

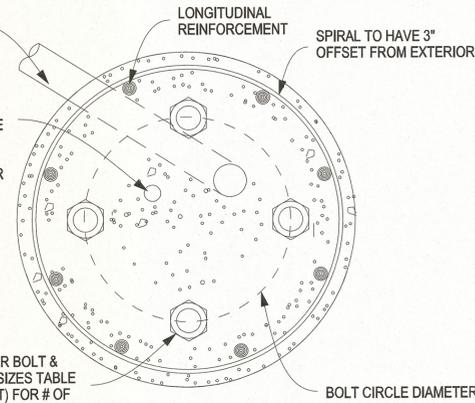
ASTM 1554, 55KSI, 89" WITH 7" BENT HOOK

ANCHOR BOLT ASSEMBLY
NOT TO SCALE

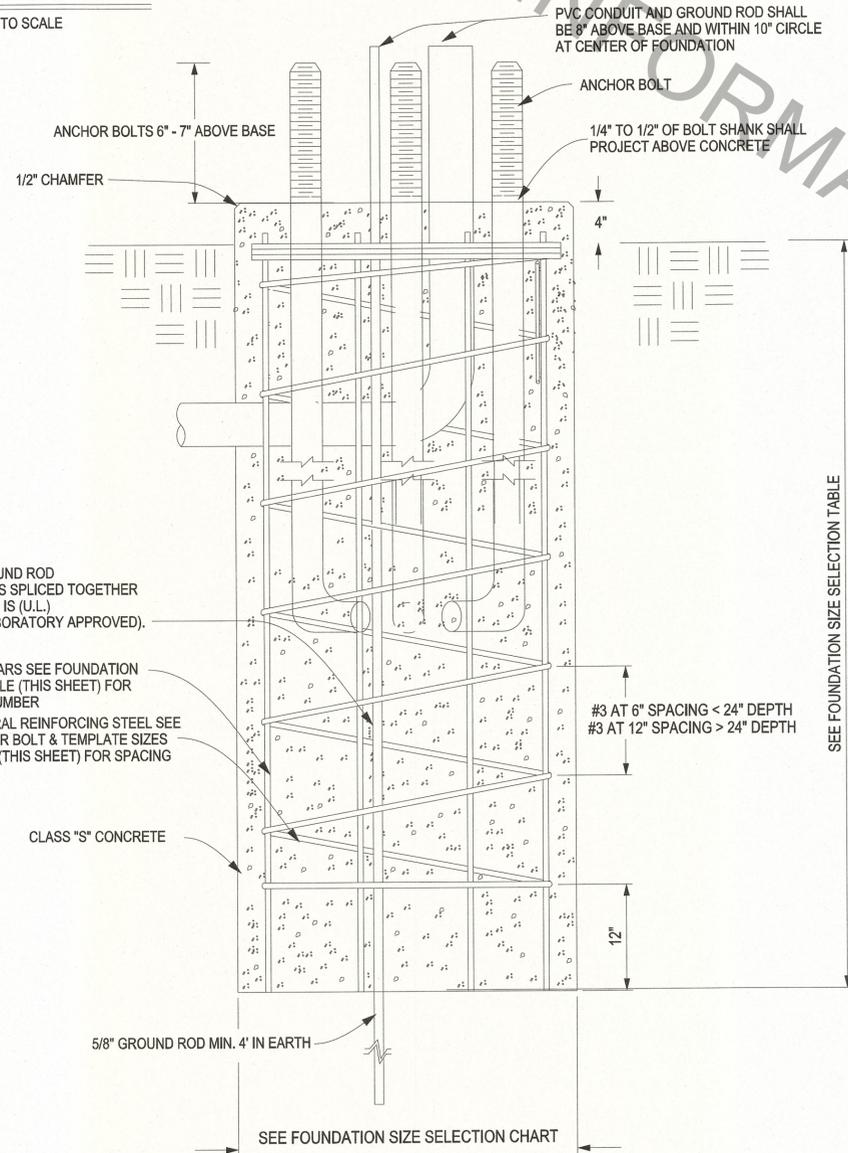
CONDUIT (NO. AND SIZE AS REQ'D ON PLANS). PROVIDE ADDITIONAL 1-3" SPARE CONDUIT ON ALL FOUNDATIONS. TURN UP CONDUIT INTO NEAREST JUNCTION BOX.

