



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

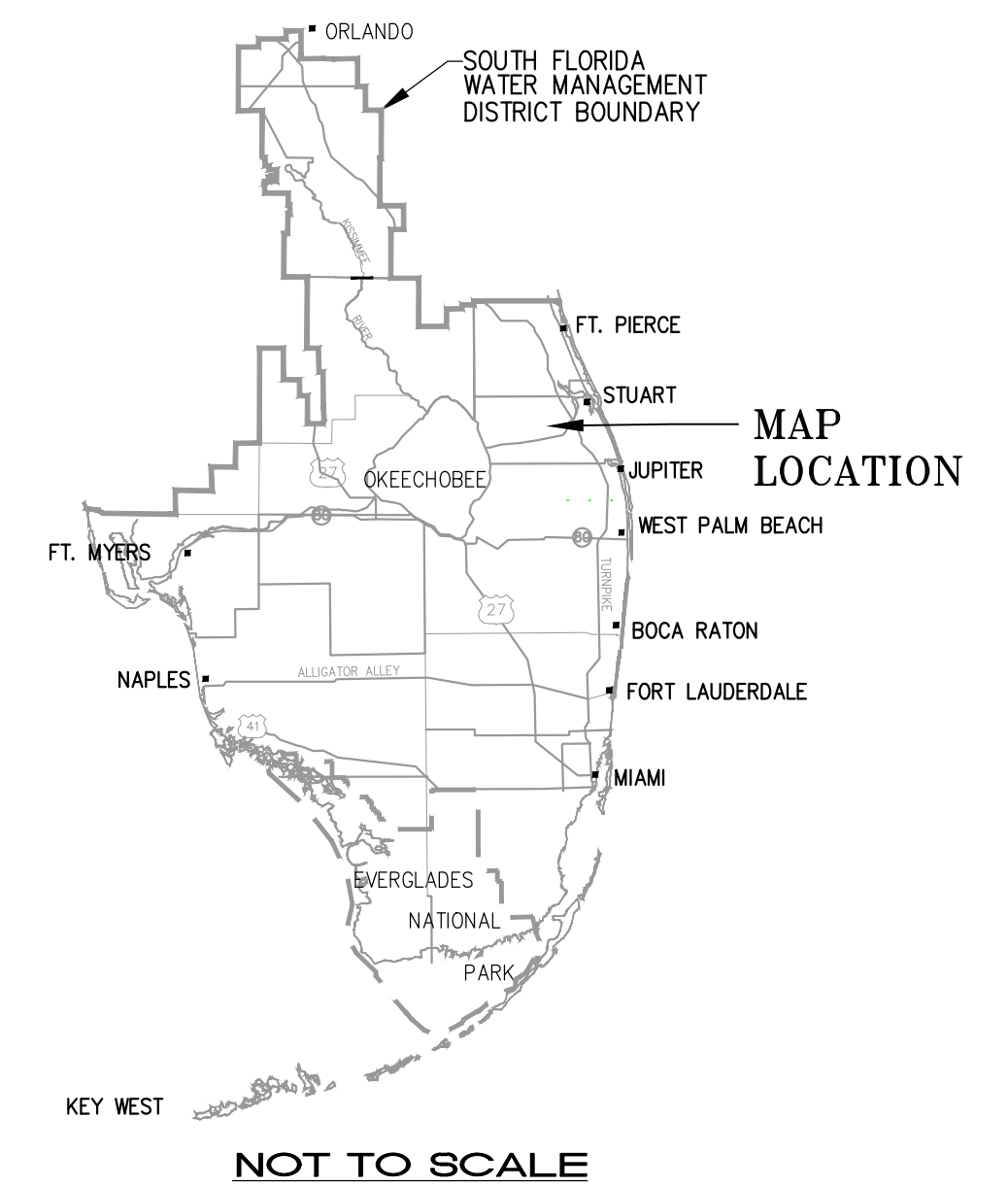
INFRASTRUCTURE MANAGEMENT BUREAU - SURVEY & MAPPING SECTION

CAULKINS WATER FARMING

DETAILED MAPPING

SECTION 20, 21, 28, & 29 TOWNSHIP 39 SOUTH, RANGE 40 EAST

MARTIN COUNTY, FLORIDA



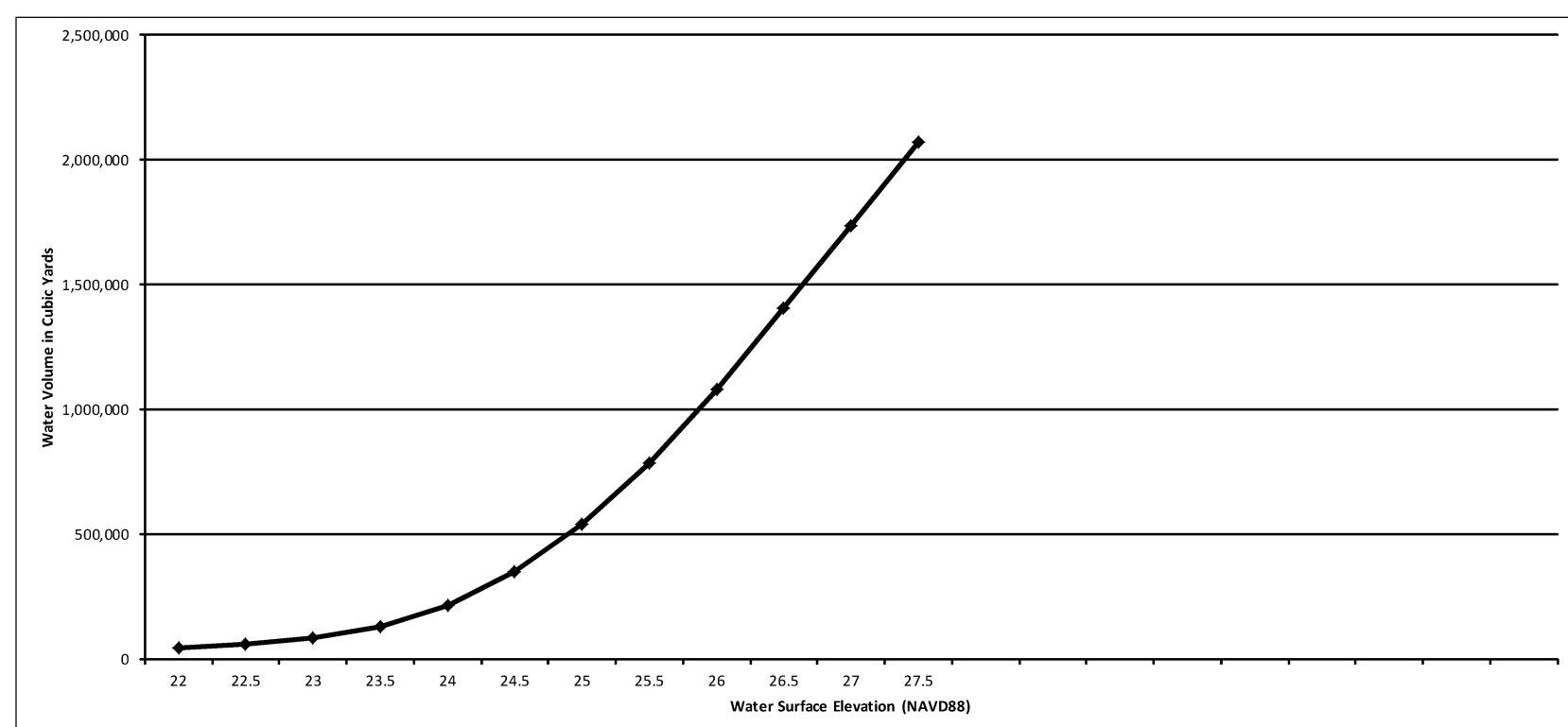
NOTES:

1. THE ELEVATION DATA SHOWN HEREON IS BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). TO CONVERT TO NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29) ADD 1.40' BASED ON CORPSCON VERSION 6.0.1..
2. THE GROUND WATER DATA DEPICTED HEREON ARE REFERENCED IN THE S.F.W.M.D. SURVEYORS REPORT LABELED SPECIFIC PURPOSE SURVEY CAULKINS WATER FARM PILOT PROJECT, MARTIN COUNTY, FLORIDA, DATED FEBRUARY 20, 2015.
3. THIS MAP WAS COMPILED FROM THE MOST AUTHENTIC INFORMATION AVAILABLE AND THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT DOES NOT ASSUME ANY RESPONSIBILITY FOR ANY OF THE ERRORS OR OMISSIONS FOUND HEREON.
4. THE LIDAR SHOWN HEREON IS BASED ON THE FOLLOWING.
5. UNITED STATES CORPS OF ENGINEERS, 25 FOOT PIXEL RESOLUTION, INDIAN RIVER LAGOON 1999, DATA AS LOCATED AT \\ad.sfwmd.gov\DFSroot\data\elelevation\lidar\Deliverables\USACE_LIDAR\Usace_Other\IndianRiverLagoon_1999-215.grids\iri_orig88, NO METADATA ATTACHED.
6. VOLUME CALCULATIONS SHOWN HEREON WERE ESTABLISHED USING AUTOCAD CIVIL 3D 2014 UTILIZING THE TIN VOLUME SURFACE.
7. WELL DEPTHS AND SCREEN LENGTHS WERE PROVIDED BY JOHN JANZEN, LEAD HYDROGEOLOGIST, HYDROGEOLOGY UNIT, SOUTH FLORIDA WATER MANAGEMENT DISTRICT.

Reference Material:

7. CAULKINS WATER FARM RECORDED DRAWING PRODUCED BY THE MILCOR GROUP, INC., LABELED CAULKINS WATER FARMING PILOT PROJECT, SHEETS 1 & 2 OF 2, DATED AUGUST 8, 2013.
8. PLAN AND DETAILS DRAWING PRODUCED BY THE MILCOR GROUP, INC., LABELED CAULKINS WATER FARMING PILOT PROJECT, SHEETS 1 OF 1, DATED AUGUST 8, 2013.
9. CROSS SECTION DRAWING PRODUCED BY ENGINEERING & WATER RESOURCES, INC. LABELED CAULKINS CITRUS CANAL WIDENING, SHEETS 6 THROUGH 9 OF 9, DATED OCTOBER 2005.

Elevation	Volume Cubic Yards	Acre Feet
22	42,731.90	26.49
22.5	53,232.98	33.09
23	82,771.84	51.30
23.5	129,240.20	80.11
24	215,530.49	133.59
24.5	351,544.89	217.90
25	541,547.25	335.67
25.5	786,233.76	487.33
26	1,080,731.82	669.88
26.5	1,424,577.49	870.61
27	1,736,093.64	1,076.09
27.5	2,068,896.82	1,282.37



The Data Represented Hereon Was established by the South Florida Water Management District, Survey Section. Using Autocad Civil 3D 2013



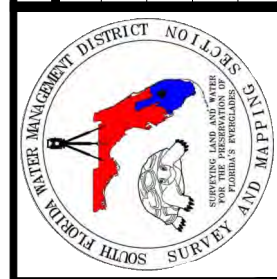
INDEX OF SHEETS	
Sheet Number	Description
1	Cover Sheet
2	Photo and Aerial Mapping
3	Volume Calc Elevation 22.0'
4	Volume Calc Elevation 22.5'
5	Volume Calc Elevation 23.0'
6	Volume Calc Elevation 23.5'
7	Volume Calc Elevation 24.0'
8	Volume Calc Elevation 24.5'
9	Volume Calc Elevation 25.0'
10	Volume Calc Elevation 25.5'
11	Volume Calc Elevation 26.0'
12	Volume Calc Elevation 26.5'
13	Volume Calc Elevation 27.0'
14	Volume Calc Elevation 27.5'
15	Profile Sheet
16	Cross Sections

LEGEND

- BLM = BUREAU OF LAND MANAGEMENT
- BWF = BARBED WIRE FENCE
- CCR = CERTIFIED CORNER RECORD
- DOT = DEPARTMENT OF TRANSPORTATION
- E = EASTING
- ERD = EDGE OF ROAD
- ELEV = ELEVATION
- FDEM = FLORIDA DIVISION OF EMERGENCY MANAGEMENT
- FCD = FLOOD CONTROL DISTRICT
- FIND = FLORIDA INLAND NAVIGATIONAL DISTRICT
- FLDEP = FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
- FND = FOUND
- GPS = GLOBAL POSITIONING SYSTEM
- LIDAR = LIGHT DETECTION AND RANGING
- MWS = MEAN WATER SURFACE
- N = NORTHING
- NAD = NORTH AMERICAN DATUM
- NAVD88 = NORTH AMERICAN DATUM OF 1988
- NGS = NATIONAL GEODETIC SURVEY
- NGVD29 = NATIONAL GEODETIC VERTICAL DATUM OF 1929
- PID = POINT IDENTIFIER
- RGE = RANGE
- RTK = REAL TIME KINEMATIC
- SFWM = SOUTH FLORIDA WATER MANAGEMENT DISTRICT
- SE = SOUTHEAST
- SW = SOUTHWEST
- TOB = TOP OF BANK
- TOS = TOE OF SLOPE
- TPOS = TOP OF SLOPE
- TWP = TOWNSHIP
- US = UNITED STATES

