

Determination of Effect on Historic Properties

Author:	C. Scott Speal	Date:	February 6, 2025
Project:	State No.: 77-247 F.A.P. No.: 6077(010) Project Title: Replacement of Bridge 04729 Atwoodville Road over Mount Hope River Town: Mansfield		
Finding of Effect:	No Adverse Effect to Historic Properties		

Project Description:

The Connecticut Department of Transportation (CTDOT), with funding support from the Federal Highway Administration (FHWA), proposes replacement of State Bridge Number 04729 carrying Atwoodville Road over Mount Hope River in the Town of Mansfield. Bridge 04729 is a 3-span structure built in 1950 located just east of US Route 89. The bridge superstructure comprises of five (5) steel girders with a concrete deck which is supported by concrete abutments and piers with foundations assumed to be spread footings founded on bedrock.

The proposed action consists of replacing the existing three span structure with a 76'-0" long single span steel beam bridge. The bridge superstructure will be supported by new concrete abutments constructed approximately 10' behind the existing piers which will be reduced to facilitate the grading of the area between the existing piers and new abutments. The new west abutment will be founded on a spread footing foundation on bedrock, and the east abutment will be founded on a micropile foundation socketed to bedrock. Riprap is proposed between the new abutments and the existing piers to mitigate potential material washout concerns. Simulated stone form liner will be utilized on exposed face of wingwalls, abutments and endblocks for improved aesthetics. New U-type wingwalls approximately 32' long are proposed at all four corners of the bridge to retain the widened roadway and the fill behind the new abutments while minimizing grading and right of way impacts. New sidewalks will also be placed on the south side of the road, with connections to existing footpaths that run along the watercourse.

Removal of the existing abutments and construction of the new abutments will be accomplished behind temporary cofferdams. As a result of the proposed construction behind existing piers, maximum excavation depths are anticipated to be approximately 28'. A temporary construction easement will be needed for installing soldier piles and lagging at the northwest corner of the bridge. This easement is on the upstream US Army Corps of Engineers (USACE) property and will remain within the existing artificial embankment supporting the roadway. A second easement for grading will be required from the private parcel at 75 Atwoodville Road.

Under the provisions of the Programmatic Agreement executed between CTDOT, FHWA, the Connecticut State Historic Preservation Officer (CT SHPO), and the Advisory Council on Historic Preservation regarding compliance with Section 106 of the National Historic Preservation Act (NHPA) for minor transportation projects¹, the Office of Environmental Planning (OEP) intends to make a determination of effect on historic properties for the described undertaking.

Resources Potentially Affected:

Above Ground Architectural

Both the National Park Service's digital asset record system and ConnCRIS—the online cultural resource geodatabase maintained by CT SHPO—were consulted for the purpose of locating any properties listed on the State or National Register of Historic Places (NRHP) in the project vicinity. No NRHP-listed properties were found to exist within a mile of the proposed project limits. OEP's most recent historic structures inventory research confirms that Bridge Number 04729 was constructed in 1950 of standard concrete and steel design and is therefore exempt from NRHP consideration under the ACHP Program Comment regarding Post-War Bridges².

A series of historic maps and aerial photographs obtained from the University of Connecticut Map and Geographical Information Center (UConn MAGIC) were examined to assess the potential for other potentially NRHP-eligible to be located within the project area of potential effect (APE). The 1930 Griswold-Spiess Map of reconstructed Native settlement in Connecticut circa 1625 depicts no concentrations of indigenous population in the project vicinity during the period of European Contact. The 1811 Warren Map of Connecticut likewise presents several mills along the Mount

¹ *Programmatic Agreement among the Federal Highway Administration, the Connecticut Department of Transportation, the Connecticut State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Implementation of Minor Transportation Projects*, signed October 26, 2012 and revised May 4th, 2018. Accessible online at: www.ct.gov/culturalresources

² Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges, *Federal Register* 77 (222): 68790-68791, November 16, 2012.

Hope River in the general project area. The 1857 Eaton Map of Tolland County depicts the general location of the bridge crossing as a focus of settlement—the village of Atwood—by the mid-19th Century. Many of the surrounding buildings are attributed to ‘Atwood’, presumably relatives of the town namesake. Fairchild Series aerial photos from 1934 (Figure 1) reveal continued settlement accumulation, particularly to the east of the bridge crossing, with only mill structures visible along with a tail race flowing from the northeast quadrant on the east bank of the river within the APE itself.

