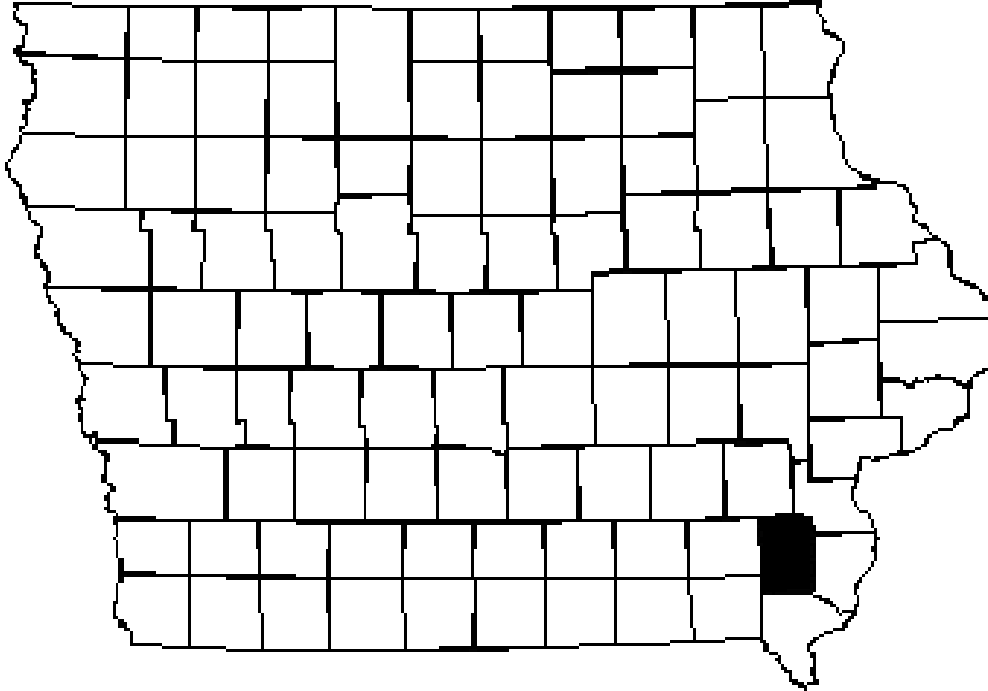
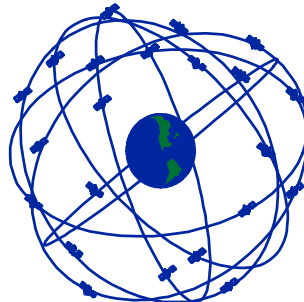


Henry County, Iowa



2004 G.P.S. Survey Control Network



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Henry County Iowa

2004 G.P.S. Survey Control Network

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INTRODUCTION

In 2004 Henry County, Iowa, chose to embark on a high accuracy ground control survey for the purpose of establishing a county-wide GIS system. The County contracted Aerial Services, Inc., Cedar Falls, Iowa, for the purpose of establishing the necessary ground control network needed to produce the base mapping layers for the new Geographic Information System (GIS).

Forty-three new control stations were added within the county. Twenty-six existing points, 10 being Des Moines County GPS control points, 5 others being Lee County GPS control points, 4 more being Washington County GPS control points and 3 others being Van Buren County GPS control points, were all recovered and tied into the GPS network. Two additional points, both Iowa HARN stations, were added for horizontal control, and 3 NGS vertical bench mark stations, were all included in the network.

PROJECT REQUIREMENTS

The purpose of this survey was to establish throughout the project area, a new high-accuracy control network using GPS survey equipment and techniques. This network was horizontally referenced to the Iowa High Accuracy Reference Network (HARN) of 1996. Vertically the network was referenced to the North American Vertical Datum of 1988 (NAVD88). Because this control would be utilized to control the analytical triangulation of the aerial photography, the network geometry was ideal for a strong GPS survey. All new point locations for control were selected with the needs of both the analytical triangulation and GPS survey requirements in mind. In some instances, all of the needs could not be met due to physical obstructions or existing land features. In these instances, the needs of analytical triangulation were held primary and the GPS survey needs were satisfied second.

MONUMENTATION

To perpetuate the GPS control measurements, 43 new permanent monuments were set for Henry County. BERNTSEN driven aluminum rod monuments were selected for the permanent monuments. Each BERNTSEN station monument consists of one three-foot smooth rod section and one three-foot top security fluted rod section with a stamped cap fastened to the top, all constructed of aluminum material. There is a permanent magnet mounted on the underside of the monument cap for future recovery with a locator. These were driven to approximately 6" below the existing ground surface. For easy access and protection, a 24" long by 5" diameter PVC pipe was placed over each rod monument along with a pre-cast aluminum access cover and backfilled with sand to facilitate drainage and to minimize frost movement.

The Engineer's Office from Henry County handled the coordination of marking the various underground utility locations for each new BERNTSEN site.

RECONNAISSANCE

The most important criterion for GPS observations at any given location is a clear view to the sky. In terms of network design, it is desirable that the horizontal control be located near the perimeter of the project site. With this in mind, two existing HARN horizontal control stations were recovered in Henry County. Both were chosen to be included in the network. Henry County was also benefited with having the existing HARN-referenced control monuments along the County's common borders with Des Moines, Lee, Van Buren and Washington Counties.

Vertical control was selected to provide as much coverage as possible, both at the periphery and in the interior of the project area. Three NGS benchmarks were recovered and included in this survey. All of the benchmarks were occupied directly, except for #502, where an iron pin was set and a closed level loop was run from the original disk. The iron pin was occupied with GPS equipment.

FIELD SURVEY

Two Thales Navigation Z-Xtreme dual frequency GPS receivers with Z-tracking capabilities and one Thales Navigation Z-MAX dual frequency GPS receiver were used for this survey. GPS observations began Monday morning, May 10, 2004. GPS observations were made during daylight hours from Monday, May 10, 2004, through Wednesday, May 12, 2004.

Rapid static GPS techniques were utilized to minimize the time and cost of the survey, but still provide high-accuracy ground control measurements. The satellite "window", where at least six satellites were observable, was open most of each day. Each measurement period, or session, during which all receivers observe satellites simultaneously lasted from 10 minutes to 40 minutes, depending on the distance being measured between the GPS receivers and the geometry of the satellite constellation.

DATA ADJUSTMENT

A total number of 165 vectors were observed and processed. Based on statistical indicators from the ASHTECH SOLUTIONS processing software, 4 vectors were rejected and removed prior to data adjustment. These lines were either repeat vectors or considered unneeded for the adjustment. The final network is comprised of 70 stations and 146 baselines. All data adjustment was performed using the ASHTECH SOLUTIONS least squares adjustment software. An initial free adjustment was performed in NAD83 to check the overall quality of the GPS data and the nature of the control. The initial unconstrained (free) adjustment yielded baseline precisions which ranged from 1:250,000 to 1:1,500,000. Once the horizontal and vertical control was verified, subsequent adjustments were performed to arrive at the optimal solutions for each datum.

NAD83 (1996)

The initial free adjustment was performed holding point #401 fixed horizontally with the vertical adjustment disabled. Coordinate values on the second HARN control station were then checked against the published values. One at a time each of the other HARN stations, or HARN-referenced stations from the surrounding Counties were added to the network and a new adjustment performed. After each adjustment a comparison of adjusted coordinates vs. published values was made. By holding the two existing HARN stations fixed, along with holding the twenty-one Des Moines, Lee, Washington and Van Buren Counties GPS control stations fixed, the precision of the “free” adjustment degraded very little.

Once we were satisfied with the horizontal adjustment, we locked the horizontal positions and concentrated on the vertical adjustment. The Geoid 03 Central zone model was utilized to provide a model of the height of the Geoid. Adjustments were then performed locking on to the vertical control stations one at a time. Elevations on the benchmarks were then checked against the published values

A final adjustment of both horizontal and vertical was then performed. All of the horizontal control points were held fixed in x and y and all vertical control were held fixed in z. This fully constrained adjustment solved for scale and rotation. In the final adjusted network, 100% of the adjusted vectors have an estimated error of 1:100,000 or less in x, y and z. The baseline precision after adjustment was between 1:109,000 to 1:630,000. All of the processed data and error factors were computed using a 95% confidence level factor. The results are well in excess of the first-order precision.

CONCLUSION

All measured points will be usable for better than first-order control in horizontal position as well as ± 0.10 ft. vertically for benchmark use.

This survey report, adjustment and GPS processing for this project has been approved and reviewed by an Iowa Licensed Land Surveyor.

Gary G. Brown, LS

Date

07034
Iowa License #

2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: 7

Northing: **301781.16 FT**

Northing: **91983.083 M**

Easting: **2150833.34 FT**

Easting: **655575.314 M**

Elev: **710.50 FT**

Elev: **216.561 M**

Latitude: **N 40-48-48.47425**

Longitude: **W 91- 39- 21.18974**

Ellip. Ht: **183.486 M**

Theta: **1 12 52.991**

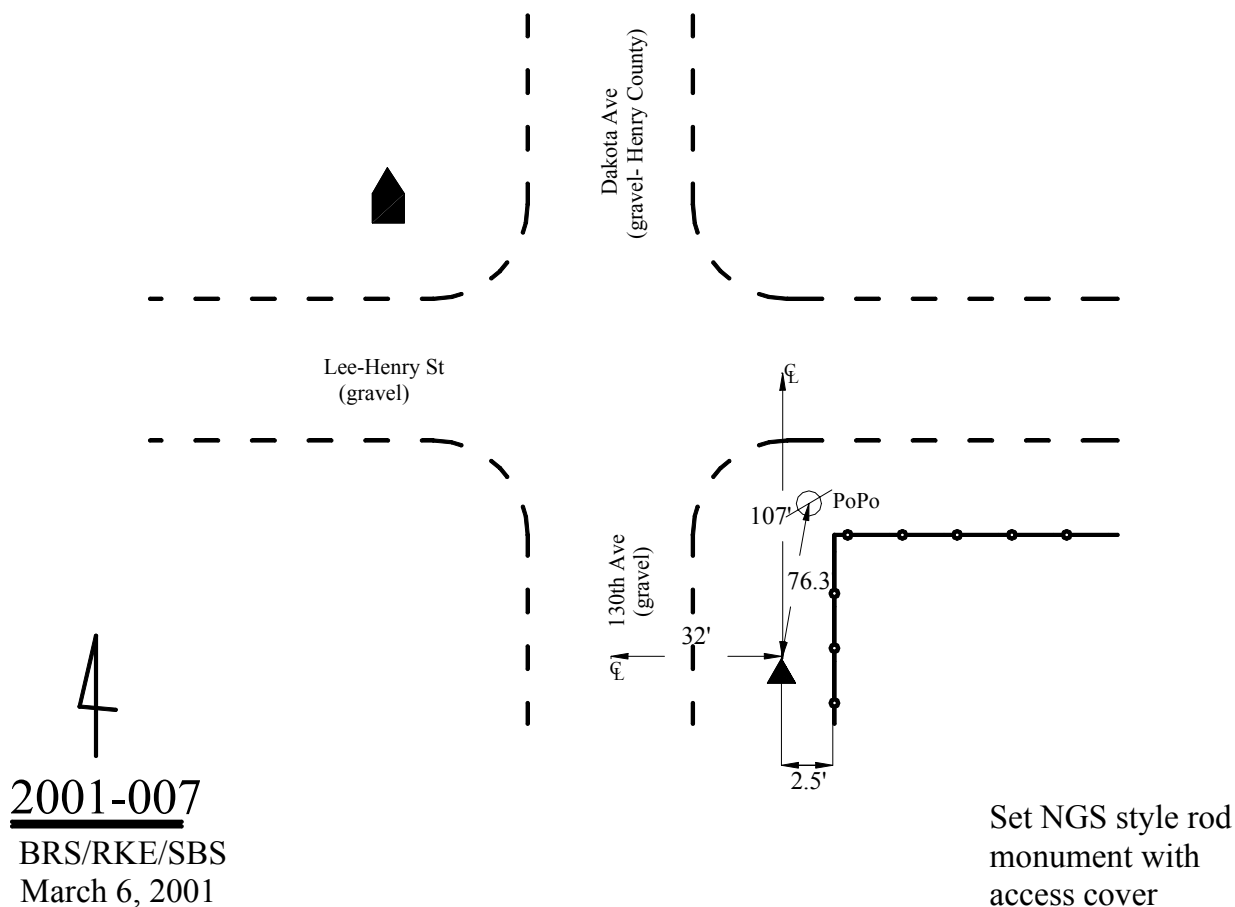
Combination Factor: **0.99994232**

03 Geoid Ht: **-33.075 M**

Designation: **LEE COUNTY GPS CONTROL 2001-007**

Location: **In the NW 1/4 of Sec 3 T69N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **15**

Northing: **302184.40 FT**

Northing: **92105.988 M**

Easting: **2165508.88 FT**

Easting: **660048.426 M**

Elev: **666.46 FT**

Elev: **203.137 M**

Latitude: **N 40-48-49.33939**

Longitude: **W 91- 36- 10.25553**

Ellip. Ht: **170.049 M**

Theta: **1 14 58.760**

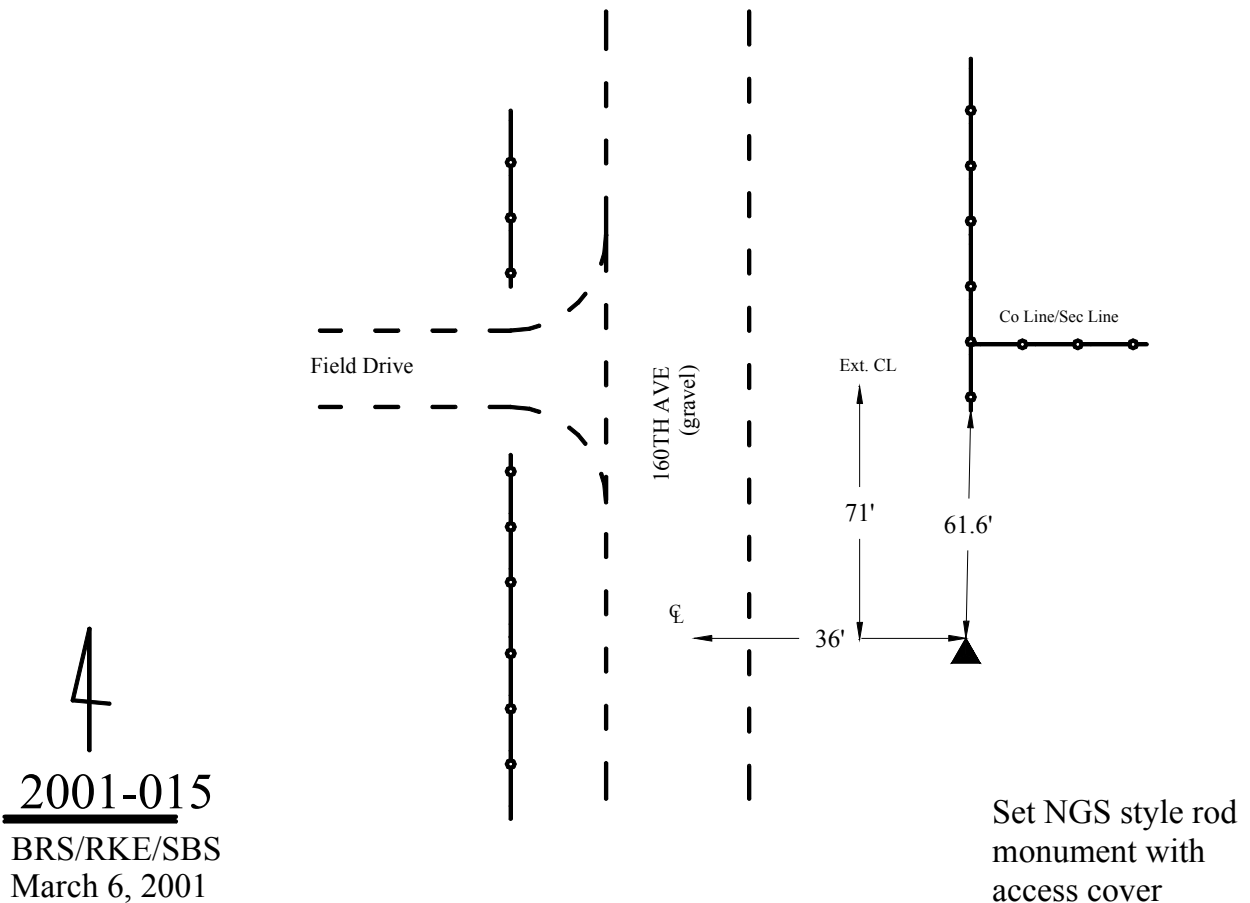
Combination Factor: **0.99994440**

03 Geoid Ht: **-33.089 M**

Designation: **LEE COUNTY GPS CONTROL 2001-015**

Location: **Near the NW Cor of Sec 6 T69N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **24**

Northing: **305168.94 FT**

Northing: **93015.678 M**

Easting: **2181446.39 FT**

Easting: **664906.190 M**

Elev: **689.15 FT**

Elev: **210.053 M**

Latitude: **N 40-49-15.33628**

Longitude: **W 91- 32- 42.15664**

Ellip. Ht: **176.955 M**

Theta: **1 17 15.835**

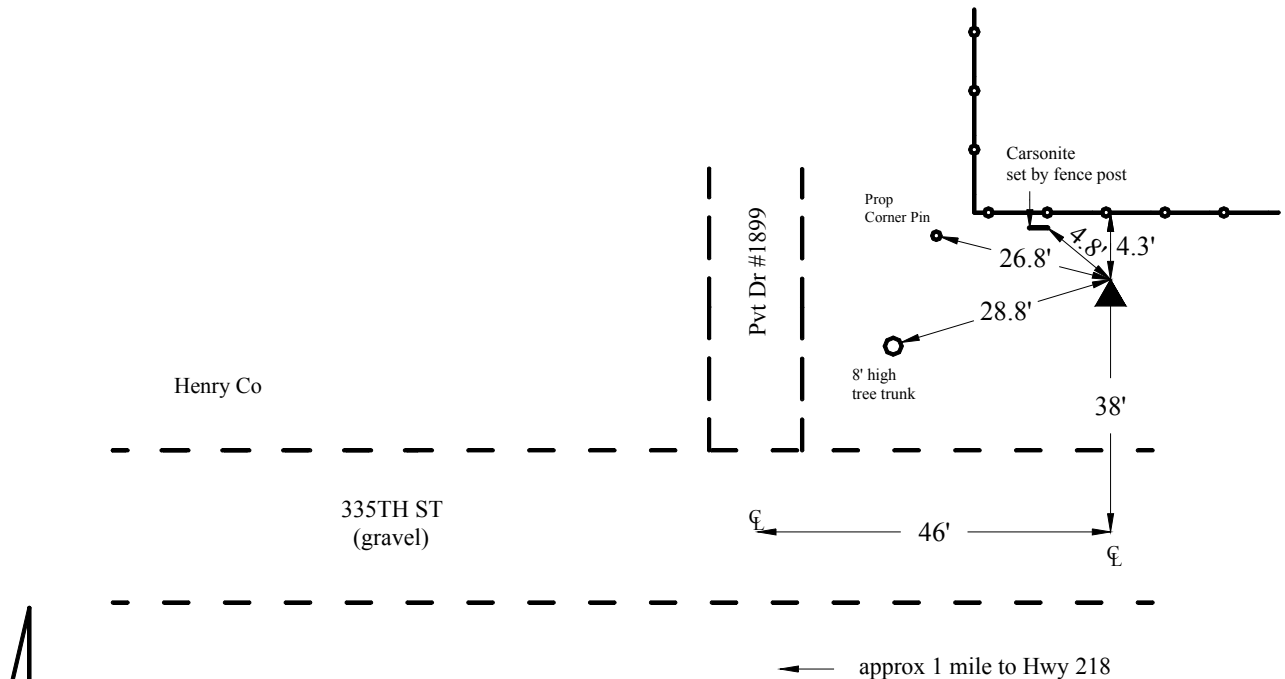
Combination Factor: **0.99994247**

03 Geoid Ht: **-33.098 M**

Designation: **LEE COUNTY GPS CONTROL 2001-024**

Location: **Near the E 1/4 Cor of Sec 33 T70N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2001-024

BRS/RKE/SBS

March 6, 2001

Set NGS style rod
monument with
access cover

2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **34**

Northing: **302790.53 FT**

Northing: **92290.738 M**

Easting: **2196087.08 FT**

Easting: **669368.681 M**

Elev: **711.31 FT**

Elev: **216.808 M**

Latitude: **N 40-48-48.54582**

Longitude: **W 91- 29- 32.48780**

Ellip. Ht: **183.698 M**

Theta: **1 19 20.770**

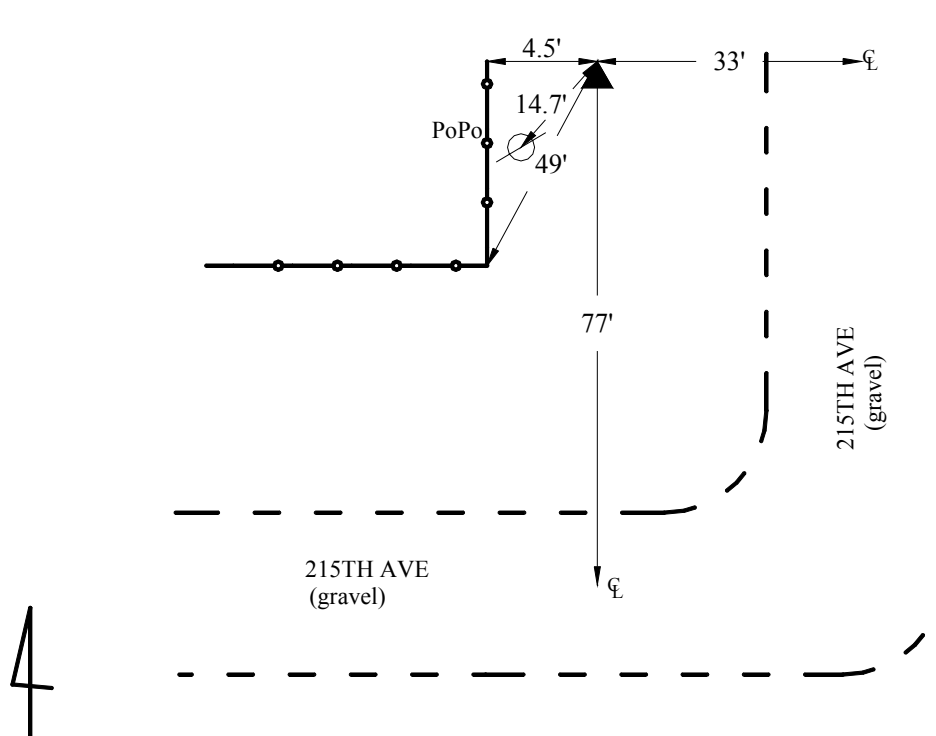
Combination Factor: **0.99994228**

03 Geoid Ht: **-33.110 M**

Designation: **LEE COUNTY GPS CONTROL 2001-034**

Location: **In the SE 1/4 of Sec 36 T70N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2001-034
BRS/RKE/SBS
March 7, 2001

Set NGS style rod
monument with
access cover

2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **45**

Northing: **302997.24 FT**

Northing: **92353.743 M**

Easting: **2213319.06 FT**

Easting: **674621.000 M**

Elev: **689.37 FT**

Elev: **210.120 M**

Latitude: **N 40-48-46.59717**

Longitude: **W 91- 25- 48.37365**

Ellip. Ht: **176.997 M**

Theta: **1 21 48.394**

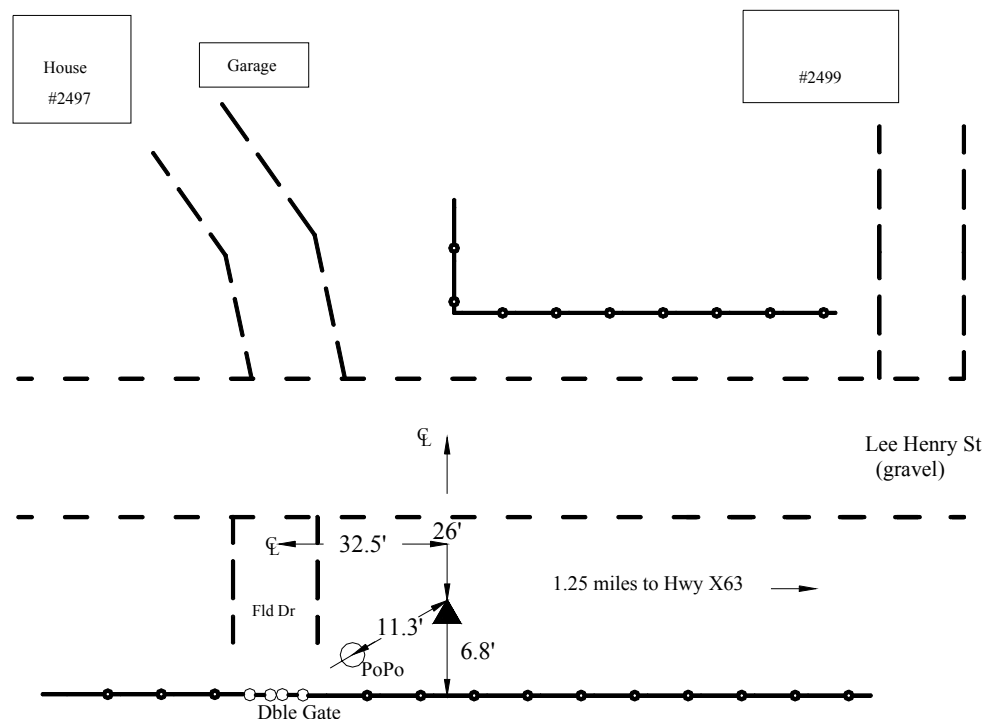
Combination Factor: **0.99994340**

03 Geoid Ht: **-33.123 M**

Designation: **LEE COUNTY GPS CONTROL 2001-045**

Location: **Near the NE Cor of Sec 4 T69N R5W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2001-045
BRS/RKE/SBS
March 7, 2001

Set NGS style rod
monument with
access cover

2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **158**

Northing: **301572.35 FT**

Northing: **91919.435 M**

Easting: **2133325.02 FT**

Easting: **650238.768 M**

Elev: **734.98 FT**

Elev: **224.022 M**

Latitude: **N 40-48-50.01597**

Longitude: **W 91- 43- 08.90512**

Ellip. Ht: **190.965 M**

Theta: **1 10 22.995**

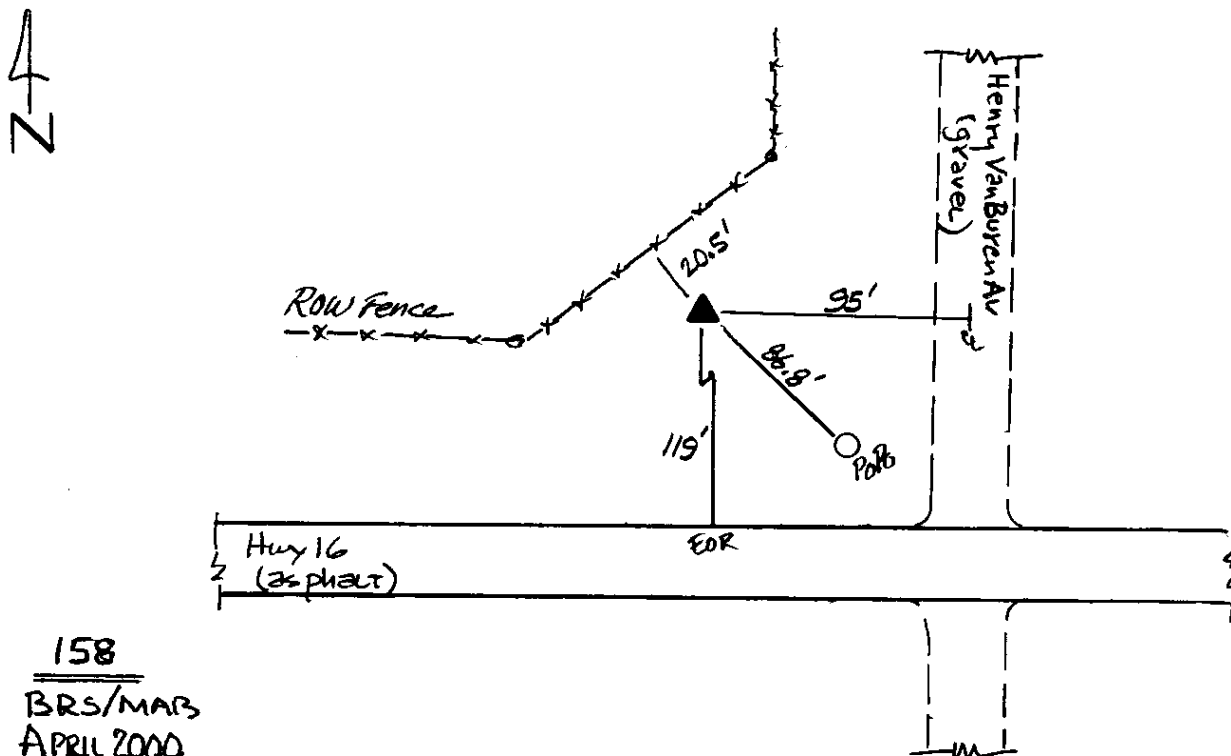
Combination Factor: **0.99994110**

03 Geoid Ht: **-33.057 M**

Designation: **VAN BUREN COUNTY GPS CONTROL 2000-158**

Location: **Near the SE Cor Sec 36 T70N R8W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: 159

Northing: 320105.22 FT

Northing: 97568.267 M

Easting: 2133085.80 FT

Easting: 650165.852 M

Elev: 691.08 FT

Elev: 210.642 M

Latitude: N 40-51-53.15336

Longitude: W 91-43-07.07986

Ellip. Ht: 177.610 M

Theta: 1 10 24.197

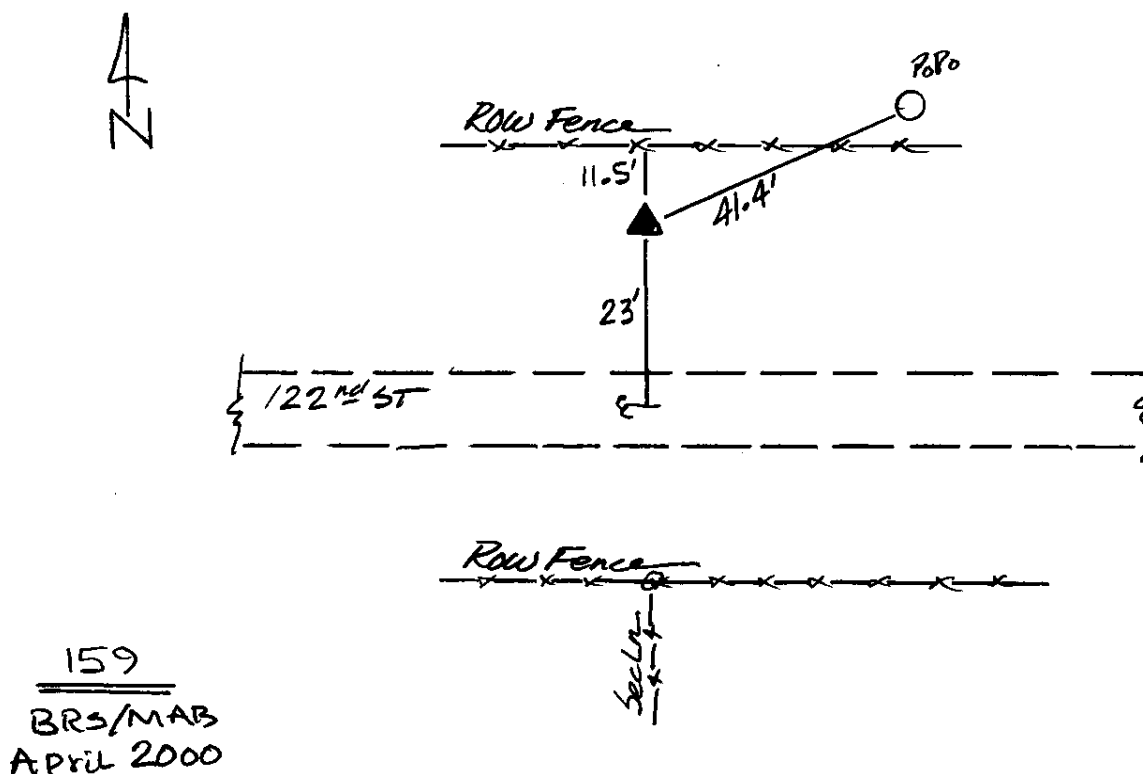
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03 Geoid Ht: -33.031 M

Designation: VAN BUREN COUNTY GPS CONTROL 2000-159

Location: Near the East 1/4 Cor Sec 13 T70N R8W.

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
 Iowa South Zone (1402)
 Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **160**

Northing: **333280.29 FT**

Northing: **101584.035 M**

Easting: **2132946.96 FT**

Easting: **650123.535 M**

Elev: **735.11 FT**

Elev: **224.062 M**

Latitude: **N 40-54-03.33945**

Longitude: **W 91- 43- 05.37394**

Ellip. Ht: **191.058 M**

Theta: **1 10 25.321**

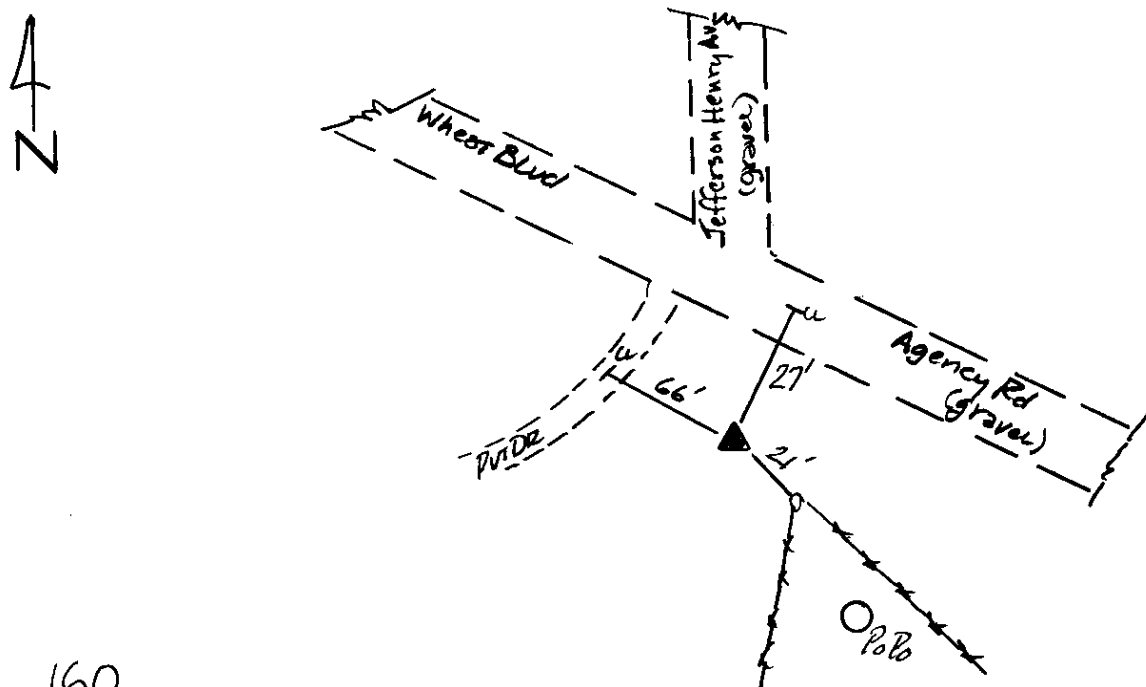
Combination Factor: **0.99993203**

03 Geoid Ht: **-33.004 M**

Designation: **VAN BUREN COUNTY GPS CONTROL 2000-160**

Location: **Near the NE Cor Sec 1 T70N R8W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



160
 BRS/MAB
 APRIL 2000

2004
Henry County, Iowa
 Iowa South Zone (1402)
 Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **164**

Northing: **429061.79 FT**

Northing: **130778.294 M**

Easting: **2132889.75 FT**

Easting: **650106.096 M**

Elev: **654.76 FT**

Elev: **199.571 M**

Latitude: **N 41-09-49.57156**

Longitude: **W 91- 42- 40.46949**

Ellip. Ht: **166.723 M**

Theta: **1 10 41.725**

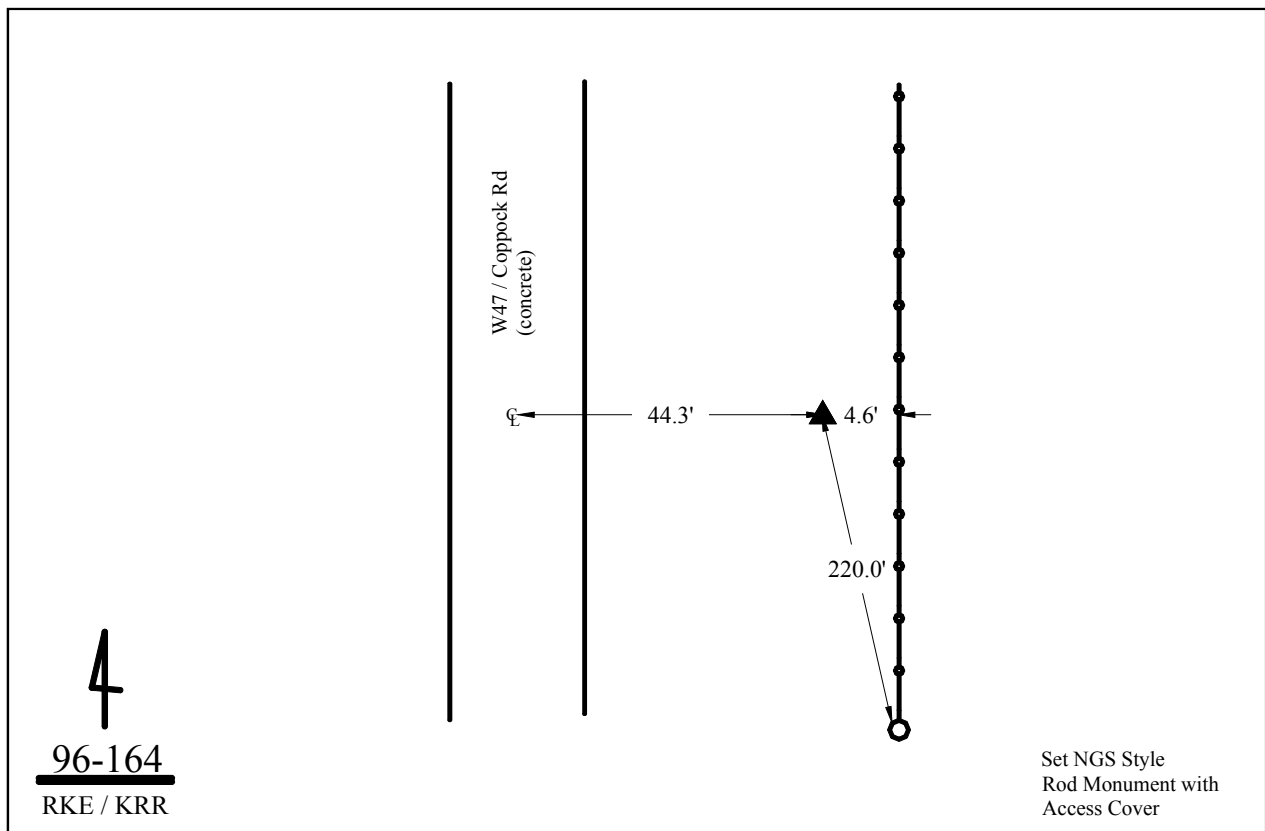
Combination Factor: **0.99992243**

03 Geoid Ht: **-32.848 M**

Designation: **WASHINGTON COUNTY GPS CONTROL 1996-164**

Location: **Near the NE Cor of Sec 1 T73N R8W.**

Monument Type: 5/8" dia driven aluminum rod with a 3-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **165**

Northing: **428962.73 FT**

Northing: **130748.102 M**

Easting: **2151349.96 FT**

Easting: **655732.779 M**

Elev: **731.47 FT**

Elev: **222.953 M**

Latitude: **N 41-09-44.77202**

Longitude: **W 91- 38- 39.18514**

Ellip. Ht: **190.089 M**

Theta: **1 13 20.660**

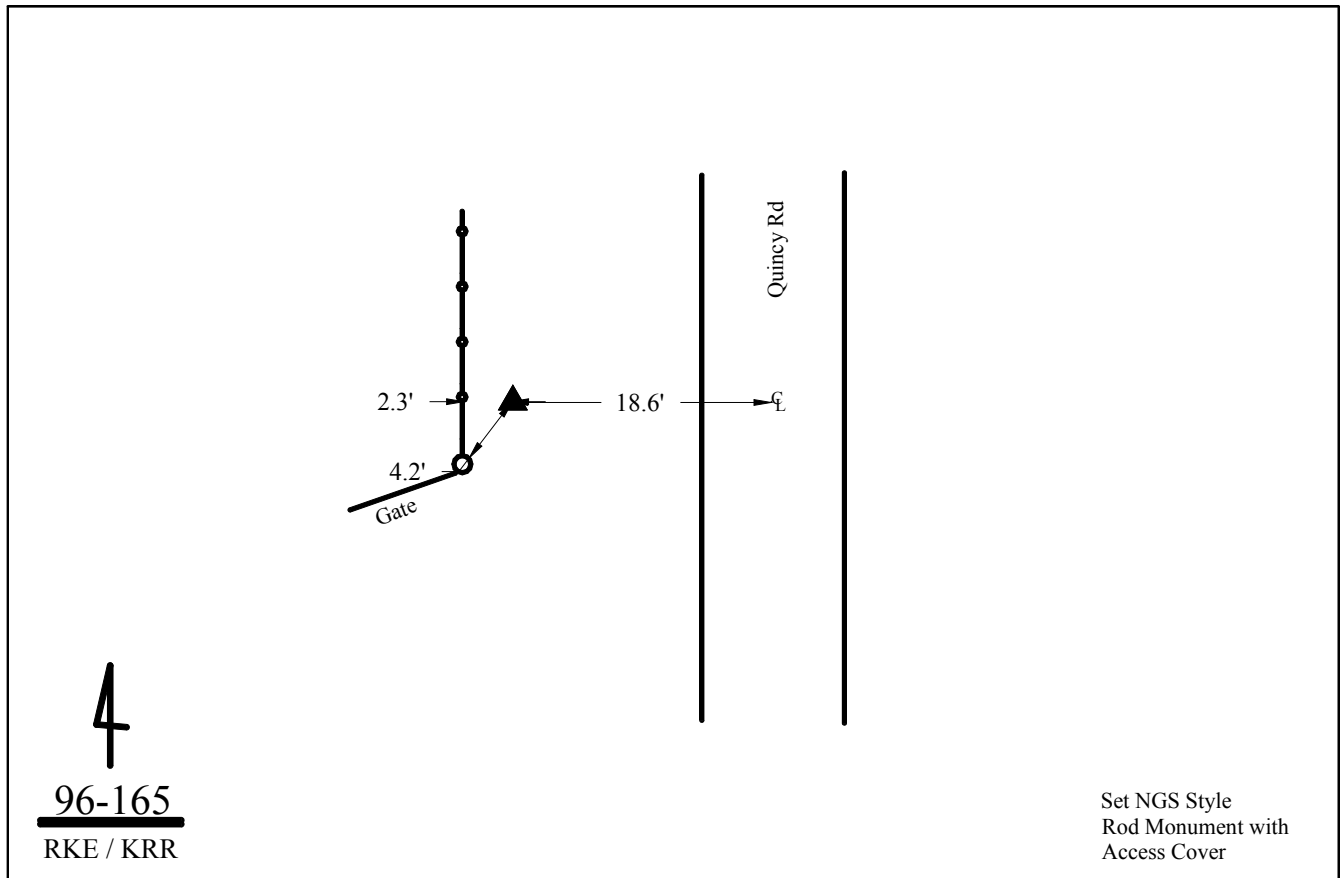
Combination Factor: **0.99991877**

03 Geoid Ht: **-32.864 M**

Designation: **WASHINGTON COUNTY GPS CONTROL 1996-165**

Location: **Near the SE Cor of Sec 34 T74N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **166**

Northing: **429556.89 FT**

Northing: **130929.201 M**

Easting: **2173536.33 FT**

Easting: **662495.198 M**

Elev: **723.71 FT**

Elev: **220.587 M**

Latitude: **N 41-09-45.86312**

Longitude: **W 91- 33- 49.00358**

Ellip. Ht: **187.705 M**

Theta: **1 16 31.802**

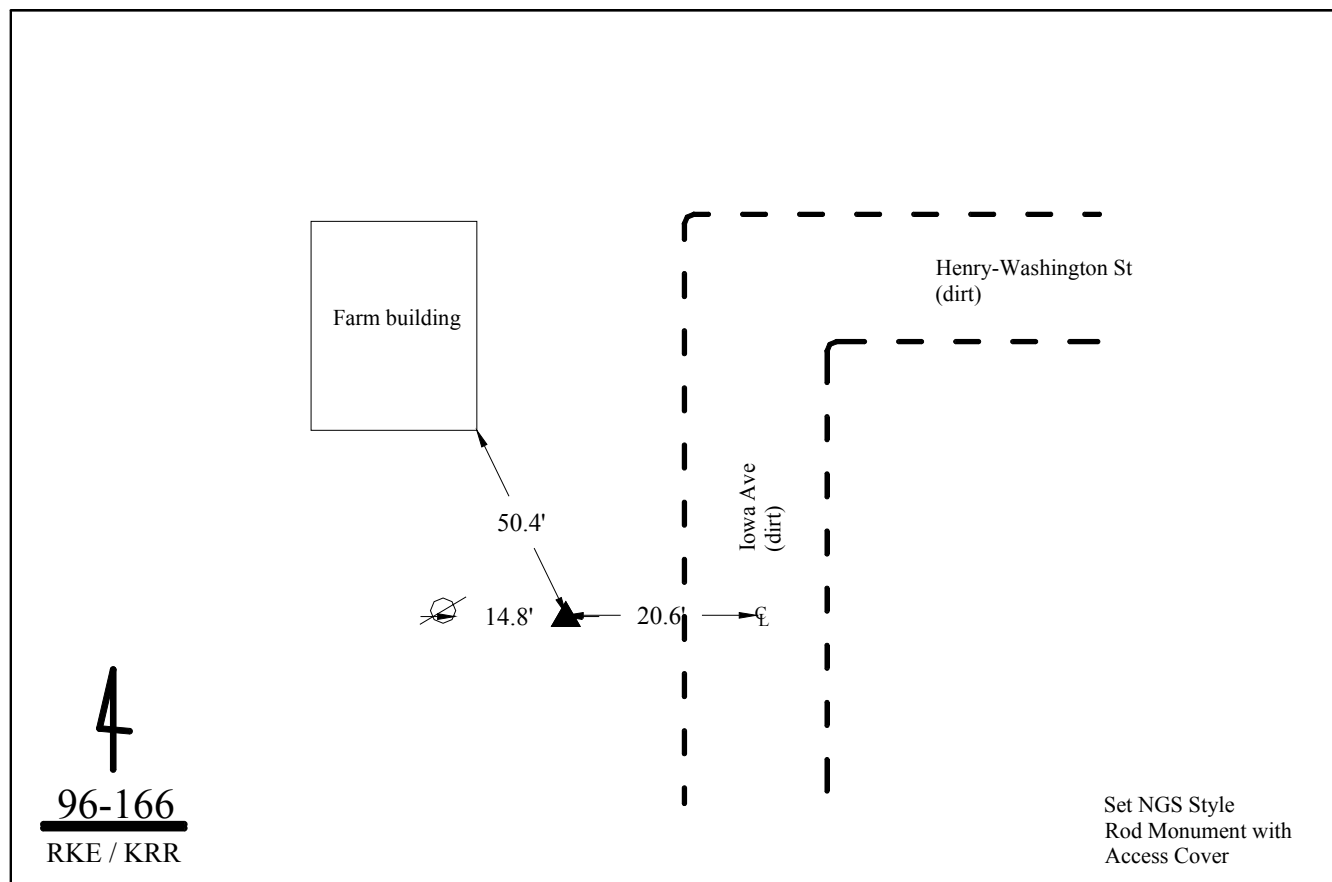
Combination Factor: **0.99991915**

03 Geoid Ht: **-32.882 M**

Designation: **WASHINGTON COUNTY GPS CONTROL 1996-166**

Location: **Near the NW Cor of Sec 4 T73N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.





2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: 167

Northing: 429991.62 FT

Northing: 131061.708 M

Easting: 2194949.24 FT

Easting: 669021.867 M

Elev: 691.44 FT

Elev: 210.751 M

Latitude: N 41-09-45.35328

Longitude: W 91- 29- 08.97790

Ellip. Ht: 177.847 M

Theta: 1 19 36.256

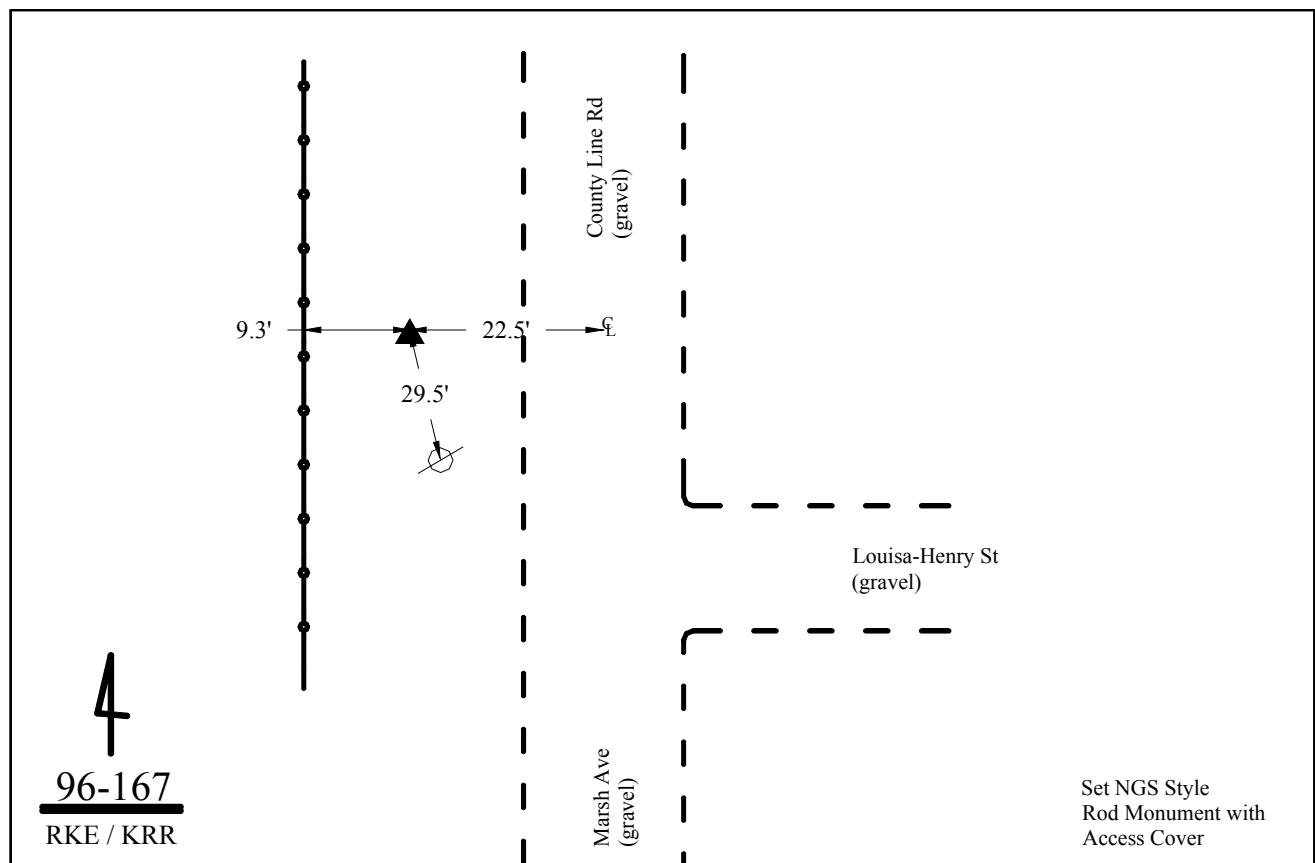
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03 Geoid Ht: -32.905 M

Designation: WASHINGTON COUNTY GPS CONTROL 1996-167

Location: Near the SE Cor of Sec 36 T74N R6W.

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: 200

Northing: 304388.14 FT

Northing: 92777.691 M

Easting: 2229287.67 FT

Easting: 679488.241 M

Elev: 707.55 FT

Elev: 215.662 M

Latitude: N 40-48-56.53012

Longitude: W 91- 22- 20.31244

Ellip. Ht: 182.531 M

Theta: 1 24 05.444

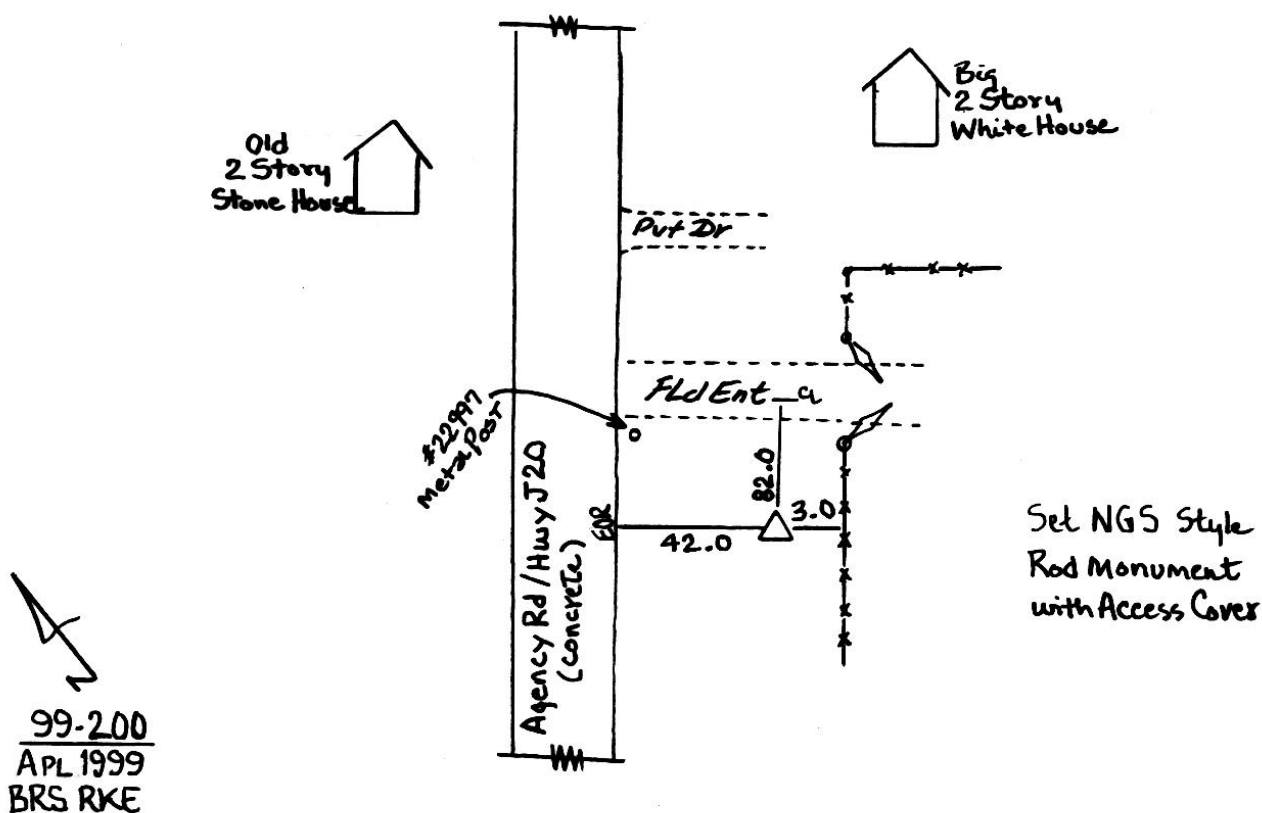
Combination Factor: 0.99994221

03 Geoid Ht: -33.131 M

Designation: DES MOINES COUNTY GPS CONTROL 1999-200

Location: Near the SW Cor of Sec 31 T70N R4W.