- +x1.0 = SPOT ELEVATION
- ◆ = BENCH MARK
- ▲ = HORIZONTAL CONTROL POINT
- ✦ = CALCULATED SECTION CORNER
- ✧ = CALCULATED QUARTER CORNER

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
INFRASTRUCTURE MANAGEMENT BUREAU
SURVEY AND MAPPING SECTION
P.O. BOX 246800
WEST PALM BEACH, FLORIDA 33416-4680



PROJECT MAPPING
SECTION 20, 21, 28, & 29
TOWNSHIP 39 SOUTH, RANGE 40 EAST
Martin County, FLORIDA

Martin County
Caulkins Water
Farming
CADD File

SHEET
OF
S16

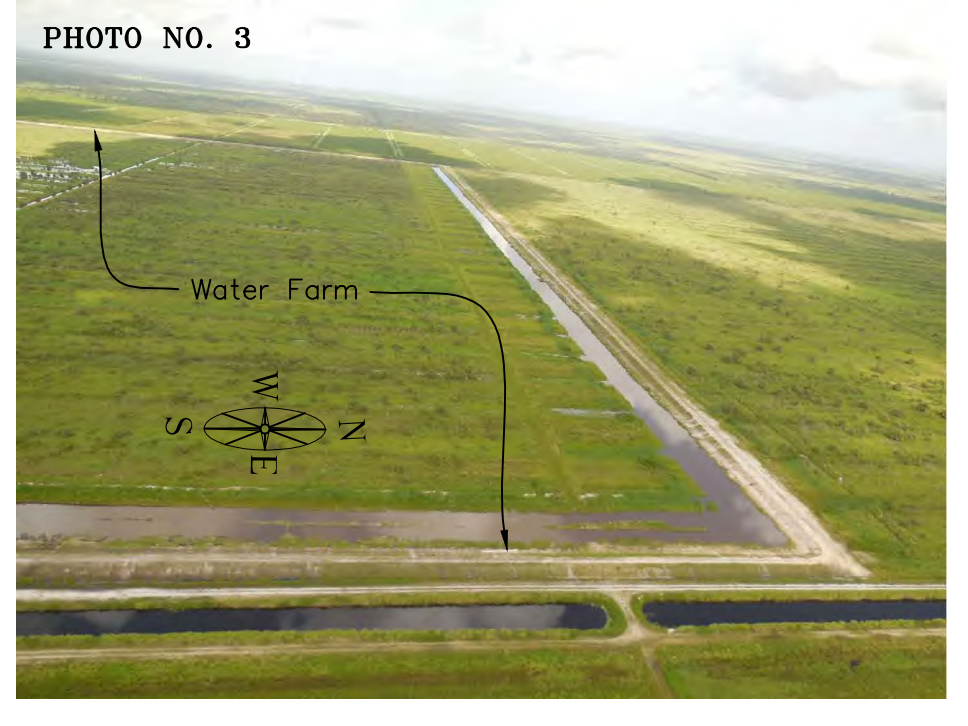
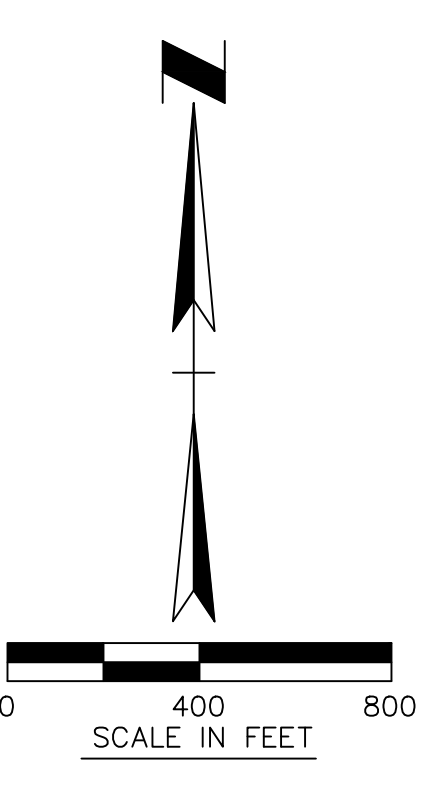
UPDATED
March 30, 2015

REVISIONS
DATE
DRAWN/CHECKED

PAPER SCALE: 1" = 1' (PAPER SPACE)

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K H G F E D C B A



SECTION 19
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 20
TOWNSHIP 39 SOUTH
RANGE 40 EAST



SEE PHOTO NO. 3

BM 1625-59D Elevation = 29.233'
GROUND WATER WELL CAU-5D Measuring Point Elevation = 31.02' Ground Elevation = 31.4'
BM CAU5 Elevation = 25.80'
GROUND WATER WELL CAU-5S Measuring Point Elevation = 30.94' Ground Elevation = 31.4'
BM 1625-60B Elevation = 27.881'

SECTION 29
TOWNSHIP 39 SOUTH
RANGE 40 EAST

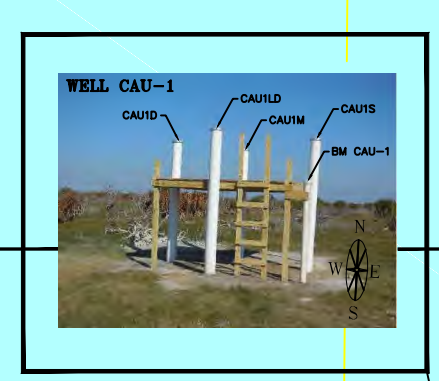


BM 1625-59C Elevation = 29.309'

BM CAU2 Elevation = 24.76'

SECTION 30
TOWNSHIP 39 SOUTH
RANGE 40 EAST

TOP OF RISER REVISD 1-16-14 Elevation = 28.1'



GROUND WATER WELL CAU-4S Measuring Point Elevation = 30.52' Ground Elevation = 30.9'

BM 1625-59B Elevation = 27.49'

Staff Gauge-4 West perimeter canal stage

GROUND WATER WELL CAU-1D Measuring Point Elevation = 34.78' Ground Elevation = 25.6'

GROUND WATER WELL CAU-1M Measuring Point Elevation = 34.87' Ground Elevation = 25.6'

GROUND WATER WELL CAU-1S Measuring Point Elevation = 34.80' Ground Elevation = 25.7'

BM CAU1 Elevation = 25.27'

BM 1625-60C Elevation = 26.846'



BM CAU4 Elevation = 26.29'

GROUND WATER WELL CAU-1LD Measuring Point Elevation = 34.73' Ground Elevation = 25.9'

GROUND WATER WELL CAU-3S Measuring Point Elevation = 26.98' Ground Elevation = 24.2'

BM CAU3 Elevation = 26.79'



Staff Gauge-7 Southeast interior rain and stage

BM 108-52C Elevation = 32.64'

BM 1625-60D Elevation = 26.294'

GROUND WATER WELL CAU-6M Measuring Point Elevation = 38.33' Ground Elevation = 38.7'

GROUND WATER WELL CAU-6D Measuring Point Elevation = 38.25' Ground Elevation = 38.7'



BM 1625-59B Elevation = 27.494'

TOP OF RISER REVISD 1-16-14 Elevation = 28.0'

Staff Gauge-6 Southwest interior stage

BM CAU SG SW Elevation = 27.20'



BM 1108053B Elevation = 31.18'

Staff Gauge-3 South perimeter canal stage

BM 108-52C Elevation = 32.64'

BM 1625-60D Elevation = 26.294'

Staff Gauge-3 South perimeter canal stage

BM CAU6 Elevation = 39.41'

BM 108053A Elevation = 30.50'



BM 1625-59A Elevation = 29.518'

10' DRAINAGE EXHIBIT "A" & "B" (OR BOOK 29, PAGE 434) CANAL

Staff Gauge-1 Intake Canal

GROUND WATER WELL CAU-7D Measuring Point Elevation = 33.92' Ground Elevation = 34.2'

GROUND WATER WELL CAU-7M Measuring Point Elevation = 33.85' Ground Elevation = 34.2'

BM CAU7 Elevation = 33.61'



SEE PHOTO NO. 2

SEE PHOTO NO. 1



SECTION 32
TOWNSHIP 39 SOUTH
RANGE 40 EAST



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S2 of S16
SHEET
MARTIN COUNTY
CAULKINS WATER FARMING
PHOTO AND AERIAL LAYOUT

CAULKINS WATER FARMING
PHOTO AND AERIAL LAYOUT
MARTIN COUNTY, FLORIDA



DRAWN: RVS CHECKED: DWG. DATE: SCALE:
FIELD PERSON(S):
FIELD DATE(S):
FIELD BOOK(S):
PAGE(S):
DATA COLLECTOR FILE(S):

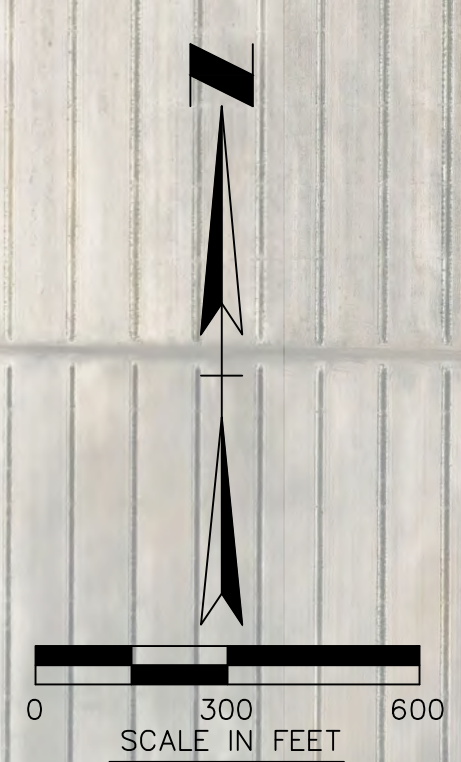
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
INFRASTRUCTURE MANAGEMENT BUREAU
SURVEY AND MAPPING SECTION
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33416-4680

DRAWN	CHECKED	DATE	REVISIONS

UPDATED
March 31, 2015

PLOT SCALE: 1" = 1" (PAPER SPACE)

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SECTION 19
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 20
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 30
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 29
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 32
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 31
TOWNSHIP 39 SOUTH
RANGE 40 EAST

BM 1625-59D
Elevation = 29.233'

GROUND WATER WELL CAU-5D
Measuring Point Elevation = 31.16'
Ground Elevation = 31.4'

BM CAU5
Elevation = 25.80'

GROUND WATER WELL CAU-5S
Measuring Point Elevation = 30.94'
Ground Elevation = 31.4'

BM 1625-60B
Elevation = 27.881'

Profile No. 2

GROUND WATER WELL CAU-5M
Measuring Point Elevation = 31.93'
Ground Elevation = 31.4V

BM 1625-60A
Elevation = 25.293'

Staff Gauge No. 5

BM 1625-59C
Elevation = 29.309'

TOP OF RISER
REVISED 1-16-14
Elevation = 28.7'

Profile No. 3

GROUND WATER WELL CAU-4B
Measuring Point Elevation = 30.52'
Ground Elevation = 30.9'

BM 1625-59B
Elevation = 27.49'

Staff Gauge No. 4

BM CAU4
Elevation = 26.23'

BM 1625-59B
Elevation = 27.484'

TOP OF RISER
REVISED 1-16-14
Elevation = 28.0'

Staff Gauge No. 6

BM CAU 5C SW
Elevation = 27.20'

BM 1625-59A
Elevation = 29.518'

GROUND WATER WELL CAU-1D
Measuring Point Elevation = 34.78'
Ground Elevation = 25.6'

GROUND WATER WELL CAU-1M
Measuring Point Elevation = 34.87'
Ground Elevation = 25.6'

BM 1625-60C
Elevation = 26.846'

Staff Gauge No. 2

GROUND WATER WELL CAU-1S
Measuring Point Elevation = 34.80'
Ground Elevation = 25.7'

Staff Gauge No. 7

GROUND WATER WELL CAU-1L
Measuring Point Elevation = 34.73'
Ground Elevation = 25.9'

BM CAU1
Elevation = 25.27'

GROUND WATER WELL CAU-1S
Measuring Point Elevation = 26.80'
Ground Elevation = 26.8'

BM CAU3
Elevation = 26.79'

BM 108-52C
Elevation = 32.640'

GROUND WATER WELL CAU-6M
Measuring Point Elevation = 38.33'
Ground Elevation = 38.7'

GROUND WATER WELL CAU-6D
Measuring Point Elevation = 38.23'
Ground Elevation = 38.7'

170' WIDE RIGHT OF WAY AGREEMENT BETWEEN CALLAHAN + CHANDLER AND FLORIDA POWER & LIGHT COMPANY FOR BOON LAKE, FAUCI 1002 & DE BOON LAKE BOULEVARD

BM 1625-60D
Elevation = 28.204'

BM 108053A
Elevation = 30.56'

BM CAU6
Elevation = 39.44'

150' DRAINAGE EASEMENT
ON 1625-59A PAGE 424

GROUND WATER WELL CAU-2D
Measuring Point Elevation = 33.93'
Ground Elevation = 34.2'

BM CAU7
Elevation = 33.61'

GROUND WATER WELL CAU-7M
Measuring Point Elevation = 33.55'
Ground Elevation = 34.2'

Staff Gauge No. 1

Profile No. 1

Notes:
1. The contours shown hereon are represented at 2' intervals.

