

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 of eligibility for individual properties or districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an 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 listed in the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Sandbrook-Headquarters Road stone-arch bridge over a tributary of the Third Neshanic River
other names/site number "Hunterdon County Bridge #D368"

2. Location

street & number Sandbrook-Headquarters Road at a tributary of the Third Neshanic River not for publication
city or town Delaware Township vicinity
state New Jersey code 019 County Hunterdon zip code 08559

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I certify that this 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
 meets does not meet the National Register criteria. I recommend that this property be considered significant
 nationally statewide locally. See continuation sheet for additional comments.

Signature of certifying official/Title _____ Date _____
Deputy SHPO Assistant Commissioner for Community Investment and Economic Revitalization
State or Federal agency and bureau _____

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet for
additional comments.

Signature of certifying official/Title _____ Date _____
State or Federal agency and bureau _____

4. National Park Service Certification

I hereby certify that this property is:

<input type="checkbox"/> entered in the National Register. <input type="checkbox"/> See continuation sheet.	Signature of the Keeper _____	Date of Action _____
<input type="checkbox"/> determined eligible for the National Register. <input type="checkbox"/> See continuation sheet.	_____	_____
<input type="checkbox"/> determined not eligible for the National Register.	_____	_____
<input type="checkbox"/> removed from the National Register.	_____	_____
<input type="checkbox"/> other, (explain:) _____	_____	_____

Sandbrook-Headquarters Road stone-arch
bridge over a tributary of the Third
Neshanic River

Name of Property

Hunterdon County, New Jersey

County and State

5. Classification

Ownership of Property

(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property

(Check only one box)

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
_____	_____	buildings
_____	_____	sites
1	_____	structures
_____	_____	objects
1	_____	Total

Name of related multiple property listing

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

Historic Bridges of Delaware Township, Hunterdon County, New Jersey

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions

(Enter categories from instructions)

Transportation/road-related (vehicular)

Current Functions

(Enter categories from instructions)

Transportation/road-related (vehicular)

7. Description

Architectural Classification

(Enter categories from instructions)

Other: Stone arch bridge

Materials

(Enter categories from instructions)

foundation Sandstone
walls Sandstone (abutments, parapets, wingwalls, and arch barrel) and cut sandstone (arch ring)
roof N/A
other Asphalt (road)

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

See continuation sheet

Sandbrook-Headquarters Road stone-arch
bridge over a tributary of the Third
Neshanic River

Name of Property

Hunterdon County, New Jersey

County and State

8 Statement of Significance

Applicable National Register Criteria

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

- 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.)

Property is:

- 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 of age or achieved significance within the past 50 years.

Narrative Statement of Significance

(Explain the significance of the property on continuation sheets.)

9. Major Bibliographical References

Bibliography

(cite the books, articles, and other sources used in preparing this form on continuation sheets.)

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 # _____

Areas of Significance

(Enter categories from instructions)

Engineering
Transportation

Period of Significance

1873

Significant Dates

1873 (construction date)

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

Unknown

Primary location of additional data

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository: Hunterdon County Division of
Engineering

Sandbrook-Headquarters Road stone arch
bridge over a tributary of the Third
Neshanic River
Name of Property

Hunterdon County, New Jersey
County and State

10. Geographical Data

Acreege of property 0.053 acres

Latitude / Longitude Coordinates

(Note to Preparers: NJ HPO will complete this portion of the Registration Form for all Preparers, based on the coordinates derived from the Site Map or District Map that HPO produces.)

1. Lat 40. 448676 Long -74.913755

(NJ HPO will place additional coordinates, if needed, on a continuation sheet for Section 10.)

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet for Section 10.)

Boundary Justification Statement

(Explain, on the section sheet following the Verbal Boundary Description, how the chosen boundaries meet the requirements for boundary selection and are the most appropriate boundaries for the nominated property or district.)

11. Form Prepared By

name/title Carla Cielo, Historic Preservation Consultant
organization None date 10/31/2023; revised 4/22/24
street & number 548 County Road 579 telephone 908-310-2505
city or town Ringoes state New Jersey zip code 08551

Additional Documentation

(Submit the additional items with the completed form that are outlined in the "Standard Order of Presentation" that NJ HPO provides. Each page must contain the name of the nominated property or district, and the State and the county in which the property or district is located. Consult with NJ HPO if you have questions.)

Property Owner

(Either provide the name and address of the property owner here or provide the information separately to NJ HPO. Check with NJ HPO for other requirements. All owners' names and addresses must be provided, including public and non-profit owners, but their presence on the form, itself, is not required).

name Hunterdon County Department of Public Works
street & number 314 NJ-12 (Mailing: P.O. Box 2900) telephone 908-788-1227
city or town Flemington state NJ zip code 08822

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. The proper completion of this form and the related requirements is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.470 *et seq.*)

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 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 Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

Direct questions regarding the proper completion of this form or questions about related matters to the Registration Section, New Jersey Historic Preservation Office, Mail code 501-04B, PO Box 420, Trenton, NJ 08625-0420.

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Continuation Sheet

Sandbrook-Headquarters Road stone-arch
bridge over a tributary of the Third Neshanic River
Hunterdon County, NJSection number 7 Page 1

Description

Summary

The Sandbrook-Headquarters Road stone-arch bridge over a tributary of the Third Neshanic River is located in a rural, agricultural field in the eastern portion of Delaware Township in Hunterdon County, New Jersey.¹ It carries Sandbrook-Headquarters Road and is between the intersections of Dunkard Church Road and Lambert Road near the Amwell Church of the Brethren (Photos 1-4). It is a single-lane, single-barrel, skewed sandstone bridge built in 1873. The bridge is 17-feet wide with a 14-foot road width between the two parapets. Partially splayed and asymmetrical, semi-coursed sandstone wingwalls create an overall bridge length of 46½-feet (Illustration 10a and 10b). The arch barrel has an 11-foot span with a very low rise of only .25 (one quarter of a circle) and low bearing seats (Photos 6 and 7). It is faced with a cut sandstone ring with a keystone on both sides. Gate hooks remain on the east (downstream) side. Minimal alterations include repointing and rebuilding a collapsed section of the arch barrel in 2009 (Illustration 9). The road has a gentle rise at the bridge. The bridge is overall in good condition. Despite alterations, Sandbrook-Headquarters Road stone-arch bridge retains integrity.

Location and Roadway

The bridge location is rural and agriculturally-oriented. Twenty-feet south of the Sandbrook-Headquarters Road stone-arch bridge is a mid-20th century steel deck bridge with older stone abutments. It crosses the Third Neshanic River on Dunkard Church Road near its intersection with Sandbrook-Headquarters Road (Photo 2). Eighty-feet north of the stone-arch bridge are the Amwell Church of the Brethren, Lambert Road, and a poured-concrete slab bridge, all of which are within clear view of each other (Photo 1; Illustrations 5-6).

