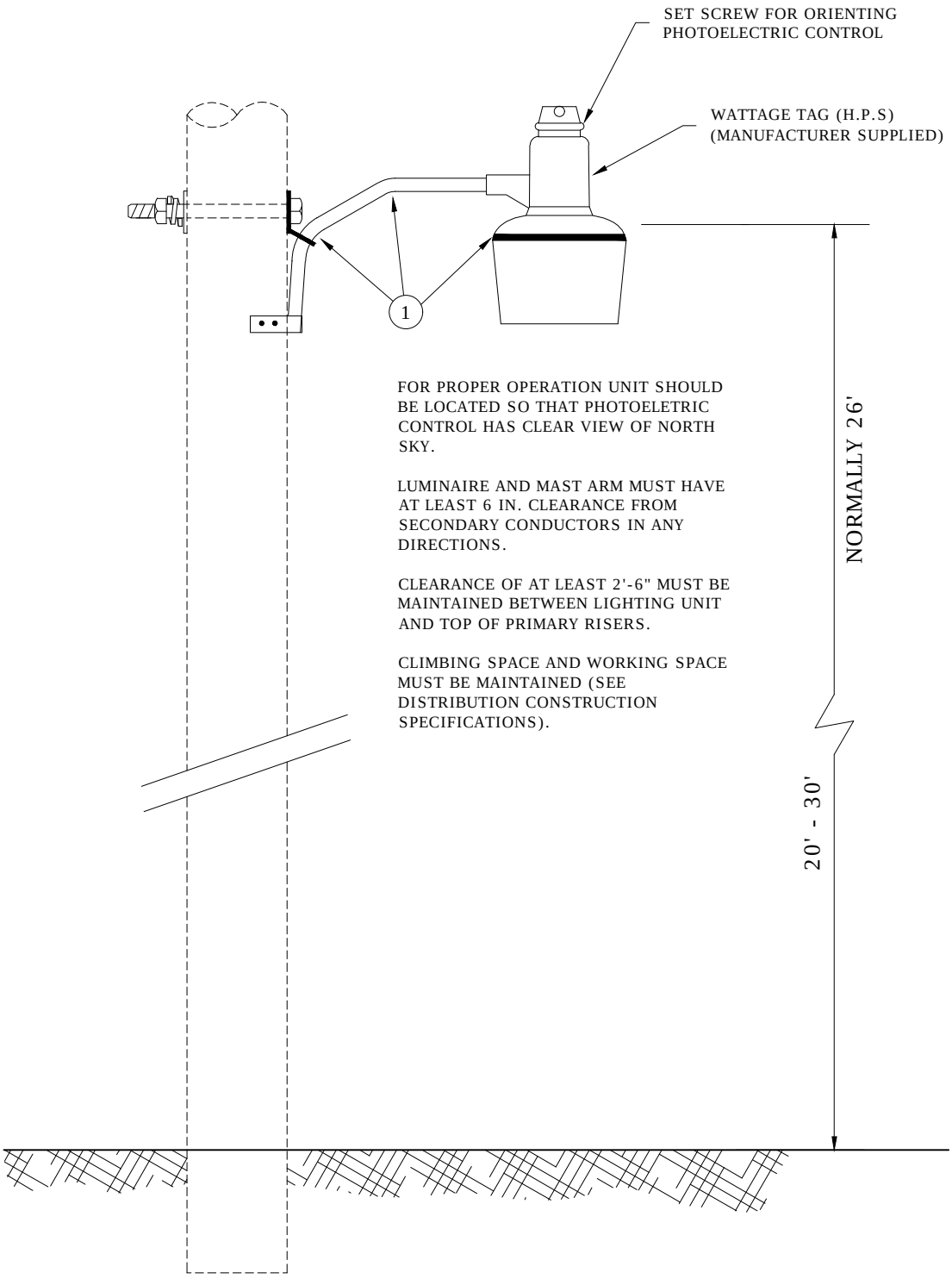
AREA LIGHT
FLOOD LIGHT INSTALLATION
WOOD POLE MOUNTED

REVISIONS

R	DATE	ENGR	OPS
0	2/23/00	HWH	MA
1	8/24/04	LB	DK

△0

PAGE:		CAD FILE:	APP: WAH	SECTION
1 of 1	AL100FL, AL200FL, AL400FL	AL100FL	DATE: 8/13/04	1000



FOR PROPER OPERATION UNIT SHOULD BE LOCATED SO THAT PHOTOELETRIC CONTROL HAS CLEAR VIEW OF NORTH SKY.

LUMINAIRE AND MAST ARM MUST HAVE AT LEAST 6 IN. CLEARANCE FROM SECONDARY CONDUCTORS IN ANY DIRECTIONS.

CLEARANCE OF AT LEAST 2'-6" MUST BE MAINTAINED BETWEEN LIGHTING UNIT AND TOP OF PRIMARY RISERS.

CLIMBING SPACE AND WORKING SPACE MUST BE MAINTAINED (SEE DISTRIBUTION CONSTRUCTION SPECIFICATIONS).

REV 1: CHANGED TITLE TO "AREA LIGHT"

ITEM NO.	DESCRIPTION	SL100YL QTY.	SL100YL S/N
1	Luminaire, Hi-Light 100W, HPS	1	2187

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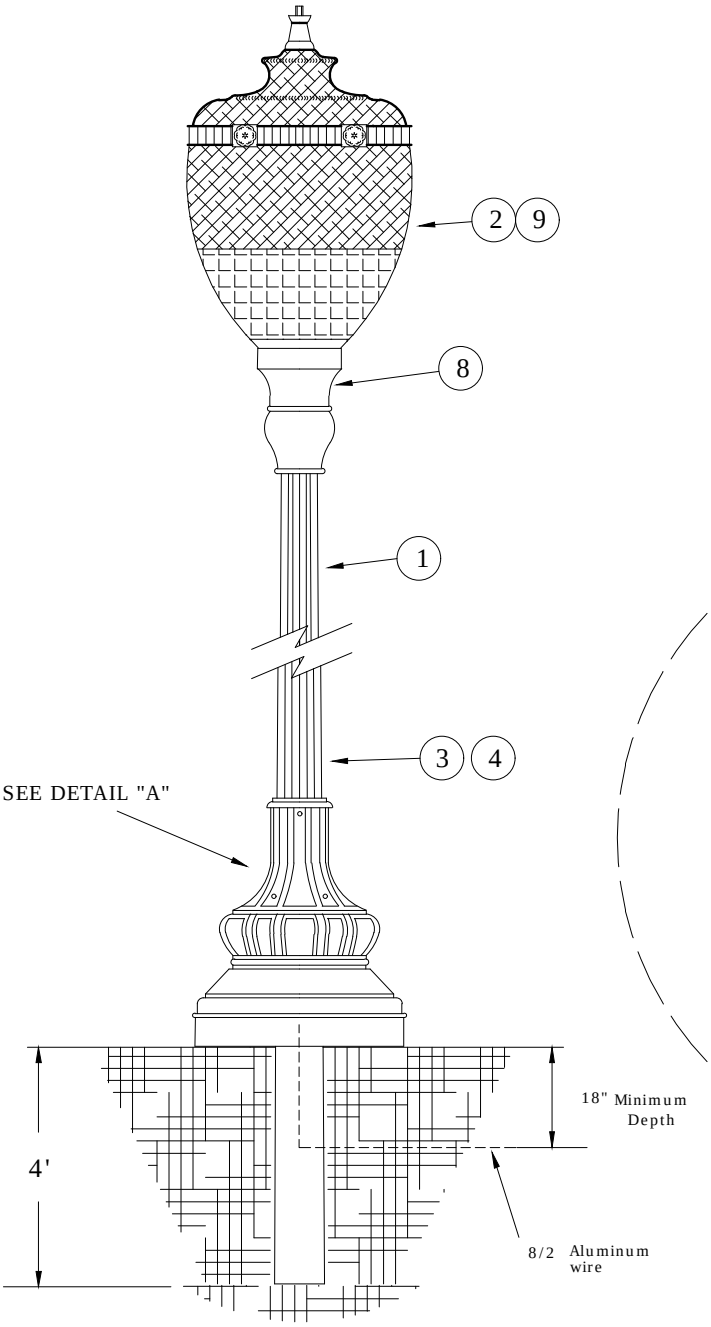
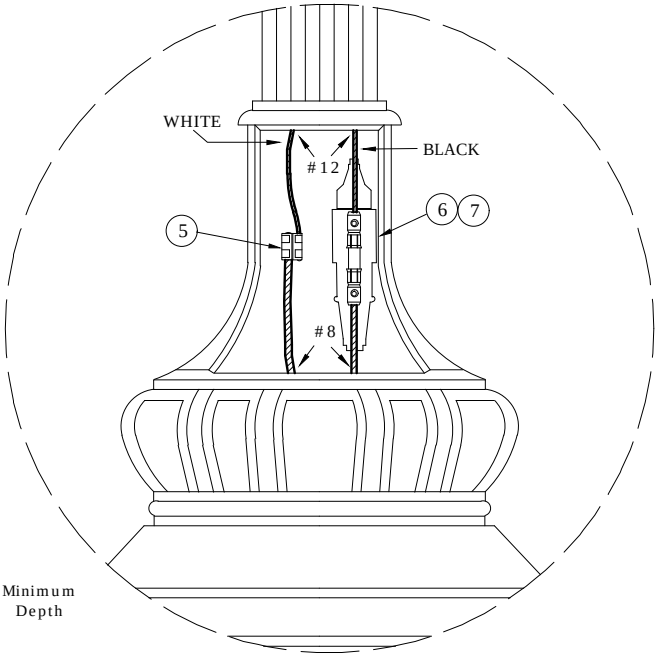
CONSTRUCTION STANDARDS

