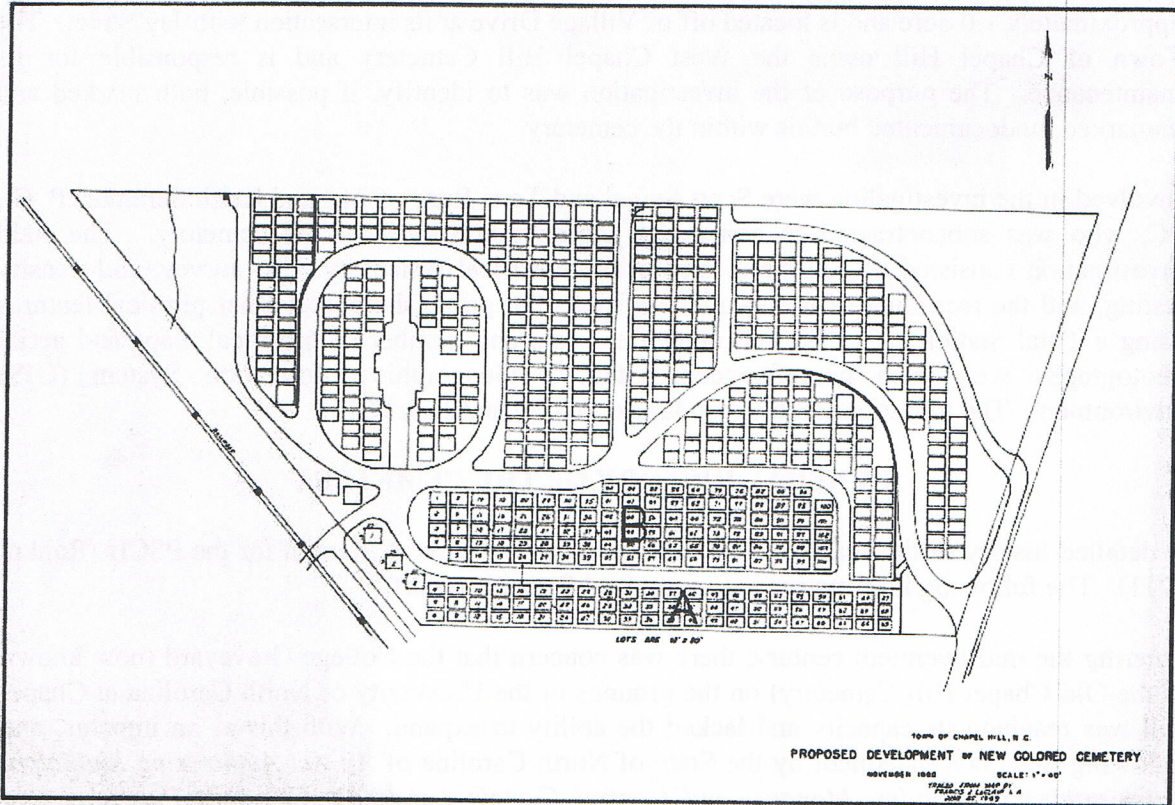


INVESTIGATION OF THE WEST CHAPEL HILL CEMETERY
CHAPEL HILL, ORANGE COUNTY, NORTH CAROLINA



By: Terri Russ, RPA

For: Preservation Society of Chapel Hill



Environmental Services, Inc.
524 South New Hope Road
Raleigh, NC 27713

ESI Project Number AR11-050.00

July 2011

INTRODUCTION

Environmental Services, Inc. (ESI) was contracted by the Preservation Society of Chapel Hill (PSCH) to conduct an investigation of the West Chapel Hill Cemetery (**Figure 1**), which covers approximately 1.0-acre and is located off of Village Drive at its intersection with Jay Street. The Town of Chapel Hill owns the West Chapel Hill Cemetery and is responsible for its maintenance. The purpose of the investigation was to identify, if possible, both marked and unmarked, undocumented burials within the cemetery.

Involved in the investigation were Scott Seibel and Terri Russ of ESI and Keith Seramur, P. G., PC, who was subcontracted to conduct a geophysical survey of the cemetery. The field investigation consisted of pedestrian inspection, electrical resistivity (ER) survey, soil density testing, and the recording of the locations of potential grave shafts and other physical features using a Total Station. The ER and other field data and number of historical maps and aerial photographs were also georeferenced within a Geographic Information System (GIS) environment. The investigation was conducted in May and June 2011.

