Blackberry Creek Dam
SW1/4, NE1/4, NE1/4 Section 32
Township 37 North, Range 7 East (Bristol Township)
Yorkville, Illinois Quadrangle
Kendall County
Illinois

IL HAER No. KE-2013-1

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

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ILLINOIS HISTORIC AMERICAN ENGINEERING RECORD

BLACKBERRY CREEK DAM
IL HAER No. KE-2013-1

Location: The Blackberry Creek Dam is located on the SW¼, NE¼, NE¼ Section 32 of Township 37 North, Range 7 East of the Third Principal Meridian (Bristol Township) in Yorkville, Kendall County, Illinois. It lies on the western edge of that section of Yorkville located on the north bank of the Fox River. As suggested by its name, the dam spans Blackberry Creek, being situated a short distance north of that stream's confluence with the Fox. A bridge associated with River Road/Street crosses the creek immediately adjacent to the dam.

Present Owner: Youth Camp Association, Districts 12 & 13
and
Yorkville/Bristol Sanitary District
Yorkville, Illinois

Present Occupant: None

Present Use: None. The Blackberry Creek Dam formerly supplied water power to a flour mill, which was demolished circa 1930. The dam is slated for demolition as part of a multi-faceted construction project involving the replacement of the River Road Bridge over Blackberry Creek and the Blackberry Creek Channel Restoration. The bridge replacement is being undertaken by the United City of Yorkville under the auspices of Illinois Department of Transportation (as IDOT Job No. C-93-038-12), while the channel restoration project is being directed by the Illinois Department of Natural Resources' (IDNR) Office of Water Resources.

Significance: The Blackberry Creek Dam is associated with a mill seat that pre-dates the founding of Yorkville and saw service into the early twentieth century. The dam is representative of the early construction methods and technology involved in the milling industry. Milling—both saw and grist—played a prominent role in the early settlement and subsequent development of Yorkville and the wider Fox River Valley. The Blackberry Creek Dam is considered eligible to the National Register of History Places under Criteria A (social history) and C (architecture).

Part I. HISTORICAL INFORMATION

A. Physical History:

1. Date(s) of Erection:

A mill dam has existed at this approximate location since 1834, when John Schneider erected one for his saw mill. The existing dam, however, is believed to be a second-generation replacement of Schneider's early dam and to have been constructed circa 1856 in association with a grist/flour mill established by Menzo W. Lane and Andrew H. Arnold.

2. Architect:

The dam is a vernacular structure, and it seems unlikely that either a trained architect or engineer was involved in its design. It is more probable that the dam was constructed under the direction of a skilled craftsman, possibly the mill owner himself.

3. Original and Subsequent Owners:

The following is a list of the owners of the land on which the Blackberry Creek Dam is located, with dates of ownership indicated:

United States of America (to 3 February 1843)
James McCelland (3 February 1843 to 3 November 1843)
Lyman Bristol (3 November 1843 to 30 March 1850)
William R. Yourt (30 March 1850 to 28 February 1854)
Andrew H. Arnold and Menzo W. Lane (28 February 1854 to 8 May 1871)
Menzo W. Lane and Heirs (8 May 1871 to 24 May 1878)
Newton Young (24 May 1878 to 19 June 1880)
James R. McHugh (19 June 1880 to 14 April 1882)
James R. McHugh and Mattie McMullen (14 April 1882 to 10 October 1881)
Mattie McMullen and K. W. Knudson (10 October 1881 to 15 March 1882)
Joshua N. Austin (15 March 1882 to 30 November 1886)
Jens Cornils (1 April 1885 to 30 November 1886)
William H. Hopkins (30 November 1886 to 15 February 1887)
Jacob Cass (15 February 1887 to 24 November 1899)
George P. Alden (24 November 1900 to 17 September 1900)
Nicholas Britz and Frederick Mantzke (17 September 1900 to 5 November 1900)
Frederick Mantzke (5 November 1900 to 10 February 1906)
Abraham J. Jeffrey (10 February 1906 to 7 September 1906)
R. E. Spurgeon (7 September 1906 to 22 January 1907)
G. W. Fulton (22 January 1907 to 12 March 1910)
Advance Food Company (12 March 1910 to 10 January 1920)
Clarence S. Williams (10 January 1920 to 2 February 1924)

State of Illinois (2 February 1924 to Present)

4. Builders, Contractors, Suppliers:

The identities of builders, contractors, and suppliers involved in the construction of the dam are not known with certainty. However, the owner of the mill associated with the dam at the time of its construction likely was directly involved. The stone for the dam possibly was acquired from a quarry located a short distance upstream, which is mentioned in an 1859 newspaper article.[1]

5. Original Plans:

No original plans for the dam are known to exist. It is a vernacular, non-engineer-designed structure and, as such, likely never had any formal plans drawn up for it.

6. Alterations and Additions:

The only perceptible alteration to the dam is the addition of a concrete cap which has been poured over the original stonework and otherwise anchored to the structure. This cap is believed to have been added in the early to middle twentieth century and will be discussed in more detail below.

B. Historical Context:

1. Geographical and Historic Setting:

Kendall County, where the Blackberry Creek Dam is located, lies in northeastern Illinois, west-by-southwest of Chicago. The county's northern half is bisected by the Fox River, which originates in southeastern Wisconsin and is a major tributary of the Illinois River. Numerous streams flow into the Fox in northern Kendall County, including Blackberry, Rob Roy, Big Rock, and Little Rock creeks from the north and Waubansee, Morgan, Hollenbeck, and Clear creeks from the south. A dividing ridge separating the Fox and Illinois River valleys runs northeast-by-southwest across the southern half of the county. Aux Sable Creek, a tributary of the Illinois, originates here. This creek and its various branches drain a wide extent of southern Kendall County.

Prior to 1830, Kendall County was occupied and/or exploited by several Native-American tribes, with the Potawatomi being most prominent during the early part of the nineteenth century. The county presented an attractive position for Native Americans in the historic period, being well watered, having a good mix of timber and prairie, and also having easy connections to the Chicago Portage—the low divide between Lake Michigan and the Du Page River that served as an important

[1] *Kendall County Journal*, 13 December 1856.

trade route between the tribes and Euro-Americans (first French, then English, an finally American) from 1673 to 1833.

Illinois was ceded by Great Britain to the United States through the Treaty of Paris in 1783. Even so, multiple Native-American tribes still held sway over a large part of the region and had yet to relinquish their rights. As such, Euro-American settlement within the northern extents of the state would be very limited for the half century following the Treaty of Paris. In 1804, William Henry Harrison, governor of the Indiana Territory (to which Illinois was then attached), convinced a group of Sauk and Fox to cede their rights to those lands lying between the Mississippi, Illinois, Fox, and Wisconsin rivers to the United States. Signed at Portage des Sioux, in Missouri, this treaty was never accepted by certain elements within the Sauk and Fox, who readily offered their services to Great Britain during the War of 1812, as did other tribes in north and central Illinois. Following the conclusion of the war, the United States accepted the presence of Native-American tribes in northern Illinois but sought to secure a 20-mile-wide corridor extending for 70 miles between the Chicago River and the Illinois River at present-day Ottawa for the purposes of a canal. This corridor was confirmed in an 1816 treaty between the United States and the Ottawa, Chippewa, and Potawatomi tribes and was surveyed in 1818-1819. The northern line of the corridor passed through southern Kendall County and was referred to as the "Indian Boundary Line."

Euro-American settlement in Kendall County did not begin in earnest until after the conclusion of the Black Hawk War in 1832 and subsequent Treaty of Chicago (1833) which extinguished the last of the Native-American claims to northern Illinois. Early settlement in the county was concentrated close to stands of timber, following a well-established pattern seen elsewhere in frontier-era Illinois. Timber was plentiful adjacent to the Fox River and its tributaries. There also was a large stand of timber isolated on the prairie in the southwestern part of the county—appropriately named "Big Grove"—which attracted settlers early on. The United States Surveyor General's plats illustrate two early roads passing through the county. These were located on opposite sides of the Fox River and ran between Chicago and Ottawa (the county seat of La Salle County, located at juncture of the Fox and Illinois rivers). Both roads generally paralleled the Fox, though the one on the south side of river was located well inland in order to follow the crest of the dividing ridge separating the Fox and Illinois watersheds, corresponding to present-day Illinois 71. The northern road stayed much closer to the Fox, following portions of present-day River Road and U. S. Route 34 (east of Yorkville).

John Mason Peck's 1834 *Gazetteer of Illinois* provides a general overview of the area during the early years of Euro-American settlement. Discussing Kane County, to which the northern third of Kendall County was then attached, Peck notes:

> It is watered by Fox river in its southeastern parts, and Indian creek, Somonauk, Rock and Blackberry, Wabonsic, Morgan and Mill creeks that enter Fort [sic Fox?] river, and on its western and northwestern portion, several small streams, and the south and main branches of the Kishwaukee or Sycamore, that enters Rock river. These are all excellent mill streams, and already saw and flouring mills are built or in progress.[2]

Peck provided lengthy description of the Fox:

> Fox River, one of the principal branches of the Illinois. It rises in the Wisconsin territory, passes through a series of small lakes about the boundary line, and enters the Illinois river at Ottawa.
>
> Its general course is south. At the boundary line its width is forty-five yards.
>
> Several fine bodies of timber line its banks especially about the mouth of Indian Creek and the Big Woods. At the rapids, five miles above its mouth are the most extensive water privileges.
>
> Here the river is from eighty to one hundred yards wide, with beds and banks of coarse grained sand stone. The rapids are sixteen feet descent, and both sides of the river will admit of mills and machinery for three-fourths of a mile, with inexhaustible supplies of water.
>
> The deficiency of timber near this spot is the only drawback upon it: but inexhaustible bodies of coal are to be found but a few miles distant.
>
> It furnishes a vast amount of water power, and can be easily made navigable by dams and slack water. From the town of Elgin near the southern part of McHenry county, is a deep sluggish stream, connected with a string of lakes, and is navigable within fifteen miles of Milwaukee. Hence, with small expense, a navigable communication may be opened from Lake Michigan by Milwaukee and Fox River.[3]

Blackberry Creek also merited comment in Peck's *Gazetteer*:

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[2] John Mason Peck, *A Gazetteer of Illinois, in Three Parts* (Jacksonville: R. Goudy, 1834, p. 112.

[3] Ibid., pp. 205-206.

> Blackberry Creek, in Kane county, rises in the central part of the county, runs south and enters Fox river near the south line of the county. Groves of timber, barrens, and rich undulating prairie along its course.[4]

Peck's mention of saw and flouring mills—in operation or soon to be—at this early date is of note. Milling represented one the first industries established in the Fox River valley and played a prominent role in the early development of the region. Mill sites provided the nucleus for many of the communities ultimately founded along the Fox, including Millington, Bristol, Yorkville, and Oswego in Kendall County and Aurora, Batavia, Geneva, St. Charles, and Elgin in neighboring Kane County.

Bristol and Yorkville were founded opposite one another on the banks of the Fox River in circa 1836. The river was fordable at this point and was well suited for milling purposes. Bristol was platted out on the north side of the river and named in honor of Lyman Bristol, an early settler, land promoter, and aspiring entrepreneur for whom the surrounding township later would be named as well. The town was pre-dated by several years by a saw mill near the mouth of Blackberry Creek, which had been constructed by John Schneider in 1834 (and which will be discussed in more depth below). A post office was established in Bristol on July 1, 1839.[5] Yorkville lay on the south bank of the river. It too had a saw mill at an early date. This was built by Titus Howe, who built a dam across the Fox to supply water power for the mill.

Kendall County was established on February 19, 1841. It consisted of nine congressional townships, the northern three of which (Big Rock, Bristol, and Oswego) had previously been attached to Kane County, while the remaining six (Fox, Kendall, Na-au-Say, Big Grove, Lisbon, and Seward) were detached from La Salle County. The county was named in honor of Amos Kendall, a successful journalist who served as Postmaster General under Andrew Jackson and Martin Van Buren. Yorkville initially was selected to serve as county seat. A vote held in 1845, however, resulted in the removal of the county seat to Oswego, located seven miles upstream on the Fox. In 1864, the county government once again retumed to Yorkville where it has remained ever since.

Discussing Bristol in 1856, the *Kendall County Journal* placed particular emphasis on the community's milling industry:

> It possesses many superior natural advantages, having waterpower, which cannot be equaled by any on the Fox River. The Blackberry

[4] Ibid., p. 161.

[5] James N. Adams, *Illinois Placæ Names* (Springfield: Illinois State Historical Society, 1968), p. 302.

> Creek empties at this place. Two dams have been constructed across it, and a flouring mill with three runs of stones and a sawmill have been erected. On this river there is another flouring mill with four runs of stone, a sawmill, and a large machine shop now being built.[6]

The *Journal* also noted the presence of "three stores, three blacksmith shops, two wagon shops, one copper shop, two churches and one good schoolhouse" in Bristol at that time and optimistically predicated future growth due to the projected construction of the Chicago, Amboy, and Upper Mississippi River Railroad through it.[7] The latter project faltered, however, due to poor financing and the economic crisis of the Panic of 1857.

Bristol never would receive a direct rail connection, though several railroads ultimately would be constructed through other sections of Kendall County. The first of these was the Chicago, Burlington, and Quincy Railroad whose main line was built through the north part of the county in 1853. This railroad passed two-and-one-half miles north of Bristol, which encouraged the development of a small community named Bristol Station adjacent to the tracks. The town of Plano in Big Rock Township also was platted out adjacent to this railroad.[8] Plano would develop into one of the largest towns in the county and a manufacturing point, being home to the Seward and Marsh harvester works. In 1869, the Fox River Valley Railroad was organized, largely from local subscriptions, and laid out to pass through the towns of Oswego, Yorkville, Millbrook, and Millington on the south side of the river. Placed in service towards the end of 1870, the Fox River Valley Railroad soon after sold out to the much larger Chicago, Burlington, and Chicago, thus giving the latter company two rail lines through Kendall County.[9] The Elgin, Joliet, and Eastern Railroad eventually was built across the northeastern corner of the county, but this line had less of a local economic impact than the Chicago, Burlington, and Quincy given that it did not pass through any towns within the county.

Although founded as distinct and separate communities, Bristol and Yorkville were closely aligned in respect to their business interests and social life. This interconnection was emphasized by the *Kendall County Record* in an 1870 article discussing Bristol and Yorkville as a business point:

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[6] *Kendall County Journal*, 13 December 1856.

[7] Ibid.

[8] E. W. Hicks, *History of Kendall County, Illinois* (Aurora, Illinois: Knickerbocker and Hodder, 1877), pp. 275-276.

[9] Ibid., 377-381.

> On the right and left banks of the Fox River are situated the villages of Bristol and Yorkville. They are both handsome and thrifty villages connected by bridges. They are two separate villages. We feel that they should be incorporated under one name and in one general interest. Half the people that do business in Yorkville live in Bristol and there is no valid reason for their being divided. We wish to be understood then, in writing this article that we speak of these two places as one. We clip them together in our remarks on the business of the place.
>
> To begin, these places have a population of about 1200 inhabitants. They are situated on the Fox River, about 51 miles west of Chicago. Yorkville is the county seat of Kendall County. It is on the south side of the river. It has a fine courthouse, built of brick with stone corners and cost in the neighborhood of $39,000[?]. The river here is dammed, and a paper mill, gristmill and saw mill is run by waterpower....

The article then provides a list of businesses then active in Bristol and Yorkville. This list is fairly impressive in respect to the number and diversity of commercial enterprises noted.[10]

Yorkville/Bristol, Owego, and Plano represented the principal commercial centers in Kendall County during the nineteenth century (as they still do today). While flourishing, these communities nonetheless remained fairly modest in size and functioned primarily as service centers for the agricultural hinterland surrounding them. Kendall County was overwhelmingly rural and agricultural in character throughout the nineteenth century and well into the twentieth. The population in the county actually declined from 1860 to 1930, falling from 13,074 to 10,555 during this period. The population stabilized by 1940 and thereafter experienced a slow but steady increase in the following decades.[11]

Bristol and Yorkville remained independent communities until 1957, when they were merged into the United City of Yorkville. The unified city's population in 1960 was 1,568,[12] which was only several hundred more than it had been in 1870.

By the 1990s, the dramatic expansion of the suburbia surrounding Chicago was beginning to spread into Kendall County. By 2000, Yorkville's population had risen to 6,189, while that of the county had increased to 54,544. Yorkville more

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[10] *Kendall County Record*, 31 March 1870; Elmer Dickson (editor), "Bristol and Yorkville as a Business Point in 1870," http://www.rootsweb.ancestry.com~ilkendal/TownHistories/BristolBusDir1870.htm.

[11] Kendall County, Illinois, "Kendall County History," http://www.co.kendall.il.us/kchistory.htm.

[12] Adams, p. 553.

than doubled in size over the next decade, reporting 16,921 residents in the 2010 census. Kendall County as a whole had witnessed a similar population boom during this period, seeing its total population increase to 114,735.[13]

2. Site Specific History

The Blackberry Creek Dam traditionally has been associated with John N. Schneider, an experienced millwright who played a prominent role in the early development of the milling industry in Kendall County and adjoining Fox River valley. However, research conducted for the IL HAER documentation has found the story of the dam's construction and the early ownership of the land surrounding it to be more complex, as will be discussed below.

John N. Schneider was a native of Hesse-Cassel, Germany[14] who arrived in northeastern Illinois in June 1832, the same year the region was convulsed by the Black Hawk War. Coming to the Naper Settlement (present-day Naperville) in Du Page County, Schneider assisted Captain John Naper in building a saw mill on the banks of the Du Page River in 1833. While doing so, Schneider took the opportunity to scout the surrounding region for a place to erect a saw mill of his own. He found such a site on a knoll near to the mouth of Blackberry Creek in Kendall County.[15] A tributary of the Fox River, Blackberry Creek flowed through parts of three townships in Kane and Kendall counties. Besides offering ample water power year round, timber was plentiful along the banks of the stream and those of the Fox. In order to stake a claim on his prospective mill seat, Schneider "hewed two logs and hauled them on the ground" before returning to the Naper Settlement for the winter.[16]

John Schneider came back to Blackberry Creek in the spring of 1834 and commenced construction of his saw mill with the assistance of another workman. Within days of breaking ground, Schneider's work was interrupted when his oxen broke free and headed back to their former home along the Du Page. Two weeks were lost rounding up and driving back the oxen, during which time Schneider's camp on the Blackberry and all his equipment (wagon, tools, chains, and cooking utensils) were left unattended. He was grateful to find the campsite undisturbed upon his return.[17] Schneider completed his saw mill and placed it in operation.

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[13] Kendall County, Illinois; Wikipedia, "Yorkville, Illinois," http://en.wikipedia.org/wiki/Yorkville,_Illinois.

[14] Newton Bateman and Paul Selby (editors), *Historical Encyclopedia of Illinois and History of Kendall County* (Chicago: Munsell Publishing Company, 1914), p. 837.

[15] Hicks, pp. 93, 103-104.

[16] Ibid., pp. 103-104.

[17] Ibid., p. 127.

The mill provided sawn stock for Dr. Gilman Kendall's residence, built in 1836, which was one of the first frame (albeit timber frame) houses constructed in the area. Kendall's house was further distinguished from its neighbors by being built out on the prairie—this at a time when settlement was still clustered in and around the groves of timber.[18] Schneider's saw mill is documented on a United States Surveyor General plat of Bristol Township based on a survey conducted in 1837. The map shows a "saw mill" located a short distance upstream from the mouth of Blackberry Creek. The mill depicted presumably was Schneider's, though his ownership is not noted on the plat (in contrast to Titus Howe's mill dam and saw mill on the south bank of the Fox River at Yorkville) (see Supplemental Materials S1).[19]

John Schneider reportedly operated his saw mill on the Blackberry Creek for only a few years. The 1877 county history states that, "In 1837 Lyman Bristol and Isaac Hallock bought out John Schneider's Bristol claim and mill for $7,000.[20] After his acquisition of Schneider's mill, Lyman Bristol placed its operation in the hands of a Mr. Clapp, who later had the misfortune of being crushed by rolling logs. The circumstances of Clapp's death are recounted in the 1877 county history: "One log was moved, and the rest, being on a side hill, started, and there was not time to escape." While operating the saw mill, Clapp had resided in an adjacent log house.[21] Immediately following the account of Clapp's death, the 1877 county history mentions that, "The old corn mill was also run, but was not much patronized as other mills were nearby."[22] It is unclear whether the corn mill referenced was being operated in association with the saw mill or simply was located in the village of Bristol. There was a ford across Blackberry Creek close to the saw mill at this date (presumably situated below, or downstream, of the mill dam). A ford across the Fox River also was present near this location[23]

Legal title to the land surrounding Schneider's saw mill was clouded at this time due to the fact that public land sales had not yet started in the area. Chain-of-title research conducted at the Kendall Count Recorder's Office found no deed of sale between John N. Schneider and Lyman Bristol and Isaac Hollock for $7,000 from

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[18] Ibid., p. 126.

[19] United States Surveyor General [USSG], "Federal Township Plats of Illinois," Record Series 953.012, Illinois State Archives, Volume 28, p. 13. Township plats such as this were produced under the auspices of the U. S. Surveyor General but commonly are cited as United States General land Office (USGLO) plats in cultural resource management contract reports.

[20] Hicks, p. 104.

[21] Ibid., p. 207. Clapp's log cabin stood near the site of a barn owned by M. W. Lane in 1877.

[22] Ibid.

[23] Ibid.

1837 (as recounted by the 1877 count history).[24] However, it did produce a deed between Schneider and Bristol, dated December 15, 1841, in which the former sold his rights to certain lands in Sections 28, 29, and 32 in Township 37 North, Range 7 East, "known as the Schneider Claim", to Lyman Bristol for $6,000. Unable to pay the full purchase price outright, Bristol mortgaged these lands to Schneider the same day, the conditions being that Bristol was to repay Schneider the $2,195 owed him plus 9% interest.[25] Determining the precise extents of the Schneider Claim is complicated by the fact that the deed records provide a metes-and-bounds description for the tract rather than a legal one. The mortgage between Schneider and Bristol, for instance, describes it as follows:

> …beginning at the south west corner of the claim known as the Schneider Claim and upon the north bank of Fox River from thence in a northerly direction along a line marked in the timber until it intersects Blackberry Creek thence along said creek to John Balls south line thence east along said Balls line to James McClellans west line thence in a southern direction along said McClellans line until it comes to the north line of the plat of the town of Bristol thence west along the north line of said Plat to the northwest corner of said town thence southerly along the west line of said town plat until it intersects said fox river thence down said river to the place of Beginning on said section thirty two including all the islands in said river opposite said river bounds….[26]

While John Ball's "south line" and James McClellan's "west line" in 1841 referred to in the mortgage are vague, the references to the northern and western lines of the Original Plat of Bristol and the Fox River are more exact. The blocks on the west side of the original town plat were staggered due to the course of Blackberry Creek (as opposed to running on a straight line) and stopped short of the stream. As such, it's possible that the east line of the Schneider Claim took in the lower end of Blackberry Creek and included the saw mill erected by John N. Schneider in 1834; if so, it also would have encompassed the site of the Blackberry Creek Dam. Even though the deed and mortgage between Bristol and Schneider make no mention of a saw mill or mill dam, the purchase price of the property ($6,000) suggests that significant improvements had been made to the Schneider Claim at the time of its sale in 1841.

When public land sales did begin in Kendall County, it was James McClellan who acquired the site of the Blackberry Creek Dam, as opposed to Lyman Bristol.

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[24] If such a deed exists, it may be on file at the Recorder's Offices in either LaSalle or Kane County, as portions of present-day Kendall was attached to both of these counties at this time.

[25] Kendall County Deed Record [KCDR], Volume A, pp. 141-143.

[26] Ibid.

McClellan did so through his acquisition of the Fractional NE¼ of Section 32 lying north of the Fox River (containing 69.02 acres) on February 3, 1843.[27] Considering that McClellan was a financial backer of Bristol[28] and later resold the same tract in question to the latter, it's quite likely that he acquired the tract on Bristol's behalf. The 1877 county history acknowledges McClellan as one of the men from Kendall County who went to the Chicago Land Office to serve as a bidder representing his fellow settlers when land sales commenced. The idea was that the designated bidder would secure patents on those tracts of land already settled upon and improved and then re-deed these lands to the actual occupants at a later date. This was a cooperative measure undertaken by the frontier community to prevent land speculators or greedy neighbors from reaping the benefits of improvements made through the labor of others. It also obviated the need for every claim holder in the county to leave his farm and family and travel to Chicago.[29] Such a trip would have involved considerable time and expense for the average farmer at this date. James McClellan sold the Fractional NE¼ of Section 32 lying north of the Fox River to Lyman Bristol for $100 on November 3, 1843.[30]

Lyman Bristol's aspirations as a land developer in Kendall County appear to have largely come to naught. Research suggests that the properties he acquired in the vicinity of the town of Bristol were heavily mortgaged, and he had trouble meeting the terms of those agreements.[31] His various land maneuvers came in the wake of the Panic of 1837, a severe financial crisis that ushered in a nearly decade-long period of deflated land prices, high interest rates, and a shortage of hard currency in Illinois. As such, it is perhaps not too surprising that he had difficulty meeting his financial obligations. On January 1, 1845, Lyman Bristol mortgaged the Fractional NE¼ of Section 32 north of the Fox River and an adjoining 49.46 acres of land in the SE¼ of Section 29 to William R. Yourt, "Given to secure payment of a certain Bond in the penal sum of $4,000.00 dated Nov. 1, 1844 for the payment of $2,000, with interest at 12% 3 years after date."[32] Bristol ultimately was not able to satisfy this and other mortgages, which resulted in a judgment being issued against him by the Court of Kendall County in August 1847. On March 30, 1850 James S. Comell, acting in his capacity as Sheriff of Kendall County, signed a sheriff's deed conveying the Fractional NE¼ of Section

[27] Illinois Public Domain Land Tract Sales Database, Illinois State Archives, Springfield.

[28] Elmer Dickson (editor), "Bristol, Illinois (North Yorkville)" (2004), http://rootsweb.ancestry.com/~ilkendal/TownHistories/Bristol/BristolHistory.htm.

[29] Hicks, pp. 230-231.

[30] KCDR, Deed Book B, p. 23.

[31] Dickson, "Bristol, Illinois (North Yorkville)."

[32] KCDR, Deed Book B, p. 434

32 lying north of the Fox River and 49.46 acres in the SE¼ of Section 29 to William R. Yourt of Troy, New York.[33] Lyman Bristol later relocated to California, where he was "killed while teaming over the mountains."[34]

Very little is known about the history of the saw mill built by John Schneider along Blackberry Creek during its ownership by Lyman Bristol aside from the story recounted in the 1877 county history involving Clapp's management and death. The saw mill receives no further mention after this. It's possible that Bristol's financial troubles and/or a diminishment of local timber sources contributed to the eventual closure of the mill at some point in the 1840s. The 1850 census of Bristol Township reports only one individual with the occupation of "miller." This was James O'Brien, an un-propertied Irish immigrant living in the home of a local farmer who has no known connection to the Schneider saw mill.[35] O'Brien possibly was employed at another mill in Bristol or Yorkville.

In 1849, the County Commissioners of Kendall County authorized the construction of a bridge over Blackberry Creek at River Road/Street in the town of Bristol. This bridge was located immediately adjacent to where the Blackberry Creek Dam later would be constructed. It was the first of at least three generations of bridges built at this same location. The project was supervised by Leonard Thorp, then serving as the supervisor of the local road district.[36] The character of the 1849 bridge is not known, but it's possible that it was of timber-frame construction, which was very common for this era. The River Road Bridge is referenced as a landmark in later deed records concerning the Blackberry Creek Dam.

On February 28, 1854, William B. Yourt, acting through his attorney B. W. Raymond, sold an irregular-shaped 9.98-acre parcel of land "lying south west and contiguous to the village of Bristol" to Andrew H. Allen and M. W. Lane for $800. This tract encompassed acreage adjoining the mouth and lower quarter mile of Blackberry Creek, where Allen and Lane intended to build a mill and dam and create a mill pond. The northern and eastern boundary was closely aligned to a bluff, which pressed close to the creek here, while the southern line followed the embankment upon which River Road passed. The sale also included, "about 4 acres of land lying above said Bridge and the road embankment, west of said [Blackberry] bridge or so much as will be inundated with water by erection of a Mill Dam on the line above said bridge and embankment 10 feet high from the

[33] KCDR, Deed Book G, p. 45.

[34] Hicks, p. 104.

[35] United States Bureau of the Census [USBC], Population Schedule for Bristol Township, Kendall County, Illinois (1850), p. 280.

[36] Kendall County Supervisors' Record, Book A, p. 333.

bottom of said Creek."[37] William Yourt and his wife Matilda signed a quit-claim deed to this same effect on July 1, 1857.[38]

The description of Allen and Lane's mill dam being "above" the River Road Bridge corresponds to the Blackberry Creek Dam. These deed records also make it very clear that the men intended to construct a new dam, as opposed to utilize that previously associated with John Schneider's saw mill. The date of construction of the dam is not known exactly, though it presumably had been raised by the time the men erected a flouring mill adjacent to it—an event the 1877 county history states as having occurred in 1857.[39] A county history published in 1941 provides the following account of the development of Allen and Lane's mill:

> In 1855, a carpenter, Manzo [sic] Lane, started to build a grist mill near the site of the old Schneider Mill, at the mouth of Blackberry Creek on River Street, Bristol. The firm was Arnold & Lane, the latter being a miller as well as a carpenter. Mysteriously, it burned to the ground before completion. Within a year, Mr. Lane had rebuilt and the mill was in operation.[40]

This account would suggest that the mill was in operation by 1856 or 1857 at the latest. However, Sanborn maps of Yorkville published in 1886 and 1905 consistently note the date of construction for the mill as 1859. The fact that the mill is not included in the 1860 industrial census for Kendall County (which covers manufacturers active during the year ending June 1, 1860) lends credence to the mill having been completed in 1859 as opposed to 1857. In any event, the mill is illustrated on an 1859 map of Kendall County (see Supplemental Materials S2).[41] Construction on the dam likely preceded that on the mill, whose progress was delayed by fire, and may feasibly have begun soon after Arnold and Lane purchased the property in 1854. One assumes that the dam had been completed by 1856, considering that the *Kendall County Journal* in December 13, 1856

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[37] KCDR, Deed Book N, p. 435.

[38] KCDR, Deed Book T, p. 396.

[39] Hicks, p. 288. Hicks writes: "Two grist mills were erected [in 1857], one at Bristol, at the mouth of the Blackberry creek, by Lane & Arnold, and the other five miles further down the river, and the mouth of Rock creek, by Frederick Post.

[40] Oliver C. Johnson and Anna French Johnson, "History of Kendall County, Illinois," *Atlas and History of Kendall County, Illinois*, sponsored by Board of Supervisors of Kendall County (Elmhurst, Illinois: Friendly Map and Publishing Company, 1941), p. 66. This history and subsequent ones spell lane's first name as "Manzo." Deed records, however, consistently spell it as "Menzo," and that is the form followed in this report.

[41] L. G. Bennett, *Map of Kendall County, Illinois* (Chicago: Edward Mendel, 1859).

article states that, "Two dams have been constructed across it…." in Bristol. [42] As such it is proposed that the Blackberry Creek Dam dates to circa 1856.

Interestingly, two other men made plans to dam Blackberry Creek immediately upstream from Arnold and Lane during this same period. This was the second of those dams mentioned by the *Kendall County Journal* in 1856. The men in question were Nathanial R. Hobbs and Orison Smith, who purchased 10.66 acres of land along Blackberry Creek in Section 29—plus water rights—from Clement J. Dwyer on June 7, 1855 with the intention of building a dam, race, and mill there.[43] The extent to which this project would have impacted Arnold and Lane's is not clear, though it probably caused some concern amongst the latter men in respect to water flow and competition from another mill located so close to their own. Fortunately for Arnold and Lane, Hobbs and Smith do not appear to have been able to complete their mill; and their dam, while apparently finished, seems to have been washed out not long after its completion (see Supplemental Materials S10). On June 22, 1863, Hobbs and Lane sold their 10.66-acre mill tract to Arnold and Lane for $450.[44]

The circumstances surrounding the failure of Hobbs and Smith's mill project are not well understood, though the effort's prospects could hardly have been helped by the Panic of 1857. Arnold and Lane found it necessary to mortgage their mill tract in the years following the Panic in order to fund their enterprise. On January 1, 1859, they mortgaged their mill tract to Merrit, L. Satterlee, George C. Cook, Frederick Fischer, and Samuel Faulkner of Chicago for the sum of $3,000. This mortgage was made in order to secure payment of three promissory notes, each for $1,000, the first of which was due in twelve months, the second in eighteen months, and the third in twenty-four months, and at 10% per annum.[45] It was satisfied in April 1861.[46] During the interim, however, Arnold and Lane had found it necessary to mortgage their mill tract once again for $3,000 on January 1, 1861, in this case to George Cook alone. The mortgage to Cook involved two promissory notes, one for $2,500 due in twelve months and the second for $500 due in twelve months as well, with 10% interest applied to both notes. This mortgage also was satisfied in time.[47]

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[42] *Kendall County Journal*, 13 December 1856.

[43] KCDR, Deed Book P, p. 458.

[44] KCDR, Deed Book Y, p. 10. This deed references a "piece of land on which the Mill Dam formerly built by Hobbs & Smith stood…." The fact that the dam is spoken of in the past tense suggests that it was no longer functioning.

[45] KCDR, Deed Book V, p. 135.

[46] KCDR, Deed Book X, p. 118.

[47] KCDR, Deed Book X, p. 145; Release Book A:110.

The firm of Arnold and Lane was involved in more than just milling in Bristol and seems to have had its start in the dry goods and grocery line. On January 10, 1857, the *Kendall County Journal* published a brief description of the business activity in Bristol and noted:

> Messrs. Arnold & Lane, dry goods and grocery merchants are doing a business, which very few country stores can equal. They have long been residents of the place and the people know how cheap they sell. Their clerks are very efficient and always ready to wait upon customers.[48]

However tenuous its beginnings may have been, Arnold and Lane's mill, which was operated as the "Blackberry Mills," appears to have enjoyed considerable success during the 1860s. The mill received favorable comment by the *Kendall County Record* in its March 31, 1870 article discussing Bristol and Yorkville as a business point:

> On the Bristol side, the Blackberry Creek empties into the river. The creek is damned and the power runs a fine gristmill owned by Arnold and Lane. This establishment has a large run of custom work, besides making flour for the Chicago market. There is also a stone quarry above the dam, which furnished good stone for cellars.

Later on in this same article, the *Record* states: "The Blackberry Mills run by Arnold and Lane are too well known to need a word from us. The reputation of its product is first class, and farmers from every town in the county pay toll to its good qualities."[49]

The Blackberry Mills is illustrated on an 1870 plat of Bristol.[50] This plat illustrates the mill building and associated millrace. The Blackberry Creek Dam is not illustrated however (see Supplemental Materials S3). The industrial census compiled this year included Arnold and Lane's flour mill amongst the manufactures in Bristol. The census noted that the mill had capitol improvements of $16,000 (both real and personal property), was water powered, provided the equivalent of 30 horsepower, and was equipped with three run of stones capable of producing 75 barrels of flour and 500 bushels of feed per day. Two types of

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[48] *Kendall County Journal*, 10 January 1857; Elmer Dickson (editor), "Bristol (North Yorkville) in 1857," http://www.rootsweb.ancestry.com~ilkendal/TownHistories/BristolBusDir1870.htm.

[49] *Kendall County Record*, 31 March 1870; Elmer Dickson, "Bristol and Yorkville as a Business Point in 1870."

[50] Warner, Higgins, and Beers, *Atlas of the State of Illinois: Village of Bristol* (Chicago: Warner, Higgins, and Beers, 1870).

production are noted at the mill in the census schedule: "private," which consisted of 19,500 bushels of grain worth $20,500; and "custom," consisting of 24,000 bushels with an initial value of $24,250 and $38,130 after grinding. The mill was in operation all twelve months preceding the census and had paid out $500 in wages to one employee during that period. Another statistic provided on the mill was the consumption of 5 tons of coal, worth $30, over the year. The 1870 industrial census also indicates that Arnold and Lane were operating a cooper shop in Bristol. The location of the cooper shop is not known, though it potentially was located adjacent to the Blackberry Mills and produced the barrels in which the mill's flour was packed. Arnold and Lane reported $500 in capital improvements at the shop. It employed a single cooper who had earned $500 in wages and had provided $1,000 worth of goods and services, including barrels and firkins (quarter barrels)—valued at $500 and $400 respectively—and various repairs worth $100. Less wages and the cost of materials ($350), the cooper shop had made a modest profit for the year.[51]

The 1870 population census for Bristol reports Andrew Arnold as a resident and notes him as a Massachusetts native, age 52, who submitted his occupation as "retired merchant." Arnold's wealth in 1870 was considerable, consisting of real estate valued at $25,000 and personal property worth $7,200.[52] This was a dramatic increase over the values he reported in the 1860 census, when his real estate was listed at $2,000 and personal property at $500.[53] The 1870 census also reports Menzo W. Lane as a resident of Bristol. A native of New York state, Lane was age 42 in 1870, married to Ellen (age 39 and also of New York State) and had two daughters named Louisa (age 17) and Kittie (age 15) both of whom had been born in Illinois. Lane's real estate was valued at $9,000 and his personal property at $900.[54] Lane was living in a residence located at the corner of River and King Streets in Bristol, which overlooked the Blackberry Mills—a home that is still extant (see Supplemental materials S3 and S4). Menzo Lane is reported as a "miller" in the census, which suggests that he was in charge of the Blackberry Mills. Andrew Arnold, however, likely was the senior partner in the concern, given his preeminence in the firm's title and his superior wealth. Emmitt Arnold, a son of Andrew Arnold, was living adjacent to Menzo Lane in 1870 and was employed as a miller, presumably at the Blackberry Mills.[55]

Andrew Arnold died on or about December 5, 1870. In his will, he bequeathed his half interest in the Blackberry Mills to his widow Rachel and surviving son

[51] USBC, Schedule of Manufacturers in Bristol Township, Kendall County, Illinois (1870), p. 1.

[52] USBC, Population Schedule for Bristol Township, Kendall County, Illinois (1870), p. 6.

[53] USBC, Population Schedule for Bristol Township, Kendall County, Illinois (1860), p. 142.

[54] USBC, Population Schedule for Bristol Township (1870), p. 10.

[55] Ibid.

Emmitt, to be divided equally between them.[56] Rachel and Emmitt Arnold sold their interest in the mill property to Menzo W. Lane on May 8, 1871 for $7,500.[57]

Menzo W. Lane did not survive this partner by many years. He died on October 13, 1874 at age 46. His property subsequently passed to his surviving heirs: his widow Ellen and daughters Louisa and Kittie.[58]

On May 24, 1878, Menzo Lane's heirs sold the Blackberry Mills property to Newton Young for $6,000.[59] Young's ownership was fairly short term. He sold the property to James R. McHugh of Yorkville on June 19, 1880 for the same price he had paid for it two years before ($6,000).[60]

The 1880 industrial census for Bristol Township includes statistics for a mill operated by "Dixon and McHugh." Given its stated location—"Blackberry into Fox River"—and attachment of the name McHugh to it, the mill in question is believed to be the Blackberry Mills. The industrial census provides some interesting specifications on the mill's waterpower, noting that it was equipped with a breast wheel, measuring 14' in breadth and having fifteen revolutions per minute and 25 horsepower. The mill operated year long, with the typical work day lasting ten hours. Maximum daily capacity was 200 bushels. Two-thirds of the mill's product was custom work. Material costs at the mill for the period June 1, 1879 to May 31, 1880 included 6,000 bushels of wheat worth $6,000, 9,000 bushels of other grains worth $2,700, and $500 in mill supplies, or $9,200 total. Products from the mill for the same period included 1,000 barrels of wheat flour, 7,500 barrels of buckwheat flour, 450,000 pounds of corn meal, and 136,500 pounds of feed with a combined value of $10,420.[61] These figures indicate a significant decline in production and income since 1870. A search of the 1880 population census found no listing for James McHugh in either Bristol or Yorkville. Day-to-day management of the mill apparently was in the hands of McHugh's associate, William H. Dixon, a 31-year-old miller from England then residing in Bristol.[62]

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[56] Kendall County Probate Record [KCPR], Wills Book A, p. 152.

[57] KCDR, Deed Book 31, p. 205.

[58] KCPR, Wills Book A, p. 215.

[59] KCDR, Deed Book 31, p. 205.

[60] KCDR, Deed Book 39, p. 71

[61] USBC, Schedule of Manufacturers for Bristol Township, Kendall County, Illinois (1880).

[62] USBC, Population Schedule for Bristol Village, Kendall County, Illinois (1880), p. 7.

