THE ARCHAEOLOGICAL INVESTIGATION OF TWO STORM DRAIN CORRIDORS AT THE STONEGATE DEVELOPMENT ALEXANDRIA, VIRGINIA

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Introduction

The area investigated lies near the western edge of the City of Alexandria at the junction of Shirley Highway/ I-395 and West Braddock Road (Figure 1 & 2). Although the project is entirely privately funded, it is subject to the City of Alexandria Ordinances pertaining to archaeological resources. The outfalls themselves cross the 100 year floodplain and a few feet of wetlands before entering into the creek (Figure 3 & 4). Therefore, they are subject to review during the U.S. Army Corps of Engineers review process for granting a Nationwide permit.

The investigation of the 22.8 acre parcels of land began in late September with shovel test excavated on a 50 foot grid pattern. The results of the shovel testing and a surface collection indicated two areas of cultural occupation; a prehistoric lithic scatter (Stonegate1) and a late 19th century historic domestic site that were both located on the terrace located above the creek where the two outfall corridors are located. During regular meetings with Alexandria Archaeology the methodology to investigate the entire area was decided upon and modified as deemed necessary to maximize the information recovered. Both of these sites were thoroughly investigated with a total of 130 excavation units and mechanical testing of several features.

Investigation of the outfalls began with a review of sites in the area that showed that a site (44AX31) had been located during a reconnaissance survey conducted in 1979(Figure 5). This site was located along the creek nearly equidistant between the two outfalls(Figure 6). The area is currently forested and covers approximately 100 feet from the creek towards the terrace slope.(Figure 7) Fieldwork began with shovel testing along the centerline of the corridor to determine the presence of cultural occupation. Lithic debitage was recovered from a number of the shovel tests along both the northeast and southwest storm drain corridors. The results of the shovel tests can be seen as hand lettered notations on the corridor drawings or examined in the artifact catalog-Appendix B (Figures8 & 9)

Further testing was recommended to determine if significant amounts of cultural material or intact cultural features were present by excavating 1 x 1 meter units along the length of the corridor at 10 foot intervals. During or weekly meetings to discuss the progress of the investigation, a request was made by Alexandria Archaeology to

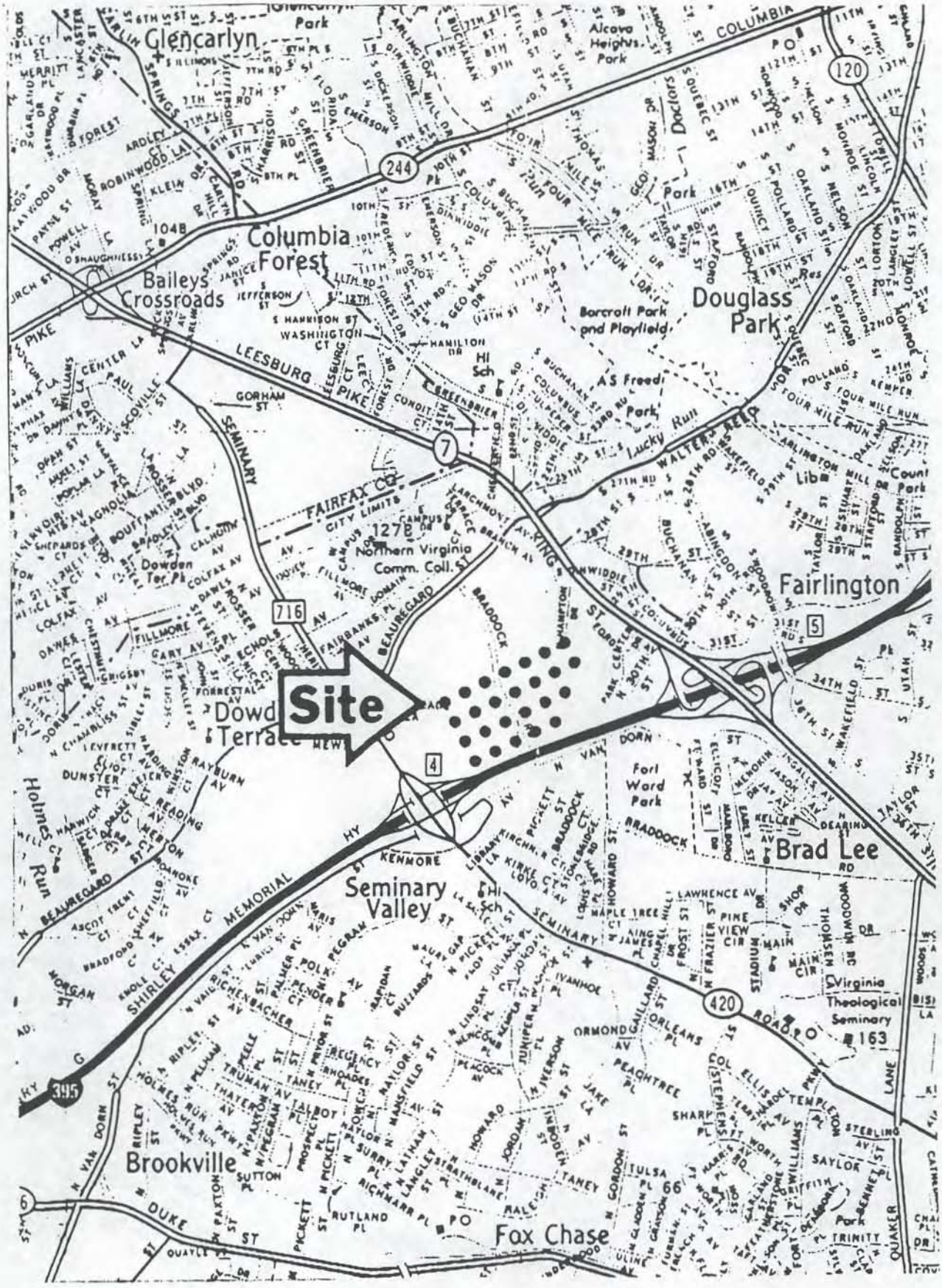


Figure 1, Location of site area on the western side of the City of Alexandria, Virginia.

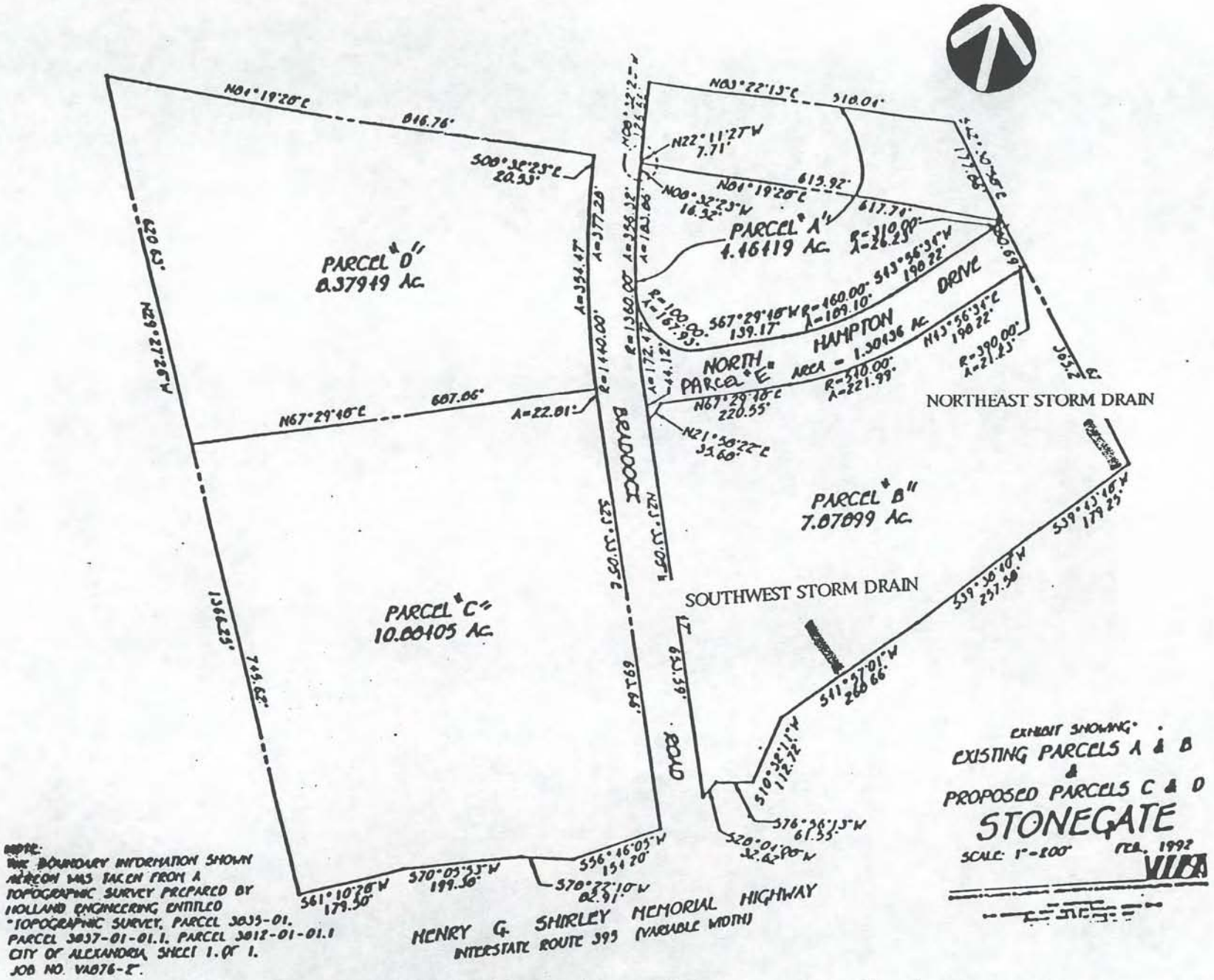


Figure 2, Surveyed boundaries of the Stonegate development with the locations of the storm drain corridors located on Parcel B.

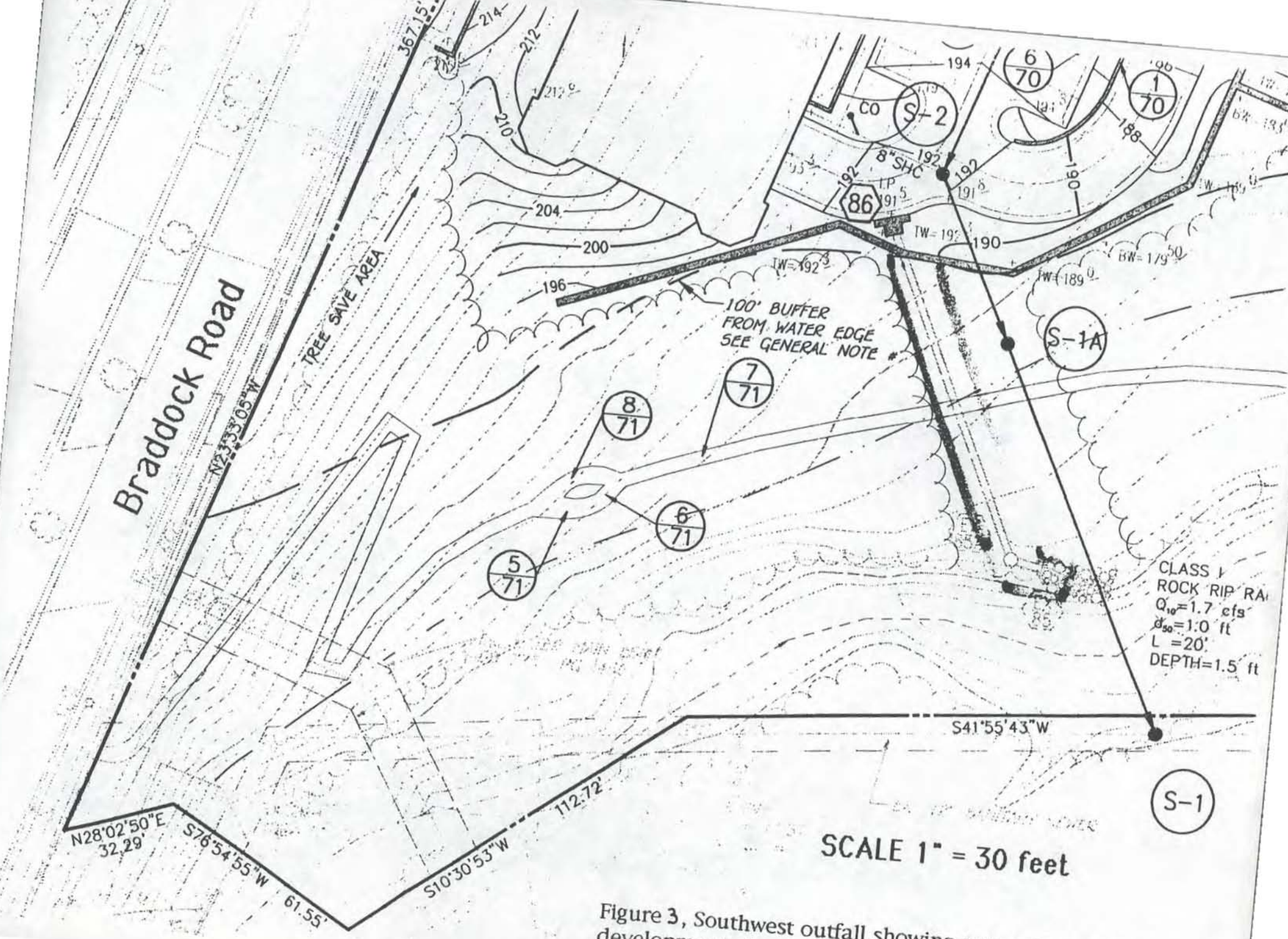


Figure 3, Southwest outfall showing surronding topography and development plans.

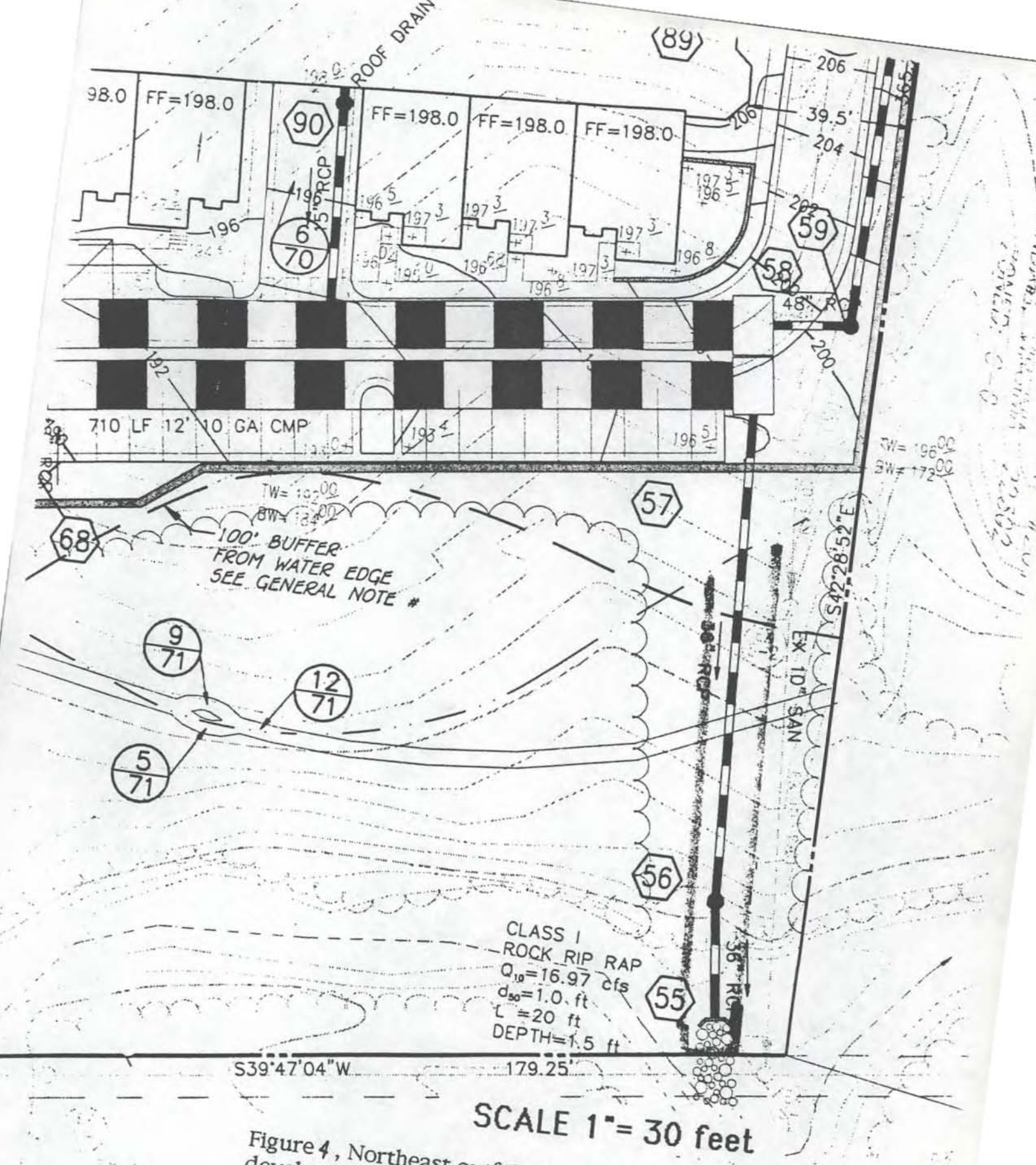


Figure 4, Northeast outfall showing surronding topography and development plans.

VIRGINIA RESEARCH CENTER FOR ARCHAEOLOGY
SITE SURVEY FORM

44 AX 31

Name of site: The CJ Site Site number: B10-2,3,4

Type of site: Lithic scatter 4600 BL Cultural affiliation: Possibly Archaic

Map reference: 395 and Braddock Road

Latitude ° ' " north Longitude ° ' " west.
U.T.M. Zone 18 Easting 317,050 Northing 4300,170.
(or distance from printed edge of map: bottom edge ____ : right edge ____)

Owner/address: unknown
Tenant/address:
Attitude toward investigation: unknown
Informant/address:
Surveyed by: Alex. Regional Preservation Office Date: 10/79

General surroundings: Undisturbed deciduous forest in stream valley. Area is lowland of 3-8% slopes.

Nearest water: nature, direction and distance: 7 to 11 meters to east is small stream

Dimension of site: Site consists of three continuous scatters, B10-2 8X3m, B10-3 9X4.5m, B10-4 9X4m
Description: depth, soil, collecting conditions:

No subsurface testing done

Specimens collected: kinds, quantities, materials: One projectile point was collect, possibly dating from the Middle Archaic. The artifacts not collected included many ... quartz and quartzite flakes.