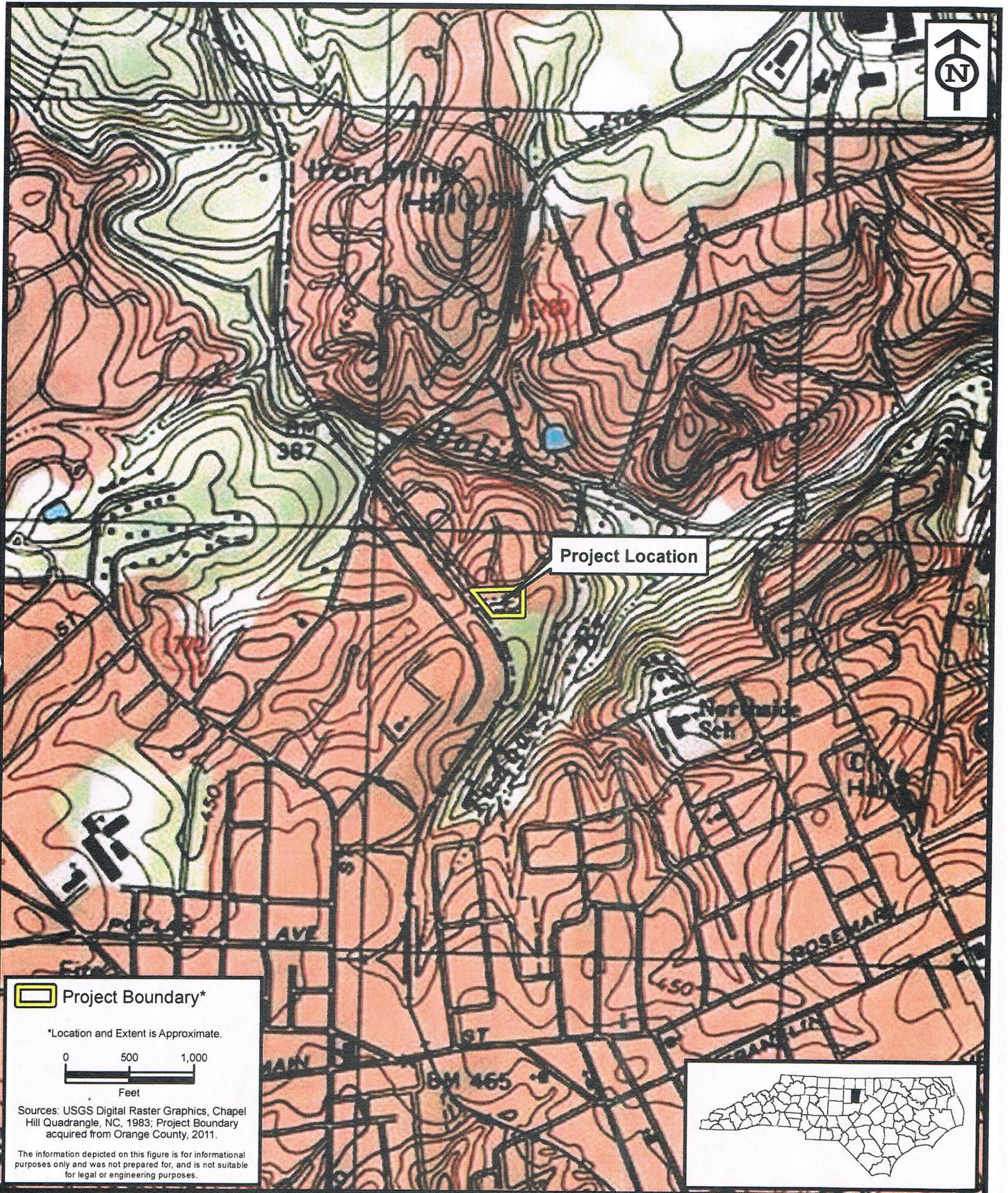
GENERAL HISTORY OF THE CEMETERY


A detailed history of the cemetery has been prepared by Steve J. Rankin for the PSCH (Rankin 2011). The following information is summarized from his report.

