

DESIGNATION KEY

WICH - 1 - 42 - 15

- ↑ Luminaire Arm Span (FT)
- ↑ Signal Arm Span (FT)
- Type 1 or 2
- Wichita Pole Series

AB = Anchor Bolts (Included)
HH = Handhole
FPGV = Finish Paint over Galvanizing
TYPE 1 = No Luminaire Height (See Table 3)
TYPE 2 = Combo Pole (Includes Height for Luminaire)

DESIGN CRITERIA
THE MAST ARM TRAFFIC STRUCTURES SHOWN ON THIS DRAWING SHALL BE DESIGNED IN ACCORDANCE WITH THE 2013 AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", LATEST EDITION.

ASSEMBLY NOTE(S)
UPON INITIAL FIELD ASSEMBLY OF THE MAST-ARM'S FIRST SECTION'S BUTT PLATE TO THE MAST-ARM VERTICAL POLE'S BUTT PLATE, IF THE END USER DETERMINES THAT THERE IS A SUFFICIENT GAP AT A BOLT HOLE SUCH THAT THERE WILL NOT BE FACE-TO-FACE CONTACT BETWEEN THE TWO BUTT PLATES, THEN A WASHER SHALL BE INSERTED TO PROVIDE FACE-TO-FACE CONTACT BETWEEN THE TWO BUTT PLATES IN ACCORDANCE WITH SECTION 5.16 "BOLTED CONNECTIONS" OF THE 2013 EDITION OF AASHTO.

THE POLE SHOP DRAWING SUBMITTAL SHALL INCLUDE A FOUNDATION DIAGRAM INDICATING THE ORIENTATION OF BOLT PATTERNS FOR EACH POLE FOUNDATION. THE DRAWING SHALL INCLUDE A NORTH ARROW TO INSURE PROPER ORIENTATION OF POLE AND MAST ARM ON EACH FOUNDATION.

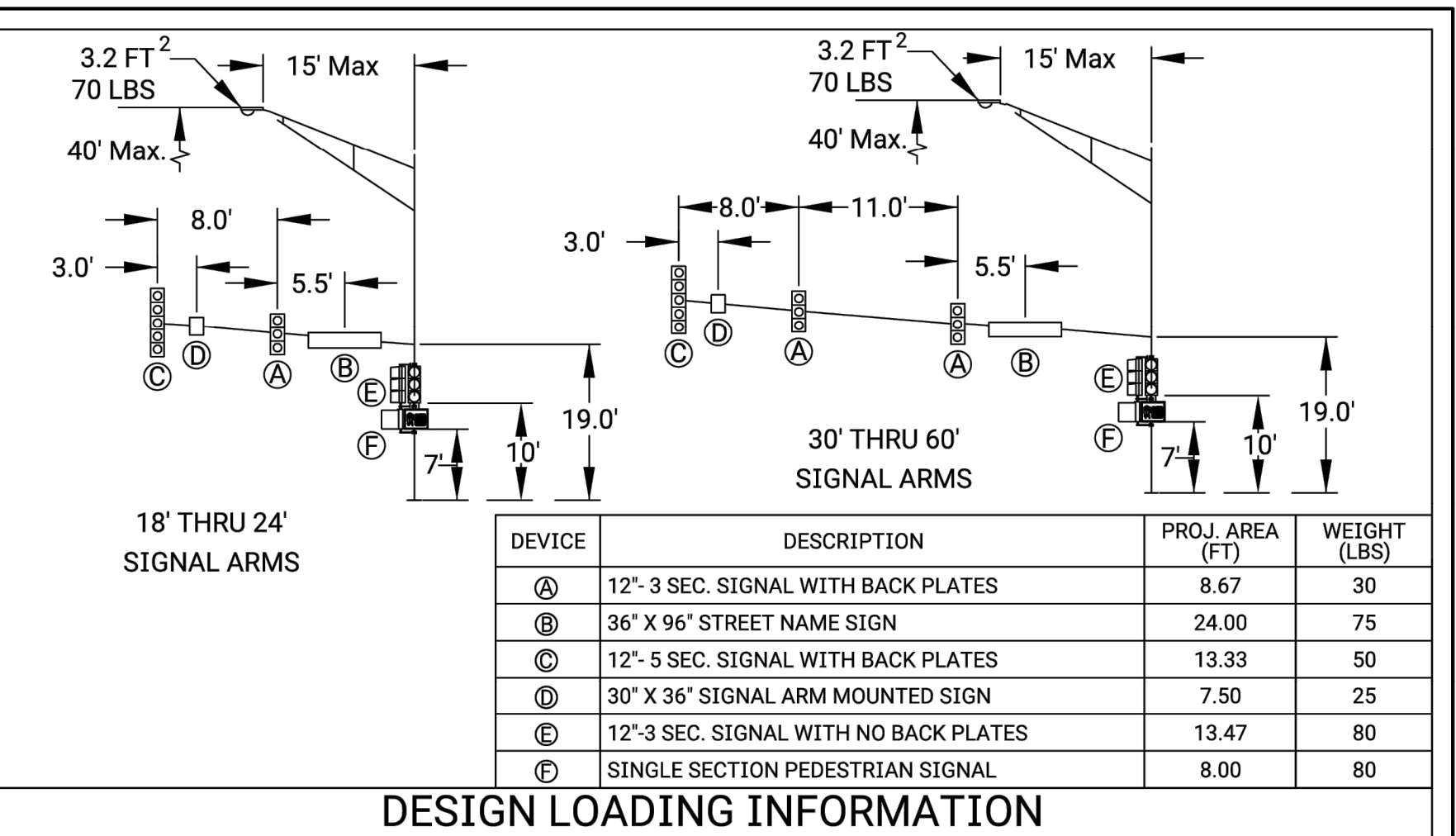
MANUFACTURER SHALL SHOP FIT COMPONENTS AND VERIFY CONNECTIONS PRIOR TO SHIPPING. FAILURE OF PROPER ALIGNMENT DURING ERECTION IN THE FIELD DUE TO MANUFACTURING SHALL BE THE RESPONSIBILITY OF THE MANUFACTURE AND MAY BE REPLACED AT NO COST IF DEEMED NECESSARY BY THE CITY TRAFFIC ENGINEER.

