



Via Email

July 13, 2012

Mr. Erle Townsend
Project Manager
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333-0017

Subject: Canton Mountain Wind Project, File No: L-25557-24-A-N/L-25558-TB-B-N
Dunn Cemetery Follow Up Archaeological Assessment

Dear Erle,

Patriot Renewables, LLC (Patriot) requested that Tetra Tech, Inc. (Tetra Tech) confirm the limits of Dunn Cemetery located on Ludden Lane and adjacent to the proposed Canton Mountain Wind Project access road. This work was undertaken at the request of Erle Townsend, Maine Department of Environmental Protection Project Manager, who brought the issue to Patriot's attention based on public comments received by the DEP. Public comments expressed concern based on historic maps of Dixfield that the limits of Dunn Cemetery may extend to the east side of Ludden Lane.

Ms. Sarah M. Haugh, a certified Level I Prehistoric Archaeologist in Maine, undertook a pedestrian reconnaissance of the Dunn Cemetery and the adjacent Canton Mountain Wind Project area on July 9, 2012. The pedestrian survey consisted of walking the limits of the Project area on the east side of Ludden Lane adjacent to Dunn Cemetery and the general vicinity of the cemetery itself (Figures 1 and 2). The reconnaissance focused on identifying visual indicators of historic use of the area. Additionally, meandering transects were walked with a White's PRL-1 metal detector to identify potential subsurface indications of historic use.

The pedestrian reconnaissance determined the area on the east side of Ludden Lane contains sloping, hummocky terrain with boulder outcrops and areas of modern disturbance adjacent to the road. A small rill stream is located on the eastern boundary of the area, beyond the Project's limit of disturbance (LOD). Two historic stonewalls were identified within the Project's LOD. One wall lies within 5 meters of Ludden Lane and extends in length approximately 10 meters. Portions of this wall have been compromised or removed entirely most likely from private excavation activities associated with

preventing vehicle access from bypassing a gate located along Ludden Lane adjacent to the northern extend of Dunn Cemetery. The second stonewall is located within 13 meters of Ludden Lane and extends the length of the survey area, approximately 40 meters to the north, with the exception of a disturbed gap just south of the gate on Ludden Lane. This larger stonewall is bisected by the LOD, with the northern portion located within the LOD. The wall also extends southeast out of the Project area. No other indications of historic use were identified during the pedestrian reconnaissance. The metal detector survey did not identify any sensitive surficial or subsurface locations.

Based on the topography and terrain on the east side of Ludden Lane it is unlikely this area would have been used as a cemetery. The elevation on the east side of the road is notably lower than the west, where Dunn Cemetery is located on a small knoll overlooking Fletcher Brook. The placement of the cemetery on this small knoll accommodates drainage, as compared to the east side of Ludden Lane which is susceptible to seasonal runoff from the rill stream which lies adjacent to the eastern LOD. Additionally there is no evidence of historic grading associated with developing a cemetery along the east side of the road.

Historic maps of the area present differing alignments of Dunn Cemetery. An 1858 map of Dixfield based on the wall map of Oxford County published by Gillette and Huntington, depicts the cemetery on the east side of Ludden Lane (Figure 3). A subsequent 1880 map of Dixfield published in Caldwell & Halfpenny's atlas of Oxford County depicts the cemetery on both the east and west sides of Ludden Lane (Figure 4). U.S. Geological Survey 15 minute series topographic maps for both Dixfield and Carthage published in 1929 and 1956 do not depict the location of the cemetery.

Comparison of these historic maps highlights the potential for discrepancies in historic sources. Especially in remote areas, historic surveys were often not accurately measured or were mapped by eyeballing measurements or copying previous maps. Additionally, changes in land use caused by natural or human influence, such as meandering streams or abandonment, are often not accurately reflected in historic maps (Plewe 2002, Podobnikar 2007). It is unlikely that the historic location of Dunn Cemetery has moved. Rather it is more likely that the alignment of Ludden Lane has shifted over time due to both natural and human influences, or the extent of Dunn Cemetery has been reduced from the historically planned footprint.

