City of Colleyville

GPS Control Monuments

Numbers Refer to Monument Map Book

GPS data provided by Teague, Nall, and Perkins
September 2005

0 1,000 2,000 4,000 Feet

Geographic Information Systems

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.1	DATE: SEPT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

2" BRASS DISC SET IN THE CENTER OF A CONCRETE CURB INLET ON THE EAST SIDE OF PRECINCT LINE ROAD AND 180' NORTH OF MURPHY ROAD.

MAPSCO 24-Z

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999843222

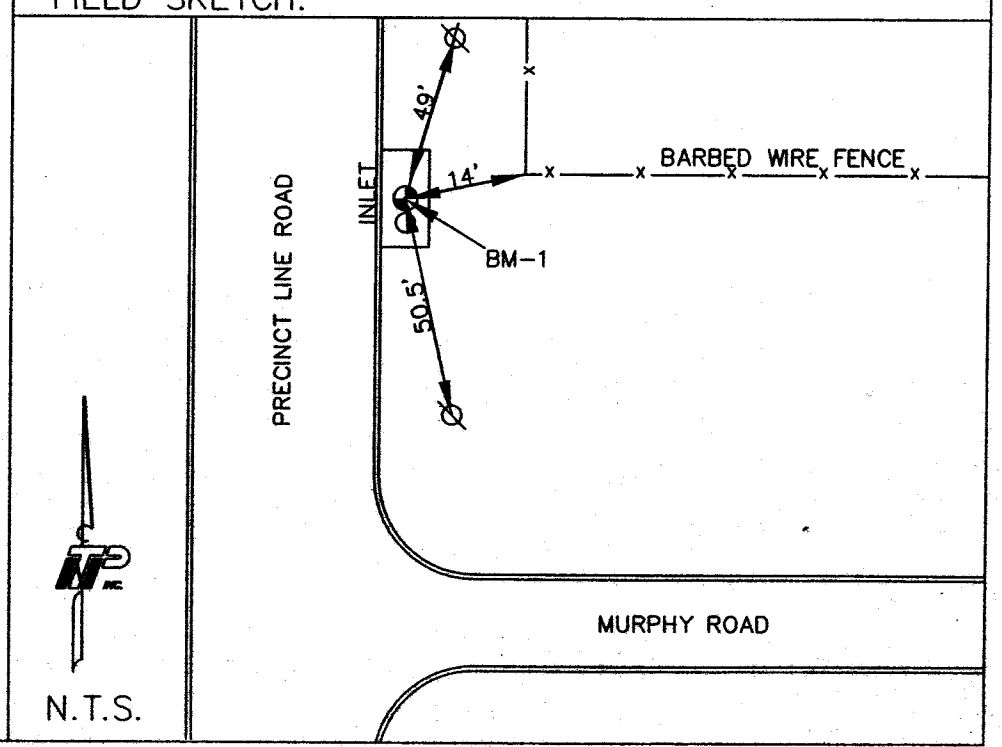
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7016042.064 E 2371536.334	00° 42'58.68105"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 31.23302"	NORTH	679.47'
	LONGITUDE	97° 11' 11.89683"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.2 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONC.

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-2: 2" BRASS CAP IN TOP OF CURB LOCATED AT THE SE CORNER INTERSECTION OF McDONWELL SCHOOL ROAD AND PRECINCT LINE ROAD. IT IS ALSO LOCATED 340'+- WEST OF LIBERTY SCHOOL ENTRANCE AND 30' SOUTH FROM NOSE OF MEDIAN.

MAPSCO 39-A

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999844247

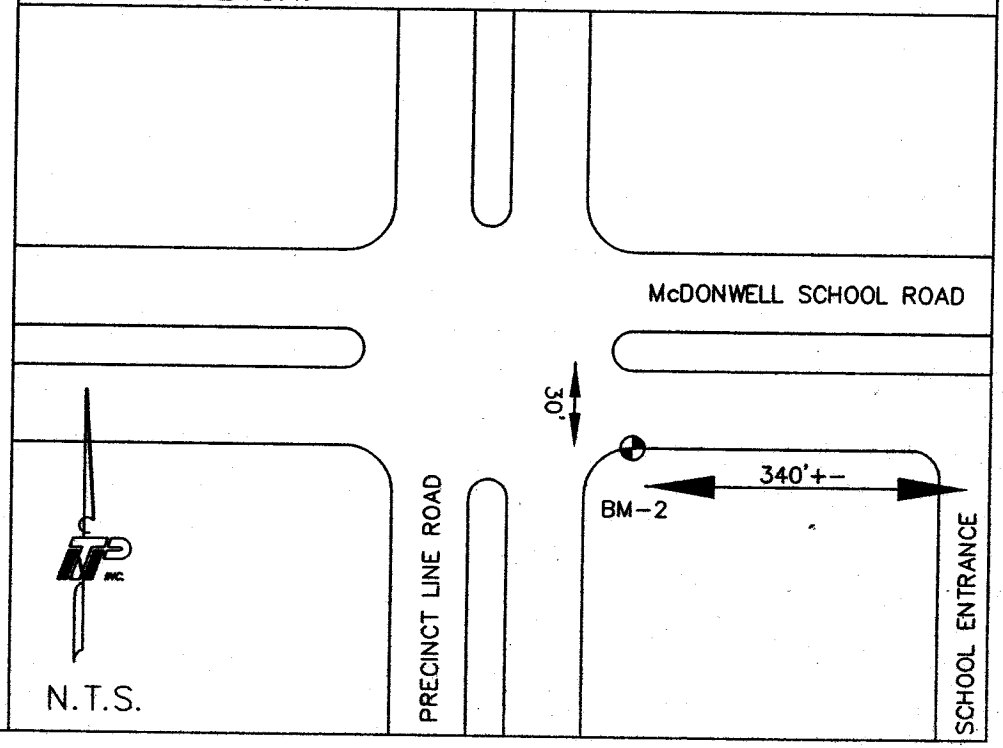
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7014245.812 E 2371752.199	00° 42' 59.91830"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 13.43321"	NORTH	662.59'
	LONGITUDE	97° 11' 09.62829"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.3 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999844670

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7012709.699 E 2371840.477	00° 43' 00.36009"

METRIC CONVERSION FACTOR: 3.2808333333

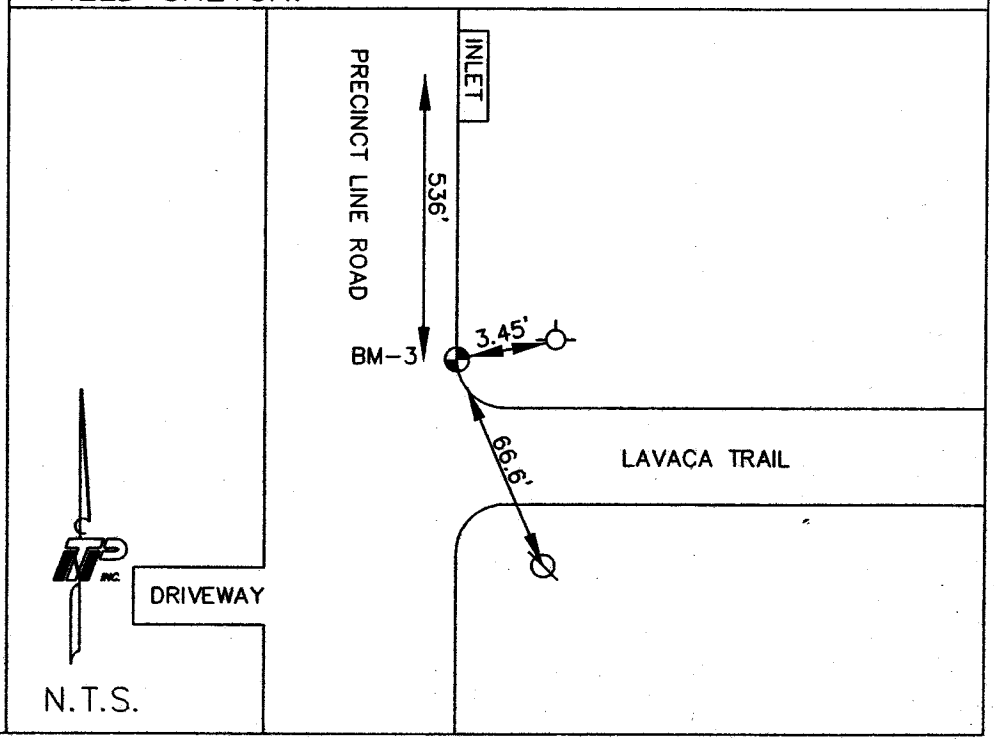
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 58.22314"	NORTH	657.75'
	LONGITUDE	97° 11' 08.81826"	WEST	

DESCRIPTION OF POINTS:

BM-3: 2"BRASS CAP SET IN THE TOP OF CURB LOCATED AT THE NE CORNER INTERSECTION OF PRECIENT LINE ROAD AND LAVACA TRAIL. IT IS ALSO LOCATED 536'+- SOUTH OF CL INLET AND 66.5' NW OF A P.P.

MAPSCO 39-A

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.4 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-4: 2"BRASS CAP LOCATED ON INLET IN EAST CURBLINE OF PRECINCT LINE ROAD. IT IS 50' SOUTH OF THE CL OF L.D. LOCKETT AND IS 197' NORTH OF THE CL OF DRIVE ENTRANCE TO TEXACO STATION

MAPSCO 39-E

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845949

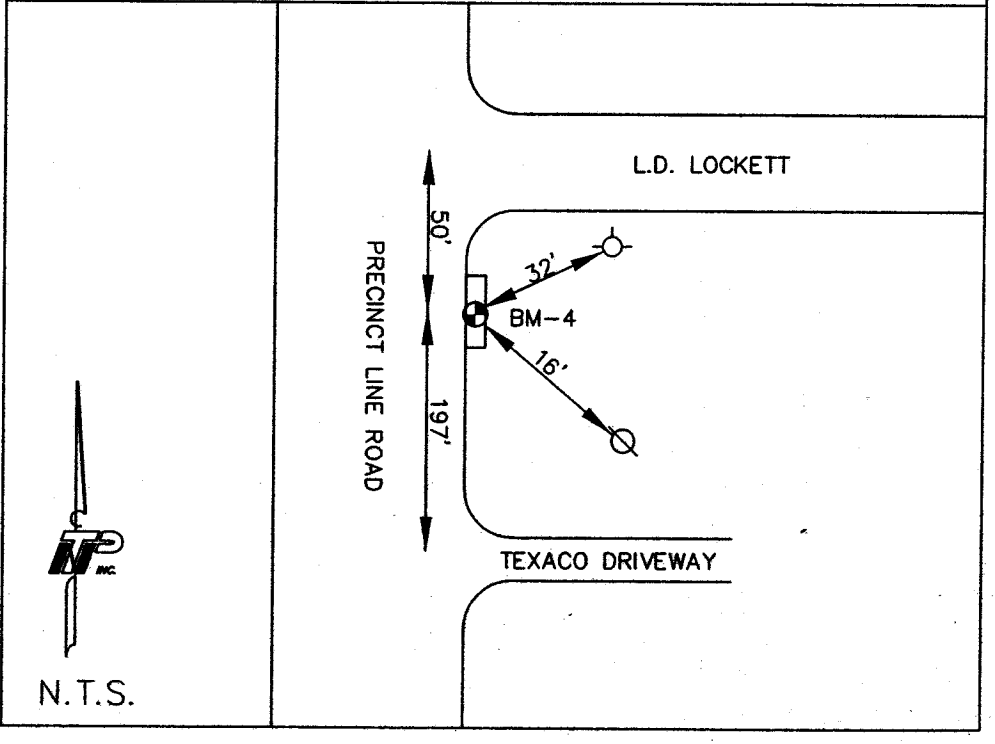
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7010145.379 E 2371876.311	00° 43' 00.38409"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 32.84589"	NORTH	637.97'
	LONGITUDE	97° 11' 08.77424"	WEST	

FIELD SKETCH:



N.T.S.

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.5	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846354

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7007949.161 E 2374540.697	00° 43' 17.24393"

METRIC CONVERSION FACTOR: 3.2808333333

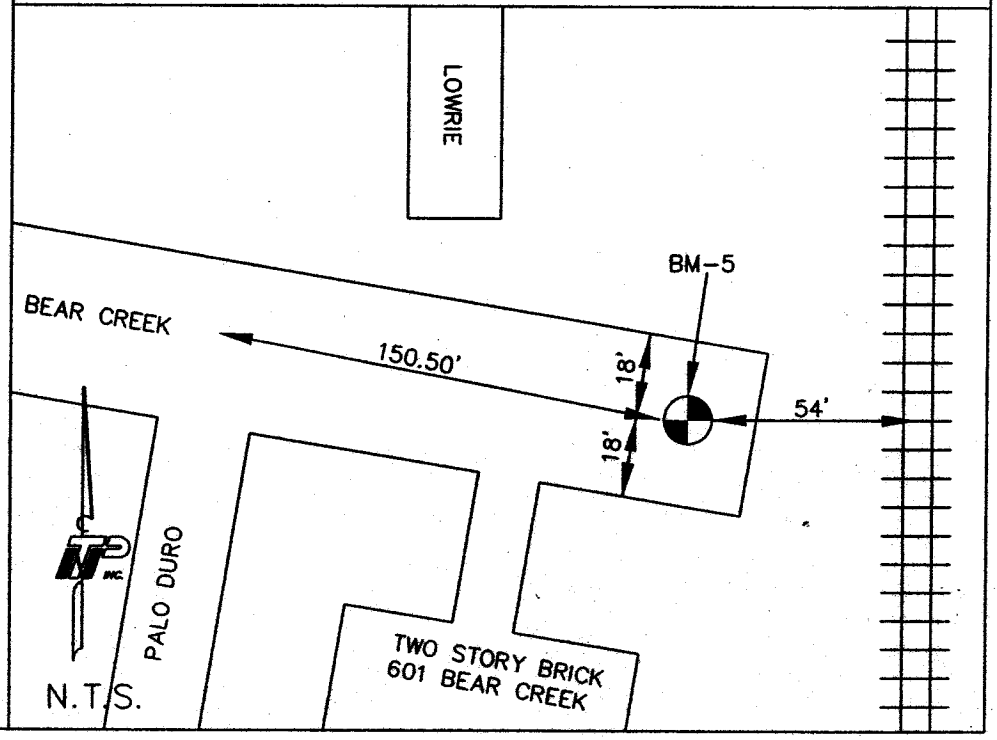
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 10.78439"	NORTH	635.78'
	LONGITUDE	97° 10' 37.85113"	WEST	

DESCRIPTION OF POINTS:

BM-5: 2"BRASS CAP LOCATED IN THE CL OF BEAR CREEK AT THE DEAD END. iT IS 54' WEST OF THE CL OF THE RR TRACKS AND 150.5' EAST OF THE CL OF PALO DURO STREET.

MAPSCO 39-J

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.6	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-6: 2"BRASS DISC ON TOP OF CURB ON SOUTH SIDE OF GLADE RD. IT IS ALSO 500' WEST OF ROCK MANOR AND SOUTH OF 220' GLADE RD.

MAPSCO 39-P

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848060

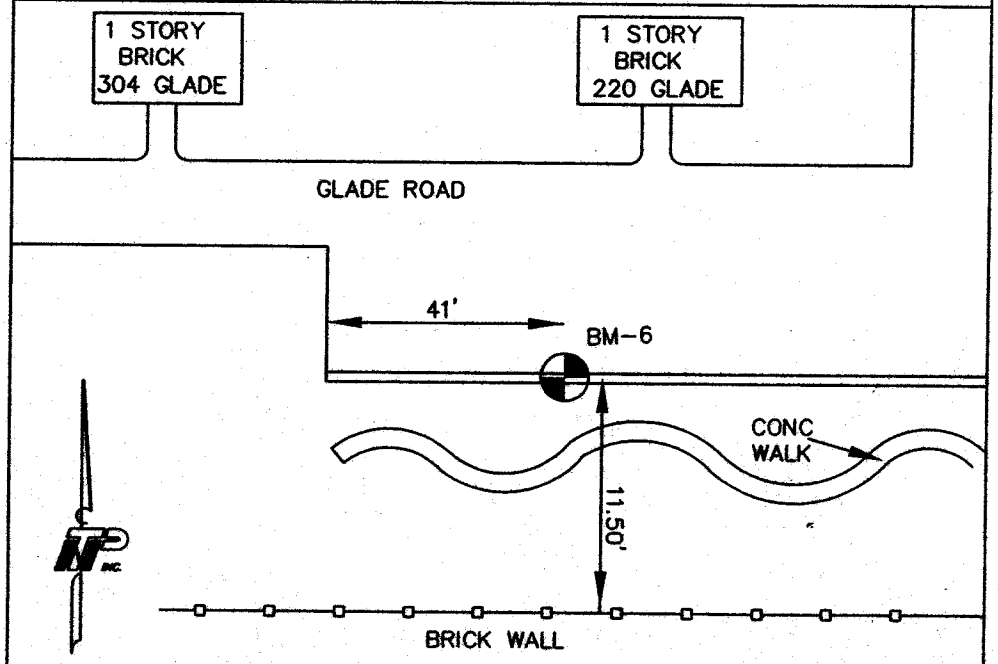
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7005919.152 E 2376409.987	00° 43' 29.04084"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 50.46491"	NORTH	606.13'
	LONGITUDE	97° 10' 16.23109"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.7 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-7: 2"BRASS CAP SET IN THE CENTER OF MILL POND CT. AND IS LOCATED 239' NORTH OF THE CL OF MILL VALLY DRIVE AND 46.5 SW OF A INLET LOCATED BETWEEN 4510 & 4511 MILL POND CT.

MAPSCO 39-P

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848580

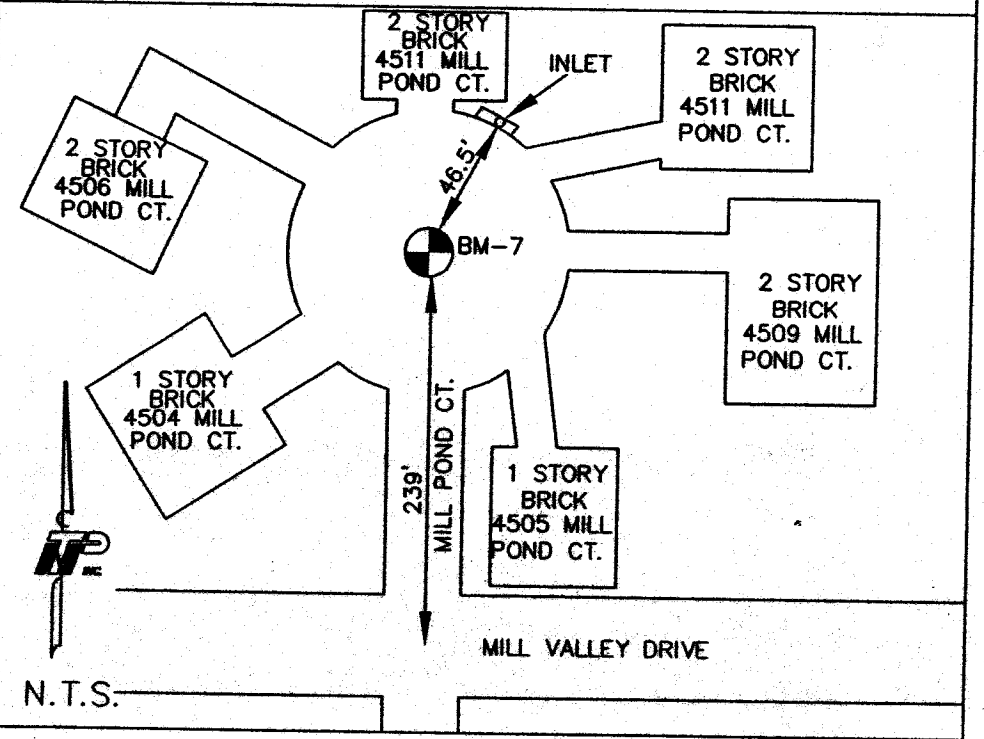
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7004208.134 E 2376158.112	00° 43' 27.29166"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 33.56666"	NORTH	600.41'
	LONGITUDE	97° 10' 19.43827"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.8	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-8: 2"BRASS DISC IN INLET LOCATED IN THE WALGREENS PARKING LOT AT THE INTERSECTION OF BROWN TRAIL AND COLLYVILLE BLVD. IT IS 137' SE OF THE WALGREEN'S SIGN AND 12' NORTH OF A LIGHT.

MAPSCO 39-Q

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846998

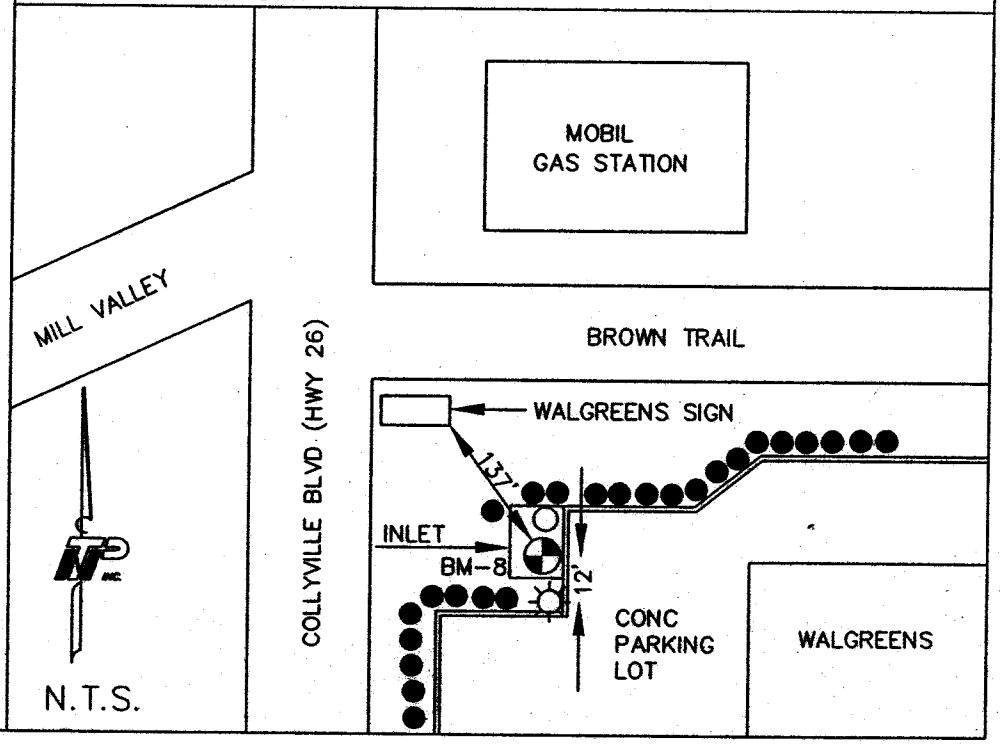
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7003678.007 E 2378977.297	00° 43' 45.27745"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 27.96745"	NORTH	596.22'
	LONGITUDE	97° 09' 46.46068"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.9	DATE: SEPT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

'DESCRIPTION OF POINTS:

BM–9: 2" BRASS DISC LOCATED IN CONC WALK AT THE SE CORNER INTERSECTION COLLEYVILLE BLVD. AND MID CITIES BLVD. IT IS 10' SE OF A LIGHT STD.,11.5 SW OF A PP AND 10.6 NW OF THE CORNER OF ASPHALT PARKING AREA.

MAPSCO 39–T

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846998

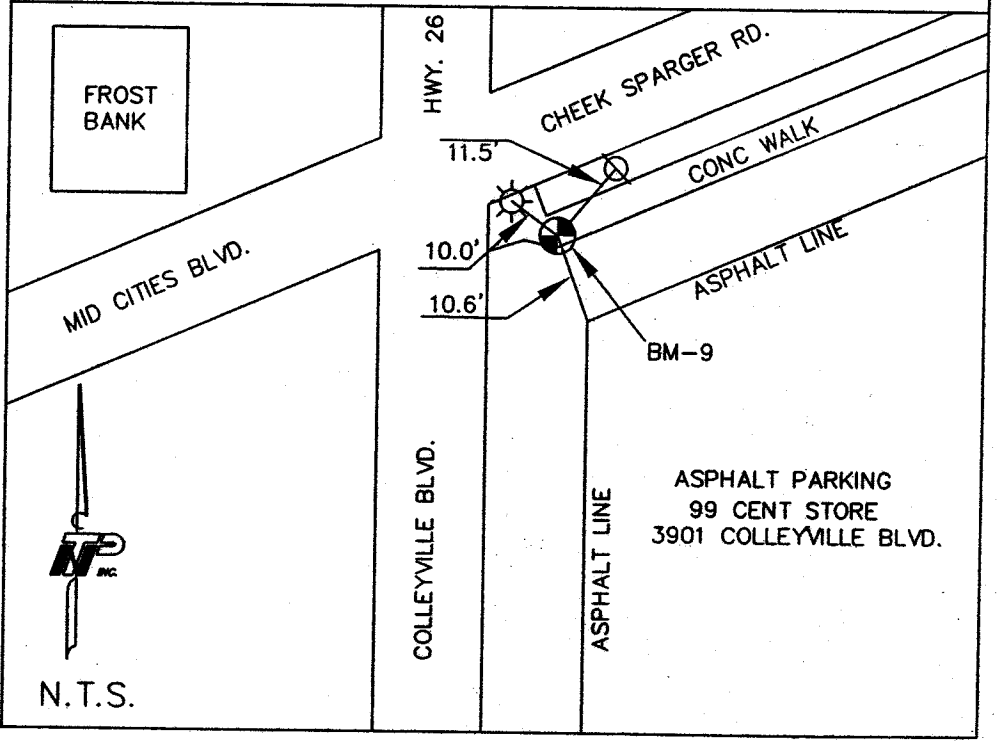
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7001084.166 E 2376319.233	00° 43' 28.06942"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 02.63620"	NORTH	643.27'
	LONGITUDE	97° 10' 18.01222"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.10 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-10: 2"BRASS CAP SET IN THE WEST BACK OF CURB OF BRENTWOOD DRIVE AT THE INTERSECTION WITH CHAPELWOOD DRIVE. IT IS ALSO 34.80' NW OF A SSMH IN THE CUL DE SAC AND 34.60' SW OF THE CL OF INTERSECTION.

MAPSCO 39-X

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846940

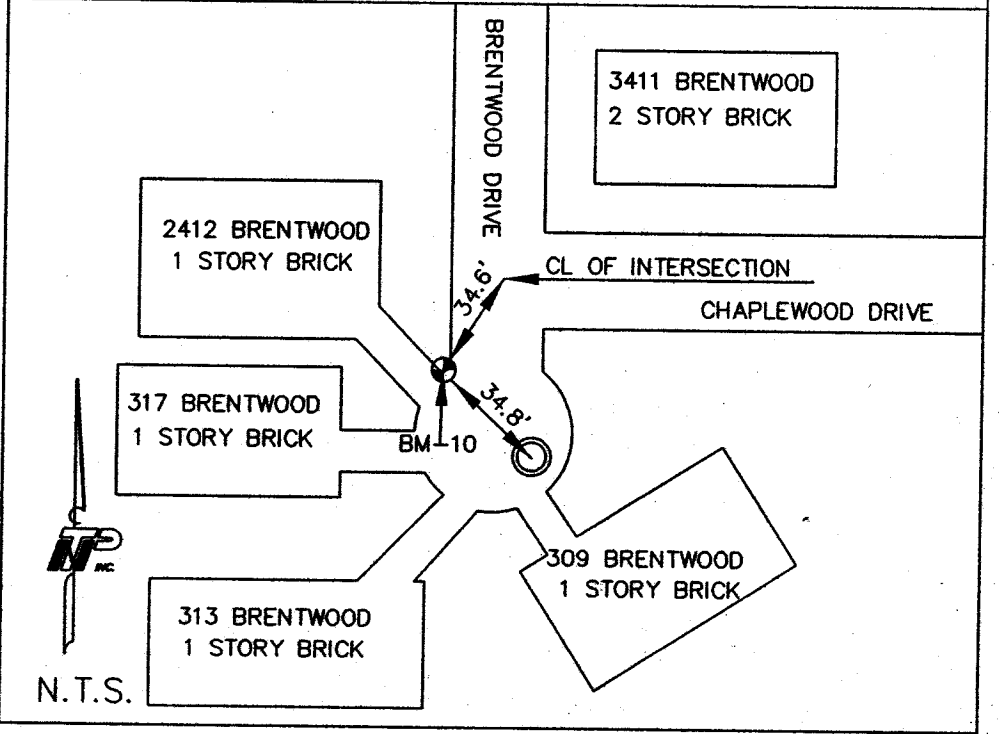
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 6998670.008 E 2376122.218	00° 43' 26.62452"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 51' 38.77377"	NORTH	652.35'
	LONGITUDE	97° 10' 20.67984"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.11	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-11: 2"BRASS DISC SET IN INLET ON WEST SIDE OF SAN BAR ST. LOCATED 251' NORTH OF CL INTERSECTION WITH QUAIL RUN AND 32' WEST OF EAST BACK OF CURB OD SAN BAR ST.

MAPSCO 39-X

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846981

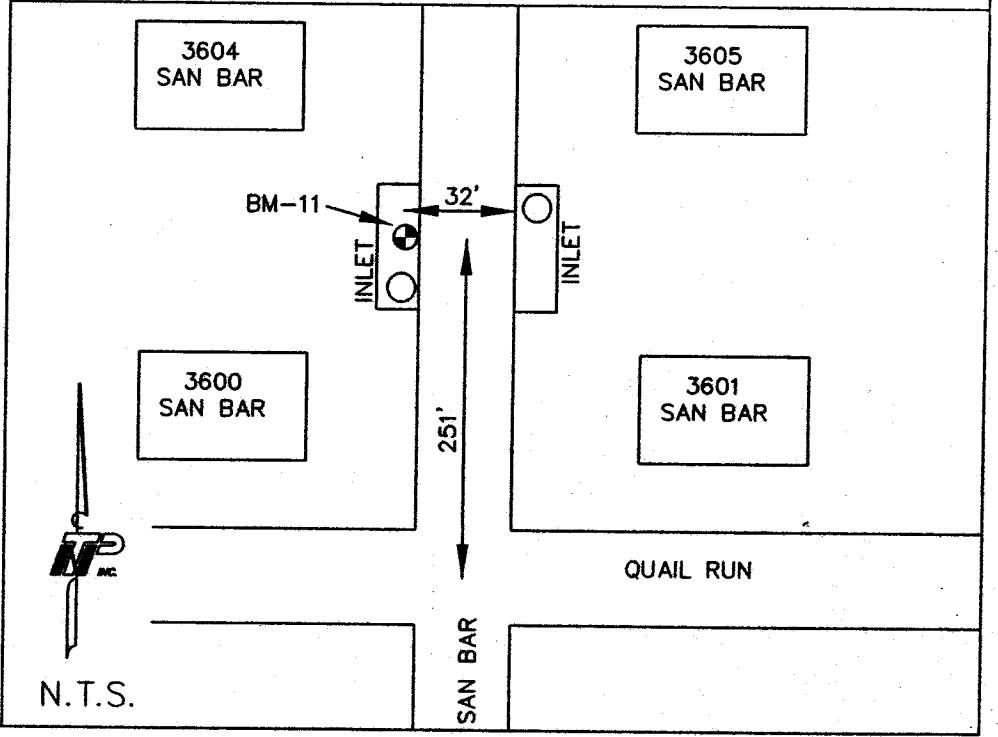
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 6999397.387 E 2377222.900	00° 43' 33.71121"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 51' 45.83306"	NORTH	649.15'
	LONGITUDE	97° 10' 07.66779"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.12	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-12: 2"BRASS DISC SET IN CL OF INLET IN NORTH ROW OF QUAIL QUEST LOCATED 79.6' WEST OF CL OF BROWN TRAIL AND IS ALSO 26.6' NORTH OF A ROCK SIGN LABELED "QUAIL CREST"

MAPSCO 39-Y

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848550

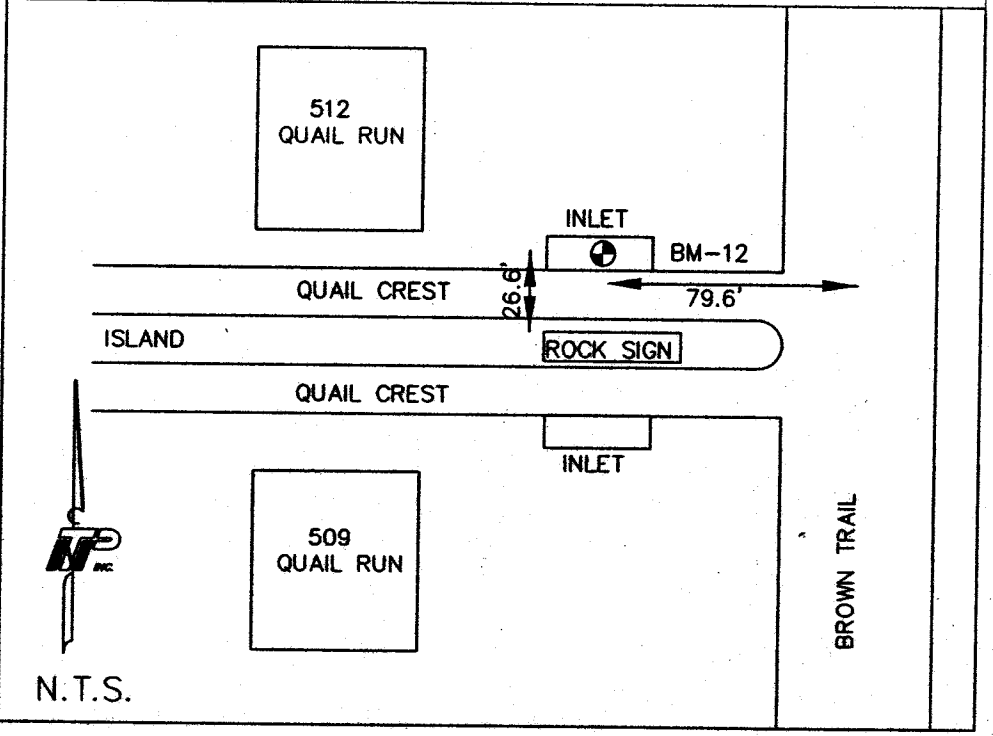
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 6998848.465 E 2379888.865	00° 43' 50.71298"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 51' 40.06635"	NORTH	618.26'
	LONGITUDE	97° 09' 36.49445"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.13 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM IS A 2" BRASS CAP AT THE NORTHWEST QUADRANT OF BROWN TRAIL ROAD AND CHEEK-SPARGER ROAD, IN THE NORTH SIDEWALK, 18.6' NORTH OF BACK OF CURB OF CHEEK-SPARGER AND 100' WEST OF BROWN TRAIL ROAD.

MAPSCO 39-U

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846913

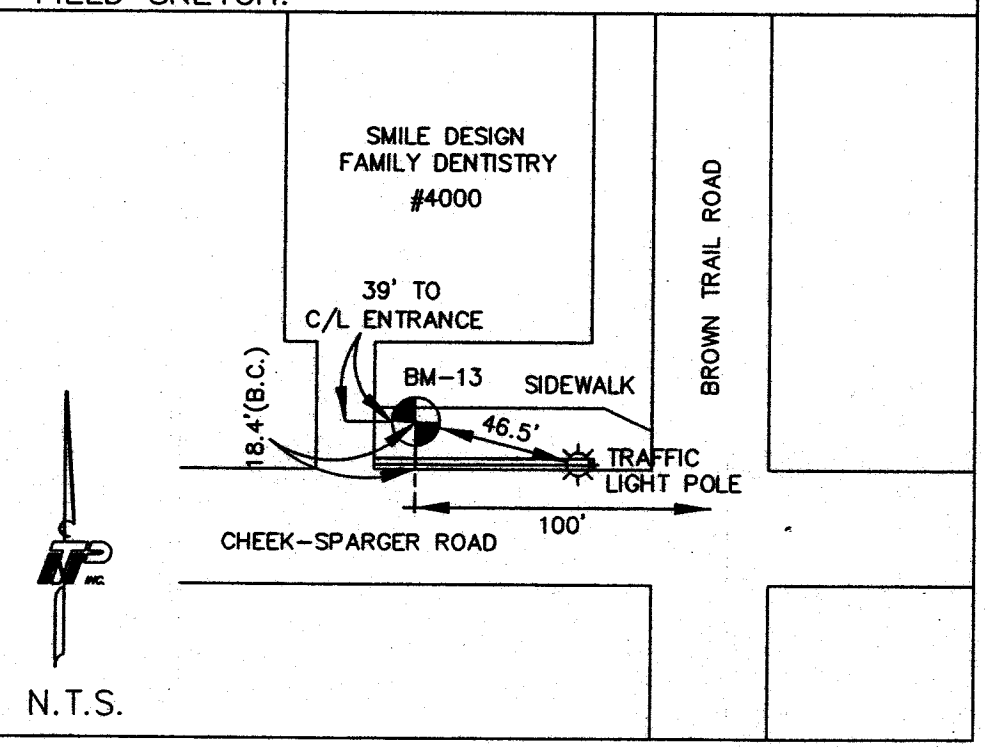
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7001489.895 E 2379811.626	00° 43' 50.43451"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 06.21188"	NORTH	643.89'
	LONGITUDE	97° 09' 37.00503"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.14 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

MONUMENT IS A 2" BRASS DISC IN A CONCRETE INLET ON THE EAST SIDE OF BEDFORD ROAD, 370' SOUTH OF THE CENTERLINE OF CHEEK-SPARGNER ROAD AND 30' WEST OF TARA VILLAGE STRIP MALL.

MAPSCO 39-V

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999849183

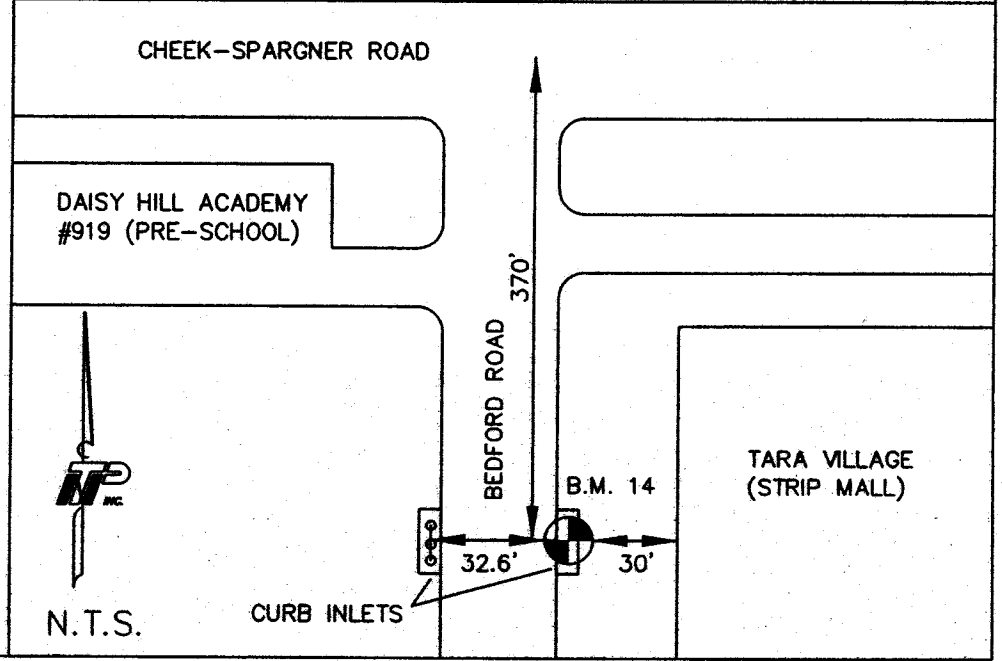
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7001129.630 E 2382378.945	00° 44' 06.82176"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 02.32224"	NORTH	597.68'
	LONGITUDE	97° 09' 06.95843"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.15 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848529

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7000973.635 E 2385221.726	00° 44' 24.98689"

METRIC CONVERSION FACTOR: 3.2808333333

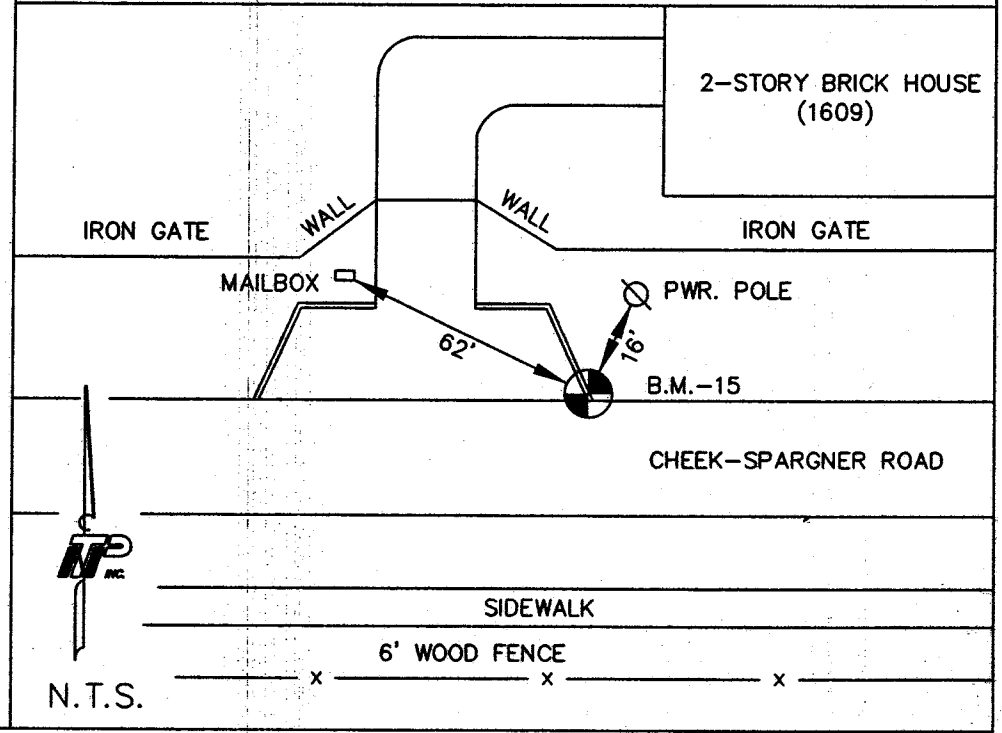
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 00.41654"	NORTH	611.97'
	LONGITUDE	97° 08' 33.65202"	WEST	

DESCRIPTION OF POINTS:

MONUMENT IS A 2" BRASS DISC IN THE NORTHEAST BACK OF CURB OF DRIVEWAY @ ADDRESS 1609 CHEEK-SPARGNER ROAD, ON NORTH SIDE OF ROAD.

MAPSCO 40-S

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.16		DATE: SEPT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

B.M. 16 IS A 2" BRASS DISC SET IN THE WEST END OF A HEADWALL ON THE NORTH SIDE OF CHEEK-SPARGNER ROAD, 24' NORTH OF CHEEK-SPARGNER ROAD AND 215.41' WEST OF THE INTERSECTION OF JACKSON STREET AND CHEEK-SPARGNER ROAD.

MAPSCO 40-T

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999850053

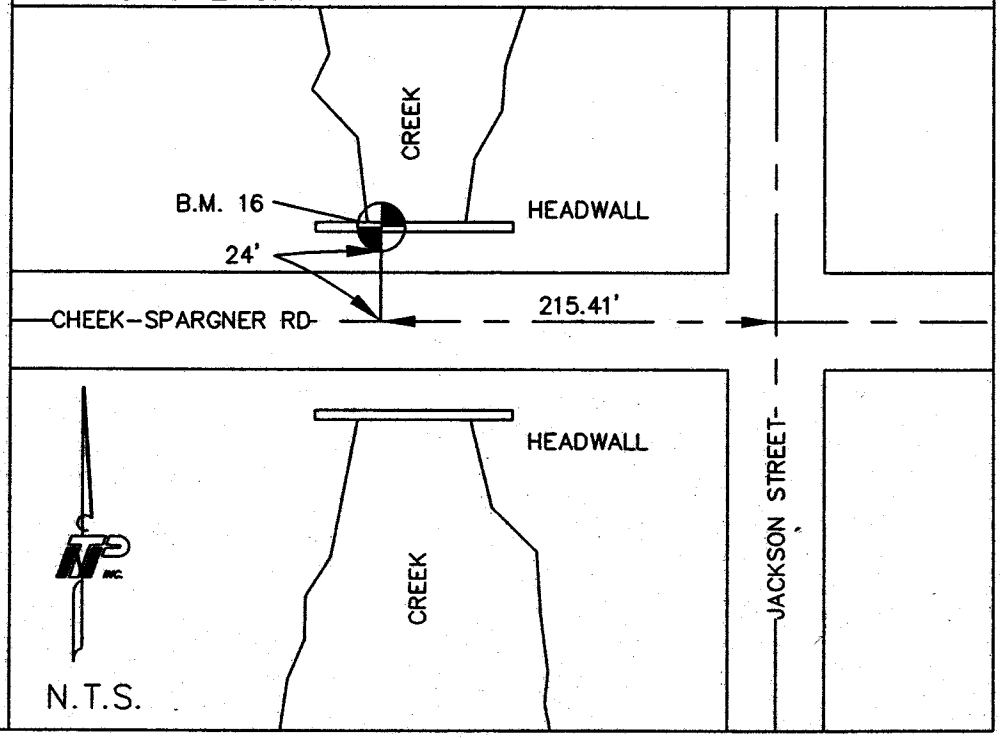
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7001007.478 E 2388490.228	00° 44' 45.88983"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 00.33190"	NORTH	580.13'
	LONGITUDE	97° 07' 55.32574"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.17 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-17 IS A 2" BRASS DISC SET IN THE NORTH END OF THE WEST CURB INLET ON GLENDALE ROAD, 68' NORTH OF THE CENTERLINE OF CHEEK-SPARGNER ROAD AND 200' SOUTH OF THE CENTERLINE OF SCARBOROUGH LANE.

