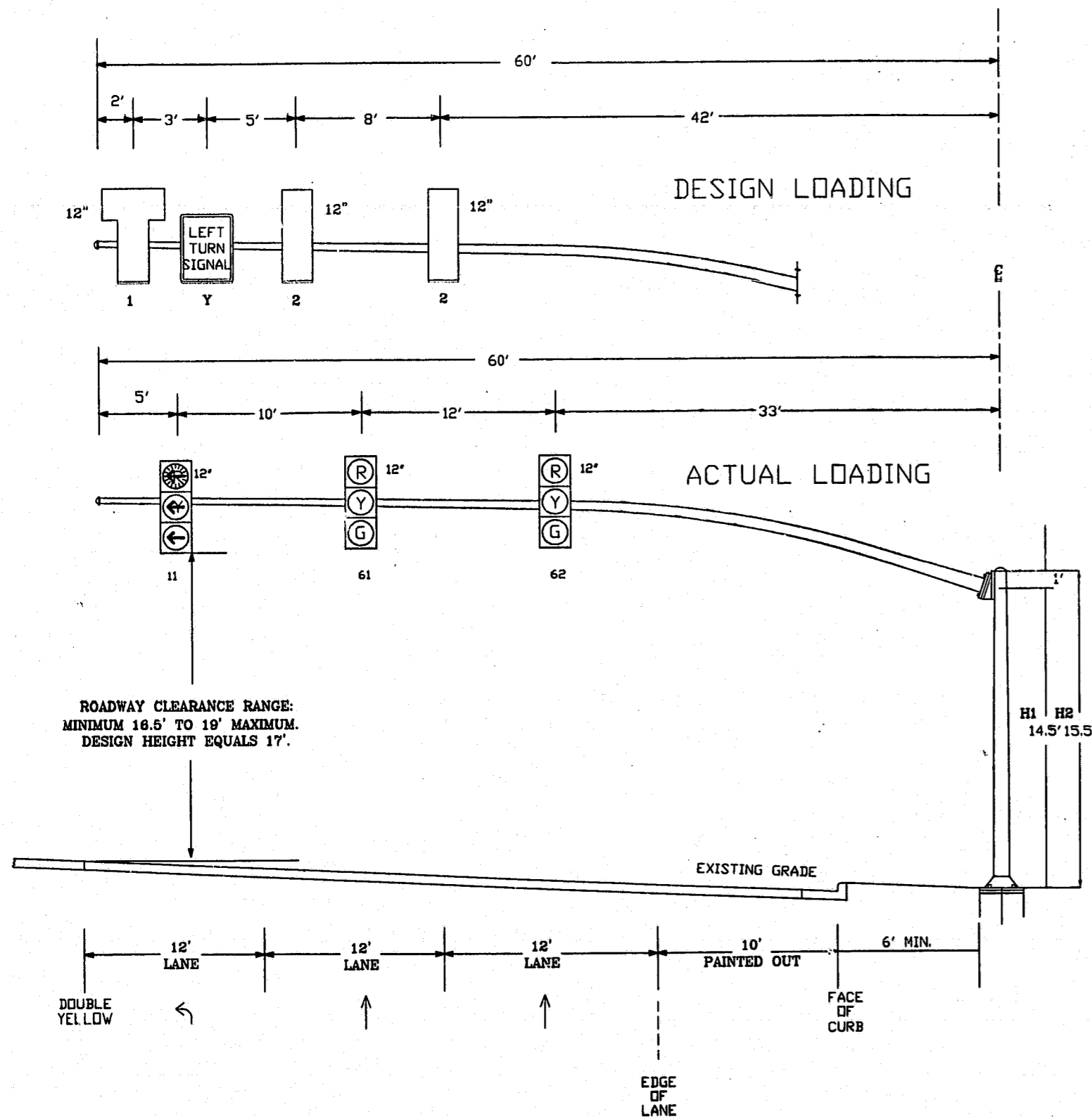


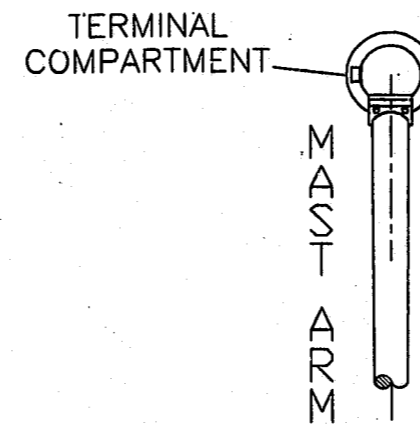
METAL POLE No. 1

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		5	5
F.A. PROJ. NO.			
PROJECT ID NO.			