Based on the results of the pedestrian survey of the area and review of historic maps, the extent of Dunn Cemetery is limited to the western side of Ludden Lane. No further investigations are recommended for the development of the Canton Mountain Wind Project in this area.

Please do not hesitate to contact myself at sarah.haugh@tetratech.com or 207.879.9496, or Kathleen Miller, Tetra Tech Project Manager, at Kathleen.miller@tetratech.com or 207.409.9738 if you have questions or require additional information.

Sincerely,
TETRA TECH, Inc.



Sarah M. Haugh
Archaeologist

cc: Andy Novey, Project Manager, Patriot Renewables, LLC
Kathleen Miller, Tetra Tech Project Manager
Earle G. Shettleworth, Jr., Maine Historic Preservation Commission Director and
State Historic Preservation Officer

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REFERENCES

Plewe, Brandon

2002 *The Nature of Uncertainty in Historical Geographic Information*.
Transactions in GIS, 2002, 6(\$): 431-456.

Podobnikar, Tomaz

2007 *Characteristics of the positional errors of historical maps*. Scientific
Research Centre of the Slovenian Academy for Sciences and Arts, Novi trg 2, SI-
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Presented at the 10th AGILE International Conference on Geographic Information
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PHOTOGRAPHS



Photo 1. North view of Dunn Cemetery and the Canton Mountain Wind Project's LOD on the east side of Ludden Lane. Yellow arrow highlights southern LOD flagging.



Photo 2. South view of the stonewall which runs the extent of the survey area.



Photo 3. Southwest view of the stonewall which runs the extent of the survey area (extending out of the left corner of the photograph) and the smaller stonewall adjacent to Ludden Lane.



Photo 4. North view from the midpoint of the survey area. There is a break in the stonewall which runs the extent of the survey area visible in the foreground of the photograph.

