

**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.

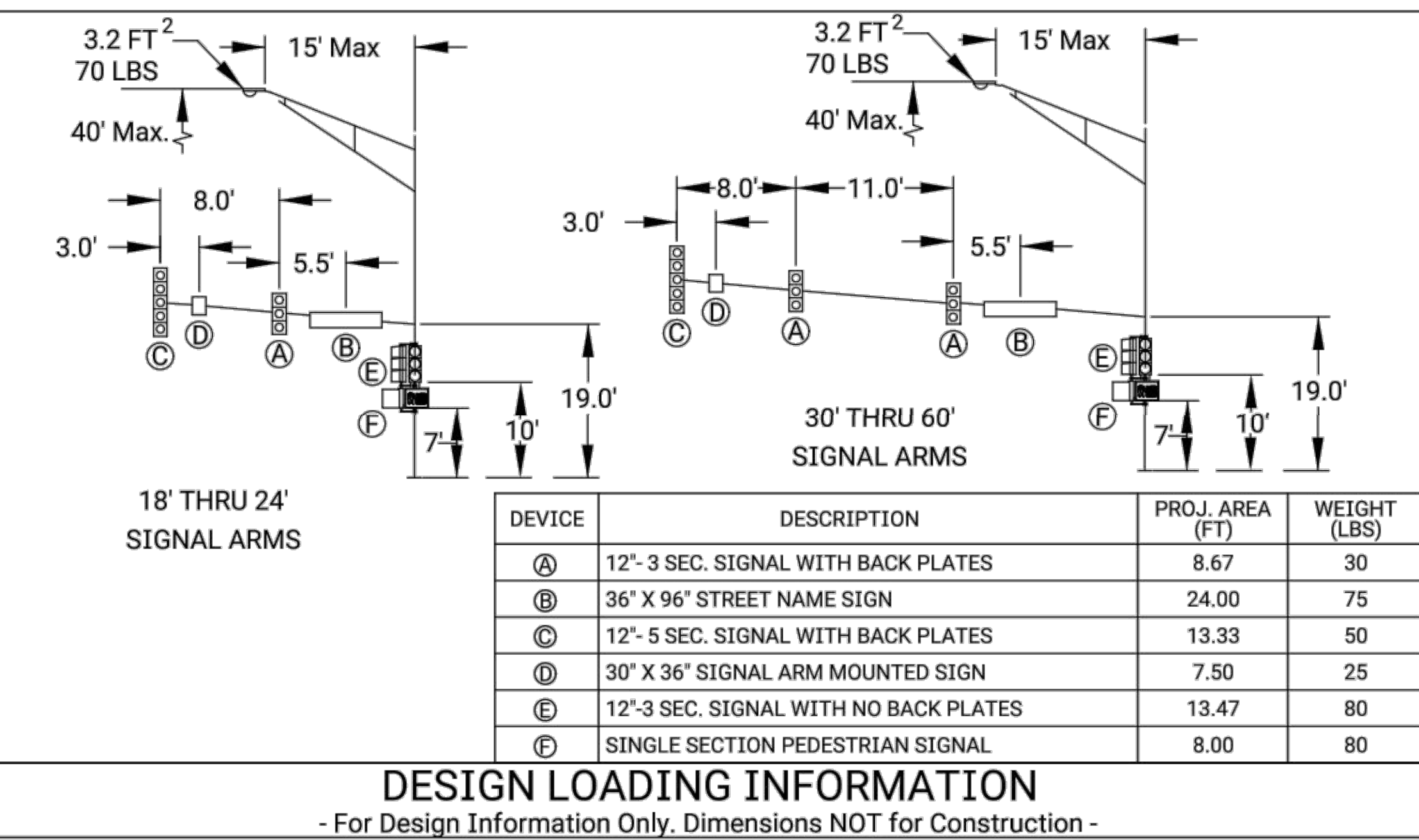
**ASSEMBLY NOTE(S)**  
UPON INITIAL FIELD ASSEMBLY OF THE MAST-ARM'S FIRST SECTION'S BUTT PLATE TO THE MAST-ARM VERTICAL POLE'S BUTT PLATE, IF THE END USER DETERMINES THAT THERE IS A SUFFICIENT GAP AT A BOLT HOLE SUCH THAT THERE WILL NOT BE FACE-TO-FACE CONTACT BETWEEN THE TWO BUTT PLATES, THEN A WASHER 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**

