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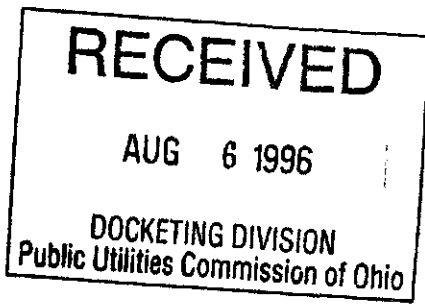
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Cinergy Corp.
139 East Fourth Street
P.O. Box 960
Cincinnati, OH 45201-0960

Environmental Services Department
139 East Fourth Street
Room 552-A
Cincinnati, Ohio 45202

August 5, 1996

Ms. Kim Wissman
Ohio Power Siting Board
180 East Broad street
Columbus, Ohio 43266-0573



10001

CINERGY.

Dear Ms. Wissman: 96-766-E1-BLN

RE: Feeder Line SS Loop Letter of Notification

Enclosed please find an original and ten copies of a Letter of Notification for the subject project. I realize that your office is often asked to expedite review of similar projects for various reasons. In this particular case, we ~~know~~ that we will cross an archaeologically sensitive area as detailed on pages 6 and 7 of the LON, and have already talked to the OHPO's office about it. I have also sent a copy of the archaeologist's report to the OHPO for review and comments on additional work to mitigate any impacts that may occur. Further, I have asked Gray & Pape, our consultants for cultural resources, to begin work on a research proposal for that work. A copy of the reconnaissance report is enclosed for your staff's reference.

Because more than 80 percent of the right-of-way for this project is not within sensitive areas and we are prepared to provide mitigation for portions that are within it, (i.e., Phase II or Phase III investigations if necessary), we would like to begin construction of the portions of the project in the Village of Newtown (where the line will be buried under pavement) and other portions without cultural sensitivity upon approval from the OPSB staff. We will be working with the OHPO's office and Gray & Pape on additional investigations while construction proceeds in non-sensitive portions of the line. We propose to work out an agreement with the OHPO's office that will specify the extent of additional work and would not start on any construction until that is approved.

Thank you for your consideration of this request while reviewing the LON. Please call me at (513) 287-3885 if you or your staff have any questions about this project.

Sincerely,

Robert McElfresh
Robert McElfresh

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Technician S. Watson Date Processed 8-7-96

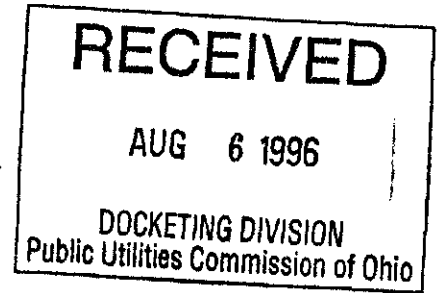
The Cincinnati Gas & Electric Company
PSI Energy, Inc.

THE CINCINNATI GAS & ELECTRIC COMPANY

LETTER OF NOTIFICATION

Feeder Line SS Loop Construction

The following information is prepared pursuant to OAC 4906-15-12.

1. Project Name

Feeder Line SS loop construction

2. Project Description and Need

Project Description: This project involves the installation of approximately 11,800 feet of 12 inch diameter welded steel pipe for a new natural gas feeder line. This new line will originate at a point approximately 150 feet northeast of the intersection of Clough Pike and State Route 32 in Anderson Township, Hamilton County, Ohio and will terminate near the intersection of SR 32 (which becomes Main Street in the Village of Newtown) and Riverhills Drive in Newtown, also in Hamilton County. The trench will be 2 feet wide and 5 to 6 feet deep to allow for at least 4 feet of cover over the pipe. Within Anderson Township, the pipe will be installed on the north side of SR 32, generally within 12 to 15 feet of the edge of the pavement, but always within the road right-of-way (ROW). On the west side of the Village, the line will be placed approximately 10 feet into the south lane of the street to a point 100 feet west of Church Street. There, the line will cross to 10 feet from the north side, but still under the pavement, of Main Street. This change in sides of the road is necessary to avoid existing buried utilities. The CG&E project engineer met with the Newtown street commissioner during the week of July 8, 1996 to review the plans and received concurrence with them. The project area is shown on Figure 1.

Project Need: The purpose of the project is to enhance the natural gas distribution system such that an adequate volume and pressure of gas can be supplied to the Village of Mount Orab, which is located in Clermont County to the east of the project area, during extremely cold weather. Mount Orab is supplied by feeder line SS, but has experienced low pressure conditions in the past. During especially cold days in the winter of 1995-96 for example, pressure in Mount Orab dropped to 62 psi at the regulating station. Sixty psi is needed to provide enough gas to serve the needs of Mount Orab customers. CG&E has had to refuse gas service to new customers in the summer of 1996 because of low pressure considerations.

Line SS now runs through residential areas east of SR 32 and feeds a number of smaller distribution lines north of Clough Pike before entering the Village of Newtown from the south. The existing line also includes a section of eight inch pipe which causes a pressure drop in the line. The new line would bypass the subdivisions and enter Newtown from the west before rejoining SS at Riverhills Dr. The new 12 inch line would eliminate the pressure drop caused by the intermediate distribution lines and the eight inch line segment because it would by-pass both conditions.

3, 4. Location and Reference per Long-Term Forecast Report

This proposed project is included in the 1995 Long-Term Forecast Report for Gas Demand, Gas Supply, and Facility Projections. It was originally scheduled for construction in 1997, but was re-scheduled in the summer of 1996 in hopes of eliminating the pressure problems before the heating season. It is described on page 3-7 (reproduced

as Attachment 2 to this Letter of Notification) and shown on the map designated as Appendix Item III (a portion is included as Attachment 3).

5. Construction Schedule

Estimated construction period: September 23 - October 31, 1996

Estimated on-line date: November 15, 1996

6. General Description

The proposed pipeline will be designed for a maximum allowable operating pressure of 200 pounds per square inch. It will be constructed of 12 inch outside diameter steel pipe with a wall thickness of 0.250 inches. The pipe will have a protective epoxy coating and will have cathodic protection at approximate 400 foot intervals. All welds will be inspected by x-rays by trained and certified technicians. Pipe ends, after welding, will be wrapped and sealed with a protective coating.

The trench will be excavated and the material stockpiled at the edge of the trench by conventional trenching equipment. The pipe trench will be bored under the box culvert that carries McCullough Run. The bore pits will be approximately 8 feet deep, 10 feet long and 5 feet wide on each side of the culvert. All excavated material will be replaced in the pit after construction.

After the pipe is laid, the trench will be backfilled with the excavated material if it is suitable (i.e., without large rocks or concrete) and the area restored to original grade. Any unsuitable material will be loaded into a truck and taken to a construction debris disposal area. The trench will then be restored to original grade or re-paved.

No additional right-of-way will be required at any point because the pipe will be installed within existing road or water line right-of-way.

7. Capital Cost

The proposed line is expected to cost approximately \$615,000.

8. Land Use

Land in Anderson Township between Clough Pike and the Newtown village limit is primarily used for agricultural purposes. The area is quite flat, being bottom land along the Little Miami River. The nearest approach of the river itself, however, is approximately 1,500 feet west of the project area.

The Anderson Township Park District owns a large parcel of land with approximately 1,700 feet of frontage on SR 32 west of Newtown. Also, the Hamilton County Park District has plans for a bike path on the north side of SR 32, and expects to acquire additional right-of-way adjacent and parallel to the highway ROW. The proposed pipeline project will not affect either recreation project because it will be placed in the existing highway ROW and is scheduled for completion well before the park or bike path are under construction. Representatives from both park districts, Anderson Township administration, and CG&E met on July 2, 1996 to discuss each organization's plans and schedules to assure that there would not be any land use conflicts. In addition, there is a commercial recreational property (golf driving range and batting cages) with approximately 500 feet of road frontage on the west side of Newtown.

Within the village, the proposed line will pass in front, but under street pavement, of structures used for residential, commercial, and light industrial purposes. There does not appear to be any pattern to the uses, although there is a somewhat higher proportion of commercial buildings close to the intersection of Main and Church Streets. Certain buildings that were most likely once residential structures have been converted to commercial use and others appear to be commercial on the street level and residential upstairs. There are approximately 35 rental and owner-occupied residential units along the proposed route in Newtown . These units probably house a total of 50 to 75 people on both sides of SR 32/Main Street within the project area. The light industrial buildings are located on the eastern side of Newtown, generally between Roundbottom Road and Riverhills Drive.

The “Newtown Mini Park” is located near the intersection of SR 32 and Church Street. This is a small shaded area with two picnic tables adjacent to a soft serve ice cream shop. This project would not affect this park because of the pipeline placement under street pavement.

9. Notification of Officials

Copies of the letters transmitting this LON to the Mayor of Newtown, the President of the Anderson Township Trustees, and the President of the Hamilton County Commissioners are included as Attachments 4, 5, and 6.

10. Additional Information

There are no unusual conditions within the project area other than those already discussed in this document that would result in significant environmental, social, health, or safety impacts.

11. Agricultural Districts

The privately owned land north of SR 32 and west of the park property is an agricultural district. This land is not within the project ROW, however, because the project is limited to existing road or water line ROW.

12. Area Map

A map of the project area is included as Attachment 1. One route to Newtown from Columbus is to take I-71 south to I-275 east, to SR 32 west, to Newtown.

13. Cultural Resources

A Phase I archaeologic survey and historic resource reconnaissance of the project area was conducted by Gray & Pape, Inc. The results of that investigation were transmitted to the Ohio Historic Preservation Office (OHPO) and a copy of the title page and abstract of the report are attached to this LON as Attachment 7. A complete copy of the report was also provided to the OPSB staff. In brief, the project ROW crosses five prehistoric archaeologic resources. Of these, two were previously known and three were newly identified as a result of this study. Two of the new sites are recommended as extensions of the "Turpin Site", which is one of the known sites. The consultant

recommends no additional work at the other previously known site or one of the newly discovered sites.

The Turpin Site is on the National Register of Historic Places and CG&E has discussed the significance of the site in the context of this proposed project with the OHPO. CG&E is working with OHPO and Gray & Pape to define what additional investigations will be necessary to mitigate any disturbance that construction of this project will have on the site. Given the desire to improve the pressure at Mt. Orab before cold weather expected in early 1997, CG&E asks that construction be allowed to begin in the Village of Newtown as soon as the OPSB staff is confident that any environmental impacts that may occur are temporary and/or acceptable and the overall project may proceed. CG&E will not begin construction in any culturally sensitive area until all issues of mitigation are resolved to the satisfaction of the OHPO.

The Village of Newtown is recognized as a community with old and historic buildings. In acknowledgment of this, Gray & Pape contacted the OHPO regarding the need for a architectural impact survey for this project. They were informed that such a survey would not be necessary because the gas line would be under the street and therefore invisible after construction was complete.

14. Designated Species

The Natural Heritage Program of the Ohio Department of Natural Resources has no record of threatened, endangered, or other special species. A copy of the letter from that agency is included as Attachment 8. The Little Miami River will not be affected because the project area will be limited to the roadside and the river is a relatively long

distance away. McCullough Run will not be affected because the pipeline will be bored under the box culvert which extends well downstream from the construction activity. Furthermore, there are no areas of potentially significant habitat along the ROW.

15. Areas of Ecological Concern

There are no areas of ecological concern along the proposed route. The entire area is in developed land use, either for intensive agriculture or for urban mixed use.

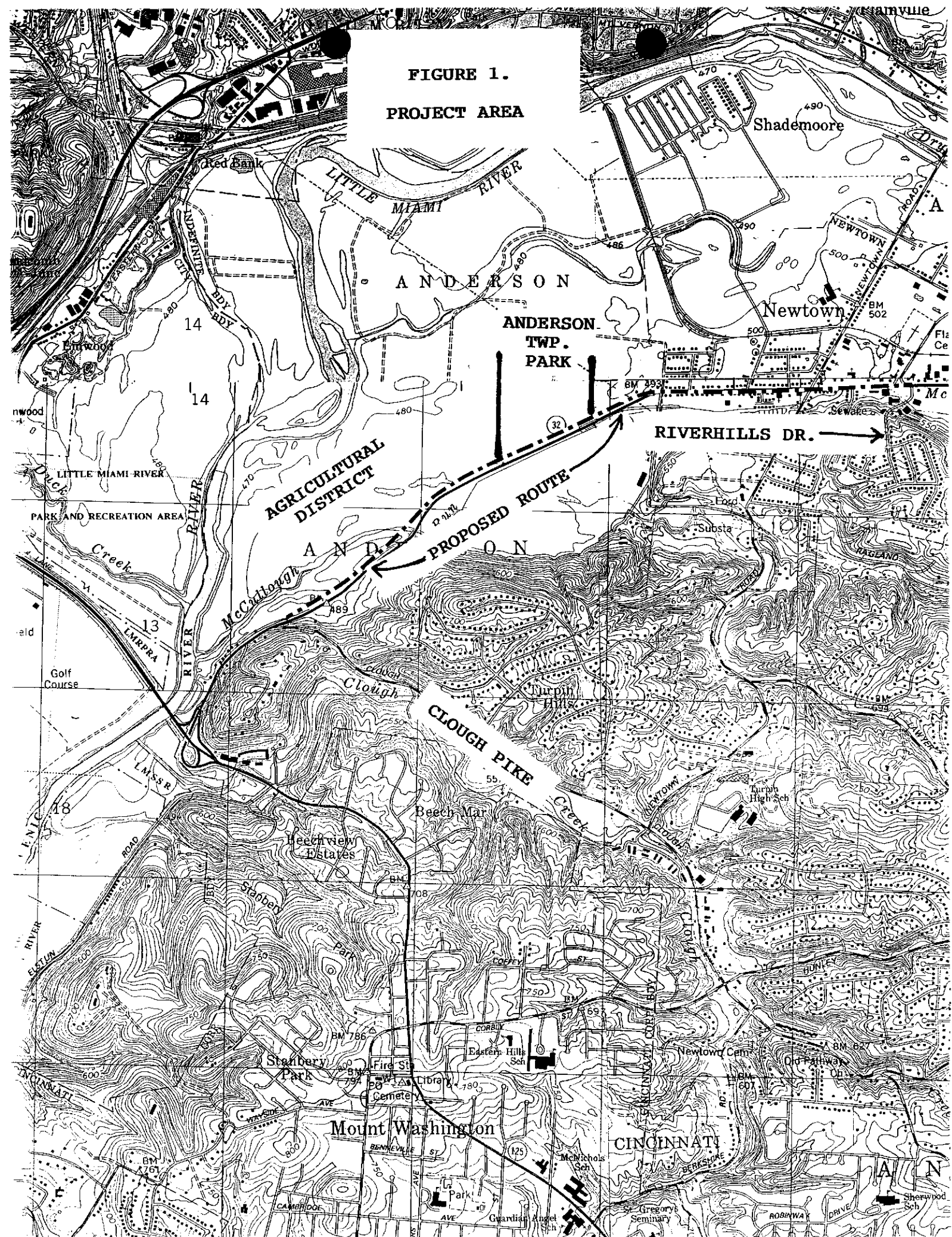
16. Other Agency Permits

Permits will be required from the Ohio Department of Transportation, Anderson Township, and the Village of Newtown to construct the proposed facility within the ROW of roads under their jurisdiction and to temporarily obstruct traffic. This is a common circumstance with such projects and all necessary permits will be obtained before construction begins.

17. Current and Pending Litigation

There is no current or pending litigation involving this project.

FIGURE 1.
PROJECT AREA



ATTACHMENT 2.

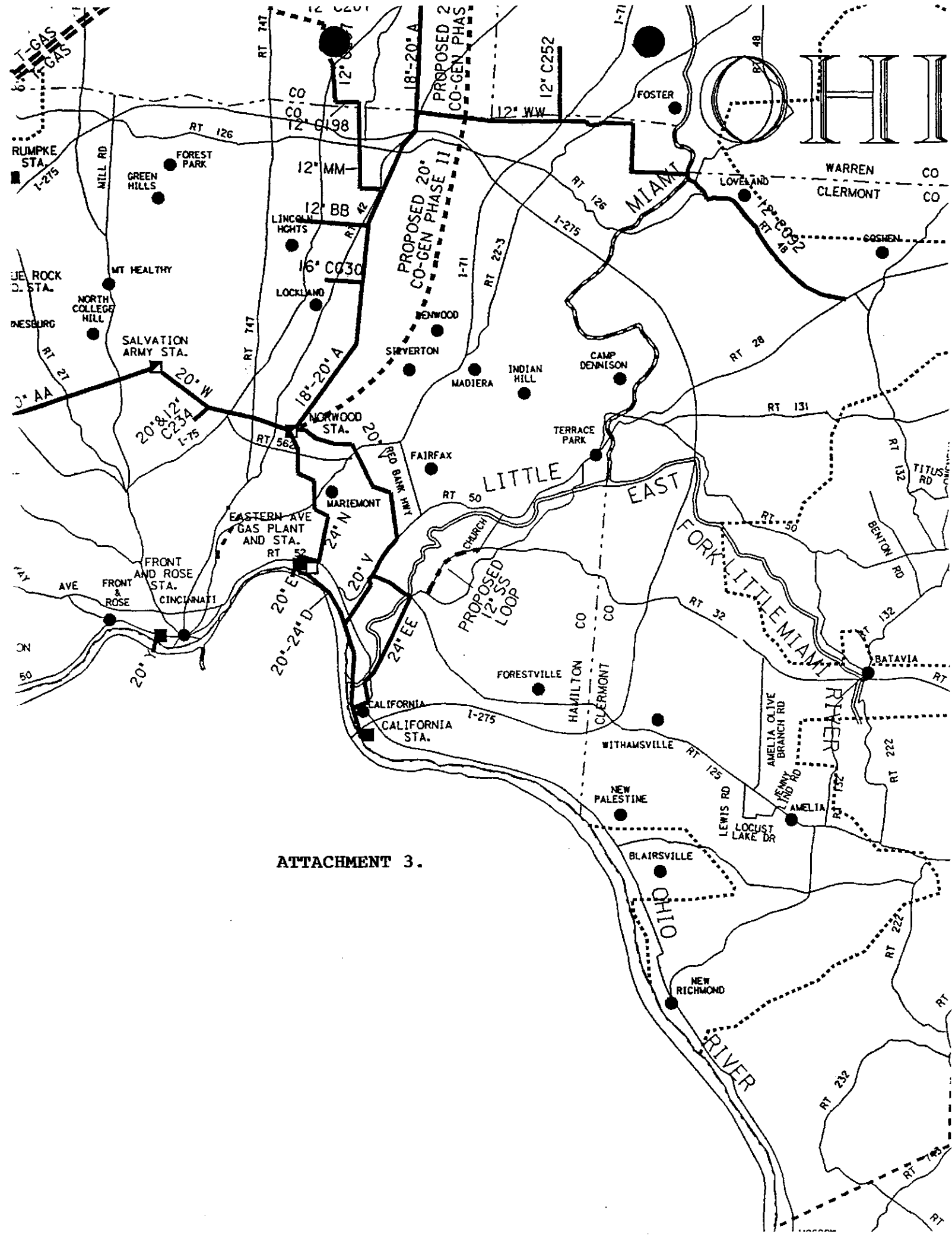
THE CINCINNATI GAS & ELECTRIC COMPANY

4901:5-7-03

ODOE FORM FG3-2: CHARACTERISTICS OF EXISTING GAS
TRANSMISSION LINES

COMPANY: The Cincinnati Gas & Electric Company

- | | |
|---------------------------------------------|------------------------------------------------------------------------------------------------|
| 1. LINE NAME AND NUMBER: | FL SS LOOP |
| 2. POINTS OF ORIGIN AND TERMINATION: | Rt. 32 at Clough Pk. to Rt. 32 at Newtown |
| 3. SIZE AND CAPACITY: | 12 inch nominal diameter welded steel pipeline rated for MAOP of 200 psig, est. length 10,000' |
| 4. RIGHT-OF-WAY: | None |
| 5. ASSOCIATED FACILITIES: | None |
| 6. CONSTRUCTION: | Undetermined |
| 7. CAPITAL INVESTMENT: | \$888,000 |
| 8. APPLICATION TIMING: | Undetermined |
| 9. PARTICIPATION WITH OTHER UTILITIES: | None |
| 10. PURPOSE OF THE PLANNED GAS LINE: | Loop undersized F/L SS, improves pressure |
| 11. CONSEQUENCES OF CONSTRUCTION DEFERMENT: | Pressures lower than design, higher degree of customer curtailment |
| 12. CLASS DESIGNATION: | IV |
| 13. MISCELLANEOUS: | None |



ATTACHMENT 3.

ATTACHMENT 4.

Energy Corp.
139 East Fourth Street
P.O. Box 960
Cincinnati, OH 45201-0960

Environmental Services Department
139 East Fourth Street
Room 552-A
Cincinnati, Ohio 45202

CINERGY.

August 5, 1996

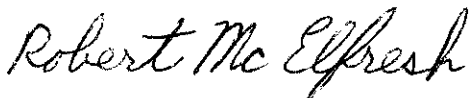
Honorable Kurt Cosby
Mayor, Village of Newtown
3536 Church Street
Newtown, Ohio 45244

Dear Mr. Cosby:

The Cincinnati Gas & Electric Company is planning to install a new natural gas feeder line in the Village of Newtown. The proposed route within Newtown is along Main Street from the western boundary of the Village to Riverhills Drive. Our project engineer, Ralph Pfister, has met with the Village Street Commissioner, Charles Siegel, to confirm plans for this project.

In accordance with Ohio Administrative Code 4906, we are required to prepare a Letter of Notification (LON) for the Ohio Power Siting Board. We are hereby providing you with a copy of that LON. Please feel free to call me at 287-3885 or Mr. Pfister at 287-2730, if you have any questions about this project.

Sincerely,



Robert McElfresh
Senior Environmental Scientist

Attachment

cc: Ralph Pfister

ATTACHMENT 5.

Cinergy Corp.
139 East Fourth Street
P.O. Box 960
Cincinnati, OH 45201-0960

Environmental Services Department
139 East Fourth Street
Room 552-A
Cincinnati, Ohio 45202

CINERGY.

August 5, 1996

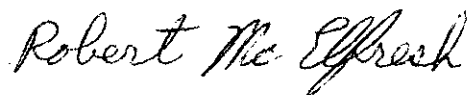
Mr. Henry Dolive
Anderson Township Administrator
7954 Beechmont Ave.
Cincinnati, Ohio 45255

Dear Mr. Dolive:

The Cincinnati Gas & Electric Company is planning to install a new natural gas feeder line in Anderson Township and the Village of Newtown. The proposed route is along State Route 32 near Clough Pike to Riverhills Drive on the east side of Newtown. We have met with Suzanne Parker, Assistant to the Township Administrator, and Dick Combs from the Township park district to discuss this project.

In accordance with Ohio Administrative Code 4906, we are required to prepare a Letter of Notification (LON) for the Ohio Power Siting Board. We are hereby providing you with a copy of that LON. Please feel free to call me at 287-3885 or the project engineer, Ralph Pfister at 287-2730, if you have any questions about this project.

Sincerely,



Robert McElfresh
Senior Environmental Scientist

Attachment

cc: Ralph Pfister

ATTACHMENT 6.

Energy Corp.
139 East Fourth Street
P.O. Box 960
Cincinnati, OH 45201-0960

Environmental Services Department
139 East Fourth Street
Room 552-A
Cincinnati, Ohio 45202

CINERGY.

August 5, 1996

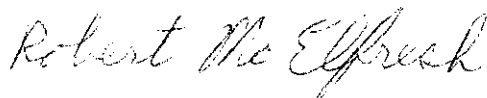
Mr. David J. Krings
Hamilton County Administrator
138 East Court Street
Cincinnati, Ohio 45202

Dear Mr. Krings:

The Cincinnati Gas & Electric Company is planning to install a new natural gas feeder line in Anderson Township and the Village of Newtown. The proposed route is along State Route 32 near Clough Pike to Riverhills Drive on the east side of Newtown. We have met with representatives from the Village and Anderson Township to discuss this project.

In accordance with Ohio Administrative Code 4906, we are required to prepare a Letter of Notification (LON) for the Ohio Power Siting Board. We are hereby providing you with a copy of that LON. Please feel free to call me at 287-3885 or the project engineer, Ralph Pfister at 287-2730, if you have any questions about this project.

Sincerely,



Robert McElfresh
Senior Environmental Scientist

Attachment

cc: Ralph Pfister

**Cultural Resources Reconnaissance Investigations
for Cinergy Corporation's
Proposed 12,000-Foot Pipeline Project
Along State Route 32,
Hamilton County, Ohio**

Lead Agency:


Ohio Power Siting Board

Prepared For:

Cinergy Corporation
Environmental Services Department
P.O. Box 960
Cincinnati, Ohio
Contact: Mr. Robert McElfresh
(513) 287-3885

Prepared By:

Diane L. Seltz
Orloff Miller
Kenneth E. Jackson
Ruth G. Myers
Carol S. Weed


W. Kevin Pape, Project Manager

ABSTRACT

Cinergy Corporation of Cincinnati, Ohio, proposes to construct a 12000-foot (3658-meter) natural gas pipeline in the road berm of S.R. 32 from Clough Pike to River Hills Drive, in Hamilton County, Ohio. The project will be conducted under the review authority of the Ohio Power Siting Board, requiring a Letter of Notification. The following is a report on cultural resource reconnaissance investigations conducted by Gray & Pape, Inc., of Cincinnati, Ohio, within the proposed project corridor. At client request, and following consultations with Mr. Todd Tuckey of the Ohio Historic Preservation Office, these Phase I investigations do not include the survey of previously unidentified architectural resources, although previously identified architectural resources are noted.

As a result of these investigations, it has been determined that the project right-of-way crosses five prehistoric archaeological resources, including two previously identified sites (33Ha28 and 33Ha390), and three previously unidentified archaeological resources (33Ha697, 33Ha698 and 33Ha699). Previously identified Site 33Ha28, constitutes an Archaeological District already listed on the National Register of Historic Places. Shovel testing during the current investigation has established that the site continues under the current S.R. 32 roadbed. Mitigation measures are recommended prior to construction.

Site 33Ha390 is also a previously identified resource. In this portion of the project, the roadbed has undercut any potential site surfaces, as established by shovel testing. It is recommended that the project will have no effect on this potentially eligible resource.

Site 33Ha697 is a prehistoric site with intact soil contexts. Subsurface testing beneath the road berm indicated undisturbed soils suggesting a high probability for an intact cultural soil horizon. It is recommended that the site be included within revised boundaries of the Turpin Archaeological District, or Phase II investigations should be conducted.

Site 33Ha698 is a small subsurface deposit from a single shovel test. Adjacent shovel tests demonstrated that the soils are disturbed in this portion of the right of way, suggesting poor integrity of context for this resource. The site is recommended as not eligible for listing on the National Register of Historic Places, and no further work is recommended.

Site 33Ha699 is a subsurface prehistoric scatter located on the high terrace overlooking the floodplain of McCullough Run and the Little Miami River. Phase I investigation of this site revealed deep midden deposits yielding burned bone, a triangular point, ceramics, debitage and fire-cracked rock. It is recommended that the site be included within revised boundaries of the Turpin Archaeological District, or Phase II investigations should be conducted.



ATTACHMENT 8.

George V. Voinovich • Governor
Donald C. Anderson • Director

June 14, 1996

Robert McElfresh
Cinergy - Environmental Services Dept.
139 East Fourth St., Rm. 552-A
Cincinnati, Ohio 45202

Dear Mr. McElfresh:

After reviewing our Natural Heritage maps and files, I have found that the Division of Natural Areas and Preserves has no records of rare species for the proposed State Route 32 gas transmission line project. This project is located in Anderson Township, Newport and Withamsville Quads., Hamilton County. Though there are no rare species found at the actual project site, the Little Miami Scenic River does contain several rare animal species. This scenic river runs from 0.25 to 1.25 mile northwest of the gas line project. This portion of the Little Miami Scenic River is highlighted in the enclosed brochure.

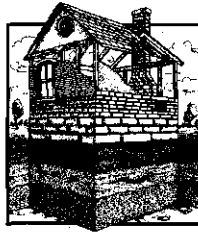
There are no existing or proposed state nature preserves in the project area. We are also unaware of any unique ecological sites, geologic features, breeding or non-breeding animal concentrations, champion trees, or state forests or wildlife areas in the project vicinity.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that site. Please note that we inventory only high-quality plant communities and do not maintain an inventory of all Ohio wetlands.

Please contact me at (614) 265-6409 if I can be of further assistance.

Sincerely,

Treva J. Knasel
Ecological Analyst
Division of Natural Areas & Preserves



GRAY & PAPE
I N C.

