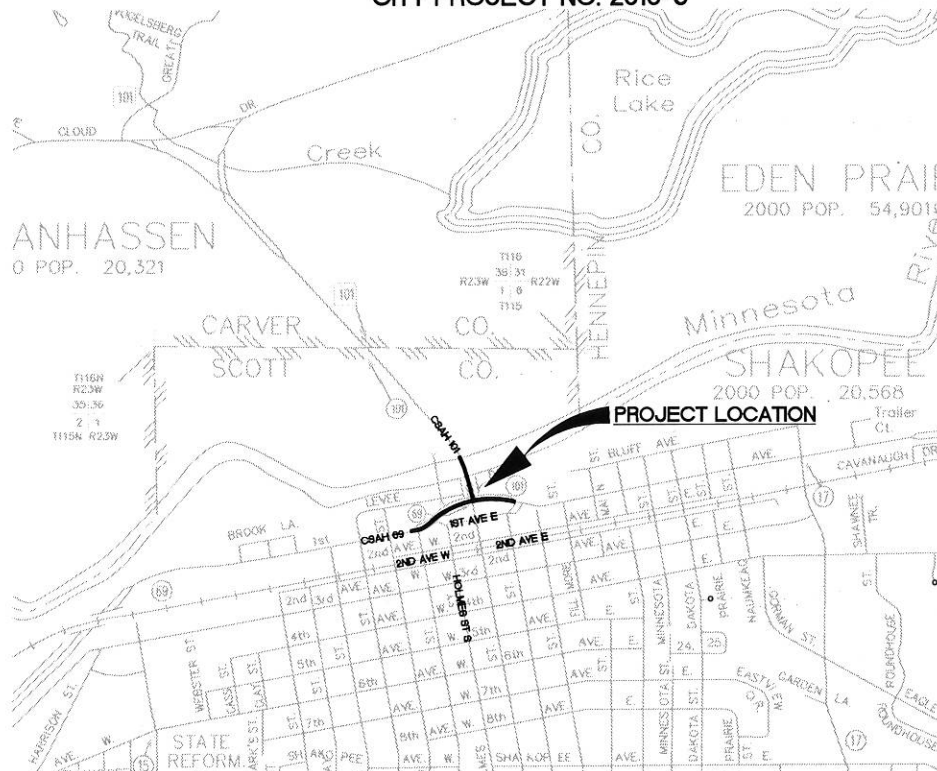


CITY OF SHAKOPEE, MINNESOTA

CONSTRUCTION PLANS FOR:

2016 STREET LIGHTING IMPROVEMENTS (CSAH 69/CSAH 101)

CITY PROJECT NO. 2016-5



NOTE:
THE SUBSURFACE UTILITY QUALITY INFORMATION IN THIS PLAN IS LEVEL D.
THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE
GUIDELINES OF CI/ASCE 38-02 ENTITLED "STANDARD GUIDELINES FOR THE
COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

THE CONTRACTOR SHALL CALL THE GOPHER STATE ONE CALL SYSTEM AT
811 BEFORE COMMENCING EXCAVATION.



Know what's below.
Call before you dig.

GOVERNING SPECIFICATIONS

THE 2016 EDITION OF THE MINNESOTA DEPARTMENT OF
TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION"
AND THE 2014 EDITION OF THE "MATERIALS LAB SUPPLEMENTAL
SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN EXCEPT AS
MODIFIED BY THE SPECIFICATIONS FOR THIS PROJECT.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM
TO THE MANUAL, INCLUDING FIELD MANUAL, FOR TEMPORARY
TRAFFIC CONTROL ZONE LAYOUTS - CURRENT EDITION.

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES AND DETAILS
3	LIGHTING PLANS
4	LIGHTING DETAILS
5	CONCRETE REMOVAL PLAN

THIS PLAN CONTAINS 5 SHEETS.

PROJECT LOCATION



SHAKOPEE, MINNESOTA



PHONE: 651.490.2000
3535 WADSWORTH CENTER DR.
ST. PAUL, MN 55110-5196
www.sehinc.com

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER
MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF
MINNESOTA.

Signature: *Thomas D. Honer, P.E.*
Date: 5/5/2017 Lic. No. 45519

FILE NO.
SHAKO
116731

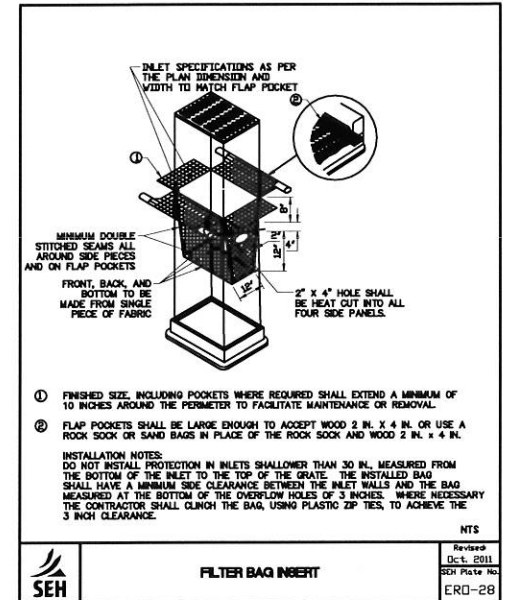
1
5

GENERAL LIGHTING NOTES:

- BIDDERS ARE ADVISED THAT THE NEC AND THE 2016 EDITION OF MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION SHALL GOVERN. COMPLIANCE WITH PROVISIONS OF MNDOT 2545.2A, AND THE FIRST PARAGRAPH OF MNDOT 2545.3A WILL BE PARTICULARLY ENFORCED IN CONJUNCTION WITH THE CONSTRUCTION OF ANY KIND OR TYPE OF ELECTRICAL SYSTEM, CONDUIT OR CONDUIT SYSTEM FOR THE CONVEYANCE OF THE ELECTRICAL CONDUCTORS, OR THE REQUIRED PORTIONS THEREOF, AS SPECIFIED IN THE CONTRACT. THE MINNESOTA ELECTRICAL ACT REQUIRES THAT A PERMIT BE OBTAINED FOR THE PERFORMANCE OF ALL SUCH WORK, INCLUDING THE INSTALLATION OF CONDUITS. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO, AN ELECTRICAL PERMIT. WORK SHALL BE INSPECTED AND APPROVED BY THE ENGINEER AND THE CITY OF SHAKOPEE.
- REQUIRED SIGNAL AND LIGHTING CERTIFICATION FOR ALL CONTRACTORS, SUPERVISORS OR FOREMEN INVOLVED IN THE FIELD INSTALLATION OF THE TRAFFIC SIGNAL AND/OR LIGHTING PORTION OF THIS PROJECT. SIGNAL AND LIGHTING CERTIFICATION IS AVAILABLE THROUGH THE MNDOT OFFICE OF TRAFFIC, SAFETY, AND TECHNOLOGY (OTST). QUESTIONS REGARDING CERTIFICATION OR PAST CERTIFICATION MAY BE DIRECTED TO THE MNDOT OFFICE OF TRAFFIC, SAFETY, AND TECHNOLOGY (OTST) AT TELEPHONE NO. 651.234.7055.
- SPlicing SHALL BE PERFORMED USING BURNIDY UNITAP SPlicing HARDWARE OR APPROVED EQUAL.
- PROVIDE BUSSMANN TYPE HEX-AW-DRLC-A FUSE HOLDER AND 6-AMP FUSES IN FEED LEADS OF NEW POLE RISER WIRES.
- PROVIDE (3)#12 STRANDED XHHW-2 CONDUCTORS FROM POLE BASE TO LUMINAIRE.
- PROVIDE ADEQUATE CONDUCTOR LENGTH TO ENABLE SPlices AND FUSE HOLDERS TO BE REMOVED FROM POLE HANDHOLE FOR MAINTENANCE.
- HANDHOLE: QUAZITE # PC1324 BA12, POLYMER CONCRETE. COVER DESIGNED TO CARRY LIGHT TRAFFIC. MOLD "STREET LIGHTING" INTO COVER. PROVIDE 12" OF PEA GRAVEL BASE UNDER HANDHOLE.
- ALL MATERIAL AND WORK SHALL BE IN ACCORDANCE WITH THE N.E.C. AND MNDOT 2545.
- ALL MATERIALS SHALL BE UL LISTED.
- THIS WORK SHALL CONSIST OF FURNISHING ALL LABOR, EQUIPMENT, AND MATERIALS FOR THE CONSTRUCTION OF A COMPLETE AND OPERATIONAL LIGHTING SYSTEM.
- CONTRACTOR SHALL FURNISH AS-BUILT PLANS THAT INDICATE ACCURATE LOCATIONS FOR CABLE, CONDUIT, SERVICE CABINET, LIGHT POLE, AND HANDHOLE LOCATIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY PERMITS AND UTILITY COORDINATION.
- THE CONTRACTOR SHALL COAT ALL THREADED HARDWARE WITH AN APPROVED ZINC-BASED ANTI-SEIZE COMPOUND PRIOR TO ASSEMBLY.
- ALL REMOVED ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

GENERAL NOTES:

- PROTECT ALL FACILITIES NOT SPECIFIED FOR REMOVAL (INCIDENTAL).
- INSTALL INLET PROTECTION IN CATCH BASINS ADJACENT TO THE WORK AREA PRIOR TO ANY DISTURBANCE.
- BIOROLLS SHALL BE INSTALLED/STAKED AROUND THE DOWNSTREAM PERIMETER OF ALL STOCKPILES.
- THE LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE BASED ON MAPS RECEIVED AND MAY NOT REFLECT ACTUAL LOCATIONS OR INCLUDE ALL FACILITIES IN THE PROJECT AREA. THE CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED IN THE FIELD TO VERIFY ACTUAL LOCATIONS BEFORE DIGGING AND SHALL PROVIDE 48 HOUR (MINIMUM) NOTICE TO THE OWNERS OF ALL KNOWN UTILITIES BEFORE STARTING ANY OPERATIONS AFFECTING THOSE FACILITIES, OR BEGINNING EXCAVATION IN THE VICINITY OF THESE FACILITIES.
- POTHOLING/HAND EXCAVATION/HYDRO EXCAVATION (INCLUDING BACKFILLING/COMPACTING/RESTORING EXCAVATED AREA TO ITS PRE-EXCAVATED CONDITION) PERFORMED IN PAVED OR TURF AREAS TO EXPOSE EXISTING UNDERGROUND PUBLIC/PRIVATE UTILITIES PRIOR TO REMOVAL/INSTALLATION OF EXISTING/PROPOSED FACILITIES SHALL BE CONSIDERED INCIDENTAL.
- ALL TURF AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED WITH 6" TOPSOIL (SALVAGED AND/OR IMPORTED) AND HYDROSEEDING (MNDOT SEED MIXTURE 25-131). ALL ITEMS ASSOCIATED WITH TURF RESTORATION, INCLUDING FURNISHING/PLACING TOPSOIL, SHALL BE CONSIDERED INCIDENTAL TO INSTALLATION OF PROPOSED FACILITIES. REFER TO SPECIFICATIONS FOR ADDITIONAL HYDROSEEDING REQUIREMENTS.
- IN PAVED (BITUMINOUS OR CONCRETE) AREAS WHERE POTHOLING/HAND EXCAVATION/HYDRO EXCAVATION IS PERFORMED TO EXPOSE EXISTING UNDERGROUND PUBLIC/PRIVATE UTILITIES, SAWCUTTING, PAVEMENT REMOVAL, FURNISHING AND INSTALLING AGGREGATE BASE CLASS 5 AND FURNISHING AND INSTALLING NEW BITUMINOUS (INCLUDING TACK COAT) OR CONCRETE PAVEMENT SHALL BE PAID FOR AS "HARD SURFACE REPAIR AREA (BITUMINOUS OR CONCRETE)". PROPOSED GRAVEL AND PAVEMENT THICKNESSES SHALL MATCH EXISTING THICKNESSES OF BOTH AT EACH LOCATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- REMOVAL AND REPLACEMENT OF CONCRETE SIDEWALK AND BITUMINOUS SIDEWALK AREAS THAT ARE IMPACTED BY REMOVAL OF EXISTING LIGHT POLE BASES OR INSTALLATION OF NEW LIGHT POLE BASES, SHALL BE PAID UNDER THE "REMOVE AND REPLACE CONCRETE WALK" BID ITEM. PAYMENT WILL NOT BE MADE UNDER THESE ITEMS FOR BITUMINOUS/CONCRETE SIDEWALKS IMPACTED BY POTHOLING/HAND EXCAVATION/HYDRO EXCAVATION FOR PURPOSES OF LOCATING EXISTING PUBLIC/PRIVATE UTILITIES. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- TRAFFIC CONTROL SHALL COMPLY WITH MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING "FIELD MANUAL TO TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS" - CURRENT EDITION.