This is Not a Survey
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Volume	
Base Surface	Caulkins
Comparison Surface	calc 22.0' (NAVD88)
Cut Factor	1.000
Fill Factor	1.000
Fill volume	= 42,731.90 Cu. Yd.
Water Surface Area	= 715,359.15 Sq. Ft., (16.4 Acres ±)
Fill	= 26.5 Acre Feet

S3 of S16
Martin County
Central Water
CAUD File
Volume Calculations.dwg

CAULKINS WATER FARMING
VOLUME CALCULATIONS
Water Surface at 22.0'
Martin County, Florida

DRAWN: RVS	CHECKED: _____	DWG. DATE: _____	SCALE: _____
FIELD PERSON(S): _____	FIELD DATE(S): _____	FIELD BOOK(S): _____	PAGE(S): _____
DATA COLLECTOR FILE(S): _____			

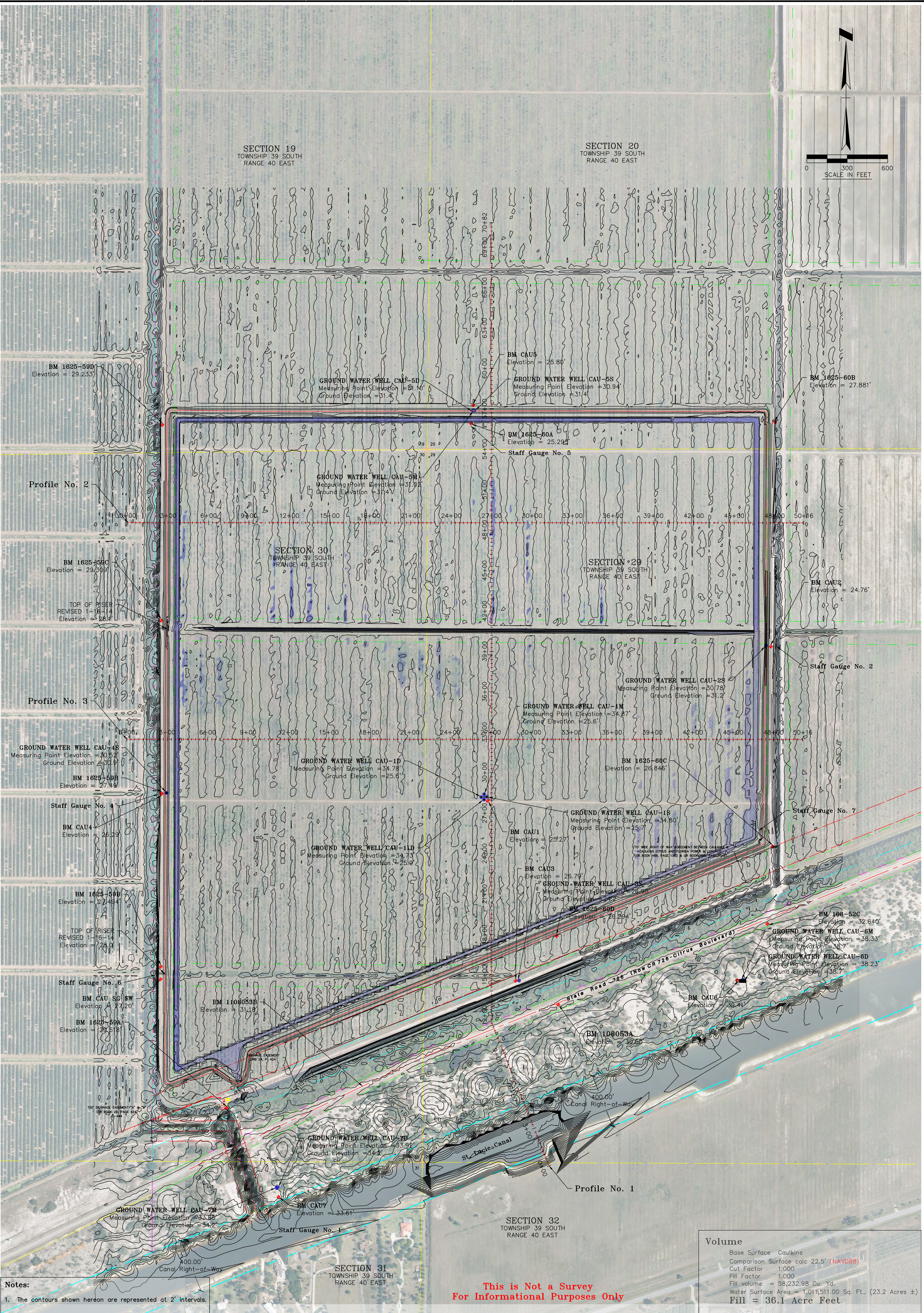
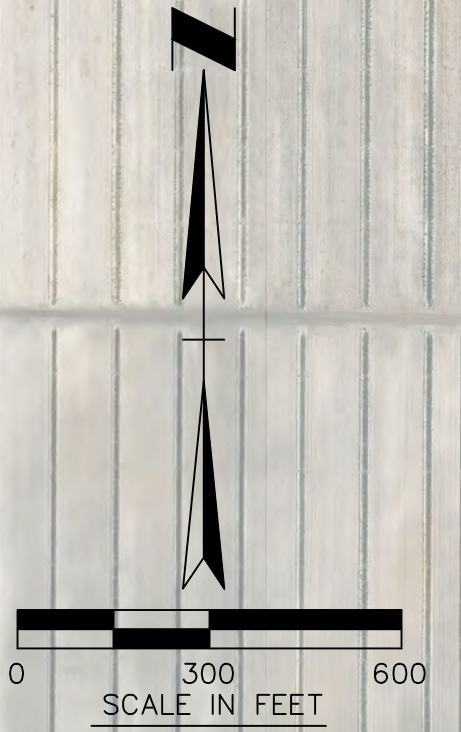
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
INFRASTRUCTURE MANAGEMENT BUREAU
SURVEY AND MAPPING SECTION
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33416-4680

DRAWN	CHECKED	DATE	REVISIONS

UPDATED
March 26, 2015

SECTION 19
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 20
TOWNSHIP 39 SOUTH
RANGE 40 EAST



Notes:
1. The contours shown hereon are represented at 2' intervals.

**This is Not a Survey
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Volume	
Base Surface	Caulkins
Comparison Surface	calc 22.5' (NAVD88)
Cut Factor	1.000
Fill Factor	1.000
Fill volume	= 58,232.98 Cu. Yd.
Water Surface Area	= 1,011,511.00 Sq. Ft. (23.2 Acres ±)
Fill	= 36.1 Acre Feet

S4 of S16
Palm Beach County
Ocean Ridge
CAUD File
Volume Calculations.dwg

CAULINS WATER FARMING
VOLUME CALCULATIONS
Water Surface at 22.5'
Martin County, Florida



DRAWN: RVS CHECKED: DWG. DATE: SCALE:
FIELD PERSON(S):
FIELD DATE(S):
FIELD BOOK(S):
PAGE(S):
DATA COLLECTOR FILE(S):

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
INFRASTRUCTURE MANAGEMENT BUREAU
SURVEY AND MAPPING SECTION
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33416-4680

DRAWN	CHECKED	DATE	REVISIONS

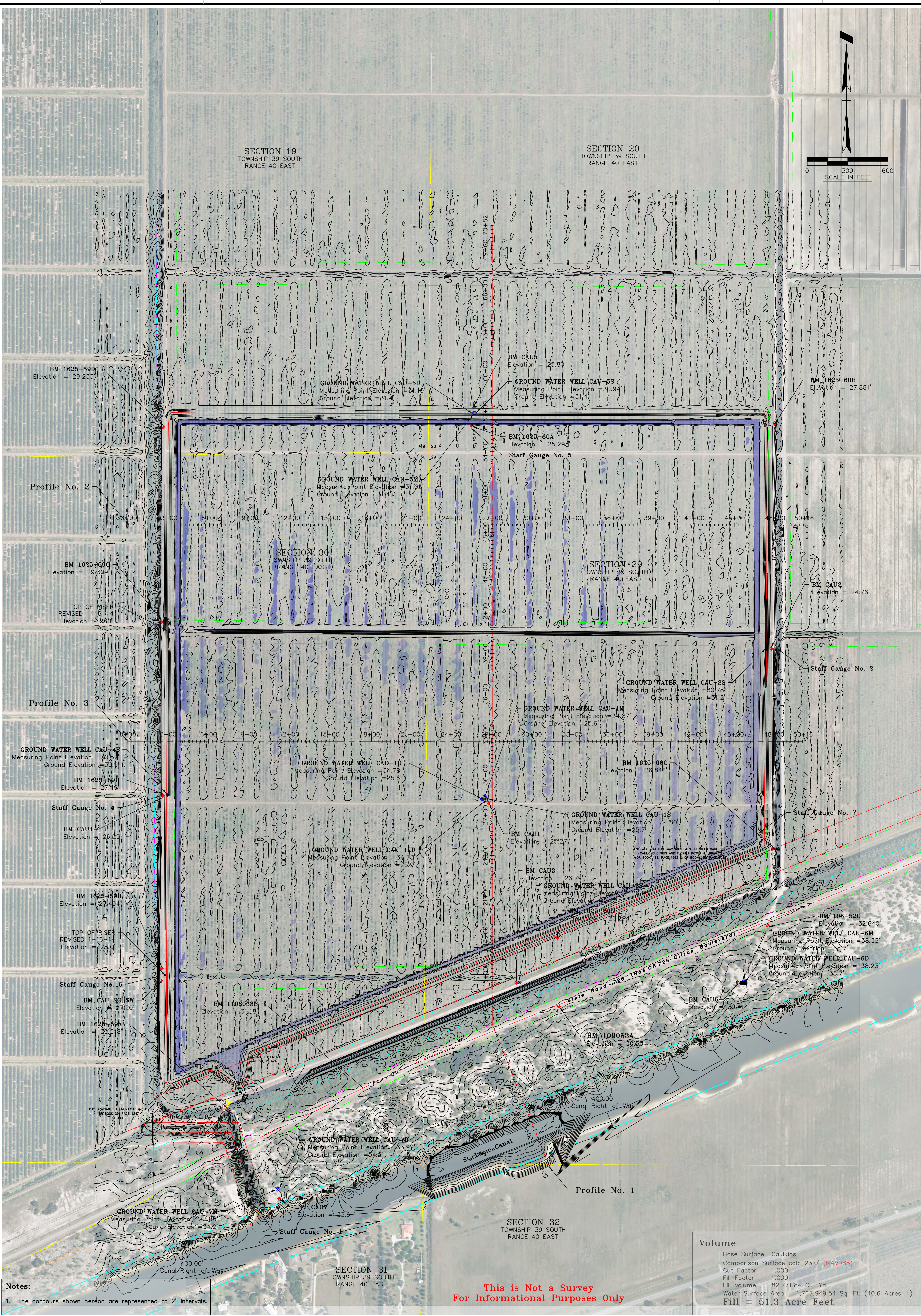
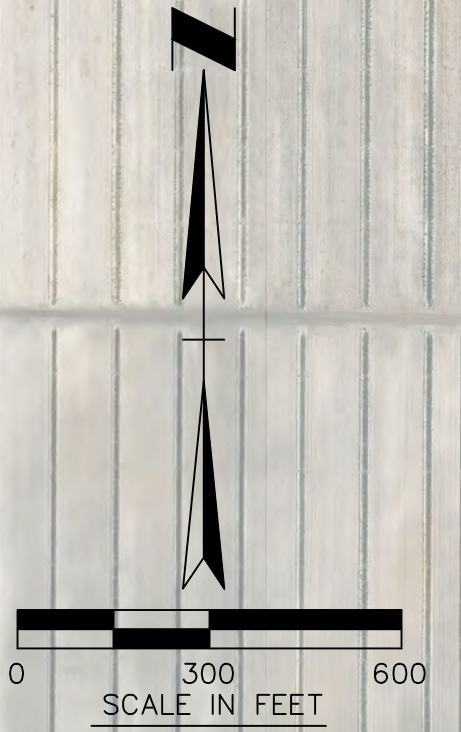
UPDATED
March 26, 2015

PLOT SCALE: 1" = 1" (PAPER SPACE)

