CAD file name: G:\Users\Jaycen\Documents\Projects\Poinciana Drain\21016 Improving 11/12/2024
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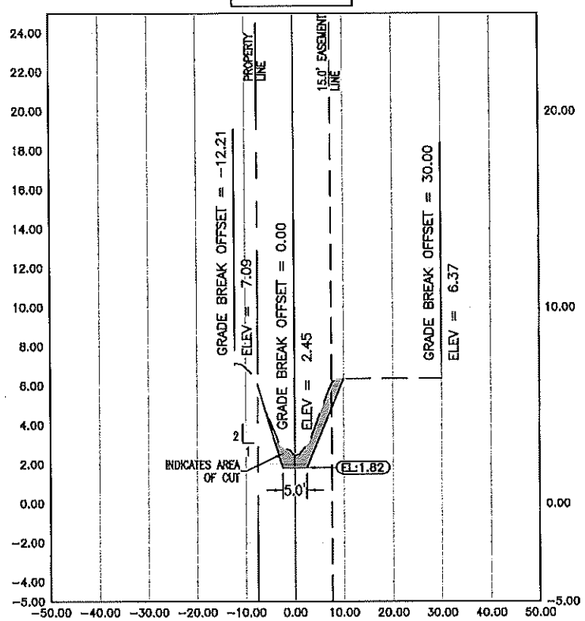

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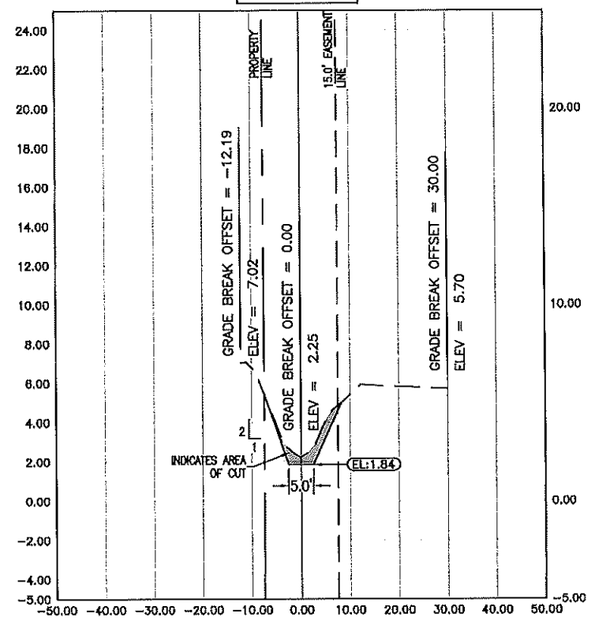

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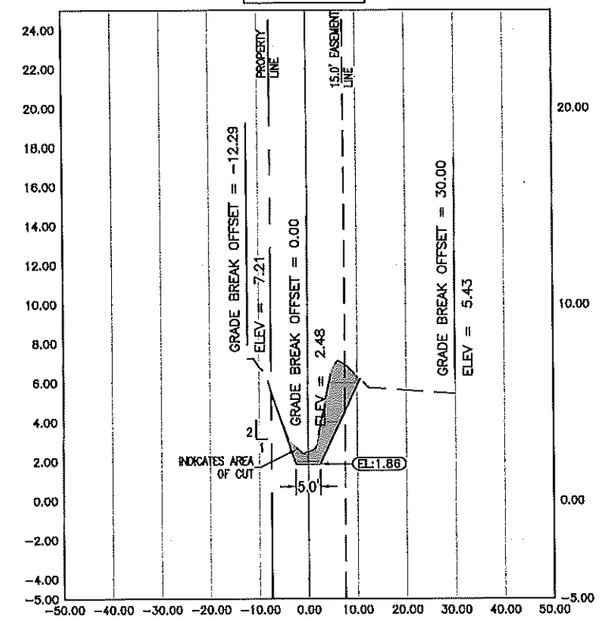

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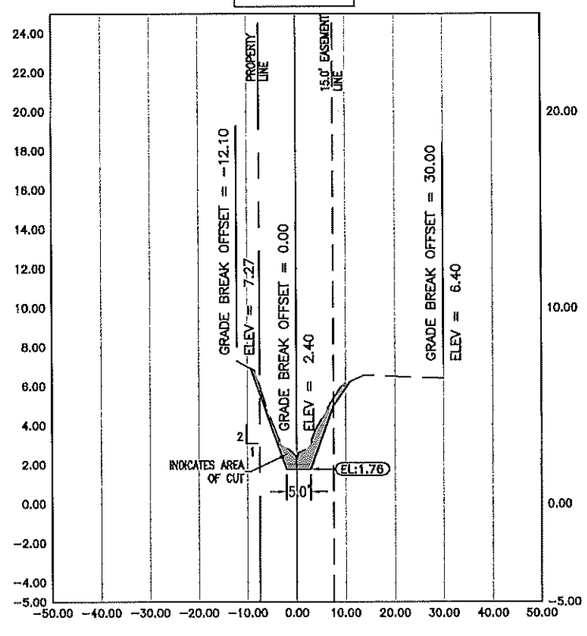

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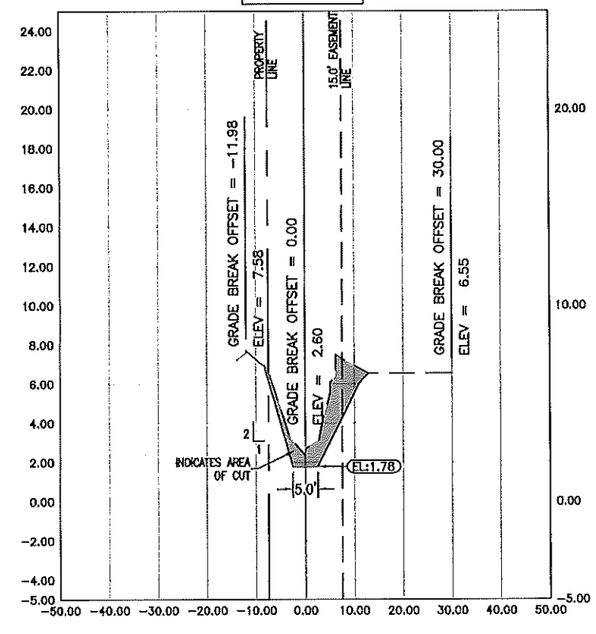

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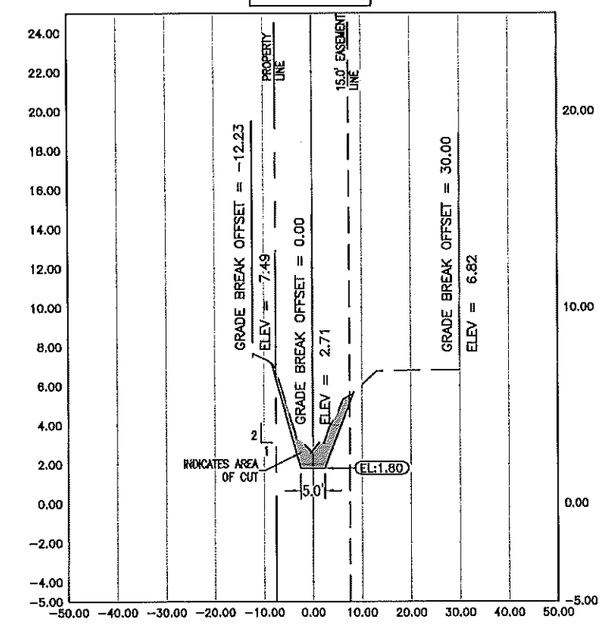

NOTE:
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Poinciana Village Stormwater Improvements Ditch Cross Sections West

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FL LICENSE NO. 41671
11/12/2024

KLP	KLP	DWS
DESIGN	DRAWN	CHKD

SCALE 1" = 30'

JOB No.	2021-016
DRAWING No.	PLAN SH.
DATE	11/2022
SHEET	101

CAD file name: Q:\Live\Naples\Documents\Projects\Drainage Plans\2016 tpm-dwg 11/12/2024
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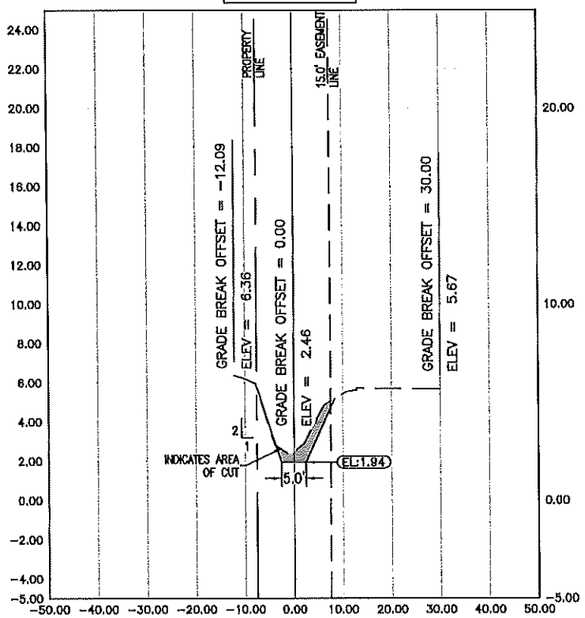

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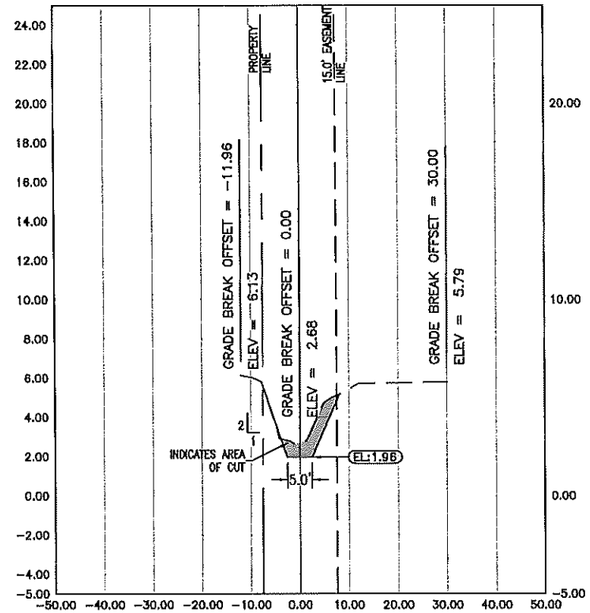

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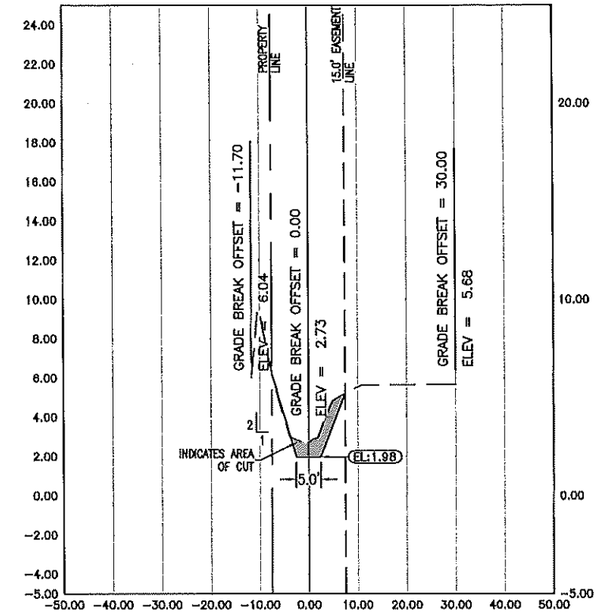

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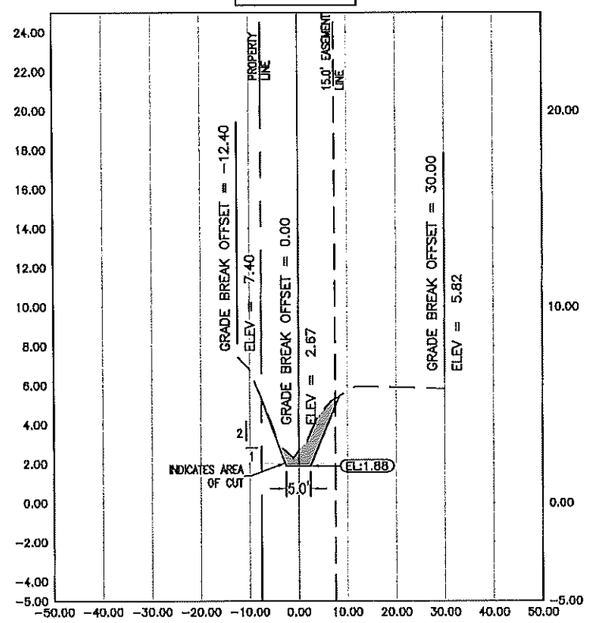

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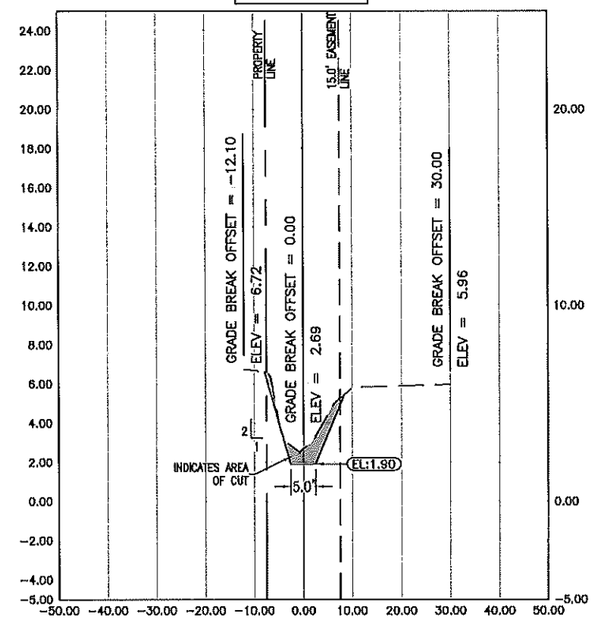

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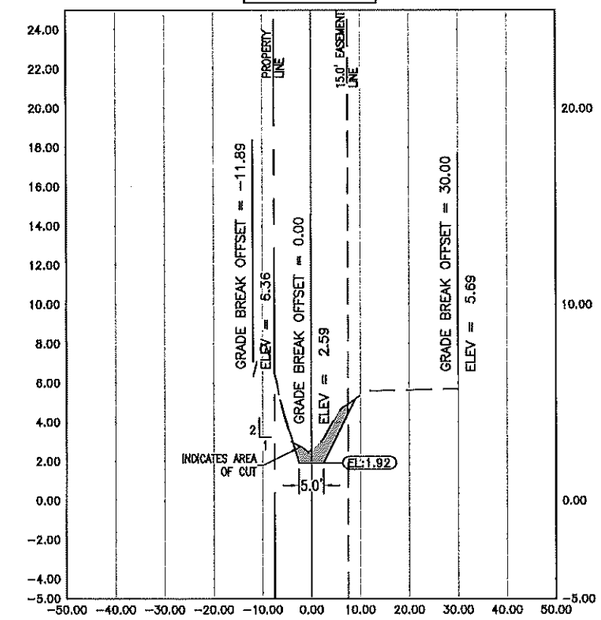

NOTE:
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Poinciana Village Stormwater Improvements Ditch Cross Sections West

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DESIGN	DRAWN	CHKD

SCALE 1" = 30'

JOB No.	2021-016
DRAWING No.	PLAN SH.
DATE	11/2022
SHEET	102

CAD file name: Q:\Users\Vangen\Documents\Projects\Valentine Ditch\31018 Item.dwg 11/12/2024
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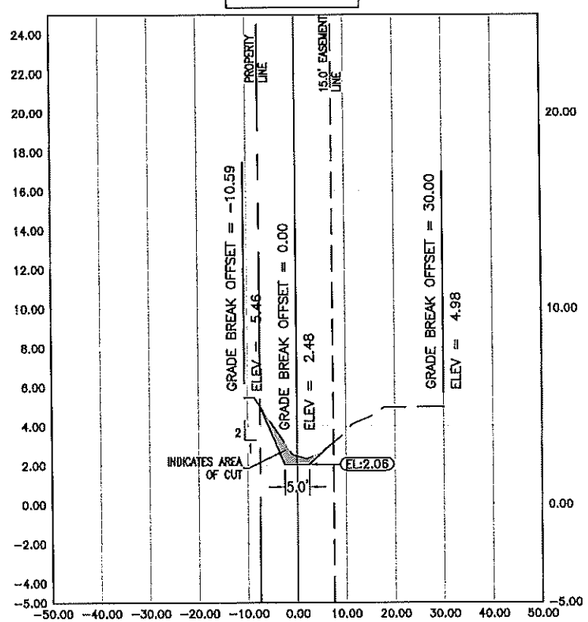

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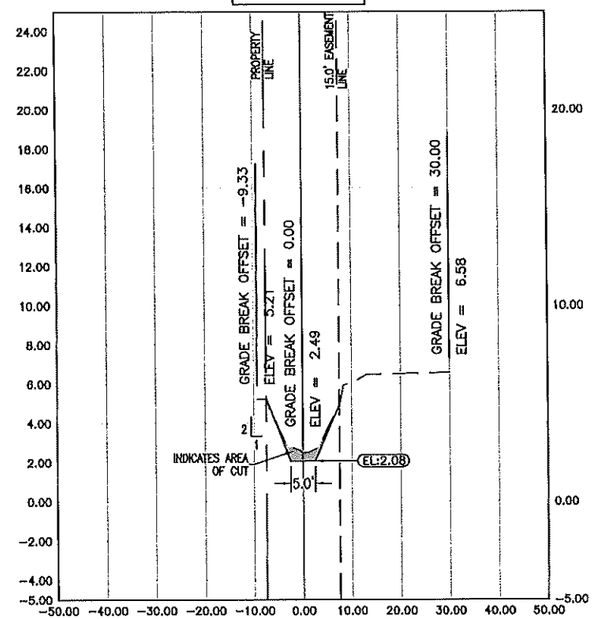

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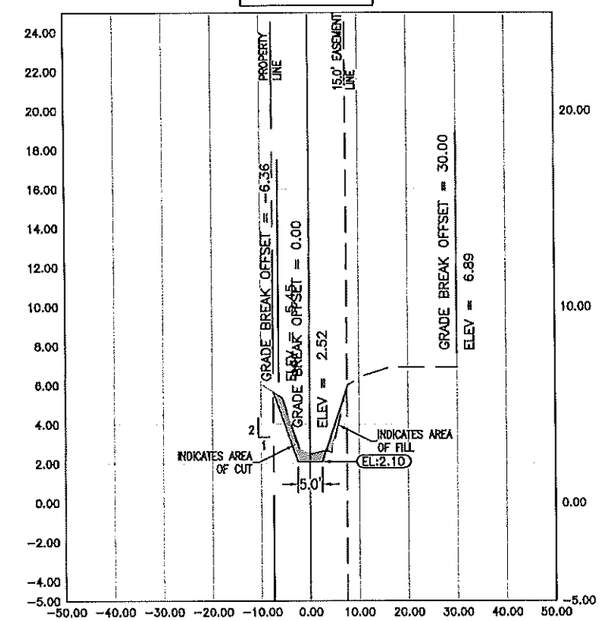

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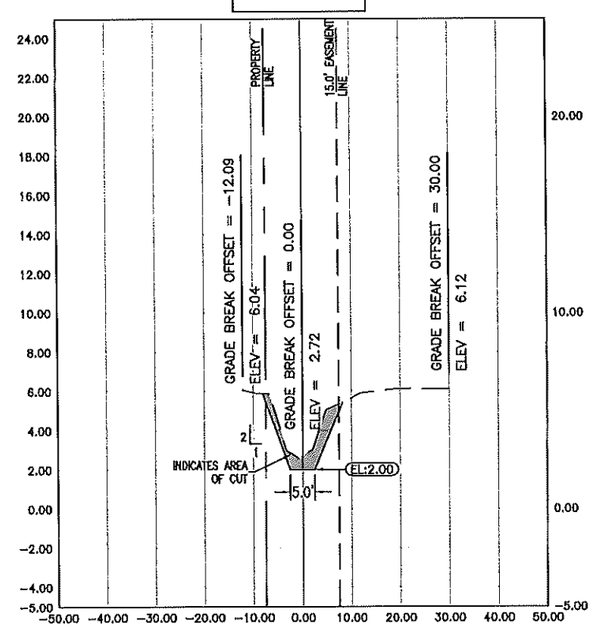

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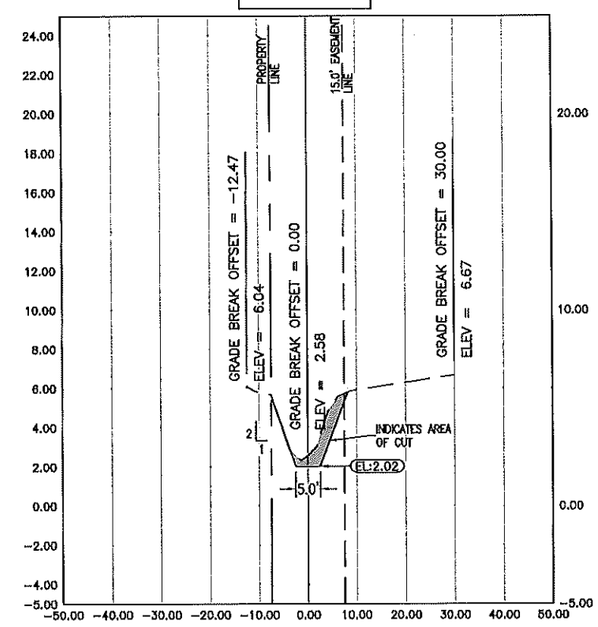

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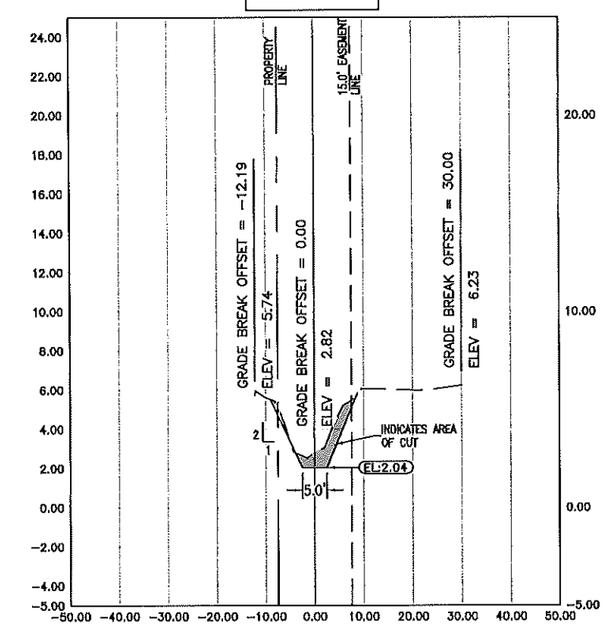

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Poinciana Village Stormwater Improvements Ditch Cross Sections West/North

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FL. LICENSE NO. 41671
11/12/2024

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DESIGN	DRAWN	CHKD

SCALE 1" = 30'

JOB No. 2021-016
DRAWING No. PLAN SH.
DATE 11/2022
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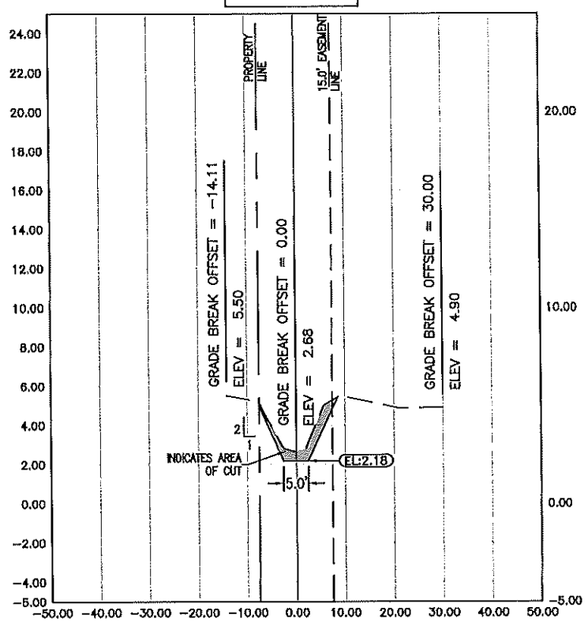

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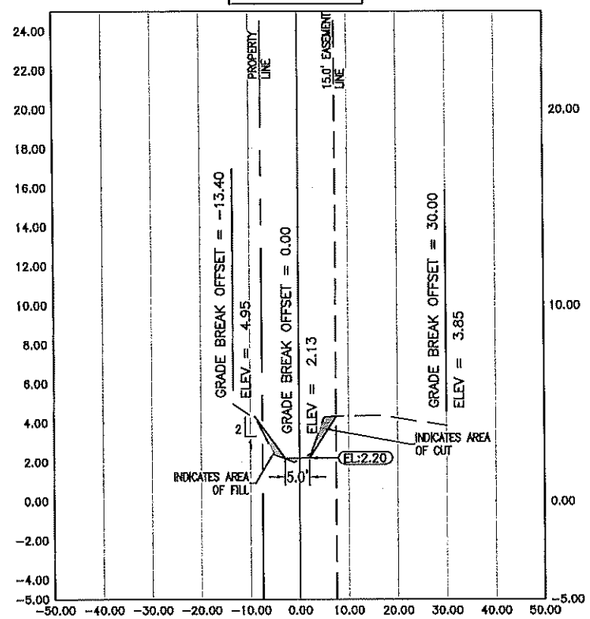

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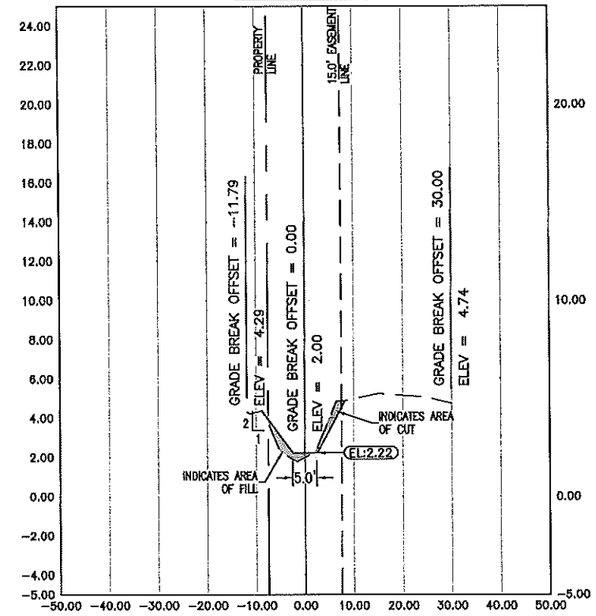

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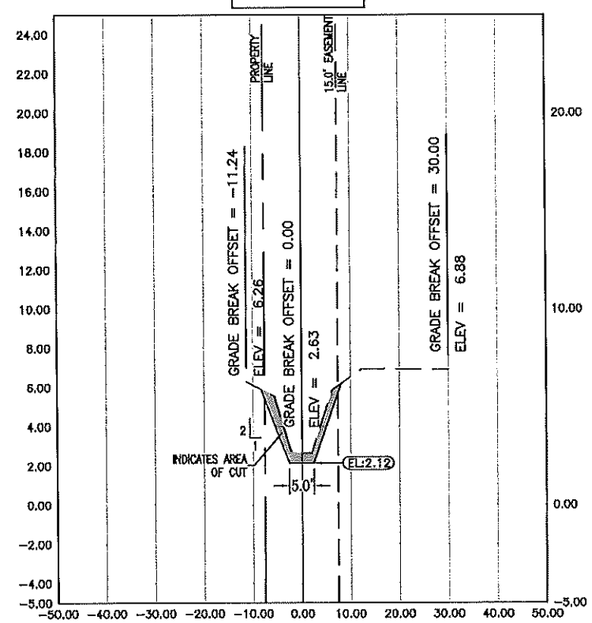

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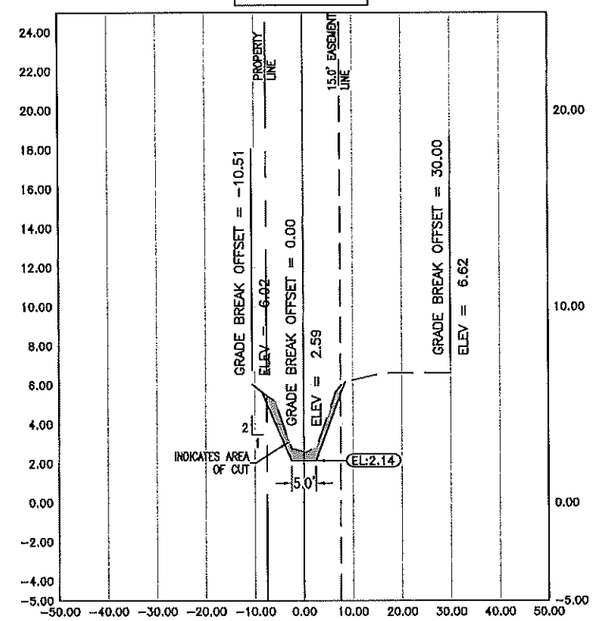

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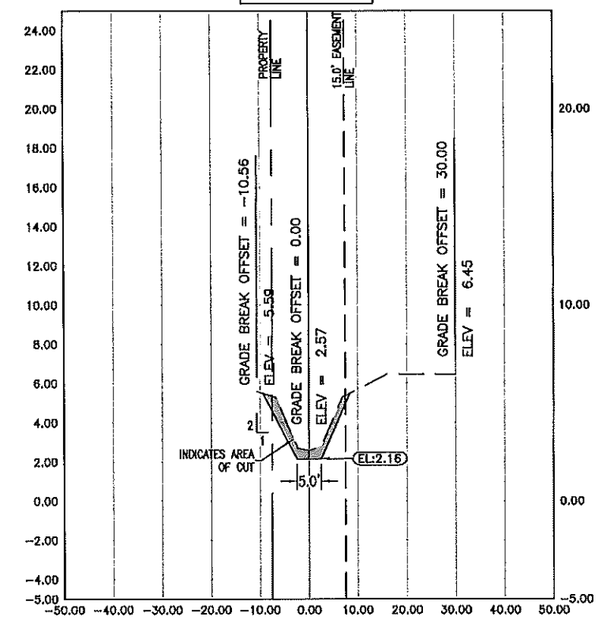

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Poinciana Village Stormwater Improvements Ditch Cross Sections North

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FL. LICENSE NO. 41671
11/12/2024

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DESIGN	DRAWN	CHKD

SCALE 1" = 30'

JOB No. 2021-016
DRAWING No. PLAN SH.
DATE 11/2022
SHEET 104

CAD file name: C:\Users\kevin\Documents\Projects\Poinciana Drain\20114 topo.dwg 11/12/2024
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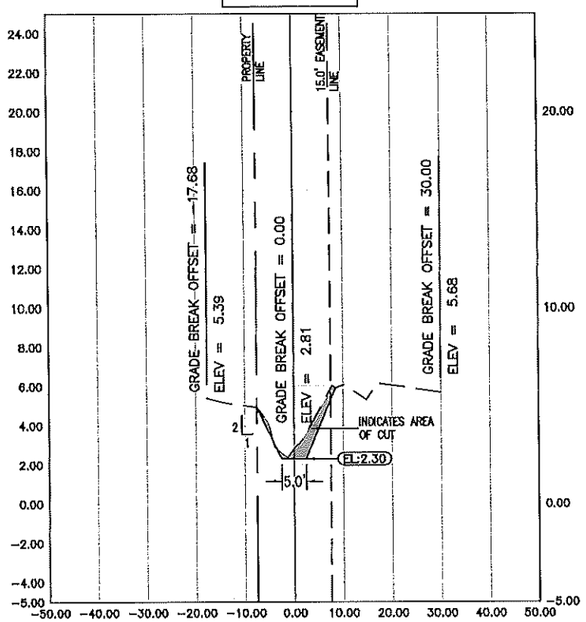

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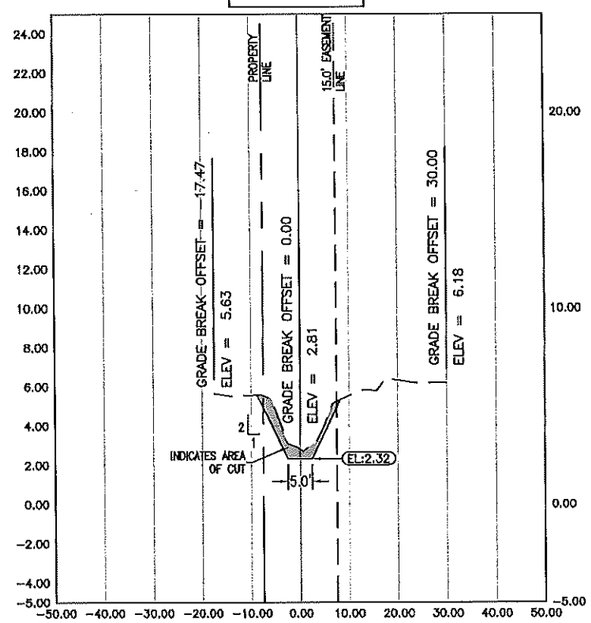

