



# CITY OF THE COLONY GPS CONTROL SHEET

ESTABLISHED BY: BRITTAIN & CRAWFORD, LLC.  
LAND SURVEYING & TOPOGRAPHIC MAPPING PH. 817-926-0211

MONUMENT NAME: MON. No. 14	DATE ESTABLISHED: FEBRUARY, 2009	COUNTY: DENTON	STATE: TEXAS	MAPSCO PAGE NO. 554-R
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NAD-83 (CORS 96) GEODETIC POSITION  LATITUDE N 033° 04' 51.80539" LONGITUDE W 096° 51' 22.32918"	NAD-83 (CORS 96) STATE PLANE COORDINATES NORTH CENTRAL ZONE (METERS)  NORTHING (Y) 2158041.971 EASTING (X) 753451.744
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ELLIPSOIDAL ELEVATION (METERS) 168.341  ELLIPSOIDAL HEIGHT (METERS) -26.399	NAD-83 (CORS 96) STATE PLANE COORDINATES NORTH CENTRAL ZONE (U.S. SURVEY FEET)  NORTHING (Y) 7080176.03318 EASTING (X) 2471949.59677
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AZIMUTH MARK: CHISELED "X" IN BOX CUT AT THE BACK NORTHEAST CORNER OF A 17' CURB INLET ON THE NORTH SIDE OF THE WEST BOUND SERVICE ROAD OF STATE HIGHWAY 121, 45° WEST OF CENTERLINE OF CASCADES DRIVE, LYING S63°57'15"W 1015.37' FROM MONUMENT #14

NAVD-88 ELEV: 638.909'  
(U.S. SURVEY FEET)

DESCRIPTION: 3 1/4" ALUMINUM DISK SET IN CONCRETE 5' WEST OF THE CONCRETE RIP-RAP BETWEEN THE WEST BOUND SERVICE ROAD OF STATE HIGHWAY NO. 121 AND THE WEST BOUND THROUGH LANES OF STATE HIGHWAY NO. 121 OVER BURLINGTON NORTHERN/SANTA FE RAILROAD, APPROXIMATELY 11,700' NORTHEAST OF INTERSECTION OF STATE HIGHWAY NO. 423.

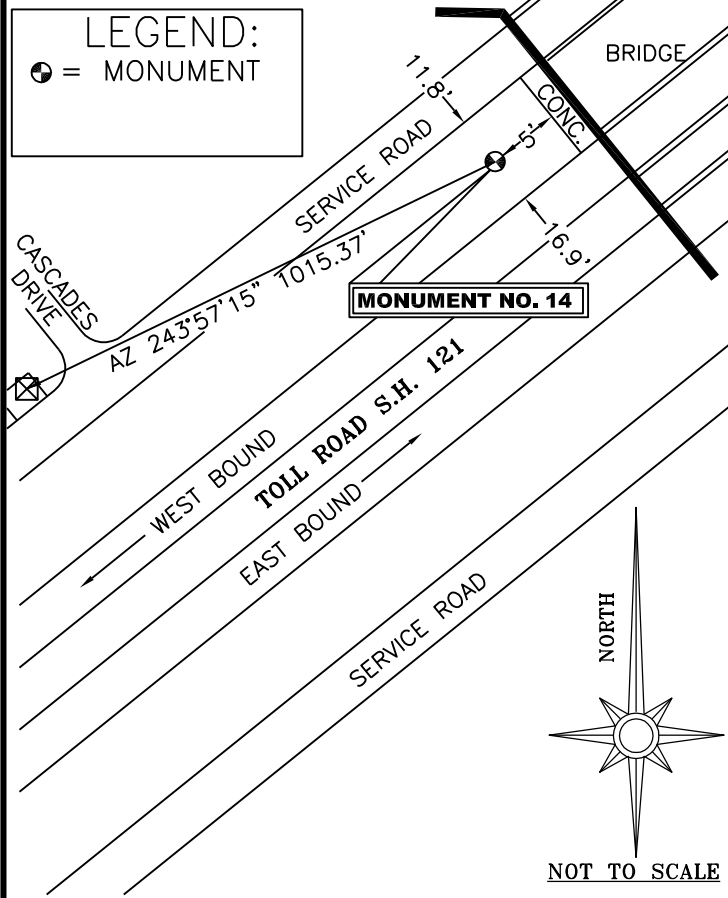


PHOTO TAKEN FROM SOUTHWEST LOOKING NORTHEASTERLY ALONG HIGHWAY 121 TOWARDS THE BRIDGE, RAILROAD TRACKS AND SPRING CREEK PARKWAY



FILE: C0140354.090 000513749

NGS OPUS SOLUTION REPORT

All computed coordinate accuracies are listed as peak-to-peak values.  
 For additional information: [www.ngs.noaa.gov/OPUS/Using\\_OPUS.html#accuracy](http://www.ngs.noaa.gov/OPUS/Using_OPUS.html#accuracy)

RINEX FILE: co14035s.090 DATE: February 06, 2009  
 TIME: 15:09:26 UTC

SOFTWARE: page5 0810.20 master30.pl 081023 START: 2009/02/04 18:18:00  
 EPHEMERIS: igr15173.eph [rapid] STOP: 2009/02/04 22:18:00  
 NAV FILE: brdc0350.09n OBS USED: 11259 / 11723 :96%  
 ANT NAME: THA800961+REC NONE # FIXED AMB: 58 / 62 :94%  
 ARP HEIGHT: 1.28321 OVERALL RMS: 0.014(m)

REF FRAME: NAD\_83(CORS96)(EPOCH:2002.0000) ITRF00 (EPOCH:2009.0955)

X:	-638637.833(m)	0.007(m)	-638638.539(m)	0.007(m)
Y:	-5311457.976(m)	0.014(m)	-5311456.553(m)	0.014(m)
Z:	3461586.412(m)	0.011(m)	3461586.242(m)	0.011(m)

LAT:	33 4 51.80539	0.014(m)	33 4 51.82430	0.014(m)
E LON:	263 8 37.67082	0.009(m)	263 8 37.63725	0.009(m)
W LON:	96 51 22.32918	0.009(m)	96 51 22.36275	0.009(m)
EL HGT:	168.341(m)	0.012(m)	167.135(m)	0.012(m)
ORTHO HGT:	194.740(m)	0.065(m)	[NAVD88 (Computed using GEOID03)]	

	UTM COORDINATES	STATE PLANE COORDINATES
	UTM (Zone 14)	SPC (4202 TXNC)
Northing (Y) [meters]	3662316.874	2158041.971
Easting (X) [meters]	700100.324	753451.744
Convergence [degrees]	1.17052712	0.89651795
Point Scale	1.00009371	0.99987275
Combined Factor	1.00006728	0.99984633

US NATIONAL GRID DESIGNATOR: 14SQB0010062317(NAD 83)

		BASE STATIONS USED		
PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DF8986	TXDE DENTON CORS ARP	N331237.612	W0970945.970	32001.4
DF4385	ZFW1 FORT WORTH WAAS 1 CORS ARP	N324950.320	W0970359.262	34026.5
DF8982	TXCO COLLIN CORS ARP	N330954.927	W0963740.571	23260.0

		NEAREST NGS PUBLISHED CONTROL POINT		
PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DN0271	Z 262	N330516.	W0965124.	749.4

This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.