MAPSCO 40-V

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848997

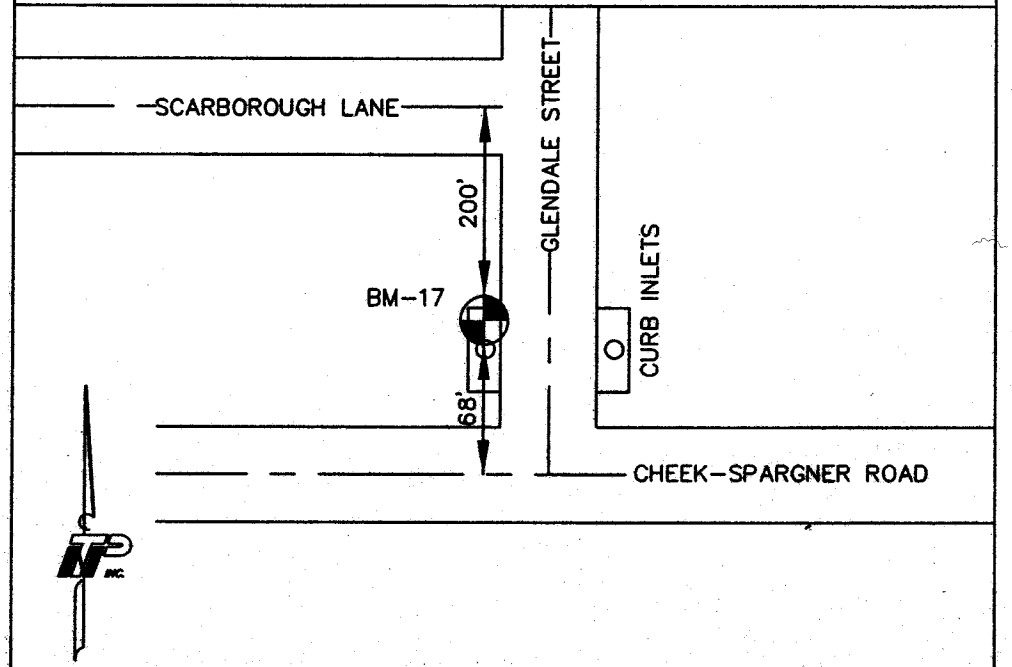
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7001069.957 E 2392156.971	00° 45' 09.34167"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 00.47557"	NORTH	602.18'
	LONGITUDE	97° 07' 12.32596"	WEST	

FIELD SKETCH:



N.T.S.

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.18 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-18 IS A 2" BRASS DISC SET IN THE SOUTH END OF A CURB INLET, EAST OF PEMBROOKE AVE. 37' NORTHWEST OF A BRICK HOUSE AT #3301. 158' NORTH OF CHEEK-SPARGNER ROAD AND 46' SOUTH OF MIDDLETON WAY.

MAPSCO 40-V

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999849906

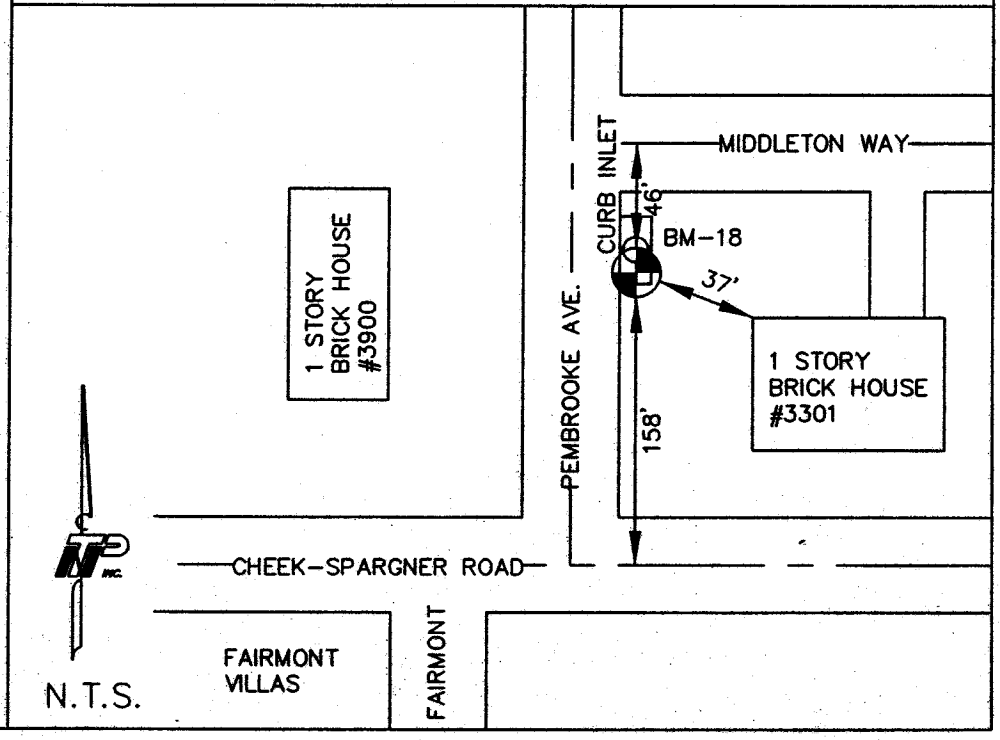
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7001173.275 E 2393682.593	00° 45' 19.10580"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 01.29921"	NORTH	582.90'
	LONGITUDE	97° 06' 54.42307"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.19	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-19 IS A 2" BRASS DISC SET IN THE NORTH CURB OF CHEEK-SPARGNER ROAD IN THE NORTHEAST QUADRANT OF CHEEK-SPARGNER ROAD AND HERITAGE ROAD. IT IS 11.2' SOUTHWEST OF THE SOUTHWEST CORNER OF A SOUTHWESTERN BELL OPTIC CABLE VAULT AND 42' NORTH OF THE NORTHWEST CORNER OF A MEDIAN CURB SOUTH OF CHEEK-SPARGNER ROAD.

MAPSCO 41-S

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999850767

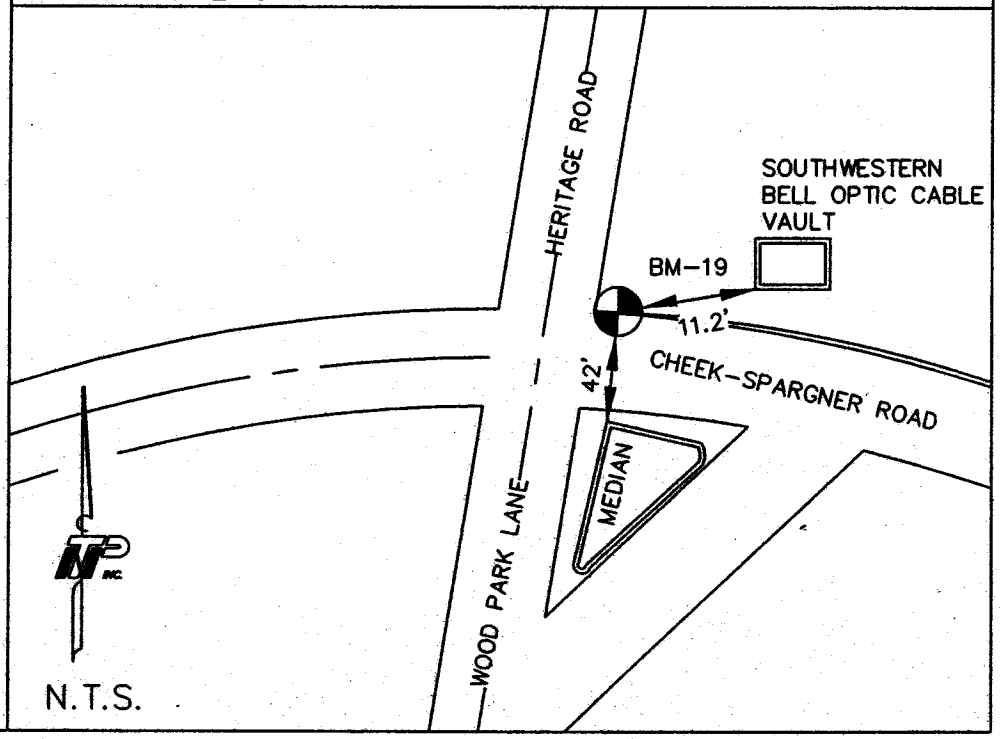
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7001045.177 E 2395579.772	00° 45' 31.22628"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 51' 59.78372"	NORTH	565.38'
	LONGITUDE	97° 06' 32.19974"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.20 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

B.M. 20 IS A 2" BRASS DISC SET IN THE SOUTHWEST CORNER OF A CONCRETE PAD IN THE SOUTHWEST QUADRANT OF GLADE ROAD AND HERITAGE ROAD. IT IS 9.0 FEET SOUTHWEST OF A TRAFFIC LIGHT POLE, 65' WEST OF THE CENTERLINE OF HERITAGE ROAD AND 42.5 FEET SOUTH OF GLADE ROAD.

MAPSCO 41-N

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999849037

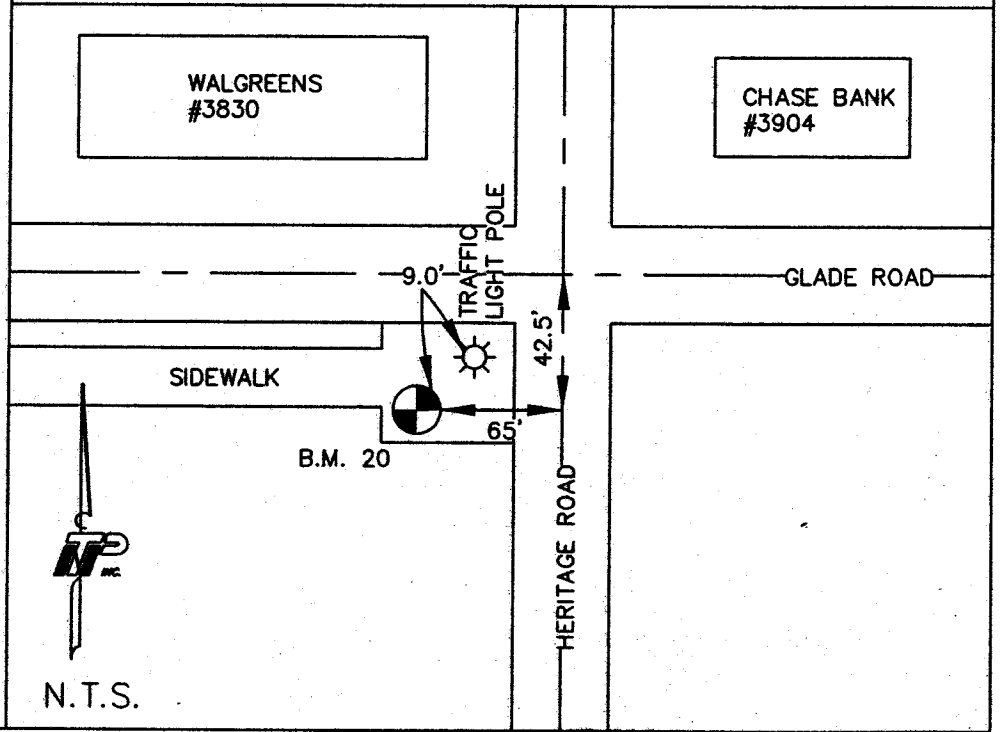
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7006498.192 E 2396465.156	00° 45' 37.35052"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 53.62235"	NORTH	584.76'
	LONGITUDE	97° 06' 20.97073"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.21 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

B.M.-21 IS A 2" BRASS DISC SET IN THE WEST END OF A TRAFFIC MEDIAN AT THE INTERSECTION OF GATEWAY DRIVE AND THE WEST SERVICE ROAD OF HIGHWAY 121. IT IS 33.4' NORTHWEST OF A FIRE HYDRANT AND 37.4' WEST OF THE CENTERLINE OF HIGHWAY 121 SERVICE ROAD.

MAPSCO 41-K

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848565

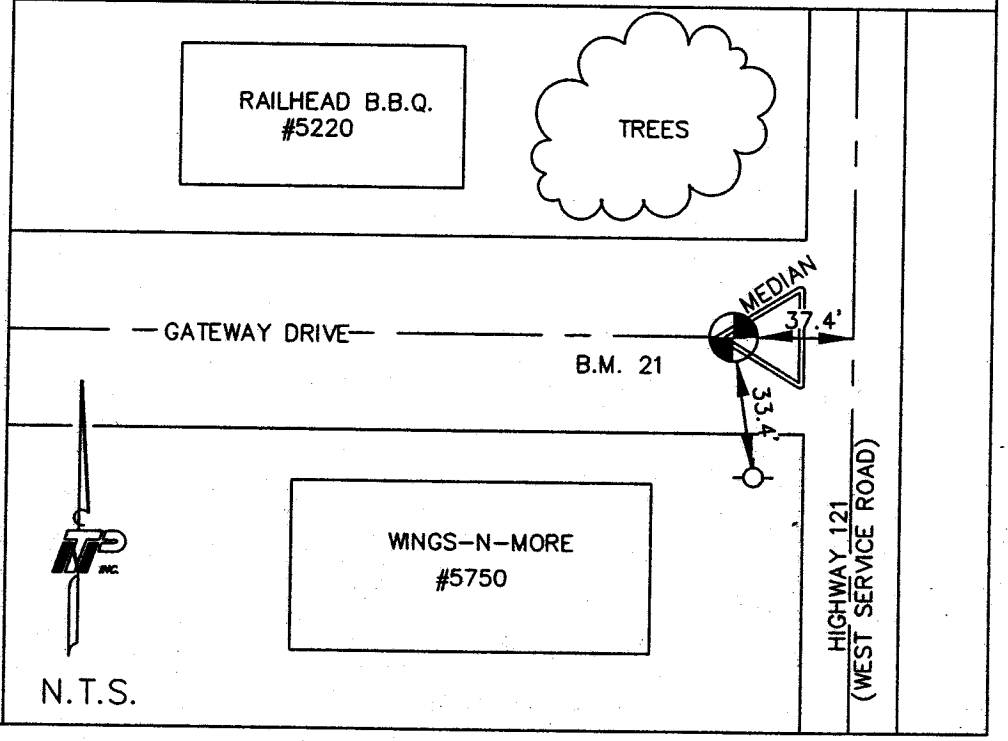
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7007708.070 E 2398255.550	00° 45' 48.90402"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 05.35785"	NORTH	591.15'
	LONGITUDE	97° 05' 59.78699"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.22	DATE: SEPT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

B.M. 22 IS A 2" BRASS DISC SET IN THE SOUTH CURB INLET IN THE ENTRANCE TO COLLEYVILLE HERITAGE HIGH SCHOOL. IT IS 100' EAST OF THE CENTERLINE OF HERITAGE ROAD AND 50' SOUTHEAST OF THE EAST END OF THE MEDIAN AT THE ENTRANCE TO THE SCHOOL.

MAPSCO 41-J

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0999848525

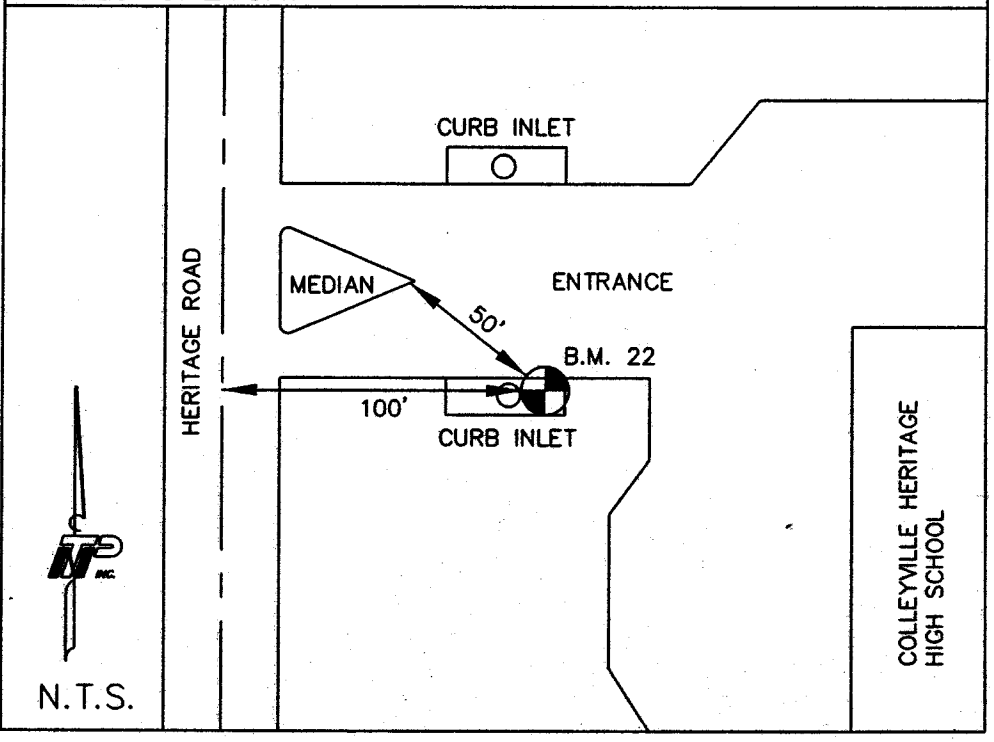
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7008670.974 E 2396646.418	00° 45' 38.69429"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 15.09707"	NORTH	589.14'
	LONGITUDE	97° 06' 18.50688"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.23	DATE: SEPT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847946

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7008417.162 E 2394859.841	00° 45' 27.24609"

METRIC CONVERSION FACTOR: 3.2808333333

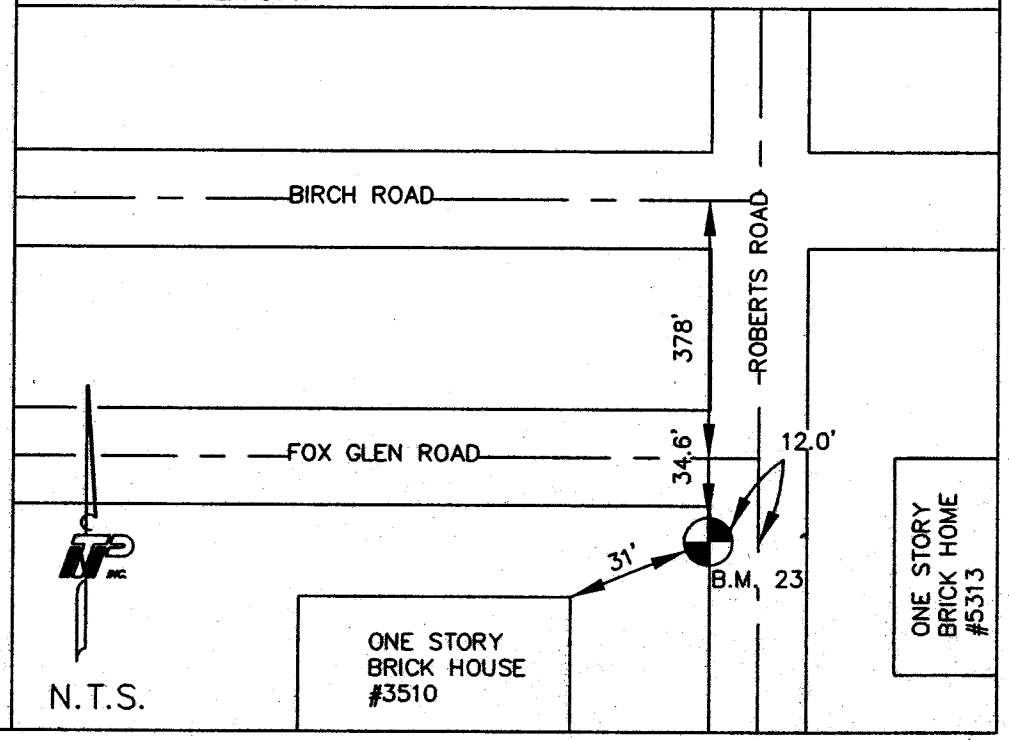
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 12.81997"	NORTH	601.92'
	LONGITUDE	97° 06' 39.49757"	WEST	

DESCRIPTION OF POINTS:

B.M. 23 IS A 2" BRASS DISC SET IN THE SOUTHWEST QUADRANT OF THE INTERSECTION OF FOX GLEN ROAD AND ROBERTS ROAD IN THE SIDEWALK 12' WEST OF THE CENTERLINE OF ROBERTS ROAD. IT IS 31' NORTHEAST OF A BRICK HOUSE AT 3510 FOX GLEN ROAD AND 34.6' SOUTH OF THE CENTERLINE OF FOX GLEN ROAD, .

MAPSCO 41-J

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.24		DATE: SEPT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848676

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7008438.465 E 2393335.287	00° 47' 17.49708"

METRIC CONVERSION FACTOR: 3.2808333333

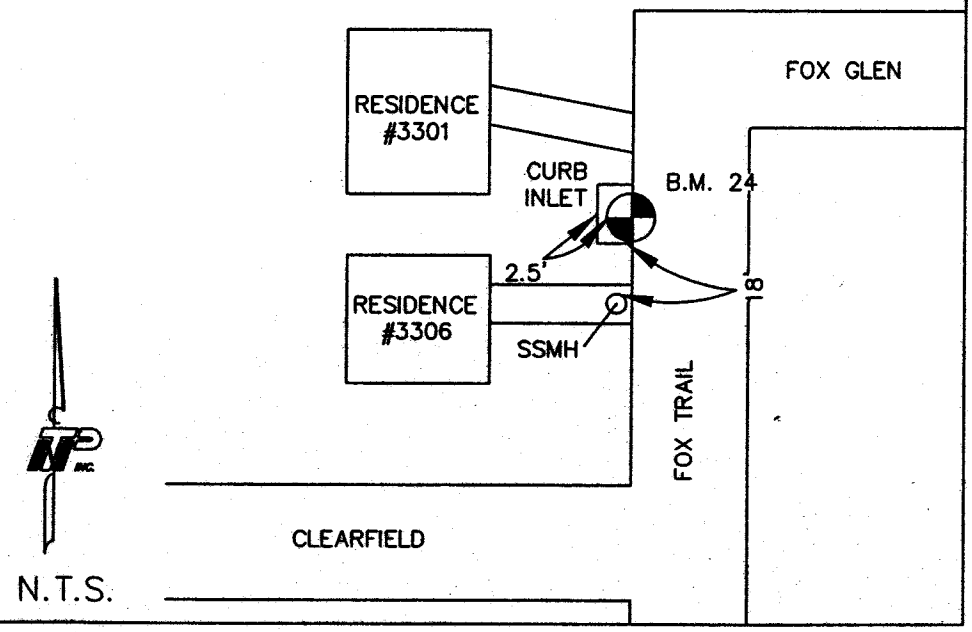
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 13.22986"	NORTH	586.52'
	LONGITUDE	97° 06' 57.37273"	WEST	

DESCRIPTION OF POINTS:

B.M. 24 IS A 2" BRASS DISC SET IN A STORM DRAIN ON THE WEST SIDE OF FOX TRAIL DRIVE IN FRONT OF A RESIDENCE AT 3301 FOX TRAIL DRIVE AND 18' NORTH OF A SANITARY SEWER MANHOLE IN A DRIVEWAY AT 3306 FOXTRAIL DRIVE.

MAPSCO 40-M

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.25 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848456

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7009251.963 E 2391430.283	00° 45' 05.38120"

METRIC CONVERSION FACTOR: 3.2808333333

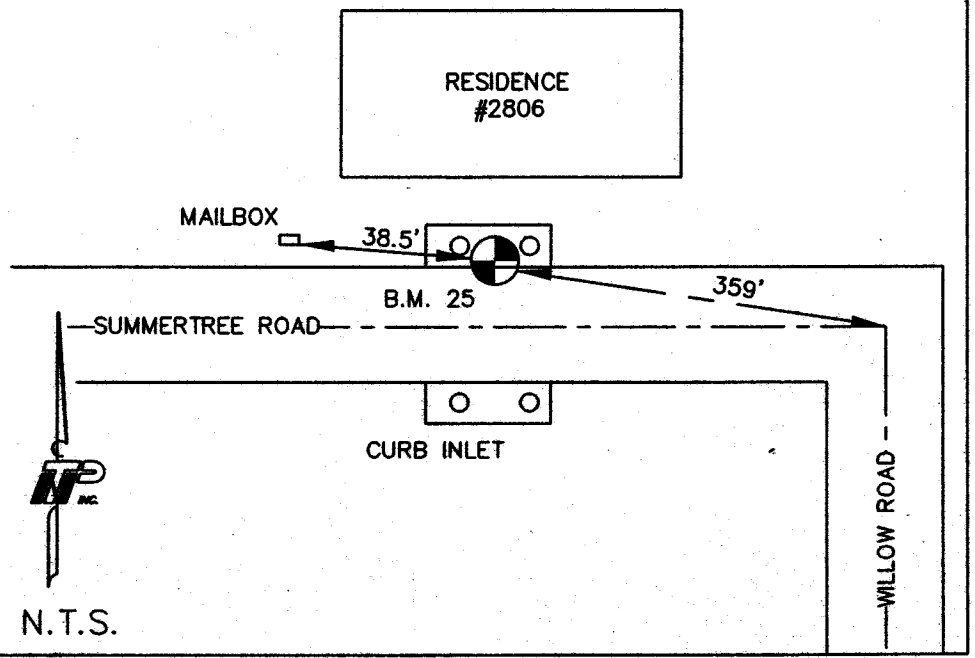
DESCRIPTION OF POINTS:

B.M. 25 IS 2" BRASS DISC SET IN A CURB INLET ON THE NORTH SIDE OF SUMMERTIME ROAD IN FRONT OF A RESIDENCE AT 2806 SUMMERTIME ROAD. IT IS 359' WEST OF THE INTERSECTION OF WILLOW ROAD AND SUMMERTIME ROAD AND 38.5' EAST OF A MAILBOX, 2806 SUMMERTIME ROAD.

MAPSCO 40-M

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 21.52679"	NORTH	588.75'
	LONGITUDE	97° 07' 19.58762"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.26 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847818

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7009048.371 E 2390472.264	00° 44' 59.23664"

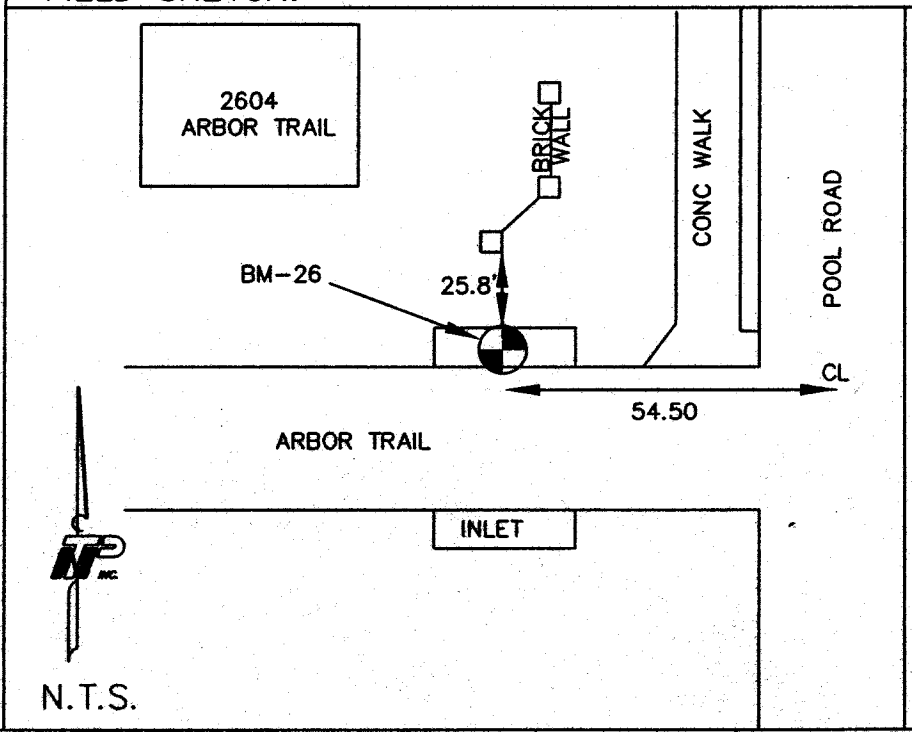
METRIC CONVERSION FACTOR: 3.2808333333

DESCRIPTION OF POINTS:

BM-26: 2"BRASS DISC IN CL OF INLET IN THE NORTH ROW OF ARBOR TRAIL. IT IS LOCATED 54.50' WEST OF CL POOL ROAD AND 25.8' SOUTH OF A BRICK WALL FENCE.

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 19.63655"	NORTH	602.63'
	LONGITUDE	97° 07' 30.85388"	WEST	

FIELD SKETCH:



MAPSCO 40-L

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.27	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847489

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7010668.351 E 2390470.226	00° 44' 59.35921"

METRIC CONVERSION FACTOR: 3.2808333333

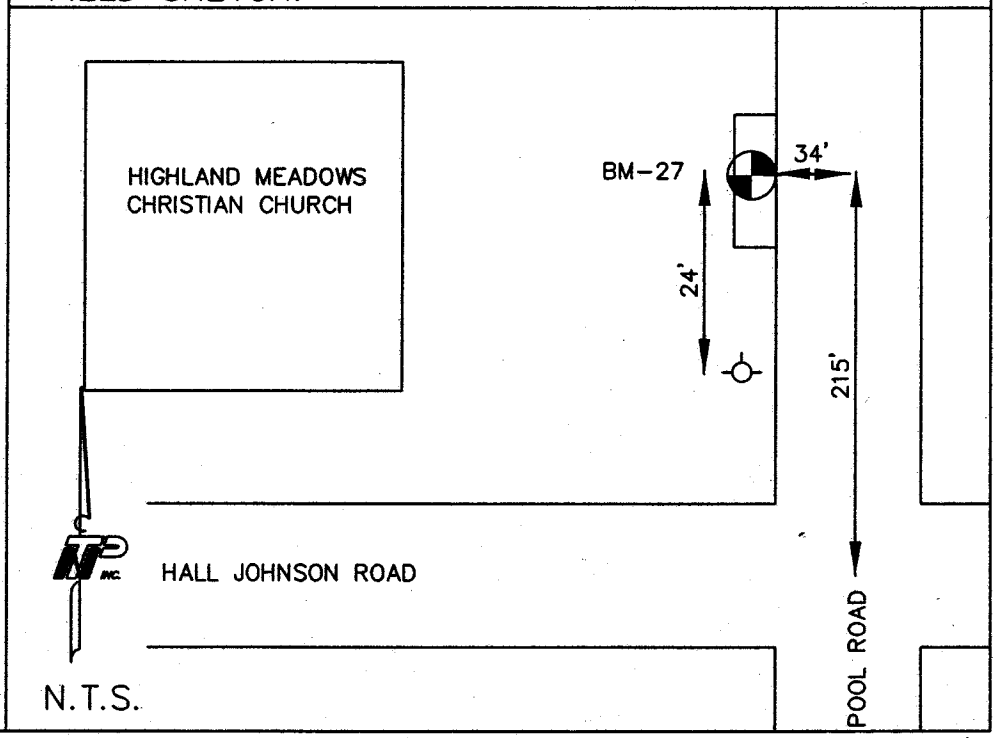
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 35.66569"	NORTH	604.98'
	LONGITUDE	97° 07' 30.62914"	WEST	

DESCRIPTION OF POINTS:

BM-27: 2"BRASS DISC IN CL OF INLET LOCATED IN WEST ROW OF POOL ROAD AND 215' NORTH OF THE CL OF HALL-JOHNSON ROAD. IT IS 24' NORTH OF A FH AND 34' WEST OF THE POOL ROAD CL.

MAPSCO 40-G

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.28 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

B.M. 28 IS A 2" BRASS DISC SET IN A CURB INLET IN THE SOUTHWEST QUADRANT OF HIGHLAND MEADOWS DRIVE AND POOLE ROAD. IT IS 112' WEST OF THE CENTERLINE OF POOLE ROAD AND 52.50' EAST OF A MAILBOX IN FRONT OF A RESIDENCE AT 2605 HIGHLAND MEADOWS ROAD AND SOUTH OF HIGHLAND MEADOWS ROAD.

MAPSCO 40-G

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846742

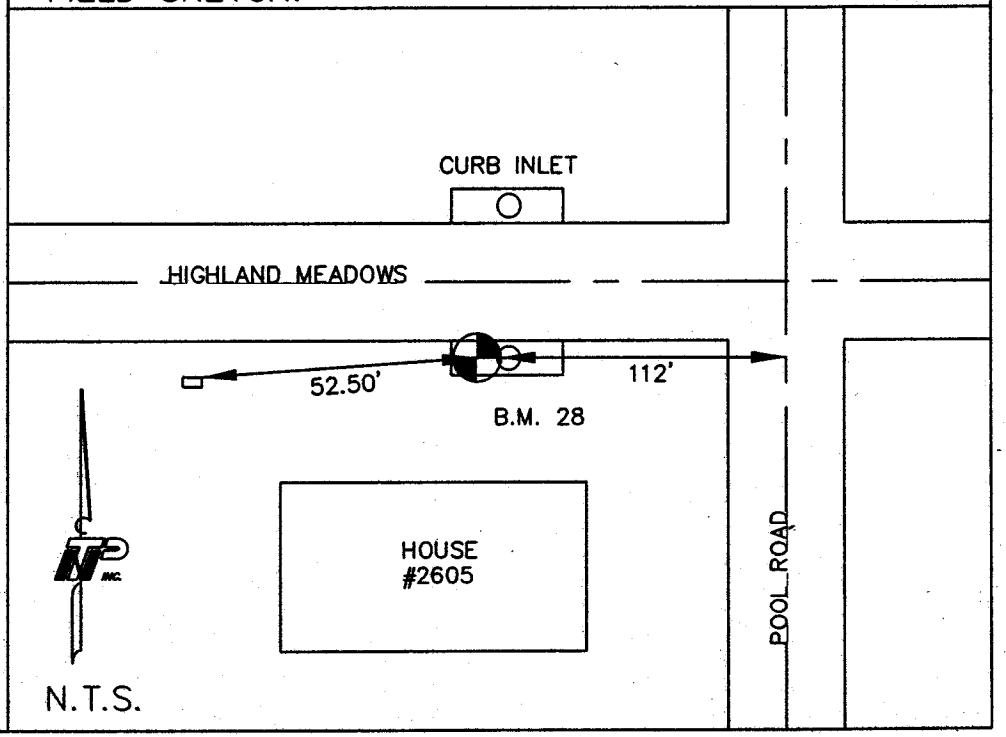
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7012487.052 E 2390374.958	00° 44' 58.90207"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 53.67313"	NORTH	615.66'
	LONGITUDE	97° 07' 31.46733"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.29	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-29: 2"BRASS DISC IN CL INLET LOCATED IN THE NORTH ROW OF TWELVE OAKS AND IS 128' WEST OF CL POOL ROAD. IT IS ALSO 25.4' NORTH OF MEDIAN BACK OF CURB AND IS 15.5' EAST OF A MAILBOX.

MAPSCO 40-C

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847906

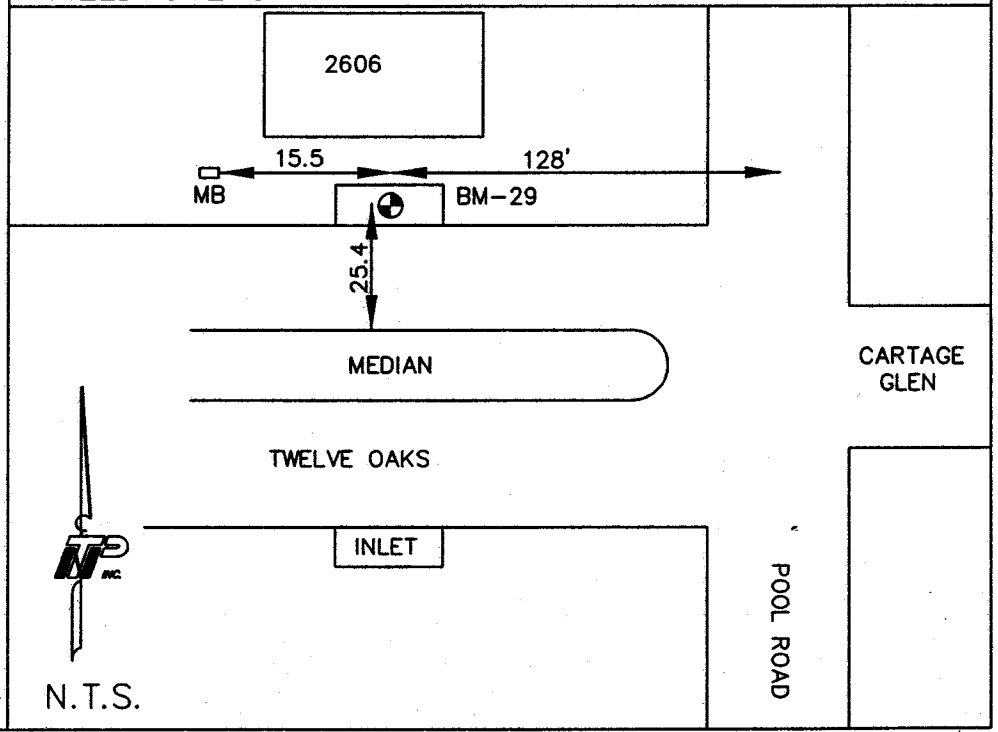
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7015418.836 E 2390327.095	00° 44' 58.84130"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 22.68780"	NORTH	583.70'
	LONGITUDE	97° 07' 31.57875"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.30 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-30: 2"BRASS CAP IN INLET LOCATED IN THE WEST ROW OF LONGWOOD AND IS 104' SOUTH OF THE CL OF HWY 26 (COLLEYVILLE BLVD). iT IS ALS 25.5' SW OF THE BACK OF CURB AT THE NOSE OF THE MEDIAN.

MAPSCO 26-Y

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848041

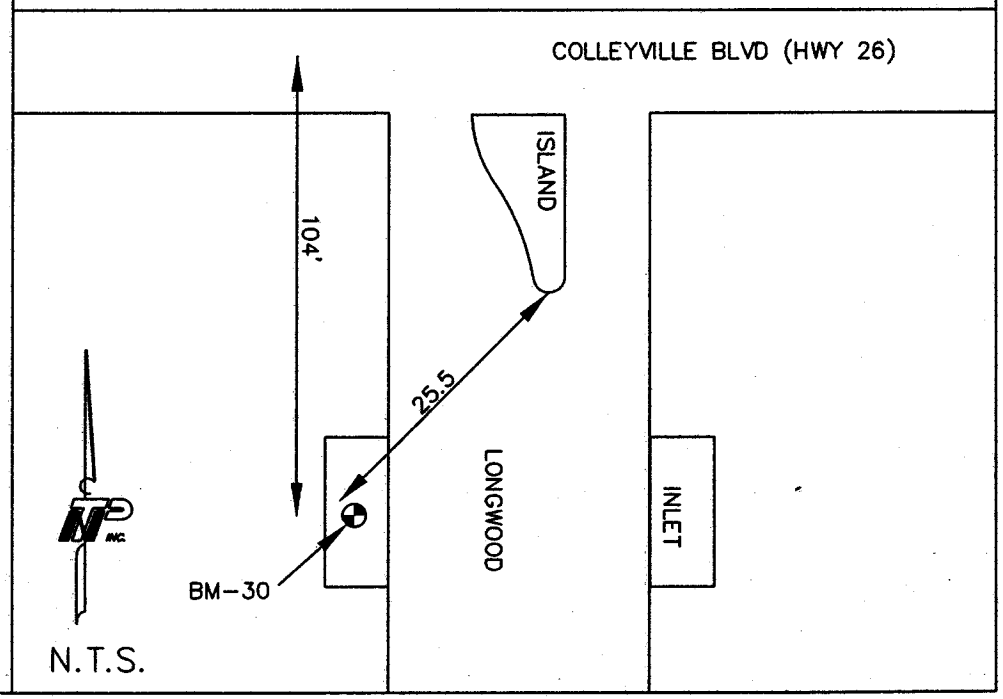
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7017801.027 E 2388708.235	00° 44' 48.68370"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 46.46751"	NORTH	574.92'
	LONGITUDE	97° 07' 50.20307"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.31	DATE: SEPT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847896

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7017276.775 E 2387188.774	00° 44' 38.91903"

METRIC CONVERSION FACTOR: 3.2808333333

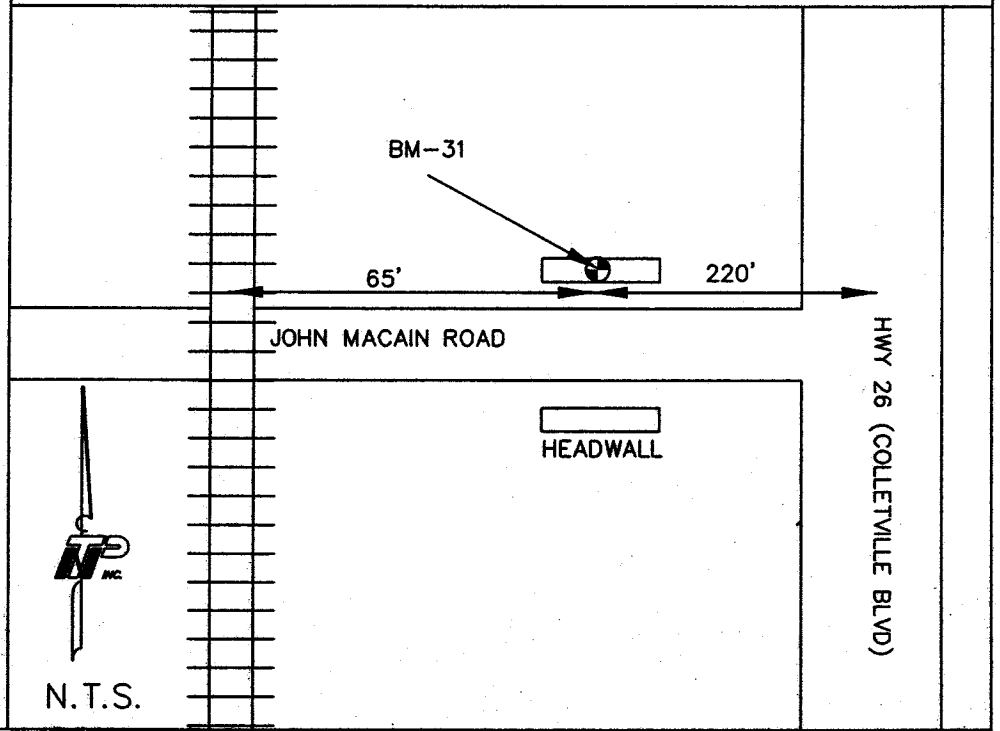
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 41.47595"	NORTH	579.18'
	LONGITUDE	97° 08' 08.10694"	WEST	

DESCRIPTION OF POINTS:

BM-31: 2" BRASS DISC ON THE NORTH HEADWALL LOCATED ON JOHN MACAIN ROAD AND IS 220' WEST OF CL COLLEYVILLE BLVD. HWY 26. IT IS ALSO 65' EAST OF THE RR TRACKS AND 63' NORTH FROM THE CL OF JOHN MACAIN ROAD.

