

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: Grist Mill Bridge, Dam, and Mill Site

Other names/site number: Upton Road Bridge, Elsie Mill Pond Dam, Kellogg Bros. & Johnson Mill Site (20CL144)

Name of related multiple property listing:
N/A

(Enter "N/A" if property is not part of a multiple property listing)

2. Location

Street & number: Upton Road from Island Road to north side of Maple River

City or town: Duplain Township State: MI County: Clinton

Not For Publication: Vicinity:

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this x nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property x meets does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

 national x statewide local

Applicable National Register Criteria:

x A B x C D

<p>_____ Signature of certifying official/Title: <u>MI SHPO</u></p> <p>State or Federal agency/bureau or Tribal Government</p>	<p>_____ Date</p>
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In my opinion, the property ___ meets ___ does not meet the National Register criteria.	
<hr/>	
Signature of commenting official:	Date
<hr/>	
Title :	State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

- ___ entered in the National Register
- ___ determined eligible for the National Register
- ___ determined not eligible for the National Register
- ___ removed from the National Register
- ___ other (explain:) _____

Signature of the Keeper

Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

- Private:
- Public – Local
- Public – State
- Public – Federal

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Current Functions

(Enter categories from instructions.)

Landscape: Park

7. Description

Architectural Classification

(Enter categories from instructions.)

Other: Parker through truss bridge

Materials: (enter categories from instructions.)

Principal exterior materials of the property: Steel, Stone

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The nominated property includes a 160-foot long steel Parker through truss highway bridge, built in 1901, and a 1912 low concrete-capped rock and earth-filled gravity dam that both span the Maple River, and also the site of the 1865 Kellogg Bros. & Johnson Grist Mill that stood on the south river bank near the mill from its construction in 1865 until it burned in 1969. The mill site retains rubble masonry riverside retaining wall and stone and poured concrete foundation and race channel wall remnants.

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Narrative Description

The site is located in Duplain Township one-half mile west of the west village limits of Elsie. The bridge spans the Elsie Millpond perhaps sixty feet above or west of the low concrete dam that impounds the pond. It is located on what was formerly part of Upton Road, which ran north from Island Road, Elsie's main street farther east, to connect with Ridge Road, providing access to Eagle from the west and north. The dam impounds the Maple River, here flowing east, creating a pond that extends back west and southwest about one-half mile. The site of the mill is located about seventy-five feet southeast of the south-end crest of the dam, with its north edge directly on the river and the site extending south and southeast. Substantial but deteriorated portions of a concrete flume and fieldstone and concrete revetments along the river bank survive between the dam and the mill's overgrown site. The site of the mill itself is largely overgrown with trees and shrubs but retains visible remnants of foundations along its north side near the river. The now-unused bridge, formally abandoned road sections adjoining, the dam, mill site, and the entire mill pond now form part of a public park on the Maple River owned by Duplain Township. The small park on the south side of the river contains remnants of blacktop pavement on this narrow abandoned stretch of Upton Road plus an elongated gravel loop drive and open ground and also a fringe of brush and trees along the mill pond. A popular recreation spot several decades ago, the park and bridge now suffer severely from neglect and overgrown brush. A purpose of this nomination is to support Duplain Township's plans to seek outside funding to assist them in restoring the bridge and revitalizing the park.

Grist Mill Bridge

The Grist Mill Bridge is a single-span eight-panel steel Parker through truss structure with pinned connections. It has a total length of 160 feet and deck width of sixteen feet. The bridge stands on concrete abutments that may reflect a concrete re-facing and extension (at the north end) of the fieldstone abutments that show in old photographs.

The end panels are constructed with inclined end posts formed of separate pairs of back-to-back channels covered on the upper side in steel plates and connected beneath by small interlacing bars. The entry between the end posts at each end is capped by a portal strut formed of upper and lower back-to-back angles, perhaps three feet apart, connected by a web of interlacing angles, with diagonal back-to-back angle portal bracing in the upper corners. The verticals separating the first and second panel at each end are formed of paired square-section steel eyebars from whose pin-connected lower ends, just above railing height, are suspended short posts formed of separated back-to-back channels connected by small interlacing bars. These lower posts are connected both to large single steel eyebars forming the first and second panels' lower chords and to a large girder that, running crosswise beneath the bridge floor or deck between them, supports smaller lengthwise stringers on which the deck rests.

The second panel in from each end displays a second pair of square-section eyebars on each side running diagonally from the upper end of the end post to the lower end of the post separating the second and third panel. This and the other posts on each side separating the four central panels of

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the bridge truss are verticals and formed of separated back-to-back channels connected on their outer edges by interlacing bars. Their lower ends hold large pins that receive the ends of the large rectangular-section eyebars forming the panels' lower chords and also support the ends of the large transverse floor girders. The top chords, in the second and all other panels, are formed of separated, back-to-back channels connected on top by steel plates and beneath by small interlacing bars.

The third and fourth panel from each end – that is, the bridge's four central panels – display vertical posts, top chords, and single-eyebar lower chords of the same design as the second panel on each side. The two panels south of the bridge's midpoint each have a pair of square-section eyebars extending diagonally from the top of their south post to the base of the north post and a single round-section steel tie rod, with turnbuckle near the lower end, extending in the opposite direction, from the top of the north post in each panel down to the bottom of the south post. In the two panels north of the bridge's midpoint, the diagonals are reversed, the paired eyebars running from the upper ends of the north post to lower ends of the south post in each section and the single tie rods from the top of the south post to bottom of the north.

The bridge's two north-end panels are built in the same configuration as the southern two, with inclined end posts, vertical eyebars and interlacing-bar-connected channels separating the first and second panel, and paired diagonal eyebars connecting the tops of the end posts to bottoms of the vertical posts separating the second and third panels. Like the outer ends of the bridge, the lower ends of the five vertical posts forming these four center panels all support transverse girders that in turn support the smaller lengthwise stringers on which the floor structure rests. The tops of each of these five sets of posts are also connecting to one another by steel struts formed of back-to-back angles at top and bottom connected by small interlacing bars. The top of each panel between the struts displays top lateral bracing formed of a pair of diagonal round-section tie rods.

Many of the posts' channels display raised lengthwise cast inscriptions reading "Carnegie" – thus presumably produced by the Carnegie Steel Corporation, the Pittsburgh, Pennsylvania-based steel and steel-products manufacturer established in 1892 that combined a group of previously separate iron and steel industry firms controlled by Andrew Carnegie. The company, then the nation's largest steel producer, was sold to the newly formed United States Steel Corporation in March 1901.

