



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

U.S.G.S. Station Name: G-2902	U.S.G.S. Station Number: 260638080104801	Agency: SFWMD	Date of Field Work: 09/20/19
Party Chief: T. AVERY	Field Book: SFWMD #1	Page(s): 29-32	Report Prepared by: DEWBERRY

SITE SPECIFIC DATA

Site Benchmark: G-2902	Benchmark Elevation(s) (NAVD88): 5.78 feet	Corpscon 6.0.1 Conversion Factor (NAVD88 to NGVD29) + 1.59 feet	
Well Reference Elevation (NAVD88): 5.35 feet	Ground Elevation (NAVD88): 5.41 feet	Pad Elevation (NAVD88): N/A	

GEOGRAPHIC DATA

Section 8	Township 50 SOUTH	Range 42 EAST
Well Latitude: 26°06'39.69"N	Well Longitude: 80°10'47.44"W	Location Source: AVERAGED FPRN & TRIMBLE VRSNOW RTK
State Plane Coordinates:	Northing (Y) = 646891'	Easting (X) = 925299'

Notes: NAVD88 – North American Vertical Datum of 1988; NGVD29- National Geodetic Vertical Datum of 1929; Corpscon 6.0.1 - A U.S. Army Corps of Engineers Engineering Research and Development Center Topographic Engineering Center Alexandria, Virginia Windows-based program to convert coordinates and elevations between datum's using vertcon05.txt and vertcon05.05 files supplied by the U.S. Army Corps of Engineers South Atlantic Division, Jacksonville FL.

PICTURES

Well Site Latitude: 26°06'39.7" Longitude: 80°10'47.4"		Benchmark "G-2902" Latitude: 26°06'40.2" Longitude: 80°10'46.8" NAVD88 EL = 5.78 FEET
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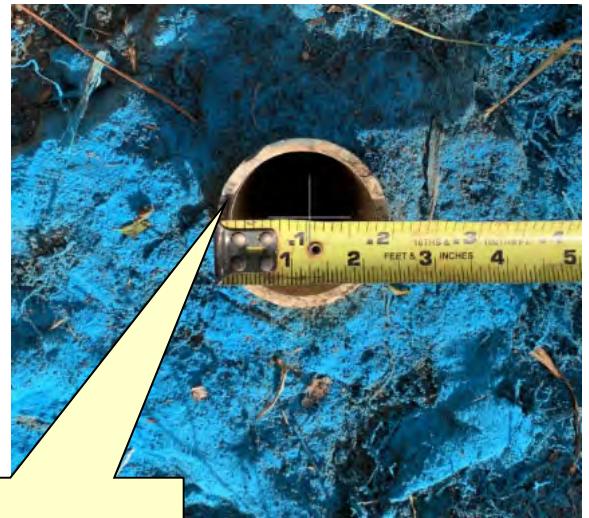
Not to scale (GoogleEarth product)



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Well Site and Well Head



Well: 2" PVC
Reference Point: North edge, top of
PVC well head

Reference Point El. =
5.35 feet NAVD88

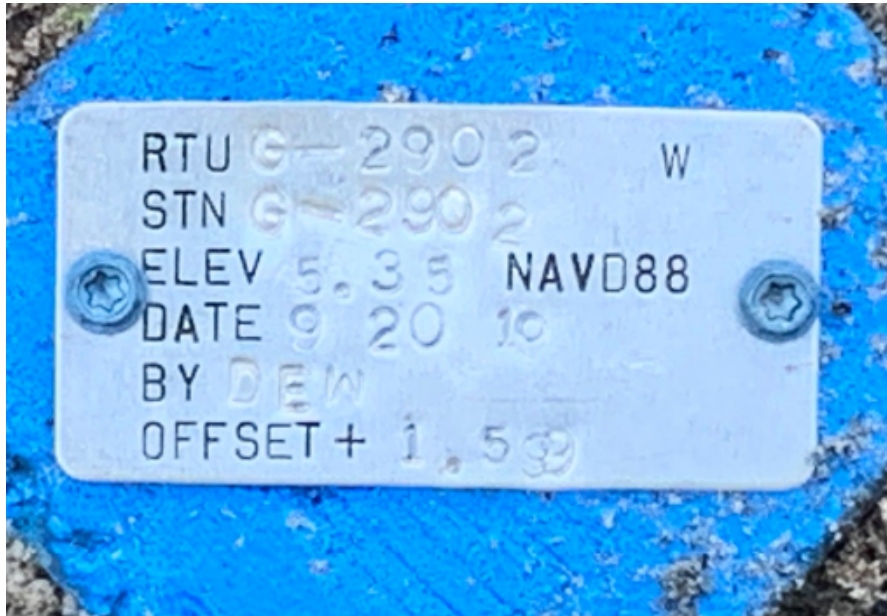
Distance to water =
-4.25 feet from reference point
(09/20/19 at 5:15 PM)



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New Aluminum Tag



Top view (Not to scale)

SET IN TOP OF 4"X4" CONCRETE MONUMENT--OFFSET 1 FOOT WEST OF WELL




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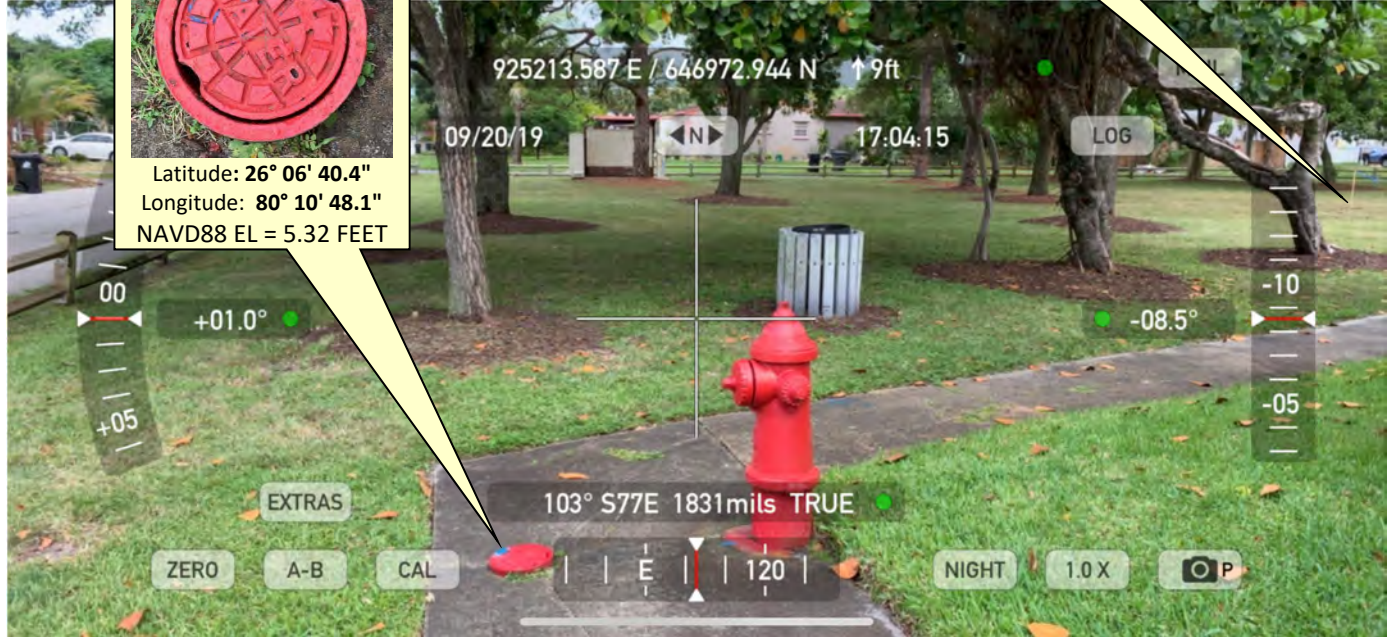
USGS RMs

