

United States Department of the Interior
National Park Service

For NPS use only

National Register of Historic Places
Inventory—Nomination Form

received

date entered

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic Illinois Central Stone Arch Railroad Bridges

and or common City Street Arches

2. Location

street & number West First Street, West Second Street,
West Third Street between Monroe & College Ave. not for publication

city, town Dixon vicinity of

state Illinois code 012 county Lee 61021 code 103

3. Classification

Category	Ownership	Status	Present Use	
<input type="checkbox"/> district	<input type="checkbox"/> public	<input checked="" type="checkbox"/> occupied (in use)	<input type="checkbox"/> agriculture	<input type="checkbox"/> museum
<input type="checkbox"/> building(s)	<input checked="" type="checkbox"/> private	<input type="checkbox"/> unoccupied	<input type="checkbox"/> commercial	<input type="checkbox"/> park
<input checked="" type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational	<input type="checkbox"/> private residence
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment	<input type="checkbox"/> religious
<input type="checkbox"/> object	<input checked="" type="checkbox"/> in process	<input type="checkbox"/> yes: restricted	<input type="checkbox"/> government	<input type="checkbox"/> scientific
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial	<input checked="" type="checkbox"/> transportation
		<input type="checkbox"/> no	<input type="checkbox"/> military	<input type="checkbox"/> other:

4. Owner of Property

name Illinois Central Gulf Railroad

street & number Two Illinois Center, 233 North Michigan Avenue

city, town Chicago vicinity of state Illinois 60601-5799

5. Location of Legal Description

courthouse, registry of deeds, etc. Lee County Court House

street & number

city, town Dixon state Illinois 61021

6. Representation in Existing Surveys

title None has this property been determined eligible? yes no

date federal state county local

depository for survey records

city, town state

7. Description

Condition		Check one	Check one
<input checked="" type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input checked="" type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site
<input type="checkbox"/> good	<input type="checkbox"/> ruins	<input type="checkbox"/> altered	<input type="checkbox"/> moved
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed		date _____

Describe the present and original (if known) physical appearance

The trio of stone arch railroad bridges are semi-circular arch bridges built of native Galena coursed limestone quarried in the vicinity at Dement's Quarry on the North side of the Rock River upstream from Dixon.

The three stone arch railroad bridges are located at West First Street, West Second Street and West Third Street between Monroe Avenue and College Avenue in the western section of the City of Dixon. The bridges carried the tracks of the Illinois Central Railroad over the three city streets at clearances of 14-feet, 15-feet and 12-feet. From West Seventh Street to the Rock River, a 15-foot high embankment of packed dirt, stone rubble, gravel and other assorted landfill products was constructed by workers during the railroad construction period of 1852-55. The earthen mounds carrying the railroad tracks are separated by the three stone arch bridges allowing traffic to flow underneath the tracks above in an east-west direction.

The stone in each of the three stone arch bridges were cut to fit and placed without bond. Keys were cut into the stones to prevent slippage with no weakness or stress points noticeable in any of the three stone arch bridges. Stone used was also known as cut or dimension stone of plain ashlar masonry with a rock or chiseled face. The arch stones are finished with a chiseled face. Wingwall and arch bases are finished with a rock face.

The original condition of the three structures in Dixon have changed very little since they were constructed in 1852-55. An attempt at limited tuckpointing in the 1912-15 era has been the only semi-major maintenance noted.

The constant weight and vibration from the passing trains overhead and the flow of traffic underneath (both vehicular and pedestrian) over the years has had little or no effect on any of the three stone arch bridges.