MAPSCO 26-X

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.32 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-32: 2"BRASS DISC IN TOP OF CURB AT SOUTH END OF CIRCLE IN BRAEMAR COURT.iT IS ALSO LOCATED 60.5' SW OF A FH AND 332' NORTH OF CL CONNER STREET.

MAPSCO 26-X

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847422

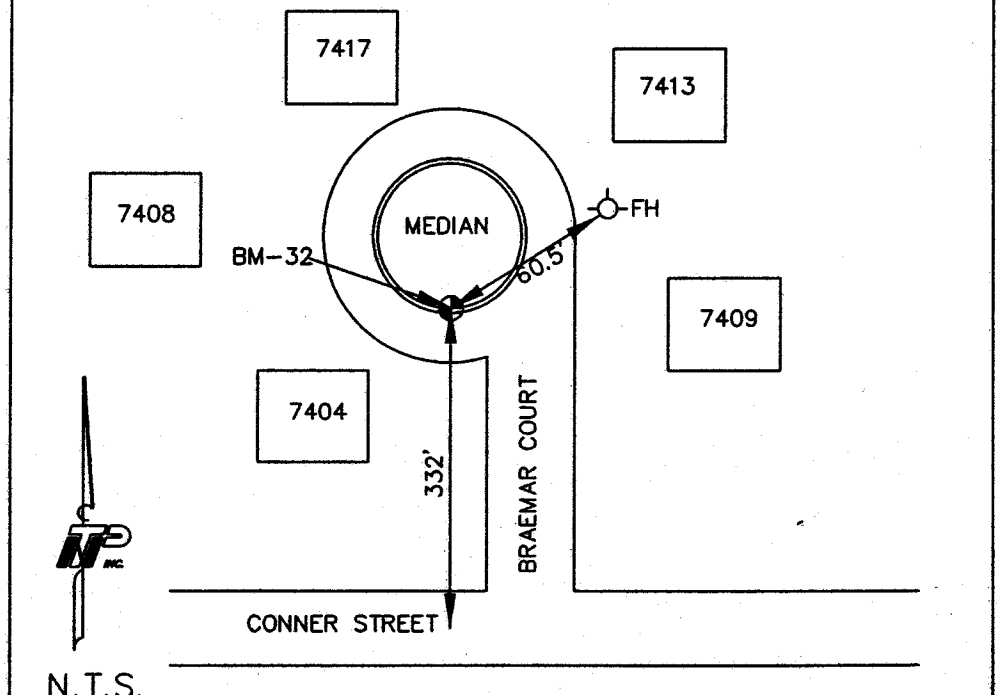
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7018714.581 E 2386986.795	00° 44' 37.74626"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 55.72823"	NORTH	585.64'
	LONGITUDE	97° 08' 10.25725"	WEST	

FIELD SKETCH:



N.T.S.

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.33 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-33: 2" BRASS DISC IN CL INLET IN THE WEST ROW OF PEBBLE HILL AND IS LOCATED 371' NORTH OF BELLMEAD . IT IS ALSO LOCATED 48.7' NW OF A FH AND 134.8' SOUTH OF A PI IN THE WEST CURBLINE OF PEBBLE HILL.

MAPSCO 26-S

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846973

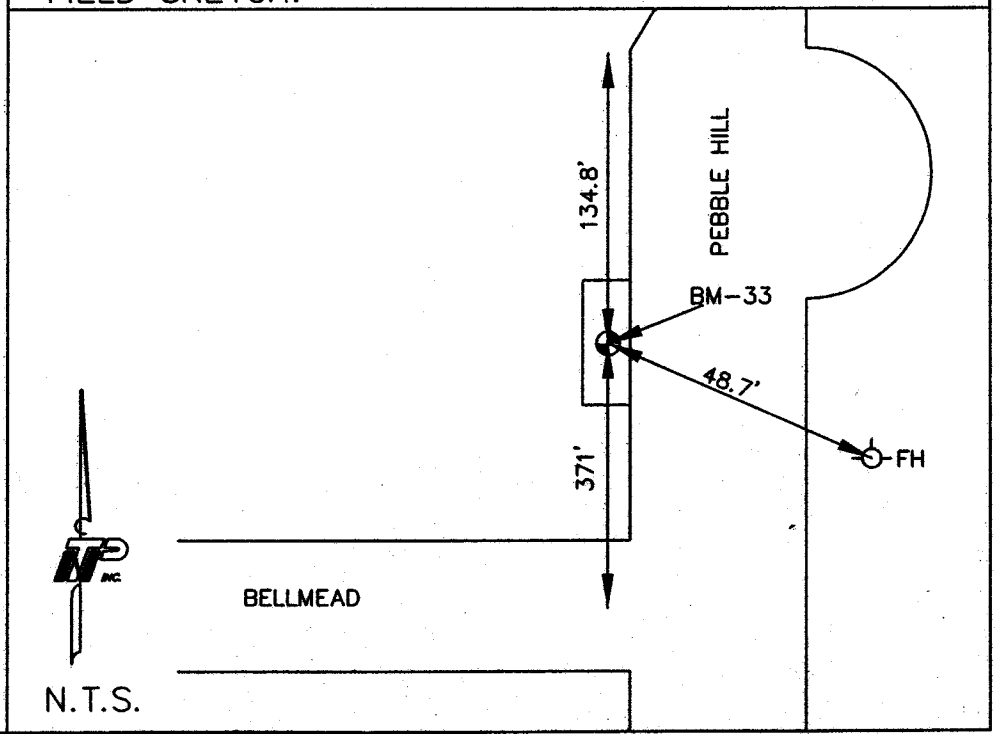
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7018710.783 E 2384863.734	00° 44' 24.16276"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 55.96269"	NORTH	594.97'
	LONGITUDE	97° 08' 35.16308"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.34	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845437

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7017518.989 E 2380198.878	00° 43' 54.21990"

METRIC CONVERSION FACTOR: 3.2808333333

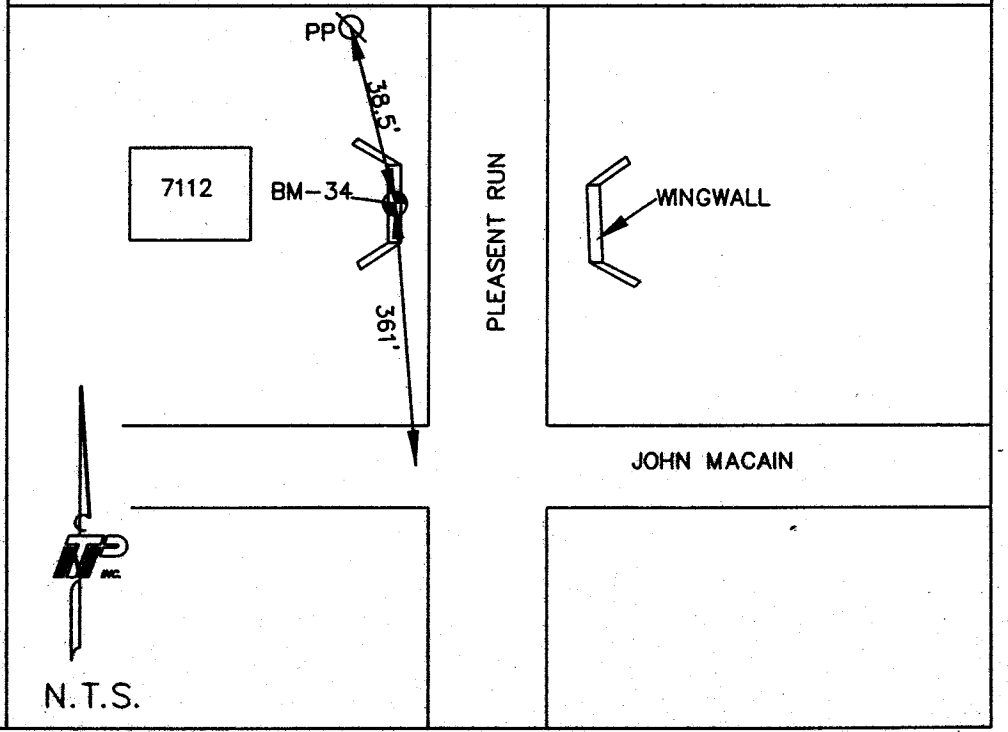
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 44.76334"	NORTH	629.79'
	LONGITUDE	97° 09' 30.06439"	WEST	

DESCRIPTION OF POINTS:

BM-34: 2"BRASS DISC IN TOP OF WEST WINGWALL ON PLEASENT RUN LOCATED 361' NORTH OF THE CL OF JOHN MACAIN ROAD & 38.5' SOUTH OF A PP ON THE WEST SIDE OF PLEASENT RUN.

MAPSCO 25-Z

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.35	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-35: 2"BRASS DISC IN THE CL OF A INLET IN THE WEST ROW OF MONTICELLO. IT IS LOCATED 0.70' WEST OF BACK OF CURB AND 49' SW OF A SSMH THAT IS AT THE INTERSECTION OF MONTICELLO AND JEFFERSON CIRCLE.

MAPSCO 25-U

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846332

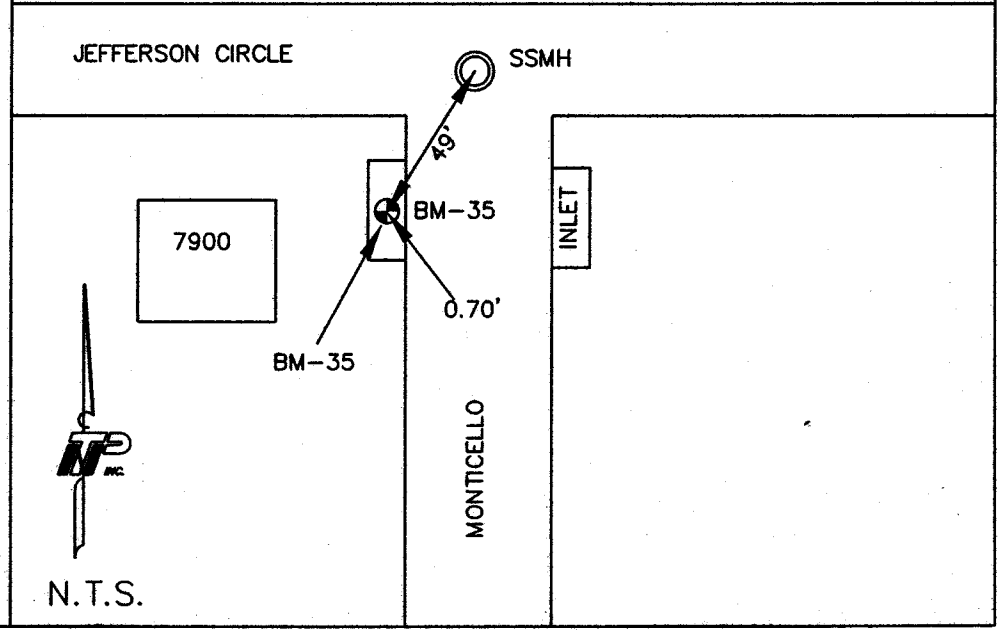
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7020958.292 E 2377650.889	00° 43' 38.19788"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 55' 19.11455"	NORTH	602.95'
	LONGITUDE	97° 09' 59.44133"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.36	DATE: SEPT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845963

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7019350.090 E 2377795.784	00° 43' 38.99432"

METRIC CONVERSION FACTOR: 3.2808333333

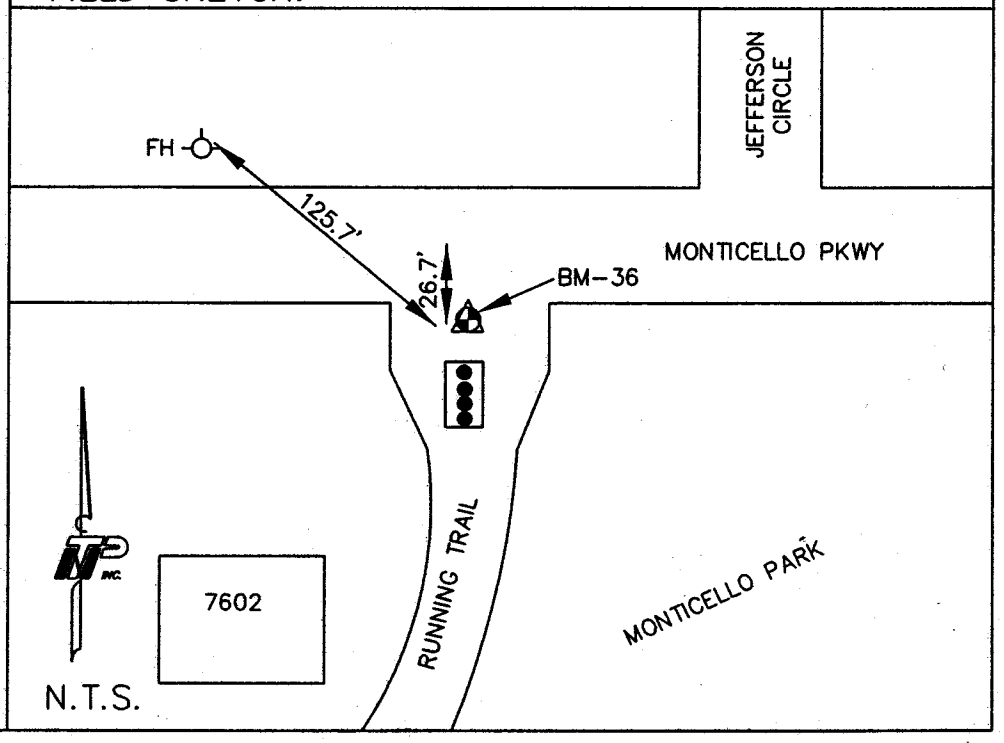
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 55' 03.18398"	NORTH	614.37'
	LONGITUDE	97° 09' 57.98103"	WEST	

DESCRIPTION OF POINTS:

BM-36: 2"BRASS DISC IN THE MIDDLE OF RUNNING TRAIL LOCATED 26.7' SOUTH OF CL MONTICELLO PKWY AND 125.7' SE OF A FH ON THE NORTH SIDE OF MONTICELLO PKWY.

MAPSCO 25-U

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.37	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845104

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7019606.179 E 2376611.961	00° 43' 34.50404"

METRIC CONVERSION FACTOR: 3.2808333333

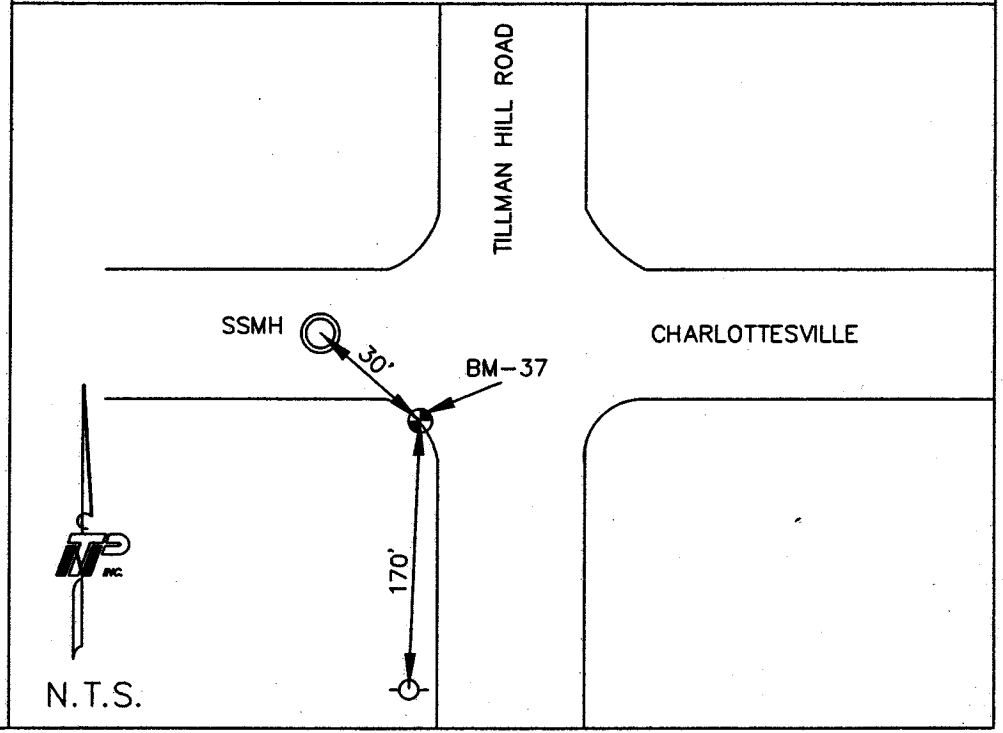
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 55' 05.86638"	NORTH	631.69'
	LONGITUDE	97° 10' 11.83058"	WEST	

DESCRIPTION OF POINTS:

BM-37: 2"BRASS DISC ON TOP OF CURB IN SW CORNER OF INTERSECTION OF TILLMAN HILL RD & CHAROLETTESVILLE RD. IT IS ALSO LOCATED 170' NORTH OF A FH AND 30' SE OF A SSMH LOCATED EAST OF THE SAME INTERSECTION

MAPSCO 25-T

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.38	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845525

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7017732.221 E 2377114.477	00° 43' 34.50404"

METRIC CONVERSION FACTOR: 3.2808333333

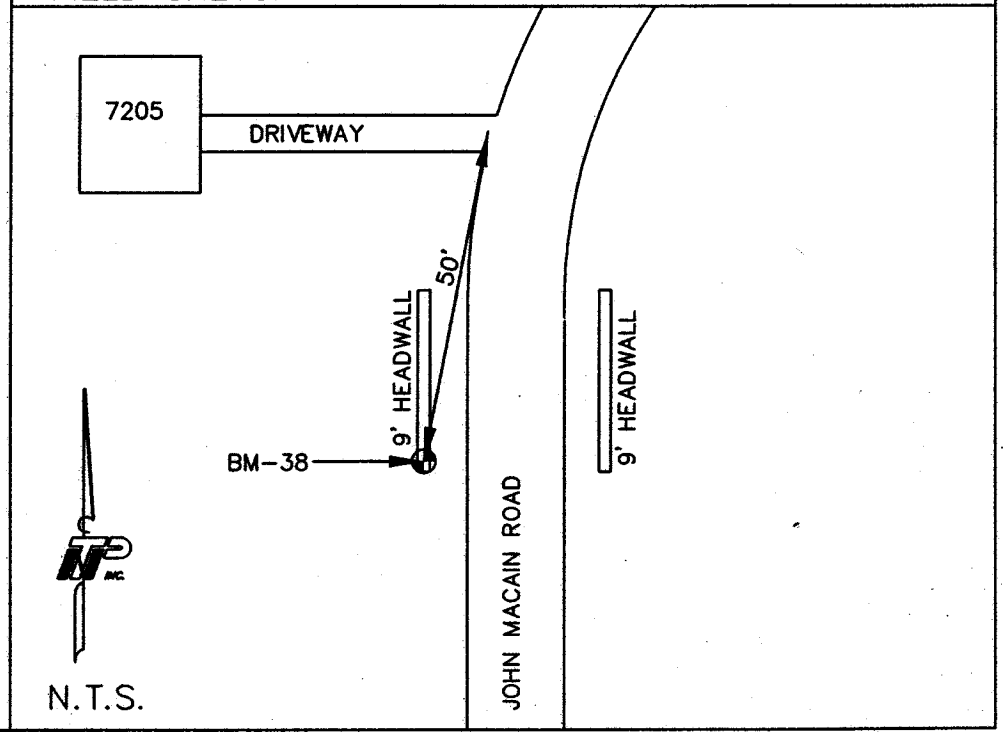
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 47.26148"	NORTH	627.35'
	LONGITUDE	97° 10' 06.21412"	WEST	

DESCRIPTION OF POINTS:

BM-38: 2"BRASS DISC IN SOUTH END OF HEADWALL IN THE WEST ROW OF JOHN MACAIN RD. IT IS LOCATED 50' SOUTH OF

MAPSCO 25-X

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.39 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999844057

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7018329.027 E 2376087.642	00° 43' 27.98285"

METRIC CONVERSION FACTOR: 3.2808333333

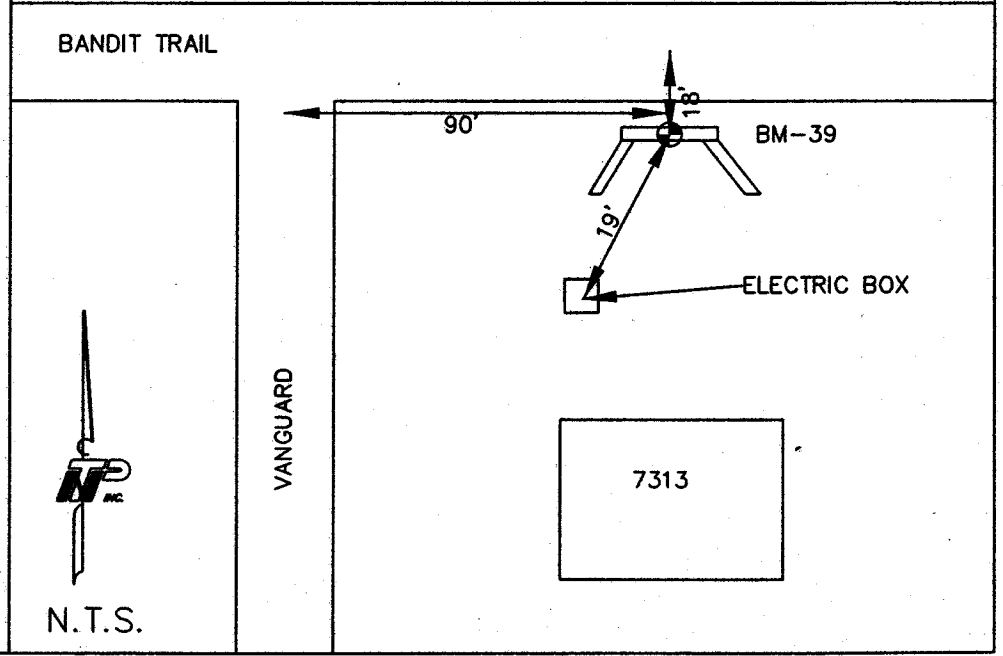
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 53.29522"	NORTH	656.58'
	LONGITUDE	97° 10' 18.17094"	WEST	

DESCRIPTION OF POINTS:

BM-39: 2"BRASS DISC SET IN CL OF HEADWALL IN THE SOUTH ROW OF BANDIT TRAIL AND 90' EAST OF VANGUARD .IT IS ALSO LOCATED 18' SOUTH OF THE CL OF BANDIT TRAIL AND 19' NE OF A ELECTRIC BOX

MAPSCO 25-X

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.40 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999841802

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7019660.631 E 2374747.688	00° 43' 19.51733"

METRIC CONVERSION FACTOR: 3.2808333333

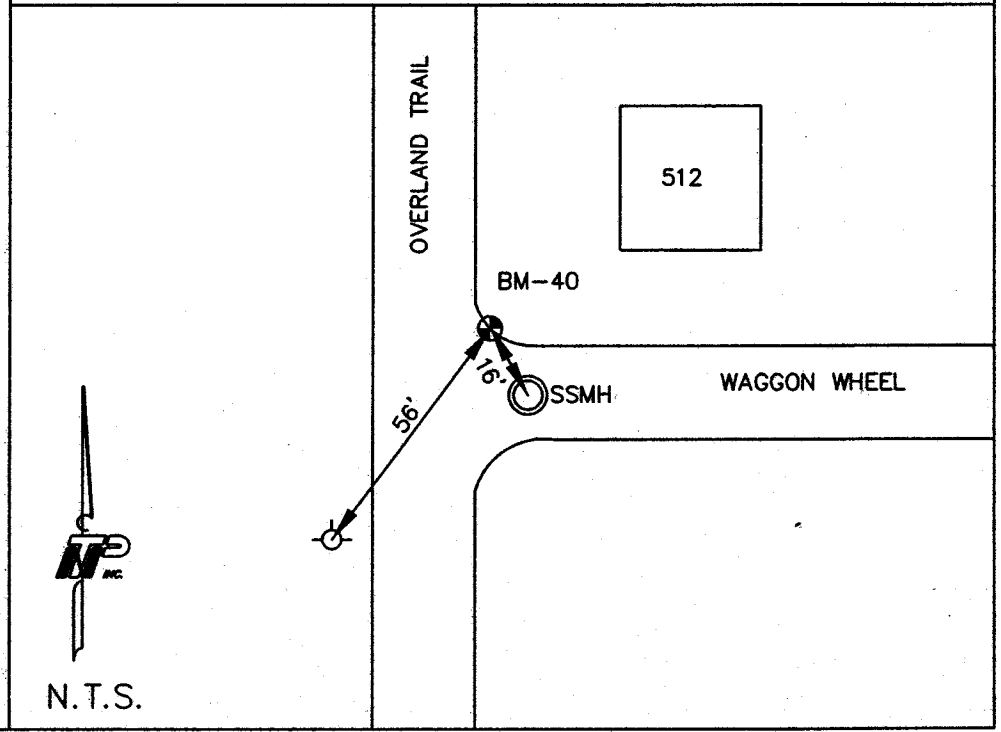
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 55' 06.63817"	NORTH	700.56'
	LONGITUDE	97° 10' 33.69278"	WEST	

DESCRIPTION OF POINTS:

BM-40: 2"BRASS DISC IN TOP OF CURB AT NE CORNER INTERSECTION OF OVERLAND TRAIL ANDWAGON WHEEL. IT'S ALSO LOCATED 56' NE OF A FH IN THE WEST ROW OF OVERLAND TRAIL AND 16' NORTH OF A SSMH AT THE SAME INTERSECTION.

MAPSCO 25-T

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.41	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-41: 2"BRASS DISC ON TOP OF WEST CURB OF OVERLAND TRAIL 38' SOUTH OF CL INTERSECTION WITH BANDIT TRAIL WHERE CURB BEGINS. iT IS ALSO LOCATED 5' SE OF WATER METER.

MAPSCO 25-X

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999842412

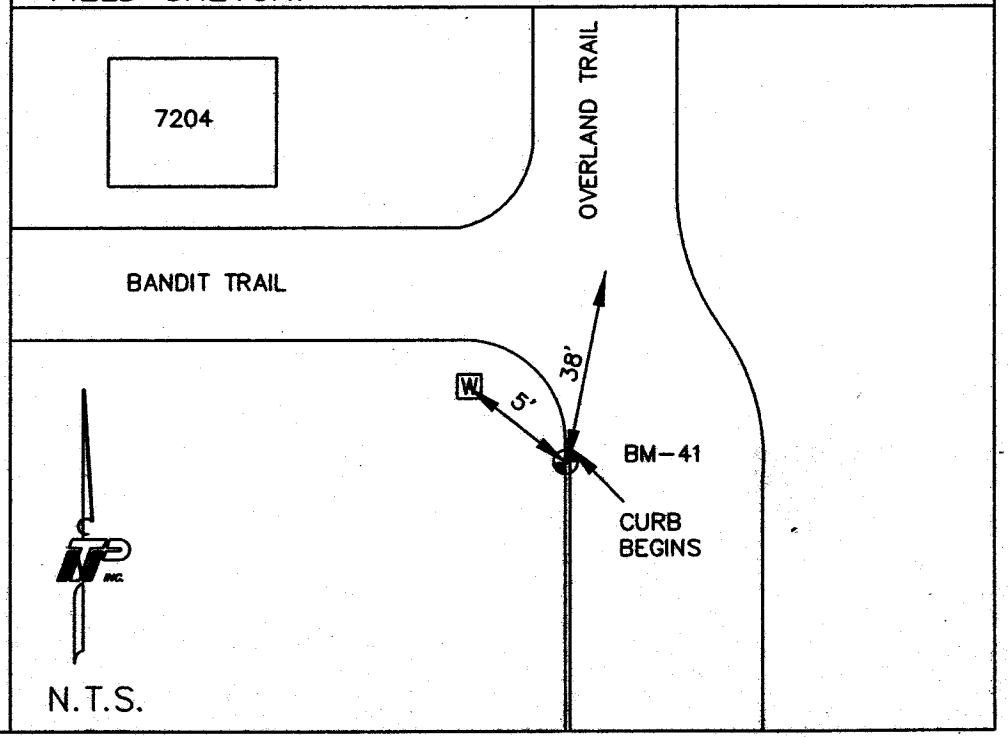
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7017656.620 E 2374745.721	00° 43' 19.34315"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 46.80968"	NORTH	692.54'
	LONGITUDE	97° 10' 34.01213"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.42	DATE: SEPT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-42: 2" BRASS DISC IN SOUTH EDGE OF SIDEWALK LOCATED 21' EAST OF CL BENEDICT HILL LANE AND 41' NORTH OF CL MCDONWELL SCHOOL ROAD.

MAPSCO 39-B

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999844795

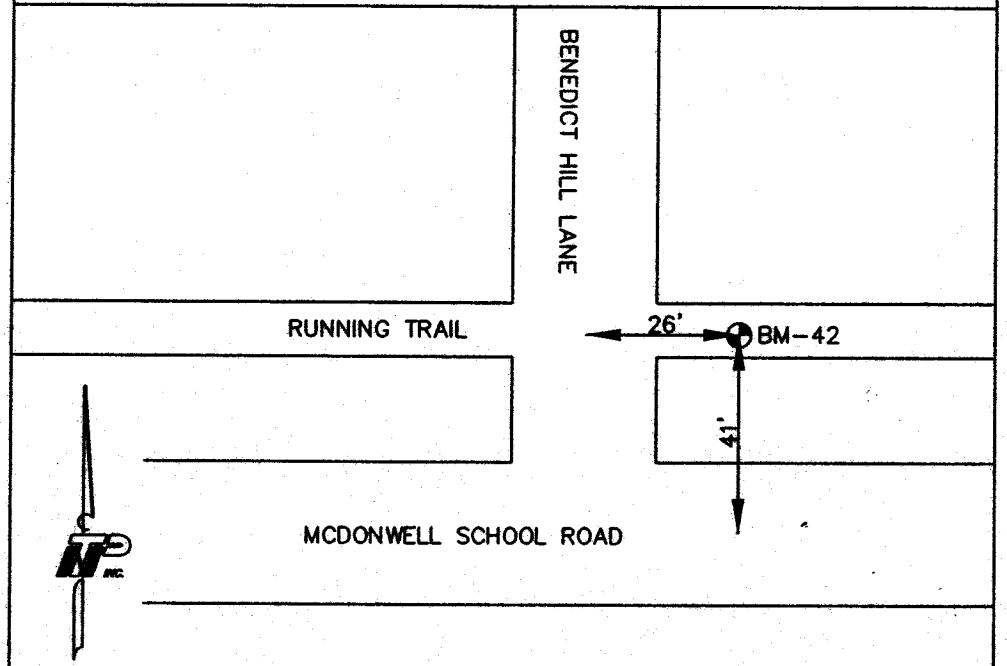
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7014633.509 E 2377163.412	00° 43' 34.56580"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 16.59507"	NORTH	650.31'
	LONGITUDE	97° 10' 06.10087"	WEST	

FIELD SKETCH:



N.T.S.

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.43	DATE: SEPT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999843019

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7015921.564 E 2377008.596	00° 43' 33.67984"

METRIC CONVERSION FACTOR: 3.2808333333

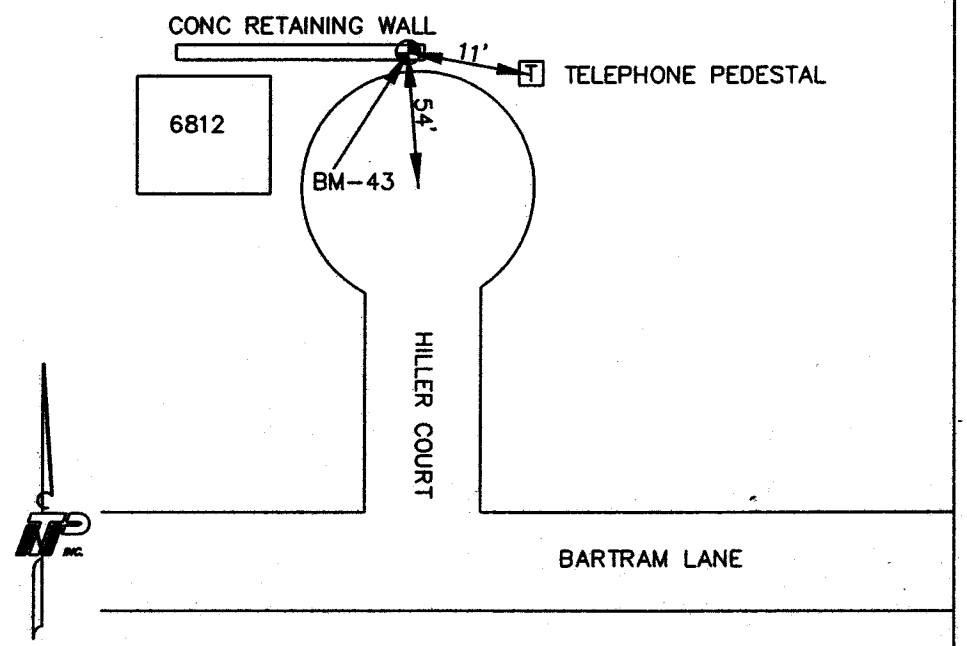
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 29.35918"	NORTH	684.18'
	LONGITUDE	97° 10' 07.72532"	WEST	

DESCRIPTION OF POINTS:

BM-43: 2" BRAS CAP SET IN TOP OF CONC RETAINING WALL LOCATED 54' NORTH OF THE RADIUS POINT OF HILLER COURT. IT IS ALSO 11' NW OF A TELEPHONE PEDESTAL.

MAPSCO 25-X

FIELD SKETCH:



N.T.S.

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.44 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-42: 2" BRASS DISC IN CL INLET IN THE WEST ROW OF WESTMONT DRIVE.LOCATED 115' SOUTH OF CL FREEMONT ST. IT IS ALSO LOCATED 80' SOUTH OF A FIRE HYRDRANT.

MAPSCO 25-Y

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845346

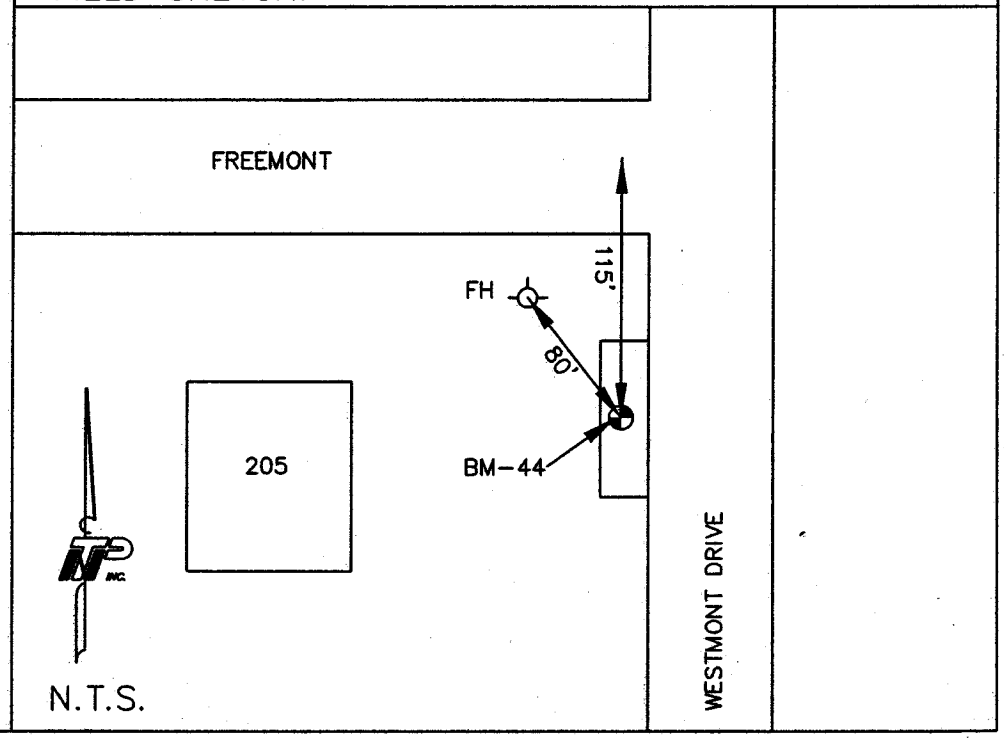
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7015618.261 E 2377727.634	00° 43' 38.25519"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 26.26791"	NORTH	636.30'
	LONGITUDE	97° 09' 59.33625"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.45	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845611

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7015502.623 E 2378694.862	00° 43' 44.43347"

METRIC CONVERSION FACTOR: 3.2808333333

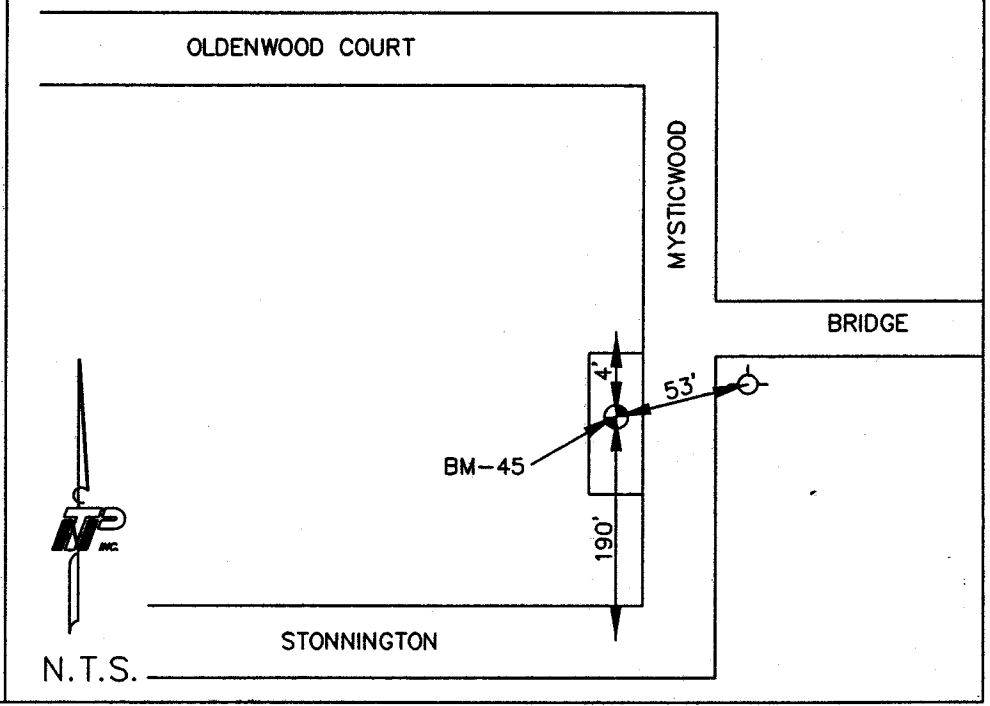
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32 54' 25.00209"	NORTH	631.10'
	LONGITUDE	97° 09' 48.00814"	WEST	

DESCRIPTION OF POINTS:

BM-45: 2" BRASS DISC IN CL OF INLET LOCATED IN THE WEST ROW OF MYSTICWOOD AND 4' SOUTH OF THE CL OF BRIDGE ST. IT IS ALSO 190' NORTH OF CL OF STONNINGTON AND 53' WEST OF A FIRE HYDRANT.

MAPSCO 39-C

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.46	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999844195

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7014011.572 E 2374567.490	00° 43' 17.90914"

METRIC CONVERSION FACTOR: 3.2808333333

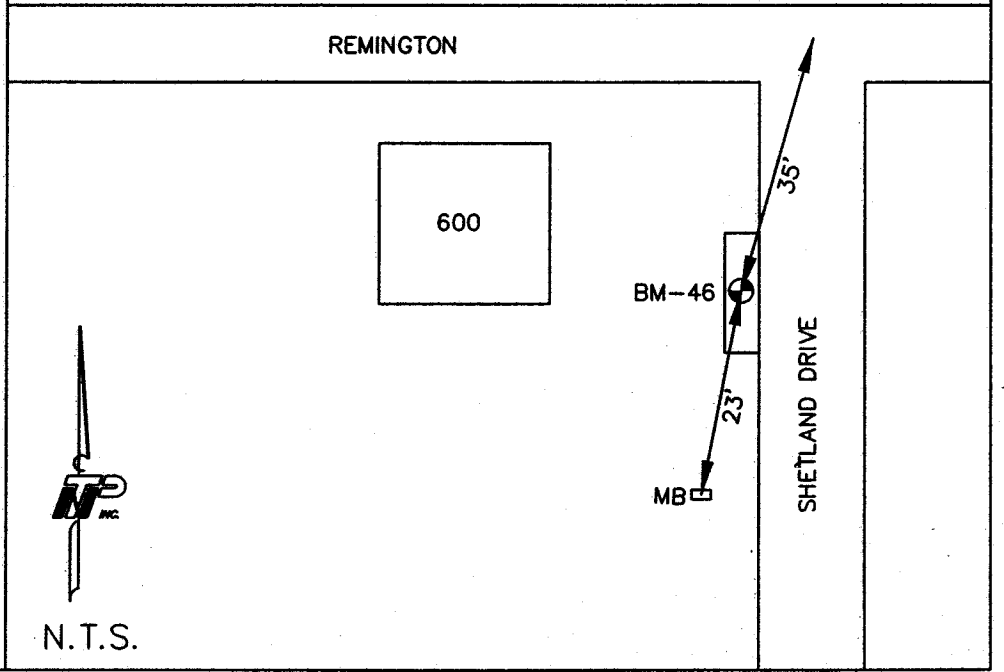
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 10.76586"	NORTH	664.37'
	LONGITUDE	97° 10' 36.64145"	WEST	

DESCRIPTION OF POINTS:

BM-46: 2" BRASS DISC IN CL INLET IN WEST ROW OF SHETLAND DRIVE LOCATED 25' SW OF THE CL INTERSECTION WITH REMINGTON. IT IS ALSO 23' NORTH OF A MAILBOX.

MAPSCO 39-A

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.47	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999844343

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7013081.627 E 2374838.624	00° 43' 19.56862"

METRIC CONVERSION FACTOR: 3.2808333333

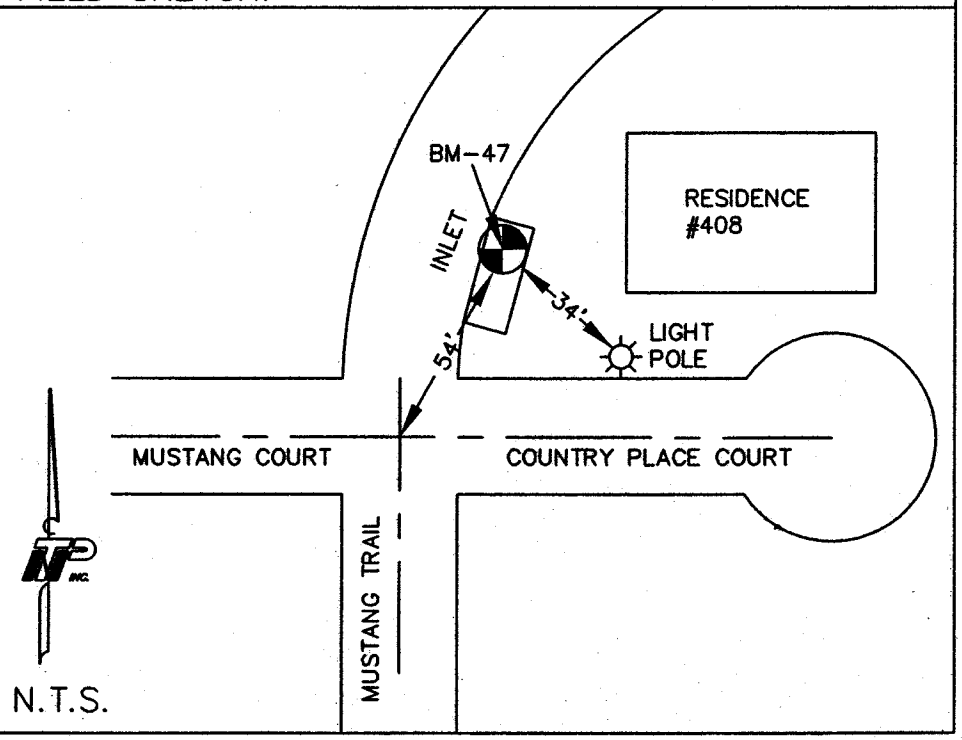
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 01.53068"	NORTH	663.71'
	LONGITUDE	97° 10' 33.59874"	WEST	

DESCRIPTION OF POINTS:

BM-47 IS A 2" BRASS DISC SET IN THE A CURB INLET ON THE EAST SIDE OF MUSTANG TRAIL. IT IS 54' NORTHEAST OF THE INTERSECTION OF COUNTRY PLACE COURT AND MUSTANG TRAIL, 34' NORTHEAST OF A LIGHT POLE AND SOUTHEAST OF A RESIDENCE, #408.