The bridge's two portals both displayed now removed steel plaques. The south portal, still present in the 1980s, contained the following information:

1901
Detroit Bridge & Iron Works
Builders

S. G. Bates Supervisor
E. V. Chase Clerk
Geo. Craddock Commr.

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The bridge's deck reflects several layers of finishes. There is a bottom layer of four-inch thick wooden planks laid crosswise atop the steel stringers. Atop this lowest layer are remnant areas of wooden paving blocks, each three inches deep and with 5 ¾ by 2 ¾-inch upper and lower faces, laid with the long axis across the structure, held in along either side by a strip of planks (some no longer in place). The blocks bear evidence of having been soaked in creosote. They rest on a thin layer of coal tar or some other mastic that seems to include fine particles like sand. There is also evidence of some other dark colored coating spread over the surface that also ran into any spaces between the tightly laid blocks. Some parts of the deck have a second layer of crosswise boarding in place of the blocks. Atop it all are remnants of an approximately half-inch thick layer of asphalt.

The structure retains its historic railings on both sides. Each has an angle upper and lower strip with small interlacing bars between connecting them. The railing is about one foot in height and its base about two feet above the bridge deck.

The bridge has been closed to vehicular traffic since about 1966 when a new bridge was constructed at a different location. Without traffic loading and wintertime salting for nearly fifty years, the bridge's steel components appear remarkably intact to close-up, though non-professional, inspection.

Grist Mill Dam

Constructed in 1912, the dam is an approximately 150-foot long concrete-capped structure about twelve to fifteen feet in height. Construction photographs from August 1912 show that the dam is a rock and earth-filled structure with a concrete cap and spillway. The spillway spans the entire structure and has an approximately forty-five degree slope. Below the main spillway's lower end is a nearly flat concrete apron perhaps five or seven feet in width, and below that a lower spillway perhaps three feet tall. At each end of the dam is a poured concrete abutment that is oriented at right angles to the spillway and, spanning the width of the entire structure, has a cap rising several feet above spillway height. The present dam replaced an 1865 timber crib dam that stood at or near the present site.

Mill Site

The mill site is located directly south and southeast from the dam's south end along and back (south) from the river bank. The visible remnants include:

- Rubble fieldstone retaining wall that extends southeast along the river from the east end of the dam's south abutment about seventy-five feet to near the west end of the poured concrete mill foundations along the river. Old photographs show the retaining wall about ten feet tall with a more or less flat top. Today it has lost parts of the upper structure, and only a part toward the southeast retains the flat top. A narrow footpath runs along behind much of the wall, with the wall rising above it a foot or two in places and a grassy embankment rising up behind it to the southwest.
- Foundation walls of mill and millrace: An L-footprint section, a maximum of about twelve or fifteen feet in height, with its east end base in the river, is visible. Its longer portion, ranged east-west, intersected near its midpoint by the southeast end of the fieldstone retaining wall,

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is about seventy-five to eighty-five feet long. From the foundation's northeast corner, an approximately twenty feet long section extends south at a right angle into a steeply sloping embankment. The longer east-west part has a fieldstone lower portion in a short exposed section just west of the junction with the retaining wall, topped by a three or four foot tall poured concrete upper portion. Only the low concrete upper few feet of the rest of the west half of the foundation and millrace north wall is exposed. The eastern half is entirely of poured concrete, with a taller lower part whose top projects about one foot outward/north beyond the outer edge of an upper part, four or five feet tall, that rises above it. In the eastern half of this part of the foundation, the part of the foundation wall above the one-foot setback is very badly deteriorated, with much material broken off, leaving a jagged top, unlike the west end's flat top. The short north-south foundation wall also has separately poured concrete base and (badly deteriorated) low upper structure. The ground is low directly behind (south of) the wall but rises in a short, steep slope, now grown up in trees, just to the south. This part of the foundation wall and the low ground behind it would have been located beneath the mill's north end – presumably the location of the mill's water-powered wheel. Some early twentieth-century photographs show what appears to be an open vertical wood-timbered framework beneath the mill where this foundation is now located. A photograph dated c. 1912 shows this open space entirely enclosed by a masonry wall. Another early twentieth-century photograph, reproduced on the back cover of the 2007 Elsie history, shows the mill's north or river side, with the concrete foundation exhibiting taller west and lower east portions similar (excepting the deterioration) to what shows today.

- Flume leading toward the mill site from the pond above the dam: The site shows evidence of two flumes running from points on the pond above the dam to a V-shaped junction just west of the above described mill foundations. The V junction and short visible remnants adjacent are lined in low vertical poured concrete retaining walls. One channel seems to have run from the river's south bank between the bridge's and dam's south abutments in a straight line southeast to the V junction near the mill – an indentation in the river bank and the steel frame, with horizontal upper member supported on an upright on either side, from what may have been the upper gate for the flume, now rising out of filled-in ground, are directly aligned with the short visible remnant of concrete-walled channel leading to the V junction. The second seems to have run from the millpond south of the bridge northeast to the V junction. This second flume, like the first, has mostly been filled in, but the millpond shoreline south of the bridge shows another small indentation, though with no gate structure evident, directly in line with the part near the V junction. The remnants of the combined flume east of the V junction lead directly to the low ground behind (south of) the mill's north foundation wall.

Grist Mill

The no longer standing mill itself was a rambling gable-roof wood frame structure three stories in height on its south or front side and four on the north facing the river, the difference in height because of the downward sloping ground toward the river to the north. The building had an L-shaped footprint, with a main rectangular mass ranged east-west and an eastward projection from the south end of the east side. The mill had a two/three-story gable-roof rectangular main or center section, with the roof ridge ranged north-south. Perched atop it near the north end was a smaller rectangular-footprint section that, containing an additional story, spanned the full east-

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west width of the structure beneath and had the ridge of its gable roof also ranged east-west (in the opposite direction from the building's main roof). A shed-roof extension along the entire west side of the main section, but with roof pitch shallower than the center section's main gable roof, shows in the oldest known photograph, taken prior to construction of the present 1901 bridge. A c. 1912 photo shows the same thing, but a later photograph shows this west-side extension doubled in width to the west. A narrow two/three-story extension projected from the main section's east side, with its south wall set back only a short distance from the main section's south façade. The east wing's roof ridge ranged east-west. A 1903 photograph shows the south front of the main building and the older part of the shed-roof west extension fronted by a tall loading dock, with hip-roof canopy. Sometime later the dock and canopy were extended to the east across the south side of the east extension. In the early 1950s, when the mill was renovated to house a grain elevator business, the east part of the dock area was widened to the south and enclosed, the roof over the still open west end dock area also widened and extended to the west. The mill building's walls were finished in horizontal clapboarding or wider siding except for the shed-roof west extension and the tall basement level along the west side and north side (facing the river), which were finished in vertical wood siding. The 1903 photograph also shows a small flat-roof one-story building, apparently of masonry construction, and topped by a tall, presumably metal smokestack, added to the east extension's east side, its north and south walls projecting beyond the east wing's walls on either side – this addition was no longer present in the 1950s photograph. No historic site plans of the structure are known to exist.

