INTENSIVE-LEVEL HISTORIC ARCHITECTURAL SURVEY

REPLACEMENT OF MERCER COUNTY BRIDGE NO. 230.3 (STRUCTURE #1100-072) CARRYING MINE ROAD OVER STONY BROOK

Township of Hopewell, Mercer County, New Jersey

PREPARED FOR:

IH Engineers, P.C.
103 College Road East
First Floor
Princeton, New Jersey 08540

August 2018

RGA
CULTURAL
RESOURCE
CONSULTANTS

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Township of Hopewell, Mercer County, New Jersey

Principal Investigators:

Chelsea Troppauer

Prepared by:

RGA, Inc.
259 Prospect Plains Road, Building D
Cranbury, New Jersey 08512

Prepared for:

IH Engineers, P.C.
103 College Road East
First Floor
Princeton, New Jersey 08540

Date:

August 2, 2018

EXECUTIVE SUMMARY

RGA, Inc. (RGA) completed an intensive-level historic architectural survey for the proposed replacement of Mercer County Bridge No. 230.3 (Structure #1100-072), which carries Mine Road over Stony Brook in the Township of Hopewell, Mercer County, New Jersey. The work was completed under contract with IH Engineers, P.C., consultants to the Mercer County Department of Transportation and Infrastructure-Engineering Division. Bridge No. 230.3 is located approximately 40 feet east of the intersection of Mine Road and Stony Brook Road. The project will likely require a Freshwater Wetlands Permit (N.J.A.C. 7:7A). According to Freshwater Wetlands Protection Act Rules, archaeological, historical and architectural resources listed or eligible for listing on the National Register of Historic Places (NRHP) must be identified in order to determine if the project will affect such resources.

The purpose of the intensive-level historic architectural survey was to determine if there are historic resources listed on or eligible for listing on the NRHP within the Area of Potential Effects (APE), to identify any previously unevaluated properties 50 years or older within the APE, to assess the project's foreseeable effects on any listed or eligible resources in the APE, and to recommend measures to avoid, minimize or mitigate any adverse effects.

The intensive-level historic architectural survey identified two properties more than 50 years of age within the APE: Mercer County Bridge No. 230.3 and the Ege/Lewis Farmstead. Both resources were surveyed at the intensive-level. As a result of the survey, RGA found Mercer County Bridge No. 230.3 to be eligible for listing on the NRHP.

The project as proposed will have an adverse effect on the NRHP-eligible Mercer County Bridge No. 230.3, which will be removed and replaced.

The Mercer County Department of Transportation and Infrastructure-Engineering Division will consult with the New Jersey Historic Preservation Office (NJHPO) regarding options to mitigate adverse effects. Mitigation options could include recordation to the standards of the Historic American Engineering Record (HAER), the completion of a historical context document, or others as decided in consultation with the NJHPO.

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1.0 INTRODUCTION

This report presents the results of an intensive-level historic architectural survey for the proposed replacement of Mercer County Bridge No. 230.3 (Structure #1100-072), which carries Mine Road over Stony Brook in the Township of Hopewell, Mercer County, New Jersey. The project location includes Bridge No. 230.3, sections of Mine Road which form approach roadways to the bridge, portions of Stony Brook Road just north and south of its intersection with Mine Road, and off-road areas extending north and south from Mine Road and east and west from Stony Brook Road. The project location extends roughly 160 feet west and 90 feet east along Mine Road from the center of Bridge No. 230.3, and 90 feet north and 80 feet south along Stony Brook Road from the center of its intersection with Mine Road (Figures 1.1 and 1.2).

Chelsea Troppauer served as the Principal Investigator.. Ms. Troppauer meets the professional qualifications standards of 36 CFR 61 set forth by the National Park Service (Appendix A). Allison Gall conducted background research. Patricia McEachen produced the report graphics. Theresa Bulger, Lynn Alpert, and Stephanie Grubb edited the report and Ms. Grubb formatted the report. Copies of this report and all field notes, photographs and project maps are on file at the RGA headquarters in Cranbury, New Jersey.

1.1 Regulatory Context

The project will likely require a Freshwater Wetlands (FW) permit from the New Jersey Department of Environmental Protection (NJDEP) under the Division of Land Use Regulation. In accordance with the FW rules, the potential for this project to impact historic, archaeological and architectural resources must be considered under New Jersey Administrative Code (N.J.A.C.) 7:7A. A Phase I archaeological survey is being completed under a separate cover to address archaeological requirements of the proposed project.

1.2 Project Description

The Mercer County Department of Transportation and Infrastructure-Engineering Division proposes to construct a new bridge on Mine Road, adjacent to the intersection with Stony Brook Road (Figures 1.3 and 1.4). The preliminary preferred alternative for the bridge replacement project is an approximately 105-foot single-span Pratt pony truss bridge. The bridge would include two 16-foot-wide traffic lanes flanked by four-bar bridge safety railings and the 22-foot-tall truss structure. A five foot sidewalk is proposed for the north side of the bridge. The bridge would be supported on cast-in-place concrete abutments and wingwalls, and beam guiderails would line the bridge approaches. The replacement bridge would widen the crossing from 17 feet to 44 feet, including the sidewalk (IH Engineers, P.C. 2018).

The proposed project is needed to improve public safety and the structural integrity of the crossing. The present bridge is rated structurally deficient due to critically low load carrying capacity and the poor condition of the superstructure. The bridge is also functionally obsolete due to substandard deck geometry (JMT 2015). A new, wider bridge will allow for two lanes of traffic to safely travel across Stony Brook and support the larger loads carried by the trucks that regularly utilize the bridge despite current load restrictions. The addition of a pedestrian sidewalk on the north side of the bridge will further increase public safety.

1.3 Area of Potential Effects

The Area of Potential Effects (APE) includes locations that may be impacted by construction or that may experience effects once construction is completed. Although this project is not federally funded, the APE was defined in accordance with the purpose and intent of 36 CFR

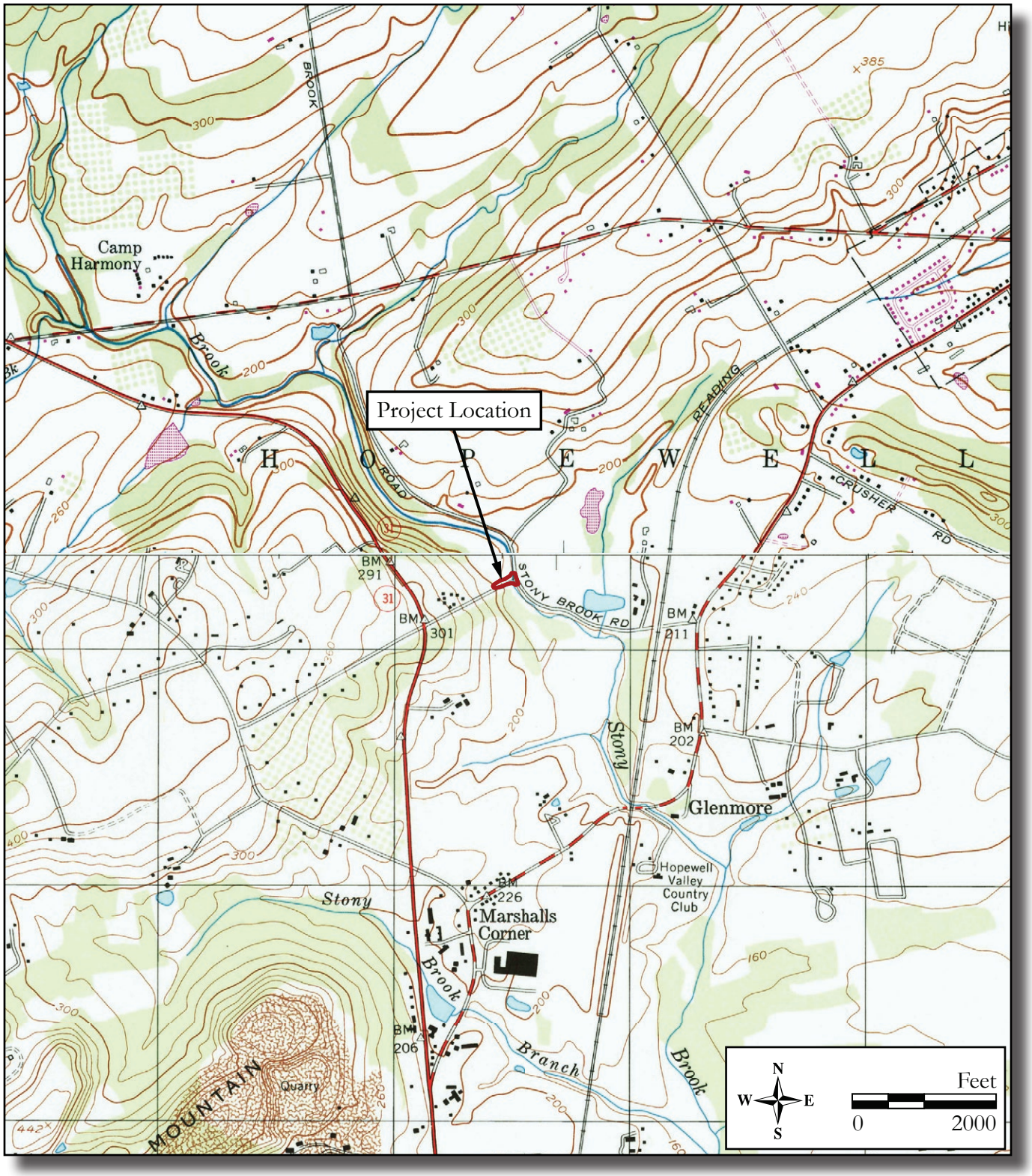


Figure 1.1: U.S.G.S. Map showing the project location
(from U.S.G.S. 7.5' Quadrangles: Hopewell, NJ 1954
(revised 1970; photoinspected 1977) and Pennington, NJ 1995).

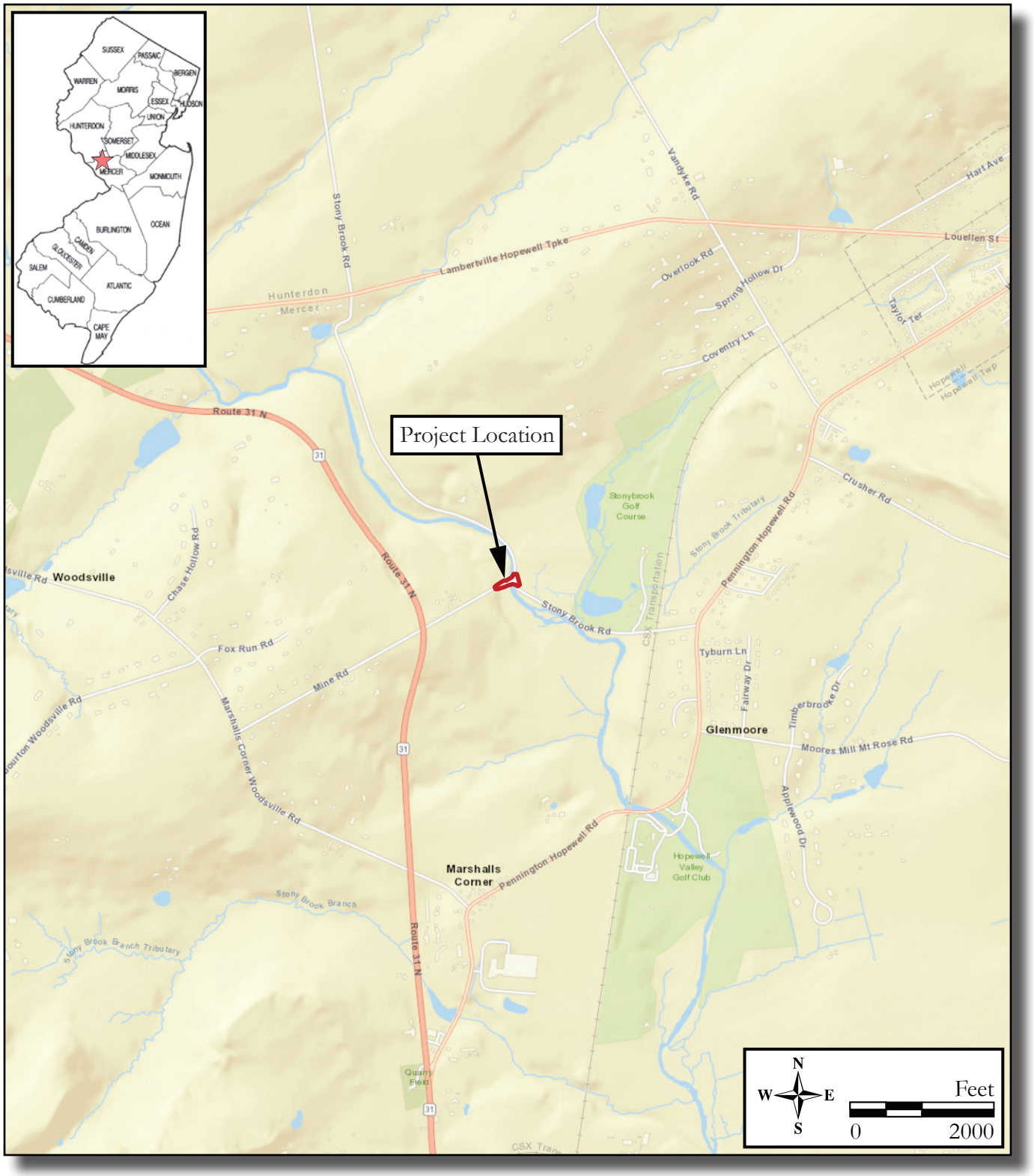


Figure 1.2: County Map
(World Street Map, ESRI 2018).

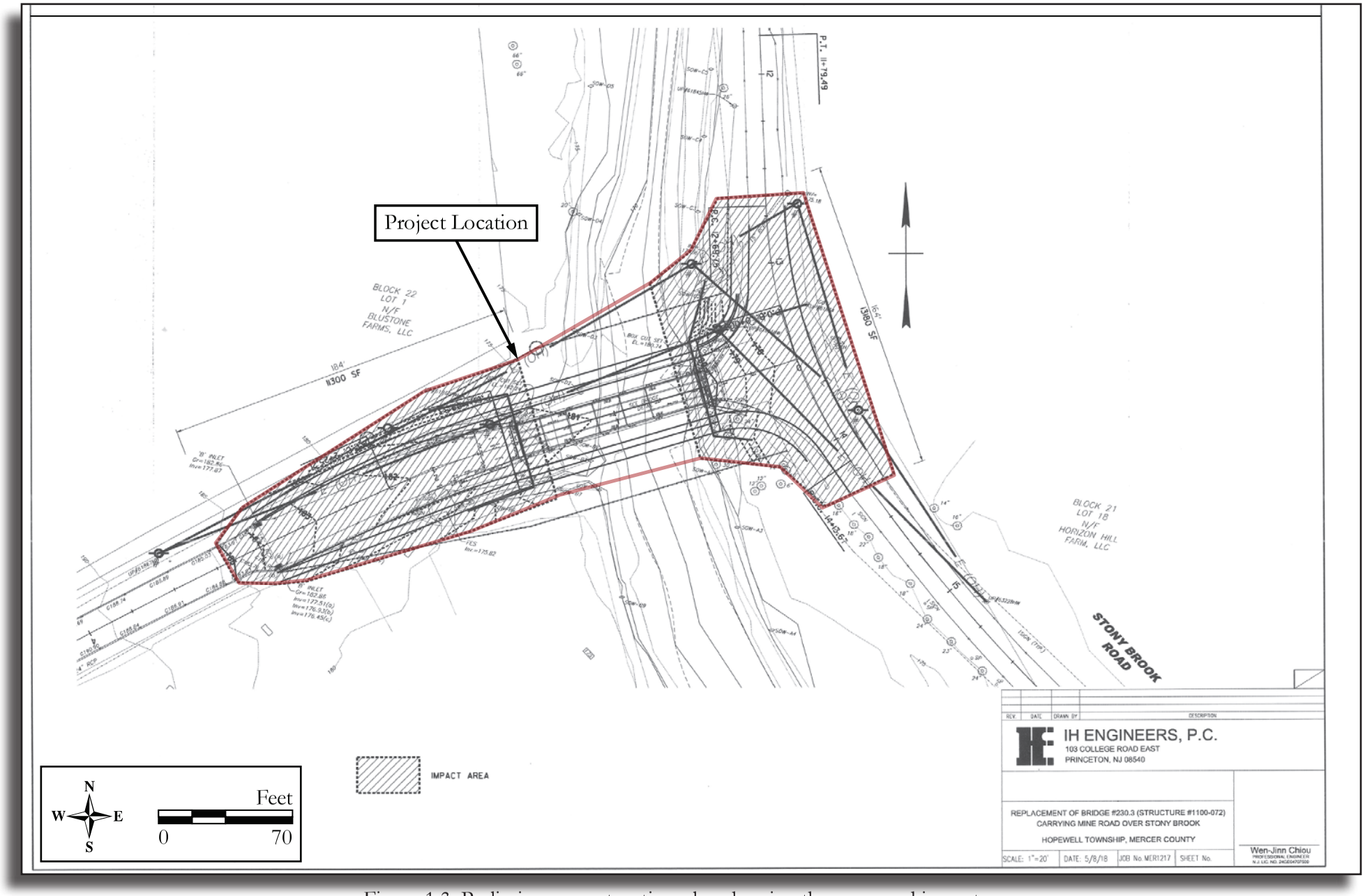
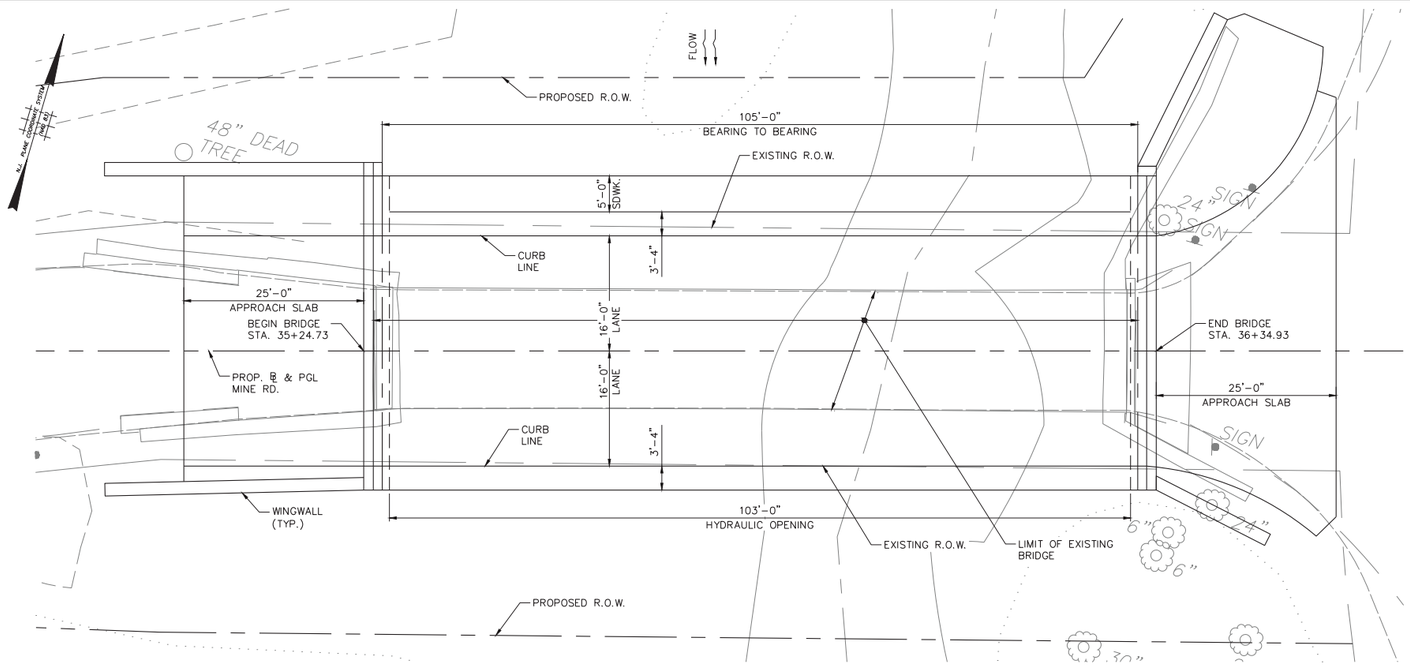
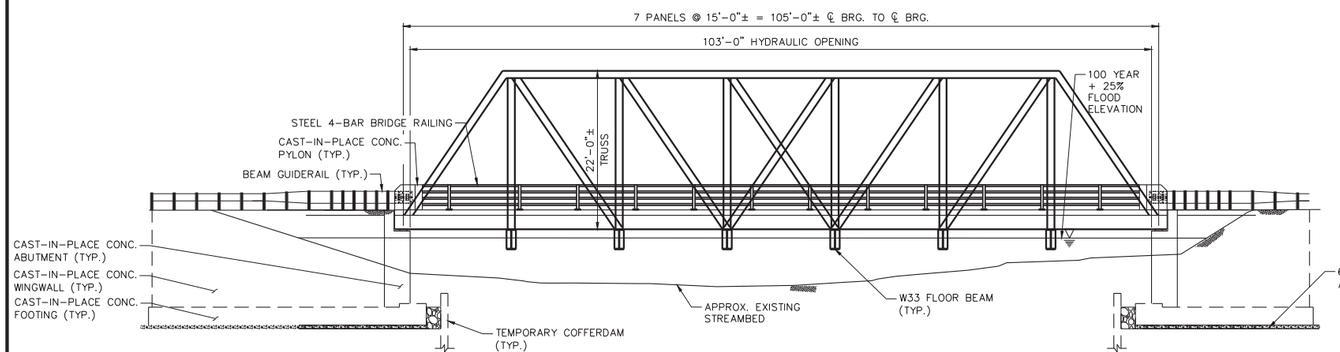


Figure 1.3: Preliminary construction plan showing the proposed impact area (from IH Engineers, P.C. 2018).

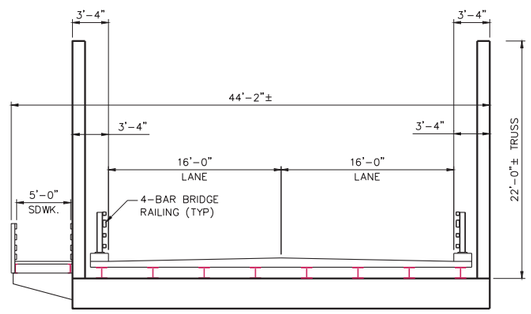


BRIDGE PLAN
⅛" = 1'-0"



SOUTH ELEVATION
⅛" = 1'-0"

ALT 1 - PONY TRUSS



TYPICAL SECTION (LOOKING EAST)
¼" = 1'-0"

GENERAL NOTES:

1. DESIGN SPECIFICATIONS:

   2017 (8TH EDITION) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS WITH CURRENT INTERIMS, AND AS MODIFIED BY SECTION 3 OF THE 2016 (6TH EDITION) NJDOT DESIGN MANUAL FOR BRIDGES AND STRUCTURES.

2. CONSTRUCTION SPECIFICATIONS:

   2007 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION WITH CURRENT SUPPLEMENTARY SPECIFICATIONS, AS MODIFIED BY THE SPECIAL PROVISIONS.

3. LIVE LOADING:

   AASHTO HL-93 VEHICULAR LIVE LOADING OR PERMIT VEHICLE, WHICHEVER GOVERNS.