RM 1 – East Water Valve Edge



Latitude: 26° 06' 40.4"
Longitude: 80° 10' 48.1"
NAVD88 EL = 5.32 FEET

Well G-2902



925213.587 E / 646972.944 N ↑ 9ft

09/20/19 17:04:15 LOG

+01.0°

-08.5°

EXTRAS

ZERO A-B CAL

103° S77E 1831mils TRUE

E 120

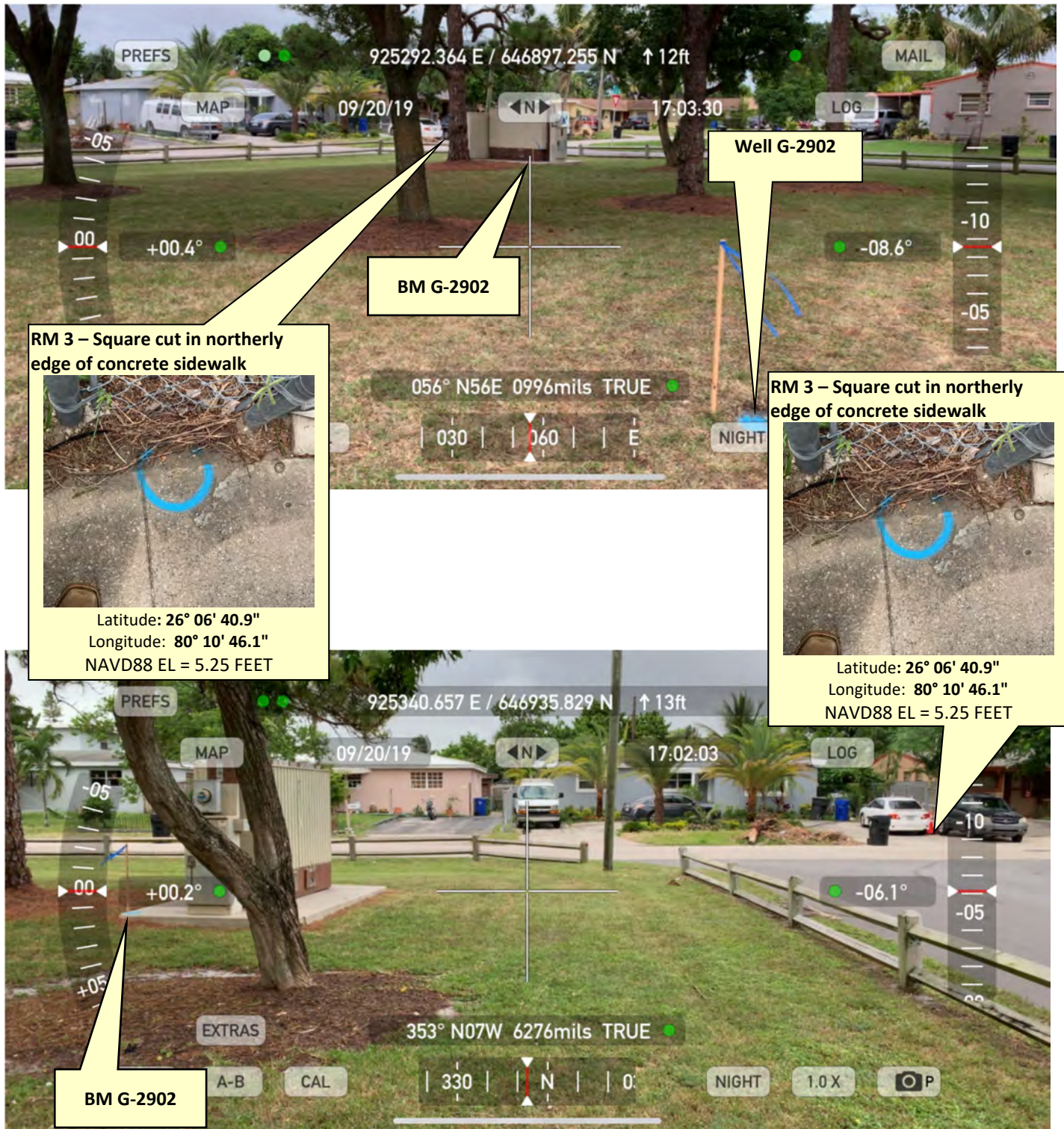
NIGHT 1.0X P



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USGS RMs (Continued)





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Site Benchmark



Site BM: G2902



Latitude: 26°06'40.2"
Longitude: 80°10'46.8"
NAVD88 EL = 5.78 FEET





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Source Benchmarks



NGS Benchmark "Daley" (AJ8709)



Latitude: 26°05'04.8"
Longitude: 80°11'35.4"
NAVD88 EL = 3.87 FEET



NGS Benchmark "X 175 8696" (AJ8700)



Latitude: 26°05'07.1"
Longitude: 80°11'01.3"
NAVD88 EL = 24.65 FEET



South Florida Water Management District Benchmark Datasheet

Designation: **G-2902** Project Name: **USGS Ph 2, BROWARD** Type: **V** State Plane Zone: **FL East**
 Stamping: **G2902 2019** Field Book Name: **W210** Field Book Page: **43-50**
 Established By: **DEWBERRY / WHIDDEN** Recovered By: **N/A** Recovery Date: **N/A**
 Surveyor: **WILLIAM D. DONLEY** Established Date: **09/20/19** Status: **New**

GEOGRAPHIC POSITION INFORMATION

Section: **8** Township: **50 SOUTH** Range: **42 EAST**
 County: **BROWARD** Quadrangle: **FORT LAUDERDALE SOUTH** Quad Index: **1702** NGS Source BM(s): **DALEY/X 175 8696**
 NAD83 Adj. Year: **2011** Vertical Datum: **NAVD1988** Horizontal Datum: **NAVD1983** NGS PID(s): **AJ8709/AJ8700**
 NAVD88 Elevation (feet): **5.78** NGVD29 Elevation (feet): **7.365** 2022 Elevation: **N/A** NGS NAVD88 Elev (ft): **3.87/24.65**
 NAVD88 Class: **N/A** NGVD29 Class: **N/A** Other Elevation: **N/A** NGS NAVD88 Elev (m): **1.180/7.512**
 NAVD88 Order: **3** NGVD29 Order: **N/A** Other Elevation Type: **N/A** NGS 2022 Elev (ft): **N/A**

CORPSCON 6.0.1 CONVERSION FACTOR (NAVD88 TO NGVD29): (A U.S. Army Corps of Engineers Engineering Research and Development Center Topographic Engineering Center Alexandria, Virginia Windows-based program to convert coordinates and elevations between datum's using vertcon05.txt and vertcon05.05 files supplied by the U.S. Army Corps of Engineers South Atlantic Division, Jacksonville FL)

