

Origination Form
Proposed Revisions to a Standard Plans Index

Originator:	Turley, Joshua	Index Number:	649-030
Date:	4/18/2025	Sheet Number(s):	Sheet 1
E-mail:	Joshua.Turley@dot.state.fl.us	Index Title:	STANDARD MAST ARM ASSEMBLIES

Summary of the changes:

Sheet 1: Added a note for 50 arms saying they may be fabricated in one piece.

Commentary/Background:

Some fabricators have to ability and desire to fabricate these particular lengths as one piece and it is more economical to do so. This allows them to do so.

Other Affected Documents/Offices	Person Contacted	Affected (Yes/No)
Other Standard Plans		No
FDOT Design Manual		No
Standard Specifications		No
Basis of Estimates Manual		No
Approved Product List		No
Construction Office		No
Maintenance Office		No

Implementation

["FY-Standard Plans (Next Release)"]

ARM AND BASE PLATE										
Arm ID Axx-ArmLength S-SingleArm D-DoubleArm H-HeavyDuty	Total Arm Length (ft)	Arm			Arm Extension			Base Plate		
		FA/SA (ft)	FC/SC (in)	FD/SD (in)	FE/SE (ft)	FG/SG (in)	FH/SH (in)	HT (in)	FJ/SJ (in)	FK/SK (in)
A30/S	30	30	11	0.25	--	--	--	22	25	3
A30/S/H			12							
A30/D			11							
A30/D/H			12							
A40/S	40	40	13	0.25	--	--	--	22	27	3
A40/S/H			14							
A40/D			13							
A40/D/H			14							
A50/S	50 (See Note 2)	32.5	12	0.25	20.5	14	0.313	22	29	3
A50/S/H			13							
A50/D			12							
A50/D/H			13							
A60/S	60	35.5	12	0.25	27.5	15	0.375	30	36	3
A60/S/H			13							
A60/D			12							
A60/D/H			13							
A70/S	70	38	13	0.25	35	17	0.375	30	36	3
A70/S/H			14							
A70/D			13							
A70/D/H			14							
A78/S	78	39	13	0.25	42	18	0.375	30	36	3
A78/S/H			15							
A78/D			13							
A78/D/H			15							

POLE, BASE PLATE AND ARM CONNECTION																				
Pole ID Px-PoleNo S-SingleArm D-DoubleArm L-Luminaire	Upright				Base Plate				Arm-Upright Connection											
	UA (ft)	UD (in)	UE (in)	UG (ft)	No. Bolts	BA (in)	BB (in)	BC (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)		
P1/S	25	16	0.375	37.5	6	32	2.5	2	40	22	25	0.75	0.438	14	1.25	2	8.5	0.438		
P1/S/L	39																			
P1/D	25																			
P1/D/L	39																			
P2/S	25	18	0.375	37.5	6	34	2.5	2	40	22	27	0.75	0.438	15	1.25	2	8.5	0.438		
P2/S/L	39																			
P2/D	25																			
P2/D/L	39																			
P3/S	25	20	0.375	37.5	6	36	2.5	2	40	22	29	0.75	0.438	16	1.25	2	8.5	0.438		
P3/S/L	39																			
P3/D	25																			
P3/D/L	39																			
P4/S	25	22	0.375	37.5	8	38	2.5	2	40	30	36	0.75	0.438	17	1.25	2.5	12.5	0.438		
P4/S/L	39																			
P4/D	25																			
P4/D/L	39																			
P5/S	25	24	0.375	37.5	8	40	2.5	2	40	30	36	0.75	0.5	18	1.25	2.5	12.5	0.5		
P5/S/L	39																			
P5/D	25																			
P5/D/L	39																			
P6/S	25	24	0.5	37.5	8	40	2.5	2	40	30	36	0.75	0.625	18	1.5	2.5	12	0.625		
P6/S/L	39																			
P6/D	25																			
P6/D/L	39																			
P7/S	25	26	0.5	37.5	8	42	2.5	2	40	30	36	0.75	0.625	19	1.5	2.5	12	0.625		
P7/S/L	39																			
P7/D	25																			
P7/D/L	39																			

ADDED NOTE:

NOTE:
1. Work this Index with Index 649-031.

2. 50 foot long arms may be fabricated in one piece, eliminating the lap splice, provided the arm base diameter = 15" and the wall thickness for the entire length of the arm = 0.313".

