

PREPARED FOR



SPECIFIC PURPOSE SURVEY  
**SURVEYOR'S REPORT**  
VERTICAL DATUM UPGRADE PROJECT

WO# 4600002187-WO08R2

SAP PO# 9500006234

**W WGI**™



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## **PROJECT OVERVIEW**

### **Purpose of Project:**

Procure all materials to construct and install 89 staff gauges calibrated to the North American Vertical Datum of 1988 (NAVD88) at various sites identified by the Vertical Datum Project Manager. Establish a NAVD88 Reference Elevation on the inside deck of existing Telemetry Stations and stamp site specific data onto a brass tag, using a steel stamp die set. The brass tags were delivered to SFWMD and would be installed by SFWMD Field Personnel during site inspections.

### **Accuracy:**

Staff gauges have been set (adjusted) to the nearest two hundredth (.02') of a foot, and reference elevations established to the nearest hundredth (.01') of a foot. Elevations have been transferred from provided bench mark using a digital level, leveling rods, and redundant measurements.

### **Bench Marks:**

A bench mark was provided by SFWMD at each location, unless otherwise noted, and used to establish the reference elevation and calibrate each staff gauge. Where bench marks were destroyed or not provided, a new bench mark was established and a SFWMD Bench Mark Sheet was filled out and provided.

### **Survey Equipment Used:**

Topcon DL-502 (Digital Level)  
Fiberglass Digital Level Rods  
Conventional Level Rod  
GPS Equipment - Topcon GR3

### **Vertical Datum Factor:**

The reference elevations and staff gauges, in this report, have been correctly calibrated to the North American Vertical Datum of 1988. The datum conversion to the National Geodetic Vertical Datum of 1929 (NGVD 29), as shown herein and engraved on each gauge, were provided by the SFWMD VDUP Project Manager.

### **Completion Date:**

Staff Gauge installation, calibration, and the establishment of telemetry station reference elevation was completed on November 19, 2015.

### **Construction:**

Each Staff Gauge is attached to a 4" O.D. galvanized steel pipe with stainless steel hardware. The pipes were driven to a depth to achieve required stability, to a minimum of 10', unless otherwise noted, in field notes. In some instances, additional cross bracing was used and attached to existing structure or an additional 2" O.D. galvanized pipe set. Sections of pipes were driven by jack hammer, and attached together with a galvanized threaded coupling. On I-Beams, staff gauges were attached with stainless steel 316 hardware.

# **Details of Staff Gauges**

## Staff Gauge Detail Summary For Miami Sites

Gauges completed:

Staff Gauge Site	Latitude	Longitude	Benchmark Used	Benchmark Elevation NAVD88	Well Head Reference BM Elevation	Conversion Elevation to NGVD29
G58_H	25° 54' 01.87"	80° 09' 45.496"	G58	7.456	5.851	1.56
G72_H	25° 52' 09.022"	80° 20' 21.19"	FCE4665	5.49	9.258	1.55
G72_T	25° 52' 09.954"	80° 20' 19.332"	FCE4665	5.49	9.369	1.55
S27_H	25° 51' 04.199"	80° 11' 17.673"	FCE1696	3.975	7.865	1.54
S27_T	25° 51' 03.057"	80° 11' 18.196"	FCE1696	3.975	7.856	1.54
S28_H	25° 52' 22.908"	80° 10' 52.199"	S28	4.597	7.578	1.54
S28_T	25° 52' 21.543"	80° 10' 50.754"	S28	4.597	7.587	1.54
S29_H	25° 55' 45.153"	80° 09' 05.949"	FCE3089	17.932	9.792	1.56
S29_T	25° 55' 45.209"	80° 09' 04.824"	FCE3089	17.932	6.443	1.56
S30_H	25° 57' 24.485"	80° 25' 54.642"	SNAKE RM3	6.49	10.752	1.52
S30_T	25° 57' 24.465"	80° 25' 49.536"	SNAKE RM3	6.49	9.10	1.52
S337_H(S31_H)	25° 56' 34.331"	80° 26' 26.385"	FCE1248	10.135	20.021	1.52
S31_T	25° 56' 32.002"	80° 26' 24.633"	FCE1248	10.135	13.009	1.52
S32_H	25° 56' 31.779"	80° 26' 22.833"	FCE1248	10.135	10.413	1.52
S32A_H(S337_T)	25° 56' 32.002"	80° 26' 24.633"	FCE1248	10.135	11.908	1.52
S32A_T	25° 56' 32.002"	80° 26' 24.633"	FCE1248	10.135	11.912	1.52
S120_H	25° 40' 15.857"	80° 19' 19.297"	S120	13.429		1.54
S120_T	25° 40' 14.949"	80° 19' 16.516"	S120	13.429		1.54
C2SW1	25° 42' 34.6"	80° 22' 54.3"	C2SW1	6.682	10.312	1.56
C2SW2	25° 41' 28.14"	80° 18' 06.8"	C2SW2	5.123	8.273	1.54
L31NN	25° 44' 46.526"	80° 29' 52.591"	JBA33	6.44	11.467	1.56
L31NN GW1	25° 44' 46.526"	80° 29' 52.591"	JBA33	6.44	14.399	1.56
L31NN GW2	25° 44' 46.526"	80° 29' 52.591"	JBA33	6.44	14.227	1.56
L31NN GW3	25° 44' 46.526"	80° 29' 52.591"	JBA33	6.44	14.122	1.56
L31NN GW4	25° 44' 46.526"	80° 29' 52.591"	JBA33	6.44	14.439	1.56
L31NS	25° 42' 07.12"	80° 29' 46.495"	JBA22	6.73	10.526	1.56
L31NS GW1	25° 42' 07.12"	80° 29' 46.495"	JBA22	6.73	13.705	1.56
L31NS GW2	25° 42' 07.12"	80° 29' 46.495"	JBA22	6.73	13.847	1.56
L31NS GW3	25° 42' 07.12"	80° 29' 46.495"	JBA22	6.73	13.71	1.56
L31NS GW4	25° 42' 07.12"	80° 29' 46.495"	JBA22	6.73	13.931	1.56
S25_H	25° 47' 00.4"	80° 14' 24.69"	S25	3.658	8.821	1.54
S25_T	25° 46' 59.97"	80° 14' 24.14"	S25	3.658	8.81	1.54
S25B_H	25° 47' 38.48"	80° 15' 44.27"	FCE3228	7.205	11.976	1.55
S25B_T	25° 46' 59.97"	80° 14' 24.14"	FCE3828	7.205	12.028	1.55
S25BM_H	25° 47' 37.24"	80° 15' 45.88"	FCE3828	7.205	6.024	1.55