4. CONCRETE DESIGN STRESSES:

   A. DESIGN COMPRESSIVE STRENGTHS (f'c)

   CLASS A.....4,000 PSI
   CLASS B.....3,000 PSI

   B. CONCRETE STRUCTURE

   CLASS A.....DECK, APPROACH SLAB, ABUTMENT BACKWALLS, PYLONS AND SIDEWALK
   CLASS B.....ABUTMENTS, WINGWALLS AND FOOTINGS

5. STRUCTURAL STEEL:

   ASTM A709 GRADE 50

6. REINFORCEMENT STEEL:

   ASTM A615 (GRADE 60) FS = 24,000 PSI (EPOXY-COATED)

REV.	DATE	DRAWN BY	DESCRIPTION

IH ENGINEERS, P.C.
103 COLLEGE ROAD EAST
PRprinceton, NJ 08540

BRIDGE ALTERNATIVE 1
GENERAL PLAN AND ELEVATION

REPLACEMENT OF BRIDGE 230.3 (STRUCTURE 1100-072)
CARRYING MINE ROAD OVER STONY BROOK

HOPEWELL TOWNSHIP, MERCER COUNTY

SCALE: AS SHOWN	DATE: 7/8/18	JOB No. MER1217	SHEET No.

Wen-Jinn Chiou
PROFESSIONAL ENGINEER
N.J. LIC. NO. 24GE04707500

Figure 1.4: Plan and elevation for the preferred replacement bridge (from IH Engineers, P.C. 2018).

800.16(d), which defines the APE as "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." An APE was established for the proposed project as defined below.

The APE includes all properties adjacent to the area of planned construction. To account for potential visual or contextual effects, the APE extends beyond the actual limits of construction to include those properties that may be impacted by visual changes, changes in patterns of use, or that may experience a change in historic character associated with the proposed project. The APE includes the properties on which development is proposed and is depicted on Figure 1.5. The APE is bounded to the south by woodlands and thick tree lines that conceal open farm fields interspersed with areas of more dense residential development beyond. Stony Brook Road bisects the APE, extending generally north-south. Tree lines along the road minimize views from the project location to the open farm fields on the east side of Stony Brook Road. As such, only the portion of the property visible from the bridge is included in the northeast section of the APE. To the west and north of the project location open farm fields and a related farmstead sited along Mine Road dominate this portion of the APE (Figure 1.5).

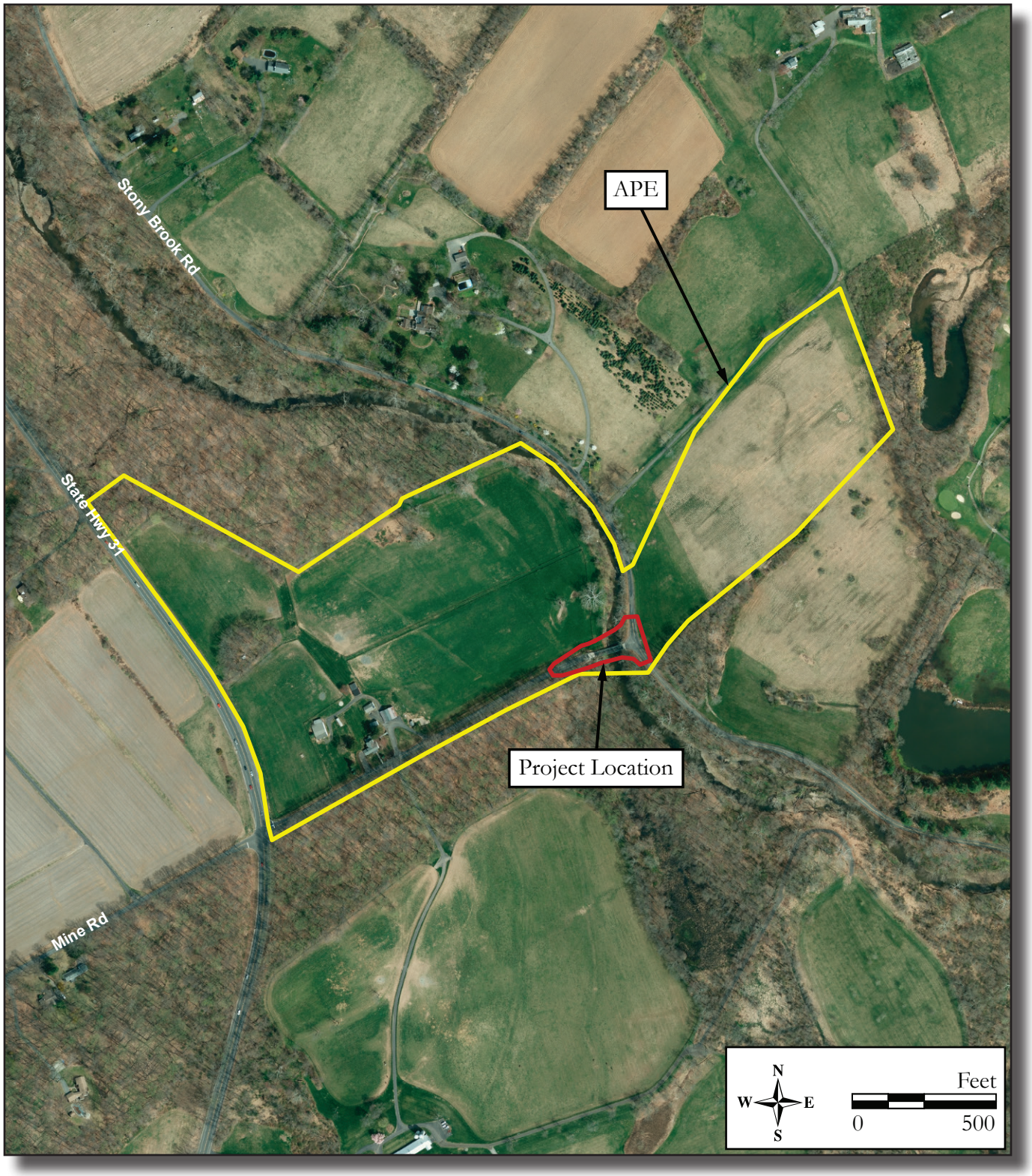


Figure 1.5: Aerial image showing the project location and APE (from ESRI 2018).

2.0 PROJECT APPROACH

The purpose of this report is to present the results of an intensive-level historic architectural survey within the APE in compliance with permit regulations. The document was designed to contain sufficient data to allow for an independent evaluation of eligibility and effects for architectural history. This work was performed in accordance with the NJHPO's Guidelines for Architectural Reporting and Surveys (Splain 1999).

2.1 Research

Research was conducted to locate previously identified historic properties, to identify the potential for additional unsurveyed resources over 50 years of age, and to develop an appropriate historic context for the surrounding area. Research took place at the NJHPO in Trenton to identify resources listed in or eligible for listing in the NRHP. Previous historic sites surveys and regulatory surveys on file at the NJHPO were also reviewed for information concerning prior surveys of the area. Additional background research consisted of a review of pertinent primary and secondary sources, including historic maps and atlases, periodicals, newspapers, and local and county histories available at the New Jersey State Library in Trenton.

2.2 Historic Architecture

The goals of the intensive-level historic architectural survey were to identify all resources previously listed on or eligible for listing on the NRHP inside the APE; to identify, survey, and evaluate the significance and integrity of resources more than 50 years of age according to NRHP Criteria; and to assess project effects on any listed or eligible historic properties according to the Criteria of Adverse Effect (36 CFR 800.9) (Appendix B). Fieldwork included a pedestrian survey of the APE to allow for the identification and assessment of all above-ground architectural resources over 50 years of age. Newly identified resources were photographed and recorded on NJHPO Survey Forms with individual resource descriptions, historical contexts, and assessments of significance, integrity, and NRHP eligibility in accordance with the NJHPO Guidelines for Architectural Survey (Splain 1999).

2.3 Public Consultation

Organizations and individuals with an identified interest in archaeology, history or historic preservation were contacted as part of this project. Information was requested from each regarding the presence of potential archaeological and historic resources in or near the project site. To date, no responses have been received. If any correspondence arrives after submission of this report, copies will be forwarded to the NJHPO as an addendum. A record of correspondence with all individuals and organizations contacted during the cultural resources screening is included in Appendix C of this report.

3.0 BACKGROUND RESEARCH

Background research was conducted to locate previously identified architectural resources in the vicinity of the APE and to assess the NRHP-eligibility of resources 50 years or older within an appropriate context. Research methods are described in Section 2.1.

3.1 Historic Context

Modern-day Hopewell Township approximates the boundaries of the 31,000-acre Hopewell Tract first surveyed to Dr. Daniel Coxe of England in 1688. Established originally within Burlington County, the township became part of Hunterdon County in 1714 and was finally set off to Mercer County in 1839 (Snyder 1969: 162). Settlement began in the first few decades of the eighteenth century, and by 1730, the township included a number of farmsteads (Hayden 1992: 9, 52). In 1731, a land dispute forced Coxe to eject fifty property owners from Hopewell, which suggests the extent to which the area was developed. A period of instability ensued. In the 1750s order was restored with many property owners re-purchasing their farms from the Coxe family heirs. The oldest surviving permanent houses in Hopewell Township date from this period (Hayden 1992).

During the eighteenth century, the area surrounding the project location was sparsely developed; the communities of Pennington, approximately three miles south of the project location, and Ringoes, approximately five miles northwest, were the closest population centers (Hills 1781) (Figure 3.1). Several roads were in place in the vicinity of the project location by the late eighteenth century. Nearby roads included a road leading from Pennington to Ringoes through Smith Mountains, which is to the southeast of the project location. This road appears to roughly correspond with present-day Marshalls Corner-Woodsville Road, presently located approximately 4,000 feet southwest of the project location. No roads were present within the APE during the eighteenth century.

No Revolutionary War activity is known to have taken place within or near the APE; however, Marshalls Corner-Woodsville Road formed part of Washington's Road to Monmouth (John Milner Associates, Inc. 2009). The village of Pennington, approximately three miles to the south, was occupied by British and Hessian troops in late 1776 (Bill 1964). Pennington was used as a rest stop for British troops in pursuit of the Continental Army as the latter retreated from New York across New Jersey. A ridge to the north of Pennington is known as Hessian Hill and was reputed to have been the location of a Hessian encampment during the occupation of the village (Hunter and Porter 1990). A skirmish between the Continental Army and Hessian soldiers took place west of Pennington on December 17, 1776 (Munn 1976). Hessian soldiers overran Pennington during this period and commandeered the Presbyterian Church as their barracks.

Residential and commercial development in the township continued following the Revolutionary War and was most heavily concentrated in the village of Pennington (Woodman and Hageman 1883). By 1833, present-day Stony Brook Road had been constructed, passing through the eastern portion of the APE, though no structures appear to have been built within or in the vicinity of the APE by that time (Gordon 1833) (Figure 3.2). The nearest buildings appear to have been located in what would later grow into the hamlet of Marshall's Corner, located approximately 4,500 feet south of the project location, at the intersection of present-day Marshall Corner Woodsville Road and Pennington-Hopewell Road (Gordon 1833; Woodward and Hageman 1883: 827).

By the mid-nineteenth century, the small cross-roads community of Marshall's Corner had been built up with several houses and businesses, and scattered residences were present along the area roads (Otley and Keily 1849) (Figure 3.3). Although Mine Road over Stony Brook was not yet constructed, a building attributed to "G. Ege" is shown on Otley and Keily's 1849 map

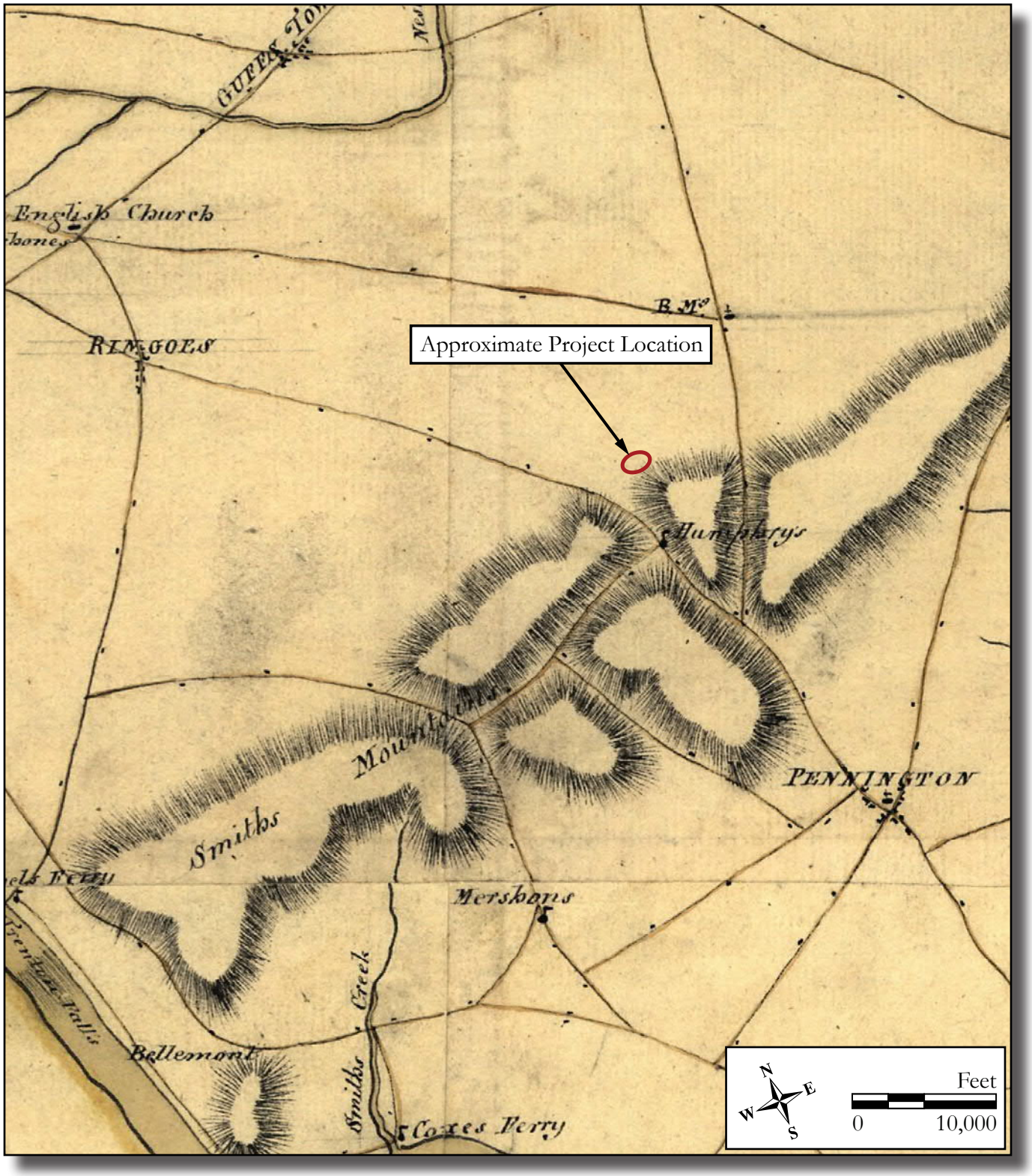


Figure 3.1: 1781 J. Hills, *A Sketch of the Northern Parts of New Jersey.*

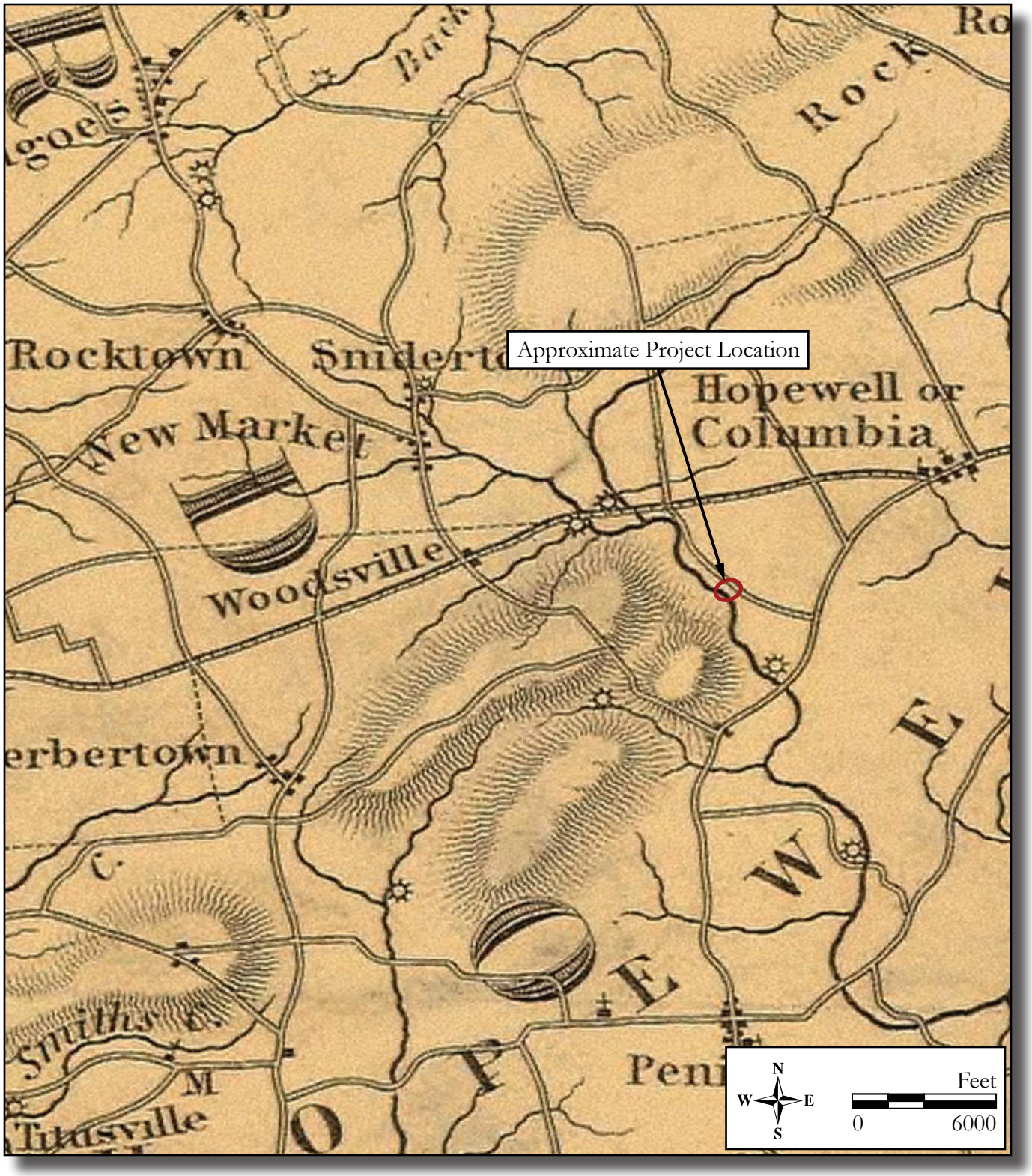


Figure 3.2: 1833 Thomas Gordon, *A Map of the State of New Jersey.*

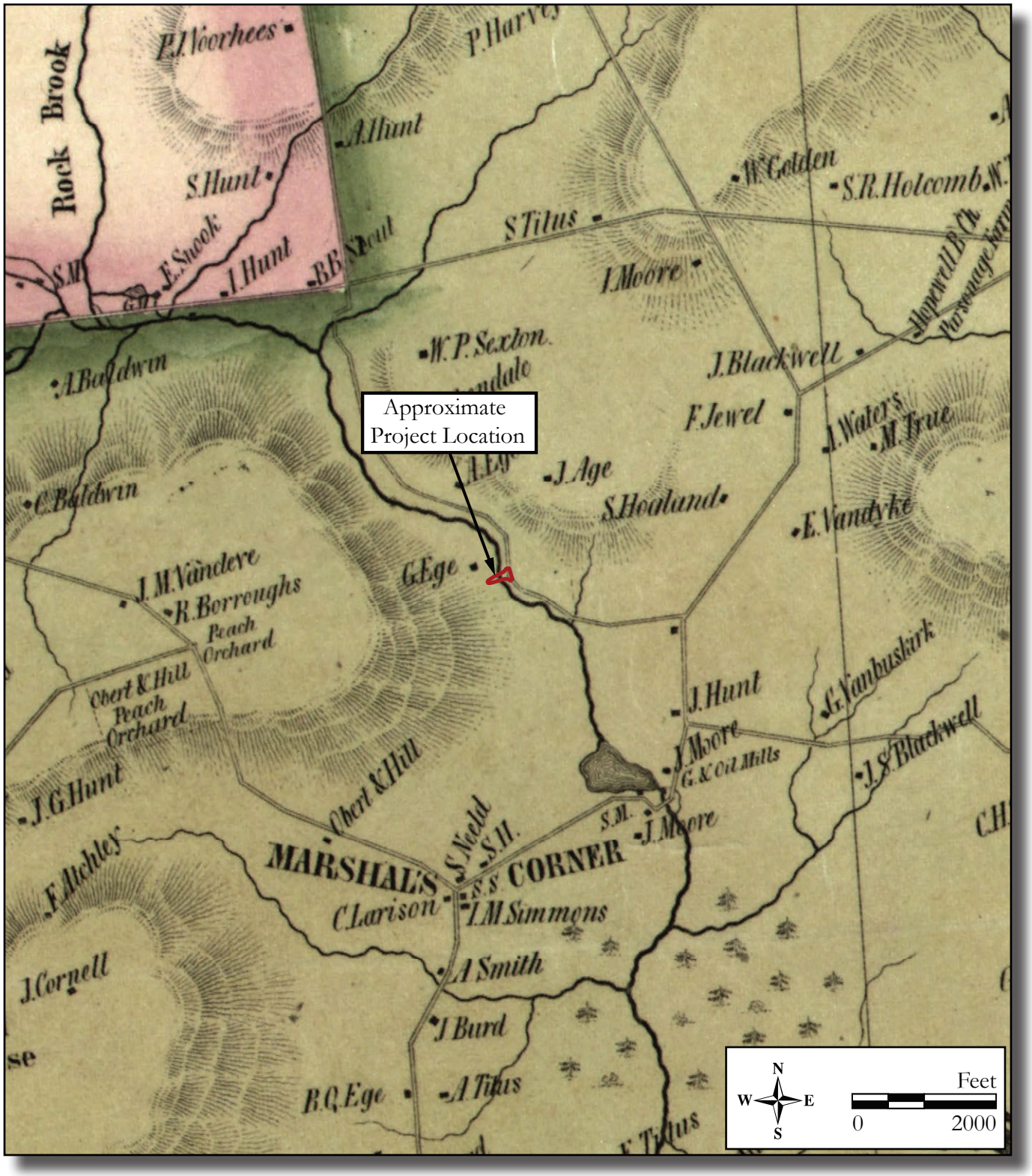


Figure 3.3: 1849 J. W. Otley and J. Keily, *Map of Mercer County, New Jersey*.

approximately 200 feet northwest of the project location, within the western portion of the APE (see Figure 3.3). This was likely George Ege, who lived with his wife, Sarah Ege (née Golden), on lands that were once a part of the larger Golden family homestead, a 392-acre plantation located on the west side of Stony Brook, which was settled as early as the late eighteenth century by Joseph Golden, an early settler of Hopewell Township (Ege 1908: 42-54). The larger farm associated with this building continues to occupy the majority of the APE to the north and west.