Other than the foundation described above, no other remnants of the mill structure are visible on the surface. The growth of vegetation in the part of the site nearer the river suggests that at least this part of the site has not been significantly disturbed since the mill burned in 1969. Part of what may be the south end of the mill site is open field.

Mill Pond

The nominated property includes the portion of the Elsie Mill Pond north and east of today's Island Road. The pond, backed up behind the grist mill dam, has existed at least since the 1865 dam, located at or very close to the site of the present one, was constructed. No development directly surrounds the pond because the pond and immediate shoreline is in township ownership. The pond extends in a wide arc along an approximately one-quarter-mile stretch of the Maple River. It is a maximum of about 3-400 feet wide just upstream from the dam but has an irregular island-like area, technically a peninsular, in part of it that, centered on Island Road, makes it mostly much less wide. Island Road, with a bridge spanning a narrow part of the pond east of the island/peninsula and continuing west across the peninsula, was built in the 1960s and disrupted the pond's physical form. Thus only the part of the pond north of Island Road is included in the nominated property.

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register

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- A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B. Property is associated with the lives of persons significant in our past.
- C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D. Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

- A. Owned by a religious institution or used for religious purposes
- B. Removed from its original location
- C. A birthplace or grave
- D. A cemetery
- E. A reconstructed building, object, or structure
- F. A commemorative property
- G. Less than 50 years old or achieving significance within the past 50 years

Areas of Significance

(Enter categories from instructions.)

Engineering
Industry

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Period of Significance

1845-1965

Significant Dates

1845
1865
1901
1912

Significant Person

(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

Detroit Bridge & Iron Works

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Grist Mill Bridge, Dam, and Mill Site meet national register criteria A and C. The dam and associated mill site meet criterion A at the local level for marking the location of saw and then grist milling activities, powered by the present and a previous dam at the same site, and a feed and grain and bean elevator operation. The sawmill, built at this location about 1845, only a few years after the first white settlement in this area, was the first in this part of Clinton County and operated until 1865, when it was replaced by the grist mill whose dam and foundation wall and flume remnants survive at the site. The grist mill building at this site fulfilled important agriculture-related industrial and commercial roles in Duplain Township and the Elsie area in which agriculture was and remains the economic driving force, serving its original purpose until 1950 and then as a feed and grain store and bean elevator from 1953 until the building burned in

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1969. The 1901 Grist Mill Bridge, spanning the Maple River adjacent to the dam and mill site, meets national register criterion C at the statewide level of significance as one of only three surviving metal Parker through truss highway bridges in Michigan, as the only known surviving metal truss highway bridge in Michigan built by the Detroit Bridge & Iron Works, the most important nineteenth and early twentieth-century bridge-building firm based in Michigan, and for its partly intact wood block pavement, the only known surviving Michigan example on a metal truss bridge.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

Settlement of Clinton County's Duplain Township began in the mid-1830s. Among the earliest settlers were members of the Rochester Colony, a settlement of people from the Rochester, New York, area that began in 1836. Early in that year a group of about twenty-five who wished to emigrate to the west associated together to locate and purchase a tract of land to which they could remove. For the \$125 purchase price of one share, each shareholder was to be entitled to one eighty-acre farm lot plus a lot in a centrally located village location to be selected by lot. From their group the association selected agents to select and purchase property, instructing them to investigate areas in northwest Ohio, northern Indiana, and Michigan, the instructions specifically noting Clinton County and the Maple River area. The agents quickly settled on an area in the southwestern part of the future Duplain Township and the adjoining northwest corner of future Ovid Township to the south that comprised five full sections and portions of three others for a total of 4003.06 acres – the northeast corner of this block of land roughly two miles south-southwest of the nominated bridge – and purchased the tract at the federal land office at Bronson (Kalamazoo). Selling points for selecting this land were a then contemplated canal connecting the Shiawassee and Maple Rivers that would give this area added value as part of a water route across the Lower Peninsula, good “water privileges” for mills, and fine agricultural land well watered with springs. The first Rochester Colony settler arrived in July 1836 and settlement of the Colony lands slowly progressed in the later 1830s and 1840s (Ellis, 423-26). The central village site, which became known as Mapleton, still retaining several of the early houses and an early church and cemetery, is marked on some of today's maps by the Rochester Colony name.

Settlement of the remainder of Duplain also began in the mid-1830s and proceeded slowly through the 1840s. In 1840 Duplain Township, initially named Sena, was organized. The name was changed to Duplain the following year, from Du Plain, the name the earlier French Canadian traders gave the Maple River.

Early settlers in the area near the nominated bridge included Thomas Craven, Sr., and his children, Thomas, Jr., Robert E., Isaac, Joseph, and Rebecca, and their families, who came from Delaware County, Ohio, in 1836. Robert E. and Thomas, Sr., and Jr. owned together 640 acres as of 1839. About 1845 Robert E. Craven (or he with brothers Joseph and Thomas) built the area's

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first sawmill east of the present bridge on the river's south side and platted a small village – descendant Lloyd Craven states that they “platted a few lots” – and called it Cravens’ Mills. Craven states that R. E. Craven cleared and built the river road – now Maple River Road – connecting Cravens’ Mills southwest to Mapleton. By about 1856 the hamlet of Cravens’ Mills contained a store, wagon shop, tavern, cabinet shop, and smithy (Craven, 1st page; Ellis, 430). The 1864 Geil county map shows a “S.S.M.,” perhaps meaning steam sawmill, at about the same location as the 1865 mill that replaced it.

In 1857 brothers Job D. and William Sickels, who settled in the area in 1847 and ran a store at Cravens’ Mills, platted the first part of the village of Elsie on land that was part of their farm, centered one mile east of Cravens’ Mills. The village was named for Elsie, the daughter of pioneer Franklin Tillotson, the first child born at the future village site (Craven, 1st page; Ellis, 430-31). The Sickels’ plat, which included a small area on the future village’s west side, was followed by two additional plats in 1858. The Sickels opened Elsie’s first store. In 1858 a second store went into operation, and in 1859 a tavern. More stores, a wagon shop, stave and shook factory, cheese factory, and other improvements followed. The 1880 county history states, “When Elsie began to loom up, Cravens’ Mills began to lose its vitality, and in a brief time boasted nothing save the mill” (Ellis, 431). The 1864 Geil map shows the mill and only a few other nearby buildings. Elsie grew to a population the early and mid-1880s editions of the *Michigan State Gazetteer and Business Directory* estimated at about 450 to 500. The Toledo, Ann Arbor & Northern Railroad reached Elsie in 1884, expanding opportunities for manufacturing and shipping agricultural products, and the growing village of Elsie incorporated the following year.