Staff Gauge Site	Latitude	Longitude	Bench-Mark Used	Benchmark Elevation NAVD88	Well Head Reference BM Elevation	Conversion Elevation to NGVD29
S25BM_T	25° 47' 37.96"	80° 15' 40.68"	FCE3828	7.205	6.158	1.55
S26_H	25° 48' 27.459"	80° 15' 39.028"	MIR22	6.984	11.782	1.54
S26_T	25° 48' 25.966"	80° 15' 36.94"	MIR22	6.984	11.76	1.54
S336_H	25° 45' 40.46"	80° 29' 49.58"	PR42	9.39	13.217	1.56
S336_T	25° 45' 40.412"	80° 29' 47.571"	PR42	9.39	10.59	1.56
T5W	25° 45' 41.338"	80° 23' 19.133"	T5 BM02	5.86	9.331	1.57
C8.S28Z	25° 54' 48.338"	80° 17' 35.177"	C8.S28Z	7.508	9.953	1.56
C9.S29Z	25° 57' 43.25"	80° 15' 45.51"	FCE4699	9.326	10.067	1.58
G93_H	25° 44' 18.555"	80° 17' 13.922"	J400	11.55	8.792	1.56
G93_T	25° 44' 18.837"	80° 17' 12.615"	J400	11.55	8.87	1.56
G420_H	25° 46' 18.414"	80° 26' 01.641"	G421	11.266	8.864	1.57
G420_T	25° 46' 18.389"	80° 26' 02.963"	G421	11.266	13.029	1.57
LOOP1_T	25° 45' 40.369"	80° 54' 38.238"	LOOP1 MS	8.54	11.682	1.48
S14_H	25° 45' 43.138"	80° 49' 19.079"	V237	14.45		1.50
S14_T	25° 45' 41.445"	80° 49' 19.11"	V237	14.45		1.50
S118_H	25° 37' 24.949"	80° 20' 34.967"	S118	8.534	12.384	1.54
S118_T	25° 37' 24.645"	80° 20' 33.628"	S118	8.534	12.42	1.54
S119_H	25° 38' 35.169"	80° 20' 18.262"	S119	8.54	12.254	1.54
S119_T	25° 38' 34.483"	80° 20' 17.268"	S119	8.54	12.248	1.54
S121_H	25° 41' 14.51"	80° 21' 38.892"	PR48	5.673		1.56
S121_T	25° 41' 12.804"	80° 21' 38.776"	PR48	5.673		1.56
S123_H	25° 36' 38.68"	80° 18' 31.89"	S123	8.523	13.989	1.53
S123_T	25° 36' 38.79"	80° 18' 27.72"	S123	8.523	13.994	1.53
C2GSW1	25° 41' 57.17"	80° 21' 38.369"	C2GSW1	6.243	9.313	1.56
C2GSW1_GW1	25° 41' 57.17"	80° 21' 38.369"	C2GSW1	6.243	6.342	1.56
C2GSW1_GW2	25° 41' 57.17"	80° 21' 38.369"	C2GSW1	6.243	6.423	1.56
G420S_H	25° 46' 19.599"	80° 26' 02.29"	G421	11.266	11.458	1.57
G422_H	25° 45' 49.287"	80° 26' 01.192"	T626	10.722	9.745	1.57
G422_T	25° 45' 50.131"	80° 26' 02.566"	T626	10.722	11.828	1.57
LOOP2_H	25° 44' 48.145"	80° 57' 14.352"	LOOP2	9.02	11.396	1.47
LOOP2_T	25° 44' 47.362"	80° 57' 14.257"	LOOP2	9.02	11.301	1.47
S12A_H	25° 45' 43.263"	80° 49' 16.737"	V237	14.45		1.50
S12A_T	25° 45' 41.7"	80° 49' 16.764"	V237	14.45		1.50
S22_H	25° 40' 10.89"	80° 17' 01.684"	FCE1694	7.016	10.904	1.54
S22_T	25° 40' 10.264"	80° 17' 01.449"	FCE1694	7.016	10.93	1.54
S343A_H	25° 47' 21.167"	80° 51' 18.474"	L-28	15.55	14.254	1.49
S343A_T	25° 47' 20.021"	80° 51' 19.871"	L-28	15.55	13.413	1.49
S343B_H	25° 46' 41.965"	80° 50' 38.313"	S343B	14.69	14.357	1.49
S343B_T	25° 46' 40.835"	80° 50' 39.343"	S343B	14.69	13.818	1.49
S344_H	25° 55' 08.178"	80° 50' 10.493"	G502	15.69	14.81	1.48
S344_T	25° 55' 08.689"	80° 50' 12.309"	G502	15.69	13.25	1.48

