Chapter 9
King Street, North of Block 8

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The platted streets and alleys of New Philadelphia were first explored archaeologically in 2008. As designed, the town had five east-west and five north-south streets, as well as nine marked alleys that quartered the large blocks and halved the smaller ones on the western edge of town (Figure 9.1). However, it is clear that not all of the streets and alleys persisted an equally long time. A 1926 topographic map of Illinois shows a view of the New Philadelphia town site which suggests that even a major street like King Street no longer served as a thoroughfare by that time (Figure 9.2). Nevertheless, a 1939 high-altitude aerial photograph shows what appears to be a secondary gravel roadway in the location of the former King Street (Figure 9.3). Archaeologists discovered during the 2008 field season that the repeated use of this portion of the town site as a road is reflected in the archaeological record.

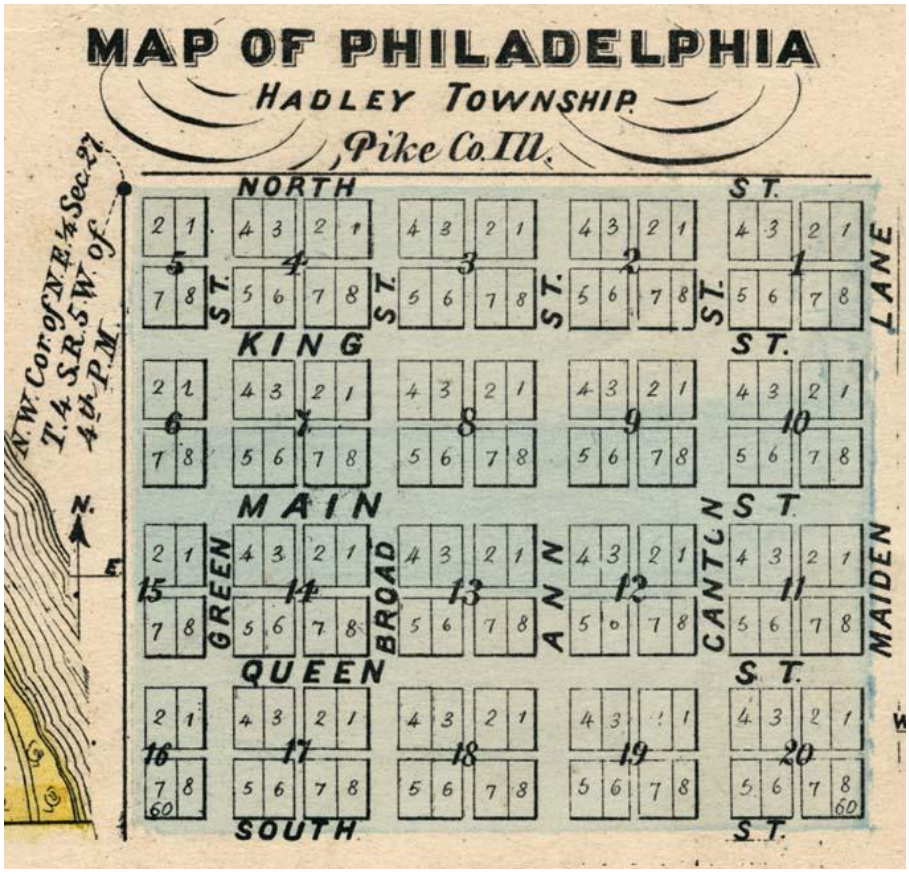

Figure 9.1. *Excerpt from Atlas Map of Pike County, showing platted streets and alleys of New Philadelphia (Ensign 1872).*

