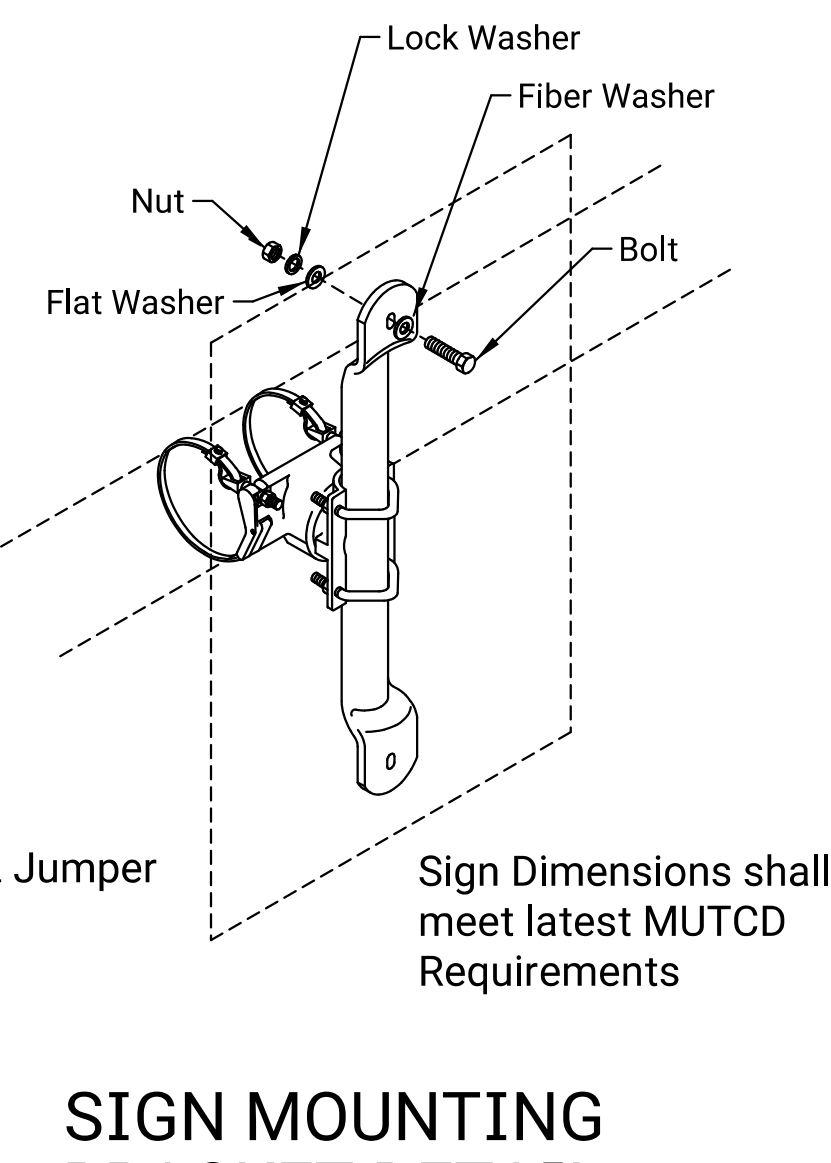
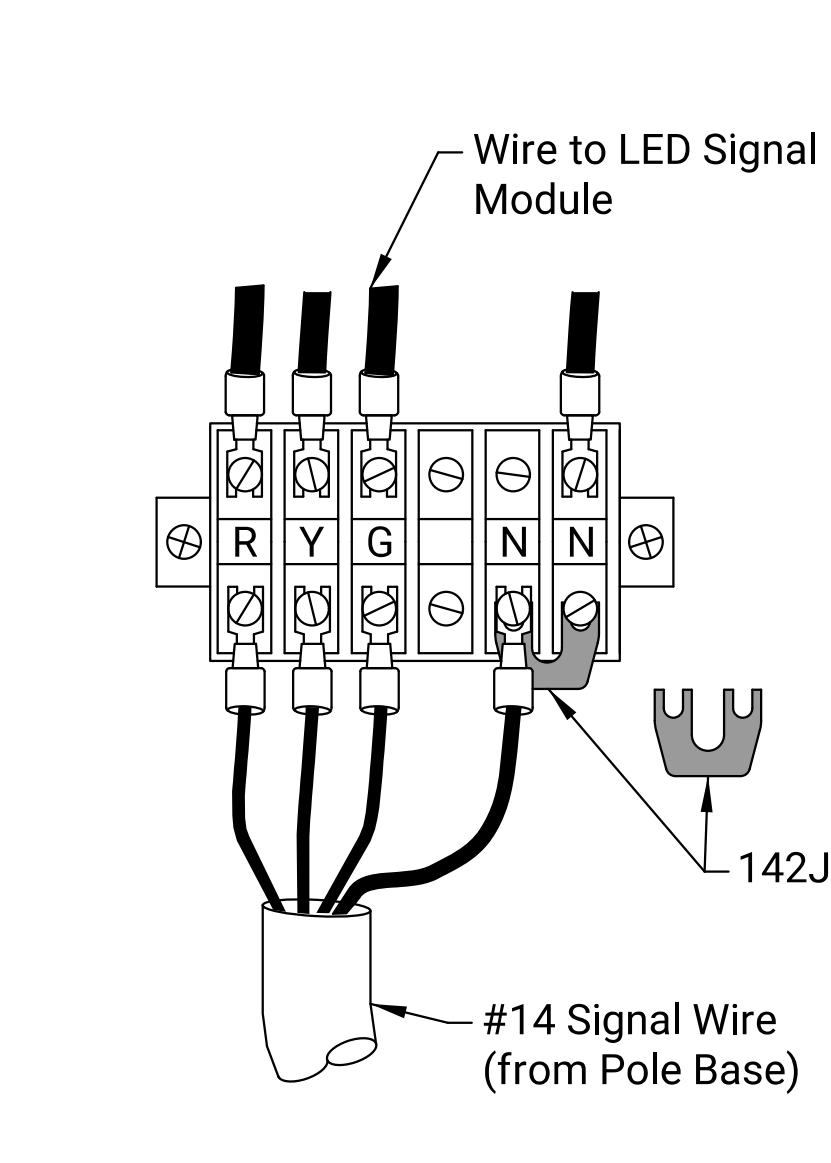