On April 14, 1881 James R. McHugh and his wife Mattie C. sold one half of their interest in the Blackberry Mills property to Maggie McCullen for $4,000. Later that year, on October 10, the McMullen's sold their remaining half interest in the property to K. M. Knudson for $500. The very same day (October 10, 1881), Knudson, Maggie McCullen, and their respective spouses sold the tract to Joshua N. Austin for $9,000, once again bringing it under single ownership.[63]

Joshua Austin retained ownership of the Blackberry Mills property until April 1, 1885, when he sold it to Jens Cornils for $6,000.[64] Cornils' ownership would last less than two years, but it was during this period that the Blackberry Mills was first depicted on a Sanborn map. The 1886 Sanborn maps for Yorkville (which cover Bristol as well) illustrate the dam and associated mill in considerable detail. At that time, the facility was still operated as the "Blackberry Mills," Jens Cornils is noted as the owner. The map notes the facility as a "custom mill" and as having been constructed in 1859. The main block of the mill (the flour mill proper) was three stories in height and had a raised basement. Driving machinery, one corn sheller, and one smutter (a device for cleaning grain prior to grinding) were located on the basement level. On the first floor there were three run of stones and three sets of scales. A variety of equipment for separating and sifting the grain by grade was located on the upper levels of the mill. The second floor contained three bolting chests, one middling purifier,[65] two small bolting reels, and eight bins. The third floor housed one bolting chest, one flour cooler, and one "B. & L. separator." A small one-story, frame office wing with basement was attached to the east side of the mill. A second one-story, frame wing (lacking basement) was positioned along the south side of the mill; this is labeled as "old engine room" on the Sanborn map and noted as being vacant. This suggests that the mill had employed steam power at one time—possibly as a supplemental source during periods of low water flow—but had later abandoned this power source. A "wheel house" was attached to the west side of the mill. The Sanborn map makes no indication as to what type of water wheel was present, though we know from the 1880 industrial census that it was a breast wheel. A tail race is depicted exiting the south side of the wheel house and flowing into Blackberry Creek a short distance beyond. The head race supplying water to the wheel house is not shown on the Sanborn, but it would have extended between the wheel house and a mill pond upstream, actually cutting through (beneath) River Road along the way. A dam is shown immediately north of the vehicle bridge crossing Blackberry Creek[66] (see Supplemental Materials S5).

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[63] KCDR, Deed Book 39, p. 71; Deed Book 40, pp. 291, 372.

[64] KCDR, Deed Book 39, p. 385.

[65] The middling purifier separated the bran from the wheat kernel.

[66] Sanborn Map Company, *Yorkville, Illinois* (New York: Sanborn Map Company, 1886). This source also notes that the Blackberry Mills was lighted with lard oil lanterns and had one heating stove, which was located in the office.

Jens Cornils and his wife Anna sold the Blackberry Mills property to William H. Hopkins of Yorkville for $1,200. Hopkins, in turn, sold the property to Jacob Cass for $6,500 on February 15, 1887.[67] Cass was a resident of Little Rock Township at the time of this sale, but he subsequently relocated to Bristol to operate the Blackberry Mills. This event ushered in a period of stability for the mill, which had seen a rapid turnover in ownership over the previous decade. Cass' ownership would last for nearly thirteen years.

The Blackberry Mills also is illustrated on the 1892 Sanborn maps for Yorkville. These maps indicate no changes to the mill's footprint since 1886. The machinery present also remained unchanged, other than the relocation of the smutter from the basement to the first floor. The B & L. separator on the third floor was noted as "not used." The lard oil lamps used to light the mill six years before also had been replaced by kerosene ones. The 1892 Sanborn also shows the start of the headrace for the mill.[68] The mill also is depicted on an 1898 Sanborn map. The old engine room on the south side of the mill, noted as "vacant" on previous Sanborns, is further described as being "dilapidated" on this map[69] (see Supplemental Materials S6 and S7).

On November 24, 1899, Jacob Cass (widowed and still residing in Bristol) sold the Blackberry Mills property to George P. Alden of Aurora (Kane County) for $4,500 and the additional consideration of Alden assuming payment on a mortgage given by Cass to Felix Cole back in 1896.[70] Alden relocated to Bristol after acquiring the mill property, and he was residing in the village when the federal census was compiled in June 1900. This census reports George P. Alden as a Massachusetts native, age 47, and employed as a miller. He was married to Ida (age 45), with whom he had seven children between the ages of 17 and 3.[71] George Alden's ownership of the Blackberry Mills lasted less than a year. On September 17, 1900 he and his wife Ida sold the mill property to Nicholas Britz and Fred Mantzke, both of Aurora, for $3,500, with the stipulation that Britz also assume responsibility for the $1,000 mortgage still outstanding with Felix Cole.[72] Britz's ownership lasted only a few months; on November 5, 1900 he quit-

[67] KCDR, Deed Book pp. 291, 421.

[68] Sanborn-Perris Map and Publishing Company, *Yorkville, Illinois* (New York: Sanborn-Perris Map and Publishing Company, 1892).

[69] Sanborn Map and Publishing Company, *Yorkville, Illinois* (New York: Sanborn Map and Publishing Company, 1898).

[70] KCDR, Deed Book 54, p. 399.

[71] USBC, Population Schedule for Bristol Village, Kendall County, Illinois (1900), p. 5A.

[72] KCDR, Deed Book 54, pp. 609-611.

claimed his half interest in the property over to Frederick Mantzke for the consideration of $1,250.[73]

A 1903 county atlas illustrates the mill property and notes that Fred Mantzke was then the owner. This atlas does not show the mill with the same level of detail as the Sanborn maps do, though it does depict the main block of the mill, head and tail race, dam, and mill pond. The bridge across Blackberry Creek also is shown[74] (see Supplemental Materials S8). The Blackberry Mills is depicted in yet another Sanborn map published in 1905. It was still operating under that name at this date, and Fred Mantzke is noted as the owner. By this time, electric lighting had been installed in the mill[75] (see Supplemental Materials S9).

On May 27, 1905, Frederick Mantzke and his wife Bertha executed a trust deed with Adam Weber, Jr. on the Blackberry Mills property in order to secure repayment of a $1,000 promissory note "due in 5 years after date with interest at 6% per annum payable semi annually with the privilege of paying $500 at any time."[76] Though written up as trust deed, this agreement in essence was a mortgage. While the mortgage's terms were fairly generous, satisfaction of them were complicated by the Mantzkes decision to sell the mill property less than a year later. Obligation to this $1,000 debt would linger over subsequent owners and have repercussions years afterward.

On February 10, 1906, Frederick and Bertha Mantzke (now residents of Kendall County) sold the property to Abraham J. Jeffrey of Aurora for $1 and the additional consideration that Jeffrey would assume responsibility for repaying the $1,000 mortgage still owed on the property.[77] Immediately prior to this sale, the Blackberry Mills property was surveyed by local surveyor George Wilder in order to establish its precise limits, based on improved compass bearings. The map prepared by Wilder illustrates a number of structures on the property, including the mill itself, a house and a barn to the east of it, the mill dam and River Street Bridge. A spring associated with the property is shown a short distance east of the dam. Another feature of interest on the map is an "Old Dam," noted as "Now Out," on the western end of the property, which likely represents that erected for

[73] KCDR, Deed Book 57, p. 29.

[74] George A. Ogle and Company, *Standard Atlas of Kendall County, Illinois* (Chicago: George A. Ogle and Company, 1903), p. 27.

[75] Sanborn-Perris Map Company, *Yorkville, Illinois* (New York: Sanborn-Perris Map Company, 1898).

[76] KCDR, Mortgage Book 22, p. 187.

[77] KCDR, Deed Book 58, p. 596.

Nathaniel Hobbs and Orison Smith's failed mill project back in the 1850s[78] (see Supplemental Materials S10 and S11).

The Blackberry Mills property went through a rapid turnover in ownership between 1906 and 1910. Abraham J. Jeffrey sold the property to R. E. Spurgeon of Olathe, Kansas for $6,000 and the obligation to the $1,000 mortgage on September 7, 1906. Spurgeon sold the tract on these same terms and conditions to G. W. Fulton of Aurora on January 22, 1907.[79] On March 12, 1910, Fulton sold the Blackberry Mills property to the Advance Food Company for the nominal sum of $1.[80] Very little is known about the Advance Food Company, other than it being a corporation originally organized and incorporated under the laws of the State of Illinois, which was renamed as the W. S. Rhoads Advance Manufacturing Company on July 26, 1910. W. S. Rhoads was a resident of Cook County.[81]

The Blackberry Mill property later became the subject of a law suit involving Julia F. May as the complainant and Frederick and Bertha Mantzke, W. S. Rhoads, the Advance Manufacturing Company, and Adam Weber, Jr. (Trustee) named as defendants. This complaint was based on the failure of the named defendants to repay the $1,000 mortgage taken out in the property in 1905. Moreover, the taxes on the property had not been paid for the years 1916, 1917, and 1918. On May 21, 1919, the Circuit Court of Kendall issued a foreclosure decree requiring that the mill property be sold at public auction to the highest bidder. This sale was executed by C. A. Darnell, Master-in-Chancery, on January 10, 1920 and confirmed in a deed issued the same date. Clarence S. Williams was highest bidder, offering $1,991.98 for the property.[82]

A 1922 county atlas still notes the Advance Food Company as the owner of the Blackberry Mill tract, despite Williams' acquisition of the property two years before. The atlas illustrates the mill, dam, millrace, and adjoining bridge over Blackberry Creek. This source shows the tail race as emptying directly into the Fox River, as opposed to Blackberry Creek (as indicated on earlier Sanborn maps).[83]

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[78] Kendall County, "Plat Showing Blackberry Mill Property in Village of Bristol," Kendall County Plat Book 5 (1906), p. 23, slot 307A

[79] KCDR, Deed Book 61, pp, 143, 242.

[80] KCDR, Deed Book 64, p. 271.

[81] Kendall County Circuit Court Journal, Book W, p. 354.

[82] Ibid.; KCDR, Deed Book, pp.27-28.

[83] George A. Ogle and Company, *Standard Atlas of Kendall County, Illinois* (Chicago: George A. Ogle and Company, 1922), p. 11.

A painting and a two photograph of the Blackberry Mill property from this approximate period exist. None of these images have good dates, but they are suspected to have been produced in the early twentieth century. The perspective of the painting looks up Blackberry Creek towards the Blackberry Mills, from a point near the creek's mouth. The painting shows the mill in some detail, but the dam is blocked from view by foliage. The mill itself appears slightly dilapidated in the painting, suggesting that it had ceased operation. A tag attached to the painting notes that the mill had been "removed by 1936"[84] (see Supplemental Materials S14). The photographs in question are centered on the River Road Bridge but show the Blackberry Creek Dam behind it. The bridge present at this time was of iron construction, followed a Pratt Through-Truss design, and rested on cut stone foundations[85] (see Supplemental Materials S15 and S16). The bridge depicted possibly was erected circa 1890-1900 and likely replaced an earlier timber span. It was very similar in design to the bridge constructed over the Fox River at Millbrook in 1897.[86]

Clarence S. Williams' ownership of the Blackberry Mills property lasted until early 1924. On February 12 of that year he and his wife sold the tract to the State of Illinois for $9,000.[87] In addition to the mill, the Blackberry Creek dam and a tenant house were included in this sale. The mill and house later were removed but the dam left in place. The State subsequently developed the 18 acres associated with the property into a fish hatchery.[88] As part of this development, a dam appears to have been erected across the mouth of Blackberry Creek, creating a new pond between it and the Blackberry Dam. An aerial photograph taken in 1939 depicts the lowlands between the mouth of the creek and River Road as being inundated by water[89] (see Supplemental Materials S17 and S18). The property later was named the Glen D. Palmer State Game Farm, in honor of the original manager of the facility.

The Yorkville-Bristol Sanitary District was created in 1955. The District erected its wastewater treatment plant on the former site of the Blackberry Mills. This facility remains in use to this day.

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[84] Kendall County Historical Society.

[85] Alice Tarbox Dunger Collection. From: Kathy Farren (editor), *A Bicentennial history of Kendall County, Illinois* (Yorkville, Illinois: Kendall County Bicentennial Commission, 1976).

[86] Bridgehunter.com, "Millbrook Bridge, Kendall County, Illinois (http://bridgehunter.com/il/kendall/millbrook/).

[87] KCDR, Deed Book 76, p. 350.

[88] Dickson, p. 25.

[89] United States Department of Agriculture, aerial photographs of Kendall County (1939), BWW-1-46.

In 1958, the Illinois Department of Highways began planning the replacement of the late-nineteenth-century iron-truss bridge spanning Blackberry Creek at River Road. It was to be replaced with a concrete span with a central pier. The east end of the new bridge had a concrete abutment that was extended farther north than usual in order to intersect the Blackberry Dam. Construction on the west end of the bridge was more problematic due to the stone abutment of the earlier bridge being incorporated into the west end of the dam. Removal of the stone abutment might compromise the dam, so the bridge designers decided to retain the stone abutment in place while buttressing it with a new concrete wingwall on the south (see Supplemental Materials S19 through S24).

In 2002, the Illinois State Museum conducted an archaeological survey of 33-plus acres along the lower end of Blackberry Creek as part of an aquatic ecosystem restoration feasibility study by the United States Army Corps of Engineers—Rock Island District and the Illinois Department of Natural Resources. The old mill dam was included within the survey area. As a result of this survey, the dam and its associated mill pond were recorded with the Illinois Archaeological Survey as the Blackberry Creek Dam Site (11KE433). The survey report noted the dam as a "significant cultural property" based on its age, integrity, method of construction and its association with early Euro-American settlement and local industry in the region. As such, the Blackberry Creek Dam was recommended as being eligible to the National Register of Historic Places under Criteria A and C.[90]

3. Milling and Dam Construction in Kendall County

Due in part to the characteristics of the Fox River valley, mills formed an essentially part of the economy in Kendall County during the settlement period and afterward. They provided the means by which farmers' grain (flour, corn, etc.) was ground for home consumption or commercial sale and by which lumber was cut. Mills—both saw and grist—receive prominent notice in published histories of the county, and United States Surveyor General township plats show that many mills had been established along the Fox River and its tributaries by the early 1840s.

In the early years of settlement, prior to the ready availability of steam engines, mills largely were dependent upon water power, though horse mills were used in areas removed from larger streams.[91] Water mills were driven by the energy of falling or running water, which when directed against a water wheel or turbine

[90] Christy S. Rickers and Michael D. Wiant, "Final Report: Phase I Archaeological, Architectural, and Geomorphological Survey for the Blackberry Creek Site Specific project, Illinois River Ecosystem Restoration, Yorkville, Kendall County, Illinois," contract report prepared by the Illinois State Museum for the United States Army Corps of Engineers (2003).

[91] A steam saw mill was erected by Lewis Robinson in Big Grove Township in 1856. It had started as a horse mill in 1852 (Hicks, p. 284).

provided the necessary torque to power machinery within the mill. Water power is based primarily on hydraulic head[92] and rate of flow, and the Fox River offered both. One measure of the Fox's potential as a power source was the drop of 21' feet in the river's gradient over the six miles between the mouth of Big Rock Creek and Millington in Kendall County. The river dropped another 16' over the course of its rapids north of Ottawa in LaSalle County. Damming the river would only increase the hydraulic head available for a given mill. The larger tributaries of the Fox offered similar opportunities for water power. These streams had good flow, a rapid descent, high banks, and could be dammed with relative ease.

An ideal dam site was one where the stream valley was narrow (thereby reducing the length of the dam) and had good high banks to tie the dam into, but also offered a stretch of bottomland upstream from the dam where water could back up and form a mill pond—features largely present at the Blackberry Creek Dam Site. Water typically was directed from the pond to the mill via a narrow channel referred to as a "race", which served to concentrate and accelerate the flow of water against the wheel powering the mill. One of several types of water wheels, all equipped with buckets or blades, might be employed, including: the overshot wheel, which had water dumped onto it from overhead, driving it forward; the breast (or breast shot) wheel, which had water directed against its mid-section from the rear, turning it in reverse; and the undershot wheel, where the water hit the bottom of the wheel. All three of these wheels were mounted vertically on a horizontal shaft. Overshot and breast wheels offered more power than undershot wheels and saw greater use in the United States. The Blackberry Creek Mills, for one, had a breast wheel. Other mills were equipped with tub wheels, which were set horizontally on a vertical shaft. Mills with these wheels often were situated directly adjacent to their dam, without the use of a race.

John Schneider's early saw mill at Bristol and that of Titus Howe at Yorkville already have been mentioned in preceding sections, but a good number of other mills also were established in Kendall County during the 1830s and early 1840s. Samuel Jackson, for example, started construction on a saw mill at Millington in Fox Township in the fall of 1834, with the assistance of George F. Markley. Samuel Jackson would later buy out Markley's interest in the mill.[93] Jesse Jackson also erected a saw mill at/near Millington in the fall of 1835. The dam for the mill extended from the south bank of the Fox to an island covered with heavy timber.[94] The 1839 United States Surveyor General plat for Fox Township illustrates a saw and grist mill at the mouth of Clear Creek at Millington[95] (see Supplemental Materials S25).

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[92] "Head" is a measurement of liquid pressure, as measured between two points in a vertical distance.

[93] Hicks, pp. 131-132, 165.

[94] Ibid., pp. 147-148, 165-166.

[95] USSG, Volume 27, p. 55.

Farther upstream in Fox Township, George B. Hollenback and a Mr. Eldering built a saw and grist mill at the mouth of Hollenback Creek circa 1837. These were located at the site of the appropriately named town of Millbrook. The saw mill was built first and the grist mill was erected shortly after. Their saw mill was equipped with a 24'-diameter overshot wheel. In 1841 Hollenback and Eldering sold their mill property Greeley and Hale of St. Louis.[96] The saw mill is illustrated on the U. S. Surveyor General plat of Fox Township[97] (see Supplemental Materials S26).

Big Rock Creek in Little Rock Township was a favored location for a number of mills. Its lower end was exploited by several individuals, including John Schneider (after relocating from Bristol) and Frederick Post, but its upper reaches were used as well. In 1836 Elisha Pearce and William Wilson erected a saw mill along the creek three miles above the future site of Plano. They also started to frame up a grist mill at this location, but this was never completed.[98]

Merrit Clark built a "corn mill" at Oswego at an early date, and later added a chair factory at his mill, which was in operation by 1836. Levi and Darwin Gorton built their own grist mill in Oswego circa 1837. The Gortons subsequently sold their mill to N. A. Rising, "who opened a store in connection with the mill." Rising also built a saw mill in Oswego in 1848, located opposite the grist mill he acquired from the Gortons. Rising operated the two mills and store until selling them to Mr. Parker in 1852. Mention also is made of another saw mill in Oswego, operated by a Mr. Morgan, which reportedly was in operation by 1836.[99] A dam and flouring mill are illustrated a short distance upstream from Oswego on the 1842 U. S. Surveyor General plat for Oswego Township (see Supplemental Material S27).

U. S. Surveyor General township plats also show many mills established along the Fox River in neighboring Kane County (to the north of Kendall). Four mill dams on the Fox are depicted in Aurora Township alone in 1838, located where the towns of Montgomery and Aurora would develop. The mills associated with these dams are not shown on the plat.[100] Boardman's Mill at Batavia is illustrated on the plat for this township, which is based on an 1839 survey. The plat does not indicate whether Boardman's was a saw or grist mill.[101] Three mills are

[96] Hicks, pp. 184-185.

[97] USSG, Volume 27, p. 55.

[98] Hicks, p. 231.

[99] Ibid., 171, 264.

[100] USSG, Volume 28, p. 37.

[101] Ibid., p. 38.

illustrated on the plat of Geneva Township (also surveyed in 1839) including a saw mill and dam at Geneva and two mills at present-day St. Charles.[102] A mill dam and saw mill also are illustrated at the present site of South Elgin in Elgin Township (surveyed between 1836 and 1840).[103] The early town of Elgin had a mill dam located upstream from it. This dam supplied waterpower to a mill located directly adjacent to it on the west bank of the Fox and also supplied power, via a mill race, to a second mill located downstream from it on the east bank of the river.[104] In Dundee Township (surveyed between 1836 and 1839), a saw mill is depicted a short distance north of the present town of West Dundee. A mill dam also is noted (but without graphic representation) approximately three-quarters mile north of the West Dundee saw mill, but with no mill(s) illustrated adjacent to it.[105].

U. S. Surveyor General plats show no dams or mills along the Fox River and its tributaries in La Salle County, bordering Kendall on the west, but several are known to have been built in this area in the 1830s. One of the earliest mills in the wider area was begun by William Davis across Indian Creek in 1831 near Earlville in Freedom Township. Davis completed the dam and then hired a millwright named Phillips to build the mill. This project soon caused troubles with the local Potawatomi, as the dam interfered with the migration of fish the Indians were reliant upon as a food source. Davis' stubborn refusal to dismantle the dam despite Potawatomi protests was a primary cause of the Indian Creek Massacre of May 21, 1832 in which fifteen whites (including Davis and millwright Phillips) were killed.[106] Another early La Salle County mill was Green's, which was built below the rapids on the Fox River at Dayton prior to 1836. Green's Mill and several other buildings are illustrated on a sketch map prepared during an 1836 survey of the Illinois and Michigan Canal. The dam associated with the mill was located well upstream from it—above the rapids—and consisted of two sections separated by an island in the river. A long headrace extended from the western end of the dam to the mill[107] (see Supplemental Materials S28). This location is now occupied by the Dayton Dam and a hydro-electric plant.

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[102] Ibid., p. 39.

[103] Ibid., p. 40.

[104] Ibid.

[105] Ibid., p. 41.

[106] Hicks, pp. 86-88.

[107] Illinois and Michigan Canal Records, "Survey and Field Notes," Record Group 491.108, Illinois State Archives, Book K-5. See also: Christopher Stratton and Floyd Mansberger. "An Archaeological Resource Management Plan for the Illinois and Michigan Canal State Trail." Interim report, prepared by fever River Research for the Illinois Department of Natural Resources (2001), fig. 8.

As prominent as saw milling was in the early days of settlement in Kendall County, the industry was in decline by the middle-to-late 1840s due to depletion of local timber resources and competition from northern pineries. Discussing Jesse Jackson's saw mill at Millington, Hicks writes:

> It met a great want, and for ten years it ran night and day, and sometimes, by necessity, on Sunday. There were at times two thousand logs on the ground, and the mill would be six months behind on orders. But the gang saws of Michigan and Wisconsin at last outstripped it, and left the aged frame to bleach in the sun until a year ago [1876], when the spring freshet bore it away on its bosom to rest in a watery grave.[108]

Water-powered grist/flour mills, by contrast, enjoyed a more stable business atmosphere (in theory at least) due to the continuing expansion of the agricultural base in the county. However, they too faced certain challenges. Being reliant on water power, the mills were subject to the whims of nature. Mills faced the prospect of low water conditions at times, particularly those on secondary streams. Hicks, writing in 1877, noted that, "All our streams are lower to-day than when the country was first settled."[109] At the other extreme, flooding also posed a threat. Hicks' 1877 history mentions several major freshets that caused extensive property damage, one occurring in 1840 and others in 1857 and 1868. The freshet of 1840 flooded all lowlands along the course of the Fox and carried away "two acres of splendid logs" at Millington.[110] That of 1857 occurred in early February and followed a heavy rain that melted the snow and broke up the ice on the Fox:

> All the bridges from Batavia to Ottawa were swept away, and the river was covered with boards, boxes, furniture, chickens, and debris of all kinds. At Oswego, Parker's saw mill was taken at a loss of three thousand dollars, and Rowley & English's lumber yard suffered a loss of one thousand dollars.[111]

One wonders whether this flood might also have washed out Nathaniel Hobbs and Orison Smith's mill dam in Bristol, which was referred to in the past tense when the property was conveyed to Andrew Arnold and Menzo Lane in 1863.[112] The

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[108] Hicks, 147-148, 165-166.

[109] Ibid., p. 185.

[110] Ibid., p. 212.

[111] Ibid., p. 286-287.

[112] KCDR, Deed Book Y, p. 10.

flood of 1868 partially washed out Black's (formerly Howe's) dam at Yorkville, at the cost of $2,000, and also washed out the dam for Frederick Post's saw mill in Little Rock Township.[113]

The Frederick Post just mentioned was one of the most prominent millers and dam builders in Kendall County during the middle nineteenth century. A native of Prussia, Post arrived in the county in 1850, and in 1857 built a dam and grist mill on Little Rock Creek. Post also operated saw mill on Big Rock Creek around this same period, in addition to building a lime kiln (with an 800-bushel capacity) to augment a smaller, pre-existing kiln. In 1867, he designed a "water wheel with additional buckets" for mills.[114] In 1870, Post embarked on his most ambitious project: the construction of a stone dam across the Fox River four miles below Yorkville. The dam took four years to complete, during which fifteen to eighteen men were regularly employed. The 1877 county history cited it as "certainly one of the finest river dams in the country." Brownell Wing of Big Grove later purchased one-half interest in the dam for $6,000 and began construction on a stone flouring mill that was to be equipped with four run of stones and four turbine water wheels, at the cost of $30,000. Wing's project was done in expectation of a railroad line running past the mill. Unfortunately for Wing, the railroad bypassed his mill by one-half mile. The project was beset by other troubles as well, and the mills never started production, despite the equipment having been installed. Post's dam, though "intended to be almost enduring as earth," began to be undermined by the river, and by 1877 a breach several rods in length had been made in it.[115]

Post's prominence in the history of milling in Kendall County was rivaled by that of John Schneider, who not only designed mills for others but also built and operated ones of his own. His construction of a saw mill on Blackberry Creek at Bristol in 1834 already has been discussed above. Following his sale of his Blackberry Creek mill, Schneider purchased another one located four miles to the west, along Big Rock Creek, which had been erected by a Mr. Ball in 1835.[116] Schneider later operated yet another mill along Big Rock Creek as well.[117] When

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[113] Ibid., p. 288, 374.

[114] Ibid., p. 120, 288. Post was not the only Kendall County resident to design new water wheels. In 1862, Walter Aitken of Newark designed a "current wheel, designed to rise and fall with the water."

[115] Hicks, p. 382.

[116] If Ball's mill had been erected in 1835, it is not depicted on the U. S. Surveyor General plat of Big Rock Township, which is based on a survey completed by Eli S. Prescott in 1837 (Volume 27, p. 56). Hicks (p. 154) mentions Ball as having built a mill on Big Rock creek, one mile south of Plano, and selling it two years later John Schneider.

[117] Kathy Farren, *A Bicentennial history of Kendall County, Illinois* (Yorkville, Illinois: Kendall County Bicentennial Commission, 1976), p. 25; Dickson, Elmer, *Place Names and Geographical Features of Kendall County, Illinois* (Chico, CA: Elmer Dickson, 2000), p. 25.

the 1850 census was compiled, Schneider reported his occupation as "millwright", as opposed to "miller" (despite his ownership of a mill at this time), which suggests that he was still involved in the design and/or construction of mills. He later successfully branched out into farming, acquiring real estate valued at $20,000. In the 1880 census, he would report himself as a "retired miller and farmer."[118]

Whereas John Schneider and Frederick Post appear to have been talented "jacks-of-all-trades," who personally designed and directed the construction of their mills and dams, such projects often involved the efforts of several individuals, with one party tasked to complete the mill and another the dam. Such was the case with William Davis' Mill on Indian Creek in La Salle County: Davis built the dam himself but hired an experienced millwright named Phillips to erect the mill. Another example is Nathaniel Hobbs and Orison Smith's mill project on Blackberry Creek. In this case, it was the former land owner, Clement Dwyer, who agreed to build the dam and mill race, while Hobbs and Smith were to focus on constructing the mill itself. Their respective obligations are outlined in the deed by which Dwyer conveyed the 10.66-acre mill tract to Hobbs and Smith. In addition to the land itself, Dwyer granted:

> …the right and privilege of taking all the water from said Blackberry Creek in a race along the side of the bluff on the second described piece of land hereby agreed to be conveyed to a Mill at or near the Southerly end of said second described piece of land And also the right and privilege to flow so much of the bottom land on the said Creek as will be necessary to obtain 12 feet fall at said Mill. And the said Dyer further agrees with said Hobbs and said Smith to construct and build at his own expense a Dam, across said Blackberry Creek at some point below the point mentioned as the place of beginning in the first described piece of land hereby agreed to be conveyed of sufficient height to throw the water of said Creek into said race and obtain said 12 ft. fall at said Mill and to dig, make and construct the race above mentioned and for the purposes aforesaid.

Dwyer further agreed to procure the title to any neighboring lands that might be overflowed due to the construction of the dam and elevation of the stream to 12 feet.[119]

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[118] USBC, "Population Schedule for Little Rock Township, Kendall County, Illinois (1850); "Population Schedule for Little Rock Township, Kendall County, Illinois (1870), p. 24; "Population Schedule for Little Rock Township, Kendall County, Illinois (1880), p. 15.

[119] KDCR, Volume P, p. 458.

Much of the foregoing discussion has related to grist and saw milling, but mill dams also provided water power to a number of other industrial concerns in Kendall County during the nineteenth century. Merrit Clark's chair factory at Oswego, established in 1836 at his mill, is one example.[120] Another is the Millington Woolen Factory, built in 1868, whose machinery was powered by a "great turbine" set within a race. This enterprise was short-lived, being shuttered by 1871-1872. Black's Paper Mill in Yorkville, opened in 1876, was located adjacent to Howe's old mill dam and had six water wheels powering its machinery[121].

Dams also played an important role in the development of an ice harvesting industry in Kendall County. Prior to the introduction artificial refrigeration, whatever ice was available was produced naturally and harvested on a seasonal basis, being sawn out in blocks from frozen ponds, lakes, streams, and rivers. Ice blocks harvested during the winter could be stored long-term in warehouses insulated with sawdust or other material. Ice was always in local demand to some extent, but its value as commodity was heightened significantly by the tremendous growth of Chicago and the introduction of refrigerated rail cars for the transportation of meat and fruit. In 1878, Esch Brothers and Rabe constructed a large complex of fourteen adjoining ice houses alongside Parker's Mill Pond at Troy, a short distance north of Oswego. In 1882, the company constructed a second building block comprised of six houses, which were longer and taller than the original fourteen. The activities of the ice company are well described in an 1883 article published in the *Kendall County Record*:

> The Oswego Ice Co. has twenty ice houses in all, located some ¾ mile north from the depot and connected therewith by telephone. They, and the men in their employ, compose nearly the entire population of Troy, a suburb of this village. Fourteen of their houses are in one block and built four years ago. Last fall they erected six enormous houses 150 ft. by 180 ft. The company also owns a number of tenant houses. The equipment includes a 35hp engine with endless chain. They can house 1,000 tons of ice daily. The ice is gathered from Parker's Mill Pond and is of superior quality, 15 inches thick, and perfectly free of anything but solid crystal ice.[122]

After being cut, the blocks of ice were directed onto a ramp and then lifted mechanically to the top of a tall frame "ice slide"—a type of trestle with five tiers—that ran along in front of the storage houses. Much of the ice harvested

[120] Hicks, p. 171.

[121] Ibid., pp. 375-377.

[122] *Kendall County Record*, 25 January 1883.

was supplied to the Chicago, Burlington, and Quincy Railroad, whose main line ran alongside the ice company's property. The railroad used the ice to refrigerate cars hauling dressed beef and other perishable foodstuffs. In one month alone, the railroad shipped out 124 cars loaded with ice.[123] Ice harvesting was a seasonal activity, and a large number of local laborers were engaged in the business. On January 16, 1879, for instance, the *Kendall County Record* reported that Oswego "has been very quiet the past week, most of the spare men are employed in the ice harvest (about 75 of them); great efforts are being made to fill all 14 houses this season."[124] The larger block of fourteen ice houses caught fire in March 1891 and burned to the ground.[125] Esch Brothers and Rabe had hoped to rebuild the block, but this was never done. The company continued to operate with its six remaining ice houses and was still in business in 1898.[126] Ownership of the property had transferred to the Knickerbocker Ice Company by 1903[127] (see Supplemental Materials S29 and S30). Waubonsie Creek, which enters the Fox at Owego, also was damned for harvesting ice. One such person who did this was Charles I. Smith, who was harvesting ice here as early as 1901.[128] Ice harvesting may have been carried out at other mill ponds, including that associated with the Blackberry Mills.

The industrial function of dams in Kendall County declined during the early twentieth century. However, the dams remained a presence on the landscape long after the industries for which they originally had been built had disappeared. Those on the Fox River saw a new purpose in the 1950s, when plans were laid for making the river completely navigable for pleasure craft from its mouth to the Chain-of-Lakes in McHenry County. This effort—known as the Stratton Project Dam System (after Governor William G. Stratton)—would require a series of dams equipped with locks along the river. The old timber-cribbed Howe Dam at Yorkville was removed and replaced with one built of concrete in 1952. Erosion at the base of the new dam produced a dangerous roller effect, which resulted in the dam having to be replaced within a decade. Its successor was built in 1960-1961 and named the Glen D. Palmer Dam, in honor of the former head of the State Game Farm at Yorkville. A new dam also was built across the Fox in

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[123] Roger Matile, pers. comm., 2 April 2003.

[124] *Kendall County Record*, 16 January 1879

[125] Ibid., 23 March 1891.

[126] Sanborn-Perris Map Company, *Oswego, Illinois* (New York: Sanborn-Perris Map Company, 1898).

[127] Ogle and Company, p. 34.

[128] Christopher Stratton, "Cultural Resources Evaluation of Five Dams and Two Riffles on Waubonsie Creek in Oswego, Kendall County, Illinois," report prepared by Fever River Research for the Illinois State Museum Society and the United States Army Corps of Engineers (2003), pp. 4, 6. Smith's dam is discussed as the "Lower Phund Dam" in this report.

Montgomery in Kane County during this period. Other dams were planned as well, but objections from concerned citizens ultimately put a halt to the Stratton Project Dam System before its completion. The dams at Yorkville and Montgomery were the only ones completed in the project.[129]

Once regarded as symbols of industry and progress, the Fox River dams are more commonly seen today as safety and environmental hazards. The modern ethos calls for dams along the river and its tributaries to be removed (where feasible) or otherwise modified in order to enhance water quality, restore aquatic habitats and fisheries, and facilitate safer, unimpaired water recreation. Implementation of a dam removal program took a huge step forward with the passage of the Illinois River Watershed Restoration Act (20 ILCS 3967) in 1997. This act acknowledged that the restoration and conservation of the Illinois River Watershed—including the Fox River—was in the ecological and economic interests of the citizens of the State. It also established an Illinois River Coordinating Council, whose duties included working "with local communities and organizations to encourage partnerships that enhance awareness and capabilities to address watershed and water resource concerns and to encourage strategies that protect, restore, and expand critical habitats and soil conservation and water quality practice" and encouraging local communities to development watershed management plans.[130] One group organized soon after the passage of the 1997 act was Fox River Ecosystem Partnership, which remains a vocal advocate for dam removal.[131]

The Glen D. Palmer Dam provides a case study of a "problem" dam that has been modified to fit the current environmental ethos. Scouring at the base of the dam was recurring problem. This produced a strong undertow, and twenty-six people drowned at this one dam alone between 1961 and 1993. After multiple studies, it was decided to add a stepped spillway in front of the existing dam (thereby eliminating the original ogee profile). In addition, a Denil fish ladder was added on the north end of the dam to allow the migration of fish upstream. Another feature to the reconfigured dam was a canoe and kayak chute at the southern end. The modifications to the Glen D. Palmer Dam were carried out between 2006 and 2010.[132] It is one of fourteen dams still present on the Fox River in Illinois.[133]

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[129] Roger Matile, "The Evolution of the Fox River Dam Theory," *Ledger-Sentinel*, 5 July 2007.; IDNR, "Yorkville Dam".

[130] Illinois River Watershed Restoration Act (20 ILCS 3967/20)

[131] Fox River Ecosystem Partnership, "Dams", http://www.foxriverecosystem.org/dams.htm.

[132] IDNR, "Yorkville Dam."

[133] Fox River Ecosystem Partnership, "Dams."

4. Dam Construction Techniques

Webster's *American Dictionary of the English Language* (1854:298) defines a dam as "a mole, bank, or mound of earth, or any wall, or a frame of wood, raised to obstruct a current of water, and to raise it, for the purpose of driving mill-wheels, or for other purposes."[134] The function of a dam is to impound water, which raises its height or level, and to discharge it in a controlled manner (creating "head" pressure, which is in turn converted into mechanical energy for industrial purposes).

On an international level, a wide range of historians, archaeologists, and engineers has studied dams.[135] The history of dams project back at least 4½-5 millennium, and represent some of the first large scale efforts by mankind to alter the landscape for beneficial reasons. Although dams have been a fixture of the American landscape since the earliest days of settlement, the level of documentation on the smaller structures once associated with the smaller grist mill or saw mill is limited—particularly for Illinois and the Midwestern states. One of the earlier primary sources relevant to mill dam construction in the United States is Oliver Evans *The Young Mill-Wright and Miller's Guide*, initially published in 1795.[136] This work contains great detail on fluid mechanics. Additionally, although the book goes into relatively great detail on the construction of the mills and their internal machinery, it is rather light on the discussion of mill dams. In his short Chapter VIII ("On Building Mill-Dams, Laying Foundations, and Building Mill-Walls"), Evans gives the following advice:

> There are several points to be attained, and dangers to be guarded against, in building mill-dams:
>
> 1. Construct them so, that the water, in tumbling over them, cannot undermine their foundations at the lower side.
> 2. And so that heavy logs, or large pieces of ice, floating down, cannot catch against any part of them, but will slide easily over.

[134] Webster (1854:724) defines the term mole, as used in this context, as a mound or massive work formed of large stones laid in the sea by means of coffer dams, extended either in a right line or an arch of a circle before a port, which it serves to defend from the violent impulse of the waves."

[135] Some of the more recent works include: N. Schniffer, *A History of Dams: The Useful pyramids* (Rotterdam: Balkema, 1994); Norman Smith, *A History of Dams* (London: P. Davies, 1971); and Christine Macy, *Dams* (New York: W. W. Norton, 2010). Also of interest is Louis C. Hunter, "Water power in the Century of the Steam Engine," in Brooke Hindle, ed., *America's Wooden Age: Aspects of Early Technology* (Tarrytown, N.Y., 1975), and Louis C. Hunter, *A History of Industrial Power in the United States, 1780-1930. Volume One: Waterpower in the Century of the Steam Engine* (Charlottesville: University Press of Virginia, 1979).

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[136] Oliver Evans, "*The Young Mill-Wright and Miller's Guide,*" (Philadelphia: Lea and Blanchard, 1848).

> 3. Build them so that the pressure or force of the current of the water will press their parts more firmly together.
> 4. Give them a sufficient tumbling space to vent all the water in time of freshets.
> 5. Make the abutments so high, that the water will not overflow them in time of freshets.
> 6. Let the dam and mill be a sufficient distance apart; so that the dam will not raise the water on the mill, in time of high floods.

Evans briefly discusses most of these "rules," albeit in footnote format. Of special interest, Evans comments that "if the dam be built of stone, make it in the form of an arch or semicircle, standing up-stream, and endeavour to fix strong abutments on each side, to support the arch; then, in laying the stones, put the widest end upstream, and the more they are forced down stream, the tighter they will press together. All the stones of a dam should be laid with their up-stream ends lowest, and the other end lapped over the preceding, like the shingles or tiles of a house, to glance every thing smoothly over…."[137] Additionally, Evans gives two illustrations of interest to this study—one of a small log dam (Plate X), and the other of a frame dam, complete with the details of an expedient pile driver for driving piles in soft creek or river beds (Plate XXVI) (see Supplemental Materials S31).[138] It would appear that the builder's of the Blackberry Creek Dam followed neither of these suggestions.

In 1855, William Hughes published *The American Miller and Millwright's Assistant*, which was basically a re-worked and updated version of Evan's earlier work.[139] As with Evans, Hughes spends little time discussing the construction of dams, providing a single four-page chapter entitled "On the Construction of Mill-Dams." Hughes initiates this chapter with the following statement:

> Mill-dams are generally a source of great expense, in keeping them in repair, when constructed out of poor materials. There are as many options on the proper way to build them as there are mill-dams in use. Some prefer stone, some clay, and others brush, logs, and every conceivable material of such nature. But, in building mill-dams, the first thing to be looked at is the location where the dam is to set, of what kind of a foundation it is to set on, whether a soft bottom or hard; in other words, clay or stone foundation by

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[137] Evans, p. 200.

[138] Evans elaborates on this "pile engine" ("Pile Engine," page 344) and timber dam ("Of Building Dams on Soft Foundations," page 346) in his Chapter 23, which was contributed by the New Jersey millwright William French.

[139] William Hughes, *The American Miller and Millwright's Assistant* (Philadelphia: Henry Carey Baird, 1859).

> nature. If stone, the expense is not half as great as clay or other soil.[140]

Hughes clearly recommends the use of stone for dam construction, but is realistic regarding the availability of stone as a building material, and states that

> As to the description of dams which we should recommend where stone are not handy, would be a frame dam, they being more permanent and capable of resisting the attacks of musk-rats and high water.

Hughes continues by elaborating on the construction of frame dams, which are often better suited for "soft foundations" (river conditions with non-rock, or alluvial sediments on the river bottom). In this discussion, Hughes spends a considerable amount of time discussing the foundation work associated with this dam.

One of the more interesting sources of information detailing the smaller mill dams of the middle nineteenth century is James Leffel and Company's *The Construction of Mill Dams*, which was first published in 1874. James Leffel was a Springfield, Ohio publisher who produced the monthly periodical *Leffel's Illustrated Milling and Mechanical News*.[141] In 1874, Leffel and Company re-packaged the articles from his magazine dealing with dams and published them in book format, accompanied by many full-page illustrations of small mill dams. Although many of the dams illustrated in this work were only for design purposes, several of them were examples of actual dams recently constructed in the United States.[142] The work represents an excellent representation of the small mill dams being constructed throughout the United States during the middle nineteenth century (circa 1850s-70s), several of which are illustrated within the accompanying Supplemental Materials (S32 through S37). Leffel and Company's work illustrates the great variability in dam construction at the mid-nineteenth century. Although stone arch dams are illustrated, the dam profiles for these structures are relatively wide-ranging in design. Although as yet not standardized, a relatively modern dam design—featuring an apron with an ogee profile on its downstream side—was illustrated as an example (Supplemental Material S37).