MAPSCO 39-A

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.48	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999843480

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7015130.256 E 2374599.518	00° 43' 31.28242"

METRIC CONVERSION FACTOR: 3.2808333333

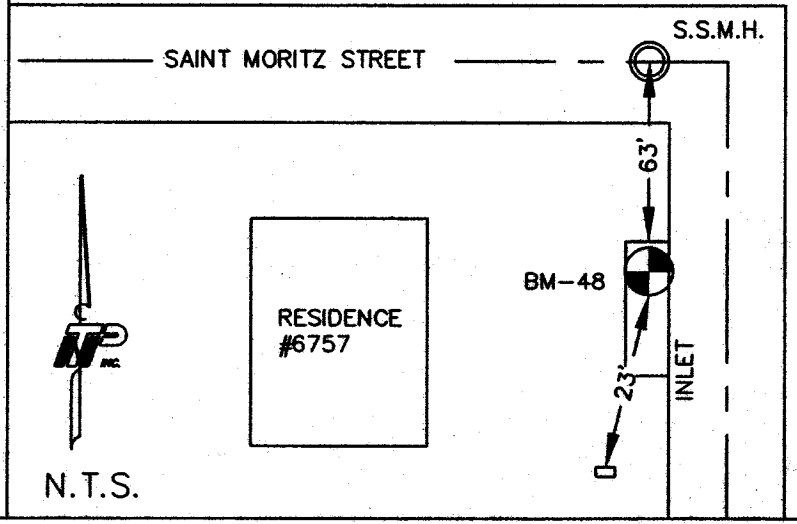
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 21.83073"	NORTH	676.45'
	LONGITUDE	97° 10' 36.10050"	WEST	

DESCRIPTION OF POINTS:

BM-48 IS A 2" BRASS DISC SET IN AN INLET ON THE WEST SIDE OF SAINT MORITZ STREET. IT IS 63' SOUTH OF A SANITARY SEWER MAN-HOLE AND 23' NORTH OF MAILBOX #6757.

MAPSCO 39-A

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.49 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-49 IS A 2" BRASS DISC SET IN A SIDEWALK IN THE SOUTHWEST INTERSECTION OF POLO TRAIL AND DERBY DRIVE. IT IS 24' SOUTHWEST OF A LIGHT POLE, 52' SOUTHWEST OF THE INTERSECTION OF THE CENTERLINE OF POLO TRAIL AND DERBY DRIVE, 54' SOUTHWEST OF A FIRE HYDRANT AND NORTHWEST OF A RESIDENCE # 203.

MAPSCO 39-B

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999843373

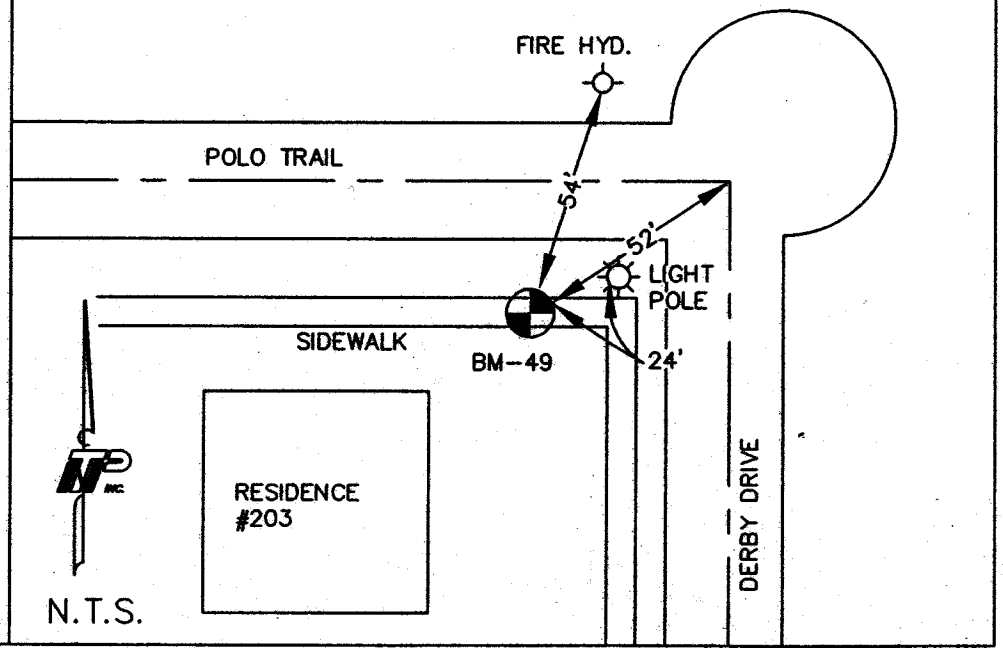
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7013478.804 E 2376664.775	00° 43' 31.28242"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 05.23232"	NORTH	683.01'
	LONGITUDE	97° 10' 12.12107"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.50	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845316

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7011912.092 E 2376383.698	00° 43' 29.35759"

METRIC CONVERSION FACTOR: 3.2808333333

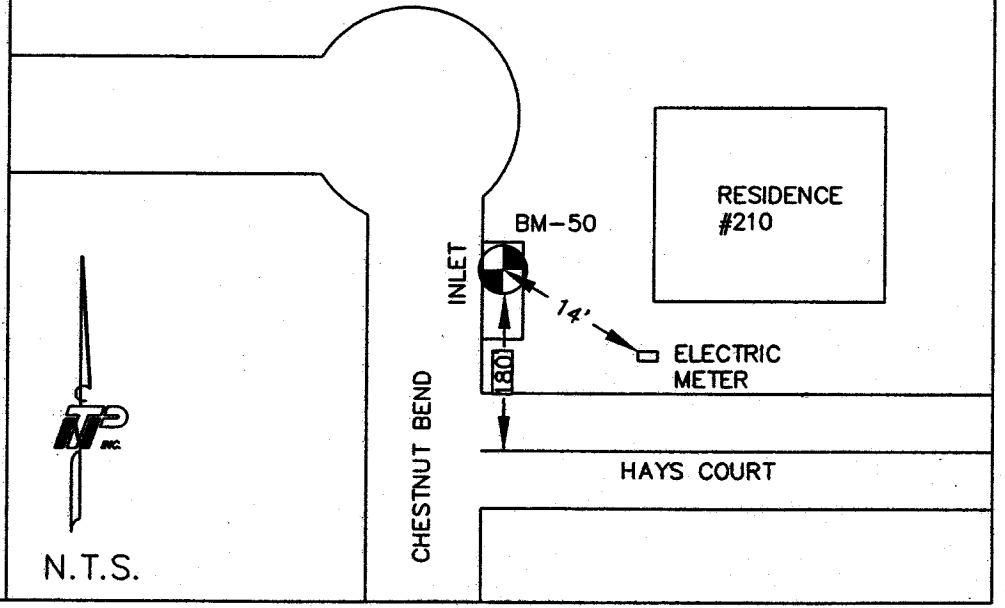
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 49.76563"	NORTH	655.47'
	LONGITUDE	97° 10' 15.65030"	WEST	

DESCRIPTION OF POINTS:

BM-50 IS A 2" BRASS CAP SET IN AN INLET ON THE EAST SIDE OF CHESTNUT BEND. IT IS 180' NORTH OF THE CENTERLINE OF HAYS COURT, 14' NORTHWEST OF AN ELECTRIC METER NEAR A RESIDENCE, #210.

MAPSCO 39-F

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.51 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845316

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7010672.583 E 2377401.783	00° 43' 35.76935"

METRIC CONVERSION FACTOR: 3.2808333333

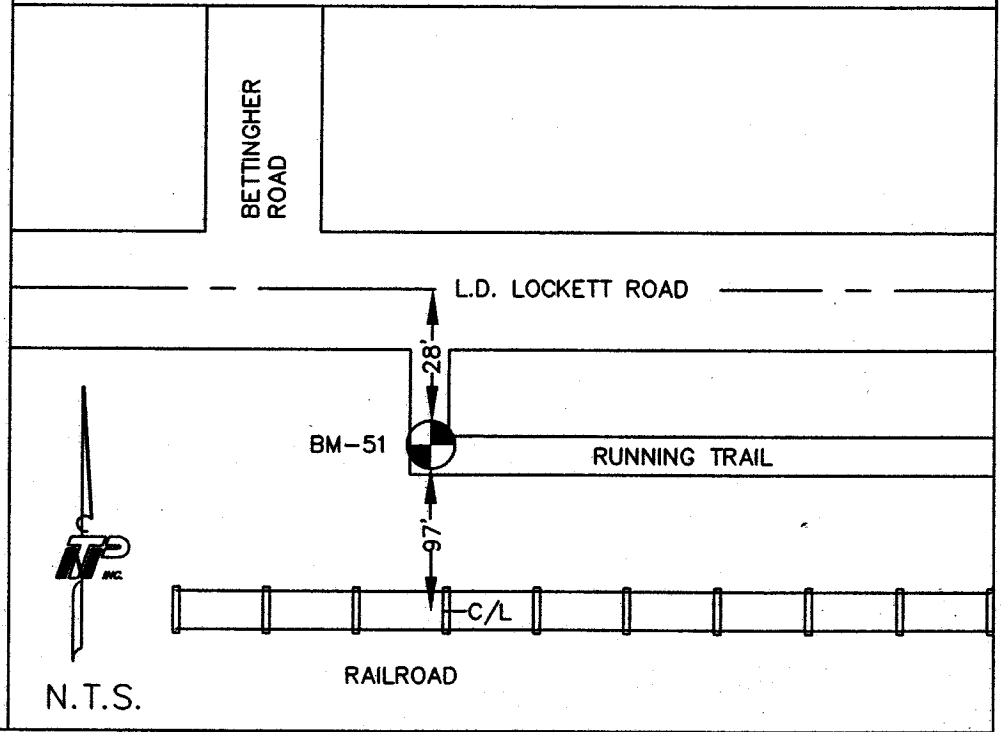
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 37.37366"	NORTH	649.93'
	LONGITUDE	97° 10' 03.89413"	WEST	

DESCRIPTION OF POINTS:

BM-51 IS A 2" BRASS DISC SET IN THE WEST END OF A RUNNING TRAIL, SOUTH OF L.D. LOCKKETT ROAD AND EAST OF THE INTERSECTION OF L.D. LOCKKETT ROAD AND BETTINGHER ROAD. IT IS 28' SOUTH OF THE CENTERLINE OF L.D. LOCKKETT ROAD AND 97' NORTH OF THE CENTERLINE OF A RAILROAD.

MAPSCO 39-F

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.52 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-52: 2" BRASS DISC IN TOP OF HEADWALL LOCATED EAST OF L.D. LOCKETT AND 69' SOUTH OF CL BRANSFORD. IT IS ALSO 25' EAST OF THE RUNNING TRAIL AND 24' WEST OF THE CL OF THE RR TRACKS.

MAPSCO 39-G

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0999844326

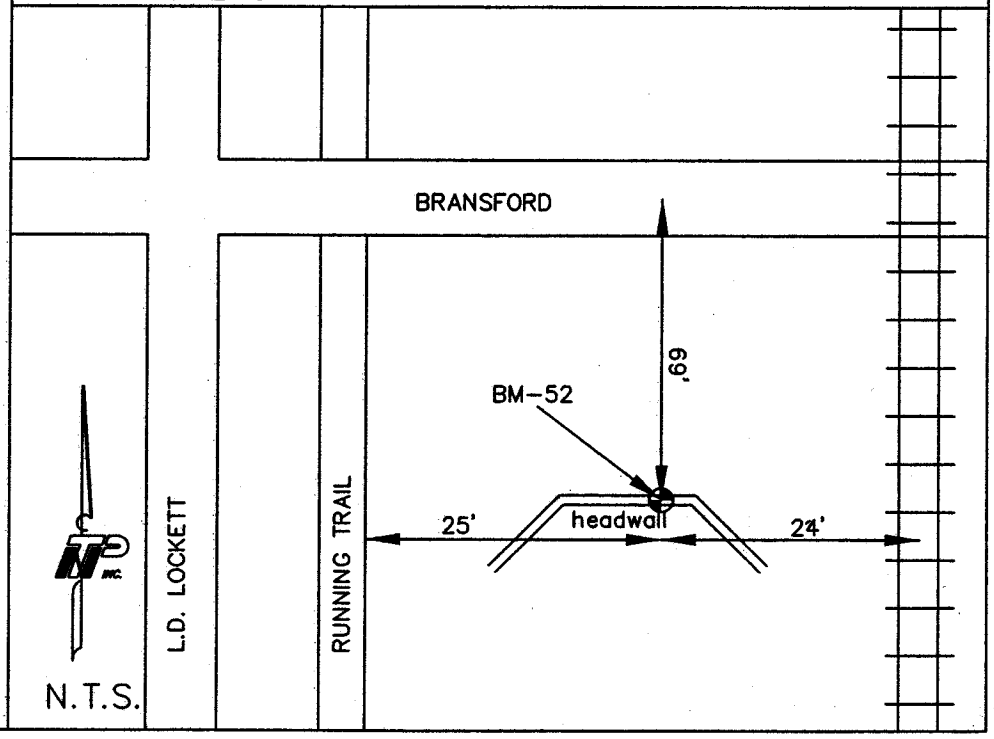
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7012061.408 E 2378993.495	00° 43' 46.06363"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 50.91530"	NORTH	666.91'
	LONGITUDE	97° 09' 45.01919"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.53	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999843835

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7012865.056 E 2377147.799	00° 43' 34.32253"

METRIC CONVERSION FACTOR: 3.2808333333

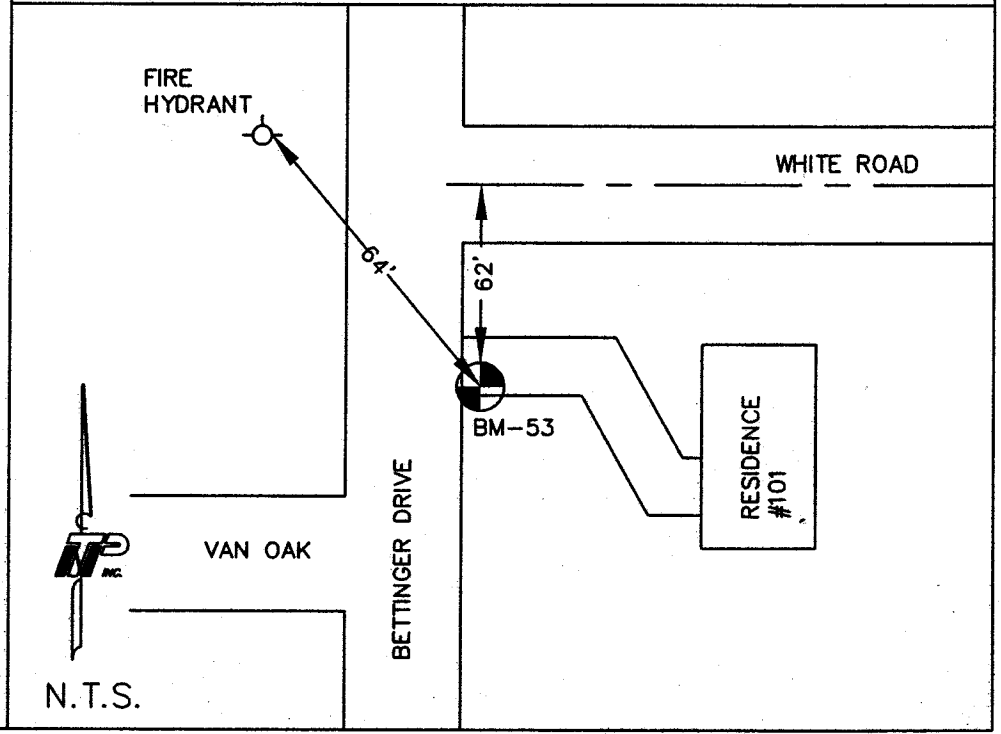
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 59.09902"	NORTH	674.99'
	LONGITUDE	97° 10' 06.54692"	WEST	

DESCRIPTION OF POINTS:

BM-53 IS A 2" BRASS DISC SET IN THE CORNER OF A DRIVEWAY ON THE EAST SIDE OF BETTINGER DRIVE, LEADING TO A RESIDENCE, #101. IT IS 62' SOUTH OF WHITE ROAD AND 64' SOUTHEAST OF A FIRE HYDRANT.

MAPSCO 39-B

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.54		DATE: SEPT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-54: 2"BRASS DISC LOCATED IN THE CL OF A RUNNING TRAIL THAT IS 43' SOUTH FOM BEING IN LINE WITH CL OF L.D. LOCKETT RD. AND 33' NORTH FROM CL RR TRACKS. IT IS ALSO 22' SW OF A PP.

MAPSCO 39-D

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845009

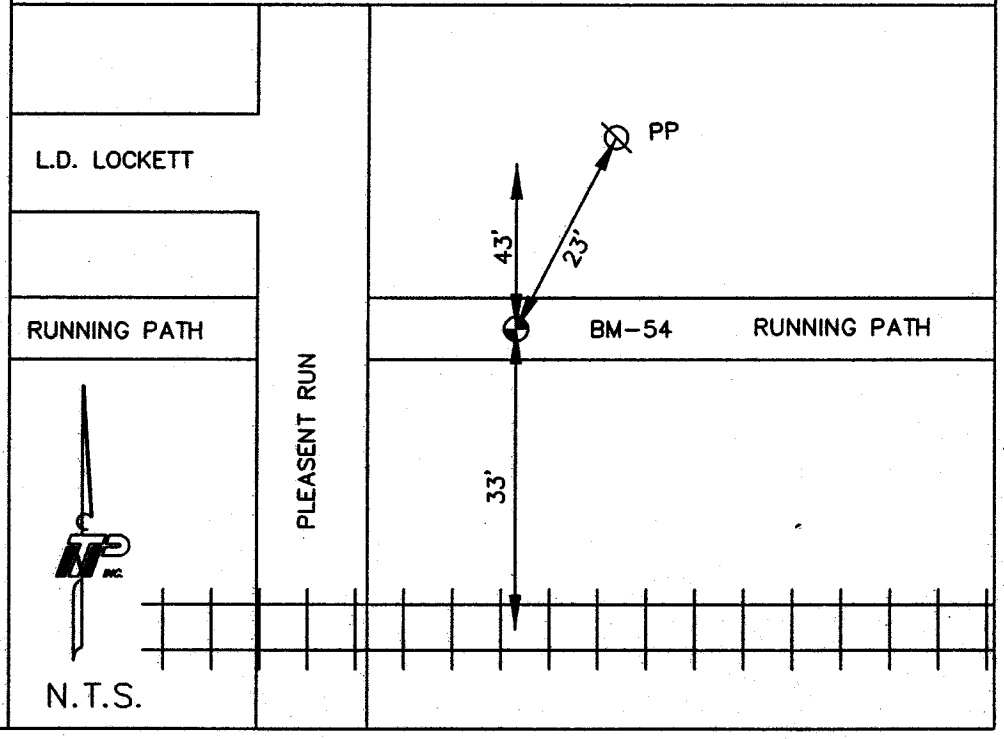
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7013689.939 E 2380739.034	00° 43' 57.36242"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 06.80846"	NORTH	648.38'
	LONGITUDE	97° 09' 24.30247"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.55 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-55: 2" BRASS DISC IN INLET LOCATED 21' WEST OF THE CL OF PLESENT RUN AND 63' SOUTH OF CL MCDONWELL SCHOOL ROAD.

MAPSCO 39-C

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845268

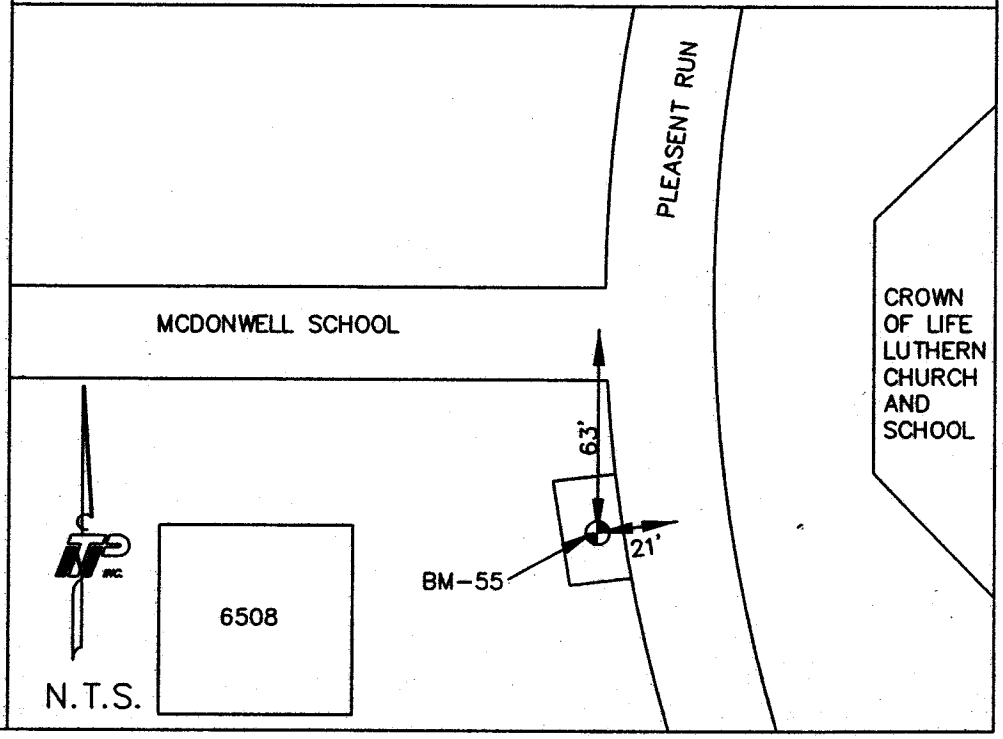
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7014606.533 E 2380320.376	00° 43' 57.36242"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 15.93066"	NORTH	640.60'
	LONGITUDE	97° 09' 29.07560"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.56	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848322

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7005397.371 E 2379715.279	00° 43' 50.13704"

METRIC CONVERSION FACTOR: 3.2808333333

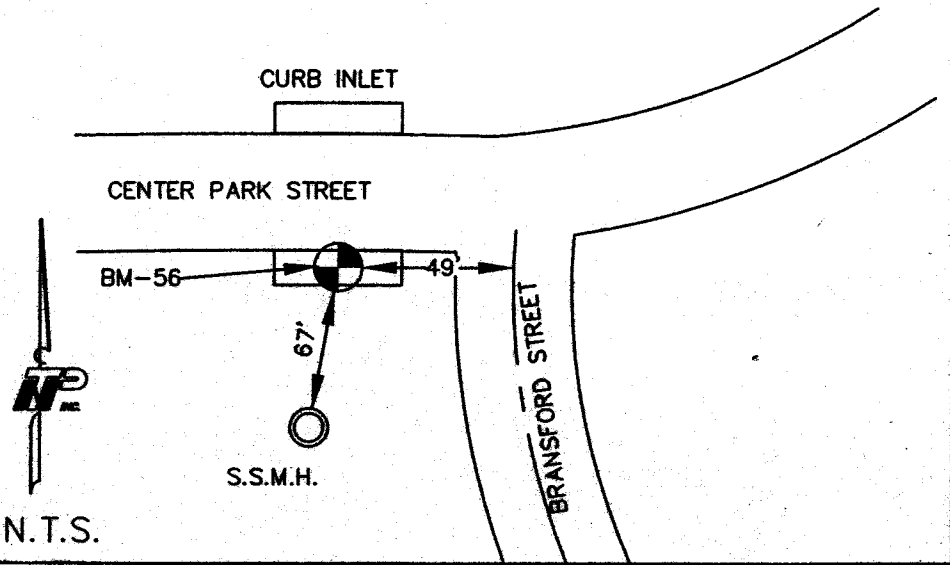
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 44.88675"	NORTH	602.34'
	LONGITUDE	97° 09' 37.55045"	WEST	

DESCRIPTION OF POINTS:

BM-56 IS A 2" BRASS DISC SET IN A CURB INLET IN THE SOUTHWEST QUADRANT OF BRANSFORD STREET AND CENTER PARK STREET. IT IS 67' NORTHEAST OF A SANITARY SEWER MANHOLE AND 49' WEST OF BARNSFORD STREET.

MAPSCO 39-Q

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.57	DATE: SEPT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-57 IS A 2" BRASS DISC SET IN A CURB INLET ON THE SOUTH SIDE OF CENTER PARK STREET AND IS NORTHEAST OF A STRIP MALL. IT IS 33' NORTHWEST OF A TRAFFIC SIGNAL POLE, 80' WEST OF COLLEYVILLE BOULEVARD AND 23.8' SOUTH OF THE SOUTH CURB OF THE MEDIAN IN CENTER PARK STREET.

MAPSCO 39-Q

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848659

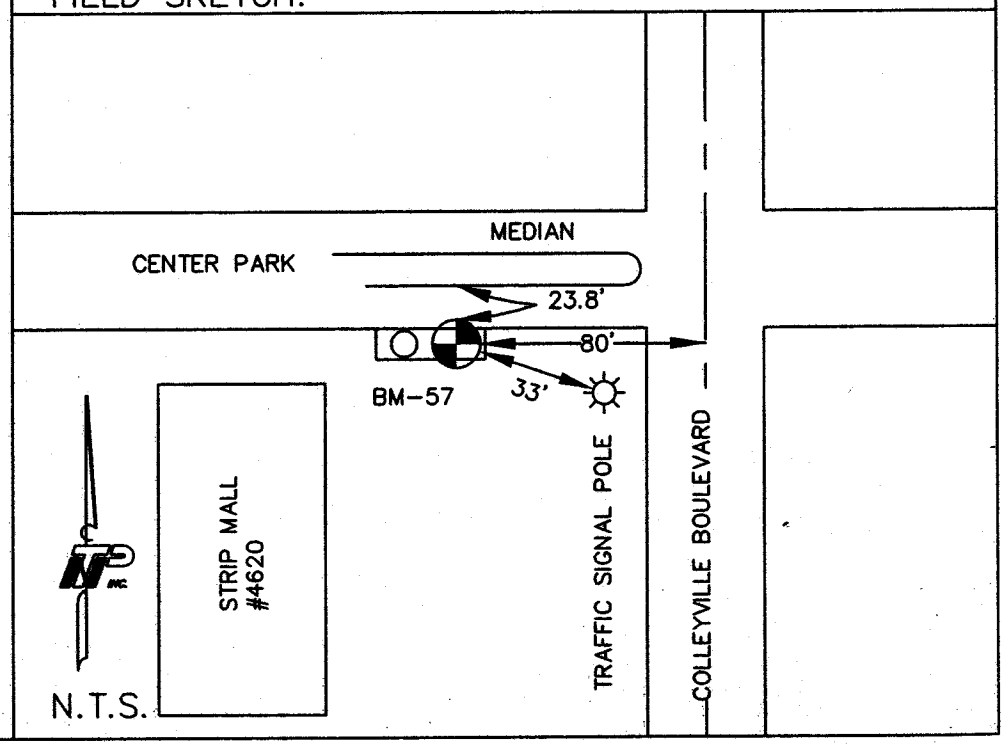
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7005069.920 E 2380112.315	00° 43' 52.64948"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 41.59665"	NORTH	596.29
	LONGITUDE	97° 09' 32.94380"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.58	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847767

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7006012.047 E 2378150.059	00° 43' 40.17690"

METRIC CONVERSION FACTOR: 3.2808333333

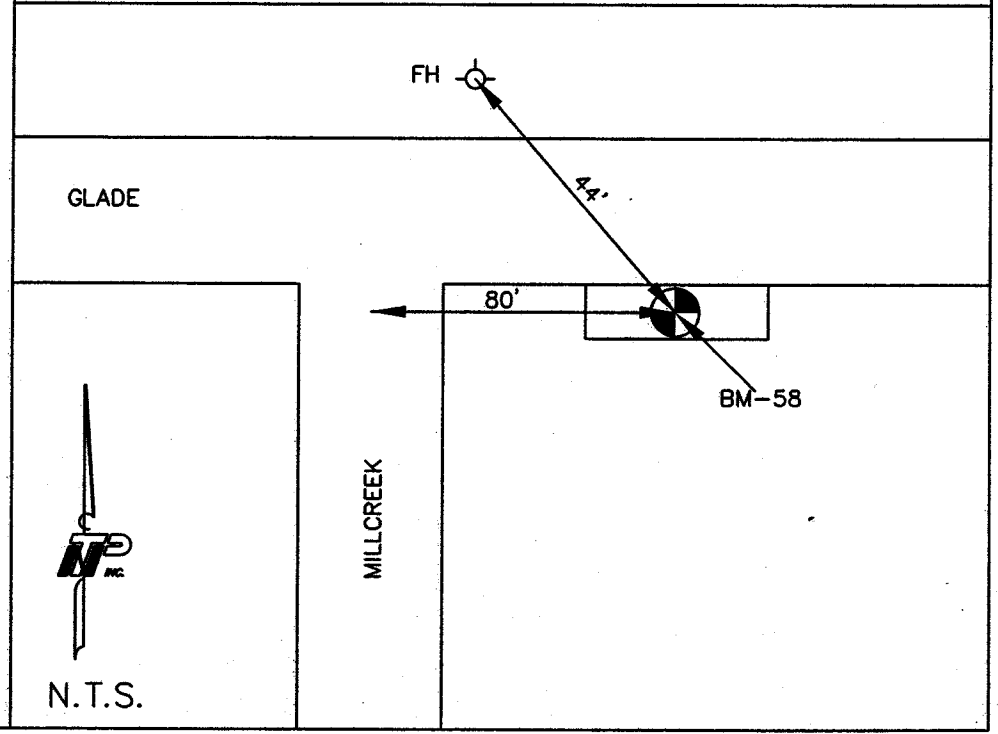
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 51.16581"	NORTH	612.05'
	LONGITUDE	97° 09' 55.81273"	WEST	

DESCRIPTION OF POINTS:

BM-58: 2" BRASS DISC IN CL IN SOUTH ROW OF GLADE RD. LOCATED 80' EAST OF CL OF MILLCREEK RD AND IS 44' SE OF FH IN THE NORTH ROW OF GLADE.

MAPSCO 39-Q

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.59	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848568

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7004884.809 E 2377081.418	00° 43' 33.25112"

METRIC CONVERSION FACTOR: 3.2808333333

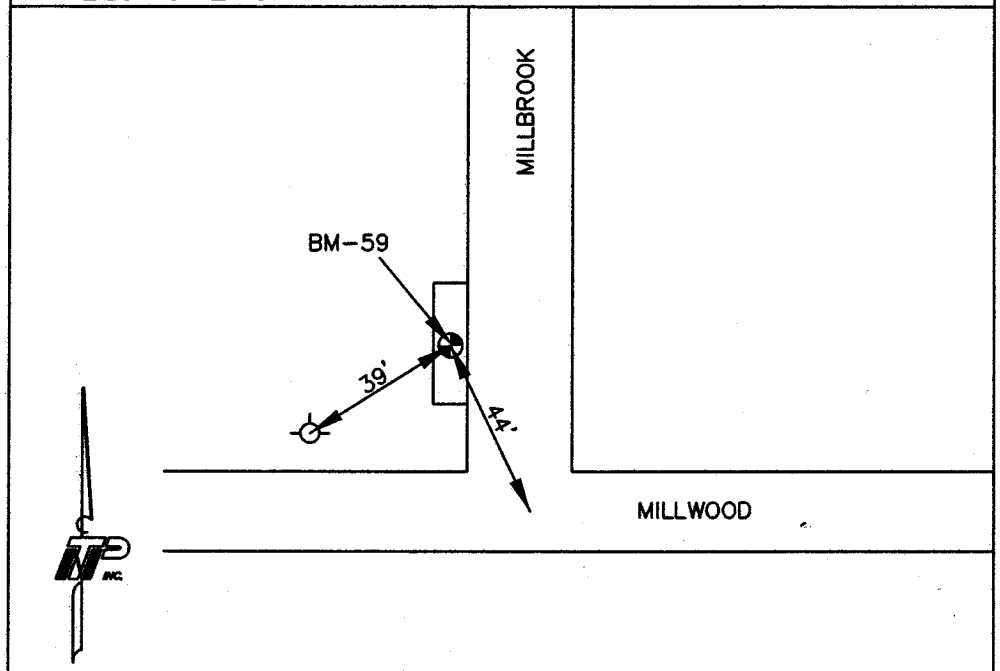
DESCRIPTION OF POINTS:

BM-59: 2" BRASS DISC IN CL INLET LOCATED IN THE WEST ROW OF MILLBROOK AND 44' NW OF THE INTERSECTION WITH MILLWOOD. IT IS ALSO 39' NE OF A FHTHAT IS IN THE NORTH ROW OF MILLWOOD.

MAPSCO 39-P

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 40.14644"	NORTH	598.64'
	LONGITUDE	97° 10' 08.51139"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.60 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-60: 2" BRASS CAP IN CONC APRON 30' SOUTH OF CL PLEASENT RUN AND 175' WEST OF HWY 26 NEAR THE ENTRANCE TO CHASE BANK.

MAPSCO 39-M

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847805

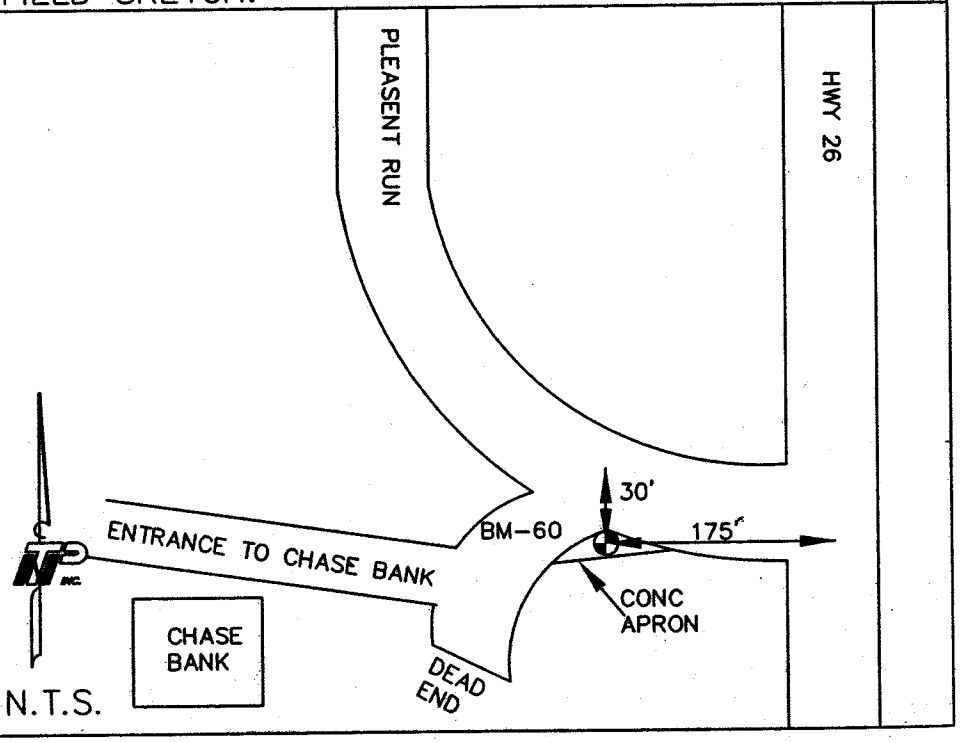
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7007051.448 E 2381567.884	00° 44' 02.12054"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 01.01880"	NORTH	608.32'
	LONGITUDE	97° 09' 15.57829"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.61		DATE: SEPT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847333

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7007757.786 E 2380746.963	00° 43' 56.92798"

METRIC CONVERSION FACTOR: 3.2808333333

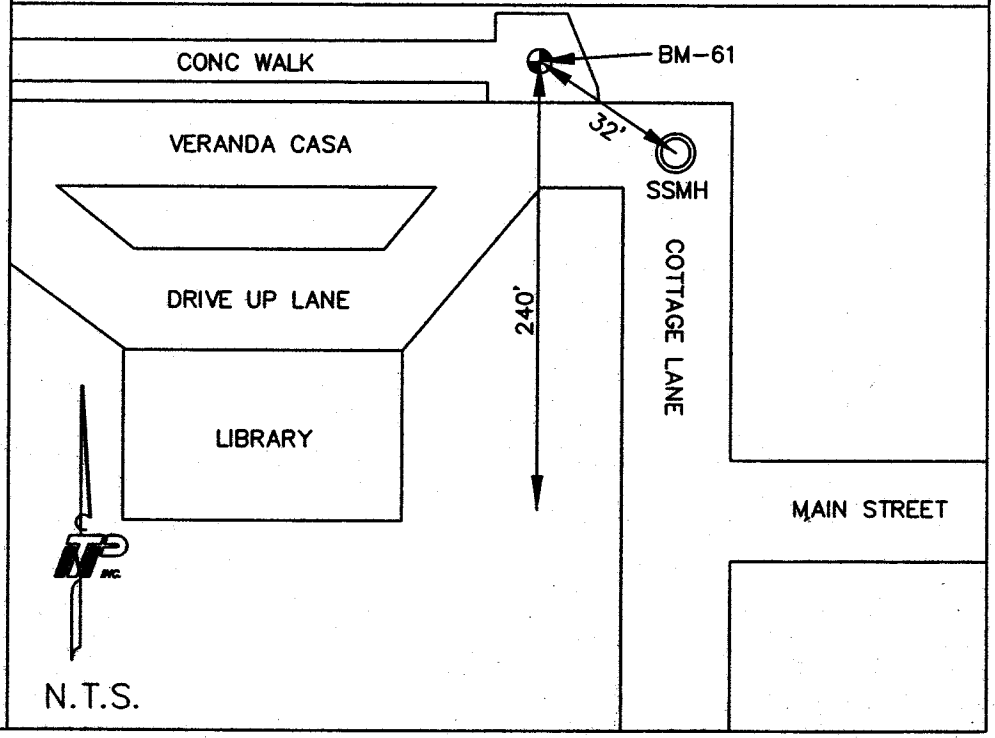
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 08.11163"	NORTH	616.10'
	LONGITUDE	97° 09' 25.09902"	WEST	

DESCRIPTION OF POINTS:

BM-61: 2" BRASS DISC IN CENTER OF CONC APRON AT EAST END OF SIDEWALK IN NORTH ROW OF VERANDA CASA AND IS ALSO 32' NW OF A SSMH LOCATED AT THE INTERSECTION OF VERANDA CASA AND COTTAGE LANE. IT CAN BE FOUND 240' NORTH OF THE CL INTERSECTION OF COTTAGE LANE AND MAIN STREET ALSO.

MAPSCO 39-M

FIELD SKETCH:



N.T.S.

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.62 | DATE: SEPT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-62: 2" BRASS DISC IN SE CORNER OF A CONC VAULT LOCATED 21' NORTH FROM THE CL OF CHURCH ST. AND 417' EAST OF THE CL OF PLEASENT RUN RD. IT IS ALSO 22' WEST OF A HEADWALL.

MAPSCO 39-H

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847070

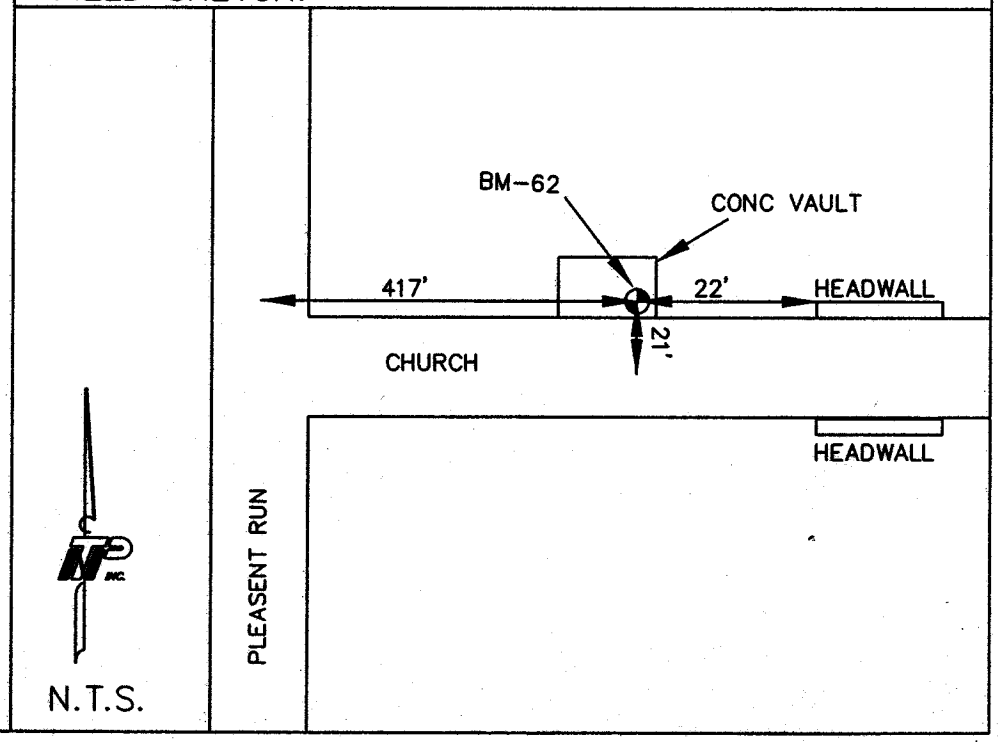
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7009395.299 E 2381940.090	00° 44' 04.69325"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 24.16290"	NORTH	616.98'
	LONGITUDE	97° 09' 10.86113"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.63	DATE: SEPT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0999845902

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7011710.578 E 2381446.675	00° 44' 01.72699"

METRIC CONVERSION FACTOR: 3.2808333333

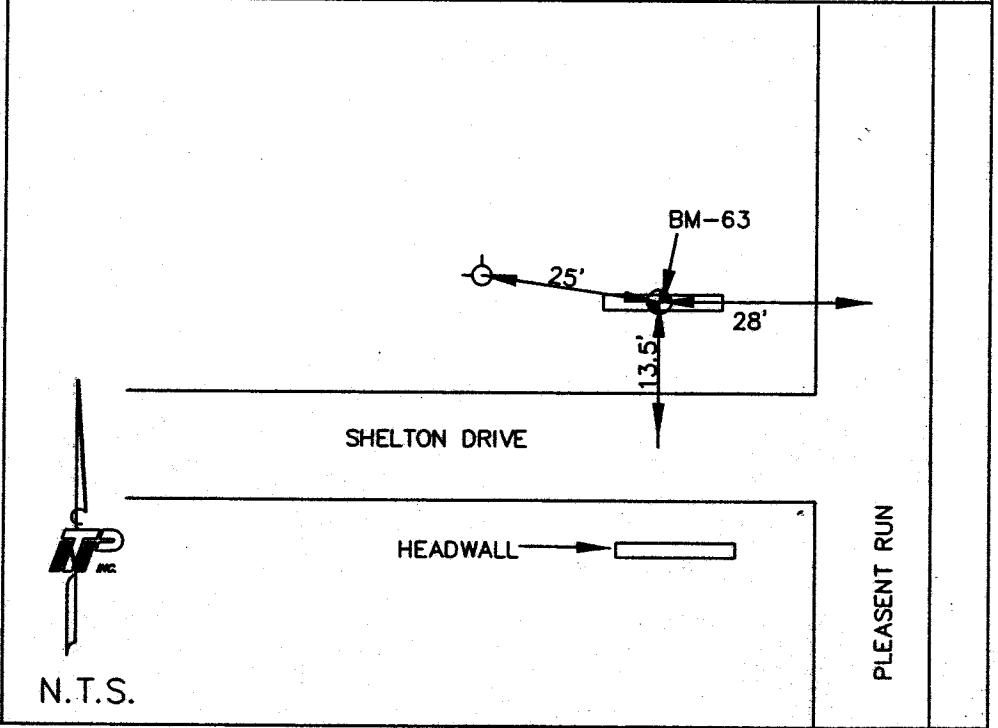
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 47.13404"	NORTH	635.00'
	LONGITUDE	97° 09' 16.29987"	WEST	

'DESCRIPTION OF POINTS:

BM-63: 2" BRASS DISC IN CL HEADWALL LOCATED 13.5' NORTH OF CL SHELTON DRIVE AND 28' WEST OF PLESANT RUN. IT IS ALSO LOCATED 25' EAST OF A FIRE HYDRANT.

