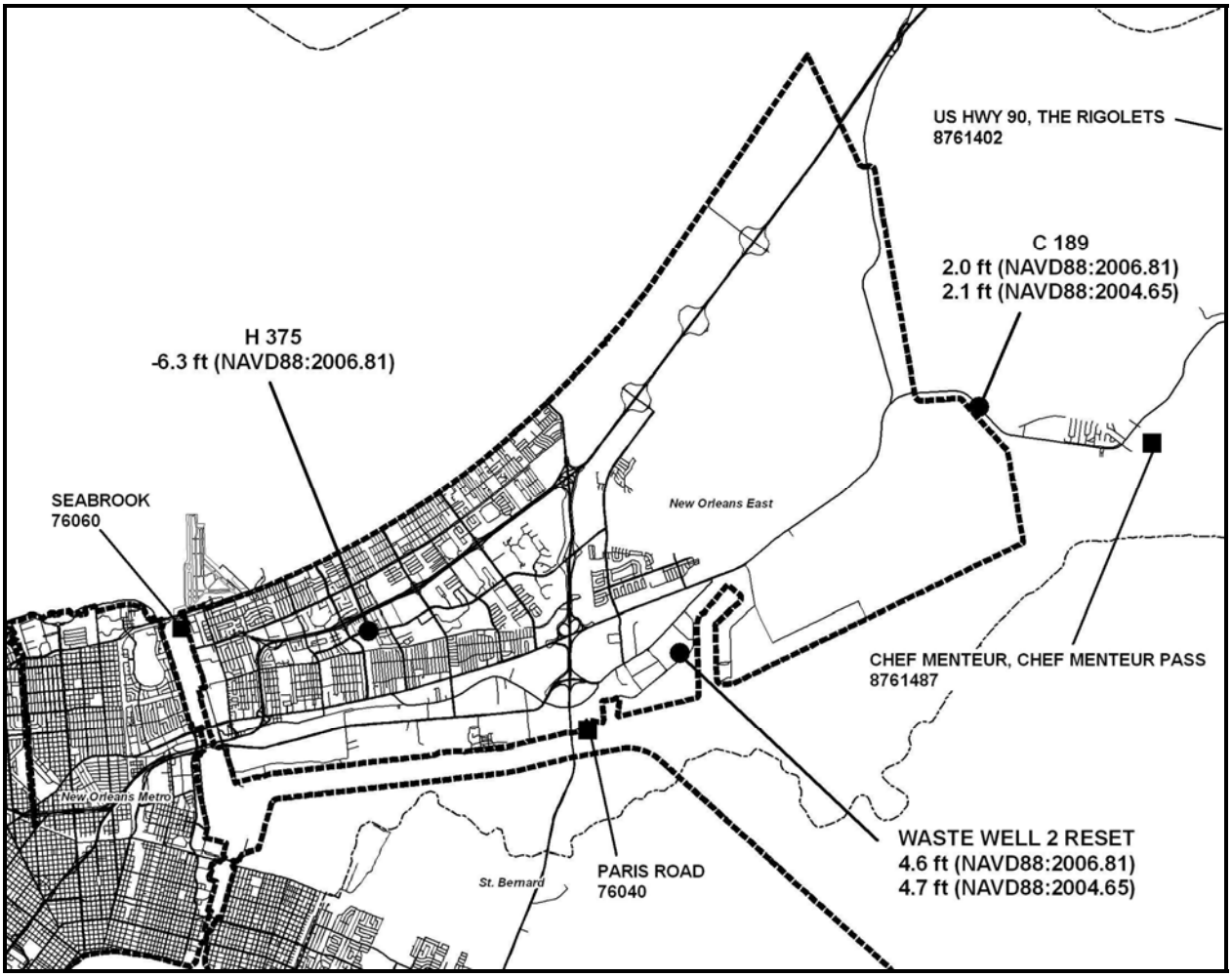
New Orleans - East
Polder Vertical Datum Report