Because of the open space, relatively flat land, and shallow slopes near the tributary, the east (downstream) side of the Sandbrook-Headquarters Road stone-arch bridge is visually prominent from Dunkard Church Road and from the church property (Photo 2-3). It borders the churchyard where a baptismal pond once existed. The church cemetery is about 100-feet south of the bridge.

Narrative Description

For terminology reference, please see the “Stone Arch Bridge Components” diagram located in the “Accompanying Documentation” section of the *Historic Bridges of Delaware Township, Hunterdon County, New Jersey* Multiple Property Documentation Form (MPDF).

¹ Sandbrook-Headquarters Road stone-arch bridge over a tributary of the Third Neshanic River will be simply referred to as Sandbrook-Headquarters Road stone-arch bridge throughout the nomination. There are two branches of the third Neshanic River. This is the southern branch and begins on Lambert Road. The northern branch travels through the village of Sand Brook and along Yard Road. They join east of County Road 579 in Raritan Township.

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Arch Barrel

The sandstone arch barrel is set on an oblique angle (80-degree skew) to that of the wingwalls and is formed with a single layer of upright longitudinally oriented stonework.² (Photo 7) The arch barrel is in the form of a low segmental arch (a portion of a circle) and only rises 2'-7" above the spring line to reduce the rise of the roadway at the crown of the arch. Photos from when the road was dirt show a very slight rise in the roadway (Illustrations 5-8). The current paved asphalt roadway appears to be slightly higher than the pre-paved dirt roadway. The low stone bases (bearing seats) are only 6" high and are 5 and 10 inches deep at the water level on each side respectively.

Arch Rings

The arch rings are nearly identical on both sides of the bridge with slight variations stemming from the hand-made character of the stonework (Photos 6-7). On the east (downstream) side, the arch ring has a total of 25 carefully cut, dressed and matched sandstone voussoirs (both rectangular and wedge-shaped voussoirs) - 13 of which are south of the keystone and 11 of which are north of the keystone. The keystone is 11" wide at the top, 7" wide at the bottom, and 1'-6" high. The rectangular voussoirs are from 4 to 5" wide and 1'-4" to 1'-5" high. The tapered voussoirs are about 7" wide at the top, 6" high at the bottom and 1'-4" high. The voussoirs are up to 1'-2" deep and alternate with shallower voussoirs to key the arch ring to the barrel. The mortared joints follow a radial alignment. Due to the low rise, the springers (first voussoirs) are oriented on a slant and the back of the springers are shimmed. The spandrel stones are not shaped to conform to the outer curvature of the arch ring. There are approximately 23 comparable voussoirs at the west (upstream) side with 11 voussoirs on either side of the keystone. The west (upstream) keystone is slightly smaller (9" wide at the top, 6" wide at the bottom and 1'-4" high). All other details are consistent with the other side.

On both sides of the bridge there are vertical seams in the masonry at the junction of the spandrel and wingwalls. The wingwalls are set 2 to 4 inches beyond the plane of the spandrels below a height that aligns with the top of the keystone (Photo 6; Illustration 10a and 10b). The seams stop above the height of the keystone, which is typical. However, on the west (upstream) side of the bridge, the arch ring and spandrels are built in the plane of the parapet wall with no horizontal seam to complete the inset panel. This appears to be an original detail since the parapet does not appear to have been rebuilt. On the east (downstream) side, the parapet stonework cantilevers 1 to 4 inches beyond the plane of the spandrel for a 3-foot length creating a short horizontal seam. There is no corresponding seam above the north spandrel (Photo 6, Illustration 10a and 10b).

² A cross section of the barrel vault can be seen in the work photos from 2009.

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Wingwalls and Parapets

On each side of the bridge, one wingwall splays at an approximate 30-degree angle; the splayed wingwall is diagonally opposite of its counterpart on the other side of the bridge, creating a reverse symmetry to its overall form. The downstream wingwall is splayed on the north end and widens the north approach to 23-feet. The upstream wingwall is splayed on the south end and widens the south approach to 22-feet. The wingwalls are staggered with the straight end of the opposing wingwall 6 to 9 feet longer than the opposing splayed end (Illustration 10a and 10b). The masonry of the wingwalls and parapets is roughly coursed with sections of semi-coursed squarish stonework blending with sections of semi-coursed rectilinear stonework and small non-coursed areas of stonework that deviate from the adjacent on both sides of the bridge.

The west (upstream) parapet is 2'-3" high at the apex of the arch. It slopes in both directions at a low angle of approximately 5 degrees. The wingwalls slope at a slightly steeper angle to a height of 1'-10" at the north end and a height of 1-foot at the south end.

The east (downstream) parapet and wingwalls (1'-8" thick) have no capstones. The top surface consists of small stonework set in mortar with flush pointing (Photo 9). Above the arch barrel, the parapet is level for a 13½-foot length. It is 1'-9" high above the roadway and 2'-6" high above the keystone. The tops of the wingwalls slope to a 1'-2" height at the south end and a 1'-7" height at the north end. Photographic documentation from circa 1980 supports the assumption that this side of the bridge has not been reconstructed since that timeframe (Illustration 8). Its overall style with flat parapet, slightly tapered wingwalls and the absence of capstones suggest sympathetic reconstruction in the early 20th century however, the existing parapets and wingwalls match the character of the bridge as indicated in the 1901 photograph.

Capstones

Heavy sandstone capstones cover most of the west (upstream) parapet and wingwalls (Photo 8). The north end has no capstones for a 14'-foot length (Illustration 10a and 10b). The capstones vary in length from 1'-3" to 3'-10" and many are 5 to 6-inches thick. They match the thickness of the parapet wall and do not overhang. The joints between the capstones are mortared (2 to 3-inches wide) in a Colonial Ridge profile with exposed-coarse aggregate that is black in color, which may have been added in the early 20th century.

Name Plate

The name plate is located on the inside face of the west (upstream) parapet at the apex of the arch (Photo 5). It is a smooth sandstone panel (2' wide x 1'-5" high) that is recessed 2-inches from the face of the parapet stonework. The bottom of the panel is level with the roadway. Two courses of stonework are above the panel. The panel has four lines with the names "J. SMITH", "J. GOODFELLOW" and "N. D. MORRIS" in one-inch-

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high capital letters with a serif font. They are centered in the top three lines; the date "1873" is centered in the bottom line with 2-inch-high numerals (Photo 5).

Gate Hooks

This bridge has iron hooks for hanging a stock gate on the east (downstream) side (Photo 6). The south hook remains in its entirety. It appears to have been bent from the rim of a wagon wheel since it is flat on the bottom surface and curved on the top surface. It extends 5-inches from the spandrel wall plane and the curved end is 3" high. The broken end of the north hook remains imbedded in the masonry on the other side of the arch. Both hooks are 3'-5" above the water level.

