

NOTE: This figure has not yet been updated to reflect current CAD Standards related to text styles. Users should consult the current INDOT CAD Standards Manual when producing the Location Control Route Survey document.

LOCATION CONTROL ROUTE SURVEY PLAT EXAMPLE (PAGE 1 OF 2)
Figure 26-2D

Surveyor's Report

Route Survey - Des. No. 1296544

Location: On State Road No 59, at approximately 3.51 miles south of Junction with State Road No 54. Located in Stockton Township, Greene County, Indiana, in Section 34, Township 7 North, Range 7 West and Section 3, Township 6 North, Range 7 West.

Purpose: Collect data for a Small structure rehabilitation project at the location listed above. It is not a property retracement survey and any property lines and/or corners shown are based only on physical evidence as collected during the field work.

General Notes:

All monument reference ties are shown on the Location Control Route Survey Plat (herein after referred to as LCRS)

All measurements are in US Survey feet unless otherwise noted. All distances shown on this Location Control Route Survey Plat represent ground measurements.

Should additional USPLS corners be needed where none were found, they should be reestablished and tied into this survey.

Field measurements for this survey were made in accordance with the specifications outlined in Indiana Administrative Code 865 IAC 1-12-20 through 1-12-25. The decimal precision shown on this plat for the measurements and coordinates is for consistency in the mathematical calculations, and not to indicate the precision of the field work conducted for this survey.

Points 551 and 552 as shown in the Control Point Table are positions located using a GPS Rover with Geoid Model 2012A connected to the InCORS Network (INDOT Continuously Operating Reference Stations, NAD83[2011] Epoch 2010.0). InCORS Network corrections (RTCM 3.1) were received via NTRIP (Networked Transport of RTCM via internet) using a cell phone modem. Multiple occupations, with receivers initialized at different locations, were done to verify control point positions. These positions are located in the 1983 State Plane Coordinate system for Indiana Zone 1302, in the US Survey foot unit. The State Plane Coordinates for these control points were then converted to a Local ground coordinate system by assigning a coordinate value of 40000.0000 North and 40000.0000 East for Point Number 551 with a grid bearing of North 88 degrees 30 minutes 58.47 Seconds East to Point Number 552 (40066.8340 North and 42580.2370 East).

This gives a starting bearing of North 89 Degrees 50 Minutes 48.3 Seconds East from Control Point Number 501 to Control Point Number 502, and is the Basis of Bearing for all bearings shown on this Survey.

A combined scale factor (CSF) of 1.0000498379 (Grid distance multiplied by CSF equals ground distance) was used for all locations collected in State Plane Coordinates, converted to ground coordinates, and translated to the Local coordinate system used for this survey. All translations were done holding control Point 551 as the fixed origin.

The State Plane Coordinate locations for the primary control points (551 and 552) and metadata regarding the combined scale factor used for this survey is provided to enable reestablishment of survey line if monuments on the survey line have been destroyed.

All coordinates in the Local ground coordinate system used for this project can be converted to State Plane Coordinate position (Grid) using the following formula:

Northing = Local Northing
Eastng = Local Easting
1364436.3450 - [(40000 - Northing) (.9999501646)] = SPC Northing
2923567.3900 - [(40000 - Easting) (.9999501646)] = SPC Easting

Survey on SR 59 south of Linton, in an area known locally as "Goose Pond", is for replacement of small structure under SR 59. This survey alignment, Line "B", is a reestablishment of Line "A" of Project No 725 Sec. "A" (1941), year 1940.

Alignment:

No original monuments set during the 1940 survey were recovered; therefore the existing center line locations in the area between 1940 planned locations of approximately Station 103+00 to Station 126+00 were taken. The 1940 plans show a PI location at Station 113+51.3 with no curve run. This PI was re-located by measuring the plan distance (curve tangent of 573.5 feet plus tangent distance of 837.89 feet = 1411.19 feet) from an alignment previously established for the north end of Des No 0600634 and centered in the existing roadway. Once the PI 113+15.3 was established, its' location was used as the basis for stationing. This resulted in a POT Station of 104+78.80 "B" for the start of this alignment with the Planned Stationing being 104+77.41 "A" (difference of 1.39 feet). Center line location of Bridge Structure at approximate station 126+85 ahead of this re-established PI was used for the forward tangent location. This created a delta angle 0°23'16" Right vs. a Plan delta angle of 0°28' Right. The existing center line is within +/- 1.0 feet of this re-established alignment.