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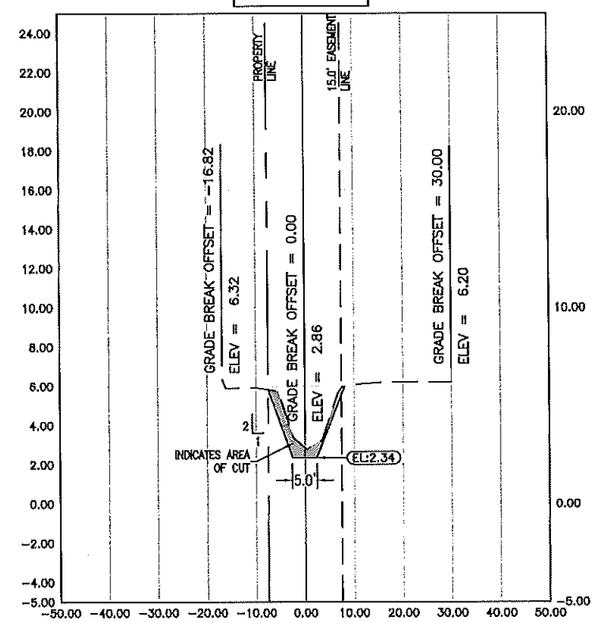

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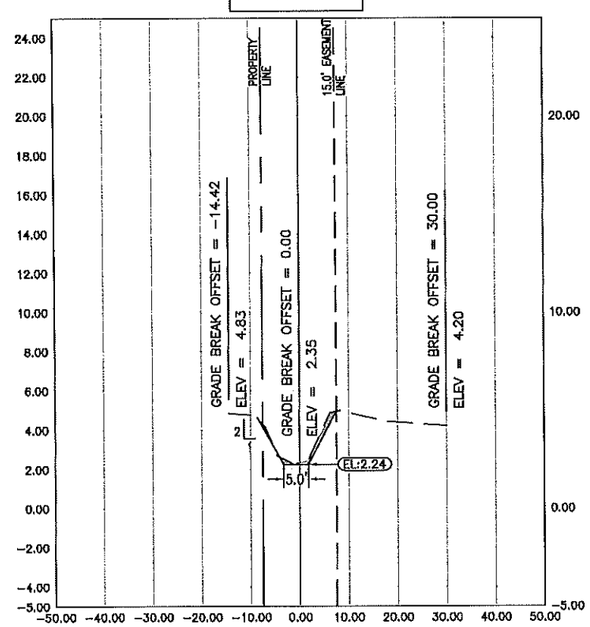

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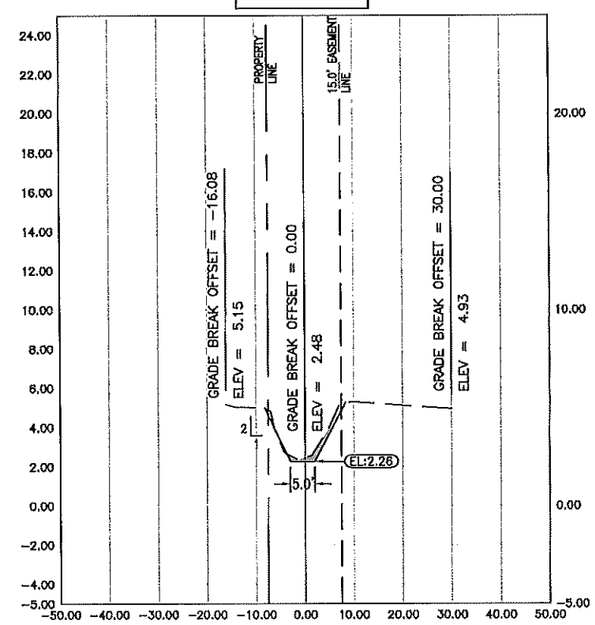

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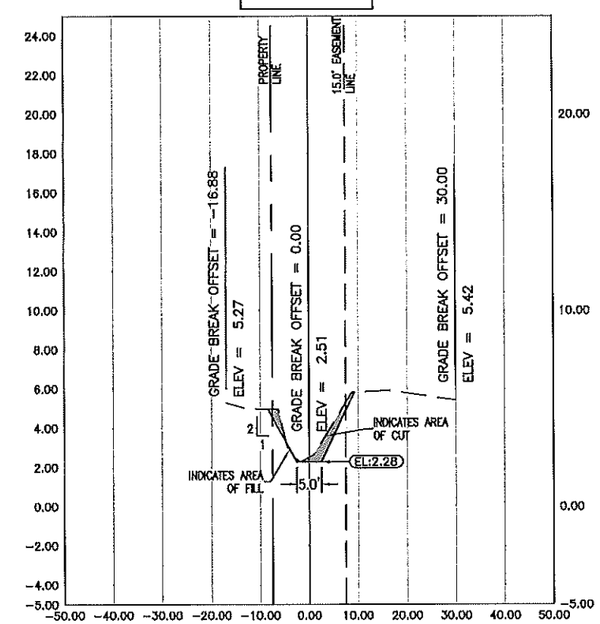

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Poinciana Village Stormwater Improvements Ditch Cross Sections North

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FL. LICENSE NO. 41671
11/12/2024

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DESIGN	DRAWN	CHKD

SCALE 1" = 30'

JOB No. 2021-016
DRAWING No. PLAN SH.
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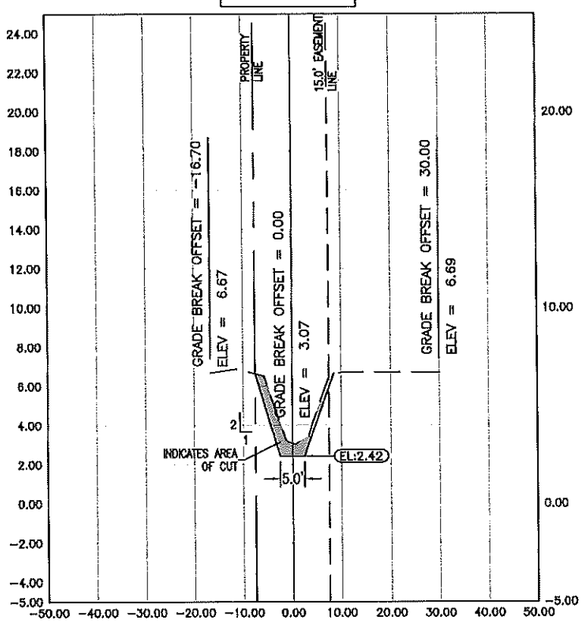

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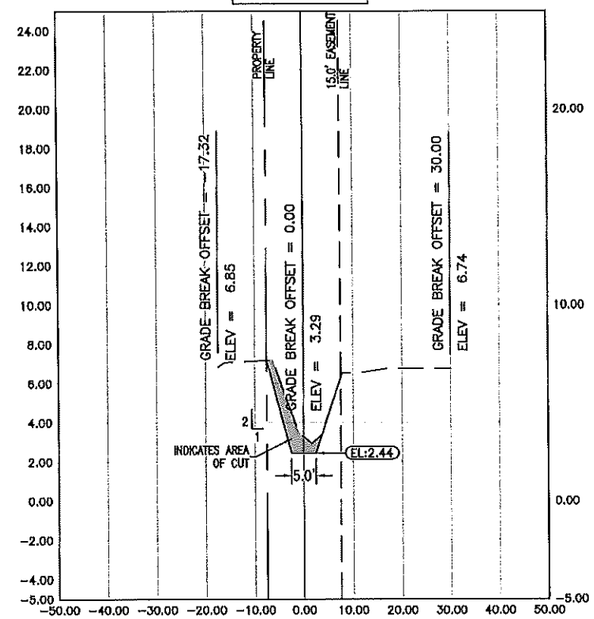

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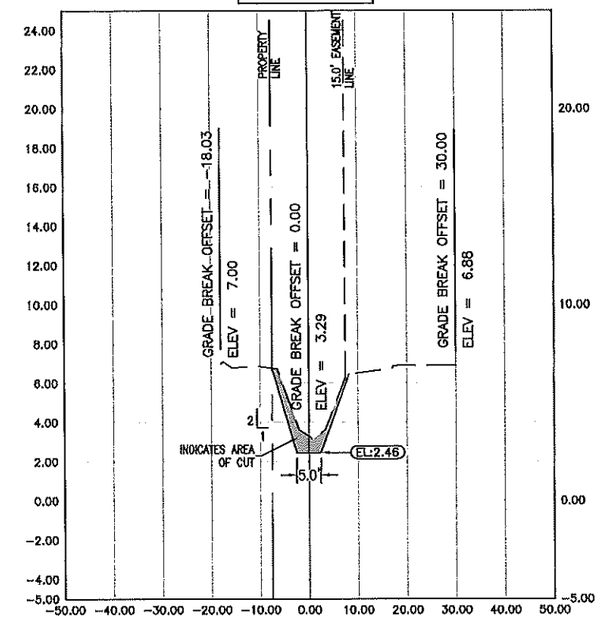

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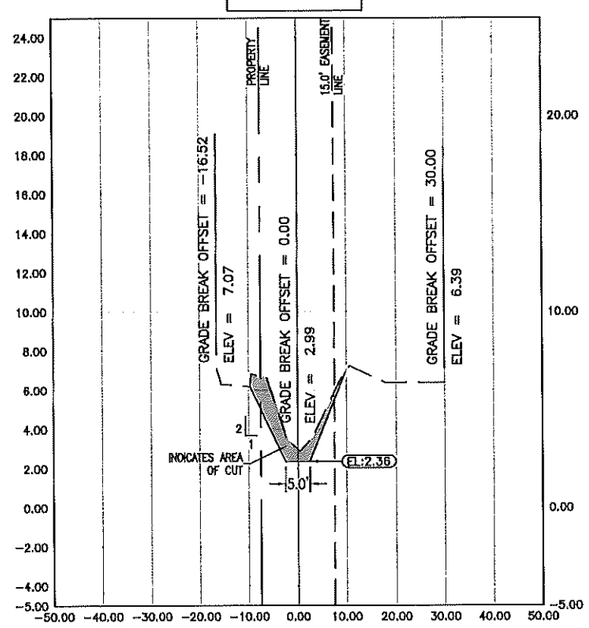

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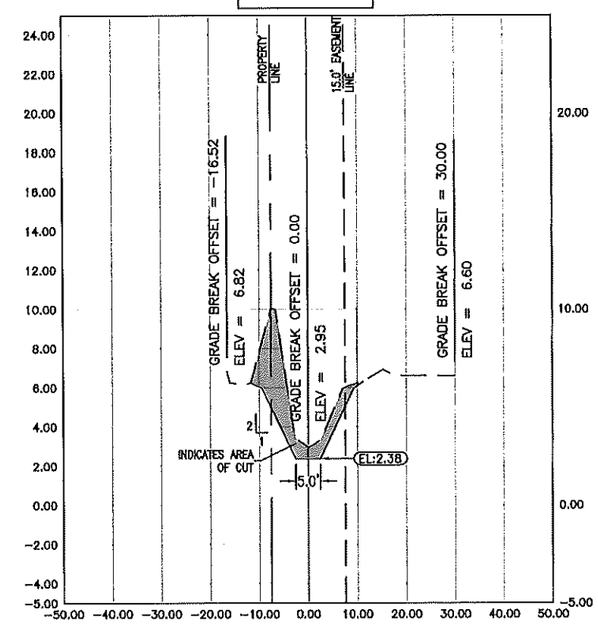

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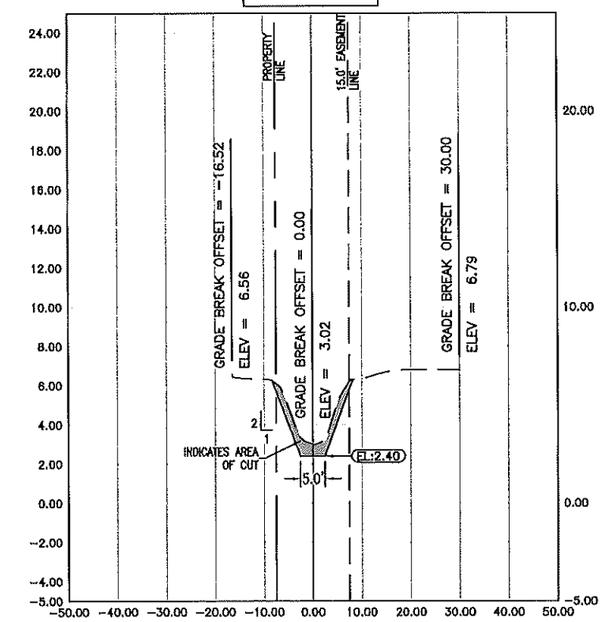

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Poinciana Village Stormwater Improvements Ditch Cross Sections North

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KLP	KLP	DWS
DESIGN	DRAWN	CHKD

SCALE 1" = 30'

JOB No. 2021-016
DRAWING No. PLAN SH.
DATE 11/2022
SHEET 106

CAD file name: Q:\Land Design\Documents\Projects\Valentine Drive\2016 Improvements 11/12/2024
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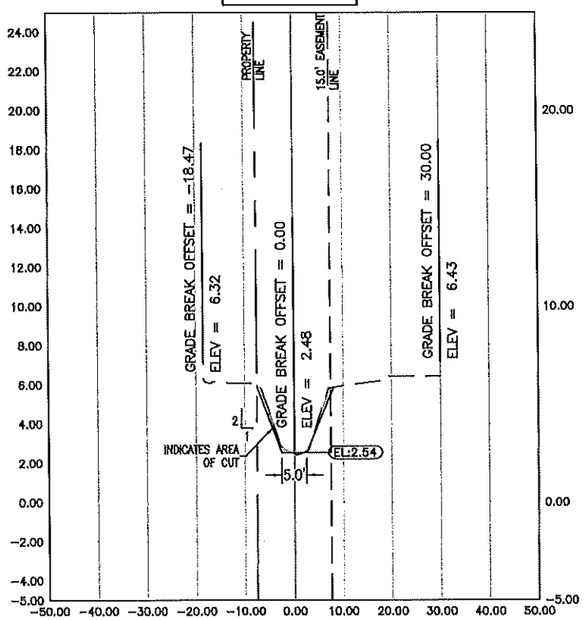

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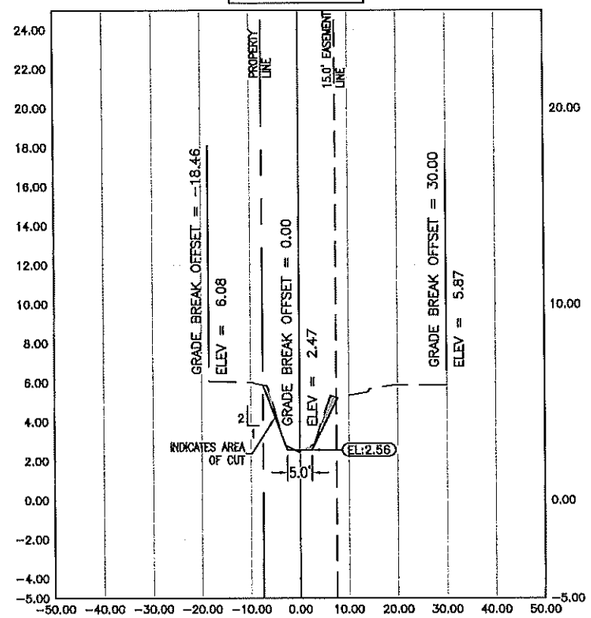

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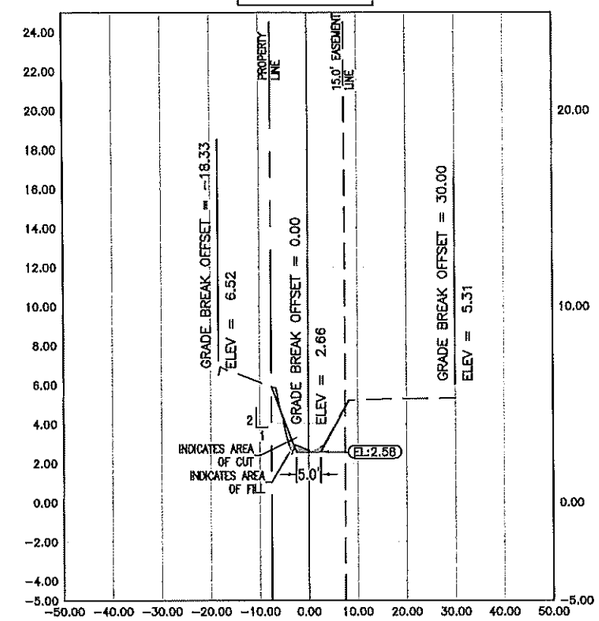

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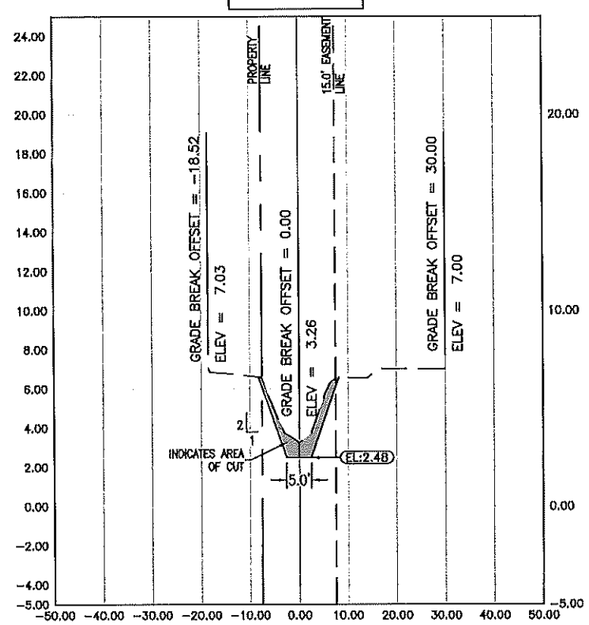

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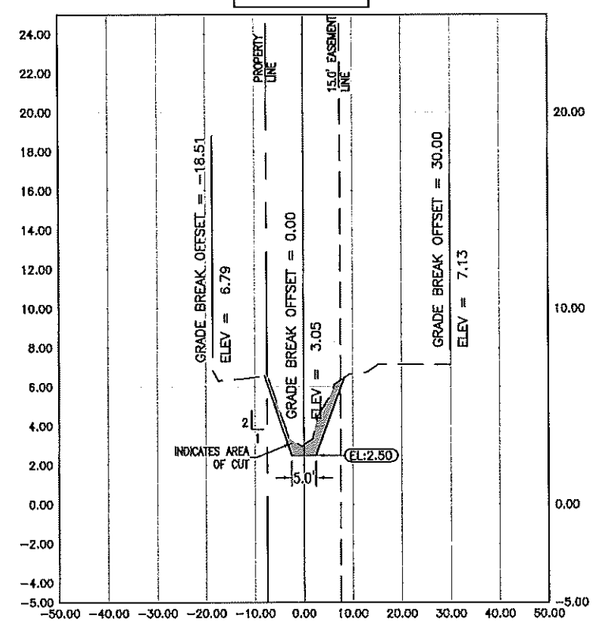

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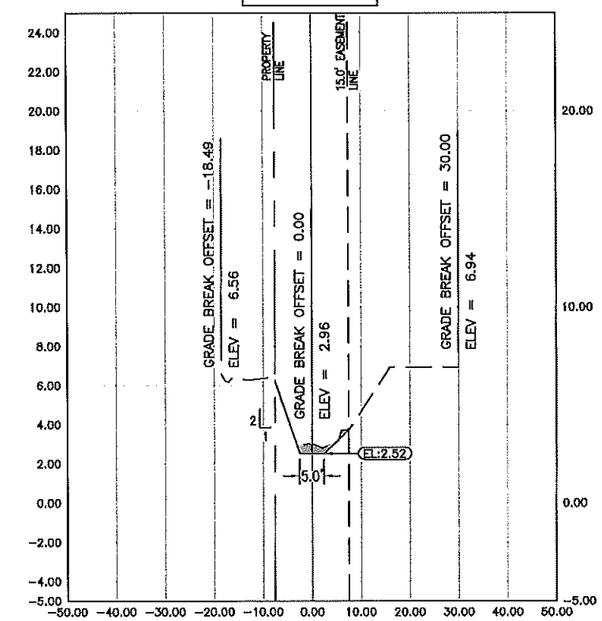

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KLP	KLP	DWS
DESIGN	DRAWN	CHKD

SCALE 1" = 30'

JOB No.	2021-016
DRAWING No.	PLAN SH.
DATE	11/2022
SHEET	107

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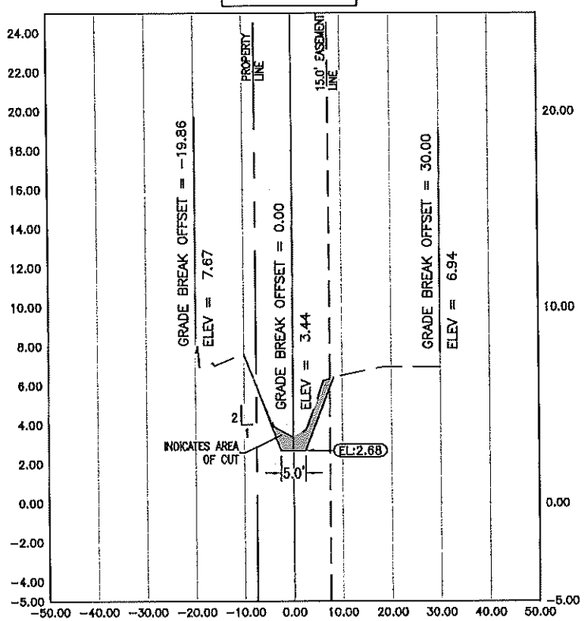

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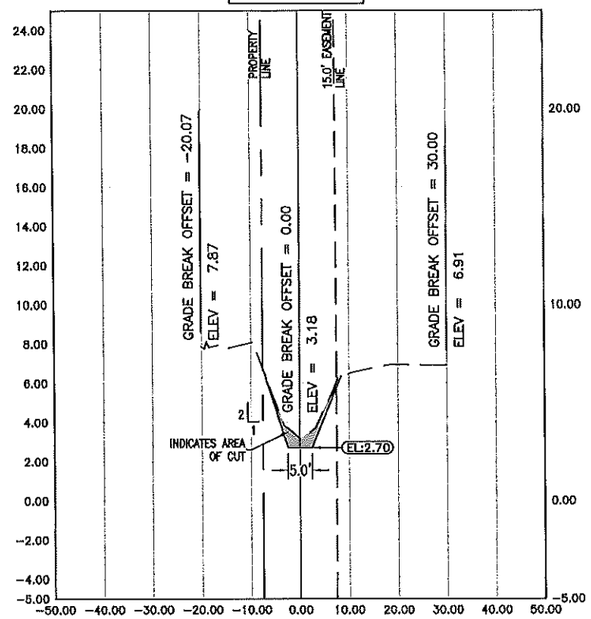

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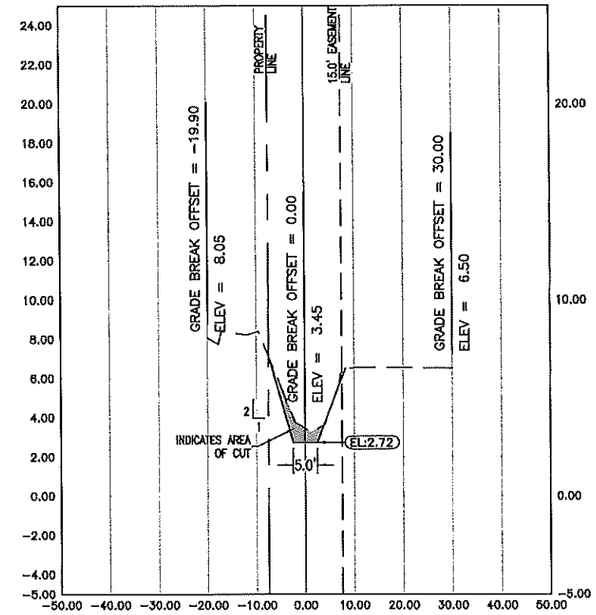

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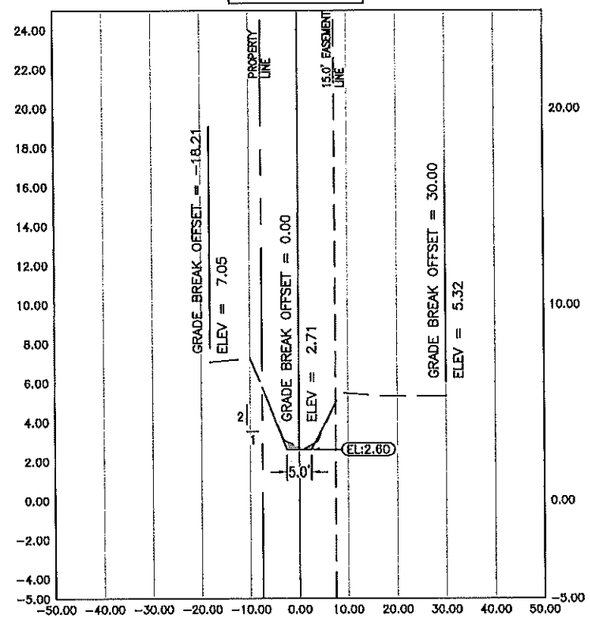

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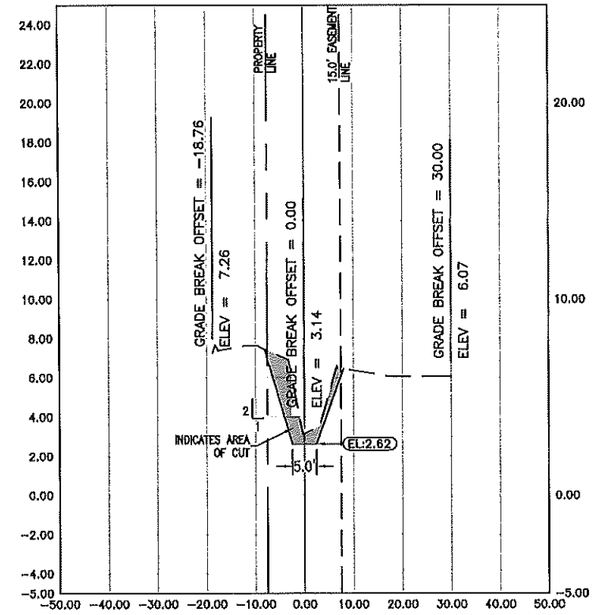

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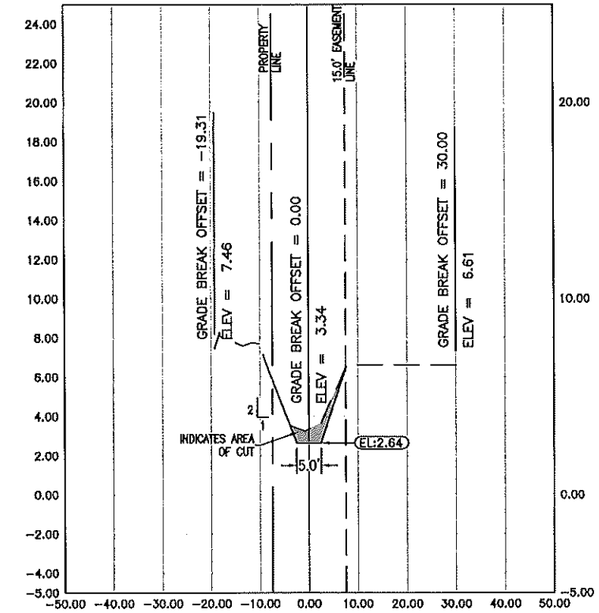

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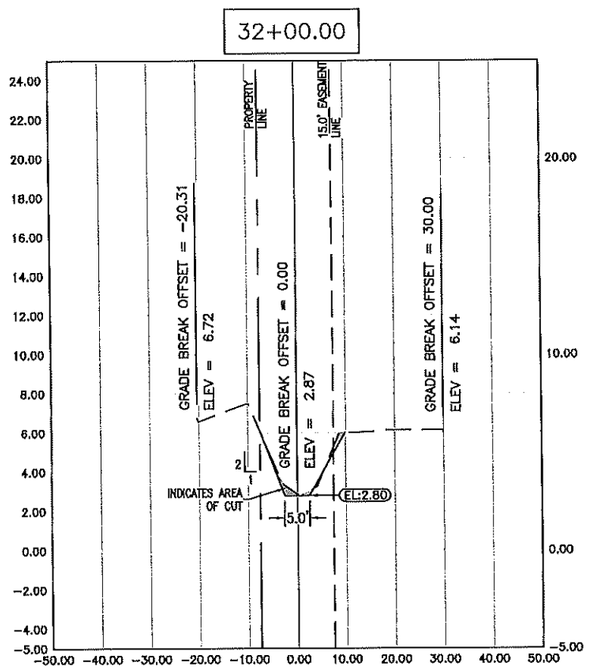
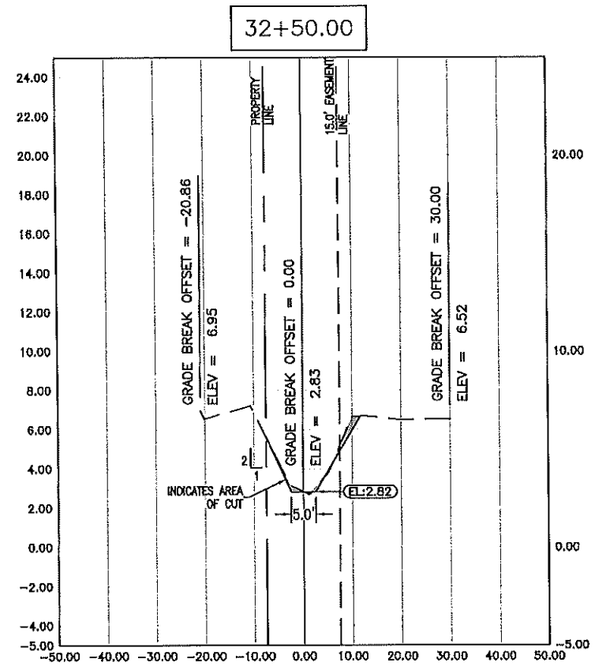
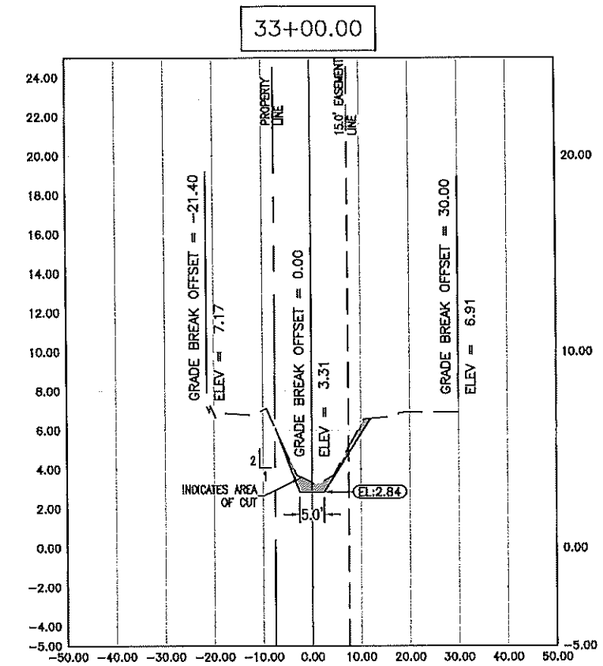
DESIGN	DRAWN	CHKD

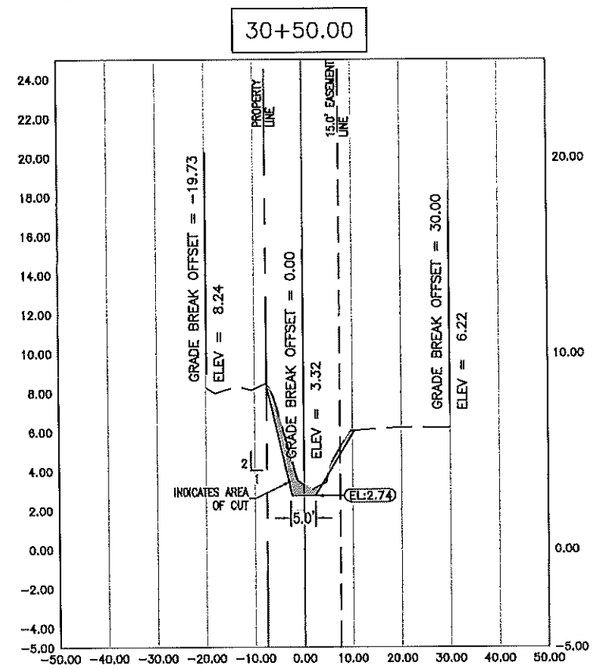
SCALE 1" = 30'