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[140] Hughes, pp. 117-118.

[141] Leffel and Company, *The Construction of Mill Dams* (Springfield, Ohio: James Leffel and Company, 1874). Leffel, who also was a hydraulic turbine manufacturer, established his monthly serial in 1871. By 1886, the periodical appears to have been published from New York City (http://babel.hathitrust.org/cgi/pt?id=mdp.39015047630630#view=1up;seq=15).

[142] Leffel and Company illustrates two examples of dams in Illinois: "The Moline Dam" and the "Lock and Dam at Henry, Ill."

The United States Bureau of the Census published in two parts its *Reports of the Water-Power of the United States* in 1885 and 1887, based on statistics and information compiled during the Tenth Census in 1880. These volumes, which were prepared by engineer William P. Trowbridge, are an excellent survey by geographic region of the water-power facilities in operation in the United States at that time. Although this work spends much of its nearly 2,000 pages discussing the physical characteristics of the mills and their layout by region, it is less detailed with regard to information on dams. Nonetheless, it does give some interesting details of the wide range of dams in use at that date. Of particular interest to this study is the chapter entitled "The Mississippi River and Some of its Tributaries" (in Part II), which contains information on the Illinois River and its tributaries, as well as the Rock River. The dams illustrated include a variety of stone, frame and log structures then in use (see Supplemental Materials S38).[143] Unlike Leffel and Company's earlier work, which presents many idealized dams, this work presents detailed information on extant dams in use during the early 1880s.

Historic dams can be characterized by a couple of methods. One common method is by their material of construction (i.e. embankment, brush, log, timber, stone, or concrete).[144] The Blackberry Creek Dam is an excellent example of a mid-nineteenth century stone dam. Another common method of describing dam types is by their basic manner in which they resist the pressures of the impounded water. The simplest dams, which counter the forces of the impounded water by the shear weight of the materials used in their construction, are referred to as gravity dams. Simple embankment dams, rock-filled cribbed dams, and many stone dams represent examples of gravity dams. The Blackberry Creek dam also represents an excellent example of a nineteenth century gravity dam. During the nineteenth century, dam profiles gradually evolved towards the development of a distinctive triangular form with a vertical upstream face being recognized as the most advantageous to resist the water pressure. This profile was not fully understood until the middle to later nineteenth century and was employed sporadically. Indeed, most of the stone dams featured in Trowbridge's 1880s-era study are illustrated with a straight profile (see Supplemental Materials S38). Similarly, the development of hydraulic-cement mortars (such as that used in the Blackberry Creek Dam) during the early to middle nineteenth century greatly improved on the durability of these masonry structures.

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[143] United States Bureau of the Census, *Reports on the Water-Power of the United States, Part I and Part II*, by William P. Trowbridge, Volumes 16 and 17 of the Tenth Census of the United States (1880), (Washington: Government Printing Office, 1885, 1887).

[144] Some researchers may consider embankment dams a category in itself, separate from gravity dams. In essence, an embankment dam is an earthen gravity dam. Historically, embankment dams had problems with soil permeability, as well as achieving an adequate height, and generally were used for smaller structures. Serious difficulty arose with these structures when they were overtopped, often causing catastrophic failure—the Johnstown Flood of 1889, in Pennsylvania, being a notable example. It was not until soil science advanced in the 1920s, were embankment dams considered safe for larger impoundments (cf. Schniffer, 1994).

By the middle to late nineteenth century, more sophisticated dams were being developed that incorporated an arch in their design, with the convex side of the arch pointing upriver. Dams of this design, which are often referred to as "arch dams," resist the force of the impounded water by transferring the thrust of the impounded water through the walls of the dam to the adjacent valley walls where the ends of the dam are firmly anchored (see Supplemental Materials S38 for comparison of stone gravity and stone arch dams, as illustrated by Trowbridge in 1885). This method of construction allowed for the construction of taller, thinner walled structures. Although both Evans and Leffel and Company make mention of this method of construction, it had as yet not become a standard practice. The Blackberry Creek Dam exhibits only a very slight deflection, and was more-or-less constructed in a straight line. By the early years of the twentieth century, however, this arched-form of construction was fairly common.

Ladshaw refers to arch dams as "compression dams" (in which materials resist water pressure by compression, transferring force to adjacent valley edges).[145] Although Ladshaw claims one of the first arch dams was built in about 1883 in France (the Zola Dam), both Evans and Leffel and Company illustrate such structures. Ladshaw designed a special class of arch dam, which he referred to as a Differential Arch Dam (also known as a buttress dam). He improved on the arch dam by designing structures with a series of smaller arches in series, which transferred the forces to buttresses incorporated into the downstream side of the dam at the junction point of each arch (as opposed to the valley edge), adapting the arch dam to wider valleys.[146] Development of hydraulic cements, Portland cements, and reinforced concrete during the later nineteenth and early twentieth centuries further influenced the design of the modern dam. The Hoover Dam, designed in 1924 and constructed between 1931 and 1936, represents an extremely large arch dam built of modern materials.

The earliest dams in Illinois, as well as the United States, were embankment and gravity dams. Although mill dams in Illinois were, no doubt, constructed by a variety of methods and materials during the early years of settlement, very little really is known about the construction materials and methods employed on these structures. Log and frame dams similar to those illustrated in Evans and Leffel

[145] Although many frame dams are often considered gravity dams, they should also be considered a form of this type of dam, with their supporting struts transferring the force of the water to the underlying foundation rock or support timbers, as opposed to the valley edges. It is not the weight of the frame dam that resists the forces of the water, but the compressive forces of the timber struts. Nonetheless, these timber dams are often reinforced by placing large quantity of rock fill between the struts, and on the supporting sill plates or foundation sills, to help hold the dam in place—thus reinforcing the designation of these structures as gravity dams.

[146] George E. Ladshaw, *The Differential Arch Dam "D.A.D.": An Elementary Treatise on Masonry Dams for the use of Parties Interested in Water Power Development, Including a General History of the Subject* (Spartanburg, South Carolina: Carolina Spartan, 1906).

and Company were probably relatively common at one point in time.[147] Unfortunately, few of these early dams have been documented in Illinois. Part II of *Reports on the Water-Power of the United* States, compiled by Trowbridge, documents the presence of a series of three simple, frame dams (with a base width of 66') newly constructed along the upper reaches of the Kankakee River near Wilmington in the 1880s.[148]

The little archaeological evidence we have of dams from the early settlement period in Illinois substantiates the impression that simple cribbed dams were fairly common. These dams were made of a series of adjoining cribs, or pens, framed with logs or timbers laid horizontally and notched or pinned at the corners. The dam might be one or multiple cribs wide. After being framed up, the cribs were filled with stone, which acted as ballast **(**see Supplemental Materials S39).

Perhaps the most famous example of a cribbed dam in Illinois is that associated with the Rutledge-Cameron Mill at New Salem in Menard County. This was a saw and grist mill constructed in 1828-1829 on the banks of the Sangamon River. Archaeological investigations conducted in the 1930s uncovered the remains of the mill and dam, which served as the basis for the eventual reconstruction of these structures (see Supplemental Materials S40). The reconstructed Rutledge-Cameron Mill Dam extends above the water line of its mill pond and has top of its cribs uncovered, with stone ballast exposed. A more typical arrangement for timber dams, however, was for the cribs to be capped with planking (for scour protection) and for there to be some overflow over the top of the dam. An excellent example of this was the timber-crib dam built across the Du Page River at Channahon in Grundy County. The Channahon dam was construction in association with the Illinois and Michigan Canal, serving to create a basin in the river that was level with the sections of the canal to either side of it; functionally and structurally, however, it was similar to a timber-cribbed mill dam. The Channahon dam had three parallel rows of cribs filled with stone (see Supplemental Materials S41). Leffel and Company illustrated a similar, massive cribbed dam constructed across the Illinois River at Henry, Illinois. Completed in 1870, this dam was 35' wide at its base, 11' high, and 540' long[149] (see Supplemental Materials S36).

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[147] Although Hunter (p. 54) claims that timber dams were not common in the United States, one might question this statement in regard to the smaller mill dams constructed throughout the Midwest where timber resources were plentiful (Hunter, 1979).

[148] USBC (1887), p.133.

[149] Leffel and Company, pp. 148-156.

In Kendall County, Howe's Dam at Yorkville reportedly was a timber-cribbed structure.[150] The dam for Clark's Mills at Oswego also was of timber or log construction, as the 1877 county history mentions Levi Gorton and William Wormley as having "helped put the first *stick in the dam* [italics added]."[151] The majority of first-generation dams constructed in the county likely were of timber or log construction as well.

Several other early cribbed dams have been documented archaeologically in Illinois. One of these is Thompson Mill on the Kaskaskia River in Shelby County, built in 1843 (see Supplemental Materials S42).[152] Another potential example of a cribbed dam is at the Meneley Mill Site (11V122) in Vermilion County. This mill, located on the Middle Fork of the Vermilion River, was built in 1837 and reportedly survived until about 1907. Begun as a saw mill, its owners later expanded its operations to grist milling as well. Archaeological investigations conducted at the mill site found "at least two parallel rows of timbers currently leaning at an angle and pointing downstream. Based on their location and relationship to the other structural remains, it is likely these timbers represent remnant of a milldam/weir."[153]

The Blackberry Creek Dam was part of the second generation of dams constructed in Kendall County. The dam stands out from its predecessors in respect to the use of stone in its construction. However, it remains unclear exactly how representative the dam was of its generation. Clearly, the use of stone represented a more expensive material, resulting in the construction of a more substantial structure designed for greater longevity. An ideal comparison would be Hobbs and Smith's mill dam, which was contemporary with the Blackberry Creek's Dam and located upstream from it, but unfortunately we have no structural information on the dam outside of its height—12'. A recent survey of the site of Hobbs and Smith's dam site found no obvious masonry remains in or immediately adjoining Blackberry Creek. However, it did find a substantial

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[150] Illinois Department of Natural Resources [IDNR], "Yorkville Dam," http://www.dnr.illinois.gov/WaterResources/Pages/YorkvilleDam.aspx. This source refers to the Howe Dam as "an old wood crib dam."

[151] Hicks, p. 171.

[152] Christopher Stratton and Floyd Mansberger, "Cultural Resources Evaluation of the Thompson Mill Site, Dry Point Township, Shelby County, Illinois," report prepared by Fever River Research for Michael and Deana Dunaway (2003).

153 Brian Adams and Ilona Matkovski, "Archaeological Investigations at 11V122, a Historic Mill (Meneley Mill) and Prehistoric Site in Vermilion County, Illinois," report prepared by Public Service Archaeology and Architecture Program (Urbana, Illinois) for Sybil Mervis (2009), pp. 37-38, 42. The report conjectured several possibilities as to the specific function of these timbers: 1) they represent vertical members of individual log cribs; 2) they are a stockade-like structure of parallel posts; or 3) they represent remains of a millrace intended to direct water to the mill.

earthen berm present on the south bank of the creek here, running perpendicular to the stream. The berm rises approximately 6' above grade, is 18' wide, and extends from the edge of a terrace towards the creek for a distance of 170', terminating 45' from the stream bank.[154] The age of this berm is not known, but one must question whether it may have been part of Hobbs and Smith's dam or be otherwise associated with their mill project (see Supplemental Materials S44). One possibility is that Hobbs and Smith's had a stone dam across the main channel of the creek but had an earthen dam extending off this, of which the berm described above is a remnant.

Dam design in the county clearly was trending toward masonry construction as the nineteenth century progressed. The premier example of this was the large stone arch dam Frederick Post built across the Fox River four miles below Yorkville between 1870 and 1874. It was described as "in the form of a segment of a circle, with the convex side up stream, twelve feet thick and eight feet high, laid in cement, and cost $15,000." [155] Post's dam was longer and more massive than that at Blackberry Creek. Yet, it was destined to be breached within a few years of its completion.

By circa 1900, reinforced concrete was becoming the favored material for dam construction (see Supplemental Materials S45). One early example of a reinforced concrete dam in Kendall County was that built by Robert I Smith across Waubonsie Creek in Oswego in 1908. This dam measured approximately 115' in length and served to form a pond for harvesting ice.[156] (see Supplemental Materials S46). All subsequent large dam construction in Kendall County would employ reinforced concrete.

5. Bridge Abutments

The Blackberry Creek Dam is closely associated, both historically and physically, with the bridge crossing over Blackberry Creek at River Road/Street. Several generations of bridges have been built at this location, and a remnant stone abutment from the circa 1890-1900 iron truss bridge still remains in place, directly adjoining the western end of the dam.

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[154] A 60'-wide section on the northern end of the berm has been destroyed, and dirt lane presently passes through this opening.

[155] Hicks, p. 382.

[156] Christopher Stratton, "Cultural Resources Evaluation of Five Dams and Two Riffles on Waubonsie Creek in Oswego, Kendall County, Illinois," report prepared by Fever River Research for the Illinois State Museum Society and the United States Army Corps of Engineers (2003), pp. 4, 6. Smith's dam is discussed as the "Lower Phund Dam" in this report.

The purpose of a bridge abutment, regardless of its age and type of construction, is to support the ends of the bridge and resist the pressure caused by the load, and also to hold back the earth in the adjoining road embankment. Abutment design in Kendall County (and elsewhere in Illinois) evolved over time. From the 1830s to the early twentieth century, it experienced a transition in respect to building materials similar to that seen with dams, progressing from timber to masonry (stone and brick) and finally to reinforced concrete.

Comprehensive data on the first generation of bridges built in Kendall County is lacking, but what is known points to a heavy reliance on timber construction for the bridge span itself and possibly for the abutments as well. Timber was in abundance during the early years of settlement and could be procured more easily and at lower cost compared to brick, stone, or iron. It was also a material the typical craftsman was very familiar with and did not necessarily require the same degree of expertise in fashioning bridges that masonry did. Larger and more complex timber-frame projects certainly did require "master" builders, but shorter timber spans over streams were within the scope of the average, competent carpenter/builder.

The first known bridge over Blackberry Creek at River Street dates to 1849 and was built under the supervision of (if not by) Leonard Thorp, During their September 1849 term, the Kendall County Commissioners' Court ordered: "That Leonard Thorp Supervisor of Road District No. 12 be authorized to go on and Plank the bridge already commenced by him as Supervisor over Blackberry Creek near Bristol and present his bill to the county court for adjustment and the clerk notify the Supervisor of the same"[157] At a minimum, this authorization suggests that the bridge had a plank decking, but the remainder of the structure quite possibly was of frame construction as well, being either timber-frame or a more simple "pole" span on pilings. The breadth of Leonard Thorp's experience in the construction trades is unknown and open to some question. In 1850, the 49-year-old Thorp was engaged as an innkeeper in Bristol Township. That being said, the fact that Thorp's two eldest sons were involved in the construction trades—one as a carpenter and the other as a mason—may be a sign that their father had been as well previously.[158]

A search of the Kendall County Supervisors' Records found several references to timber bridges during this same period. Records from January 18, 1848 mention a "pole bridge" over the Fox River. This bridge likely rested on timber pilings driven into the river bed. In 1849, the records discuss the "Rock Creek Bridge" for which millwright John Schneider was to provide the "timbers."[159]

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[157] Kendall County Supervisors' Record, Book A, p. 333.

[158] USBC, p. 3.

[159] Kendall County Supervisors' Record, Book A, pp. 244, 332.

None of the references cited above comment on the method of construction employed for the abutments of the bridges in question. However, frame (timber or plank) bridge abutments are known to have been built in Illinois during the frontier period. One example is a bridge at Thorton Road in Cook County, plans for which are located in the Illinois and Michigan Canal Records at the Illinois State Archives. The construction plans for this bridge are undated but are believed to be from the late 1830s or 1840s, during the period the canal was under construction. They call for the bridge abutments to be of heavy timber construction, using posts, sills, and diagonal bracing. Planking was to be attached to the rear side of these framing members to hold back the soil in the embankment. The sill plates were exceptionally long—more than double width of the bridge—to provide a wide, firm base for the abutment (see Supplemental Materials S47).[160] Other bridges along the Illinois and Michigan Canal had masonry abutments from an early date. Interestingly, a number of these bridges were located immediately downstream from (and some cases directly abutting) a dam, similar to the situation at Blackberry Creek in Yorkville[161] (see Supplemental Materials S48-49).

One major drawback to timber bridge abutments was their relatively short lifetime due to their susceptibility to decay—even with the use of relatively rot resistant oak timber. Expedient during the frontier period when county finances were limited and anything that eliminated a ford crossing was considered an improvement, timber abutments eventually were supplanted with masonry ones offering more permanence. In Kendall County, this transition seems to have been underway by the late 1850s, with stone being a favored building material. When Frederick Post built a bridge across the Fox River near the mouth of Big Rock in 1859, for example, he used stone abutments for the span.[162] Subsequent bridges erected on the Fox in the nineteenth century also employed stone abutments and piers.

We have no detailed descriptions of stone bridge abutments in Kendall County from the nineteenth century, but a comparative example is offered by a construction contract let for a bridge in Coe Township, Rock Island County in 1863. The contract specified a bridge 15' wide and 30' wide that was to be a timber construction and rest on abutments and a central pier built of stone. The abutments were "to consist of good Rock laid in dry wall of the length of 16 feet

[160] "Bridge at Thornton Road" (n.d.), Record Group 491.106, Illinois State Archives (Springfield). See also: Stratton and Mansberger, "An Archaeological Resource Management Plan," fig. 31.

[161] Map of improvements of James Moore on Block 6 of North Joliet, "Contract Bids for 1836," Record Group 491.036, Illinois State Archives (Springfield); Plat of the McKee Tract, Plats, Record Series 491.105, Illinois State Archives (Springfield).

[162] Hicks, p. 29

14 feet high with base of 2 ½ feet tapering to 1 ½ feet at the top of said Butments [sic] batter toward each bank…."[163] The basic attributes of these abutments—a tapered thickness from base to top and battered sides—were characteristic of stone bridge abutments of this period and later on. Another aspect of the Coe Township bridge contract that is of note is the requirement that the "foundation of Butments [sic] and pier consist of green Elm Plank 2 inches thick double."[164] The foundation of elm planking presumably was to serve as a type of spread footing or grillage to prevent settling. A similar technique seems to have been employed at the Blackberry Creek Dam Site but with much larger timbers, as will be discussed below.

Even with their more substantive character, the second generation of bridges in Kendall County was not immune to natural disaster. The flood of 1868 damaged the bridges across the Fox at Oswego and Bristol, and carried away three spans of the recently completed bridge at Millington. It also completely destroyed Frederick's Post's nine-year-old bridge, with the exception of a single stone abutment.[165]

Stone abutments continued to be utilized even as Kendall County made the transition from timber-frame to iron-truss bridges in the late nineteenth century. The iron-truss bridge between Bristol and Yorkville, which was discussed as early as 1883, was built was with stone abutments and piers, as did that built across the Fox at Millbrook in 1897.[166] The latter bridge followed a Pratt Through-Truss design and rested on cut-stone piers and abutments. The bridge erected over Blackberry Creek at River Road circa 1890-1910 was very similar in design to that at Millbrook, though had a much shorter span and lacked a central pier.

One feature often lacking in nineteenth-century bridge abutments was wing walls. Though not entirely absent, wing walls were not as consistently employed on abutments in the nineteenth century as they would be by the early twentieth century. Hard-learned experience, however, would show that wing walls were essential to retaining the integrity of an abutment, as they significantly reduced the possibility of scouring during a flood episode. Straight stone bridge abutments sometimes were augmented with wing walls of reinforced concrete at a

[163] Coe Township (Rock Island County, Illinois) Treasurer's Account Book.

[164] Ibid.

[165] Hicks, p. 374.

[166] Kendall County Supervisors' Records from March 1883 discuss a petition by the Road Commissioners of Bristol Township to construct a bridge across the Fox between Bristol and Yorkville. The Wrought Iron Bridge Company of Canton, Ohio was recommended as the contractor (Kendall County Supervisors' Records, Book B, pp. 491, 496.). The Millbrook Bridge Its construction was arranged by the Commissioners of Fox Township (Bridgehunter.com,, "Millbrook Bridge, Kendall County, Illinois (http://bridgehunter.com/il/kendall/millbrook/).

later date, as was done with the River Road Bridge. These early "additive" wing walls were fairly short compared to later ones.

By the first decade of the twentieth century, bridge construction in Kendall County was entering a new phase, as the State of Illinois began to implement a comprehensive program of bridge design and promote the use of reinforced concrete for bridge spans and abutments. This process started with the creation of the Illinois Highway Commission in 1905.[167] From that date, most of the newly constructed bridges in the county had reinforced concrete foundations, piers, and abutments with wing walls.

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

The Blackberry Creek Dam is a stone substantial structure stone that spans Blackberry Creek immediately north of the River Road Bridge in Yorkville. The dam is built of irregularly coursed masonry and rises approximately 12' above the water line on its downstream side. Though appearing straight at casual glance, the dam actually makes a modest (approx. 2-degree) bend, which occurs a short distance west of its midpoint. The west end of the dam abuts a historic bridge abutment built of regularly coursed, rock-faced, ashlar stone. The stone abutment was left in place and augmented with concrete additions when the existing bridge—built in 1959—was erected. The ends of the abutment are slightly battered.

B. Description of Exterior:

1. Overall Dimensions:

The dam measures approximately 87' in length, is 6' wide at its top, and 8' wide at its base. It rises 12'-4" above the flow line of Blackberry Creek at its downstream (or south) side. The stone bridge abutment measures approximately 24' long and is 2'-4" thick near its base.

2. Foundations:

The dam appears to rest on solid bedrock in the creek bed for most of its length, and hence has no distinct foundations as such. The east end of the dam extends into the stream bank for an unknown distance but sufficiently

[167] Christopher Stratton and Tim Simandl, "Illinois Historic American Buildings Record of the Allerton Park Sangamon River Bridge (IL HAER No. PI-2009-1)," prepared by Fever River Research for the University of Illinois—Urbana (2011). This report provides a background for concrete bridge construction in Illinois during the early twentieth century.

far enough to prevent the water from cutting around it (suggesting that it too may be anchored on bedrock or a rock shelf).

Excavation work done around the west end of the dam as part of the bridge replacement project revealed a line of large oak timbers running beneath and perpendicular to the dam. The timbers appeared to run beneath the western 8'-10' feet of the dam rather than its entire length. Similarly, additional timbers were found behind and perpendicular to the stone bridge abutment. Most were not able to be examined *in situ*, though the bridge contractor did take some photographs of them prior to their removal. The timbers generally were hewn on two sides, with the other sides being left in the round. Their dimensions varied, with the diameters ranging from 9" to 1'-4" and lengths generally in excess of 11' (14'-1" in one case). Exact lengths were difficult to determine on account of many of the timbers having been shattered or cut during the course of their removal. Some timbers had mortises or tenons present while others had a series of holes drilled into them, presumably for receiving wood dowels or pins. The cut of one timber suggests that it was intended to serve as knee or diagonal brace. These various features suggest that the timbers were joined together as part of a structure(s) at one point in time. Yet, they were laid independent of one another beneath the dam and bridge abutment, typically being centered several feet apart. The engineer supervising the bridge replacement stated that some of the timbers actually appeared to be set within channels carved out of the soft, shale bedrock here.[168]

The general positioning of the timbers suggests that they were used as a sort of spread footing for the dam and bridge. It is possible that such a footing was installed as a precaution against settling and/or undercutting. Whereas the eastern end of the dam is securely anchored to a natural stream bank hugging a bluff base, its western end (where the timbers were placed) is tied more tenuously into an embankment that may have been raised and possibly extended over time for River Road. The timbers certainly appear to represent salvaged building material. However, their point of origin remains open to conjecture. One possibility is that they are associated with an earlier timber-frame bridge abutment and were reused when the existing stone abutment was constructed. They may also have been salvaged from another building or structure. Questions also remain as to the sequence of events involving the timbers' installation. The fact that some of the timbers extend beneath the dam presents the possibility that they were installed before those beneath the stone bridge abutment; if the timbers are all contemporary, it would suggest that the western end of the dam was rebuilt when the abutment was constructed, but there is no

[168] Todd Wells, pers. comm., 8 April 2013.

obvious evidence of such a rebuilding/repair episode in the dam's stonework. Another scenario—one considered more plausible—is that were two generations of the stone abutments at the western end of the bridge: an earlier one built of rubble masonry that was contemporary with (or slightly pre-dated) the dam; and a later one built of ashlar masonry circa 1890-1900 directly in front of the earlier abutment. The timbers thus would have served as type of grillage footing for the original stone abutment and the western end of the dam. Representative photographs of the timbers discovered beneath the dam and bridge abutment—showing them both *in situ* and after removal—are included with the Supplemental Materials (see S52 through S57).

3. Structural System, Framing:

The dam is built with a grayish crystalline limestone quarried locally.[169] The stone is rough cut and irregularly coursed, but still dressed sufficiently on the dam's exterior faces to present a neat appearance overall. The coursing varies between 3" and 10" in thickness, with that towards the base of the dam being much thicker (9"-10" on average) than that towards the top (4"-5" on average). Some of the stones used for the lower courses are quite massive, being as much as 4'-6" long and nearly as wide. The interior of the dam (inside of the face stones) was filled with stone rubble and mortar. The mortar was mixture of sand and lime, light brown in color, but very hard for a non-Portland-cement-based mix. It probably represents a type of hydraulic cement. The mortar had suffered some deterioration (particularly on those joints that were exposed) but generally held up very well over time.

The dam is topped with a reinforced concrete cap, which is 11" thick on the front (downstream) side of the dam but increases in thickness towards the back (upstream) side. The top surface of the cap is slightly tapered, with the taper rising from front to rear. The cap is neatly finished for 5'-6" to 6' of its width (as measured from the front of the dam) but

[169] This stone is described in a number of publications, including the 1870 *Geological Survey of Illinois, Volume IV: Geology and Paleontology*, in which Henry M. Bannister provided the description for Kendall County. Bannister writes: "At the milldam, on Blackberry creek, in the village of Bristol, about ten feet perpendicular of grayish, crystalline limestone, with some hard, bluish shaly rock is exposed. About thirty rods above, on the southern bank is a small quarry, in which about four feet of limestone is exposed. The beds of this limestone here are of sufficient thickness to afford a tolerable material for foundations and rough walls. Its color is a dark grayish blue, on weathered surfaces, sometimes appearing buff or brown…. The limestone, with some intercalated beds of bluish shale, continues to appear in the bed of the creek for upwards of half a mile above this point, before it finally disappears under the Drift" (Henry M. Bannister, "Chapter IX: Kendall County," *Geological Survey of Illinois, Volume IV: Geology and Paleontology*, Amos H. Worden, editor [Springfield: State Journal Steam Press, 1870], pp. 141-142). Ostrom (1957) describes the stone as being a part of the "Divine 'limestone' member of the Maquoketa formation" (Meredith, Ostrom, *Surface Dolomite and Limestone Resources of Grundy and Kendall Counties*. Circular 230. [Urbana: Illinois State Geological Society, 1957], Fig. 1, pp. 20-21).

terminates in a rougher, more irregular apron along the rear of the dam. Several methods were employed to more firmly secure the concrete cap to the dam. One of these involved the installation of a series of timbers running horizontally along the length of the dam, which necessitated the removal of some of the original stonework in the dam. Once the timbers were put in place, stone (both cut stone and natural cobbles) were mortared in between and alongside them and steel re-bar was driven into their top surface at intervals. When the cap was poured, the concrete worked its way around the timbers and the re-bar. The timbers thus acted as anchor beams. Some of these timbers were hand-hewn and had seen previous use on another structure(s) (see Supplemental Materials S51). Another method used to secure the cap to the dam involved the driving of metal rods, angle iron, and various scrap metal[170] deep into the sediments along the rear of the dam, whose upper ends were wired to iron/steel members laid horizontally between them and then encapsulated within the concrete cap. This measure presumably was undertaken to prevent the cap from being scoured off the dam during a flood episode.

The stone bridge abutment was built using regularly coursed, rock-faced ashlar limestone. Photographs taken by the contractor responsible for the replacement of the bridge suggest that the ashlar masonry abutment had stone rubble mortared together behind it (see Supplemental Materials S44). This stone rubble may represent the remains of earlier stone abutment that was contemporary with the dam and then later faced with ashlar when the circa 1890-1900 iron-truss bridge was erected. At some point in the early twentieth century, tapered concrete wing walls were added on the north and south sides of the stone abutment. A concrete extension and a new wing wall were added on its south side when the existing bridge was constructed in 1959. A concrete sill also was poured on top the original abutment at this time in order to support the concrete girders for the bridge.

4. Openings:

The only "opening" observed within the dam is a 4"-diameter tile that extends through the dam at its approximate midpoint and is located roughly 7' below the top of the concrete cap. It is an extruded, unglazed, earthenware, field tile typical of that produced in Illinois post-1850.[171] The purpose of this feature is open to question. Given its relatively low

[170] This material included side rails from a cast iron bed frame.

[171] One early large-scale producer of extruded earthenware tile in the wider region was White and Company's stoneware manufacturing and tile works at Gooselake in rural Grundy County, located approximately 25 miles south of Yorkville. See: Floyd Mansberger, *Early Industrialized Pottery in Illinois: Archaeological Investigations at White and Company's Gooselake Stoneware Manufactory and Tile Works, Rural Grundy County, Illinois*, Illinois State Museum Reports of Investigations, No. 53 (Springfield: Illinois State Museum Society, 1997).

position within the dam, the tile possibly helped reduce the accumulation of sediments within the mill pond while not draining the pond significantly (due to its small diameter). Regardless of its original function, the tile later was plugged with mortar and ultimately came to be deeply buried within sediments accumulating behind the dam—a process potentially accelerated after the abandonment of the headrace.

D. Site:

1. General Setting and Orientation:

The Blackberry Creek Dam is located immediately north of the River Road Bridge in Yorkville. The dam runs northeast-by-southwest direction, with its western end actually being tied into the stone abutment on the west end of the bridge. It lies approximately 700' upstream of Blackberry Creek's confluence with the Fox River. The Yorkville-Bristol Sanitary District's wastewater treatment plant is situated a short distant southeast of the dam (on the south side of River Street). Blackberry Creek delineates the western edge of north Yorkville, and the eastern bank of the stream here is bordered by a low, wooded bluff. The land on the west side of the creek is lower and undeveloped. The area upstream from the dam represents the former mill pond. The pond extends to the west of the main channel of Blackberry Creek.

2. Historic Landscape Design:

The dam was sited at an advantageous point on Blackberry Creek, one where the banks of the stream were close enough to be easily dammed but provided a broad expanse of floodplain upstream from it. Once completed, the dam backed up the waters of the creek into this floodplain, thereby creating a mill pond. The mill the dam was associated with was located to the south of it, on the opposite side of River Street. Historic maps indicate that a millrace formerly was present at the eastern end of the dam. The race ran along the narrow band of ground between the mill pond and bluff base and passed beneath River Street before entering the wheel house of the mill. Blackberry Creek was bridged at River Road/Street prior to 1870, and several generations of bridge spans have been built here. While not part of the Blackberry Mills, the bridge—standing as it did in between the mill and associated dam—came to be closely associated with it visually. There also was some structural connection between the bridge and mill dam. The stone abutment on the western end of the bridge directly abutted the dam. The bridge and dam were farther apart on their eastern ends and hence less connected physically. However, a circa-1958 photograph (taken prior to the replacement of the steel truss bridge) does show that the stream bank

between the eastern ends of the two structures formerly was lined with a dry-laid stone retaining wall

3. Outbuildings:

The ruins of a stone spring house are located a short distance east of the dam, at the bluff base. The spring with which this structure was associated was part of the Blackberry Mills tract historically and is specifically mentioned in deed records from the late nineteenth and early twentieth centuries. The spring is no longer active, and the spring house has collapsed in on itself and is covered with overburden to a large extent. The walls of the building were built of irregular coursed stone, while the roof was poured concrete. In respect to size, the spring house measured approximately 25' long and had a minimum depth of 6'. A doorway was centered in its west wall. Two 4"-diameter, extruded, unglazed, earthenware, field tile extend through this same elevation (see Supplemental Materials S58).

PART III. SOURCES OF INFORMATION:

A. Original Architectural Drawings:

No original architectural drawings exist for the dam or for the stone bridge abutment.

B. Early Views:

The earliest photographs of the dam known of may date from the early years of the twentieth century and show both the dam and the iron-truss bridge that formerly crossed Blackberry Creek at River Road. These images are part of the Alice Tarbox Collection and were published in *A Bicentennial History of Kendall County* (1976). Additionally, the flour mill the dam was associated with is the subject of a painting, suspected to date to the early twentieth century, owned by and on display at the Kendall County Historical Society. The dam also is illustrated on a number of historic maps, including Sanborn maps of Yorkville from 1886, 1892, 1898, and 1905, as well on county atlas published in 1903. Copies of these various views are attached to the supplemental materials included with the IL HAER report.

C Interviews:

No formal interviews were conducted as part of the IL HAER documentation. However, several individuals participating in the replacement of the River Road Bridge were questioned regarding the *in situ* placement of the large timbers found beneath the stone bridge abutment and west end of the dam.

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E. Likely Sources Not Yet Investigated:

One source of information not investigated as part of the IL HAER documentation is local newspapers. Copies of the *Kendall County Courier* (Oswego) and *Kendall County Journal* (Plano) covering portions of the years 1855-1857 are available on microfilm through the Abraham Lincoln Presidential Library in Springfield. These issues may contain additional information regarding the initial construction of the Blackberry Dam, possibly including the names of contractors involved in the project. Similarly, the Abraham Lincoln Presidential Library has microfilm copies of the *Kendall County Record* (Yorkville) from 1864 onward. Though post-dating the construction of the dam itself, the *Record* likely published articles and/or notices related to the Blackberry Mills over the six decades of the two enterprises coexisted with one another.

Kendall County Commissioners' recorders are another source that may yield additional information regarding the Blackberry Creek Dam and the bridge adjacent to it. These records were checked to some extent as part of the IL HAER documentation, which produced a date of construction for the original River Road Bridge. However, this examination was not comprehensive. The date of construction for the iron-truss bridge present at this location from circa 1890 to 1958 remains to be determined.

F. Supplemental Material:

A range of supplemental material has been included with the IL HAER documentation package. Much of this material is site-specific in nature and includes historic maps and images depicting the Blackberry Creek Dam through time (and is arranged chronologically). Construction plans for the adjoining bridge built in 1959 also are attached. Additional images of historic dams in Kendall County and elsewhere in Illinois are attached for comparative purposes. The supplemental material also includes a selection of photographs taken at different points in the dam removal project that illustrate aspects of the dam's method of construction and that of the adjoining stone bridge abutment. Pictures of several other features related to the Blackberry Creek Dam also are attached.

PART IV. RESEARCH METHODOLOGY

A. Research Strategy:

The research strategy called for a combination of field investigation and documentary research. The field investigation would be directed toward documenting the physical structure of the Blackberry Creek dam and associated

features through digital photographs, notes, and scaled line drawings. The documentary research would be aimed at outlining the ownership history of the dam, establishing its date of construction, identifying any historic images depicting the dam (photographs, drawings, paintings, and/or maps), and providing a historical context for milling and dam construction in Kendall County and the wider Fox River Valley.

B. Actual Research Process:

The documentary research on the dam was initiated prior to the field investigation. The first step in this process was obtaining a copy of the survey report prepared by the Illinois State Museum on the Blackberry Creek Dam Site in 2003.[172] This report provided a helpful starting point in researching the history of the Blackberry Creek Dam, particularly in respect to the historic maps and photographs depicting the dam through time. Supplemental site-specific research was conducted in order to establish the ownership history of the dam through time (primarily through chain-of-title research) and assess the backgrounds of its various owners (via census records). One of the results of the site-specific research was a determination that the Blackberry Creek Dam was not the same structure erected by John Schneider in 1834 but rather was built by A. H. Arnold and M. W. Lane in the middle 1850s. United States General Land Office plats were examined in order to determine the locations of early mill and dam sites in Kendall County. County histories were consulted in this same regard and were found to have many references to dams constructed in Kendall County in the nineteenth century. The development of the historical context also involved researching other known dam sites in Illinois for comparative purposes.

The field investigation of the Blackberry Creek Dam was complicated by the fact that the dam's removal was but one part of a multi-faceted project involving the replacement of the River Road Bridge over Blackberry Creek and the restoration of that creek to its natural condition along its extent immediately upstream from its confluence with the Fox River. The bridge replacement project was conducted under the direction of the Illinois Department of Transportation (IDOT), while the channel restoration was directed by the Illinois Department of Natural Resources (IDNR). While interconnected, these two projects were somewhat independent of one another and occurred over an extended period of time. Continuous on-site monitoring by Fever River Research personnel was not possible throughout the duration of the two projects. Short site visits were made in February, March, and December 2012, at which time digital photographs were taken of the dam and environs. The principal field investigation occurred on April 3-5 and 8, 2013, immediately prior to and during the dam's demolishment, at which time the dam was measured and further photographed. The west abutment of the River Road Bridge also was investigated at this time. The field investigation also involved the documentation of the large timbers removed during the course of the

[172] Rickers and Wiant.

demolition/construction of the west abutment of the River Road Bridge. These timbers had been stockpiled on-site after their removal.

C. Archives and Repositories Used:

The principal research repository used was the Illinois State Library (Springfield), from which Sanborn fire insurance maps for Yorkville, county atlases, and county histories consulted for the IL HAER document were obtained. The Illinois State Archives (Springfield) was visited in order to obtain industrial schedules for Bristol Township compiled as part of the Federal censuses for 1850-1880. This repository also has a title abstract on file for the property associated with the Blackberry Mills. Ancestry.com was used to search Federal population schedules for Bristol Township for the period 1850-1920. The Kendall County Recorders' Office (Yorkville, Illinois) was visited in order to obtain for deed and survey records related to the Blackberry Creek Dam. Kendall County Supervisor's Records also were utilized in the Recorders' Office in respect to the construction of the different bridges over Blackberry Creek at River Road. A copy of a painting of the Blackberry Mill was obtained from the Kendall County Historical Society, courtesy of the Illinois State Museum.

D. Research Staff:

1. Primary Preparer:

The IL HAER documentation package on the Blackberry Creek Dam primarily was prepared by Christopher Stratton and Floyd Mansberger of Fever River Research, Inc. (Springfield, Illinois). All aspects of the documentation were supervised by Floyd Mansberger as principal investigator.

2. Photographer:

The digital images of the Blackberry Creek Dam included with the IL HAER documentation package were taken by Floyd Mansberger and Christopher Stratton, both of Fever River Research, at various points between February 2012 and April 2013.

3. Delineator:

Scaled line drawings illustrating the site plan and a sectional view through the dam were drawn in the field by Christopher Stratton (Fever River Research) and later digitized by him using AutoCAD LT software.

4. Additional Staff:

All members of Fever River Research involved in the production of the IL HAER documentation package have been noted above. However, a number of other individuals deserve acknowledgement for their assistance to Fever River Research in completing its task. Dr. Harold Hassen, Cultural Resources Coordinator with IDNR provided coordination and oversight during the IL HAER documentation. Loren Wobig, a unit manager with IDNR's Office of Water Resources, provided digital images of the dam at various junctures of the River Road Bridge Replacement and Blackberry Creek Channel Restoration projects. These projects were initiated prior to the dam replacement and exposed portions of the dam structure previously obscured by water and sediment. Wobig also provided an early interpretive drawing of the dam structure and, in addition, made available the title abstract on the property. Robert Giesing, who served as an on-site monitor and coordinator for IDNR during the channel restoration project, provided digital images taken at various stages of the Blackberry Creek Dam's removal. Similarly, Todd Wells, a senior project engineer with Engineering Enterprises, Inc (EEI), who supervised the replacement of the River Road Bridge in Yorkville, also provided digital images he took at different points of the bridge removal project. Wells' images were very helpful in understanding the character of the fill deposits at the west end of the dam and bridge, and in particular illustrating the *in situ* positioning of the large timbers found near the base of EEI's excavation for the west abutment of the new bridge.

PART V. PROJECT INFORMATION:

In 2002, the Illinois State Museum conducted an archaeological survey of 33-plus acres along the lower end of Blackberry Creek as part of an aquatic ecosystem restoration feasibility study by the United States Army Corps of Engineers—Rock Island District and the Illinois Department of Natural Resources. As a result of this survey, the Blackberry Creek Dam and its associated mill pond described in the accompanying report were recorded with the Illinois Archaeological Survey as the Blackberry Creek Dam Site (11KE433). The survey report noted the dam as a "significant cultural property" based on its age, integrity, method of construction and its association with early Euro-American settlement and local industry in the region. As such, the Blackberry Creek Dam was recommended as being eligible to the National Register of Historic Places under Criteria A and C.[173]

The Blackberry Creek Dam formerly supplied water power to an adjacent flour mill, which was demolished circa 1930. The historic dam was slated for demolition as part of a multi-faceted construction project involving the replacement of the River Road Bridge

[173] Christy S. Rickers and Michael D. Wiant, "Final Report: Phase I Archaeological, Architectural, and Geomorphological Survey for the Blackberry Creek Site Specific project, Illinois River Ecosystem Restoration, Yorkville, Kendall County, Illinois," contract report prepared by the Illinois State Museum for the United States Army Corps of Engineers (2003).

over Blackberry Creek and the Blackberry Creek Channel Restoration. The bridge replacement was undertaken by the United City of Yorkville and Kendall County, under the auspices of Illinois Department of Transportation (as IDOT Job No. C-93-038-12), while the channel restoration project was undertaken by the Illinois Department of Natural Resources' (IDNR) Office of Water Resources, in partnership with the United City of Yorkville (Yorkville Bristol Sanitary District).