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SECTION 19
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 20
TOWNSHIP 39 SOUTH
RANGE 40 EAST



**This is Not a Survey
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Volume	
Base Surface	Caulkins
Comparison Surface	calc 23.0' (NAVD88)
Cut Factor	1.000
Fill Factor	1.000
Fill volume	= 82,771.84 Cu. Yd.
Water Surface Area	= 1,767,949.54 Sq. Ft. (40.6 Acres ±)
Fill	= 51.3 Acre Feet

55 of 116 SHEET Martin County Central Water CAUD File Volume Calculations.dwg	CAULINS WATER FARMING VOLUME CALCULATIONS Water Surface at 23.0' Martin County, Florida		DRAWN: RVS CHECKED: DWG. DATE: SCALE: FIELD PERSON(S): FIELD DATE(S): FIELD BOOK(S): PAGE(S): DATA COLLECTOR FILE(S):	SOUTH FLORIDA WATER MANAGEMENT DISTRICT INFRASTRUCTURE MANAGEMENT BUREAU SURVEY AND MAPPING SECTION P.O. BOX 24680 3301 GUN CLUB ROAD WEST PALM BEACH, FLORIDA 33416-4680	<div style="border: 1px solid red; border-radius: 50%; padding: 5px; display: inline-block;"> UPDATED March 26, 2015 </div>
	PLOT SCALE: 1" = 1" (PAPER SPACE)		DRAWN: CHECKED: DATE: REVISIONS:		

SECTION 19
TOWNSHIP 39 SOUTH
RANGE 40 EAST

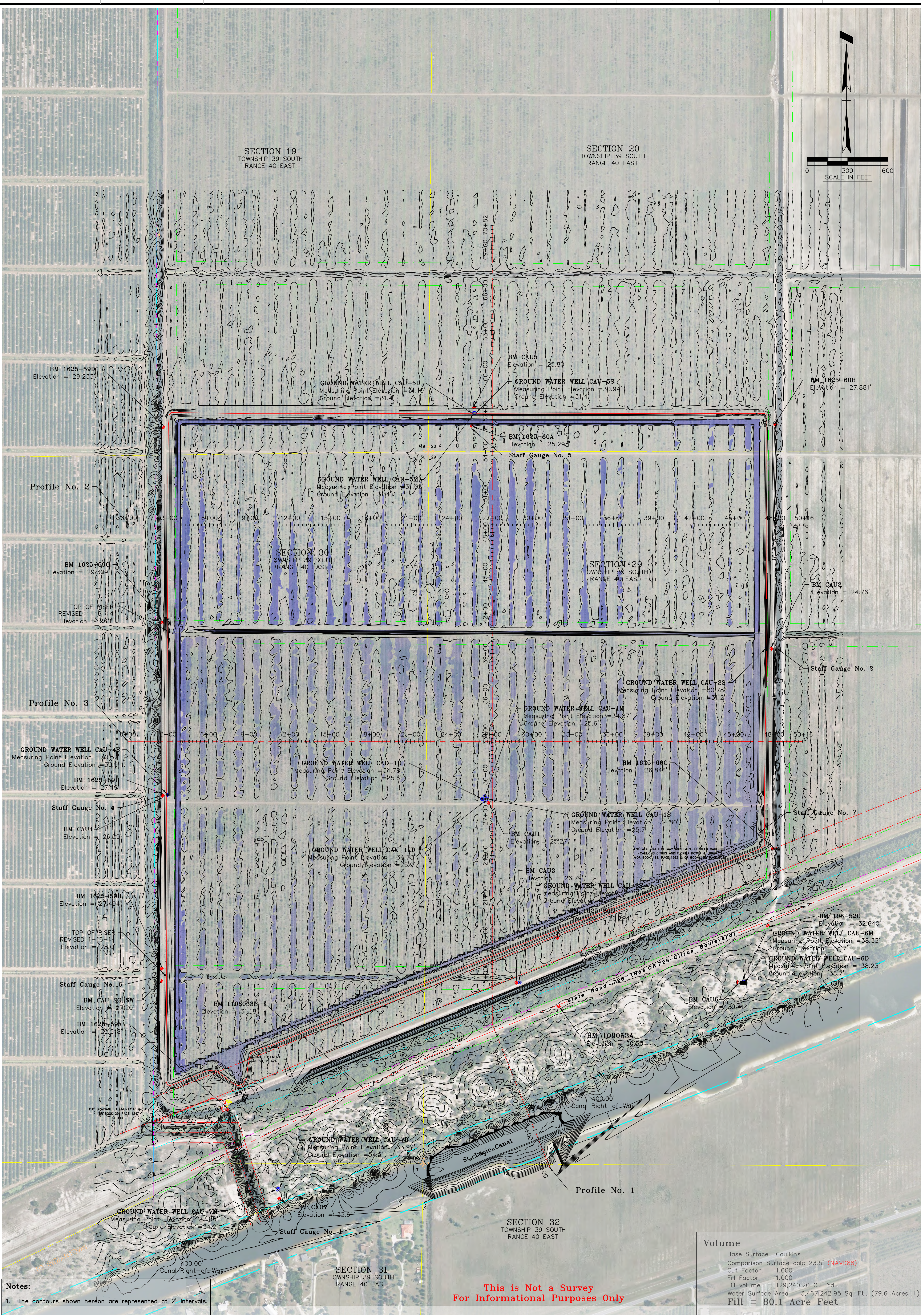
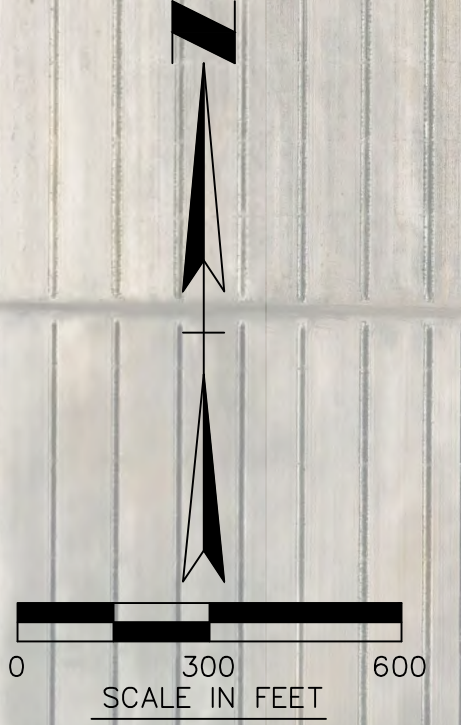
SECTION 20
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 30
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 29
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 32
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 31
TOWNSHIP 39 SOUTH
RANGE 40 EAST



Notes:
1. The contours shown hereon are represented at 2' intervals.

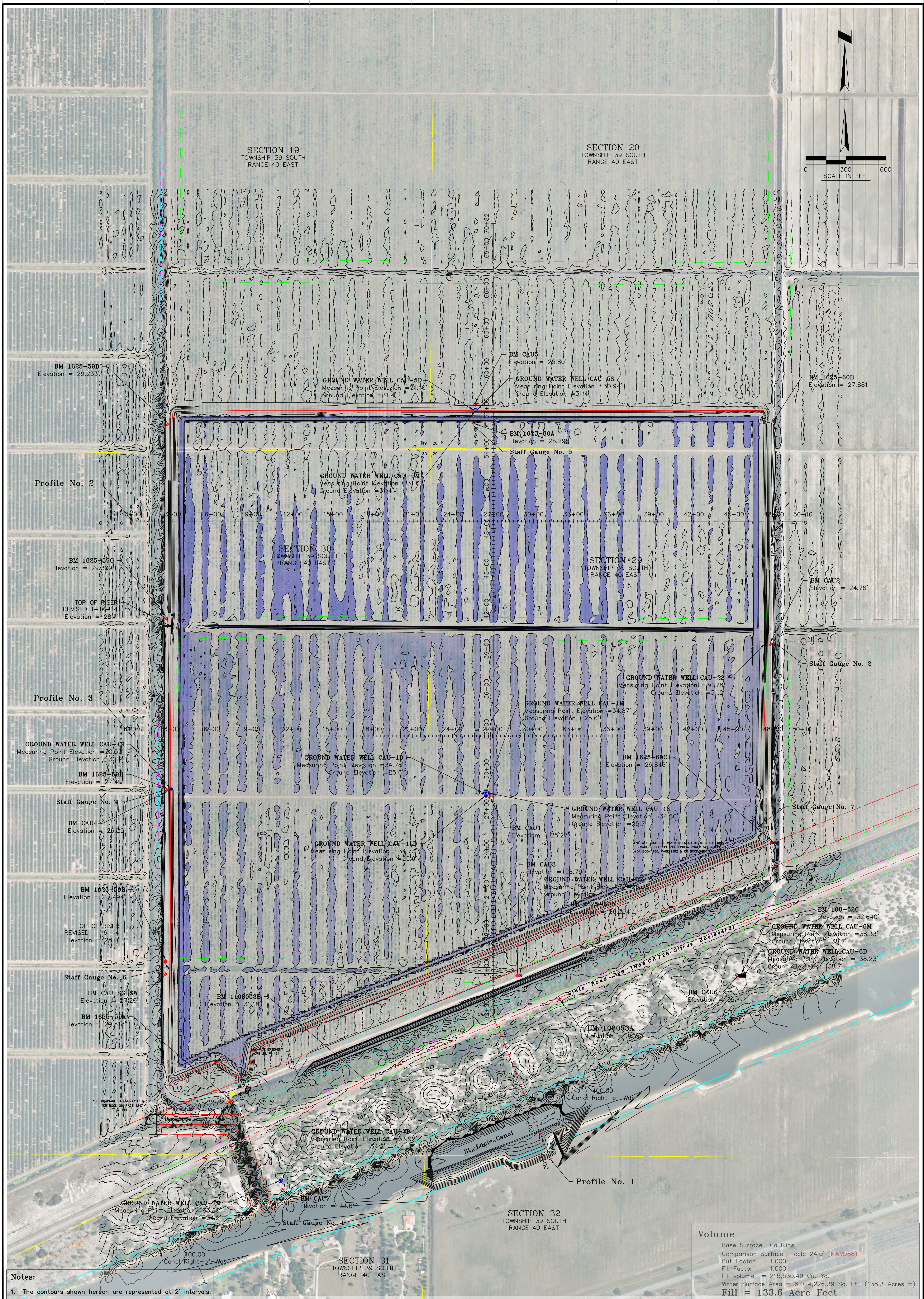
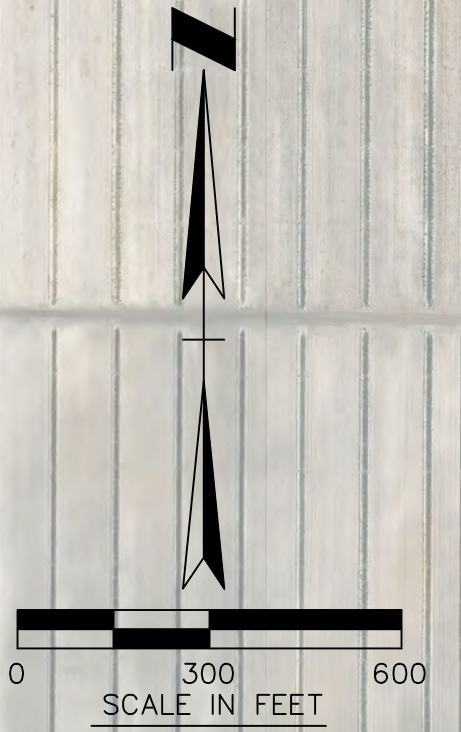
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Volume	
Base Surface	Caulkins
Comparison Surface	calc 23.5' (NAVD88)
Cut Factor	1.000
Fill Factor	1.000
Fill volume	= 129,240.20 Cu. Yd.
Water Surface Area	= 3,467,242.95 Sq. Ft., (79.6 Acres ±)
Fill	= 80.1 Acre Feet

56 of 116 SHEET Martin County Central Water CAUD File Volume Calculations.dwg	CAULINS WATER FARMING VOLUME CALCULATIONS Water Surface at 23.5' Martin County, Florida		DRAWN: RVS CHECKED: DWG. DATE: SCALE: FIELD PERSON(S): FIELD DATE(S): FIELD BOOK(S): PAGE(S): DATA COLLECTOR FILE(S):	SOUTH FLORIDA WATER MANAGEMENT DISTRICT INFRASTRUCTURE MANAGEMENT BUREAU SURVEY AND MAPPING SECTION P.O. BOX 24680 3301 GUN CLUB ROAD WEST PALM BEACH, FLORIDA 33416-4680	<div style="border: 1px solid red; border-radius: 50%; padding: 5px; display: inline-block;"> UPDATED March 26, 2015 </div>	<table border="1"> <thead> <tr> <th>DRAWN</th> <th>CHECKED</th> <th>DATE</th> <th>REVISIONS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	DRAWN	CHECKED	DATE	REVISIONS				
	DRAWN	CHECKED	DATE	REVISIONS										
PLOT SCALE: 1" = 1" (PAPER SPACE)				C:\Users\rvschaff\appdata\local\temp\AcPublish_4600\Volume Calculations.dwg										