Grist Mill and Dam

The Craven sawmill was replaced in 1865 by a larger grist/flour mill built by Kellogg Bros. and Johnson, who purchased the property from R. E. Craven’s estate. The firm, which also built a large store in Elsie at the same time, constructed a new timber dam on the Maple River on the site of the present concrete one east of the bridge (the 1864 county map shows no suggestion of a mill pond). Lloyd Craven stated that the new mill occupied part of the site of the old sawmill (Craven, 3rd page; Ellis, 431). The township map in the 1873 county history shows the mill plus two other buildings along the northeast side of the road on Sickels’ property, perhaps located in today’s open space in the park between the bridge and present Island Road to the south (no remnant of either building is evident at the site).

The grist/flour mill served Elsie and the surrounding region under a variety of owners. The state gazetteer and business directory editions from 1870 to the last, 1931 edition (published in odd-number years beginning in 1873) list the following proprietors:

Aaron Sickels, 1870-81

Van Deusen & Woodward (R. H. Van Deusen and C. Woodward), 1883

“Schenck” and then John C. Schenck, 1885-93

Abram and George H. Scheck (as A. Schenck & Son), 1895

Abraham Cooley & Son (Hunam H. and Eugene H. Cooley), 1897-1903

Eugene Colley (spelled thus but likely Cooley), 1905-09

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Harmon & Blank (J. H. Harmon and H. T. Blank), 1911-15

J. H. Harmon, 1917

F. W. [Floyd] Bouck, 1921-31 (1919 directory not available)

Floyd Bouck bought the mill in 1919 and then Glenn S. Wilcox bought it from him about 1940. Under Bouck it was the Elsie Roller Mills, a feed grinding and wholesale/retail farm products business. After being closed since Wilcox's death in 1950, the mill was purchased in 1952 by Merle H. Green and Earl H. Brown and remodeled and reopened in 1953 as the Farmers Elevator, housing their feed, grain, and bean elevator operation. The building burned in June 1969, and the now partly overgrown site has remained vacant since then (Saylor, 100-01), the entire site located within a township park.

The present concrete-capped earth and rock-filled dam was constructed in 1912, replacing a previous timber one built in 1865 when the grist mill was constructed (none of the histories specifically note a previous structure serving the sawmill built in the mid-1840s and, as already stated, the 1864 map shows no pond or widening in the river suggestive of a mill pond). No historic maps or site plans showing the V-plan flume system leading from the pond to the mill have been located, and only the small east end near the mill, with its concrete-lined walls, is now visible, along with ill-defined remnants of what appear to be two inlets at the edge of the pond.

Significance of the Mill Site and Associated Dam

The site, retaining not only the 1912 dam but also substantial fieldstone and concrete remnants of the mill's foundation walls and associated retaining wall and flume structures, has local historic importance for the Duplain Township and Elsie area as the site of sawmill and grist mill operations dating back to the earliest years of settlement in the area and continuing until 1950, followed by use of the 1865 grist mill building as a feed and grain and bean elevator operation until 1969. The sawmill, grist mill, and feed and grain/bean elevator operations were all important institutions for this area in which agriculture has been and remains the dominant business activity.

Archaeological Potential of the Mill Site

The Kellogg Bros. & Johnson Mill Site has been included in the statewide archaeological site database maintained by the State Archaeologist as site 20CL144. Site features include the foundations of the mill, remains of the flume, the dam, and mill pond. These substantially intact features are interpretable signatures of the mill landscape and industrial process.

This site has not been archaeologically tested and evaluated under criterion D, though it is likely to yield archaeological information due to the mill's destruction by fire – an event that may have capped materials – and the lack of site redevelopment. Intact buried features and deposits, if present, could provide information regarding the shape, dimensions and construction of the mill, structural changes over time, equipment, and evidence of daily operations and lifeways of mill workers.

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Few mill sites have been archaeologically tested and evaluated under criterion D in Michigan. The Kellogg Bros. & Johnson Mill Site has the potential to be an excellent example of an understudied industrial archaeological site type in Michigan.

Grist Mill Bridge

When the first bridge spanning the Maple River near the mill was built is not known. The 1864 Geil map shows a road crossing the river west of the mill at approximately the same location as the 1901 structure, but this map doesn't make clear whether a bridge was present at any specific crossing point and some of the crossings shown may have been simple fords. The Duplain Township map in the 1873 county atlas does clearly show a bridge west of the mill at approximately the same location as the 1901 structure. What is now Upton Road coming down from the north shows on both maps being located on a slightly more eastern parallel alignment that lined up with the bridge's north end perhaps 150-200 feet east of Upton's present-day alignment. The one surviving photograph of a bridge prior to the 1901 structure at this location shows what appears to be a wooden pile structure, with wood railings. It was located just to the west of the 1901 bridge. Whether this wooden bridge was the same bridge present in 1873 or a replacement for it is unknown. Local government records that would shed some light on the history of this crossing, the need for a new bridge in 1901, and that year's bridge replacement project are not available, and newspaper notices provide the only documentation. The newspaper made no mention of an ice jam, flood, or other disaster that destroyed the old bridge. Thus we are left to assume that the older wooden bridge was replaced because of its deteriorated condition.

The first report of plans to build a new bridge was a brief report in the Elsie section of *The St. Johns News* of April 4, 1901, that "At the recent election in the village [Duplain Township] it was voted to build a steel bridge over Maple river near the grist mill." In its May 30 edition, the paper reported, "The Duplain township board has let the contract for a new high truss steel bridge across the Maple river to a Detroit company for \$2,590. Contract calls for it to be completed by September 25." Under Michigan's Compiled Laws of 1897, a township highway commissioner could proceed with a bridge project on his own authority if the cost were not more than \$1000. When the projected cost was in the \$1000-\$2000 range, the project also required the township board's approval. If a bridge project was expected to cost more than \$2,000, the highway commissioner and township board *could* submit the question of building the new bridge and appropriating tax revenues to cover the projected costs to a vote by the township's electors (*Township Officers' Guide*, 140-41, 297). Here township officials apparently chose to seek clear public support.

Nothing further concerning the bridge project appears in *The News* before early October, but work on excavating for and then constructing the fieldstone abutments must have begun soon after the contract award. The October 10 paper noted that "Plank is being hauled for the new bridge west of Elsie." The plank would likely have been for building falsework to support the truss while it was under construction, but may also have been planking for the floor or deck.