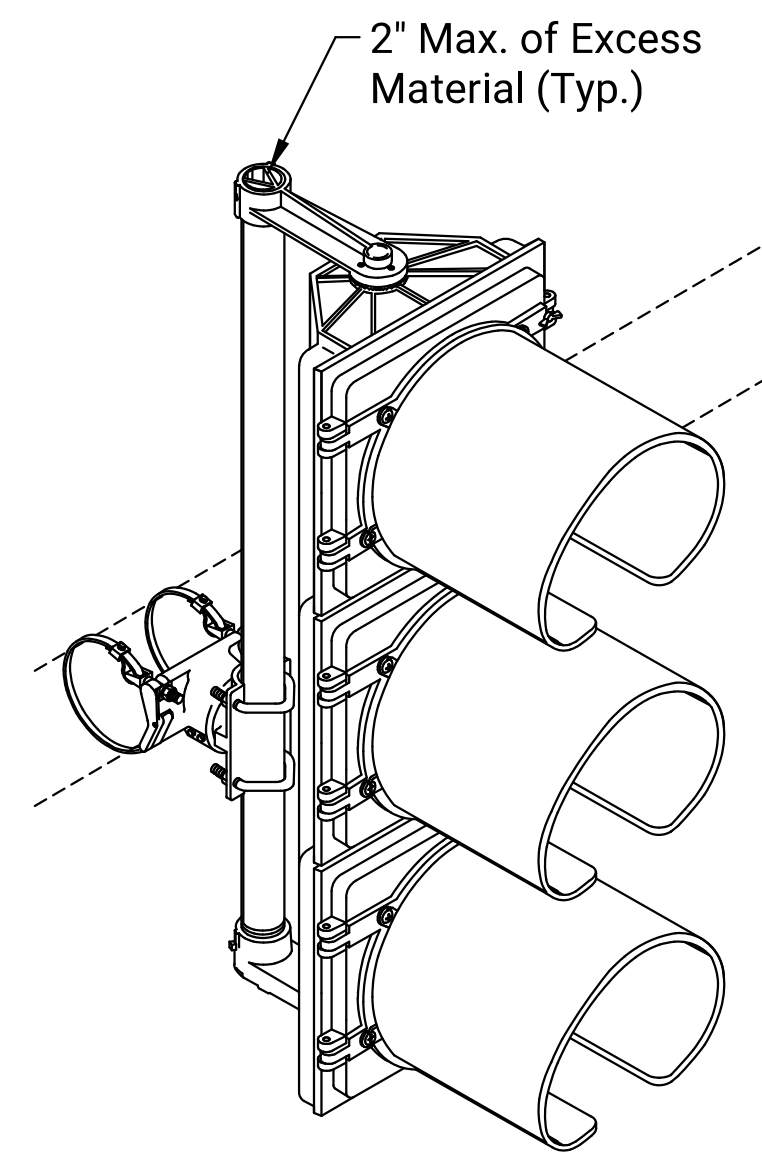
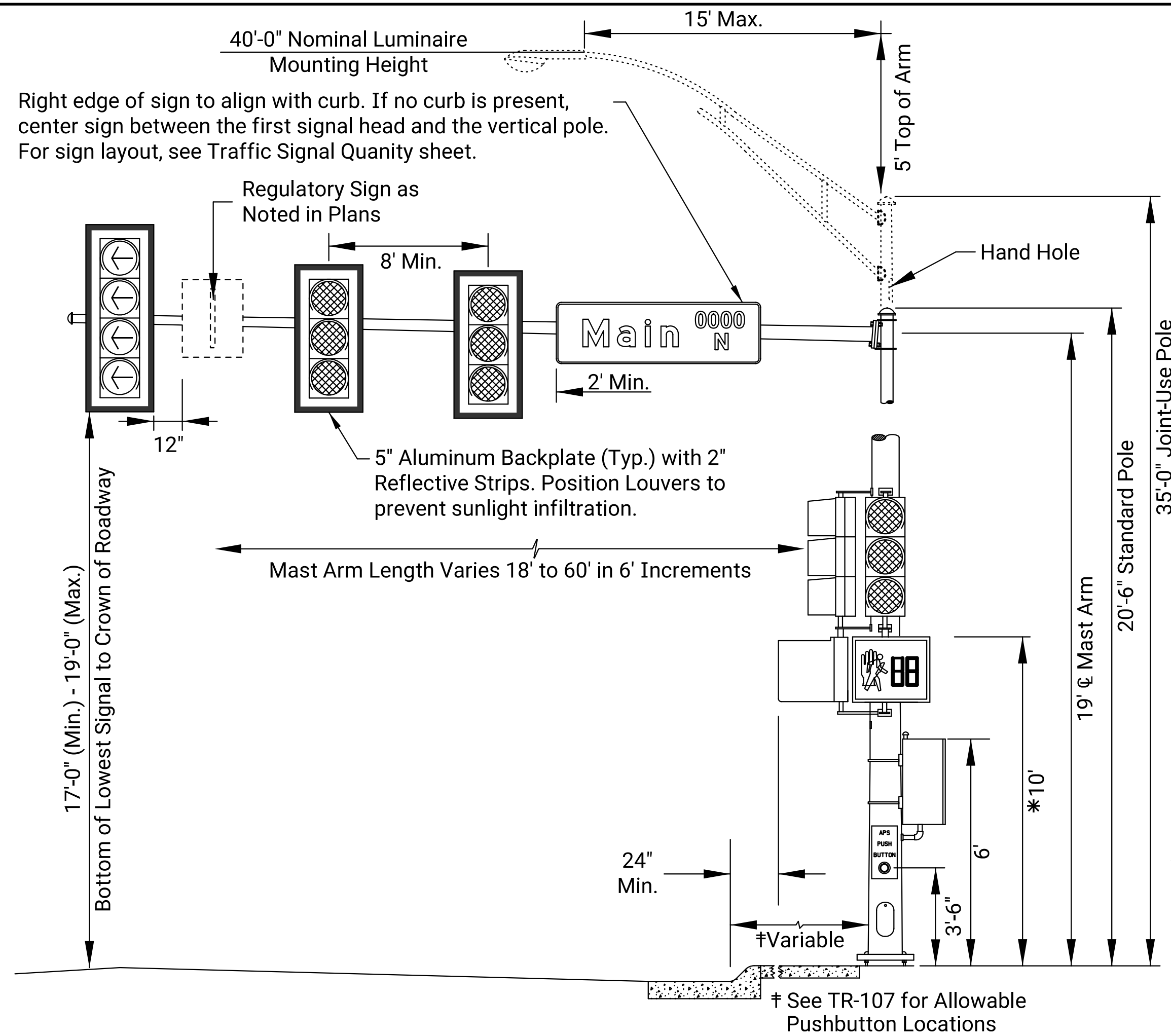