SECTION 19
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 20
TOWNSHIP 39 SOUTH
RANGE 40 EAST

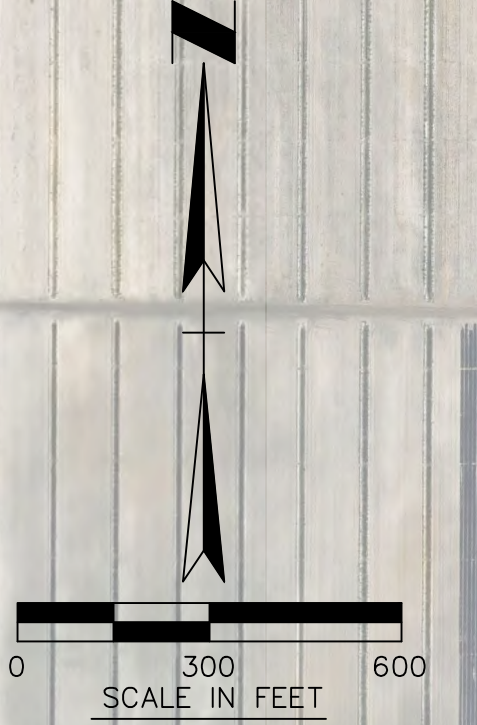


Volume	
Base Surface	Caulkins
Comparison Surface	calc 24.0' (NAVD88)
Cut Factor	1.000
Fill Factor	1.000
Fill volume	= 215,530.49 Cu. Yd.
Water Surface Area	= 6,024,226.39 Sq. Ft., (138.3 Acres ±)
Fill	= 133.6 Acre Feet

S7 of S16 Martin County CAUD File Volume Calculations.dwg	CAULINS WATER FARMING VOLUME CALCULATIONS Water Surface at 24.0' Martin County, Florida		DRAWN: RVS CHECKED: DWG. DATE: SCALE: FIELD PERSON(S): FIELD DATE(S): FIELD BOOK(S): PAGE(S): DATA COLLECTOR FILE(S):	SOUTH FLORIDA WATER MANAGEMENT DISTRICT INFRASTRUCTURE MANAGEMENT BUREAU SURVEY AND MAPPING SECTION P.O. BOX 24680 3301 GUN CLUB ROAD WEST PALM BEACH, FLORIDA 33416-4680	<div style="border: 1px solid red; border-radius: 50%; padding: 5px; display: inline-block;"> UPDATED March 26, 2015 </div>	<table border="1"> <thead> <tr> <th>DRAWN</th> <th>CHECKED</th> <th>DATE</th> <th>REVISIONS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	DRAWN	CHECKED	DATE	REVISIONS				
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SECTION 19
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 20
TOWNSHIP 39 SOUTH
RANGE 40 EAST



BM 1625-59D
Elevation = 29.233'

GROUND WATER WELL CAU-5D
Measuring Point Elevation = 31.16'
Ground Elevation = 31.4'

BM CAU5
Elevation = 25.80'

GROUND WATER WELL CAU-5S
Measuring Point Elevation = 30.94'
Ground Elevation = 31.4'

BM 1625-60B
Elevation = 27.881'

Profile No. 2

GROUND WATER WELL CAU-5M
Measuring Point Elevation = 31.91'
Ground Elevation = 31.4'

BM 1625-60A
Elevation = 25.293'

Staff Gauge No. 5

BM 1625-59C
Elevation = 29.309'

TOP OF RISER
REVISED 1-16-14
Elevation = 28.1'

SECTION 30
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 29
TOWNSHIP 39 SOUTH
RANGE 40 EAST

BM CAU2
Elevation = 24.76'

Profile No. 3

GROUND WATER WELL CAU-4B
Measuring Point Elevation = 30.52'
Ground Elevation = 30.9'

BM 1625-59B
Elevation = 27.49'

Staff Gauge No. 4

BM CAU4
Elevation = 26.23'

GROUND WATER WELL CAU-1D
Measuring Point Elevation = 34.78'
Ground Elevation = 25.6'

GROUND WATER WELL CAU-1M
Measuring Point Elevation = 34.87'
Ground Elevation = 25.6'

BM 1625-60C
Elevation = 28.846'

Staff Gauge No. 2

GROUND WATER WELL CAU-2S
Measuring Point Elevation = 30.78'
Ground Elevation = 31.2'

BM 1625-59B
Elevation = 27.494'

TOP OF RISER
REVISED 1-16-14
Elevation = 28.0'

GROUND WATER WELL CAU-1LD
Measuring Point Elevation = 34.73'
Ground Elevation = 25.9'

BM CAU1
Elevation = 25.227'

BM CAU3
Elevation = 26.79'

GROUND WATER WELL CAU-1S
Measuring Point Elevation = 34.80'
Ground Elevation = 25.7'

Staff Gauge No. 7

Staff Gauge No. 6

BM CAU SG SW
Elevation = 27.20'

BM 1625-59A
Elevation = 29.518'

BM 1108053B
Elevation = 31.18'

BM CAU1
Elevation = 25.227'

GROUND WATER WELL CAU-1S
Measuring Point Elevation = 34.80'
Ground Elevation = 25.7'

BM 1625-60D
Elevation = 28.264'

BM 108-52C
Elevation = 32.640'

GROUND WATER WELL CAU-6M
Measuring Point Elevation = 38.33'
Ground Elevation = 38.7'

GROUND WATER WELL CAU-6D
Measuring Point Elevation = 38.23'
Ground Elevation = 38.7'

150' DRAINAGE EASEMENT
FROM 1625-59A PAGE 424

GROUND WATER WELL CAU-7M
Measuring Point Elevation = 33.55'
Ground Elevation = 34.2'

GROUND WATER WELL CAU-2D
Measuring Point Elevation = 33.95'
Ground Elevation = 34.2'

BM CAU7
Elevation = 33.61'

SECTION 31
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 32
TOWNSHIP 39 SOUTH
RANGE 40 EAST

Notes:
1. The contours shown hereon are represented at 2' intervals.

This is Not a Survey
For Informational Purposes Only

Volume	
Base Surface	Contours
Comparison Surface	calc 24.5' (NAVD88)
Cut Factor	1.000
Fill Factor	1.000
Fill volume	= 351,544.19 Cu. Yd.
Water Surface Area	= 8,777,373.80 Sq. Ft. (201.5 Acres ±)
Fill	= 217.9 Acre Feet

58 of 116
SHEET
Martin County
Central Water
CAUD File
Volume Calculations.dwg

CAULINS WATER FARMING
VOLUME CALCULATIONS
Water Surface at 24.5'
Martin County, Florida



DRAWN: RVS CHECKED: --- DWG. DATE: --- SCALE: ---
FIELD PERSON(S): ---
FIELD DATE(S): ---
FIELD BOOK(S): ---
PAGE(S): ---
DATA COLLECTOR FILE(S): ---

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
INFRASTRUCTURE MANAGEMENT BUREAU
SURVEY AND MAPPING SECTION
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33416-4680

DRAWN	CHECKED	DATE	REVISIONS

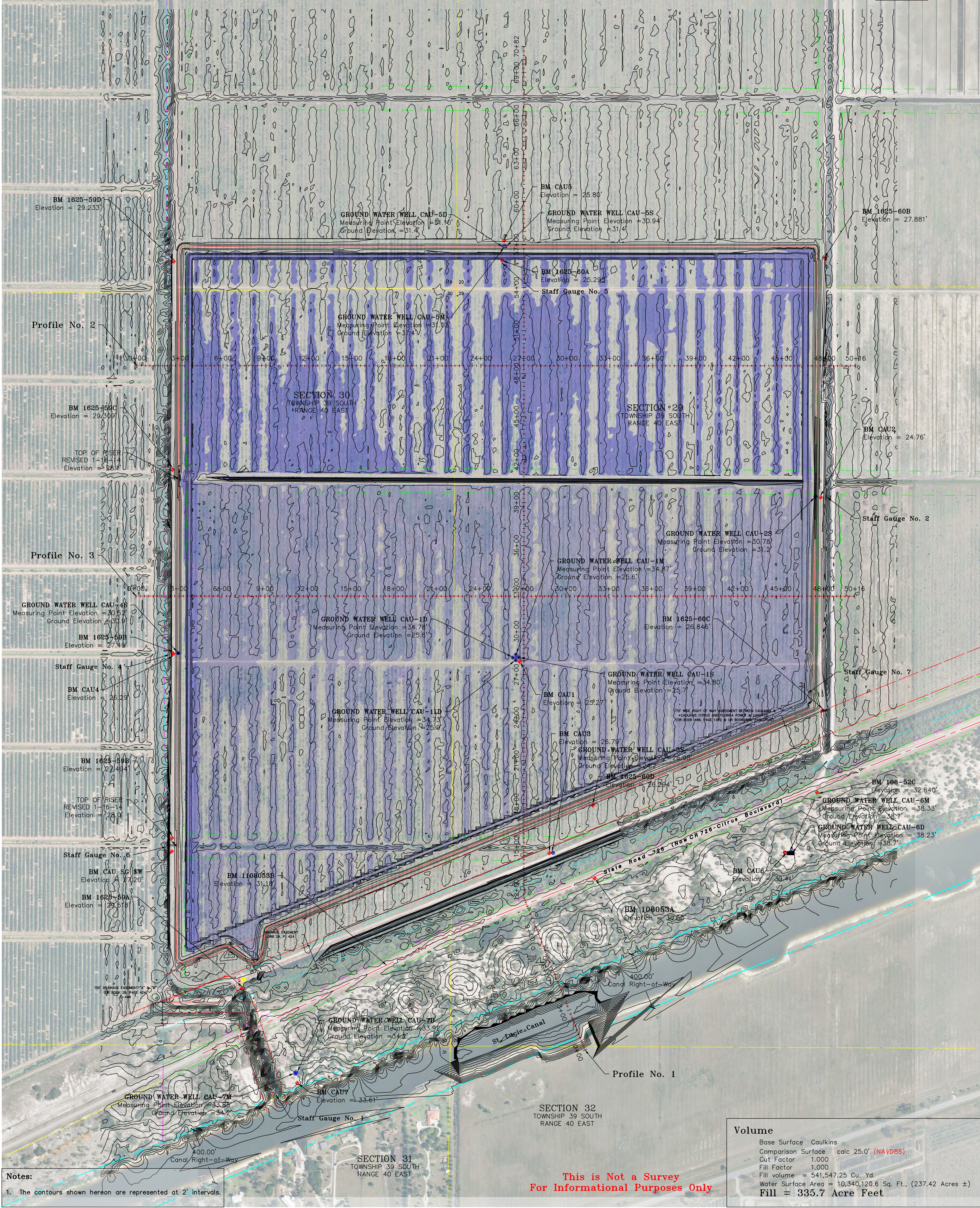
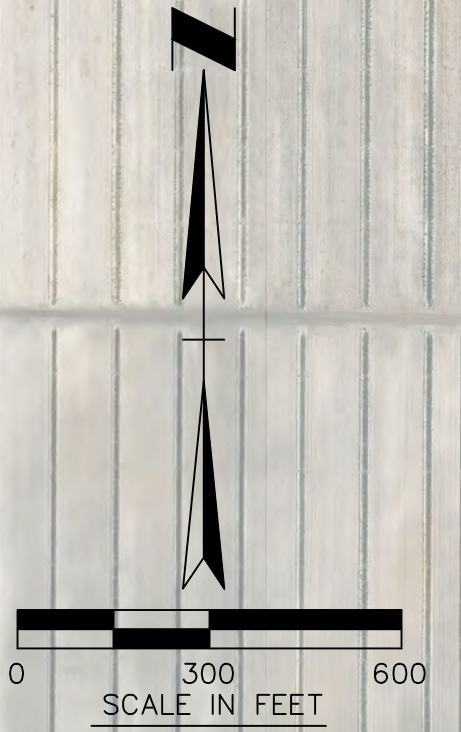
UPDATED
March 26, 2015

PLOT SCALE: 1" = 1" (PAPER SPACE)

C:\Users\rvschaff\appdata\local\temp\AcPublish_4600\Volume Calculations.dwg

SECTION 19
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 20
TOWNSHIP 39 SOUTH
RANGE 40 EAST



Notes:
1. The contours shown hereon are represented at 2' intervals.