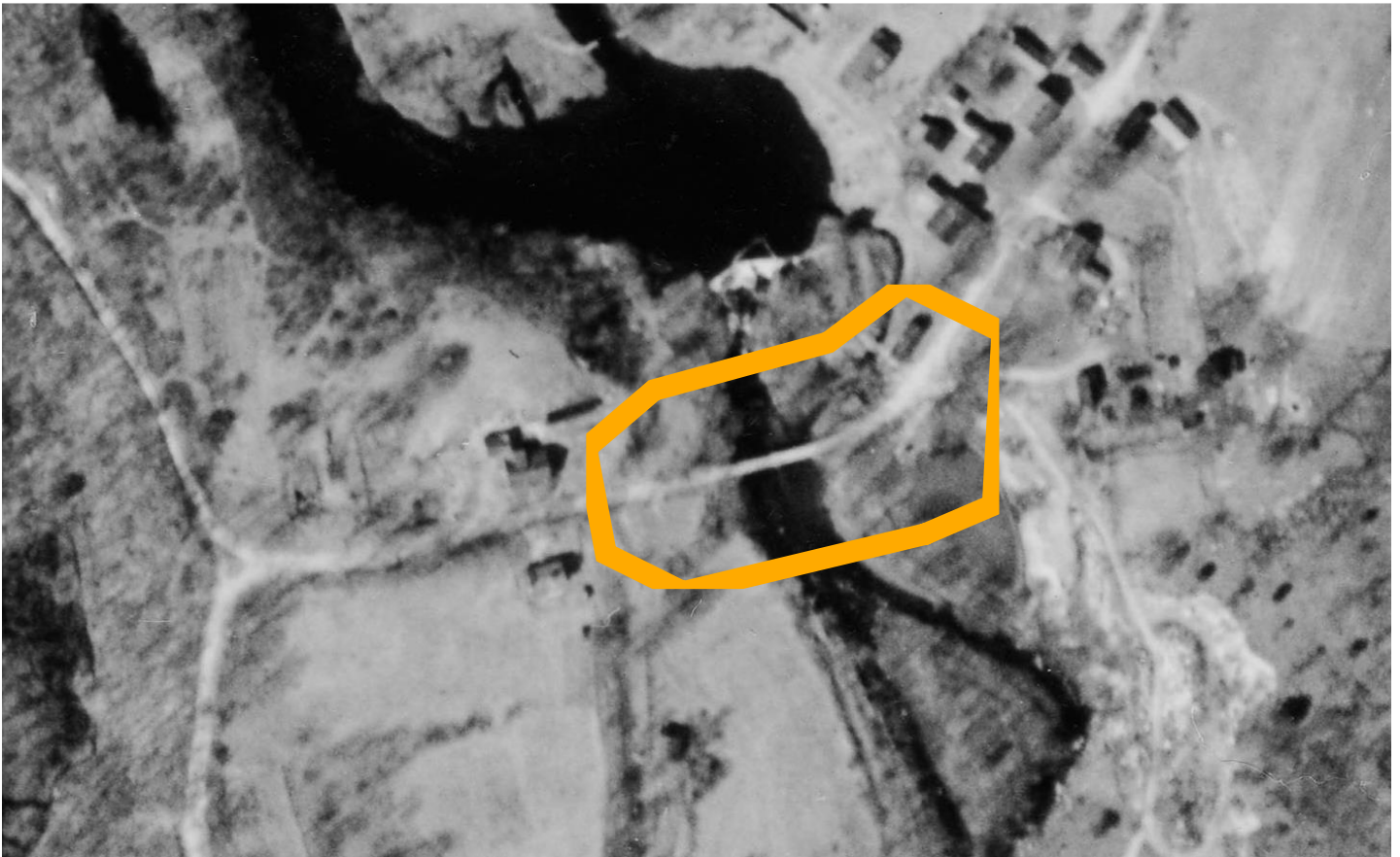


Figure 1: Fairchild Series aerial photo from 1934, with approximate project area superimposed.

Recent roadside and aerial photographs reveal residential structures and agricultural outbuildings at all four quadrants of the bridge approaches that could potentially be considered eligible for the NRHP as a group resource associated with the **18th & 19th Century “Atwoodville” community**. Such structures include the following:

- 51 Atwoodville Road – a single story clapboarded wood frame Cape/Colonial Style residence built ca 1800 according to Town property records.
- 75 Atwoodville Road – two-story 5-bay wood frame Federal-style residence built ca. 1840 according to Town property records.