GROUND ROD INSTALLED WITH SPACE FOR INSTALLATION OF CLAMP, AND GROUND WIRE. GROUND WIRE TO BE CONNECTED TO STEEL POLE OR MAST ARM.

SEE ANCHOR BOLT & TEMPLATE SIZES TABLE (THIS SHEET) FOR # OF BOLTS REQUIRED



FOUNDATION PLAN
NOT TO SCALE



5/8" X 16' (MIN.) GROUND ROD (3 - 8' GROUND RODS SPliced TOGETHER IN A MANNER WHICH IS (U.L.) UNDERWRITERS LABORATORY APPROVED).

VERTICAL BARS SEE FOUNDATION DESIGN TABLE (THIS SHEET) FOR SIZE AND NUMBER

#3 SPIRAL REINFORCING STEEL SEE ANCHOR BOLT & TEMPLATE SIZES TABLE (THIS SHEET) FOR SPACING

CLASS "S" CONCRETE

5/8" GROUND ROD MIN. 4' IN EARTH

SEE FOUNDATION SIZE SELECTION CHART

FOUNDATION SECTION
NOT TO SCALE

| Mast Arm Length(s) (ft) | Bending Moment (ft-lb) | Torsion (ft-lb) | Shear (lb) | Axial Force (lb) | Foundation Size Selection (diameter in inches, depth in feet) | | | | | | | |
|-------------------------|------------------------|-----------------|------------|------------------|---------------------------------------------------------------|----|--------------------------|----|--------------------------|----|-------------------------|---|
| | | | | | Zone 1 (Diameter/Depth) | | Zone 2+ (Diameter/Depth) | | Zone 3+ (Diameter/Depth) | | Zone 4 (Diameter/Depth) | |
| | | | | | | | | | | | | |
| 55 | 125,120 | 121,100 | 5,500 | 5,862 | * | * | 42 | 18 | 36 | 14 | * | * |
| 60 | 141,805 | 128,940 | 5,930 | 6,561 | * | * | 42 | 19 | 36 | 15 | * | * |
| 65 | 161,259 | 150,480 | 6,130 | 6,965 | * | * | 48 | 17 | 36 | 16 | * | * |
| 70 | 182,103 | 169,590 | 6,620 | 7,377 | * | * | 48 | 19 | 36 | 17 | * | * |
| 50 & 35 | 142,210 | 101,630 | 5,860 | 7,572 | 54 | 18 | 36 | 20 | 36 | 13 | * | * |
| 50 & 40 | 147,540 | 101,610 | 5,860 | 7,798 | 54 | 18 | 36 | 20 | 36 | 13 | * | * |
| 55 & 40 | 159,408 | 119,900 | 5,910 | 8,195 | * | * | 42 | 18 | 36 | 14 | * | * |
| 55 & 45 | 165,981 | 119,870 | 5,910 | 8,425 | * | * | 42 | 18 | 36 | 14 | * | * |

*: Special Design Foundation Required

ANCHOR BOLT & TEMPLATE SIZE TABLE

| DRILLED SHAFT DIA | REINFORCING STEEL | | ANCHOR BOLT DESIGN | | |
|-------------------|-------------------|-----------------------------------------------|--------------------|-----------------|-----------------|
| | VERT BARS | SPIRAL SPACING | # OF ANCHOR BOLTS | ANCHOR BOLT DIA | BOLT CIRCLE DIA |
| 36" | 12 - #10 | #3 AT 6" < 24" DEPTH #3 AT 12" > 24" DEPTH | 4 | 2 1/4" | 24" |
| 42" | 17 - #10 | #3 AT 6" < 24" DEPTH #3 AT 12" > 24" DEPTH | 6 | 2 1/4" | 30" |
| 48" | 22 - #10 | #3 AT 6" < 24" DEPTH #3 AT 12" > 24" DEPTH | 6 | 2 1/4" | 30" |
| 54" | 28 - #10 | #3 AT 6" < 24" DEPTH #3 AT 12" > 24" DEPTH | 6 | 2 1/4" | 30" |