Alterations and Repair Work

The low rise of the arch barrel evidently contributed to a structural failure which occurred in 2009 and involved the collapse of a small section of the arch barrel (Illustration 9). Photographic documentation of the repair work that was taken by local resident Chuck Taylor in 2009, shows a missing area of the arch barrel at the crown in front of the datestone at the west (upstream) parapet (Illustration 9). To repair the missing section, the bridge was shored from below with plywood centering, the entire roadway was removed to expose the top of the arch barrel, and the collapsed section was reconstructed in a traditional fashion with new stonework. The top of the arch barrel was grouted and topped with crushed stone and a new mechanized road surface with about a foot of new material above the arch crown. The parapet and wingwalls were minimally repointed at that time and the underside of the arch barrel was grouted.

As mentioned above, the east (downstream) parapet and wingwalls and the north end of the west (upstream) parapet appear to have been sympathetically reconstructed at an early date with stonework set in mortar instead of true capstones.

Condition

The overall condition of the bridge is good. The parapet and wingwalls remain plumb with no areas of displacement or cracking. The arch ring remains keyed to the arch barrel and the arch-barrel is stable. The name plate also remains in good condition as the inscription is legible with very minimal signs of fading.

Integrity

Sandbrook-Headquarters stone-arch bridge retains its integrity of design materials and workmanship and still functions as a vehicular bridge. The stonework, parapets, arches and approaches remain intact, albeit with some repointing as part of continuous maintenance cycles. The upper portion of the east (downstream) parapet and wingwalls and north end of the west (upstream) parapet may have been partially rebuilt in the first half of the

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bridge over a tributary of the Third Neshanic River
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Statement of Significance

Summary

The Sandbrook-Headquarters Road stone-arch bridge over a tributary of the Third Neshanic River is significant at the local level under National Register Criteria A and C in the areas of transportation and engineering as a late-19th century improvement to a rural 18th-century farm road which served an early Christian congregation in Delaware Township and for its engineering as an excellent example of a type, period and method of construction.¹ This dated bridge was constructed in 1873. It is a slightly-skewed bridge that represents the peak of stone-arch bridge construction in Hunterdon County. It illustrates the continued use of the stone arch for smaller water crossings at a time when many larger water crossings were spanned by metal truss bridges. Its setting is rural, and Sandbrook-Headquarters Road retains a narrow one-lane road width for most of its length. Sandbrook-Headquarters stone-arch bridge meets the registration requirements set forth in the *Historic Bridges of Delaware Township, Hunterdon County, New Jersey Multiple Property Documentation Form* (MPDF) and is therefore individually eligible to be listed in the New Jersey and National Registers of Historic Places.² It has enhanced significance because of its skewed construction. The period of significance is 1873 when the bridge was constructed.

Sandbrook-Headquarters Road and the Vicinity of the Bridge

The Sandbrook-Headquarters Road stone-arch bridge served the immediate farming community of Delaware and West Amwell Townships and a greater region served by the Amwell Church of the Brethren, which extends throughout Hunterdon County and into Bucks County Pennsylvania. The Amwell Church of the Brethren, which is often referred to as the Dunkard Church for its practice of baptizing adults, was founded in 1733 by John Naas (1669-1741), a German settler who was asked to pastor a small congregation in Amwell Township (see additional background history below). This church shows on an 1828 map entitled "*A Map of the State of New Jersey with part of the adjoining States Compiled under the Patronage of the Legislature of said State*" by Thomas Gordon and was one of only four churches in the area of Delaware Township at that time (Illustration 2).

The proximity between the Amwell Church of the Brethren and the stone-arch bridge is best illustrated by a 1901 photograph featured in an article in the Democrat-Advertiser by Jonathan M. Hoppock and reprinted by Marfy Goodspeed.³ (Illustration 5) The 1873 bridge would have been essential to the congregation. It likely replaced an earlier bridge at that location.

¹ Sandbrook-Headquarters Road stone-arch bridge over a tributary of Sand Brook will be simply referred to as Sandbrook-Headquarters Road stone-arch bridge.

² Caroline Charlese Scott and Carla Cielo, "Historic Bridges of Delaware Township, Hunterdon County, New Jersey," National Register of Historic Places Multiple Property Documentation Form. Washington, DC: US Department of the Interior, National Park Service, 2016, NRIS# 64501271.

³ "The German Baptist Church in Amwell" Goodspeed Histories February 19, 2016

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The church and bridge are located at an important crossroads connecting the villages/hamlets of Sergeantsville, Headquarters and Sandbrook (Illustrations 2-4). Sandbrook which began in 1739 with the construction of the Henry Kitchen Sawmill, is 1.4 miles north of the Amwell Church of the Brethren and the bridge. It grew as an important 19th century village with a Baptist church, store, schoolhouse and post office. Headquarters began with John Opdyke's grist mill in 1735.

Sandbrook-Headquarters Road was charted in 1770 and shows on Thomas Gordon's 1828 map (Illustration 2).⁴ A 19th century road survey refers to it as the road from "Dunker Meetg House to Sandbrook." The road to Sergeantsville (known today as Lambert Road) also shows on Gordon's 1828 map and intersects Sandbrook-Headquarters Road immediately north of the bridge. A third road (known today as Dunkard Church Road) was charted in 1850 and intersects Sandbrook-Headquarters Road 20-feet south of the bridge.⁵ This unique crossroads arrangement contributed to the use and importance of this bridge.

Additional Background History

The Amwell Church of the Brethren is the oldest Brethren church in New Jersey and the fourth oldest in the nation. Naas had been a minister of a church in Germany. He wrote hymns that are still sung today and was excused by the king after being tortured for refusing to join the German military.⁶ In Amwell Township, services were initially held in homes. The first church was built in 1811 on the site of the current church (near the bridge) on a lot conveyed for "the purpose of erecting or building and rebuilding a German Meeting house upon the same for worship therein". It was regarded as a "plane frame building" "about a mile northeast from Headquarters."⁷ In 1839-40, land was donated for a walled cemetery roughly 100 feet south of the bridge. The second church was built in 1856 (Illustration 5). The existing church was built in 1951 after a fire destroyed the earlier edifice. The new church was built on the same footprint and in a style to match the former church. The stream was dammed between the stone-arch bridge and the bridge on Dunkard Church Road to create a pond for their baptismal rituals.

Details of Construction

The Sandbrook-Headquarters Road stone-arch bridge has a strong visible presence due to its prominent location at a staggered three-way intersection, the relatively flat terrain at the intersection, and the slight rise in the roadway at the arch (Photos 2 and 3). The bridge is distinguished with classic and gracious refinements that make this bridge stand out as being one of the most beautiful stone-arch bridges remaining today in Delaware Township.

⁴ Hunterdon County, New Jersey. "Book 1," Page 65, Road Record; Record Room of the County Clerk's Office, Flemington Borough.

⁵ Hunterdon County, New Jersey. "Book 3," Page 292, Road Record; Record Room of the County Clerk's Office, Flemington Borough.

⁶ "The Amwell Church of the Brethren" Goodspeed Histories March 18, 2016; "The German Baptist Church in Amwell" Goodspeed Histories February 19, 2016; Barber and Howe, 1844

⁷ Barber and Howe, 1844

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The oldest known photograph of the bridge was taken in 1901 for an article in the Democrat-Advertiser by Jonathan M. Hoppock (Illustration 5). It shows a dirt road, some vegetation along the roadway, and the splayed wingwalls and parapets as they remain today.

