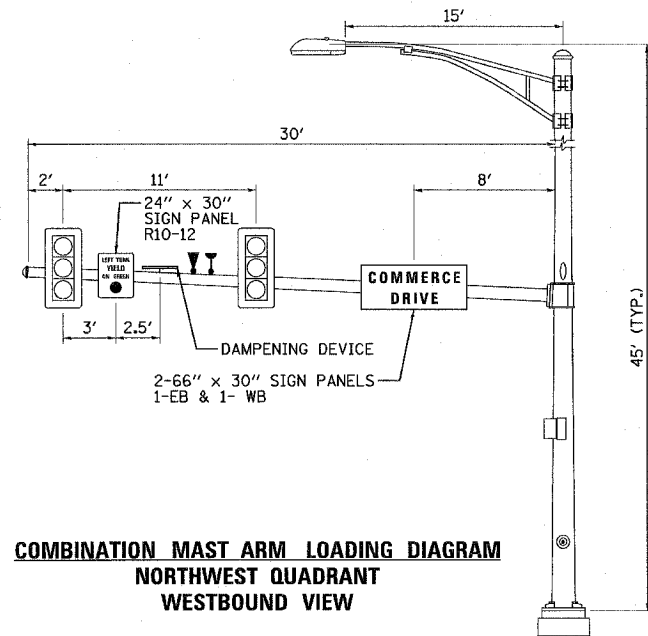
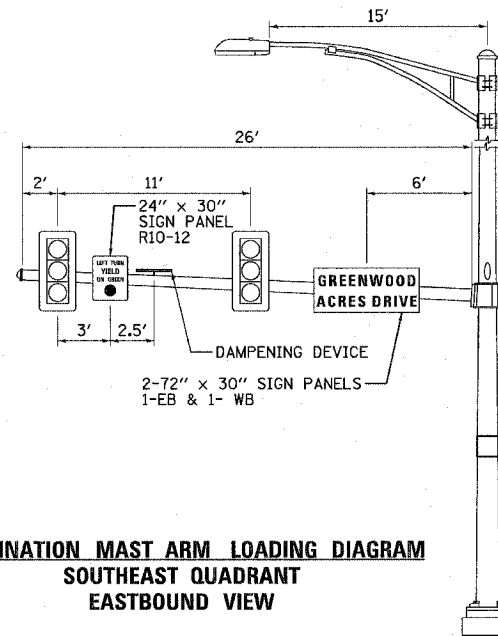


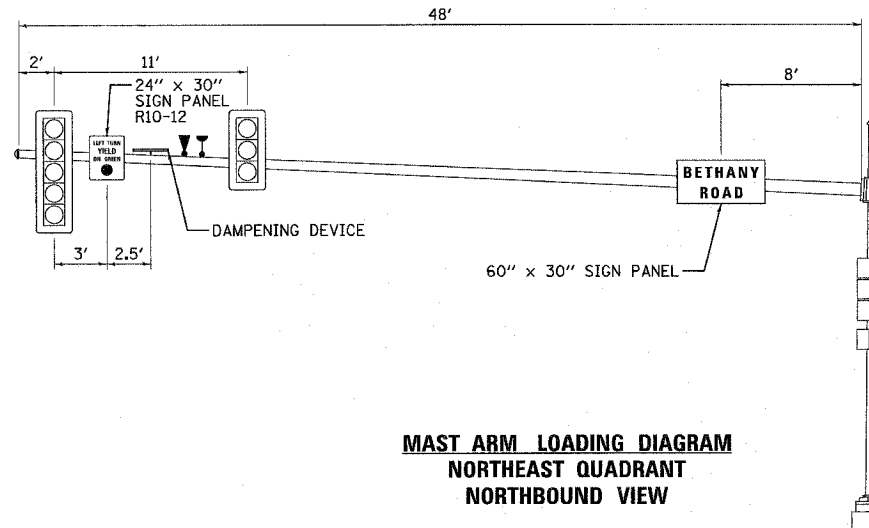
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5355	04-00167-00-WR	DEKALB	62	31
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