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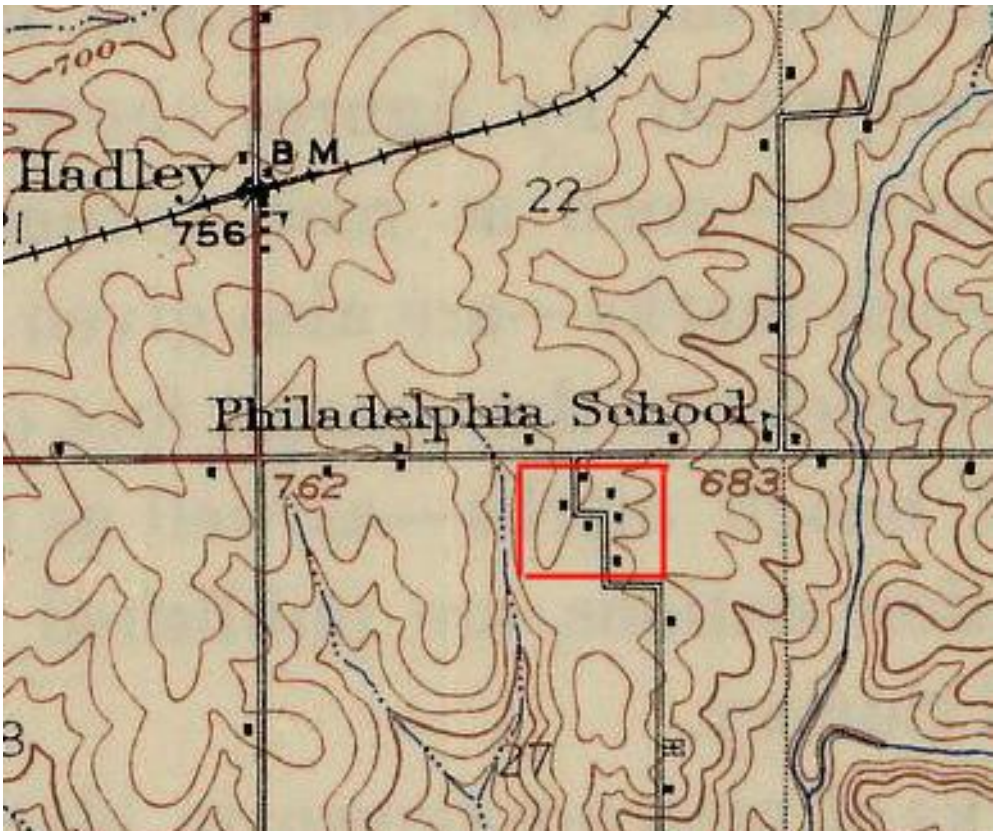

Figure 9.2. *Excerpt of 1926 Topographic Map, Pittsfield region, showing area of New Philadelphia town site with gravel roads traversing platted space of portions of Broad Way, Main Street, Ann Street, and South Street, but not King Street (U.S. Geological Survey; University of Illinois Historical Map Collections).*

Comparative Survey Findings

A walk-over survey conducted in 2002 and 2003 identified a major concentration of surface finds with its center at the intersection of Broad Way and King Street (Gwaltney 2004) (Figure 9.4). In 2004 and 2005, geophysical surveys over the same area identified several interesting anomalies in the center of what was formerly King Street (Figure 9.5). Resistance anomalies A8 and A9 were interpreted as possible tracks of the old road or potholes filled with gravel or looser soil. Anomaly A36, also identified using electrical resistivity, was thought to be either a discrete feature, or a localized component of an overall high resistance feature running east-west along King Street (Figure 9.5). Anomalies A8 and A9 were of particular interest, as they corresponded with magnetic anomalies as well. The combination of resistance and magnetic anomalies had successfully identified features at New Philadelphia in years past; therefore the area was selected for further testing.

Interestingly, a low-altitude aerial survey conducted in May, 2008, using a high-resolution thermal infra-red (TIR) camera did not detect any significant anomalies corresponding with this

area of King Street (see Chapter 6, "Block 8, Lots 1-2,"of this report). This area was selected for testing through soil core sampling and excavation in 2008 to investigate the sources of these

