

F.A.P. SHEETS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	15-00056-00-LT	COOK	7	1
FEDERAL ROAD DISTRICT 1		ILLINOIS	CONTRACT NO. 61D10	

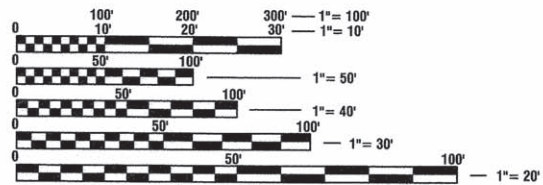
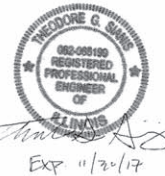
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

**METRA-RICHTON PARK STATION
POLE/LUMINAIRE REPLACEMENT
PROJECT: M-4003(493)
SECTION: 15-00056-00-LT
VILLAGE OF RICHTON PARK, COOK COUNTY, ILLINOIS**
Job. No.: C-91-258-15

ROADWAY DATA

ROADWAY DESIGNATION:
SAUK TRAIL = MINOR ARTERIAL
RICHTON ROAD = LOCAL STREET
AVERAGE DAILY TRAFFIC (ADT):
SAUK TRAIL = 24,400
RICHTON ROAD = UNKNOWN
SPEED LIMIT (POSTED):
SAUK TRAIL = 40 MPH
RICHTON ROAD = 20 MPH



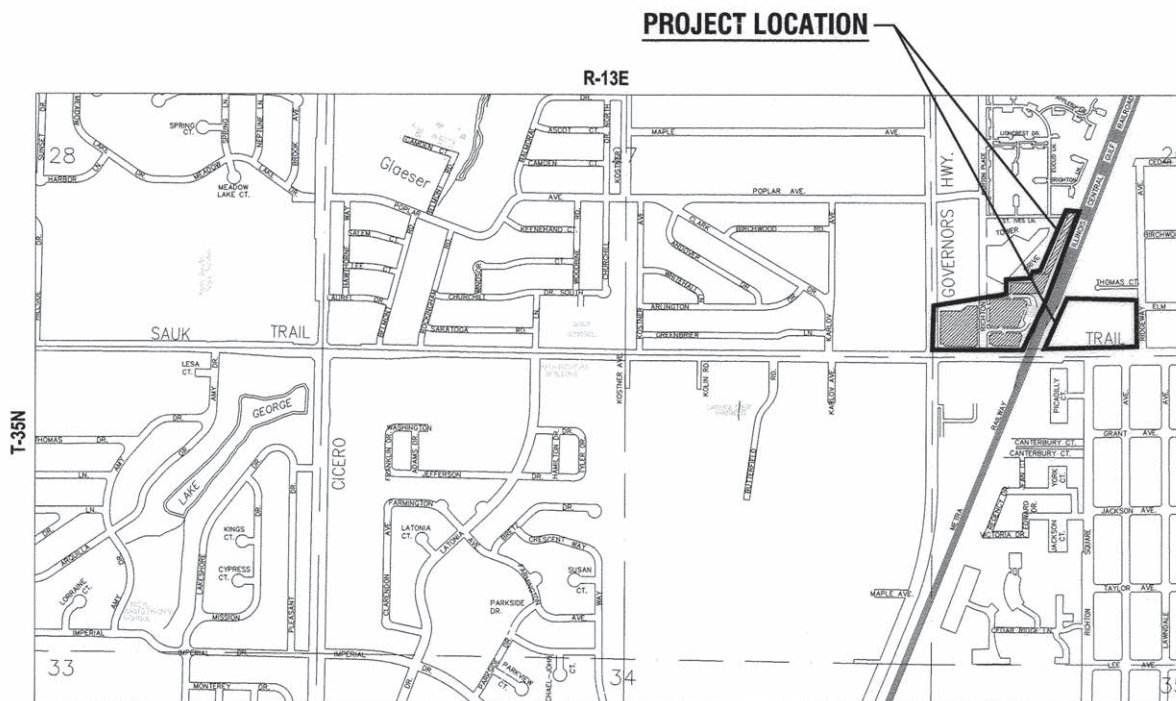
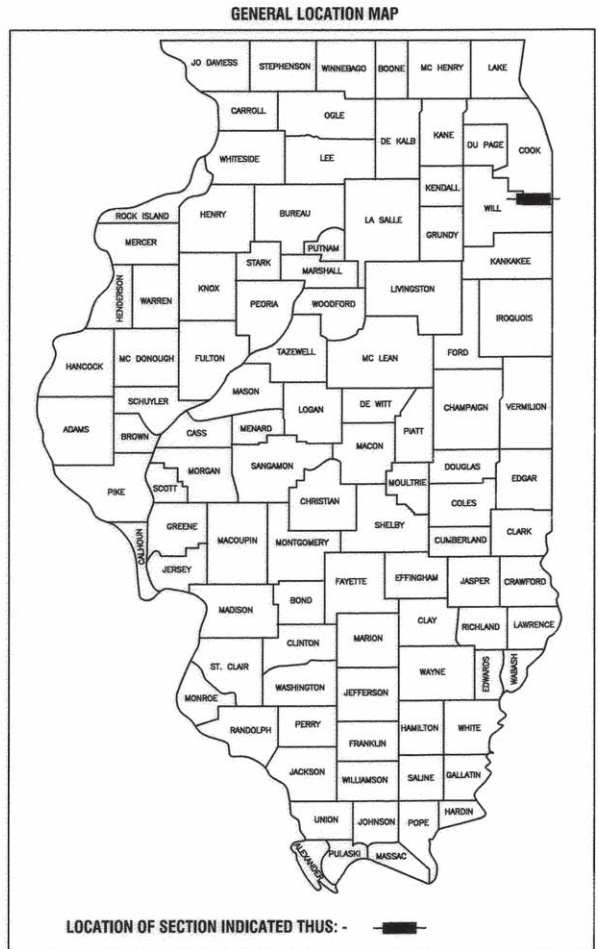
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: BRETT R. BUTTERFIELD
PROJECT MANAGER: THEODORE G. SIANIS, P.E.

CONTRACT NO. 61D10

FEDERAL AID PROGRAM ENGINEER: FAWAD AQUEEL, P.E., PTOE (847) 705-4021



SW 1/4 OF SECTION 26

LOCATION MAP

N.T.S.



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	<i>June 20, 2016</i> 20 16 VILLAGE OF RICHTON PARK, PRESIDENT
PASSED	<i>JUNE 23, 2016</i> 20 DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS
RELEASING FOR BID BASED ON LIMITED REVIEW	<i>June 27</i> 20 16 REGIONAL ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

DESIGN FIRM REGISTRATION
No. 184-000450

Clark Dietz
ENGINEERS

977 NORTH OAKLAWN AVENUE
SUITE 106
ELMHURST, IL 60126
PHONE: 630.413.4130
FAX: 262.657.1594

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES, SUMMARY OF QUANTITIES
- 3 PLAN
- 4 MAINTENANCE OF TRAFFIC
- 5-7 LIGHTING DETAILS

ILLINOIS HIGHWAY STANDARD DRAWINGS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
701901-05	TRAFFIC CONTROL DEVICES

IDOT DISTRICT 1 STANDARD DRAWINGS

STANDARD NO.	DESCRIPTION
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GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY ALL LOCAL UTILITY COMPANIES INCLUDING:

JULIE	800-892-0123
COMMONWEALTH EDISON	800-334-7661
AT&T CABLE	847-295-2610
NICOR	888-642-6748
VILLAGE OF RICHTON PARK	708-481-8950

72 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION. SAID UTILITY COMPANIES WILL ESTABLISH, ON THE GROUND, THE LOCATION OF UNDERGROUND PIPES, MAINS, CONDUITS, OR CABLES ADJOINING OR CROSSING PROPOSED CONSTRUCTION.

