

LOAD CASE 3 - MEDIUM LOADING

PROJECT REFERENCE NO. R-2813 C SHEET NO. Sig.52
dwg.MP5

FOUNDATION SELECTION TABLE

42"/48" Diameter Drilled Pier Length (L) - Feet

CONCRETE VOLUME (cu. yds): 42" DIA.=.356xL 48" DIA.=.465xL

Denotes Wing Wall Required
SEE NOTE 37.

Denotes 48" Dia. Foundation
required for all soil types

USE TYPE-2 WING WALL. FOR DETAILS, SEE DRAWING NO. MP-11.

WIND ZONE 1	MAST ARM NUMBER	SOIL TYPES						
		Clay				Sand		
		Medium N-Value 4-8	Stiff N-Value 9-15	Very Stiff N-Value 16-30	Hard N-Value >30	Loose N-Value 4-10	Medium N-Value 11-30	Dense N-Value >30
LC3-35	14.5	10.5	9.0	9.0	14.0	12.0	11.0	
LC3-40	15.5	11.0	9.0	9.0	14.5	13.0	11.5	
LC3-45	15.5	11.0	9.0	9.0	14.5	13.0	11.5	
LC3-50	14.5	10.0	9.0	9.0	13.5	12.0	10.5	
LC3-65	18.0	12.0	9.5	9.0	16.0	14.0	12.5	
LC3-75	18.0	12.0	10.0	9.0	16.0	14.0	12.5	

WIND ZONE 2	MAST ARM NUMBER	SOIL TYPES						
		Clay				Sand		
		Medium N-Value 4-8	Stiff N-Value 9-15	Very Stiff N-Value 16-30	Hard N-Value >30	Loose N-Value 4-10	Medium N-Value 11-30	Dense N-Value >30
LC3-35	13.5	10.0	9.0	9.0	13.0	11.5	10.0	
LC3-40	13.5	10.0	9.0	9.0	13.0	11.5	10.0	
LC3-45	14.5	10.5	9.0	9.0	14.0	12.0	11.0	
LC3-50	13.5	9.5	9.0	9.0	13.0	11.0	10.0	
LC3-65	16.5	11.0	9.0	9.0	15.5	13.0	11.5	
LC3-75	16.5	11.0	9.0	9.0	15.5	13.0	11.5	