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: 201

Northing: 315147.16 FT

Northing: 96057.045 M

Easting: 2229179.86 FT

Easting: 679455.380 M

Elev: 720.23 FT

Elev: 219.527 M

Latitude: N 40-50-42.83657

Longitude: W 91- 22- 18.29078

Ellip. Ht: 186.417 M

Theta: 1 24 06.776

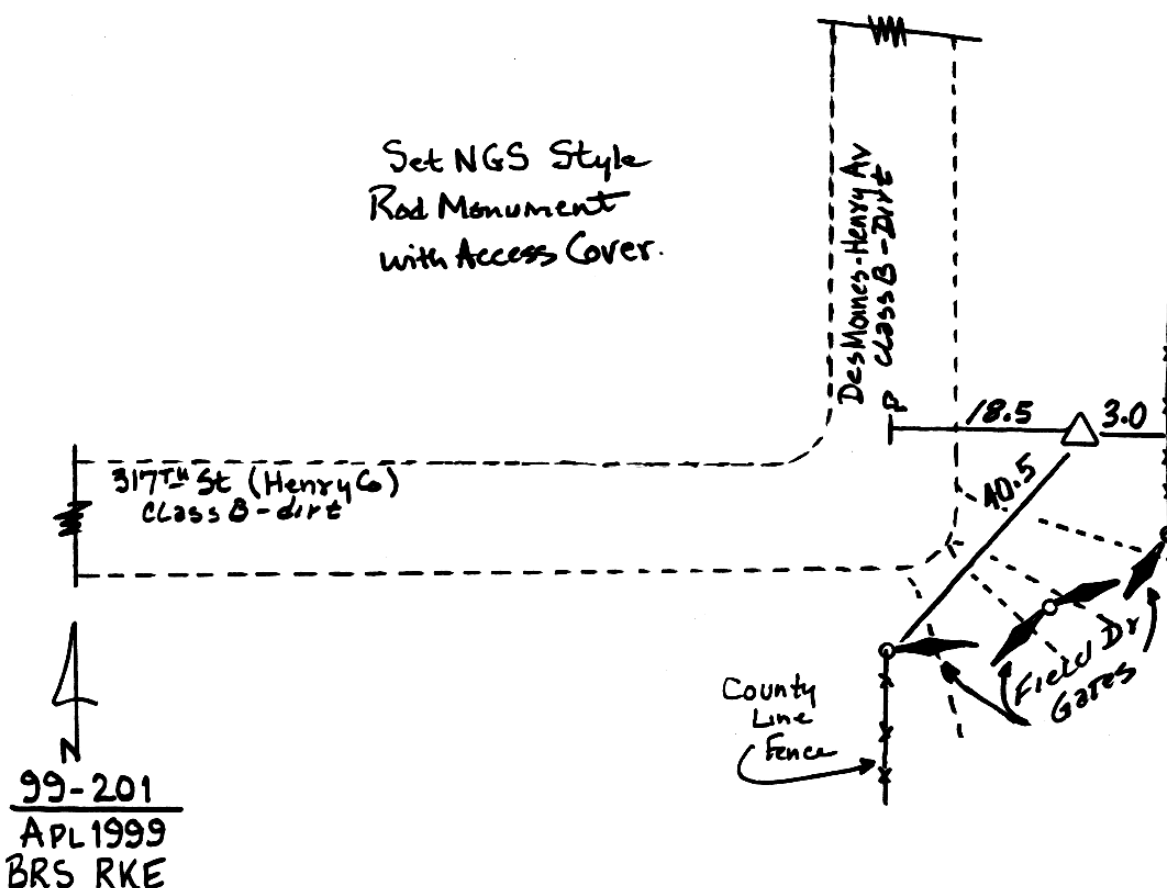
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03 Geoid Ht: -33.110 M

Designation: DES MOINES COUNTY GPS CONTROL 1999-201

Location: Near the SW Cor of Sec 19 T70N R4W.

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: 202

Northing: 324446.37 FT

Northing: 98891.452 M

Easting: 2229346.64 FT

Easting: 679506.213 M

Elev: 730.67 FT

Elev: 222.709 M

Latitude: N 40-52-14.65618

Longitude: W 91- 22- 13.15909

Ellip. Ht: 189.617 M

Theta: 1 24 10.156

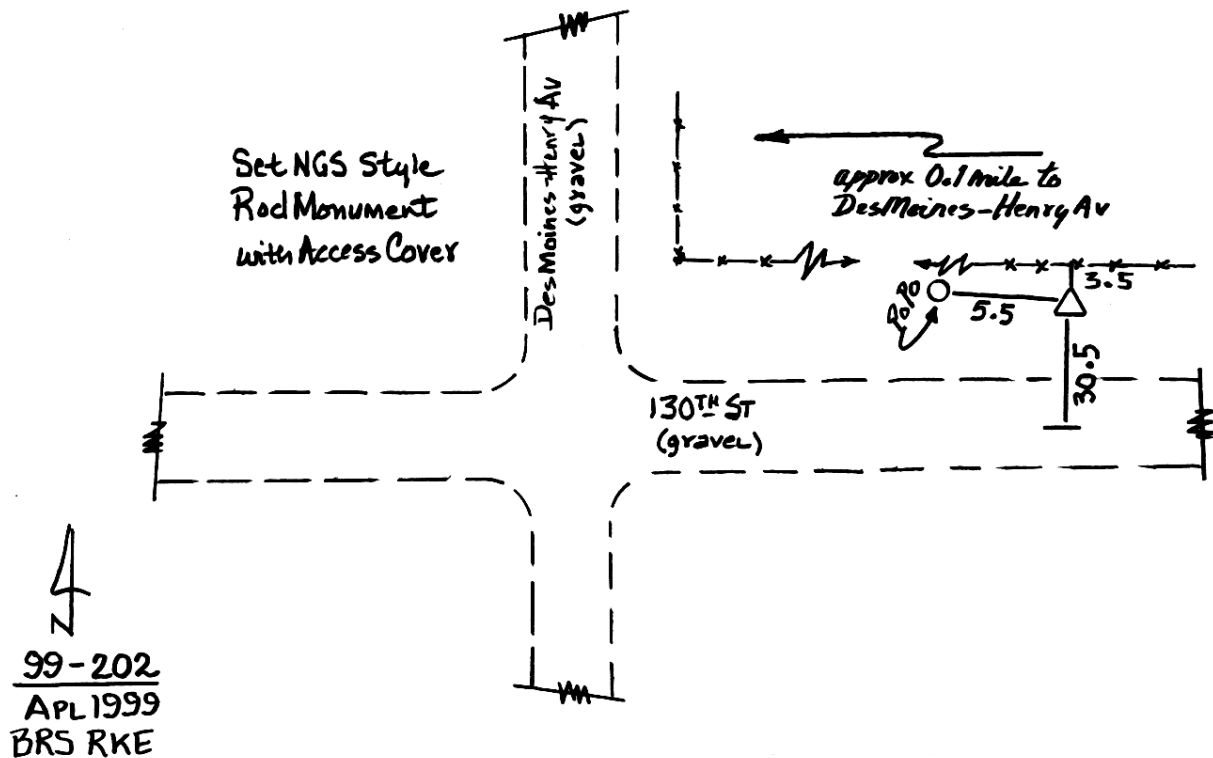
Combination Factor: 0.99993514

03 Geoid Ht: -33.091 M

Designation: DES MOINES COUNTY GPS CONTROL 1999-202

Location: Near the SW Cor of Sec 7 T70N R4W.

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: 203

Northing: 335014.78 FT

Northing: 102112.709 M

Easting: 2228700.37 FT

Easting: 679309.231 M

Elev: 740.76 FT

Elev: 225.784 M

Latitude: N 40-53-59.20958

Longitude: W 91- 22- 18.20332

Ellip. Ht: 192.715 M

Theta: 1 24 06.833

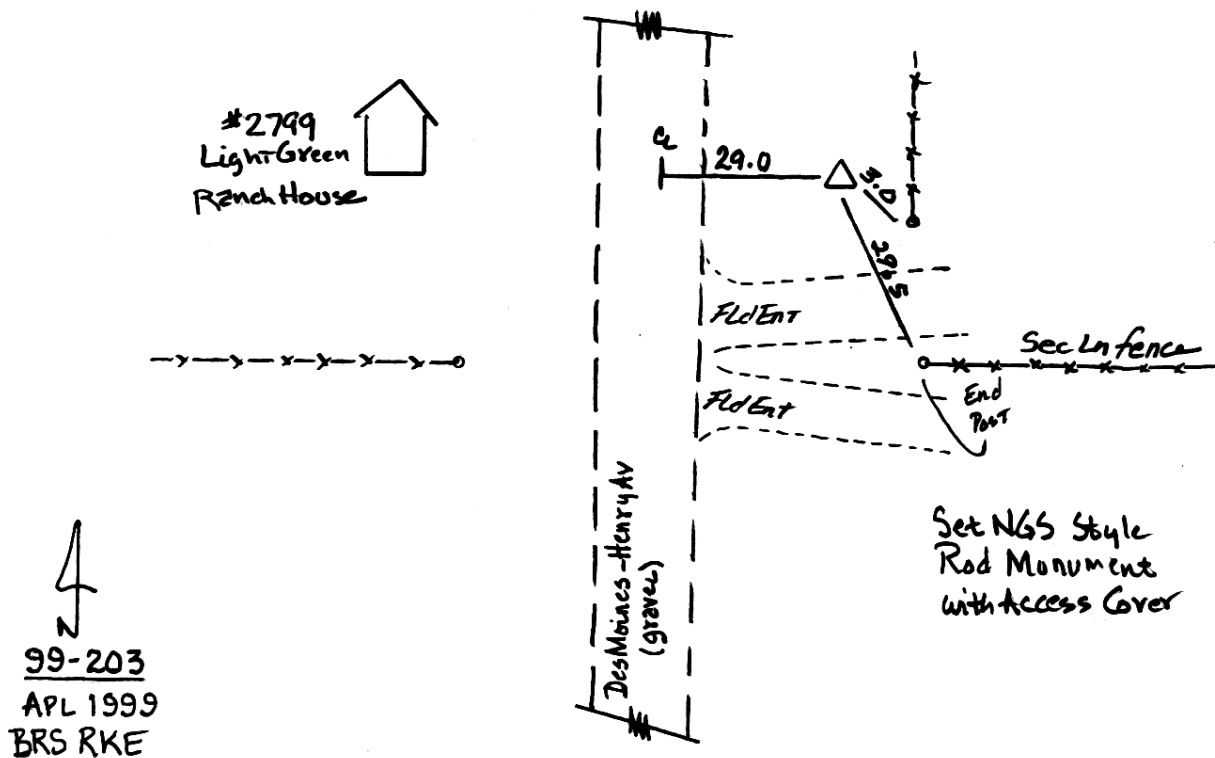
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03 Geoid Ht: -33.069 M

Designation: DES MOINES COUNTY GPS CONTROL 1999-203

Location: Near the SW Cor of Sec 31 T71N R4W.

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: 204

Northing: 345610.52 FT

Northing: 105342.298 M

Easting: 2228507.72 FT

Easting: 679250.511 M

Elev: 746.55 FT

Elev: 227.549 M

Latitude: N 40-55-43.92307

Longitude: W 91- 22- 17.33520

Ellip. Ht: 194.501 M

Theta: 1 24 07.405

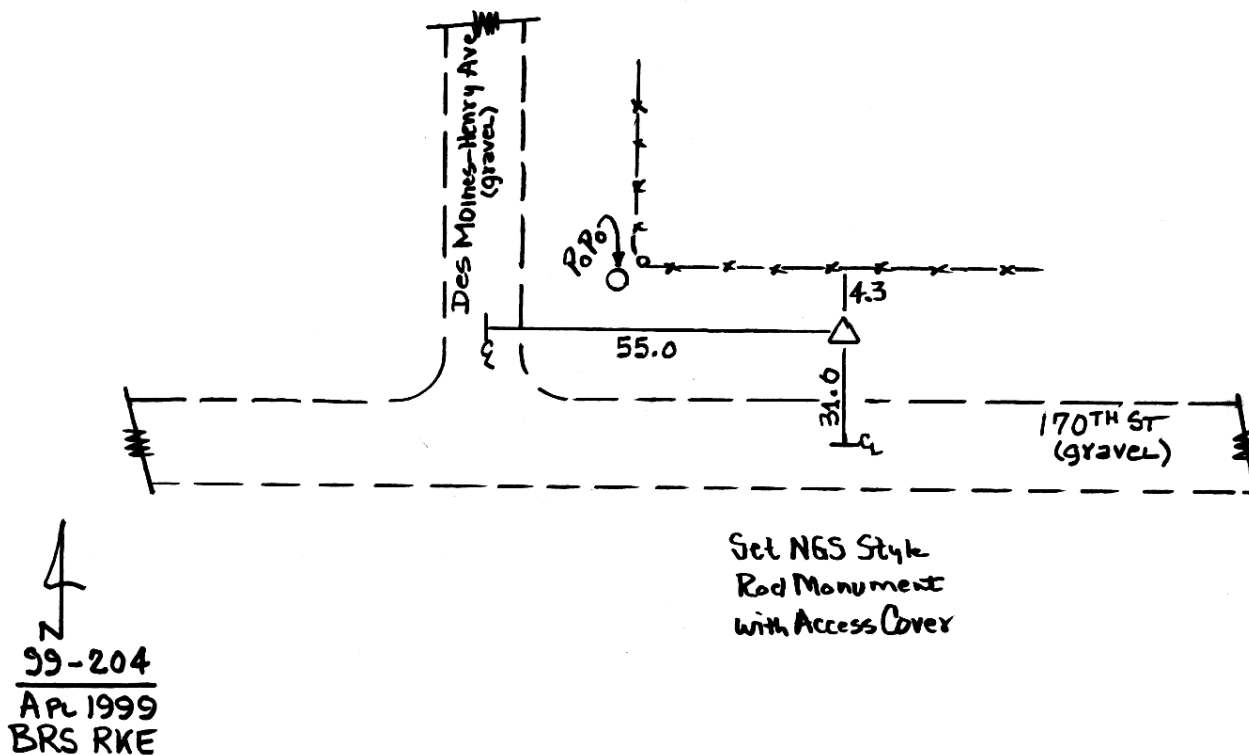
Combination Factor: 0.99992907

03 Geoid Ht: -33.048 M

Designation: DES MOINES COUNTY GPS CONTROL 1999-204

Location: Near the SW Cor of Sec 19 T71N R4W.

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: 205

Northing: 356177.07 FT

Northing: 108562.987 M

Easting: 2228171.22 FT

Easting: 679147.946 M

Elev: 766.88 FT

Elev: 233.745 M

Latitude: N 40-57-28.38259

Longitude: W 91- 22- 18.34998

Ellip. Ht: 200.719 M

Theta: 1 24 06.737

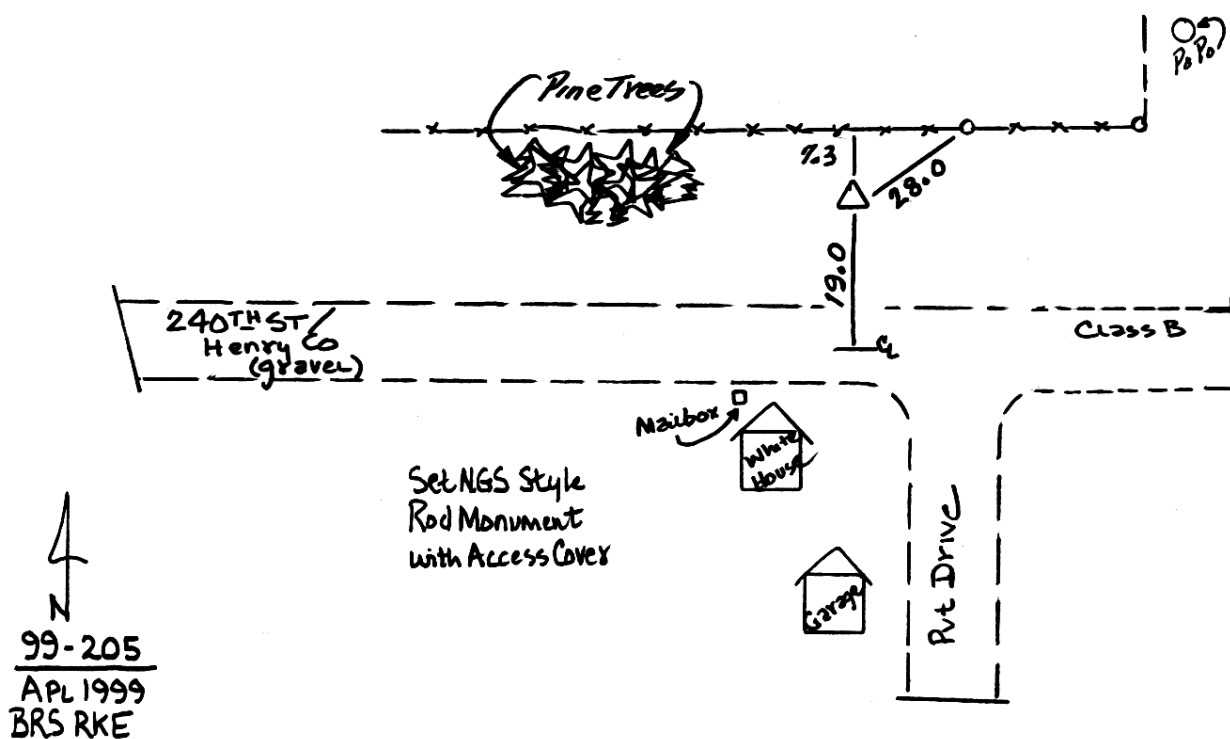
Combination Factor: 0.99992584

03 Geoid Ht: -33.027 M

Designation: DES MOINES COUNTY GPS CONTROL 1999-205

Location: Near the SE Cor of Sec 12 T71N R5W.

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: 206

Northing: 366713.22 FT

Northing: 111774.414 M

Easting: 2228338.96 FT

Easting: 679199.072 M

Elev: 775.59 FT

Elev: 236.400 M

Latitude: N 40-59-12.41973

Longitude: W 91- 22- 12.80214

Ellip. Ht: 203.393 M

Theta: 1 24 10.391

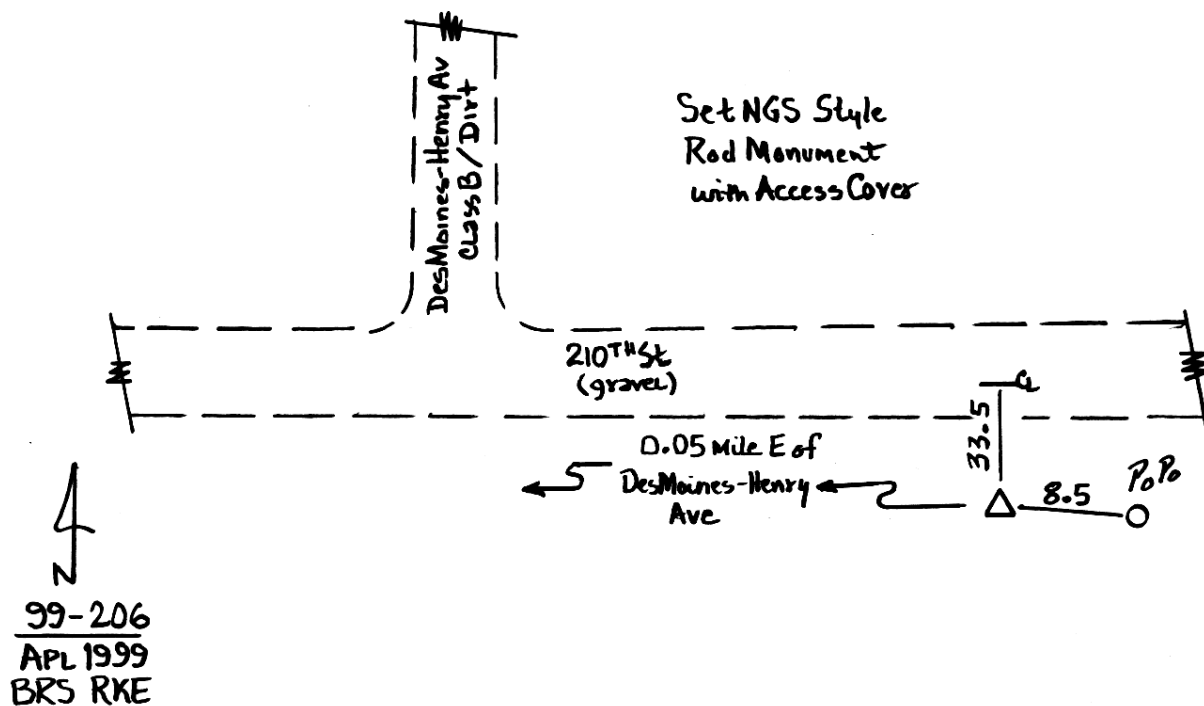
Combination Factor: 0.99992342

03 Geoid Ht: -33.008 M

Designation: DES MOINES COUNTY GPS CONTROL 1999-206

Location: Near the NW Cor of Sec 6 T71N R4W.

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: 207

Northing: 377439.64 FT

Northing: 115043.833 M

Easting: 2227858.40 FT

Easting: 679052.597 M

Elev: 726.45 FT

Elev: 221.422 M

Latitude: N 41-00-58.49274

Longitude: W 91- 22- 15.64355

Ellip. Ht: 188.429 M

Theta: 1 24 08.519

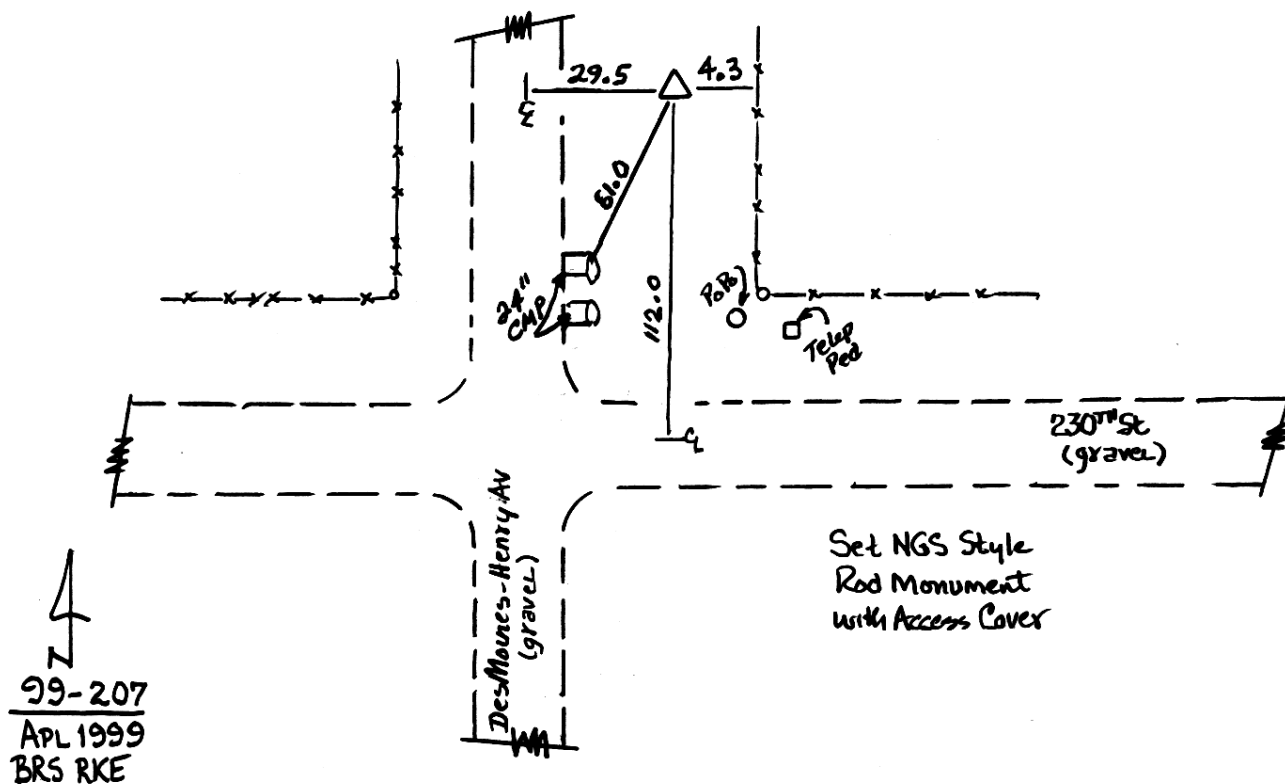
Combination Factor: 0.99992398

03 Geoid Ht: -32.993 M

Designation: DES MOINES COUNTY GPS CONTROL 1999-207

Location: Near the SW Cor of Sec 19 T72N R4W.

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: 208

Northing: 387879.35 FT

Northing: 118225.864 M

Easting: 2227664.46 FT

Easting: 678993.484 M

Elev: 740.26 FT

Elev: 225.632 M

Latitude: N 41-02-41.66397

Longitude: W 91- 22- 14.83941

Ellip. Ht: 192.652 M

Theta: 1 24 09.049

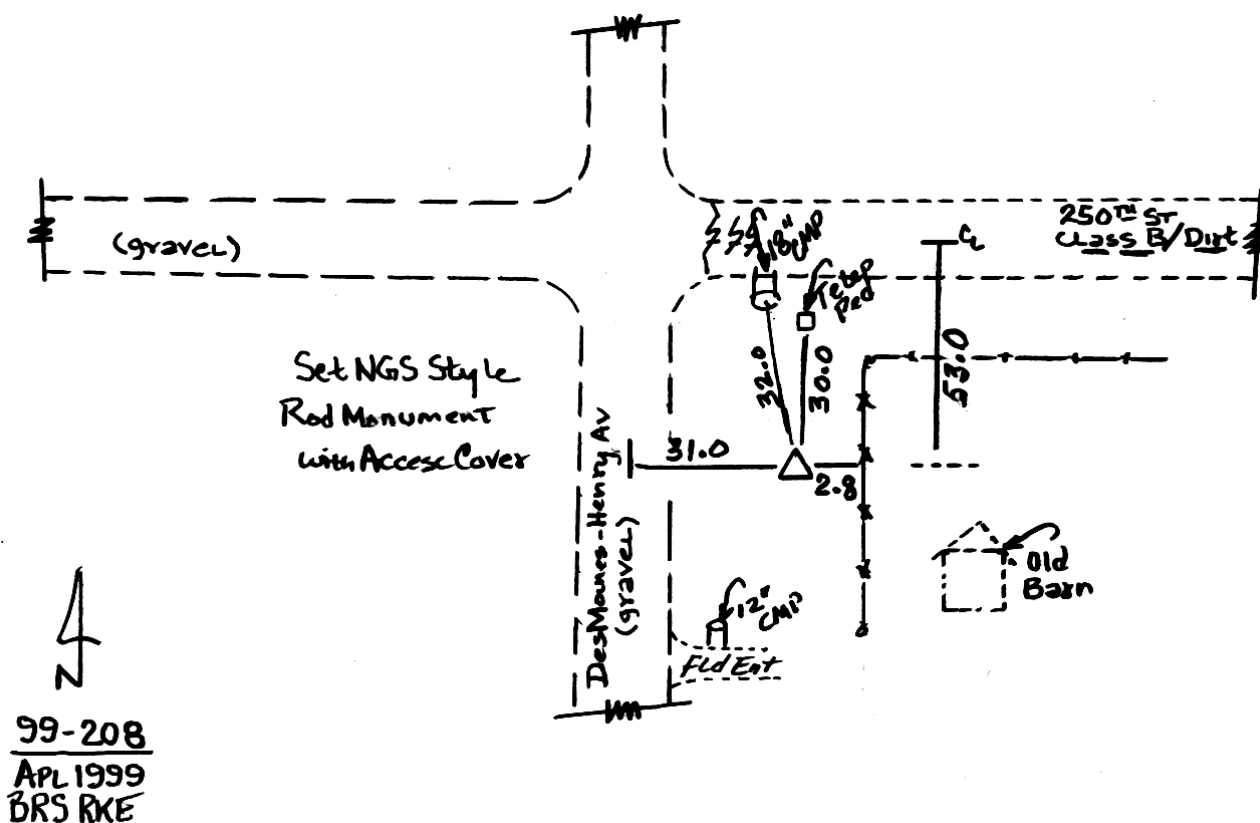
Combination Factor: 0.99992184

03 Geoid Ht: -32.980 M

Designation: DES MOINES COUNTY GPS CONTROL 1999-208

Location: Near the NW Cor of Sec 18 T72N R4W.

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: 209

Northing: 398478.98 FT

Northing: 121456.637 M

Easting: 2227455.89 FT

Easting: 678929.914 M

Elev: 724.80 FT

Elev: 220.919 M

Latitude: N 41-04-26.41801

Longitude: W 91- 22- 14.17435

Ellip. Ht: 187.950 M

Theta: 1 24 09.487

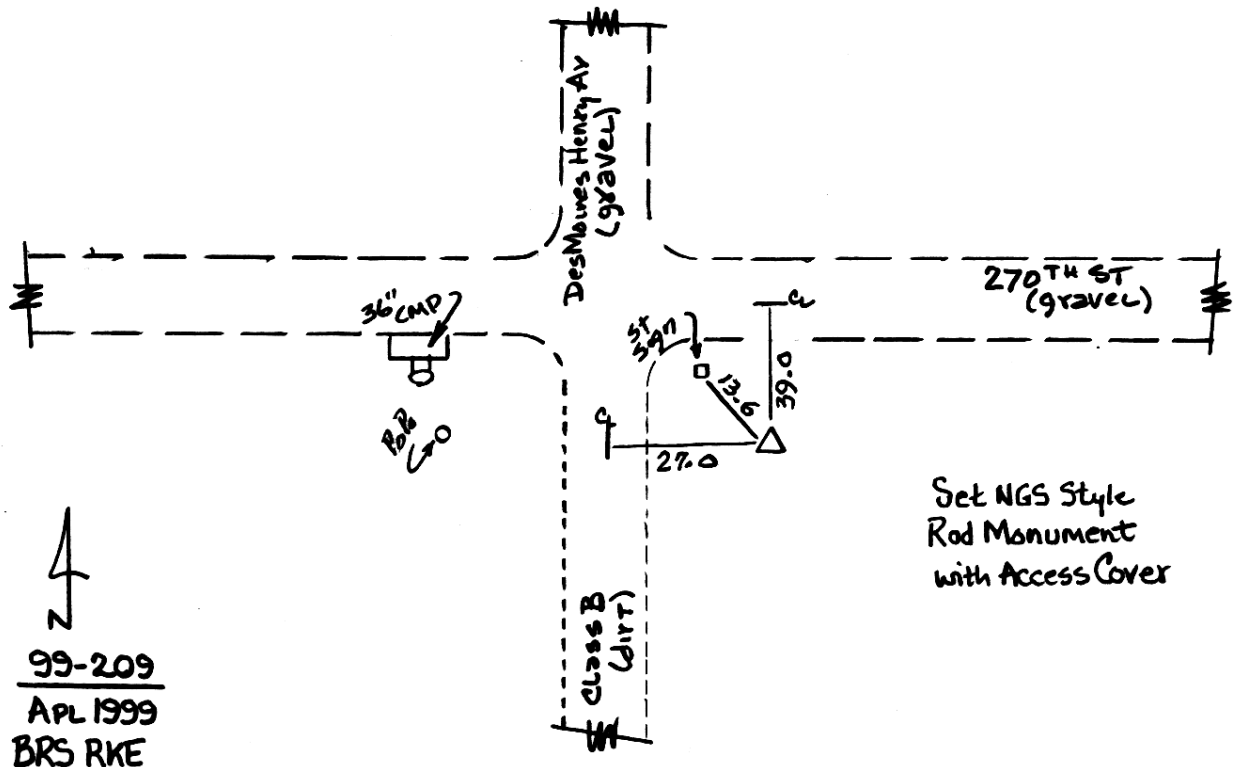
Combination Factor: 0.99992133

03 Geoid Ht: -32.970 M

Designation: DES MOINES COUNTY GPS CONTROL 1999-209

Location: Near the NW Cor of Sec 6 T72N R4W.

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **301**

Northing: **430023.13 FT**

Northing: **131071.311 M**

Easting: **2209195.42 FT**

Easting: **673364.109 M**

Elev: **724.29 FT**

Elev: **220.765 M**

Latitude: **N 41-09-42.36343**

Longitude: **W 91- 26- 02.75551**

Ellip. Ht: **187.844 M**

Theta: **1 21 38.920**

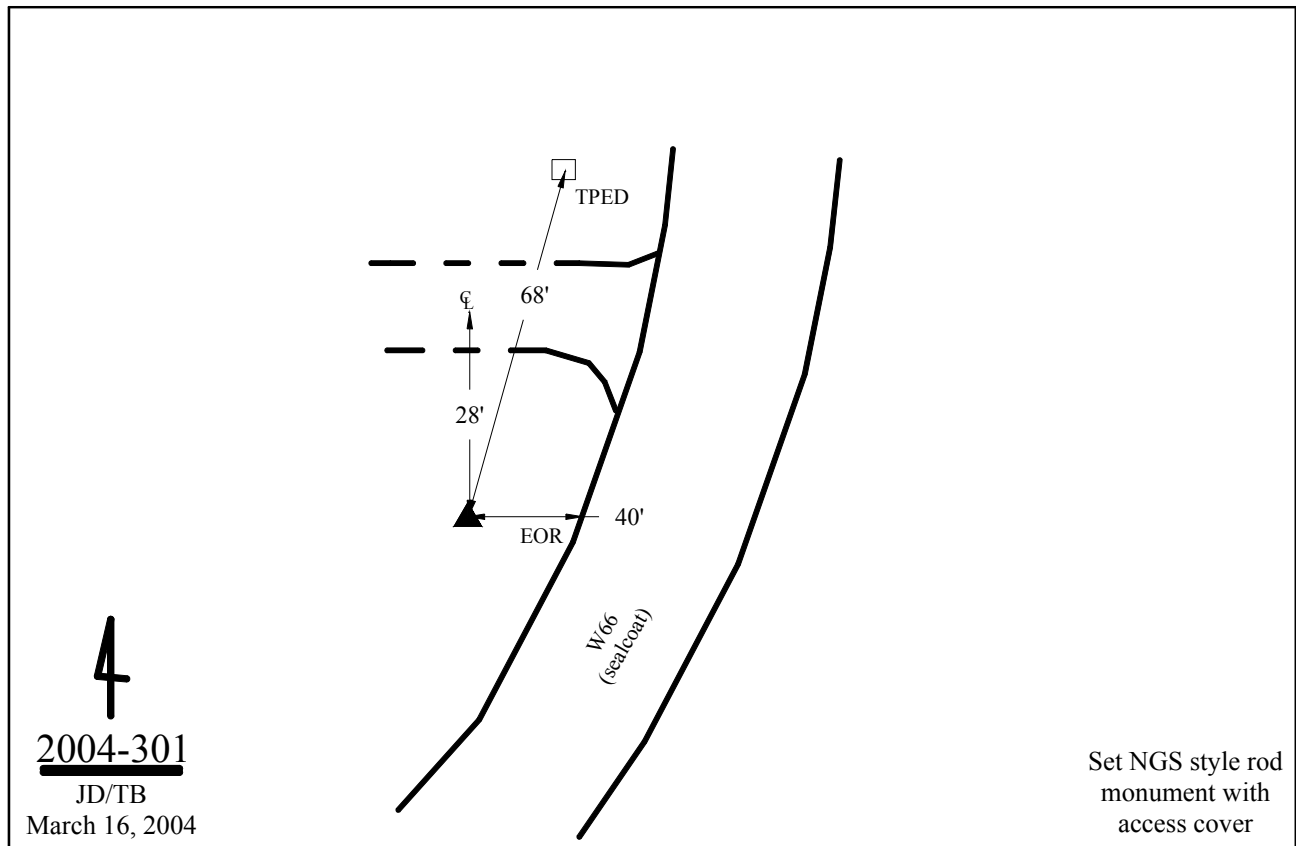
Combination Factor: **0.99991914**

03 Geoid Ht: **-32.921 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-301**

Location: **In the NE 1/4 of Sec 4 T73N R5W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **302**

Northing: **430205.10 FT**

Northing: **131126.776 M**

Easting: **2226792.14 FT**

Easting: **678727.603 M**

Elev: **732.58 FT**

Elev: **223.289 M**

Latitude: **N 41-09-39.96792**

Longitude: **W 91- 22- 12.69631**

Ellip. Ht: **190.350 M**

Theta: **1 24 10.461**

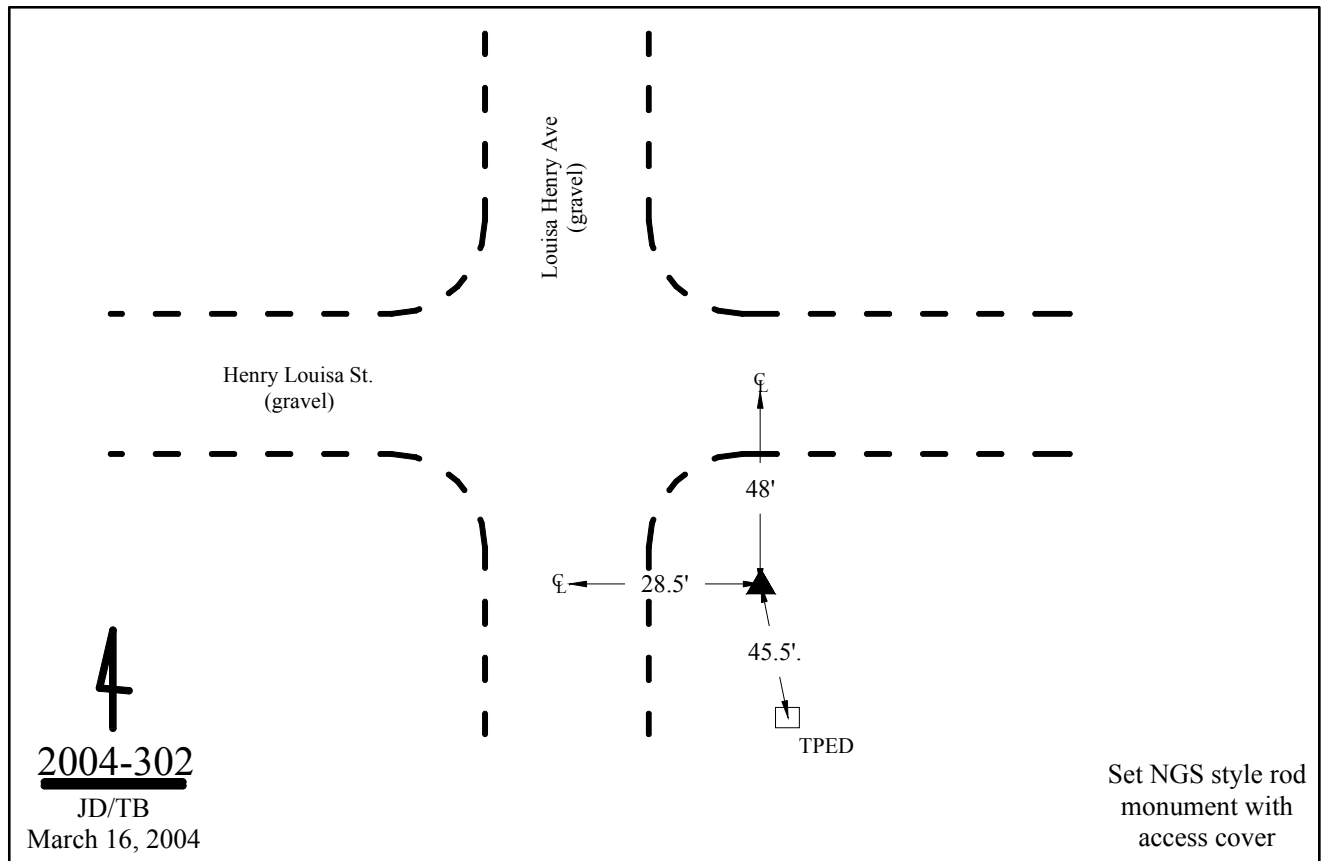
Combination Factor: **0.99991875**

03 Geoid Ht: **-32.940 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-302**

Location: **Near the NW Cor of Sec 6 T73N R4W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
 Iowa South Zone (1402)
 Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **303**

Northing: **413358.12 FT**

Northing: **125991.808 M**

Easting: **2134352.14 FT**

Easting: **650551.834 M**

Elev: **722.68 FT**

Elev: **220.272 M**

Latitude: **N 41-07-14.14084**

Longitude: **W 91- 42- 25.58468**

Ellip. Ht: **187.408 M**

Theta: **1 10 51.530**

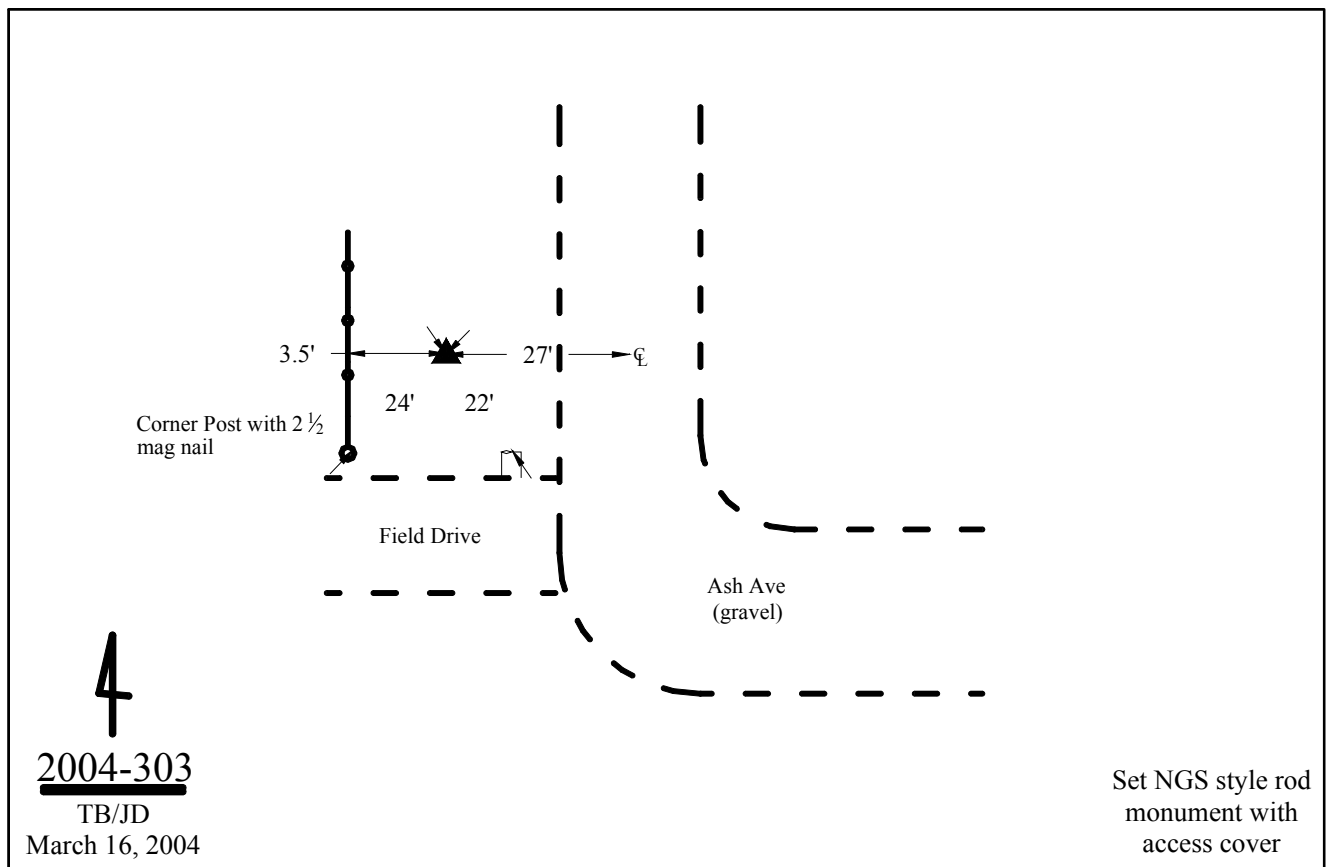
Combination Factor: **0.99991995**

03 Geoid Ht: **-32.864 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-303**

Location: **In the SW 1/4 of Sec 18 T73N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **304**

Northing: **413383.94 FT**

Northing: **125999.676 M**

Easting: **2147647.77 FT**

Easting: **654604.349 M**

Elev: **687.78 FT**

Elev: **209.635 M**

Latitude: **N 41-07-11.65175**

Longitude: **W 91-39-31.89047**

Ellip. Ht: **176.759 M**

Theta: **1 12 45.942**

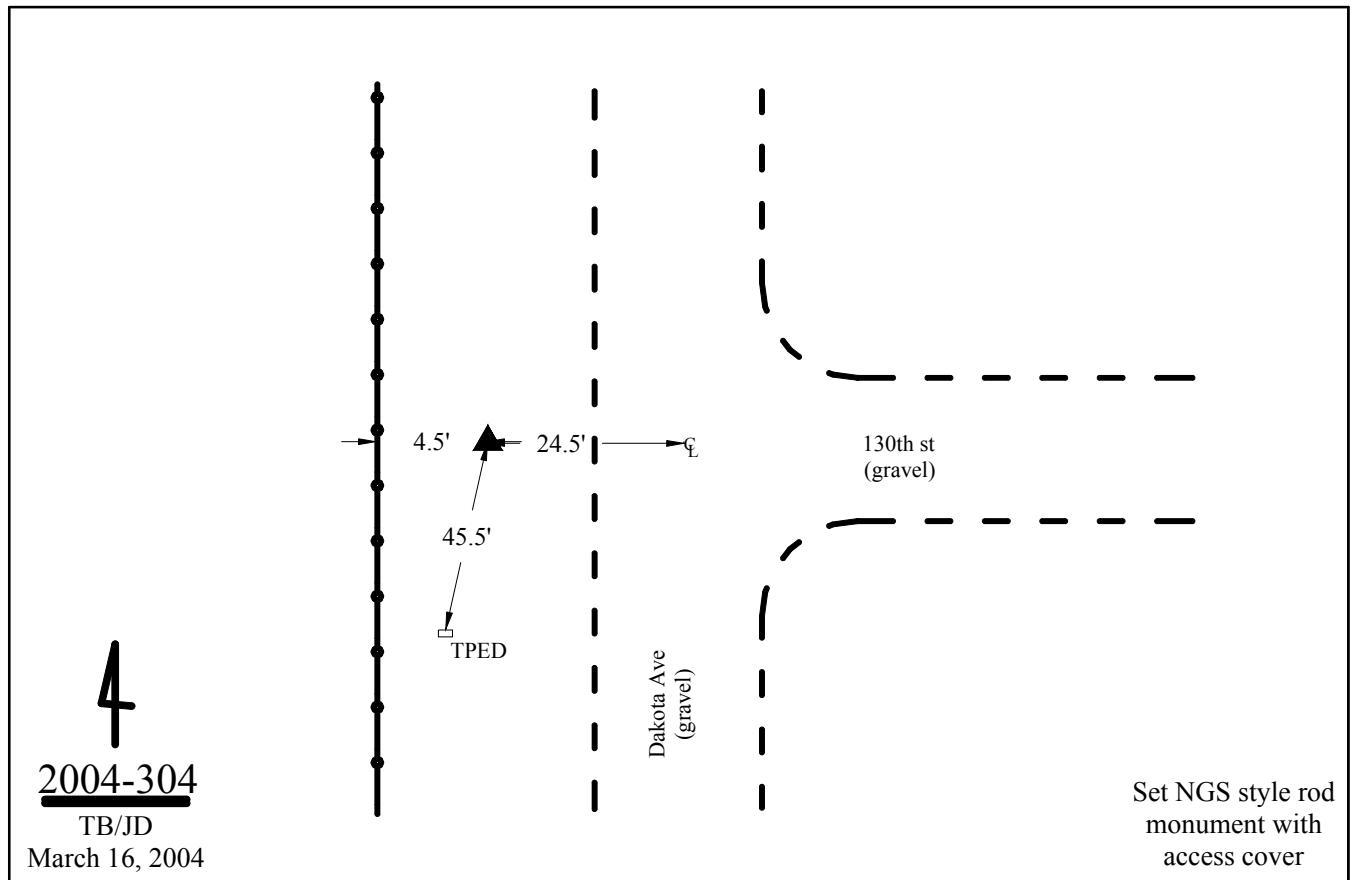
Combination Factor: **0.99992163**

03 Geoid Ht: **-32.876 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-304**

Location: **Near the SE Cor of Sec 16 T73N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **305**

Northing: **413766.89 FT**

Northing: **126116.400 M**

Easting: **2163451.34 FT**

Easting: **659421.286 M**

Elev: **727.66 FT**

Elev: **221.791 M**

Latitude: **N 41-07-12.07831**

Longitude: **W 91- 36- 05.33688**

Ellip. Ht: **188.903 M**

Theta: **1 15 02.000**

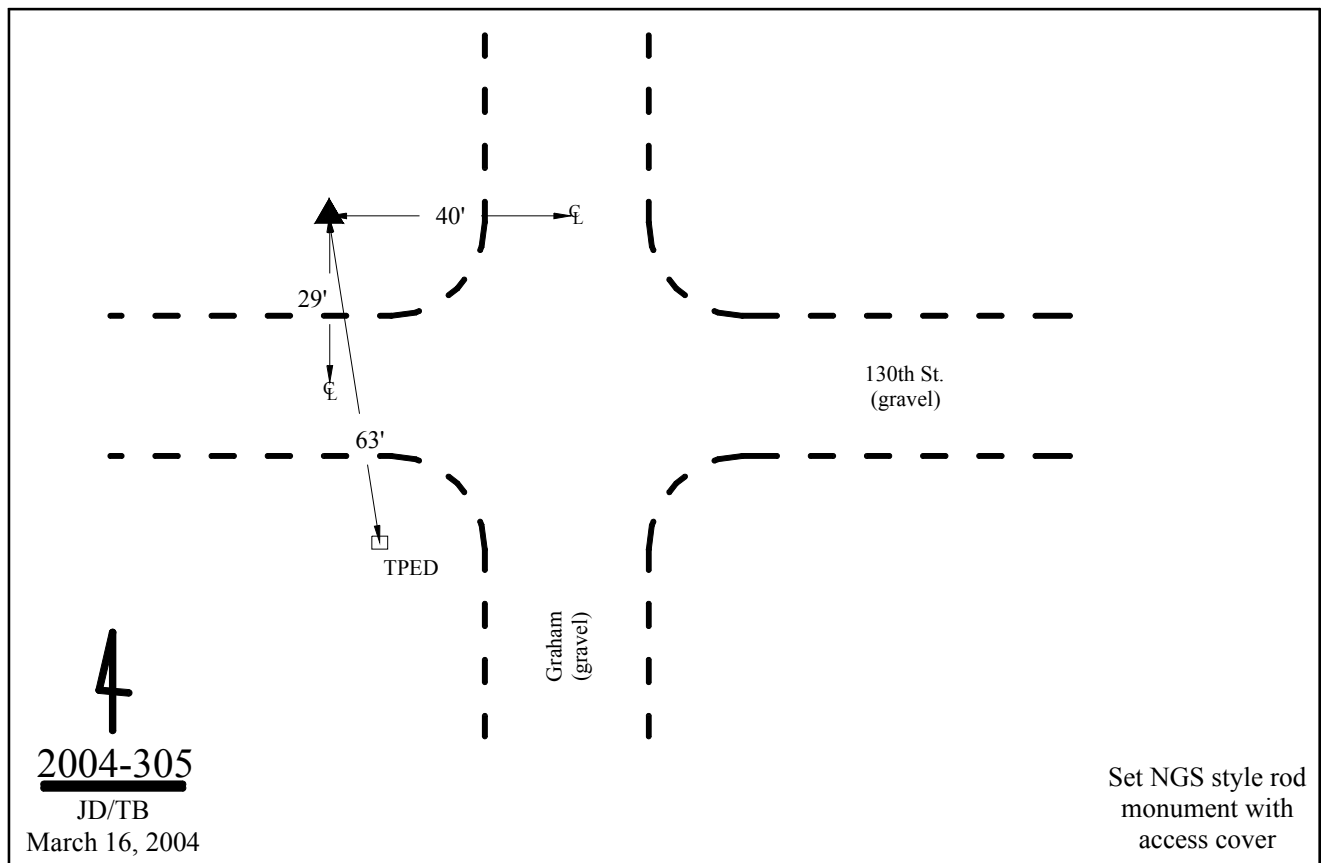
Combination Factor: **0.99991973**

03 Geoid Ht: **-32.888 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-305**

Location: **Near the SE Cor of Sec 13 T73N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **306**

Northing: **414112.46 FT**

Northing: **126221.729 M**

Easting: **2178970.05 FT**

Easting: **664151.398 M**

Elev: **735.94 FT**

Elev: **224.316 M**

Latitude: **N 41-07-12.09576**

Longitude: **W 91- 32- 42.51473**

Ellip. Ht: **191.415 M**

Theta: **1 17 15.599**

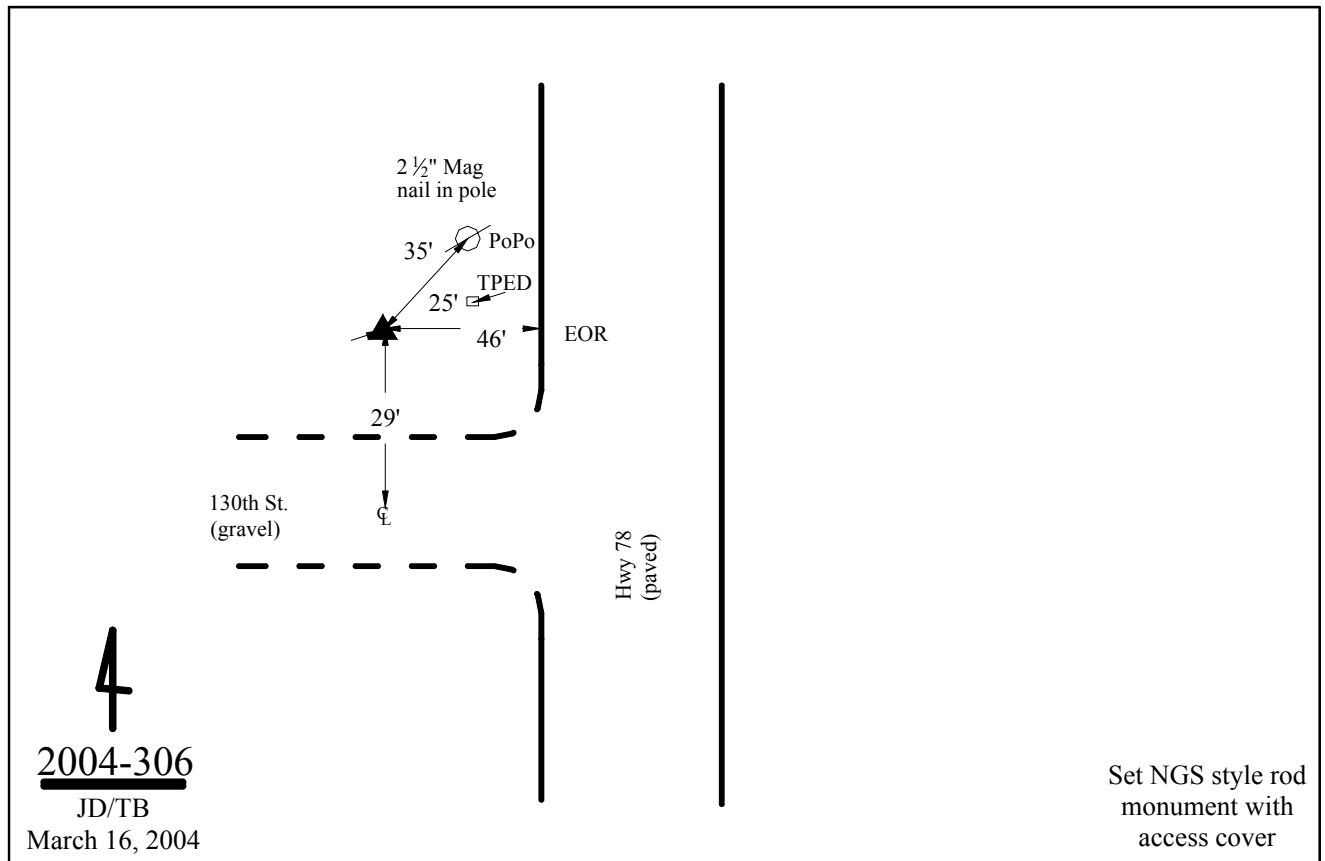
Combination Factor: **0.99991934**

03 Geoid Ht: **-32.901 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-306**

Location: **Near the SE Cor of Sec 16 T73N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **307**

Northing: **414244.11 FT**

Northing: **126261.857 M**

Easting: **2195186.99 FT**

Easting: **669094.333 M**

Elev: **707.06 FT**

Elev: **215.511 M**

Latitude: **N 41-07-09.74118**

Longitude: **W 91- 29- 10.63639**

Ellip. Ht: **182.590 M**

Theta: **1 19 35.163**

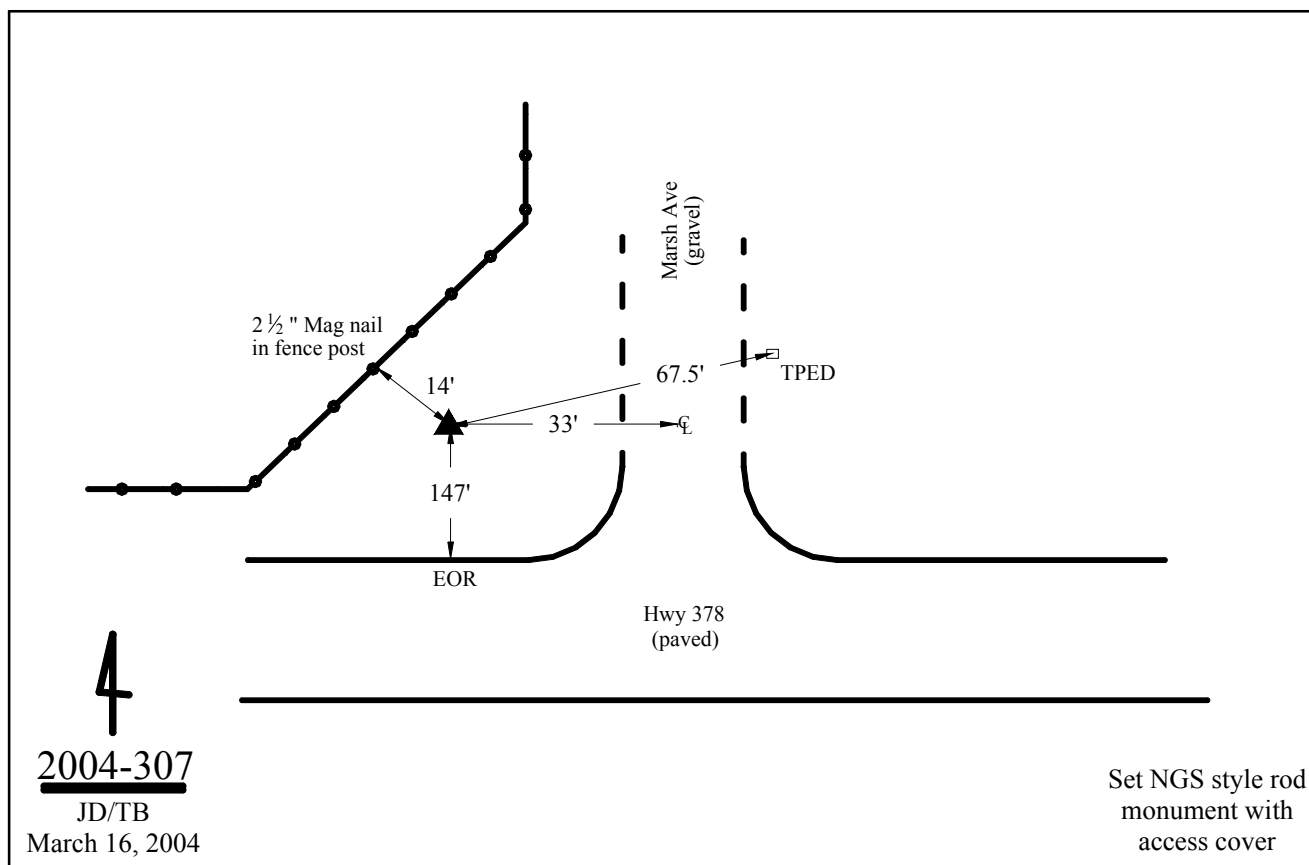
Combination Factor: **0.99992074**

03 Geoid Ht: **-32.921 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-307**

Location: **Near the SE Cor of Sec 13 T73N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
 Iowa South Zone (1402)
 Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **308**

Northing: **414363.66 FT**

Northing: **126298.296 M**

Easting: **2212362.05 FT**

Easting: **674329.302 M**

Elev: **698.78 FT**

Elev: **212.990 M**

Latitude: **N 41-07-06.93290**

Longitude: **W 91- 25- 26.25097**

Ellip. Ht: **180.047 M**

Theta: **1 22 02.966**

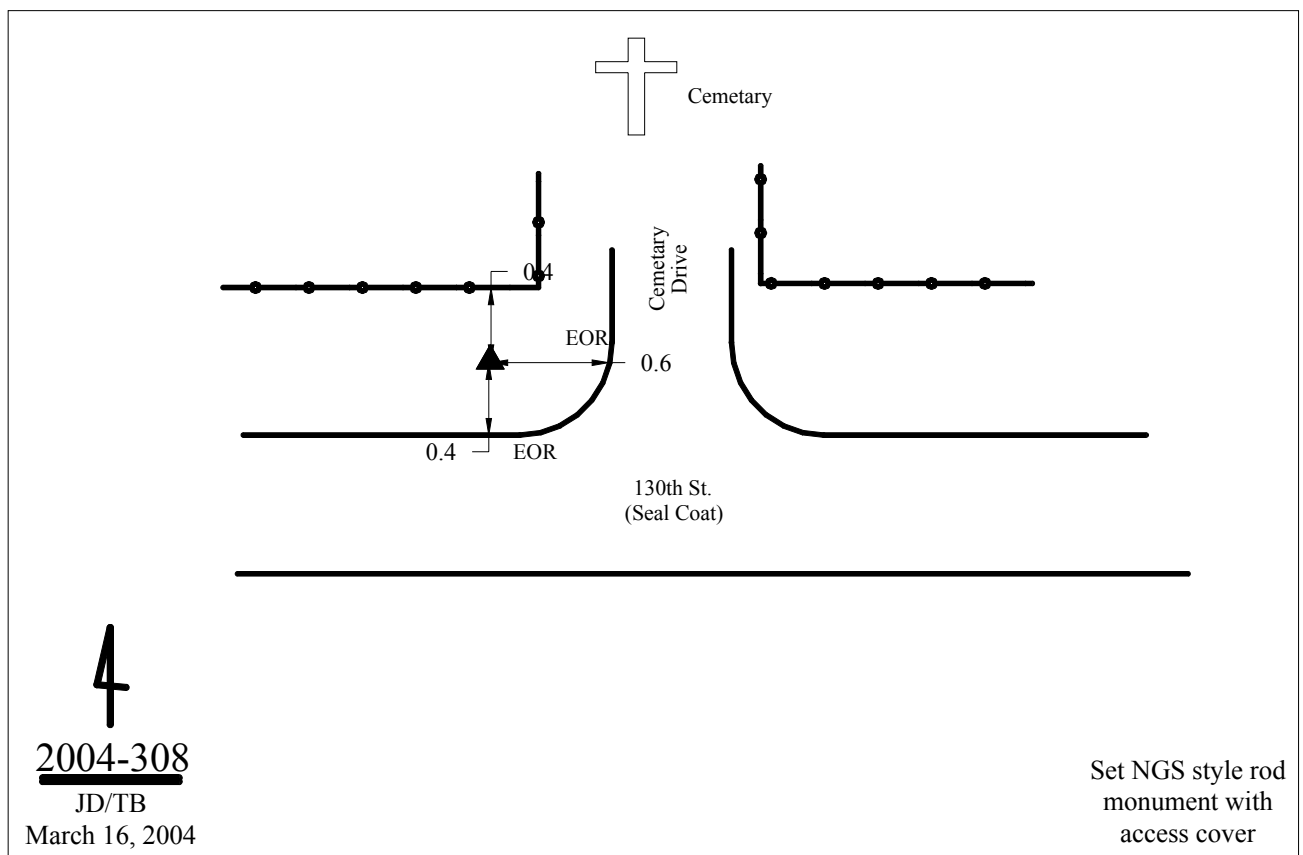
Combination Factor: **0.99992116**

03 Geoid Ht: **-32.943 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-308**

Location: **In the SW 1/4 of Sec 15 T73N R5W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **309**

Northing: **414356.12 FT**

Northing: **126295.999 M**

Easting: **2227126.31 FT**

Easting: **678829.456 M**

Elev: **707.28 FT**

Elev: **215.579 M**

Latitude: **N 41-07-03.33204**

Longitude: **W 91- 22- 13.40140**

Ellip. Ht: **182.623 M**

Theta: **1 24 09.996**

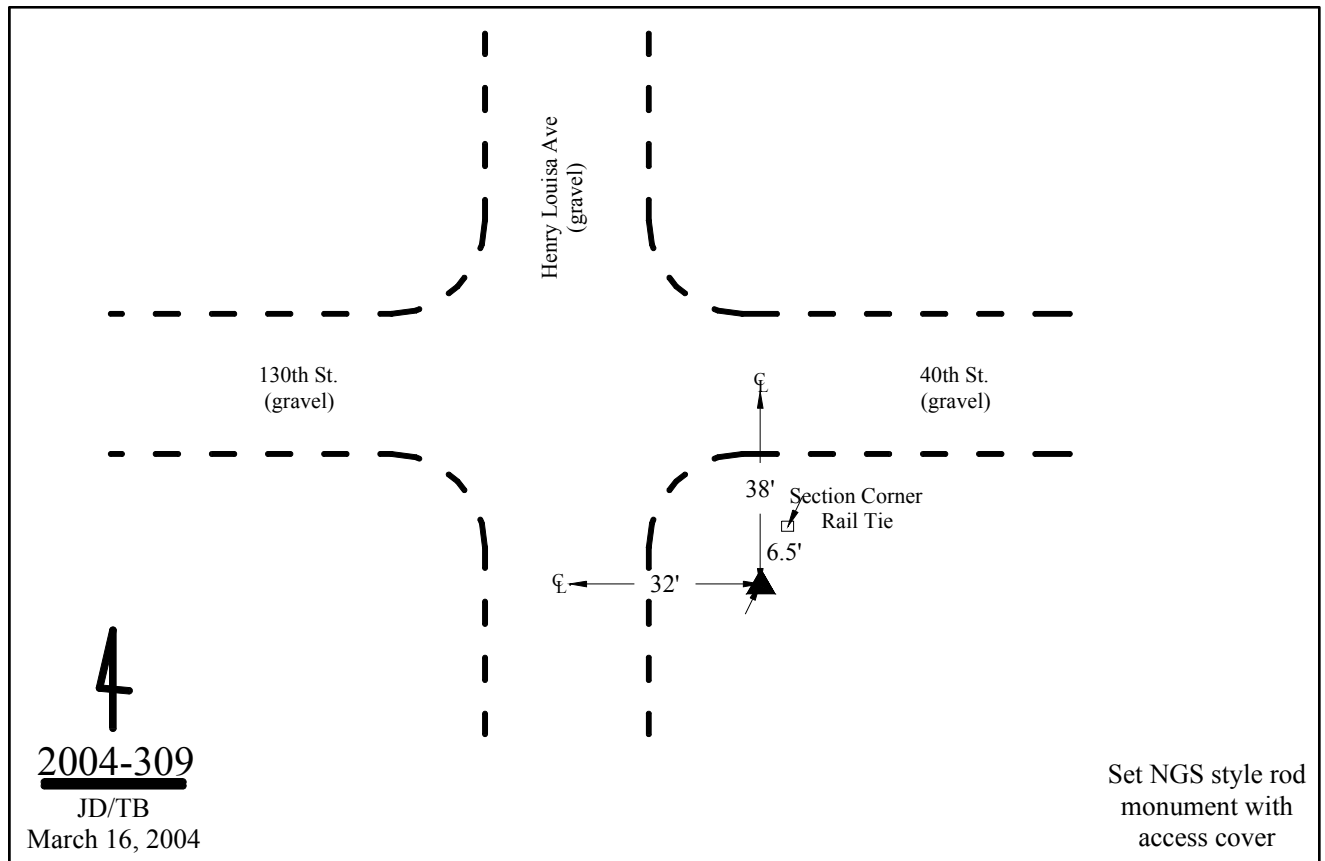
Combination Factor: **0.99992077**

03 Geoid Ht: **-32.956 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-309**

Location: **Near the NW Cor of Sec 19 T73N R4W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **310**

Northing: **396982.61 FT**

Northing: **121000.540 M**

Easting: **2131989.44 FT**

Easting: **649831.680 M**

Elev: **590.22 FT**

Elev: **179.899 M**

Latitude: **N 41-04-32.84919**

Longitude: **W 91- 43- 00.83619**

Ellip. Ht: **147.016 M**

Theta: **1 10 28.310**

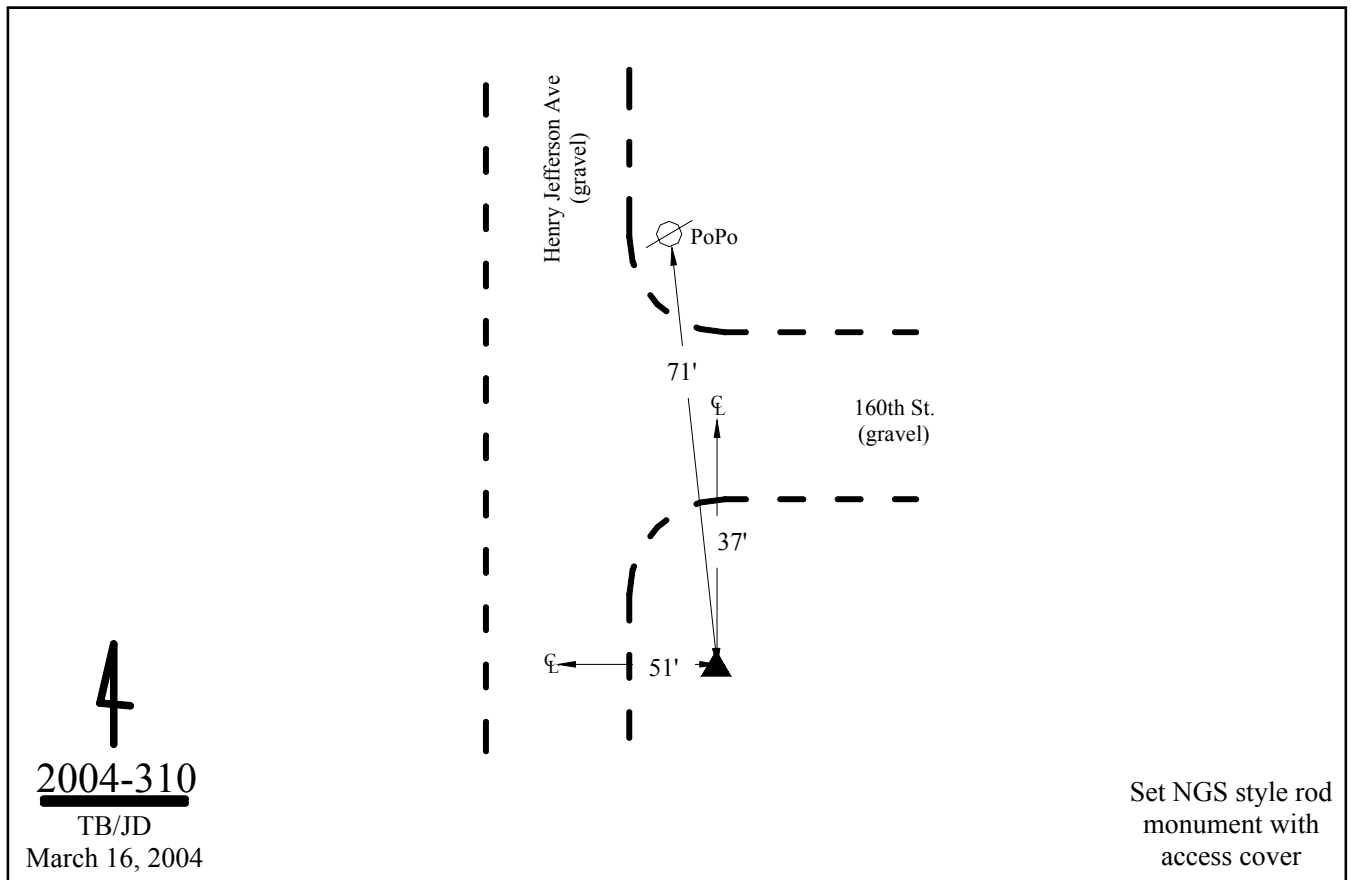
Combination Factor: **0.99992768**

03 Geoid Ht: **-32.883 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-310**

Location: **Near the NW Cor of Sec 6 T72N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
 Iowa South Zone (1402)
 Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **311**

Northing: **395155.38 FT**

Northing: **120443.600 M**

Easting: **2147891.00 FT**

Easting: **654678.485 M**

Elev: **709.49 FT**

Elev: **216.254 M**

Latitude: **N 41-04-11.52562**

Longitude: **W 91- 39- 33.75279**

Ellip. Ht: **183.354 M**

Theta: **1 12 44.716**

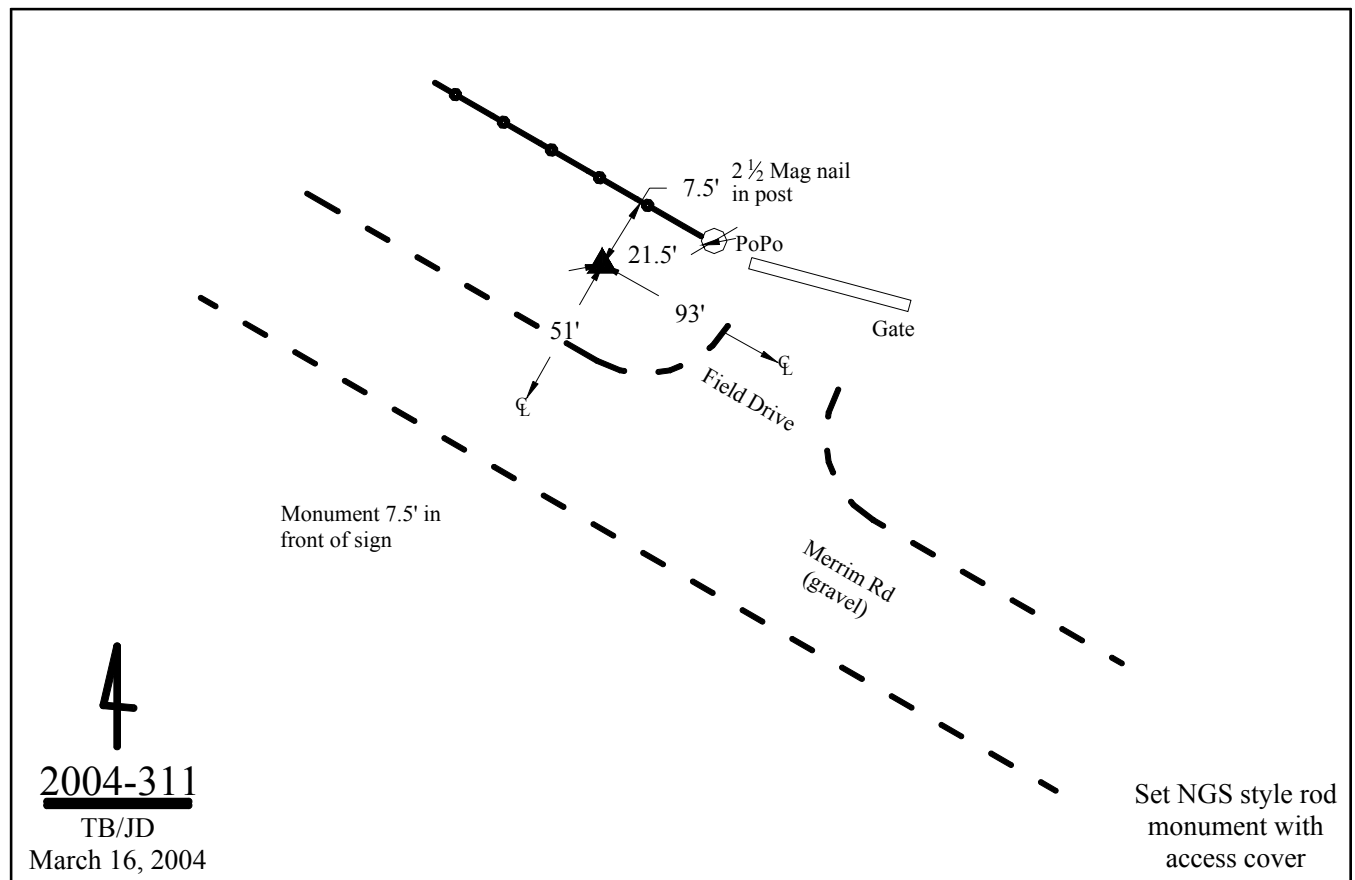
Combination Factor: **0.99992221**

03 Geoid Ht: **-32.900 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-311**

Location: **In the NE 1/4 of Sec 4 T72N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **312**

Northing: **396566.84 FT**

Northing: **120873.814 M**

Easting: **2163727.18 FT**

Easting: **659505.364 M**

Elev: **697.26 FT**

Elev: **212.524 M**

Latitude: **N 41-04-22.10639**

Longitude: **W 91- 36- 06.63742**

Ellip. Ht: **179.614 M**

Theta: **1 15 01.143**

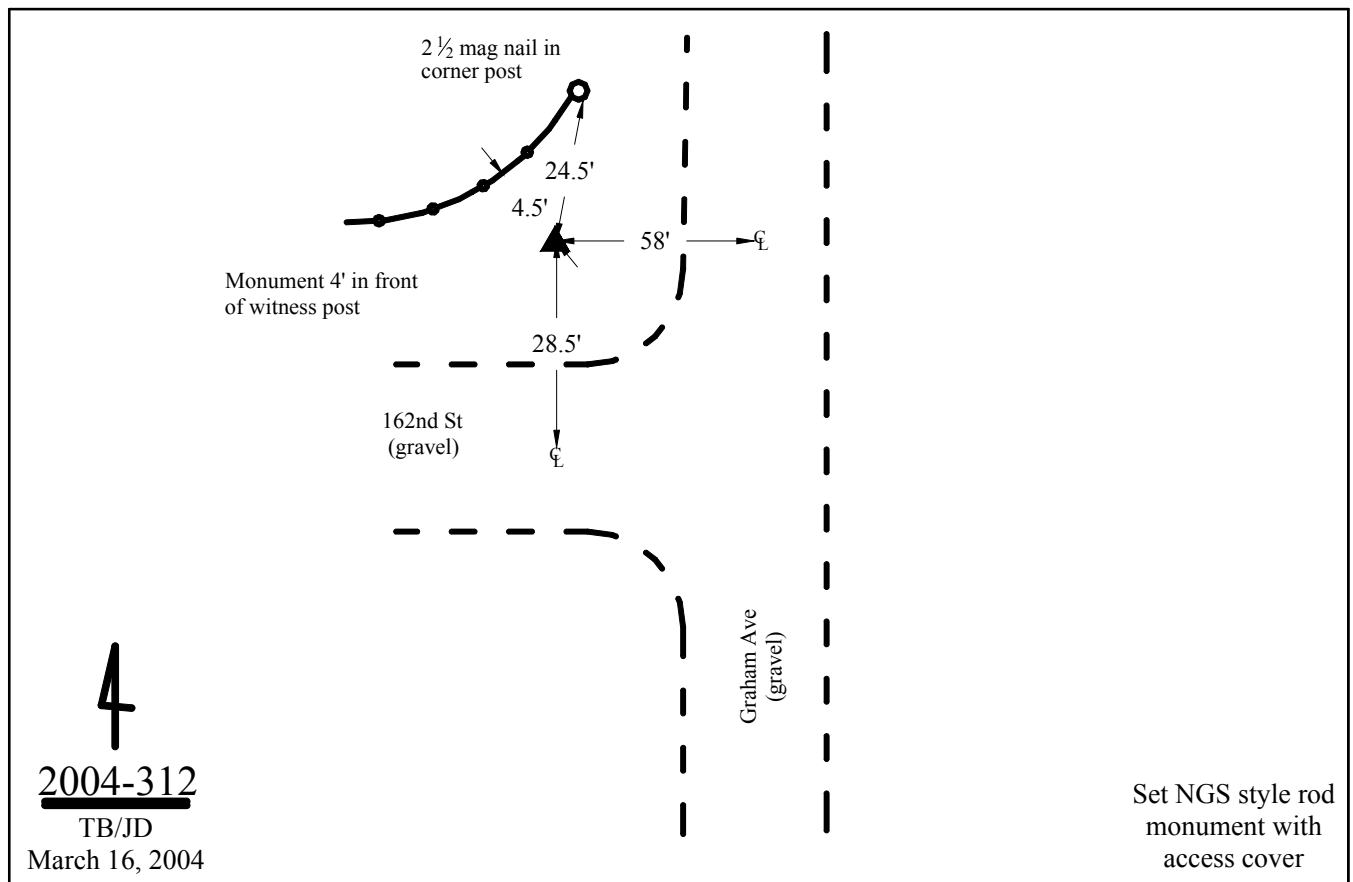
Combination Factor: **0.99992269**

03 Geoid Ht: **-32.910 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-312**

Location: **In the NE 1/4 of Sec 1 T72N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **313**

Northing: **397920.37 FT**

Northing: **121286.372 M**

Easting: **2179361.56 FT**

Easting: **664270.733 M**

Elev: **725.76 FT**

Elev: **221.213 M**

Latitude: **N 41-04-32.05603**

Longitude: **W 91- 32- 42.15501**

Ellip. Ht: **188.292 M**

Theta: **1 17 15.836**

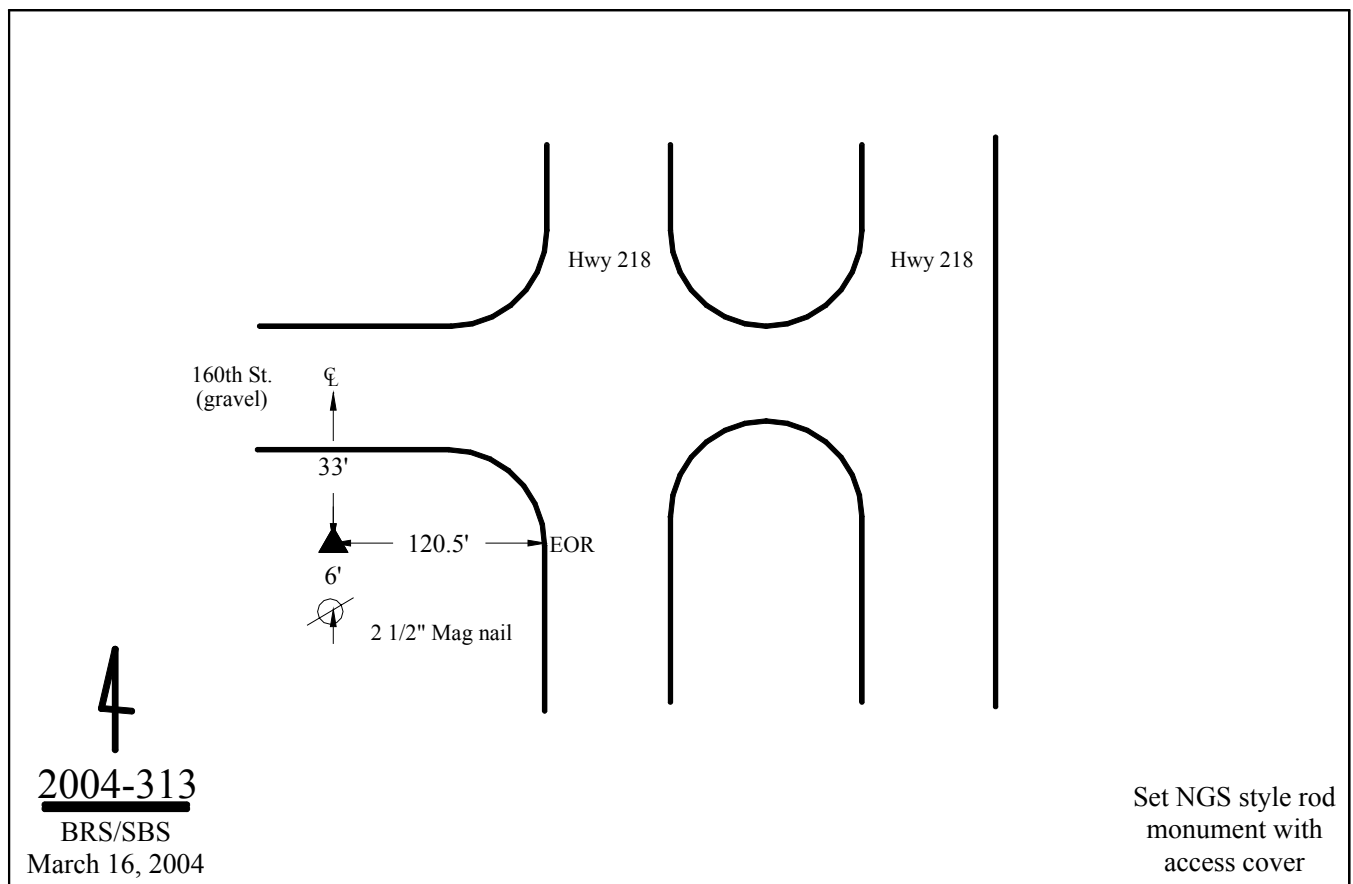
Combination Factor: **0.99992122**

03 Geoid Ht: **-32.921 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-313**

Location: **Near the NE Cor of Sec 4 T72N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **314**

Northing: **398169.85 FT**

Northing: **121362.412 M**

Easting: **2195513.85 FT**

Easting: **669193.959 M**

Elev: **738.73 FT**

Elev: **225.165 M**

Latitude: **N 41-04-30.87995**

Longitude: **W 91- 29- 11.22827**

Ellip. Ht: **192.228 M**

Theta: **1 19 34.773**

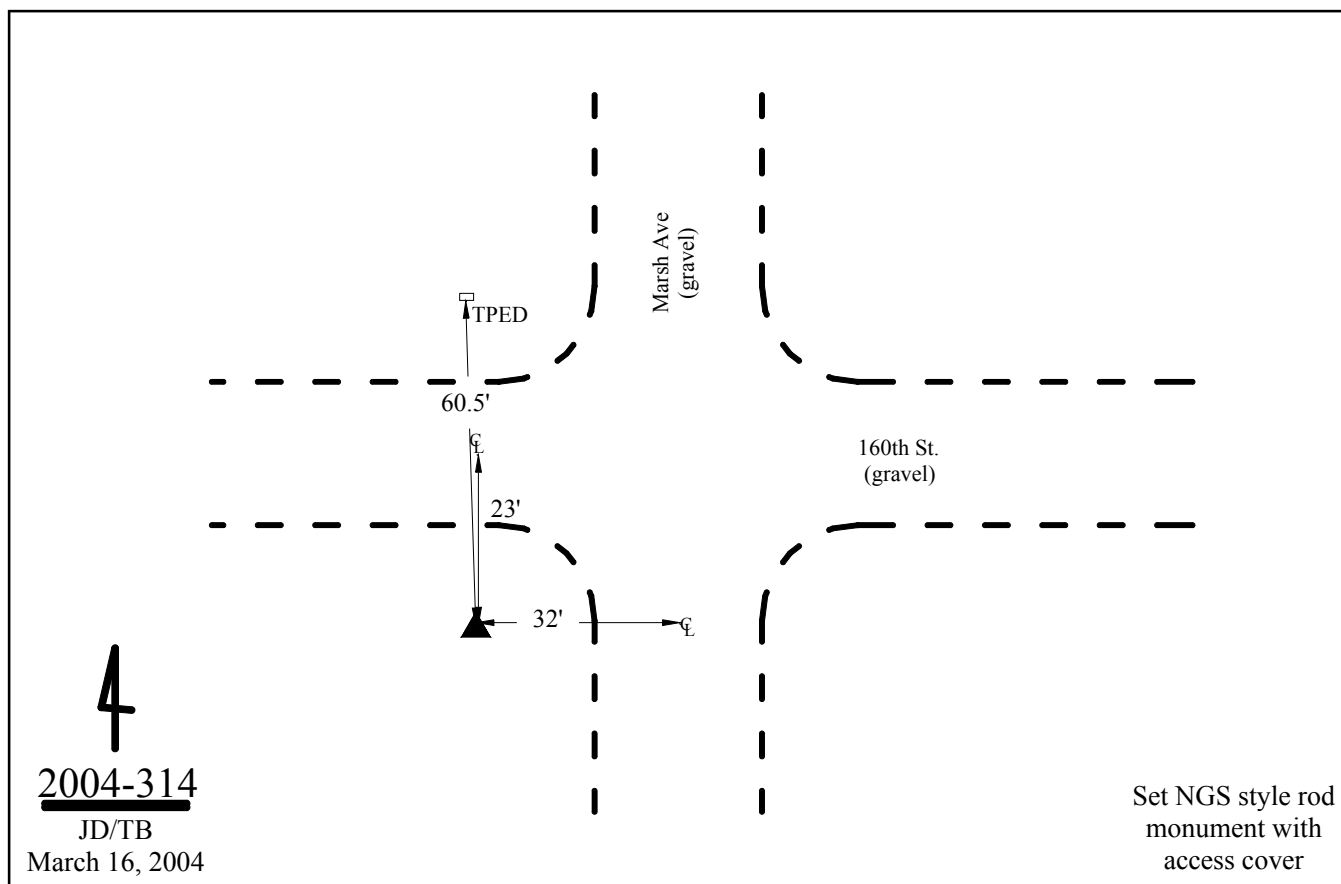
Combination Factor: **0.99992061**

03 Geoid Ht: **-32.937 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-314**

Location: **Near the NE Cor of Sec 1 T72N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.





2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **316**

Northing: **378466.88 FT**

Northing: **115356.935 M**

Easting: **2132017.23 FT**

Easting: **649840.152 M**

Elev: **687.55 FT**

Elev: **209.567 M**

Latitude: **N 41-01-29.92776**

Longitude: **W 91- 43- 05.42556**

Ellip. Ht: **176.650 M**

Theta: **1 10 25.287**

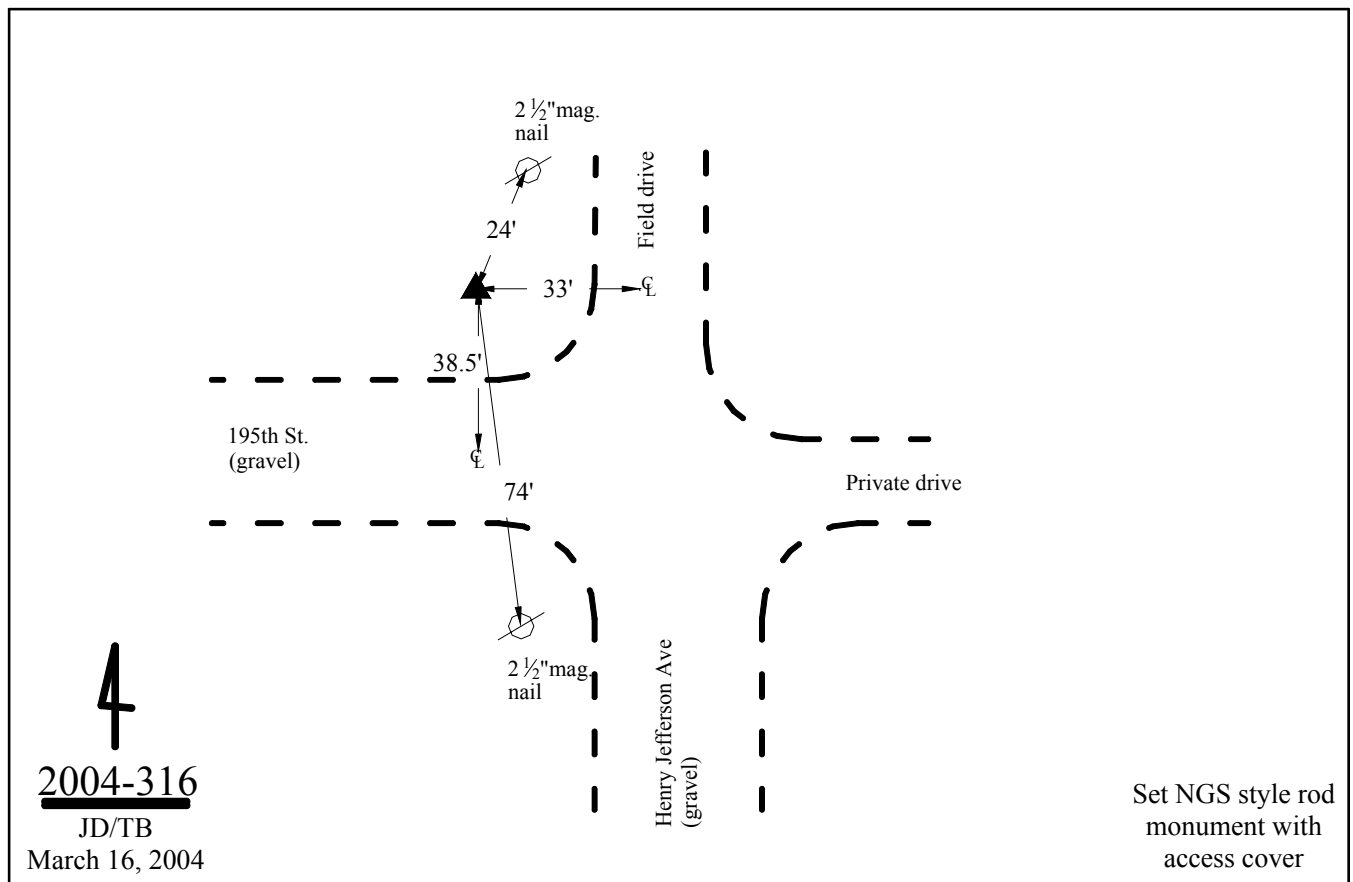
Combination Factor: **0.99992535**

03 Geoid Ht: **-32.917 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-316**

Location: **Near the E 1/4 Cor of Sec 24 T72N R8W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **317**

Northing: **381428.33 FT**

Northing: **116259.586 M**

Easting: **2148112.50 FT**

Easting: **654745.998 M**

Elev: **632.49 FT**

Elev: **192.785 M**

Latitude: **N 41-01-55.87249**

Longitude: **W 91- 39- 34.65321**

Ellip. Ht: **159.857 M**

Theta: **1 12 44.123**

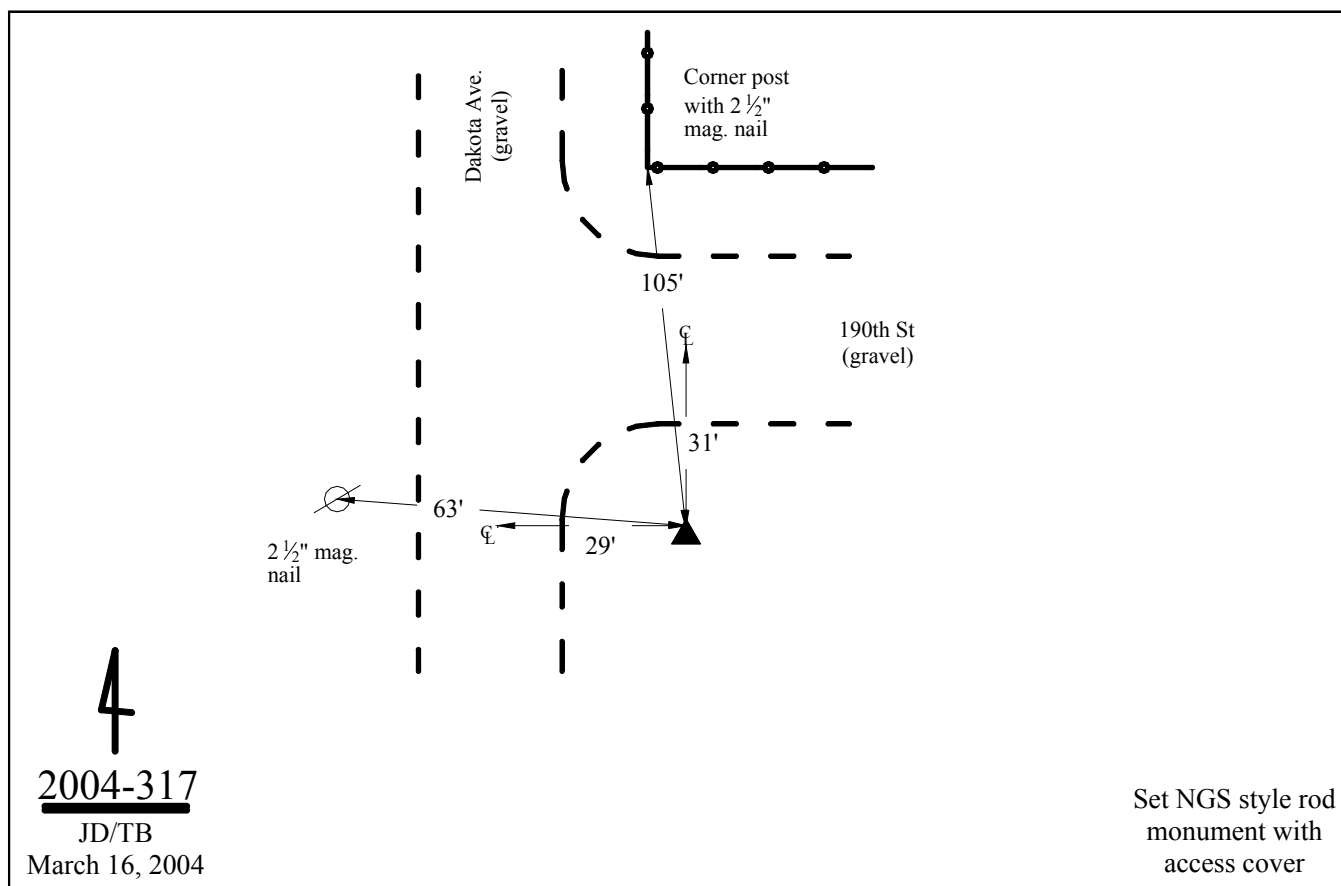
Combination Factor: **0.99992761**

03 Geoid Ht: **-32.928 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-317**

Location: **Near the NW Cor of Sec 22 T72N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **318**

Northing: **379884.52 FT**

Northing: **115789.034 M**

Easting: **2164104.73 FT**

Easting: **659620.442 M**

Elev: **697.95 FT**

Elev: **212.735 M**

Latitude: **N 41-01-37.22598**

Longitude: **W 91- 36- 06.46196**

Ellip. Ht: **179.794 M**

Theta: **1 15 01.258**

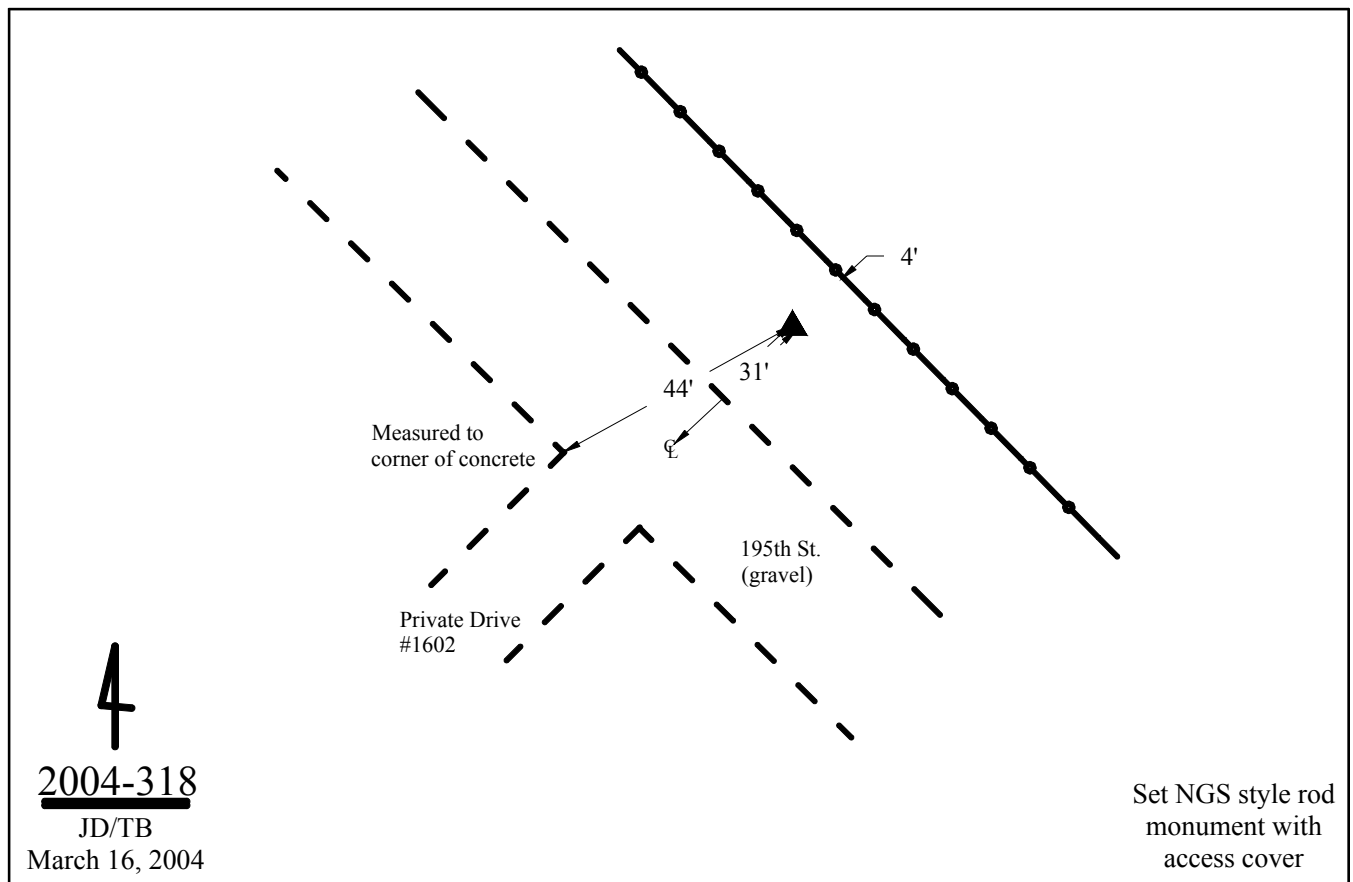
Combination Factor: **0.99992475**

03 Geoid Ht: **-32.941 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-318**

Location: **In the NW 1/4 of Sec 19 R72N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **319**

Northing: **382052.65 FT**

Northing: **116449.880 M**

Easting: **2179920.04 FT**

Easting: **664440.957 M**

Elev: **714.63 FT**

Elev: **217.819 M**

Latitude: **N 41-01-55.18243**

Longitude: **W 91- 32- 39.52261**

Ellip. Ht: **184.873 M**

Theta: **1 17 17.570**

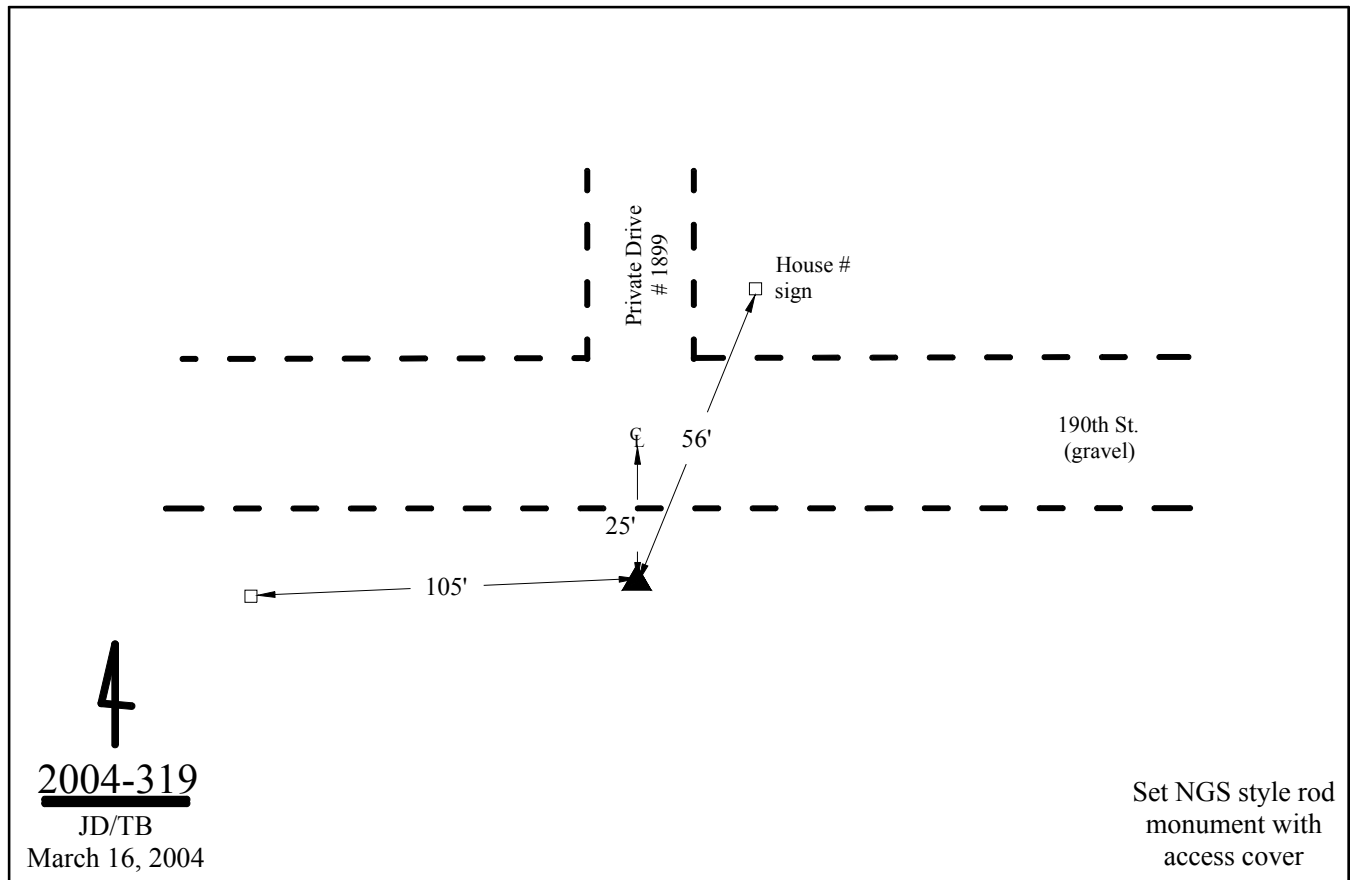
Combination Factor: **0.99992369**

03 Geoid Ht: **-32.946 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-319**

Location: **Near the NE Cor of Sec 21 T72N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **320**

Northing: **382302.59 FT**

Northing: **116526.063 M**

Easting: **2195901.97 FT**

Easting: **669312.258 M**

Elev: **725.07 FT**

Elev: **221.002 M**

Latitude: **N 41-01-54.04866**

Longitude: **W 91- 29- 10.95760**

Ellip. Ht: **188.042 M**

Theta: **1 19 34.952**

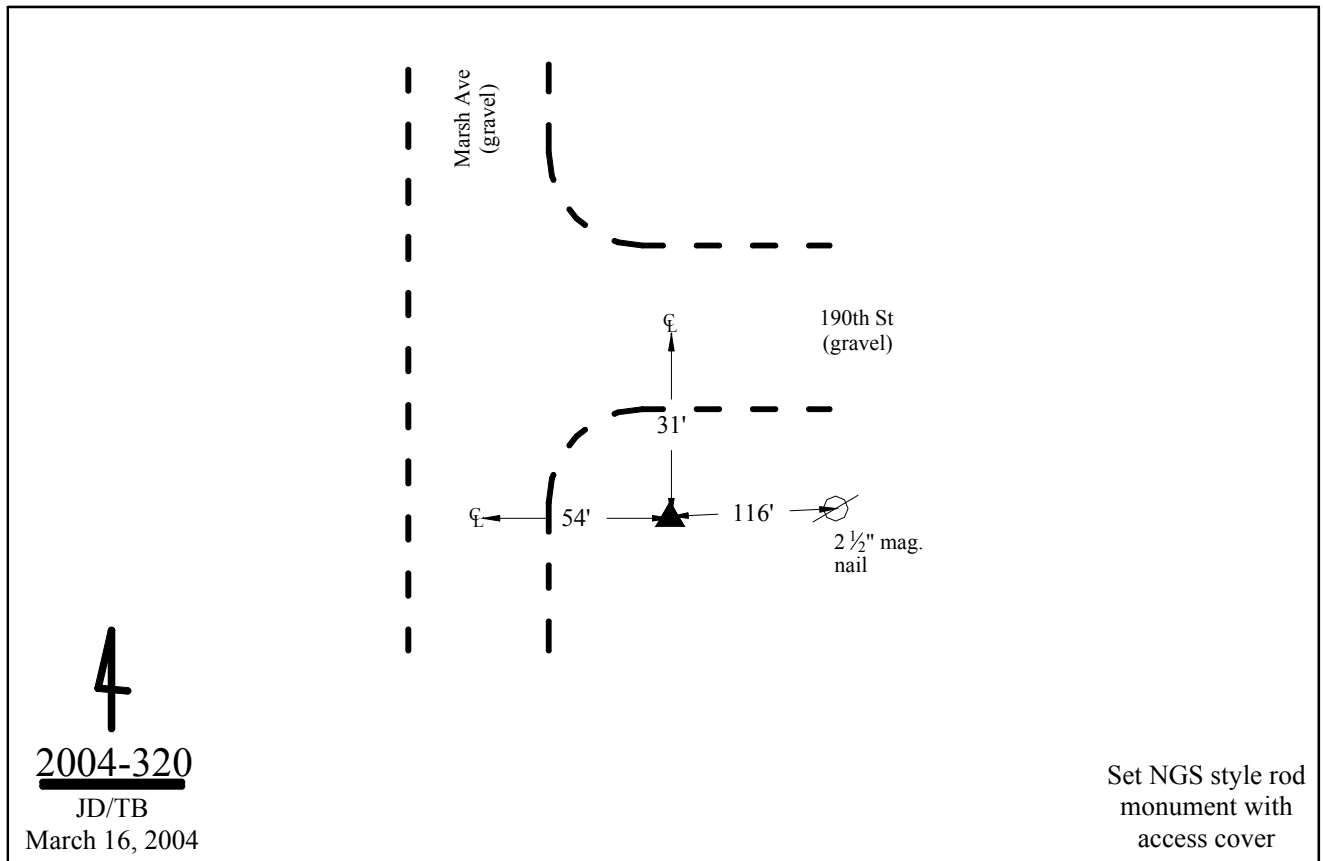
Combination Factor: **0.99992321**

03 Geoid Ht: **-32.959 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-320**

Location: **Near the NW Cor of Sec 19 T72N R5W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **321**

Northing: **382474.01 FT**

Northing: **116578.312 M**

Easting: **2211816.03 FT**

Easting: **674162.873 M**

Elev: **725.42 FT**

Elev: **221.108 M**

Latitude: **N 41-01-52.04999**

Longitude: **W 91- 25- 43.30447**

Ellip. Ht: **188.135 M**

Theta: **1 21 51.733**

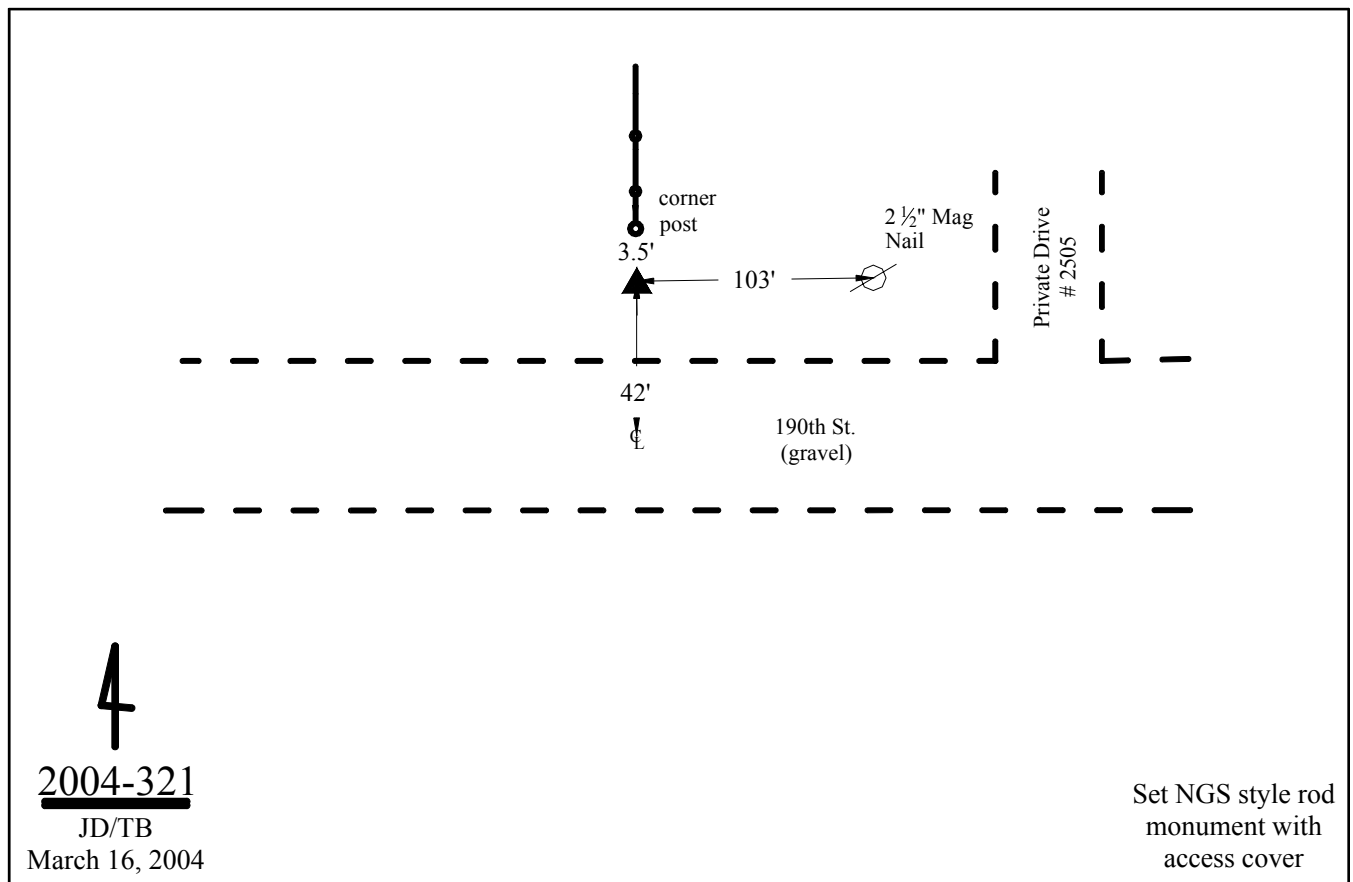
Combination Factor: **0.99992323**

03 Geoid Ht: **-32.973 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-321**

Location: **Near the SE Cor of Sec 16 T72N R5W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **322**

Northing: **365560.03 FT**

Northing: **111422.919 M**

Easting: **2132337.51 FT**

Easting: **649937.771 M**

Elev: **683.91 FT**

Elev: **208.455 M**

Latitude: **N 40-59-22.35624**

Longitude: **W 91- 43- 04.69751**

Ellip. Ht: **175.513 M**

Theta: **1 10 25.766**

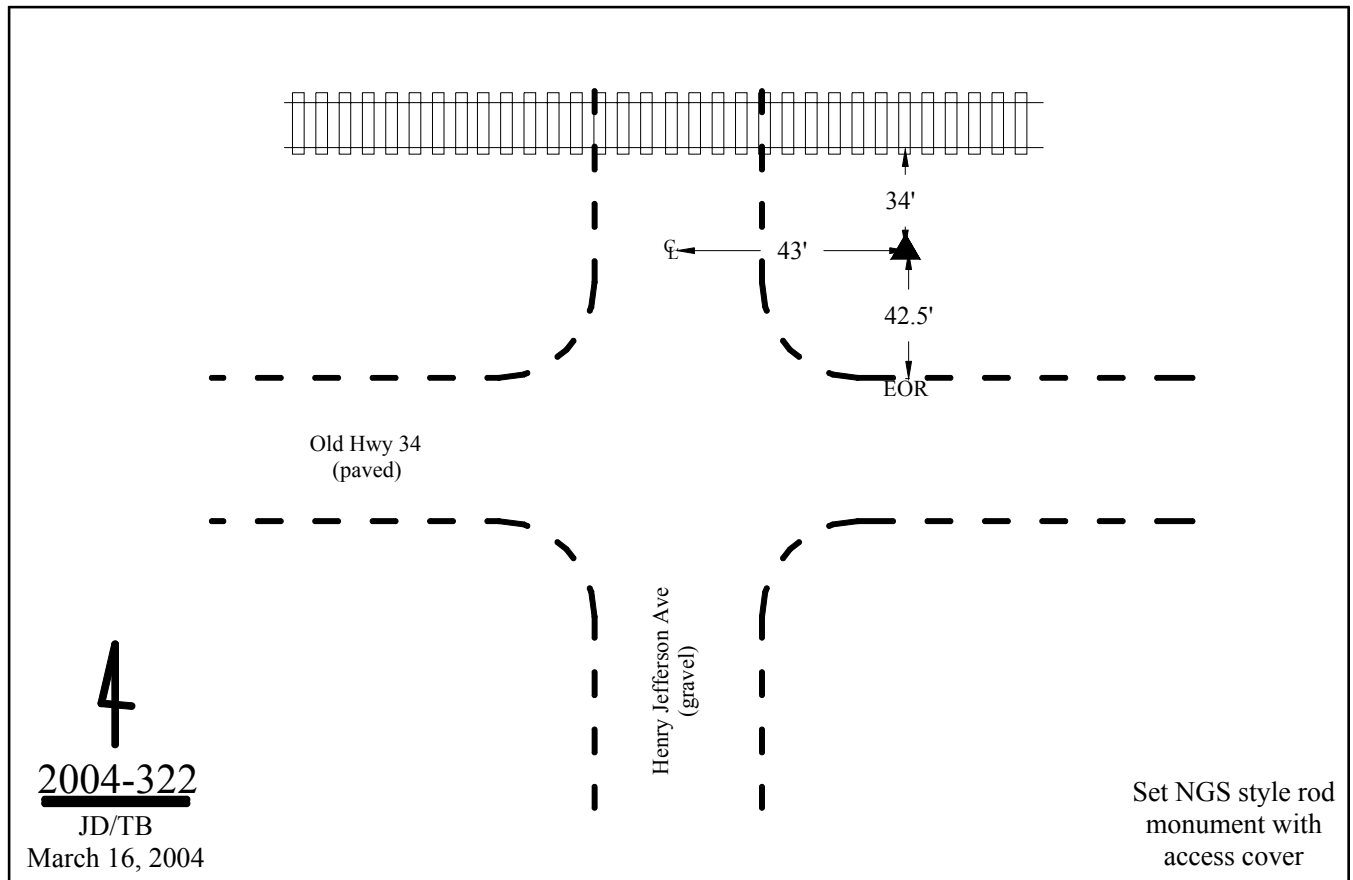
Combination Factor: **0.99992761**

03 Geoid Ht: **-32.942 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-322**

Location: **Near the SW Cor of Sec 31 T72N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **323**

Northing: **365575.76 FT**

Northing: **111427.713 M**

Easting: **2148298.98 FT**

Easting: **654802.840 M**

Elev: **584.47 FT**

Elev: **178.148 M**

Latitude: **N 40-59-19.22830**

Longitude: **W 91- 39- 36.59535**

Ellip. Ht: **145.185 M**

Theta: **1 12 42.843**

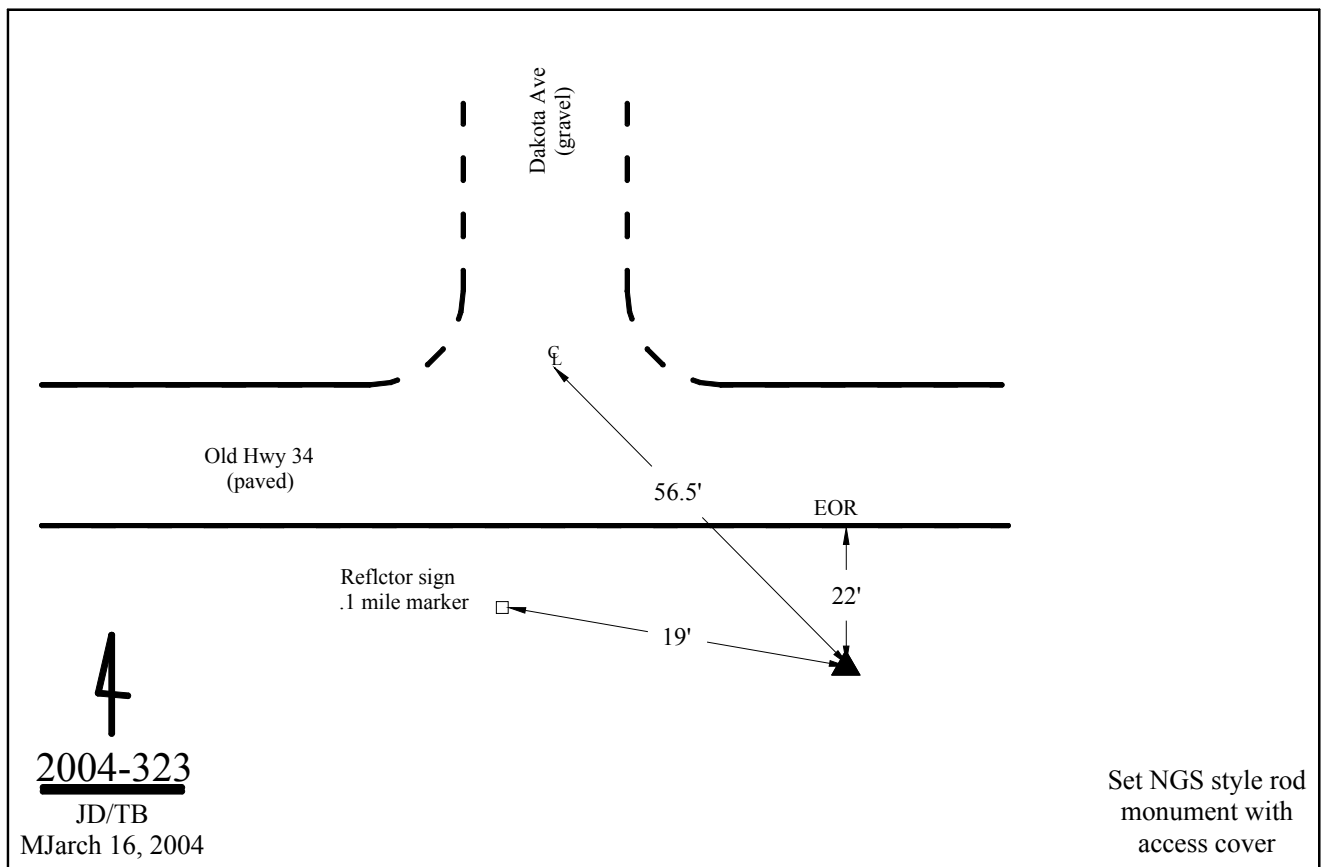
Combination Factor: **0.99993242**

03 Geoid Ht: **-32.963 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-323**

Location: **Near the NW Cor of Sec 3 T71N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
 Iowa South Zone (1402)
 Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **324**

Northing: **365963.27 FT**

Northing: **111545.827 M**

Easting: **2161462.59 FT**

Easting: **658815.116 M**

Elev: **710.94 FT**

Elev: **216.696 M**

Latitude: **N 40-59-20.26977**

Longitude: **W 91- 36- 44.86939**

Ellip. Ht: **183.729 M**

Theta: **1 14 35.959**

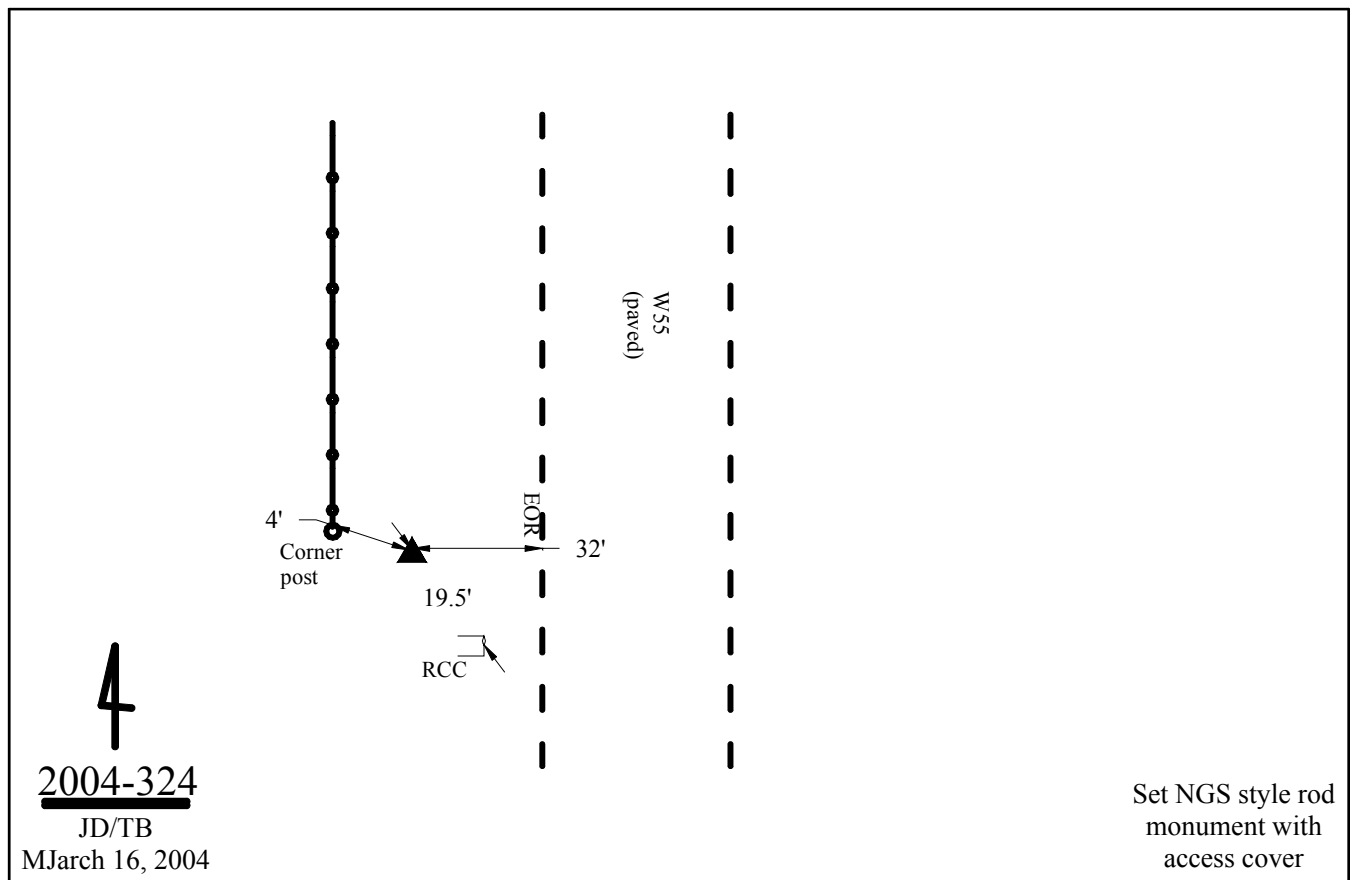
Combination Factor: **0.99992636**

03 Geoid Ht: **-32.967 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-324**

Location: **Near the S 1/4 Cor of Sec 36 T72N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
 Iowa South Zone (1402)
 Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **325**

Northing: **365740.86 FT**

Northing: **111478.036 M**

Easting: **2180632.82 FT**

Easting: **664658.211 M**

Elev: **724.55 FT**

Elev: **220.843 M**

Latitude: **N 40-59-13.88694**

Longitude: **W 91- 32- 35.01236**

Ellip. Ht: **187.868 M**

Theta: **1 17 20.540**

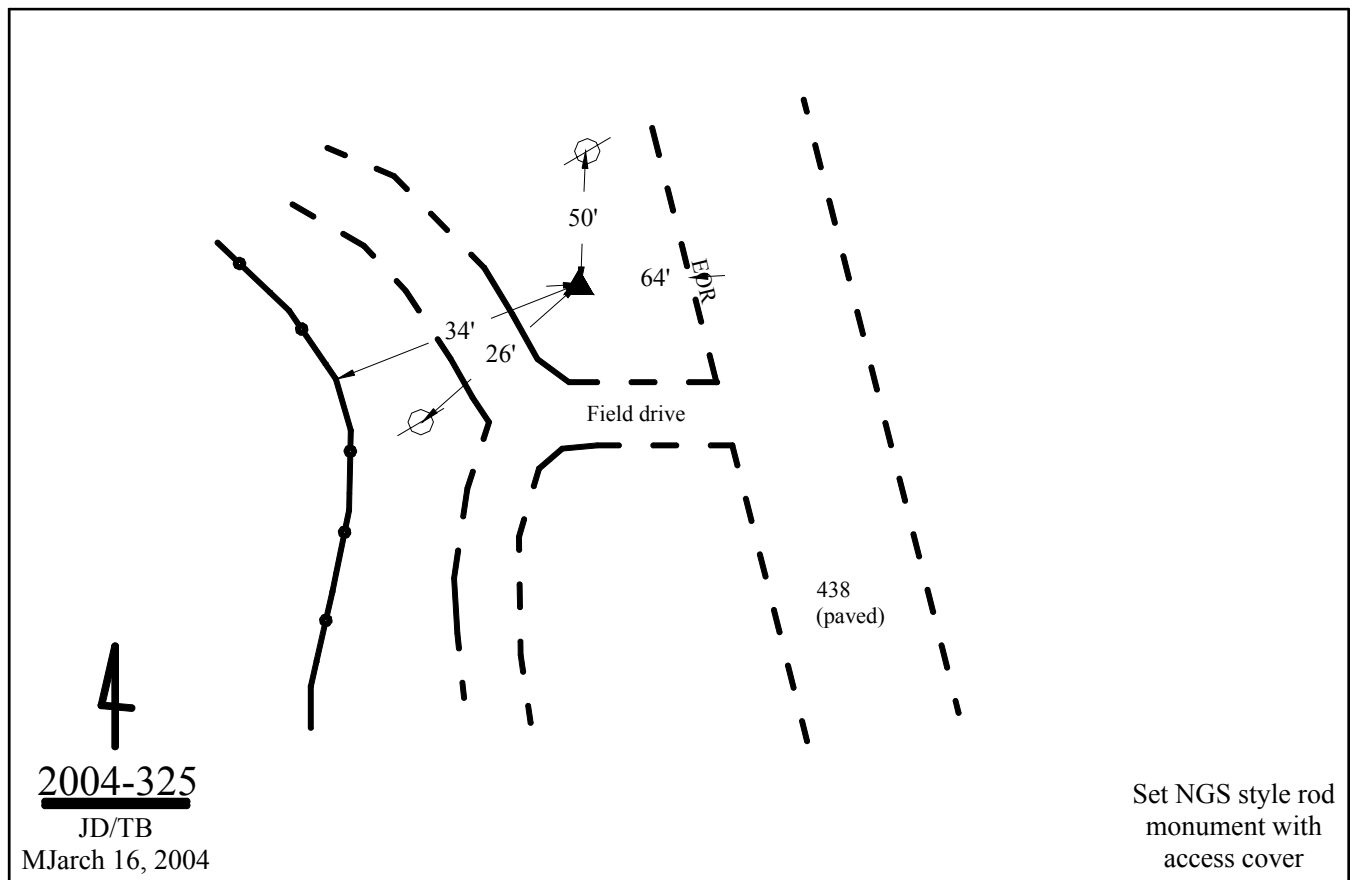
Combination Factor: **0.99992582**

03 Geoid Ht: **-32.975 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-325**

Location: **In the NW 1/4 of Sec 3 T71N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
 Iowa South Zone (1402)
 Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **326**

Northing: **366463.82 FT**

Northing: **111698.396 M**

Easting: **2196156.63 FT**

Easting: **669389.879 M**

Elev: **700.54 FT**

Elev: **213.523 M**

Latitude: **N 40-59-17.52844**

Longitude: **W 91- 29- 12.41856**

Ellip. Ht: **180.538 M**

Theta: **1 19 33.989**

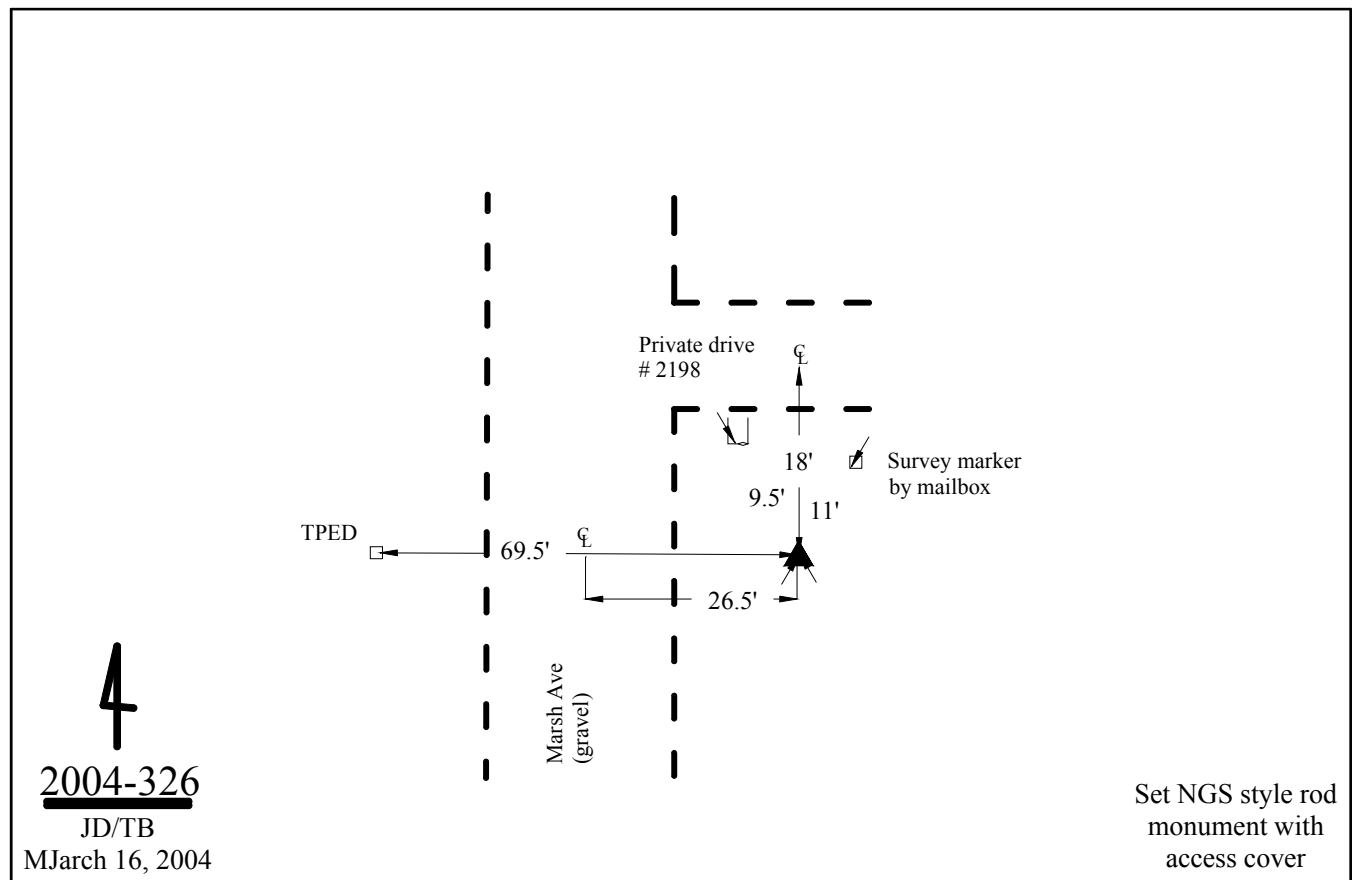
Combination Factor: **0.99992690**

03 Geoid Ht: **-32.985 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-326**

Location: **Near the SW Cor of Sec 31 T72N R5W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **327**

Northing: **366582.52 FT**

Northing: **111734.576 M**

Easting: **2212091.60 FT**

Easting: **674246.869 M**

Elev: **721.96 FT**

Elev: **220.053 M**

Latitude: **N 40-59-15.00481**

Longitude: **W 91- 25- 44.64611**

Ellip. Ht: **187.056 M**

Theta: **1 21 50.849**

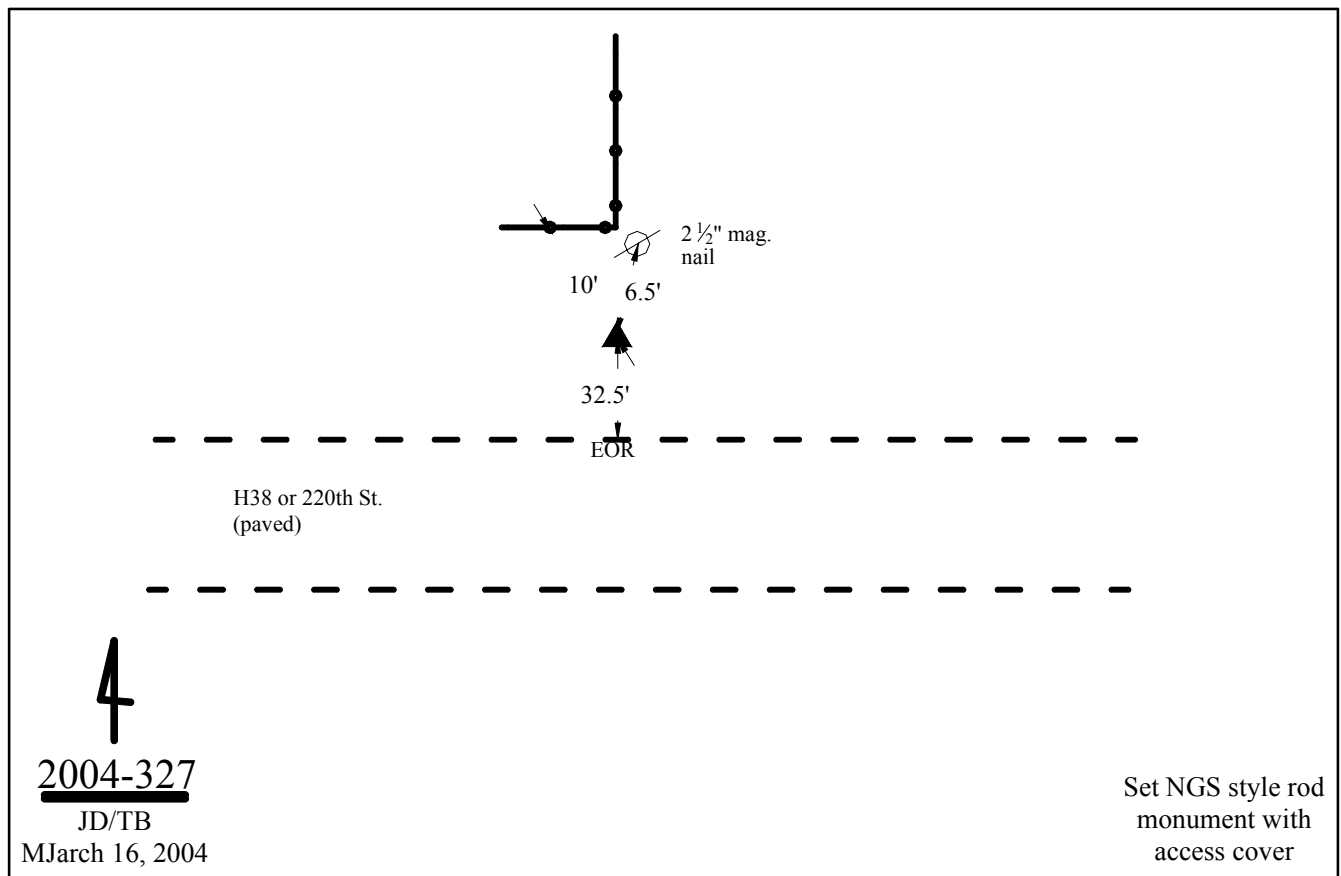
Combination Factor: **0.99992593**

03 Geoid Ht: **-32.997 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-327**

Location: **Near the SE Cor of Sec 33 T72N R5W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **328**

Northing: **349307.90 FT**

Northing: **106469.261 M**

Easting: **2132725.21 FT**

Easting: **650055.944 M**

Elev: **699.09 FT**

Elev: **213.082 M**

Latitude: **N 40-56-41.72240**

Longitude: **W 91- 43- 03.98486**

Ellip. Ht: **180.111 M**

Theta: **1 10 26.236**

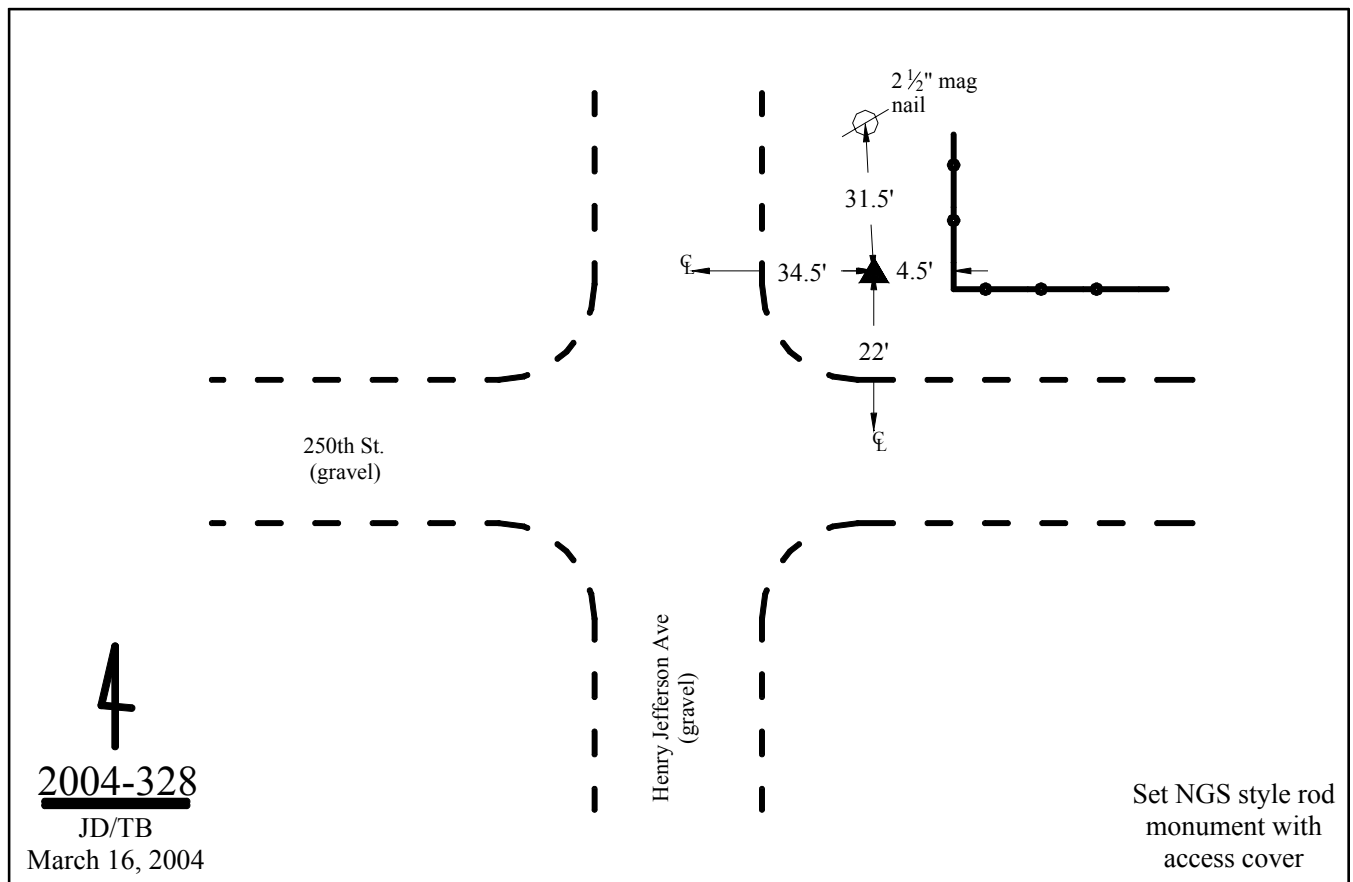
Combination Factor: **0.99993005**

03 Geoid Ht: **-32.971 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-328**

Location: **Near the SW Cor of Sec 18 T71N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **329**

Northing: **349742.01 FT**

Northing: **106601.577 M**

Easting: **2148606.92 FT**

Easting: **654896.699 M**

Elev: **702.81 FT**

Elev: **214.216 M**

Latitude: **N 40-56-42.74388**

Longitude: **W 91- 39- 36.94746**

Ellip. Ht: **181.224 M**

Theta: **1 12 42.611**

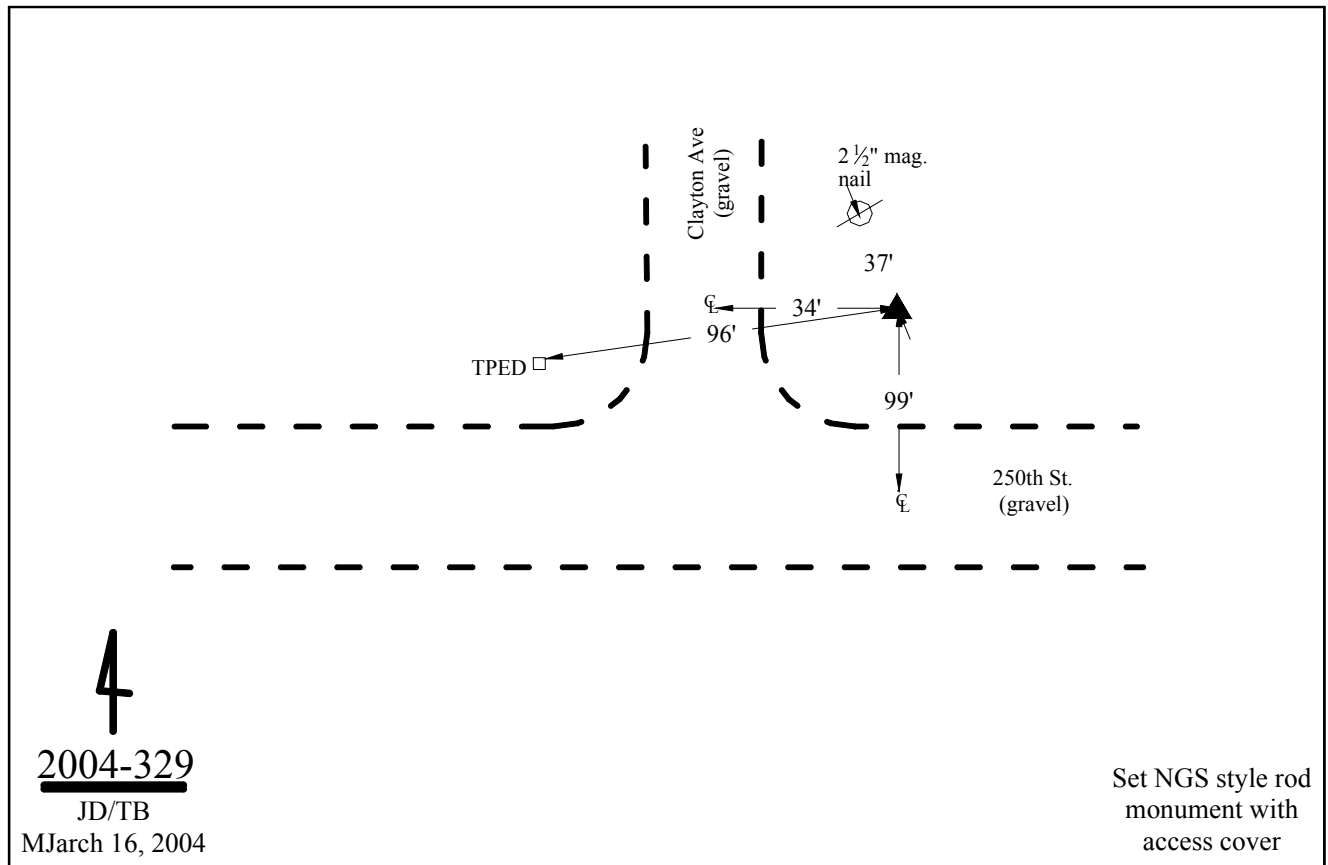
Combination Factor: **0.99992984**

03 Geoid Ht: **-32.991 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-329**

Location: **Near the SW Cor of Sec 15 T71N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.





2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **330**

Northing: **351348.45 FT**

Northing: **107091.221 M**

Easting: **2164293.59 FT**

Easting: **659678.005 M**

Elev: **714.33 FT**

Elev: **217.728 M**

Latitude: **N 40-56-55.28488**

Longitude: **W 91- 36- 12.11638**

Ellip. Ht: **184.728 M**

Theta: **1 14 57.534**

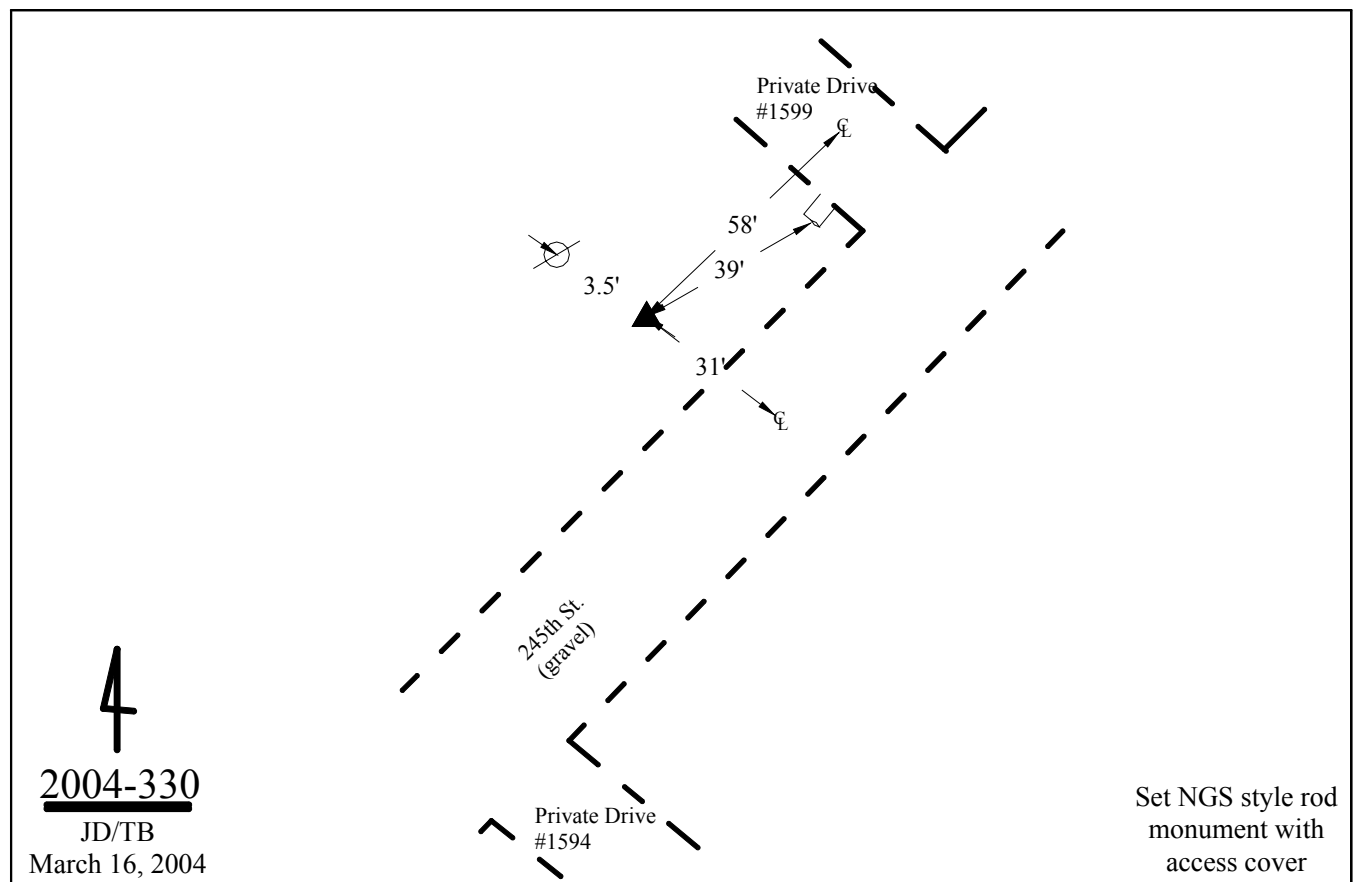
Combination Factor: **0.99992903**

03 Geoid Ht: **-33.000 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-330**

Location: **In the SE 1/4 of Sec 13 T71N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
 Iowa South Zone (1402)
 Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **331**

Northing: **350285.34 FT**

Northing: **106767.185 M**

Easting: **2180556.36 FT**

Easting: **664634.908 M**

Elev: **693.21 FT**

Elev: **211.291 M**

Latitude: **N 40-56-41.22485**

Longitude: **W 91- 32- 40.53937**

Ellip. Ht: **178.282 M**

Theta: **1 17 16.900**

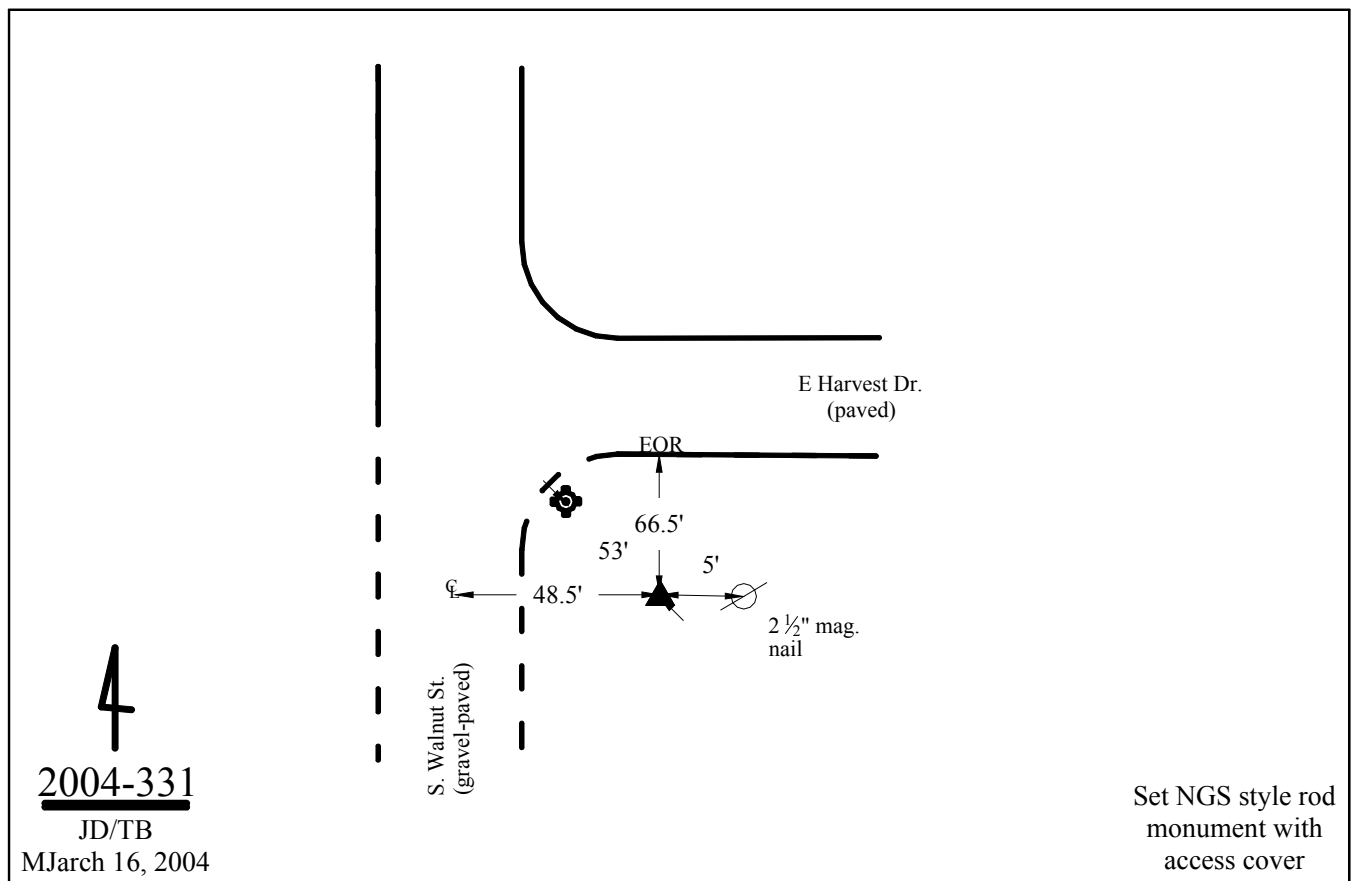
Combination Factor: **0.99993035**

03 Geoid Ht: **-33.009 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-331**

Location: **Near the NW Cor of Sec 22 T71N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **332**

Northing: **350463.53 FT**

Northing: **106821.496 M**

Easting: **2196447.68 FT**

Easting: **669478.592 M**

Elev: **716.08 FT**

Elev: **218.263 M**

Latitude: **N 40-56-39.40351**

Longitude: **W 91- 29- 13.45220**

Ellip. Ht: **185.246 M**

Theta: **1 19 33.308**

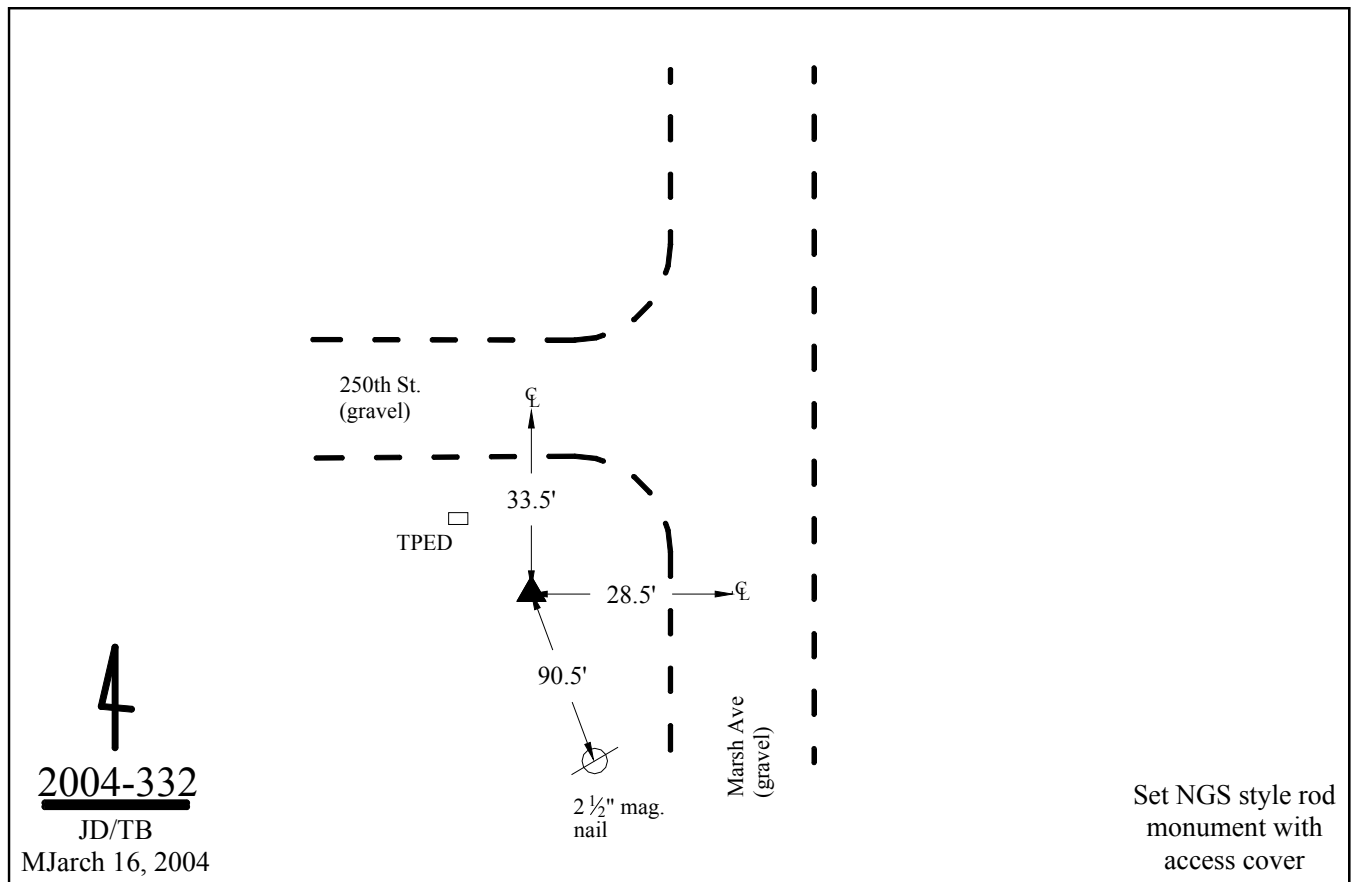
Combination Factor: **0.99992929**

03 Geoid Ht: **-33.017 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-332**

Location: **Near the NE Cor of Sec 24 T71N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.





2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **333**

Northing: **350611.56 FT**

Northing: **106866.616 M**

Easting: **2212535.42 FT**

Easting: **674382.144 M**

Elev: **732.13 FT**

Elev: **223.152 M**

Latitude: **N 40-56-37.13422**

Longitude: **W 91- 25- 43.81884**

Ellip. Ht: **190.126 M**

Theta: **1 21 51.394**

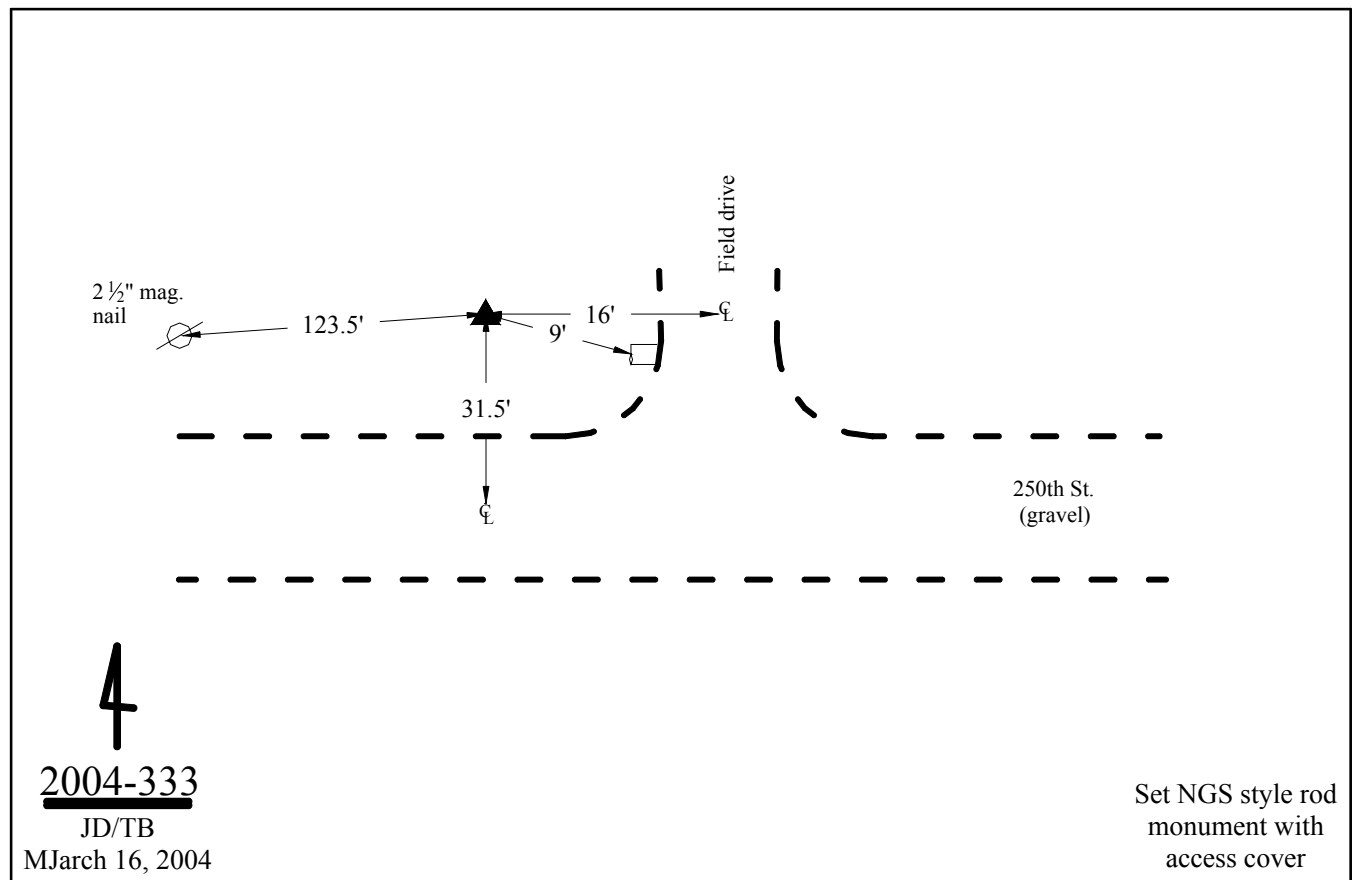
Combination Factor: **0.99992858**

03 Geoid Ht: **-33.026 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-333**

Location: **Near the SE Cor of Sec 16 T71N R5W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **334**

Northing: **336302.53 FT**

Northing: **102505.216 M**

Easting: **2148809.81 FT**

Easting: **654958.539 M**

Elev: **665.42 FT**

Elev: **202.820 M**

Latitude: **N 40-54-29.93372**

Longitude: **W 91- 39- 38.00748**

Ellip. Ht: **169.804 M**

Theta: **1 12 41.913**

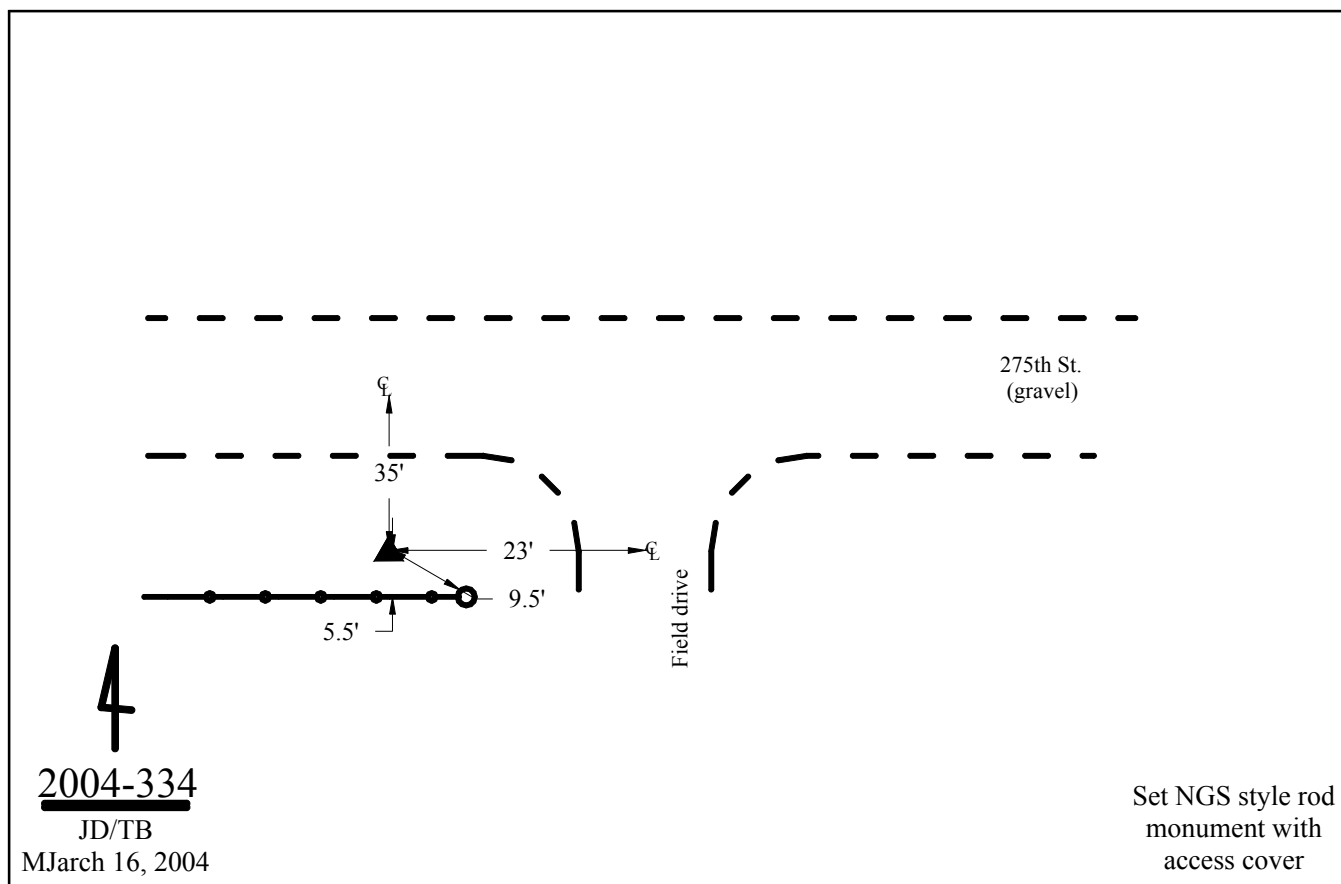
Combination Factor: **0.99993471**

03 Geoid Ht: **-33.017 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-334**

Location: **In the SE 1/4 of Sec 33 T71N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **335**

Northing: **334121.94 FT**

Northing: **101840.572 M**

Easting: **2164807.85 FT**

Easting: **659834.753 M**

Elev: **684.12 FT**

Elev: **208.521 M**

Latitude: **N 40-54-04.99683**

Longitude: **W 91- 36- 10.31199**

Ellip. Ht: **175.485 M**

Theta: **1 14 58.722**

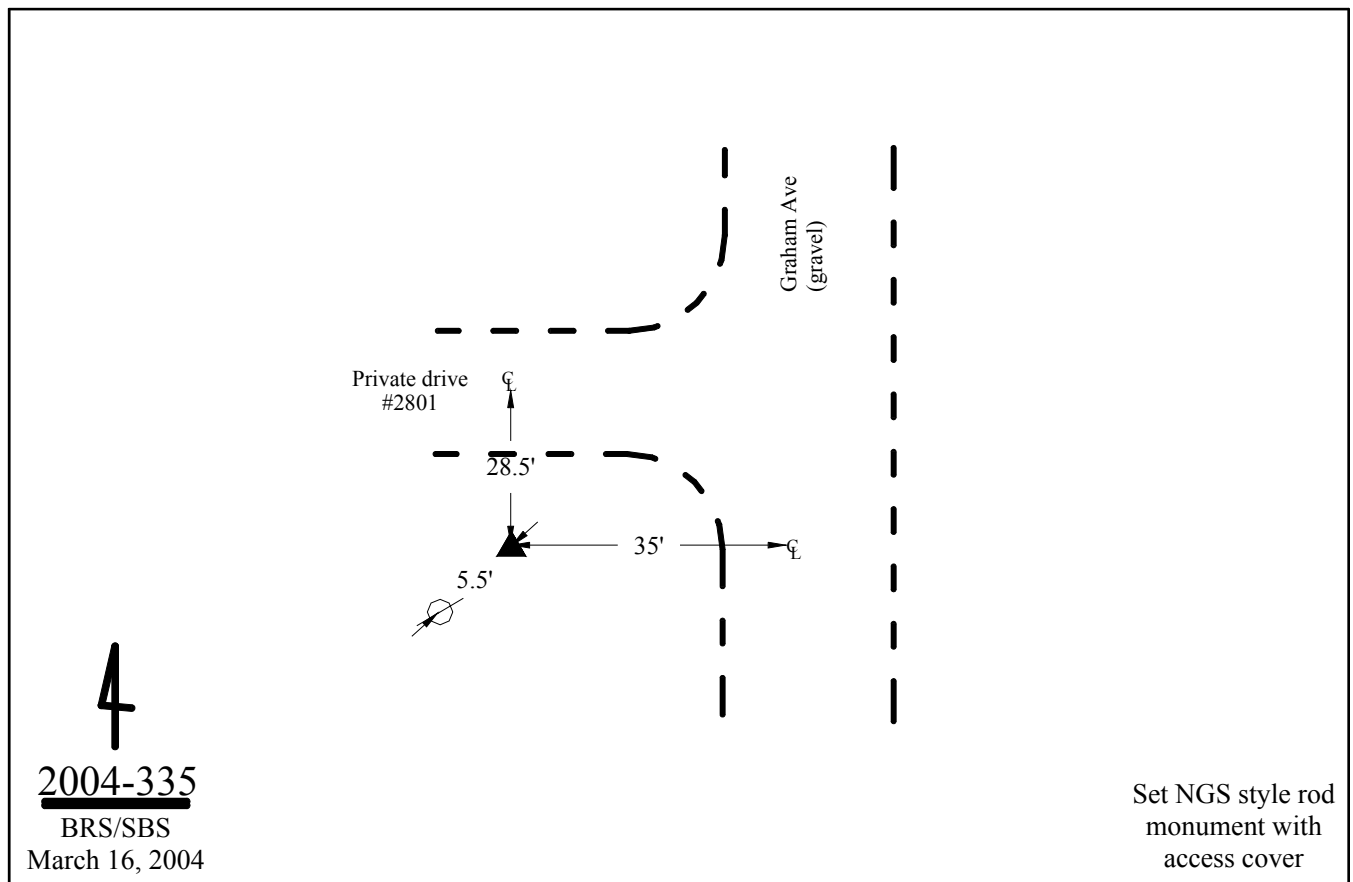
Combination Factor: **0.99993443**

03 Geoid Ht: **-33.036 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-335**

Location: **Near the NE Cor of Sec 1 T70N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **336**

Northing: **335742.66 FT**

Northing: **102334.566 M**

Easting: **2181319.59 FT**

Easting: **664867.542 M**

Elev: **703.58 FT**

Elev: **214.451 M**

Latitude: **N 40-54-17.39312**

Longitude: **W 91- 32- 34.85915**

Ellip. Ht: **181.405 M**

Theta: **1 17 20.641**

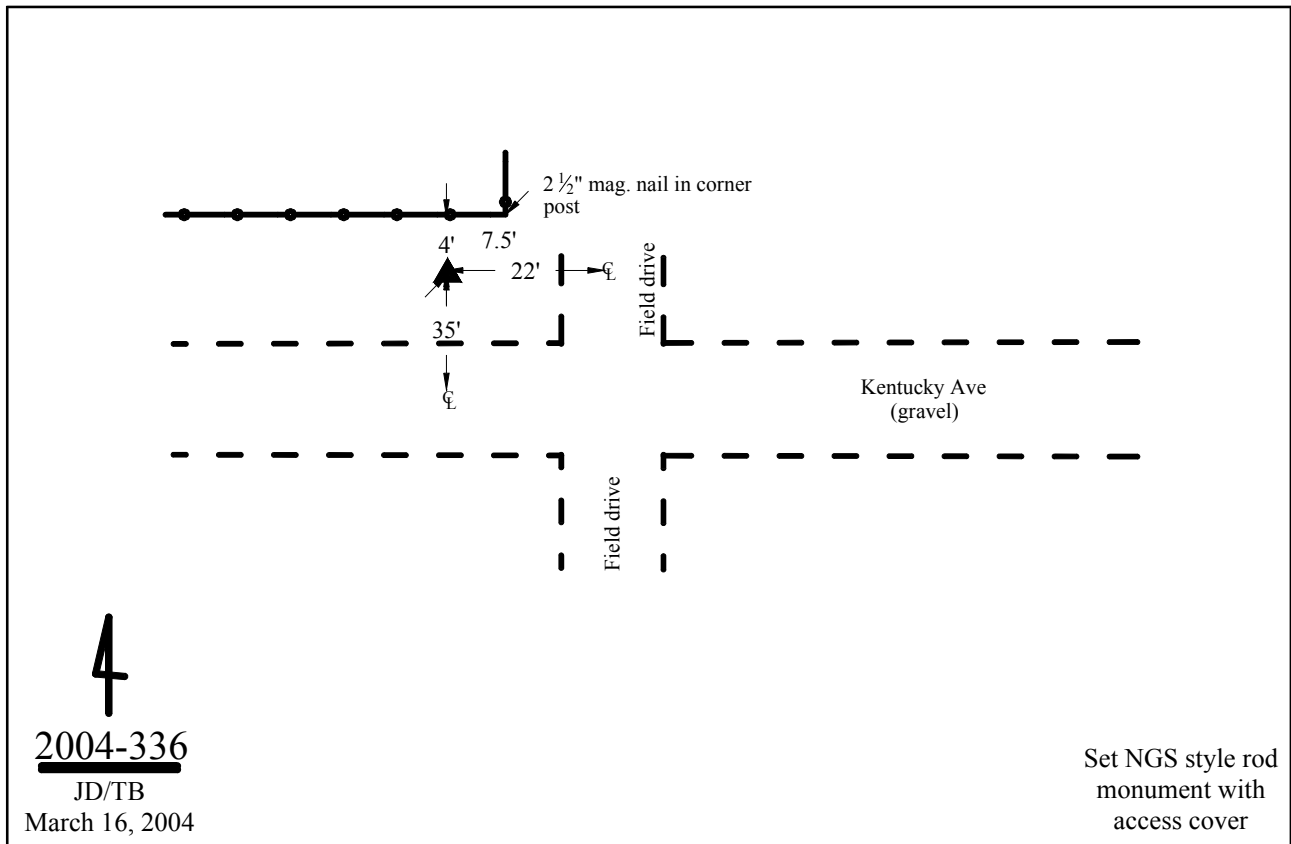
Combination Factor: **0.99993320**

03 Geoid Ht: **-33.046 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-336**

Location: **In the SW 1/4 of Sec 34 T71N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **337**

Northing: **334526.47 FT**

Northing: **101963.871 M**

Easting: **2196808.47 FT**

Easting: **669588.560 M**

Elev: **691.07 FT**

Elev: **210.637 M**

Latitude: **N 40-54-01.88665**

Longitude: **W 91- 29- 13.55755**

Ellip. Ht: **177.581 M**

Theta: **1 19 33.239**

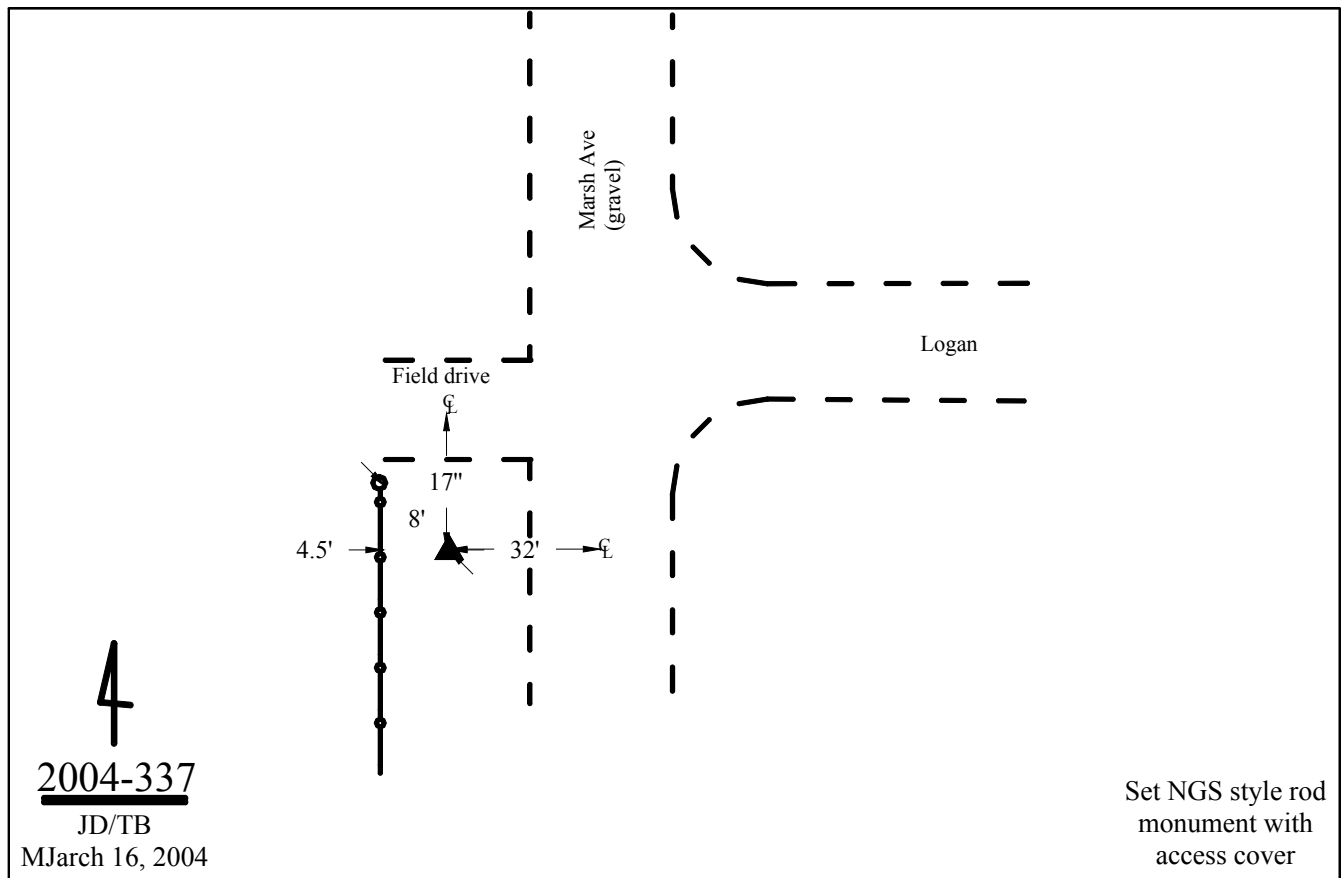
Combination Factor: **0.99993419**

03 Geoid Ht: **-33.056 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-337**

Location: **Near the NW Cor of Sec 6 T70N R5W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004

Henry County, Iowa

Iowa South Zone (1402)

Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **338**

Northing: **335344.87 FT**

Northing: **102213.320 M**

Easting: **2212777.93 FT**

Easting: **674456.062 M**

Elev: **754.40 FT**

Elev: **229.943 M**

Latitude: **N 40-54-06.26743**

Longitude: **W 91- 25- 45.39516**

Ellip. Ht: **196.884 M**

Theta: **1 21 50.356**

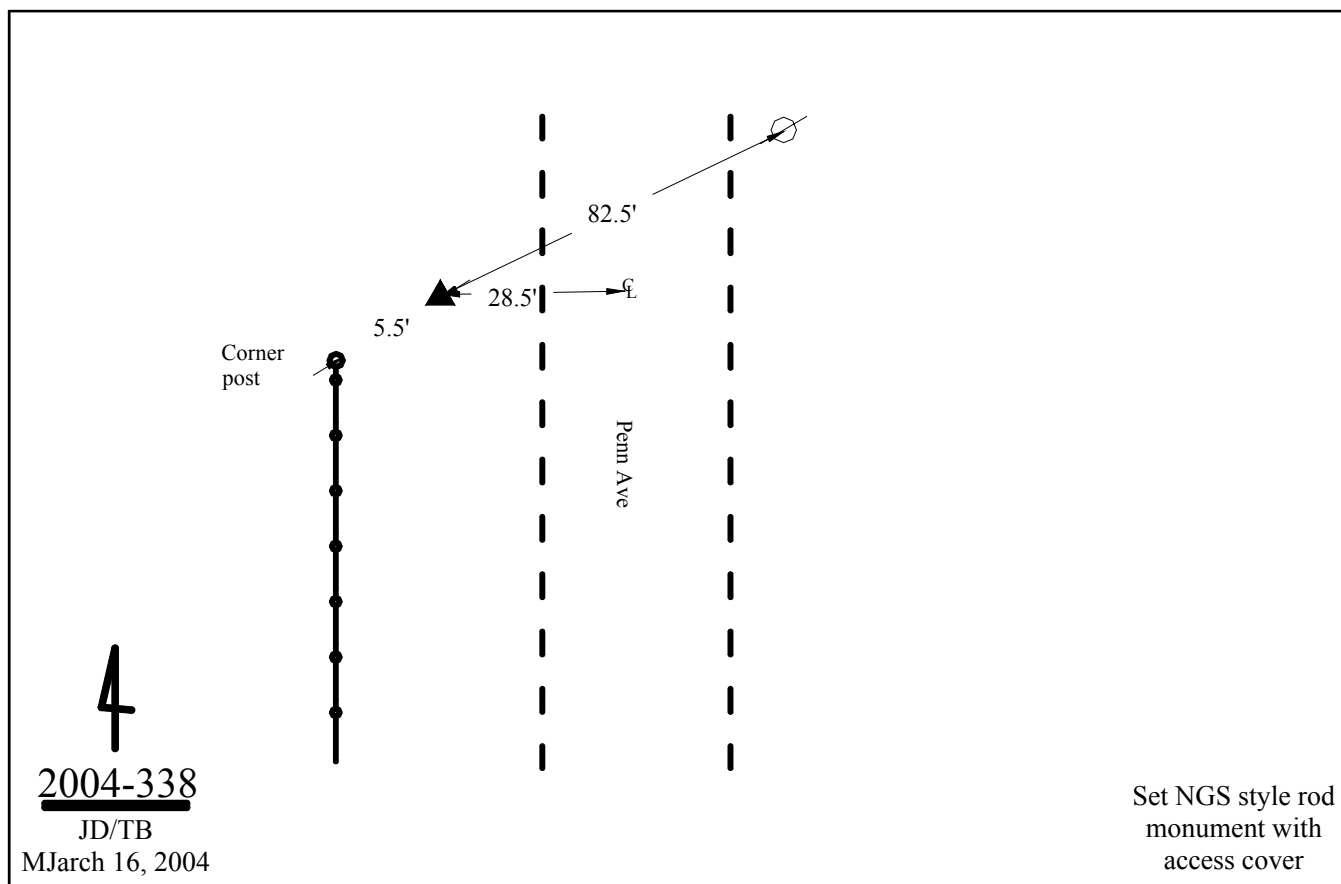
Combination Factor: **0.99993105**

03 Geoid Ht: **-33.058 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-338**

Location: **Near the SE Cor of Sec 33 T71N R5W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **339**

Northing: **317668.01 FT**

Northing: **96825.403 M**

Easting: **2149211.16 FT**

Easting: **655080.872 M**

Elev: **686.49 FT**

Elev: **209.241 M**

Latitude: **N 40-51-25.75985**

Longitude: **W 91- 39- 37.91341**

Ellip. Ht: **176.190 M**

Theta: **1 12 41.975**

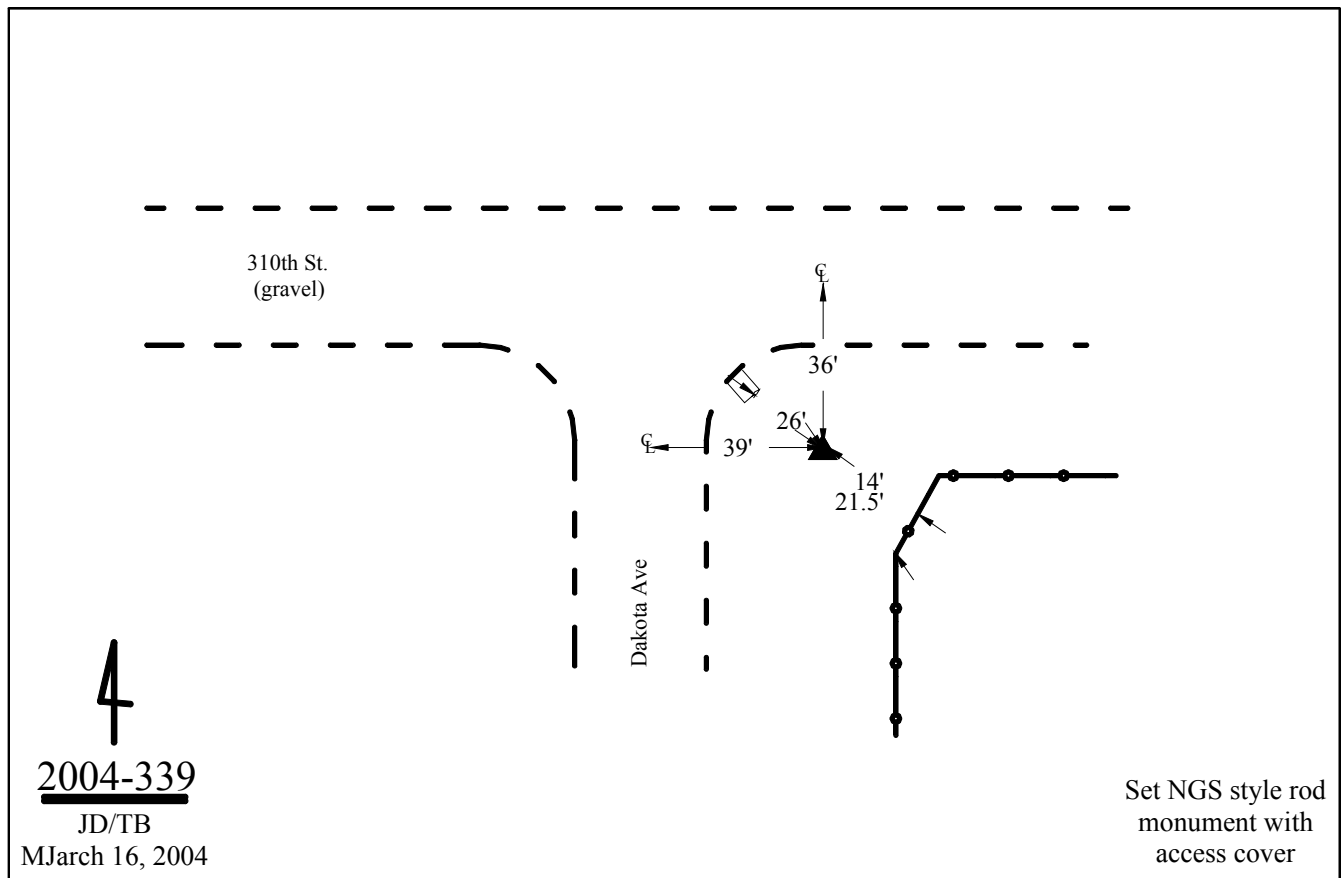
Combination Factor: **0.99993862**

03 Geoid Ht: **-33.051 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-339**

Location: **Near the NW Cor of Sec 22 T70N R7W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.





2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **340**

Northing: **318233.44 FT**

Northing: **96997.747 M**

Easting: **2164751.75 FT**

Easting: **659817.654 M**

Elev: **696.27 FT**

Elev: **212.222 M**

Latitude: **N 40-51-28.04893**

Longitude: **W 91-36-15.55150**

Ellip. Ht: **179.157 M**

Theta: **1 14 55.271**

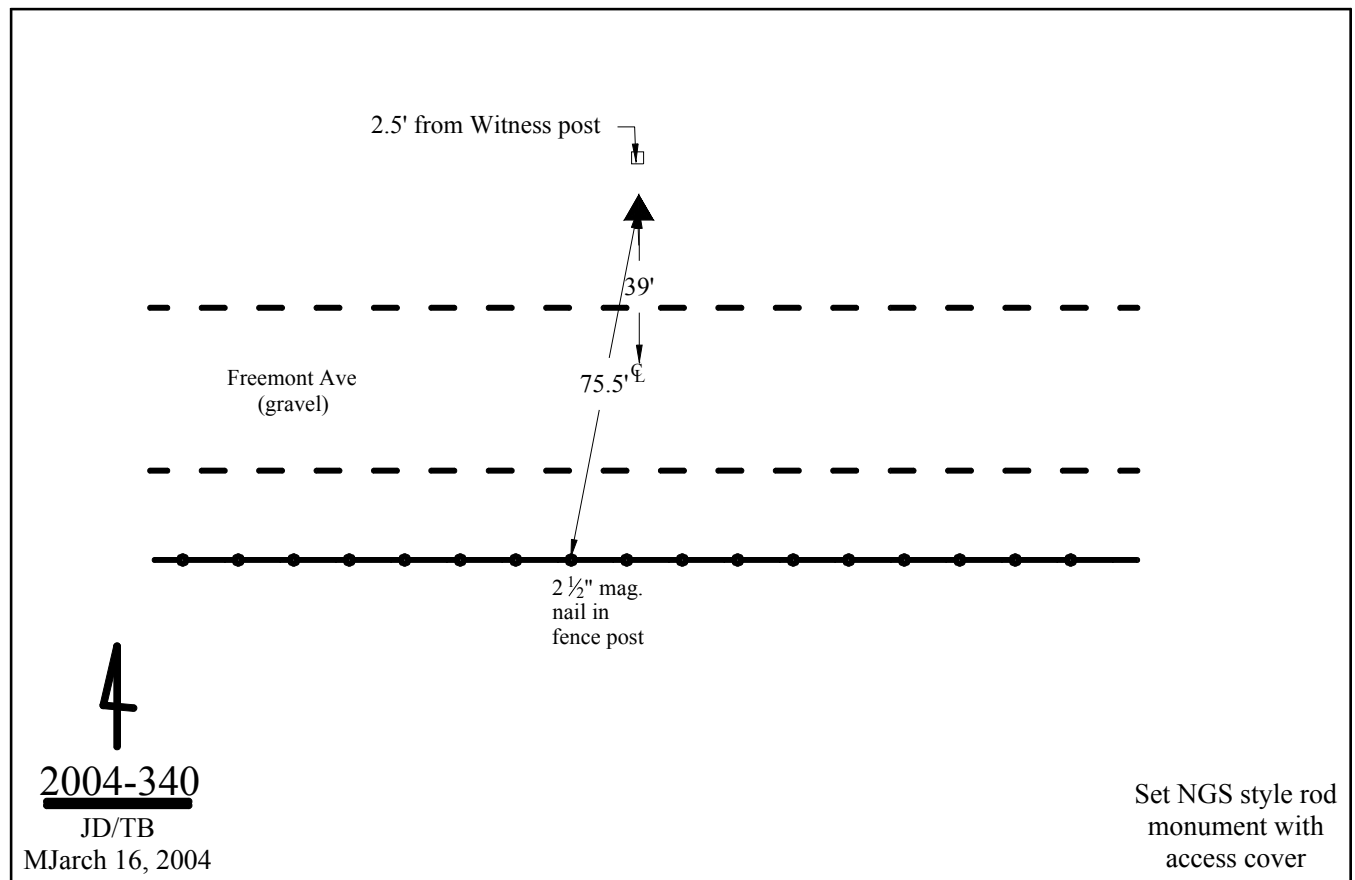
Combination Factor: **0.99993810**

03 Geoid Ht: **-33.065 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-340**

Location: **Near the SE Cor of Sec 13 T70N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **341**

Northing: **318313.36 FT**

Northing: **97022.107 M**

Easting: **2180668.64 FT**

Easting: **664669.130 M**

Elev: **604.63 FT**

Elev: **184.291 M**

Latitude: **N 40-51-25.35906**

Longitude: **W 91- 32- 48.43160**

Ellip. Ht: **151.209 M**

Theta: **1 17 11.701**

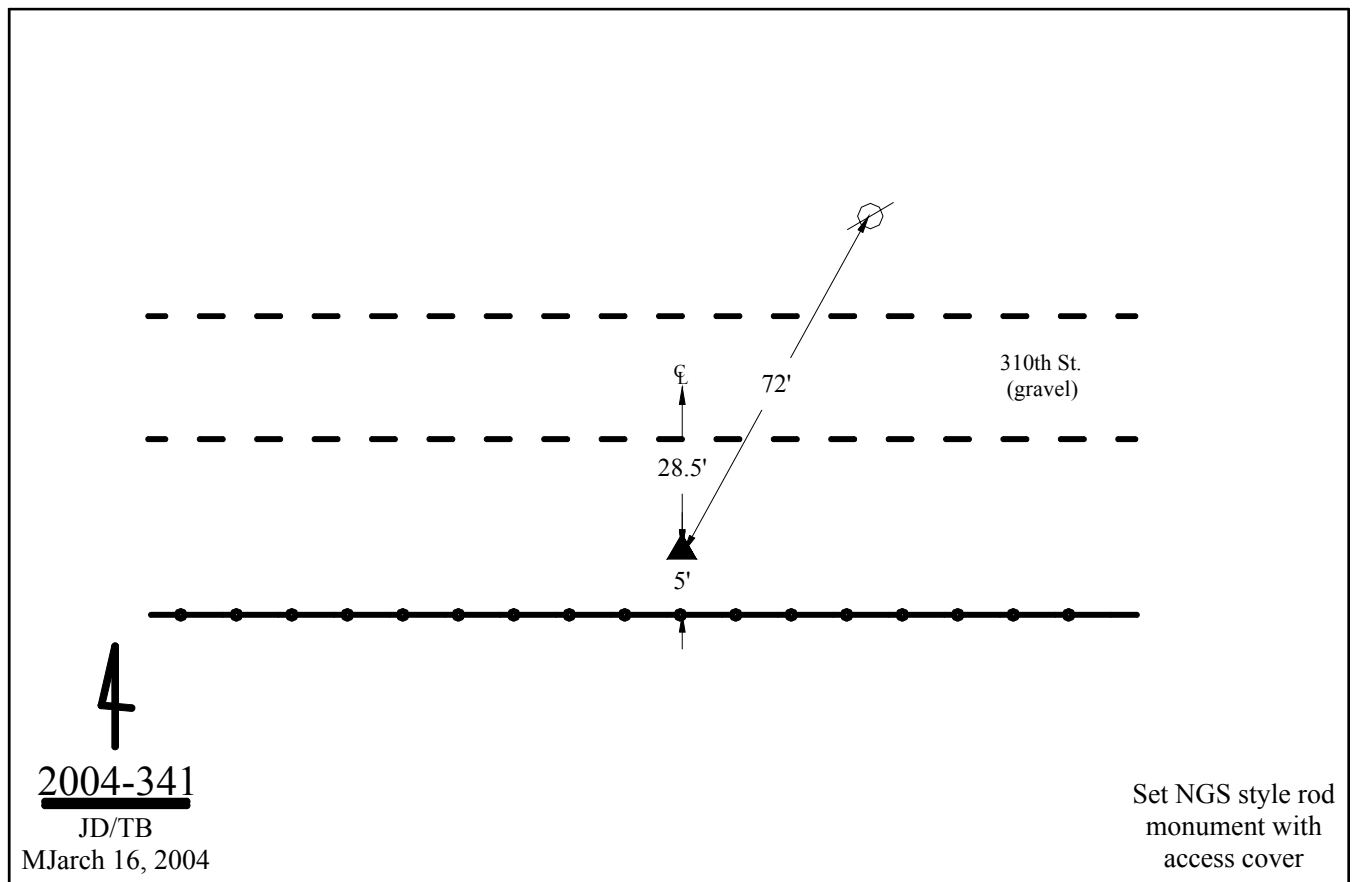
Combination Factor: **0.99994256**

03 Geoid Ht: **-33.081 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-341**

Location: **Near the NE Cor of Sec 21 T70N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **342**

Northing: **318696.10 FT**

Northing: **97138.764 M**

Easting: **2196998.77 FT**

Easting: **669646.565 M**

Elev: **583.20 FT**

Elev: **177.760 M**

Latitude: **N 40-51-25.46211**

Longitude: **W 91- 29- 15.84869**

Ellip. Ht: **144.667 M**

Theta: **1 19 31.730**

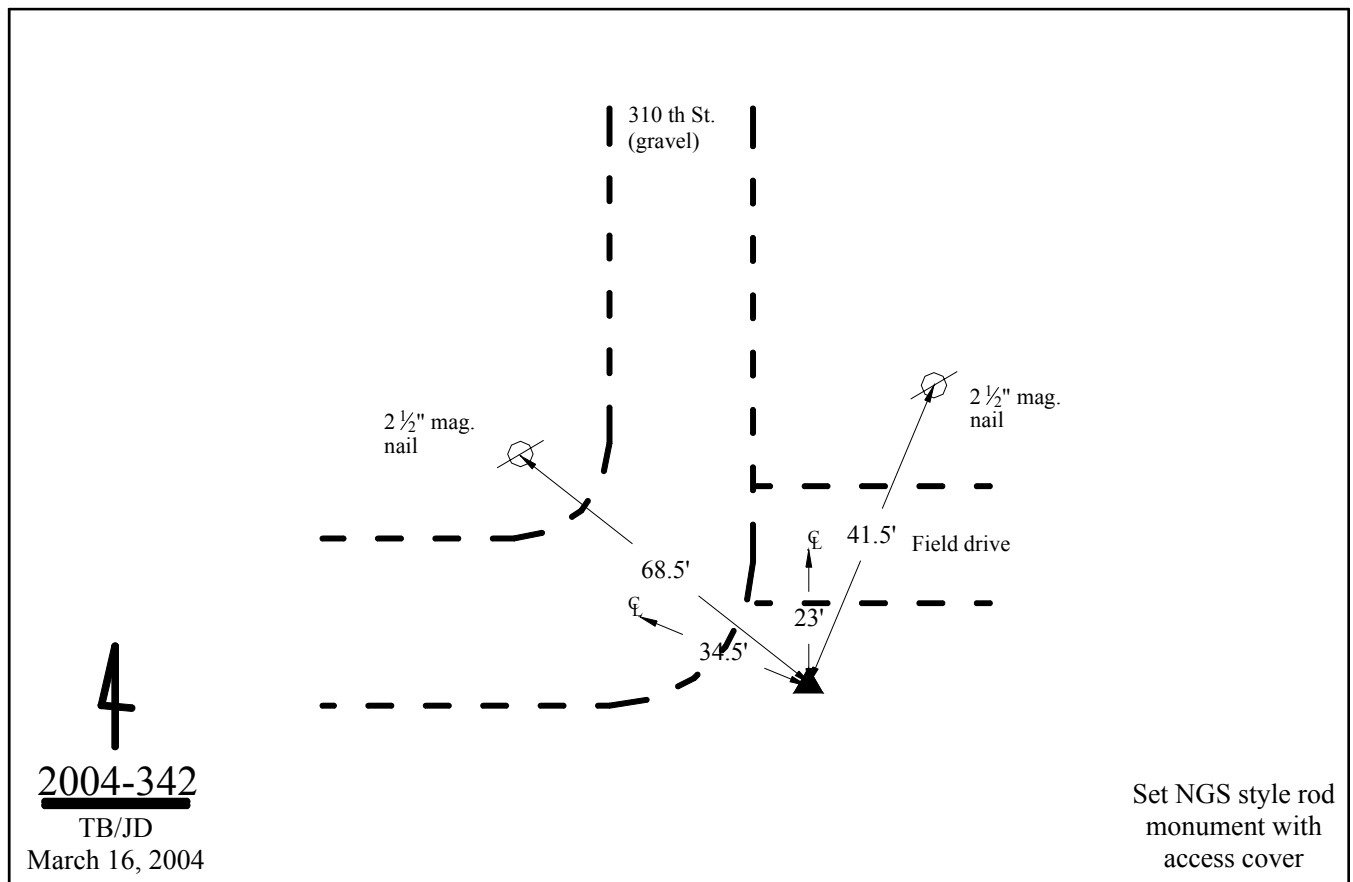
Combination Factor: **0.99994358**

03 Geoid Ht: **-33.093 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-342**

Location: **Near the NE Cor of Sec 24 T70N R6W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **343**

Northing: **317460.85 FT**

Northing: **96762.261 M**

Easting: **2210377.16 FT**

Easting: **673724.304 M**

Elev: **722.97 FT**

Elev: **220.363 M**

Latitude: **N 40-51-10.16517**

Longitude: **W 91- 26- 22.16851**

Ellip. Ht: **187.265 M**

Theta: **1 21 26.133**

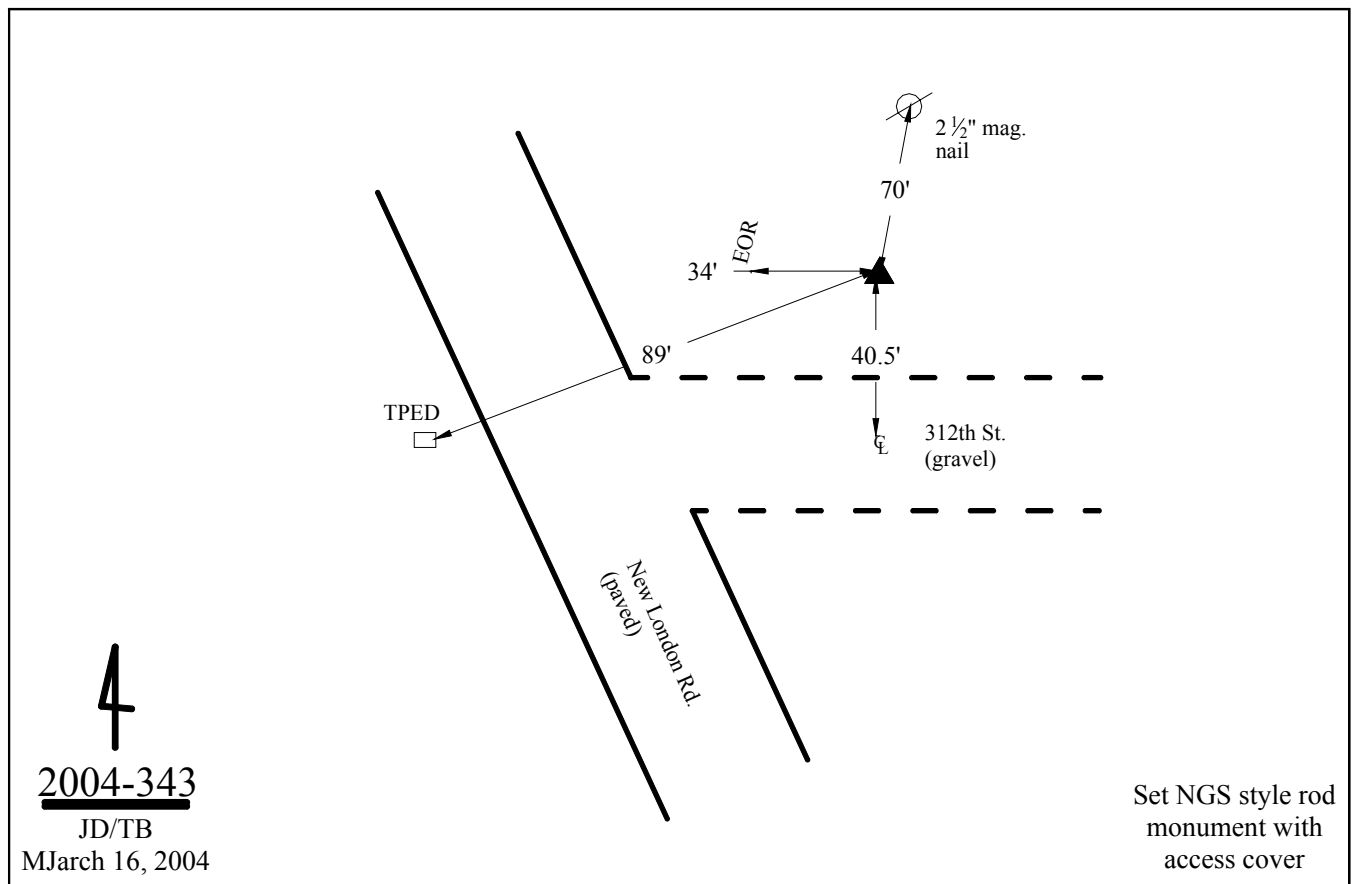
Combination Factor: **0.99993735**

03 Geoid Ht: **-33.098 M**

Designation: **HENRY COUNTY GPS CONTROL PT 2004-343**

Location: **In the NE 1/4 of Sec 21 T70N R5W.**

Monument Type: 5/8" dia driven aluminum rod with a 2-1/2" dia aluminum cap and permanent magnet encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
 Iowa South Zone (1402)
 Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **401**

Northing: **350484.55 FT**

Northing: **106827.904 M**

Easting: **2189870.79 FT**

Easting: **667473.951 M**

Elev: **726.43 FT**

Elev: **221.418 M**

Latitude: **N 40-56-41.10606**

Longitude: **W 91- 30- 39.13012**

Ellip. Ht: **188.405 M**

Theta: **1 18 36.872**

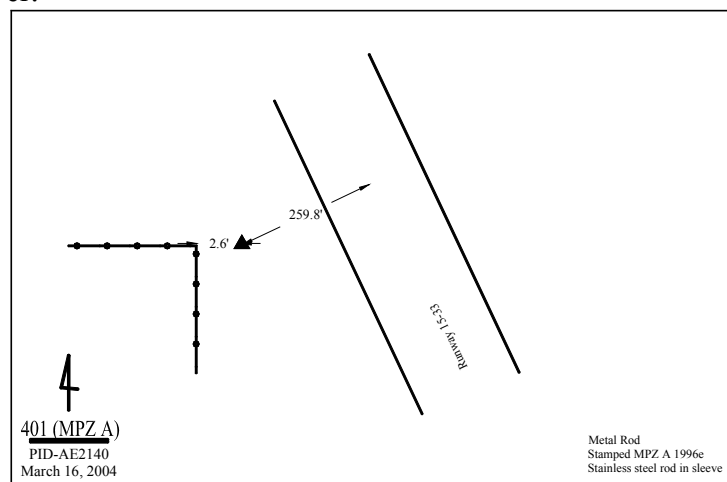
Combination Factor: **0.99992876**

03 Geoid Ht: **-33.013 M**

Designation: **Iowa H.A.R.N. control station "MPZ A" PID AE2140**

Location: **Near the NE Cor of Sec 23 T71N R6W**

Monument Type: 5/8" dia driven steel rod with a center punch mark encased in a 5" dia PVC pipe with an aluminum access cover.



2004
Henry County, Iowa
 Iowa South Zone (1402)
 Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **402**

Northing: **323547.48 FT**

Northing: **98617.470 M**

Easting: **2166456.46 FT**

Easting: **660337.251 M**

Elev: **716.83 FT**

Elev: **218.490 M**

Latitude: **N 40-52-20.17781**

Longitude: **W 91- 35- 51.85867**

Ellip. Ht: **185.432 M**

Theta: **1 15 10.878**

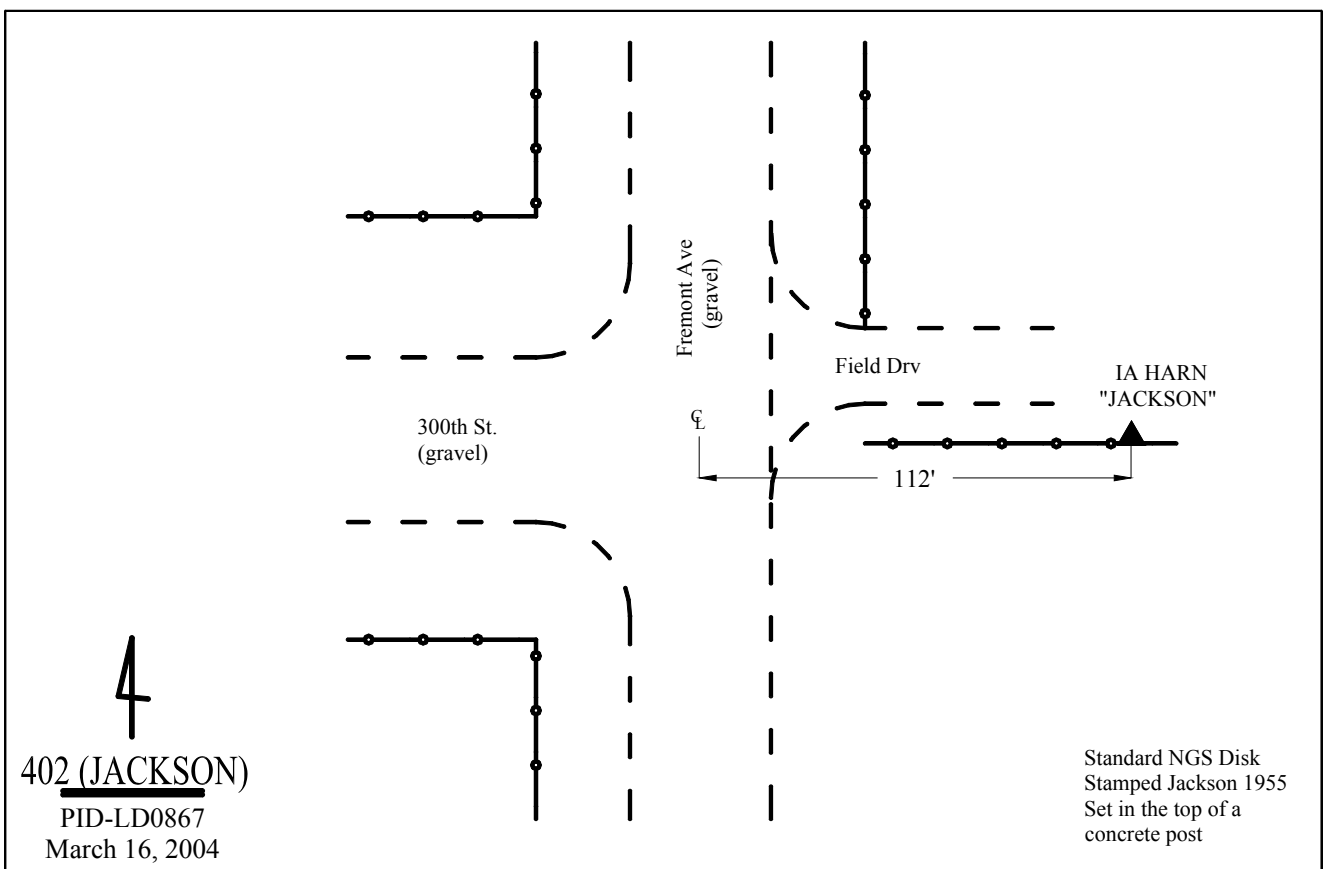
Combination Factor: **0.99993564**

03 Geoid Ht: **-33.057 M**

Designation: **Iowa H.A.R.N. control station "JACKSON" PID LD0867**

Location: **Near the NW Cor of Sec 18 T70N R6W.**

Monument Type: A standard disk set in the top of a poured-in-place concrete monument.



2004
Henry County, Iowa
 Iowa South Zone (1402)
 Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **501**

Northing: **417548.51 FT**

Northing: **127269.040 M**

Easting: **2208466.59 FT**

Easting: **673141.963 M**

Elev: **727.72 FT**

Elev: **221.809 M**

Latitude: **N 41-07-39.30876**

Longitude: **W 91- 26- 16.14833**

Ellip. Ht: **188.873 M**

Theta: **1 21 30.099**

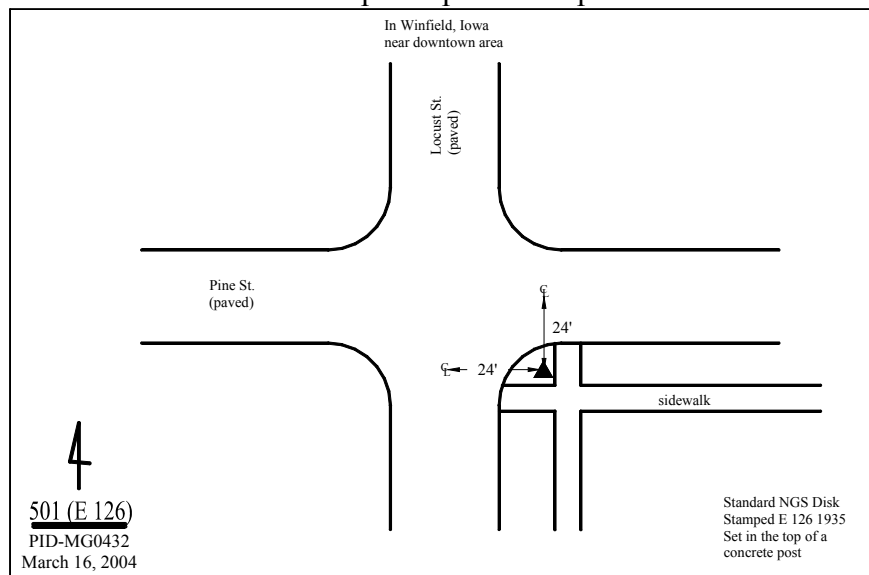
Combination Factor: **0.99991955**

03 Geoid Ht: **-32.936 M**

Designation: **NGS 2nd Order Vertical Control Statin "E 126" PID MG0432**

Location: **Near the CTR of Sec 16 T73N R5W.**

Monument Type: A standard disk set in the top of a poured-in-place concrete monument.



2004
Henry County, Iowa
Iowa South Zone (1402)
Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88



Point Number: **502**

Northing: **363714.38 FT**

Northing: **110860.365 M**

Easting: **2150698.03 FT**

Easting: **655534.069 M**

Elev: **622.77 FT**

Elev: **189.821 M**

Latitude: **N 40-59-00.33749**

Longitude: **W 91- 39- 05.83407**

Ellip. Ht: **156.853 M**

Theta: **1 13 03.106**

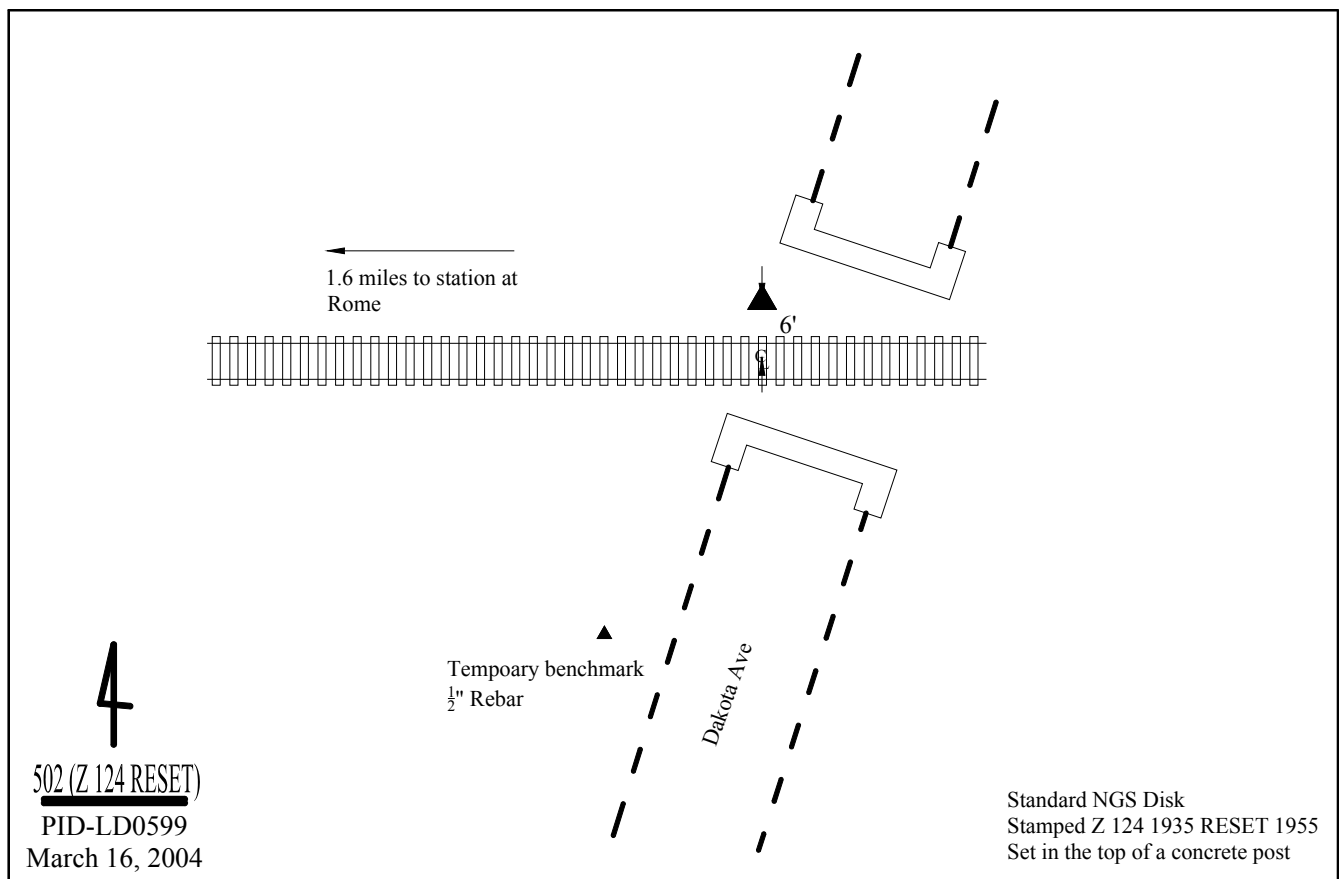
Combination Factor: **0.99993094**

03 Geoid Ht: **-32.968 M**

Designation: **TBM for NGS 3rd Order Vertical Control Station "Z 124 RESET" PID LD0599**

Location: **In the NW 1/4 of Sec 3 T 71N R7W.**

Monument Type: A standard bench mark disk set in railroad abutment.



2004
Henry County, Iowa
 Iowa South Zone (1402)
 Horizontal Datum: NAD_83(1996) & Vertical Datum: NAVD_88

Point Number: **503**

Northing: **358136.08 FT**

Northing: **109160.095 M**

Easting: **2177677.66 FT**

Easting: **663757.479 M**

Elev: **735.92 FT**

Elev: **224.309 M**

Latitude: **N 40-57-59.41725**

Longitude: **W 91- 33- 15.75569**

Ellip. Ht: **191.320 M**

Theta: **1 16 53.703**

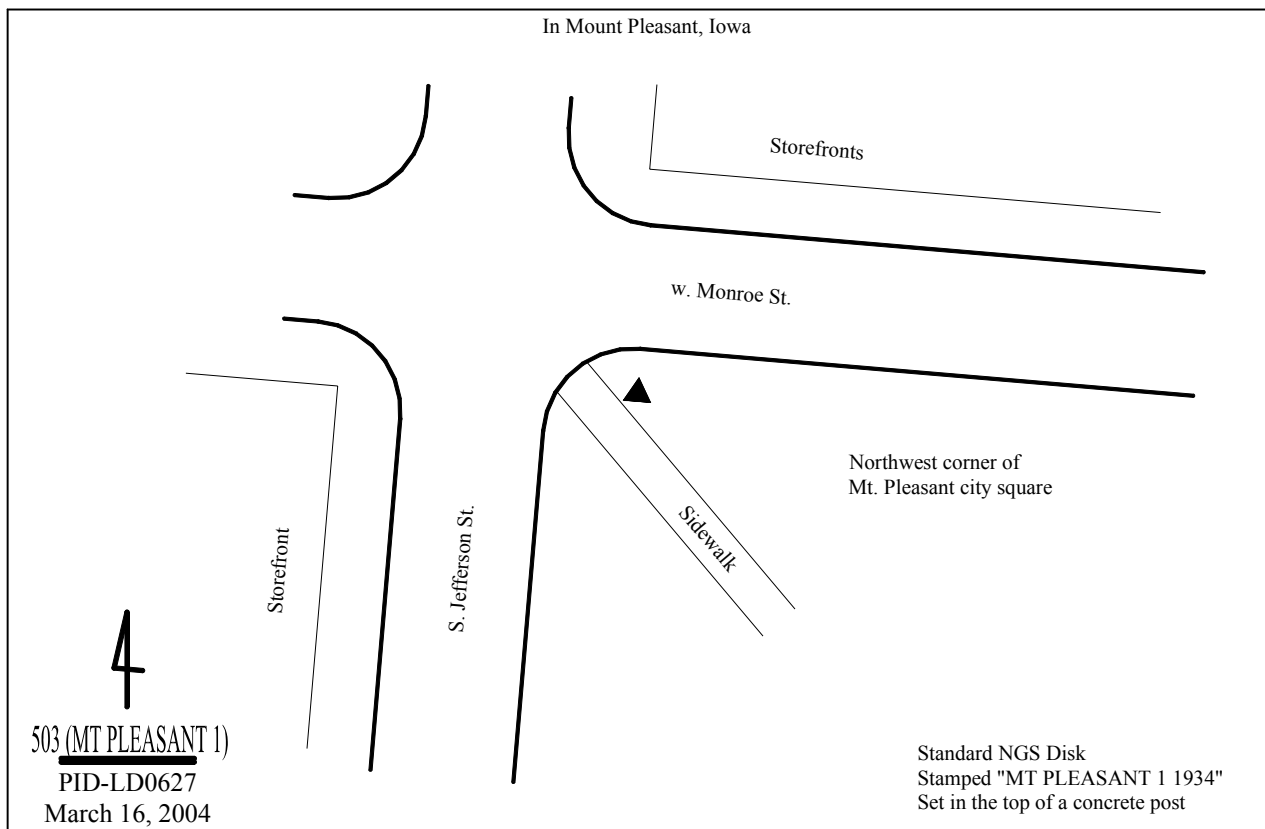
Combination Factor: **0.99992668**

03 Geoid Ht: **-32.989 M**

Designation: **NGS 2nd Order Vertical Control Station "MT PLEASANT 1" PID LD0627**

Location: **Near the CTR of Sec 9 T71N R6W.**

Monument Type: A standard disk set in the top of a poured-in-place concrete monument.



Project Summary - Henry County, Iowa - 2004

Project file: Henry_MTWW_B.spr

Date: 06/08/04

Client Name:	Henry County, Iowa
Project Name:	Henry_MTWW_B
Project Comments:	Hor. Datum: NAD83(1996), Iowa South Vert. Datum: NAVD88(GEOID03) Units: US Feet
Desired Horizontal Accuracy:	0.066USft + 5ppm
Desired Vertical Accuracy:	0.098USft + 5ppm
Confidence Level:	95% Err.
Horizontal Coordinate System:	State Plane Coordinate 1983
Height System:	Ortho. Ht. (GEOID03)
Linear Units:	US Feet
Number of Sites:	70
Number of Vectors:	165
Survey Company Name:	Aerial Services, Inc. Cedar Falls, Iowa
Network Adjustment Done By:	Brett Black, Survey Crew Chief
Network Adjustment Done By:	Gary Brown, PLS

Adjustment Summary

Adjustment Type:	Fully Constrained
Variance of Unit Weight:	1.0
Adjustment scale factor:	1.96
Vectors Failing Tau Test:	0
Site Pairs Failing Relative Accuracy QA Test:	0
Vector Total:	146
Site Total:	70
Horizontally Constrained Sites:	24
Vertically Constrained Sites:	25
Horizontal Coordinate System:	State Plane Coordinate 1983
Height System:	Ortho. Ht. (GEOID03)
Desired Horizontal Accuracy:	0.066USft + 5ppm
Desired Vertical Accuracy:	0.098USft + 5ppm
Confidence Level:	95% Err.

Adjusted Vectors

Henry_MTWW_B

Vector Stage: Adjusted **Date:** 06/08/04
Horizontal Coordinate System: State Plane Coordinate 1983 **Project file:**
 Henry_MTWW_B.spr
Height System: Ortho. Ht. (GEOID03)
Linear Units of Measure: US Feet

	<u>Vector Identifier</u>			<u>Vector Length</u>	<u>Radial Resid.</u>		<u>Vector Components</u>	<u>Resid.</u>	<u>Tau Test</u>
1	0315-0208	5/12	22:04	19209.161	0.054	X	15668.201	0.008	
						Y	-7525.177	-0.046	
						Z	-8177.472	0.028	
2	0209-0315	5/12	22:33	15896.784	0.033	X	-15886.000	-0.027	
						Y	552.678	-0.001	
						Z	193.112	0.018	
3	0315-0309	5/12	22:32	22329.242	0.026	X	16195.161	0.011	
						Y	9895.432	-0.010	
						Z	11764.024	-0.022	
4	0207-0206	5/12	21:02	10738.094	0.068	X	48.444	-0.027	
						Y	-7083.747	-0.038	
						Z	-8069.997	0.049	
5	0207-0208	5/12	21:39	10442.314	0.030	X	225.362	-0.002	
						Y	6840.969	0.011	
						Z	7886.208	0.027	
6	0207-0321	5/12	21:38	16815.021	0.024	X	-15825.662	-0.003	
						Y	3946.405	-0.009	
						Z	4088.915	0.022	
7	0208-0321	5/12	21:39	16746.143	0.020	X	-16051.024	-0.000	
						Y	-2894.564	-0.019	
						Z	-3797.293	-0.006	
8	0209-0208	5/12	22:06	10602.508	0.026	X	-217.800	-0.020	
						Y	-6972.499	-0.010	
						Z	-7984.360	0.015	
9	0209-0309	5/12	22:33	15881.803	0.019	X	309.161	-0.016	
						Y	10448.110	-0.010	
						Z	11957.136	-0.002	
10	0309-0302	5/12	23:06	15853.767	0.042	X	302.899	-0.018	
						Y	10406.643	0.020	
						Z	11956.252	-0.033	
11	0309-0308	5/12	23:06	14765.404	0.035	X	-14750.516	0.005	
						Y	605.838	-0.030	
						Z	269.039	0.017	

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>Radial Resid.</u>		<u>Vector Components</u>	<u>Resid.</u>	<u>Tau Test</u>
12	0206-0321	5/12 21:11	22836.170	0.076	X	-15874.107	0.011	
					Y	11030.152	0.039	
					Z	12158.913	-0.064	
13	0313-0314	5/12 23:36	16155.468	0.039	X	16147.047	-0.017	
					Y	-515.199	0.032	
					Z	-81.286	-0.016	
14	0313-0319	5/12 23:36	15878.764	0.096	X	-79.257	-0.009	
					Y	-10420.996	0.078	
					Z	-11980.472	-0.054	
15	0302-0308	5/12 23:06	21430.167	0.098	X	-15053.415	0.017	
					Y	-9800.805	-0.079	
					Z	-11687.213	0.055	
16	0319-0314	5/12 23:36	22427.848	0.061	X	16226.304	-0.007	
					Y	9905.797	-0.046	
					Z	11899.187	0.040	
17	0007-0158	5/11 18:04	17510.575	0.018	X	-17499.814	-0.016	
					Y	598.967	0.005	
					Z	134.170	-0.007	
18	0015-0007	5/11 18:36	14681.949	0.088	X	-14678.263	-0.032	
					Y	326.859	0.077	
					Z	-37.419	-0.030	
19	0015-0339	5/11 19:06	22481.456	0.162	X	-15661.521	-0.015	
					Y	10786.735	0.110	
					Z	11990.787	-0.117	
20	0024-0015	5/11 18:38	16215.468	0.088	X	-16041.303	0.026	
					Y	-1262.567	-0.043	
					Z	-2005.972	0.073	
21	0024-0034	5/12 12:51	14833.468	0.038	X	14531.001	-0.005	
					Y	-2174.883	0.017	
					Z	-2037.559	-0.033	
22	0024-0341	5/11 22:02	13168.424	0.066	X	-248.265	0.010	
					Y	8679.103	0.032	
					Z	9900.451	-0.057	
23	0034-0045	5/12 13:43	17234.195	0.050	X	17224.587	-0.001	
					Y	-551.633	-0.015	
					Z	-163.670	0.048	
24	0034-0343	5/12 13:45	20481.064	0.107	X	14864.794	-0.012	
					Y	8985.609	-0.063	
					Z	10852.220	0.086	

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>Radial Resid.</u>		<u>Vector Components</u>	<u>Resid.</u>	<u>Tau Test</u>
25	0045-0200	5/12 14:23	16029.973	0.053	X	16009.357	-0.013	
					Y	251.965	-0.040	
					Z	772.665	0.032	
26	0045-0201	5/12 14:15	19980.800	0.088	X	16332.930	-0.011	
					Y	7271.104	-0.071	
					Z	8921.816	0.050	
27	0045-0343	5/12 13:45	14760.672	0.054	X	-2359.793	-0.013	
					Y	9537.242	-0.040	
					Z	11015.890	0.033	
28	0159-0007	5/11 18:04	25511.234	0.038	X	16995.016	0.014	
					Y	-12743.208	-0.000	
					Z	-14128.098	0.035	
29	0159-0158	5/11 18:04	18535.572	0.026	X	-504.798	-0.000	
					Y	-12144.241	0.008	
					Z	-13993.928	0.024	
30	0159-0339	5/11 17:32	16309.492	0.029	X	16011.757	0.012	
					Y	-2283.332	-0.008	
					Z	-2099.891	0.025	
31	0160-0159	5/11 17:28	13176.714	0.079	X	-388.584	-0.015	
					Y	-8582.724	-0.063	
					Z	-9990.577	0.045	
32	0160-0328	5/11 16:58	16030.270	0.017	X	422.195	0.007	
					Y	10519.470	0.015	
					Z	12088.510	-0.005	
33	0160-0334	5/11 16:58	16149.384	0.028	X	15969.943	-0.008	
					Y	1344.982	0.021	
					Z	1988.604	-0.017	
34	0160-0339	5/11 17:32	22546.267	0.091	X	15623.173	-0.004	
					Y	-10866.055	-0.062	
					Z	-12090.468	0.067	
35	0165-0164	5/10 14:28	18462.071	0.097	X	-18436.559	-0.015	
					Y	917.577	-0.073	
					Z	315.299	0.062	
36	0165-0303	5/10 14:34	23076.266	0.012	X	-17608.419	0.008	
					Y	-9513.194	-0.008	
					Z	-11487.244	0.004	
37	0165-0304	5/10 18:46	16013.970	0.049	X	-4323.947	-0.013	
					Y	-10042.902	0.016	
					Z	-11700.036	-0.045	

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>Radial Resid.</u>		<u>Vector Components</u>	<u>Resid.</u>	<u>Tau Test</u>
38	0165-0305	5/10 18:46	19427.219	0.086	X	11478.987	-0.003	
					Y	-10494.226	0.045	
					Z	-11641.346	-0.073	
39	0166-0165	5/10 19:12	22196.088	0.137	X	-22189.317	-0.018	
					Y	542.655	-0.100	
					Z	-77.942	0.092	
40	0166-0167	5/10 19:43	21419.035	0.018	X	21411.110	0.013	
					Y	-579.473	-0.010	
					Z	-60.187	-0.008	
41	0166-0305	5/10 19:12	18737.306	0.096	X	-10710.330	-0.008	
					Y	-9951.571	-0.077	
					Z	-11719.288	0.058	
42	0166-0306	5/10 19:40	16373.713	0.022	X	4807.461	-0.015	
					Y	-10382.796	0.013	
					Z	-11712.572	0.009	
43	0201-0200	5/12 14:23	10760.189	0.060	X	-323.573	0.001	
					Y	-7019.138	0.055	
					Z	-8149.151	-0.024	
44	0201-0343	5/12 14:47	18945.670	0.111	X	-18692.723	0.012	
					Y	2266.138	0.082	
					Z	2094.074	-0.074	
45	0202-0201	5/12 14:48	9301.294	0.069	X	-539.487	-0.016	
					Y	-6060.190	-0.054	
					Z	-7035.419	0.039	
46	0202-0203	5/12 15:19	10588.844	0.034	X	-221.805	0.002	
					Y	6925.849	-0.022	
					Z	8006.687	0.026	
47	0202-0343	5/12 14:48	20216.073	0.048	X	-19232.210	-0.005	
					Y	-3794.051	0.028	
					Z	-4941.345	-0.039	
48	0204-0203	5/12 15:48	10598.220	0.063	X	-232.670	0.015	
					Y	-6932.938	-0.035	
					Z	-8012.646	0.050	
49	0204-0205	5/12 16:56	10572.671	0.056	X	87.616	0.019	
					Y	6912.680	-0.053	
					Z	7999.285	0.003	
50	0204-0333	5/12 16:48	16738.097	0.018	X	-15756.813	0.006	
					Y	3925.669	-0.000	
					Z	4059.047	-0.017	

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>Radial Resid.</u>		<u>Vector Components</u>	<u>Resid.</u>	<u>Tau Test</u>
51	0204-0338	5/12 15:48	18784.524	0.089	X	-16127.642	-0.001	
					Y	-6086.879	-0.078	
					Z	-7463.738	0.042	
52	0205-0206	5/12 17:24	10538.276	0.137	X	590.487	0.019	
					Y	6885.470	0.127	
					Z	7955.934	-0.046	
53	0301-0167	5/10 23:10	14247.365	0.018	X	-14233.786	-0.017	
					Y	586.677	0.000	
					Z	206.267	0.006	
54	0301-0302	5/10 23:42	17599.071	0.127	X	17588.074	0.036	
					Y	-596.276	-0.087	
					Z	-177.167	0.086	
55	0301-0307	5/10 23:08	21101.747	0.037	X	-14629.673	0.005	
					Y	-9780.424	-0.008	
					Z	-11644.727	0.036	
56	0301-0501	5/10 23:32	12496.882	0.089	X	-1229.787	-0.008	
					Y	-8169.086	0.054	
					Z	-9376.871	-0.070	
57	0303-0164	5/10 14:34	15772.978	0.109	X	-828.140	-0.032	
					Y	10430.771	-0.074	
					Z	11802.543	0.074	
58	0303-0304	5/10 15:00	13296.732	0.019	X	13284.472	0.015	
					Y	-529.707	0.011	
					Z	-212.792	-0.000	
59	0303-0310	5/10 15:05	16546.856	0.068	X	-3015.404	0.013	
					Y	-10545.837	0.035	
					Z	-12389.153	-0.057	
60	0304-0310	5/10 15:05	22677.579	0.021	X	-16299.876	-0.002	
					Y	-10016.130	-0.005	
					Z	-12176.361	-0.021	
61	0305-0304	5/10 18:46	15809.486	0.049	X	-15802.934	-0.013	
					Y	451.324	-0.034	
					Z	-58.690	0.033	
62	0305-0313	5/10 18:20	22457.208	0.088	X	15258.430	0.014	
					Y	-11068.110	0.045	
					Z	-12206.697	-0.074	
63	0306-0167	5/10 19:43	22529.189	0.049	X	16603.649	0.042	
					Y	9803.322	-0.014	
					Z	11652.386	-0.021	

	<u>Vector Identifier</u>			<u>Vector Length</u>	<u>Radial Resid.</u>		<u>Vector Components</u>	<u>Resid.</u>	<u>Tau Test</u>
64	0306-0313	5/10	20:05	16198.088	0.061	X	-259.361	-0.043	
						Y	-10636.886	0.036	
						Z	-12213.413	0.025	
65	0307-0167	5/10	23:10	15750.542	0.042	X	395.887	-0.025	
						Y	10367.101	0.014	
						Z	11850.994	-0.030	
66	0307-0306	5/10	20:05	16218.780	0.013	X	-16207.761	0.005	
						Y	563.779	-0.005	
						Z	198.609	-0.011	
67	0307-0313	5/10	20:05	22737.395	0.052	X	-16467.123	-0.038	
						Y	-10073.107	0.032	
						Z	-12014.804	0.013	
68	0307-0314	5/10	22:25	16078.870	0.060	X	-320.076	0.041	
						Y	-10588.306	-0.043	
						Z	-12096.090	0.005	
69	0308-0307	5/10	22:25	17176.810	0.004	X	-17164.332	-0.003	
						Y	616.656	0.003	
						Z	219.653	-0.001	
70	0308-0314	5/10	22:18	23370.667	0.031	X	-17484.408	0.024	
						Y	-9971.649	-0.020	
						Z	-11876.437	0.000	
71	0308-0501	5/10	22:47	5032.168	0.028	X	-3764.446	0.008	
						Y	2227.995	-0.019	
						Z	2487.509	0.019	
72	0311-0310	5/10	15:43	16007.819	0.057	X	-15809.915	-0.006	
						Y	1974.414	-0.038	
						Z	1548.720	0.042	
73	0311-0312	5/10	17:55	15900.175	0.067	X	15877.927	0.016	
						Y	261.164	0.049	
						Z	799.247	-0.043	
74	0311-0316	5/10	15:47	23033.936	0.054	X	-16528.002	-0.009	
						Y	-10241.263	-0.044	
						Z	-12349.248	0.030	
75	0311-0318	5/10	17:54	22274.625	0.039	X	15585.009	0.012	
						Y	-10694.542	0.021	
						Z	-11785.295	-0.031	
76	0312-0305	5/10	18:20	17203.621	0.024	X	414.967	-0.003	
						Y	11278.056	0.006	
						Z	12984.523	0.023	

	<u>Vector Identifier</u>			<u>Vector Length</u>	<u>Radial Resid.</u>		<u>Vector Components</u>	<u>Resid.</u>	<u>Tau Test</u>
77	0312-0313	5/10	18:20	15694.091	0.075	X	15673.398	0.012	
						Y	209.946	0.052	
						Z	777.826	-0.052	
78	0312-0318	5/10	17:55	16687.840	0.020	X	-292.918	0.001	
						Y	-10955.706	-0.006	
						Z	-12584.543	-0.018	
79	0314-0315	5/10	21:56	16049.269	0.040	X	16039.763	0.028	
						Y	-529.621	-0.025	
						Z	-156.625	-0.015	
80	0314-0320	5/10	21:54	15873.225	0.043	X	-249.421	-0.002	
						Y	-10411.610	-0.019	
						Z	-11978.957	0.039	
81	0316-0310	5/10	15:47	18517.341	0.017	X	718.086	-0.000	
						Y	12215.677	-0.001	
						Z	13897.967	0.017	
82	0316-0322	5/10	16:20	12911.755	0.013	X	-198.125	-0.005	
						Y	-8467.078	-0.009	
						Z	-9745.910	0.007	
83	0317-0316	5/10	16:15	16366.712	0.006	X	-16199.605	-0.002	
						Y	-1288.454	0.006	
						Z	-1944.727	-0.002	
84	0317-0318	5/10	17:29	16067.876	0.021	X	15913.406	0.001	
						Y	-1741.733	-0.018	
						Z	-1380.774	0.012	
85	0317-0322	5/10	16:20	22376.928	0.007	X	-16397.730	-0.000	
						Y	-9755.531	0.007	
						Z	-11690.637	-0.001	
86	0320-0315	5/10	21:56	22422.284	0.049	X	16289.185	0.031	
						Y	9881.990	-0.016	
						Z	11822.332	-0.034	
87	0320-0321	5/12	18:32	15916.179	0.100	X	15906.361	0.033	
						Y	-537.751	-0.051	
						Z	-152.433	0.079	
88	0320-0326	5/10	21:29	15842.001	0.033	X	-381.164	-0.032	
						Y	-10370.111	-0.001	
						Z	-11970.150	0.008	
89	0323-0322	5/10	16:46	15962.890	0.077	X	-15948.600	-0.027	
						Y	602.855	-0.060	
						Z	304.266	0.039	

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>Radial Resid.</u>		<u>Vector Components</u>	<u>Resid.</u>	<u>Tau Test</u>
90	0323-0329	5/11 14:10	15838.255	0.025	X	-330.422	0.008	
					Y	-10467.728	0.022	
					Z	-11881.407	-0.009	
91	0324-0317	5/10 17:19	20431.817	0.027	X	-12714.550	-0.006	
					Y	10760.723	0.000	
					Z	11832.421	0.026	
92	0324-0318	5/10 17:29	14170.807	0.018	X	3198.855	-0.008	
					Y	9018.990	0.010	
					Z	10451.647	0.013	
93	0324-0323	5/10 16:46	13170.829	0.026	X	-13163.680	-0.020	
					Y	402.336	0.016	
					Z	-162.481	-0.000	
94	0324-0325	5/10 21:01	19172.904	0.013	X	19142.801	0.004	
					Y	-961.352	-0.012	
					Z	-478.777	-0.002	
95	0324-0330	5/11 13:01	14887.541	0.047	X	2241.602	-0.001	
					Y	-9690.147	0.033	
					Z	-11077.687	-0.033	
96	0324-0502	5/11 13:25	10998.094	0.080	X	-10842.535	0.012	
					Y	-948.186	-0.067	
					Z	-1580.646	0.043	
97	0324-0503	5/11 13:01	18006.685	0.137	X	15884.915	0.014	
					Y	-5826.137	0.089	
					Z	-6161.680	-0.104	
98	0325-0319	5/10 21:01	16328.565	0.128	X	-56.887	-0.018	
					Y	10724.998	-0.110	
					Z	12312.320	0.062	
99	0325-0320	5/10 21:28	22528.055	0.077	X	15919.996	0.015	
					Y	10219.185	-0.062	
					Z	12232.549	0.043	
100	0325-0326	5/10 21:29	15541.780	0.076	X	15538.832	-0.020	
					Y	-150.927	-0.050	
					Z	262.399	0.054	
101	0325-0331	5/11 12:25	15456.828	0.039	X	-696.137	-0.003	
					Y	-10090.990	0.030	
					Z	-11687.638	-0.024	
102	0325-0503	5/11 12:20	8159.371	0.065	X	-3257.886	-0.001	
					Y	-4864.785	0.049	
					Z	-5682.903	-0.041	

	<u>Vector Identifier</u>			<u>Vector Length</u>	<u>Radial Resid.</u>		<u>Vector Components</u>	<u>Resid.</u>	<u>Tau Test</u>
103	0326-0332	5/12	17:53	16004.080	0.057	X	-351.838	-0.014	
						Y	-10498.435	-0.041	
						Z	-12074.338	0.037	
104	0327-0205	5/12	17:22	19154.188	0.131	X	15646.459	0.004	
						Y	-7494.275	-0.105	
						Z	-8118.317	0.078	
105	0327-0206	5/12	17:24	16249.167	0.047	X	16236.946	0.027	
						Y	-608.805	0.026	
						Z	-162.383	0.028	
106	0327-0321	5/12	18:32	15895.057	0.087	X	362.840	-0.038	
						Y	10421.347	0.064	
						Z	11996.530	-0.044	
107	0327-0326	5/12	17:48	15936.577	0.054	X	-15924.686	0.006	
						Y	588.987	0.014	
						Z	178.813	-0.051	
108	0327-0332	5/12	17:53	22463.880	0.023	X	-16276.523	-0.007	
						Y	-9909.448	-0.020	
						Z	-11895.526	-0.010	
109	0328-0322	5/11	14:43	16257.892	0.042	X	265.231	0.019	
						Y	10667.285	0.037	
						Z	12266.122	0.001	
110	0329-0322	5/11	14:39	22693.080	0.060	X	-15618.178	0.017	
						Y	11070.583	0.054	
						Z	12185.673	-0.019	
111	0329-0328	5/11	14:43	15888.731	0.018	X	-15883.408	-0.001	
						Y	403.298	0.013	
						Z	-80.449	-0.013	
112	0329-0334	5/11	20:30	13441.951	0.026	X	-335.661	0.014	
						Y	-8771.189	-0.009	
						Z	-10180.354	0.020	
113	0331-0332	5/11	23:58	15893.429	0.002	X	15883.131	0.001	
						Y	-558.372	0.002	
						Z	-124.302	-0.001	
114	0333-0205	5/12	16:56	16598.001	0.077	X	15844.429	0.017	
						Y	2987.011	-0.073	
						Z	3940.237	0.016	
115	0333-0337	5/12	16:16	22497.485	0.066	X	-16357.149	-0.006	
						Y	-9848.163	0.049	
						Z	-11899.335	-0.044	

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>Radial Resid.</u>		<u>Vector Components</u>	<u>Resid.</u>	<u>Tau Test</u>
116	0334-0328	5/11 16:55	20686.028	0.014	X	-15547.748	0.012	
					Y	9174.487	0.007	
					Z	10099.905	0.003	
117	0335-0330	5/11 20:59	17235.361	0.054	X	176.748	0.007	
					Y	11266.554	0.018	
					Z	13041.901	-0.051	
118	0335-0334	5/11 20:05	16147.015	0.008	X	-15894.617	-0.003	
					Y	2120.121	0.005	
					Z	1895.346	-0.005	
119	0335-0402	5/11 19:38	10702.933	0.094	X	1222.215	0.005	
					Y	-7005.584	-0.054	
					Z	-7998.798	0.077	
120	0336-0335	5/11 21:02	16592.176	0.081	X	-16560.577	-0.007	
					Y	-352.419	-0.054	
					Z	-960.942	0.059	
121	0336-0337	5/11 23:09	15537.558	0.043	X	15425.769	-0.010	
					Y	-1426.433	0.018	
					Z	-1194.434	-0.038	
122	0336-0341	5/11 21:32	17442.787	0.070	X	-1347.405	-0.014	
					Y	-11288.400	-0.044	
					Z	-13229.034	0.053	
123	0336-0342	5/11 23:06	23162.489	0.091	X	14983.000	-0.007	
					Y	-11697.840	0.063	
					Z	-13235.224	-0.065	
124	0336-0402	5/11 21:32	19227.129	0.036	X	-15338.362	-0.002	
					Y	-7358.003	-0.031	
					Z	-8959.740	0.020	
125	0337-0331	5/11 23:33	22639.369	0.039	X	-15604.536	-0.014	
					Y	10978.373	0.014	
					Z	12186.666	-0.034	
126	0337-0332	5/11 23:34	15942.229	0.033	X	278.596	-0.021	
					Y	10420.001	-0.003	
					Z	12062.364	-0.025	
127	0337-0342	5/11 23:09	15832.829	0.070	X	-442.769	0.004	
					Y	-10271.408	0.060	
					Z	-12040.790	-0.035	
128	0338-0202	5/12 15:14	19833.085	0.024	X	16116.777	-0.008	
					Y	-7771.908	0.004	
					Z	-8555.596	0.022	

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>Radial Resid.</u>		<u>Vector Components</u>	<u>Resid.</u>	<u>Tau Test</u>
129	0338-0203	5/12 15:19	15926.936	0.042	X	15894.973	-0.007	
					Y	-846.059	-0.027	
					Z	-548.909	0.032	
130	0338-0333	5/12 16:13	15269.682	0.036	X	370.829	0.004	
					Y	10012.548	-0.031	
					Z	11522.785	0.019	
131	0338-0337	5/12 16:16	15991.599	0.038	X	-15986.320	-0.001	
					Y	164.385	0.026	
					Z	-376.550	-0.027	
132	0340-0015	5/11 19:09	16067.844	0.140	X	113.640	0.004	
					Y	-10487.932	-0.108	
					Z	-12172.345	0.089	
133	0340-0339	5/11 19:09	15551.812	0.017	X	-15547.881	-0.007	
					Y	298.803	0.004	
					Z	-181.558	-0.015	
134	0340-0402	5/11 19:38	5581.159	0.032	X	1915.720	0.002	
					Y	3384.136	0.028	
					Z	4003.371	-0.016	
135	0341-0402	5/11 21:32	15146.675	0.032	X	-13990.957	0.009	
					Y	3930.397	0.004	
					Z	4269.294	-0.031	
136	0342-0024	5/12 12:49	20613.562	0.050	X	-16082.139	0.004	
					Y	-8269.663	0.046	
					Z	-9894.262	-0.019	
137	0342-0034	5/12 12:51	15933.076	0.076	X	-1551.138	-0.004	
					Y	-10444.546	0.060	
					Z	-11931.821	-0.047	
138	0401-0326	5/12 0:23	17172.403	0.036	X	6921.966	0.028	
					Y	10221.395	0.004	
					Z	11937.374	0.023	
139	0401-0331	5/12 0:01	9317.260	0.013	X	-9313.003	0.010	
					Y	281.332	0.005	
					Z	-12.662	0.004	
140	0401-0332	5/12 0:01	6577.393	0.012	X	6570.128	0.006	
					Y	-277.040	0.009	
					Z	-136.964	0.003	
141	0401-0336	5/12 0:25	17043.654	0.042	X	-9134.236	-0.009	
					Y	-9270.609	-0.038	
					Z	-11004.894	0.015	

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>Radial Resid.</u>		<u>Vector Components</u>	<u>Resid.</u>	<u>Tau Test</u>
142	0501-0307	5/10 22:47	13685.633	0.037	X	-13399.887	-0.004	
					Y	-1611.339	0.003	
					Z	-2267.856	-0.037	
143	0502-0323	5/11 14:06	3036.909	0.005	X	-2321.145	0.001	
					Y	1350.523	-0.005	
					Z	1418.165	0.000	
144	0502-0329	5/11 14:10	14129.178	0.018	X	-2651.567	0.016	
					Y	-9117.205	0.007	
					Z	-10463.242	0.002	
145	0503-0330	5/11 12:58	15007.921	0.100	X	-13643.313	-0.014	
					Y	-3864.010	-0.059	
					Z	-4916.007	0.080	
146	0503-0331	5/11 12:25	8362.572	0.027	X	2561.749	-0.006	
					Y	-5226.205	-0.020	
					Z	-6004.734	0.017	

Network Relative Accuracy

Henry_MTWW_B

Desired Horizontal Accuracy: 0.066USft + 5ppm

Date: 06/08/04

Desired Vertical Accuracy: 0.098USft + 5ppm

Project file:

Henry_MTWW_B.spr

Confidence Level: 95% Err.

Linear Units of Measure: US Feet

	<u>Site Pair</u>		<u>Relative Error</u>	<u>Allow. Error</u>	<u>Horizontal Relative Acc</u>	<u>Vertical Relative Acc</u>	<u>Distance</u>	<u>Site Pair QA</u>
1	0315	Lat	0.030	0.036	1:492542	1:369406	19209.161	
	0208	Lng	0.039	0.036				
		Elv	0.052	0.042				
2	0209	Lat	0.030	0.031	1:407609	1:305706	15896.784	
	0315	Lng	0.039	0.031				
		Elv	0.052	0.038				
3	0315	Lat	0.039	0.040	1:429408	1:328371	22329.242	
	0309	Lng	0.052	0.040				
		Elv	0.068	0.045				
4	0207	Lat	0.000	0.026	1:0	1:0	10738.094	
	0206	Lng	0.000	0.026				
		Elv	0.000	0.034				
5	0207	Lat	0.000	0.026	1:0	1:0	10442.314	
	0208	Lng	0.000	0.026				
		Elv	0.000	0.034				
6	0207	Lat	0.030	0.033	1:467083	1:343163	16815.021	
	0321	Lng	0.036	0.033				
		Elv	0.049	0.039				
7	0208	Lat	0.030	0.032	1:465170	1:341757	16746.143	
	0321	Lng	0.036	0.032				
		Elv	0.049	0.039				
8	0209	Lat	0.000	0.026	1:0	1:0	10602.508	
	0208	Lng	0.000	0.026				
		Elv	0.000	0.034				
9	0209	Lat	0.032	0.031	1:360950	1:294107	15881.803	
	0309	Lng	0.044	0.031				
		Elv	0.054	0.038				
10	0309	Lat	0.035	0.031	1:323546	1:243904	15853.767	
	0302	Lng	0.049	0.031				
		Elv	0.065	0.038				
11	0309	Lat	0.031	0.030	1:343381	1:273433	14765.404	
	0308	Lng	0.043	0.030				
		Elv	0.054	0.037				

	<u>Site Pair</u>		<u>Relative Error</u>	<u>Allow. Error</u>	<u>Horizontal Relative Acc</u>	<u>Vertical Relative Acc</u>	<u>Distance</u>	<u>Site Pair QA</u>
12	0206 0321	Lat Lng Elv	0.030 0.036 0.049	0.040 0.040 0.046	1:634338	1:466044	22836.170	
13	0313 0314	Lat Lng Elv	0.031 0.043 0.057	0.032 0.032 0.039	1:375708	1:283429	16155.468	
14	0313 0319	Lat Lng Elv	0.034 0.048 0.064	0.031 0.031 0.038	1:330807	1:248105	15878.764	
15	0302 0308	Lat Lng Elv	0.036 0.050 0.068	0.038 0.038 0.044	1:428603	1:315149	21430.167	
16	0319 0314	Lat Lng Elv	0.037 0.052 0.069	0.040 0.040 0.045	1:431304	1:325041	22427.848	
17	0007 0158	Lat Lng Elv	0.000 0.000 0.000	0.033 0.033 0.040	1:0	1:0	17510.575	
18	0015 0007	Lat Lng Elv	0.000 0.000 0.000	0.030 0.030 0.037	1:0	1:0	14681.949	
19	0015 0339	Lat Lng Elv	0.031 0.041 0.060	0.040 0.040 0.045	1:548328	1:374690	22481.456	
20	0024 0015	Lat Lng Elv	0.000 0.000 0.000	0.032 0.032 0.039	1:0	1:0	16215.468	
21	0024 0034	Lat Lng Elv	0.000 0.000 0.000	0.030 0.030 0.037	1:0	1:0	14833.468	
22	0024 0341	Lat Lng Elv	0.033 0.040 0.061	0.028 0.028 0.036	1:329211	1:215876	13168.424	
23	0034 0045	Lat Lng Elv	0.000 0.000 0.000	0.033 0.033 0.040	1:0	1:0	17234.195	
24	0034 0343	Lat Lng Elv	0.029 0.038 0.050	0.037 0.037 0.043	1:538975	1:409621	20481.064	

	<u>Site Pair</u>		<u>Relative Error</u>	<u>Allow. Error</u>	<u>Horizontal Relative Acc</u>	<u>Vertical Relative Acc</u>	<u>Distance</u>	<u>Site Pair QA</u>
25	0045 0200	Lat	0.000	0.032	1:0	1:0	16029.973	
		Lng	0.000	0.032				
		Elv	0.000	0.039				
26	0045 0201	Lat	0.000	0.036	1:0	1:0	19980.800	
		Lng	0.000	0.036				
		Elv	0.000	0.043				
27	0045 0343	Lat	0.029	0.030	1:388438	1:295213	14760.672	
		Lng	0.038	0.030				
		Elv	0.050	0.037				
28	0159 0007	Lat	0.000	0.044	1:0	1:0	25511.234	
		Lng	0.000	0.044				
		Elv	0.000	0.049				
29	0159 0158	Lat	0.000	0.035	1:0	1:0	18535.572	
		Lng	0.000	0.035				
		Elv	0.000	0.041				
30	0159 0339	Lat	0.031	0.032	1:397792	1:271824	16309.492	
		Lng	0.041	0.032				
		Elv	0.060	0.039				
31	0160 0159	Lat	0.000	0.028	1:0	1:0	13176.714	
		Lng	0.000	0.028				
		Elv	0.000	0.036				
32	0160 0328	Lat	0.029	0.032	1:364324	1:281232	16030.270	
		Lng	0.044	0.032				
		Elv	0.057	0.039				
33	0160 0334	Lat	0.029	0.032	1:375567	1:273718	16149.384	
		Lng	0.043	0.032				
		Elv	0.059	0.039				
34	0160 0339	Lat	0.031	0.040	1:549909	1:375771	22546.267	
		Lng	0.041	0.040				
		Elv	0.060	0.046				
35	0165 0164	Lat	0.000	0.035	1:0	1:0	18462.071	
		Lng	0.000	0.035				
		Elv	0.000	0.041				
36	0165 0303	Lat	0.038	0.041	1:536657	1:391123	23076.266	
		Lng	0.043	0.041				
		Elv	0.059	0.046				
37	0165 0304	Lat	0.037	0.032	1:381284	1:285963	16013.970	
		Lng	0.042	0.032				
		Elv	0.056	0.039				

	<u>Site Pair</u>		<u>Relative Error</u>	<u>Allow. Error</u>	<u>Horizontal Relative Acc</u>	<u>Vertical Relative Acc</u>	<u>Distance</u>	<u>Site Pair QA</u>
38	0165 0305	Lat	0.030	0.036	1:498133	1:366550	19427.219	
		Lng	0.039	0.036				
		Elv	0.053	0.042				
39	0166 0165	Lat	0.000	0.039	1:0	1:0	22196.088	
		Lng	0.000	0.039				
		Elv	0.000	0.045				
40	0166 0167	Lat	0.000	0.038	1:0	1:0	21419.035	
		Lng	0.000	0.038				
		Elv	0.000	0.044				
41	0166 0305	Lat	0.030	0.035	1:480443	1:353533	18737.306	
		Lng	0.039	0.035				
		Elv	0.053	0.041				
42	0166 0306	Lat	0.030	0.032	1:389850	1:287258	16373.713	
		Lng	0.042	0.032				
		Elv	0.057	0.039				
43	0201 0200	Lat	0.000	0.026	1:0	1:0	10760.189	
		Lng	0.000	0.026				
		Elv	0.000	0.034				
44	0201 0343	Lat	0.029	0.035	1:498570	1:378913	18945.670	
		Lng	0.038	0.035				
		Elv	0.050	0.042				
45	0202 0201	Lat	0.000	0.025	1:0	1:0	9301.294	
		Lng	0.000	0.025				
		Elv	0.000	0.033				
46	0202 0203	Lat	0.000	0.026	1:0	1:0	10588.844	
		Lng	0.000	0.026				
		Elv	0.000	0.034				
47	0202 0343	Lat	0.029	0.037	1:532001	1:404321	20216.073	
		Lng	0.038	0.037				
		Elv	0.050	0.043				
48	0204 0203	Lat	0.000	0.026	1:0	1:0	10598.220	
		Lng	0.000	0.026				
		Elv	0.000	0.034				
49	0204 0205	Lat	0.000	0.026	1:0	1:0	10572.671	
		Lng	0.000	0.026				
		Elv	0.000	0.034				
50	0204 0333	Lat	0.023	0.032	1:440476	1:298894	16738.097	
		Lng	0.038	0.032				
		Elv	0.056	0.039				

	<u>Site Pair</u>		<u>Relative Error</u>	<u>Allow. Error</u>	<u>Horizontal Relative Acc</u>	<u>Vertical Relative Acc</u>	<u>Distance</u>	<u>Site Pair QA</u>
51	0204 0338	Lat	0.023	0.035	1:552485	1:408359	18784.524	
		Lng	0.034	0.035				
		Elv	0.046	0.041				
52	0205 0206	Lat	0.000	0.026	1:0	1:0	10538.276	
		Lng	0.000	0.026				
		Elv	0.000	0.034				
53	0301 0167	Lat	0.030	0.030	1:339222	1:303135	14247.365	
		Lng	0.042	0.030				
		Elv	0.047	0.037				
54	0301 0302	Lat	0.035	0.034	1:345079	1:255058	17599.071	
		Lng	0.051	0.034				
		Elv	0.069	0.040				
55	0301 0307	Lat	0.031	0.038	1:502422	1:363823	21101.747	
		Lng	0.042	0.038				
		Elv	0.058	0.044				
56	0301 0501	Lat	0.028	0.028	1:320432	1:265890	12496.882	
		Lng	0.039	0.028				
		Elv	0.047	0.035				
57	0303 0164	Lat	0.038	0.031	1:366813	1:267338	15772.978	
		Lng	0.043	0.031				
		Elv	0.059	0.038				
58	0303 0304	Lat	0.040	0.029	1:302198	1:221611	13296.732	
		Lng	0.044	0.029				
		Elv	0.060	0.036				
59	0303 0310	Lat	0.043	0.032	1:330936	1:250709	16546.856	
		Lng	0.050	0.032				
		Elv	0.066	0.039				
60	0304 0310	Lat	0.045	0.040	1:427878	1:323965	22677.579	
		Lng	0.053	0.040				
		Elv	0.070	0.046				
61	0305 0304	Lat	0.039	0.031	1:343684	1:254991	15809.486	
		Lng	0.046	0.031				
		Elv	0.062	0.038				
62	0305 0313	Lat	0.037	0.040	1:477812	1:350893	22457.208	
		Lng	0.047	0.040				
		Elv	0.064	0.045				
63	0306 0167	Lat	0.030	0.040	1:536408	1:395248	22529.189	
		Lng	0.042	0.040				
		Elv	0.057	0.046				

	<u>Site Pair</u>		<u>Relative Error</u>	<u>Allow. Error</u>	<u>Horizontal Relative Acc</u>	<u>Vertical Relative Acc</u>	<u>Distance</u>	<u>Site Pair QA</u>
64	0306 0313	Lat	0.036	0.032	1:344641	1:253095	16198.088	
		Lng	0.047	0.032				
		Elv	0.064	0.039				
65	0307 0167	Lat	0.027	0.031	1:437515	1:393763	15750.542	
		Lng	0.036	0.031				
		Elv	0.040	0.038				
66	0307 0306	Lat	0.034	0.032	1:360417	1:270313	16218.780	
		Lng	0.045	0.032				
		Elv	0.060	0.039				
67	0307 0313	Lat	0.034	0.040	1:516758	1:398901	22737.395	
		Lng	0.044	0.040				
		Elv	0.057	0.046				
68	0307 0314	Lat	0.033	0.032	1:382829	1:297756	16078.870	
		Lng	0.042	0.032				
		Elv	0.054	0.039				
69	0308 0307	Lat	0.029	0.033	1:464238	1:350547	17176.810	
		Lng	0.037	0.033				
		Elv	0.049	0.040				
70	0308 0314	Lat	0.036	0.041	1:497248	1:402942	23370.667	
		Lng	0.047	0.041				
		Elv	0.058	0.046				
71	0308 0501	Lat	0.020	0.022	1:201286	1:132425	5032.168	
		Lng	0.025	0.022				
		Elv	0.038	0.031				
72	0311 0310	Lat	0.036	0.032	1:320156	1:235409	16007.819	
		Lng	0.050	0.032				
		Elv	0.068	0.039				
73	0311 0312	Lat	0.039	0.031	1:331253	1:240911	15900.175	
		Lng	0.048	0.031				
		Elv	0.066	0.038				
74	0311 0316	Lat	0.036	0.040	1:426554	1:311269	23033.936	
		Lng	0.054	0.040				
		Elv	0.074	0.046				
75	0311 0318	Lat	0.040	0.039	1:428357	1:309369	22274.625	
		Lng	0.052	0.039				
		Elv	0.072	0.045				
76	0312 0305	Lat	0.038	0.033	1:358408	1:264670	17203.621	
		Lng	0.048	0.033				
		Elv	0.065	0.040				

	<u>Site Pair</u>		<u>Relative Error</u>	<u>Allow. Error</u>	<u>Horizontal Relative Acc</u>	<u>Vertical Relative Acc</u>	<u>Distance</u>	<u>Site Pair QA</u>
77	0312 0313	Lat Lng Elv	0.038 0.047 0.064	0.031 0.031 0.038	1:333916	1:245220	15694.091	
78	0312 0318	Lat Lng Elv	0.038 0.048 0.065	0.032 0.032 0.039	1:347662	1:256735	16687.840	
79	0314 0315	Lat Lng Elv	0.037 0.046 0.062	0.032 0.032 0.039	1:348896	1:258858	16049.269	
80	0314 0320	Lat Lng Elv	0.041 0.048 0.067	0.031 0.031 0.038	1:330692	1:236914	15873.225	
81	0316 0310	Lat Lng Elv	0.035 0.052 0.071	0.035 0.035 0.041	1:356102	1:260807	18517.341	
82	0316 0322	Lat Lng Elv	0.020 0.043 0.065	0.028 0.028 0.036	1:300273	1:198642	12911.755	
83	0317 0316	Lat Lng Elv	0.023 0.048 0.073	0.032 0.032 0.039	1:340973	1:224201	16366.712	
84	0317 0318	Lat Lng Elv	0.034 0.048 0.068	0.032 0.032 0.039	1:334747	1:236292	16067.876	
85	0317 0322	Lat Lng Elv	0.024 0.049 0.072	0.040 0.040 0.045	1:456672	1:310790	22376.928	
86	0320 0315	Lat Lng Elv	0.042 0.050 0.069	0.040 0.040 0.045	1:448445	1:324960	22422.284	
87	0320 0321	Lat Lng Elv	0.042 0.047 0.065	0.032 0.032 0.038	1:338641	1:244863	15916.179	
88	0320 0326	Lat Lng Elv	0.040 0.046 0.067	0.031 0.031 0.038	1:344391	1:236447	15842.001	
89	0323 0322	Lat Lng Elv	0.026 0.042 0.057	0.032 0.032 0.039	1:380068	1:280050	15962.890	

	<u>Site Pair</u>		<u>Relative Error</u>	<u>Allow. Error</u>	<u>Horizontal Relative Acc</u>	<u>Vertical Relative Acc</u>	<u>Distance</u>	<u>Site Pair QA</u>
90	0323 0329	Lat Lng Elv	0.027 0.037 0.049	0.031 0.031 0.038	1:428061	1:323229	15838.255	
91	0324 0317	Lat Lng Elv	0.030 0.047 0.067	0.037 0.037 0.043	1:434719	1:304952	20431.817	
92	0324 0318	Lat Lng Elv	0.032 0.043 0.058	0.030 0.030 0.037	1:329553	1:244324	14170.807	
93	0324 0323	Lat Lng Elv	0.020 0.032 0.041	0.028 0.028 0.036	1:411587	1:321239	13170.829	
94	0324 0325	Lat Lng Elv	0.032 0.042 0.050	0.035 0.035 0.042	1:456497	1:383457	19172.904	
95	0324 0330	Lat Lng Elv	0.035 0.045 0.059	0.030 0.030 0.038	1:330834	1:252331	14887.541	
96	0324 0502	Lat Lng Elv	0.021 0.032 0.038	0.026 0.026 0.034	1:343690	1:289423	10998.094	
97	0324 0503	Lat Lng Elv	0.030 0.040 0.038	0.034 0.034 0.041	1:450166	1:473859	18006.685	
98	0325 0319	Lat Lng Elv	0.040 0.050 0.065	0.032 0.032 0.039	1:326571	1:251209	16328.565	
99	0325 0320	Lat Lng Elv	0.040 0.047 0.063	0.040 0.040 0.046	1:479320	1:357588	22528.055	
100	0325 0326	Lat Lng Elv	0.035 0.041 0.056	0.031 0.031 0.038	1:379068	1:277532	15541.780	
101	0325 0331	Lat Lng Elv	0.028 0.034 0.048	0.031 0.031 0.038	1:454612	1:322017	15456.828	
102	0325 0503	Lat Lng Elv	0.026 0.031 0.038	0.024 0.024 0.032	1:263205	1:214720	8159.371	

	<u>Site Pair</u>		<u>Relative Error</u>	<u>Allow. Error</u>	<u>Horizontal Relative Acc</u>	<u>Vertical Relative Acc</u>	<u>Distance</u>	<u>Site Pair QA</u>
103	0326 0332	Lat Lng Elv	0.034 0.039 0.056	0.032 0.032 0.039	1:410361	1:285787	16004.080	
104	0327 0205	Lat Lng Elv	0.031 0.037 0.052	0.035 0.035 0.042	1:517680	1:368349	19154.188	
105	0327 0206	Lat Lng Elv	0.031 0.037 0.052	0.032 0.032 0.039	1:439165	1:312483	16249.167	
106	0327 0321	Lat Lng Elv	0.039 0.044 0.062	0.031 0.031 0.038	1:361251	1:256371	15895.057	
107	0327 0326	Lat Lng Elv	0.037 0.043 0.061	0.032 0.032 0.038	1:370618	1:261255	15936.577	
108	0327 0332	Lat Lng Elv	0.035 0.041 0.063	0.040 0.040 0.045	1:547899	1:356569	22463.880	
109	0328 0322	Lat Lng Elv	0.034 0.046 0.060	0.032 0.032 0.039	1:353431	1:270964	16257.892	
110	0329 0322	Lat Lng Elv	0.032 0.045 0.061	0.040 0.040 0.046	1:504290	1:372017	22693.080	
111	0329 0328	Lat Lng Elv	0.033 0.043 0.056	0.031 0.031 0.038	1:369505	1:283727	15888.731	
112	0329 0334	Lat Lng Elv	0.035 0.044 0.058	0.029 0.029 0.036	1:305499	1:231757	13441.951	
113	0331 0332	Lat Lng Elv	0.028 0.034 0.046	0.031 0.031 0.038	1:467453	1:345509	15893.429	
114	0333 0205	Lat Lng Elv	0.023 0.038 0.056	0.032 0.032 0.039	1:436789	1:296392	16598.001	
115	0333 0337	Lat Lng Elv	0.024 0.045 0.068	0.040 0.040 0.045	1:499943	1:330845	22497.485	

	<u>Site Pair</u>		<u>Relative Error</u>	<u>Allow. Error</u>	<u>Horizontal Relative Acc</u>	<u>Vertical Relative Acc</u>	<u>Distance</u>	<u>Site Pair QA</u>
116	0334 0328	Lat	0.033	0.037	1:440128	1:308746	20686.028	
		Lng	0.047	0.037				
		Elv	0.067	0.043				
117	0335 0330	Lat	0.039	0.033	1:337948	1:236101	17235.361	
		Lng	0.051	0.033				
		Elv	0.073	0.040				
118	0335 0334	Lat	0.036	0.032	1:336396	1:230671	16147.015	
		Lng	0.048	0.032				
		Elv	0.070	0.039				
119	0335 0402	Lat	0.028	0.026	1:281656	1:164660	10702.933	
		Lng	0.038	0.026				
		Elv	0.065	0.034				
120	0336 0335	Lat	0.034	0.032	1:368714	1:244002	16592.176	
		Lng	0.045	0.032				
		Elv	0.068	0.039				
121	0336 0337	Lat	0.030	0.031	1:378965	1:272588	15537.558	
		Lng	0.041	0.031				
		Elv	0.057	0.038				
122	0336 0341	Lat	0.038	0.033	1:379191	1:268350	17442.787	
		Lng	0.046	0.033				
		Elv	0.065	0.040				
123	0336 0342	Lat	0.035	0.041	1:492818	1:356345	23162.489	
		Lng	0.047	0.041				
		Elv	0.065	0.046				
124	0336 0402	Lat	0.027	0.036	1:565503	1:305192	19227.129	
		Lng	0.034	0.036				
		Elv	0.063	0.042				
125	0337 0331	Lat	0.029	0.040	1:552179	1:411624	22639.369	
		Lng	0.041	0.040				
		Elv	0.055	0.046				
126	0337 0332	Lat	0.027	0.032	1:419532	1:284683	15942.229	
		Lng	0.038	0.032				
		Elv	0.056	0.039				
127	0337 0342	Lat	0.031	0.031	1:359837	1:268353	15832.829	
		Lng	0.044	0.031				
		Elv	0.059	0.038				
128	0338 0202	Lat	0.023	0.036	1:583326	1:431154	19833.085	
		Lng	0.034	0.036				
		Elv	0.046	0.042				

	<u>Site Pair</u>		<u>Relative Error</u>	<u>Allow. Error</u>	<u>Horizontal Relative Acc</u>	<u>Vertical Relative Acc</u>	<u>Distance</u>	<u>Site Pair QA</u>
129	0338 0203	Lat	0.023	0.032	1:468439	1:346237	15926.936	
		Lng	0.034	0.032				
		Elv	0.046	0.038				
130	0338 0333	Lat	0.022	0.031	1:363564	1:250322	15269.682	
		Lng	0.042	0.031				
		Elv	0.061	0.038				
131	0338 0337	Lat	0.022	0.032	1:390038	1:271044	15991.599	
		Lng	0.041	0.032				
		Elv	0.059	0.039				
132	0340 0015	Lat	0.025	0.032	1:554063	1:259158	16067.844	
		Lng	0.029	0.032				
		Elv	0.062	0.039				
133	0340 0339	Lat	0.033	0.031	1:353450	1:213038	15551.812	
		Lng	0.044	0.031				
		Elv	0.073	0.038				
134	0340 0402	Lat	0.025	0.022	1:192453	1:109434	5581.159	
		Lng	0.029	0.022				
		Elv	0.051	0.031				
135	0341 0402	Lat	0.033	0.031	1:378667	1:229495	15146.675	
		Lng	0.040	0.031				
		Elv	0.066	0.038				
136	0342 0024	Lat	0.029	0.037	1:515339	1:388935	20613.562	
		Lng	0.040	0.037				
		Elv	0.053	0.043				
137	0342 0034	Lat	0.029	0.032	1:398327	1:300624	15933.076	
		Lng	0.040	0.032				
		Elv	0.053	0.038				
138	0401 0326	Lat	0.032	0.033	1:477010	1:306649	17172.403	
		Lng	0.036	0.033				
		Elv	0.056	0.040				
139	0401 0331	Lat	0.024	0.025	1:321285	1:221839	9317.260	
		Lng	0.029	0.025				
		Elv	0.042	0.033				
140	0401 0332	Lat	0.020	0.022	1:274057	1:193452	6577.393	
		Lng	0.024	0.022				
		Elv	0.034	0.032				
141	0401 0336	Lat	0.027	0.033	1:501283	1:293855	17043.654	
		Lng	0.034	0.033				
		Elv	0.058	0.040				

	<u>Site Pair</u>		<u>Relative Error</u>	<u>Allow. Error</u>	<u>Horizontal Relative Acc</u>	<u>Vertical Relative Acc</u>	<u>Distance</u>	<u>Site Pair QA</u>
142	0501 0307	Lat	0.027	0.029	1:369881	1:342140	13685.633	
		Lng	0.037	0.029				
		Elv	0.040	0.036				
143	0502 0323	Lat	0.013	0.021	1:202460	1:121476	3036.909	
		Lng	0.015	0.021				
		Elv	0.025	0.030				
144	0502 0329	Lat	0.027	0.029	1:381869	1:300620	14129.178	
		Lng	0.037	0.029				
		Elv	0.047	0.037				
145	0503 0330	Lat	0.034	0.030	1:333509	1:254371	15007.921	
		Lng	0.045	0.030				
		Elv	0.059	0.038				
146	0503 0331	Lat	0.026	0.024	1:269760	1:203965	8362.572	
		Lng	0.031	0.024				
		Elv	0.041	0.032				

Control Site Positions

Henry_MTWW_B

Horizontal Coordinate System: State Plane Coordinate 1983 **Date:** 06/08/04
Height System: Ortho. Ht. (GEOID03) **Project file:**
Henry_MTWW_B.spr
Desired Horizontal Accuracy: 0.066USft + 5ppm
Desired Vertical Accuracy: 0.098USft + 5ppm
Confidence Level: 95% Err.
Linear Units of Measure: US Feet

<u>Site ID</u>	<u>Control Site Descriptor</u>	<u>Position</u>	<u>95% Error</u>	<u>Control Type</u>	<u>Fix Status</u>
1 0206	Des Moines Co. Mon.	East. 2228338.955 Nrth. 366713.223 Elev. 775.590	0.000 0.000 0.000	Hor/Ver	Fixed Fixed Fixed
2 0207	Des Moines Co. Mon.	East. 2227858.397 Nrth. 377439.641 Elev. 726.450	0.000 0.000 0.000	Hor/Ver	Fixed Fixed Fixed
3 0208	Des Moines Co. Mon.	East. 2227664.456 Nrth. 387879.354 Elev. 740.260	0.000 0.000 0.000	Hor/Ver	Fixed Fixed Fixed
4 0209	Des Moines Co. Mon.	East. 2227455.891 Nrth. 398478.982 Elev. 724.800	0.000 0.000 0.000	Hor/Ver	Fixed Fixed Fixed
5 0007	Lee Co. Monument	East. 2150833.342 Nrth. 301781.164 Elev. 710.500	0.000 0.000 0.000	Hor/Ver	Fixed Fixed Fixed
6 0158	Van Buren Co. Mon.	East. 2133325.023 Nrth. 301572.345 Elev. 734.980	0.000 0.000 0.000	Hor/Ver	Fixed Fixed Fixed
7 0015	Lee Co. Monument	East. 2165508.876 Nrth. 302184.395 Elev. 666.460	0.000 0.000 0.000	Hor/Ver	Fixed Fixed Fixed
8 0024	Lee Co. Monument	East. 2181446.393 Nrth. 305168.937 Elev. 689.150	0.000 0.000 0.000	Hor/Ver	Fixed Fixed Fixed
9 0034	Lee Co. Monument	East. 2196087.081 Nrth. 302790.529 Elev. 711.310	0.000 0.000 0.000	Hor/Ver	Fixed Fixed Fixed
10 0045	Lee Co. Monument	East. 2213319.064 Nrth. 302997.238 Elev. 689.370	0.000 0.000 0.000	Hor/Ver	Fixed Fixed Fixed

	<u>Site ID</u>	<u>Control Site Descriptor</u>		<u>Position</u>	<u>95% Error</u>	<u>Control Type</u>	<u>Fix Status</u>
11	0200	Des Moines Co. Mon.	East.	2229287.672	0.000	Hor/Ver	Fixed
			Nrth.	304388.142	0.000		Fixed
			Elev.	707.550	0.000		Fixed
12	0201	Des Moines Co. Mon.	East.	2229179.860	0.000	Hor/Ver	Fixed
			Nrth.	315147.155	0.000		Fixed
			Elev.	720.230	0.000		Fixed
13	0159	Van Buren Co. Mon.	East.	2133085.798	0.010	Hor/Ver	Fixed
			Nrth.	320105.222	0.000		Fixed
			Elev.	691.080	0.000		Fixed
14	0160	Van Buren Co. Mon.	East.	2132946.963	0.000	Hor/Ver	Fixed
			Nrth.	333280.289	0.000		Fixed
			Elev.	735.110	0.000		Fixed
15	0165	Washington Co. Mon.	East.	2151349.960	0.000	Hor/Ver	Fixed
			Nrth.	428962.732	0.000		Fixed
			Elev.	731.470	0.000		Fixed
16	0164	Washington Co. Mon.	East.	2132889.752	0.000	Hor/Ver	Fixed
			Nrth.	429061.787	0.000		Fixed
			Elev.	654.760	0.000		Fixed
17	0166	Washington Co. Mon.	East.	2173536.327	0.000	Hor/Ver	Fixed
			Nrth.	429556.887	0.000		Fixed
			Elev.	723.710	0.000		Fixed
18	0167	Washington Co. Mon.	East.	2194949.243	0.000	Hor/Ver	Fixed
			Nrth.	429991.620	0.000		Fixed
			Elev.	691.440	0.000		Fixed
19	0202	Des Moines Co. Mon.	East.	2229346.635	0.000	Hor/Ver	Fixed
			Nrth.	324446.371	0.000		Fixed
			Elev.	730.670	0.000		Fixed
20	0203	Des Moines Co. Mon.	East.	2228700.370	0.000	Hor/Ver	Fixed
			Nrth.	335014.779	0.000		Fixed
			Elev.	740.760	0.000		Fixed
21	0204	Des Moines Co. Mon.	East.	2228507.717	0.000	Hor/Ver	Fixed
			Nrth.	345610.524	0.000		Fixed
			Elev.	746.550	0.000		Fixed
22	0205	Des Moines Co. Mon.	East.	2228171.218	0.000	Hor/Ver	Fixed
			Nrth.	356177.066	0.000		Fixed
			Elev.	766.880	0.000		Fixed
23	0501	USGS "E 126"	East.	2208466.591	0.000	Ver.	
			Nrth.	417548.512	0.000		
			Elev.	727.718	0.000		Fixed

	<u>Site ID</u>	<u>Control Site Descriptor</u>		<u>Position</u>	<u>95% Error</u>	<u>Control Type</u>	<u>Fix Status</u>
24	0502	TBM for USGS "Z 124"	East. Nrth. Elev.	2150698.036 363714.389 622.771	0.000 0.000 0.000	Ver.	Fixed
25	0503	USGS "MT PLEASANT 1"	East. Nrth. Elev.	2177677.665 358136.066 735.920	0.000 0.000 0.000	Ver.	Fixed
26	0402	HARN "JACKSON"	East. Nrth. Elev.	2166456.464 323547.481 716.887	0.000 0.000 0.000	Hor.	Fixed Fixed
27	0401	HARN "MPZ 1"	East. Nrth. Elev.	2189870.788 350484.548 726.045	0.000 0.000 0.000	Hor.	Fixed Fixed

	<u>Site ID</u>	<u>Control Site Descriptor</u>	<u>Convergence</u>	<u>Scale Factor</u>	<u>Elevation Factor</u>
1	0206	Des Moines Co. Mon.	1 24.173	0.99995532	0.99996810
2	0207	Des Moines Co. Mon.	1 24.142	0.99995354	0.99997044
3	0208	Des Moines Co. Mon.	1 24.151	0.99995206	0.99996978
4	0209	Des Moines Co. Mon.	1 24.158	0.99995081	0.99997052
5	0007	Lee Co. Monument	1 12.883	0.99997110	0.99997122
6	0158	Van Buren Co. Mon.	1 10.383	0.99997105	0.99997005
7	0015	Lee Co. Monument	1 14.979	0.99997107	0.99997333
8	0024	Lee Co. Monument	1 17.264	0.99997023	0.99997224
9	0034	Lee Co. Monument	1 19.346	0.99997109	0.99997119
10	0045	Lee Co. Monument	1 21.807	0.99997116	0.99997224
11	0200	Des Moines Co. Mon.	1 24.091	0.99997084	0.99997137
12	0201	Des Moines Co. Mon.	1 24.113	0.99996753	0.99997076
13	0159	Van Buren Co. Mon.	1 10.403	0.99996548	0.99997214
14	0160	Van Buren Co. Mon.	1 10.422	0.99996200	0.99997003
15	0165	Washington Co. Mon.	1 13.344	0.99994859	0.99997018
16	0164	Washington Co. Mon.	1 10.695	0.99994858	0.99997385
17	0166	Washington Co. Mon.	1 16.530	0.99994859	0.99997056
18	0167	Washington Co. Mon.	1 19.604	0.99994859	0.99997210

	<u>Site ID</u>	<u>Control Site Descriptor</u>	<u>Convergence</u>	<u>Scale Factor</u>	<u>Elevation Factor</u>
19	0202	Des Moines Co. Mon.	1 24.169	0.99996488	0.99997026
20	0203	Des Moines Co. Mon.	1 24.114	0.99996210	0.99996977
21	0204	Des Moines Co. Mon.	1 24.123	0.99995958	0.99996949
22	0205	Des Moines Co. Mon.	1 24.112	0.99995732	0.99996852
23	0501	USGS "E 126"	1 21.502	0.99994918	0.99997037
24	0502	TBM for USGS "Z 124"	1 13.052	0.99995554	0.99997540
25	0503	USGS "MT PLEASANT 1"	1 16.895	0.99995669	0.99996999
26	0402	HARN "JACKSON"	1 15.181	0.99996473	0.99997091
27	0401	HARN "MPZ 1"	1 18.615	0.99995831	0.99997045

Control Tie Analysis

Henry_MTWW_B

Coordinate System:	State Plane Coordinate 1983	Date:	06/08/04
Height System:	Ortho. Ht. (GEOID03)	Project file:	
Henry_MTWW_B.spr			
Desired Horizontal Accuracy:	0.066USft + 5ppm		
Desired Vertical Accuracy:	0.098USft + 5ppm		
Confidence Level:	95% Err.		
Linear Units of Measure:	US Feet		

	<u>Site ID</u>	<u>Control Site Descriptor</u>	<u>Control Type</u>	<u>Misclosure</u>		<u>Relative Accuracy</u>	<u>Control QA</u>
1	0206	Des Moines Co. Mon.	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
2	0207	Des Moines Co. Mon.	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
3	0208	Des Moines Co. Mon.	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
4	0209	Des Moines Co. Mon.	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
5	0007	Lee Co. Monument	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
6	0158	Van Buren Co. Mon.	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
7	0015	Lee Co. Monument	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
8	0024	Lee Co. Monument	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
9	0034	Lee Co. Monument	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		
10	0045	Lee Co. Monument	Hor/Ver	East	Fixed		
				Nrth	Fixed		
				Elev	Fixed		

	<u>Site ID</u>	<u>Control Site Descriptor</u>	<u>Control Type</u>	<u>Misclosure</u>		<u>Relative Accuracy</u>	<u>Control QA</u>
11	0200	Des Moines Co. Mon.	Hor/Ver	East Nrth Elev	Fixed Fixed Fixed		
12	0201	Des Moines Co. Mon.	Hor/Ver	East Nrth Elev	Fixed Fixed Fixed		
13	0159	Van Buren Co. Mon.	Hor/Ver	East Nrth Elev	Fixed Fixed Fixed		
14	0160	Van Buren Co. Mon.	Hor/Ver	East Nrth Elev	Fixed Fixed Fixed		
15	0165	Washington Co. Mon.	Hor/Ver	East Nrth Elev	Fixed Fixed Fixed		
16	0164	Washington Co. Mon.	Hor/Ver	East Nrth Elev	Fixed Fixed Fixed		
17	0166	Washington Co. Mon.	Hor/Ver	East Nrth Elev	Fixed Fixed Fixed		
18	0167	Washington Co. Mon.	Hor/Ver	East Nrth Elev	Fixed Fixed Fixed		
19	0202	Des Moines Co. Mon.	Hor/Ver	East Nrth Elev	Fixed Fixed Fixed		
20	0203	Des Moines Co. Mon.	Hor/Ver	East Nrth Elev	Fixed Fixed Fixed		
21	0204	Des Moines Co. Mon.	Hor/Ver	East Nrth Elev	Fixed Fixed Fixed		
22	0205	Des Moines Co. Mon.	Hor/Ver	East Nrth Elev	Fixed Fixed Fixed		
23	0501	USGS "E 126"	Ver.	East Nrth Elev	Fixed	1:7371673 0.000	

	<u>Site</u> <u>ID</u>	<u>Control Site</u> <u>Descriptor</u>	<u>Control</u> <u>Type</u>	<u>Misclosure</u>		<u>Relative</u> <u>Accuracy</u>	<u>Control</u> <u>QA</u>
24	0502	TBM for USGS "Z 124"	Ver.	East Nrth Elev	Fixed	1:2855733 0.000	
25	0503	USGS "MT PLEASANT 1"	Ver.	East Nrth Elev	Fixed	1:1162425 0.000	
26	0402	HARN "JACKSON"	Hor.	East Nrth Elev	Fixed Fixed	0.000 1:365054	
27	0401	HARN "MPZ 1"	Hor.	East Nrth Elev	Fixed Fixed	0.000 1:37039	

Coordinate System Definition Summary

Henry_MTWW_B

Linear Units of Measure: US Feet

Date: 06/08/04

Project file:

Henry_MTWW_B.spr

Local Grid System

Name:

Transformation Parameters:

E Translation	=	0.000m
N Translation	=	0.000m
Z Rotation	=	0.000000"
Scale Diff. (ppm)	=	0.000000
Centroid Easting	=	0.000m
Centroid Northing	=	0.000m

Note: Parameters define transformation from BASE GRID SYSTEM to LOCAL GRID SYSTEM

Geodetic Datum

Name:

North American 1983-CONUS

Reference Ellipsoid:

GRS80
a = 6378137.000m
1/f = 298.257222101

Transformation Parameters:

X Translation	=	0.000m
Y Translation	=	0.000m
Z Translation	=	0.000m
X Rotation	=	0.000000"
Y Rotation	=	0.000000"
Z Rotation	=	0.000000"
Scale Diff. (ppm)	=	0.000000

Note: Parameters define transformation from LOCAL SYSTEM to WGS84

Grid System

Name:

State Plane Coordinate 1983

Projection Type:

LC83

Zone Name:

Iowa (South)

Zone Parameters:

Latitude of Southern Standard parallel	=	40°37'00.00000"N
Latitude of Northern Standard parallel	=	41°47'00.00000"N
Longitude of the grid origin	=	093°30'00.00000"W
Latitude of grid origin	=	40°00'00.00000"N
False easting (m)	=	500000.000 m
False northing (m)	=	0.000 m

Observation Information

Henry_MTWW_B

Time System: UTC
 Linear Units of Measure: US Feet
 Henry_MTWW_B.spr

Date: 06/08/04
 Project file:

	<u>Site ID</u>	<u>Antenna Slant</u>	<u>Antenna Radius</u>	<u>Antenna Offset</u>	<u>Start Time</u>	<u>End Time</u>	<u>File Name</u>
1	0206	0.000	0.000	4.698	9:02:00 PM	9:24:00 PM	B0206O04.133
2	0207	0.000	0.000	5.623	9:00:35 PM	9:27:35 PM	B0207L04.133
3	0207	0.000	0.000	5.623	9:30:05 PM	9:50:40 PM	B0207M04.133
4	0208	0.000	0.000	4.698	9:39:05 PM	9:50:40 PM	B0208P04.133
5	0208	0.000	0.000	4.698	9:51:35 PM	10:17:55 PM	B0208Q04.133
6	0209	0.000	0.000	4.698	10:06:35 PM	10:17:30 PM	B0209O04.133
7	0209	0.000	0.000	4.698	10:33:35 PM	10:50:20 PM	B0209P04.133
8	0302	0.000	0.000	5.623	11:06:25 PM	11:17:25 PM	B0302P04.133
9	0308	0.000	0.000	4.698	11:06:05 PM	11:17:15 PM	B0308Q04.133
10	0309	0.000	0.000	4.698	10:32:35 PM	10:52:05 PM	B0309R04.133
11	0309	0.000	0.000	4.698	10:53:05 PM	11:17:30 PM	B0309S04.133
12	0313	0.000	0.000	4.698	11:33:35 PM	11:47:15 PM	B0313R04.133
13	0314	0.000	0.000	5.623	11:36:05 PM	11:46:55 PM	B0314Q04.133
14	0315	0.000	0.000	5.623	10:04:35 PM	10:20:25 PM	B0315N04.133
15	0315	0.000	0.000	5.623	10:21:35 PM	10:50:15 PM	B0315O04.133
16	0319	0.000	0.000	4.698	11:36:35 PM	11:47:30 PM	B0319T04.133
17	0321	0.000	0.000	4.698	9:11:35 PM	9:23:55 PM	B0321M04.133
18	0321	0.000	0.000	4.698	9:38:15 PM	9:50:35 PM	B0321N04.133
19	0007	0.000	0.000	5.623	6:04:35 PM	6:17:05 PM	#0001
20	0158	0.000	0.000	4.698	6:04:35 PM	6:17:05 PM	#0002
21	0015	0.000	0.000	4.698	6:36:05 PM	6:52:10 PM	#0003
22	0007	0.000	0.000	5.623	6:36:05 PM	6:52:10 PM	#0004

	<u>Site ID</u>	<u>Antenna Slant</u>	<u>Antenna Radius</u>	<u>Antenna Offset</u>	<u>Start Time</u>	<u>End Time</u>	<u>File Name</u>
23	0015	0.000	0.000	4.698	7:06:05 PM	7:22:15 PM	#0005
24	0339	0.000	0.000	5.623	7:06:05 PM	7:22:15 PM	#0006
25	0024	0.000	0.000	4.698	6:38:35 PM	6:52:25 PM	#0007
26	0024	0.000	0.000	4.698	12:51:05 PM	1:21:15 PM	#0008
27	0034	0.000	0.000	5.623	12:51:05 PM	1:21:15 PM	#0009
28	0024	0.000	0.000	4.698	10:03:35 PM	10:15:15 PM	#0010
29	0340	0.000	0.000	5.623	10:03:35 PM	10:15:15 PM	#0011
30	0341	0.000	0.000	4.698	10:02:05 PM	10:15:15 PM	#0012
31	0034	0.000	0.000	5.623	1:43:35 PM	2:01:15 PM	#0013
32	0045	0.000	0.000	4.698	1:43:35 PM	2:01:15 PM	#0014
33	0343	0.000	0.000	4.698	1:45:35 PM	2:01:35 PM	#0015
34	0045	0.000	0.000	4.698	2:23:05 PM	2:34:00 PM	#0016
35	0200	0.000	0.000	5.623	2:23:05 PM	2:34:00 PM	#0017
36	0201	0.000	0.000	4.698	2:15:05 PM	2:34:25 PM	#0018
37	0159	0.000	0.000	4.698	6:04:35 PM	6:17:05 PM	#0019
38	0159	0.000	0.000	4.698	5:32:05 PM	5:45:20 PM	#0020
39	0339	0.000	0.000	4.698	5:32:05 PM	5:45:20 PM	#0021
40	0160	0.000	0.000	5.623	5:28:15 PM	5:45:45 PM	#0022
41	0160	0.000	0.000	5.623	4:58:15 PM	5:11:20 PM	#0023
42	0328	0.000	0.000	4.698	4:58:15 PM	5:11:20 PM	#0024
43	0334	0.000	0.000	4.698	4:58:15 PM	5:11:30 PM	#0025
44	0165	0.000	0.000	5.623	2:28:35 PM	2:46:40 PM	#0026
45	0164	0.000	0.000	4.698	2:28:35 PM	2:46:40 PM	#0027
46	0303	0.000	0.000	4.698	2:34:05 PM	2:46:40 PM	#0028
47	0165	0.000	0.000	4.698	6:46:35 PM	6:56:10 PM	#0029
48	0304	0.000	0.000	5.623	6:46:35 PM	6:56:10 PM	#0030
49	0305	0.000	0.000	4.698	6:46:35 PM	6:56:40 PM	#0031

	<u>Site ID</u>	<u>Antenna Slant</u>	<u>Antenna Radius</u>	<u>Antenna Offset</u>	<u>Start Time</u>	<u>End Time</u>	<u>File Name</u>
50	0166	0.000	0.000	5.623	7:12:35 PM	7:25:15 PM	#0032
51	0165	0.000	0.000	4.698	7:12:35 PM	7:25:15 PM	#0033
52	0166	0.000	0.000	5.623	7:43:35 PM	7:54:20 PM	#0034
53	0167	0.000	0.000	4.698	7:43:35 PM	7:54:20 PM	#0035
54	0305	0.000	0.000	4.698	7:12:35 PM	7:24:15 PM	#0036
55	0306	0.000	0.000	4.698	7:40:35 PM	7:54:20 PM	#0037
56	0201	0.000	0.000	4.698	2:47:05 PM	2:59:15 PM	#0038
57	0343	0.000	0.000	4.698	2:47:05 PM	2:59:15 PM	#0039
58	0202	0.000	0.000	5.623	2:48:35 PM	2:59:30 PM	#0040
59	0202	0.000	0.000	5.623	3:19:50 PM	3:32:20 PM	#0041
60	0203	0.000	0.000	4.698	3:19:50 PM	3:32:20 PM	#0042
61	0204	0.000	0.000	5.623	3:48:35 PM	3:59:15 PM	#0043
62	0203	0.000	0.000	4.698	3:48:35 PM	3:59:15 PM	#0044
63	0204	0.000	0.000	4.698	4:56:05 PM	5:07:20 PM	#0045
64	0205	0.000	0.000	4.698	4:56:05 PM	5:07:20 PM	#0046
65	0333	0.000	0.000	5.623	4:48:05 PM	5:07:40 PM	#0047
66	0338	0.000	0.000	4.698	3:48:35 PM	3:59:15 PM	#0048
67	0205	0.000	0.000	4.698	5:24:05 PM	5:35:00 PM	#0049
68	0206	0.000	0.000	5.623	5:24:05 PM	5:35:00 PM	#0050
69	0301	0.000	0.000	4.698	11:10:05 PM	11:19:50 PM	#0051
70	0167	0.000	0.000	5.623	11:10:05 PM	11:19:50 PM	#0052
71	0301	0.000	0.000	4.698	11:42:05 PM	11:53:15 PM	#0053
72	0302	0.000	0.000	4.698	11:42:05 PM	11:53:15 PM	#0054
73	0307	0.000	0.000	4.698	11:08:05 PM	11:20:15 PM	#0055
74	0501	0.000	0.000	5.623	11:32:35 PM	11:53:20 PM	#0056
75	0303	0.000	0.000	4.698	3:00:35 PM	3:15:30 PM	#0057
76	0304	0.000	0.000	5.623	3:00:35 PM	3:15:30 PM	#0058

	<u>Site ID</u>	<u>Antenna Slant</u>	<u>Antenna Radius</u>	<u>Antenna Offset</u>	<u>Start Time</u>	<u>End Time</u>	<u>File Name</u>
77	0310	0.000	0.000	4.698	3:05:05 PM	3:16:15 PM	#0059
78	0305	0.000	0.000	4.698	6:20:35 PM	6:31:25 PM	#0060
79	0313	0.000	0.000	5.623	6:20:35 PM	6:31:25 PM	#0061
80	0306	0.000	0.000	4.698	8:05:40 PM	8:17:25 PM	#0062
81	0313	0.000	0.000	5.623	8:05:40 PM	8:17:25 PM	#0063
82	0307	0.000	0.000	4.698	8:05:35 PM	8:17:15 PM	#0064
83	0307	0.000	0.000	4.698	10:25:35 PM	10:36:20 PM	#0065
84	0314	0.000	0.000	4.698	10:25:35 PM	10:36:20 PM	#0066
85	0308	0.000	0.000	5.623	10:25:35 PM	10:36:40 PM	#0067
86	0308	0.000	0.000	5.623	10:47:35 PM	10:58:00 PM	#0068
87	0501	0.000	0.000	4.698	10:47:35 PM	10:58:00 PM	#0069
88	0311	0.000	0.000	4.698	3:43:35 PM	3:57:15 PM	#0070
89	0310	0.000	0.000	4.698	3:43:35 PM	3:57:15 PM	#0071
90	0311	0.000	0.000	4.698	5:55:05 PM	6:05:15 PM	#0072
91	0312	0.000	0.000	4.698	5:55:05 PM	6:05:15 PM	#0073
92	0316	0.000	0.000	5.623	3:47:05 PM	3:57:20 PM	#0074
93	0318	0.000	0.000	5.623	5:54:05 PM	6:05:15 PM	#0075
94	0312	0.000	0.000	4.698	6:20:35 PM	6:31:35 PM	#0076
95	0313	0.000	0.000	5.623	8:33:35 PM	8:45:15 PM	#0077
96	0319	0.000	0.000	4.698	8:33:35 PM	8:45:15 PM	#0078
97	0314	0.000	0.000	4.698	8:30:05 PM	8:45:20 PM	#0079
98	0314	0.000	0.000	4.698	9:56:35 PM	10:05:45 PM	#0080
99	0315	0.000	0.000	5.623	9:56:35 PM	10:05:45 PM	#0081
100	0320	0.000	0.000	4.698	9:54:35 PM	10:06:15 PM	#0082
101	0316	0.000	0.000	5.623	4:20:35 PM	4:31:00 PM	#0083
102	0322	0.000	0.000	4.698	4:20:35 PM	4:31:00 PM	#0084
103	0317	0.000	0.000	4.698	4:15:35 PM	4:31:00 PM	#0085

	<u>Site ID</u>	<u>Antenna Slant</u>	<u>Antenna Radius</u>	<u>Antenna Offset</u>	<u>Start Time</u>	<u>End Time</u>	<u>File Name</u>
104	0317	0.000	0.000	4.698	5:29:35 PM	5:40:15 PM	#0086
105	0318	0.000	0.000	5.623	5:29:35 PM	5:40:15 PM	#0087
106	0320	0.000	0.000	5.623	6:32:05 PM	6:47:15 PM	#0088
107	0321	0.000	0.000	4.698	6:32:05 PM	6:47:15 PM	#0089
108	0320	0.000	0.000	4.698	9:29:35 PM	9:40:15 PM	#0090
109	0326	0.000	0.000	5.623	9:29:35 PM	9:40:15 PM	#0091
110	0323	0.000	0.000	5.623	4:46:35 PM	4:58:15 PM	#0092
111	0322	0.000	0.000	4.698	4:46:35 PM	4:58:15 PM	#0093
112	0323	0.000	0.000	4.698	2:10:05 PM	2:25:40 PM	#0094
113	0329	0.000	0.000	4.698	2:10:05 PM	2:25:40 PM	#0095
114	0324	0.000	0.000	4.698	5:19:35 PM	5:40:15 PM	#0096
115	0324	0.000	0.000	5.623	8:59:55 PM	9:13:05 PM	#0097
116	0319	0.000	0.000	4.698	8:59:55 PM	9:13:05 PM	#0098
117	0324	0.000	0.000	4.698	4:46:35 PM	5:15:35 PM	#0099
118	0325	0.000	0.000	4.698	9:01:35 PM	9:13:05 PM	#0100
119	0324	0.000	0.000	4.698	1:01:35 PM	1:13:40 PM	#0101
120	0330	0.000	0.000	5.623	1:01:35 PM	1:13:40 PM	#0102
121	0324	0.000	0.000	4.698	1:25:05 PM	1:47:50 PM	#0103
122	0502	0.000	0.000	5.623	1:25:05 PM	1:47:50 PM	#0104
123	0503	0.000	0.000	4.698	1:01:35 PM	1:14:15 PM	#0105
124	0325	0.000	0.000	4.698	9:28:05 PM	9:40:15 PM	#0106
125	0325	0.000	0.000	4.698	12:25:35 PM	12:41:10 PM	#0107
126	0331	0.000	0.000	5.623	12:25:35 PM	12:41:10 PM	#0108
127	0503	0.000	0.000	4.698	12:20:55 PM	12:41:15 PM	#0109
128	0326	0.000	0.000	5.623	5:53:05 PM	6:08:20 PM	#0110
129	0332	0.000	0.000	4.698	5:53:05 PM	6:08:20 PM	#0111
130	0327	0.000	0.000	4.698	5:22:05 PM	5:35:25 PM	#0112

	<u>Site ID</u>	<u>Antenna Slant</u>	<u>Antenna Radius</u>	<u>Antenna Offset</u>	<u>Start Time</u>	<u>End Time</u>	<u>File Name</u>
131	0327	0.000	0.000	4.698	6:16:05 PM	6:47:15 PM	#0113
132	0327	0.000	0.000	4.698	5:48:35 PM	6:08:20 PM	#0114
133	0328	0.000	0.000	4.698	2:43:05 PM	2:56:15 PM	#0115
134	0322	0.000	0.000	5.623	2:43:05 PM	2:56:15 PM	#0116
135	0329	0.000	0.000	4.698	2:39:35 PM	2:56:30 PM	#0117
136	0329	0.000	0.000	5.623	8:30:05 PM	8:42:00 PM	#0118
137	0334	0.000	0.000	4.698	8:30:05 PM	8:42:00 PM	#0119
138	0331	0.000	0.000	4.698	11:58:35 PM	12:14:05 AM	#0120
139	0332	0.000	0.000	5.623	11:58:35 PM	12:14:05 AM	#0121
140	0333	0.000	0.000	5.623	4:16:05 PM	4:32:15 PM	#0122
141	0337	0.000	0.000	4.698	4:16:05 PM	4:32:15 PM	#0123
142	0335	0.000	0.000	4.698	8:59:35 PM	9:15:25 PM	#0124
143	0330	0.000	0.000	4.698	8:59:35 PM	9:15:25 PM	#0125
144	0335	0.000	0.000	5.623	8:05:35 PM	8:18:30 PM	#0126
145	0334	0.000	0.000	4.698	8:05:35 PM	8:18:30 PM	#0127
146	0335	0.000	0.000	5.623	7:38:05 PM	7:51:25 PM	#0128
147	0402	0.000	0.000	4.698	7:38:05 PM	7:51:25 PM	#0129
148	0336	0.000	0.000	5.623	9:02:35 PM	9:15:25 PM	#0130
149	0336	0.000	0.000	4.698	11:09:05 PM	11:22:15 PM	#0131
150	0337	0.000	0.000	4.698	11:09:05 PM	11:22:15 PM	#0132
151	0336	0.000	0.000	5.623	9:32:35 PM	9:45:05 PM	#0133
152	0341	0.000	0.000	4.698	9:32:35 PM	9:45:05 PM	#0134
153	0342	0.000	0.000	5.623	11:06:35 PM	11:20:00 PM	#0135
154	0402	0.000	0.000	4.698	9:32:35 PM	9:45:05 PM	#0136
155	0337	0.000	0.000	4.698	11:33:35 PM	11:46:40 PM	#0137
156	0331	0.000	0.000	4.698	11:33:35 PM	11:46:40 PM	#0138
157	0332	0.000	0.000	5.623	11:34:05 PM	11:47:20 PM	#0139

	<u>Site ID</u>	<u>Antenna Slant</u>	<u>Antenna Radius</u>	<u>Antenna Offset</u>	<u>Start Time</u>	<u>End Time</u>	<u>File Name</u>
158	0338	0.000	0.000	4.698	3:14:05 PM	3:32:45 PM	#0140
159	0338	0.000	0.000	4.698	4:13:35 PM	4:33:40 PM	#0141
160	0340	0.000	0.000	4.698	7:09:20 PM	7:22:15 PM	#0142
161	0340	0.000	0.000	4.698	7:38:05 PM	7:51:25 PM	#0143
162	0342	0.000	0.000	4.698	12:49:05 PM	1:21:15 PM	#0144
163	0401	0.000	0.000	4.698	12:23:05 AM	12:50:50 AM	#0145
164	0326	0.000	0.000	5.623	12:23:05 AM	12:50:50 AM	#0146
165	0401	0.000	0.000	4.698	12:01:05 AM	12:14:20 AM	#0147
166	0336	0.000	0.000	4.698	12:25:05 AM	12:51:15 AM	#0148
167	0307	0.000	0.000	4.698	10:47:35 PM	10:58:15 PM	#0149
168	0502	0.000	0.000	5.623	2:06:05 PM	2:23:45 PM	#0150

Project Files

Henry_MTWW_B

Time System: UTC

Date: 06/08/04

Project file: Henry_MTWW_B.spr

	<u>File Name</u>	<u>Start Date & Time</u>	<u>End Date & Time</u>	<u>Recording Intrvl (sec)</u>	<u>Epochs</u>	<u>File Size (bytes)</u>	<u>Type</u>
1	B0206O04.133	5/12/2004 9:02:00 PM	5/12/2004	5.0	265	221351	L1/L2 GPS
2	B0207L04.133	5/12/2004 9:00:35 PM	5/12/2004	5.0	336	279846	L1/L2 GPS
3	B0207M04.133	5/12/2004 9:30:05 PM	5/12/2004	5.0	258	216517	L1/L2 GPS
4	B0208P04.133	5/12/2004 9:39:05 PM	5/12/2004	5.0	151	127092	L1/L2 GPS
5	B0208Q04.133	5/12/2004 9:51:35 PM	5/12/2004	5.0	324	270700	L1/L2 GPS
6	B0209O04.133	5/12/2004 10:06:35 PM	5/12/2004	5.0	141	125258	L1/L2 GPS
7	B0209P04.133	5/12/2004 10:33:35 PM	5/12/2004	5.0	211	187566	L1/L2 GPS
8	B0302P04.133	5/12/2004 11:06:25 PM	5/12/2004	5.0	133	118029	L1/L2 GPS
9	B0308Q04.133	5/12/2004 11:06:05 PM	5/12/2004	5.0	141	125743	L1/L2 GPS
10	B0309R04.133	5/12/2004 10:32:35 PM	5/12/2004	5.0	244	215482	L1/L2 GPS
11	B0309S04.133	5/12/2004 10:53:05 PM	5/12/2004	5.0	301	275076	L1/L2 GPS
12	B0313R04.133	5/12/2004 11:33:35 PM	5/12/2004	5.0	172	144116	L1/L2 GPS
13	B0314Q04.133	5/12/2004 11:36:05 PM	5/12/2004	5.0	142	119020	L1/L2 GPS
14	B0315N04.133	5/12/2004 10:04:35 PM	5/12/2004	5.0	198	175734	L1/L2 GPS
15	B0315O04.133	5/12/2004 10:21:35 PM	5/12/2004	5.0	354	297348	L1/L2 GPS
16	B0319T04.133	5/12/2004 11:36:35 PM	5/12/2004	5.0	142	119117	L1/L2 GPS
17	B0321M04.133	5/12/2004 9:11:35 PM	5/12/2004	5.0	160	134679	L1/L2 GPS
18	B0321N04.133	5/12/2004 9:38:15 PM	5/12/2004	5.0	149	125309	L1/L2 GPS
19	#0001	5/11/2004 6:04:35 PM	5/11/2004	0.0	0	0	Unknown
20	#0002	5/11/2004 6:04:35 PM	5/11/2004	0.0	0	0	Unknown

	<u>File Name</u>	<u>Start Date & Time</u>	<u>End Date & Time</u>	<u>Recording Intrvl (sec)</u>	<u>Epochs</u>	<u>File Size (bytes)</u>	<u>Type</u>
21	#0003	5/11/2004 6:36:05 PM	5/11/2004	0.0	0	0	Unknown
22	#0004	5/11/2004 6:36:05 PM	5/11/2004	0.0	0	0	Unknown
23	#0005	5/11/2004 7:06:05 PM	5/11/2004	0.0	0	0	Unknown
24	#0006	5/11/2004 7:06:05 PM	5/11/2004	0.0	0	0	Unknown
25	#0007	5/11/2004 6:38:35 PM	5/11/2004	0.0	0	0	Unknown
26	#0008	5/12/2004 12:51:05 PM	5/12/2004	0.0	0	0	Unknown
27	#0009	5/12/2004 12:51:05 PM	5/12/2004	0.0	0	0	Unknown
28	#0010	5/11/2004 10:03:35 PM	5/11/2004	0.0	0	0	Unknown
29	#0011	5/11/2004 10:03:35 PM	5/11/2004	0.0	0	0	Unknown
30	#0012	5/11/2004 10:02:05 PM	5/11/2004	0.0	0	0	Unknown
31	#0013	5/12/2004 1:43:35 PM	5/12/2004	0.0	0	0	Unknown
32	#0014	5/12/2004 1:43:35 PM	5/12/2004	0.0	0	0	Unknown
33	#0015	5/12/2004 1:45:35 PM	5/12/2004	0.0	0	0	Unknown
34	#0016	5/12/2004 2:23:05 PM	5/12/2004	0.0	0	0	Unknown
35	#0017	5/12/2004 2:23:05 PM	5/12/2004	0.0	0	0	Unknown
36	#0018	5/12/2004 2:15:05 PM	5/12/2004	0.0	0	0	Unknown
37	#0019	5/11/2004 6:04:35 PM	5/11/2004	0.0	0	0	Unknown
38	#0020	5/11/2004 5:32:05 PM	5/11/2004	0.0	0	0	Unknown
39	#0021	5/11/2004 5:32:05 PM	5/11/2004	0.0	0	0	Unknown
40	#0022	5/11/2004 5:28:15 PM	5/11/2004	0.0	0	0	Unknown
41	#0023	5/11/2004 4:58:15 PM	5/11/2004	0.0	0	0	Unknown
42	#0024	5/11/2004 4:58:15 PM	5/11/2004	0.0	0	0	Unknown

	<u>File Name</u>	<u>Start Date & Time</u>	<u>End Date & Time</u>	<u>Recording Intrvl (sec)</u>	<u>Epochs</u>	<u>File Size (bytes)</u>	<u>Type</u>
43	#0025	5/11/2004 4:58:15 PM	5/11/2004	0.0	0	0	Unknown
44	#0026	5/10/2004 2:28:35 PM	5/10/2004	0.0	0	0	Unknown
45	#0027	5/10/2004 2:28:35 PM	5/10/2004	0.0	0	0	Unknown
46	#0028	5/10/2004 2:34:05 PM	5/10/2004	0.0	0	0	Unknown
47	#0029	5/10/2004 6:46:35 PM	5/10/2004	0.0	0	0	Unknown
48	#0030	5/10/2004 6:46:35 PM	5/10/2004	0.0	0	0	Unknown
49	#0031	5/10/2004 6:46:35 PM	5/10/2004	0.0	0	0	Unknown
50	#0032	5/10/2004 7:12:35 PM	5/10/2004	0.0	0	0	Unknown
51	#0033	5/10/2004 7:12:35 PM	5/10/2004	0.0	0	0	Unknown
52	#0034	5/10/2004 7:43:35 PM	5/10/2004	0.0	0	0	Unknown
53	#0035	5/10/2004 7:43:35 PM	5/10/2004	0.0	0	0	Unknown
54	#0036	5/10/2004 7:12:35 PM	5/10/2004	0.0	0	0	Unknown
55	#0037	5/10/2004 7:40:35 PM	5/10/2004	0.0	0	0	Unknown
56	#0038	5/12/2004 2:47:05 PM	5/12/2004	0.0	0	0	Unknown
57	#0039	5/12/2004 2:47:05 PM	5/12/2004	0.0	0	0	Unknown
58	#0040	5/12/2004 2:48:35 PM	5/12/2004	0.0	0	0	Unknown
59	#0041	5/12/2004 3:19:50 PM	5/12/2004	0.0	0	0	Unknown
60	#0042	5/12/2004 3:19:50 PM	5/12/2004	0.0	0	0	Unknown
61	#0043	5/12/2004 3:48:35 PM	5/12/2004	0.0	0	0	Unknown
62	#0044	5/12/2004 3:48:35 PM	5/12/2004	0.0	0	0	Unknown
63	#0045	5/12/2004 4:56:05 PM	5/12/2004	0.0	0	0	Unknown
64	#0046	5/12/2004 4:56:05 PM	5/12/2004	0.0	0	0	Unknown
65	#0047	5/12/2004 4:48:05 PM	5/12/2004	0.0	0	0	Unknown

	<u>File Name</u>	<u>Start Date & Time</u>	<u>End Date & Time</u>	<u>Recording Intrvl (sec)</u>	<u>Epochs</u>	<u>File Size (bytes)</u>	<u>Type</u>
66	#0048	5/12/2004 3:48:35 PM	5/12/2004	0.0	0	0	Unknown
67	#0049	5/12/2004 5:24:05 PM	5/12/2004	0.0	0	0	Unknown
68	#0050	5/12/2004 5:24:05 PM	5/12/2004	0.0	0	0	Unknown
69	#0051	5/10/2004 11:10:05 PM	5/10/2004	0.0	0	0	Unknown
70	#0052	5/10/2004 11:10:05 PM	5/10/2004	0.0	0	0	Unknown
71	#0053	5/10/2004 11:42:05 PM	5/10/2004	0.0	0	0	Unknown
72	#0054	5/10/2004 11:42:05 PM	5/10/2004	0.0	0	0	Unknown
73	#0055	5/10/2004 11:08:05 PM	5/10/2004	0.0	0	0	Unknown
74	#0056	5/10/2004 11:32:35 PM	5/10/2004	0.0	0	0	Unknown
75	#0057	5/10/2004 3:00:35 PM	5/10/2004	0.0	0	0	Unknown
76	#0058	5/10/2004 3:00:35 PM	5/10/2004	0.0	0	0	Unknown
77	#0059	5/10/2004 3:05:05 PM	5/10/2004	0.0	0	0	Unknown
78	#0060	5/10/2004 6:20:35 PM	5/10/2004	0.0	0	0	Unknown
79	#0061	5/10/2004 6:20:35 PM	5/10/2004	0.0	0	0	Unknown
80	#0062	5/10/2004 8:05:40 PM	5/10/2004	0.0	0	0	Unknown
81	#0063	5/10/2004 8:05:40 PM	5/10/2004	0.0	0	0	Unknown
82	#0064	5/10/2004 8:05:35 PM	5/10/2004	0.0	0	0	Unknown
83	#0065	5/10/2004 10:25:35 PM	5/10/2004	0.0	0	0	Unknown
84	#0066	5/10/2004 10:25:35 PM	5/10/2004	0.0	0	0	Unknown
85	#0067	5/10/2004 10:25:35 PM	5/10/2004	0.0	0	0	Unknown
86	#0068	5/10/2004 10:47:35 PM	5/10/2004	0.0	0	0	Unknown
87	#0069	5/10/2004 10:47:35 PM	5/10/2004	0.0	0	0	Unknown

	<u>File Name</u>	<u>Start Date & Time</u>	<u>End Date & Time</u>	<u>Recording Intrvl (sec)</u>	<u>Epochs</u>	<u>File Size (bytes)</u>	<u>Type</u>
88	#0070	5/10/2004 3:43:35 PM	5/10/2004	0.0	0	0	Unknown
89	#0071	5/10/2004 3:43:35 PM	5/10/2004	0.0	0	0	Unknown
90	#0072	5/10/2004 5:55:05 PM	5/10/2004	0.0	0	0	Unknown
91	#0073	5/10/2004 5:55:05 PM	5/10/2004	0.0	0	0	Unknown
92	#0074	5/10/2004 3:47:05 PM	5/10/2004	0.0	0	0	Unknown
93	#0075	5/10/2004 5:54:05 PM	5/10/2004	0.0	0	0	Unknown
94	#0076	5/10/2004 6:20:35 PM	5/10/2004	0.0	0	0	Unknown
95	#0077	5/10/2004 8:33:35 PM	5/10/2004	0.0	0	0	Unknown
96	#0078	5/10/2004 8:33:35 PM	5/10/2004	0.0	0	0	Unknown
97	#0079	5/10/2004 8:30:05 PM	5/10/2004	0.0	0	0	Unknown
98	#0080	5/10/2004 9:56:35 PM	5/10/2004	0.0	0	0	Unknown
99	#0081	5/10/2004 9:56:35 PM	5/10/2004	0.0	0	0	Unknown
100	#0082	5/10/2004 9:54:35 PM	5/10/2004	0.0	0	0	Unknown
101	#0083	5/10/2004 4:20:35 PM	5/10/2004	0.0	0	0	Unknown
102	#0084	5/10/2004 4:20:35 PM	5/10/2004	0.0	0	0	Unknown
103	#0085	5/10/2004 4:15:35 PM	5/10/2004	0.0	0	0	Unknown
104	#0086	5/10/2004 5:29:35 PM	5/10/2004	0.0	0	0	Unknown
105	#0087	5/10/2004 5:29:35 PM	5/10/2004	0.0	0	0	Unknown
106	#0088	5/12/2004 6:32:05 PM	5/12/2004	0.0	0	0	Unknown
107	#0089	5/12/2004 6:32:05 PM	5/12/2004	0.0	0	0	Unknown
108	#0090	5/10/2004 9:29:35 PM	5/10/2004	0.0	0	0	Unknown
109	#0091	5/10/2004 9:29:35 PM	5/10/2004	0.0	0	0	Unknown
110	#0092	5/10/2004 4:46:35 PM	5/10/2004	0.0	0	0	Unknown

	<u>File Name</u>	<u>Start Date & Time</u>	<u>End Date & Time</u>	<u>Recording Intrvl (sec)</u>	<u>Epochs</u>	<u>File Size (bytes)</u>	<u>Type</u>
111	#0093	5/10/2004 4:46:35 PM	5/10/2004	0.0	0	0	Unknown
112	#0094	5/11/2004 2:10:05 PM	5/11/2004	0.0	0	0	Unknown
113	#0095	5/11/2004 2:10:05 PM	5/11/2004	0.0	0	0	Unknown
114	#0096	5/10/2004 5:19:35 PM	5/10/2004	0.0	0	0	Unknown
115	#0097	5/10/2004 8:59:55 PM	5/10/2004	0.0	0	0	Unknown
116	#0098	5/10/2004 8:59:55 PM	5/10/2004	0.0	0	0	Unknown
117	#0099	5/10/2004 4:46:35 PM	5/10/2004	0.0	0	0	Unknown
118	#0100	5/10/2004 9:01:35 PM	5/10/2004	0.0	0	0	Unknown
119	#0101	5/11/2004 1:01:35 PM	5/11/2004	0.0	0	0	Unknown
120	#0102	5/11/2004 1:01:35 PM	5/11/2004	0.0	0	0	Unknown
121	#0103	5/11/2004 1:25:05 PM	5/11/2004	0.0	0	0	Unknown
122	#0104	5/11/2004 1:25:05 PM	5/11/2004	0.0	0	0	Unknown
123	#0105	5/11/2004 1:01:35 PM	5/11/2004	0.0	0	0	Unknown
124	#0106	5/10/2004 9:28:05 PM	5/10/2004	0.0	0	0	Unknown
125	#0107	5/11/2004 12:25:35 PM	5/11/2004	0.0	0	0	Unknown
126	#0108	5/11/2004 12:25:35 PM	5/11/2004	0.0	0	0	Unknown
127	#0109	5/11/2004 12:20:55 PM	5/11/2004	0.0	0	0	Unknown
128	#0110	5/12/2004 5:53:05 PM	5/12/2004	0.0	0	0	Unknown
129	#0111	5/12/2004 5:53:05 PM	5/12/2004	0.0	0	0	Unknown
130	#0112	5/12/2004 5:22:05 PM	5/12/2004	0.0	0	0	Unknown
131	#0113	5/12/2004 6:16:05 PM	5/12/2004	0.0	0	0	Unknown
132	#0114	5/12/2004 5:48:35 PM	5/12/2004	0.0	0	0	Unknown

	<u>File Name</u>	<u>Start Date & Time</u>	<u>End Date & Time</u>	<u>Recording Intrvl (sec)</u>	<u>Epochs</u>	<u>File Size (bytes)</u>	<u>Type</u>
133	#0115	5/11/2004 2:43:05 PM	5/11/2004	0.0	0	0	Unknown
134	#0116	5/11/2004 2:43:05 PM	5/11/2004	0.0	0	0	Unknown
135	#0117	5/11/2004 2:39:35 PM	5/11/2004	0.0	0	0	Unknown
136	#0118	5/11/2004 8:30:05 PM	5/11/2004	0.0	0	0	Unknown
137	#0119	5/11/2004 8:30:05 PM	5/11/2004	0.0	0	0	Unknown
138	#0120	5/11/2004 11:58:35 PM	5/12/2004	0.0	0	0	Unknown
139	#0121	5/11/2004 11:58:35 PM	5/12/2004	0.0	0	0	Unknown
140	#0122	5/12/2004 4:16:05 PM	5/12/2004	0.0	0	0	Unknown
141	#0123	5/12/2004 4:16:05 PM	5/12/2004	0.0	0	0	Unknown
142	#0124	5/11/2004 8:59:35 PM	5/11/2004	0.0	0	0	Unknown
143	#0125	5/11/2004 8:59:35 PM	5/11/2004	0.0	0	0	Unknown
144	#0126	5/11/2004 8:05:35 PM	5/11/2004	0.0	0	0	Unknown
145	#0127	5/11/2004 8:05:35 PM	5/11/2004	0.0	0	0	Unknown
146	#0128	5/11/2004 7:38:05 PM	5/11/2004	0.0	0	0	Unknown
147	#0129	5/11/2004 7:38:05 PM	5/11/2004	0.0	0	0	Unknown
148	#0130	5/11/2004 9:02:35 PM	5/11/2004	0.0	0	0	Unknown
149	#0131	5/11/2004 11:09:05 PM	5/11/2004	0.0	0	0	Unknown
150	#0132	5/11/2004 11:09:05 PM	5/11/2004	0.0	0	0	Unknown
151	#0133	5/11/2004 9:32:35 PM	5/11/2004	0.0	0	0	Unknown
152	#0134	5/11/2004 9:32:35 PM	5/11/2004	0.0	0	0	Unknown
153	#0135	5/11/2004 11:06:35 PM	5/11/2004	0.0	0	0	Unknown
154	#0136	5/11/2004 9:32:35 PM	5/11/2004	0.0	0	0	Unknown
155	#0137	5/11/2004 11:33:35 PM	5/11/2004	0.0	0	0	Unknown

	<u>File Name</u>	<u>Start Date & Time</u>	<u>End Date & Time</u>	<u>Recording Intrvl (sec)</u>	<u>Epochs</u>	<u>File Size (bytes)</u>	<u>Type</u>
156	#0138	5/11/2004 11:33:35 PM	5/11/2004	0.0	0	0	Unknown
157	#0139	5/11/2004 11:34:05 PM	5/11/2004	0.0	0	0	Unknown
158	#0140	5/12/2004 3:14:05 PM	5/12/2004	0.0	0	0	Unknown
159	#0141	5/12/2004 4:13:35 PM	5/12/2004	0.0	0	0	Unknown
160	#0142	5/11/2004 7:09:20 PM	5/11/2004	0.0	0	0	Unknown
161	#0143	5/11/2004 7:38:05 PM	5/11/2004	0.0	0	0	Unknown
162	#0144	5/12/2004 12:49:05 PM	5/12/2004	0.0	0	0	Unknown
163	#0145	5/12/2004 12:23:05 AM	5/12/2004	0.0	0	0	Unknown
164	#0146	5/12/2004 12:23:05 AM	5/12/2004	0.0	0	0	Unknown
165	#0147	5/12/2004 12:01:05 AM	5/12/2004	0.0	0	0	Unknown
166	#0148	5/12/2004 12:25:05 AM	5/12/2004	0.0	0	0	Unknown
167	#0149	5/10/2004 10:47:35 PM	5/10/2004	0.0	0	0	Unknown
168	#0150	5/11/2004 2:06:05 PM	5/11/2004	0.0	0	0	Unknown

Repeat Vector Analysis

Henry_MTWW_B

Desired Horizontal Accuracy: 0.066USft + 5ppm

Date: 06/08/04

Desired Vertical Accuracy: 0.098USft + 5ppm

Project file:

Henry_MTWW_B.spr

Confidence Level: 95% Err.

Linear Units of Measure: US Feet

	<u>Repeat Vector</u>		<u>Vector Difference</u>	<u>Vector Length</u>	<u>Horizontal Relatv Acc</u>	<u>Vertical Relatv Acc</u>	<u>Repeat QA</u>
1	0209-0315	5/12 22:06 5/12 22:33	X: -0.001 Y: -0.034 Z: 0.028	15896.757	1:137912394	1:363983	
2	0313-0314	5/12 23:36 5/10 20:30	X: 0.014 Y: -0.152 Z: 0.171	16155.486	1:551315	1:71416	Fail
3	0313-0319	5/12 23:36 5/10 20:33	X: -0.033 Y: -0.100 Z: 0.091	15878.774	1:7112348	1:116802	Fail
4	0319-0314	5/12 23:36 5/10 20:33	X: 0.042 Y: -0.044 Z: 0.069	22427.853	1:523679	1:288226	

Processed Vectors

Henry_MTWW_B

Vector Stage: Processed
Horizontal Coordinate System: State Plane Coordinate 1983
Henry_MTWW_B.spr
Height System: Ortho. Ht. (GEOID03)
Desired Horizontal Accuracy: 0.066USft + 5ppm
Desired Vertical Accuracy: 0.098USft + 5ppm
Confidence Level: 95% Err.
Linear Units of Measure: US Feet

Date: 06/08/04
Project file:

Vector Identifier			Vector Length	95% Error	Vector Components			95% Error	Process QA	SVs	PDOP	Meas. Type
1	0315-0208	5/12 22:04	19209.148	0.079	X	15668.193	0.043	0.047		9	1.3	L1/L2 GPS
					Y	-7525.131	0.047					
					Z	-8177.500	0.046					
2	0209-0315	5/12 22:33	15896.757	0.063	X	-15885.973	0.035	0.036		9	1.2	L1/L2 GPS
					Y	552.679	0.036					
					Z	193.094	0.038					
3	0315-0309	5/12 22:32	22329.251	0.084	X	16195.150	0.047	0.048		9	1.2	L1/L2 GPS
					Y	9895.442	0.048					
					Z	11764.045	0.050					
4	0207-0206	5/12 21:02	10738.106	0.045	X	48.472	0.024	0.026		8	1.5	L1/L2 GPS
					Y	-7083.708	0.026					
					Z	-8070.047	0.028					
5	0207-0208	5/12 21:39	10442.286	0.044	X	225.364	0.023	0.026		8	1.4	L1/L2 GPS
					Y	6840.958	0.026					
					Z	7886.181	0.026					
6	0207-0321	5/12 21:38	16815.015	0.067	X	-15825.659	0.036	0.039		8	1.4	L1/L2 GPS
					Y	3946.414	0.039					
					Z	4088.893	0.040					
7	0208-0321	5/12 21:39	16746.138	0.065	X	-16051.024	0.035	0.038		8	1.4	L1/L2 GPS
					Y	-2894.545	0.038					
					Z	-3797.287	0.038					
8	0209-0208	5/12 22:06	10602.513	0.043	X	-217.780	0.023	0.026		9	1.3	L1/L2 GPS
					Y	-6972.489	0.026					
					Z	-7984.375	0.025					
9	0209-0309	5/12 22:33	15881.812	0.063	X	309.177	0.035	0.036		9	1.2	L1/L2 GPS
					Y	10448.119	0.036					
					Z	11957.138	0.038					
10	0309-0302	5/12 23:06	15853.779	0.060	X	302.917	0.033	0.034		9	1.3	L1/L2 GPS
					Y	10406.623	0.034					
					Z	11956.285	0.036					
11	0309-0308	5/12 23:06	14765.410	0.056	X	-14750.521	0.031	0.032		9	1.3	L1/L2 GPS
					Y	605.868	0.032					
					Z	269.021	0.034					
12	0206-0321	5/12 21:11	22836.193	0.085	X	-15874.118	0.047	0.049		8	1.5	L1/L2 GPS
					Y	11030.113	0.049					
					Z	12158.977	0.051					
13	0313-0314	5/12 23:36	16155.486	0.061	X	16147.063	0.034	0.036		8	1.4	L1/L2 GPS
					Y	-515.231	0.036					
					Z	-81.270	0.037					

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>95% Error</u>		<u>Vector Components</u>	<u>95% Error</u>	<u>Process QA</u>	<u>SVs</u>	<u>PDOP</u>	<u>Meas. Type</u>
14	0313-0319	5/12 23:36	15878.774	0.060	X	-79.247	0.033		8	1.4	L1/L2 GPS
					Y	-10421.074	0.035				
					Z	-11980.418	0.036				
15	0302-0308	5/12 23:06	21430.173	0.079	X	-15053.432	0.044		8	1.4	L1/L2 GPS
					Y	-9800.726	0.046				
					Z	-11687.269	0.047				
16	0319-0314	5/12 23:36	22427.853	0.084	X	16226.311	0.047		8	1.4	L1/L2 GPS
					Y	9905.843	0.049				
					Z	11899.147	0.050				
17	0007-0158	5/11 18:04	17510.559	0.075	X	-17499.797	0.038		7	0.0	Unknown
					Y	598.962	0.042				
					Z	134.177	0.049				
18	0015-0007	5/11 18:36	14681.915	0.058	X	-14678.230	0.031		9	0.0	Unknown
					Y	326.782	0.034				
					Z	-37.389	0.035				
19	0015-0339	5/11 19:06	22481.455	0.096	X	-15661.506	0.050		9	0.0	Unknown
					Y	10786.625	0.058				
					Z	11990.904	0.058				
20	0024-0015	5/11 18:38	16215.499	0.064	X	-16041.328	0.035		9	0.0	Unknown
					Y	-1262.524	0.038				
					Z	-2006.044	0.038				
21	0024-0034	5/12 12:51	14833.471	0.058	X	14531.006	0.032		8	0.0	Unknown
					Y	-2174.900	0.034				
					Z	-2037.526	0.035				
22	0024-0341	5/11 22:02	13168.447	0.059	X	-248.276	0.031		7	0.0	Unknown
					Y	8679.071	0.035				
					Z	9900.509	0.036				
23	0034-0045	5/12 13:43	17234.196	0.067	X	17224.588	0.037		8	0.0	Unknown
					Y	-551.618	0.039				
					Z	-163.717	0.040				
24	0034-0343	5/12 13:45	20481.055	0.079	X	14864.806	0.044		8	0.0	Unknown
					Y	8985.672	0.045				
					Z	10852.135	0.047				
25	0045-0200	5/12 14:23	16029.985	0.062	X	16009.371	0.034		9	0.0	Unknown
					Y	252.005	0.036				
					Z	772.634	0.038				
26	0045-0201	5/12 14:15	19980.812	0.077	X	16332.941	0.042		9	0.0	Unknown
					Y	7271.175	0.044				
					Z	8921.766	0.047				
27	0045-0343	5/12 13:45	14760.672	0.060	X	-2359.780	0.032		8	0.0	Unknown
					Y	9537.283	0.035				
					Z	11015.857	0.036				
28	0159-0007	5/11 18:04	25511.244	0.101	X	16995.002	0.053		7	0.0	Unknown
					Y	-12743.208	0.057				
					Z	-14128.133	0.064				
29	0159-0158	5/11 18:04	18535.596	0.077	X	-504.798	0.040		7	0.0	Unknown
					Y	-12144.250	0.043				
					Z	-13993.952	0.050				
30	0159-0339	5/11 17:32	16309.482	0.066	X	16011.745	0.035		9	0.0	Unknown
					Y	-2283.324	0.040				
					Z	-2099.916	0.040				

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>95% Error</u>		<u>Vector Components</u>	<u>95% Error</u>	<u>Process QA</u>	<u>SVs</u>	<u>PDOP</u>	<u>Meas. Type</u>
31	0160-0159	5/11 17:28	13176.706	0.055	X	-388.569	0.029		9	0.0	Unknown
					Y	-8582.661	0.033				
					Z	-9990.622	0.033				
32	0160-0328	5/11 16:58	16030.263	0.065	X	422.188	0.034		8	0.0	Unknown
					Y	10519.454	0.039				
					Z	12088.514	0.039				
33	0160-0334	5/11 16:58	16149.392	0.069	X	15969.951	0.035		8	0.0	Unknown
					Y	1344.961	0.042				
					Z	1988.622	0.041				
34	0160-0339	5/11 17:32	22546.275	0.090	X	15623.177	0.048		9	0.0	Unknown
					Y	-10865.994	0.053				
					Z	-12090.535	0.054				
35	0165-0164	5/10 14:28	18462.059	0.081	X	-18436.544	0.042		9	0.0	Unknown
					Y	917.650	0.047				
					Z	315.237	0.052				
36	0165-0303	5/10 14:34	23076.271	0.089	X	-17608.427	0.049		9	0.0	Unknown
					Y	-9513.186	0.051				
					Z	-11487.248	0.054				
37	0165-0304	5/10 18:46	16013.943	0.066	X	-4323.934	0.035		8	0.0	Unknown
					Y	-10042.917	0.038				
					Z	-11699.991	0.041				
38	0165-0305	5/10 18:46	19427.202	0.076	X	11478.990	0.041		8	0.0	Unknown
					Y	-10494.271	0.044				
					Z	-11641.273	0.046				
39	0166-0165	5/10 19:12	22196.073	0.085	X	-22189.299	0.046		10	0.0	Unknown
					Y	542.755	0.050				
					Z	-78.035	0.050				
40	0166-0167	5/10 19:43	21419.021	0.086	X	21411.097	0.047		9	0.0	Unknown
					Y	-579.464	0.050				
					Z	-60.179	0.052				
41	0166-0305	5/10 19:12	18737.297	0.074	X	-10710.322	0.040		9	0.0	Unknown
					Y	-9951.494	0.044				
					Z	-11719.346	0.044				
42	0166-0306	5/10 19:40	16373.733	0.068	X	4807.477	0.037		9	0.0	Unknown
					Y	-10382.809	0.040				
					Z	-11712.582	0.042				
43	0201-0200	5/12 14:23	10760.207	0.045	X	-323.574	0.024		9	0.0	Unknown
					Y	-7019.193	0.026				
					Z	-8149.127	0.029				
44	0201-0343	5/12 14:47	18945.681	0.072	X	-18692.735	0.040		9	0.0	Unknown
					Y	2266.057	0.041				
					Z	2094.148	0.044				
45	0202-0201	5/12 14:48	9301.287	0.040	X	-539.470	0.021		9	0.0	Unknown
					Y	-6060.135	0.023				
					Z	-7035.458	0.025				
46	0202-0203	5/12 15:19	10588.839	0.044	X	-221.806	0.023		8	0.0	Unknown
					Y	6925.872	0.025				
					Z	8006.661	0.028				
47	0202-0343	5/12 14:48	20216.064	0.077	X	-19232.205	0.042		9	0.0	Unknown
					Y	-3794.079	0.044				
					Z	-4941.306	0.046				

	<u>Vector Identifier</u>			<u>Vector Length</u>	<u>95% Error</u>		<u>Vector Components</u>	<u>95% Error</u>	<u>Process QA</u>	<u>SVs</u>	<u>PDOP</u>	<u>Meas. Type</u>
48	0204-0203	5/12	15:48	10598.235	0.045	X	-232.685	0.024		9	0.0	Unknown
						Y	-6932.903	0.027				
						Z	-8012.696	0.027				
49	0204-0205	5/12	16:56	10572.703	0.045	X	87.597	0.023		9	0.0	Unknown
						Y	6912.733	0.027				
						Z	7999.281	0.028				
50	0204-0333	5/12	16:48	16738.107	0.065	X	-15756.820	0.035		9	0.0	Unknown
						Y	3925.669	0.039				
						Z	4059.064	0.039				
51	0204-0338	5/12	15:48	18784.514	0.073	X	-16127.641	0.040		9	0.0	Unknown
						Y	-6086.801	0.043				
						Z	-7463.780	0.043				
52	0205-0206	5/12	17:24	10538.227	0.050	X	590.469	0.025		9	0.0	Unknown
						Y	6885.343	0.030				
						Z	7955.980	0.030				
53	0301-0167	5/10	23:10	14247.348	0.055	X	-14233.769	0.030		9	0.0	Unknown
						Y	586.676	0.031				
						Z	206.261	0.034				
54	0301-0302	5/10	23:42	17599.032	0.068	X	17588.038	0.037		8	0.0	Unknown
						Y	-596.189	0.039				
						Z	-177.252	0.041				
55	0301-0307	5/10	23:08	21101.766	0.079	X	-14629.678	0.044		9	0.0	Unknown
						Y	-9780.416	0.045				
						Z	-11644.763	0.047				
56	0301-0501	5/10	23:32	12496.863	0.051	X	-1229.779	0.028		8	0.0	Unknown
						Y	-8169.140	0.030				
						Z	-9376.801	0.031				
57	0303-0164	5/10	14:34	15772.969	0.073	X	-828.108	0.037		9	0.0	Unknown
						Y	10430.845	0.042				
						Z	11802.469	0.047				
58	0303-0304	5/10	15:00	13296.717	0.059	X	13284.457	0.030		9	0.0	Unknown
						Y	-529.718	0.033				
						Z	-212.791	0.038				
59	0303-0310	5/10	15:05	16546.838	0.067	X	-3015.417	0.036		9	0.0	Unknown
						Y	-10545.872	0.038				
						Z	-12389.096	0.042				
60	0304-0310	5/10	15:05	22677.564	0.089	X	-16299.874	0.048		9	0.0	Unknown
						Y	-10016.125	0.051				
						Z	-12176.341	0.055				
61	0305-0304	5/10	18:46	15809.474	0.064	X	-15802.920	0.034		9	0.0	Unknown
						Y	451.358	0.038				
						Z	-58.722	0.039				
62	0305-0313	5/10	18:20	22457.180	0.087	X	15258.416	0.047		7	0.0	Unknown
						Y	-11068.155	0.050				
						Z	-12206.622	0.054				
63	0306-0167	5/10	19:43	22529.175	0.089	X	16603.607	0.049		9	0.0	Unknown
						Y	9803.336	0.052				
						Z	11652.407	0.054				
64	0306-0313	5/10	20:05	16198.130	0.070	X	-259.318	0.037		9	0.0	Unknown
						Y	-10636.921	0.041				
						Z	-12213.438	0.043				

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>95% Error</u>		<u>Vector Components</u>	<u>95% Error</u>	<u>Process QA</u>	<u>SVs</u>	<u>PDOP</u>	<u>Meas. Type</u>
65	0307-0167	5/10 23:10	15750.556	0.060	X	395.912	0.033		9	0.0	Unknown
					Y	10367.087	0.034				
					Z	11851.025	0.036				
66	0307-0306	5/10 20:05	16218.785	0.068	X	-16207.766	0.036		9	0.0	Unknown
					Y	563.784	0.039				
					Z	198.620	0.041				
67	0307-0313	5/10 20:05	22737.388	0.090	X	-16467.084	0.049		9	0.0	Unknown
					Y	-10073.139	0.052				
					Z	-12014.818	0.054				
68	0307-0314	5/10 22:25	16078.846	0.065	X	-320.117	0.035		8	0.0	Unknown
					Y	-10588.263	0.038				
					Z	-12096.095	0.038				
69	0308-0307	5/10 22:25	17176.807	0.066	X	-17164.329	0.036		8	0.0	Unknown
					Y	616.653	0.039				
					Z	219.654	0.039				
70	0308-0314	5/10 22:18	23370.677	0.089	X	-17484.432	0.049		9	0.0	Unknown
					Y	-9971.629	0.053				
					Z	-11876.437	0.052				
71	0308-0501	5/10 22:47	5032.173	0.031	X	-3764.453	0.014		7	0.0	Unknown
					Y	2228.014	0.017				
					Z	2487.491	0.021				
72	0311-0310	5/10 15:43	16007.814	0.062	X	-15809.909	0.034		9	0.0	Unknown
					Y	1974.452	0.036				
					Z	1548.678	0.037				
73	0311-0312	5/10 17:55	15900.161	0.062	X	15877.912	0.033		8	0.0	Unknown
					Y	261.115	0.036				
					Z	799.291	0.039				
74	0311-0316	5/10 15:47	23033.927	0.087	X	-16527.993	0.048		8	0.0	Unknown
					Y	-10241.219	0.052				
					Z	-12349.278	0.051				
75	0311-0318	5/10 17:54	22274.610	0.087	X	15584.996	0.046		8	0.0	Unknown
					Y	-10694.563	0.049				
					Z	-11785.265	0.054				
76	0312-0305	5/10 18:20	17203.600	0.069	X	414.970	0.036		7	0.0	Unknown
					Y	11278.050	0.039				
					Z	12984.500	0.043				
77	0312-0313	5/10 18:20	15694.081	0.065	X	15673.386	0.033		7	0.0	Unknown
					Y	209.894	0.037				
					Z	777.878	0.041				
78	0312-0318	5/10 17:55	16687.822	0.067	X	-292.920	0.035		8	0.0	Unknown
					Y	-10955.700	0.038				
					Z	-12584.524	0.042				
79	0314-0315	5/10 21:56	16049.240	0.072	X	16039.736	0.037		8	0.0	Unknown
					Y	-529.596	0.043				
					Z	-156.610	0.044				
80	0314-0320	5/10 21:54	15873.242	0.077	X	-249.419	0.039		8	0.0	Unknown
					Y	-10411.591	0.046				
					Z	-11978.996	0.047				
81	0316-0310	5/10 15:47	18517.329	0.071	X	718.087	0.039		8	0.0	Unknown
					Y	12215.678	0.042				
					Z	13897.951	0.042				

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>95% Error</u>		<u>Vector Components</u>	<u>95% Error</u>	<u>Process QA</u>	<u>SVs</u>	<u>PDOP</u>	<u>Meas. Type</u>
82	0316-0322	5/10 16:20	12911.754	0.054	X	-198.119	0.028		9	0.0	Unknown
					Y	-8467.069	0.032				
					Z	-9745.917	0.033				
83	0317-0316	5/10 16:15	16366.711	0.067	X	-16199.603	0.035		9	0.0	Unknown
					Y	-1288.459	0.040				
					Z	-1944.725	0.041				
84	0317-0318	5/10 17:29	16067.875	0.064	X	15913.405	0.034		9	0.0	Unknown
					Y	-1741.715	0.038				
					Z	-1380.786	0.038				
85	0317-0322	5/10 16:20	22376.930	0.085	X	-16397.729	0.046		9	0.0	Unknown
					Y	-9755.538	0.050				
					Z	-11690.636	0.051				
86	0320-0315	5/10 21:56	22422.286	0.093	X	16289.154	0.050		8	0.0	Unknown
					Y	9882.006	0.055				
					Z	11822.366	0.056				
87	0320-0321	5/12 18:32	15916.145	0.074	X	15906.328	0.037		9	0.0	Unknown
					Y	-537.700	0.045				
					Z	-152.512	0.046				
88	0320-0326	5/10 21:29	15842.005	0.073	X	-381.132	0.037		8	0.0	Unknown
					Y	-10370.110	0.043				
					Z	-11970.158	0.046				
89	0323-0322	5/10 16:46	15962.865	0.061	X	-15948.573	0.033		9	0.0	Unknown
					Y	602.916	0.036				
					Z	304.227	0.036				
90	0323-0329	5/11 14:10	15838.263	0.060	X	-330.430	0.033		8	0.0	Unknown
					Y	-10467.749	0.035				
					Z	-11881.398	0.036				
91	0324-0317	5/10 17:19	20431.798	0.076	X	-12714.544	0.042		9	0.0	Unknown
					Y	10760.723	0.045				
					Z	11832.395	0.045				
92	0324-0318	5/10 17:29	14170.793	0.056	X	3198.863	0.030		9	0.0	Unknown
					Y	9018.980	0.033				
					Z	10451.634	0.033				
93	0324-0323	5/10 16:46	13170.809	0.049	X	-13163.660	0.027		10	0.0	Unknown
					Y	402.321	0.029				
					Z	-162.481	0.029				
94	0324-0325	5/10 21:01	19172.899	0.076	X	19142.797	0.041		9	0.0	Unknown
					Y	-961.340	0.044				
					Z	-478.775	0.047				
95	0324-0330	5/11 13:01	14887.538	0.058	X	2241.603	0.032		8	0.0	Unknown
					Y	-9690.180	0.034				
					Z	-11077.654	0.035				
96	0324-0502	5/11 13:25	10998.106	0.045	X	-10842.547	0.024		8	0.0	Unknown
					Y	-948.119	0.026				
					Z	-1580.689	0.027				
97	0324-0503	5/11 13:01	18006.665	0.073	X	15884.901	0.039		8	0.0	Unknown
					Y	-5826.226	0.044				
					Z	-6161.576	0.044				
98	0325-0319	5/10 21:01	16328.591	0.065	X	-56.868	0.035		9	0.0	Unknown
					Y	10725.109	0.037				
					Z	12312.258	0.040				

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>95% Error</u>		<u>Vector Components</u>	<u>95% Error</u>	<u>Process QA</u>	<u>SVs</u>	<u>PDOP</u>	<u>Meas. Type</u>
99	0325-0320	5/10 21:28	22528.050	0.096	X	15919.981	0.050		8	0.0	Unknown
					Y	10219.247	0.056				
					Z	12232.506	0.059				
100	0325-0326	5/10 21:29	15541.799	0.064	X	15538.852	0.034		8	0.0	Unknown
					Y	-150.877	0.038				
					Z	262.346	0.040				
101	0325-0331	5/11 12:25	15456.830	0.059	X	-696.134	0.033		8	0.0	Unknown
					Y	-10091.020	0.034				
					Z	-11687.614	0.035				
102	0325-0503	5/11 12:20	8159.371	0.038	X	-3257.884	0.020		8	0.0	Unknown
					Y	-4864.834	0.022				
					Z	-5682.862	0.024				
103	0326-0332	5/12 17:53	16004.080	0.072	X	-351.824	0.035		7	0.0	Unknown
					Y	-10498.394	0.040				
					Z	-12074.375	0.049				
104	0327-0205	5/12 17:22	19154.177	0.077	X	15646.455	0.041		9	0.0	Unknown
					Y	-7494.170	0.046				
					Z	-8118.395	0.046				
105	0327-0206	5/12 17:24	16249.142	0.069	X	16236.920	0.036		9	0.0	Unknown
					Y	-608.831	0.041				
					Z	-162.412	0.041				
106	0327-0321	5/12 18:32	15895.050	0.074	X	362.878	0.037		9	0.0	Unknown
					Y	10421.283	0.045				
					Z	11996.574	0.046				
107	0327-0326	5/12 17:48	15936.583	0.065	X	-15924.691	0.034		8	0.0	Unknown
					Y	588.972	0.037				
					Z	178.864	0.042				
108	0327-0332	5/12 17:53	22463.861	0.098	X	-16276.517	0.049		7	0.0	Unknown
					Y	-9909.428	0.054				
					Z	-11895.516	0.065				
109	0328-0322	5/11 14:43	16257.866	0.062	X	265.212	0.034		9	0.0	Unknown
					Y	10667.248	0.035				
					Z	12266.120	0.037				
110	0329-0322	5/11 14:39	22693.076	0.083	X	-15618.195	0.046		9	0.0	Unknown
					Y	11070.529	0.048				
					Z	12185.692	0.049				
111	0329-0328	5/11 14:43	15888.730	0.060	X	-15883.408	0.033		9	0.0	Unknown
					Y	403.285	0.034				
					Z	-80.436	0.036				
112	0329-0334	5/11 20:30	13441.960	0.060	X	-335.675	0.031		9	0.0	Unknown
					Y	-8771.180	0.035				
					Z	-10180.374	0.037				
113	0331-0332	5/11 23:58	15893.428	0.063	X	15883.130	0.034		7	0.0	Unknown
					Y	-558.374	0.036				
					Z	-124.300	0.039				
114	0333-0205	5/12 16:56	16597.994	0.066	X	15844.411	0.035		9	0.0	Unknown
					Y	2987.084	0.039				
					Z	3940.221	0.040				
115	0333-0337	5/12 16:16	22497.479	0.087	X	-16357.143	0.047		9	0.0	Unknown
					Y	-9848.212	0.051				
					Z	-11899.291	0.052				

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>95% Error</u>		<u>Vector Components</u>	<u>95% Error</u>	<u>Process QA</u>	<u>SVs</u>	<u>PDOP</u>	<u>Meas. Type</u>
116	0334-0328	5/11 16:55	20686.033	0.078	X	-15547.760	0.043		9	0.0	Unknown
					Y	9174.480	0.046				
					Z	10099.903	0.047				
117	0335-0330	5/11 20:59	17235.387	0.076	X	176.741	0.039		8	0.0	Unknown
					Y	11266.536	0.045				
					Z	13041.952	0.046				
118	0335-0334	5/11 20:05	16147.012	0.070	X	-15894.614	0.037		9	0.0	Unknown
					Y	2120.116	0.041				
					Z	1895.350	0.044				
119	0335-0402	5/11 19:38	10702.955	0.058	X	1222.210	0.028		9	0.0	Unknown
					Y	-7005.530	0.034				
					Z	-7998.874	0.038				
120	0336-0335	5/11 21:02	16592.172	0.075	X	-16560.570	0.038		7	0.0	Unknown
					Y	-352.365	0.045				
					Z	-961.002	0.047				
121	0336-0337	5/11 23:09	15537.567	0.060	X	15425.779	0.033		9	0.0	Unknown
					Y	-1426.451	0.034				
					Z	-1194.396	0.037				
122	0336-0341	5/11 21:32	17442.797	0.073	X	-1347.391	0.038		8	0.0	Unknown
					Y	-11288.356	0.043				
					Z	-13229.087	0.044				
123	0336-0342	5/11 23:06	23162.488	0.088	X	14983.007	0.049		9	0.0	Unknown
					Y	-11697.904	0.050				
					Z	-13235.158	0.053				
124	0336-0402	5/11 21:32	19227.125	0.080	X	-15338.360	0.042		8	0.0	Unknown
					Y	-7357.972	0.047				
					Z	-8959.760	0.049				
125	0337-0331	5/11 23:33	22639.371	0.085	X	-15604.522	0.047		8	0.0	Unknown
					Y	10978.360	0.049				
					Z	12186.700	0.051				
126	0337-0332	5/11 23:34	15942.250	0.062	X	278.617	0.034		8	0.0	Unknown
					Y	10420.004	0.036				
					Z	12062.389	0.037				
127	0337-0342	5/11 23:09	15832.842	0.062	X	-442.773	0.034		9	0.0	Unknown
					Y	-10271.468	0.035				
					Z	-12040.755	0.038				
128	0338-0202	5/12 15:14	19833.103	0.076	X	16116.785	0.041		8	0.0	Unknown
					Y	-7771.911	0.044				
					Z	-8555.617	0.047				
129	0338-0203	5/12 15:19	15926.942	0.062	X	15894.979	0.034		8	0.0	Unknown
					Y	-846.032	0.036				
					Z	-548.941	0.038				
130	0338-0333	5/12 16:13	15269.688	0.060	X	370.825	0.032		9	0.0	Unknown
					Y	10012.579	0.035				
					Z	11522.766	0.036				
131	0338-0337	5/12 16:16	15991.597	0.063	X	-15986.319	0.034		9	0.0	Unknown
					Y	164.359	0.037				
					Z	-376.523	0.038				
132	0340-0015	5/11 19:09	16067.842	0.071	X	113.635	0.037		10	0.0	Unknown
					Y	-10487.824	0.043				
					Z	-12172.434	0.044				

	<u>Vector Identifier</u>		<u>Vector Length</u>	<u>95% Error</u>		<u>Vector Components</u>	<u>95% Error</u>	<u>Process QA</u>	<u>SVs</u>	<u>PDOP</u>	<u>Meas. Type</u>
133	0340-0339	5/11 19:09	15551.805	0.071	X	-15547.874	0.036		9	0.0	Unknown
					Y	298.800	0.043				
					Z	-181.543	0.043				
134	0340-0402	5/11 19:38	5581.154	0.038	X	1915.718	0.017		9	0.0	Unknown
					Y	3384.108	0.022				
					Z	4003.388	0.025				
135	0341-0402	5/11 21:32	15146.691	0.066	X	-13990.966	0.034		8	0.0	Unknown
					Y	3930.393	0.039				
					Z	4269.324	0.041				
136	0342-0024	5/12 12:49	20613.575	0.077	X	-16082.143	0.043		8	0.0	Unknown
					Y	-8269.709	0.045				
					Z	-9894.243	0.045				
137	0342-0034	5/12 12:51	15933.080	0.059	X	-1551.134	0.033		9	0.0	Unknown
					Y	-10444.606	0.035				
					Z	-11931.774	0.035				
138	0401-0326	5/12 0:23	17172.374	0.079	X	6921.938	0.043		7	0.0	Unknown
					Y	10221.391	0.048				
					Z	11937.351	0.045				
139	0401-0331	5/12 0:01	9317.270	0.040	X	-9313.014	0.021		7	0.0	Unknown
					Y	281.327	0.022				
					Z	-12.667	0.026				
140	0401-0332	5/12 0:01	6577.387	0.028	X	6570.122	0.015		7	0.0	Unknown
					Y	-277.050	0.016				
					Z	-136.967	0.018				
141	0401-0336	5/12 0:25	17043.639	0.067	X	-9134.227	0.036		7	0.0	Unknown
					Y	-9270.571	0.038				
					Z	-11004.909	0.041				
142	0501-0307	5/10 22:47	13685.623	0.058	X	-13399.883	0.030		7	0.0	Unknown
					Y	-1611.342	0.033				
					Z	-2267.819	0.037				
143	0502-0323	5/11 14:06	3036.912	0.017	X	-2321.146	0.008		8	0.0	Unknown
					Y	1350.528	0.010				
					Z	1418.164	0.012				
144	0502-0329	5/11 14:10	14129.187	0.056	X	-2651.583	0.030		8	0.0	Unknown
					Y	-9117.212	0.032				
					Z	-10463.244	0.034				
145	0503-0330	5/11 12:58	15007.919	0.064	X	-13643.299	0.033		8	0.0	Unknown
					Y	-3863.952	0.038				
					Z	-4916.087	0.039				
146	0503-0331	5/11 12:25	8362.573	0.040	X	2561.755	0.021		8	0.0	Unknown
					Y	-5226.185	0.023				
					Z	-6004.751	0.026				

Site Positions

Henry_MTWW_B

Horizontal Coordinate System:	State Plane Coordinate 1983	Date:	06/08/04
Height System:	Ortho. Ht. (GEOID03)	Project file:	
Henry_MTWW_B.spr			
Desired Horizontal Accuracy:	0.066USft + 5ppm		
Desired Vertical Accuracy:	0.098USft + 5ppm		
Confidence Level:	95% Err.		
Linear Units of Measure:	US Feet		

	<u>Site ID</u>	<u>Site Descriptor</u>		<u>Position</u>	<u>95% Error</u>	<u>Fix Status</u>	<u>Position Status</u>
1	0206	Des Moines Co. Mon.	East.	2228338.955	0.000	Fixed	Adjusted
			Nrth.	366713.223	0.000	Fixed	
			Elev.	775.590	0.000	Fixed	
2	0207	Des Moines Co. Mon.	East.	2227858.397	0.000	Fixed	Adjusted
			Nrth.	377439.641	0.000	Fixed	
			Elev.	726.450	0.000	Fixed	
3	0208	Des Moines Co. Mon.	East.	2227664.456	0.000	Fixed	Adjusted
			Nrth.	387879.354	0.000	Fixed	
			Elev.	740.260	0.000	Fixed	
4	0209	Des Moines Co. Mon.	East.	2227455.891	0.000	Fixed	Adjusted
			Nrth.	398478.982	0.000	Fixed	
			Elev.	724.800	0.000	Fixed	
5	0302	Henry Co. Monumnet	East.	2226792.143	0.055		Adjusted
			Nrth.	430205.097	0.040		
			Elev.	732.575	0.068		
6	0308	Henry Co. Monument	East.	2212362.053	0.042		Adjusted
			Nrth.	414363.658	0.031		
			Elev.	698.784	0.038		
7	0309	Henry Co. Monument	East.	2227126.307	0.044		Adjusted
			Nrth.	414356.123	0.032		
			Elev.	707.280	0.054		
8	0313	Henry Co. Monument	East.	2179361.563	0.040		Adjusted
			Nrth.	397920.372	0.031		
			Elev.	725.762	0.053		
9	0314	Henry Co. Monument	East.	2195513.847	0.040		Adjusted
			Nrth.	398169.846	0.031		
			Elev.	738.728	0.051		
10	0315	Henry Co. Monument	East.	2211560.869	0.039		Adjusted
			Nrth.	398348.800	0.030		
			Elev.	727.535	0.052		

	<u>Site ID</u>	<u>Site Descriptor</u>		<u>Position</u>	<u>95% Error</u>	<u>Fix Status</u>	<u>Position Status</u>
11	0319	Henry Co. Monument	East. Nrth. Elev.	2179920.039 382052.647 714.627	0.050 0.038 0.065		Adjusted
12	0321	Henry Co. Monument	East. Nrth. Elev.	2211816.026 382474.012 725.419	0.036 0.030 0.049		Adjusted
13	0007	Lee Co. Monument	East. Nrth. Elev.	2150833.342 301781.164 710.500	0.000 0.000 0.000	Fixed Fixed Fixed	Adjusted
14	0158	Van Buren Co. Mon.	East. Nrth. Elev.	2133325.023 301572.345 734.980	0.000 0.000 0.000	Fixed Fixed Fixed	Adjusted
15	0015	Lee Co. Monument	East. Nrth. Elev.	2165508.876 302184.395 666.460	0.000 0.000 0.000	Fixed Fixed Fixed	Adjusted
16	0339	Henry Co. Monument	East. Nrth. Elev.	2149211.162 317668.010 686.485	0.041 0.031 0.060		Adjusted
17	0024	Lee Co. Monument	East. Nrth. Elev.	2181446.393 305168.937 689.150	0.000 0.000 0.000	Fixed Fixed Fixed	Adjusted
18	0034	Lee Co. Monument	East. Nrth. Elev.	2196087.081 302790.529 711.310	0.000 0.000 0.000	Fixed Fixed Fixed	Adjusted
19	0340	Henry Co. Monument	East. Nrth. Elev.	2164751.754 318233.440 696.265	0.029 0.025 0.062		Adjusted
20	0341	Henry Co. Monument	East. Nrth. Elev.	2180668.638 318313.361 604.627	0.040 0.033 0.061		Adjusted
21	0045	Lee Co. Monument	East. Nrth. Elev.	2213319.064 302997.238 689.370	0.000 0.000 0.000	Fixed Fixed Fixed	Adjusted
22	0343	Henry Co. Monument	East. Nrth. Elev.	2210377.156 317460.850 722.973	0.038 0.029 0.050		Adjusted
23	0200	Des Moines Co. Mon.	East. Nrth. Elev.	2229287.672 304388.142 707.550	0.000 0.000 0.000	Fixed Fixed Fixed	Adjusted

	<u>Site ID</u>	<u>Site Descriptor</u>		<u>Position</u>	<u>95% Error</u>	<u>Fix Status</u>	<u>Position Status</u>
24	0201	Des Moines Co. Mon.	East.	2229179.860	0.000	Fixed	Adjusted
			Nrth.	315147.155	0.000	Fixed	
			Elev.	720.230	0.000	Fixed	
25	0159	Van Buren Co. Mon.	East.	2133085.798	0.000	Fixed	Adjusted
			Nrth.	320105.222	0.000	Fixed	
			Elev.	691.080	0.000	Fixed	
26	0160	Van Buren Co. Mon.	East.	2132946.963	0.000	Fixed	Adjusted
			Nrth.	333280.289	0.000	Fixed	
			Elev.	735.110	0.000	Fixed	
27	0328	Henry Co. Monument	East.	2132725.208	0.044		Adjusted
			Nrth.	349307.901	0.029		
			Elev.	699.085	0.057		
28	0334	Henry Co. Monument	East.	2148809.807	0.043		Adjusted
			Nrth.	336302.531	0.029		
			Elev.	665.420	0.059		
29	0165	Washington Co. Mon.	East.	2151349.960	0.000	Fixed	Adjusted
			Nrth.	428962.732	0.000	Fixed	
			Elev.	731.470	0.000	Fixed	
30	0164	Washington Co. Mon.	East.	2132889.752	0.000	Fixed	Adjusted
			Nrth.	429061.787	0.000	Fixed	
			Elev.	654.760	0.000	Fixed	
31	0303	Henry Co. Monument	East.	2134352.142	0.043		Adjusted
			Nrth.	413358.122	0.038		
			Elev.	722.675	0.059		
32	0304	Henry Co. Monument	East.	2147647.770	0.042		Adjusted
			Nrth.	413383.937	0.037		
			Elev.	687.776	0.056		
33	0305	Henry Co. Monument	East.	2163451.336	0.039		Adjusted
			Nrth.	413766.890	0.030		
			Elev.	727.658	0.053		
34	0166	Washington Co. Mon.	East.	2173536.327	0.000	Fixed	Adjusted
			Nrth.	429556.887	0.000	Fixed	
			Elev.	723.710	0.000	Fixed	
35	0167	Washington Co. Mon.	East.	2194949.243	0.000	Fixed	Adjusted
			Nrth.	429991.620	0.000	Fixed	
			Elev.	691.440	0.000	Fixed	
36	0306	Henry Co. Monument	East.	2178970.045	0.042		Adjusted
			Nrth.	414112.455	0.030		
			Elev.	735.944	0.057		

	<u>Site ID</u>	<u>Site Descriptor</u>		<u>Position</u>	<u>95% Error</u>	<u>Fix Status</u>	<u>Position Status</u>
37	0202	Des Moines Co. Mon.	East.	2229346.635	0.000	Fixed	Adjusted
			Nrth.	324446.371	0.000	Fixed	
			Elev.	730.670	0.000	Fixed	
38	0203	Des Moines Co. Mon.	East.	2228700.370	0.000	Fixed	Adjusted
			Nrth.	335014.779	0.000	Fixed	
			Elev.	740.760	0.000	Fixed	
39	0204	Des Moines Co. Mon.	East.	2228507.717	0.000	Fixed	Adjusted
			Nrth.	345610.524	0.000	Fixed	
			Elev.	746.550	0.000	Fixed	
40	0205	Des Moines Co. Mon.	East.	2228171.218	0.000	Fixed	Adjusted
			Nrth.	356177.066	0.000	Fixed	
			Elev.	766.880	0.000	Fixed	
41	0333	Henry Co. Monument	East.	2212535.418	0.038		Adjusted
			Nrth.	350611.556	0.023		
			Elev.	732.126	0.056		
42	0338	Henry Co. Monument	East.	2212777.929	0.034		Adjusted
			Nrth.	335344.867	0.023		
			Elev.	754.404	0.046		
43	0301	Henry Co. Monument	East.	2209195.415	0.042		Adjusted
			Nrth.	430023.128	0.031		
			Elev.	724.292	0.047		
44	0307	Henry Co. Monument	East.	2195186.992	0.036		Adjusted
			Nrth.	414244.108	0.027		
			Elev.	707.055	0.040		
45	0501	USGS "E 126"	East.	2208466.589	0.042		Adjusted
			Nrth.	417548.510	0.031		
			Elev.	727.718	0.000	Fixed	
46	0310	Henry Co. Monument	East.	2131989.436	0.052		Adjusted
			Nrth.	396982.606	0.040		
			Elev.	590.218	0.069		
47	0311	Henry Co. Monument	East.	2147890.996	0.053		Adjusted
			Nrth.	395155.376	0.041		
			Elev.	709.493	0.070		
48	0312	Henry Co. Monument	East.	2163727.181	0.046		Adjusted
			Nrth.	396566.840	0.037		
			Elev.	697.257	0.061		
49	0316	Henry Co. Monument	East.	2132017.232	0.053		Adjusted
			Nrth.	378466.877	0.036		
			Elev.	687.553	0.070		

	<u>Site ID</u>	<u>Site Descriptor</u>		<u>Position</u>	<u>95% Error</u>	<u>Fix Status</u>	<u>Position Status</u>
50	0318	Henry Co. Monument	East. Nrth. Elev.	2164104.733 379884.522 697.947	0.049 0.038 0.061		Adjusted
51	0320	Henry Co. Monument	East. Nrth. Elev.	2195901.968 382302.591 725.070	0.042 0.037 0.059		Adjusted
52	0322	Henry Co. Monument	East. Nrth. Elev.	2132337.505 365560.027 683.905	0.048 0.034 0.057		Adjusted
53	0317	Henry Co. Monument	East. Nrth. Elev.	2148112.495 381428.327 632.494	0.054 0.036 0.068		Adjusted
54	0326	Henry Co. Monument	East. Nrth. Elev.	2196156.630 366463.822 700.535	0.036 0.032 0.054		Adjusted
55	0323	Henry Co. Monument	East. Nrth. Elev.	2148298.984 365575.756 584.474	0.045 0.032 0.025		Adjusted
56	0329	Henry Co. Monument	East. Nrth. Elev.	2148606.918 349742.006 702.806	0.045 0.033 0.047		Adjusted
57	0324	Henry Co. Monument	East. Nrth. Elev.	2161462.593 365963.266 710.944	0.040 0.030 0.038		Adjusted
58	0325	Henry Co. Monument	East. Nrth. Elev.	2180632.815 365740.857 724.549	0.035 0.028 0.038		Adjusted
59	0330	Henry Co. Monument	East. Nrth. Elev.	2164293.588 351348.449 714.328	0.048 0.037 0.059		Adjusted
60	0502	TBM for USGS "Z 124"	East. Nrth. Elev.	2150698.026 363714.382 622.771	0.045 0.032 0.000	Fixed	Adjusted
61	0503	USGS "MT PLEASANT 1"	East. Nrth. Elev.	2177677.664 358136.078 735.920	0.036 0.029 0.000	Fixed	Adjusted
62	0331	Henry Co. Monument	East. Nrth. Elev.	2180556.359 350285.340 693.210	0.029 0.024 0.041		Adjusted

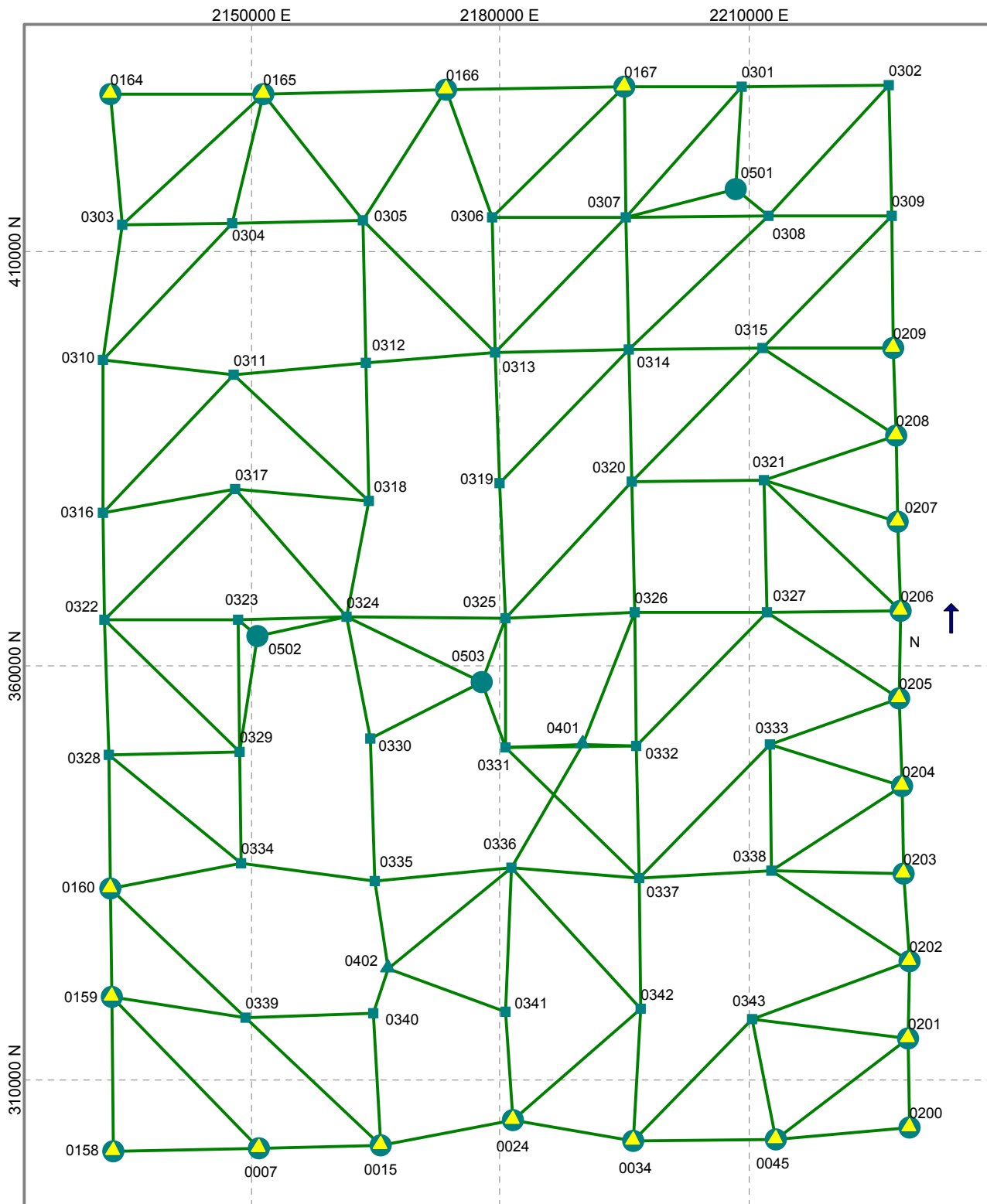
	<u>Site ID</u>	<u>Site Descriptor</u>		<u>Position</u>	<u>95% Error</u>	<u>Fix Status</u>	<u>Position Status</u>
63	0332	Henry Co. Monument	East. Nrth. Elev.	2196447.682 350463.526 716.084	0.024 0.020 0.049		Adjusted
64	0327	Henry Co. Monument	East. Nrth. Elev.	2212091.602 366582.522 721.958	0.037 0.031 0.052		Adjusted
65	0337	Henry Co. Monument	East. Nrth. Elev.	2196808.466 334526.467 691.065	0.034 0.022 0.050		Adjusted
66	0335	Henry Co. Monument	East. Nrth. Elev.	2164807.852 334121.942 684.122	0.038 0.028 0.063		Adjusted
67	0402	HARN "JACKSON"	East. Nrth. Elev.	2166456.464 323547.481 716.828	0.000 0.000 0.059	Fixed Fixed	Adjusted
68	0336	Henry Co. Monument	East. Nrth. Elev.	2181319.594 335742.655 703.578	0.034 0.027 0.053		Adjusted
69	0342	Henry Co. Monument	East. Nrth. Elev.	2196998.771 318696.096 583.200	0.040 0.029 0.053		Adjusted
70	0401	HARN "MPZ 1"	East. Nrth. Elev.	2189870.788 350484.548 726.434	0.000 0.000 0.047	Fixed Fixed	Adjusted

	<u>Site ID</u>	<u>Site Descriptor</u>	<u>Convergence</u>	<u>Scale Factor</u>	<u>Elevation Factor</u>
1	0206	Des Moines Co. Mon.	1 24.173	0.99995532	0.99996810
2	0207	Des Moines Co. Mon.	1 24.142	0.99995354	0.99997044
3	0208	Des Moines Co. Mon.	1 24.151	0.99995206	0.99996978
4	0209	Des Moines Co. Mon.	1 24.158	0.99995081	0.99997052
5	0302	Henry Co. Monumnet	1 24.174	0.99994861	0.99997014
6	0308	Henry Co. Monument	1 22.049	0.99994940	0.99997176
7	0309	Henry Co. Monument	1 24.167	0.99994942	0.99997135
8	0313	Henry Co. Monument	1 17.264	0.99995075	0.99997047
9	0314	Henry Co. Monument	1 19.580	0.99995076	0.99996985
10	0315	Henry Co. Monument	1 21.880	0.99995078	0.99997039

	<u>Site ID</u>	<u>Site Descriptor</u>	<u>Convergence</u>	<u>Scale Factor</u>	<u>Elevation Factor</u>
11	0319	Henry Co. Monument	1 17.293	0.99995269	0.99997100
12	0321	Henry Co. Monument	1 21.862	0.99995274	0.99997049
13	0007	Lee Co. Monument	1 12.883	0.99997110	0.99997122
14	0158	Van Buren Co. Mon.	1 10.383	0.99997105	0.99997005
15	0015	Lee Co. Monument	1 14.979	0.99997107	0.99997333
16	0339	Henry Co. Monument	1 12.700	0.99996626	0.99997236
17	0024	Lee Co. Monument	1 17.264	0.99997023	0.99997224
18	0034	Lee Co. Monument	1 19.346	0.99997109	0.99997119
19	0340	Henry Co. Monument	1 14.921	0.99996620	0.99997190
20	0341	Henry Co. Monument	1 17.195	0.99996628	0.99997628
21	0045	Lee Co. Monument	1 21.807	0.99997116	0.99997224
22	0343	Henry Co. Monument	1 21.436	0.99996672	0.99997063
23	0200	Des Moines Co. Mon.	1 24.091	0.99997084	0.99997137
24	0201	Des Moines Co. Mon.	1 24.113	0.99996753	0.99997076
25	0159	Van Buren Co. Mon.	1 10.403	0.99996548	0.99997214
26	0160	Van Buren Co. Mon.	1 10.422	0.99996200	0.99997003
27	0328	Henry Co. Monument	1 10.437	0.99995830	0.99997175
28	0334	Henry Co. Monument	1 12.699	0.99996134	0.99997337
29	0165	Washington Co. Mon.	1 13.344	0.99994859	0.99997018
30	0164	Washington Co. Mon.	1 10.695	0.99994858	0.99997385
31	0303	Henry Co. Monument	1 10.859	0.99994935	0.99997060
32	0304	Henry Co. Monument	1 12.766	0.99994936	0.99997227
33	0305	Henry Co. Monument	1 15.033	0.99994936	0.99997037
34	0166	Washington Co. Mon.	1 16.530	0.99994859	0.99997056
35	0167	Washington Co. Mon.	1 19.604	0.99994859	0.99997210
36	0306	Henry Co. Monument	1 17.260	0.99994936	0.99996998
37	0202	Des Moines Co. Mon.	1 24.169	0.99996488	0.99997026

	<u>Site ID</u>	<u>Site Descriptor</u>	<u>Convergence</u>	<u>Scale Factor</u>	<u>Elevation Factor</u>
38	0203	Des Moines Co. Mon.	1 24.114	0.99996210	0.99996977
39	0204	Des Moines Co. Mon.	1 24.123	0.99995958	0.99996949
40	0205	Des Moines Co. Mon.	1 24.112	0.99995732	0.99996852
41	0333	Henry Co. Monument	1 21.857	0.99995840	0.99997018
42	0338	Henry Co. Monument	1 21.839	0.99996193	0.99996912
43	0301	Henry Co. Monument	1 21.649	0.99994860	0.99997054
44	0307	Henry Co. Monument	1 19.586	0.99994938	0.99997136
45	0501	USGS "E 126"	1 21.502	0.99994918	0.99997037
46	0310	Henry Co. Monument	1 10.472	0.99995074	0.99997694
47	0311	Henry Co. Monument	1 12.745	0.99995097	0.99997124
48	0312	Henry Co. Monument	1 15.019	0.99995086	0.99997183
49	0316	Henry Co. Monument	1 10.421	0.99995306	0.99997229
50	0318	Henry Co. Monument	1 15.021	0.99995295	0.99997180
51	0320	Henry Co. Monument	1 19.583	0.99995271	0.99997050
52	0322	Henry Co. Monument	1 10.429	0.99995514	0.99997247
53	0317	Henry Co. Monument	1 12.735	0.99995268	0.99997493
54	0326	Henry Co. Monument	1 19.566	0.99995522	0.99997168
55	0323	Henry Co. Monument	1 12.714	0.99995519	0.99997723
56	0329	Henry Co. Monument	1 12.710	0.99995827	0.99997157
57	0324	Henry Co. Monument	1 14.599	0.99995518	0.99997118
58	0325	Henry Co. Monument	1 17.342	0.99995529	0.99997053
59	0330	Henry Co. Monument	1 14.959	0.99995801	0.99997102
60	0502	TBM for USGS "Z 124"	1 13.052	0.99995554	0.99997540
61	0503	USGS "MT PLEASANT 1"	1 16.895	0.99995669	0.99996999
62	0331	Henry Co. Monument	1 17.282	0.99995831	0.99997204
63	0332	Henry Co. Monument	1 19.555	0.99995835	0.99997094
64	0327	Henry Co. Monument	1 21.847	0.99995527	0.99997066

	<u>Site ID</u>	<u>Site Descriptor</u>	<u>Convergence</u>	<u>Scale Factor</u>	<u>Elevation Factor</u>
65	0337	Henry Co. Monument	1 19.554	0.99996204	0.99997215
66	0335	Henry Co. Monument	1 14.979	0.99996196	0.99997247
67	0402	HARN "JACKSON"	1 15.181	0.99996473	0.99997091
68	0336	Henry Co. Monument	1 17.344	0.99996165	0.99997155
69	0342	Henry Co. Monument	1 19.529	0.99996627	0.99997731
70	0401	HARN "MPZ 1"	1 18.615	0.99995831	0.99997045



MAP

Project Name: Henry_MTWB_B.spr
 Client: Henry County, Iowa
 Date: Tuesday June 29, 2004
 Coordinate System: State Plane Coordinate 1983

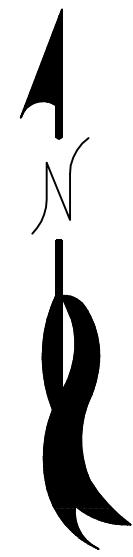
LEGEND

- △ Horizontal Control
- Vertical Control
- ⊠ Horizontal & Vertical Control
- New Site
- Map Grid Scale: 6000 f

GPS Monumentation Map for Henry County, Iowa

Prepared by
Aerial Services Inc.
ASI Project # A04-6151

Drawing Date: March 2, 2004
Revision Date: June 25, 2004



Scale in Feet



Legend:

- ▲ Henry Co. 3D GPS Monuments
- ▲ Existing Washington Co. 3D GPS Monument
- ▲ Existing Van Buren Co. 3D GPS Monument
- ▲ Existing Des Moines Co. 3D GPS Monument
- ▲ Existing Lee Co. 3D GPS Monument