Brief notices of the arrival of steel for the bridge soon followed. The October 31 edition reported that "Steel is being hauled for the new bridge west of Elsie," and the November 28 edition noted

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that a "Second car load of steel for the bridge west of town has arrived." On December 12 the paper reported that "The builders are at work on the new steel bridge west of town."

The December 26, 1901, *News* celebrated the structure's completion:

The New Bridge Over the Maple River at Elsie

This bridge was finished Tuesday [Dec. 24]. Of its class, it is the finest bridge in this quarter of the county, and perhaps in this section of the state. It is located between the old bridge and the dam, is 160 feet long, with no support between the banks, 28 feet from the floor to the top, and a floor width of 16 feet. The cost of the bridge is of interest to the taxpayers of Duplain township and Geo. Craddock, who, as highway commissioner, has overseen the work for the township, furnishes the following detailed statement. The cost of the bridge itself was \$2,590; stone \$151; gravel \$4; cement \$82; plank \$130; labor \$268.57. Total cost of the bridge, \$3,228.57. Total weight of the superstructure, 38 ½ tons. Over 7,000 feet of two-inch [corrected to 3 inches in a Jan. 2, 1902, follow-up note] plank were used in the floor.

In 1966 Clinton County built a new Maple River crossing on Island Road west of the intersection with Upton Road south of the nominated 1901 bridge. The 1901 bridge was closed to traffic soon after the 1966 bridge was put into service. In 1972, pursuant to a request from the Elsie Lions Club, the county formally abandoned a section of road that included the 1901 bridge so that it could be used as part of a public park. This property apparently reverted to the adjoining property owners, Merle H. Green and Earl H. Brown. In 1976 Green and Brown quitclaimed to Duplain Township for park use property associated with the old bridge and road and along the river to the east where the mill stood, the property to revert to the owners and their heirs if no longer used for park purposes. The township and Elsie Lions Club developed a small park with loop drive and parking south of the bridge. The park, with the bridge, was in its early years a popular recreation place for Duplain and Elsie residents. But over the years the park's condition has deteriorated, with trees and brush along the river becoming overgrown and the bridge deck and concrete and masonry retaining walls along the river no longer safe. The local government is not in a position to finance the planned rehabilitation without outside assistance.

Historic Significance of the Grist Mill Bridge

The 1901 bridge is the only known standing example of a metal through truss highway bridge in Michigan fabricated by the Detroit Bridge and Iron Works of Detroit, Michigan's leading metal truss bridge-building firm in the later nineteenth and very early twentieth centuries and a bridge engineering firm with a long list of important Midwest bridges to its credit. Detroit Bridge & Iron Works was founded in 1863. The 1867-68 Detroit directory lists Charles Kellogg as superintendent. Kellogg (1816-97) came to Detroit before 1857, when he with A. D. Higham were then partners in Charles Kellogg & Co. That firm operated a foundry and machine shop that, located at 367 Atwater on the riverfront, specialized in engines and machinery and other large castings, but also fabricated and built bridges. It was building iron bridges for the Illinois Central Railroad and the Galena & Chicago Union Railroad as early as 1861, mostly Bollman

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truss structures. George S. Morison stated that these bridges “may be considered the pioneer iron bridges built in the West” (Memoir, Willard Pope Smith, 63).

Incorporated in 1863 with Charles Kellogg and William C. Colburn (1834-99) as its founders, the Detroit Bridge & Iron Works was the successor to Charles Kellogg & Co. Willard Smith Pope (1832-95) joined the firm early in its history, was placed in charge of the firm’s engineering office in 1867, and served as president of the company from 1869 until his death. Pope received training through work in the engineer corps of the European & North American Railway in Maine and New Brunswick in 1852-53 and through study at New York’s Astor Library and then entered into an engineering career with the Illinois Central Railroad and then, from 1854 to 1864, the Galena & Chicago Union Railroad, where he served his last four years as chief engineer. During his tenure there he was responsible for the railroad’s bridge across the west channel of the Mississippi at Clinton, Iowa, completed in 1865 (a bridge spanning the east channel was built in 1858-60; Grant (18) describes it as “a seven-span wooden truss bridge”). The entire bridge was only the second to cross the Mississippi, and the west channel span was notable for its solutions to the engineering challenges of “exceptionally deep” water that had to be bridged while providing a large swing-span to accommodate shipping. Pope designed the Bollman truss structure, illustrated in Grant, 28, and it was built by the Detroit Bridge & Iron Works. The association led to Pope coming to the Detroit firm late in 1864, first serving as the firm’s Chicago representative but then a year later moving to Detroit and taking direct charge of the company’s engineering department. He was elected president of the company and served in that capacity until his death in 1895.

The Detroit Bridge & Iron Works built a number of large bridges for Midwest railroads, including the Chicago, Burlington & Quincy; Chicago & North Western; Michigan Central; and Illinois Central. The firm built large-scale bridges across the Mississippi at Hannibal, Missouri (1867-69); Quincy, Illinois (1867-68); and Burlington, Iowa (completed 1868); as well as the one at Clinton, Iowa, and across the Missouri at St. Joseph, Missouri (completed 1873). The Burlington and Quincy bridges, for whose superstructure work Pope was in charge, were the first two all-iron Mississippi River bridges, and were also notable for their then large-scale movable spans. The company also engaged in significant non-bridge projects such as the Ferris Wheel for the World’s Columbian Exposition in Chicago, and gates for locks for the St. Marys Falls Canal at Sault Ste. Marie, Michigan (Morison, 63). The Detroit Bridge & Iron Works was acquired in 1902 by the American Bridge Company, a subsidiary of U. S. Steel, and became a division of that firm. It closed in November 1920.

For iron and steel bridge-fabricating firms like Detroit Bridge & Iron, metal truss highway bridges such as the Grist Mill Bridge likely formed a substantial part of their business. In the years after the Civil War metal truss bridges gained popularity across the nation as innovations in metal and bridge-building technology permitted longer-span and lower-cost structures. The later nineteenth and early twentieth century saw a massive proliferation of metal truss highway bridges across the nation, typically – until state and local engineering staffs who could design bridges became more common in the early twentieth century – built and often designed as well by companies that specialized in metal bridge-building.

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Detroit Bridge & Iron was one of a vast number of such firms across the country that engaged in metal truss highway bridge fabrication and construction. Records for few of these companies are known to exist, and documentation of what company designed and built particular bridges is scanty, found only when old local government records have survived or in the occasional newspaper story. The only source of documentation for many of these bridges whose builder is known is a surviving plaque on the bridge itself that names the firm. But many bridges likely never had any such plaque, and, even when the bridge itself has survived, the plaque rarely remains in place. Michigan historic highway bridge survey work in the 1970s and 80s, particularly the 1981-83 statewide bridge survey that, carried out by the Michigan Department of Transportation (MDOT), resulted in a 1985 report by Dr. Charles K. Hyde of Wayne State University, *Michigan's Highway Bridges: History and Assessment*, located bridges built by forty-two bridge-fabricating firms. The larger number of these were built by firms from Ohio (fifteen) and Michigan (nine), but firms from other Midwest states and as far away as New York were represented.