Between 1849 and 1860, Mine Road was built, connecting present-day Stony Brook Road to the east and Marshall Corner Woodsville Road to the west, passing through the APE (Otley and Kiely 1849; Lake and Beers 1860) (Figure 3.4). It is likely that the first crossing over Stony Brook was also in place by this time. By 1860, the farm at the northwest end of the APE was under the ownership of "E.G. Lewis" (Lake and Beers 1860). Elias G. Lewis was the nephew of George Ege and Sarah Golden. After his father died in 1832, Elias and his mother, Anna Lewis (née Golden), returned to the Golden family homestead, where they lived with Anna's sister and brother-in-law (Ege 1908: 58). By 1849, it appears that George and Sarah Ege and Anna Lewis had all moved to Illinois, where a large portion of the Golden family had ultimately settled, and the property came to be owned by Elias Lewis (United States Bureau of the Census 1850). As the farmstead was developed under the ownership and residence of George Ege and Elias Lewis, it has come to be known as the Ege/Lewis Farmstead.

The arrival of the railroads during the early 1870s prompted further growth in the township. By 1875, two rail lines were located near the APE: the Delaware & Bound Brook Railroad (D&BBRR), situated 2,000 feet east of the APE, and the Mercer & Somerset Branch of the Pennsylvania Railroad (PRR), located approximately 1,000 feet east of the APE (Figure 3.5). A dispute broke out near the present-day Borough of Hopewell, two miles northeast of the project location, between the D&BBRR and the PRR. This dispute, known as the Hopewell Frog War, received national attention when the D&BBRR attempted to build a crossover connection, known as a frog, over the Mercer & Somerset Branch tracks. Construction was stopped by workers from the PRR. The confrontation between workers from the differing rail companies became violent and the New Jersey militia was called in to prevent the dispute from escalating (Cunningham 1997; Treese 2006). Ultimately, the D&BBRR was victorious and was able to continue building the crossover connection to join the east and west halves of their new rail line. This confrontation effectively ended the longstanding rail transportation monopoly, which had been held by the Camden & Amboy Railroad (later the PRR), along the present-day Northeast Corridor, which connects Philadelphia and New York City (Lynn Drobbin and Associates 2005). In the aftermath of the Hopewell Frog War, the Mercer & Somerset Branch became redundant, and the rail line was removed by 1880 (Geismar 2005) (Figure 3.5).

In 1871, Ralph Ege purchased the Ege/Lewis Farmstead (see Figure 3.5). Ralph Ege was the author of the book Pioneers of Old Hopewell, and his ancestors were some of the founding families of Hopewell Township. Ralph Ege, known as a progressive and up-to-date farmer with connections to the State Horticultural Society and the State Agricultural College, farmed and lived on the property with his family until his death in 1905 (Ege 1908: 3-6).

While the Ege/Lewis Farmstead was under the ownership of Ralph Ege, the present Mercer County Bridge No. 230.3, carrying Mine Road over Stony Brook, was constructed. The pin-connected Pratt through truss structure was erected in 1885, during the most prolific period of construction of this bridge type in New Jersey. The bridge was designed and fabricated by one of the most prolific American bridge firms of the late-nineteenth century, the King Iron Bridge and Manufacturing Company (KIBMC) of Cleveland, Ohio, at a time in the company's history when it had begun to diversify its product line beyond bowstring trusses to include the then-popular Pratt pony and through truss structures. The KIBMC became a prominent bridge manufacturer throughout the United States due to the company's efficient design and operation, which made their bridges an economical option for potential clients. The company was responsible for the construction of multiple bridges in Mercer County in the late nineteenth century (Sloan 2006; A. G. Lichtenstein & Associates, Inc. 1994).

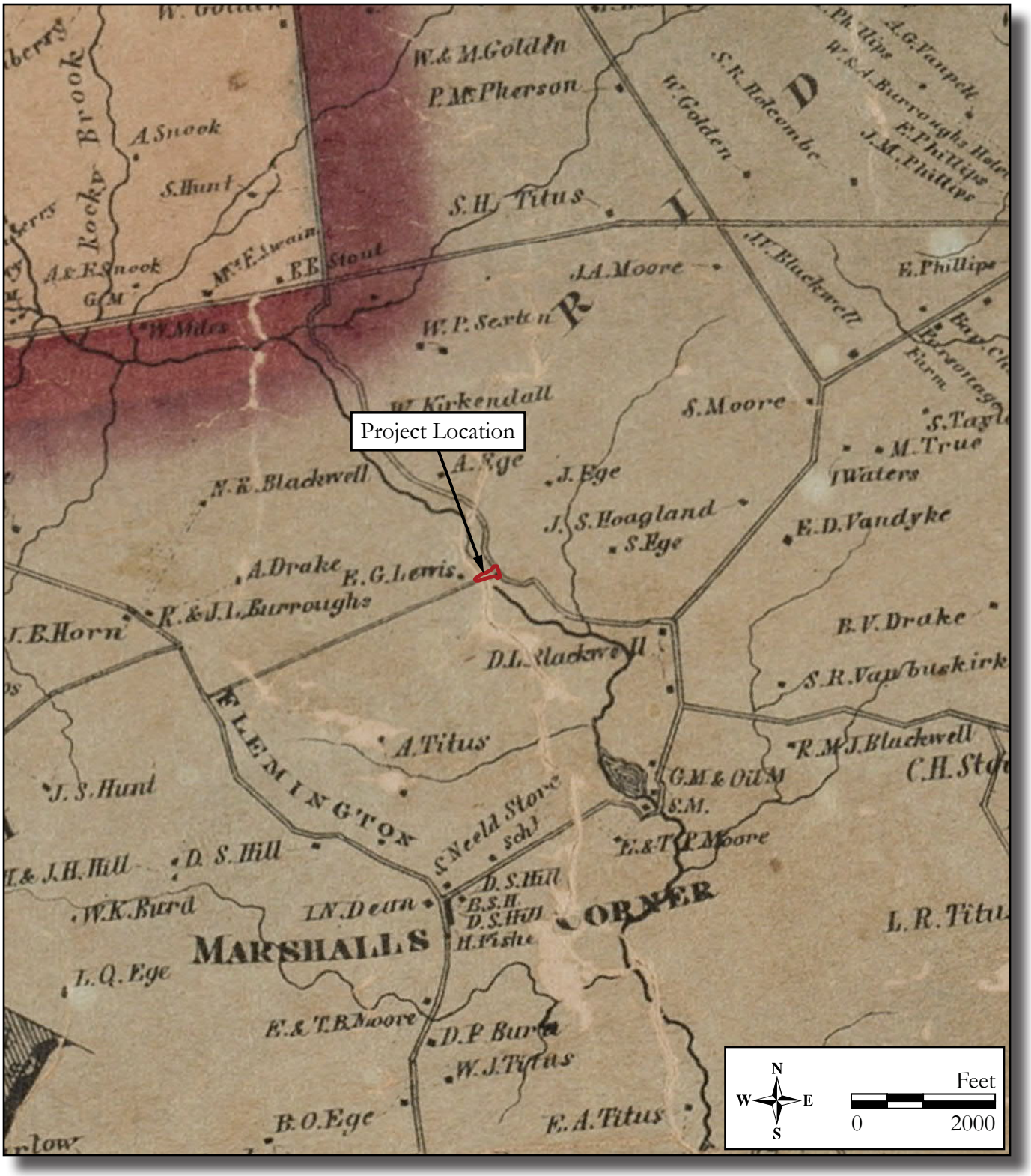


Figure 3.4: 1860 Lake and Beers, *Map of the Vicinity of Philadelphia and Trenton.*

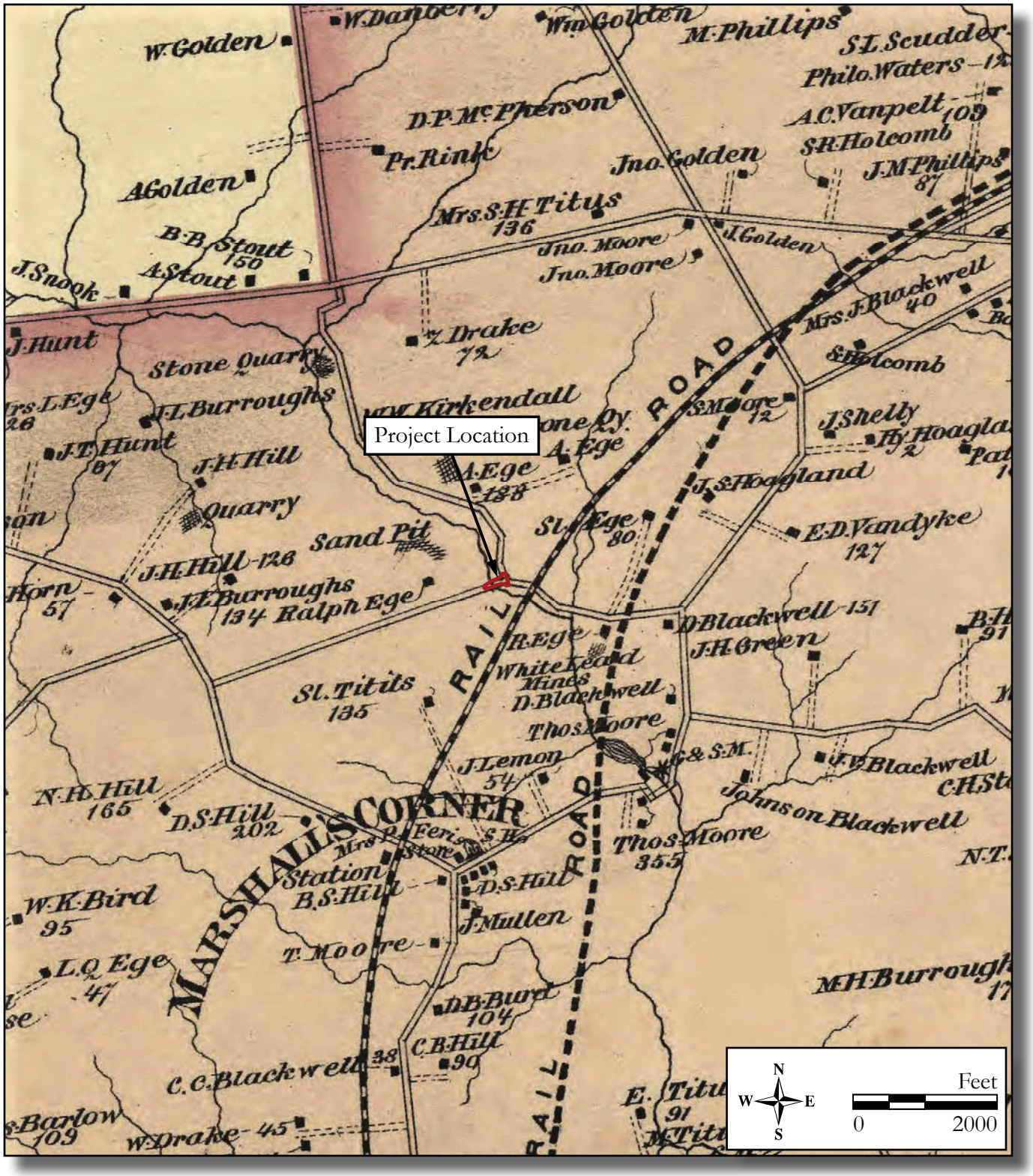


Figure 3.5: 1875 Everts and Stewart, *Combination Atlas Map of Mercer County, New Jersey.*

Joshua J. Hunt purchased the Ege/Lewis Farmstead in 1905, where he lived until 1933 (The Hopewell Herald 1933: 3) (Figure 3.6). The Ege/Lewis Farmstead continued to change hands over the course of the twentieth century. In 1997, the farm was purchased and incorporated into the larger 296-acre property of Bluestone Farms, which focuses on the breeding, selling, racing, and marketing of Standardbred horses (McCalmont 2015: 42). Despite the change in use, the property retains the feeling of a nineteenth-century farmstead with its extant cluster of farm buildings surrounded by open fields.

While the immediate surroundings of Mercer County Bridge No. 230.3 continues to be defined by open farm fields and clusters of farm buildings interspersed with wooded areas, just beyond those farms and woodlots are areas of twentieth century development. This includes the construction of a large golf course and country club on former open farm fields in the 1950s, and continued subdivision of larger farm properties for residential development along Pennington-Hopewell Road to the east and Marshall Corner Woodsville Road to the west, throughout the latter half of the twentieth century and up to the present (NETR 1947, 1953, 1979, 1995, 2007, 2015).

3.2 National and State Register of Historic Places Eligible and Listed Properties

There are no properties listed on or eligible for listing on the New Jersey Register (NJR) or NRHP located within the APE. Background research conducted at the NJHPO indicated that there is one previously identified historic resource listed on or eligible for listing on the NRHP within a one-half-mile radius of the APE. The Delaware and Bound Brook (Reading) Railroad Historic District (SHPO Opinion: 9/9/2005) is located approximately 2,000 feet east of Bridge No. 230.3. The location of the proposed project is far beyond the viewshed of this NRHP-eligible historic district and as a result will have no effect on this resource (Figure 3.7).

3.3 Summary of Previous Architectural Surveys

Regulatory Surveys

One previous regulatory survey has been conducted within one-half-mile of the APE (Lynn Drobbin & Associates 2005). In 2005, Lynn Drobbin & Associates completed a Historic Architectural Resources Background Study (HARBS) for the NJ TRANSIT West Trenton Line Passenger Service Restoration Study. The study generally encompassed a 27-mile-long railroad corridor extending from Ewing Township, Mercer County to Hillsborough Township, Somerset County. The study did not identify any individual resources that fall within one-half-mile of the APE. Lynn Drobbin & Associates recommended the West Trenton Line (former D&BBRR) from Ewing Township, Mercer County to the former Bound Brook Junction in Bound Brook, Somerset County as potentially NRHP-eligible as a railroad historic district (Lynn Drobbin & Associates 2005: 77).

Planning Surveys

A historic sites inventory compiled in 1984 for Hopewell Township surveyed five farmstead properties within a one-half-mile radius of the APE (Heritage Studies 1984). The Ege Farmstead at 179 Stony Brook Road (Block 21, Lot 7) is located approximately 1,000 feet northwest of Bridge No. 230.3, beyond the limits of the APE. The property contains an early to mid-nineteenth-century farmhouse and agricultural outbuildings dating to the nineteenth and twentieth centuries. The authors of the historic sites inventory stated that the house and few surviving outbuildings have undergone numerous alterations and are not recommended eligible for listing on the NRHP based on a lack of architectural integrity (Heritage Studies 1984: Inventory # 1106-21-7A).

Located further northwest on Stony Brook Road is the Kirkendall Farmstead at 165 Stony Brook Road (Block 21, Lot 30). The farmstead is located approximately 2,500 feet from Bridge No. 230.3 and likely dates between the late eighteenth and early nineteenth century (Heritage Studies 1984: Inventory No. 1106-21-30). At the time of the 1984 inventory, the farmstead contained a circa 1770-1850 stone and frame farmhouse, as well as a smokehouse, a two-story wagon shed, a frame shed, and a two-story

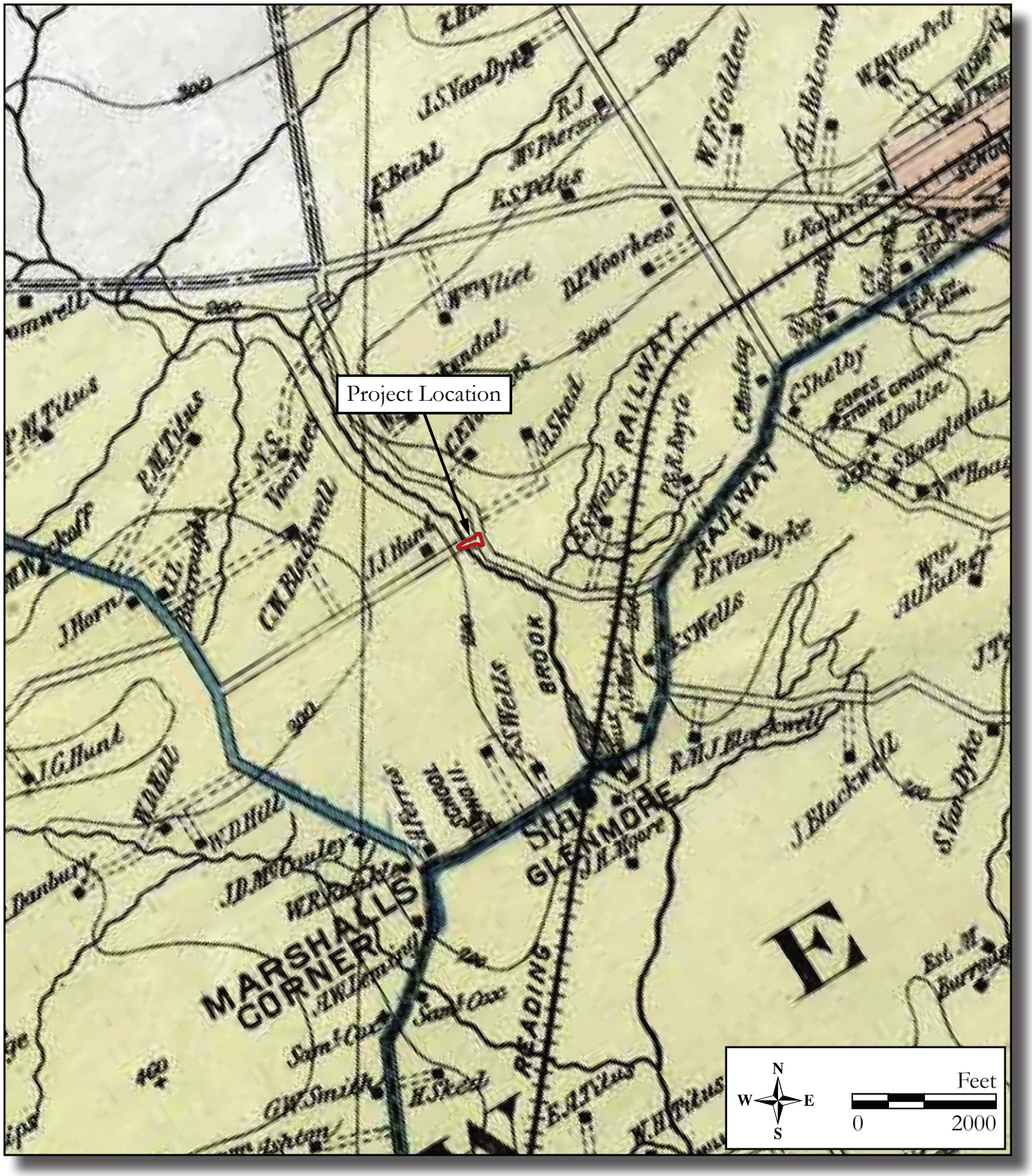


Figure 3.6: 1918 A. H. Mueller, *Mueller's Automobile Driving and Trolley Map of Mercer County, New Jersey.*

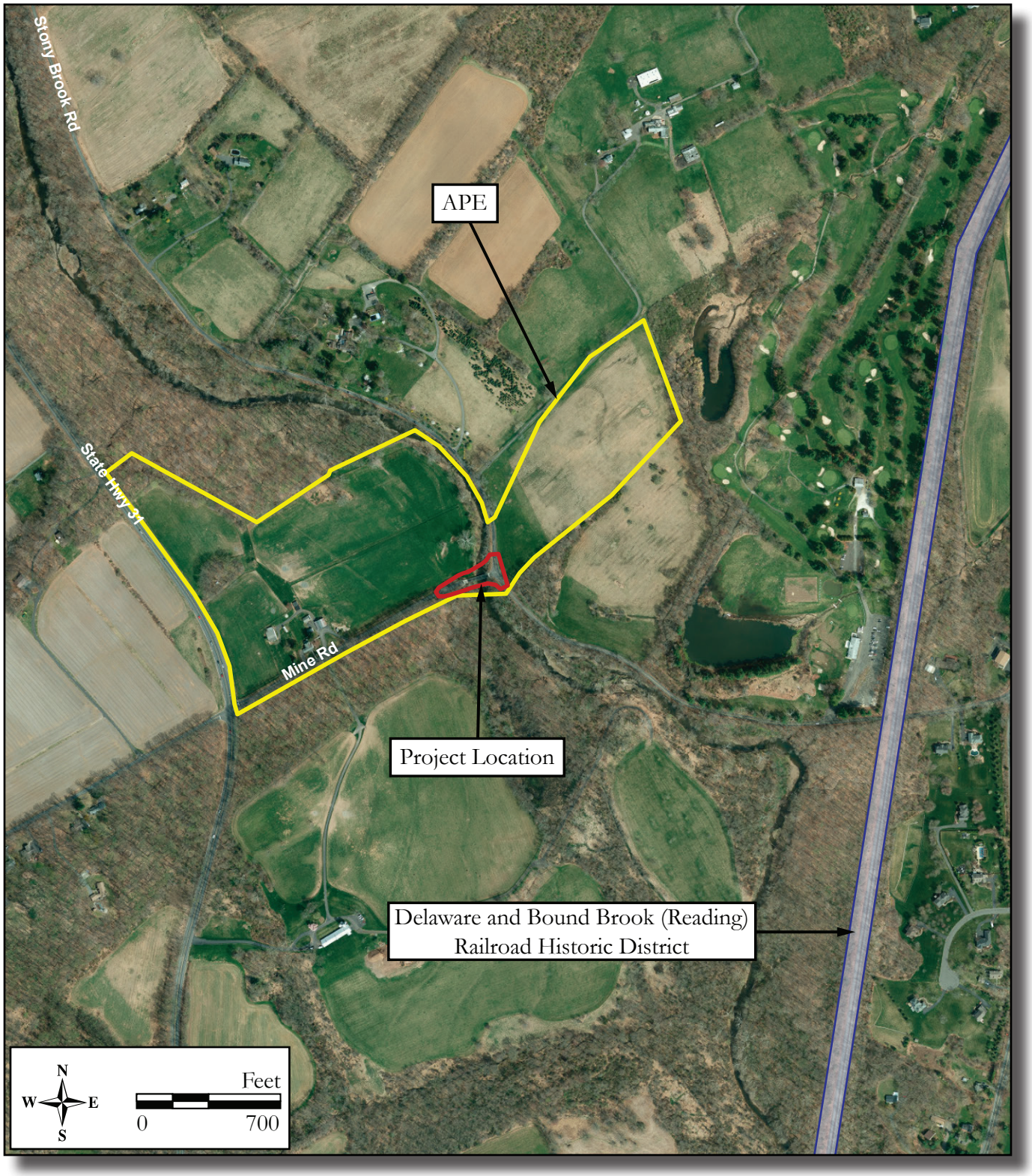


Figure 3.7: Aerial image showing the project location, APE, and previously identified historic property (from ESRI 2018).

basement barn, all dating between the late nineteenth to early twentieth century. Similar to the Ege Farmstead previously mentioned, the Kirkendall Farmstead was not recommended eligible for listing on the NRHP due to numerous alterations to the farmstead's buildings and overall lack of sufficient architectural integrity (Heritage Studies 1984: Inventory No. 1106-21-30).

A second Ege Farmstead, at 189 Stony Brook Road (Block 21, Lot 8), was surveyed as part of the historic sites inventory. This Ege Farmstead is situated approximately 2,000 feet northeast of Bridge No. 230.3. The property contains multiple buildings and agricultural structures primarily dating to the early and mid-twentieth century, including a frame pole and house barn, two frame dwellings and a garage. A two-story farmhouse and basement barn on the property have earlier nineteenth-century construction dates. Although established as a farmstead by at least 1849, the authors of the inventory found that the buildings on the property did not possess the architectural significance or integrity to warrant eligibility for listing on the NRHP (Heritage Studies 1984: Inventory No. 1106-21-18A).

