MANAGING ARCHAEOLOGICAL RESOURCES IN ALEXANDRIA, VIRGINIA:

Knowing What You Know and Don't Know

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Alexandria Archaeology Publications
Number 14

Alexandria Archaeology
Office of Historic Alexandria
City of Alexandria, Virginia

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Foreword

The Alexandria Archaeology Publications series is composed of papers on various aspects of research conducted under the auspices of Alexandria Archaeology, a division of the Office of Historic Alexandria, City of Alexandria, Virginia. The authors include professional staff members, university students and Alexandria Archaeology volunteers. Editing of the papers has been kept to a minimum. It should be understood that the papers vary in tone and level of technicality, since they were originally directed toward many different audiences.

We are pleased to offer the papers within this series and in so doing are opening our "manuscripts on file" - including professional conference papers, background documentary studies, student course papers, and volunteer research papers - to professionals and public alike.

This paper was presented at the 1990 Annual Meeting of the Society for Historical Archaeology in Tucson, Arizona.

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1991

If you were given the opportunity to write an archaeological protection ordinance and designate archaeological areas within your community, wouldn't you be excited about the prospect? We were. After all, it seems to be a pretty basic task: collect examples of local ordinances, meet with your attorneys, interview the City staff to understand the development process, talk to the sectors of the community affected by the ordinance, determine resources and locations (both real and potential), create significance criteria, assess workload and cost, select the best protection procedure for the community, write a draft ordinance, receive comments and route through City channels for final passage.

Nine years after the inception of this project, we are perhaps less excited, but far more committed. We reached the last step on November 18, 1989, when the Alexandria City Council unanimously approved Ordinance No. 3413 which establishes the Alexandria Archaeological Protection Resource Procedure. This ordinance also created eleven potential resource areas which are delineated on the Alexandria Archaeological Resource Map (Figure 1). These areas include approximately 65 percent of the land within the City limits and encompass about 93 percent (N=60) of the largest planned projects which result in ground disturbance annually. Over all, the ordinance requires the Archaeological Protection Procedure to be in effect for 60 percent of all applications submitted to the Planninng Commission for changes

(such as subdivisions, encroachments, vacations and special use permits). Alexandria Archaeology reviews the remaining 40 percent of the planned projects and provides written recommendations, rather than requirements. We developed this procedure over the last three years by reviewing all these projects and providing recommendations. Therefore, the procedure and our way of working is well known in the development community.

In brief, the ordinance creates a sequential procedure for preserving significant archaeological resources within the nearly 16 acre city. The steps in this procedure are the following:

1. If a planned development is located within one of the eleven Archaeological Areas, the developer applies to Alexandria Archaeology for a preliminary assessment of the property's archaeological potential (Figure 2).

2. The City Archaeologists examine our data base and inspect the property to assess the potential of the given land parcel or project area. Steve Shephard is responsiblee for properties which fall within archaeology areas 1 and 2. Keith Barr handles the remaining areas 3 through 11. We return a written assessment to applicants within 7 working days of receipt of their request.

3. If the property is assessed as having potential, the

applicant is responsible for conducting an archaeological evaluation. The City Archaeologists write the scope of work to insure that the applicant follows all steps of the archaeological evaluation prrocess.

4. The evaluation report must accompany the preliminary application to the Planning Commission for the requested action. If the evaluation provides a determination of significance, then a resource management plan must also be submitted for staff review. The City Archaeologists review and comment in writing on both the report and management plan prior to the Commission's meeting. Any difference betweeen the applicant and the City Archaeologists which are not settled prior to the Planning Commission meeting are resolved by that group.

5. All management actions (in situ protection, mitigation, testing, etc.) must be conducted in proper sequence before and during the construction phases of the development. The consequence of not following this sequence is refusal or withdrawal of grading, excavating, demolition, and construction permits issued by other City agencies.

6. The City Archaeologists continue to review the management work and final report to insure standards. If the applicant donates the collection to the City of Alexandria, the artifacts, notes and photographs are transferred to Alexandria Archaeology's remote storage facility and donations forms signed.

Each of the steps we took to research and pass the ordinance required time and patience. Learning how developers, lawyers and city planning officials thought and acted was time consuming, and sometimes, an ethnographic experience. However, we found that the one part of the process which required the most time and attention was the one in which we had the most control. In order to create archaeological areas and provide reliable preliminary assessments we had to compile the relevant data and organize the full data base into an easily accessible system.