CULTURAL RESOURCES CONSULTANTS

1318 MAIN STREET CINCINNATI, OHIO 45210 (513) 287-7700 FAX (513) 287-7703

RECEIVED

AUG 6 1996

DOCKETING DIVISION
Public Utilities Commission of Ohio

**CULTURAL RESOURCES RECONNAISSANCE INVESTIGATIONS
OF CINERGY CORPORATION'S
PROPOSED 12,000-FOOT PIPELINE PROJECT
ALONG STATE ROUTE 32,
HAMILTON COUNTY, OHIO**

Prepared For:

**Cinergy Corporation
Environmental Services Department
P.O. Box 960
Cincinnati, Ohio**

July 31, 1996

MAIN OFFICE: CINCINNATI, OHIO • MID-ATLANTIC OFFICE: RICHMOND, VIRGINIA • WESTERN OFFICE: TEHACHAPI, CALIFORNIA

PREHISTORIC & HISTORIC SITE SURVEY, EVALUATION, TESTING & EXCAVATION • RESTORATION ARCHAEOLOGY
ORAL HISTORY & ARCHIVAL RESEARCH • PRESERVATION TAX CONSULTING • HISTORIC ARCHITECTURAL ANALYSIS

**Cultural Resources Reconnaissance Investigations
for Cinergy Corporation's
Proposed 12,000-Foot Pipeline Project
Along State Route 32,
Hamilton County, Ohio**

Lead Agency:

Ohio Power Siting Board

Prepared For:

Cinergy Corporation
Environmental Services Department
P.O. Box 960
Cincinnati, Ohio
Contact: Mr. Robert McElfresh
(513) 287-3885

Prepared By:

Diane L. Seltz
Orloff Miller
Kenneth E. Jackson
Ruth G. Myers
Carol S. Weed

A handwritten signature in black ink, appearing to read 'W. Kevin Pape', is written over a horizontal line.

W. Kevin Pape, Project Manager

ABSTRACT

Cinergy Corporation of Cincinnati, Ohio, proposes to construct a 12000-foot (3658-meter) natural gas pipeline in the road berm of S.R. 32 from Clough Pike to River Hills Drive, in Hamilton County, Ohio. The project will be conducted under the review authority of the Ohio Power Siting Board, requiring a Letter of Notification. The following is a report on cultural resource reconnaissance investigations conducted by Gray & Pape, Inc., of Cincinnati, Ohio, within the proposed project corridor. At client request, and following consultations with Mr. Todd Tuckey of the Ohio Historic Preservation Office, these Phase I investigations do not include the survey of previously unidentified architectural resources, although previously identified architectural resources are noted.

As a result of these investigations, it has been determined that the project right-of-way crosses five prehistoric archaeological resources, including two previously identified sites (33Ha28 and 33Ha390), and three previously unidentified archaeological resources (33Ha697, 33Ha698 and 33Ha699). Previously identified Site 33Ha28, constitutes an Archaeological District already listed on the National Register of Historic Places. Shovel testing during the current investigation has established that the site continues under the current S.R. 32 roadbed. Mitigation measures are recommended prior to construction.

Site 33Ha390 is also a previously identified resource. In this portion of the project, the roadbed has undercut any potential site surfaces, as established by shovel testing. It is recommended that the project will have no effect on this potentially eligible resource.

Site 33Ha697 is a prehistoric site with intact soil contexts. Subsurface testing beneath the road berm indicated undisturbed soils suggesting a high probability for an intact cultural soil horizon. It is recommended that the site be included within revised boundaries of the Turpin Archaeological District, or Phase II investigations should be conducted.

Site 33Ha698 is a small subsurface deposit from a single shovel test. Adjacent shovel tests demonstrated that the soils are disturbed in this portion of the right of way, suggesting poor integrity of context for this resource. The site is recommended as not eligible for listing on the National Register of Historic Places, and no further work is recommended.

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CHAPTER I. INTRODUCTION

Cinergy Corporation of Cincinnati, Ohio (Cinergy), proposes to construct a 12000-foot (3658-meter) natural gas pipeline in the road berm of S.R. 32 from Clough Pike to River Hills Drive, in Hamilton County, Ohio (Figures 1 and 2) (the Project). The Project will be conducted under the review authority of the Ohio Power Siting Board (OPSB), requiring a Letter of Notification (LON). The following is a report on cultural resource reconnaissance investigations conducted by Gray & Pape, Inc. (Gray & Pape), of Cincinnati, Ohio, within the proposed Project corridor. This investigation does not constitute a formal Phase I survey under the provisions of Section 106 of the National Historic Preservation Act, but serves instead as a part of the LON mandated by the OPSB. At client request, and following consultations with Mr. Todd Tuckey of the Ohio Historic Preservation Office, these Phase I investigations do not include the survey of previously unidentified architectural resources, although previously identified architecture is discussed.

PROJECT DESCRIPTION

The project is located entirely within the road ROW of S.R. 32 on the upper terraces of the Little Miami River, north and west of the Turpin Hills. The proposed gas transmission line will be 12 inches in diameter, and will be placed within the artificial road berm or under the road itself for the length of the Project corridor. For most of the corridor, the pipe trench lies 3 meters (10 feet) from the white line on the north side of the pavement, or 9 meters (30 feet) off the centerline of the pavement itself. To facilitate maintenance and repairs of existing utilities and road signage within portions of the proposed pipeline corridor, Cinergy proposes to excavate the pipe trench slightly deeper than standard, to a depth of 1.5-1.8 meters (5-6 feet). For the archaeological field survey, a right-of-way (ROW) extending 7.6 meters (25 feet) from the edge of the pavement was examined; where foliage interfered with surface reconnaissance and landowner permission had been obtained, the field survey extended slightly north/west of this ROW.

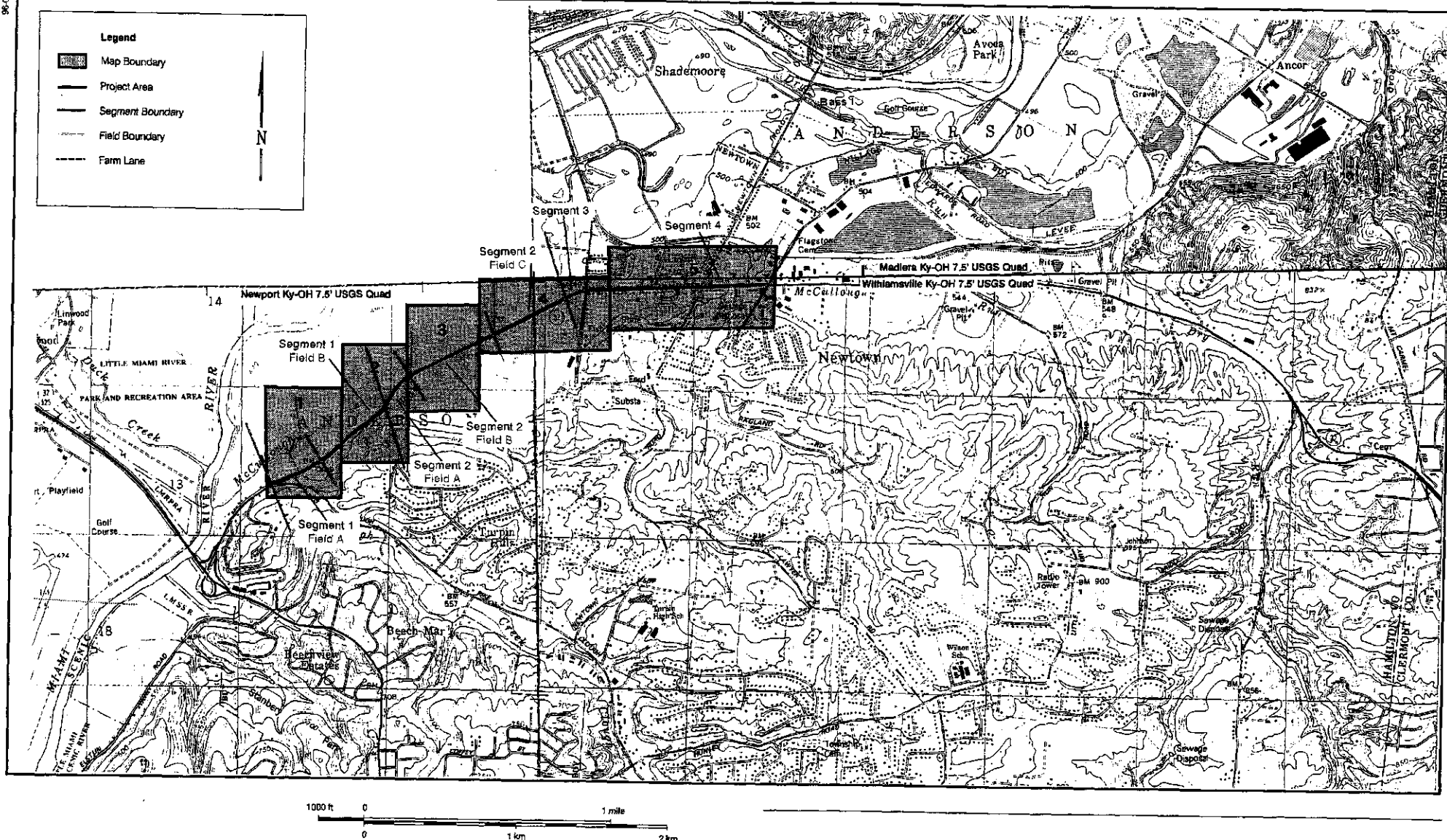
Where the Project corridor crosses McCullough Run, Project engineers plan a directional bore under an existing box culvert. Nonetheless, as an integral part of these investigations, a project geomorphologist has inspected the ROW crossing of McCullough Run, assessing both the potential for deeply buried deposits and the potential for colluvial sheet wash from neighboring upland slopes.

ACKNOWLEDGEMENTS

Ms. Diane L. Seltz served as Field Director and lead author of this investigation. Field technicians Don Frodge, Mark Gillespie, Jeremy Norr and Paul Zloba were responsible for shovel testing and surface reconnaissance within the ROW. Matt Hill conducted the sites files check at the Ohio Historic Society offices in Columbus, Ohio. Kenneth E. Jackson conducted the balance of the background research, and wrote the environmental and cultural overviews, as well as the results of the literature review. Ms. E. Jeanne Harris served as Laboratory Director, Matthew J. Steincamp analyzed the prehistoric lithic material, while Carol S. Weed analyzed and reported on the prehistoric ceramics. Dr. Susan T. Goodfellow conducted and reported on the geoarchaeological field visit. Dr. Orloff Miller served as Principal Investigator and wrote the balance of this report. W. Kevin Pape was the project manager. The report was edited by Madonna M. Ledford Baltz and produced by Michele Epperson.



Location of Project Area in Hamilton County, Ohio



Plan View of Corridor Showing Map Divisions

CHAPTER II. ENVIRONMENTAL CONTEXT OF THE STUDY AREA

All human societies are linked to the natural environment in an ecological relationship. This relationship entails the uses of organic and inorganic resources that are present in the environment, along with the strategies that people employ to procure those resources. Factors such as climate, vegetation, soils, geomorphological setting, and lithic resources limit the options for the types of settlement, subsistence, and technological patterns that may evolve. These factors may be viewed from a regional perspective as they affect broader patterns of cultural behavior; on a local level they affect considerations such as site selection and subsequent preservation.

PHYSIOGRAPHY-GEOMORPHOLOGY

The study area is encompassed, like the rest of southwestern Ohio, by the Till Plains Section of the Central Lowland physiographic province (Fenneman 1916). This province is characterized by structural and sedimentary basins, domes, and arches which came into existence throughout Paleozoic time. Among these features, the Cincinnati Arch is structurally significant in southwestern Ohio. Hamilton County is nearly at the crest of this arch, with the axis only a few miles east of the metropolitan area. The underlying bedrock is shale and fossiliferous limestone of Middle and Late Ordovician age. It crops out on steep valley walls and at numerous waterfalls, and in other areas is overlain by glacial deposits ranging up to 122 meters (400 feet) thick (Lerch et al. 1982).

Local formations within the Ordovician strata contain little or no cryptocrystalline (chert) resources, and none are known in the vicinity of the study area (Stout and Schoenlaub 1945). Local chert resources are thus limited to glacial and fluvial deposits of chert pebbles.

The physiography of the locality is characterized by gently rolling glacial uplands, steep hillsides along the major streams, extensive glacial river terraces and outwash plains, and floodplains. Near the larger streams such as the Little Miami, the land is hilly, dissected by numerous tributary stream valleys.

The study area was subjected to glaciation during the Kansan and Illinoian periods. Although the Wisconsin ice advance did not physically extend into the study area nor affect major drainage changes in the area, the valley of the Little Miami River and the East Fork of the Little Miami did become aggraded during this period. Additionally, the Little Miami River and the East Fork served as outlets for glaciofluvial sediments. The physiography of this zone is characterized by a variety of features associated with the glacial margin, including glaciofluvial outwash, overflow lacustrine deposits, abandoned outwash channels, kames, eskers, and end moraines.

The county is part of an upland plain which rises approximately 392 meters (960 feet) above sea level. All of the county drains into the Ohio River and its tributaries, mainly the Great Miami and Little Miami Rivers. The Ohio River crosses the area in a valley about 152 meters (500 feet) below the general level of the plain (Lerch et al. 1982). The study area is drained by the Little Miami River and one of its tributaries, McCullough Run. Along the Little Miami River the valley floor ranges from 0.5 to 0.75 mile (0.8 to 1.2 kilometers) wide, except at their confluence. These are immediately succeeded by hollows that are deeply incised and little more than wide enough to accommodate the streambed.

SOILS

Soil type appears to play a very important role in determining the distribution of human groups on a large scale and settlement locations on a small scale. Certain types of soils were preferred over others by early settlers and aborigines alike. Quite often, vegetational indicators were surveyed to determine soil fertility and moisture prior to migration and frontier settlement. Soil acidity, drainage and deposition also play a major role in the way that sites were formed and subsequently preserved.

The Hamilton County Soil Survey maps (Lerch et al. 1982) show four soil map units along the project area. From west to east, these are:

Urban Land-Huntington complex, frequently flooded, extending northeastward along S.R. 32 from Clough Pike. This complex consists of Urban land and a deep, nearly level, well drained Huntington soil on floodplains. Unprotected areas are flooded for brief periods in winter and spring. Slope is 0 to 2 percent. The soil survey shows this unit to extend up a short steep slope to the second terrace above McCullough Run; flooding is actually infrequent on that terrace level. The Urban land part of the complex mainly occupies built-up areas covered by streets, railroads, parking lots, buildings, and other structures. These so obscure or alter the soils that identification of the soils is not feasible. The Huntington soil typically has a surface layer of dark brown, friable silt loam about 11 inches thick. The subsoil is about 57 inches thick. The upper part of the subsoil is brown, friable silt loam, and the lower part is dark brown, firm silty clay loam. In some places, the soil has been radically altered by cut-and-fill or levelling.

Bonnell silt loam, 25-35 percent slopes, on the terrace slope. This is a deep, steep, well drained soil on slopes bordering stream valleys of the Illinoian till plain. Typically the surface layer is very dark brown, friable silt loam about 4 inches thick. The subsurface layer is grayish brown, friable silt loam about 5 inches thick. The subsoil is about 39 inches thick. The upper part of the subsoil is yellowish brown and brown, friable silt loam and silty clay loam and the middle and lower parts are brown and yellowish brown, firm clay and silty clay. Permeability is slow, the available water capacity is high, and surface runoff is very rapid.

Huntington silt loam, occasionally flooded, on McCullough Run/Little Miami floodplain all the way to Newtown. This deep, nearly level, well drained soil is on floodplains, generally at the highest elevation of the floodplain. Flooding can occur at any time of the year, but most commonly for brief periods in winter and spring. Slope is 0 to 2 percent. The surface layer typically is dark brown, friable silty loam about 11 inches thick. The upper part of the subsoil is brown, friable silt loam, and the middle and lower parts are dark brown, firm silty clay loam. This soil has a seasonal high water table between depths of 48 and 72 inches in winter and in spring and other extended wet periods. It has moderate permeability and high or very high available water capacity.

Eldean-Urban land complex, 0-2 percent slopes, in Newtown to Round Bottom Road. This complex consists of a deep, nearly level, well drained Eldean soil and Urban land. It is on stream terraces and outwash plains. Typically, the Eldean soil has a surface layer of brown, friable loam about 7 inches thick. The subsoil is about 29 inches thick. The upper and middle parts of the subsoil are brown, firm clay loam, and the lower part is reddish brown, friable gravelly clay loam. In some places, the soil has been radically altered, with low areas filled or levelled during construction, and other small areas cut, built up or smoothed. The Urban land part of the complex is covered by streets, parking lots, buildings, and other structures that so obscure or alter the soils that identification of the soils is not feasible.

CLIMATE

The project area lies within the moist Mesothermal Province and is characterized by a humid temperate climate. It is cold during the winter and hot in the summer. Precipitation varies widely from year to year, but averages 40.5 inches (1.03 meters) per year. It is usually abundant throughout the year, although fall is typically the driest season. Showers and thunderstorms account for the greatest amount of precipitation. Snowfall is light, averaging 13.8 inches (35 cm) per year, with an average of five days per year having one or more inches (2.5 cm) of snow cover. Winters are generally cloudy and cold, but subzero temperatures rarely occur. Summers are moderately warm and humid and have several days when temperatures exceed 89 degrees Fahrenheit. Winter temperatures average 26 degrees Fahrenheit, and the mean summer temperature is 70 degrees Fahrenheit. Moderate to extreme drought conditions have been known to occur 11 times during the period from 1929 to 1968 (Lerch et al. 1982).

FLORA AND FAUNA

The earliest official surveying of Ohio was begun in 1786 by Thomas Hutchins, Geographer of the United States (Sears 1925:1139). Based on a variety of early survey data and historical records, Sears prepared the first reconstruction of Ohio's natural vegetation. Subsequently, Gordon (1966, 1969) classified the presettlement vegetation in the project area

vicinity as Beech Forest. These forests typically contained a large fraction of beech, sugar maple, red oak, white ash, and white oak, with scattered individuals of basswood, shagbark hickory, black cherry, and more rarely, cucumbertree.

The clearing of the forests and subsequent cultivation have done much to alter the topography, soils, flora, and fauna of the project area. Originally, these forest types were capable of supporting a variety of animal populations. Economically useful species would have included white-tailed deer, squirrel, cottontail rabbit, beaver, turkey, ruffed grouse, and owl. Other economically significant species which are now extinct in this region include the passenger pigeon, wolf, black bear, mountain lion, and elk (Guilday and Tanner 1969:41). Freshwater mussels and fish were available from the Little Miami River and the East Fork, and possibly other streams in the vicinity. Seasonal waterfowl were abundant as well. Overall, the variety of floral and faunal resources seasonally available in these forests supplied a wide range of aboriginal needs, including foods, medicines, and raw materials required for technological and ceremonial purposes (Cleland 1966).

CHAPTER III. CULTURAL OVERVIEW OF THE STUDY AREA

The following discussion serves as a synthesis of various sources regarding the prehistoric aboriginal occupation of the central Ohio Valley and, particularly, southwest Ohio. Pertinent regional information can provide a framework within which the problem of site significance may be addressed as well as suggest certain research questions which may be formulated concerning the cultural resources of the project area. In reviewing the literature devoted to the archaeological resources of this region, an informative background is developed that helps to reveal problems and hypotheses that may offer an appropriate fit between these research questions, the data base, and project parameters.

PALEOINDIAN OCCUPATION (14,000 B.C. to 8000 B.C.)

Most of what is known about this earliest cultural development is inferred from sparse surface recoveries of artifacts, particularly the diagnostic fluted points (Prufer and Baby 1963; Dorwin 1966). In general Paleoindian sites are reflective of areas where small groups of people would perform specific tasks of short duration. This type of site maintains a very low archaeological profile across the landscape, being somewhat indicative of the large areas occupied by these groups of people.

Post-Pleistocene adaptive strategies were geared for coping with a harsh but rapidly changing subarctic environment as the glaciers retreated. It has been argued that the earliest subsistence strategies in the Northeast and Midwest were characterized by a balanced hunting economy based on the exploitation of migratory game, especially caribou, and supplemented by foraged food (Fitting 1965:103-4; Ritchie and Funk 1973:336).

The most common diagnostic artifact recovered from a site of this temporal affiliation is the Clovis projectile point. The Clovis point type is a fluted lanceolate with parallel or slightly convex sides and concave base. Grinding of the base and lateral edges for hafting is readily apparent (Justice 1987). The Plainview type projectile point exhibits most or all of the morphological characteristics of the classic Paleoindian (Clovis) point, with the exception of fluting. This point type is known in low frequency in Ohio (Justice 1987). Other items included in the Paleoindian toolkit are steep-edged scrapers, blades, utilized flakes and tools made of organic materials. Wood and antler tools are seldom preserved from this period. Funerary remains are also very rarely recovered; however, evidence exists at the Crowfield Site, located in southern Ontario, that Paleoindians practiced cremation (Deller and Ellis 1984).

Seeman and Prufer (1982) updated an earlier survey of fluted point distribution in Ohio by Prufer and Baby (1963). Their later work details several factors which influence the location

of fluted points. They identify correlations with three locational variables: (1) fluted points frequently are found in major stream valleys and confluences, (2) they tend to occur in proximity to quality flint resources, and (3) these points are rarely found in extensive swampy lowlands or in rugged highlands such as the unglaciated portions of southeastern Ohio.

From surveying private and public collections, Lepper (1988) was able to produce information on 410 fluted point-yielding locations in the central Muskingum River basin in Coshocton County, Ohio. Analysis of techno-functional attributes of the points resulted in the definition of four general settlement types: (1) large workshop/occupations, (2) small workshop/occupations, (3) chert processing loci, and (4) food procurement/processing loci. Lepper suggests that the distribution of these loci relative to various local paleoenvironmental features implies that Paleoindian bands were seasonally exploiting the diverse environments of the Appalachian Plateau. Lepper argues that the abundance and accessibility of high-quality chert in the central Muskingum basin increases the archaeological visibility of Paleoindian land-use patterns in the area, but that chert exploitation was not the primary focus for Paleoindian occupation there.

Lepper (1994) suggests that at least three site types appear to be represented by the few known late Pleistocene/Early Holocene site locations in the Ohio Valley: (1) large sites with numerous bifaces, (2) small sites with few bifaces, and (3) ephemeral occupations with few artifacts.

ARCHAIC OCCUPATION (8000 B.C. to 1000 B.C.)

The division between the late fluted point hunters and their descendants in the Early Archaic (8000-6000 B.C.) is a purely arbitrary one (Griffin 1978:226). The continuous occupation of the Northeast is in evidence from such regionally diverse stratified sites as: the St. Albans site in West Virginia (Broyles 1971); Modoc Shelter in Illinois (Fowler 1959); and Sheep Rock Shelter in Pennsylvania (Michaels and Smith 1967). Early Archaic tool assemblages reflect the influence of moderating climatic conditions and the resultant wider range of exploitable resources. The addition of sandstone abraders and mortars to the Early Archaic people's tool kit indicates that vegetable foods were becoming a more substantial part of their diet. The Early Archaic assemblages include a variety of corner-notched projectile points, often with serrated and/or heavily beveled blades and ground bases.

In southwestern Ohio, Early Archaic sites are most frequently encountered within the river and stream valleys with the majority recorded on Wisconsin outwash terraces. As with Paleo-Indian sites, the vast majority of Early Archaic sites identified in the region are represented by identifiable surface collected artifacts. Vickery (1980) noted two distinct Early Archaic complexes in southwestern Ohio, based on mutually exclusive diagnostic projectile point types. Two sites in nearby Clermont County serve as the type sites for these complexes. The Ferris Site (33Ct31) yielded 63 projectile points, 57 of which were identified as Palmer or Kirk while only one was a Thebes point. In contrast, the Dallas Burton Site (33Ct58) yielded 30 Thebes points

and no Palmer or Kirk points. It is not known at the present time if these two Early Archaic complexes represent different ethnic groups or functional variability of a single tool class utilized by the same group.

During the Middle Archaic period (6000 B.C.-3000 B.C.) the continuing improvement in the climate led to a greater variety of available resources. The diversification of subsistence-related activities increased and an emphasis on the exploitation of seasonal resources began to grow in importance. The material remnants of Middle Archaic culture reflect the increasingly sophisticated technology adapted to the intensive exploitation of forest and riverine biomes. Bifurcate or basally-notched points which are present during the early stages of this period are supplanted by somewhat cruder side-notched and heavy stemmed varieties. There is also an increase of ground and polished stone tools, full grooved axes, pendants, and winged and cylindrical bannerstones used as atlatl weights. Genheimer (1980) found greater than 80 percent of recorded Middle Archaic sites in southwestern Ohio to be situated within stream valleys, with the majority occurring on floodplains and terraces of recent alluvium. Little site settlement data is available for this period within southwestern Ohio, although increased base camp permanence and more systematic exploitation of a narrow range of abundant resources appears likely.

The Late Archaic (4000 B.C.-1000 B.C.) blossoms into a great diversity of pre-Woodland cultural traditions throughout eastern North America. This recognized cultural differentiation is based primarily on adaptations to stabilized regional and local environments "that made maximum use of all resources within restricted areas" (Dragoo 1976:11). Projectile points during this period tend to be large, crudely made, stemmed varieties.

Late Archaic sites are characteristically large and represent occupations over long periods of time. Occupation debris is often dense and subsurface contexts exist at many of these sites. The settlement systems reflect the need for changing locational criteria as a response to seasonal resources. During the spring and summer, the exploitation of aquatic resources produced concentrations of sites along large water courses. Through the fall and winter, the harvest of nuts and the pursuit of game meant the establishment of camps situated above the valleys. Vickery (1980) has identified a hierarchy of Late Archaic settlements in southwestern Ohio in which there are two levels of communal congregation: local base camps are represented by such sites as the Twin Mounds Village Site (33Ha24) and the Dravo Gravel (33Ha377) sites in Hamilton County; and the Logan (33Ct30) and Bullskin Creek (33Ct29) sites in Clermont County. The larger-scale regional base camp is represented by a single site: the Dupont Site (33Ha97) in Hamilton County.

Vickery's Maple Creek Phase has much in common with the Riverton Culture, as defined by Winters (1969) for the central Wabash Valley in Illinois. Winters investigated three base camps in detail, each with thick, well-preserved midden deposits and other features. Two of these sites, located on the Wabash River floodplain, were occupied during the late spring, summer, and fall. The occupants of these sites focused on the exploitation of the seasonally available mussel beds in the river, as well as other abundant riverine resources. The third site, located near the river but out of the floodplain was occupied during the winter and was more oriented toward exploitation of faunal resources from the surrounding uplands. Other, much

smaller sites interpreted as extractive camps, were found clustered around these sites, as well as scattered across the uplands. It is interesting to note that a subsequent reanalysis of the floral remains from these sites yielded evidence of plant domestication (Yarnell 1976:269).

Winters described the assemblages of these sites in detail and provided a type description for the Merom/Trimble projectile point that is considered diagnostic of Late Archaic occupations across the Lower Ohio Valley. Late Archaic groups are known for their reliance on locally-available lithic raw materials, even those with dubious qualities. This is certainly the case at the Perin Village and Martin Field Sites, where the most commonly represented raw material is the local pebble chert that occurs on Pleistocene terraces and in stream valleys throughout the region.

WOODLAND OCCUPATION (1000 B.C. to A.D. 1000)

The Early Woodland period (1500 B.C.-100 B.C.) appears to represent a cultural expansion of the Late Archaic. It is characterized by a greater tendency toward territorial permanence and an increasing elaboration of ceremonial exchange and mortuary rituals. However, some of these traits, once believed to be indicative of Early Woodland, are now known to have their origins in the Archaic (Dragoo 1976). There is evidence that the Early Woodland diet was supplemented by domestication of various native and non-native cultigens, like sunflower and chenopodium. This point may likewise be amended to note its antecedent in the Archaic (Yarnell 1973).

Although the first manufacture of pottery is generally considered as marking the beginning of the Early Woodland period, it has been questioned (Seeman 1986:564) whether pottery is no more than a convenient marker for archaeologists to distinguish between cultural periods, or whether it has real cultural significance in being associated with new subsistence-settlement directions. Dates for the first appearances of pottery in the Ohio Valley range from somewhat earlier than 1000 B.C. to around 500 B.C., the dates getting progressively younger westward from the upper Ohio Valley. The earliest pottery type in that region appears to have been a thick, plain-surfaced, grit-tempered ware known as Fayette Thick.

Munson (1976) argues that the first pottery represented an important technological innovation in food processing. However, a consideration of the extreme scarcity of ceramic remains from the long, initial period of introduction is stronger evidence that the presence of ceramics does not necessarily imply the wholesale adoption of a new subsistence system (Brown 1982).

Early Woodland ceramics are thick, plain-surfaced, usually grit-tempered, with conical and flat-based vessel forms. Their function is somewhat unclear; it is possible that they were an extension of the basin-shaped pit-stone boiling receptacle, used for processing nuts and oily seeds. Unfortunately, ceramic remains do not obviously co-occur with nut resources. Whatever the function of these vessels, they were not essential to any process; merely a supplement to tools already in use.

In the Central Ohio Valley, an important Early Woodland manifestation is referred to as Adena. The Adena people occupied semi-permanent village sites and constructed earthworks such as conical mounds for interment. Adena burial mounds are typically small and are usually located on high terraces or bluffs overlooking major stream valleys. Because of their obvious appearances, Adena mounds have long been the subject of archaeological investigations, both systematic and for the purposes of looting. Adena habitation sites, on the other hand, are usually small villages or hamlets located along low terraces and in the floodplains of stream valleys. These sites, which do not contain the exotic artifacts that have been associated with Adena mortuary complexes and mounds, have not been as intensively studied. Ceramics types that have been associated in the literature with Adena include Adena Plain and Montgomery Incised (Chapman and Otto 1976). Projectile points associated with Adena are large, stemmed or ovate-based, tapering blades and leaf-shaped blades (Justice 1987).