AREA LIGHT
HIGH LIGHT INSTALLATION
WOOD POLE MOUNTED

REVISIONS			
R	DATE	ENGR	OPS
0	2/23/00	HWH	MA
1	8/24/04	LB	AH
0			

PAGE:		CAD FILE:	APP: JEH	SECTION
1 of 1	AL100HL	AL100HL	DATE: 2/22/00	1000





DETAIL "A"

REV. 1: CHANGED TITLE TO "DECORATIVE AREA LIGHTING SINGLE ACORN"

ITEM NO.	DESCRIPTION	SL100A	
		QTY.	S/N
1	STANDARD, FLUTED SHAFT, FG, 14.5' DB, BLACK	1	2219
2	LUMINAIRE AND BALLAST, 100WATT TYPE 5 W/INTERNAL HOUSE SHIELD	1	2220
3	CONDUCTOR, CU, #12 STR. BLACK	25ft.	386
4	CONDUCTOR, CU, #12 STR. WHITE	25ft.	387
5	CONNECTOR, CABLELOK, 2-8 STR	1	416
6	FUSE, 10E, ONE TIME BUSS	1	2389
7	HOLDER, FUSE	1	2388
8	RELAY, PHOTO EXT. 120V	1	1107
9	LAMP, HPS, 100W, HPS	1	1745

Clark Public Utilities

CONSTRUCTION STANDARDS

DECORATIVE AREA LIGHTING ✲
SINGLE ACORN
FIBERGLASS POLE

REVISIONS

R	DATE	ENGR	OPS
0	2/23/00	HWH	MA
1	8/24/04	LB	AH

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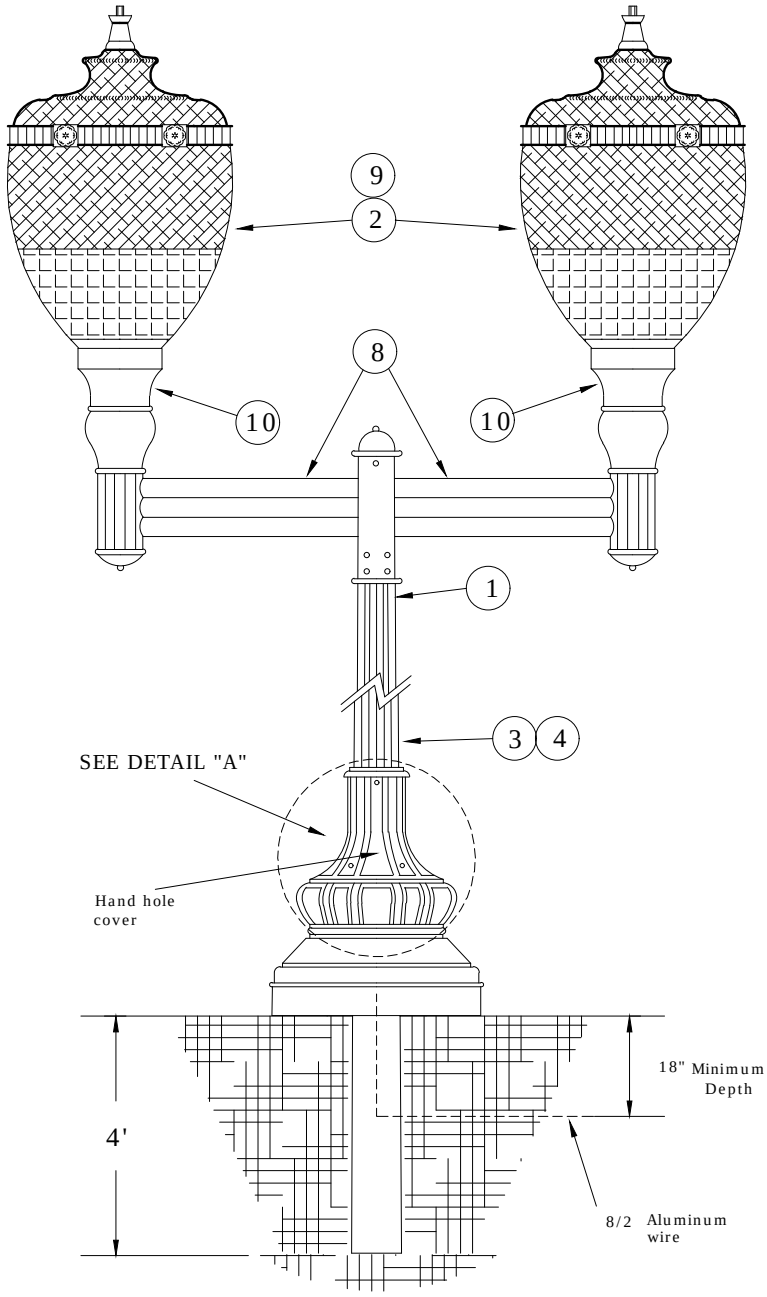
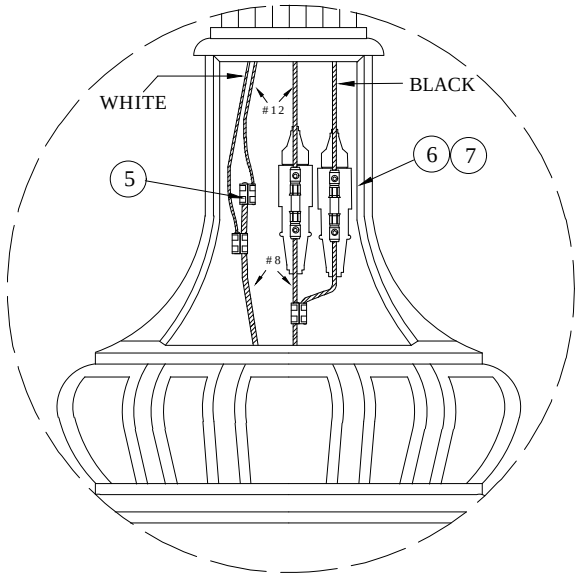
PAGE:		CAD FILE:	APP: WAH	SECTION
1 of 1	DL100A	DL100A	DATE: 8/13/04	1000





DETAIL "A"

REV. 1: CHANGED TITLE TO "DECORATIVE AREA LIGHTING TWIN ACORN"

ITEM NO.	DESCRIPTION	SL100AT	
		QTY.	S/N
1	STANDARD, FLUTED SHAFT, FIBERGLASS, DIRECT BURIED 14.5', BLACK	1	2219
2	LUMINAIRE AND BALLAST, 100WATT TYPE 5 W/INTERNAL HOUSE SIDE SHIELD	2	2220
3	CONDUCTOR, CU, #12 STR. BLACK	25ft.	386
4	CONDUCTOR, CU, #12 STR. WHITE	25ft.	387
5	CONNECTOR, CABLELOK, 2-8 STR	3	416
6	FUSE, 10AMP	2	2389
7	HOLDER, FUSE	2	2388
8	ARM TWIN FIXTURE FOR ACORN LUM	1	2200
9	LAMP, HPS, 100W, 55V	2	1745
10	RELAY, PHOTO EXT. 120V	2	1107