Dimensions of the stone arch railroad bridges:

	<u>W. 1st St.</u>	<u>W. 2nd St.</u>	<u>W. 3rd St.</u>
Arch Rise (clearance-bottom to street level)	14'	15'	12'
Arch Span (width from side to side)	28'	28'	28'
Depth (distance from Entry to Exit on street level)	28'	34'	38'
Distance between bottom edge of keystone and ground level (track right-of-way) above	6'	6'	6'
Base of Wingwall	33'	33'	33'
Distance Between Arches:			
Northend of W. 1st St. Arch to South End of W. 3rd St. Arch (total)			1294'
Northend of W. 1st St. Arch to North End of W. 2nd St. Arch			514'
Northend of W. 2nd St. Arch to South End of W. 3rd St. Arch			780'
Two city blocks in length			

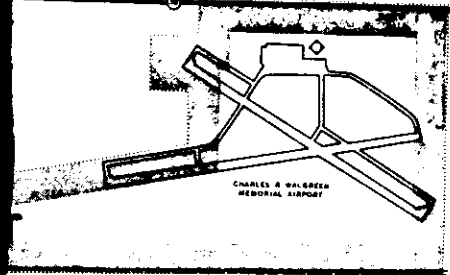
This nomination contains three structures. They are contributing structures.

DIXON

NOTE:

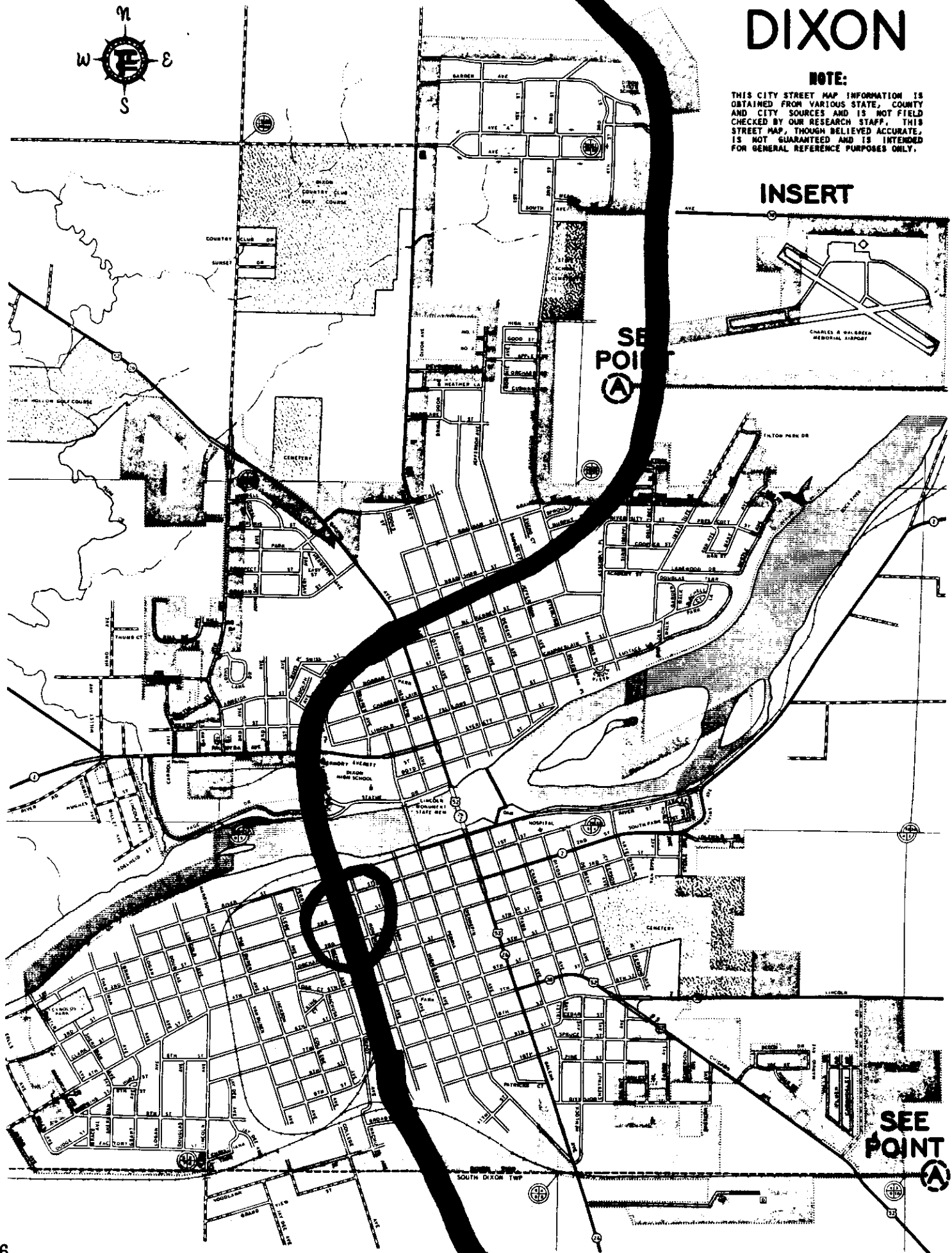
THIS CITY STREET MAP INFORMATION IS OBTAINED FROM VARIOUS STATE, COUNTY AND CITY SOURCES AND IS NOT FIELD CHECKED BY OUR RESEARCH STAFF. THIS STREET MAP, THOUGH BELIEVED ACCURATE, IS NOT GUARANTEED AND IS INTENDED FOR GENERAL REFERENCE PURPOSES ONLY.