Typically the local governmental unit advertised for bids on a bridge to span a specified length at a specified location. Sometimes the work to be bid included abutments and piers, which the bridge firm was likely to subcontract, but more often the local government made a separate contract for this work with some (typically local) mason. Bridge companies had regional agents whose function was to detect requests for bids, pass them along to the company, obtain any additional information needed for the firm to develop plans and specs and their bid, and present their firm's proposal. From the sporadic accounts of local decision-making on bridge contracts that made it into the newspapers, it appears likely that frequently agents from several firms made presentations and offered bids on the same job, leading to much discussion and sometimes votes rescinding previous votes.

The Grist Mill Bridge exemplifies the Parker through truss type, a variation of the most common type, the Pratt truss, but with inclined instead of horizontal top chords. Designed by C. H. Parker and patented in 1868-71, the Parker truss was used for longer spans than the Pratt and the other most popular truss design, the Warren truss, made possible for bridges constructed of relatively light-weight members and for the light traffic weights of the time. The light-weight pin-connected Pratt and Warren through trusses averaged eighty to 100 feet in length, while a similar Parker truss was used for spans of 150 to 200 foot length. The Grist Mill Bridge is one of only three examples of Parker through truss highway bridges left in Michigan. The other two are located in the Portland area and span the Grand River: the 1907 Kent Street (Townline) Bridge (now moved a short distance and rehabilitated as a pedestrian/bike path bridge) and the 1910 Turner Road Bridge, at its original site but long abandoned and neglected.

Part of the Grist Mill Bridge's significance is its partly surviving wood block roadway deck, the only example of a bridge with this roadway surfacing finish known to survive in Michigan.

Wood Block Pavements

Wood block pavements for urban streets have a long history. They were reportedly used in Russia beginning "several hundred years ago" and the first wood block pavements were laid down in New York City in 1835-36, London in 1839, and Boston and Philadelphia about the

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same time (Baker, 549; Blanchard, 1021-24). Mahan and Wood's *A Treatise on Civil Engineering* (1873) explains why wood block pavements became so popular for urban streets: "The travel upon them is so free from noise, and the surface is so smooth, that on those streets where the haulage of heavy articles is not excessive, many property owners prefer to renew a wooden pavement every eight or ten years, than be annoyed with the noise and the roughness of stone pavements" (421).

W. M. Gillespie's *A Manual of the Principles and Practice of Road-Making* (1847) illustrates a pavement of hexagonal blocks (233). The Russian and first London wood block pavements were of this type (Blanchard, 1021), and Gillespie suggests this was then the usual practice.

What came to be called the "Nicholson pavement," constructed using rectangular blocks, was patented in 1848 and "came into use very generally in the United States between 1860 and 1870" (Blanchard, 1025). Gillmore (first published in 1876) states that by this time rectangular blocks were the norm: "The usual sizes for the wooden blocks are from 3 to 4 inches in width, 8 to 14 inches in length across the street, and 6 to 8 inches in depth" (163).

Cylindrical blocks, most commonly of cedar, set upright was another form frequently used in the late nineteenth century. Blanchard states that "Between 1880 and 1890 many millions of yards of this pavement were laid in the cities of Chicago, Detroit, St. Paul and Minneapolis, Minn., Omaha, Neb., Kansas City, Mo., and many other smaller cities throughout the Central West" (1026), and Baker notes considerable use of this type "in Saginaw and other cities in Michigan from 1880 to 1890" (555-56). A small amount of this pavement was laid in Detroit as late as 1914 (Blanchard, 1027). Frost and others stated that this type of pavement "made neither a durable pavement nor in any way a satisfactory one. But they were cheap and served a good purpose in tiding fast-growing cities over a critical period" (Frost, 337; see also Blanchard, 1026).

Construction of wooden block pavements reportedly declined in popularity in the last years of the nineteenth century with the rising popularity of brick as a pavement type, but picked up steam again between 1900 and 1910 as investigation and experimentation resulting in technological advances in construction and treatment of the blocks brought about documented improvements in the durability of the wood block pavements. Blanchard cites as one example the expansion of wood block pavements in Minneapolis from 210,464 square yards in 1907 to 600,922 in 1910 to 1,516,819 as of Jan. 1, 1916 (1059). However, wood block pavements were built with horse-drawn traffic in mind. The enormous growth in automobile and, especially, heavy truck traffic during and after World War I resulted in the end of wood block road pavement construction in the 1920s.

By the early 1900s cedar, cypress, and southern pine were the most commonly used woods. By then the value of treating the blocks prior to their being laid to improve their durability seems to have been well recognized. Baker and Frost viewed creosoting as the best treatment. "This process consists of impregnating the wood with the oil of tar, called creosote, from which the ammonia has been expelled. The effect is to coagulate the albumen and thereby to prevent its decomposition, and also to fill the pores of the wood with a bituminous substance which

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excludes both air and moisture, and which is noxious to the lower forms of animal and vegetable life” (Baker, 551).

The pavement manuals contain much discussion of the proper base for a wood block pavement. Early wood block pavements typically had at the bottom a bed of sand laid on the ground. Then a bottom layer of wood stringers would be laid crosswise across the roadbed, and this would be topped by a layer of planks laid in direction lengthwise of the road. The blocks would then be laid atop the planks in direction crosswise to the road and placed so that the short-side interstices did not line up. By the early 1900s, while sand and wood were still likely common, using concrete or well-consolidated broken stone for the base, with a cushion of sand (if the ground is level; otherwise the sand washes out or drifts to the lowest point) or Portland cement mortar between the base and wood blocks above, instead of sand and wood, was the recommended approach (Baker, 557-58; Blanchard, 1045; Frost, 349).

In his 1903 book Baker recommended as the “best dimensions for the blocks ... width 3 inches, depth 4 inches, length 9 inches” (558) and Frost in his 1910 book cites the same dimensions (351). Milo S. Ketchum’s *Design of Highway Bridges*, published in 1908 and in a second, “rewritten” edition in 1920, lists dimensions of six to ten inches in length, three to four in width, and depth of at least three inches (1920 edition, 138). Standard practice was to set the blocks “with the fiber vertical and the long dimension crosswise of the street” (Baker, 558; Ketchum, 138).