By conducting this compilation project we now know what we knew (but might forget, only be accessible to one staff person or depart with a volunteer), and what we did not know. The result is three-fold: The Alexandria Archaeology Potential Resource Map, the Historic Alexandria Street Directory of Resources and the Alexandria Archaeology Atlas. Using these three data bases together provides an easy-to-find system that keys into the main site files, primary historic records and important secondary sources. They also provided the necessary information to delineate boundaries for the resource areas designated by the ordinance.

Daily, these tools allow us to provide quicker and more accurate preliminary assessments which lead to more complete scopes of work for the applicants. In the future, the Resource Map, Street Directory will assist in expanding the Alexandria Archaeology

Registry which will encourage protection of sites not controlled by the ordinance (such as backyards of single family homes in historic districts). They will also increase our opportunity to include archaeological resources within the City of Alexandria's Open Space Easement Program, since we will be able to quickly assess the potential of any property considered for such a protection program.

But perhaps the greatest benefit of the entire process of data collection, compilation and mapping has been a series of maps which act as magnets to the public and archaeologists alike. Meetings with City officials and commissions, Chamber of Commerce representatives, developers and attorneys all proceeded with a different tenor when the maps were used, than during previous discussions. As we all know, archaeological materials are usually hidden from view until the moment of discovery. This is often too late to avoid crisis or discontent. The maps record where prehistoric and historic resources have been observed, excavated, or are likely to exist, and bring the sites visibility before the last minute. They also are made at scales which document the technical skill needed to conduct such a research and mapping process. Thus, area boundaries and site assessments gain greater credibility. We are no longer viewed as conjurers with ouija boards, but professionals with precise data at scales comparable to others in the development process. In short, most people love maps, and they offer the chance for every to see where mill races, Civil War fortifications and hunting camps may

still survive.

Our compilation project centered upon separate surveys of four distinct sets of data. We selected these data sets because they proviide the most accurate and fastest ways to assess significance. In effect, we can now provide uniform assessments throughout the city at a Phase I level.

The 4 data sets are:

1. Archival data for historic sites; and Literature and interviews with local archaeologists for prehistoric sites.

2. Alexandria Archaeology File data on Federal and State registered sites, field surveys, excavations, site histories and recorded features which were never registered.

3. A data set on historic buildings and the physical environment which Keith Barr generated by driving every street in Alexandria.

4. A data set on ground integrity based upon site disturbance and destruction which we developed by a window shield survey.

We divided the project into two parts: **Greater Alexandria** and **Historic Alexandria.** The two sections have very different

resources, archival records and density; thus, they require different data collection procedures which yield potential resource locations at larger and smaller scales respectively.

Let me first describe our process for compiling data on Greater Alexandria, the rural portion of the current City until mid-Twentieth century. Historic maps are our best source of information. We brought together a series of maps and rescaled them to fit a standard City maps measuring 28 by 19 inches published by the Department of Planning and Community Development. We recorded each historic structure or feature on the one map distinguishing between map source by color. We mapped on historic waterways, roads, cemeteries and governmental boundaries and Civil War fortifications. We also added trees which have been designated in Alexandria as historic. Data from secondary sources which described early plantations, mills, etc. were also used to augment the map.

Steve Shephard re-examined all our survey data to plot on prehistoric sites which were both registered, and merely recorded on topographic field maps. This required looking through several file drawers and notebooks, as well as assigning a different numbering system to these non-registered features. The Preservation Tracking System (PTS) number is used for this purpose. Simultaneously, all these locations and their addresses were added to our site files. Steve managed a major re-organization of these files from a sequential order by site

number to a city-wide alphabetical order by street name. A SITES data base, developed on a MINARK system by Don Creveling and Barbara Magid, can be entered by both site number and address for easy retrieval of the files.

Keith Barr surveyed every street in Greater Alexandria by car and looked forr two missing data sources: open space associated with known or expected standing structures built prior to 1900; and buildings which probably pre-date 1900, but have never been designated as historic properties. He found more then 300 such structures and many open spaces which map have good site integrity. Keith put all this information on the base map, which is now referred to as the **Alexandria Archaeology Potential Resource Map**. It is not published and can be easily updated. It is our primary data source for making preliminary assessments in Greater Alexandria.

In the Historic Alexandria section of the City (Archaeology Area 1), we conducted our compilation project at a smaller scale--the street-face and address level. It is the historic urban portion of the contemporary city, and archival sources (tax assessments, censuses, business directories, etc.) allow this finer detail. We drew data from more than 40 sources on locations of historic activities associated with 21 research themes. The themes range from prehistoric life, geography and natural environment, urban lifeways, and ethnic diversity to health practices, rural life, and catastrophic events (fire and flood), warfare and military

occupation.

