

AX2445 HISTORY - 19990925 GOOD USPSQD
AX2445 HISTORY - 20020928 GOOD USPSQD

AX2445

AX2445 STATION DESCRIPTION

AX2445

AX2445'DESCRIBED BY NATIONAL GEODETIC SURVEY 1980

AX2445'1.1 KM (0.7 MI) NE FROM SAN MARCOS.

AX2445'0.3 KM (0.2 MI) NORTH ALONG LYNDON B JOHNSON DRIVE FROM THE COURTHOUSE

AX2445'IN SAN MARCOS, THENCE 0.8 KM (0.5 MI) NORTHEAST ALONG LOOP 82, AT THE

AX2445'HIGHWAY BRIDGE OVER THE SAN MARCOS RIVER, IN TOP OF A 0.3 BY 1.2-METER

AX2445'CONCRETE BANISTER RESTING ON THE NORTHEAST ABUTMENT OF THE BRIDGE.

AX2445'THE MARK IS 1.0 M ABOVE THE SIDEWALK.

AX2445

AX2445 STATION RECOVERY (1991)

AX2445

AX2445'RECOVERY NOTE BY US POWER SQUADRON 1991 (GGB)

AX2445'RECOVERED IN GOOD CONDITION.

AX2445

AX2445 STATION RECOVERY (1993)

AX2445

AX2445'RECOVERY NOTE BY US POWER SQUADRON 1993 (UNK)

AX2445'RECOVERED IN GOOD CONDITION.

AX2445

AX2445 STATION RECOVERY (1999)

AX2445

AX2445'RECOVERY NOTE BY US POWER SQUADRON 1999

AX2445'RECOVERED IN GOOD CONDITION.

AX2445

AX2445 STATION RECOVERY (2002)

AX2445

AX2445'RECOVERY NOTE BY US POWER SQUADRON 2002 (RWM)

AX2445'RECOVERED IN GOOD CONDITION.

*** retrieval complete.

Elapsed Time = 00:00:01

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.49

1 National Geodetic Survey, Retrieval Date = AUGUST 22, 2007

AX1261 *****

AX1261 DESIGNATION - W 789
 AX1261 PID - AX1261
 AX1261 STATE/COUNTY- TX/HAYS
 AX1261 USGS QUAD - SAN MARCOS NORTH (1995)

AX1261 *CURRENT SURVEY CONTROL

| | | | | | | |
|---------|---------------|-----------|----------|------------|--------|----------|
| AX1261* | NAD 83(1986)- | 29 53 01. | (N) | 097 56 07. | (W) | SCALED |
| AX1261* | NAVD 88 | - 175.843 | (meters) | 576.91 | (feet) | ADJUSTED |
| AX1261 | GEOID HEIGHT- | -25.79 | (meters) | | | GEOID03 |
| AX1261 | DYNAMIC HT - | 175.594 | (meters) | 576.09 | (feet) | COMP |
| AX1261 | MODELED GRAV- | 979,226.3 | (mgal) | | | NAVD 88 |

AX1261 VERT ORDER - FIRST CLASS II

AX1261.The horizontal coordinates were scaled from a topographic map and have
 AX1261.an estimated accuracy of +/- 6 seconds.

AX1261.The orthometric height was determined by differential leveling
 AX1261.and adjusted by the NATIONAL GEODETIC SURVEY in June 1991.
 AX1261.WARNING-Repeat measurements at this control monument indicate possible
 AX1261.vertical movement.

AX1261.The geoid height was determined by GEOID03.

AX1261.The dynamic height is computed by dividing the NAVD 88
 AX1261.geopotential number by the normal gravity value computed on the
 AX1261.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AX1261.degrees latitude (g = 980.6199 gals.).