Entering the mid-twentieth century, there was concern that the College Graveyard (now known as the Old Chapel Hill Cemetery) on the grounds of the University of North Carolina at Chapel Hill was reaching its capacity and lacked the ability to expand. With this as an impetus, and following the 1947 enactment by the State of North Carolina of *An Act Authorizing Municipal Corporations to Acquire, Manage, and Control Certain Lands for Cemetery Purposes, and Authorizing Appropriations for Such Purposes* (North Carolina General Statutes Chapter 65 Article 8 [repealed]), the town created two new cemeteries. One, called the New Chapel Hill Cemetery (now known as the Chapel Hill Memorial Cemetery), was created along US 15-501 for the white community. The other, originally called the New Colored Cemetery, but now known as the West Chapel Hill Cemetery, was created to the north of town on land purchased from the Umstead Family for the African-American community. **Figure 2** shows the property as it looked in 1955.

As a 1960 version of a map originally created in 1949 shows, the cemetery was planned to contain 700 plots, each of which contained six sub-plots; thus the cemetery as planned could hold up to 4,200 burials (**Figure 3**). Two sections were originally opened up for the sale of plots: Section A with 173 numbered plots and Section B with 104 numbered plots. These two sections were located at the southern end of the cemetery and were bisected by a road that connected Sykes Street and Pleasant Drive.

Using a combination of sources including death certificates, a plan and a register of sold plots within the cemetery, and extant grave markers, Steve Rankin (2011) identified 52 known burials within the cemetery. The first burial in the West Chapel Hill Cemetery was that of James Cobb; he died on 29 October 1949 and was buried in the cemetery on 1 November 1949. In 1955, the



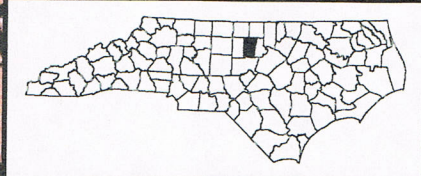
 **Project Boundary***

*Location and Extent is Approximate.

0 500 1,000
Feet

Sources: USGS Digital Raster Graphics, Chapel Hill Quadrangle, NC, 1983; Project Boundary acquired from Orange County, 2011.

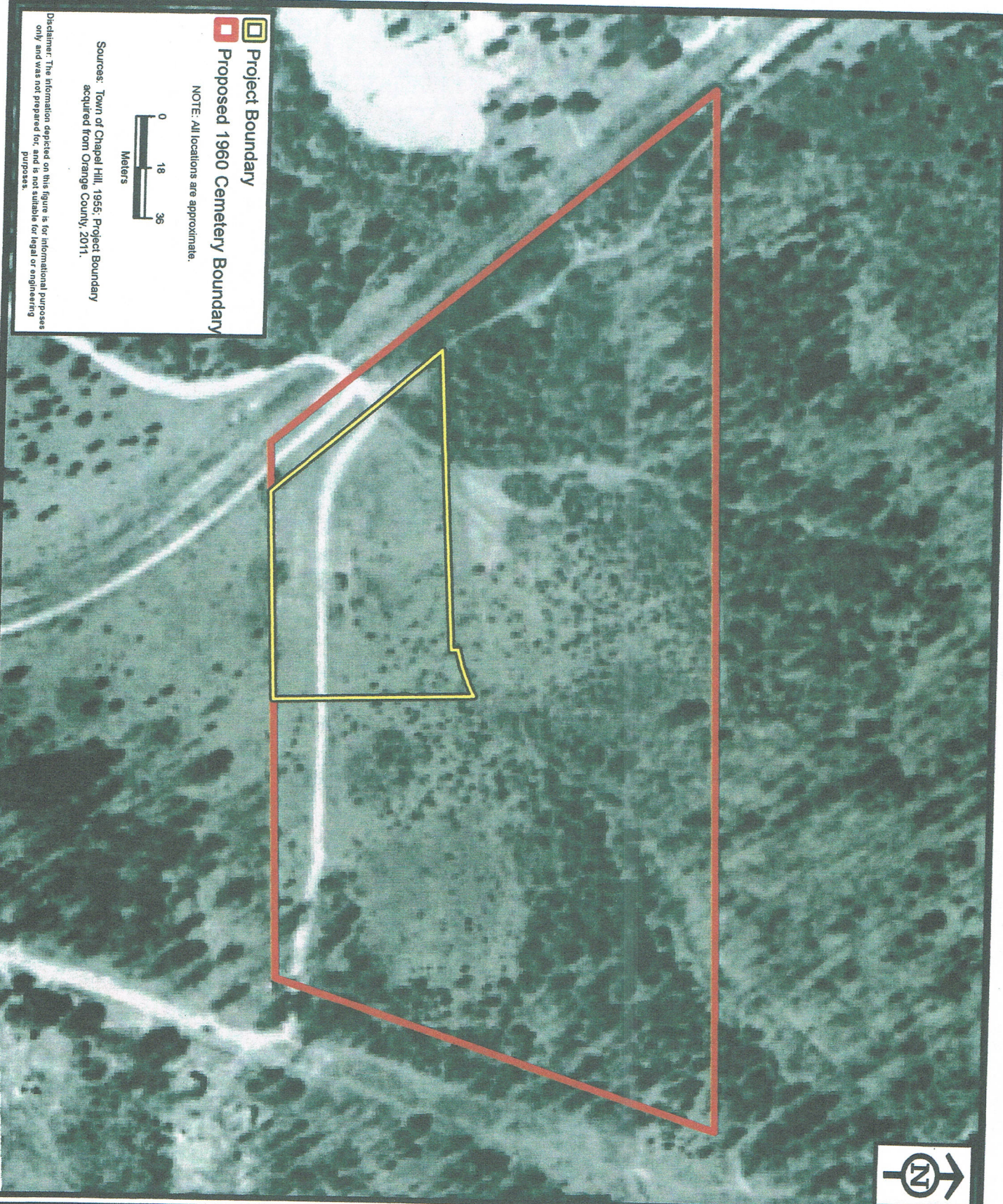
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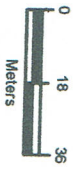
Project Location
West Chapel Hill Cemetery
Orange County, North Carolina