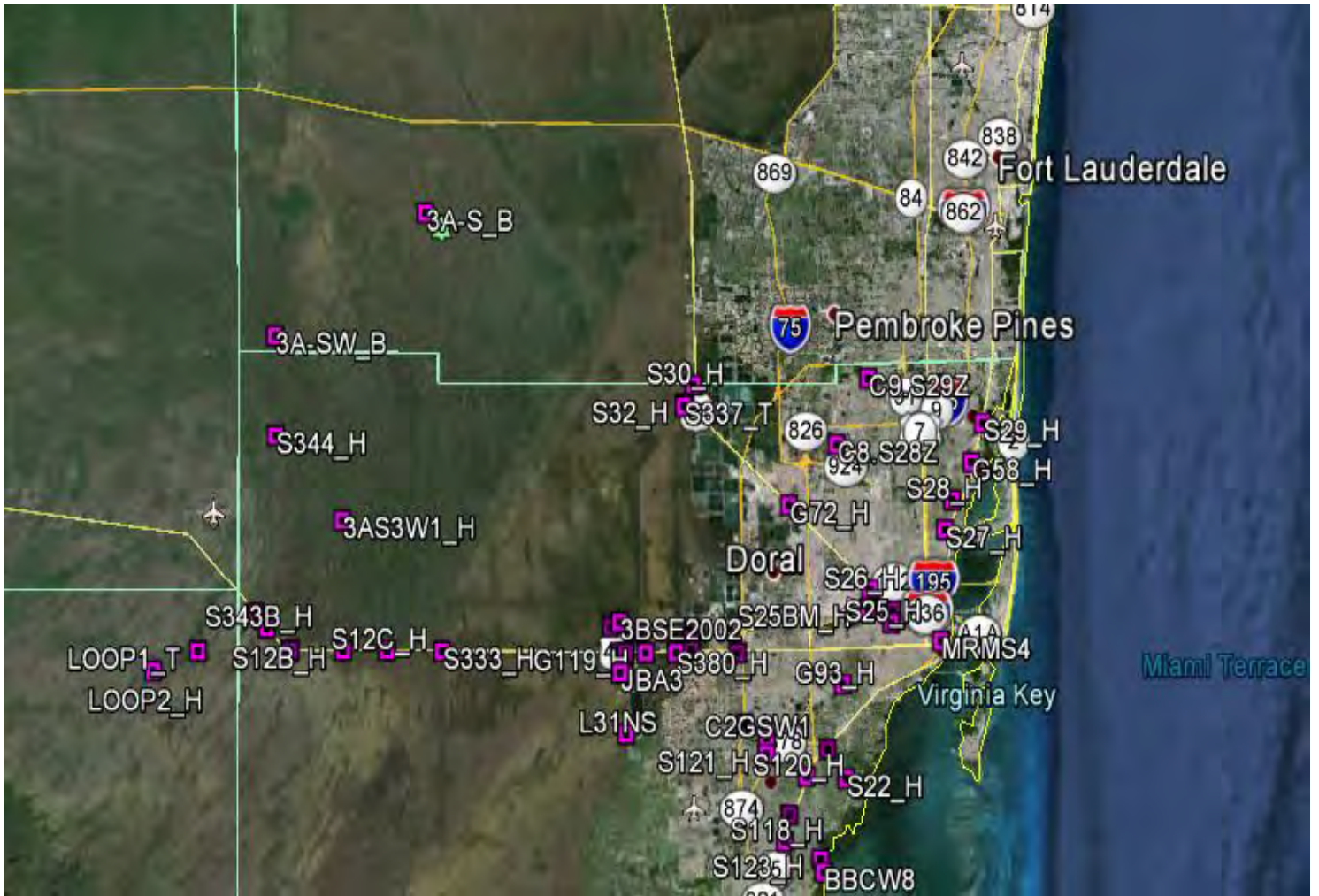


Staff Gauge Site	Latitude	Longitude	Benchmark Used	Benchmark Elevation NAVD88	Well Head Reference BM Elevation	Conversion Elevation to NGVD29
S380_H	25° 45' 40.991"	80° 26' 54.931"	S380	10.18	9.412	1.56
S380_T	25° 45' 40.913"	80° 26' 51.968"	S380	10.18	9.442	1.56
3BS1W1_H	25° 46' 49.361"	80° 30' 41.235"	3BS1W1	6.85	12.495	1.56
G3BS11_GW1	25° 46' 49.361"	80° 30' 41.235"	3BS1W1	6.85	10.71	1.56
G3BS11_GW2	25° 46' 49.361"	80° 30' 41.235"	3BS1W1	6.85	10.72	1.56
3B-SE_B	25° 47' 16.358"	80° 29' 59.199"	3BSE2002	8.56	12.27	1.56
C4SW2	25° 46' 01.234"	80° 26' 27.039"	C4SW2	5.27	12.50	1.57
G119_H	25° 45' 40.441"	80° 28' 39.131"	G119	9.781	10.377	1.56
G119_T	25° 45' 40.85"	80° 28' 36.941"	G119	9.781	10.874	1.56
MRMS1	25° 47' 31.886"	80° 14' 21.024"	MS1	5.131	7.334	1.54
MRMS4	25° 46' 12.267"	80° 11' 32.105"	MRMS4	4.016	7.048	1.56
S12B_H	25° 45' 44.259"	80° 46' 10.775"	T237	14.57		1.51
S12B_T	25° 45' 41.822"	80° 46' 10.863"	T237	14.57		1.51
S12C_H	25° 45' 44.648"	80° 43' 38.92"	Q237	14.44		1.52
S12C_T	25° 45' 42.045"	80° 43' 37.929"	Q237	14.44		1.52
S333_H	25° 45' 43.243"	80° 40' 26.952"	A410X	12.94	16.849	1.53
S333_T	25° 45' 42.774"	80° 40' 25.702"	A410X	12.94	16.867	1.53
S334_H	25° 45' 40.509"	80° 30' 09.305"	S334	12.215	15.814	1.56
S334_T	25° 45' 40.554"	80° 30' 08.046"	S334	12.215	8.892	1.56
S334_MW1	25° 45' 40.554"	80° 30' 08.046"	S334	12.215	6.933	1.56
S334_MW2	25° 45' 40.554"	80° 30' 08.046"	S334	12.215	6.704	1.56
S334_MW3	25° 45' 40.554"	80° 30' 08.046"	S334	12.215	6.463	1.56
S334_MW4	25° 45' 40.554"	80° 30' 08.046"	S334	12.215	7.025	1.56
3A-S_B	26° 04' 55.534"	80° 41' 29.551"	MOSSEY	10.83	16.015	1.47
3AS3W1_H	25° 51' 26.333"	80° 46' 16.979"	3AS3W1	9.68	14.475	1.50
3AS3W1_GW1	25° 51' 26.333"	80° 46' 16.979"	3AS3W1	9.68	12.998	1.50
3AS3W1_GW2	25° 51' 26.333"	80° 46' 16.979"	3AS3W1	9.68	13.011	1.50
3A-SW_B	25° 59' 23.334"	80° 50' 10.225"	3ASW	8.82	15.905	1.46
BBCW8 WQ1S	25° 36' 04.457"	80° 18' 20.777"	S123	8.523	7.261	1.53
BBCW8 WQ2	25° 36' 04.457"	80° 18' 20.777"	S123	8.523	6.196	1.53
BBCW8 STG3	25° 36' 04.457"	80° 18' 20.777"	S123	8.523	5.836	1.53
NESRS3_B	25° 44' 25.365"	80° 30' 17.201"	JBA3	5.564	11.394	1.56
S335_H	25° 46' 33.817"	80° 28' 58.741"	S335	9.856	13.957	1.56
S335_T	25° 46' 33.112"	80° 28' 58.827"	S335	9.856	13.956	1.56