Vertical Datum Offset: + **1.59** Actual NGS Elevation or ngvd29.txt file: **N/A** OPUS Ortho Height: **N/A**
 Northing (Y) (feet): **646938.1** Easting (X) (feet): **925354.1** Source of Latitude & Longitude: **AVERAGED FPRN & TRIMBLE VRSNOW RTK**
 Latitude: **26** **6** **40.15** Longitude: **80** **10** **46.83**
 DD° MM' SS" DD° MM' SS"
 Latitude (Decimal Degrees): **26.111153** Longitude (Decimal Degrees): **-80.179675**

RECOVERY DATA

How to Reach:
 1. FROM FL-736/DAVIE BLVD, HEAD NORTH ON RIVERLAND RD FOR 0.3 MI
 2. TURN LEFT ONTO SW 9TH STREET, CONTINUE 0.1 MI
 3. TURN RIGHT ONTO SW 28TH AVE, CONTINUE 230 FEET TO THE MARK ON THE LEFT

Description/Notes: **2" ALUMINUM SFWMD DISK SET IN SOUTHWEST CORNER OF TRANSFORMER CONCRETE SLAB**

Notable Landmarks:

Other Source Benchmarks: **N/A**

PICTURES

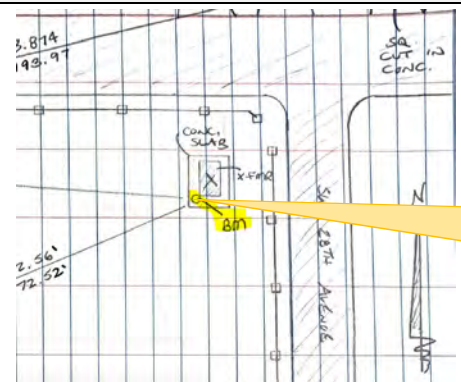
Aerial View of Overall Site



NOT TO SCALE. AERIAL FROM GOOGLE EARTH.

PICTURES

Site Sketch





"Daley" Benchmark Datasheet (1 of 5)

The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

PROGRAM = datasheet95, VERSION = 8.12.5.4
1 National Geodetic Survey, Retrieval Date = OCTOBER 18, 2019
AJ8709 *****
AJ8709 DESIGNATION - DALEY
AJ8709 PID - AJ8709
AJ8709 STATE/COUNTY- FL/BROWARD
AJ8709 COUNTRY - US
AJ8709 USGS QUAD - FORT LAUDERDALE SOUT (1994)
AJ8709
AJ8709 *CURRENT SURVEY CONTROL
AJ8709
AJ8709* NAD 83(2011) POSITION- 26 05 04.76868(N) 080 11 35.43431(W) ADJUSTED
AJ8709* NAD 83(2011) ELLIP HT- -24.371 (meters) (06/27/12) ADJUSTED
AJ8709* NAD 83(2011) EPOCH - 2010.00
AJ8709* [NAVD 88](#) ORTHO HEIGHT - 1.180 (meters) 3.87 (feet) ADJUSTED
AJ8709
AJ8709 GEOID HEIGHT - -25.502 (meters) GEOID18
AJ8709 NAD 83(2011) X - 976,344.693 (meters) COMP
AJ8709 NAD 83(2011) Y - -5,648,422.013 (meters) COMP
AJ8709 NAD 83(2011) Z - 2,787,478.106 (meters) COMP
AJ8709 LAPLACE CORR - -3.00 (seconds) DEFLEC18
AJ8709 DYNAMIC HEIGHT - 1.179 (meters) 3.87 (feet) COMP
AJ8709 MODELED GRAVITY - 979,056.7 (mgal) NAVD 88
AJ8709
AJ8709 VERT ORDER - FIRST CLASS II
AJ8709
AJ8709 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
AJ8709 Standards:
AJ8709 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
AJ8709 Horiz Ellip SD_N SD_E SD_h (unitless)
AJ8709 -----
AJ8709 NETWORK 1.87 2.69 0.74 0.77 1.37 -0.28105523
AJ8709 -----
AJ8709 Click [here](#) for local accuracies and other accuracy information.
AJ8709
AJ8709
AJ8709.The horizontal coordinates were established by GPS observations
AJ8709.and adjusted by the National Geodetic Survey in June 2012.
AJ8709
AJ8709.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
AJ8709.been affixed to the stable North American tectonic plate. See
AJ8709.[NA2011](#) for more information.
AJ8709
AJ8709.The horizontal coordinates are valid at the epoch date displayed above
AJ8709.which is a decimal equivalence of Year/Month/Day.
AJ8709
AJ8709.The orthometric height was determined by differential leveling and
AJ8709.adjusted by the NATIONAL GEODETIC SURVEY
AJ8709.in May 2002.
AJ8709
AJ8709
AJ8709.Significant digits in the geoid height do not necessarily reflect accuracy.



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"Daley" Benchmark Datasheet (2 of 5)

AJ8709.GEOID18 height accuracy estimate available [here](#).
 AJ8709
 AJ8709.Click [here](#) to see if photographs exist for this station.
 AJ8709
 AJ8709.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AJ8709
 AJ8709.The Laplace correction was computed from DEFLEC18 derived deflections.
 AJ8709
 AJ8709.The ellipsoidal height was determined by GPS observations
 AJ8709.and is referenced to NAD 83.
 AJ8709
 AJ8709.The dynamic height is computed by dividing the NAVD 88
 AJ8709.geopotential number by the normal gravity value computed on the
 AJ8709.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ8709.degrees latitude (g = 980.6199 gals.).
 AJ8709
 AJ8709.The modeled gravity was interpolated from observed gravity values.
 AJ8709
 AJ8709. The following values were computed from the NAD 83(2011) position.
 AJ8709

	North	East	Units	Scale Factor	Converg.
AJ8709;SPC FL E	- 194,243.333	280,716.270	MT	1.00002159	+0 21 17.2
AJ8709;SPC FL E	- 637,280.00	920,983.30	sFT	1.00002159	+0 21 17.2
AJ8709;UTM 17	- 2,885,309.040	580,688.729	MT	0.99968039	+0 21 17.2

	Elev Factor	x	Scale Factor	=	Combined Factor
AJ8709!SPC FL E	- 1.00000383	x	1.00002159	=	1.00002542
AJ8709!UTM 17	- 1.00000383	x	0.99968039	=	0.99968422

 AJ8709_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ8068885309(NAD 83)
 AJ8709
 SUPERSEDED SURVEY CONTROL
 AJ8709

AJ8709	NAD 83(2007)-	26 05 04.76876(N)	080 11 35.43492(W)	AD(2002.00)	0	
AJ8709	ELLIP H (02/10/07)	-24.354 (m)		GP(2002.00)		
AJ8709	NAD 83(1999)-	26 05 04.76878(N)	080 11 35.43495(W)	AD()	1	
AJ8709	ELLIP H (12/12/02)	-24.352 (m)		GP()	4	1
AJ8709	NAVD 88	1.18 (m)	3.9	(f) LEVELING	3	

