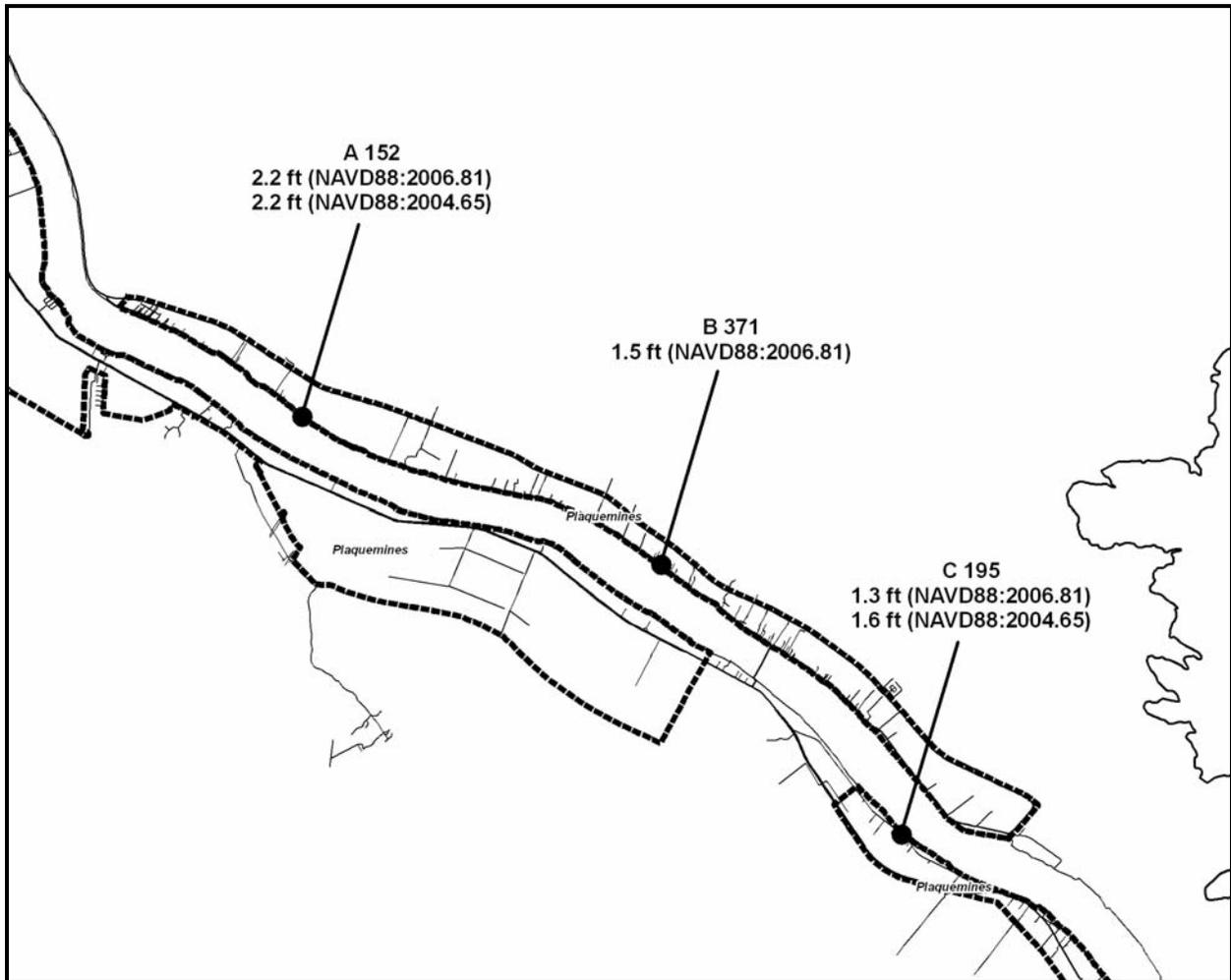


Phoenix to Bohemia Polder Vertical Datum Report



Original Date: 1 April 2010
Expiration Date: 31 December 2010

USACE, New Orleans District
CEMVN-ED-SS

Purpose:

This Polder Vertical Datum Report contains detailed information about three National Spatial Reference System (NSRS) "Permanent Bench Marks" established by the National Geodetic Survey (NGS). For USACE-MVN projects that lie within the extent of the subject polder, these "Permanent Bench Marks" are approved for use by USACE-MVN-ED as "Vertical Project Control" for all designs, plans and specifications. This report also contains information (when available) on tide gauges within or near the Polder and their associated geodetic/tidal datum relationships.

