

SECTION CORNER RECORD

BOONE COUNTY SURVEYOR'S OFFICE

NE 200-600

State Plane grid coordinates NAD83 (2011):

Corner 1: North: 1756692.87 East: 3156302.52 (U.S. survey feet)

Corner 2: North: 1756656.10 East: 3156305.08 (U.S. survey feet)

Type of monument: Harrison, 4" disk 'Section Corner'

Depth: Flush with adjacent road surface

Indiana tie card references: IN02_T19NR1E24_80 IN02_T19NR2E19_72
IN02_T19NR1E25_08 IN02_T19NR2E30_00

CORNER WITNESS DETAIL

SCALE 1" = 30'

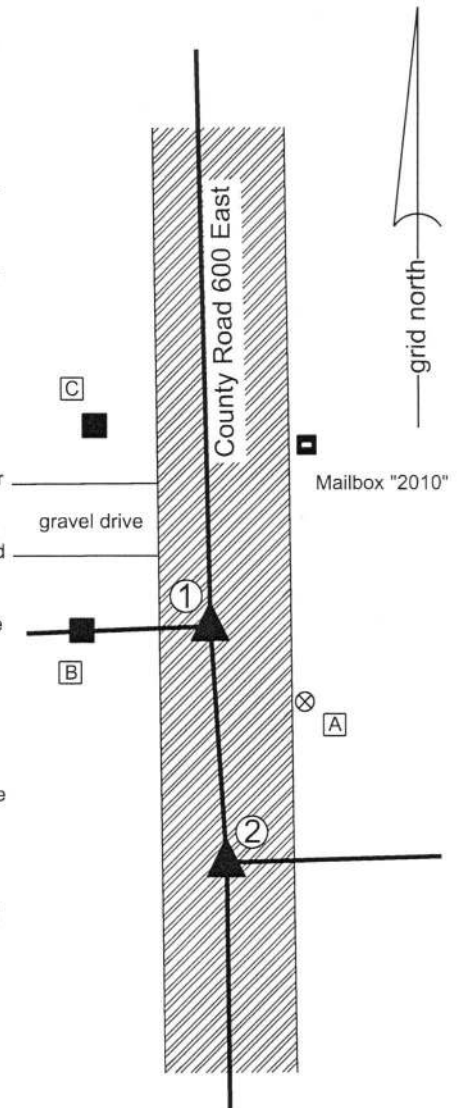
The Harrison Monument at Corner 1 was set over a stone found and the Harrison Monument at Corner 2 was set in place of a stone found and a Harrison Monument found.

A BCS record of November 8, 1871 states, with respect to Corner 2, "Reestab from stump of one tree. Set a Rock 8.5.4 +." A BCS record of March 20, 1873 states, with respect to Corner 1, "Reestablished from Oak tree, set a Rock 18.12.7 +." BCS tie cards of July 28, 2005 show both corners as Harrison monuments with no documentation of source.

Corner 1 was excavated on May 24, 2010. Prior to excavation, a Harrison monument was found at the surface of the road per the 2005 tie card. Excavation revealed the stone described in the 1873 record at 8 inches deep. The stone was found to be vertical, embedded in the clay layer below the road bed and protruding approximately 6 inches into the bottom of the road bed. With the top 12 inches of the stone exposed, it measured 12 inches E-W by 7 inches N-S with a protrusion on the south side which extended the N-S dimension to 8 inches at the protrusion. The north side of the stone was flat and vertical. No specific marks were found. The stone was in line with the fence to the west. The stone was accepted as being the same monument described in the 1873 record and was held as marking the corner. The stone was left in place, the top of the stone was encased in concrete and a Harrison monument was set over the top, center of the stone. The Harrison monument, removed during excavation, had been 0.2 foot north and 2.1 feet east of the top, center of the stone.

Corner 2 was excavated on May 18, 2018. Prior to excavation, the Harrison monument shown on the 2005 tie card as marking the corner was found flush with the surface of the road. Excavation revealed the stone described in the 1871 record found at 18 inches deep, directly below the found Harrison monument. The stone was of a rectangular shape with evidently cut sides. The stone measured 8 inches tall by 6 inches N-S by 3 inches E-W. The stone was fully embedded in the clay layer below the road bed, situated vertically with a distinct high point. An etched "+" mark was found on the sloping top, south side of the stone. The stone was accepted as being the same monument as described in the 1871 record.