To reduce the humpback in the roadway, the 11-foot arch span has an extremely low rise (.25; one-quarter of a circle) and low bearing seats (Photos 5-7; Illustration 10a and 10b). It is one of the lowest segmental-arch bridges remaining today in Delaware Township and the only bridge with a rise of .25 (one quarter of a circle) that remains on an active roadway. The other segmental-arch bridges have a rise of .3 or greater (roughly one-third of a circle) and most of the other stone-arch bridges in Delaware Township are founded on a raised base.⁸

This bridge is one of only two bridges built in Delaware Township in the third quarter of the 19th century with vertical seams that don't create an inset panel. Vertical seams in the masonry exist to the height of the keystone at the junction of the spandrels and the wingwalls on both sides of the bridge, but a horizontal seam above the spandrels only exists on the south end of the downstream side.

The slightly sloped wingwalls and parapets show an advancement in form from that of the earlier Delaware Township stone-arch bridge with wingwalls that sloped to a height that is below or level with the roadway in a triangular configuration. The asymmetry of the wingwalls is unique and appears to conform to the terrain. The flat parapet at the downstream side is characteristic of the early 20th century (See Section 7, Page 3).

This bridge has a skewed or oblique arch which is a method of construction that enables the arch to span at an angle other than at a right angle. It is one of four skewed bridges that remain today in Delaware Township. This bridge is 10 degrees off axis. The principles for skewed-arch bridge construction were developed in the early 19th century for railroad construction because railroads needed to cross obstacles in as straight a line as possible. However, for slightly skewed bridges, where the skew angle is less than approximately 15 percent, the stonework of the arch barrel could still be laid with the courses parallel to the abutment, resulting in what is known as a "false" skew arch. This bridge fits this category of bridge construction.⁹ None of the skewed bridges that remain today in Delaware Township have a true skew.¹⁰

Additionally, the bridge falls under the bridge stylistic category of "Southern", as described in the *Historic Bridges of Delaware Township, Hunterdon County, New Jersey* Multiple Property Documentation Form.¹¹ The

⁸ Scott and Cielo, Section E, p 15.

⁹ https://en.wikipedia.org/wiki/Skew_arch

¹⁰ Five of the remaining thirteen stone arch bridges in Delaware Township are skewed; Scott and Cielo, Section E, p 11.

¹¹ Scott and Cielo, Section F, Page 1-2.

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intrados of arch rings are cut to a curve, the arch ring has a radial joint alignment, and the masonry, though roughly, is coursed.

MPDF Requirements

The Sandbrook-Headquarters Road stone-arch bridge is listed in the *Historic Bridges of Delaware Township, Hunterdon County, New Jersey* National Register of Historic Places Multiple Property Documentation Form and meets all of its requirements.¹² This bridge meets the registration requirements established by the MPDF under Criterion A. It contributed to the improvement of a rural road network and the ability of dispersed local farmers to transport crops to mills, markets, and urban centers, attend weekly church services, and to visit their deceased in the church cemetery. This stone-arch bridge reflects the growth and permanence of the local agricultural community.¹³

This bridge also meets the registration requirements established by the MPDF under Criterion C since it embodies the distinctive characteristics of a type, period, and method of construction. The bridge was constructed within the period of significance (1829-1882) and shows a vernacular but refined character in the construction of its parapets and wingwalls, and the arch ring shows a distinction in workmanship from the spandrels and wingwalls. The arch barrel remains intact, albeit repaired. Bridge maintenance, which included repointing and limited reconstruction, doesn't affect its eligibility under the MPDF.¹⁴

Nameplate

The bridge was built in 1873 according to its cut sandstone nameplate, which also records the names: "J. Smith. J. Goodfellow. and N. D. Morris" above the date (Photo 5). Joseph Smith (1809-1886) a county collector and an active, lifelong Delaware Township resident, was the chosen County Freeholder in Hunterdon County between 1870 and 1875 (Illustration 1). His name is also recorded on the datestone of a stone-arch bridge built in 1872 south of Sergeantsville on what is today CR 523. Smith was the supervisor and paymaster of the construction of the Green Sergeant's covered bridge, which remains as the last surviving covered bridge in New Jersey.¹⁵ His obituary referred to him as an "old and popular citizen of Delaware Township" and was known as "Old Hickory."¹⁶

¹² Ibid, Section F, p 1-5.

¹³ Ibid, Section E, p 4-10.

¹⁴ Scott and Cielo, Section E, p 10-17 and Section F, p 1-5.

¹⁵ Snell p. 374; "Story of Green Sergeant's Bridge and Its Builders" Goodspeed Histories May 1, 2011; Dennis N. Bertland. "Covered Bridge Historic District," National Register of Historic Places Nomination Form. Washington, DC: US Department of the Interior, National Park Service, 1999, NRIS# 99000269.

¹⁶ "The Railroad that Wasn't Built" Goodspeed Histories August 31, 2019

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“J. Goodfellow” was likely James Goodfellow (1844-1905) an active Delaware Township citizen who lived on Sandbrook-Headquarters Road north of the bridge. James Goodfellow was a private in Co. F, 22nd regiment during the Civil War. His brother, Preston B. Goodfellow (1837-1920), was a freeholder and carpenter from Lambertville. Preston’s name is listed on the 1878 Lockatong thru-truss bridge on Raven Rock Road in Delaware Township.¹⁷ N. D. Morris has not been identified.

Conclusion

Sandbrook-Headquarters Road stone-arch bridge represents a local construction typology reflecting both the area’s abundant supply of sandstone and the Euro-American population which settled the region in the 18th and 19th centuries. These humble bridges are unassuming - built as utilitarian structures, but with a pride of craftsmanship. The rural historic landscape of Delaware Township provides the appropriate setting for small-scale stone-arch bridges.

¹⁷ “*The Rake Cemetery, Part 1 and Part 2*” The Delaware Township Post December 14, 2009; January 17, 2010; 1880, US Federal Census, Hunterdon County, NJ, North Delaware, Schedule 1, Page 17, Dwelling # 162, Goodfellow James

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Boundary Description

The boundary of the nominated resource consists of the main body of the bridge (arch barrel, parapets, abutments and wingwalls) extending to the end of its wingwalls in all directions. It also includes the bridge right-of-way.

Boundary Justification

Hunterdon County owns the bridge and the bridge right-of-way. The boundaries of the nominated resource are the same as the boundaries of the bridge and the bridge right-a-way property. There is no deed which records the boundaries of that property.