Expiration Date:

Due to regional subsidence and global sea-level rise, the published elevations of the referenced benchmarks and the published tidal datum values at the referenced gauges (as well as the geodetic/tidal datum relationships computed therefrom) are time-dependant and subject to change. Therefore, the information contained in this report shall be updated on a regular basis (every year) and/or as new information becomes available.

Section 1: Phoenix to Bohemia, Polder Bench Marks

The three National Spatial Reference System (NSRS) Permanent Bench Marks established by the National Geodetic Survey (NGS) and designated for use in this Polder are as follows:

DESIGNATION: C 195
PID: AT0458

STATE/COUNTY: LA/PLAQUEMINES
USGS QUAD: POINTE A LA HACHE (1992)
LAT/LON: N 29°32'12.40292" W 089°45'47.15630" NAD83(2007)
NORTH/EAST: N 380,461.95' E 3,780,155.30' SPC LA S (US feet)
ELEVATION: 1.3 feet NAVD88(2006.81)
ELEVATION: 1.6 feet NAVD88(2004.65)
MARKER: BENCH MARK DISK
STAMPING: C 195 1964

DESCRIPTION: THE STATION IS LOCATED IN THE COMMUNITY OF DIAMOND CENTER, ABOUT 5.5 MI NORTHWEST OF PORT SULPHUR, ON PARISH HIGHWAY RIGHT OF WAY. TO REACH THE STATION FROM THE POST OFFICE IN PORT SULPHUR GO NORTHERLY FOR 2.35 MI ON STATE HIGHWAY 23 TO PARISH HIGHWAY 11 ON THE RIGHT, TURN RIGHT AND CONTINUE NORTHERLY FOR 1.55 MI ON HIGHWAY 11 TO A DIM GRAVEL DRIVE LEFT LEADING TO A PRIVATE RESIDENCE NUMBER 24704 AND THE STATION ON THE LEFT SET IN THE TOP OF AND NEAR THE SOUTHEAST END OF THE NORTHWEST CONCRETE HEADWALL OF AN 18 INCH CULVERT PIPE RUNNING UNDERNEATH THE DRIVE. THE STATION IS LOCATED 21.8 M NORTHWEST OF A FIRE HYDRANT, 21.8 M EAST OF THE EAST CORNER OF THE FRONT PORCH OF HOUSE NUMBER 24704, 7.6 M SOUTHWEST OF THE CENTER OF THE ROAD, 2.5 M NORTHWEST OF THE CENTER OF THE DRIVE, AND ABOUT 0.1 M BELOW THE LEVEL OF THE GROUND SURFACE. NOTE--THE STAMPING HAS BEEN MARRED AND THE 5 IN THE DESIGNATION IS NO LONGER VISIBLE. NOTE--THE HEADWALL AND CULVERT ARE BENEATH THE SURFACE AND NO LONGER VISIBLE. RECOVERED AS DESCRIBED WITH THE FOLLOWING CHANGES: 7.4 M NNW OF A WATER METER, 20.3 M NNW OF A FIRE HYDRANT, AND 0.7 M NNE OF A METAL POST WITH WITNESS SIGN ATTACHED. NOTE--THE HOUSE PREVIOUSLY REFERENCED TO WAS DESTROYED DURINNG HURRICANE KATRINA.

DESIGNATION: A 152
PID: AT0407

STATE/COUNTY: LA/PLAQUEMINES
USGS QUAD: LAKE LAURIER (1992)
LAT/LON: N 29°37'28.58843" W 089°54'10.66940" NAD83(2007)
NORTH/EAST: N 411,816.09' E 3,735,283.18' SPC LA S (US feet)
ELEVATION: 2.2 feet NAVD88(2006.81)
ELEVATION: 2.2 feet NAVD88(2004.65)
MARKER: BENCH MARK DISK
STAMPING: A 152 1951

DESCRIPTION: THE STATION IS LOCATED ABOUT 2.0 MI SOUTH OF PHOENIX ON PRIVATE PROPERTY. TO REACH THE STATION FROM THE PHOENIX HIGH SCHOOL, IN PHOENIX, GO SOUTHERLY FOR 2.1 MI ON PARISH ROAD 15 TO THE STATION ON THE RIGHT JUST BEFORE REACHING A LARGE RAISED WOOD FRAME HOUSE ON THE LEFT. THE STATION IS LOCATED 16.5 M WEST OF THE WEST CORNER OF THE FRONT PORCH OF THE HOUSE, 10.6 M SOUTHEAST OF THE CENTER OF THE ROAD, 1.2 M SOUTH-SOUTHEAST OF A WOODEN UTILITY POLE WITH METER, 0.4 M SOUTHWEST OF A METAL POST, AND 0.3 M BELOW THE LEVEL OF THE ROAD.