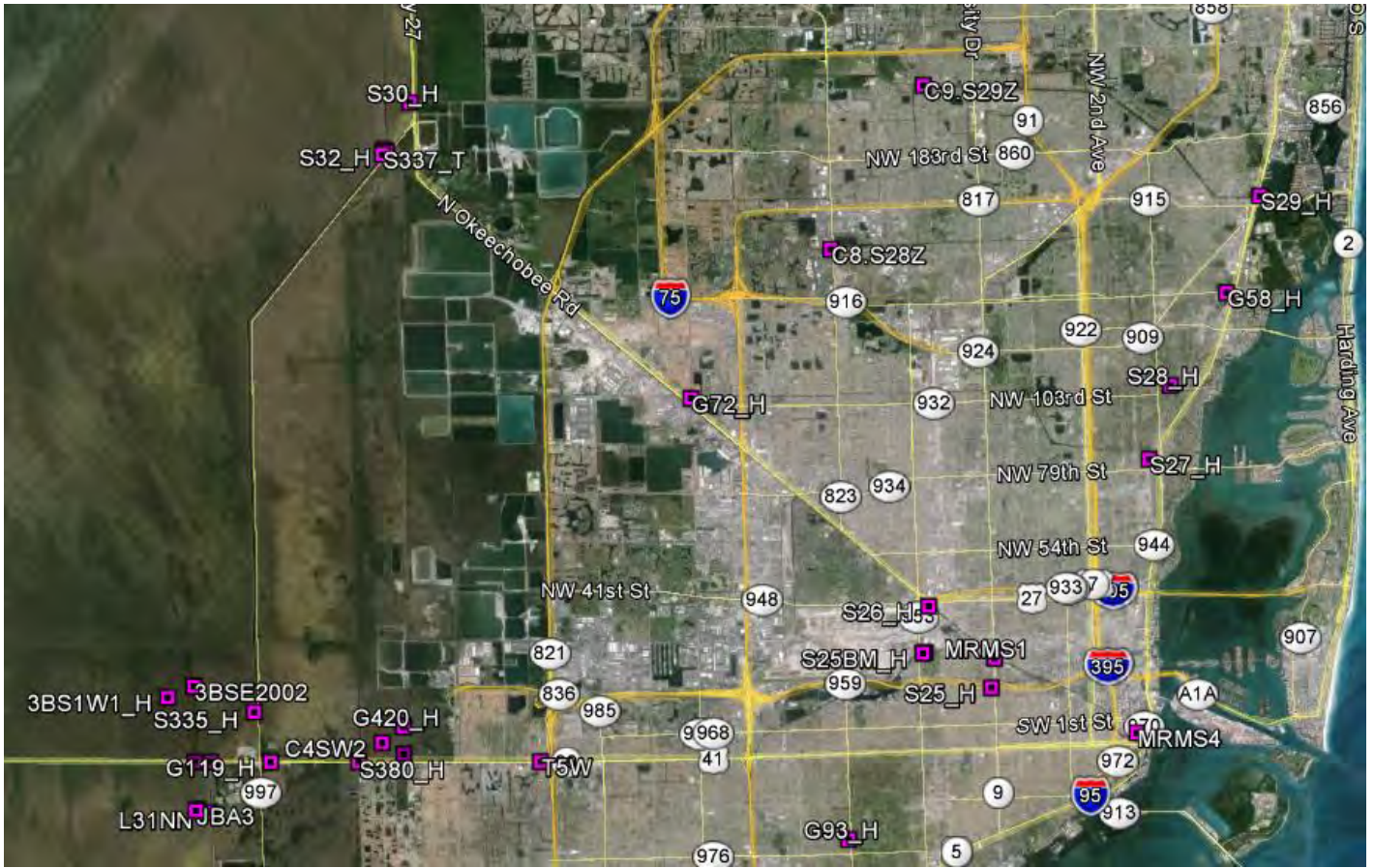
- **All Elevations shown are NAVD 88**

## Project Location Maps:

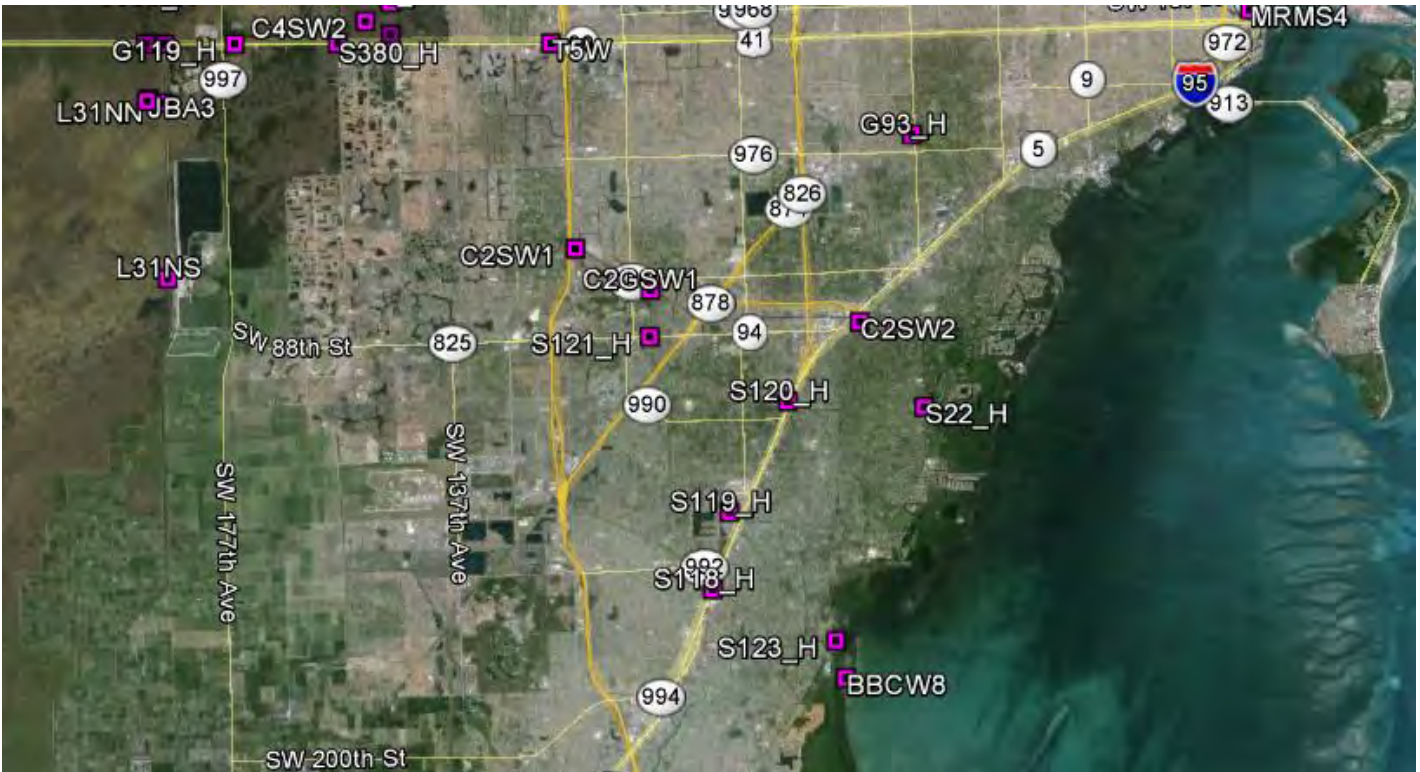
### Overall Site



**Site Close Up 1 of 3:**



**Site Close Up 2 of 3:**



**Site Close Up 3 of 3:**



# **Project Results**

## Stage Recorder Site: 3BS1W1

<b>Party Chief:</b> Jose Mendoza	<b>Field Book Number:</b> 612/ BK 10	<b>Page Number:</b> 51
<b>Benchmark Elevation (NAVD 88):</b> 6.85	<b>Date of Field Work:</b> November 11, 2015	<b>Datum Offset to NGVD 29:</b> +1.56
<b>Benchmark Agency:</b> SFWMD	<b>Benchmark Type:</b> Precision Rod	<b>Benchmark Stamp:</b> 3BS1W1
<b>Reference Elevation (NAVD88):</b> 12.495		<b>Existing Tag Elevation (Datum):</b> 14.07 NGVD29
<b>Latitude:</b> 25° 46' 49.361"		<b>Longitude:</b> 80° 30' 41.235"
<b>Notes:</b> Datum difference SFWMD +1.56 Field +1.575. Gauge braced to existing platform. Brass tag stamped matching name on existing tag G3BS11.		
<b>Removed Old Board:</b> Existing gauge removed. Mounting board & pole not removed.		

### Photographs:

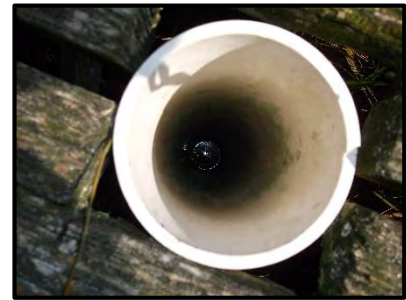
**Overall Site:**



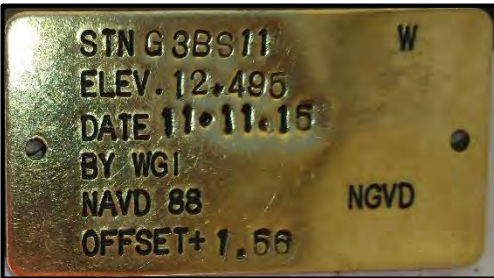
**Benchmark Location:**



**Benchmark Close Up:**



**Brass Tag Close Up:**



**Reference Mark:**



**Brass Tag & Reference:**



**New Staff Gauge:**

**Front View:**



**Side View:**



# Stage Recorder Site: G3BS11\_GW1

<b>Party Chief:</b> Jose Mendoza	<b>Field Book Number:</b> 612/ BK 10	<b>Page Number:</b> 51
<b>Benchmark Elevation (NAVD 88):</b> 6.85	<b>Date of Field Work:</b> November 11, 2015	<b>Datum Offset to NGVD 29:</b> +1.56
<b>Benchmark Agency:</b> SFWMD	<b>Benchmark Type:</b> Precision Rod	<b>Benchmark Stamp:</b> 3BS1W1
<b>Reference Elevation (NAVD88):</b> 10.71		<b>Existing Tag Elevation (Datum):</b>
<b>Latitude:</b> 25° 46' 49.361"		<b>Longitude:</b> 80° 30' 41.235"
<b>Notes:</b> No existing tag on site. Reference is top of 1in PVC pipe inside 6in PVC pipe.		
<b>Removed Old Board:</b> Existing gauge removed. Mounting board & pole not removed.		

## Photographs:

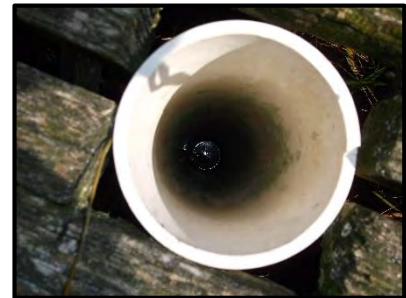
**Overall Site:**



**Benchmark Location:**



**Benchmark Close Up:**



**Brass Tag Close Up:**



**Reference Mark:**



**New Staff Gauge:**

**Front View:**



**Side View:**

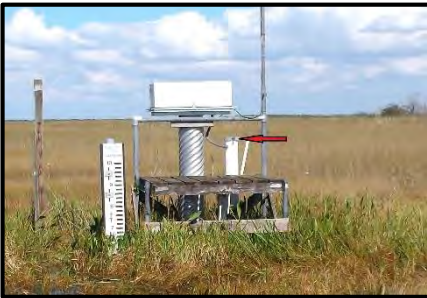


## Stage Recorder Site: G3BS11\_GW2

<b>Party Chief:</b> Jose Mendoza	<b>Field Book Number:</b> 612/ BK 10	<b>Page Number:</b> 51
<b>Benchmark Elevation (NAVD 88):</b> 6.85	<b>Date of Field Work:</b> November 11, 2015	<b>Datum Offset to NGVD 29:</b> +1.56
<b>Benchmark Agency:</b> SFWMD	<b>Benchmark Type:</b> Precision Rod	<b>Benchmark Stamp:</b> 3BS1W1
<b>Reference Elevation (NAVD88):</b> 10.72		<b>Existing Tag Elevation (Datum):</b>
<b>Latitude:</b> 25° 46' 49.361"		<b>Longitude:</b> 80° 30' 41.235"
<b>Notes:</b> No existing tag on site. Reference is top of 2in PVC pipe inside 6in PVC pipe.		
<b>Removed Old Board:</b> Existing gauge removed. Mounting board & pole not removed.		

