

1 National Geodetic Survey, Retrieval Date = August 3, 2007

JV6296 \*\*\*\*\*

P0770

JV6296 DESIGNATION - SUPERIOR  
JV6296 PID - JV6296  
JV6296 STATE/COUNTY- MD/HARFORD  
JV6296 USGS QUAD - HAVRE DE GRACE (1992)

JV6296 \*CURRENT SURVEY CONTROL

JV6296\* NAD 83(1991)- 39 33 04.97601(N) 076 06 09.52075(W) ADJUSTED  
JV6296\* NAVD 88 - 15.951 (meters) 52.33 (feet) ADJUSTED

JV6296 X - 1,182,797.245 (meters) COMP  
JV6296 Y - -4,780,408.129 (meters) COMP  
JV6296 Z - 4,039,692.884 (meters) COMP  
JV6296 LAPLACE CORR- -3.88 (seconds) DEFLEC99  
JV6296 ELLIP HEIGHT- -17.156 (meters) (09/18/02) GPS OBS  
JV6296 GEOID HEIGHT- -33.09 (meters) GEOID03  
JV6296 DYNAMIC HT - 15.943 (meters) 52.31 (feet) COMP  
JV6296 MODELED GRAV- 980,128.1 (mgal) NAVD 88

JV6296 HORZ ORDER - FIRST  
JV6296 VERT ORDER - FIRST CLASS II  
JV6296 ELLP ORDER - FOURTH CLASS II

JV6296.The horizontal coordinates were established by GPS observations  
JV6296.and adjusted by the National Geodetic Survey in January 1992.

JV6296.The orthometric height was determined by differential leveling  
JV6296.and adjusted by the NATIONAL GEODETIC SURVEY in June 1991.

JV6296.The X, Y, and Z were computed from the position and the ellipsoidal ht.  
JV6296

JV6296.The Laplace correction was computed from DEFLEC99 derived deflections.  
JV6296

JV6296.The ellipsoidal height was determined by GPS observations  
JV6296.and is referenced to NAD 83.

JV6296.The geoid height was determined by GEOID03.  
JV6296

JV6296.The dynamic height is computed by dividing the NAVD 88  
JV6296.geopotential number by the normal gravity value computed on the  
JV6296.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
JV6296.degrees latitude (g = 980.6199 gals.).

JV6296.The modeled gravity was interpolated from observed gravity values.  
JV6296

JV6296;  
JV6296;SPC MD - North East Units Scale Factor Converg.  
JV6296;SPC MD - 209,598.813 477,127.986 MT 1.00001931 +0 33 47.6  
JV6296;SPC MD - 687,658.77 1,565,377.40 sFT 1.00001931 +0 33 47.6  
JV6296;UTM 18 - 4,378,547.473 405,264.424 MT 0.99971050 -0 42 07.9  
JV6296!  
JV6296!SPC MD - Elev Factor x Scale Factor = Combined Factor  
JV6296!SPC MD - 1.00000269 x 1.00001931 = 1.00002200  
JV6296!UTM 18 - 1.00000269 x 0.99971050 = 0.99971319

JV6296  
 JV6296: Primary Azimuth Mark Grid Az  
 JV6296:SPC MD - SUPERIOR AZ MK 027 00 19.4  
 JV6296:UTM 18 - SUPERIOR AZ MK 028 16 14.9

JV6296

PID	Reference Object	Distance	Geod. Az ddmmss.s
JV6330	SUPERIOR AZ MK	APPROX. 0.6 KM	0273407.0

JV6296  
 SUPERSEDED SURVEY CONTROL  
 JV6296  
 JV6296 ELLIP H (01/27/92) -17.169 (m) GP( ) 4 1  
 JV6296 NAD 83(1986)- 39 33 04.96968(N) 076 06 09.52652(W) AD( ) 1  
 JV6296 NGVD 29 (06/18/91) 16.19 (m) 53.1 (f) LEVELING 3  
 JV6296

JV6296.Superseded values are not recommended for survey control.  
 JV6296.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
 JV6296.[See file dsdata.txt](#) to determine how the superseded data were derived.  
 JV6296

JV6296\_U.S. NATIONAL GRID SPATIAL ADDRESS: 18SVJ0526478547(NAD 83)