Project:	AR11050.00
Date:	May 2011
Drwn/Chkd:	CD/SS
Figure:	1



 **Project Boundary**
 **Proposed 1960 Cemetery Boundary**

NOTE: All locations are approximate.



Sources: Town of Chapel Hill, 1955; Project Boundary acquired from Orange County, 2011.

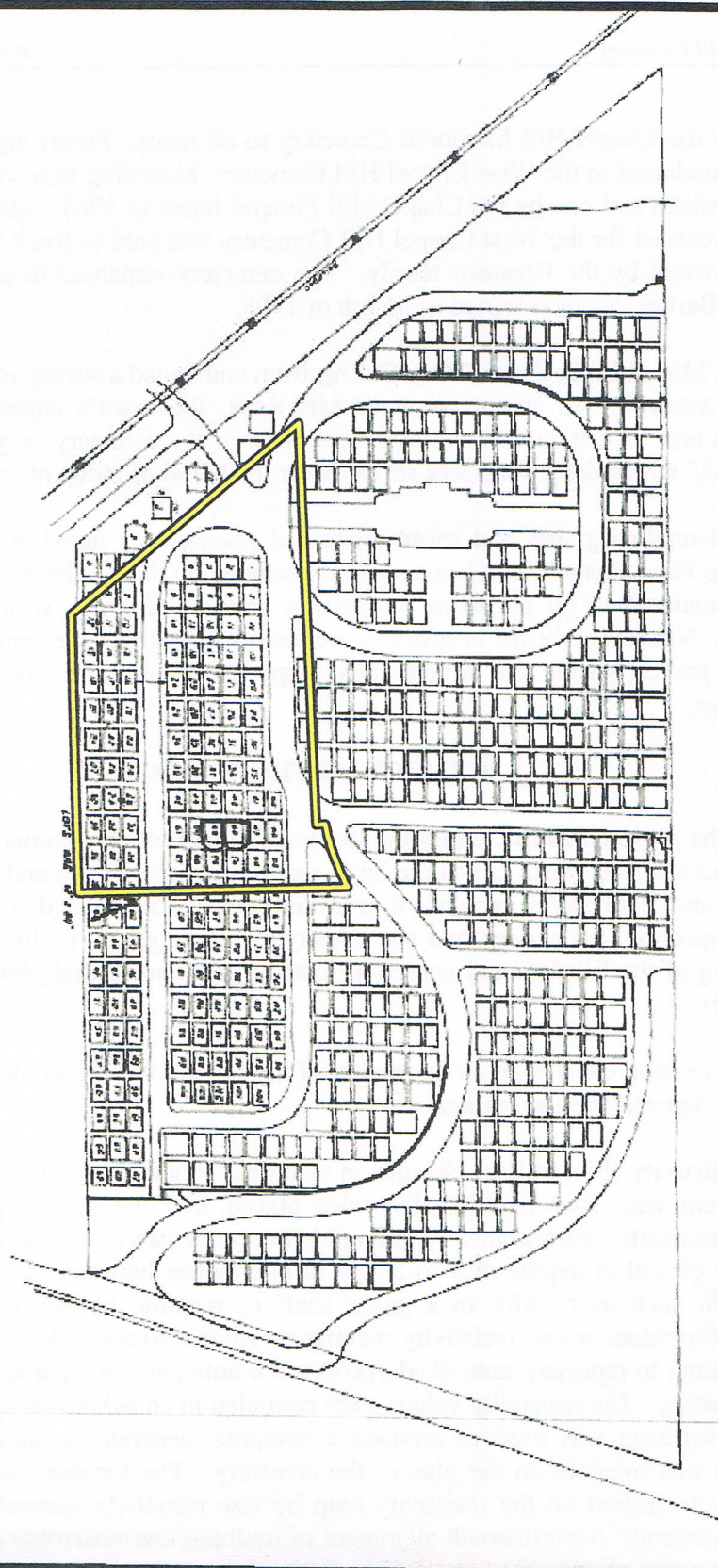
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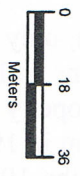
1955 Aerial Photograph
West Chapel Hill Cemetery
 Orange County, North Carolina