This Level III Illinois Historic American Engineering Record (IL HAER) project was undertaken by the Illinois Department of Natural Resources to fulfill cultural resource compliance obligations pursuant to the State Agency Historic Resources Protection Act (Illinois Compiled Statutes, Chapter 20, para 3420/1 et seq.) in conjunction with the Blackberry Creek Channel Restoration Project, which is authorized under Section 519 (Illinois River Basin Restoration) of the Water Resources Development Act of 2000 (Public law 106-541). This project consisted of the removal of the historic dam and the restoration of the watershed upstream from it.

The work summarized in this IL HAER report was carried out by Fever River Research under the direction of the IDNR and the IL HABS/HAER coordinator at the Preservation Services Division of the Illinois Historic Preservation Agency. Fever River Research personnel involved in the project were Floyd Mansberger (principal investigator) and Christopher Stratton.

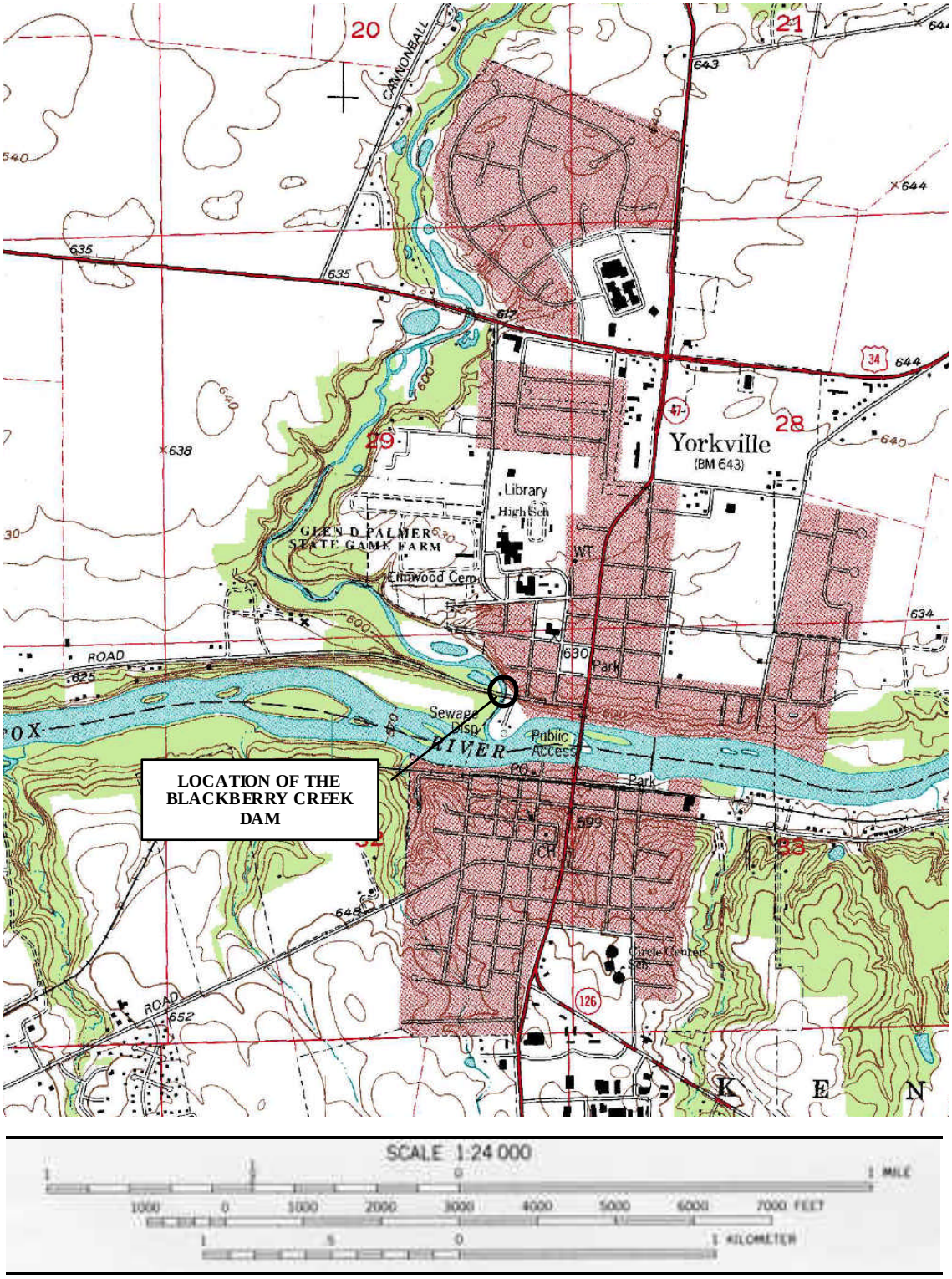

Figure 1. United States Geological Survey (USGS) topographical map showing the location of the Blackberry Creek Dam (USGS, Yorkville, IL Quadrangle 1993).

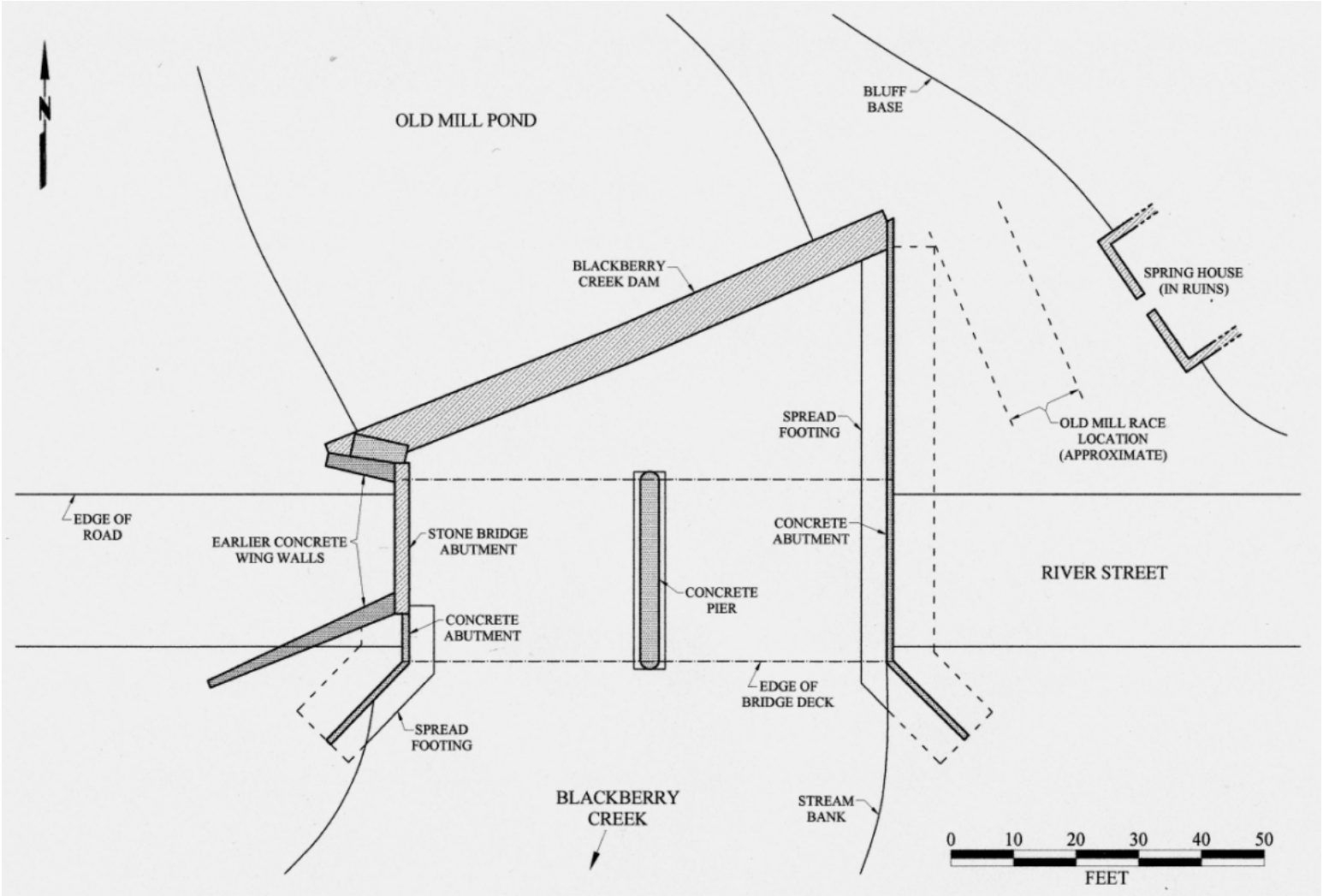

Figure 2. Site plan illustrating the Blackberry Creek Dam and adjoining features, showing conditions prior to the initiation of the Blackberry Creek Dam Removal and Channel Restoration Project (Fever River Research 2013).

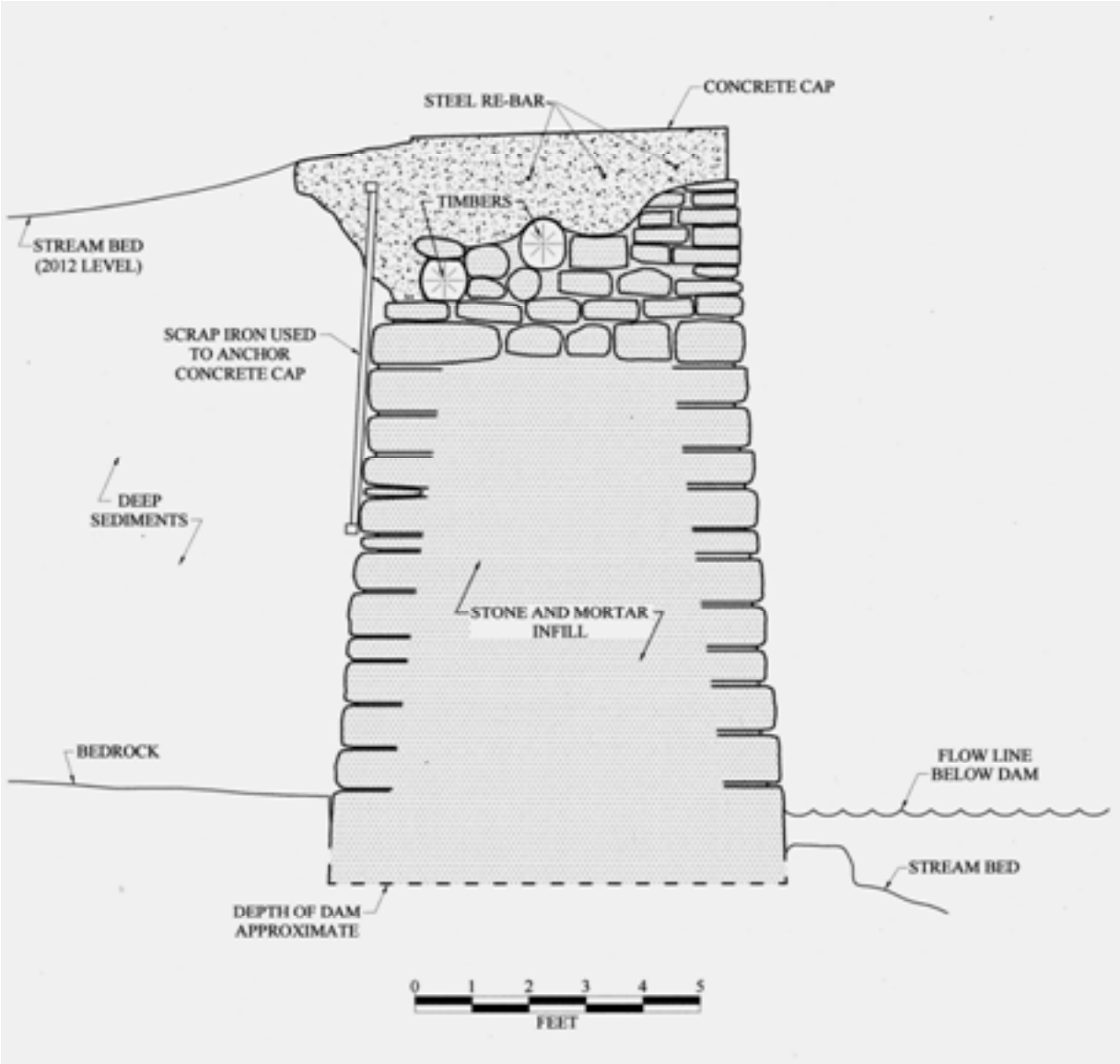

Figure 3. Sectional view through the eastern end of the Blackberry Creek Dam, illustrating its method of construction. The concrete cap represents an alteration to the original dam, having been installed in the early part of the twentieth century (Fever River Research 2013).

INDEX TO SUPPLEMENTAL MATERIAL

Blackberry Creek Dam — IL HAER No. KE-2013-1
SW1/4, NE1/4, NE1/4 Section 32
Township 37 North, Range 7 East (Bristol Township)
Yorkville, Illinois Quadrangle
Kendall County
Illinois

KE-2013-1-S1 United States Surveyor General's plat of Township 37 North, Range 7 East (Bristol Township) showing the area around Yorkville. This plat was based on a survey conducted by Eli S. Prescott in the latter half of 1837. It illustrates the fledgling village of Yorkville, adjacent to which is Howe's saw mill and dam. The saw mill shown on the opposite bank of the Fox River (circled in red) is that erected by John Schneider on Blackberry Creek in 1835 and was located adjacent to the Blackberry Creek Dam site.[1]

KE-2013-1-S2 Detail of an 1859 map of Kendall County showing the neighboring towns of Bristol and Yorkville. The Blackberry Creek Dam site is circled in red. The flour/grist mill with which the dam is associated is depicted and labeled, though the dam itself is not illustrated. At this date, the mill was operated by Allen and Lane. The map suggests that the road passing by the mill (present-day River Street) swung to the south of it before crossing Blackberry Creek. However, present-day River Street runs a straight east-west course and is aligned to the bridge location established as early as 1849. Hence, the depiction of the road's course provided by the 1859 map may be distorted to some degree.[2]

KE-2013-1-S3 Detail of an 1870 map of Bristol, showing the location of the Blackberry Creek Dam (circled in red). Although the dam itself is not illustrated, the mill with which it was associated does appear. The map suggests that the trail race for the mill flowed into the Fox River. Later maps, however, indicate that the tail race was directed into Blackberry Creek. By this date, River Street had been straightened out and redirected to the north side of the mill, and Blackberry Creek had been bridged. Also of note on

[1] United States Surveyor General, "Federal Township Plats," Record Series 953.012, Illinois State Archives, vol. 28, p. 13.
[2] L. G. Bennett, *Map of Kendall County, Illinois* (Chicago: Edward Mendel, 1859).

this map are the residences of the mill's owners, M. W. Lane and E. S. Lane, located on the hillside directly north of the mill.[3]

KE-2012-1-S4 Current views of the residence at 203 King Street in Yorkville, which was once occupied by Menzo W. Lane and overlooks the former site of the Blackberry Mills.[4]

KE-2013-1-S5 An 1886 Sanborn fire insurance map of Bristol-Yorkville showing the environs around Blackberry Mills. The Blackberry Creek Dam (circled in red) is shown, with mill pond appearing above it. The head race for the mill is not depicted on the map, though the tail race is shown. The map notes the Blackberry Mills as having been built in 1859 and the current owner and/or operator as Jens Comils.[5]

KE-2013-1-S6 An 1892 Sanborn fire insurance map of Bristol-Yorkville showing the environs around Blackberry Mills. The Blackberry Creek Dam is circled in red. Note the head race extending off the eastern end of the dam. At this date the mill was owned and/or operated by Jacob Cass.[6]

KE-2013-1-S7 An 1898 Sanborn fire insurance map of Bristol-Yorkville showing the environs around Blackberry Mills. The Blackberry Creek Dam is circled in red. The old engine room on the south side of the mill, noted as "vacant" on previous Sanborn maps, is further described as being "dilapidated" on this map.[7]

KE-2013-1-S8 Detail of a 1903 map of Bristol, showing the location of the Blackberry Creek Dam (circled in red). The dam is illustrated, as is the adjacent steel-truss bridge carrying River Street over Blackberry Creek. The Blackberry Mills was owned by Fred Mantzke at this date.[8]

KE-2013-1-S9 A 1905 Sanborn fire insurance map of Bristol-Yorkville showing the environs around Blackberry Mills. Fred Mantzke is still noted as the owner/operator. The Blackberry Creek Dam is circled in red.[9]

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[3] Warner, Higgins, and Beers, *Atlas of the State of Illinois: Village of Bristol* (Chicago: Warner, Higgins, and Beers, 1870).
[4] Photographs by Fever River Research (8 April 2013).
[5] Sanborn Map and Publishing Company, *Yorkville, Illinois* (New York: Sanborn Map and Publishing Company, 1886).
[6] Sanborn Map and Publishing Company, *Yorkville, Illinois* (New York: Sanborn Map and Publishing Company, 1892).
[7] Sanborn Map and Publishing Company, *Yorkville, Illinois* (New York: Sanborn Map and Publishing Company, 1898).
[8] George A. Ogle and Company, *Standard Atlas of Kendall County, Illinois* (Chicago: George A. Ogle and Company, 1903), p. 27.
[9] Sanborn-Perris Map Company, *Yorkville, Illinois* (New York: Sanborn-Perris Map Company, 1898).

KE-2013-1-S10 A 1906 survey map of the Blackberry Mills property. This map illustrates the irregular-shaped character of the tract, which encompassed the mill, dam, and pond beyond. The Blackberry Creek Mill is circled in red. A second dam, contemporary with the Blackberry Creek Dam, is illustrated upstream from the latter and circled in blue; it is labeled "Old Dam / Now Out" on the map.[10]

KE-2013-1-S11 Detail of the 1906 survey map of the Blackberry Mills property showing the area immediately surrounding the Blackberry Mill. Structures illustrated include the mill itself, a house and a barn to the east of it, the mill dam and River Street Bridge. A spring associated with the property also is illustrated a short distance east of the dam.[11]

KE-2013-1-S12 A 1922 map of Bristol Township showing the location of the Blackberry Creek Dam (circled in red). Note the much longer mill dam stretching across the Fox River at right.[12]

KE-2013-1-S13 Detail of the previous figure illustrating the area around the Blackberry Creek Dam (circled in red). By this date, the former Blackberry Mills and associated property was owned by the Advance Food Company. This map shows the tail race for the mill draining into the Fox River, as opposed to Blackberry Creek as shown on earlier Sanborn maps. It is unclear this depiction of the tail race was a mistake on the cartographer's part or reflects the tail race having been reoriented between 1905 and 1922.[13]

KE-2013-1-S14 Undated painting of the Blackberry Mills, likely showing it as it appeared early in the twentieth century. This view looks north up Blackberry Creek towards the mill. The main body of the mill sits on a raised stone foundation. The lower frame section at left is the wheel house. The engine room formerly attached to the south side of the mill is not depicted and apparently had been removed some years before (based on the size of the tree shown at its former location). This painting is in the possession of the Kendall County Historical Society. A tag attached to the painting notes that the mill had been demolished by 1936.[14]

KE-2013-1-S15 Circa-1900 photograph of the iron-truss bridge over Blackberry Creek on River Street in Bristol. The Blackberry Creek Dam appears in the background, just beyond the bridge. The iron-truss bridge would remain in use until 1959, when it was replaced by a concrete-deck span. The

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[10] "Plat Showing Blackberry Mill Property in Village of Bristol," Kendall County Plat Book 5 (1906), p. 23, slot 307A

[11] Ibid.

[12] George A. Ogle and Company, *Standard Atlas of Kendall County, Illinois* (Chicago: George A. Ogle and Company, 1922), p. 11.

[13] Ibid.

[14] Kendall County Historical Society.

stone bridge abutment shown at left was left undisturbed, however, and it remains in place to the present day.[15]

KE-2013-1-S16 Undated photograph of the Blackberry Creek Dam and River Road Bridge, possibly taken during the early part of the twentieth century. This view was taken from the hillside on the east side of the creek and looks west.[16]

KE-2013-1-S17 A 1939 aerial photograph of the Bristol-Yorkville area showing the location of the Blackberry Creek Dam (circled in red).[17]

KE-2013-1-S18 Detail of the 1939 aerial photograph showing the area around the Blackberry Creek Dam. By this date, a new dam had been erected at the mouth of Blackberry Creek by the State of Illinois as part of a fish hatchery project. This lower dam created a large pond between the mouth of the creek and the Blackberry Creek Dam, as is readily visible in this view.[18]

KE-2013-1-S19 Site plan and elevation plans prepared in 1958 for the bridge replacement project for the iron-truss span over Blackberry Creek at River Street in Yorkville (formerly Bristol). The Blackberry Creek Dam is circled in red.[19]

KE-2013-1-S20 Another site plan drawing prepared in 1959 as part of the bridge replacement project for the iron-truss span over Blackberry Creek at River Street in Yorkville (formerly Bristol). In addition to the dam, this drawing shows several features associated with the Blackberry Creek Mills, including a "dry wall" (likely associated with the head race) and an "old mill wall" (representing the north wall of the mill). The area to the south of the former mill site was being developed as the sewage treatment plant for the Yorkville-Bristol Sanitary District by this date.[20]

KE-2013-1-S21 Plan and elevation views for the concrete-slab bridge constructed over Blackberry Creek in 1959. The mill dam is illustrated to the north of the new bridge, whose west end tied was to be tied into the stone abutment from the pre-existing iron truss span.[21]

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[15] Alice Tarbox Dunger Collection. From: Kathy Farren (editor), *A Bicentennial history of Kendall County, Illinois* (Yorkville, Illinois: Kendall County Bicentennial Commission, 1976).
[16] Ibid.
[17] United States Department of Agriculture, aerial photographs of Kendall County (1939), BWW-1-46.
[18] Ibid.
[19] Illinois Department of Public Works and Buildings (Division of Highways), "Plans for Proposed Federal Aid Secondary Project, F.A.S Route 28-Section 25B-Kendall County" (1959), sheet 1.
[20] Ibid., sheet 2.
[21] Ibid., sheet 3.

KE-2013-1-S22 Photograph of the Blackberry Dam site, taken in 1959 prior to the replacement of the iron-truss bridge across Blackberry Creek at River Street. The fall of the dam appears at left, while the soon-to-be-replaced iron-truss bridge is shown at right. Note the dry-laid stone retaining wall between the dam and bridge. The head race for the old Blackberry Mills ran along the narrow strip of level ground between this wall the wooded bluff in background.[22]

KE-2013-1-S23 A 1959 photograph showing the underside and west abutment of the iron-truss bridge on River Street, with Blackberry Creek Dam at right. The west abutment of the bridge was tied into the dam and was retained in place even after the iron-truss bridge was replaced. Note the concrete wingwall that has been added on the south (left) side of the abutment.[23]

KE-2013-1-S24 A 1959 photograph looking south down Blackberry Creek from the River Street Bridge. The recently established Yorkville-Bristol Sewage Treatment Plant appears in the background at left, with Fox River lying just beyond.[24]

KE-2013-1-S25 Detail of an 1839 United States Surveyor General's plat of Township 36 North, Range 8 East (Fox Township) showing the area around Millington western Kendall County. A saw and grist mill is illustrated at the mouth of Clear Creek, where it intersects the Fox River. The mill would have exploited the large stand of timber adjoining the creek and river.[25]

KE-2013-1-S26 Detail of an 1839 United States Surveyor General's plat of Township 36 North, Range 8 East (Fox Township) showing the area around Millbrook in west-central Kendall County. A saw mill (circled in red) is shown at the mouth at Hollenbeck Creek. No dam is shown across the Fox River, which suggests that the water power for the mill was supplied by the creek. The mill was well sited in respect to available water power and timber. This map also provides a good illustration of the earlier pattern of settlement in Kendall County, with farms being scattered around the edges of timber groves.[26]

KE-2013-1-S27 Detail of an 1842 United States Surveyor General's plat of Township 37 North, Range 8 East (Oswego Township) showing the area around the town of Oswego in eastern Kendall County. A flouring mill and dam are illustrated upstream from the recently established community. This was one of multiple points where the Fox River was dammed in the 1830s.[27]

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[22] Ibid., photos.
[23] Ibid.
[24] Ibid.
[25] United States Surveyor General, "Federal Township Plats," Record Series 953.012, Illinois State Archives Ibid.
[26] Ibid, vol. 27, p. 55.
[27], Ibid., vol. 28, p. 36.

KE-2013-1-S28 Field drawing of the Fox River valley north of Ottawa (La Salle County) showing the proposed route of a feeder canal for the Illinois and Michigan Canal. This sketch was produced during the 1836 canal survey. It shows a cluster of buildings at the point where the Ottawa Road dropped down from the uplands into the river valley, one of which is labeled "Green's Mill" (circled in red). The mill was supplied with water via a long headrace extending off the west end of a dam positioned above the lower rapids of the Fox. The dam (shown at top of sketch) actually consisted of two segments, separated by an island. Green's Mill represented the nucleus of the present-day community of Dayton.[28]

KE-2013-1-S29 Ice harvesting was another industry that flourished in Kendall County in the late nineteenth century and was facilitated by dams constructed across the Fox River and its tributaries. The largest ice business the county was that of Eshe Brothers and Rabe, pictured here circa 1890, which was located on the Fox River opposite Oswego. The company harvested ice from a Parker's Mill Pond and at one point had twenty massive ice houses at their complex.[29]

KE-2013-1-S30 Detail of 1903 plat showing Parker's Dam across the Fox River at Oswego. The Knickerbocker Ice Company—the successor to Eshe Brothers and Rabe—is shown at the west end of the dam.[30]

KE-2013-1-S31 Detail of log dam (TOP) and timber frame dam (BOTTOM), as depicted by Evans in his *The Young Mill-Wright And Miller's Guide (1848)*. Evans even included details of a simple and expedient "Pile Engine," or pile driver, for use in constructing the frame dam.[31]

KE-2013-1-S32 Three simple dams depicted in Leffel and Company's *The Construction of Mill Dams*, which was first published in 1874.[32]

KE-2013-1-S33 Two simple dams depicted in Leffel and Company's *The Construction of Mill Dams*, which was first published in 1874. TOP: A simple embankment dam, which Leffel and Company refers to as a "Rip Rap Dam." BOTTOM: A simple log crib dam, which functions similarly to an arch dam with the log arch anchored by two rock-filled cribs.[33]

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[28] Illinois and Michigan Canal Records, "Survey and Field Notes," Record Group 491.108, Illinois State Archives, Book K-5. See also: Christopher Stratton and Floyd Mansberger. "An Archaeological Resource Management Plan for the Illinois and Michigan Canal State Trail." Interim report, prepared by fever River Research for the Illinois Department of Natural Resources (2001), fig. 8.

[29] Photograph courtesy of Oswegoland Heritage Association (c.1890).

[30] George A. Ogle and Company, *Standard Atlas of Kendall County, Illinois* (Chicago: George A. Ogle and Company, 1903).

[31] Oliver Evans, *The Young Mill-Wright And Miller's Guide (Philadelphia: Lea and Blanchard, 1848).*

[32] Leffel and Company, *The Construction of Mill Dams* (Springfield, Ohio: James Leffel and Company, 1874).

[33] Ibid.

KE-2013-1-S34 Three simple frame dams depicted in Leffel and Company's *The Construction of Mill Dams*, which was first published in 1874.[34]

KE-2013-1-S35 Two arch dams depicted in Leffel and Company's *The Construction of Mill Dams*, which was first published in 1874. TOP: Constructed of wooden planks. BOTTOM: Constructed of stone.[35]

KE-2013-1-S36 Two views of the dam constructed at Henry, Illinois and illustrated in Leffel and Company's *The Construction of Mill Dams*, which was first published in 1874. This dam was constructed of rock-filled timber cribs.[36]

KE-2013-1-S37 Three views of stone dams depicted in Leffel and Company's *The Construction of Mill Dams*, which was first published in 1874. The upper two examples depict the modern profile with the vertical upstream face and a downstream breastwork incorporated into its design. The lower image depicts a similar profile. [37]

KE-2013-1-S38 Details of two stone dams, as depicted in the *Reports on the Water-Power of the United States* (1885). TOP: A stone gravity dam. BOTTOM: A stone arch dam. Both dams exhibit a similar battered profile.[38]

KE-2013-1-S39 Two different types of simple dams as illustrated in the 1931 publication *Water Power on the Farm*. Although presented in the context of water-powered electrical generation, these dams could readily be applied to many other purposes, including saw and flour milling. They are representative of designs widely employed in Illinois throughout the nineteenth century. (TOP) A "log dam," built with logs left in-the-round, notched, and stacked into cribs. (BOTTOM) A "timber dam," framed with hewn or sawn timbers and laid out in cribs infilled with stone ballast. Although *Water Power on the Farm* differentiates between log and timber dams, both were very similar structurally and essentially were variations of the *cribbed dam*—the most common type of dam constructed in Illinois during the frontier period.[39]

KE-2013-1-S40 A 1930s-era photograph showing the exposed archaeological remains of the Rutledge-Cameron saw and gristmill at New Salem, Menard County, Illinois. This mill was constructed in 1828-1829 on the Sangamon River.

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[34] Ibid.
[35] Ibid.
[36] Ibid.
[37] Ibid.
[38] Trowbridge, W. P., *Water-Power of the United States, Part I and Part II.* Statistics of Power and Machinery Employed in Manufactures, Department of the Interior, Census Office (Washington: Government Printing Office, 1885, 1887).
[39] Fritz Water Wheel Company, *Water Power on the Farm* (Hanover, Pennsylvania: Fritz Water Wheel Company, 1931), p. 6.

Note the line of cribs (framed with logs and hewn timbers) forming the mill dam, which was one crib deep. The mill building itself rested on raised posts, the lower ends of which are shown immediately to the left of the dam.[40]

KE-2013-1-S41 Two 1930s-era photographs of the low-water feeder across the Du page River at Channahon (Grundy County). This was a cribbed dam built to raise the river level so that water would be directed into the section of the Illinois and Michigan Canal extending west of Channahon. (TOP) View of the dam prior to its rebuilding by the Civilian Conservation Corps. Note the planking covering the top of the dam. (BOTTOM) View of the dam after the removal of its top planking, showing its underlying timber cribbing and stone ballast. The cribbing in the dam appears to have been three sections wide.[41]

KE-2013-1-S42 Undated photograph of the Thompson Mill on the Kaskaskia River near Cowden, Shelby County, Illinois, possibly taken during the late nineteenth century. Built in 1843, the mill rested on wood posts, or pilings, that were driven into the riverbed and bank. There is a clear break in the siding and roofing on the mill, which suggests that the building may have been erected in two episodes, with the right half probably being the older section. The cribbed structure seen at the river-level beneath the right half of the building is the chamber in which the tub mill sat. This photograph also illustrates the manner of construction of the mill dam. There appears to be at least three sections of dam, all of wood construction. The section on the far right clearly is built with logs. In contrast to the Blackberry Creek Dam, this dam was directly adjacent to its associated mill and lacked a headrace.[42]

KE-2013-1-S43 An example of a stone dam built of cut and coursed masonry, illustrated in the 1931 publication *Water Power on the Farm*. It bears some similarities with the Blackberry Creek Dam, though the latter lacks the pronounced back slope illustrated above.[43]

KE-2013-1-S44 (TOP) View of Blackberry Creek at the point where Hobbs and Smith's mill dam is suspected to have been located. Elmwood Cemetery is located on the bluff on the east (or right) side of the creek. (BOTTOM) An earth

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[40] Jay Monaghan, *This is Illinois. A Pictorial History of the Prairie* State (Chicago: University of Chicago Press, 1949), p. 49.

[41] Canal and Regional History Collection, Civilian Conservation Corps Photographs, Lewis University (Romeoville, Illinois), Photo No. 22 and 51. See also: Stratton and Mansberger, "An Archaeological Resource Management Plan," figs. 63 and 64.

[42] R. E. Fritts, *Early History of Cowden and Vicinity, 1801-1920*. Centennial pamphlet (1872-1972) on file at the Shelby County Historical and Genealogical Society, Shelbyville, Illinois.

[43] Fritz Water Wheel Company, p. 6.

embankment on the west side of the creek possibly associated with Hobbs and Smith's mill dam.[44]

KE-2013-1-S45 An example of a "simple" concrete dam illustrated in the 1931 publication *Water Power on the Farm*. Concrete had largely supplanted stone and wood as the preferred dam building by the early twentieth century. It also could be used to augment or shore up pre-existing stone or timber dams, as is the example shown here. Note the emphasis on securing the dam to the bedrock in this drawing.[45]

KE-2013-1-S46 Plan (TOP) and sectional (BOTTOM) views of the Lower Phund Dam along Waubonsie Creek in Oswego, as drawn in 2003. This reinforced-concrete dam was constructed by Charles I Smith in 1908 to create a pond for harvested ice. It is representative of an early, moderate size concrete dam in Kendall County.[46]

KE-2013-1-S47 Many bridges constructed in Illinois during the middle nineteenth century were of timber-frame construction, similar in character to that depicted here, which spanned the Illinois and Michigan Canal at Thorton Road. Note the use of heavy posts and sills, as well as the employment of timbers and planking for the abutment (rather than masonry). Some of the construction elements depicted may have been employed on the original bridge over Blackberry Creek at River Road.[47]

KE-2013-1-S48 An 1848 map showing a bridge and Dam No. 1 spanning the Des Plaines River in North Joliet (Will County). Dam No. 1 served to back up the river and feed water into the adjacent Illinois and Michigan Canal. The area directly below the dam provided a convenient point for constructing a bridge, as was the case with the River Road Bridge over Blackberry Creek. Note the stone abutments on the bridge illustrated above.[48]

KE-2013-1-S49 Plat of the McKee Tract in Joliet (Will County), showing Lock No. 5 of the Illinois and Michigan Canal and lower canal basin in Joliet. Note the adjoining dam and bridge across the canal basin (actually part of the Des Plaines River) at lower right. The abutments of this dam and bridge are

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[44] Photographs by Fever River Research (5 April 2013).
[45] Fritz Water Wheel Company, p. 5.
[46] Christopher Stratton, "Cultural Resources Evaluation of Five Dams and Two Riffles on Waubonsie Creek in Oswego, Kendall County, Illinois," report prepared by Fever River Research for the Illinois State Museum Society and the United States Army Corps of Engineers (2003), p. 33.
[47] "Bridge at Thorton Road" (n.d.), Record Group 491.106, Illinois State Archives (Springfield). See also: Stratton and Mansberger, "An Archaeological Resource Management Plan," fig. 31.
[48] Map of improvements of James Moore on Block 6 of North Joliet, "Contract Bids for 1836," Record Group 491.036, Illinois State Archives (Springfield). See also: Stratton and Mansberger, "An Archaeological Resource Management Plan," fig. 39.

directly adjacent to one another, like those at Blackberry Creek Dam site.[49]

KE-2013-1-S50 Views of a wedge-like tool found between the stone courses near the base of the dam at its eastern end, showing it as found *in situ* and laid flat (TOP) and from the side after removal (BOTTOM). This cast iron tool measures 1-½" wide and 14" long. The reason for this tool being left between the courses is not clear, though one possibility is it was inserted initially to serve as a type of hanger or bracket (possibly during the course of the dam's construction) and later was driven in flush with the stonework to prevent people or object from hanging up on it.[50]

KE-2013-1-S51 Views of several of the timbers used to help anchor the concrete cap on the Blackberry Creek Dam following their removal during the dam demolition. These particular timbers were salvaged from another building or structure (possibly the Blackberry Mills) and reused on the dam. The timber shown at bottom had several 2"-diameter holes drilled into it into which dowels had been inserted; these were not intended for pinning mortise-and-tenon joints, but rather for a rack of some kind.[51]

KE-2013-1-S52 Photograph taken during the excavation of a trench along the rear side of the west end of the Blackberry Creek Dam, showing the junction of the dam and the abutment of the River Road Bridge. This photograph suggests that there may have been two episodes of stone abutments for the bridge: an earlier rubble abutment that the dam was built up against; and a later abutment of ashlar masonry laid up against the pre-existing abutment.[52]

KE-2013-1-S53 Photograph taken during the excavation of a trench along the rear side of the west end of the Blackberry Creek Dam. This excavation work exposed a line of large oak timbers extending beneath the end of the dam and the stone abutment for the River Street Bridge. Two of the timbers are marked with arrows.[53]

KE-2013-1-S54 Two views of large oak timbers found *in situ* beneath and behind the stone abutment on the west end of the River Street Bridge. (TOP) Row of timbers set parallel to the stone abutment, with arrows indicating individual members. The dashed line indicates the juncture between the dam and abutment. Note that a number of the timbers are located beneath the west end of the dam as well.[54] (BOTTOM) Timber projecting out

[49] Plat of the McKee Tract, Plats, Record Series 491.105, Illinois State Archives (Springfield).
[50] Photographs by Fever River Research (8 April, 28 May 2013).
[51] Photographs by Fever River Research (8 April 2013).
[52] Ibid.
[53] Photograph by Todd Wells, Engineering Enterprises, Inc. (17 December 2012).
[54] Photograph by Todd Wells, Engineering Enterprises, Inc. (19 December 2012).

from the excavation trench behind the stone bridge abutment. This was located behind and perpendicular to the abutment.[55]

KE-2013-1-S55 Photographs of the large timbers removed from below the stone abutment on the west end of the River Street Bridge. The timbers were hand hewn to varying degrees and showed evidence of having been fitted together by a number of methods, including notching, mortise and tenon, and wood dowels. They may represent the remains of an earlier timber bridge abutment or timbers salvaged from another structure, which were later reused as footing material for the stone abutment associated with the circa 1890-1900 bridge.[56]

KE-2013-1-S56 Details of several of the large timbers removed from below the stone abutment on the west end of the River Street Bridge, illustrating both a mortise and a tenon. The beam shown at bottom was set at an angle to another timber, based on the cut of its tenon, as if used as a diagonal knee brace.[57]

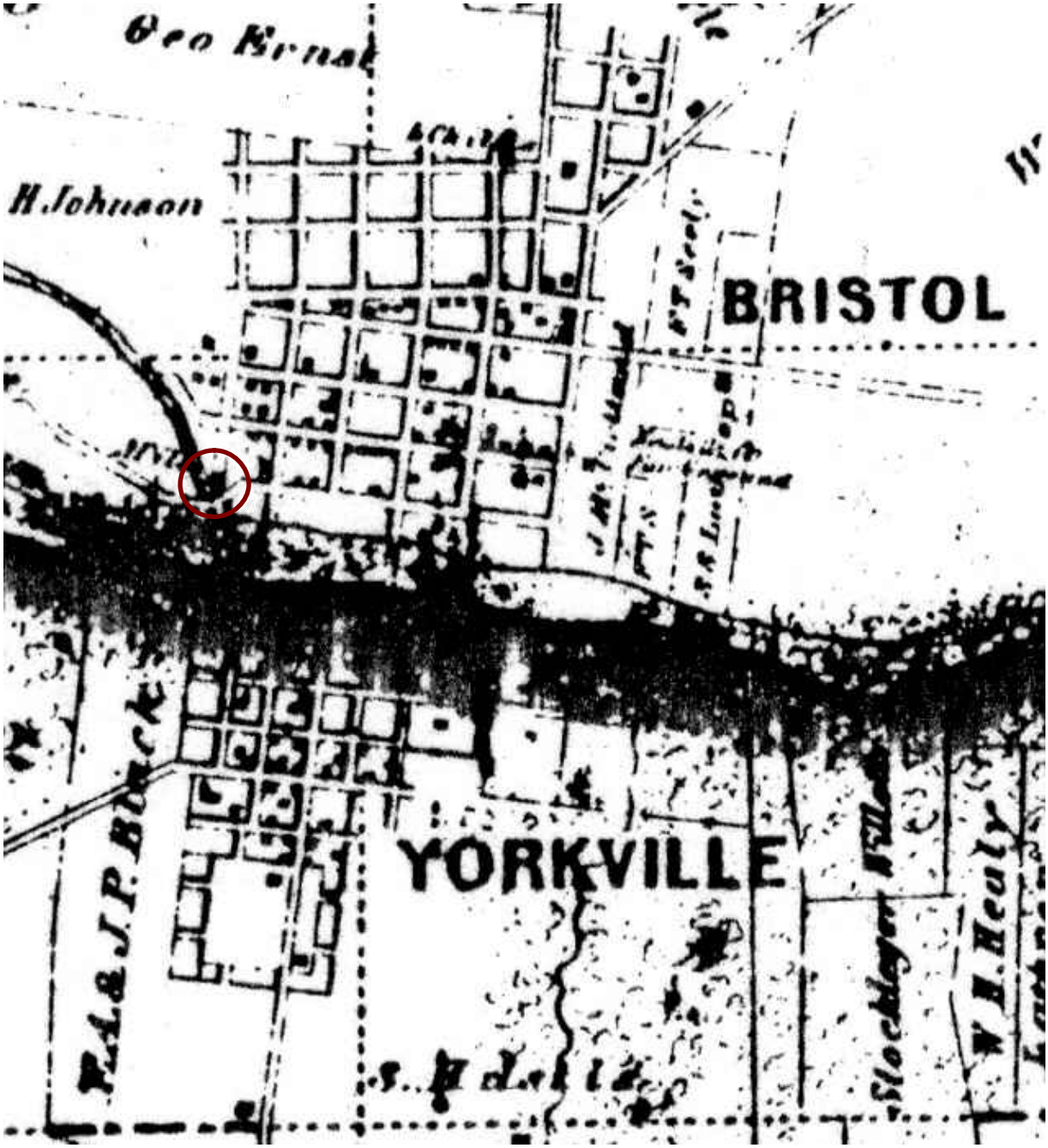
KE-2013-1-S57 Two views of timbers found in the backfill behind the stone abutment of the River Street Bridge. These timbers left in the round and were relatively small in diameter, in contrast to those used to undershore the abutment (and illustrated in preceding figures). They were cut with an axe. They were used as fill or perhaps had been employed as a temporary work surface (for stability) during the construction of the abutment.[58]

KE-2013-1-S58 Views of the remains of spring house located east of the Blackberry Creek Dam. The spring this structure was associated with is referenced on deed records for the Blackberry Mills property from the 1880s onward.[59]

KE-2013-1-S59 Millstone and historical marker commemorating the mills of Kendall County and specifically recognizing John Schneider's 1834 saw mill on Blackberry Creek—the county's first. These features are located in Town Square Park in Yorkville on the Bristol side of Yorkville. The millstone is presumed to have come from the Blackberry Mills.[60]

[55] Photograph by Fever River Research (3 April 2013).
[56] Photographs by Fever River Research (8 April 2013).
[57] Ibid.
[58] Photographs by Fever River Research (3 April 2013).
[59] Photographs by Fever River Research (20 February 2012).
[60] Photographs by Fever River Research (8 April 2013).