Several large Adena mounds have been excavated in southwestern Ohio: the Sentinel Mound (33Ha 310), the Spearhead Mound (33Ha24), and the Saylor Park Mound (33Ha243). Intact subsurface Early Woodland deposits were recovered from the Miami Fort Site (33Ha148), located near the confluence of the Ohio and Great Miami Rivers, but there are comparatively few of these sites documented for the region.

The Middle Woodland Period (100 B.C.-A.D. 400) has historically been seen as a time of complex sociocultural integration across regional boundaries, via networks of trade. The original purpose of the 'Middle' division of Woodland was to encompass the phenomenon known as Hopewell. The characteristics included in this complex of traits include elaborate geometric earthworks, enclosures, and mounds, often associated with mortuary programs involving an array of exotic and ceremonial goods.

Materials used in the manufacture of ceremonial items were acquired from various regions of North America: at least six species of marine shell from the Atlantic and Florida Gulf Coasts; barracuda jaws, turtle shells, and shark and alligator teeth from Florida; mica from southwestern North Carolina; chlorite from the southern Appalachians; meteoric iron from several sources; native copper from Lake Superior deposits; and silver from the vicinity of Cobalt, Ontario. Exotic lithic materials include large quantities of chert from Harrison County, Indiana; obsidian from the Yellowstone area in Wyoming; and Knife River chalcedony from North Dakota (Griffin 1978). Diagnostic lithic artifacts include thin, expanding base points, leaf-shaped blades, prismatic blades and associated polyhedral cores.

Ceramics were manufactured with grit or crushed limestone temper and plain or cord-marked outer surfaces. A very small percentage of the ceramic assemblage may include ceramics with decorated surfaces: zoned, stamped, or punctate. The vessel form used during this period had developed thinner walls and a globular shape.

The settlement pattern common to studied areas during the Middle Woodland Period is more hierarchically ordered than earlier patterns. The central element of this system is the village site; more established and larger than the base locales or camps of earlier periods. These

are found concentrated in the larger stream valleys, where level, well-drained land lies adjacent to permanent, flowing streams (Asch et al. 1979:83). Regular intervals between such sites, and their relationships to mound-earthwork complexes have led Struever and Houart (1972), among others, to speculate on their central position in inter-regional exchange networks. Mortuary sites occur both adjacent to and separate from these larger occupations. In cases where mounds or cemeteries occur in isolation, there are frequently ephemeral camps associated with them, probably related to the complex activities performed in relation to the disposal of the dead.

The remainder of the settlement system consists of small, more-or-less permanent residential hamlets, and very small, special purpose extractive camps. These ancillary sites are generally located within a fairly limited territory, peripheral to the medially-located villages. These camps are found in bottomland, upland, and other situations, where quantities of selected resources are available for exploitation at certain seasons.

Middle Woodland subsistence was essentially an elaboration of the same system developed through the Late Archaic and Early Woodland Periods. The primary source of nutrition remained natural food supplies (i.e. acorns, hickory and walnut; various fruits, berries and seeds; deer, small mammals, fish and shellfish). The most evident alteration in this system is the substantial increase in use of seed foods. The Eastern Agricultural Complex seeds (chenopodium, sunflower, maygrass) are much more heavily utilized, although regional variations in species choice persist. Corn (*Zea mays*) occurs in its earliest well-documented contexts in Middle Woodland, although never in sufficient amounts to comprise a significant portion of the diet. It appears likely that this was a time of increasing emphasis on artificially enhanced food supplies, laying the foundation for subsequent agriculturally oriented societies.

The social organization of Middle Woodland groups has been rather well studied, due in large part to the side-effects of focusing on mortuary sites. The system remained largely egalitarian, without ranked ordering. There is, however, evidence that certain individuals achieved elevated status. These individuals were the recipients of elaborate preburial and postburial processing; numerous, frequently exotic grave goods; and central positioning in burial mounds. Although these burial programs are not strictly linear (e.g., special treatment of infants, who were not likely to have 'achieved' special status), they were sufficiently so to suggest that a category of specialized social status existed.

Most of what is known about the Ohio Hopewell has been gathered from ceremonial contexts. Hopewellian habitation sites are rare, particularly those with undisturbed contexts. Notable exceptions include the Twin Mounds (33Ha110) and Miami Fort (33Ha148) Sites in Hamilton County, the Stubbs Mill Blade Site (33Wa256) in Warren County, and the Jennison Guard Site (12D29S) in Dearborn County, Indiana (Kozarek 1987). In a symposium on the Ohio Valley Hopewell, Kozarek presented data that indicated the occupants of this site were residually sedentary (Kozarek 1992). In the same symposium, Pacheco (1992), and Dancey and Pacheco (1992) concluded that the settlement pattern for this tradition is characterized by "hamlets" (i.e. homesteads) clustered around a ceremonial center.

The Late Woodland period (A.D. 400-A.D. 1000) has not been well defined for most of Ohio. Fieldwork undertaken by Prufer (1965), Baby and Potter (1965), Prufer and McKenzie (1966), and Murphy (1975) has indicated that differential development of cultural trends was occurring on a regional basis. It is probable that established patterns existed longer in some areas than in others as a continuation of the Middle Woodland economy with the noticeable lack of elaborate Hopewell ceremonialism.

The Late Woodland culture in southwestern Ohio is defined by the Newtown focus and its type site, the Turpin Site (33Ha28) (ca. 450-1000 A.D.). The Newtown culture represents a marked change in the human pattern of settlement across the Ohio Valley landscape. This change is seen as a shift from the dispersed hamlets of the Hopewell to seasonally occupied villages located on river terraces and uplands overlooking the river valleys. Newtown villages were small, often circular in plan and sometimes including a central plaza. No evidence has yet been found that these villages were fortified with defensive stockades (Cowan 1987).

The increased sedentism of the Newtown people was supported by extensive garden horticulture supplementing a diet consisting largely of wild plants and animals. Crops raised included maygrass, sunflower, gourds, squash, and cultivars of goosefoot and sumpweed (Cowan 1987).

Newtown pottery is grit-tempered with little variation in form and surface treatment. Typical vessels were large, thin-walled, heavy angular shouldered pots with a coarse cordmarked surface; these have plain rims and no handles. The Late Woodland lithic assemblage is represented by triangular stemmed and side-notched points (Oehler 1973).

A number of cultural innovations were adopted by Newtown people between 800 and 1000 A.D., including maize agriculture, shell tempered ceramics, new vessel forms, the bow and arrow, as well as a number of other material traits. Permanent villages were situated along terrace and bluff base locations within the major river drainages. This pattern marks the beginning of the Fort Ancient period.

FORT ANCIENT OCCUPATION (A.D. 1000 to A.D. 1650)

Although Late Woodland cultures continued until historic contact in some areas of the Ohio Valley, they were supplanted by the Fort Ancient culture in southwestern Ohio. The emergence of a Fort Ancient culture from a Late Woodland base was stimulated by an increasing reliance on maize agriculture, the influence of southern Mississippian influences and increasing village sedentism (Essenpreis 1978). Pottery from this period is uniquely shell tempered and commonly decorated with a curvilinear guilloche pattern. Projectile points are mostly thin, triangular arrow tips that indicate the dominance of bow hunting.

Fort Ancient is characterized by large permanent villages located along major drainages on recent terraces, on the rich alluvial bottomlands, and less frequently, on blufftop situations. Villages tend to be organized around a central plaza with concentrically arranged rings of storage/refuse pits and houses. Burials occur in mass cemeteries and beneath house floors, thus reducing the amount of mound construction.

In southwestern Ohio, Fort Ancient spatial/temporal units were initially segregated into two phases. The earlier Anderson phase was applied to the Fort Ancient occupations between about A.D. 1100 and 1400, with the Madisonville phase occurring subsequently to about A.D. 1650. However, it has been suggested by researchers in southwestern Ohio that the two phase concept, traditionally applied to the regional Fort Ancient manifestation, is untenable and does not reflect the incipient development that is occurring over this span of 600 years within individual drainage basins (Cowan, et al. 1985). To replace this notion of a two phase dichotomy, a tentative chronology was composed that recognizes three discrete phase units in the lower Great and Little Miami valleys: the Turpin Phase (A.D. 1150-1250); the Schoemaker Phase (A.D. 1250-1450); and the Mariemont Phase (A.D. 1450-1650).

There are numerous sites with Fort Ancient components in the region; most have been identified on the basis of distinctive triangular projectile points and shell tempered ceramics. A number of large village occupations have been identified in the southwestern Ohio.

Within the Fort Ancient tradition, The Turpin Phase (A.D. 1100-1250) is characterized by shell tempered globular elongated jars and hemispherical bowls, often occurring with triangular straps and handles. Stylistic decoration includes a high frequency of curvilinear and rectangular guilloche designs. Effigy figures include owls, birds, human heads and other animals. Stone discoids, triangular shaped flint projectile points and the falconid (weeping eye) motif also occur.

Villages were typically located in floodplains that contained rich soils ideal for the growth of beans, corn, squash and other eastern agricultural complex species. Wall style trench architecture is documented at three Turpin Phase sites. Burial patterns are reflected by mortuary mounds or shallow graves within the village area. Shallow graves were often lined with large slabs of limestone. Grave goods, while occasionally present, were not a hallmark of the Turpin Phase. The type site of the Turpin Phase is the Turpin Site (33Ha28) located between the Little Miami River and State Route 32 south of Newtown, Ohio (Cowan 1987). A portion of this site lies within the project area.

The Shomaker Phase (A.D. 1250-1350 or 1450) is characterized by a shell tempered pottery with a distinct increase in frequency for guilloche stylistic elements. In addition, line-filled triangles, often accompanied by punctations frequently occur. House construction shifted from the wall style trench architecture common at Turpin Phase sites to a partially subterranean pit house design. Storage pit technology shifted from shallow irregular depressions to distinctly cut cylindrical flat bottomed pits. Pits were commonly lined with woven grass mats held in place

with unique double-pointed bone pins. Ceramic scraping tools and elk antler spades are part of the Shomaker Phase artifact assemblage (Cowan 1987 and Cowan et al, 1985).

The Mariemont Phase (A.D. 1450-1670) is characterized by shell tempered pottery. Vessels lack the distinctive guilloche stylistic element seen in the Turpin and Schomaker Phases and are commonly undecorated with the exception of cordmarking. Large globular vessels commonly had four graceful handles versus the dual thick handles characteristic of earlier phases. Ceramic vessels were often placed with burials. Arrowshaft wrenches, arm bands and antler harpoon heads appear during this phase. Other bone tools include hide scrapers manufactured from the hump vertebrae of the American bison (Cowan 1987).

PROTO-HISTORIC AND HISTORIC ABORIGINAL OCCUPATION (A.D. 1640 to A.D. 1750)

There is evidence that some Late Woodland and Fort Ancient sites were occupied into the proto-historic period. The Madisonville Site (33Ha14), in Hamilton County, has produced European trade goods suggesting occupation well into the seventeenth century. However, beginning in the mid-seventeenth century, aboriginal groups in the Ohio Valley were disrupted by stress created in the wake of shifting fur trade patterns.

During the early seventeenth century, the Five Nations of the Iroquois Confederacy (Mohawk, Oneida, Onondaga, Cayuga, and Seneca) in northern New York had been carrying on a lucrative trade with the Dutch and the English, exchanging beaver pelts for manufactured goods. By the 1640s, however, the beaver supply in Iroquois territory had become exhausted. Beginning in 1641 the Iroquois mounted a series of expeditions to the Western Great Lakes region in order to gain control of the fur trade that the Huron and other western tribes had been carrying on with the French. The Iroquois were equipped with firearms procured from traders in New York and, in large part because of this, they obtained military superiority and succeeded in driving the Huron from their traditional territory. The warfare was continued throughout the late seventeenth century, with the Iroquois sporadically dispatching military expeditions into New England, south to Chesapeake Bay and the southern Appalachians, north beyond the headwaters of the Ottawa, and westward into Illinois. As a consequence, the regions around Lake Erie, on the Ontario Peninsula, and the Ohio country south of the lake became essentially depopulated, as the western groups were displaced to the east, west, and south (Tanner 1986:29-30).

Beginning about 1680, however, western tribes and their French allies began a counter offensive, to such a successful degree that the Iroquois sued for peace. In 1701, councils were held in Onondaga, Albany, and Montreal, involving the Five Nations, French, British, and more than twenty western, eastern, and northern Indian groups. A final council the same year in Montreal resulted in a comprehensive peace, ending the Iroquois Wars (Tanner 1986:34).

The repopulation of the Ohio country began following the conclusion of the Iroquois Wars. Some of the groups who reinhabited central Ohio during the early 1700s included the Delaware, Miami, Mingo, Shawnee, and Wyandotte.

Because of population pressure and land sales managed by the Iroquois, Delaware and Shawnee in Pennsylvania were forced westward across the Appalachians. There they established new hunting bases in the Upper Ohio Valley and traded for British manufactured goods. Farther downstream on the Ohio, the Shawnee established their headquarters at the mouth of the Scioto, where, beginning in the 1730s they drew together bands that had been scattered since the Iroquois Wars (Tanner 1986:44).

The Delaware had entered the Ohio country by the 1730s, moving among several locations on the Ohio, the lower Scioto, the Walholding, the upper Mad, and the Auglaize Rivers (Tanner 1986:44). About 1736, one clan of Detroit Huron (Wyandot) made a permanent move to Sandusky Bay, and established towns near the tribal hunting grounds on the Scioto headwaters, where they made peace with the British and their British-allied southern Indian enemies (Tanner 1986:44). In the 1740's a group of Miami established a town on the upper Great Miami River. In northeastern Ohio, splinter groups of Iroquois, referred to as Mingo, clustered near a French trading post on the Cuyahoga. These groups were considered outside the control of the Six Nations confederacy. Later in the eighteenth century, historic Shawnee, Wyandot and Delaware villages were concentrated along the Mad and Miami Rivers, which acted as transportation routes between central Ohio and the Ohio River Valley.

The primary groups of historic Indians known to have occupied or routinely exploited the Hamilton County area during the eighteenth and early nineteenth centuries were the Shawnee and the Miami. There is mounting evidence to suggest that the Shawnee may, in fact, be directly descended from some of the prehistoric populations in the Scioto-Ohio Valley (Hunter 1978). During the latter portion of the eighteenth century and into the nineteenth century, it was the Shawnee who provided the greatest strength in the Indian coalition opposing American expansion west of the Appalachians. With the Treaty of Fort Stanwix in 1768, the Iroquois had opened Kentucky to EuroAmerican settlement, despite the fact that they had little to no jurisdiction over the territory and were depriving the Shawnee of their primary hunting lands.

By 1774, the Shawnee had been forced to accept the Ohio River as their southern boundary. Additional Shawnee lands were secured for American settlement with the signing of the Treaty of Greenville in 1795. This entire period is characterized by sporadic but continual warfare between American settlers and the Indians they were displacing. Although the Shawnee were ultimately divided and exhausted by the conflict, their opposition continued through the War of 1812 with the leadership of Tecumseh and, for awhile, his brother, Tenskwatawa. However, by 1831, all but 600 Shawnee had left Ohio for Oklahoma.

The Miamis also used the southwestern portion of what is now the state of Ohio after being displaced from their homelands west of Lake Michigan. A Miami village loyal to British, rather than French, interests was established near present-day Cincinnati in 1747 (Hunter 1978).

The influence of the village was such that a French force from Detroit was required to destroy it, and to reestablish French control of the upper Ohio Valley. Although relatively brief in duration, their occupation and use of the area is reflected in a number of existing place names, including, of course, the Great and Little Miami Rivers.

EUROAMERICAN OCCUPATION (ca. A.D. 1795 TO PRESENT)

The first European known to have visited the study area was Christopher Gist, who came through in 1750-1751 as an agent and explorer for the Ohio Land Company of Virginia. Following the emergent American government's 1785 offer for sale of the Congress Lands of southwest Ohio, Captain John Cleves Symmes in 1787 purchased a large tract bounded by the Ohio, Little Miami and Great Miami rivers, extending northward to an east-west line running just north of Lebanon. The Symmes or Miami Purchase was the first recorded land transaction of the region, and the Ohio portion of the study corridor is located in this land subdivision.

The initial settlement of the Purchase area focused around Fort Washington and its protective sphere of influence, spreading northward from there. Because Symmes was from New Jersey, many of the initial settlers in the area were from that state as well as from Pennsylvania; some of the earliest settlers were also immigrants who came directly from Germany and Ireland. These early settlers depended on hunting, gathering and subsistence farming, which later evolved into an agricultural market economy. Hamilton county was organized in 1790, and in its original configuration made up most of the west side of the Ohio territory; this was later partitioned into several smaller counties.

The earliest transportation routes in the region followed rivers and aboriginal (and animal) trails, and later, many of the first roads followed the routes of major aboriginal trails. The first major road through the region was the "Great Road" which in the 1790s connected Hamilton and Cincinnati; this provided the inhabitants with access to regional markets via a link with the Ohio River traffic. Following the admission of Ohio to the Union in 1803, the development of road systems in Ohio began in earnest. Turnpikes were a more important impetus for growth for most of the study area's small towns, many of which were laid out while the pikes were under construction. Most of the turnpike roads were built in the 20-year period between 1830 and 1850.

The construction of canals began in the 1820s and quickly became a significant mode for market transportation. By 1850, the Miami and Erie Canal, Ohio Canal, Pennsylvania and Ohio Canal, Sandy and Beaver Canal, and Whitewater Canal had a combined total of 1000.75 miles within the state. The preeminence of the canals as a transportation system gave way to steady decline in the 1850s with introduction of the railroads. The first railroad to Cincinnati, the Little Miami Railroad was begun in 1837, and was completed in ten years, following the Little Miami River. Several other railroad lines were constructed in the last half of the nineteenth century, including the Cincinnati, Lebanon, and Northern Railroad from Lebanon to Cincinnati, built in the late 1870s.

During the early to mid-nineteenth century, the region became the state's first major market agricultural center, due to the presence of good soils, adequate rainfall and temperate climate in the region. Prior to the Civil War, Ohio served as a major producer of agricultural commodities with an emphasis on corn-cattle-swine production. The growth of the agricultural economy was spurred in the middle and latter nineteenth century by various technological innovations and by the development of the canals and railroads which increased access to regional markets.

Land use into the twentieth century remained primarily agricultural throughout most of Hamilton County outside Cincinnati. However, the development of extensive transportation networks and the demand for additional domestic and military supplies during World War I facilitated regional economic growth through the first quarter of the century. The region's industrial growth was accompanied by an increase in urban populations. Consequently, the rural populace began to migrate to urban center and abandon traditional lifestyles. The Second World War precipitated the prevailing pattern of economic growth and development in the region.

THE HISTORIC SETTLEMENT OF NEWTOWN

The following discussion of historic period settlement in Newtown and the surrounding area is taken from a booklet published by Newtown's Historical Fact Finding Committee in 1992. This booklet contains details distilled from historical sources including county histories, diaries and journals, newspaper articles, civic records, and the reminiscences of the population.

Because of the broad, level lands along this portion of the Little Miami River Valley, the lands surrounding the Newtown area attracted attention early in the historic period. The earliest documented visit to the region is that of Christopher Gist, sent by the Ohio Land Company to investigate the region north of the Ohio River between 1750 and 1751. In 1786, one Benjamin Stites also passed through the area, as a member of a party pursuing ostensible Native American horsethieves. He specifically noted the spring now at the center of Newtown.

The parcel including what is now Newtown was originally granted to Captain Matthew Jouitt by the Virginia Military Survey. However, Jouitt died before taking up his grant and the land was sold to General Nathaniel Massie. Dr. Phillip Turpin of Richmond, Virginia (nephew to Thomas Jefferson) was an early landowner for the western portion of the project area. In 1785, he purchased 1000 acres in Hamilton County from its original grantee, Lieutenant John Crittenden. This parcel was surveyed in 1788 by John O'Bannon, and was a rectangle bounded on the west by the Little Miami, on the north by a line from the mouth of Clear Creek to Newtown, on the east by the holdings of General Massie, and on the south by a line from the mouth of Clough Creek to where Clough Pike intersects with the same property. Dr. Turpin's son, Phillip Turpin II, was the first of this family to oversee the parcel in person, though he did not take up local residence until the early 1800s.

With the creation of the Northwest Territory, and the immediate establishment of settlements at Columbia (south of Lunken Airport), Losantville (now Cincinnati), and North Bend, migration into the region was off to an excellent start. Columbia was the first focus of settlement in the immediate vicinity. Occupants built homes along the river, directly protected by the blockhouse erected by Benjamin Stites. They farmed the fertile Turkey Bottoms north along the Little Miami and hunted in the adjacent uplands, although most remained hesitant to venture too far from protection of the stockade.

A second stockade was erected sometime in 1790 by John Gilmore: this was located farther north in the Turkey Bottoms (south of S.R. 125 at the base of the bluffs). Three other stations were built at about the same time, on the bottomlands beyond Gerard Station. One of these, located at Jacob Wickersham's floating mill on the base of a horseshoe bend in the Little Miami, was called "Newtown" for a time. The others were Middletown and Mud stations. These small settlements had receded by the turn of the nineteenth century, and their locations have not been clearly established.

The first settlement at what is now Newtown was called Mercers Station, more formally, Mercersburgh. In 1788 or 1789, Captain Aaron Mercer, his son-in-law, Ichabod Benton Miller, future son-in-law Thomas Brown, and family members had arrived to establish themselves at the settlement of Columbia. A survey map dated 1790, presumably prepared by Mercer's surveyor, Miller, illustrates their plan for a settlement at the present-day location of Newtown, near a strong spring. In 1792, Mercer took a group of 12 men still further inland to construct a log stockade at this location. They then proceeded to lay out 28 lots: bounded on the south by Honey Creek, on the east by Church Street, on the north by the present location of the railroad, and on the west by West Street and Turpin Lane. The men involved in this expedition were: Mercer's sons-in-law Ichabod Benton Miller (surveyor) and Thomas Brown; Lot Cooper; Michael Debolt; J. Dunseth; James Grimes; Alex McConnesheew; Mercer's son Ed; William Milner; Joseph Repsher; Isaac Sturges; and David Ziegler. The reported location of Mercer's stockade is now the fish hatchery on Church Street.

Six among the original establishers of Mercersburgh remained to settle on a permanent basis: Miller; Brown; Cooper; Debolt; Dunseth; and Repsher. However, construction of a town at this location apparently got off to a slow start. A local family history reports only two residences constructed outside the stockade by 1796 (Townesley & Sons n.d.), although the stockade itself reportedly contained four well-built blockhouses. Some of the delay may be related to ongoing conflicts with Native Americans. However, there are no reports of conflicts in or near the Newtown area. The delay may also be due to the fact that the property was owned by General Massie rather than those occupying it. The land was not formally transferred to local residents until 1796: Captain Mercer received 139 acres on May 19, and Ichabod Miller received 440 acres on June 13 (Hamilton County Court Records).

As part of their town's development, Mercer's company built a road from Columbia up through Turkey Bottom, past Gerard Station and east along the foothills. The present day Turpin Lane is part of this road, as is Main Street and part of Round Bottom Road. By 1800, the trail

that is now Church Street was improved to carry wagon traffic to Leonard Armstrong's grist and saw mills located along the Little Miami.

Newtown, then Mercersburgh, was created to provide services related to maintaining the agricultural community, and to moving its products. Hubbard Smith, a blacksmith, set up shop in Mercersburgh in 1800. His sons included Isaac and Thomas (also smiths), Jacob (a wagon maker), and John (a shoe maker). Another blacksmith, David Jones, came to the village in 1802, accompanied by two brothers who were farmers. Another mill and a ferry were established opposite the Turpin property sometime prior to their 1822 purchase by Phillip Turpin II. Thomas Brown, married to Captain Mercer's daughter Ann, set up a log home and store on what is now Main Street (now the town's minipark). This early business served as a polling place in the 1803 state elections. During this same election, a referendum to rename the settlement as Newtown (after a town in Virginia) also appeared on the ballot. Local politics were enlivened by the fact that the earliest village residents tended to be Republicans, while the large farm property owners tended to be Jeffersonian Democrats.

A Methodist minister included Mercersburgh in his circuit as early as 1798. By 1813, a one-story stone church was built by the Methodist congregation on Church Street. A town race track was also present, advertising in Cincinnati as early as 1814. The village post office was established in 1814, although it had no concrete residence until being installed in a store on Main Street in 1816. The first school was located on a trace leading to Bass Island. After it burned, this was replaced by another log structure located on Clear Creek Road. A doctor was resident by 1822. The Miami House was operating as an inn on the wagon road bringing traffic through Newtown on the way to Cincinnati well before 1830 (torn down in 1957, formerly located on S.R. 32 at the west edge of town).

Phillip Turpin II, previously operating his large farm from a residence in Kentucky, had the town's first brick house built on the second terrace above the Little Miami in the early 1800s (demolished in the 1970s). On an interesting note, during excavations for this house workers reported encountering 50 Native American burials. A mound was also reportedly located directly behind the house, facing what is now S.R. 32. The Peabody Museum, under the direction of Dr. Frederick Putnam, conducted minor excavations at this location in 1884. Between 1946 and 1949 the Cincinnati Museum of Natural History (CMNH) conducted extensive investigation of the site under the direction of Charles Oehler. In 1996 and 1981 the CMNH conducted additional investigation of the Turpin Site. The project area crosses over a portion of this site.

The Turpin family has remained prominent in local history. Phillip Turpin II was married to Mary Smith Turpin, who moved to Missouri to operate other extensive landholdings for many years. The first black person recorded in the region is a woman sent by the senior Dr. Turpin as a slave to the farm in Ohio, where she was automatically freed. She occupied a small separate house on the original farm. Phillip and Mary's sons Ebenezer and Edward returned to Newtown, and continued in the entrepreneurial spirit of their father. They and their descendants built a number of residences in Newtown and the surrounding area.

National and international conflicts such as the War of 1812 and the Civil War have had for the most part only indirect effects on Newtown and its surroundings. The strongest impacts were from the loss of adult male population for the duration of these wars. The only event related to the Civil war reported for this region was the encampment of a Union Army guard in one of the Turpin family barns (near West Street) during the alert about Morgan's Raiders.

By the middle of the nineteenth century, Newtown had reached something approximating its present size. By 1869 there were 100 buildings within the village limits. Numerous small industries such as gravel quarrying and nurseries were also developed by the mid-nineteenth century. A gravel quarry was present by 1869, when it was used to provide fill for improvements to a new turnpike (S.R. 32). Jacob Christman utilized the waters of Newtown's spring to run a brewery during this period. The Newtown brickyard was established in 1904 (closing in 1936), providing employment for many local residents in extraction and manufacture.

During the First World War, a government facility for processing nitrates named Ancor was built and operated on Broadwell Road. Although this facility employed thousands of men, and included processing plants, barracks and family residences, it was only operated for a few months in 1918. Some of the residences were reportedly moved to Newtown. The area was taken over by the International Aircraft Corporation for a short time after the war.

Only abandonment, razing and replacement of buildings damaged by fire, flood, and time have altered the character of Newtown since the nineteenth century. The town remains focussed on providing services to the surrounding agricultural region, and facilitating the movement of goods and people into and out of Cincinnati. Throughout the first half of twentieth century, the effects of suburbanization on Newtown were relatively minimal. Most of the residents have been laborers or merchants in the businesses of the immediate area. However, additional housing and the expansion of businesses have been felt, as the automobile and improvements to the road system, and growth in regional population levels have permitted expansion of population outward from Cincinnati.

CHAPTER IV. RESEARCH DESIGN AND METHODS

RESEARCH DESIGN

The research design used for the survey described in this report is typical of reconnaissance level investigations. Its purpose is to permit investigators to consistently identify any cultural resources that lie within a project area, and to provide information upon which to base at least a preliminary evaluation of their potential for eligibility to the NRHP. The terms of the investigation are formulated on a very general level, in order to avoid prejudice against a particular type of resource.

The basic unit for evaluation of significance in archaeological properties is the site. For the purposes of this study, a site is defined as the occurrence *in situ* of any cultural material or artificial feature. Non-sedentary cultures, in particular, tend to produce sites that have very low artifact densities and variation. Thus, ignoring the information provided by sites below a specific artifact threshold would tend to obscure potentially important information from a major portion of the archaeological record. However, historic period artifacts found as isolates will not be addressed individually. These represent part of a generalized pattern of land use and casual discard, and have no individual meaning or associations. In addition, small scatters of recent historic artifacts that are not associated with other features will not be identified as sites. Such dumping episodes are ubiquitous across the eastern United States and are part of the same land use pattern.

Evaluation of eligibility to the NRHP is fundamentally based on how well a resource exemplifies either specific elements or broad trends in history and prehistory. For an archaeological site, this is defined by the quality, quantity, and uniqueness of data preserved in its deposits, and the applicability of that data to specific research domains current in the discipline (Criterion D; ACHP 1980).

Both archaeology and architectural history are based on the assumption that the behavior of an individual human is generally systematic in nature, following adaptation strategies and other patterns of behavior and values shared between members of the same cultural group. Therefore, the material remains resulting from accumulated episodes of individual behavior by members of that group will reflect patterns resulting from the cultural systems they hold in common. The remains left by an individual or group will also represent specific events, broad historical trends, and thematic associations.