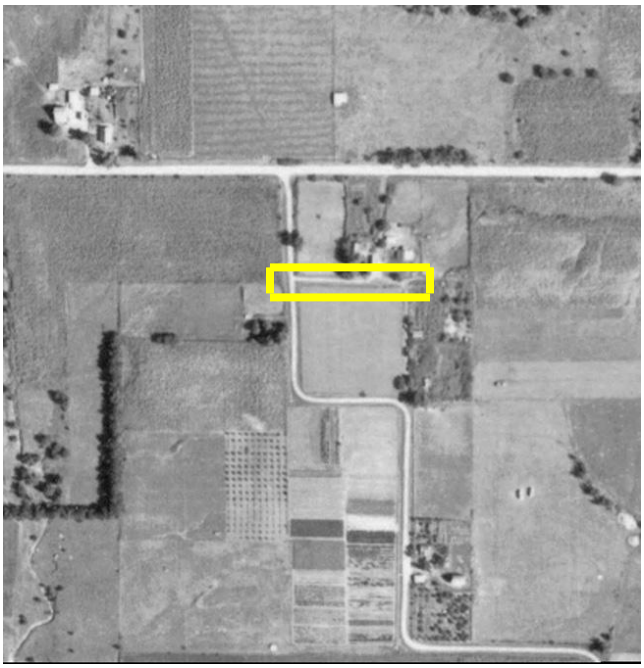

Figure 9.3. *1939 aerial photograph of New Philadelphia town site, showing gravel roads traversing platted space of portions of Broad Way, Main Street, Ann Street, South Street, and King Street (with the latter outlined by a rectangle) (Photograph from U.S.D.A. Aerial Photographs Collection; overlay by Christopher Fennell).*

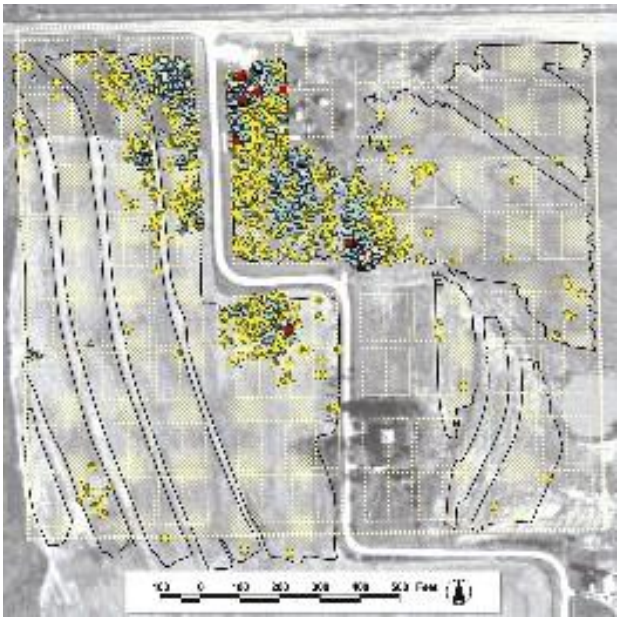

Figure 9.4. *Distribution of historic-period domestic artifacts in 2002-2003 walk-over survey (Image from Gwaltney 2004).*

ground-based geophysical anomalies and potential reasons for the absence of corresponding anomalies in the aerial TIR survey.

The location of anomalies A8 and A9 was covered with a single transect of 21 core samples (labeled Transect T6). A single transect of nine core samples (labeled Transect T2) was laid out through the area of anomaly A36. All soil cores samples were obtained using a one-inch diameter soil core probe (Figure 9.6).

Transect T6 consisted of a single line of core samples one ft. apart running east from T6-1 (30 ft. north of the northeast corner of Block 8, Lot 3). This transect picked up one ft. east of the east end of Transect T2, which is discussed in greater detail below. It was placed to ground-truth anomalies A8 and A9 (Figures 9.5 and 9.6). Below the sod, the core samples revealed 7.5YR 3/1 (dark gray) to 10YR 4/2-3/3 (dark grayish brown-dark brown) loam that reached a depth of about 1.2 ft. below the surface in cores T6-1 through T6-4. Below that the soil is a 10YR 5/4 silty clay. In the remaining samples, occlusions were encountered at 0.7-0.9 ft. below the ground surface. In many cases, fragments of jasper and chert were observed in the soil column or at the end of the probe. These fragments were interpreted as coming from a deliberately deposited gravel surface, and were consistent with the sample of pebbles collected from Feature 30 in Excavation Unit 1, discussed below. Minute artifact fragments (brick, charcoal, and rust flecks) were identified in samples T6-16 through T6-19 and T6-21. No further excavation was undertaken in this area.

Transect T2-1 through T2-9 ran east-west covering an extent of 110 feet. The series began 150 ft. north and 10 ft. east of the southwest corner of Block 8, Lot 4. The western end was placed to ground-truth anomaly A36.

In the core samples, the transition from 7.5YR 2.5/2 clay and silt loams to more clayey 7.5YR 6/6-5/8 soils occurred at approximately 1.4 ft. below the ground surface. Sample T2-2 reached 1.9 ft. below the surface at which depth sandier clay, also 7.5YR 6/6 was discovered. Exceptions to the norm were found in T2-3 and T2-9 in which rock or some other obstruction was encountered at 0.6 and 0.4 ft. below the surface. In the case of T2-6, sediments of 7.5YR 3/2 with pebble inclusions were encountered at a depth of 1.7 ft., deeper than any of the other probes. The pattern suggests features, likely part of a buried roadbed, at core sample points T2-3, T2-6 and T2-9.