It is noted that the stone at Corner 2 falls 2.1 feet east of a straight line connecting the stone found at Corner 1 and the standard corner one-half mile south (see Corner NE 150-600). The standard procedure adhered to by this office is to endeavor to establish closing corners on the range line as defined by the relevant standard corners, if sufficient evidence is available to firmly establish the range line as connecting the standard corners. However, at this set of corners it is clearly evident that the two adjacent corners were monumented in 1871 and 1873 in positions which are not in harmony in the east-west dimension. It is further noted that both corners were perpetuated from older evidence in the form of an original bearing tree and roots of an original bearing tree. It is also noted that the stones found at the respective corners are separated by almost exactly the original closing distance of 56 links. It is observed that any error in the establishment of the corners by radial tie distances from the bearing trees in 1871 and 1873 would likely result in a variation in the distance separation between the corners. Given that the distance between the two corners is close to the original closing distance of 56 links, it appears that perhaps the closing corner was originally established east of the longer range line. If this is the case, it would follow that a jog may have been established in the range line as early as 1821 when the closing corner was originally set. The stones found marking the two corners were both held and Harrison monuments were set above (Corner 1) or in place of (Corner 2) and it is accepted that the line between Ranges 1 East and 2 East jogs between Corner 1 and Corner 2.



- ① S.E. Corner, Section 24
N.E. Corner, Section 25
T 19 N, R 1 E
- ② S.W. Corner, Section 19
N.W. Corner, Section 30
T 19 N, R 2 E

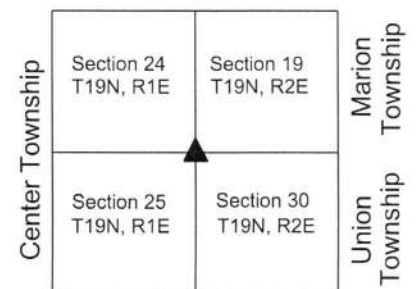
Distance between monuments: 36.86'
Original closing distance: 56 links (37')

- A - Boone County witness mark, flush, 19.0' to Corner 1, 27.9' to Corner 2
- B - Mag Nail set in E. side wood post, 2' a.g. 19.0' to Corner 1, 41.9' to Corner 2
- C - Mag nail set in E. side wood post, 1' a.g. 35.5' to Corner 1, 70.8' to Corner 2



Kenneth E. Hedge
Kenneth E. Hedge, County Surveyor

James S. Swift
James S. Swift, IN LS 20200054
August 1, 2018



SECTION CORNER RECORD

NE 200-650

BOONE COUNTY SURVEYOR'S OFFICE

State Plane grid coordinates NAD83 (2011):

North: 1756731.22 East: 3159051.94 (U.S. survey feet)

Type of monument: Harrison, 4" disk 'Section Corner'

Depth: Three inches above adjacent ground

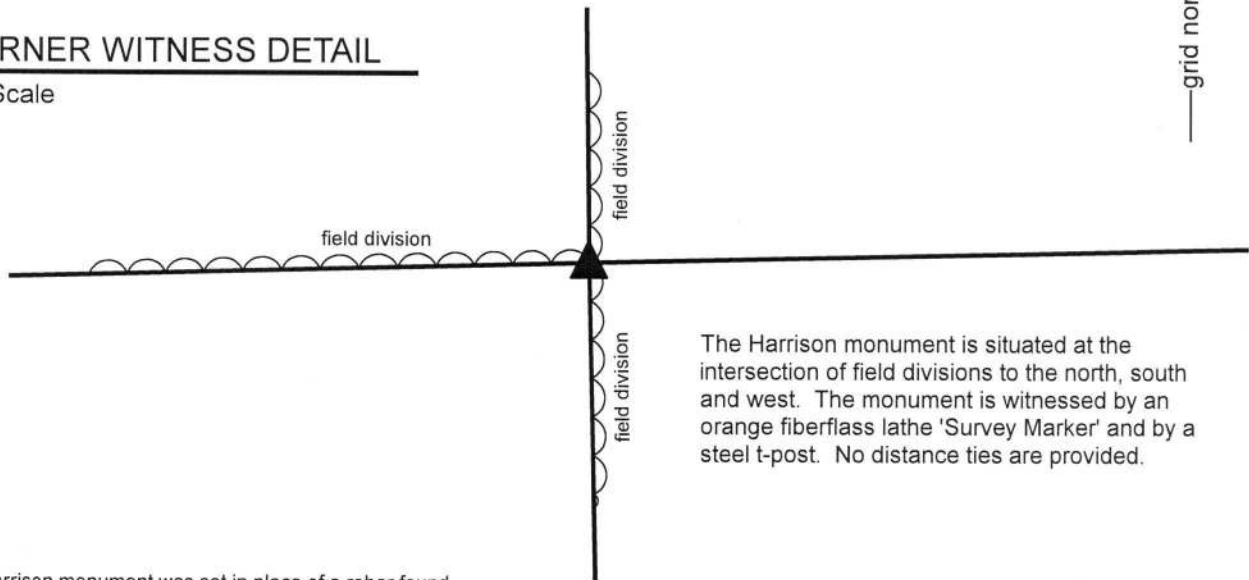
Indiana tie card references:

IN02_T19NR2E19_76 IN02_T20NR2E30_04



CORNER WITNESS DETAIL

No Scale



The Harrison monument was set in place of a rebar found.