It is further assumed that cultural remains are deposited upon and become part of a natural landscape subject to ongoing natural and cultural taphonomic processes. Processes such as soil

formation, erosion, colluvial and alluvial deposition, and human land use affect the context and preservation of both archaeological and architectural remains.

SITE FILES RESEARCH

A literature search was conducted to locate any previously recorded cultural resources within one half-mile of the project alignment (the study area), to identify any archaeological investigations that had taken place in the vicinity, and to provide information on the expected types and locational parameters of sites in the regions. It included a review of the National Register of Historic Places; the Ohio Historic Inventory; the Ohio Archaeological Inventory; the Hamilton County archaeological files and maps at the Ohio Historic Preservation Office; historic maps; and county histories.

FIELD METHODS

Field methods for the Phase I archaeological investigation of the Newtown Pipeline included walkover, shovel test excavation and surface inspection at 15 meter (50-foot) intervals. A walkover survey is typically employed when slope exceeds 15 degrees and/or soils are obviously disturbed. Shovel test excavation is conducted when slope gradient is less than 15 percent and surface visibility is less than 70 percent. If 70 percent or more of the ground surface was visible surface inspection of the area is employed to locate surface deposits.

Shovel test excavations measured 35 to 50 centimeters (14-20 inches) across and were excavated in natural stratum. All soil matrix was screened through 1/4-inch hardware screen mesh. The stratigraphy of each test was recorded using standard soils terminology and Munsell color designations (Munsell 1996). Observations of present ground cover, soil conditions, stratum thickness and type were recorded for each test on standardized forms.

Surface and subsurface artifacts recovered were bagged with the project number; field site number; segment, field, transect, and observation point locational data being recorded on the bag. Artifacts recovered were assigned a Field Specimen number and returned to Gray & Pape's Cincinnati office for processing, analysis and temporary curation.

The goal of this survey was two-fold. The first goal was to identify the presence of cultural resources that may be impacted by the Project. The second goal was to confirm or refute the presence or absence of intact soils beneath the State Route 32 road berm.

Due to the significant amount of time and effort that would be expended to manually excavate through the road berm, permission was sought and granted by the landowner (Bob Fisher) allowing a surface inspection of the edge of the tilled field that parallels approximately 60 percent of the project area. Unfortunately the landowner denied permission to investigate site boundaries that extended beyond the field edge into the floodplain. When archaeological sites

were identified on the surface, shovel tests were excavated between the edge of the tilled field to the road berm to define the site boundary. In addition one or more shovel tests were excavated through the berm in each site area to test the integrity of the soil within and under the roadbed itself.

LABORATORY METHODS

The detailed analyses of the prehistoric artifacts was performed by the individuals listed in the acknowledgements. Identification of diagnostic artifacts was made by consulting the literature and comparing attributes of the recovered artifacts with those provided in the references. Since no historic materials were recovered in these investigations, there is no discussion of historic artifact analysis techniques presented herein.

CHIPPED STONE

The analysis of prehistoric lithic materials was conducted with the following objectives: (1) identification of artifacts recognized as diagnostic of specific cultures or time periods; (2) identification of chert reduction sequences represented by the debitage; (3) identification of utilized and/or retouched debitage; and (4) identification of chert varieties represented among the debitage.

Identification of chert reduction sequences was made by examining attributes of the debitage. The classification scheme employed involved the separation of the lithic materials into one of five classes: decortication flakes, subcortical flake, identifiable cores, miscellaneous flake and/or core debris, and tools. These classes are briefly summarized below.

Decortication flakes include both primary and secondary types. Primary decortication flakes retain cortex on 100 percent of the dorsal face. In contrast, secondary decortication flakes have cortex on 30 to 99 percent of the dorsal face and evidence one or more scars from previously detached flakes. The presence of decortication flakes in an assemblage, especially in association with core debris, is usually interpreted as evidence of lithic manufacturing on-site.

Subcortical flakes include five flake types: primary, secondary, tertiary, interior, and bipolar. Primary flakes are produced during the initial shaping of tools and/or cores. These flakes exhibit a triangular platform, a relatively prominent cone at the point of impact, and retain cortex on less than 30 percent of their surface. Primary flakes exhibit scars of previously detached flakes over most or all of the dorsal face.

The physical characteristics of secondary flakes contrast sharply with those of primary flakes. Secondary flakes are produced during the intermediate tool and/or core shaping process and are typically longer than they are wide, with a lenticular platform. These flakes do not exhibit a prominent cone, are considerably thinner than the primary flakes described above, and

display many scars from previously detached flakes. General reduction and thinning flakes and bifacial thinning flakes constitute much of this category.

Both tertiary and interior flakes result from shaping at some stage during the core or tool reduction process. Tertiary flakes are considered the byproducts of biface trimming or sharpening. These flakes may result during either the final stage of biface manufacture or during maintenance, repair, or rejuvenation of the finished bifaces. Tertiary flakes are typically ovoid in shape and small, with a typical length ranging from 3 to 10 millimeters (0.118 to 0.039 inches).

Interior flakes, which are very small (<3 millimeters [<0.118 inches]), may be removed during any stage of the reduction process. Because of this, the presence of interior flakes in a collection can mean that either chipped stone manufacturing or lithic tool maintenance had been conducted at the site. The final type of subcortical flakes are bipolar. The flakes are detached from a core by striking (with a hard hammer) one edge while the other edge rests on an anvil. The technique results in two bulbs of percussion at opposing ends of the flake, with concentric rings emanating from each bulb in opposite directions.

Two types of cores may also be present. These are flake and bladelet cores. The former are multidirectional, discoidal (plano-convex) and bipolar cores specifically prepared for the purpose of obtaining flakes as an end product. In contrast, bladelet cores were prepared specifically for the removal of lamellar bladelets. The bladelet cores are typically pyramidal in shape, broad at the striking platform end, and tapered to a round or hemispherical apex. In cross-section, bladelet cores are usually oval or round, although occasional cylindrical forms, with striking platforms at both extremities, have been observed.

Certain lithic types do not fit within the classes described above. For the most part, these types are categorized as lithic debris, residuum of various stages of both lithic manufacturing and maintenance activities. Included in the miscellaneous flake and core debris are shatter and blocky fragments, core debris, and checked pebbles. Shatter and blocky fragments are angular fragments that lack any evidence of a platform, bulb of force, or negative flake scars. Shatter and blocky fragments may occur during any stage of a reduction sequence; they may also occur as the product of fire fracture. Core debris consists of spent or exhausted cores that cannot be accurately classified according to specific core type. Finally, checked pebbles are pebble or cobble cherts which were redeposited from their source by alluvial or glacial transport that have one or more flakes removed, presumably for the purpose of checking the interior quality of the chert. Cortex on these pebbles and cobbles is hard, rounded, and patinated due to the manner of transport.

The final class of chipped stone is tools. There are two general varieties of tools: those which have been intentionally manufactured and those which exhibit evidence of utilization in the absence of intentional flake removal. The latter include utilized and retouched debitage may be classified as "expedient tools." These implements were identified by examining each piece of debitage with a binocular microscope for evidence of use-wear and retouch scars.

CHERT TYPES

Individual chert varieties represented among the debitage were also identified with the use of a binocular microscope; each item was compared to samples obtained from known chert source areas. Two raw material attributes were recorded for all chert debitage: raw material type and heat alteration/damage. Raw material type was identified by comparing the prehistoric material to chert samples obtained from the type source area.

All prehistoric materials were examined with the use of a binocular microscope under low magnification for heat alteration and damage. Flint knappers have long recognized that heat treating of some chert varieties results in improved knapping quality. Projectile points could be made longer, thinner, and wider with some heat-altered cherts. Some cherts exhibit distinct changes in color: (1) luster (i.e., the presence of new fracture surfaces exhibiting a greater degree of luster than the older ones); and (2) color shifts (lighter or darker) in known chert varieties, or (3) color changes (e.g., from white to pink) in known chert varieties. Heat damage was identified among the materials by microscopic evidence of: (1) crazing; or (2) potlidding.

GROUND and PECKED STONE

All cobbles and pebbles were examined for the presence of use smoothing, surface grinding, or surface scarring. If such evidence of identified, the item was classified as one of the types of ground or pecked stone. Ground stone types include manos, metates, or miscellaneous. Manos are usually stones which can be held comfortably in either one- or two-hands and which display surface grinding on the dorsal and/or ventral surfaces. Use of the mano results in a smooth, sometimes polished surface. The surfaces, however, can also exhibit pecking scars; these scars are the result of surface rejuvenation. Metates or grinding stones are the stone upon which grinding occurs. Usually, a single surface has been subjected to grinding. The ground surface may conform to the configuration of the mano, though it typically exceeds the in size the long axis of the mano. Like manos, the modified surface of the metate will display smoothing and polishing. It also may be pecked.

Pecked stone results from the use of a rock for hammering or bashing. The surface of the stone is scarred and the area of scarring may appear squashed or ragged. Some spalling may also be present in the pecked area.

FIRE CRACKED ROCK and BURNED LIMESTONE

Two types of heat altered rock, unidentified material and limestone, were encountered during the current investigation. These stones were classified as unidentified material if their parent rock was originally siliceous cobble or pebble. These stones exhibited crazing (a surficial shatter) or cracking (a noticeable break in the surface cortex). Some of the stones were also heat

reddened. The burned limestone exhibited both of these characteristics but also had a flour-like feel to the surface. It was classified separately from other FCR because limestone nodules are sometimes subjected to heating in order to facilitate spalling. The spalls are subsequently crushed and used as ceramic temper.

CERAMICS

The prehistoric ceramics were air dried, subjected to a water and Calgon soak for 30 minutes, and then lightly brushed along the edges. No surface brushing was conducted. Each sherd's interior and exterior surface and cross-section was examined using a 10-power hand lens.

Eight characteristics were recorded for sherds measuring greater than 1/4 inch (0.635 centimeters) in length. The characteristics were paste, temper, thickness, interior and exterior surface color and texture, surface condition and modification, and vessel part. As appropriate, rim form was also recorded. The paste and temper characteristics of the small sherds were documented, however no thickness, color, surface, or vessel part descriptions were attempted because of the small sherd sizes.

The technological implications of the characteristics recorded are straightforward. The cultural and temporal implications of the same characteristics are less obvious and are discussed in the following chapter.

Paste observations provide data on clay origin and the method of vessel configuration (e.g., coiled, modeled). They also can provide data about the degree to which the clay was cleaned and prepared prior to manipulation.

Temper, also referred to as nonplastic inclusions (Shepard 1956), is either added or intrinsic to the clay. It is often impossible to separate intentional from intrinsic inclusions especially in the absence of detailed information on the area clay sources. Many researchers assume that the small amount of sand usually observable under magnification in most ceramics is intrinsic. Common General Woodland intentional additives include crushed chert, grog (crushed sherd), quartz (grit), and shell. The use of particular temper may have temporal implications. For example, Late Woodland, Late Prehistoric, Mississippian, and Contact period sherds are often shell tempered, though other temper inclusions are common in those periods as well (Kinsey 1972).

Thickness, which is taken at the mid-point of a sherd, is measured in millimeters. For this analysis, a Mitutoyo digimatic caliper (series 551) was used. Thickness is recorded for descriptive purposes. It will also provide some information on the maximum height and diameter of a vessel. Such interpretations, however, are virtually impossible with small collections.

The colors of the sherd's interior and exterior surfaces and core provide not only descriptive information, but also provide data on the firing atmosphere. For example, browns

tend to indicate that the vessel was initially fired in an oxidizing atmosphere, one where free oxygen was readily available (Rice 1987). Munsell Color Chart (1994) chips were used to standardize the color descriptions during this study.

Surface modification comes in two varieties: intentional as a decorative technique or as a byproduct of vessel manufacture. Intentional surface modifications include incising, punctation, painting, and applique. Byproduct modification may include polishing, smoothing, floating, cordmarking, brushing, and simple stamping. Surface modification such as cordmarking, brushing, and simple stamping, however, may also represent intentional decorative techniques.

Finally, vessel part and rim form both provide descriptive information which can be used to determine number of vessels present in a collection and the form of the vessels represented.

CHAPTER V. RESULTS OF LITERATURE SEARCH

A literature search was conducted to locate any previously recorded cultural resources within one-half mile of the project alignment (the study area), to identify any archaeological investigations that had taken place in the vicinity, and to provide information on the expected types and locational parameters of sites in the regions. It included a review of the National Register of Historic Places; the Ohio Historic Inventory; the Ohio Archaeological Inventory; the Hamilton County archaeological files and maps at the Ohio Historic Preservation Office; historic maps; and county histories.

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

Prehistoric Native American cultural features and human remains were regularly encountered in the early nineteenth century as Euroamerican settlement expanded and turnpikes were built in the Newtown vicinity. As early as 1800, workmen excavating a cellar for a house on the Philip Turpin farm exhumed 50 human skeletons. By the 1830s, a number of sites in the study area, including mounds and cemeteries, had been destroyed by the construction of Newtown Road and Batavia Pike (now S.R. 32). Descriptions of some of these sites were provided in the local print media of the time (Day 1839). Many of these sites were also described by Charles L. Metz later in the century (Metz 1881). Sponsored by Harvard University's Peabody Museum, Metz undertook the first systematic investigations of prehistoric archaeological sites in the study area.

In 1886, Metz investigated the Turpin Site (33Ha28), which consisted of an extensive village occupation and at least three mounds. However, little excavation was done, and field notes were scanty (Oehler 1973). Sixty years later, in the spring of 1946, the Cincinnati Museum of Natural History (CMNH) began a four-year investigation of the Turpin Site (Oehler 1973). That investigation included extensive surface survey; excavations in the vicinity of the Turpin house; excavation of a small Fort Ancient burial mound as well as a cemetery area along and beyond the edge of the mound; and excavation of a small Newtown phase stone mortuary mound.

It was the 1940s investigations that established a post-Hopewellian Woodland phase and demonstrated a clear stratigraphic relationship with Fort Ancient (Riggs 1986). Oehler's description of the component and materials became the first description of what later became known as the Newtown cultural complex, which is recognized in southwestern Ohio, southeastern Indiana, and northern and central Kentucky (Riggs 1986).

Oehler returned to Turpin in 1969, and continued fieldwork there until 1972, sponsored and staffed by the Women's Committee of the Cincinnati Museum of Natural History. Those investigations involved stratigraphic cuts through various portions of the village area (Oehler 1973).

In 1981, Riggs (1986) made two additional stratigraphic cuts at Turpin in cooperation with Oehler and the CMNH. That investigation was to obtain more specific data concerning stratigraphic development and to recover samples for radiometric dating. Seven intact cultural features were encountered, of both Newtown and Fort Ancient affiliation. Twenty-six postmolds were also identified. Charcoal samples from both the Newtown and Fort Ancient components were recovered along with lithic and ceramic cultural materials and faunal material.

Despite the extensive investigations of the Turpin Site in the last century, to date the only published information on the site are in Oehler's popular work *The Turpin Indians* (1973) and Riggs' article on stratigraphic sequences in the Lower Little Miami Valley (1986).

During the last two decades, a number of contract cultural resources investigations have been conducted in the Newtown area in connection with the construction of sewer lines by the Greater Cincinnati Metropolitan Sewer District. These previous investigations include surveys, NRHP eligibility testing, and data recovery excavations.

In 1977 and 1978, the Miami Purchase Association (Miami Purchase) undertook a survey of 17 miles of corridor for the Greater Cincinnati Metropolitan Sewer District's Newtown Interceptor (Genheimer and Scheurer 1977, 1978). Most of the study area was located in Anderson and Columbia Townships, Hamilton County, to the north, northeast, and southeast of Newtown; however an extension of the project ran concurrently with the ROW of the current project for approximately 0.9 mile (1.45 kilometers) along the northwest side of S.R. 32 southwest of Newtown.

That survey investigated 76 archaeological resources, most of which were previously inventoried prehistoric sites. One site newly recorded by that survey, 33Ha390, is directly adjacent to the current Project corridor. Site 33Ha390 was recorded as a light surface scatter of prehistoric lithic materials which included a projectile point diagnostic of the Late Archaic Riverton culture. Limited test excavation of the site within the interceptor corridor revealed no subsurface cultural deposits, and the authors noted significant disturbance as a result of a sod farming operation.

In June 1977, Miami Purchase undertook archaeological testing at three proposed electrical transmission tower locations within Hahn's Field National Register Archaeological District (Genheimer and Scheurer 1977b). However, no archaeological deposits were identified as a result of test excavations.

In 1991, KEMRON conducted survey of approximately 3.88 miles (6.25 kilometers) of sewer line ROW located mostly north and northeast of Newtown, although the western terminus

of the line was located on the west side of Newtown, just north of S.R. 32 (Kreinbrink, King and Clifford 1991; Kreinbrink and Clifford 1991). The survey relocated three previously recorded prehistoric archaeological sites (33Ha10, 33Ha124, and 33Ha393), and identified two prehistoric sites (33Ha586 and 33Ha588) and one historic archaeological site (33Ha588). Site 33Ha586, the Driving Range Site, was identified as a multicomponent prehistoric site, located near the Anderson Township Practice Range approximately 152 meters (500 feet) north of the present project. The KEMRON authors suggested that the site may be associated with the nearby Hahn Field site (33Ha10), and recommended eligibility testing for Site 33Ha586. Subsequent testing and data recovery excavations conducted in 1991-1993 revealed a series prehistoric occupations ranging from the Middle Archaic through the late Fort Ancient periods (Kreinbrink 1994). Excavations on the south end of the site revealed several households or activity areas with midden and features including large refuse pits, postmolds, cooking pits, and others. Burials of at least ten individuals were also identified. The habitation features are of Fort Ancient affiliation, while the burials were determined to date from both the Late Archaic and Fort Ancient.

In 1992, Gray & Pape conducted Phase III and IV testing and data recovery excavations on a portion of the NRHP-listed Perin Village Site (33Ha124) to be impacted by sewer construction (Kozarek, Myers, and Connolly 1993). The site is located east of Newtown Road and north of S.R. 32 on a terrace of the Little Miami River. The excavations identified a Late Archaic component containing intact cultural features yielding diagnostic artifacts of Late Archaic Riverton cultural affiliation.

Phase III and IV investigations were also conducted on the Martin Field Site (33Ha588). Two major prehistoric components were identified at the Martin Field Site; these are Late Archaic and Middle Woodland. Three minor components, including Paleoindian, Middle Archaic, and Early Woodland, were indicated by the recovery of diagnostic artifacts. The site also yielded intact features from the Late Archaic and Middle Woodland periods.

In 1993, Gray & Pape conducted Phase III archaeological testing on the Hafner Field Site (33Ha585), to be impacted by sewer construction. The site is located on the northwest side of Newtown village on the first terrace above the south bank of the Little Miami. Previously identified components include Late Archaic, Late Woodland, and possibly Middle Woodland. The Phase IV excavations identified no intact cultural deposits or features, and indicated that the ROW lay on the outer perimeter of the site.

INVENTORIED ARCHAEOLOGICAL RESOURCES

A review of the Ohio Archaeological Inventory found 26 previously inventoried archaeological resources located within the study area (Figure 3, Table 1). These include prehistoric components ranging from Archaic to Fort Ancient and also include one historic component. Nine of those site locations are located within 100 meters (328 feet) of the project alignment, and are indicated in Table 1 by an asterisk; most of those sites have been destroyed

INVENTORIED ARCHITECTURAL RESOURCES

A review of the Ohio Historic Inventory found 27 previously inventoried architectural resources within the study area (Figure 3, Table 2). The majority of these resources are located within the village of Newtown; a number of these are in proximity to the project alignment as it follows the north side of Main Street (S.R. 32) through the village.

HISTORIC MAPS

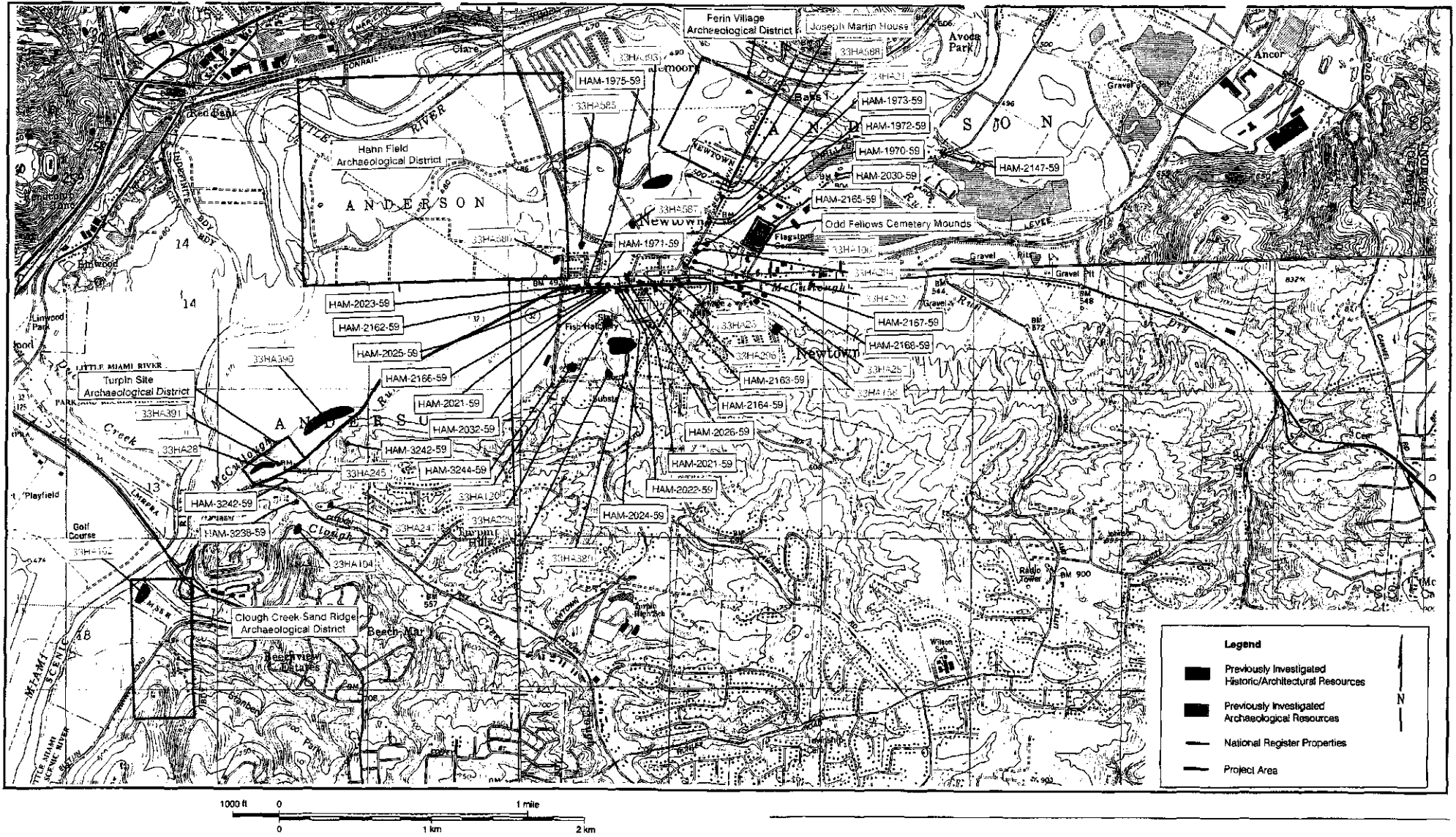
Historic maps of Anderson Township were examined to determine whether changes in the alignment of S.R. 32 (Batavia Road) may have taken place, and whether historic structures may have been present within or adjacent to the project ROW. The 1912 Cincinnati East USGS 15' topographic quadrangle and the Hamilton County map in Mills (1914) were examined; these show no major changes in the alignment of Batavia Road. Smaller changes may have taken place, but are not apparent. The 1912 map shows structure locations (the 1914 map cannot because of the scale); however, outside of the village of Newtown, none are in immediate proximity to the Project. The location of the ca. 1800 Philip Turpin House is shown on the 1914 map, but set well back from the road. The house was extant until the 1970s, when it was demolished because of extensive flood damage (Newtown Historical Committee 1992).

NATIONAL REGISTER OF HISTORIC PLACES

A review of the NRHP found six NRHP properties and/or districts to be located within, or partially within, the study area; the names and locations of these properties and districts are shown on Figure 3. Except for the Joseph Martin House, all of these encompass prehistoric archaeological resources, which illustrates the extraordinary archaeological sensitivity of the Little Miami valley in the Newtown area. The Turpin Site Archaeological District is of the most concern, as the Project lies within the District's southern border as formed by S.R. 32. In addition, the southwesternmost portion of the Hahn Field Archaeological District is within 100 meters (328 feet) of the Project ROW.

CULTURAL RESOURCES SENSITIVITY OF THE PROJECT ROW

As noted above, the number and quality of prehistoric archaeological resources that have been recorded in the Newtown area illustrates a high degree of sensitivity in the Project study area. Along the ROW, this holds especially true in any well-drained, relatively undisturbed geomorphological context.



Plan View of Project Area Showing Previously Investigated Resources

The portion of the project ROW which extends through the Turpin Site Archaeological District is an area of particular sensitivity, as is the portion in proximity to Site 33Ha390. The terrace formations on which these resources are situated are among the higher and better drained landforms along the project ROW, and intact cultural deposits may remain in proximity to the S.R. 32 road berm. Although the project ROW does not enter the Hahn Field Archaeological District, the close proximity to that District should indicate a high degree of sensitivity along that portion of the ROW as well.

With regard to historic cultural resources, both architectural and archaeological, the location of the project ROW along the rural portion of S.R. 32 (Batavia Road) berm suggests a relatively low degree of sensitivity. Historical documentary research indicates an early Euroamerican occupation in the vicinity of the prehistoric Turpin Site (i.e., the Philip Turpin farmstead); however, historic accounts and maps of the area indicate that the house and farm structures were set well back from the road, which appears to presently follow its historic alignment. Within the village of Newtown, the position of the ROW on the north side of Main Street in proximity to inventoried historic structures would indicate a higher degree of sensitivity.