Located approximately 2,000 feet northwest of Bridge No. 230.3 is the Drake/Hill Farmstead at 200-210 Route 31 North (Block 23, Lots 1.01-1.02). The farmstead includes a two-story framed farmhouse dating circa 1849-1860, as well as a mid- to late nineteenth-century frame barn and a wagon house (Heritage Studies 1984: 1106-23-2). All other outbuildings on the farmstead dated to the mid-twentieth century. The authors of the inventory determined the property not eligible for listing on the NRHP due to extensive alterations to the buildings and the property lacking architectural or historical significance (Heritage Studies 1984: 1106-23-2).

The Ege/Lewis Farmstead at 15 Mine Road (Block 22, Lot 1) is the only property surveyed in the Hopewell Township Historic Sites Inventory that is located within the APE. It was not recommended eligible for listing on the NRHP. The inventory described the farmstead as dating to the second quarter of the nineteenth century, with the agricultural outbuildings dating from the mid-nineteenth century or later (Heritage Studies 1984: Inventory No. 1106-22-1A.) Although the property still operated as a farm, the authors asserted that there were few surviving historic buildings aside from the house and that the property possessed no historical or architectural significance (Heritage Studies 1984: Inventory No. 1106-22-1A). As the farm is over fifty years of age and located within the APE, it was surveyed at the intensive level for this report (see Section 4 and Appendix D).

The historic sites inventory inspired the publication of Hopewell: A Historical Geography (Hunter and Porter 1990). The Ege/Lewis Farmstead was not specifically mentioned in the publication; however, the Ege family was identified as one of two of the best-known German families in Hopewell with a concentration of farms in the northern section of the township, specifically in the Woodsville-Marshalls Corner area, during the mid-nineteenth century (Hunter and Porter 1990).

In 2003, Wise Preservation Planning completed a historic sites survey report for Hopewell Township and did not identify any resources on Mine Road or within the vicinity of Bridge No. 230.3 (Wise Preservation Planning 2003).

New Jersey Historic Bridge Survey

A.G. Lichtenstein & Associates, Inc. identified Mercer County Bridge No. 230.3 in the New Jersey Historic Bridge Survey as a single-span, pin-connected Pratt through truss bridge constructed by the KIBMC in 1885. At the time of the survey, the bridge was identified as one of two intact, pin-connected Pratt through trusses in Mercer County manufactured by the KIBMC. The subject bridge was recommended individually eligible for listing on the NRHP as a well-preserved example of early metal truss bridge construction fabricated by the KIBMC, one of the largest and most prolific late-nineteenth century bridge manufacturers in the country (A.G. Lichtenstein & Associates, Inc. 1994). The bridge was surveyed at the intensive level for this report (see Section 4 and Appendix D).

New Jersey Historic Roadway Study

No historic roadways were identified in the APE (KSK Architects Planners Historians, Inc. 2011: 171).

4.0 INTENSIVE-LEVEL HISTORIC ARCHITECTURAL SURVEY

4.1 Survey of Historic Architectural Resources

The intensive-level historic architectural survey was conducted on May 3, 2018 and consisted of the identification of resources listed on or eligible for the NRHP, as well as previously unsurveyed resources more than 50 years of age within the APE. The survey identified two properties more than 50 years of age within the APE: Mercer County Bridge No. 230.3 and the Ege/Lewis Farmstead. Both properties were surveyed at the intensive level. As a result of the survey, one resource was recommended eligible for listing on the NRHP, Mercer County Bridge No. 230.3. The significance of the historic resource is discussed in further detail below.

The intensive-level survey determined that the Ege/Lewis Farmstead is not eligible for listing on the NRHP. The Ege/Lewis Farmstead was constructed sometime between 1833 and 1849 by the Ege and/or Lewis families in Hopewell Township, Mercer County, New Jersey. Both the Ege and Lewis (Golden) families were identified as among the founding families of Hopewell Township, owning a large concentration of farms in the northern section of the township, specifically in the Woodsville- Marshalls Corner area, during the mid-nineteenth century (Hunter and Porter 1990). Although the property is associated with the agricultural history of Hopewell Township, many of the original historic structures and features of the site have been demolished. Furthermore, a number of better-preserved, historic farmsteads are extant in the vicinity. The loss of agricultural buildings and features, such as the main dairy barn and silos, multiple auxiliary barns, and a spring, diminish the property's integrity of feeling and association. The nineteenth-century owners of the property do not rise to the requisite historical significance necessary to merit listing on the NRHP, and as an example of a typical, frame farmhouse from the mid-nineteenth century, the house is neither an exceptional construction of its type, nor the work of a master. Alterations such as the installation of vinyl sash windows and the construction of multiple frame additions reduce the property's overall historic architectural integrity. For these reasons, the Ege/Lewis Farmstead was determined not eligible for listing on the NRHP under Criteria A, B, or C.

The intensive-level historic architectural survey, including individual building descriptions, historical development, and assessments of significance, integrity, and NRHP-eligibility, has been conducted in accordance with the NJHPO Guidelines for Architectural Survey (Splain 1999) and has been compiled on the NJHPO Survey Forms located in Appendix D. The location of all surveyed historic architectural resources is shown on Figure 4.1 and the properties are illustrated in Plates 4.1-4.9.

4.2 Identification of Historic Properties

Mercer County Bridge No. 230.3

Mercer County Bridge No. 230.3 is a notable example of a late nineteenth-century, pin-connected Pratt through truss structure in Mercer County, a bridge type commonly built in New Jersey during the 1880s and 1890s. The King Iron Bridge and Manufacturing Company (KIBMC) of Cleveland Ohio, known as the King Bridge Company after 1892, constructed the subject bridge in 1885. The KIBMC was one of many bridge fabrication companies that emerged during the second half of the nineteenth century, as advances in engineering, metallurgy and fabrication led to uniformity and standardization within the field of metal truss bridge construction. The KIBMC became a prominent bridge manufacturer throughout the United States due to the company's efficient design and operation, which made their bridges an economical option for potential clients. Prior to the regular employment of professional engineers by county and local governments, which began in the early-twentieth century, bridge fabrication companies served as both builder and engineer and would widely distribute catalogs advertising their products. These illustrated catalogues, along with a network of regional bridge agents, enabled distant manufactures, like KIBMC, to compete with local contractors

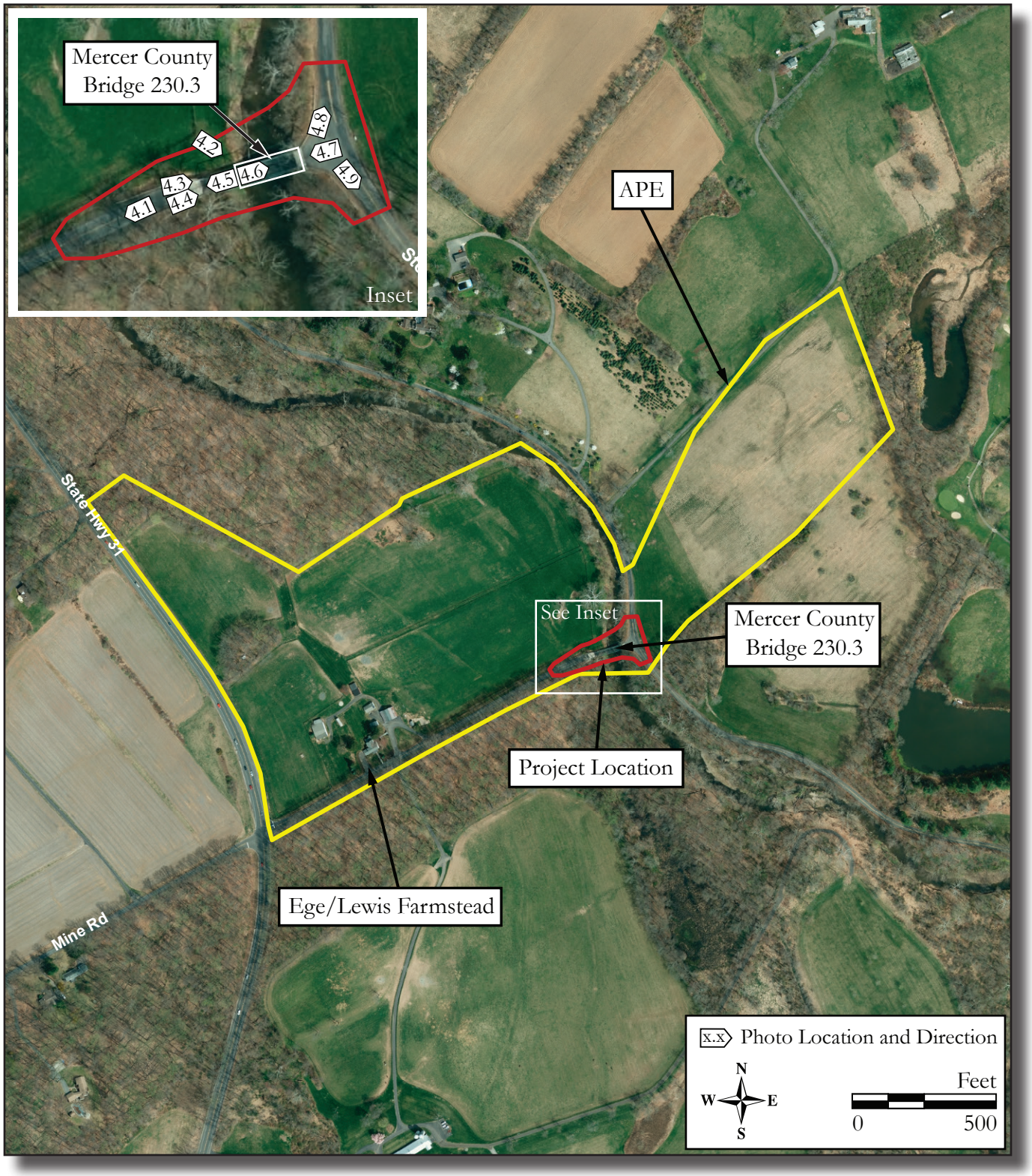


Figure 4.1: Aerial image showing the project location, APE, and surveyed properties with photograph locations and directions
(from ESRI 2018).

Plate 4.1: View of Mine Road and the western portion of the APE from Mercer County Bridge 230.3.

Photo view: Southwest

Photographer: Chelsea Troppauer

Date: May 3, 2018

Plate 4.2: View of the north elevation of Mercer County Bridge 230.3.

Photo view: Southeast

Photographer: Chelsea Troppauer

Date: May 3, 2018

Plate 4.3: View of the west end of Mercer County Bridge 230.3, looking towards Stony Brook Road.

Photo view: Northeast

Photographer: Chelsea Troppauer

Date: May 3, 2018

Plate 4.4: Detail view of the plaque on the upper chord of Mercer County Bridge 230.3.

The plaque reads, "1885 King Iron Bridge Co. Cleveland O[hio]."

Photo view: Northeast

Photographer: Chelsea Troppauer

Date: May 3, 2018

Plate 4.5: View of Mine Road and the Ege/Lewis Farmstead, which dominates the northwest portion of the APE, as seen from Mercer County Bridge 230.3.

Photo view: Southwest

Photographer: Chelsea Troppauer

Date: May 3, 2018

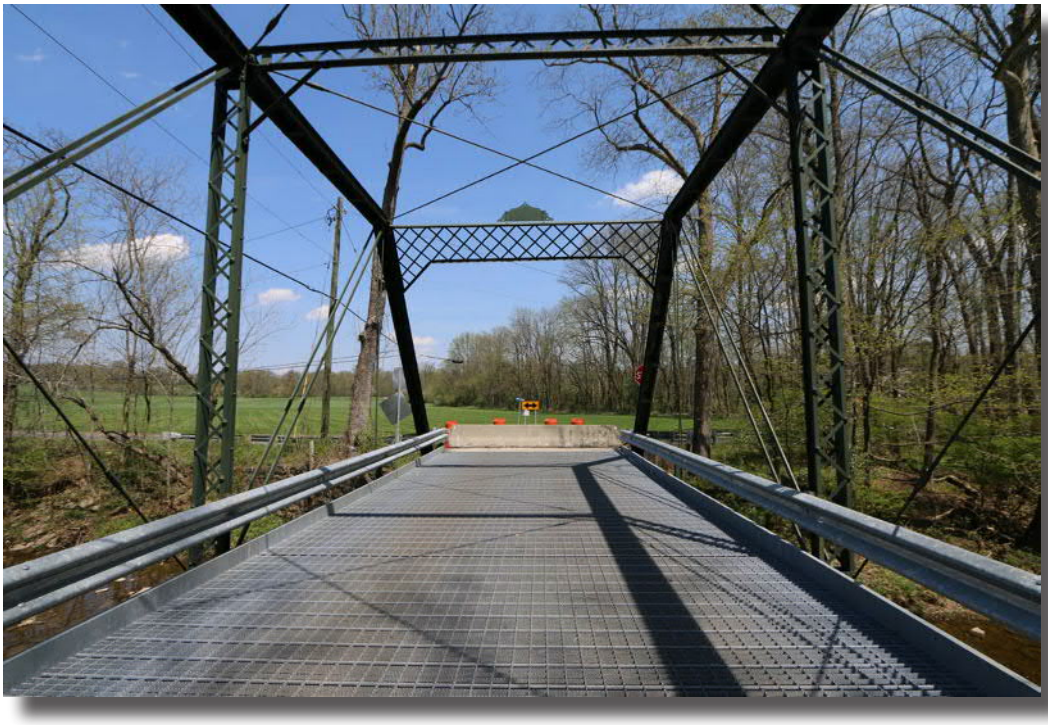


Plate 4.6: View of Stony Brook Road, as seen from the center of Mercer County Bridge 230.3.

Photo view: Northeast

Photographer: Chelsea Troppauer

Date: May 3, 2018

Plate 4.7: View of the east end of Mercer County Bridge 230.3, looking towards Mine Road.

Photo view: Southwest

Photographer: Chelsea Troppauer

Date: May 3, 2018

Plate 4.8: View showing Stony Brook Road at its intersection with Mine Road and the open fields that dominate the northeastern portion of the APE.

Photo view: Northeast

Photographer: Chelsea Troppauer

Date: May 3, 2018

Plate 4.9: View showing the densely wooded areas along Stony Brook Road at its intersection with Mine Road, the southern boundary of the APE.

Photo view: Southeast

Photographer: Chelsea Troppauer

Date: May 3, 2018

on county-awarded bridge contracts. Built in 1885, Mercer County Bridge No. 230.3 dates to a period in the company's history when it had begun to diversify its product line beyond bowstring trusses to include the then-popular Pratt pony and through truss structures. Today, the bridge is the last remaining known KIBMC-built structure in Mercer County.

Mercer County Bridge No. 230.3 is recommended individually eligible for listing on the NRHP under Criterion A and C as an intact example of a pin-connected, Pratt through truss bridge fabricated by the KIBMC. The structure is an increasingly rare example of a once common bridge type in New Jersey, and a rare extant example of the work of the KIBMC. The KIBMC was a prominent bridge building companies that attained a degree of success in the late nineteenth century, as truss bridge construction proliferated throughout the country. The subject bridge dates to a distinct phase in the company's development as they began to diversify their product line beyond their patented bowstring trusses to Pratt pony and through trusses. According to the New Jersey Historic Bridge Survey, the subject bridge is one of two known remaining KIBMC trusses in Mercer County (A.G. Lichtenstein & Associates, Inc. 1994). The other KIBMC truss, known as the Bear Tavern Road Bridge, was removed from its original location in 2014 and replaced with a concrete slab structure. Since its removal, the truss has been held in storage for future reassembly at the Mercer County Park Commission's Howell Living History Farm (Hopewell Valley News 2015).

4.3 Assessment of Effects

As proposed, the project will have an adverse effect on the NRHP-eligible Mercer County Bridge No. 230.3. Project plans call for the removal and replacement of the bridge. The bridge is significant for its design and as the last remaining work of the prolific KIBMC in the county (A.G. Lichtenstein & Associates, Inc. 1994). Replacement of the bridge is needed to improve public safety and the structural integrity of the crossing. The present bridge is rated structurally deficient due to critically low load carrying capacity and the poor condition of the superstructure. The bridge is also functionally obsolete due to substandard deck geometry (JMT 2015). A new, wider bridge will allow for two lanes of traffic to safely travel across Stony Brook and will support the larger loads carried by the trucks that regularly utilize the bridge despite current load restrictions. As such, the replacement of the bridge cannot be avoided and the adverse effect cannot be minimized.

4.4 Resolution of Adverse Effects

Mitigation measures should include historic and photographic documentation of the historic bridge to the standards of the Historic American Engineering Record (HAER). Copies of the documentation should be distributed to the Hopewell Branch of the Mercer County Library, the Hopewell Public Library, the Pennington Public Library, and other repositories identified in consultation with the NJHPO. Additionally, the completion of an historical context document is recommended. As the replacement of this structure marks the complete loss of KIBMC-constructed bridges in Mercer County, the context could focus on the company's practice as it related to bridges in New Jersey, or other relevant topics as identified in consultation with the NJHPO. Recipients of the historical context document should include, but not be limited to, those repositories identified to receive a copy of the HAER documentation. Consultation with the NJHPO regarding additional or alternative mitigation options is recommended.

5.0 CONCLUSIONS AND RECOMMENDATIONS

An intensive-level historic architectural survey was completed for the proposed replacement of Mercer County Bridge No. 230.3 (Structure #1100-072), which carries Mine Road over Stony Brook in the Township of Hopewell, Mercer County, New Jersey.

The historic architectural survey identified two resources more than 50 years of age within the APE, Mercer Count Bridge No. 230.3 and the Ege/Lewis Farmstead. Both resources were surveyed at the intensive-level. As a result of the survey, RGA, Inc. (RGA) found Mercer County Bridge No. 230.3 to be eligible for listing on the National Register of Historic Places (NRHP).

The project as proposed will have an adverse effect on the NRHP-eligible Mercer County Bridge No. 230.3, which will be removed and replaced.

The Mercer County Department of Transportation and Infrastructure-Engineering Division will consult with the New Jersey Historic Preservation Office (NJHPO) regarding options to mitigate adverse effects. Mitigation options could include recordation to the standards of the Historic American Engineering Record (HAER), the completion of an historical context document, or others as decided in consultation with the NJHPO.

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APPENDIX A: QUALIFICATIONS OF THE PRINCIPAL INVESTIGATOR

CULTURAL RESOURCE CONSULTANTS

CHELSEA TROPPAUER
ARCHITECTURAL HISTORIAN (36 CFR 61)

YEARS OF EXPERIENCE:
With this firm:
2014-Present
With other firms: 2

EDUCATION:
MS 2013
University of Pennsylvania
Historic Preservation

BS 2011
Franklin and Marshall College
Art History

Professional Experience Summary:

Chelsea Troppauer's experience includes historical research and writing, architectural surveys, and architectural analysis. Ms. Troppauer has worked on cultural resources surveys completed in accordance with Section 106 of the National Historic Preservation Act and other municipal and state cultural resource regulations. Ms. Troppauer has experience using computer-aided mapping programs including ArcGIS, ArcView, and AutoCAD. She also has extensive experience in archival and non-profit management. Her educational and professional experience meet the qualifications set forth in the Secretary of Interior's Standards for an Architectural Historian [36 CFR 61].

Representative Project Experience:

Morris County Historic Sites Survey, Phase III, Boroughs of Chatham, Madison, and Mount Arlington, Chatham and Montville Townships and Town of Dover, Morris County NJ (Sponsor: Morris County Planning Department) As Assistant Architectural Historian**,** assisting with intensive-level historic architectural surveys on selected properties for the ongoing Phase III of Morris County's historic sites survey update. The project includes an update of existing historic sites survey data on previously surveyed properties and expanding the database to include properties listed on or determined eligible for the National Register that were not previously surveyed. Resources include 85 Streetscapes, 30 Historic Districts, and 333 Individual buildings.

Trenton Central High School, City of Trenton, Mercer County, NJ (Sponsor: New Jersey School Development Authority) As Assistant Architectural Historian, participated in the intensive-level historic architectural survey in advance of the proposed demolition and replacement of Trenton Central High School. The survey was undertaken to identify properties listed on or eligible for the National Register of Historic Places that could potentially be affected by the project. The architectural survey identified the previously determined National Register-eligible Trenton Central High School and three additional historic properties, which RGA recommended as eligible for the National Register: the mid-twentieth-century, Georgian Revival, St. Francis Medical Center, the Ardmore Section Historic District an early twentieth century residential development, and the Samuel Mountford House recommended individually eligible and a key contributing resource to the Ardmore Section Historic District.

Monmouth County Bridge S-32 on Rumson Road (CR 520) over the Shrewsbury River, Boroughs of Rumson and Sea Bright, Monmouth County, NJ (Sponsor: Monmouth County) As Assistant Architectural Historian, participating in the cultural resources survey being performed in connection with proposed improvements to Monmouth County Bridge S-32 on Rumson Road (CR 520) over the Shrewsbury River. Assisting with an intensive-level architectural survey to identify historic architectural resources more than 50 years of age within the Area of Potential Effects and to assess the potential effects the project may have on these resources. The survey is being performed in compliance with Section 106 of the National Historic Preservation Act.

APPENDIX B: SUMMARY OF NATIONAL REGISTER CRITERIA

1. New Jersey and National Registers of Historic Places Criteria
2. Criteria of Adverse Effect

1. New Jersey and National Registers of Historic Places Criteria

Significant historic properties include districts, structures, objects, or sites that are at least 50 years of age and meet at least one National Register criterion. Criteria used in the evaluation process are specified in the Code of Federal Regulations, Title 36, Part 60, National Register of Historic Places (36 CFR 60.4). To be eligible for inclusion in the National Register of Historic Places, a historic property(s) must possess:

> the quality of significance in American History, architecture, archaeology, engineering, and culture [that] is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

a) that are associated with events that have made a significant contribution to the broad patterns of our history, or

b) that are associated with the lives of persons significant in our past, or

c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components lack individual distinction, or

d) that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

There are several criteria considerations. Ordinarily, cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register of Historic Places. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

a) a religious property deriving primary significance from architectural or artistic distinction or historical importance, or

b) a building or structure removed from its original location but which is sig-nificant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event, or

c) a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his/her productive life, or

d) a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events, or

e) a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived, or

f) a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historic significance, or

g) a property achieving significance within the past 50 years if it is of exceptional importance. (36 CFR 60.4)

When conducting National Register evaluations, the physical characteristics and historic significance of the overall property are examined. While a property in its entirety may be considered eligible based on Criteria A, B, C, and/or D, specific data is also required for individual components therein based on date, function, history, and physical characteristics, and other information. Resources that do not relate in a significant way to the overall property may contribute if they independently meet the National Register criteria.

A contributing building, site, structure, or object adds to the historic architectural qualities, historic associations, or archeological values for which a property is significant because a) it was present during the period of significance, and possesses historic integrity reflecting its character at that time or is capable of yielding important information about the period, or b) it independently meets the National Register criteria. A non-contributing building, site, structure, or object does not add to the historic architectural qualities, historic associations, or archeological values for which a property is significant because a) it was not present during the period of significance, b) due to alterations, disturbances, additions, or other changes, it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period, or c) it does not independently meet the National Register criteria.

