

# Keokuk County Iowa

## Countywide G.P.S. Survey Control Network

### **Monument Records**

2003

---

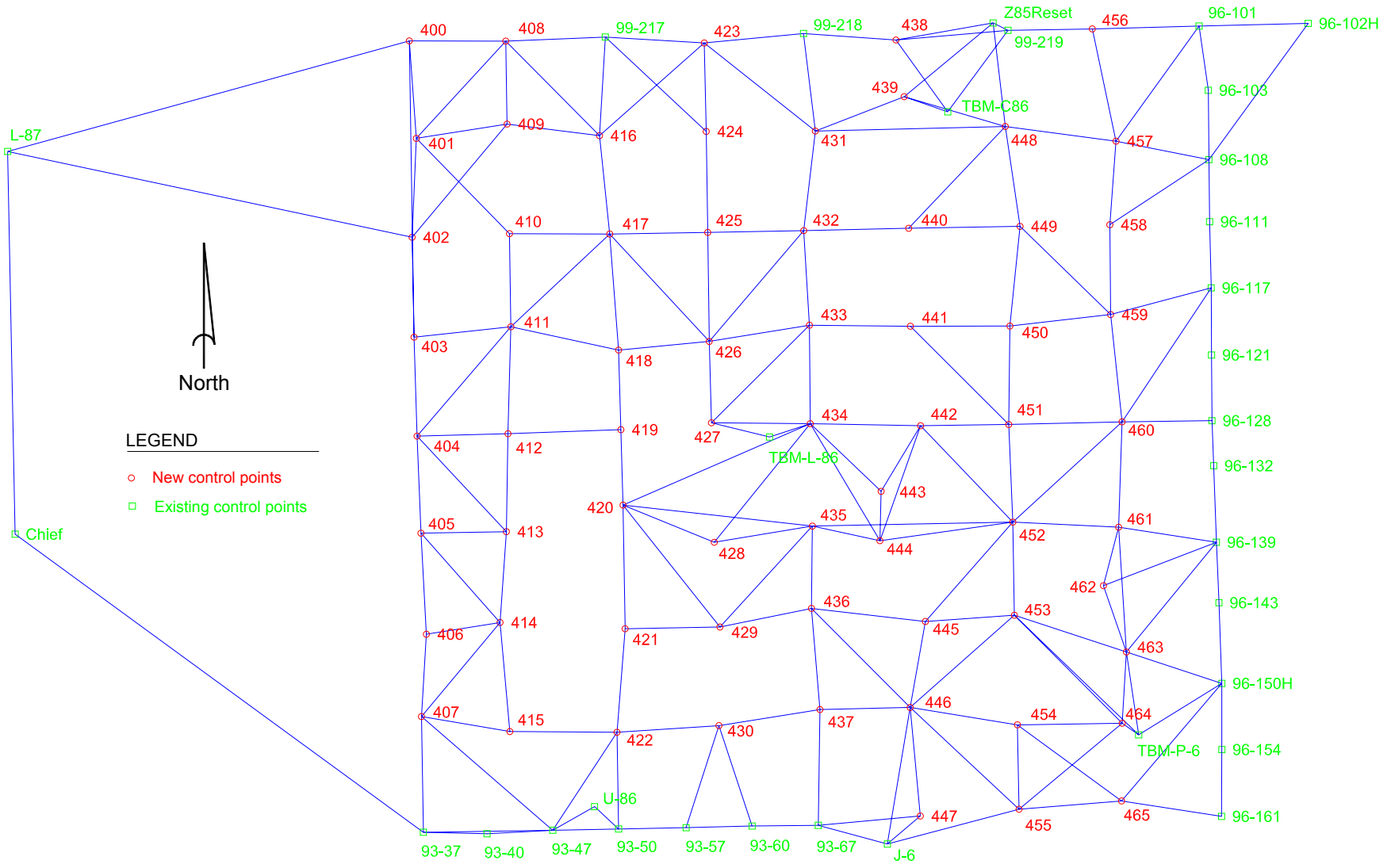
Dan Corbin, Inc.  
28 River Ridge Lane  
Cedar Falls, IA 50613



---

Cell: (319) 231-7047  
Fax: (319) 266-3398  
E-Mail: dcorbin@cfu.net

---



**LEGEND**

- New control points
- Existing control points

Keokuk County, Iowa

**GPS Vector Network**

**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **400**

Northing: **551,880.25sft** Easting: **1,938,437.35sft**

Orthometric Height: **874.36sft**

Ellipsoid Height: **769.05sft**

Latitude: **41°30'34.69660"N**

Longitude: **92°24'42.67103"W**

Mapping Angle: **0°43'00"**

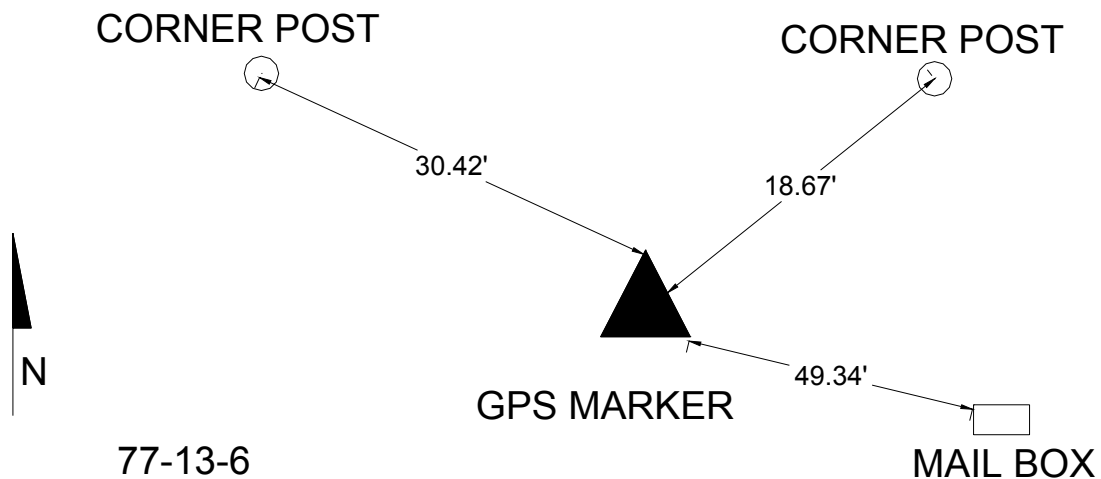
Combination Scale Factor: **0.99992616**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-400

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---

**# 400**



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **401**

Northing: **536,280.19sft**    Easting: **1,939,566.96sft**

Orthometric Height: **870.61sft**

Ellipsoid Height: **765.18sft**

Latitude: **41°28'00.43760"N**

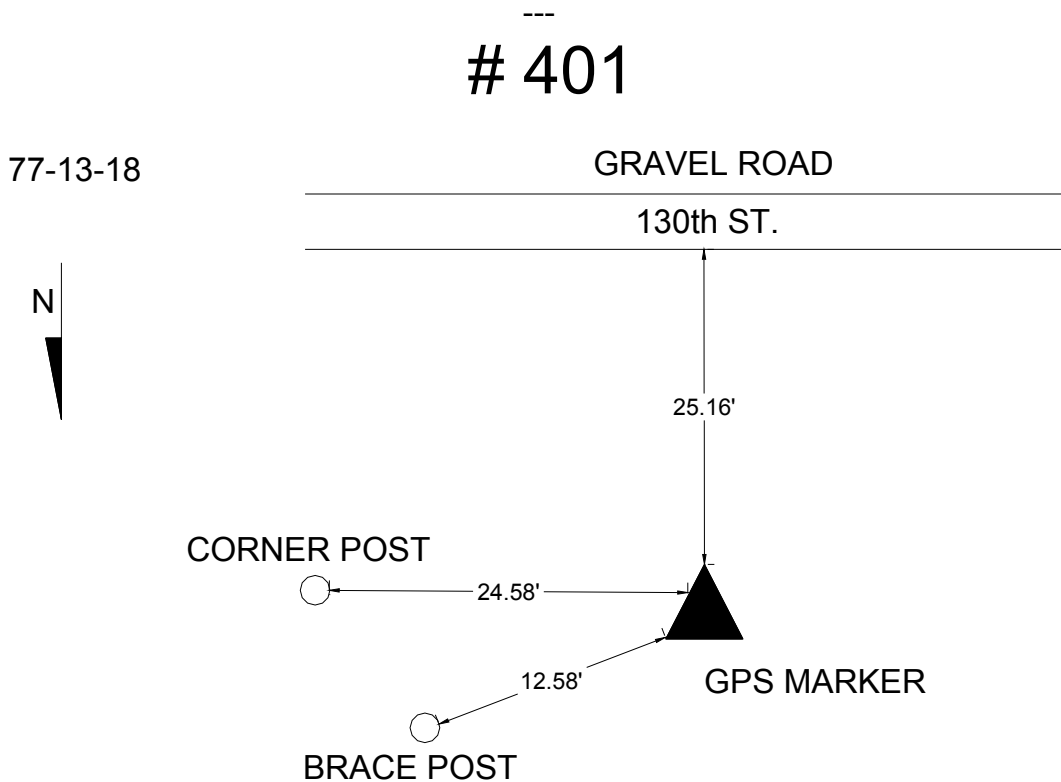
Longitude: **92°24'30.39755"W**

Mapping Angle: **0°43'08"**

Combination Scale Factor: **0.9999226**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-401

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **402**

Northing: **520,438.21**sft Easting: **1,938,885.99**sft

Orthometric Height: **845.83**sft

Ellipsoid Height: **740.22**sft

Latitude: **41°25'24.01100"N**

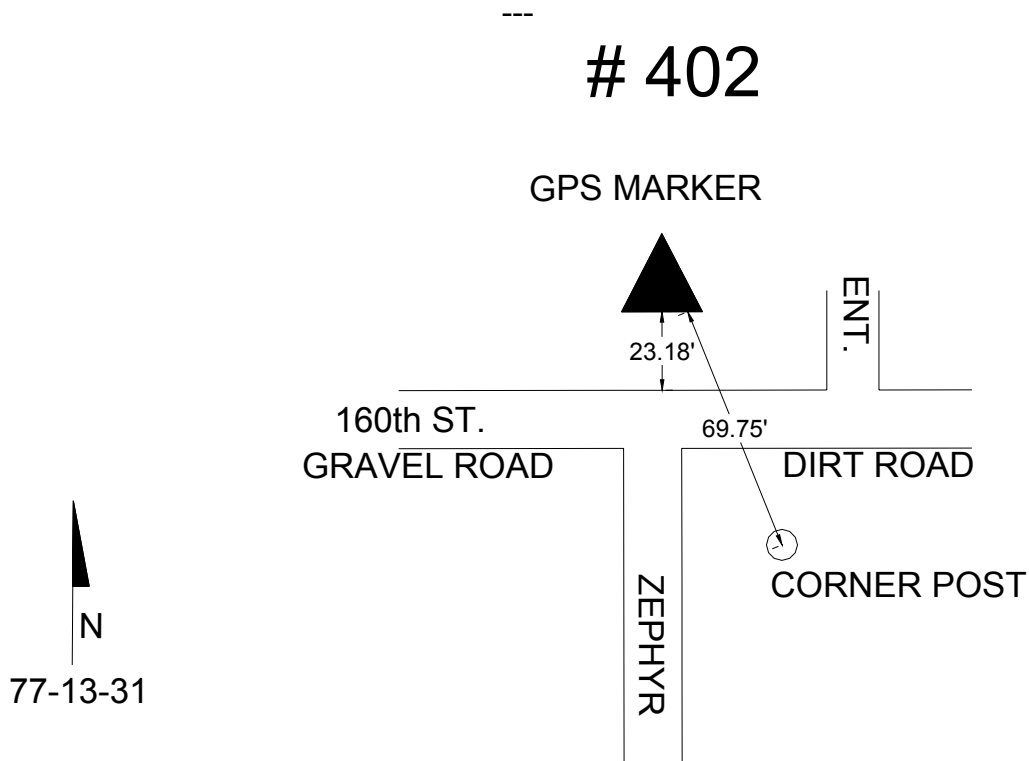
Longitude: **92°24'41.94532"W**

Mapping Angle: **0°43'01"**

Combination Scale Factor: **0.99992057**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-402

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **403**

Northing: **504,448.88sft** Easting: **1,939,193.34sft**

Orthometric Height: **782.14sft**

Ellipsoid Height: **676.32sft**

Latitude: **41°22'46.00457"N**

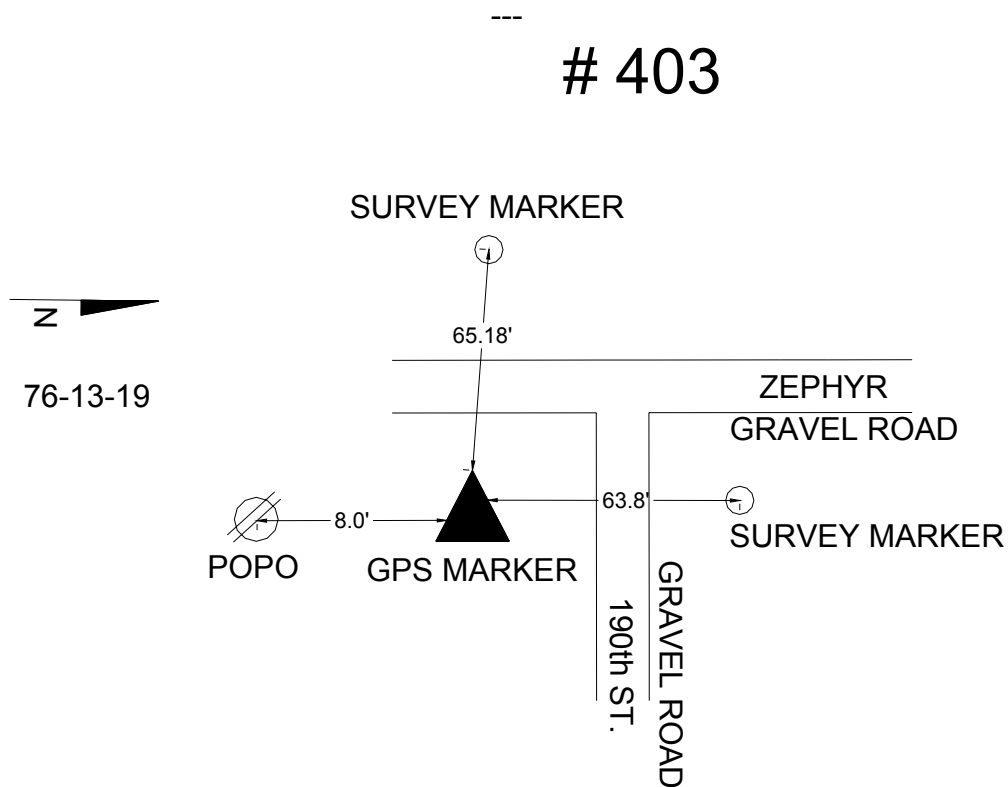
Longitude: **92°24'40.53821"W**

Mapping Angle: **0°43'02"**

Combination Scale Factor: **0.99992094**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-403

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **404**

Northing: **488,607.55sft** Easting: **1,939,678.72sft**

Orthometric Height: **754.22sft**

Ellipsoid Height: **648.2sft**

Latitude: **41°20'09.43675"N**

Longitude: **92°24'36.77491"W**

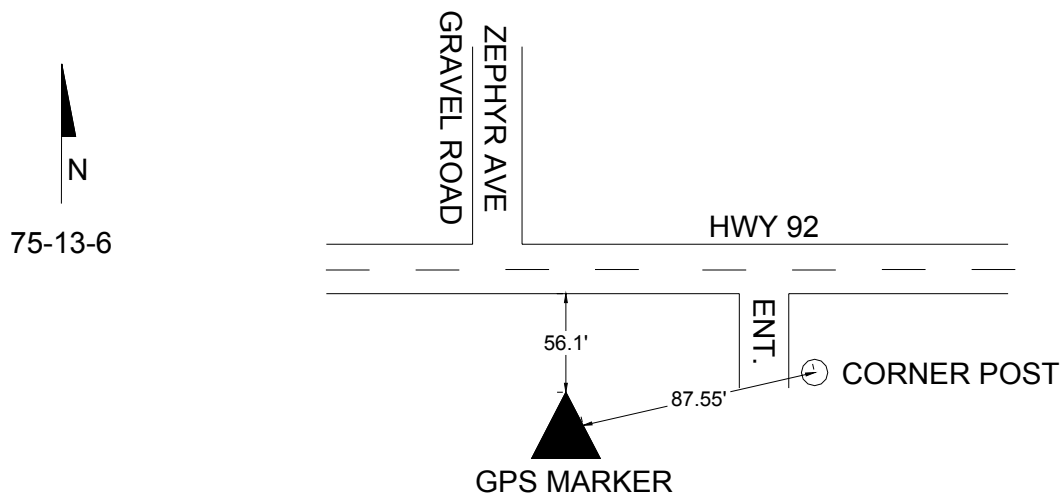
Mapping Angle: **0°43'04"**

Combination Scale Factor: **0.99992021**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-404

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---  
**# 404**



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **405**

Northing: **473,070.63sft** Easting: **1,940,305.32sft**

Orthometric Height: **799.45sft**

Ellipsoid Height: **693.22sft**

Latitude: **41°17'35.85751"N**

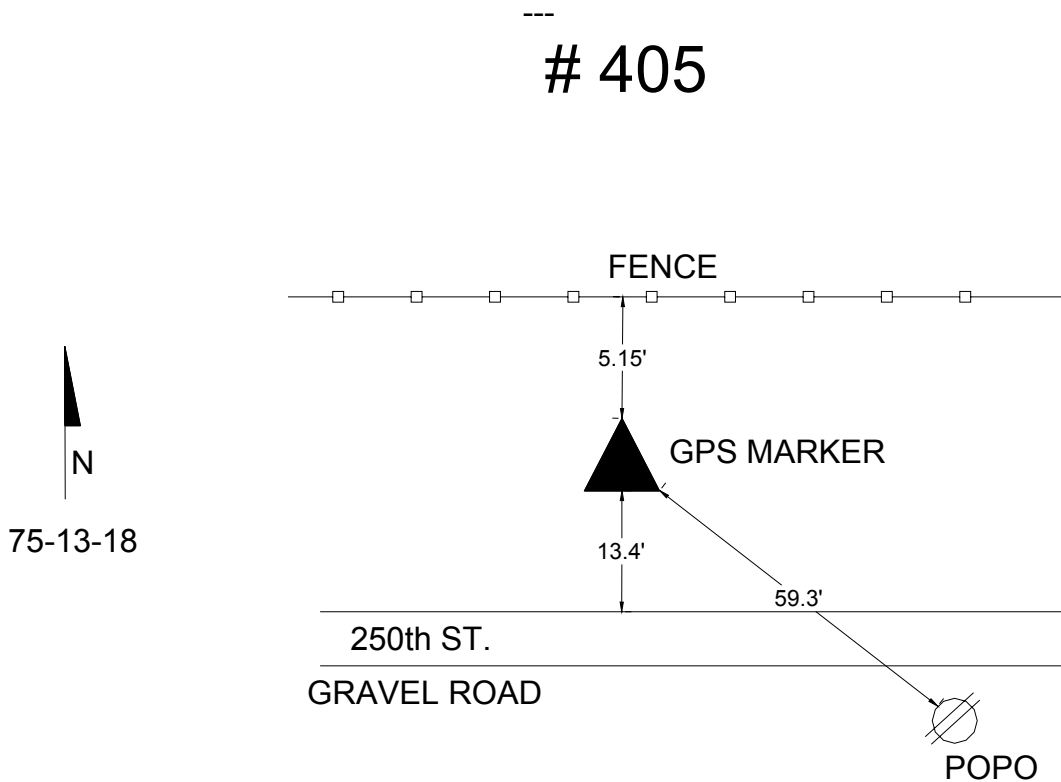
Longitude: **92°24'31.11672"W**

Mapping Angle: **0°43'08"**

Combination Scale Factor: **0.99991659**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-405

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.





**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **406**

Northing: **456,894.72sft** Easting: **1,941,165.17sft**

Orthometric Height: **786.98sft**

Ellipsoid Height: **680.55sft**

Latitude: **41°14'55.93470"N**

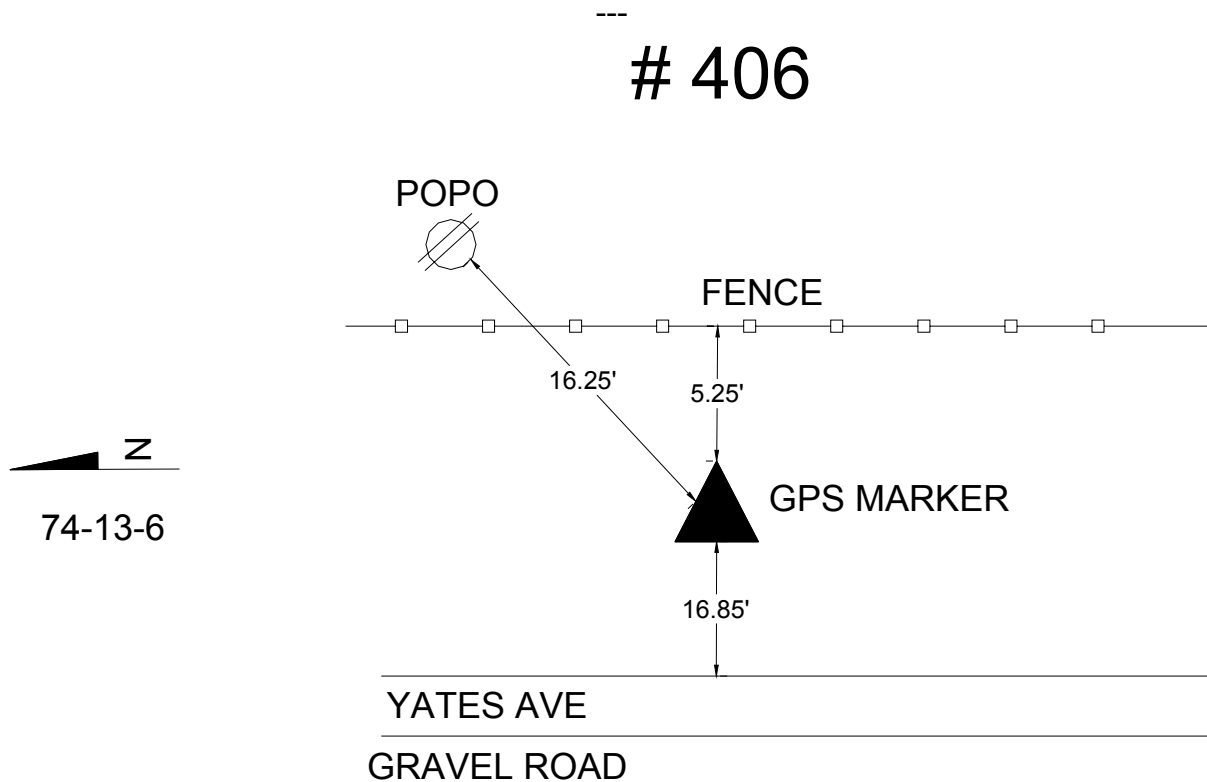
Longitude: **92°24'22.51756"W**

Mapping Angle: **0°43'14"**

Combination Scale Factor: **0.99991625**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-406

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **407**

Northing: **443,712.93sft**    Easting: **1,940,381.39sft**

Orthometric Height: **839.89sft**

Ellipsoid Height: **733.33sft**

Latitude: **41°12'45.79637"N**

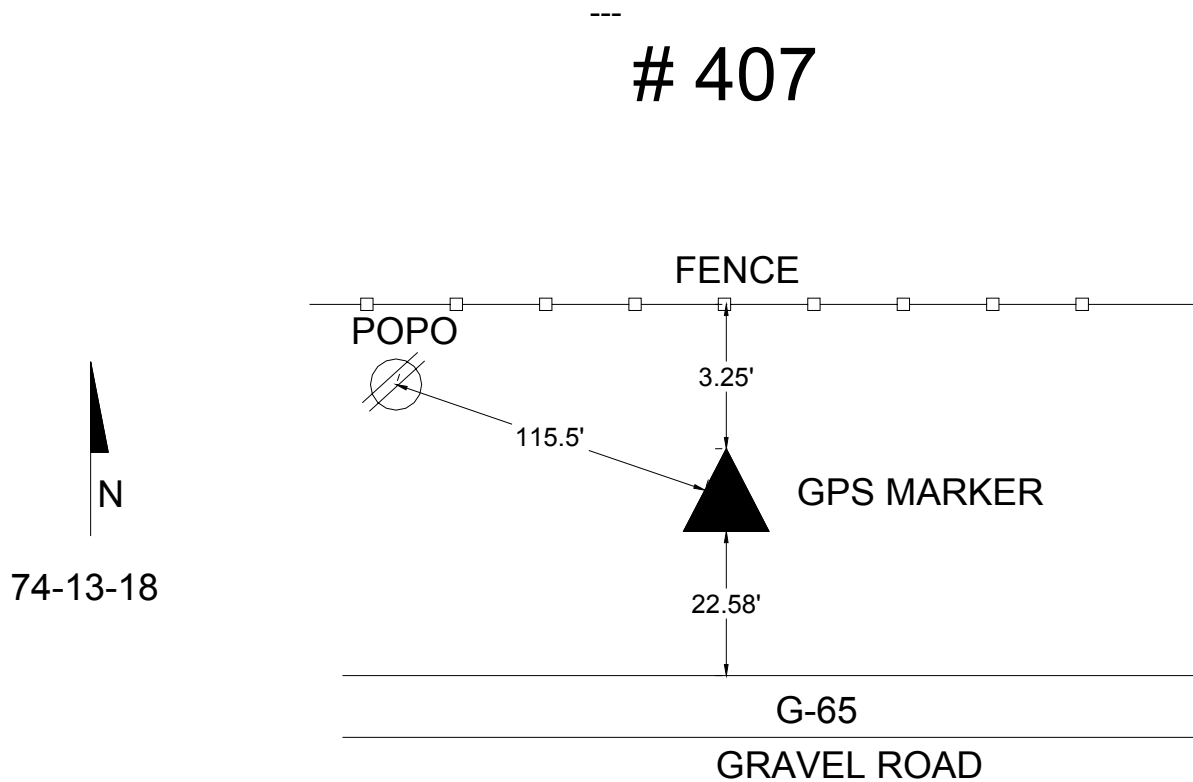
Longitude: **92°24'34.94102"W**

Mapping Angle: **0°43'05"**

Combination Scale Factor: **0.9999134**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-407

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **408**

Northing: **551,844.47sft** Easting: **1,953,863.21sft**

Orthometric Height: **818.19sft**

Ellipsoid Height: **712.83sft**

Latitude: **41°30'32.38716"N**

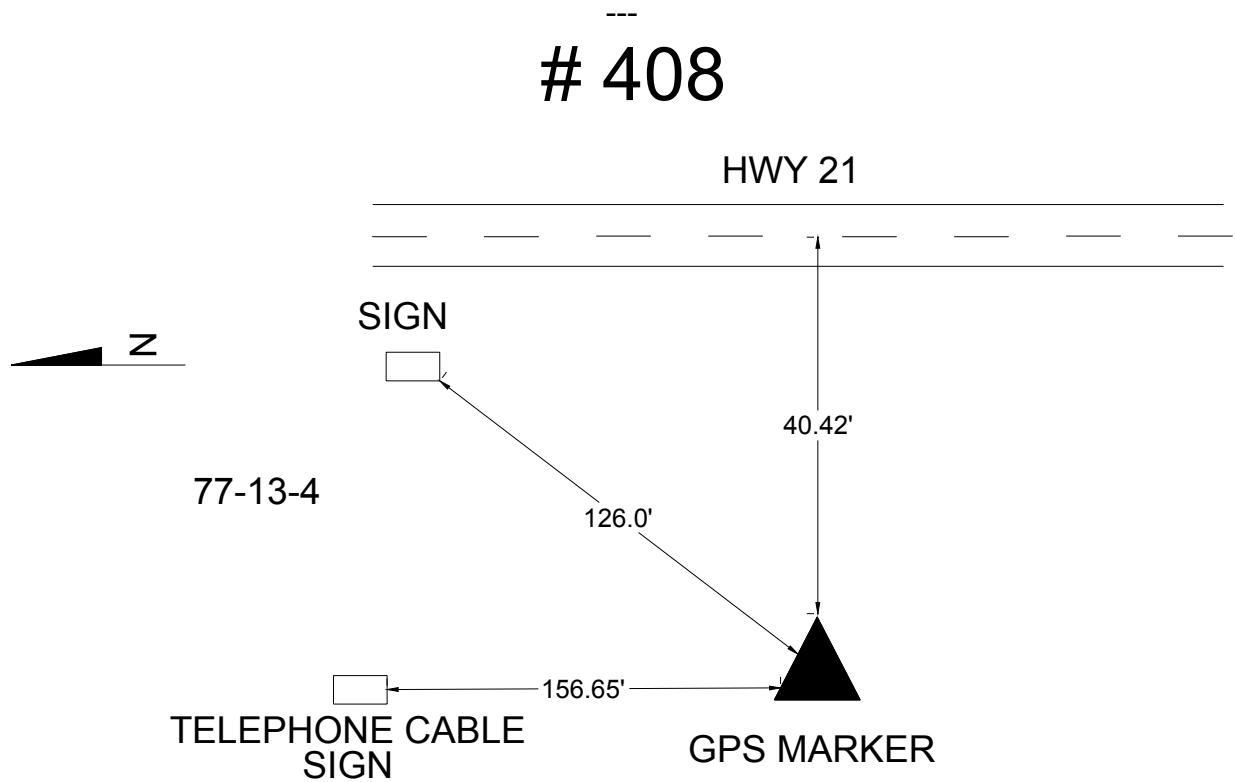
Longitude: **92°21'19.93495"W**

Mapping Angle: **0°45'14"**

Combination Scale Factor: **0.99992878**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-408

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **409**

Northing: **538,558.19sft** Easting: **1,954,069.95sft**

Orthometric Height: **890.64sft**

Ellipsoid Height: **785.19sft**

Latitude: **41°28'21.10101"N**

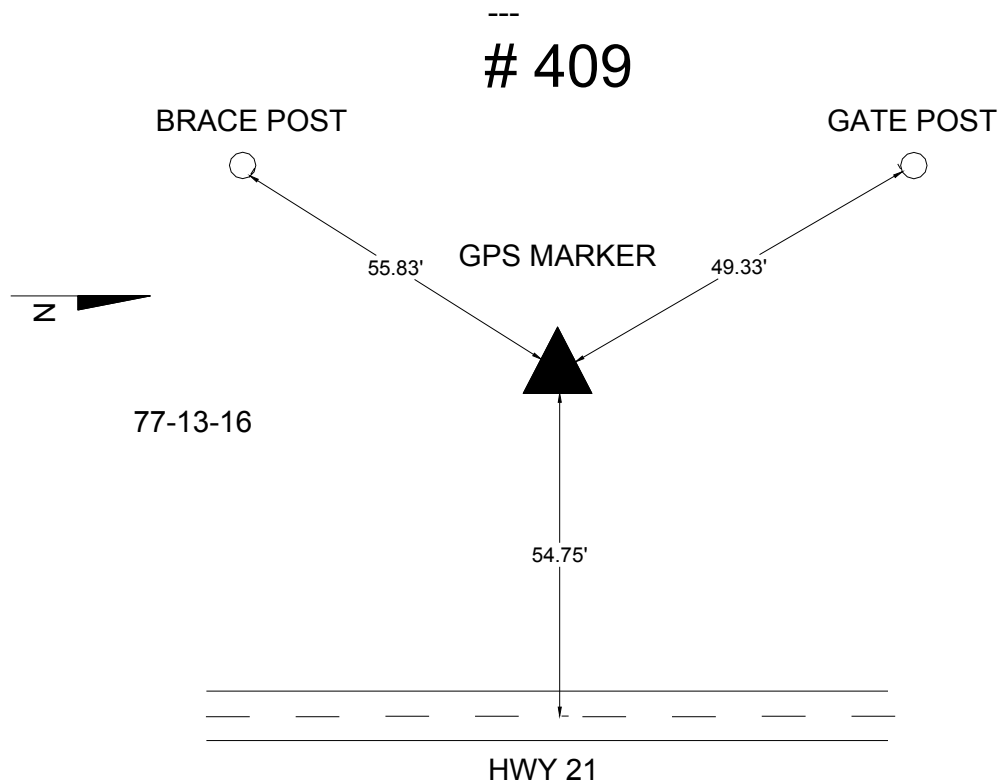
Longitude: **92°21'19.51572"W**

Mapping Angle: **0°45'14"**

Combination Scale Factor: **0.99992212**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-409

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5" dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **410**

Northing: **521,022.02sft** Easting: **1,954,456.82sft**

Orthometric Height: **844.83sft**

Ellipsoid Height: **739.21sft**

Latitude: **41°25'27.80362"N**

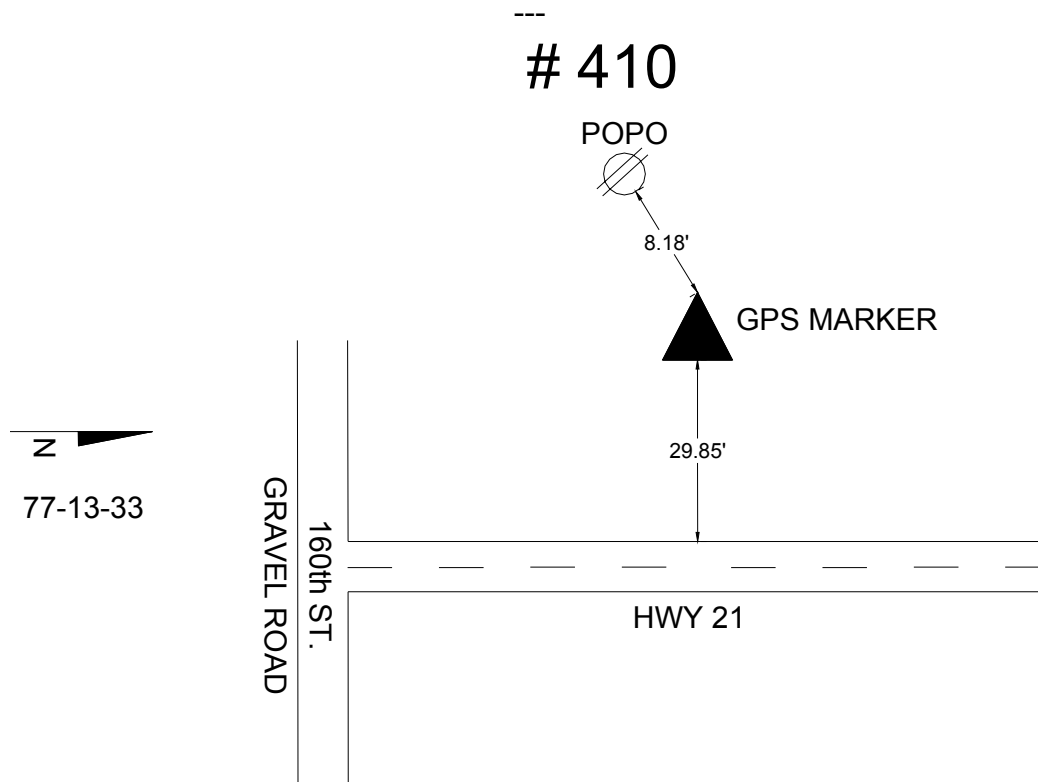
Longitude: **92°21'17.46666"W**

Mapping Angle: **0°45'16"**

Combination Scale Factor: **0.99992069**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-410

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **411**

Northing: **506,110.28**sft Easting: **1,954,682.93**sft

Orthometric Height: **817.91**sft

Ellipsoid Height: **712.11**sft

Latitude: **41°23'00.45332"N**

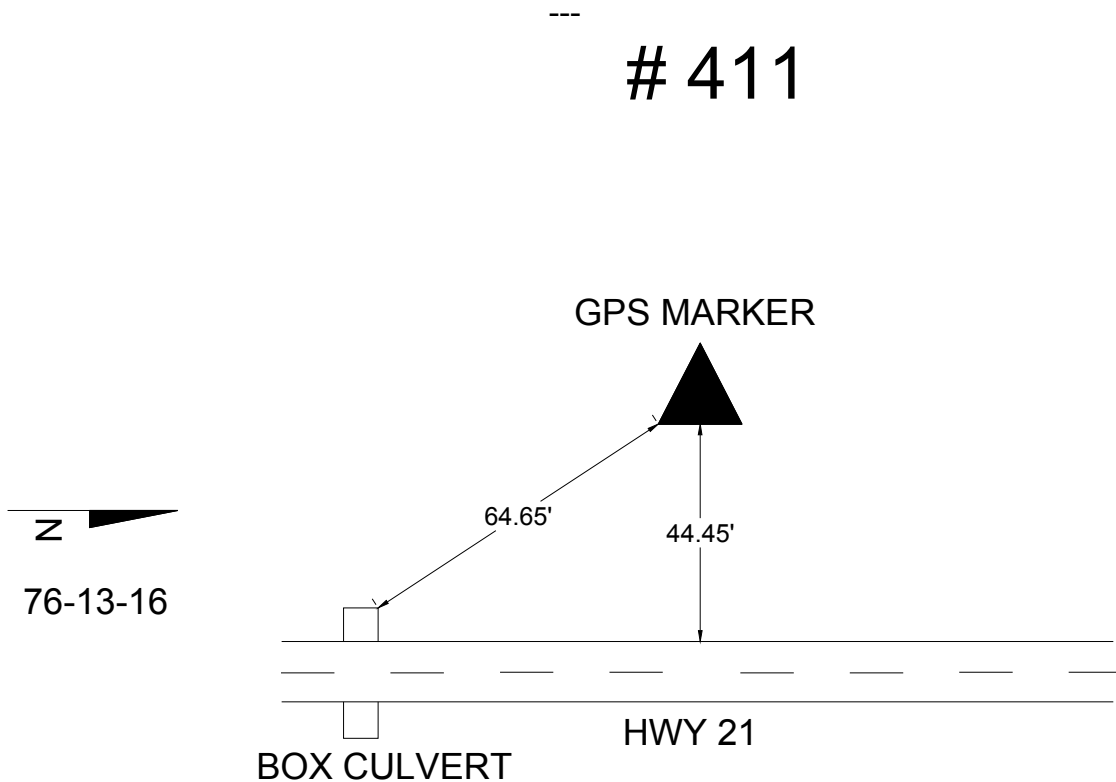
Longitude: **92°21'17.07597"W**

Mapping Angle: **0°45'16"**

Combination Scale Factor: **0.99991945**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-411

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **412**

Northing: **488,993.94sft** Easting: **1,954,213.98sft**

Orthometric Height: **808.91sft**

Ellipsoid Height: **702.88sft**

Latitude: **41°20'11.41121"N**

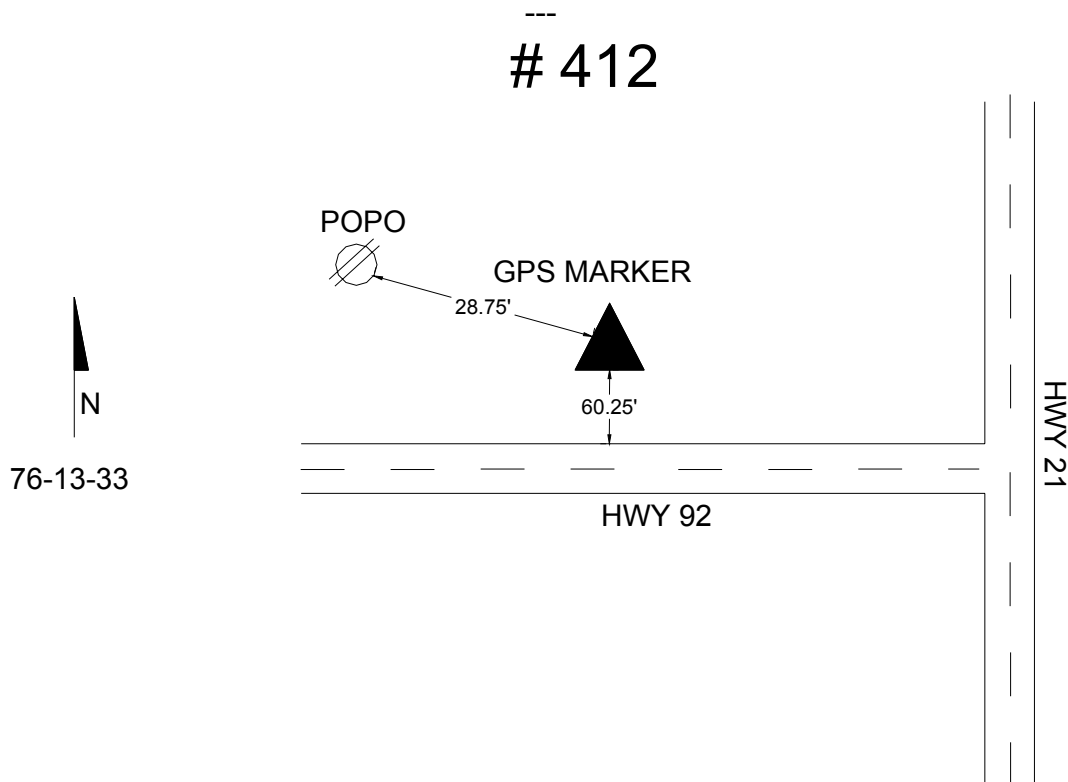
Longitude: **92°21'26.17741"W**

Mapping Angle: **0°45'10"**

Combination Scale Factor: **0.99991762**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-412

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **413**

Northing: **473,311.61**sft    Easting: **1,953,956.90**sft

Orthometric Height: **759.37**sft

Ellipsoid Height: **653.1**sft

Latitude: **41°17'36.50754"N**

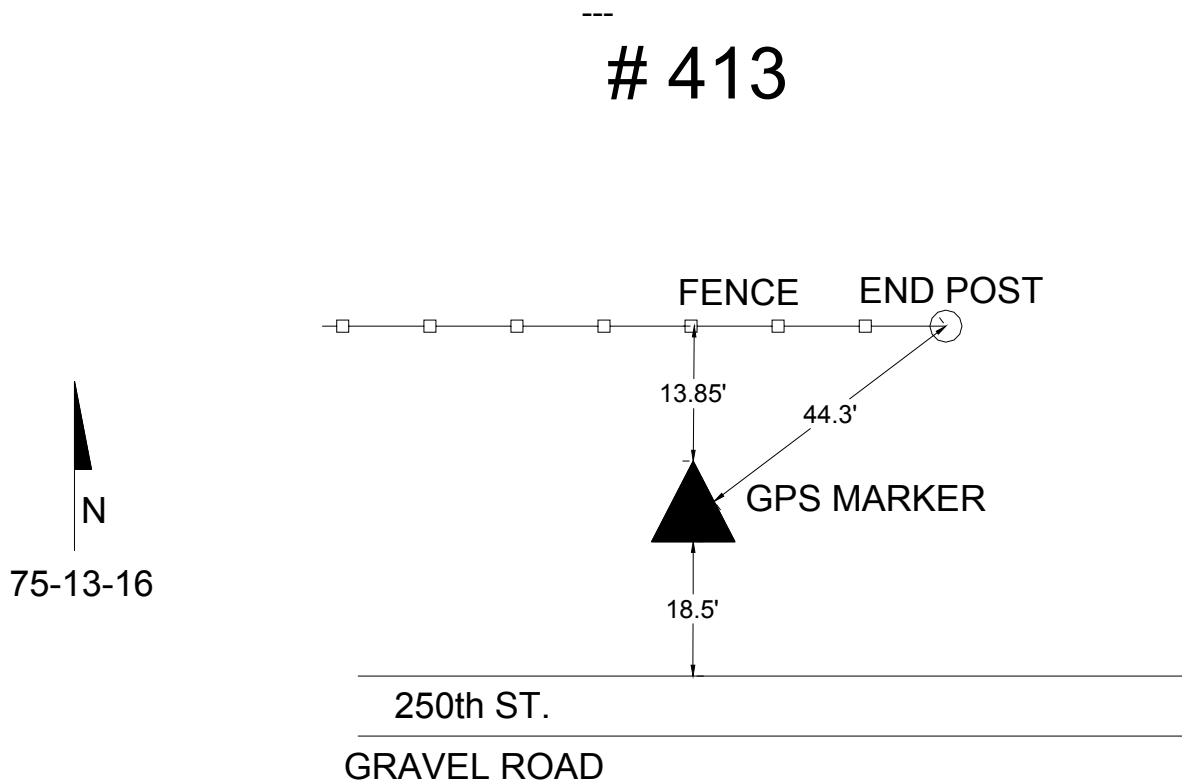
Longitude: **92°21'32.24413"W**

Mapping Angle: **0°45'06"**

Combination Scale Factor: **0.99991851**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-413

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.





**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **414**

Northing: **458,772.58sft** Easting: **1,952,947.47sft**

Orthometric Height: **793.36sft**

Ellipsoid Height: **686.91sft**

Latitude: **41°15'12.99521"N**

Longitude: **92°21'47.95640"W**

Mapping Angle: **0°44'55"**

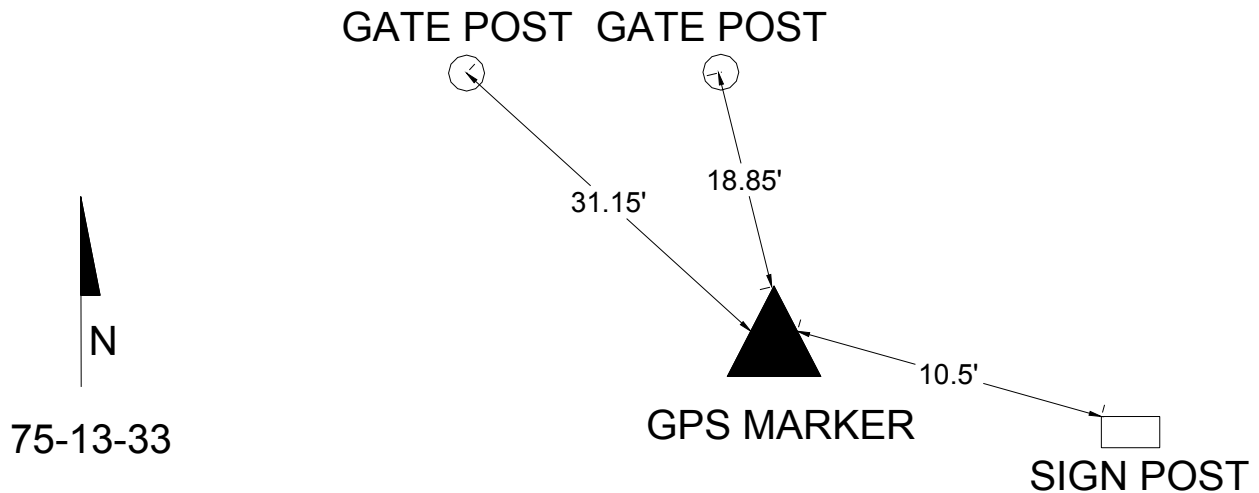
Combination Scale Factor: **0.99991602**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-414

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---

**# 414**



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **415**

Northing: **441,321.06sft** Easting: **1,954,514.28sft**

Orthometric Height: **828.33sft**

Ellipsoid Height: **721.67sft**

Latitude: **41°12'20.37330"N**

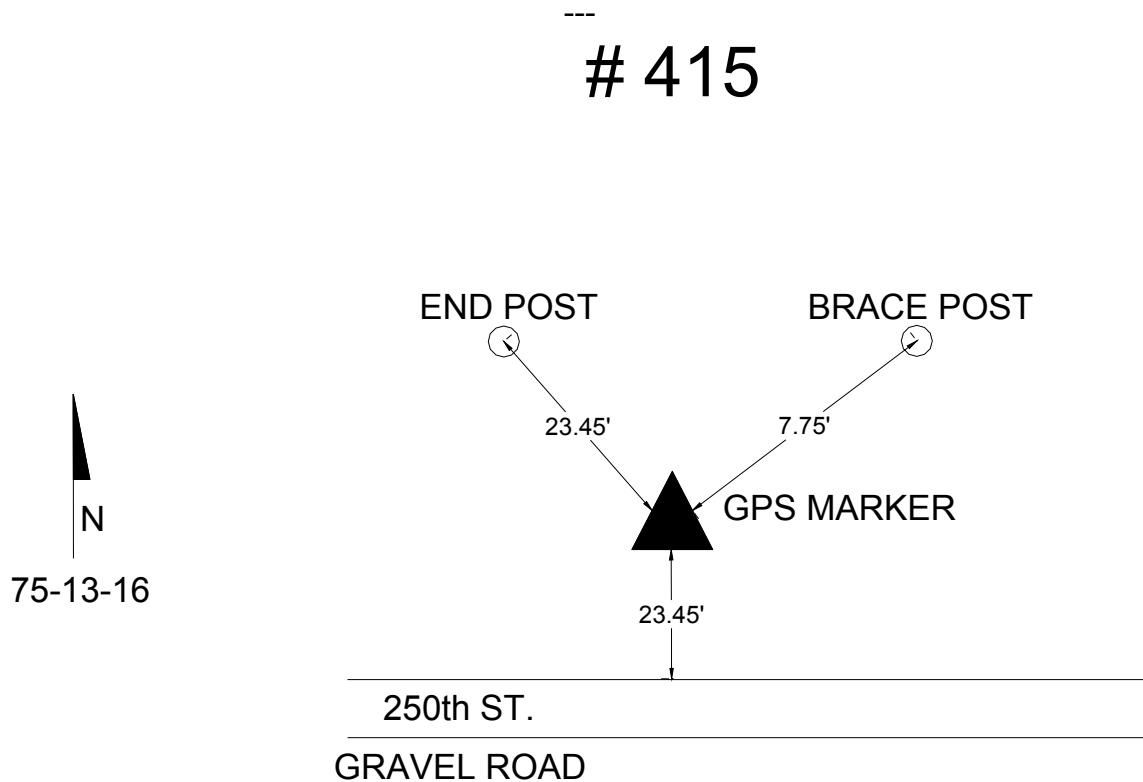
Longitude: **92°21'30.44263"W**

Mapping Angle: **0°45'07"**

Combination Scale Factor: **0.99991394**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-415

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **416**

Northing: **536,711.03sft** Easting: **1,968,852.57sft**

Orthometric Height: **884.7sft**

Ellipsoid Height: **779.18sft**

Latitude: **41°28'00.88526"N**

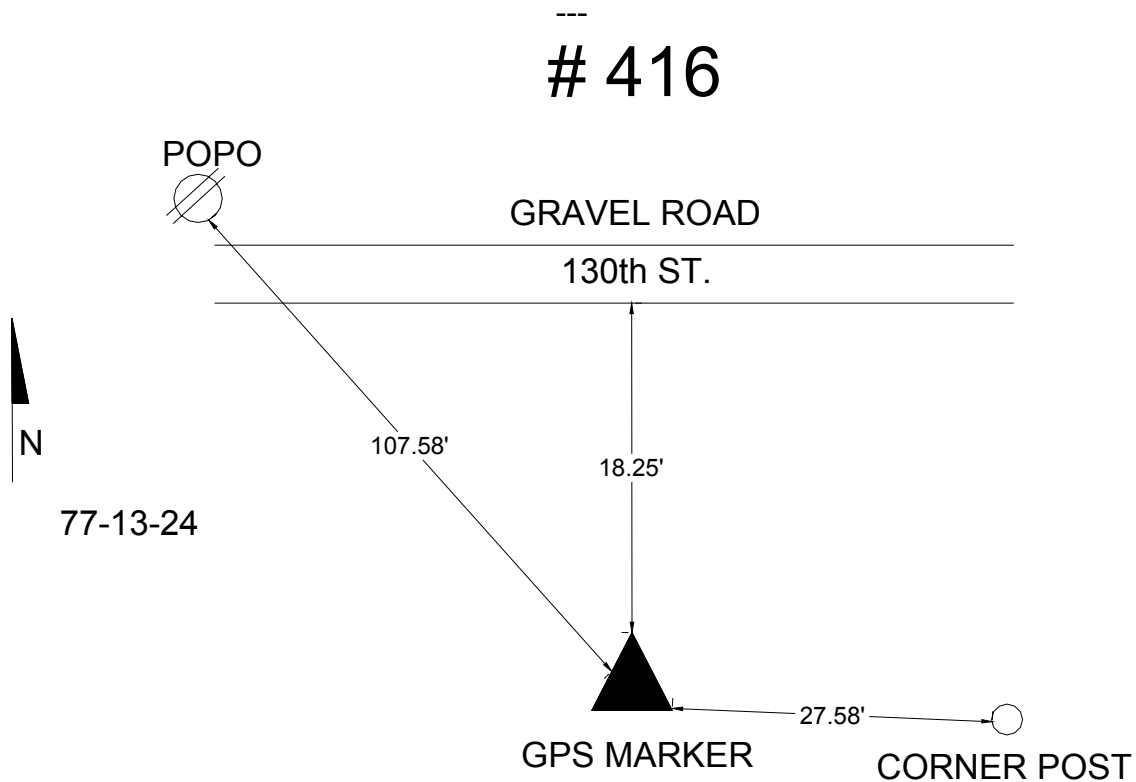
Longitude: **92°18'05.67375"W**

Mapping Angle: **0°47'22"**

Combination Scale Factor: **0.99992194**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-416

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **417**

Northing: **520,963.87sft** Easting: **1,970,489.36sft**

Orthometric Height: **854.43sft**

Ellipsoid Height: **748.78sft**

Latitude: **41°25'25.09049"N**

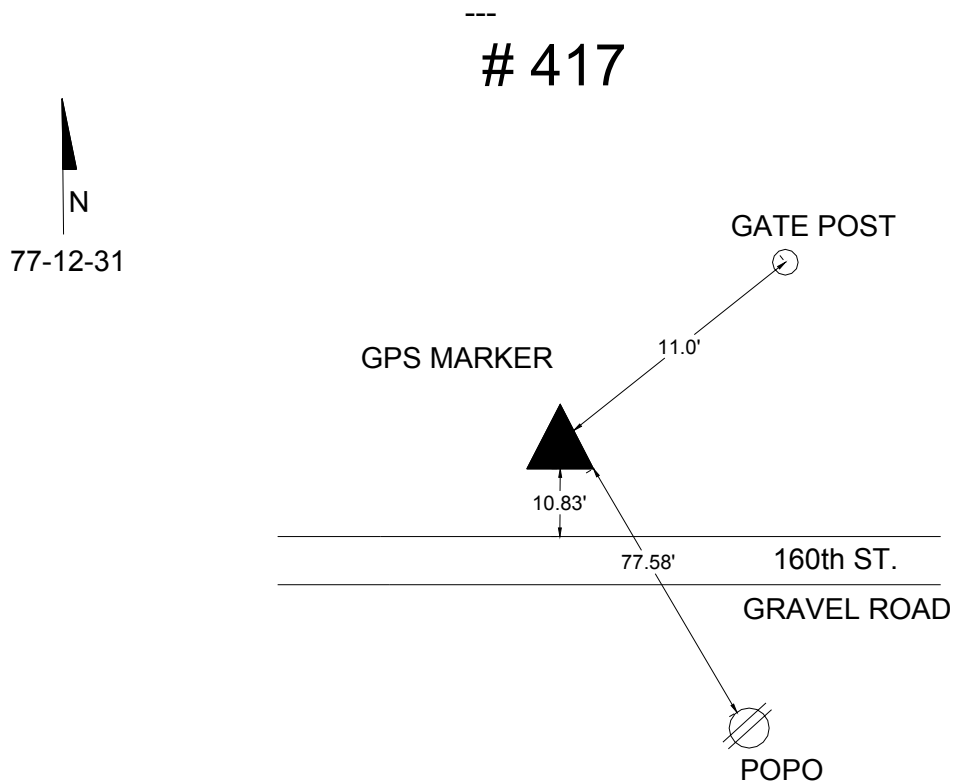
Longitude: **92°17'47.03782"W**

Mapping Angle: **0°47'34"**

Combination Scale Factor: **0.99992018**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-417

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **418**

Northing: **502,378.13sft**    Easting: **1,971,906.67sft**

Orthometric Height: **822.6sft**

Ellipsoid Height: **716.72sft**

Latitude: **41°22'21.27963"N**

Longitude: **92°17'31.82231"W**

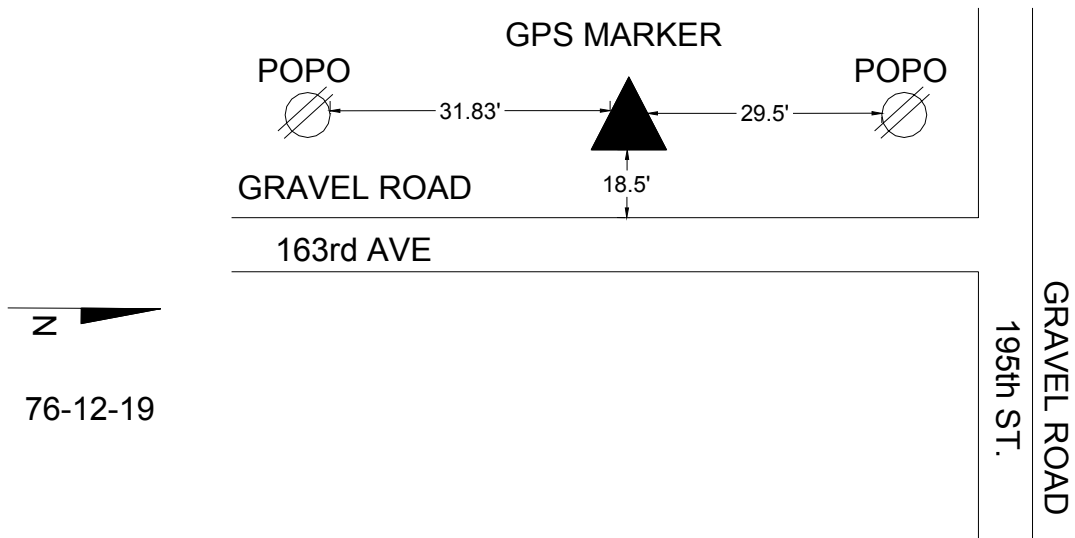
Mapping Angle: **0°47'44"**

Combination Scale Factor: **0.99991865**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-418

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---  
**# 418**



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **419**

Northing: **489,637.44sft** Easting: **1,972,267.10sft**

Orthometric Height: **781.43sft**

Ellipsoid Height: **675.36sft**

Latitude: **41°20'15.35804"N**

Longitude: **92°17'29.41696"W**

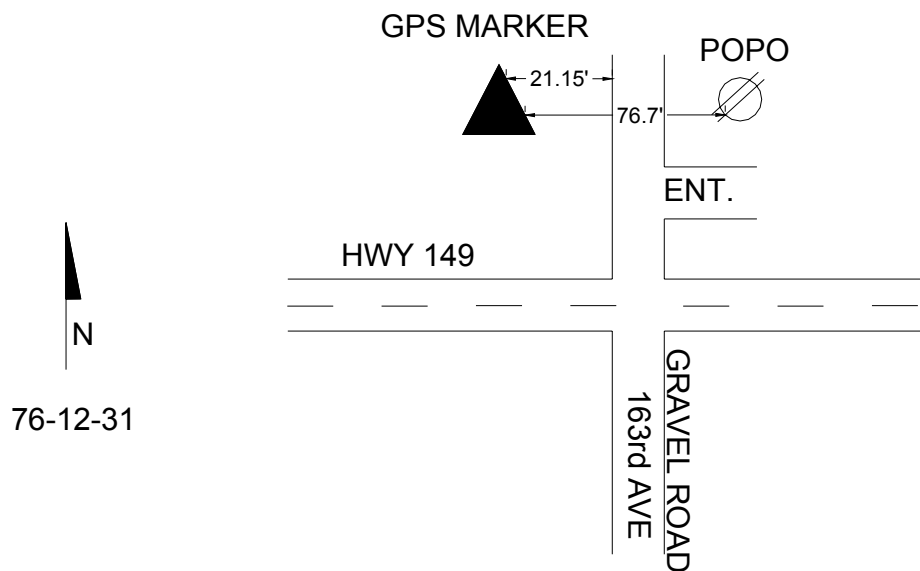
Mapping Angle: **0°47'46"**

Combination Scale Factor: **0.99991898**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-419

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---  
**# 419**



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **420**

Northing: **477,560.21**sft Easting: **1,972,617.07**sft

Orthometric Height: **781.83**sft

Ellipsoid Height: **675.57**sft

Latitude: **41°18'15.99166"N**

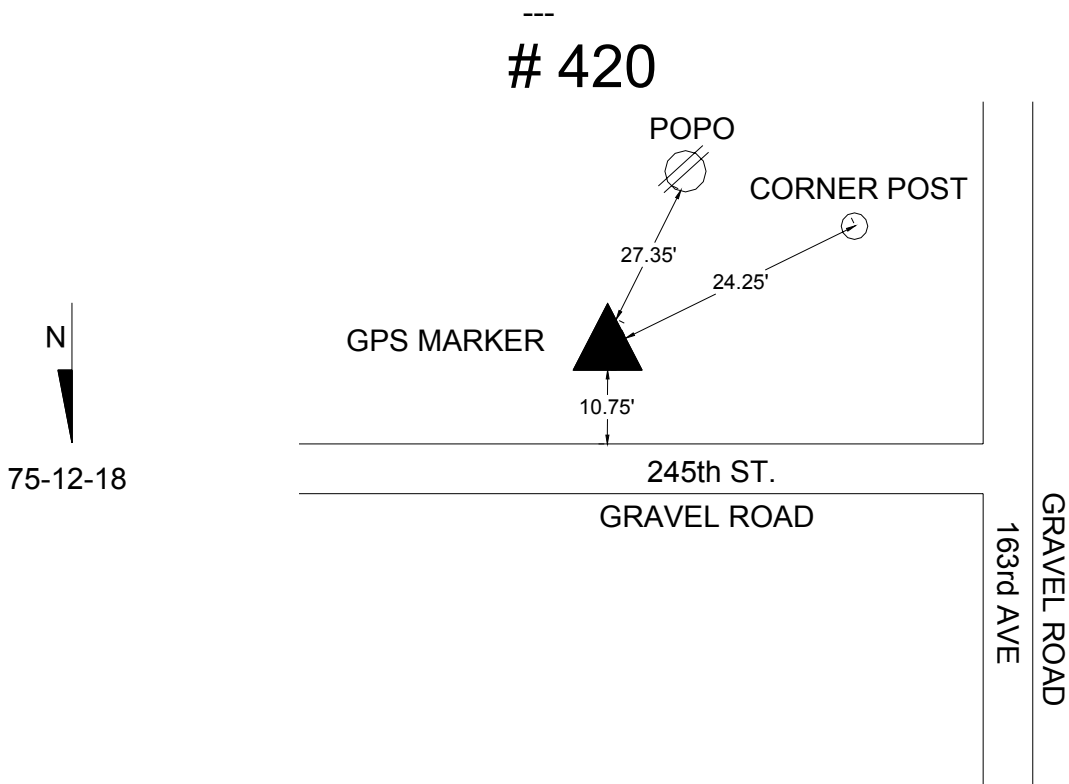
Longitude: **92°17'27.03029"W**

Mapping Angle: **0°47'47"**

Combination Scale Factor: **0.99991776**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-420

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **421**

Northing: **457,767.60**sft Easting: **1,972,948.17**sft

Orthometric Height: **776.41**sft

Ellipsoid Height: **669.84**sft

Latitude: **41°15'00.40122"N**

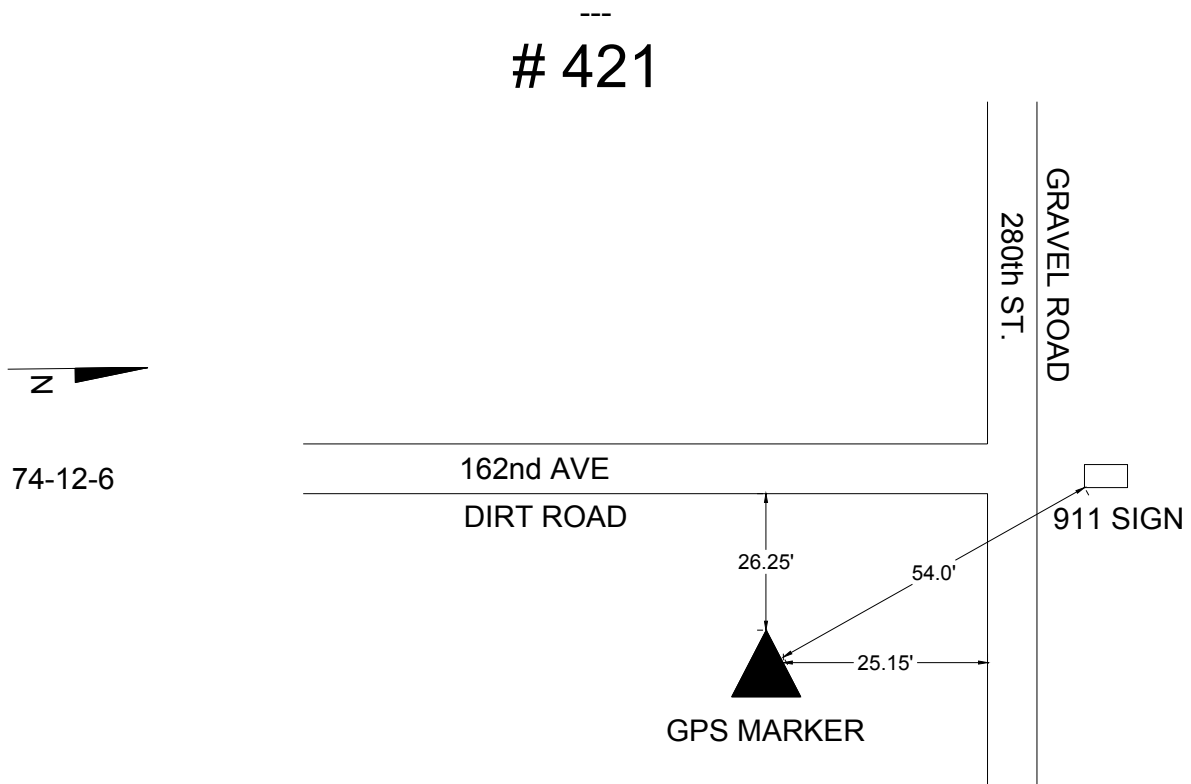
Longitude: **92°17'26.29784"W**

Mapping Angle: **0°47'48"**

Combination Scale Factor: **0.99991678**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-421

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.





**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **422**

Northing: **441,198.76**sft    Easting: **1,971,653.91**sft

Orthometric Height: **788.97**sft

Ellipsoid Height: **682.22**sft

Latitude: **41°12'16.88191"N**

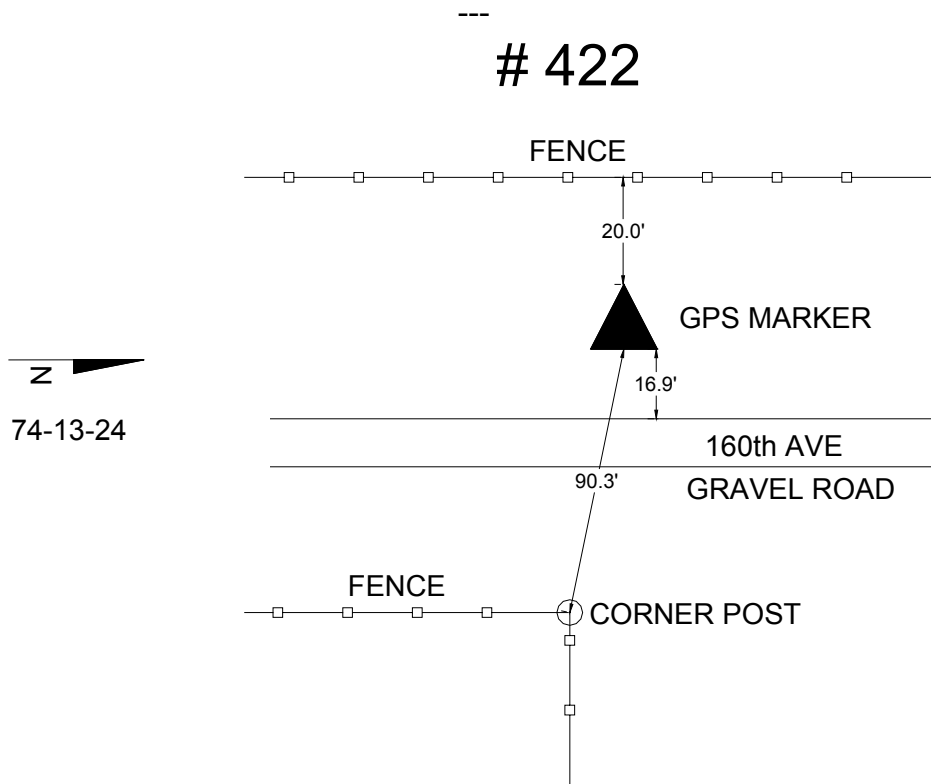
Longitude: **92°17'46.24304"W**

Mapping Angle: **0°47'35"**

Combination Scale Factor: **0.99991582**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-422

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **423**

Northing: **551,549.63**sft Easting: **1,985,604.48**sft

Orthometric Height: **888.71**sft

Ellipsoid Height: **783.17**sft

Latitude: **41°30'25.13945"N**

Longitude: **92°14'22.82707"W**

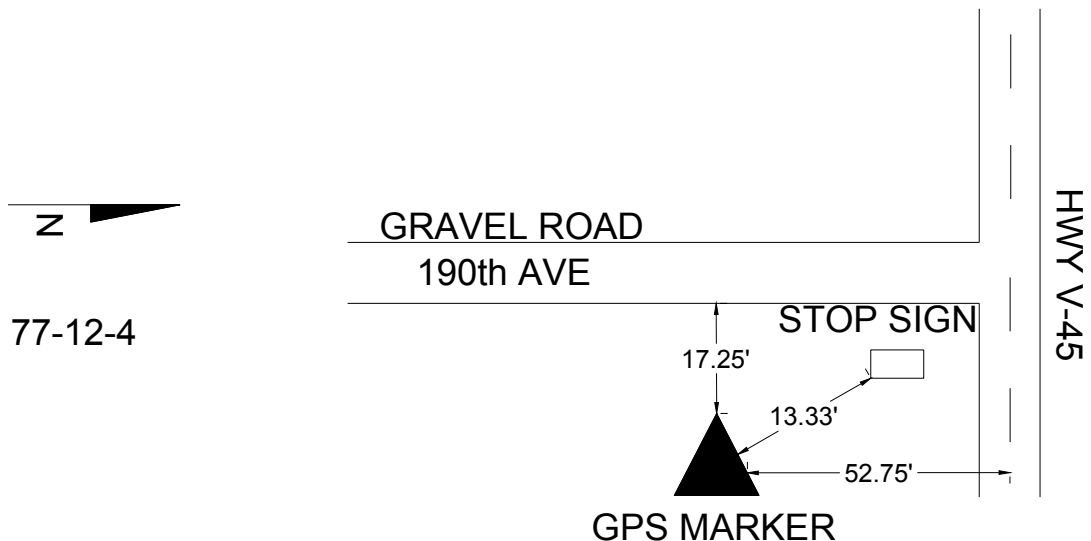
Mapping Angle: **0°49'49"**

Combination Scale Factor: **0.99992524**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-423

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---  
**# 423**



77-12-4

**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **424**

Northing: **537,390.02sft** Easting: **1,985,916.05sft**

Orthometric Height: **777.33sft**

Ellipsoid Height: **671.72sft**

Latitude: **41°28'05.21017"N**

Longitude: **92°14'21.42969"W**

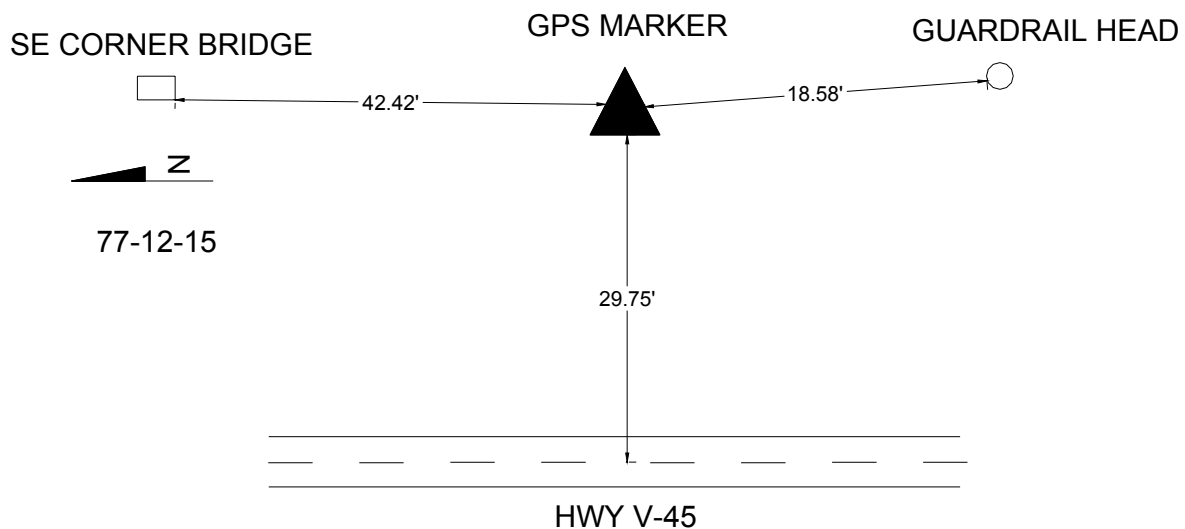
Mapping Angle: **0°49'50"**

Combination Scale Factor: **0.99992717**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-424

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---  
**# 424**



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **425**

Northing: **521,215.51**sft Easting: **1,986,155.11**sft

Orthometric Height: **845.45**sft

Ellipsoid Height: **739.71**sft

Latitude: **41°25'25.38397"N**

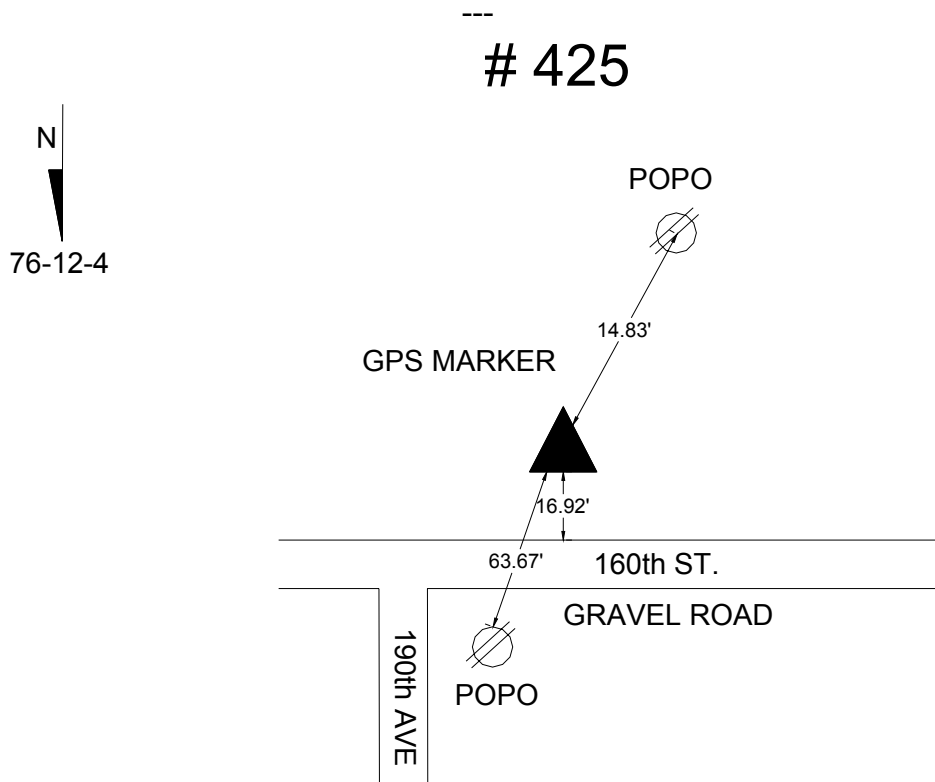
Longitude: **92°14'21.36909"W**

Mapping Angle: **0°49'50"**

Combination Scale Factor: **0.99992062**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-425

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **426**

Northing: **503,775.01**sft Easting: **1,986,396.84**sft

Orthometric Height: **805.55**sft

Ellipsoid Height: **699.62**sft

Latitude: **41°22'33.04862"N**

Longitude: **92°14'21.51430"W**

Mapping Angle: **0°49'50"**

Combination Scale Factor: **0.99991964**

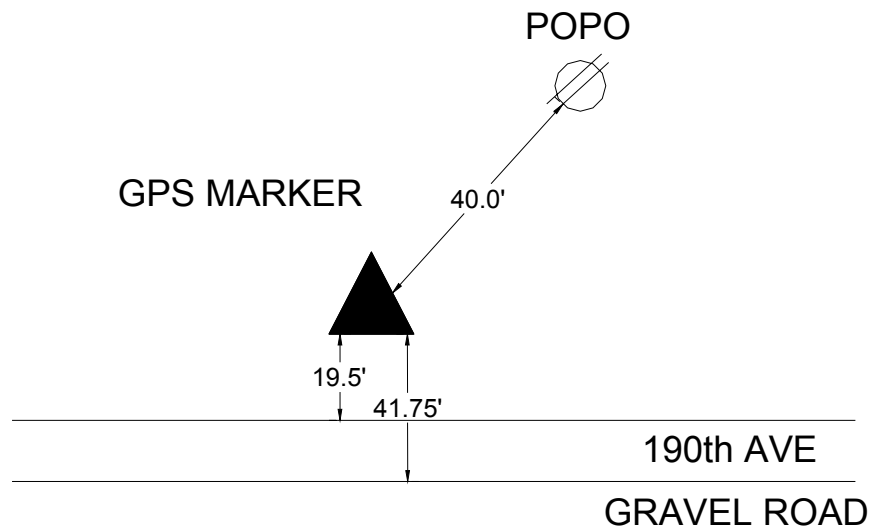
**Designation:** KEOKUK CO. GPS CONTROL PT 2003-426

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5" dia. PVC pipe with a NGS style aluminum access cover.

---  
**# 426**



77-12-21



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **427**

Northing: **490,742.70sft** Easting: **1,986,751.50sft**

Orthometric Height: **787.21sft**

Ellipsoid Height: **681.12sft**

Latitude: **41°20'24.24583"N**

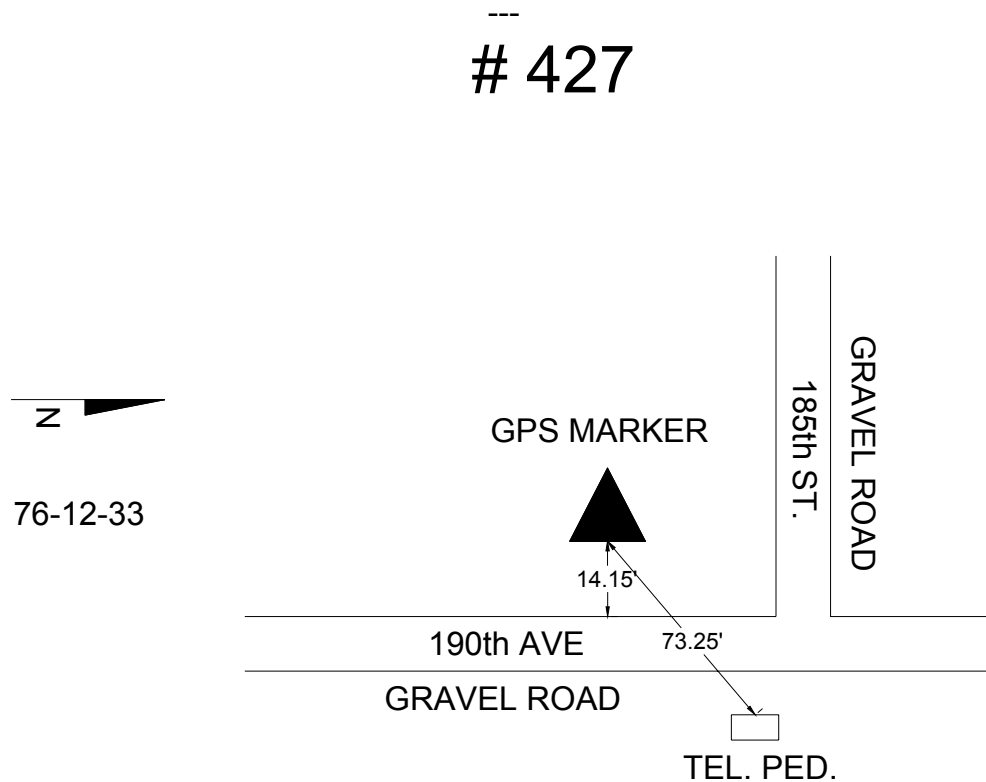
Longitude: **92°14'19.34132"W**

Mapping Angle: **0°49'51"**

Combination Scale Factor: **0.99991881**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-427

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **428**

Northing: **471,615.18sft** Easting: **1,987,200.02sft**

Orthometric Height: **731.78sft**

Ellipsoid Height: **625.36sft**

Latitude: **41°17'15.21047"N**

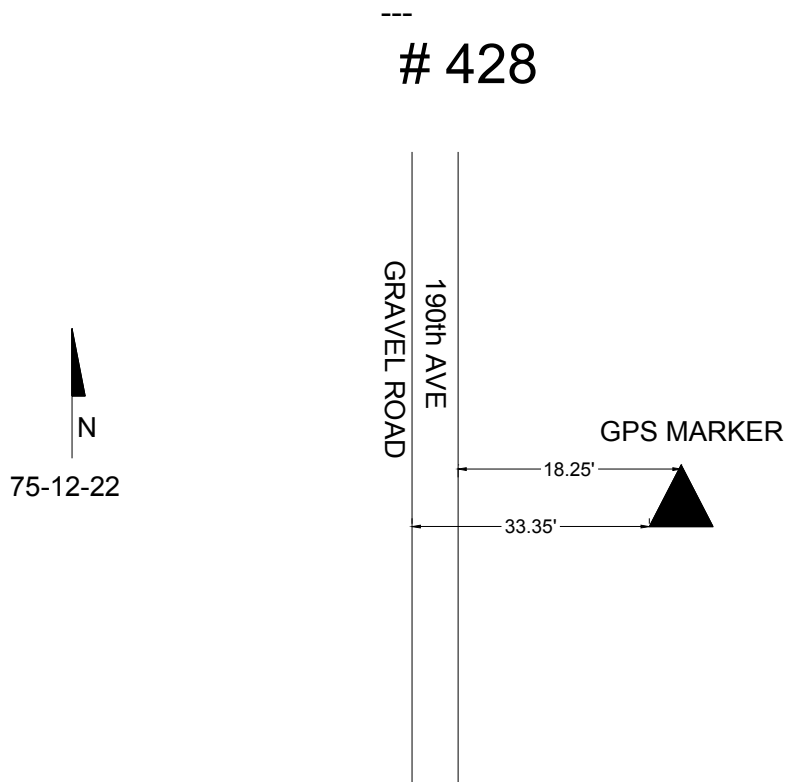
Longitude: **92°14'17.09963"W**

Mapping Angle: **0°49'52"**

Combination Scale Factor: **0.99991967**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-428

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **429**

Northing: **458,050.63**sft    Easting: **1,988,110.91**sft

Orthometric Height: **756.68**sft

Ellipsoid Height: **650.03**sft

Latitude: **41°15'01.06706"N**

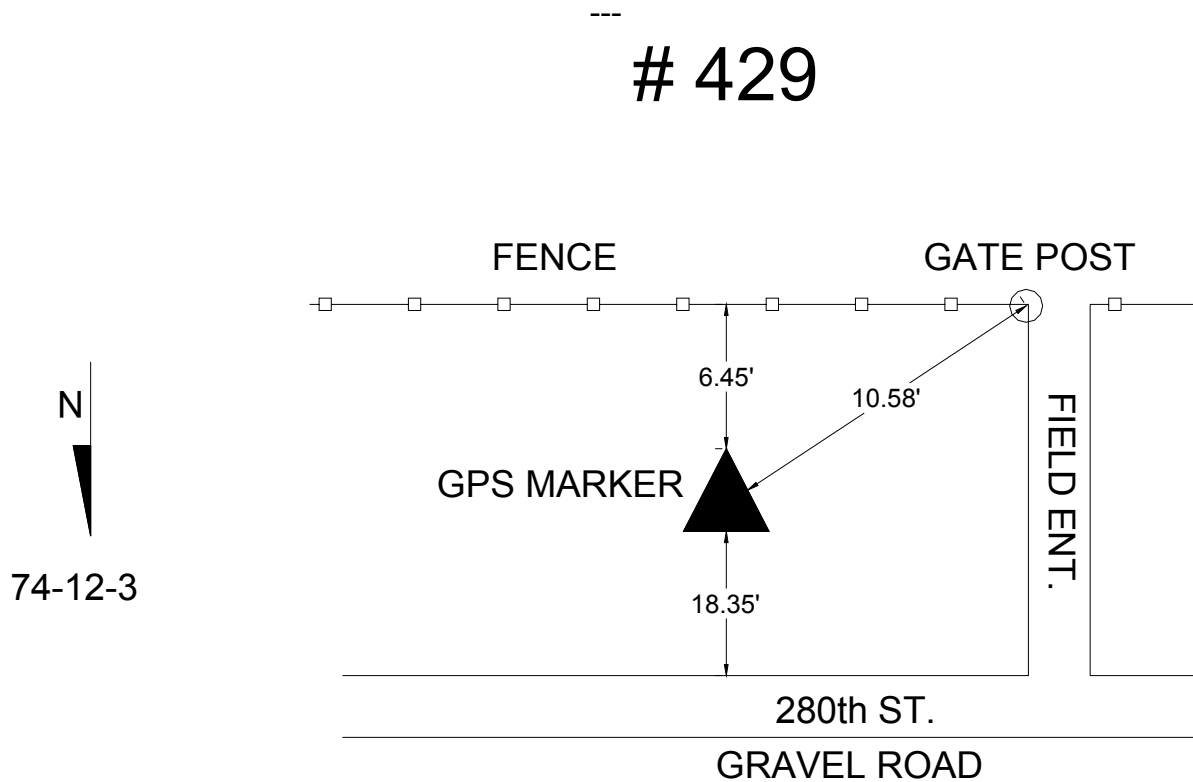
Longitude: **92°14'07.75167"W**

Mapping Angle: **0°49'59"**

Combination Scale Factor: **0.99991772**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-429

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.





**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **430**

Northing: **442,268.74**sft    Easting: **1,987,953.61**sft

Orthometric Height: **807.63**sft

Ellipsoid Height: **700.76**sft

Latitude: **41°12'25.16934"N**

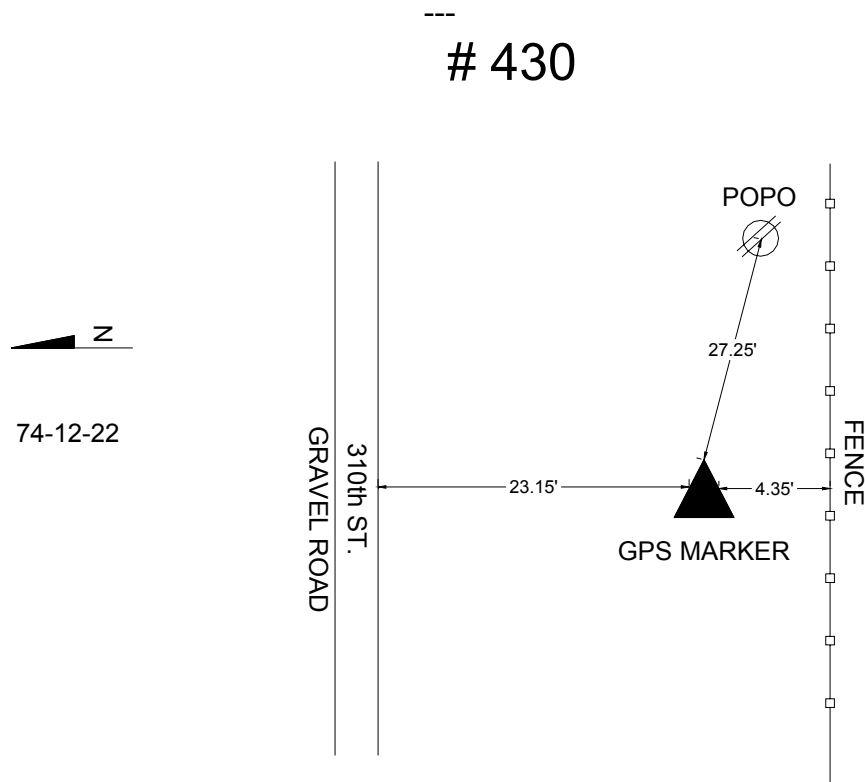
Longitude: **92°14'12.81117"W**

Mapping Angle: **0°49'55"**

Combination Scale Factor: **0.99991494**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-430

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **431**

Northing: **537,441.14sft** Easting: **2,003,373.32sft**

Orthometric Height: **781.64sft**

Ellipsoid Height: **675.84sft**

Latitude: **41°28'03.15217"N**

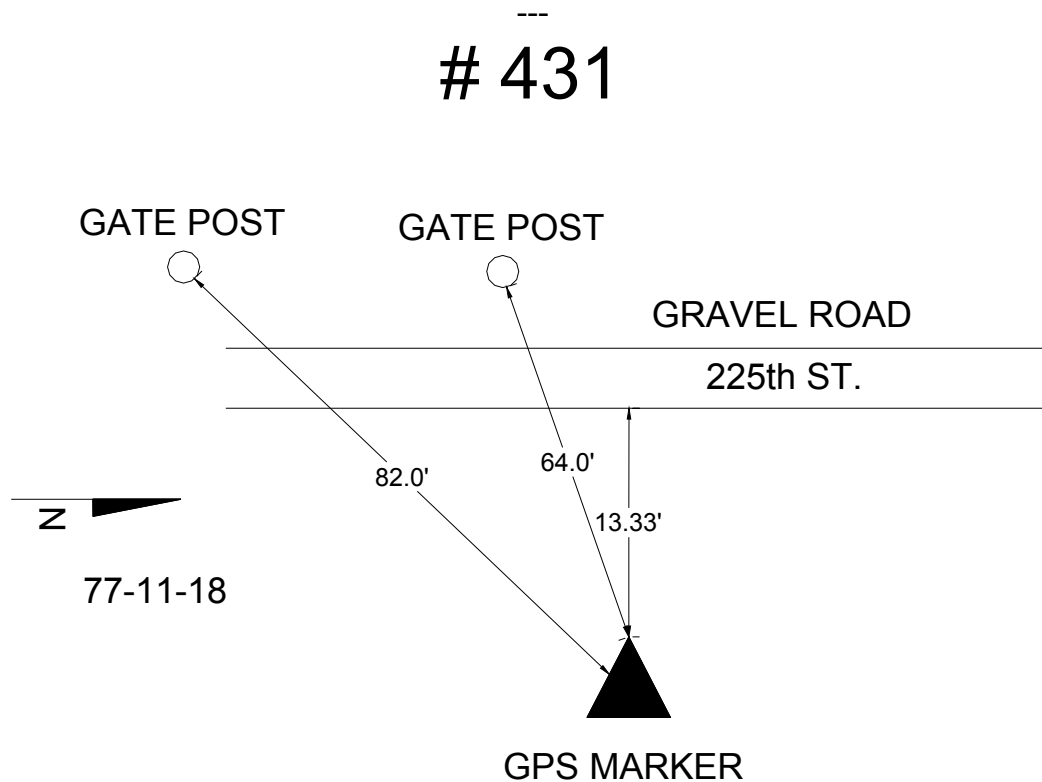
Longitude: **92°10'32.13077"W**

Mapping Angle: **0°52'21"**

Combination Scale Factor: **0.99992693**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-431

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **432**

Northing: **521,504.55sft** Easting: **2,001,504.85sft**

Orthometric Height: **841.24sft**

Ellipsoid Height: **735.38sft**

Latitude: **41°25'25.99264"N**

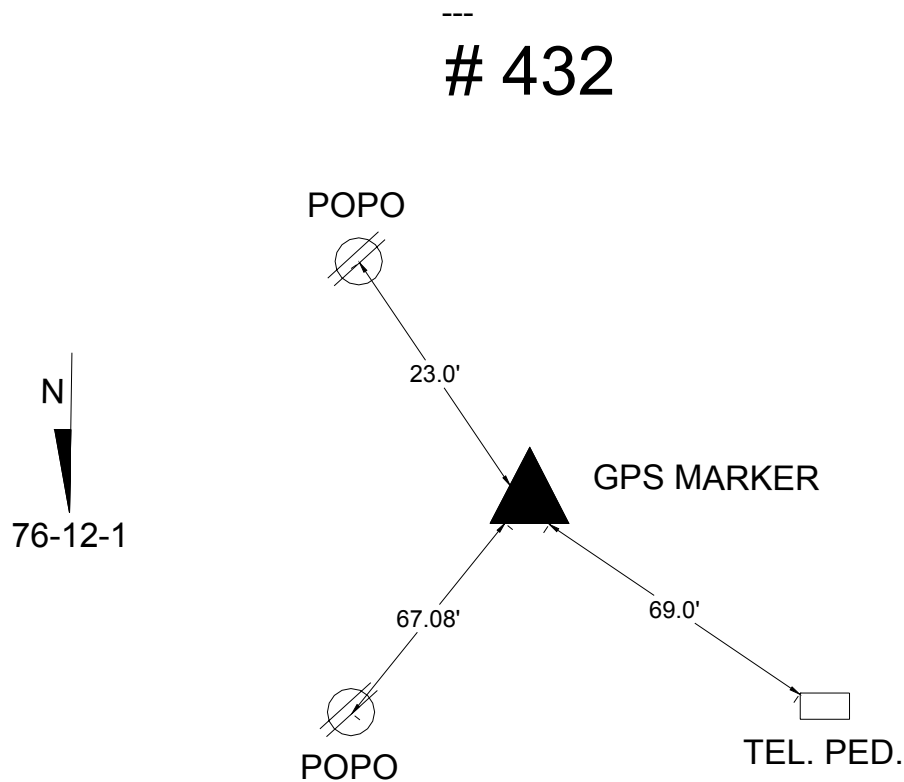
Longitude: **92°10'59.84027"W**

Mapping Angle: **0°52'02"**

Combination Scale Factor: **0.99992084**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-432

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **433**

Northing: **506,360.19sft**    Easting: **2,002,419.07sft**

Orthometric Height: **824.45sft**

Ellipsoid Height: **718.43sft**

Latitude: **41°22'56.24084"N**

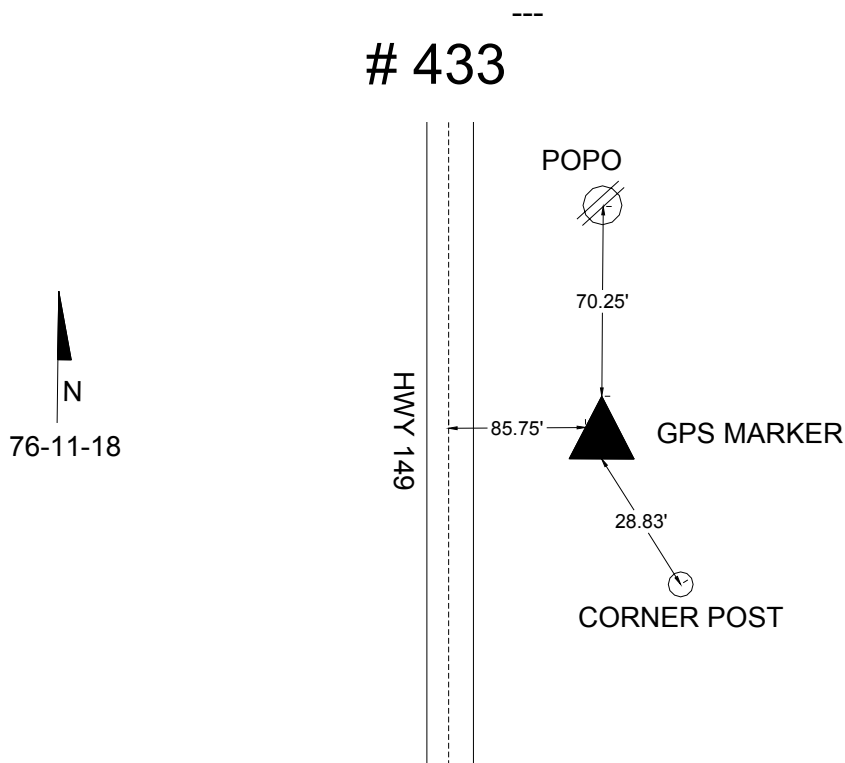
Longitude: **92°10'50.85570"W**

Mapping Angle: **0°52'08"**

Combination Scale Factor: **0.99991909**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-433

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **434**

Northing: **490,591.22sft** Easting: **2,002,554.50sft**

Orthometric Height: **700.62sft**

Ellipsoid Height: **594.42sft**

Latitude: **41°20'20.43353"N**

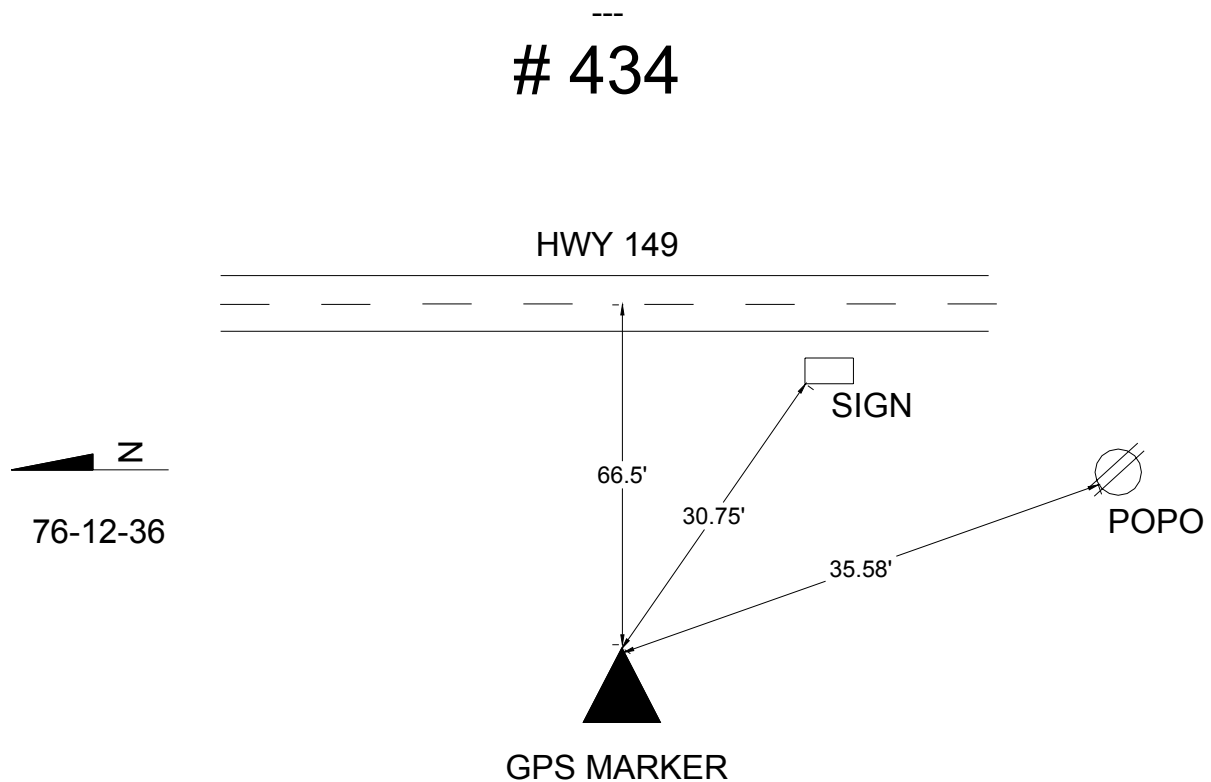
Longitude: **92°10'52.21567"W**

Mapping Angle: **0°52'07"**

Combination Scale Factor: **0.9999229**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-434

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **435**

Northing: **474,208.79sft** Easting: **2,002,891.76sft**

Orthometric Height: **689.46sft**

Ellipsoid Height: **582.98sft**

Latitude: **41°17'38.53382"N**

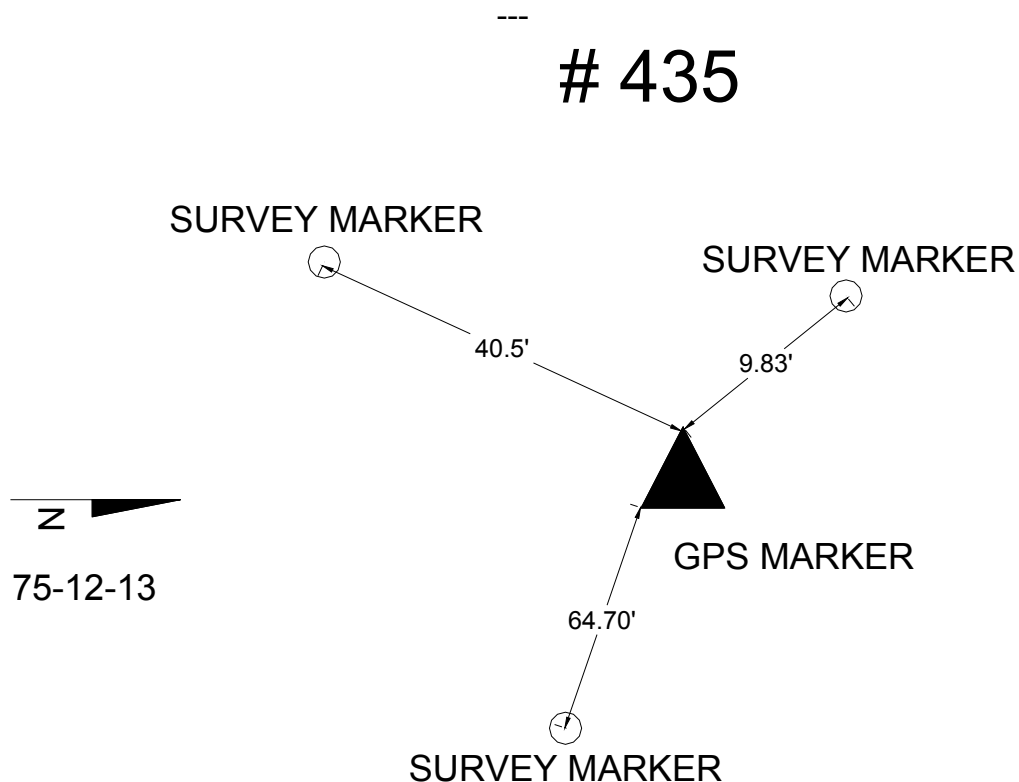
Longitude: **92°10'51.05180"W**

Mapping Angle: **0°52'08"**

Combination Scale Factor: **0.99992187**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-435

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **436**

Northing: **461,030.97sft** Easting: **2,002,755.15sft**

Orthometric Height: **774.73sft**

Ellipsoid Height: **668.04sft**

Latitude: **41°15'28.36379"N**

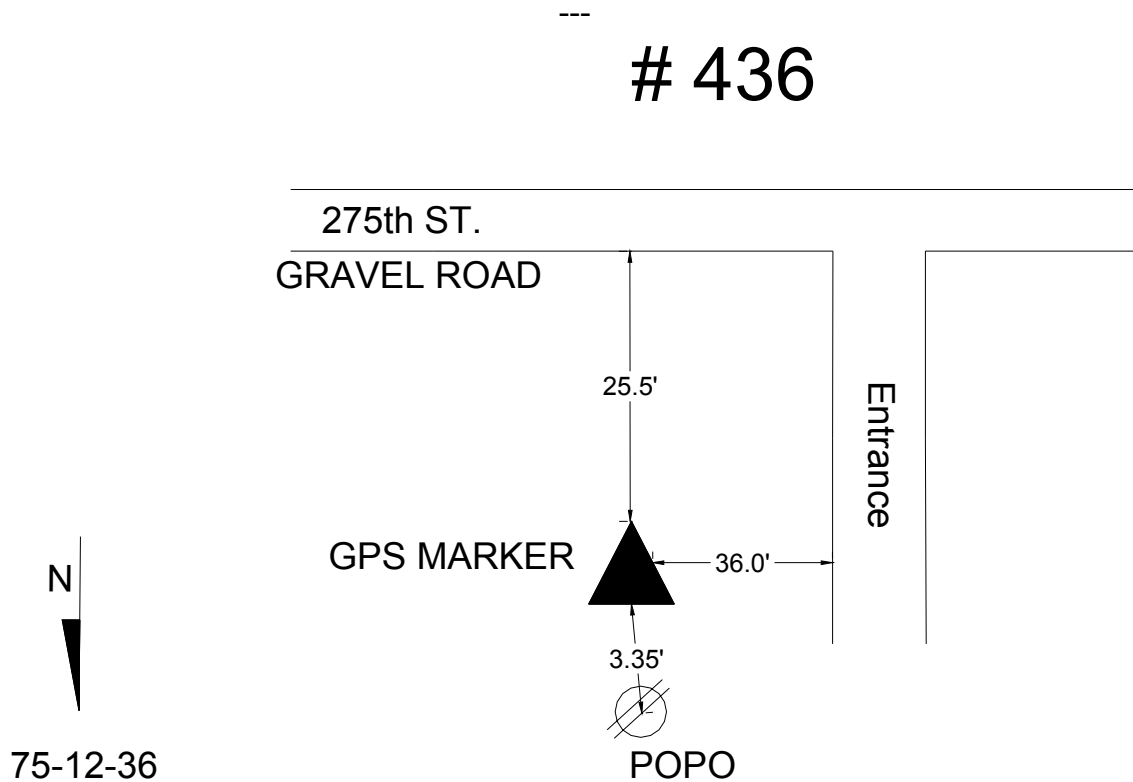
Longitude: **92°10'55.45696"W**

Mapping Angle: **0°52'05"**

Combination Scale Factor: **0.99991699**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-436

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **437**

Northing: **444,836.42sft** Easting: **2,004,101.94sft**

Orthometric Height: **794.48sft**

Ellipsoid Height: **687.57sft**

Latitude: **41°12'48.16634"N**

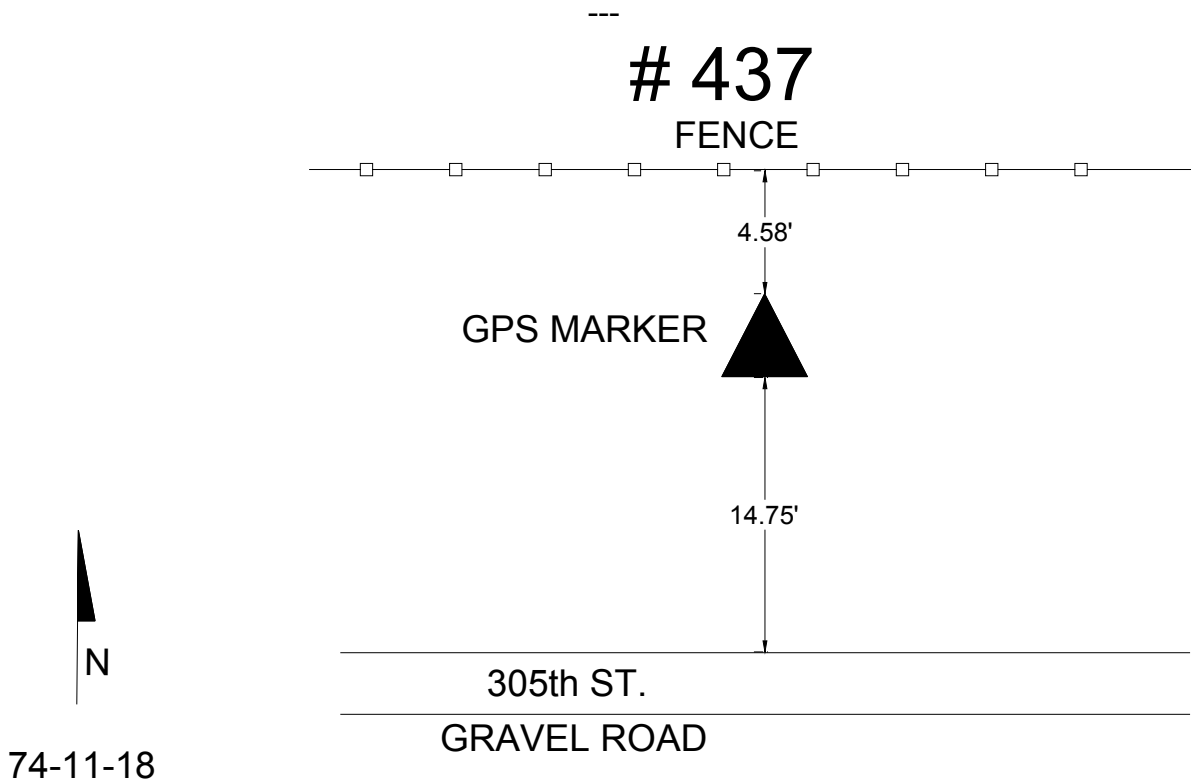
Longitude: **92°10'41.04701"W**

Mapping Angle: **0°52'15"**

Combination Scale Factor: **0.99991559**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-437

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.





**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **438**

Northing: **552,024.15sft** Easting: **2,016,254.20sft**

Orthometric Height: **841.93sft**

Ellipsoid Height: **735.98sft**

Latitude: **41°30'25.24486"N**

Longitude: **92°07'39.93070"W**

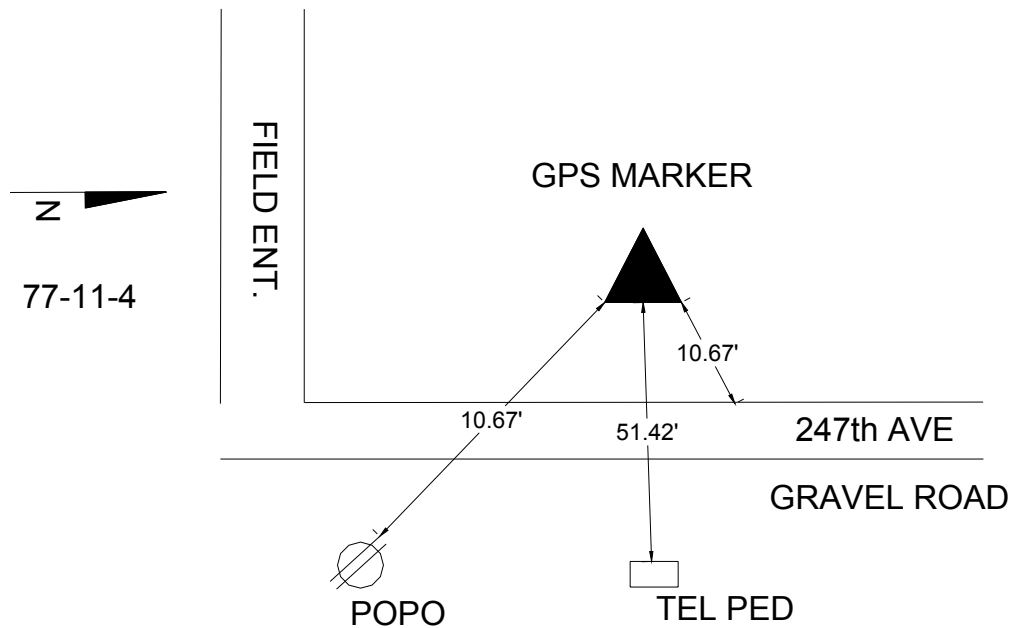
Mapping Angle: **0°54'14"**

Combination Scale Factor: **0.99992749**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-438

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---  
**# 438**



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **439**

Northing: **542,946.38sft**    Easting: **2,017,572.45sft**

Orthometric Height: **847.13sft**

Ellipsoid Height: **741.1sft**

Latitude: **41°28'55.36049"N**

Longitude: **92°07'24.49438"W**

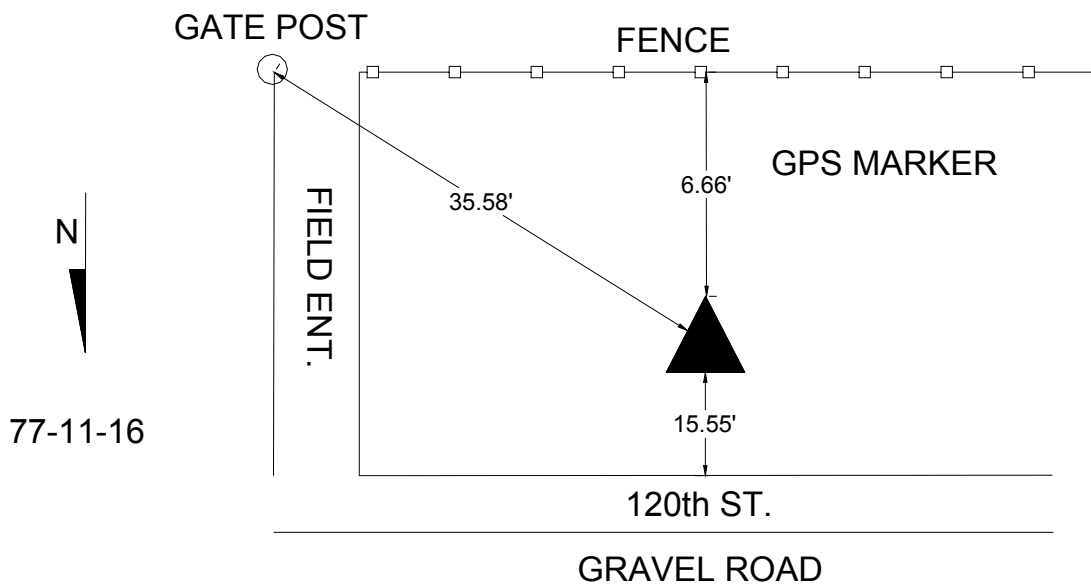
Mapping Angle: **0°54'24"**

Combination Scale Factor: **0.99992502**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-439

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---  
**# 439**



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **440**

Northing: **521,886.55sft** Easting: **2,018,291.67sft**

Orthometric Height: **838.24sft**

Ellipsoid Height: **732.13sft**

Latitude: **41°25'27.19744"N**

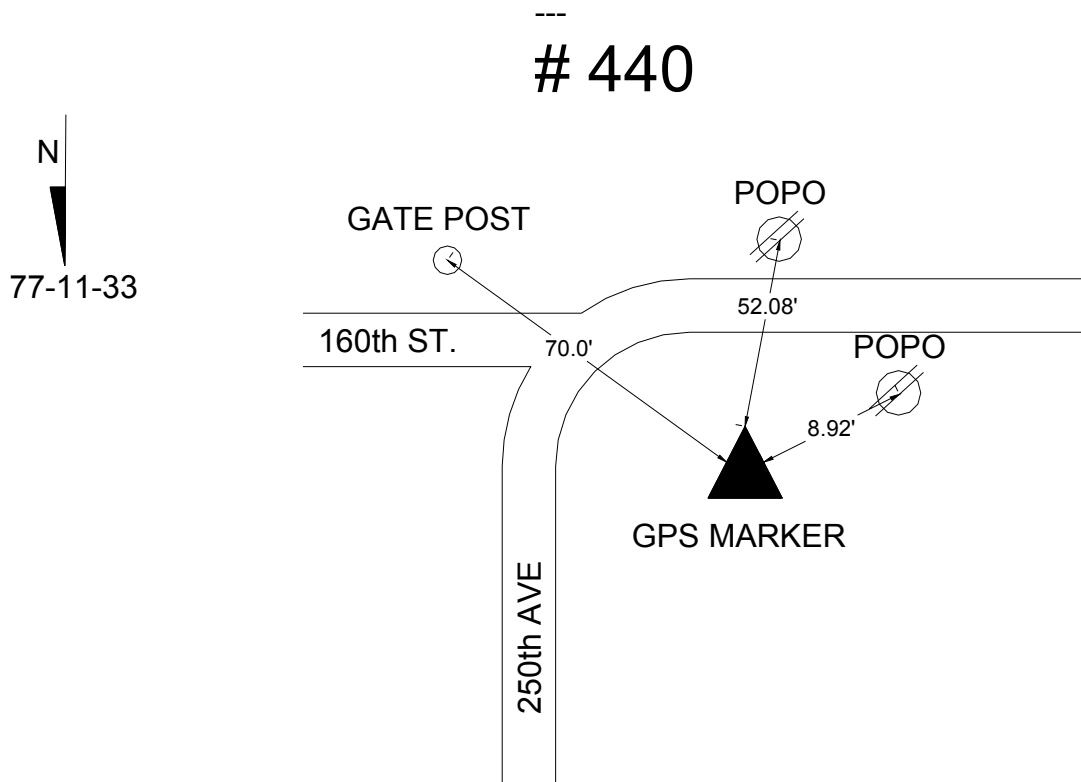
Longitude: **92°07'19.42914"W**

Mapping Angle: **0°54'28"**

Combination Scale Factor: **0.99992101**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-440

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **441**

Northing: **506,201.54sft** Easting: **2,018,563.52sft**

Orthometric Height: **770.92sft**

Ellipsoid Height: **664.68sft**

Latitude: **41°22'52.20048"N**

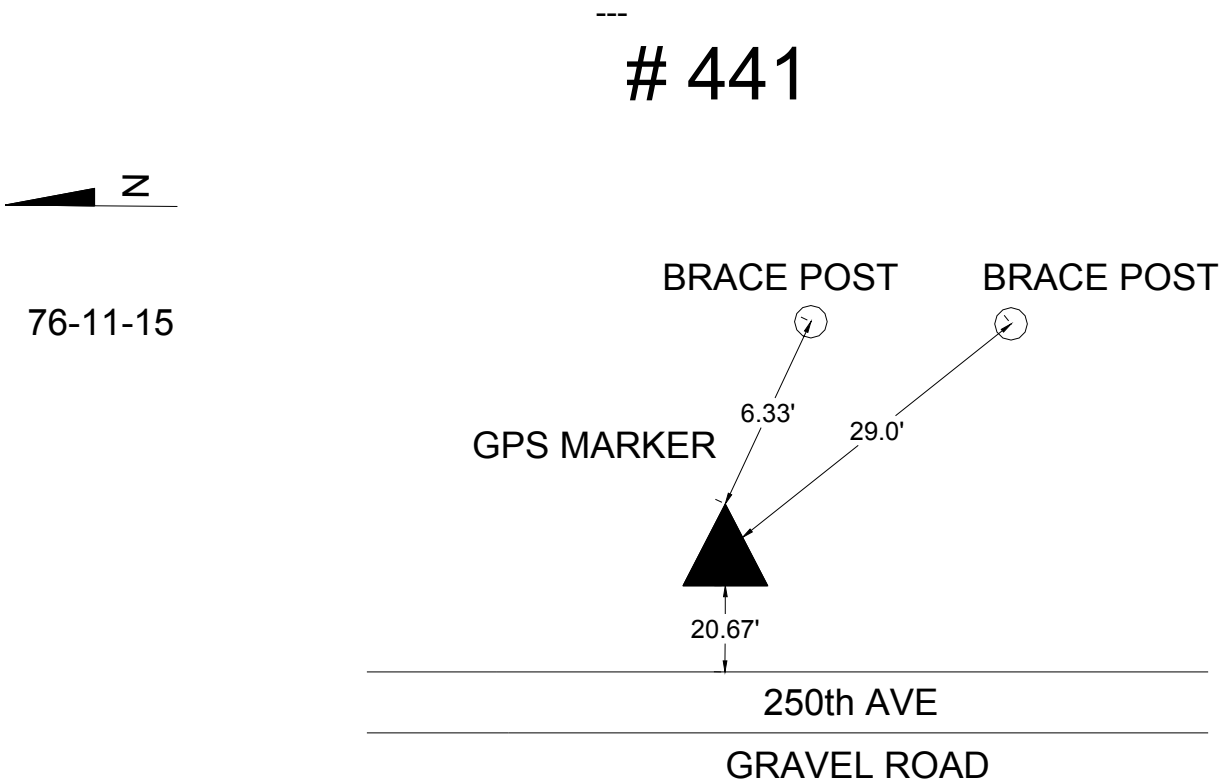
Longitude: **92°07'19.12273"W**

Mapping Angle: **0°54'28"**

Combination Scale Factor: **0.99992159**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-441

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **442**

Northing: **490,269.57**sft Easting: **2,020,196.63**sft

Orthometric Height: **739.98**sft

Ellipsoid Height: **633.55**sft

Latitude: **41°20'14.54872"N**

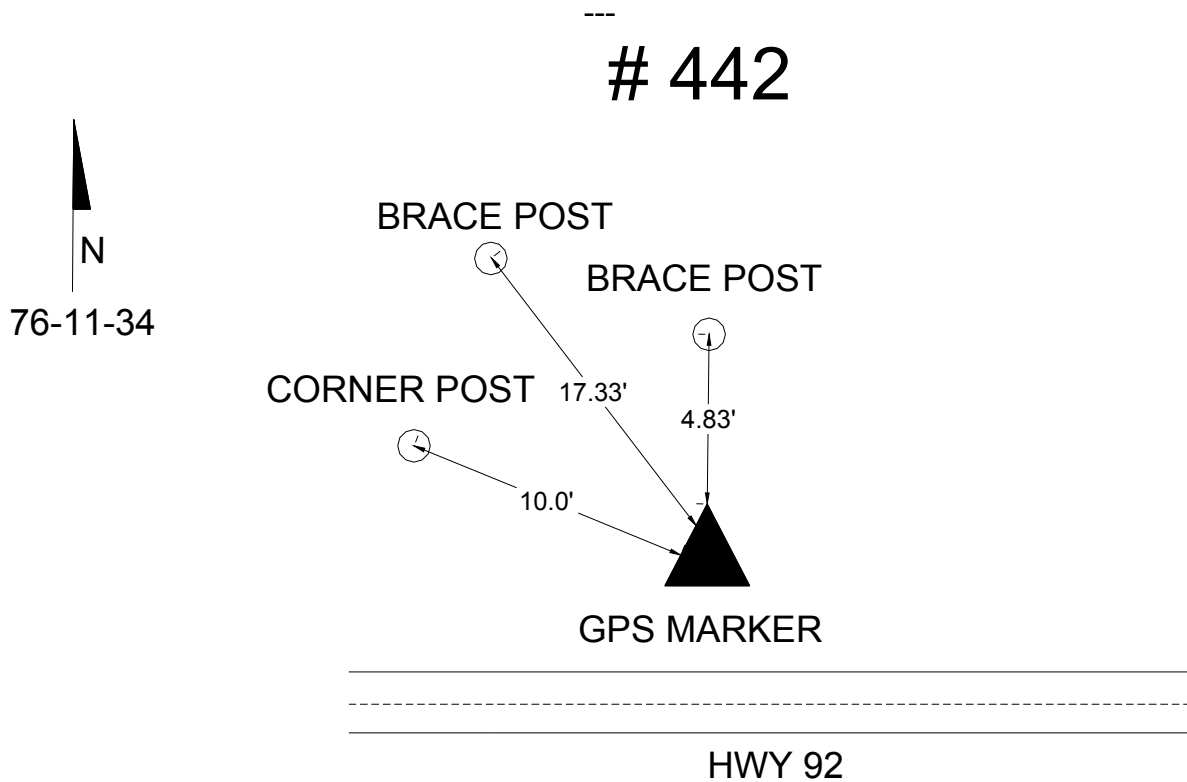
Longitude: **92°07'01.02481"W**

Mapping Angle: **0°54'40"**

Combination Scale Factor: **0.99992097**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-442

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **443**

Northing: **479,769.33**sft Easting: **2,013,887.33**sft

Orthometric Height: **757.07**sft

Ellipsoid Height: **650.57**sft

Latitude: **41°18'31.79613"N**

Longitude: **92°08'25.87842"W**

Mapping Angle: **0°53'44"**

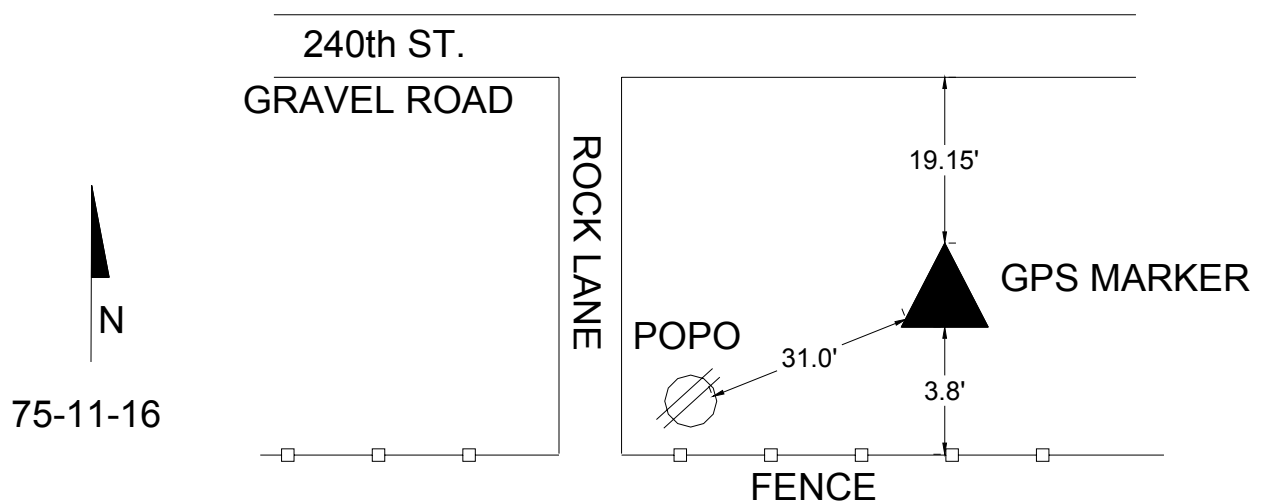
Combination Scale Factor: **0.9999191**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-443

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---

**# 443**



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **444**

Northing: **471,865.91**sft Easting: **2,013,694.06**sft

Orthometric Height: **692.98**sft

Ellipsoid Height: **586.37**sft

Latitude: **41°17'13.74485"N**

Longitude: **92°08'30.02800"W**

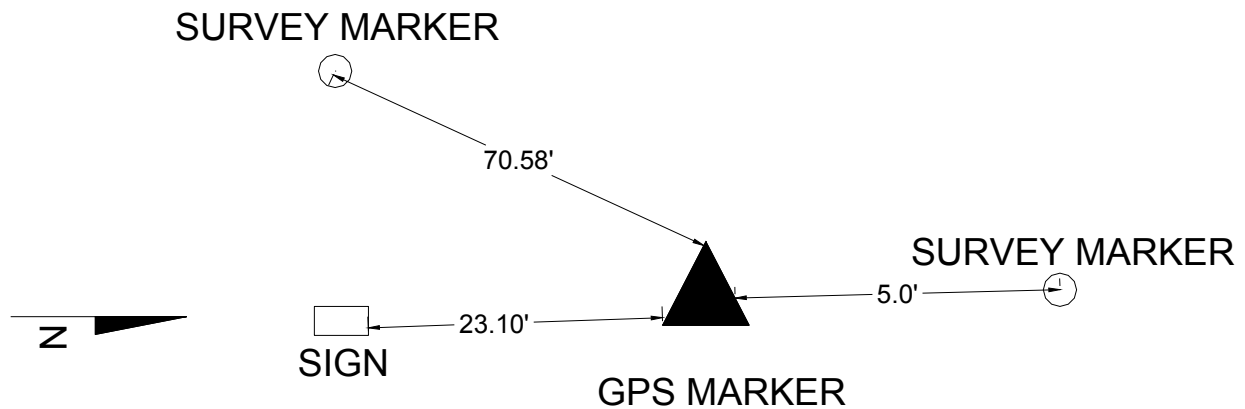
Mapping Angle: **0°53'41"**

Combination Scale Factor: **0.99992152**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-444

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---  
**# 444**



75-11-20

**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **445**

Northing: **458,932.17**sft Easting: **2,020,969.71**sft

Orthometric Height: **700.97**sft

Ellipsoid Height: **594.13**sft

Latitude: **41°15'04.83354"N**

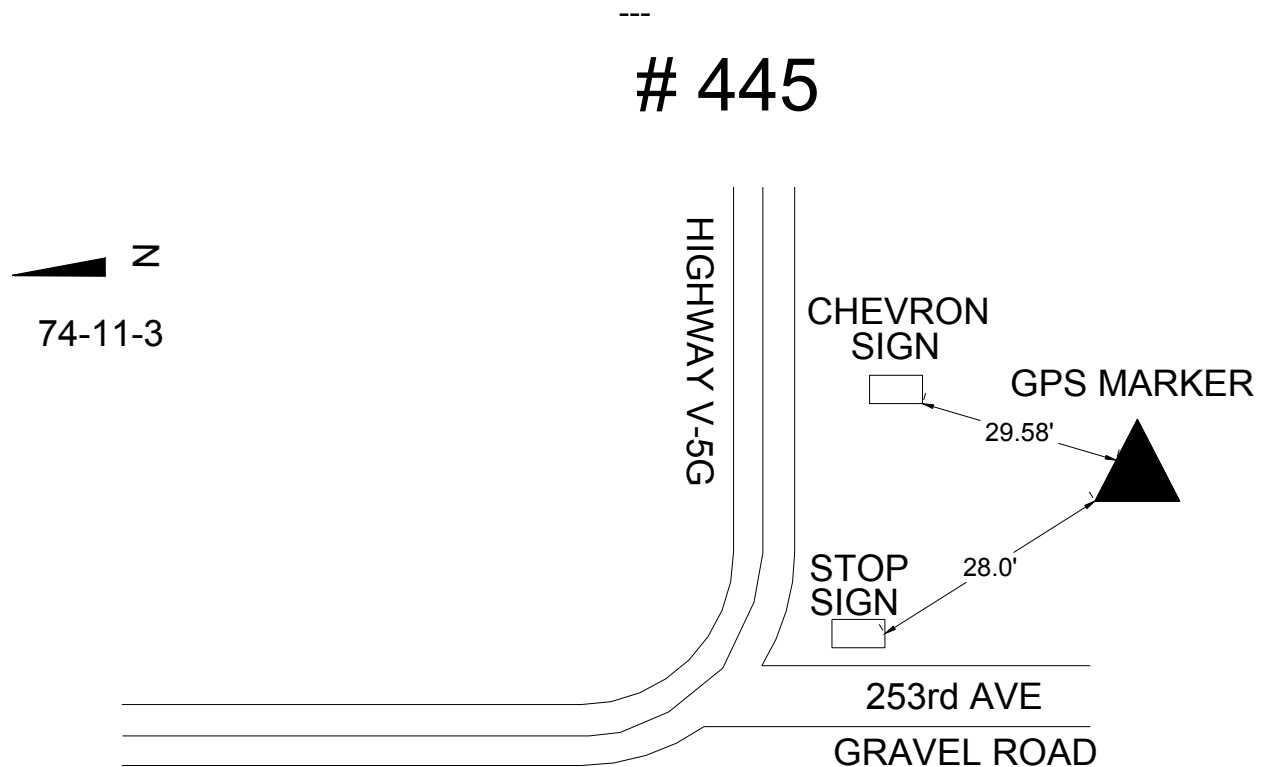
Longitude: **92°06'57.42791"W**

Mapping Angle: **0°54'42"**

Combination Scale Factor: **0.99992041**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-445

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.





**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **446**

Northing: **445,171.90**sft Easting: **2,018,522.94**sft

Orthometric Height: **774.76**sft

Ellipsoid Height: **667.8**sft

Latitude: **41°12'49.27242"N**

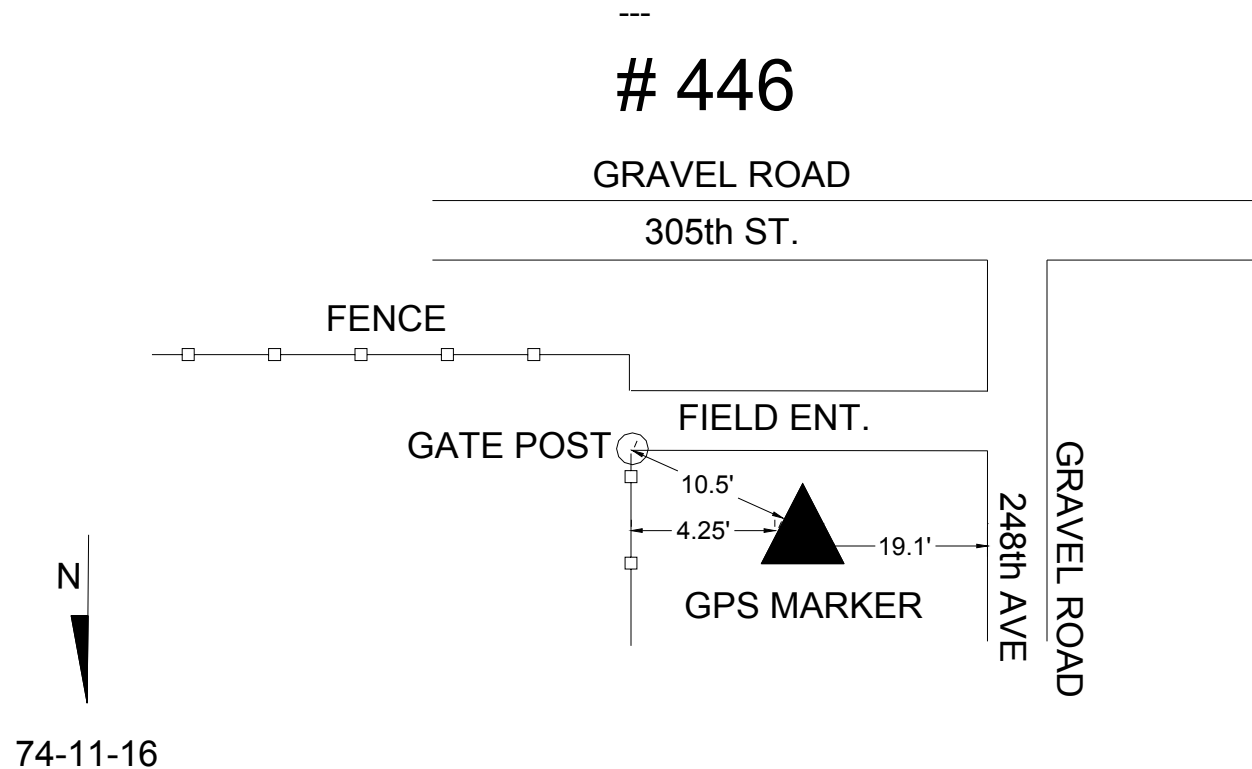
Longitude: **92°07'32.30444"W**

Mapping Angle: **0°54'19"**

Combination Scale Factor: **0.99991653**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-446

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **447**

Northing: **427,793.31**sft Easting: **2,020,152.55**sft

Orthometric Height: **800.42**sft

Ellipsoid Height: **693.34**sft

Latitude: **41°09'57.32454"N**

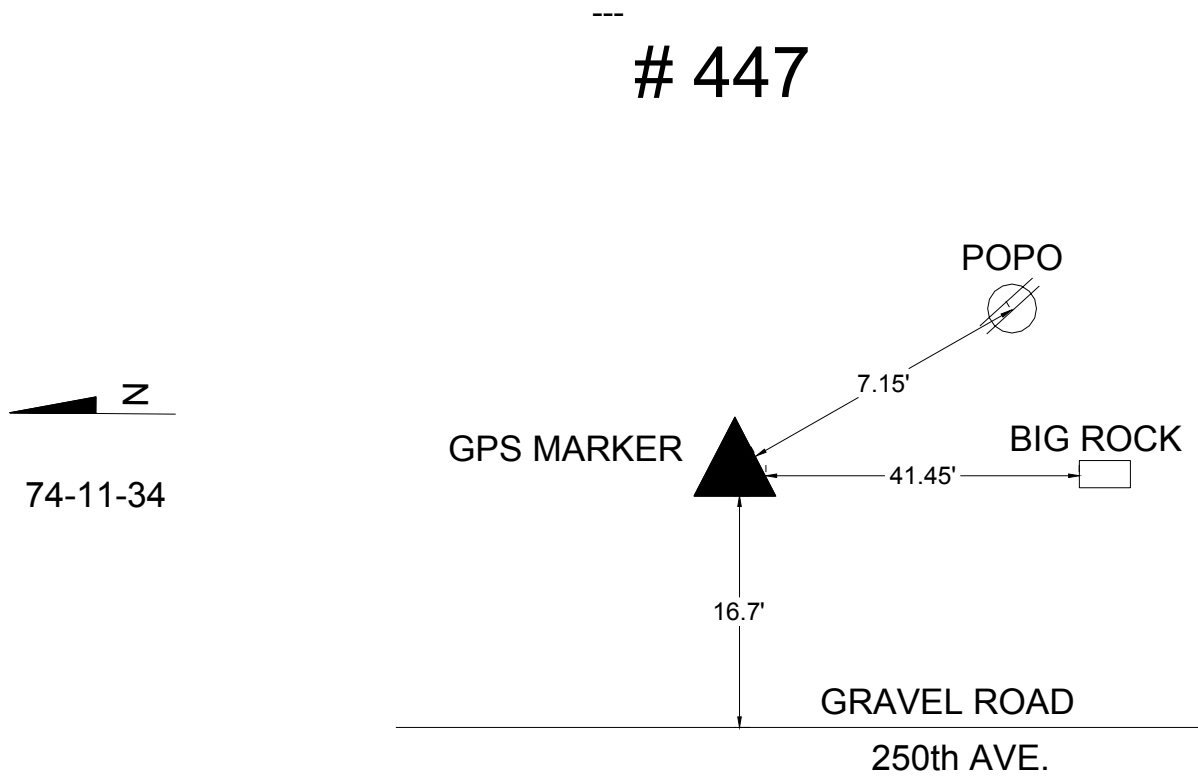
Longitude: **92°07'14.58952"W**

Mapping Angle: **0°54'31"**

Combination Scale Factor: **0.99991547**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-447

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **448**

Northing: **538,175.38**sft Easting: **2,033,743.41**sft

Orthometric Height: **786.82**sft

Ellipsoid Height: **680.54**sft

Latitude: **41°28'05.64593"N**

Longitude: **92°03'53.09376"W**

Mapping Angle: **0°56'43"**

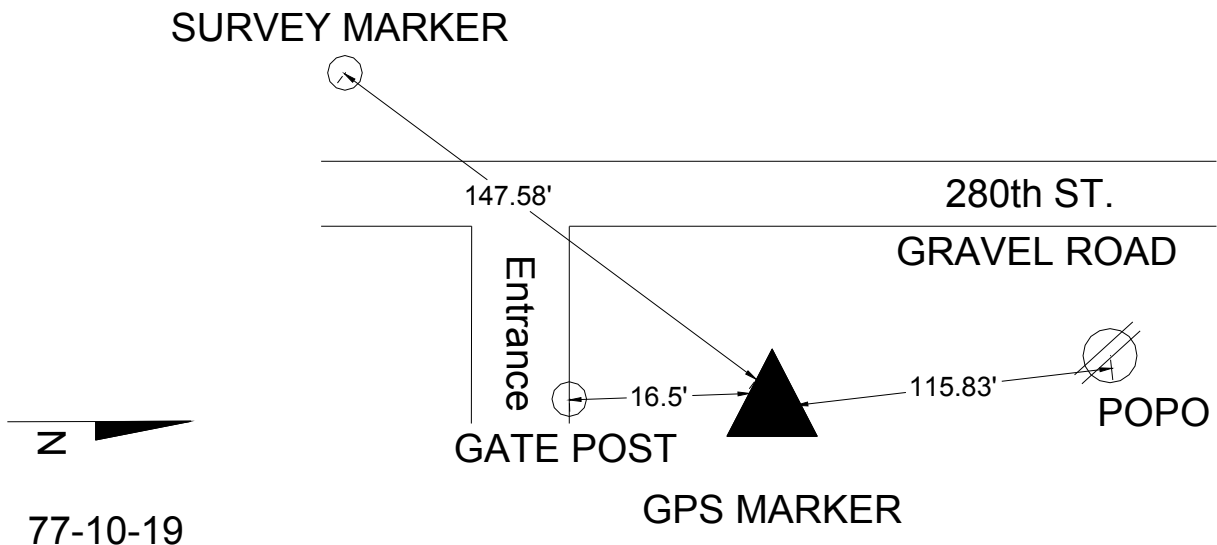
Combination Scale Factor: **0.99992676**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-448

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---

**# 448**



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **449**

Northing: **522,191.30**sft Easting: **2,036,096.69**sft

Orthometric Height: **832.42**sft

Ellipsoid Height: **726.05**sft

Latitude: **41°25'27.35573"N**

Longitude: **92°03'25.66856"W**

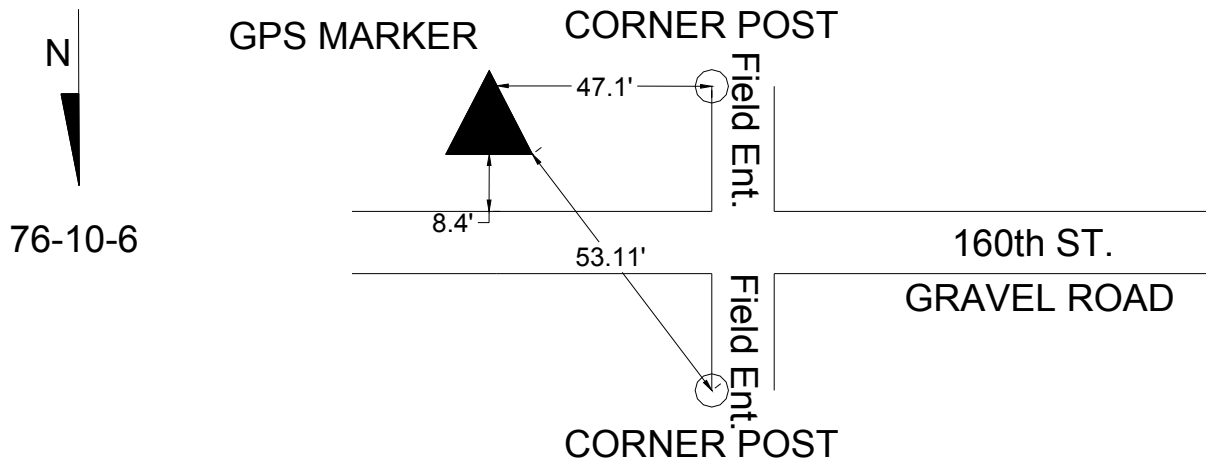
Mapping Angle: **0°57'02"**

Combination Scale Factor: **0.99992131**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-449

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---  
**# 449**



**Keokuk County, Iowa**  
 Iowa South Zone (1402)  
 Horiz. Datum: NAD83(1996)  
 Vert. Datum: NAVD 1988  
 US Survey Feet  
**2003**

Point Name: **450**

Northing: **506,230.48sft**    Easting: **2,034,475.70sft**

Orthometric Height: **816.88sft**

Ellipsoid Height: **710.43sft**

Latitude: **41°22'49.94333"N**

Longitude: **92°03'50.40317"W**

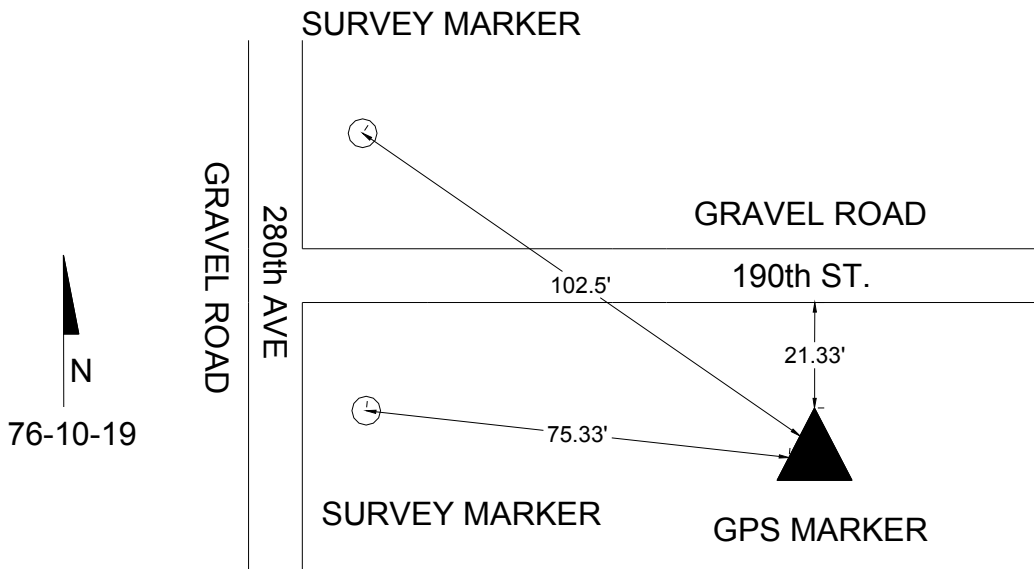
Mapping Angle: **0°56'45"**

Combination Scale Factor: **0.99991937**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-450

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---  
**# 450**



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **451**

Northing: **490,471.89sft** Easting: **2,034,289.67sft**

Orthometric Height: **786.12sft**

Ellipsoid Height: **679.53sft**

Latitude: **41°20'14.29243"N**

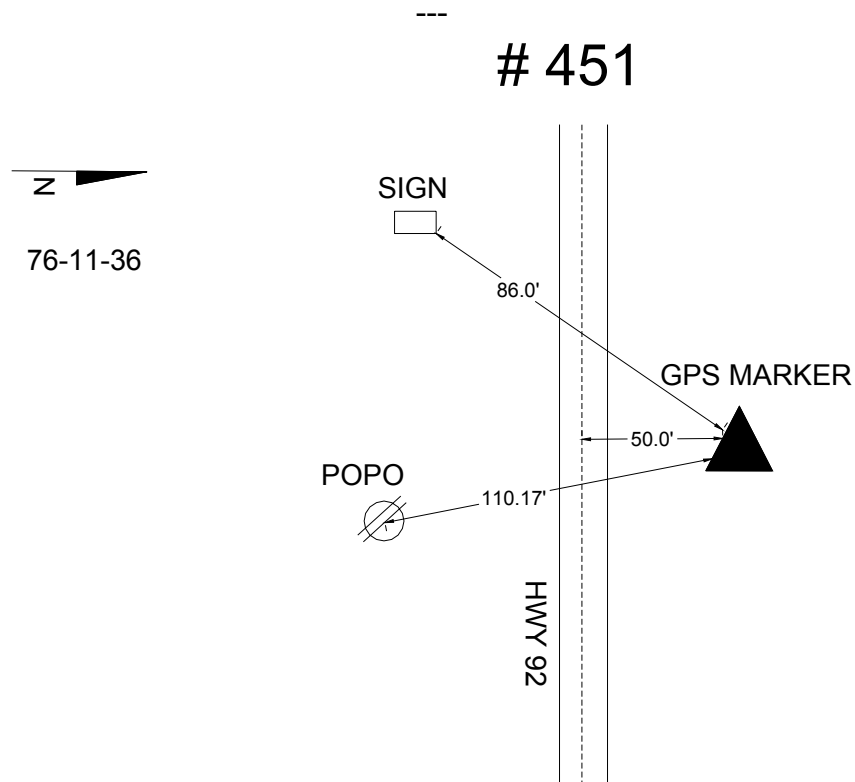
Longitude: **92°03'56.25199"W**

Mapping Angle: **0°56'41"**

Combination Scale Factor: **0.99991877**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-451

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **452**

Northing: **474,840.57sft** Easting: **2,034,953.55sft**

Orthometric Height: **767.31sft**

Ellipsoid Height: **660.53sft**

Latitude: **41°17'39.75880"N**

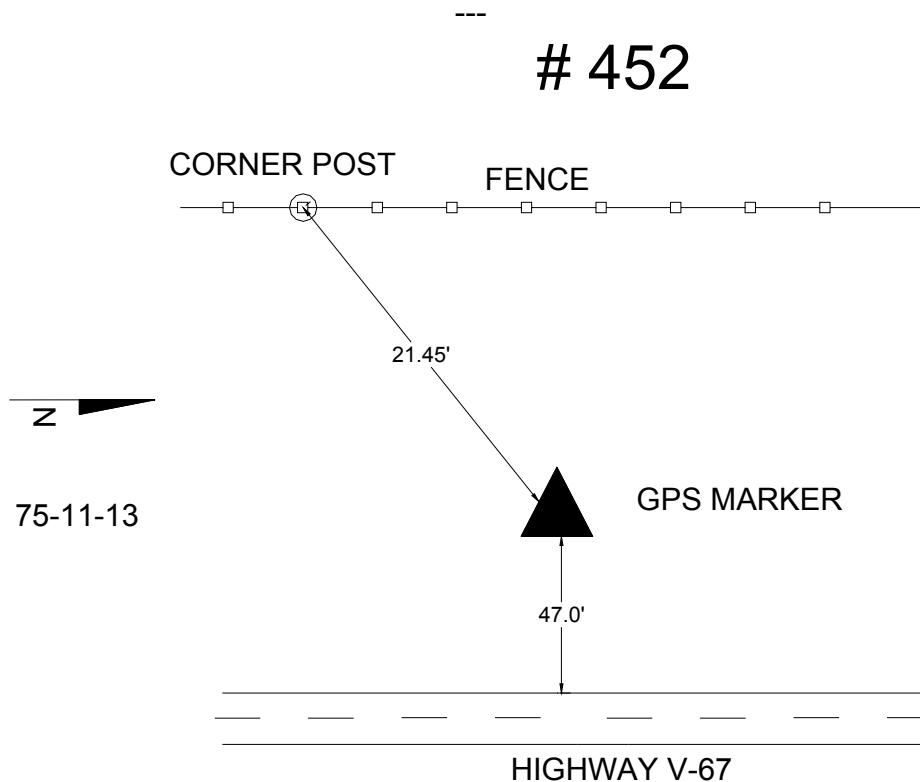
Longitude: **92°03'50.93252"W**

Mapping Angle: **0°56'45"**

Combination Scale Factor: **0.99991818**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-452

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **453**

Northing: **459,936.58**sft Easting: **2,035,191.96**sft

Orthometric Height: **733.65**sft

Ellipsoid Height: **626.71**sft

Latitude: **41°15'12.47876"N**

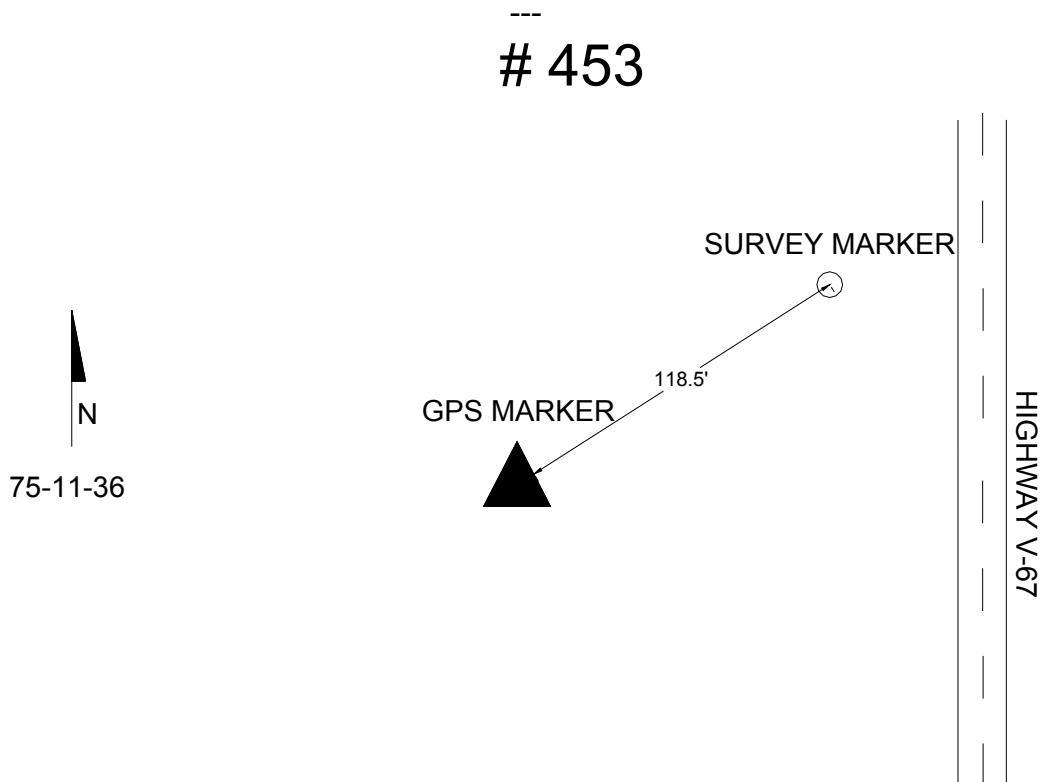
Longitude: **92°03'51.03240"W**

Mapping Angle: **0°56'45"**

Combination Scale Factor: **0.99991889**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-453

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.





**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **454**

Northing: **442,387.90sft** Easting: **2,035,682.35sft**

Orthometric Height: **749.8sft**

Ellipsoid Height: **642.73sft**

Latitude: **41°12'19.02844"N**

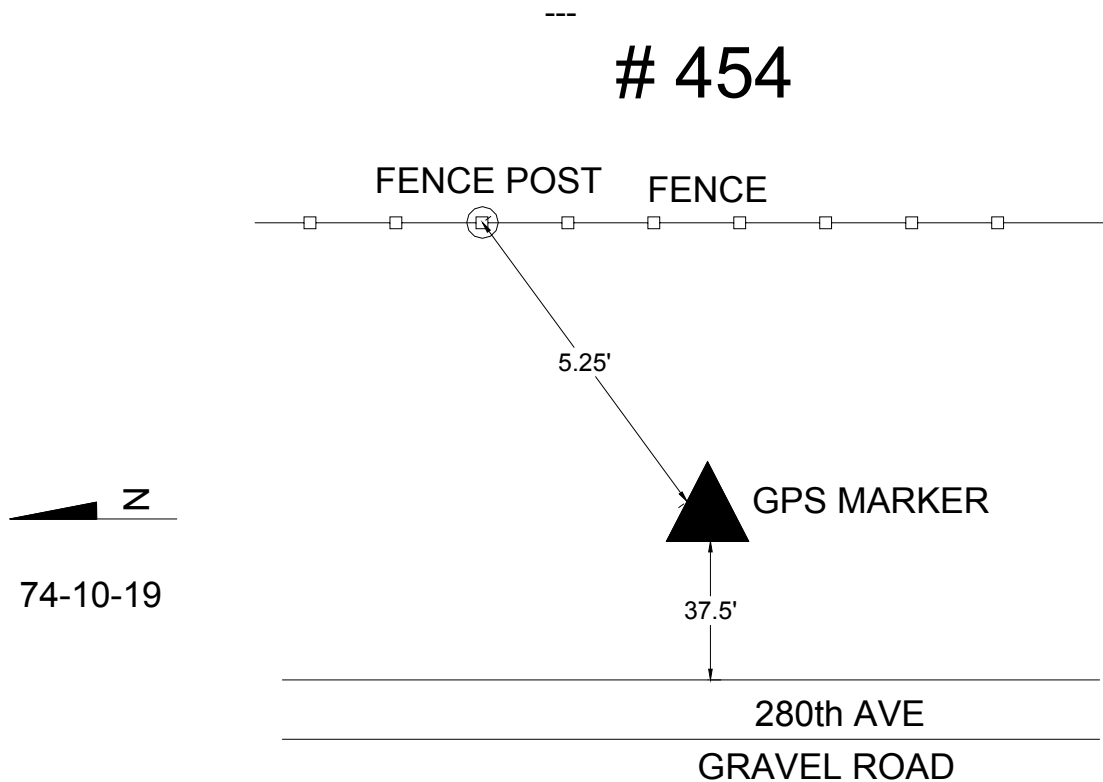
Longitude: **92°03'48.40718"W**

Mapping Angle: **0°56'47"**

Combination Scale Factor: **0.9999177**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-454

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **455**

Northing: **428,877.56sft**    Easting: **2,035,941.68sft**

Orthometric Height: **781.82sft**

Ellipsoid Height: **674.67sft**

Latitude: **41°10'05.51125"N**

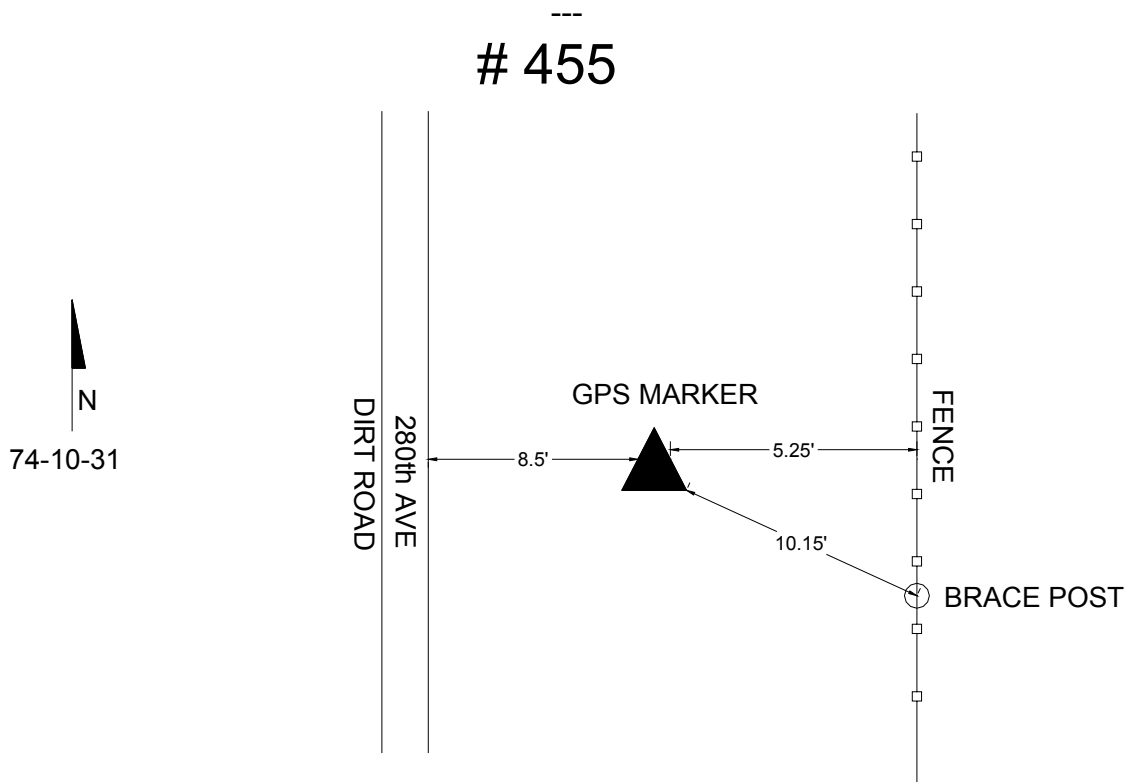
Longitude: **92°03'47.93407"W**

Mapping Angle: **0°56'47"**

Combination Scale Factor: **0.99991634**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-455

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **456**

Northing: **553,799.57**sft Easting: **2,047,656.33**sft

Orthometric Height: **809.11**sft

Ellipsoid Height: **702.76**sft

Latitude: **41°30'37.68489"N**

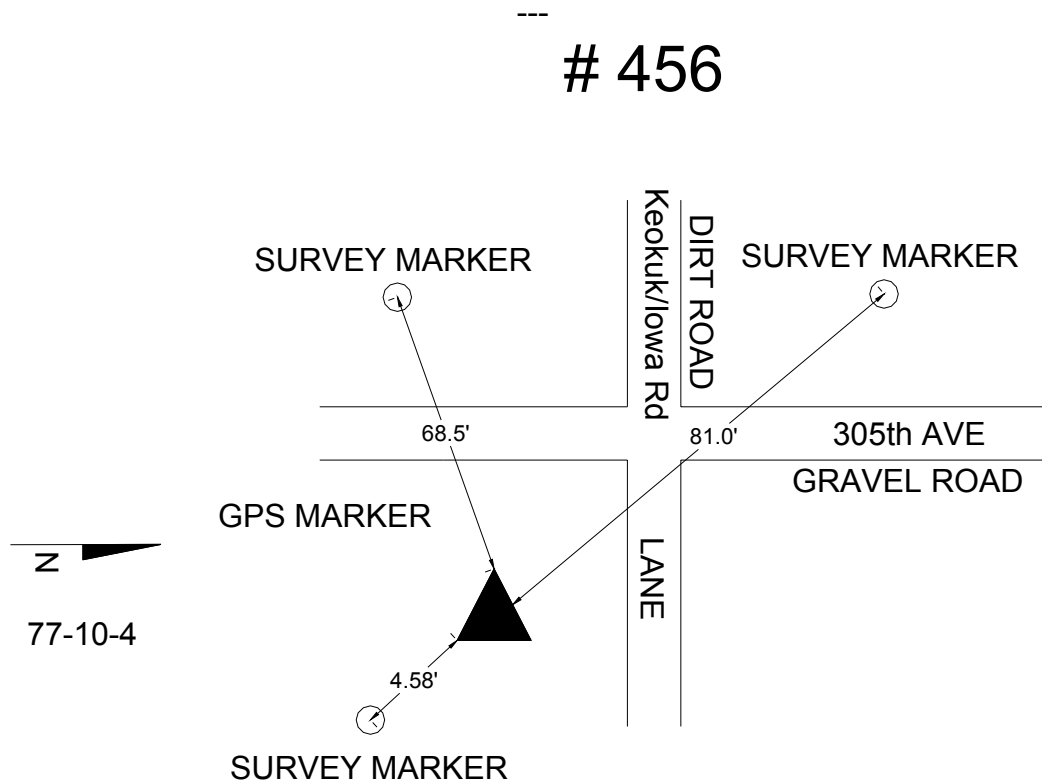
Longitude: **92°00'46.85443"W**

Mapping Angle: **0°58'46"**

Combination Scale Factor: **0.9999294**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-456

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **457**

Northing: **535,825.25sft** Easting: **2,051,448.18sft**

Orthometric Height: **824.86sft**

Ellipsoid Height: **718.37sft**

Latitude: **41°27'39.47840"N**

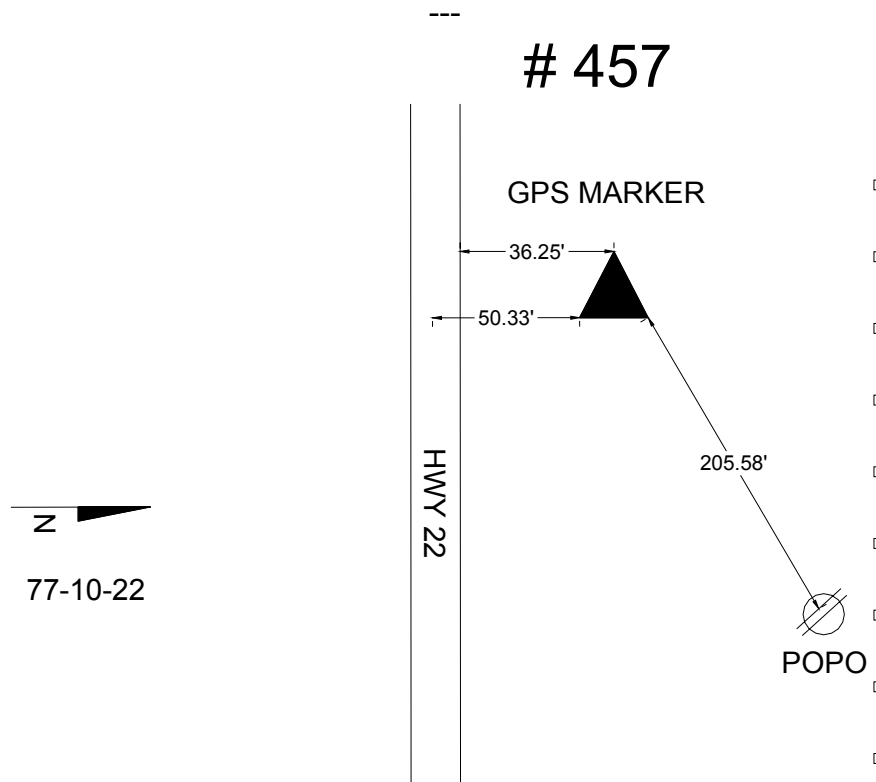
Longitude: **92°00'01.09386"W**

Mapping Angle: **0°59'16"**

Combination Scale Factor: **0.99992437**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-457

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **458**

Northing: **522,451.01sft**    Easting: **2,050,464.85sft**

Orthometric Height: **818.37sft**

Ellipsoid Height: **711.82sft**

Latitude: **41°25'27.52390"N**

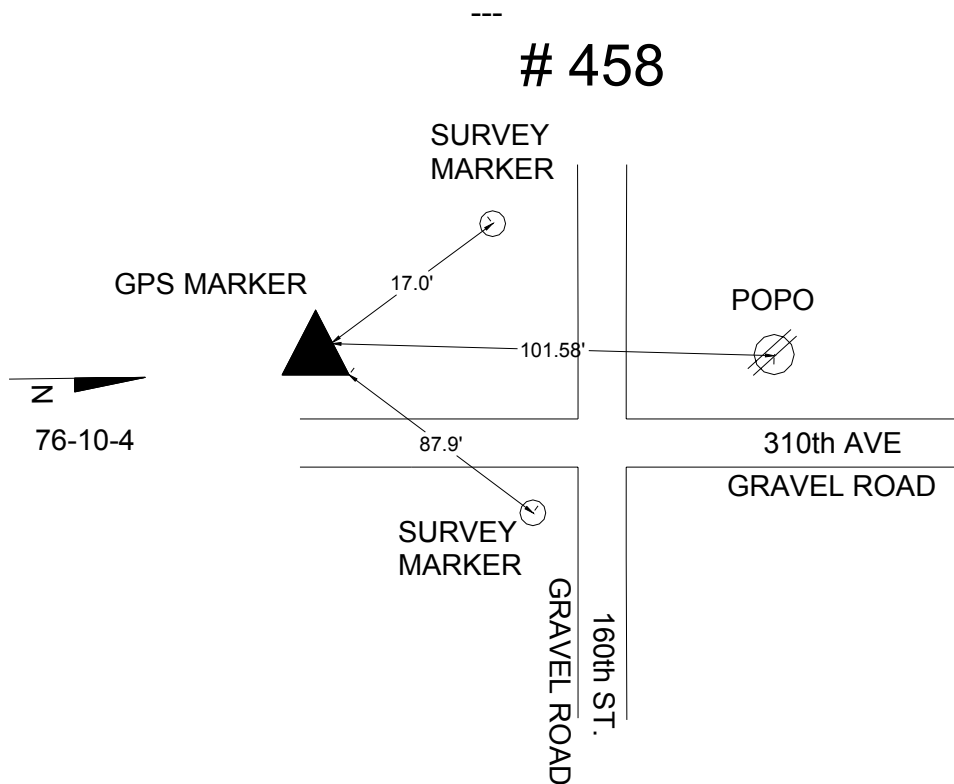
Longitude: **92°00'17.02694"W**

Mapping Angle: **0°59'06"**

Combination Scale Factor: **0.99992199**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-458

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **459**

Northing: **508,075.10**sft Easting: **2,050,585.99**sft

Orthometric Height: **809.15**sft

Ellipsoid Height: **702.49**sft

Latitude: **41°23'05.48486"N**

Longitude: **92°00'18.67980"W**

Mapping Angle: **0°59'05"**

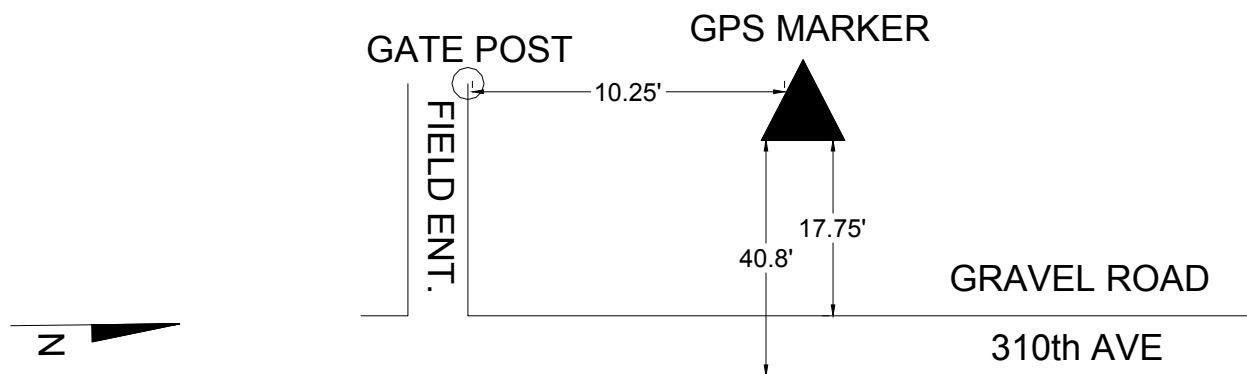
Combination Scale Factor: **0.99991999**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-459

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---

**# 459**



76-10-16

**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **460**

Northing: **490,890.72sft** Easting: **2,052,410.40sft**

Orthometric Height: **795.23sft**

Ellipsoid Height: **688.42sft**

Latitude: **41°20'15.40983"N**

Longitude: **91°59'58.63722"W**

Mapping Angle: **0°59'18"**

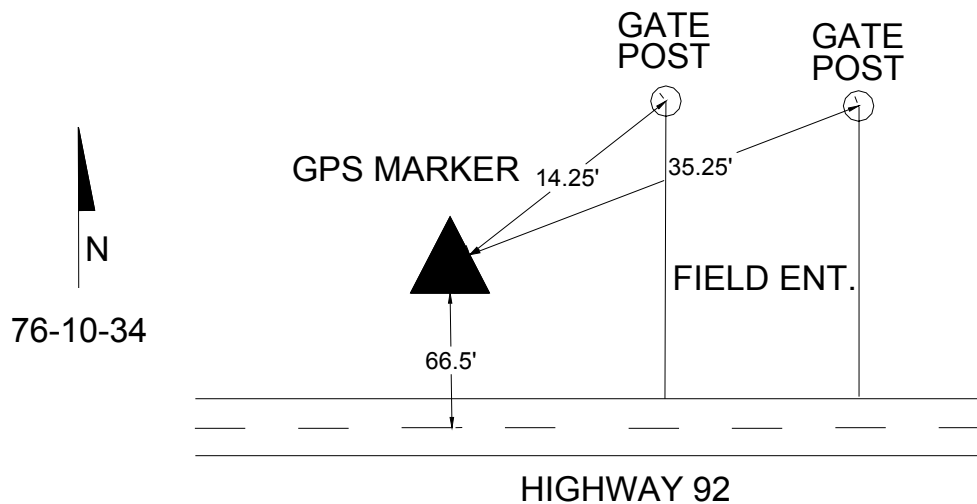
Combination Scale Factor: **0.99991836**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-460

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---

**# 460**



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **461**

Northing: **474,028.04**sft Easting: **2,051,868.66**sft

Orthometric Height: **743.99**sft

Ellipsoid Height: **637.03**sft

Latitude: **41°17'28.91388"N**

Longitude: **92°00'09.54347"W**

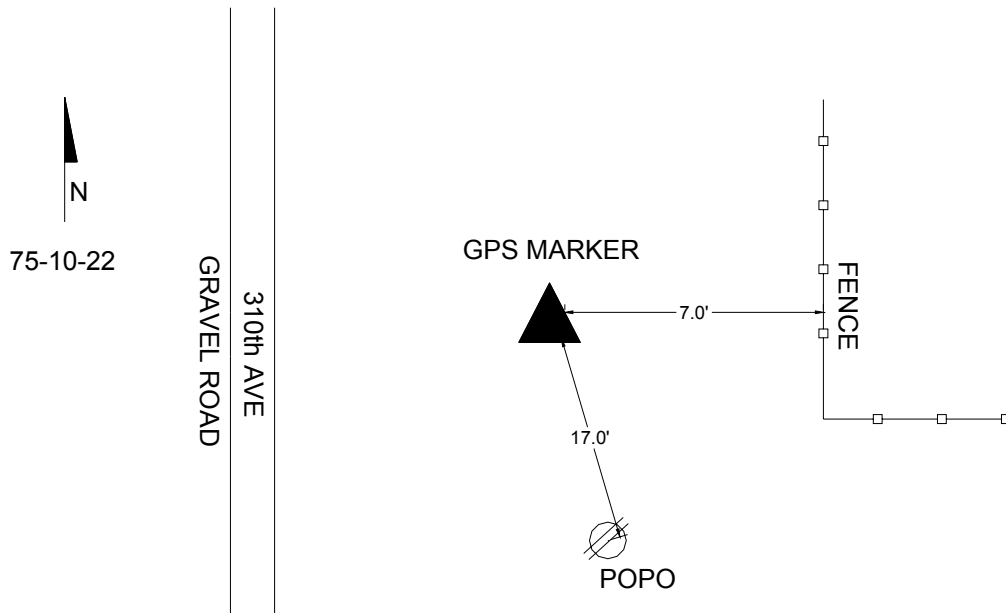
Mapping Angle: **0°59'11"**

Combination Scale Factor: **0.99991922**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-461

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---  
**# 461**





**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **462**

Northing: **464,670.56sft** Easting: **2,049,440.18sft**

Orthometric Height: **637.16sft**

Ellipsoid Height: **530.13sft**

Latitude: **41°15'56.88123"N**

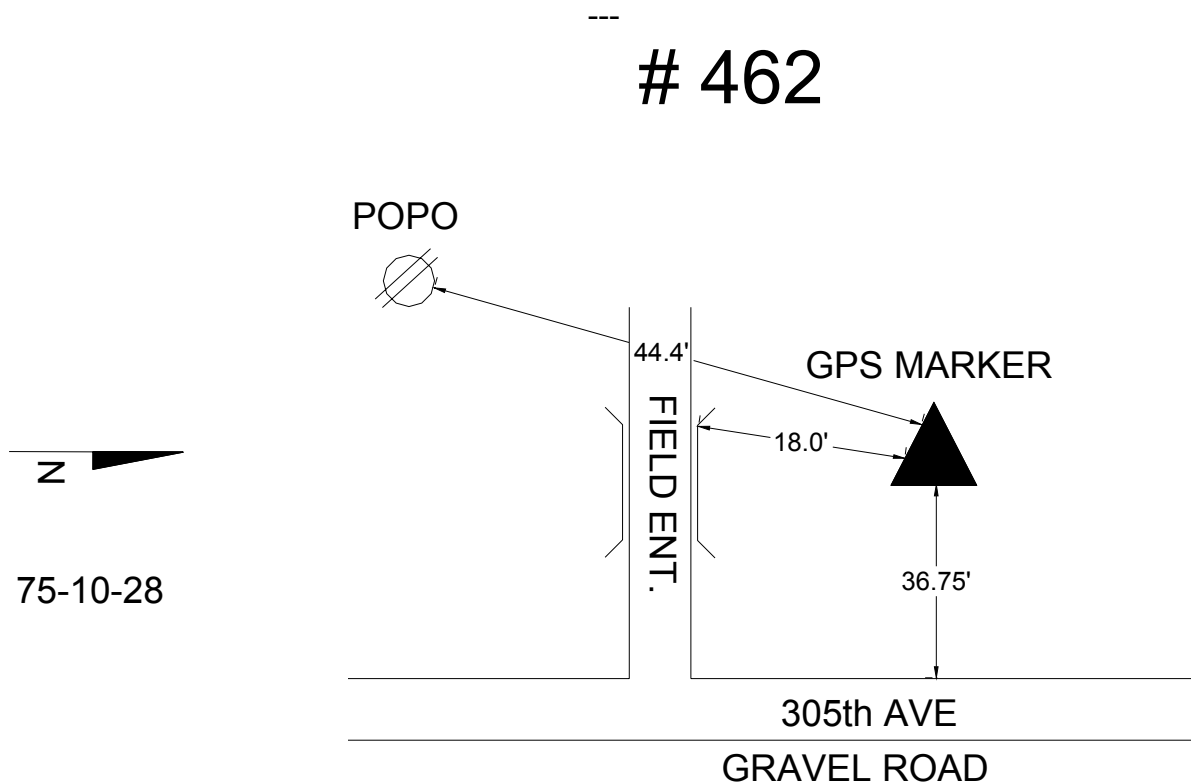
Longitude: **92°00'43.44977"W**

Mapping Angle: **0°58'48"**

Combination Scale Factor: **0.99992371**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-462

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **463**

Northing: **454,048.31**sft Easting: **2,053,110.94**sft

Orthometric Height: **732.54**sft

Ellipsoid Height: **625.41**sft

Latitude: **41°14'11.31838"N**

Longitude: **91°59'57.78679"W**

Mapping Angle: **0°59'18"**

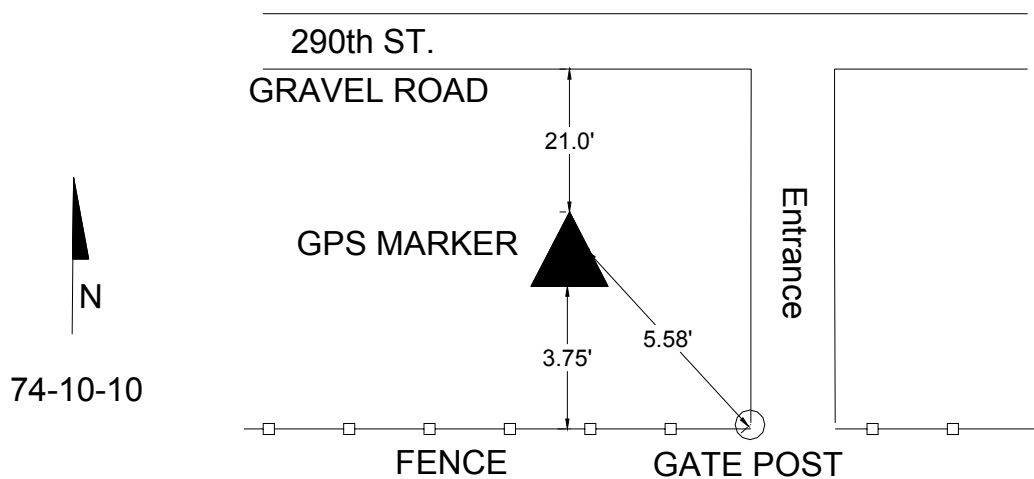
Combination Scale Factor: **0.99991872**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-463

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.

---

**# 463**



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **464**

Northing: **442,645.42sft** Easting: **2,052,434.31sft**

Orthometric Height: **746.35sft**

Ellipsoid Height: **639.18sft**

Latitude: **41°12'18.78114"N**

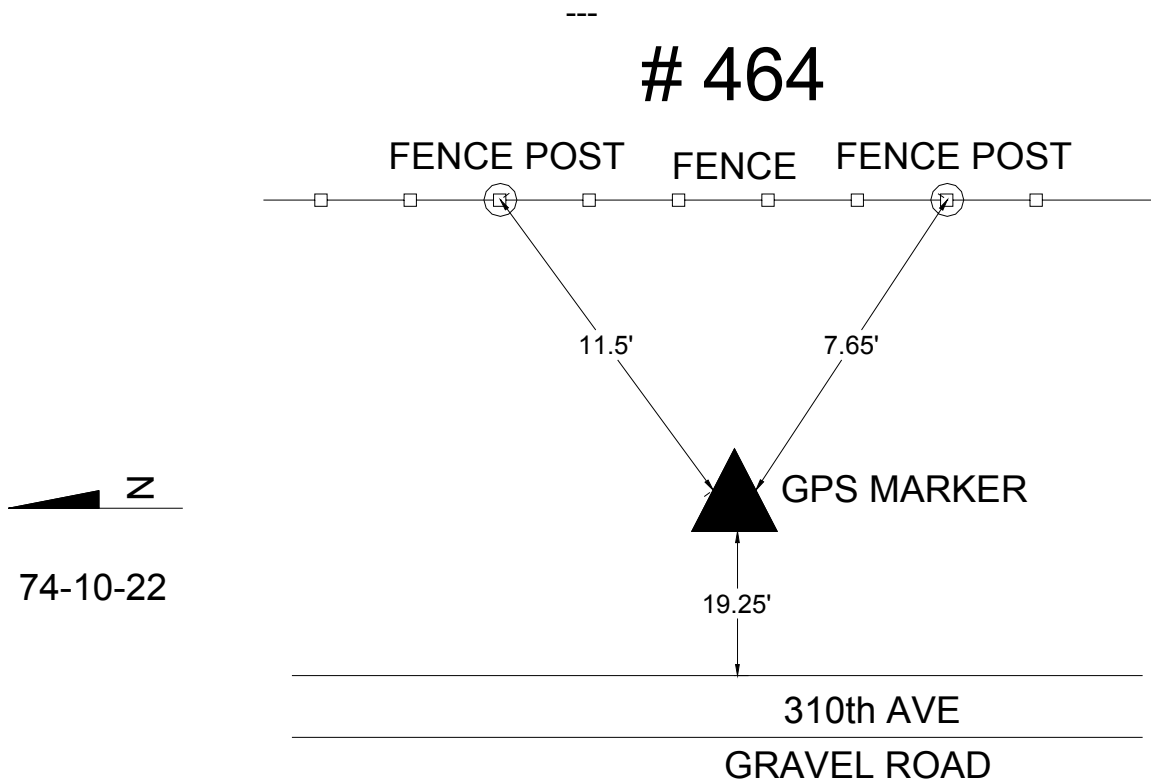
Longitude: **92°00'09.21160"W**

Mapping Angle: **0°59'11"**

Combination Scale Factor: **0.99991787**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-464

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **465**

Northing: **430,198.99**sft Easting: **2,052,339.49**sft

Orthometric Height: **766.43**sft

Ellipsoid Height: **659.19**sft

Latitude: **41°10'15.83466"N**

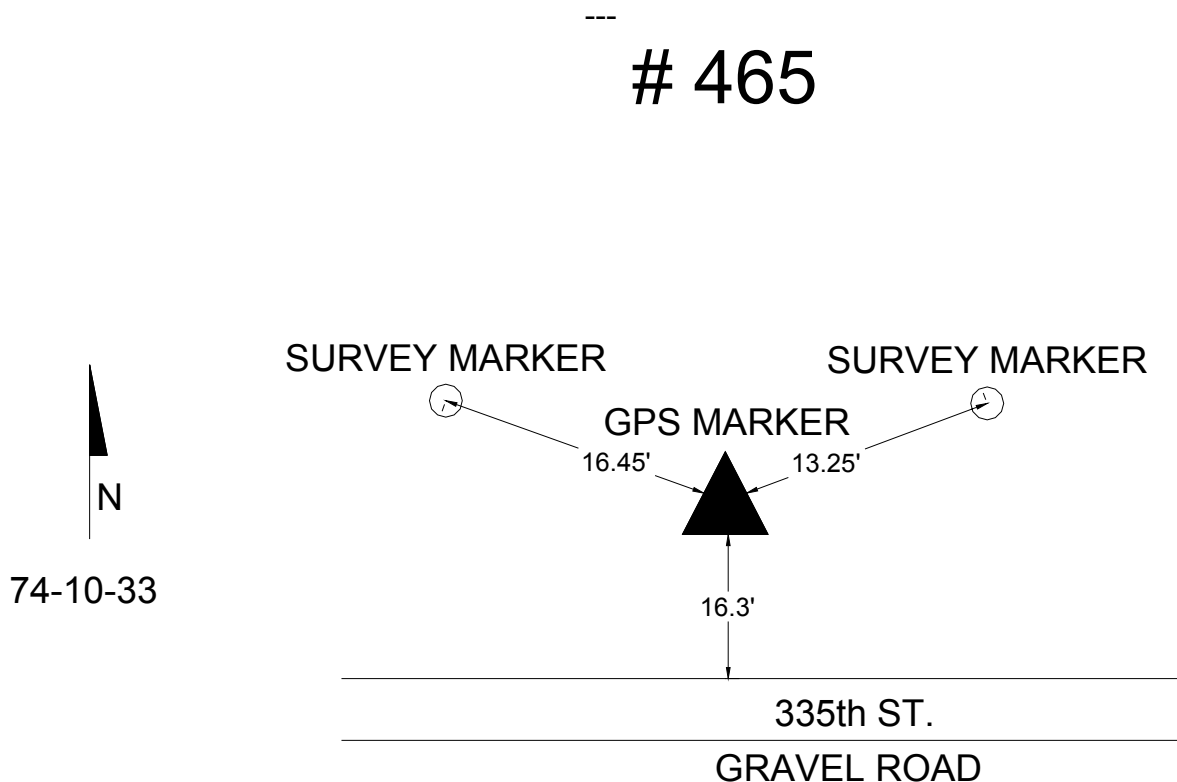
Longitude: **92°00'13.25311"W**

Mapping Angle: **0°59'08"**

Combination Scale Factor: **0.99991705**

**Designation:** KEOKUK CO. GPS CONTROL PT 2003-465

**Monument Type:** Berntsen Top Security Rod Monument with a 2-1/2" dia. domed cap and a permanent magnet encased in a 5"dia. PVC pipe with a NGS style aluminum access cover.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **93-37**

Northing: **425,189.93sft**    Easting: **1,940,688.33sft**

Orthometric Height: **793.45sft**

Ellipsoid Height: **686.67sft**

Latitude: **41°09'42.75045"N**

Longitude: **92°24'33.96376"W**

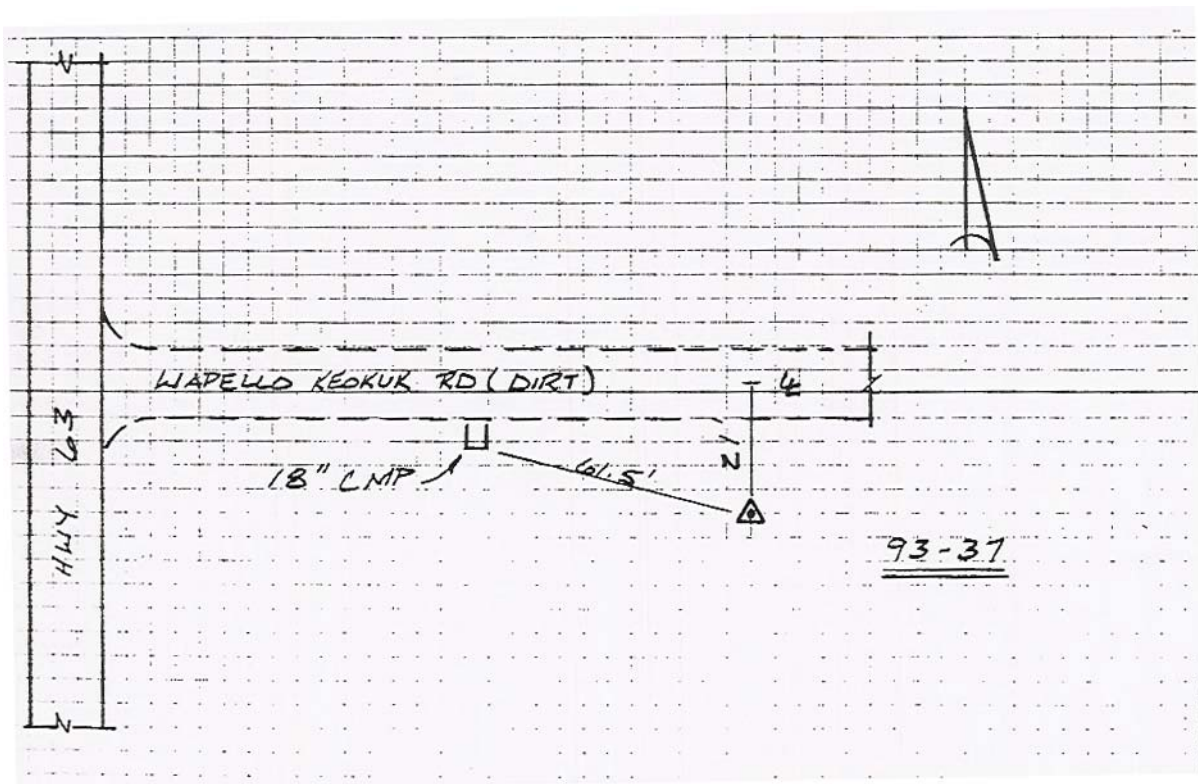
Mapping Angle: **0°43'06"**

Combination Scale Factor: **0.99991584**

**Designation:** WAPELLO CO GPS CONTROL PT 93-37

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)

---



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **93-40**

Northing: **424,960.82sft** Easting: **1,950,874.28sft**

Orthometric Height: **805.46sft**

Ellipsoid Height: **698.58sft**

Latitude: **41°09'39.20354"N**

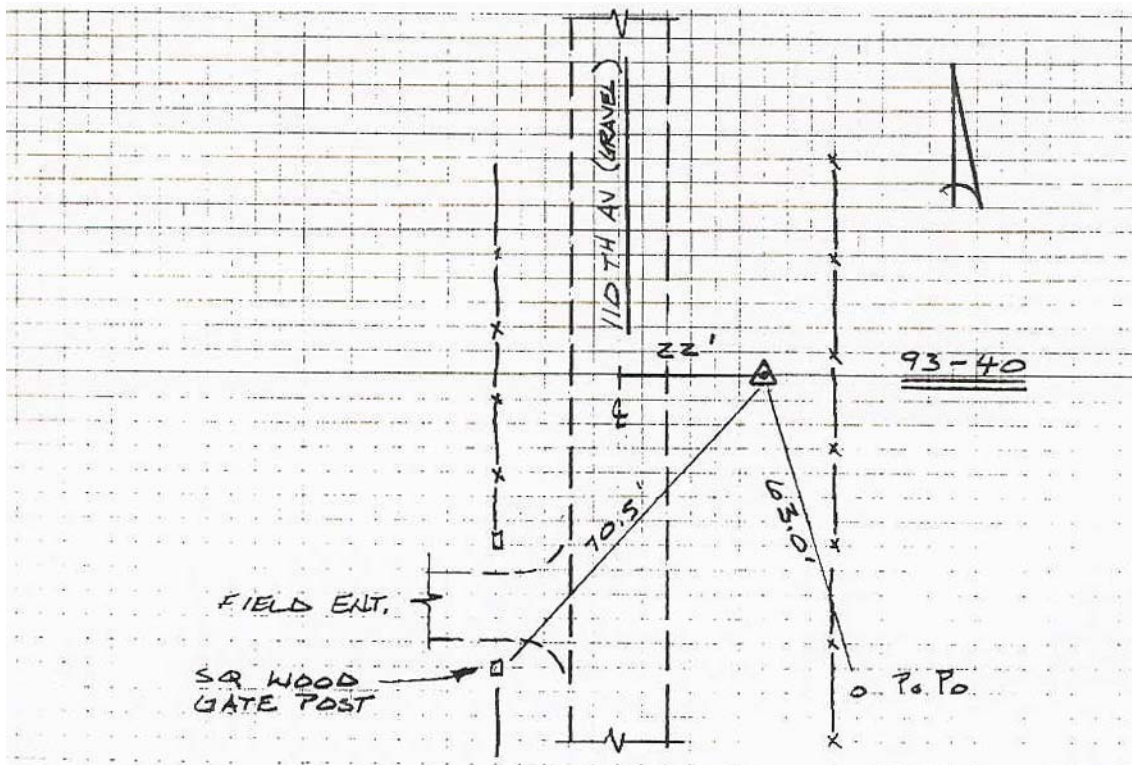
Longitude: **92°22'20.83657"W**

Mapping Angle: **0°44'34"**

Combination Scale Factor: **0.99991528**

**Designation:** WAPELLO CO GPS CONTROL PT 93-40

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **93-47**

Northing: **425,515.09sft** Easting: **1,961,371.06sft**

Orthometric Height: **817.54sft**

Ellipsoid Height: **710.65sft**

Latitude: **41°09'43.31264"N**

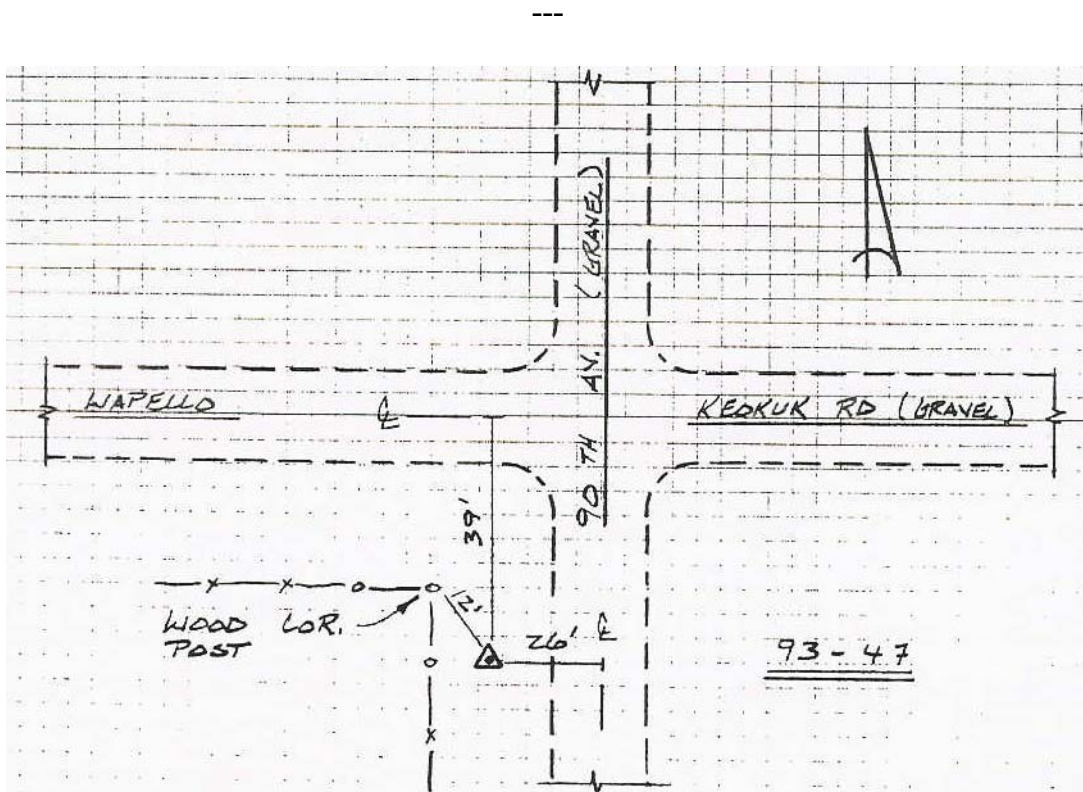
Longitude: **92°20'03.51258"W**

Mapping Angle: **0°46'04"**

Combination Scale Factor: **0.99991469**

**Designation:** WAPELLO CO GPS CONTROL PT 93-47

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **93-50**

Northing: **425,712.72sft**    Easting: **1,971,897.60sft**

Orthometric Height: **816.44sft**

Ellipsoid Height: **709.41sft**

Latitude: **41°09'43.84849"N**

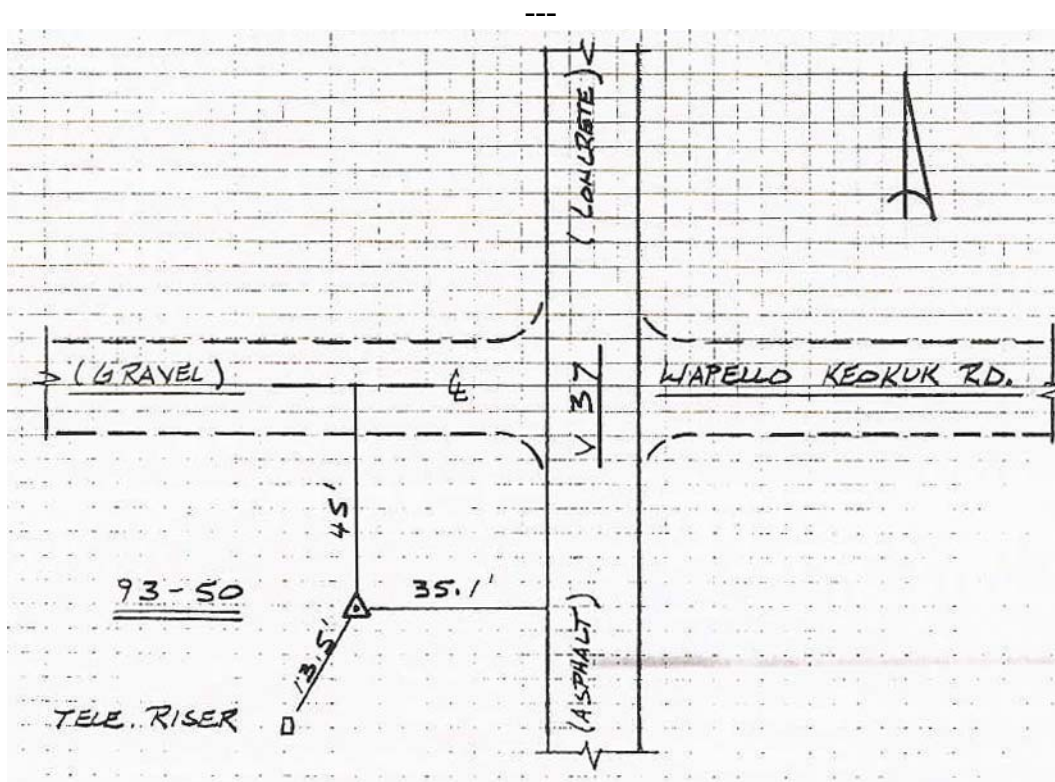
Longitude: **92°17'45.85921"W**

Mapping Angle: **0°47'35"**

Combination Scale Factor: **0.99991475**

**Designation:** WAPELLO CO GPS CONTROL PT 93-50

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)





Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **93-57**

Northing: **425,930.05sft** Easting: **1,982,705.57sft**

Orthometric Height: **791.57sft**

Ellipsoid Height: **684.5sft**

Latitude: **41°09'44.49350"N**

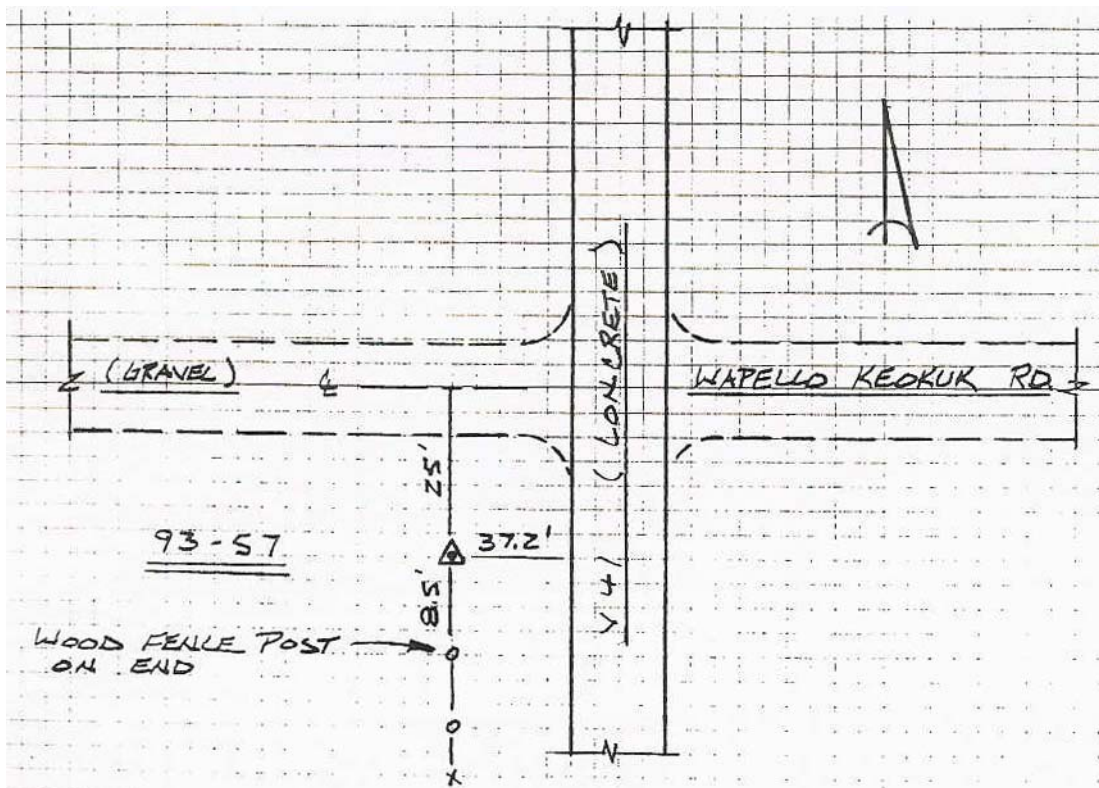
Longitude: **92°15'24.52243"W**

Mapping Angle: **0°49'08"**

Combination Scale Factor: **0.99991593**

**Designation:** WAPELLO CO GPS CONTROL PT 93-57

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **93-60**

Northing: **426,182.65**sft Easting: **1,993,253.57**sft

Orthometric Height: **808.31**sft

Ellipsoid Height: **701.18**sft

Latitude: **41°09'45.47668"N**

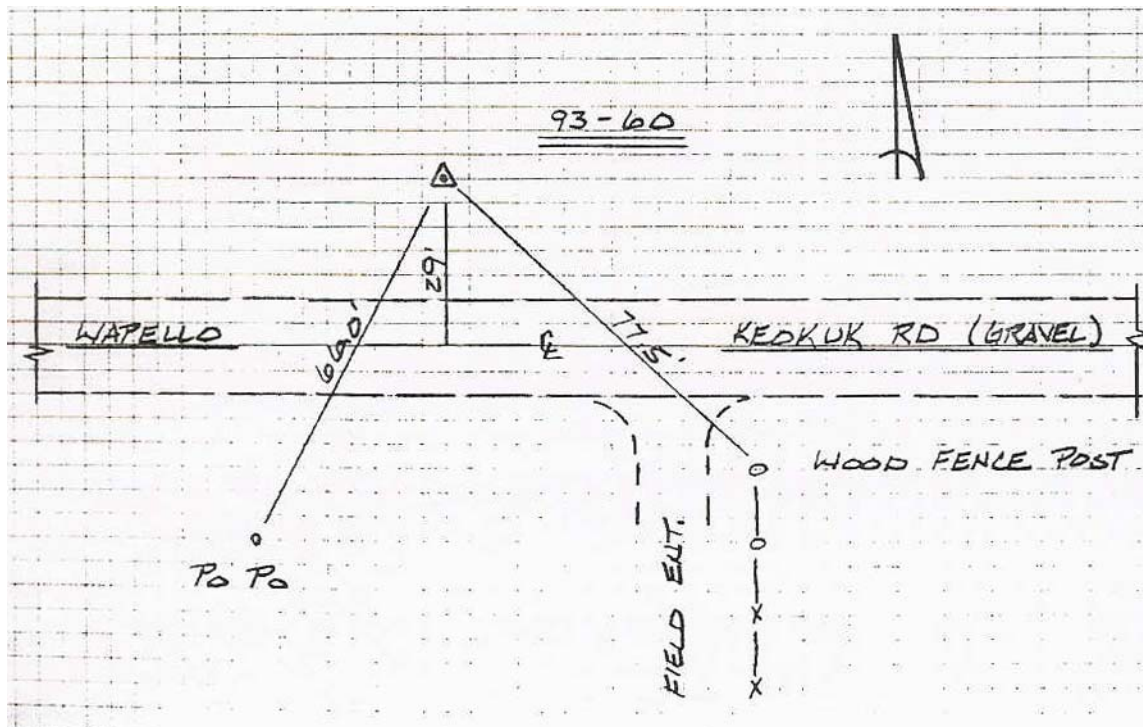
Longitude: **92°13'06.57688"W**

Mapping Angle: **0°50'39"**

Combination Scale Factor: **0.99991513**

**Designation:** WAPELLO CO GPS CONTROL PT 93-60

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **93-67**

Northing: **426,296.44sft** Easting: **2,003,840.00sft**

Orthometric Height: **808.03sft**

Ellipsoid Height: **700.84sft**

Latitude: **41°09'45.03675"N**

Longitude: **92°10'48.15520"W**

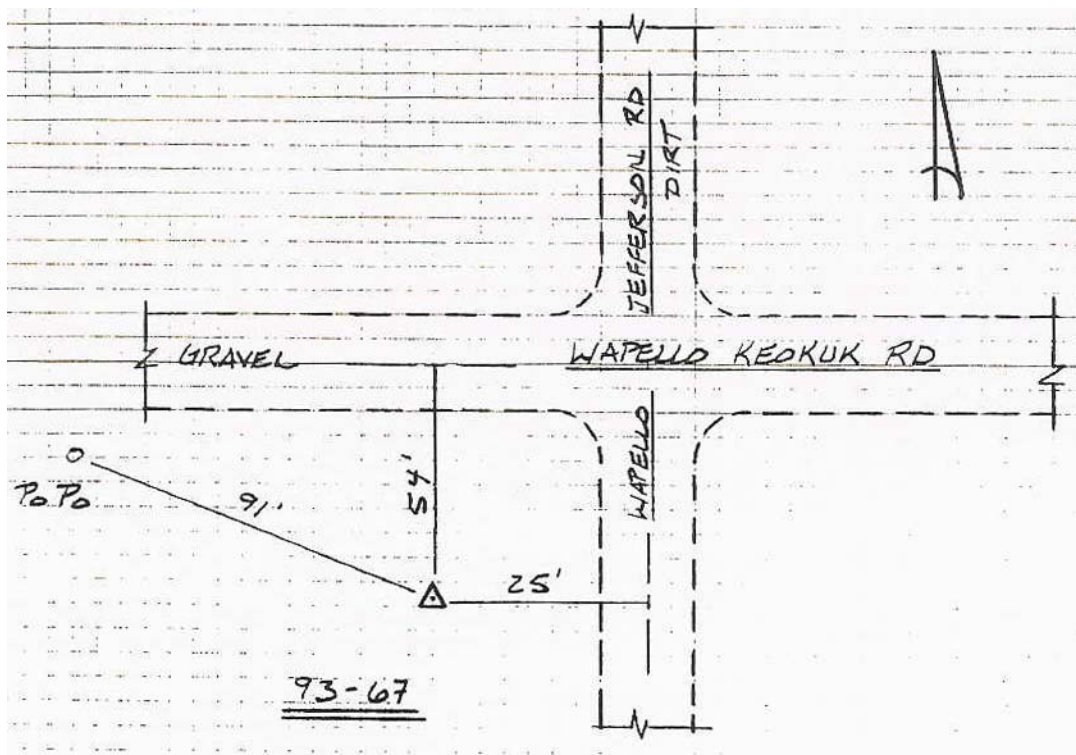
Mapping Angle: **0°52'10"**

Combination Scale Factor: **0.99991515**

**Designation:** WAPELLO CO GPS CONTROL PT 93-67

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)

---



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
2003

Point Name: 96-101

Northing: 554,256.09sft Easting: 2,064,731.48sft

Orthometric Height: 713.3sft

Ellipsoid Height: 606.76sft

Latitude: 41°30'39.25031"N

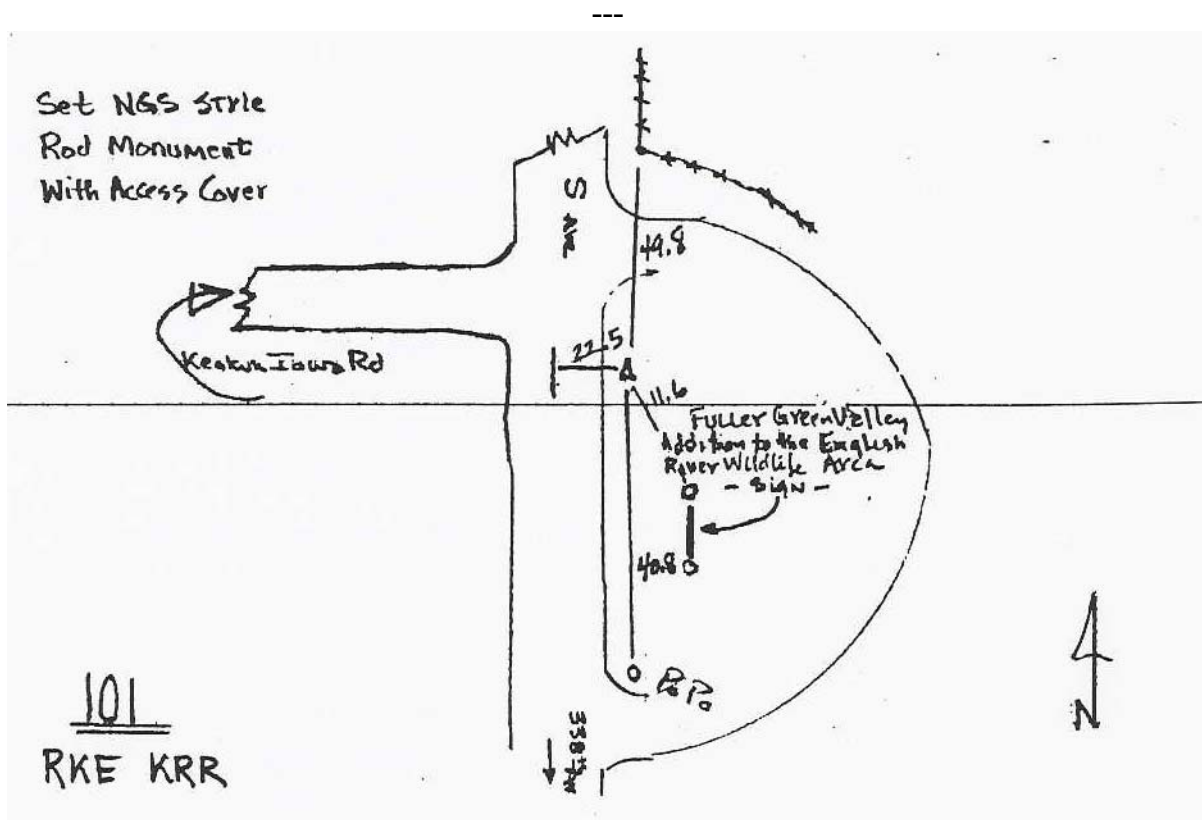
Longitude: 91°57'02.34206"W

Mapping Angle: 1°01'14"

Combination Scale Factor: 0.99993402

**Designation:** WASHINGTON CO GPS CONTROL PT 96-101

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **96-102H**

Northing: **554,673.28**sft Easting: **2,082,177.66**sft

Orthometric Height: **748.61**sft

Ellipsoid Height: **641.94**sft

Latitude: **41°30'40.23828"N**

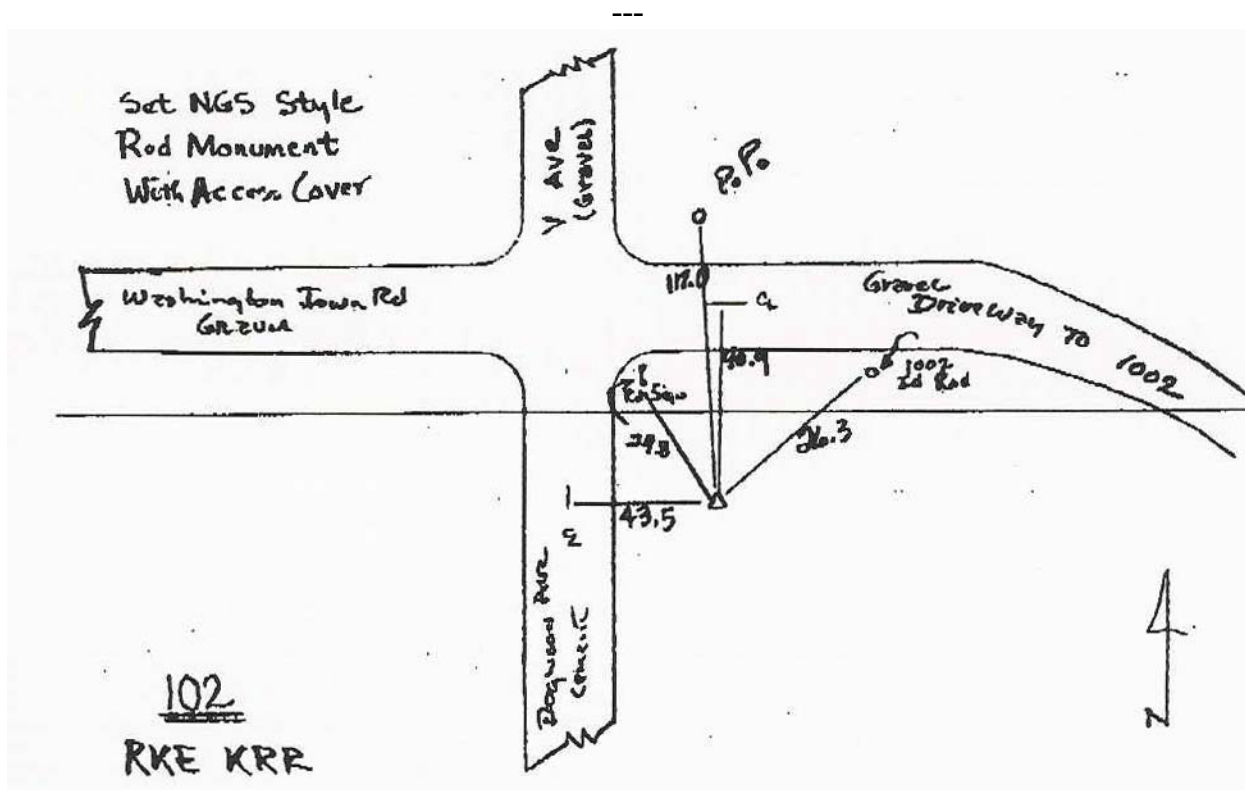
Longitude: **91°53'12.96028"W**

Mapping Angle: **1°03'45"**

Combination Scale Factor: **0.99993237**

**Designation:** CBN Horiz. station PID: AE2155 Designation: GPS CONTROL POINT  
96 102, WASHINGTON CO GPS CONTROL PT 96-102

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
2003

Point Name: **96-103**

Northing: **543,979.43sft** Easting: **2,066,212.38sft**

Orthometric Height: **787.83sft**

Ellipsoid Height: **681.22sft**

Latitude: **41°28'57.47052"N**

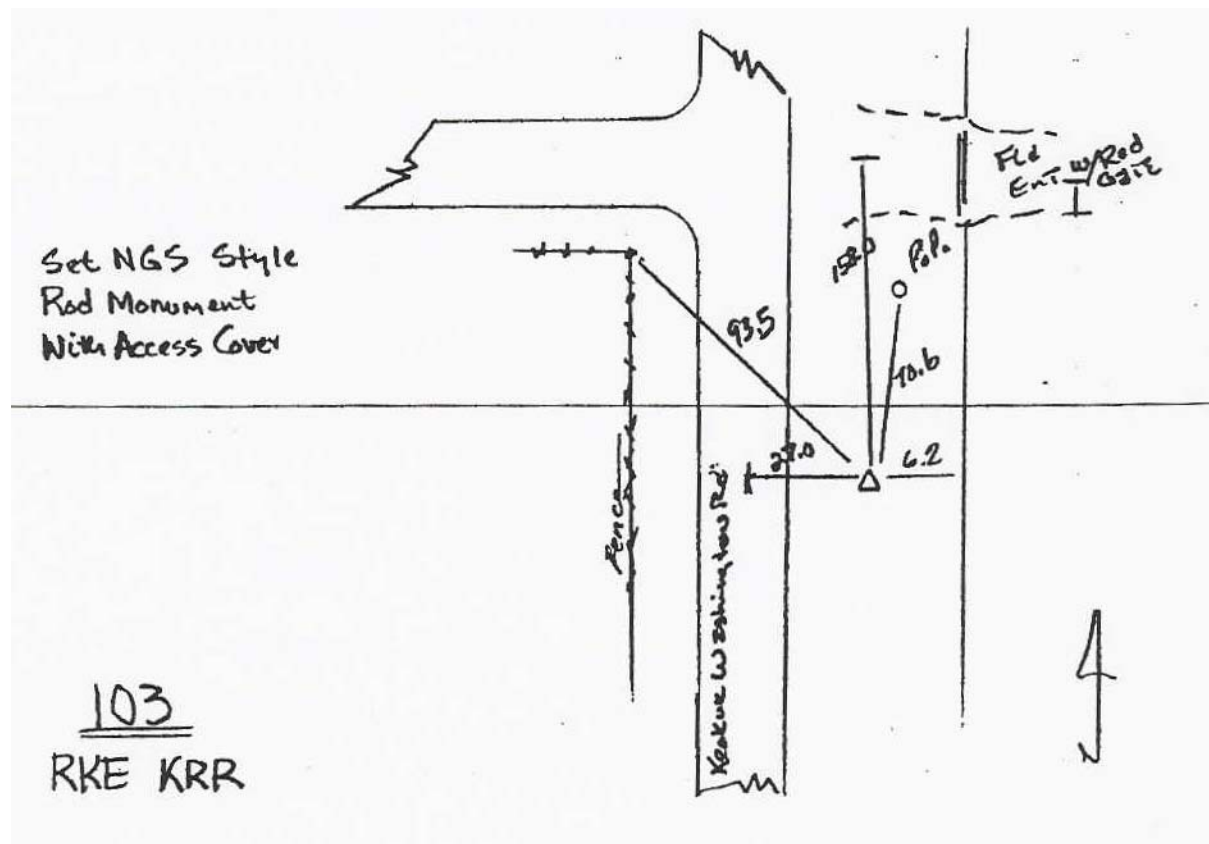
Longitude: **91°56'45.29292"W**

Mapping Angle: **1°01'25"**

Combination Scale Factor: **0.99992793**

**Designation:** WASHINGTON CO GPS CONTROL PT 96-103

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
2003

Point Name: **96-108**

Northing: **532,868.13sft** Easting: **2,066,305.43sft**

Orthometric Height: **775.38sft**

Ellipsoid Height: **668.75sft**

Latitude: **41°27'07.68947"N**

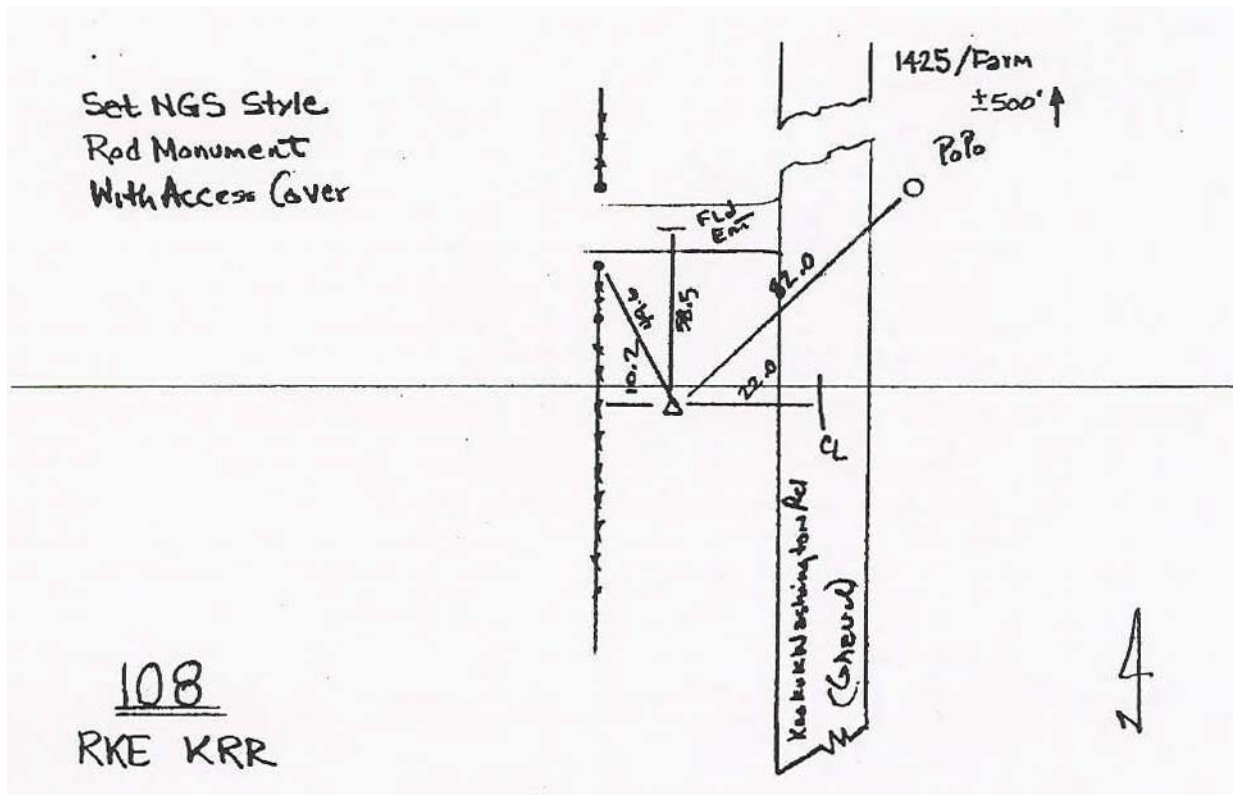
Longitude: **91°56'46.67808"W**

Mapping Angle: **1°01'24"**

Combination Scale Factor: **0.99992605**

**Designation:** WASHINGTON CO GPS CONTROL PT 96-108

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
2003

Point Name: 96-111

Northing: 522,933.36sft Easting: 2,066,418.42sft

Orthometric Height: 814.32sft

Ellipsoid Height: 707.59sft

Latitude: 41°25'29.52671"N

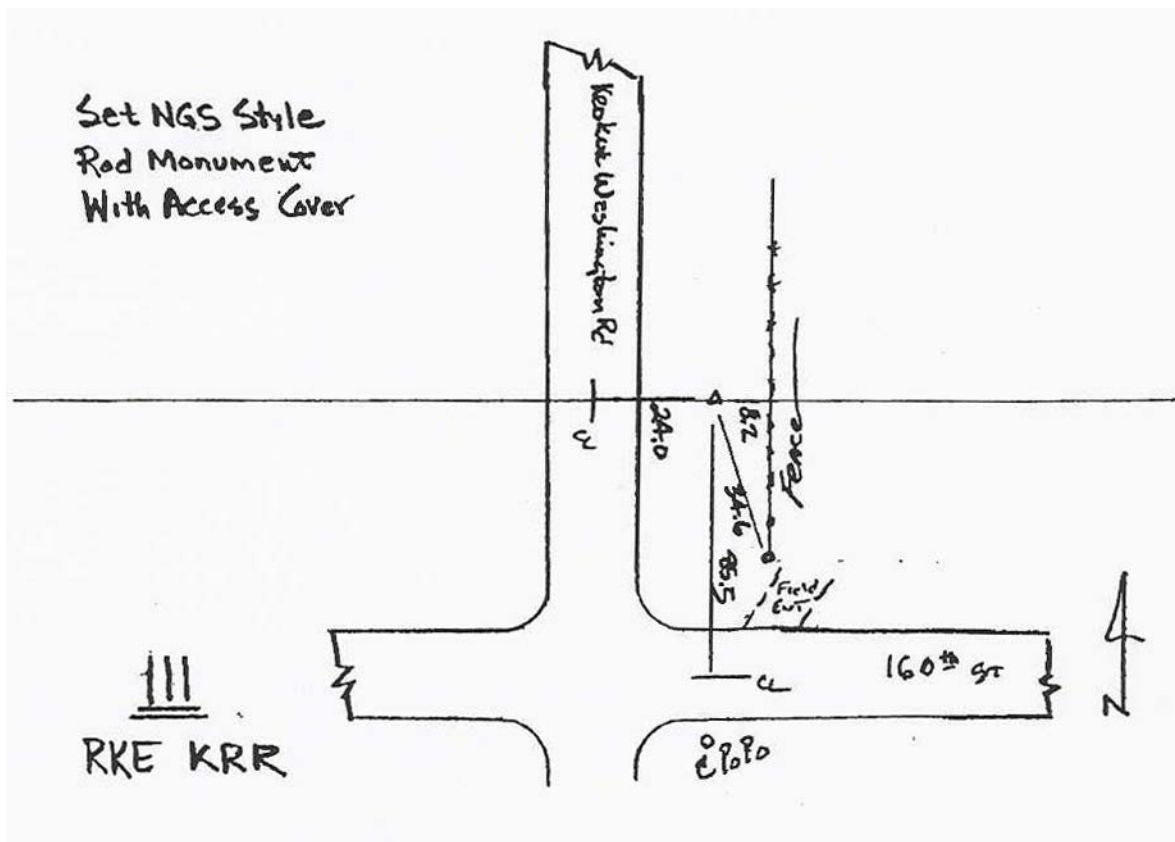
Longitude: 91°56'47.52444"W

Mapping Angle: 1°01'24"

Combination Scale Factor: 0.99992223

**Designation:** WASHINGTON CO GPS CONTROL PT 96-111

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)





Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
2003

Point Name: 96-117

Northing: 512,337.40sft Easting: 2,066,668.37sft

Orthometric Height: 794.48sft

Ellipsoid Height: 687.63sft

Latitude: 41°23'44.80735"N

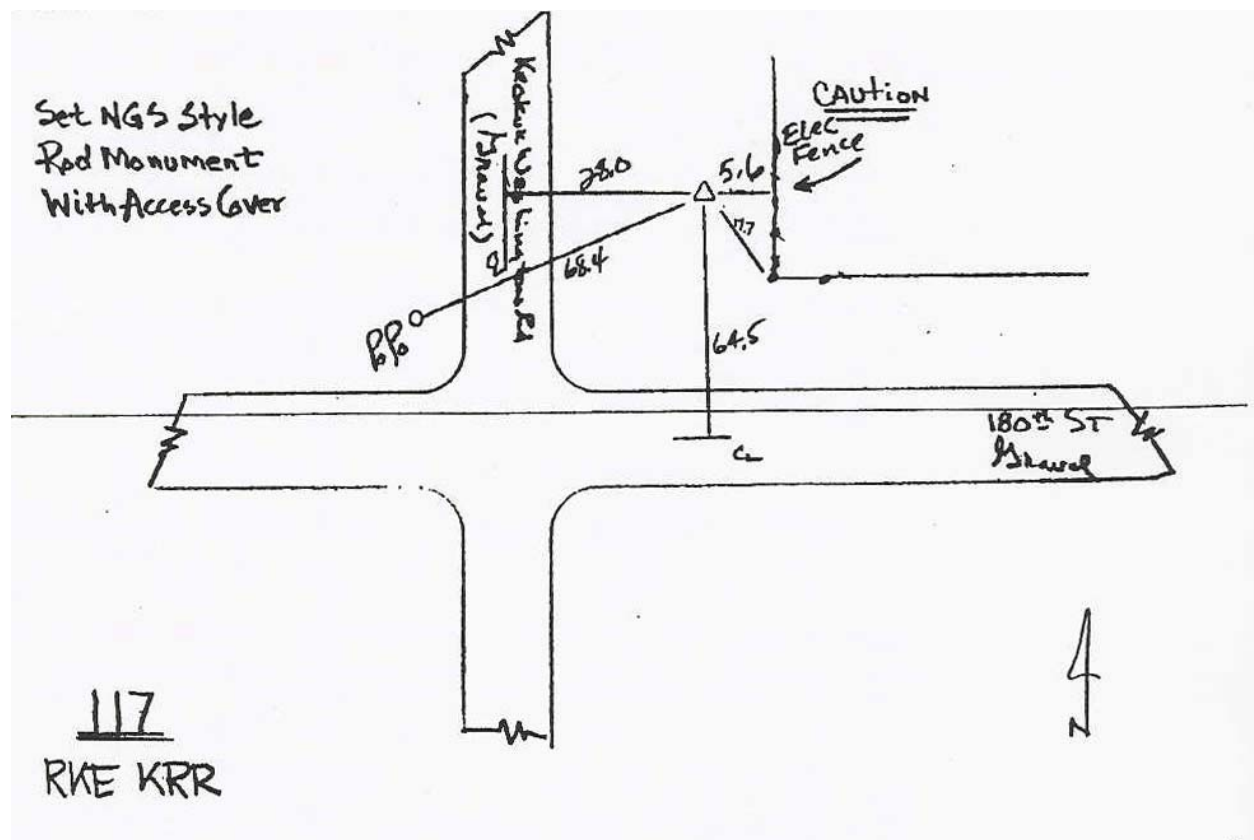
Longitude: 91°56'46.72821"W

Mapping Angle: 1°01'24"

Combination Scale Factor: 0.99992133

**Designation:** WASHINGTON CO GPS CONTROL PT 96-117

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **96-121**

Northing: **501,600.55sft** Easting: **2,066,723.26sft**

Orthometric Height: **794.65sft**

Ellipsoid Height: **687.75sft**

Latitude: **41°21'58.72987"N**

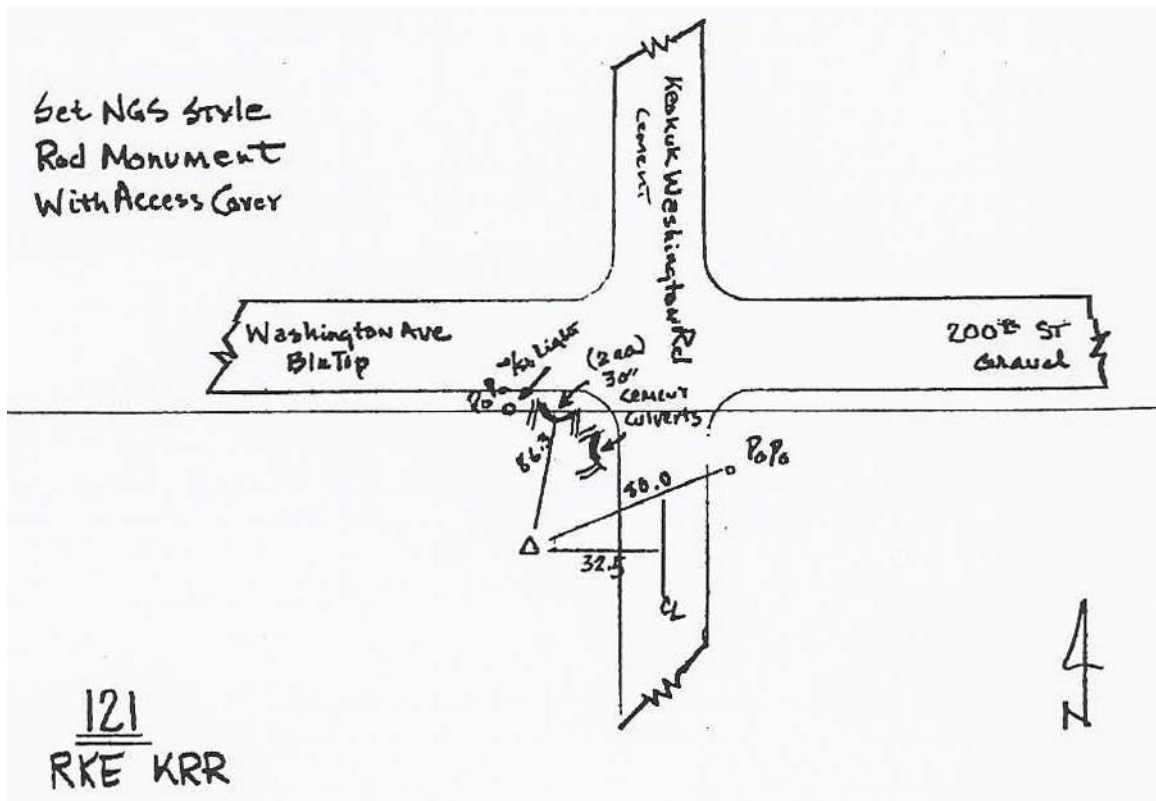
Longitude: **91°56'48.52357"W**

Mapping Angle: **1°01'23"**

Combination Scale Factor: **0.99991971**

**Designation:** WASHINGTON CO GPS CONTROL PT 96-121

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **96-128**

Northing: **491,082.58sft** Easting: **2,066,789.26sft**

Orthometric Height: **780.23sft**

Ellipsoid Height: **673.24sft**

Latitude: **41°20'14.81202"N**

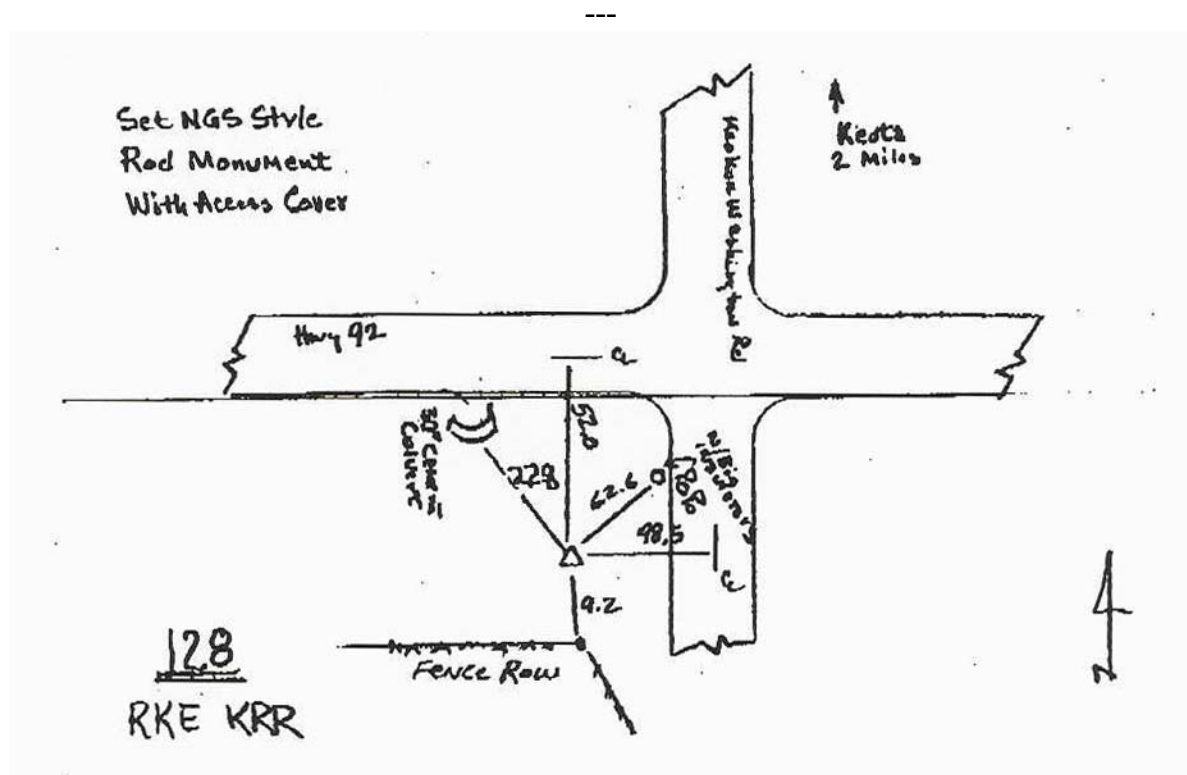
Longitude: **91°56'50.12048"W**

Mapping Angle: **1°01'22"**

Combination Scale Factor: **0.99991908**

**Designation:** WASHINGTON CO GPS CONTROL PT 96-128

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **96-132**

Northing: **483,871.17sft** Easting: **2,067,072.59sft**

Orthometric Height: **747.55sft**

Ellipsoid Height: **640.52sft**

Latitude: **41°19'03.52071"N**

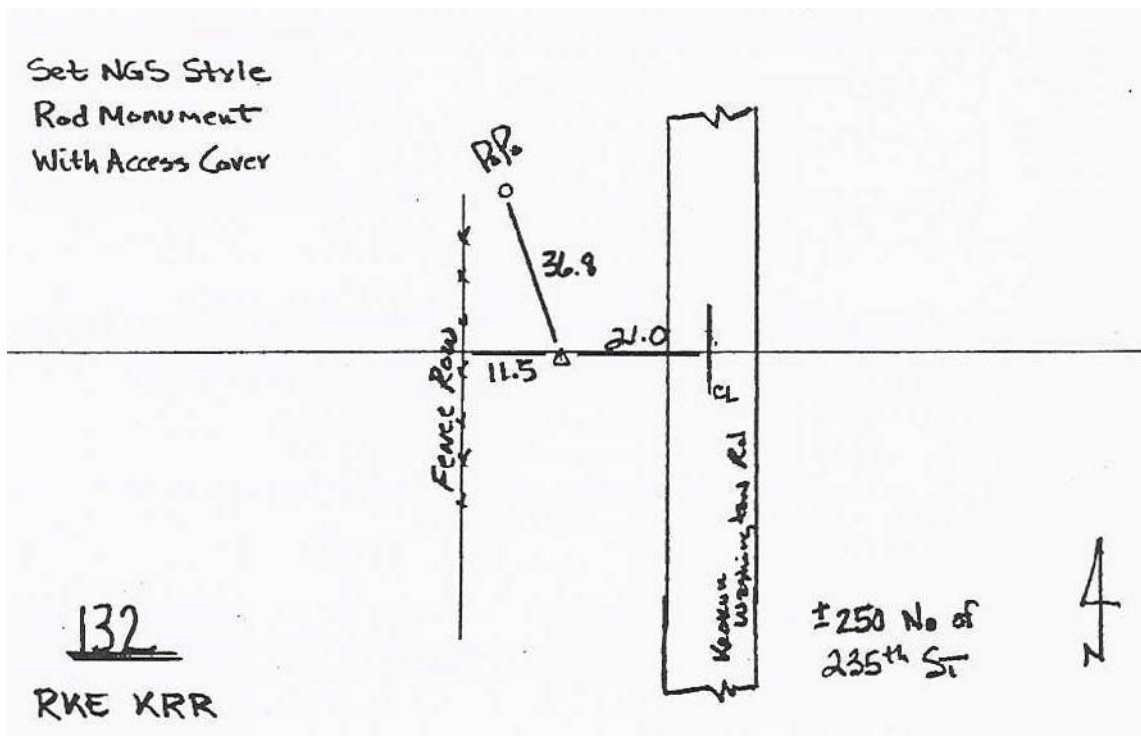
Longitude: **91°56'48.09487"W**

Mapping Angle: **1°01'23"**

Combination Scale Factor: **0.99991988**

**Designation:** WASHINGTON CO GPS CONTROL PT 96-132

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **96-139**

Northing: **471,619.72sft** Easting: **2,067,502.10sft**

Orthometric Height: **749.26sft**

Ellipsoid Height: **642.13sft**

Latitude: **41°17'02.41250"N**

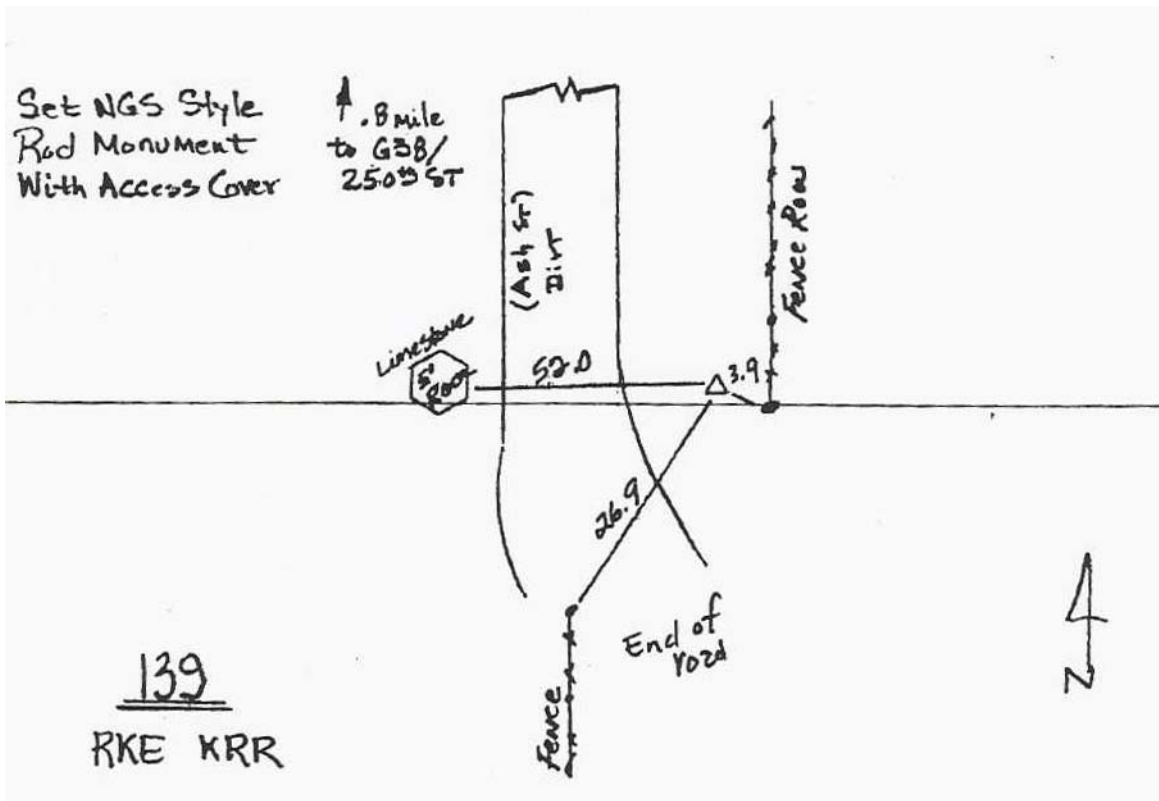
Longitude: **91°56'45.33529"W**

Mapping Angle: **1°01'25"**

Combination Scale Factor: **0.99991878**

**Designation:** WASHINGTON CO GPS CONTROL PT 96-139

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5" dia PVC pipe with an aluminum access cover.(set by others)



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
2003

Point Name: 96-143

Northing: 461,935.57sft Easting: 2,067,908.61sft

Orthometric Height: 691.49sft

Ellipsoid Height: 584.27sft

Latitude: 41°15'26.67017"N

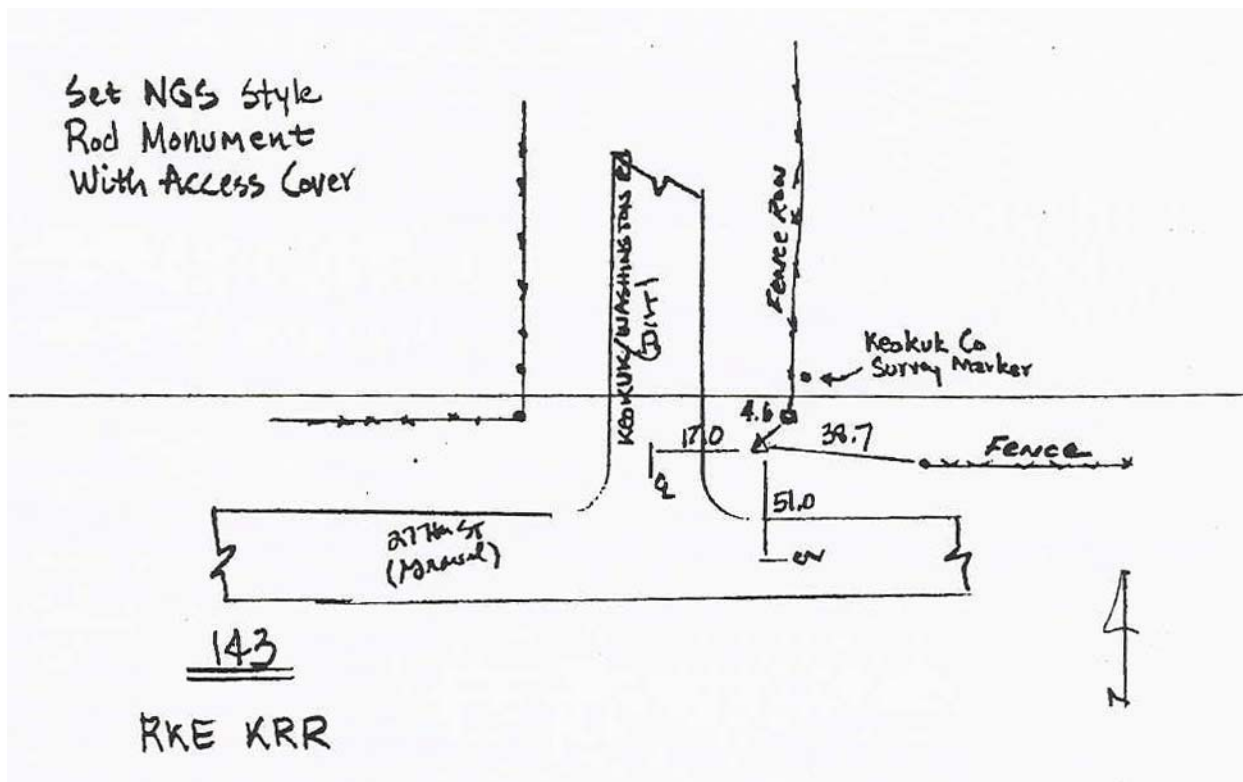
Longitude: 91°56'42.27880"W

Mapping Angle: 1°01'27"

Combination Scale Factor: 0.99992098

**Designation:** WASHINGTON CO GPS CONTROL PT 96-143

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **96-150H**

Northing: **449,022.44sft** Easting: **2,068,374.79sft**

Orthometric Height: **639.83sft**

Ellipsoid Height: **532.58sft**

Latitude: **41°13'19.01718"N**

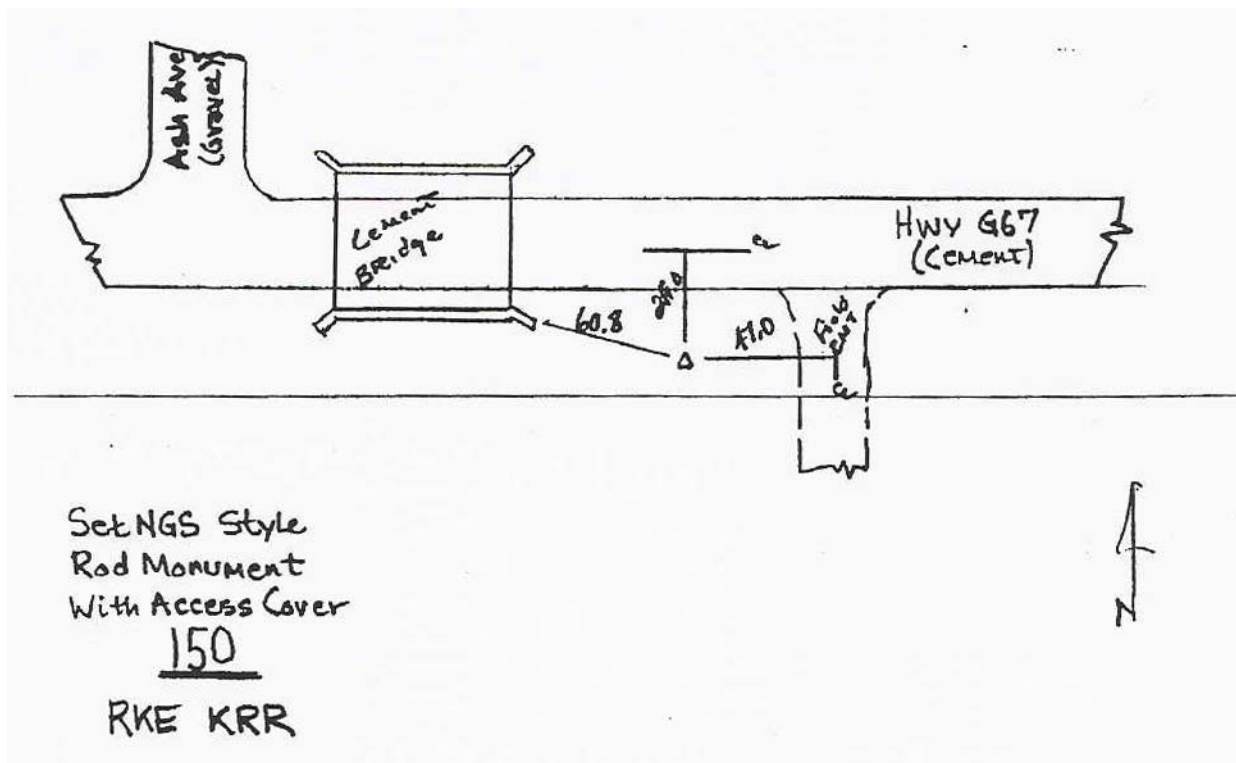
Longitude: **91°56'39.19979"W**

Mapping Angle: **1°01'29"**

Combination Scale Factor: **0.99992303**

**Designation:** CBN Horiz. station PID: AE2156 Designation: GPS CONTROL POINT  
96 150, WASHINGTON CO GPS CONTROL PT 96-150

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
2003

Point Name: **96-154**

Northing: **438,429.11sft** Easting: **2,068,370.56sft**

Orthometric Height: **743.83sft**

Ellipsoid Height: **636.51sft**

Latitude: **41°11'34.36429"N**

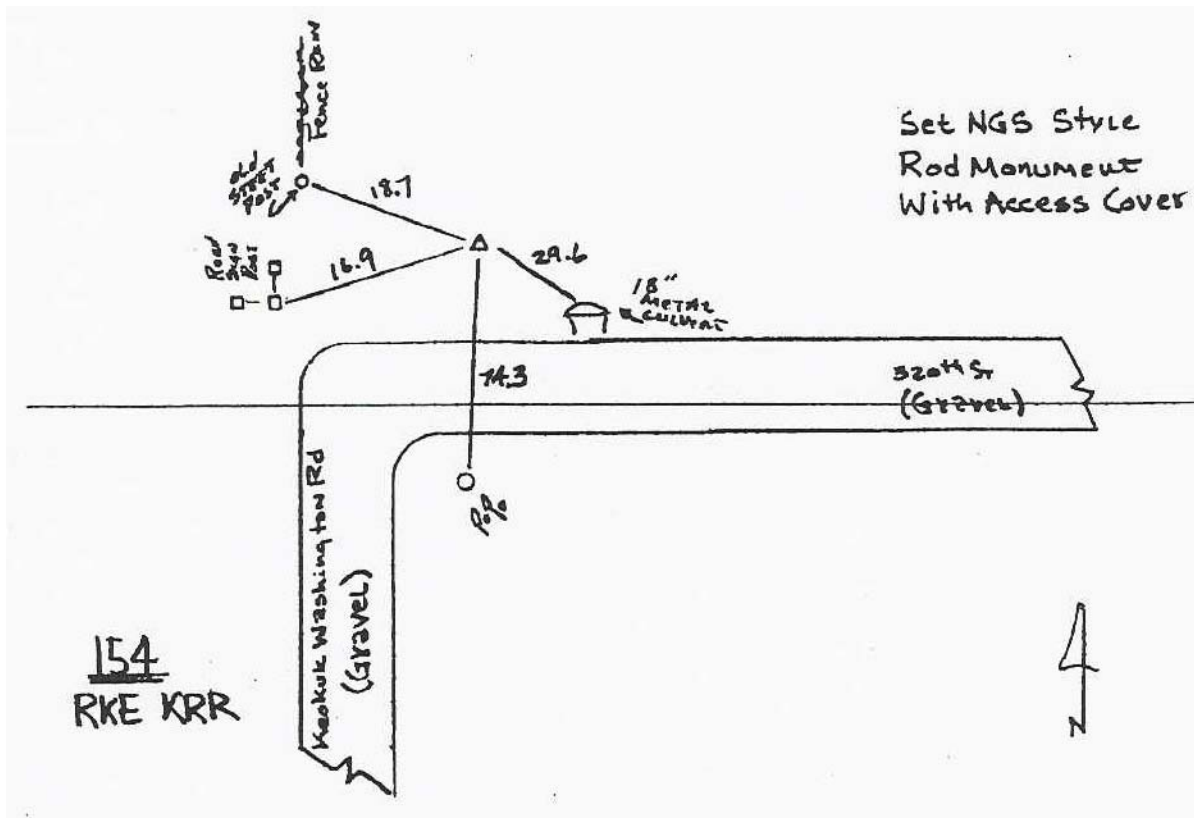
Longitude: **91°56'41.73342"W**

Mapping Angle: **1°01'28"**

Combination Scale Factor: **0.99991801**

**Designation:** WASHINGTON CO GPS CONTROL PT 96-154

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)





Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
2003

Point Name: **96-161**

Northing: **427,735.99sft** Easting: **2,068,328.17sft**

Orthometric Height: **748.91sft**

Ellipsoid Height: **641.57sft**

Latitude: **41°09'48.73175"N**

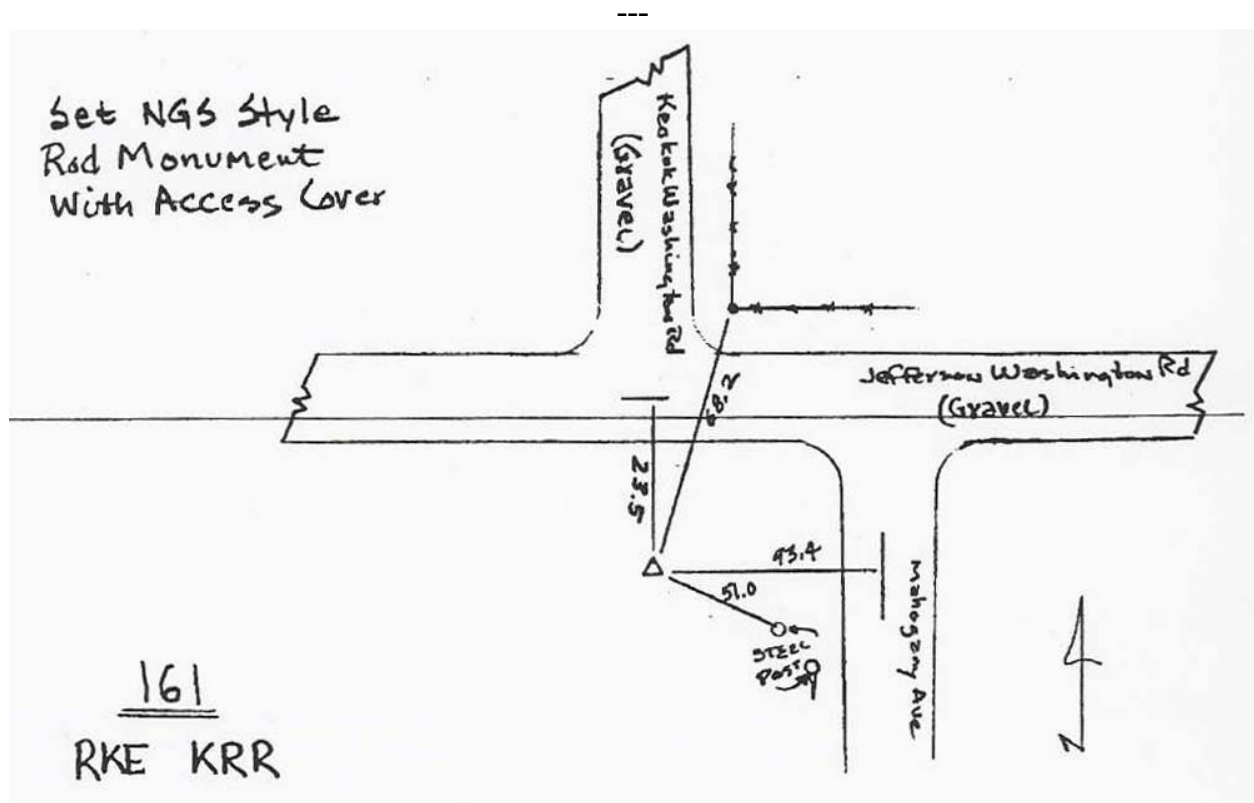
Longitude: **91°56'44.78699"W**

Mapping Angle: **1°01'26"**

Combination Scale Factor: **0.99991797**

**Designation:** WASHINGTON CO GPS CONTROL PT 96-161

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **99-217**

Northing: **552,493.61**sft    Easting: **1,969,782.93**sft

Orthometric Height: **904.74**sft

Ellipsoid Height: **799.28**sft

Latitude: **41°30'36.67818"N**

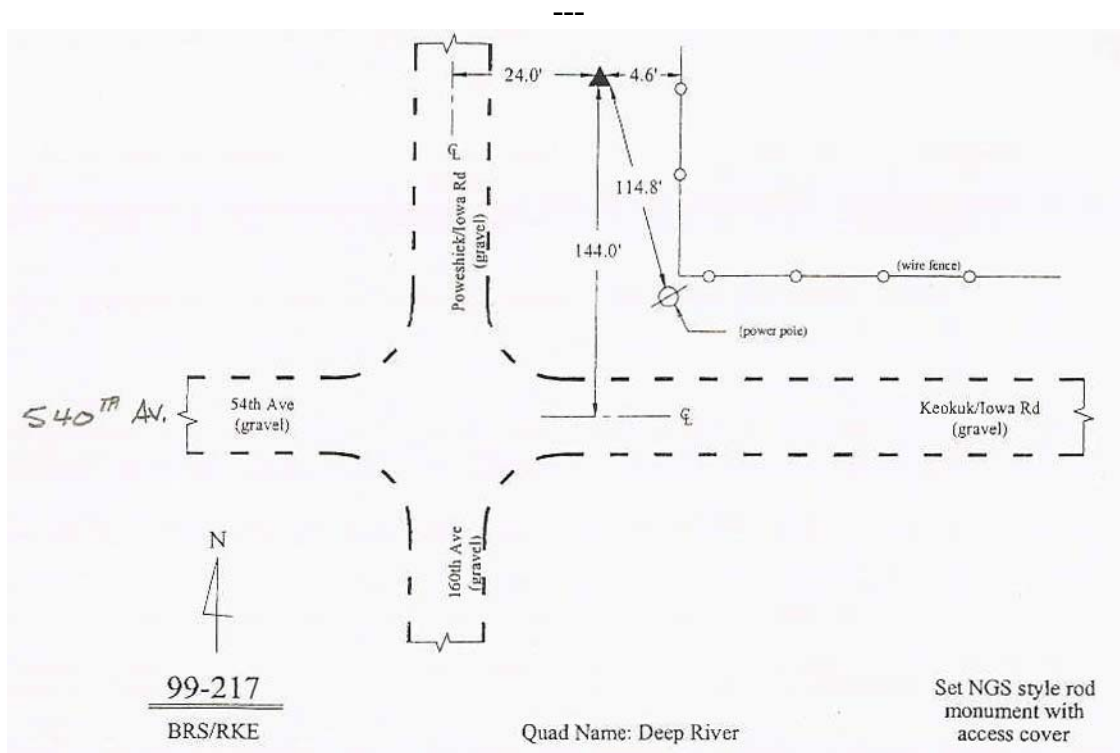
Longitude: **92°17'50.58795"W**

Mapping Angle: **0°47'32"**

Combination Scale Factor: **0.99992477**

**Designation:** IOWA CO GPS CONTROL PT 99-217

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **99-218**

Northing: **553,057.16sft**    Easting: **2,001,471.28sft**

Orthometric Height: **828.15sft**

Ellipsoid Height: **722.47sft**

Latitude: **41°30'37.70878"N**

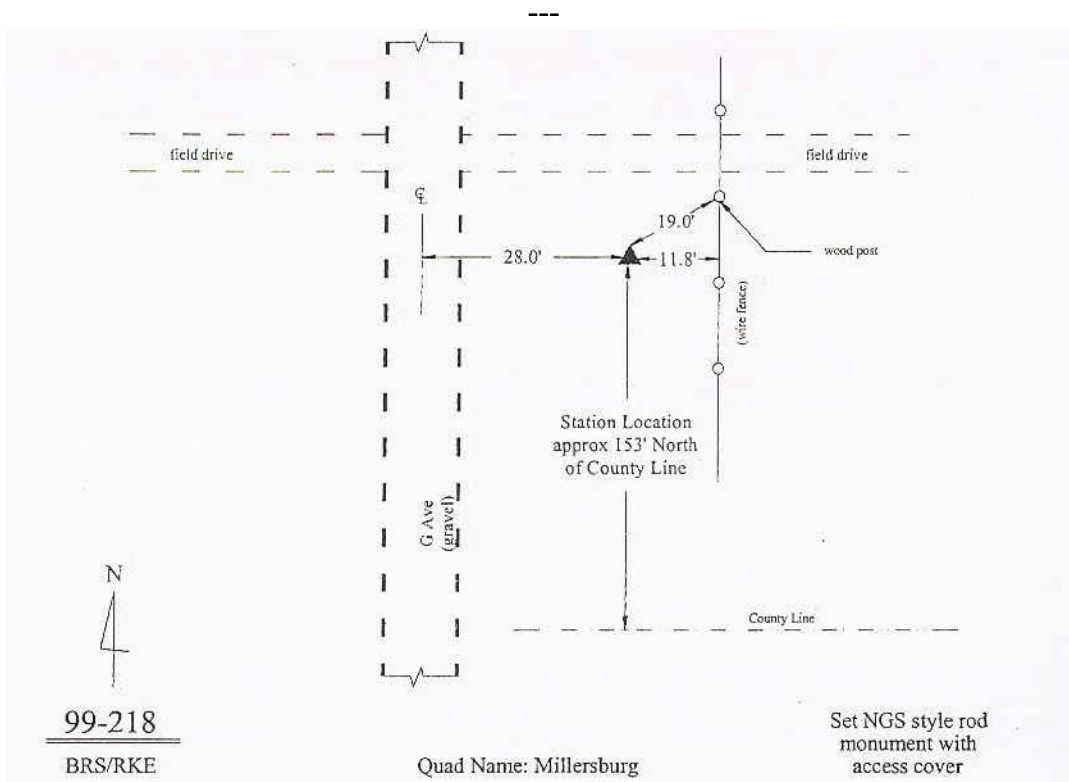
Longitude: **92°10'54.00365"W**

Mapping Angle: **0°52'06"**

Combination Scale Factor: **0.99992846**

**Designation:** IOWA CO GPS CONTROL PT 99-218

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **99-219**

Northing: **553,571.77sft** Easting: **2,034,168.45sft**

Orthometric Height: **833.44sft**

Ellipsoid Height: **727.27sft**

Latitude: **41°30'37.67480"N**

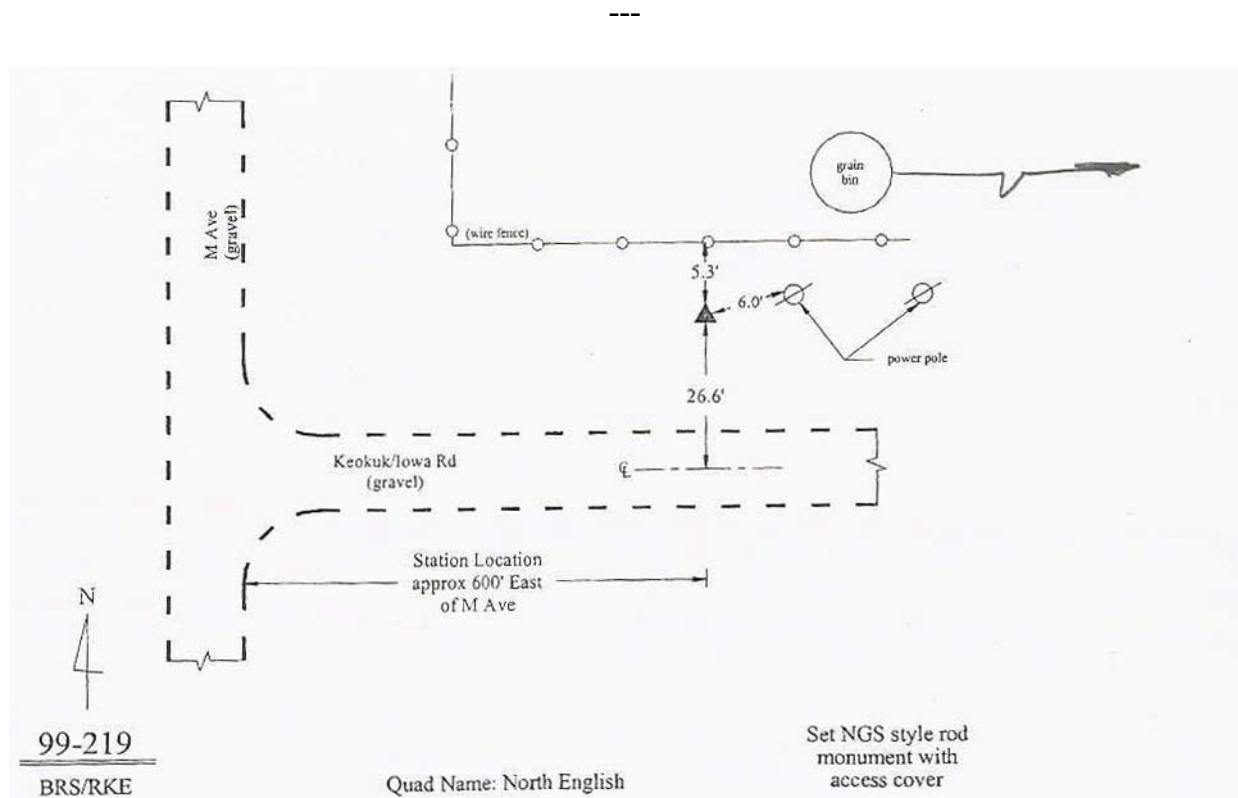
Longitude: **92°03'44.16861"W**

Mapping Angle: **0°56'49"**

Combination Scale Factor: **0.99992823**

**Designation:** IOWA CO GPS CONTROL PT 99-219

**Monument Type:** Aluminum rod monument with a survey cap encased in a 5"dia PVC pipe with an aluminum access cover.(set by others)



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **Chief**

Northing: **472,921.98sft** Easting: **1,875,405.25sft**

Orthometric Height: **846.42sft**

Ellipsoid Height: **740.55sft**

Latitude: **41°17'41.56386"N**

Longitude: **92°38'41.33842"W**

Mapping Angle: **0°33'48"**

Combination Scale Factor: **0.99991438**

**Designation:** NGS 2nd order vert. control. PID: MH0101 Designation: OSKALOOSA

**Monument Type:** At Oskaloosa, Mahaska County, in the city square park, at the Mahaska monument, and in the northwest corner of the granite base. A standard disk, stamped OSKALOOSA 1934

---



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **J-6**

Northing: **423,314.46sft** Easting: **2,014,884.48sft**

Orthometric Height: **812.69sft**

Ellipsoid Height: **705.6sft**

Latitude: **41°09'13.89464"N**

Longitude: **92°08'24.37882"W**

Mapping Angle: **0°53'45"**

Combination Scale Factor: **0.99991504**

**Designation:** NGS 1st order vert. control. PID: MH0061 Designation: J 6

**Monument Type:** A standard disk, stamped 812.698 J 6 1930 and set in the top of a concrete post.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **L-87**

Northing: **534,179.96sft** Easting: **1,874,202.76sft**

Orthometric Height: **864.19sft**

Ellipsoid Height: **758.82sft**

Latitude: **41°27'46.90668"N**

Longitude: **92°38'49.22156"W**

Mapping Angle: **0°33'43"**

Combination Scale Factor: **0.9999226**

**Designation:** CBN Horiz station and 2nd order vert. PID: MH0109 Designation: L 87

**Monument Type:** Station is a USGS benchmark disk stamped -- L 87 1934-- Set in a concrete footing for a water tower (now removed) and is flush with the ground.

---



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **TBM-C86**

Northing: **540,531.40sft** Easting: **2,024,542.44sft**

Orthometric Height: **739.04sft**

Ellipsoid Height: **632.86sft**

Latitude: **41°28'30.40336"N**

Longitude: **92°05'53.44176"W**

Mapping Angle: **0°55'24"**

Combination Scale Factor: **0.9999296**

**Designation:** NGS 2nd order vert. control. PID: MH 0070 Designation: C 86

**Monument Type:** Point occupied is a 5/8" rebar set approx. 500ft sw of station and vertically tied to the station with a closed level loop.





**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **TBM L-86**

Northing: **488,465.50sft** Easting: **1,996,036.34sft**

Orthometric Height: **793.04sft**

Ellipsoid Height: **686.89sft**

Latitude: **41°20'00.40034"N**

Longitude: **92°12'18.07369"W**

Mapping Angle: **0°51'11"**

Combination Scale Factor: **0.99991826**

**Designation:** NGS 2nd order vert. control. PID: MH0078 Designation: L 86

**Monument Type:** Point occupied is a 1/2" rebar set at back of sidewalk approx. 200ft west of station, flush with the ground, and vertically tied to the station with a closed level loop.



Keokuk County, Iowa  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
2003

Point Name: **TBM P-6**

Northing: **440,789.01sft** Easting: **2,055,068.71sft**

Orthometric Height: **666.52sft**

Ellipsoid Height: **559.32sft**

Latitude: **41°11'59.99159"N**

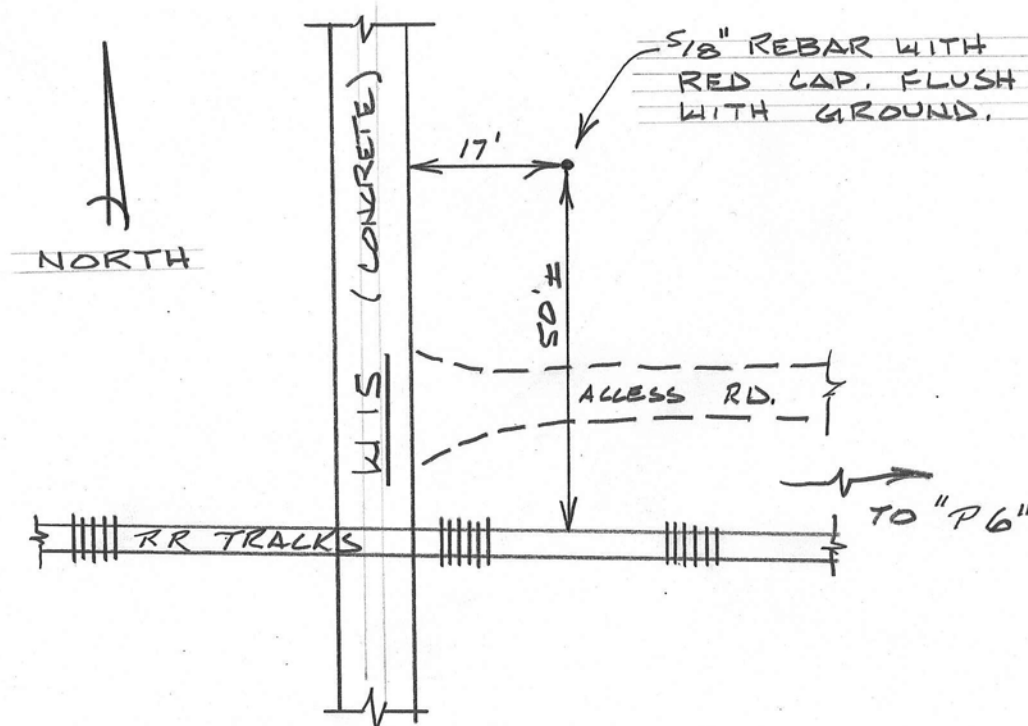
Longitude: **91°59'35.17105"W**

Mapping Angle: **0°59'33"**

Combination Scale Factor: **0.99992168**

**Designation:** NGS 1st order vert. control. PID: MG0464 Designation: P 6

**Monument Type:** Point occupied is a 5/8" rebar with red cap set west of station, flush with the ground, and vertically tied to the station with a closed level loop.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **U-86**

Northing: **429,298.03sft** Easting: **1,968,059.74sft**

Orthometric Height: **822.59sft**

Ellipsoid Height: **715.78sft**

Latitude: **41°10'19.79284"N**

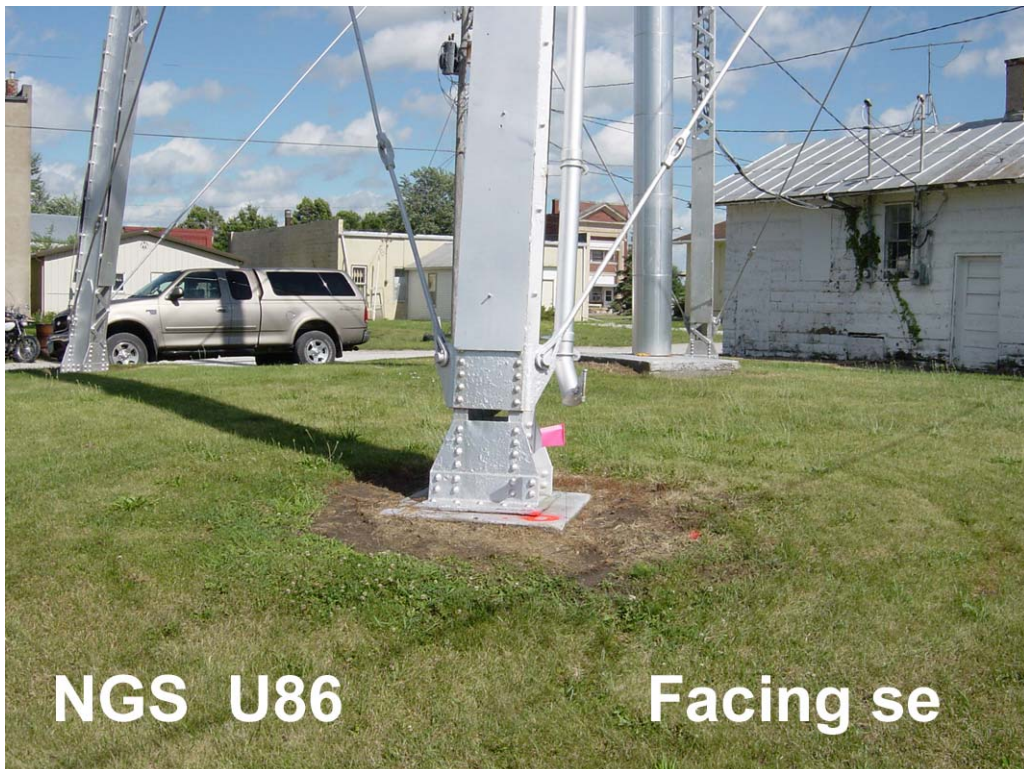
Longitude: **92°18'35.39185"W**

Mapping Angle: **0°47'02"**

Combination Scale Factor: **0.99991434**

**Designation:** NGS 2nd order vert.control. PID: MH0087 Designation: U 86

**Monument Type:** At Hedrick, Keokuk County, at the city water tower, and in the top of the west corner of the northwest concrete footing. A standard disk, stamped U 86 1934.



**Keokuk County, Iowa**  
Iowa South Zone (1402)  
Horiz. Datum: NAD83(1996)  
Vert. Datum: NAVD 1988  
US Survey Feet  
**2003**

Point Name: **Z-85 Reset**

Northing: **554,756.87sft** Easting: **2,031,793.09sft**

Orthometric Height: **774.58sft**

Ellipsoid Height: **668.42sft**

Latitude: **41°30'49.76881"N**

Longitude: **92°04'15.13088"W**

Mapping Angle: **0°56'29"**

Combination Scale Factor: **0.99993136**

**Designation:** USGS 3rd order vert. control. PID: MH 0035 Designation: Z 85 RESET

**Monument Type:** This station has been reset. Stamping on disk is Z 85 RESET 1987.

---