Clark Public Utilities

CONSTRUCTION STANDARDS

DECORATIVE AREA LIGHTING ✲
TWIN ACORN
FIBERGLASS POLE

REVISIONS

R	DATE	ENGR	OPS
0	2/23/00	HWH	MA
1	8/24/04	LB	AH
0			

PAGE: 1 of 1

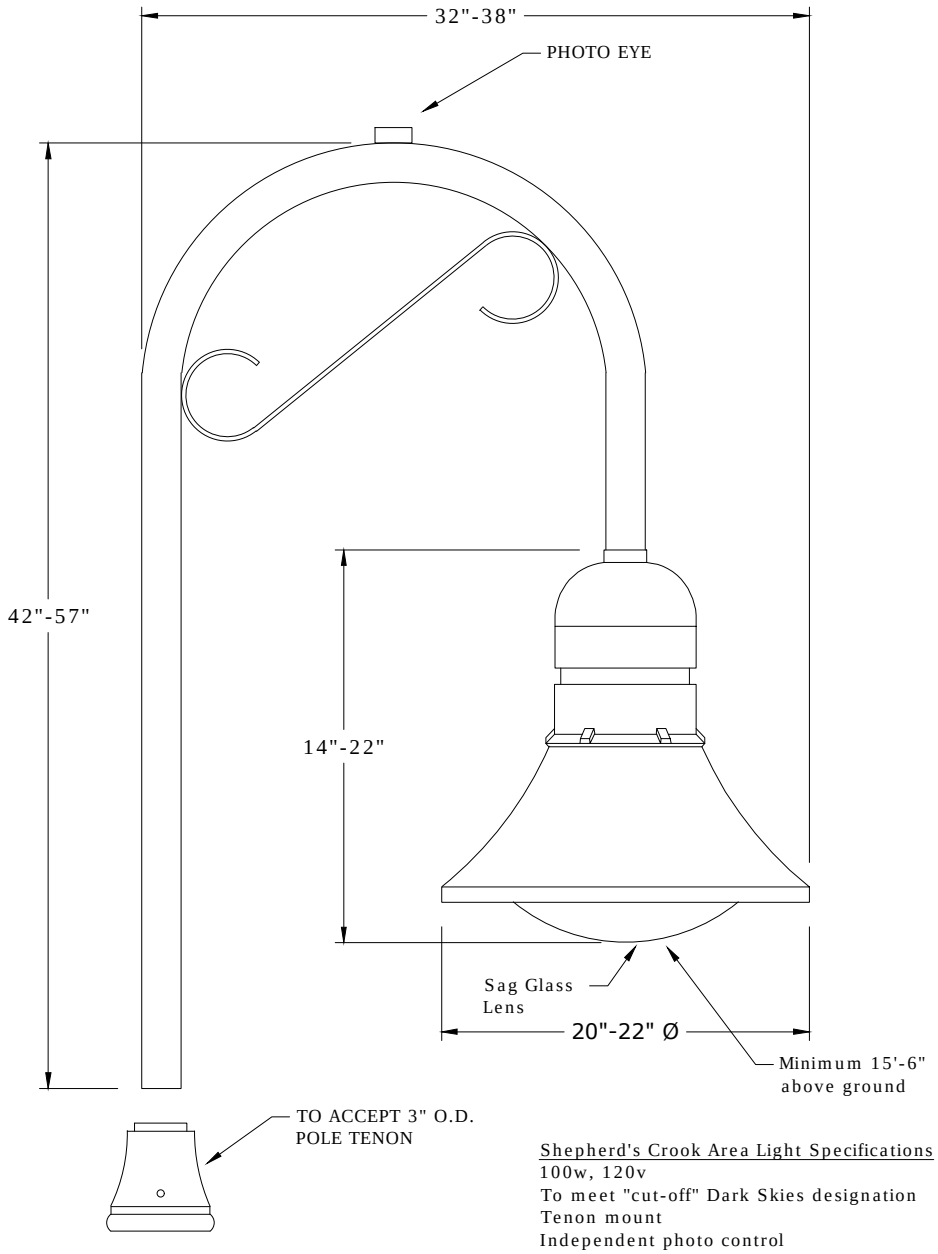
DL100AT

CAD FILE: DL100AT

APP: WAH
DATE: 8/13/04

SECTION 1000

REPRESENTATIVE DRAWING



Shepherd's Crook Area Light Specifications
100w, 120v
To meet "cut-off" Dark Skies designation
Tenon mount
Independent photo control
HPF ballast
Type 2 or 3 distribution pattern

NOTES: 1. Dimensions are approximate.
2. Color: Black matte or semi gloss.

ITEM NO.	DESCRIPTION	DL100SH QTY.	DL100SH S/N
1	STANDARD, FLUTED SHAFT, FG, 14.5' DB, BLACK	1	2219
2	LUMINAIRE, SHEPHERD'S HOOK	1	2565
3	CONDUCTOR, CU, #12 STR. BLACK	35ft.	386
4	CONDUCTOR, CU, #12 STR. WHITE	35ft.	387
5	CONNECTOR, CABLELOK, 2-8 STR	1	416
6	FUSE, 10E, ONE TIME BUSS	1	2389
7	HOLDER, FUSE	1	2388
8	RELAY, PHOTO EXT. 120V	1	1107
9	LAMP, HPS, 100W, HPS	1	1745

Clark Public Utilities

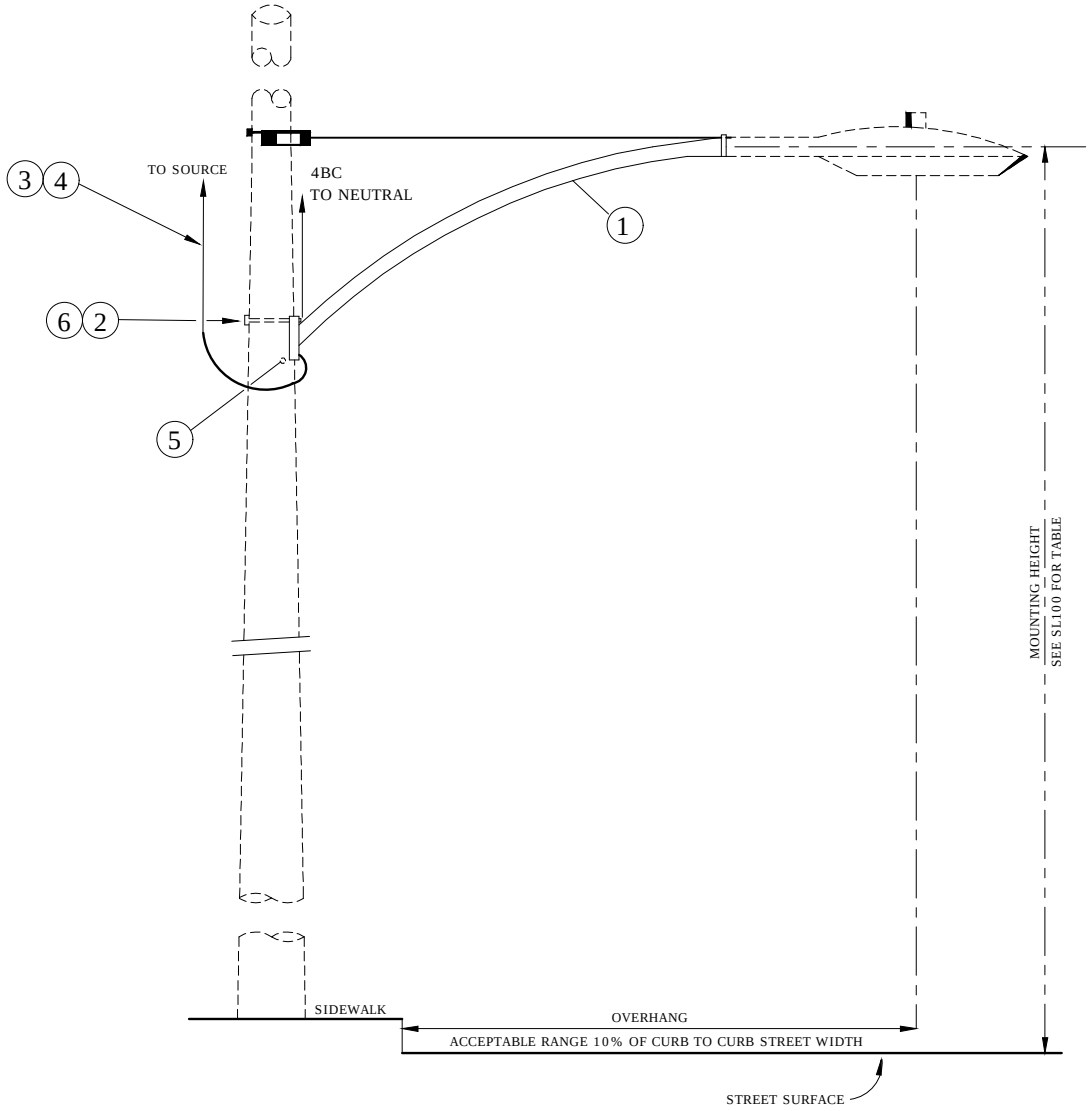
CONSTRUCTION STANDARDS

DECORATIVE AREA LIGHTING
SHEPHERDS HOOK

REVISIONS			
R	DATE	ENGR	OPS
0	8/24/04	LB	AH

△0

PAGE:		CAD FILE:	APP: WAH	SECTION
1 of 1	DL100SH	DL100SH	DATE: 8/13/04	1000



NOTE: MAST ARM ATTACHMENT HEIGHT VARIES WITH TYPE OF ARM & MUST BE POSITIONED SO LUMINAIRE IS LEVEL.

SLARM4, 6, 8, 10, 12, 14, 16, 18, 20 & 22.
ENDING NUMBERS SPECIFY MAST ARM LENGTH.
CONDUCTOR WIRE LENGTH WILL BE ADJUSTED TO MATCH MAST ARM SIZE.

ITEM NO.	DESCRIPTION	SLARM4 QTY.	SLARM4 S/N
1	ARM, MAST STL. 16 FT ST. LITE DBLE GUY	1	0051
2	BOLT, MACHINE 5/8 IN X 12 INGALV	2	0155
3	COND, CU 12STR 1C600V, BLACK	19	0386
4	COND, CU 12STR 1C600V, WHITE	19	0387
5	SCREW, LAG 1/2 IN X 3 IN DRIVE POINT	2	1131
6	WASHER, SQUARE FLAT 5/8 IN 2-1/4 IN X 2-1/4 IN	2	1412