2. CONTRACTOR SHALL NOTIFY THE VILLAGE PUBLIC WORKS AT 708-481-8950 AND THE ENGINEER AT 262-657-1550 A MINIMUM OF 24 HOURS IN ADVANCE OF PERFORMING ANY WORK. RE-NOTIFICATION SHALL BE REQUIRED IF ANY PHASE OF WORK IS SUSPENDED FOR MORE THAN TWO (2) DAYS.

3. THE FOLLOWING CODES AND STANDARDS, AS APPLICABLE, SHALL GOVERN CONSTRUCTION UNDER THIS CONTRACT:

3.1. STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED APRIL 1, 2016 AND THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED APRIL 1, 2016 AND ALL SUBSEQUENT REVISIONS THERETO, HEREINAFTER REFERRED TO AS THE STANDARD SPECIFICATIONS.

3.2. STATE OF ILLINOIS, "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS", LATEST EDITION AND ALL SUBSEQUENT REVISIONS THERETO, HEREINAFTER REFERRED TO AS THE STANDARD SEWER AND WATER SPECIFICATIONS.

3.3. "MANUAL ON TRAFFIC CONTROL DEVICES", LATEST EDITION, AND THE "ILLINOIS SUPPLEMENT TO THE NATIONAL MANUAL ON TRAFFIC CONTROL DEVICES", LATEST EDITION, AND ALL SUBSEQUENT REVISIONS THERETO, HEREINAFTER REFERRED TO AS THE "MUTCD".

4. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND ARTICLE 107.14 OF THE STANDARD SPECIFICATIONS. BARRICADES AND OTHER REQUIRED TRAFFIC CONTROL SHALL BE CONSIDERED INCLUSIVE TO THE UNIT PRICE FOR TRAFFIC CONTROL AND PROTECTION BID ITEM, UNLESS OTHERWISE SPECIFIED.

5. UTILITIES SHOWN IN THE PLANS ARE FOR THE CONTRACTOR'S CONVENIENCE AND ARE APPROXIMATE ONLY. THE UTILITIES ARE LOCATED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY IN THE FIELD ALL TYPES, SIZES, AND LOCATIONS OF EXISTING UTILITIES.

6. CAUTION: THERE MAY BE OVERHEAD AND BURIED POWER LINES WHICH COULD POSSIBLY INTERFERE OR BE A SAFETY HAZARD WITH EQUIPMENT OPERATIONS.

7. ALL CURB AND GUTTER REMOVAL AND REPLACEMENT SHALL BE COMPLETED PRIOR TO PLACING ANY BITUMINOUS MATERIAL ON THAT STREET SEGMENT.

8. DURING CURB AND GUTTER REMOVAL OPERATIONS, THE CONTRACTOR WILL BE REQUIRED TO CONSTRUCT A GRAVEL RAMP TO MAINTAIN ACCESS. PLACEMENT AND REMOVAL OF THE TEMPORARY RAMPS ARE CONSIDERED INCLUSIVE TO THE UNIT PRICE FOR THE CONCRETE CURB AND GUTTER REMOVAL, ROADWAY ACCESS AND THROUGH PASSAGE FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

9. THE CONTRACTOR SHALL PLACE WARNING SIGNS 48 HOURS PRIOR TO
10. PLACEMENT OF PRIME COAT AND COMMENCEMENT OF PAVING OPERATIONS.

11. IF A PERIOD OF TEN (10) CALENDAR DAYS ELAPSES BEFORE THE PLACEMENT OF ANY BITUMINOUS COURSE, THE CONTRACTOR MAY BE REQUIRED TO PLACE ANOTHER PRIME COAT AT NO ADDITIONAL COST.

12. WHEN LOOSE MATERIAL IS DEPOSITED IN ALLEYS OR GUTTERS, IT SHALL BE REMOVED BEFORE THE END OF EACH WORKING DAY. THIS WORK WILL NOT BE PAID FOR SEPARATELY AND SHALL BE CONSIDERED INCLUSIVE TO THE BID ITEM FOR MOBILIZATION.

13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO RESTORE ALL FEATURES DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL STATE, OR BETTER. ALL RESTORATION WORK REQUIRED BEYOND THE SCOPE OF THE PLANS AND SPECIFICATIONS SHALL BE DONE AT THE CONTRACTOR'S EXPENSE UNLESS WORK WAS DONE AT THE DIRECTION OF THE OWNER OR ENGINEER AND COMPENSATION WAS AGREED UPON PRIOR TO EXECUTION OF WORK.

14. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL NECESSARY PAVEMENT OPENINGS AND CONSTRUCTION DEBRIS LEFT IN THE PUBLIC RIGHT-OF-WAY WITH LIGHTED DEVICES. THE CONTRACTOR SHALL MAINTAIN HIGH VISIBILITY OF ALL TEMPORARY HAZARDS TO PEDESTRIANS AND MOTORISTS. REMOVAL OF ANY SUCH TEMPORARY HAZARDS SHALL BE DONE AS SOON AS POSSIBLE.

15. ALL EXISTING DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS THAT WILL BE ADJUSTED OR RECONSTRUCTED SHALL BE CLEANED TO THE SATISFACTION OF THE ENGINEER. ALL COSTS ASSOCIATED WITH THIS SHALL BE INCLUDED IN THE APPLICABLE BID ITEMS.

16. THE GRADING AND CONSTRUCTION OF PROPOSED IMPROVEMENTS SHALL NOT CAUSE PONDING OF STORM WATER. GRADING SHALL BE DONE TO ALLOW FOR POSITIVE DRAINAGE.

17. UTILITY SERVICES TO RESIDENTS OR BUSINESSES WHICH ARE INTERRUPTED DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE RESTORED AT THE EXPENSE OF THE CONTRACTOR SO THAT NO SERVICE IS INTERRUPTED FOR MORE THAN EIGHT (8) HOURS. IF TEMPORARY SERVICE IS REQUIRED, THE EXPENSE FOR SAME SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

18. THE EDGES OF ALL IMPROVED SURFACES WHICH ARE DISTURBED DURING CONSTRUCTION SHALL BE SAW CUT FULL DEPTH PRIOR TO RESTORATION. ANY SAW CUTTING OF PAVEMENT PATCHES, BUTT JOINTS, DRIVEWAY APPROACHES, CONCRETE CURBS, SIDEWALK, OR ANY OTHER AREAS NECESSARY TO COMPLETE THIS PROJECT WILL NOT BE PAID FOR SEPARATELY AND SHALL BE CONSIDERED INCLUSIVE TO THE APPLICABLE REMOVAL BID ITEMS.