2. Criteria of Adverse Effect

Whenever a historic property may be affected by a proposed undertaking, Federal agency officials must assess whether the project constitutes an adverse effect on the historic property by applying the criteria of adverse effect. According to the Advisory Council on Historic Preservation, the criteria of adverse effect (36 CFR 800.5), is as follows:

> (1) An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that would qualify it for inclusion in the National Register, in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation for the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or cumulative.
>
> (2) Adverse effects on historic properties include, but are not limited to (36 CFR 800.5(a)(2)):
>
> i) Physical destruction of or damage to all or part of the property;
>
> ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;
>
> iii) Removal of the property from its historic location;
>
> iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
>
> v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;

vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and

vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

A finding of adverse effect or no adverse effect could occur based on the extent of alteration to a historic property, and the proposed treatment measures to mitigate the effects of a proposed undertaking. According to 36 CFR 800.5(3)(b):

> The agency official, in consultation with the SHPO/THPO, may propose a finding of no adverse effect when the undertaking's effects do not meet the criteria of § 800.5(a)(1) or the undertaking is modified or conditions are imposed, such as the subsequent review of plans for rehabilitation by the SHPO/THPO to ensure consistency with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines, to avoid adverse effects.

APPENDIX C: RECORD OF PUBLIC CONSULTATION

Agencies and individuals with an identified interest in archaeology, history or historic preservation were contacted as part of this survey. The following persons and/or organizations were contacted requesting information on and possible impacts to historic resources:

Michael Gall, President
Archaeological Society of New Jersey
119 South Main Street
Medford, NJ 08055
Contact: letter sent: May 9, 2018, attached
Response: None to date

Idamis Perez-Margicin, Division Chief
Mercer County Cultural & Heritage Commission
McDade Administration Building
640 South Broad Street
P.O. Box 8068
Trenton, NJ 08650
Contact: letter sent: May 9, 2018, attached
Response: None to date

Maximillian Hayden III, Chair
Hopewell Township Historic Preservation Commission
201 Washington Crossing-Pennington Road
Titusville, NJ 08560-1410
Contact: letter sent: May 9, 2018, attached
Response: None to date

CULTURAL RESOURCE CONSULTANTS

HEADQUARTERS
259 Prospect Plains Road | Building D | Cranbury, New Jersey 08512 | 609-655-0692

May 9, 2018

Michael Gall, President
Archaeological Society of New Jersey
119 South Main Street
Medford, NJ 08055

Re: Cultural Resources Screening, Replacement of Mercer County Bridge No. 230.3 (Structure #1100-072) Carrying Mine Road Over Stony Brook, Hopewell Township, Mercer County, New Jersey.

Dear Mr. Gall:

Mercer County is proposing to replace Bridge 230.3 (Structure #1100-072) carrying Mine Road over Stony Brook which is a 102-foot long, single-span, steel Pratt thru truss structure with steel stringers and iron floor beams built in 1885 and repaired in 1976 and 2011. Bridge 230.3 was included in the New Jersey Historic Bridge Survey and was recommended eligible for listing in the National Register of Historic Places (NRHP).

A Freshwater Wetlands Permit (N.J.A.C. 7:7A) will be required for this project. Therefore, in advance of the proposed bridge replacement project, RGA, Inc. (RGA) is preparing a cultural resources screening report. The purpose of the cultural resources screening is to assess the potential for significant archaeological resources in the project area and to determine if historic architectural resources that are listed in, eligible, or potentially eligible for the National Register of Historic Places may be affected by the project.

Enclosed is a map showing the project location. If you are aware of any significant historic, architectural, or archaeological resources that may be affected by the project or have any information regarding the project area, please respond in writing within 10 days of the receipt of this letter. Please feel free to contact me at 609-655-0692 ext. 302 or via email at lcushman@richardgrubb.com.

Yours very truly,

Laura Cushman

Laura Cushman
Archaeologist

w/ enclosure

cc: Wen-Jinn Chiou, P.E., IH Engineers, PC

CULTURAL RESOURCE CONSULTANTS

HEADQUARTERS
259 Prospect Plains Road | Building D | Cranbury, New Jersey 08512 | 609-655-0692

May 9, 2018

Idamis Perez-Margicin, Division Chief
Mercer County Cultural & Heritage Commission
McDade Administration Building
640 South Broad Street
P.O. Box 8068
Trenton, NJ 08650

Re: Cultural Resources Screening, Replacement of Mercer County Bridge No. 230.3 (Structure #1100-072) Carrying Mine Road Over Stony Brook, Hopewell Township, Mercer County, New Jersey.

Dear Ms. Margicin:

Mercer County is proposing to replace Bridge 230.3 (Structure #1100-072) carrying Mine Road over Stony Brook which is a 102-foot long, single-span, steel Pratt thru truss structure with steel stringers and iron floor beams built in 1885 and repaired in 1976 and 2011. Bridge 230.3 was included in the New Jersey Historic Bridge Survey and was recommended eligible for listing in the National Register of Historic Places (NRHP).

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Yours very truly,

Laura Cushman
Archaeologist

w/ enclosure

cc: Wen-Jinn Chiou, P.E., IH Engineers, PC

CULTURAL RESOURCE CONSULTANTS

HEADQUARTERS
259 Prospect Plains Road | Building D | Cranbury, New Jersey 08512 | 609-655-0692

May 9, 2018

Maximillian Hayden III, Chair
Hopewell Township Historic Preservation Commission
201 Washington Crossing-Pennington Road
Titusville, New Jersey 08560-1410

Re: Cultural Resources Screening, Replacement of Mercer County Bridge No. 230.3 (Structure #1100-072) Carrying Mine Road Over Stony Brook, Hopewell Township, Mercer County, New Jersey.

Dear Mr. Hayden:

Mercer County is proposing to replace Bridge 230.3 (Structure #1100-072) carrying Mine Road over Stony Brook which is a 102-foot long, single-span, steel Pratt thru truss structure with steel stringers and iron floor beams built in 1885 and repaired in 1976 and 2011. Bridge 230.3 was included in the New Jersey Historic Bridge Survey and was recommended eligible for listing in the National Register of Historic Places (NRHP).

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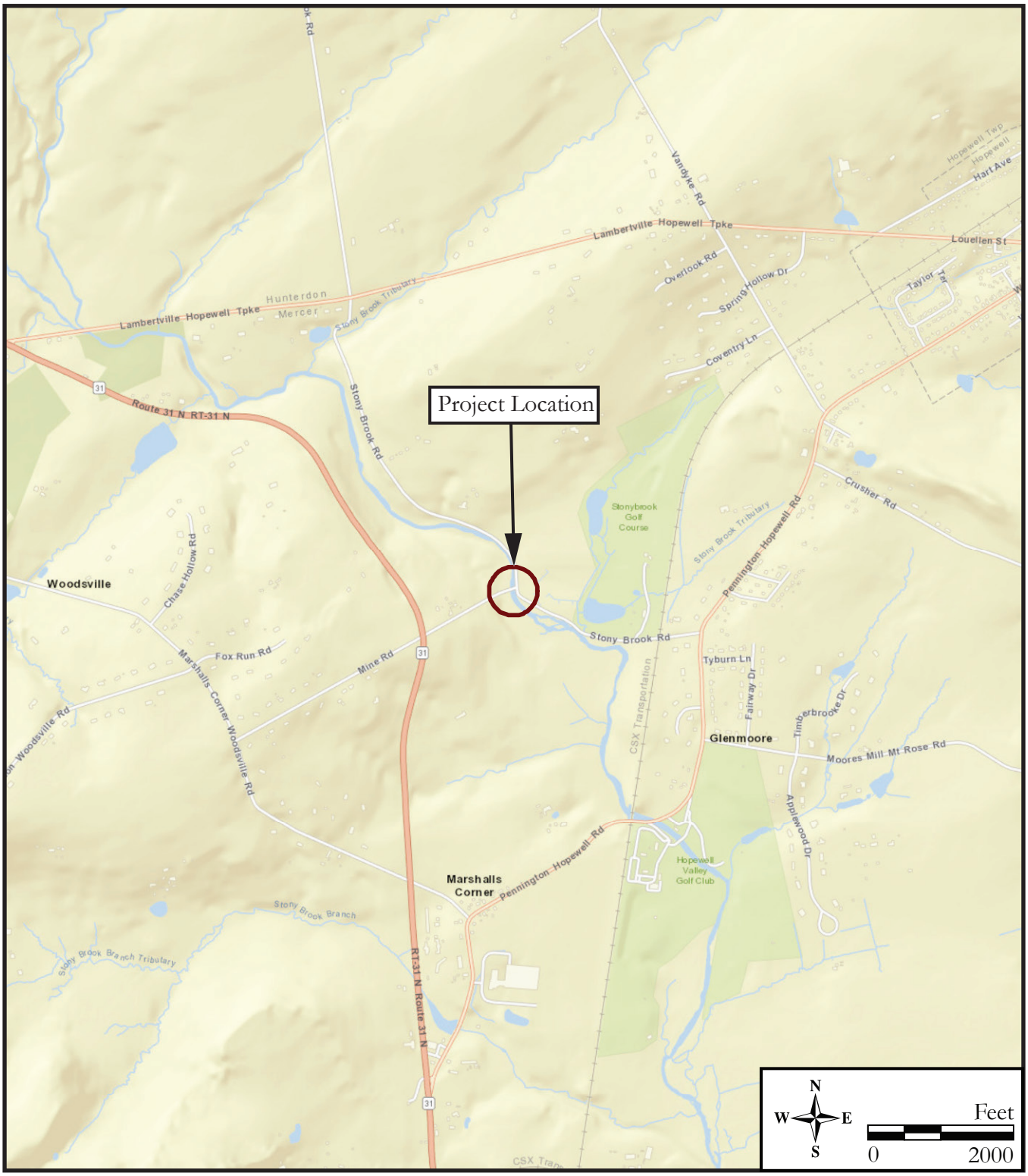
Yours very truly,

Laura Cushman

Laura Cushman
Archaeologist

w/ enclosure

cc: Wen-Jinn Chiou, P.E., IH Engineers, PC



Project Location Map
(World Street Map, ESRI 2018).

APPENDIX D: NEW JERSEY STATE HISTORIC PRESERVATION OFFICE SURVEY FORMS

BASE SURVEY FORM

Historic Sites #:

Property Name: Mercer County Bridge No. 230.3

Street Address: *Street #:* N/A *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Mine *Suffix:* _____ *Type:* RD

County(s): Mercer **Zip Code:** 08525

Municipality(s): Hopewell Township **Block(s):** N/A

Local Place Name(s): Hopewell, Pennington **Lot(s):** N/A

Ownership: Mercer County **USGS Quad(s):** Hopewell

Description:

Mercer County Bridge No. 230.3 is a single-span, pin-connected Pratt through truss structure constructed in 1885 by the King Iron Bridge and Manufacturing Company of Cleveland, Ohio (Plates 1-8). Each bridge approach consists of a two-lane asphalt-paved roadway, with modern W-beam guiderails located along either side of the roadway. The guiderails continue across the bridge, along the inside face of the truss. The bridge superstructure measures seven panels long and has shallow channeled upper chords, inclined end posts, and laced vertical members. A square plaque mounted on the northeast facing end post is inscribed with the names of the bridge committee members. Situated between the upper chords are struts with laced bracing and latticed braced portal struts. A plaque at each end of the portal struts reads "1885 King Iron Bridge Co., Cleveland, O." The top lateral bracing on the structure attaches to a crimped bracket that connects at the upper panel point pins. Diagonals consist of bar stock with looped-forged eyes, while the counters are round rods fitted with turnbuckles for adjustments. The lower chords are die-forged eye bars.

See Bridge Attachment

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Intensive-level Historic Architectural Survey, Replacement of Mercer County Bridge No. 230.3 (Structure #1100-072) Carrying Mine Road over Stony Brook

Survey Name:

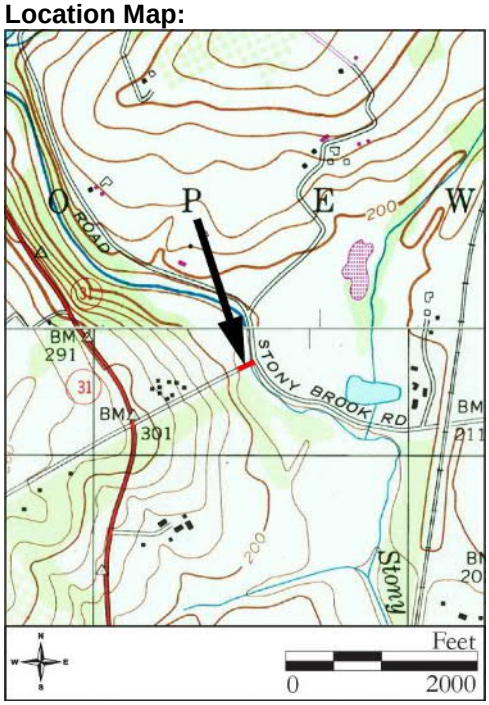
Surveyor: Chelsea Troppauer Date: July 2018

Organization: RGA, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
In 1994, A.G. Lichtenstein & Associates, Inc. surveyed Mercer County Bridge No. 230.3 in the *New Jersey Historic Bridge Survey* (A.G. Lichtenstein & Associates, Inc. 1994). The subject bridge was recommended individually eligible for listing in the National Register of Historic Places (NRHP) as a well-preserved example of early metal truss bridge construction fabricated by the King Iron Bridge and Manufacturing Company, one of the largest and most prolific late-nineteenth century bridge manufacturers in the country (A.G. Lichtenstein & Associates, Inc. 1994). The New Jersey State Historic Preservation Office has made no formal assessment as to the NRHP-eligibility of Mercer County Bridge No. 230.3.

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: _____ Building _____ Landscape _____ Farm
1 Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Intensive-level Historic Architectural Survey, Replacement of Mercer County Bridge No. 230.3 (Structure #1100-072) Carrying Mine Road over Stony Brook
Surveyor: Chelsea Troppauer Date: July 2018
Organization: RGA, Inc.

BRIDGE ATTACHMENT

Historic Sites #:

Common Name: Mercer County Bridge No. 230.3
Historic Name: Unknown
Feature Carried: Mine Road
Feature Crossed: Stony Brook **Milepost:** N/A

Owner/Operator: Mercer County **SI&A Structure Number:** 1 1 0 0 0 7 2

Construction Date: 1885 **Source:** Plaque
Alteration Date(s): 1976, 2011 **Source:** Mercer County Division of Engineering Office 1976; JM&T 2015

Engineer: King Iron Bridge and Manufacturing Company
Builder: Unknown
Type: Truss, Through
Design: Pratt
Material: Wrought Iron

Physical Condition: Fair
Remaining Historic Fabric: Medium
Spans: 1
Length: 102 FT
Width: 17 FT

Patent Holder: N/A
Patent Date: N/A

Description:

Continued from Base Survey Form:

At the end panels of the structure, true hangers (tension verticals) twist 90 degree out of phase and pick up the end floor beams. In the *New Jersey Historic Bridge Survey*, A.G. Lichtenstein & Associates, Inc. stated that the "originality of the rolled I beam floor beams is not known, but it is believed that they are not original" (A.G. Lichtenstein & Associates, Inc. 1994). The floor beams are cut back in section but are fitted with the original brackets for the bottom lateral bracing. The floor beams support five galvanized steel stringers and an open steel grid deck installed in 2011.

The substructure consists of ashlar stone abutments and wing walls. Concrete caps the top of the northwest and southwest wing walls.

Setting:

The bridge carries Mine Road over Stony Brook in Hopewell Township, Mercer County, New Jersey. Mine Road is a two-lane roadway that generally runs on a southeast-northwest axis. The bridge is located approximately 25 feet southwest of the roadway's intersection with Stony Brook. Stony Brook is a minor stream, and its banks are open on both sides of the structure. The surrounding area is generally agricultural in nature with open fields and limited residential development.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
Mercer County Bridge No. 230.3 is a notable example of a late nineteenth-century, pin-connected Pratt through truss structure in Mercer County. This bridge type was common in New Jersey during the 1880s and 1890s. The King Iron Bridge and Manufacturing Company (KIBMC) of Cleveland Ohio, known as the King Bridge Company after 1892, constructed the subject bridge in 1885. The KIBMC was one of many bridge fabrication companies that emerged during the second half of the nineteenth century, as advances in engineering, metallurgy and fabrication led to uniformity and standardization within the field of metal truss bridge construction. The KIBMC became a prominent bridge manufacturer throughout the United States due to the company's efficient design and operation, which made their bridges an economical option for potential clients. Prior to the regular employment of professional engineers by county and local governments, which began in the early-twentieth century, bridge fabrication companies served as both builder and engineer and would widely distribute catalogs advertising their products. These illustrated catalogues, along with a network of regional bridge agents, enabled distant manufactures, like KIBMC, to compete with local contractors on county-awarded bridge contracts. Built in 1885, Mercer County Bridge 230.3 dates to a period in the company's history when it had begun to diversify its product line beyond bowstring trusses to include the then popular Pratt pony and through truss structures. Today, the bridge is the last known KIBMC-built structure in Mercer County that remains at its original location.

Eligibility for New Jersey and National Registers: ☒ Yes ☐ No **National Register Criteria:** ☒ A ☐ B ☒ C ☐ D

Level of Significance ☒ Local ☒ State ☐ National

Justification of Eligibility/Ineligibility:
See Continuation Sheet

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:

Narrative Boundary Description:
The recommended boundary of this resource is the limits of the iron truss superstructure and stone wingwalls.

Survey Name: Intensive-level Historic Architectural Survey, Replacement of Mercer County Bridge No. 230.3 (Structure #1100-072) Carrying Mine Road over Stony Brook
Surveyor: Chelsea Troppauer Date: July 2018
Organization: RGA, Inc.

CONTINUATION SHEET

Historic Sites #:

History:

Based on historic map data, the first bridge carrying Mine Road over Stony Brook was likely constructed between 1849 and 1860, the same time that the road was built (Figures 1-2; Otley 1849; Lake & Beers 1860). Research was unable to uncover any specific information on the type of bridge or bridges that existed at this location before the construction of the 1885 wrought-iron Pratt through truss bridge. The expansion of railroads during the mid-nineteenth century led to a demand for stronger bridges capable of carrying heavier loads. Metal trusses for railroad bridges were developed as early as the 1850s, but their application to roads bridge construction was uncommon until the 1870s. During the second half of the nineteenth century, advances in engineering, metallurgy and fabrication led to uniformity and standardization within the field of metal truss bridge construction (Richard Grubb & Associates, Inc. 2009).

Pratt truss designs emerged as the most popular of truss configurations in the late nineteenth century. The Pratt truss utilized vertical supports with diagonal bracing in between, a simple design, which was economical to fabricate and erect. One variation of the Pratt truss design was the through truss bridge. In a through truss bridge, traffic travels through the superstructure (the truss system) which is cross-braced above the deck. These types of truss bridges are designed to carry heavier loads than a pony truss and generally are longer in span (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-4). Pin-connected bridges were popular during this period as well, because they were easy to install and well suited for wrought iron or steel eye bars commonly used in the diagonals and bottom chords. The use of pin connections eventually gave way to riveted connections, just as the Warren truss system took precedence over the Pratt truss following the first decade of the twentieth century (A.G. Lichtenstein & Associates, Inc. 1994: 57-62). Warren truss bridges were well suited for riveted connections and are characterized by diagonal braces, which form alternating triangular-shaped spaces along their length to support the deck.

Built in 1885, Mercer County Bridge 230.3 was erected during the most prolific period of pin-connected Pratt truss bridge construction in New Jersey. The bridge was designed and fabricated by one of the most prolific American bridge firms of the late-nineteenth century, the King Iron Bridge and Manufacturing Company (KIBMC) of Cleveland, Ohio.

King Iron Bridge and Manufacturing Company of Cleveland, Ohio

Zenus King established the KIBMC in Cleveland, Ohio. It is important to note that King entered the bridge profession later in life and established his nationally reputable company at age 40. Born in 1818 to a family of Vermont farmers and woodcutters, the King family migrated to St. Lawrence County, New York in the 1820s. In St. Lawrence County, King worked on his family's farm and obtained a common school education. In 1840, he left New York and moved to the community of Milan in Erie County, Ohio. In Milan, King initially worked as a carpenter and later as a partner of a successful clothing company. It was during his time as a carpenter and clothing merchant that King honed his innate mechanical abilities and gained valuable business management experience (Simmons 1989:23). Around 1856, King made an abrupt career change and became a traveling agent for a Cincinnati firm producing corn mill and iron boilers. As a sales agent for a company that manufactured iron equipment, King was able to see the advantages of iron as the emerging material of choice for major construction projects (Sloan 2001: 62).

King's exposure to bridge manufacturing came in the late 1850s, when the Moseley Bridge Company hired him as a sales agent. The Cincinnati-based firm manufactured a tubular bowstring bridge patented by the company's proprietor, Thomas W.H. Moseley. The bowstring truss emerged during the third quarter of the nineteenth century as a popular bridge type for short to moderate spans because of its high carrying capacity and small quantity of required iron material (Simmons 1989:23). Around 1860, King returned to Cleveland where he established a bridge manufacturing and boiler works company with a partner, Peter Frees. Frees and King patented an improved tubular bowstring truss in 1861. Frees and King's partnership was short-lived and by the end of the Civil War, the partnership had dissolved. King retained the bridge business and relinquished his interest in the boiler works to Frees, and in 1867, King re-patented their improved tubular bowstring truss design (Sloan 2001: 63).

The KIBMC operated on a triangular shaped lot in Cleveland within close proximity to the lines of the Cleveland & Pittsburgh Railroad and the Lake Shore & Michigan Southern Railroad. The plant's location near existing transportation lines attracted other iron foundries and metal shops to the area, which the KIBMC utilized for all of the bridge components that required forging or machinery (Sloan 2001: 63). Despite not having a machine shop or forge during its early years of operation, the KIBMC was still able to fabricate bridges quickly and efficiently by concentrating on a single bridge type and maintaining a large stockpile of prefabricated parts (Simons 1989:29). During the first two decades of operation, the company's main product was King's patented tubular bowstring truss, for which it received contracts first in Ohio, and then throughout the East, Midwest, Southwest and Mountain States. The prefabricated sections manufactured in King's Cleveland factory were shipped by rail to building sites and assembled by local crews in a few days (Sloan 2006). In 1871, King along with six Cleveland businessmen incorporated the KIBMC with $225,000 in capital.

KIBMC distinguished itself from other large local and national bridge concerns with its extraordinary sales force. Many of KIBMC's Ohio competitors, like the Wrought Iron Bridge Company (WIBC), had arrangements with local contractors to place bids on their behalf for newly advertised bridge contracts. Typically, these local contractors were stonemasons interested in preparing bids for a bridge's substructure. The feature that differentiated King's operation was the size and geographic range of the company's sales force. As early as 1878, the KIBMC had a network of paid agents working in Boston, Philadelphia, Des Moines, Cortland (New York), Bloomington (Indiana), Kansas City, and San Antonio, in addition to those working out of the home office in Cleveland (Simmons 1989:32). Essential to the agents' success was the company's publications of catalogues, which promoted its efficiency as a bridge manufacturer and the strength and durability of its products. With these illustrated catalogues and a network of regional bridge agents, distant fabricators, like KIBMC, were able to compete with local contractors for county-awarded bridge contracts (A.G. Lichtenstein & Associates, Inc. 1994).