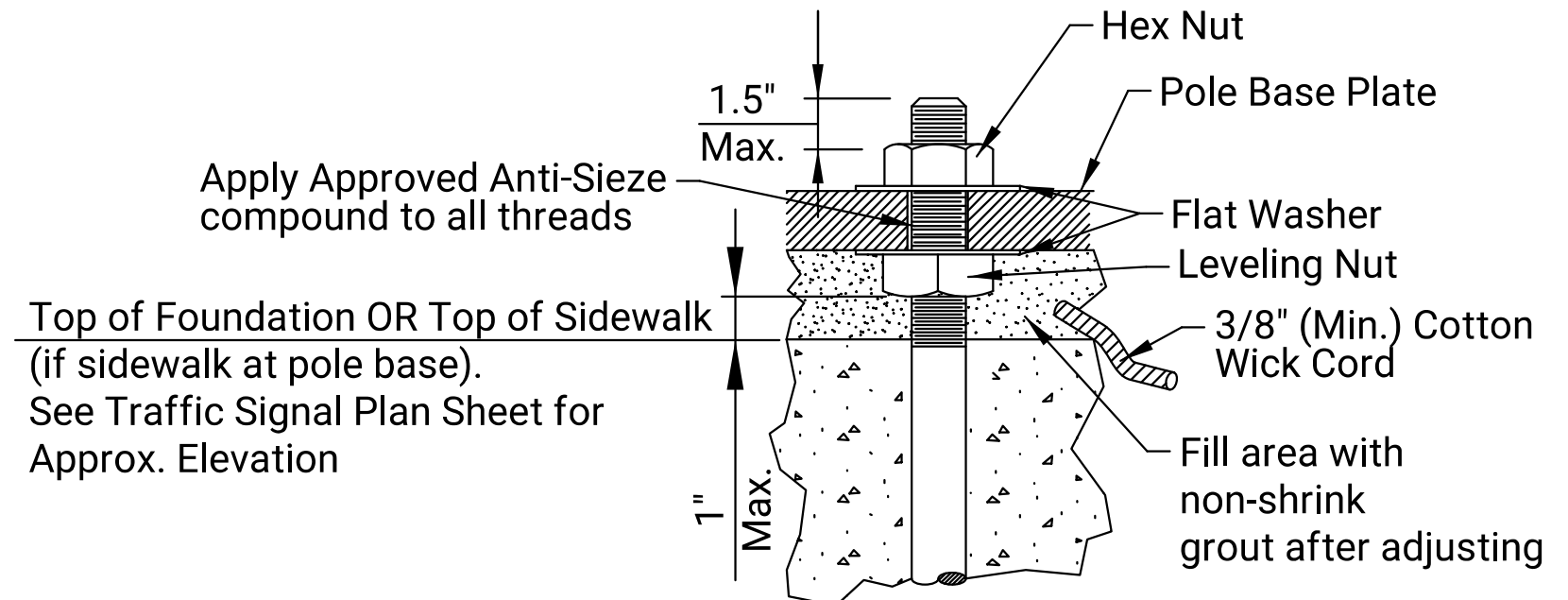
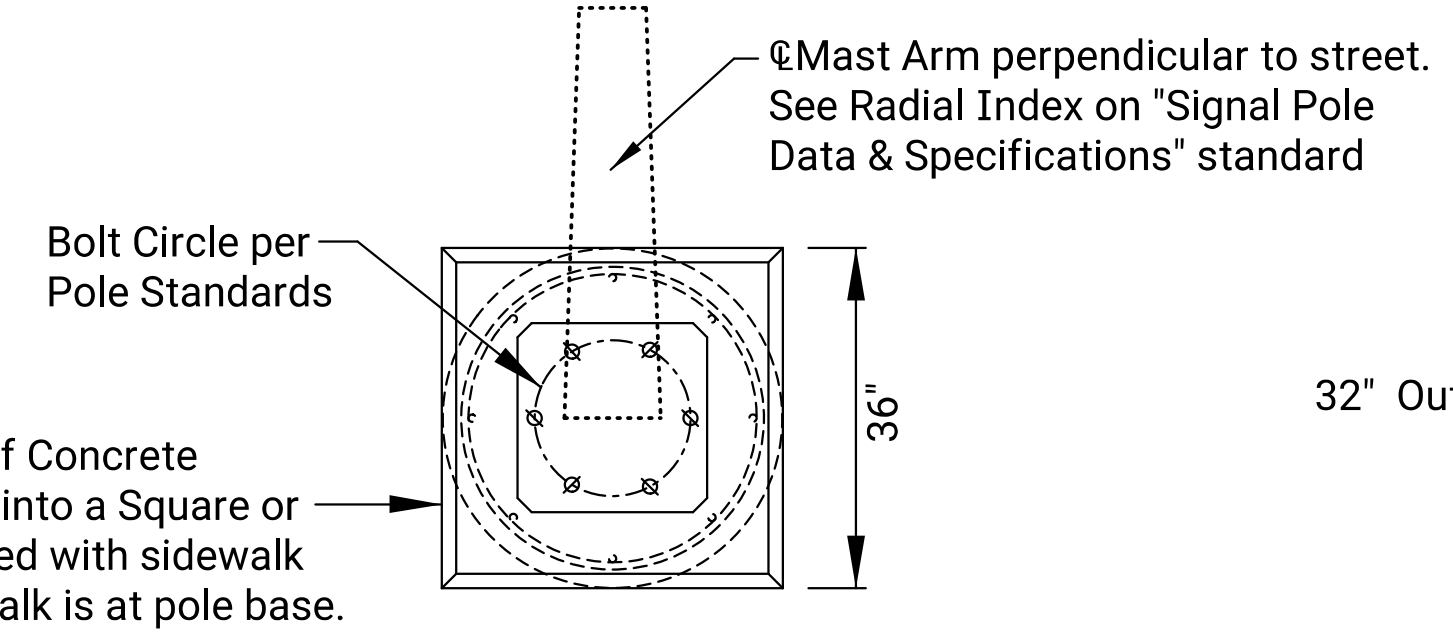


NOTE TO DESIGNER: Mast arm length shall be a minimum of 2 feet longer than last signal head. See "Signal Pole Data and Specification" for standard mast arm lengths and luminaire heights.