MAPSCO 39-H

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.64		DATE: OCT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845926

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7010916.909 E 2381156.991	00° 43' 59.80903"

METRIC CONVERSION FACTOR: 3.2808333333

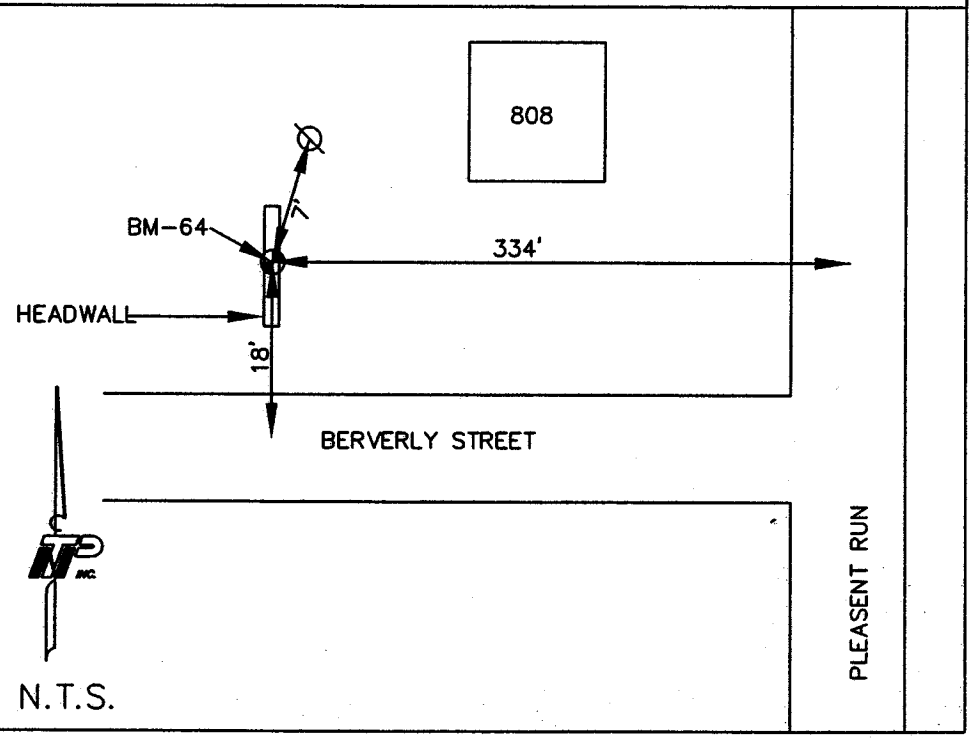
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 39.31776"	NORTH	636.64'
	LONGITUDE	97° 09' 19.81652"	WEST	

DESCRIPTION OF POINTS:

BM-64: 2" BRASS DISC IN CL HEADWALL LOCATED 18' NORTH OF CL OF BEVERLEY STREET AND 334' WEST OF CL OF PLESANT RUN. IT IS ALSO LOCATED 7' SOUTH OF A P.P.

MAPSCO 39-G

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.65 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-65: 2" BRASS DISC LOCATED ON THE NORTH CURB OF OAKCREST HILLS WHERE THE CURB BEGINS & 33' WEST OF CL BRANSFORD ROAD.IT IS 5.7' EAST OF A FIRE HYDRANT.

MAPSCO 39-G

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845229

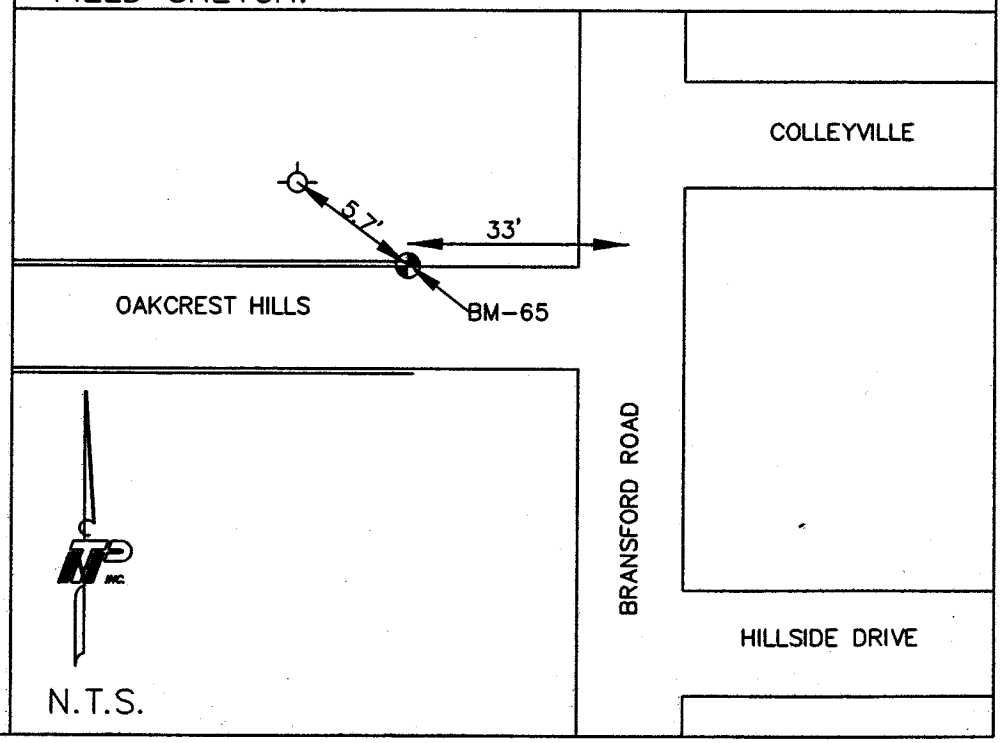
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7009485.104 E 2379304.762	00° 43' 47.84473"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 25.38476"	NORTH	655.12'
	LONGITUDE	97° 09' 41.75348"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.66	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847156

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7007866.385 E 2379639.475	00° 43' 49.85358"

METRIC CONVERSION FACTOR: 3.2808333333

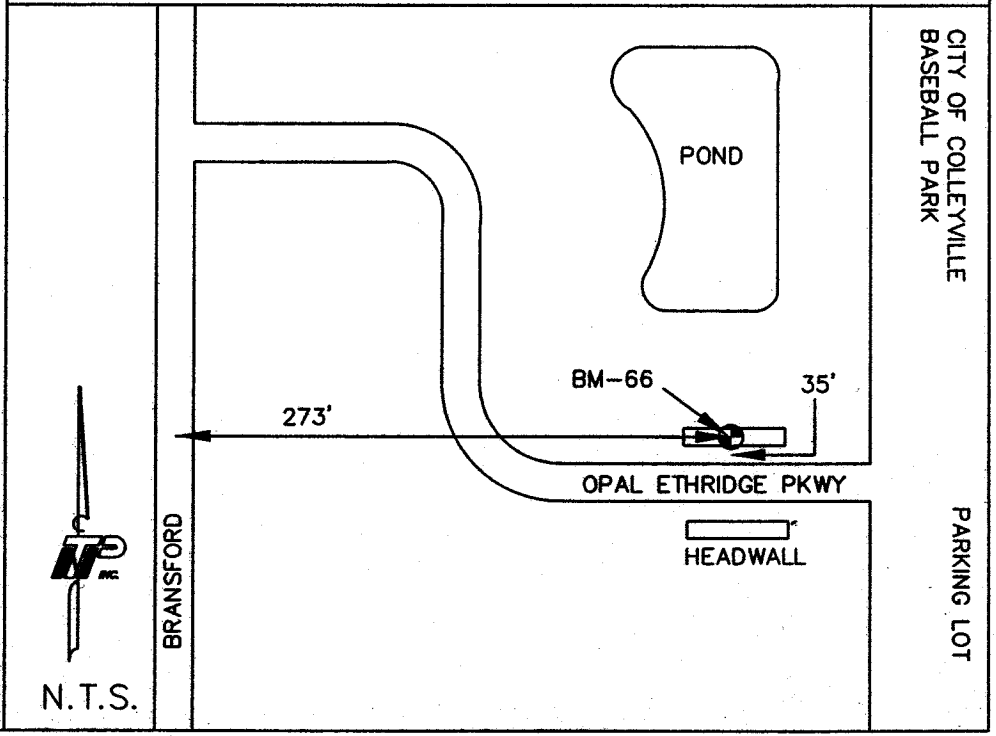
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 09.32608"	NORTH	619.45'
	LONGITUDE	97° 09' 38.07018'	WEST	

DESCRIPTION OF POINTS:

BM-66: 2"BRASS DISC IN CL NORTH HEADWALL LOCATED 273' EAST OF BRANSFORD RD AND 35' NORTH OF THE BC ON THE NORTH SIDE OF OPAL ETHRIDGE PKWY.

MAPSCO 39-L

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.67 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-67: 2" BRASS DISC IN INLET LOCATED IN THE SOUTH ROW OF NORTH TIMBERLINE,16' SOUTH OF CL. IT IS ALSO LOCATED 40' SE OF THE PI CL OF THE INTERSECTION.

MAPSCO 39-K

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847217

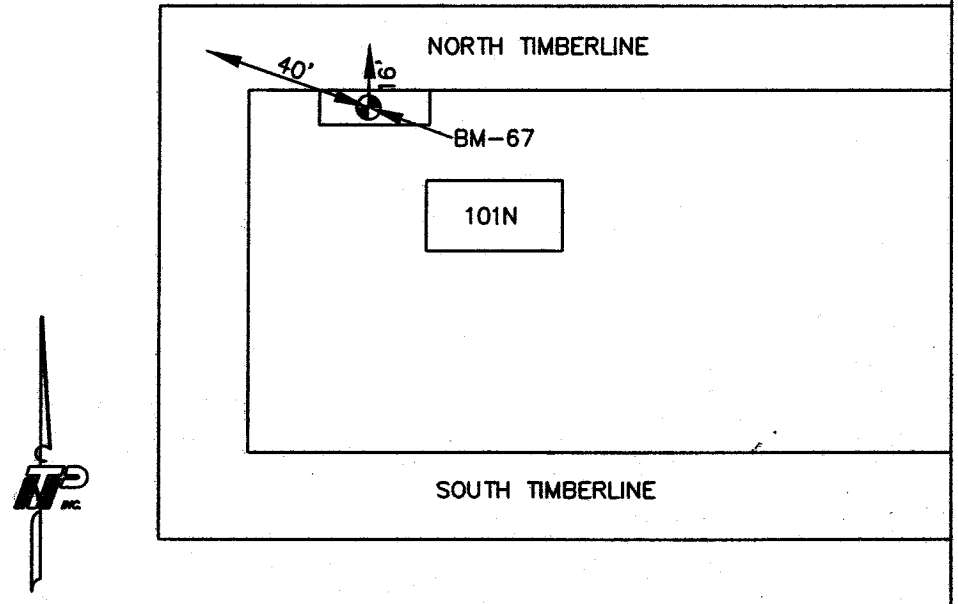
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7008305.101 E 2376730.121	00° 43' 31.28142"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 14.03272"	NORTH	616.81'
	LONGITUDE	97° 10' 12.12290"	WEST	

FIELD SKETCH:



N.T.S.

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.68 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-69: 2"BRASS DISC IN INLET LOCATED IN SOUTH ROW OF VALLEYVIEW. IT IS LOCATED 15.5' SOUTH OF THE CL OF VALLEYVIEW AND 45' EAST OF THE CL OF RUSTIC.

MAPSCO 39-K

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846926

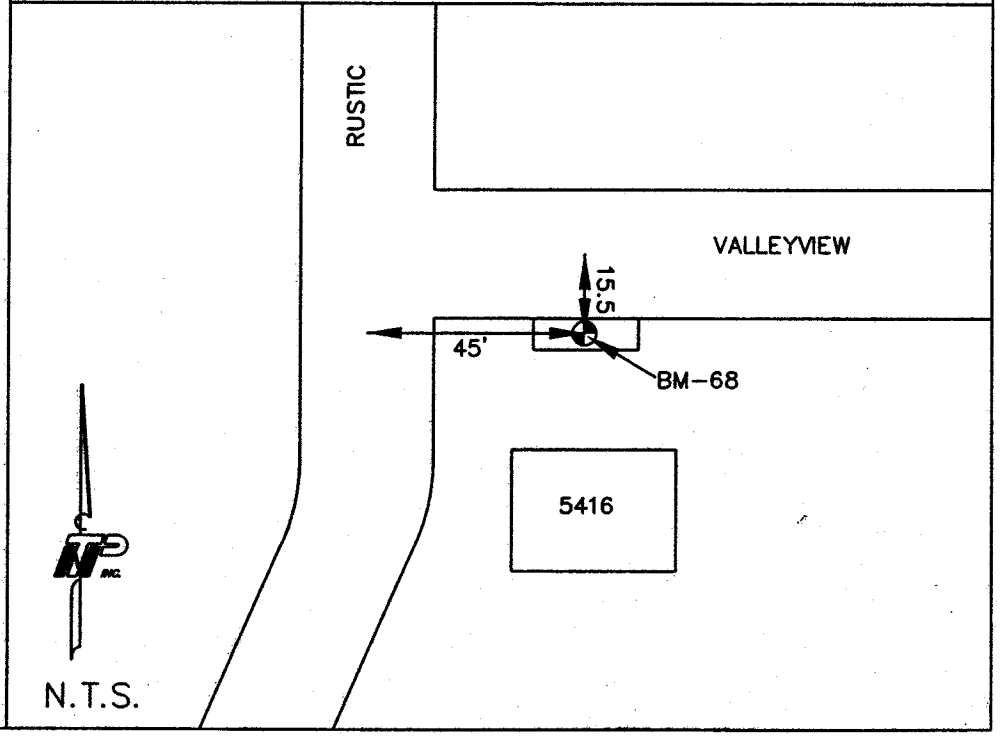
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7008695.478 E 2376394.296	00° 43' 29.16510"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 17.93738"	NORTH	621.77'
	LONGITUDE	97° 10' 16.00325"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.69 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-69 IS A 2" BRASS DISC IN A CURB INLET ON THE NORTH SIDE OF BRIELWOOD STREET. IT IS 23' NORTH OF THE NORTH CURB OF THE MEDIAN AND 82' WEST OF THE CENTERLINE OF BROWN TRAIL.

MAPSCO 39-U

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848336

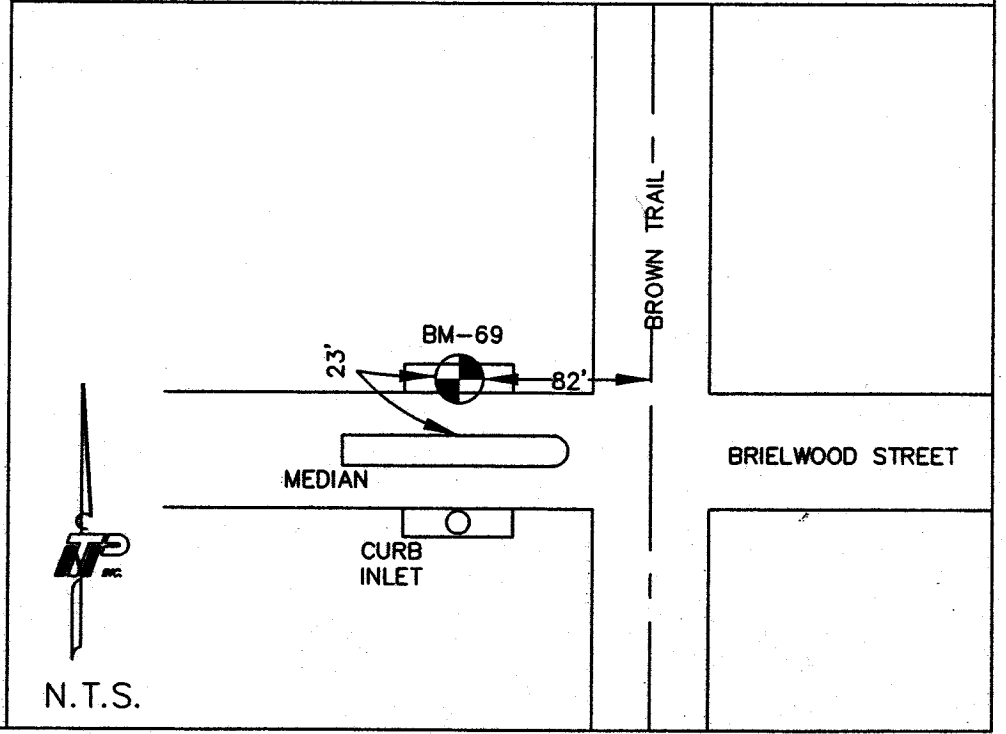
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7002338.890 E 2380093.576	00° 43' 52.30674"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 14.57671"	NORTH	611.45'
	LONGITUDE	97° 09' 33.57224"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.70	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-70 IS A 2" BRASS DISC SET IN A CURB INLET IN THE SOUTH WEST QUADRANT OF THE INTERSECTION OF SADDLE BROOK STREET AND INWOOD STREET. IT IS 43' SOUTH OF THE CENTERLINE OF SADDLE BROOK STREET, 14' SOUTHEAST OF A LIGHT POLE AND EAST OF RESIDENCE #4200.

MAPSCO 39-V

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999849419

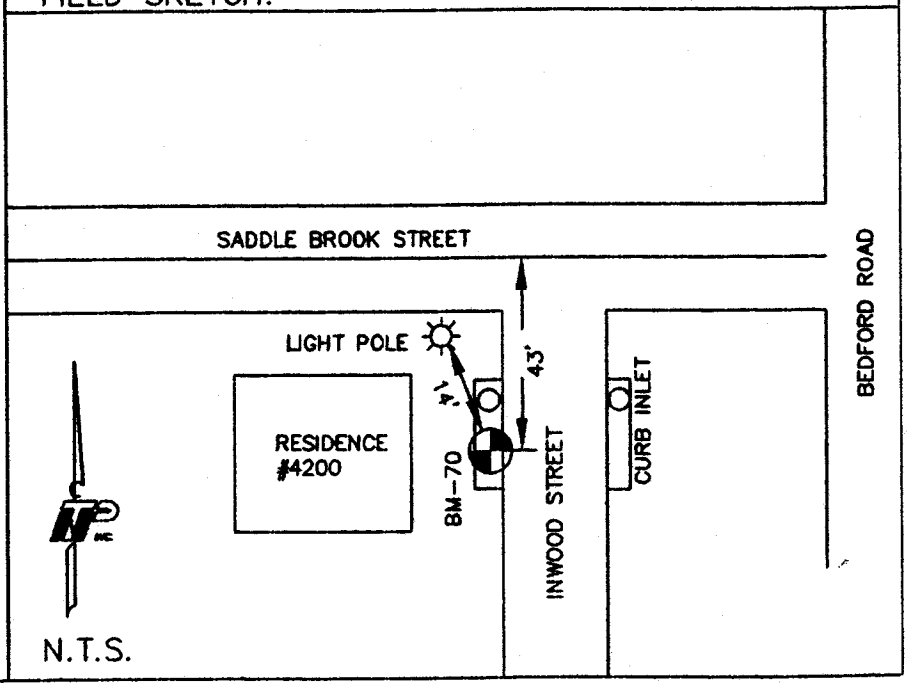
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7002689.206 E 2382100.836	00° 44' 05.17130"

METRIC CONVERSION FACTOR: 3.2808333333

	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
GEODETIC DATA	LATITUDE	32° 52' 17.78884"	NORTH	587.80'
	LONGITUDE	97° 09' 09.98461"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.71	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848459

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7004425.421 E 2382323.480	00° 44' 06.73753"

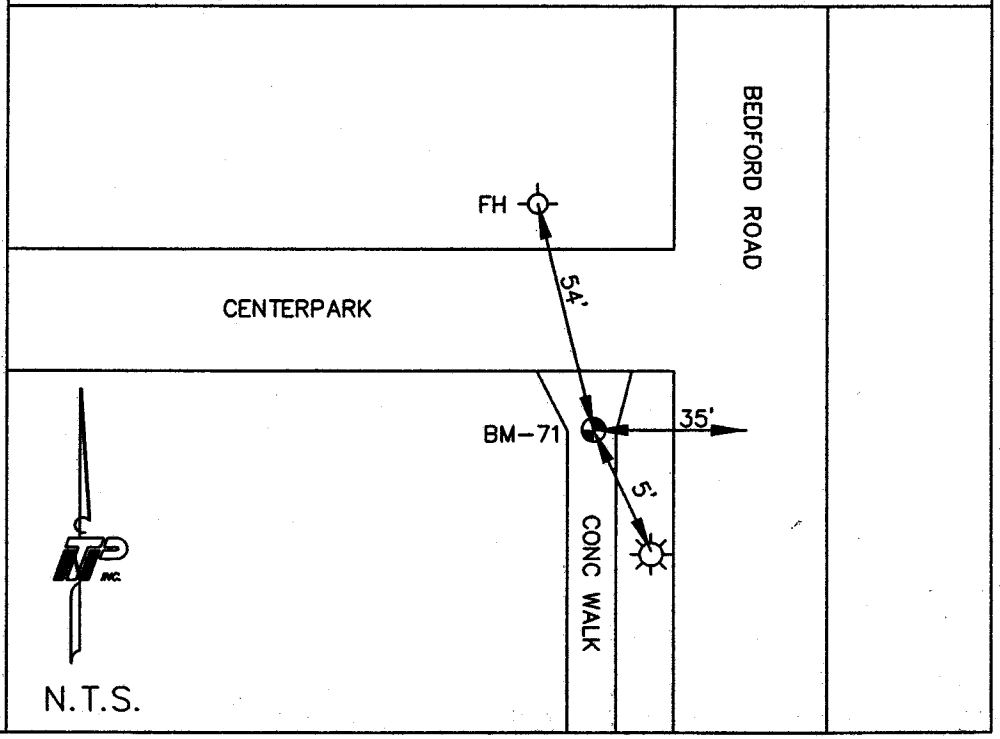
METRIC CONVERSION FACTOR: 3.2808333333

DESCRIPTION OF POINTS:

BM-71: 2" BRASS CAP IN CONC WALK ENTRANCE IN THE WEST ROW OF BEDFORD ROAD JUST SOUTH OF CENTERPARK. IT IS ALSO 35' EAST OF CL BEDFORD ROAD AND 54' SOUTH OF A FH

GEODETIC DATA	POSITION NAD 27 ☐ NAD 83 ☒			ELEV.(GPS)
	LATITUDE	32° 52' 34.93963"	NORTH	602.52'
	LONGITUDE	97° 09' 07.11287"	WEST	

FIELD SKETCH:



MAPSCO 39-R

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO.72	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848662

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7005073.935 E 2383523.015	00° 44' 14.46206"

METRIC CONVERSION FACTOR: 3.2808333333

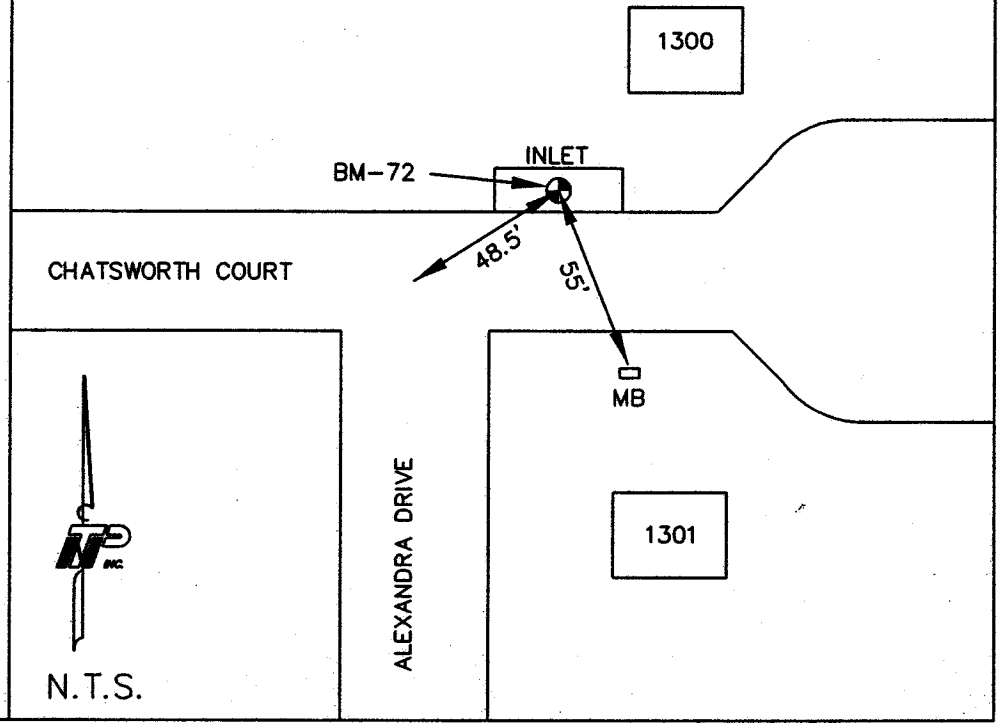
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 41.20384"	NORTH	596.34'
	LONGITUDE	97° 08' 52.94966"	WEST	

DESCRIPTION OF POINTS:

BM-72: 2" DISC IN INLET LOCATED IN THE NORTH ROW OF CHATSWORTH COURT. IT'S 48.5 NE OF THE CL INTERSECTION WITH ALEXANDRA AND 55' NW OF A MAILBOX LOCATED AT 1301 CHATSWORTH CT.

MAPSCO 40-N

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 73	DATE: OCT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT / STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847336

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7017617.788 E 2385658.790	00° 44' 29.15898"

METRIC CONVERSION FACTOR: 3.2808333333

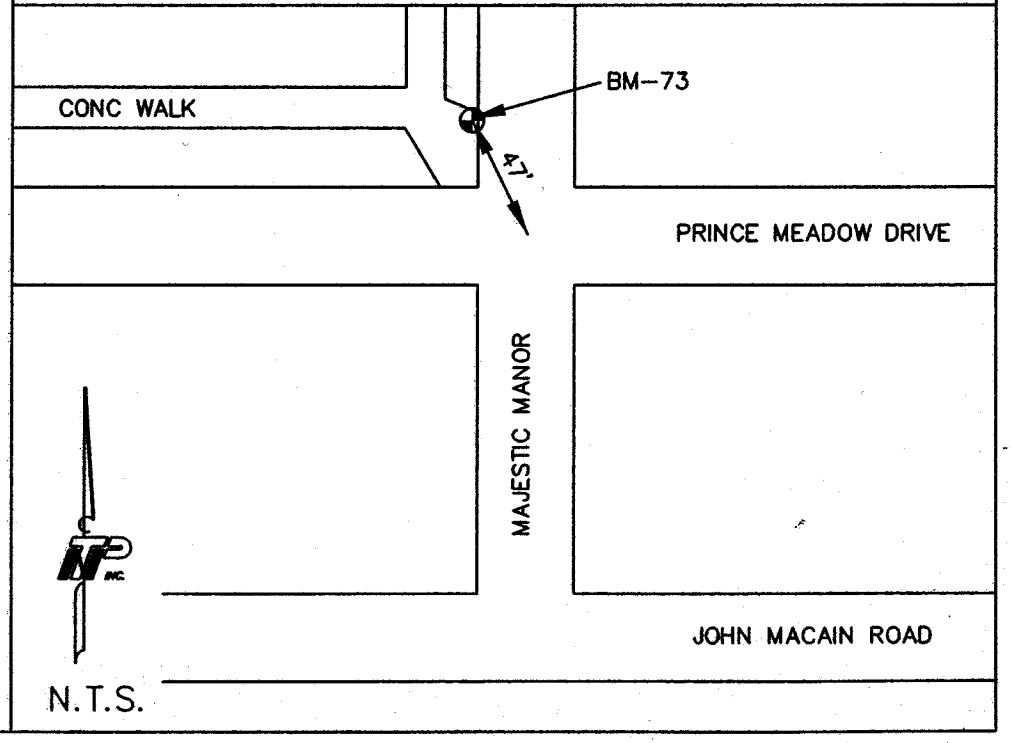
DESCRIPTION OF POINTS:

BM-73: 2"BRASS DISC LOCATED IN CONC APRON AT INTERSECTION OF CONC WALK IN THE NORTH ROW PRINCE MEADOW DR. IT IS ALSO LOCATED 47' NW OF THE CL INTERSECTION WITH MAJESTIC MANOR.

MAPSCO 26-W

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 45.04636"	NORTH	590.01'
	LONGITUDE	97° 08' 26.00234"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 74	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845876

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7017154.074 E 2383463.495	00° 44' 15.07592"

METRIC CONVERSION FACTOR: 3.2808333333

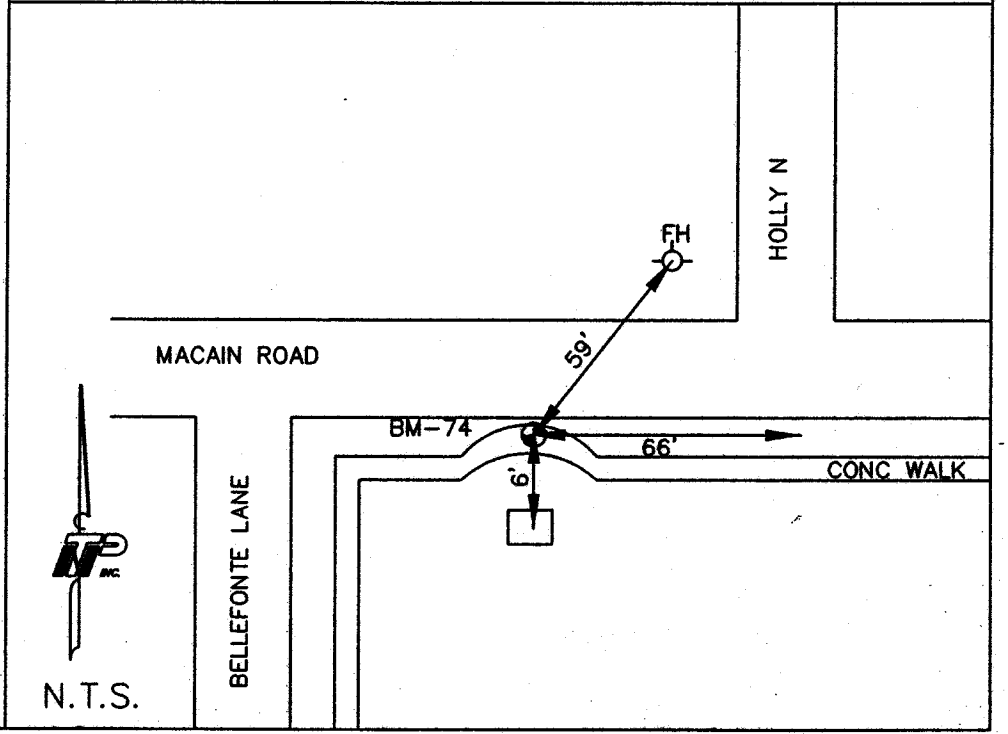
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 40.73850"	NORTH	621.60'
	LONGITUDE	97° 08' 51.82414"	WEST	

DESCRIPTION OF POINTS:

BM-74: 2" BRASS CAP IN NORTH EDGE OF CONC WALK IN THE SOUTH ROW OF JOHN MACAIN ROAD AND 66' WEST OF HOLLY STREET. IT IS ALSO LOCATED 59' SW OF A FIRE HYDRANT LOCATED IN THE WEST ROW OF HOLLY AT THE INTERSECTION JOHN MACAIN ROAD.

MAPSCO 26-W

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 75	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-75: 2" BRASS DISC IN CL INLET LOCATED IN WEST ROW OF PETER'S PATH 16' FROM CL ROAD. IT IS ALSO 90' SOUTH CL JOHN MACAIN ROAD.

MAPSCO 25-Z

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845440

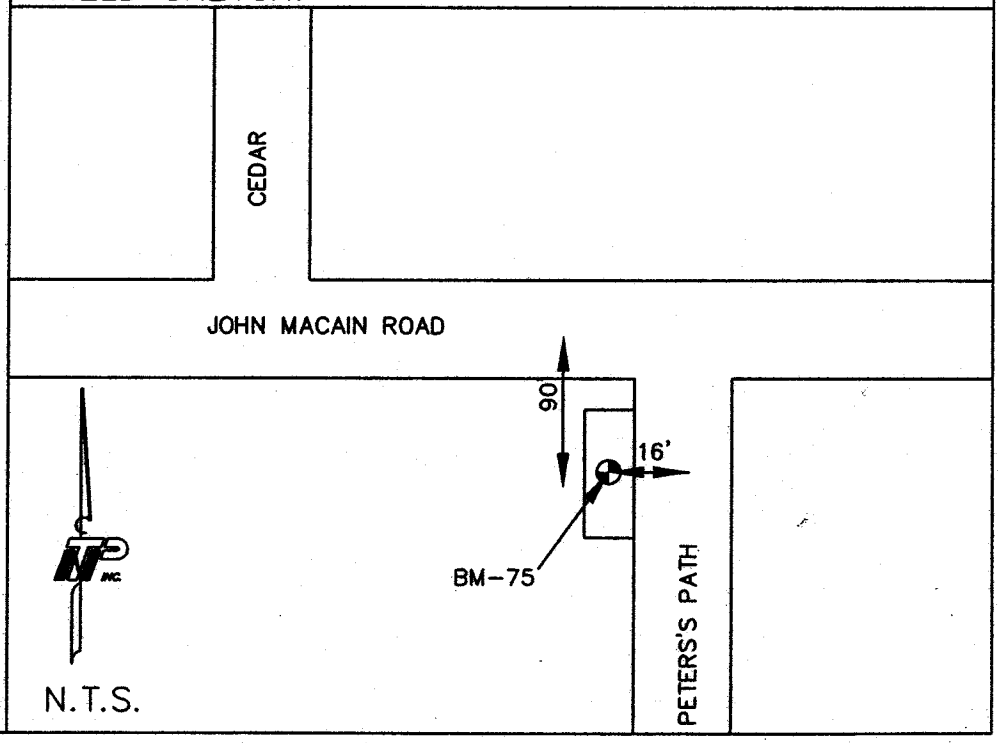
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7017076.226 E 2382181.819	00° 44' 06.86983"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 40.13123"	NORTH	630.88'
	LONGITUDE	97° 09' 06.87029"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 76 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-76: 2" BRASS CAP ON NE CORNER OF DROP INLET LOCATED 91' NORTH OF NORTH EDGE ASPHALT OF JO WILL ROAD 20' SE CL OF BRICK RETAINING WALL.

MAPSCO 25-Z

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847258

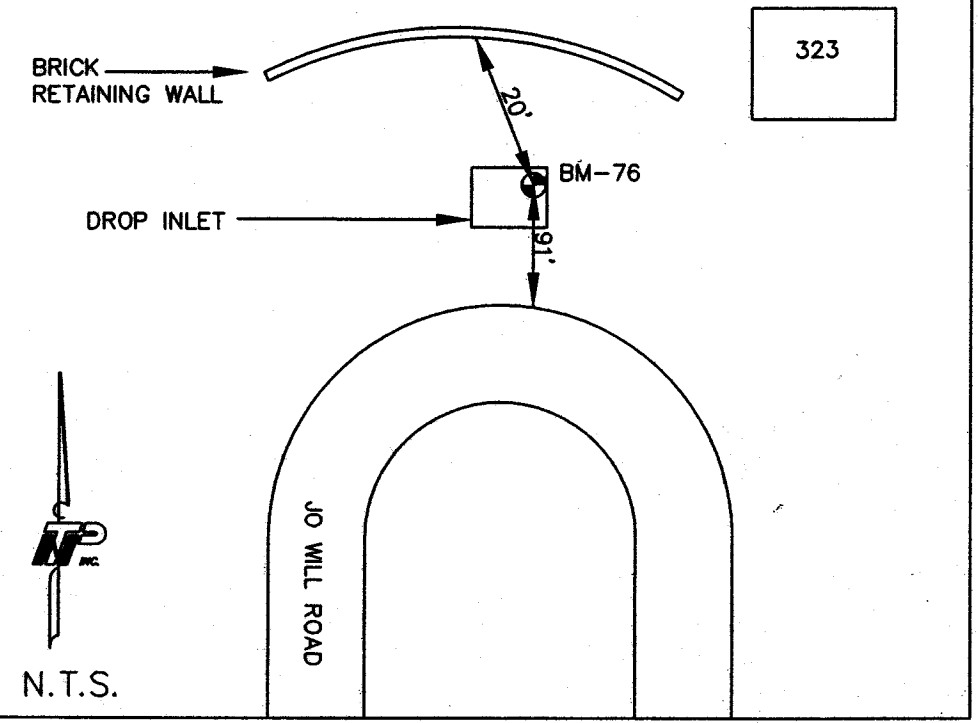
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7018678.975 E 2381983.509	00° 44' 05.73265"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 56.01480"	NORTH	589.00'
	LONGITUDE	97° 09' 08.95535"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 77	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846133

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7016123.594 E 2383396.798	00° 44' 14.56436"

METRIC CONVERSION FACTOR: 3.2808333333

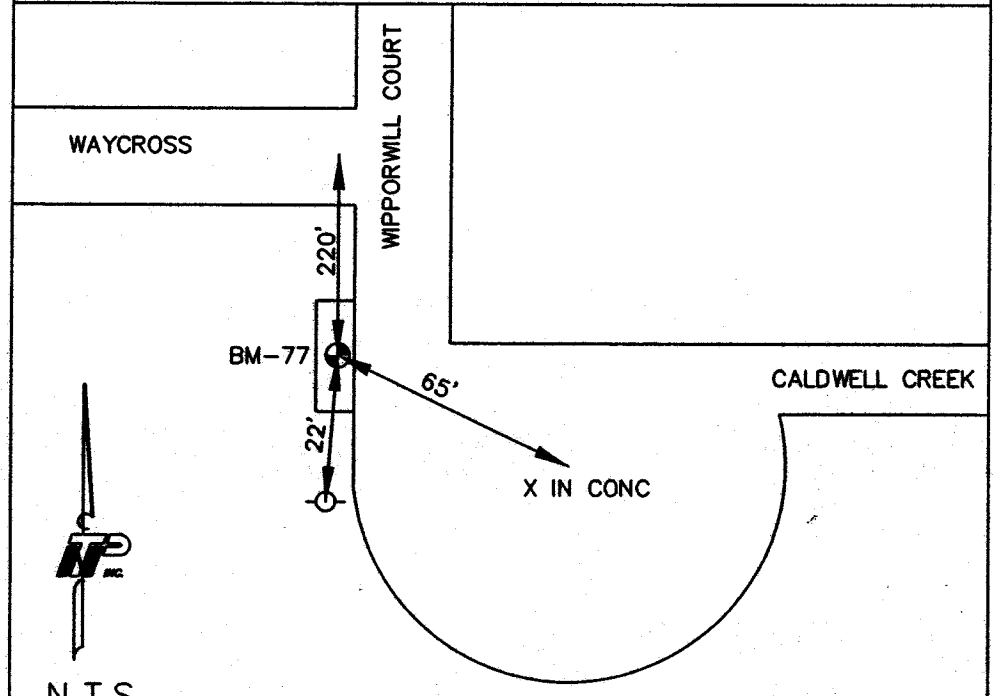
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 30.55092"	NORTH	618.78'
	LONGITUDE	97° 08' 52.76209"	WEST	

DESCRIPTION OF POINTS:

BM-77: 2" BRASS DISC IN CL INLET LOCATED IN THE WEST ROW OF WIPPORWILL COURT AND 220' SOUTH CL WAYCROSS STREET. iT IS ALSO 65' NW OF X IN CONC (RP) AND IS 22' NORTH OF A FIRE HYDRANT.

MAPSCO 26-W

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 78	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-78: 2" BRASS CAP IN CL INLET LOCATED IN THE SOUTH ROW OF TENNSION PRKY AND 286' EAST OF THE CL DOUGLAS STREET. iT IS ALSO LOCATED 31' SOUTH OF THE CL OF MEDIAN.

MAPSCO 26-X

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847342

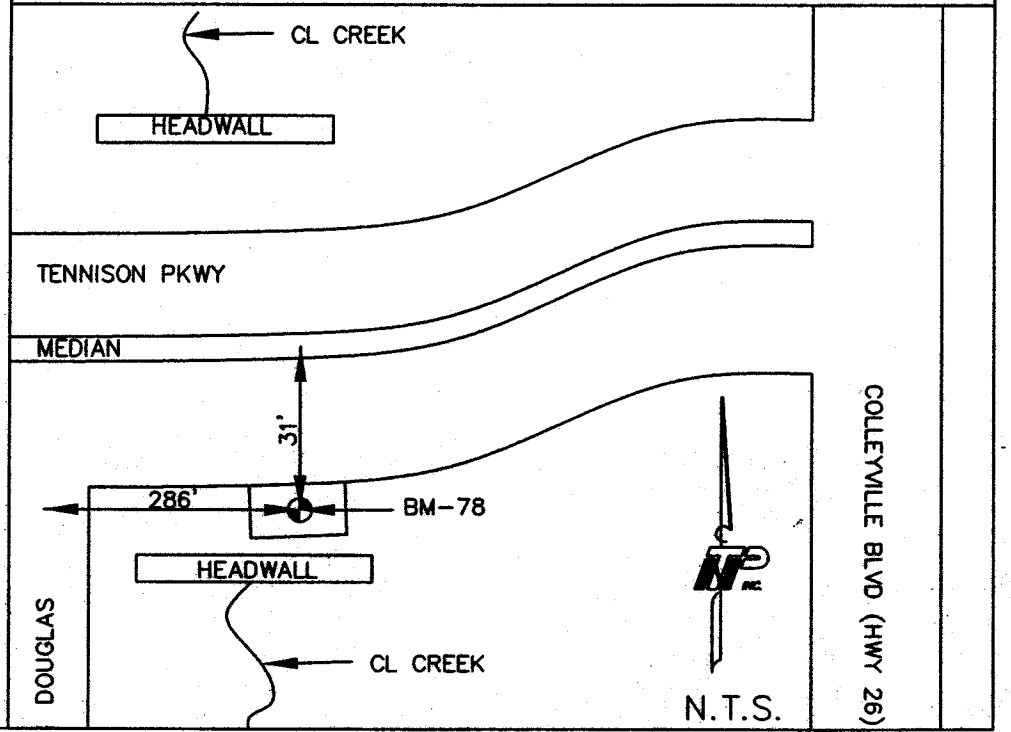
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7015470.152 E 2385831.480	00° 44' 30.08593"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 23.77449"	NORTH	595.21'
	LONGITUDE	97° 08' 24.30275"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 79	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-79: 2" BRASS DIC LOCATED AT THE NW CORNER OF INTERSECTION OF TENNISON PKWY AND MILTON RD. IN THE CL OF INLET . IT IS LOCATED 47' NW OF THE CL PI OF SAME INTERSECTION AND 34.6' SW OF A FIRE HYDRANT.