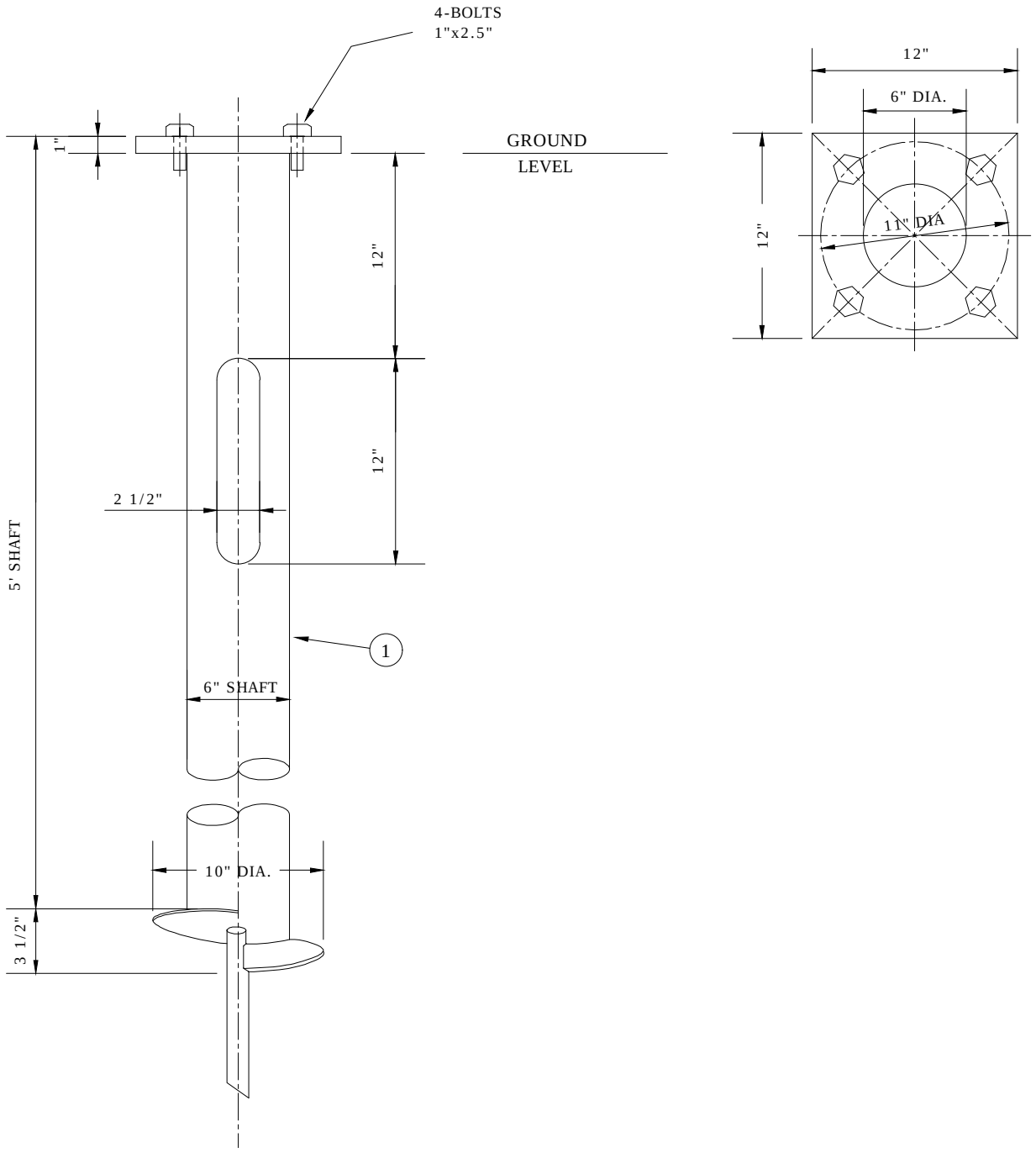
Clark Public Utilities

CONSTRUCTION STANDARDS

STREETLIGHT MAST ARM INSTALLATION
WOOD POLE MOUNTED

REVISIONS			
R	DATE	ENGR	OPS
1	2/23/00	HWH	MA
1			

PAGE:		CAD FILE:	APP:	SECTION
1 of 1	SLARM4-SLARM22	SLARM4	DATE:	1000



ITEM NO.	DESCRIPTION	SLF QTY.	SLF S/N
1	Anchor, Street Light Foundation 6" D	1	20

Clark Public Utilities

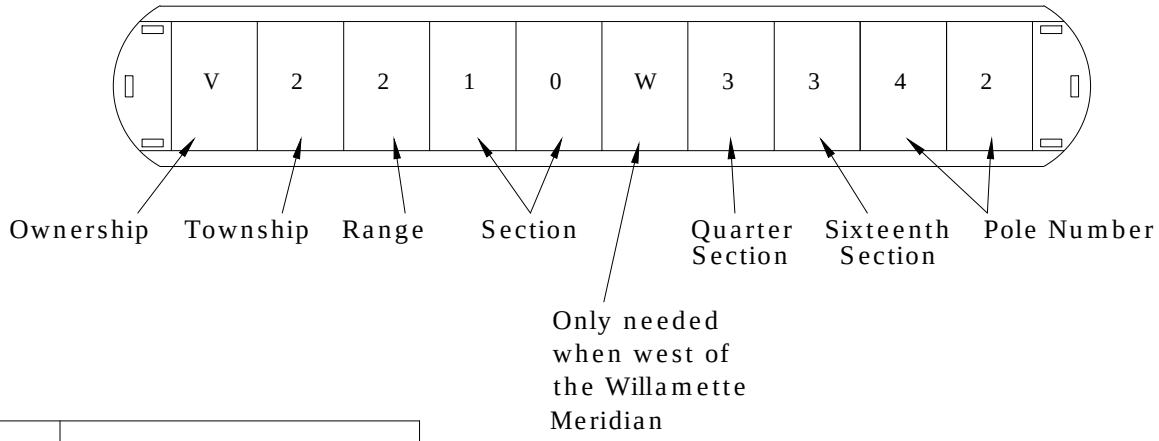
CONSTRUCTION STANDARDS

STREET LIGHT FOUNDATION
STEEL - 6" DIA.

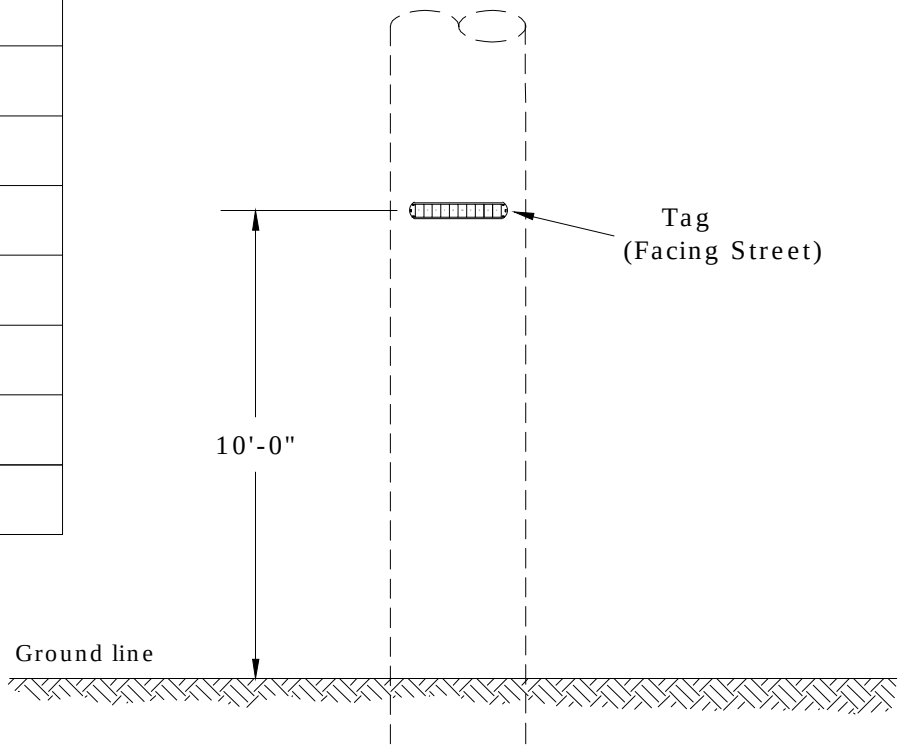
REVISIONS			
R	DATE	ENGR	OPS
1	2/23/00	HWH	MA
1			

PAGE:		CAD FILE:	APP:	SECTION
1 of 1	SLF	SLF	DATE:	1000

STREETLIGHT POLE TAGGING



CODE	OWNERSHIP
V	Vancouver
P	Clark Public Utilities
B	Battle Ground
R	Ridgefield
W	Washougal
C	Camas
L	La Center
A	Amboy
Y	Yacolt
U	Unincorporated Clark County
D	WA Dot



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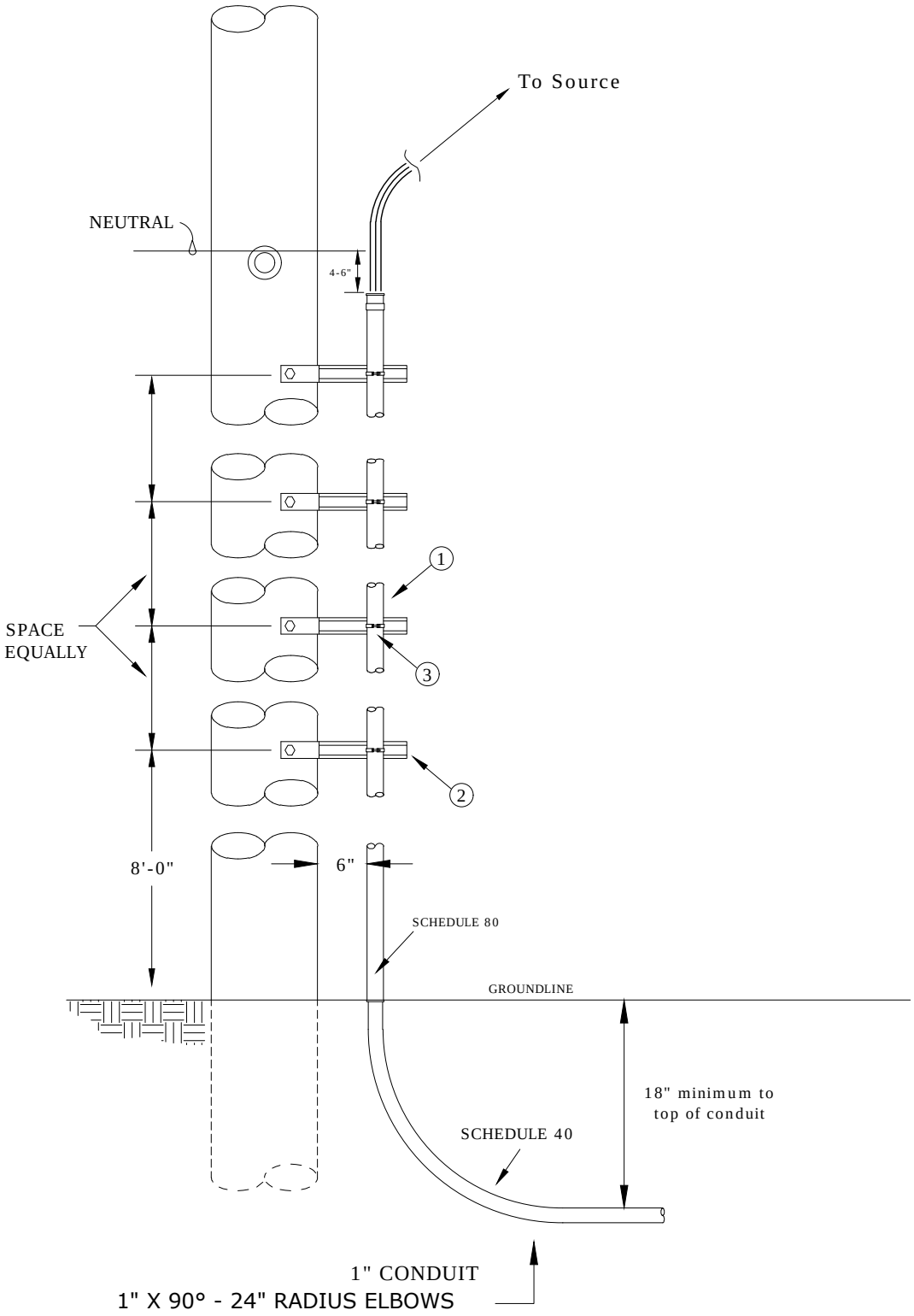
CONSTRUCTION STANDARDS