- 78 Atwoodville Road –1 1/2 story wood frame Colonial style residence w/ 9 over 9 windows built ca. 1778 according to Town property records
- A freestanding, isolated and somewhat dilapidated barn (?) shop / garage at the southwestern quadrant of the bridge -- no address or property records immediately forthcoming.

CTDOT anticipates no substantive impacts to the above properties aside from slope easements and rights to construct driveway from the land parcel at 75 Atwoodville Road. OEP sees no adverse effect to the integrity of the potentially historic structure on that property, nor to the prospective Atwoodville group resource, from these minor property impacts. All access, staging, storage and layup will be accomplished within the transportation ROW or easements acquired from USACE.

Below Ground Archaeological

Digital site records in ConnCRIS, as well as OEP's own internally maintained geodatabase, were also consulted for the purpose of identifying any previously known archaeological resources within or in immediate proximity to the project APE. **State Archaeological Site 78-148** is plotted immediately to the north of the target bridge on the east bank of the river. This site represents the remains of the Atwood / McFarland Silk Mill. This 19th Century industrial resource was investigated by Public Archaeology Laboratory, Inc. (PAL) out of Pautucket, Rhode Island, in 1994³, who described it in the state site form as destroyed and stated that its integrity has been severely compromised. The report continues on however to recommend that "subsurface archaeological investigation needs to be done around the extant remains of the mill before the site's importance can be assessed." Also nearby is State Site 78-149 – the "Atwoodville Dam", potentially associated with the Atwood McFarland silk mill just discussed above, is located a further 70m upstream to the north, recorded by the same PAL Mansfield Hollow Lake survey referenced above. Though it is unlikely that this resource will be affected by the present undertaking, it does raise the issue of a potential group resource or district including industrial features along the river and the 19th Century (and older) residences along Atwoodville Road.

Soil classification maps obtained from the U.S. Natural Resources Conservation Service were examined in conjunction with predictive models developed internally at OEP to assess the sensitivity of the project area for previously unknown pre-European Contact indigenous resources. The entire project APE consists of Hinckley Gravelly Sandy Loams at variable grades predicted to be high in archaeological potential. Fortunately, the APE has previously been surveyed for archaeological resources and assessed for archaeological sensitivity. The first time was the 1994

³ *Historic and Archaeological Reconnaissance/Inventory Survey, Cultural Resource Management Plan, Mansfield Hollow Lake*, 2 volumes; PAL, Inc. (1994), CHPC no. 568

PAL effort already referenced above. The second is a 1999 USACE Cultural Resources Management Plan for the Mansfield Hollow reservoir⁴. Much of the project APE falls upon terrain found to be high in archaeological potential according to those documents.

Recent roadside and aerial photographs and LiDAR images (Figure 2) obtained from UConn MAGIC were also consulted, however, to assess the present state of soil integrity within areas likely to be affected by ground disturbance in association with the undertaking. The bridge itself is situated upon high supports well above the river course where only work down below the bridge at the base of the piers—and for potential access roads—would pose a substantive threat to intact archaeological resources. Even the bridge approaches appear to lie upon large embankments of artificial fill.



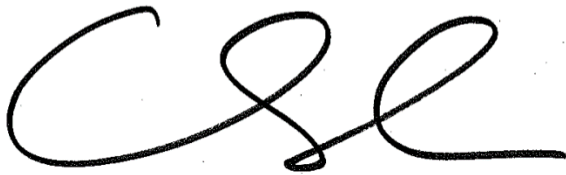
Figure 2: 2016 Aerial LIDAR image, with approximate project area superimposed.

⁴ *Final Historic Properties Management Plan, Mansfield Hollow Lake*, Army Corps of Engineers (1999) CHPC no. 850

Determination of Effect:

Consultation was carried out with Federally recognized Native American Tribal authorities with ancestral ties to the State of Connecticut for this project in November of last year. None of the solicited Tribes expressed any concerns with the undertaking within the allotted time frame.

Due to the involvement of a potentially NRHP-eligible group resource, albeit without any anticipated impacts that might compromise the integrity of said resource, OEP hereby determines that there will be *no adverse effect to historic properties* in association with the present undertaking. With this determination, FHWA, through OEP, has concluded its responsibility to consider the potential effects of the described project on cultural resources under Section 106 of the NHPA via the provisions of the Programmatic Agreement referenced above.

A handwritten signature in black ink, appearing to read 'C. Speal', written in a cursive style.

C. Scott Speal
National Register Specialist
Office of Environmental Planning
Connecticut Department of Transportation