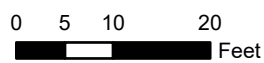
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Sandbrook-Headquarters Road stone-arch bridge over a tributary of the Third Neshanic River

New Jersey and National Registers Nomination
 Delaware Township, Hunterdon County, New Jersey

Boundary and tax map



Datum: NAD 1983 State Plane New Jersey

Legend

- SR & NR boundary
- Parcels Data (Block and Lot)
- Roads NJ (Centerlines)
- Coordinates
- Stream Network 2015
- Stream/River
- Connector

0.053 Acres



NUDEP
 Historic Preservation Office
 April 2024

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Photo Log

Name: Sandbrook-Headquarters Road stone-arch bridge over a tributary of the Third Neshanic River
Location: Delaware Township, Hunterdon County, NJ
Photographer: Carla Cielo
Date(s): April 6, 2023; October 3, 2023
Repository: 548 County Road 579, Ringoes, New Jersey 08551

Photo 1: Overall view facing north on Sandbrook-Headquarters Road

Photo 2: East (downstream) side of the bridge, View facing west from the adjacent bridge on Dunkard Church Road

Photo 3: East (downstream) side of the bridge, view facing southwest from the parking lot of the Amwell Church of the Brethren

Photo 4: West (upstream) side of the bridge, view facing southeast from the stream

Photo 5: Datestone, Inside face of the west (upstream) parapet. View facing west.

Photo 6: East (downstream) side of the bridge showing the low segmental arch, view facing northwest

Photo 7: West (upstream) side of the bridge, showing the low segmental arch, view facing southeast

Photo 8: West (upstream) wingwalls and parapet, view facing north showing the capstones.

Photo 9: East (downstream) wingwalls and parapet, view facing north showing the absence of capstones.

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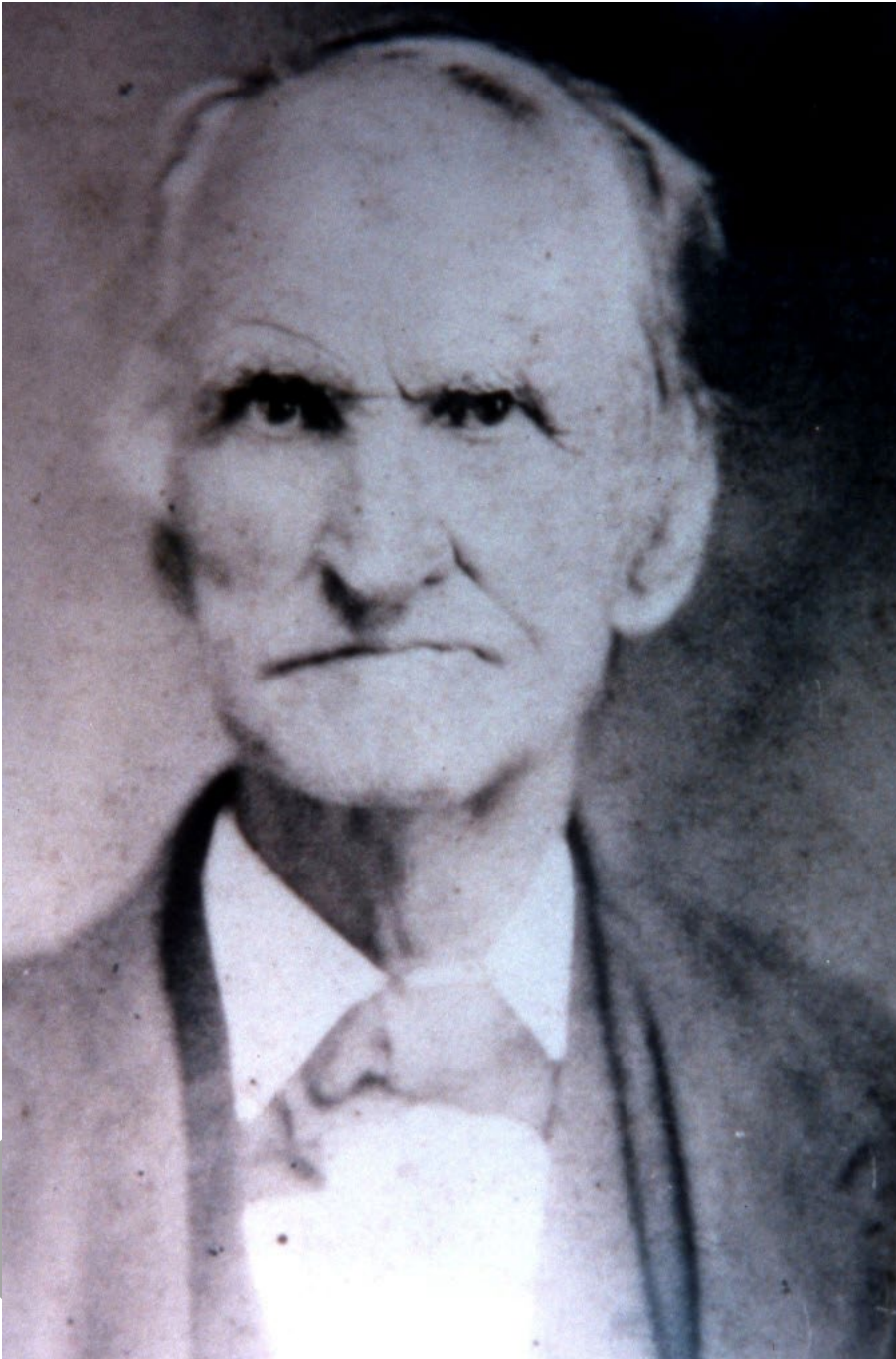


Illustration 1: c. 1880 photo of Joseph Smith from an article published in 1935.¹

¹ Marfy Goodspeed. "Story of Green Sergeant's Bridge and Its Builders." GOODSPEED HISTORIES, May 1, 2011. <https://goodspeedhistories.com/story-of-green-sergeant%E2%80%99s-bridge-and-it%E2%80%99s-builders/>.