LUMINAIRE DIMENSIONS SHOWN ARE NOMINAL. CONTRACTOR AND SUPPLIER SHALL COORDINATE WITH LUMINAIRE ARM SUPPLIER TO INSURE PROPER MOUNTING PRIOR TO MANUFACTURING.

AASHTO 2013 SPECIFICATIONS

TABLE 2: MATERIAL DATA

COMPONENT	ASTM DESIGNATION
ALL TAPERED TUBES	A595 GR.A OR A572
BASE PLATE	A36
SIMPLEX PLATE	A36
ANCHOR BOLTS	F1554 GR.55
ARM CONNECTING BOLTS	A325
GALVANIZING-HARDWARE	HOT DIP ZINC

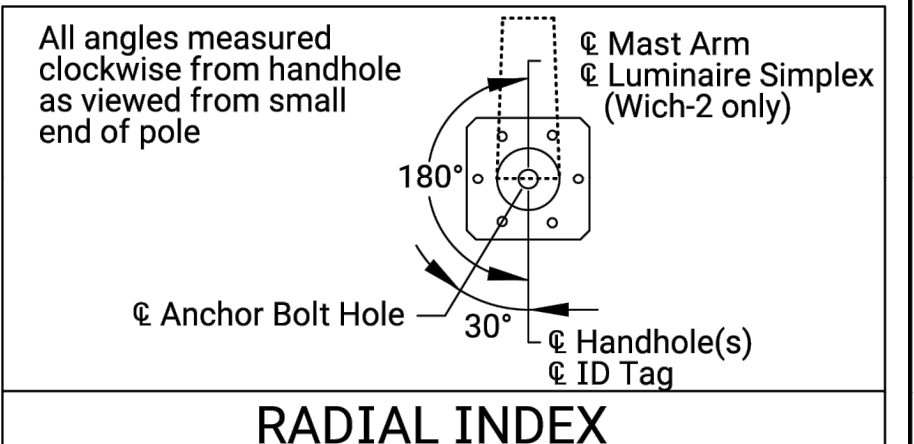


DESIGN LOADING INFORMATION

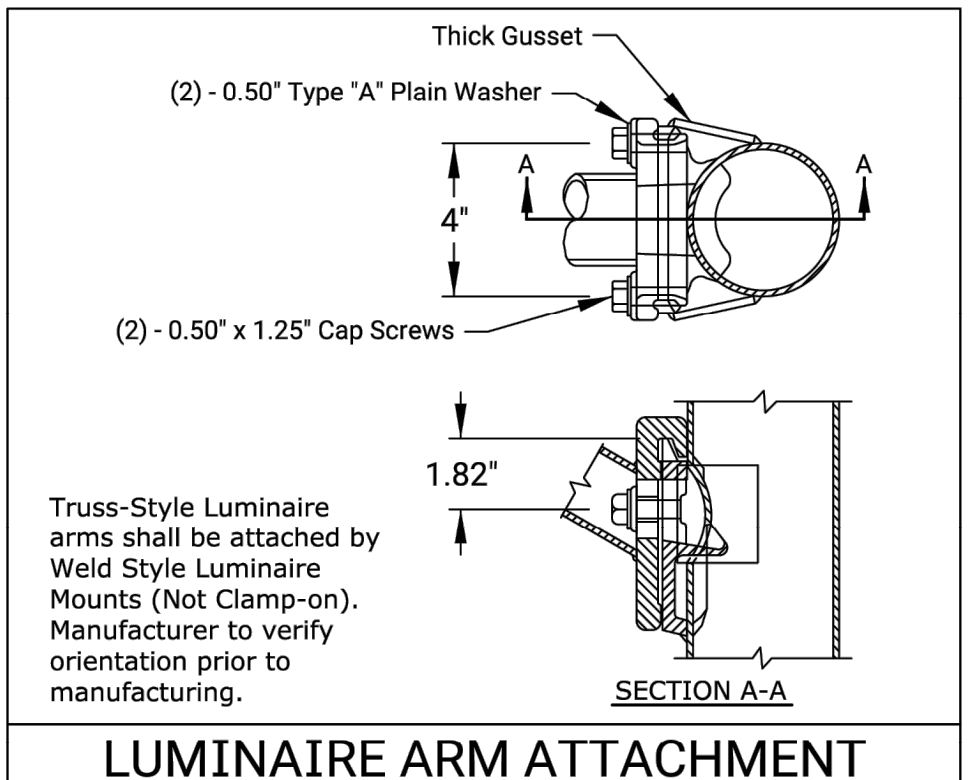
- For Design Information Only. Dimensions NOT for Construction -

TABLE 3: LUMINAIRE MOUNTING HEIGHT

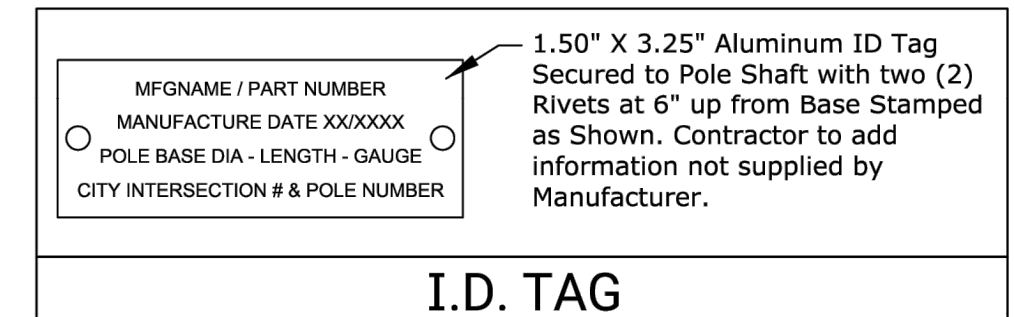
POLE TYPE	WICH-1	WICH-2
LUM. MOUNTING HEIGHT	—	40' - 0"
POLE LENGTH	20' - 6"	35' - 0"