Mary Cory compiled the data into the **Historic Street Directory** by street-face and address, where possible. Peter Matthews, then, plotted these locations on topical maps which integrated several research themes. The **Alexandria Archaeology Atlas** maps, drawn at one standard size (11 by 17 inches), now exists for the following topics: Antebellum Economy; Postbellum Economy; Civil War Alexandria; African American Heritage; Churches and Schools; Arts and Entertainment; Nineteenth Century Neighborhoods (continuous areas with ethnic, socioeconomic, and some Religious commonality); Eighteenth Century Alexandria; Historic Waterways and Landfill; Historic Landforms and Geology; Government (including annexation boundaries); Water Services and Alleys (the latter contributed by Matthew Reeves); and Alexandria in Flames.

Steve Shephard made an Atlas map showing where all the registered and recorded resources are located in Historic Alexandria. He distinguished between whether these resources are still preserved, archaeologically excavated (and partially or completely gone) or lost without recordation or excavation. As in the Greater Alexandria work, he gave every recorded resource a PTS number. This is the Alexandria Archaeology Exploration Map.

We also surveyed the historic city to determine ground integrity. Nearly 1200 street faces were assessed as having high, medium, low or no potential for containing archaeological resources. We

used criteria developed from our knowledge of the City. For example, underground parking structures in Alexandria destroy the resources, but surface parking lots usually protect underground remains. We found that 28 percent of Historic Alexandria's urban grid street-faces no longer have any potential for containing archaeological resources. Less than 40 percent of the street faces have high or medium potential. This Ground Integrity Atlas map was then xeroxed onto an acetate sheet which overlays all of the topical Atlas maps. In this way we can assess the potential for a specific construction site to still contain resources relating to the 21 research themes and and more than 40 sources. We will update the data on the Atlas maps and Historic Street Directory regularly with the inclusion of more detailed indexes and new historical studies by others in Alexandria.

This portion of the project required several intermediary steps. For instance, volunteers indexed a number of primary and secondary sources so that they could be mapped and placed in the Directory by a particular location. Unfortunately, most history books and articles are not indexed by street or address; hence they must be indexed again. In other cases, business data with geographical references. In some cases, original sources were transcribed because they had good geographical data. Volunteer Phil Erickson, provided this service for 1852-1900 Water Company permits and Alexandria Common Council Minutes (1817-1831). A survey of the City was found dating back 100 years, and the bench mark elevations compared to the present to determine historic

contours. We re-examined a variety of our reports on the waterfront to produce one comprehensive landfill map.

We are currently compiling from the Atlas maps and Street Directory an alphabetical street-face list with complete data on historic activities, recorded/registered sites and ground integrity. Next, we will create lists by each research theme of the street-faces and addresses of the historic activities which may still be preserved. We are creating a similar list for all sites studied previously, which will be cross-indexed by research theme, street-face and date.

Combining the two lists, we will be able to make a final Atlas Map of Significant Sites which will be our guide to future survey, site registration and public education programs for site protection. For instance, we will be able to list the number of Civil War sites excavated, the number lost and the number possibly still preserved across the City or in any particular area. This statistical profile for each theme, archaeology area, planning area or neighborhood increases our ability to alert City officials, developers and citizens and to create archaeological awareness in units with which the community identifies. We will also begin field survey and intensive archival study of significant sites in each area, which will increase the number of registered sites and the public's opportunity to enhance our resources by heritage preserves and park interpretation. The Alexandria Archaeological Commission and Friends of Alexandria

Archaeology are spearheading these initiatives.

The data compilation project provided information and maps which assisted us in three major tasks in 1989, which we did not expect. We wrote a chapter on historic preservation for the new City of Alexandria Master Plan, in which we described the historic context and types of above and below ground resources for the City's 14 planning areas. We were able to accept athis job and complete it within only a few weeks. Second, we drew specific boundaries across the City to create two alternative Archaeology Area schemes-one encompasssing less than the other. We were able to report accurately how much of the City and which scheme was selected. Viewing the maps, the top City officials unanimously chose the larger scheme which designates 65 percent of the City within 11 Arrchaeology Areas. And third, we wrote a 65 page report describing the resources within each of these 11 Areas onn the Alexandria Archaeological Resource Map which was adopted with the ordinance by City Council. We could not even envision these results prior to the compilation project.

