



HELIX FOUNDATION SIZE

POLE MOUNTING HEIGHT	BOLT CIRCLE	SHAFT DIAMETER	SHAFT LENGTH	BASE PLATE
30 FT.	11 1/2"	8 5/8"	6 FT.	12"X12"X1"
31 FT. TO 35 FT.	11 1/2"	8 5/8"	6 FT.	12"X12"X1"
36 FT. TO 40 FT.	15"	8 5/8"	6 FT.	15"X15"X1 1/4"
41 FT. TO 45 FT.	15"	8 5/8"	6 FT.	15"X15"X1 1/4"
46 FT. TO 50 FT.	15"	10"	8 FT.	15"X15"X1 1/4"

METAL HELIX FOUNDATION MATERIALS

ITEM	METAL REQUIREMENT
BASE PLATE	AASHTO M 270M, GRADE 36 (M 270M, GRADE 250)
SHAFT	ASTM A 252, GRADE 2 (PHOSPHOROUS 0.04% MAXIMUM, SULFUR 0.05% MAXIMUM)
HELIX SCREW	AASHTO M 183 (ASTM A 635)
PILOT POINT	AASHTO M 270 (ASTM A 575)
ANCHOR RODS/STUDS	AASHTO M 314 (ASTM F 1554)
HEXAGON NUTS	AASHTO M 291 (ASTM A 563) GRADE DH OR AASHTO M 292 (ASTM A 194) GRADE 2H
WASHERS	AASHTO M 293 (ASTM F 436)

NOTES:

1. ALL DIMENSION IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. ALL MATERIAL SHALL BE GALVANIZED ACCORDING TO AASHTO M111, UNLESS OTHERWISE SPECIFIED.
3. ALL WELDS SHALL BE CONTINUOUS AND NOT LESS THAN 1/4" (6.35 MM) FILLET WELDS. THE WELDED FOUNDATION SHALL BE CAPABLE OF WITHSTANDING 10,000 FT/LBS (13558.18 nm) OF INSTALLATION TORQUE APPLIED ABOUT THE AXIS OF THE FOUNDATION.
4. THE HELIX FOUNDATION SHAFT SHALL BE INSTALLED VERTICAL AND THE BASE PLATE SHALL BE IN LEVEL. THE BREAKAWAY COUPLINGS AND HARDWARE SHALL NOT BE USED TO ALIGN THE POLE INSTALLATION.
5. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE INSTALLATION OF THE LIGHT POLE.
6. THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF THE BASE PLATE WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS.
7. ANY VOIDS WITHIN THE METAL FOUNDATION SHALL BE FILLED WITH FINE AGGREGATE.
8. METAL FOUNDATIONS SHALL BE INSTALLED IN UNDISTURBED SOIL. PREDRILLING A PILOT HOLE AND/OR BACKFILLING AROUND THE FOUNDATION IS NOT ALLOWED.
9. THE METAL FOUNDATION SHALL NOT BE INSTALLED TO A TORQUE WHICH EXCEEDS THE MANUFACTURER'S MAXIMUM TORQUE RATING NOR SHALL IT BE INSTALLED TO AN INSTALLATION TORQUE VALUE OF LESS THAN 3,500 FT LB (4,750 KNM), METAL FOUNDATIONS THAT ARE NOT INSTALLED TO FULL INSTALLATION DEPTH OR DO NOT ACHIEVE THE MINIMUM INSTALLATION TORQUE SHALL BE REMOVED AND REPLACED WITH A CONCRETE FOUNDATION AT NO ADDITIONAL COST.
10. THE BASE PLATE SHALL BE PERPENDICULAR TO THE SHAFT AXIS ($\pm 1^\circ$) AND THE HOLE CENTERLINE SHALL BE CONCENTRIC (± 0.188) TO THE SHAFT AXIS.
11. THE PILOT AND SHAFT AXIS SHALL BE CONCENTRIC (± 0.125) AND IN LINE ($\pm 2^\circ$).
12. THE BASE PLATE SHALL BE STAMPED WITH THE MANUFACTURER'S NAME AND DATE OF MANUFACTURE.

COMPANY NAME: AMES Engineering, Inc.
 PROJECT CONTACT: CONSULTING ENGINEERS
 CLIENT: 1341 Warren Avenue
 DATE PLOTTED: 7/23/2012 11:51:09 AM
 FILE NAME: 090071-Ltg-08.dgn
 PLOT DRIVER: pdfplot
 PEN TABLE: standard-transta.tbl

USER NAME = jstanna	DESIGNED - BL	REVISED -
FILE NAME = 090071-Ltg-08.dgn	DRAWN - RV/MSA	REVISED -
PLOT SCALE = N.T.S.	CHECKED - SA	REVISED -
PLOT DATE = 7/23/2012	DATE - 7/23/12	REVISED -

MCHENRY COUNTY
 DIVISION OF TRANSPORTATION

LIGHT POLE FOUNDATION, METAL
 CHARLES J. MILLER ROAD ROADWAY IMPROVEMENTS

SCALE: N.T.S. SHEET NO. 8 OF 9 SHEETS STA. TO STA.

F.A.J. RTEL	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3860	09-00372-00-PW	MCHENRY	252	122
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 63633	

LTG-08