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: New Orleans – East, 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: WASTE WELL 2 RESET
PID: BH1890

STATE/COUNTY: LA/ORLEANS
USGS QUAD: LITTLE WOODS (1994)
LAT/LON: N 30°01'22.71441" W 089°54'46.79820" NAD83(2007)
NORTH/EAST: N 556,633.58' E 3,730,299.22' SPC LA S (US feet)
ELEVATION: 4.6 feet NAVD88(2006.81)
ELEVATION: 4.7 feet NAVD88(2004.65)
MARKER: VERTICAL CONTROL DISK
STAMPING: WASTE WELL NO 2 RESET 1988
DESCRIPTION: FROM THE JUNCTION OF I 10 AND I 510 EAST OF NEW ORLEANS GO SOUTH ON I 510 (EXIT 246) FOR 2.7 MILES, USE EXIT 2C, ALMONSTER AVE. PROCEED TO STOP LIGHT AND TURN LEFT, EASTERLY AND GO 1.35 MILES TO THE VISITOR PARKING LOT FOR THE NASA MICHOUD PLANT. PROCEED INTO THE PARKING LOT AND PARK AND GO TO BLDG 350 TO GET A VISITOR PASS,VEHICLE PASS, AND CAMERA PASS. PRIOR TO COMING TO THE FACILITY A CALL SHOULD BE MADE 2 DAYS IN ADVANCE TO 504-257-1900 TO GET PERMISSION FOR ENTRY. AT THIS TIME THE POC IS CAROLYN S. MONTEITH WITH THE FACILITIES AND ENVIRONMENTAL OPERATIONS GROUP. UPON LEAVING THE VISITOR CENTER TURN RIGHT EASTERLY ON ALMONSTER AVE FOR 0.1 MILE TO THE ENTRANCE GATE TO THE FACILITY. CONTINUE ON VENUS DR FOR 0.4 MILES TO THE INTERSECTION WITH SATURN BLVD, TURN LEFT EASTERLY FOR 0.3 MILES TO A GATE ON THE LEFT, TURN LEFT NORTHERLY FO 0.075 MILES TO THE MARK ON THE RIGHT BEHIND STORAGE CONTAINER. THE MARK IS 19 FT S OF THE NE CORNER OF A COMCRETE SLAB, 6.5 FT NW OF THE NW CORNER OF THE STORAGE CONTAINER AND IN THE CENTER OF A GRASSY AREA 6 FT ON A SIDE WITHIN THE CONCRETE PAD.THE MARK IS IN TOP OF A WELL CASING PROJECTING 18INCHES AND IS 2 FT IN DIAMTER.IT IS IN THE CENTER ON TOP OF A STEEL PLATE. THE WELL IS 6600 FT DEEP FILLED WITH CONCRETE.

DESIGNATION: H 375
PID: BH1821

STATE/COUNTY: LA/ORLEANS
USGS QUAD: LITTLE WOODS (1994)
LAT/LON: N 30°01'41.85879" W 089°59'14.36350" NAD83(2007)
NORTH/EAST: N 558,283.47' E 3,706,757.82' SPC LA S (US feet)
ELEVATION: -6.3 feet NAVD88(2006.81)
MARKER: FLANGE-ENCASED ROD
STAMPING: H 375 1985
DESCRIPTION: IN NEW ORLEANS, AT THE INTERSECTION OF LAKE FOREST BOULEVARD AND THE BENSON CANAL, 4.1 M (13.5 FT) SOUTH OF THE SOUTH CURB OF THE WESTBOUND LANES OF THE BOULEVARD, 2.6 M (8.5 FT) EAST OF THE EAST EDGE OF THE CANAL, 2.2 M (7.2 FT) NORTH OF THE NORTH CURB OF THE EASTBOUND LANES OF THE BOULEVARD, AND 0.1 M (0.3 FT) ABOVE THE LEVEL OF THE BOULEVARD. NOTE--ACCESS TO THE DATUM POINT IS THROUGH A 5-INCH LOGO CAP.