### Photographs:

#### Overall Site:



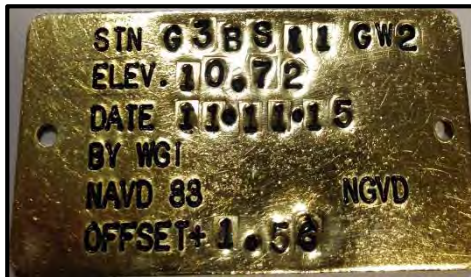
#### Benchmark Location:



#### Benchmark Close Up:



#### Brass Tag Close Up:

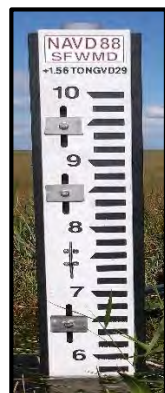


#### Reference Mark:



#### New Staff Gauge:

##### Front View:



##### Side View:





## Stage Recorder Site: 3B-SE\_B

<b>Party Chief:</b> Jose Mendoza	<b>Field Book Number:</b> 612/ BK 10	<b>Page Number:</b> 52
<b>Benchmark Elevation (NAVD 88):</b> 8.56	<b>Date of Field Work:</b> November 11, 2015	<b>Datum Offset to NGVD 29:</b> +1.56
<b>Benchmark Agency:</b> SFWMD	<b>Benchmark Type:</b> Precision Rod	<b>Benchmark Stamp:</b> 3BSE2002
<b>Reference Elevation (NAVD88):</b> 12.27	<b>Existing Tag Elevation (Datum):</b> 13.85 NGVD29 (Written, No tag)	
<b>Latitude:</b> 25° 47' 16.358"	<b>Longitude:</b> 80° 29' 59.199"	
<b>Notes:</b> Datum difference SFWMD +1.56 Field +1.58. No existing tag on site. Existing elevations were hand written. Gauge braced to existing platform.		
<b>Removed Old Board:</b> Existing gauge removed, mounting board & pole not removed.		

### Photographs:

**Overall Site:**



**Benchmark Location:**



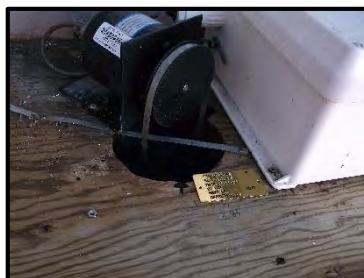
**Benchmark Close Up:**



**Brass Tag Close Up:**



**Reference Mark:**



**Brass Tag & Reference:**



**New Staff Gauge:**

**Front View:**



**Side View:**



## Stage Recorder Site: 3A-S\_B

<b>Party Chief:</b> Jose Mendoza	<b>Field Book Number:</b> 602/ BK 9	<b>Page Number:</b> 78
<b>Benchmark Elevation (NAVD 88):</b> 10.83	<b>Date of Field Work:</b> November 18, 2015	<b>Datum Offset to NGVD 29:</b> +1.47
<b>Benchmark Agency:</b> SFWMD	<b>Benchmark Type:</b> Precision Rod w/Sleeve	<b>Benchmark Stamp:</b> Mossey 2006
<b>Reference Elevation (NAVD88):</b> 16.015		<b>Existing Tag Elevation (Datum):</b> 17.48 NGVD29
<b>Latitude:</b> 26° 04' 55.534"		<b>Longitude:</b> 80° 41' 29.551"
<b>Notes:</b> Gauge braced to existing 2in pipe and platform.		
<b>Removed Old Board:</b> Existing gauge removed.		

### Photographs:

**Overall Site:**



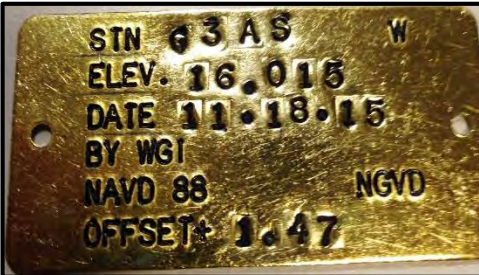
**Benchmark Location:**



**Benchmark Close Up:**



**Brass Tag Close Up:**



**Reference Mark:**



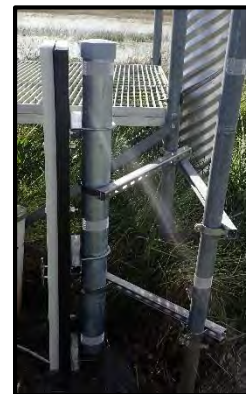
**Brass Tag & Reference:**



**New Staff Gauge:  
Front View:**



**Side View:**

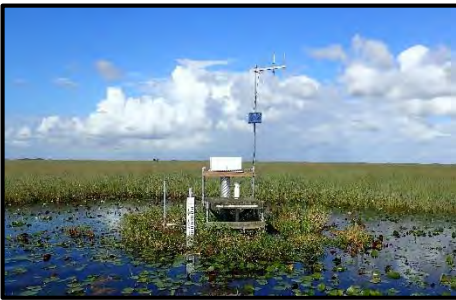


# Stage Recorder Site: 3AS3W1\_H

<b>Party Chief:</b> Jose Mendoza	<b>Field Book Number:</b> 602/ BK 9	<b>Page Number:</b> 75-76
<b>Benchmark Elevation (NAVD 88):</b> 9.68	<b>Date of Field Work:</b> November 17, 2015	<b>Datum Offset to NGVD 29:</b> +1.50
<b>Benchmark Agency:</b> SFWMD	<b>Benchmark Type:</b> Precision Rod	<b>Benchmark Stamp:</b> 3AS3W1
<b>Reference Elevation (NAVD88):</b> 14.475		<b>Existing Tag Elevation (Datum):</b> 15.975 NGVD29
<b>Latitude:</b> 25° 51' 26.333"		<b>Longitude:</b> 80° 46' 16.979"
<b>Notes:</b> Gauge braced to existing 2in pipe and platform.		
<b>Removed Old Board:</b> Existing gauge removed, Mounting board & pole not removed.		

## Photographs:

**Overall Site:**



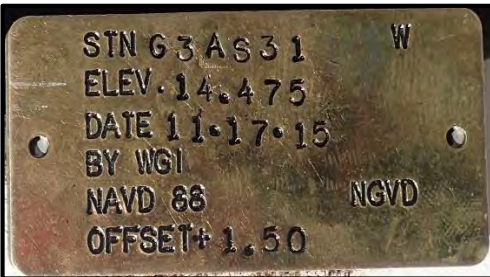
**Benchmark Location:**



**Benchmark Close Up:**



**Brass Tag Close Up:**



**Reference Mark:**



**Brass Tag & Reference:**



**New Staff Gauge:**

**Front View:**



**Side View:**



# Stage Recorder Site: G3AS31\_GW1

<b>Party Chief:</b> Jose Mendoza	<b>Field Book Number:</b> 602/ BK 9	<b>Page Number:</b> 75-76
<b>Benchmark Elevation (NAVD 88):</b> 9.68	<b>Date of Field Work:</b> November 17, 2015	<b>Datum Offset to NGVD 29:</b> +1.50
<b>Benchmark Agency:</b> SFWMD	<b>Benchmark Type:</b> Precision Rod	<b>Benchmark Stamp:</b> 3AS3W1
<b>Reference Elevation (NAVD88):</b> 12.998		<b>Existing Tag Elevation (Datum):</b>
<b>Latitude:</b> 25° 51' 26.333"		<b>Longitude:</b> 80° 46' 16.979"
<b>Notes:</b> Gauge braced to existing 2in pipe and platform. No existing elevation at ground well. GW is a 2in PVC pipe inside a 6in PVC pipe under stilling well.		
<b>Removed Old Board:</b> Existing gauge removed, Mounting board & pole not removed.		