AX1261.The modeled gravity was interpolated from observed gravity values.

| AX1261; | North | East | Units | Estimated Accuracy |
|-----------------|--------------|----------|-------|-------------------------|
| AX1261;SPC TXSC | - 4,227,700. | 702,840. | MT | (+/- 180 meters Scaled) |

AX1261 SUPERSEDED SURVEY CONTROL

| | | | | | |
|--------|--------------------|-------------|------------|----------|-----|
| AX1261 | NGVD 29 (??/??/92) | 175.770 (m) | 576.67 (f) | ADJ UNCH | 1 2 |
|--------|--------------------|-------------|------------|----------|-----|

AX1261.Superseded values are not recommended for survey control.
 AX1261.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AX1261.See file dsdata.txt to determine how the superseded data were derived.

AX1261_U.S. NATIONAL GRID SPATIAL ADDRESS: 14RPU028063(NAD 83)
 AX1261_MARKER: DB = BENCH MARK DISK
 AX1261_SETTING: 36 = SET IN A MASSIVE STRUCTURE
 AX1261_SP_SET: ABUTMENT
 AX1261_STAMPING: W 789 1943
 AX1261_MARK LOGO: CGS

AX1261_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

AX1261

| AX1261 | HISTORY | - Date | Condition | Report By |
|--------|---------|------------|------------|-----------|
| AX1261 | HISTORY | - 1943 | MONUMENTED | CGS |
| AX1261 | HISTORY | - 1959 | GOOD | NGS |
| AX1261 | HISTORY | - 1980 | GOOD | NGS |
| AX1261 | HISTORY | - 19910828 | POOR | USPSQD |
| AX1261 | HISTORY | - 19930808 | POOR | USPSQD |
| AX1261 | HISTORY | - 19990925 | POOR | USPSQD |
| AX1261 | HISTORY | - 20020928 | GOOD | USPSQD |

AX1261

AX1261

STATION DESCRIPTION

AX1261

AX1261'DESCRIBED BY NATIONAL GEODETIC SURVEY 1959

AX1261'IN SAN MARCOS.

AX1261'0.3 MILE NORTH ALONG THE MISSOURI PACIFIC RR. FROM THE STATION AT SAN
 AX1261'MARCOS. AT THE RR. BRIDGE OVER THE SAN MARCOS RIVER. 10 FEET
 AX1261'SOUTHEAST OF, AND ABOUT 3.5 FEET BELOW THE CENTERLINE OF THE RR., AND
 AX1261'SET HORIZONTALLY IN TOP OF THE SOUTHEAST END OF THE SOUTHWEST STONE
 AX1261'ABUTMENT OF THE BRIDGE. NOTE-- 1959 AMS HKB REPORT. THE MARK IS
 AX1261'LOCATED 10 FEET SE OF CENTERLINE OF RR TRACKS AND IS 4.3 FEET LOWER IN
 AX1261'ELEV. 95 FEET SSW OF CENTERLINE OF RR TRACKS AND IS 4.1 FEET LOWER IN
 AX1261'ELEV.

AX1261

AX1261

STATION RECOVERY (1980)

AX1261

AX1261'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1980

AX1261'IN SAN MARCOS, 0.6 KM (0.35 MI) EAST ALONG HOPKINS STREET FROM THE
 AX1261'COURTHOUSE, IN TOP OF THE SOUTHEAST END OF THE SOUTHWEST STONE
 AX1261'ABUTMENT OF A MISSOURI PACIFIC RAILROAD BRIDGE OVER THE SAN MARCOS
 AX1261'RIVER, 2.1 METERS (7.1 FT) SOUTHEAST OF THE EAST RAIL.
 AX1261'THE MARK IS 1.2 M BELOW THE TRACKS.

AX1261

AX1261

STATION RECOVERY (1991)

AX1261

AX1261'RECOVERY NOTE BY US POWER SQUADRON 1991 (GGB)

AX1261'MARK RECOVERED IN POOR CONDITION.

AX1261

AX1261

STATION RECOVERY (1993)

AX1261

AX1261'RECOVERY NOTE BY US POWER SQUADRON 1993 (UNK)

AX1261'MARK RECOVERED IN POOR CONDITION.

AX1261

AX1261

STATION RECOVERY (1999)

AX1261

AX1261'RECOVERY NOTE BY US POWER SQUADRON 1999

AX1261'MARK RECOVERED IN POOR CONDITION.