A BCS record of November 8, 1871 states, with respect to this corner, "Reestablished from roots of trees. Set rock 18.8 by 5 +." No recent BCS tie cards were found referencing this corner.

Excavation was performed at this corner on April 27, 2018. Prior to excavation, a rebar bearing the cap "Deckard Survey" was found at the intersection of field divisions to the north, south and west, witnessed and protected by a steel t-post. During prior reconnaissance at this corner, a pile of rocks had been observed slightly southwest of the position of the rebar. As of April, 2018, the rocks had been removed. Excavation in the vicinity of the rebar and former pile of rocks revealed fragments of a wood post adjacent to the found rebar. No stones were found and it appears that the area has been substantially cleared recently. On first sight, the post found adjacent to the rebar appeared to be the stump of a small tree. Further and deeper excavation revealed a second type of wood and it was determined that a small tree had once grown out of the mostly rotten remnants of a wood post. In the field, it was evident that the rebar was situated at the northeast edge of the remnant post. Analysis of the position of the rebar and post with respect to the distances reported in the 1871 record and the relative positions of evidence of the corners 1/4 mile and 1/2 mile west, respectively, demonstrated that the post and rebar fit very well with the 1871 dimensions, applying the standard scale factor of 1.00451 to the distances reported in the 1871 record. While the post is the most ancient evidence, experience at other, similar corners would indicate that the stone set in 1871 would have most likely been found adjacent to the post. It is believed that the stone has been removed along with the other rocks found previously. Accepting the likelihood that if the record stone were still present, the corner would most likely fall adjacent to the post, the rebar, also falling adjacent to the post, was held as marking the corner. The rebar was removed and replaced with a Harrison monument in the same position. Approximately one foot of uncertainty in all directions should be attributed to the relative position of the post and rebar and the uncertainty as to which side of the post the 1871 stone might have been previously located. It is noted that a survey by Jonathon Hause, PS, dated November 6, 2017 recorded in Book 17, page 56-57 in the Office of the Boone County Surveyor shows the corner as an 8 inch diameter fence post. The position of the post shown on the Hause survey appears to agree with the position of the found remnant post discussed herein. It is further noted that the post was not observed standing above ground during reconnaissance in 2011. The Hause survey does not mention the found rebar.

This corner was originally established as a wood post in 1821.



Kenneth E. Hedge
 Kenneth E. Hedge, County Surveyor

James S. Swift
 James S. Swift, IN LS 20200054

May 9, 2018

Center Township

Section 19
T19N, R2E

▲
 Section 30
T19N, R2E

SECTION CORNER RECORD

BOONE COUNTY SURVEYOR'S OFFICE

NE 200-700

State Plane grid coordinates NAD83 (NSRS 2007):

North: 1756791.75 East: 3161700.86 (U.S. survey feet)

Type of monument: Harrison, 4" disk 'Section Corner'

Depth: Six inches below the adjacent gravel road surface.

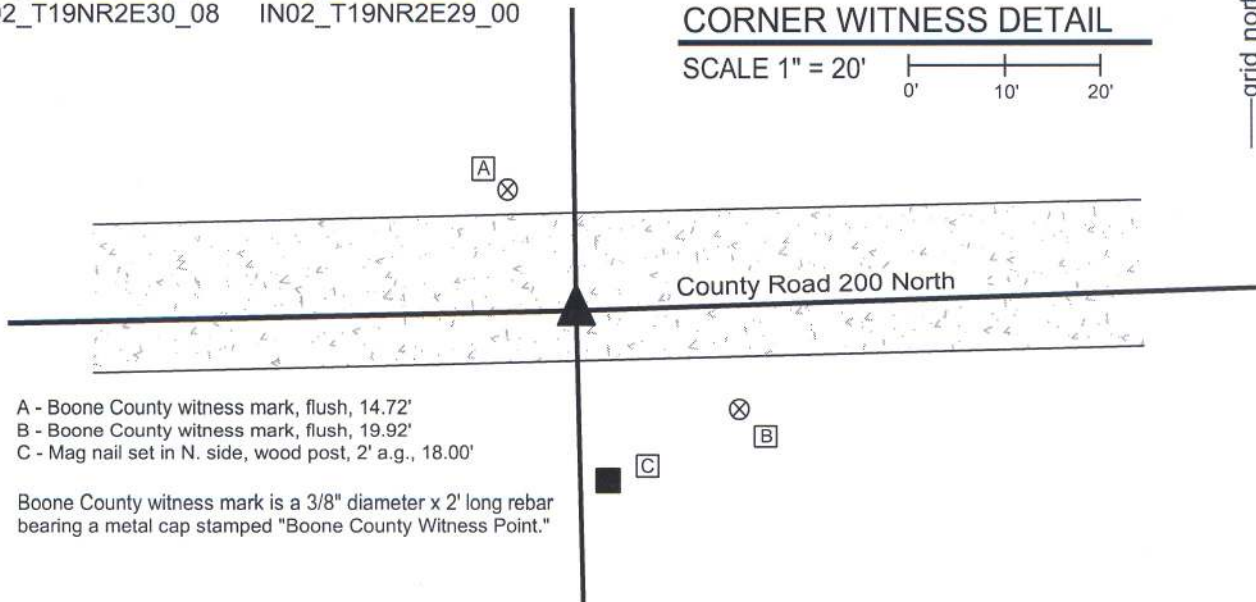
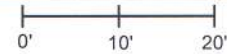
Indiana tie card references:

