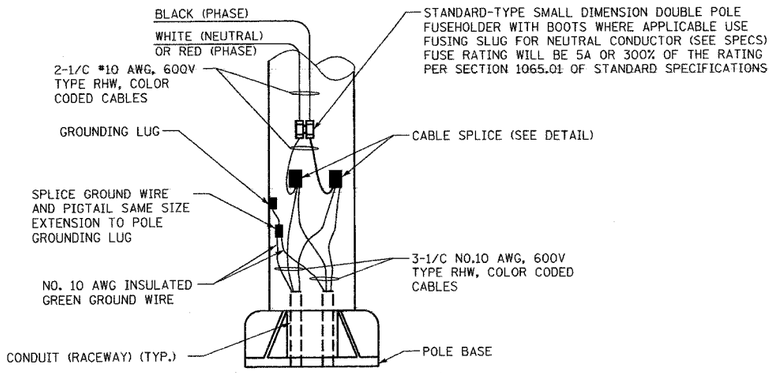
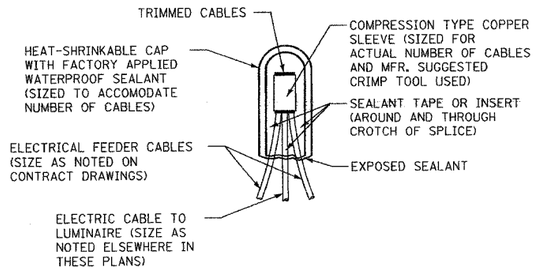
CONTRACT NO. 98631

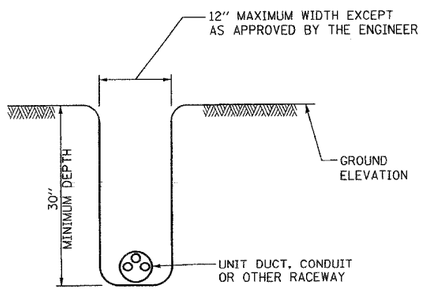
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31-1-2, 31B	SALINE	199	97
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



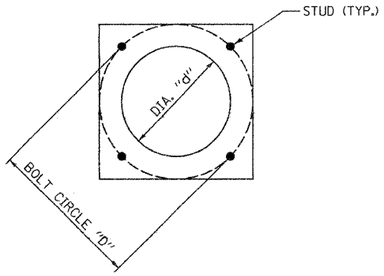
POLE WIRING DETAIL
N.T.S.

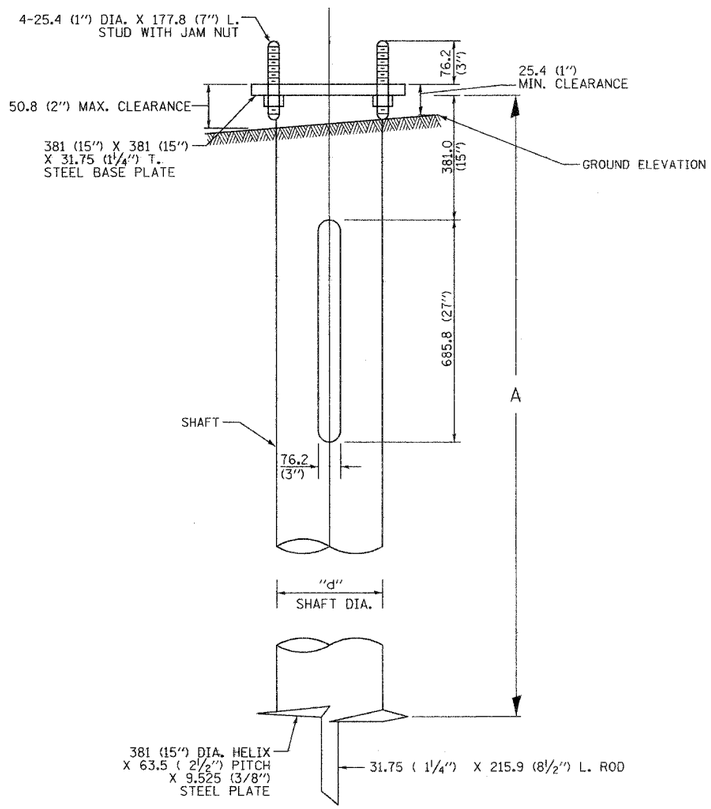


TYPICAL SPLICE DETAIL
N.T.S.
NOTE THAT NUMBER OF CABLES IN SPLICE MAY VARY



TYPICAL TRENCH DETAIL
N.T.S.





NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
2. THE HELIX FOUNDATION SHAFT BASE PLATES, HELICAL PLATE, HELIX SCREW, PILOT POINT, AND STOCK BAR WILL BE ASTM A36 STRUCTURAL STEEL OR BETTER.
3. ALL WELDS MUST BE CONTINUOUS AND NOT LESS THAN 6.35 mm (1/4") FILLET WELDS. THE WELDED FOUNDATION MUST BE CAPABLE OF WITHSTANDING 13558.18 n.m (10,000 FT/LBS) OF INSTALLATION TORQUE APPLIED ABOUT THE AXIS OF THE FOUNDATION.
4. THE HELIX FOUNDATION SHAFT WILL BE INSTALLED VERTICAL AND THE BASE PLATE MUST BE IN LEVEL.
5. THE CABLE TRENCH WILL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE INSTALLATION OF THE LIGHT POLE.
6. ANCHOR BOLT STUDS WILL BE 25.4 mm (1-INCH) DIAMETER AND WILL COMPLY WITH THE REQUIREMENTS OF ASTM DESIGNATION A687.
7. THE CONTRACTOR MUST COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURERS REQUIREMENTS WHERE APPLICABLE.
8. ANY VOIDS WITHIN THE METAL FOUNDATION MUST BE FILLED WITH FINE AGGREGATE.
9. METAL FOUNDATIONS WILL BE INSTALLED IN UNDISTURBED SOIL. PRE DRILLING A PILOT HOLE AND/OR BACKFILLING AROUND THE FOUNDATION IS NOT ALLOWED.
10. THE METAL FOUNDATION MUST NOT BE INSTALLED TO A TORQUE WHICH EXCEEDS THE MANUFACTURERS MAXIMUM TORQUE RATING NOR WILL IT BE INSTALLED TO AN INSTALLATION TORQUE VALUE OF LESS THAN 4,750 KNM (3,500 FT LB). METAL FOUNDATIONS THAT ARE NOT INSTALLED TO FULL INSTALLATION DEPTH OR DO NOT ACHIEVE THE MINIMUM INSTALLATION TORQUE MUST BE REMOVED AND REPLACED WITH CONCRETE FOUNDATION AT NO ADDITIONAL COST.
11. THE BOLT CIRCLE D MUST MATCH THE BOTTOM BOLT CIRCLE OF THE EXISTING TRANSFORMER BASE.
12. CONTRACTOR WILL FURNISH AND INSTALL 10' LONG SHAFT HELIX FOUNDATION AT LOCATIONS WITH 2:1 OR STEEP SLOPE AT NO ADDITIONAL COST.

HELIX FOUNDATION SIZE

POLE MOUNTING HEIGHT	BOLT CIRCLE "D"	SHAFT LENGTH "A"		SHAFT DIA. "d"
		ON FLAT GROUND	ON 2:1 OR STEEP SLOPE	
40'-0"	15	10'-0"	10'-0"	10"

METAL HELIX FOUNDATION MATERIALS

ITEM	MATERIAL REQUIREMENT	
BASEPLATE	AASHTO M 270M	GALVANIZED, AASHTO M 111, GRADE B
SHAFT	ASTM A 252, GRADE 2 (PHOSPHOROUS 0.04% MAXIMUM)	GALVANIZED, AASHTO M 111, GRADE B
HELIX SCREW	AASHTO M 183 OR ASTM A 635	GALVANIZED, AASHTO M 111, GRADE B
PILOT POINT	AASHTO M 183 OR ASTM A 575	GALVANIZED, AASHTO M 111, GRADE B
ANCHOR RODS/STUDS	AASSHTO M 314	GALVANIZED, AASHTO M 232
HEXAGON NUTS	AASSHTO M 291M	GALVANIZED, AASHTO M 232
WASHERS	AASSHTO M 293	GALVANIZED, AASHTO M 232

L-3

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILL. RTE. 142 AND U.S. 45
LIGHTING DETAILS

SCALE: NONE
DATE

DRAWN BY DJK
CHECKED BY RCG

benesch
alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450

$FILE$