

MISSOURI GEOGRAPHIC REFERENCE SYSTEM

MISSOURI DEPARTMENT OF NATURAL RESOURCES
DIVISION OF GEOLOGY AND LAND SURVEY
LAND SURVEY PROGRAM

PO Box 250, Rolla, Missouri 65402, (573) 368-2300

STATION NAME: BU-03

PID: AD9776

COUNTY: Buchanan

STATE: Missouri

TOWNSHIP: 58 NORTH, RANGE: 34 WEST, SECTION: SW 1/4 OF 30

USGS 7.5' QUAD: St. Joseph North

DATE MONUMENTED: 1993

MONUMENTED BY: MODNR

TECHNICAL DATA TABLE:

(All data in meters 1 meter = 3.28083333 feet)

HORIZONTAL: NAD 1983**VERTICAL:** NAVD 1988

DATE OF OBSERVATIONS: 2001

DATE OF OBSERVATIONS: 2001

DATE OF ADJUSTMENT: 2000

DATE OF ADJUSTMENT: 2000

ORDER: 1st

ORDER:

LATITUDE: 39°48'23.57118"

ELEVATION: 264.1

LONGITUDE: 94°46'03.01782"

ELLIPSOID HEIGHT: 232.12

MISSOURI COORDINATE SYSTEM 1983:

NORTH (Y): 404023.841

EAST (X): 827093.721

ZONE: West

CONVERGENCE: -00°10'16"

GRID FACTOR: .9999112

AZIMUTH INFORMATION:

STATION: BU-03

AZIMUTH MARK: BU-03A

GEODETTIC:

ASTRONOMIC: 90°57'37"

GRID: 91°07'53"

REMARKS

The HORIZONTAL POSITION was determined by GPS observations and adjusted by the National Geodetic Survey in February 2000.

The AZIMUTH was determined by observation of Polaris with an estimated accuracy of 1 second of arc.

The ELEVATION was determined by GPS observations.

The ELLIPSOID HEIGHT was determined by GPS observations referenced to NAD83.

GEOID 99 was used in determining ELEVATION and ELLIPSOID HEIGHT.

STATION: BU-03

DESCRIPTION: The station is a standard DNR aluminum GRS disk stamped "BU-03, 1993", set in a 12 inch diameter concrete post flush with the ground surface. The station has an underground mark 0.738 meters below the surface disk. The azimuth mark is a standard DNR aluminum GRS disk stamped "BU-03A, 1993", set in a 12 inch diameter concrete post 1 inch below the ground surface.

STATION, AZIMUTH MARKS AND REFERENCE TIES: The station is located near the northeast corner of the St. Joseph, Mo, city limits in the northeast angle of the intersection of Riverside and Cook Roads on a berm on the north side of Cook Road. It is 58.8 feet northeast of a 4.5 inch steel gate post; 70.7 feet east of the east edge of Riverside pavement; 98.3 feet east-southeast of a PK-nail in center of Riverside and Cook Road; 44.2 feet east of a 8 inch steel gate post and 2.0 feet west of a carsonite witness post.

The azimuth mark is 0.2 mile east of the station, on the north side of Cook Road and under a electric transmission line. It is 10.3 feet north of a cotton picker spindle in centerline of Cook Road; 16.9 feet southeast of a nail and shiner in southwest side of power pole; 17.1 feet southwest of a nail and shiner in the southeast side of a power pole and 16.2 feet southwest of a witness post at a power pole.

STATION & AZIMUTH MARK TO REACH: To reach the station from I-29 Exit 47 (Frederick Avenue and Missouri Highway 6) in the east part of St. Joseph, MO. Go east on Highway 6 for 1.4 mile to Riverside Road (Missouri Route AC South only). Turn left and go north on Riverside for 1.65 mile to Cook Road and the station on the right in the northeast angle as described.

To reach the azimuth mark from the station, go east on Cook Road for 0.2 mile to mark on the left (north) side as described.

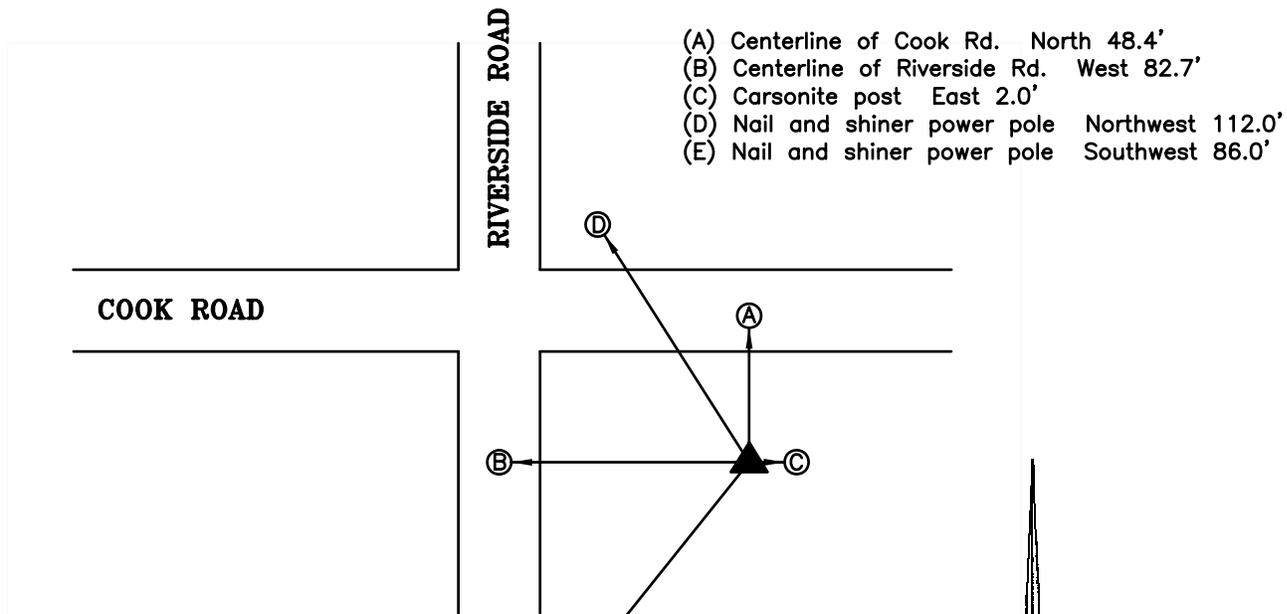
SPECIAL INFORMATION:

SUPERSEDED SURVEY CONTROL

| | | |
|---------------------|--------------------|--------------------|
| NGS NAD 83(1997)- | 39°48'23.57117"(N) | 94°46'13.01784"(W) |
| NGS NAD 83(1997)- | 39°48'23.57117"(N) | 94°46'13.01785"(W) |
| NGS NAD 83(1986)- | 39°48'23.57378"(N) | 94°46'13.01384"(W) |
| MODNR NAD 83(1986)- | 39°48'23.57364"(N) | 94°46'13.01390"(W) |

DATE of REPORT, 2002

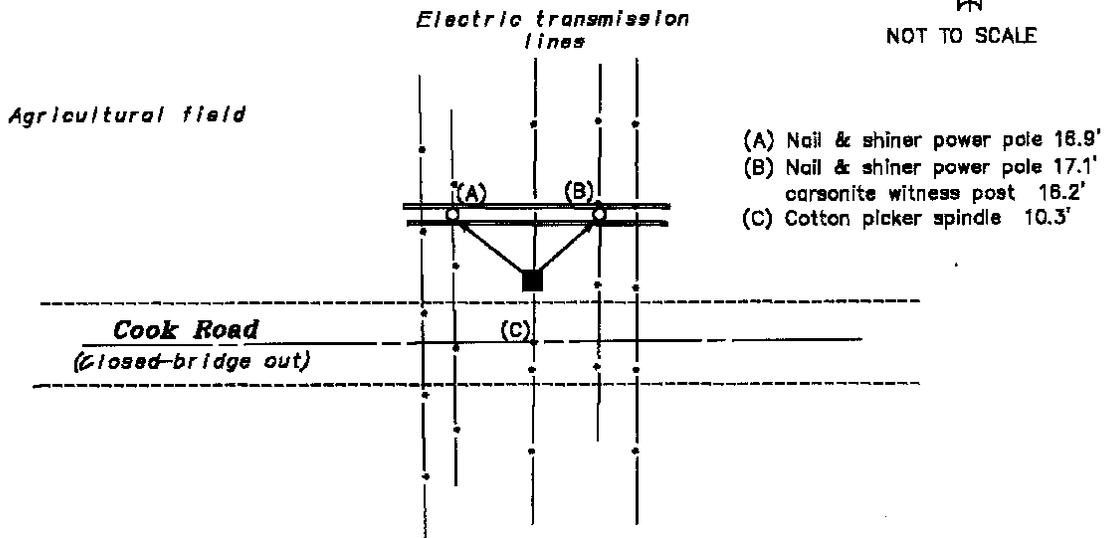
STATION: BU-03



AZIMUTH MARK: BU-03A



NOT TO SCALE



DATE OF SKETCH 2001



STATION: BU-03 (LOOKING NW)



STATION: BU-03 (LOOKING SW)