

SURVEYOR'S REPORT

**Specific Purpose Survey of the Piezometer Well
located at the E-2 Canal and Lake Worth Road
Palm Beach County, Florida.**

**South Florida Water Management District's
Purchase Order number 4500004691**

**Keith and Schnars project number 16434.00,
Task 22167**

Report Date: November 2, 2006

Submittal: First

Prepared for:

South Florida Water Management District

Prepared by:



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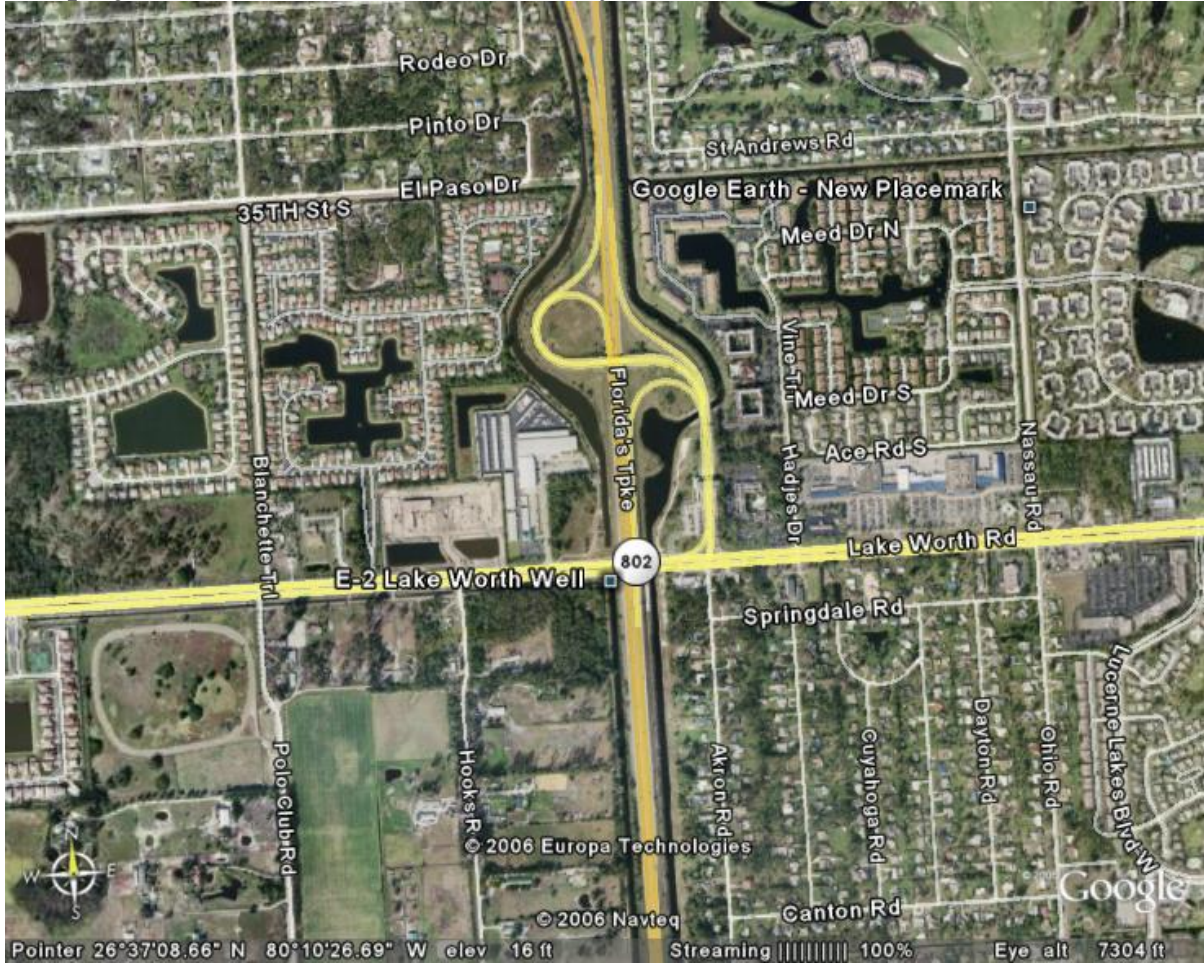
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PURPOSE

To establish vertical data (NAVD 1988 and NGVD 1929) on the Piezometer Well and set a site benchmark.