AX1261

AX1261

STATION RECOVERY (2002)

AX1261

AX1261'RECOVERY NOTE BY US POWER SQUADRON 2002 (RWM)

AX1261'RECOVERED IN GOOD CONDITION.

*** retrieval complete.

Elapsed Time = 00:00:00

AJ6952_710.txt

The NGS Data Sheet See file dsdata.txt for more information about the
 datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.35

1 National Geodetic Survey, Retrieval Date = APRIL 18, 2006

AJ6952 *****

AJ6952 DESIGNATION - SWT1
 AJ6952 PID - AJ6952
 AJ6952 STATE/COUNTY- TX/HAYS
 AJ6952 USGS QUAD - SAN MARCOS NORTH (1995)

AJ6952
 AJ6952 *CURRENT SURVEY CONTROL

| | | | | |
|---------|---------------|-------------------|--------------------|----------|
| AJ6952* | NAD 83(1993)- | 29 53 17.25042(N) | 097 56 56.84501(W) | ADJUSTED |
| AJ6952* | NAVD 88 | - 234.1 (meters) | 768. (feet) | GPS OBS |

| | | | |
|--------|---------------|--------------------------|----------|
| AJ6952 | X | - 765,404.242 (meters) | COMP |
| AJ6952 | Y | - 5,481,446.519 (meters) | COMP |
| AJ6952 | Z | 3,159,731.373 (meters) | COMP |
| AJ6952 | LAPLACE CORR- | -3.19 (seconds) | DEFLEC99 |
| AJ6952 | ELLIP HEIGHT- | 208.10 (meters) | GPS OBS |
| AJ6952 | GEOID HEIGHT- | -25.75 (meters) | GEOID03 |

AJ6952
 AJ6952 HORZ ORDER - B
 AJ6952 ELLP ORDER - FOURTH CLASS I

AJ6952 The horizontal coordinates were established by GPS observations
 AJ6952 and adjusted by the LOWER COLORADO RIVER AUTHORITY in January 2002..

AJ6952 The orthometric height was determined by GPS observations and a
 AJ6952 high-resolution geoid model.

AJ6952 The X, Y, and Z were computed from the position and the ellipsoidal ht.

AJ6952 The Laplace correction was computed from DEFLEC99 derived deflections.

AJ6952 The ellipsoidal height was determined by GPS observations
 AJ6952 and is referenced to NAD 83.

AJ6952 The geoid height was determined by GEOID03.

| | North | East | Units | Scale | Factor | Converg. |
|------------------|-----------------|--------------|-------|------------|--------|----------|
| AJ6952; SPC TXSC | - 4,228,184.535 | 701,498.160 | MT | 0.99990971 | +0 30 | 53.4 |
| AJ6952; SPC TXSC | -13,871,968.76 | 2,301,498.55 | sFT | 0.99990971 | +0 30 | 53.4 |
| AJ6952; UTM 14 | - 3,306,852.549 | 601,470.972 | MT | 0.99972703 | +0 31 | 25.3 |

| | | | | | |
|------------------|---------------|---|--------------|---|-----------------|
| AJ6952! | - Elev Factor | x | Scale Factor | = | Combined Factor |
| AJ6952! SPC TXSC | - 0.99996732 | x | 0.99990971 | = | 0.99987703 |
| AJ6952! UTM 14 | - 0.99996732 | x | 0.99972703 | = | 0.99969436 |

AJ6952
 AJ6952 SUPERSEDED SURVEY CONTROL

AJ6952 No superseded survey control is available for this station.