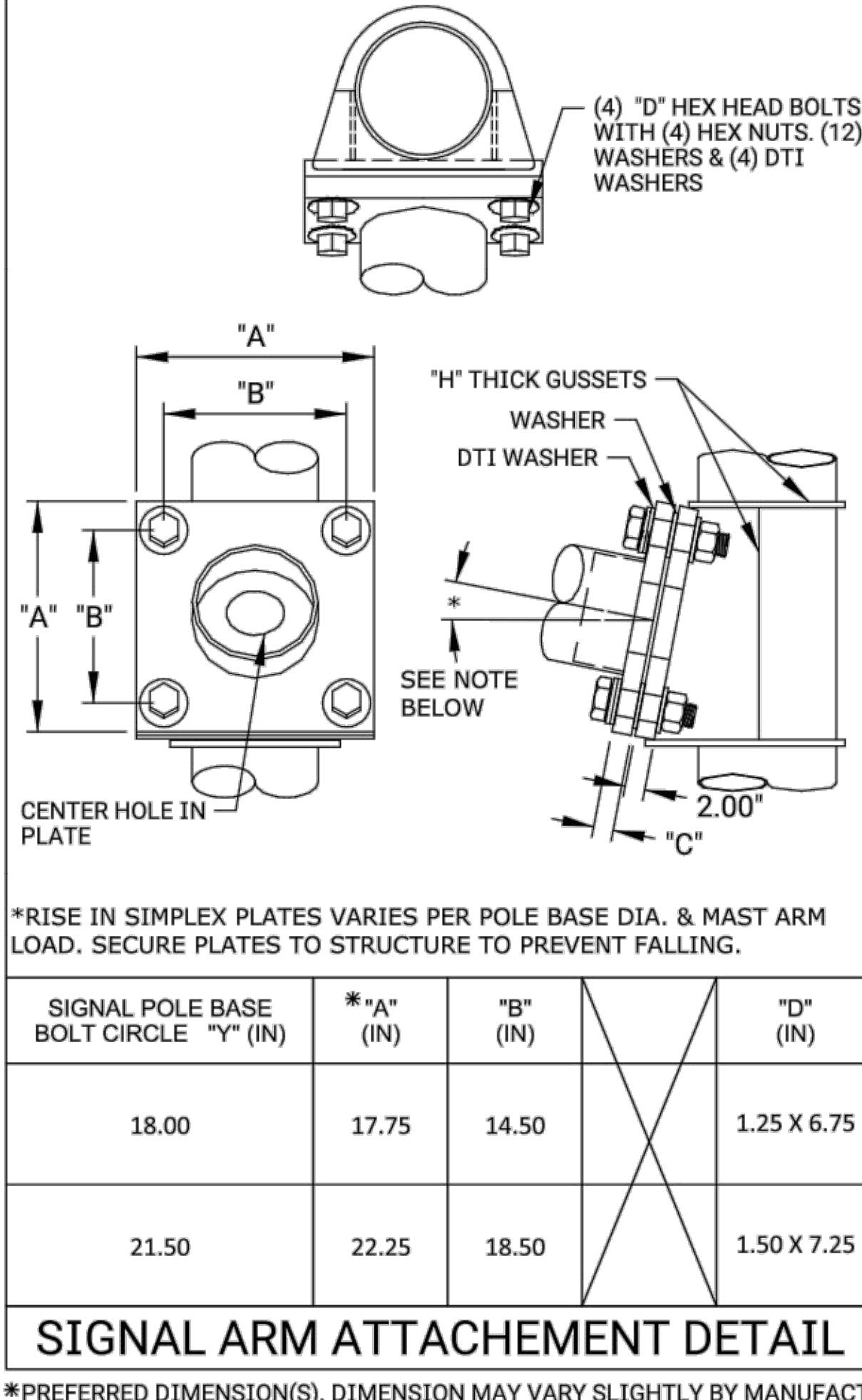
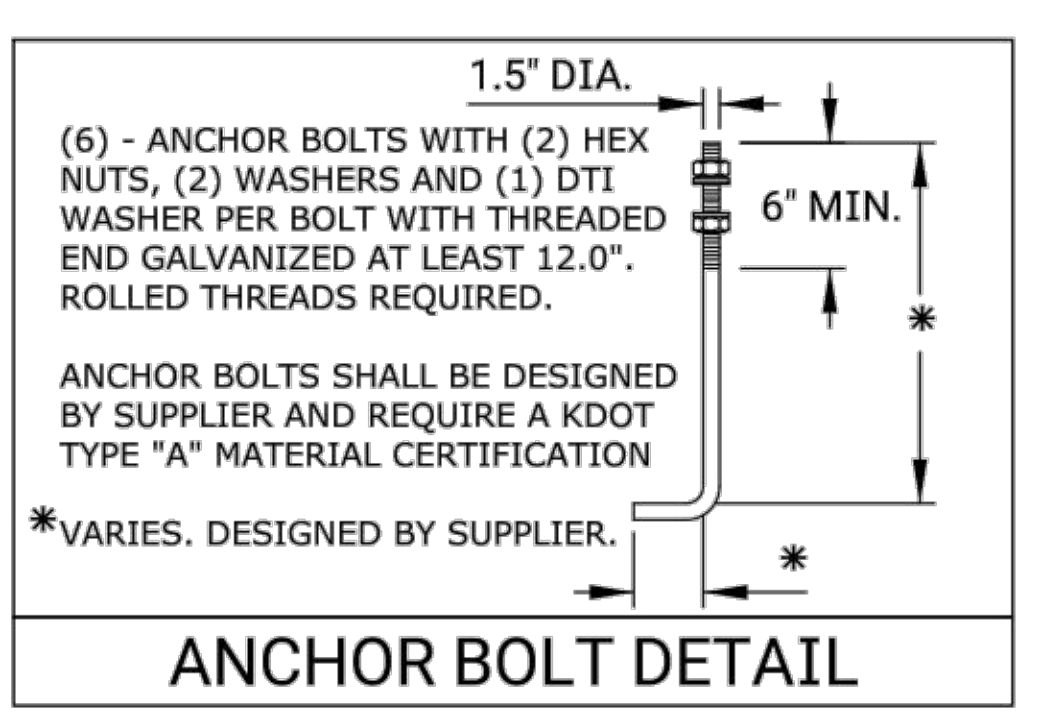