 AJ8709.Superseded values are not recommended for survey control.
 AJ8709
 AJ8709.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AJ8709.See file [dsdata.pdf](#) to determine how the superseded data were derived.
 AJ8709
 AJ8709_MARKER: DD = SURVEY DISK
 AJ8709_SETTING: 31 = SET IN A PAVEMENT SUCH AS STREET, SIDEWALK, CURB, ETC.
 AJ8709_SP_SET: DROP INLET
 AJ8709_STAMPING: DALEY 1996
 AJ8709_MARK LOGO: NGS
 AJ8709_MAGNETIC: N = NO MAGNETIC MATERIAL
 AJ8709_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
 AJ8709_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AJ8709+SATELLITE: SATELLITE OBSERVATIONS - July 01, 2014
 AJ8709

	Date	Condition	Report By
AJ8709 HISTORY	- UNK	MONUMENTED	NGS
AJ8709 HISTORY	- 20011017	GOOD	LDLBS
AJ8709 HISTORY	- 20020512	GOOD	MAPTEC
AJ8709 HISTORY	- 20060619	GOOD	PB
AJ8709 HISTORY	- 20080512	GOOD	FLDT



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"Daley" Benchmark Datasheet (3 of 5)

AJ8709 HISTORY - 20090527 GOOD FLDT
 AJ8709 HISTORY - 20140701 GOOD INDIV
 AJ8709
 AJ8709 STATION DESCRIPTION
 AJ8709
 AJ8709'DESCRIBED BY LD BRADLEY LAND SURVEYORS 2001 (JCH)
 AJ8709'THE MARK IS ABOUT 2.4 KM (1.51 MI) WEST OF FORT LAUDERDALE, ABOUT 6.0
 AJ8709'KM (3.74
 AJ8709'MI) WEST OF PORT EVERGLADES IN SECTION 19, TOWNSHIP 50 SOUTH, RANGE 42
 AJ8709'EAST,
 AJ8709'BROWARD COUNTY, FLORIDA. OWNERSHIP - FLORIDA DEPARTMENT OF
 AJ8709'TRANSPORTATION
 AJ8709'
 AJ8709'TO REACH THE MARK FROM THE INTERSECTION OF INTERSTATE HIGHWAY 75 AND
 AJ8709'U.S.
 AJ8709'HIGHWAY 27 (I-75 EXIT 13, NEAR ANDYTOWN) GO EAST ON INTERSTATE HIGHWAY
 AJ8709'75 8.1
 AJ8709'KM (5.04 MI) TO THE JUNCTION WITH INTERSTATE HIGHWAY 595 EAST, EXIT
 AJ8709'RIGHT ONTO
 AJ8709'INTERSTATE HIGHWAY 595 EAST, AND GO EAST ALONG INTERSTATE HIGHWAY 595
 AJ8709'16.3 KM
 AJ8709'(10.13 MI) TO THE JUNCTION WITH STATE ROAD 84, GO EAST ON STATE ROAD
 AJ8709'84 1.5 KM
 AJ8709'(0.92 MI) TO THE MARK IN THE MEDIAN ON THE LEFT. ALSO TO REACH THE
 AJ8709'MARK FROM
 AJ8709'THE INTERSECTION OF STATE ROAD 84 AND EISENHOWER BOULEVARD IN PORT
 AJ8709'EVERGLADES,
 AJ8709'GO WEST ON STATE ROAD 84 1.0 KM (0.62 MI) TO THE ENTRANCE-EXIT OF PORT
 AJ8709'EVERGLADES, CONTINUE WEST ON STATE ROAD 84 6.0 KM (3.74 MI) TO THE
 AJ8709'MARK IN THE
 AJ8709'MEDIAN ON THE LEFT.
 AJ8709'
 AJ8709'THE MARK IS 60.50 M (198.5 FT) WEST OF THE CENTERLINE OF AN ASPHALT
 AJ8709'CROSS-OVER
 AJ8709'(BETWEEN WESTBOUND AND EASTBOUND LANES), 57.39 M (188.3 FT) EAST OF A
 AJ8709'UPRIGHT
 AJ8709'SIGN SUPPORT FOR A OVERHEAD SIGN ACROSS WESTBOUND LANES, 18.29 M (60.0
 AJ8709'FT)
 AJ8709'NORTH OF THE CENTERLINE OF THE EASTBOUND LANES, 13.41 M (44.0 FT)
 AJ8709'SOUTH OF THE
 AJ8709'CENTERLINE OF THE WESTBOUND LANES, 1.68 M (5.5 FT) EAST OF THE WEST
 AJ8709'EDGE OF A
 AJ8709'CONCRETE DROP INLET APRON, 1.37 M (4.5 FT) WEST OF THE EAST EDGE OF A
 AJ8709'CONCRETE
 AJ8709'DROP INLET APRON, AND 0.33 M (1.1 FT) SOUTH OF THE NORTH EDGE OF A
 AJ8709'CONCRETE
 AJ8709'DROP INLET APRON. THE MARK IS A DISK SET FLUSH IN THE NORTH SIDE OF A
 AJ8709'CONCRETE
 AJ8709'DROP INLET APRON, FLUSH WITH THE LEVEL OF THE GROUND, ABOUT 1.00 M
 AJ8709'(3.3 FT)
 AJ8709'BELOW THE LEVEL OF THE HIGHWAY.
 AJ8709
 AJ8709 STATION RECOVERY (2002)
 AJ8709
 AJ8709'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
 AJ8709'THE MARK IS ABOUT 2.4 KM (1.51 MI) WEST OF FORT LAUDERDALE, ABOUT 6.0
 AJ8709'KM (3.74
 AJ8709'MI) WEST OF PORT EVERGLADES IN SECTION 19, TOWNSHIP 50 SOUTH, RANGE 42
 AJ8709'EAST,
 AJ8709'BROWARD COUNTY, FLORIDA. OWNERSHIP - FLORIDA DEPARTMENT OF



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"Daley" Benchmark Datasheet (4 of 5)

