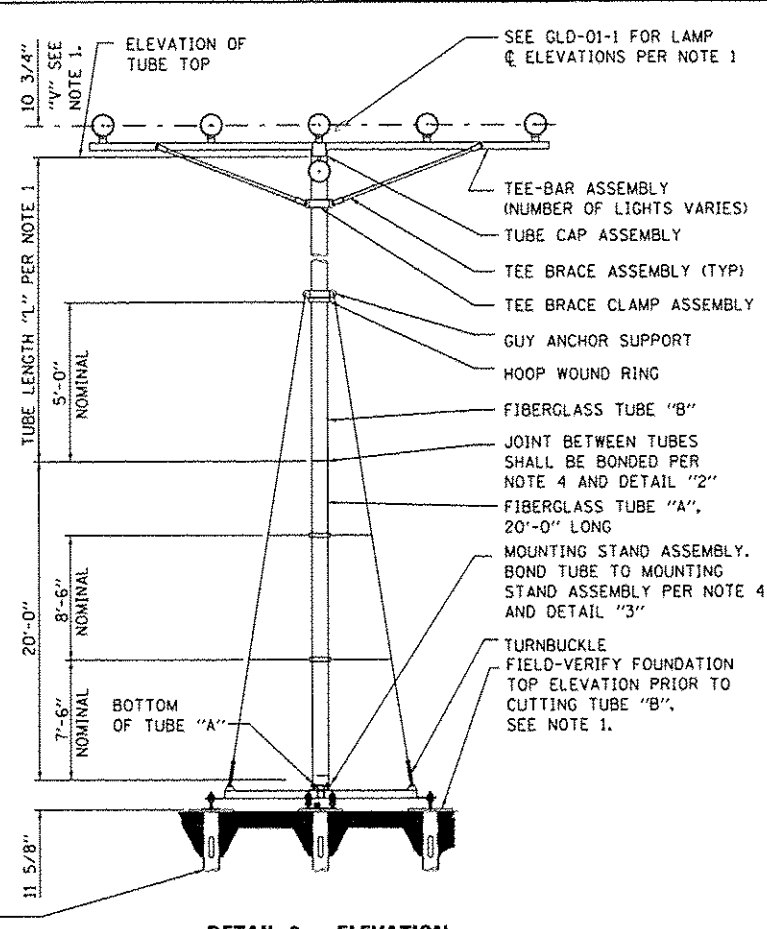
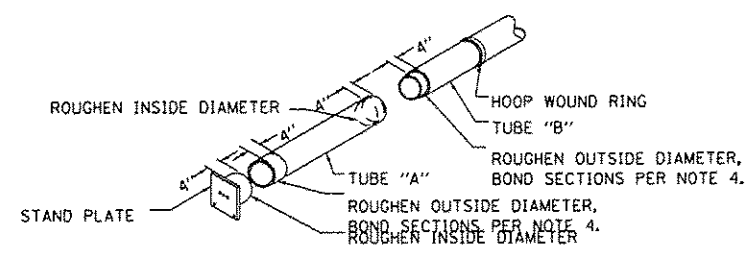


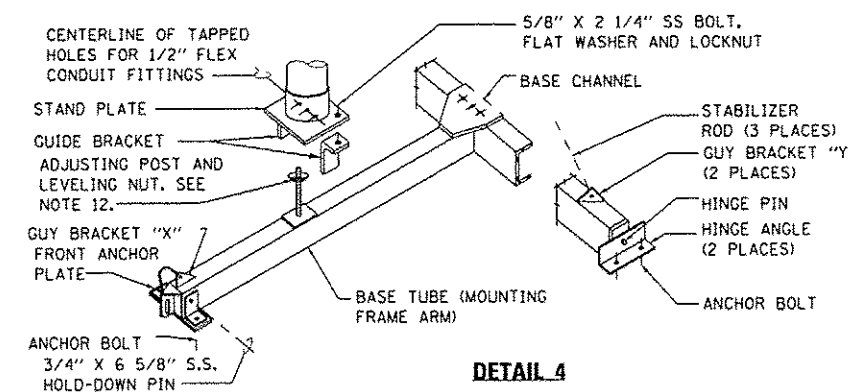
**DETAIL 1 - ELEVATION
MG-30 LIR STRUCTURE**