19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL STREETS USED BY THE CONTRACTOR, SUB-CONTRACTORS, AND SUPPLIERS CLEAN AND FREE FROM ALL DIRT, MUD, AND OTHER CONSTRUCTION DEBRIS, AND WILL BE REQUIRED TO CLEAN THEM AS IS NECESSARY IN ORDER TO MAINTAIN THEM IN A SAFE, DRIVABLE CONDITION. THE CONTRACTOR SHALL BE RESPONSIVE TO REQUESTS FROM THE ENGINEER, ENGINEER'S REPRESENTATIVE, DIRECTOR OF PUBLIC WORKS SUPERINTENDENT OF STREETS, POLICE AND FIRE DEPARTMENTS, OR ANY OFFICIAL OF THE OWNER TO PRACTICE GOOD HOUSEKEEPING THROUGHOUT THE DURATION OF THE PROJECT. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUSIVE TO THE TRAFFIC CONTROL AND PROTECTION BID ITEM.

20. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING THE PROJECT.

21. ANY COSTS ASSOCIATED WITH REQUIRED TRIMMING OR TREE REPLACEMENT DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE PAID FOR AT THE CONTRACTOR'S EXPENSE.

22. THE CONTRACTOR SHALL TAKE EXTRA CARE IN GRADING AND EXCAVATING NEAR TREES WHICH ARE NOT MARKED FOR REMOVAL SO AS NOT TO CAUSE INJURY TO THE ROOT SYSTEM OR TRUNKS. ROOTS OF A TREE THAT ARE TO REMAIN IN PLACE EXTENDING INTO THE EXCAVATION AREA IN A MANNER THAT WILL CAUSE THE LEAST AMOUNT OF SYSTEMATIC DAMAGE TO THE REMAINING TREE STRUCTURE. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE.

23. PRUNE TREE LIMBS THAT MIGHT BE DAMAGED BY EQUIPMENT OPERATIONS AT LEAST ONE WEEK PRIOR TO THE START OF CONSTRUCTION BY A CERTIFIED ARBORIST. ANY TREE LIMBS THAT ARE BROKEN BY CONSTRUCTION EQUIPMENT AFTER THE INITIAL PRUNING MUST BE PRUNED CORRECTLY WITHIN 72 HOURS.

24. SUPPLEMENTAL WATERING IS SPECIFIED FOR TREES AND SHRUBS THAT WILL BE DISTURBED BY CONSTRUCTION BUT WILL REMAIN. NOTE THAT WATERING SHOULD BEGIN IMMEDIATELY AFTER ROOT PRUNING, TOP PRUNING, OR OTHER CONSTRUCTION DISTURBANCE.

COMMITMENTS

- 1. NONE

SUMMARY OF QUANTITIES

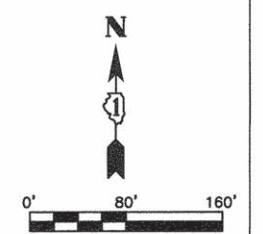
CODE NO.	ITEM	UNIT	LIGHTING 0021	
			TOTAL QTY	
20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	6	
20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	6	
20101000	TEMPORARY FENCE	FOOT	250	
67100100	MOBILIZATION	LSUM	1	
* 84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	43	
* X1400095	LUMINAIRE, LED, HORIZONTAL MOUNT, HIGH WATTAGE	EACH	62	
* XB300001	LIGHT POLE, SPECIAL	EACH	24	
* XX009135	LIGHT POLE, SPECIAL, TYPE 2	EACH	19	
* X7010216	TRAFFIC CONTROL & PROTECTION, (SPECIAL)	LSUM	1	

FILE NAME = R0130190-GENERAL INFORMATION.DWG	USER NAME = THEODORE G. STANIS	DESIGNED - TSIANIS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES & SUMMARY OF QUANTITIES SYMBOL LEGEND	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT SCALE = -----		CHECKED - TSIANIS	REVISED -			CONTRACT NO. 61D10					
PLOT DATE = 6/20/2016 9:30 AM		DATE - 04/18/16	REVISED -			SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA.	TO STA.	FED. ROAD DISTRICT 1 ILLINOIS FED. AID PROJECT	








METRA LOT(S) LIGHTING PLAN

- NOTE:**
 REMOVE AND REPLACE EXISTING POLES AS SPECIFIED WITH DECORATIVE POLES, BASES, ARMS, AND LUMINAIRES AT THE LOCATIONS SHOWN.
- ① LIGHT POLE, SPECIAL
1. SINGLE MAST ARM AND LUMINAIRE
 - ② LIGHT POLE, SPECIAL, TYPE 2
2. DUAL MAST ARM AND LUMINAIRES



FILE NAME = R0130190-PLANSHEETS.DWG	USER NAME = THEODORE G. SIANIS	DESIGNED - TSIANIS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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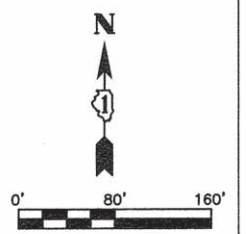
-  PHASE I
-  PHASE II
-  PHASE III
-  TYPE III BARRICADE WITH SIGN
-  POST MOUNTED OR PORTABLE SIGN

PHASE I
 INSTALL TYPE III BARRICADES AT ENTRANCES AND EXITS TO LOT 1 AND LOT 2. INSTALL SINGLE POST SIGNS AT THE WEST, SOUTH, AND EAST APPROACHES TO THE INTERSECTION OF SAUK TRAIL AND RICHTON SQUARE ROAD AS NOTED ON SHEET.

PHASE II
 INSTALL TYPE III BARRICADES AT ENTRANCES AND EXITS TO LOT 3 AND LOT 5.

PHASE III
 INSTALL TYPE III BARRICADES AT ENTRANCES AND EXITS TO LOT 6.

- ① ATTACH SIGN "PARKING LOT CLOSED"
- ② ATTACH SIGN "PARKING LOT CLOSED AHEAD"
- ③ ATTACH SIGN "METRA PARKING LOT CLOSED RIGHT"
- ④ ATTACH SIGN "METRA PARKING LOT CLOSED LEFT"
- ⑤ ATTACH SIGN "METRA PARKING LOT CLOSED AHEAD"