DRAWN BY: PV
DESIGNER: PV
CHECKED BY: KST
DESIGN TEAM

NO. BY DATE
REVISIONS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Date: 5/5/2017 Lic. No.: 45519

SHAKOPEE, MINNESOTA
PHONE: (951) 490-2000
3535 WILSON CENTER DR.
ST. PAUL, MN 55110

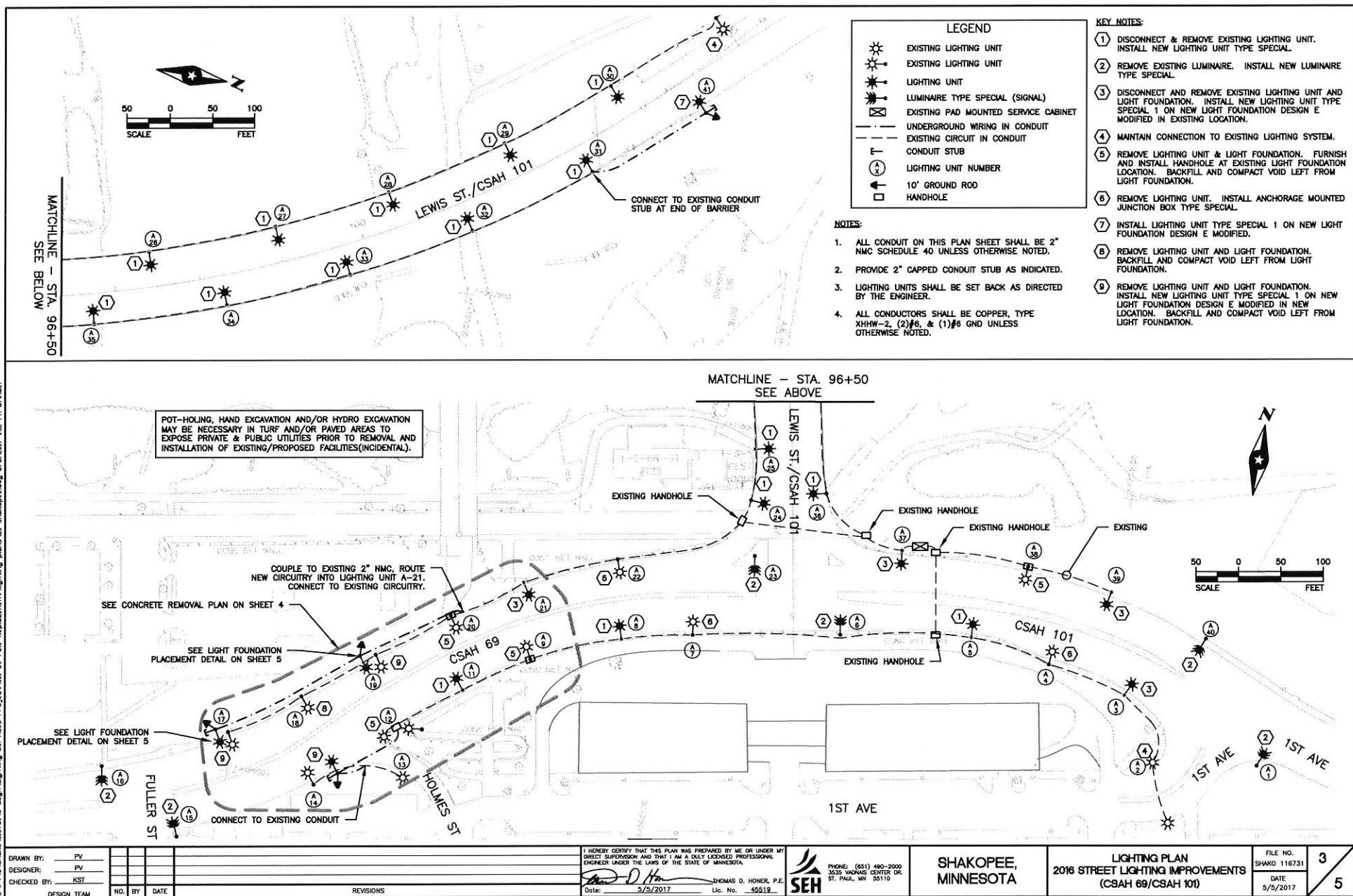
SHAKOPEE, MINNESOTA

GENERAL NOTES AND DETAILS
2016 STREET LIGHTING IMPROVEMENTS
(CSAH 69/CSAH 101)

FILE NO.
SHAKO 116731
DATE
5/5/2017

2
5

S:\P\15\Shakopee\116731\Design\Lighting Services\Project\116731-69 Pole Replacement\Lighting plans\116731-69 Pole Replacement.dwg 3/9/2017 1:12 PM sfiber



DRAWN BY: PY				
DESIGNER: PY				
CHECKED BY: KST				
DESIGN TEAM	NO.	BY	DATE	REVISIONS



PHONE: (651) 490-2000
3535 VADNAIS CENTER DR
ST. PAUL, MN 55110

SHAKOPEE,
MINNESOTA

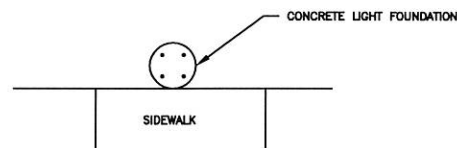
CONCRETE PLAN
2016 STREET LIGHTING IMPROVEMENTS
(CSAH 69/CSAH 101)