Specimens reported, owners, address: None

Other documentation: reports, historical data: None

Condition: erosion, cultivation, excavation, construction: Site eroding out of stream bank

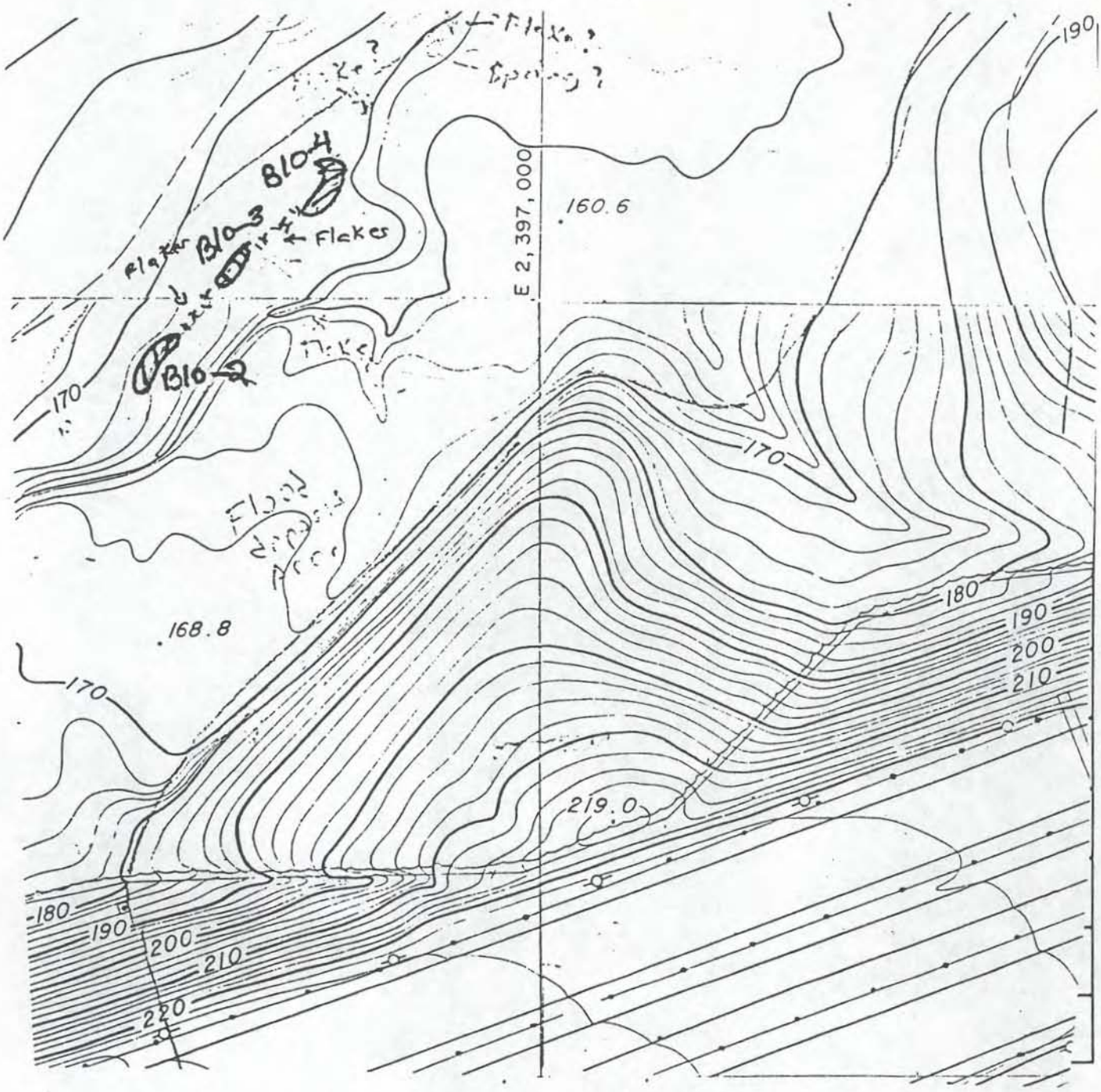
Recommendations: Subsurface testing to determine extent of site and to see if the three scatters are truely continuous.

Photo: None Map: on file ARPO
Recorded by: Terry Klein Date: 8/26/80

County Alexandria Map Sheet Alexandria Quad Site Number B10-2,3,4

Figure 5, Virginia archaeological site form for 44AX31 (Two pages)

SKETCH MAP



(Indicate North) Scale 1 inch=100'

N

Additional comments:

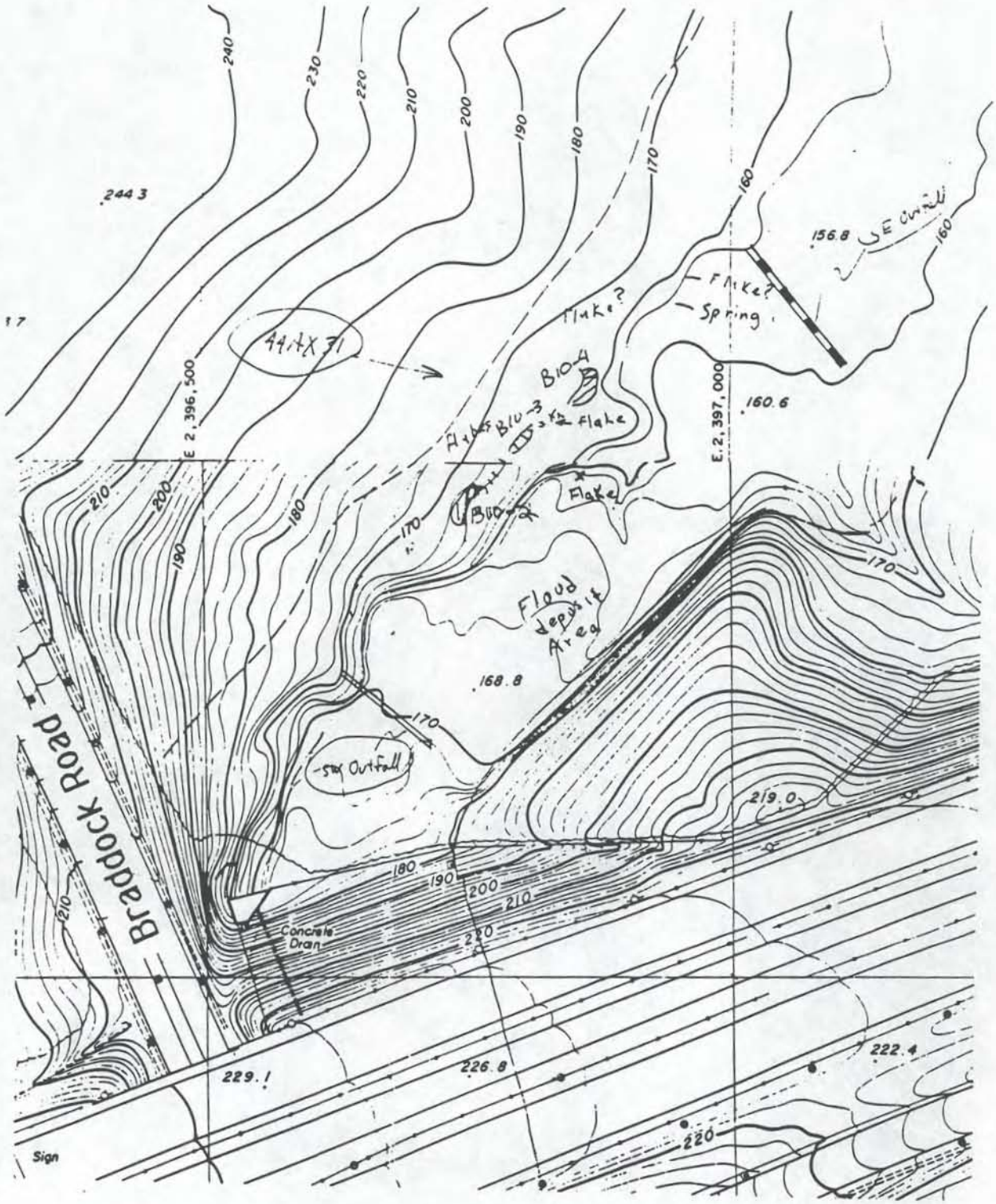
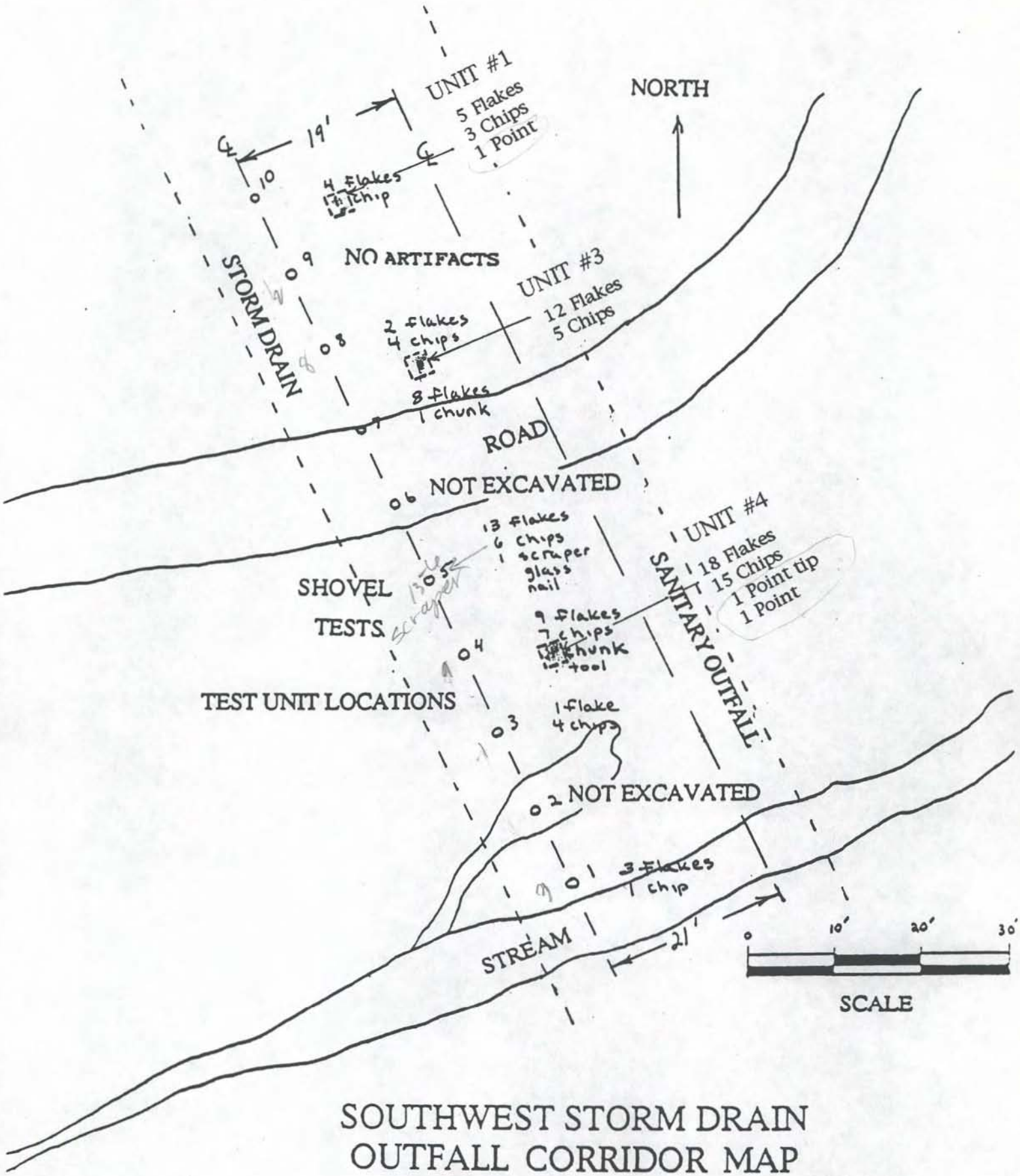


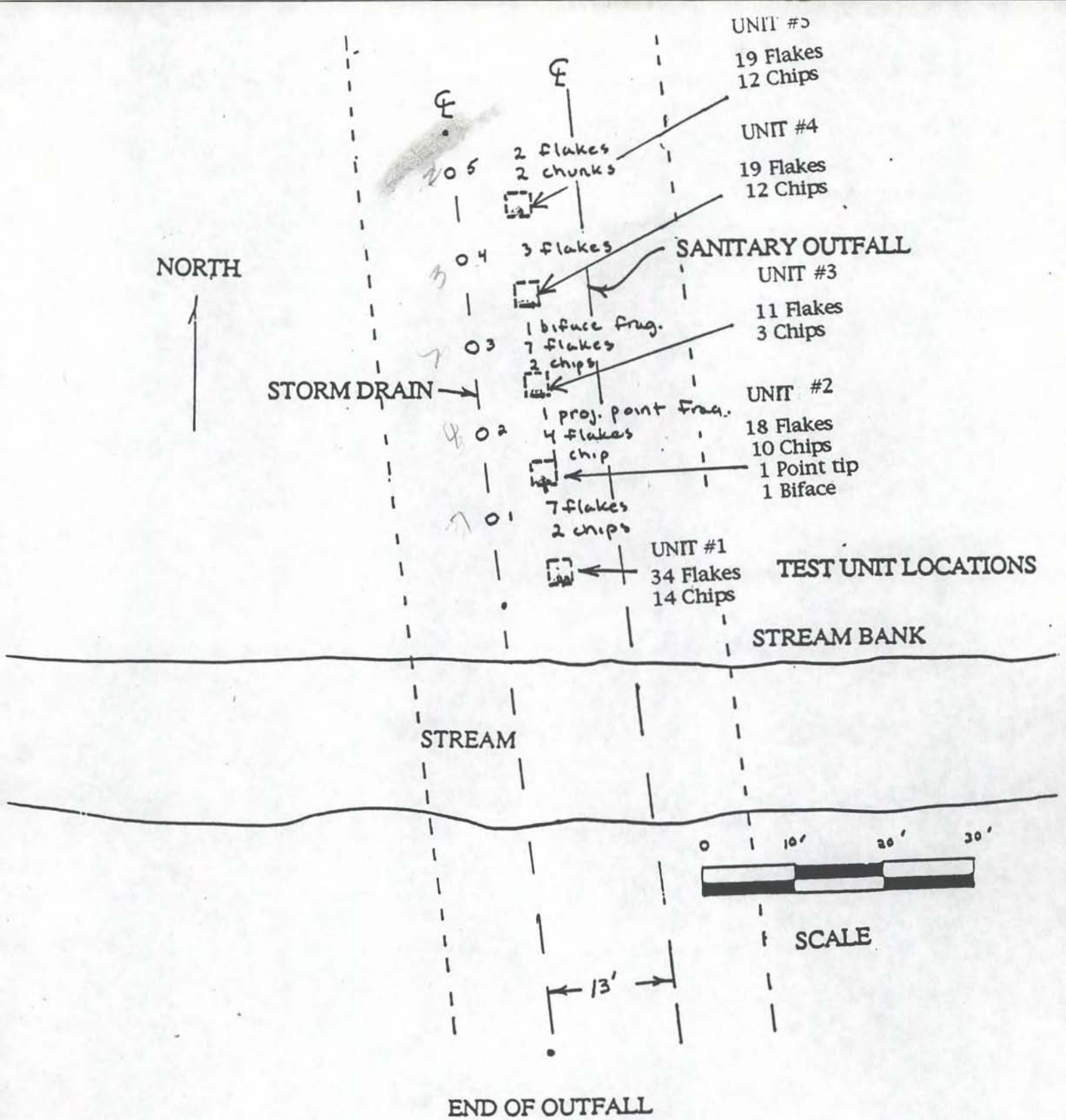
Figure 6, Original map from site 44AX31 with locations of the outfalls drawn on.it.

Figure 7, View of storm drain corridor area from West Braddock Road. Looking east along road paralell to creek.



SOUTHWEST STORM DRAIN OUTFALL CORRIDOR MAP

Figure 8, Southwest storm drain corridor.



NORTHEAST STORM DRAIN OUTFALL CORRIDOR MAP

Figure 9, Northeast storm drain corridor.

excavate another row of shovel tests at the eastern edge of the corridors as the width of the corridors were found to be a few feet wider than originally determined. During the following week it was determined that the shovel tests along the eastern edge of the northeast corridor could not be excavated as they were located in a highly disturbed area. During the same week, excavation units along the Northeast storm drain corridor were completed and revealed few artifacts and no cultural features.

At the meeting the following week it was agreed that the shovel testing along the southwest storm drain corridor would not be beneficial and that three excavation units would be placed along the length of the corridor rather than the original six units that had been planned(Figure 10). These excavations revealed lithic debitage in limited quantity and no cultural features. These findings were presented to Alexandria Archeology the following week and it was agreed that no further work would be required along either corridor.

Included in Appendix A-Relevant Communications are the letters and plans that document the progression in the investigation.

Prehistoric and Historic Context and Research Objectives

An extensive amount of research has been conducted to place the entire research area in it's proper prehistoric and historic context. In addition to my own research, Mr. Mike Johnson and Mr. Lawrence Moore- Fairfax County archaeologists have written the prehistoric context for the final report. The historic context has been assembled and written by Ms. Martha McCartney and will be included in the final report as well as additional research conducted regarding property owners and other archival research by M. B. Mitchell and Associates. This information has been supplemented by my research and investigation on the adjacent Winkler properties to the south for the past 2 years. One other approach that has been very beneficial is a botanical/cultural analysis of the area conducted by Mr. Rod Simmons that has been very useful in interpreting the cultural occupation of the area.

Specific requests were made by Alexandria Archaeology to identify the prehistoric sites in the area, the sites potential significance, the uniqueness to Alexandria, and the research objectives and strategy to be employed. These requests were included in the Scope of Work-Phase II Testing of a Prehistoric Site at the Stonegate Development submitted to the City of Alexandria. This Scope of Work has been included for your review in Appendix A-Relevant Communications.

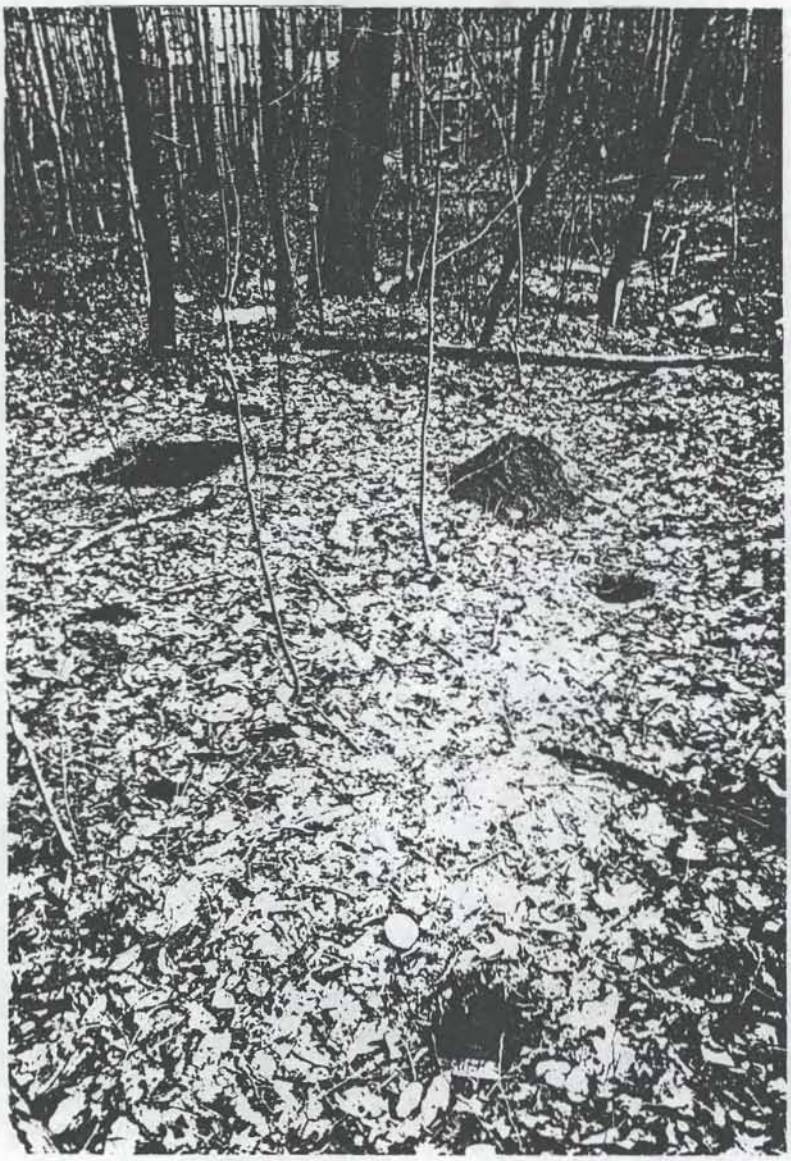


Figure 10, View looking south along southwest storm drain corridor. Shovel test #5 in foreground. Unit #4 at left background.