STREETLIGHT POLE TAGGING

REVISIONS			
R	DATE	ENGR	OPS

PAGE:		CAD FILE:	APP: CM/AH	SECTION
1 of 1	SLPT	SLPT	DATE: 10/17/08	1000



Rev 2: Changed from 3/4" to 1" conduit

ITEM NO.	DESCRIPTION	SLR QTY.	SLR S/N
1	Conduit, PVC, Sch 80 1" x 10'	3	2482
2	Bracket, Standoff Riser 10 1/2" UG	4	226
3	Clamp, Standoff Bracket, 1"	3	292

Clark Public Utilities

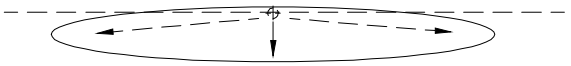
CONSTRUCTION STANDARDS

SECONDARY OVERHEAD TO
UNDERGROUND RISER ASSEMBLY
FOR STREETLIGHT FEEDER

REVISIONS			
R	DATE	ENGR	OPS
1	2/23/00	HWH	MA
2	10/17/08	CM	AH
1			

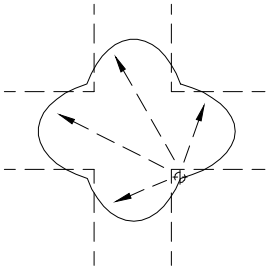
PAGE:		CAD FILE:	APP:	SECTION
1 of 1	SLR	SLR	DATE:	1000

X. LIGHTING TYPES



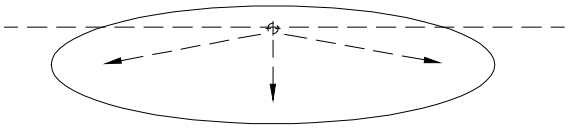
I.E.S. TYPE II

FOR USE ON NARROW TO MEDIUM WIDTH STREET USING MAST ARM MOUNTED LUMINAIRE. MOUNT AT RIGHT ANGLE (90°) WITH CENTERLINE OF STREET.



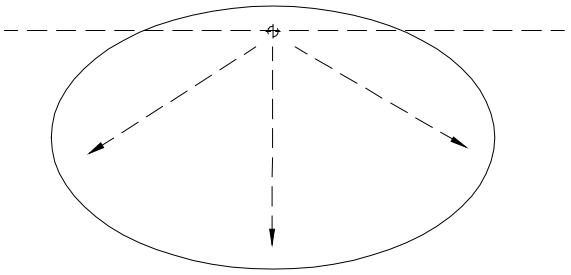
I.E.S. TYPE II 4-WAY

FOR USE AT INTERSECTIONS WHEN ONLY ONE MAST ARM MOUNTED LUMINAIRE CAN BE USED. MOUNT LUMINAIRE AS NEAR AS POSSIBLE TO CENTER OF INTERSECTION.



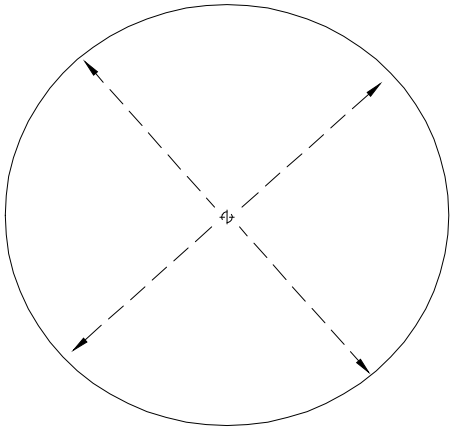
I.E.S. TYPE III

1. FOR USE ON WIDE WIDTH STREETS USING MAST ARM MOUNTED LUMINAIRES. MOUNT AT RIGHT ANGLE (90°) WITH CENTERLINE OF STREET.



I.E.S. TYPE IV

FOR USE IN SUBDIVISION CUL-DE-SACS USING SPECIALIZED COBRAHEAD LUMINAIRES. AIM LUMINAIRE AS NEAR AS POSSIBLE TO CENTER OF CUL-DE-SAC.



I.E.S. TYPE V

FOR YARD LIGHTS (AL100HL) AND POST TOP LUMINAIRES WHEN LOCATED IN CENTER OF AREA TO BE ILLUMINATED.

FLOODLIGHTS

TO BE USED FOR PARKING LOTS, STORAGE AREAS, ETC. NOT TO BE USED FOR STREET LIGHTING.

ALWAYS TAKE INTO ACCOUNT UNINTENTIONAL LIGHT TRESPASS ON SURROUNDING AREAS PRIOR TO INSTALLATION.

FLOODLIGHTS USED BY CLARK PUBLIC UTILITES HAVE A BEAM SPREAD OF 65° BOTH VERTICALLY & HORIZONTALLY

AIMING OF FLOODLIGHT SHOULD BE 1/2 TO 2/3 OF DISTANCE ACROSS AREA TO BE ILLUMINATED.

Clark Public Utilities

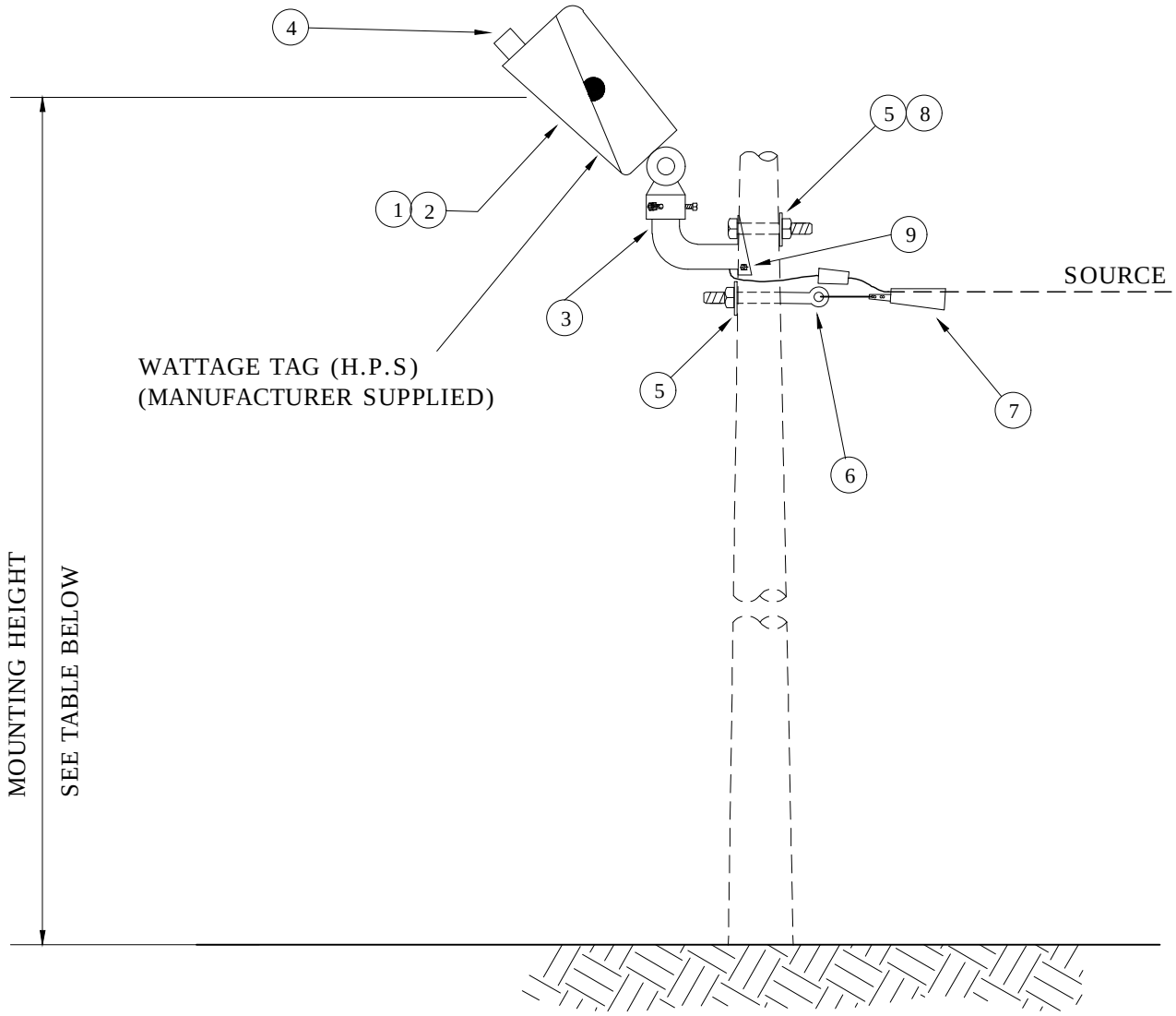
CONSTRUCTION STANDARDS

GENERAL STREET LIGHTING
LIGHT PATTERNS

REVISIONS			
R	DATE	ENGR	OPS
0	2/23/00	HWH	MA
1	8/24/04	LB	AH

△0

PAGE:		CAD FILE:	APP: WAH	SECTION
1 of 1	SL5	SL5	DATE: 8/13/04	1000



Size in Watts	Recommended Mounting Heights		
	Preferred	Minimum	Maximum
100	25 Ft.	20 Ft.	27 Ft.
200	30 Ft.	20 Ft.	32 Ft.
400	35 Ft.	25 Ft.	37 Ft.