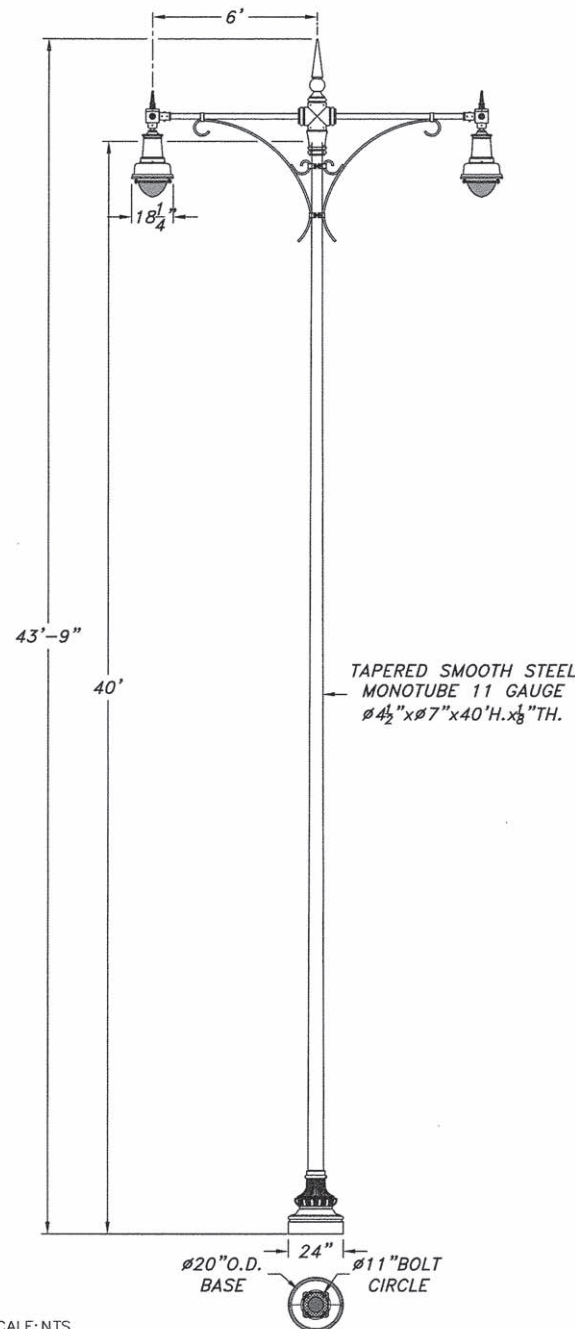


METRA LOT(S) LIGHTING PLAN

FILE NAME = R0130190-MOT.DWG	USER NAME = THEODORE G. SIANIS	DESIGNED - TSIANIS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAINTENANCE OF TRAFFIC	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	DATE - 04/18/16	REVISED -	REVISED -					CONTRACT NO. 61D10		

All LED products manufactured in the United States.

NILAND-24 SERIES



SCALE: NTS

Catalog Name: **N-24-TSS-40-CH-1-BC-18-LEX-LED**

Revision #: 0 Date: 03.30.16 Page: 1 of 5
 Revision History: N/A

Niland Approval: Luis M. Gomez Customer Approval:

CSI POLE SPECIFICATION

I. BASE
 Base shall be cast aluminum. Aluminum shall be certified as pure 356 copper free of any porosity, foreign materials or cosmetic fillers. Base casting shall be of uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be .250".

II. POLE
 Post shall be tapered smooth steel pole. Shaft extrusion shall be of uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be 11 gauge (1/8"). There are no exterior welds to finish. A bolt plate shall be welded on bottom of the extrusion.

III. CROSSARM
 Arm shall be cast iron and steel construction that will mount directly to the steel pole.

IV. ANCHORAGE DETAIL
 Post base requires (4) #1"x3/8" hot dip galvanized L-type anchor bolts with 3" maximum projection each.

V. HOUSING
 The pendant mount luminaire shall be core cast aluminum. Aluminum shall be certified as pure #356 alloy, free of any porosity, foreign materials or cosmetic fillers. Castings shall be uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be 3/16". Electrical components are one piece plug-in. LED assembly unit shall be mounted with four stainless steel screws. The core ports for ventilation located just beneath pendant housing and LED unit mounting ring increase thermal management and over all LED longevity. The optional refractor shall be molded of acrylic, glass or a polycarbonate globe with external refractor designed for either a type III or type V light distribution pattern.

VI. LED POWER SUPPLY
 Up to 100,000 hours Mean Time Before Failure (MTBF). Each factor adjustable setting draws between 300 to 600 milliamps of power. Only 1 power supply is used for up to 125 LED watts each enclosed fixture. Multiple circuit detection and protections. Each unit is rated up to 16 amps of power. Input voltage range of 90-305VAC. Minimum operating temperature -22°F (-30°C) Maximum operating temperature 140°F (60°C).

FINISHES

Five Year Powder Coating Warranty

Niland Company factory-applied powder coatings are warranted against peeling, excessive fading and cracking under normal climatic exposure for a period of five years from date of shipment. Damage to finish coating caused by abuse or mishandling during installation is not covered by warranty. This warranty is limited to the repair or replacement of the material involved and does not include reimbursement of consequential expenses such as installation or removal of equipment or transportation costs.

I. STANDARD FINISH
 Satin iron achieved by rotary sanding, blasting and phosphate conversion coating.

II. THERMOSET POWDER PAINT FINISH
 Pretreatment shall consist of degreasing phosphate acid-etching with 140° and de-ionizing water, rinsed and oven dried.

FINISH COAT
 Thermoset TGIC super polyester powder coat finish electrostatically applied, oven cured and bonded at approximately 420° F to a minimum dry film thickness of 1.6 mils. All Niland powders must pass a minimum 3000-hour salt-spray test for corrosion resistance. The National Association of Architectural Metal Manufacturers, Metal Finishes Manual rates the outdoor life of these powders at 15-plus years.

III. LIQUID FINISH
 Optional liquid finish is first prime coated then finished with a two part liquid epoxy coat.

WARRANTY
 Niland Company warrants to repair or replace, at our option, any equipment that fails due to defects in material or workmanship within one year from date of shipment. This warranty does not include failures as a result of improper installation, mishandling or misapplication. This guarantee is limited to repair or replacement only and does not include reimbursement for expense of installation, removal of equipment, transportation or any other expenses that may be incurred. Authorization must be obtained from Niland Company in El Paso, Texas before any material is returned.

NILAND/LED **Leading The Way For Solid State Street Lighting**

OSRAM SYLVANIA **QUICK 60+ Warranty On Parts and Labor**

NILAND COMPANY • PH: (915) 779-1405 • FAX: (915) 779-3618 • E-MAIL: INFO@NILANDCO.COM
 320 N. Clark St. El Paso, TX 79905 • PH: 800-648-9013 • FAX: 888-779-3065 • WEB PAGE: HTTP://WWW.NILANDCO.COM

All LED products manufactured in the United States.