ELEVATION VIEW: MAST ARM LOADING CONDITIONS



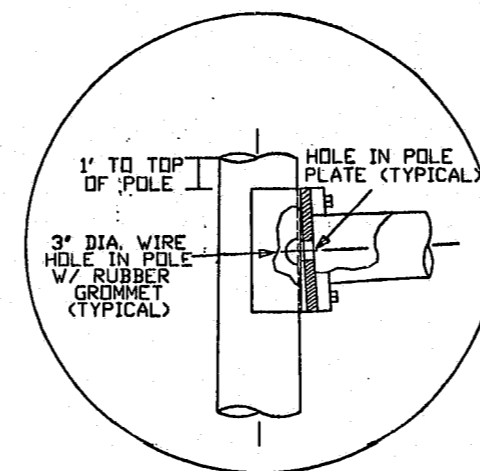
PLAN VIEW



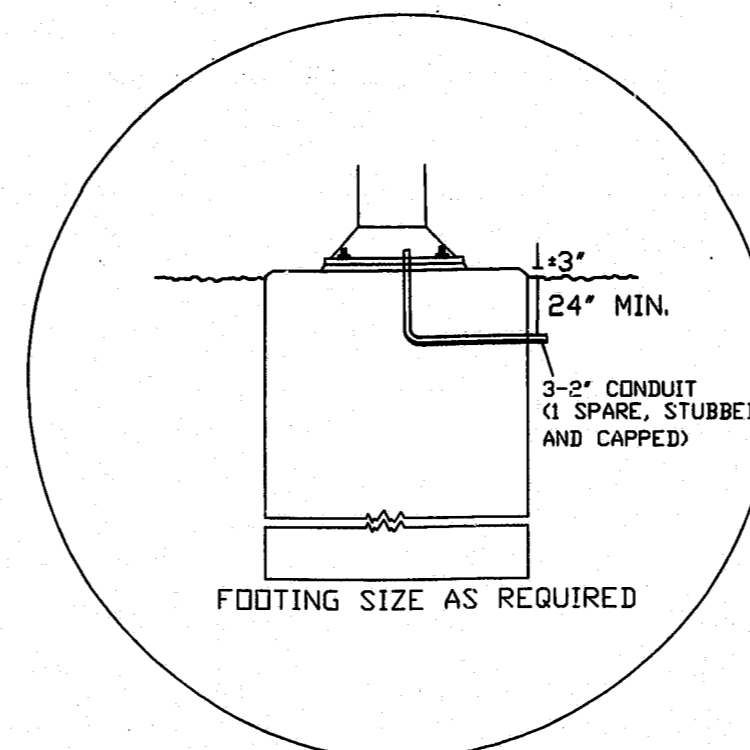
NOTES

1. THE TRAFFIC SIGNAL STRUCTURE THAT WILL BE DESIGNED USING THE LOADING INFORMATION SHOWN ON THIS DRAWING SHALL BE DESIGNED IN ACCORDANCE WITH THE 1993 NCDOT TRAFFIC SIGNAL SPECIFICATIONS AND THE 1994 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.
2. THE MAST ARM ATTACHMENT HEIGHT (H1) AND THE OVERALL POLE HEIGHT (H2) FOR METAL POLE WERE DETERMINED USING CROSS SECTIONS ALONG EACH MAST ARM, AND THE FOLLOWING DESIGN CRITERIA:
 - SIGNAL HEAD CLEARANCE FROM ROADWAY OF 17 FEET IS ASSUMED.
 - SIGNAL HEADS MOUNTED ON THE MAST ARMS ARE RIGID MOUNTED AND VERTICALLY CENTERED ON THE ARM. IF VERTICAL ADJUSTMENTS ARE REQUIRED TO MAINTAIN A UNIFORM HORIZONTAL APPEARANCE OF THE SIGNAL HEADS ALONG THE MASTARM, THE ADJUSTMENTS SHALL BE MADE WITHIN THE ROADWAY CLEARANCE RANGE SHOWN ON THE ELEVATION VIEWS.
 - 5 FOOT VERTICAL RISE IN OVERALL MAST ARM LENGTH AS MEASURED FROM THE CENTER LINES OF EACH END OF THE MAST ARM.
3. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT THE MAST ARM LENGTH AND ATTACHMENT HEIGHT SHOWN WILL PROVIDE THE REQUIRED VERTICAL CLEARANCES FROM THE ROADWAY PRIOR TO SUBMITTING FINAL SHOP DRAWINGS.