FILE NO. SHAKO 116731
DATE 5/5/2017

4/

EQUIPMENT SCHEDULE - FOR INFORMATION ONLY				
DESCRIPTION	LAMP SOURCE	MOUNTING	OPTICS	MANUFACTURER & SERIES #
LIGHTING UNIT TYPE SPECIAL LED LUMINAIRE ON FLUTED STELINK ALUMINUM POLE WITH BANNER ARMS AND EYELETS	91 WATT 40 LED 4000K	20" POLE ON BARRIER WALL	TYPE III	AMERICAN ELECTRIC LIGHTING - LUMINAIRE: ATB2-40BLEDE85-MVOLT-R3-DDB-P7-SH-AO ARM: VGC72/1-CS/DB POLE: CHA20LSJ16PT1LABBZ-SPCL MILLERBERND MFG - BASE: CUSTOM T-BASE
LIGHTING UNIT TYPE SPECIAL 1 LED LUMINAIRE ON FLUTED STELINK ALUMINUM POLE WITH BANNER ARMS AND EYELETS	91 WATT 40 LED 4000K	24"-4" POLE ON LIGHT FOUNDATION DESIGN E MODIFIED	TYPE III	AMERICAN ELECTRIC LIGHTING - LUMINAIRE: ATB2-40BLEDE85-MVOLT-R3-DDB-P7-SH-AO HOLOPHANE - ARM: VGC72/1-CS/DB POLE: CHA24.33LSJ16PT1ABGBZ
LUMINAIRE TYPE SPECIAL LED LUMINAIRE ON EXISTING POLE	160 WATT 96 LED 4000K	ON EXISTING SIGNAL POLE	TYPE III	PHILIPS - LUMINAIRE: RVM-160W96LED4K-LE3-UNN-DMG-PC7-BR

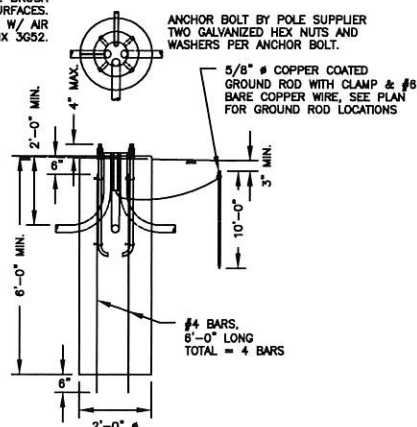
*NOTE: CITY SHALL FURNISH LUMINAIRES, ARMS, POLES, & JUNCTION BOXES TO THE CONTRACTOR.



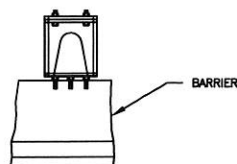
LIGHT FOUNDATION PLACEMENT DETAIL

24" DIA. CONCRETE BASE W/
2" FOUNDATION EXPOSURE AND
3/4" CHAMFERED EDGE. BRUSH
FINISH ALL EXPOSED SURFACES.
4500 PSI CONCRETE W/ AIR
ENTRAINMENT MNDOT MIX 3G52.

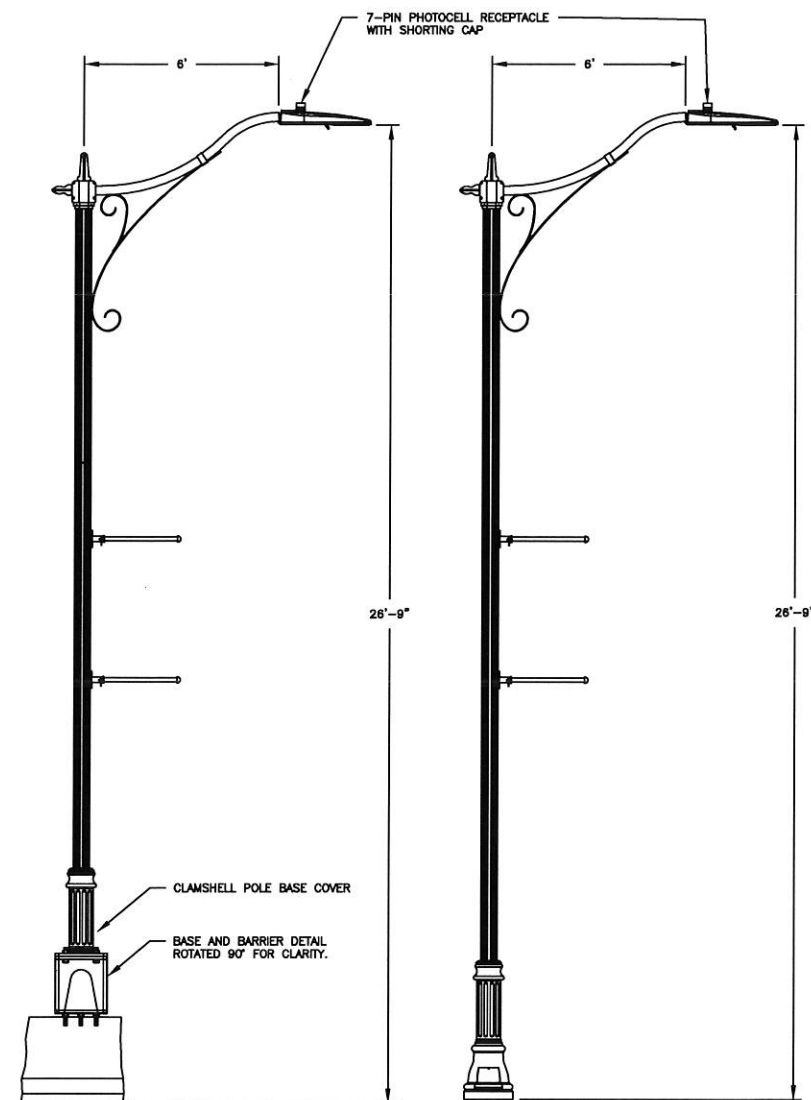
BOLT CIRCLE PER
POLE MANUFACTURER



LIGHT FOUNDATION DESIGN 'E' MODIFIED DETAIL



JUNCTION BOX TYPE SPECIAL DETAIL



LIGHTING UNIT TYPE SPECIAL DETAIL

LIGHTING UNIT TYPE SPECIAL 1 DETAIL

DRAWN BY: PY
DESIGNER: PY
CHECKED BY: KST

NO. BY DATE

REVISIONS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY
DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
THOMAS D. HONER, P.E.
Date: 5/5/2017 Lic. No. 55519

SEH
PHONE: (651) 490-2000
3535 WIGGANS CENTER DR.
ST. PAUL, MN 55110

SHAKOPEE,
MINNESOTA

LIGHTING DETAILS
2016 STREET LIGHTING IMPROVEMENTS
(CSAH 69/CSAH 101)