Table 1. Summary of data from OAI forms for previously inventoried archaeological sites within one half-mile (.8 kilometer) of the project area.					
Site No.	Name	Cultural Components	Site Type	Landform	NRHP Eligibility Status
33Ha020	Newtown Cemetery	Ft. Ancient?	cemetery	isolated plateau	destroyed by gravel quarry in 1838
33Ha021	Newtown Mound I	Hopewell	mound	2nd terrace	destroyed by road construction in 1874
33Ha023*	Newtown Mound III	Ft. Ancient	mound	high floodplain	destroyed by road construction before 1830
33Ha028*	Turpin Site	Late Woodland, Ft. Ancient	village site and burial mounds	2nd terrace	NRHP District
33Ha102	Clough Creek Site	Ft. Ancient	village site	2nd terrace	???
33Ha104	Clough Creek Campsite	Woodland and Archaic	campsite	cut stream terrace	not evaluated?
33Ha106	Odd Fellows Cemetery Mounds 1 and 2	Hopewell	mounds	terrace	NRHP-listed
33Ha120	Blum Village	Ft. Ancient	village	glacial terrace	not evaluated?
33Ha158	Mill Joy Village	Woodland	village	bluff top	destroyed in early 1960s by housing development
33Ha229	Fish Hatchery Mound	Woodland	mound	edge of ridgetop	destroyed?
33Ha245*	Turpin Mound	Ft. Ancient	burial mound	terrace	destroyed late 1940s by professional archeo. excavation
33Ha247	Clough Creek Mound	Ft. Ancient?	mound and village	bluff top	destroyed in 1910
33Ha282*	Downie Mound	Woodland	mound	terrace	destroyed by gravel quarry 1940
33Ha283*	Irish Mound	unknown	mound	1st terrace	destroyed 1830 by road construction
33Ha284	Methodist Church Mound	unknown	mound	terrace	destroyed 1850 by road construction
33Ha287*	Barq Mound	Ft. Ancient	mound	high floodplain	destroyed before 1830
33Ha296*	Dunseith Mound	Ft. Ancient	mound	terrace	destroyed before 1880
33Ha389	Stickel Site	Archaic and Hopewell	habitation site	high 2nd terrace	not evaluated
33Ha390*	Robert Fischer Site	Late Archaic	campsite	2nd terrace	not evaluated

Table 1. Summary of data from OAI forms for previously inventoried archaeological sites within one half-mile (.8 kilometer) of the project area.					
Site No.	Name	Cultural Components	Site Type	Landform	NRHP Eligibility Status
33Ha391*	McCullough Run Mound	Late Woodland or Fort Ancient	mound	2nd terrace	Within Turpin NRHP District; destroyed by plowing and outbuilding construction.
33Ha393	Shademoore-Newtown Site	unassigned prehistoric	campsite	terrace	not evaluated
33Ha419	Firehouse Site	Late Woodland?	village, burials	2nd terrace	not evaluated
33Ha585	Hafner Field Site	unassigned prehistoric	unknown	2nd terrace	not evaluated
33Ha586	Driving Range Site	unassigned prehistoric	unknown	2nd terrace	not evaluated
33Ha587	Lemon House	Historic period, 1850-1974	residential	2nd terrace	not evaluated
33Ha588	Martin Field Site	unassigned prehistoric	unknown	terrace	not evaluated

Table 2. Summary of Data from OHI Forms for Previously Inventoried Historic/Architectural Resources Within the Study Area.			
OHI #	Name	Description	NR Evaluation (as on OHI form)
HAM-1970-59	Van Lock Co.	ca 1853 Greek Revival; 3 story brick church bldg.	eligible
HAM-1971-59	Minnear House	ca 1870 Federal vernacular; brick residence	eligible
HAM-1972-59	--	Victorian; 2 1/2 story frame residence	not eligible
HAM-1973-59	--	Vernacular; 1-story frame residence	not eligible
HAM-1975-59	Moore & Sons Funeral Home	ca 1854 Transitional; 2 story frame residence	eligible
HAM-2021-59	Donald Breeze House	ca 1890 Victorian; frame residence	eligible
HAM-2021-59	no data avail.	---	---
HAM-2022-59	Decorator's Upholstering	ca 1852 Vernacular; 2 story brick residence	not evaluated
HAM-2023-69	Stevens House	ca 1875 Transitional; 2 story frame residence	not evaluated
HAM-2024-59	Carl Kiser House	ca. 1860 vernacular; 2 story brick residence	eligible
HAM-2025-69	Asbury House	ca 1870 vernacular; 2 story brick residence	eligible
HAM-2026-59	Gerard Lodge	ca 1861 Greek Revival; 2 1/2 story brick school	eligible
HAM-2030-59	Dravo House	ca 1850 Federal Vernacular; 2 story brick residence	demolished
HAM-2032-59	Harris House	ca. 1870 vernacular; 2 story frame residence	eligible
HAM-2087-59	Perin House	ca 1840 Greek Revival; 1 1/2 story frame residence	eligible
HAM-2147-59	Lewis House	ca. 1810 Federal Influence; 2-story brick residence	eligible

Table 2. Summary of Data from OHI Forms for Previously Inventoried Historic/Architectural Resources Within the Study Area.			
OHI #	Name	Description	NR Evaluation (as on OHI form)
HAM-2162-59	Frances Perry House	ca. 1880 Gothic influences; 1 1/2 story frame residence	eligible
HAM-2163-59	Adams House	ca. 1860 vernacular; 2 story frame	not eligible
HAM-2164-59	Howell House	ca. 1850 vernacular; 2 story frame residence	not eligible
HAM-2165-59	Newtown Cemetery (Odd Fellows Cemetery)	ca. 1820-present	not eligible
HAM-2166-59	George F. Rabe Bldg	ca 1850 Federal vernacular; 2 story brick/frame originally hotel?	eligible
HAM-2167-59	Newtown Methodist Church	ca 1867 Greek Revival; 1 story brick church bldg	not eligible
HAM-2168-59	Newtown Fire Department	ca 1841 Greek Revival; 1 story brick church bldg.	not eligible
HAM-3238-59	Ida McComos House	ca 1890 Queen Anne; 2 1/2 story frame residence	eligible
HAM-3242-59	E.J. Turpin, Jr. Residence	ca 1875/1900 Queen Anne Vernacular; 2 story brick residence	eligible
HAM-3244-59	Ebenezer S. Turpin House	ca. 1835 I-house with Italianate addition; 2 1/2 story brick residence	eligible
HAM-3256-59	James Marriott House	ca. 1840 Stack House; 2 story brick/frame residence	eligible

CHAPTER VI. RESULTS OF FIELD INVESTIGATIONS

The Project corridor (Figure 4 to 8), located in Anderson Township, Hamilton County, Ohio, encompasses a linear strip measuring 6 meters (19 feet) by 3658 meters (2.1 miles) parallel to the north side of State Route 32 from Clough Pike to River Hills Drive. This cultural resources survey redefined the boundary of two previously recorded resources, Site 33Ha28 and 33Ha390, and identified three previously unrecorded archaeological sites, 33Ha697, 33Ha698 and 33Ha699 (Appendix B).

The project area was divided into arbitrary segments to facilitate proveniencing in the field (Table 3). Segment boundaries were defined by McCullough Run and distinct changes in land use, and are designated numerically from the western terminus of the Project at Clough Pike east to River Hills Drive. Segments were further divided into fields with boundaries defined by farm drainage ditches and farm access roads; fields are designated alphabetically from west to east within each segment.

SEGMENT 1

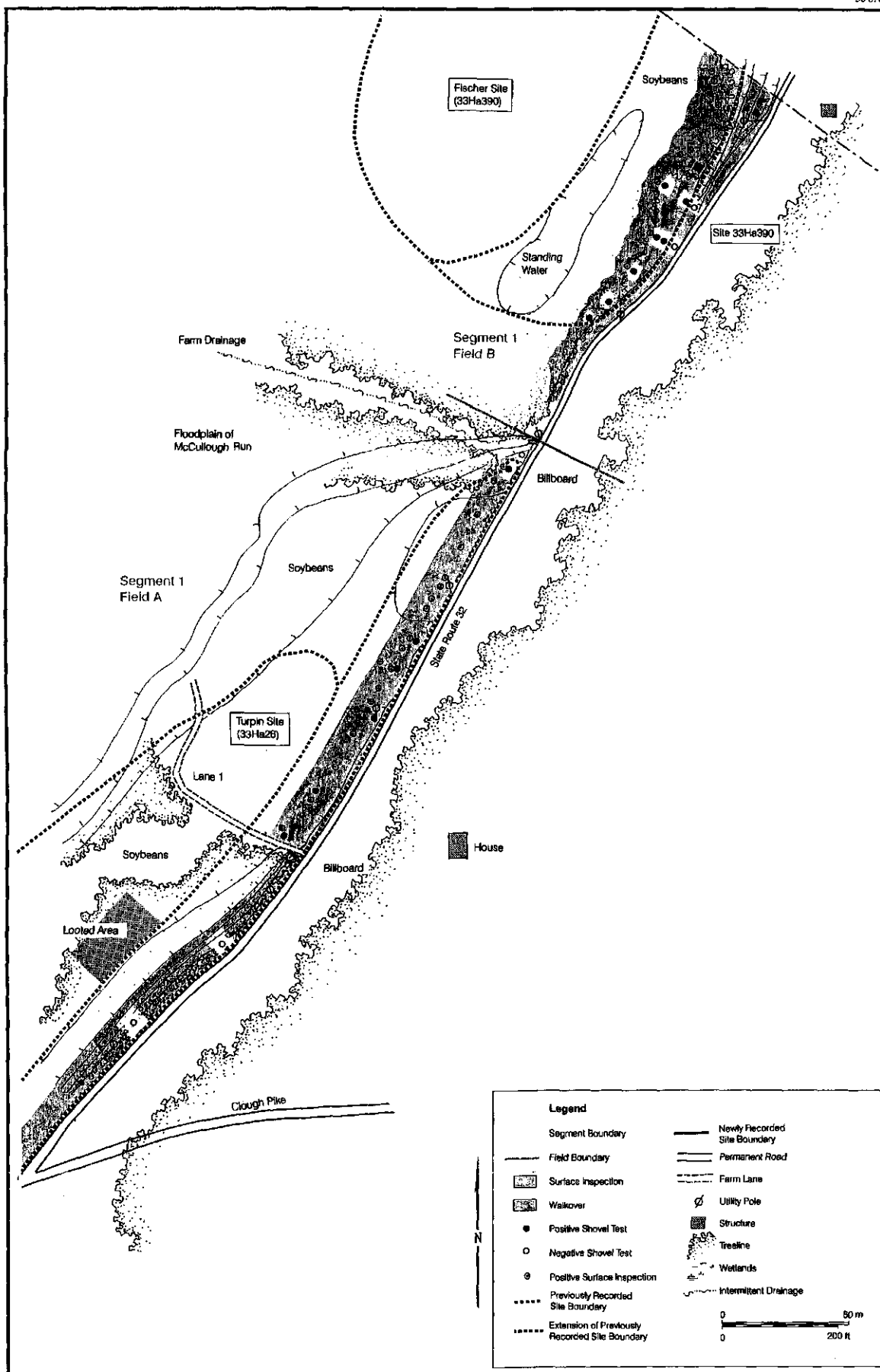
Segment 1 is 925 meters (303 feet) in length and begins at the intersection of Clough Pike and terminates at McCullough Creek (Figure 4, Plate 1). The topography within the confines of the ROW is dominated by a steep road berm (25-40%

slope) that rises 1 to 2.5 meters (3.3-8.2 feet) above the floodplain of the Little Miami River and McCullough Run. A small segment of the ROW crosses over a high terrace in Field B. The ground cover consists of weeds, grasses and brush dominated by jimson weed, poison ivy, Queen Anns Lace, fescue and honeysuckle. A soybean field parallels the berm allowing for 100 percent surface visibility in that area. Evidence for two previously identified sites (33Ha28 and 33Ha390) was encountered in Segment 1, and Site 33Ha699 was identified for the first time.

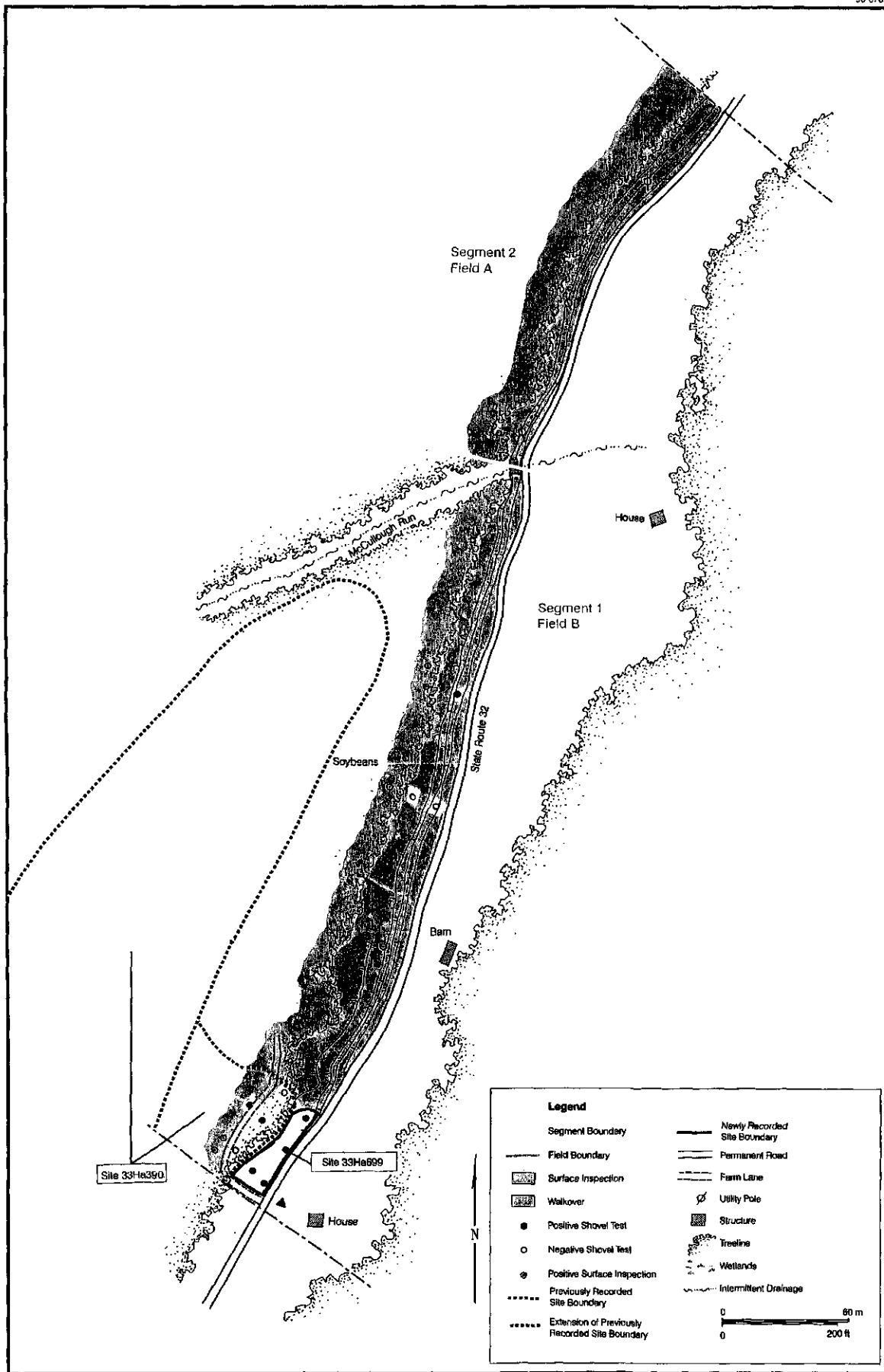
FIELD A

Field A is 428 meters (1404 feet) in length and begins at the intersection of State Route 32 and Clough Pike and terminates at a narrow V-shaped field drainage that flows northwest into McCullough Run (Figure 4, Plate 1). Survey methods included walkover, surface inspection and shovel testing (n=8) at 15-meter (50-foot) intervals.

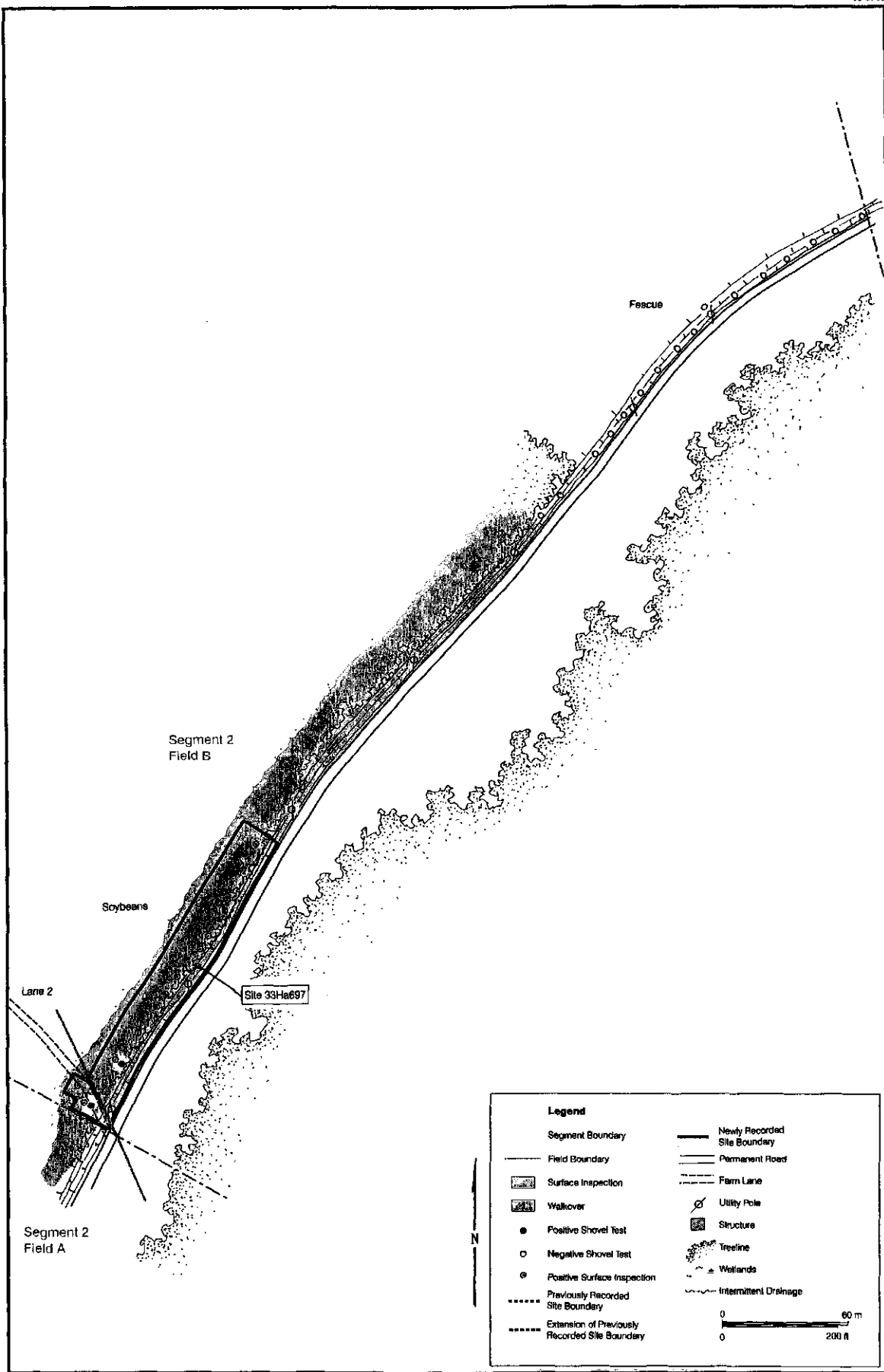
Previously recorded prehistoric Site 33Ha28 extends almost the entire length of Field A (Figure 4, Plate 1). The current Phase I survey has extended the recorded boundaries of this site and identified intact artifact bearing soil horizons beneath the road berm of the Row.



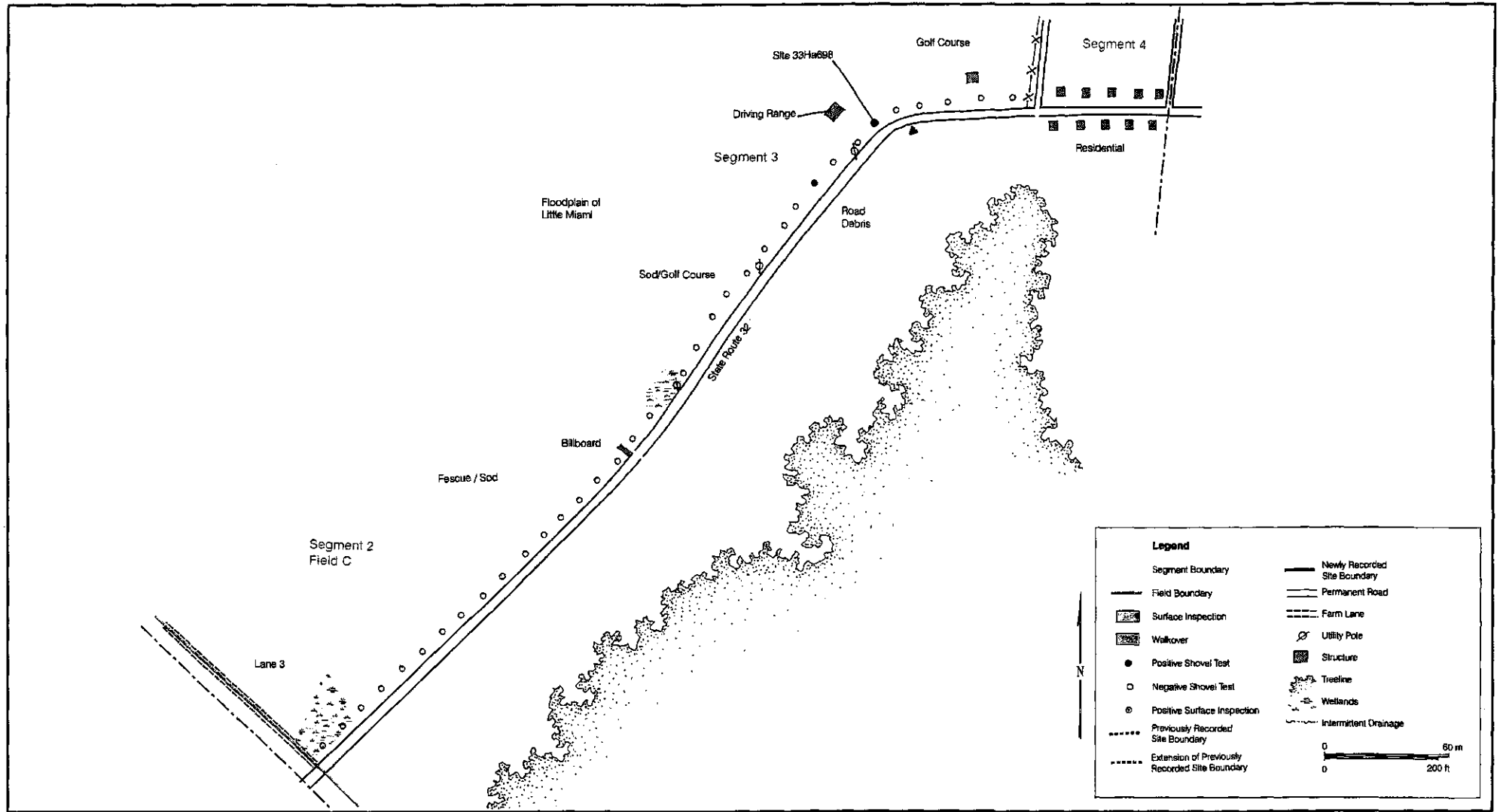
Plan View of Project Area Showing Sites and Survey Coverage
(Map 1 of 5)



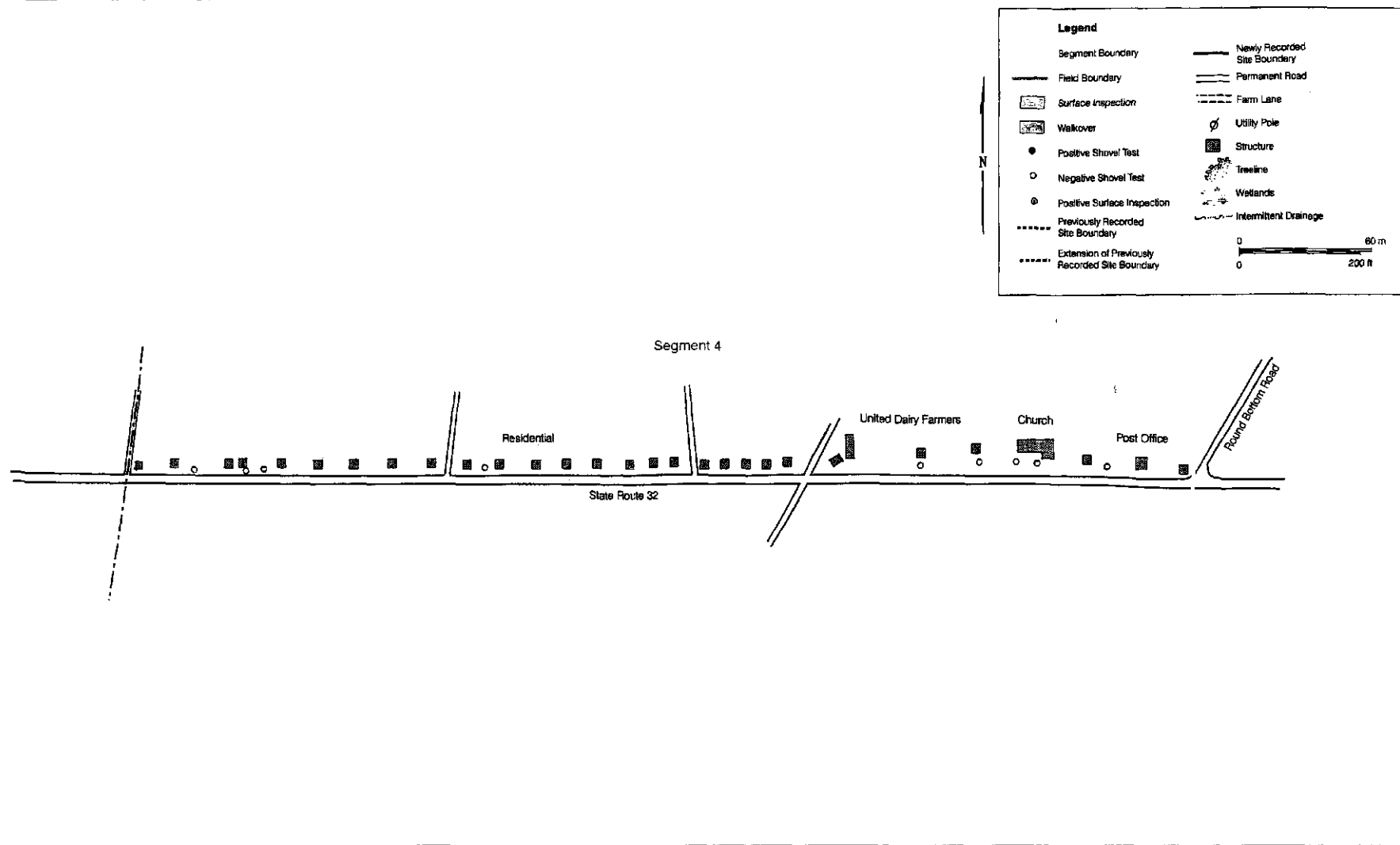
Plan View of Project Area Showing Sites and Survey Coverage
(Map 2 of 5)



Plan View of Project Area Showing Sites and Survey Coverage
(Map 3 of 5)



Plan View of Project Area Showing Sites and Survey Coverage
(Map 4 of 5)



Plan View of Project Area Showing Sites and Survey Coverage
(Map 5 of 5)

TABLE: 3 SURVEY SUMMARY

Location	Length Survey Area ft./m	Slope (%)	Ground Cover	Visibility (%)	Survey Technique	Cultural Resources Encountered
Segment 1 Field A	1404 ft/ 428 m	0-40%	honeysuckle, weeds, mixed grasses, and soybeans	0-100%	surface inspection, walkover, shovel test (n=8)	33Ha28
Segment 1 Field B	1640 ft/ 500 m	0-40%	honeysuckle, weeds, mixed grasses, and soybeans	0-100%	surface inspection, walkover, shovel test (n=18)	33Ha390 33Ha699
Segment 2 Field A	755 ft/ 230 m	0-40%	weeds, mixed grasses, and soybeans	0-100%	surface inspection, walkover, shovel test (n=1)	33Ha697
Segment 2 Field B	1968 ft/ 600 m	0-40%	weeds, mixed grasses, and soybeans	0-100%	surface inspection, walkover, shovel test (n=17)	33Ha697
Segment 2 Field C	1640 ft/ 500 m	0-40%	weeds, fescue	0-30%	walkover, shovel test (n=16)	none
Segment 3	492 ft/ 150 m	0-30%	weeds, fescue, manicured lawn	0-30	walkover, shovel test (n=19)	33Ha698
Segment 4	4101 ft/ 1250 m	0-30%	manicured lawn	0-20%	walkover, shovel test (n=9)	none



Plate 1. Segment 1, Field A, looking northeast across Site 33Ha28.



Plate 2. Segment 1, Field B, looking northeast across Site 33Ha390 and 33Ha699.

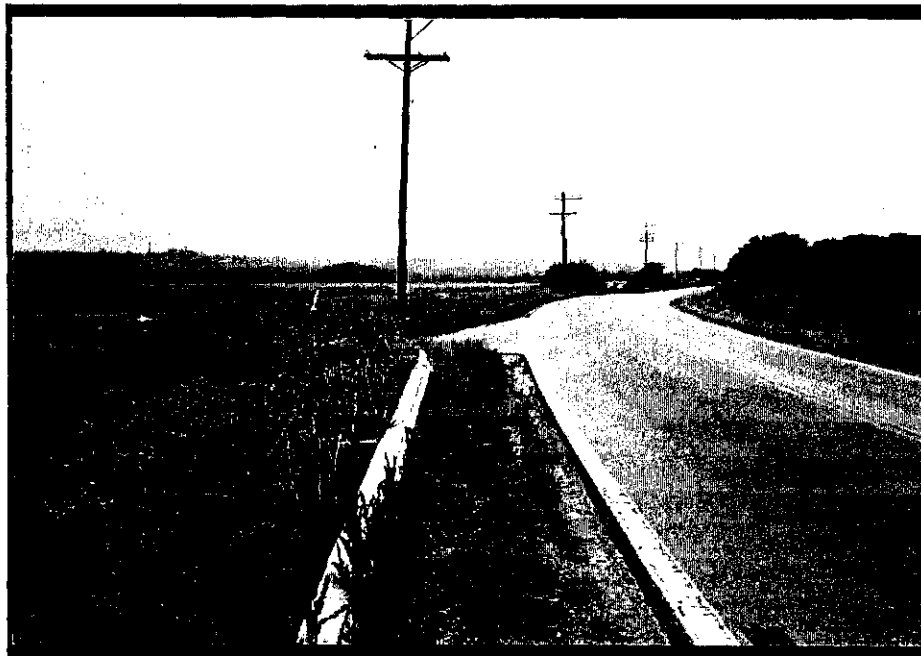


Plate 3. Segment 2, Field B, Site 33Ha697 looking northeast.



Plate 4. Segment 3, Site 33Ha698 looking west.