INSERT



SEE POINT 

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8. Significance

Period	Areas of Significance—Check and justify below			
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/humanitarian
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> art	<input type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> theater
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input checked="" type="checkbox"/> transportation
<input type="checkbox"/> 1900-	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input type="checkbox"/> other (specify)
		<input type="checkbox"/> invention		

Specific dates 1852-1855 **Builder/Architect** Robert Finley Laing

Statement of Significance (in one paragraph)

The Illinois Central Railroad stone arch bridges in Dixon are significant for their association with an important railroad transportation route in Illinois during the 19th century. The Illinois Central Railroad (ICRR), chartered in 1851, was a key railroad link for the continental interior. It ran from Cairo in Southern Illinois for 705½ miles north to Dunleith (East Dubuque) in the far northwestern part of the state along the banks of the Mississippi River. An eastern branch line of the ICRR ran from Centralia to Chicago. The stone arch railroad bridges in Dixon made it possible for the railroad to cross the Rock River and to travel over three main city streets in a safe and orderly manner. The ICRR line was an important factor in the development of Dixon as a transportation and service center for Lee County.

The trio of Galena limestone arch railroad bridges, located on West First Street, West Second Street and West Third Street between Monroe Avenue and College Avenue in the western commercial/residential area of Dixon, Lee County, Illinois, are significant to local history due to their contribution to the growth and development of Dixon, their architectural character and their splendid physical condition even yet today.

The arch is a structural member used in construction and civil engineering to span an opening and to support loads from above. Early builders in masonry spanned wide openings with small, easily carried or handled blocks of stone.

The arch was known in Egypt and Greece but was considered unsuitable for monumental architecture and was little exploited. The Romans, during the 300's B.C., used the semi-circular arch in bridges, aqueducts and large-scale architecture. In most cases they did not use mortar, relying simply on the precision of their stone dressing. In the late Middle Ages the segmental arch was introduced, in which the arch was less than half of a circle. This form had great value in bridge engineering because they permitted mutual support by a row of stones that made up a larger row of arches.

The passage in 1850 of the Illinois Land Grant Act, which Senator Stephen A. Douglas had sponsored in the United States Congress, turned 2,595,000 acres of land over to the State of Illinois for a railroad 705½ miles long to run through the center of the state.

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At this time there weren't 10,000 miles of railroad track in the entire country, none west of the Mississippi River and only about 100 miles in Illinois. The ICRR line was begun in the summer of 1851 and by March, 1853, track was laid from Mendota to Amboy and the first "iron horse" reached the village of Amboy, 12 miles south of Dixon, on November 27, 1853.