DESIGNATION: C 189
PID: BH1119

STATE/COUNTY: LA/ORLEANS
USGS QUAD: CHEF MENTEUR (1994)
LAT/LON: N 30°04'24.49882" W 089°50'25.90036" NAD83(2007)
NORTH/EAST: N 575,287.01' E 3,752,992.44' SPC LA S (US feet)
ELEVATION: 2.0 feet NAVD88(2006.81)
ELEVATION: 2.1 feet NAVD88(2004.65)
MARKER: BENCH MARK DISK
STAMPING: C 189 1963
DESCRIPTION: 18.0 M (59.1 FT) NORTHWEST OF A UTILITY POLE, 16.7 M (54.8 FT) NORTHEAST OF THE CENTERLINE OF HIGHWAY, 12.6 M (41.3 FT) SOUTHEAST OF A CHAINLINK FENCE CORNER, 4.3 M (14.1 FT) SOUTHWEST OF THE SOUTHWEST SIDE OF A BARGE, 0.9 M (3.0 FT) SOUTHEAST OF A GPS BOX ANCHOR, 0.4 M (1.3 FT) NORTHWEST OF A WITNESS POST, 0.3 M (1.0 FT) SOUTHWEST OF A WITNESS POST, AND 0.3 M (1.0 FT) BELOW LEVEL OF HIGHWAY. THE DISK IS ATTACHED TO A ROD AND ENCASED IN A 6 INCH (15 CM) SQUARE TILE.

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: New Orleans – East, Polder Tide Gauge Network
(Complete for each tide gauge in Network)

2.1 Current Data

2.1.1 NOAA Gauge 8761487, Chef Menteur, Chef Menteur Pass, LA

The Local Tidal Datums (LMSL, MLLW, MHHW) for the 2001-2005 National Tidal Datum Epoch (NTDE) have been determined at NOAA Gauge 8761487, Chef Menteur, Chef Menteur Pass, LA. Documentation of the Local Tidal Datum determinations at this tide gauge station may be obtained from http://www.co-ops.nos.noaa.gov/. Note that this gauge is outside of the Polder boundary.

The NAVD88:2004.65 geodetic elevation of Local Mean Sea Level (LMSL:2001-2005 NTDE) at the above described gauge was determined to be **0.34 feet** as per tie to NGS Station "E 3145" (PID BH1133). Documentation of this geodetic/tidal datum relationship may be found in the IPET Study (Volume II - Geodetic Vertical and Water Level Datums) dated 26 March 2007.

2.1.2 NOAA Gauge 8761402, US Highway 90, The Rigolets, LA

The Local Tidal Datums (LMSL, MLLW, MHHW) for the 2001-2005 National Tidal Datum Epoch (NTDE) have been determined at NOAA Gauge 8761402, US Highway 90, The Rigolets, LA. Documentation of the Local Tidal Datum determinations at this tide gauge station may be obtained from http://www.co-ops.nos.noaa.gov/. Note that this gauge is outside of the Polder boundary.

The NAVD88:2004.65 geodetic elevation of Local Mean Sea Level (LMSL:2001-2005 NTDE) at the above described gauge was determined to be **0.46 feet** as per tie to NGS Station "PIKE RM 3" (PID BH1160). Documentation of this geodetic/tidal datum relationship may be found in the IPET Study (Volume II - Geodetic Vertical and Water Level Datums) dated 26 March 2007.

2.1.3 USACE Gauge 76040, Paris Road

The Local Tidal Datums (LMSL, MLLW, MHHW) for the 2001-2005 National Tidal Datum Epoch (NTDE) have been determined at USACE Gauge 76040, Paris Road. Documentation of the Local Tidal Datum determinations at this tide gauge station may be obtained from NOAA.