AJ6952 U.S. NATIONAL GRID SPATIAL ADDRESS: 14RPU0147106853(NAD 83)

AJ6952_MARKER: DD = SURVEY DISK
 AJ6952_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 AJ6952_STAMPING: SWT1 SURVEY MARKER
 AJ6952_MARK LOGO: SWTXSU
 AJ6952_PROJECTION: FLUSH
 AJ6952_MAGNETIC: N = NO MAGNETIC MATERIAL

AJ6952_710.txt

AJ6952_STABILITY: A = MOST RELIABLE AND EXPECTED. TO HOLD
AJ6952+STABILITY: POSITION/ELEVATION WELL
AJ6952_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6952+SATELLITE: SATELLITE OBSERVATIONS - September 28, 2002

AJ6952

| AJ6952 | HISTORY | - Date | Condition | Report By |
|--------|---------|------------|------------|-----------|
| AJ6952 | HISTORY | - 19991111 | MONUMENTED | SWTXSU |
| AJ6952 | HISTORY | - 20020928 | GOOD | USPSQD |

AJ6952

AJ6952

STATION DESCRIPTION

AJ6952

AJ6952'DESCRIBED BY SOUTHWEST TEXAS STATE UNIVERSITY 1999 (TLN)
AJ6952'DESCRIBED BY LON R. SHELL PROFESSOR - SOUTHWEST TEXAS STATE
AJ6952'UNIVERSITY STATION (GPS MONUMENT) IS LOCATED ON THE WEST CAMPUS
AJ6952'OF SOUTHWEST TEXAS STATE UNIVERSITY. MONUMENT IS A 2 AND 1/2 INCH
AJ6952'BRASS MONUMENT IDENTIFIED AS SWT1 SURVEY MARKER, GPS PRIMARY
AJ6952'CONTROL. SOUTHWEST TEXAS STATE UNIVERSITY, 1899 CENTENNIAL
AJ6952'MONUMENT 1999. MONUMENT IS 10 FEET DEEP CONCRETE FOOTING FLUSH
AJ6952'WITH THE SURROUNDING GROUND AND CONTAINS NO IRON OR REBAR.

AJ6952'

AJ6952'STARTING AT NW CORNER OF HAYS COUNTY COURTHOUSE ON SQUARE OF
AJ6952'SAN MARCOS GO WEST ON HOPKINS STREET FOR 0.3 MILES TO
AJ6952'INTERSECTION OF MOORE STREET. TURN RIGHT ON MOORE STREET.
AJ6952'CONTINUE ON MOORE FOR 0.73 MILES TO WHERE IT DEAD ENDS AT
AJ6952'ACADEMY STREET. TURN RIGHT ON ACADEMY, GO SOUTHEAST, FOR 0.13
AJ6952'MILES. MONUMENT IS LOCATED APPROXIMATELY 90 FT SOUTHEAST OF A
AJ6952'LARGE LIVE OAK TREE AT THE SOUTHEAST CORNER OF THE FAMILY AND
AJ6952'CONSUMER SCIENCE BUILDING. THE MONUMENT IS APPROXIMATELY 20
AJ6952'FEET NORTHEAST OF SIDEWALK AND ACROSS THE STREET FROM THE
AJ6952'LAVACA HALL (CHILD DEVELOPMENT CENTER) IN THE 900 BLOCK. MONUMENT
AJ6952'IS LOCATED SLIGHTLY OFF OF A LINE MIDWAY BETWEEN TWO BRASS
AJ6952'REFERENCE MONUMENTS.

AJ6952'

AJ6952'REFERENCE MARKER 1 IS 6.081 METERS NORTHWEST OF GPS MONUMENT.

AJ6952'REFERENCE MARKER 2 IS 6.128 METERS SOUTHEAST OF GPS MONUMENT.

AJ6952'

AJ6952'

AJ6952'

AJ6952'

AJ6

SAN MARCOS MONUMENT DESCRIPTION

DATE: MARCH 1995

| | | | |
|---|---|---------------------------|-------------------------|
| STATION NAME: GPS #06 | MONUMENTED BY: MCGRAY & MCGRAY LAND SURVEYORS, INC. | DATE: OCT. 1994 | FIELD BOOK G.P.S. |
| NAD-83 TEXAS PLANE COORDINATES, SOUTH CENTRAL ZONE | | REFERENCE DATA | |
| Y COORDINATE | 13.869.170.52 | OBJECT | DISTANCE |
| X COORDINATE | 2.304.809.06 | RM 1 | 146.0' |
| ELEVATION | 581.58 | RM 2 | 127.4' |
| | | RM 3 | 162.5' |
| | | AQUARENA TOWER GRID | 5866.33' 29°56'21" |