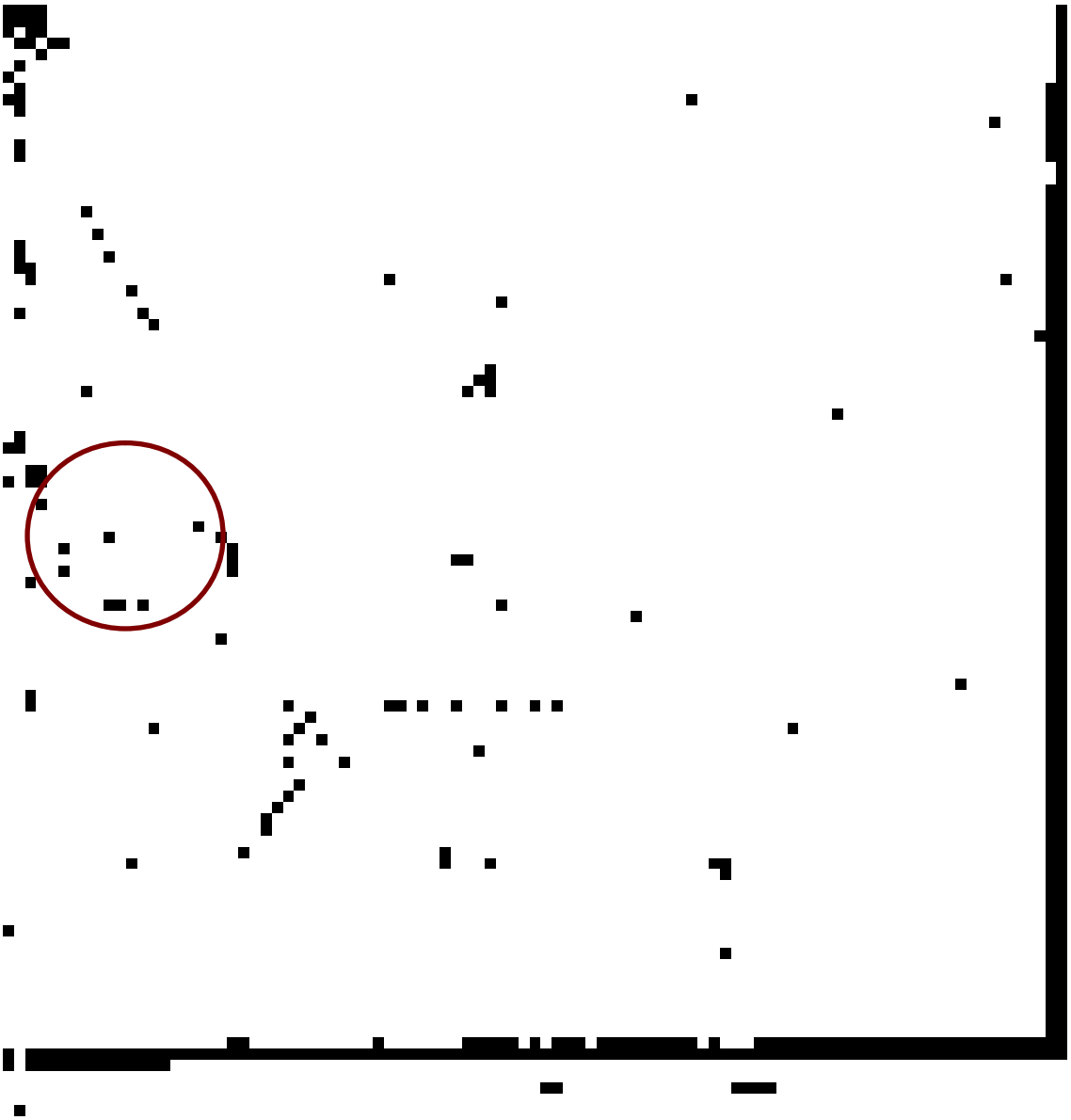
United States Surveyor General's plat of Township 37 North, Range 7 East (Bristol Township) showing the area around Yorkville. This plat was based on a survey conducted by Eli S. Prescott in the latter half of 1837. It illustrates the fledgling village of Yorkville, adjacent to which is Howe's saw mill and dam. The saw mill shown on the opposite bank of the Fox River (circled in red) is that erected by John Schneider on Blackberry Creek in 1835 and was located adjacent to the Blackberry Creek Dam site.



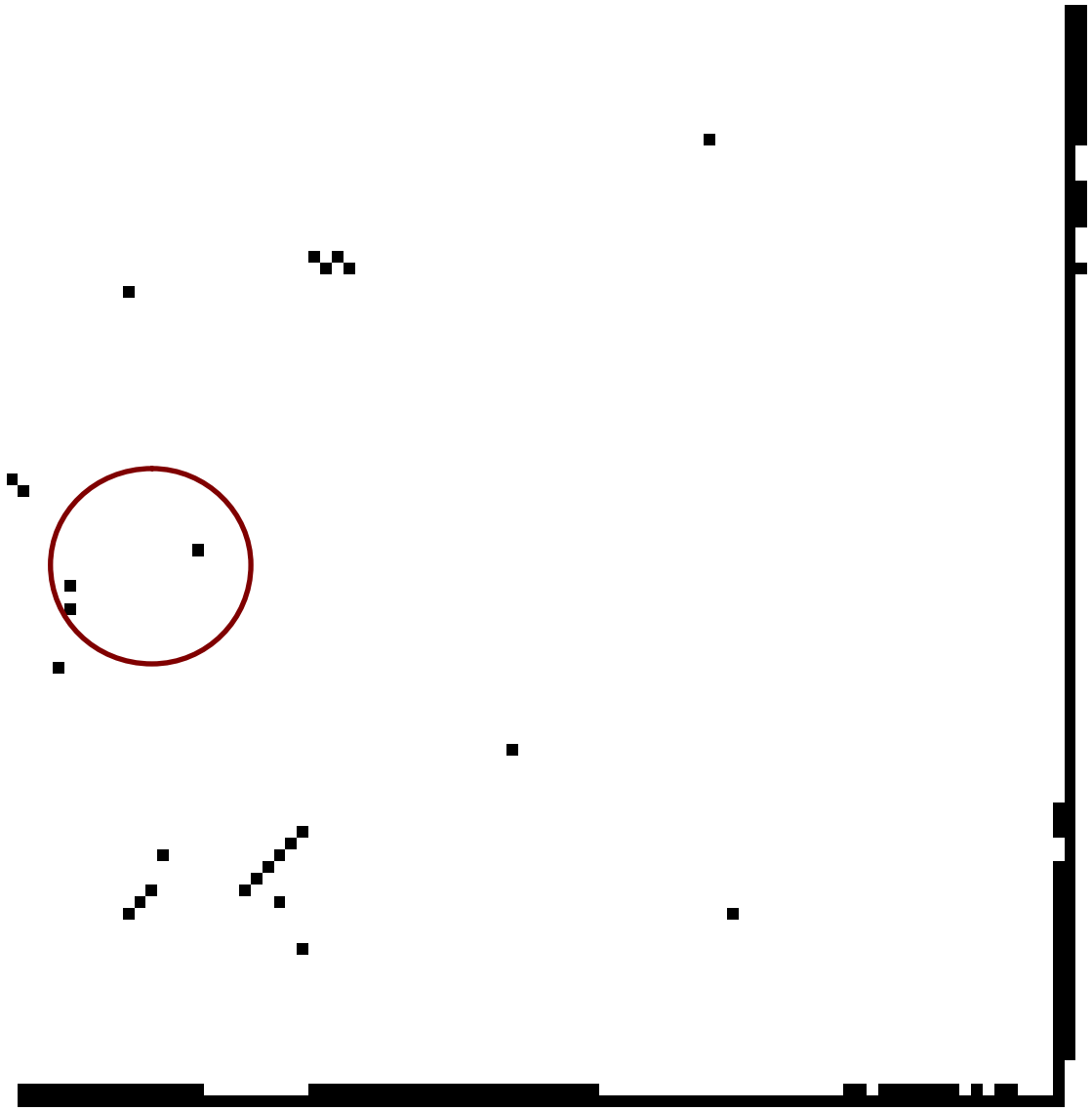
Detail of an 1859 map of Kendall County showing the neighboring towns of Bristol and Yorkville. The Blackberry Creek Dam site is circled in red. The flour/grist mill with which the dam is associated is depicted and labeled, though the dam itself is not illustrated. At this date, the mill was operated by Allen and Lane. The map suggests that the road passing by the mill (present-day River Street) swung to the south of it before crossing Blackberry Creek. However, present-day River Street runs a straight east-west course and is aligned to the bridge location established as early as 1849. Hence, the depiction of the road's course provided by the 1859 map may be distorted to some degree.

Detail of an 1870 map of Bristol, showing the location of the Blackberry Creek Dam (circled in red). Although the dam itself is not illustrated, the mill with which it was associated does appear. The map suggests that the trail race for the mill flowed into the Fox River. Later maps, however, indicate that the tail race was directed into Blackberry Creek. By this date, River Street had been straightened out and redirected to the north side of the mill, and Blackberry Creek had been bridged. Also of note on this map are the residences of the mill's owners, M. W. Lane and E. S. Lane, located on the hillside directly north of the mill.

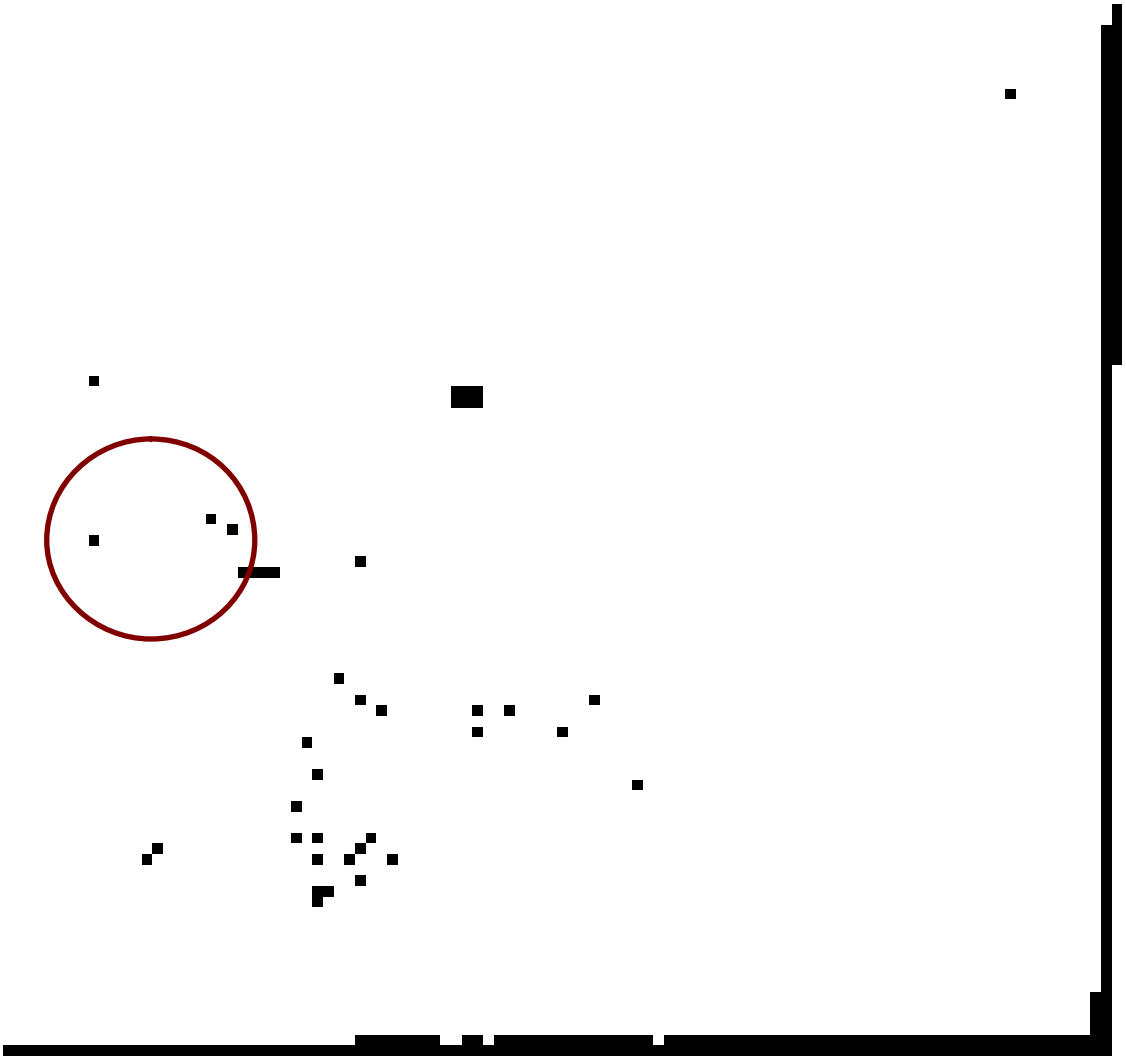
Current views of the residence at 203 King Street in Yorkville, which was once occupied by Menzo W. Lane and overlooks the former site of the Blackberry Mills.



An 1886 Sanborn fire insurance map of Bristol-Yorkville showing the environs around Blackberry Mills. The Blackberry Creek Dam (circled in red) is shown, with mill pond appearing above it. The head race for the mill is not depicted on the map, though the tail race is shown. The map notes the Blackberry Mills as having been built in 1859 and the current owner and/or operator as Jens Cornils.

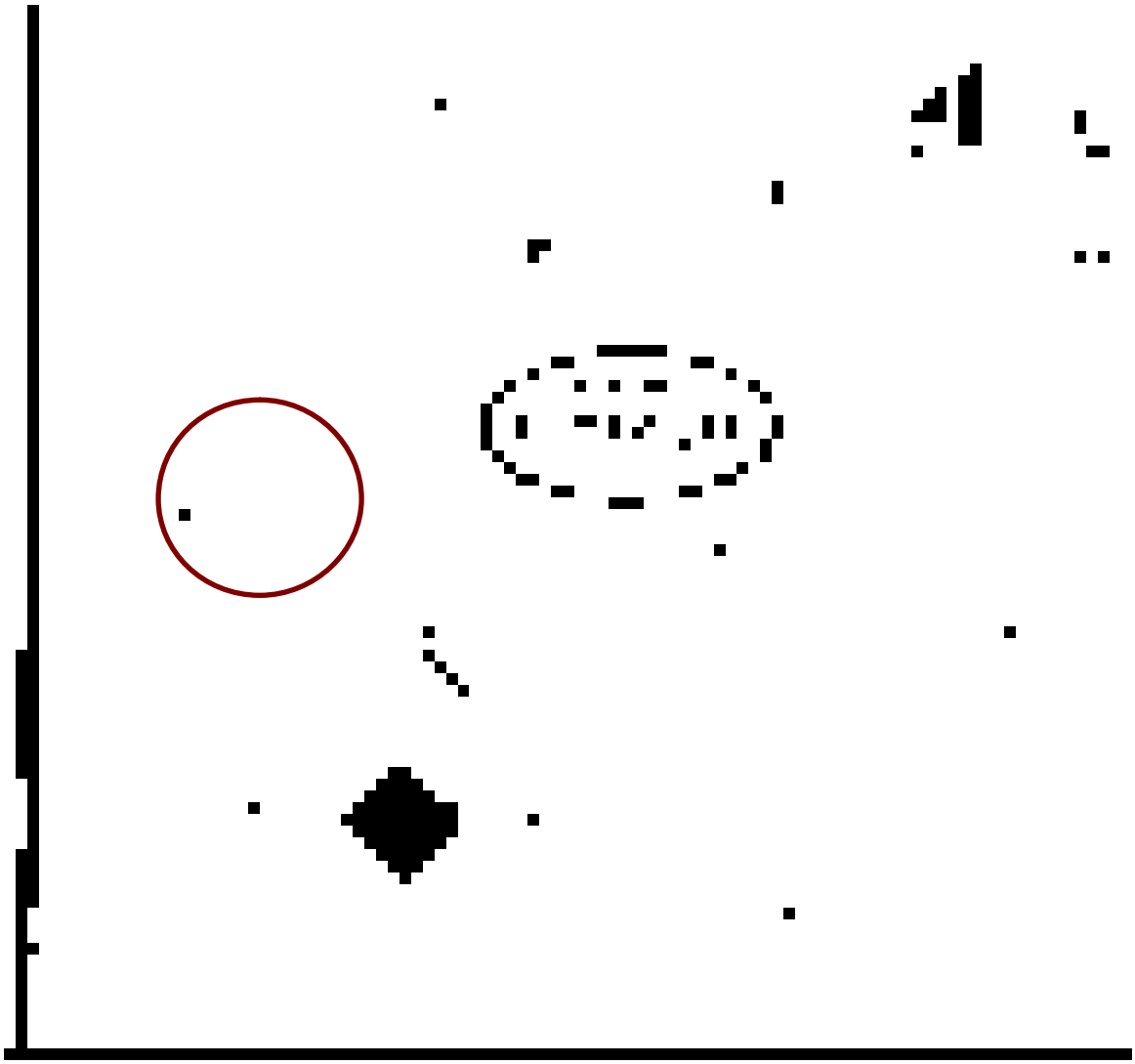


An 1892 Sanborn fire insurance map of Bristol-Yorkville showing the environs around Blackberry Mills. The Blackberry Creek Dam is circled in red. Note the head race extending off the eastern end of the dam. At this date the mill was owned and/or operated by Jacob Cass.

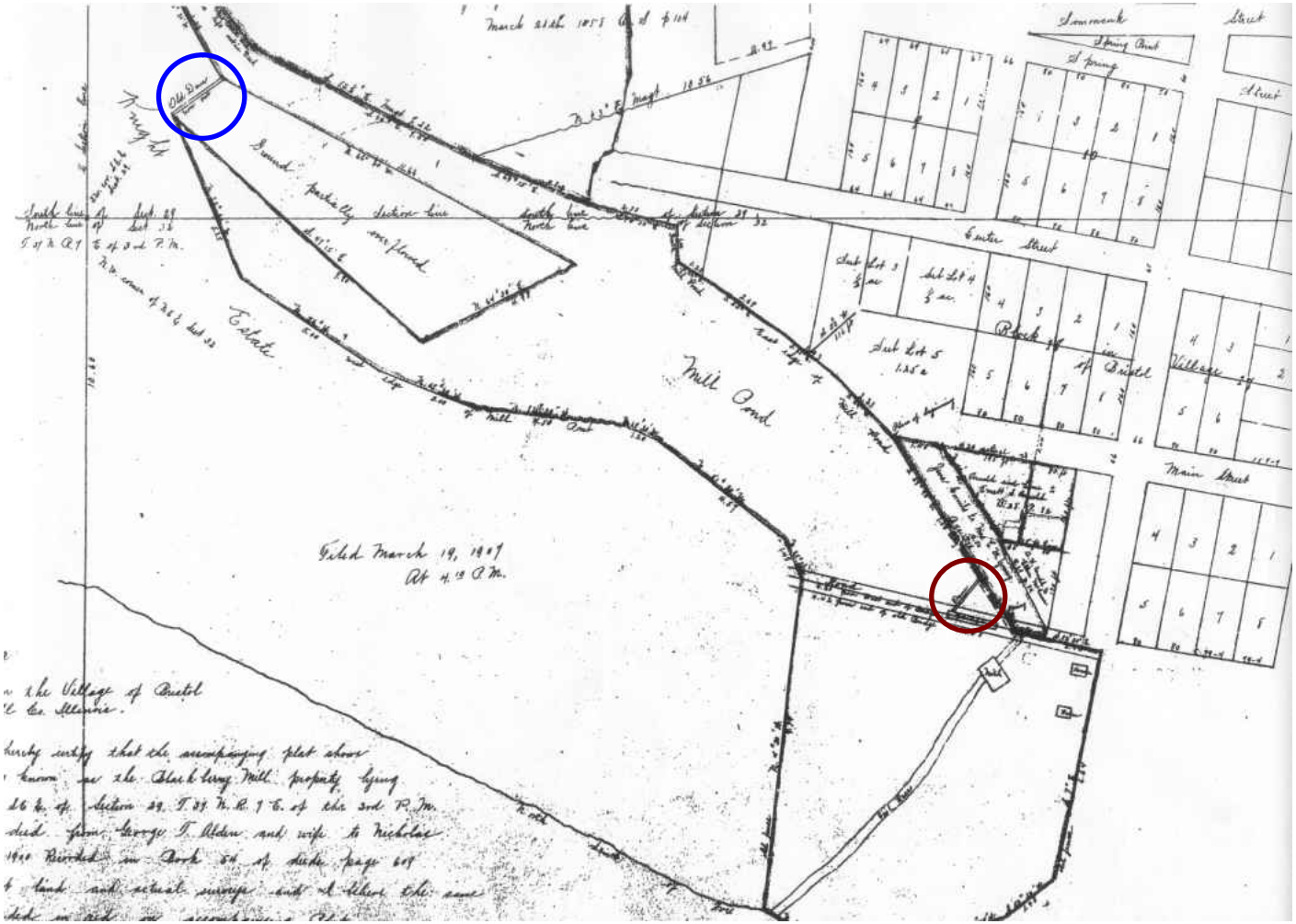


An 1898 Sanborn fire insurance map of Bristol-Yorkville showing the environs around Blackberry Mills. The Blackberry Creek Dam is circled in red. The old engine room on the south side of the mill, noted as "vacant" on previous Sanborn maps, is further described as being "dilapidated" on this map.

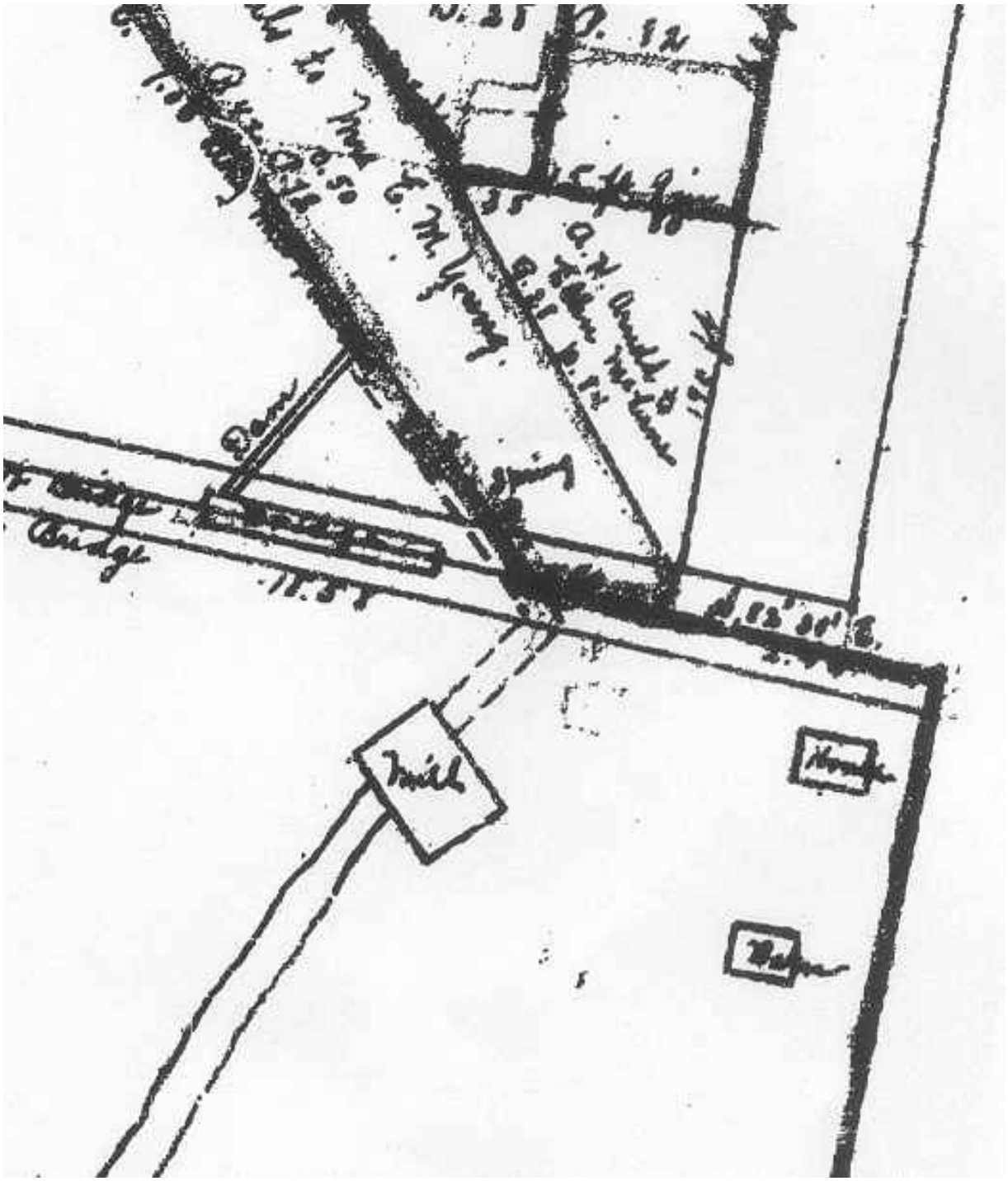
Detail of a 1903 map of Bristol, showing the location of the Blackberry Creek Dam (circled in red). The dam is illustrated, as is the adjacent steel-truss bridge carrying River Street over Blackberry Creek. The Blackberry Mills was owned by Fred Mantzke at this date.



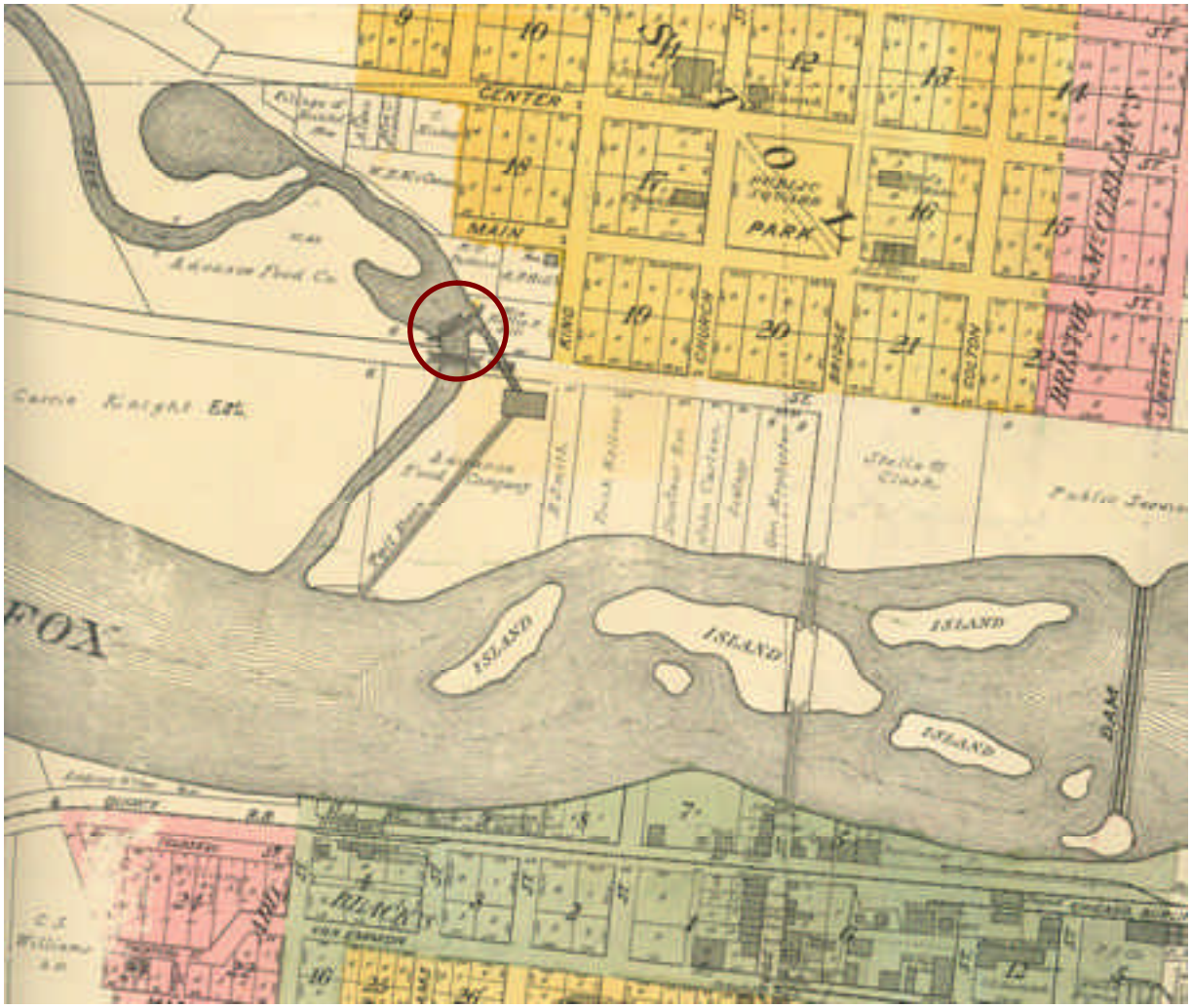
A 1905 Sanborn fire insurance map of Bristol-Yorkville showing the environs around Blackberry Mills. Fred Mantzke is still noted as the owner/operator. The Blackberry Creek Dam is circled in red.



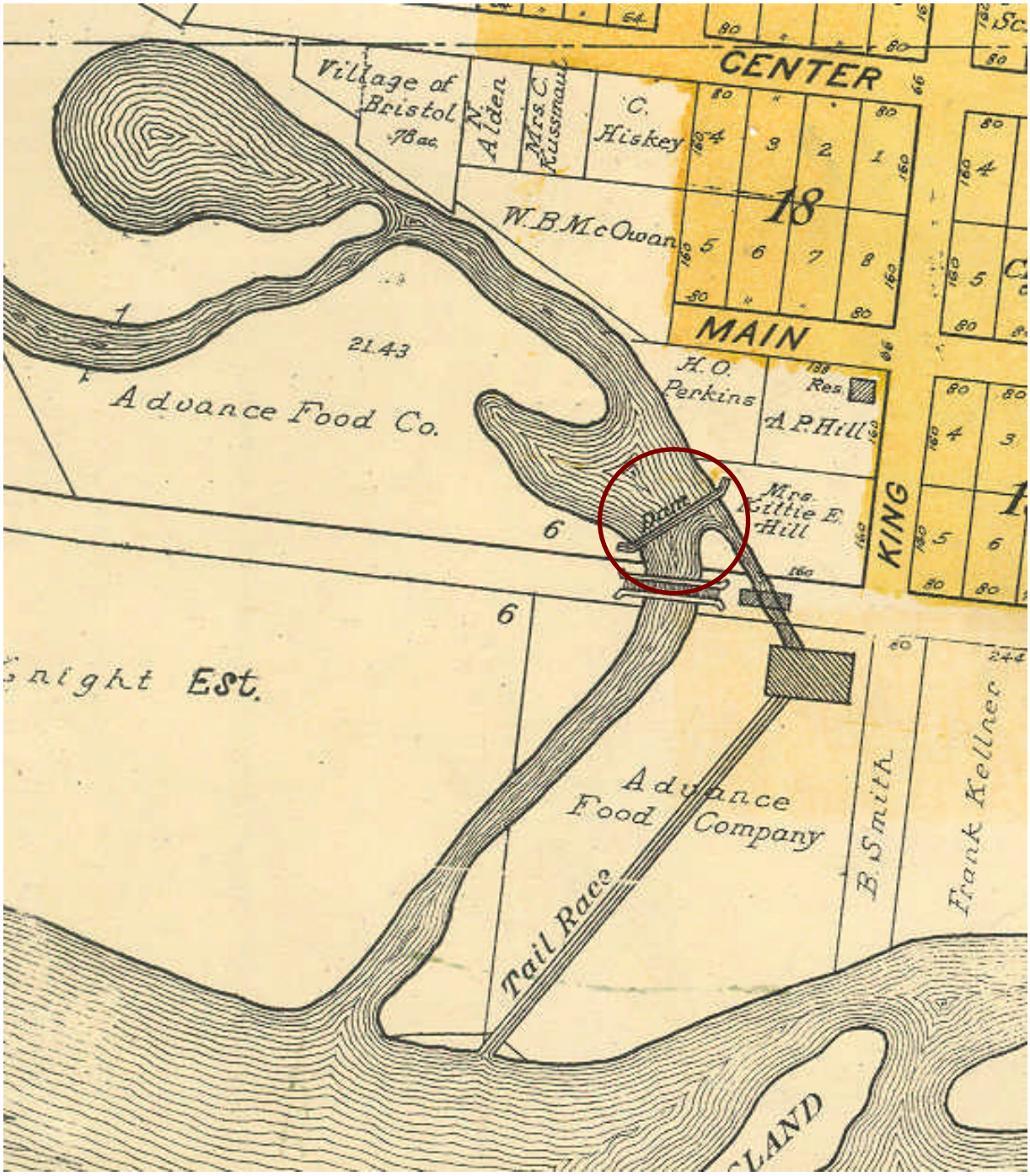
A 1906 survey map of the Blackberry Mills property. This map illustrates the irregular-shaped character of the tract, which encompassed the mill, dam, and pond beyond. The Blackberry Creek Mill is circled in red. A second dam, contemporary with the Blackberry Creek Dam, is illustrated upstream from the latter and circled in blue; it is labeled "Old Dam / Now Out" on the map.



Detail of the 1906 survey map of the Blackberry Mill property showing the area immediately surrounding the Blackberry Mill. Structures illustrated include the mill itself, a house and a barn to the east of it, the mill dam and River Street Bridge. A spring associated with the property also is illustrated a short distance east of the dam.



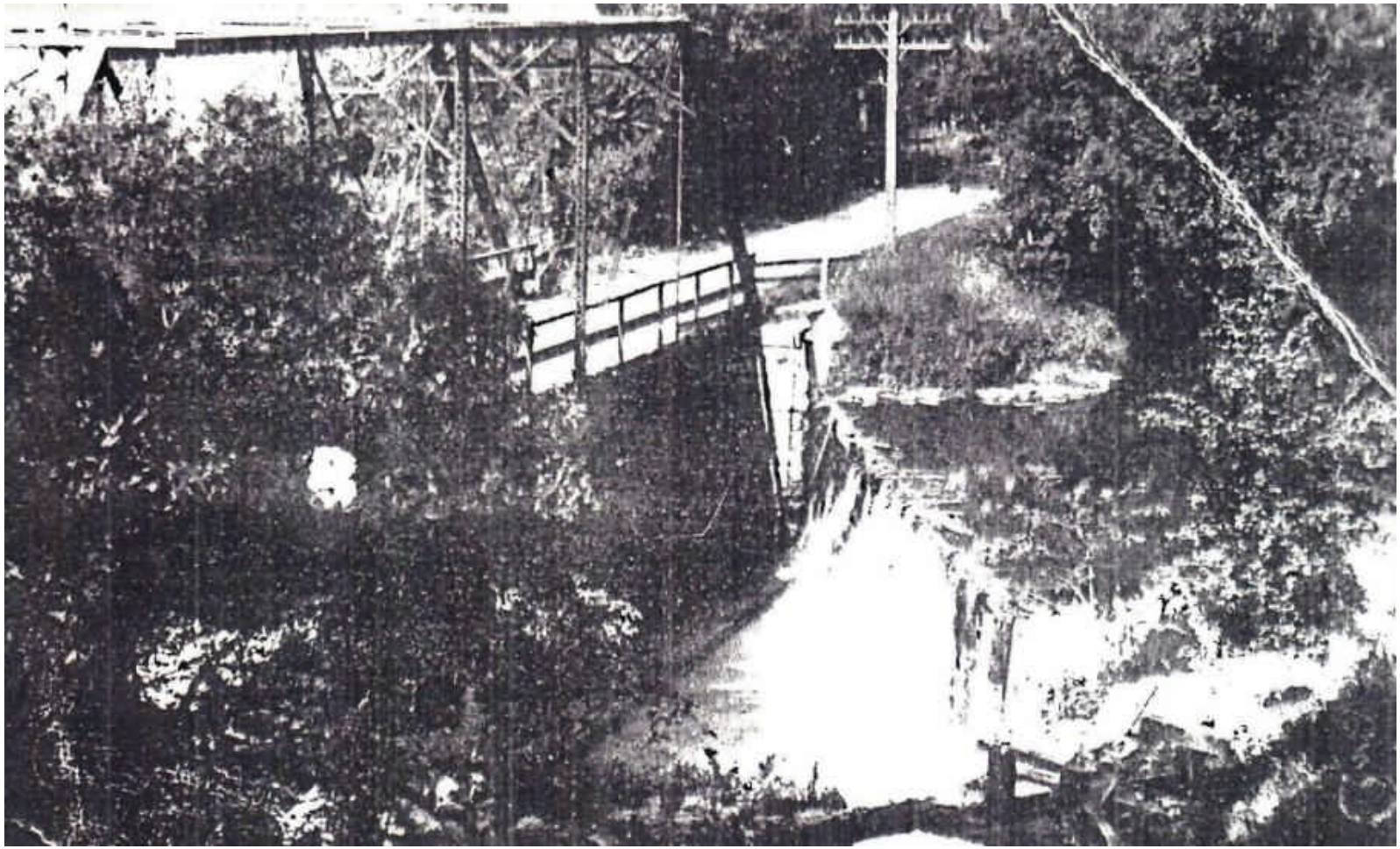
A 1922 map of Bristol Township showing the location of the Blackberry Creek Dam (circled in red). Note the much longer mill dam stretching across the Fox River at right.



Detail of the previous figure illustrating the area around the Blackberry Creek Dam (circled in red). By this date, the former Blackberry Mills and associated property was owned by the Advance Food Company. This map shows the tail race for the mill draining into the Fox River, as opposed to Blackberry Creek as shown on earlier Sanborn maps. It is unclear this depiction of the tail race was a mistake on the cartographer's part or reflects the tail race having been reoriented between 1905 and 1922.