AJ8709'TRANSPORTATION
AJ8709'
AJ8709'TO REACH THE MARK FROM THE INTERSECTION OF INTERSTATE HIGHWAY 75 AND
AJ8709'U.S.
AJ8709'HIGHWAY 27 (I-75 EXIT 13, NEAR ANDYTOWN) GO EAST ON INTERSTATE HIGHWAY
AJ8709'75 8.1
AJ8709'KM (5.04 MI) TO THE JUNCTION WITH INTERSTATE HIGHWAY 595 EAST, EXIT
AJ8709'RIGHT ONTO
AJ8709'INTERSTATE HIGHWAY 595 EAST, AND GO EAST ALONG INTERSTATE HIGHWAY 595
AJ8709'16.3 KM
AJ8709'(10.13 MI) TO THE JUNCTION WITH STATE ROAD 84, GO EAST ON STATE ROAD
AJ8709'84 1.5 KM
AJ8709'(0.92 MI) TO THE MARK IN THE MEDIAN ON THE LEFT. ALSO TO REACH THE
AJ8709'MARK FROM
AJ8709'THE INTERSECTION OF STATE ROAD 84 AND EISENHOWER BOULEVARD IN PORT
AJ8709'EVERGLADES,
AJ8709'GO WEST ON STATE ROAD 84 1.0 KM (0.62 MI) TO THE ENTRANCE-EXIT OF PORT
AJ8709'EVERGLADES, CONTINUE WEST ON STATE ROAD 84 6.0 KM (3.74 MI) TO THE
AJ8709'MARK IN THE
AJ8709'MEDIAN ON THE LEFT.
AJ8709'
AJ8709'THE MARK IS 60.50 M (198.5 FT) WEST OF THE CENTERLINE OF AN ASPHALT
AJ8709'CROSS-OVER
AJ8709'(BETWEEN WESTBOUND AND EASTBOUND LANES), 57.39 M (188.3 FT) EAST OF A
AJ8709'UPRIGHT
AJ8709'SIGN SUPPORT FOR A OVERHEAD SIGN ACROSS WESTBOUND LANES, 18.29 M (60.0
AJ8709'FT)
AJ8709'NORTH OF THE CENTERLINE OF THE EASTBOUND LANES, 13.41 M (44.0 FT)
AJ8709'SOUTH OF THE
AJ8709'CENTERLINE OF THE WESTBOUND LANES, 1.68 M (5.5 FT) EAST OF THE WEST
AJ8709'EDGE OF A
AJ8709'CONCRETE DROP INLET APRON, 1.37 M (4.5 FT) WEST OF THE EAST EDGE OF A
AJ8709'CONCRETE
AJ8709'DROP INLET APRON, AND 0.33 M (1.1 FT) SOUTH OF THE NORTH EDGE OF A
AJ8709'CONCRETE
AJ8709'DROP INLET APRON. THE MARK IS A DISK SET FLUSH IN THE NORTH SIDE OF A
AJ8709'CONCRETE
AJ8709'DROP INLET APRON, FLUSH WITH THE LEVEL OF THE GROUND, ABOUT 1.00 M
AJ8709'(3.3 FT)
AJ8709'BELOW THE LEVEL OF THE HIGHWAY.
AJ8709'
AJ8709'STATION RECOVERY (2002)
AJ8709'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CP)
AJ8709'RECOVERED AS DESCRIBED.
AJ8709
AJ8709 STATION RECOVERY (2006)
AJ8709
AJ8709 RECOVERY NOTE BY PBS&J 2006 (DWD)
AJ8709'RECOVERED IN GOOD CONDITION.
AJ8709
AJ8709 STATION RECOVERY (2008)
AJ8709
AJ8709 RECOVERY NOTE BY FLORIDA DEPARTMENT OF TRANSPORTATION 2008 (PED)
AJ8709'RECOVERED IN GOOD CONDITION.
AJ8709
AJ8709 STATION RECOVERY (2009)
AJ8709
AJ8709 RECOVERY NOTE BY FLORIDA DEPARTMENT OF TRANSPORTATION 2009 (JS)
AJ8709'RECOVERED AS DESCRIBED
AJ8709'



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"Daley" Benchmark Datasheet (5 of 5)

AJ8709'THIS MARK MAY BE DESTROYED IN THE NEXT COUPLE OF YEARS DUE TO MAJOR
AJ8709'RECONSTRUCTION ON I-595.

AJ8709

AJ8709

STATION RECOVERY (2014)

AJ8709

AJ8709'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2014 (PED)

AJ8709'RECOVERD

*** retrieval complete.

Elapsed Time = 00:00:04



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"X 175 8696" Benchmark Datasheet (1 of 4)

The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.12.5.4
1      National Geodetic Survey, Retrieval Date = OCTOBER 18, 2019
AJ8700 *****
AJ8700 DESIGNATION - X 175 8696
AJ8700 PID - AJ8700
AJ8700 STATE/COUNTY- FL/BROWARD
AJ8700 COUNTRY - US
AJ8700 USGS QUAD - FORT LAUDERDALE SOUT (1994)
AJ8700
AJ8700 *CURRENT SURVEY CONTROL
AJ8700
AJ8700* NAD 83(2011) POSITION- 26 05 07.08904(N) 080 11 01.32498(W) ADJUSTED
AJ8700* NAD 83(2011) ELLIP HT- -18.066 (meters) (06/27/12) ADJUSTED
AJ8700* NAD 83(2011) EPOCH - 2010.00
AJ8700* NAVD 88 ORTHO HEIGHT - 7.512 (meters) 24.65 (feet) ADJUSTED
AJ8700
AJ8700 GEOID HEIGHT - -25.532 (meters) GEOID18
AJ8700 NAD 83(2011) X - 977,274.353 (meters) COMP
AJ8700 NAD 83(2011) Y - -5,648,235.122 (meters) COMP
AJ8700 NAD 83(2011) Z - 2,787,545.013 (meters) COMP
AJ8700 LAPLACE CORR - -3.12 (seconds) DEFLEC18
AJ8700 DYNAMIC HEIGHT - 7.500 (meters) 24.61 (feet) COMP
AJ8700 MODELED GRAVITY - 979,056.6 (mgal) NAVD 88
AJ8700
AJ8700 VERT ORDER - FIRST CLASS II
AJ8700
AJ8700 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
AJ8700 Standards:
AJ8700 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
AJ8700 Horiz Ellip SD_N SD_E SD_h (unitless)
AJ8700 -----
AJ8700 NETWORK 2.47 3.53 0.95 1.04 1.80 -0.31507982
AJ8700 -----
AJ8700 Click here for local accuracies and other accuracy information.
AJ8700
AJ8700
AJ8700.The horizontal coordinates were established by GPS observations
AJ8700.and adjusted by the National Geodetic Survey in June 2012.
AJ8700
AJ8700.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
AJ8700.been affixed to the stable North American tectonic plate. See
AJ8700.NA2011 for more information.
AJ8700
AJ8700.The horizontal coordinates are valid at the epoch date displayed above
AJ8700.which is a decimal equivalence of Year/Month/Day.
AJ8700
AJ8700.The orthometric height was determined by differential leveling and
AJ8700.adjusted by the NATIONAL GEODETIC SURVEY
AJ8700.in May 2002.
AJ8700
AJ8700.Significant digits in the geoid height do not necessarily reflect accuracy.

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"X 175 8696" Benchmark Datasheet (3 of 4)