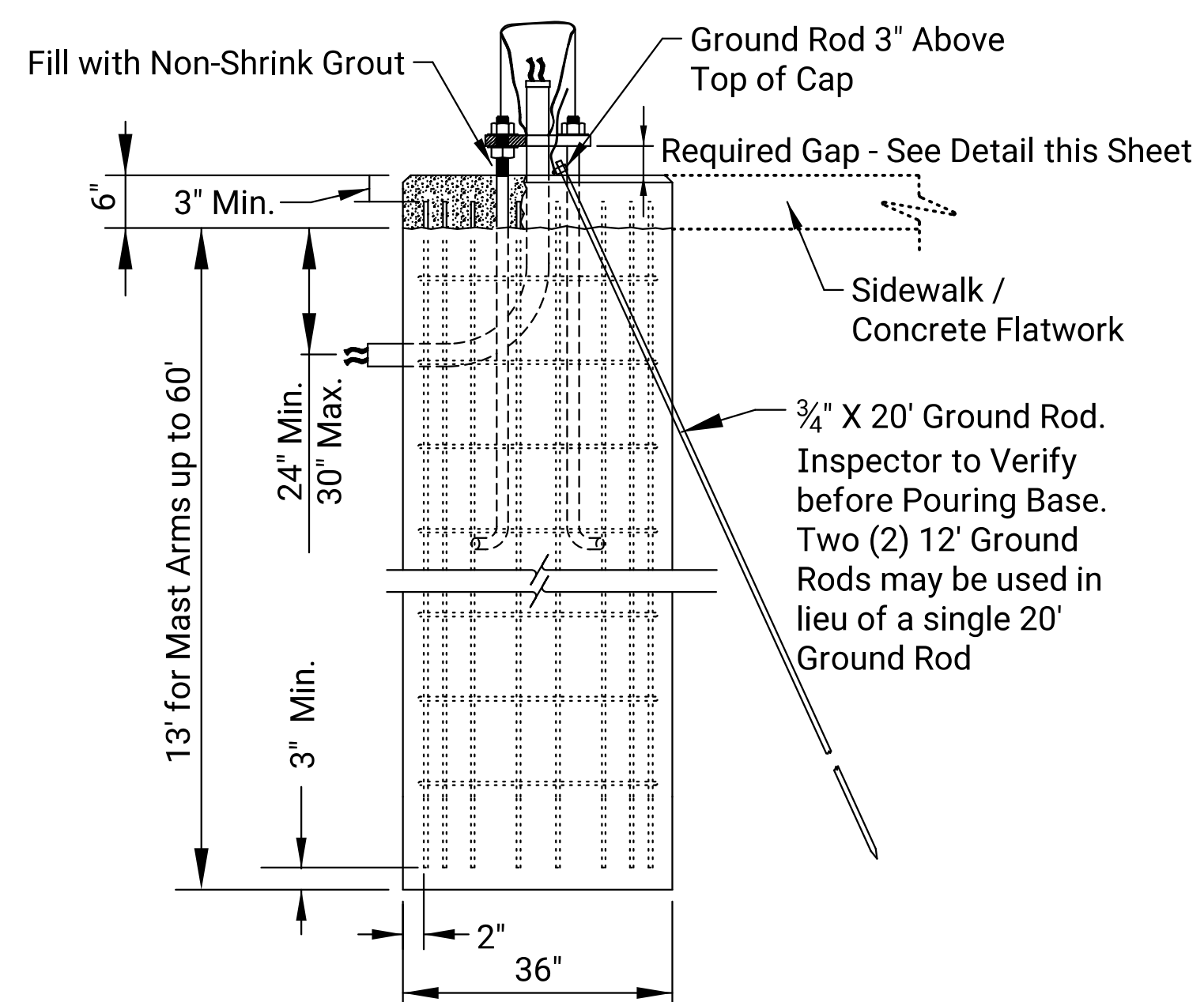
* NOTE: Pedestrian signal heads shall be mounted so the top of signal head is at 10' above sidewalk level. Bottom of pedestrian head shall be 7' minimum from sidewalk level.