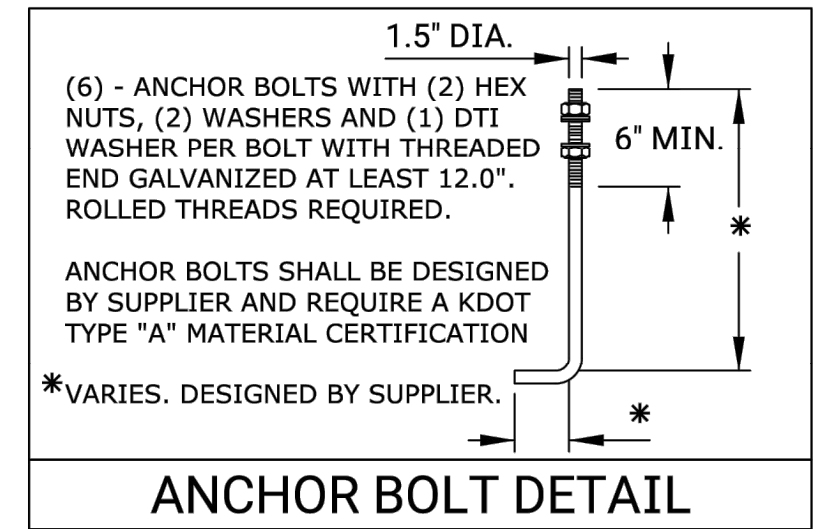
RADIAL INDEX



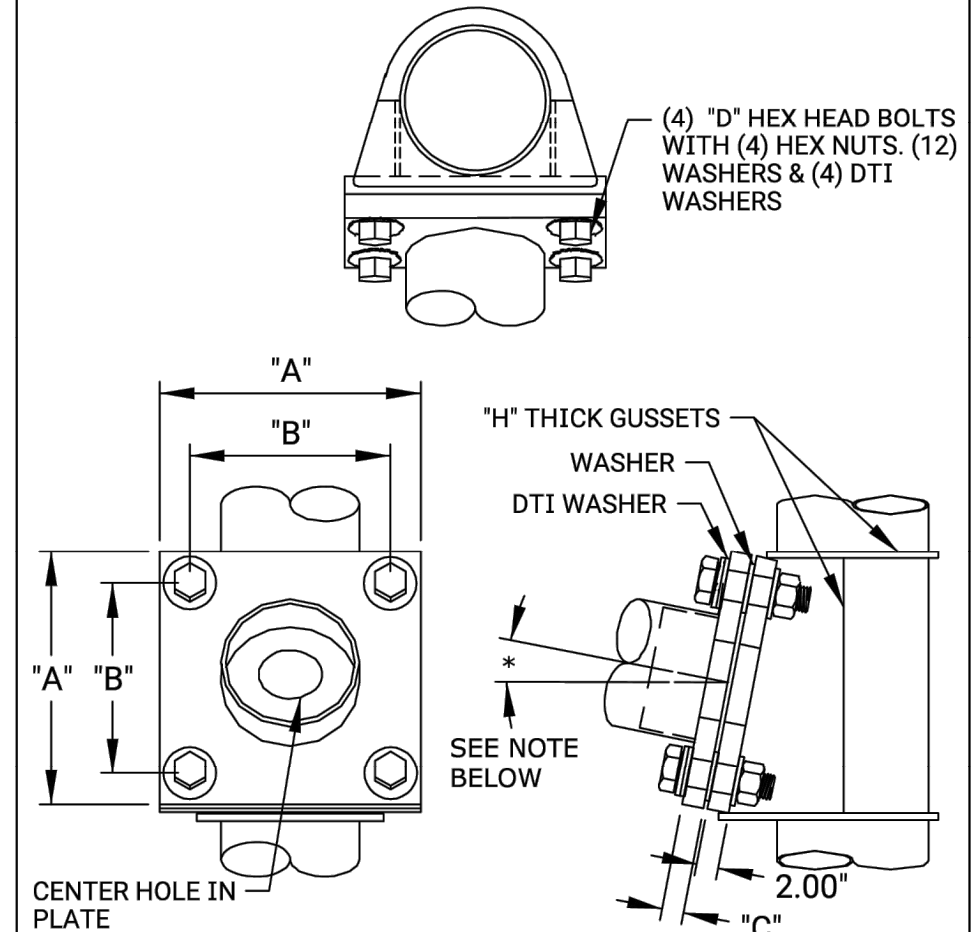
LUMINAIRE ARM ATTACHMENT



I.D. TAG



ANCHOR BOLT DETAIL



*RISE IN SIMPLEX PLATES VARIES PER POLE BASE DIA. & MAST ARM LOAD. SECURE PLATES TO STRUCTURE TO PREVENT FALLING.

SIGNAL POLE BASE BOLT CIRCLE "Y" (IN)	*"A" (IN)	"B" (IN)	"D" (IN)
18.00	17.75	14.50	1.25 X 6.75
21.50	22.25	18.50	1.50 X 7.25

SIGNAL ARM ATTACHEMENT DETAIL

*PREFERRED DIMENSION(S). DIMENSION MAY VARY SLIGHTLY BY MANUFACTURER

BASE COAT: HOT-DIP GALVANIZED TO ASTM A123
PRIME COAT: POLYAMIDOAMINE OR POLAMIDE EPOXY
FINISH COAT: ALIPHATIC ACRYLIC POLYURETHANE W/ UV PACKAGE
COLOR: BLACK
SPEC: F-604A

STANDARD POLE FINISH

IN THE EVENT THE POLE OR MASTARM FINISH IS DAMAGED, THE CONTRACTOR SHALL USE THE BASE PRIMER AND FINISH COAT MATERIALS FURNISHED BY THE MANUFACTURER AND INCLUDED WITH THE STRUCTURE. NO OTHER PRODUCTS WILL BE APPROVED UNLESS APPROVED BY THE ENGINEER.