AJ8700
AJ8700 STATION DESCRIPTION
AJ8700
AJ8700'DESCRIBED BY LD BRADLEY LAND SURVEYORS 2001 (JCH)
AJ8700'THE MARK IS ABOUT 1.5 KM (0.92 MI) WEST OF FORT LAUDERDALE, ABOUT 5.1
AJ8700'KM (3.15
AJ8700'MI) WEST OF PORT EVERGLADES IN SECTION 20, TOWNSHIP 50 SOUTH, RANGE 42
AJ8700'EAST,
AJ8700'BROWARD COUNTY, FLORIDA. OWNERSHIP - FLORIDA DEPARTMENT OF
AJ8700'TRANSPORTATION
AJ8700'
AJ8700'TO REACH THE MARK FROM THE INTERSECTION OF INTERSTATE HIGHWAY 75 AND
AJ8700'U.S.
AJ8700'HIGHWAY 27 (I-75 EXIT 13, NEAR ANDYTOWN) GO EAST ON INTERSTATE HIGHWAY
AJ8700'75 8.1
AJ8700'KM (5.04 MI) TO THE JUNCTION WITH INTERSTATE HIGHWAY 595 EAST, EXIT
AJ8700'RIGHT ONTO
AJ8700'INTERSTATE HIGHWAY 595 EAST, AND GO EAST ALONG INTERSTATE HIGHWAY 595
AJ8700'16.3 KM
AJ8700'(10.13 MI) TO THE JUNCTION WITH STATE ROAD 84, GO EAST ON STATE ROAD
AJ8700'84 2.4 KM
AJ8700'(1.51 MI) TO THE EAST END OF A DRAW BRIDGE (BRIDGE NUMBER 860008) AND
AJ8700'THE MARK
AJ8700'ON THE LEFT. ALSO TO REACH THE MARK FROM THE INTERSECTION OF STATE
AJ8700'ROAD 84 AND
AJ8700'EISENHOWER BOULEVARD IN PORT EVERGLADES, GO WEST ON STATE ROAD 84 1.0
AJ8700'KM (0.62
AJ8700'MI) TO THE ENTRANCE-EXIT OF PORT EVERGLADES, CONTINUE WEST ON STATE
AJ8700'ROAD 84
AJ8700'5.1 KM (3.15 MI) TO THE EAST END OF A DRAW BRIDGE (BRIDGE NUMBER
AJ8700'860008) AND
AJ8700'THE MARK ON THE RIGHT.
AJ8700'
AJ8700'THE MARK IS 27.13 M (89.0 FT) EAST OF THE EAST EDGE OF THE DRAW BRIDGE
AJ8700'STEEL
AJ8700'GRATING, 4.42 M (14.5 FT) NORTH OF THE CENTERLINE OF THE WESTBOUND
AJ8700'LANES OF
AJ8700'STATE ROAD 84 AND 0.27 M (0.9 FT) WEST OF A EXPANSION JOINT (BETWEEN
AJ8700'BRIDGE
AJ8700'AND ABUTMENT). THE MARK IS A DISK SET FLUSH IN A CONCRETE WALK AT THE
AJ8700'NORTHEAST CORNER OF A DRAW BRIDGE (BRIDGE NUMBER 860008).
AJ8700
AJ8700 STATION RECOVERY (2002)
AJ8700
AJ8700'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AJ8700'THE MARK IS ABOUT 1.5 KM (0.92 MI) WEST OF FORT LAUDERDALE, ABOUT 5.1
AJ8700'KM (3.15
AJ8700'MI) WEST OF PORT EVERGLADES IN SECTION 20, TOWNSHIP 50 SOUTH, RANGE 42
AJ8700'EAST,
AJ8700'BROWARD COUNTY, FLORIDA. OWNERSHIP - FLORIDA DEPARTMENT OF
AJ8700'TRANSPORTATION
AJ8700'
AJ8700'TO REACH THE MARK FROM THE INTERSECTION OF INTERSTATE HIGHWAY 75 AND
AJ8700'U.S.
AJ8700'HIGHWAY 27 (I-75 EXIT 13, NEAR ANDYTOWN) GO EAST ON INTERSTATE HIGHWAY
AJ8700'75 8.1
AJ8700'KM (5.04 MI) TO THE JUNCTION WITH INTERSTATE HIGHWAY 595 EAST, EXIT
AJ8700'RIGHT ONTO
AJ8700'INTERSTATE HIGHWAY 595 EAST, AND GO EAST ALONG INTERSTATE HIGHWAY 595
AJ8700'16.3 KM



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Dewberry Field Notes (1 of 4)

SPECTRA SP-80 SEWMD 9/20/19
 GAGE #N-1163 USGS WELLS & BMS 9/21/19
 TUMBLE NET BR # 50099949
 T# 6562 WELL SITE # 2902

TASK: ESTABLISH HORIZONTAL LOCATIONS ON WELL MEASURING POINT & ANY REFERENCE MONUMENTATION

09/21/19 PT # (N) EFC (E) ECR (E) EER PT # DESCRIPTION
 S/O
 * LOCATED PT #'S 12080-12082
 S/O

*NOTE: UNABLE TO CHECK IN TO SITE BY W/ GPS DUE TO TREE CANOPY IN THE AREA. WELL & REFERENCE MONUMENTATION WAS LOCATED W/ GPS FOR THE SAKE OF REDUNDANCY. TAPE MEASUREMENTS FROM THE BENCH MARK TO REFERENCE MONUMENTATION HAS ALSO BEEN RECORDED. SEE PG

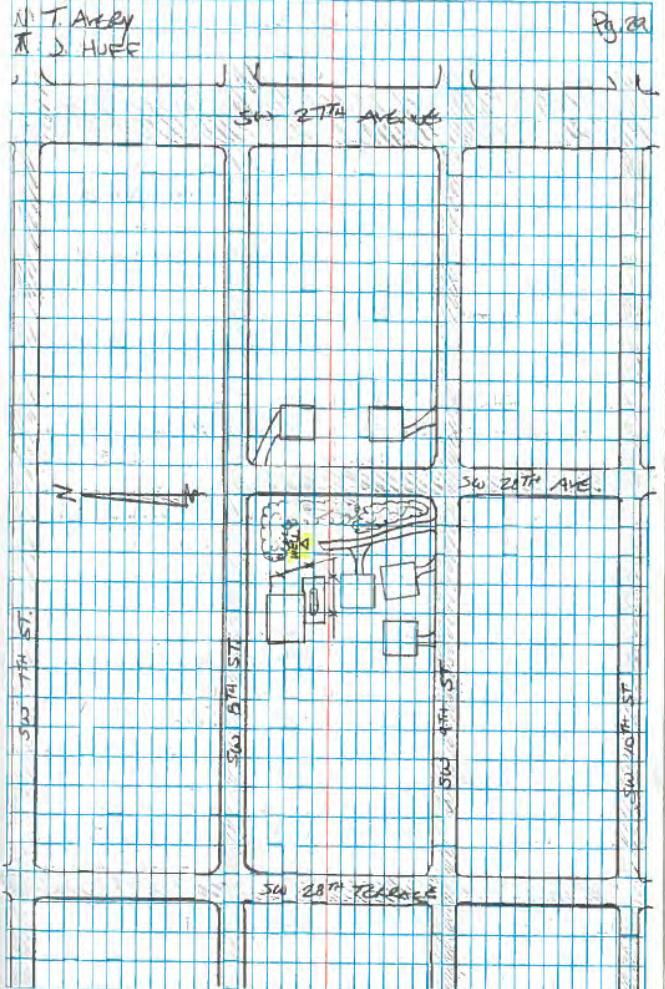
PT #'S DESCRIPTIONS

- 12080 NORTH EDGE, TOP OF PVC WELL HEAD
- 12081 EAST OF WATER VALVE CASING (BLUE PAINT)
- 12082 SQ CUT IN CONC. SIDEWALK MARKED W/ YELLOW PAINT

09/20/19
 TASK: MEASURE DISTANCE FROM WATER LINE TO TOP OF MEASURING POINT (N. EDGE OF PVC WELL HEAD)

TIME: 5:15 PM MEASUREMENT: 4.25'

MATERIAL: 2" PVC PIPE





SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Dewberry Field Notes (2 of 4)