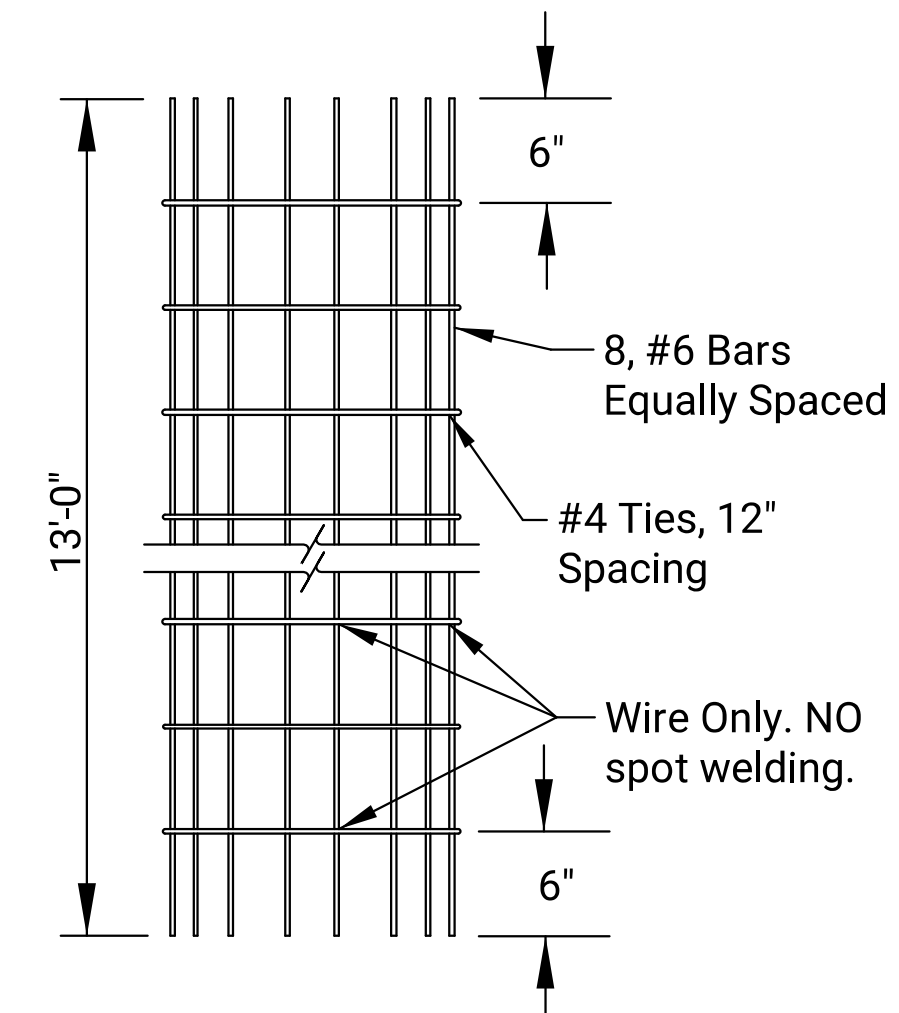
Dimensions shown are typical only. Actual dimensions shall be supplied by the manufacturer.

MAST ARM POLE ANCHOR BOLT DETAIL

- Under no circumstance shall the bolt-flange of the pole be recessed in concrete.
- The space between Pole Base Plate and Top of Foundation shall not exceed the diameter of the anchor bolt.
- The anchor bolt threads shall be protected from concrete fouling during concrete placement.



MAST ARM POLE & BASE DETAIL



MAST ARM POLE REBAR CAGE DETAIL
(FOR MAST ARMS UP TO 60')

- NOTE:
- THE CITY STANDARD TRAFFIC SIGNAL POLE FOUNDATION DESIGN IS ACCEPTABLE FOR A MAXIMUM MAST ARM SPAN OF UP TO 60 FEET WITH A 13'-0" DEEP FOOTING SHAFT. IF A LONGER MAST ARM IS REQUIRED, SIGNAL POLE FOUNDATION DESIGN CALCULATIONS MUST BE SUBMITTED TO THE CITY FOR REVIEW.