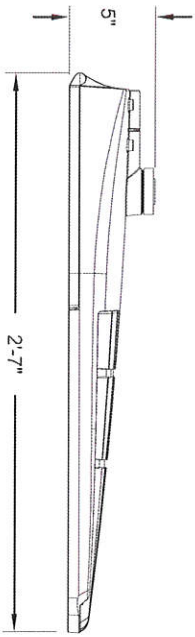
FILE NO.
SHAKO 116731
DATE
5/5/2017

5
5

CITY FURNISHED EQUIPMENT
FOR INFORMATION ONLY

Autobahn LED Roadway - Large

- 400 Chips -
- 850mA Driver -
- Multi-Volt (120-277) -
- Roadway Type III -
- Bronze finish -
- 7-Pin Photocontrol Receptacle -
- Shorting Cap -
- Field Adjustable Output -
- RFD226609 Only



Catalog #s:

Fixture: ATB240BLEDE85W/VOLTR38ZPTAOSH RFD226609

Customer Signature:

Date:



HOLOPHANE®
LEADER IN LIGHTING SOLUTIONS

An **Acuity Brands Company**

Shakopee

Minneapolis, MN

ORDER #: 2043-16-13252-0	TYPE: 1	DRAWING #:
REVISION: 1	REVISION DATE: 01/24/17	TSG 009948
DRAWN: MAB	ORIGIN DATE: 01/04/17	PAGE: 1 of 4

THIS DRAWING, WHEN APPROVED, SHALL BECOME THE COMPLETE SPECIFICATION FOR THE MATERIAL TO BE FURNISHED BY HOLOPHANE ON THE ORDER NOTED ABOVE. A UNIT OF SIMILAR DESIGN MAY BE SUPPLIED, BUT ONLY AFTER APPROVAL BY THE CUSTOMER IN WRITING. ON POLE ORDERS AN ANCHOR BOLT TEMPLATE PRINT WILL BE SUPPLIED WITH EACH ANCHOR BOLT ORDER TO MATCH THE POLE PROVIDED. THIS PRINT IS THE PROPERTY OF HOLOPHANE AND IS LOANED SUBJECT TO RETURN UPON DEMAND AND UPON EXPRESS CONDITION THAT IT WILL NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTERESTS, AND ONLY IN CONNECTION WITH MATERIAL FURNISHED BY HOLOPHANE.

Specifications

POST DESCRIPTION

The lighting post shall be all aluminum, one-piece construction, special pole top adapter plate and decorative fluted cast aluminum base. The post shall be provided with (1) special VGC Series 72" roadway arm for site link pole.

MATERIALS

The base shall be heavy wall cast aluminum produced from certified ASTM 356.1 ingot per ASTM B-179-95a or ASTM B26-95. The shaft shall be extruded from aluminum, ASTM 6061 alloy. All hardware shall be stainless steel. Anchor bolts to be completely hot dip galvanized.

CONSTRUCTION

The shaft shall be double welded to the base casting and shipped as one piece for maximum structural integrity. The shaft shall be welded inside the base casting at the top of the access door, and externally where the shaft exits the base. All welding shall be per ANSI/AWS

DIMENSIONS

The post shall be 24'-6" in height with an Ø16" base. The shaft diameter shall be 5". At the top of the post, an integral rectangular mounting plate shall be provided for arm mounting.

INSTALLATION

The post shall be installed with hot dip galvanized L-type anchor bolts. A door shall be provided in the base for anchorage and wiring access. A grounding screw shall be provided inside the base opposite the door.

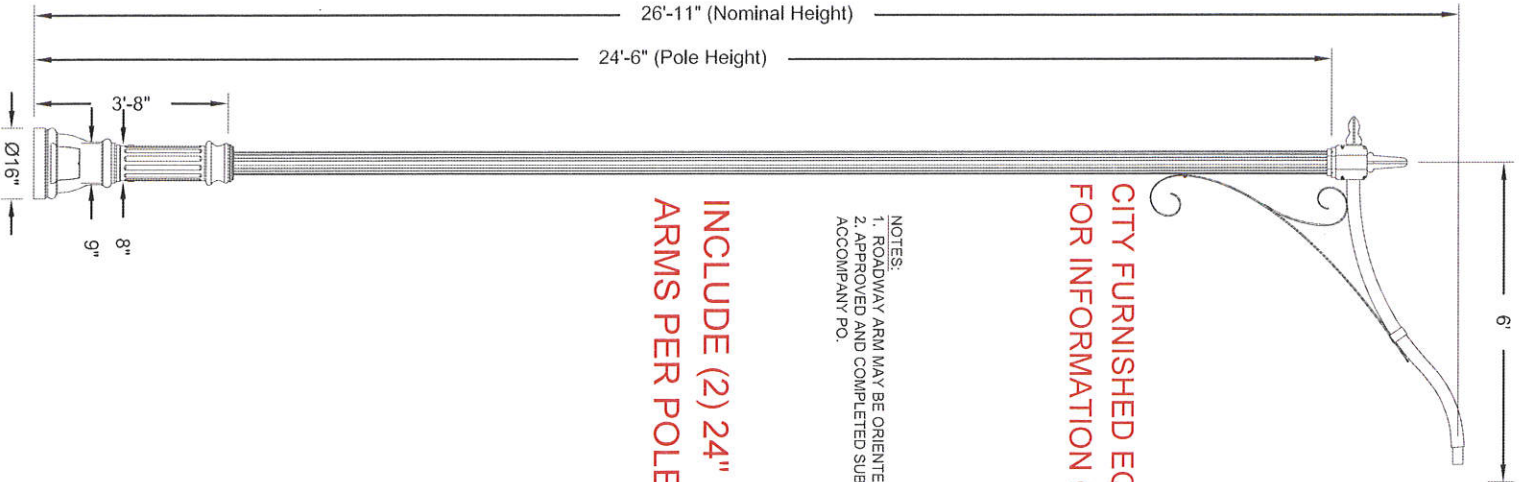
FINISH

The assembly shall have be anodized with bronze finish.