TPCW SFWMD 09/20/19
 AT-GT USGS WEELS & CO.
 S/N: 142A JRG# 5009999A
 WELL SITE: G-2902

TASK: ELEVATE MONITORING POINT, GROUND
 @ WELL SITE, & USGS REFERENCE
 MONUMENTATION

ELEVATION DESCRIPTION
 BEGIN ~~4.60~~ ALUMINUM DISC IN SW CORNER
 5.78 BETWEEN SW 27TH TERRACE,

(WHIDDEN) (NAVD 83)

BACKSIGHT (+)		FORESIGHT (-)		ADJ			
STA ID	READINGS	MEAN	ELEV	READINGS	MEAN	ELEV	ELEV.
							5.78
B.M.	4.81		5.82				
	4.55	4.5500	4.5500 5.15	5.1983	5.1983 5.182		
	4.29		10.33 4.915				
	52'/52'		184.5'/18.5'				

B.M.			5.325				
		10.33	4.99	4.9900	4.9900 5.340		
			4.655				
			67'/119'				

B.M.			5.24				
		10.33	4.925	4.9250	4.9250 5.405		
			4.61				
			63'/115'				

B.M.			5.30				
		10.33	4.98	4.9833	4.9833 5.347		
			4.67				
			63'/115'				

N: T. AVER;
 T: J. HUFF 09.20

DE TRANSFORMER SLAB IN GRASS ISLAND
 SW 28TH AVE. & SW 8TH ST

FORESIGHT (-)
 DESCRIPTIONS

RING (SQUARE CUT W/ REMAINT OF YELLOW
 PAINT, ACROSS STREET IN S/W)

RING (EAST EDGE OF RGD WATER VALVE
 CURB CASING)

GROUND (NORTH OF WELL CHAIN)
 SLAB

RING (N. EDGE OF CASING)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Dewberry Field Notes (3 of 4)

TJ/CDW		SEWARD		09/20/10		
AT-G2		USGS WEELS & EMS				
SN: 1430		JOB# 50099999				
		WELL SITE: G-2902				
BACKSIGHT (+)		PI		FORESIGHT (-)		ADJ.
STA ID	READING	MEAN	ELEV	READING	MEAN	ELEV
* BREAK SETUP						
	5.15		4.665			
MP	4.84	4.8567	4.4000	4.4000	4.4000	4.4000 5.784
	4.52		10.184	4.135		
	03°/170		10.184			
* GND LEVEL LOOP						

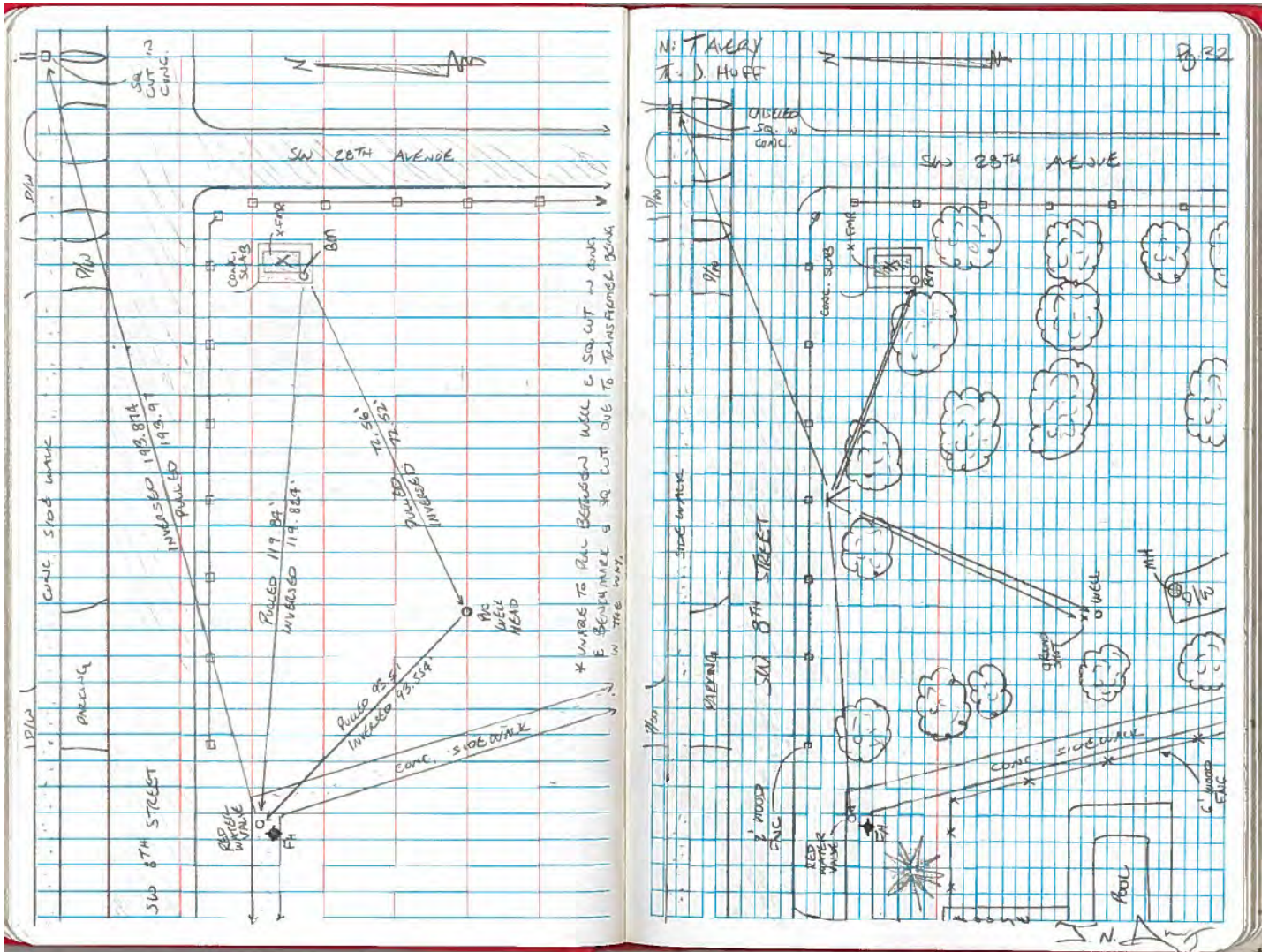
N: TAVEAY	Pg. 31
T: J. HUFF	
FORESIGHT (-)	
DESCRIPTION	
BACK @ STARTING POINT (SITE BENCHMARK)	
CHECK IN = -0.0037 ✓	



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Dewberry Field Notes (4 of 4)





SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Whidden Field Notes (Part A: 1 of 8)

Bc
BM

G2902

STA	+	H1	-	ELEV
TP 19	G-2904			3.273
	6.021	9.294		
TP 28			5.941	3.353
	4.836	8.189		
TP 29			4.515	3.674
	4.941	8.215		
TP 30			4.331	4.283
	4.694	8.977		
TP 31			4.511	4.459
	5.173	9.632		
TP 32			4.596	5.042
	5.078	10.121		
TP 33			4.992	5.120
	4.454	9.582		
TP 34			3.914	5.664

G-2904 DIN S/N 735642 W210/43

(PART A)
FIELD BOOK W210, PAGES 43-50
STARTS ON "TP 19" (G-2904) AND CLOSSES ON "TP 19" (G-2904)