MAPSCO 26-W

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846934

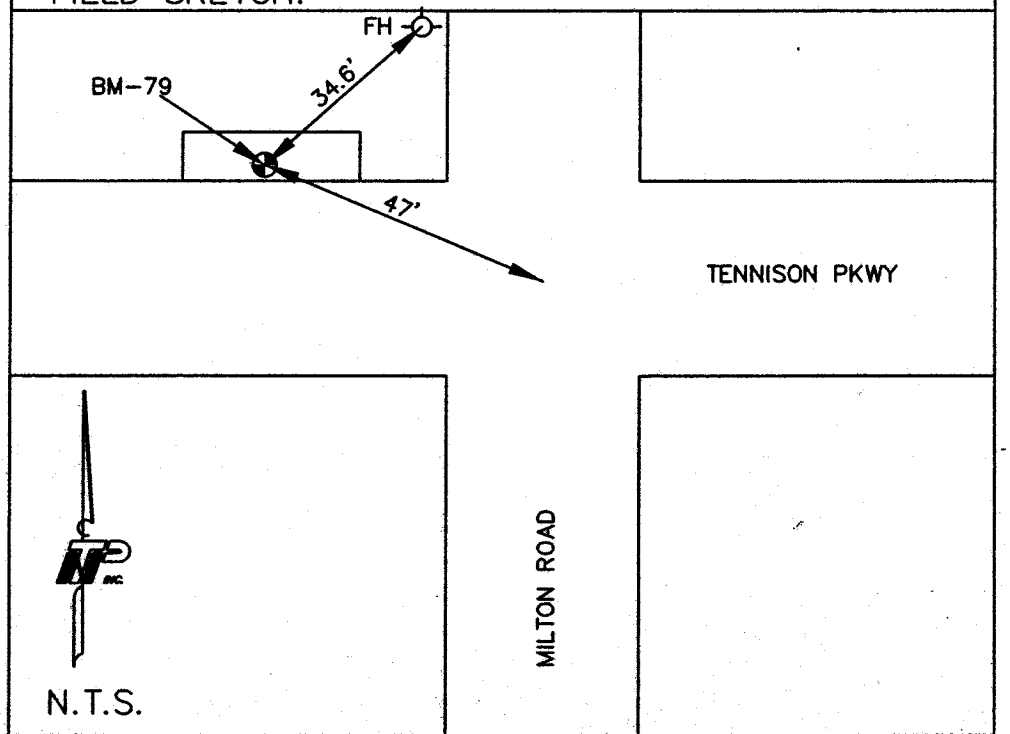
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7015364.276 E 2384605.965	00° 44' 22.23721"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 22.88364"	NORTH	603.97'
	LONGITUDE	97° 08' 38.69365"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 80 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846717

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7013190.319 E 2384984.569	00° 44' 24.47958"

METRIC CONVERSION FACTOR: 3.2808333333

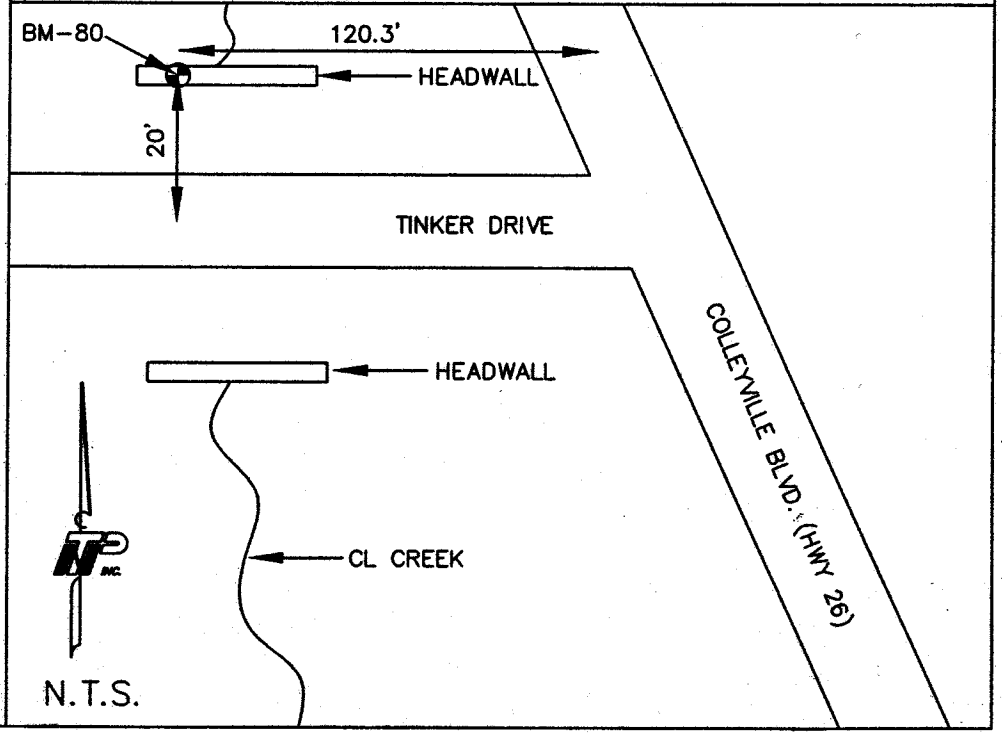
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 01.32506"	NORTH	614.12'
	LONGITUDE	97° 08' 34.58218"	WEST	

DESCRIPTION OF POINTS:

BM-80: 2" BRASS DISC LOCATED 20' NORTH OF CL TINKER DRIVE IN NORTH HEADWALL 1.35' FROM WEST END AND IS 120.3' WEST OF CL COLLEYVILLE BLVD.

MAPSCO 40-A

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 81	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845933

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7014953.493 E 2382638.905	00° 44' 09.61963"

METRIC CONVERSION FACTOR: 3.2808333333

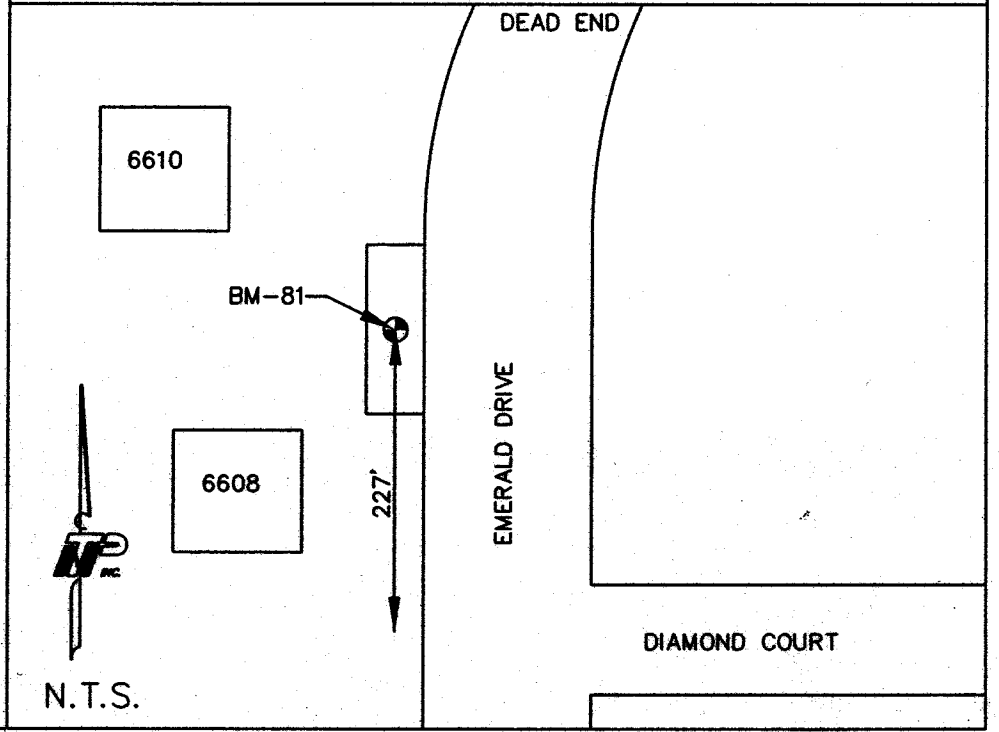
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 19.06978"	NORTH	625.88'
	LONGITUDE	97° 09' 01.82843"	WEST	

DESCRIPTION OF POINTS:

BM-81: 2"BRASS DISC LOCATED IN INLET IN WEST ROW OF EMERALD DRIVE AND 227' NORTH OF DIAMOND CT. IT IS ALSO BETWEEN 6608 & 6610 EMERALD DRIVE

MAPSCO 39-D

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 82 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-82: 2" DISC IN EAST END OF HEADWALL LOCATED 70' NORTH OF CL PLEASENT RUN RD. AND 9' WEST OF WEST BACK OF CURB OF THE ENTRANCE TO GOOD SHEPARD CATHOLIC COMMUNITY.

MAPSCO 39-D

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845477

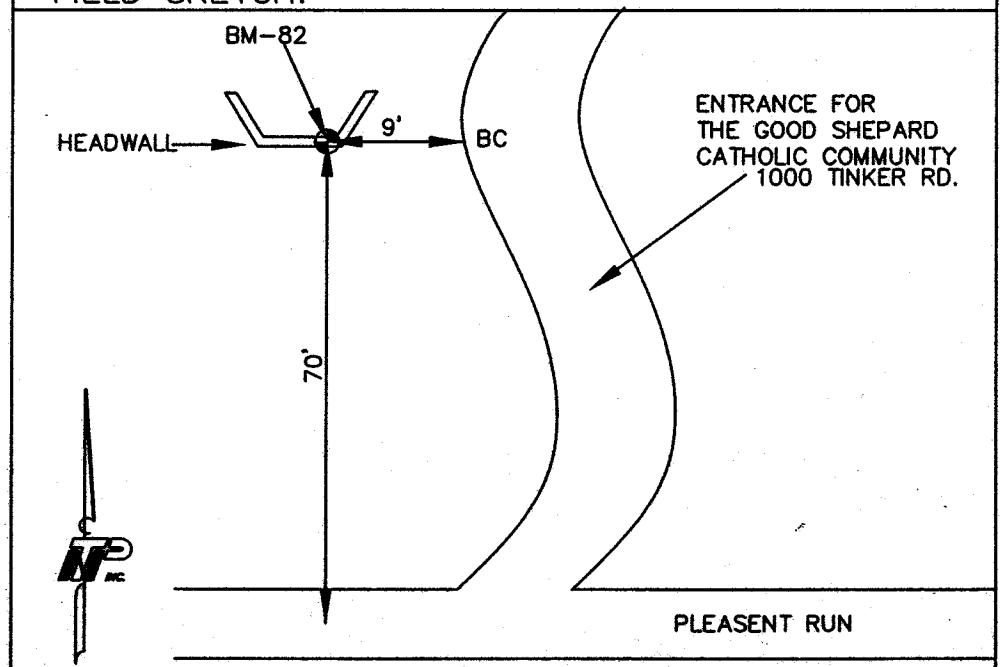
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7013336.362 E 2381296.366	00° 44' 00.89868"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 03.23943"	NORTH	639.55'
	LONGITUDE	97° 09' 17.81860"	WEST	

FIELD SKETCH:



N.T.S.

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 83	DATE: OCT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845690

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7012069.912 E 2383204.080	00° 44' 12.99789"

METRIC CONVERSION FACTOR: 3.2808333333

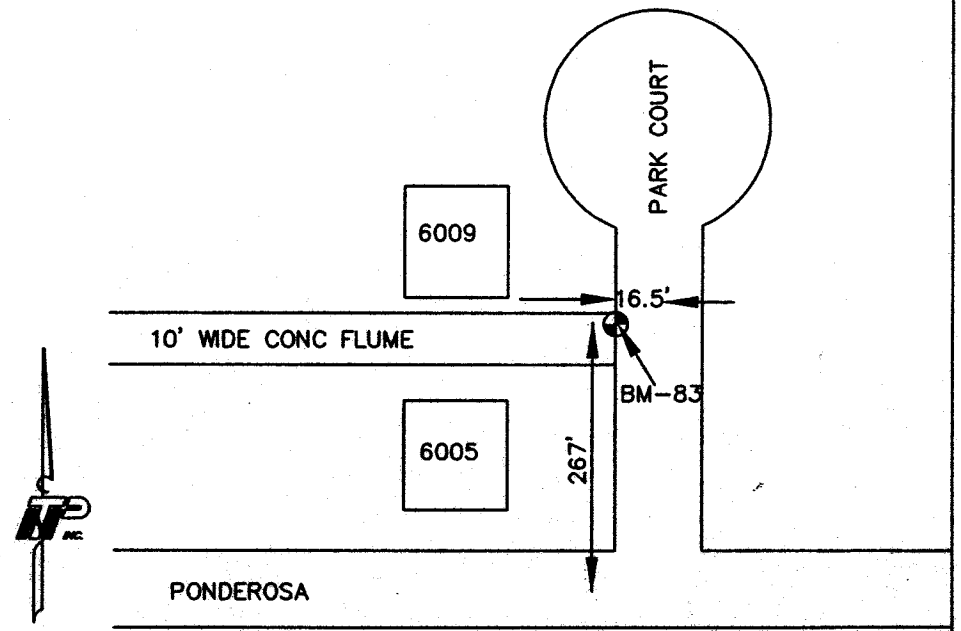
DESCRIPTION OF POINTS:

BM-83: 2" BRASS DISC LOCATED IN FLUME IN LINE WITH BACK OF CURB IN THE WEST ROW OF PARK CT. IT IS LOCATED 267' NORTH OF CL PONDEROSA, 16.5' FROM CL PARK. CT. AND 8' NORTH FROM SOUTH EDGE OF 10' WIDE FLUME.

MAPSCO

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 50.46628"	NORTH	638.53'
	LONGITUDE	97° 08' 55.63427"	WEST	

FIELD SKETCH:



N.T.S.

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 84 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-84: 2" BRASS CAP IN NE CORNER OF A 6'X6' DROP INLET LOCATED 284' SOUTH OF THE CL OF BOGART & IN THE EAST ROW OF HALL JOHNSON.

MAPSCO 40-E

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846184

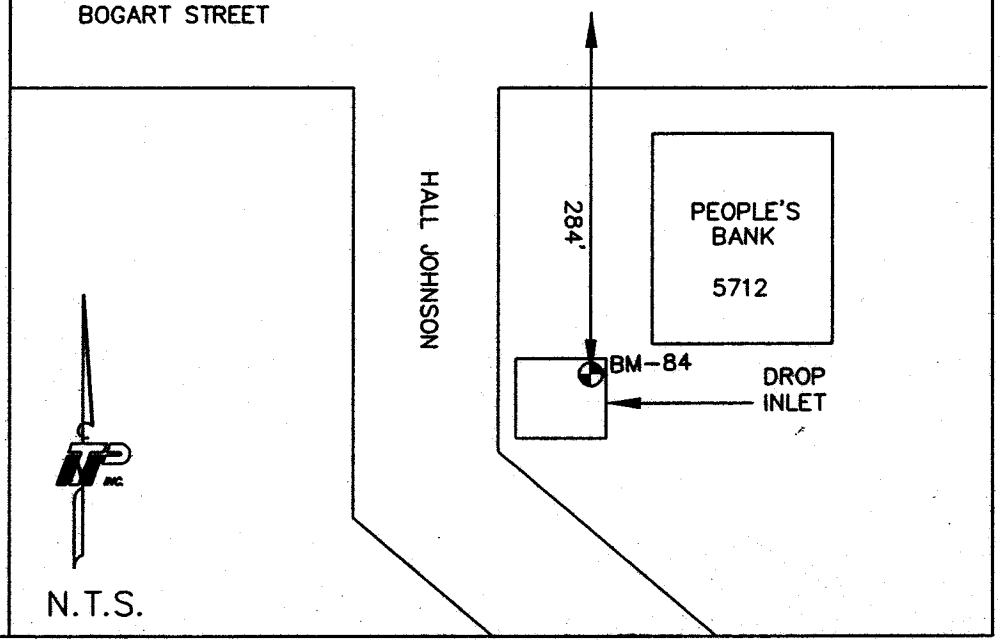
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7010409.459 E 2383249.706	00° 44' 13.15312"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 34.03110"	NORTH	632.72'
	LONGITUDE	97° 08' 55.34966"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 85	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-85 IS A 2" BRASS DISC SET IN A CURB INLET ON THE NORTH SIDE OF BALLANTRAE STREET IN FRONT OF A RESIDENCE AT #5802. IT IS 27.3' SOUTHWEST OF THE SOUTHEAST CORNER OF RESIDENCE AND 47' NORTHWEST OF A STORM DRAIN MANHOLE IN THE INTERSECTION OF MEADOWHILL DRIVE AND BALLANTRAE STREET.

MAPSCO 40-F

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846596

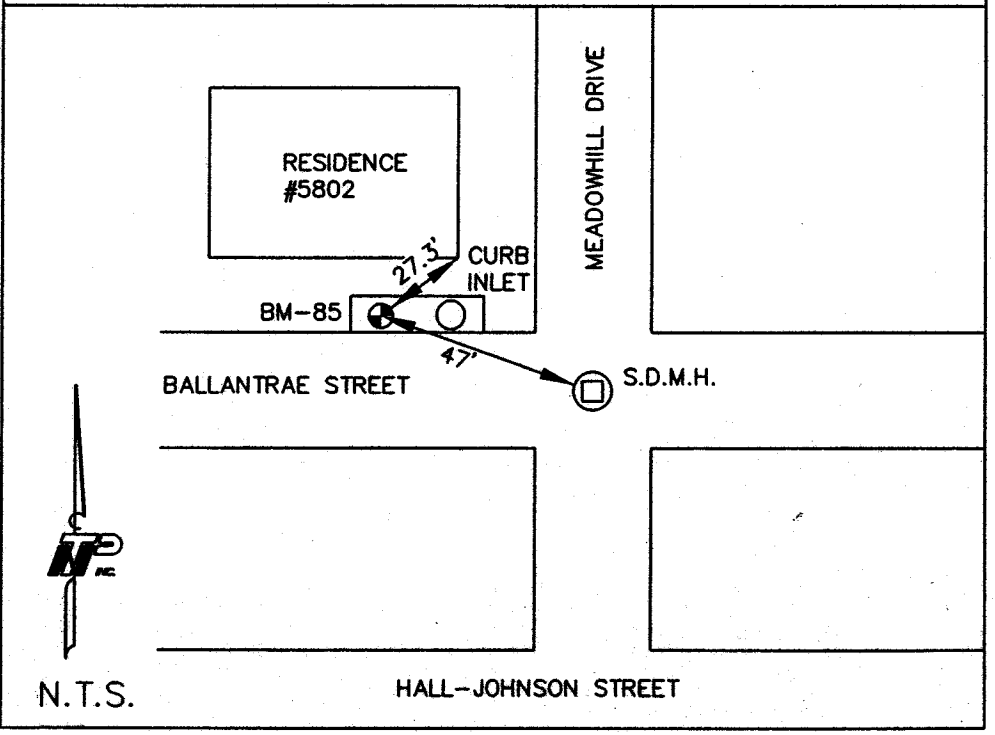
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7010701.719 E 2387970.020	00° 44' 43.36989"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 36.31865"	NORTH	623.47'
	LONGITUDE	97° 07' 59.94614"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 86	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846147

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7011108.415 E 2386448.600	00° 44' 33.67211"

METRIC CONVERSION FACTOR: 3.2808333333

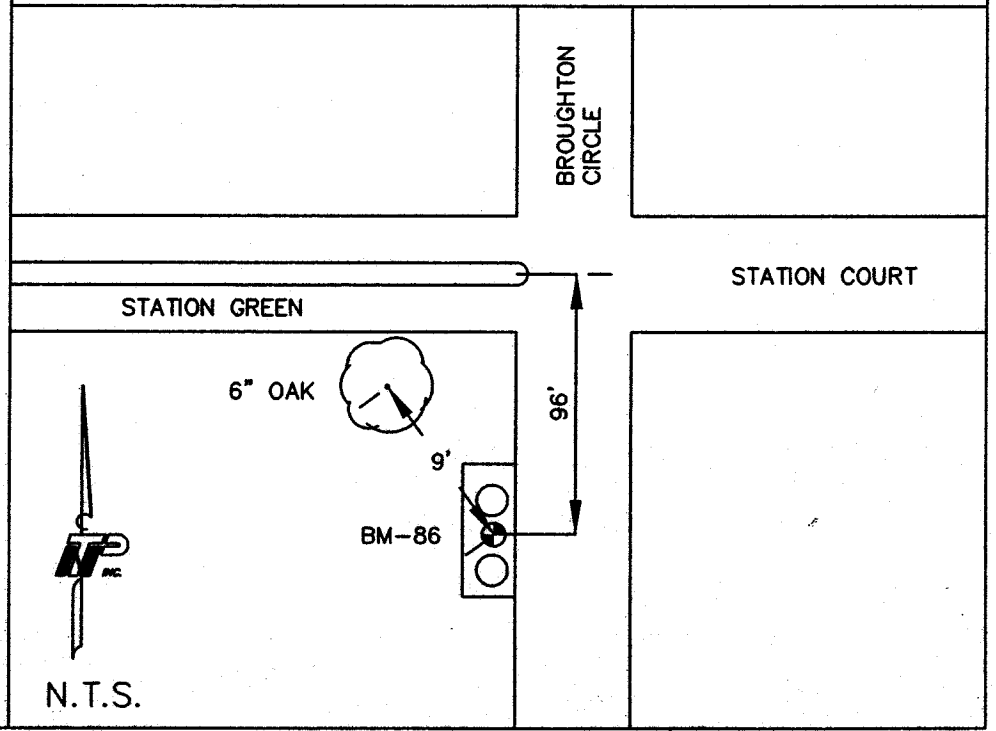
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 40.53820"	NORTH	631.69'
	LONGITUDE	97° 08' 17.72737"	WEST	

DESCRIPTION OF POINTS:

BM-86 IS A 2" BRASS CAP SET IN A CURB INLET ON THE WEST SIDE OF BROUGHTON CIRCLE. IT IS 96' SOUTH OF THE CENTERLINE OF STATION GREEN AND 9' SOUTHEAST OF A 6" OAK TREE.

MAPSCO 40-F

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 87	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846900

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7011648.086 E 2388896.659	00° 44' 49.37590"

METRIC CONVERSION FACTOR: 3.2808333333

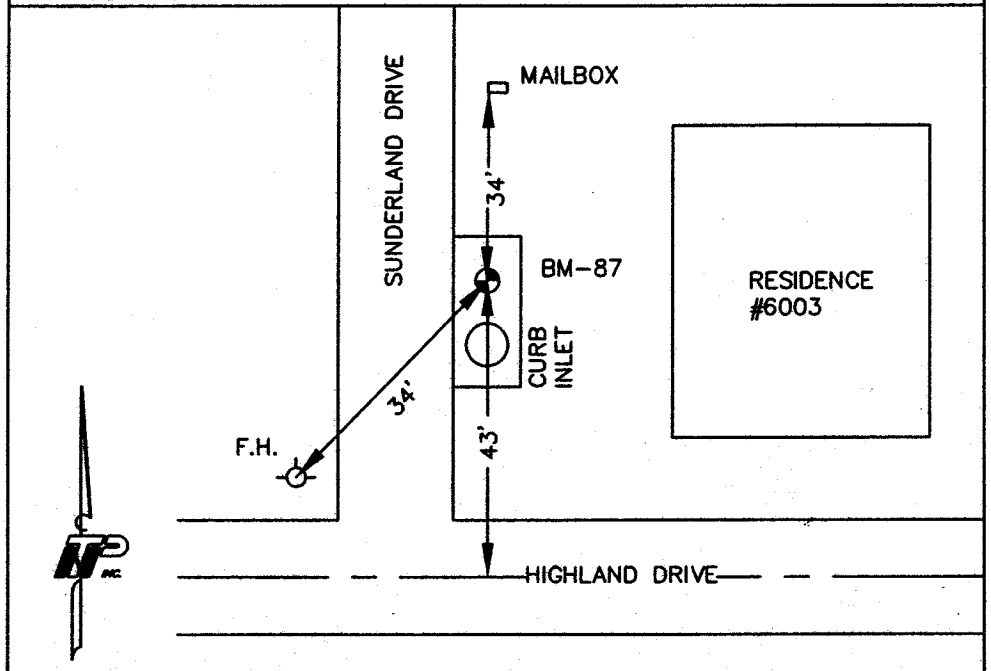
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 45.56306"	NORTH	614.55'
	LONGITUDE	97° 07' 48.93390"	WEST	

DESCRIPTION OF POINTS:

B.M.–87 IS A 2" BRASS DISC SET IN A CURB INLET ON THE EAST SIDE OF SUNDERLAND DRIVE, WEST OF RESIDENCE #6003. IT IS 43' NORTH OF THE CENTERLINE OF HIGHLAND DRIVE, 34' SOUTH OF A MAILBOX AND 34' NORTHEAST OF A FIRE HYDRANT ON THE WEST SIDE OF SUNDERLAND DRIVE.

MAPSCO 40–F

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 88 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-88: 2" BRASS CAP IN CL DROP INLET LOCATED AT THE NORT END OF HIGHLAND HILLS COURT AND BEING 54' NORTH OF THE RADIUS POINT ANS 336' NORTH OF CL HIGHGATE STREET.

MAPSCO 40-F

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846243

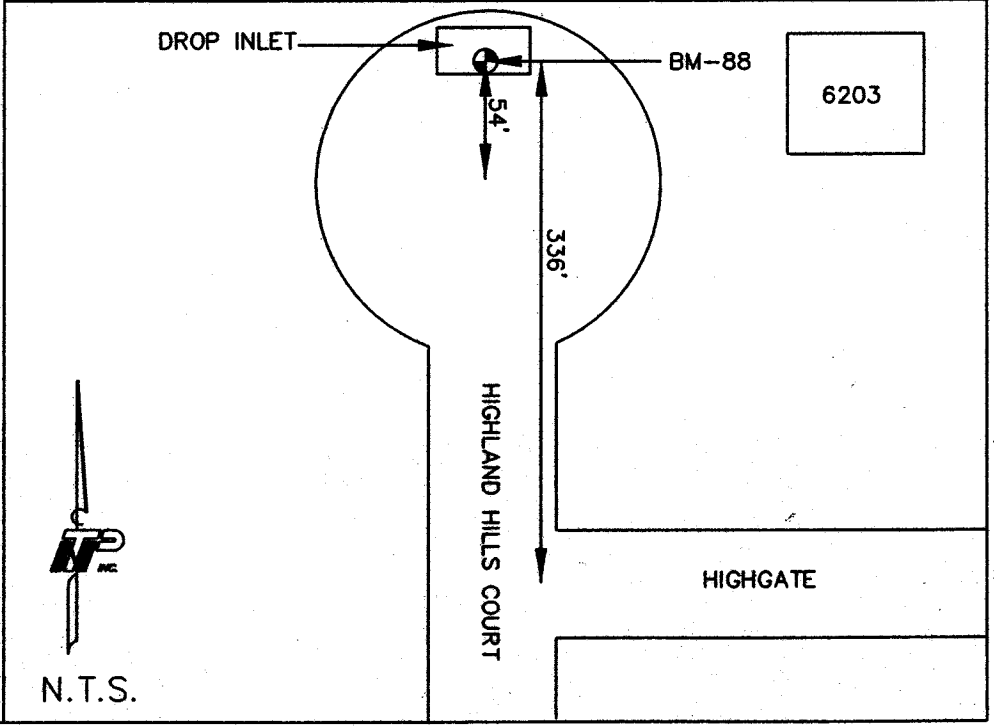
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7013183.773 E 2387202.014	00° 44' 38.66366"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 00.97610"	NORTH	624.14'
	LONGITUDE	97° 08' 08.57518"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 89 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-89: 2" BRASS DISC IN INLET IN THE SOUTH ROW OF INDEPENDENCE ROAD 16.2' SOUTH OF CL AND 352' EAST OF CL REGIMENT.

MAPSCO 40-C

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847121

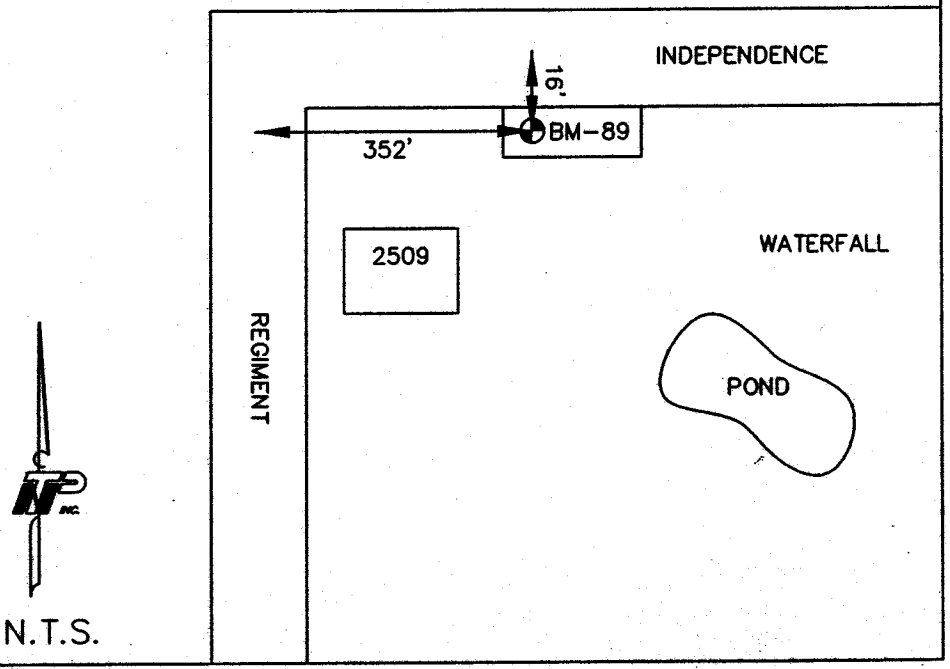
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7013882.813 E 2389678.329	00° 44' 54.56261"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 07.57358"	NORTH	604.02'
	LONGITUDE	97° 07' 39.42389"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 90 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-90: 2" BRASS DISC IN CONC APRON AT THE INTERSECTION OF TWO CONCRETE SIDEWALKS AT THE NW CORNER OF INTERSECTION OF TWELVE OAKS & MELANIE STREET. IT IS ALSO 12' SW OF A STREET SIGN AND 21' NW OF THE INTERSECTION.

MAPSCO 40-C

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999845936

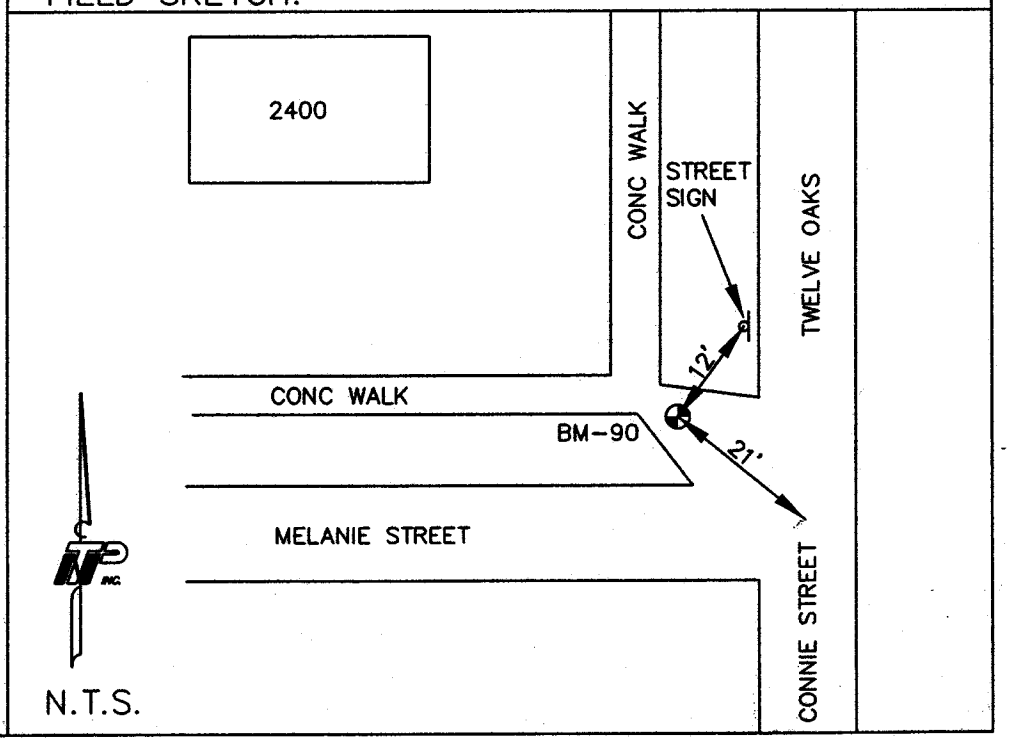
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7015040.454 E 2388870.569	00° 44' 49.49197"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 19.13215"	NORTH	625.79'
	LONGITUDE	97° 07' 48.72108"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 91		DATE: OCT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-91: 2" BRASS DISC IN CL INLET LOCATED 30' NE OF THE INTERSECTION OF TARRANT ROAD & MEADE STREET. iT IS ALSO 5' NW OF A LIGHT STANDARD.

MAPSCO

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847178

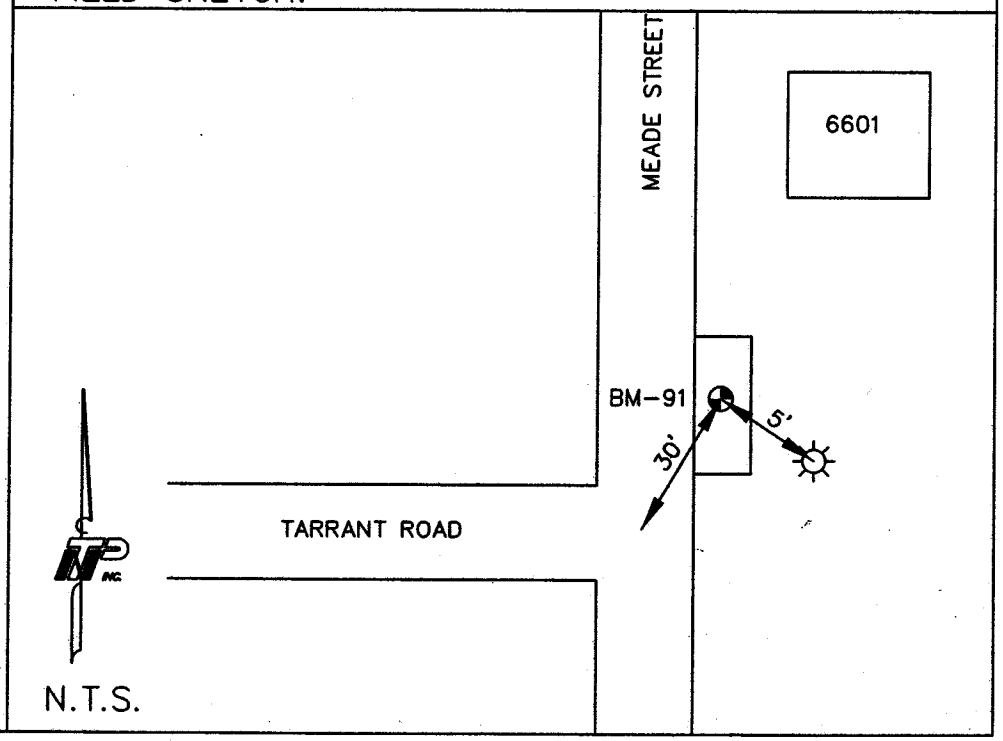
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7014403.211 E 2387568.530	00° 44' 41.10959"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 12.99469"	NORTH	601.41'
	LONGITUDE	97° 08' 04.09047"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 92	DATE: OCT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848072

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7016642.453 E 2389199.181	00° 44' 51.72971"

METRIC CONVERSION FACTOR: 3.2808333333

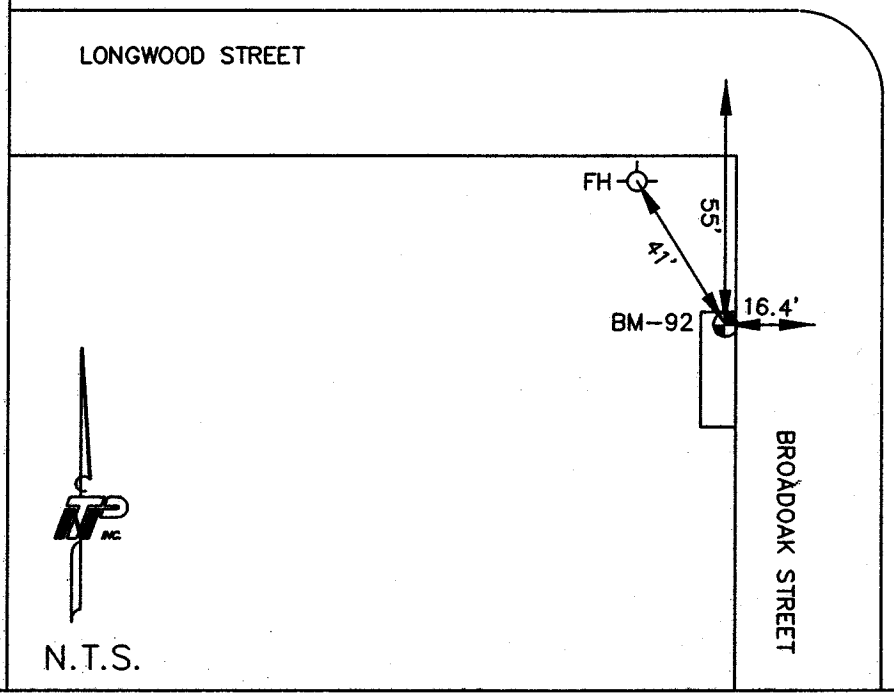
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 34.94068"	NORTH	577.13'
	LONGITUDE	97° 07' 44.62141"	WEST	

DESCRIPTION OF POINTS:

BM-92: 2" BRASS DISC IN NORTH END OF INLET LOCATED 16.4' WEST OF THE CL OF BROADOAK STREET. IT IS ALSO 55' SOUTH OF CL LONGWOOD STREET AND 41' SE OF A FIRE HYDRANT.

MAPSCO 26-Y

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 93		DATE: OCT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846820

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7009132.199 E 2384156.725	00° 44' 18.84935"

METRIC CONVERSION FACTOR: 3.2808333333

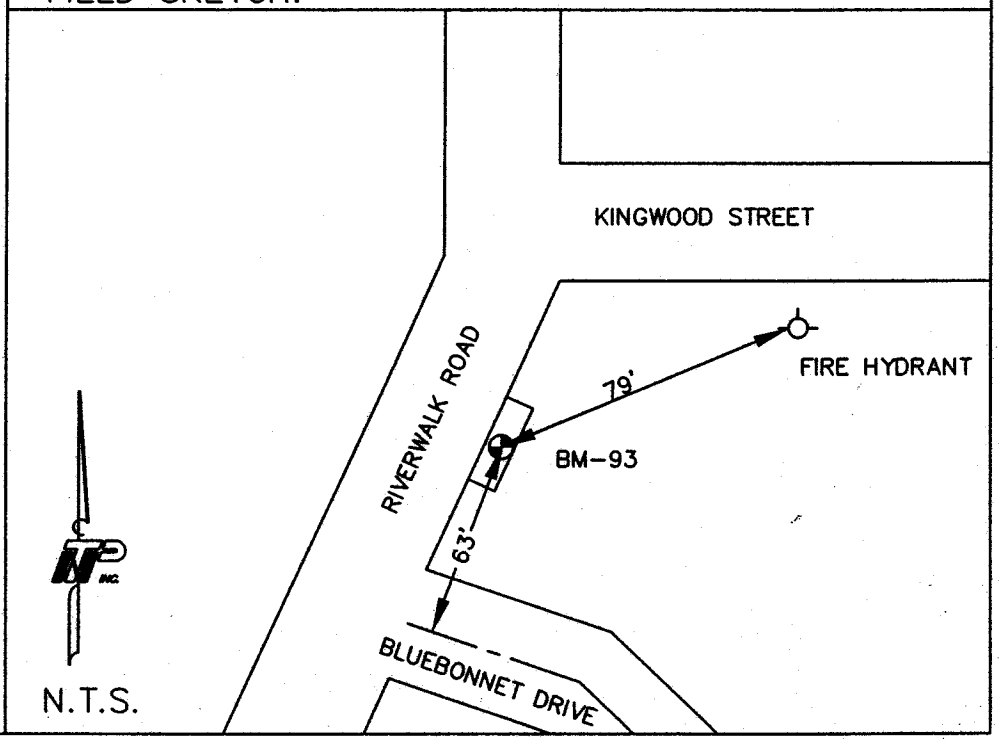
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 21.27766"	NORTH	623.03'
	LONGITUDE	97° 08' 44.90540"	WEST	

DESCRIPTION OF POINTS:

BM-93 IS A 2" BRASS DISC SET IN A CURB INLET EAST OF RIVERWALK ROAD BETWEEN BLUEBONNET DRIVE AND KINGWOOD STREET. IT IS 63' NORTHEAST OF THE CENTERLINE OF BLUEBONNETT DRIVE AND 79' SOUTHWEST OF A FIRE HYDRANT.

MAPSCO 40-J

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 94 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-94 IS A 2' BRASS DISC SET IN A CURB INLET EAST OF RIVERWALK DRIVE. IT IS 20.6' EAST OF THE EAST CURB OF THE MEDIAN OF RIVERWALK DRIVE AND 104' NORTH OF THE CENTERLINE OF GLADE ROAD.

MAPSCO 40-J

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847938

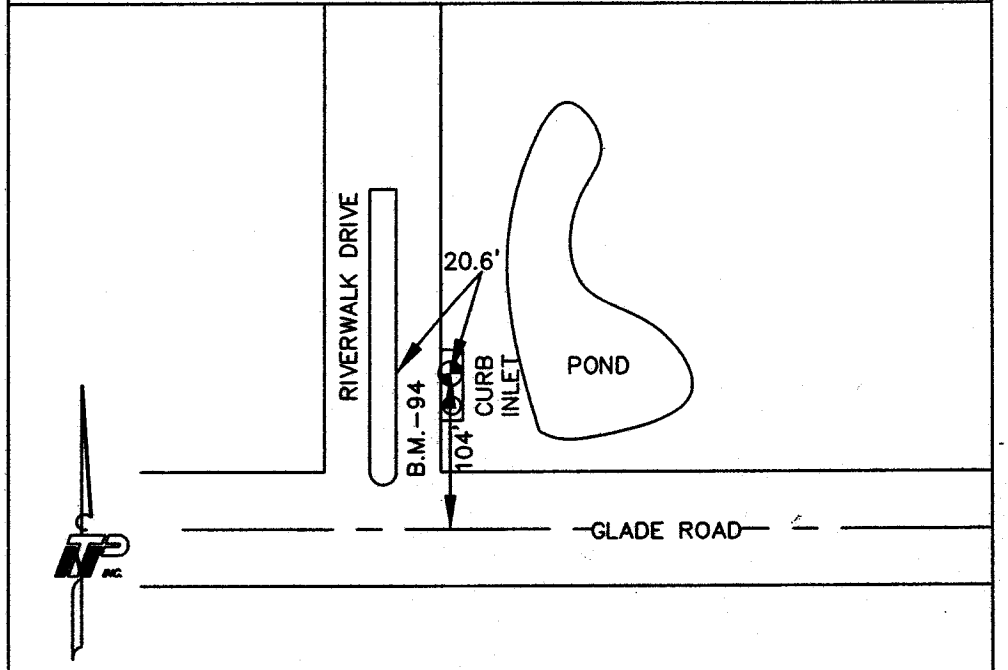
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7006393.445 E 2383453.362	00° 44' 14.12520"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 54.26864"	NORTH	607.53'
	LONGITUDE	97° 08' 53.56730"	WEST	

FIELD SKETCH:



N.T.S.

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 95 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-95 IS A 2" BRASS DISC SET IN A CURB INLET ON THE WEST SIDE OF STONEBRIDGE STREET, ACCROSS FROM RESIDENCES #5121 AND #5117. IT IS 66' NORTHWEST OF A FIRE HYDRANT AND 75' SOUTHEAST OF A SANITARY SEWER MANHOLE.

MAPSCO 40-J

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847599

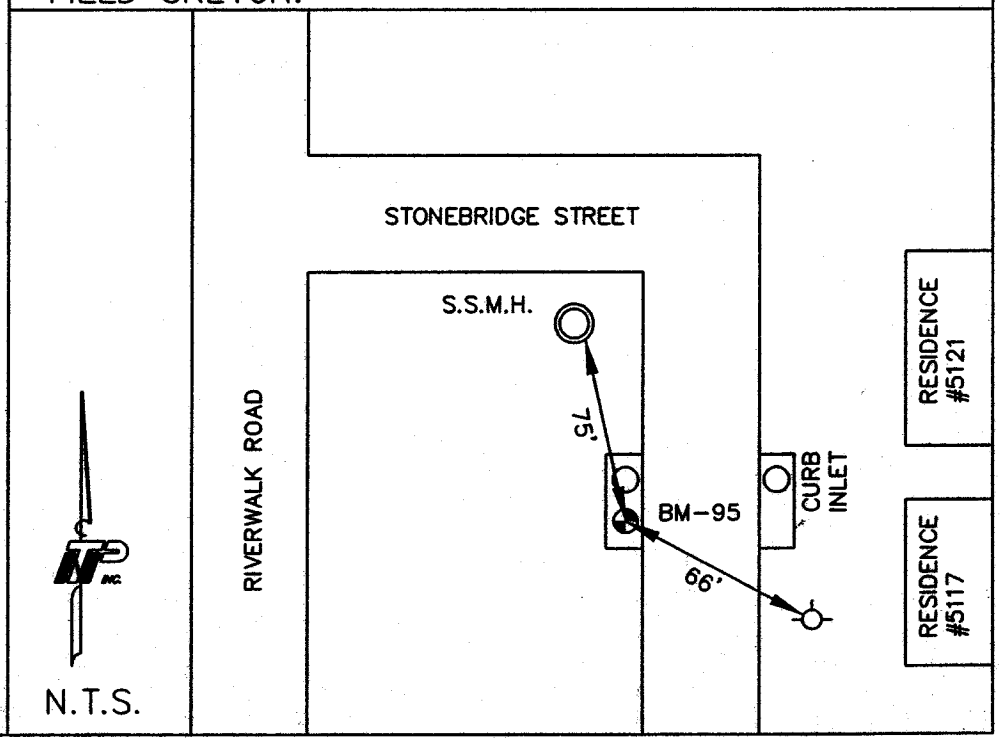
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7007342.838 E 2383631.730	00° 44' 15.34413"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 03.63972"	NORTH	611.84'
	LONGITUDE	97° 08' 51.33237"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 96	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-96 IS A 2" BRASS DISC SET IN A CURB INLET ON THE EAST SIDE OF CAMELOT STREET IN FRONT OF RESIDENCE #5109. IT IS 20' SOUTHEAST OF A SANITARY SEWER MANHOLE AND 1' FROM THE NORTH END OF INLET.