By 1880, bowstring bridges faced ongoing criticism from engineers because these structures could not adequately accommodate the overhead bracing necessary to prevent side sway in the truss (Simmons 1989:34). As a result, the KIBMC diversified their product line to include larger and heavier Pratt trusses (like through and pony trusses) as well as swing bridges, for which King received another patent in 1867. By broadening their bridge products, the KIBMC continued to receive large and small contracts throughout the country during the 1880s and 1890s, including Mercer County Bridge 230.3. By 1884, the company's catalogue claimed it had built over 5,000 bridges in North America and manufactured new bridges at a rate of 250 a year (Sloan 2006). Four years later, in 1884, the catalogue doubled its claim to 10,000 total bridges, with a production rate of 350 new bridges per year (Sloan 2006).

During this period of growth, the company's labor force grew to 360 employees, and King was unable to expand his existing facility to meet demand. In 1887, the KIBMC moved to a newly constructed facility located in the eastern outskirts of Cleveland, along the Lake Shore & Michigan Southern Railroad lines. Unlike its earlier plant, this new facility did not have as much designated storage space for prefabricated stock. Rather, the new plant was designed as a "multiple parallel shop", with five separate lines serving each department (Simmons 1989:31).

In addition to their efficient manufacturing operations and large scale sales force, another possible reason for the popularity of the KIBMC-designed bridges during this time period could be attributed to KIBMC's involvement in bridge pooling business practices with other bridge companies. Bridge pools were essentially alliances between participating bridge companies that helped regulate the prices awarded to companies for their work. Pools also enabled bridge companies to obtain additional revenue during economic downturns or a lack of construction opportunities within their local areas. Participating companies determined which firm within their pool would submit the lowest bid for a bridge project and any project profits were divided amongst the remaining pool participants according to specified percentages. In 1883, Zenus King entered into an agreement with 16 other bridge companies, including fellow Ohio competitor, WIBC. The divisions of profits for this pool were based on the size of the firm, with the KIBMC and WIBC receiving the largest percentage (Simmons 1989: 33). As with most bridge pool agreements, the pool entered into by the WIBC and KIBMC gave local firms special consideration in bidding on a bridge in their territory and was one reason for a single bridge company dominating a locality (Simmons 1989:33). King's involvement in the bridge trusts he

established in the 1880s would later be determined an illegal trade activity by the United States Supreme Court, and the subsequent dissolution of the trusts contributed to the downfall of the company in the early-twentieth century.

Later in his career, Zenus King developed a special interest in long span bridges and sought out contracts for large and difficult projects to compete with the growing civil engineering field. Between the late 1880s and early 1890s, KIBMC was involved in at least four major bridge building projects carried out almost simultaneously in different regions of the country, including Oregon, Baltimore, St. Louis and Cincinnati (Sloan 2001: 67-69). The bridges ranged in type from two cantilevered structures, a suspension bridge and a long span. Each represented the apex of bridge technology at the time and exemplified both the firm's diversity in bridge types and the magnitude of its operations (Simmons 1989: 35). Zenas King remained the president of KIBMC until his death in 1892. His eldest son, James, succeeded him as president of the company, which was officially shortened to the "King Bridge Company" (KBC) that year. During James' presidency, the KBC expanded its product line to feature a variety of structures, such as moveable bridges, spandrel arches, and highway and railroad viaducts. In addition, they built a number of non-bridge structures, including office buildings, grandstands, armories, and markets (Sloan 2001: 69). During the period of 1894 to 1903, the company's production capacity increased from 18,000 to 30,000 tons per year, making it one of the twenty largest bridge factories in the country (Sloan 2001: 70).

The company remained an active and viable business during the first two decades of the twentieth century, despite ongoing legal problems and changes to the bridge manufacturing industry. At the turn of the twentieth century, bridge manufacturing was absorbed directly into the much larger and powerful iron and steel industry (Sloan 2001: 70). The American Bridge Company created by J.P. Morgan acquired and consolidated approximately twenty-four formerly independent bridge companies, including the WIBC, which represented 50 percent of the nation's bridge building capacity (Sloan 2001: 70). During the formation of U.S. Steel in 1901, the American Bridge Company became its subsidiary. KBC was one of only three of the larger bridge companies to remain independent from the American Bridge Company. In 1906, the State of Ohio sued the KBC and 16 other members of the bridge pool established by Zenus King in the 1880s under antitrust statutes. KBC leadership were forced to dissolve the Ohio corporation, reincorporating under more lenient charter laws in New Jersey. In 1922, the company was officially disbanded (Sloan 2001: 71).

Mercer County Bridge 230.3

Built in 1885, Mercer County Bridge 230.3 dates to KIBMC's period of growth during the late-nineteenth century as the company diversified its product to include pony and through Pratt trusses. The floor beam hangers and lateral bracing connections are examples of early metal truss bridge construction details used by the KIBMC, which are not generally found on later spans (A.G. Lichtenstein & Associates 1994: 181-182). In 1955, the subject bridge underwent a deck reconstruction, which included the replacement of stringers, concrete curbing added to the northwest and southwest wing walls and the covering of the bridge deck with asphalt (Figure 3; Mercer County Division of Engineering Office 1955). The floor beams that existed by this time remained on the structure. In 1976, Mercer County engineers removed the asphalt covered floor deck and replaced it with a steel grid (Figure 4; Mercer County Division of Engineering Office 1976). More recently, in 2011, there were improvements made to the superstructure and substructure of the bridge. On the superstructure of the bridge, new galvanized steel stringers and a steel open grid deck replaced the stringers and grid deck installed in 1955 and 1976 (Johnson, Mirmian & Thompson [JM&T] 2015). Other work done to the superstructure included the installation of new W-beam guide railings and the reinforcement of the floor beams by bolting steel plates to the bottom flanges. On the substructure, new stone filled in the voids on in the northwest wingwall and the tops of the northwest and southwest wing walls were reconstructed (JM&T 2015).

In 2015, Johnson, Mirmiran & Thompson (JM&T) re-evaluated the structure and determined it to be in "critical condition," due to the state of the superstructure (JM&T 2015). On the superstructure, JM&T noted areas of section loss to the bottom chord bars, lower pins and the diagonal counter-action round bar "eyes" on the lower pins (JM&T 2015). There was also a missing lateral bracing tie rod. On the substructure, there were some instances in the loss of joint mortar (pointing) on the abutments and wingwalls. Since the 2015 re-evaluation by JM&T, the structure suffered damage to its western portal strut and bracing due to a fallen tree (see Plate 2).

Justification of Eligibility/Ineligibility:
Mercer County Bridge No. 230.3 is recommended individually eligible for listing on the National Register of Historic Places (NRHP) under Criterion A and C as an intact example of a pin-connected, Pratt through truss bridge fabricated by the King Iron Bridge and Manufacturing Company (KIBMC).

Mercer County Bridge No. 230.3 is an increasingly rare example of a once common bridge type in New Jersey, and a rare extant example of the work of the KIBMC. The KIBMC was a prominent bridge building companies that attained a degree of success in the late nineteenth century, as truss bridge construction proliferated throughout the country. The subject bridge dates to a distinct phase in the company's development as they began to diversify their product line beyond their patented bowstring trusses to Pratt pony and through trusses. According to the *New Jersey Historic Bridge Survey,* the subject bridge is one of two known remaining KIBMC trusses in Mercer County (A.G. Lichtenstein & Associates, Inc. 1994). The other KIBMC truss, known as the Bear Tavern Road Bridge, was removed from its original location in 2014 and replaced with a concrete slab structure. Since its removal, the truss has been placed in storage until it can be reassembled at the Mercer County Park Commission's Howell Living History Farm (Hopewell Valley News 2015).

The structure retains several character-defining features that are distinctive of its type, including the original iron truss system comprised of riveted laced vertical and overhead members and diagonal eye cables, original pin connections, true floor beam hangers and makers plaques. The coursed ashlar abutments stylistically date to the mid-to-late nineteenth century and were likely constructed around the same time as the superstructure.

Since its construction, there have been alterations to the structure, including the replacement of the bridge deck and stringers, the addition of guiderails, and alterations to the northwest and southwest wing walls. These alterations have denigrated the integrity of the bridge to a degree, however, overall, the structure retains a high degree of integrity of design, materials and workmanship. Additionally, the bridge retains its integrity of location and association and setting, as it has not been moved and maintains its historic use as a roadway structure sited amidst farmland. Moreover, Mercer County Bridge No. 230.3 presents an intact example of its type with extant character-defining features. The bridge is associated with broad, late nineteenth century bridge trends in the state, and more specifically, KIBMC manufactured trusses. For these reasons, Mercer County Bridge No. 230.3 retains sufficient integrity to be eligible for listing on the NRHP.

Bibliography:
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Hopewell Valley News
2015 Hopewell Township: Local bridge project earns state, national awards. Electronic document, http://www.centraljersey.com/news/hopewell_valley_news/hopewell-township-local-bridge-project-earns-state-national-awards/article_06cc49b4-c21e-5459-8402-36d893944505.html. Accessed July 13, 2018.

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Mercer County Division of Engineering Office
1955 Bridge No. 230.3, Mine Road, Hopewell Township, Over Stony Brook, Deck Reconstruction Plans. On file, Mercer County Division of Engineering Office, Trenton, New Jersey.

1976 Bridge No. 230.3, Mine Road over Stone Brook, Hopewell Township, General Plan and Details. On file, Mercer County Division of Engineering Office, Trenton, New Jersey.

Parsons Brinckerhoff and Engineering and Industrial Heritage
2005 A Context for Common Historic Bridge Types. Electronic document, https://www.dot7.state.pa.us/CRGIS_Attachments/Survey/A_Context_For_Common_Historic_Bridge_Types.pdf. Accessed June 16, 2018.

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2009 Cultural Resources Investigation, Waterloo Road Bridge over the Musconetcong River (Structure No. 1401-038), Mount Olive Township and Netcong Borough, Morris County and Stanhope Borough, Sussex County, New Jersey. On file, State Historic Preservation Office, Trenton, New Jersey.

Simmons, David
1989 Bridge Building on a National Scale: The King Iron Bridge and Manufacturing Company. *The Journal of the Society for Industrial Archaeology*. Volume 15, Number 2: 23-29.

Sloan, Allan King
2001 The King Bridge Company through the Decades. Paper delivered at the Seventh Historic Bridges Conference in September 2001. Electronic document, https://www.kingbridgecompany.com/through-the-decades/. Accessed June 18, 2018.
2006 The Legacy of the King Bridge Company, Preserving What's Left. Electronic document, https://www.kingbridgecompany.com/king-legacy-essay/. Accessed June 14, 2018.

CONTINUATION SHEET

Historic Sites #:

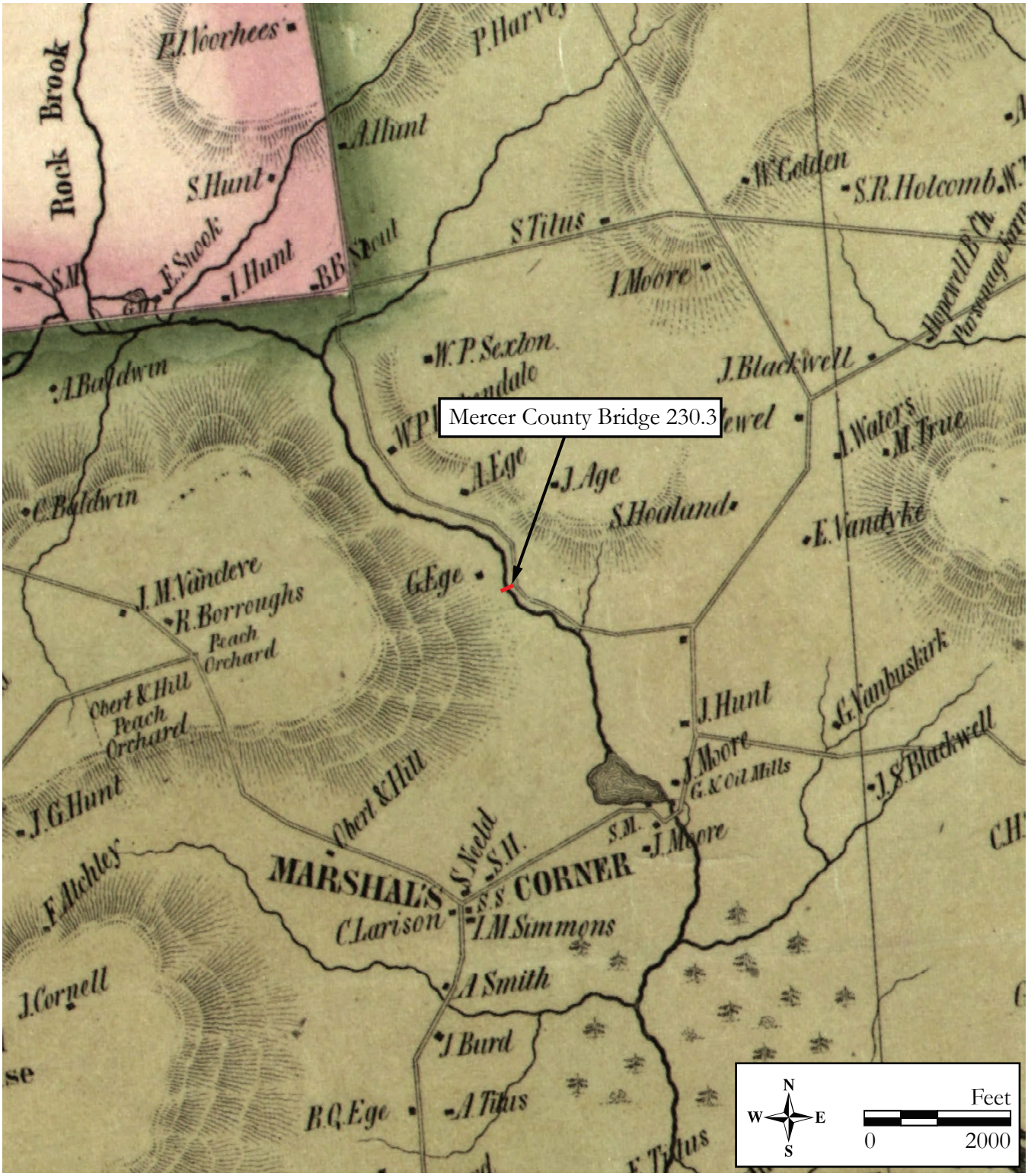

Figure 1: 1849 J. W. Otley and J. Keily, *Map of Mercer County, New Jersey.*

CONTINUATION SHEET

Historic Sites #:

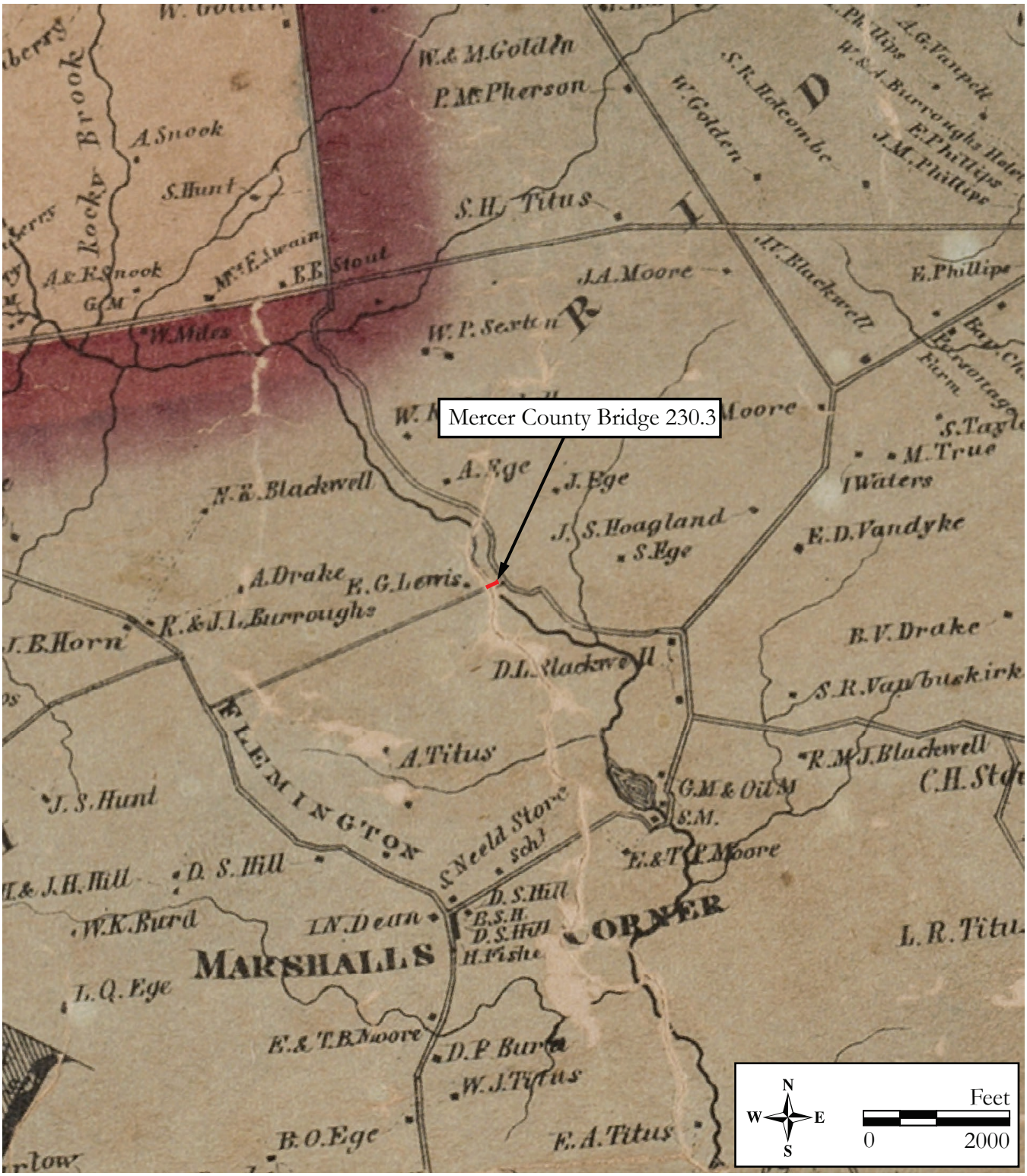

Figure 2: 1860 Lake and Beers, *Map of the Vicinity of Philadelphia and Trenton.*

CONTINUATION SHEET

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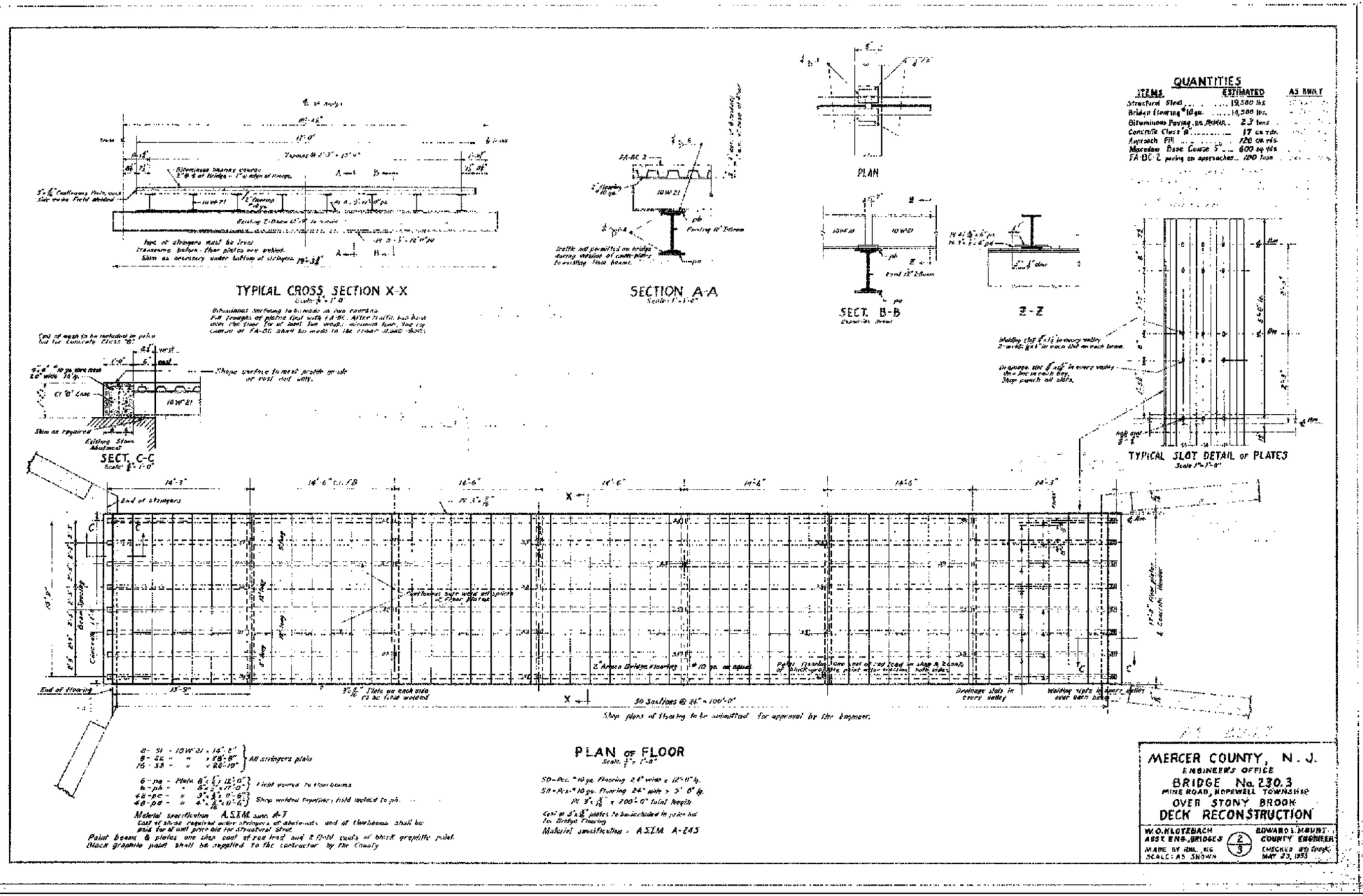


Figure 3: 1955 As-built plans for the Bridge 230.3 deck reconstruction (Source: Mercer County Division of Engineering Office 1955).

Survey Name: Intensive-level Historic Architectural Survey, Replacement of Mercer County Bridge No. 230.3 (Structure #1100-072) Carrying Mine Road over Stony Brook

Date: July 2018

Surveyor: Chelsea Troppauer

Organization: RGA, Inc.

