

POLE SELECTION TABLE - SINGLE ARM - WITH & WITHOUT LUMINAIRE					
Arm Length	B1	B3	B5	B6	B7
Pole Type	Q1 & Q2 Lum	Q2 & Q22 Lum	Q3 & Q23 Lum	Q4 & Q24 Lum	Q6

POLE SELECTION TABLE - DOUBLE ARM - WITHOUT LUMINAIRE										
Arm Lengths	B1 - B1	B3 - B1	B5 - B2	B6 - B2	B4 - B4	B5 - B4	B6 - B4	B5 - B5	B6 - B5	B6 - B6
Pole Type	Q1	Q2	Q3	Q4	Q3	Q4	Q4	Q4	Q4	Q5

Arm 1 is listed first

ARM DESIGN TABLE - ALL CASES														
ARM TYPE	ARM LENGTH	MAST ARM				ARM EXTENSION				ARM CONNECTION & WELDS				
		FA(ft)	FB(In)	FC(In)	FD(In)	FE(ft)	FF(In)	FG(In)	FH(In)	HT(In)	FJ/SJ(In)	FK/SK(In)	FM/SM(In)	FQ/SQ(In)
B1	36'-0"	36	7.96	13	0.793	-	-	-	-	20	25	2.25	0.25	0.313
B2	36'-0"	36	7.96	13	0.793	-	-	-	-	30	36	3	0.25	0.313
B3	46'-0"	36.3	7.92	13	0.793	11.7	12.36	14	0.25	20	25	2.25	0.88	0.438
B4	46'-0"	36.3	7.92	13	0.793	11.7	12.36	14	0.25	30	36	3	0.88	0.438
B5	60'-0"	36	7.96	13	0.793	26	12.36	16	0.313	30	36	3	0.25	0.5
B6	70'-6"	39.4	9.49	15	0.793	33.4	14.36	19	0.313	30	36	3	0.25	0.5
B7	78'-0"	40	8.44	14	0.793	40	13.40	19	0.313	30	36	3	0.25	0.563

Arm Camber Angle = 2 degrees

POLE, CONNECTION AND SHAFT DESIGN TABLE - SINGLE & DOUBLE ARM																									
POLE TYPE	UA(ft)	UC(In)	UD(In)	UE(In)	UG(ft)	UPRIGHT BASE CONNECTION							CONNECTION PLATE DATA								DRILLED SHAFT DATA				
						No. Bolts	BA (In)	BB (In)	BC (In)	BD (In)	BE (In)	BF (In)	HT (In)	FJ/SJ (In)	FL/SL (In)	FN/SN (In)	FO/SO (In)	FP/SP (In)	FR/SR (In)	FS/SS (In)	FT/ST (In)	DA (ft)	DB (ft)	RA	RB
Q1	24	12.64	16	0.313	-	6	30	1.5	1.75	0.313	0.25	36	20	25	0.75	0.438	15.5	1	2	8	0.438	13	3.5	9	14
Q2	24	14.64	18	0.313	-	6	32	1.5	1.75	0.313	0.25	36	20	25	0.75	0.438	15.5	1	2	8	0.438	13	4	9	19
Q3	24	18.64	22	0.313	-	6	38	1.5	2	0.313	0.25	42	30	36	0.75	0.438	21.5	1.25	2.25	12.5	0.438	13	4.5	9	23
Q4	24	21.64	25	0.313	-	6	41	1.5	2	0.313	0.25	42	30	36	0.75	0.438	21.5	1.25	2.25	12.5	0.438	18	4.5	9	23
Q5	24	23.64	27	0.313	-	6	43	1.5	2	0.313	0.25	42	30	36	0.75	0.438	21.5	1.25	2.25	12.5	0.438	19	4.5	9	23
Q6	24	21.64	25	0.313	-	6	41	1.5	2	0.313	0.25	42	30	36	0.75	0.438	16	1.25	2.25	12.5	0.438	16	4.5	9	23
Q21 Lum	39	10.54	16	0.313	37.5	6	30	1.75	1.75	0.313	0.25	36	20	25	0.75	0.438	11.5	1	2	8	0.438	12	3.5	9	14
Q22 Lum	39	12.54	18	0.313	37.5	6	32	1.75	1.75	0.313	0.25	36	20	25	0.75	0.438	12.5	1	2	8	0.438	12	4	9	19
Q23 Lum	39	16.54	22	0.313	37.5	6	38	1.75	2	0.313	0.25	42	30	36	0.75	0.438	14.5	1.25	2.25	12.5	0.438	13	4.5	9	23
Q24 Lum	39	19.54	25	0.313	37.5	6	41	1.75	2	0.313	0.25	42	30	36	0.75	0.438	16	1.25	2.25	12.5	0.438	16	4.5	9	23