## Photographs:

**Overall Site:**



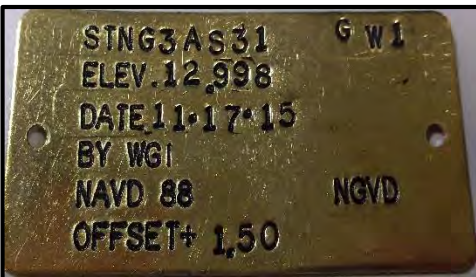
**Benchmark Location:**



**Benchmark Close Up:**



**Brass Tag Close Up:**



**Reference Mark:**



**Ground Well Tag:**



**New Staff Gauge:**

**Front View:**



**Side View:**



## Stage Recorder Site: G3AS31\_GW2

<b>Party Chief:</b> Jose Mendoza	<b>Field Book Number:</b> 602/ BK 9	<b>Page Number:</b> 75-76
<b>Benchmark Elevation (NAVD 88):</b> 9.68	<b>Date of Field Work:</b> November 17, 2015	<b>Datum Offset to NGVD 29:</b> +1.50
<b>Benchmark Agency:</b> SFWMD	<b>Benchmark Type:</b> Precision Rod	<b>Benchmark Stamp:</b> 3AS3W1
<b>Reference Elevation (NAVD88):</b> 13.011		<b>Existing Tag Elevation (Datum):</b>
<b>Latitude:</b> 25° 51' 26.333"		<b>Longitude:</b> 80° 46' 16.979"
<b>Notes:</b> Gauge braced to existing 2in pipe and platform. No existing elevation at ground well. GW is a 1in PVC pipe inside a 6in PVC pipe under stilling well.		
<b>Removed Old Board:</b> Existing gauge removed, Mounting board & pole not removed.		

### Photographs:

**Overall Site:**



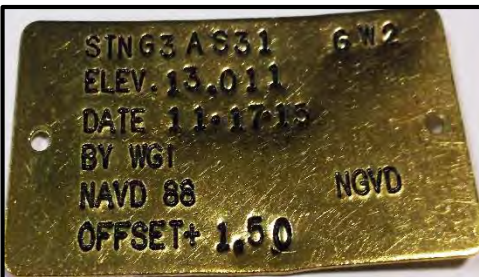
**Benchmark Location:**



**Benchmark Close Up:**



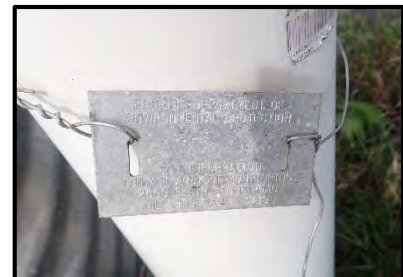
**Brass Tag Close Up:**



**Reference Mark:**



**Ground Well Tag:**



**New Staff Gauge:**

**Front View:**



**Side View:**



## Stage Recorder Site: 3A-SW\_B

<b>Party Chief:</b> Jose Mendoza	<b>Field Book Number:</b> 602/ BK 9	<b>Page Number:</b> 79
<b>Benchmark Elevation (NAVD 88):</b> 8.82	<b>Date of Field Work:</b> November 19, 2015	<b>Datum Offset to NGVD 29:</b> +1.46
<b>Benchmark Agency:</b> ACOE	<b>Benchmark Type:</b> Brass Disk	<b>Benchmark Stamp:</b> 3A-SW 2003 SFWMD
<b>Reference Elevation (NAVD88):</b> 15.905	<b>Existing Tag Elevation (Datum):</b>	
<b>Latitude:</b> 25° 59' 23.334"	<b>Longitude:</b> 80° 50' 10.225"	
<b>Notes:</b> No existing brass tag at site.		
<b>Removed Old Board:</b> Existing gauge removed, mounting board & pole not removed.		

### Photographs:

**Overall Site:**



**Benchmark Location:**



**Benchmark Close Up:**



**Brass Tag Close Up:**



**Reference Mark:**



**Brass Tag & Reference:**



**New Staff Gauge:  
Front View:**



**Side View:**



11-17-15 3&P SFWMD 85° PC  
 WENTORA PANOUE ELEVATE WELLS BREEZY  
 MILLER LAST @ 634531  
 3 WIRE + HI 3 WIRE - ELEV DESC  
 9.68 SITE BM IR:

6.79  
 6.775 6.775 10.455  
 6.76 2.00  
 1.98 1.98 14.475 MARK @ WELL  
 1.96  
 2.32  
 2.30 2.30 16.775  
 2.28 7.11  
 7.095 7.095 9.68 SITE BM  
 7.08

JNK GROUND WELL  
 9.68 SITE BM

4.00  
 3.98 3.981 13.1001  
 3.965 0.69  
 0.66 0.663 12.998 MARK @ WELL  
 0.64  
 0.84  
 0.82 0.816 13.814  
 0.79 4.15  
 4.13 4.131 9.683 SITE BM  
 4.115

31011071.02

602  
75

SS THRU WELL WOOD DECK IN PVC SLEEVE (3AS3W1)

