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Testing Recommendations for a Subsurface Archaeological Evaluation of the Proposed Hylan Boulevard Shopping Center Parcel, Staten Island, New York

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#### I. Introduction

Because of the potential sensitivity of the Hylan Boulevard Shopping Center Project parcel, the following proposal details specific recommendations of a limited testing strategy to establish the presence or absence of prehistoric archaeological remains within the project parcel. For clarity of presentation, recommendations for specific field procedures are preceded by a restatement of the studies' results and conclusions.

# II. Summary of Results and Recommendations

As detailed in this Sensitivity Study for the Hylan Boulevard Shopping Center Project (Figure 1), the proposed parcel is located in the immediate vicinity and adjacent to four confirmed prehistoric site zones to the north, south, and west (Figure 2). The potential sensitivity of the parcel further derives from the fact that earlier excavations immediately to the north by Albert Anderson and Don Hollowell, recovered six shell pits, two hearths, a dense concentration of artifacts, as

well as a child and dog burial between 50 and 100 feet north of the project area. Although it was initially thought that this complex of pits and burials may have been within the project parcel itself, a field visit with one of the original investigators, Mr. Anderson, confirmed the fact that these finds, in fact, occurred north and outside of the project parcel. They were also located in a higher, drier elevation zone than the topography of the project area.

same time, however, this field visit At the confirmed the recovery of a groundstone axe within the actual project parcel near the intersection of Hylan Nevertheless, these Boulevard and Page Avenue. indicators of potential project sensitivity are balanced by the fact that this particular parcel is situated in areas of lower and damper soils than are the confirmed The field archaeological sites to the north and south. visit also indicated that between 40-50% of the project parcel had been disturbed to an as yet undetermined depth by bulldozer and clearing activity within the last 24 years. In summary, while the project parcel is clearly located adjacent to areas of known sensitivity, it is not clear to what degree archaeological remains may be present within it, or may have survived these recent impacts.

Anderson made specific mention of the fact that a

number of pits had been excavated within the project parcel by avocational archaeoligists. Since these pits showed limited or negative results, he expressed the opinion that the parcel was of relatively low archaeological potential compared to the areas of high ground immediately to the north (Anderson, 1987: pers. comm).

Several possibilities relating to the archaeological potential of this parcel may exist:

 given the relative dampness and elevation of the parcel, it may indeed be an area devoid of archaeological remains despite the proximity of confirmed sites.

2) that despite the contemporary characteristics of relative lowness and dampness, these may reflect only recent conditions caused by alteration of traditional drainage patterns prior to the construction of Page Avenue and Hylan Boulevard, and

3) although it may have been less intensively utilized or occupied relative to the upper ridges, it may contain cultural material of a different character or function than that encountered in other zones of documented archaeological sensitivity.

Given the proximity of known resources to the project parcel, the depth of documented finds within them

and the apparent superficial nature of the past disturbance to the project area, the possibility exists that preserved archaeological remains may survive within the project block. Although available indicators suggest that this possibility is relatively low, a concrete determination concerning its archaeological potential cannot be made based on the existing levels of information. Therefore, it is recommended that a limited and carefully designed testing program be undertaken to establish the presence or absence of archaeological remains. Accordingly, a separate recommendation for a limited testing program has been prepared for submission as an adjunct to this report.

## III. <u>Recommended Field Procedures</u>

Based on the presence of a number of the documented archaeological sites in the vicinity of the Hylan Boulevard - Page Avenue intersection and their proximity to the project parcel, it is recommended that a limited presence or absence testing program be initiated to establish the relative archaeological sensitivity of the project area. Given the proximity of the burial and feature excavation area documented by Anderson, between 50-100' to the north, it is pertinent that the testing recommendations and proposed field strategy take into

account the soil stratigraphy and feature depth and densities which Anderson recorded (1966) to the north and uphill from this project site.

Anderson's report on the child, dog and related features be excavated, as well as the work of others in the immediate viciniity, highlighted four characteristics which must be considered in evaluating appropriate testing procedures.