LUMINAIRE AND LUMINAIRE CONNECTION											
LA(ft)	LB(ft)	LC(In)	LD(In)	LE	LF(ft)	LG(In)	LH(In)	LJ(In)	LK(In)	LL(deg)	UG(ft)
40.0	10.0	3.0	0.25	0.50	8.0	0.5	0.75	0.25	0.88	0	37.5

NOTES:

1. Work this Index with Index No. 17745.
2. Standard Mast Arm "B" Assemblies are designed to Loading Trees as Indicated In Index No. 17741 for Design Wind Speed = 110 mph with Signal Backplates.

THE SEALED RECORD OF THIS STANDARD IS ON FILE IN THE ROADWAY DESIGN OFFICE.

INTERIM STANDARD IN ENGLISH UNITS APPLICABLE TO ROADWAY AND TRAFFIC DESIGN STANDARD BOOKLETS PUBLISHED IN EITHER ENGLISH OR METRIC UNITS.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

COMPONENT DATA FOR STANDARD MAST ARM "B" ASSEMBLIES

INTERIM STANDARD

APPROVED BY
Robert E. Nichols
State Structures Design Engineer

THIS INDEX IS A SUPPLEMENT TO THE DESIGN STANDARDS, BOOKLET DATED JANUARY 2002.

REVISION NO.

SHEET NO.
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INDEX NO.
017743

Date: 7-17-02

POLE SELECTION TABLE - SINGLE ARM - WITH & WITHOUT LUMINAIRE					
Arm Length	C1	C3	C5	C6	C7
Pole Type	R1 & R2 Lum	R2 & R22 Lum	R3 & R23 Lum	R4 & R24 Lum	R6

POLE SELECTION TABLE - DOUBLE ARM - WITHOUT LUMINAIRE										
Arm Lengths	C1 - C1	C3 - C1	C5 - C2	C6 - C2	C4 - C4	C5 - C4	C6 - C4	C5 - C5	C6 - C5	C6 - C6
Pole Type	R1	R2	R3	R4	R3	R4	R4	R4	R4	R5

Arm 1 is listed first

ARM DESIGN TABLE - ALL CASES														
ARM TYPE	ARM LENGTH	MAST ARM				ARM EXTENSION				ARM CONNECTION & WELDS				
		FA(ft)	FB(In)	FC(In)	FD(In)	FE(ft)	FF(In)	FG(In)	FH(In)	HT(In)	FJ/SJ(In)	FK/SK(In)	FM/SM(In)	FQ/SQ(In)
C1	36'-0"	36	5.96	11	0.1793	-	-	-	-	20	20	2	0.125	0.25
C2	36'-0"	36	5.96	11	0.1793	-	-	-	-	29	29	2.25	0.125	0.25
C3	46'-0"	36.3	5.92	11	0.1793	11.7	10.36	12	0.25	20	20	2	0.188	0.375
C4	46'-0"	36.3	5.92	11	0.1793	11.7	10.36	12	0.25	29	29	2.25	0.188	0.375
C5	60'-0"	36	5.96	11	0.1793	26	10.36	14	0.313	29	29	2.25	0.25	0.438
C6	70'-6"	39.4	5.49	11	0.1793	33.1	10.36	15	0.313	29	29	2.25	0.25	0.5
C7	78'-0"	40	6.44	12	0.1793	40	11.40	17	0.313	30	30	2.25	0.25	0.5