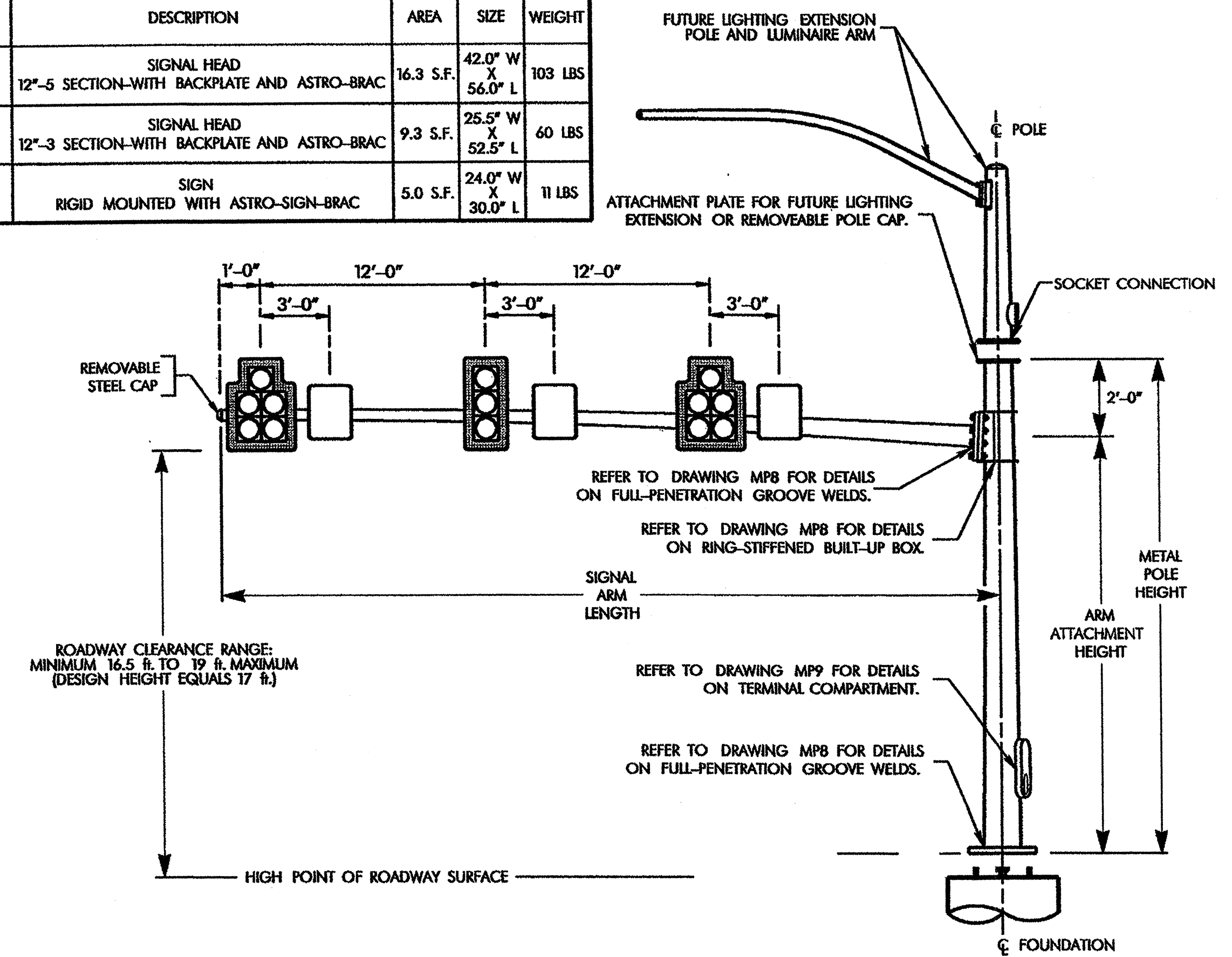
WIND ZONE 3	MAST ARM NUMBER	SOIL TYPES						
		Clay				Sand		
		Medium N-Value 4-8	Stiff N-Value 9-15	Very Stiff N-Value 16-30	Hard N-Value >30	Loose N-Value 4-10	Medium N-Value 11-30	Dense N-Value >30
LC3-35	11.5	9.0	9.0	9.0	12.0	10.5	9.5	
LC3-40	11.5	9.0	9.0	9.0	12.0	10.5	9.5	
LC3-45	13.5	10.0	9.0	9.0	13.0	11.5	10.0	
LC3-50	12.5	9.0	9.0	9.0	12.0	10.5	9.0	
LC3-65	15.0	10.5	9.0	9.0	14.0	12.5	11.0	
LC3-75	15.0	10.5	9.0	9.0	14.0	12.5	11.0	

WIND ZONE 4	MAST ARM NUMBER	SOIL TYPES						
		Clay				Sand		
		Medium N-Value 4-8	Stiff N-Value 9-15	Very Stiff N-Value 16-30	Hard N-Value >30	Loose N-Value 4-10	Medium N-Value 11-30	Dense N-Value >30
LC3-35	11.5	9.0	9.0	9.0	12.0	10.5	9.5	
LC3-40	11.5	9.0	9.0	9.0	12.0	10.5	9.5	
LC3-45	11.5	9.0	9.0	9.0	12.0	10.5	9.5	
LC3-50	10.5	9.0	9.0	9.0	11.0	9.5	9.0	
LC3-65	15.0	10.5	9.0	9.0	14.0	12.5	11.0	
LC3-75	15.0	10.5	9.0	9.0	14.0	12.5	11.0	