GENERAL NOTES:

1. THREADS FOR ANCHOR BOLTS AND NUTS SHALL BE ROLLED OR CUT THREADS.
2. THE CONTRACTOR SHALL STAKE THE LOCATION OF EACH POLE FOUNDATION AND NOTIFY THE PROJECT ENGINEER FOR CONCURRENCE IN THE LOCATION BEFORE PROCEEDING WITH THE INSTALLATION OF THE POLE FOUNDATION.
3. ONCE THE POLE FOUNDATION IS INSTALLED, MAST ARM LENGTHS SPECIFIED ON PLANS ARE TO BE VERIFIED BEFORE ORDERING. IF A TIME EXTENSION IS NEEDED, IT SHALL BE AT THE DISCRETION OF THE PROJECT ENGINEER TO GRANT THE EXTENSION.
4. CONDUIT SHALL BE INSTALLED ACCORDING TO PLANS. CONDUIT SHALL BE CENTERED IN THE FOUNDATION WITH EVEN SPACING.
5. ALL SPARE CONDUIT IN FOUNDATIONS SHALL BE STUBBED OUT 24" BELOW GRADE AND BROUGHT INTO JUNCTION BOX.
6. TOP OF BASE SHALL BE ROUND WITH CHAMFERED EDGE.
7. SERVICE CONDUIT SHALL BE 2" DIA. SCH. 80 PVC.
8. USE A GROUND ROD CLAMP TO ATTACH THE #6 AWG BARE GROUND WIRE ONTO THE GROUND ROD AND THE OTHER END TO BE CONNECTED TO THE POLE.
9. ALL GROUND RODS, REGARDLESS OF FOUNDATION SIZE SHALL PROTRUDE THROUGH THE FOUNDATION AND A MINIMUM OF 4' SHALL BE EMBEDDED INTO THE EARTH.

SPECIAL DESIGN FOUNDATION NOTES:

SPECIAL DESIGN FOUNDATION NOTES

1. FOUNDATIONS FOR MAST ARM LENGTHS REQUIRING A SPECIAL DESIGN FOUNDATION SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE AASTHO LRFD BRIDGE DESIGN SPECIFICATIONS.
2. FOUNDATION LOADS FOR THE CORRESPONDING MAST ARM LENGTH PROVIDED IN THE FOUNDATION SIZE SELECTION TABLE SHALL BE USED TO DESIGN THE FOUNDATION SIZE AND DEPTH. THE LOADS IN THE TABLE WERE PROVIDED BY THE MAST ARM MANUFACTURERS AND ARE BASED ON A 25-YEAR RECURRENCE INTERVAL AND A WIND SPEED OF 110 MPH. THESE LOADS SHALL ONLY BE USED FOR DESIGN OF THE FOUNDATION.
3. WHEN A SPECIAL DESIGN FOUNDATION IS REQUIRED THE FOUNDATION DESIGN SHALL BE BASED ON SITE SPECIFIC SUBSURFACE INFORMATION. IF SITE SPECIFIC DATA IS NOT MADE AVAILABLE BY DOTD THE DESIGNER SHALL BE RESPONSIBLE FOR OBTAINING SITE SPECIFIC SUBSURFACE INFORMATION.
4. DESIGN CALCULATIONS FOR THE FOUNDATION SHALL BE SUBMITTED TO THE TRAFFIC ENGINEERING SECTION FOR REVIEW.



| | | | |
|------------------------------------------------------------------------------------------------------|--------------|----------------------|------------|
| DESIGNED | S. MCCARROLL | PARISH | |
| CHECKED | D. LORIO | FEDERAL PROJECT | |
| REVIEWER | S. MCCARROLL | STATE PROJECT | |
| CHECKED | L. WANG | DATE | 10/05/2017 |
| | | SHEET | 6 OF 14 |
| | | NO. | |
| | | REVISION DESCRIPTION | |
| | | DATE | |
| | | BY | |
| | | | |
| TRAFFIC SIGNAL STANDARD DETAILS 55' SINGLE, 50X35' DUAL AND OVER MAST ARM DETAIL FOUNDATION | | | |
| TSD-05 | | | |
| | | | |
| TRAFFIC ENGINEERING | | | |