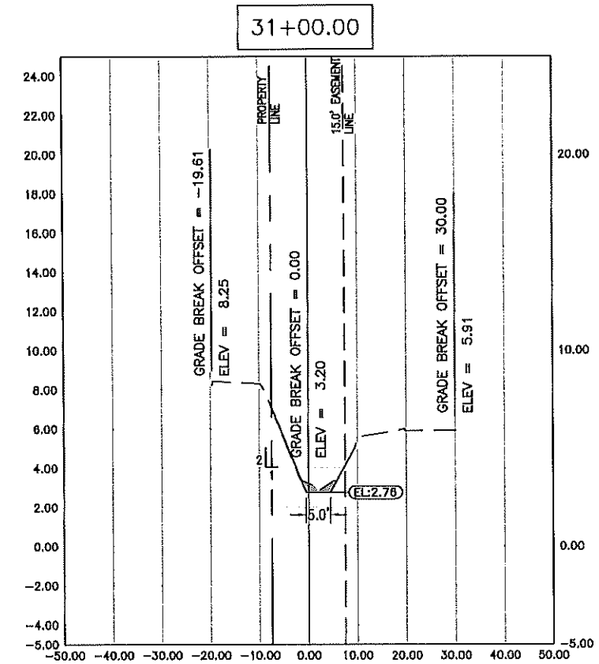
JOB No. 2021-016
DRAWING No. PLAN SH.
DATE 11/2022
SHEET 108

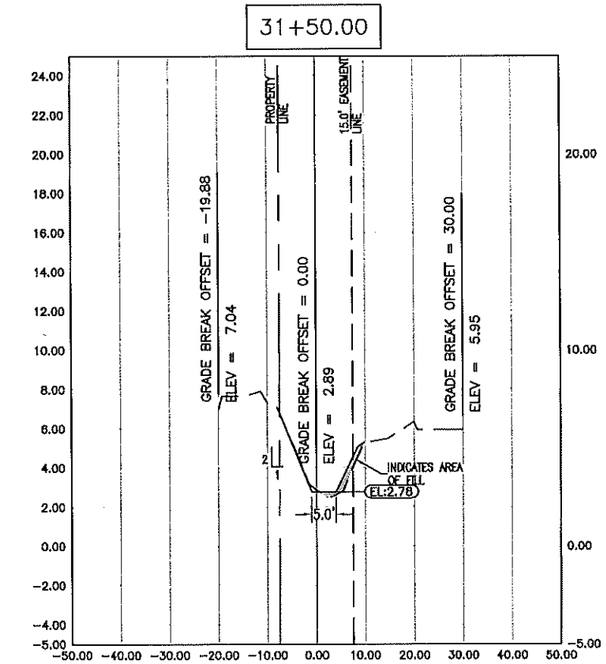












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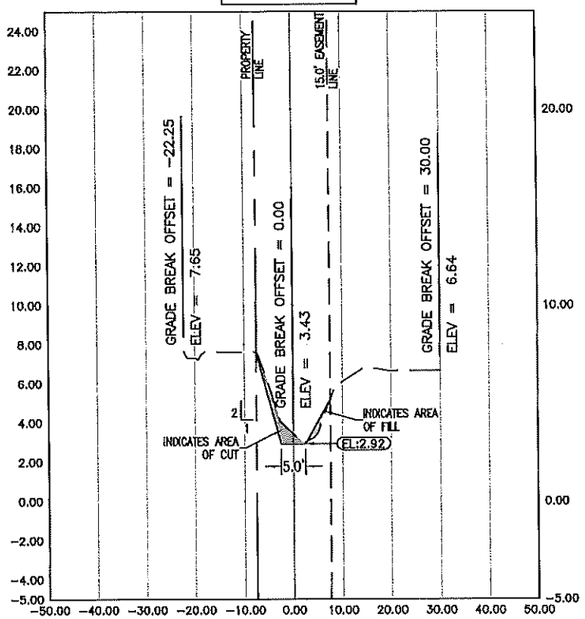

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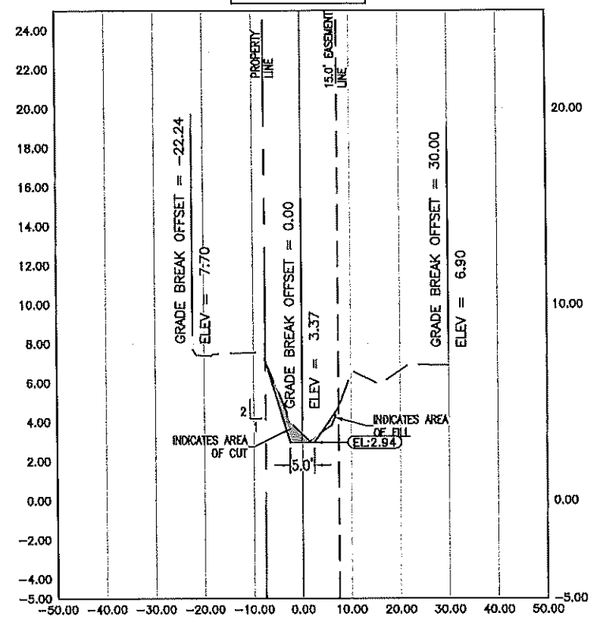

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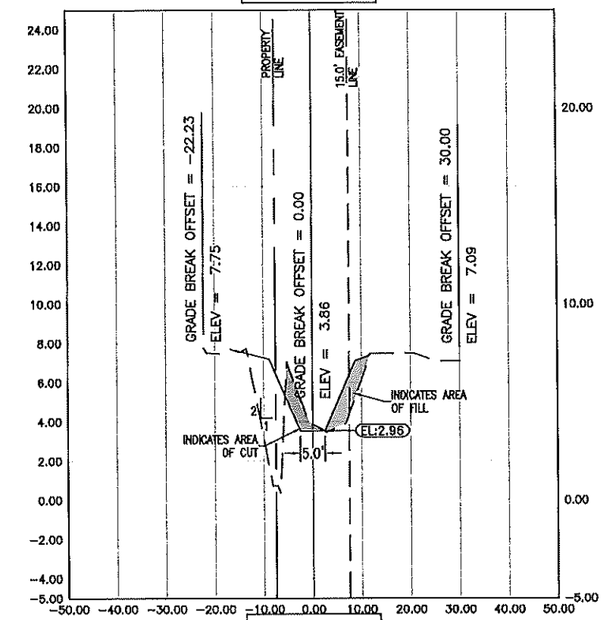

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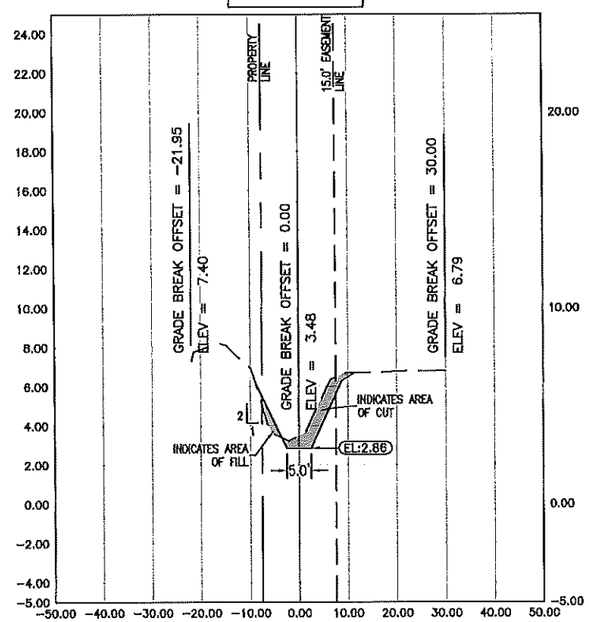

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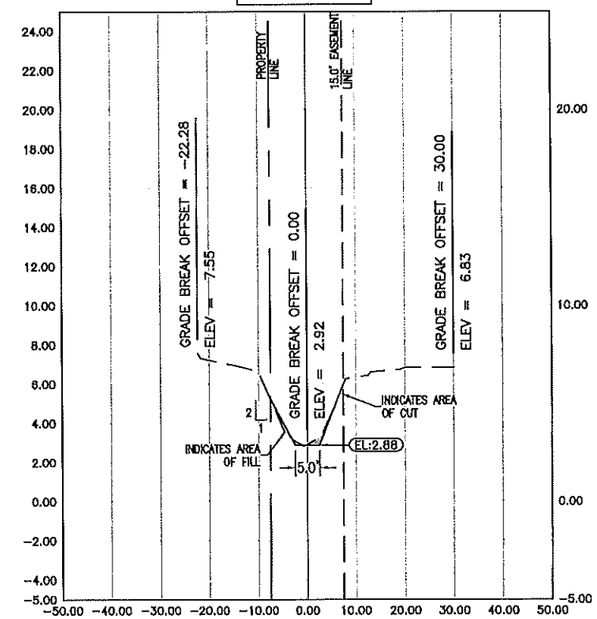

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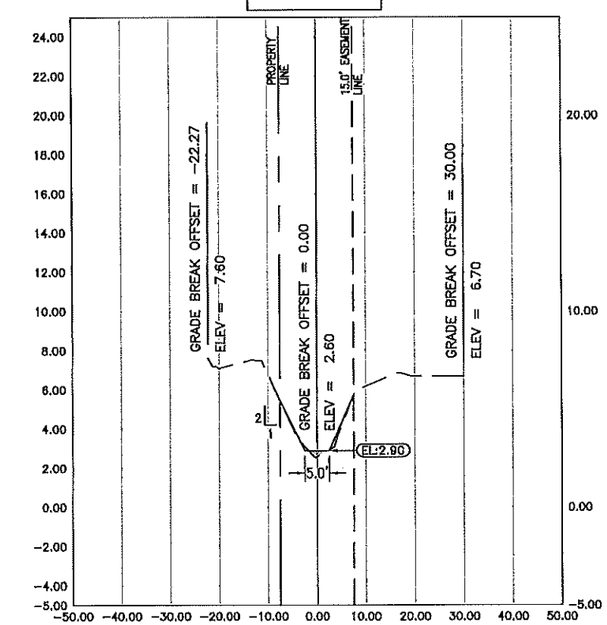

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11/12/2024

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KLP	KLP	DWS

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JOB No. 2021-016
DRAWING No. PLAN SH.
DATE 11/2022
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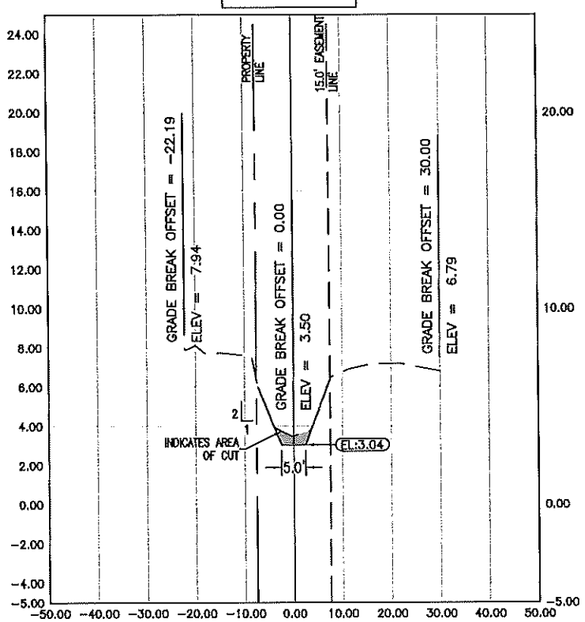

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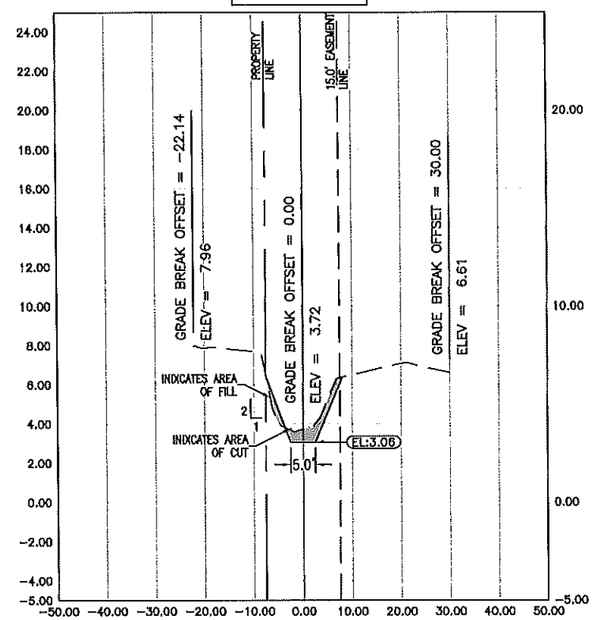

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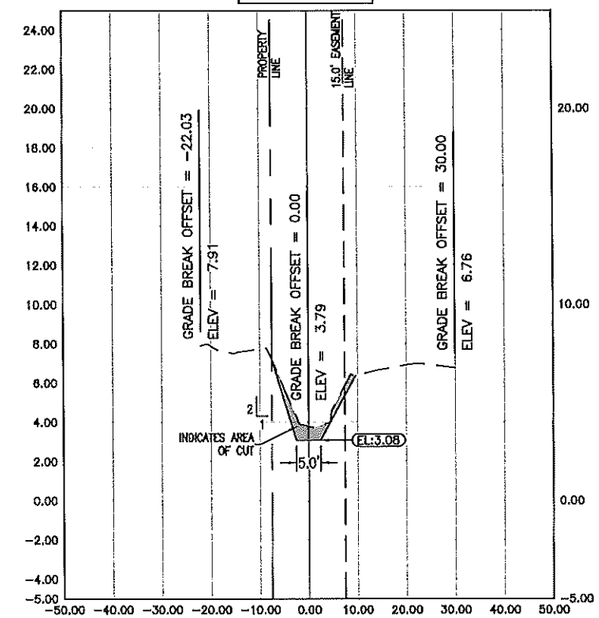

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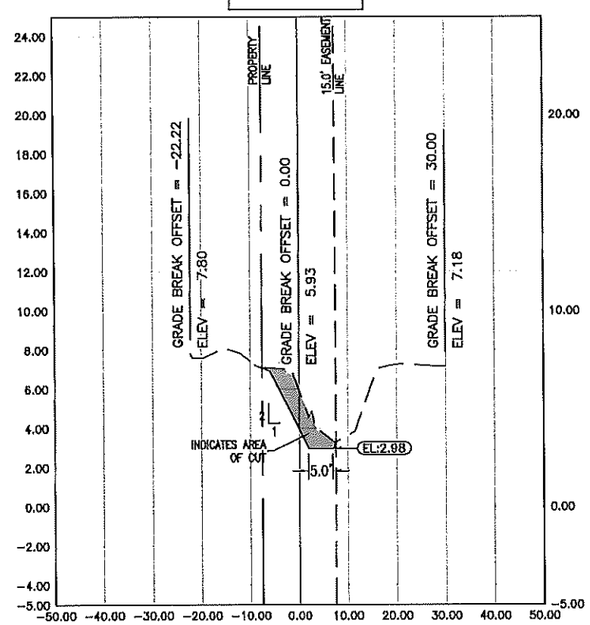

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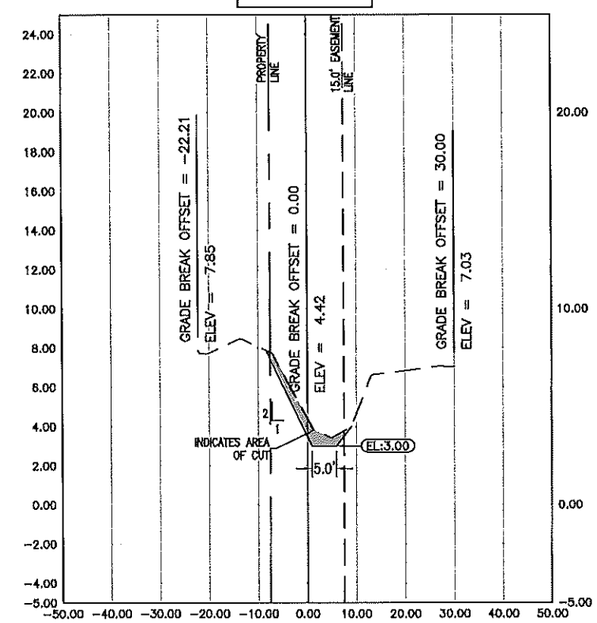

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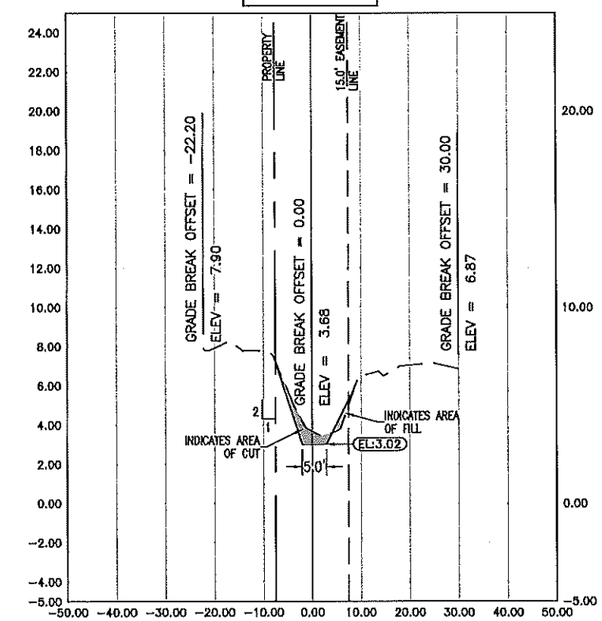

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11/12/2024

KLP	KLP	DWS
DESIGN	DRAWN	CHKD

SCALE 1" = 30'

JOB No.	2021-016
DRAWING No.	PLAN SH.
DATE	11/2022
SHEET	111

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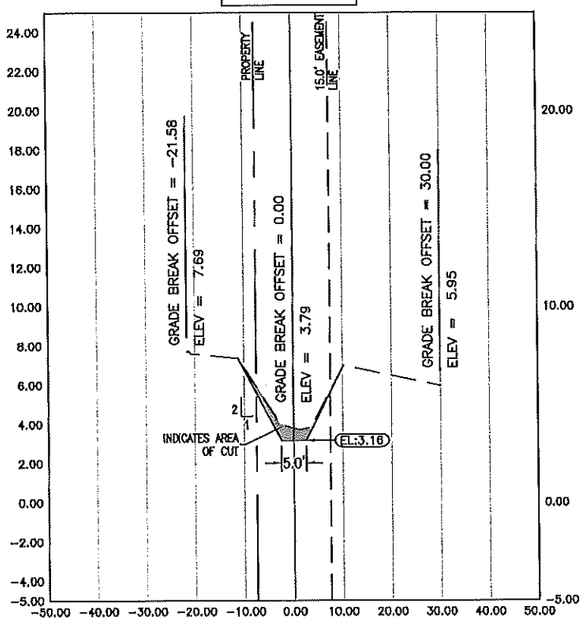

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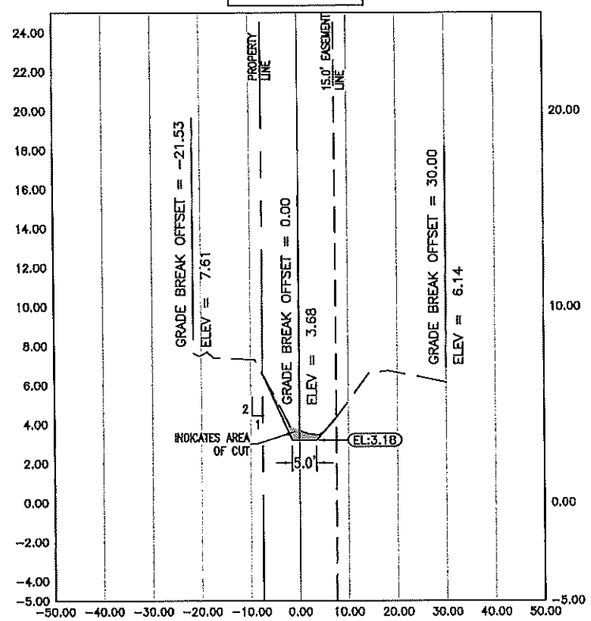

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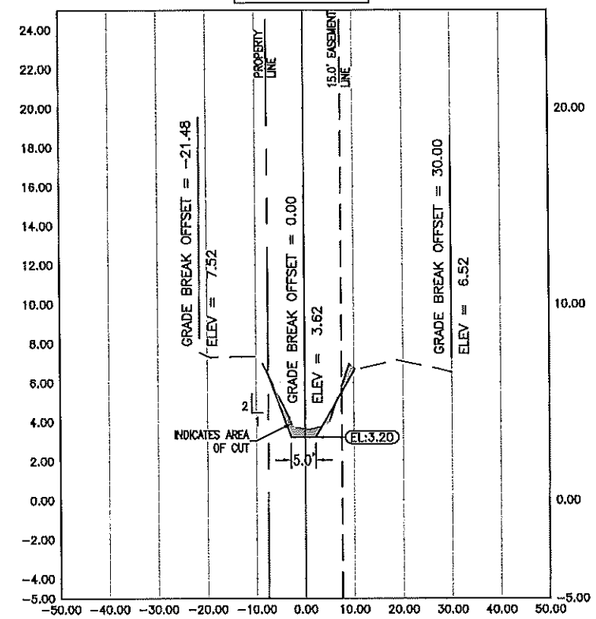

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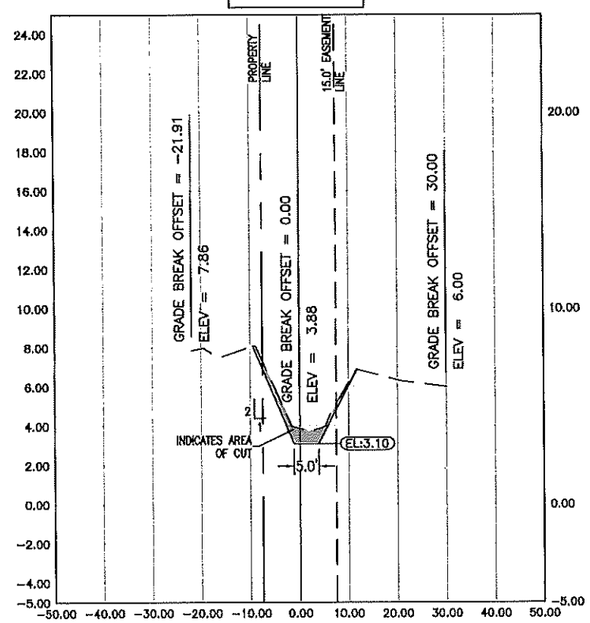

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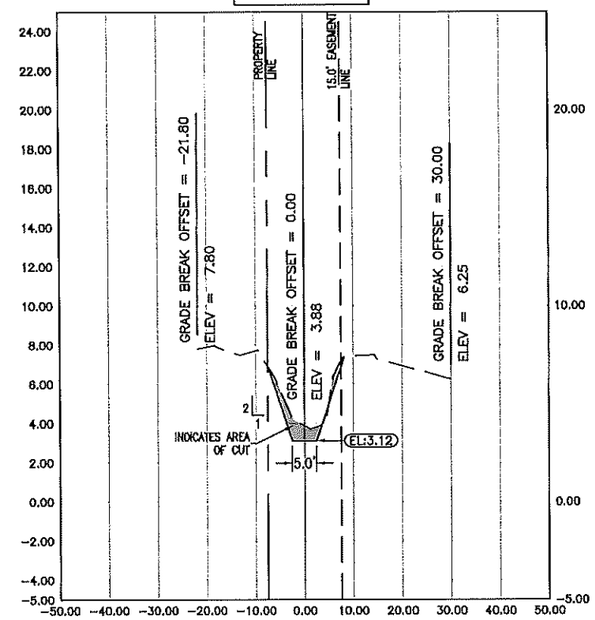

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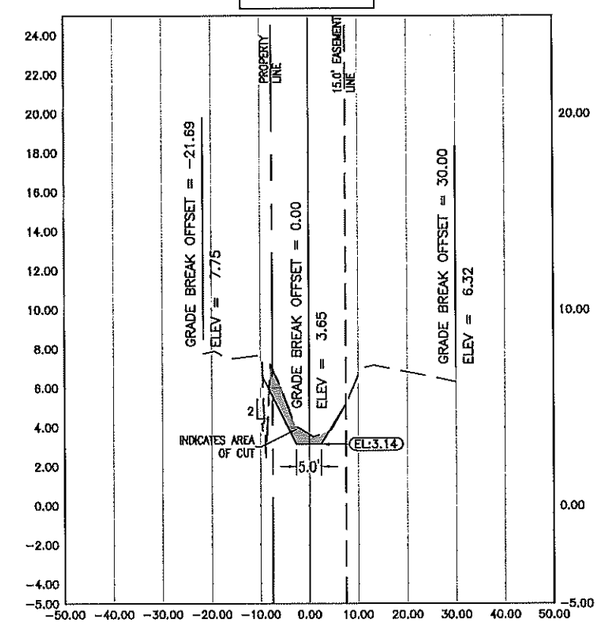

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Poinciana Village Stormwater Improvements Ditch Cross Sections North

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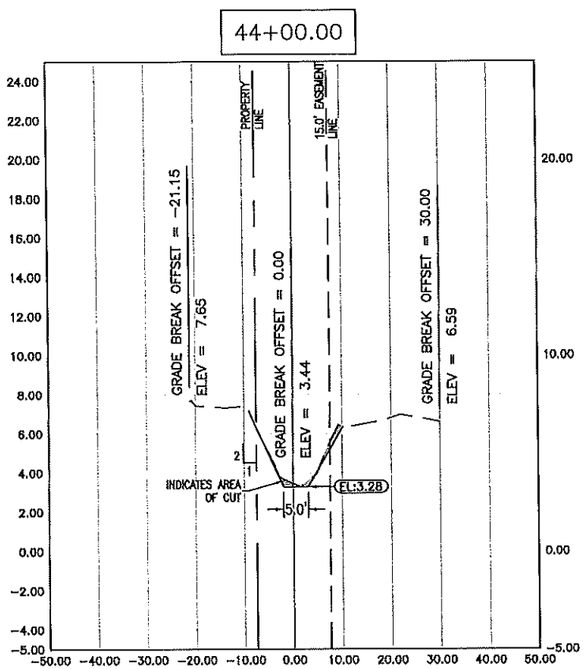
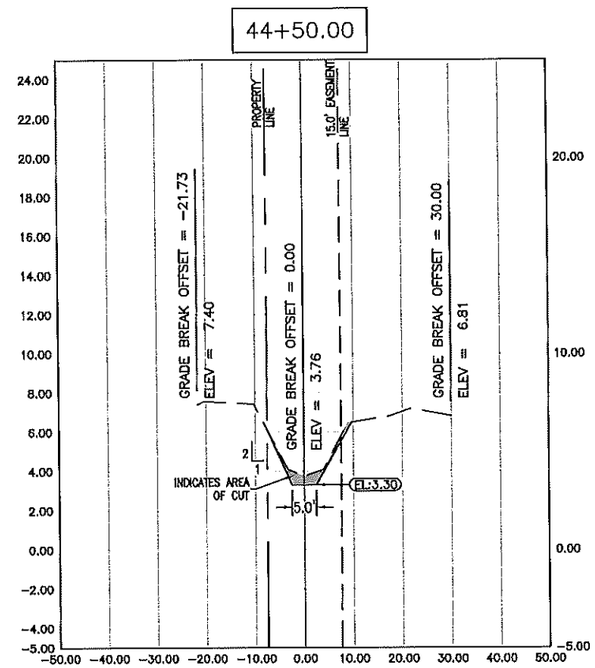
DAVID W. SCHMITT, P.E.
FL. LICENSE NO. 41671
11/12/2024

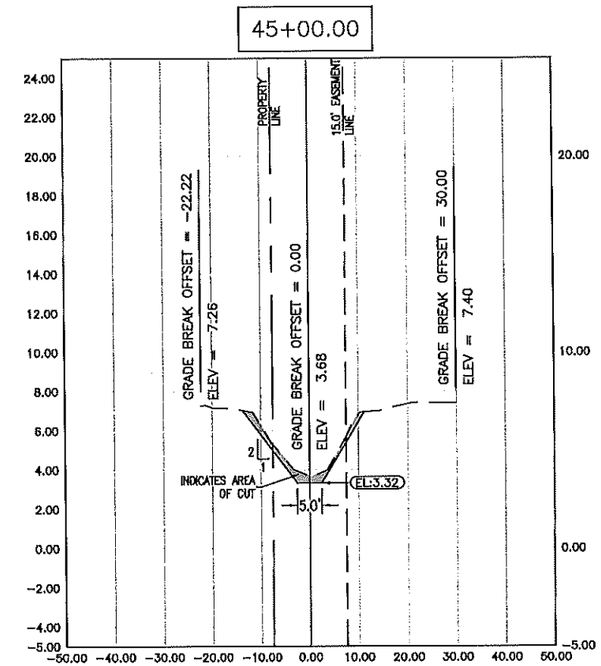
KLP	KLP	DWS
DESIGN	DRAWN	CHKD

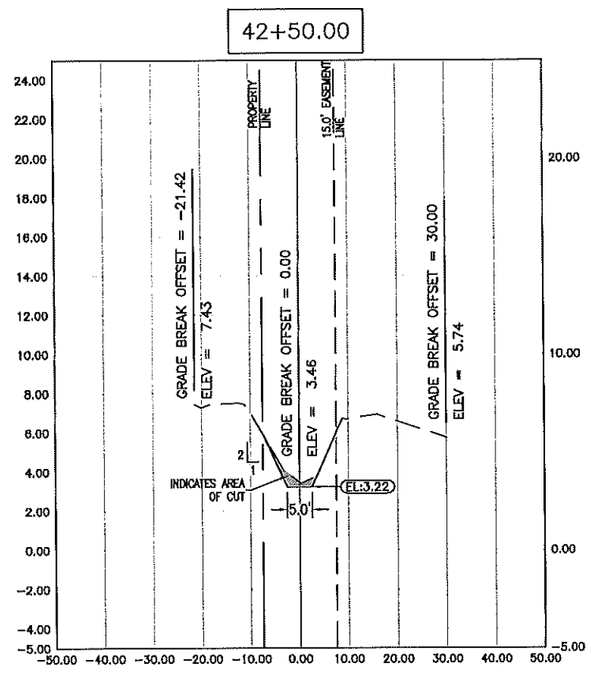
SCALE 1" = 30'

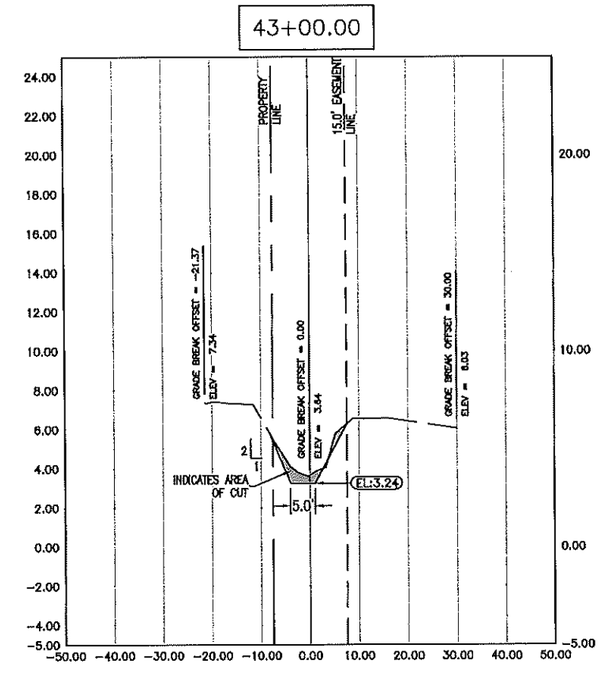
JOB No. 2021-016
DRAWING No. PLAN SH.
DATE 11/2022
SHEET 112

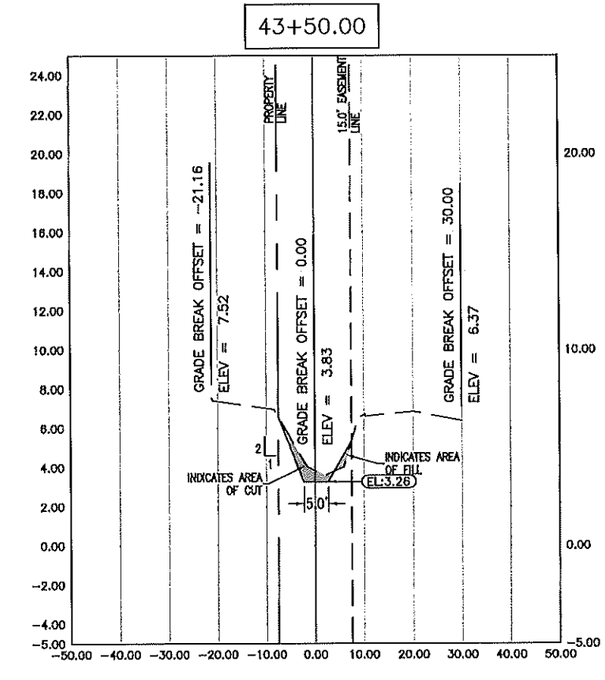












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FL. LICENSE NO. 41671
11/12/2024