 - MINIMUM SOIL PROPERTIES FOR THESE LENGTHS ARE EITHER "PHI" OF 5° OR GREATER OR A MINIMUM "C" VALUE OF 500 PSF OR GREATER. SOILS HAVING PROPERTIES LESS THAN EITHER OF THESE MUST HAVE CALCULATIONS SUBMITTED TO THE CITY FOR REVIEW.
 - THE ANCHOR BOLTS FOR THE SIGNAL POLE MAY BE TACK WELDED TOGETHER IN BOLT PATTERN (ON CENTERS AS SHOWN) TO MAINTAIN REQUIRED BOLT CONFIGURATION PATTERN AND TO AID IN VERTICAL POSITIONING WHILE CONCRETE BASE IS POURED.
 - USE ANTI-SEIZE COMPOUND ON ALL THREADS.
 - GROUND RODS TO BE POSITIONED AND SHOWN TO INSPECTOR BEFORE POURING BASE.
 - GROUND RODS FOR TRAFFIC SIGNAL MAST ARM POLES AND 342 CABINETS SHOULD BE 3/4" X 20'. TWO (2) 3/4" X 12' GROUND RODS MAY BE USED IN LIEU OF A SINGLE 20' GROUND ROD. ALL OTHER GROUND RODS SHALL BE 3/4" X 12'.
 - CONCRETE SHALL MEET THE REQUIREMENTS OF GRADE 4.0 PER SPECIFICATIONS.
 - CONSTRUCT SQUARE CONCRETE CAP AFTER POLE HAS BEEN ERECTED & PLUMBED. CHAMFER EDGE 1". MUST BE APPROVED BY ENGINEER BEFORE POURED.
 - CONDUIT SHALL HAVE PLASTIC (OR METAL) BUSHING (ABOVE BASE) TO PREVENT CABLE CHAFING.
 - RUBBER GROMMETS SHALL BE INSTALLED FOR WIRE ENTRANCE HOLES AT EACH PENETRATION LOCATION. HOLES MAY BE FIELD DRILLED AS PER MANUFACTURE SIZE AND PROCEDURES.
 - HOLE(S) FOR WIRING SHOULD BE 7/8" MINIMUM DIAMETER AND MUST BE DEBURRED TO PREVENT DAMAGE. SPARE/EMPTY HOLES SHALL BE FILLED WITH TRADE-SIZE SMOOTH-FACE CONDUIT CLOSURE(S) OR AS DIRECTED BY CITY TRAFFIC SIGNAL MAINTENANCE.
 - USE #6 BARE COPPER GROUND CONDUCTOR FROM CLAMP TO GROUND BOLT IN ACCESS HOLE.
 - IN THE EVENT SOUND BEDROCK IS ENCOUNTERED AT A DEPTH LESS THAN STANDARD, CONTRACTOR SHALL NOT PROCEED WITHOUT ENGINEER APPROVAL OF SOCKET DEPTH.
 - IT MAY BE NECESSARY TO USE A CONCRETE FORM/SONOTUBE FOR THE SIGNAL AND PEDESTRIAN POLE BASES WHERE PREVIOUS EXCAVATION MAY HAVE OCCURRED OR SANDY SOILS. IT IS EXPECTED THAT THE SIGNAL AND PEDESTRIAN POLES' LOCATIONS WILL NOT BE CHANGED AND IT IS UP TO THE CONTRACTOR TO ACCOUNT FOR CONCRETE FORMS WITHIN THEIR BID IF THEY ARE NEEDED FOR POSSIBLE UNSTABLE SOIL CONDITIONS.

NO.	DATE	BY	APP'D
3			
2			
1			

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

TRAFFIC SIGNAL INSTALLATION DETAIL SHEET		
TRAFFIC ENGINEER APP'D 01/27/22 MIKE ARMOUR, P.E.		
PROJECT NUMBER 472-85462	ORG NUMBER 707143	DATE 11/1/2022
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET 86 TR-105