The NAVD88:2004.65 geodetic elevation of Local Mean Sea Level (LMSL:2001-2005 NTDE) at the above described gauge was determined to be **0.35 feet** as per tie to USACE Station "TBM BOLT". Documentation of this geodetic/tidal datum relationship may be found in the IPET Study (Volume II - Geodetic Vertical and Water Level Datums) dated 26 March 2007.

2.1.4 USACE Gauge 76060, Seabrook

The Local Tidal Datums (LMSL, MLLW, MHHW) for the 2001-2005 National Tidal Datum Epoch (NTDE) have been determined at USACE Gauge 76060, Seabrook. Documentation of the Local Tidal Datum determinations at this tide gauge station may be obtained from NOAA.

The NAVD88:2004.65 geodetic elevation of Local Mean Sea Level (LMSL:2001-2005 NTDE) at the above described gauge was determined to be **0.67 feet** as per tie to an unspecified benchmark. Documentation of this geodetic/tidal datum relationship may be found in the IPET Study (Volume II - Geodetic Vertical and Water Level Datums) dated 26 March 2007.

2.2 Superseded Data

2.2.1 NOAA Gauge 8761487, Chef Menteur, Chef Menteur Pass, LA

The Local Tidal Datums (LMSL, MLLW, MHHW) for the 1983-2001 National Tidal Datum Epoch (NTDE) have been determined at NOAA Gauge 8761487, Chef Menteur, Chef Menteur Pass, LA. Documentation of the Local Tidal Datum determinations at this tide gauge station may be obtained from http://www.co-ops.nos.noaa.gov/. Note that this gauge is outside of the Polder boundary.

The NAVD88:2004.65 geodetic elevation of Local Mean Sea Level (LMSL:1983-2001 NTDE) at the above described gauge was determined to be **0.15 feet** as per tie to NGS Station "E 3145" (PID BH1133). Documentation of this geodetic/tidal datum relationship may be found in the IPET Study (Volume II - Geodetic Vertical and Water Level Datums) dated 26 March 2007.

2.2.2 NOAA Gauge 8761402, US Highway 90, The Rigolets, LA

The Local Tidal Datums (LMSL, MLLW, MHHW) for the 1983-2001 National Tidal Datum Epoch (NTDE) have been determined at NOAA Gauge 8761402, US Highway 90, The Rigolets, LA. Documentation of the Local Tidal Datum determinations at this tide gauge station may be obtained from http://www.co-ops.nos.noaa.gov/. Note that this gauge is outside of the Polder boundary.

The NAVD88:2004.65 geodetic elevation of Local Mean Sea Level (LMSL:1983-2001 NTDE) at the above described gauge was determined to be **0.19 feet** as per tie to NGS Station "PIKE RM 3" (PID BH1160). Documentation of this geodetic/tidal datum relationship may be found in the IPET Study (Volume II - Geodetic Vertical and Water Level Datums) dated 26 March 2007.

2.3 Summary Tabulation of Geodetic/Tidal Datum Relationships

Gauge ID	Agency	Tidal Datums with respect to Gauge Zero or Station Datum (in feet) LMSL	MLLW	MHHW	National Tidal Datum Epoch	Geodetic Elev. of Gauge Zero	Geodetic Elevation of Tidal Datums (in feet) LMSL	MLLW	MHHW	Reference: PBM/TBM, Geodetic Datum/Epoch
8761487	NOAA				2001-2005		0.34			E 3145 NAVD88:2004.65
8761402	NOAA				2001-2005		0.46			PIKE RM 3 NAVD88:2004.65
76040	USACE				2001-2005		0.35			TBM BOLT NAVD88:2004.65
76060	USACE				2001-2005		0.67			UNSPECIFIED NAVD88:2004.65
8761487	NOAA				1983-2001		0.15			E 3145 NAVD88:2004.65
8761402	NOAA				1983-2001		0.19			PIKE RM 3 NAVD88:2004.65

Section 3: New Orleans – East, 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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