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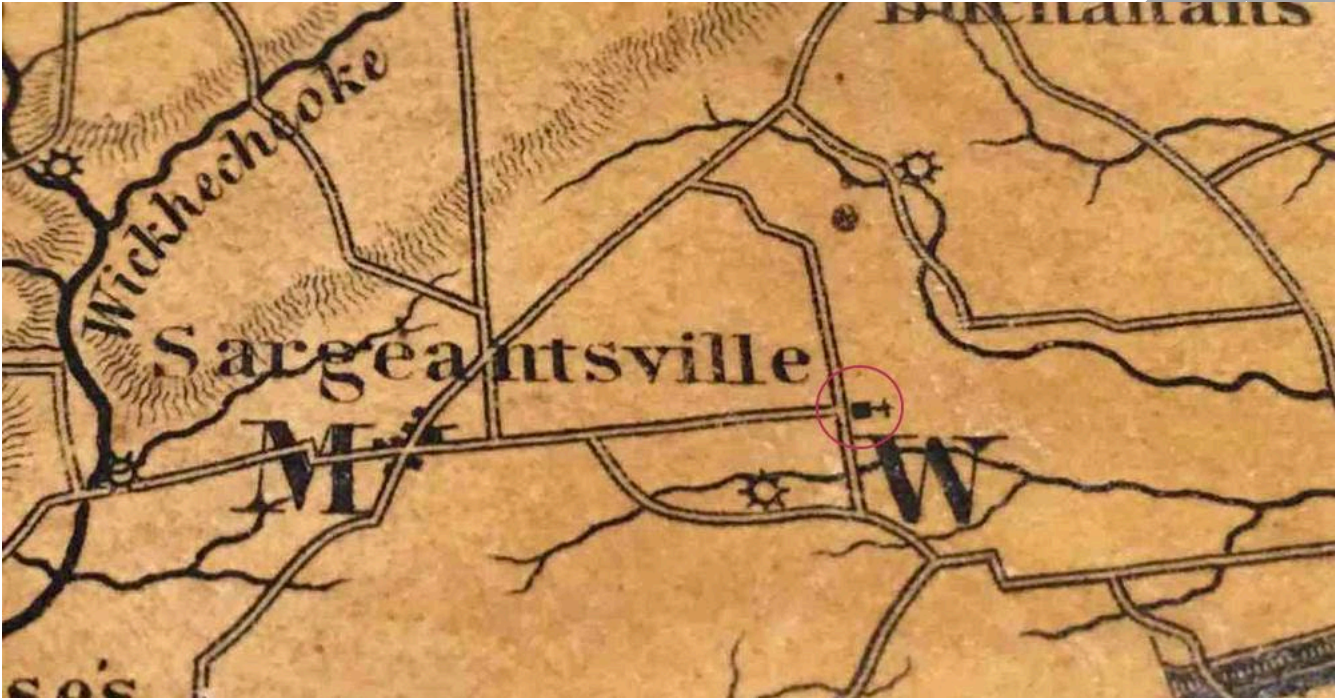


Illustration 2: An 1828 map showing the notation for a church at the intersection of Sandbrook-Headquarters Road and Lambert Road. (the circle indicates the bridge site prior to the construction of the current bridge)²

² Thomas Gordon. *A Map of the State of New Jersey with part of the adjoining States Compiled under the Patronage of the Legislature of said State*. Trenton: Thomas Gordon, 1828.

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Illustration 3: An 1860 map showing the German Baptist church, cemetery and three-way intersection, prior to the construction of the existing bridge.³

³ D. J. Lake and S. N. Beers. *Map of the Vicinity of Philadelphia and Trenton from actual Surveys*. Philadelphia: C.K. Stone & A. Pomeroy, 1860.

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Illustration 4: The circle indicates the location of the current bridge which was built the same year that the 1873 map was published.⁴

⁴ F. W. Beers. *Atlas of Hunterdon County, New Jersey: From Recent and Actual Surveys and Records*. New York: Beers, Comstock & Cline, 1873.

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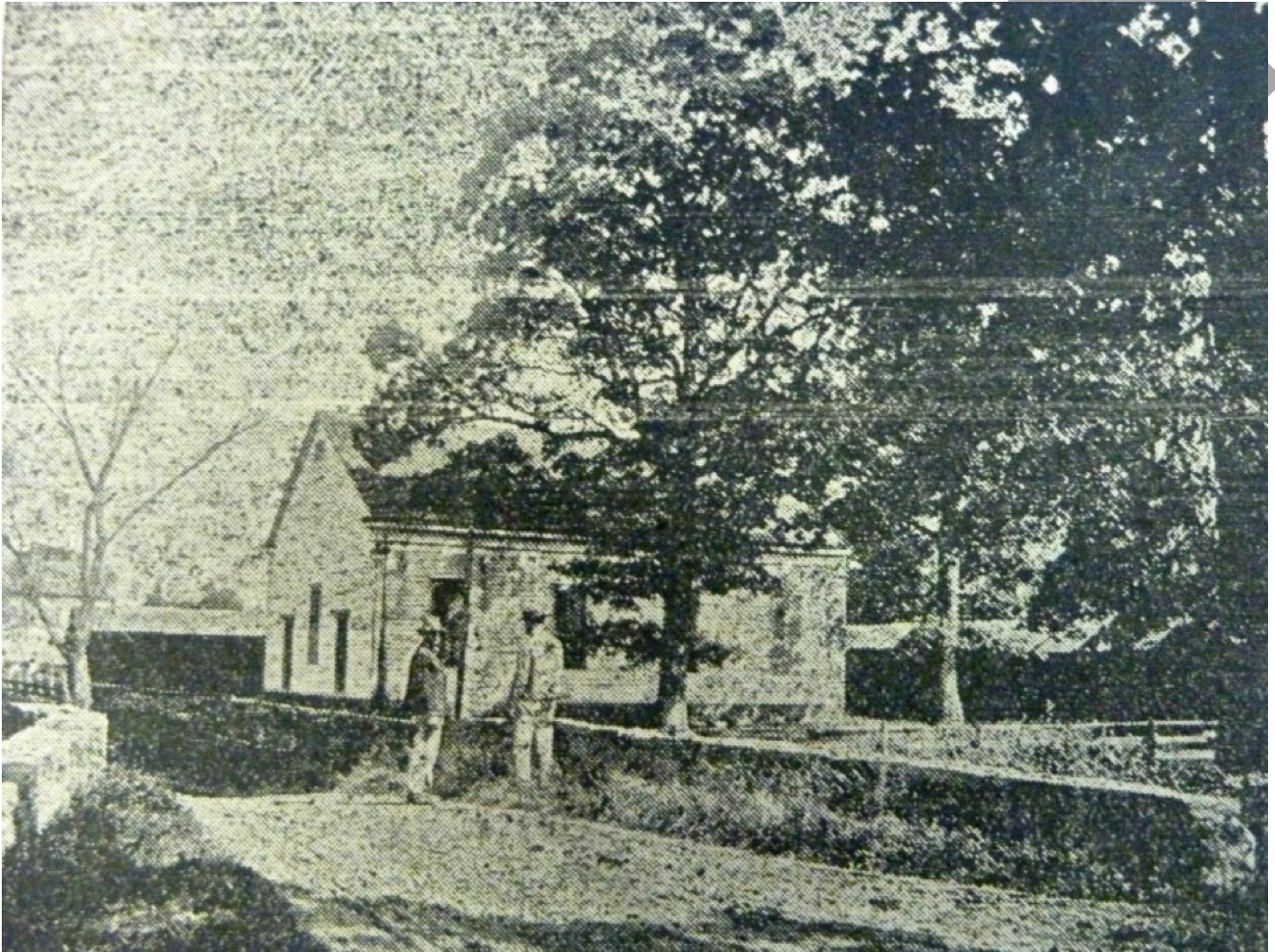


Illustration 5: View of Sandbrook-Headquarters Road at the stone arch bridge with the Amwell Church of the Brethren in the background. Two men are standing on the bridge near the east (downstream) parapet. The west parapet and a portion of the west wing wall shows in the foreground. (Undated from an article published in 1901)⁵

⁵ Marfy Goodspeed. "The German Baptist Church in Amwell." GOODSPEED HISTORIES, February 19, 2016. <https://goodspeedhistories.com/the-german-baptist-church-in-amwell/>.

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Illustration 6: circa 1930-40 view of the Sandbrook-Headquarters Road bridge, facing north.⁶

⁶ Hunterdon County, New Jersey. "Bridge File D368," Hunterdon County Engineer's Office, Raritan Township.