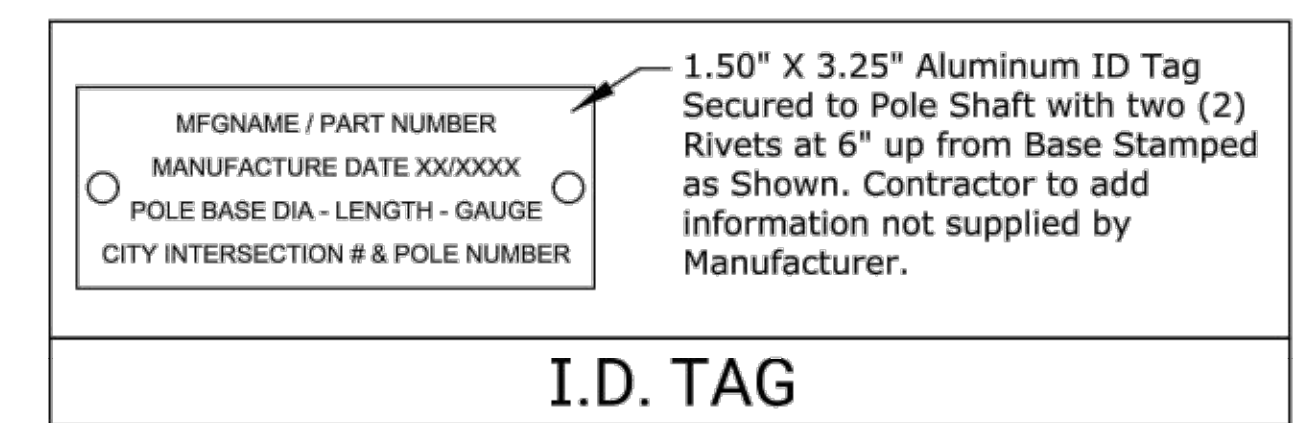