CONTINUATION SHEET

Historic Sites #:

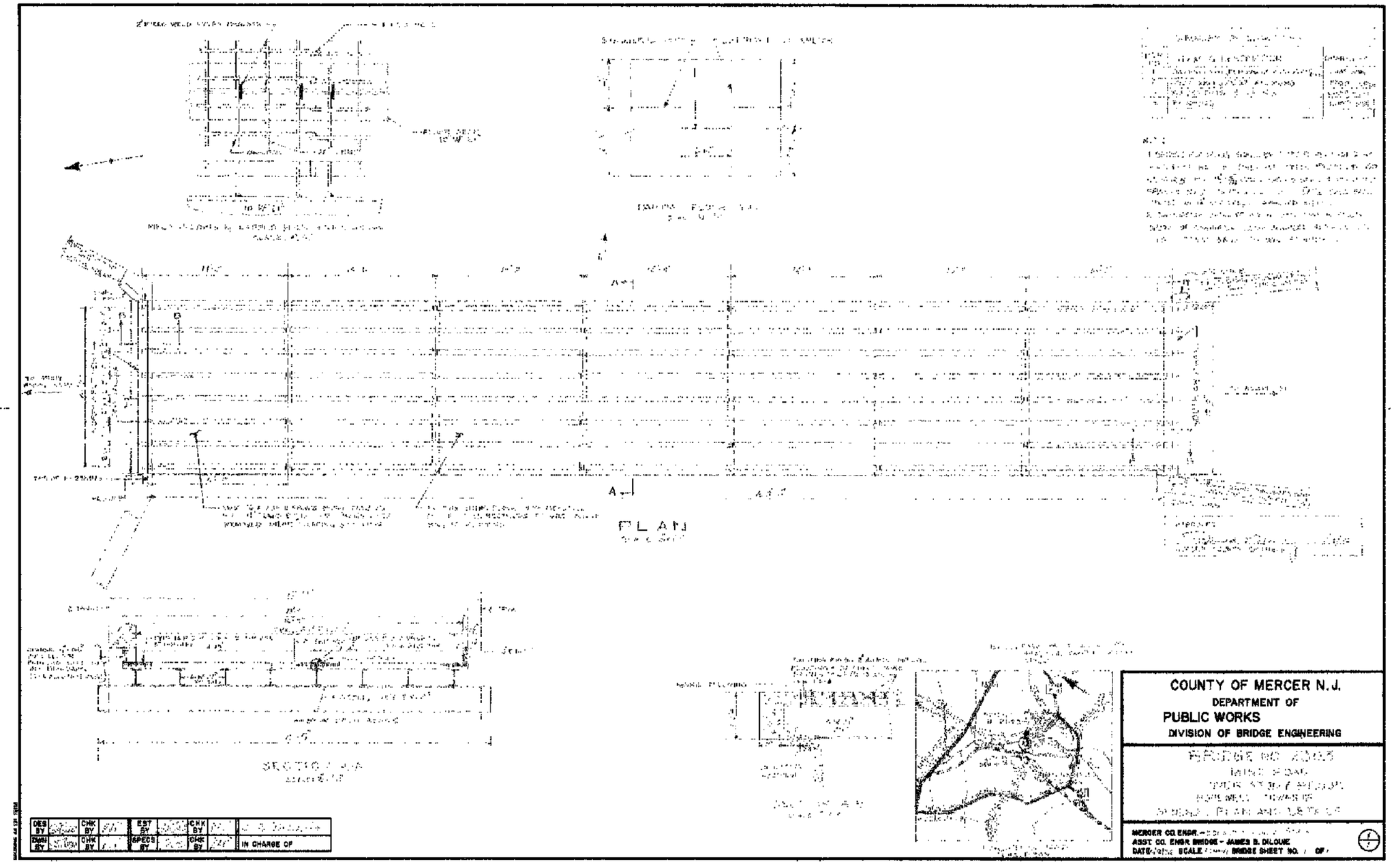


Figure 4: 1976 General plans and details for the Bridge No. 230.3 deck replacement (Source: Mercer County Division of Engineering Office 1976).

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view:

Southwest

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

View of the stone abutment and true hanger (tension verticals) located at the northwest end of Bridge 230.3.

Plate: 2

Photo view:

Northeast

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

View of the west end of Bridge 230.3, looking towards Stony Brook Road.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view:

Northeast

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

Detail view of the plaque on the upper chord of Bridge 230.3. The plaque reads, "1885 King Iron Bridge Co. Cleveland O[hio]."

Plate: 4

Photo view:

Southwest

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

View of west end of Bridge 230.3 and Mine Road, as seen from the center of the bridge superstructure.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view:

Northeast

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

View of Stony Brook Road and east end of Bridge 230.3, as seen from the center of bridge superstructure.

Plate: 6

Photo view:

Southwest

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

View of the east end of Bridge 230.3, looking towards Mine Road.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view:

Northwest

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

Perspective view of Bridge 230.3, as seen from Stony Brook Road.

Plate: 8

Photo view:

Southwest

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

Detailed view of the plaque at the northeast facing end post of Bridge 230.3. The plaque is inscribed with the names of the Mercer County bridge committee members, Asa H. Drake, John S. Vankirk, and William H. Cooley.

BASE SURVEY FORM

Historic Sites #:

Property Name: Ege/Lewis Farmstead

Street Address: *Street #:* 15 *(Low)* _____ *(High)* *Apartment #:* _____ *(Low)* _____ *(High)*

Prefix: _____ *Street Name:* Mine *Suffix:* _____ *Type:* RD

County(s): Mercer **Zip Code:** 08525

Municipality(s): Hopewell Township **Block(s):** 22

Local Place Name(s): Hopewell, Pennington **Lot(s):** 1

Ownership: Private **USGS Quad(s):** Hopewell

Description:

The Ege/Lewis Farmstead at 15 Mine Road is a 25-acre farmstead located approximately 500 feet east of New Jersey State Route 31 in Hopewell Township, Mercer County, New Jersey (Plates 1-8). The farmstead includes a dwelling constructed sometime between 1833 and 1849, mid-nineteenth century outbuildings, including a springhouse, a corncrib, and two barns, as well as a modern barn on a re-used stone foundation, and multiple modern, secondary structures. The house and outbuildings are oriented towards Mine Road and are arranged in a roughly rectangular pattern. Cleared fields are located to the west, north and east of the farmstead. The farmstead is currently owned by Bluestone Farm LLC and utilized for farming and horse-breeding. The surrounding area consists of rural, agricultural land intermixed with mid-twentieth and early twenty-first century residential subdivisions and commercial properties.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: Intensive-level Historic Architectural Survey, Replacement of Mercer County Bridge No. 230.3 (Structure #1100-072) Carrying Mine Road over Stony Brook

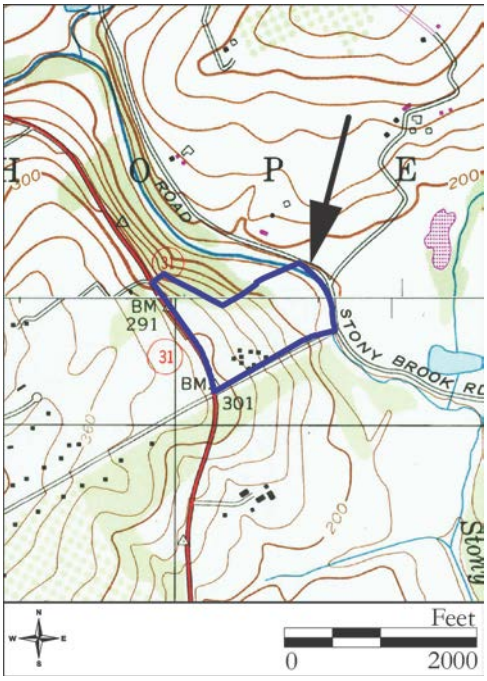
Surveyor: Elizabeth Diker Date: July 2018

Organization: RGA, Inc.

BASE SURVEY FORM

Historic Sites #:

Location Map:



Site Map:

See Continuation Sheet

Bibliography/Sources:
See Continuation Sheet

Additional Information:
The Hopewell Township Historic Sites Inventory recommended the Ege/Lewis Farmstead at 15 Mine Road not eligible for listing on the National Register of Historic Places. The inventory described the farmstead as dating to the second quarter of the nineteenth century, with the agricultural outbuildings dating from the mid-nineteenth century or later (Heritage Studies 1984: Inventory No. 1106-22-1A.) Although the property still operates as a farm, the authors asserted that there were few surviving historic buildings aside from the house and that the property possessed no historical or architectural significance (Heritage Studies 1984: Inventory No. 1106-22-1A).

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: 5 Building _____ Landscape _____ Farm
_____ Bridge _____ Industry

Within Historic District? ☐ Yes ☒ No **Historic District Name:** _____

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes ☒ No
(Known or potential Sites – if yes, please describe briefly)

Survey Name: Intensive-level Historic Architectural Survey, Replacement of Mercer County Bridge No. 230.3 (Structure #1100-072) Carrying Mine Road over Stony Brook
Surveyor: Elizabeth Diker Date: July 2018
Organization: RGA, Inc.

FARM ATTACHMENT

Historic Sites #:

Common Name: Bluestone Farms, L.L.C; Ege/Lewis Farmstead; 15 Mine Road

Historic Name: Ege/Lewis Farmstead

Period of Agricultural Use: Circa 1776 **To:** 2018 **Source:** (Ege 1908: 42-54).

Agricultural Type: Dairy Farming

Physical Condition: Good

Remaining Historic Fabric: Medium

Acreage: 25

Description:

From the late-eighteenth century until the present, the Ege/Lewis Farmstead has been utilized for agricultural activities. Historically, dairy farming was central to the farm's operations, however in the late-twentieth century, use of the farm shifted to the breeding of thoroughbred horses.

The farmstead, located on the north side of Mine Road, was once the southern portion of a larger 392-acre tract farmed by the Lewis (Golden) family. Many of the outbuildings date from the mid-nineteenth and twentieth-century. The dwelling was constructed sometime between 1833 and 1849. The dwelling faces southeast and is located directly south of six to seven outbuildings, which are arranged in a rectangle configuration.

Setting:

The Ege/Lewis Farmstead at 15 Mine Road (Block 22, Lot 1) is located approximately 500 feet east of New Jersey State Route 31 in Hopewell Township, Mercer County, New Jersey. Stony Brook flows along the northeast side of the property. Cleared fields are located to the west, north and east of the farmstead. The surrounding area consists of rural, agricultural land intermixed with mid-twentieth and early twenty-first century residential subdivisions and commercial properties.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: 15 Mine Road
Historic Name: Ege/Lewis Farmstead, Dwelling
Present Use: Residential, Permanent, Single Family
Historic Use: Residential, Permanent, Single Family
Construction Date: 1833-1849 **Source:** Gordon 1833; Otley and Keily 1849
Alteration Date(s): 1953-1972 **Source:** NETR 1953, 1972
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: Other
Form: Other **Stories:** 2
Type: N/A **Bays:** 5
Roof Finish Materials: Asphalt Shingle; Standing Seam Metal
Exterior Finish Materials Wood, Clapboard

Exterior Description:
The dwelling of the Ege/Lewis Farmstead is a two-story tall, five-bay wide, frame dwelling constructed sometime between 1833 and 1849 (see Plates 3-7). A cross-gable roof covered with asphalt shingles caps the building, which composes a rectangular main block that rests on a stone foundation. The roofline is accented by a box cornice and simple, wood fascia. A one-story addition extends to the west, and a two-story rear ell extends to the northwest. Two, shed-roof additions protrude off the rear (northwest) and southeast elevations of the dwelling, added sometime between 1953 and 1972. Two interior, gable end brick chimneys pierce the southwest end of the main block and the northern end of the rear-ell. Exterior walls are clad in clapboard siding. The primary elevation faces southeast, overlooking Mine Road, and features a one-story, shed-roof porch sheathed in corrugated metal and supported by four turned posts. This porch shelters the center three-bays of the primary elevation, which includes a central, wood paneled door with a molded wood surround and a two-light, rectangular upper transom. Window openings on the primary elevation are symmetrical and contain four-over-four vinyl sash, replacement windows. The primary elevation of the one-story, western addition consists of a pair of four-over-four vinyl sash windows.

Interior Description:
Not accessible.

Setting:
The dwelling of the Ege/Lewis Farmstead is located south of the outbuildings and is oriented with its primary elevation facing southeast. A paved, asphalt driveway runs along the southwest elevation of the dwelling. Paved farm lanes are sited to the north and east of the dwelling, connecting the outbuildings within the complex to Mine Road, southeast of the farmstead. The dwelling is set back approximately 60 feet from Mine Road, and is located 400 feet east of New Jersey State Route 31.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: Front Gable Barn
Historic Name: Ege/Lewis Farmstead, Front Gable Barn
Present Use: Unclassifiable Activities
Historic Use: Unclassifiable Activities
Construction Date: Mid-nineteenth century **Source:** Stylistic Evidence
Alteration Date(s): 1979-1995 **Source:** NETR 1979, 1995
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: Other
Form: Other **Stories:** 2
Type: N/A **Bays:** 2
Roof Finish Materials: Asphalt Shingle
Exterior Finish Materials Wood, Clapboard

Exterior Description:
The frame, front gable barn associated with the Ege/Lewis Farmstead consists of a central section that stands two-stories tall and is capped by a cross gable roof, with two flanking, one-story sections capped by shed roofs (Plates1-3). All rooflines are sheathed in asphalt shingles. The building stands on a stone foundation, and exterior walls are clad in wood clapboard siding. The primary (southeast) elevation measures two-bays wide and is punctured by a large opening in the central section, as well as a large car-port opening in the northeast section. The second floor of the central section features a central loft door immediately above the central opening, and two six-over-six windows above. The east side of the front gable barn was reconstructed sometime between 1979 and 1995 (NETR 1979, 1995).

Interior Description:
Not accessible.

Setting:
The front gable barn of the Ege/Lewis Farmstead is situated in the northeast corner of the rectangle formed by the structures within the complex. It is oriented with its primary elevation facing southeast and set back approximately 160 feet from Mine Road. A U-shaped, paved farm lane is located in front of the building, connecting Mine Road to a series of internal, paved farm lanes within the complex.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: Side Gable Barn
Historic Name: Ege/Lewis Farmstead, Side-Gable Barn
Present Use: Unclassifiable Activities
Historic Use: Unclassifiable Activities
Construction Date: Early twentieth century **Source:** Heritage Studies 1984: Inventory No. 1106-22-1A
Alteration Date(s): **Source:**
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: Other
Form: Other **Stories:** 1
Type: N/A **Bays:** 2
Roof Finish Materials: Asphalt Shingle
Exterior Finish Materials Concrete Block, Modern

Exterior Description:
The side gable barn of the Ege/Lewis Farmstead was constructed during the early twentieth century on a re-used, earlier stone foundation (Plates 1, 7). The rectangular building is capped by a side gable roof sheathed in asphalt shingles. Exterior walls are constructed of concrete blocks. The primary (southeast) elevation faces towards Mine Road and measures two-bays wide, containing a door-shaped opening and a large, half-octagon shaped opening, likely used for vehicles. The second floor of the primary elevation is punctured by two twelve-pane, fixed windows.

Interior Description:
Not accessible.

Setting:
The side gable barn of the Ege/Lewis Farmstead is located approximately 50 feet northeast of the dwelling. The building is oriented with its primary elevation facing southeast and is set back approximately 140 feet from Mine Road. An asphalt, paved farm lane runs along the northeast elevation of the structure, providing access to Mine Road and other buildings within the complex.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: Corn Crib
Historic Name: Ege/Lewis Farmstead, Corn Crib
Present Use: Unclassifiable Activities
Historic Use: Unclassifiable Activities
Construction Date: Mid-nineteenth century **Source:** Stylistic Evidence
Alteration Date(s): **Source:**
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: Other
Form: Other **Stories:** 1
Type: Corncrib **Bays:** 1
Roof Finish Materials: Metal
Exterior Finish Materials Wood, Other

Exterior Description:
The mid-nineteenth century corncrib associated with the Ege/Lewis Farmstead was originally one of two identical corncribs, but the other was demolished sometime between 2013 and 2015 (Plate 5) (NETR 2013, 2015). The frame building assumes a rectangular footprint and is capped by a center-gable, metal roof. Exterior walls are sheathed in horizontal wood slats. The primary (southeast) elevation is punctured be a single door opening at the ground level.

Interior Description:
Not accessible.

Setting:
The corn crib of the Ege/Lewis Farmstead lies approximately 105 feet northwest of the dwelling, in the northwest corner of the rectangle formed by the structures. The building's primary elevation faces southeast, and it is set back approximately 200 feet from Mine Road.

BUILDING/ELEMENT ATTACHMENT

Historic Sites #:

☒ **BUILDING** ☐ **STRUCTURE** ☐ **OBJECT**

Common Name: Springhouse
Historic Name: Ege/Lewis Farmstead, Springhouse
Present Use: Unclassifiable Activities
Historic Use: Unclassifiable Activities
Construction Date: Mid-nineteenth century **Source:** Stylistic Evidence
Alteration Date(s): **Source:**
Designer: Unknown **Physical Condition:** Good
Builder: Unknown **Remaining Historic Fabric:** Medium
Style: Other
Form: Other **Stories:** 2
Type: N/A **Bays:** 3
Roof Finish Materials: Asphalt Shingle
Exterior Finish Materials Wood, Clapboard; Wood, Beadboard

Exterior Description:
The springhouse associated with the Ege/Lewis Farmstead is one-story tall and capped by a center gable roof with overhanging eaves sheathed in asphalt shingles (Plate 1-2). The one-room building was constructed using concrete block and assumes a square-shaped footprint. The west elevation of the springhouse was built into a dirt embankment. Exterior walls consist of cinder blocks, with wood bead-board in the gable ends. The primary elevation features a large, rectangular opening that creates a pass-through to the other side of the structure, which has an identical opening. The west elevation is pierced by two square openings.

Interior Description:
Not accessible.

Setting:
The springhouse of the Ege/Lewis Farmstead is located southeast of the dwelling. The building is oriented with its primary elevation facing southeast and is set back approximately 65 feet from Mine Road. A paved, U-shaped farm lane runs along the western elevation of the building.

ELIGIBILITY WORKSHEET

Historic Sites #:

History:
See Continuation Sheet

Significance:
The Ege/Lewis Farmstead was constructed sometime between 1833 and 1849 by the Ege and/or Lewis families in Hopewell Township, Mercer County, New Jersey. Both the Ege and Lewis (Golden) families were identified as among the founding families of Hopewell Township, owning a large concentration of farms in the northern section of the township, specifically in the Woodsville- Marshalls Corner area, during the mid-nineteenth century (Hunter and Porter 1990). The farmstead was historically utilized as a dairy farm it continues to be used for agricultural activities today.

Eligibility for New Jersey and National Registers: ☐ Yes ☒ No **National Register Criteria:** ☐ A ☐ B ☐ C ☐ D

Level of Significance ☐ Local ☐ State ☐ National

Justification of Eligibility/Ineligibility:
The Ege/Lewis Farmstead at 15 Mine Road is recommended not eligible for listing on the National Register of Historic Places (NRHP). Although the property is associated with the agricultural history of Hopewell Township, many of the original historic structures and features of the site have been demolished. Furthermore, a number of better-preserved, historic farmsteads are extant in the vicinity. The loss of agricultural buildings and features, such as the main dairy barn and silos, multiple auxiliary barns, and a spring, diminish the property's integrity of feeling and association. Therefore, the farmstead does not meet NRHP Criterion A. Although the nineteenth and early-twentieth century owners of the property were descended from some of the founding families of Hopewell Township (Ege and Lewis/Golden), they do not rise to the requisite historical significance necessary to merit listing on the NRHP under Criterion B. As an example of a typical, frame farmhouse from the mid-nineteenth century, the house is neither an exceptional construction of its type, nor the work of a master. Alterations such as the installation of vinyl sash windows and the construction of multiple frame additions reduce the property's overall historic architectural integrity. As such, the Ege/Lewis Farmstead is not eligible for listing on the NRHP.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:

Farm Attachment: Ege/Lewis Farmstead
Building Attachment: Ege/Lewis Farmstead, Dwelling
Building Attachment: Ege/Lewis Farmstead, Front Gable Barn
Building Attachment: Ege/Lewis Farmstead, Side Gable Barn
Building Attachment: Ege/Lewis Farmstead, Corn Crib
Building Attachment: Ege/Lewis Farmstead, Springhouse

Narrative Boundary Description:
N/A

CONTINUATION SHEET

Historic Sites #:

History:

The land upon which the Ege/Lewis Farmstead stands was originally part of a larger 392-acre plantation sited on the west side of Stony Brook and owned in the late eighteenth century by Joseph Golden. Golden's will, dated May 29, 1776, stipulated that his plantation be divided among his children, with the 150-acre portion containing the Ege/Lewis Farmstead being left to his second eldest son, Elias Golden (Ege 1908: 42-54). The Joseph Golden plantation also included four acres of land on the bank of Stony Brook used specifically for mining, which Golden left to all his children, stipulating that they share in the profits and expenses equally (Ege 1908: 54). In the late eighteenth century, the area surrounding the Ege/Lewis Farmstead was sparsely developed; the communities of Pennington, approximately three miles south, and Ringoes, approximately five miles northwest, were the closest population centers (Hills 1781).

Elias Golden, son of Joseph, was known to conduct mining activities on the subject property during the late eighteenth century, which included digging multiple shafts to a depth of over one hundred feet. Small quantities of precious metals were found, but no adequate equipment was available for pumping or extracting the ores, and as such mining never escalated to be more than a pastime on the farmstead. These shafts reputedly caved in by the turn of the nineteenth century and were concealed by dense growths of bushes (Ege 1908: 54-55). Elias married Millie Hendrickson in 1761, and together they had two sons, Abraham and David. Elias Golden passed away in 1795, and David and Abraham were administrators of his estate. David inherited the portion of the plantation encompassing the subject property, where he lived with his wife Deborah, daughter of John Wilson of Amwell Township, and their eight children (Ege 1908: 58).

One of David and Deborah's daughters, Anna, married Franklin Lewis and moved to Mendham Township in 1814. In 1832, however, Mr. Lewis died and Anna returned to Hopewell with her son Elias G. Lewis to live with her sister Sarah Golden and her husband George Ege on the family homestead along Stony Brook. In 1841, Elias G. Lewis married Anchor Burd and together they had two children, Franklin and Jonathan, who they raised on the subject farmstead (Ege 1908: 58). Sometime between the time Anna returned to the homestead, in 1832, and 1850, Sarah and George Ege moved to Illinois where a large portion of the Golden family settled, and ownership of the farmstead along Stony Brook was transferred to Anna. Anna Golden Lewis resided there until 1850 when she sold the property to her son Elias G. Lewis and also moved to Illinois, where she resided until her death in 1868 (United States Bureau of the Census 1850, 1860). Based on cartographic analysis, it is likely that the dwelling associated with the Ege /Lewis Farmstead was constructed between 1833 and 1849, during the period of time when Sarah Golden, her husband George Ege, Anna Golden Lewis and Elias' burgeoning new family resided on the property (Gordon 1833) (Figure 1; Otley and Keily 1849).

During the mid-nineteenth century, under the ownership of Elias G. Lewis, contemporary histories of the area describe the subject farmstead as a dairy farm with a small spring located on the west side of Stony Brook with a flow of about one hundred gallons per minute, which is no longer extant (Ege 1908:186). Based on stylistic evidence, it is likely that many of the extant outbuildings on the property, including the front gable barn, corncrib, springhouse, and re-purposed stone foundations of the side gable barn, were constructed during this time. By 1860, Mine Road was laid out directly to the south of the subject property, likely named for the proximate mining activities occurring along the banks of Stony Brook (Figure 2; 1860 Beers).

Elias G. Lewis and his family lived on the property until it was purchased by Ralph Ege in 1871. Ralph Ege, author of "*Pioneers of Old Hopewell,*" was born on November 23, 1837 to Andrew Ege and Sarah Ann Voorhees, whose ancestors were among the founding families of Hopewell Township. Ralph Ege married Mary Emma Skillman on October 18, 1864 and together they moved to the subject property and raised six children: Albert, Florence, Sarah, Andrew, Ida, and Mary (Figure 3; Everts and Stewart). Ralph was an active and well-respected member of the Hopewell

CONTINUATION SHEET

Historic Sites #:

History, continued:

community, serving as chief organizer of the First Presbyterian Church in Hopewell in 1877, where he also served as clerk, trustee, and choir member. He was also known as a progressive and up-to-date farmer with connections to the State Horticultural Society and the State Agricultural College. Ralph Ege died in 1905, after which time the subject property was purchased by Joshua J. Hunt (Ege 1908: 3-6).