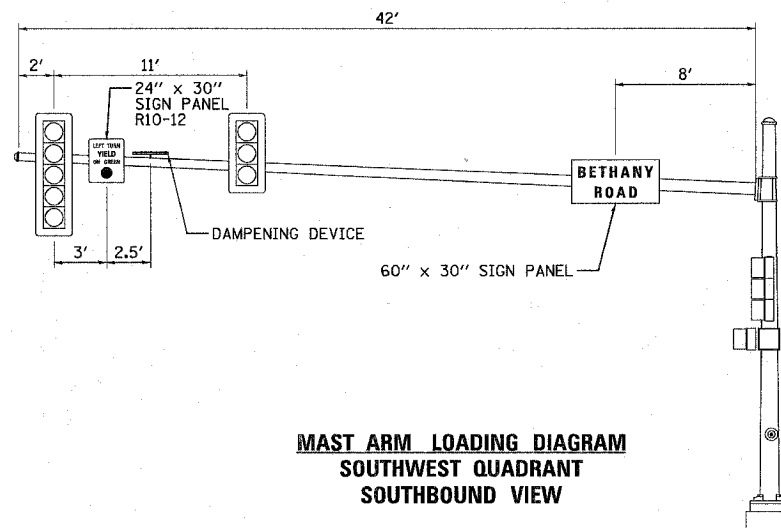
**COMBINATION MAST ARM LOADING DIAGRAM
NORTHWEST QUADRANT
WESTBOUND VIEW**



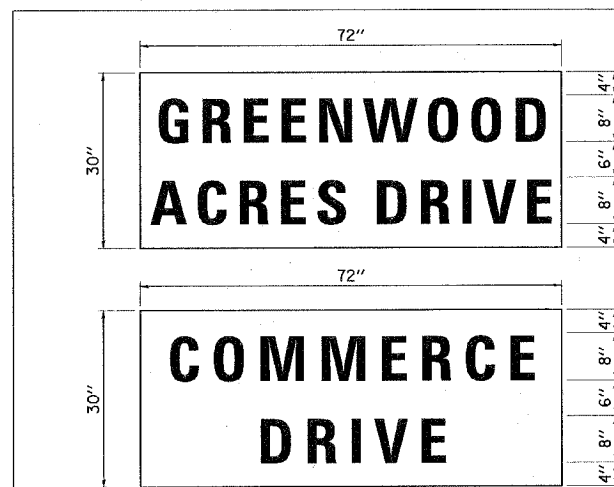
**COMBINATION MAST ARM LOADING DIAGRAM
SOUTHEAST QUADRANT
EASTBOUND VIEW**



**MAST ARM LOADING DIAGRAM
NORTHEAST QUADRANT
NORTHBOUND VIEW**

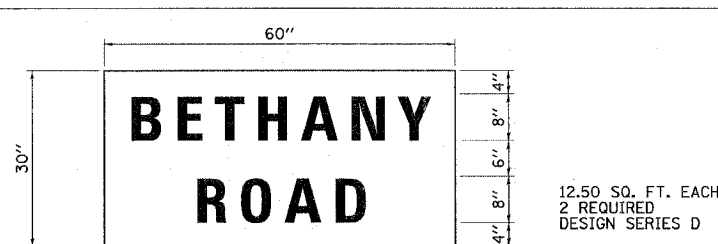


**MAST ARM LOADING DIAGRAM
SOUTHWEST QUADRANT
SOUTHBOUND VIEW**



15.00 SQ. FT. EACH
2 REQUIRED
DESIGN SERIES D

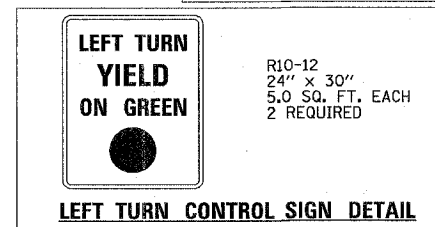
15.00 SQ. FT. EACH
2 REQUIRED
DESIGN SERIES D



12.50 SQ. FT. EACH
2 REQUIRED
DESIGN SERIES D

1. TYPE A SHEETING REQUIRED.
2. WHITE LETTERING IN GREEN BACKGROUND.
3. 3/4" WHITE BORDER.
4. TWO STREET NAME SIGNS SHALL BE MOUNTED ON THE EASTBOUND AND WESTBOUND MAST ARMS.