Local newspaper reports trace the course of the Illinois Central Railroad from the paper's first issue on May 1, 1851. In the 9th issue of the then fledgling local newspaper, THE LEE COUNTY HERALD AND DIXON EVENING TELEGRAPH, it was reported that:

"The Galena branch of the Central Railroad now has 30 people working on the new line's survey. In charge of Mr. Provost, Mr. Germaine and assistants from Dixon north and to the south in charge of Mr. Blackfoot."

Included in this survey work was the railroad line's course through the then tiny village of Dixon; a course that would raise the railroad track bed fifteen feet higher than the level of the land for safety. Raising the railroad track bed right-of-way by mounding packed dirt and inserting three stone arch bridges over three east-west city streets gave purpose to the design and construction genius of Robert F. Laing.

The trio of stone arch bridges in Dixon were built by Robert Finley Laing of the firm of Laing and Douglas Construction Company, contractors for the Illinois Central Railroad between 1852 and 1855. Laing designed the three stone arch bridges as well as the railroad bridge and its stone piers over the Rock River at Dixon.

THE DIXON EVENING TELEGRAPH reported on March 6, 1852, that the first official diagram of the route chosen for the Illinois Central Railroad to and through Dixon had been made public. The newspaper noted:

"From the southwest at the corner of Section 9, Town 21, Range 9; thence two miles to Dixon, where it crosses Rock River on the Island at the lower edge of town. From there to Freeport."

Between 1852-56, as many as 10,000 men at any one time built the ICRR the length of the state of Illinois. Railroad work was tough physical labor. Preparation of the road bed and transportation of iron and timber were assisted by teams of oxen and horses; but most embankments, ditches and cuts were made by sweating men with shovels. Rails were spiked down with mauls or sledges amidst a constant and deafening clatter. Workers toiled 11 to 12 hours a day 6 days a week, for a maximum of 10¢ per hour.

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The railroad was built in the Dixon vicinity from 1852 to 1855; the first Illinois Central Railroad trains traveling through the community on February 1, 1855. THE DIXON EVENING TELEGRAPH, on February 10, 1855, reported:

"The shrill whistle of the engine was heard and upon examination it was seen that two engines were about to cross for the first time, the splendid bridges at this place.

"Thus, the Central road, passes through our town over an embankment so high that it not only gives those in the cars a fine view of our town, but the town people have a magnificent view of the train. Like a huge chariot of fire on a monstrous beast, it bellowed along -- high above the dwellings."

Constructed of carefully cut and shaped Galena limestone, a local historian had this to say of the stone arch railroad bridges:

"The yellowed limestone gleams in the setting sun like molten gold. These Arches have been of untold value because of the lives and property saved by not having open crossings.

"Due to the contour of the land over which the railroad tracks were laid, the Arches have clearances of 15-feet over West Second Street, 14-feet over West First Street and 12-feet over West Third Street. This last Arch was called "Little Sister" due to its height.

"If wagons and trucks needed more space than that provided by the Arches, they crossed over the railroad tracks on West Seventh Street in the Dementtown area."¹

As reported in the January 10, 1852, issue of THE DIXON EVENING TELEGRAPH

"Railroad prospects have put new life in Dixon. Hotels are crowded -- the price of lots advanced -- new buildings are going up -- and many previously built have been greatly improved in appearance."

1. Armington, Dorothy, "Railway Piers and Arches at Dixon, Illinois," Lee County Historical Society publication, 1977.

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The "new life" put into Dixon at this time carried forward for many years. In addition to other, the Northern Illinois Normal School and Dixon Business College, Henderson Shoe Factory, Northern Illinois Utilities steam power plant, Boyd Casket Company, Clipper Mower Company, Lindquist Construction Company, Rock River Ready Mix and many more were established in the western sections of Dixon. The advent of the railroad made their location in Dixon possible.