Joshua J. Hunt, born in 1859, married Louis C. Kelly in December 1889 and worked as a laborer on his parent's farm until purchasing the Ege/Lewis Farmstead in 1905 (Figure 4; A. H. Mueller). There he resided until 1933, when he sold the farm and its contents at public auction due to his ailing health. Among the livestock advertised for auction were five horses, eight cows, and 20 hogs. Farm equipment included two wagons, a manure spreader, a John Deere corn planter, two corn plows, and oak and hickory planks (*The Hopewell Herald* 4 October 1933: 3).

Ownership of the subject property changed hands throughout the remainder of the mid-to-late twentieth century, during which time a number of alterations were made to the property. Between 1953 and 1972, the two, frame shed-roof additions were added onto the rear of the dwelling (NETR 1953, 1972). By 1979, the large dairy barn and silos on the southeastern portion of the site were demolished. The east side of the front gable barn was reconstructed and a large barn on the east side of the property was demolished between 1979 and 1995 (NETR 1979, 1995). In 1997, the property was purchased by Eric Freeman and Frank Russo and incorporated into a larger 296-acre property named Bluestone Farms, focused on the breeding, selling, racing, and marketing of Standardbred horses (McCalmont 2015: 42). Between 2002 and 2006, multiple small, frame buildings on the property were demolished and some of the dirt farm lanes were re-routed or covered over (NETR 2002, 2006). The existing, mid-nineteenth century corncrib on the property was originally one of two identical corncribs, but the other was demolished sometime between 2013 and 2015 (NETR 2013, 2015). The property, though altered in configuration and specific uses, has consistently operated as farm since its initial construction through to the present.

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1995 7.5' Quadrangle: Pennington, NJ.

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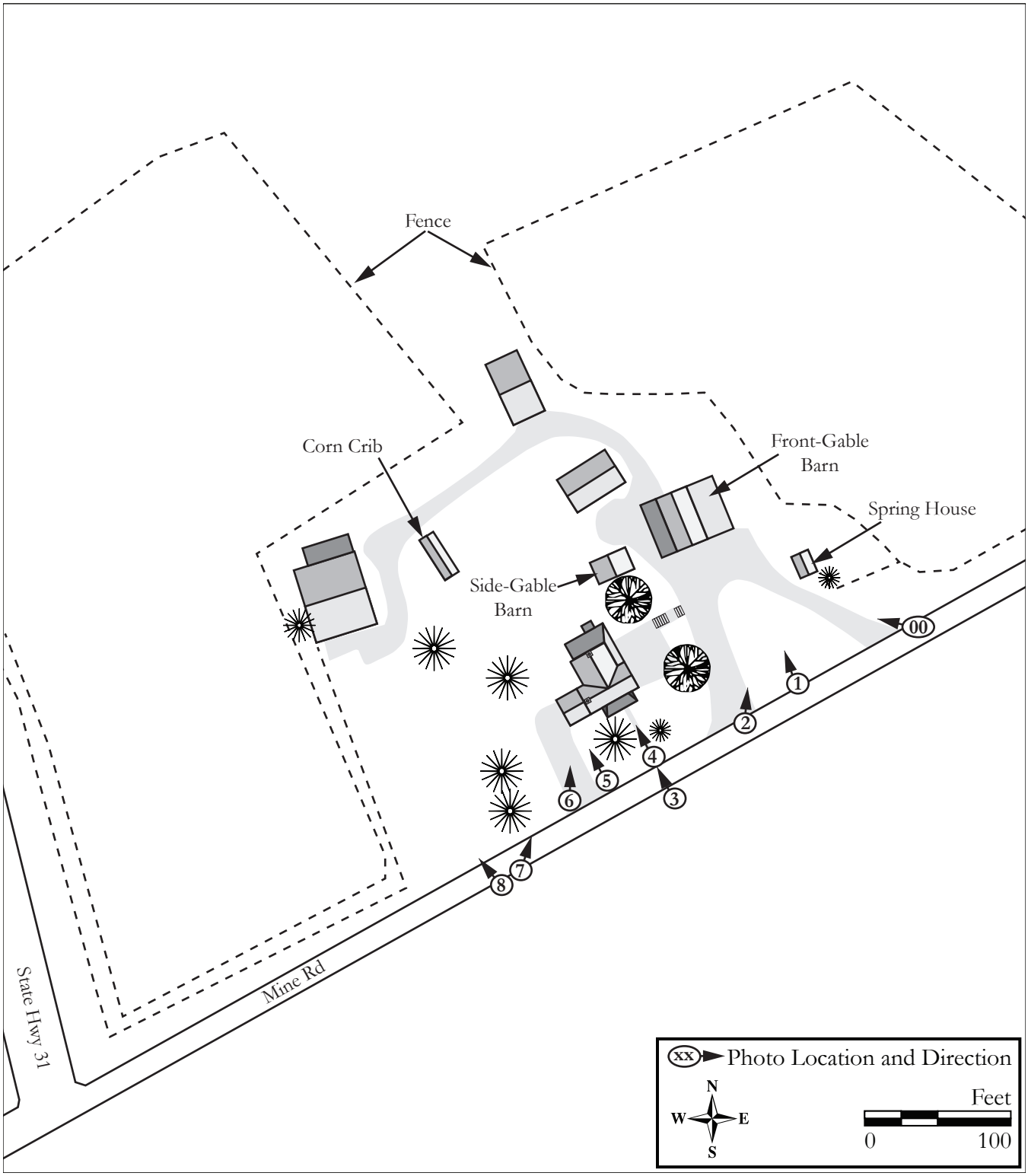
Historic Sites #:



Site Map.

CONTINUATION SHEET

Historic Sites #:

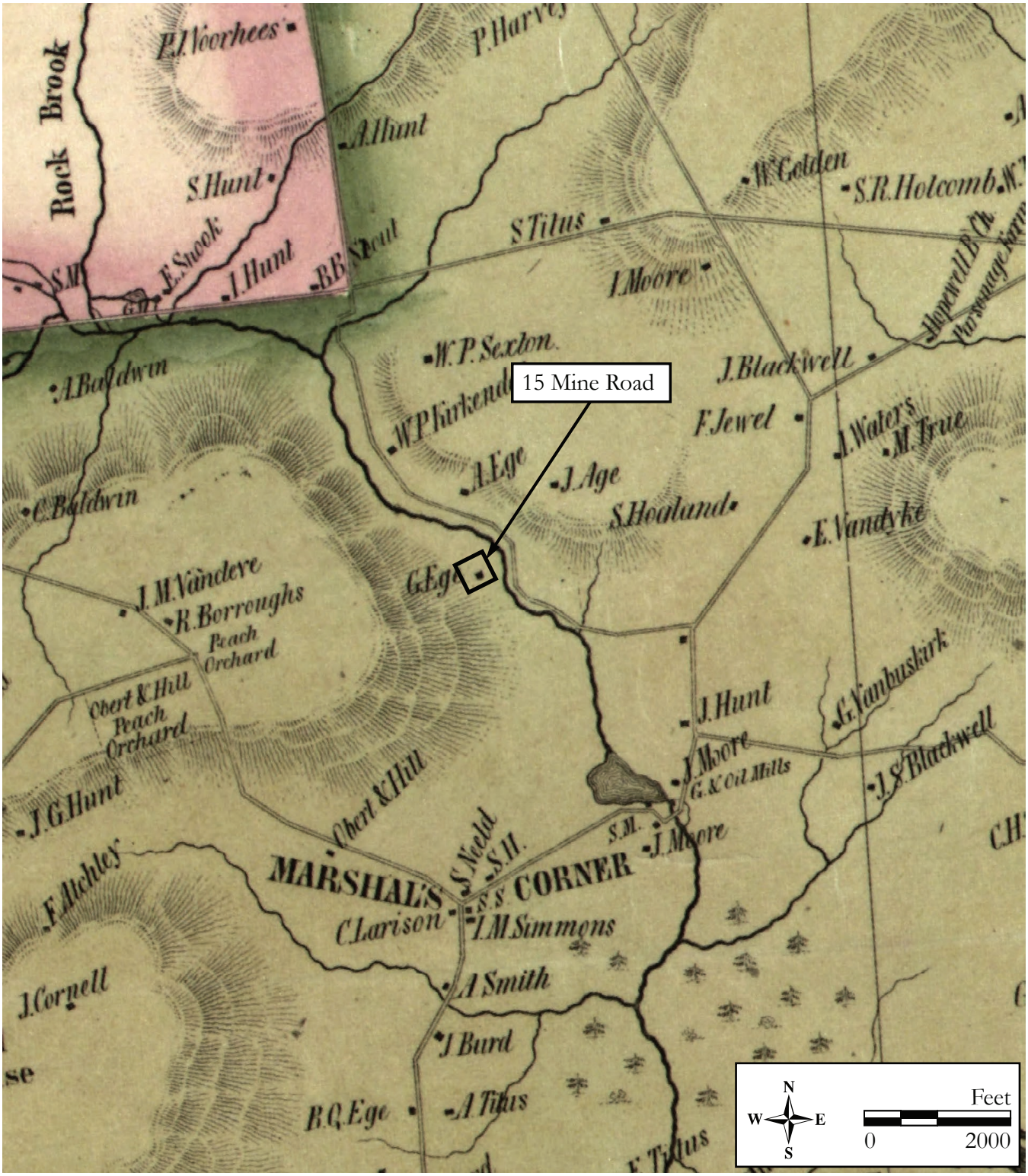


Figure 1: 1849 J. W. Otley and J. Keily, *Map of Mercer County, New Jersey.*

CONTINUATION SHEET

Historic Sites #:

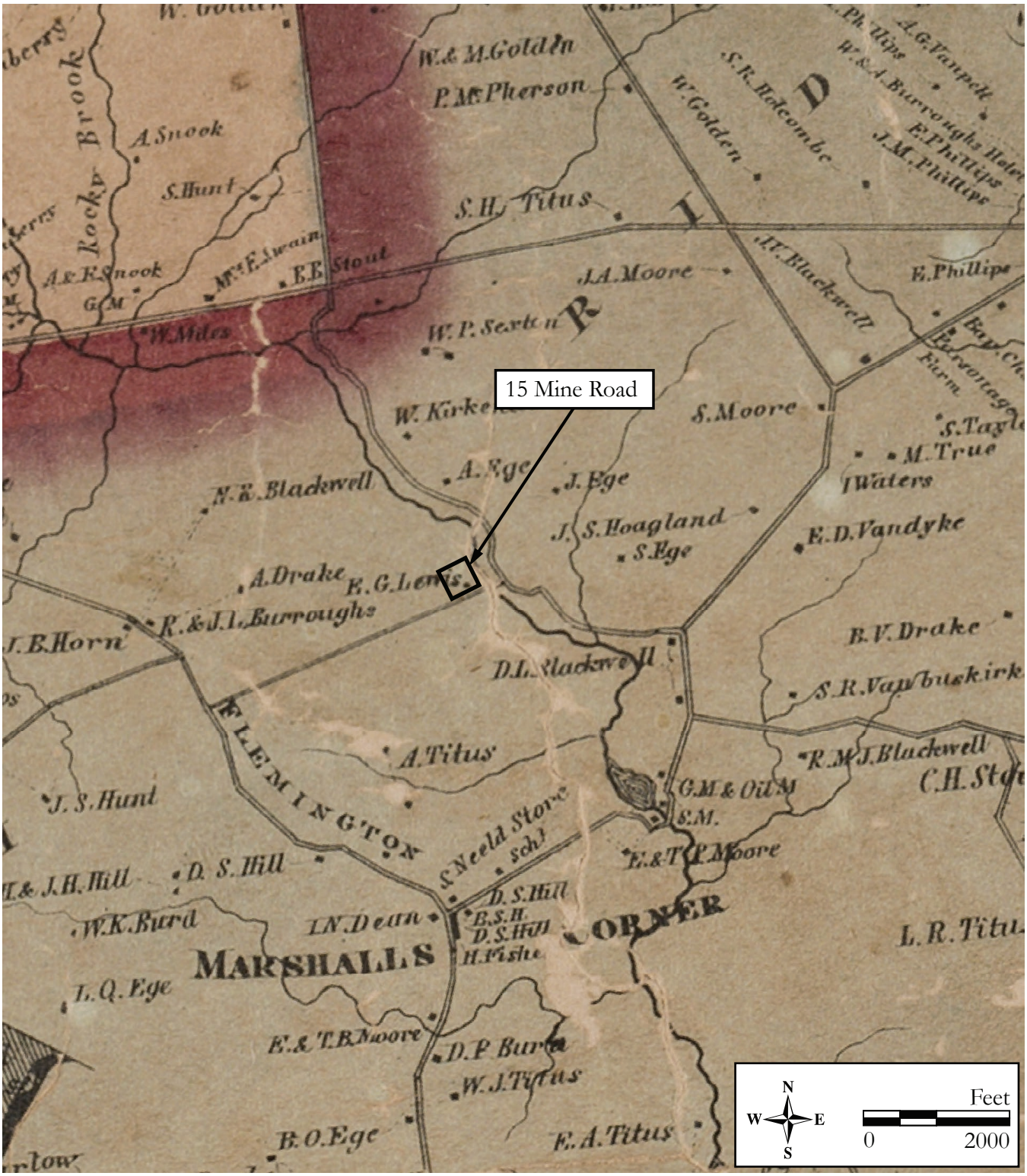


Figure 2: 1860 Lake and Beers, *Map of the Vicinity of Philadelphia and Trenton.*

CONTINUATION SHEET

Historic Sites #:

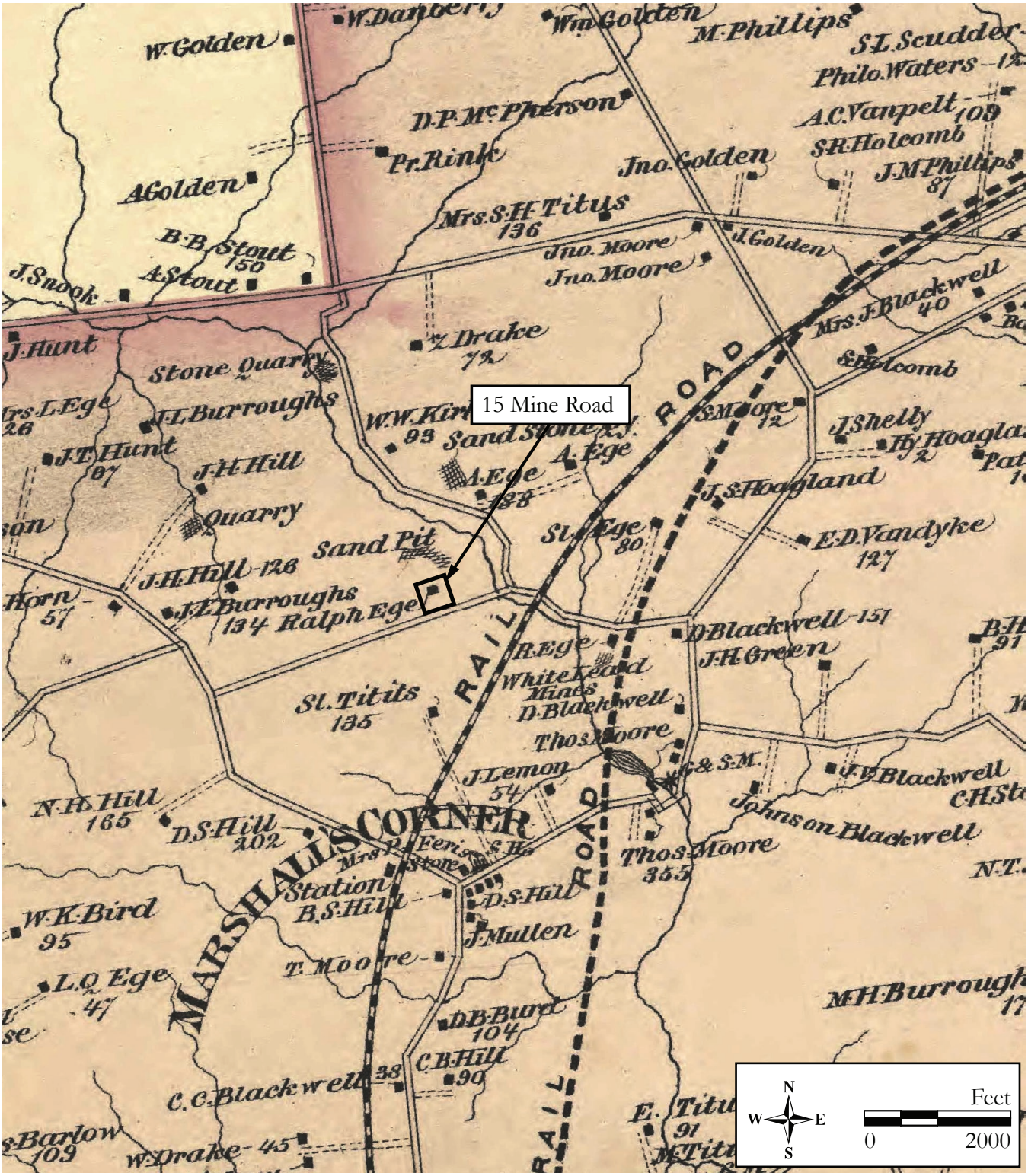


Figure 3: 1875 Everts and Stewart, *Combination Atlas Map of Mercer County, New Jersey.*

CONTINUATION SHEET

Historic Sites #:

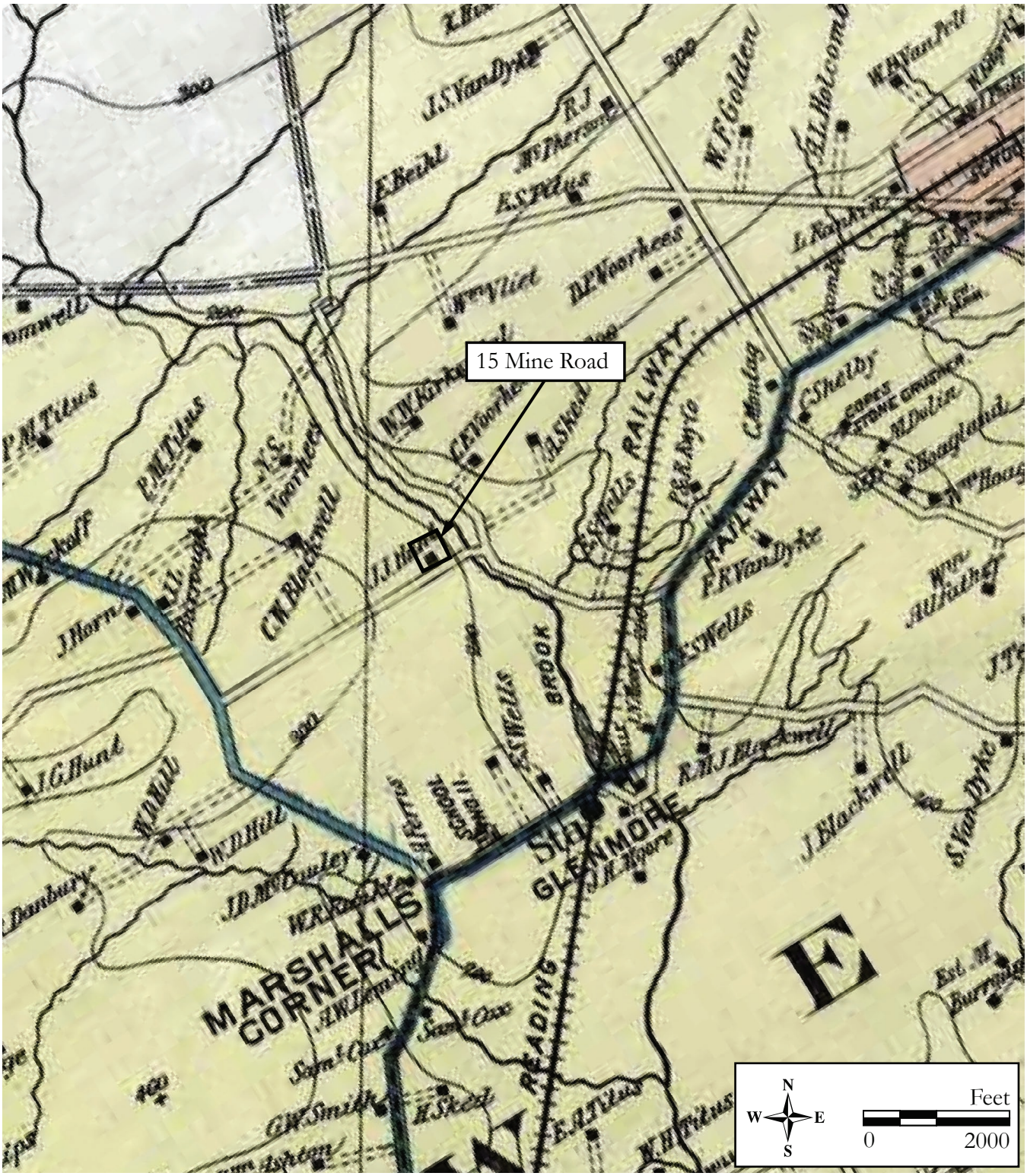


Figure 4: 1918 A. H. Mueller, *Mueller's Automobile Driving and Trolley Map of Mercer County, New Jersey.*

CONTINUATION SHEET

Historic Sites #:

Plate: 1

Photo view:

Northwest

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

Photograph of the front gable barn and springhouse of the Ege/ Lewis Farmstead.

Plate: 2

Photo view:

Northeast

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

Perspective view of Mine Road and the springhouse of the Ege/ Lewis Farmstead, looking northeast.

CONTINUATION SHEET

Historic Sites #:

Plate: 3

Photo view:

Northwest

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

View of the primary (southeast) elevations of the dwelling and front gable barn of the Ege/Lewis Farmstead.

Plate: 4

Photo view:

Northwest

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

View of the primary (southeast) elevation of the Ege/Lewis Farmstead.

CONTINUATION SHEET

Historic Sites #:

Plate: 5

Photo view:

Northwest

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

Photograph showing the corncrib of the Ege/Lewis Farmstead.

Plate: 6

Photo view:

Northeast

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

Perspective view of the southeast and southwest elevations of the Ege/Lewis Farmstead.

CONTINUATION SHEET

Historic Sites #:

Plate: 7

Photo view:

Northeast

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

View of 15 Mine Road, showing the dwelling and environment, facing northeast.

Plate: 8

Photo view:

Northwest

Photographer:

Chelsea Troppauer

Date:

May 3, 2018

Photograph of a modern outbuilding sited within the Ege/Lewis Farmstead agricultural complex.

APPENDIX E: ANNOTATED BIBLIOGRAPHY

Authors:	Chelsea Troppauer
Title:	Intensive-Level Historic Architectural Survey, Replacement of Mercer County Bridge No. 230.3 (Structure #1100-072) Carrying Mine Road over Stony Brook, Township of Hopewell, Mercer County, New Jersey
Date:	August 2018
RGA Database Title:	IH: Mercer County Bridge 230.3, ILHAS
RGA Project No:	2018-119
State:	New Jersey
County:	Mercer County
Municipality:	Hopewell Township
U.S.G.S. Quad:	Hopewell, NJ
Drainage Basin:	Stony Brook
Regulation:	Freshwater Wetlands Development (N.J.A.C. 7:7A)
Project Type:	Public Development: Transportation
Project Sponsor:	Mercer County Department of Transportation and Infrastructure
Client:	I.H. Engineers, P.C.
Level of Survey:	Intensive-level historic architectural survey
Cultural Resources:	Mercer County Bridge No. 230.3