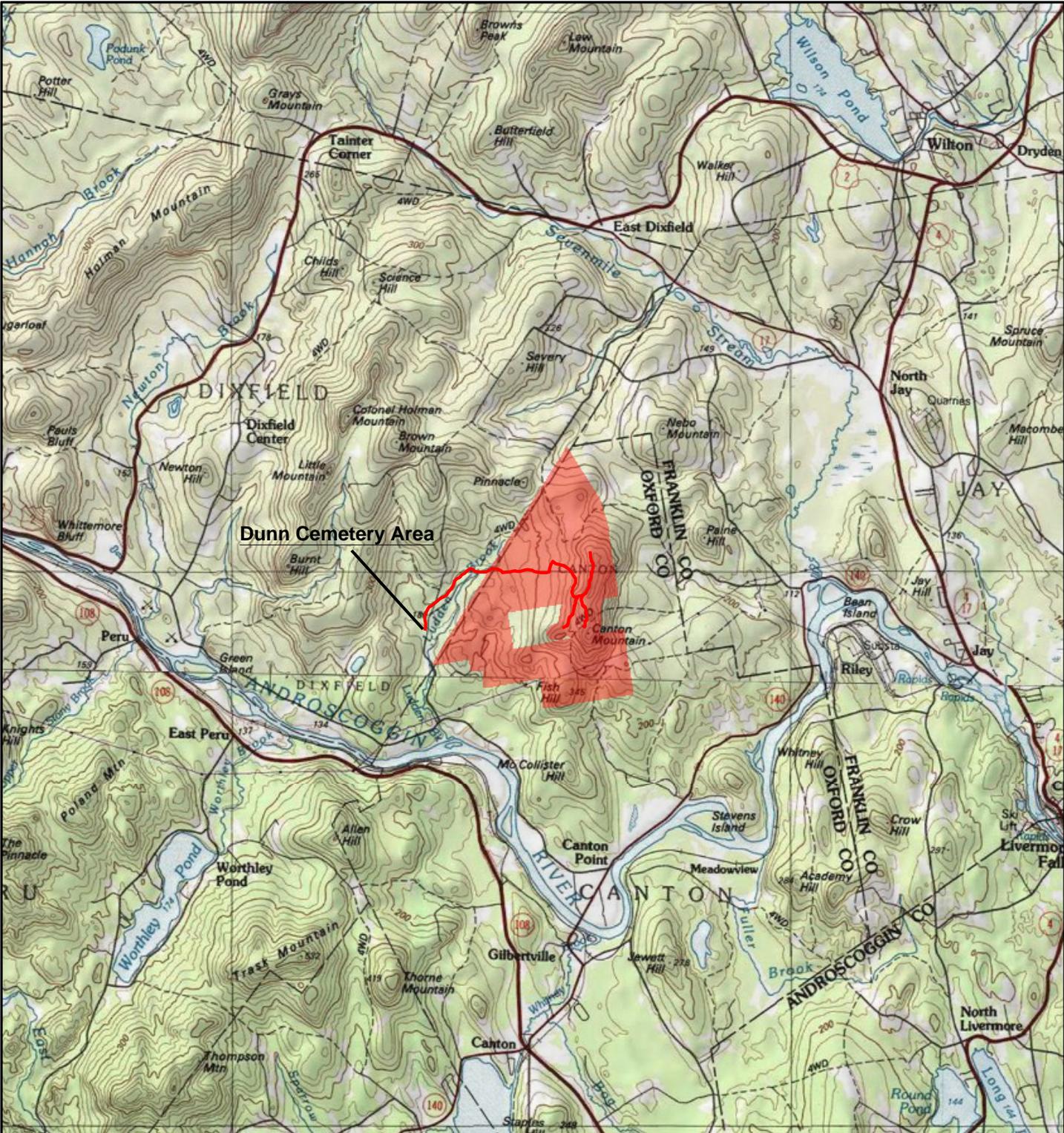


Photo 5. Southwest view of the rill stream bordering the eastern boundary of the survey area.



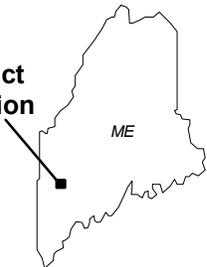
Photo 6. Southeast view of the disturbed area adjacent to the Ludden Lane gate situated at the northern extent of Dunn Cemetery. A portion of the longer stonewall has been compromised in this location, most likely from private excavation activities associated with preventing vehicles from bypassing the road gate.