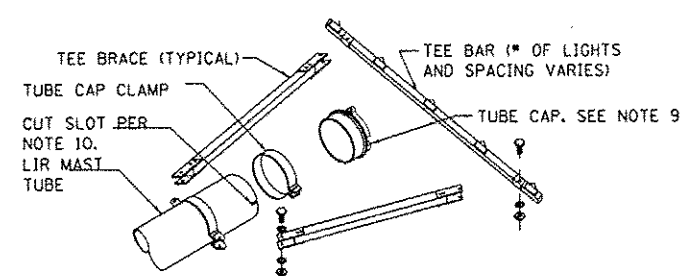
**DETAIL 2 - ELEVATION
MG-40 LIR STRUCTURE**



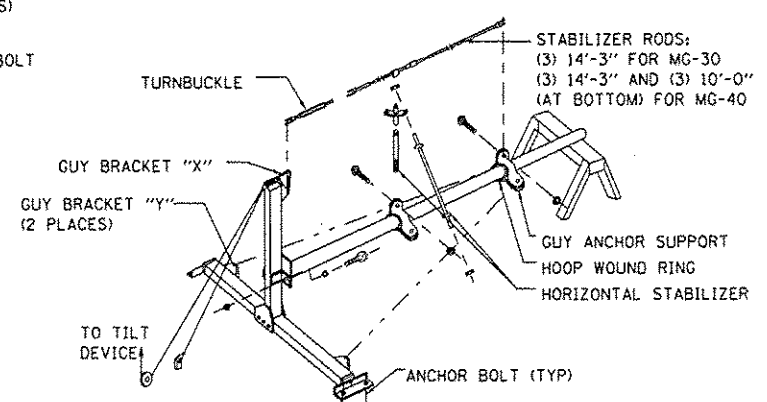
**DETAIL 3
LIR TUBE ASSEMBLY DETAILS**



**DETAIL 4
MOUNTING FRAME ASSEMBLY**



**DETAIL 5
TEE BRACE ASSEMBLY DETAILS**



**DETAIL 6
LOWERED CONDITION**

NOTES:

1. THE CONTRACTOR SHALL ESTABLISH TOP OF FOUNDATION ELEVATION PER LIGHT BAR AND LAMP SCHEDULE. FOR EACH LIR TOWER PER LIGHT STATION, THE CONTRACTOR SHALL FIELD-VERIFY THE ACTUAL FOUNDATION TOP ELEVATION PRIOR TO CUTTING LIR TUBE "B". THE CONTRACTOR SHALL DETERMINE THE REQUIRED TUBE "B" LENGTH "L" AS FOLLOWS:
$$L = \text{LAMP } \phi \text{ ELEVATION} - \text{FOUNDATION TOP ELEVATION} - \text{TUBE "A" LENGTH} - IV + 11\frac{5}{8}"$$