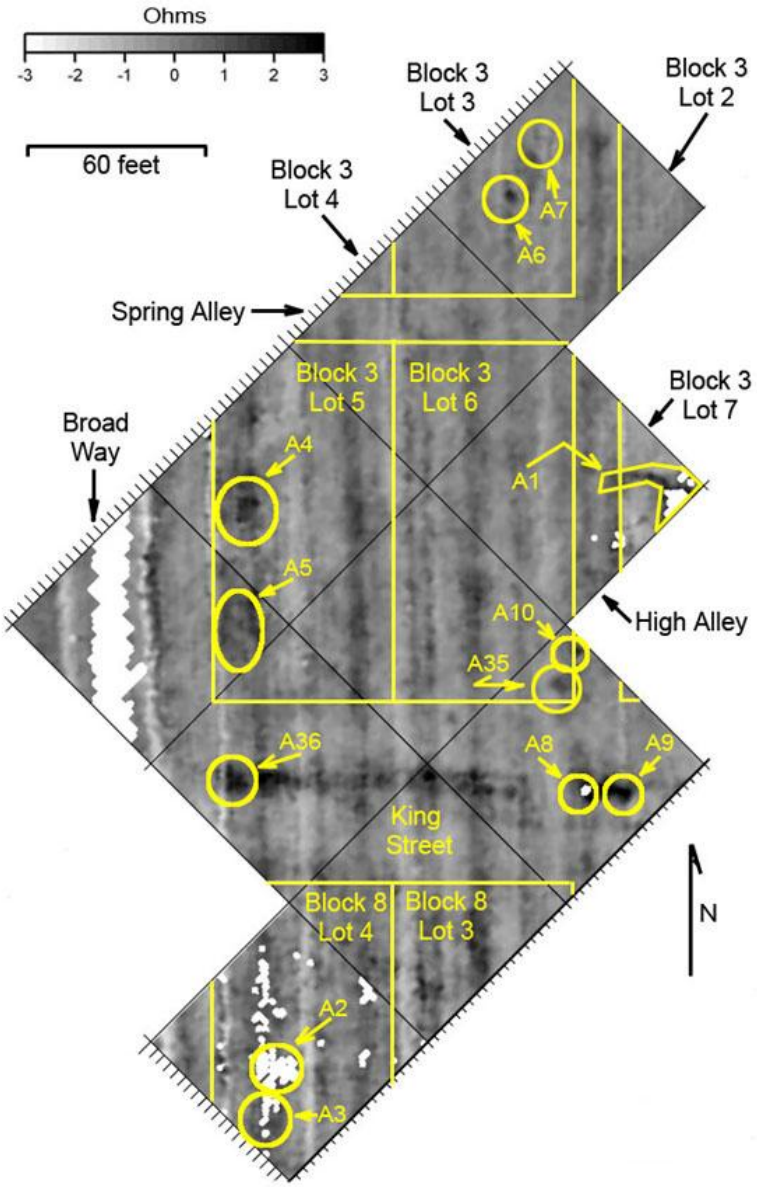

Figure 9.5. *Electric resistivity survey map showing alignment of anomalies A8, A9, and A36 along platted space of King Street north of Block 8 (Geophysical data map by Michael Hargrave; overlay by Christopher Fennell).*

Figure 9.6. *Plastic pin flags mark the locations of soil core probe sample points along transect T6 over anomalies A8 and A9 in the platted space of King Street (Photograph by Doug Carr, Illinois State Museum).*

Excavation Results

King Street Excavation Unit 1 was placed with its northeast corner 10 ft. north of T2-1 (Figures 9.7 and 9.8). Its purpose was to further explore the phenomenon indicated by anomaly A36 and probed using soil core samples along transect T2. It was the only unit excavated in King Street during the 2008 season. Within this unit, excavators uncovered Features 30, 32 and 32b (Figure 9.9). All of these features extend further than the perimeter of the unit, and were interpreted as remnants of historic roads. Therefore the archaeologists decided not to expand the excavation area further in an attempt to delineate their total extent. The plow zone was removed in two arbitrary levels of 0.5 ft. (A1) and 0.3 ft. (A2), level A2 being truncated by the appearance of a soil color change at the top of Level B1/Feature 30.