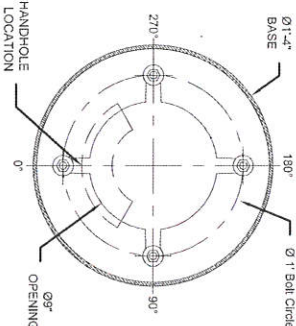
CITY FURNISHED EQUIPMENT
FOR INFORMATION ONLY

- NOTES:
- 1. ROADWAY ARM MAY BE ORIENTED IN THE FIELD.
 - 2. APPROVED AND COMPLETED SUBMITTAL TO ACCOMPANY PO.

INCLUDE (2) 24" BANNER
ARMS PER POLE



Anchorage Detail



DO NOT USE TO SET ANCHOR BOLTS
CONTACT CUSTOMER SERVICE FOR TEMPLATE

Catalog #s:

Pole: CHA(24.5)LSJ16PT1LAB-SPCL RFD93723
Anchor Bolts: AB-31-4
Arm: SLEVGCT2/1L4SDBH RFD887703

Customer Signature:

Date:



HOLOPHANE®
LEADER IN LIGHTING SOLUTIONS

An **Acuity Brands Company**

Shakopee

Minneapolis, MN

ORDER #: 2043-16-13252-0	TYPE: 2	DRAWING #:
REVISION: 1	REVISION DATE: 01/24/17	TSG 009948
DRAWN: MAB	ORIGIN DATE: 01/04/17	PAGE: 2

THIS DRAWING, WHEN APPROVED, SHALL BECOME THE COMPANY SPECIFICATION FOR THE MATERIAL. TO BE FURNISHED BY HOLOPHANE ON THE ORDER NOTED ABOVE. A UNIT OF SIMILAR DESIGN MAY BE SUBMITTED, BUT ONLY AFTER APPROVAL BY THE CUSTOMER IN WRITING. ON POLE ORDERS AN ANCHOR BOLT TEMPLATE PRINT WILL BE SUPPLIED WITH EACH ANCHOR BOLT ORDER TO MATCH THE POLE PROVIDED. THIS PRINT IS THE PROPERTY OF HOLOPHANE AND IS LOANED SUBJECT TO RETURN UPON DEMAND AND UPON EXPRESS CONDITION THAT IT WILL NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTERESTS, AND ONLY IN CONNECTION WITH MATERIAL FURNISHED BY HOLOPHANE.

Specifications

POST DESCRIPTION

The lighting post shall be all aluminum, one-piece construction, with a cast base plate design and special pole top adapter plate. The post shall be provided with (1) special VGC Series 72" roadway arm for site link pole.

MATERIALS

The base shall be heavy wall, 1" thick cast aluminum plate produced from certified ASTM 356.1 Ingot per ASTM B-179-95a or ASTM B26-95. The shaft shall be extruded from aluminum, ASTM 6061 alloy. All hardware shall be stainless steel. Anchor bolts to be completely hot dip galvanized.

CONSTRUCTION

The shaft shall be double welded to the base casting and shipped as one piece for maximum structural integrity. The shaft shall be welded inside the base casting at the top of the access door, and externally where the shaft exits the base. All welding shall be per ANSIAAWS

DIMENSIONS

The post shall be 23'-0" in height with an 17'-1/4" x 9'-1/4" base plate. The shaft diameter shall be 5". At the top of the post, an integral rectangular mounting plate shall be provided for arm mounting.

INSTALLATION

The post shall be installed with hot dip galvanized L-type anchor bolts. A door shall be provided in the base for anchorage and wiring access. A grounding screw shall be provided inside the base opposite the door.

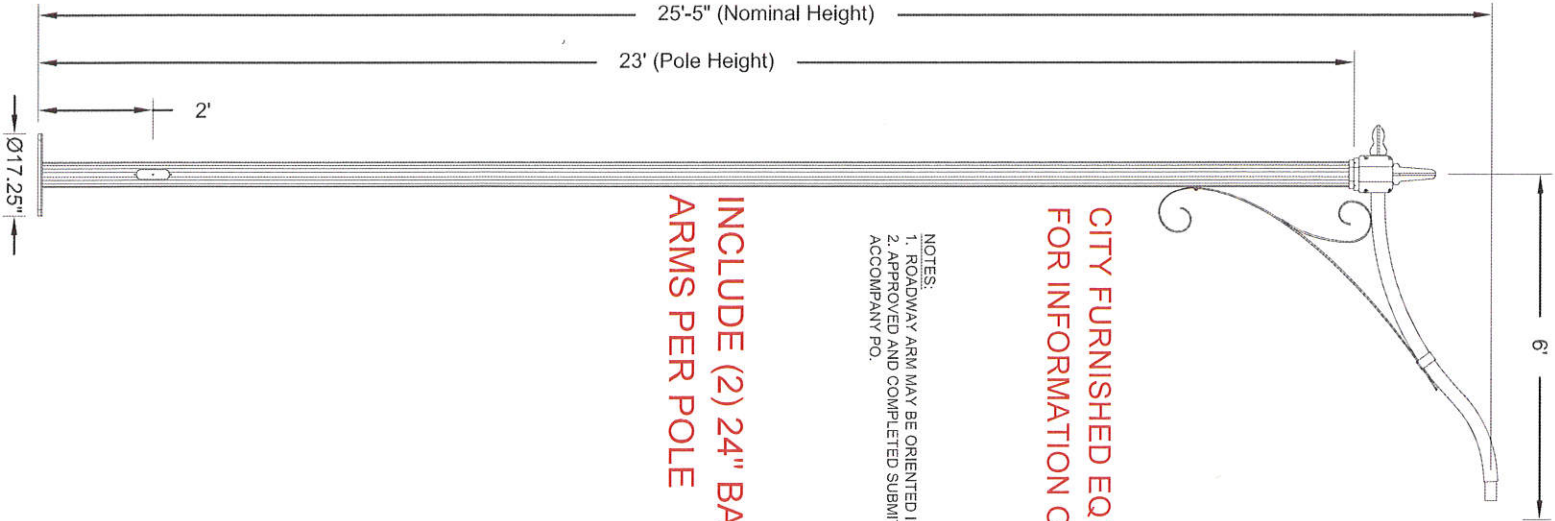
FINISH

The assembly shall have be anodized with bronze finish.

