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					30	36	
A30/D/H			12							
A40/S	40	40	13	0.25	--	--	--	22	27	3
A40/S/H			14							
A40/D			13					30	36	
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			15				
A50/D			12			14		30	36	
A50/D/H			13			15				
A60/S	60	35.5	12	0.25	27.5	15	0.375	30	36	3
A60/S/H			13			16				
A60/D			12			15				
A60/D/H			13			16				
A70/S	70	38	13	0.25	35	17	0.375	30	36	3
A70/S/H			14			18				
A70/D			13			17				
A70/D/H			14			18				
A78/S	78	39	13	0.25	42	18	0.375	30	36	3
A78/S/H			15			20				
A78/D			13			18				
A78/D/H			15			20				

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									30	36			23		2.75	12.5	
P1/D/L	39			37.5														
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									30	36			23		2.75	12.5	
P2/D/L	39			37.5														
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									30	36			23		2.75	12.5	
P3/D/L	39			37.5														
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													23				
P4/D/L	39			37.5														
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													23				
P5/D/L	39			37.5														
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													23				
P6/D/L	39			37.5														
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													23				
P7/D/L	39			37.5														

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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2026-27

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY ~~2025-26~~ STANDARD PLANS	STANDARD MAST ARM ASSEMBLIES	INDEX	SHEET
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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					30	36	
A30/D/H			12							
A40/S	40	40	13	0.25	--	--	--	22	27	3
A40/S/H			14							
A40/D			13					30	36	
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			15				
A50/D			12			14		30	36	
A50/D/H			13			15				
A60/S	60	35.5	12	0.25	27.5	15	0.375	30	36	3
A60/S/H			13			16				
A60/D			12			15				
A60/D/H			13			16				
A70/S	70	38	13	0.25	35	17	0.375	30	36	3
A70/S/H			14			18				
A70/D			13			17				
A70/D/H			14			18				
A78/S	78	39	13	0.25	42	18	0.375	30	36	3
A78/S/H			15			20				
A78/D			13			18				
A78/D/H			15			20				

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		6	32	2.5	2	40	22	25	0.75	0.438	14	1.25	2	8.5	0.438
P1/S/L	39			37.5														
P1/D	25									30	36			23		2.75	12.5	
P1/D/L	39			37.5														
P2/S	25	18	0.375		6	34	2.5	2	40	22	27	0.75	0.438	15	1.25	2	8.5	0.438
P2/S/L	39			37.5														
P2/D	25									30	36			23		2.75	12.5	
P2/D/L	39			37.5														
P3/S	25	20	0.375		6	36	2.5	2	40	22	29	0.75	0.438	16	1.25	2	8.5	0.438
P3/S/L	39			37.5														
P3/D	25									30	36			23		2.75	12.5	
P3/D/L	39			37.5														
P4/S	25	22	0.375		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			37.5														
P4/D	25													23				
P4/D/L	39			37.5														
P5/S	25	24	0.375		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			37.5														
P5/D	25													23				
P5/D/L	39			37.5														
P6/S	25	24	0.5		8	40	2.5	2	40	30	36	0.75	0.625	18	1.5	2.5	12	0.625
P6/S/L	39			37.5														
P6/D	25													23				
P6/D/L	39			37.5														
P7/S	25	26	0.5		8	42	2.5	2	40	30	36	0.75	0.625	19	1.5	2.5	12	0.625
P7/S/L	39			37.5														
P7/D	25													23				
P7/D/L	39			37.5														

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

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".

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LAST REVISION	REVISION	DESCRIPTION:		INDEX	SHEET
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STANDARD MAST ARM ASSEMBLIES