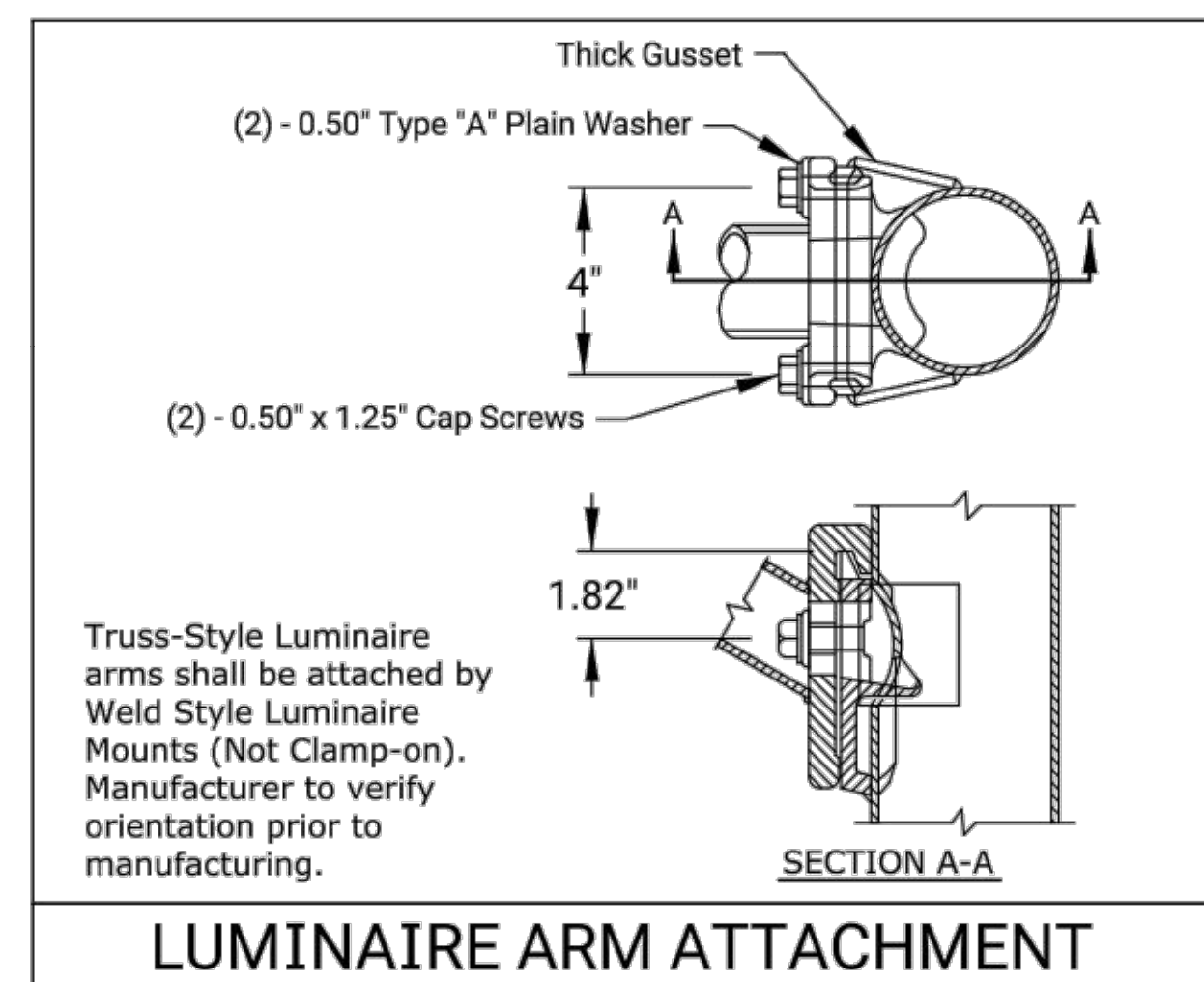
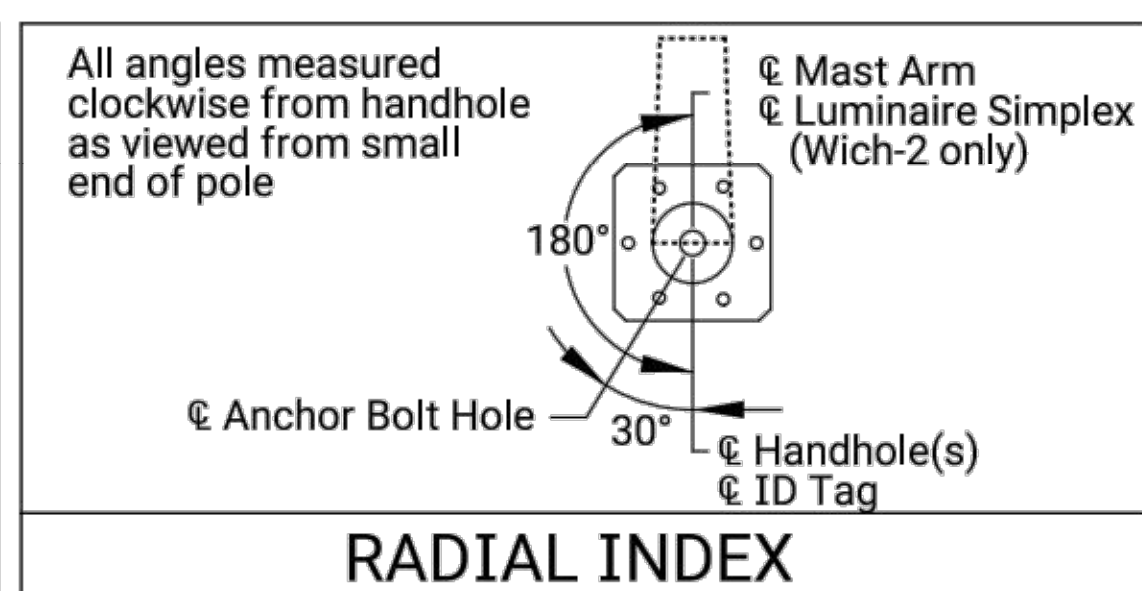