The Grist Mill Bridge and Wood Block Pavements on Bridges

How widely wood block pavements were used on bridges is unclear. Ketchum lists creosoted timber blocks as one of eight “most common wearing surfaces for highway bridges” and provides specifications for their use in the 1920 edition (129, 138-39). Frost makes note of the Rush Street Bridge in Chicago, whose two twenty-foot wide roadways were paved in creosoted wood blocks in 1899 (345), and Blanchard cites wood pavements on New York’s Queensboro, Washington, Metropolitan Avenue, and Meeker Avenue bridges (1059). A Google search for wood block pavements on bridges brought to light a notice under Contracts Awarded in the May 6, 1916, *The American Contractor* for a bridge over the Chemung River in Corning, NY: “The bd. of pub. wks., Wm. O. Drake, supt., let contr. to Standard Engineering Co., Toledo, O., at \$7,168 for removal of old plank and floor joists and replacing same with creosoted joists, planks and wood block paving....” All of these references are to bridges in cities. Bridges with wood block pavements may have been far less common in small towns and rural areas.

The Grist Mill Bridge’s deck uses blocks of smaller dimensions – 5 ¾” in length, 2 ¾” width, and 3” in height – than the size Baker and Frost saw as best-practice (but about the same size as Ketchum lists, at least in the 1920 edition), but the blocks are creosoted and “with the fiber vertical and the long dimension crosswise of the street” and the blocks laid directly on wood planking beneath – this being, Frost noted, the “usual practice” (349-51). Frost stated that the planking, like the blocks, should be “carefully creosoted.” The Grist Mill Bridge’s underlying planking does not appear to have been creosoted, but, judging from what survives, the planking was topped with a thin coating of coal tar or some other mastic into which the blocks were set. Without any records, it is impossible to know whether the blocks were part of the bridge’s

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original finish or, like the Corning bridge, were added later when the earlier decking had deteriorated.

In any event, the Grist Mill Bridge's wooden deck structure with its surviving remnants of wood block pavement appears to be the only example of a metal truss bridge in Michigan retaining such a deck. In fact, the SHPO currently has no knowledge of any other road bridge in Michigan retaining wood block pavement, either visible or beneath some other current pavement. In any future restoration/rehabilitation of the bridge, this pavement structure should be retained and restored, or at least the most intact part of it preserved and interpreted as an important historic artifact and piece of bridge and road engineering history.

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9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

Thanks and a tip of the hat to the Elsie Historical Society, with quarters in the Elsie Library, for their assistance in providing a wealth of historic photographs (all historic photographs used came from the society's collection) and other useful documentation.

Baker, Ira Osborn. *A Treatise on Roads and Pavements*. NY: John Wiley & Sons, 1904 [first published 1903].

Blanchard, Arthur H., ed. *American Highway Engineers' Handbook*. NY: John Wiley & Sons, Inc., 1919.

Chicago & North Western Railway. *Yesterday and Today: A History of the Chicago and North Western Railway System*. 3rd ed, rev. and enlarged. Chicago, IL: Chicago Chapter, Railway & Locomotive Historical Society, 1980 [reprint; original published Chicago, 1910].

Clinton County, Register of Deeds. Quit-Claim Deed, Merle H. Green and Earl H. Brown to Township of Duplain, 5/12/1976.

Clinton County Road Commission. Notice of Proposed Road Abandonments, meeting Nov. 22, 1972.

Craven, Lloyd. "The Village of Elsie." In (forms the bulk of) Elsie Centennial Committee, *Elsie Centennial, Elsie, Michigan, 1857-1957*.

Ellis, Franklin. *History of Shiawassee and Clinton Counties, Michigan, with Illustrations and Biographical Sketches of Their Prominent Men and Pioneers*. Philadelphia: D. W. Ensign & Co., 1880.

Frost, Harwood. *The Art of Roadmaking. Treating of the Various Problems and Operations in the Construction and Maintenance of Roads, Streets, and Pavements*. NY: McGraw-Hill Book Co., 1910.

"Funeral Wednesday for Glenn S. Wilcox." Obituary, March 9, 1950. [Perhaps from *The St. Johns News*.]

Geil & Harley. *1864 Clinton County Plat Map with Index* [originally published as *Map of the Counties of Clinton and Gratiot, Michigan. From Official Records & Surveys*]. St. Johns, MI: Genealogists of the Clinton County Historical Society, 2000 [originally published by Samuel Geil, Philadelphia, PA, 1864].

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Gillespie, W. M. *A Manual of the Principles and Practice of Road-Making: Comprising the Location, Construction, and Improvement of Roads, (Common, Macadam, Paved, Plank, Etc.) and Rail-Roads.* NY: A. S. Barnes & Co., 1847.

Gillmore, Q. A. *A Practical Treatise on Roads, Streets, and Pavements.* 6th ed. NY: D. Van Nostrand, 1888 [originally published 1876].

Grant, H. Roger. *The North Western: A History of the Chicago & North Western Railway System.* Dekalb: Northern Illinois University Press, 1996.

Hyde, Charles K. *Michigan's Highway Bridges: History and Assessment.* Lansing: Bureau of History, Michigan Department of State/Michigan Department of Transportation, 1985.

Ketchum, Milo S. *The Design of Highway Bridges of Steel, Timber and Concrete.* 2nd ed., rewritten. NY: McGraw-Hill Book Co., 1920.

Lake, D. J., et al. *Atlas of Clinton County, Michigan. From actual Surveys by and under the direction of D. J. Lake, C. E.* Philadelphia, PA: C. O. Titus, 1873.

Mahan, D.[Dennis] H. *A Treatise on Civil Engineering.* Revised and edited, with additions and new plates, by De Volson Wood. NY; John Wiley & Son, 1874 [this revised edition first published 1873].

Morison, George S. "Memoir of Deceased Member. Willard Smith Pope, M. Am. Soc. C. E." *Proceedings of the American Society of Civil Engineers.* Vol. 22, No. 2. Feb., 1896.

Overton, Richard C. *Burlington Route: A History of the Burlington Routes.* NY: Alfred A. Knopf, 1965.

Platt, Montague T. *Michigan State Business Directory – 1870-71.* Detroit, 1870.

Polk, R. L., & Co. *Michigan State Gazetteer and Business Directory.* Detroit. 1875-1931 editions.

Prescott, George A. (Secretary of State), comp. *Michigan Township Officers' Guide 1906.* Lansing, MI, 1906.

Saylor, Diane, with Leota Stewart Kajdas. *Elsie, 1857-2007: One Hundred and Fifty Years in the Life of a Community.* Elsie, MI: Elsie Historical Society, 2007.

Scripps, J. E., and R. L. Polk. *Michigan State Gazetteer and Business Directory for 1873.* Detroit, 1873.

The St. Johns News (Elsie section), St. Johns, MI.