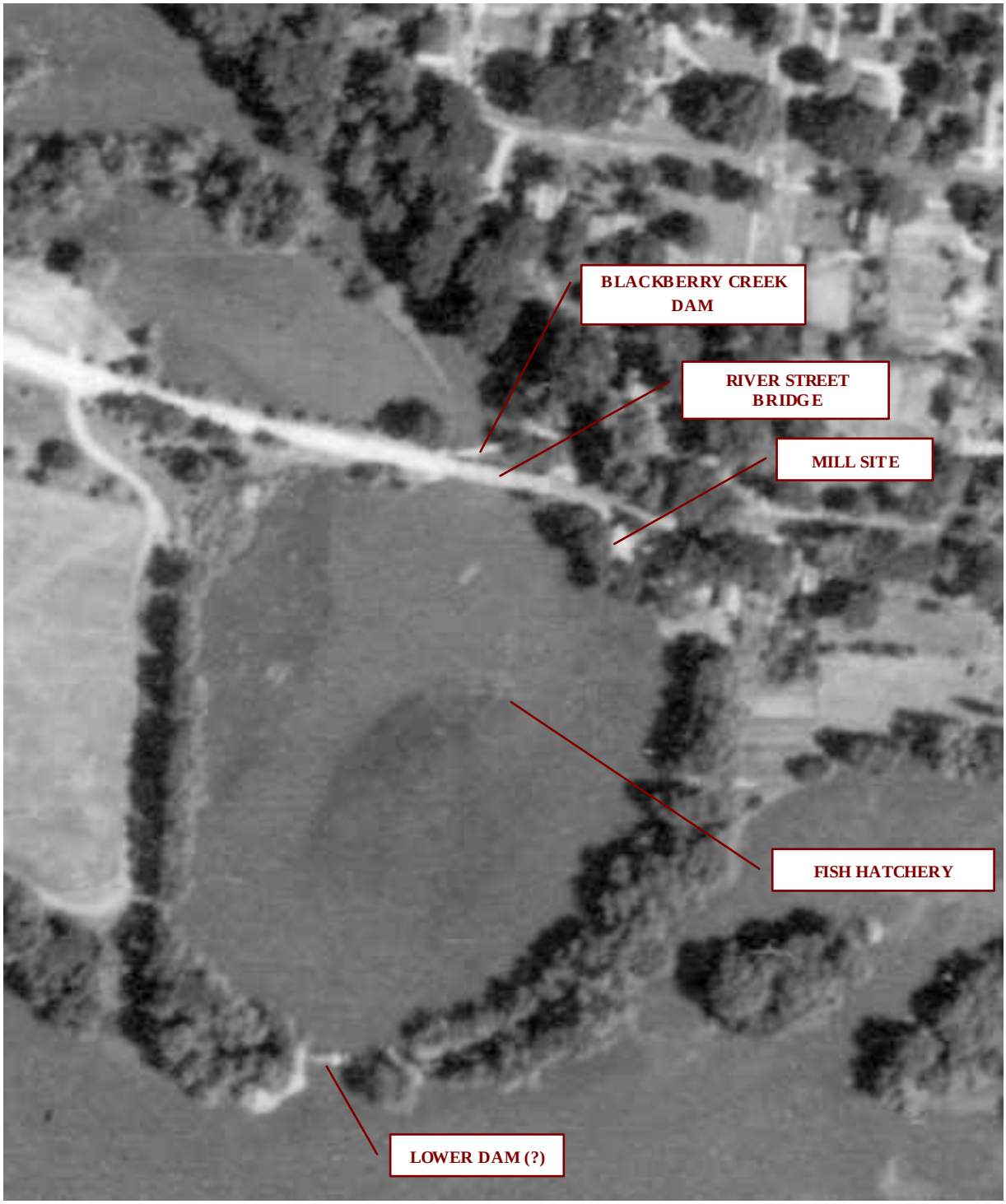
Undated painting of the Blackberry Mills, showing it as it appeared early in the twentieth century. This view looks north, up Blackberry Creek, towards the mill. The main body of the mill sits on a raised stone foundation. The lower frame section at left is the wheel house. The engine room formerly attached to the south side of the mill is not depicted and apparently had been removed some years before (based on the size of the tree shown at its former location). This painting is in the possession of the Kendall County Historical Society. This painting is in the possession of the Kendall County Historical Society. A tag attached to the painting notes that the mill had been demolished by 1936.

Circa-1900 photograph of the iron-truss bridge over Blackberry Creek on River Street in Bristol. The Blackberry Creek Dam appears in the background, just beyond the bridge. The iron-truss bridge would remain in use until 1959, when it was replaced by a concrete-deck span. The stone bridge abutment shown at left was left undisturbed, however, and it remains in place to the present day. This photograph is part of the Alice Tarbox Dunger Collection and was published in *A Bicentennial History of Kendall County* (1976).

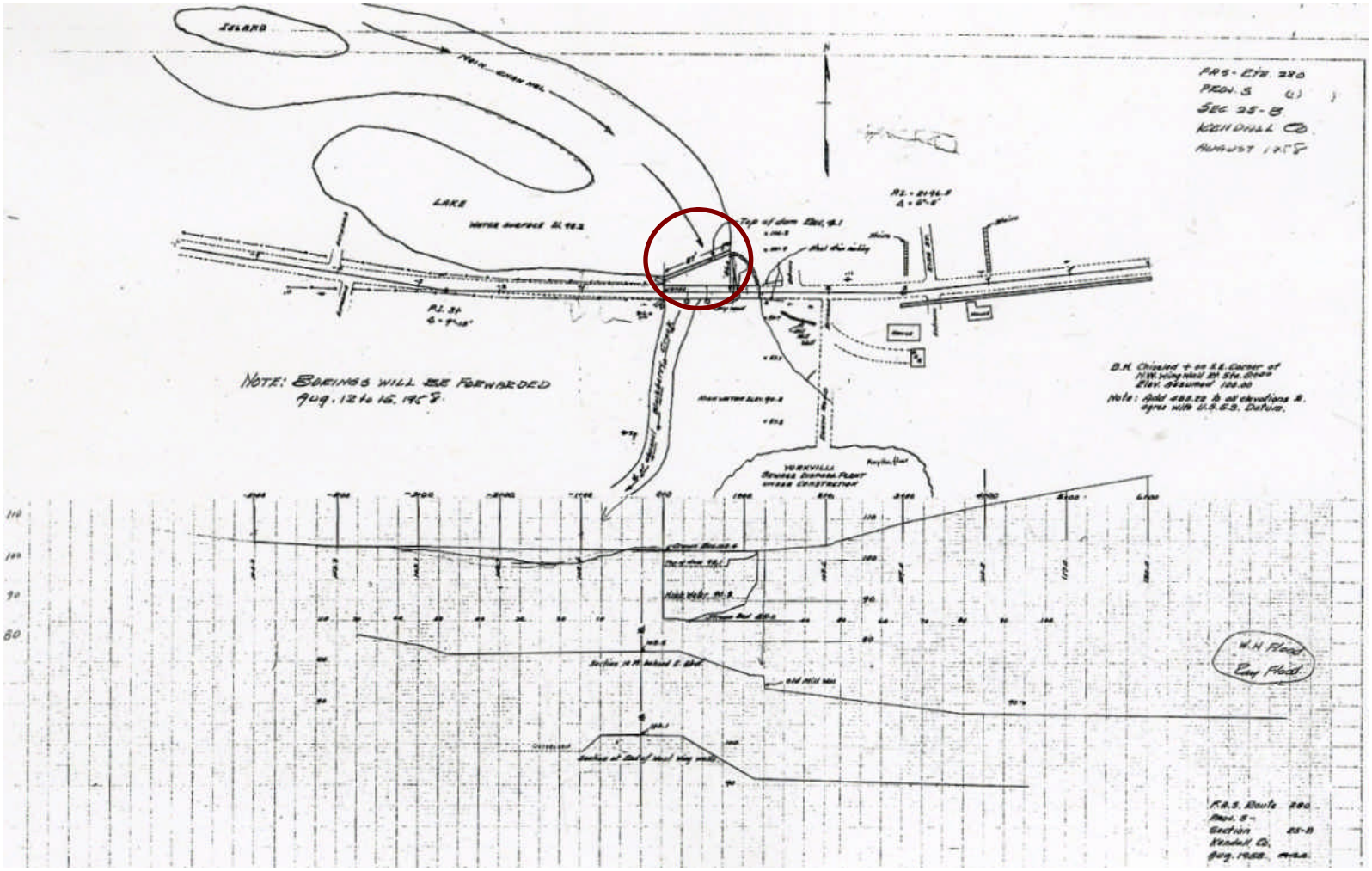


Undated photograph of the Blackberry Creek Dam and River Road Bridge, possibly taken during the early part of the twentieth century. This view was taken from the hillside on the east side of the creek and looks west.

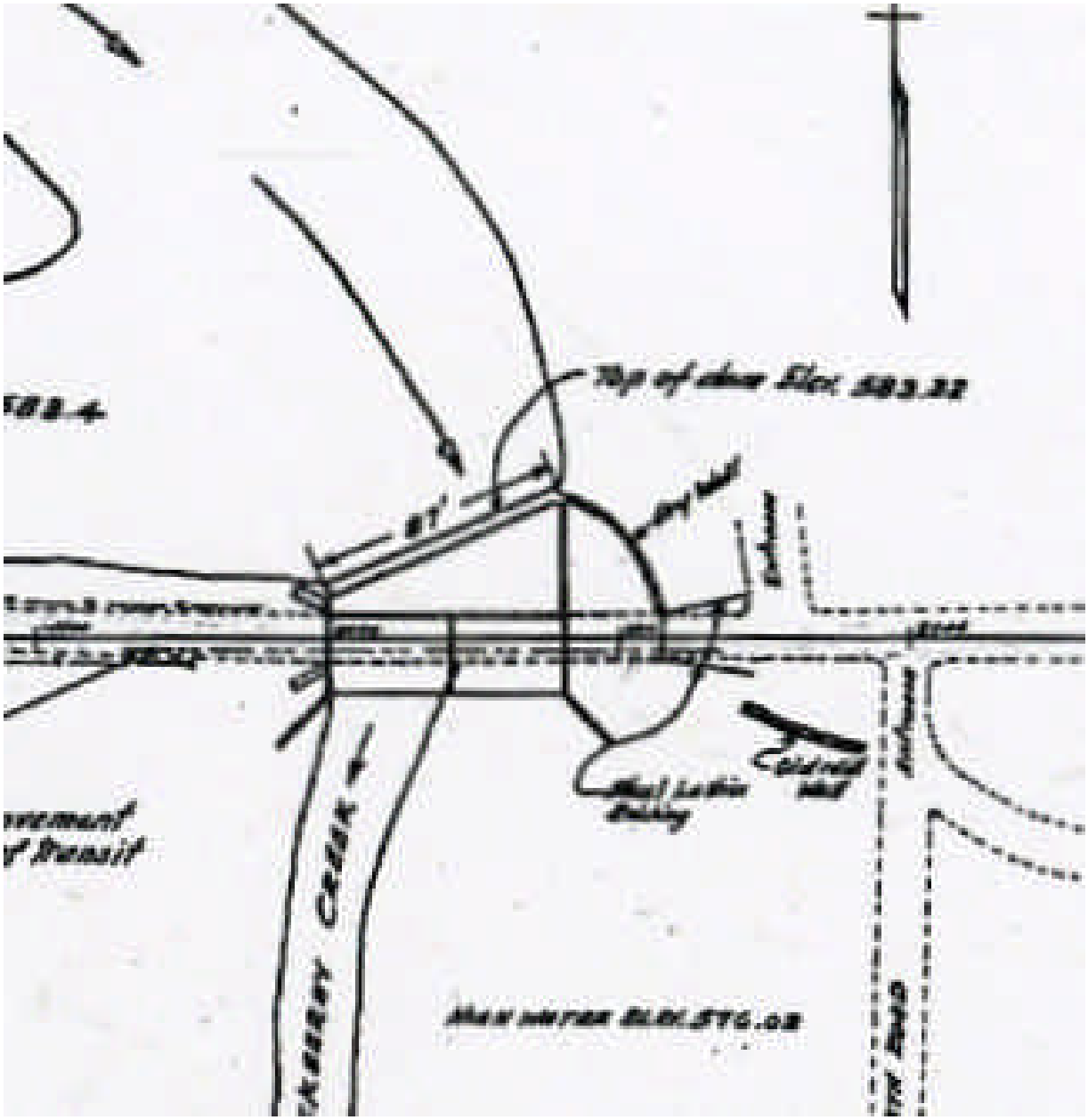
A 1939 aerial photograph of the Bristol-Yorkville area showing the location of the Blackberry Creek Dam (circled in red).



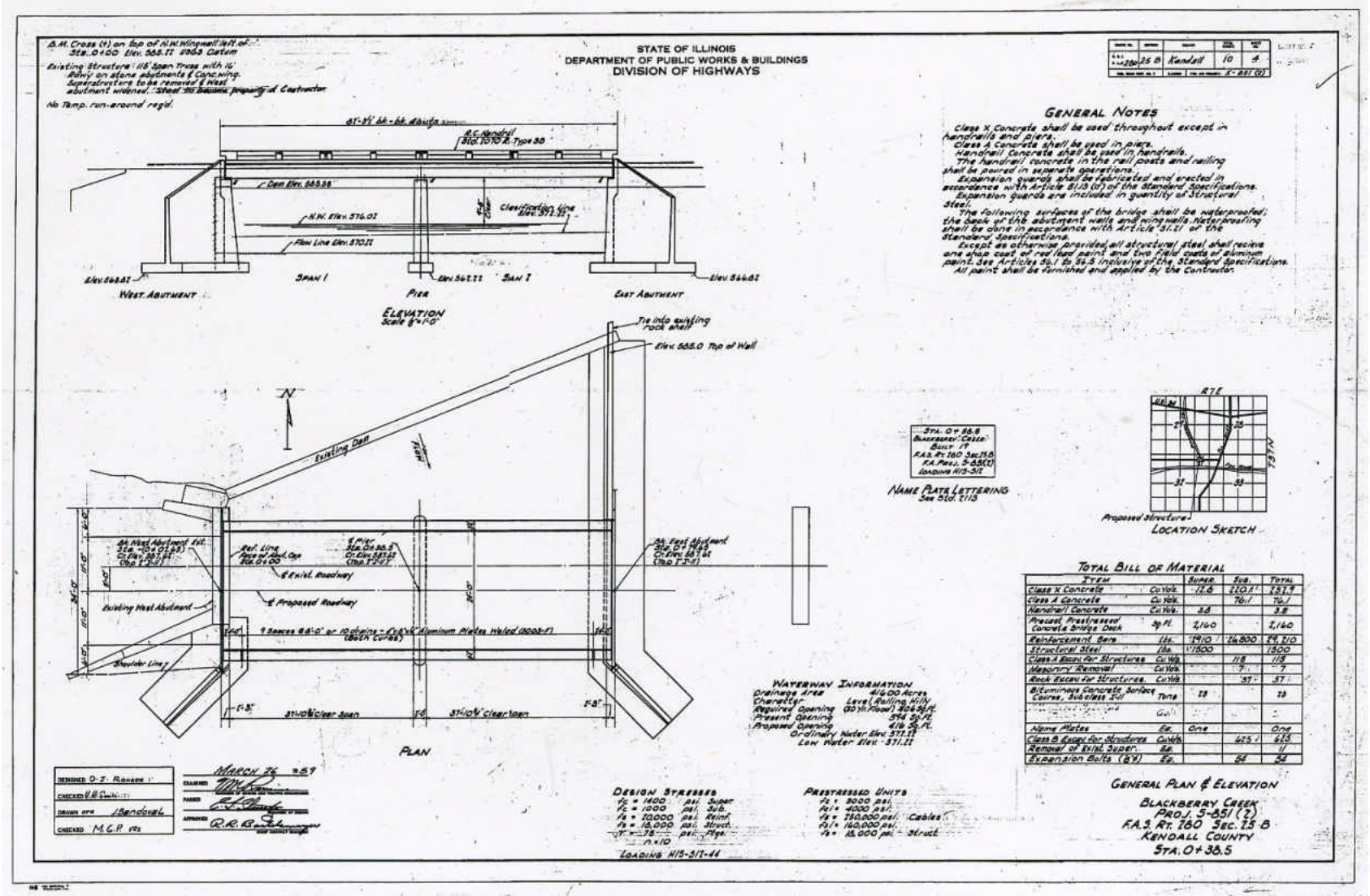
Detail of the 1939 aerial photograph showing the area around the Blackberry Creek Dam. By this date, a new dam appears had been erected at the mouth of Blackberry Creek by the State of Illinois as part of a fish hatchery project. This lower dam created a large pond between the mouth of the creek and the Blackberry Creek Dam, as is readily visible in this view.



Site plan and elevation views prepared in 1959 for the bridge replacement project for the iron-truss span over Blackberry Creek at River Street in Yorkville (formerly Bristol). The Blackberry Creek Dam is circled in red.

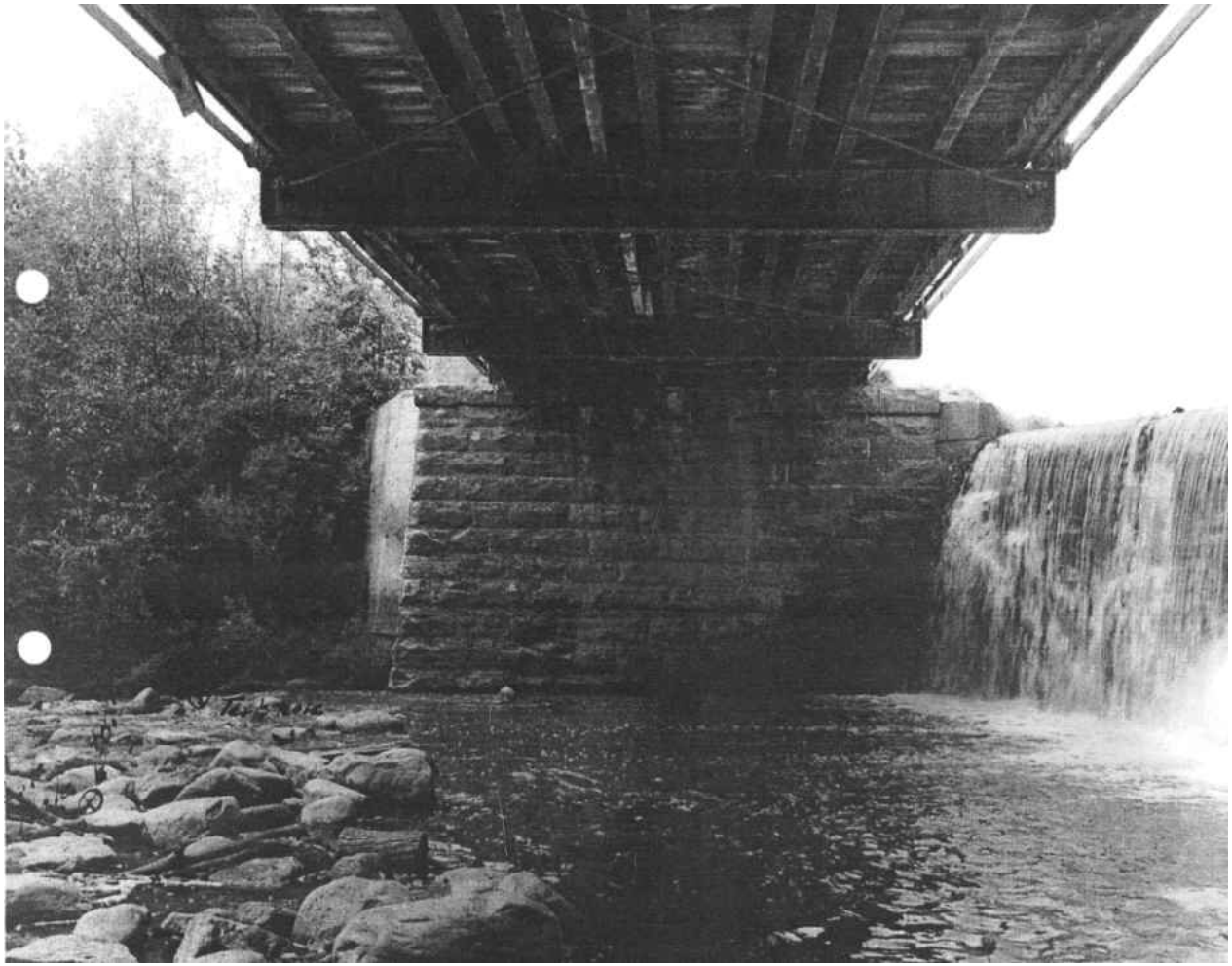


Another site plan drawing prepared in 1959 as part of the bridge replacement project for the iron-truss span over Blackberry Creek at River Street in Yorkville (formerly Bristol). In addition to the dam, this drawing shows several features associated with the Blackberry Creek Mills, including a "dry wall" (likely associated with the head race) and an "old mill wall" (representing the north wall of the mill). The area to the south of the former mill site was being developed as the sewage treatment plant for the Yorkville-Bristol Sanitary District by this date.

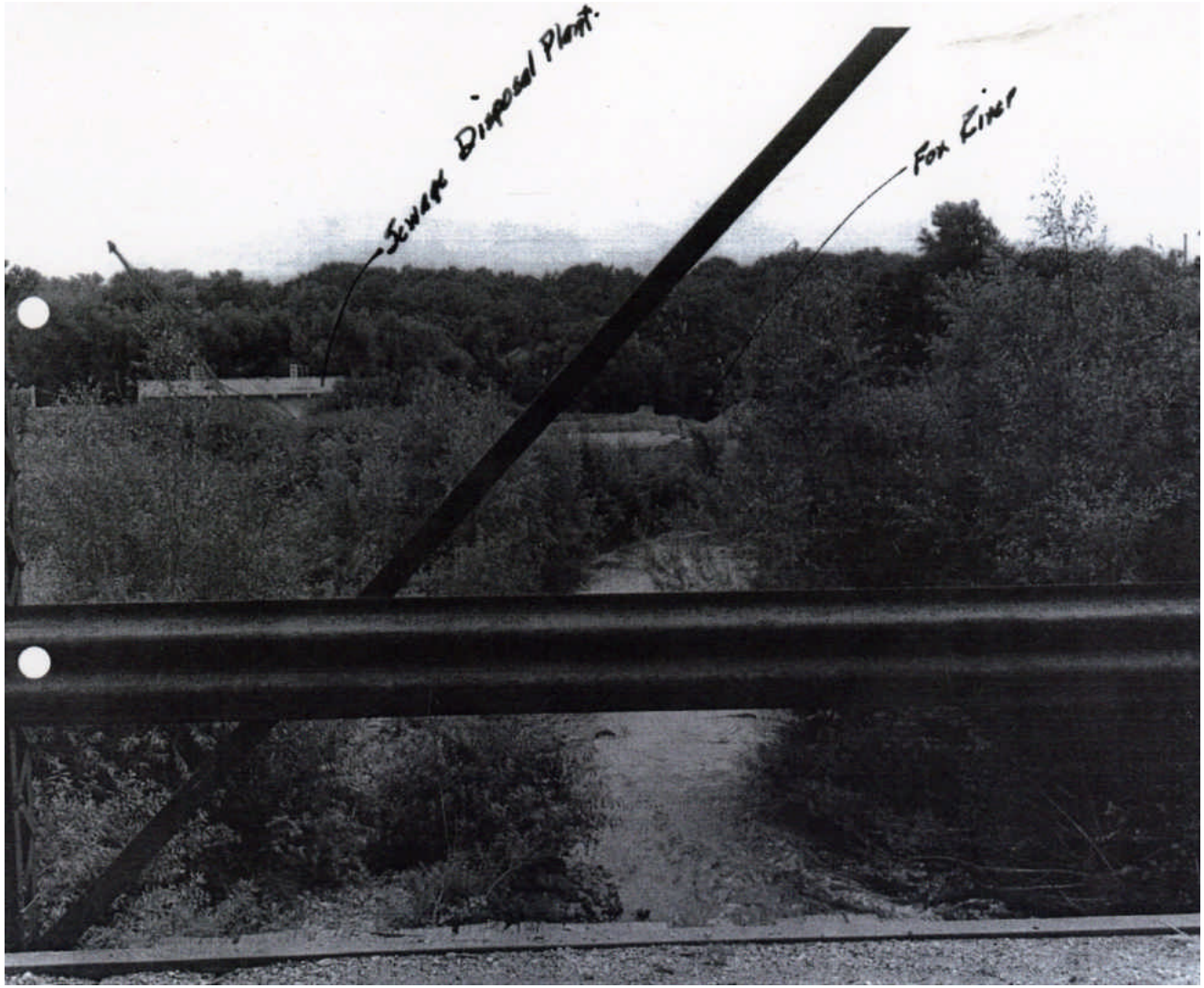


Plan and elevation views for the concrete-slab bridge constructed over Blackberry Creek in 1959. The mill dam is illustrated to the north of the new bridge, whose west end tied was to be tied into the stone abutment from the pre-existing iron truss span.

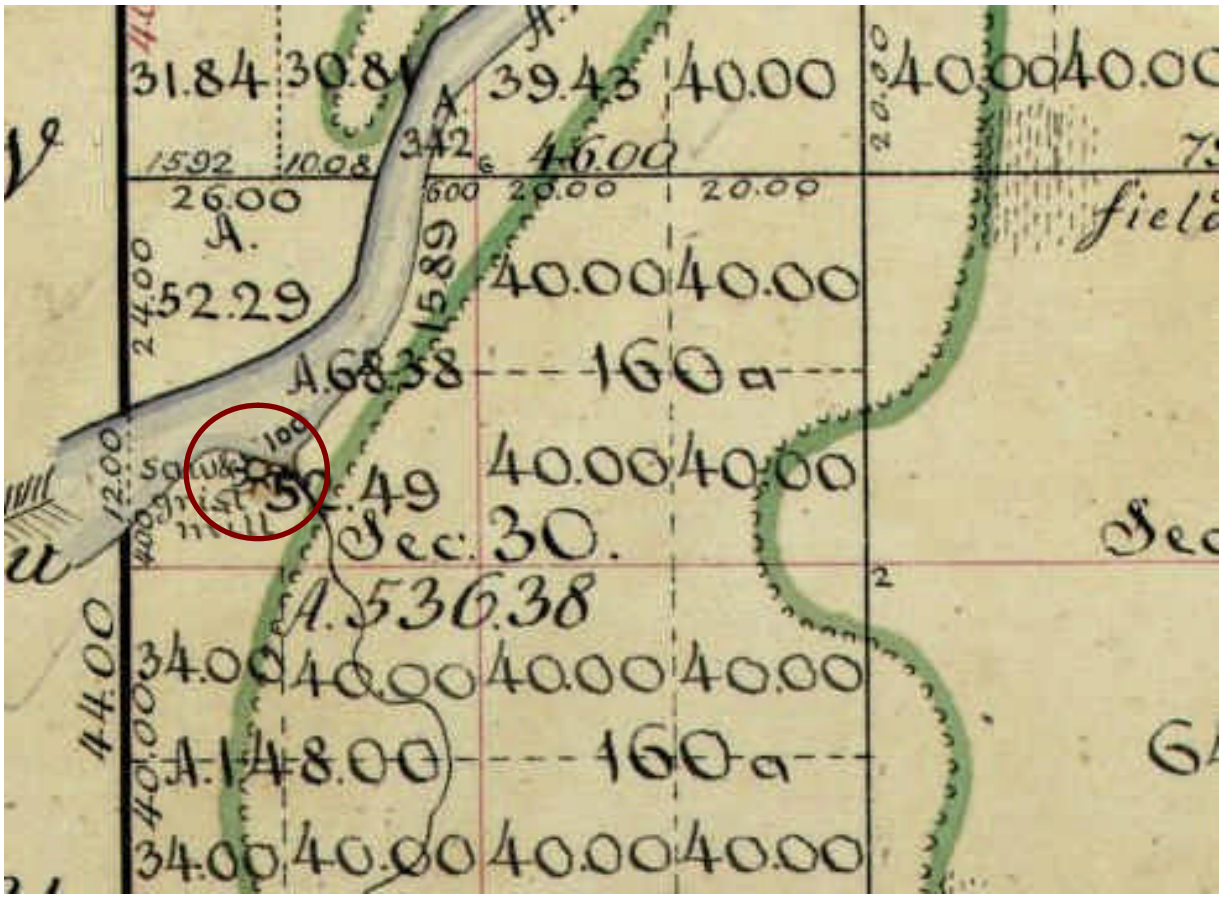
Photograph of the Blackberry Dam site, taken in 1959 prior to the replacement of the iron-truss bridge across Blackberry Creek at River Street. The fall of the dam appears at left, while the soon-to-be-replaced iron-truss bridge is shown at right. Note the dry-laid stone retaining wall between the dam and bridge. The head race for the old Blackberry Mills ran along the narrow strip of level ground between this wall the wooded bluff in background.



A 1959 photograph showing the underside and west abutment of the iron-truss bridge on River Street, with Blackberry Creek Dam at right. The west abutment of the bridge was tied into the dam and was retained in place even after the iron-truss bridge was replaced. Note the concrete wing wall that has been added on the south (left) side of the abutment.



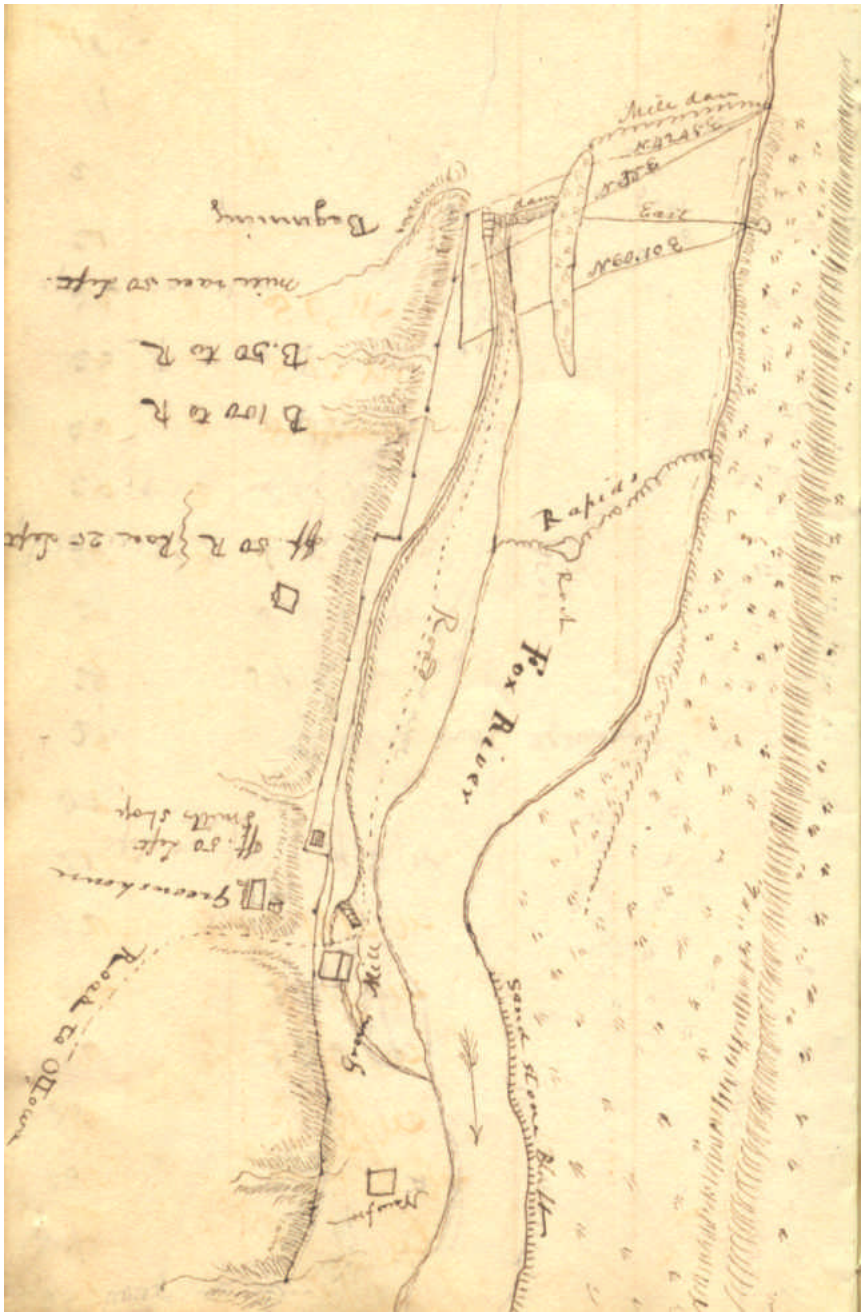
A 1959 photograph looking south down Blackberry Creek from the River Street Bridge. The recently established Yorkville-Bristol Sewage Treatment Plant appears in the background at left, with Fox River lying just beyond.



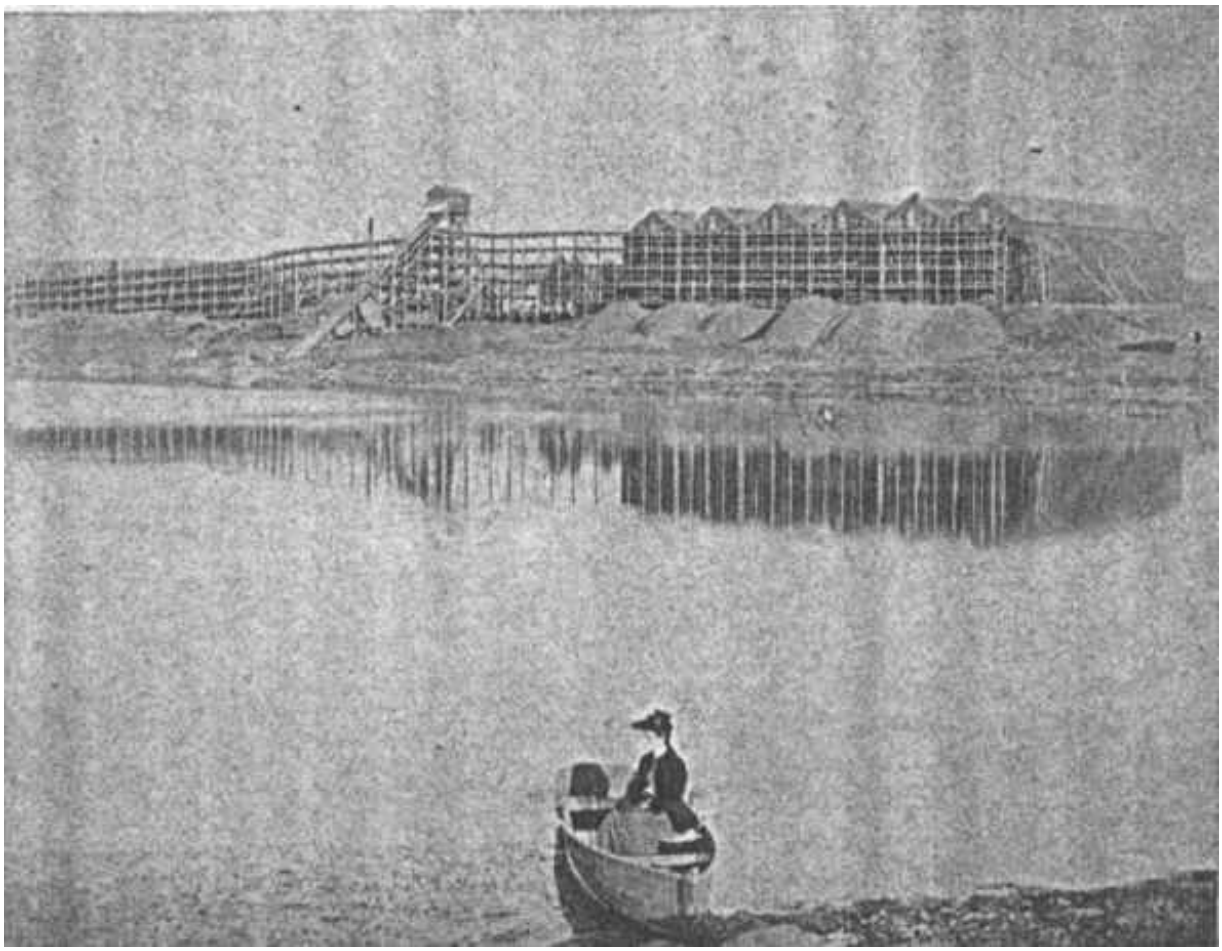
Detail of an 1839 United States Surveyor General's plat of Township 36 North, Range 6 East (Fox Township) showing the area around Millington western Kendall County. A saw and grist mill is illustrated at the mouth of Clear Creek, where it intersects the Fox River. The mill would have exploited the large stand of timber adjoining the creek and river.

Detail of an 1839 United States Surveyor General's plat of Township 36 North, Range 6 East (Fox Township) showing the area around Millbrook in west-central Kendall County. A saw mill (circled in red) is shown at the mouth at Hollenbeck Creek. No dam is shown across the Fox River, which suggests that the water power for the mill was supplied by the creek. The mill was well sited in respect to available water power and timber. This map also provides a good illustration of the earlier pattern of settlement in Kendall County, with farms being scattered around the edges of timber groves.

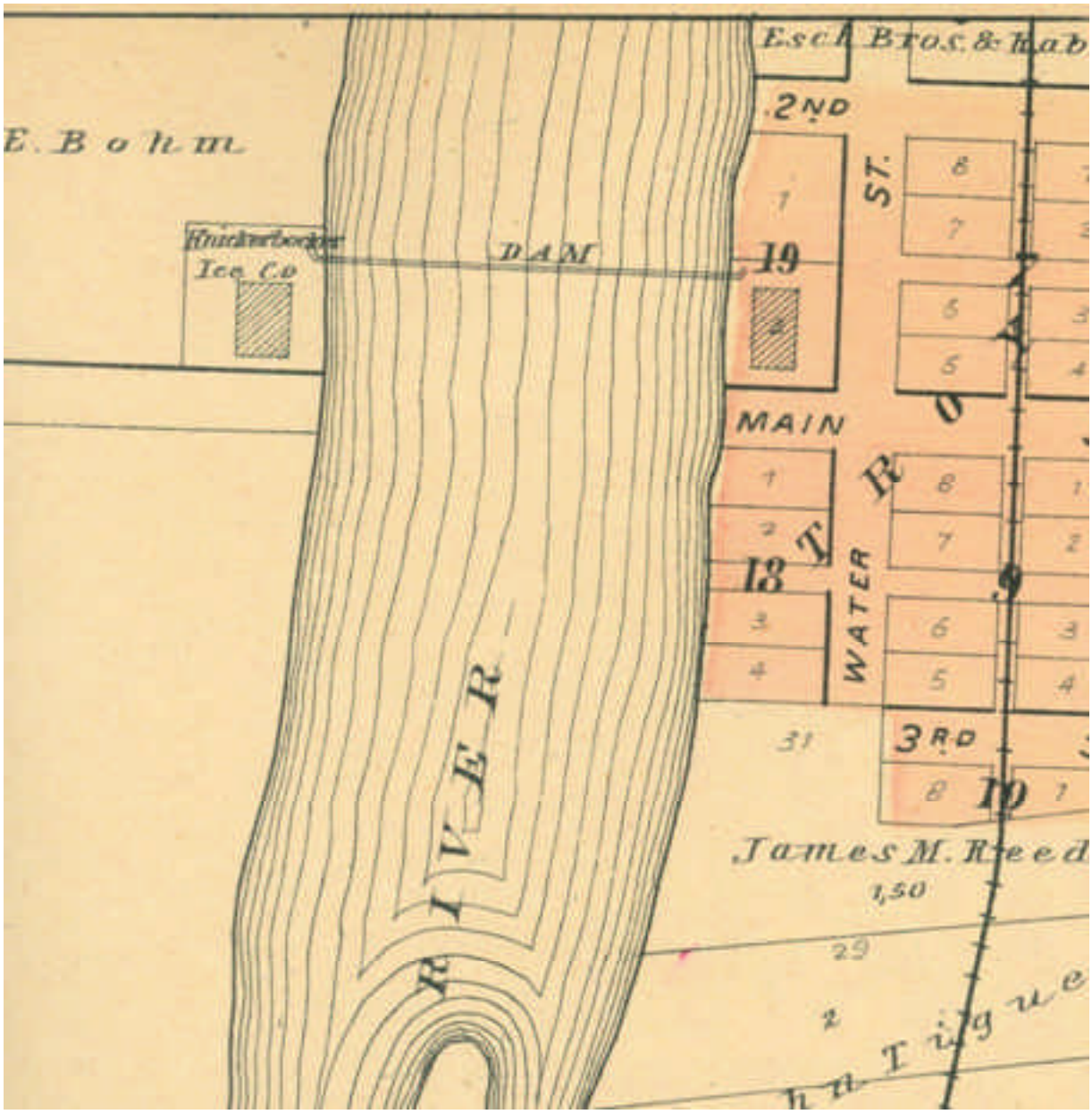
Detail of an 1842 United States Surveyor General's plat of Township 37 North, Range 8 East (Oswego Township) showing the area around the town of Oswego in eastern Kendall County. A flouring mill and dam are illustrated upstream from the recently established community. This was one of multiple points where the Fox River was dammed in the 1830s.



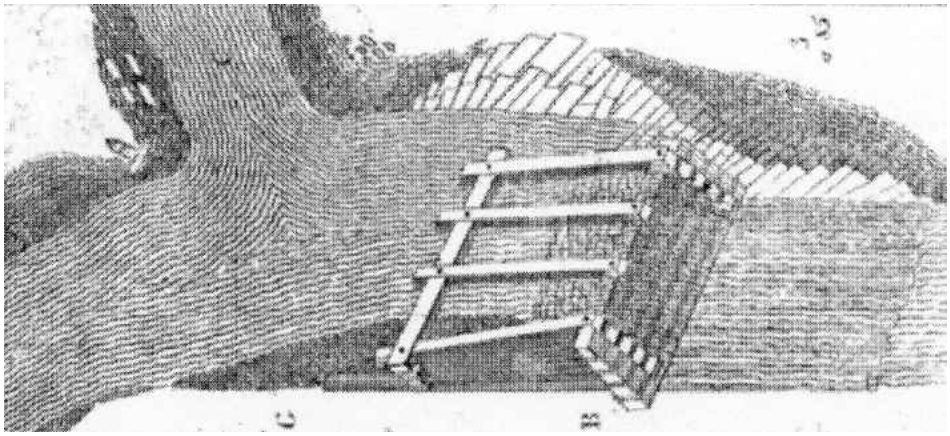
Field drawing of the Fox River valley north of Ottawa (La Salle County) showing the proposed route of a feeder canal for the Illinois and Michigan Canal. This sketch was produced during the 1836 canal survey. It shows a cluster of buildings at the point where the Ottawa Road dropped down from the uplands into the river valley, one of which is labeled "Green's Mill" (circled in red). The mill was supplied with water via a long headrace extending off the west end of a dam positioned above the lower rapids of the Fox. The dam (shown at top of sketch) actually consisted of two segments, separated by an island. Green's Mill represented the nucleus of the present-day community of Dayton.