REV 1: CHANGED TITLE TO "AREA LIGHT"

ITEM NO.	DESCRIPTION	SL100FW		SL200FW		SL400FW	
		QTY.	S/N	QTY.	S/N	QTY.	S/N
1	Lamp, Sodium (HPS)	1	1745	1	1747	1	821
2	Luminaire, FloodLight, Sodium (HPS)	1	1742	1	1743	1	858
3	Bracket, FloodLight, PM1, Single Pole Mt.	1	211	1	211	1	211
4	Relay, Photo Ext., 120V	1	1107	1	1107	1	1107
5	Washer, Square Flat 5/8" 2 1/4" x 2 1/4"	2	1412	2	1412	2	1412
6	Bolt, Eye 5/8" x 12"	1	107	1	107	1	107
7	Clamp, Wedge 6-1 Solid Bale	1	310	1	310	1	310
8	Bolt, Machine, Galv., 5/8" x 12"	1	155	1	155	1	155
9	Screw, Lag 1/2" x 3" Drive Point	2	1131	2	1131	2	1131

Clark Public Utilities

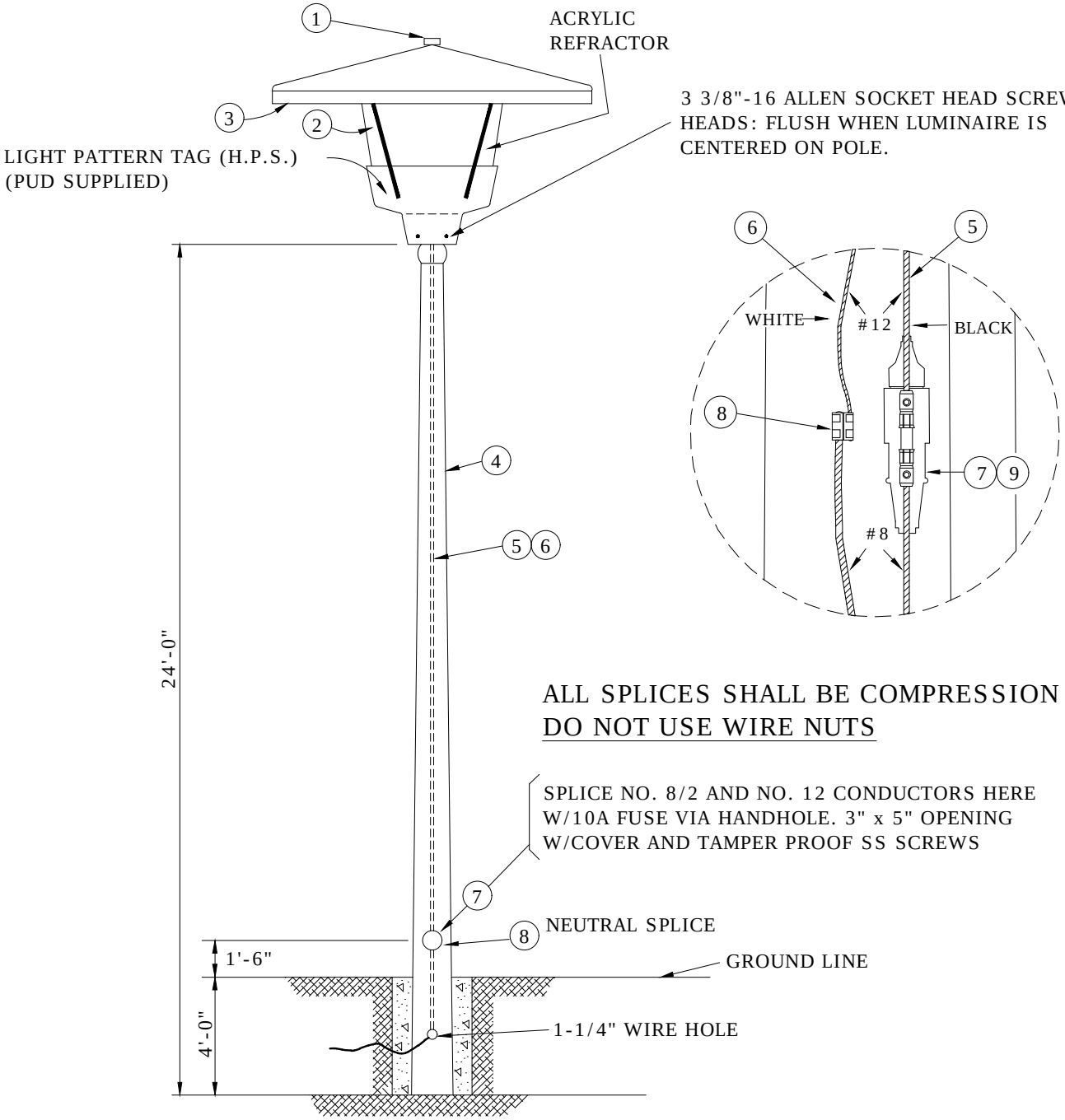
CONSTRUCTION STANDARDS

AREA LIGHT
FLOODLIGHT INSTALLATION
WOOD POLE MOUNTED

REVISIONS

R	DATE	ENGR	OPS
0	2/23/00	HWH	MA
1		LB	DK
0			

PAGE:		CAD FILE:	APP: WAH	SECTION
1 of 1	SL100FW,SL200FW,SL400FW	SL100FW	DATE: 8/13/04	1000



ITEM NO.	DESCRIPTION	SL100P3	
		QTY.	S/N
1	Relay, Photo Ext. 120V	1	1107
2	Lamp, Sodium (HPS) 100W 9,500 Lumens	1	1745
3	Luminaire Post Top HPS 100W - Type 3 LIGHT PATTERN (SL100P3)	1	1738
3	Luminaire Post Top HPS 100W - Type 4 LIGHT PATTERN (SL100P4)	1	1739
3	Luminaire Post Top HPS 100W - Type 5 LIGHT PATTERN (SL100P5)	1	1740
4	Standard, 24' Direct Burial FiberGlass (Gray)	1	2045
5	Conductor, CU 12THW Black	20ft.	386
6	Conductor, CU 12THW White	20ft.	387
7	Fuse, 10A	1	2389
8	Connector, CableLok, 2-8 STR	1	416
9	Holder, fuse	1	2388

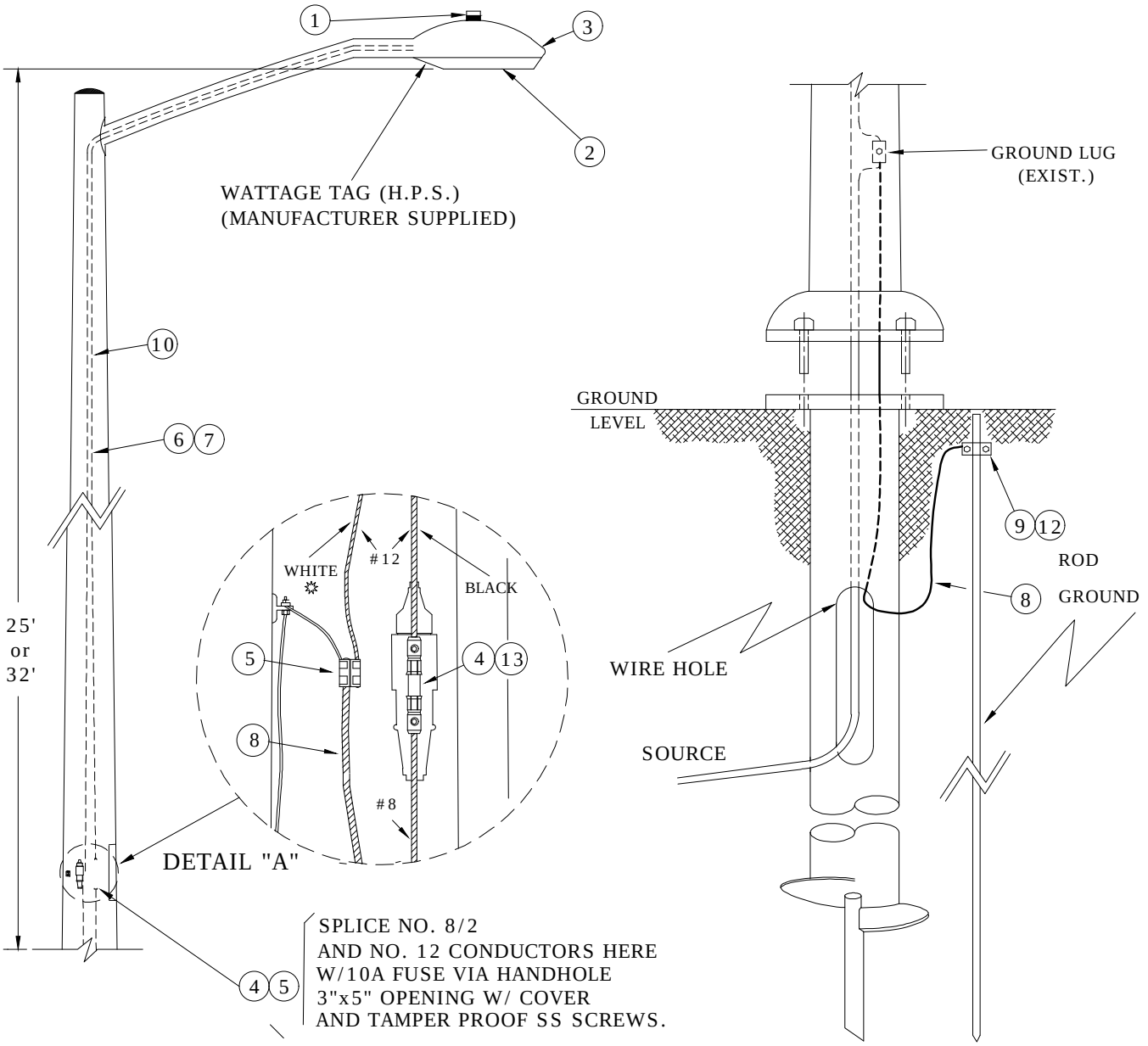
Clark Public Utilities

CONSTRUCTION STANDARDS

POST TOP LUMINAIRE
W/ FIBERGLASS
DIRECT BURIAL STANDARD

REVISIONS			
R	DATE	ENGR	OPS
0	2/23/00	HWH	MA
0			

PAGE:		CAD FILE:	APP: JEH	SECTION
1 of 1	xSL100P3	xSL100P3	DATE: 2/22/00	1000



REV. 1: ADDED POLE DIMENSIONS, MATERIAL CORRECTIONS, AND GROUNDING LUG.

