Stone Environmental
Engineering & Science, Inc.

Phase I & II Environmental Site Assessment

Franklin County Parcels 020-000157 and 020-003693
Sheridan Avenue
Bexley, Ohio 43209

Prepared for:
City of Bexley
2242 East Main Street
Bexley, Ohio 43209

May 2007

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Table of Contents

LIST OF FIGURES

APPENDICES

1 SUMMARY

Phase I and II Environmental Site Assessment (ESA) services were furnished to the City of Bexley, 2242 East Main Street, Bexley, Ohio 43209, for Franklin County Parcels 020-000157 and 020-003693 adjacent to Sheridan Avenue, Bexley, Ohio 43209.

Stone Environmental Engineering & Science, Inc. performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Standard E1527-05 and U.S. EPA's All Appropriate Inquiry rule (AAI) of the property. A Phase II Environmental Site Assessment was performed in conformance with the scope and limitations of ASTM Standard E1903-97(2002). Any exceptions to or deletions from this practice are described in Section 2.4 of this report. This assessment has revealed no evidence of recognized environmental conditions[1] or historical recognized environmental conditions[2] in connection with the property, except for the following:

- A 1938 aerial photograph shows landfill activity adjoining to the south of the subject property. The landfill is believed to have been used to dispose of residential waste.
- All six soil samples exceeded the designated U.S. EPA Region 9 Preliminary Remediation Goal (U.S. EPA PRG) action level for arsenic and four of the samples exceeded the designated Ohio EPA Voluntary Action Program (Ohio VAP) clean-up level for residential use. Two soil samples exceeded the U.S. EPA PRG and Ohio VAP designated action levels for lead.
- One ground water sample collected from the uppermost saturated zone exceeded the U.S. EPA PRG and Ohio VAP designated action levels for Cadmium.

De minimis[3] conditions noted during the assessment include:

- Household trash and debris were observed on the southeast portion of the property.

[1] Recognized environmental conditions: presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.

[2] Historical recognized environmental conditions: an environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently.

[3] De minimis conditions generally do not present a threat to human health or the environment and generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. De minimis conditions are not recognized environmental conditions.

2 INTRODUCTION

2.1 Purpose

The purpose of this ESA is to assess approximately 1.406 acres of land located on Franklin County Parcels 020-000157 and 020-003693, known respectively as 0 and 835 Sheridan Avenue, Bexley, Ohio 43209, for the presence of environmental contamination with respect to the range of contaminants within the scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and petroleum products. As such, this report is intended to permit the user to satisfy on the requirements to qualify for the innocent landowner defense the CERLCA liability: that is, the practices that constitute "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in 42 USC § 9601 (35)(B). An evaluation of business environmental risk associated with the subject property may necessitate investigation beyond that identified within the Detailed Scope of Services.

2.2 Detailed Scope of Services

This ESA report was prepared in general conformance to ASTM Standard 1527-05 and AAI. Specifically, the following tasks were performed under Phase I and II and are documented in this report:

- Identify past and present uses of the property by reviewing available aerial photographs, Sanborn Insurance maps, site ownership records, interviewing owners or occupants, and;
- Identify environmental setting by reviewing available government records of local geology, soils information, and topographic information;
- Document the type of transformers on site (if any), and whether they contain polychlorinated biphenyls (PCBs) in the transformer oil;
- Identify past and present uses of adjoining land by using historical City Directories, Sanborn Insurance maps, and available aerial photographs;
- Review and report on state files for landfills, hazardous waste treatment, storage and disposal sites, National Priority List and Federal/state abandoned hazardous waste sites within one-mile of the subject properties;

- Review files for the presence of leaking underground storage tanks on the property and within ½-mile of the site and registered underground storage tanks on the property and within ¼-mile of the site;
- Identify hazardous waste generators on the property and adjoining the property;
- Visit and walk the site to observe site conditions, and observe immediately adjoining properties. Note the presence of discolored or stained soil, underground storage tanks, vent pipes, unusual mounds, debris, storm water runoff, wells, sumps, and grease traps. Document the site visit with photographs, and include representative photos in the ESA report;
- Interview persons familiar with the site and vicinity including current and past owners, local fire, water and sewer utility personnel;
- Review soil survey for soil types and list soil types on map;
- Install five soil borings and obtain two composite surface soil samples of stressed areas;
- Analyze soil and ground water samples for RCRA metals and volatile organic compounds (VOCs); and
- Prepare a written report of the findings including location and site maps. Evaluate the data obtained from the investigation and indicate the probability of the site containing recognized environmental conditions.