Arm Camber Angle = 2 degrees

*See Note 3

POLE, CONNECTION AND SHAFT DESIGN TABLE - SINGLE & DOUBLE ARM																										
POLE TYPE	UA(ft)	UC(In)	UD(In)	UE(In)	UG(ft)	UPRIGHT BASE CONNECTION							CONNECTION PLATE DATA								DRILLED SHAFT DATA					
						No. Bolts	BA (In)	BB (In)	BC (In)	BD (In)	BE (In)	BF (In)	HT (In)	FJ/SJ (In)	FL/SL (In)	FN/SN (In)	FO/SO (In)	FP/SP (In)	FR/SR (In)	FS/SS (In)	FT/ST (In)	DA (ft)	*DA(D6) (ft)	DB (ft)	RA	RB
R1	24	9.64	13	0.313	–	6	25	1.5	1.5	0.313	0.25	36	20	20	0.5	0.313	13	0.75	1.75	8.5	0.313	12	10	3.5	9	14
R2	24	11.64	15	0.313	–	6	27	1.5	1.5	0.313	0.25	36	20	20	0.5	0.313	13	0.75	1.75	8.5	0.313	15	12	3.5	9	14
R3	24	14.64	18	0.313	–	6	32	1.5	1.75	0.313	0.25	36	29	29	0.5	0.313	17.5	1	1.75	12.5	0.313	15	12	4	9	19
R4	24	17.64	21	0.313	–	6	35	1.5	1.75	0.313	0.25	36	29	29	0.5	0.313	17.5	1	1.75	12.5	0.313	20	16	4	9	19
R5	24	18.64	22	0.313	–	6	36	1.5	1.75	0.313	0.25	36	29	29	0.5	0.313	17.5	1	1.75	12.5	0.313	21	17	4	9	19
R6	24	17.64	21	0.313	–	6	35	1.5	1.75	0.313	0.25	36	30	30	0.5	0.375	14	1.25	1.75	12.5	0.375	18	15	4	9	19
R21 Lum	39	7.54	13	0.313	37.5	6	25	1.75	1.5	0.313	0.25	36	20	20	0.5	0.313	10	0.75	1.75	8.5	0.313	11	11	3.5	9	14
R22 Lum	39	9.54	15	0.313	37.5	6	27	1.75	1.5	0.313	0.25	36	20	20	0.5	0.313	11	0.75	1.75	8.5	0.313	14	12	3.5	9	14
R23 Lum	39	12.54	18	0.313	37.5	6	32	1.75	1.75	0.313	0.25	36	29	29	0.5	0.313	12.5	1	1.75	12.5	0.313	15	12	4	9	19
R24 Lum	39	15.54	21	0.313	37.5	6	35	1.75	1.75	0.313	0.25	36	29	29	0.5	0.313	14	1	1.75	12.5	0.313	17	14	4	9	19

LUMINAIRE AND LUMINAIRE CONNECTION											
LA(ft)	LB(ft)	LC(In)	LD(In)	LE	LF(ft)	LG(In)	LH(In)	LJ(In)	LK(In)	LL(deg)	UG(ft)
40.0	10.0	3.0	0.125	0.50	8.0	0.5	0.75	0.25	0.188	0	37.5

NOTES:

1. Work this Index with Index No. 17745.
2. Standard Mast Arm "C" Assemblies are designed to Loading Trees as indicated in Index No. 17741 for either:
Design Wind Speed = 90 mph with Signal Backplates or Design Wind Speed = 110 mph without Signal Backplates.
3. DA(D6) Indicates shaft depth for District 6.

THE SEALED RECORD OF THIS STANDARD IS ON FILE IN THE ROADWAY DESIGN OFFICE.

INTERIM STANDARD IN ENGLISH UNITS APPLICABLE TO ROADWAY AND TRAFFIC DESIGN STANDARD BOOKLETS PUBLISHED IN EITHER ENGLISH OR METRIC UNITS.

Date: 7-17-02

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

COMPONENT DATA FOR STANDARD
MAST ARM "C" ASSEMBLIES

INTERIM STANDARD

APPROVED BY
Robert E. Nichols
State Structures Design Engineer

THIS INDEX IS A SUPPLEMENT TO THE DESIGN STANDARDS, BOOKLET DATED JANUARY 2002.

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