LOCATION OF PROJECT

The project is located in Palm Beach County, Florida.



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ITEMS DELIVERED TO THE DISTRICT

1. Electronic copy of field notes.
2. Electronic copy of all computation sheets.
3. CORPSMET 95 file.
4. Site photographs.
5. Surveyor's Report.

DATUM FOR THE PROJECT


The vertical datum for the project is National Geodetic Vertical Datum (NGVD) of 1929 and North American Vertical Datum (NAVD) of 1988. NAVD 1988 elevations were derived from the below described level run using Palm Beach County vertical control monuments. NGVD 1929 values were obtained by offset (1.42'), which was derived by subtracting the NAVD 1988 value from the NGVD 1929 value at NGS monument E-97.

LEVELING METHODS

A level loop was run from Palm Beach County benchmark "Ruman", through the site benchmark (E2 WORTH 2006) and finishing at Palm Beach County benchmark "Malak". The elevations were established with a Leica NA2 conventional level and three-wire observation method.



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VERTICAL CONTROL

| BM RUMAN | | Elevation: | NAVD 1988 | 17.030' | NGVD 1929 | 18.450' |
|--|-------|------------|---|----------------|------------------|----------------|
| Palm Beach County published benchmark | | | | | | |
| State/County FL/Palm Beach | | | | | | |
| USGS QUAD Greenacres City (1983) | | | | | | |
| Horiz. Order | Third | | The station is a Palm Beach County brass disk stamped "RUMAN", set on top of and on the south side of a concrete sidewalk on the south side of Lake Worth Road, 0.1 mile east of Ohio Street. Also being at a catch basin which has an aluminum hand rail along the south side of the sidewalk. | | | |
| Class | None | | | | | |
|  | | | | | | |