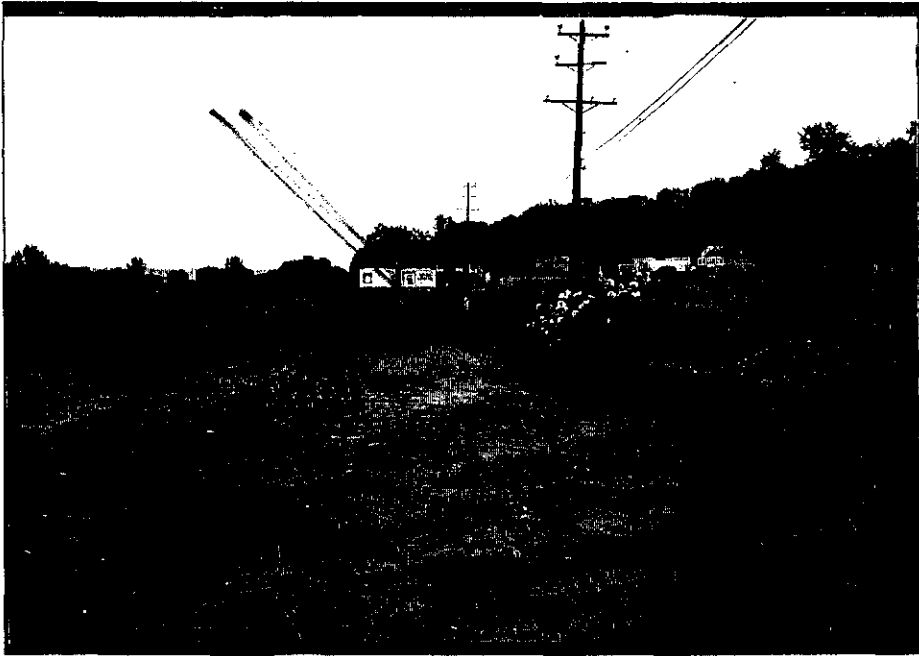


Plate 1. Segment 1, Field A, looking northeast across Site 33Ha28.



Plate 2. Segment 1, Field B, looking northeast across Site 33Ha390 and 33Ha699.

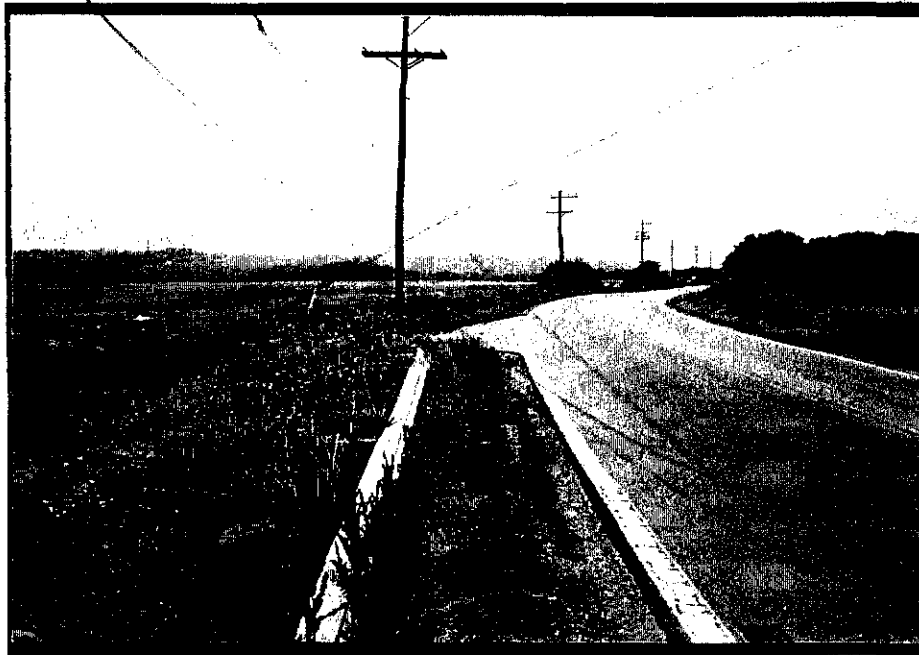


Plate 3. Segment 2, Field B, Site 33Ha697 looking northeast.



Plate 4. Segment 3, Site 33Ha698 looking west.

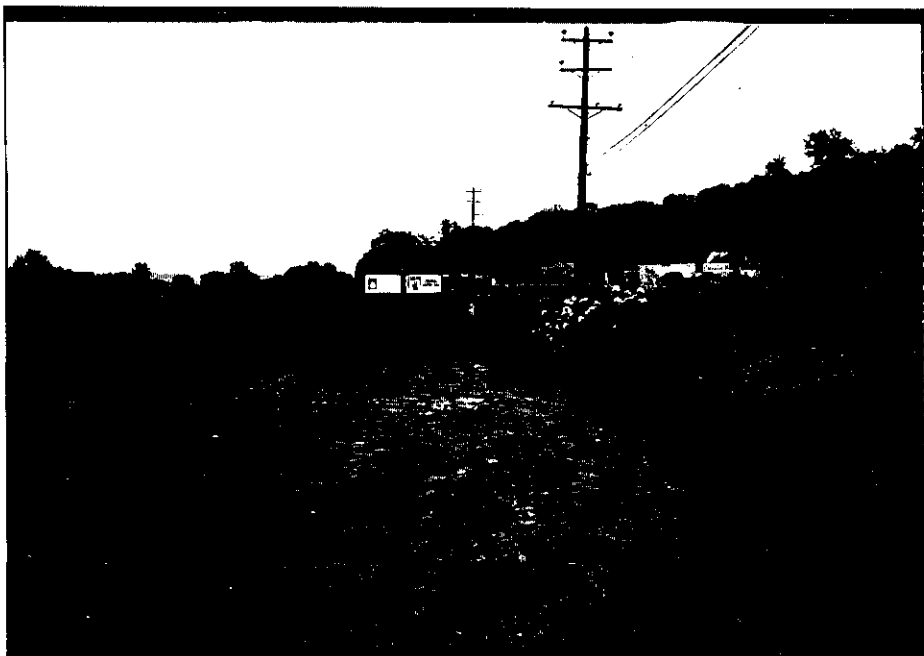


Plate 1. Segment 1, Field A, looking northeast across Site 33Ha28.



Plate 2. Segment 1, Field B, looking northeast across Site 33Ha390 and 33Ha699.

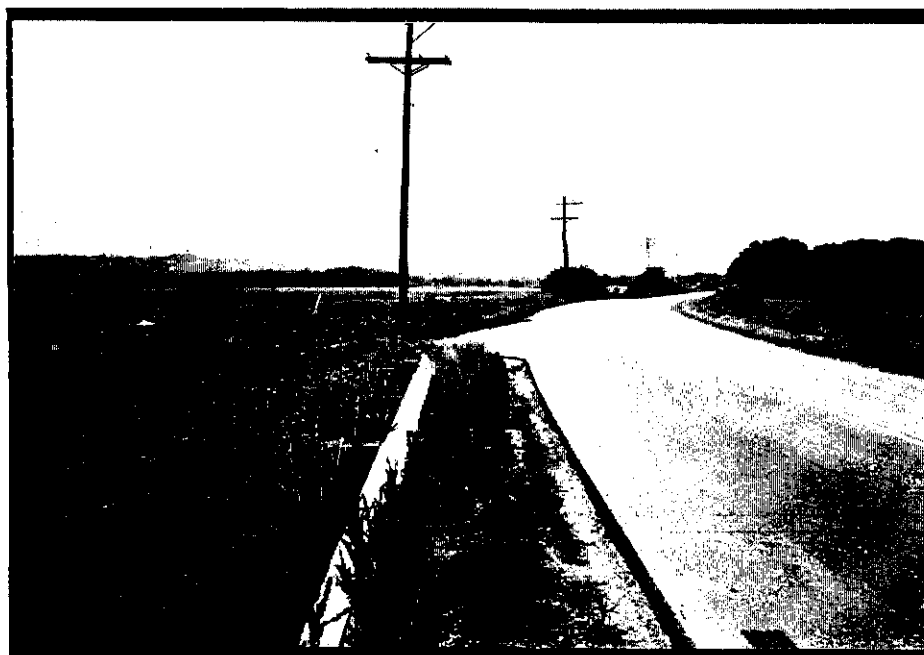


Plate 3. Segment 2, Field B, Site 33Ha697 looking northeast.



Plate 4. Segment 3, Site 33Ha698 looking west.

Shovel tests were excavated in both the soybean field at the edge of the berm and within the berm to identify intact soil horizons. Two distinct soils were identified. Shovel test excavations placed within the berm between Clough Pike and Farm Lane 1 within Site 33Ha28 were characterized by a 25-centimeter (9.8-inch) upper stratum 10YR4/3 brown firm silty loam containing modern debris, overlying 30 centimeters (11.8 inches) of 10YR2/2 very dark brown firm loam clay silt with the lower 20 centimeters (8 inches) containing 80 percent cobbles. The final stratum identified is a 10YR3/6 dark yellowish brown friable silt clay that may represent an intact subsoil, indicating destruction of the upper soil horizons during road construction. In contrast a shovel test (Figure 9) excavated within the road berm north of the farm lane (still within Site 33Ha28) was characterized by 50 centimeters (19.6 inches) 10YR3/2 very dark grayish brown firm clay loam silt yielding road debris and cobbles overlying a 42-centimeter (16.5 inch) sterile 10YR4/6 dark yellowish brown firm clay silt. Beneath this is a 43-centimeter (17 inch) 10YR3/2 very dark grayish brown loose silt clay loam (buried A Horizon) that yielded a single ceramic sherd (Appendix A). The test was excavated to a depth of 109 centimeters (43-inch) and cored an additional 33 centimeters (13 inches) for a total depth of 142 centimeters (56 inches). The subsoil, a 10YR5/6 yellowish brown friable silt clay, was identified in the soil core at 135 centimeters (53 inches). This profile establishes that the site has survived undisturbed beneath the road.

FIELD B

Field B (Figures 4 and 5, Plate 2) is 500 meters (1640 feet) in length and lies northeast of Field A, terminating at McCullough Run. The survey methods employed included surface inspection of the soybean field adjacent to the ROW and walkover and shovel testing (n=18) of the road berm and high terrace within the ROW at 15-meter (50-foot) intervals.

Two cultural resources are located within Field B. Site 33Ha390, a prehistoric site located within the floodplain of McCullough Run was recorded in 1977 during the Miami Purchase Survey. The results of the current archaeological investigation have expanded the southwest boundary of Site 33Ha390 to include the entire floodplain between McCullough Run and the road berm of State Route 32. Site 33Ha699 is a previously unrecorded small prehistoric site (15 by 45 meters [50-147 feet]) identified on the high terrace overlooking the floodplain next to the road berm.

Shovel tests at the edge of the 1-to 2-meter (3.2- to 6.5-foot) high berm are characterized by a 42-centimeter (16-inch) 10YR3/3 dark brown silt loam with 10 percent gravel overlying a 10YR2/1 black sandy silt loam Buried A Horizon that extends to a depth of approximately 78 centimeters (30 inches) beneath the ground surface.

Shovel testing at Site 33Ha390 within the road berm depicted disturbed soils to a depth of 138 centimeters (54 inches) (Figure 9). The stratigraphy within the overburden is characterized by 6 centimeters (2.3 inches) of 10YR3/1 very dark gray loose silty loam containing modern debris overlying 19 centimeters (7 inches) of 10YR4/6 dark yellowish brown

loose silt clay containing 80 percent pebbles and small cobbles with modern debris overlying 42 centimeters (16.5 inches) of 10YR3/1 very dark gray loose loamy clay silt containing 10 -15 percent small rounded gravel. Beneath this lies 71 centimeters (28 inches) of 10YR4/6 dark yellowish brown that contains 80 to 90 percent small rounded gravel and medium size cobbles (Figure 9).

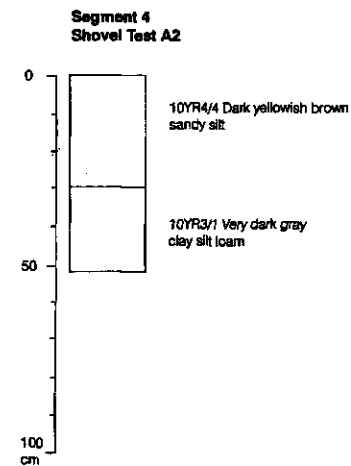
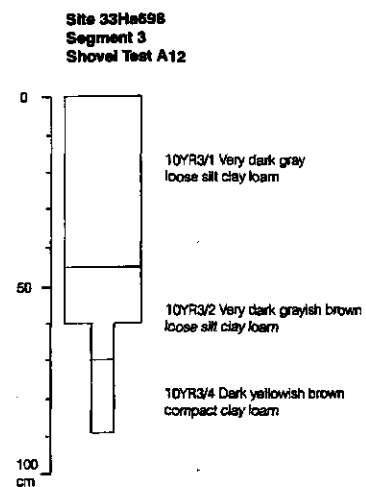
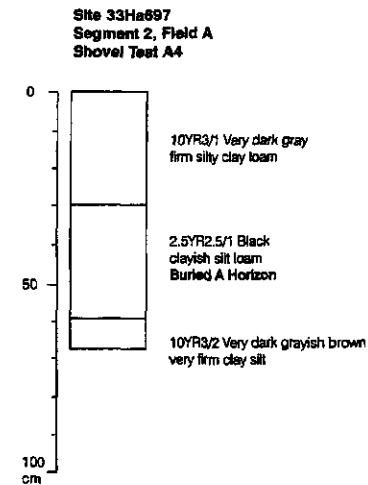
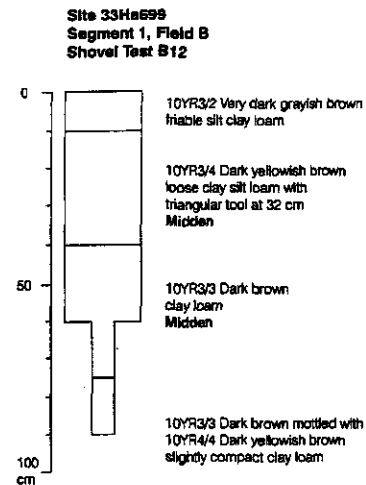
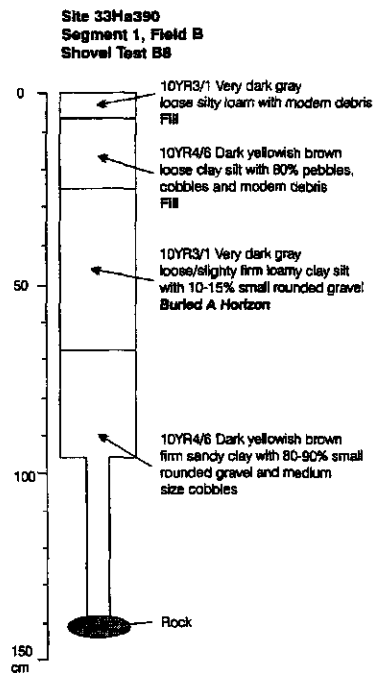
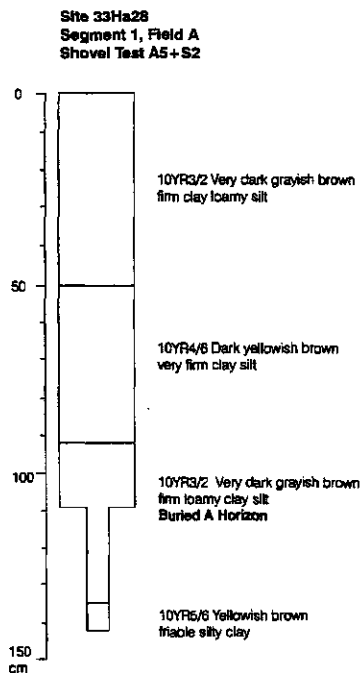
Shovel tests on the high terrace at Site 33Ha699 indicate the existence of intact artifact bearing soil horizons (Figure 9). Soils are characterized by a upper strata identified as 10 to 20 centimeters (3.9-7.8 inches) of 10YR3/2 very dark grayish brown friable silt clay loam containing modern debris overlying a 20- to 30-centimeter (7.8- to 11.8-inch) stratum of 10YR3/4 dark yellowish brown loose clay silt loam yielding bone fragments, ceramics, flakes, mussel shell and FCR. Beneath this lies approximately 30 centimeters (11.8 inches) of 10YR3/3 dark brown clay loam yielding chert, bone, burned limestone, and mussel shell. Stratum IV is characterized by 10YR3/3 dark brown clay loam mottled with 10YR4/4 dark yellowish brown slightly compact clay loam yielding flakes, burnt bone and burnt limestone to a depth of 80 centimeters (31 inches) below the surface. A soil core was utilized to examine the soil from 60 to 90 centimeters (23.6 - 35.4 inches). Artifacts were recovered from a depth of 80 centimeters (31 inches).

SEGMENT 2

Segment 2 (Figure 5, 6 and 7, Plate 3) begins north of McCullough Run and extends 1330 meters (4347 feet) northeast, terminating at a manicured lawn at the edge of a golf course. The topography within the ROW consists of a steep road berm (30 to 40 percent slope) that is elevated approximately 2 -3 meters (6.5-9.8 feet) above the floodplain of the Little Miami River. The edge of the ROW lies within the floodplain that is actively farmed and currently planted in soybeans or sod. The ground cover on the road berm consists of a mixture of grasses and weeds including fescue, poison ivy, Queen Anne's lace, chicory and jimson weed.

FIELD A

Field A (Figures 5 and 6) extends 230 meters (738 feet) from McCullough Run and terminates at Farm Lane 2. Field A was primarily investigated by walkover of the berm area and surface inspection of the soybean field. A single shovel test was excavated just south of the northern end of Field A, south of Farm Lane 2, within the boundary of newly recorded Site 33Ha697. Site 33Ha697, a prehistoric surface and subsurface scatter, is located at the north edge of Field A, on the south side of the farm lane, and extends 235 meters (771 feet) into Field B for a total length of 255 meters (837 feet).



Representative Shovel Test Profiles

The soil profile from the shovel test excavated within Site 33Ha697 is characterized by a 30 centimeter (11.8 inch) 10YR3/1 very dark gray firm silt clay loam overlying a 29 centimeter (11.4 inch) stratum of 2.5YR2.5/1 black clay silt loam representing a buried A Horizon (Figure 9). Beneath this lies a 10YR3/2 very dark grayish brown very firm clay silt loam (yielding a single prehistoric ceramic sherd) that extends to the depth of excavation.

FIELD B

Field B (Figures 6 and 7, Plate 3) begins at Farm lane 2 and extends to the northeast 600 meters (1968 feet), terminating at Farm Lane 3. The survey methods employed included walkover, surface inspection and shovel tests (n=17) at 15-meter (50-foot) intervals. A single cultural resource, Site 33Ha697, was identified in Field B. Shovel tests profiles were characterized by a 23-centimeter (9-inch) stratum of 10YR3/2 very dark grayish brown friable silt clay overlying a 10YR3/1 very dark gray mottled with a 10YR4/6 dark yellowish brown friable silty clay or were characterized by a 10YR3/2 very dark grayish brown or 10YR4/6 dark yellowish brown terminated at 25 to 35 centimeter (9.8-13.7 inch) due to inundation.

FIELD C

Field C (Figure 7) begins at the north edge of Farm Lane 3 and extends 500 meters (1640 feet) northeast before terminating at the edge of the golf course that lies west of the residential district of Newtown. The survey methods for Field C included walkover and shovel testing (n=16) at 15-meter (50-foot) intervals. Typical soil profiles are characterized by a 16 to 18 centimeter (6.3-7 inch) upper stratum 10YR3/4 dark yellowish brown compact silt clay loam overlying a 10YR4/4 dark yellowish brown compact silt clay mottled with 10YR3/4 dark yellowish brown. Shovel test were terminated at approximately 30 to 40 centimeters (11.8-15.7 inches) due to inundation. No cultural resources were identified in Field C.

SEGMENT 3

Segment 3 (Figure 7, Plate 4) encompasses an area 150 meters (492 feet) in length and begins at the golf course and terminates at Turpin Road West. The topography consists of a steep road berm (30 percent slope) elevated approximately 1 to 2 meters (3.2-6.5 feet) above the floodplain of the Little Miami River. The ground cover of the berm and adjacent floodplain is comprised of mixed grasses and weeds or a manicured lawn allowing for less than 20 percent visibility. Segment 3 was not subdivided into fields.

Survey coverage included walkover and shovel testing (n=19) at 15-meter (50-foot) intervals. A single cultural resource, Site 33Ha698, was identified in Segment 3. Site 33Ha698 is characterized by a single positive shovel test yielding a flake and piece of fire cracked rock.

Typical soil profiles along the edge of the berm are disturbed and are characterized by a 21 centimeter (8.2 inch) stratum of 10YR3/3 dark brown clay silt with 20 percent rounded gravel overlying a 10YR3/4 dark yellowish brown clay silt often mottled with 10YR4/6 dark yellowish brown silt clay containing 20 to 80 percent gravel and cobbles. Select tests were cored to a maximum depth to reveal the depth of disturbance. The intact soils are characterized by 45 to 55 centimeters (17.7-21.6 inches) of 10YR3/1 very dark gray loose silt clay loam overlying a 15-centimeter (5.9-inch) stratum of 10YR3/2 very dark grayish brown loose silt clay loam. The subsoil was excavated to a depth of 88 centimeters (31.4 inches) and is characterized by a 10YR3/4 dark yellowish brown compact clay silt (Figure 9).

SEGMENT 4

Segment 4 (Figure 7 and 8, Plate 5) is 1250 meters (4101 feet) in length and is located within the residential area and business district of Newtown, between Turpin Lane West and River Hills Drive. The topography consists of a relatively flat berm that becomes more pronounced in the western end of the project area. Ground cover consists of manicured lawn and a sidewalk. Residential and business structures are placed close to the road with a gas line, water line and utility poles within the Project ROW.

Survey coverage included walkover in those areas where pavement obscured the ground surface, and shovel testing (n=9) at 15 meter (50 foot) intervals where soils were accessible. Typical soil profiles (Figure 9) are characterized by fill consisting of 10YR4/4 dark yellowish brown sandy silt containing 10 to 30 percent gravel overlying a 10YR3/1 very dark gray or 10YR3/3 dark brown clay silt loam containing 20 to 40 percent gravel. No cultural resources were identified in Segment 4.

GEOARCHAEOLOGICAL ASSESSMENT

In addition to the conventional archaeological reconnaissance a cursory geoarchaeological assessment was conducted as an integral part of these investigations. The assessment included a review of county soil survey and geological data to define the potential for alluvial or colluvial landforms, as well as a walkover inspection of suspect portions of the project area.

The portion of the Project area located between the berm for Route 32 and the banks of McCullough Run was assessed to determine the potential for the area beneath the road berm and the floodplain to contain deeply buried cultural deposits. Based on examination of the 7.5" USGS Quadrangle for Newport Kentucky-Ohio and the soil survey report for Hamilton County, it was anticipated that the area under the berm, if not excavated and disturbed during construction of the road, should include an extension of the buried A Horizon noted elsewhere along the foot slope of the ridge (SCS 1982). The floodplain of McCullough Run between the run and the road berm was also considered to have some potential for buried deposits as it abuts a portion of an earlier terrace of the Little Miami River and is not subject to regular flooding. There is little

evidence for substantial colluvial or alluvial deposition in either of these areas; it was therefore considered likely that buried cultural deposits, if present in these areas, would not be deeply buried.

Shovel tests excavated within the berm encountered between four and five soils (Figure 9: ST A5+52, ST B8, ST B12). Stratum I was a very dark gray silt loam interpreted as the active A Horizon of the profile. Stratum II was a 10YR4/4 dark yellowish brown clayey silt interpreted as the modern B Horizon. Stratum III ranged in color from a 10YR3/3 dark brown to a 10YR3/1 very dark gray and in texture from clayey silt to clay loam. This stratum, which occurred at depths of 24-50 centimeters (9.4-19.6 inches) below surface, was interpreted as a buried A Horizon based on the presence of organic materials intermixed with alluvium. Stratum IV was a 10YR5/6 yellowish brown silty to sandy clay interpreted as the underlying B/C Horizon associated with the buried profile. Underlying Stratum IV in some tests was a layer of cobbles interpreted as a channel lag deposit associated with migration of McCullough Run (Plate 6).

Shovel tests excavated within the floodplain revealed two strata: a 10YR2/1 black to a 10YR3/2 very dark grayish brown clayey silt overlying a 10YR2/2 very dark brown firm clayey silt (ST A1). Stratum I is interpreted as the historic to modern plowzone intermixed with alluvium from occasional flooding of the run. This stratum ranged from 18 to 53 centimeters (7-21 inches) in thickness, indicating that net accumulation of sediments in this portion of the floodplain has been extremely low during historic and modern times. Stratum II appears to be the same buried A horizon encountered as Stratum III in the berm profiles.

Comparison of the findings with the expectations noted above yields the following observation. As anticipated, deposits within the berm and floodplain are shallow rather than deeply buried, and could be located through shovel testing. It should be noted, however, that cultural materials recovered from these deposits date to the Woodland period; there is thus a possibility that, except where a cobble layer underlies Stratum IV in the berm and on the floodplain, deposits associated with earlier occupations may be preserved.

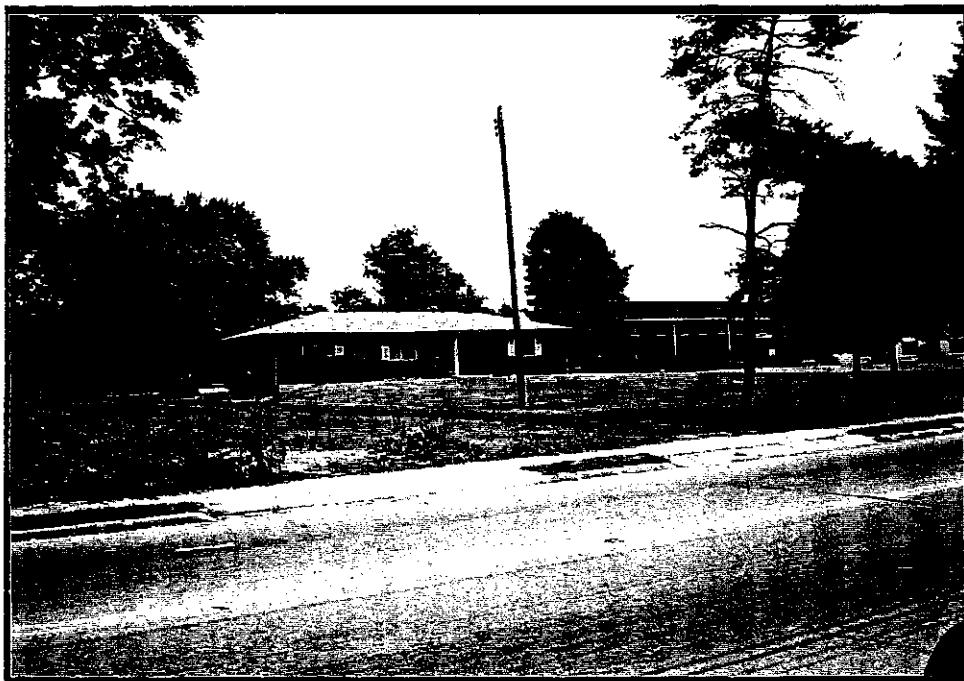


Plate 5. Segment 4, looking north.



Plate 6. McCullough Run, looking west.

CHAPTER VII. RESOURCE DESCRIPTIONS

As a result of these investigations, it has been determined that the Project ROW crosses five archaeological resources, including two previously identified sites (33Ha28 and 33Ha390), and three previously unidentified archaeological resources (33Ha697, 33Ha698 and 33Ha699). Each of these archaeological resources is described in turn below.

SITE 33HA28, THE TURPIN SITE

Site 33Ha28 has been known as a nationally significant prehistoric site since the nineteenth century. The Turpin Site serves as the diagnostic type site for both the Newtown Culture of the Late Woodland and the Turpin Phase of the Fort Ancient periods in Ohio. In 1974 the site was declared a NRHP District, including associated mound Sites 33Ha224 and 33Ha245. The NRHP District encompasses an area that extends 183 meters (600 feet) east and 183 meters (600 feet) west from the driveway of the old Turpin Farm (Figure 3). The southern boundary is formed by S.R. 32, while McCullough Run defines the northern edge of the district, for a total north-south distance of approximately 180 meters (590 feet).

The Turpin Site (Figure 4) lies at an altitude of 149 meters (490 feet) above mean sea level, situated within the terraces and floodplains of the McCullough Run/Little Miami River drainages. Ground cover is currently a combination of soybean crops and pioneer species growing on untilled lands, including honeysuckle, poison ivy and chicory, with mixed grasses and weeds. McCullough Run lies 180 meters (590 feet) north of S.R. 32 at this location, with the site lying between those two features.

The current field survey of the Turpin Site was conducted in three different episodes. The site lies within Segment 1, Field A of the field survey coverage proveniencing system.

On July 9, prehistoric ceramics were recovered from the ground surface during a preliminary surface inspection of a soybean field which extended from Farm Lane 1 north to a small artificial field drainage. The surface inspection transect in which ceramics were noted was 15 meters (50 feet) west of S.R. 32. The surface component of this portion of the site extended north to within approximately 15 meters (50 feet) of the field drain. Following the surface inspection, five shovel tests were excavated between the original transect and the roadbed. These tests were conducted to establish the survival of buried occupation surfaces (buried A Horizons) and to establish the integrity of soils underlying the current roadbed berm. Shovel testing within the Turpin Site has established both the survival of intact buried A Horizon and the continuity of these contexts beneath the current road berm.