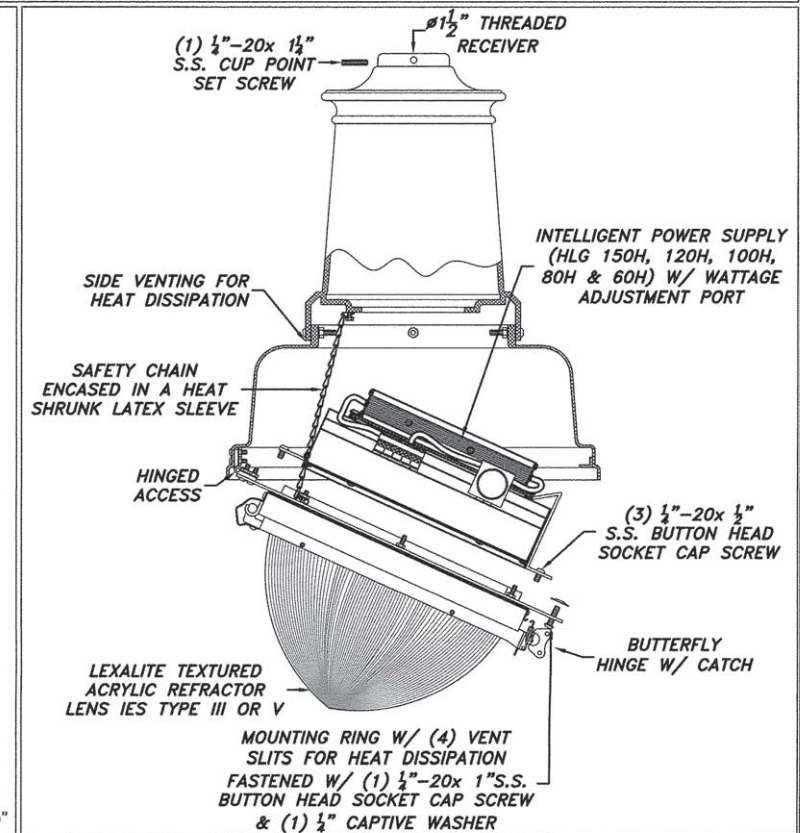
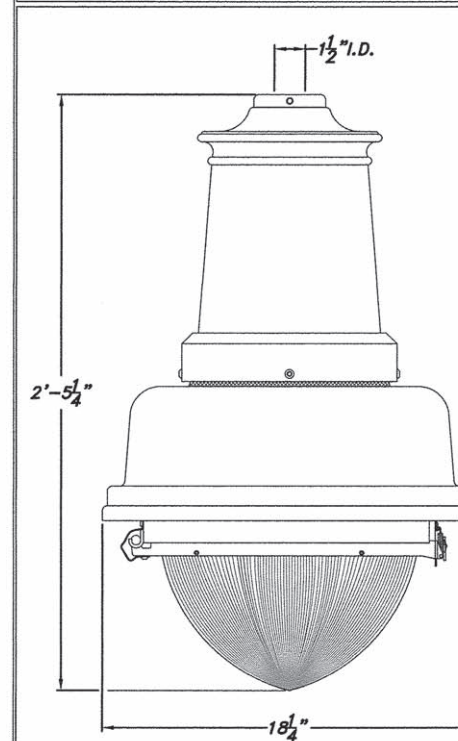
All LED products manufactured in the United States.

FULL CUT OFF,
 DARK SKY COMPLIANT,
 PENDANT MOUNTED
 HORIZONTAL LED
 ASSEMBLY

BOSTON COMMON-18 LED SERIES

BC-18-LEX-LED-D15

IP 66 RATED
 LED CHAMBER



STANDARD KELVIN	WATTAGE RANGE ACTUAL = EQUIVALENT	VOLTAGE RANGE-AC	REFRACTOR TYPE	COLOR (POWDER COAT)
3000 <input type="checkbox"/>	38w = 75w EQ. <input type="checkbox"/> 50w = 100w EQ. <input type="checkbox"/> 75w = 150w EQ. <input type="checkbox"/>	120-277 <input checked="" type="checkbox"/>	TYPE III <input type="checkbox"/>	(TB) TEXTURED BLACK <input type="checkbox"/> (GB) GLOSS BLACK <input type="checkbox"/> (TG) TEXTURED FOREST GREEN <input type="checkbox"/> (GG) GLOSS GREEN <input type="checkbox"/> (TR) TEXTURED BRONZE <input type="checkbox"/> (BG) GLOSS BLACK GREEN <input type="checkbox"/> (HG) HAND BRUSHED GREEN <input type="checkbox"/> (GR) GLOSS BRONZE <input type="checkbox"/> (HR) HAND BRUSHED GRAY <input type="checkbox"/> CUSTOM <input type="checkbox"/>
4000 <input type="checkbox"/>	88w = 175w EQ. <input type="checkbox"/> 125w = 250w EQ. <input type="checkbox"/>	347-480 <input type="checkbox"/>	TYPE V <input type="checkbox"/>	
5000 <input checked="" type="checkbox"/>	200w = 400w EQ. <input checked="" type="checkbox"/>			

LUMINAIRE SPECIFICATIONS

HOUSING
 The pendant mount luminaire shall be core cast aluminum. Aluminum shall be certified as pure #356 alloy, free of any porosity, foreign materials or cosmetic fillers. Castings shall be uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be 3/16". Electrical components are one piece plug-in. LED assembly unit shall be mounted with four stainless steel screws. The core ports for ventilation located just beneath pendant housing and LED unit mounting ring increase thermal management and over all LED longevity. The optional refractor shall be molded of acrylic, glass or a polycarbonate globe with external refractor designed for either a type III or type V light distribution pattern.

LED POWER SUPPLY
 Up to 100,000 hours Mean Time Before Failure (MTBF). Each factor adjustable setting draws between 300 to 600 milliamps of power. Only 1 power supply is used for up to 125 LED watts each enclosed fixture. Multiple circuit detection and protections. Each unit is rated up to 16 amps of power. Input voltage range of 90-305VAC. Minimum operating temperature -22°F (-30°C) Maximum operating temperature 140°F (60°C).

LED CIRCUIT BOARD
 90 or 60 individual, CREE XPE LED's rated for up to 100,000 hours service life. 5000 Kelvin white LED's are standard with a CRI of 72, 3500 Kelvin "warm white" LED's are optional. Lead free and RoHS compliant.

MOUNTING
 Fixture shall be mounted to the arm by the self-leveling mechanism. Self-leveling mechanism be mounted to arm with stainless steel allen head set screws (8 @ 90°).

Catalog Name: N-24-TSS-40-CH-1-BC-18-LEX-LED Date: 03.31.16
 Revision History: N/A Revision #: 0

Niland Approval: Luis M. Gomez Customer Approval: Page: 5 of 5

CERTIFICATION
 The fixture shall be UL Certified for wet location use.

FINISH-AAMA-2604-5
 Fixture finish shall consist of degreasing, phosphate acid etching with 140°+ deionized water, rinsed, oven dry off and top coated with a thermoset TGIC super polyester powder coat finish designed not to chalk or fade for many years. All Niland Company powders must pass a minimum 3000-hour salt spray test for corrosion resistance.

WARRANTY
 Quick 60+ month warranty on LED module and electronic driver. Please contact manufacturer for more details.

PHOTOMETRICS
 Complete photometric data for all fixtures is available in IES-formatted. A certified independent laboratory performs all testing. Call the Niland Company directly for more information.