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DESIGN	DRAWN	CHKD

SCALE 1" = 30'

JOB No. 2021-016
DRAWING No. PLAN SH.
DATE 11/2022
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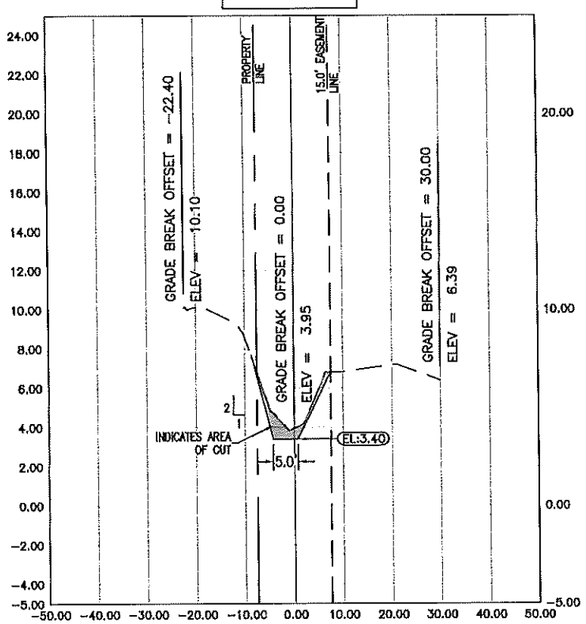

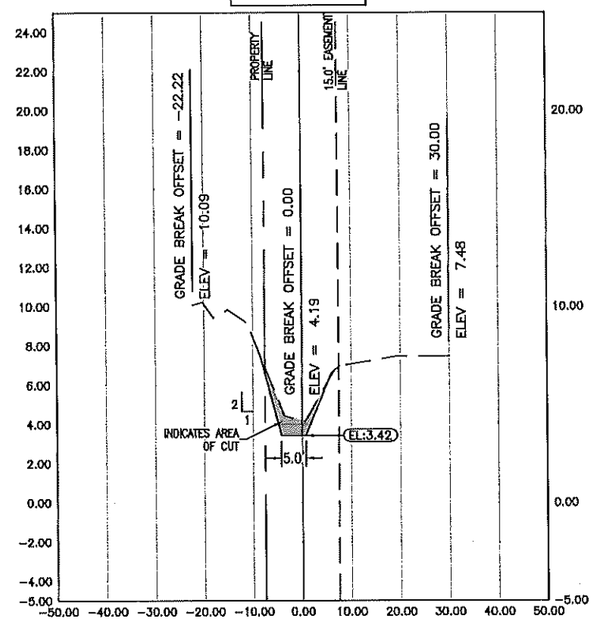

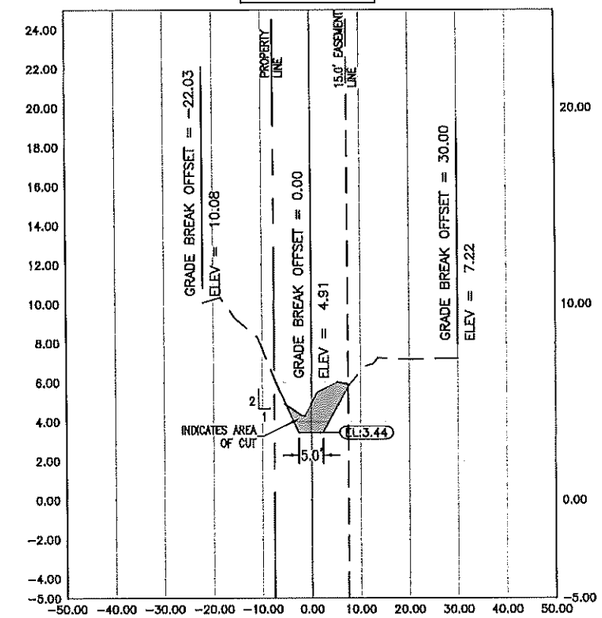

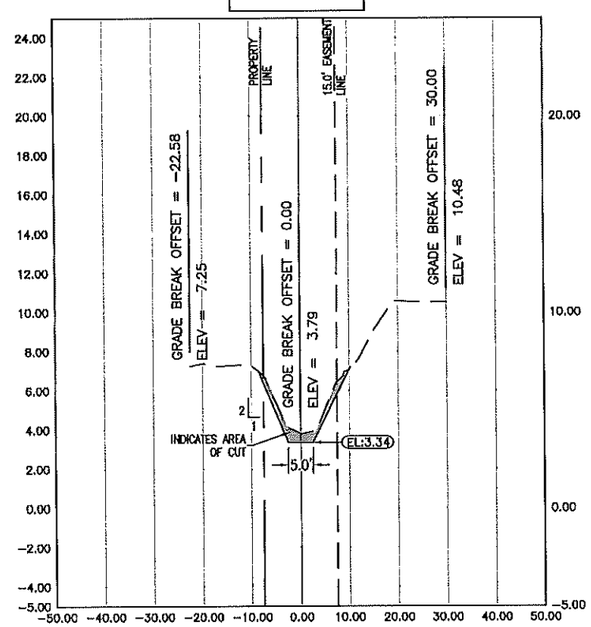

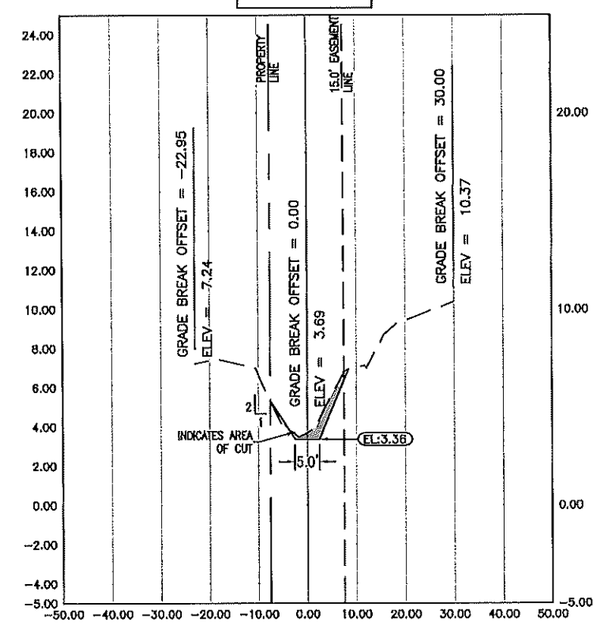

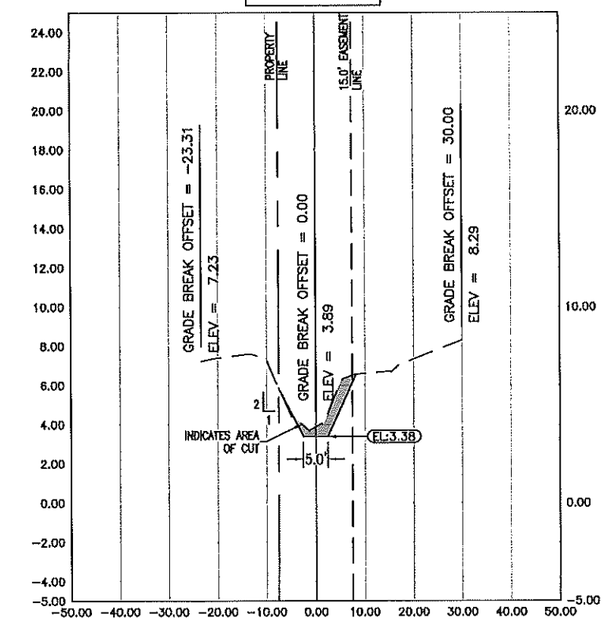

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FL. LICENSE NO. 41671
11/12/2024

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DESIGN	DRAWN	CHKD

SCALE 1" = 30'

JOB No. 2021-016
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DATE 11/2022
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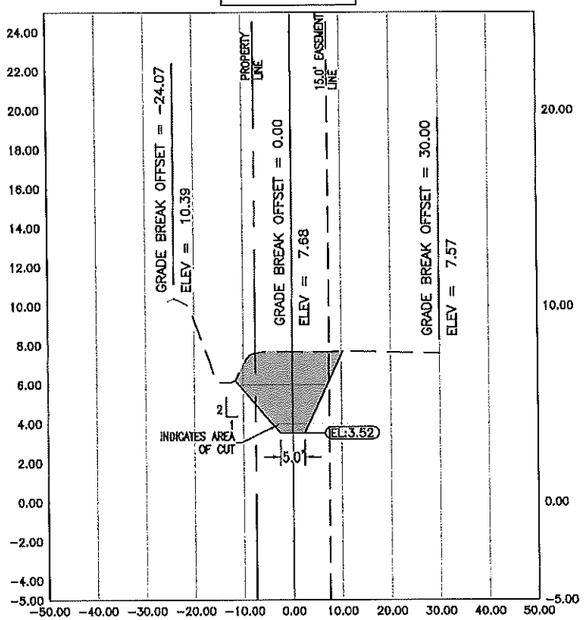

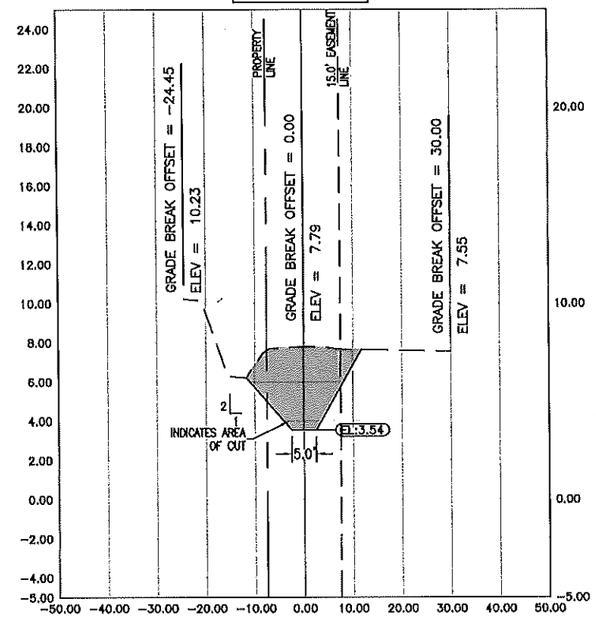

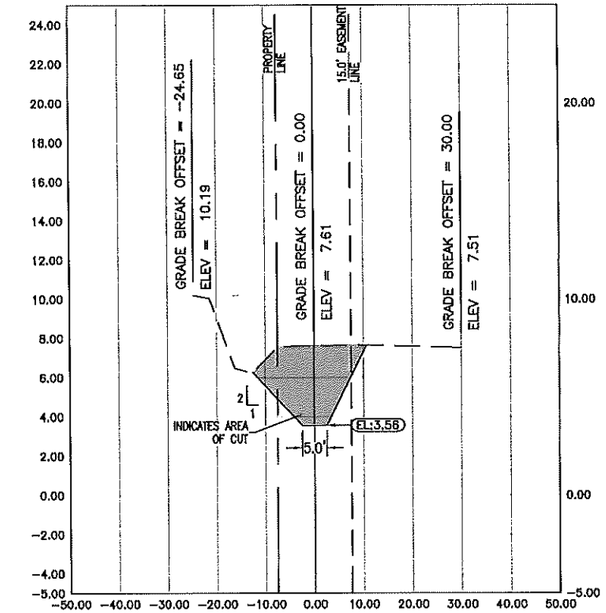

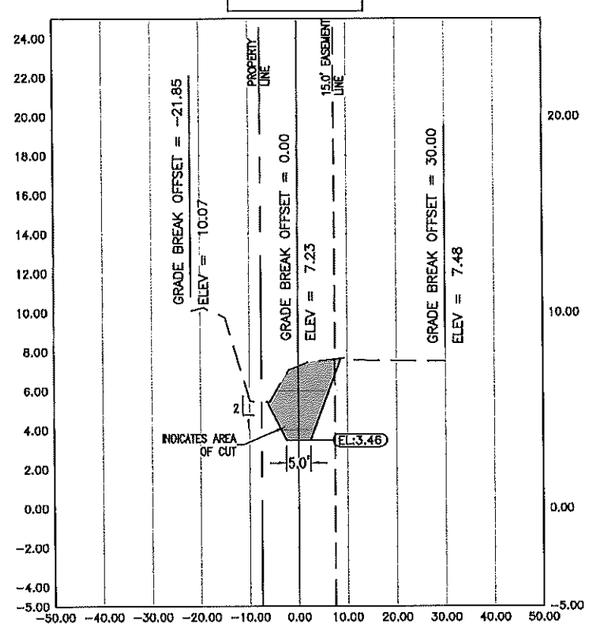

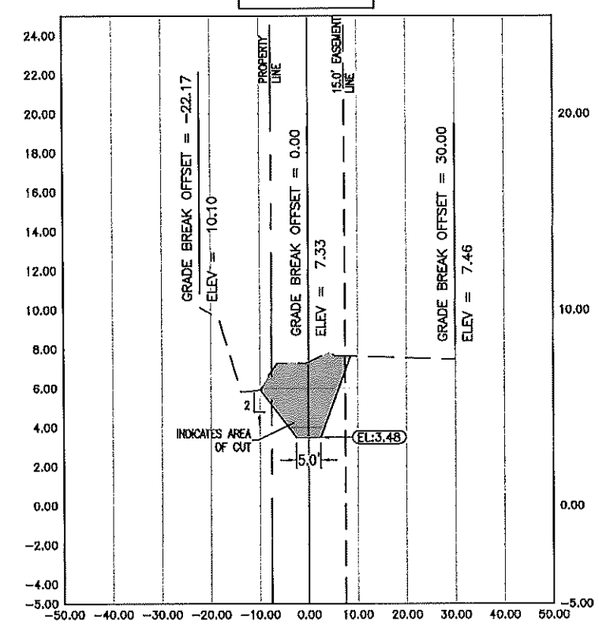

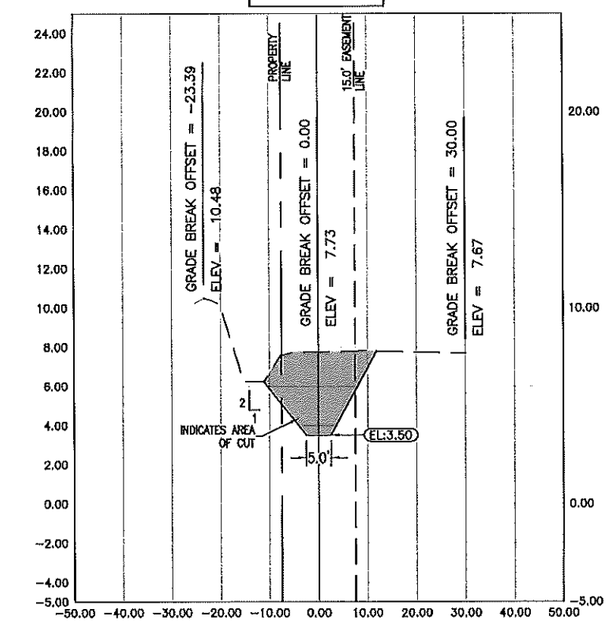

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Poinciana Village Stormwater Improvements Ditch Cross Sections North

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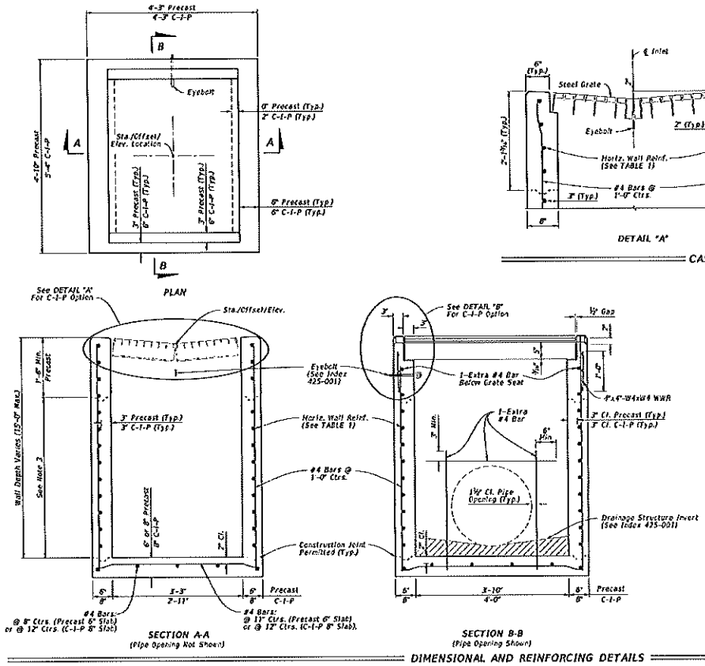
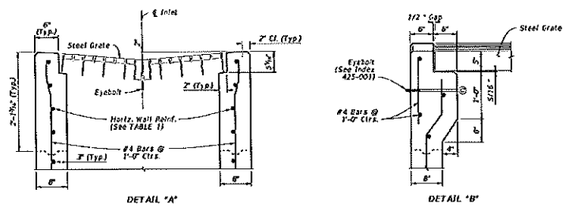
FL. LICENSE NO. 41671
11/12/2024

KLP	KLP	DWS
DESIGN	DRAWN	CHKD

SCALE 1" = 30'

JOB No.	2021-016
DRAWING No.	PLAN SH.
DATE	11/2022
SHEET	115





CAST-IN-PLACE OPTION

TABLE 1 HORIZONTAL WALL REINFORCING SCHEDULE				
WALL DEPTH	SCHEDULE	AREA (in^2/ft.)	MAX. SPACING	
			BARS	WWR
0 - 5'	A12	0.20	12"	8"
5' - 9'	A6	0.20	6"	5"
9' - 12'	A4	0.20	4"	3"
9' - 13'	65.5	0.24	5½"	5"

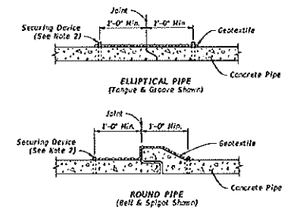
NOTES:

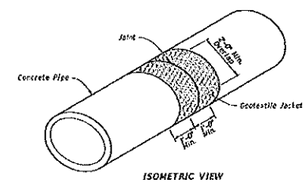
1. Plan View: Grate, Concrete Ditch Pavement, and Sod not shown on structure detail.
2. Precast Shown, Cast-In-Place (C-I-P) similar.
3. Construction joints permitted between these limits. See Index 425-001 for minimum dimensions.

DIMENSIONAL AND REINFORCING DETAILS

DIMENSIONAL AND REINFORCING DETAILS

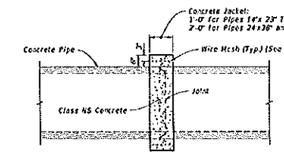
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2025-26 STANDARD PLANS	GUTTER INLET TYPE V	INDEX	SHEET
11/01/20						425-041	2 of 4

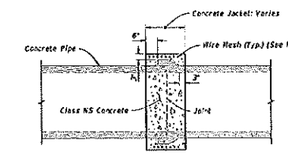


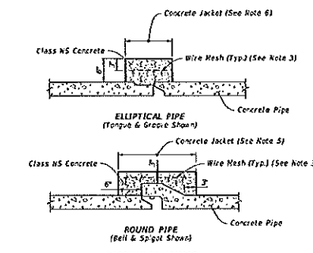


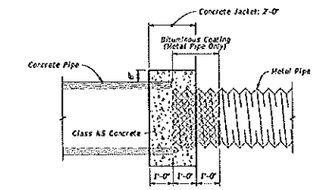
GEOTEXTILE JACKET

(For All Pipe Types - Concrete Elliptical Pipe Shown)





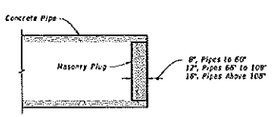




CONCRETE JACKET

NOTES:

1. Alternate connection must be approved by the Engineer.
2. Install Type D-3 geotextile in accordance with Specification 514. Install securing device to hold the geotextile jacket on to the pipe.
3. Any wire mesh arrangement which provides 0.126 square inches of steel area per linear foot both ways may be used, provided the wires are spaced a minimum of 2" and/or a maximum of 6" on centers.
4. Do not use a concrete jacket to join dissimilar metal pipes.
5. 12" for pipes 15" through 24"; 24" for pipes 30" and larger.
6. 12" for pipes 14" x 23" through 19" x 30"; 24" for pipes 24" x 38" and larger.



PIPE PLUG

GEOTEXTILE JACKET, CONCRETE JACKET, AND PIPE PLUG

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2025-26 STANDARD PLANS	MISCELLANEOUS DRAINAGE DETAILS	INDEX	SHEET
11/01/23						430-001	3 of 7

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DAVID W. SCHMITT, P.E.
FL. LICENSE NO. 41671
05/09/2025

KLP	KLP	DWS
DESIGN	DRAWN	CHKD
SCALE	NONE	

JOB No.	2021-016
DRAWING No.	PLAN SH.
DATE	11/2022
SHEET	116

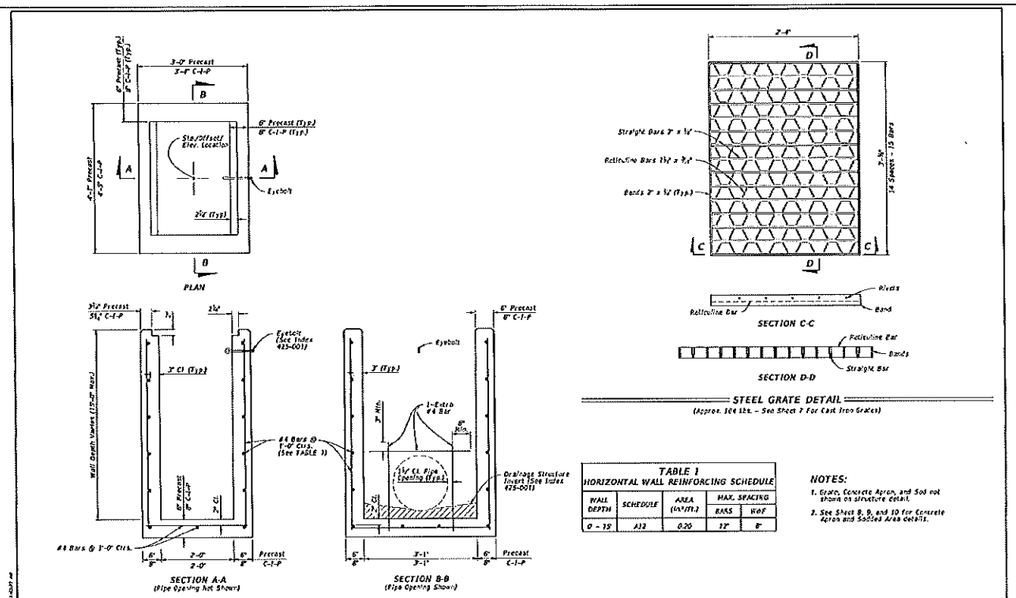


TABLE 1
HORIZONTAL WALL REINFORCING SCHEDULE

WALL DEPTH	SCHEDULE	AREA (IN²/FT.)	MAX. SPACING BARS	MAX. SPACING WWF
0 - 10'	A12	0.20	12"	8"

NOTES:
1. Grate, Concrete Apron, and Sod not shown on structure detail.
2. See Sheet 6, 8, and 10 for Concrete Apron and Sodded Area details.

TYPE C - DIMENSIONAL, REINFORCING, AND STEEL GRATE DETAILS

LAST REVISION 11/01/20	REVISION	DESCRIPTION:	FY 2025-26 STANDARD PLANS	DITCH BOTTOM INLET TYPES C, D, E, AND H	INDEX 425-052	SHEET 2 of 14

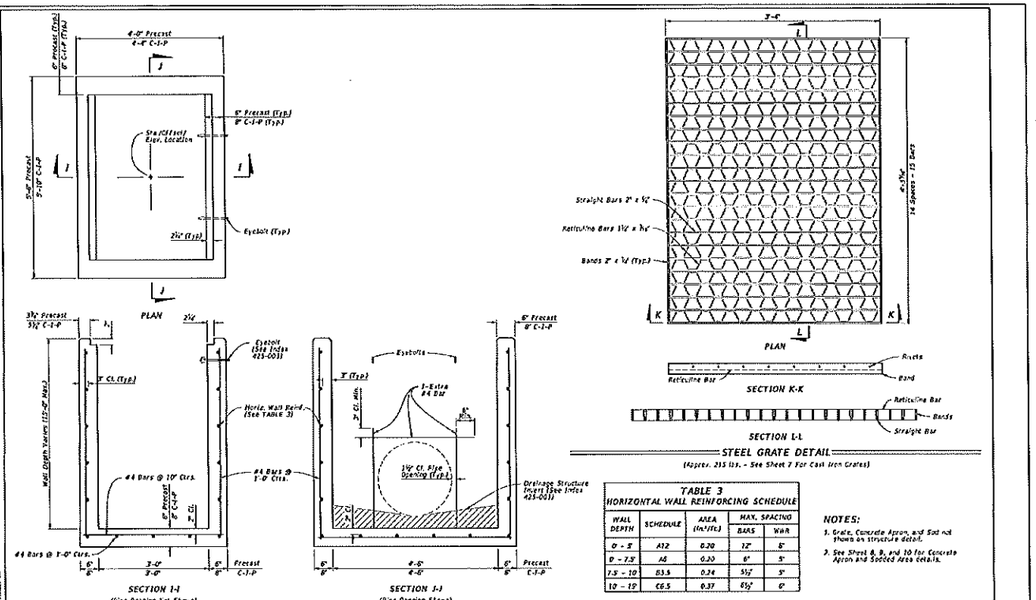


TABLE 3
HORIZONTAL WALL REINFORCING SCHEDULE

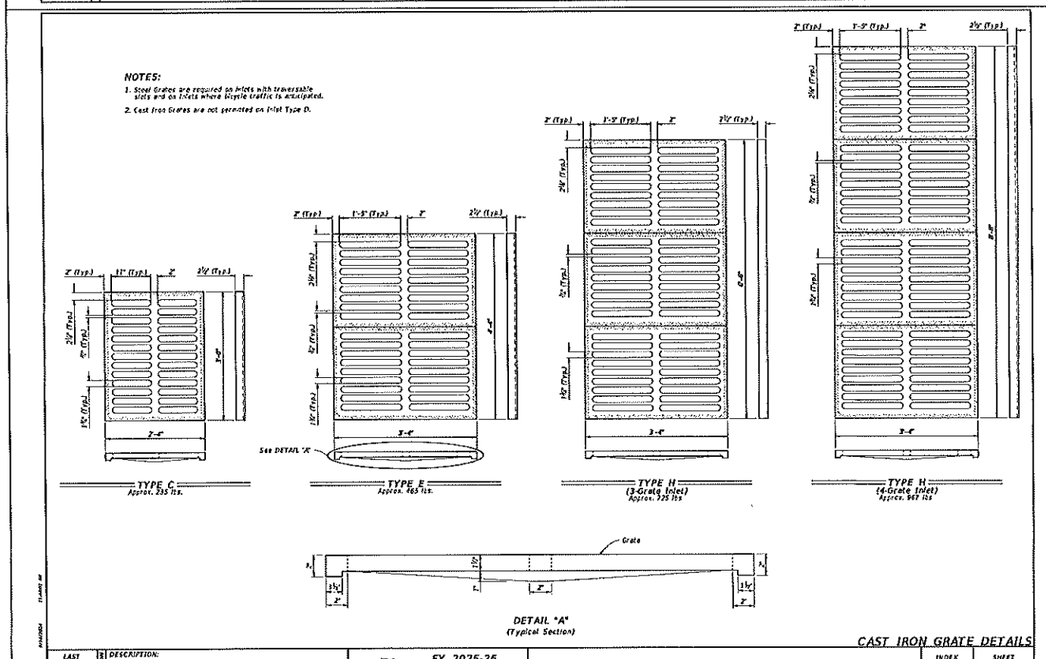
WALL DEPTH	SCHEDULE	AREA (IN²/FT.)	MAX. SPACING BARS	MAX. SPACING WWF
0 - 5'	A12	0.20	12"	8"
0 - 7.5'	A6	0.20	6"	5"
7.5 - 10'	B3.5	0.24	5½"	5"
10 - 15'	C6.5	0.37	6½"	6"

NOTES:
1. Grate, Concrete Apron, and Sod not shown on structure detail.
2. See Sheet 6, 8, and 10 for Concrete Apron and Sodded Area details.

TYPE E - DIMENSIONAL, REINFORCING, AND STEEL GRATE DETAILS

LAST REVISION 11/01/20	REVISION	DESCRIPTION:	FY 2025-26 STANDARD PLANS	DITCH BOTTOM INLET TYPES C, D, E, AND H	INDEX 425-052	SHEET 4 of 14

NOTES:
1. Steel Grates are required on inlets with traversable slots and on inlets where bicycle traffic is anticipated.
2. Cast Iron Grates are not permitted on Inlet Type D.



LAST REVISION 11/01/20	REVISION	DESCRIPTION:	FY 2025-26 STANDARD PLANS	DITCH BOTTOM INLET TYPES C, D, E, AND H	INDEX 425-052	SHEET 7 of 14

NOTES:
1. Grate, Concrete Apron, and Sod not shown in Plan view
2. See Sheet 4 for Concrete Apron and Sodded Area details.
3. Construction joints permitted between these limits. See Index 425-001 for minimum dimensions.

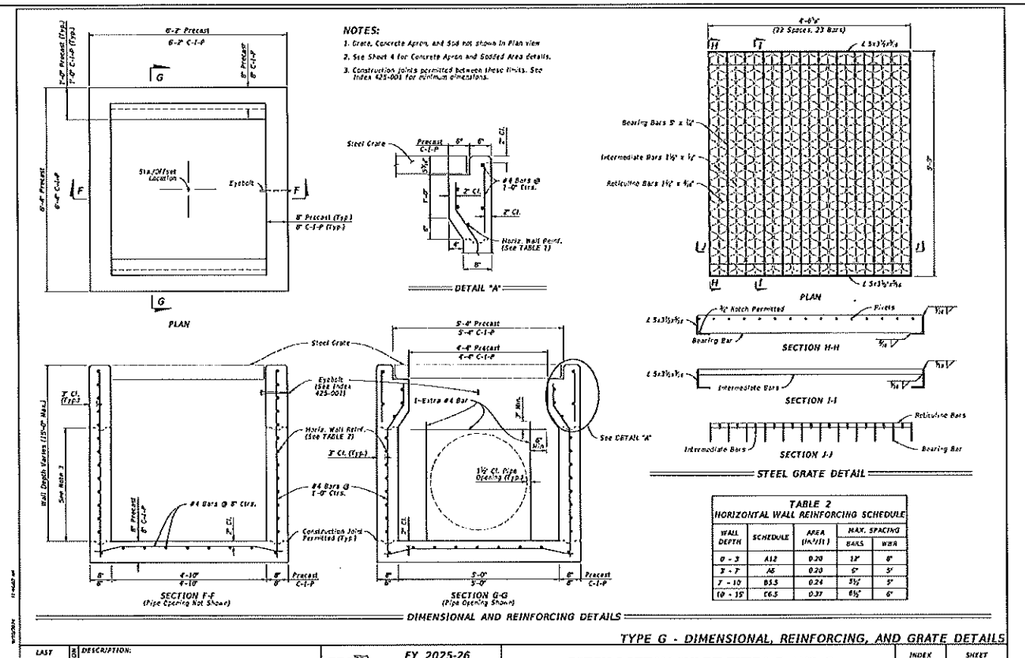


TABLE 2
HORIZONTAL WALL REINFORCING SCHEDULE

WALL DEPTH	SCHEDULE	AREA (IN²/FT.)	MAX. SPACING BARS	MAX. SPACING WWF
0 - 5	A12	0.20	12"	8"
5 - 7	A6	0.20	6"	5"
7 - 10	B3.5	0.24	5½"	5"
10 - 15'	C6.5	0.37	6½"	6"

TYPE G - DIMENSIONAL, REINFORCING, AND GRATE DETAILS

LAST REVISION 11/01/20	REVISION	DESCRIPTION:	FY 2025-26 STANDARD PLANS	DITCH BOTTOM INLET TYPES F AND G	INDEX 425-053	SHEET 3 of 4

NOTE:
PROVIDE 12" SUMP AT ALL STRUCTURES EXCEPT PROVIDE 24" SUMP PRIOR TO DISCHARGE LOCATION.
CAST IRON GRATES ON ALL STRUCTURES

DAVID W. SCHMITT, P.E. LICENSE NO. 41671 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.