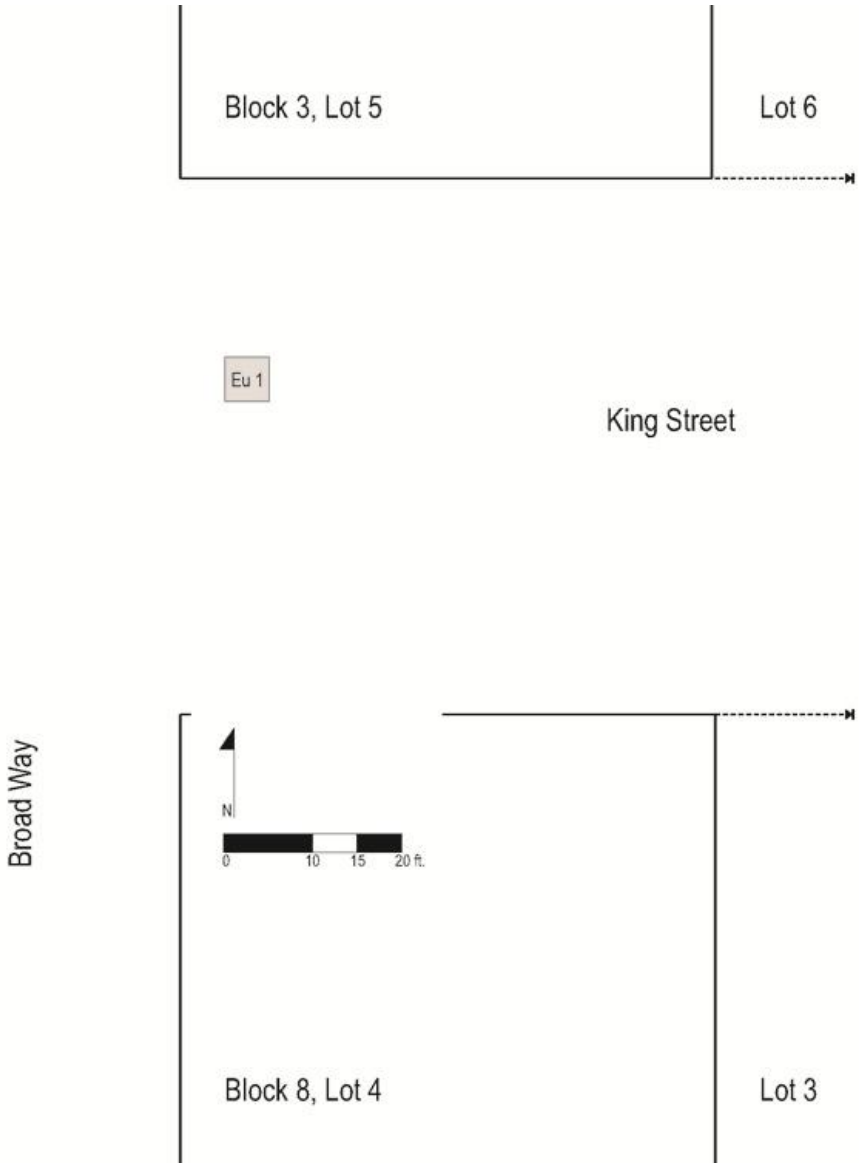

Figure 9.7. *Map of platted space of King Street near intersection with Broad Way and location of Excavation Unit 1 in King Street (Image by Anna Agbe-Davies).*

Feature 30. Feature 30 covered the 5 ft. x 5 ft. extent of Excavation Unit 1. It consisted of a 0.51 ft. thick layer of 7.5 YR 4/4 and 4/3 (brown) silty loam with extensive gravel and pebble inclusions (Figure 9.9). The stones were slightly less prevalent in the southeast corner of the unit.

A representative sample of these pebbles and gravel fragments was collected from level B1, Feature 30. Christopher Wigda, Assistant Curator of Geology at the Illinois State Museum, examined this sample and identified the elements as including:

- naturally occurring pebbles of chert and jasper that were well-rounded and worn by movement in waterways, such as a river or stream, with sample specimens measuring approximately 0.125 x 0.104 x 0.104 ft., 0.073 x 0.040 x 0.073 ft., and 0.125 x 0.089 x 0.104 ft.;
- naturally occurring fragments of sandstone, with a sample specimen measuring approximately 0.188 x 0.146 x 0.073 ft.;
- chert fragments with angular and irregular fractured surfaces likely caused by the material having been quarried or fragmented by cultural activity, with sample specimens measuring approximately 0.156 x 0.083 x 0.063 ft. and 0.146 x 0.104 x 0.052 ft.; and
- limestone fragments, also with angular and irregular fractured surfaces likely caused by the material having been quarried or fragmented by cultural activity, with sample specimens measuring approximately 0.170 x. 0.140 x 0.073 ft. (Wigda, pers. comm. 2008).