NILAND/LED **Leading The Way For Solid State Street Lighting**

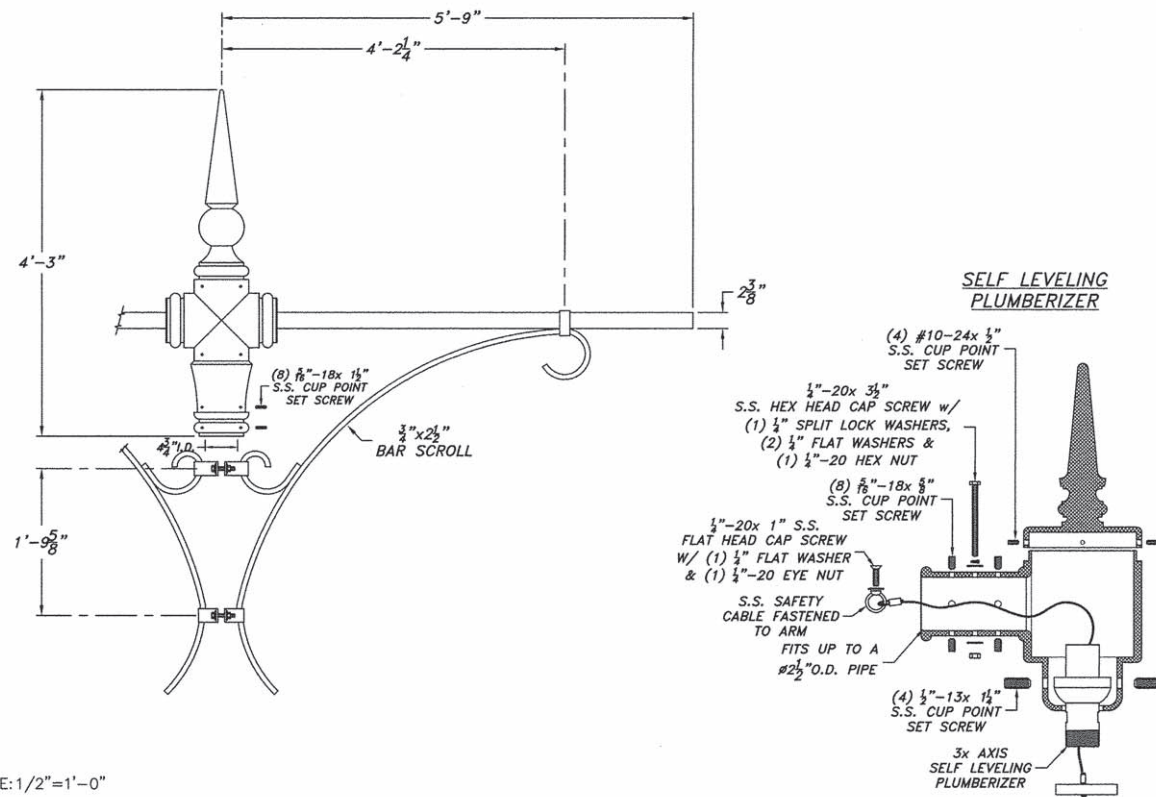
OSRAM SYLVANIA **QUICK 60+ Warranty On Parts and Labor**

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 320 N. Clark St. El Paso, TX 79905 • PH: 800-648-9013 • FAX: 888-779-3065 • WEB PAGE: HTTP://WWW.NILANDCO.COM

All LED products manufactured in the United States.

FILE NAME = R0130190-LIGHTING DETAILS.DWG	USER NAME = THEODORE G. SIANIS	DESIGNED - TSIANIS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = ----	DRAWN - BBUTTERFIELD	REVISED -			N/A	15-00056-00-LT	COOK	7	5
PLOT DATE = 6/17/2016 2:54 PM	CHECKED - TSIANIS	REVISED -		SCALE: NONE	SHEET NO. 5 OF 7 SHEETS	STA.	TO STA.	CONTRACT NO. 61D10		
	DATE - 04/18/16	REVISED -		FED. ROAD DISTRICT 1 ILLINOIS FED. AID PROJECT						

CHICAGO SERIES CH-1



SCALE: 1/2"=1'-0"

EXAMPLE
CH-1-TB

CH-1-_____ Color

ARMS	ARM LENGTH	COLOR (POWDER COATED)			
1 <input type="checkbox"/>	4ft <input type="checkbox"/>	(TB) TEXTURED BLACK <input type="checkbox"/>	(GB) GLOSS BLACK <input type="checkbox"/>	(HG) HAND BRUSHED GREEN <input type="checkbox"/>	
2 <input type="checkbox"/>	6ft <input type="checkbox"/>	(TG) TEXTURED FOREST GREEN <input type="checkbox"/>	(GC) GLOSS GREEN <input type="checkbox"/>	(HR) HAND BRUSHED GRAY <input type="checkbox"/>	
	8ft <input type="checkbox"/>	(TR) TEXTURED BRONZE <input type="checkbox"/>	(BG) GLOSS BLACK GREEN <input type="checkbox"/>	(GR) GLOSS BRONZE <input type="checkbox"/>	CUSTOM <input type="checkbox"/>

ARM SPECIFICATIONS

ARM
The arms shall be steel construction. Extrusion shall be 11 gauge (1/8") wall thickness with no warping or mold shifting. Electrical wiring shall run through arm up and out through the #3" opening.

ELECTRICAL
All electrical wiring is run through center shaft and arm and shall be UL-recognized and wired by a certified UL technician. The electrical assembly is prewired with quick disconnects for servicing. Fixture shall be UL certified for wet locations.

MOUNTING
Arm shall be mounted to a steel pole using (4) steel hex head set screws for fastening.

FINISH
Fixture finish shall consist of degreasing, phosphate acid etching with 140+ deionized water, rinsed, oven dry off and top coated with a thermoset TOC super polyester powder coat finish designed not to chalk or fade for many years. All Niland Company powders must pass a minimum 3000-hour salt spray test for corrosion resistance.

CERTIFICATION
The Fixture shall be UL-Listed for wet location use, and all HID listings.

WARRANTY
Fixture shall be warranted to be free of defects for five years. Ballast components shall carry the ballast manufacturers limited warranty of two years.

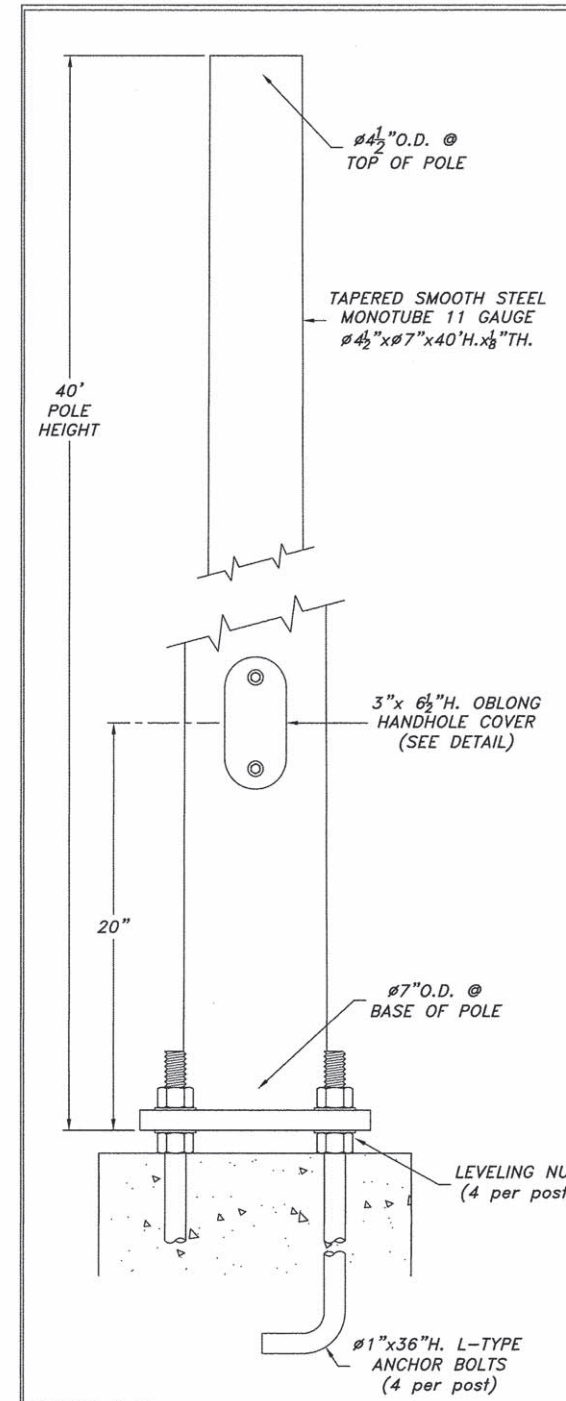
Catalog Name: N-24-TSS-40-CH-1-BC-18-LEX-LED Date: 03.31.16
Revision History: N/A Revision #: 0