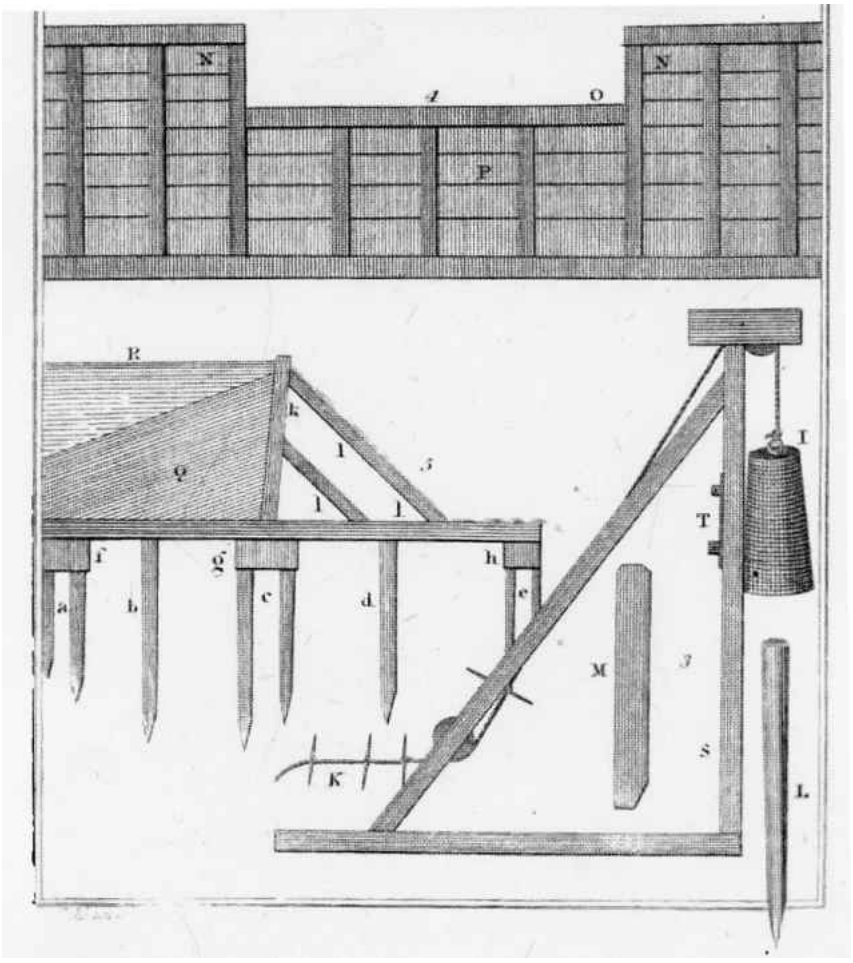


Ice harvesting was another industry that flourished in Kendall County in the late nineteenth century and was facilitated by dams constructed across the Fox River and its tributaries. The largest ice business the county was that of Eshe Brothers and Rabe, pictured here circa 1890, which was located on the Fox River opposite Oswego. The company harvested ice from a Parker's Mill Pond and at one point had twenty massive ice houses at their complex.



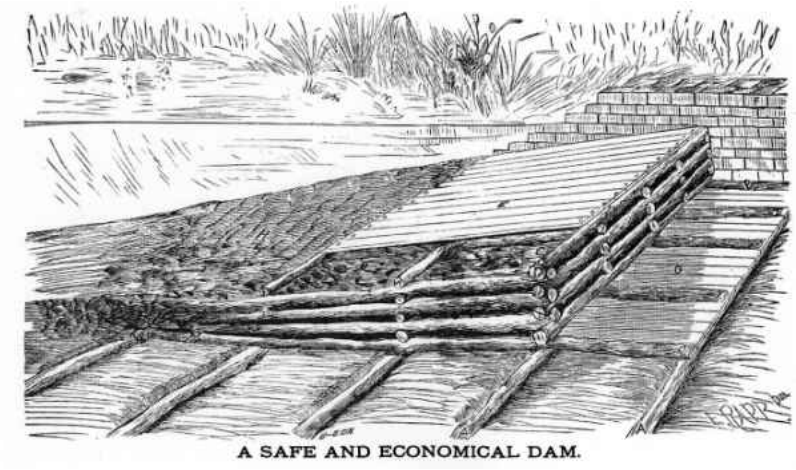
Detail of 1903 plat showing Parker's Dam across the Fox River at Oswego. The Knickerbocker Ice Company—the successor to Eshe Brothers and Rabe—is shown at the west end of the dam.



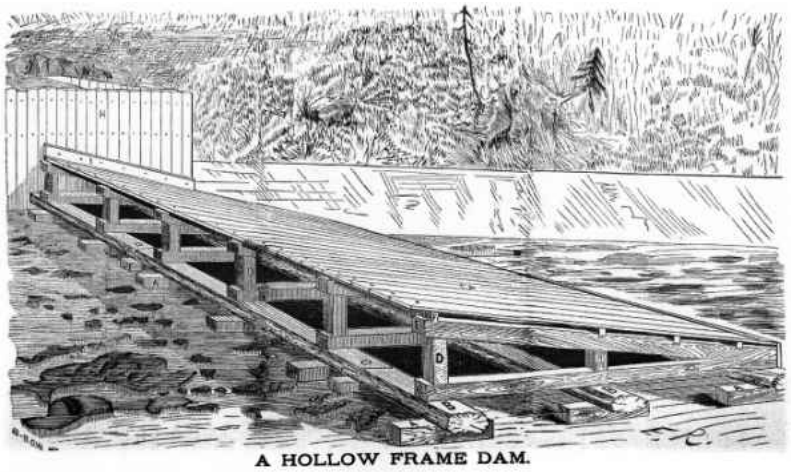


Detail of log dam (TOP) and timber frame dam (BOTTOM), as depicted by Evans in his *The Young Mill-Wright And Miller's Guide (1848)*. Evans even included details of a simple and expedient "Pile Engine," or pile driver, for use in constructing the frame dam.

LOG DAM FOR SOFT OR SANDY BOTTOMS.

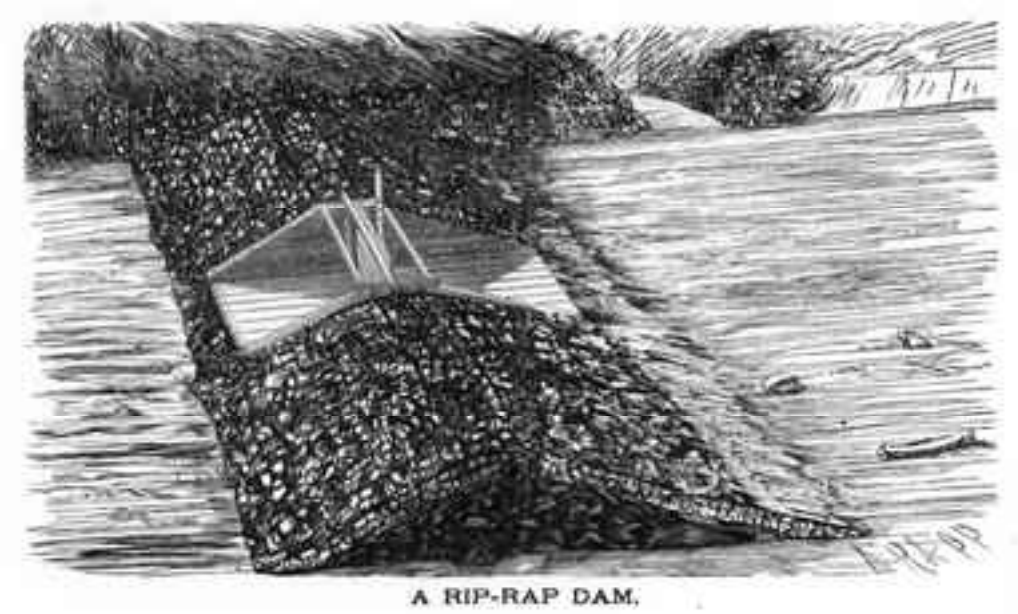


A SAFE AND ECONOMICAL DAM.

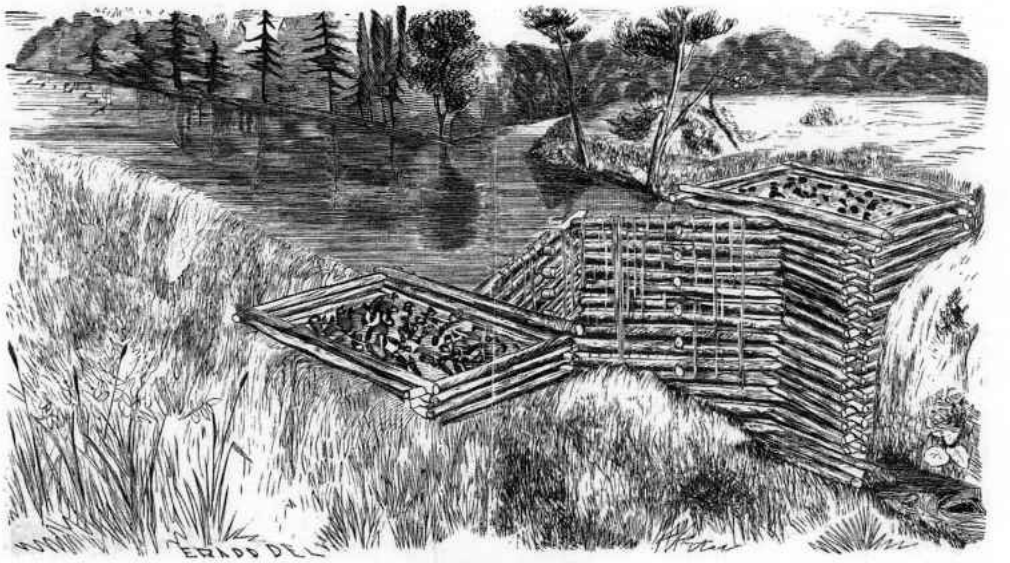


A HOLLOW FRAME DAM.

Three simple dams depicted in Leffel and Company's *The Construction of Mill Dams,* which was first published in 1874.

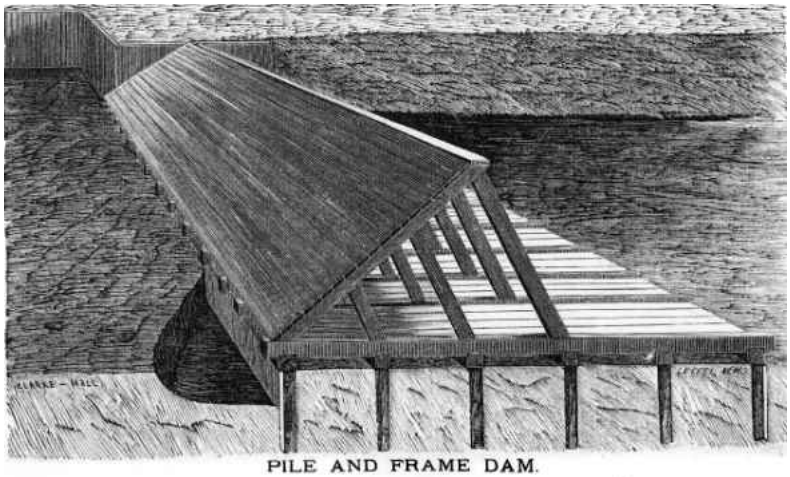


A RIP-RAP DAM.

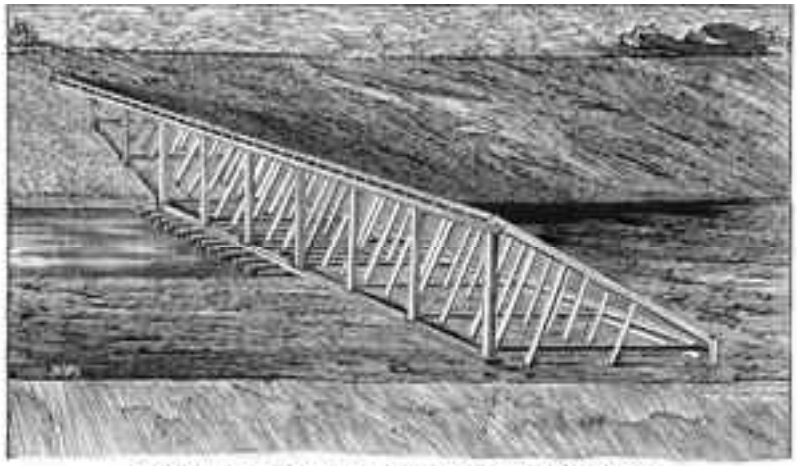


A CRIB DAM.

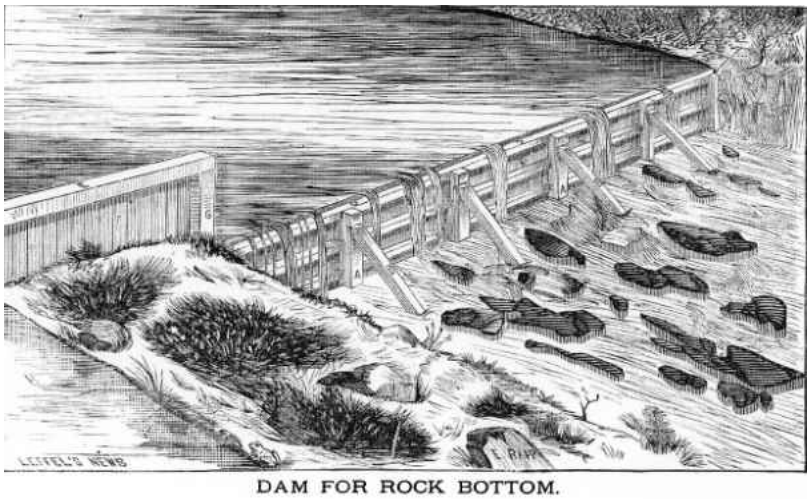
Two simple dams depicted in Leffel and Company's *The Construction of Mill Dams*, which was first published in 1874. TOP: A simple embankment dam, which Leffel and Company refers to as a "Rip Rap Dam." BOTTOM: A simple log crib dam, which functions similarly to an arch dam with the log arch anchored by two rock-filled cribs.



PILE AND FRAME DAM.

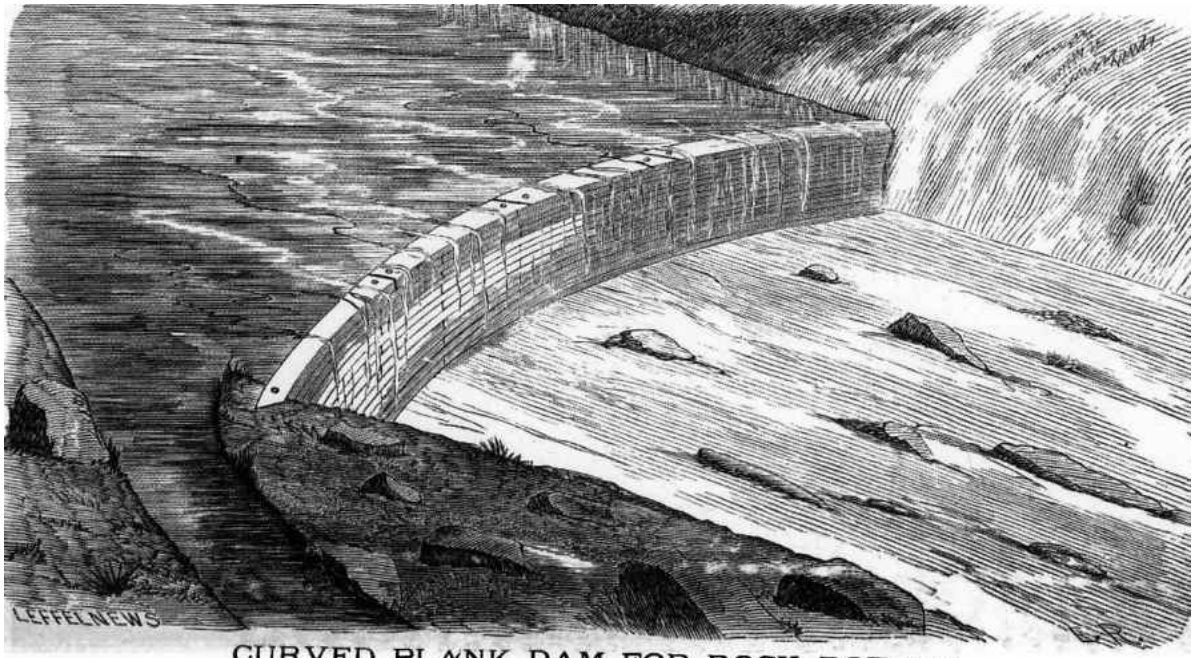


DAM FOR ROCK AND SAND BOTTOM.



DAM FOR ROCK BOTTOM.

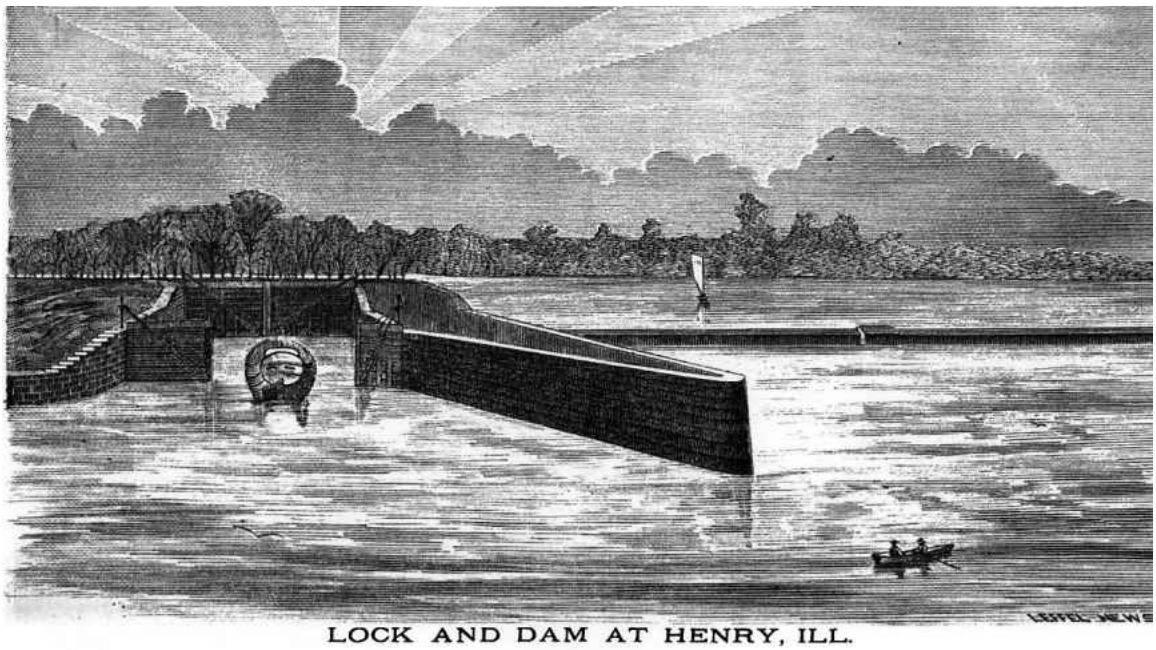
Three simple frame dams depicted in Leffel and Company's *The Construction of Mill Dams*, which was first published in 1874.



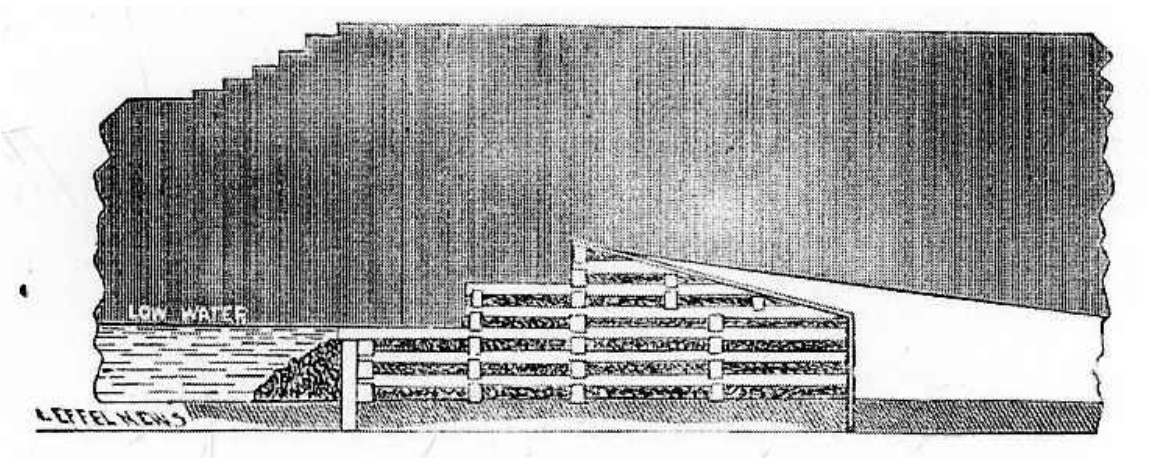
CURVED PLANK DAM FOR ROCK BOTTOM.

STONE DAM NEAR FRANKFORT, KY.

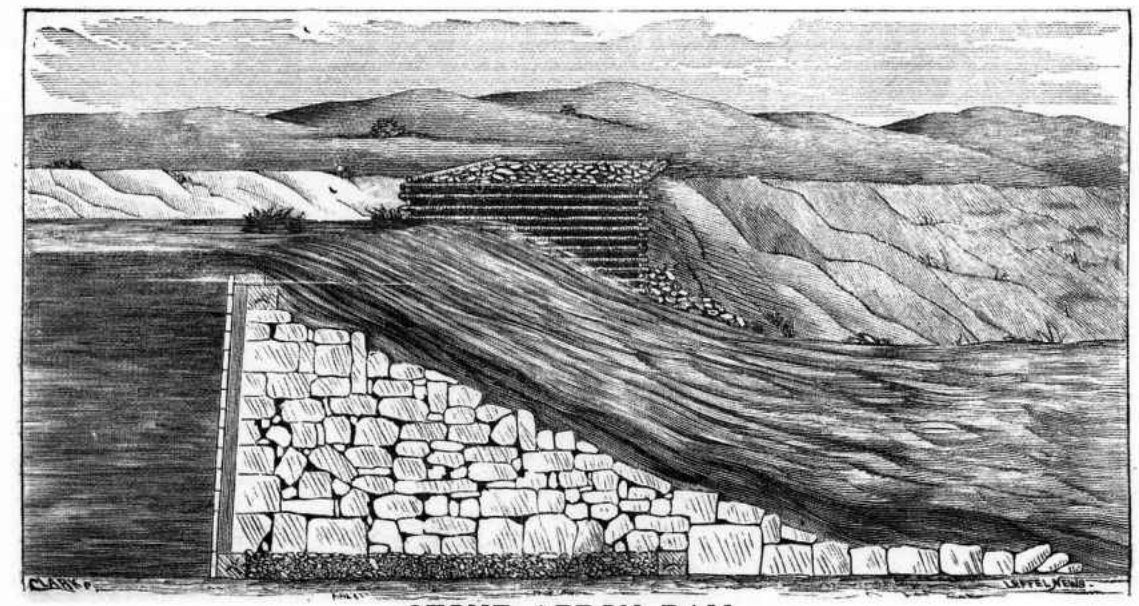
Two arch dams depicted in Leffel and Company's *The Construction of Mill Dams,* which was first published in 1874. TOP: Dam constructed of wooden planks. BOTTOM: One constructed of stone.



LOCK AND DAM AT HENRY, ILL.

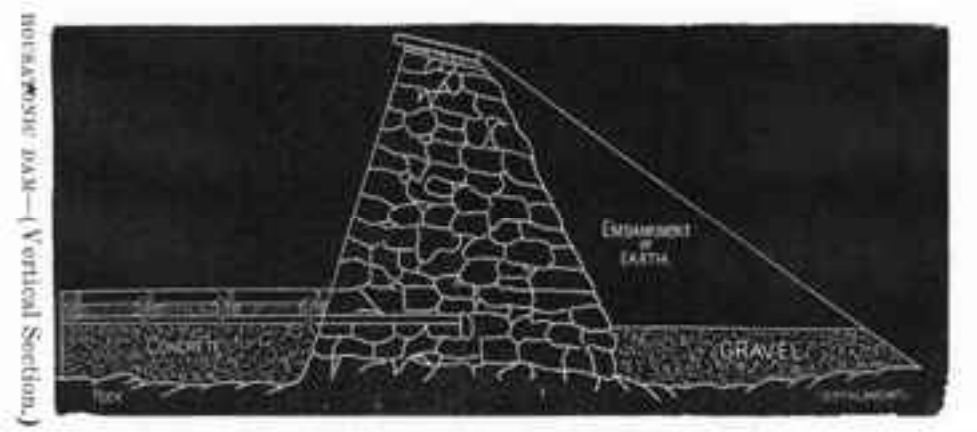


Two views of the dam constructed at Henry, Illinois and illustrated in Leffel and Company's *The Construction of Mill Dams*, which was first published in 1874. This dam was constructed of rock-filled timber cribs.

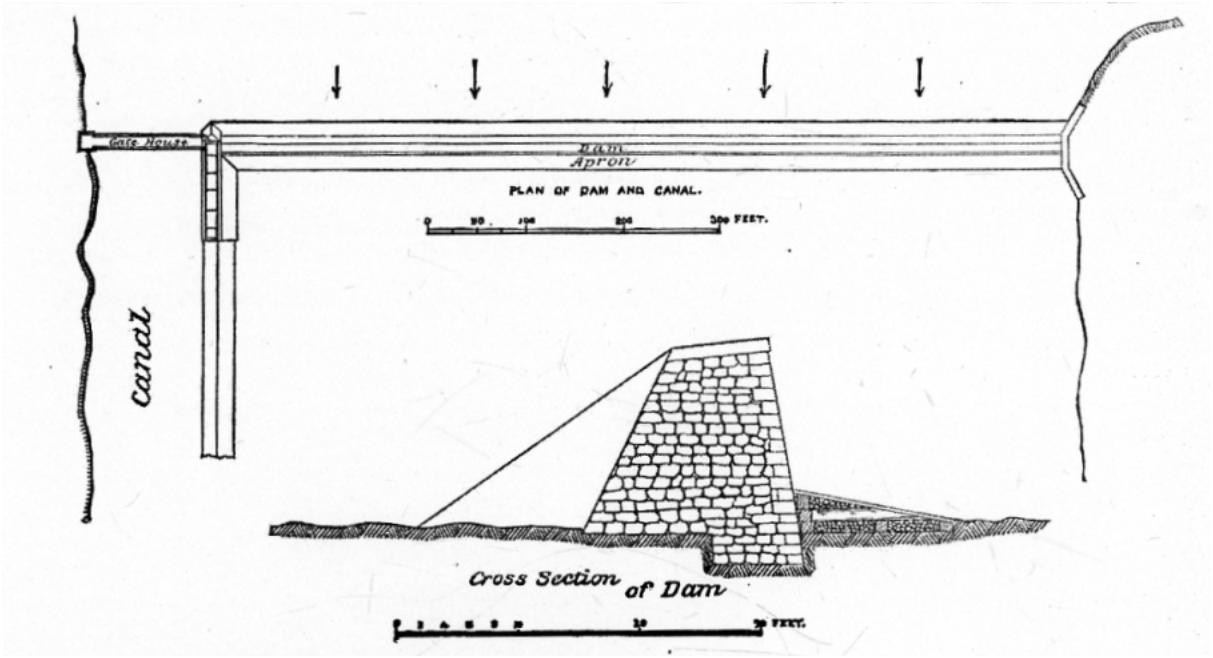


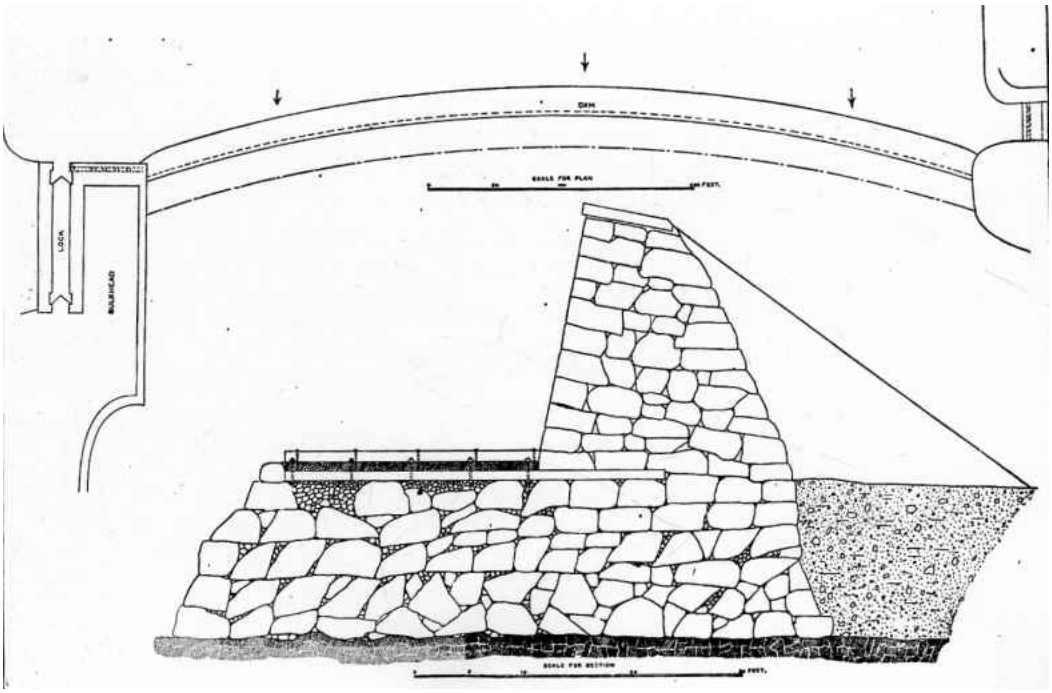
STONE APRON DAM.

STONE DAMS.

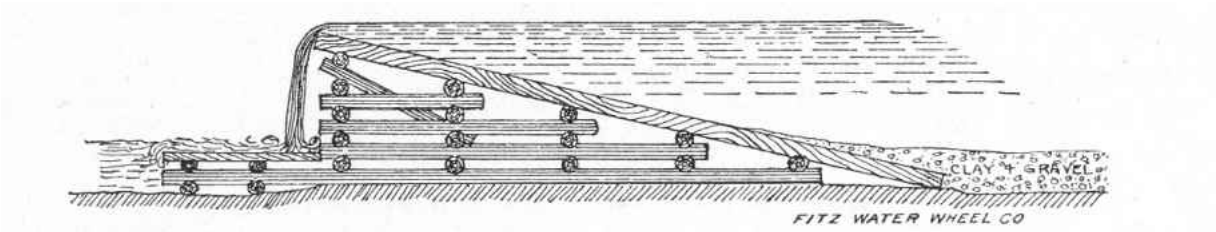


Three views of stone dams depicted in Leffel and Company's *The Construction of Mill Dams*, which was first published in 1874. The upper two examples depict the modern profile with the vertical upstream face and a downstream breastwork incorporated into its design. The lower image depicts a similar profile.



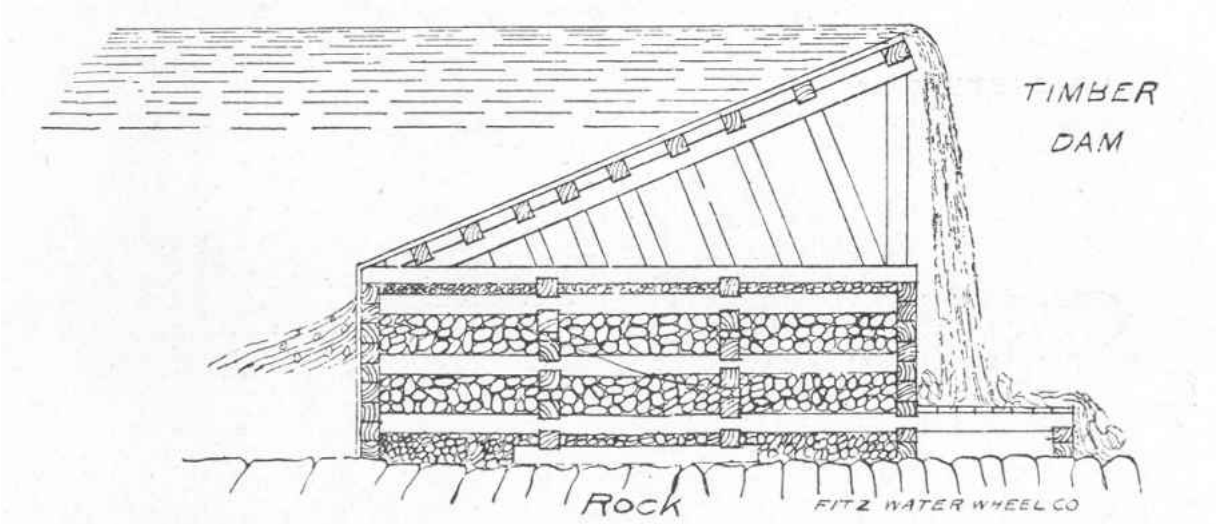


Details of two stone dams, as depicted in the *Reports on the Water-Power of the United States* (1885). TOP: A stone gravity dam. BOTTOM: A stone arch dam. Both dams exhibit a battered profile, similar to that employed for the Blackberry Creek Dam.



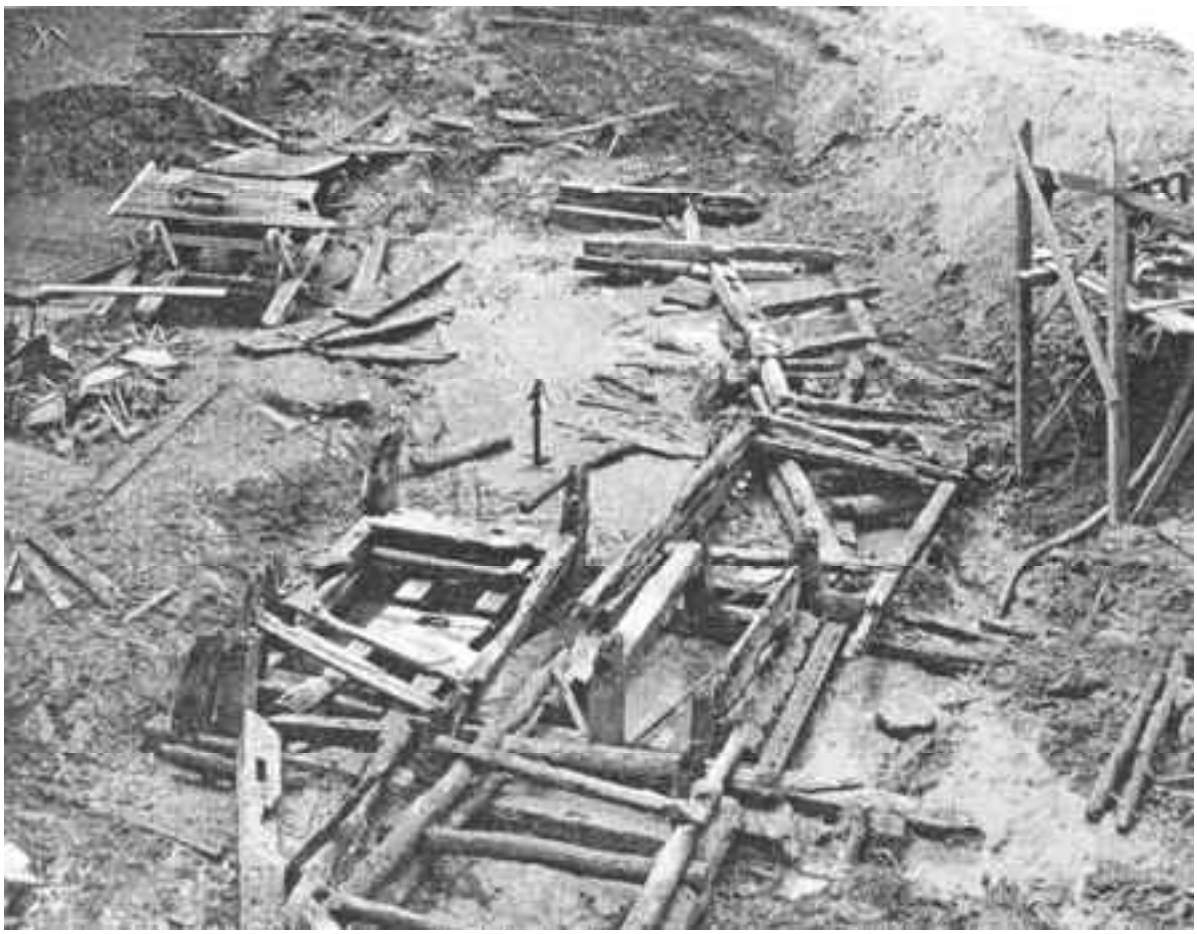
LOG DAM

Log dam. In sections of the country where timber is easily obtained, this is a very inexpensive dam to build. It is easy to construct and very satisfactory where only a small dam is required.



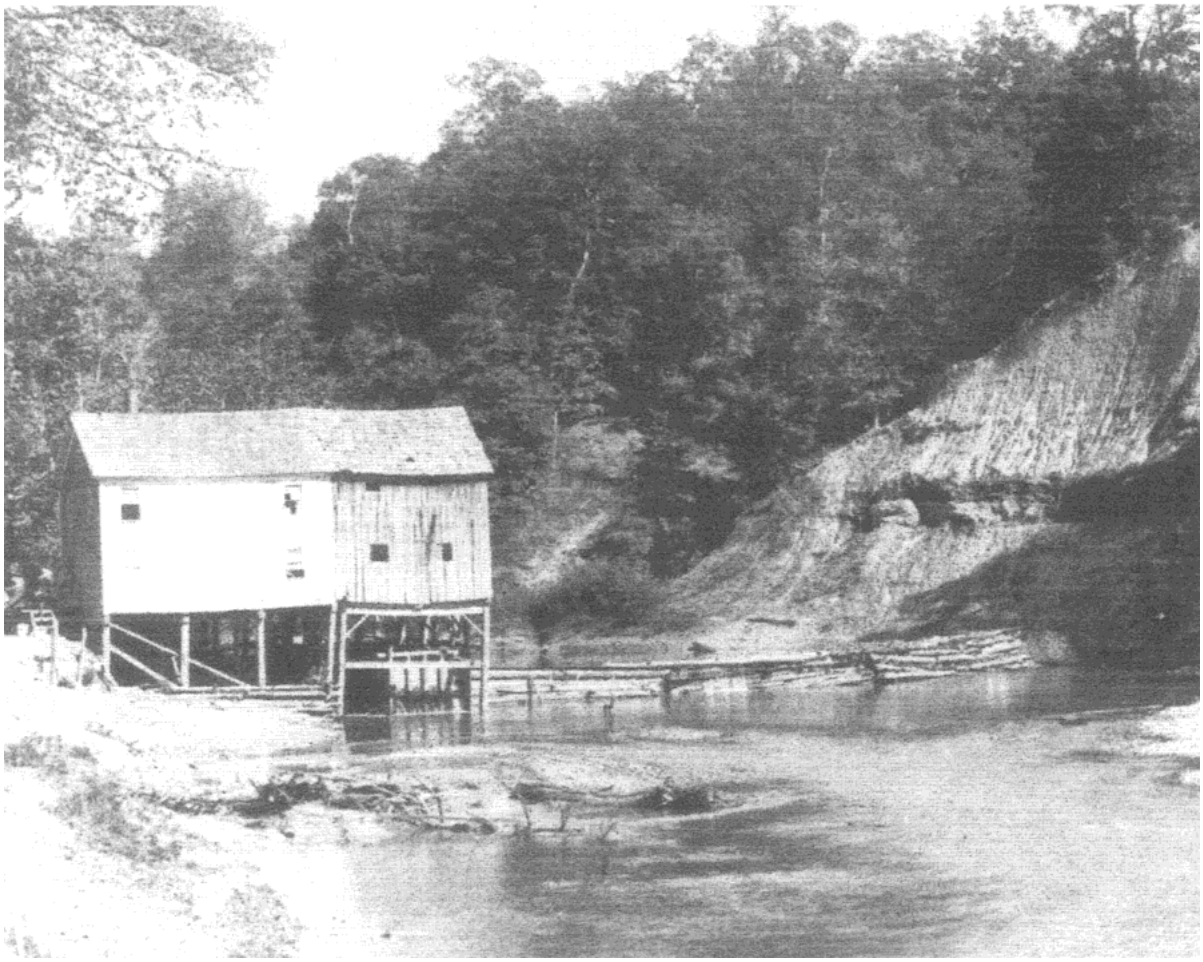
Timber dam. Another method of building a wood dam where greater height is desired.