2.3 Significant Assumptions

This section is not applicable.

2.4 Limitations and Exceptions

Stone Environmental prepared this Phase I and II ESA report based on information obtained during a site visit, interviews, and information that is available as part of the public domain. There is always the possibility of environmental contamination that can only be detected through extensive sampling and analysis of the soil and ground water. By including public documents and the comments or opinions of others interviewed in this study, we do not warrant the accuracy of such information.

The information contained in this report is correct to the best of our knowledge. However, the report and its conclusions will not be considered as a guarantee of the property exemption from potential liability to present or future owners. The report represents an effort to collect reasonably ascertainable information about the property

and to determine the obvious presence or likely presence of recognized environmental conditions.

The methodology used to obtain the findings, observations and conclusions expressed in this report are limited by the procedures described by ASTM Standard: E1527-05 and AAI, and ASTM Standard 1903-97(2002). These practices do not address specific requirements of state, local, or federal laws other than the appropriate inquiry provisions of CERCLA's innocent landowner defense. Federal, state, and local laws may impose environmental assessment obligations that are beyond the scope of this practice.

2.5 Special Terms and Conditions

This section does not apply.

2.6 User Reliance

The City of Bexley, and its client, their parent company, affiliates, successors, and assigns (collectively, the "Relying Parties") are permitted to rely on this report. The Relying Parties may rely on this report subject to any limitations placed on the scope, nature and type of Stone Environmental's services as stated in this report. Pursuant to this report, the Relying Parties are the only third parties who have the right to rely upon this report. No other third party may rely on this report unless the express written consent of Stone Environmental is first obtained.

3 SITE DESCRIPTION

3.1 Location and Legal Description

The subject property is located on approximately 1.406 acres of land located on Franklin County Parcels 020-000157 and 020-003693. The property is located adjacent to Sheridan Avenue in the southwestern portion of Bexley and the central portion of Franklin County. Bexley is located east of the City of Columbus. The location of the subject property is shown in Figure 1 and a parcel map is shown in Figure 2.

3.2 Site and Vicinity General Characteristics

The subject property is located in a developed area predominantly occupied by multi-family and single-family residential development. Surface drainage for the subject property flows west to a riparian corridor along the east bank of Alum Creek or permeates into the ground.

3.3 Current Use of the Property

The subject property currently consists of vacant wooded land.

3.4 Descriptions of Structures, Roads, and Other Improvements on the Site

There are no structures, roads, or other improvements on the site other than a platform tennis court located on the northeastern portion of the property.

3.5 Current Uses of the Adjoining Properties

The surrounding area is predominantly residential development. Bordering and vicinity properties include the following:

North: Vacant wooded land and an apartment complex;
East: Single-family residential development;
South: Vacant grassy and wooded land, apartment buildings and single-family residential development; and
West: A densely wooded riparian corridor and Alum Creek.

4 USER PROVIDED INFORMATION[4]

4.1 Title Records

Deed transfer records were reviewed on the Franklin County Auditor's Web site and the records are summarized in Section 5.4.

4.2 Environmental Liens or Activity and Use Limitations

The user provided no information regarding environmental liens or activity and use limitations.

4.3 Specialized Knowledge of the Subject Property

The client provided a Phase I ESA report and geotechnical assessment report of property adjoining to the south of the subject property. The client was aware that the area was formerly used as a landfill.