SEE W210/41 G2904

(PART B)
FIELD BOOK W210, PAGES 38-39
STARTS ON NGS "DALEY", RUNS THROUGH
"TP1"--"TP9", AND CLOSSES ON NGS "X 175 8696"



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Whidden Field Notes (Part A: 2 of 8)

Sta	+	HT	-	ELEV
				5.609
TP 35	4.593	10.197	4.714	5.483
TP 36	4.995	10.478	4.888	5.590
TP 37	4.632	10.222	4.632	5.590
TP 38	4.606	10.196	4.802	5.394
TP 39	4.767	10.161	4.55	5.610
TP 40	4.786	10.396	4.609	5.787
TP 41	4.997	10.784	4.630	6.155

62902 Cont

136
137

9-20-19

W210/42



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Whidden Field Notes (Part A: 3 of 8)

STA	+	#1	-	ELEV
	4.889	11.044		6.155
TP 42			4.735	6.304
	5.812	12.121		
TP 43			5.601	6.519
	5.146	11.666		
TP 44			4.803	6.863
	4.762	11.625		
TP 45			4.495	7.129
	4.886	12.009		
TP 46			4.525	7.484
	4.608	12.092		
TP 47			4.437	7.655
	4.613	12.210		
TP 48			4.814	7.456

9-20-19

W210/45

BCL
BOM



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Whidden Field Notes (Part A: 4 of 8)

G-2902 CONT

130
1301

Sta	+ HI	-	Elev
			7.456
TP 49	4.379 11.835	4.472	7.363
	4.210 11.573		
TP 50		4.895	6.677
	4.632 11.309		
TP 51		4.704	6.205
	4.633 10.838		
TP 52		4.840	5.989
	4.592 10.581		
TP 53		4.806	5.775
	5.206 10.931		
TP 54		4.945	6.133
	4.919 11.057		
TP 55		4.461	6.596

9.20-19

W 210/20

FOUND Disk in sur Cor Telephone Utility Slab stamped 'G-2902 2019'

G-2902



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Whidden Field Notes (Part A: 5 of 8)

STA	H	ELEV
		6.596
TP 60	4.898 11.493	4.368 7.126
TP 61	4.700 11.825	4.868 6.958
TP 62	4.453 11.411	4.227 7.174
TP 63	4.844 12.018	4.363 7.655
TP 64	4.816 12.471	4.661 7.810
TP 65	5.141 12.951	5.099 7.852
TP 66	5.914 13.766	5.958 7.808

9-20-19 W210/47



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Whidden Field Notes (Part A: 6 of 8)

STA	+	HI	-	ELEV
				7.808
TP 67	4.995	12.802	4.319	8.484
TP 68	3.995	12.479	5.214	7.264
TP 69	4.238	11.502	5.918	5.584
TP 70	5.396	10.979	5.936	5.042
TP 71	5.519	10.202	5.868	4.824
TP 72	5.943	10.277	5.690	4.647
TP 73	4.754	9.401	4.311	4.090

BC
BM

4-20-17
Windy 95°

W210/48



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Whidden Field Notes (Part A: 7 of 8)

6-29-02 Cont

STA	+	HT	-	ELEV
TP 74	5341	10.231	4868	5345
TP 75	5910	11.255	5351	5704
TP 76	4910	10.644	4.483	6.127
TP 77	5221	10.023	5005	5.013
TP 78	4060	2.086	4793	4793
TP 79	4900	4.043	502	4000
TP 80	6132	9.225	5147	4020

9-20-19

11210/49

STA	+	HT	-	ELEV
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SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Whidden Field Notes (Part A: 8 of 8)

STA	+	HI	-	ELEV
TP 81	5645	9691	5697	4094
TP 82	5725	9760	6596	4164
TP 83	5466	9630	5691	3939
TP 19	5245	9108	5922	3262

G-2904

SEE FIELD BOOK W210 PG 43 (PART C)

SEE W210/43 6994

W210/50



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Whidden Field Notes (Part B: 1 of 5)

STA	+ HI	-	ELEV		
DALEY			8.87		
	6.024	9.894			
TP1			3.209	6.005	
	4.695	10.739			
TP2			4.215	6.464	
	4.669	11.132			
TP3			3.807	7.215	
	4.782	12.008			
TP4			3.887	8.163	
	4.582	12.919			
TP5			3.882	9.001	
	5.404	14.485			
TP6			6.053	9.033	*
	5.225	11.19			
TP7			6.680	12.637	

9-12-19 D. W. S/A 735642 W210/38
 Rainy 9:00

A12709 PRESS. DICK IN CASE STAMPED DALEY

(PART B)
 STARTS ON NGS "DALEY", RUNS THROUGH
 "TP1"-"TP9", AND CLOSSES ON NGS "X 175 8696"

TP1 to TP9: turtle

TP6: SET HUBS

TP1 to TP9: turtle



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Whidden Field Notes (Part B: 2 of 5)

G 2904 CONT				BC BM
STB	+	H:	-	ELEV
	5.555	18.192		12.637
Tp 8			1.548	16.644
	5.570	22.244		
Tp 9			1.592	20.616
	5.585	25.950		
X-175-0696		1.204	24.000	(24.65)

9-18-19		W210/39
Turtle		
Turtle		
A) 8700 BRASS DISK @ NE COR FOR GAS STRUT 158672		



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Whidden Field Notes (Part C: 3 of 5)

STA	+	15'	-	ELEV	BC BSM
TP6				9.021	3/14/17
TP10	4.054	13.076	5.728	7.358	
	4.314	11.672			
TP11			5.895	5.777	
	4.378	10.156			
TP12			4.935	5.221	
	4.410	9.631			
TP13			4.815	4.817	
	4.643	8.460			
TP14			5.858	3.602	
	4.753	8.355			
TP15			4.349	4.006	
	4.506	8.512			
TP16			4.400	4.111	

9-12-17 W20/H0

SEE W20/38

(PART C)
 Starts at "TP6" as previously established in (PART B),
 RUNS TO "TP10" AND CONTINUES THROUGH
 "TP19" (G-2904), THROUGH "TP27", THEN CLOSES
 ON "TP6"



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Whidden Field Notes (Part C: 4 of 5)

G-2904 CONT

ICE
BM

STN	+	HT	-	ELEV
				4.111
TP 17	4.926	9.037	4.713	4.324
TP 18	5.666	9.991	5.358	4.462
TP 19	5.362	9.994	5.708	4.086
TP 20	4.857	9.443	5.869	3.213
TP 21	5.818	9.091	5.506	3.585
TP 22	4.782	8.368	4.680	3.688
TP 23	5.241	8.929	4.982	3.947

G-2904

9-18-19

W210/41

FORWARD DISK IN NEW FOR CATCH BASIN "G-2904 2019"



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Whidden Field Notes (Part C: 5 of 5)

62904 CONT

STA	H	L	-	ELEV
				2.041
TP 24	6.076	10.023	5.320	4.703
TP 25	5.640	10.342	5.007	5.336
TP 26	5.937	11.273	5.039	6.234
TP 27	6.067	12.301	4.644	7.690
TP 6	5.491	13.102	4.153	9.028

9-18-19

W210/12

SEE FIELD BOOK
W210 PG 38
(PART B)

SEE W210/38