Methodology, Results and Analysis

Results of the shovel testing along both storm drain corridors yielded a few flakes and pieces of shatter in most of the shovel tests. One unifacial quartz scraper was recovered in shovel test #5 on the southwest storm drain and along the northeast storm drain corridor, one biface fragment was recovered in shovel test #3 and one projectile point body fragment from shovel test #2. The recovery of these artifacts suggested that excavation units would be required to determine if intact cultural features were preserved or if significant amounts of cultural material would be recovered.

In the interim, I discovered that the width of the disturbance corridor was wider than originally thought and subsequently an additional line of shovel tests and a line of test units every 10 feet along the centerline of each corridor would be required (See Adams-Shephard 11/23/92-Appendix A).

The shovel tests that were requested to be excavated along the eastern edge of the northeast corridor were discovered to lie in a disturbed area. This area had been bermed as a water control measure in the late 1950's or 60's. Five test excavation units were excavated along the northeast storm drain corridor and revealed a number of flakes in the five levels that were excavated per unit.

After further discussions with Alexandria Archaeology it was decided that only three units would be excavated along the southwest storm drain based on the information gained from the northeast storm drain excavations (Adams-Cressey-1/4/93-Appendix A). These excavations, once again, yielded a number of flakes and shatter, but no cultural features. In addition to the lithic debitage, two projectile points were recovered. one point recovered from Unit 4, level 3 has been difficult to assign a typology as it's characteristics are not clearly defined , it has no basal grinding, shows some assymetry but is smaller than many points of similar form, several possibilities exist from a Palmer to a possible Brewerton. The other projectile point is identified as a Piscataway from the Early to Middle Woodland period(Figure 11).

Profiles from the test excavation units showed that the area along the northeast storm drain corridor is essentially undisturbed. Although, the sediment accumulation in relatively recent times is greater than on the terrace above the floodplain. The possible explanations for this include deforestation and resultant downslope transport of soils and the colluvial deposits from the creek. The geomorphology of the creek area has been significantly altered in the

Figure 11, Projectile points recovered from southwest storm drain excavation units. On left, projectile point of undetermined typology, perhaps Brewerton(Unit 4, level 3). On the right, a Piscataway , Early to Middle Woodland (Unit 1, level 4)

past 60 years or less as the result of the extensive development of the area and the subsequent increase in run off funnelled into the creek area. This has caused extreme erosion and meandering of the creek and the entire creek bottom is highly disturbed(Figure 12).

Profiles from the southwest storm drain corridor show a similar stratigraphy with at least one drainage rivulet noted in unit#4. Also noted was the depth of historic artifacts at level 3 in Unit #4. This may be attributed to larger accumulations of soil as a result of logging activities and the subsequent increase in deposition or perhaps it is a disturbance associated with the construction of the road a few feet to the north of the unit(Figure 13).

Conclusions and Recommendations

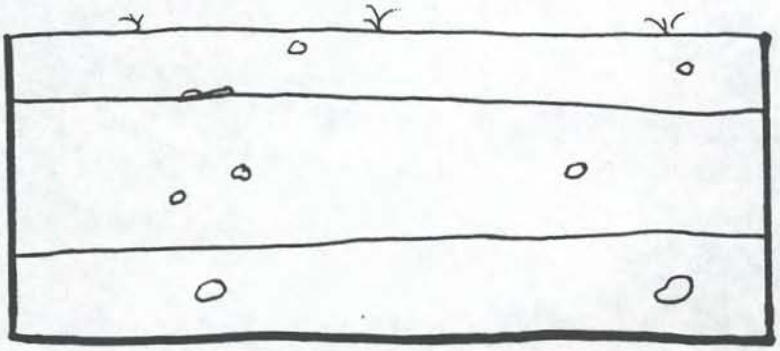
The results of the shovel tests and excavation units along both storm drain corridors indicate the presence of cultural occupation along the floodplain of the creek.. This occupation is further evidenced in site 44AX31 that was located between the two outfalls in 1979. This site was located during a reconnaissance survey in 1979 and consisted of three contiguous lithic scatters with numerous quartz and quartzite flakes.

The topography of the storm drain corridors differ slightly from the area of 44AX31 in that the site area has lower relief than either of the outfall areas. Although the site area was not re-examined, the description of numerous flakes present on the surface suggests that the site concentration may be in that location and the artifacts recovered in the corridors suggest a general occupation that occurred throughout the entire floodplain area.

During the weekly meetings with Alexandria Archaeology a plan to incorporate an archaeological preserve with the planned nature trail and storm water pond interpretive station within the non-disturbance area along the creek was agreed upon. Numerous plans have been discussed for the preserve including public participation and academic integration. The development association is excited about the idea and will be working closely with Alexandria Archaeology to maximize this unique resource area.

However, the limited quantity of artifacts and the the absence of intact cultural features suggest that additional work would not yield significantly more information. Therefore, no further work is recommended.

NORTHEAST STORM DRAIN PROFILES

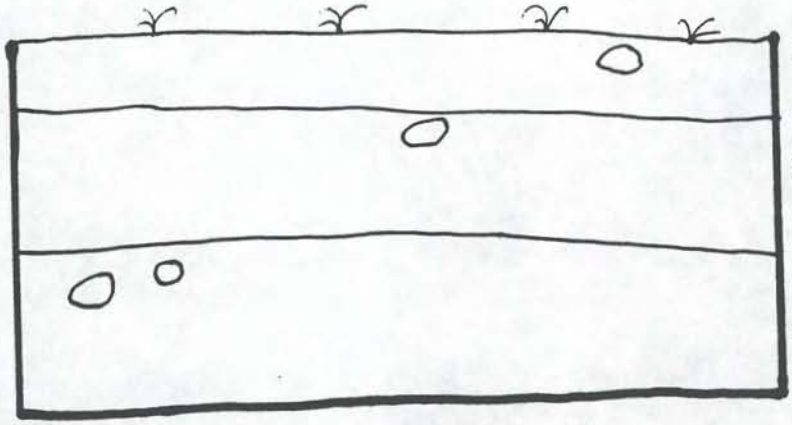


10YR 3/6 Dark yellowish brown sandy loam

10YR 4/6 Dark yellowish brown clayey sandy loam

10YR 7/8 Yellow silty sandy clay

UNIT #1 NORTH WALL

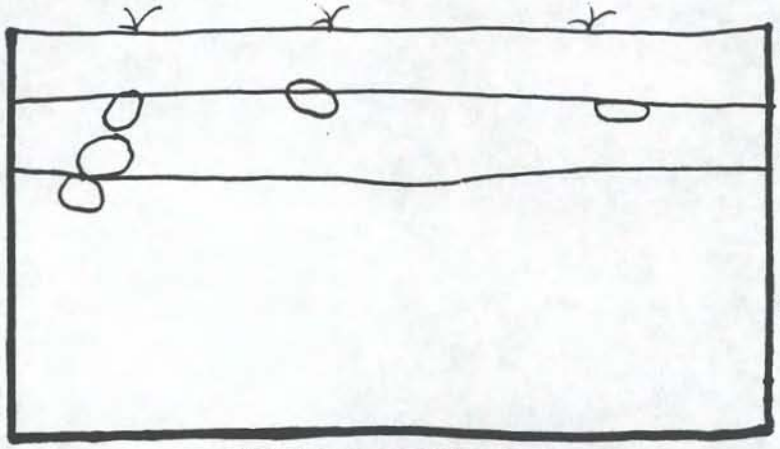


10YR 3/6 Dark yellowish brown sandy loam

10YR 4/6 Dark yellowish brown clayey sandy loam

10YR 7/8 Yellow silty sandy clay

UNIT #3 NORTH WALL



10YR 3/6 Dark yellowish brown sandy loam

10YR 4/6 Dark yellowish brown clayey sandy loam

10YR 7/8 Yellow silty sandy clay

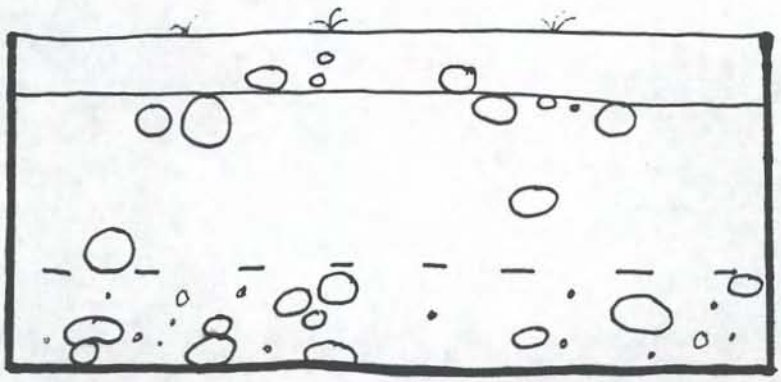
UNIT #5 NORTH WALL

0 30cm

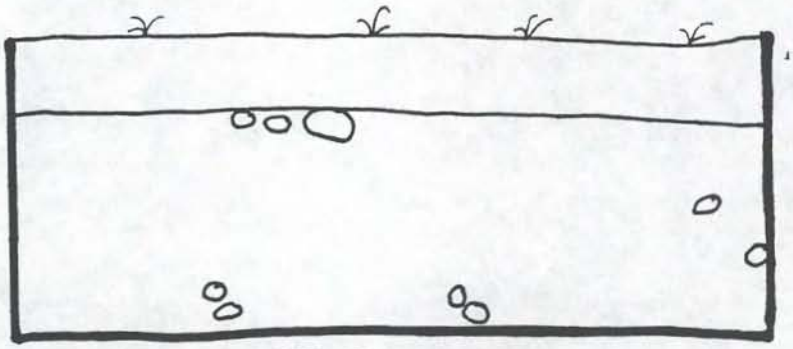
SCALE

Figure 12, Profiles from northeast storm drain corridor.

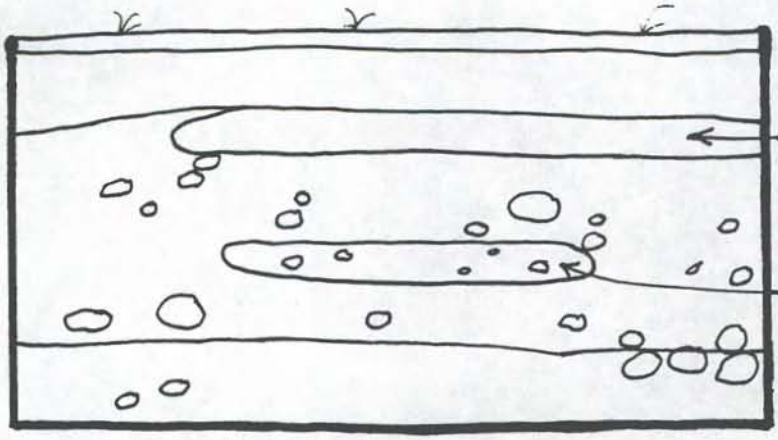
SOUTHWEST STORM DRAIN PROFILES



UNIT #1 WEST WALL



UNIT #3 WEST WALL



UNIT #4 WEST WALL

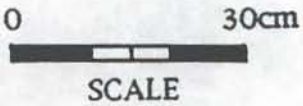


Figure 13, Profiles from southwest storm drain corridor.

APPENDICES

APPENDIX A

RELEVANT COMMUNICATIONS

SCOPE OF WORK
PHASE II TESTING OF A PREHISTORIC SITE
AT THE STONEGATE DEVELOPMENT
SUBMITTED TO THE CITY OF ALEXANDRIA

Abstract

The Stonegate property is an approximately 22 acre area that is scheduled for immediate development. It is located in the western portion of Alexandria and is bisected by West Braddock Road, and a portion of the property abuts I-395 (Shirley Highway). The 22-acre area is comprised of three parcels A/B, and D , respectively, an upland terrace and associated slope and a large flat area that is bisected by drainages south of west Braddock Road.l.

Results of the Phase I survey conducted by International Archaeological Consultants located one historic site and one prehistoric site on Parcel A/B and both have been recommended for further testing. The prehistoric site was defined by shovel testing the terrace area on a 50 foot grid spacing as being 150 ft. x 250 ft. Inter-site testing of those shovel tests and a surface collection recovered a total of 17 lithics, one scraper and a projectile point. The site is assigned its cultural affiliation based on the typology of a single projectile point identified as a Brewerton side notched (Late Archaic 3,800 B.C.-2,100 B.C.).

The requirements for the Scope of Work include the standard presentation of methodology, analytical techniques, and elements of a site report. Additionally, the Scope of Work presents a brief survey of other sites and artifact assemblages in the Mid-Atlantic region of the same period as evidenced by the artifacts at the Stonegate site. This includes a map showing the location of prehistoric sites in Fairfax County and Alexandria. A discussion of the potential significance of the Stonegate site and research value and uniqueness for Alexandria is included.

Also included are maps of the extent of disturbance at the site, the proposed placement of the 28 units to be excavated on the site and several maps showing the locations of prehistoric sites in Fairfax County and the City of Alexandria.

A portion of the Scope of Work includes the methodology for the investigation of a sanitary and storm water outfall that enter the drainage at the southern limits of Parcel B. The 18 foot wide disturbance corridor for the outfalls will be surface collected and shovel tested.

Research Objectives

This testing offers a unique opportunity to pursue a number of research questions. The results of the Alexandria Archaeology survey in 1979 and our survey suggest that limited cultural occupation occurred in the area. The objectives of the Field Testing methodology for the prehistoric site are to determine if intact cultural deposits remain, if a definable stratification can be defined and the temporal and geographical limitations of the site.

The objective of the storm water and sanitary outfalls corridor testing is to determine whether or not cultural materials are present within the corridor to be disturbed and to determine whether additional investigation will be required.

Prehistoric research objectives to be explored include the process of site formation and comparison of settlement patterns in the immediate area. Efforts will be made to evaluate the findings and to integrate this information with the body of knowledge available from work in Fairfax County and the region.

Research Strategy

A request was made for a brief survey of the prehistoric sites similar to the Stonegate properties prehistoric site that exist in the Mid-Atlantic region and particularly in Fairfax County and the City of Alexandria.

A brief review of the area was gleaned from several publications including a review of the recent thesis written by Fran Bromberg. Her thesis catalogs and shows the distribution of 533 sites in the coastal plain and fall zone of the Potomac Valley. These sites dated from ca. 6,500 B.C. to A.D. 1400 and cover a time period that is broader than the range indicated from the single Late Archaic projectile point recovered from the site. A number of data biases may account for differences in site densities, locations and recording deficits and these were considered in evaluating the findings presented in her thesis. The distribution of sites in her thesis was summarized in several maps of the area for each cultural phase and keyed by level of occupation.

The Halifax cultural phase which equates to the final phase of the Mid-Archaic showed numerous sites in Fairfax County probably as a result of the extensive recording that has undertaken in the County. Only two sites have been recorded in the uplands while the topographic area defined as the Inner Coastal Plain had a total of 26 sites. Twenty one of these sites in the Inner Coastal Plain were categorized as exploitive foray camps with 17 located on terraces and four as upland sites. Five of the sites were categorized as base camps (Figure 1 & 2). The Outer Coastal Plain had four sites two classified as exploitive foray camps and two as base camps (Figure 3).

In the Late Archaic, Bromberg's thesis notes seven sites in the Piedmont Uplands; five classified as micro social base camps that were located near rivers and two sites that were exploitive foray camp (Figure 4). It is noted that an increase in occupation after 2,000 B.C. is speculated based on the relative increase in the number of Holmes versus Savannah point types in the area.

On the Inner Coastal Plain 42 sites were defined; 15 exploitive foray camps, nine of which were located on terraces and six in an upland setting. Base camps totalled 27, with 24 located on terraces and three in an upland setting and it appears that five macro social sites were defined but there is some question regarding the total number of sites in this topographic area during this cultural phase (Figure 5).

Fewer sites were recorded on the Outer Coastal Plain (19) with the majority being base camps (15). Only four exploitive foray camps were recorded; three in stream upland settings and one terrace site near a river (Figure 6). The sites are generally characterized as shell middens on terraces associated with river and estuarine environments. Correlations to settlement patterns and food acquisition are tied to sea level changes and subsequent changes from freshwater marshes to tidal marshes, forest closure and the development of anadromous fish populations. It is postulated that the settlement patterns follows a seasonally based fusion-fission model for both macro and microsocial unit base camps

A brief review of the prehistoric sites of Fairfax County show that numerous prehistoric sites have been accurately recorded through the efforts of County archaeologist Mr. Michael Johnson. The chronology used by Mr. Johnson places the Stonegate site, as indicated by the single projectile point, between Hunter-Gatherer III-IV which correlates to the late Middle Archaic up to

the Late Woodland (Figure 7). Currently, an accurate number of sites from the same cultural phase as that located at Stonegate property is not readily discernible from the 1988 computer listing of sites in the Fairfax County-Heritage Resource Management Plan. When this Plan was published 733 sites were known in Fairfax County and currently there are 1900 sites. Unfortunately, this additional data has yet to be published in a map or graphic form to help us evaluate the Stonegate site so we must rely on several maps from the 1988 Fairfax County Master Plan (Figure 8,9,10, & 11) (pers. comm. M. Johnson 10/30/92). Research to integrate the data amassed in Fairfax County with the Stonegate site and Alexandria is being undertaken by Mr. Mike Johnson and Larry Moore and will be included as part of the final report.

After reviewing these references the Stonegate site appears to be a Late Archaic site in a upland setting at the edge of the coastal plain (Figure 12). It is not directly associated with the nearby stream and may be a exploitive foray camp or part of a larger fusion-fission model in the area. Upon further investigation if numerous artifacts and perhaps features are excavated, it is possible that this site may be classified as a micro social unit base camp.

The artifact assemblage and features that may be encountered include a full spectrum of cultural materials. The lithic assemblage should indicate special purpose function e.g. butchering and hide preparation or perhaps the manufacture or resharpening of tools. The projectile points that would be encountered on a site of this cultural association would be either side or ear notched and they may show signs of basal grinding. The lithic materials for most tools will most probably be either quartz or quartzites. Other artifacts may include hammerstones, grooved axes and perhaps steatite/soapstone vessels. Features that may be present, if preserved in the gravelly soil, would include post molds and perhaps storage pits if the site was occupied for any length of time. If, as is highly probable, the site was a exploitation foray camp cultural features may be limited to remnants of fire rings, perhaps faunal remains that would include deer and small game or floral remains particularly nuts and edible seeds if food processing activities occurred at the site.