DESCRIPTION OF STATION MARK **ALUMINUM DISK SET IN CONCRETE**

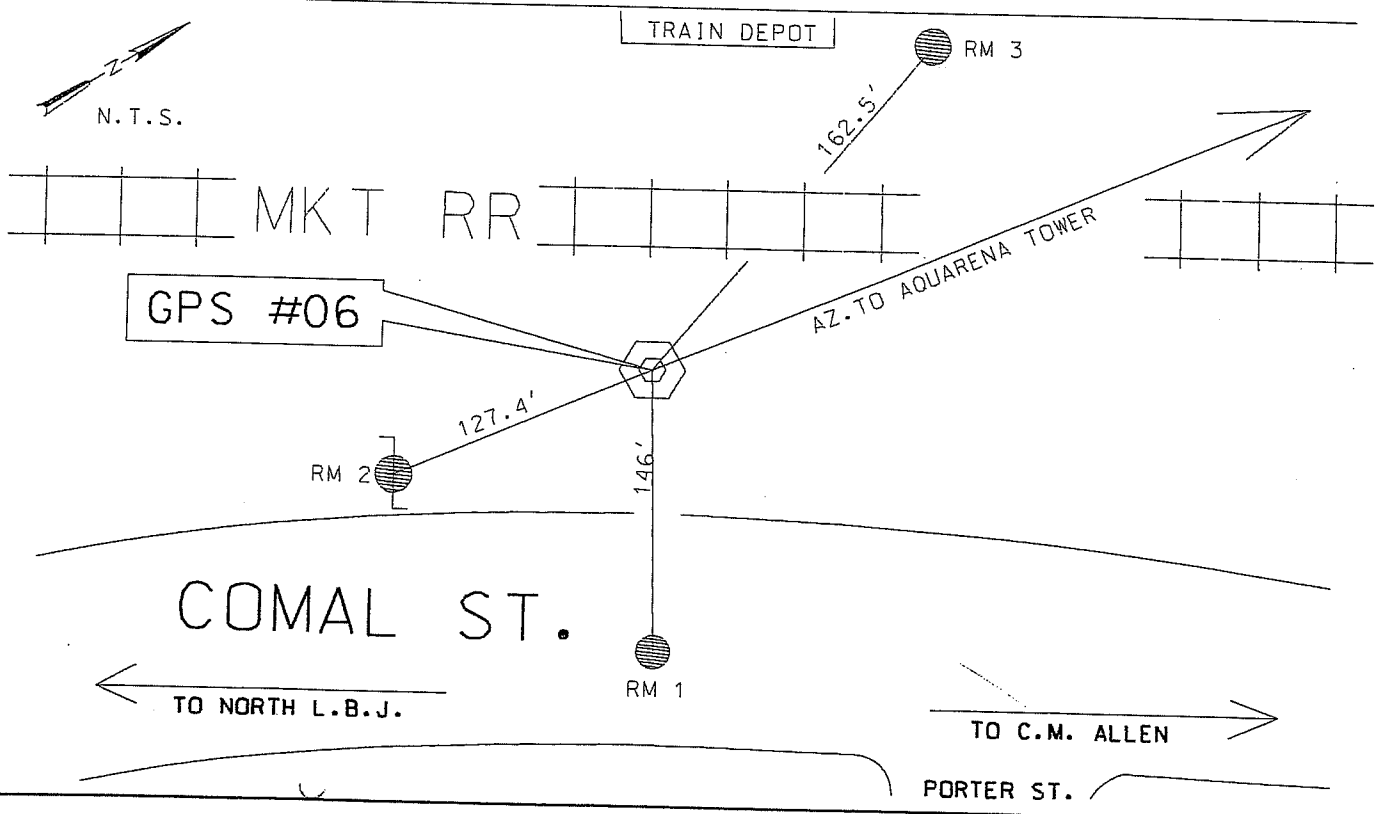
ROUTE DESCRIPTION **MONUMENT IS LOCATED APPROXIMATELY 23 FEET SOUTH OF MKT RR TRACKS ; JUST NORTHWEST OF COMAL ST.**