Project:	AR11050.00
Date:	June 2011
Drwn/Chkd:	CD/SS
Figure:	2



Project Boundary

NOTE: All locations are approximate.



Sources: Proposed Development of New Colored Property, Town of Chapel Hill, 1980; Project Boundary acquired from Orange County, 2011.

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PROPOSED DEVELOPMENT OF NEW COLORED CEMETERY

TOWN OF CHAPEL HILL, N. C.
APPROXIMATE 1980
PROJECT BOUNDARY ACQUIRED FROM
ORANGE COUNTY, N. C. 2011
SCALE: 1"=40'



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Proposed Cemetery Plan
West Chapel Hill Cemetery
Orange County, North Carolina

Project:	AR11050.00
Date:	June 2011
Drwn/Chkd:	CD/SS
Figure:	3

town opened the Chapel Hill Memorial Cemetery to all races. Following this action, only two plots were purchased in the West Chapel Hill Cemetery, according to town records: one in 1962 by Louise Jenkins and one by the Chapel Hill Funeral home in 1964. Most of the property that had been purchased for the West Chapel Hill Cemetery was sold to Rock Springs Farm in 1969, which was owned by the Umstead family. The cemetery remained in use through the 1990s, when Willis Barbee, Sr., was buried in March of 1998.

In the 1970s, Mrs. B.B. Doak and Mary C. Engstrom conducted a survey of the West Chapel Hill Cemetery. According to an interview of Mr. Rose, the town's engineer during that time, conducted as part of that survey, the eastern portion of the cemetery may have been used as a "potter's field," which denotes an area set aside for the burial of indigent or unknown people.

A total of 44 marked graves and seven unmarked graves were noted during the 1975 survey. Currently, the West Chapel Hill Cemetery is surrounded on three sides by a chain-link fence. It is regularly maintained by the town; vegetation consists of grass, shrubs, and trees, mostly loblolly pine. Numerous formal headstones are visible throughout the cemetery as are a number of unmarked graves, visible due to their sunken appearance and differences in the nature of the overlying grass.

PROJECT METHODOLOGY

The goal of the project was to identify the locations of marked and unmarked graves within the roughly 1.0-acre project area. Given the large size of the project area and the visibility of some grave shafts and field stone markers, it was determined that a field methodology involving pedestrian inspection, ER survey, and soil density testing (e.g. soil probing) combined with the georeferencing of the ER data and numerous historic maps and aerial photography would yield the best results.

Pedestrian inspection consists of an inspection of the ground surface to identify signs of burials, such as linear depressions and markers.

Electrical Resistivity (ER) utilizes changes in electrical conductivity to detect soil disturbances. The ER system uses four parallel electrodes placed into the soil perpendicular to survey transects. It transmits a current into the ground between the two outside electrodes and measures the resistivity of soil at depths of 3 to 5 feet in ohmmeters between the two inner electrodes. Disturbed soil, such as backfill in a grave shaft or metallic objects associated with coffin hardware, will produce a low resistivity reading or value. Areas of low resistivity values that have the potential to represent unmarked graves were noted and compared against the results of soil density testing. The resistivity values were compiled in an MS Excel spreadsheet, and ESRI Arc GIS™ software was used to produce a computer-generated contour map of resistivity values, which was overlain on the plan of the cemetery. The locations of potential unmarked graves can be identified on the resistivity map by low resistivity anomalies that line up in a north-south direction. A north-south alignment of multiple low-resistivity anomalies is a strong indication that a row of unmarked graves is present.