BRASS TAG PUBLISHED 15.975 CALCD REF 1.50

BELOW MAIN WELL DECK STG 2 A 2" PVC PIPE STG 3 IS A 1" PVC  
 0.01 HIGHER THAN STG 2

11-17-15

MENDOTA

WILLER

SFWMD

SET GAUGE

⑨ 03AS31

+

HI

-

ELEV

9.688 SITE BM REE PS <sup>75</sup>/<sub>160</sub>

6.33

16.01

4.13

11.888

SET TOP OF GAUGE BED

4.09

15.97

6.79

9.688

√ TO SITE BM

4.13

4.11

4.095

13.791

0.60

0.575

0.55

0.575

13.216 STG 1 MARK ON LID

0.81

0.78

0.75

0.78

13.011 STG 3 MARK ON 1" PVC

0.67

0.64

0.62

0.643

13.654

0.46

0.435

0.41

0.435

13.219 √ STG 1 MARK

3.99

3.97

3.95

3.97

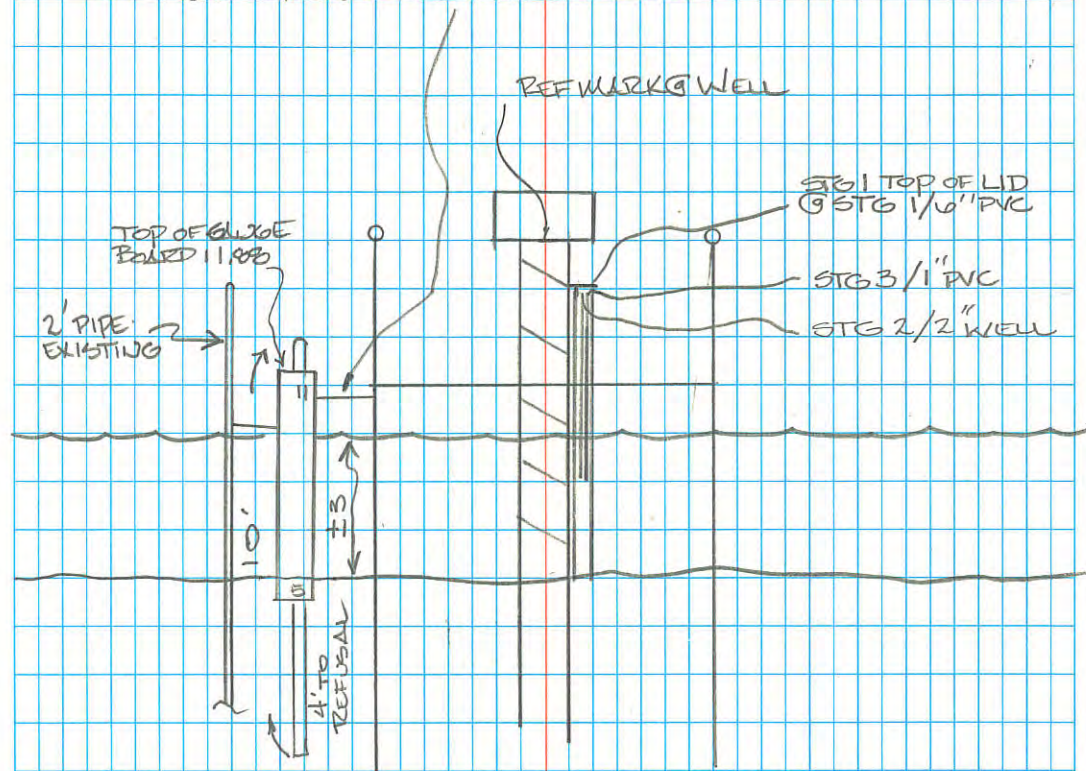
9.688 √ TO SITE BM

31011071.08

602  
76

DATUM 0/6 = 150

NOTE EXISTING GAUGE & BOARD  
REMOVED USED MOUNTING BLE  
TO ATTACH UNISTRUTT TO GAUGE  
ALSO ATTACHED TO PLATFORM





11-18-15 B&P SFWMD 85°R  
 MENDOTA TOWNSHIP G3AS BRZLY  
 MILLER LAST

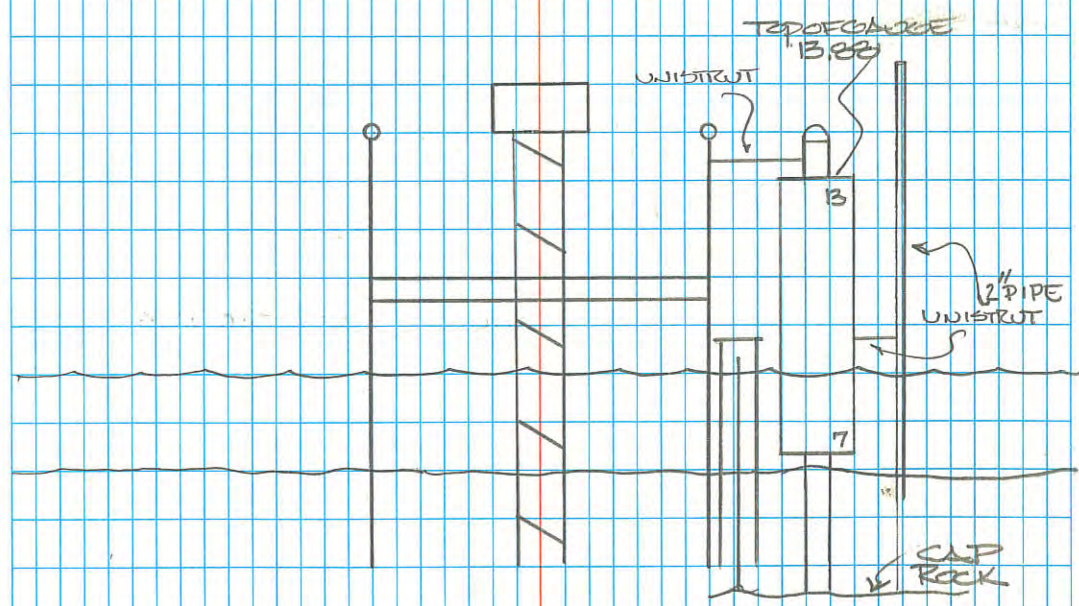
3WIRE +	HI	3WIRE -	ELEV	DESC
			10.83	IR IN 6" PK
5.865				
5.845	5.845		10.675	
5.825		0.100		
		0.100	10.015	MARK & REF POINT
		0.104		
			8.97	NOB PIPE
	BROKE SETUP		7.70	
			10.015	REF MARK
0.55				
0.525	0.525		10.54	
0.50				
		5.73		
		5.71	5.71	10.83
		5.69		✓ IN G SITE BM
			2.100	13.88
	BROKE SETUP			TOP OF SET GAUGE
2.89				
	10.77			
		5.94	10.83	✓ IN G SITE BM

31011071.08

602  
78

w/LOOSE CAP STAMPED MOSSEY 2006 (SITE BM)

EXTAS PUBLISHED 17.48 (CALC DIFF = 14.65)



NOTE PROBED AREA EXTENSIVELY UNABLE TO LOCATE ANY AREA TO SET PIPE DEEPER THAN 2' DUE TO THIS WE USED ADDITIONAL UNISTRUT TO ATTACH TO STRUCTURE & EXISTING 2" PIPE OLD GAUGE WAS MOUNTED TO ALSO ONLY ± 2' INTO GROUND

11-19-15  
MENDOTA  
MILLER

SFWMD  
G3A SW

85°C10  
RAIN

3WIRE	+	HI	3WIRE	-	ELEV	DESC
					8.82	PMON W/ACOE
8.47						
8.41	8.41	17.23				
8.35			1.345			
			1.325	1.325	15.905	MARK @ WELL
			1.305			
				9.62	7.61	W @ PIPE
					15.905	MARK @ WELL
1.025						
1.065	1.065	16.975				
1.045			8.21			
			8.15	8.153	8.821	SITE BM
			8.10			
			1.09	12.885		TOP OFFSET GAUGE
1.15		17.035				
			8.22	8.815		W @ SITE BM

PROBE SETUP

3101107100

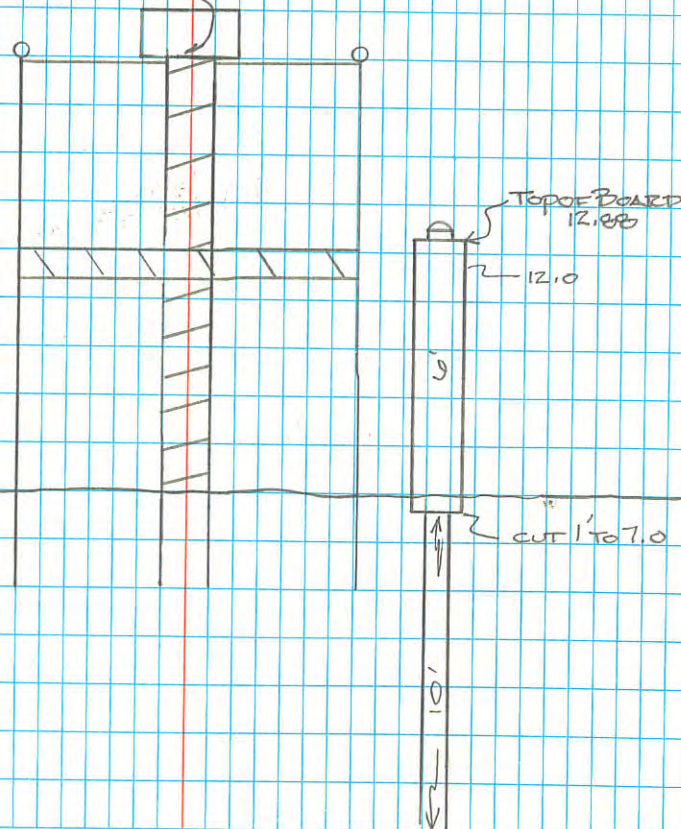
692

BIDK STAMPED 3A-SW 2003

NOTE MOUNTING POLE & BOARD NOT REMOVED  
GAUGE PLATE WAS REMOVED H<sup>2</sup>O READ 10.27 NEW GAUGE  
READS 8.7 @ 2:00 PM

NEW DATA DIFF = 1.46

NO BRASS TAG OR REF MARK  
PUT NEW REF MARK



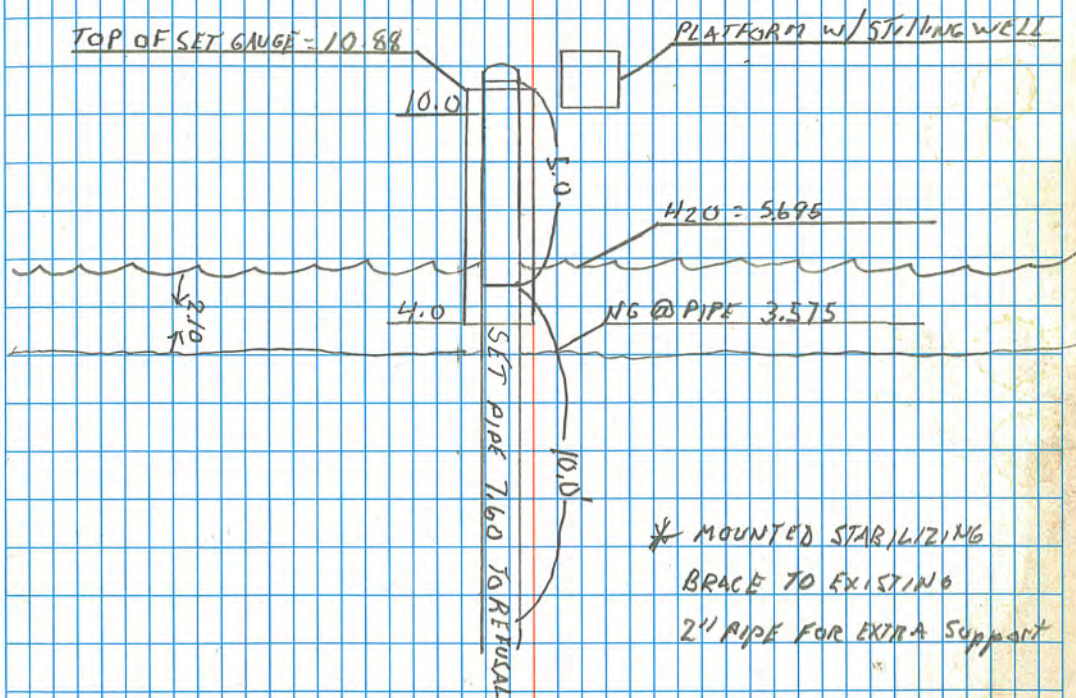
11-11-15 SFWM D... 85° SUNNY  
 DONOR HUE 3BSI W/  
 LAST ELEVATE WELL  
 PEREZ