The course of the ICRR through Dixon attracted a great many trades people to the community. In the western section of the city, along the train route into town, a thriving business community grew calling itself Dementtown in honor of Colonel John Dement who owned and platted most of the land in the area. Feed mills, hotels, cafes, groceries, liverys and the like soon opened to service the needs of the trains and their passengers. The Grand Detour Plow Company, the Eagle Iron Works, Gossard Corset Company and other industrial firms located in Dementtown to stand next to the passenger and freight depots of the railroads that serviced the city.

Dixon, from the day the first train passed through town, continued to grow and prosper because of the trade the railroad brought and the products that could be sent out in its cars. As railroad business prospered, so did the business development of Dixon and the Dementtown area within the city. An increase in population over the years was a direct result of the arrival of the ICRR in Dixon.

The unique architectural qualities of the three stone arch bridges make them most unusual in their own right. The fact that each has served almost in the center of a busy city for so many years as passage under which people and vehicles have passed and over which a multitude of extremely heavy railroad trains have traveled makes them most unusual.

To preserve for the future these three links with a rich and historic community past seems only right and just.

The three stone arch railroad bridges are the only ones of their type in Lee County. The fact that all three of the stone arch bridges, standing now where they have stood for over 135 years, remain in tact as three of the oldest stone structures in Dixon, gives great significance to their continued well being.

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Section number 9 Page 2 Illinois Central Stone Arch Railroad Bridges

3. Hofman, Robert, "The Engineering Significance of the Stone Arch,"
letter to author of July 7, 1987.
4. Lamb, George, "How Dixon's Railroad Bridges Were Constructed,"
Dixon Telegraph, April 8, 1987.
5. Dixon Telegraph and predecessors, May 1, 1851 to February 10, 1855
and various later issues.

9. Major Bibliographical References

- Gates, Paul Wallace "The Illinois Central Railroad and Its Colonization Work". Harvard University Press, 1934
- Corliss, Carlton J., Main Line of Mid-America - The Story of the Illinois Central. Creative Age Press, 1950.

10. Geographical Data

Acreeage of nominated property Two acres

Quadrangle name Dixon East, IL

Quadrangle scale 1:24000

UTM References

A

1	6	2	9	3	2	8	0	4	6	3	5	0	0	0
Zone		Easting				Northing								

B

1	6	2	9	3	3	1	0	4	6	3	4	8	9	0
Zone		Easting				Northing								

C

1	6	2	9	3	3	4	0	4	6	3	4	7	8	0
Zone		Easting				Northing								

D

Zone		Easting				Northing								

E

Zone		Easting				Northing								

F

Zone		Easting				Northing								

G

Zone		Easting				Northing								

H

Zone		Easting				Northing								

Verbal boundary description and justification

The boundary for each bridge is defined as the bridge itself, including wingwalls, and any property on which it stands. The dimensions for each bridge are given in Section 7.

List all states and counties for properties overlapping state or county boundaries

state	code	county	code

state	code	county	code

11. Form Prepared By

name/title George Lamb

organization

date July, 1987

street & number 115 E. Boyd Street

telephone (815)284-8679

city or town Dixon, Illinois

state Illinois 61021

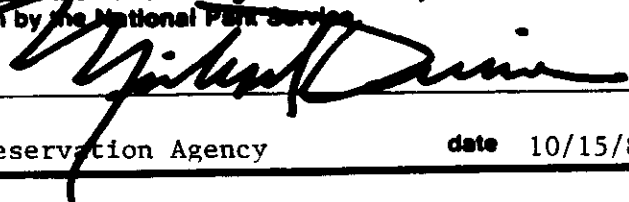
12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

national state local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature



title Director, Illinois Historic Preservation Agency

date 10/15/87

For NPS use only

I hereby certify that this property is included in the National Register

date

Keeper of the National Register

Attest:

date

Chief of Registration