The question regarding the uniqueness to the City of Alexandria has several components. These criteria include what is currently known about the prehistory of Alexandria, the number of sites that have been located and how many of these have been investigated, and how many sites may be located in the future.

A review of the City of Alexandria records shows 63 single source finds and 24 sites (See -Registered Prehistoric Sites in City of Alexandria-Oversize Map). The majority of these finds and sites were recorded during a reconnaissance survey conducted by Terry Klein in 1979 that focused on some of the last vacant property in western Alexandria. These were the Winkler and Stone tract properties as well as several park areas along Holmes Run to the west of both properties. A number of artifacts and artifact concentration were noted during the survey and a few of these were registered with the Commonwealth of Virginia as archaeological sites. Unfortunately, the sampling methodology for the survey did not include the collection of non-diagnostic finds. This has presented some difficulty in establishing whether the artifacts noted were of cultural origins.

A review of the 24 registered prehistoric sites in Alexandria show that all but one of these sites are directly associated with stream/drainages or lowlands (See attached map. Only one site 44AX24 appears to be an upland terrace site similar to the Stonegate site and when it was recorded in 1979 the registration form stated that it was slated for low income housing development. The current status of this site was unable to be determined at this time.

Of the 11 registered sites that are listed on the Winkler property, only three were shown to be within the 61 acre terrace area slated for future development. Of these three sites, two have been previously investigated and have gone through the review process and are no longer extant as a result of the development of two structures on the property. Another site has been registered with the Commonwealth of Virginia as 44AX163 and was determined to be a very light lithic scatter at the edge of an upland terrace . Another prehistoric site that was registered during the 1979 survey was located within the Botanical Preserve, 44AX12, was relocated and investigated by International Archaeological Consultants and found to be a very sparse lithic scatter and has been, after City approval, inundated by the Winkler Botanical Preserve Lower Pond.

The number of sites that have been investigated in depth is very limited. There has been work by several contract firms on sites in the area but those sites reports have yet to be located. Fairfax County has investigated five sites that have parallels to the Stonegate site, although these sites were not classified as exploitive foray camps. There are four sites in a complex located in the Tysons Corner area the Neha,Wolf Trap, Hobo Hill and Madrillon sites.

Another site in Fairfax County that was investigated was the Elliot Site that is in the coastal Plain and has abundant Holmes and Savannah River projectile points.

The question of the the uniqueness of this site to the City of Alexandria may be given some perspective based on the the amount of property within the City that is currently vacant. Examination of the City of Alexandria Master Plan shows an accurate and current breakdown of the land use within the City of Alexandria. It states that a total of 446.9 acres or 6% of the City is vacant land. The largest percentage of this area lays in the Alexandria West portion of the City, where Stonegate is located, and comprises 170.2 acres (Figure 13). The majority of this vacant land is held in the 103.9 acres of the Winkler property and the 32.8 acres of the Stone Tract. The 22.8 acres of the Stonegate that is currently being developed represents 5% of the total vacant land in the City.

Field Testing Methodology

In your letter of October 16 (Shephard-Eakin) you detailed those criteria that were to be included in this Scope of Work and subsequent discussions with you at Alexandria Archaeology on 10/20/92 refined and clarified those requirements. The review of the draft Scope of Work with comments from Alexandria Archaeology was received on 10/29/92 and discussions later that day have resulted in the refinements detailed in the following methodology.

This portion of the prehistoric site investigation will be to excavate a total of 28 - 1x 1 meter units in the undisturbed areas of the prehistoric site, as defined by my interim report. Of the 28 units plotted on the map showing Proposed Test Unit Locations , three of these will be discretionary and used to expand units under investigation if necessary. It is understood that additional excavation may be required at the discretion of the City Archaeologist and, if this work is undertaken, it will be defined in a subsequent Scope of Work or by written communication.

These units will be excavated in undisturbed areas in close proximity to those shovel tests and intersite tests that recovered cultural materials. (See Map-Proposed Test Unit Locations -Figure 14 and Prehistoric Site Disturbance Map-Figure 15). This includes several units in the vicinity of where a projectile point and scraper were surface collected.

The excavation units will be established from a known survey point. A property corner is located very near the site, and all measurements, including the excavation units, will be done in the metric system.

If subsurface cultural features are encountered, they will be sectioned and profiled with one half of the feature collected for 1/8 inch mesh water screening with floatation sampling and residue analysis. Faunal and floral materials recovered during the excavations will be analyzed, identified and included in the site interpretation. All projectile points or identifiable knives or scrapers will be collected and appropriately processed for blood protein residue analysis conducted by University of Delaware. Any radiocarbon samples of sufficient quantity recovered from cultural features will be analyzed by Beta Analytical. All lithic materials will be analyzed and cataloged to state of the art standards.

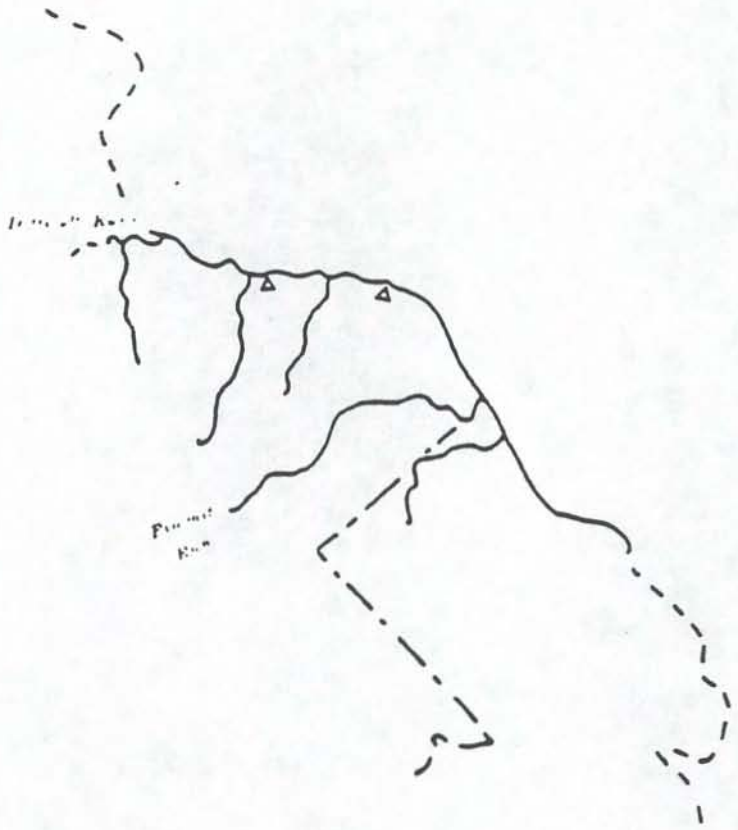
Testing of the two outfall corridors, located near the southern limits of Parcel B, will entail a pattern of shovel testing along their approximately 100 and 120 foot length, respectively. The disturbance corridor for both outfalls will be an 18 foot wide corridor (See maps of SE and SW outfalls -Figures 16 & 17). Shovel tests will placed at a 25 foot interval along the centerline of the SW outfall and at 10 foot intervals along the SE outfall. The smaller interval of shovel testing along the southeast outfall is called for because of the close proximity of prehistoric site 44AX31 (Figures 18 & 19). Note that the precise location of the Southeast outfall drawn on Figure 19 may not be precise because of difficulties in mapping.

All artifacts will be washed, air dried, labeled and curated in accordance with Virginia Department Historic Resources (VDHR), Secretary of Interior and Alexandria Archaeology standards; Curatorial responsibilities will be assumed by the property owners Eakin/Youngentob Associates.

Report Format

The Archaeological Evaluation Report will conform to City of Alexandria, Archaeological Standards, May 1990. The report will combine the results of the Phase I and II investigations that pertain to prehistoric occupation of the site. The report will contain a prehistoric context, methodology, artifact analysis, conclusions, management recommendations and appropriate appendices. The historic context which has already been prepared will be excluded from this report but will be included in the report that pertains to the historic site. Included within this report will be representative shovel test profiles and a map showing transect and shovel test locations from the Phase I investigation. The Phase II testing portion of the report will contain representative test unit profiles, drawings and photographs of features and a site plan showing artifact distributions. The survey of the two outfall areas will be included as a separate section of the report that will cover the context of the site to the local and regional level, methodology, artifact analysis and management recommendations within that section.

A draft of the report will be reviewed by Alexandria Archaeology and necessary changes made to the text before final submission.



MAP 5

HALIFAX
SITE DISTRIBUTION

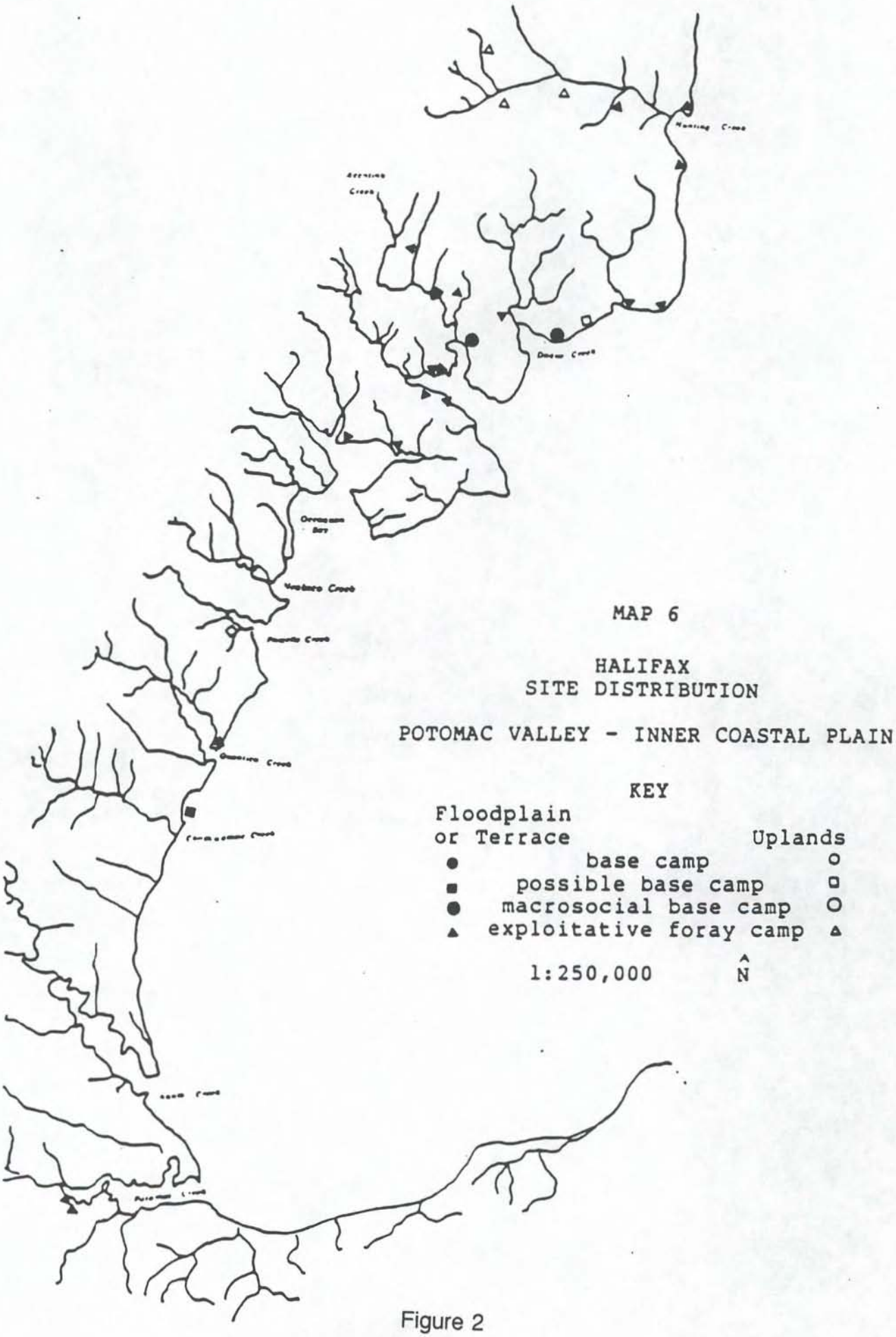
POTOMAC VALLEY - PIEDMONT UPLANDS

KEY

Floodplain		Uplands
●	base camp	○
■	possible base camp	□
●	macrosocial base camp	○
▲	exploitative foray camp	△

1:200,218 N

Figure 1



MAP 6

HALIFAX
SITE DISTRIBUTION

POTOMAC VALLEY - INNER COASTAL PLAIN

KEY

Floodplain or Terrace		Uplands
●	base camp	○
■	possible base camp	□
●	macrosocial base camp	○
▲	exploitative foray camp	△

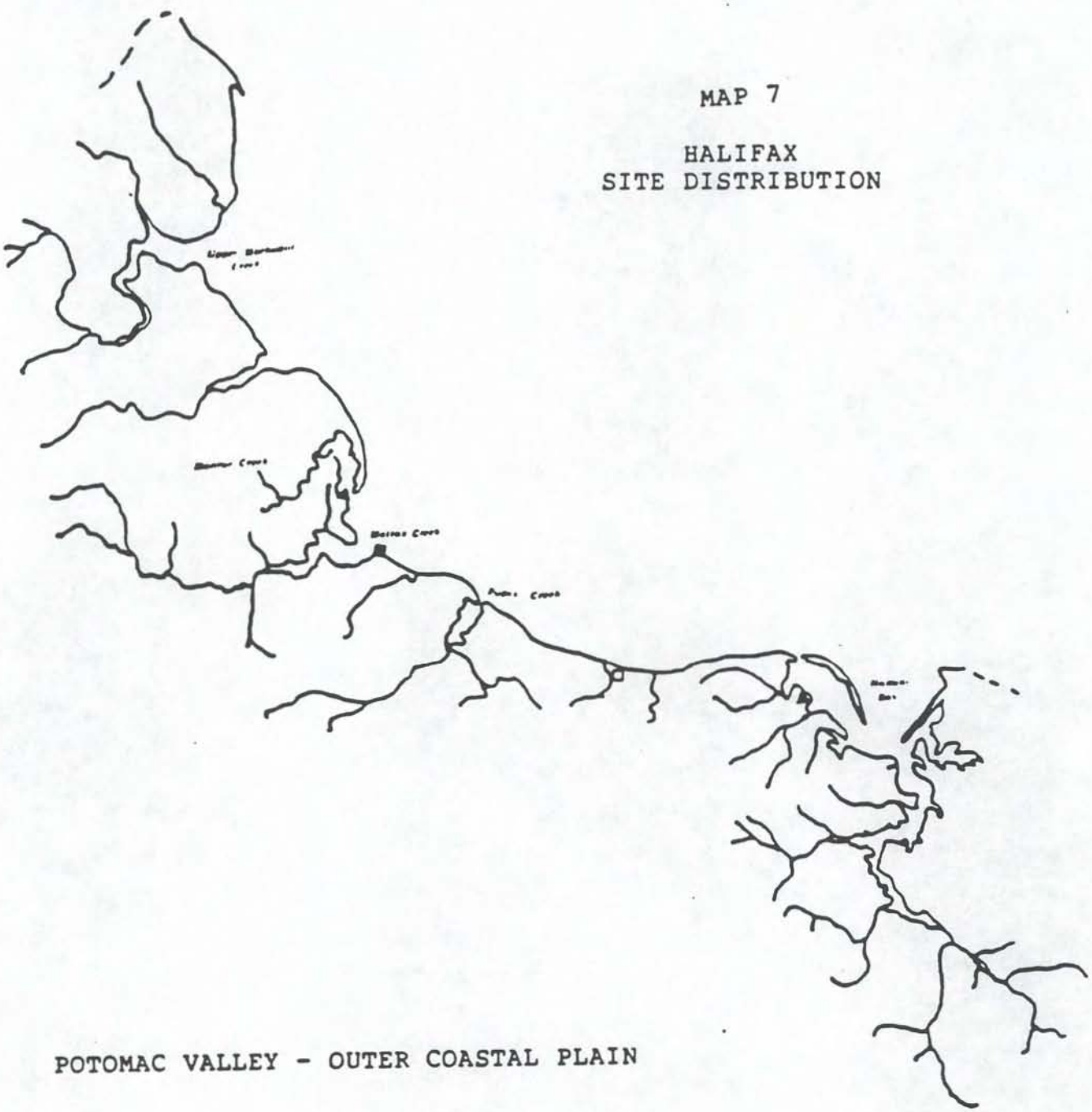
1:250,000

N

Figure 2

MAP 7

HALIFAX
SITE DISTRIBUTION



POTOMAC VALLEY - OUTER COASTAL PLAIN

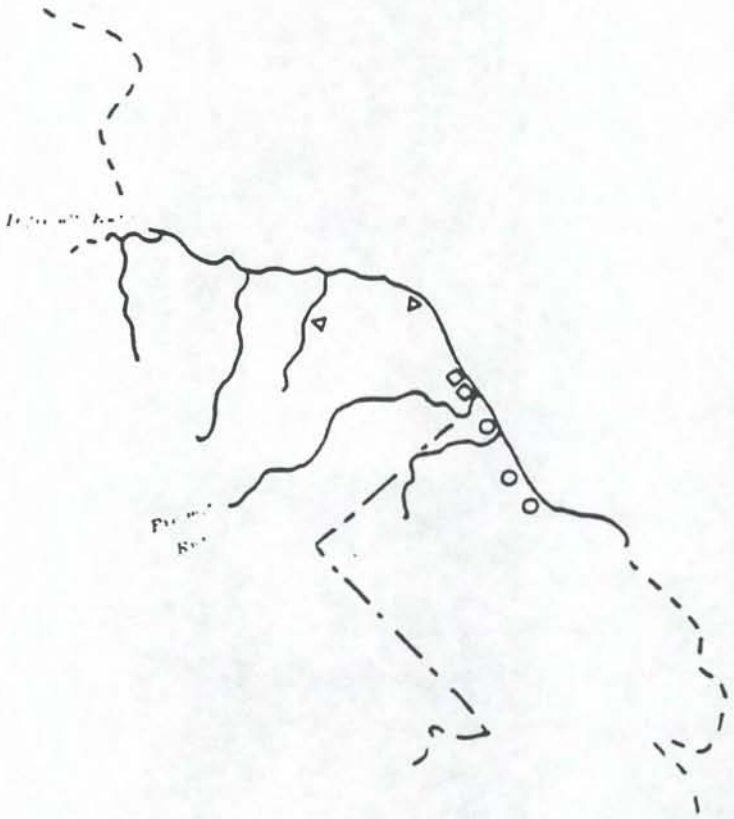
KEY

Floodplain or Terrace		Uplands
●	base camp	○
■	possible base camp	□
●	macrosocial base camp	○
▲	exploitative foray camp	△