**This is Not a Survey
For Informational Purposes Only**

Volume	
Base Surface	Caulkins
Comparison Surface	calc 25.0' (NAVD88)
Cut Factor	1.000
Fill Factor	1.000
Fill volume	= 541,547.25 Cu. Yd.
Water Surface Area	= 10,340,120.6 Sq. Ft., (237.42 Acres ±)
Fill	= 335.7 Acre Feet

S9 of S16
Martin County
Central Water
CAUD File
Volume Calculations

CAULINS WATER FARMING
VOLUME CALCULATIONS
Water Surface Area at 25.0'
Martin County, Florida



DRAWN: RVS CHECKED: DWG. DATE: SCALE:
FIELD PERSON(S):
FIELD DATE(S):
FIELD BOOK(S):
PAGE(S):
DATA COLLECTOR FILE(S):

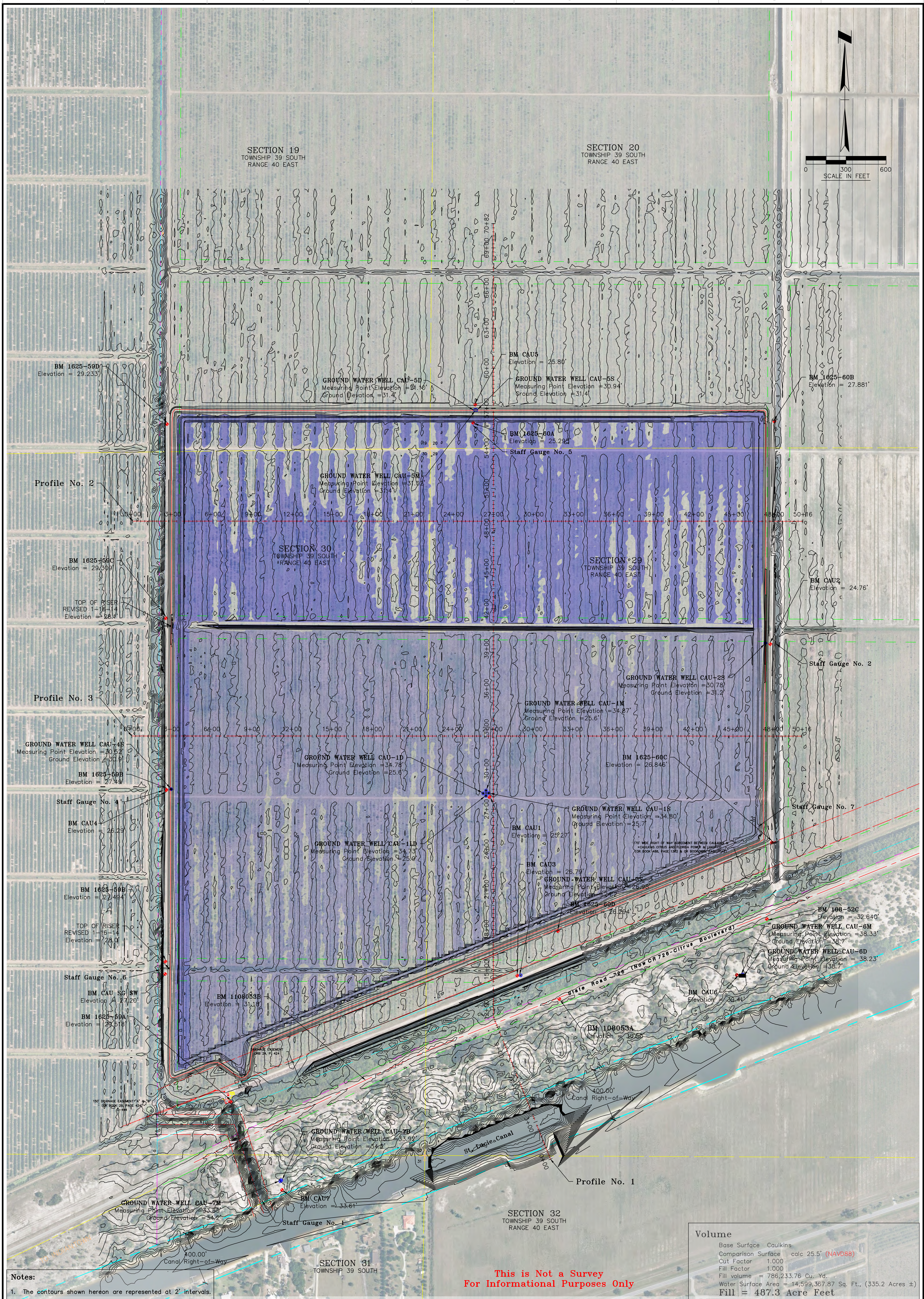
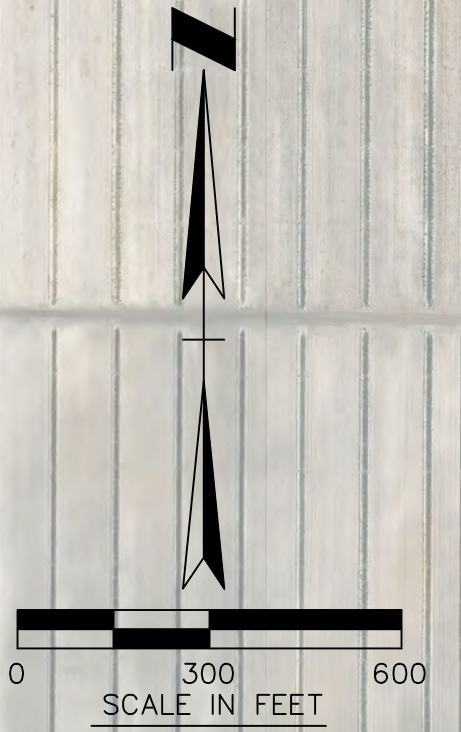
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
INFRASTRUCTURE MANAGEMENT BUREAU
SURVEY AND MAPPING SECTION
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33416-4680

DRAWN	CHECKED	DATE	REVISIONS

UPDATED
March 26, 2015

SECTION 19
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 20
TOWNSHIP 39 SOUTH
RANGE 40 EAST



Notes:
1. The contours shown hereon are represented at 2' intervals.

**This is Not a Survey
For Informational Purposes Only**

Volume	
Base Surface	Caulkins
Comparison Surface	calc 25.5' (NAVD88)
Cut Factor	1.000
Fill Factor	1.000
Fill Volume	= 786,233.76 Cu. Yd.
Water Surface Area	= 14,599,367.87 Sq. Ft. (335.2 Acres ±)
Fill	= 487.3 Acre Feet

S10 of S16
Martin County
Caulkins Water
CAUD File
Volume Calculations

**CAULKINS WATER FARMING
VOLUME CALCULATIONS**
Water Surface Area at 25.5'
Martin County, Florida



DRAWN: RVS CHECKED: DWG. DATE: SCALE:
FIELD PERSON(S):
FIELD DATE(S):
FIELD BOOK(S):
PAGE(S):
DATA COLLECTOR FILE(S):

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
INFRASTRUCTURE MANAGEMENT BUREAU
SURVEY AND MAPPING SECTION
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33416-4680

DATE	REVISIONS

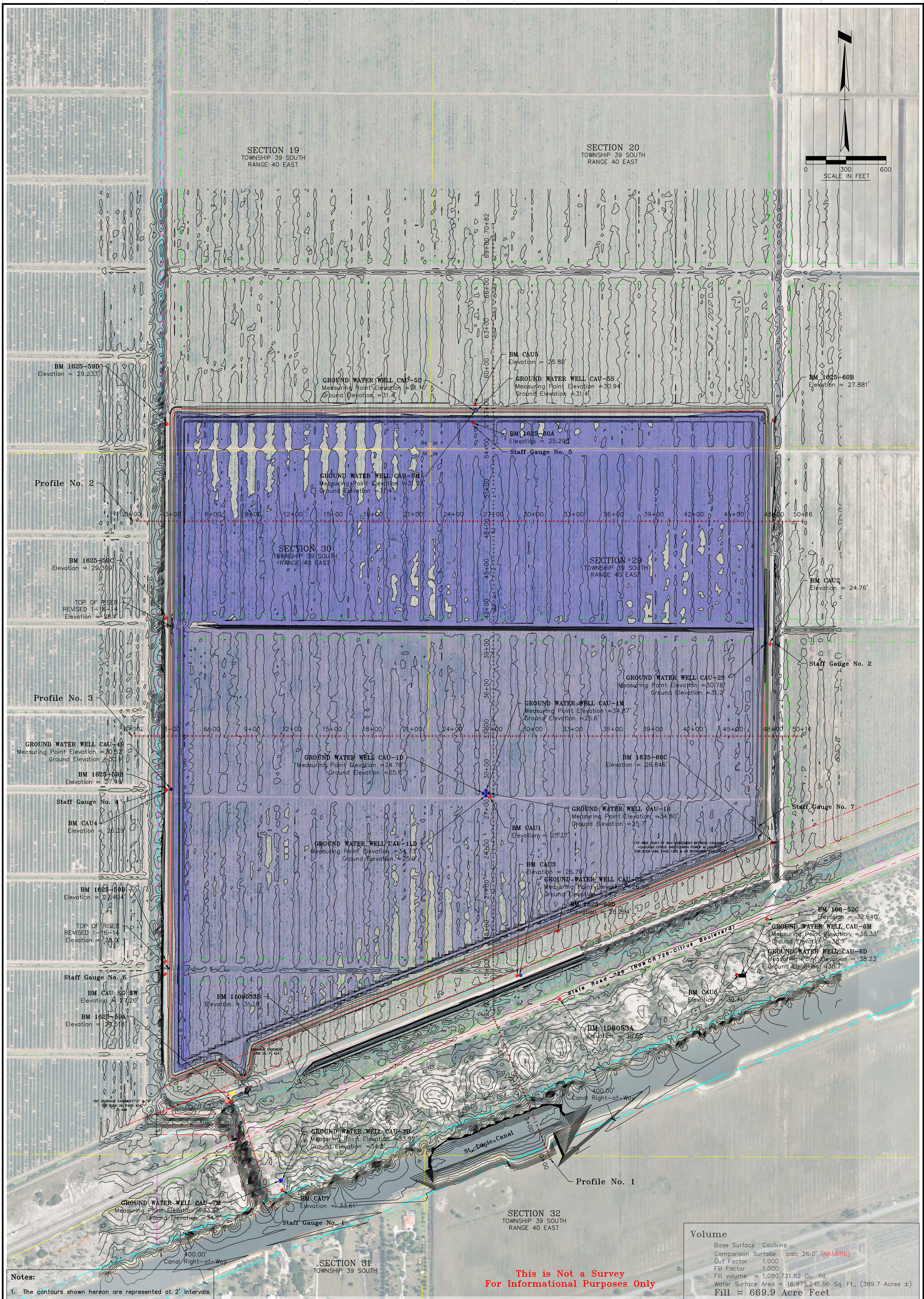
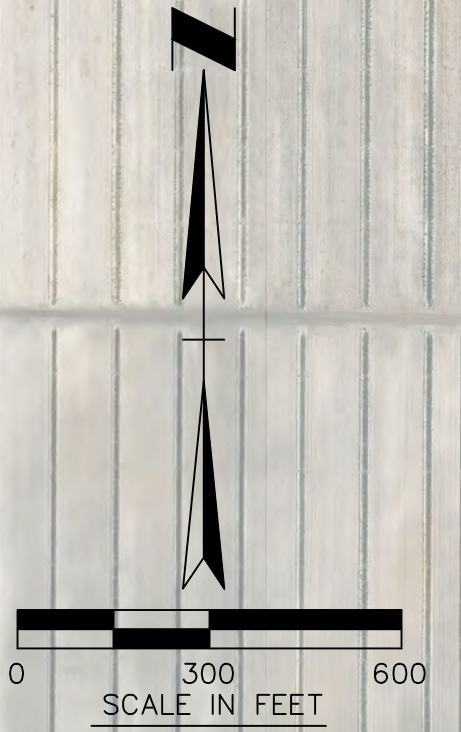
UPDATED
March 30, 2015

PLOT SCALE: 1" = 1" (PAPER SPACE)

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SECTION 19
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 20
TOWNSHIP 39 SOUTH
RANGE 40 EAST



Notes:
1. The contours shown hereon are represented at 2' intervals.