Estimated uncertainty of alignment location is 1.0 feet left or right along reestablished 1940 survey.

Stationing:

Stationing was established by using the re-established PI location with stationing of 113+51.3 "B" representing Station 113+51.3 "A" on the 1940 Plans.

Estimated uncertainty of stationing on 1940 survey is 1.5 feet.

Right of Way Note:

The existing right of way lines, parcel ownership lines, and ownership information shown on this plat are preliminary and subject to change based on verification/validation of title. This information is shown only to help orient the user of this plat as it relates to project centerlines and is not intended to establish existing right of way lines or ownership lines. The source used to plot existing right of way lines and ownership lines shown on this plat is from last deed of record obtained from County Recorder's Office as well as other sources cited on this plat. The designer/consultant responsible for Right of Way Engineering will complete the final determination of this information.

Note: "Survey Started" date and "Survey Completed" date shown below indicate date of first field work and date of last field work, respectively. This does not represent a continuous time span of work for this Project; field work was stopped and re-started as necessary due to work on various other Projects.

SURVEY STARTED		
3/27/2013		
SURVEY COMPLETED		
5/31/2013		
ROUTE PLAT SHEETS		
2	of	2

Indiana Department of Transportation
Vincennes District Office
3650 South US Highway No 41
Vincennes, Indiana 47591-9443

Control Points

501. POT Station 104+78.80 "B" - Mag Nail with washer stamped "INDOT 0005", set flush with the Roadway surface.
502. PI Station 113+15.30 "B" - Mag Nail with washer stamped "INDOT 0005", set flush with the Roadway surface.
503. PI Station 120+00.00 "B" - Mag Nail with washer stamped "INDOT 0005", set flush with the Roadway surface.
551. 1/2 Inch rebar with cap stamped "INDOT TP", 0.1 foot below ground level. State Plane Coordinates - U.S. Survey Foot - SPC (1302 Indiana West Zone) 1364436.3450 Northing US Survey Foot 2923567.3900 Easting US Survey Foot Latitude = 38°59'39.885019" N W. Longitude = 87°11'09.634459" W Position based on GPS Observations utilizing the InCORS Network. This point was held fixed and used in all translations and rotations to local system. See section under General Notes in Surveyor's report for metadata

552. 1/2 Inch rebar with cap stamped "INDOT TP", 0.1 foot below ground level. State Plane Coordinates - U.S. Survey Foot - SPC (1302 Indiana West Zone) 1364503.1760 Northing US Survey Foot 2926147.4990 Easting US Survey Foot Latitude = 38°59'40.573087" N W. Longitude = 87°10'36.955046" W Position based on GPS Observations utilizing the InCORS Network. Uncertainty of Location for all control points is considered to be negligible
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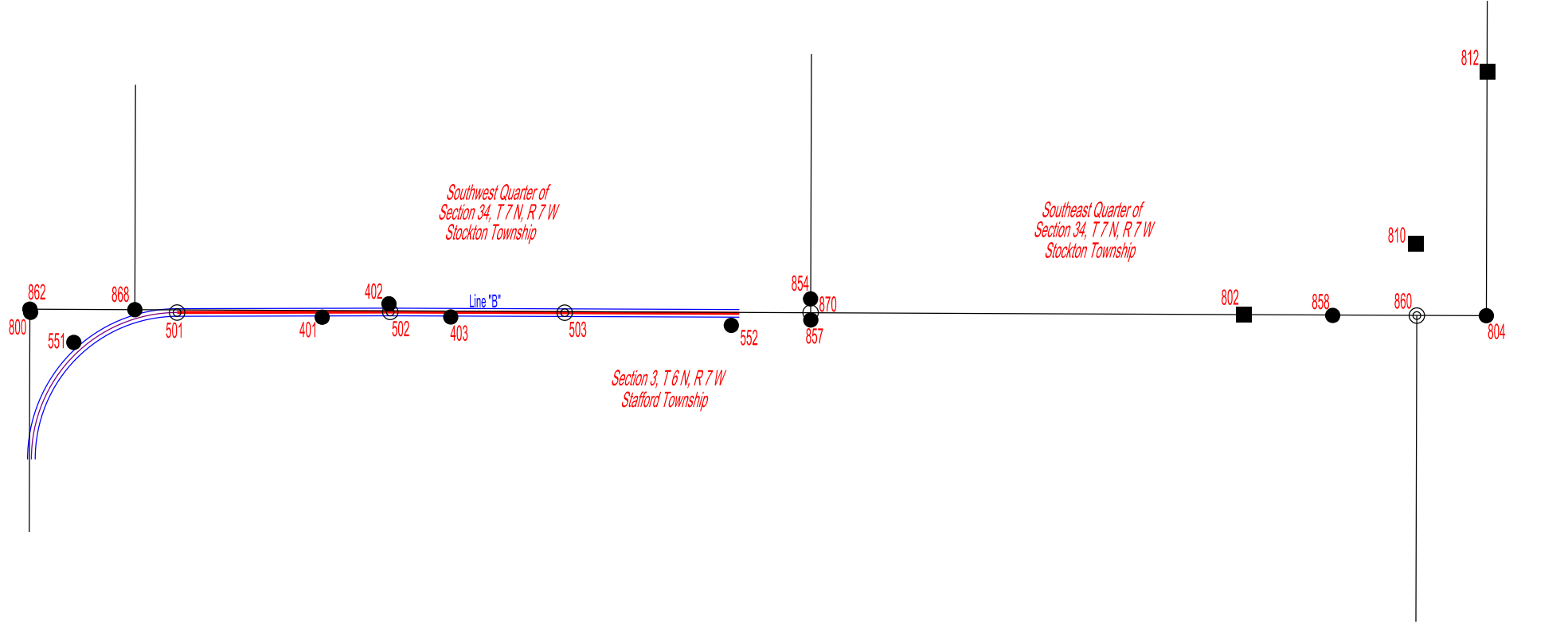
USPLS Corners