1:250,000

N

Figure 3



MAP 8

LATE ARCHAIC
SITE DISTRIBUTION

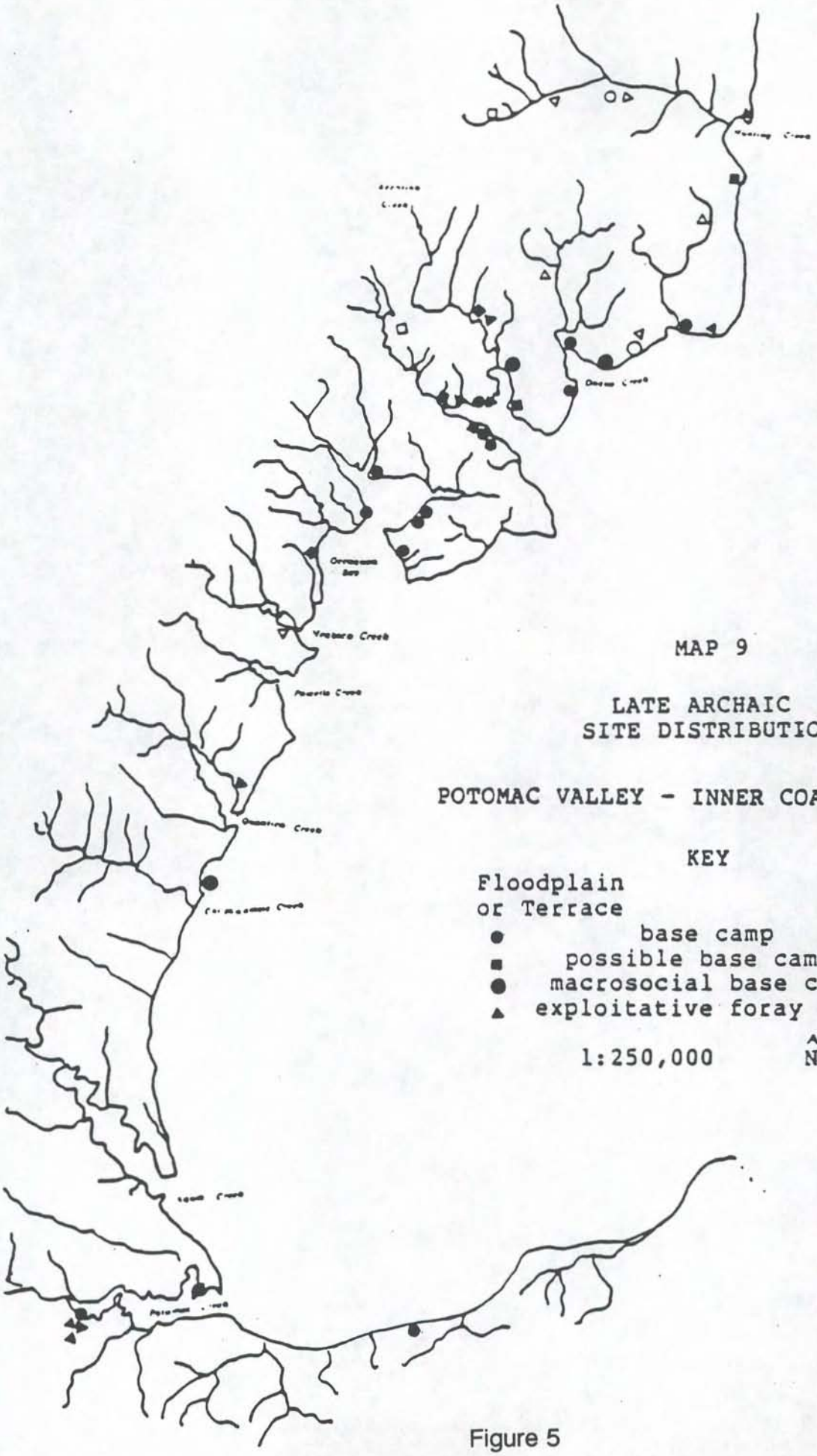
POTOMAC VALLEY - PIEDMONT UPLANDS

KEY

Floodplain		Uplands
●	base camp	○
■	possible base camp	□
●	macrosocial base camp	○
▲	exploitative foray camp	△

1:200,218 N

Figure 4



MAP 9

LATE ARCHAIC
SITE DISTRIBUTION

POTOMAC VALLEY - INNER COASTAL PLAIN

KEY

Floodplain or Terrace		Uplands
●	base camp	○
■	possible base camp	□
●	macrosocial base camp	○
▲	exploitative foray camp	△

1:250,000

N

Figure 5

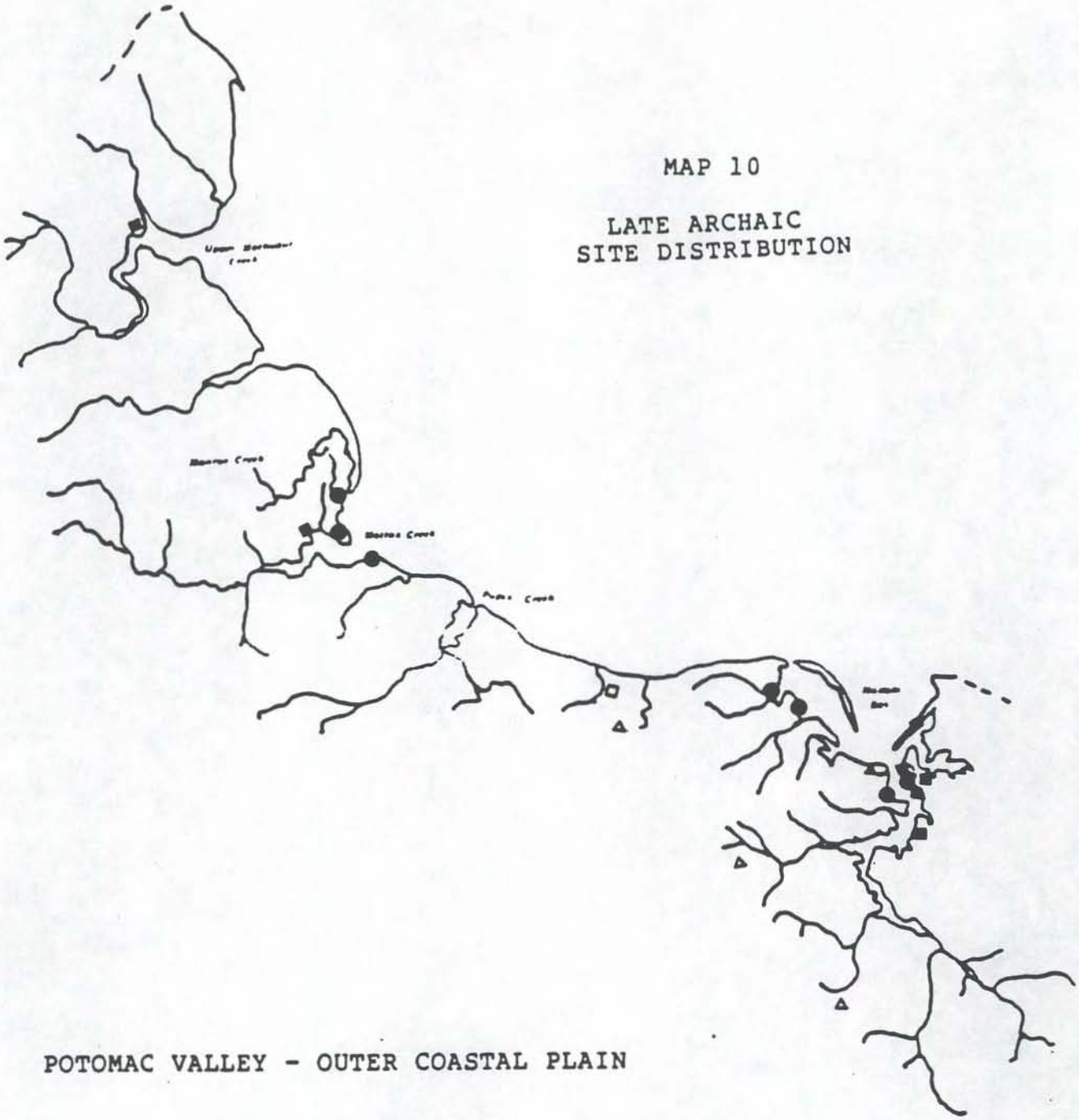

MAP 10
LATE ARCHAIC
SITE DISTRIBUTION
POTOMAC VALLEY - OUTER COASTAL PLAIN
KEY
Floodplain or Terrace
Uplands
base camp
possible base camp
macrosocial base camp
exploitative foray camp
1:250,000
N

Figure 6

Table PS-1. Hypothetical cultural chronology for Fairfax County prehistory.

May 1, 1985

Study Unit: Cultural Period	Subsistence Pattern (Emphasis in parentheses)	Cultural Phase (Diagnostic artifact type)	Climatic Episode	Traditional Model
Paleo-Indian or First Virginians (-8,000 B.C.)	Foraging (hunting-possible big game emphasis)	I Clovis (fluted point) 9,500 B.C. II Mid-Paleo (fluted point) 9,000 B.C. III Dalton (fluted point) 8,500 B.C. IV Hardaway (notched fluted point) 8,200 B.C.	Late Glacial (-8,000 B.C.	Paleo-Indian
Hunter-Gatherer I (8,000-6,500 B.C.)	Foraging (hunting)	I Palmer/Kirk (corner notched point) 7,700 B.C. II Kirk (side notched/stemmed point) 7,000 B.C. III Bifurcate (notched stem point) 6,700 B.C.	Pre-Boreal (8,000-7,300 B.C.) Boreal (7,300-6,500 B.C.)	Early Archaic Middle Archaic
Hunter-Gatherer II (6,500-4,000 B.C.)	Foraging (gathering?)	I Stanley/Neville (stemmed point) 5,500 B.C. II Morrow Mtn./Stark (contracting stem point) - 4,700 B.C. III Guilford (lanceolate point) 4,000 B.C.	Atlantic (6,500-3,000 B.C.)	
Hunter-Gatherer III (4,000-3,000 B.C.)	Foraging (hunting)	I Halifax (corner notched point) 3,500 B.C.		
Hunter-Gatherer IV (3,000 B.C.-800 A.D.)	Collecting (general)	I Savannah River (stemmed point) 2,500-1,500 B.C. II Holmes (stemmed point) 2,300-1,800 B.C. (appearance of soapstone bowls) III Marcey Creek (soapstone tempered ceramics) 1,000 B.C. IV Selden Island (soapstone tempered ceramics) 900 B.C. V Accokeek/Stony Creek (sand/grit tempered ceramics) 750 B.C. VI Popes Creek (sand/grit tempered ceramics) 500 B.C. VII Mockley (shell tempered ceramics) 100 B.C.-1,000?A.D.	Sub-boreal (3,000-750 B.C.) Modern (750 B.C.-present)	Late Archaic Early Woodland Middle Woodland
Early Agriculturalist (800-1,500 A.D.?)	Collecting (producing)	Ia. Potomac Creek (sand tempered ceramics) 1,300-1,500 A.D. Ib. Rappahannock (shell tempered ceramics) 900-1,500 A.D. Ic. Townsend (shell tempered ceramics) 1,300-1,500 A.D. Id. Keyser/Page (shell tempered ceramics) 1,300-1,500 A.D.		Late Woodland
Proto-Historic (1,500?-1,675 A.D.)	Collecting (producing)	I Proto-Historic (European trade goods) 1,500-1610 A.D. II Proto-Historic (European trade goods and Colono-ware ceramics) - 1610-1675 A.D.		Proto-Historic

Figure 7

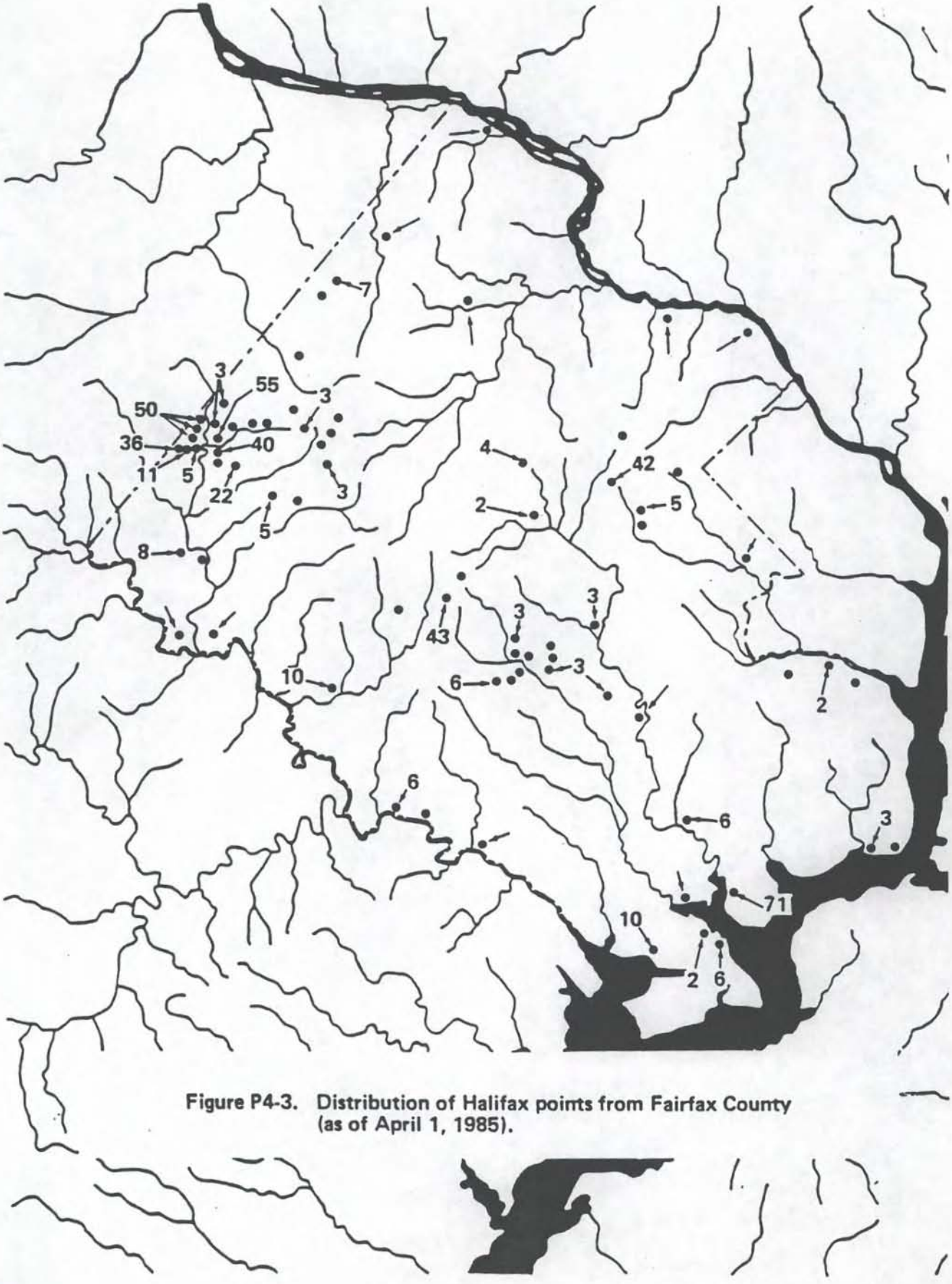


Figure P4-3. Distribution of Halifax points from Fairfax County (as of April 1, 1985).

Figure 8

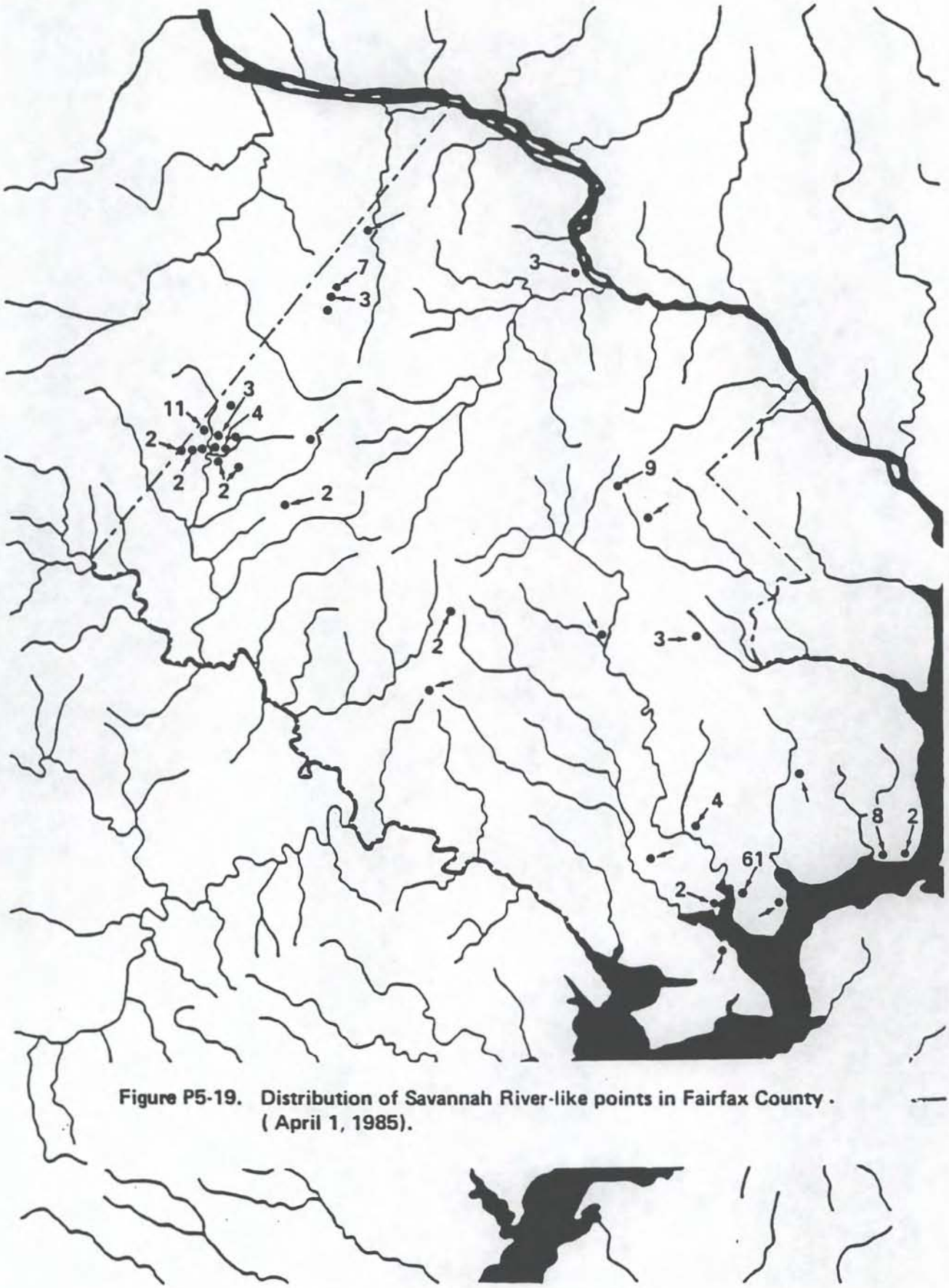


Figure P5-19. Distribution of Savannah River-like points in Fairfax County. (April 1, 1985).