DESIGNATION: B 371

PID: AT0740

STATE/COUNTY: LA/PLAQUEMINES

USGS QUAD: POINTE A LA HACHE (1992)

LAT/LON: N 29°35'35.59705" W 089°49'09.01927" NAD83(2007)

NORTH/EAST: N 400,745.49' E 3,762,054.37' SPC LA S (US feet)

ELEVATION: 1.5 feet NAVD88(2006.81)

MARKER: FLANGE-ENCASED ROD

STAMPING: B 371 1984

DESCRIPTION: 2.9 KM (1.8 MI) NW FROM POINTE A LA HACHE. 2.9 KM (1.8 MI) NORTHWEST ALONG OLD HIGHWAY 39 (LEVEE ROAD) FROM THE COURTHOUSE AT POINTE A LA HACHE, 11.1 METERS (36.5 FT) EAST-NORTHEAST OF THE CENTERLINE OF THE HIGHWAY, 4.6 METERS (15.0 FT) SOUTHEAST OF A DRIVEWAY AND 0.9 METER (3.0 FT) SOUTHEAST OF A POWER LINE POLE WITH A WOODEN BRACE. THE MARK IS 0.90 METERS SE FROM A WITNESS POST. THE MARK IS ABOVE LEVEL WITH HIGHWAY. MARK RECOVERED NEEDING MAINTENANCE. ROD LEANING TO EAST WAS STRAIGHTENED. NEW PVC PIPE AND NGS LOGO CAP WERE INSTALLED SURROUNDED BY CONCRETE COLLAR INSIDE 5-GAL BUCKET USED AS FORM.

Use of the above benchmarks for all USACE MVN funded survey field work and in all plans and specifications shall be in accordance with: USACE MVN Engineering Division Datum Policy Memo #3, "Requirements for Use of Benchmarks for USACE Projects," dated March 23, 2009; the USACE New Orleans District Guide for Minimum Survey Standards for performing Topographic, Hydrographic, and Static GPS Control Surveys, Edition 2, dated September 2009 (ref: <http://www.mvn.usace.army.mil/ed/edss/surveyingguidelines.asp>); and a Survey Plan approved by the MVN District Datum Coordinator.

**Section 2: Phoenix to Bohemia, Polder Tide Gauge Network
(Complete for each tide gauge in Network)**

The Local Tidal Datum LMSL/MLLW/MHHW (_____ tidal datum epoch) has been determined at USACE/USGS/NOAA gauge _____ on _____ through a comparison of short-term data collected at this station with simultaneously observed data collected at the long-term NOAA tide gauge station _____ located _____. Documentation of the Local Tidal Datum determinations at this tide gauge stations may be found at _____.

The NAVD88:2004.65 elevation of the “gauge zero” of the above described gauge was determined on _____ with respect to permanent benchmarks _____, _____, _____. This gauge was last inspected on _____. Inspection level notes may be found in Survey Section field book _____, pages _____. The full gauge inspection reports may be found at _____.

Various geodetic datum/tidal datum relationships (e.g., the NAVD88:2004.65 and NAVD88:2006.81 elevation of LMSL) at each of the above gauges may be found in the table below.

Summary Tabulation of Geodetic/Tidal Datum Relationships

Gauge ID	Agency	Tidal Datums with respect to Gauge Zero or Station Datum (in feet)			National Tidal Datum Epoch	Geodetic Elev. of Gauge Zero	Geodetic Elevation of Tidal Datums (in feet)			Reference: PBM/TBM, Geodetic Datum/Epoch
		LMSL	MLLW	MHHW			LMSL	MLLW	MHHW	

Section 3: Phoenix to Bohemia, Polder Vertical Datum/Control Deficiencies

Local Tidal Datums at tide gauges _____ need to be determined with respect to the current tidal datum epoch (2002-2006).

The “gauge zero” elevations of tide gauges _____ need to be determined with respect to the NAVD88:2004.65/2006.81.

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