On July 10, Field Director Diane Seltz returned to the Turpin Site and attempted to penetrate a tangle of honeysuckle vines and other dense foliage which had impeded the survey south of Farm Lane 1 and north of Clough Pike. Ms. Seltz identified an area of apparent looting on the site, located 19 meters (62 feet) west of the road at the base of the current berm, extending 15-20 meters (50-65 feet) west into the floodplain. While these areas are outside of the current construction ROW, they serve as mute testimony to the richness of this prehistoric resource, as the backdirt from the looter's holes retained abundant evidence for prehistoric ceramics, FCR, lithic debitage and faunal remains.

On July 12, the field crew returned to the Turpin Site to survey that portion lying between Farm Lane 1 and Clough Pike. Because the road berm extends 19 meters (62 feet) west of the road pavement in this vicinity, the only shovel tests excavated in this part of the site (n=2) were located within the road berm itself. Unlike previous shovel testing on the road berm within the Turpin Site, the two tests excavated south of Farm Lane 1 could not conclusively establish whether or not the roadbed cut the underlying site. In addition to the shovel testing, a representative sample of prehistoric ceramics lying on the surface of the looted area previously noted was collected.

Not including the prehistoric ceramics, 87 prehistoric artifacts were recovered from the Turpin Site during the current investigation. Artifacts include shell and mammal bone, FCR, a biface preform, and lithic debitage representing nearly every stage of the lithic reduction sequence. Faunal remains include two mollusc shell fragments, seven unidentifiable mammal bones, and six deer bone fragments. Thirteen pieces of FCR were recovered from the site area. Lithics included 8 primary flakes, 5 secondary decortication flakes, 12 secondary flakes, 7 tertiary flakes, and 12 pieces of lithic shatter. Lithic raw materials represented in the recovered assemblage include local pebble cherts (21 percent), Delaware chert (17 percent), Brassfield chert (10 percent), Bisher chert (07 percent), Boyle chert (08 percent), Paoli chert (03 percent), and unidentified cherts (34 percent).

Site 33Ha28 yielded a wide range of lithic material types, and provided evidence that most of the lithic reduction sequence was being carried out on site, although quarrying and initial decortication were probably occurring elsewhere. The range of lithic materials suggests either relatively effortless local availability of a wide range of materials due to glacial outwash deposits, or long-distance procurement for relatively exotic cherts such as the Ohio Flint Ridge specimens.

The prehistoric ceramics (Plate 7) contributed temporally diagnostic data to the site analysis. Prehistoric ceramics were recovered from both surface and subsurface proveniences

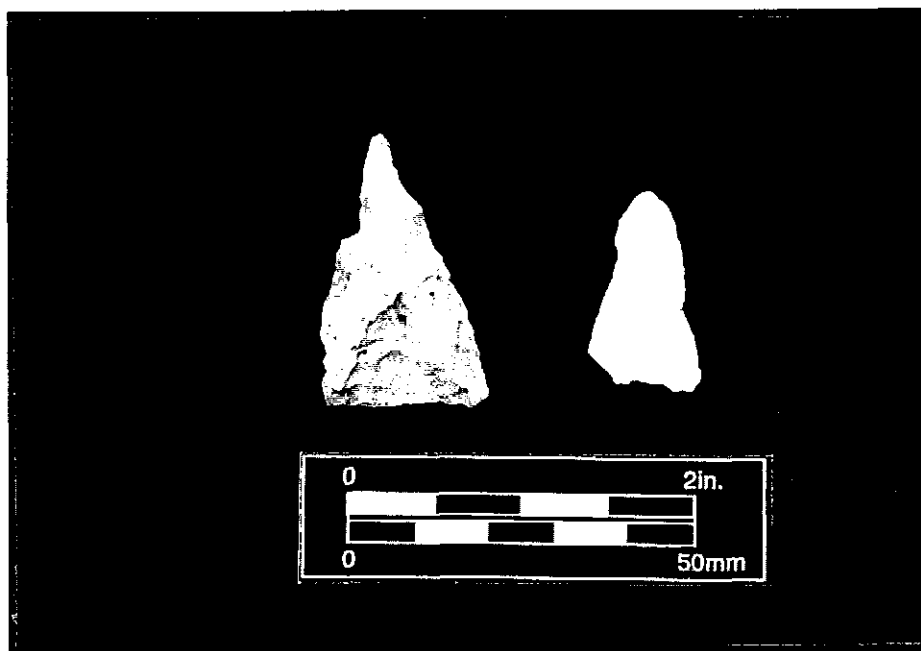


Plate 7. Madison triangular point from Site 33Ha699
and Hamilton Incurvate from Site 33Ha390.



Plate 8. Cordmarked and Guilloche design shell tempered ceramic from Site 33Ha28.

within the study area. In total, 39 sherds were recovered from both general surface and controlled surface locations.

Of the 39 sherds, only 3 were tempered with additives other than shell. These 3 include 2 grit tempered, plain body sherd fragments found in A11 and a cordmarked, sand tempered fragment from A5+S2. The remaining sherds were tempered either exclusively with shell or displayed a combination of shell and fine- to medium-sized grit, or shell and clay.

The exterior and interior color ranges include representatives in the 5YR, 7.5YR, and 10YR series. This indicates that the original vessels were fired in an oxidizing atmosphere. The measurable shell tempered fragments ranged from 5.36 to 9.31 millimeters (0.21 to 0.36 inches) in thickness with an average of 6.67 millimeters (0.26 inches). These thickness ranges for body and shoulder/neck fragments suggests small to medium sized vessels probably ranging in height from 15 to 30 centimeters (6 to 12 inches) (Shepard 1956). The presence of two bowl rim fragments, two shoulder/neck fragments, and a lug handle among the shell tempered sherds indicate that both bowl and jar vessel types are represented in the sample.

Identifiable surface modifications included cordmarking, S-twist cordmarking, cross-cordmarking, and guilloche incising with associated cordmarked fields (Plate 8). The guilloche execution, with its well defined, broad and shallow incisions and tightly defined cordmarked fields, indicates a Turpin phase date for the shell tempered ceramics (Turnbow and Henderson 1992). The grit, sand, shell and grit, and shell and clay sherds fall within acceptable ranges for minority types within the same time phase. There is no ceramic data to support occupations other than the Turpin phase occupation within Site 33Ha28, although the collection is small and not necessarily representative of the full variety of types which might be present. The lithic and ceramic assemblages recovered during the current investigation all fall within the known occupation periods of the resource. Insufficient data was recovered during the current reconnaissance to refine our understanding of the Turpin Site, although the site boundaries have been modified.

The 1975 Ohio Archaeological Inventory form defines the site as encompassing an area approximately 201 meters (660 feet) and 91 meters (300 feet) wide between State Route 32 and McCullough Run. The current investigations have identified a surface scatter that extends the original site boundaries an additional 115 meters northeast along S.R. 32 for a total length of 316 meters (1036 feet). In telephone conversations this July, Dr. Robert Genheimer of the Cincinnati Museum of Natural History noted that the site extends on both sides of S.R. 32 (Personal Communication, Bob Genheimer July 1996). The current investigation did not include the southeast side of that road. Based on current investigations, it appears that the portion of the Turpin Site extending north of Farm Lane 1 is stratigraphically intact and extends under the proposed construction trench.

Since the Project will have an effect on the site, and since the site constitutes an Historic District already listed on the National Register of Historic Places, mitigation measures are recommended prior to construction.

SITE 33HA390, THE ROBERT FISCHER SITE

Site 33Ha390 (Figure 4 and 5, Plate 2) is the previously identified Robert Fischer Site, which was originally investigated in 1977 by the Miami Purchase Association. At that time a Phase I survey provided preliminary site boundaries and served to characterize the site. A diagnostic point recovered during the original survey dated the site to the Late Archaic Riverton culture. In addition to the point, artifacts recovered in 1977 included a stone axe fragment, three bifaces, four lithic cores, seven utilized flakes and seven pieces of debitage, in addition to a moderate scatter of FCR. The original site form noted that this site lies at precisely the same contour interval as the adjacent Turpin Site, extending 500 meters (1640 feet) northeast-southwest and 100 meters (329 feet) in width northwest-southeast. The elevation of the site is 149 meters (490 feet) above mean sea level, on the second terrace of the Little Miami-McCullough Run drainage. Ground cover includes soybean crops and pioneer species growing on untilled lands, including honeysuckle, poison ivy and chicory, with mixed grasses and weeds. The nearest water is McCullough Run, which passes 50 meters (164 feet) north of the site at its closest approach.

Site 33Ha390 lies within Segment 1, Field B, of the Project. The site is located 60 meters (197 feet) north of the artificial field drain just north of the Turpin Site, and is redefined as extending 200 meters (656 feet) along the road ROW, to within 75 meters (246 feet) of McCullough Run. The current investigation has effectively added about 80 meters (262 feet) to the southeast boundary of the site as originally defined.

The current investigation identified additional prehistoric cultural material in 9 out of 12 shovel tests. The shovel testing was conducted along 2 distinct alignments; the first followed the tree line between 7-20 meters from the edge of the pavement, while the second alignment was excavated within 5 meters (16 feet) of the pavement, within the road berm. The positive shovel tests serve to extend the original site boundaries east from McCullough Run to the edge of the S.R. 32 road berm. In addition to the positive shovel tests, the site was defined by surface inspection where visibility permitted.

Shovel testing identified an intact buried A horizon outside of the road berm within the site area. Shovel testing within the road berm itself established that road construction in this portion of the ROW cut into the original site deposits below current site grade. Therefore it appears that the site is no longer extant under the road berm, but is extant immediately north of the berm.

Field investigators noted that the road berm within this site is stepped, visually suggesting a relict roadbed marking the original route of the S.R. 32 corridor. If this interpretation is correct, then the current road berm on the north side of S.R. 32 through the site was constructed in at least two episodes.

The current investigation recovered 80 artifacts from the site, excluding the prehistoric limestone tempered ceramics. Artifacts include faunal material, flaked lithics, a nutting stone,

and a moderate density of FCR. Not all of the FCR encountered was collected. Faunal remains include two mollusc shell fragments, and one unidentified mammal astragalus (ankle bone). Twenty-nine pieces of FCR were recovered from the site area. Lithics included 2 primary flakes, 3 secondary decortication flakes, 5 secondary flakes, 4 tertiary flakes, and 23 pieces of lithic shatter and fragments. Lithic raw materials represented in the recovered assemblage include local pebble cherts (46 percent), Brassfield chert (08 percent), Delaware chert (05 percent) Bisher chert (11 percent), Boyle chert (02 percent), Paoli chert (02 percent), Ohio Flint Ridge chert (05 percent), Upper Mercer chert (02 percent) and unidentified cherts (19 percent).

Site 33Ha390 both yielded a wide range of lithic material types, providing evidence for most of the lithic reduction sequence being carried out on site. The range of lithic materials suggests either local availability of a wide range of materials due to glacial outwash deposits, or long-distance procurement for relatively exotic cherts such as the Ohio Flint Ridge specimens.

Within Site 33Ha390, two prehistoric limestone tempered ceramics were recovered from ST B6+E2. Both of the sherds, which appear to be from the same vessel, displayed coarse limestone inclusions in a convoluted paste. The larger of the two fragments was 10.52 millimeters (.4 inches) thick, as measured on a sherd with slight surface erosion. The larger sherd had a 7.5YR5/6 yellowish brown exterior and 7.5YR4/1 dark gray interior surface. The smaller sherd displayed the same basic colors, but Munsells were not taken because of the degree of surface erosion and the sherd size. The color range indicates that the sherds were fired in an oxidizing atmosphere. Both sherds had exterior cordmarked surfaces. The cordmarking, however, was too degraded to determine cord twist or width.

The temporal implications of limestone temper are much debated in this part of the Ohio River Valley (Black 1934; Reidhead 1981; Railey 1990; Sharp 1990; Turnbow and Henderson 1992). It is commonly accepted that limestone tempered wares indicate Late Woodland and transitional Late Woodland/Fort Ancient Newtown phase occupations (Railey 1990; Turnbow and Henderson 1992). However, limestone tempered ceramics are also a hallmark of certain Middle Woodland and early Late Woodland phases within the vicinity of the Ohio River Valley (Railey 1990).

A single diagnostic projectile point (Plate 7) was encountered on the site surface, a Hamilton Incurvate point of the Late Woodland (Justice 1987:229). The point is 40 millimeters (1.5 inches) long, 25 millimeters (.98 inches) wide and 10 millimeters (.4 inches) thick. Justice identifies this point as diagnostic of the Hamilton Phase of the Late Woodland (Justice 1987:229). The current investigators cannot state with confidence that the Hamilton Phase applies to this locality. However, the two sherds of limestone tempered ceramics recovered suggest a Newtown Phase Late Woodland component on-site. The relationship between the Hamilton and Newtown Late Woodland Phases cannot be explored at this Phase I level of investigation, but may form a fruitful research avenue in the future.

Given that the site shares the same landform as the Turpin Site, overlaps the Turpin Site in chronology of occupation, and lies within 60 meters (197 feet) of that adjacent resource, the

current investigators suggest that Site 33Ha390 should be included within the NRHP District encompassing the Turpin Site and associated mounds. It is further recommended that Site 33Ha390 is in itself potentially eligible for the NRHP. However, the Project pipe trench will be located within the berm of the roadbed, where fieldwork has established that the site no longer survives.

SITE 33HA697

This previously unidentified prehistoric resource was encountered in Segment 2, Fields A and B (Figure 6, Plate 3). The site is located approximately 240 meters (787 feet) north of McCullough Run on the west side of S.R. 32. The site lies both north and south of Farm Lane 2. The site is 135-150 meters (443-492 feet) in length (southwest-northeast) parallel to the ROW. The current investigation was not able to determine the site boundaries along the northwest-southeast axis, as the landowner did not allow the investigators on the crop land adjacent to the Project ROW.

The site is situated on a low rise on a terrace of the Little Miami, at an elevation of 146 meters (480 feet) above mean sea level. The site as surveyed lies within the margin between the berm of the S.R. 32 roadbed and a soybean field. Presumably the site continues within the soybean field.

The site was identified via a combination of surface inspection and shovel testing (n=2). The site was surface inspected along a transect running 6-8 meters (19.6-26 feet) from the edge of the pavement, and approximately 2 meters (6.5 feet) from the base of the road berm. The shovel tests were positioned to establish the integrity of the soils under the existing road berm; shovel testing results indicate that the site does continue intact under the current roadbed.

Surface inspection and shovel testing recovered prehistoric ceramics, 30 lithic artifacts including FCR and fragments from 2 unidentifiable projectile points. The FCR comprises 16 artifacts within the recovered assemblage. The flaked lithics include a single primary flake, seven secondary flakes, and four pieces of shatter and fragments. Lithic materials include Delaware (09 percent), Paoli (09 percent), Bisher (09 percent), Brassfield (09 percent), Boyle (27 percent) and local pebble cherts (25 percent). A single prehistoric ceramic was recovered between 33 and 35 centimeters (12.9 and 13.7 inches) below surface in ST A14. The sherd is cordmarked, though eroded, and it contains both clay and sand inclusions in the paste. No surface color or thickness data were recorded because of surface erosion. The sherd possesses no culturally diagnostic characteristics, as clay and sand inclusions commonly appear in ceramics throughout the Woodland and subsequent Fort Ancient periods.

These reconnaissance investigations have not been sufficient to establish site function or chronology, although the site shares a Woodland/ Fort Ancient general period of occupation with the nearby Turpin Archaeological District. The site appears to possess stratigraphic integrity both outside of the road berm and under the road berm within the Project ROW. Although it is

difficult to assess site significance without firm site boundaries, the site's known vertical integrity, and proximity to Turpin National Register District suggest that the site is potentially eligible for listing on the NRHP.

SITE 33HA698

This site (Figure 7, Plate 4) consists of a single positive shovel test located in Segment 3, 100 meters (328 feet) west of Turpin Lane West on the western outskirts of Newtown. Although the shovel test contained both a piece of FCR and a prehistoric lithic flake, the site is considered an isolated find. The resource is situated on an upper terrace of the Little Miami River, at an elevation of 148 meters (490 feet) above mean sea level. The resource is situated within a manicured golf course lawn.

The soils exposed in the shovel test suggest an intact soil sequence, although all adjacent shovel tests in the transect indicate disturbed soil profiles. It is possible that the resource represents a relict sample of an older landform now comprehensively disturbed.

As a single positive shovel test, the site exhibits little potential to yield additional information. It is therefore recommended that the site is not eligible for listing on the NRHP, and that no further work is necessary.

SITE 33HA699

Site 33Ha699 (Figure 5, Plate 2) is a prehistoric artifact scatter of sufficient density and soil characteristics to be characterized as a midden deposit. The site is located immediately northeast of a farm lane, approximately 160 meters (525 feet) south of McCullough Run, and immediately southeast of Site 33Ha390, on the next terrace above that site. The distinction between the two resources is based on vertically discontinuous landforms rather than horizontal distance. The site is located within Field B of Segment 1.

The site was identified by shovel testing only, due to poor surface visibility. The site measures 15 meters (50 feet) west-east by 45 meters (147 feet) north-south. Three positive shovel tests were excavated within 4 meters (13 feet) from the road pavement. A fourth positive shovel test was excavated at a distance of 11 meters (36 feet) from the road. The site is adjacent to the southeastern boundaries of the larger Site 33Ha390.

Artifacts recovered include FCR, lithic debitage, mammalian faunal remains, burned limestone and nuts, mollusc shell and fish bone, prehistoric ceramics, and a Madison projectile point diagnostic of the Late Woodland and later Mississippian periods (Justice 1987). The Madison point is quite crude, measuring 30 millimeters (1.2 inches) long, 16 millimeters (.6 inches) wide, and 5 millimeters (.19 inches) thick. The faunal specimens include 25 unidentified mollusc shell fragments, 2 gastropod shell fragments, 43 unidentified mammal bone fragments,

and a rodent tooth. The only stages of the lithic reduction sequence observed on-site were finished tools (the projectile point), tertiary flakes (n=15), and various bits of chert shatter and flake fragments (n=15). Lithic material types include local pebble cherts (03%), Delaware chert (03 %), unidentified chert (57%), Boyle chert (03%), and Ohio Flint Ridge chert (03%).

In contrast to sites 33Ha28 and 33Ha390 noted above, 33Ha699 yielded evidence for only a very narrow range of lithic reduction activities, the final stages of edge preparation or maintenance. The elevated density of faunal remains and FCR from this site suggest food preparation and disposal, where tool maintenance rather than intensive lithic reduction activities would make sense.

Two prehistoric ceramics were recovered from ST B13 in Stratum I. The sherds include single examples of shell and sand and grit tempered fragments. The shell tempered sherd is cordmarked, but cord twist could not be determined because of surface deterioration. The sherd measures 5.24 millimeters (0.2 inches) in thickness and both the interior and exterior surfaces were 7.5YR5/3 in color. The sand and grit tempered sherd was heavily eroded; no thickness or color data were recorded.

The presence of shell tempering in one of the two sherds indicates that one or more occupations at Site 33Ha699 dates to the Fort Ancient period. Whether or not the site is contemporaneous with the Turpin phase occupation at Site 33Ha28 cannot be determined based on the sparse ceramic data.

Due to the density of artifacts recovered during shovel testing, and the dark charcoal-flecked soils from which the artifacts were recovered, the field investigators identified the resource as a midden deposit. Forty-four faunal specimens were recovered from a single shovel test (B13); the same test yielded 26 pieces of FCR. Faunal material included unidentified mammal bone fragments, a rodent tooth and a fish bone. Two distinct strata were producing prehistoric artifacts, each of which were buried over 30 centimeters (11.8 inches) below the current ground surface.

The site is interpreted as evidence for prehistoric refuse disposal at a vertical break in the landform. It appears likely that the associated occupation occurred on the south side of S.R. 32, in what is now the residential subdivision of "Turpin Lakes". It is also possible that the site is associated with the occupations represented by the Turpin Site National Register District and Site 33Ha390. The investigators suggest that the site probably represents a contemporary occupation to both the Turpin Site (33Ha28) and Site 33Ha390, and is probably a distinct activity area within the larger settlement. This resource is therefore recommended as a contributing element to the existing Turpin Site (33Ha28) NRHP District.

CHAPTER VIII. CONCLUSIONS AND RECOMMENDATIONS

These investigations have identified 27 previously surveyed architectural resources within the study corridor. The majority of these resources are located within the village of Newtown; most of these are in proximity to the project alignment as it follows the north side of Main St. (S.R. 32) through the village. Prior to the current investigation, Mr. Todd Tuckey of the Ohio Historic Preservation Office determined that the Project will have no effect on architectural resources.

A modest geoarchaeological assessment to evaluate the potential for deeply buried deposits within the Project area yielded mixed results. Where the Turpin Hills overlook McCullough Run the project geomorphologist determined that no colluvial sheet wash deposits have accumulated; nor is there evidence for historic-period aggradational deposits of alluvial material along McCullough Run. However, given that most of the previously recorded prehistoric occupations date to only the past 1000 years, it is possible that older occupations have been preserved within soils of the Little Miami River terrace system.

These investigations have determined that the Project ROW crosses five archaeological resources, including two previously identified sites (33Ha28 and 33Ha390), and three previously unidentified archaeological resources (33Ha697, 33Ha698 and 33Ha699). Conclusions and recommendations appropriate to each resource are presented in turn below.

Previously identified Site 33Ha28, known as the Turpin Site, serves as the diagnostic type site for both the Newtown Phase of the Late Archaic and the Turpin Phase of the Fort Ancient periods in Ohio. Shovel testing during the current investigation has established that the site continues under the current S.R. 32 roadbed, which was built entirely above original grade within the site area. Since the Project will have an effect on the site, and since the site constitutes an Historic District already listed on the National Register of Historic Places, mitigation measures are recommended prior to construction.

Site 33Ha390 is also a previously identified resource. Site 33Ha390 has yielded artifacts diagnostic of both the Riverton Phase of the Late Archaic and the Newtown Phase of the Late Woodland period.

Sites 33Ha28 and 33Ha390 both yielded a wide range of lithic material types and provide evidence for most of the lithic reduction sequence being carried out on site, although quarrying and initial decortication were probably occurring elsewhere. The range of lithic materials suggests either relatively effortless local availability of a wide range of materials due to glacial outwash deposits, or long-distance procurement for relatively exotic cherts such as the Ohio Flint Ridge specimens.

The current investigation has refined the site boundaries of both sites, such that they now lie within 60 meters (197 feet) of each other. Given their overlapping chronology, shared landform, and spatial proximity, the current investigators suggest that Site 33Ha390 should be considered a contributing element within the NRHP District encompassing the Turpin Site and associated mounds. Additional research at these sites may provide new data on the transition from the Late Woodland to Fort Ancient periods in the Ohio River Valley.

As a result of the current investigation the 33Ha390 site boundaries have been refined, and apparently extend at least as far as the modern road berm. However, in this portion of the Project ROW, the roadbed was constructed by cut-and-fill, effectively destroying any potential for site survival under the roadbed itself. Since the Project pipe trench will be located within the berm of the roadbed, it is recommended that the Project will have no effect on this potentially eligible prehistoric site.

Site 33Ha697 is characterized by a surface and subsurface prehistoric scatter yielding ceramics dating to a generalized Woodland/Fort Ancient occupation, non-diagnostic flakes and FCR. The site appears to possess stratigraphic integrity both outside of the road berm and under the road berm within the Project ROW. Although it is difficult to assess site significance without firm site boundaries, the site's known vertical integrity, and proximity to the Turpin National Register District suggest that the site is potentially eligible for listing on the NRHP.

Since intact portions of the site extend under the current roadbed within the Project ROW, two resource management options are possible. If upon review of the current document the OHPO concurs that Site 33Ha697 constitutes a contributing element to the Turpin Archaeological District, then Phase III mitigation measures should be implemented prior to construction. If the OHPO requests additional data prior to assessing the NRHP-eligibility of the site, Phase II testing and evaluation investigations are recommended.

Site 33Ha698 is a small subsurface scatter yielding a single lithic flake and a piece of FCR. Adjacent shovel tests demonstrated that the soils are disturbed in this portion of the ROW, suggesting poor integrity of context for this archaeological resource. No further work is recommended at Site 33Ha698.

Site 33Ha699 is a subsurface prehistoric midden deposit located on the high terrace overlooking the floodplain of McCullough Run and the Little Miami River. Phase I investigation of this site revealed deep midden deposits yielding burned bone, a triangular point, ceramics, debitage and FCR.

In contrast to sites 33Ha28 and 33Ha390 noted above, 33Ha699 yielded evidence for only a very narrow range of lithic reduction activities, the final stages of edge preparation or maintenance. The elevated density of faunal remains and FCR from this site suggest food preparation and disposal, where tool maintenance rather than intensive lithic reduction activities would make sense. Site 33Ha699 has been defined as a NRHP distinct resource based solely on the fact that it occupies a separate landform from the surrounding Site 33Ha390. The site

appears to date to the Fort Ancient period, although the particular phase is not identifiable based on the recovered assemblage. The investigators suggest that the site probably represents a contemporary occupation to both the Turpin Site 33Ha28 and Site 33Ha390, and is probably a distinct activity area within the larger settlement. This resource is therefore recommended as a contributing element to the existing Turpin Site (33Ha28) NRHP District.

Management recommendations for this resource are similar to those suggested for Site 33Ha697. If upon review of the current document the OHPO concurs that Site 33Ha699 constitutes a contributing element to the Turpin Archaeological District, then Phase III mitigation measures should be implemented prior to construction. If the OHPO requests additional data prior to assessing the NRHP-eligibility of the site, Phase II testing and evaluation investigations are recommended.