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Collier County
TRANSPORTATION MANAGEMENT SERVICES

REV.	DESCRIPTION	DATE
1	Updated	5/25

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FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 30462

Poinciana Village Stormwater Improvements Details

THESE DRAWINGS ARE NOT APPROVED UNLESS SIGNED AND SEALED BELOW :

DAVID W. SCHMITT, P.E.
FL. LICENSE NO. 41671
05/09/2025

KLP	KLP	DWS	JOB No.	2021-016
DESIGN	DRAWN	CHKD	DRAWING No.	PLAN SH.
SCALE 1" = 300'			DATE	11/2022
			SHEET	117

CAD file name: C:\Users\Users\Documents\Projects\Poinciana\DWG\430016-Det.dwg 6/22/2025
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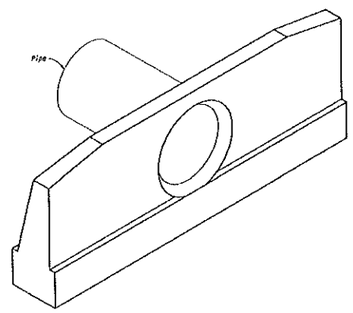
GENERAL NOTES:

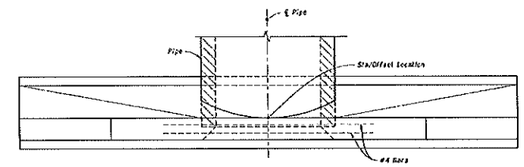
1. Use Class II concrete.
2. Reinforcing steel is either Grade 40 or 60.
3. Endwalls may be cast in place or precast concrete. (Additional reinforcement necessary for handling precast units will be determined by the Contractor or the supplier)
4. Chamfer all exposed edges and corners to ¾".
5. Endwall dimensions, locations and positions are for round and elliptical concrete pipe and for round and pipe-arch corrugated metal pipe. Round concrete pipe shown.
6. On outfall ditches with side slopes flatter than 1:1.5 provide 20' transitions from the endwall to the flatter side slopes, right of way permitting.
7. Construct front slope and ditch transitions in accordance with Index 430-001.
8. Quantities shown are for estimating purposes only.

TABLE OF CONTENTS:

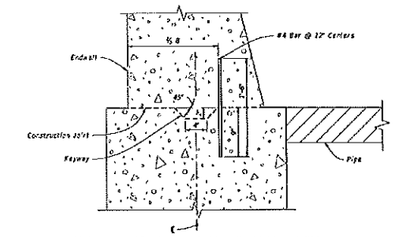
Sheet	Description
1	General Notes and Concrete
2	Concrete Endwall Details
3	Concrete and Metal Pipe Tables
4	Spacing For Multiple Pipes



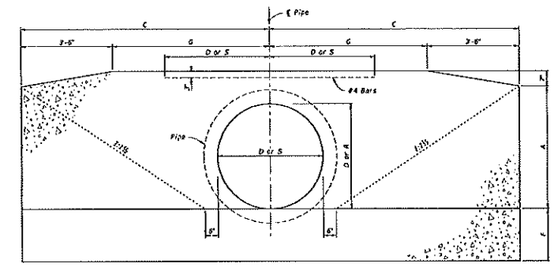
STRAIGHT CONCRETE ENDWALL



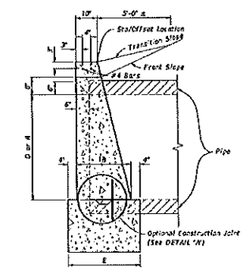
PLAN



DETAIL "A"



FRONT ELEVATION



SIDE ELEVATION

CONCRETE ENDWALL DETAILS

ROUND CONCRETE AND CORRUGATED METAL PIPE

Pipe	Dia. D	Opening Area (SF) Number Of Pipes 1	2	3	4	Dimensions A	B	C	E	F	G	Y	X 0°	15°	30°	45°	Class II Concrete (CI) Number Of Pipe And Skew Angle Of Pipe (α) Single 0°	Double 0°	15°	30°	45°	Triple 0°	15°	30°	45°	Quadruple 0°	15°	30°	45°	Dia. D
Concrete	15"	1.23	2.50	3.83	5.02	1'-11"	1'-2"	4'-0"	1'-10"	1'-2"	0'-6"	2'-1"	2'-1"	2'-8"	3'-0"	3'-8"	1.23	1.39	1.60	1.85	1.74	1.74	1.90	2.05	2.23	2.30	2.34	2.52	2.74	15"
	18"	1.77	3.54	5.31	7.08	2'-2"	1'-2"	4'-0"	1'-11"	1'-2"	1'-0"	2'-10"	2'-10"	3'-3"	3'-7"	4'-0"	1.56	1.99	2.21	2.08	2.17	2.43	2.68	2.54	2.79	2.88	3.01	3.06	3.40	18"
	21"	2.41	4.83	7.25	9.66	2'-5"	1'-2"	5'-0"	2'-0"	1'-2"	1'-6"	3'-7"	3'-7"	3'-7"	3'-7"	3'-8"	1.97													21"
	24"	3.14	6.28	9.42	12.56	2'-8"	1'-2"	5'-0"	2'-0"	1'-2"	1'-9"	3'-5"	3'-5"	3'-6"	3'-7"	4'-10"	2.24	2.82	2.84	2.91	3.06	3.23	3.43	3.57	3.87	3.97	4.03	4.24	4.69	24"
	27"	3.98	7.95	11.94	15.92	2'-11"	1'-3"	6'-0"	2'-1"	1'-3"	2'-3"	3'-10"	3'-10"	4'-0"	4'-3"	5'-3"	2.53													27"
	30"	4.91	9.82	14.73	19.64	3'-2"	1'-3"	6'-0"	2'-2"	1'-3"	2'-6"	4'-2"	4'-2"	4'-5"	4'-11"	6'-2"	2.84	4.13	4.18	4.28	4.48	4.93	5.01	5.25	5.69	5.84	5.93	6.24	6.91	30"
	36"	7.07	14.14	21.21	28.28	3'-8"	1'-3"	6'-0"	2'-4"	1'-3"	3'-0"	4'-7"	4'-7"	5'-3"	5'-9"	7'-4"	4.53	5.73	5.77	5.92	6.22	6.90	7.00	7.29	7.91	8.13	8.26	8.68	9.62	36"
	42"	9.62	19.24	28.85	38.48	4'-5"	1'-10"	6'-6"	2'-8"	1'-6"	3'-9"	6'-0"	6'-0"	6'-7"	6'-11"	9'-8"	6.50	8.11	8.17	8.39	8.85	9.86	10.00	10.42	11.28	11.58	11.77	12.37	13.71	42"
	48"	12.57	25.14	37.71	50.28	5'-8"	2'-1"	8'-5"	3'-5"	2'-0"	4'-9"	8'-0"	8'-0"	8'-9"	9'-7"	12'-7"	8.15	10.46	10.48	10.73	11.30	12.64	12.80	13.34	14.55	14.93	15.17	15.93	17.68	48"
	54"	15.90	31.80	47.70	63.60	6'-7"	2'-8"	10'-6"	3'-7"	2'-7"	5'-9"	10'-6"	10'-6"	11'-6"	12'-11"	16'-10"	11.11	13.23	13.33	13.58	14.58	16.72	16.97	17.86	19.46	21.03	22.22	22.66	23.83	26.67	54"
Corrugated Metal	15"	1.23	2.46	3.69	4.92	1'-11"	1'-2"	4'-0"	1'-10"	1'-2"	0'-6"	2'-1"	2'-1"	2'-8"	3'-0"	3'-8"	1.24	1.42	1.63	1.68	1.78	1.93	2.02	2.11	2.35	2.37	2.41	2.73	2.84	15"
	18"	1.77	3.54	5.31	7.08	2'-2"	1'-2"	4'-0"	1'-11"	1'-2"	1'-0"	2'-10"	2'-10"	3'-3"	3'-7"	4'-0"	1.59	2.04	2.06	2.11	2.22	2.51	2.54	2.65	2.89	2.96	3.03	3.17	3.53	18"
	21"	2.41	4.83	7.25	9.66	2'-5"	1'-2"	5'-0"	2'-0"	1'-2"	1'-6"	3'-7"	3'-7"	3'-7"	3'-7"	3'-8"	1.97													21"
	24"	3.14	6.28	9.42	12.56	2'-8"	1'-2"	5'-0"	2'-0"	1'-2"	1'-9"	3'-5"	3'-5"	3'-6"	3'-7"	4'-10"	2.29	2.91	2.93	3.01	3.17	3.52	3.71	3.86	4.19	4.26	4.43	4.61	5.01	24"
	27"	3.98	7.95	11.94	15.92	2'-11"	1'-3"	6'-0"	2'-1"	1'-3"	2'-3"	3'-10"	3'-10"	4'-0"	4'-3"	5'-3"	2.58													27"
	30"	4.91	9.82	14.73	19.64	3'-2"	1'-3"	6'-0"	2'-2"	1'-3"	2'-6"	4'-2"	4'-2"	4'-5"	4'-11"	6'-2"	3.34	4.28	4.31	4.43	4.67	5.20	5.27	5.48	5.97	6.13	6.23	6.56	7.29	30"
	36"	7.07	14.14	21.21	28.28	3'-8"	1'-3"	6'-0"	2'-4"	1'-3"	3'-0"	4'-7"	4'-7"	5'-3"	5'-9"	7'-4"	4.44	5.55	5.60	5.75	6.04	6.70	6.79	7.08	7.68	7.89	8.02	8.42	9.33	36"
	42"	9.62	19.24	28.85	38.48	4'-5"	1'-10"	6'-6"	2'-8"	1'-6"	3'-9"	6'-0"	6'-0"	6'-7"	6'-11"	9'-8"	6.49	7.78	7.93	7.40	7.96	8.10	8.21	8.70	8.83	9.01	10.23	11.05	10.96	38"	42"
	48"	12.57	25.14	37.71	50.28	5'-8"	2'-1"	8'-5"	3'-5"	2'-0"	4'-9"	8'-0"	8'-0"	8'-9"	9'-7"	12'-7"	6.81	9.91	8.03	8.16	10.00	11.39	11.56	12.13	13.16	13.37	14.62	14.68	16.73	42"	48"
	54"	15.90	31.80	47.70	63.60	6'-7"	2'-8"	10'-6"	3'-7"	2'-7"	5'-9"	10'-6"	10'-6"	11'-6"	12'-11"	16'-10"	8.66	11.74	11.85	12.22	13.01	14.22	14.51	15.57	17.37	17.91	18.33	19.34	21.72	48"	54"
	60"	19.63	39.26	58.89	78.52	7'-6"	3'-0"	12'-3"	4'-0"	2'-10"	6'-9"	12'-0"	12'-0"	13'-3"	14'-7"	19'-7"	10.55	14.68	14.88	15.37	16.44	17.05	18.42	19.85	21.68	22.37	22.44	23.66	26.55	54"	60"
	66"	23.76	47.52	71.28	95.04	8'-5"	3'-4"	14'-1"	4'-4"	3'-2"	7'-9"	13'-9"	13'-9"	15'-0"	16'-4"	22'-4"	12.55	17.78	18.02	18.61	19.90	20.65	22.30	24.05	26.24	27.09	27.18	28.65	31.55	60"	66"
	72"	28.27	56.54	84.81	113.08	9'-4"	3'-10"	15'-10"	4'-8"	3'-6"	8'-9"	15'-6"	15'-6"	16'-9"	18'-2"	25'-2"	14.40	22.20	22.48	23.18	24.68	28.03	28.38	29.80	32.83	33.81	33.88	35.35	41.05	66"	72"
	78"	33.18	66.36	99.54	132.72	10'-3"	4'-4"	17'-7"	5'-0"	3'-11"	9'-9"	17'-3"	17'-3"	18'-6"	19'-11"	27'-11"	16.51	27.40	27.68	28.50	30.00	34.18	34.50	36.03	39.83	41.06	41.08	42.55	49.58	72"	78"
	84"	38.48	76.96	115.44	153.92	11'-2"	4'-9"	19'-5"	5'-4"	4'-3"	10'-9"	19'-0"	19'-0"	20'-3"	21'-8"	30'-8"	18.77	33.55	33.82	34.67	36.17	41.32	41.67	43.21	47.83	49.31	49.32	50.79	58.12	78"	84"

ELLIPTICAL CONCRETE AND CORRUGATED METAL PIPE ARCH

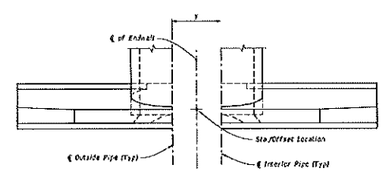
Pipe	Rise R	Span S	Opening Area (SF) Number Of Pipes 1	2	3	4	Dimensions A	B	C	E	F	G	Y	X 0°	15°	30°	45°	Class II Concrete (CI) Number Of Pipe And Skew Angle Of Pipe (α) Single 0°	Double 0°	15°	30°	45°	Triple 0°	15°	30°	45°	Quadruple 0°	15°	30°	45°	Rise R	Span S	Approx. Equiv. Round
Concrete	12"	18"	1.3	2.6	3.9	5.2	1'-8"	1'-2"	3'-2"	1'-10"	1'-2"	0'-6"	2'-10"	2'-10"	2'-11"	3'-3"	4'-0"	1.09	1.45	1.44	1.51	1.60	1.80	1.82	1.91	1.99	2.16	2.29	2.33	2.50	12"	18"	15"
	14"	18"	1.6	3.2	4.8	6.4	1'-10"	1'-2"	3'-5"	1'-11"	1'-2"	0'-9"	2'-7"	2'-7"	2'-8"	2'-11"	3'-6"	1.34	1.83	1.81	1.89	2.01	2.29	2.32	2.41	2.58	2.73	2.85	2.97	3.21	14"	18"	18"
	19"	23"	3.1	6.6	9.8	13.1	2'-4"	1'-5"	3'-10"	2'-7"	1'-5"	1'-0"	3'-5"	3'-5"	3'-6"	3'-9"	4'-10"	1.86	2.55	2.57	2.65	2.82	3.22	3.27	3.43	3.77	3.88	3.95	4.16	4.58	19"	23"	24"
	24"	30"	5.1	10.2	15.3	20.4	2'-8"	1'-5"	4'-7"	3'-1"	1'-5"	1'-3"	4'-2"	4'-2"	4'-3"	4'-6"	5'-6"	2.42	3.35	3.37	3.48	3.69	4.28	4.34	4.47	4.74	5.09	5.19	5.42	5.93	24"	30"	30"
	29"	36"	7.1	14.2	21.3	28.4	3'-1"	1'-5"	5'-2"	3'-7"	1'-5"	1'-6"	5'-0"	5'-0"	5'-0"	5'-3"	6'-0"	3.17	4.37	4.39	4.55	4.82	5.61	5.72	5.90	6.26	6.67	6.79	7.14	8.04	29"	36"	36"
	34"	42"	9.6	19.2	28.8	38.4	3'-6"	1'-7"	5'-11"	4'-3"	1'-7"	1'-9"	5'-7"	5'-7"	5'-7"	5'-9"	6'-5"	4.24	5.81	5.83	6.00	6.35	7.52	7.60	7.78	8.59	8.91	9.03	9.53	10.78	34"	42"	42"
	38"	48"	12.3	24.6	36.9	49.2	4'-1"	1'-9"	6'-8"	4'-9"	1'-9"	2'-0"	6'-3"	6'-3"	6'-3"	6'-6"	7'-3"	5.32	7.28	7.29	7.49	7.94	9.43	9.50	9.73	10.73	11.13	11.29	11.93	13.46	38"	48"	48"
	43"	60"	15.5	31.0	46.5	62.0	4'-8"	1'-10"	7'-6"	5'-3"	1'-10"	2'-3"	7'-0"	7'-0"	7'-0"	7'-3"	8'-2"	6.61	9.01	9.03	9.28	9.83	11.68	11.76	12.13	13.26	13.77	13.97	14.76	16.66	43"	60"	54"
	53"	72"	23.5	47.0	70.5	94.0	5'-8"	2'-1"	9'-6"	7'-0"	2'-2"	2'-7"	8'-5"	8'-5"	8'-5"	8'-8"	10'-1"	8.66	11.74	11.85	12.22	13.01	14.22	14.51	15.57	17.37	17.91	18.33	19.34	21.72	53"	72"	66"
	59"	83"	29.4	58.8	88.2	117.6	6'-1"	2'-6"	11'-3"	8'-2"	2'-6"	3'-1"	10'-7"	10'-7"	10'-7"	10'-11"	12'-8"	12.55	16.68	16.98	17.97	18.44	21.01	21.73	22.65	25.18	25.97	26.44	28.06	31.55	59"	83"	66"
	65"	94"	36.5	73.0	109.5	146.0	6'-6"	2'-10"	12'-10"	9'-2"	2'-10"	3'-6"	12'-0"	12'-0"	12'-0"	12'-4"	14'-3"	16.40	22.20	22.48	23.18	24.68	28.03	28.38	29.80	32.83	33.81	33.88	35.35	41.05	65"	94"	72"
	71"	105"	44.1	88.2	132.3	176.4	7'-4"	3'-3"	14'-5"	10'-3"	3'-3"	4'-0"	13'-6"	13'-6"	13'-6"	13'-9"	16'-0"	19.77	27.40	27.68	28.50	30.00	34.18	34.50	36.03	39.83	41.06	41.08	42.55	49.58	71"	105"	78"
Corrugated Metal	12"	18"	1.3	2.6	3.9	5.2	1'-8"	1'-2"	3'-2"	1'-10"	1'-2"	0'-6"	2'-10"	2'-10"	2'-11"	3'-3"	4'-0"	1.09	1.45	1.44	1.51	1.60	1.80	1.82	1.91	1.99	2.16	2.29	2.33	2.50	12"	18"	15"
	19"	23"	3.1	6.6	9.8	13.1	2'-4"	1'-5"	3'-10"	2'-7"	1'-5"	1'-0"	3'-5"	3'-5"	3'-6"	3'-9"	4'-10"	1.86	2.55	2.57	2.65	2.82	3.22	3.27	3.43	3.77	3.88	3.95	4.16	4.58	19"	23"	24"
	24"	30"	5.1	10.2	15.3	20.4	2'-8"	1'-5"	4'-7"	3'-1"	1'-5"	1'-3"	4'-2"	4'-2"	4'-3"	4'-6"	5'-6"	2.42	3.35	3.37	3.48	3.69	4.28	4.34	4.47	4.74	5.09	5.19	5.42	5.93	24"	30"	30"
	29"	36"	7.1	14.2	21.3	28.4	3'-1"	1'-5"	5'-2"	3'-7"	1'-5"	1'-6"	5'-0"	5'-0"	5'-0"	5'-3"	6'-0"	3.17	4.37	4.39	4.55	4.82	5.61	5.72	5.90	6.26	6.67	6.79	7.14	8.04	29"	36"	36"
	34"	42"	9.6	19.2	28.8	38.4	3'-6"	1'-7"	5'-11"	4'-3"	1'-7"	1'-9"	5'-7"	5'-7"	5'-7"	5'-9"	6'-5"	4.24	5.81	5.83	6.00	6.35	7.52	7.60	7.78	8.59	8.91	9.03	9.53	10.78	34"	42"	42"
	38"	48"	12.3	24.6	36.9	49.2	4'-1"	1'-9"	6'-8"	4'-9"	1'-9"	2'-0"	6'-3"	6'-3"	6'-3"	6'-6"	7'-3"	5.32	7.28	7.29	7.49	7.94	9.43	9.50	9.73	10.73	11.13	11.29	11.93	13.46	38"	48"	48"
	43"	60"	15.5	31.0	46.5	62.0	4'-8"	1'-10"	7'-6"	5'-3"	1'-10"	2'-3"	7'-0"	7'-0"	7'-0"	7'-3"	8'-2"	6.61	9.01	9.03	9.28	9.83	11.68	11.76	12.13	13.26	13.77	13.97	14.76	16.66	43"	60"	54"
	53"	72"	23.5	47.0	70.5	94.0	5'-8"	2'-1"	9'-6"	7'-0"	2'-2"	2'-7"	8'-5"	8'-5"	8'-5"	8'-8"	10'-1"	8.66	11.74	11.85	12.22	13.01	14.22	14.51	15.57	17.37	17.91	18.33	19.34	21.72	53"	72"	66"
	59"	83"	29.4	58.8	88.2	117.6	6'-1"	2'-6"	11'-3"	8'-2"	2'-6"	3'-1"	10'-7"	10'-7"	10'-7"	10'-11"	12'-8"	12.55	16.68	16.98	17.97	18.44	21.01	21.73	22.65	25.18	25.97	26.44	28.06	31.55	59"	83"	66"
	65"	94"	36.5	73.0	109.5	146.0	6'-6"	2'-10"	12'-10"	9'-2"	2'-10"	3'-6"	12'-0"	12'-0"	12'-0"	12'-4"	14'-3"	16.40	22.20	22.48	23.18	24.68	28.03	28.38	29.80	32.83	33.81	33.88	35.35	41.05	65"	94"	72"
	71"	105"	44.1	88.2	132.3	176.4	7'-4"	3'-3"	14'-5"	10'-3"	3'-3"	4'-0"	13'-6"	13'-6"	13'-6"	13'-9"	16'-0"	19.77	27.40	27.68	28.50	30.00	34.18	34.50	36.03	39.83	41.06	41.08	42.55	49.58	71"	105"	78"

NOTES:

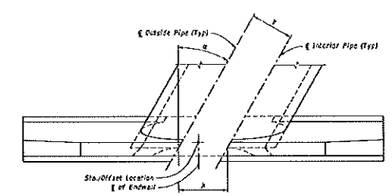
1. Dimension X is calculated as: $X = Y \times SEC\ \alpha$.
2. Select tabular quantities using skew values as follows:

End Skew to Pipe	Use Tabulated Value
0° to 9°	0°
0° to 19°	15°
15° to 29°	30°
31° or Over	45°

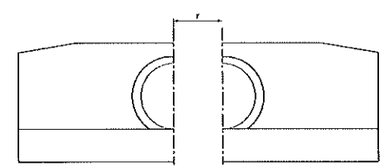
CONCRETE AND METAL PIPE TABLES



PLAN

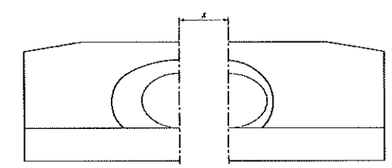


PLAN



FRONT ELEVATION

NORMAL PIPE



FRONT ELEVATION

SKEWED PIPE

(Multiple Pipe Shown, Single Pipe Similar)

LEGEND:

α Pipe Skew Angle
Y Center to Center between pipes
X Center to Center along front of Headwall

SPACING FOR MULTIPLE PIPES

DAVID W. SCHMITT, LICENSE NO. 41671, STATE OF FLORIDA, PROFESSIONAL ENGINEER

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FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 30462

Poinciana Village Stormwater Improvements Details

THESE DRAWINGS ARE NOT APPROVED UNLESS SIGNED AND SEALED BELOW:

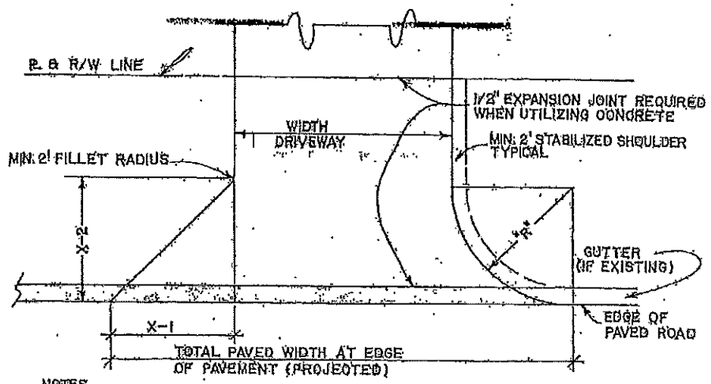
DAVID W. SCHMITT, P.E.
FL. LICENSE NO. 41671
06/22/2025

DESIGN	DRAWN	CHKD
KLP	KLP	DWS

SCALE NONE

JOB No. 2021-016
DRAWING No. PLAN SH.
DATE 11/2022
SHEET 118

SINGLE FAMILY & DUPLEX DRIVEWAY



NOTES

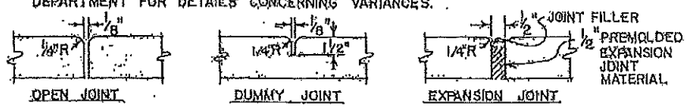
1. TURNOUT (DIMENSIONS X-1 & X-2) SHALL BE REQUIRED WHEN USING CONCRETE UNLESS OTHERWISE APPROVED
2. WHERE GUTTER IS USED THE DIMENSIONS SHOWN SHALL BE AS PROJECTED FROM EDGE OF PAVEMENT
3. FLORIDA D.O.T. PRIMARY AND SECONDARY AND COUNTY ARTERIAL STREETS REQUIRE MINIMUM DIMENSIONS OF 18 FOOT DRIVE WIDTH WITH A MINIMUM RADIUS OF 15 FOOT. (REGARDLESS OF DRIVE WIDTH—A 15 FOOT RADIUS WILL BE REQUIRED)

MINIMUM DRIVEWAY DIMENSION COMBINATION

DRIVEWAY WIDTH	RADIUS FILLET R	TOTAL WIDTH	TURNOUT X-1	TURNOUT X-2	TOTAL WIDTH
10'	10'	30'	10'	8'	30'
12'	9'	30'	9'	7'	30'
13'	8.5'	30'	8.5'	6.5'	30'
14'	8'	30'	8'	6'	30'
15'	7.5'	30'	7.5'	5.5'	30'
16'	7'	30'	7'	5'	30'
17'	6.5'	30'	6.5'	4.5'	30'
18'	6'	30'	6'	4'	30'
19'	5.5'	30'	5.5'	4'	30'
20'	5'	30'	5'	4'	30'
21'	4.5'	30'	4.5'	3'	30'
22'	4'	30'	4'	3'	30'
24'	3'	30'	3'	3'	30'

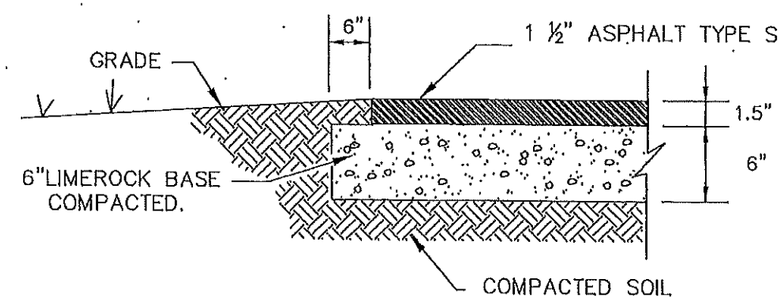
NOTES

THESE DIMENSION ARE NOT APPLICABLE TO DRIVEWAYS CONSTRUCTED AROUND CUL-DE-SACS AND SHARP RADIUS. CONTACT THE ENGINEERING DEPARTMENT FOR DETAILS CONCERNING VARIANCES.



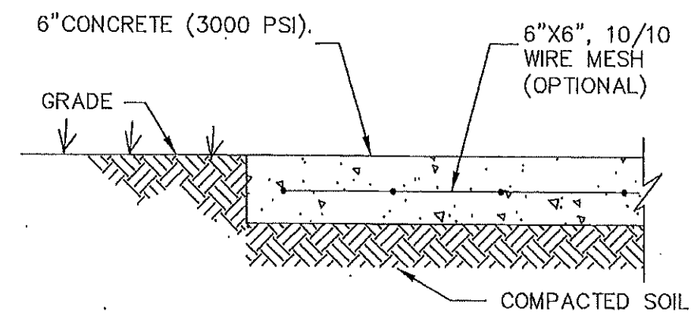
plotdate 04/10/03

COLLIER COUNTY TRANSPORTATION OPERATIONS DEPARTMENT	REVISION 3-25-08 APPROVED	TITLE: RESIDENTIAL DRIVEWAYS AND VARIOUS JOINTS	SHEET 1 of 26



ASPHALT DRIVE DETAIL

N.T.S.



CONCRETE DRIVE DETAIL

N.T.S.

PLOT DATE 4/10/03

COLLIER COUNTY TRANSPORTATION OPERATIONS DEPARTMENT	REVISION 3-24-08 APPROVED	TITLE: RESIDENTIAL ASPHALT / CONCRETE DRIVE NOTES AND DETAILS	SHEET 22 OF 26

DAVID W. SCHMITT LICENSE NO. 41671 STATE OF FLORIDA PROFESSIONAL ENGINEER

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Poinciana Village Stormwater Improvements Details

THESE DRAWINGS ARE NOT APPROVED UNLESS SIGNED AND SEALED BELOW :

DAVID W. SCHMITT, P.E.
FL. LICENSE NO. 41671
11/12/2024

KLP	KLP	DWS
DESIGN	DRAWN	CHKD

SCALE 1" = 300'

JOB No.	2021-016
DRAWING No.	PLAN SH.
DATE	11/2022
SHEET	119

CAD file name: C:\Users\Users\Documents\Projects\Pelo\DWG\2021016-Sch.dwg 11/12/2024
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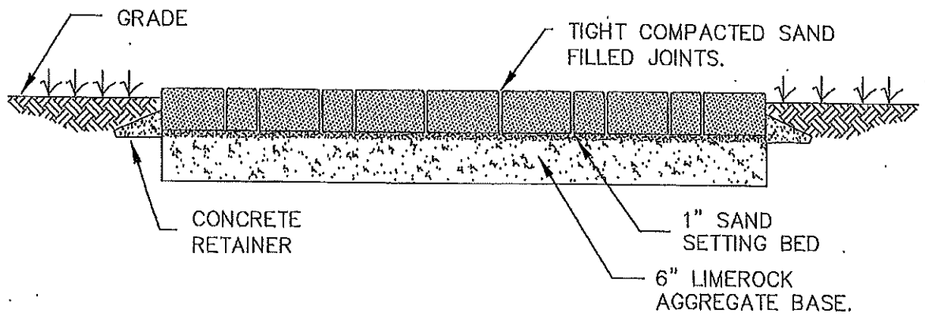
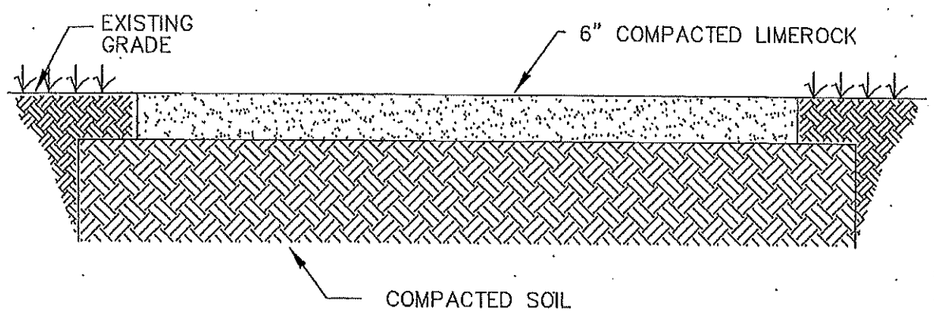


PAVER DRIVE DETAIL

N.T.S.



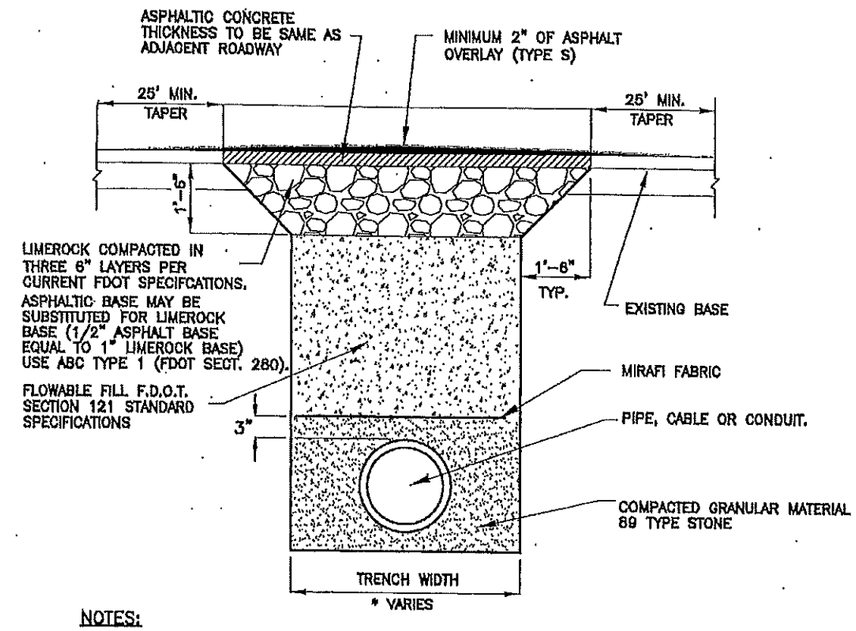
LIMEROCK DRIVE DETAIL *

N.T.S.

* LIMESTONE DRIVE PERMITTED ONLY WHEN ADJOINING ROADWAY IS LIMESTONE.