ITEM NO.	DESCRIPTION	SL100SA		SL150SA		SL200SA		SL250SA		SL400SA	
		QTY.	S/N	QTY.	S/N	QTY.	S/N	QTY.	S/N	QTY.	S/N
1	Relay, Photo ext. 120v	1	1107	1	1107	1	1107	1	1107	1	1107
2	Lamp, Sodium (HPS)	1	1745	1	1746	1	1747	1	822	1	1748
3	Luminaire, HPS Type 2 Flat Glass	1	1728	1	1731	1	1734	1	1938	1	1736
4	Fuse, 10A	1	2389	1	2389	1	2389	1	2389	1	2389
5	Connector, Cabelok, 2-8 STR	1	416	1	416	1	416	1	416	1	416
6	Conductor, CU 12THW Black	42ft.	386	42ft.	386	42ft.	386	42ft.	386	42ft.	386
7	Conductor, CU 12THW White	42ft.	387	42ft.	387	42ft.	387	42ft.	387	42ft.	387
8	Conductor, BSDC 6 SLD	2ft.	374	2ft.	374	2ft.	374	2ft.	374	2ft.	374
9	Clamp, Grd. Rod 5/8 in. Bronze Sml	1	281	1	281	1	281	1	281	1	281
10	Standard, St. Light AL 25 ft. M.H. S.A.	1	1225	_	N/A	_	N/A	_	N/A	_	N/A
10	.....32 ft. M.H. S.A.	_	N/A	1	1226	1	1226	1	1226	1	1226
11	Anchor, St. Light Foundation	1✲	20 ✲	1✲	20 ✲	1✲	20 ✲	1✲	20 ✲	1✲	20 ✲
12	Rod, Ground 5/8 in. x 8 ft.	1	1124	1	1124	1	1124	1	1124	1	1124
13	Holder, Fuse	1	2388	1	2388	1	2388	1	2388	1	2388

Clark Public Utilities

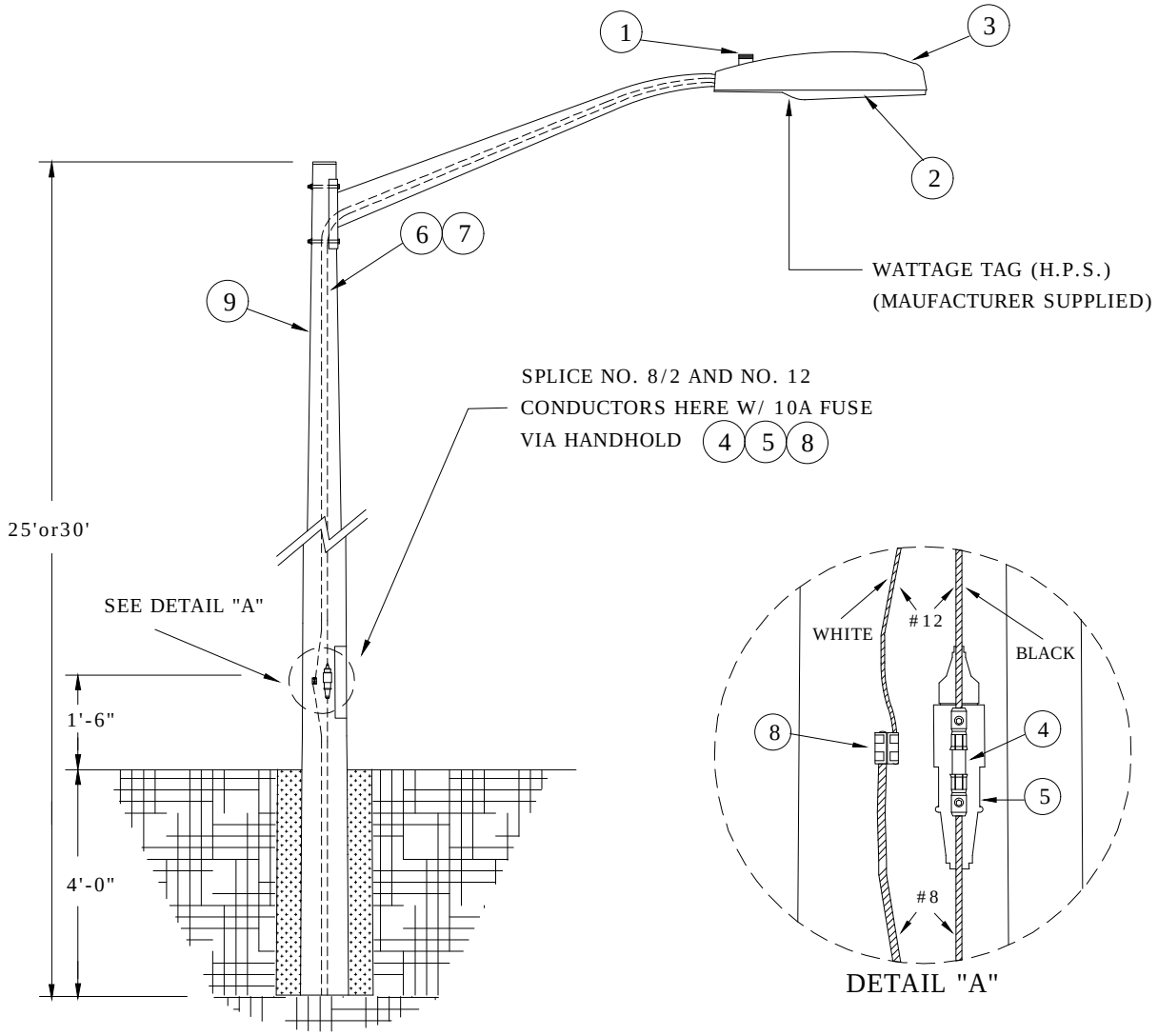
CONSTRUCTION STANDARDS

STREETLIGHT INSTALLATION
SINGLE ARM ALUMINUM STANDARD
25' OR 32' MOUNTING HEIGHT

REVISIONS			
R	DATE	ENGR	OPS
0	2/23/00	HWH	MA
1	8/24/04	LB	AH
0			

PAGE:	CAD FILE:	APP: JEH	SECTION
1 of 1	SL100SA	DATE: 2/22/00	1000

SL100SA-SL400SA



DETAIL "A"

ITEM NO.	DESCRIPTION	SL100SF	
		QTY.	S/N
1	RELAY, PHOTO EXT. 120V	1	1107
2	LAMP, SODIUM (HPS) 100W (SL100SF)	1	1745
2	LAMP, SODIUM (HPS) 150W (SL150SF)	1	1746
2	LAMP, SODIIUM (HPS) 200W (SL200SF)	1	1747
2	LAMP, SODIIUM (HPS) 250W (SL250SF)	1	820
2	LAMP, SODIIUM (HPS) 400W (SL400SF)	1	821
3	LUMINAIRE, SV (HPS) 100W - TYPE 2 FLAT GLASS	1	1728
3	LUMINAIRE, SV (HPS) 150W - TYPE 2 FLAT GLASS	1	1731
3	LAMP, SODIUM, (HPS) 200W - TYPE 2 FLAT GLASS	1	1734
3	LUMINAIRE, SV (HPS) 250W -TYPE 2 FLAT GLASS	1	809
3	LUMINAIRE, SV (HPS) 400W - TYPE 2 FLAT GLASS	1	1747
4	FUSE, 10A, ST. LIGHT	1	2389
5	FUSE HOLDER	1	2388
6	CONDUCTOR, CU 12 THW BLACK	42ft.	386
7	CONDUCTOR, CU 12 THW WHITE	42ft.	387
8	CONNECTOR CABLELOK, 2-8 STR	1	416
9	STANDARD, ST. LIGHT 29'-8" S.A. W/6' ALUMINUM MAST ARM (FOR 150W-400W LITES)	1	2325
9	STANDARD, ST. LIGHT 25' S.A. W/6' ALUMINUM MAST ARM (FOR 100W LITES)	1	2235