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APPENDIX A:
ARTIFACT INVENTORY

**CULTURAL RESOURCES RECONNAISSANCE INVESTIGATIONS
OF CINERGY CORPORATION'S
PROPOSED 12,000-FOOT PIPELINE PROJECT
ALONG STATE ROUTE 32,
HAMILTON COUNTY, OHIO
PREHISTORIC ARTIFACT INVENTORY**

PROVENIENCE	LEVEL	MATERIAL GROUP	ARTIFACT CLASS	ARTIFACT TYPE	DESCRIPTION	RAW MATERIAL	UTIL	RET.	COUNT
33Ha28									
Controlled Surface	A10	Faunal	Remains	Mollusca		Fragment			1
Controlled Surface	A10	Lithics	Debitage	Primary Flake	Whole	Unidentified Chert			1
Controlled Surface	A10	Lithics	Debitage	Secondary Flake	Whole	Unidentified Chert			1
Controlled Surface	A10	Lithics	Debitage	Tertiary Flake	Distal Fragment	Unidentified Chert			1
Controlled Surface	A10	Lithics	Miscellaneous	Fire Cracked Rock		Tillite			2
Controlled Surface	A10	Lithics	Miscellaneous	Fire Cracked Rock		Sandstone			2
Controlled Surface	A11	Ceramics	Pottery	Coarse Particle	Body	Convolute			2
Controlled Surface	A11	Ceramics	Pottery	Mixed Particle	Body	Uniform			1
Controlled Surface	A11	Lithics	Debitage	Flake Fragment	Distal Fragment	Unidentified Chert			3
Controlled Surface	A11	Lithics	Debitage	Primary Flake	Proximal Fragment	Unidentified Chert			2
Controlled Surface	A11	Lithics	Debitage	Secondary Decortication Flake	Whole	Bisher			1
Controlled Surface	A11	Lithics	Debitage	Secondary Decortication Flake	Proximal Fragment	Delaware			1
Controlled Surface	A11	Lithics	Debitage	Secondary Flake	Proximal Fragment	Unidentified Chert	Y		1
Controlled Surface	A11	Lithics	Debitage	Secondary Flake	Whole	Delaware			1
Controlled Surface	A11	Lithics	Debitage	Shatter		Unidentified Chert			1
Controlled Surface	A11	Lithics	Debitage	Shatter		Unidentified Chert			2
Controlled Surface	A11	Lithics	Debitage	Tertiary Flake	Proximal Fragment	Unidentified Chert			1
Controlled Surface	A11	Lithics	Miscellaneous	Fire Cracked Rock		Sandstone			3
Controlled Surface	A11	Lithics	Miscellaneous	Fire Cracked Rock		Quartzite			1
Controlled Surface	A12	Lithics	Debitage	Primary Flake	Whole	Brassfield			2
Controlled Surface	A12	Lithics	Debitage	Secondary Flake	Whole	Unidentified Chert			1
Controlled Surface	A12	Lithics	Debitage	Secondary Flake	Proximal Fragment	Brassfield			1
Controlled Surface	A13	Lithics	Debitage	Flake Fragment	Distal Fragment	Delaware	Y	Y	1
Controlled Surface	A2	Faunal	Remains	Mollusca		Fragment			1
Controlled Surface	A2	Lithics	Debitage	Primary Flake	Whole	Local pebble chert			2
Controlled Surface	A2	Lithics	Implement	Biface-Preform	Whole	Brassfield			1
Controlled Surface	A2	Lithics	Miscellaneous	Fire Cracked Rock		Quartzite			1
Controlled Surface	A2	N2	Ceramics	Pottery	Mixed Particle	Uniform			1
Controlled Surface	A2	N2	Ceramics	Pottery	Mixed Particle	Uniform			1
Controlled Surface	A2	N5	Lithics	Debitage	Primary Flake	Whole	Unidentified Chert		1
Controlled Surface	A3	Ceramics	Pottery	Mixed Particle	Body	Uniform			1
Controlled Surface	A3	Ceramics	Pottery	Mixed Particle	Body	Uniform			1
Controlled Surface	A3	Ceramics	Pottery	Mixed Particle	Body	Uniform			1
Controlled Surface	A3	Lithics	Debitage	Secondary Flake	Proximal Fragment	Bisher			1
Controlled Surface	A3	Lithics	Debitage	Secondary Flake	Whole	Boyle	Y	N	1
Controlled Surface	A3	Lithics	Debitage	Shatter		Boyle			1
Controlled Surface	A3	Lithics	Debitage	Tertiary Flake	Whole	Brassfield			1
Controlled Surface	A5	Faunal	Remains	Odocoileus Virginianus		Humerus			1
Controlled Surface	A5	Lithics	Debitage	Shatter		Local pebble chert			3
Controlled Surface	A5	Lithics	Debitage	Tertiary Flake	Whole	Delaware			1
Controlled Surface	A6	Ceramics	Pottery	Mixed Particle	Body	Uniform			1
Controlled Surface	A6	Ceramics	Pottery	Mixed Particle	Body	Uniform			1
Controlled Surface	A6	Ceramics	Pottery	Mixed Particle	Body	Uniform			1
Controlled Surface	A6	Ceramics	Pottery	Mixed Particle	Body	Uniform			1
Controlled Surface	A6	Lithics	Debitage	Flake Fragment	Distal Fragment	Paoli			1
Controlled Surface	A6	Lithics	Debitage	Primary Flake	Whole	Unidentified Chert			1
Controlled Surface	A7	Lithics	Non-cultural	Battered Cobble		Limestone			1
Controlled Surface	A8	Ceramics	Pottery	Mixed Particle	Body	Uniform			1
Controlled Surface	A8	Lithics	Debitage	Secondary Flake	Proximal Fragment	Unidentified Chert			1
Controlled Surface	A8	Lithics	Debitage	Shatter		Delaware			1

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PROPOSED 12,000-FOOT PIPELINE PROJECT
ALONG STATE ROUTE 32,
HAMILTON COUNTY, OHIO
PREHISTORIC ARTIFACT INVENTORY**

PROVENIENCE	LEVEL	MATERIAL GROUP	ARTIFACT CLASS	ARTIFACT TYPE	DESCRIPTION	RAW MATERIAL	UTIL	RET.	COUNT
Controlled Surface	A8	N5	Lithics	Debitage	Secondary Flake	Whole	Delaware		1
Controlled Surface	A9		Ceramics	Pottery	Mixed Particle	Body	Uniform		1
Controlled Surface	A9		Lithics	Debitage	Primary Flake	Whole	Delaware		1
Controlled Surface	A9		Lithics	Miscellaneous	Fire Cracked Rock		Sandstone		2
Controlled Surface	A9	S9	Ceramics	Pottery	Mixed Particle	Body	Uniform		1
General Surface	A		Ceramics	Pottery	Mixed Particle	Body	Uniform		1
General Surface	A		Ceramics	Pottery	Mixed Particle	Body	Uniform		2
General Surface	A		Ceramics	Pottery	Mixed Particle	Body	Uniform		1
General Surface	A		Ceramics	Pottery	Mixed Particle	Body	Uniform		1
General Surface	A		Ceramics	Pottery	Mixed Particle	Handle	Uniform		1
General Surface	A		Ceramics	Pottery	Mixed Particle	Rim	Uniform		2
General Surface	A		Ceramics	Pottery	Mixed Particle	Body	Uniform		4
General Surface	A		Ceramics	Pottery	Mixed Particle	Shoulder	Uniform		1
General Surface	A		Ceramics	Pottery	Mixed Particle	Body	Uniform		3
General Surface	A1	W5	Ceramics	Pottery	Mixed Particle	Body	Uniform		1
General Surface	A1	W5	Ceramics	Pottery	Mixed Particle	Shoulder	Uniform		1
General Surface	A1	W5	Lithics	Debitage	Flake Fragment	Distal Fragment	Unidentified Chert	Y	1
General Surface	A1	W5	Lithics	Debitage	Flake Fragment	Distal Fragment	Unidentified Chert		2
General Surface	A1	W5	Lithics	Debitage	Secondary Decortication Flake	Whole	Local pebble chert		1
General Surface	A1	W5	Lithics	Debitage	Secondary Flake	Proximal Fragment	Paoli		1
General Surface	A6	W3	Ceramics	Pottery	Mixed Particle	Body	Uniform		1
General Surface	A6	W3	Ceramics	Pottery	Mixed Particle	Indistinguishable	Uniform		2
General Surface	A6	W3	Faunal	Remains	Mammal		Tooth		1
General Surface	A6	W3	Lithics	Debitage	Secondary Decortication Flake	Whole	Local pebble chert		1
General Surface	A6	W3	Lithics	Debitage	Secondary Flake	Whole	Boyle		1
Shovel Test	A1		Lithics	Debitage	Flake Fragment	Distal Fragment	Paoli		1
Shovel Test	A1		Lithics	Debitage	Secondary Flake	Whole	Unidentified Chert		1
Shovel Test	A1		Lithics	Debitage	Shatter		Local pebble chert		2
Shovel Test	A1		Lithics	Debitage	Shatter		Delaware		1
Shovel Test	A1		Lithics	Debitage	Tertiary Flake	Whole	Unidentified Chert		1
Shovel Test	A1	E0.50	Ceramics	Pottery	Mixed Particle	Body	Uniform		1
Shovel Test	A1	E0.50	Ceramics	Pottery	Mixed Particle	Body	Uniform		1
Shovel Test	A1	E0.50	Faunal	Remains	Mammal		Fragment		1
Shovel Test	A1	E0.50	Faunal	Remains	Mammal		Vertebra		6
Shovel Test	A1	E0.50	Faunal	Remains	Odocoileus Virginianus		Vertebra		5
Shovel Test	A1	E0.50	Lithics	Debitage	Primary Flake	Whole	Local pebble chert		1
Shovel Test	A1	E0.50	Lithics	Debitage	Shatter	N/A	Unidentified Chert		1
Shovel Test	A1	E0.50	Lithics	Debitage	Tertiary Flake	Whole	Unidentified Chert		1
Shovel Test	A1	E0.50	Lithics	Debitage	Tertiary Flake	Whole	Bisher		1
Shovel Test	A5	S2	Ceramics	Pottery	Fine Particle	Body	Uniform		1
Shovel Test	A7	E1	Ceramics	Pottery	Mixed Particle	Body	Uniform		1
Shovel Test	A7	E1	Lithics	Debitage	Secondary Decortication Flake	Whole	Local pebble chert		1
Shovel Test	A7	E1	Lithics	Miscellaneous	Fire Cracked Rock		Tillite		1
Shovel Test	A7	E1	Lithics	Miscellaneous	Fire Cracked Rock		Sandstone		1

TOTAL 33Ha28 : 126

33Ha390

Controlled Surface	A10		Lithics	Debitage	Primary Flake	Whole	Bisher		1
Controlled Surface	A10		Lithics	Debitage	Secondary Decortication Flake	Whole	Local pebble chert		2
Controlled Surface	A10		Lithics	Debitage	Secondary Flake	Whole	Brassfield		1

**CULTURAL RESOURCES RECONNAISSANCE INVESTIGATIONS
OF CINERGY CORPORATION'S
PROPOSED 12,000-FOOT PIPELINE PROJECT
ALONG STATE ROUTE 32,
HAMILTON COUNTY, OHIO
PREHISTORIC ARTIFACT INVENTORY**

PROVENIENCE	LEVEL	MATERIAL GROUP	ARTIFACT CLASS	ARTIFACT TYPE	DESCRIPTION	RAW MATERIAL	UTIL	RET.	COUNT
Controlled Surface	A10	Lithics	Debitage	Shatter	N/A	Ohio Flint Ridge			1
Controlled Surface	A10	Lithics	Debitage	Shatter	N/A	Brassfield			1
Controlled Surface	A10	Lithics	Miscellaneous	Fire Cracked Rock		Quartzite			3
Controlled Surface	A10	Lithics	Miscellaneous	Fire Cracked Rock		Sandstone			2
Controlled Surface	A11	N10	Faunal	Remains		Mussel			1
Controlled Surface	A11	N10	Lithics	Debitage	Primary Flake	Proximal Fragment			1
Controlled Surface	A11	N10	Lithics	Debitage	Secondary Flake	Whole			1
Controlled Surface	A11	N10	Lithics	Miscellaneous	Fire Cracked Rock	Quartzite			1
Controlled Surface	A22	Lithics	Debitage	Shatter		Boyle			1
Controlled Surface	A22	Lithics	Implement	Projectile Point		Boyle		Y	1
Controlled Surface	A22	N5	Lithics	Debitage	Flake Fragment	Distal Fragment			1
Controlled Surface	A22	N5	Lithics	Debitage	Secondary Flake	Whole		Y	1
Controlled Surface	A22	N5	Lithics	Debitage	Shatter	Delaware			1
Controlled Surface	A23	Lithics	Debitage	Shatter		Local pebble chert			1
Controlled Surface	A23	Lithics	Debitage	Shatter		Local pebble chert			2
Controlled Surface	A23	Lithics	Miscellaneous	Fire Cracked Rock		Tillite			1
Controlled Surface	A25	Lithics	Miscellaneous	Fire Cracked Rock		Quartzite			1
Controlled Surface	A25	N10	Lithics	Miscellaneous	Fire Cracked Rock	Granite			1
Controlled Surface	A5	Lithics	Core	Free Hand		Unidentified Chert			1
Controlled Surface	A5	Lithics	Debitage	Secondary Flake	Whole	Bisher			1
Controlled Surface	A6	Lithics	Debitage	Free Hand		Local pebble chert			1
Controlled Surface	A8	Faunal	Remains	Mammal		Astragulus			1
General Surface	A10	E5	Lithics	Core	Free Hand	Local pebble chert			1
General Surface	A10	N5	Lithics	Debitage	Shatter	Paoli			1
General Surface	A10	N5	Lithics	Implement	Nutting Stone	Limestone			1
General Surface	A10	N5	Lithics	Miscellaneous	Fire Cracked Rock	Quartzite			1
General Surface	A11	Lithics	Debitage	Flake Fragment	Distal Fragment	Delaware			1
General Surface	A11	Lithics	Miscellaneous	Fire Cracked Rock		Quartzite			7
General Surface	A11	Lithics	Miscellaneous	Fire Cracked Rock		Sandstone			2
General Surface	A11	Lithics	Miscellaneous	Fire Cracked Rock		Granite			1
General Surface	A11	S3	Lithics	Debitage	Shatter	Local pebble chert			2
General Surface	A11	S3	Lithics	Debitage	Shatter	Upper Mercer			1
General Surface	A18	Lithics	Non-cultural	Unmodified Raw Material		Limestone			2
General Surface	A9	S3	Lithics	Debitage	Secondary Decortication Flake	Whole			1
General Surface	A9	S3	Lithics	Debitage	Shatter	Slate			1
Shovel Test	A13	Faunal	Remains	Mollusca		Ohio Flint Ridge			1
Shovel Test	A13	Lithics	Debitage	Flake Fragment	Distal Fragment	Mussel			1
Shovel Test	A13	W6	Lithics	Debitage	Flake Fragment	Delaware			1
Shovel Test	A13	W6	Lithics	Debitage	Flake Fragment	Unidentified Chert			2
Shovel Test	A13	W6	Lithics	Debitage	Tertiary Flake	Whole			2
Shovel Test	A5	Lithics	Debitage	Shatter		Unidentified Chert			1
Shovel Test	A6	E2	Ceramics	Pottery	Coarse Particle	Body			2
Shovel Test	A6	E2	Lithics	Debitage	Flake Fragment	Distal Fragment			1
Shovel Test	A6	E2	Lithics	Debitage	Tertiary Flake	Whole			1
Shovel Test	A7	E3.5	Lithics	Debitage	Flake Fragment	Distal Fragment			3
Shovel Test	A7	E3.5	Lithics	Miscellaneous	Fire Cracked Rock	Tillite			2
Shovel Test	A8	Lithics	Debitage	Flake Fragment	Distal Fragment	Local pebble chert			1
Shovel Test	A8	Lithics	Debitage	Secondary Decortication Flake	Whole	Local pebble chert			1
Shovel Test	A8	Lithics	Debitage	Shatter		Unidentified Chert			1
Shovel Test	A8	Lithics	Debitage	Tertiary Flake		Bisher			1
Shovel Test	A8	Lithics	Miscellaneous	Fire Cracked Rock		Limestone			1
Shovel Test	A8	Lithics	Miscellaneous	Fire Cracked Rock		Quartzite			3
Shovel Test	A8	Lithics	Miscellaneous	Fire Cracked Rock		Sandstone			1
Shovel Test	A8	Lithics	Miscellaneous	Fire Cracked Rock		Tillite			1
Shovel Test	A8	E1	Lithics	Debitage	Secondary Flake	Whole			1

**CULTURAL RESOURCES RECONNAISSANCE INVESTIGATIONS
OF CINERGY CORPORATION'S
PROPOSED 12,000-FOOT PIPELINE PROJECT
ALONG STATE ROUTE 32,
HAMILTON COUNTY, OHIO
PREHISTORIC ARTIFACT INVENTORY**

PROVENIENCE		LEVEL	MATERIAL GROUP	ARTIFACT CLASS	ARTIFACT TYPE	DESCRIPTION	RAW MATERIAL	UTIL	RET.	COUNT
Shovel Test	A8	E1	Lithics	Miscellaneous	Fire Cracked Rock		Limestone			1
Shovel Test	A9		Lithics	Debitage	Checked Pebble		Local pebble chert			1
Shovel Test	A9		Lithics	Debitage	Shatter		Local pebble chert			2
Shovel Test	A9		Lithics	Miscellaneous	Fire Cracked Rock		Quartzite			1
Shovel Test	A9	E9	Lithics	Debitage	Tertiary Flake	Whole	Local pebble chert			1
TOTAL 33Ha390 :		84								
33Ha697										
Controlled Surface	A10		Lithics	Debitage	Secondary Flake	Whole	Delaware	Y		1
Controlled Surface	A14		Lithics	Debitage	Secondary Flake	Proximal Fragment	Paoli			1
Controlled Surface	A14		Lithics	Debitage	Shatter		Bisher			1
Controlled Surface	A2		Lithics	Debitage	Flake Fragment	Medial Fragment	Unidentified Chert			1
Controlled Surface	A2		Lithics	Implement	Projectile Point	Proximal Fragment	Unidentified Chert	Unknown Type		1
Controlled Surface	A2		Lithics	Miscellaneous	Fire Cracked Rock		Quartzite			3
Controlled Surface	A2		Lithics	Miscellaneous	Fire Cracked Rock		Granite			1
Controlled Surface	A3		Lithics	Debitage	Shatter		Boyle			2
Controlled Surface	A4		Lithics	Miscellaneous	Fire Cracked Rock		Limestone			5
Controlled Surface	A4		Lithics	Miscellaneous	Fire Cracked Rock		Granite			1
Controlled Surface	A5		Lithics	Debitage	Secondary Flake	Whole	Brassfield			1
Controlled Surface	A5		Lithics	Miscellaneous	Fire Cracked Rock		Sandstone			1
Controlled Surface	A5		Lithics	Miscellaneous	Fire Cracked Rock		Tillite			1
Controlled Surface	A5		Lithics	Miscellaneous	Fire Cracked Rock		Sandstone			1
Controlled Surface	A6		Lithics	Miscellaneous	Fire Cracked Rock		Sandstone			1
Controlled Surface	A6	N6	Lithics	Implement	Projectile Point	Distal Fragment	Unidentified Chert	Unknown Type		1
Controlled Surface	A7		Lithics	Debitage	Secondary Flake	Whole	Local pebble chert			2
Controlled Surface	A7		Lithics	Miscellaneous	Fire Cracked Rock		Quartzite			1
Controlled Surface	A8		Lithics	Debitage	Secondary Flake	Proximal Fragment	Unidentified Chert			1
General Surface	A14	E5	Lithics	Debitage	Primary Flake	Whole	Boyle			1
General Surface	A14	E5	Lithics	Debitage	Secondary Decortication Flake	Whole	Local pebble chert			1
Shovel Test	A14		Ceramics	Pottery	Mixed Particle	Body	Uniform			1
Shovel Test	A2	E2	Lithics	Miscellaneous	Fire Cracked Rock		Quartzite			1
TOTAL 33Ha697 :		31								
33Ha698										
Shovel Test	A12		Lithics	Debitage	Tertiary Flake	Proximal Fragment	Boyle			1
Shovel Test	A12		Lithics	Miscellaneous	Fire Cracked Rock		Sandstone			1
Shovel Test	A15		Faunal	Remains	Mammal		Fragment			1
TOTAL 33Ha698 :		3								
33Ha699										
Shovel Test	B12		Faunal	Remains	Gastropod		Fragment			2

**CULTURAL RESOURCES RECONNAISSANCE INVESTIGATIONS
OF CINERGY CORPORATION'S
PROPOSED 12,000-FOOT PIPELINE PROJECT
ALONG STATE ROUTE 32,
HAMILTON COUNTY, OHIO
PREHISTORIC ARTIFACT INVENTORY**

PROVENIENCE	LEVEL	MATERIAL GROUP	ARTIFACT CLASS	ARTIFACT TYPE	DESCRIPTION	RAW MATERIAL	UTIL	RET.	COUNT
Shovel Test	B12	Faunal	Remains	Mammal		Fragment			4
Shovel Test	B12	Faunal	Remains	Mollusca		Fragment			7
Shovel Test	B12	Lithics	Debitage	Shatter		Local pebble chert			1
Shovel Test	B12	Lithics	Debitage	Tertiary Flake	Whole	Delaware			1
Shovel Test	B12	Lithics	Implement	Projectile Point		Unidentified Chert	Madison		1
Shovel Test	B12	Lithics	Miscellaneous	Fire Cracked Rock		Limestone			7
Shovel Test	B12	Lithics	Miscellaneous	Fire Cracked Rock		Limestone			1
Shovel Test	B12	W7	Faunal	Remains	Mollusca	Fragment			1
Shovel Test	B12	W7	Lithics	Debitage	Shatter	Unidentified Chert			1
Shovel Test	B13	Ceramics	Pottery	Mixed Particle	Body	Uniform			1
Shovel Test	B13	Ceramics	Pottery	Mixed Particle	Body	Uniform			1
Shovel Test	B13	Faunal	Remains	Mammal		Fragment			2
Shovel Test	B13	Faunal	Remains	Mammal		Fragment			25
Shovel Test	B13	Faunal	Remains	Mammal		Fragment			5
Shovel Test	B13	Faunal	Remains	Mammal		Unidentified Bone			3
Shovel Test	B13	Faunal	Remains	Mollusca		Fragment			7
Shovel Test	B13	Faunal	Remains	Osteichthyes		Unidentified Bone			1
Shovel Test	B13	Faunal	Remains	Rodentia		Tooth			1
Shovel Test	B13	Lithics	Debitage	Flake Fragment	Distal Fragment	Boyle			1
Shovel Test	B13	Lithics	Debitage	Shatter		Unidentified Chert			1
Shovel Test	B13	Lithics	Debitage	Tertiary Flake	Whole	Unidentified Chert			6
Shovel Test	B13	Lithics	Debitage	Tertiary Flake	Whole	Boyle			1
Shovel Test	B13	Lithics	Miscellaneous	Fire Cracked Rock		Limestone			2
Shovel Test	B13	Lithics	Miscellaneous	Fire Cracked Rock		Sandstone			8
Shovel Test	B13	Lithics	Miscellaneous	Fire Cracked Rock		Limestone			16
Shovel Test	B14	W2	Faunal	Remains	Mammal	Fragment			5
Shovel Test	B14	W2	Faunal	Remains	Mollusca	Fragment			10
Shovel Test	B14	W2	Lithics	Debitage	Flake Fragment	Distal Fragment	Ohio Flint Ridge		1
Shovel Test	B14	W2	Lithics	Debitage	Flake Fragment	Distal Fragment	Unidentified Chert		2
Shovel Test	B14	W2	Lithics	Debitage	Tertiary Flake	Whole	Unidentified Chert		5
Shovel Test	B14	W2	Lithics	Debitage	Tertiary Flake	Whole	Unidentified Chert		1
Shovel Test	B14	W2	Lithics	Miscellaneous	Fire Cracked Rock	Limestone			6
Shovel Test	B14	W2	Lithics	Miscellaneous	Fire Cracked Rock	Granite			2

TOTAL 33Ha699 : 139

APPENDIX B:
OHIO ARCHAEOLOGICAL INVENTORY FORMS



OHIO ARCHAEOLOGICAL INVENTORY

for official use only

*Response required for acceptance of form

Coder _____

Date _____

A. Identification

*1. Type of Form (select as many as appropriate):

____ New Form ☒ Revised Form ____ Transcribed Data2. County Hamilton *3. Trinomial State Site Number 33 - Ha - 284. Site Name(s) Turpin5. Project Site Number 96-0703-016. Other State Site Number 105 (19)7. Source (of Item A.5. and/or A.6.) OAI

B. Location

*1. UTM Zone 16 or 17Easting 7 2 5 2 8 0Northing 4 3 3 2 4 6 0

2. Latitude ____° ____' ____"

Longitude ____° ____' ____"

*3. Township ____ Range ____ Not Applicable ☒

Section ____ 1/4 Section: ____ SW ____ SE ____ NW ____ NE

Township Name ANDERSON*4. Quadrangle Name Newport, Ky - 0140*5. Quadrangle Date 1983 Revised in 1987*6. Confident of Site Location ☒ Yes ____ No

C. Ownership

*1. Name(s) Robert FischerAddress 7028 RaglandCity/Town, State, Zip Newtown, OHIO

Phone () _____

2. Tenant (if any) _____

Address _____

City/Town, State, Zip _____

Phone () _____

*3. Ownership Status (select only one, as appropriate):

☒ Private (single)

____ Private (multiple)

____ Local Govt.

____ State Govt.

____ Federal Govt.

____ Multiple Govt.

____ Mixed-Govt./Private

____ Unknown

D. Temporal Affiliations

*1. Affiliations Present (select only one, as appropriate):

☒ Prehistoric

____ Historic

____ Prehistoric and Historic

____ Unknown

____ Unrecorded

*Site No. 33 -
Plotted ☐



OHIO ARCHAEOLOGICAL INVENTORY

for official use only

*Response required for acceptance of form

Coder _____

Date _____

A. Identification

*1. Type of Form (select as many as appropriate):

____ New Form ____ ☒ Revised Form ____ Transcribed Data2. County Hamilton *3. Trinomial State Site Number 33 - _____4. Site Name(s) Robert Fischer site5. Project Site Number 96-0703

6. Other State Site Number _____

7. Source (of Item A.5. and/or A.6.) _____

B. Location

*1. UTM Zone _____ 16 or _____ 17

Easting 7 2 5 4 6 0Northing 4 3 3 2 7 4 0

2. Latitude _____° _____' _____"

Longitude _____° _____' _____"

*3. Township _____ Range _____ Not Applicable ☒

Section _____ ¼ Section: _____ SW _____ SE _____ NW _____ NE

Township Name ANDERSON*4. Quadrangle Name Newport, Ky - OHIO*5. Quadrangle Date 1983 Revised in 1987*6. Confident of Site Location ☒ Yes _____ No

C. Ownership

*1. Name(s) Robert TURPIN FISCHERAddress 7028 RaglandCity/Town, State, Zip Newtown, OHIO

Phone () _____

2. Tenant (if any) _____

Address _____

City/Town, State, Zip _____

Phone () _____

*3. Ownership Status (select only one, as appropriate):

☒ Private (single)

____ Private (multiple)

____ Local Govt.

____ State Govt.

____ Federal Govt.

____ Multiple Govt.

____ Mixed-Govt./Private

____ Unknown

D. Temporal Affiliations

*1. Affiliations Present (select only one, as appropriate):

☒ Prehistoric

____ Historic

____ Prehistoric and Historic

____ Unknown

____ Unrecorded

*Site No. 33 -
Plotted ☐

**OHIO ARCHAEOLOGICAL INVENTORY**

for official use only

*Response required for acceptance of form

Coder _____

Date _____

A. Identification

*1. Type of Form (select as many as appropriate):

☒ New Form ☐ Revised Form ☐ Transcribed Data2. County Hamilton *3. Trinomial State Site Number 33- Ha - 697

4. Site Name (s) _____

5. Project Site Number 96-0703-05

6. Other State Site Number _____

7. Source (of Item A.5. and/or A.6.) _____

B. Location*1. UTM Zone ☒ 16 or ☐ 17Easting 7 2 5 2 2 0Northing 4 3 3 3 1 2 0

2. Latitude _____° _____' _____"

Longitude _____° _____' _____"

*3. Township _____ Range _____ Not Applicable ☒

Section _____ ¼ Section: _____ SW _____ SE _____ NW _____ NE

Township Name Anderson*4. Quadrangle Name Newport, Ky - Ohio*5. Quadrangle Date 1983 - Revised in 1987*6. Confident of Site Location ☒ Yes ☐ No**C. Ownership***1. Name (s) Robert FischerAddress 7028 RAGLAND AVECity/Town, State, Zip Newtown, Ohio

Phone () _____

2. Tenant (if any) _____

Address _____

City/Town, State, Zip _____

Phone () _____

*3. Ownership Status (select only one, as appropriate):

☒ Private (single)☐ Private (multiple)☐ Local Govt.☐ State Govt.☐ Federal Govt.☐ Multiple Govt.☐ Mixed-Govt./Private☐ Unknown**D. Temporal Affiliations**

*1. Affiliations Present (select only one, as appropriate):

☒ Prehistoric☐ Historic☐ Prehistoric and Historic☐ Unknown☐ Unrecorded*Site No. 33 -
Plotted ☐



OHIO ARCHAEOLOGICAL INVENTORY

for official use only

*Response required for acceptance of form

Coder _____
Date _____

A. Identification

*1. Type of Form (select as many as appropriate):

☒ New Form _____ Revised Form _____ Transcribed Data _____2. County Hamilton *3. Trinomial State Site Number 33 - Ha - 698

4. Site Name (s) _____

5. Project Site Number 96-0703-04

6. Other State Site Number _____

7. Source (of Item A.5. and/or A.6.) _____

B. Location

*1. UTM Zone ☒ 16 or _____ 17Easting 7 2 8 2 0 0Northing 4 3 3 2 6 2 0

2. Latitude _____° _____' _____"

Longitude _____° _____' _____"

*3. Township _____ Range _____ Not Applicable ☒

Section _____ 1/4 Section: _____ SW _____ SE _____ NW _____ NE

Township Name ANDERSON*4. Quadrangle Name Withamsville, OHIO - KY*5. Quadrangle Date 1983 Revised in 19 _____*6. Confident of Site Location ☒ Yes _____ No _____

C. Ownership

*1. Name (s) _____

Address State Route 32City/Town, State, Zip Newtown, OHIO

Phone () _____

2. Tenant (if any) _____

Address _____

City/Town, State, Zip _____

Phone () _____

*3. Ownership Status (select only one, as appropriate):

☒ Private (single)

_____ Private (multiple)

_____ Local Govt.

_____ State Govt.

_____ Federal Govt.

_____ Multiple Govt.

_____ Mixed-Govt./Private

_____ Unknown

D. Temporal Affiliations

*1. Affiliations Present (select only one, as appropriate):

☒ Prehistoric

_____ Historic

_____ Prehistoric and Historic

_____ Unknown

_____ Unrecorded

*Site No. 33 - _____
Plotted ☐



OHIO ARCHAEOLOGICAL INVENTORY

for official use only

*Response required for acceptance of form

Coder _____

Date _____

A. Identification

*1. Type of Form (select as many as appropriate):

☒ New Form _____ Revised Form _____ Transcribed Data _____2. County Hamilton *3. Trinomial State Site Number 33 - Ha - 699

4. Site Name (s) _____

5. Project Site Number 96-0703-06

6. Other State Site Number _____

7. Source (of Item A.5. and/or A.6.) _____

B. Location

*1. UTM Zone ☒ 16 or ☐ 17Easting 7 2 5 7 3 0 0Northing 4 3 3 1 6 9 0

2. Latitude _____° _____' _____"

Longitude _____° _____' _____"

*3. Township _____ Range _____ Not Applicable ☒

Section _____ ¼ Section: _____ SW _____ SE _____ NW _____ NE

Township Name ANDERSON*4. Quadrangle Name Newport, KY - OHIO*5. Quadrangle Date 1983 Revised in 1987*6. Confident of Site Location ☒ Yes _____ No _____

C. Ownership

*1. Name (s) Robert FischerAddress 2028 RaglandCity/Town, State, Zip Newtown, OHIO

Phone () _____

2. Tenant (if any) _____

Address _____

City/Town, State, Zip _____

Phone () _____

*3. Ownership Status (select only one, as appropriate):

☒ Private (single)☐ Private (multiple)☐ Local Govt.☐ State Govt.☐ Federal Govt.☐ Multiple Govt.☐ Mixed-Govt./Private☐ Unknown

D. Temporal Affiliations

*1. Affiliations Present (select only one, as appropriate):

☒ Prehistoric☐ Historic☐ Prehistoric and Historic☐ Unknown☐ Unrecorded*Site No. 33 -
Plotted ☐