**This is Not a Survey
For Informational Purposes Only**

Volume	
Base Surface	Caulkins
Comparison Surface	calc 26.0' (NAVD88)
Cut Factor	1.000
Fill Factor	1.000
Fill volume	= 1,080,731.82 Cu. Yd.
Water Surface Area	= 16,975,245.96 Sq. Ft. (389.7 Acres ±)
Fill	= 669.9 Acre Feet

S11 of S16
Martin County
Caulkins Water
CAUD File
Volume Calculations

CAULKINS WATER FARMING
VOLUME CALCULATIONS
Water Surface Area at 26.0'
Martin County, Florida



DRAWN: RVS CHECKED: DWG. DATE: SCALE:
FIELD PERSON(S):
FIELD DATE(S):
FIELD BOOK(S):
PAGE(S):
DATA COLLECTOR FILE(S):

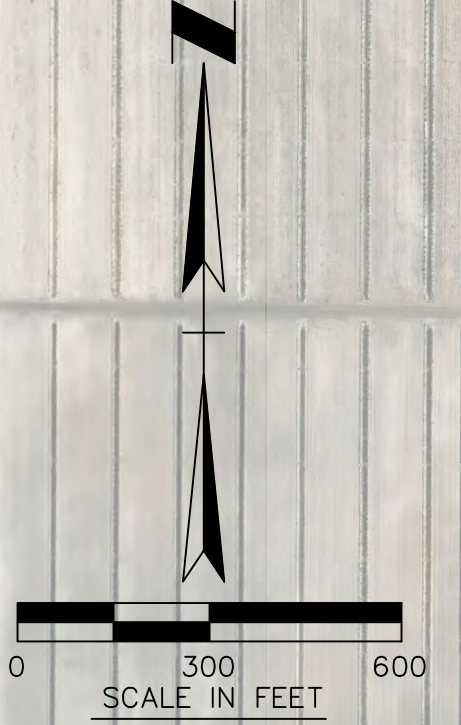
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
INFRASTRUCTURE MANAGEMENT BUREAU
SURVEY AND MAPPING SECTION
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33416-4680

DRAWN	CHECKED	DATE	REVISIONS

UPDATED
March 30, 2015

SECTION 19
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 20
TOWNSHIP 39 SOUTH
RANGE 40 EAST



BM 1625-59D
Elevation = 29.233'

Profile No. 2

BM 1625-59C
Elevation = 29.309'

TOP OF RISER
REVISED 1-16-14
Elevation = 28.7'

Profile No. 3

GROUND WATER WELL CAU-4B
Measuring Point Elevation = 30.52'
Ground Elevation = 30.9'

BM 1625-59B
Elevation = 27.49'

Staff Gauge No. 4

BM CAU4
Elevation = 26.23'

BM 1625-59B
Elevation = 27.484'

TOP OF RISER
REVISED 1-16-14
Elevation = 28.0'

Staff Gauge No. 6

BM CAU 5C SW
Elevation = 27.20'

BM 1625-59A
Elevation = 29.518'

150' DRAINAGE EASEMENT
(11/12/12) SEE PAGE 432

GROUND WATER WELL CAU-7M
Measuring Point Elevation = 33.55'
Ground Elevation = 34.2'

Staff Gauge No. 1

SECTION 31
TOWNSHIP 39 SOUTH
RANGE 40 EAST

GROUND WATER WELL CAU-5D
Measuring Point Elevation = 31.16'
Ground Elevation = 31.4'

GROUND WATER WELL CAU-5M
Measuring Point Elevation = 31.93'
Ground Elevation = 31.4'

SECTION 30
TOWNSHIP 39 SOUTH
RANGE 40 EAST

GROUND WATER WELL CAU-1D
Measuring Point Elevation = 34.78'
Ground Elevation = 25.6'

GROUND WATER WELL CAU-11D
Measuring Point Elevation = 34.73'
Ground Elevation = 25.9'

GROUND WATER WELL CAU-2D
Measuring Point Elevation = 33.99'
Ground Elevation = 34.2'

BM CAU5
Elevation = 25.80'

GROUND WATER WELL CAU-5S
Measuring Point Elevation = 30.94'
Ground Elevation = 31.4'

BM 1625-60A
Elevation = 25.293'

Staff Gauge No. 5

GROUND WATER WELL CAU-1M
Measuring Point Elevation = 34.87'
Ground Elevation = 25.6'

BM CAU1
Elevation = 28.27'

BM CAU3
Elevation = 26.79'

GROUND WATER WELL CAU-15S
Measuring Point Elevation = 34.80'
Ground Elevation = 25.7'

BM 108053A
Elevation = 30.56'

SECTION 32
TOWNSHIP 39 SOUTH
RANGE 40 EAST

BM 1625-60B
Elevation = 27.881'

BM CAU2
Elevation = 24.76'

Staff Gauge No. 2

Staff Gauge No. 7

BM 108-52C
Elevation = 32.640'

GROUND WATER WELL CAU-6M
Measuring Point Elevation = 38.33'
Ground Elevation = 38.7'

GROUND WATER WELL CAU-6D
Measuring Point Elevation = 38.23'
Ground Elevation = 38.7'

BM CAU6
Elevation = 39.44'

Volume

Base Surface	Caulkins
Comparison Surface	calc 26.5' (NAVD88)
Cut Factor	1.000
Fill Factor	1.000
Fill volume	= 1,404,577.49 Cu. Yd.
Water Surface Area	= 17,809,899.70 Sq. Ft., (408.86 Acres ±)
Fill	= 870.6 Acre Feet

This is Not a Survey
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Notes:
1. The contours shown hereon are represented at 2' intervals.

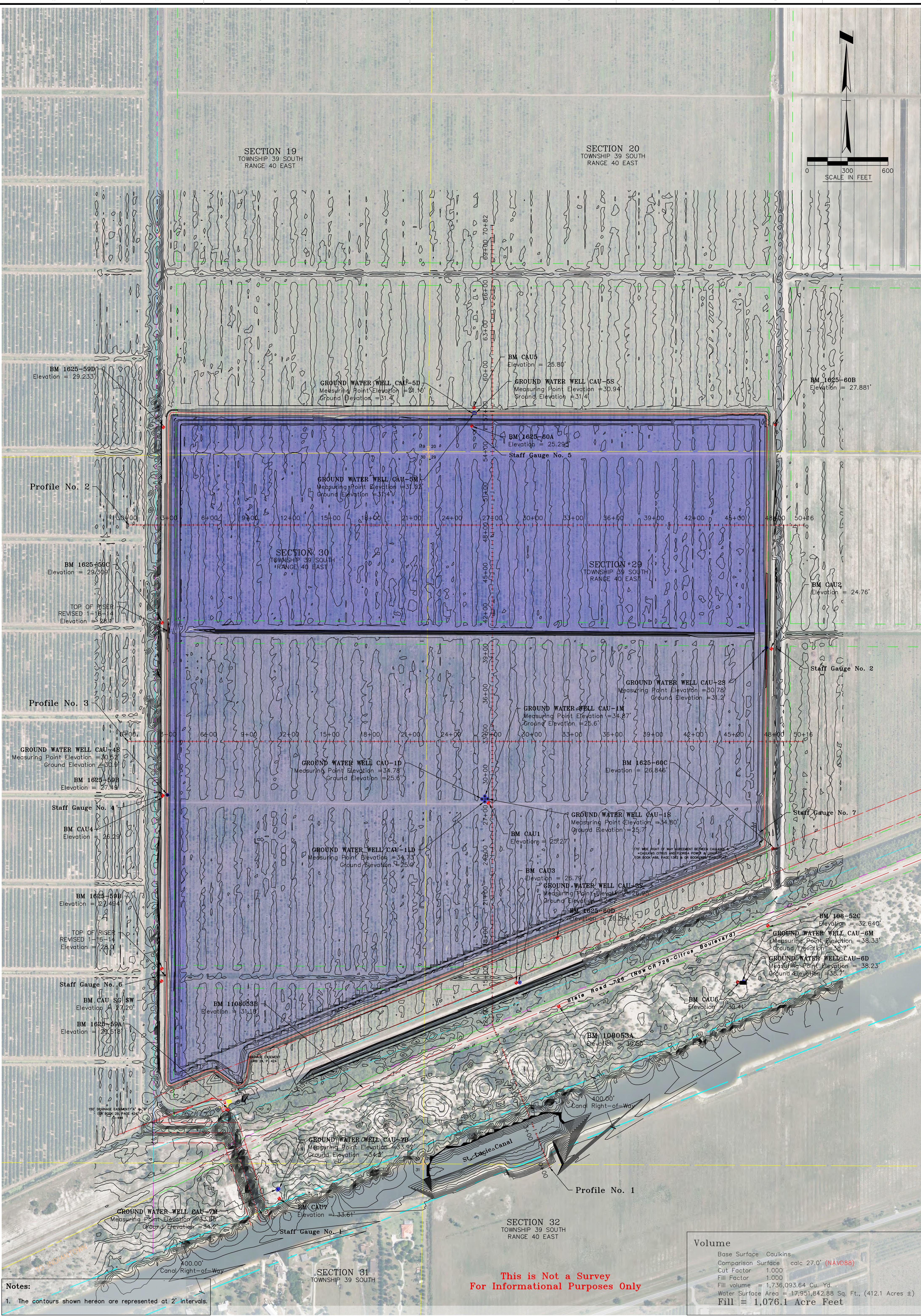
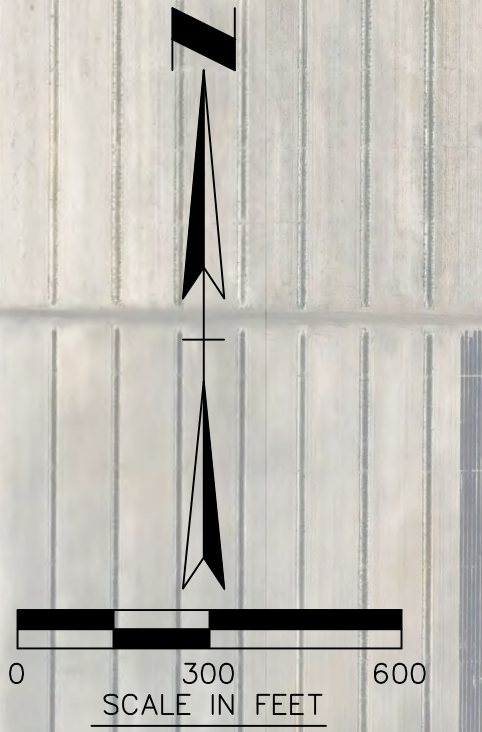
CAULKINS WATER FARMING
VOLUME CALCULATIONS
Water Surface Area at 26.5'
Martin County, Florida

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
INFRASTRUCTURE MANAGEMENT BUREAU
SURVEY AND MAPPING SECTION
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FLORIDA 33416-4680

UPDATED
March 30 2015

SECTION 19
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 20
TOWNSHIP 39 SOUTH
RANGE 40 EAST



Profile No. 2

Profile No. 3

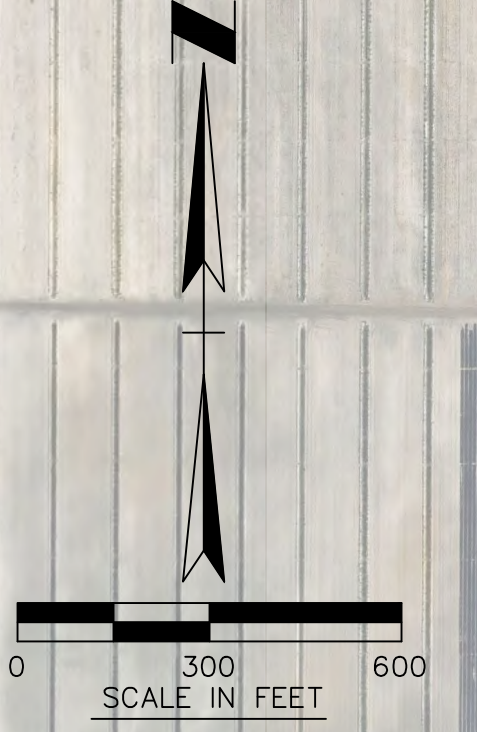
Profile No. 1

Notes:
1. The contours shown hereon are represented at 2' intervals.