Soil density testing, or soil probing, employs a thin (~5/8-inch) metal or fiberglass rod on a handle. The rod is inserted into the ground to detect differences in the density of the soil. Typically, an area of disturbed soil is looser and less dense than surrounding undisturbed soil. Linear areas of less dense soil aligned roughly east-west encountered by the probing were marked at each end and numbered in the field as potential unmarked graves. Probing was conducted at 1-foot intervals across portions of the project area identified as having the greatest potential to contain unmarked graves.

The locations of potential burials and other physical features such as stone grave markers and metal markers denoting the locations of burial plots as well as the ER survey grid were recorded using a Total Station. It should be noted that the data collected is not survey-grade and is not intended as a substitute for a survey by a licensed Professional Land Surveyor; it is for planning purposes only.

FINDINGS

During the field investigations, it was determined that approximately 60 percent of Sections A and B as shown on the 1960 map of the cemetery are not located within the fenced and maintained section of the cemetery. Rather, the eastern portion of Section A is located underneath the east-west running section of Jay Street, while the eastern portion of Section B is located underneath a series of townhomes and landscaped areas, which are part of the Village West townhome development, started in the 1970s. The road that divided Sections A and B is visible between Jay Street and the townhomes.

As discussed above, the town engineer in the 1970s stated that the eastern portion of the cemetery may have been used as a potter's field. The current investigation did not extend into this area, part of which is paved and part of which is privately owned. While it is not known if there were any burials located within the eastern portions of Sections A and B, the possibility that there were burials in this area should be acknowledged.

Figure 4 depicts the combined results of the investigation. The locations of all marked graves and unmarked graves detected during the pedestrian and soil resistivity investigations were recorded with a Total Station. The investigation suggests numerous unmarked graves (depicted as red ovals [ER data] and black ovals [soil density data]). Grave markers are depicted as red circles (headstones) or blue circles (footstones).

Two issues were noted during the ER survey. First was the presence of shallow bedrock, which resulted in anomalies. This was noted in the northwestern corner of the surveyed area. In addition, there also appeared to be a linear anomaly running north-south across the center of the cemetery (see green boundary on **Figure 4**). This was interpreted as either a fracture in the underlying bedrock or possibly a buried utility. The second issue was encountered in the western and southwestern portions of the surveyed area, which contained soil with generally low resistivity, so detecting anomalies suggestive of unmarked graves was difficult.

The marked graves of 37 individuals were recorded during the current investigation. In addition, several uninscribed stones were also recorded. Soil density testing and pedestrian inspection

revealed an additional 66 unmarked graves. Most were clearly indicated by linear depressions oriented east-west. ER data suggested the potential for as many as 96 additional unmarked graves. In total, as many as 199 graves likely exist within the maintained portion of the West Chapel Hill Cemetery.

CONCLUSIONS AND RECOMMENDATIONS

The results of the investigation of the West Chapel Hill Cemetery resulted in the identification of as many as 162 potential unmarked graves and 37 marked graves. Although they are termed potential, most of these, especially the ones in the linear rows in the central and eastern portion of the project area, are almost certainly burials.

In order to investigate the possibility of unmarked or undocumented burials associated with the cemetery being located outside of the current boundary of the West Chapel Hill Cemetery, two avenues of further investigation are recommended: informant interview and Ground Penetrating Radar (GPR) survey. Interviews of members of the community that have knowledge of the cemetery during the period from 1949 to 1969 should be interviewed to determine what knowledge there is concerning the use of the eastern portion of Sections A and B as a potter's field. Additionally, a GPR survey should be conducted of that portion of Jay Street that corresponds to Section A. GPR data would be able to determine if there are subsurface anomalies consistent with burial shafts underneath the pavement. Due to the presence of foundations, vegetation, and other existing features, a geophysical survey of the area of Section B within the Village West townhome community would be unlikely to reveal any useful data regarding the potential for unrecorded burials within the eastern portion of Section B.

REFERENCES CITED

Freeman, Charles

1944 *Chapel Hill & Carrboro, NC, Negro Community*. Map Book 6, Page 58. On file, Orange County Register of Deeds, Hillsborough, North Carolina.

North Carolina State Archives

1955 *Aerial Photography*. On file, North Carolina State Archives, Raleigh.

Rankin, Steve J.