DRILLED SHAFT								
Drilled Shaft ID	DA (ft)	DB (ft)	RA	RB	RC	RD (in)	RE	RF (in)
DS/12/4.0	12	4.0	11	14	8	12	--	--
DS/12/4.5	12	4.5	11	16	8	12	--	--
DS/14/4.5	14	4.5	11	16	10	8	--	--
DS/14/5.0	14	5.0	11	18	10	8	--	--
DS/16/4.5	16	4.5	11	16	10	8	--	--
DS/16/5.0	16	5.0	11	18	10	8	--	--
DS/18/5.0	18	5.0	11	18	10	8	--	--
DS/20/5.0	20	5.0	11	18	10	6	10	9
DS/25/5.0	25	5.0	11	18	10	6	10	9

LUMINAIRE AND 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	10	3	0.125	0.5	8	0.5	0.75	0.25	0.25	0	37.5	

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ARM AND BASE PLATE										
Arm ID Axx-ArmLength S-SingleArm D-DoubleArm H-HeavyDuty	Total Arm Length (ft)	Arm			Arm Extension			Base Plate		
		FA/SA (ft)	FC/SC (in)	FD/SD (in)	FE/SE (ft)	FG/SG (in)	FH/SH (in)	HT (in)	FJ/SJ (in)	FK/SK (in)
A30/S	30	30	11	0.25	--	--	--	22	25	3
A30/S/H			12							
A30/D			11							
A30/D/H			12							
A40/S	40	40	13	0.25	--	--	--	22	27	3
A40/S/H			14							
A40/D			13							
A40/D/H			14							
A50/S	50 (See Note 2)	32.5	12	0.25	20.5	14	0.313	22	29	3
A50/S/H			13							
A50/D			12							
A50/D/H			13							
A60/S	60	35.5	12	0.25	27.5	15	0.375	30	36	3
A60/S/H			13							
A60/D			12							
A60/D/H			13							
A70/S	70	38	13	0.25	35	17	0.375	30	36	3
A70/S/H			14							
A70/D			13							
A70/D/H			14							
A78/S	78	39	13	0.25	42	18	0.375	30	36	3
A78/S/H			15							
A78/D			13							
A78/D/H			15							

POLE, BASE PLATE AND ARM CONNECTION																				
Pole ID Px-PoleNo S-SingleArm D-DoubleArm L-Luminaire	Upright				Base Plate				Arm-Upright Connection											
	UA (ft)	UD (in)	UE (in)	UG (ft)	No. Bolts	BA (in)	BB (in)	BC (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)		
P1/S	25	16	0.375	37.5	6	32	2.5	2	40	22	25	0.75	0.438	14	1.25	2	8.5	0.438		
P1/S/L	39									30	36			23		2.75	12.5			
P1/D	25									30	36			23		2.75	12.5			
P1/D/L	39																			
P2/S	25	18	0.375	37.5	6	34	2.5	2	40	22	27	0.75	0.438	15	1.25	2	8.5	0.438		
P2/S/L	39									30	36			23		2.75	12.5			
P2/D	25									30	36			23		2.75	12.5			
P2/D/L	39																			
P3/S	25	20	0.375	37.5	6	36	2.5	2	40	22	29	0.75	0.438	16	1.25	2	8.5	0.438		
P3/S/L	39									30	36			23		2.75	12.5			
P3/D	25									30	36			23		2.75	12.5			
P3/D/L	39																			
P4/S	25	22	0.375	37.5	8	38	2.5	2	40	30	36	0.75	0.438	17	1.25	2.5	12.5	0.438		
P4/S/L	39									30	36			23		2.75	12.5			
P4/D	25																		30	36
P4/D/L	39																			
P5/S	25	24	0.375	37.5	8	40	2.5	2	40	30	36	0.75	0.5	18	1.25	2.5	12.5	0.5		
P5/S/L	39									30	36			23		2.75	12.5			
P5/D	25																		30	36
P5/D/L	39																			
P6/S	25	24	0.5	37.5	8	40	2.5	2	40	30	36	0.75	0.625	18	1.5	2.5	12	0.625		
P6/S/L	39									30	36			23		2.75	12			
P6/D	25																		30	36
P6/D/L	39																			
P7/S	25	26	0.5	37.5	8	42	2.5	2	40	30	36	0.75	0.625	19	1.5	2.5	12	0.625		
P7/S/L	39									30	36			23		2.75	12			
P7/D	25																		30	36
P7/D/L	39																			

NOTE:

1. Work this Index with Index 649-031.
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DS/12/4.0	12	4.0	11	14	8	12	--	--
DS/12/4.5	12	4.5	11	16	8	12	--	--
DS/14/4.5	14	4.5	11	16	10	8	--	--
DS/14/5.0	14	5.0	11	18	10	8	--	--
DS/16/4.5	16	4.5	11	16	10	8	--	--
DS/16/5.0	16	5.0	11	18	10	8	--	--
DS/18/5.0	18	5.0	11	18	10	8	--	--
DS/20/5.0	20	5.0	11	18	10	6	10	9
DS/25/5.0	25	5.0	11	18	10	6	10	9

LUMINAIRE AND 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	10	3	0.125	0.5	8	0.5	0.75	0.25	0.25	0	37.5	

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