JV6296\_MARKER: DD = SURVEY DISK

JV6296\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

JV6296\_SP\_SET: CONCRETE POST

JV6296\_STAMPING: 77 SUPERIOR 1989

JV6296\_MARK LOGO: MD-025

JV6296\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET

JV6296\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

JV6296+STABILITY: SURFACE MOTION

JV6296\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JV6296+SATELLITE: SATELLITE OBSERVATIONS - February 25, 2007

JV6296

HISTORY	Date	Condition	Report By
JV6296	1989	MONUMENTED	RDA
JV6296	19971219	GOOD	DMW
JV6296	20040109	GOOD	DEWDAV
JV6296	20070225	GOOD	INDIV

JV6296

JV6296 STATION DESCRIPTION

JV6296

JV6296'DESCRIBED BY RINKER DETWILER AND ASSOCIATES 1989

JV6296'THE STATION IS LOCATED IN EASTERN HARFORD COUNTY, MARYLAND IN THE

JV6296'TOWN OF HAVRE DE GRACE ON FEDERAL HIGHWAY 40. TO REACH THE STATION

JV6296'FROM THE INTERSECTION OF STATE HIGHWAY 7 AND FEDERAL HIGHWAY 40

JV6296'PROCEED NORTHEAST ALONG HIGHWAY 40 1.3 MILES TO A MOTEL AND GAS

JV6296'STATION AND THE STATION ON THE RIGHT. THE STATION IS A STANDARD

JV6296'HARFORD COUNTY STATION DISC SET IN CONCRETE ABOUT 1 INCH BELOW GROUND

JV6296'STAMPED 77 SUPERIOR 1989. THE STATION IS 17.9 FEET SOUTHWEST FROM A

JV6296'MAIL BOX, 3.2 FEET WEST FROM THE NORTHEAST CORNER OF A CHAIN LINK

JV6296'FENCE AND 12.6 FEET SOUTHEAST FROM THE SOUTH EDGE OF PAVEMENT OF

JV6296'HIGHWAY 40.

JV6296

JV6296 STATION RECOVERY (1997)

JV6296

JV6296'RECOVERY NOTE BY DAFT MCCUNE WALKER INCORPORATED 1997 (DMM)

JV6296'RECOVERED AS DESCRIBED.

JV6296  
JV6296 STATION RECOVERY (2004)  
JV6296  
JV6296 'RECOVERY NOTE BY DEWBERRY DAVIS 2004 (KEC)  
JV6296 'RECOVERED IN GOOD CONDITION.  
JV6296  
JV6296 STATION RECOVERY (2007)  
JV6296  
JV6296 'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2007 (TRA)  
JV6296 'RECOVERED AS DESCRIBED.

***RINKER-DETWILER INFORMATION FROM HARFORD COUNTY SURVEY CONTROL BOOK  
NAD 83/86 COORDINATES - NGVD29 ELEVATIONS***

LATITUDE	039 33 04.96868	NORTH(sf)	687658.026
LONGITUDE	076 06 09.52577	EAST(sf)	1565377.016
GRID AZ.	027 00 20.0	ELEV. GPS OBS.	53.14 ft.

1 National Geodetic Survey, Retrieval Date = August 3, 2007

JV6330 \*\*\*\*\*

P0771

JV6330 DESIGNATION - SUPERIOR AZ MK
JV6330 PID - JV6330
JV6330 STATE/COUNTY- MD/HARFORD
JV6330 USGS QUAD - HAVRE DE GRACE (1992)

JV6330 \*CURRENT SURVEY CONTROL

JV6330\* NAD 83(1991)- 39 33 23.62920(N) 076 05 56.93978(W) ADJUSTED
JV6330\* NAVD 88 - 5.674 (meters) 18.62 (feet) ADJUSTED
JV6330 X - 1,182,998.910 (meters) COMP
JV6330 Y - -4,779,972.692 (meters) COMP
JV6330 Z - 4,040,129.902 (meters) COMP
JV6330 LAPLACE CORR- -3.77 (seconds) DEFLEC99
JV6330 ELLIP HEIGHT- -27.413 (meters) (09/18/02) GPS OBS
JV6330 GEOID HEIGHT- -33.09 (meters) GEOID03
JV6330 DYNAMIC HT - 5.671 (meters) 18.61 (feet) COMP
JV6330 MODELED GRAV- 980,128.2 (mgal) NAVD 88

JV6330 HORZ ORDER - FIRST
JV6330 VERT ORDER - FIRST CLASS II
JV6330 ELLP ORDER - FOURTH CLASS II

JV6330.The horizontal coordinates were established by GPS observations
and adjusted by the National Geodetic Survey in January 1992.