2011 *A Segregated Part of Heaven: The History of the West Chapel Hill Cemetery*. On file, Preservation Society of Chapel Hill, North Carolina.

Town of Chapel Hill

1960 *Proposed Development of New Colored Cemetery*. On file, Town of Chapel Hill, North Carolina.



Project Boundary

Grave

Drained Area

Fence

Old Road

Headstone

Footstone

Datum

NOTE: All locations are approximate.

0 3.5 7
Meters

Site: Cemetery features approximated by ESRI Project Boundary from Orange County, 2011.

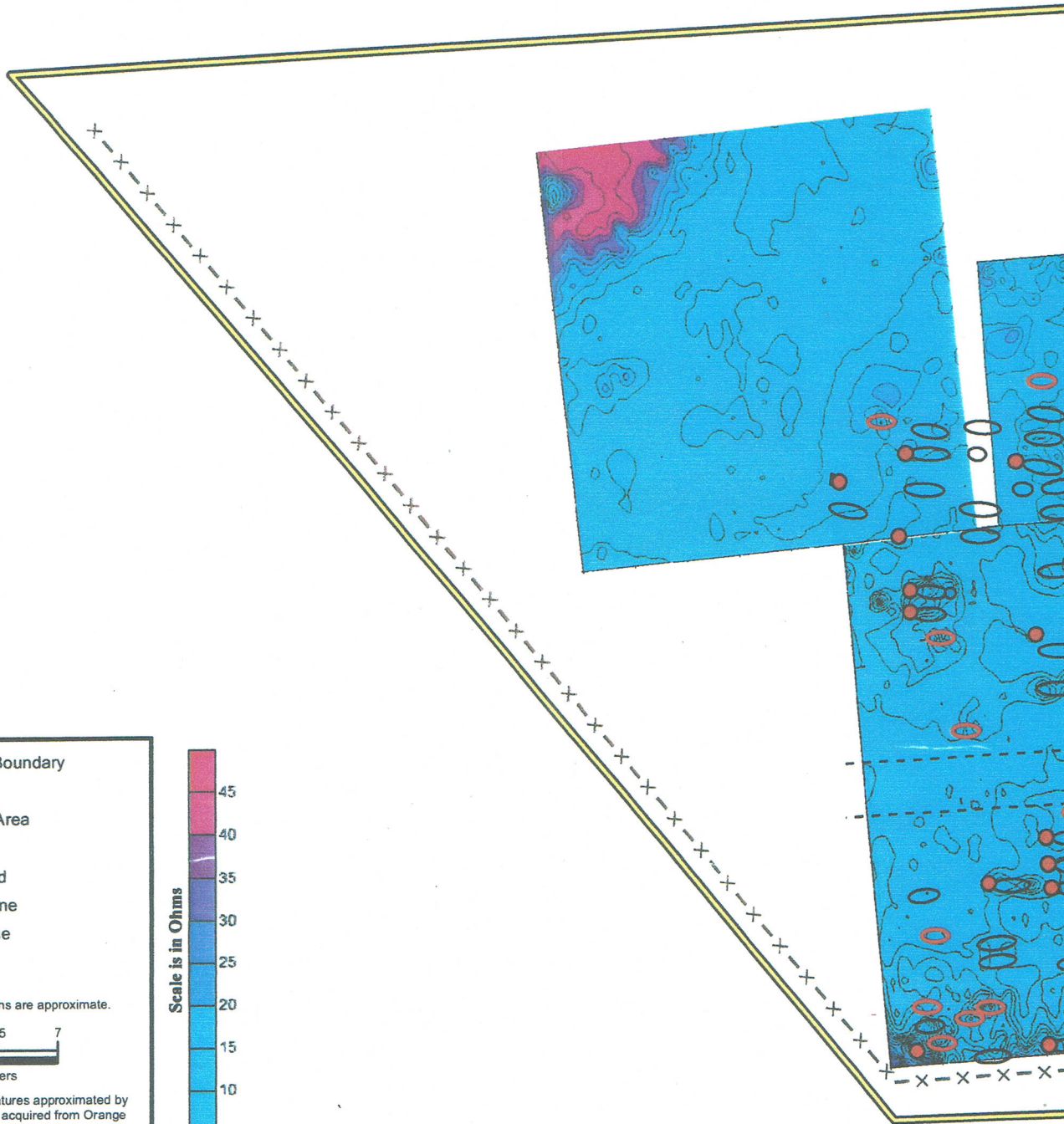
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 Figure: X

Total Station Cemetery Plan
West Chapel Hill Cemetery
 Orange County, North Carolina

Village Drive



Legend

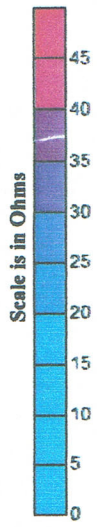
- Project Boundary
- Grave
- Drained Area
- Fence
- Old Road
- Headstone
- Footstone
- Datum

NOTE: All locations are approximate.