Figure 9

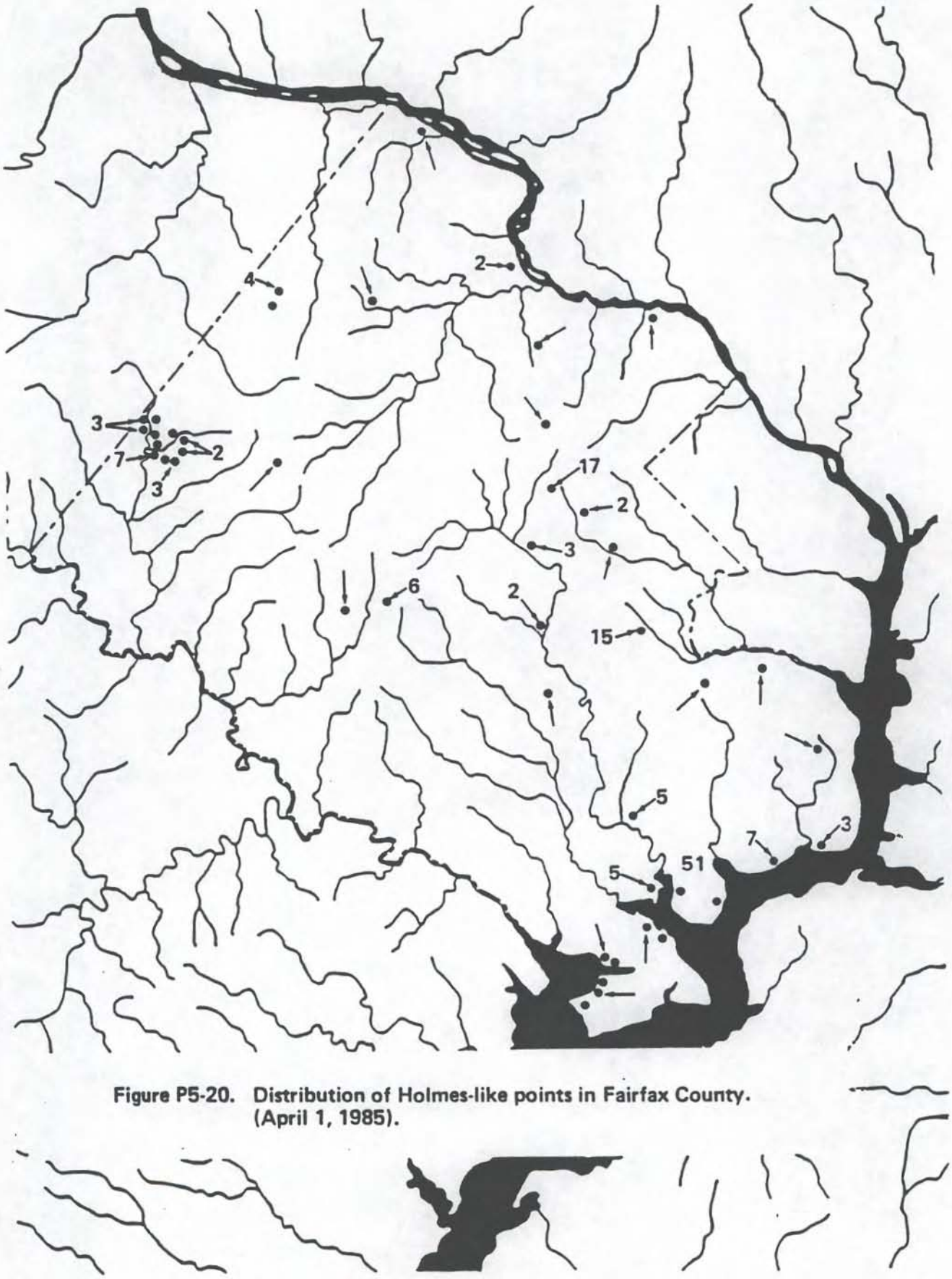


Figure P5-20. Distribution of Holmes-like points in Fairfax County. (April 1, 1985).

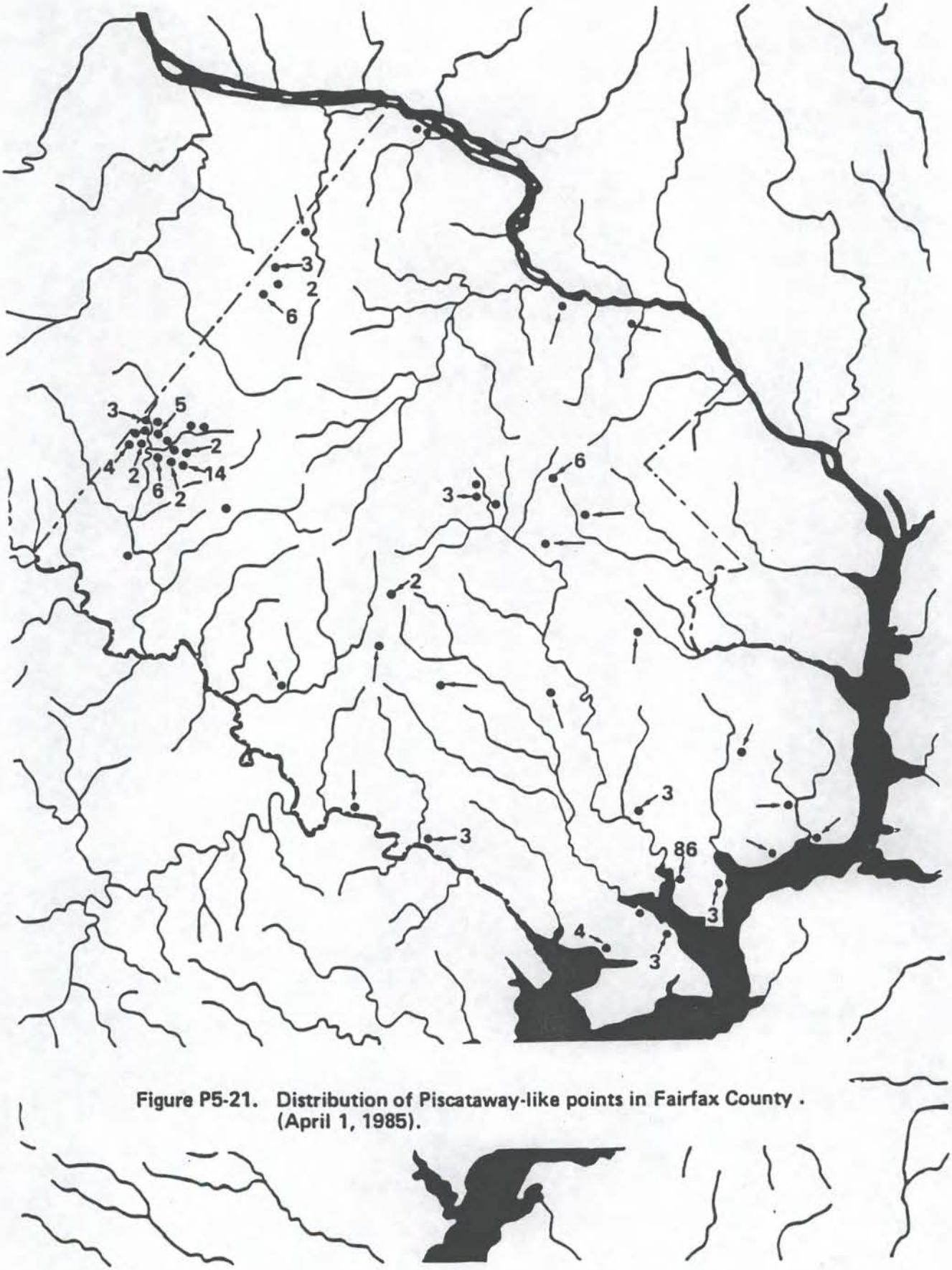


Figure P5-21. Distribution of Piscataway-like points in Fairfax County . (April 1, 1985).

Figure 11

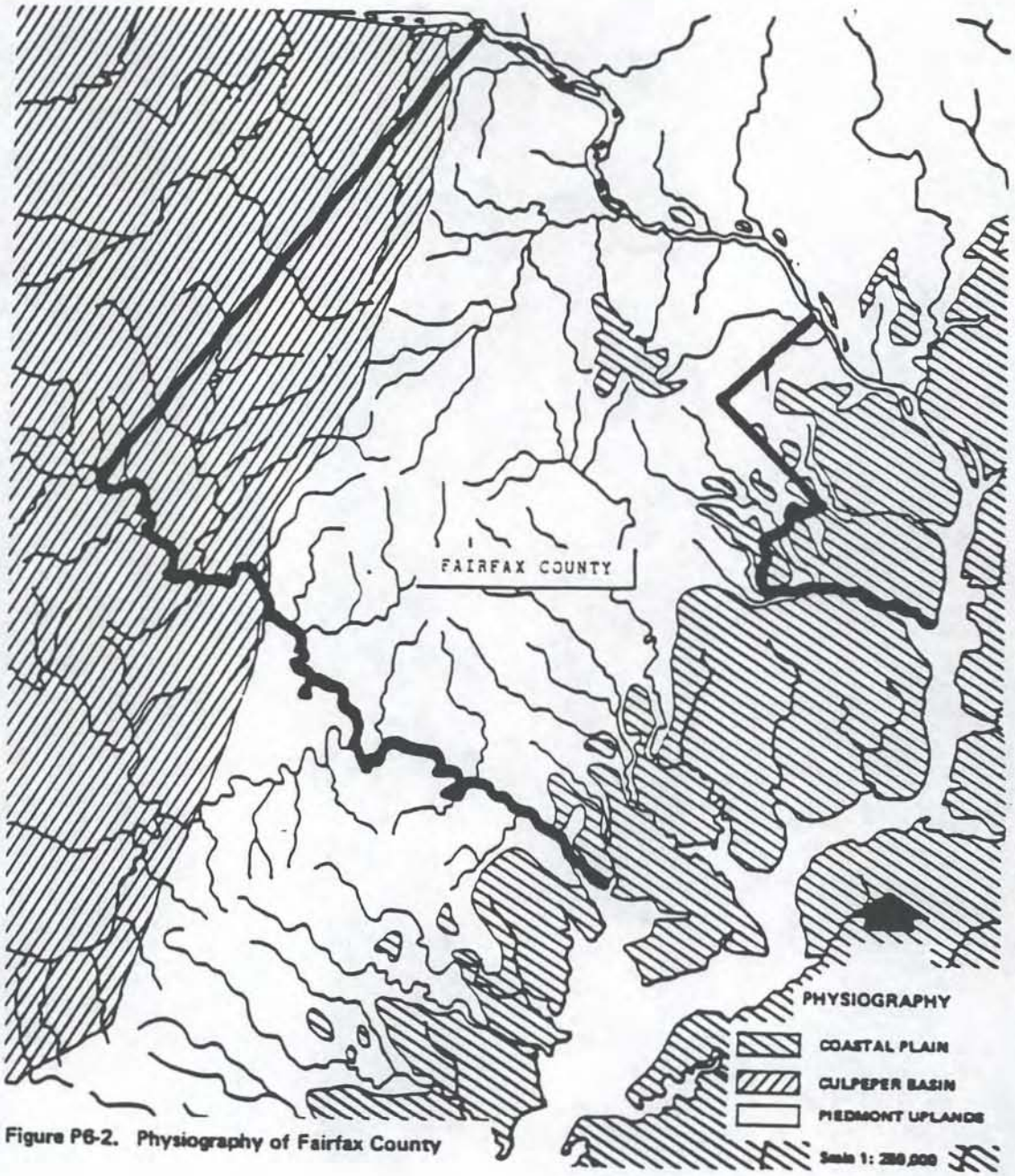


Figure P6-2. Physiography of Fairfax County

Figure 12

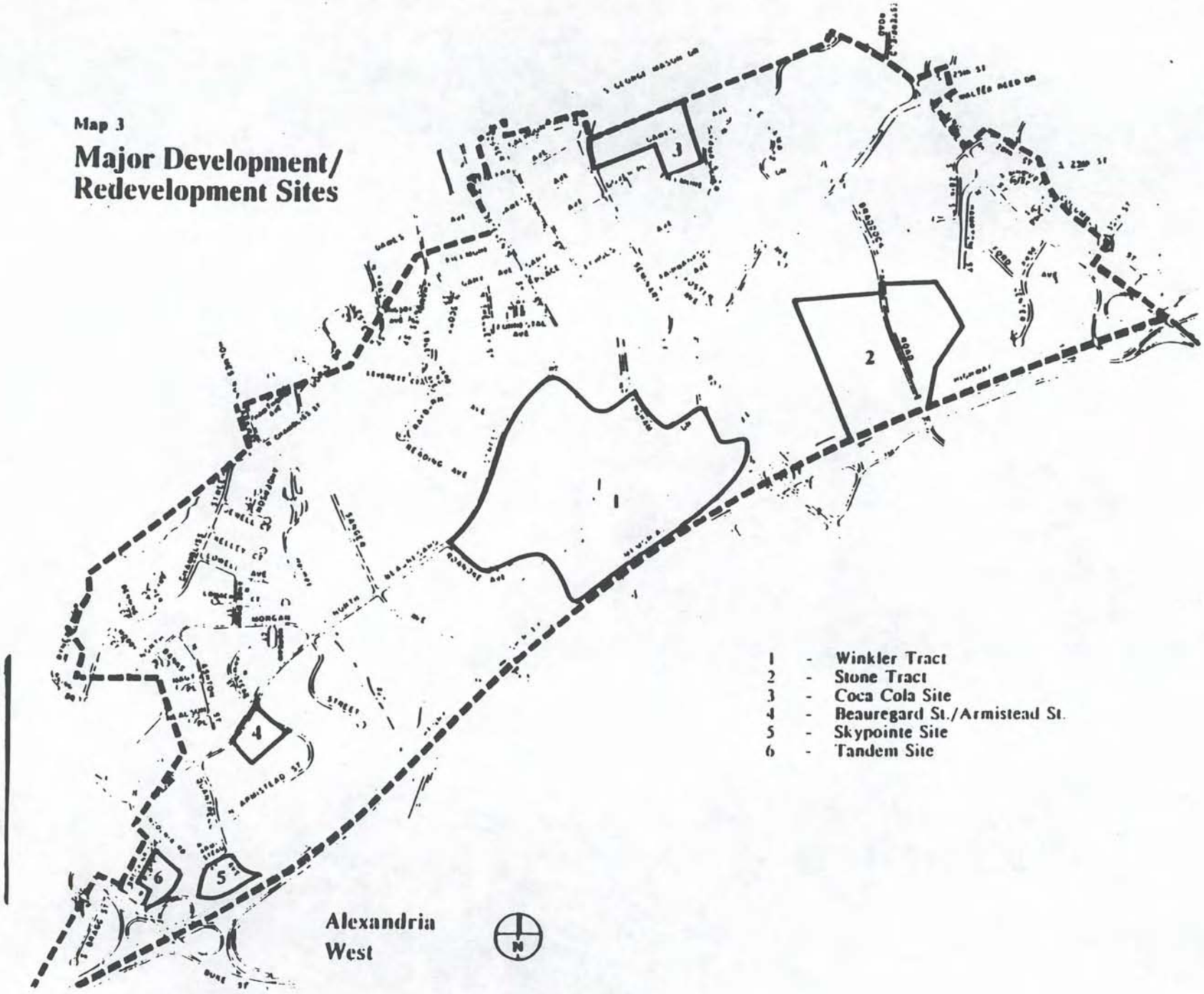
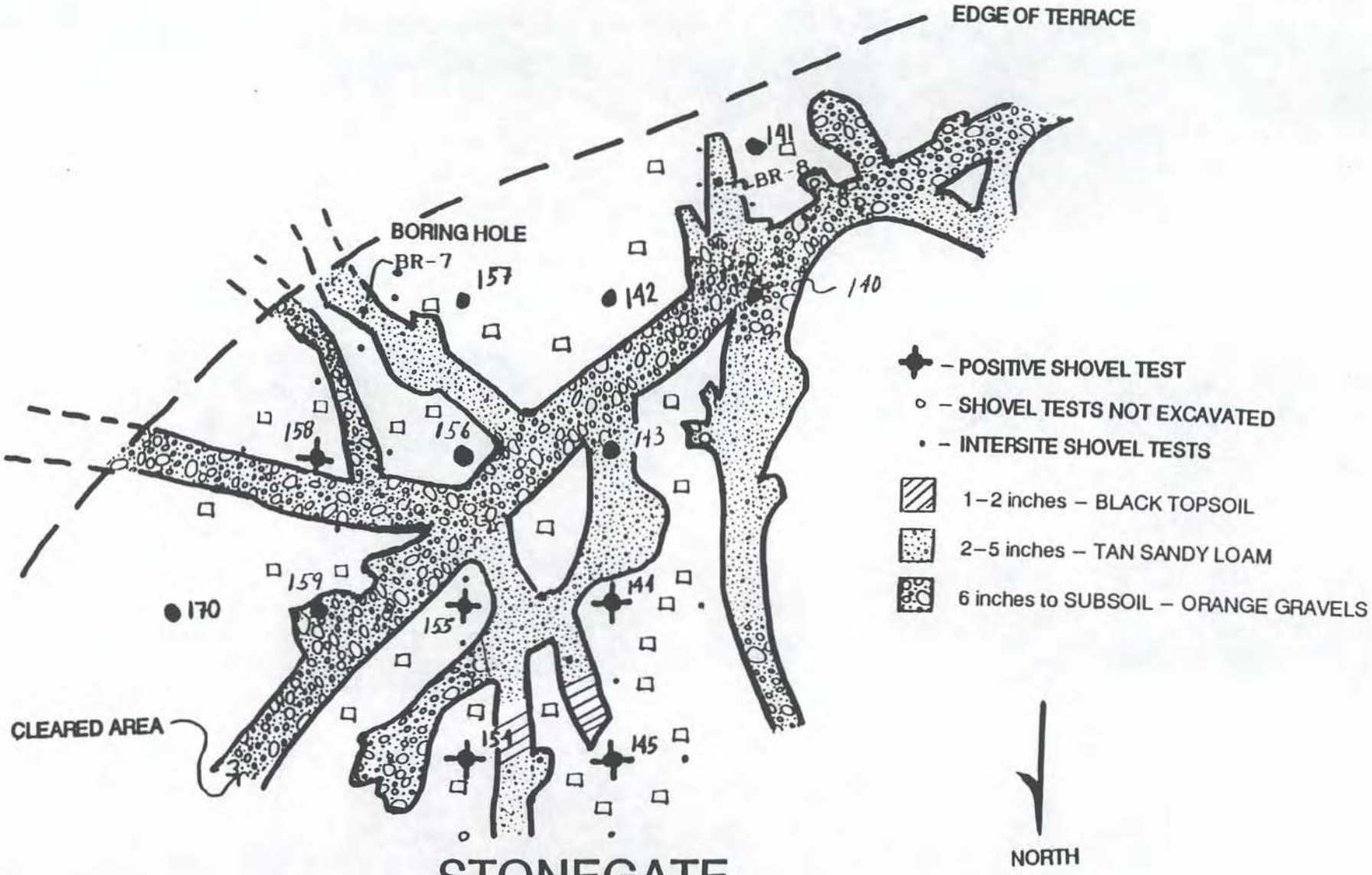

Map 3
Major Development/
Redevelopment Sites
1 - Winkler Tract
2 - Stone Tract
3 - Coca Cola Site
4 - Beauregard St./Armistead St.
5 - Skypointe Site
6 - Tandem Site
Alexandria
West
N