Another outcome of this project is a shift in our expectations of what consulting archaeologists will provide applicants to the Protection Procedure. Now that we have compiled data that provide typical Phase I assessments, the scope of work we write for applicants asks for a two-part evaluation: first, the background research on past activities, disturbance, toxicity, etc.; and second, field testing. An applicant does not need to

proceed with either of these steps if clear evidence from photographs or site plans of earlier ground disturbance can be depicted on overlay maps to demonstrate that potential resources have been destroyed. In brief, typical Phase I studies are no longer needed from consulting archaeologists. We request a deeper analysis with overlay maps showing ground impact from proposed project, previous disturbance, erosion, toxicity, historic activity areas and prehistoric potential areas. From analyzing this background information, an adequate testing strategy can be agreed upon between the City Archaeologists, consulting archaeologists and applicants. Our **Guidelines for Archaeology in Alexandria** are currently under revision to reflect these standards.

Our maps and Street Directory now permit volunteers and students to collect data on site significance for our archaeologists to assess. This expands our base of service and support to incorporate members of the Alexandria Archaeological Commission and the Friends of Alexandria Archaeology. Towards this goal, a Site Protection Committee has been formed to serve in a overwatch role, provide advocacy positions in public hearings and foster public awareness. We expect to expand this role to the review of proposed projects currently not covered by the ordinance. If one of our significant sites is endangered by swimming pool construction or rehabilitation, a new Rescue Fund will provide an avenue to channel donations from businesses, individuals and organizations. This will permit Alexandria Archaeology to hire

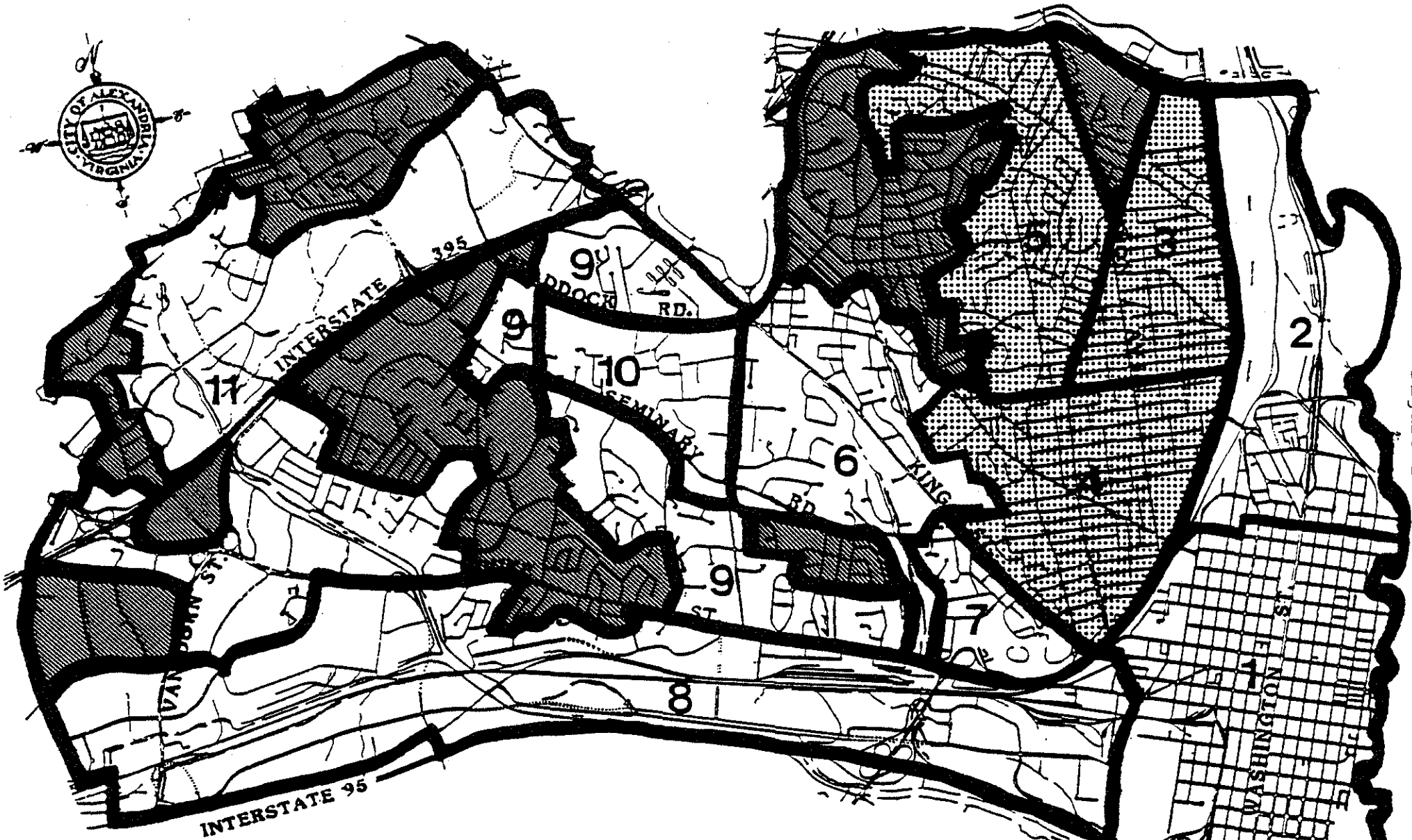
temporary assistance to rescue endangered sites.