1) The pits and burials that Anderson excavated at Page Avenue Site No. 2, were found beneath a one foot overburden of humus and slopewash, suggesting that related zones of cultural occupation in other nearby areas may be buried and sealed under a thin mantle of more recent material. This suggests that despite the presence of surface disturbance, buried deposits may still survive.

2) Given the size of Anderson's exposure area (50' X 50') and the number of features recovered, six pits, two hearths, an artifact cluster and a child and dog burial, each ranging between 2-3' in diameter, this total translates into a comparatively low density of one feature per 250 square feet. Thus, any features within the project area may also be of comparatively low density and, therefore, could be easily missed if investigated with a series of small and widely spaced shovel or auger probes.

3) Previous excavations to the north and south document the presence of buried archaeological components between 3-5' below modern grade, suggesting that nearsurface probes alone may not be adequate to reach and recover manifestations of buried cultural material, and

4) Given the presence of extensive near surface disturbance over at least 40-50% of the project parcel from past bulldozer clearing activities, it is further questionable whether small and shallow test probes would provide sufficient volume and exposure to evaluate these areas of past disturbance, or any deposits which may be preserved beneath them.

Accordingly, while it is common to recommend a phased approach consisting of an initial series of small shovel probes or point samples within a grids or series of lineal transects, it is our feeling that in this case, given the four archaeological site characteristics the use of this method may not provide a sufficient level of information to determine the presence or absence of archaeological materials within the project parcel. In this case, we are <u>not</u> recommending a preliminary subsurface survey utilizing shovel and auger probes, but instead, the application of a limited number of test excavation units in three zones of the project parcel.

This testing procedure will provide a basis for

addressing three issues:

 The presence and location of archaeological traces within the project area;

2) The relative similarities or differences between profiles within the project area compared to the stratigraphy documented in Anderson's burial and feature excavation area to the north.

3) If encountered, the integrity (level of preservation) and research potential of any features which may have survived within the project parcel.

Specifically, we recommend the use of three manually excavated stratigraphic test units:

 one test unit on the western edge of the site near the area where the axe was encountered at the intersection of Hylan Boulevard and Page Avenue;

 a unit placed approximately in the center of the recent but incomplete foundation trench which corresponds to the proposed building location,

3) and a third unit on the northeastern corner of the parcel where surface disturbance is most evident adjacent Camden Avenue , and closest to the location of Anderson and Hollowell's child and dog burial excavations (See Figure 3)

The size and depth of these test units are critical in determining the adequacy of any testing program and

must address the density and depth of potential features as indicated above.

Based on the documented depth of Anderson's features and pits, we recommend that each 10' X 10' unit be cleared to at least 12-18 inches below modern grade. Accordingly, we strongly recommend the use of a combined approach consisting of three shallow 10' X 10' wide exposures to address the denisty of finds in conjunction with three smaller and deeper stratigraphic control units to address the potential depth of deposits. To address the problem of buried deposits and to control the level of efort, we recommend that a deeper strata control cut be limited to 5' X 5' in one corner of the larger 10' X 10' units and be excavated to at least 5' in depth. These three smaller 5' X 5' strata control units in each corner would extend to the depth of buried deposits documented in the adjacent site.

Each test unit will be manually excavated and recorded in no greater than 10 cm. levels, if natural stratigraphic breaks are not definable. All profiles and floor plans will be recorded both graphically and photographically. If encountered, all artifact scatters or features will be pinpoint located prior to removal. All excavated materials will be screened through 1/4" mesh and transported to the Grossman & Associates

laboratory for stabilization, inventory and analysis.

### IV. Criteria of Significance

criteria It is pertinent to define the of significance which will be used to evaluate the results of this limited field testing program. Both State and commonly refer to the criteria of agencies City significance utilized by the National and State Registeries of Historic Places to evaluate archaeological properties. Using these criteria, each site thought to be potentially eligible for nomination to both State and National Registers of Historic Places must be shown to integrity and (20) a research potential for 1) have: providing information important to history or prehistory.