804. Southeast Corner of Section 34, T 7 N, R 7 W Section corner records for Greene County indicate a 5/8 inch rebar with cap set at this location, as per a section corner record work done by Bledsoe, Tapp & Riggert, Inc. A 5/8 rebar with a cap stamped "Bledsoe Tapp PC 50920004" was recovered at this location, flush with the roadway surface. A railroad spike, 0.1 feet below the roadway surface, was found N 31°30'28" E, a distance of 3.90 feet from said rebar. The recovered capped rebar was held as located in the field for the purposes of this survey. Estimated uncertainty of corner location is 5 feet.
860. Northeast Corner of Section 3, T 6 N, R 7 W A Mag nail, flush with the roadway surface, was recovered at this location. This monument is referenced during a survey by CB & M Surveys, Inc. for the Wilder Corporation of Delaware. (Copy furnished by CB & M Surveys). It was held as located in the field for the purposes of this survey. Estimated uncertainty of corner location is 5 feet.
862. Northwest Corner of Section 3, T 6 N, R 7 W An unmarked 5/8 Inch rebar, bent to the north and 1.4 feet below ground level, was found at this location. This monument is referenced as "1/2 inch rebar found" during the section corner perpetuation work for Greene County by Bledsoe, Tapp, & Riggert, Inc. Its position as recovered during the field work for this survey is consistent with the information listed for the "1/2 inch rebar found" during the above mentioned section corner perpetuation work by Bledsoe, Tapp & Riggert, Inc. A 5/8 inch rebar, with unreadable survey cap and 0.3 feet below the roadway surface was found South 13°11'19" East, a distance of 12.77 feet from this corner location. A survey by CB & M Surveys, Inc. for the Wilder Corporation of Delaware. (Copy furnished by CB & M Surveys) indicates a 5/8 inch rebar with cap stamped "James Tibbett LS80910029" was set to mark this location. The rebar with unreadable cap is assumed to be the one set by James Tibbett during his survey. The unmarked 5/8 inch rebar was held as located in the field for the purposes of this survey. Estimated uncertainty of corner location, due to conflicting survey information, is 15 feet.
868. Southwest Corner of Section 34, T 7 N, R 7 W Section corner records for Greene County indicate a Harrison Monument set at this location, as per a section corner record dated 11/30/2002 by Ben E. Bledsoe RLS. No Harrison Monument was recovered during the field work for this project. A 5/8 inch rebar with cap stamped "Bledsoe Tapp 50920004" was recovered at this location. The location of this capped rebar is in agreement with the reference ties shown on the corner record sheet for said Harrison Monument. The found 5/8 inch rebar, as located in the field, was held as representing this corner. Estimated uncertainty of corner location is 5 feet.
870. South Quarter Corner of Section 34, T 7 N, R 7 W Section corner records for Greene County indicate a Mag Nail set at this location, as per a section corner record dated 11/30/2002 by Ben E. Bledsoe RLS. No monument was recovered during the field work for this project. Two (2) 5/8 inch rebars with "witness cap" were recovered and used to compute the original corner's position. No monument was set as part of this survey. The recreated coordinate position was used as representing this corner's location. Estimated uncertainty of corner location is 5 feet.