3 WIRE	+	H1	3 WIRE	-	ELEV.	DESC.
6.60					6.85	3BSI W/
6.585	6.585	13.435				
6.57			.96			
19.755			.94	.94	12.495	MARK @ WELL
			.92			
			2.82			
			BROKE SETUP			
					12.495	MARK @ WELL
.99						
.97	.97	13.465				
.95			6.63			
2.91			6.62	6.62	6.845	JIN @ SITE BM
			6.61			
			19.86			
			SET GAUGE			
		13.465				
			7.77		5.695	H <sub>2</sub> O @ 10:30 AM
			9.99		3.575	NG
			2.58		10.985	TOP OF SET GAUGE
			BROKE SETUP			
2.52	13.405					
			6.56	6.845		JIN @ SITE BM

3/10/07/08 612 #10  
 1021 51  
 DATUM DIFF = 1.56

S.S. ROD IN 4" PVC PIPE

EXISTING TAG PUBLISHED = 14.07



EXISTING GAUGE READS 7.08  
 REMOVED EXISTING GAUGE

11-11-15

DONOHUE

LAST

PEREZ

SFWMD

3B-SE B

ELEVATE WELL

88° Sunny

3WIRE	+	HI	3WIRE	-	ELEV.	DESC. →
4.33					8.56	3BSE 2002
4.32	4.32	12.88				
4.31			.53			
12.96			.51	.51	12.37	MARK @ WELL

✓

BROKE SETUP

.41

.39

.37

1.17

.39

12.76

4.11

4.10

4.09

12.29

4.10

612 #10

51

S.S. ROD IN 4" PVC PIPE

NO EXISTING TAG - PUBLISHED IN MARKER 13.85 (DIFF .08)

✓ 612 #10

11-11-15 SFWM D 90° SONNY

DONAHUE JR SEB ELEVATE WELL

LAST PEREZ

3 WIRE + HI 3 WIRE - ELEV. DESC.

3.97 8.56 3BSE 2002

3.96 3.96 12.52

3.95 .27

1.88 .25 .25 12.27 MARK @ WELL

.23  
.75

BROKE SET UP

.38

.36 .36 12.63

.34 4.08

1.08 4.07 4.07 8.56 1 IN @ SITE BM

4.06  
12.21

BROKE SET UP - SET GAUGE

8.56

.49 9.05

3.46 5.59 H2O @ 5:18 pm

INVERTED 1.83 9.88 TOP OF SET GAUGE

BROKE SET UP

INVERTED (-) .92 8.96

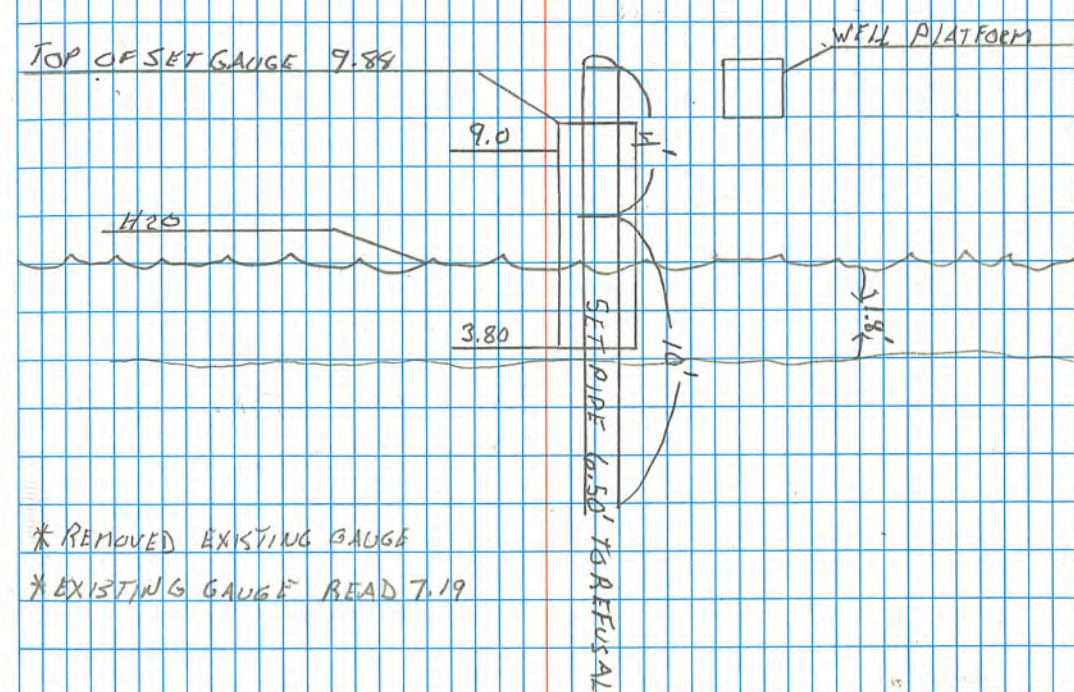
.40 8.56 1 IN @ SITE BM

31011071.08 612#10  
1021 52

\* HAD TO CUT 2.90' OFF BOTTOM OF GAUGE  
DUE TO NATURAL GROUND EL. OF 3.81 DATUM DIFF = 1.56

SS ROD IN 4" PVC PIPE

NO EXISTING TAG PUBLISHED IN MARKER 13.85



\* REMOVED EXISTING GAUGE  
\* EXISTING GAUGE READ 7.19

\* MOUNTED STABILIZING BRACE TO EXISTING 2" PIPE  
FOR EXTRA STABILITY

\* WOOD PLANKS ON STRUCTURE FALLING APART, NOT SAFE  
TO STAND ON

11-17-15

SFWMD

DONOR AOE

3851 W1

LAST

ELEV. ADDITIONAL WELL

3WIRE	+	HI	3WIRE	-	ELEV.	DESC.
4.52					6.85	3851 W1
4.51	4.51	11.36				
7.50			.34			
			.32	.32	11.04	STG 1 (6" RIM)
.59			.30			
.57	.57	11.61				
.35			.92			
			.70	.90	10.71	STG 2 (1" PVC)
			.88			
.79						
.77	.77	11.48				
.75			.78			
			.76	.76	10.72	STG 3 (2" PVC)
			.74			
.64						
.62	.62	11.34				
.60			4.50			
			4.49	4.49	6.85	V IN @ 3851 W1
			4.48			

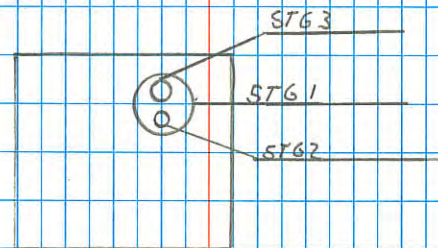
310/1071.08

612 #10

1021

55

REF. pg 51



\* STG DESCRIPTION NOT IDENTIFIED IN FIELD, NUMBERED SEQUENCE BY CREW

\* NO EXISTING TAGS