Niland Company

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Niland Approval: Luis M. Gomez Customer Approval: _____ Page: 4 of 5



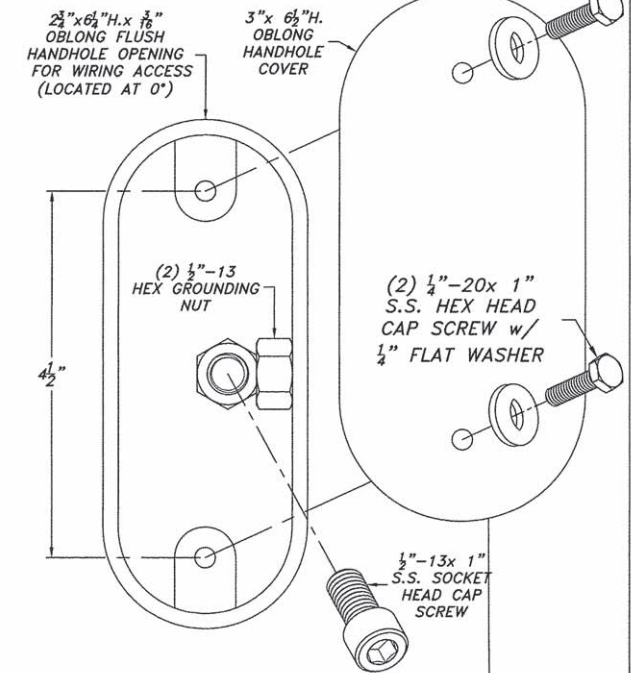
SCALE: 1"=1'-0"

STEEL POLE-11' BOLT PLATE-TAPERED SMOOTH STEEL-
40' POLE HEIGHT
SS-11-TFS-40

Catalog Name: N-24-TSS-40-CH-1-BC-18-LEX-LED Date: 03.30.16
Revision History: N/A Revision #: 0

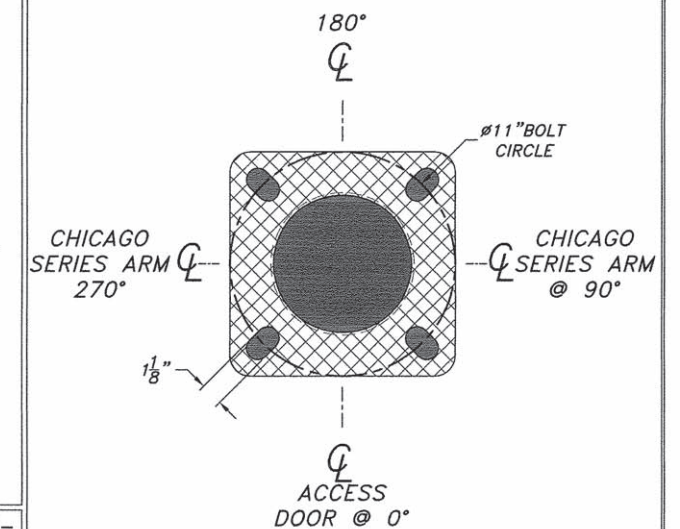
Niland Approval: Luis M. Gomez Customer Approval: _____ Page: 2 of 5

WIRING ACCESS DOOR



SCALE: 6"=1'-0"

ANCHOR BOLT PLATE



SCALE: 6"=1'-0"

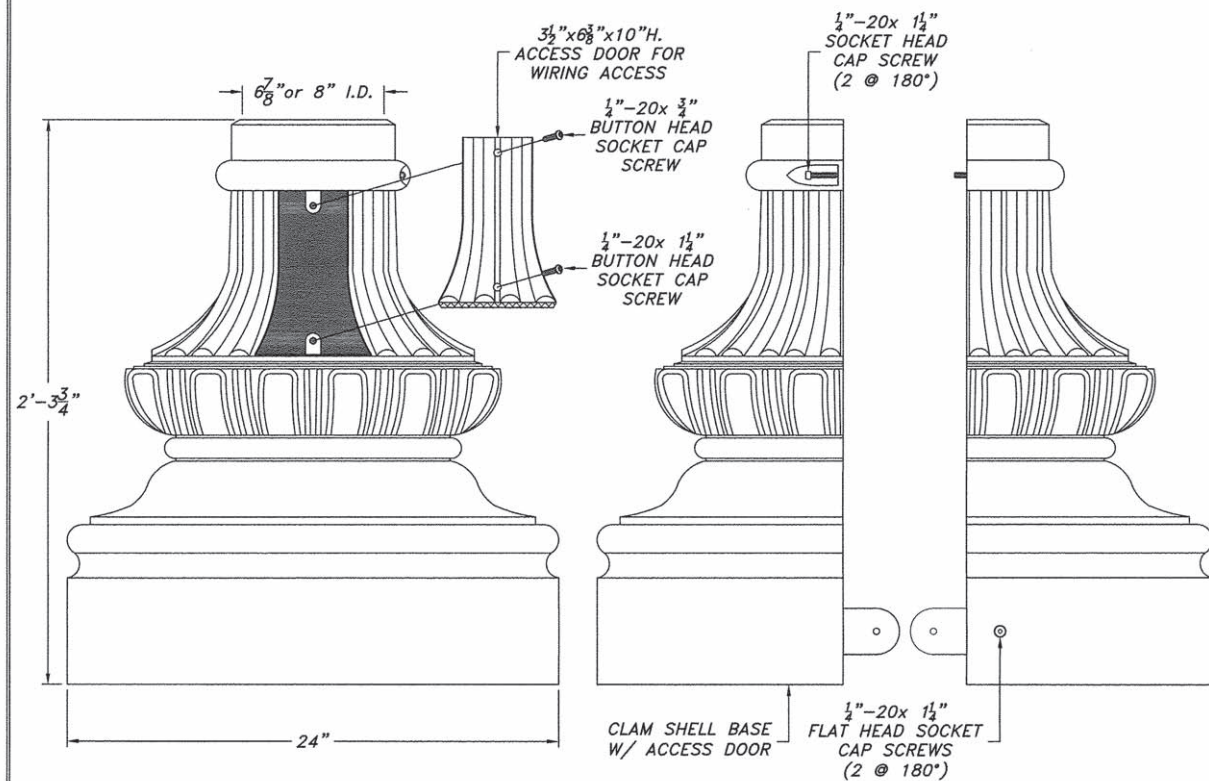


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NILAND-24 SERIES

N-24-CS



SCALE: 1 1/2" = 1'-0"