IN02_T19NR2E19_76 IN02_T19NR2E20_80

IN02_T19NR2E30_08 IN02_T19NR2E29_00

CORNER WITNESS DETAIL

SCALE 1" = 20'



- A - Boone County witness mark, flush, 14.72'
- B - Boone County witness mark, flush, 19.92'
- C - Mag nail set in N. side, wood post, 2' a.g., 18.00'

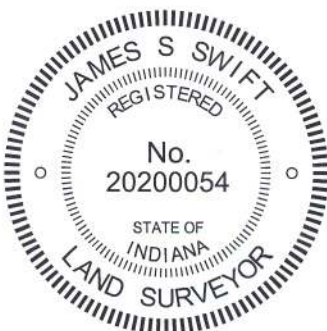
Boone County witness mark is a 3/8" diameter x 2' long rebar bearing a metal cap stamped "Boone County Witness Point."

The harrison monument was set over a stone found.

A BCS record of January 28, 1869 states "Reestablished from Ash. Set two Rocks. One 5 1/2, 5 by 4 in. marked +. Top Rock 15, 7 by 6 inch. marked + on side." A BCS tie card dated April 1970 states "No stone, set rail."

This corner was excavated on June 14, 2010. Prior to excavation a railroad rail was found 3 inches below the surface of the gravel road, leaning substantially towards the east. Excavation revealed several stones at various depths and positions. A stone which was accepted as being the record lower stone was found at 22 inches deep, 4 feet west and 0.3 feet south of the top of the rail, as originally found. This stone was 5 inches tall by 5 1/2 inches N-S by 7 inches E-W with a clearly visible "+" etched in the top center. Two of the dimensions of the stone match the record dimensions but the E-W dimension does not match the record dimension of 4 inches. Analysis of this situation yielded the conclusion that this is the stone mentioned in the 1869 record and that the variation in the one dimension is most likely to have been a notation error. The fact that the smallest dimension of the stone, as found, is the vertical dimension fits with the character of the stone as being the lower stone. It has been observed at numerous other corners that when the County Surveyors of the second half of the 19th century set two rocks at a corner, the lower stone was usually set horizontally, acting as a base and the upper stone was set vertically. The character of the stone found at this corner matches that observation. The etched "+" on the top, center of the stone is also characteristic of the lower stone. Furthermore, the depth of the stone, being embedded in the clay layer below the road, approximately 14 inches below the bottom of the road bed, fits well with the fact that the upper stone was recorded to be 15 inches tall, hence would have protruded slightly into the bottom of the road bed. This is also characteristic of other top, vertical stones set by County Surveyors in that era. The found stone was held as the marking the corner and the harrison monument was set directly over the etched "+" on the top of the stone.

Another stone was found 1.5 feet East and 0.3 foot South of the record stone, being at 4 inches deep and measuring 13 inches tall by 10 inches N-S by 6 inches E-W with no visible marks. Two other stones were found against each other, approximately 0.8 foot south of the record stone, being 13x9x6 inches at 13 inches deep and 9x5x3 inches deep at 23 inches, respectively. The latter stone was against the lower west edge of the former stone. The rail and three extra stones were removed during excavation. This corner was originally established as a wood post in July, 1821.



Kenneth E. Hedge
 Kenneth E. Hedge, County Surveyor

James S. Swift
 James S. Swift, IN LS 20200054

July 25, 2011, Revised February 6, 2013

Marion Twp

Section 19 T19N, R2E	Section 20 T19N, R2E
Section 30 T19N, R2E	Section 29 T19N, R2E

Union Twp

PHOTOGRAPHIC DOCUMENTATION

Date of photography: June 14, 2010

The railroad rail and the first stone exposed.



The railroad rail and the second stone exposed.



View of the rail, the first stone exposed and the post on the south side of the road.



The record lower stone with etched mark on top.



For details and documentation, refer to related sheet "Section Corner Record."