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VERTICAL CONTROL

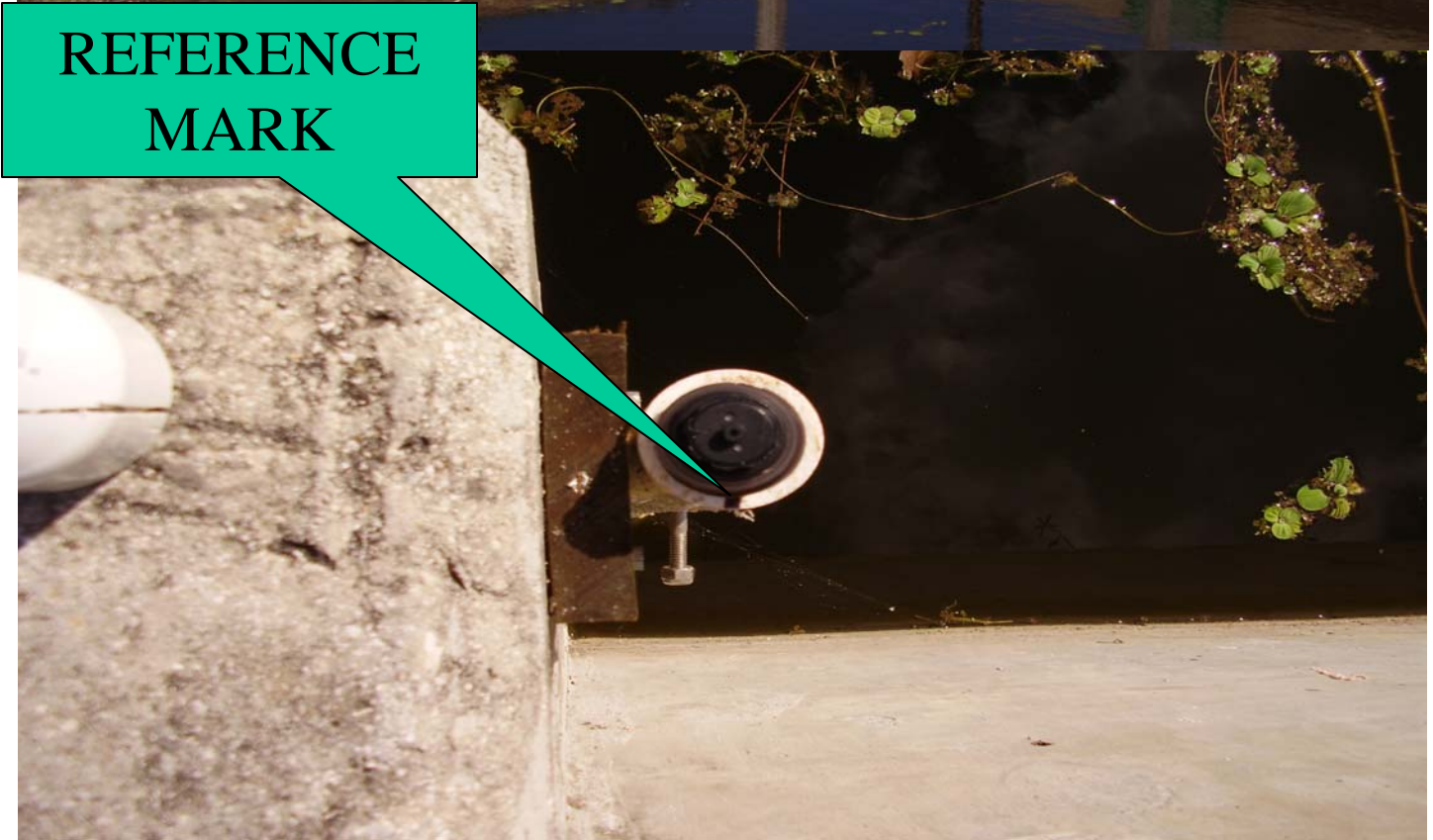
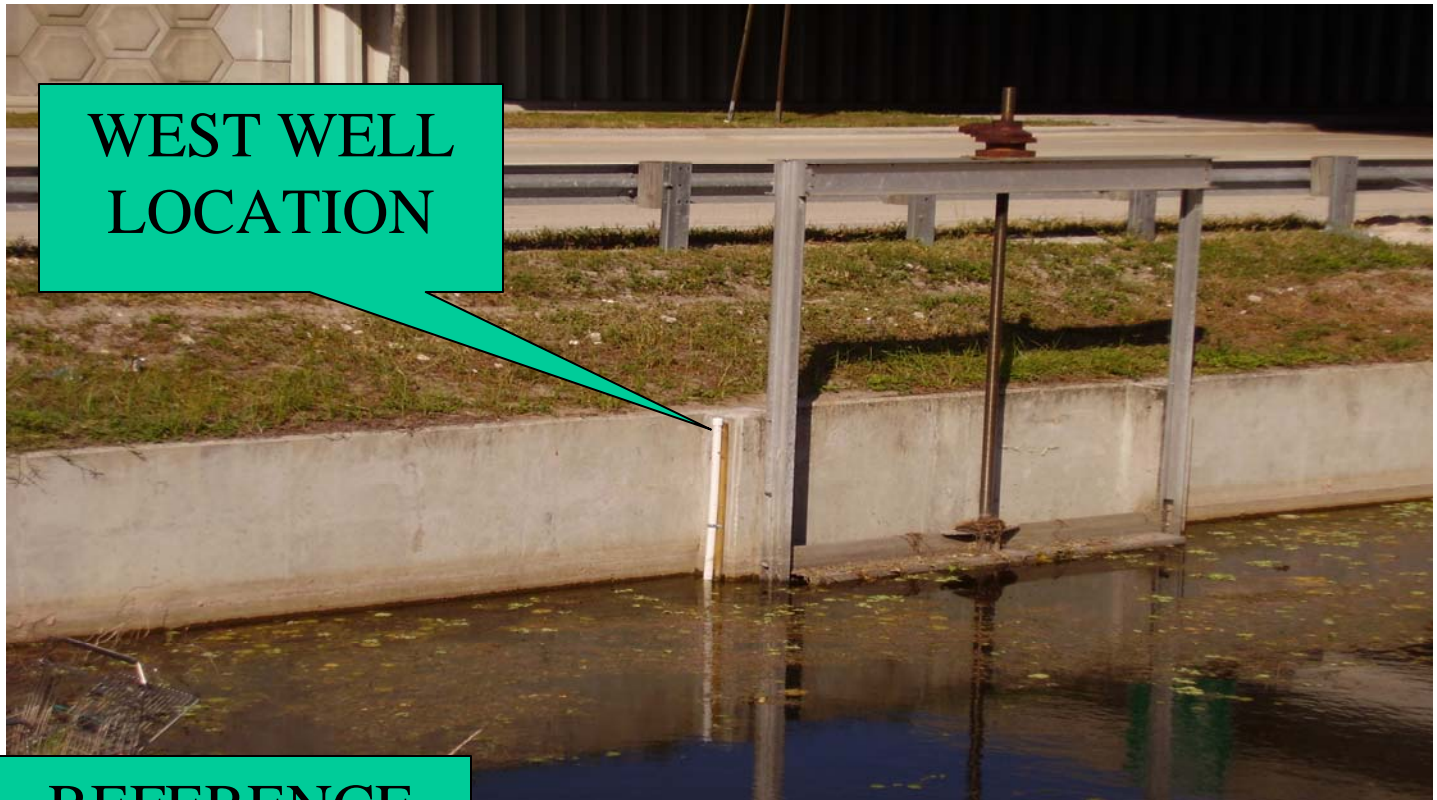
| BM MALAK | | Elevation: | NAVD 1988 | 21.241' | NGVD 1929 | 22.661' |
|---|-------|---|------------------|----------------|------------------|----------------|
| Palm Beach County published benchmark | | | | | | |
| State/County FL/Palm Beach | | | | | | |
| USGS QUAD Greenacres City (1983) | | | | | | |
| Horiz. Order | Third | <p>The station is a Florida Department of Transportation brass disk stamped "MALAK", set on top of a parapet Wall located on the southwest corner of the concrete bridge over the E-2 Canal on Lake Worth Road, 12.6 feet E. of the W. end of the guardrail, 8.3 feet S. of the N. edge of the sidewalk on the S. side of the bridge numbered 930456.</p> | | | | |
| Class | None | | | | | |
|  | | | | | | |
|  | | | | | | |