THE FOUNDATION TOP OF ELEVATION MUST BE FIELD VERIFIED. THE DIMENSION "V" MAY NOT BE 103/4" AND IS DEPENDENT ON THE HARDWARE AND THEREFORE MUST BE FIELD VERIFIED.
2. CUT TUBE LENGTH FROM THE 20 FOOT TUBE "A" STOCK AS REQUIRED, USING A TABLE SAW WITH A DIAMOND OR CARBIDE ABRASIVE BLADE. ALL SAW CUTS SHALL PERPENDICULAR TO THE TUBE AXIS. DEBURR CUT EDGES.
3. USE EMERY CLOTH TO ROUGHEN THE SURFACES TO BE BONDED TO THE STAND PLATE PER DETAIL "3". CLEAN THE ROUGHENED SURFACES WITH A SOLVENT (TRICHLOROETHYLENE, ACETONE, OR METHYL ETHYL KETONE).
4. CONTRACTOR SHALL BOND EACH JOINT BY SPREADING A LIGHT COAT OF MIXED ADHESIVE ON BOTH SURFACES TO BE BONDED, SLOWLY SLIDE THE TUBE ONTO THE STAND PLATE, WHILE ROTATING IT TO EXCLUDE AIR. THE BONDING ADHESIVE MATERIALS, 2-PART EPOXY, FUSOR 304-1 RESIN AND 304-2 HARDENER, FUSOR 304-1 AND 304-2 ARE AVAILABLE FROM LORD CORP CHEMICAL PRODUCTS GROUP, ERIE PA. THE ADHESIVE MUST BE MIXED AND CURED IN AIR TEMPERATURES WHICH DO NOT DROP BELOW 67°F. CURING IS COMPLETE AFTER 48 HOURS. FOLLOW MANUFACTURER'S INSTRUCTIONS.
5. ASSEMBLE LIR STRUCTURES IN HORIZONTAL POSITION PER DETAIL "6". INSERT HINGE PINS WHICH ARE ATTACHED TO BASE CHANNEL, INTO LEFT AND RIGHT ANCHOR PLATES. PLACE THE FRONT, THE LEFT, AND THE RIGHT ANCHOR PLATES OVER THE 3/4" ANCHOR BOLTS. CONNECT BASE TUBE TO BASE CHANNEL, MAKING SURE MOUNTING FRAME ASSEMBLY SWINGS FREELY ON HINGE PINS. SECURE ANCHOR PLATES TO FOUNDATION AND RAISE MOUNTING FRAME ARM TO VERTICAL (VERIFY). ATTACH THE GUY ANCHOR SUPPORT ABOVE THE HOOP WOUND RING. ATTACH STABILIZER RODS TO THREE GUY ANCHOR ENDS. BOLT TWO GUIDE BRACKETS TO BOTTOM OF MAST STAND PLATE WITH THE 5/8" X 2 1/4" STAINLESS STEEL BOLTS AND NUTS. DO NOT TIGHTEN. POSITION STAND PLATE WITH TAPPED HOLES ALIGNED PER DETAIL "4". SET STAND PLATE OVER ADJUSTING POST. POST IS INSERTED INTO HOLE IN CENTER OF STAND PLATE. ADJUST NUT FOR PROPER HEIGHT. SUPPORT UPPER END OF MAST SO IT IS APPROXIMATELY PARALLEL WITH GROUND. CLAMP GUIDE BRACKETS TO BASE TUBE, AND SECURE. FASTEN TURNBUCKLES (ATTACHED TO STABILIZER RODS) TO GUY BRACKETS "X" AND "Y". TIGHTEN TURNBUCKLE AT GUY BRACKET "X" UNTIL MAST IS EXACTLY PERPENDICULAR TO MOUNTING FRAME. TIGHTEN THE OTHER TWO TURNBUCKLES AT GUY BRACKETS "Y". ATTACH HORIZONTAL STABILIZER ASSEMBLY. USE THE APPROPRIATE NUMBER AND SIZE OF STABILIZER RODS DEPENDING ON THE TOWER TYPE (MG-30 OR MG-40). SEE DETAIL "6".
6. SEE INSTRUCTION BOOK TI 6850.77 FOR ADDITIONAL ASSEMBLY INSTRUCTIONS.
7. TWO SPARE "A" TUBES SHALL REMAIN IN STORAGE. RETURN TO STORAGE ANY TUBE REMNANT GREATER THAN 10' LONG.
8. TEE BAR SHALL BE ALIGNED PERPENDICULAR TO RUNWAY CENTERLINE +/- 1".
9. A SMALL HOLE MUST BE CUT IN THE RUBBER LINER OF TUBE CAP TO ALLOW ACCESS FOR TEE BAR WIRING INSTALLATION. DO NOT REMOVE RUBBER LINER.
10. SAWCUT FOUR 2" LONG SLOTS, EQUALLY SPACED AROUND PERIMETER, IN TOP OF LIR TUBE TO ALLOW EASY INSERTION OF TUBE CAP.
11. AFTER LEVELING AND PLUMBING THE MAST, LIFT THE MAST BY ONE COMPLETE TURN OF THE LEVELING NUT. THIS IS INTENDED TO CREATE UNIFORM TENSION IN (200-500 LBS) IN ALL STABILIZER RODS.
12. PROVIDE A STAINLESS STEEL SCREEN ON ANY UNUSED HOLES AT THE BOTTOM OF THE LIR POLE.



USER NAME: mkrw	DESIGNED: SJM	REVISED: -
DRAWN: SJM	REVISED: -	
CHECKED: SPG	REVISED: -	
DATE: 12/28/12	ADDENDUM 1	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NAVAIDS
LIR STRUCTURE ASSEMBLY DETAILS FOR
LIR TOWER TYPES MG-30 AND MG-40
SCALE: N.T.S. SHEET NO. 14 OF 16 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	606	606BL
CONTRACT NO. 60G37				

ADDED SHEET
GLD-119-1