FIGURES



Dunn Cemetery Area

Project Location



Legend

- Project Area
- Access Road



0 0.5 1 2 Miles

0 1 2 4 Kilometers

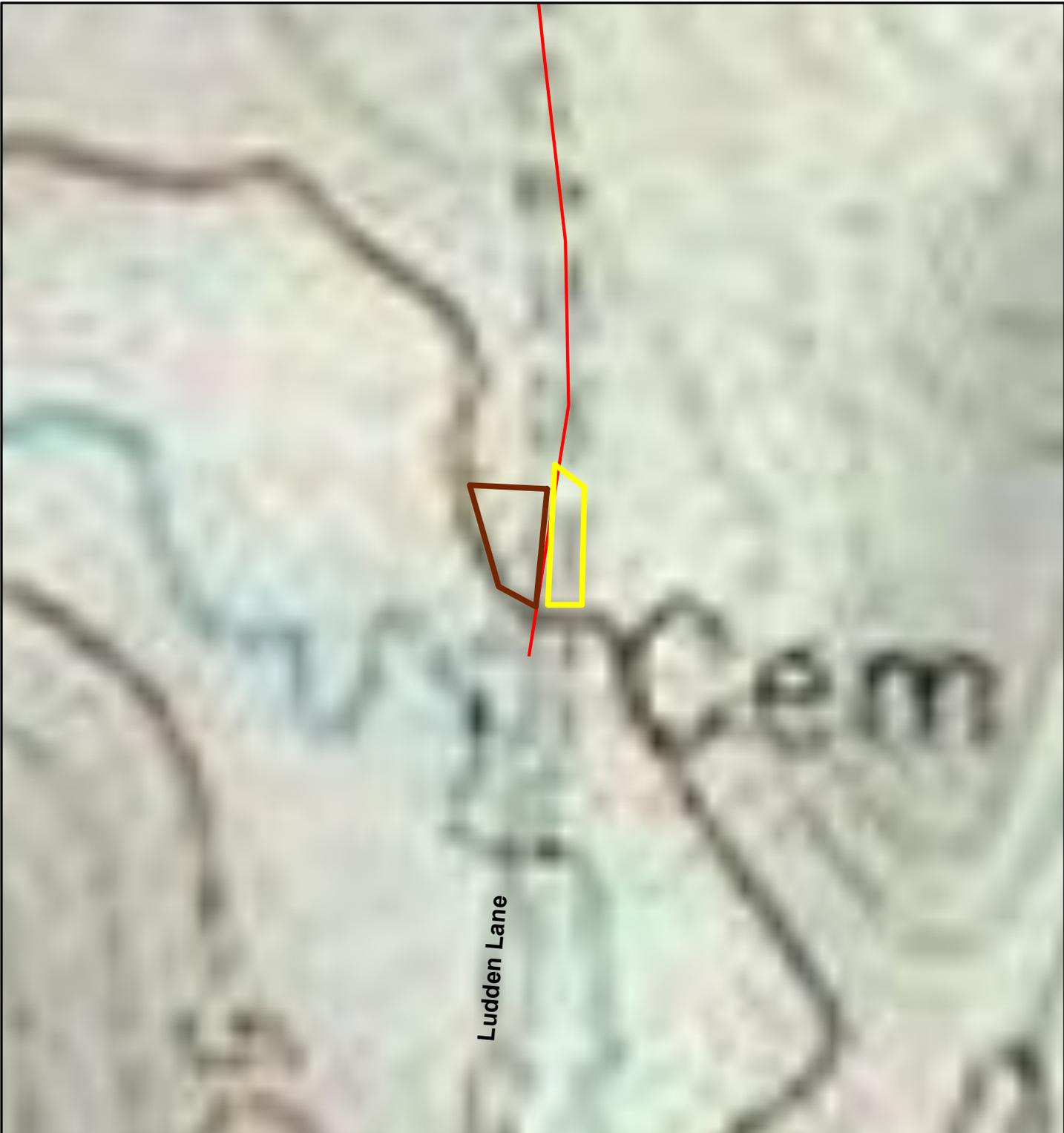
Figure 1. Location of the Canton Mt. Wind Project, Towns of Dixfield and Canton, Oxford County, Maine

Prepared For: PATRIOT RENEWABLES

Prepared By: TETRA TECH

Date: 09/11

Source: ESRI 2009 National Geographic Society, i-cubed, Project location data provided by Patriot Renewables, LLC, September 2010.

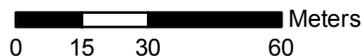
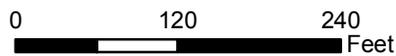


Project Location



Legend

-  Access Road
-  Dunn Cemetery
-  Survey Area



**Figure 2. Dunn Cemetery and the Eastern LOD Survey Area
Canton Wind Project,
Towns of Dixfield and Canton,
Oxford County, Maine**

Prepared For: Patriot Renewables, LLC

Prepared By:  **TETRA TECH**

Date:
07/12

Source: ESRI 2009 National Geographic Society, i-cubed, Project location data provided by Patriot Renewables, LLC, September 2010.



Figure 3. Cropped image of the 1858 map of Dixfield based on the wall map of Oxford County, Maine published by Gillette and Huntington. The Dunn Cemetery area is highlighted by the red circle.