Clark Public Utilities

CONSTRUCTION STANDARDS

STREET LIGHT INSTALLATION
SINGLE ARM 29'-8"
FIBERGLASS STANDARD

REVISIONS

R	DATE	ENGR	OPS
0	2/23/00	HWH	MA

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SL100SF-SL400SF

CAD FILE: SL100SF

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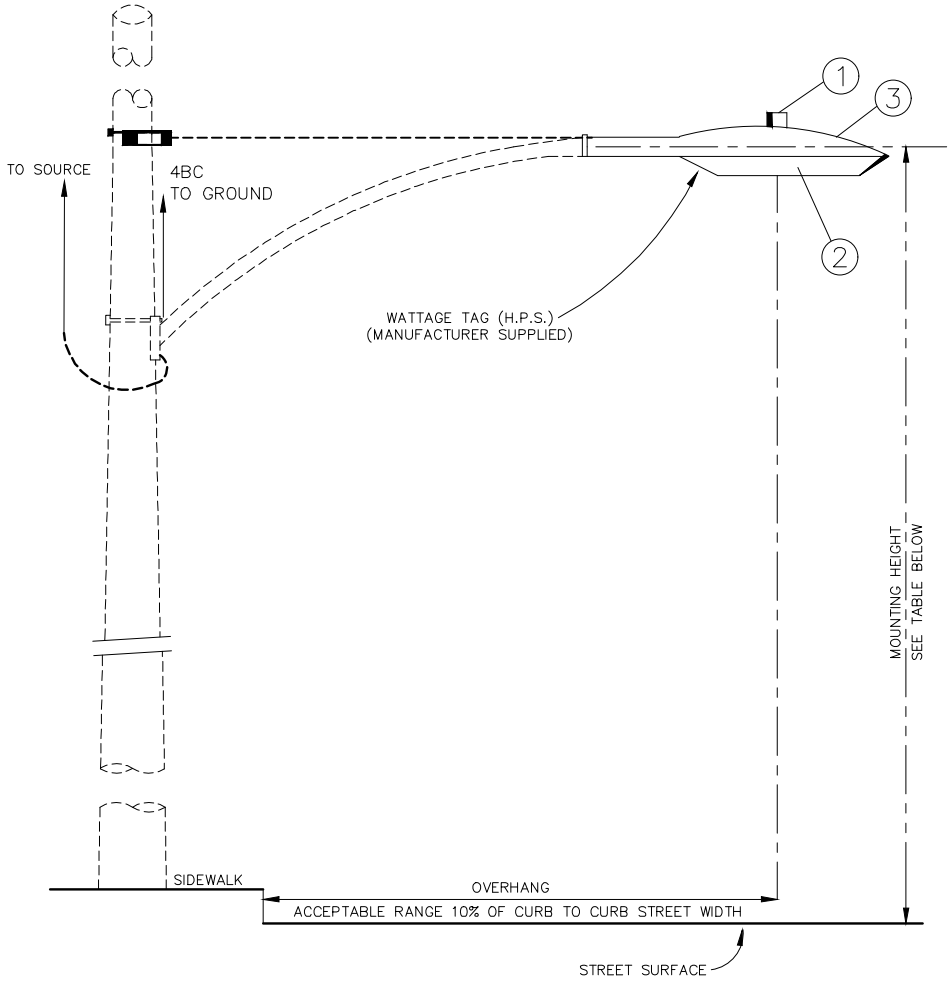
SECTION 1000



RECOMMENDED MOUNTING HEIGHTS		
TYPE	FEET MINIMUM	MAXIMUM
100W	25	27
150W	30	32
200W	30	32
400W	35	37

NOTE: MAST ARM ATTACHMENT HEIGHT VARIES WITH TYPE OF ARM & MUST BE POSITIONED SO LUMINAIRE IS LEVEL.

ITEM NO.	DESCRIPTION	SL100		SL150		SL200		SL250		SL400	
		QTY.	S/N	QTY.	S/N	QTY.	S/N	QTY.	S/N	QTY.	S/N
1	Relay, Photo ext. 120V	1	1107	1	1107	1	1107	1	1107	1	1107
2	Lamp, Sodium (HPS)	1	1745	1	1746	1	1747	1	822	1	1748
3	Luminaire,(HPS) Type 2 Flat Glass	1	1728	1	1731	1	1734	1	1938	1	1736

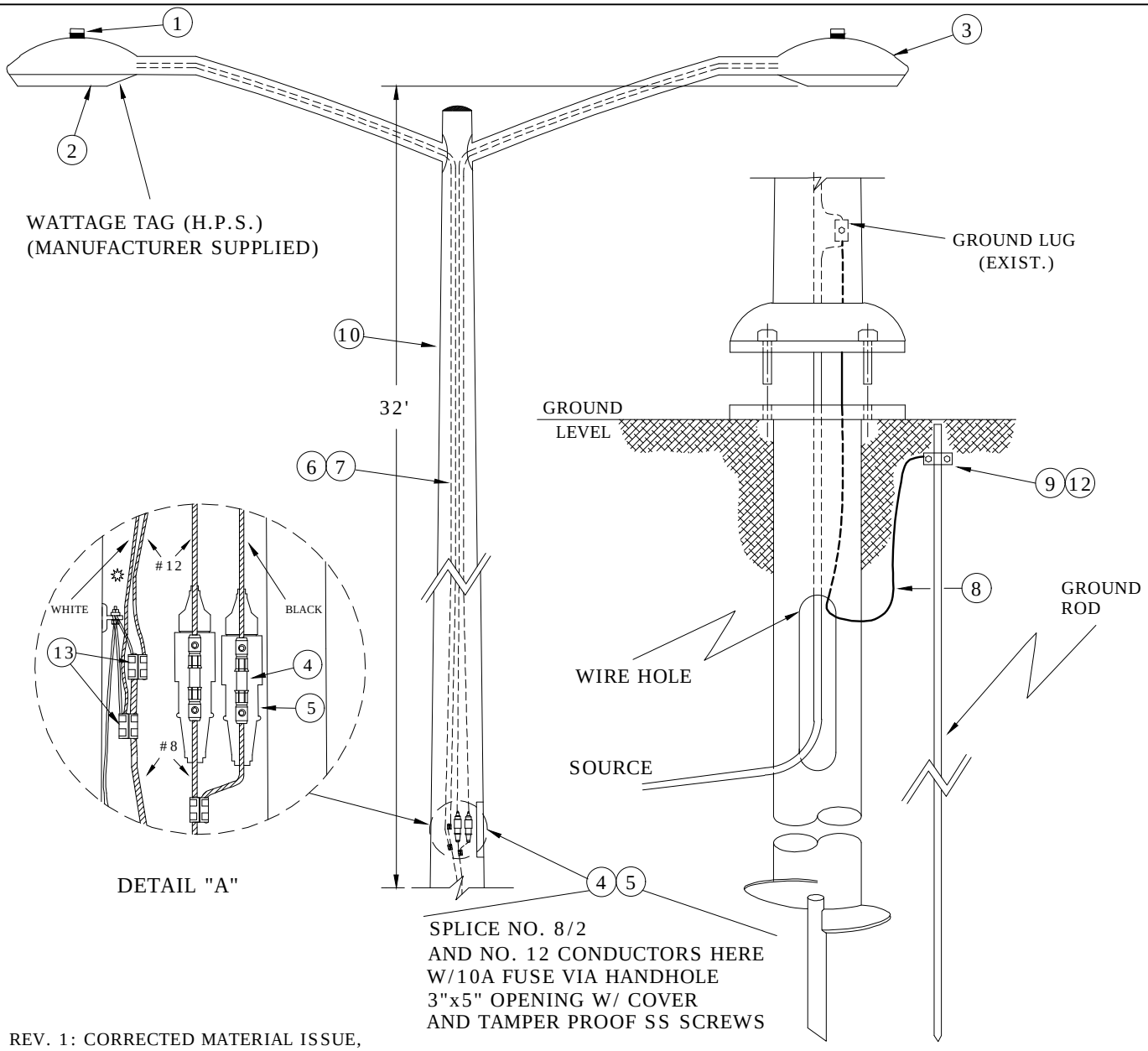
Clark Public Utilities

CONSTRUCTION STANDARDS

STREETLIGHT LUMINAIRE INSTALLATION
WOOD POLE MOUNTED

REVISIONS			
R	DATE	ENGR	OPS
0	2/23/00	HWH	MA
0			

PAGE:		CAD FILE:	APP: JEH	SECTION
1 of 1	SL100–SL400	SL100	DATE: 2/22/00	1000



REV. 1: CORRECTED MATERIAL ISSUE,
ADDED POLE DIMENSIONS, AND GROUNDING LUG.

ITEM NO.	DESCRIPTION	SL150SD		SL200SD		SL250SD		SL400SD	
		QTY.	S/N	QTY.	S/N	QTY.	S/N	QTY.	S/N
1	Relay, Photo ext. 120v	2	1107	2	1107	2	1107	2	1107
2	Lamp, Sodium (HPS)	2	1746	2	1747	2	822	2	1748
3	Luminaire, HPS Type 2 Flat Glass	2	1731	2	1734	2	1938	2	1736
4	Fuse, 10A	2	2389	2	2389	2	2389	2	2389
5	Holder, fuse	2	2388	2	2388	2	2388	2	2388
6	Conductor, CU 12THW Black	84ft.	386	84ft.	386	84ft.	386	84ft.	386
7	Conductor, CU 12THW White	84ft.	387	84ft.	387	84ft.	387	84ft.	387
8	Conductor, BSDC 6 SLD	3ft.	374	3ft.	374	3ft.	374	3ft.	374
9	Clamp, Grd. Rod 5/8 in. Bronze Sml	1	281	1	281	1	281	1	281
10	Standard, St. Light AL 32 ft. Mounting Ht., D.A.	1	1227✲	1	1227✲	1	1227✲	1	1227✲
11	Anchor, St. Light Foundation	1	20 ✲	1	20 ✲	1	20 ✲	1	20 ✲
12	Rod, Ground 5/8 in. x 8 ft.	1	1124	1	1124	1	1124	1	1124
13	Connector, CableLok, 2 - 8 Str	2	416	2	416	2	416	2	416

Clark Public Utilities

CONSTRUCTION STANDARDS

STREETLIGHT INSTALLATION
TWIN ARM, ALUMINUM STANDARD
32' MOUNTING HEIGHT

REVISIONS			
R	DATE	ENGR	OPS
0	2/23/00	HWH	MA
1	8/24/04	LB	AH
0			

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1 of 1	SL150D-SL400D	SL150D	DATE: 2/22/00	1000