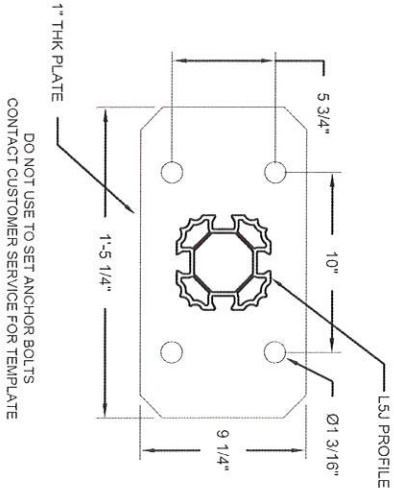
CITY FURNISHED EQUIPMENT
FOR INFORMATION ONLY

- NOTES:
1. ROADWAY ARM MAY BE ORIENTED IN THE FIELD.
2. APPROVED AND COMPLETED SUBMITTAL TO ACCOMPANY PO.

INCLUDE (2) 24" BANNER
ARMS PER POLE



Anchorage Detail



HOLOPHANE®
LEADER IN LIGHTING SOLUTIONS

An *Acuity Brands* Company

Shakopee

Minneapolis, MN

ORDER #: 2043-16-13252-0	TYPE: 3	DRAWING #:
REVISION: 1	REVISION DATE: 01/24/17	TS G 009948
DRAWN: MAB	ORIGIN DATE: 01/04/17	PAGE: 3

Catalog #s:

Pole: SLA23LSJPBPT1AN/DB RFD206945

Arm: SLEVG72/1L45DBH RFD87703

Customer Signature: _____

Date: _____

THIS DRAWING, WHEN APPROVED, SHALL BECOME THE COMPLETE SPECIFICATION FOR THE MATERIAL. TO BE FURNISHED BY HOLOPHANE ON THE ORDER NOTED ABOVE. A LIMIT OF SIMILAR DESIGN MAY BE SUPPLIED, BUT ONLY AFTER APPROVAL BY THE CUSTOMER IN WRITING. ON POLE ORDERS AN ANCHOR BOLT TEMPLATE PRINT WILL BE SUPPLIED WITH EACH ANCHOR BOLT. ORDER TO MATCH THE POLE PROVIDED. THIS PRINT IS THE PROPERTY OF HOLOPHANE AND IS LOANED SUBJECT TO RETURN UPON DEMAND AND UPON EXPRESS CONDITION THAT IT WILL NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTERESTS, AND ONLY IN CONNECTION WITH MATERIAL FURNISHED BY HOLOPHANE.

CITY FURNISHED EQUIPMENT
FOR INFORMATION ONLY

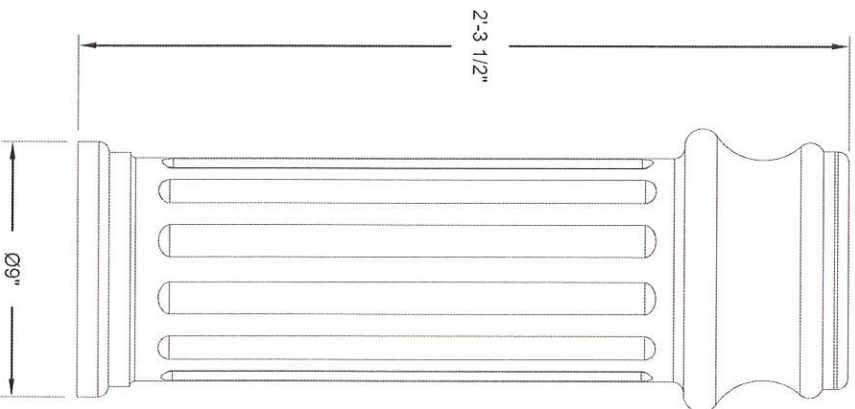
Special Charleston Clamshell Base

2-piece Cast Aluminum

2-piece Cast Aluminum -
9" Nominal Base Diameter -
To Fit an "LSJ" Stielink Shaft -
Holophane Bronze finish -

RFD215998 Only

To Be Engineered upon Receipt of Order
Basic Design May Vary from Shown



Catalog #s:
Clamshell Base: CHA09CAL5JCSBBZ RFD215998

Customer Signature:

Date:



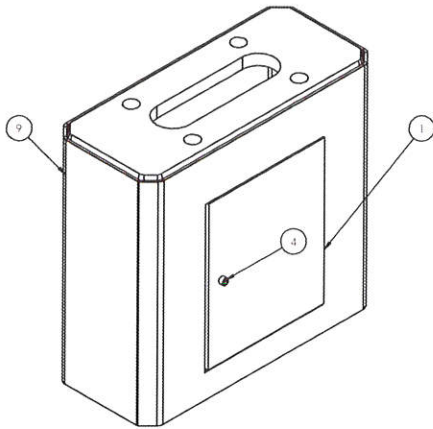
HOLOPHANE®
LEADER IN LIGHTING SOLUTIONS

An *Acuity Brands Company*

Shakopee
Minneapolis, MN

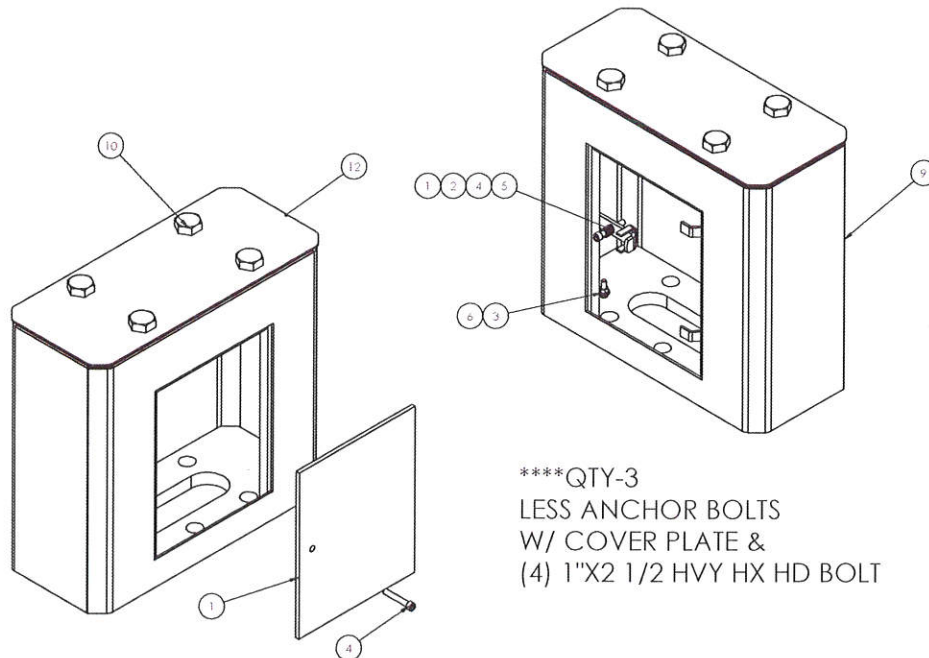
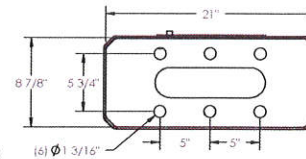
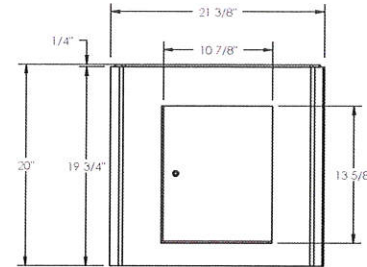
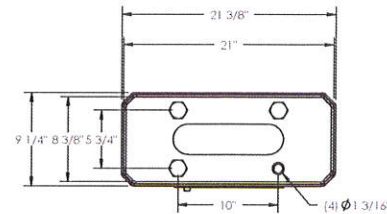
ORDER #: 2043-16-13252-0	TYPE: CSB	DRAWING #:
REVISION: 1	REVISION DATE: 01/24/17	TSG 009948
DRAWN: MAB	ORIGIN DATE: 01/04/17	PAGE: 4

THIS DRAWING, WHEN APPROVED, SHALL BECOME THE COMPANY SPECIFICATION FOR THE MATERIAL TO BE FURNISHED BY HOLOPHANE ON THE ORDER NOTED ABOVE. A UNIT OF SIMILAR DESIGN MAY BE SUPPLIED, BUT ONLY AFTER APPROVAL BY THE CUSTOMER IN WRITING. ON POLE ORDERS AN ANCHOR BOLT TEMPLATE PRINT WILL BE SUPPLIED WITH EACH ANCHOR BOLT ORDER TO MATCH THE POLE PROVIDED. THIS PRINT IS THE PROPERTY OF HOLOPHANE AND IS LOANED SUBJECT TO RETURN UPON DEMAND AND UPON EXPRESS CONDITION THAT IT WILL NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTERESTS, AND ONLY IN CONNECTION WITH MATERIAL FURNISHED BY HOLOPHANE.



CITY FURNISHED EQUIPMENT
FOR INFORMATION ONLY

****QTY-16
LESS ANCHOR BOLTS
LESS POLE TO TBASE BOLTS
LESS COVER PLATE



****QTY-3
LESS ANCHOR BOLTS
W/ COVER PLATE &
(4) 1"X2 1/2 HVY HX HD BOLT

ITEM NO.	PART NUMBER	DESCRIPTION	QTY PER	ASSY	FINISH
1	1010522	WLDMT DOOR 5/16 X 10 7/8 X 13 7/16	1	X	X
2	1010526	DOOR LATCH T BASE	1	X	X
3	NUTHXS-16-18SS	NUT HX 5-16-18NC SS	1	X	
4	SCRWE3-8-16X2-1-4SS	SCRW HX 3/8 HD 3-8-16NC X 2-1-4 SS	1	X	
5	SPRINGA-60X.067X1.25A	DOOR LATCH SPRING	1	X	
6	WASHFLATS/16BRASS-001	5/16 BRASS FLAT WASHER .34 ID X .75 OD X .064 TK	2	X	
7	PI-1-17-FTU-004-FR	FIN COAT STD BRONZE URETHANE (FR)	0	REF	
8	PI-5-17-FTU-004-FR	FIN COAT STD BRONZE URETHANE (FR)	1		
9	1015832	WLDMT TBASE RECT 3/16X20" (6) BOLT BTM (4) BOLT TOP W 1 3/16 HOLES	1		X
10	BOLTB1-8X2-1-2B	BOLT HVYHXHD 1-8 X 2-1-2 A325GV	4		
11	NUTHVYHX1"-8A563MGV	NUT HVY HX 1"-8 A563 B695GV (DH)	4		
12	1015837	COVER T 11GAX21 7/16 (4) 1 3/16 BOLT HOLE DIA	1		X

REVISIONS			
REV.	DESCRIPTION	DATE	DRT

MATERIAL SPECIFICATIONS

POST:
BASE PLATE: ASTM A709 GR 36
MAST ARM:
MOUNTING PLATE:
HARDWARE FINISH: ASIM A153
ANCHOR BOLTS:

DESIGN CRITERIA

N/A AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS.

WINDS: N/A MPH W/N/GUST VORTEX SHED: N/A
FATIGUE CAT: N/A GALLOPING: N/A
NATURAL WIND GUST: N/A TRUCK GUST: N/A
My: N/A Mx: N/A

TORSION: N/A SHEAR: N/A

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATION WITH ONE SUBMERGED ARC LONGITUDINAL SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT), A RANDOM 50% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

FINISH SPECIFICATION

GALV. OR PRIME COAT: HOT DIP GALV PER ASIM A123
FINISH COAT: PT-1-17-FTU-004-FR
COLOR: BRONZE
FEDERAL OR RAL SPEC.:
WEIGHT W/GALV.: 165.3
WEIGHT W/GALV. & PAINT: 171.912
SURFACE AREA: 3790.8
GAL. OF PAINT: 0.145B



622 6TH ST. SO.
WINSTED, MN 55395

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG. AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND MFG.

SALES ORDER NO.	QTY	STATE	SHEET
73281	1	MN	1 OF 1

DESCRIPTION: SHIP TBASE RECT 3/16x9 1/4X21 3/8
(6) BOLT BTM (4) BOLT TOP W 1 3/16 HOLES

EST. WEIGHT: 165.3
DRAWING NO: 73281-1

PROJECT NAME:
CITY OF SHAKOPEE

PROJECT LOCATION:
DWN BY: PAM F. DATE: 1/16/2017
CHK BY: DATE: