

CITY OF NORTH LITTLE ROCK
STANDARD PROCEDURES
FOR PREPARATION AND SUBMITTAL
OF THE
GEODETIC CONTROL NETWORK
CONTROL DATA FORM

1. GENERAL

A. PURPOSE OF FORM

- 1) To document control work required by Ordinance No. 7643.
- 2) To provide position and recovery information for future use of the monumentation.

B. SPECIAL NOTES

a) This form applies only to control monumentation for inclusion into the Geodetic Control Network.

b) This form shall be used for control work performed by either conventional survey techniques or GPS (Global Positioning System) techniques.

2. PREPARATION (Refer to Attached Sample Form)

A. STATION NAME:
Indicate Station Name
X0000-Z1111

- a) Control monuments established at subdivision or tract boundary corners shall be named in the following format:
X0000 – Designates number of monument of origin
Z1111- Designates number assigned by North Little Rock Community Planning Department.

B. MONUMENTED BY:
DATE:

Fill in the company or establishing agency's name and the registration number of the Registered Land Surveyor responsible for the placement of the monument along with the date the position of the monument was determined.

C. RECOVERED BY:
DATE:

Fill in the company name and the date the monument was recovered when utilizing a previously established monument. State, within the "Detailed Description:" space, the condition of the recovered monument.

D. POSITION DETERMINED BY:

Fill in, for both Horizontal and Vertical, the type of surveying technique utilized to determine position data such as GPS, Traverse, Triangulation for Horizontal and GPS, Differential, Trig or three wire for Vertical.

E. ARK. PLANE COORDINATES- NAD-83:

Zone:

Must fill in "North" to designate the Arkansas State Plane Coordinate Zone the coordinates are determined in (per Ord. No. 7643).

Code:

Fill in NGS code for the zone designated in (a) above.
(0301-North)

Northing: & Easting:

Fill in the determined coordinates, in feet, to the nearest one hundredth of a foot.

Convergence:

Fill in the (theta) angle between the plane azimuth and geodetic azimuth as determined by the longitudinal position of the monument to the nearest tenth of a second.

Scale Factor:

Fill in the appropriate Lambert Projection scale factor as determined by the latitude position of the monument to seven decimal places.

Elevation- NGVD- (ft):

Fill in mean sea level elevation in feet to the nearest one hundredth of a foot determined for the highest point on the monument cap.

F. GEODETIC COORDINATES:

Latitude and Longitude:

Fill in precise geodetic coordinates determined for the monument to the nearest ten thousandth of a second in degrees, minutes, and seconds format.

Geoid Height:

When positioning of the monument is determined by the use of GPS, provide the computed geoidal height of the monument. Ellipsoidal height may be substituted where geoidal height is not determined. If ellipsoidal height is provided please designate it as such.

G. AZIMUTH MARK:

Provide a complete description of the azimuth mark of the monumented station. The description shall specifically define the fixture or feature of the mark sighted.

H. GEODETIC AZIMUTH:

Fill in the azimuth from geodetic North in degree, minutes, and seconds from the control station to the azimuth mark. Below the azimuth, state if azimuth was computed by traverse, polaris observation or solar observation.

I. PLANE AZIMUTH:

Fill in the azimuth in degrees, minutes, and seconds measured between the central meridian of the plane coordinate projection system and a line containing the object sighted.

J. REFERENCE MARK DESCRIPTION:

Provide a minimum of three (3) recoverable reference ties. Descriptions shall provide adequate detail to facilitate recovery of the reference mark.

K. DISTANCE:

Provide distances, in feet, to the nearest hundredth of a foot from the monument to the reference mark.

L. DIRECTION:

Provide the angle measured in degrees, minutes and seconds from the azimuth mark to each reference mark provided.

M. DETAILED DESCRIPTION:

Provide a complete, "How to reach" description of the location of the control monument. The description, as a minimum, shall define:

- 1) Type of survey cap utilized.
- 2) Type of construction of the monument.
- 3) Distance and direction from nearest public street intersection.
- 4) Distance and direction from centerline or nearest roadway.

N. FIELD SKETCH:

Provide a sketch of the immediate vicinity of control monument. As a minimum, the sketch shall indicate the following:

- 1) Nearest roadway showing type and width of roadway surface.
- 2) All man-made structures within the immediate vicinity showing their relationship with the control monument.
- 3) Location and number of each reference mark.
- 4) Location of azimuth mark.
- 5) Any ground or natural feature, such as ditch line, top of slope, trees, etc., within the immediate vicinity that will facilitate in the recovery of the control monument.

3. SUBMITTAL AND APPROVAL

1) Submittal

Upon completion of the Control Data Form, submit the original form with copies of the survey field notes and computation relative to the determining of position data for the control monument to the North Little Rock Community Planning Department. All information will be reviewed for accuracy and completeness.

2) Approval

Upon review, if errors or omissions are discovered, all information submitted for the review will be returned to the submitter. Review comments shall be sent with the information. After correcting the errors, the data shall be resubmitted to the North Little Rock Community Planning Department for review.

Upon final review, if all information is determined to be accurate and correct, the original Control Data Form will be retained by the City and will be included in the Geodetic Control Network. A copy of the approved Control Data Form will be stamped "APPROVED" and returned along with the field notes and calculations.

4. DISTRIBUTION OF NEW MONUMENTS

Approved and verified monuments shall become a part of the Geodetic Control Network. For information and questions concerning monuments, contact North Little Rock Community Planning (120 Main St., North Little Rock, AR 72114; Phone: 1-501-975-8835).

City of North Little Rock
Pulaski Area GIS

CONTROL DATA FORM

STATION NAME: <div style="text-align: center; font-size: 2em;">A</div>	MONUMENTED BY: <div style="text-align: center; font-size: 2em;">B</div>	RECOVERED <div style="text-align: center; font-size: 2em;">C</div>	POSITION DETERMINED BY: HORIZONTAL: VERTICAL: <div style="text-align: center; font-size: 2em;">D</div>
ORDER:	DATE:	DATE:	
ARK.PLANE COORDINATES – NAD - 83		GEODETTIC COORDINATES	
ZONE: NORTHING (ft.): EASTING (ft.): CONVERGENCE: SCALE FACTOR: ELEVATION – NGVD-29- (ft.): <div style="text-align: center; font-size: 2em;">E</div>	CODE:	LATITUDE (NORTH): LONGITUDE (WEST): GEOID HEIGHT (METERS): <div style="text-align: center; font-size: 2em;">F</div>	
AZIMUTH MARK: <div style="text-align: center; font-size: 2em;">G</div>	GEODETTIC AZIMUTH <div style="text-align: center; font-size: 2em;">H</div>	PLANE AZIMUTH <div style="text-align: center; font-size: 2em;">I</div>	
REFERENCE MARK DESCRIPTION		DISTANCE	DIRECTION
<div style="text-align: center; font-size: 2em;">J</div>		<div style="text-align: center; font-size: 2em;">K</div>	<div style="text-align: center; font-size: 2em;">L</div>
DETAILED DESCRIPTION: <div style="text-align: center; font-size: 2em;">M</div>			
FIELD SKETCH: <div style="text-align: center; font-size: 2em;">N</div> <div style="text-align: right; margin-top: 20px;"></div>			

City of North Little Rock
Pulaski Area GIS

CONTROL DATA FORM

STATION NAME:		MONUMENTED BY:	RECOVERED	POSITION DETERMINED BY:
ORDER:		DATE:	DATE:	HORIZONTAL:
				VERTICAL:
ARK.PLANE COORDINATES – NAD - 83			GEODETTIC COORDINATES	
ZONE:	CODE:	LATITUDE (NORTH):		
NORTHING (ft.):		LONGITUDE (WEST):		
EASTING (ft.):		GEOID HEIGHT (METERS):		
CONVERGENCE:				
SCALE FACTOR:				
ELEVATION – NGVD-29- (ft.):				
AZIMUTH MARK:		GEODETTIC AZIMUTH		PLANE AZIMUTH
REFERENCE MARK DESCRIPTION			DISTANCE	DIRECTION
DETAILED DESCRIPTION:				
<p>FIELD SKETCH:</p> <div style="text-align: right;">  </div>				