0 3.5 7
Meters

Sources: Cemetery features approximated by ESI; Project Boundary acquired from Orange County, 2011.

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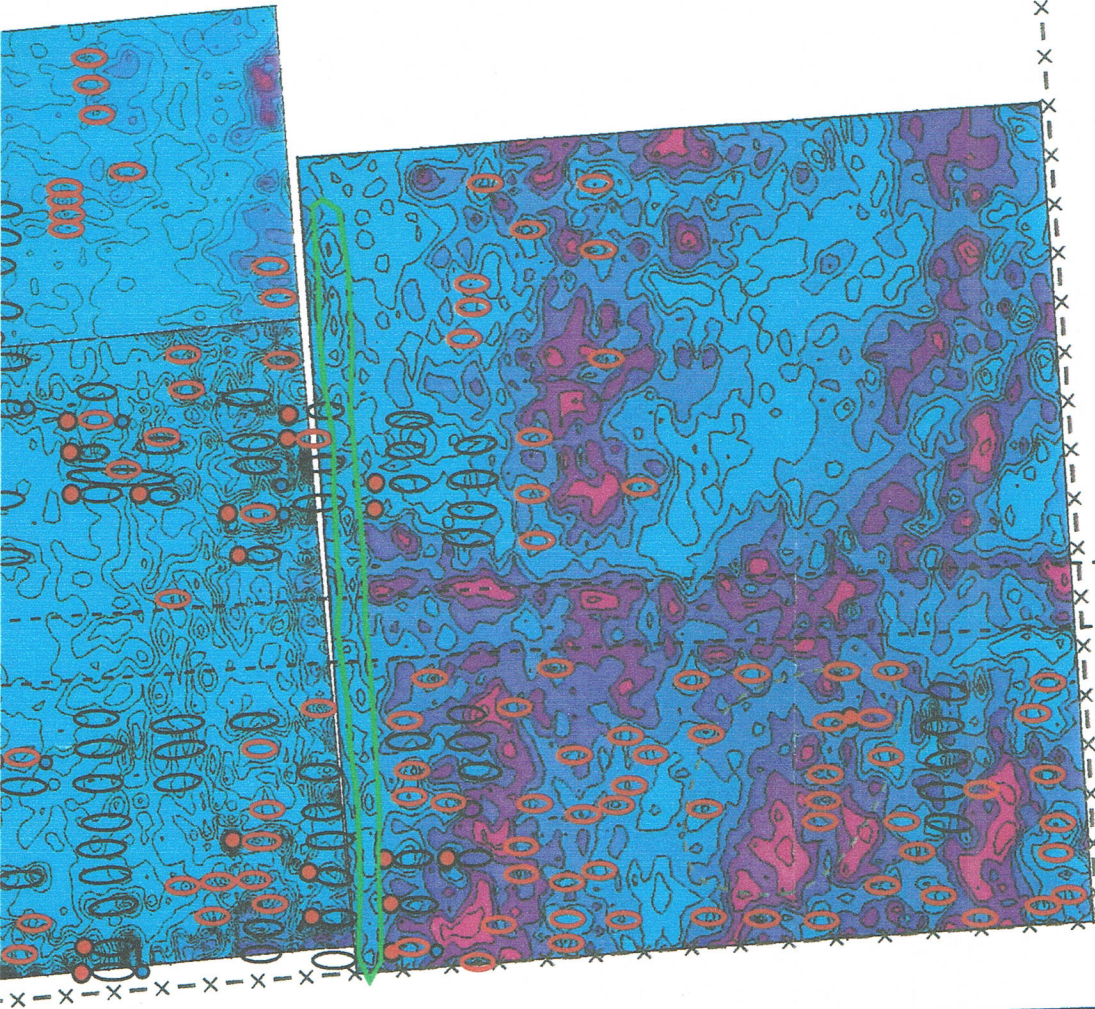


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Total
West Ch
Orange



Jay Street



on Cemetery Plan
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Figure:	4