**TABLE 2: MATERIAL DATA**

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

**TABLE 3: LUMINAIRE MOUNTING HEIGHT**

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



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**

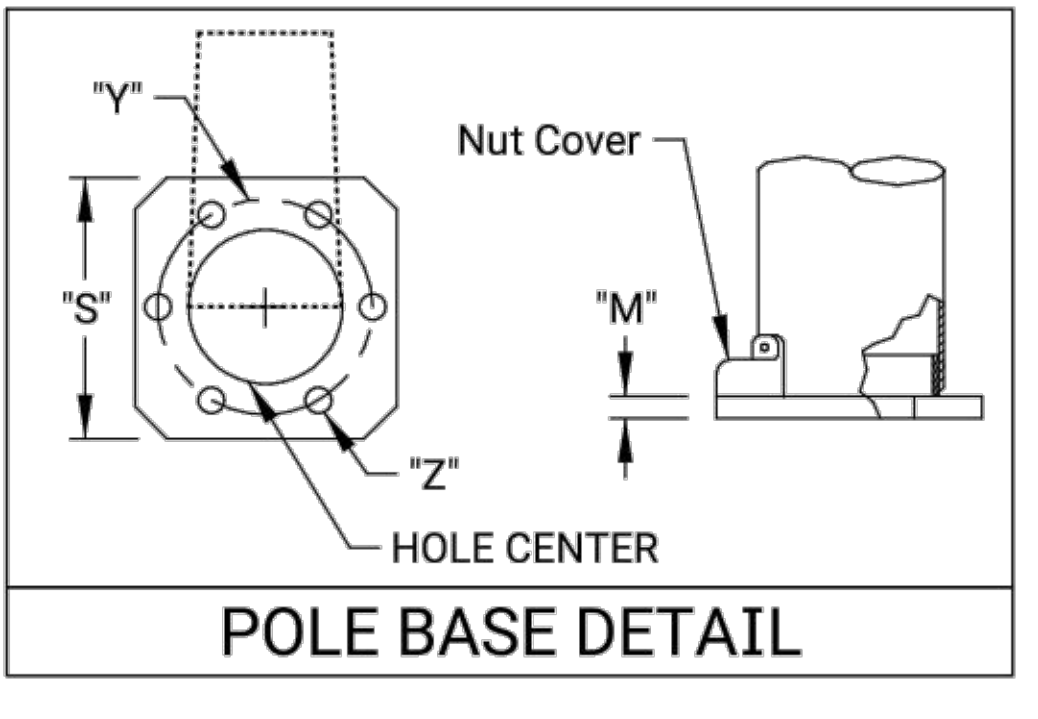
**TABLE 1: POLE AND MAST ARM DATA**

DESIGNATION KEY		POLE BASE			ANCHOR BOLT		TRAFFIC SIGNAL POLES SHALL INCLUDE TWO (2) POLE BASE PLATE AND CORRESPONDING MAST ARM ATTACHMENT SIZES.
POLE SERIES	POLE TYPE	*SQUARE "S" (IN)	BOLT CIRCLE "Y" (IN)	HOLE "Z" (IN)	DIAMETER (IN) "K"	QTY.	
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							

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.

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



**SIGNAL POLE DATA & SPECIFICATIONS**

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

PROJECT NUMBER 472-2021-085741  
ORG NUMBER E1070  
DATE 8/8/2022

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

SHEET 16 OF 31  
TR-109

REVISIONS  
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