Other Monumentation

800. 5/8 inch rebar with unreadable cap. A survey by CB & M Surveys, Inc. for the Wilder Corporation of Delaware. (Copy furnished by CB & M Surveys) indicates a 5/8 inch rebar with cap stamped "James Tibbett LS80910029" was set to mark the Northwest corner of Section 3, T 6 N, R 7 W. This rebar with unreadable cap is assumed to be the one set by James Tibbett during his survey. See information for Point Number 862 on this survey.
802. INDOT Type 'B' monument, 0.3 feet below Roadway Surface. Road plans for Contract R-10278, Project No 725 'B' required a Type 'B' monument at PC Station 20+00.00 on Line "A". No research or field work was conducted to verify this monument's location. The coordinate position of this monument is listed for informational purposes only.
810. INDOT Type 'B' monument, 0.4 feet below Roadway Surface. Road plans for Contract R-10278, Project No 725 'B' required a Type 'B' monument at POC Station 27+50.00 on Line "A". No research or field work was conducted to verify this monument's location. The coordinate position of this monument is listed for informational purposes only.
812. INDOT Type 'B' monument, 0.4 feet below Roadway Surface. Road plans for Contract R-10278, Project No 725 'B' required a Type 'B' monument at PT Station 34+98.61 on Line "A". No research or field work was conducted to verify this monument's location. The coordinate position of this monument is listed for informational purposes only.
854. 5/8 Inch rebar with cap stamped "Co Survey Witness", 0.2 feet below ground level. The section corner perpetuation records for Greene County show this monument as a Section corner tie reference for a Mag nail representing the south quarter corner of Section 34, T 7 N, R 7 W (see information for Point Number 870). The coordinate position of this reference tie monument is listed for informational purposes only.
857. 5/8 Inch rebar with cap stamped "Co Survey Witness", 0.4 feet above ground level. The section corner perpetuation records for Greene County show this monument as a Section corner tie reference for a Mag nail representing the south quarter corner of Section 34, T 7 N, R 7 W (see information for Point Number 870). The coordinate position of this reference tie monument is listed for informational purposes only.
858. 5/8 inch rebar with cap stamped "James Tibbett LS80910029", 0.1 foot below ground level. Property corner location. A survey by CB & M Surveys, Inc. for the Wilder Corporation of Delaware. (Copy furnished by CB & M Surveys) indicates a 5/8 inch rebar with cap stamped "James Tibbett LS80910029" was set to mark the northeast corner of tract number four (4) on their plat of survey. No research or field work was conducted to verify this monument's location. The coordinate position of this monument is listed for informational purposes only.

South Half Section 34, Township 7 North, Range 7 West, Stockton Township
North Half Section 3, Township 6 North, Range 7 West, Stafford Township




Plat Legend

- Mag Nail, as described on plat
- Rebar/Iron Pin, as described on Plat
- INDOT Type 'B' Monument