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Illustration 7: circa 1930-40 view of the Sandbrook-Headquarters Road bridge, facing northwest.⁷

⁷ "Bridge File D368."

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Illustration 8: circa 1980 view of the Sandbrook-Headquarters Road bridge.⁸

⁸ "Bridge File D368."

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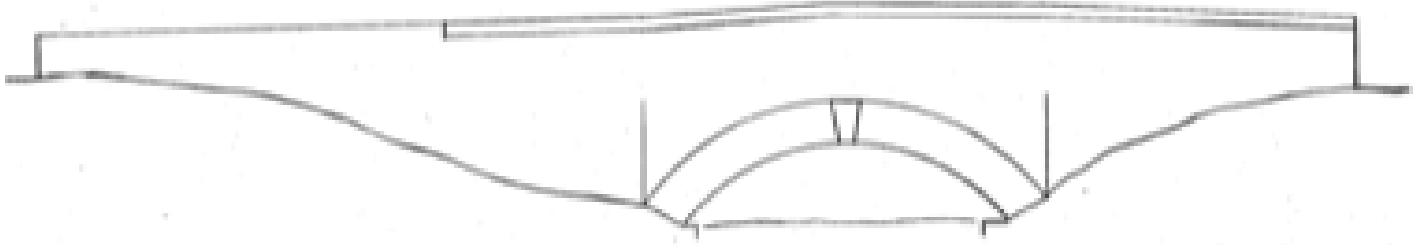
Illustration 9: Collapsed section of the barrel vault after removal of the road surface. Complements of Chuck Taylor 2009.

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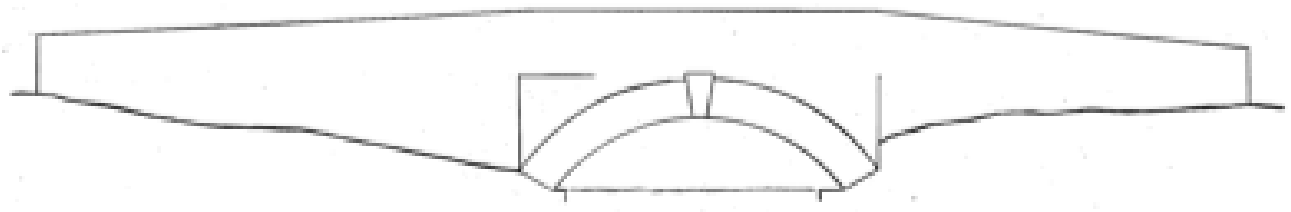
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Upstream (west) side



Downstream (east) side

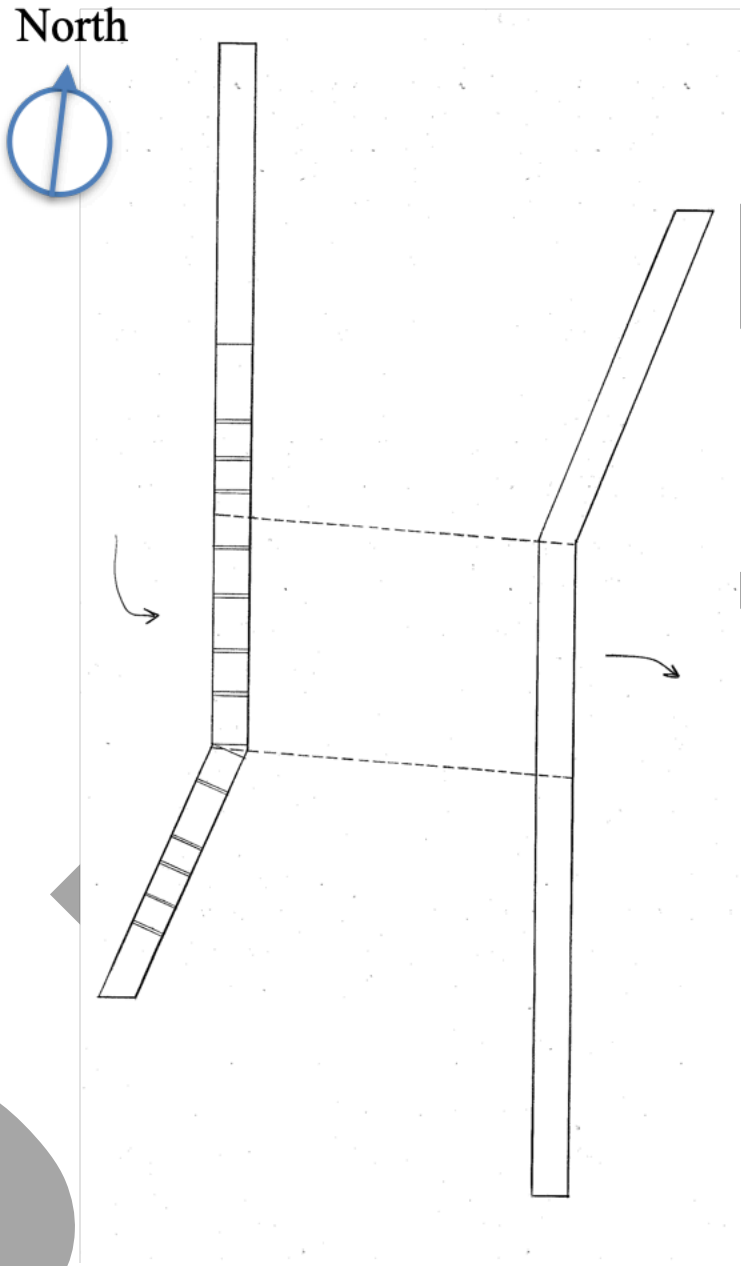
Illustration 10a: Measured drawings. Not to scale
Drawn by Carla Cielo, September 2023

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Plan view

Illustration 10b: Measured drawings. Not to scale
Drawn by Carla Cielo, September 2023

