



STANDARD PLANS
FOR STREET LIGHTING

APRIL 2016

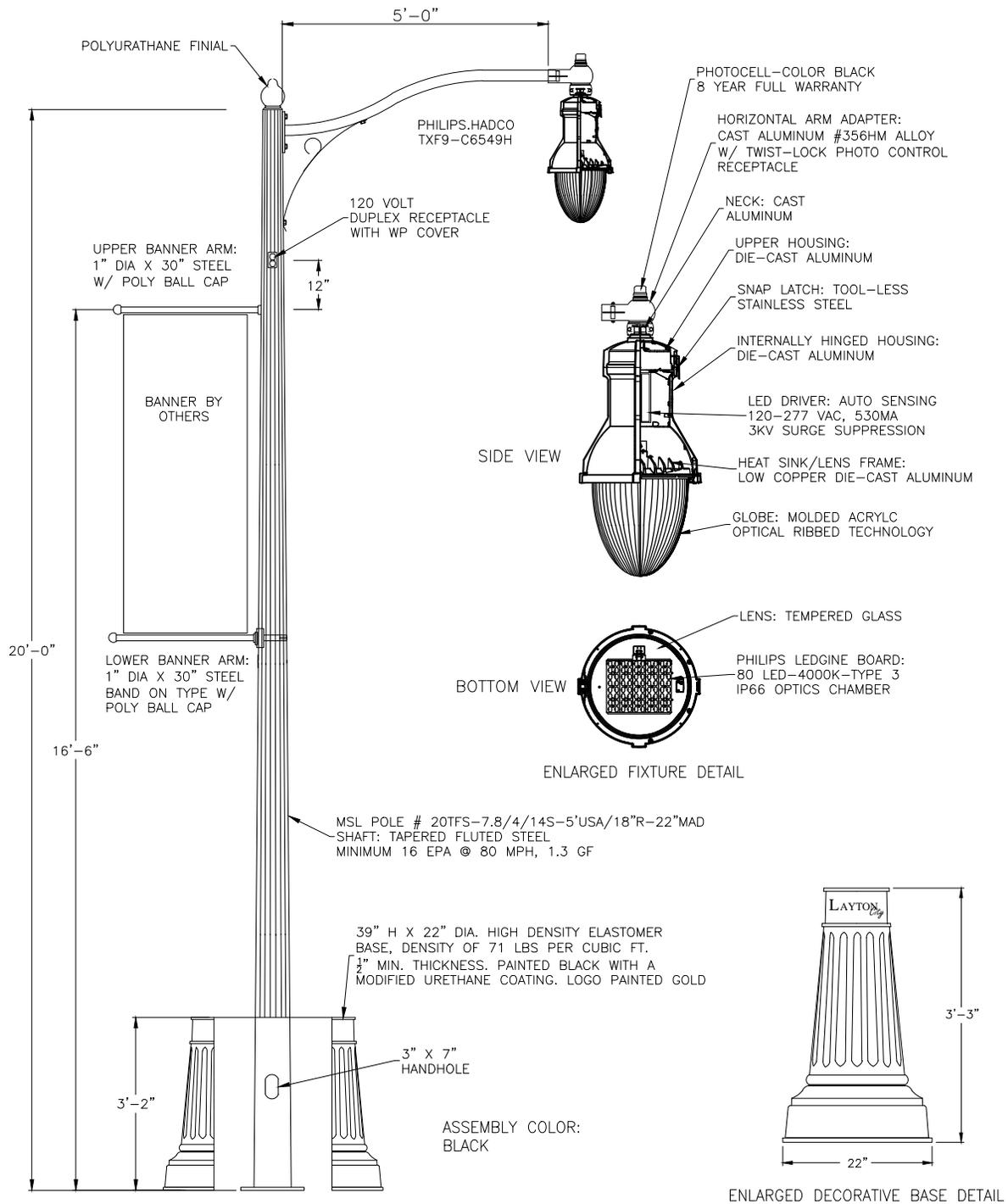
James Woodruff, City Engineer
Shannon Hansen, Assistant City Engineer – Development
Stephen Jackson, Assistant City Engineer – Capital Projects
Staff Engineers: Ryan Bankhead, Ashley Thoman, Mark Stenquist, Stacy Majewski, Amy Bean

STREET LIGHT DRAWING INDEX

DETAIL NAME	LIGHT TYPE	PAGE #
Tear Drop Pole and Fixture	SL-01	ST-LT-01
Standard Residential Pole and Fixture	SL-02	ST-LT-02
Standard Residential Pole and Fixture (Optional cage on fixture)	SL-02A	ST-LT-03
Standard Residential Pole and Fixture (Optional cage and fluted pole)	SL-02B	ST-LT-04
Double Light Fluted Pole and Fixture	SL-03	ST-LT-05
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Arterial Street Lights Underground (Details and Notes)		ST-LT-09
Single Street Light Installation		ST-LT-10
Rocky Mountain Power Detail		