**This is Not a Survey
For Informational Purposes Only**

Volume	
Base Surface	Caulkins
Comparison Surface	calc 27.0' (NAVD88)
Cut Factor	1.000
Fill Factor	1.000
Fill volume	= 1,736,093.64 Cu. Yd.
Water Surface Area	= 17,951,842.88 Sq. Ft., (412.1 Acres ±)
Fill	= 1,076.1 Acre Feet

S13 of S16 SHEET CAUD File Martin County Caulkins Water Volume Calculations	CAULKINS WATER FARMING VOLUME CALCULATIONS Water Surface at 27.0' Martin County, Florida		DRAWN: RVS CHECKED: DWG. DATE: SCALE: FIELD PERSON(S): FIELD DATE(S): FIELD BOOK(S): PAGE(S): DATA COLLECTOR FILE(S):	SOUTH FLORIDA WATER MANAGEMENT DISTRICT INFRASTRUCTURE MANAGEMENT BUREAU SURVEY AND MAPPING SECTION P.O. BOX 24680 3301 GUN CLUB ROAD WEST PALM BEACH, FLORIDA 33416-4680	<div style="border: 1px solid red; border-radius: 50%; padding: 5px; display: inline-block;"> UPDATED March 30, 2015 </div>
	PLOT SCALE: 1" = 1" (PAPER SPACE)		DRAWN CHECKED DATE REVISIONS		



SECTION 19
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 20
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 30
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 29
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 32
TOWNSHIP 39 SOUTH
RANGE 40 EAST

SECTION 31
TOWNSHIP 39 SOUTH
RANGE 40 EAST

BM 1625-59D
Elevation = 29.233'

GROUND WATER WELL CAU-5D
Measuring Point Elevation = 31.16'
Ground Elevation = 31.4'

BM CAU5
Elevation = 25.80'

GROUND WATER WELL CAU-5S
Measuring Point Elevation = 30.94'
Ground Elevation = 31.4'

BM 1625-60B
Elevation = 27.881'

Profile No. 2

GROUND WATER WELL CAU-5M
Measuring Point Elevation = 31.92'
Ground Elevation = 31.4'

BM 1625-60A
Elevation = 25.293'

Staff Gauge No. 5

BM 1625-59C
Elevation = 29.309'

TOP OF RISER
REVISED 1-16-14
Elevation = 28.7'

Profile No. 3

GROUND WATER WELL CAU-4B
Measuring Point Elevation = 30.52'
Ground Elevation = 30.9'

BM 1625-59B
Elevation = 27.49'

Staff Gauge No. 4

BM CAU4
Elevation = 26.23'

BM 1625-59B
Elevation = 27.484'

TOP OF RISER
REVISED 1-16-14
Elevation = 28.0'

Staff Gauge No. 6

BM CAU 5C SW
Elevation = 27.20'

BM 1625-59A
Elevation = 29.518'

BM 1108053B
Elevation = 31.18'

BM CAU1
Elevation = 25.27'

GROUND WATER WELL CAU-1D
Measuring Point Elevation = 34.73'
Ground Elevation = 25.6'

BM CAU3
Elevation = 26.79'

GROUND WATER WELL CAU-1S
Measuring Point Elevation = 34.87'
Ground Elevation = 25.6'

BM 1625-60D
Elevation = 28.264'

BM 108-52C
Elevation = 32.640'

GROUND WATER WELL CAU-6M
Measuring Point Elevation = 38.33'
Ground Elevation = 38.7'

GROUND WATER WELL CAU-6D
Measuring Point Elevation = 38.23'
Ground Elevation = 38.7'

BM CAU6
Elevation = 39.44'

BM 108053A
Elevation = 30.56'

GROUND WATER WELL CAU-2D
Measuring Point Elevation = 33.93'
Ground Elevation = 34.2'

BM CAU7
Elevation = 33.61'

GROUND WATER WELL CAU-7M
Measuring Point Elevation = 33.55'
Ground Elevation = 34.2'

Staff Gauge No. 1

Profile No. 1

Notes:
1. The contours shown hereon are represented at 2' intervals.

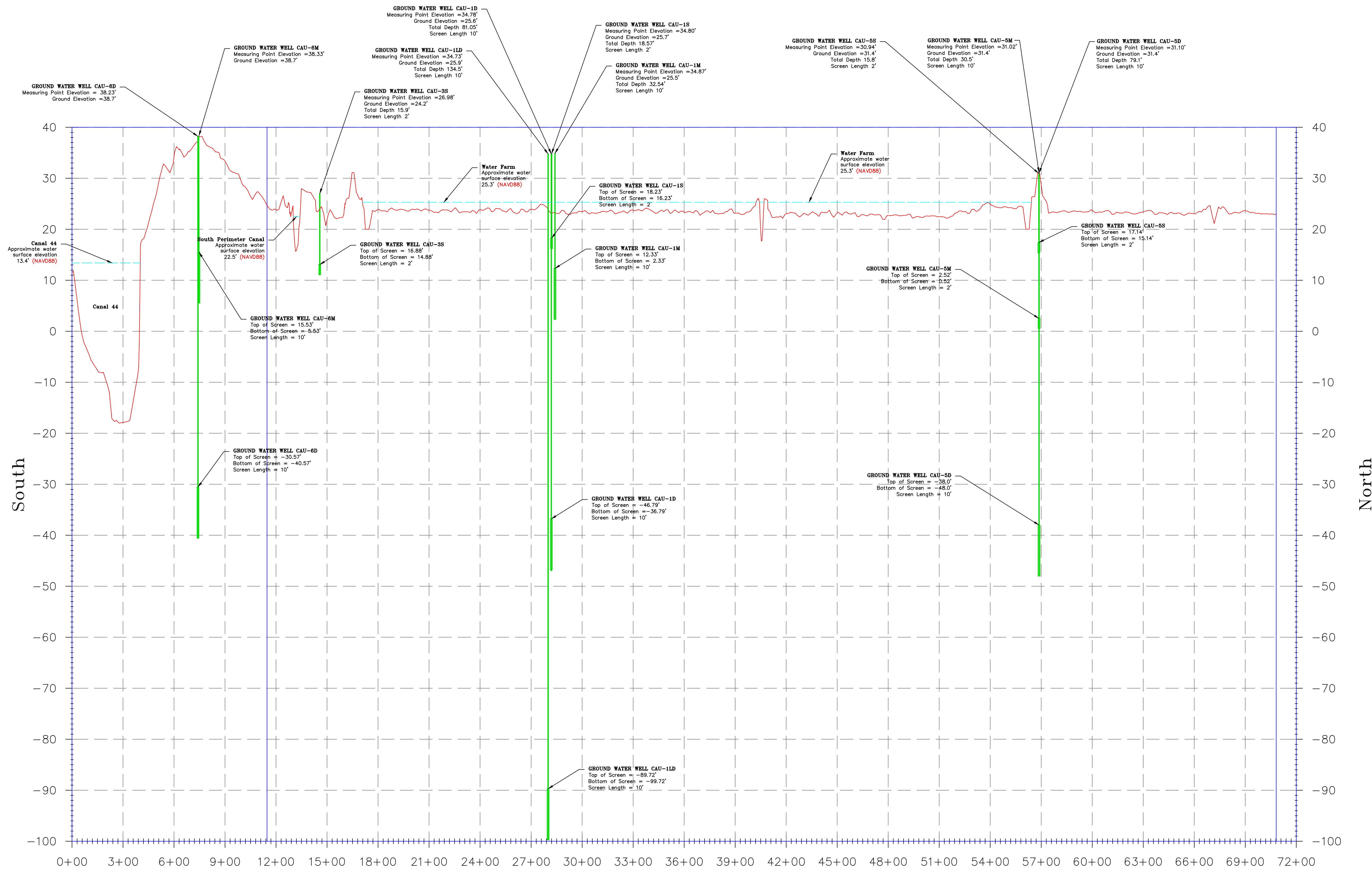
This is Not a Survey
For Informational Purposes Only

Volume	
Base Surface	Caulkins
Comparison Surface	calc 27.5' (NAVD88)
Cut Factor	1.000
Fill Factor	1.000
Fill volume	= 2,068,896.82 Cu. Yd.
Water Surface Area	= 17,988,225.21 Sq. Ft., (412.95 Acres ±)
Fill	= 1,282.4 Acre Feet

S14 of S16 Martin County Caulins Water CAUD File Volume Calculations	CAULINS WATER FARMING VOLUME CALCULATIONS Water Surface Area at 27.5' Martin County, Florida		DRAWN: RVS CHECKED: _____ DWG. DATE: _____ SCALE: _____	SOUTH FLORIDA WATER MANAGEMENT DISTRICT INFRASTRUCTURE MANAGEMENT BUREAU SURVEY AND MAPPING SECTION P.O. BOX 24680 3301 GUN CLUB ROAD WEST PALM BEACH, FLORIDA 33416-4680		UPDATED March 30, 2015
			FIELD PERSON(S): _____ FIELD DATE(S): _____ FIELD BOOK(S): _____ PAGE(S): _____ DATA COLLECTOR FILE(S): _____			

PLOT SCALE: 1" = 1" (PAPER SPACE)

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SCALE: HORIZONTAL: 1" = 300'
 VERTICAL: 1" = 10'
 ELEVATIONS ARE BASED ON (NAVD88)

Profile No. 1

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 For Informational Purposes Only

UPDATED
 March 30, 2015

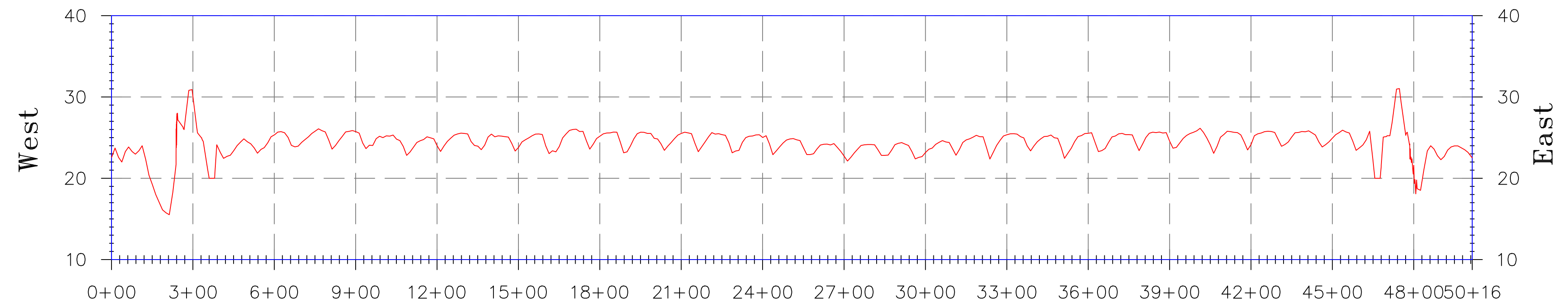
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
 INFRASTRUCTURE MANAGEMENT BUREAU
 SURVEY AND MAPPING SECTION
 P.O. BOX 246800
 WEST PALM BEACH, FLORIDA 33416-4680

CAULKINS WATER FARMING
 VOLUME CALCULATIONS
 Township 39 South, Range 40 East
 Martin County, Florida

Martin County
 Caulkins Water
 Farm
 CADD File
 Volume Calculations.dwg

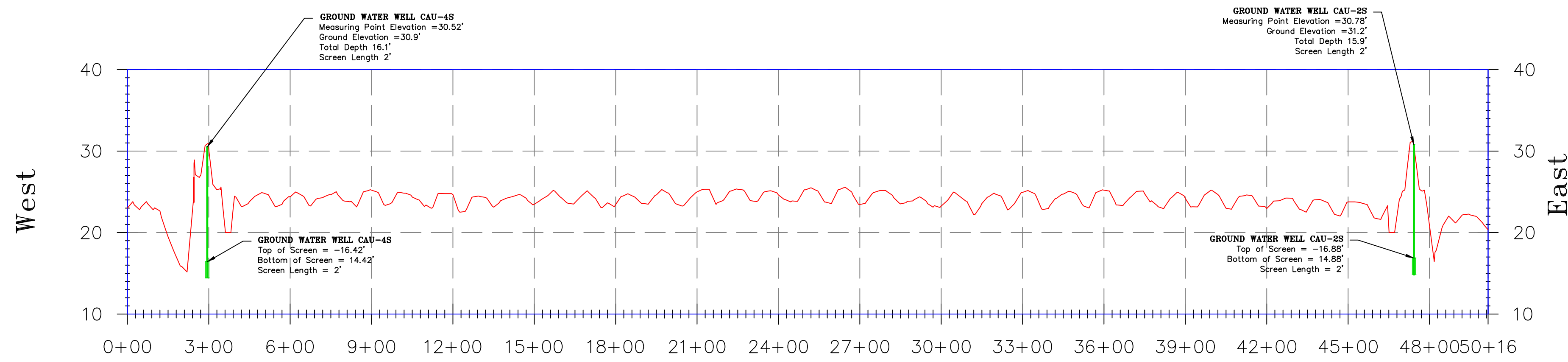
SHEET
 S15 OF S16

PLOT SCALE: 1" = 1' (PAPER SPACE)



SCALE: HORIZONTAL: 1" = 300'
 VERTICAL: 1" = 10'
 ELEVATIONS ARE BASED ON (NAVD88)

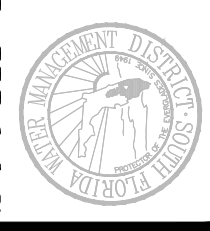
Profile No. 2



SCALE: HORIZONTAL: 1" = 300'
 VERTICAL: 1" = 10'
 ELEVATIONS ARE BASED ON (NAVD88)

Profile No. 3

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 For Informational Purposes Only

 SOUTH FLORIDA WATER MANAGEMENT DISTRICT INFRASTRUCTURE MANAGEMENT BUREAU SURVEY AND MAPPING SECTION P.O. BOX 246800 WEST PALM BEACH, FLORIDA 33416-4680		UPDATED January 16, 2015
DRAWN BY: _____ CHECKED BY: _____ FIELD PERSON(S): _____ FIELD BOOK(S): _____ PAGE(S): _____ DATA COLLECTOR FILE(S): _____	DMC DATE: _____ SCALE: _____	REVISIONS DATE DESCRIPTION
CAULKINS WATER FARMING VOLUME CALCULATIONS Township 39 South, Range 40 East Martin County, Florida		
Martin County Caulkins Water Farm CADD File Volume Calculations.dwg		
SHEET S16 OF S16		

PLOT SCALE: 1" = 1' (PAPER SPACE)