Figure 13



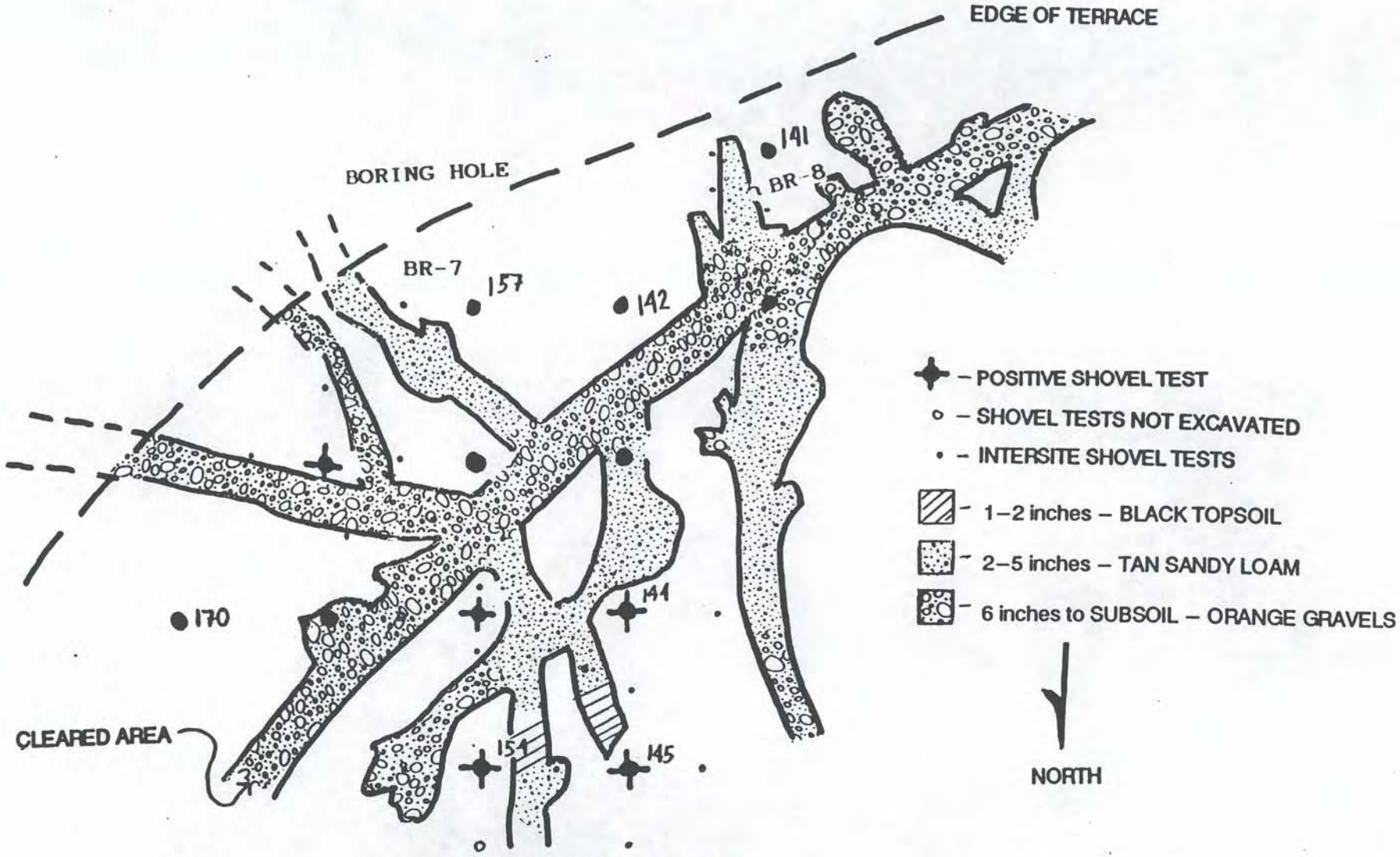
STONEGATE

PREHISTORIC SITE

PROPOSED TEST UNIT LOCATIONS

SCALE 1 inch = 50 feet

Figure 14



STONEGATE

PARCEL A / B

PREHISTORIC SITE DISTURBANCE MAP

SCALE 1 inch = 50 feet

Figure 15

International Archaeological Consultants
1145 Mountain View Boulevard
Rawlins, Wyoming 82301

Dr. Steven Shephard
Alexandria Archaeology
105 North Union Street
Alexandria, Virginia 22314

November 23,1992

re: Further work at the Stonegate II Prehistoric site.

Dear Steve,

The following letter is to put on paper my recommendations for further work.at the Stonegate II prehistoric site. I believe that the site has additional information that would be of value in understanding the prehistory of Alexandria and I hope that you will consider my reccommendations.

The results of the excavation of 28-1 x 1 meter units yielded two whole projectile points and five fragments, 9 bifaces, 598 lithic flakes, 187 chips and only 20 possible firecracked rocks.(See attached Table) These artifacts showed a great variability of artifact concentration horizontally across the site.(See Oversize Site Map) Vertically the site is concentrated within the top 20 centimeters with only limited artifacts being recovered at depth and those may be the result of vegetal or rodent turbation. The recovery of only two projectile points, of questionable typology, have made assigning a occupation range difficult. One point recovered very near the surface of unit 26 , perhaps a Halifax variant, Selby Bay or Calvert, suggests the site was occupied in the Early Woodland period, and probably earlier, and that the site has had very little soil accumulation. These concentrations of artifacts along with the soil profiles suggests that this area has never been cultivated.

In all of the 28 units that were excavated only two possible features were encountered, several associated stones in the northeast corner of Unit 20 may represent a hearth although no staining , soil discoloration or charcoal were noted. Another possible feature was

encountered during the excavation of Unit 26, a discretionary unit, and was excavated as a feature. Although the feature was fairly shallow and only a few stones were associated with the perimeter of a discolored area the preliminary results of the floatation suggest that it was formerly the base of a tree. An explanation for the lack of features may be attributed to the excellent drainage of the site area that was noted during the excavation. This fact along with the acidic soils may have acted to leach or disperse any recognizable features.

It is my preliminary analysis that the site may represent a exploitive foray camp or perhaps a micro-social base camp that dates from the perhaps the Late Archaic to the early Woodland period. It should be emphasized that this conclusion of the period of occupation is based on tentative cultural association with the materials and general styles of the projectile points encountered to date and the absence of any ceramics.

My recommendation for further work is to define the limits of those lithic concentrations near the center of the defined site area. To realize this plan I am suggesting that four additional units be placed around Unit 10 and that a hop scotch pattern of one meter squares be excavated between Unit 10 and Unit 9 to define the extent of the lithic scatter or activity area. This plan to define the limits of the scatters would also be applied to Unit 6/28 in a single axis west and east by continuing the excavation in those directions. Additional units would also be excavated to aid in the definition of the site activity in a third area and to tie all three areas of lithic concentration together. (See Oversized Map showing proposed test unit locations with dashed lines)

The shovel testing along the centerline of the two storm water and outfalls yielded a few artifacts, primarily lithics, along the length of both proposed outfalls.(See attached Table and site maps) This scatter of lithics and their proximity to the stream is consistent with the observation made by Terry Klein in his 1979 survey of the area. He recorded three areas of lithic concentrations with isolated flakes between each of the concentrations that were recorded and designated as site 44AX31. This site is located between the two

proposed outfall locations. The topography along the stream floodplain suggest that the entire area may have been occupied at least sporadically and consequently, that limited cultural remains will be recovered over the area as well.

I must apologize for misreading the plans for development in that there are two lines, a storm water and sanitary line, in each of the outfall disturbance corridors, not one. Also, it appears that the disturbance corridor will be a few feet larger than the previously specified.(See site maps) Although, now that cultural activity within the corridor has been determined, it is my suggestion that test units that will be required to assess the area should be excavated at 10 foot intervals centered between the two lines. This would represent six test units along the southwest storm drain and five units along the corridor for the southeast storm drain.

I look forward to your input and thank you for your prompt review of all of our work to date. Please FAX your response at your convenience to my attention at the offices of Eakin/Youngentob at (703) 525-6519

Sincerely,

Robert M. Adams

Robert M. Adams
President

International Archaeological Consultants
1145 Mountain View Boulevard
Rawlins, Wyoming 82301

Dr. Steven Shephard
Alexandria Archaeology
105 North Union Street
Alexandria, Virginia 22314

December 4,1992

re: Summary of meeting 12/2/92

Dear Steve,

The purpose of this letter is to commit to paper my understanding of the requirements of Alexandria Archaeolgy for further work at the Stonegate development. The specifics of these requirements were explained in detail to me during a meeting with you yesterday. and were in response to my letter proposal " Further work at the Stonegatel Prehistoric site. 11/23/92".

Several research objectives were defined for both the Stonegate I site and the two outfall areas where cultural materials have been recovered. The objectives for the Stonegate I site were to assure that cultural features are not present in the areas where test units have not been excavated. To remedy the situation, a pattern of excavation units will be placed on the existing 5 meter grid so that no area larger than 5 square meters remains untested. This decision was based on the preliminary results of the scatter excavated surrounding Unit 6/28 and it was agreed that the 5 meter interval was of sufficient probability to detect any lithic scatters concentrations or cultural features that may be present.

Another objective that was defined by Alexandria Archaeology was to define the limits of four areas of lithic concentrations - Unit 6/28, 20, 10 and 25 and any other units that are excavated with high lithic concentrations. The method to accomplish this is to excavate one meter squares in the four cardinal directions hop scotching the units as shown on the accompanying oversize site drawing. (The proposed excavation units are drawn with dashed lines.) These units will be extended in a given direction until there is a sufficient reduction in the concentration of cultural material as determined by the Principal Investigator.

Upon completion of the radiating units a review of each scatter will be presented to Alexandria Archaeology in a graphic form and a mutual determination of the area to be mitigated will be made. The purpose of this mitigation will be to recover information of prehistoric activity patterns from a context of very good preservation in an area where little substantive data exists.

My letter also proposed that a number of excavation units be placed between the two proposed outfall lines that cross the stream floodplain near the southern limit of the property. The purpose would be to determine the level of habitation and to determine if intact cultural features are present. In addition to this proposal, you have required that another line of shovel tests at the same interval pattern as the original shovel test be placed along the furthest edge of the disturbance corridor. The disturbance corridor will be 35 feet in width and has been added to the map showing the results of the initial shovel testing (See attached maps - Please note that the size of the excavation units have been corrected and are now to scale.)

Your input and quick review is truely appreciated. I look forward to discussing the progress and findings of the excavation with you on a regular basis. Thank you.

Sincerely,

Robert M. Adams

Robert M. Adams
President

xc: Eakin/ Youngentob Assoc.,Inc.

International Archaeological Consultants
1145 Mountain View Boulevard
Rawlins, Wyoming 82301

January 4, 1993

Pamela J. Cressey, Ph.D.
Alexandria Archaeology
105 North Union Street
Alexandria, VA 22314

Re: Management and Data Recovery Plan for Stonegate Development

Dear Pam:

The following letter and the accompanying Resource Management Map (Exhibit 1) serve as the Management and Data Recovery Plan for the completion of the Stonegate Development fieldwork by January 15, 1993. This plan is based on your tour of the Stonegate development on Tuesday, December 22nd, the progress of the excavation and our discussions requiring the need for additional work. It further incorporates our discussions the following day at a meeting at Alexandria Archaeology where we discussed specifics of mitigation and the requirements for a Management and Data Recovery Plan. The tour of the site on December 26, 1992 has lead to a consensus of the work required to complete the excavation. Attached is a map that shows the entire management area with color coding to show areas of no adverse effect, areas that have been tested and where future construction will be taking place. Additional maps that show the detailed site areas and locations of test units and trenches to complete the investigation are also attached to this letter.

PREHISTORIC SITE DATA RECOVERY PLAN

The Data Recovery Plan for the prehistoric cultural remains on the property have been discussed in detail and a plan has been agreed upon (Exhibits 2 and 3). On the prehistoric site, Stonegate I, the work will entail the mitigation of four lithic resource areas. Lithic concentrations are centered around Units 20, 10, and 6/28, (containing a possible hearth in Unit 35). The Unit 56 area contains scattered cobbles. After further examination it was found that the concentration at Unit 25 had only 10 lithic flakes recovered during its excavation and the subsequent excavation of three units hopscotched around the unit revealed a paucity of cultural materials.

Several alternatives on how to excavate these concentrations and how to maximize the information recovered were discussed. The methodology that has been agreed upon utilizes a very small tracked vehicle with a front blade or loader to excavate a limited number of units within two of the lithic concentrations (Unit 10 and 6/28). The use of this mechanical method will be limited because of the locations of small trees that preclude controlled excavation. The mechanical excavation will be conducted in 5 centimeter levels with all contents screened through both 1/2 and 1/4 inch mesh screens. The contents of the 1/2 inch screen will be bagged and analyzed as a separate component and the 5 centimeter levels may indicate a tighter provenance for artifactual concentration than the 10 cm levels used in manual excavation. The majority of the work will be done by hand excavation.

After careful review it was concluded that the vast majority of the artifacts are distributed within the three uppermost levels of the site. It is my interpretation that the artifact distribution below level three is the result of bio-turbation and artifacts in any quantity will be located below areas of highest concentrations. The excavations will be conducted to level three, and then an analysis and a decision will be made whether deeper level excavation will be made at the Principal Investigator's discretion.

Around Unit 56 where a possible hearth feature was unearthed 5 excavation units will be excavated. In the corner of unit 35 another rock concentration was noted and three units will be required to define the limits of the concentration.

Around concentration Unit 20 all excavation will be done manually and a total of 9 units are planned. Around Unit 6/28 a total of 18 units will be excavated, a portion of these will be excavated mechanically, where feasible. And 11 Units will be excavated around concentration 10 using both methods. The total number of units to be excavated is minimally 46. However, the P.I. will have the discretion to move or add units to complete concentrations so that the total does not exceed 50.

The recovery plan for the two outfalls has been modified as the result of additional information from the excavation of several units along the northeast storm drain corridor (Exhibit 3). These units revealed very few artifacts with none containing more than 20 lithic flakes nor has any cultural feature been identified. The units that are prescribed to be excavated along the southwest storm drain will have every other unit excavated, rather than the previously discussed number of units. The row of shovel tests along the northeast storm drain disturbance corridor cannot be excavated as the line would be in disturbed soil. This disturbance is a large berm used for soil erosion control measures, thought to have been engineered in the 1960's.

HISTORIC SITE DATA RECOVERY PLAN

The historic site has yielded some interesting information regarding the site formation process and the different structures that have been present during the period of occupation. Preliminary analysis suggests that the area has been highly disturbed. There are 2 historic areas: A domestic and a pig feeding area. It is apparent that primary disturbance occurred on the domestic area, probably as a result of the razing of the structures that can be seen in the 1960 aerial photograph. The disturbance is also seen in the physical makeup of the area as revealed in the soil profile and artifact disruptions. Artifacts recovered from the excavation of units 57 and 69 indicate a late 19th century structure and the soil profiles of these units appear to be undisturbed. Whereas, the units 58 and 57 that were excavated by the house that appears in the 1948 aerial photograph show disturbance throughout their profile and with late 19th century artifacts throughout. The displacement of the house piers from both sites indicate the destruction at the same time sometime between 1955 and 1960. The pig feeding areas is an important component of the historic site and has many food scraps and artifacts.

Additional work on the domestic area to answer specific questions will include the mechanical excavation of the older of the two privies with a very small backhoe that is equipped with an approximately 10 inch wide bucket (Exhibit 4). The privy will be sectioned and vertical control will be maintained within 6 inches. The second privy will be investigated to determine date and significance, if time permits. A mechanical trench will be excavated across the northeast corner of what is believed to the late 19th century house site. The purpose of the trench is to determine wall locations, depth and duration of occupation. This trench will be cut diagonally across the site to uncover two sides and the interior of the site. (See attached map of historic site, Stonegate II). Vertical control will be held to two inch levels along the 50 inch wide swath. We will try to arrange with the machine rental company for the front blade of the machine to be fitted with a one-meter wide blade that is 5 centimeters or 2 inches in depth. The pig feeding slab will be cleaned/defined. A depression will be investigated (Exhibit 5). If it warrants recovery, this will be done also.

This management plan also includes a brief outline of the final report disposition of artifacts and the long term management plans for the archaeological resources that are defined in the immediate area.

The final report will include all of the specified information of an archaeological final report and a special emphasis on the history of the Dove family, the principal tenants of the property, and their cultural niche as indicated by the artifactual remains will be included.

Information from oral history will be utilized, if people are identified. The summary of the historic report may be in a story form based on the historical and artifactual evidence. The report also will include a study of the vegetation as it relates to the cultural history of the property and site prediction.

The submission of the report will be completed in a timely manner following the completion of the fieldwork.

The disposition of the artifacts recovered during these investigations will be donated to the City of Alexandria for curation with the understanding that Stonegate Associates will reserve the right to a long term loans of artifactual materials for educational and display purposes.

As a portion of the management plan it is the intention of Stonegate Associates to work closely with Alexandria Archaeology to establish an archaeological "preserve" along the creek area that will not be disturbed as a result of construction. These plans will integrate with the planned nature, wildlife and storm water management interpretive trail located in this area. Stonegate Associates plans to work with the city archaeologist to clearly define the concept of the preserve. Some ideas discussed include an archaeological week for Alexandria school children and families.

I hope that this letter and the enclosed maps clarifies the current status of the investigation and serves as the Management and Data Recovery Plan which outlines the completion of the archaeological requirements for this property. After Alexandria Archaeology receives and approves written notification of the completion of the Data Recovery Plan, the site will be released for development. Bob Youngentob will serve as contact for the project and will coordinate all work.

You and your staff have been very helpful in working with us to complete this project in a timely manner and it has been very much appreciated.