SECTION CORNER RECORD

BOONE COUNTY SURVEYOR'S OFFICE

NE 250-600

State Plane grid coordinates NAD83 (NSRS 2007):

Corner 1: North: 1759350.20 East: 3156238.64 (U.S. survey feet)

Corner 2: North: 1759309.95 East: 3156239.61 (U.S. survey feet)

Corner 1 & 2:

Type of monument: Harrison, 4" disk 'Section Corner'

Depth: One inch below adjacent road surface

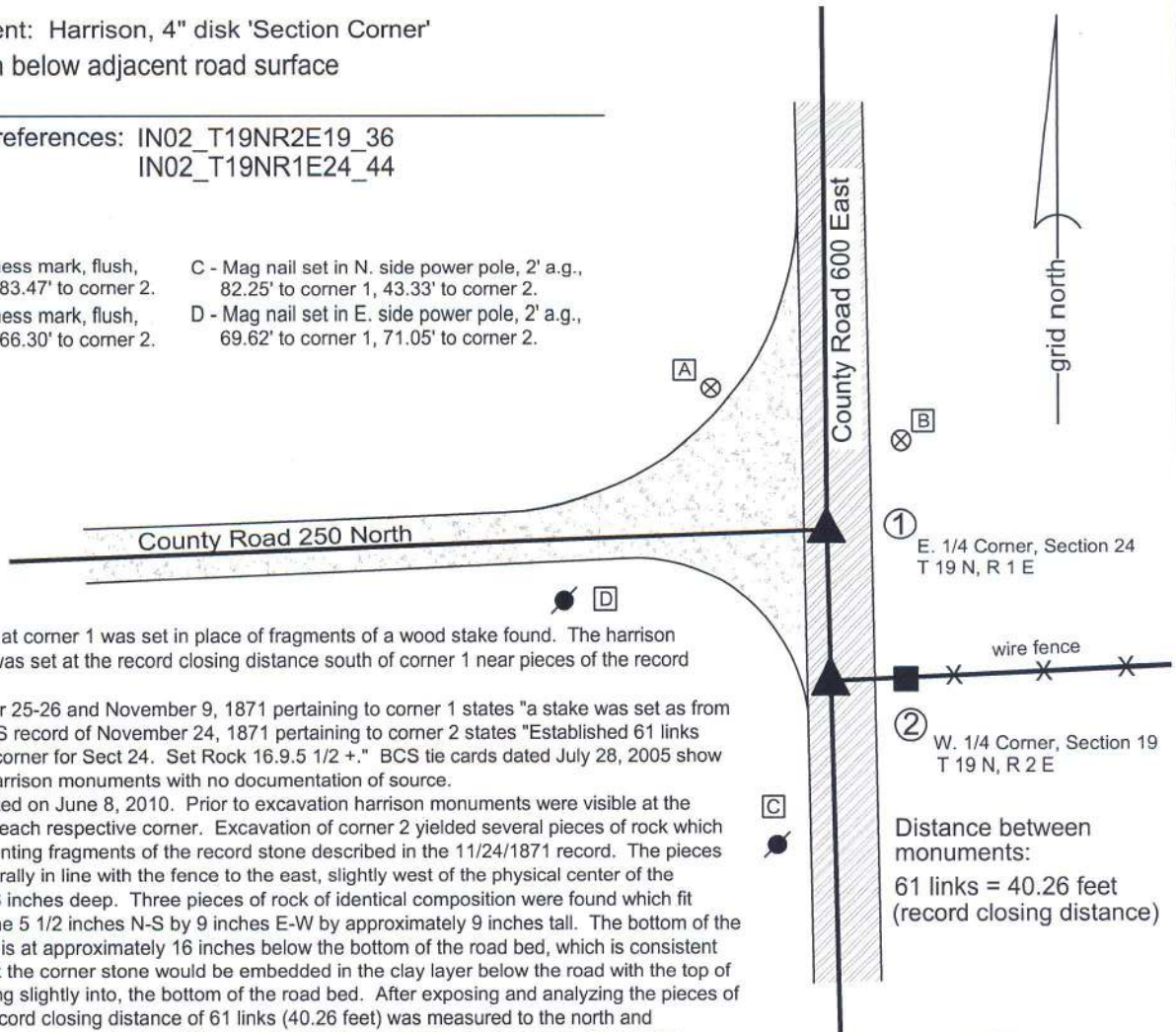
Indiana tie card references: IN02_T19NR2E19_36
IN02_T19NR1E24_44

- A - Boone County witness mark, flush, 47.98' to corner 1, 83.47' to corner 2.
- B - Boone County witness mark, flush, 30.54' to corner 1, 66.30' to corner 2.

- C - Mag nail set in N. side power pole, 2' a.g., 82.25' to corner 1, 43.33' to corner 2.
- D - Mag nail set in E. side power pole, 2' a.g., 69.62' to corner 1, 71.05' to corner 2.

CORNER WITNESS DETAIL

SCALE 1" = 50'



The harrison monument at corner 1 was set in place of fragments of a wood stake found. The harrison monument at corner 2 was set at the record closing distance south of corner 1 near pieces of the record stone found.

A BCS record of October 25-26 and November 9, 1871 pertaining to corner 1 states "a stake was set as from stump of walnut." A BCS record of November 24, 1871 pertaining to corner 2 states "Established 61 links south of the qtr section corner for Sect 24. Set Rock 16.9.5 1/2 +." BCS tie cards dated July 28, 2005 show both corners as being harrison monuments with no documentation of source.