STREET NAME SIGN DETAILS



LEFT TURN CONTROL SIGN DETAIL

R10-12
24" x 30"
5.0 SQ. FT. EACH
2 REQUIRED

RHA&A

Robert H. Anderson & Associates, Inc.
Consulting Engineers
Timbers Professional Center
220 West River Drive, St. Charles, IL 60174
Phone - 630.584.3530 Fax - 630.584.3047

TRAFFIC SIGNAL GENERAL NOTES

1. ALL TRAFFIC SIGNAL HEADS SHALL BE 12" POLYCARBONATE.
2. THE TRAFFIC SIGNAL HEADS SHALL BE PROPERLY COVERED PRIOR TO TURN-ON. THIS COST SHALL BE INCLUDED IN THE COST OF THE RESPECTIVE SIGNAL PAY ITEMS.
3. A 1/4" DIAMETER RODENT RESISTANT NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE ON ALL CONDUITS BETWEEN HANDHOLES AND FOUNDATIONS OR CONTROLLER. THIS COST SHALL BE INCLUDED IN THE COST OF CONDUIT PAY ITEMS.
4. THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE OF THE SIGNAL CONTROLLER TO BE PRESENT AT THE INTERSECTION WHEN THE SIGNAL IS TURNED ON. THIS COST SHALL BE INCLUDED IN THE COST OF THE SIGNAL CONTROLLER PAY ITEM.
5. ALL CONDUIT IN TRENCH SHALL BE P.V.C.. ALL CONDUIT PUSHED MAY BE P.V.C. OR GALVANIZED STEEL.
6. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT A GREATER THAN 2 FT. MINIMUM DEPTH TO AVOID SUCH OBSTACLES SUCH AS UNDERGROUND UTILITIES.
7. ALL MAST ARM MOUNTED SIGNAL HEADS ON THE SAME MAST ARM SHALL BE MOUNTED SO THAT THE RED INDICATIONS ARE LEVEL WITH EACH OTHER.
8. THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE SOLID, SOFT COPPER.
9. DETECTOR LOOP INSTALLATION SHALL BE COMPLETED AFTER PLACEMENT OF THE BINDER COURSE AND PRIOR TO THE PLACEMENT OF THE SURFACE COURSE.
10. ALL THREADS OF BOLTS USED IN THE ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH A NON-LEAD BASED ANTI-SEIZE COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY.
11. ALL HARDWARE SHALL BE TIGHTENED AND WELL SECURED, CABLES SHALL BE NEATLY WOUND IN HANDHOLES. CABLES SHALL BE NEATLY TRAINED IN THE CONTROLLER CABINET.
12. ALL SIGNAL BASES SHALL BE LOCATED A MINIMUM OF 6 FT. FROM THE FACE OF CURB UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
13. ALL TRAFFIC SIGNAL WIRING SHALL EXTEND FROM THE CONTROLLER TO THE SIGNAL. SPLICES IN JUNCTION BOXES WILL NOT BE ALLOWED.
14. DETECTOR LOOP ON THE SAME LANE SHALL BE WOUND CLOCKWISE AND COUNTERCLOCKWISE IN ALTERNATING ORDER. LOOPS IN ADJACENT LANES SHALL BE WOUND ALL THE SAME.
15. THE CONTROLLER CABINET SHALL BE PLACES SO THAT A TECHNICIAN MAY SEE THE INTERSECTION OVER THE TOP OF THE CABINET WHILE WATCHING THE COMPONENTS IN THE CABINET.
16. THE PROPOSED TRAFFIC SIGNAL CONTROLLER CABINET SHALL BE FURNISHED WITH A MANUAL CONTROL SWITCH AND MANUAL CONTROL CORD WITHIN THE POLICE DOOR COMPARTMENT. THIS WORK SHALL BE INCLUDED IN THE COST OF THE CONTROLLER CABINET PAY ITEM.