REFERENCE MARK * 1 **P/K NAIL W/SHINER @ CENTER OF ROAD**

REFERENCE MARK * 2 **CONCRETE NAIL W/SHINER IN POWER POLE**

REFERENCE MARK * 3 **MCI CABLE POST**

AZIMUTH MARK **AQUARENA TOWER - GRID AZIMUTH : 29°56'21"**



NOTE: All City Benchmarks are 1" rebar set in a concrete filled 6" PVC Pipe.

Bench Mark Number
and Elevation

Description

| Bench Mark Number and Elevation | Description | | |
|------------------------------------|--|-----------------|----------------|
| 35 620.83 | W corner of University and Guadalupe @ B.O.C. | GONE | JLA |
| 36 630.74 | NE corner of LBJ & Sessom Drive @ edge of sidewalk | GONE | JLA |
| 37 603.29 | On traffic island @ Ed Green and Alta Vista | USED | 12/2007 |
| 38 736.93 | At B.O.C. between 209 and 211 W. Mimosa @ Lamar Street | | |
| 39 742.82 | 30' E of LBJ & Lamar 4' from power pole @ B.O.C. | | |
| 40 786.09 | E corner of LBJ & Oak Ridge @ B.O.C. | | |
| 41 668.43 | S corner of Oak Ridge @ bottom of hill where the loop starts @ B.O.C. | | |
| 42 800.8 | S corner of Sessom & Comanche | | |
| 43 770.66 | NE corner of Schulle and Holland | | |
| 44 787.53 | SW corner of Camero Way and Sierra Drive | | |
| 45 709.66 | SW corner of Hughson and Bishop | | |
| 46 778.89 | N corner of Franklin and Perkins | | |
| 47 765.72 | Perkins and SE boundary of cemetery @ fence | | |
| 48 647.13 | NW corner of Blanco and Burleson | | |
| 49 677.81 | NW corner of Bishop and Prospect | | |
| 50 701.85 | NW corner of Bishop and Mariton @ end of headwall | | |
| 51 713.08 | SE corner of Bishop and Franklin | | |
| 52 708.15 | NW corner of Bishop and Nevada @ headwall | | |
| 53 573.62 | N corner of C.M. Allen and Cheatham @ back of drainage box | | |
| 54 584.52 | SE corner of Guadalupe and Comal Streets | | |
| 55 578.45 | SE corner of Guadalupe and Lee Streets | | |
| 56 580.54 | N corner of Mitchell and Gravel Streets | | |
| 57 603.47 | W end of Sw headwall @ Wonder World bridge over Willow Creek | | |
| 58 631.88 | NW corner of Hwy. 123 and Leah Street | | |
| 59 576.77 | W end of SW headwall & McKie and County Road (@ U.P.S. office) | | |
| 60 575.96 | NW corner of Flores and Durango Streets @ B.O.C. by drainage box | | |
| 61 577.25 | W corner of Barbara Drive and Sherbarb Street | | |
| 62 578.45 | W entrance to C.M. Allen Homes and River Road on W corner @ inside of sidewalk corner | | |
| 63 581.45 | W corner of Bugg lane and River Road @ fence | | |
| 64 589.32 | SE corner of Warden and Aquarena Springs Drive | | |
| 65 602.15 | S corner of Uhland and Post Road | | |
| 66 582.33 | 50' NW of N corner of Hopkins & IH 35 S (12" concrete monument) | | |
| 67 655.31 | 200' S of Foxtail Run & Hunter Road (Hwy. Mon. Sta. 142+18.22) | | |
| 68 627.24 | NE corner of 2208 Hunter Road (I.R.F.) | | |