PLOT DATE 4/10/03

COLLIER COUNTY TRANSPORTATION OPERATIONS DEPARTMENT	REVISION 3-24-08 APPROVED	TITLE: RESIDENTIAL PAVERS / LIMEROCK DRIVE NOTES AND DETAILS	SHEET 23 of 26



NOTES:

1. OVERLAY REQUIRED AT COLLIER COUNTY'S DISCRETION.
2. WRAP PIPE JOINTS WITH FILTER FABRIC.

* TRENCH WIDTH = PIPE OUTSIDE DIAMETER PLUS 2 FEET

OPEN CUT RESTORATION

WITH FLOWABLE FILL

PLOT DATE 08-24-07 EZ

COLLIER COUNTY TRANSPORTATION OPERATIONS DEPARTMENT	REVISION 03-24-08 EZ APPROVED	TYPICAL ROAD RESTORATION COLLECTOR / ARTERIAL	SHEET 21 of 26

OLD 25 OF 31

CAD file name: C:\Users\kpopp\Documents\Projects\Pelican\CVR\2021015-Cert.dwg, 11/12/2024
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Poinciana Village Stormwater Improvements Details

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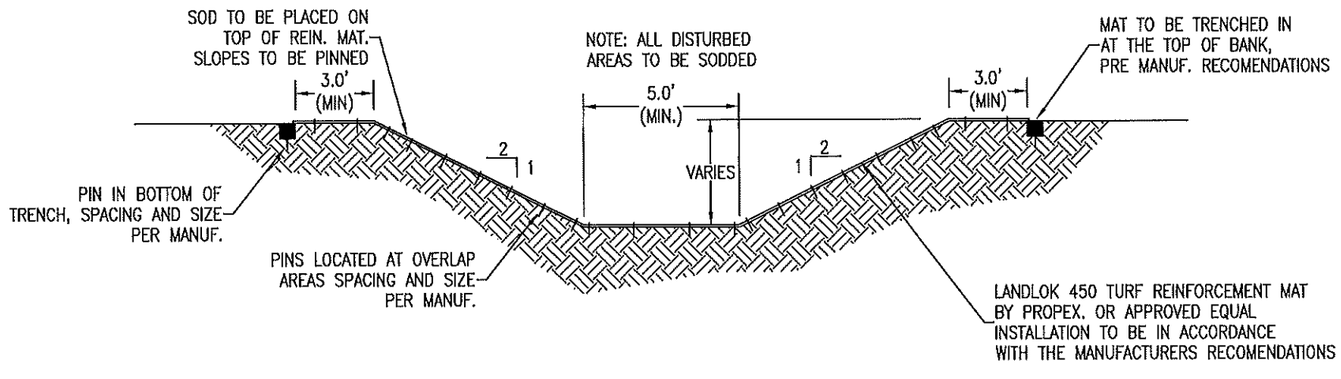
DAVID W. SCHMITT, P.E. FL. LICENSE NO. 41671 11/12/2024

KLP	KLP	DWS
DESIGN	DRAWN	CHKD

SCALE 1" = 300'

JOB No.	2021-015
DRAWING No.	PLAN SH.
DATE	11/2022
SHEET	120



LANDLOC 450 (TRM) CHANNEL INSTALLATION

CAD file name: Q:\Jacks\Projects\Poinciana Village\Stormwater Improvements\Details.dwg
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Poinciana Village
Stormwater Improvements
Details

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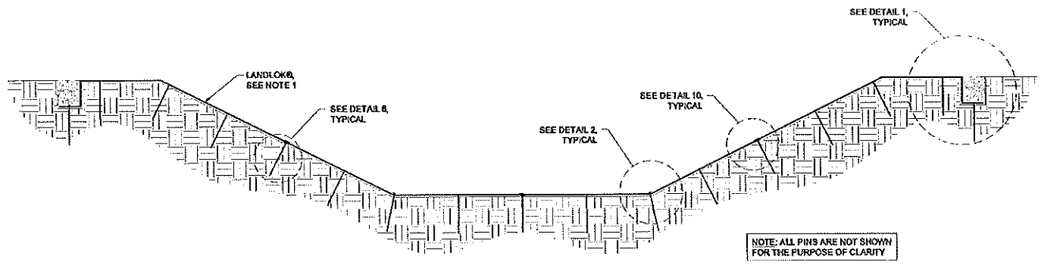
DAVID W. SCHMITT, P.E.
FL. LICENSE NO. 41671
06/22/2025

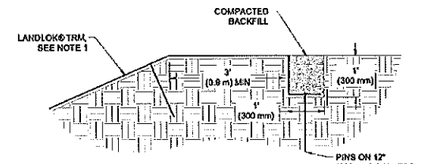
DESIGN	DRAWN	CHKD
KLP	KLP	DWS

SCALE 1" = 40'

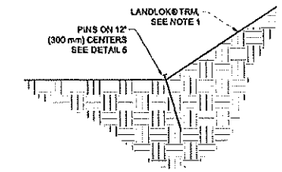
JOB No. 2021-016
DRAWING No. PLAN SH.
DATE 11/2022
SHEET 121



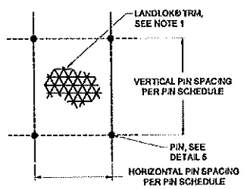
ELEVATION 1: PARALLEL INSTALLATION OF LANDLOK® TRM IN A CHANNEL



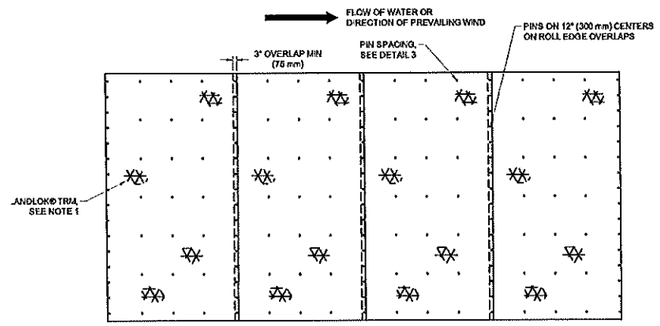
DETAIL 1: CREST OF SLOPE (COS) TRENCH



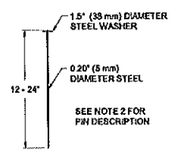
DETAIL 2: BREAK IN SLOPE INTERFACE



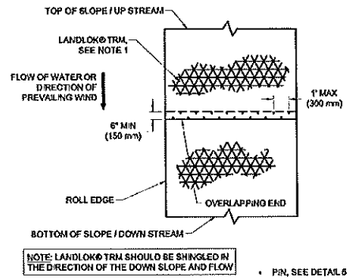
DETAIL 3: PIN PATTERN



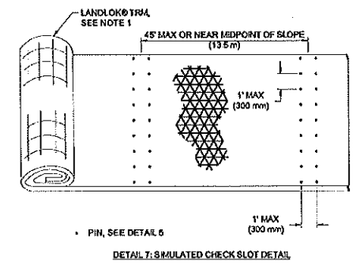
DETAIL 4: PIN PATTERN



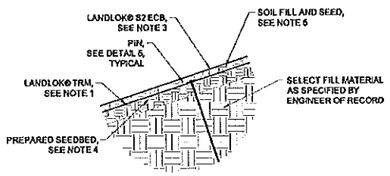
DETAIL 5: PIN



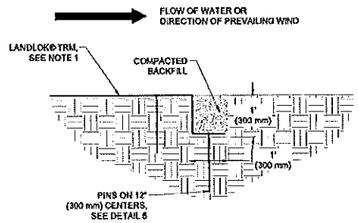
DETAIL 6: OVERLAP AT ROLL END DETAIL



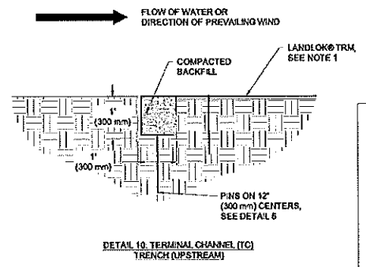
DETAIL 7: SIMULATED CHECK SLOT DETAIL



DETAIL 8: VEGETATION ESTABLISHMENT



DETAIL 9: INITIAL CHANNEL (IC) TRENCH (DOWNSTREAM)



DETAIL 10: TERMINAL CHANNEL (TC) TRENCH (UPSTREAM)

PIN SCHEDULE	
SECURING DEVICE	PIN
HORIZONTAL PIN SPACING	2' (0.60 m)
VERTICAL PIN SPACING	2.5' (0.75 m)
EMBEDMENT DEPTH	PER MANUFACTURES DESIGN

LANDLOK® TRM IN A CHANNEL FOR EROSION CONTROL GENERAL INSTALLATION GUIDELINES

GENERAL NOTES

1. The LANDLOK® TRM is a three-dimensional, lofty, stitch-bonded polypropylene geotextile which is specially designed for erosion control applications on steep slopes and vegetated waterways. The matrix is composed of a dense web of crimped,interlocking fibers featuring X3® technology positioned between two biaxially oriented nets and mechanically bound together by parallel stitching with polypropylene thread. The material exhibits very high interlock and reinforcement capacity with both soil and root systems, demonstrates superior UV resistance, and enhances seedling emergence.
2. The 12", 18", and 24" Securing Pins are composed of a wire, mushroomed at the top. A washer is then placed on the wire and the wire is crimped or swedged about 3-1/2" below the top so the washer will not slide off. The end of the wire is cut at a 45 degree angle for easy penetration of the soil. These Pins with washers conform to industry standards for erosion control pins with washers.
3. LANDLOK® S2 Erosion Control Blankets consist of 100% wheat straw mechanically bound and covered on both sides by netting. The straw is homogeneously blended and evenly distributed throughout the blanket. The netting is photodegradable polypropylene with mesh openings of approximately 3/8 in. by 3/8 in. (11 mm by 11 mm). The blanket is sewn on approximately 2 in. (51 mm) centers with photodegradable polypropylene thread. This product is NTPEP approved for AASHTO standards.

VEGETATION ESTABLISHMENT

4. Prepare seedbed by loosening 50 to 75 mm (2 to 3 in) of soil above final grade. Apply seed in an amount equivalent to 60% of the total mixture required to be installed on the soil surface, to scarified surface prior to installation of the LANDLOK® TRM. Select and apply soil amendments and fertilizer, to scarified surface prior to installation of the LANDLOK® TRM. A site specific soil test should be performed to help determine what soil amendments, such as lime and fertilizer, need to be incorporated into the soil to promote healthy vegetation.
5. The installed LANDLOK® TRM shall be soil filled and seeded with the remaining 40% of the seed mixture. Do not place excessive soil above material. Once soil fill and additional seed is in place, surficial protection should be accomplished by installing LANDLOK® S2 Erosion Control Blanket (ECB) atop the seed layer. LANDLOK® S2 ECB is to be secured using 6" U-shaped staples with a frequency of 2.0 staples per square meter (1.7 staples per square yard).
6. Irrigate as necessary to establish and maintain vegetation until 75% of vegetation has established and has reached a height of 2 inches. Frequent, light irrigation will need to be applied to seeded areas if natural rain events have not occurred within two weeks of seeding.

BEFORE INSTALLATION BEGINS

7. Coordinate with a Propex Representative: A pre-construction meeting is suggested with the construction team and a representative from Propex. This meeting should be scheduled by the contractor with at least a two week notice.
8. Gather the Tools Needed: Tools that you will need to install the LANDLOK® TRM include a pair of industrial shears to cut the LANDLOK® TRM and tape measure.
9. Determine how to Establish Vegetation: The method of vegetation establishment should be determined prior to the start of installation. Different vegetation establishment methods require different orders of installation. Refer to Establish Vegetation for further guidance.
10. Please consult the Propex Website for the most up to date installation guidelines.

Propex® GEOSOLUTIONS

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EROSION CONTROL INSTALLATION DETAILS

Please note that the information presented herein is general information only. It is for conceptual use only and not intended to be used for construction. While every effort has been made to ensure its accuracy, this information should not be used for a specific application without independent professional examination and verification of its suitability, applicability, and accuracy. This engineering drawing is protected by the Copyright Act, 17 U.S.C. §101 et seq. and may be used ONLY with the express written permission of Propex in connection with Propex products. Any copying, distributing, and/or creation of a derivative work without permission of Propex is prohibited and is subject of actual damages, statutory damages and attorney's fees under the Copyright Act.

1 of 1

LANDLOK® TURF REINFORCEMENT MAT (TRM)
LANDLOK® TRM INSTALLATION DETAILS FOR CHANNELS

Rev	Date:	Drawn By:	Scale:
	02/10/2017	J. HILL	NTS

*ALL DIMENSIONS ARE TO BE VERIFIED BY ENGINEER OF RECORD

DAVID W. SCHMITT LICENSE NO. 41671 STATE OF FLORIDA PROFESSIONAL ENGINEER

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Collier County
TRANSPORTATION MANAGEMENT SERVICES

REV.	DESCRIPTION	DATE
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4		
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2		
1		

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950 Encore Way
Naples, FL 34110
Phone (239) 254-2000
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Bowman
FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 30462

Poinciana Village
Stormwater Improvements
Details

THESE DRAWINGS ARE NOT APPROVED UNLESS SIGNED AND SEALED BELOW :

DAVID W. SCHMITT, P.E.
FL. LICENSE NO. 41671
11/12/2024

KLP	KLP	DWS
DESIGN	DRAWN	CHKD

SCALE NONE

JOB No.	2021-016
DRAWING No.	PLAN SH.
DATE	11/2022
SHEET	122

CAD file name: C:\Users\bmcm\Documents\Projects\Collier\TMC\2016 Vendor\11-10-2024
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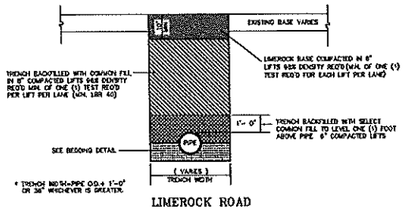


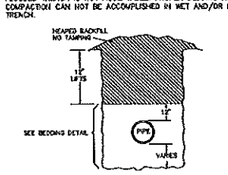
LIMEROCK ROAD

NOTES: 1) ALL PROCTOR AND DENSITY TESTS SHALL BE TAKEN BY A CERTIFIED LABORATORY

2) ALL TESTS SHALL BE COMPLETED AND MET MINIMUM DENSITY REQUIREMENTS PRIOR TO ADDITIONAL BACK-FILLING

3) ALL BACKFILL MATERIAL REQUIRES APPROVAL BY PROJECT ENGINEER

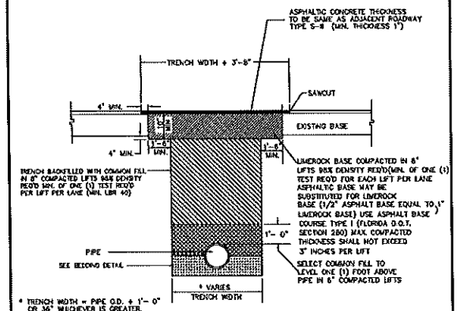
***** CONTRACTOR SHALL UTILIZE BEST METHODS AND PRACTICES TO CONTROL GROUND WATER DURING ENTIRE EXCAVATION, INSTALLATION, BACKFILL AND COMPACTION. INSTALLATION OF PIPELINE IN WET AND/OR FLOODED TRENCH IS NOT ACCEPTABLE. PROPER BEDDING AND COMPACTION CAN NOT BE ACCOMPLISHED IN WET AND/OR FLOODED TRENCH.



OPEN TERRAIN

THE DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEER SHALL PROVIDE STANDARD DETAIL TO BE GREATER THAN THESE.

FOR:	UTILITIES DEPARTMENT	CITY OF NAPLES
DATE: JAN. 2016	BACKFILL – LIMEROCK ROAD & OPEN TERRAIN	SHEET: U-01
DRAWN: DAG/AMH		DIR: UTILITIES
SCALE: N.T.S.	380 RIVERSIDE CIRCLE, NAPLES, FLORIDA, 34102	DWG. U-01-16.DWG



NOTES: 1) ALL PROCTOR AND DENSITY TESTS SHALL BE TAKEN BY A CERTIFIED LABORATORY

2) ALL TESTS SHALL BE COMPLETED AND MET MINIMUM DENSITY REQUIREMENTS PRIOR TO ADDITIONAL BACK-FILLING

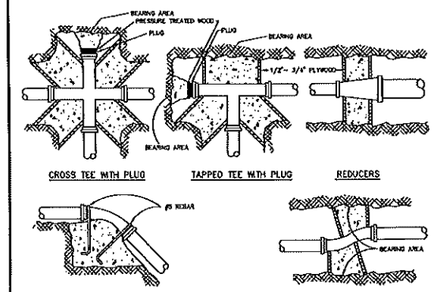
3) ORDINANCE 82-91 REQUIRES A R.O.W. PERMIT FOR ALL WORK WITHIN PUBLIC ROADS. THE R.O.W. PERMIT REQUIREMENTS SHALL SUPERSEDE THIS DETAIL.

***** CONTRACTOR SHALL UTILIZE BEST METHODS AND PRACTICES TO CONTROL GROUND WATER DURING ENTIRE EXCAVATION, INSTALLATION, BACKFILL AND COMPACTION. INSTALLATION OF PIPELINE IN WET AND/OR FLOODED TRENCH IS NOT ACCEPTABLE. PROPER BEDDING AND COMPACTION CAN NOT BE ACCOMPLISHED IN WET AND/OR FLOODED TRENCH.

***** INSTALLATION OF ANY WATER, WASTEWATER, OR RECLAIM WATER LINE REQUIRED TO PASS UNDER OR TRENCHING CAUSING UNDERMINING OF ANY EXISTING CONCRETE CURB, GUTTER, OR SIDEWALK: TUNNELING UNDER IS NOT ALLOWED. ANY AFFECTED CONCRETE CURB, GUTTER, OR SIDEWALK SHALL BE CLEANLY REMOVED (ALL SECTIONS AFFECTED, 5 FT MINIMUM). FULL BACKFILL AND PROPER COMPACTION PERFORMED. CONCRETE REPLACED REQUIRING A MINIMUM OF 5 FT BETWEEN EXPANSION JOINTS.

THE DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEER SHALL PROVIDE STANDARD DETAIL TO BE GREATER THAN THESE.

FOR:	UTILITIES DEPARTMENT	CITY OF NAPLES
DATE: JAN. 2016	BACKFILL – PAVED ROADWAYS	SHEET: U-02
DRAWN: DAG/AMH		DIR: UTILITIES
SCALE: N.T.S.	380 RIVERSIDE CIRCLE, NAPLES, FL 34102	DWG. U-02-16.DWG



* THRUST BLOCKS TYPICAL FOR ALL NON-RESTRAINED PIPE SYSTEMS, ESPECIALLY A.C. & C.I. PIPES.

* FOR FULLY RESTRAINED PIPE SYSTEMS, THE USE, LOCATION, AND TYPE OF THRUST BLOCKS SHALL BE DETERMINED BY THE CITY UTILITY ENGINEER IF REQUIRED.

MINIMUM BEARING AREAS IN SQUARE FEET FOR THRUST BLOCKS

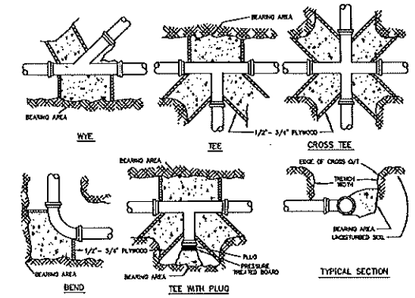
PIPE SIZE	TEES	90° BEND	45° BEND	22 1/2° BEND	VALVES & PLUGS
4"	1	1	1	1	1
6"	3	4	2	1	3
8"	5	7	4	2	5
10"	8	12	6	3	9
12"	12	16	9	5	12
14"	16	20	12	7	16
20"	24	30	17	10	24
24"	34	34	24	12	34

NOTES:
1. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH.
2. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
3. POUR THRUST BLOCKS AGAINST UNDISTURBED SOIL WHERE TRENCH WALL HAS BEEN DISTURBED. EXCAVATE LOOSE SOIL AND EXTEND THRUST BLOCKS TO UNDISTURBED SOIL.
4. IN BACK FILLING, ANY MUCK ENCOUNTERED SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIAL.
5. BACK FILL MATERIAL SHALL NOT INCLUDE ROCK OR BOULDERS.
6. THRUST BLOCK AREAS BASED ON 2000 PSF BEARING LOAD OF PSCO P.S.F. AND LINE PRESSURE OF 150 P.S.I.
7. ALL CONCRETE SHALL BE MINIMUM 2000 PSI

TYPICAL THRUST BLOCKS

THE DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEER SHALL PROVIDE STANDARD DETAIL TO BE GREATER THAN THESE.

FOR:	UTILITIES DEPARTMENT	CITY OF NAPLES
DATE: JAN. 2016	THRUST BLOCKS NO. 1	SHEET: U-04
DRAWN: DAG/AMH		DIR: UTILSTDS
SCALE: N.T.S.	380 RIVERSIDE CIRCLE, NAPLES, FL 34102	DWG. U-04-16.DWG



MINIMUM BEARING AREAS IN SQUARE FEET FOR THRUST BLOCKS

PIPE SIZE	TEES	90° BEND	45° BEND	22 1/2° BEND	VALVES & PLUGS
4"	1	1	1	1	1
6"	3	4	2	1	3
8"	5	7	4	2	5
10"	8	12	6	3	9
12"	12	16	9	5	12
16"	16	20	12	7	16
20"	24	30	17	10	24
24"	34	34	24	12	34

NOTES:
1. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH.
2. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
3. POUR THRUST BLOCKS AGAINST UNDISTURBED SOIL WHERE TRENCH WALL HAS BEEN DISTURBED. EXCAVATE LOOSE SOIL AND EXTEND THRUST BLOCKS TO UNDISTURBED SOIL.
4. IN BACK FILLING, ANY MUCK ENCOUNTERED SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIAL.
5. BACK FILL MATERIAL SHALL NOT INCLUDE ROCK OR BOULDERS.
6. THRUST BLOCK AREAS BASED ON 2000 PSF BEARING LOAD OF PSCO P.S.F. AND LINE PRESSURE OF 150 P.S.I.
7. ALL CONCRETE SHALL BE MINIMUM 2000 PSI

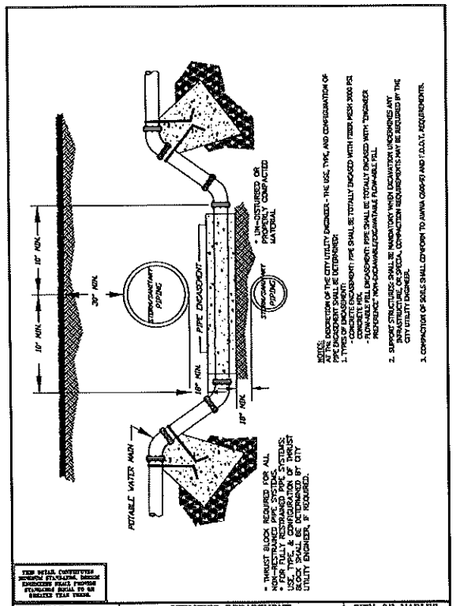
TYPICAL THRUST BLOCKS

* THRUST BLOCKS TYPICAL FOR ALL NON-RESTRAINED PIPE SYSTEMS, ESPECIALLY A.C. & C.I. PIPES.

* FOR FULLY RESTRAINED PIPE SYSTEMS, THE USE, LOCATION, AND TYPE OF THRUST BLOCKS SHALL BE DETERMINED BY THE CITY UTILITY ENGINEER IF REQUIRED.

THE DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEER SHALL PROVIDE STANDARD DETAIL TO BE GREATER THAN THESE.

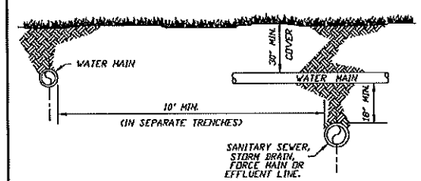
FOR:	UTILITIES DEPARTMENT	CITY OF NAPLES
DATE: JAN. 2016	THRUST BLOCKS NO. 2	SHEET: U-05
DRAWN: DAG/AMH		DIR: UTILSTDS
SCALE: N.T.S.	380 RIVERSIDE CIRCLE, NAPLES, FL 34102	DWG. U-05-16.DWG



NOTES:
ALL TYPE, DIRECTION OF THE CITY UTILITY ENGINEER - THE SIZE, TYPE, AND CONFIGURATION OF PIPE ENCASEMENT SHALL BE DETERMINED:
1. - CONCRETE ENCASEMENT: FOR SHALL BE TOTALLY ENCASED WITH FIBER MESH 3000 PSI CONCRETE.
- FLOWABLE FILL ENCASEMENT: PIPE SHALL BE TOTALLY ENCASED WITH TOPSOIL.
PROCEDURE: NON-SHRINK, NON-SEGREGATING FLOWABLE FILL.
2. SUPPORT STRUCTURE SHALL BE DESIGNED BY A FLORIDA LICENSED ENGINEER. ANY DEVIATIONS FROM THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, MUST BE REVIEWED BY THE CITY UTILITY ENGINEER.
3. CONTRACTOR OF SOLE SHALL CONFORM TO AWWA C600-93 AND F.D.O.T. REQUIREMENTS.

THE DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEER SHALL PROVIDE STANDARD DETAIL TO BE GREATER THAN THESE.

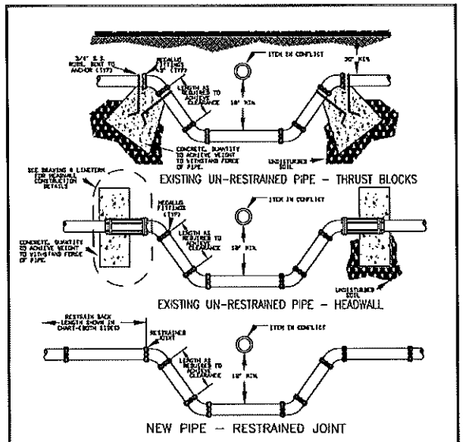
FOR:	UTILITIES DEPARTMENT	CITY OF NAPLES
DATE: JAN. 2016	TYPICAL ENCASEMENT	SHEET: U-06
DRAWN: DAG/AMH		DIR: UTILSTDS
SCALE: N.T.S.	380 RIVERSIDE CIRCLE, NAPLES, FL 34102	DWG. U-06-16.DWG



** NOTES:
1. SANITARY SEWER LINES OR FORCE MAINS SHALL BE SEPARATED FROM WATER MAINS BY A MINIMUM CLEAR VERTICAL DISTANCE OF 18" AND A HORIZONTAL DISTANCE OF 10'-0".
2. ALL CROSSING WITH VERTICAL CLEARANCE LESS THAN 18" SHALL BE MADE USING THICKNESS CLASS 200 AWWA C-900 P.V.C. OR DUCTILE IRON, CLASS 350 PIPE FOR DISTANCE OF 10' EACH SIDE OF THE CROSSING AND SEWER SHALL BE CONCRETE ENCASED.
3. THE 18" CLEAR DISTANCE SHALL NOT BE REDUCED IN CASES WHERE WATER MAIN CROSSES UNDER SEWER LINE.
4. VERTICAL CLEARANCE LESS THAN 18" SHALL NOT BE ALLOWED,UNLESS APPROVED BY THE CITY UTILITY ENGINEER.

THE DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEER SHALL PROVIDE STANDARD DETAIL TO BE GREATER THAN THESE.

FOR:	UTILITIES DEPARTMENT	CITY OF NAPLES
DATE: JAN. 2016	CROSS OVER	SHEET: U-07
DRAWN: DAG/AMH		DIR: UTILSTDS
SCALE: N.T.S.	380 RIVERSIDE CIRCLE, NAPLES, FL 34102	DWG. U-07-16.DWG



*RESTRAINED JOINT PIPE DISTANCES FOR NEW PIPE(IN FEET)

PIPE SIZE	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
8"	74	31	15	7
10"	87	36	17	9
12"	100	41	20	10
16"	123	51	24	12
20"	143	59	29	14
24"	162	67	32	16
30"	184	76	37	18
36"	207	86	41	20

*FOR FITTINGS NOT SHOWN HERE, REFER TO PIPE RESTRAINT DETAIL DRAWING

THE DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEER SHALL PROVIDE STANDARD DETAIL TO BE GREATER THAN THESE.

FOR:	UTILITIES DEPARTMENT	CITY OF NAPLES
DATE: JAN. 2016	TYPICAL CONFLICT CROSSING	SHEET: U-08
DRAWN: DAG/AMH		DIR: UTILSTDS
SCALE: N.T.S.	380 RIVERSIDE CIRCLE, NAPLES, FL 34102	DWG. U-08-16.DWG

PIPE SIZE IN INCHES	RESTRAINED PIPE LENGTH IN FEET (1)						
	HORIZONTAL BENDS				DEAD ENDS (2)	45° VERTICAL BENDS	
	90°	45°	22-1/2°	11-1/4°		UPPER	LOWER
4	23	9	5	2	55	23	8
6	32	13	6	3	77	32	11
8	74	31	15	7	100	41	14
10	87	36	17	9	120	50	17
12	100	41	20	10	141	58	20
16	123	51	24	12	181	75	25
18	133	55	27	13	200	83	28
20	143	59	29	14	218	90	30
24	162	67	32	16	253	105	35
30	184	76	37	18	303	125	41
36	207	86	41	20	350	145	47

PIPE SIZE IN INCHES	RESTRAINED PIPE LENGTH IN FEET (1)	
	TEE (3)	REDUCER (4)
6 x 4	0	40
6 x 6	34	
8 x 4	0	72
8 x 6	55	
10 x 6	3	74
10 x 10	75	
12 x 4	0	122
12 x 6	31	75
12 x 12	95	
18 x 6	0	153
18 x 10	44	107
16 x 16	134	
18 x 6	0	157
18 x 12	66	108
18 x 18	152	
20 x 10	20	161
20 x 16	120	77
20 x 20	170	
24 x 12	37	187
24 x 18	132	109
24 x 24	204	
30 x 16	78	213
30 x 20	138	165
30 x 30	252	
36 x 18	84	259
36 x 24	170	191
36 x 36	298	

NOTES:

1. RESTRAIN ALL PIPE JOINTS WITHIN THE DISTANCE SHOWN ON THE TABLES MEASURED FROM THE POINT OF CONNECTION.

2. ISOLATION VALVES SHALL BE TREATED AS DEAD ENDS. WITH RESTRAINT ON BOTH SIDES OF THE VALVE.

3. RESTRAINT IS FOR BRANCH OF TEE. IF BRANCH SIZE IS NOT ON TABLE, USE NEXT LARGEST BRANCH.

4. RESTRAINT IS FOR LARGE DIAMETER SIDE OF REDUCER. IF REDUCER SIZE IS NOT ON TABLE, USE NEXT SMALLER REDUCER (SMALL END).

5. THIS SCHEDULE IS TO BE USED FOR DUCTILE IRON AND PVC PIPE.

THE DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEER SHALL PROVIDE STANDARD DETAIL TO BE GREATER THAN THESE.

FOR:	UTILITIES DEPARTMENT	CITY OF NAPLES
DATE: JAN. 2016	PIPE RESTRAINT SCHEDULE	SHEET: U-09
DRAWN: DAG/AMH		DIR: UTILSTDS
SCALE: N.T.S.	380 RIVERSIDE CIRCLE, NAPLES, FL 34102	DWG. U-09-16.DWG

DAVID W. SCHMITT, LICENSE NO. 41671, STATE OF FLORIDA, PROFESSIONAL ENGINEER

"IT IS VIOLATION OF THE FLORIDA STATUTES FOR ANY PERSON UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER TO ALTER THIS DOCUMENT IN ANY WAY."

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Collier County TRANSPORTATION MANAGEMENT SERVICES

REV.	DESCRIPTION	DATE
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Naples, FL 34110
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Bowman
FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 30462

Poinciana Village
Stormwater Improvements
Utility Details

THESE DRAWINGS ARE NOT APPROVED UNLESS SIGNED AND SEALED BELOW :

DAVID W. SCHMITT, P.E.
FL. LICENSE NO. 41671
11/12/2024

KLP	KLP	DWS
DESIGN	DRAWN	CHKD
SCALE	NONE	

JOB No. 2021-016
DRAWING No. PLAN SH.
DATE 11/2022
SHEET 123

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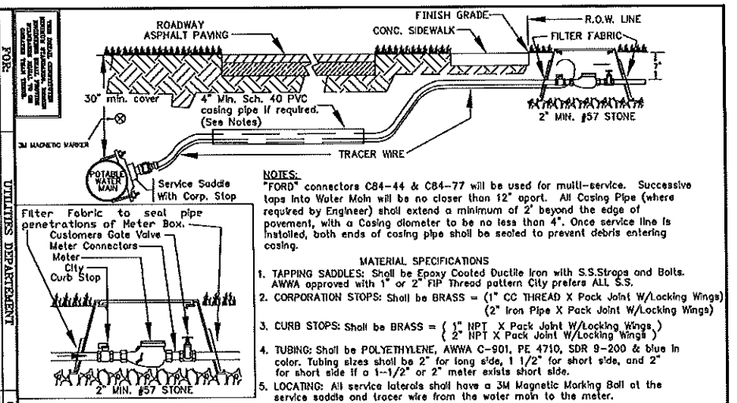


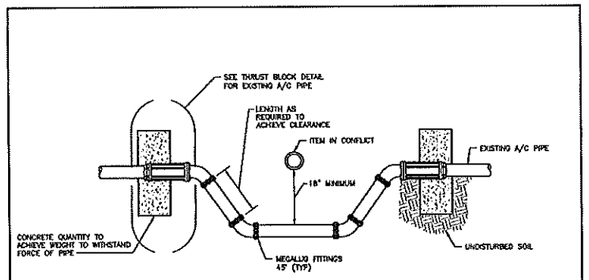
NOTES:
"FORD" connectors C84-44 & C84-77 will be used for multi-service. Successive taps into Water Main will be no closer than 12" apart. All Casing Pipe (where required by Engineer) shall extend a minimum of 2' beyond the edge of pavement, with a Casing diameter to be no less than 4". Once service line is installed, both ends of casing pipe shall be sealed to prevent debris entering casing.