Two different types of simple dams illustrated in the 1931 publication *Water Power on the Farm*. Although presented in the context of water-powered electrical generation, these dams could readily be applied to many other purposes, including saw and flour milling. They are representative of designs widely employed in Illinois throughout the nineteenth century. (TOP) A "Log Dam," built with logs left in-the-round, notched, and arranged in cribs. (BOTTOM) A "Timber Dam," framed with hewn or sawn timbers and laid out in cribs infilled with stone ballast. Although *Water Power on the Farm* differentiates between log and timber dams, both were very similar structurally and essentially were variations of the *cribbed dam*—the most common type of dam constructed in Illinois during the frontier period.

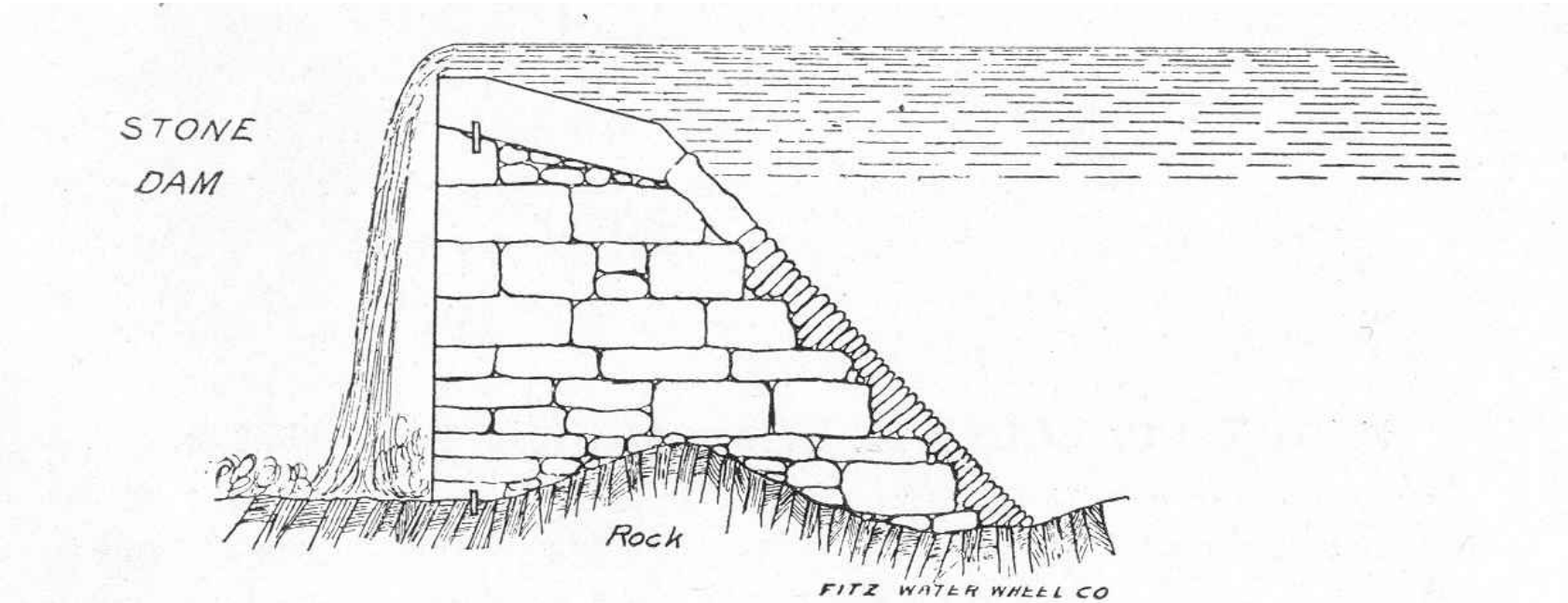


A 1930s-era photograph showing the exposed archaeological remains of the Rutledge-Cameron saw and gristmill at New Salem, Menard County, Illinois. This mill was constructed in 1828-1829 on the Sangamon River. Note the line of cribs (framed with logs and hewn timbers) forming the mill dam, which was one crib deep. The mill building itself rested on raised posts, the lower ends of which are shown immediately to the left of the dam.

Two 1930s-era photographs of the low-water feeder across the Du page River at Channahon, Grundy County, Illinois. This was a cribbed dam built to raise the river level so that water would be directed into the section of the Illinois and Michigan Canal extending west of Channahon. (TOP) View of the dam prior to its rebuilding by the Civilian Conservation Corps. Note the planking covering the top of the dam. (BOTTOM) View of the dam after the removal of its top planking, showing its underlying timber cribbing and stone ballast. The cribbing for the dam appears to have been three sections wide.



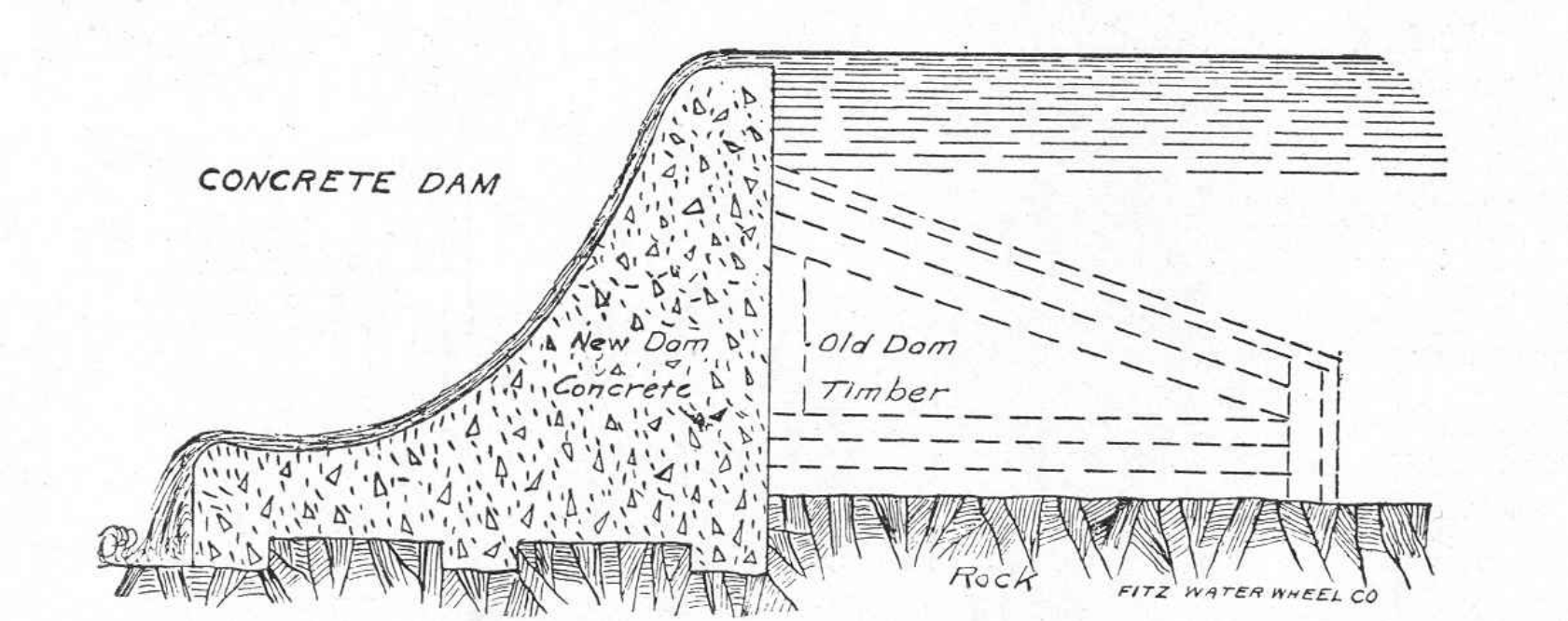
Undated photograph of the Thompson Mill on the Kaskaskia River near Cowden, Shelby County, Illinois, possibly taken during the late nineteenth century. Built in 1843, the mill rested on wood posts, or pilings, that were driven into the riverbed and bank. There is a clear break in the siding and roofing on the mill, which suggests that the building may have been erected in two episodes, with the right half probably being the older section. The cribbed structure seen at the river-level beneath the right half of the building is the chamber in which the tub mill sat. This photograph also illustrates the manner of construction of the mill dam. There appears to be at least three sections of dam, all of wood construction. The section on the far right clearly is built with logs. In contrast to the Blackberry Creek Dam, this dam was directly adjacent to its associated mill and lacked a headrace.



Stone dam. A very good type of dam made from stone. The outer layers should be bound with concrete or concrete mortar to render it perfectly tight.

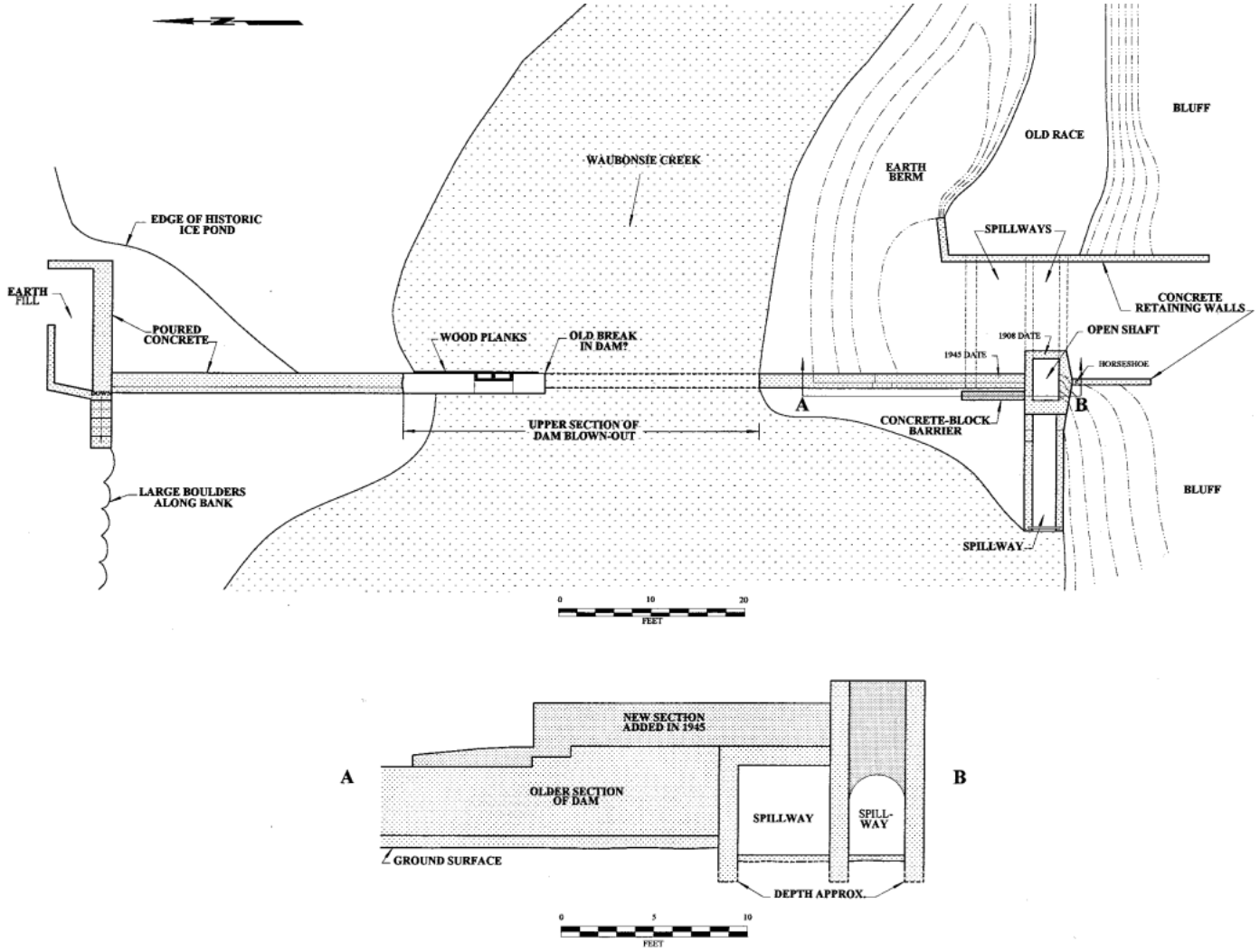
An example of a stone dam built of cut and coursed masonry, illustrated in the 1931 publication *Water Power on the Farm*. It bears some similarities with the Blackberry Creek Dam, though the latter lacks the pronounced back slope illustrated above.

(TOP) View of Blackberry Creek at the point where Hobbs and Smith's mill dam is suspected to have been located. Elmwood Cemetery is located on the bluff on the east (or right) side of the creek. (BOTTOM) An earth embankment on the west side of the creek possibly associated with Hobbs and Smith's mill dam.

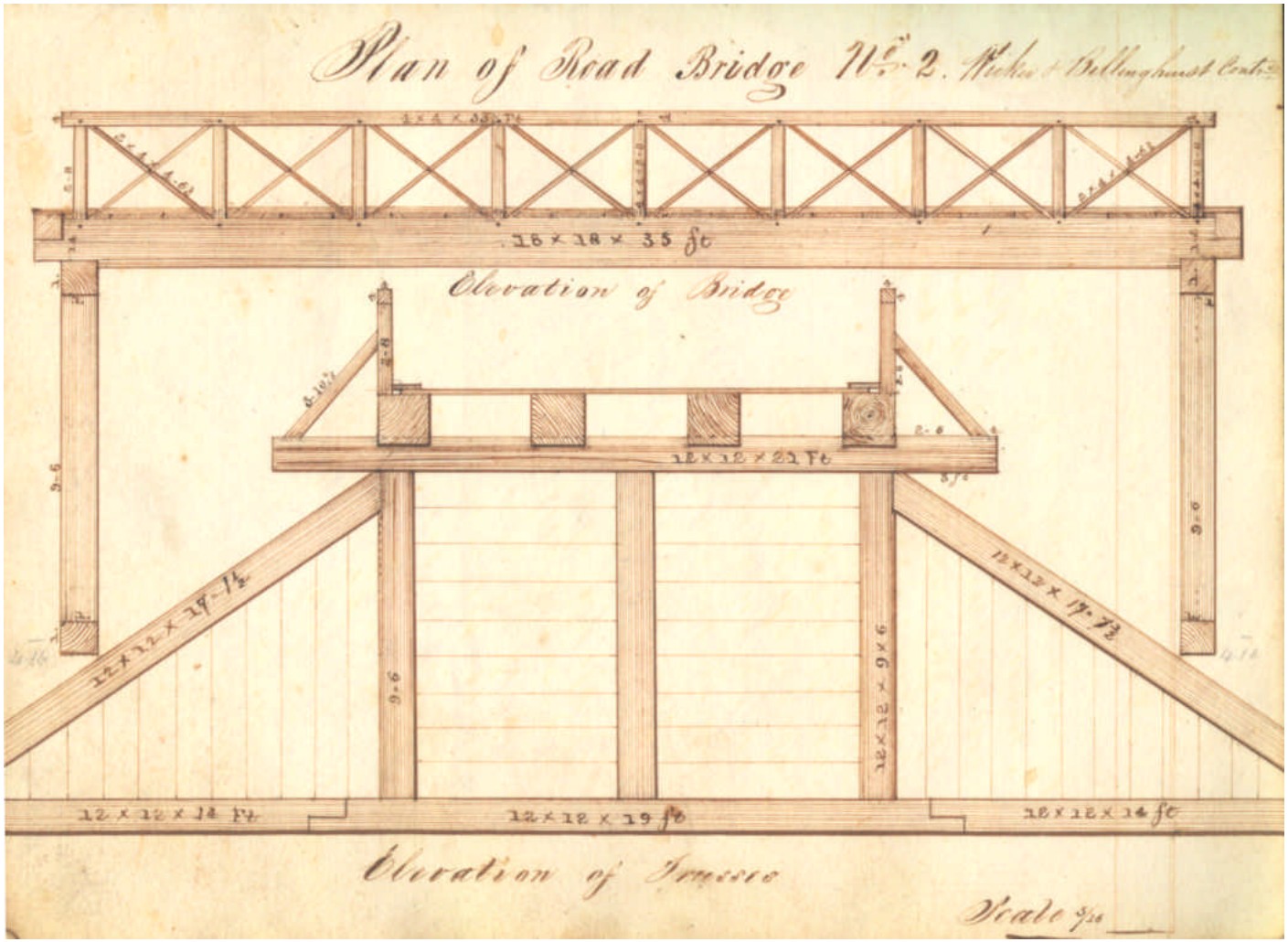


Concrete dam. To anyone familiar with the handling of concrete, this makes a very neat and permanent means of obtaining water storage. It is possibly the best and most shapely structure which can be used. The old wood dam need not be removed.

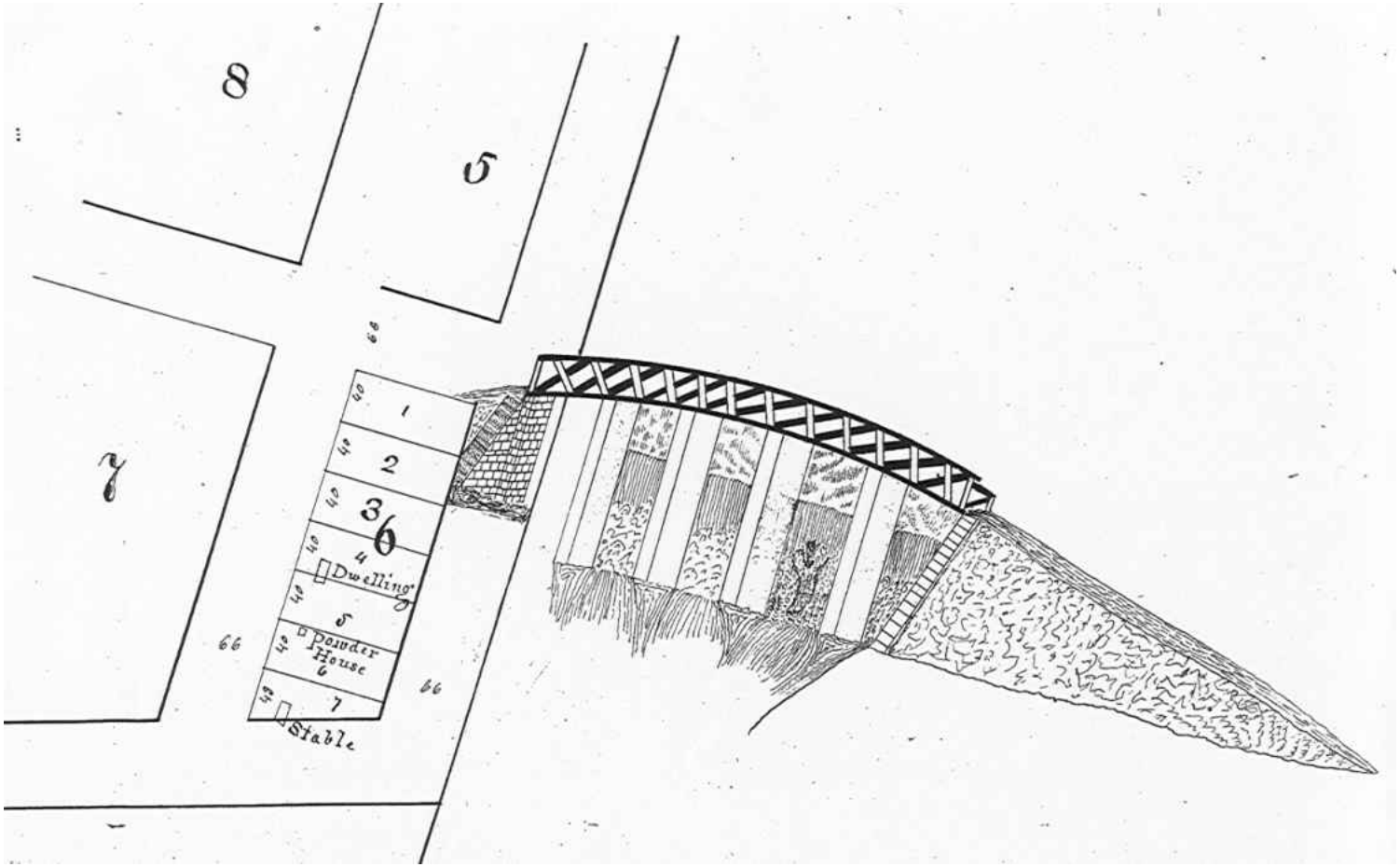
An example of a "simple" concrete dam illustrated in the 1931 publication *Water Power on the Farm*. Concrete had largely supplanted stone and wood as the preferred dam building by the early twentieth century. It also could be used to augment or shore up pre-existing stone or timber dams, as is the example shown here. Note the emphasis on securing the dam to the bedrock in this drawing.



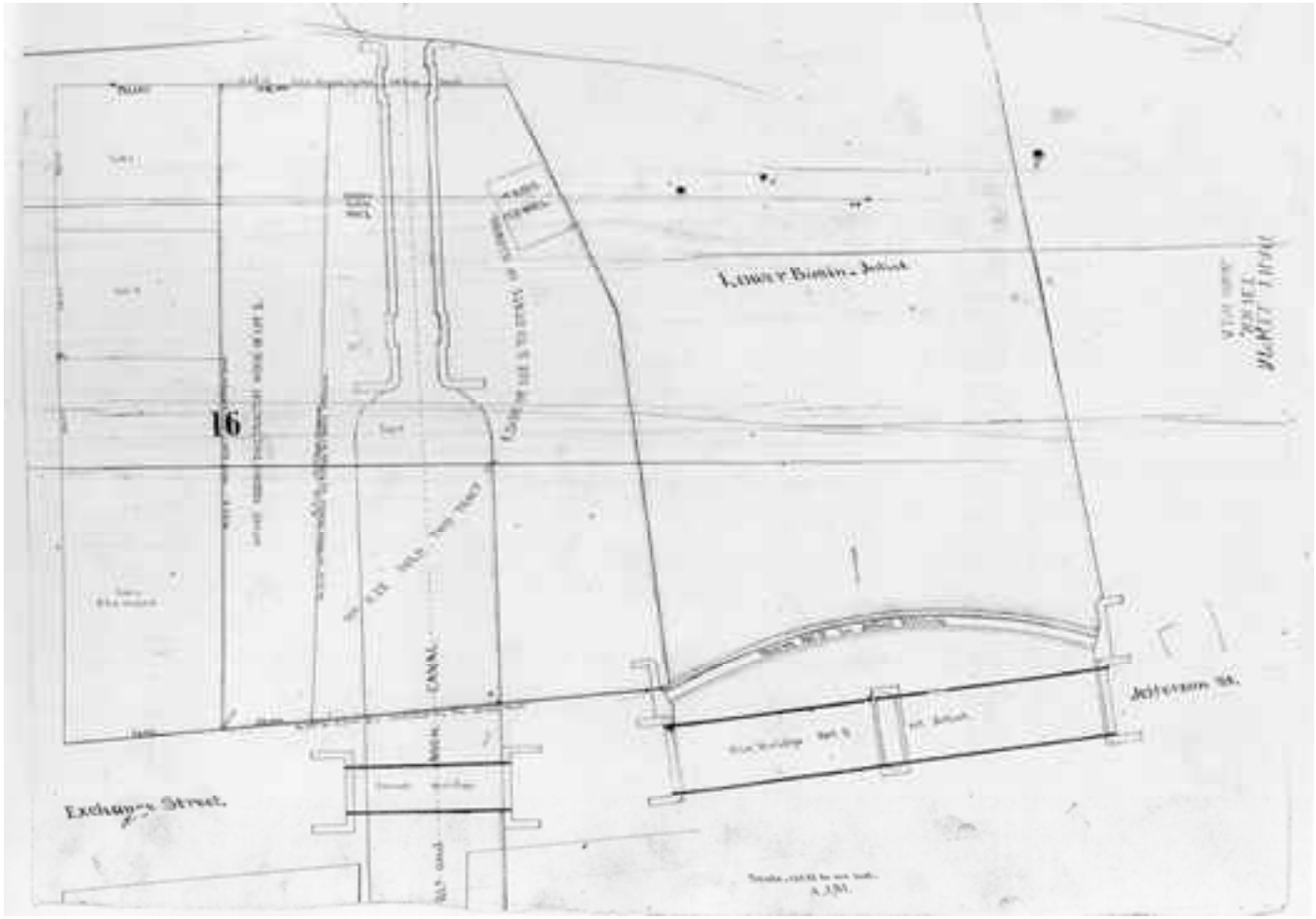
Plan (TOP) and sectional (BOTTOM) views of the Lower Phund Dam along Waubonsie Creek in Oswego, as drawn in 2003. This reinforced-concrete dam was constructed by Charles I Smith in 1908 to create a pond for harvested ice. It is representative of an early, moderate size concrete dam in Kendall County.



Many bridges constructed in Illinois during the middle nineteenth century were of timber-frame construction, similar in character to that depicted here, which spanned the Illinois and Michigan Canal at Thornton Road. Note the use of heavy posts and sills, as well as the employment of timbers and planking for the abutment (rather than masonry). Some of the construction elements depicted may have been employed on the original bridge over Blackberry Creek at River Road.



An 1848 map showing a bridge and adjacent Dam No. 1 spanning the Des Plaines River in North Joliet (Will County). Dam No. 1 served to back up the river and feed water into the adjoining Illinois and Michigan Canal. The area directly below the dam provided a convenient point for constructing a bridge, as was the case with the River Road Bridge over Blackberry Creek. Note the stone abutments on the bridge illustrated above.

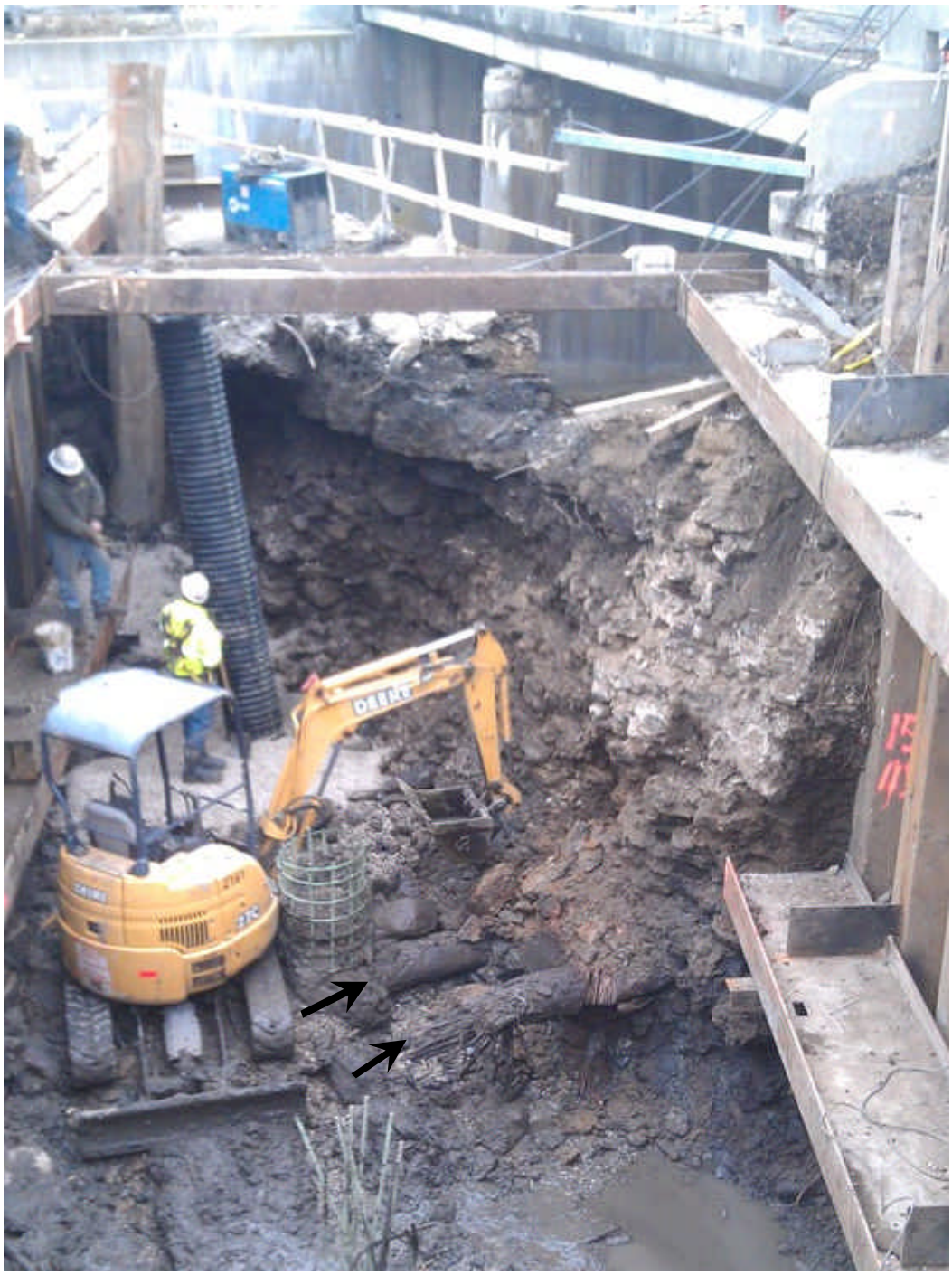


Plat of the McKee Tract in Joliet (Will County), drawn in 1888, showing Lock No. 5 of the Illinois and Michigan Canal and lower canal basin in Joliet. Note the adjoining dam and bridge across the canal basin (actually part of the Des Plaines River) at lower right. The abutments of this dam and bridge are directly adjacent to one another, like those at Blackberry Creek Dam site.

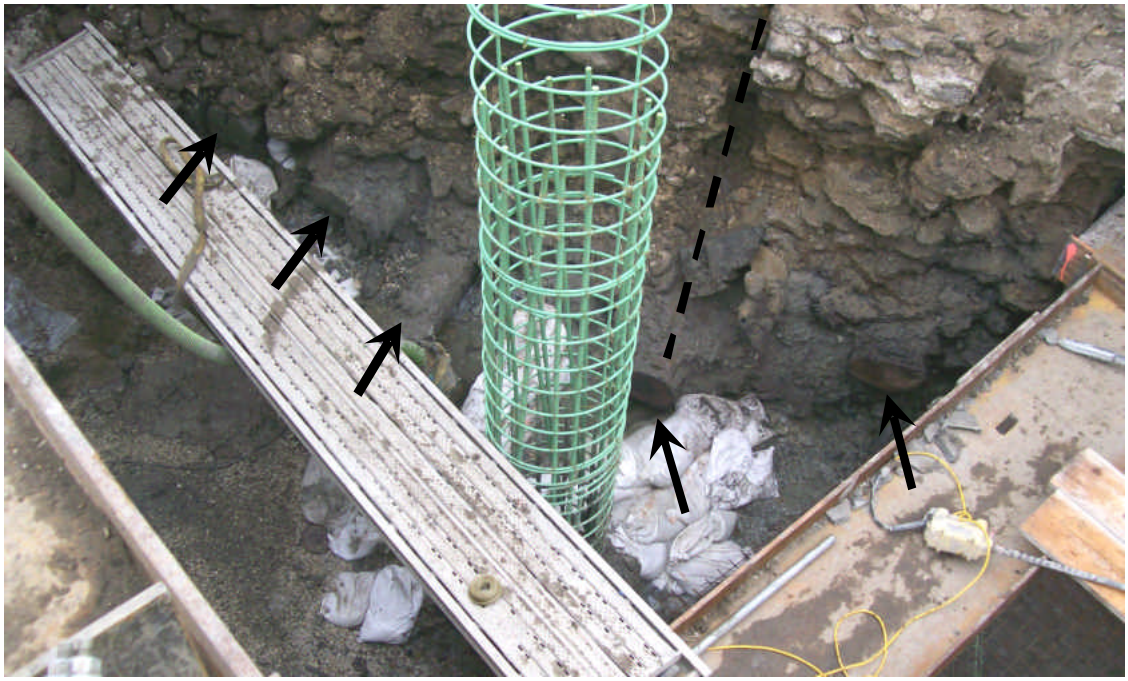
Views of a wedge-like piece of hardware found between the stone courses near the base of the dam at its eastern end, showing it as found *in situ* and laid flat (TOP) and from the side after removal (BOTTOM). This cast iron piece measures 1-½" wide and 14" long. The reason for it being left between the stone coursing is not clear, though one possibility is that it was inserted initially to serve as a type of hanger or bracket (possibly during the course of the dam's construction) and later was driven in flush with the stonework to prevent people or objects from hanging up on it.

Views of several of the timbers used to help anchor the concrete cap on the Blackberry Creek Dam following their removal during the dam demolition. These particular timbers were salvaged from another building or structure (possibly the Blackberry Mills) and reused on the dam. The timber shown at bottom had several 2"-diameter holes drilled into it into which dowels had been inserted; these were not intended for pinning mortise-and-tenon joints, but rather for a rack of some kind.

Photograph taken during the excavation of a trench along the rear side of the west end of the Blackberry Creek Dam, showing the junction of the dam and the abutment of the River Road Bridge. This photograph suggests that there may have been two episodes of stone abutments for the bridge: an earlier rubble abutment that the dam was built up against; and a later abutment of ashlar masonry laid up against the pre-existing abutment.



Photograph taken during the excavation of a trench along the rear side of the west end of the Blackberry Creek Dam. This excavation work exposed a line of large oak timbers extending beneath the end of the dam and the stone abutment for the River Street Bridge. Two of the timbers are marked with arrows.



Two views of large oak timbers found *in situ* beneath and behind the stone abutment on the west end of the River Street Bridge. (TOP) Row of timbers set parallel to the stone abutment, with arrows indicating individual members. The dashed line indicates the juncture between the dam and abutment. Note that a number of the timbers are located beneath the west end of the dam as well. (BOTTOM) Timber projecting out from the excavation trench behind the stone bridge abutment. This was located behind and perpendicular to the abutment.

Photographs of the large timbers removed from below the stone abutment on the west end of the River Street Bridge. The timbers were hand hewn to varying degrees and showed evidence of having been fitted together by a number of methods, including notching, mortise and tenon, and wood dowels. They may represent the remains of an earlier timber bridge abutment or timbers salvaged from another structure, which were later reused as footing material for the stone abutment associated with the circa 1890-1900 bridge.

Details of several of the large timbers removed from below the stone abutment on the west end of the River Street Bridge, illustrating both a mortise and a tenon. The beam shown at bottom was set at an angle to another timber, based on the cut of its tenon, as if used as a diagonal knee brace.

Two views of timbers found in the backfill behind the stone abutment of the River Street Bridge. These timbers left in the round and were relatively small in diameter, in contrast to those used to undershore the abutment (and illustrated in preceding figures). They were cut with an axe. They were used as fill or perhaps had been employed as a temporary work surface (for stability) during the construction of the abutment.

Views of the remains of spring house located east of the Blackberry Creek Dam. The spring this structure was associated with is referenced on deed records for the Blackberry Mills property from the 1880s onward.

Millstone and historical marker commemorating the mills of Kendall County and specifically recognizing John Schneider's 1834 saw mill on Blackberry Creek—the county's first. These features are located in Town Square Park in Yorkville on the Bristol side of Yorkville. The millstone is presumed to have come from the Blackberry Mills.

INDEX TO PHOTOGRAPHS

Blackberry Creek Dam — IL HAER No. KE-2013-1
SW1/4, NE1/4, NE1/4 Section 32
Township 37 North, Range 7 East (Bristol Township)
Yorkville, Illinois Quadrangle
Kendall County
Illinois

Documentation: 13 photographs. Floyd Mansberger and Christopher Stratton photographers (20 February 2012, 13 March 2012, 2 December 2012, 8 April 2012).

KE-2013-1.1 General view of the Blackberry Creek Dam site prior to the initiation of the dam removal and channel restoration project, looking south from the bluff bordering the east side of Blackberry Creek. The mill pond behind the dam can be seen at right and center, with River Street Bridge just beyond. The Bristol-Yorkville Sanitary District's water treatment facility appears at upper left.

KE-2013-1.2 View of the Blackberry Creek Dam and River Street Bridge, looking west.

KE-2013-1.3 View of the Blackberry Creek Dam and River Street Bridge, looking east.

KE-2013-1.4 View of the Blackberry Creek Dam and mill pond, looking north upstream on the creek.

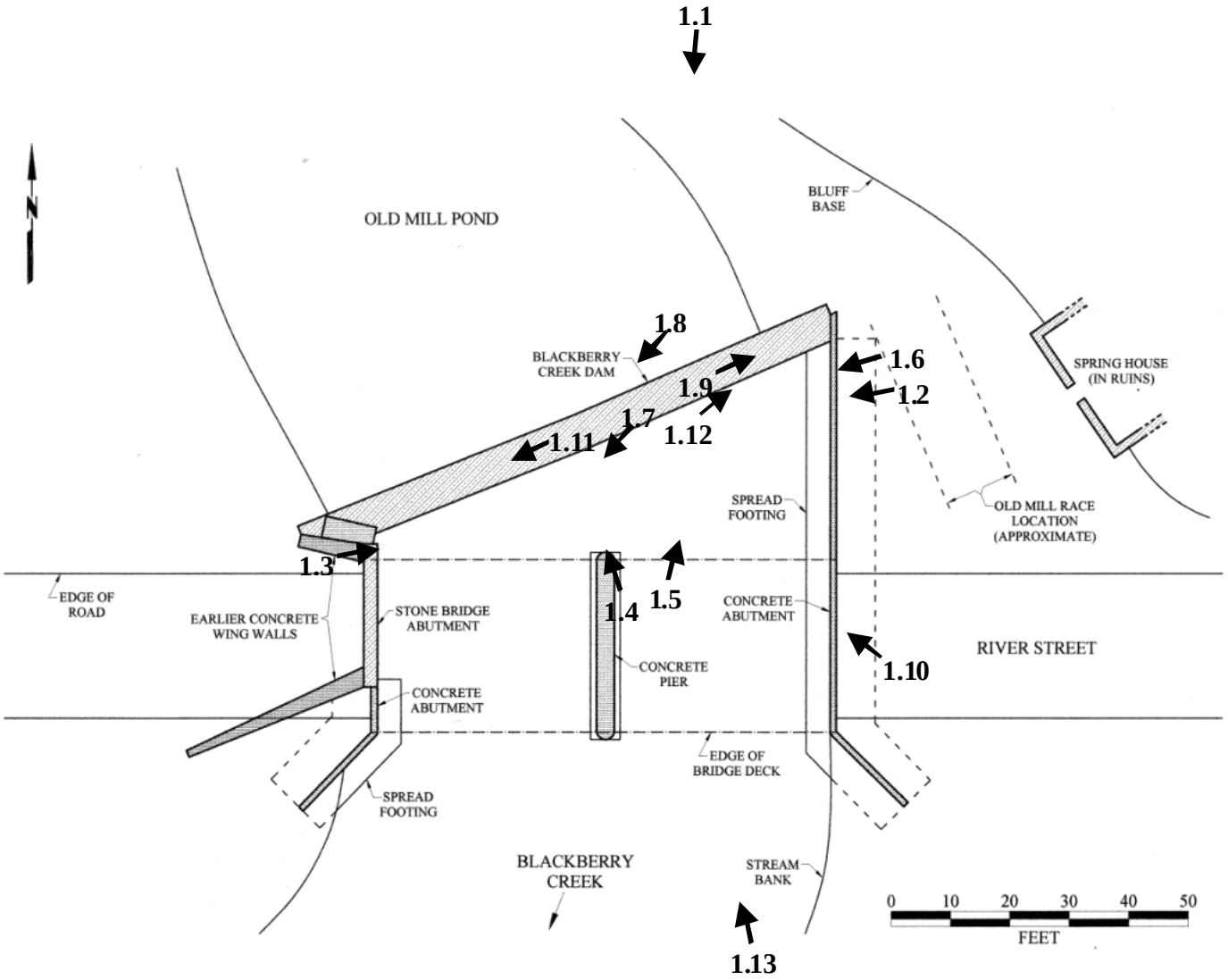
KE-2013-1.5 View of the Blackberry Creek Dam at low water, looking east and showing concrete cap placed on top of original stone structure.

KE-2013-1.6 View of the Blackberry Creek Dam, looking west after a section of the concrete cap and stone below had been removed.

KE-2013-1.7 View of the west end of the River Street Bridge, showing stone abutment associated with earlier iron truss bridge.

KE-2013-1.8	View of the rear (upstream) side of the Blackberry Creek Dam following the removal of the sediments in the creek bed. This view shows the concrete cap and steel rods by which the cap was secured to the dam.
KE-2013-1.9	View illustrating a section through the concrete cap on the Blackberry Creek Dam. Heavy timbers were used to help secure the cap to the dam.
KE-2013-1.10	View of the Blackberry Creek Dam immediately prior to its demolition in April 2013, looking northwest. This photograph was taken after the River Street Bridge had been demolished.
KE-2013-1.11	View through the mid-section of the Blackberry Creek Dam, looking west.
KE-2013-1.12	View of the east end of the Blackberry Creek Dam after its partial demolition in April 2013, illustrating section through it.
KE-2013-1.13	View of the remains of the Blackberry Creek Dam after its partial demolition in April 2013, looking north.

BLACKBERRY CREEK DAM
PHOTOGRAPHIC VIEW SHEET
IL HAER No. KE-2013-1



BLACKBERRY CREEK DAM
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SEE INDEX TO PHOTOGRAPHS FOR CAPTIONS

BLACKBERRY CREEK DAM
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