MAPSCO 40-K

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.99984817

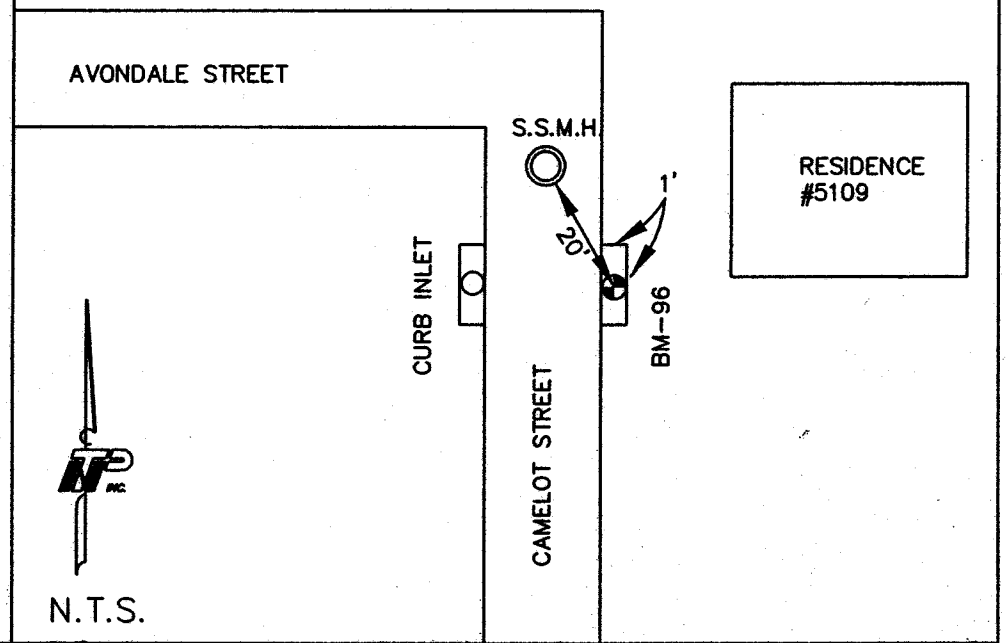
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7007481.748 E 2386806.388	00° 44' 35.65973"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 04.60822"	NORTH	600.72'
	LONGITUDE	97° 08' 14.08299	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 97 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-97 IS A 2" BRASS DISC SET IN A CURB INLET ON THE WEST SIDE OF COVENTRY TRAIL IN FRONT OF RESIDENCE'S #'S 5304 AND 5300. IT IS 16' EAST OF THE CENTERLINE OF COVENTRY TRAIL AND 45.6' SOUTH OF A MAILBOX #5304.

MAPSCO 40-J

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846958

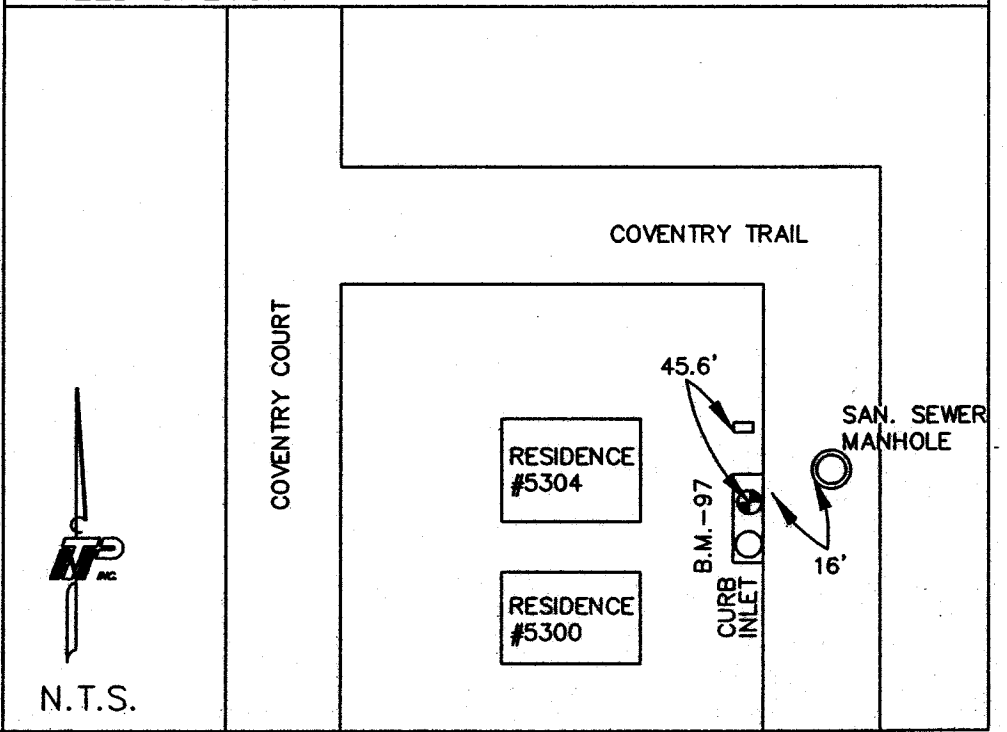
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7008520.443 E 2385984.813	00° 44' 30.49120"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 14.99095"	NORTH	621.94'
	LONGITUDE	97° 08' 23.55967",	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 98 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-98 IS A 2" BRASS DISC SET IN A CONCRETE SIDEWALK IN THE SOUTHWEST QUADRANT OF THE INTERSECTION OF GLADE ROAD AND BILL SIMMONS ROAD. IT IS 35' SOUTH OF GLADE ROAD, 20' NORTH OF A FIRE HYDRANT AND 20' WEST OF BILL SIMMONS ROAD.

MAPSCO 40P

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847438

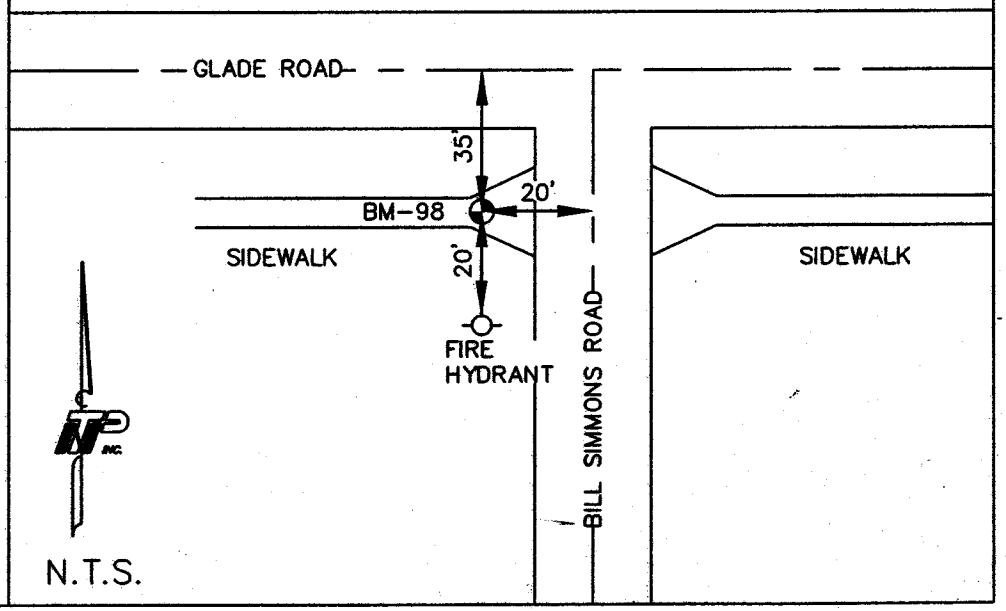
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7006453.905 E 2387872.892	00° 44' 42.39527"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 54.30115"	NORTH	617.98'
	LONGITUDE	97° 08' 01.73314"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 99 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

B.M.-99 IS A 2" BRASS DISC SET IN A CURB INLET ON THE SOUTH SIDE OF LEYTON GROVE. IT IS 18' SOUTH OF LEYTON GROVE AND 139' EAST OF MONTCLAIR STREET.

MAPSCO 40K

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847385

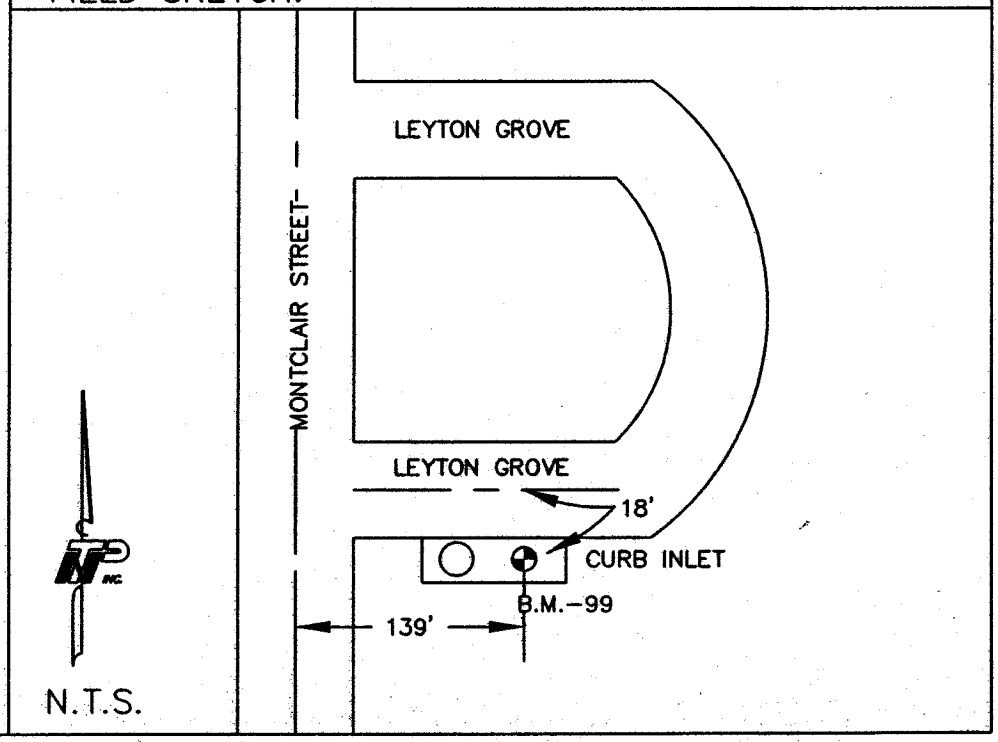
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7008041.008 E 2387664.333	00° 44' 41.19338"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 10.03158"	NORTH	614.44'
	LONGITUDE	97° 08' 03.93685"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 100 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846938

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7009159.115 E 2388317.147	00° 44' 45.46176"

METRIC CONVERSION FACTOR: 3.2808333333

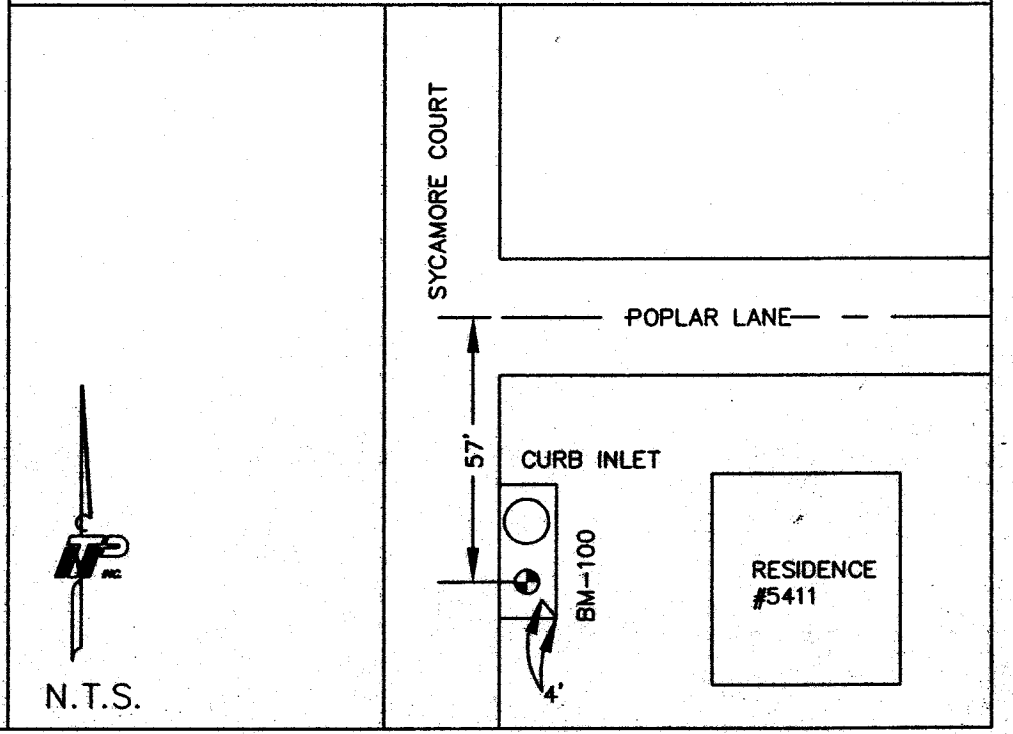
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 21.01066"	NORTH	620.63'
	LONGITUDE	97° 07' 56.11062"	WEST	

DESCRIPTION OF POINTS:

BM-100 IS A 2" BRASS CAP SET IN A CURB INLET ON THE EAST SIDE OF SYCAMORE COURT IN FRONT OF A RESIDENCE AT 5411 SYCAMORE COURT. IT IS 57' SOUTH OF POPLAR LANE AND 4' NORTHWEST OF THE SOUTHEAST CORNER OF THE CURB INLET.

MAPSCO 40-K

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 101 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-101:

2" BRASS CAP SET IN A HEADWALL ON THE EAST SIDE OF AMADOR TRAIL. IT IS 25' EAST OF THE EAST CURB OF AMADOR TRAIL AND 170' NORTH OF THE CENTERLINE OF SPRUCE COURT.

MAPSCO 40-G

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847335

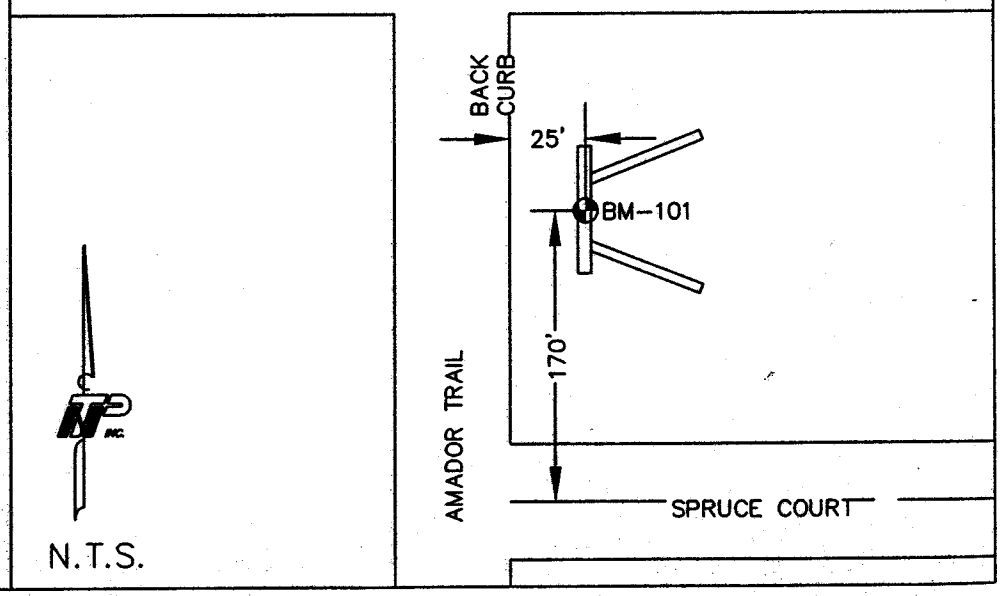
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7009805.782 E 2389038.068	00° 44' 50.12672"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 27.31615"	NORTH	610.53'
	LONGITUDE	97° 07' 47.55724"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 102	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847821

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7006607.180 E 2390511.727	00° 44' 59.28470"

METRIC CONVERSION FACTOR: 3.2808333333

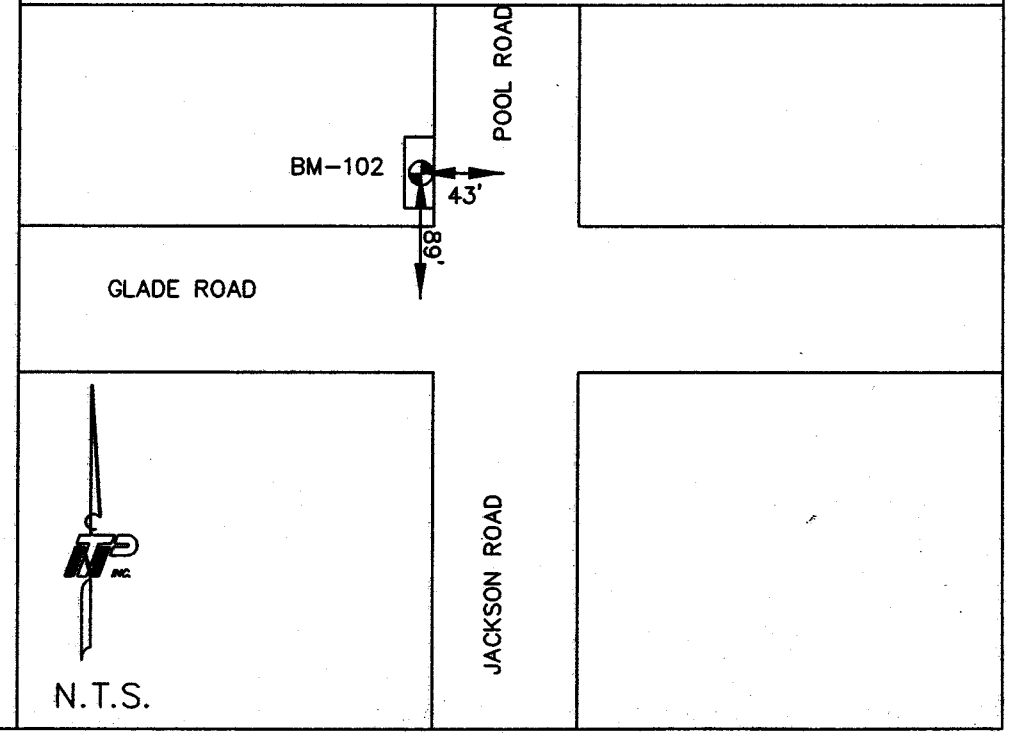
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 55.47709"	NORTH	609.63'
	LONGITUDE	97° 07' 30.76576"	WEST	

DESCRIPTION OF POINTS:

BM-102: 2" BRASS CAP IN CL INLET LOCATED IN NW CORNER OF INTERSECTION GLADE ROAD AND POOL ROAD. IT IS 89' NORTH OF CL GLADE ROAD AND 43' WEST OF CL POOL ROAD.

MAPSCO 40-L

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 103 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847531

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7007539.944 E 2389402.875	00° 44' 52.27091"

METRIC CONVERSION FACTOR: 3.2808333333

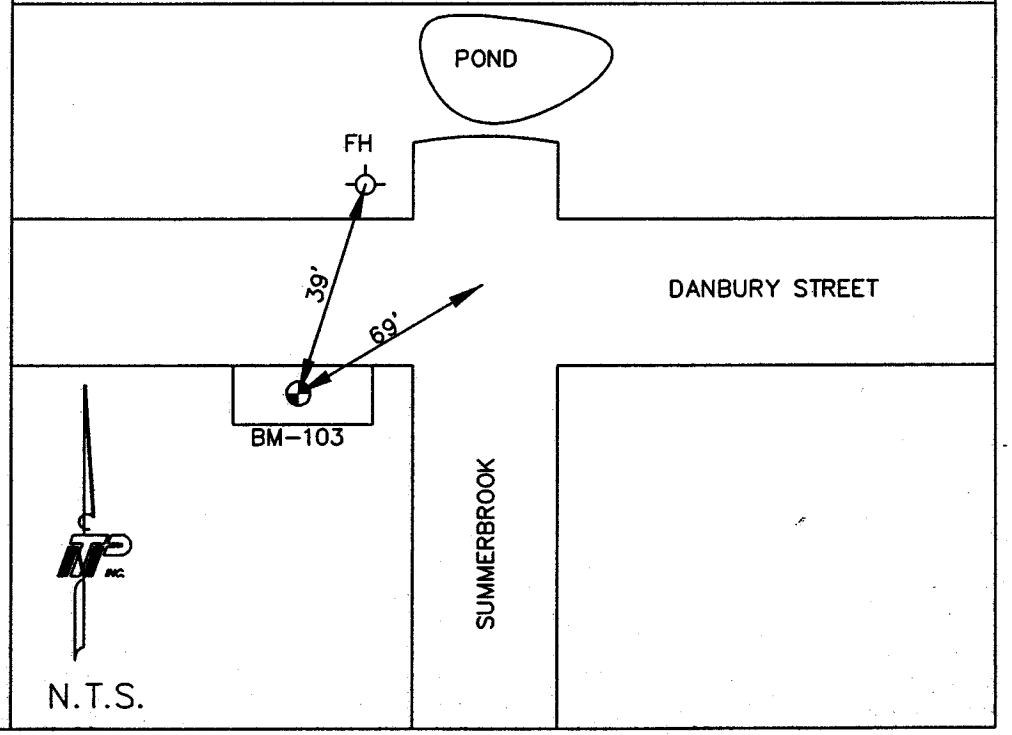
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 04.84972"	NORTH	612.92'
	LONGITUDE	97° 07' 43.62580"	WEST	

DESCRIPTION OF POINTS:

BM-103: 2"BRASS DISC IN CL INLET LOCATED IN SOUTH ROW OF DANBURY AT THE SW CORNER OF INTERSECTION WITH SUMMERBROOK. IT IS 69' SW OF CL INTERSECTION AND 39' SOUTH OF A FIRE HYDRANT IN THE NW CORNER OF INTERSECTION.

MAPSCO 40-L

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 104 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999847505

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7007639.485 E 2391376.370	00° 45' 04.90111"

METRIC CONVERSION FACTOR: 3.2808333333

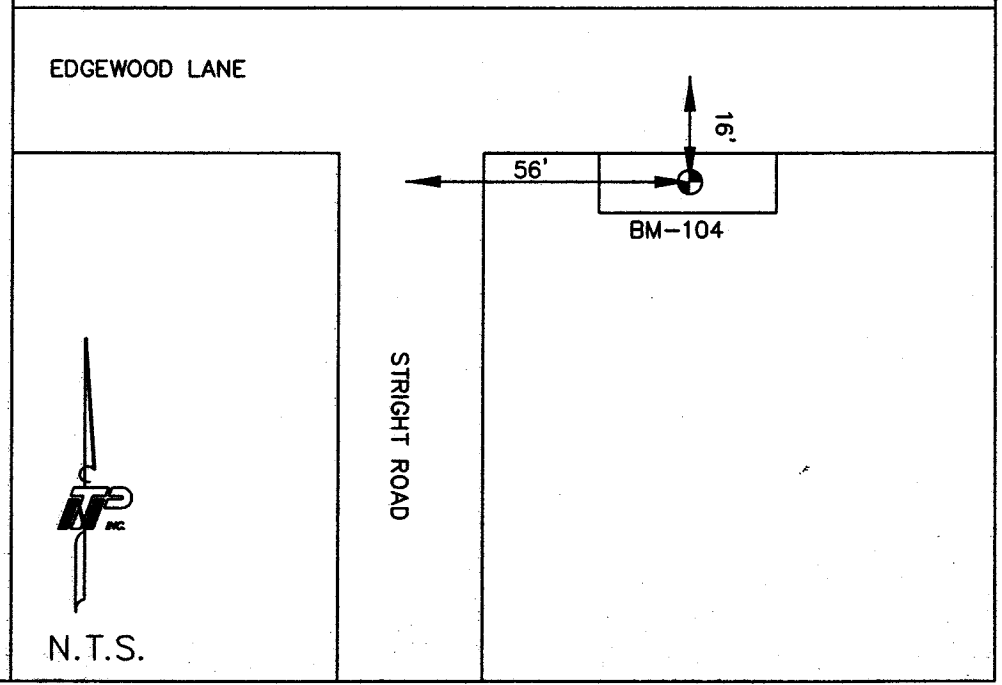
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 05.57914"	NORTH	613.25'
	LONGITUDE	97° 07' 20.46788"	WEST	

DESCRIPTION OF POINTS:

BM-104: 2" BRASS DISC IN CL INLET LOCATED AT THE SE CORNER INTERSECTION OF STRIGHT & EDGEWOOD LN. 16' SOUTH OF CL EDGEWOOD LANE. IT IS ALSO 56' EAST CL STRIGHT.

MAPSCO 40-L

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 105	DATE: OCT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848934

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7006375.864 E 2394116.655	00° 45' 22.32047"

METRIC CONVERSION FACTOR: 3.2808333333

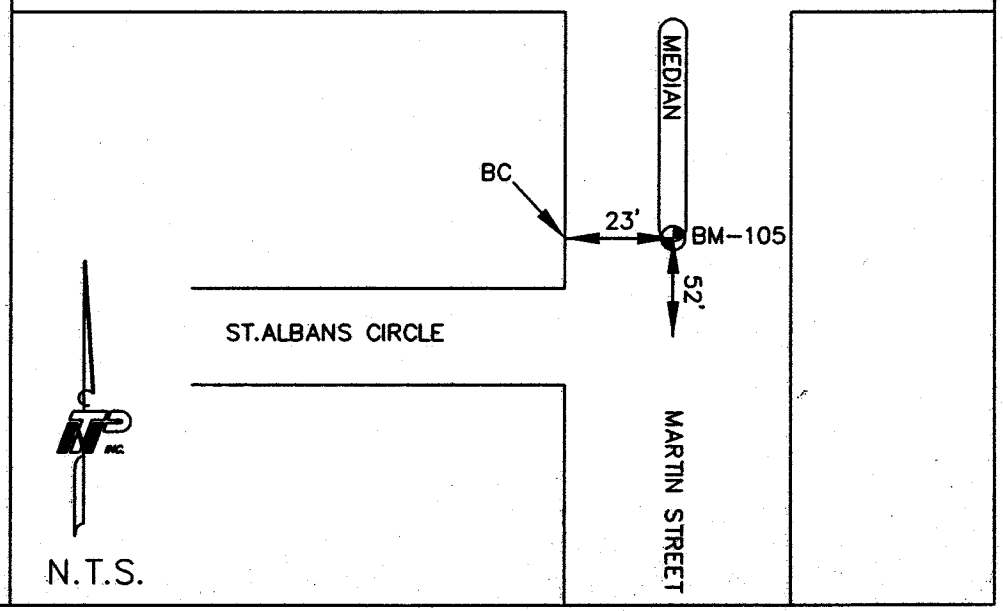
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 52.71953"	NORTH	587.18'
	LONGITUDE	97° 06' 48.52887"	WEST	

DESCRIPTION OF POINTS:

BM-105: 2" BRASS DISC IN TOP OF CURB AT SOUTH END OF MEDIAN IN CL OF MARTIN STREET LOCATED 23' EAST OF WEST BACK OF CURB . IT IS ALSO LOCATED 52' NORTH OF ST. ALBANS FROM THE CL.

MAPSCO 40-R

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 106	DATE: OCT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999850479

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7005749.107 E 2393201.607	00° 445' 16.41554"

METRIC CONVERSION FACTOR: 3.2808333333

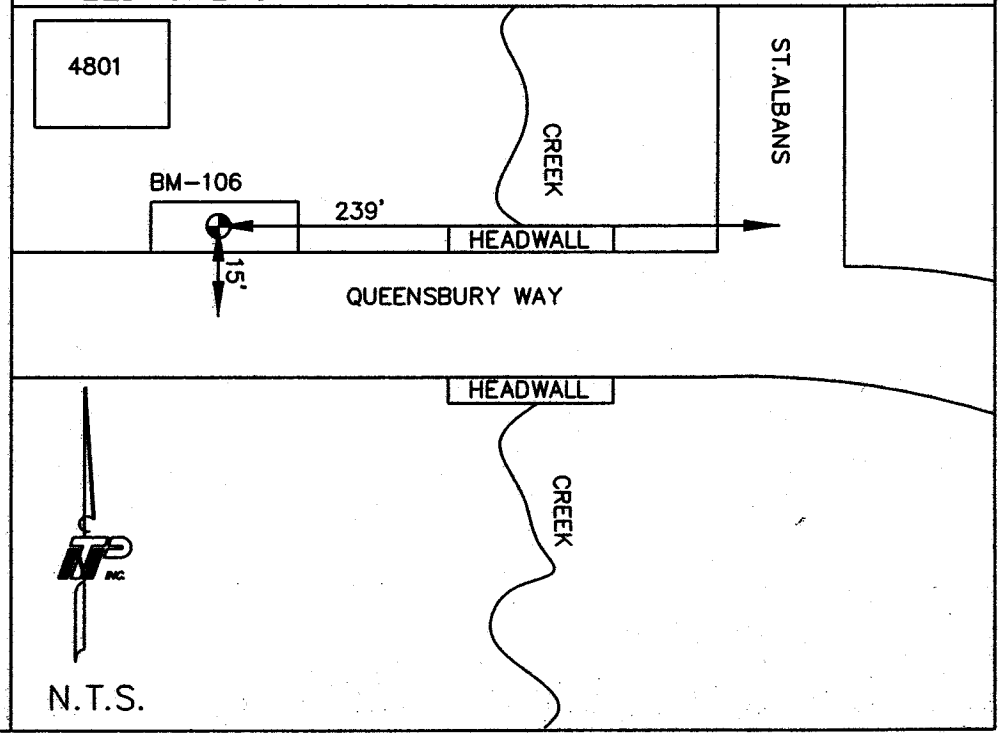
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 46.63747"	NORTH	556.70'
	LONGITUDE	97° 06' 59.35576"	WEST	

DESCRIPTION OF POINTS:

BM-106: 2" BRASS DISC IN CL INLET LOCATED IN THE NORTH ROW OF QUEENSBURY WAY 15' NORTH OF THE CL OF ROAD. IT IS ALSO 239' WEST OF CL ST. ALBANS STREET.

MAPSCO 40-R

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 107	DATE: OCT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999850594

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7003586.549 E 2393453.735	00° 45' 17.84573"

METRIC CONVERSION FACTOR: 3.2808333333

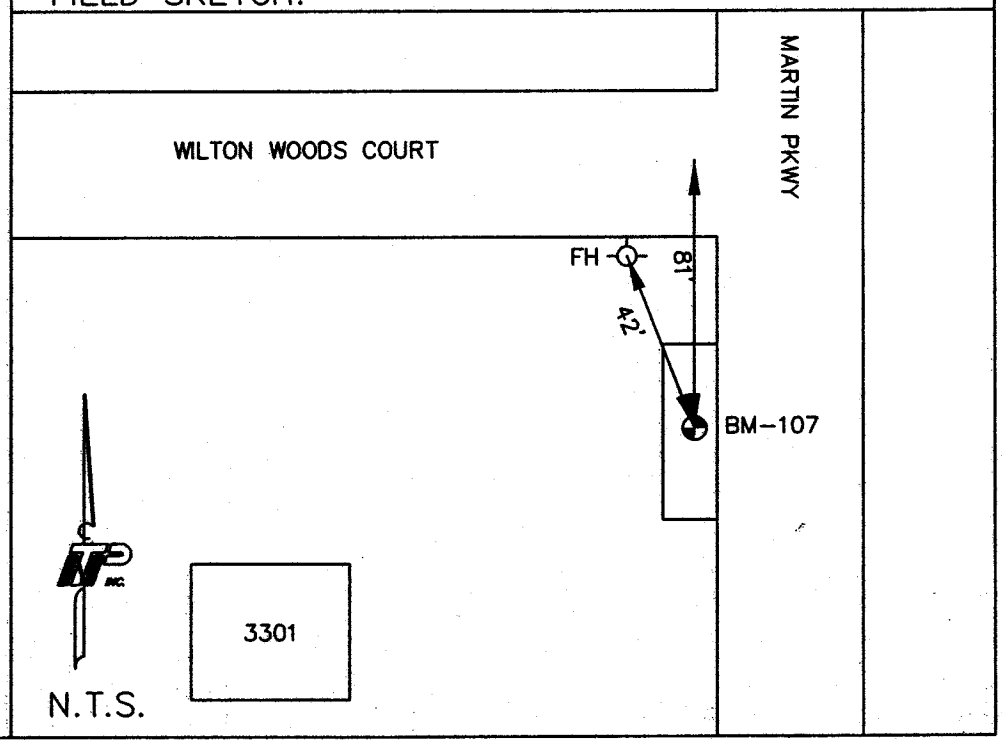
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 25.20719"	NORTH	560.88'
	LONGITUDE	97° 06' 56.73345"	WEST	

DESCRIPTION OF POINTS:

BM-107: 2" BRASS DISC IN CL INLET LOCATED IN WEST ROW OF MARTIN PKWY AND 81' SOUTH OF CL WILTON WOODS CT. IT IS ALSO 42' SOUTH OF A FIRE HYDRANT.

MAPSCO 40-R

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 108	DATE: OCT. 2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999849701

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7004542.182 E 2395257.402	00° 45' 29.46085"

METRIC CONVERSION FACTOR: 3.2808333333

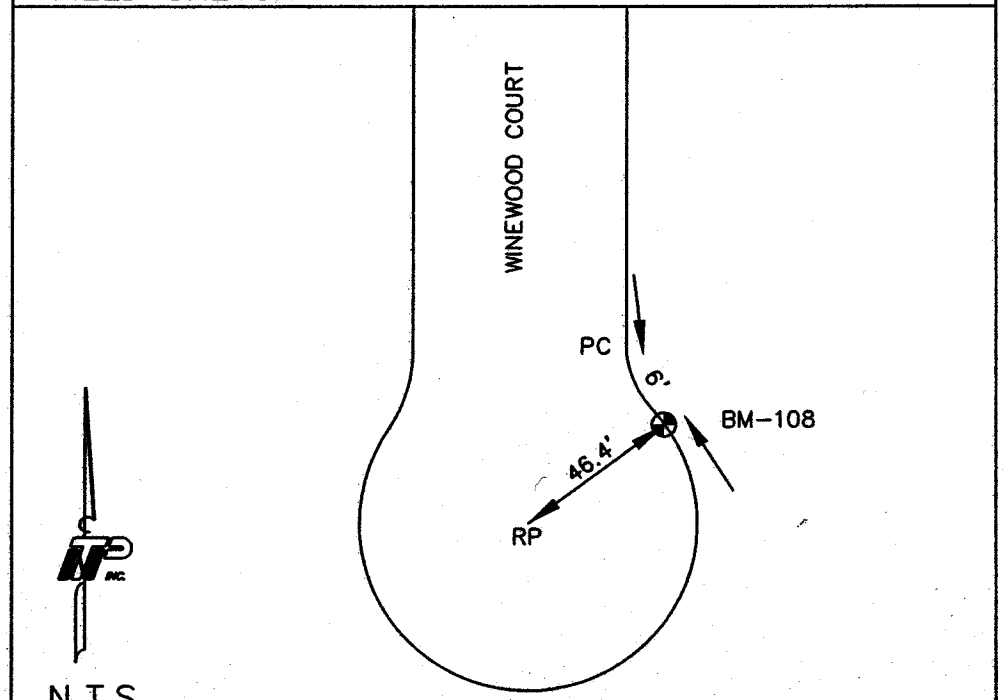
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 34.42702"	NORTH	576.69'
	LONGITUDE	97° 06' 35.43673"	WEST	

DESCRIPTION OF POINTS:

BM-108: 2"BRASS DISC ON EAST BACK OF CURB OF WINEWOOD COURT 6' SOUTH OF THE PC IN THE CUL DE SAC. IT IS ALSO 46.4' NE OF THE RADIUS POINT.

MAPSCO 41-N

FIELD SKETCH:



N.T.S.

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 109 | DATE: OCT. 2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-109: 2" BRASS DISC IN SOUTH END OF AN INLET IN THE EAST ROW IN FRONT OF 4709 GREEN OAKS. IT IS LOCATED 320' SOUTH OF THE CL OF SHADYWOOD.

MAPSCO 40-R

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999849636

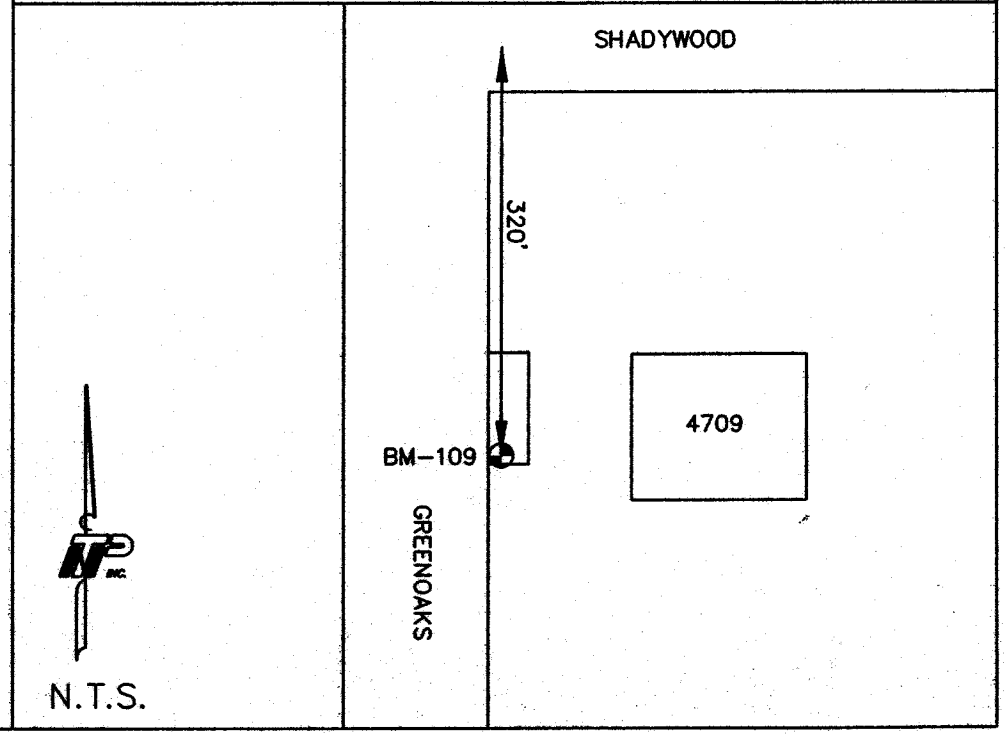
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7005563.158 E 2392001.195	00° 45' 08.72290"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 44.95381"	NORTH	574.84'
	LONGITUDE	97° 07' 13.46048"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 110 | DATE: OCT.2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-110: 2" BRASS DISC IN CL INLET LOCATED IN THE EAST ROW IN FRONT OF 3301 PEMBROOKE PKWY AND 49' SOUTH OF THE CL OF BOWDEN HILL LANE. IT IS ALSO 79' SOUTH OF A FIRE HYDRANT LOCATED AT NE CORNER OF THE INTERSECTION.

MAPSCO 40-V

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999849820

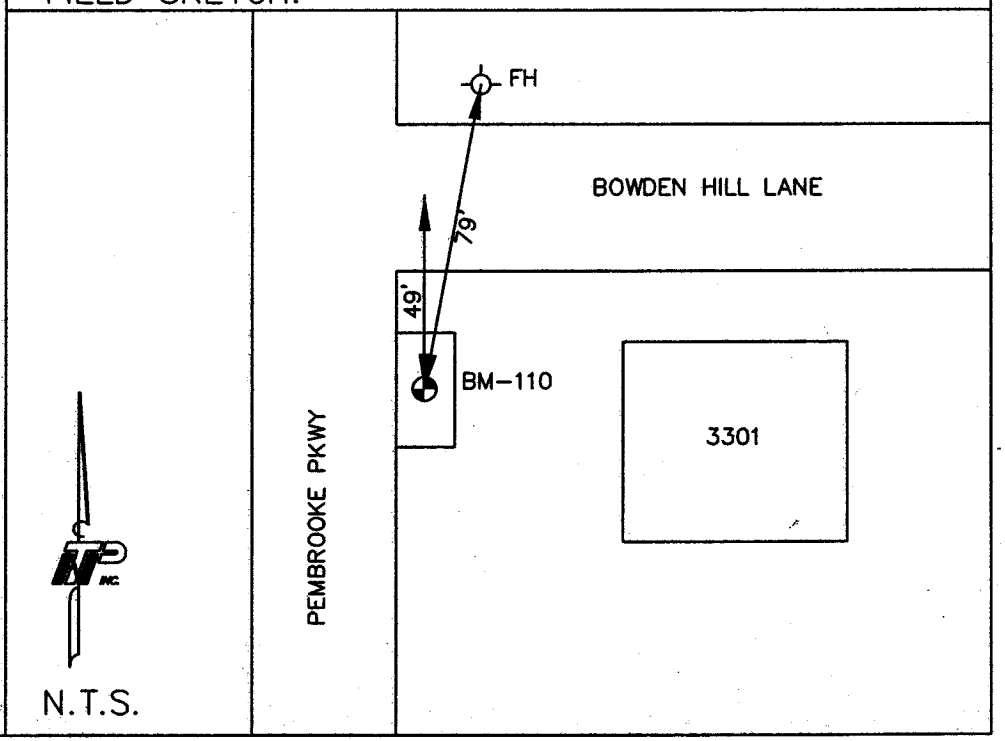
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7001730.519 E 2393594.118	00° 45' 18.58702"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 06.82440"	NORTH	582.91'
	LONGITUDE	97° 06' 55.37427"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 111	DATE: OCT.2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999849394

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7005218.786 E 2390854.770	00° 45' 01.36234"

METRIC CONVERSION FACTOR: 3.2808333333

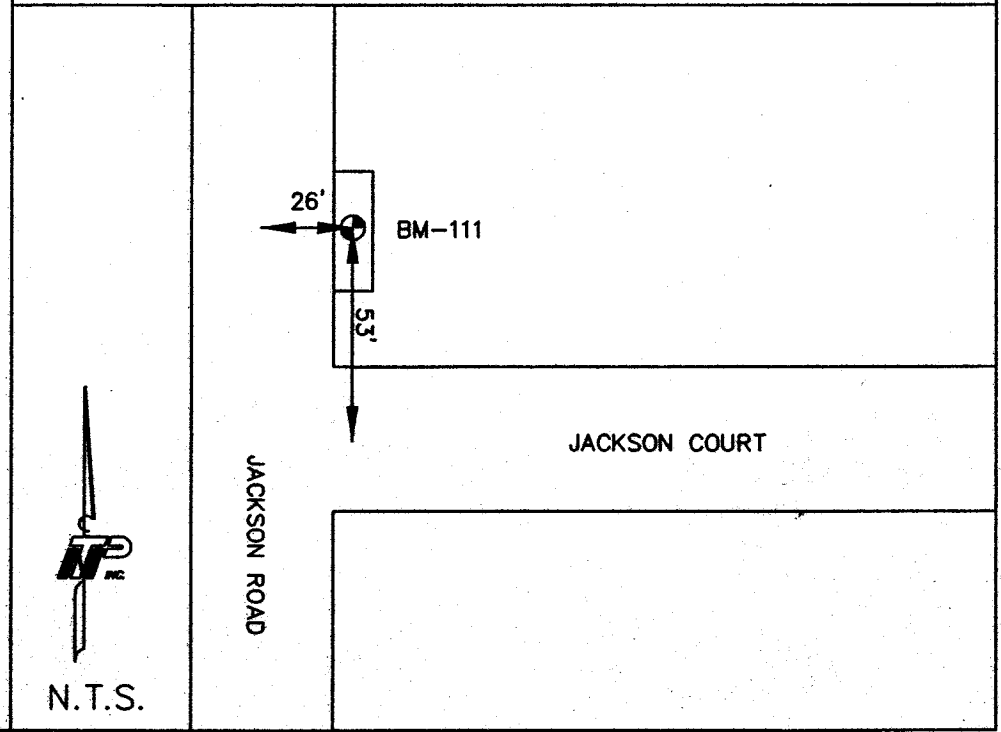
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 41.69519"	NORTH	580.89'
	LONGITUDE	97° 07' 26.95634"	WEST	

DESCRIPTION OF POINTS:

BM-111: 2" BRASS DISC IN CL INLET LOCATED AT THE NE CORNER OF INTERSECTION OF JACKSON ROAD AND JACKSON CT. IT IS ALSO 26' EAST OF CL JACKSON ROAD AND T IS 53' NORTH OF CL JACKSON CT.