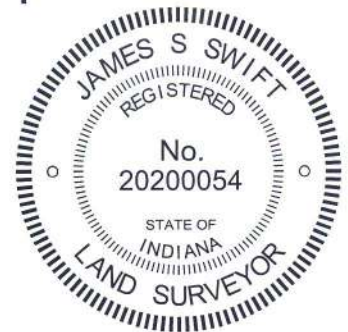
This corner was excavated on June 8, 2010. Prior to excavation harrison monuments were visible at the surface in the vicinity of each respective corner. Excavation of corner 2 yielded several pieces of rock which are accepted as representing fragments of the record stone described in the 11/24/1871 record. The pieces of rock were found generally in line with the fence to the east, slightly west of the physical center of the roadway beginning at 26 inches deep. Three pieces of rock of identical composition were found which fit together to create a stone 5 1/2 inches N-S by 9 inches E-W by approximately 9 inches tall. The bottom of the lower piece of the stone is at approximately 16 inches below the bottom of the road bed, which is consistent with the expectation that the corner stone would be embedded in the clay layer below the road with the top of the stone at, or protruding slightly into, the bottom of the road bed. After exposing and analyzing the pieces of stone at corner 2, the record closing distance of 61 links (40.26 feet) was measured to the north and excavation was performed at corner 1. The 1871 record calls for a stake set at this corner. Excavation revealed evidence of the stake in the form of pieces of wood in the clay layer below the road, beginning at the top of the clay layer (26 inches deep) to approximately 5 inches below that. The position of the fragments of wood fit very well with the record distance from the pieces of rock found at corner 2 and the fragments were accepted as representing the "stake" set in 1871. It is noted that wood stakes from that era have been found in the sub-surface clay at other corners and those stakes have been in similar condition to what was found at this corner. The evidence of the monuments from 1871, which fit relative to each other and also fit with the evidence of occupation to the east at corner 2 (fence) and the road to the west at corner 1, were held as marking the position of the corners. A harrison monument was set in the position of the fragments of the stake marking corner 1. A harrison monument was set at the record closing distance south of corner 1 on the line connecting corner 1 with the standard corner to the south, in the approximate position of the pieces of rock found at that corner. The harrison monuments which were present prior to excavation were 0.9 foot east and 2.8 feet north of monuments set after excavation. No other evidence was found below the previously existing harrisons.

Corner 1 was originally established as a wood post in 1819. Corner 2 was not monumented during the original federal survey.

① E. 1/4 Corner, Section 24
T 19 N, R 1 E

② W. 1/4 Corner, Section 19
T 19 N, R 2 E

Distance between monuments:
61 links = 40.26 feet
(record closing distance)



Center Twp	Marion Twp
Section 24 T19N, R1E	Section 19 T19N, R2E

Kenneth E. Hedge
Kenneth E. Hedge, County Surveyor

James S. Swift
James S. Swift, IN LS 20200054
July 25, 2011, Revised February 6, 2013

PHOTOGRAPHIC DOCUMENTATION

Date of photography: June 8, 2010

Pieces of wood and the associated discoloration from the "stake" at the standard corner (corner 1).



View of the fragments of the closing corner (corner 2) stone as first exposed.



Pieces of wood from the "stake" shown as found at the base of the road bed (corner 1).



View of the fragments of the closing corner (corner 2) stone from above



Pieces of wood from the 1871 "stake" removed from the of the road bed, with scale (corner 1).



The three fragments of the stone pieced together. This represents the bottom of the record stone and is shown upside down in this picture.



For details and documentation, refer to related sheet "Section Corner Record."

SECTION CORNER RECORD

NE-300-600

BOONE COUNTY SURVEYOR'S OFFICE

State Plane grid coordinates NAD83 (NSRS 2007):

Corner 1: North: 1762016.52 East: 3156220.05 (U.S. survey feet)

Corner 2: North: 1761973.59 East: 3156220.35 (U.S. survey feet)

Corners 1 & 2:

Type of monument: Harrison, 4" disk 'Section Corner'

Depth: One inch below adjacent road surface

Indiana tie card references:

IN02_T19NR1E13_80

IN02_T19NR1E24_08

IN02_T19NR2E18_72

IN02_T19NR2E19_00

- A - Boone County witness mark, flush, 28.11' to corner 1, 68.49' to corner 2.
- B - Mag nail set in N. side wood post, 1' a.g., 46.22' to corner 1, 19.39' to corner 2.
- C - Boone County witness mark, flush, 58.99' to corner 1, 17.82' to corner 2.
- D - Mag nail set in N. side power pole, 2' a.g., 41.07' to corner 1, 17.70' to corner 2.