MATERIAL SPECIFICATIONS

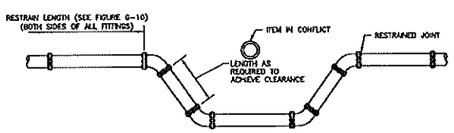
1. TAPPING SADDLES: Shall be Epoxy Coated Ductile Iron with S.S.Straps and Bolts. AWWA approved with 1" or 2" FIP Thread pattern City prefers ALL S.S.
2. CORPORATION STOPS: Shall be BRASS = (1" CC THREAD X Pack Joint W/Locking Wings) (2" Iron Pipe X Pack Joint W/Locking Wings)
3. CURB STOPS: Shall be BRASS = (1" NPT X Pack Joint W/Locking Wings) (2" NPT X Pack Joint W/Locking Wings)
4. TUBING: Shall be POLYETHYLENE, AWWA C-901, PE 4710, SDR 9-200 & blue in color. Tubing sizes shall be 2" for long side, 1 1/2" for short side, and 2" for short side if a 1-1/2" or 2" meter exists short side.
5. LOCATING: All service laterals shall have a 3M Magnetic Marking Ball at the service saddle and tracer wire from the water main to the meter.
6. METER BOXES:
   5/8" & 3/4" METERS REQUIRE A CARSON #1419 PLASTIC METER BOX (MAINLY USED IN NONTRAFFIC AREAS)
   5/8" & 3/4" METERS REQUIRE A CARSON #B1324 CONCRETE BOX W/TRAFFIC RATED LID (USED IN TRAFFIC AREAS)
   1" METERS REQUIRE A CARSON #1324 PLASTIC METER BOX (MAINLY USED IN NONTRAFFIC AREAS)
   1" METERS REQUIRE A CARSON #B1324 CONCRETE BOX W/TRAFFIC RATED LID (MAINLY USED IN TRAFFIC AREAS)
   1.5" & 2" METERS REQUIRE A CARSON #1730 PLASTIC METER BOX (MAINLY USED IN NON-TRAFFIC AREAS)
   1.5" & 2" METERS REQUIRE A CARSON #B1730 CONCRETE BOX W/TRAFFIC RATED LID (USED IN TRAFFIC AREAS)

NOTE: ANY SUBMETERS DOWNSTREAM OF METER DEPICTED ON THIS DWG. SHALL BE OWNED AND MAINTAINED BY DEVELOPER

FOR:	UTILITIES DEPARTMENT	CITY OF NAPLES
DATE: JAN. 2016	TYPICAL METER SETTING DETAIL	SHEET: W-13
DRAWN: DAG/AMH		DIR: WATER
SCALE: N.T.S.	380 RIVERSIDE CIRCLE, NAPLES, FL 34102	DWG. W-13-16.DWG



EXISTING A/C PIPE - HEADWALL



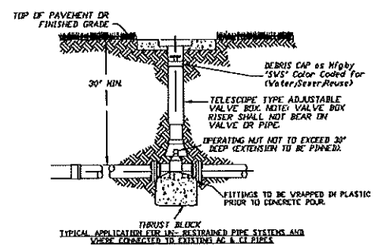
NEW & EXISTING PIPE - RESTRAINED JOINT

NOTES

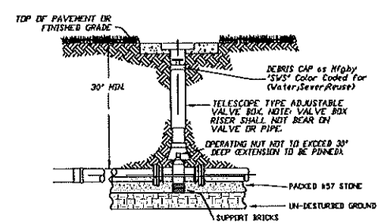
1. SEE SECTION 1 - DESIGN CRITERIA FOR AIR RELEASE VALVE REQUIREMENTS.

PIPE CONFLICT DETAILS
NTS

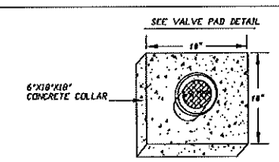
G-4
REVISED: APRIL 2006



TYPICAL APPLICATION FOR UN-RESTRAINED PIPE SYSTEMS AND WHERE CONNECTED TO EXISTING AC & CI PIPES

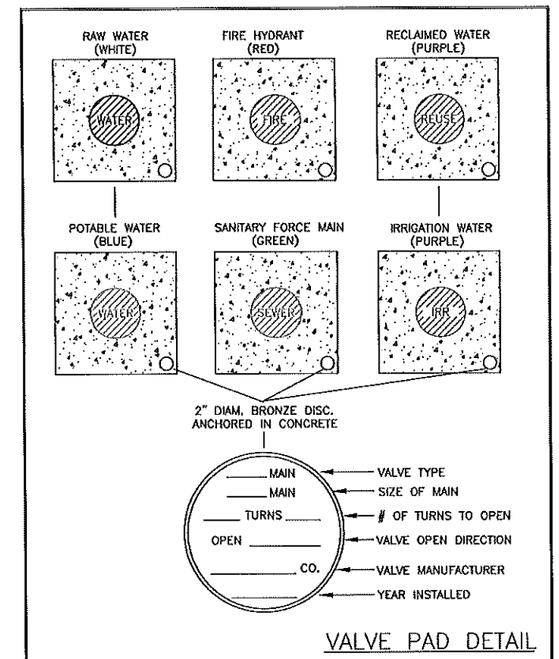


TYPICAL APPLICATION FOR NEW RESTRAINED PIPE SYSTEMS



THIS DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEERS SHALL PROVIDE STANDARDS EQUAL TO OR GREATER THAN THESE.

FOR:	UTILITIES DEPARTMENT	CITY OF NAPLES
DATE: JAN. 2016	TYPICAL IN-LINE VALVE (WATER/SEWER/REUSE)	SHEET: U-14
DRAWN: DAG/AMH		DIR: UTILSTDS
SCALE: N.T.S.	380 RIVERSIDE CIRCLE, NAPLES, FL 34102	DWG. U-14-16.DWG



VALVE PAD DETAIL

THIS DETAIL CONSTITUTES MINIMUM STANDARDS. DESIGN ENGINEERS SHALL PROVIDE STANDARDS EQUAL TO OR GREATER THAN THESE.

FOR:	UTILITIES DEPARTMENT	CITY OF NAPLES
DATE: JAN. 2016	VALVE PAD DETAIL	SHEET: U-15
DRAWN: DAG/AMH		DIR: UTILSTDS
SCALE: N.T.S.	380 RIVERSIDE CIRCLE, NAPLES, FL 34102	DWG. U-15-16.DWG

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Poinciana Village
Stormwater Improvements
Utility Details

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FL. LICENSE NO. 41671
11/12/2024

KLP	KLP	DWS
DESIGN	DRAWN	CHKD

SCALE 1" = 300'

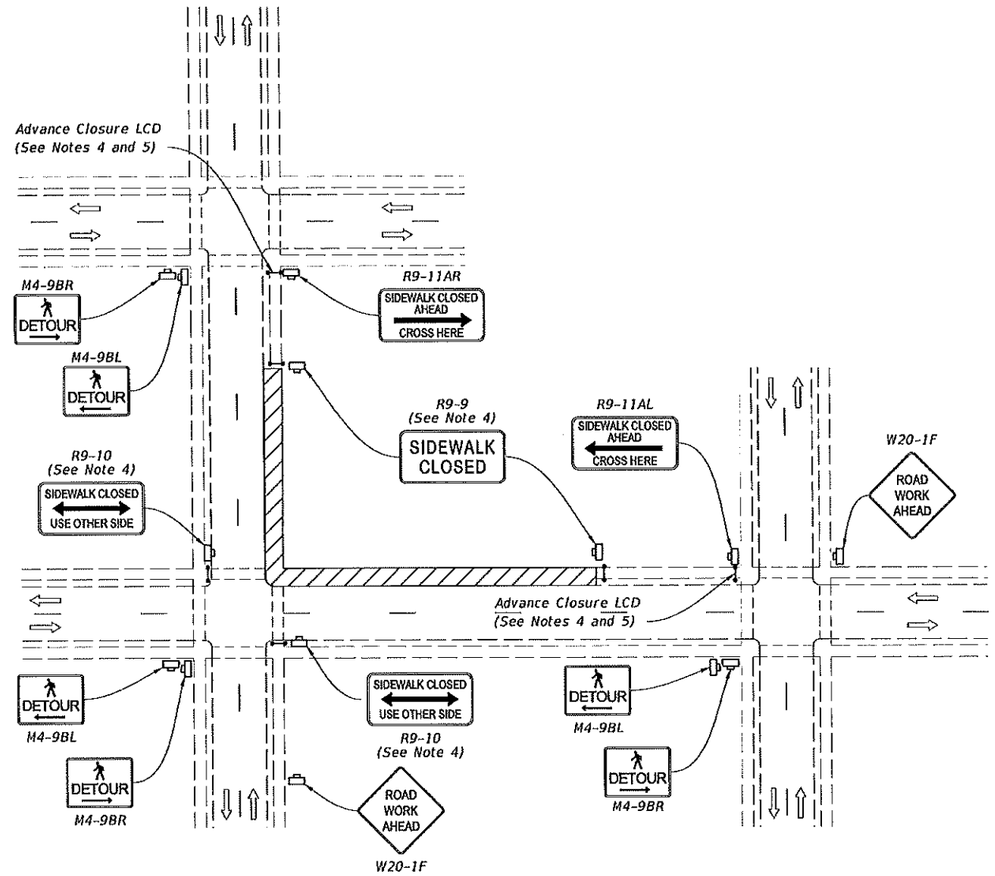
JOB No. 2021-016
DRAWING No. PLAN SH.
DATE 11/2022
SHEET 124

NOTES:

1. Cover or deactivate pedestrian traffic signal display(s) controlling closed crosswalks.
2. Place pedestrian LCDs across the full width of the closed sidewalk.
3. For post mounted signs located near or adjacent to a sidewalk, maintain a minimum 7' clearance from the bottom of the sign panel to the surface of the sidewalk.
4. "Sidewalk Closed" signs (R9-XX) may be mounted on pedestrian LCDs in accordance with the manufacturer's instructions.
5. Omit the Advance Closure LCD if it blocks access to other pedestrian facilities (e.g., transit stops, residences, or business entrances).

SYMBOLS:

- Work Area
- Work Zone Sign
- Pedestrian Longitudinal Channelizing Device (LCD)
- Lane Identification and Direction of Traffic



PEDESTRIAN DETOUR

ALL MAINTENANCE OF TRAFFIC SHALL BE
IN ACCORDANCE WITH GENERAL INFORMATION
FOR TRAFFIC CONTROL THROUGH WORK ZONES
FY 2025-26 STANDARD PLANS
INDEX 102-600E
SHEETS 1 THRU 11

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/20			FDOT FY 2025-26 STANDARD PLANS	SIDEWALK CLOSURE	102-660	1 of 2

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Poinciana Village
Stormwater Improvements
Maintenance of Traffic Plan

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05/09/2025

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SCALE NONE

JOB No. 2021-016
DRAWING No. PLAN SH.
DATE 11/2022
SHEET 125

SHEET	TABLE OF CONTENTS
1	General Notes, TTC Tables
2	Definitions Temporary Traffic Control Devices Overhead Work Railroads Sight Distance Above Ground Hazard
3	Clear Zone Widths For Work Zones Superelevation Length Of Lane Closures Overweight/Oversize Vehicles Lane Widths High-Visibility Safety Apparel Speed Reduction Signing
4	Flagger Control Survey Work Zones Signs
5	Work Zone Sign Supports
6	Commonly Used Warning and Regulatory Signs In Work Zones
7	Manholes/Crosswalks/Joints Truck Mounted Attenuators Signals Channelizing Devices Channelizing Devices Consistency Advanced Warning Arrow Boards
8	Drop-Offs In Work Zones
9	Business Entrance Temporary Asphalt Separator
10	Channelizing Devices Notes Temporary Barrier Notes
11	Pavement Markings

GENERAL NOTES:

1. This Index contains information specific to the Federal and State guidelines and standards for the preparation of traffic control plans and for the execution of traffic control in work zones, for construction and maintenance operations and utility work on highways, roads and streets on the State Highway System. Certain requirements in this Index are based on the high volume nature of State Highways. For highways, roads and streets off the State Highway System, the local agency (City/County) having jurisdiction may adopt requirements based on the minimum requirements provided in the MUTCD.

2. Use this Index in accordance with the Plans and Indexes 102-601 through 102-680. Indexes 102-601 through 102-680 are Department-specific typical applications of commonly encountered situations. Adjust device location or number thereof as recommended by the Worksite Traffic Supervisor and approved by the Engineer. Devices include, but are not limited to, flaggers, portable temporary signals, signs, pavement markings, and channelizing devices. Comply with MUTCD or applicable Department criteria for any changes and document the reason for the change.

3. Except for emergencies, any road closure on State Highway System must comply with Section 335.15, F.S.

TABLE 1
CHANNELIZING DEVICE SPACING

Work Zone Speed (mph)	Max. Spacing (feet)			
	Cones or Temporary Tubular Markers		Type I Barricades, Type II Barricades, Vertical Panels, or Drums	
	Taper	Tangent	Taper	Tangent
≤ 45	25	50	25	50
≥ 50	25	50	50	100

TABLE 2
TAPER LENGTH "L"

Work Zone Speed (mph)	Min. Length (feet)
≤ 40	$L = \frac{WS^2}{60}$
≥ 45	$L = WS$
Where: W = width of offset in feet S = speed in mph	

TABLE 3
WORK ZONE SIGN SPACING "X"

Road Type	Min. Spacing (feet)
Arterials and Collectors with Work Zone Speed ≤ 40 mph	200
Arterials and Collectors with Work Zone Speed ≥ 45 mph	500
Limited Access Roadways *	1,500

* For Limited access roadways with work zone speed ≤ 55 mph, the minimum spacing may be reduced in accordance with the MUTCD and as approved by the Engineer.

TABLE 4
BUFFER LENGTH "B"

Work Zone Speed (mph)	Min. Length (feet)
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730

Note: When Buffer Length "B" cannot be attained due to geometric constraints, use the greatest length possible, but not less than 155 feet.

SYMBOLS:

- Work Area
- Channelizing Device
- Work Zone Sign
- Type III Barricade
- Lane Identification and Direction of Traffic

LAST REVISION	REVISION	DESCRIPTION:
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FDOT — FY 2025-26 STANDARD PLANS

GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES

INDEX 102-600 | SHEET 1 of 11

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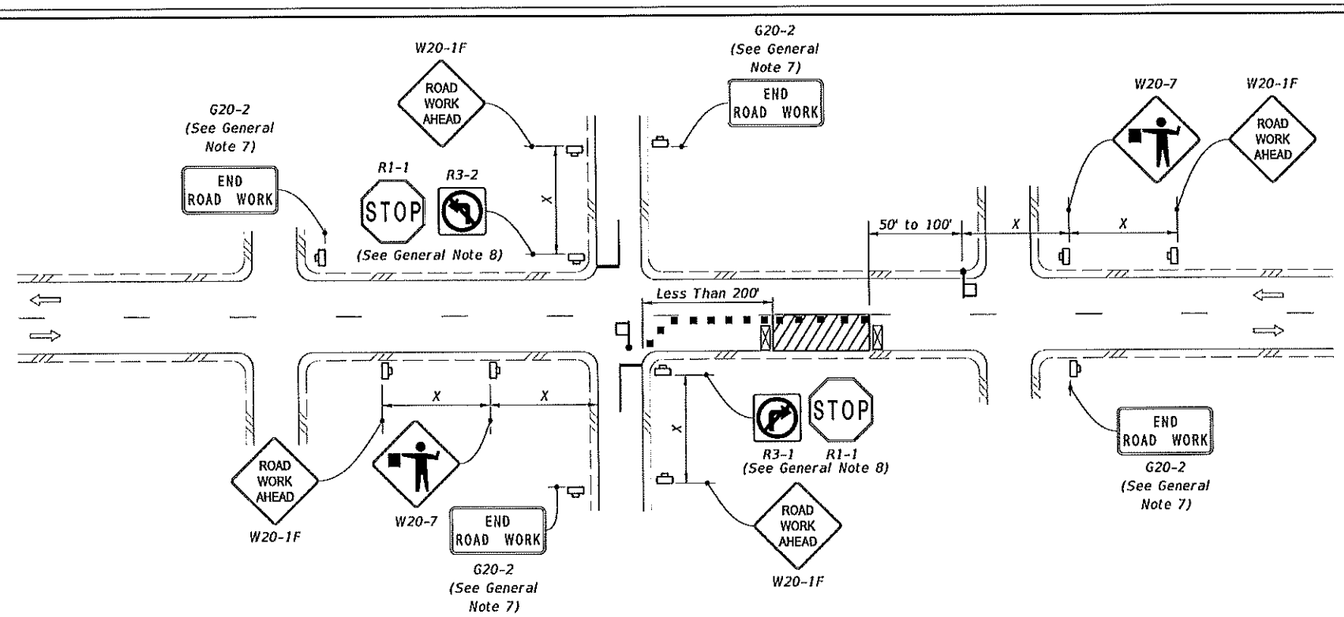
GENERAL NOTES:

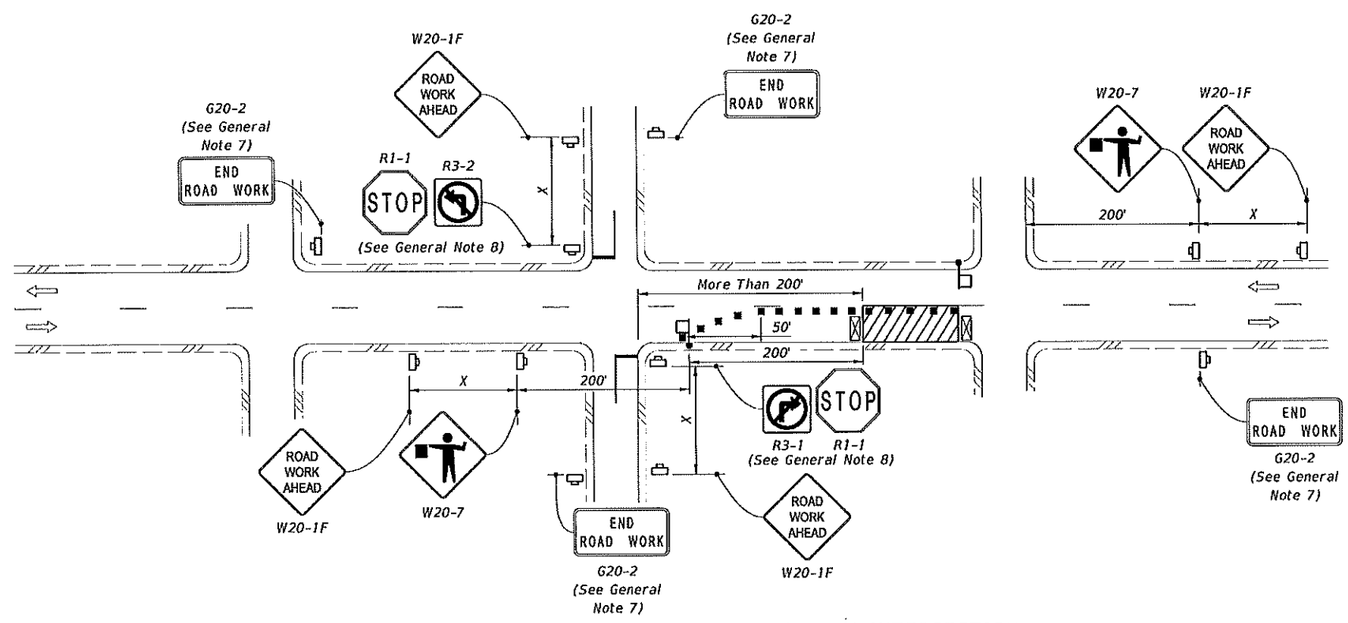
1. This Index applies to two-lane, two-way roadways with work within or near the intersection.
2. X = Work Zone Sign Spacing
   See Index 102-600 for "X" and channelizing device spacing values.
3. Optionally, use "Flagger Ahead" sign with text (W20-7A) instead of "Flagger Ahead" sign with symbol (W20-7).
4. If vehicles in a parking zone block the line of sight to TCZ signs, locate and post mount signs in accordance with Index 700-101.
5. If the work area extends across a crosswalk, close the crosswalk in accordance with Index 102-660.
6. For unsignalized intersections, use Temporary Raised Rumble Strips in accordance with Index 102-603. Placement of Rumble Strips and additional signs should begin at FLAGGER sign location.
7. The "End Road Work" signs (G20-2) along with the associated work zone sign distances may be omitted when the work zone will be in place for 24 hours or less.
8. As an option to the "STOP" sign (R1-1) and Restricted Left/Right Turning Movement sign (R3-1 or R3-2), the "SIDE ROAD INTERSECTING THE WORK ZONE" flagging operation from Index 102-600 may be used.

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Type III Barricade
- Stop Bar
- Flagger
- Lane Identification and Direction of Traffic



LANE CLOSURE FOR WORK LESS THAN 200' FROM INTERSECTION



LANE CLOSURE FOR WORK MORE THAN 200' FROM INTERSECTION

LAST REVISION	REVISION	DESCRIPTION:
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FDOT — FY 2025-26 STANDARD PLANS

TWO-LANE, TWO-WAY, INTERSECTION WORK

INDEX	SHEET
102-604	1 of 2

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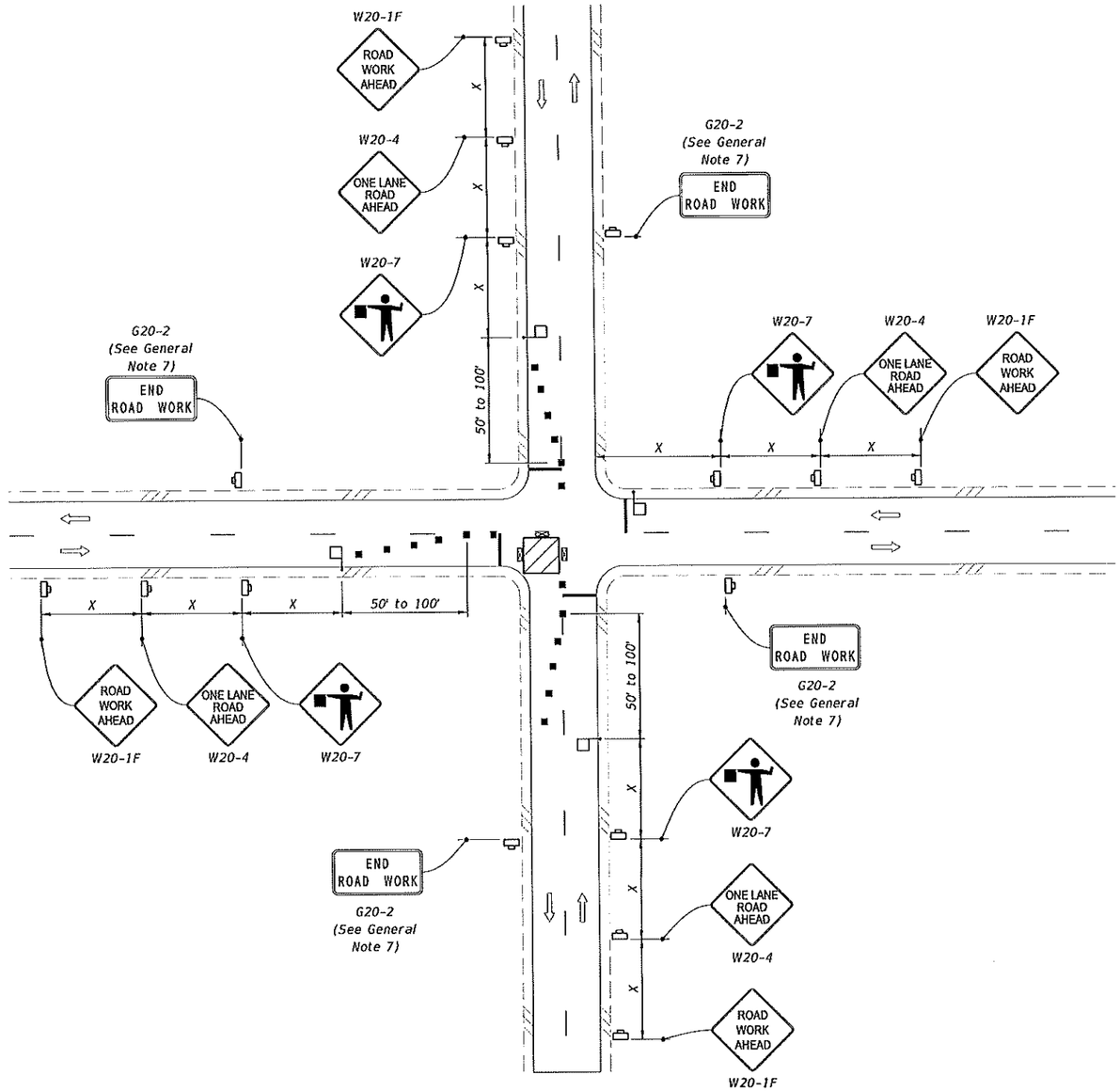

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Type III Barricade
- Stop Bar
- Flagger
- Lane Identification and Direction of Traffic

WORK IN INTERSECTION OF TWO-LANE ROADWAY

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2025-26 STANDARD PLANS	TWO-LANE, TWO-WAY, INTERSECTION WORK	INDEX	SHEET
11/01/22						102-604	2 of 2

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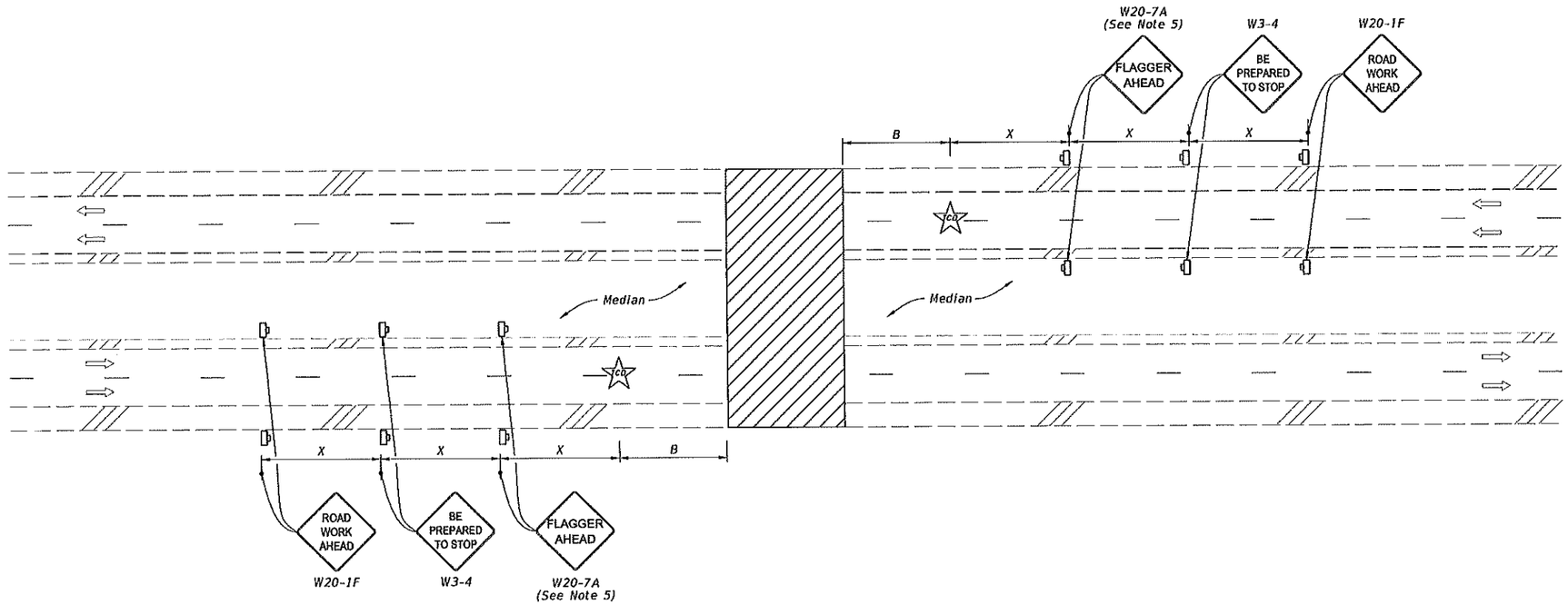

(Multilane Roadway Shown, Two-Lane Roadway Similar)

SYMBOLS:

- Work Area
- Work Zone Sign
- Traffic Control Officer
- Lane Identification and Direction of Traffic

NOTES:

1. This Index applies to two-lane, two-way and multilane roadways, except limited access facilities, with temporary daytime roadway closures of 5 minutes or less.
2. B = Buffer Length
   X = Work Zone Sign Distance
   See Index 102-600 for "B" and "X" values.
3. For Two-Lane Roadways, a Flagger may substitute the traffic control officer with approval of the Engineer.
4. Traffic volume or complexity of the roadway may dictate additional signs, devices or traffic control officers.
5. Optionally, use FLAGGER AHEAD sign with symbol (W20-7) instead of FLAGGER AHEAD sign with text (W20-7A).
6. Dual Signs are required for divided roadways only.