Other artifacts recovered from Feature 30 included ceramic, glass, iron, and plastic fragments dating from the late 1800s through the early 1900s.

Figure 9.8. *Anna Agbe-Davies excavates Unit 1 in the space of King Street (Photograph by Doug Carr, Illinois State Museum).*

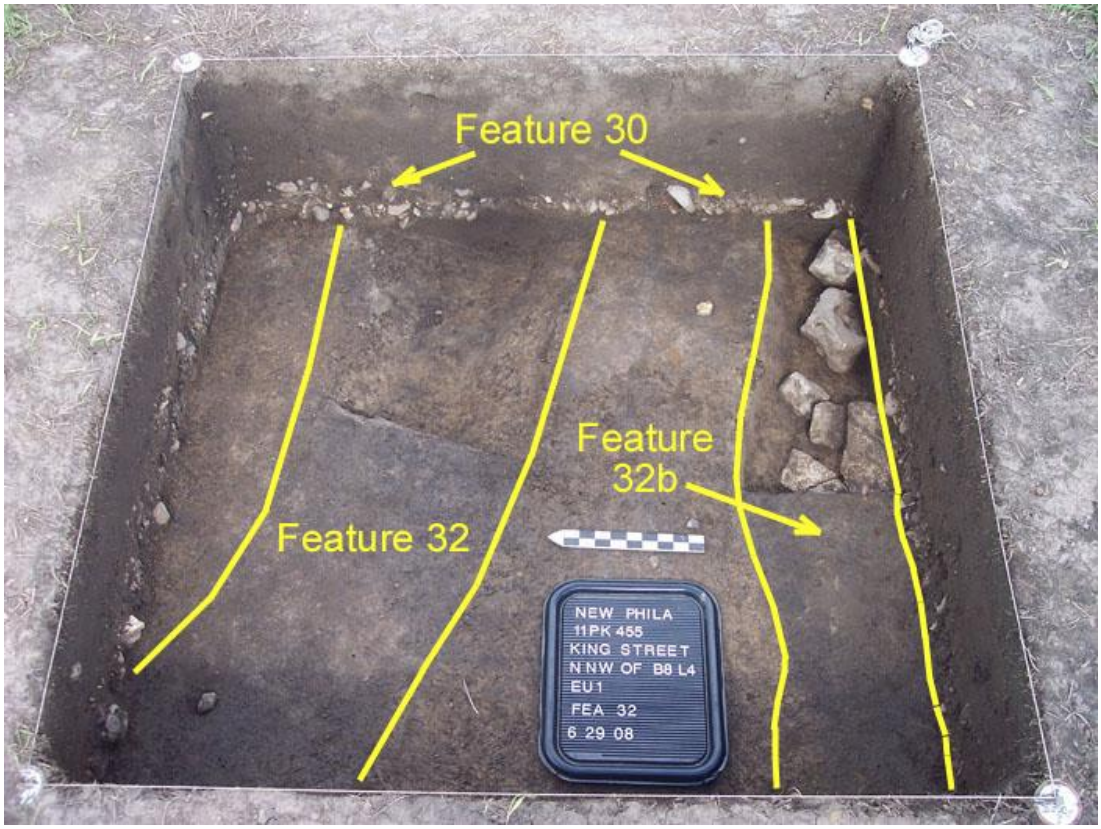

Figure 9.9. *Excavation Unit 1 in King Street, with profile and plan views of features outlined (Photograph by Anna Agbe-Davies; overlay by Christopher Fennell).*

This lens of buried gravel and pebbles appears to lie approximately 1.2 ft. below the ground surface and further extends approximately 0.50 ft. in depth throughout the extent of this linear series of anomalies running along this extent of the platted space of King street. This configuration was detected quite clearly in ground-based, electric resistivity surveys of the area (Figure 9.5). Yet, it was not detected by a low-altitude aerial survey conducted in May, 2008, that utilized high resolution thermal infra-red (TIR) imaging (see Chapter 6, "Block 8, Lots 1-2"of this report). It appears that such low-altitude TIR surveys can serve well to detect concentrated foundation remains, but cannot detect a more subtle feature like this buried roadbed consisting of gravel and pebbles.