S.E. Corner, Section 13
N.E. Corner, Section 14
T 19 N, R 1 E ①

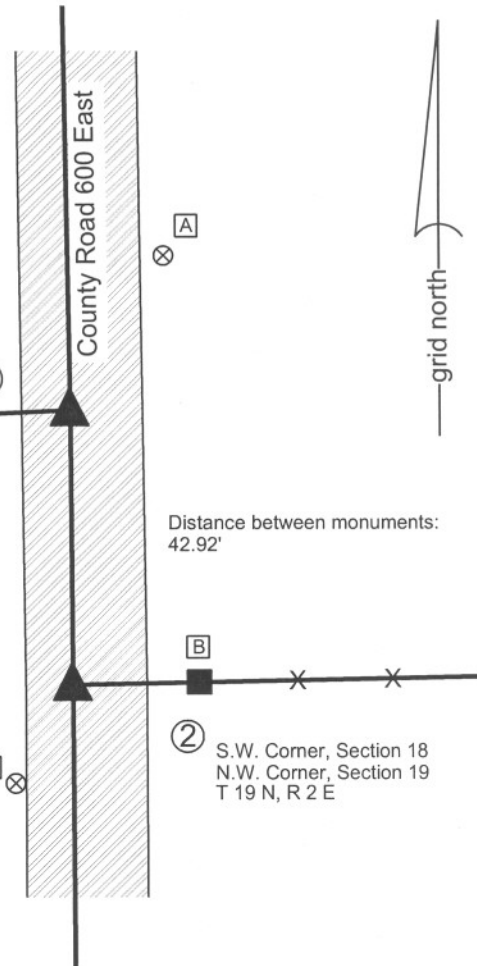
Distance between monuments:
42.92'

② S.W. Corner, Section 18
N.W. Corner, Section 19
T 19 N, R 2 E

The harrison monuments were set in place of railroad rails found. A BCS record of November 23, 1871 states "Reestablished by lap 66 lk south from corner Sections 13 & 24 from trees. Set rock 17, 11 by 6 + on E. side." A BCS tie card dated October 14, 1971 states Stone found, RRR put in." BCS tie cards dated July 28, 2005 show both corners as marked by harrison monuments with no documentation of source. Corner 1 was excavated on June 3, 2010. Corner 2 was excavated on June 18, 2010. Prior to excavation, harrison monuments were found at both corners. Excavation of corner 1 revealed a railroad rail found at 7 inches deep, directly below the harrison monument. No other evidence was found and it was accepted that the rail was set in place of the stone found in 1971. Excavation of corner 2 revealed a railroad rail found at 10 inches deep, 0.1' east of the harrison. No other evidence was found and it was accepted that the rail at corner 2 was also set in place of the stone found in 1971. It is not specifically known whether stones were found at both corners in 1971, but the tie card shows ties to both corners. In any case, the rails were held as the best evidence of the position of the corners. The harrison monument at corner 1 was set in place of the rail. The harrison monument was set at the same north-south position as the rail, but was set on the line between corner 1 and the standard corner to the south, approximately 0.4 feet west of the rail. It is noted that the rails, as measured from the top center of each, were 42.92 feet apart, which distance matches the 2005 tie cards for the harrison monuments. The 1971 tie card shows a distance of 43.2 separating the corners. The record closing distance of 66 links is equal to 43.56 feet. The physical distance between the found rails was held as the closing distance, or "lap" as referred to in the 1871 record. Corner 1 was originally established as a wood post in July, 1819. Corner 2 was originally established as a wood post in July, 1821.

CORNER WITNESS DETAIL

SCALE 1" = 30' 0' 15' 30'



Kenneth E. Hedge
Kenneth E. Hedge, County Surveyor

James S. Swift
James S. Swift, IN LS 20200054
July 25, 2011

Center Twp	Marion Twp
Section 13 T19N, R1E	Section 18 T19N, R2E
Section 24 T19N, R1E	Section 19 T19N, R2E

SECTION CORNER RECORD

BOONE COUNTY SURVEYOR'S OFFICE

NE 300-650

State Plane grid coordinates NAD83 (NSRS 2007):
 North: 1762026.71 East: 3158981.48 (U.S. survey feet)