Sincerely,

Robert M. Adams

Robert M. Adams
President

Agreed and accepted:

Pamela J. Cressey
Archaeologist-City of Alexandria

Stonegate Associates Limited Partnership

xc: Eakin/Youngentob Associates, Inc.
Stonegate Associates Limited Partnership

Exhibit #1 Resource Management Map
#2 Prehistoric Site Recovery Plan
#3 Outfall Corridor Plan
#4 Historic Site - Domestic Area - Recovery Plan
#5 Historic Site - Pig Feeding Area - Recovery Plan

APPENDIX B

ARTIFACT CATALOG

ARTIFACT CATALOG

Northeast Storm Drain Corridor (NESD)

	level	flakes	shatter	other
UNIT # 1-	1	3	2	2 seeds
	2	4	0	0
	3	5	1	1 seed, 2 hammer-stones
	4	20	10	1 FCR
	5	2	1	0
UNIT # 2-	1	5	2	2 FCR
	2	4	7	0
	3	5	6	1 point tip, 1 biface
	4	2	1	0
	5	2	0	0
UNIT # 3-	1	5	1	1 FCR
	2	1	0	0
	3	3	1	0
	4	2	1	1 ground stone
	5	0	0	0
UNIT # 4-	1	2	0	4 FCR
	2	8	9	2 FCR
	3	8	3	2 FCR
	4	0	0	0
	5	0	0	0

ARTIFACT CATALOG CONT.

	level	flakes	shatter	other
UNIT # 5-	1	2	0	0
	2	14	7	0
	3	3	5	0
	4	0	0	0
	5	0	0	0

ARTIFACT CATALOG

Southwest Storm Drain Corridor (SWSD)

	level	flakes	shatter	other
UNIT # 1-	1	0	0	5 FCR
	2	0	0	0
	3	0	1	0
	4	0	0	1 point (Piscataway?)
	5	5	2	churt
UNIT # 2	Not Excavated			
UNIT # 3-	1	1	1	0
	2	1	0	1 whiteware
	3	4	3	1 FCR, whiteware
	4	2	0	0
	5	4	2	1 Rhyolite DE
UNIT # 4-	1	2	2	22 22-cal shells, 1 whiteware, 6 glass, 1 plastic
	2	1	2	1 22-cal shell, 1 white glass, 1 rubber hose, 1 rubber chunk
	3	1	2	1 point, 1 point tip, 1 slate, 1 whiteware, 14 22 cal shells, 2 amber glass
	4	8	8	2 FCR, 1 hammerstone, 1 whiteware, glass, 3 22-cal shells
	5	6	1	1 whiteware
UNIT # 5	Not Excavated			

Stonegate Artifact Concentration
Northeast Storm Drain (NESD)

STP	Proj. Pts	Biface	Flakes	Chips	Chunks
1			7	2	
2	1 frag.		4	1	
3		1 frag.	7	2	
4			3		
5			2		

Stonegate Artifact Concentration
Southwest Storm Drain (SD)

STP	Flakes	Chips	Chunks	Scraper	Tools	Glass	Nails
1	3	1					
2							
3	1	4					
4	9	7	1		1		
5	13	6		1		2	1
6							
7	8		1				
8	2	4					
9							
10	4	1					

APPENDIX C

CITY OF ALEXANDRIA ARCHAEOLOGICAL

APPROVAL & CERTIFICATION

Alexandria Archaeology

105 North Union Street
Alexandria, Virginia 22314
(703) 838-4399

August 26, 1992

Dear Applicant & Archaeological Consultant:

Before you begin any archaeological field work in Alexandria, please be advised that all ground disturbance must follow certain guidelines beyond those outlined in the Archaeological Protection Procedure (Section 11-411 of the Alexandria, Virginia Zoning Ordinance). The following issues are governed by City, State and/or Federal guidelines:

1. Impact of ground disturbance on existing trees
2. Soil erosion control
3. The Chesapeake Bay Preservation Act
4. Contaminated soils
5. Depth of trenching and Marine Clay
6. Human burials

Attached is a checklist, with instructions for obtaining any non-archaeology approvals you will need before you dig. Please submit the completed checklist with approvals to Alexandria Archaeology with your Scope of Work, testing or excavation plan, and a completed Archaeological Preservation Certification. Certification approval is contingent upon other City approvals. Before you begin digging, you should have the Certification form returned from our office with an approved signature. Allow at least seven working days for the archaeology approval, after we receive your materials.

If, during excavation, strategy changes appear to be needed, you should get approval from this office. If the new strategy alters answers to the checklist, you will also need new approvals from the appropriate offices. For example, although you may plan to disturb less than 2500 square feet of soil, you may end up discovering features which require more soil removal. In this case, you must follow the procedures and submit an erosion control plan to the Department of Transportation and Environmental Services. City Code Inspectors will periodically visit you site, and can stop any unauthorized ground disturbing activity. Your archaeological field supervisor should have the approved certification at the site for the City inspector.

Please contact Lisa Mitchell at (703) 838-4399 if you have any questions about the attached checklist, or if you are unsure which provisions apply to your project. Materials may be sent to us by fax (703-838-6491) or mailed. Our office handles all materials in order of receipt.

Sincerely,

Pamela J. Cressey

Pamela J. Cressey, Ph.D.
City Archaeologist

Office of Historic Alexandria
City of Alexandria, Virginia

City of Alexandria
Checklist of Supplemental Approvals
for Archaeological Excavation

Project Name: Stonegate Date: 1/13/93

1. Will you be excavating within 30 feet of a tree that is 6 or more inches in diameter at breast height?

X NO - Go to Question 2.

____ YES - All trees that are 6 or more inches in diameter at breast height must be accurately located and identified on the testing strategy map, including species and size information [trunk diameter and DBH]. Also, include a statement of how trees will be protected (Tree Protection Plan) in the archaeological Scope of Work. Submit a copy of the testing strategy map and Tree Protection Plan to the City Arborist for his review, and obtain his signature.

2. Will the archaeological activities governed by your Site Plan disturb 2500 or more square feet of soil?

Total Length ____feet x Total Width ____feet = _____ square feet of

Test Units Machine Trenches

Depth of Excavation _____ feet.

X NO - Go to Question 3.

____ YES - You must provide the City of Alexandria Department of Transportation and Environmental Services (T&ES) with an erosion control plan. Indicate the ground disturbance locations, the depth of disturbance, and the placement of erosion control devices (e.g. siltation fences). This plan must be approved by the Site Plan Coordinator.

3. Will you be digging in a Resource Protection Area designated by the Chesapeake Bay Preservation Act? Chesapeake Bay Preservation Act Regulations, with maps, are available at Alexandria Archaeology, and in City Hall, Room 4130.

X NO - Go to Question 4.

____ YES - If you will be digging any amount of soil in a RPA, you come under provisions of the Chesapeake Bay Preservation Act. However, archaeology may be exempted from the provisions of this act. To receive an exemption, write a letter of request to Thomas F. O'Kane, Director of T&ES, Box 178, City Hall, Alexandria, VA 22313.

4. Will you be digging trenches deeper than 5 feet, or into Marine Clay?

X NO - Go to Question 6.

____ YES - OSHA regulations require all trenches deeper than 5 feet to be shored, or stepped back. Trenches in Marine Clay must also be shored or stepped back. Present a summary of which method(s) you will use in the excavation to the Site Plan Coordinator, or his representative, for his approval.

5. Do the historic land uses on your property indicate that contaminated soils may be present? If your historical data is inconclusive, consult the map of suspected contamination sites and the 1945 aerial photograph series in Room 4130 of City Hall.

X NO - Go to Question 5.

____ YES - If contaminated soils are found, appropriate steps must be taken to preserve the health of the excavators, and to protect the ground water. Do not backfill contaminated soil into non-contaminated soil strata.

A. Ground water protection measures should be included in the Soil Erosion Plan. If you do not need to file a Soil Erosion Plan, present a statement of how you plan to contain the toxic excavated material to the Site Plan Coordinator, for his approval.

B. Excavators must have the proper training and equipment to protect them from harmful pollutants present on some industrial and landfill sites. Present a written summary of your planned Health and Safety measures to the Environmental Quality Manager (Health Department) or his representative, for his approval.

6. Are there known or suspected burials on your site? Do you plan to excavate the burials?

X NO

____ YES - A court order must be obtained to exhume human remains. You must also obtain a permit from the Virginia Department of Historic Resources, in accordance with VR 390-01-02. Copies of VR 390-01-02 are available at Alexandria Archaeology. The Virginia Department of Historic Resources is a legally interested party in any request for a court order to remove an historic cemetery.

REMINDERS

Don't forget to call Miss Utility (703-559-0100) to clear your excavations.

Proper protection (e.g. hard hats, gloves, etc.) should be worn by all field personnel working with heavy machinery and/or contaminated soil.

I certify to the best of my knowledge that the above information is accurate.

1/13/93
Date

Robert M. Adams
Name

President - International Archaeological Consultants
Position and Company

1145 Mountain View Blvd., Rawlins, WY 82301
Address & Telephone Number

City of Alexandria
Supplemental Approvals for Archaeological Excavation

Project Name: Stonegate Date: 1/13/93

1. Who signs?: John Noelle, City Arborist, 1108 Jefferson Street, 703-838-4999.

Impact of ground disturbance on existing trees: The applicant has obtained my approval of the excavation strategy and submitted an acceptable tree protection plan (copy attached), if necessary.

John C Noelle
Signature

1/14/93
Date

2-5A. Who signs?: Geoff Byrd, Site Plan Coordinator, T&ES, City Hall, Room 4130.

431 Y

Soil Erosion Control: An approved erosion control plan is on file with the Department of Transportation and Environmental Services.

Signature

1/14/93
Date

Chesapeake Bay Preservation Act: A letter of exemption from the provisions of this act is attached.

Signature

1/14/93
Date

Deep Trenching or Marine Clay: An approved plan for shoring or stepping back the trenches is attached.

Signature

1/14/93
Date

Contaminated Soil: An approved plan for protecting ground water and natural soil is attached.

Signature

1/14/93
Date

5B. Who signs? William Skrabak, Environmental Quality Division, Health Department, 517 N. St. Asaph Street, 703-838-4850.

Contaminated Soil: An approved plan for protecting workers' health and safety is attached, or is part of the approved erosion control plan.

WJS / William J. Skrabak
Signature

1-14-93
Date

6. Who signs? Pamela J. Cressey, City Archaeologist, 105 N. Union Street 703-838-4399.

Burials: Appropriate court orders and Virginia Department of Historic Resources permits are attached. N/A

Pamela J. Cressey
Signature

1-14-93
Date

Alexandria Archaeology

105 North Union Street
Alexandria, Virginia 22314
(703) 838-4399

ARCHAEOLOGICAL PRESERVATION CERTIFICATION

Project: Stonegate **Date:** 1/13/93

Address: Parcel A&B **Contact:** Terry Eakin
Eakin/Youngentob Assoc.

Phone Number(s): (703)525-5565 **Address:** 1000 Wilson Blvd #2720
Arlington, VA 22209

ATTACH MAP: impact areas: red resource areas: blue
archaeological excavation areas: green

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1. Proposed Action(s): Expected Date: 1/13/93

- [ ] Demolition
- [ ] Construction
- [X] Grading
- [ ] Filling
- [ ] Utility Trenches
- [ ] Other (specify)

2. Statement of Archaeological Significance:

- [X] Determined Significant
- [ ] Potentially Significant
- [ ] No Significance

Discussion: Sites have been mitigated in compliance with Data Recovery Plan - 12/26/92.

3. Archaeological Impact:

- [ ] Proposed action will alter or destroy significant resources.
- [X] Proposed action will not affect significant resources.
- [ ] Unknown until testing occurs.

Discussion:

4. Proposed Archaeological Preservation Action:

- [ ] Test and then conduct data recovery, if warranted
- [x] Data Recovery (attach methods and design) COMPLETED
- [ ] Sampling (attach strategy)
- [ ] Recordation (attach methods)
- [✓] No preservation actions

Discussion: All work specified in Data Recovery Plan 12/26/92 has been completed.

NO ADVERSE EFFECT FOR AREAS TO BE GRADED

5. Coordination and Scheduling of Archaeological Work in Relation to Proposed Action:

6. Dates of Fieldwork: From 13 / 1 , 1993 to 13 / 1 , 1995.
d. m. y. d. m. y.

I certify to the best of my knowledge that the above information is accurate and that the proposed actions will not endanger archaeological resources which may be significant for our understanding of Alexandria's heritage

1-13-93
Date

Robert M. Cobas
Name

President-International Archaeological Consult
Position and Company

1145 Mountain View Boulevard
Address

Rawlins, WY 82301

VA (804)642-3727
Telephone

APPROVED BY CITY ARCHAEOLOGIST:

1-13-93.
Date

Pamela J. Cressey
City Archaeologist

THIS CERTIFICATION IS IN EFFECT

FROM 13/1/1993, TO 13/1/1995.
d. m. y. d. m. y.

International Archaeological Consultants

1145 Mountain View Boulevard
Rawlins, Wyoming 82301

Robert M. Adams
Archaeologist

EDUCATION

M.A., Texas A&M University 1985, Anthropology - Nautical Archaeology
B.A.S., University of Minnesota, Duluth 1978, Earth Sciences/General Sciences
Our World-Underwater Scholarship 1975, One Year Scholarship to Study With Numerous International Marine Science Authorities

EXPERIENCE

Mr. Adams serves as President of International Archaeological Concultants and principal archaeologist with responsibilities entailing the full spectrum of archaeological investigations on both land and underwater projects. For most of his 13 years as an archaeologist he has engaged in cultural resource management and has a command of the requirements for any such undertaking. He has participated on nautical archaeological projects in numerous states and foreign countries and is recognized internationally for his work.

Mr. Adams has developed an extensive knowledge of prehistory and history in Eastern North America, Texas & Gulf Coast areas as well as his extensive academic pursuits in nautical archaeology. The scope of his research and field experience spans from 3rd century B.C. shipwrecks in the Mediterranean to 20th century shipwrecks in the Gulf of Mexico. His experience in terrestrial archaeology include all phases of investigations of prehistoric and historic sites to the 20th Century. Mr. Adams has a broad base of experience in nautical archaeology and is well versed with remote sensing electronics and their use in cultural resource surveys.

Mr. Adams has produced scientific papers on technological developments in ship construction and maneuvering, and is published both in the U.S. and abroad

SELECTED PROJECT EXPERIENCE

- Directed Phase II evaluation of the Terrace 2B Site (44AX163) a prehistoric site, and the Terrace 1 Site (44AX162), an historic site, for The Mark Winkler Company, Alexandria ,Virginia.(In progress)

- Co- Principal Investigator of the Phase II evaluation of the Crow Rock Bottom Site (36GR101) a prehistoric seasonal campsite Greene County, Pennsylvania.

- Co-Principal Investigator of the Phase III mitigation of the Footbridge Rockshelter (36GR196) Greene County, Pennsylvania.

- Directed phase I survey of the Upper and Lower Ponds at the Winkler Botanical Preserve, Alexandria ,Virginia.

- Participated as a consultant on the recording of the shipwreck Indiana, sank in Lake Superior in 1859 with Texas A & M University and the Smithsonian Institution.

- Performed archaeological monitoring of excavations to bury utility lines across historic market

square in Fredericksburg, Virginia, established c.a. 1733. (Harrison & Associates)

- Performed archaeological investigation of the Central Rappahannock Regional Library, Fredericksburg, Virginia. Located in historic Fredericksburg, the property was first owned by Fielding Lewis in 1749.

- Performed field testing and surveying with the Acoustic Subsurface Probe (ASP), a prototype imaging system developed by Applied Sonics Corporation. Work focused on imaging anomalies to assist in locating the Gallega, abandoned by Columbus in 1503 on his fourth voyage in Rio Belen, Panama.

- Co-directed the Phase I archaeological investigation of a 30 acre tract at Ferry Farm, the boyhood home of George Washington, in Stafford County, Virginia. The project was undertaken for Stafford County's Ferry Farm Project. One prehistoric site and a historic site were identified in this survey.

- Co-directed the archaeological examination of a utility corridor for Stafford County's Department of Utilities and the Ferry Farm Project along the east property line of Ferry Farm bordering State Highway 3's easement.

- Field Director for the Phase I archaeological investigation at Haymount Farm, a 1,605 acre tract in Caroline County, Virginia. Seven prehistoric sites, sixteen historic sites, and five multi-component sites for a total of 28 sites have been identified on the property to date.

- Assisted the field supervision on a reconnaissance-level archaeological survey on the Millbank estate in King George County, Virginia for the Society of the Descendants of Emigrant William Strother of King George, Virginia. The purpose of this investigation is to locate and preserve the remains of William Strother's first residence in the New World, dated 1669, and to facilitate this resource's nomination to the National Register of Historic Places.

- Tested prehistoric and historic multi-component site near West Point, Virginia. Conducted Phase I survey for proposed SE Expressway in Chesapeake, Virginia. (College of William and Mary Archaeological Project Center)

- Phase III archaeological mitigation of prehistoric site near Reading, Pennsylvania. Phase II archaeological investigations at the Simpsonville Stone Ruins, and the Heritage Heights site, Howard County, Maryland. (GAI Consultants, Inc.)

- Performed Phase I survey of an 11 mile segment for the proposed S.E. Expressway in the City of Virginia Beach and Chesapeake, Virginia. Phase I survey of proposed 10 mile water pipeline for City of Norfolk, Virginia. (Mid-Atlantic Archaeological Research, Inc.)

- Performed preliminary reconnaissance and subsequent survey for the Gallega, abandoned in 1503 by Columbus on his fourth voyage in Rio Belen, Panama. (Institute of Nautical Archaeology, Texas A&M University - Exploration & Discovery Research Team)

- Conducted Phase II testing of five proposed bridge crossing sites in New York and Gloucester Counties for the York River Bridge Crossing Project. (College of William and Mary Archaeological Project Center)

- Surveyed and performed limited testing of sites on a 700 acre area near Williamsburg, Virginia for the Stonehouse Development Project. (Virginia Archaeological Services)

- Mitigated the C.B. Comstock, a hopper dredge, which burned and sank in 1913 at Surfside, Texas. (Coastal Environments, Inc.)

- Performed archaeological excavation of the "Molasses Reef Wreck," an early 16th century wreck in Turks and Caicos Islands, British West Indies. (Institute of Nautical Archaeology, Texas A&M University - Exploration and Discovery Research Team)

- Excavated armory site in Richmond, Virginia. The site was constructed between 1799 - 1802 and was responsible for the manufacture of small arms. The site was later used as a rolling mill, but then destroyed in 1865 in the Burning of Richmond. (Association for the Preservation of Virginia Antiquities

- Assisted the Yorktown Shipwreck Archaeological Project in excavation of an 18th century British merchant vessel (44Y088) associated with the conclusive battle of the American Revolutionary War where British forces surrendered to allied French and American forces on October 19, 1781. (Virginia Division of Historic Landmarks)

- Employed in archaeological survey, testing, and excavation of numerous prehistoric and historic sites in central and east Texas, and Louisiana over a two year period. (Espey, Huston, & Associates, Inc.)

- 175 Water Street Project. Excavated a well preserved early 18th century merchant vessel used as cribbing to expand land use into the East River. The ship was located in Manhattan, two blocks inland from the East River. (Soil Systems, Inc.)

- Pedro Bank Survey, Jamaica, British West Indies: survey for shipwrecks on the Pedro Bank at the request of the government with primary concentration on the location of the Spanish treasure galleon, Nuestra de los Carmen or "genosse" sunk in 1733. (Institute of Nautical Archaeology, Texas A&M University)

- Cayman Island Project, Cayman Islands, British West Indies: survey for Shipwrecks in these islands at the request of the government during which 52 marine and three land sites were studied. Sites dated from the late 17th century. (Institute of Nautical Archaeology, Texas A&M University)

- Mombasa Wreck Excavation, Mombasa, Kenya: continuing excavation on the Santo Antonio de Tanna, a 42-gun Portuguese frigate sunk in 1697 off Fort Jesus. (Institute of Nautical Archaeology, Texas A&M University)

- Serce Liman Survey Study, Bodrum, Turkey: study of materials excavated from an 11th century "Glass Wreck" of Serce Liman, Turkey. Funded by a National Geographic Society Grant. (Institute of Nautical Archaeology, Texas A&M University)

- Excavation in Serce Liman, Turkey: archaeological excavation and study of 11th century "Glass Wreck," (National Geographic. June, 1978) 2nd Century B.C. "Hellenistic Wreck," and 3rd century B.C. "Scatter Wreck." (Institute of Nautical Archaeology, Texas A&M University)

- Survey of the Black Cloud, Liberty, Texas: survey of sidewheel steamboat sunk in 1873 in the Trinity River and preparation of the final survey publication. (Texas A&M University)

- Official United States observer for the Thracia Pontica International Symposium in Sozopol, Bulgaria, 1979.