Archaeologists have tentatively identified Feature 30 as a portion of the historic roadway that was still visible in the 1939 aerial photograph, which extended from Broad Way along King Street to the corner with Ann Street, where it terminated at a cluster of twentieth-century buildings, a distance of approximately 255 ft. (Figure 9.3). We interpret this linear, buried lens of gravel and small pebbles as the source of anomalies A36, A8, and A9.

Under Feature 30, excavators encountered a thin (0.1 ft.) layer of 7.5YR 4/4 and 4/3 (brown) silty clay loam. Level B2 is distinguished from the overlying Feature 30 primarily by the lack of pebble and gravel inclusions. Immediately under B2, archaeologists discovered two additional

features, initially identified as possible plow scars or wheel ruts (Figure 9.9). The visible portions of both Feature 32 and 32b were cross-sectioned in order to see the basin in profile and obtain information about their formation, while leaving a portion of each still intact (Figure 9.9).

Feature 32. Feature 32 is 2.4 ft. at its maximum extent (N-S) and spans the full 5 ft. (E-W) extent of the excavation unit. It is not possible to determine the feature's fullest extent without excavation of additional units. Feature 32 is a 10YR 3/2 (very dark grayish brown) sandy loam interleaved in extremely thin lenses with 7.5YR 5/6 (strong brown) clay. The entire feature contains flecks of mortar, brick and charcoal. The strong brown clay closely resembles the subsoil into which the feature cuts. One possible interpretation is that the lenses within Feature 32 were formed by multiple episodes of water erosion and soil weathering.

Upon excavating Feature 32, archaeologists uncovered a rounded V-shaped basin (Figure 9.9). The depth is 0.37 ft. at the eastern edge of the excavation unit, but only 0.28 ft. at the section line. Its width at the section line is 1.6 ft, flaring and curving slightly to the west (the area which was left intact).

Feature 32 is interpreted as a possible wheel rut subsequently filled in by eroding sediments, or deliberately filled in by human agents. The feature extends from the northwest corner of the unit east-southeasterly a distance of 5.2 ft. This shape corresponds nicely with the arc of a wheel turning north from historic King Street onto Broad Way. Artifacts in Feature 32 included a few fragments of refined, late nineteenth-century ceramics and a flattened fragment of lead, along with nails and nail fragments, dating to the mid- and late-1800s. Features 32 and 32b very likely represent the remains of a roadbed along the space of King Street that predated the gravel-lined roadbed of which the overlying Feature 30 was a sample.

Feature 32b. Feature 32b is less clearly exposed by the excavation of Unit 1. It extends east-west across the southern edge of the unit (Figure 9.9). The maximum visible dimensions are 5 ft. (E-W) x 1.3 ft. (N-S). Feature 32b appears to be an east-west linear feature not unlike Feature 32, but after additional cleaning may have developed a curve to the south in the southwest corner of the unit, indicating that excavators had uncovered the northern sliver of a circular feature extending further to the south. The fill in Feature 32b is composed of 7.5 YR 3/1 (very dark gray) sandy clay loam with charcoal and brick flecks. A number of large cobbles are included in the fill (0.5-0.7 ft.). Some of these stones are visible from the surface of the feature, and most extend to the bottom of its basin.

After being cross-sectioned, the feature appeared to have a shallow U-shaped basin (Figure 9.9). The maximum depth is 0.4 ft. at the section line and approximately 0.2 ft. (obscured by a cobble) at the eastern edge of the unit. Artifacts consisted almost entirely of slag, a sample of which the archaeologists retained.

Given Feature 32b's proximity to Feature 32, and the strikingly different artifact content, it could be a wheel rut filled in at a different time (perhaps at an earlier time, when blacksmithing debris was still available for road maintenance). Additional cleaning also revealed a possible revision of the feature's shape, curving inward to the south wall of the unit.

Based on the success of this application of multiple survey methods, we hope to employ similar techniques to explore the extent of the constructed road and alley infrastructure of the town site in future field seasons. Town plats like the one created by Frank McWorter in 1836 often depict an idealized vision of a specific community landscape that often results in only partial realization of the planned network of planned streets, alleys, and developed lots.

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Return to 2013 Archaeology Report Menu