Point No	Local Northing	Local Easting	SPC Northing	SPC Easting	Description
401	40098.6400	40974.7678	1364534.9801	2924542.1092	1/2 inch rebar with plastic cap stamped "INDOT TP" 0.1 foot below ground level.
402	40151.2816	41236.4131	1364587.6191	2924803.7415	1/2 inch rebar with plastic cap stamped "INDOT TP" 0.1 foot below ground level.
403	40099.7122	41479.3545	1364536.0522	2925046.6708	1/2 inch rebar with plastic cap stamped "INDOT TP" 0.1 foot below ground level.
501	40117.1423	40405.2582	1364553.4815	2923972.6280	POT 104+78.80 "B" - Mag nail with washer stamped "INDOT 0005" flush with the Roadway surface.
502	40119.3795	41241.7600	1364555.7186	2924809.0881	PI 113+15.30 "B" - Mag nail with washer stamped "INDOT 0005" flush with the Roadway surface.
503	40116.5759	41926.4497	1364552.9151	2925493.7437	POT 120+00.00 "B" - Mag nail with washer stamped "INDOT 0005" flush with the Roadway surface .
551	40000.0000	40000.0000	1364436.3450	2923567.3900	1/2 inch rebar with plastic cap stamped "INDOT TP" 0.1 foot below ground level.
552	40066.8340	42580.2370	1364503.1757	2926147.4984	1/2 inch rebar with plastic cap stamped "INDOT TP" 0.1 foot below ground level.
800	40118.0480	39830.4990	1364554.3871	2923397.8974	5/8 inch rebar with unreadable cap, see surveyor's report for additional information.
802	40109.7000	44591.4990	1364546.0395	2928158.6602	INDOT Type 'B' Monument, 0.3 feet below the Roadway surface.
804	40104.5810	45543.1380	1364540.9208	2929110.2518	Southeast Corner of Section 34, T 7 N, R 7 W, 5/8 inch rebar with cap stamped "Bledsoe Tapp PC 50920004, flush with the Roadway surface.
810	40388.3750	45266.6410	1364824.7006	2928833.7685	INDOT Type 'B' Monument, 0.4 feet below the Roadway surface.
812	41061.8610	45548.0010	1365498.1531	2929115.1145	INDOT Type 'B' Monument, 0.4 feet below the Roadway surface.
854	40170.5670	42891.2550	1364606.9035	2926458.5009	5/8 inch rebar with cap stamped "Co Survey Witness", reference tie for South Quarter Section 34, T 7 N, R 7 W, 0.2 feet below ground level.
857	40087.9200	42892.2010	1364524.2606	2926459.4469	5/8 inch rebar with cap stamped "witness", reference tie for South Quarter Section 34, T 7 N, R 7 W, protruding 0.4 feet above ground level.
858	40105.7260	44940.3500	1364542.0657	2928507.4938	Property Corner, 5/8 inch rebar with cap stamped "James Tibbett LS80910029", 0.1 foot below ground level.
860	40105.1870	45270.3020	1364541.5268	2928837.4294	Northeast Corner of Section 3, T 6 N, R 7 W, Mag nail flush with the Roadway surface.
862	40130.4830	39827.5850	1364566.8215	2923394.9836	Northwest Corner Section 3, T 6 N, R 7 W, 5/8 inch rebar, leaning north, 1.4 feet below ground level.
868	40128.3700	40239.6640	1364564.7086	2923807.0421	Southwest Corner Section 34, T 7 N, R 7 W, 5/8 inch rebar with cap stamped "Bledsoe Tapp PC 50920004", 0.1 foot below ground level.

Easement Note:

Locations of any easements are based on last deed of record available at the Recorder's Office. These deed records were found during initial research, and in no way represent all possible easements that could be recovered by a title search.

SURVEY STARTED			Indiana Department of Transportation Vincennes District Office 3650 South US Highway No 41 Vincennes, Indiana 47591-9443	FIELD SURVEYOR STATEMENT			I AFFIRM, UNDER THE PENALTIES FOR PERJURY, THAT I HAVE TAKEN REASONABLE CARE TO REDACT EACH SOCIAL SECURITY NUMBER IN THIS DOCUMENT, UNLESS REQUIRED BY LAW.		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE		BRIDGE FILE	
3/27/2013				THIS SURVEY, TO THE BEST OF MY KNOWLEDGE AND BELIEF, IS EXECUTED ACCORDING TO THE PROVISIONS OF TITLE 865 I.A.C. 1-12-20 THROUGH 1-12-26 REGARDING ROUTE SURVEYS, EXCEPT THAT ANY DATA SHOWN REGARDING THE LOCATION OR DESCRIPTION OF THE EXISTING PARCELS IS NOT A PART OF THIS SURVEY.			Prepared by: <							

LOCATION CONTROL ROUTE SURVEY PLAT EXAMPLE (PAGE 2 OF 2)

Figure 26-2D

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