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2025-26 STANDARD PLANS	TEMPORARY ROADWAY CLOSURE	INDEX	SHEET
11/01/20						102-625	1 of 1

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DATE 11/2022
SHEET 129

Subsurface Utility Engineering Test Hole Datasheet

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2161 Fowler Street, Suite 100
Fort Myers, Florida 33901
www.aimengr.com
Phone: (239) 332-4569
Toll Free: (800) 226-4569
LICENSED BUSINESS No. 3114

Financial Project Number:	21-1326
Project Road Name:	Ponce De Leon Dr, Poinciana Dr, Bolero Way, Poinciana St, Santiago Way
Project Description:	Poinciana Village Stormwater Improvements
Date of Field Work:	July 13 to July 22, 2021

Utility Type
BE: Buried Electric
BT: Buried Telephone
FM: Force Main
GSSL: Gravity Sanitary Sewer Lateral
IMM: Indeterminable Metallic Material
WM: Water Main

Utility Material
ACP: Asbestos Concrete Pipe
DBC: Direct Buried Cable
DIP: Ductile Iron Pipe
HDPE: High-Density Polyethylene
VCP: Vitrified Clay Pipe

Additional Abbreviations
NFV: Not Field Verified
Vvh: Verified Vertical Horizontal

Survey Markers:
SIRC: Set 5/8" Iron Rod with Cap "TEST HOLE LB 3114"
SMAGD: Set Mag Nail and Disk "AIM ENG LB 3114"
CHISELED X: "X" Chiseled in concrete

Horizontal Datum:
Florida State Plane, East Zone, NAD 83
Units: US Survey Feet

Vertical Datum:
Vertical Datum, GPS derived NAVD88 (North American Vertical Datum of 1988)

Equipment:
Vacuum System-Vacmaster 4000
Locators-Radio Detection RD-8000, RD1000 GPR
Carlson BRx6+

Field Crew:
D. Sheets, B. Lewis, J. Torres, A. Torres

Prepared By:
JW

QA/QC By:
DB 07-30-2021

Field Books Used:
FB1726 PG(s) 27-39

Utility Owners Identified:
Centurylink
Florida Power & Light
City of Naples

Test Hole #	Utility Type	Utility Material	Utility Size	Owner	Northing	Easting	Ground Elevation	Top of Utility Elevation	Depth of Cover	Comments
Vvh 1	WM	ACP	6"	City of Naples	674197.37	401608.72	5.45'	0.95'	4.50'	Located with probe
Vvh 2	BE	DBC	3-0.5"/1-1"	Florida Power & Light	674140.68	401639.01	6.00'	2.40'	3.60'	
Vvh 3	FM	DIP	6"	City of Naples	674148.19	401637.21	5.36'	2.26'	3.10'	
Vvh 4	BE	DBC	3-0.5"	Florida Power & Light	674369.34	400626.68	6.18'	3.93'	2.25'	
Vvh 5	WM	ACP	6"	City of Naples	674369.46	400636.97	5.60'	1.10'	4.50'	
Vvh 6	BE	DBC	1"	Florida Power & Light	674369.82	400626.48	6.20'	1.35'	4.85'	
Vvh 7	WM	ACP	6"	City of Naples	675214.16	401379.59	5.27'	1.83'	3.44'	Located with probe
Vvh 8	WM	ACP	6"	City of Naples	675219.40	401650.31	4.76'	1.19'	3.57'	Located with probe
Vvh 9	WM	ACP	6"	City of Naples	675224.83	402272.30	5.54'	1.44'	4.10'	Located with probe
Vvh 10	BT	NFV	NFV	Centurylink	675283.55	403240.27	5.45'	3.87'	1.58'	Located with probe
Vvh 11	WM	ACP	6"	City of Naples	675286.87	403239.20	5.95'	3.43'	2.52'	
Vvh 12	BE	HDPE	2"	Florida Power & Light	675287.64	403239.32	5.93'	4.03'	1.90'	
Vvh 13	BE	DBC	3-0.5"/1-1"	Florida Power & Light	675297.26	403240.99	6.43'	4.65'	1.78'	
Vvh 14	BT	HDPE	2"	Centurylink	675292.09	403902.72	6.59'	5.07'	1.52'	
Vvh 15	WM	ACP	6"	City of Naples	675294.37	403900.83	6.78'	4.06'	2.72'	
Vvh 16	BT	DBC	3-0.25"/1-0.5"	Centurylink	675300.36	403904.43	6.97'	5.55'	1.42'	
Vvh 17	BE	DBC	1"	Florida Power & Light	675303.72	403900.50	7.07'	4.77'	2.30'	
Vvh 18	WM	ACP	6"	City of Naples	674406.89	401610.60	5.90'	2.90'	3.00'	Located with probe
Vvh 19	WM	ACP	6"	City of Naples	674223.94	404266.62	6.43'	3.96'	2.47'	Located with probe
Vvh 20	WM	ACP	6"	City of Naples	674220.22	403954.42	5.53'	3.43'	2.10'	Located with probe
Vvh 21	GSSL	VCP	6"	City of Naples	674217.14	403959.84	5.43'	4.14'	1.29'	Located with probe
Vvh 22	WM	ACP	6"	City of Naples	674215.83	403673.22	5.37'	2.77'	2.60'	Located with probe
Vvh 23	GSSL	VCP	6"	City of Naples	674215.66	403677.26	5.70'	3.75'	1.95'	
Vvh 24	WM	ACP	6"	City of Naples	674212.89	403149.69	5.06'	1.99'	3.07'	Located with probe

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Poinciana Village Stormwater Improvements Subsurface Utility Test Hole Datasheet

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DATE 11/2022
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Test Hole #	Utility Type	Utility Material	Utility Size	Owner	Northing	Easting	Ground Elevation	Top of Utility Elevation	Depth of Cover	Comments
Vvh 25	WM	ACP	6"	City of Naples	674207.71	402893.14	4.82'	2.64'	2.18'	Located with probe
Vvh 26	WM	ACP	6"	City of Naples	675296.84	404154.96	6.96'	4.96'	2.00'	
Vvh 27	BT	HDPE	2"	Centurylink	675294.12	404155.12	6.73'	5.23'	1.50'	
Vvh 28	BE	NFV	NFV	Florida Power & Light	674159.64	401787.17	5.86'	2.86'	3.00'	Located with probe
Vvh 29	FM	DIP	6"	City of Naples	674148.58	401789.85	7.02'	3.92'	3.10'	
Vvh 30	FM	DIP	6"	City of Naples	674162.29	403149.26	6.40'	2.80'	3.60'	
Vvh 31	FM	DIP	6"	City of Naples	674170.62	403952.58	6.38'	3.03'	3.35'	Located with probe
Vvh 32	BE	HDPE	2"	Florida Power & Light	674170.80	403950.08	6.54'	5.17'	1.37'	
Vvh 33	WM	HDPE	2-1"	City of Naples	674169.56	403950.45	6.53'	5.23'	1.30'	Out of service
Vvh 34	WM	IMM/HDPE	1"	City of Naples	674172.38	403951.51	6.39'	5.14'	1.25'	Out of service. Located at 90 degree bend.
Vvh 35	WM	IMM/HDPE	1"	City of Naples	674172.29	403950.84	6.35'	5.10'	1.25'	Out of service, Located at tee.
Vvh 36	BE	DBC	1.5"	Florida Power & Light	674154.66	402031.99	5.81'	2.06'	3.75'	
Vvh 37	FM	DIP	6"	City of Naples	674149.98	402031.16	6.23'	1.93'	4.30'	Located with probe
Vvh 38	GSSL	VCP	6"	City of Naples	674170.76	403158.31	5.41'	3.41'	2.00'	
Vvh 39	WM	IMM/HDPE	2-1"	City of Naples	674162.14	403159.68	6.31'	4.31'	2.00'	Located with probe
Vvh 40	WM	HDPE	2"	City of Naples	674179.87	403943.81	5.63'	4.39'	1.24'	
Vvh 41	WM	HDPE	2"	City of Naples	674218.52	403949.61	5.67'	2.47'	3.20'	Located with probe
Vvh 42	FM	DIP	6"	City of Naples	674166.21	403648.42	6.09	2.89	3.20	Located with probe

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Poinciana Village
Stormwater Improvements
Subsurface Utility Test Hole Datasheet

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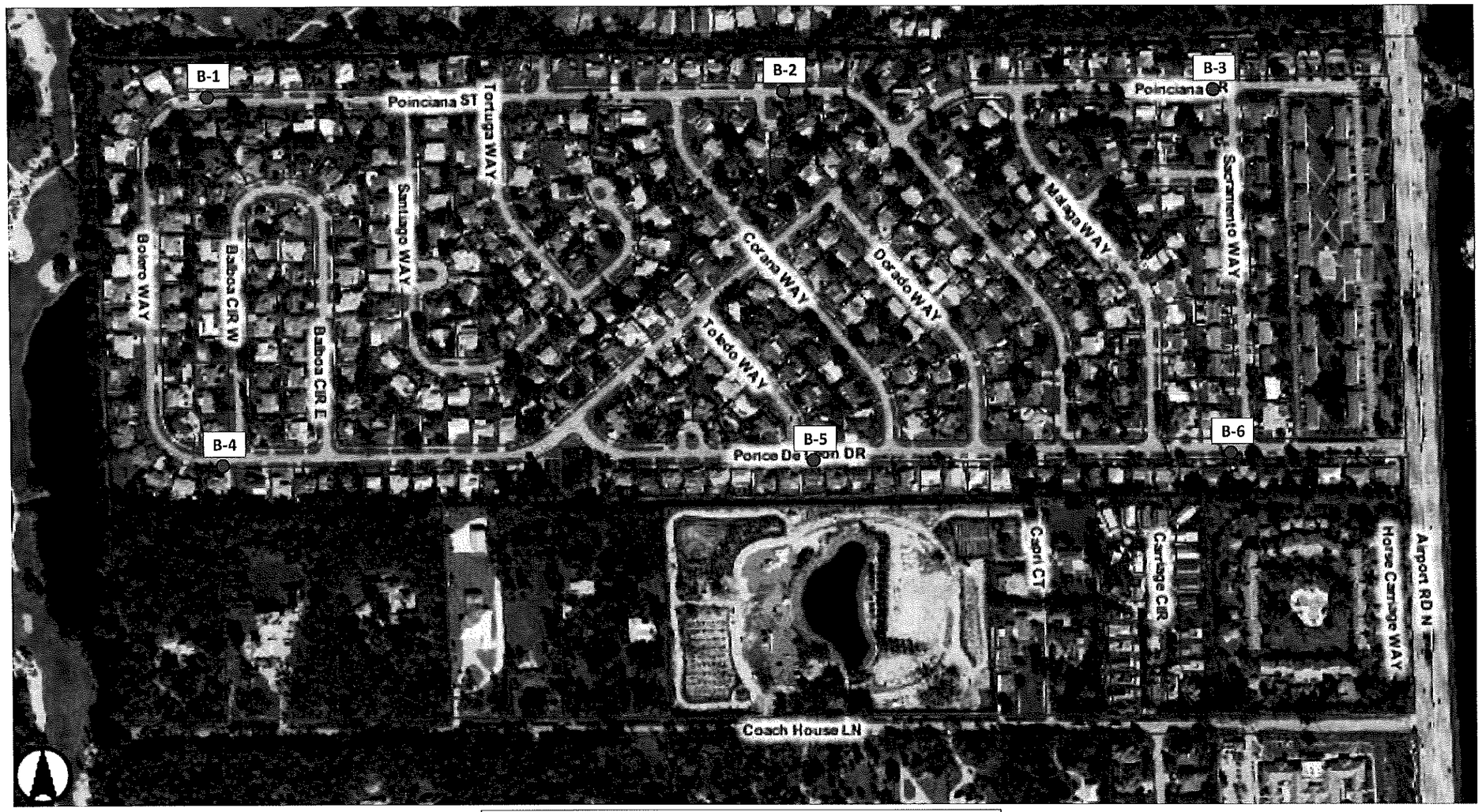

Image from Collier County Property Appraisers Website – 2021 Aerial.

● B-1 Number and Approximate Standard Penetration Test (SPT) Soil Boring Location

N

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SOIL BORING LOCATION PLAN

POINCIANA VILLAGE STORMWATER IMPROVEMINTS

COLLIER COUNTY PROJECT NO.: 50200

LOCATED IN SECTION 23 – TOWNSHIP 49 – RANGE 25
POINCIANA VILLAGE OFF AIRPORT PULLING ROAD
NAPLES, COLLIER COUNTY, FLORIDA 34109

FORGE PROJECT NO. 109-104.01

PLATE 1 of 1

Drawn By: RJM | Date 06/15/21 | Revised:

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Poinciana Village Stormwater Improvements Soil Boring Location Plan

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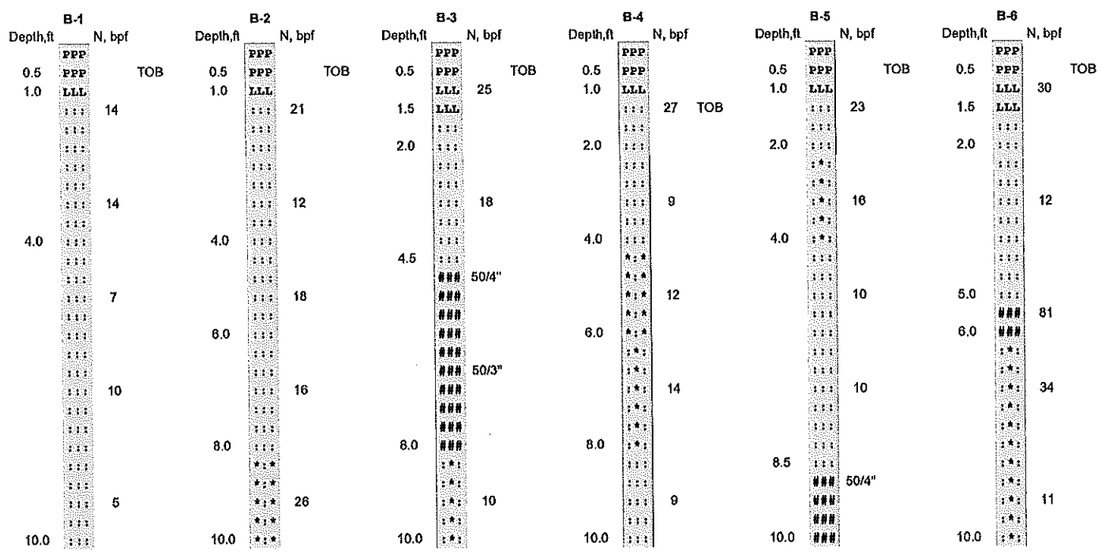

LEGEND

PPP Asphalt PAVEMENT
LLL LIMEROCK Base
: : : Loose to Medium Dense Fine SAND to Slightly Silty Fine SAND
Hard to Very Hard LIMESTONE (Caprock)
* : * Medium Dense Sandy GRAVEL with Silt (Weathered Limestone)
: * : Loose to Dense Gravely SAND with Silt (Weathered Limestone)

LOSS Loss of drilling fluid
TOB Groundwater depth at Time Of Boring

Soil Boring Summary

POINCIANA VILLAGE STORMWATER IMPROVEMENTS

Poinciana Village off Airport Pulling Road
Naples, Collier County, Florida 34109

Forge Engineering Project No. 109-104.01

July 2021

Depth (feet)	Material Description: Strength	Primary >50%	Secondary >12%	Tertiary >5%	Color	Remarks	Elev. (feet)	Groundwater	Unified	AASHTO	Symbol	N B/F	N (blows per foot) 0 10 20 30 40 50	Water Content, %	Fines Content, %	Organic Content, %	Liquid Limit, %	Plasticity Index, %	Time Rate of Drilling (minutes:seconds)
0.5		PAVEMENT			black	Asphalt 2-Inches Thick		TOB			PPP								
1.0		LIMEROCK			light gray	6-Inches Thick					PPP LLL								
	Medium Dense										: : :	14	>>>>>>>						
	Medium Dense										: : :	14	>>>>>>>						
4.0		SAND			light brown				SP		: : :								
	Loose										: : :	7	>>>						
	Loose										: : :	10	>>>>>						
	Loose										: : :	5	>>						
10.0		SAND		silt	gray	Trace Small Roots			SP-SM		: : :								
						Boring Terminated at 10.0 ft.													

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Naples, Florida

Sheet 1 of 1

Project Name: Poinciana Village Stormwater
Job Number: 109-104.01

Boring Number: B-1
Date Drilled: 7/7/2021

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Poinciana Village Stormwater Improvements Soil Boring

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Boring B-2

Depth (feet)	Strength	Primary >50%	Secondary >12%	Tertiary >5%	Color	Remarks	Elev. (feet)	Groundwater	Unified	AASHTO	Symbol	N B/F	N (blows per foot) 0 10 20 30 40 50	Water Content, %	Fines Content, %	Organic Content, %	Liquid Limit, %	Plasticity Index, %	Time Rate of Drilling (minutes:seconds)
0.5		PAVEMENT			black	Asphalt 2.5-Inches Thick		TOB			PPP PPP								
1.0		LIMEROCK			light gray	8-Inches Thick					LLL								
	Medium Dense											21	»»»»»»»»»»						
	Medium Dense											12	»»»»»						
4.0		SAND			light gray				SP										
	Medium Dense											18	»»»»»»»»						
6.0		SAND		shell	light gray	With Shell Fragments			SP										
	Medium Dense											18	»»»»»»»						
8.0		SAND		gravel	light gray	Weathered Limestone			SP										
	Medium Dense											26	»»»»»»»»»»»»						
10.0		GRAVEL	Sand		light gray	Weathered Limestone			GW										
						Boring Terminated at 10.0 ft.													

Laboratory Test Results

Forge Engineering, Inc.
Naples, Florida

Sheet 1 of 1 | Project Name: Poinciana Village Stormwater | Job Number: 109-104.01 | Boring Number: B-2 | Date Drilled: 7/7/2021

Boring B-3

Depth (feet)	Strength	Primary >50%	Secondary >12%	Tertiary >5%	Color	Remarks	Elev. (feet)	Groundwater	Unified	AASHTO	Symbol	N B/F	N (blows per foot) 0 10 20 30 40 50	Water Content, %	Fines Content, %	Organic Content, %	Liquid Limit, %	Plasticity Index, %	Time Rate of Drilling (minutes:seconds)
0.5		PAVEMENT			black	Asphalt 2.5-Inches Thick		TOB			PPP PPP								
1.5		LIMEROCK			light gray	12-Inches Thick					LLL	25	»»»»»»»»»»»						
2.0		SAND			light brown				SP										
	Medium Dense											18	»»»»»»»»						
4.5		SAND		silt	light brown	Trace Small Roots			SP-SM										
	Very Hard											50/4"	»»»»»»»»»»»»»»»»»»»»»»						2.00
																			6.00
	Very Hard											50/3"	»»»»»»»»»»»»»»»»»»»»»»						3.00
8.0		LIMESTONE			light gray	Caprock													
	Loose											10	»»»»»						
10.0		SAND	Gravel		light gray	Weathered Limestone			SW										
						Boring Terminated at 10.0 ft.													

Laboratory Test Results

Forge Engineering, Inc.
Naples, Florida

Sheet 1 of 1 | Project Name: Poinciana Village Stormwater | Job Number: 109-104.01 | Boring Number: B-3 | Date Drilled: 7/7/2021

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Poinciana Village Stormwater Improvements Soil Boring

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DATE 11/2022
SHEET 134

Depth (feet)	Strength	Primary >50%	Secondary >12%	Tertiary >5%	Color	Remarks	Elev. (feet)	Groundwater	Unified	AASHTO	Symbol	N B/F	N (blows per foot) 0 10 20 30 40 50	Water Content, %	Fines Content, %	Organic Content, %	Liquid Limit, %	Plasticity Index, %	Time Rate of Drilling (minutes:seconds)
0.5		PAVEMENT			black	Asphalt 2.5-Inches Thick					PPP								
1.0		LIMEROCK			light gray	8-Inches Thick					PPP LLL								
	Medium Dense							TOB				27	»»»»»»»»»»»»						
2.0		SAND			light gray				SP										
	Loose											9	»»»						
4.0		SAND			light brown				SP										
	Medium Dense											12	»»»»»						
6.0		GRAVEL	Sand		gray	Weathered Limestone			GW										
	Medium Dense											14	»»»»»»						
8.0		SAND	Gravel		light gray				SW										
	Loose											9	»»»»						
10.0		SAND		shell	light gray	Shell Fragments			SP										
						Boring Terminated at 10.0 ft.													

Laboratory Test Results

Forge Engineering, Inc.
Naples, Florida

Sheet 1 of 1 | Project Name: Poinciana Village Stormwater | Job Number: 109-104.01 | Boring Number: B-4 | Date Drilled: 7/7/2021

Depth (feet)	Strength	Primary >50%	Secondary >12%	Tertiary >5%	Color	Remarks	Elev. (feet)	Groundwater	Unified	AASHTO	Symbol	N B/F	N (blows per foot) 0 10 20 30 40 50	Water Content, %	Fines Content, %	Organic Content, %	Liquid Limit, %	Plasticity Index, %	Time Rate of Drilling (minutes:seconds)
0.5		PAVEMENT			black	Asphalt 3.0-Inches Thick		TOB			PPP								
1.0		LIMEROCK			light gray	6-Inches Thick					PPP LLL								
	Medium Dense											23	»»»»»»»»»»						
2.0		SAND			light brown				SP										
	Medium Dense											16	»»»»»»»						
4.0		SAND	Gravel		light brown				SW										
	Loose											10	»»»»»						
	Loose											10	»»»»						
8.5		SAND		shell	light gray	Shell Fragments			SP										
	Hard											60/4"	»»»»»»»»»»»»»»»»»»»»»»»»»						2.00
																			3.00
10.0		LIMESTONE			light gray	Caprock													
						Boring Terminated at 10.0 ft.													

Laboratory Test Results

Forge Engineering, Inc.
Naples, Florida

Sheet 1 of 1 | Project Name: Poinciana Village Stormwater | Job Number: 109-104.01 | Boring Number: B-5 | Date Drilled: 7/7/2021

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Poinciana Village Stormwater Improvements Soil Boring

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DATE 11/2022
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0.5		PAVEMENT			black	Asphalt 2-inches Thick		TOB			PPP PPP LLL LLL	30							
1.5		LIMEROCK			light gray	12-inches Thick													
2.0		SAND			light brown				SP										
	Medium Dense											12							
5.0		SAND		silt	light gray				SP-SM			81							2:00
6.0	Hard	LIMESTONE			light gray	Caprock													
	Dense											34							
	Medium Dense											11							
10.0		SAND	Gravel	shell	light gray	Weathered Limestone			SW										
						Boring Terminated at 10.0 ft.													

Laboratory Test Results

Forge Engineering, Inc.
Naples, Florida

Sheet 1 of 1

Project Name: Poinciana Village Stormwater
Job Number: 109-104.01

Boring Number: B-6
Date Drilled: 7/7/2021

Depth (feet)	Strength	Primary >50%	Secondary >12%	Tertiary >5%	Color	Remarks	Elev. (feet)	Groundwater	Unified	AASHTO	Symbol	N B/F	N (blows per foot) 0 10 20 30 40 50	Water Content, %	Fines Content, %	Organic Content, %	Liquid Limit, %	Plasticity Index, %	Other

Laboratory Test Results

Primary soil type: Over 50% of soil by visual estimation or laboratory test

Secondary soil type: Between 12% and 50% of soil by visual estimation or laboratory test

Tertiary soil type: Between 5% and 12% of soil by visual estimation or laboratory test

N: Standard Penetration Resistance.
Number of blows to drive a standard split-spoon sampler one foot using a 140 pound hammer dropping 30 inches

woh: Split-spoon penetrated soil under weight of 140 pound hammer only.

wor: Split-spoon penetrated soil under weight of drill rods only.

Table of Strength Descriptions

N	Sand / Gravel	Silt / Clay	Limestone / Sandstone
0	Very Loose	Very Soft	Very Soft
2	Very Loose	Very Soft	Very Soft
3	Very Loose	Soft	Very Soft
4	Very Loose	Soft	Very Soft
5	Loose	Firm	Very Soft
8	Loose	Firm	Very Soft
9	Loose	Stiff	Very Soft
10	Loose	Stiff	Very Soft
11	Medium Dense	Stiff	Soft
15	Medium Dense	Stiff	Soft
16	Medium Dense	Very Stiff	Soft
30	Medium Dense	Very Stiff	Soft
31	Dense	Hard	Soft
50	Dense	Hard	Soft
51	Very Dense	Hard	Hard
60	Very Dense	Hard	Hard
100	Very Dense	Hard	Very Hard
100+	Very Dense	Hard	Very Hard

Symbol Key

TOPSOIL	T
GRAVEL	•
SAND	:
SILT	|
CLAY	/
LIMESTONE	#
DEBRIS	D
FILL	F
SHELL	S
MUCK	~
PEAT	~
ORGANIC	~
LIMEROCK	L
PAVEMENT	P
CONCRETE	C
WATER	W
VOID	V

Laboratory Test Summary

Water Content:	Weight of Water / Weight of all Dry Soil
Fines Content:	Weight of Dry Soil Finer than No. 200 Sieve / Weight of all Dry Soil
Organic Content:	Weight of Organics Lost by Ignition / Weight of all Dry Soil
Liquid Limit:	Moisture content of a soil at the transition between liquid and plastic states. (ASTM D-4318)
Plastic Limit:	Moisture content of a soil at the transition between plastic and semisolid states. (ASTM D-4318)
Plasticity Index:	Liquid Limit - Plastic Limit

15.0 Depth of soil change. The transition between materials may be gradual. Soil conditions will vary between boring locations.

All descriptions are based on the visual examination of the retrieved soil samples, unless laboratory data is indicated. Therefore, estimates of material types and concentrations should be considered approximate.

Primary Soil Symbol
Secondary Soil Symbol, primary if no secondary is present
AASHTO Soil Classification Symbol
Unified Soil Classification Symbol
SP A-3

Representative Material Description Definitions

SAND	Material that pass a No. 4 and is retained on a No. 200 sieve.
SILT	Low plasticity material that passes a No. 200 sieve.
CLAY	Moderate to high plasticity soil that passes a No. 200 sieve.
LIMESTONE	Natural occurring rock with at least 50% calcium carbonate.
SANDSTONE	Natural occurring rock of hardened (not by calcium carbonate) sand-size particles.
LIMEROCK	Mined or processed limestone used as a fill or pavement base.
ORGANIC	Containing partially decomposed material that can be ignited when dried.

Groundwater Symbols

TOB	Initial groundwater level at time of boring
GWL	Groundwater level measured a day or more after drilling
LOSS	Drill fluid circulation loss

Forge Engineering, Inc.
Naples, Florida

Key To Boring Log Classification

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REV.	DESCRIPTION	DATE
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2		
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4		
5		

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FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 30462

Poinciana Village
Stormwater Improvements
Soil Boring

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DAVID W. SCHMITT, P.E.
FL. LICENSE NO. 41671
11/12/2024

KLP	KLP	DWS
DESIGN	DRAWN	CHKD
SCALE	NONE	

JOB No. 2021-016
DRAWING No. PLAN SH.
DATE 11/2022
SHEET 136

CAD file name: C:\Users\vargas\Documents\Projects\Pwb\109-2021016-Bert.dwg 11/12/2024
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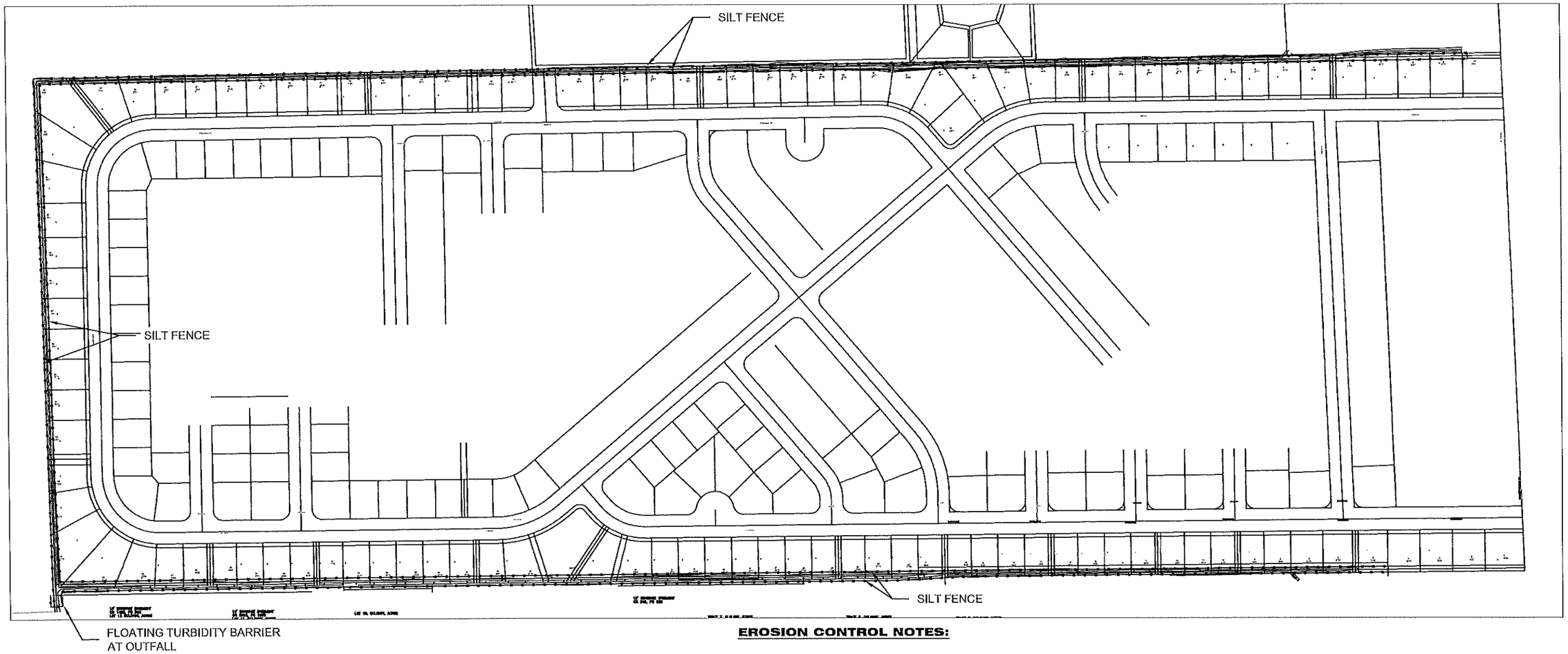
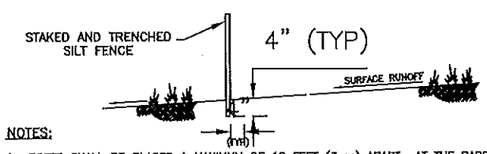


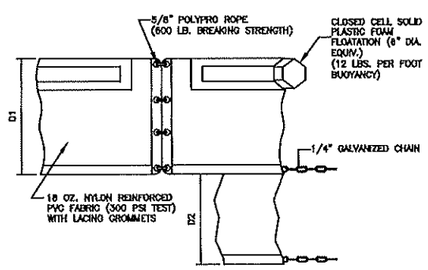


NOTES:

1. POSTS SHALL BE PLACED A MAXIMUM OF 10 FEET (3 m) APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12" (30 cm).
2. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES (10 cm) WIDE AND 4 INCHES (10 cm) DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
3. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH (25mm) LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES (5 cm) AND SHALL NOT EXTEND MORE THAN 36 INCHES (90 cm) ABOVE THE ORIGINAL GROUND SURFACE.
4. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES (20 cm) OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES (90 cm) ABOVE THE ORIGINAL GROUND SURFACE.

SINGLE ROW STAKED SILT FENCE

N.T.S.



D1=5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS).
D2=5' STD. (ADDITIONAL PANEL. DEPTHS GREATER THAN 5')
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET.
TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN
10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY
CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS

N.T.S.

EROSION CONTROL NOTES:

THE CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT, TOOLS, MATERIALS AND SERVICES NEEDED TO PROVIDE ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES. THESE MEASURES SHALL CONFORM TO THE PLANS AND SPECIFICATIONS AND ALL STATE AND LOCAL REQUIREMENTS.

1. THE CONTRACTOR SHALL EXERCISE CARE TO PRESERVE THE NATURAL LANDSCAPE AND SHALL CONDUCT CONSTRUCTION OPERATIONS SO AS TO PREVENT ANY UNNECESSARY DESTRUCTION, SCARRING OR DEFACING OF THE NATURAL SURROUNDINGS IN THE VICINITY OF THE WORK AREA. EXCEPT WHERE CLEARING IS REQUIRED FOR PERMANENT WORK, FOR APPROVED CONSTRUCTION ROADS OR FOR EXCAVATION OPERATIONS, ALL TREES, NATIVE SHRUBBERY AND VEGETATION TO BE PRESERVED AND PROTECTED FROM DAMAGE WHICH MAY BE CAUSED BY THE CONTRACTOR'S CONSTRUCTION OPERATIONS AND EQUIPMENT.
2. GRADED AREAS ARE TO BE SEEDED AND/OR SODDED WITHIN SEVEN (7) DAYS FOLLOWING EARTH MOVING PROCEDURES. IF THE TIME OF YEAR IS NOT CONDUCIVE FOR PERMANENT SEEDING, A TEMPORARY MULCH AND/OR SEEDING SHOULD BE USED.
3. REPAIR ALL DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION EQUIPMENT BEFORE THE END OF EACH WORK DAY.
4. SEDIMENT SHALL BE REMOVED FROM SUMP AREAS. THE SEDIMENT SHALL BE PLACED IN SUCH A MANNER THAT IT WILL NOT ERODE FROM THE SITE. THE SEDIMENT SHALL NOT BE DEPOSITED DOWNSTREAM FROM THE EMBANKMENT, IN OR ADJACENT TO A STREAM OR FLOOD PLAIN.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL AREAS DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION AND UPON OWNER SATISFACTION.
6. THE CONTRACTOR SHALL ABIDE BY ALL RULES AND CONDITIONS OF ERP AND LEE COUNTY PERMITS. ALL DISTURBED SLOPES SHALL BE SODDED WITHIN 48 HOURS OF COMPLETION OF FINAL GRADING. ALL EROSION CONTROL DEVICES (I.E. SYNTHETIC HAY BALES AND SILT FENCES) SHALL BE IN PLACE PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
7. THE CONTRACTOR SHALL CONDUCT CLEANING AND DISPOSAL OPERATIONS TO COMPLY WITH ALL APPLICABLE PERMITS, LAWS AND REGULATIONS. CLEANING SHALL BE EXECUTED DAILY TO KEEP THE WORK, SITE AND ADJACENT PROPERTIES FREE FROM ACCUMULATIONS OF WASTE MATERIALS, WATER, ERODED MATERIAL, RUBBISH AND WIND BLOWN DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS.
8. WHERE ADJACENT PROPERTY HAVE BEEN DISTURBED, ALL AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
9. CONTRACTOR SHALL PROTECT EXISTING TREES, SHRUBS, AND OTHER PLANTINGS DURING CONSTRUCTION. WHERE EXISTING PLANTS HAVE BEEN DISTURBED OR NEED TO BE RELOCATED, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND COMPLETE THE WORK TO OWNERS SATISFACTION.
10. ANY DAMAGE TO EXISTING IRRIGATION PIPES, WIRING AND SPRINKLER HEADS SHALL BE REPLACED WITH NEW MATERIAL AT THE CONTRACTOR'S EXPENSE.
11. THIS DRAWING PROVIDE GENERAL EROSION CONTROL INFORMATION ONLY, CONTRACTOR IS RESPONSIBLE FOR OBTAINING NPDES-SPP PERMIT FROM FDEP AND FOR COMPLIANCE WITH ALL PERMIT CONDITIONS. WORK SHALL NOT COMMENCE UNTIL A COPY OF THE PERMIT DOCUMENTS HAVE BEEN RECEIVED BY ENGINEER.

GRAPHIC SCALE
0 75' 150' 300'
(IN FEET)
SCALE: 1" = 300' (11"X17")

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Poinciana Village
Stormwater Improvements
Erosion & Sedimentation Control Plan

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DAVID W. SCHMITT, P.E.
FL. LICENSE NO. 41671
12/02/2024

KLP	KLP	DWS
DESIGN	DRAWN	CHKD

SCALE 1" = 300'

JOB No.	2021-016
DRAWING No.	PLAN SH.
DATE	11/2022
SHEET	137

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