This project has been a catalyst to reorganize our entire file system and re-analyze existing data collected from a variety of sources. The alphabetical street name file system is used for site files, project review comments, slides and historic photographs. It parallels our Street Directory to provide easy access to information by the way requests for review come to us (a particular street address). And the maps of both Greater Alexandria and Historic Alexandria provide portable, graphic and analytically useful tools. They encourage the understanding of historic context, as well as public involvement, because you can "see" archaeological sites which may still be underground.

Do the maps encourge looting, you might ask? While some looting does exist in Alexandria, constant construction is the greatest threat to our resources. Usually the looters work construction sites, rather than go dig independently first. It is our experience, that home owners' appreciation of the historic value of their site and a developer's joint interest in complying with City procedures and creating a successful project are positive results of knowledge. They far outweigh any problems. Citizens who can see what they want to protect and enhance--trees, open space, waterfronts, scenic vistas, and archaeological sites--are the key to community archaeology.

In closing, I want to acknowledge two people who are also

responsible for this step in our development. Ignacio Pessoa, Assistant City Attorney, crafted several drafts of the ordinance. Local attorney Jonathan Rak, a member of our Friends Board, reviewed and revised the ordinance to produce a fair and useful document to the development sector. And Bob McGimsey provided the conceptual tool I was lacking when I could only see the steps, not the result. Bob immediately grasped the situation and sent me The Future of London's Past, produced in 1973 by Martin Biddle, Daphne Hudson and Carolyn Heighway (Rescue, Tything, Worcester). The overlay maps are stunning and show what is really possible in urban archaeology planning studies. In this way, Bob helped to turn our archaeological files and data into public documents and planning tools with great emotional and intellectual appeal.



THE CITY OF ALEXANDRIA

ARCHAEOLOGICAL RESOURCE MAP

- ARCHAEOLOGICAL AREAS
- NON-ARCHAEOLOGICAL AREAS
- ARCHAEOLOGICAL AREAS WITH SPECIFIC SITE LOCATIONS

Figure 1

Figure 2

ALEXANDRIA ARCHAEOLOGY
REQUEST FOR PRELIMINARY
ARCHAEOLOGICAL ASSESSMENT

ADDRESS _____
TAX PARCEL NUMBER _____
DATE ____/____/____

Form completion required for compliance with Ordinance #3413 (14 NOV 1989)

PROJECT NAME _____

APPLICANT _____ Phone ( ) _____

OWNER _____ Phone ( ) _____

ADDRESS _____

CONTACT _____ Phone ( ) _____

ADDRESS _____

PROJECT ACTION 1. [ ] Demolition 2. [ ] New Construction 3. [ ] Addition 4. [ ] Restoration/Renovation 5. [ ] Landscaping 6. [ ] _____

Description of Project (attach additional pages if necessary) _____

_____

_____

_____

_____

Submit a map showing the exact location of your property. If available please attach the following: maps showing existing structures, proposed demolition (if any) and construction; chain-of-title, historic maps; previous historical or archaeological research.

PRELIMINARY ARCHAEOLOGICAL ASSESSMENT

DATE RECEIVED ___/___/___ **Date Site Checked** ___/___/___

COMMENTS:

RECOMMENDATION 1. [ ] No Adverse effect 2. [ ] No Action
3. [ ] **Archaeological evaluation and resource management plan required**

CONTACT ARCHAEOLOGIST Signature _____ DATE ___/___/___

CITY ARCHAEOLOGIST Signature _____ DATE ___/___/___

cc: Jean Taylor Federico, Director, Office of Historic Alexandria