JV6330.The orthometric height was determined by differential leveling
and adjusted by the NATIONAL GEODETIC SURVEY in June 1991.

JV6330.The X, Y, and Z were computed from the position and the ellipsoidal ht.

JV6330.The Laplace correction was computed from DEFLEC99 derived deflections.

JV6330.The ellipsoidal height was determined by GPS observations
and is referenced to NAD 83.

JV6330.The geoid height was determined by GEOID03.

JV6330.The dynamic height is computed by dividing the NAVD 88
geopotential number by the normal gravity value computed on the
Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
degrees latitude (g = 980.6199 gals.).

JV6330.The modeled gravity was interpolated from observed gravity values.

JV6330; North East Units Scale Factor Converg.
JV6330;SPC MD - 210,177.030 477,422.671 MT 1.00002038 +0 33 55.5
JV6330;SPC MD - 689,555.81 1,566,344.21 sFT 1.00002038 +0 33 55.5
JV6330;UTM 18 - 4,379,118.864 405,571.711 MT 0.99970978 -0 42 00.1

JV6330! - Elev Factor x Scale Factor = Combined Factor
JV6330!SPC MD - 1.00000430 x 1.00002038 = 1.00002468
JV6330!UTM 18 - 1.00000430 x 0.99970978 = 0.99971408

JV6330

JV6330: Primary Azimuth Mark Grid Az  
 JV6330:SPC MD - SUPERIOR 207 00 19.5  
 JV6330:UTM 18 - SUPERIOR 208 16 15.1

JV6330

JV6330	PID	Reference Object	Distance	Geod. Az
JV6330				ddmmss.s
JV6330	JV6296	SUPERIOR	APPROX. 0.6 KM	2073415.0

JV6330

JV6330 SUPERSEDED SURVEY CONTROL

JV6330

JV6330 ELLIP H (01/27/92) -27.425 (m) GP( ) 4 1  
 JV6330 NAD 83(1986)- 39 33 23.62287(N) 076 05 56.94554(W) AD( ) 1  
 JV6330 NGVD 29 (06/18/91) 5.91 (m) 19.4 (f) LEVELING 3

JV6330

JV6330.Superseded values are not recommended for survey control.  
 JV6330.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.  
 JV6330.[See file dsdata.txt](#) to determine how the superseded data were derived.

JV6330

JV6330\_U.S. NATIONAL GRID SPATIAL ADDRESS: 18SVJ0557279119(NAD 83)

JV6330\_MARKER: DZ = AZIMUTH MARK DISK

JV6330\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

JV6330\_SP\_SET: CONCRETE POST

JV6330\_STAMPING: 77 SUPERIOR 1989

JV6330\_MARK LOGO: MD-025

JV6330\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET

JV6330\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

JV6330+STABILITY: SURFACE MOTION

JV6330\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JV6330+SATELLITE: SATELLITE OBSERVATIONS - January 09, 2004

JV6330

JV6330	HISTORY	- Date	Condition	Report By
JV6330	HISTORY	- 1989	MONUMENTED	RDA
JV6330	HISTORY	- 20040109	GOOD	DEWDAV

JV6330 HISTORY

JV6330 HISTORY

JV6330 HISTORY

JV6330

JV6330

JV6330

JV6330'DESCRIBED BY RINKER DETWILER AND ASSOCIATES 1989

JV6330'THE STATION IS LOCATED IN EASTERN HARFORD COUNTY, MARYLAND IN THE  
 JV6330'TOWN OF HAVRE DE GRACE ON FEDERAL HIGHWAY 40. TO REACH THE STATION  
 JV6330'FROM THE INTERSECTION OF STATE HIGHWAY 7 AND FEDERAL HIGHWAY 40  
 JV6330'PROCEED NORTHEAST ALONG HIGHWAY 40 1.3 MILES TO A MOTEL AND GAS  
 JV6330'STATION AND THE STATION ON THE RIGHT. TO REACH THE AZIMUTH MARK FROM  
 JV6330'THE STATION PROCEED NORTHEAST ALONG HIGHWAY 40 0.1 MILES TO ITS  
 JV6330'INTERSECTION WITH STATE HIGHWAY 155. TURN LEFT AND PROCEED NORTH  
 JV6330'ALONG HIGHWAY 155 0.4 MILES TO ITS INTERSECTION WITH SUPERIOR STREET.  
 JV6330'TURN RIGHT AND PROCEED EAST ALONG SUPERIOR STREET 0.1 MILE TO THE  
 JV6330'STATION ON THE RIGHT. THE MARK IS A STANDARD HARFORD COUNTY AZIMUTH  
 JV6330'DISC SET IN CONCRETE ABOUT 1 INCH BELOW GROUND STAMPED 77 SUPERIOR  
 JV6330'1989. THE MARK IS 13.4 FEET NORTHEAST FROM B G AND E POLE NUMBER  
 JV6330'345119, 60.0 FEET SOUTHWEST FROM A TELEPHONE MAN HOLE, 18.8 FEET  
 JV6330'SOUTH FROM THE SOUTH FACE OF CURB OF SUPERIOR STREET, ABOUT 46 YARDS  
 JV6330'EAST OF THE ROUTE 40 OVERPASS AND 2129.06 FEET FROM THE STATION.  
 JV6330