17. THE CONTRACTOR SHALL PROVIDE A SELF-ADHERED PHASE DIAGRAM ON THE INSIDE OF THE CONTROLLER CABINET DOOR.
18. ALL DETECTOR LOOP AMPLIFIERS SHALL BE CARD RACK MOUNTED AND FURNISHED WITH PLASTIC TAGS LABELED WITH RESPECTIVE PHASES AND DIRECTION LISTED IN THE DETECTOR LOOP CHART. A MINIMUM TAG SIZE OF 3/8 IN. X 3/4 IN. IS REQUIRED. TAGS SHALL BE MADE OF MATERIAL THAT DOES NOT ALLOW WRITING TO FADE OVER TIME.
19. THE LENGTH OF THE DETECTOR LOOP CABLE FROM THE CURB TO THE JUNCTION BOX OR HANDHOLE IS INCLUDED IN THE DETECTOR LOOP PAY ITEM.
20. DOUBLE HANDHOLES SHALL BE FURNISHED WITH RECESSED, INTEGRAL HINGED LIDS.
21. THE ELEVATION OF THE LID OF THE DOUBLE HANDHOLE SHALL BE LOWER THAN THE ELEVATION OF THE TOP OF THE CONTROLLER CABINET FOUNDATION.
22. ALL GROUNDING MATERIALS FOR THE TRAFFIC SIGNALS CONCRETE FOUNDATIONS SHALL REFER TO SECTION 807 OF THE STANDARD SPECIFICATIONS.
23. DOUBLE FUSE HOLDERS AND SURGE ARRESTORS SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR IN THE BASE OF THE COMBINATION MAST ARM POLES. COST OF WHICH SHALL BE INCLUDED IN THE LUMINAIRE PAY ITEM.
24. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED WITH SEED TO THE SATISFACTION OF THE ENGINEER.
25. THE CONTRACTOR SHALL PROVIDE TWO PORTABLE CHANGEABLE MESSAGE SIGNS, ONE EACH FOR BOTH EASTBOUND AND WESTBOUND LANES APPROXIMATELY 700 FT. TO 1000 FT. IN ADVANCE OF THE NEW SIGNALS. ONE WEEK PRIOR TO TURN-ON, THE FIRST MESSAGE ON BOTH SIGNS SHALL READ "NEW SIGNALS AHEAD" AND THE SECOND MESSAGE SHALL BE THE DATE OF THE SIGNAL TURN-ON. ONCE THE SIGNAL HAS BEEN TURNED ON, THE FIRST MESSAGE ON BOTH SIGNS SHALL READ FOR THE SUBSEQUENT 3 WEEKS, "NEW SIGNAL AHEAD" AND THE SECOND MESSAGE SHALL READ, "BE PREPARED TO STOP".
26. FOUNDATION LOCATIONS ARE GENERAL GUIDELINES AND MUST BE FIELD VERIFIED FOR POSSIBLE OVERHEAD AND UNDERGROUND UTILITY CONFLICTS.

NOTES

1. ALL MAST ARM FOUNDATIONS TO BE 36" DIAMETER.
2. DAMPENING DEVICES SHALL CONSIST OF A 24" X 30" TYPE I, UNPAINTED ALUMINUM SIGN STOCK MOUNTED HORIZONTALLY ON THE TOP OF THE MAST ARM WITH THE 30" LENGTH PERPENDICULAR TO THE ARM. COST OF THE DAMPENING DEVICE SHALL BE INCLUDED IN THE MAST ARM PAY ITEM.
3. THE LUMINAIRE MAST ARM SHALL BE PARALLEL TO THE SIGNAL MAST ARM.

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BETHANY ROAD WIDENING
FAIRWAY OAKS DRIVE TO RESOURCE PARKWAY
CITY OF DEKALB

MAST ARM LOADING DIAGRAMS
BETHANY RD. & COMMERCE DRIVE /
GREENWOOD OAKS DRIVE

SCALE: N.T.S.

DATE 8/17/07

DRAWN BY KJ

CHECKED BY BP