MAPSCO 40-Q

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 112 | DATE: OCT.2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-112: 2" BRASS DISC IN CL INLET LOCATED AT THE NW CORNER OF INTERSECTION OF MEANDERING WAY AND LAKESIDE DRIVE. IT ALSO 46' NW OF CL INTERSECTION AND IN FRONT OF 4800 LAKESIDE DRIVE.

MAPSCO 40-Q

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848761

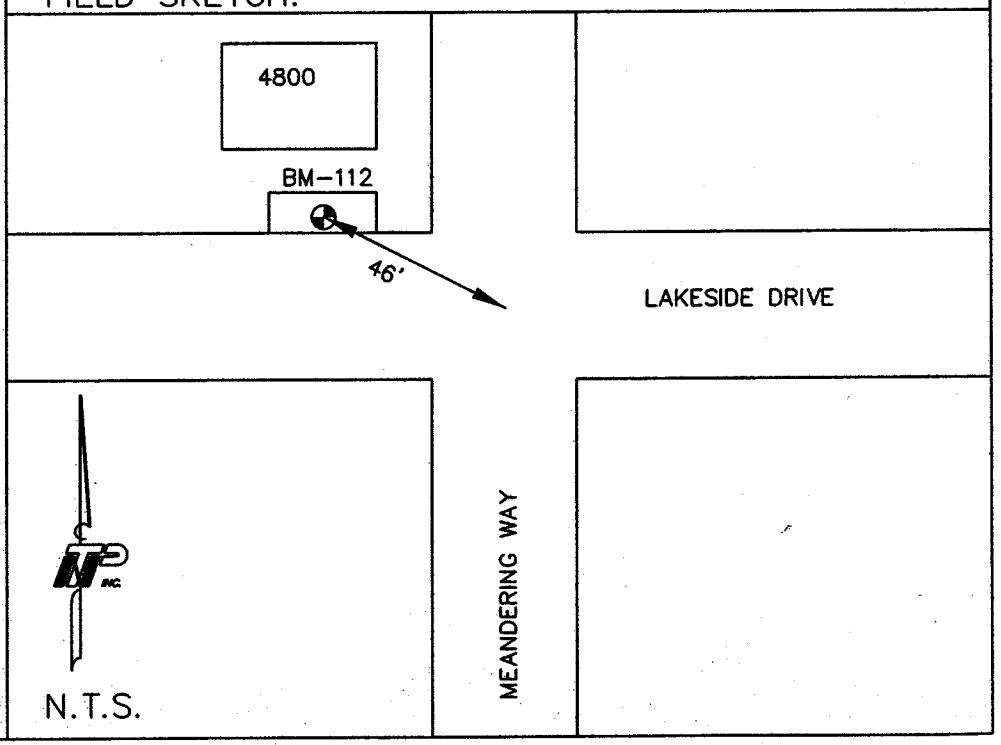
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7005605.763 E 2389957.730	00° 44' 55.65791"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 45.64026"	NORTH	592.93'
	LONGITUDE	97° 07' 37.41561"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 113	DATE: OCT.2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999849009

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7004431.726 E 2385307.901	00° 44' 25.82373"

METRIC CONVERSION FACTOR: 3.2808333333

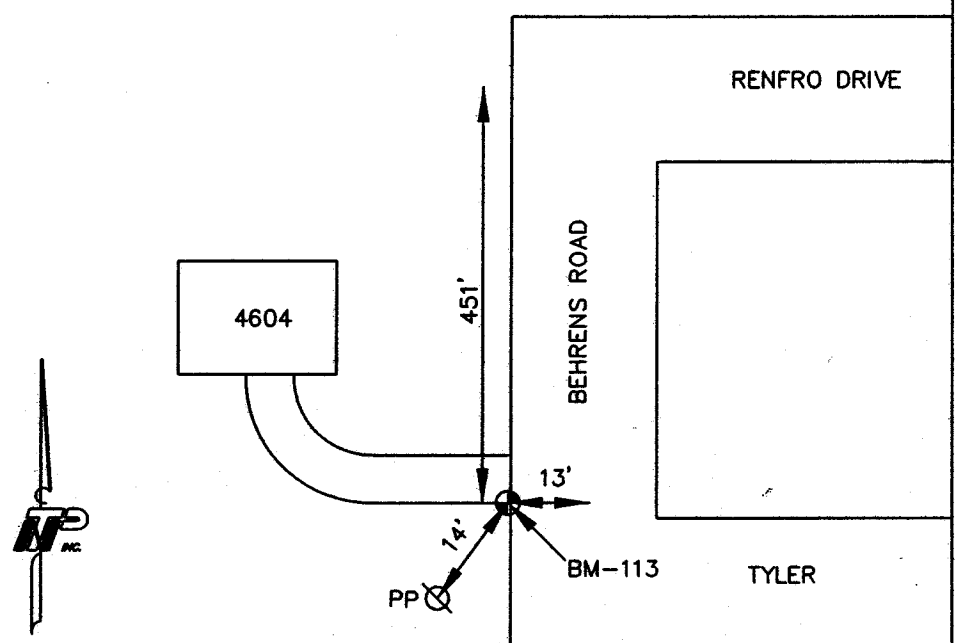
DESCRIPTION OF POINTS:

BM-113: 2" BRASS DISC ON SOUTH EDGE OF DRIVEWAY TO 4604 BEHRENS ROAD AND 13' WEST OF CL BEHRENS ROAD. IT IS ALSO LOCATED 451' SOUTH OF CL RENFRO ROAD AND 14' NE OF A PP.

MAPSCO 40-N

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 34.62171"	NORTH	591.10'
	LONGITUDE	97° 08' 32.11764"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 114 | DATE: OCT.2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848694

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7004907.391 E 2385927.509	00° 44' 29.82556"

METRIC CONVERSION FACTOR: 3.2808333333

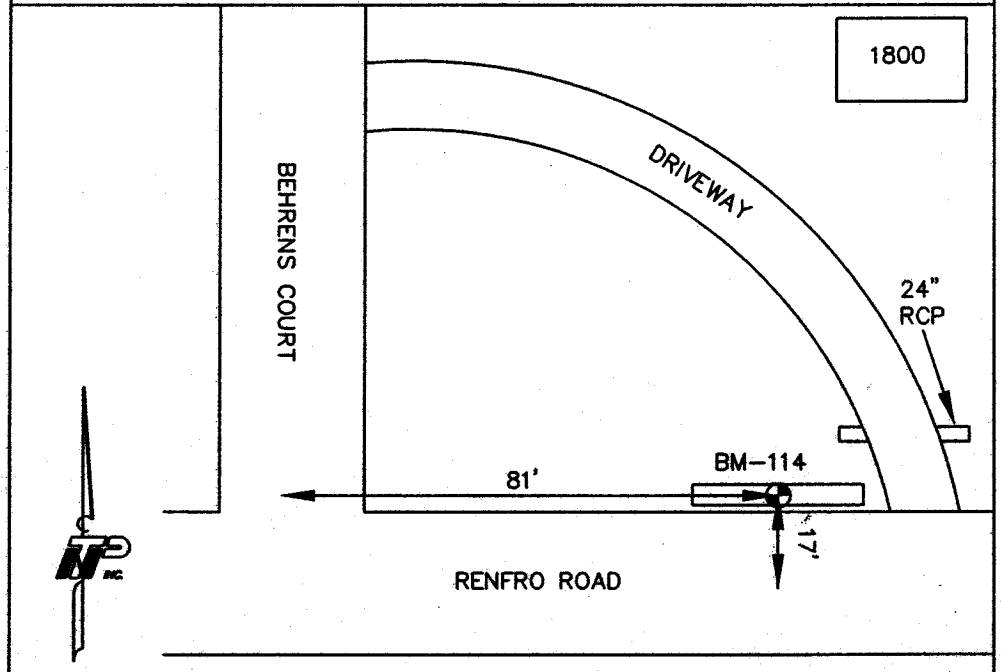
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 39.24889"	NORTH	596.27'
	LONGITUDE	97° 08' 24.78014"	WEST	

DESCRIPTION OF POINTS:

BM-114: 2" BRASS DISC IN TOP OF HEADWALL IN NORTH ROW OF RENFRO RD. & IN FRONT OF 1800 BEHRENS CT. IT IS ALSO LOCATED 17' NORTH OF CL OF RENFRO RD & 81' EAST OF BEHRENS CT.

MAPSCO 40-P

FIELD SKETCH:



N.T.S.

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 115 | DATE: OCT.2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999850129

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7003442.243 E 2387083.742	00° 44' 37.09827"

METRIC CONVERSION FACTOR: 3.2808333333

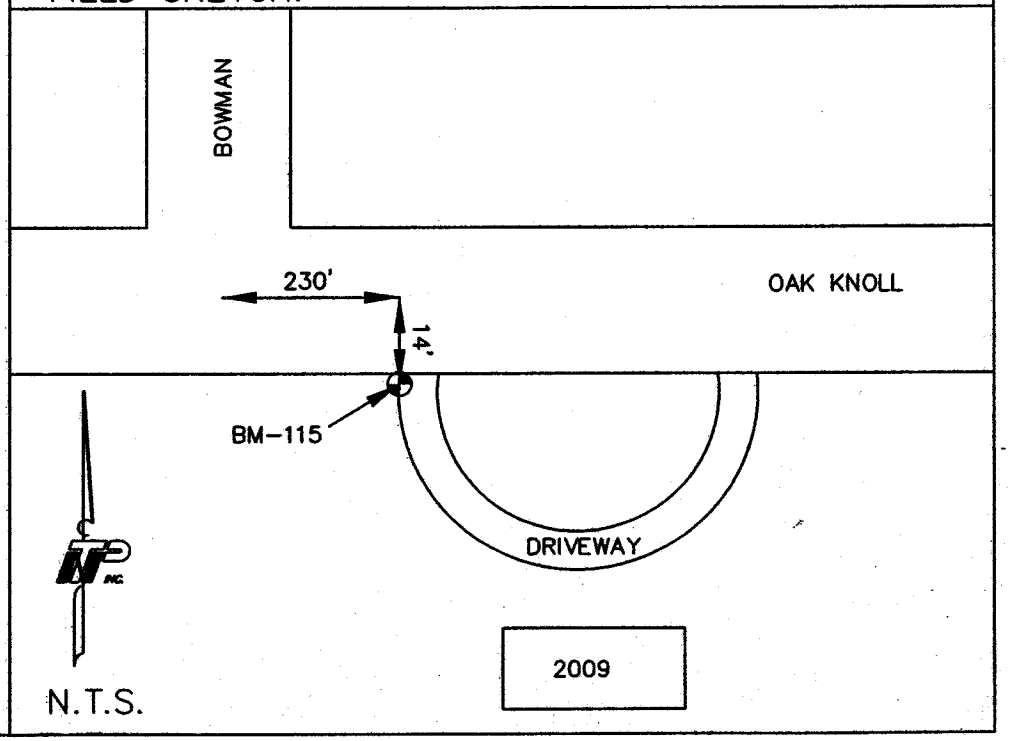
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 24.60366"	NORTH	570.81'
	LONGITUDE	97° 08' 11.44538"	WEST	

DESCRIPTION OF POINTS:

BM-115: 2" BRASS CAP IN WEST EDGE OF DRIVEWAY AT 2009 OAK KNOLL. iT IS LOCATED 14' SOUTH CL OF ROAD AND 230' EAST CL INTERSECTION WITH BOWMAN.

MAPSCO 40-P

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 116	DATE: OCT.2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM–116: 2" BRASS DISC IN SW CORNER OF HEADWALL IN SOUTH ROW OF SHERWOOD 19' SOUTH OF CL ROAD. IT IS ALSO 242' WEST OF CL SPRINGHALLOW.

MAPSCO 40–U

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999850588

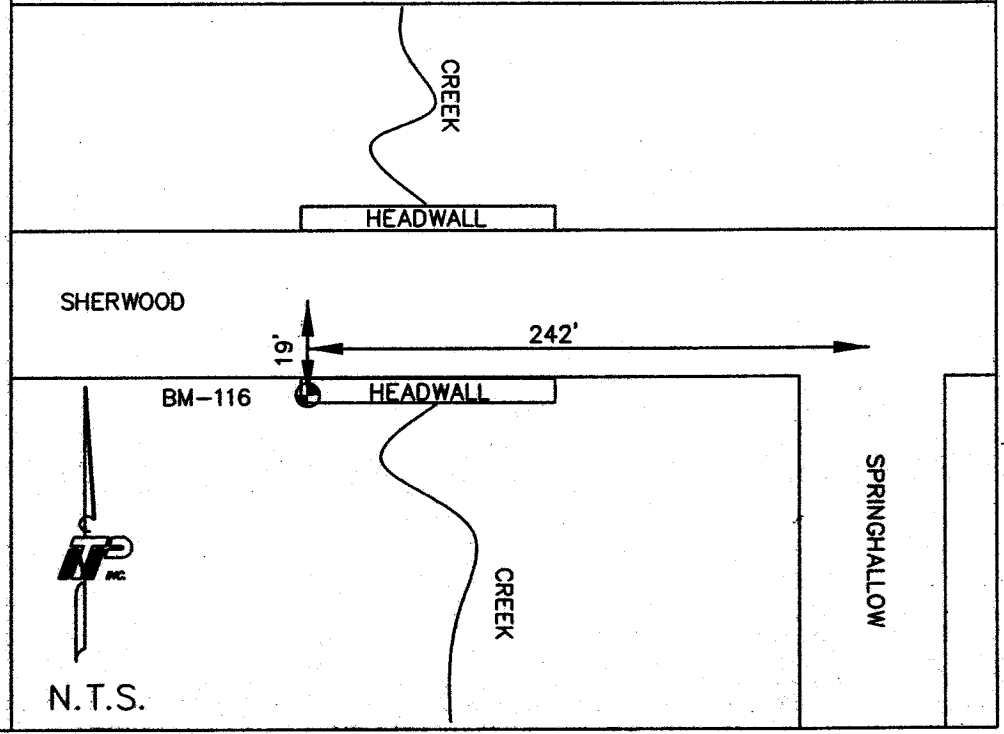
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7002554.297 E 2390164.160	00° 44' 56.72294"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 15.42080"	NORTH	564.10'
	LONGITUDE	97° 07' 35.46285"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 117	DATE: OCT.2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848950

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7002459.202 E 2391240.143	00° 45' 03.59555"

METRIC CONVERSION FACTOR: 3.2808333333

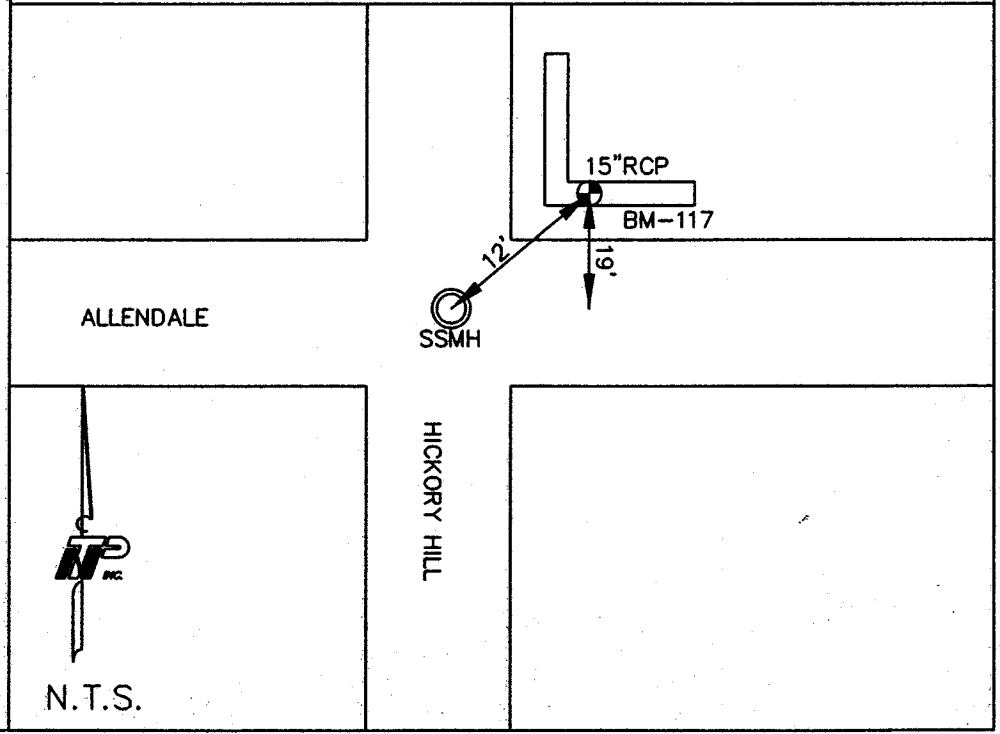
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 14.34051"	NORTH	598.70'
	LONGITUDE	97° 07' 22.86167"	WEST	

DESCRIPTION OF POINTS:

BM-117: 2" BRASS DISC IN TOP OF HEADWALL LOCATED AT THE NE CORNER OF INTERSECTION OF HICKORY HILL & ALLENDALE. IT IS ALSO 19' NORTH OF CL ALLENDALE STREET AND 12' NE OF A SSNH.

MAPSCO

FIELD SKETCH:



N.T.S.

GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 118	DATE: OCT.2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-118: 2" BRASS DISC IN CL INLET IN NORTH ROW OF WOODSTOCK 15' NORTH OF THE CL. iT IS ALSO 172' EAST OF THE CL OF WOODSTOCK WHERE THE ROAD BENDS AND HEADS NORTH.

MAPSCO 40-T

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848512

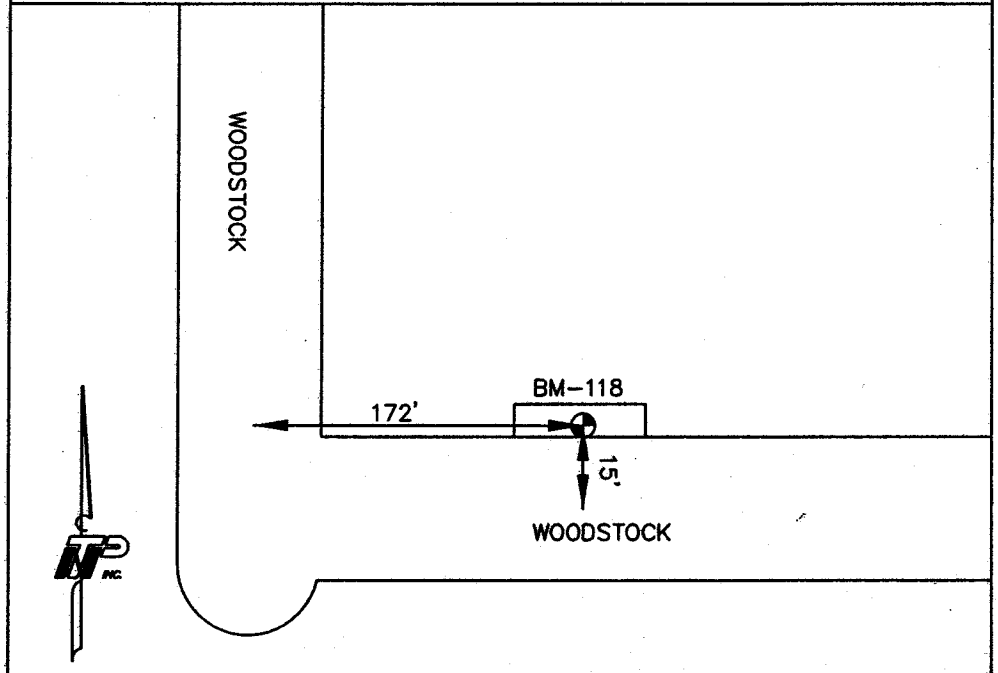
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7001201.890 E 2387130.539	00° 44' 37.21156"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 02.43042"	NORTH	611.68'
	LONGITUDE	97° 08' 11.23765"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 119 | DATE: OCT.2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-119: 2" BRASS DISC IN TOP OF A 24" RCP THAT HEADS EAST AND IS 13.5' WEST OF CL OF CHESHIRE. IT IS ALSO IN FRONT OF 1624 CHESHIRE AND 276' NORTH OF CL WARWICK STREET.

MAPSCO 40-S

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999849671

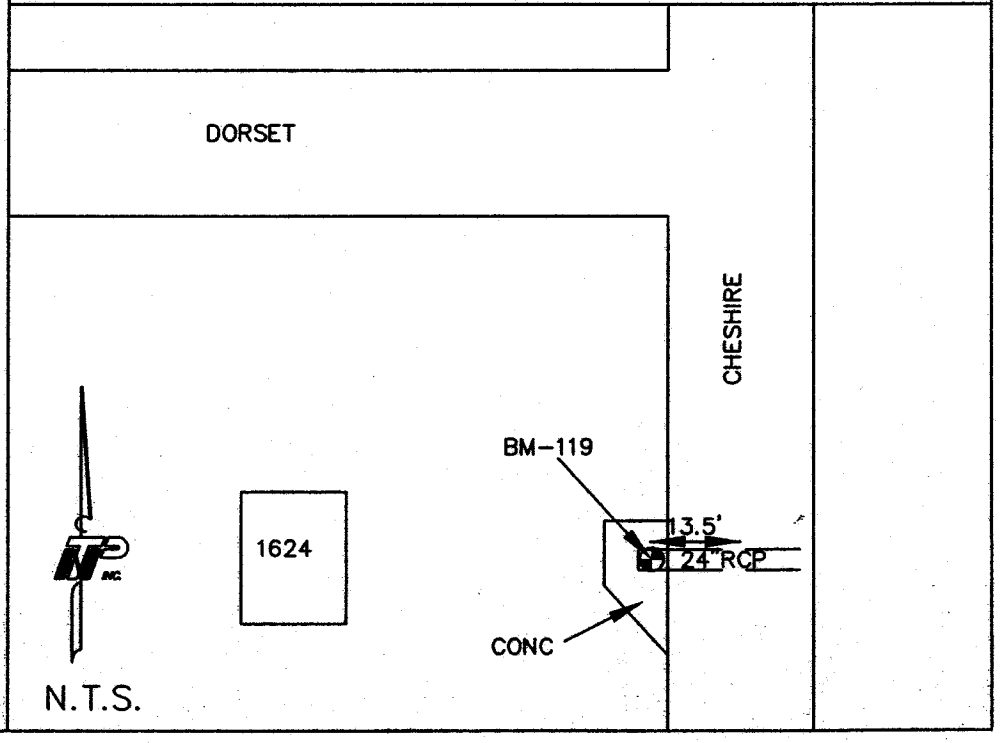
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7001997.461 E 2385932.747	00° 44' 29.61819"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 10.45584"	NORTH	584.86'
	LONGITUDE	97° 08' 25.16037"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 120 | DATE: OCT.2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-120: 2" BRASS DISC IN CL OF INLET IN EAST ROW OF TRAIL BEND CT. 85' NORTH OF CL PLANTATION DRIVE. IT IS ALSO 18' NORTH OF A MAILBOX AND 0.80' EAST OF BACK OF CURB.

MAPSCO 40-S

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999849418

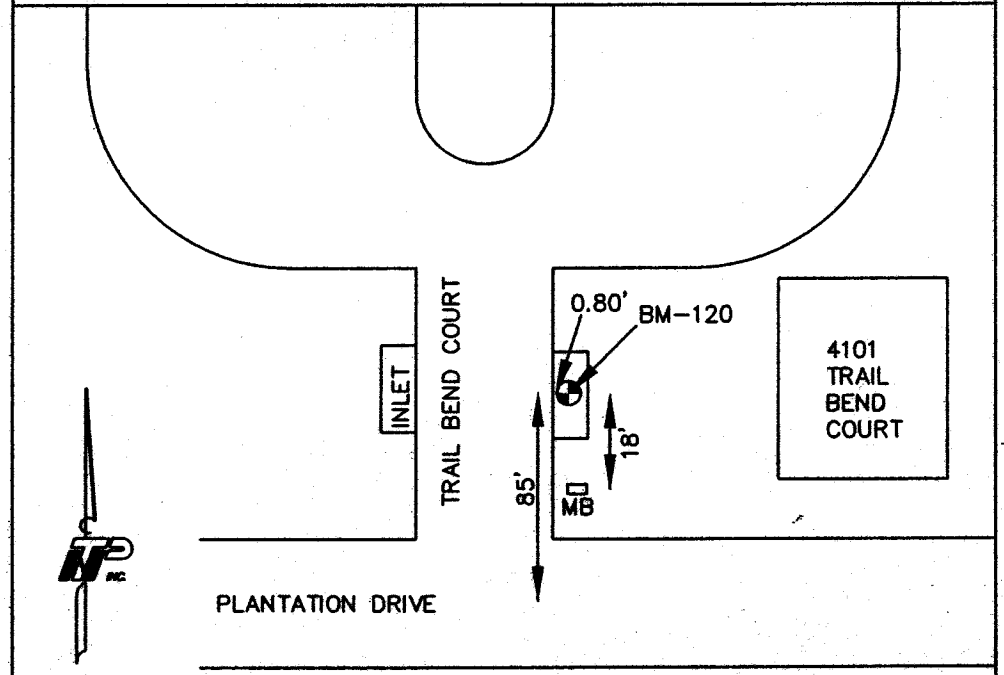
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7002544.704 E 2384714.282	00° 44' 21.87174"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 16.02637"	NORTH	588.37'
	LONGITUDE	97° 08' 39.36376"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 121	DATE: OCT.2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-121: 2" BRASS DISC IN NORTH EDGE OF SOUTH DRIVEWAY ENTRANCE AT 3805 WAYNE STREET. iT IS LOCATED 15' EAST OF CL WAYNE STREET AND 444' SOUTH OF THE CITY LIMITS.

MAPSCO 39-Z

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848586

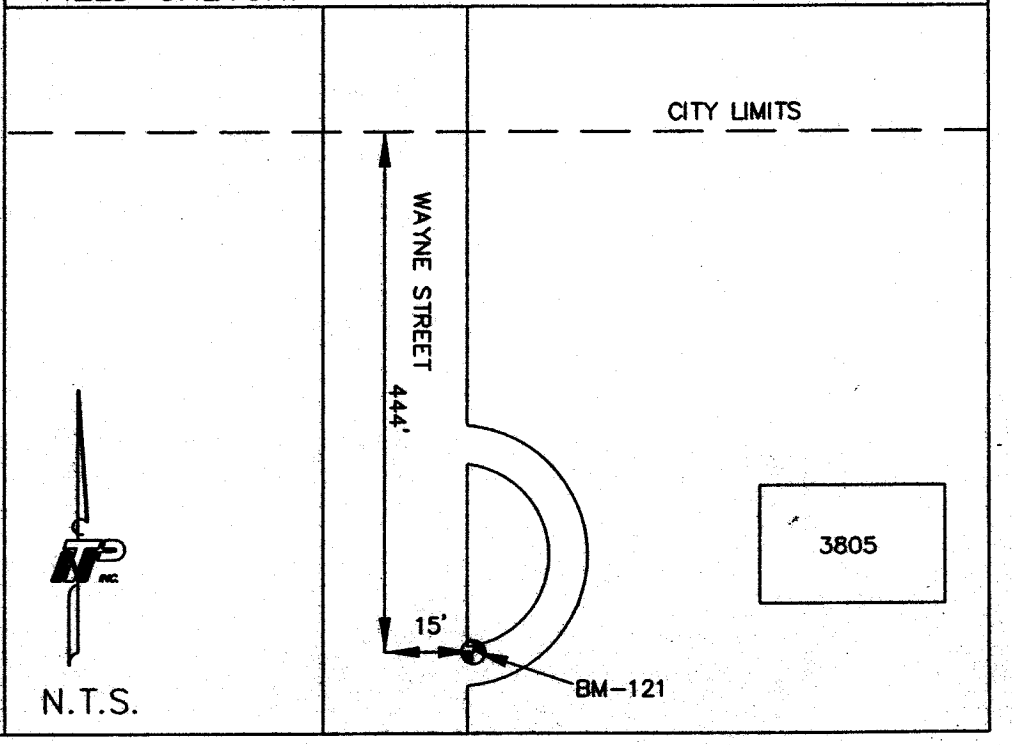
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7000566.988 E 2381789.010	00° 44' 03.00334"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 51' 56.83001"	NORTH	611.96'
	LONGITUDE	97° 09' 13.95964"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 122 | DATE: OCT.2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-122 IS 2" BRASS DISC IN A CONCRETE HEADWALL IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF FELPS ROAD AND CHEEK-SPARGNER ROAD. IT IS 14' NORTHEAST OF A WATER VALVE IN CHEEK SPARGNER ROAD AND 12.3' NORTH OF THE SOUTH END OF CONCRETE HEADWALL AND SOUTHWEST OF RESIDENCE #210 CHEEK-SPARGNER ROAD.

MAPSCO 39-U

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848138

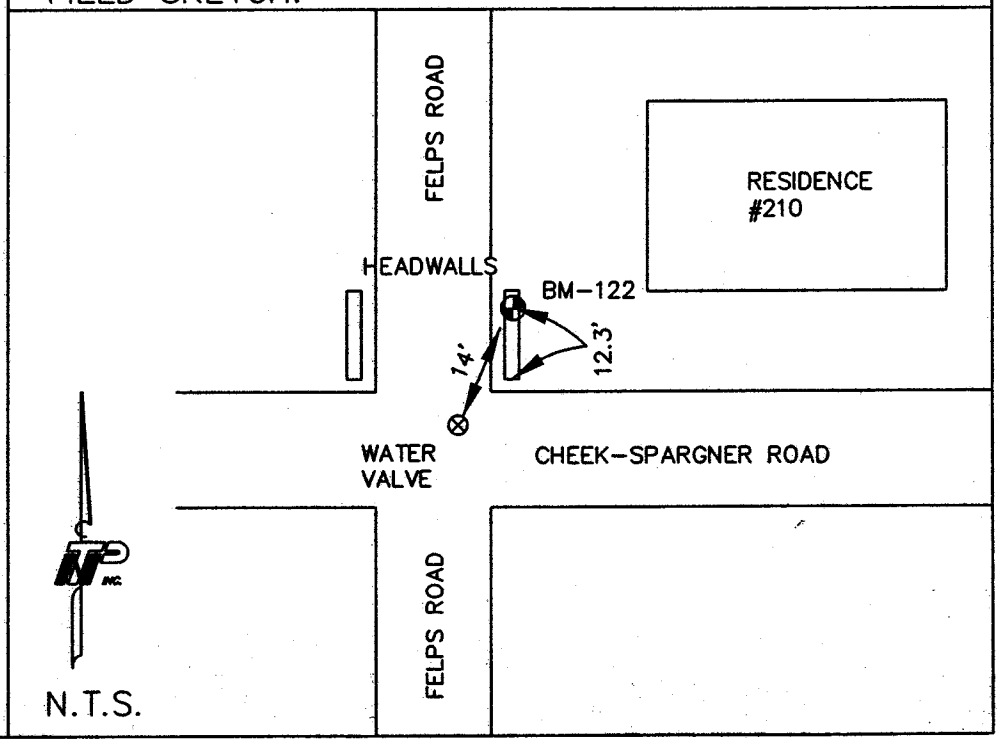
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7001194.834 E 2378149.683	00° 43' 39.78317"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 03.50167"	NORTH	619.15'
	LONGITUDE	97° 09' 56.53464"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. BM-123	DATE: OCT.2005
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE	
CITY: COLLEYVILLE	COUNTY: TARRANT — STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON
PROJECT NAME: COLLEYVILLE BENCHMARKS	

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-123 IS A 2" BRASS DISC IN A CURB INLET ON THE NORTH SIDE OF GREENBRIAR STREET, SOUTHEAST OF A RESIDENCE AT #304 GREENBRIAR. IT IS 200' EAST OF THE CENTERLINE INTERSECTION OF GREENBRIAR AND ROSEBRIAR STREET AND 107' SOUTHEAST OF A FIRE HYDRANT.

MAPSCO 39-U

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK — SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999848210

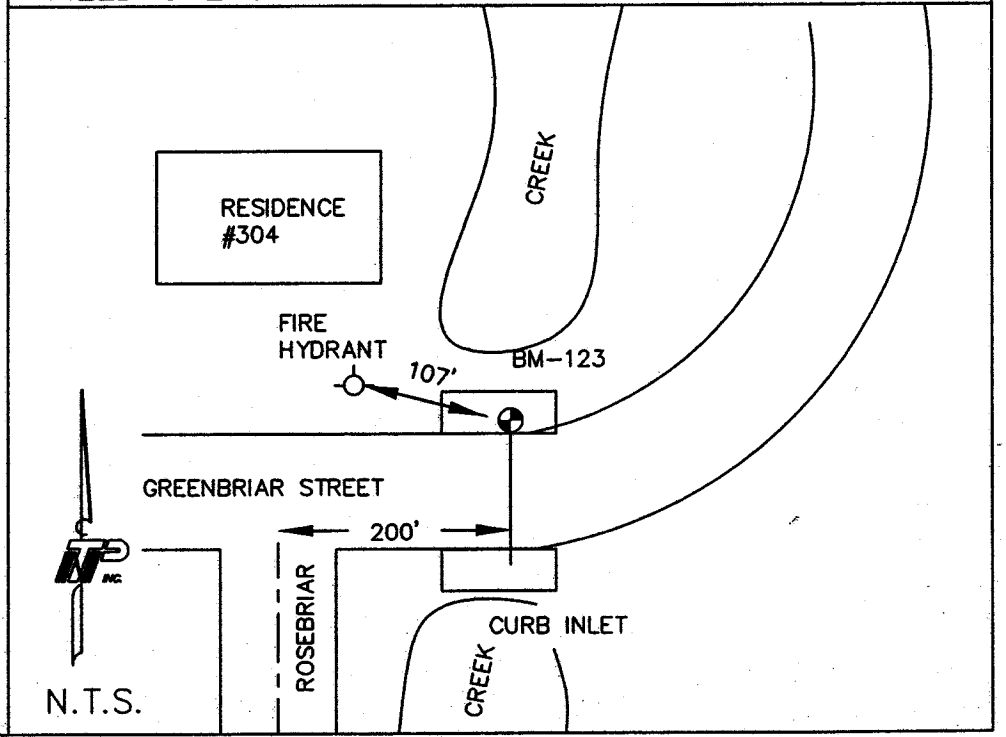
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7000438.099 E 2378531.639	00° 43' 42.16407"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 51' 55.96609"	NORTH	620.10'
	LONGITUDE	97° 09' 52.16918"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 124 | DATE: OCT.2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-124: 2" BRASS CAP IN CL OF INLET IN FRONT OF 4512 JIM MITCHELL WEST IN THE WEST ROW AND 401'NORTH OF THE PC IN THE ROAD. IT IS ALSO 75' SOUTH OF A FIRE HYDRANT.

MAPSCO 40-Q

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999849030

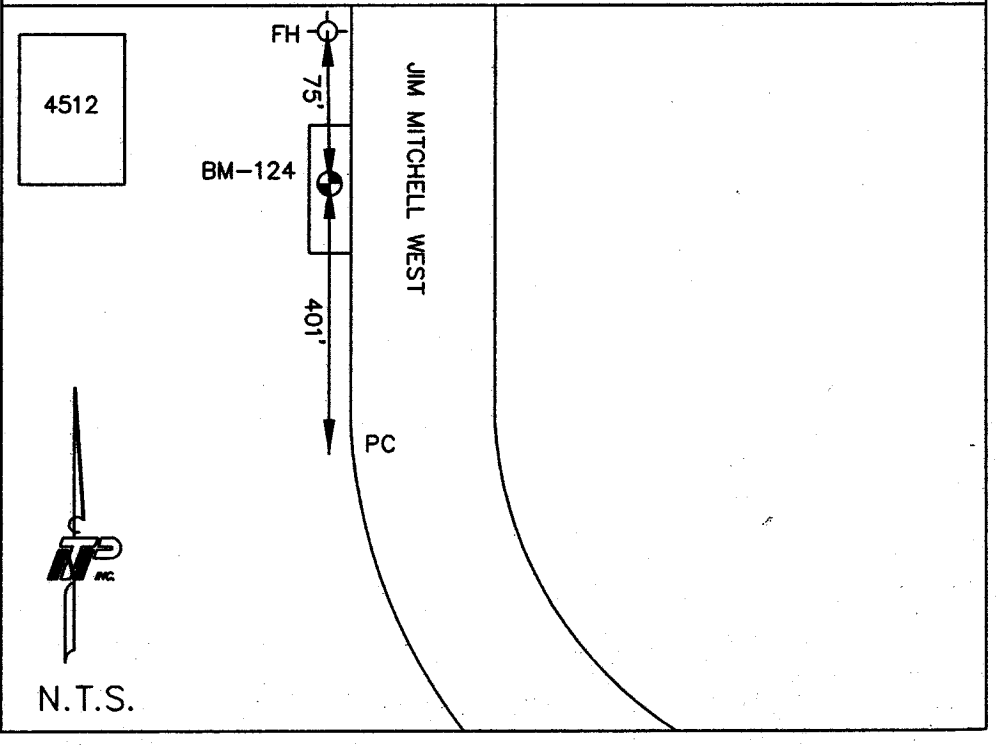
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7004434.939 E 2389043.063	00° 44' 49.71069"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 52' 34.17368"	NORTH	590.81'
	LONGITUDE	97° 07' 48.32006"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 125 | DATE: OCT.2005

MONUMENT TYPE: 2" BRASS DISC IN CONCRETE

CITY: COLLEYVILLE | COUNTY: TARRANT | STATE: TX

SURVEYOR: TEAGUE, NALL & PERKINS | PREPARED BY: M.HANSON

PROJECT NAME: COLLEYVILLE BENCHMARKS

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

DESCRIPTION OF POINTS:

BM-125: 2" BRASS DISC IN CL INLET IN FRONT OF 1804 INDUSTRIAL BLVD IN THE NORTH ROW AND 620' EAST OF CL HWY 26. iT IS ALSO 49.4' NW OF A FIRE HYDRANT IN THE SOUTH ROW .

MAPSCO 40-B

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.999846709

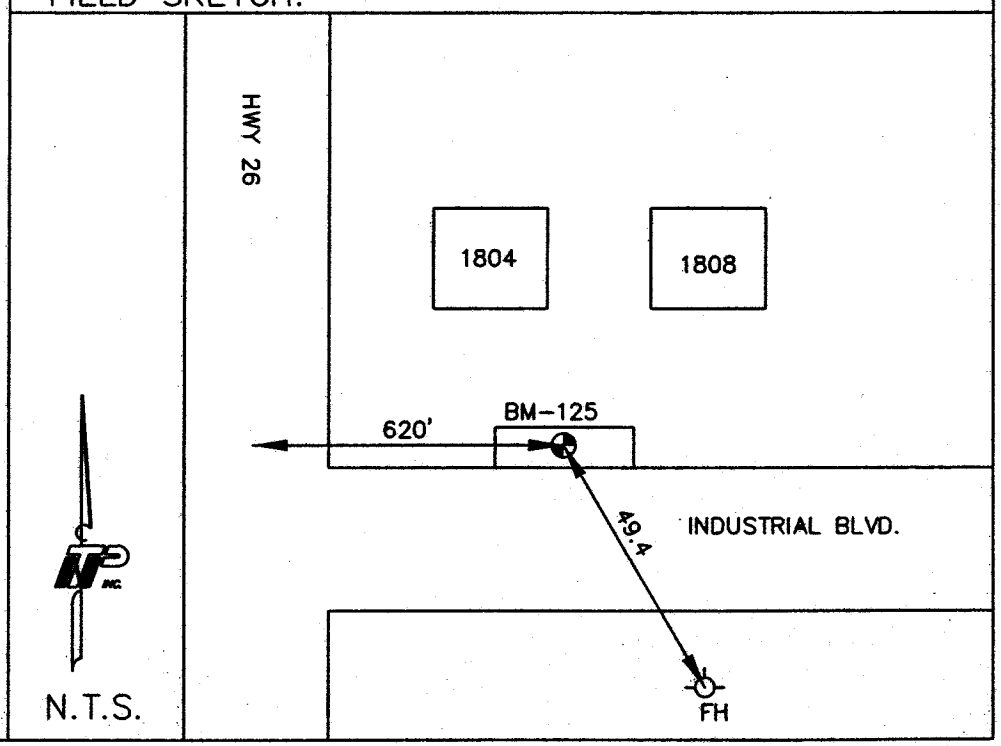
NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7013828.386 E 2386089.518	00° 44" 31.60062"

METRIC CONVERSION FACTOR: 3.2808333333

GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 54' 07.49699"	NORTH	612.66'
	LONGITUDE	97° 08' 21.52550"	WEST	

FIELD SKETCH:



GEODETIC CONTROL DATA SHEET

STATION NAME: BENCHMARK NO. 126	DATE: OCT. 2005	
MONUMENT TYPE: 2" BRASS DISC IN CONCRETE		
CITY: COLLEYVILLE	COUNTY: TARRANT	STATE: TX
SURVEYOR: TEAGUE, NALL & PERKINS	PREPARED BY: M.HANSON	
PROJECT NAME: COLLEYVILLE BENCHMARKS		

DISTANCES & DIRECTIONS TO PROMINENT & REFERENCE MARKS

AZIMUTH MARK	AZIMUTH	DISTANCE

ADJUSTED HORIZONTAL CONTROL DATA

ORDER: RTK | SURVEY METHOD: GPS ☒ OTHER ☐

COMBINED SCALE FACTOR: 0.9998451129

NAD 27 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: ZONE: CODE:	N E	

NAD 83 GRID DATA	COORDINATES (U.S. SURVEY FEET)	PLANE AZIMUTH ANGLE (CONVERGENCE)
STATE: TEXAS ZONE: N.C. CODE: 4202	N 7011733.491 E 2374788.009	00° 43' 19.13617"

METRIC CONVERSION FACTOR: 3.2808333333

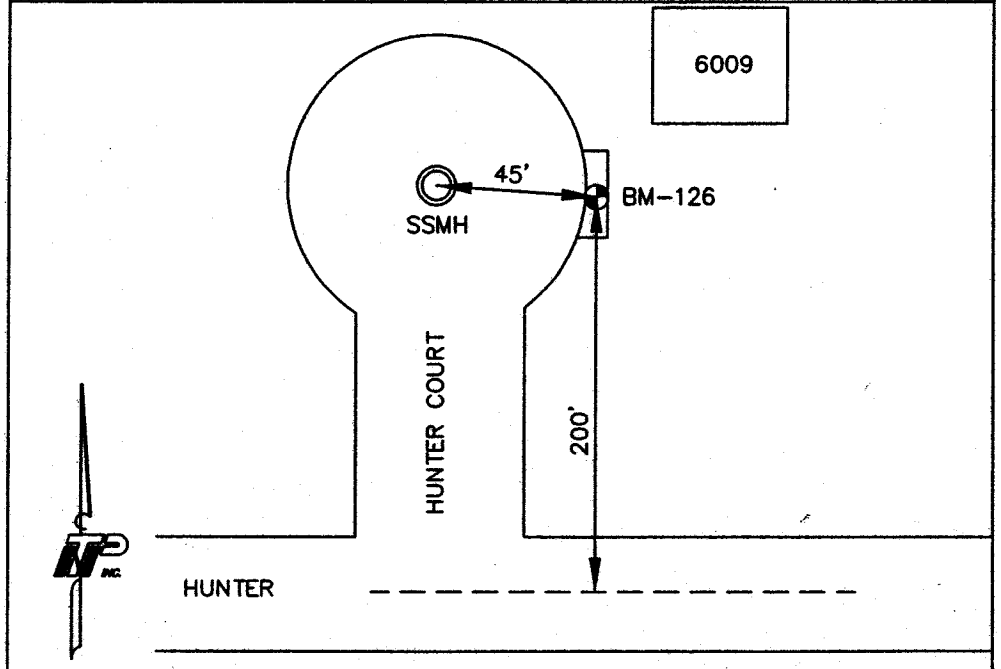
GEODETIC DATA	POSITION	NAD 27 ☐	NAD 83 ☒	ELEV.(GPS)
	LATITUDE	32° 53' 48.19781"	NORTH	650.86'
	LONGITUDE	97° 10' 34.39165"	WEST	

DESCRIPTION OF POINTS:

BM-126: 2" BRASS DISC IN INLET LOCATED ON EAST SIDE HUNTER COURT. IT IS ALSO 45' EAST OF A SSMH IN THE CENTER OF HUNTER COURT AND IT IS 200' NORTH OF CL HUNTER STREET.

MAPSCO 39-F

FIELD SKETCH:



N.T.S.