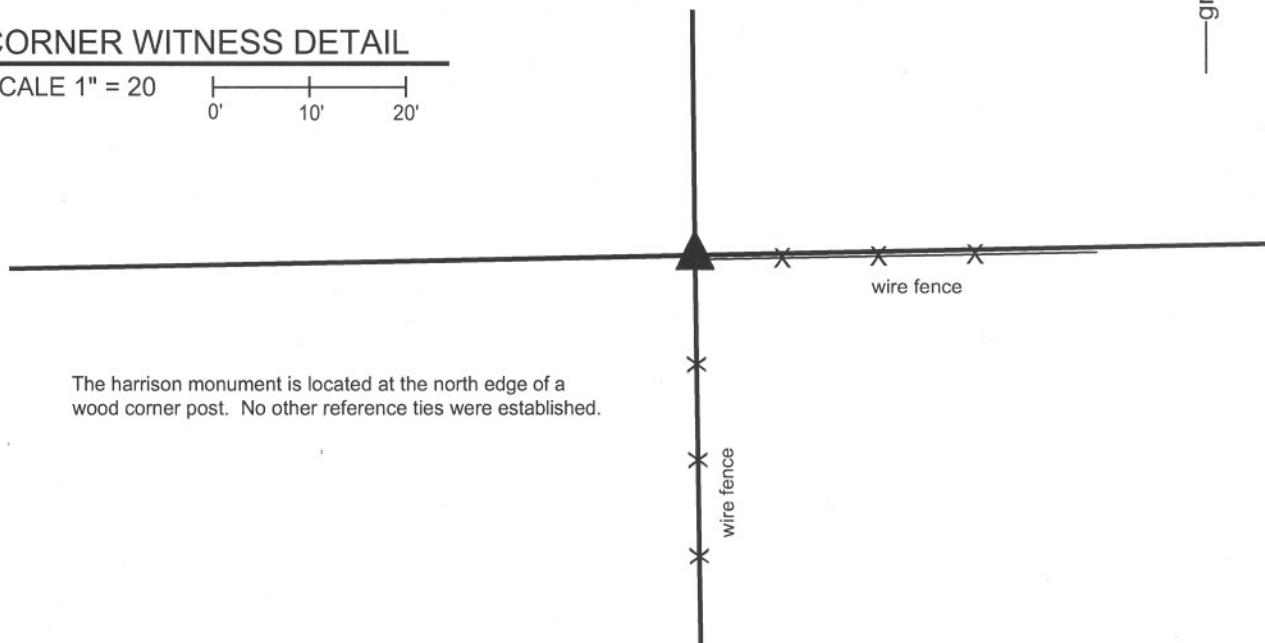
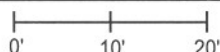
Type of monument: Harrison, 4" disk 'Section Corner'
 Depth: three inches above adjacent grade

Indiana tie card references:
 IN02_T19NR2E18_76
 IN02_T19NR2E19_04



CORNER WITNESS DETAIL

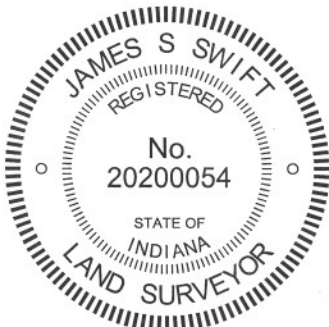
SCALE 1" = 20'



The harrison monument is located at the north edge of a wood corner post. No other reference ties were established.

The harrison monument was set in place of a stone found. A BCS record of November 23, 1871 states "Reestablished from Oak tree and stake. Set a Rock 13.11.6 marked +." No recent BCS tie cards were found referencing this corner. This corner was excavated on October 12, 2011. The record stone, as described in the 1871 record, was found at the north edge of a wood corner post. Neither the post nor the fencing attached to it appears to be old. The stone was not vertical as found, and appears to have fallen towards the south. As found, the etched + on the stone was towards the south edge of the stone. When the stone was stood up, hence the south edge, as found, leaned north until the etched + was on top, the stone matched the characteristics of other found stones, being vertical and oriented in cardinal directions, with the etched + being on the top center. It is noted that many stones have the etched + on a side, but the character of this particular rock was such that it appeared that the + would have been placed on the top. As noted above, the adjacent post does not appear to be old. An old corner post was found nearby, lying on the ground. The conclusion reached while investigating the physical situation at the corner was that the stone was likely disturbed while the corner post was being replaced. The stone, being on the north edge of the hole in which the new post was placed, may have fallen over towards the south. It is not known whether this conclusion is correct, but it is known that the record stone from 1871 was found at the north edge of the post. The the position of the corner was held as the position of the found stone. As stood up the etched + was in the same approximate position as the top of the stone as originally found. Uncertainties of several inches may be associated the position and orientation of the stone. The stone measures 13 inches by 11 inches by 6 inches, as stated in the 1871 record. The harrison monument was set over the etched + mark on the stone, as stood up.

This corner was originally established as a wood post in July, 1821.

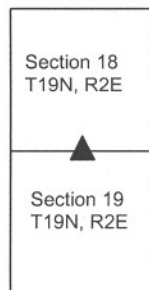


Kenneth E. Hedge
 Kenneth E. Hedge, County Surveyor

James S. Swift
 James S. Swift, IN LS 20200054

March 1, 2012

Marion Twp



PHOTOGRAPHIC DOCUMENTATION

Date of photography: October 12 & 14, 2011

View of the stone as first exposed.



The stone removed from the hole, stood vertical.



Same as above, view from opposite direction.



The harrison monument set over the stone.



The stone placed back in the hole, vertical.



For details and documentation, refer to related sheet "Section Corner Record."