IN THE EVENT SIGNAL STRUCTURE MODIFICATIONS ARE REQUIRED, THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH WRITTEN PROCEDURES AND APPROVED MEANS AND METHODS FROM THE MANUFACTURE. MODIFICATIONS SHALL NOT AFFECT THE STRUCTURAL INTEGRITY OR WARRANTY OF THE STRUCTURE. ANY CHANGE SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO ACCEPTANCE. THE CITY HAS THE RIGHT TO REJECT MODIFICATIONS AND REQUIRE REPLACEMENT AT NO ADDITIONAL COST, INCLUDING LABOR AND MATERIAL.

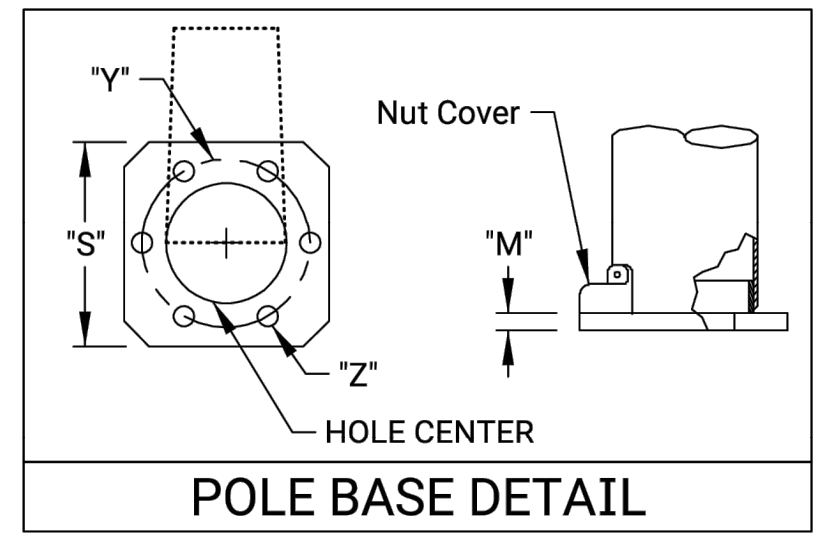
THE CONTRACTOR SHALL INSTALL ALL REQUIRED COMPONENTS PROVIDED BY THE MANUFACTURE.

REPAIR & MODIFICATIONS

TABLE 1: POLE AND MAST ARM DATA

DESIGNATION KEY		POLE BASE			ANCHOR BOLT		TRAFFIC SIGNAL POLES SHALL INCLUDE TWO (2) POLE BASE PLATE AND CORRESPONDING MAST ARM ATTACHMENT SIZES. POLE BASE SIZE AND MAST ARM ATTACHMENTS SHALL BE INTERCHANGEABLE, REGARDLESS OF MANUFACTURE. DIMENSIONS SHOWN ON TABLE(S) SHALL REMAIN CONSTANT, REGARDLESS OF POLE MANUFACTURE TO INSURE INTERCHANGEABILITY. DIMENSIONS AND THICKNESSES SHOWN ON DETAILS BUT NOT SHOWN IN TABLE(S) MAY VARY BY MANUFACTURE.
POLE SERIES	POLE TYPE	SIGNAL ARM SPAN (FT)	*SQUARE "S" (IN)	BOLT CIRCLE "Y" (IN)	HOLE "Z" (IN)	DIAMETER (IN) "K"	
WICH	1 OR 2	18.0	23.00	18.00	2.00	1.50	6
		24.0					
		30.0					
		36.0	26.50	21.50			
		42.0					
		48.0					
54.0	26.50	21.50					
60.0							

*PREFERRED DIMENSION(S). DIMENSION MAY VARY SLIGHTLY BY MANUFACTURER



POLE BASE DETAIL



SIGNAL POLE DATA & SPECIFICATIONS

TRAFFIC ENGINEER APP'D 01/27/22
MIKE ARMOUR, P.E.

PROJECT NUMBER	ORG NUMBER	DATE

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
TR-109

Issue:	
1	

JOB NO.	230431-000
DATE	JULY 2024
PM	TPA
DESIGNED BY	LGP/SAC
DRAWN BY	CP/SAC
CHECKED BY	SAC/TPA

CITY DETAIL TR-109