TEAR DROP POLE AND FIXTURE – SL-01

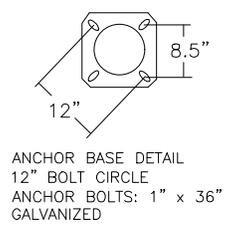
MAIN ARTERIAL STREET LIGHT



DRAWN BY	MTL
SCALE	NONE
DATE	5/11
REVISIONS	7/13



STANDARD DRAWING
SL-01 TEAR DROP FIXTURE
ST-LT-01

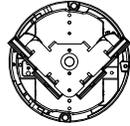


STANDARD RESIDENTIAL POLE AND FIXTURE SL-02

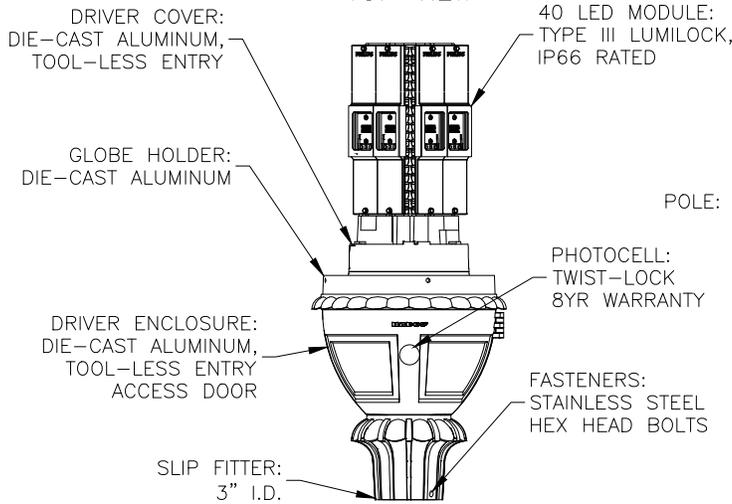
SUBDIVISION ROADS – 66' ROW AND LESS

LUMILOCK LED SPECIFICATIONS:

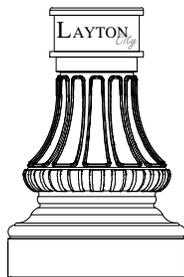
- TYPE III ASYMETRIC DISTRIBUTION
- 4000K (CCT) 40 LUXEON REBEL ES LED'S ON ALUMINUM CORE PCB. SEALED ACRYLIC LENS, IP66 RATED.
- MINIMUM 65 COLOR RENDERING INDEX (CRI)
- 120-277 VAC, 50-60Hz AUTO SENSING.
- 10kv/10ka SURGE SUPPRESSION BUILT IN.



TOP VIEW

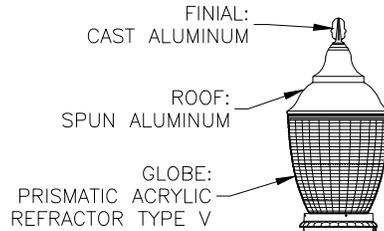


LUMILOCK LED ASSEMBLY



BASE DETAIL

FINISH;
BLACK



HADCO FIXTURE #C6549C-40LED

MOUNTAIN STATES LIGHTING POLE #16'OH/12' AG RTS/3-5.25-BK
POLE: 12' ABOVE GRADE (16' OVERALL)
SHAFT: TAPERED STEEL MIN 8 EPA, DIRECT BURIAL TYPE

MSL WASHINGTON DECORATIVE BASE #22"H x 17"W WASH/LAYTON CITY/HH/GL/BK
POLYURETHANE 1/2" MIN. THICKNESS

CONCRETE MOW STRIP

COLD TAR EPOXY COATING UNDERGROUND PORTION OF POLE 4' MINIMUM

WIREWAY HOLE

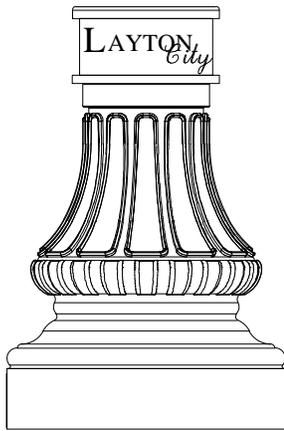
12'-0"

4'-0"

DRAWN BY MTL		STANDARD DRAWING
SCALE NONE		SL-02 RES. POL & FIXTURE
DATE 5/11		ST-LT-02
REVISIONS 07/13		

STANDARD RESIDENTIAL
 LIGHT FIXTURE – SL-02A
 (WITH OPTIONAL CAGE ON
 FIXTURE)

HADCO FIXTURE
 # C6549E 55W QL 120V



BASE DETAIL
 FINISH: BLACK

MOUNTAIN STATES POLE #
 16'0H/12' AG RTS/3-5.25/17"
 WASH) NAME-HH-GL-BK
 POLE: 12' ABOVE GRADE
 (16' OVERALL)
 SHAFT: TAPERED STEEL
 MIN 8 EPA, DIRECT BURIAL TYPE

MOUNTAIN STATES DECORATIVE
 BASE 23" H x 17" W
 WASH/LAYTON CITY/HH/GL/BK
 POLYURETHANE 1/2" MIN.
 THICKNESS GOLD TIPPED LOGO

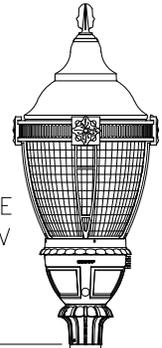
PRE-CAST CONCRETE
 MOW STRIP

WIREWAY HOLE

COLD TAR EPOXY COATING
 UNDERGROUND PORTION
 OF POLE 4' MINIMUM

12'

4'



DRAWN BY MTL
SCALE NONE
DATE 5/11
REVISIONS 1/12



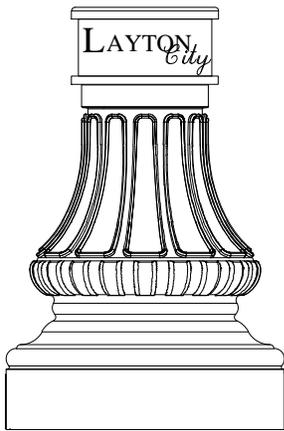
STANDARD
 DRAWING

SL-02A OPTIONAL CAGE

ST-LT-03

TYPICAL RESIDENTIAL LIGHT
 FIXTURE – SL-02B
 (WITH OPTIONAL CAGE AND
 FLUTED POLE)

HADCO FIXTURE
 # C6549E 55W QL 120 V



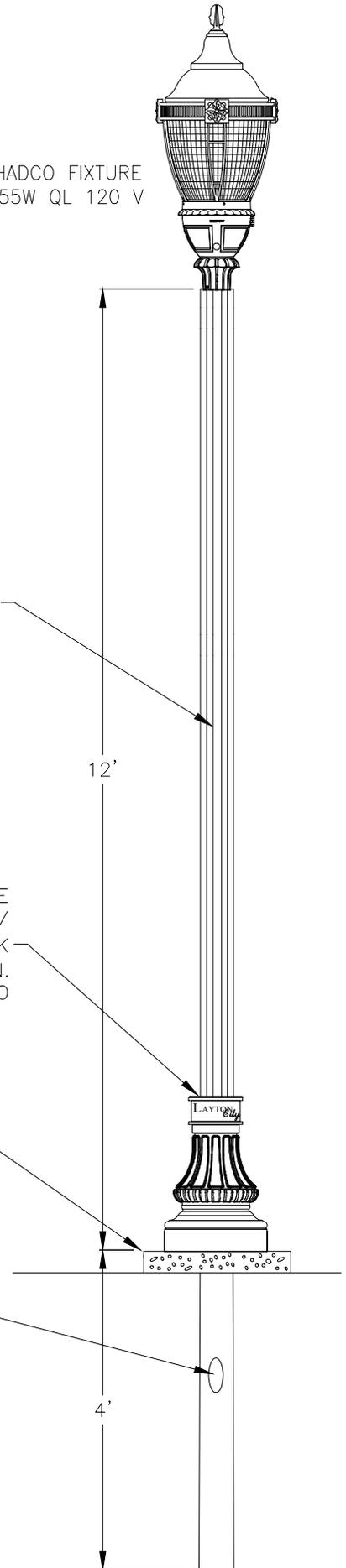
BASE DETAIL
 FINISH: BLACK

MOUNTAIN STATES POLE #
 16'OH/12' AG EFA/17" WASH)
 NAME-HH-GL-BK
 POLE: 12' ABOVE GRADE
 (16' OVERALL)
 SHAFT: FLUTED STEEL
 MIN 10 EPA, DIRECT BURIAL TYPE

MOUNTAIN STATES DECORATIVE
 BASE 23" H x 17" W WASH/
 LAYTON CITY/HH/GL/BK
 POLYURETHANE 1/2" MIN.
 THICKNESS GOLD TIPPED LOGO

PRE-CAST CONCRETE
 MOW STRIP

WIREWAY HOLE



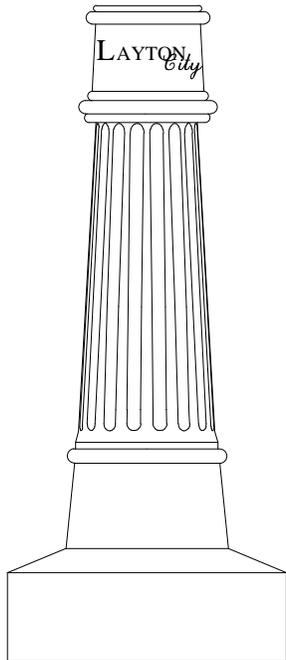
DRAWN BY MTL	Layton City	STANDARD DRAWING
SCALE NONE		SL-02B OPT. CAGE, FLUTE
DATE 5/11		ST-LT-04
REVISIONS 1/12		

DOUBLE LIGHT FLUTED POLE –
SL-03

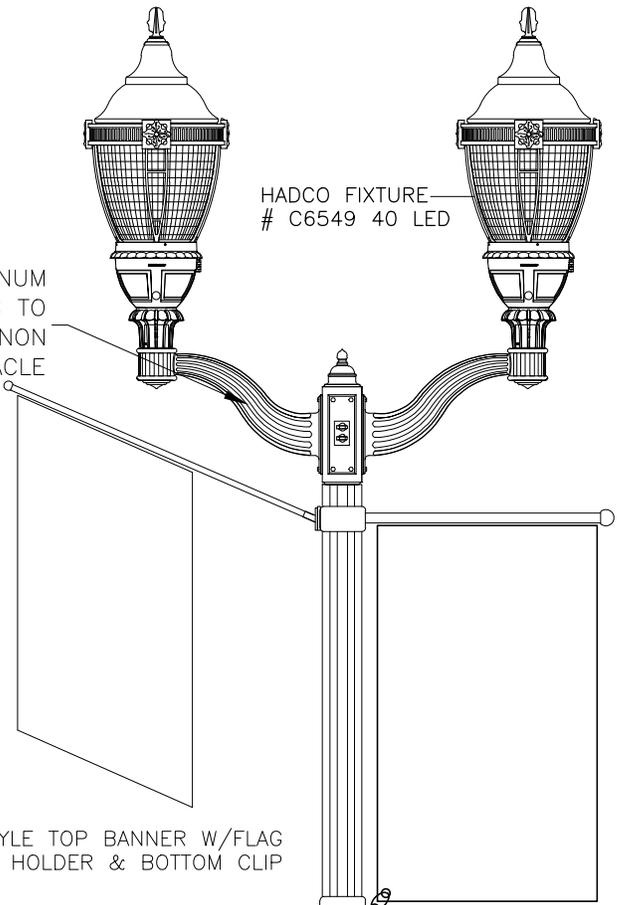
COMMERCIAL AND/OR RESIDENTIAL AS
DESIGNATED BY THE CITY ENGINEER

TWIN ARM BRACKET: CAST ALUMINUM
2-LITE @ 180 W/ CENTER HUB TO
ACCOMMODATE 4" POLE TENON
W/ DUPLEX 120V RECEPTACLE

HADCO FIXTURE
C6549 40 LED



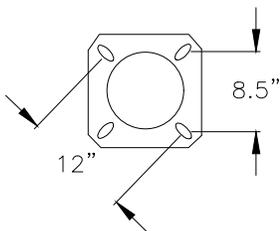
BASE DETAIL
FINISH: BLACK



HUB STYLE TOP BANNER W/FLAG
HOLDER & BOTTOM CLIP

POLE BY MOUNTAIN STATES LIGHTING
PART# 14EFA-5/14S-TT/3x30D-FRANK(LOGO)
-BLACK (PART # IS FOR POLE & DECORATIVE
BASE) 14' FLUTED ALUMINUM .25" WALL
THICKNESS PAINTED BLACK WITH FIRST 16"
OF POLE AND BASE PLATE TO BE COATED
WITH INDUSTRIAL COLD GALV MIN EPA OF 20
IN 80 MPH ZONE (1.3 GUST FACTOR)

DECORATIVE BASE BY MOUNTAIN STATES LIGHTING
PART# 17" FRANK(LOGO)-HDEB-BK (BASE ONLY)
40"H x 17"D HIGH DENSITY ELASTOMER
DECORATIVE BASE, DENSITY OF
71 LBS PER CUBIC FOOT. PAINTED BLACK WITH A
MODIFIED URETHANE COATING, LOGO TIPPED GOLD
(STAYS FLEXIBLE OVER TIME W/MAX ADHESION)

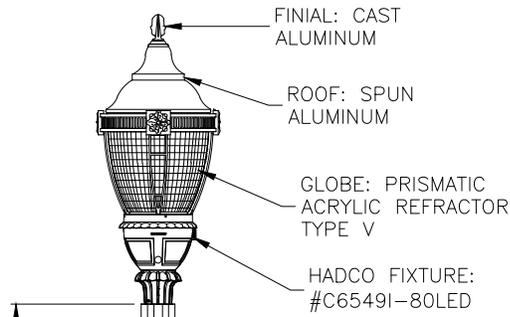


ANCHOR BASE DETAIL
12" BOLT CIRCLE
ANCHOR BOLTS: 3/4" x 18"

SEE ST-LT-08 FOR
REQUIRED CONCRETE
BASE DETAIL

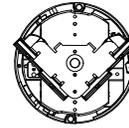
DRAWN BY MTL SCALE NONE DATE 5/11 REVISIONS 1/12		STANDARD DRAWING SL-03 DBL LIGHT FLUTED
ST-LT-05		

SINGLE LIGHT FLUTED POLE AND FIXTURE SL-04



- LUMILOCK LED SPECIFICATIONS:
- TYPE III ASYMETRIC DISTRIBUTION.
 - 4000K (CCT) 80 LUXEON REBEL ES LED'S ON ALUMINUM CORE PCB. SEALED ACRYLIC LENS, IP66 RATED.
 - MINIMUM 65 COLOR RENDERING INDEX (CRI).
 - 120-277 VAC, 50-60Hz AUTO SENSING.
 - 10KV/10KA SURGE SUPPRESSION BUILT IN.

80 LED MODULE: TYPE III LUMILOCK, IP66 RATED



MSL POLE: #14EFA-5.0-3x3TT
14' FLUTED ALUMINUM .25" WALL THICKNESS
PAINTED BLACK WITH FIRST 16" OF POLE AND BASE PLATE TO BE COATED WITH INDUSTRIAL COLD GALV. MIN EPA OF 20 IN 80 MPH ZONE (1.3 GUST FACTOR)

DRIVER COVER: DIE-CAST ALUMINUM, TOOL-LESS ENTYR

GLOBE HOLDER: DIE-CAST ALUMINUM

PHOTOCELL: TWIST-LOCK 8 YR WARRANTY

FINISH: BLACK

DRIVER ENCLOSURE: DIE-CAST ALUMINUM, TOOL-LESS ENTRY ACCESS DOOR

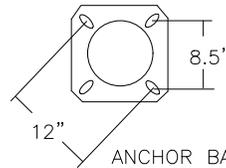
FASTENERS: STAINLESS STEEL HEX HEAD BOLTS

14'-0"

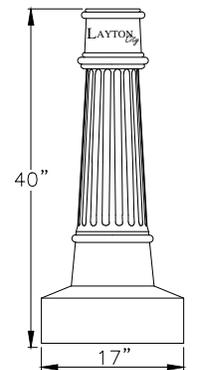
SLIP FITTER: 3" I.D.

LUMILOCK LED ASSEMBLY

GALVANIZED ANCHOR PLATE 4" O.D. TRANSITION PIPE SLID UP INSIDE ALUMINUM EXTRUSION WITH A COMPRESSION FIT & BOLTED TOGETHER.



MSL DECORATIVE BASE: #FRANKLIN 40"x17" DIA. HIGH DENSITY ELASTOMER BASE DENSITY OF 71 LBS PER CU. FT. 1/2" MIN. THICKNESS PAINTED BLACK WITH A MODIFIED URETHANE COATING. LOGO PAINTED GOLD



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MTL
SCALE
NONE
DATE
5/11
REVISIONS
07/13

**Layton
City**

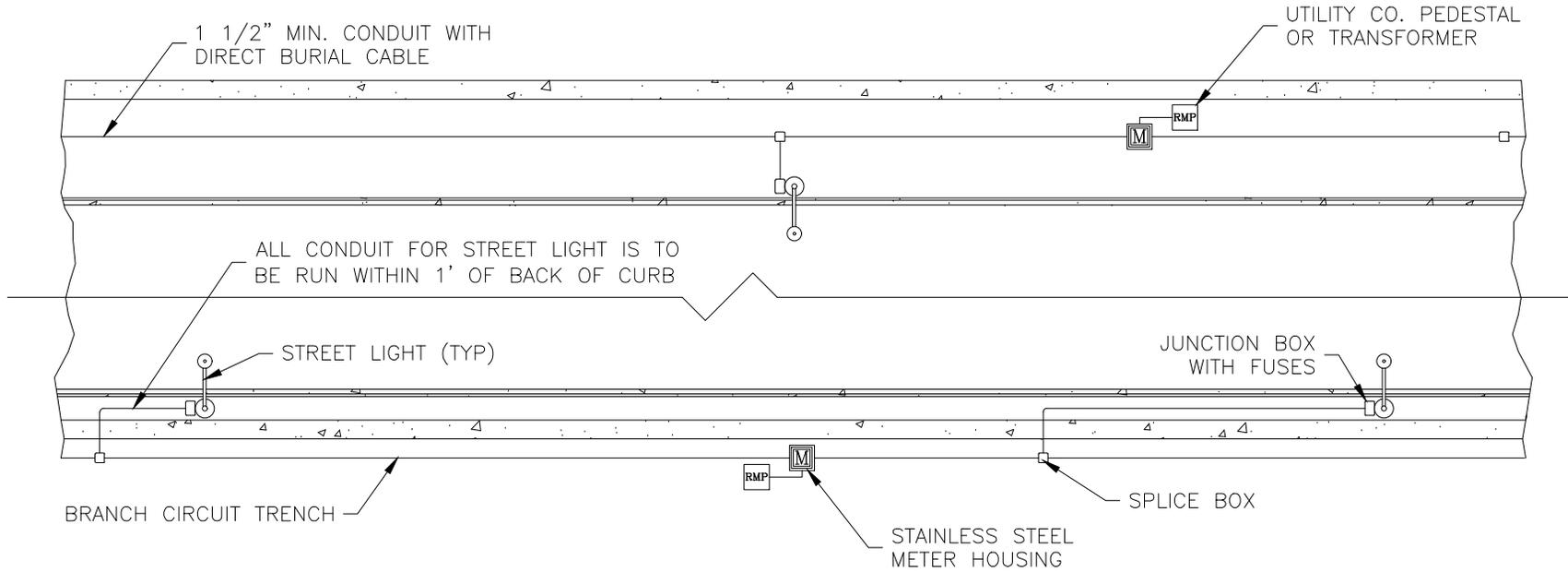
STANDARD
DRAWING

SL-04 SINGLE LIGHT FLUTED

ST-LT-06

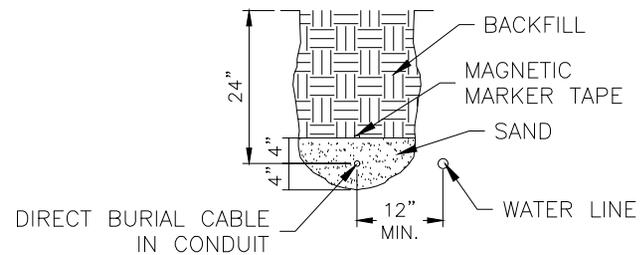
SEE ST-LT-08 FOR REQUIRED CONCRETE BASE DETAIL. ALL LIGHT POLES INSTALLED WITHIN UDOT RIGHT-OF-WAY "CLEAR ZONE" (UDOT DD18) MUST HAVE A BREAKAWAY BASE (UDOT SL11) AND USE PRE-CAST POLYMER CONCRETE JUNCTION BOXES

ARTERIAL STREET LIGHT CONDUIT AND POWER LAYOUT



NOTES:

1. ALL STREET LIGHT CABLE SHALL BE DIRECT BURIAL CABLE IN CONDUIT 1 1/2" MINIMUM SCHEDULE 40 GRAY NON-CONDUCTIVE PVC.
2. IF TRENCH REPAIR IS IN A ROADWAY OR PAVED TRAIL THE REPAIR WILL BE AS PER LAYTON CITY EXCAVATION PERMIT SPECIFICATION.
3. INGROUND BOXES LOCATED WITHIN 20' OF APPROACHES AND INTERSECTIONS SHALL BE CARSON H SERIES H1324.



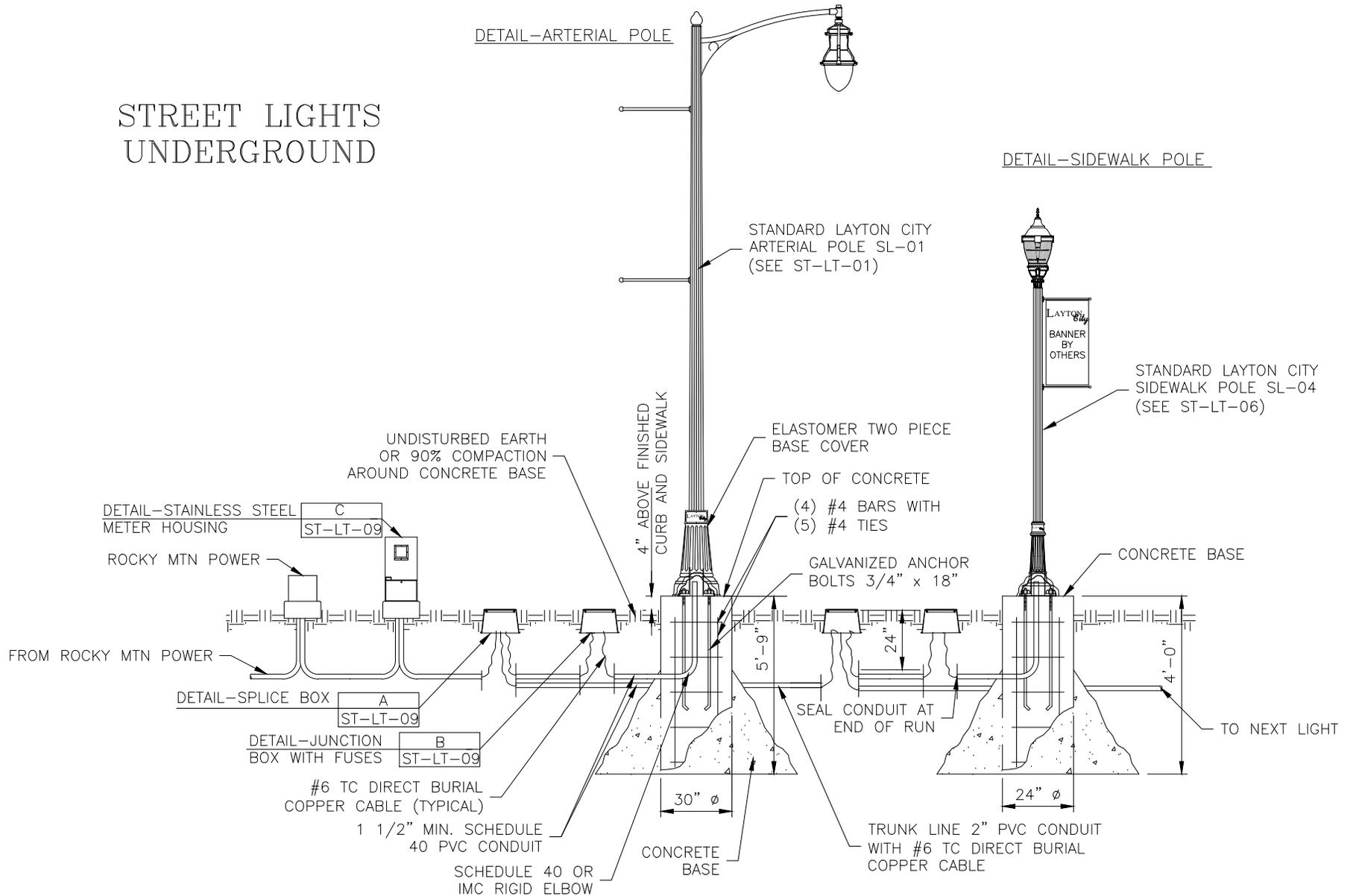
DETAIL-COMMERCIAL BRANCH CIRCUIT TRENCH

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SCALE NONE		ARTERIAL STREET LIGHT	
DATE 5/11			
REVISIONS 1/12		ST-LT-07	

STREET LIGHTS UNDERGROUND

DETAIL-ARTERIAL POLE

DETAIL-SIDEWALK POLE



DRAWN BY	MTL
SCALE	NONE
DATE	5/11
REVISIONS	1/12

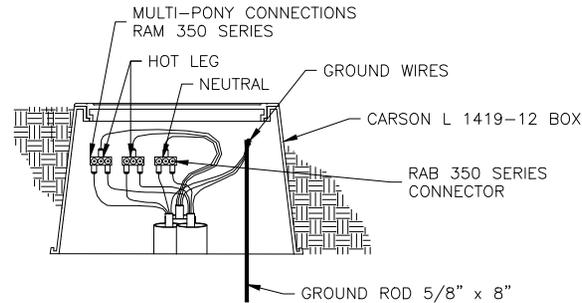


STANDARD DRAWING
STR LIGHTS UNDER
ST-LT-08

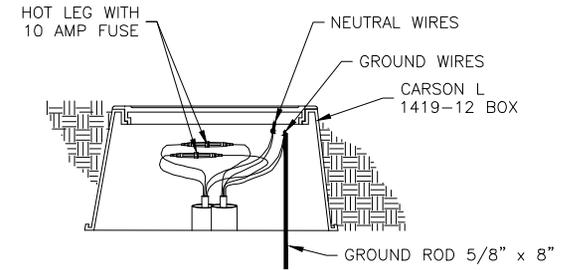
ARTERIAL STREET LIGHTS UNDERGROUND NOTES & DETAILS

NOTES:

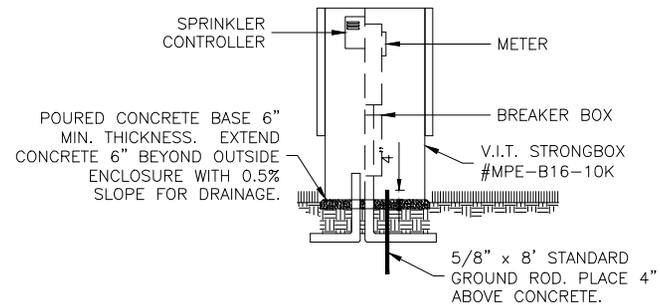
1. CONTRACTORS SHALL FOLLOW LAYTON CITY INSTALLATION AND INSPECTION PROCEDURE FOR LIGHT POLES AND LIGHT FIXTURES BEFORE ACCEPTANCE.
2. STREET LIGHT POLES SHALL BE LOCATED AS INDICATED ON THE APPROVED LIGHTING SITE PLAN, AND INSTALLED AS DESCRIBED IN THE CITY STANDARDS.
3. EACH STREET LIGHT ASSEMBLY SHALL HAVE A JUNCTION BOX WITH COVER MARKED "STREET LIGHTING" WITH FUSES.
4. FUSE HOT WIRES IN JUNCTION BOXES; SUPPLY SPLICE KIT FOR NEUTRAL WIRE.
5. INSTALL GRAY NON-CONDUCTIVE PVC 1 1/2" MIN. CONDUITS WITH 24" COVER AND SAND BEDDING.
6. CONTRACTOR TO INSTALL METER CABINET STRONG BOX WITH BREAKER PANEL. BOX TO BE LOCATED MIN. 8" FROM UTILITY CO. TRANSFORMER OR SECONDARY BOX.
7. BALANCE LOADS ACROSS PHASES FOR 120 V RECEPTACLES.
8. VIBRATED 4000 PSI CONCRETE @ 28 DAYS (6.5 CITY MIX).
9. ANY DISTURBED MATERIAL WITHIN 8' OF POLE FOUNDATION SHALL BE COMPACTED TO 90% OR GREATER.
10. UNDISTURBED NATIVE GRAVEL-SANDY GRAVEL ASSUMED. IF DIFFERENT, CONTACT CITY ENGINEER.
11. USE A 30" DIA. SONO TUBE.
12. LIGHTING LAYOUT MUST BE SHOWN ON AS-BUILTS.
13. GROUND AND NEUTRAL SHALL BE SEPARATE.
14. IF DEPTH CANNOT BE MET, MASS MUST BE EQUIVALENT TO MASS AS SHOWN
15. REBAR AND TRENCH MUST BE INSPECTED PRIOR TO CONCRETE POUR.
16. ALL SPECIFICATIONS FOR WIRE, CONDUIT, FUSE KITS, SPLICE KITS, JUNCTION BOXES AND CONNECTORS MUST BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL PRIOR TO ANY WORK BEING PERFORMED.
17. ALL CONDUCTORS SHALL BE OKONITE-FMR TYPE TC-CABLE #112-10-4054; OKONITE X-OLENE OKOSEAL #112-31-3747; OR ANIXTER VNTC #3H-0603 COPPER ONLY
18. FUSE HOLDERS SHALL BE IN-LINE, WATER TIGHT LEC-AA FOR ARTERIAL POLES.



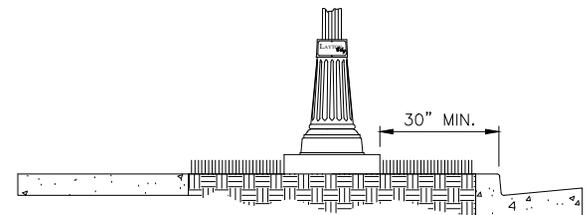
A DETAIL-SPLICE BOX
SCALE: NO SCALE



B DETAIL-JUNCTION BOX WITH FUSES
SCALE: NO SCALE



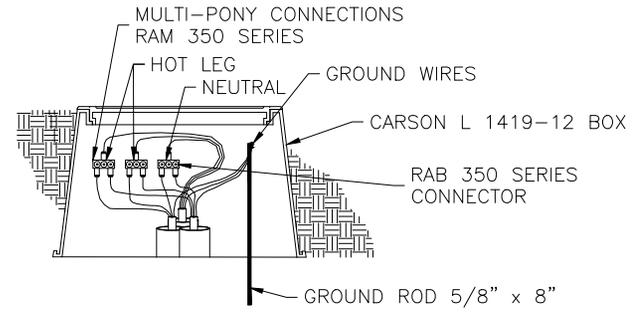
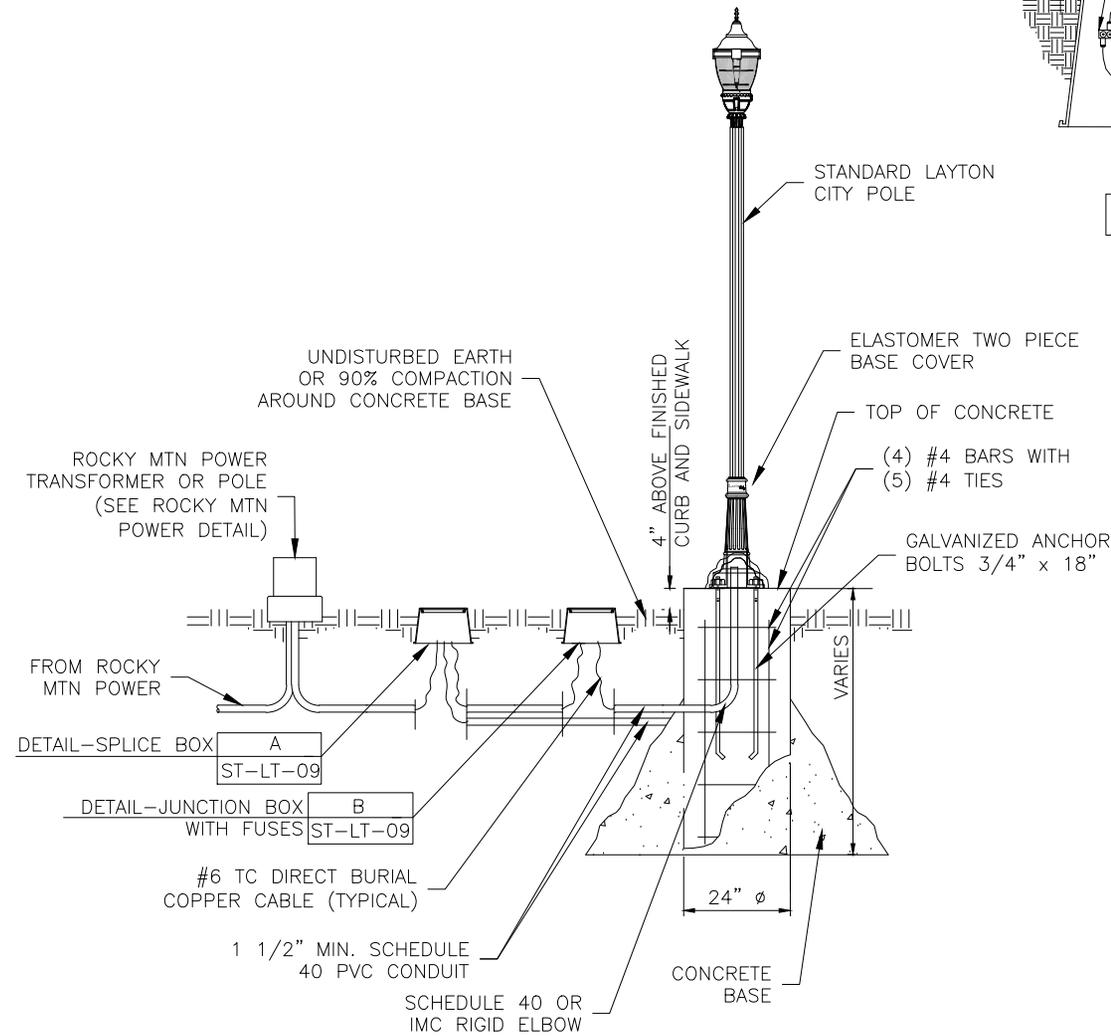
C DETAIL-STAINLESS STEEL METER HOUSING
SCALE: NO SCALE



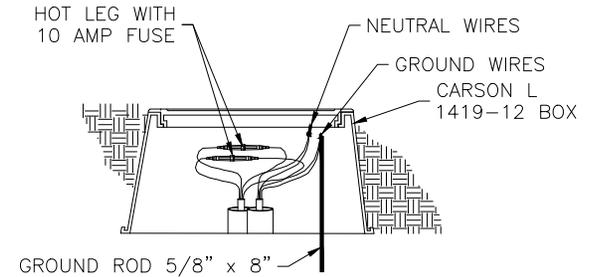
D DETAIL-POLE SPACING FROM FACE OF CURB
SCALE: NO SCALE

DRAWN BY MTL		STANDARD DRAWING	
SCALE NONE		ARTERIAL STR LIGHTS UNDER	
DATE 5/11		ST-LT-09	
REVISIONS 1/12			

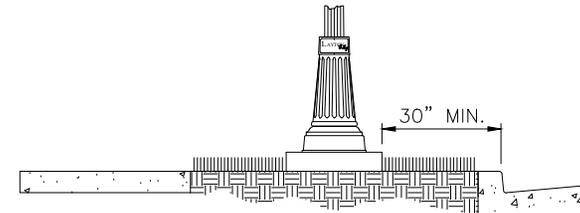
SINGLE STREET LIGHT INSTALLATION



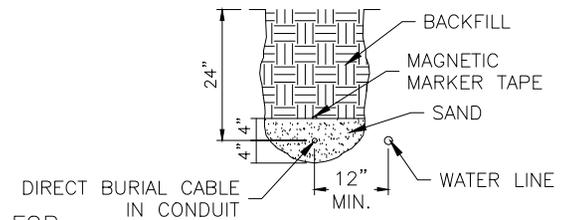
A DETAIL-SPLICE BOX
SCALE: NO SCALE



B DETAIL-JUNCTION BOX WITH FUSES
SCALE: NO SCALE



D DETAIL-POLE SPACING FROM FACE OF CURB
SCALE: NO SCALE

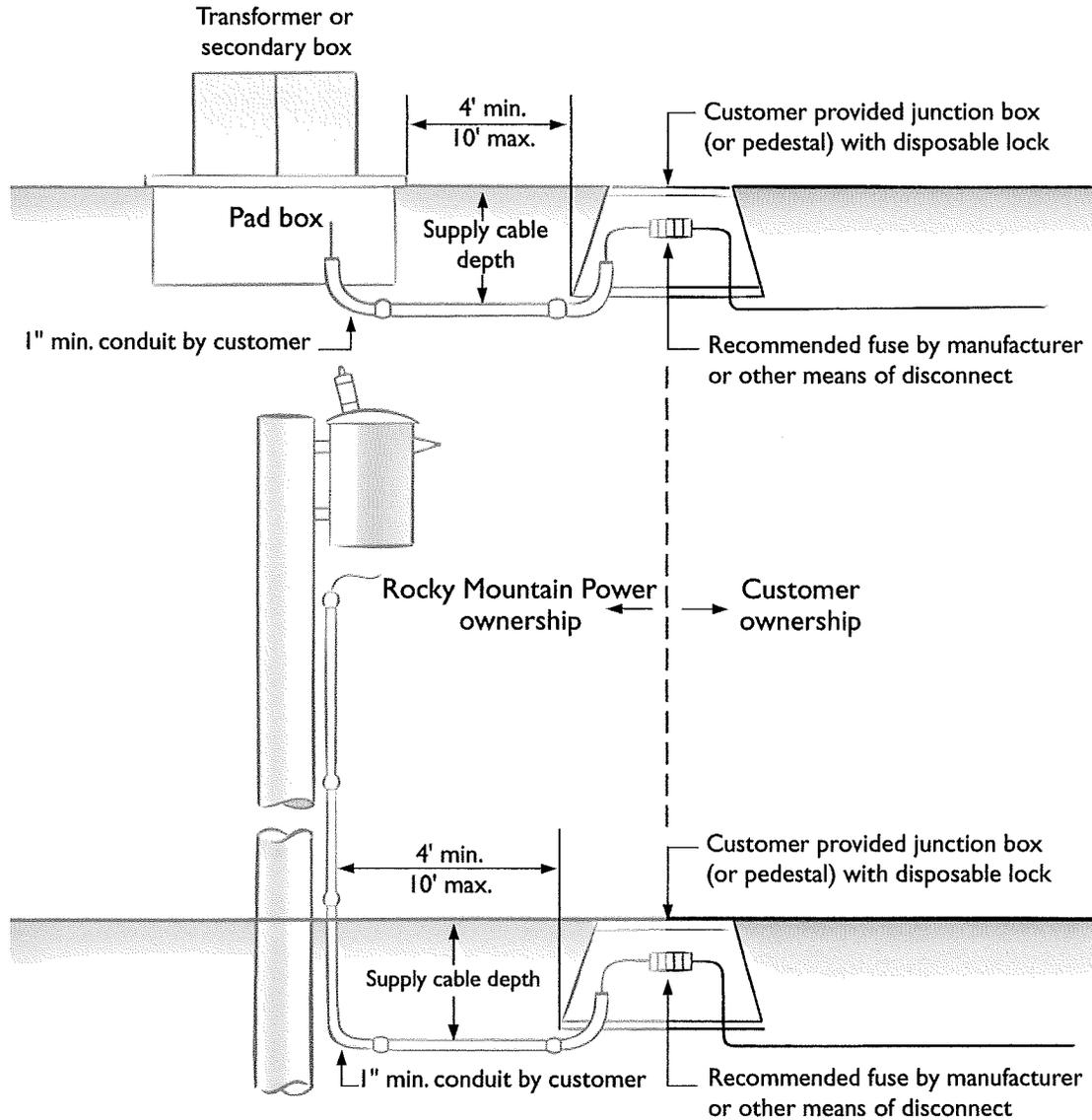


DETAIL-COMMERCIAL BRANCH CIRCUIT TRENCH

SEE SHEET ST-LT-09 FOR GENERAL NOTES ON STREET LIGHT INSTALLATION.

DRAWN BY MTL	Layton City	STANDARD DRAWING
SCALE NONE		SINGLE LIGHT INSTALL
DATE 10/12		ST-LT-10
REVISIONS		

Streetlight Point-of-Disconnect Diagram



Customer is responsible for:

- Providing and installing a junction box or pedestal, conduit, fusing and customer-owned wire. The junction box or pedestal must be strong enough for incidental traffic areas
- Coordinating with Rocky Mountain Power on junction box or pedestal location and all digging within the vicinity of Rocky Mountain Power facilities
- Ensuring that construction of new or remodeled installations conform to applicable provisions of the NEC State Rules, as well as city and county codes

Rocky Mountain Power is responsible for:

- Installing and connecting wire from Rocky Mountain Power facilities to the point of disconnect.