JV6330

STATION RECOVERY (2004)

JV6330

JV6330'RECOVERY NOTE BY DEWBERRY DAVIS 2004 (KEC)

JV6330'RECOVERED IN GOOD CONDITION.

***RINKER-DETWILER INFORMATION FROM HARFORD COUNTY SURVEY CONTROL BOOK  
NAD 83/86 COORDINATES - NGVD29 ELEVATIONS***

LATITUDE 039 33 23.62193

NORTH(sf) 689555.065

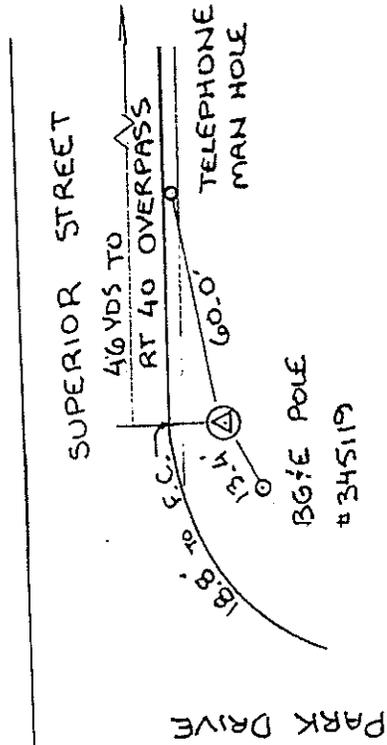
LONGITUDE 076 05 56.94469

EAST(sf) 1566343.837

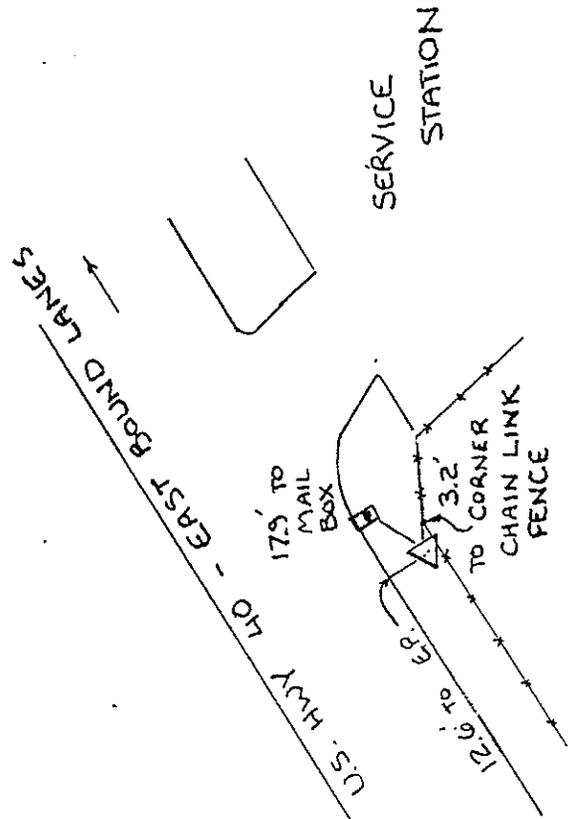
GRID AZ. 207 00 20.0

ELEV. LEVEL OBS. 19.40 ft.

77  
SUPERIOR  
1989



AZIMUTH MARK



STATION

RINKER-DETWILER & ASSOCIATES, P.C.

Engineering • Surveying • Land Planning  
Global Positioning System • Mapping