WIND ZONE 5	MAST ARM NUMBER	SOIL TYPES						
		Clay				Sand		
		Medium N-Value 4-8	Stiff N-Value 9-15	Very Stiff N-Value 16-30	Hard N-Value >30	Loose N-Value 4-10	Medium N-Value 11-30	Dense N-Value >30
LC3-35	13.5	10.0	9.0	9.0	13.0	11.5	10.0	
LC3-40	13.5	10.0	9.0	9.0	13.0	11.5	10.0	
LC3-45	13.5	10.0	9.0	9.0	13.0	11.5	10.0	
LC3-50	12.5	9.0	9.0	9.0	12.0	10.5	9.0	
LC3-65	16.5	11.0	9.0	9.0	15.5	13.0	11.5	
LC3-75	16.5	11.0	9.0	9.0	15.5	13.0	11.5	

MAST ARM LOADING SCHEDULE				
LOADING SYMBOL	DESCRIPTION	AREA	SIZE	WEIGHT
	SIGNAL HEAD 12"-5 SECTION-WITH BACKPLATE AND ASTRO-BRAC	16.3 S.F.	42.0" W X 56.0" L	103 LBS
	SIGNAL HEAD 12"-3 SECTION-WITH BACKPLATE AND ASTRO-BRAC	9.3 S.F.	25.5" W X 52.5" L	60 LBS
	SIGN RIGID MOUNTED WITH ASTRO-SIGN-BRAC	5.0 S.F.	24.0" W X 30.0" L	11 LBS

POLE LOADING DETAILS



SIGNAL MAST ARM DATA								MIN. POLE DATA				
MAST ARM NUMBER	SIGNAL ARM LENGTH	MINIMUM ARM BASE DIAMETER	MINIMUM ARM WALL THICKNESS	MAST ARM ATT. PLATE SIZE		ATT. PLATE TO FLANGE PLATE ATTACHMENT BOLT SIZE		MAST ARM ATT. PLATE THICKNESS	FLANGE PLATE THICKNESS	POLE BASE DIAMETER	POLE WALL THICKNESS T	
				W	H	A	B					
LC3-35	35'-0"	11"	.3125"	22"	30"	16"	24"	1.5"x 7"	2"	2"	16"	.3125"
LC3-40	40'-0"	12"	.3125"	22"	30"	16"	24"	1.5"x 7"	2"	2"	16"	.3125"
LC3-45	45'-0"	13"	.3125"	25"	30"	19"	24"	1.5"x 7"	2"	2"	19"	.3125"
LC3-50	50'-0"	15"	.3125"	25"	30"	19"	24"	1.5"x 7"	2"	2"	19"	.3125"
LC3-65	65'-0"	18"	.3125"	31"	30"	25"	24"	1.5"x 7"	2"	2"	25"	.3125"
LC3-75	75'-0"	21"	.3125"	31"	30"	25"	24"	1.5"x 7"	2"	2"	25"	.3125"

POLE BASE PLATE AND ANCHOR BOLT DATA				
SIGNAL POLE HEIGHT	MAX. BASE PLATE DIAMETER "D"	MAX. BASE PLATE BOLT CIRCLE "BC"	BASE PLATE THICKNESS	ANCHOR BOLT SIZE (8 PER POLE)
22'-0"	39"	32"	2"	2"x 66"
24'-0"	39"	32"	2"	2"x 66"
26'-0"	39"	32"	2"	2"x 66"

REFER TO DRAWING MP8 AND MP9 FOR DETAILS ON POLE AND ARM FABRICATION.

MAST ARM AND POLE IDENTIFICATION LEGEND

MAST ARMS AND METAL POLES SELECTED FOR USE FROM THESE STANDARDS SHOULD BE IDENTIFIED USING THE FOLLOWING ALPHA NUMERIC IDENTIFICATION NUMBER:

LCX-XX-XX

Load Case Number (1 THRU 5) Pole Height Mast Arm length

METAL POLES WITH MAST ARMS

Prepared in the Office of:

POLE LOADING DETAILS AND FOUNDATION SELECTION TABLES FOR LOAD CASE 3

PLAN DATE: APRIL 2009 REVIEWED BY: D.C. SARKAR

PREPARED BY: C.F. ANDREWS REVIEWED BY: R.E. MULLINAX

SCALE: NONE

REVISIONS: INIT. DATE

DATE: 6.3.03

STG. INVENTORY NO.

03-UNL-2003_09-23
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