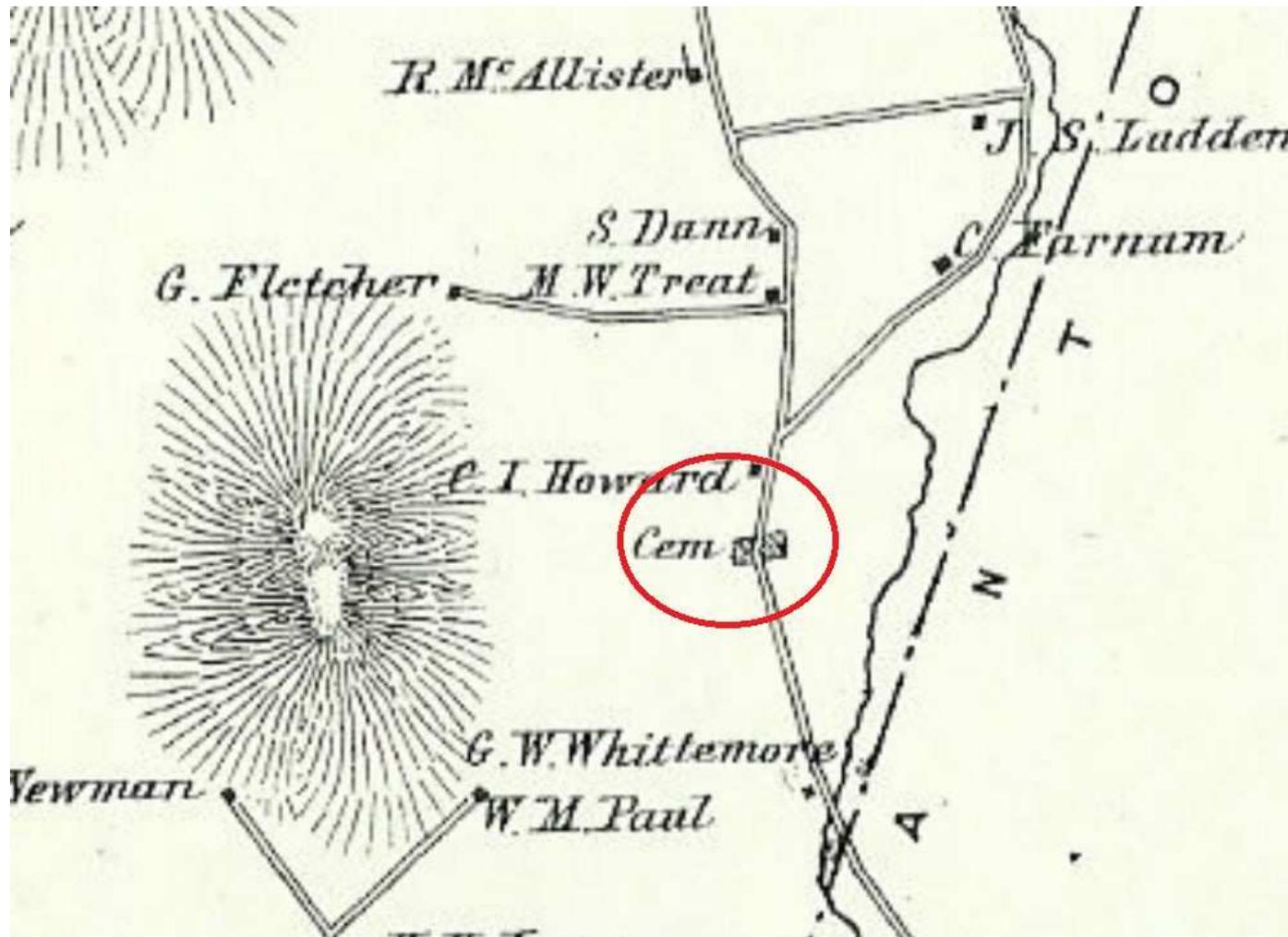


Figure 4. Cropped image of the 1880 map of Dixfield published in Caldwell & Halfpenny's atlas of Oxford County. The Dunn Cemetery area is highlighted by the red circle.