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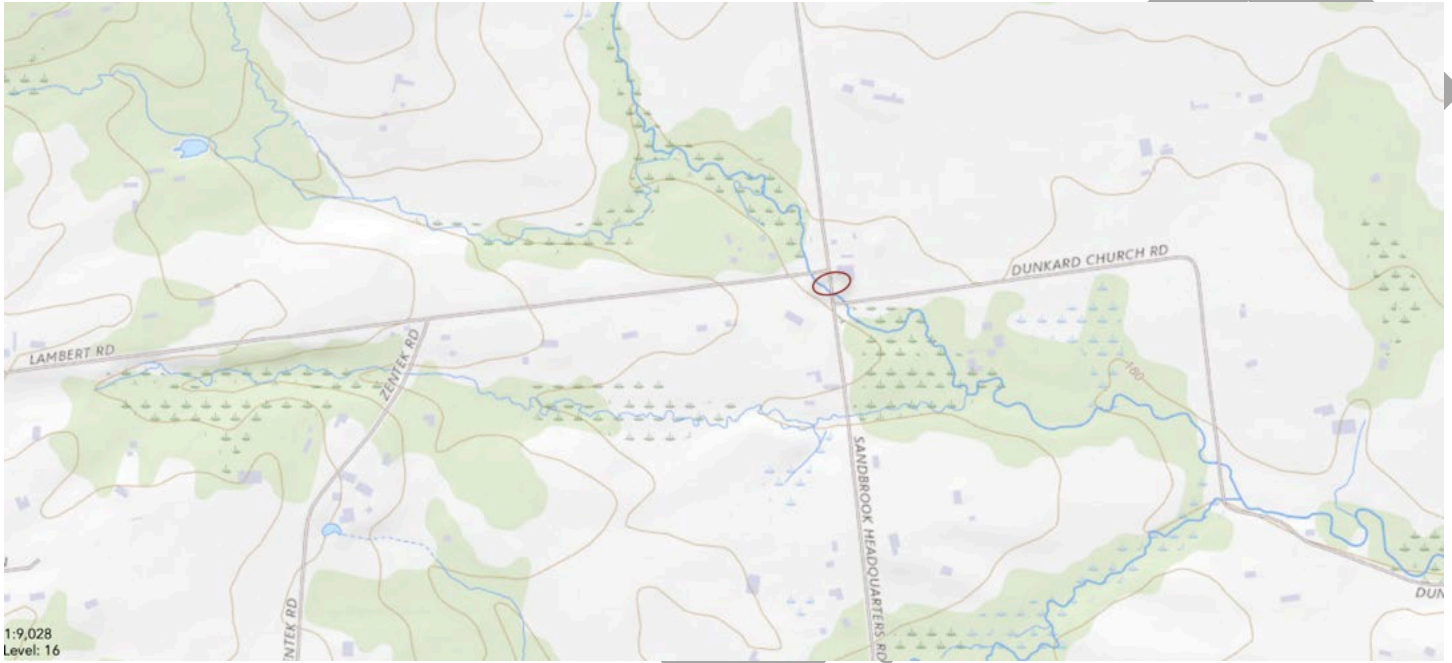


Illustration 11: Current location map⁹

⁹ U.S. Geological Survey, 2023, Topographical Map, accessed December 2023 at URL <https://apps.nationalmap.gov/viewer/>.

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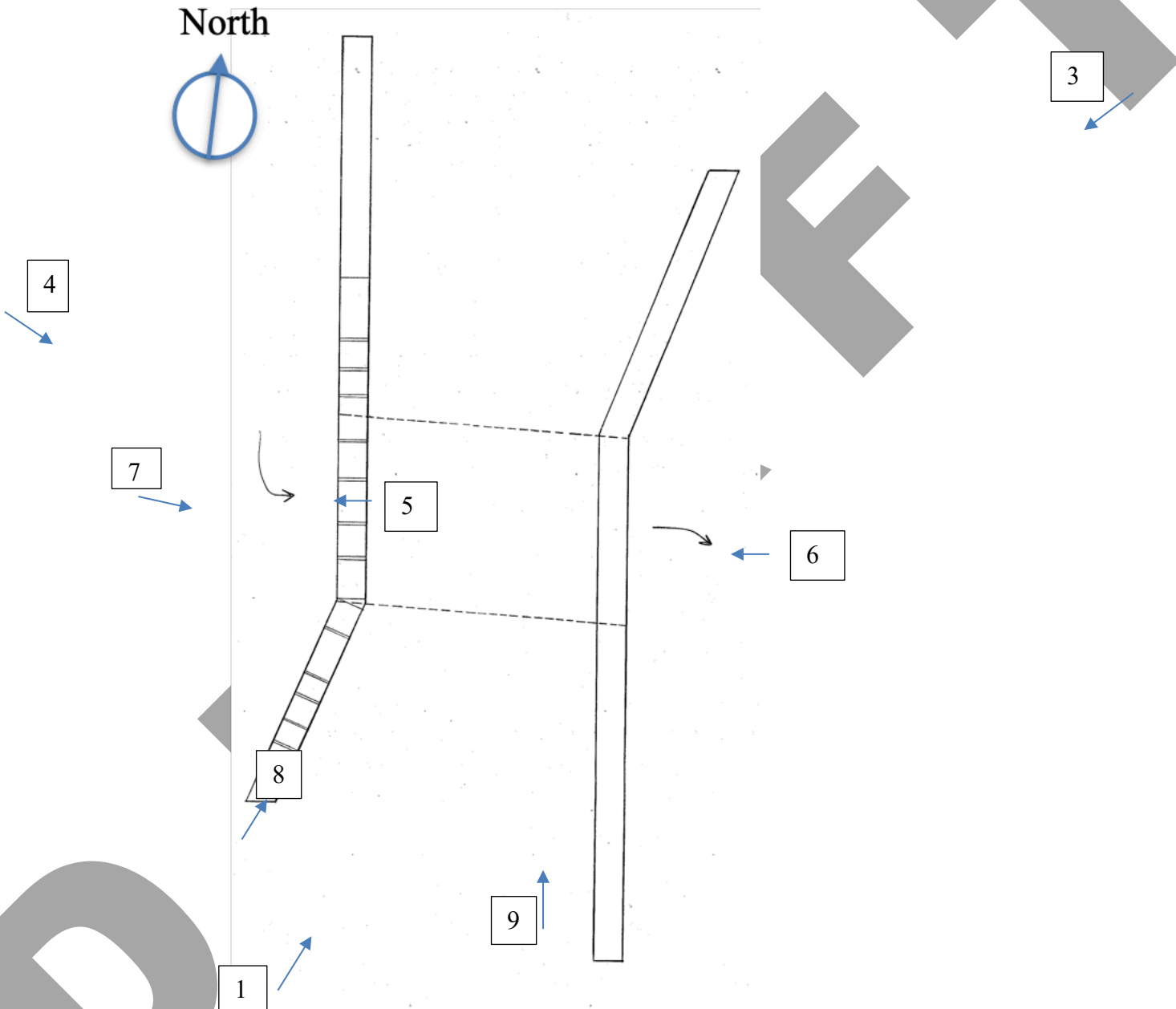
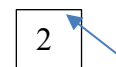


Photo Key
Drawn by Carla Cielo, September 2023



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Photo 1: Overall view facing north on Sandbrook-Headquarters Road

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Photo 2: East (downstream) side of the bridge, View facing west from the adjacent bridge on Dunkard Church Road

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Photo 3: East (downstream) side of the bridge, view facing southwest from the parking lot of the Amwell Church of the Brethren

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Photo 4: West (upstream) side of the bridge, view facing southeast from the stream

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Photo 5: Datestone, Inside face of the west (upstream) parapet. View facing west.

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Photo 6: East (downstream) side of the bridge showing the low segmental arch, view facing northwest

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Photo 7: West (upstream) side of the bridge, showing the low segmental arch, view facing southeast

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Photo 8: West (upstream) wingwalls and parapet, view facing north showing the capstones.

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Photo 9: East (downstream) wingwalls and parapet, view facing north showing the absence of capstones.