The term "integrity" implies wholeness, completeness and the presence of artifacts in their original associations. In order to document "integrity," the field archaeologist must provide clear and explicit evidence that the archaeological remains are both intact and reconstructable. Although a site may once have been an important source for data on history or prehistory, past construction activities, illicit looting, or natural processes may have so disrupted the stratigraphy or distribution of remains that the site no longer reflects

the activities of the preshitoric or historic inhabitants. It may have become so disturbed that it lacks the requirement of having "integrity."

The concept of "integrity" also interdigitates with the requirement that a site have research potential for yielding information in prehistory or history. Archaeological data consist of two lines of evidence: both 1) objects and artifacts and 2) their context and associations. Without the second category of information, a once significant artifact becomes only an object or pieces of art with no temporal or cultural context. Little can be said about the people who made or Therefore its value for reconstructing history used it. or prehistory becomes minimal. As a consequence, the research potential of a site, either historic or prehistoric, is reflected both by what objects can be expected to be encountered, and by the degree to which the site's history (as reflected by the original vertical and horozontal location of the artifacts) remains undisturbed.

Similar criteria also pertain to the archaeological evaluation of historic site areas and former structure locations. The evaluation of historic sites is further dependent upon the relative availability of documentary information compared to the potential results of an

archaeological investigation. If little or no data exist from the written record, as is the case for 17th and 18th century settlements throughout the Northeast, the archaeological information may be the only source available. However, for the more recent very late 19th and 20th century periods, the archaeological significance of historic settlements, must be balanced against the nature and amount of available documentary sources both for the individual resource and for the category of resources it represents. If information can be better derived from published sources, it becomes less viable to argue the need for archaeological investigation.

#### V. Laboratory Processing

All excavated materials will be processed at the Grossman & Associates laboratory under the supervision of a Collections Manager in accordance with the guidelines established by the Department of Interior for the proper treatment of archaeological collections. These procedures include;

 The use of inert, non-destructive, acid-free collection containers;

 In-field emergency and stabilization procedures, as required;

3) Washing and drying techniques geared to the

condition of the materials excavated;

 All excavated material will be identified, counted and/or weighed;

5) All processed materials will be computer inventoried to provide an integrated catalogue controlling the nature, amounts and provenience of any finds encountered;

6) All artifacts will be labeled with site and provenience data; and

7) Finds will be stored using museum quality materials.

 Faunal and organic remains will be cleaned, dried, stabilized, and inventoried.

#### VI. The Final Report

In addition to a description and analysis of excavated materials which may be recovered, the final report will contain the following:

-discussion of the natural environment (soils, vegetation, etc.)

-cultural/historical background for areas surveyed

-a description of the field strategy and methods applied

-detailed description of all stratigraphic conditions and features encountered

-reasons for any deficiencies in the field coverage -description of all localities investigated and isolated findspots

-complete artifact inventories, presented in terms of horizontal and vertical distribution

-artifact analysis results

-recommendations for mitigation of impact on adversely affected sites, if appropriate

-a complete listing of all documentary sources and individuals consulted in the course of background research and field investigations

 -a statement as to the deposition of archaeological records and artifacts

-list of personnel for the survey team

Graphic representation of results would include but not be limited to:

 A project area base map, outlining the project boundaries on the appropriate portion of the relevant U.S.G.S. quad sheet(s), with the name of the quad sheet(s) clearly indicated in the map;

2) A map displaying the location of all test units;

3) Profiles and plans of all test units.

 Photo and graphic documentation of all excavated diagnostic materials.

# VII. References Cited

Anderson, Albert

1966 A Child and His Dog, in <u>The New Bulletin</u>, Vol. 15, No. 9, June 1966. Staten Island Institute of Arts and Sciences.

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Figure 1: U.S.G.S. 7.5 Minute Series Map, Arthur Kill, N.J. - N.Y. Quadrangle, showing proposed Hylan Boulevard Shopping Center Project Site.



Figure 2: Composite map derived from 1911 topographic map showing the relationship of the project area to previously reported archaeological site localities and excavation areas in the immediate vicinity of the project parcel.



Figure 3: Rendition of 1911 topographic map showing project boundary relative to streets and landforms and illustrating the location of previously excavated foundation trench and proposed building site as well as proposed test pit locations shown as black squares.