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PROJECT RESULTS

| West Piezometer Well: | East Piezometer Well: |
|---|---|
| <p>Reference mark: <u>Found marker mark on north side of PVC pipe.</u></p> <p>New Reference: Mark El. <u>17.05'</u> (NAVD 88) Mark El. <u>18.47'</u> (NGVD 29)</p> <p>Bottom elevation at well site: <u>6.4'</u> (NAVD 88) <u>7.8'</u> (NGVD 29)</p> | <p>Reference mark: <u>Found marker mark on north side of PVC pipe.</u></p> <p>New Reference: Mark El. <u>17.03'</u> (NAVD 88) Mark El. <u>18.45'</u> (NGVD 29)</p> <p>Bottom elevation at well site: <u>6.4'</u> (NAVD 88) <u>7.8'</u> (NGVD 29)</p> |

E-2 Lake Worth Road Well



10/24/06

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West Piezometer Well

E-2 Lake Worth Road Well

EAST WELL
LOCATION



REFERENCE
MARK



10/24/06

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East Piezometer Well

E-2 Lake Worth Road Well

BENCHMARK
E2 WORTH 2006



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Benchmark E2 Worth 2006

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Comments:

Party Chief: D. Ferels Field Book: 1231 Page 10-12

Bench Mark: "E2 WORTH 2006" El. 18.262', Vertical Datum: NAVD1988

El. 19.682', Vertical Datum: NGVD1929

Offset: 1.42' SFWMD VALUE (subtract this value to convert to NAVD 1988)

Offset: 1.42' NGS VALUE (subtract this value to convert to NAVD 1988)

NAVD 88 - North American Vertical Datum of 1988

NGVD29 -National Geodetic Vertical Datum of 1929

NAD 83-99 (Horizontal Datum) North American Datum

NGS- National Geodetic Survey

SFWMD- South Florida Water Management District

PVC- Polyvinyl Chloride

SURVEYOR'S CERTIFICATION

I hereby certify that this Specific Purpose Survey meets applicable portions of the Minimum Technical Standards set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 61-G17, Florida Administrative Code. This report is prepared for the sole and specific use of the South Florida Water Management District and is not assignable.

KEITH and SCHNARS, PA.

L.B. number 1337

By:

Date of Survey
November 1, 2006

Michael M. Mossey, PSM
Professional Surveyor and Mapper
State of Florida
Certificate No. 5660