- 4/4/1901, p. 6

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- 5/30/1901, p. 3
- 10/10/1901, p. 7
- 10/31/1901, p. 7
- 11/28/1901, p. 12
- 12/15/1901, p. 15
- 12/26/1901, p. 6

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
 previously listed in the National Register
 previously determined eligible by the National Register
 designated a National Historic Landmark
 recorded by Historic American Buildings Survey # _____
 recorded by Historic American Engineering Record # _____
 recorded by Historic American Landscape Survey # _____

Primary location of additional data:

- State Historic Preservation Office
 Other State agency
 Federal agency
 Local government
 University
 Other
Name of repository: _____

Historic Resources Survey Number (if assigned): 20CL144

10. Geographical Data

Acreage of Property 12.3 acres

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Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates

Datum if other than WGS84: _____

(enter coordinates to 6 decimal places)

- | | |
|------------------------|-----------------------|
| 1. Latitude: 43.090431 | Longitude: -84.410568 |
| 2. Latitude: 43.090490 | Longitude: -84.405417 |
| 3. Latitude: 43.088667 | Longitude: -84.405089 |
| 4. Latitude: 43.088733 | Longitude: -84.410594 |

Or

UTM References

Datum (indicated on USGS map):

NAD 1927 or NAD 1983

- | | | |
|----------|-----------|-----------|
| 1. Zone: | Easting: | Northing: |
| 2. Zone: | Easting: | Northing: |
| 3. Zone: | Easting: | Northing: |
| 4. Zone: | Easting : | Northing: |

Verbal Boundary Description (Describe the boundaries of the property.)

The nominated property includes all that part of the below described property located in Sections 10 and 11, T8N, R1W, and north of the north right-of-way line of Island Road.

1. COM IN CENT OF ISLAND RD AT A PT 1769.11 FT W & N 74DEG 40MIN 35SEC W 234.7 FT FROM S ¼ POST OF SEC 11 T8N R1W, TO PT OF BEG OF THIS PARC, TH N 14DEG 28MIN 25SEC E 348 FT, N 37DEG 14MIN 25SEC W 48 FT TO ELY BANK OF MAPLE R, TH S 76DEG 57MIN 25SEC W 171 FT ALG SD BANK, TH S

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- 1DEG 48MIN 35SEC E 310 FT TO CENT OF ISLAND RD, TH S 74DEG 40MIN 35SEC E 100 FT TO BEG, PART OF SW ¼ SEC 11, T8N R1W.
2. BEG AT THE SW COR SEC 11 T8N R1W, TH E 536.19 FT, TH N 310 FT M/L TO MAPLE RIVER, TH SW ALG RIVER TO BEG.
 3. THE WATER POWER AND FLOWING PARTS OF SEC 10 and 11 SUFFICIENT TO RAISE A DAM 7 FT HIGH WHERE A DAM NOW STANDS ACROSS MAPLE RIVER T8N R1W.

Boundary Justification (Explain why the boundaries were selected.)

These boundaries include the entire historic site: the bridge, dam, entire mill site, adjacent property south of the nominated site down to Island Road, and the main part of the mill pond – all of the pond itself north of Island Road – this entire nominated property owned by Duplain Township as a township park. The 1960s alignment of Island Road across the pond, with a bridge and causeway where none existed before, creates a modern southern boundary for the historic north/northeast end of the pond near the bridge, dam, and mill site.

11. Form Prepared By

name/title: R.O. Christensen, national register coordinator
organization: MI SHPO
street & number: 702 W. Kalamazoo St.
city or town: Lansing state: MI zip code: 48909
e-mail: christensenr@michigan.gov
telephone: 517/335-2719
date: December 2014

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

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Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property: Grist Mill Bridge, Dam, and Mill Site

City or Vicinity: Duplain Township

County: Clinton

State: Michigan

Photographer: Various

Date Photographed: Various

Description of Photograph(s) and number, include description of view indicating direction of camera:

- 1 of 12: General view of site looking slightly north of west showing mill foundation ruins along river (low center left, projecting into river), fieldstone retaining wall (between mill foundation and dam), dam (right), and bridge. R.O. Christensen, Nov. 2014.
MI_Clinton_Grist Mill Bridge Dam Mill Site_0001
- 2 of 12: Circular drive (formerly part of Upton Road) looking SSE from just SSE of bridge (Island Road in distance). R.O. Christensen, April 2013.
MI_Clinton_Grist Mill Bridge Dam Mill Site_0002
- 3 of 12: SE end of Grist Mill Bridge. R. O. Christensen, Nov. 2014.
MI_Clinton_Grist Mill Bridge Dam Mill Site_0003
- 4 of 12: Looking NW through bridge. R.O. Christensen, April 2013.
MI_Clinton_Grist Mill Bridge Dam Mill Site_0004
- 5 of 12: Detail of bridge deck looking NW showing wood block remnants, planking, and asphalt paving.
MI_Clinton_Grist Mill Bridge Dam Mill Site_0005
- 6 of 12: Dam looking NW, fieldstone retaining wall in right foreground, bridge at far left. R.O. Christensen, April 2013.
MI_Clinton_Grist Mill Bridge Dam Mill Site_0006

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- 7 of 12: Fieldstone retaining wall between dam and mill foundation, with part of mill foundation in distance on right, looking SE. R.O. Christensen, April 2013.
MI_Clinton_Grist Mill Bridge Dam Mill Site_0007
- 8 of 12: Grist mill flume looking WNW, showing (center) concrete-lined remains at junction of two upper races into a single one running into the mill (mill site just to lower right, bridge and dam in upper right). R.O. Christensen, Nov. 2014.
MI_Clinton_Grist Mill Bridge Dam Mill Site_0008
- 9 of 12: Junction of upper flumes into single one leading into mill looking east into mill foundation. Part of remnant concrete walls of the two upper flumes in foreground, short segment of north side wall of combined flume beyond, and north foundation wall remnant of mill beyond (large straight tree trunk in the low ground to the right of the wall in middle distance probably located about where the mill's west side was located). R.O.Christensen, Nov. 2014.
MI_Clinton_Grist Mill Bridge Dam Mill Site_0009
- 10 of 12: Foundation remnants of mill, showing north side facing river and exposed east side (in distance). R.O. Christensen, Nov. 2014.
MI_Clinton_Grist Mill Bridge Dam Mill Site_0010
- 11 of 12: East foundation wall of mill with east end of north wall to left, looking NNW. R.O. Christensen, Nov. 2014.
MI_Clinton_Grist Mill Bridge Dam Mill Site_0011
- 12 of 12: View of site showing mill foundation remnant (primarily east wall), retaining wall just beyond, dam, and bridge, looking NW. R.O. Christensen, Nov. 2014
MI_Clinton_Grist Mill Bridge Dam Mill Site_0012

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.