EXAMPLE N-24-CS-TB		N-24-CS-_____	Series	Color
BASE MATERIAL	NECK OPENING	COLOR (POWDER COATED)		
<input checked="" type="checkbox"/> CAST ALUMINUM <input type="checkbox"/> CAST IRON	<input checked="" type="checkbox"/> 6 7/8" I.D. <input type="checkbox"/> 8" I.D.	<input type="checkbox"/> (TB) TEXTURED BLACK <input type="checkbox"/> (TG) TEXTURED FOREST GREEN <input type="checkbox"/> (TR) TEXTURED BRONZE <input type="checkbox"/> (HG) HAND BRUSHED GREEN <input type="checkbox"/> (HR) HAND BRUSHED GRAY	<input type="checkbox"/> (GB) GLOSS BLACK <input type="checkbox"/> (GG) GLOSS GREEN <input type="checkbox"/> (BG) GLOSS BLACK GREEN <input type="checkbox"/> (GR) GLOSS BRONZE <input type="checkbox"/> CUSTOM	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

BASE SPECIFICATIONS

I. ALUMINUM BASE
 Base shall be cast aluminum. Aluminum shall be certified as pure 356 copper free of any porosity, foreign materials or cosmetic fillers. Base coating shall be of uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be .250". Cast aluminum access cover shall be secured with two to four stainless steel screws. Exterior transition ring shall be cast in to the top of the base to mirror the design of the smooth or fluted shaft. There are no exterior welds to finish.

II. IRON BASE
 Base shall be cast iron. Iron shall be certified as pure ASTM A-48 83 class, free of any porosity, foreign materials or cosmetic fillers. Base coating shall be of uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be .250". Cast iron access cover shall be secured with two to four stainless steel screws. Exterior transition ring shall be cast in to the top of the base to mirror the design of the smooth or fluted shaft. There are no exterior welds to finish.

FINISH
 Fixture finish shall consist of degreasing, phosphate acid etching with 140+ deionized water, rinsed, oven dry off and top coated with a thermoset TGIC super polyester powder coat finish designed not to chalk or fade for many years. All Niland Company powders must pass a minimum 3000-hour salt spray test for corrosion resistance.

CERTIFICATION
 The Fixture shall be UL-Listed for wet location use, and all HID listings.

WARRANTY
 Fixture shall be warranted to be free of defects for five years. Ballast components shall carry the ballast manufacturers limited warranty of two years.

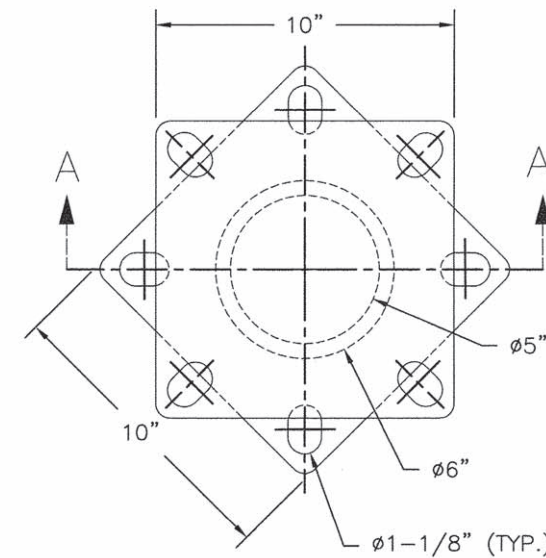
Catalog Name: N-24-TSS-40-CH-1-BC-18-LEX-LED Date: 03.30.16
 Revision History: N/A Revision #: 0



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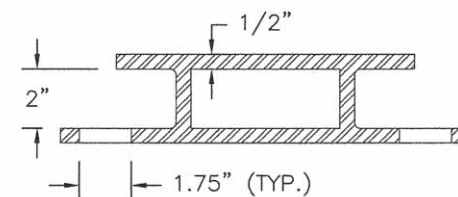
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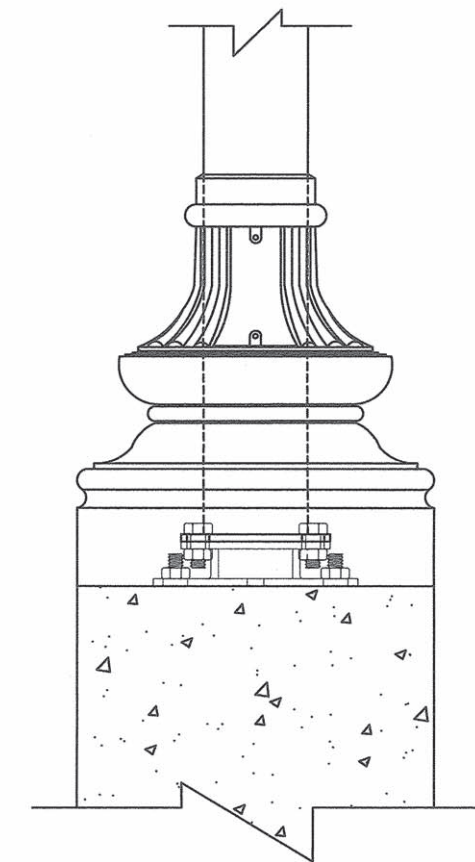


LOWER BOLT CIRCLE = 10-3/4"
 UPPER BOLT CIRCLE = 11"

TOP VIEW



SECTION A-A



INSTALLED ADAPTOR SCHEMATIC

DRAWN BY: BRB
 DATE: 04/2016
 CHECKED BY: TGS
 DATE CHECKED: 4/2016
 REVISED BY: .
 LAST REVISED: .

DETAIL NAME

BOLT CIRCLE ADAPTOR

CLARK DIETZ, ENGINEERS
 625 57TH STREET, 6TH FLOOR
 KENOSHA, WI 53144
 PHONE : 262.657.1550

FILE NAME = R0130198-LIGHTING DETAILS.DWG	USER NAME = THEODORE G. SIANIS	DESIGNED - TSIANIS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = -----	DRAWN - BBUTTERFIELD	REVISED -			N/A	15-00056-00-LT	COOK	7	7
PLOT DATE = 6/17/2016 2:54 PM	CHECKED - TSIANIS	REVISION -	REVISION -	SCALE: NONE	SHEET NO. 7 OF 7 SHEETS	STA.	TO STA.	CONTRACT NO. 61D10		
	DATE - 04/18/16	REVISION -	REVISION -				FED. ROAD DISTRICT 1 ILLINOIS FED. AID PROJECT			