4. THE METAL POLE, MAST ARMS, AND FOUNDATIONS ARE TO BE DESIGNED USING THE "DESIGN LOADINGS" SHOWN ON THIS SHEET. FOR ACTUAL LOADING CONDITIONS THAT WILL BE APPLIED TO THESE POLES AT THE TIME OF THEIR INSTALLATION, REFER TO THE "ACTUAL LOADING" CONDITIONS.

TYPICAL ARM ATTACHMENT



TYPICAL CONDUIT PLACEMENT

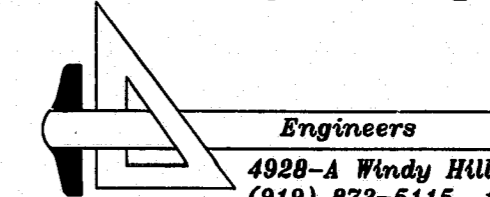


LOADING DIAGRAM FOR METAL POLE No. 1

LOADING SCHEDULE				
I. D. No.	DESCRIPTION	AREA (S.F.)	SIZE (in.)	WEIGHT (lb)
11,61,62 • 2 •	SIGNAL HEAD, 12" - 3 SECTION, RIGID MOUNTED WITH ASTRO BRAC HANGERS, WITH BACKPLATES	9.2	25.5" W X 52" L	60
• 1 •	SIGNAL HEAD, 12" - 4 SECTION ('T'-TYPE), RIGID MOUNTED WITH ASTRO BRAC HANGERS, WITH BACKPLATES	16.3	42" W X 56" L	90
• Y •	SIGN, REGULATORY, RIGID MOUNTED WITH ASTRO BRAC HANGERS .080" ALUMINUM SHEETING	5	24" W X 30" L	13

• • ADDITIONAL HEAD(S) AND SIGN(S) FOR STRUCTURAL ANALYSIS ONLY. DO NOT USE FOR SIGNAL INSTALLATION OR MAST ARM CONSTRUCTION.

Ramey Kemp & Associates



Engineers

4928-A Windy Hill Drive Raleigh, NC 27609
(919) 872-5115 fax (919) 878-5416

SR 1652 (N. HARRISON AVE)
AT
SR 3005 (RICHARD DR)/WESTON PKWY

DIVISION 5 WAKE COUNTY CARY

REVISIONS INT. DATE

SEAL



Signature: David F. Darity 7/12/99

SCALE 1" = 40' DATE: 7/12/99

PREPARED BY: CET/DJD

REVIEWED BY: RFK

RKA PROJ. NO. 9808340

S/G INV. NO. 05-1460

N.C. DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
TRAFFIC ENGINEERING BRANCH

73-SP-183
APPROVED
JPP 8/12/99