4.4 Valuation Reduction for Environmental Issues

The user provided no information regarding valuation reduction for environmental issues.

4.5 Owner, Property Manager, and Occupant Information

According to the Franklin County Auditor, Bvl Associates Ltd. is the current owner of the subject property.

4.6 Reason for Performing Phase I ESA

This Phase I ESA was performed in order to qualify for a landowner liability protection (LLP) to CERCLA liability.

4.7 Other Information

A Geotechnical Study from January 2003 and a Phase I ESA from February 2003 that were completed on 1.75-acres of land adjoining the subject property to the south were provided to Stone Environmental by the client. Both reports were completed by H.C. Nutting Company. Information from the reports is discussed in Section 5.2.

[4] ASTM Practice E1527-05 does not impose on the environmental professional performing this ESA the responsibility to conduct research to obtain information for this section; rather it is the responsibility of the user of this report to communicate such information to the environmental professional for inclusion in this report.

5 RECORDS REVIEW

5.1 Standard Environmental Records Sources

Standard ASTM E-1527-05 and AAI identify record information that shall be reviewed from standard sources that are reasonably ascertainable. Reasonably ascertainable information means that the information is publicly available, is obtainable from a source within reasonable time and cost constraints, and is practically reviewable. Alternative sources of information may be reviewed instead of standard sources if they are similar in detail and content and if the standard source is not reasonably ascertainable. Standard environmental record sources are reviewed for sites within ASTM radii guidelines set in ASTM E1527-05 and AAI. Standard environmental record sources include:

- Federal NPL site list
- Federal De-listed NPL site list
- Federal CERCLIS list
- Federal CERCLIS-NFRAP site list
- Federal RCRA CORRACTS facilities list
- Federal RCRA Non-CORRACTS TSD facilities list
- Federal RCRA generators list
- Federal ERNS list
- Federal institutional control/engineering control registries
- State- and tribal- equivalent NPL list
- State- and tribal- equivalent CERCLIS list
- State and tribal landfill and/or solid waste disposal site lists
- State and tribal leaking UST list
- State and tribal registered UST list
- State and trial institutional control/engineering control registries
- State and tribal voluntary cleanup sites
- State and tribal Brownfield sites

Review of federal databases concluded that there are no sites within the ASTM standard radii that are listed as an NPL, De-listed NPL, CERCLIS, CERCLIS-NFRAP, RCRA Generator, RCRA-CORRACTS, RCRA-TSD non-CORRACTS or ERNS sites, or site subject to institutional or engineering controls. Review of state and tribal databases concluded there are no sites within the ASTM standard radii that are listed as a NPL or CERLICS site, Municipal or Industrial Landfill or Solid Waste site, or site subject to institutional or engineering controls or undergoing voluntary cleanup. The subject property is not listed in any reviewed database. Documentation of the environmental records review is presented in Appendix A.

Eight leaking underground storage tank (LUST) sites were identified within a ½-mile radius of the subject property. The sites are summarized in Table 1.

TABLE 1
LUST SITES

SITE	ADDRESS	DISTANCE FROM SUBJECT PROPERTY	SITE STATUS
Bron Shoe Co.	1313 Alum Creek Drive	0.5 mile SSW	No details were available.
True North #613	1937 E. Livingston Ave	0.25 mile SW	A suspected release from a regulated UST was reported on 11/04/05. Benzene, total xylenes, and MTBE exceeded action levels for soil. Benzene and MTBE exceeded action levels for ground water. A Tier 1 investigation was underway as of 02/03/06.
Bexley Sunoco	2106 E. Main St	0.5 mile N	A suspected release from a regulated UST was reported on 07/26/99. Benzene exceeded action levels for ground water. Cleanup technology used included Oxygen Release Compound (ORC) injection. A No Further Action letter was issued on 05/06/03.
			A suspected release from a regulated UST was reported on 07/20/05. A release was confirmed as of 09/15/05. Benzene and toluene exceeded action levels for soil.
Livingston Exxon	2097 E. Livingston	0.125 mile S	A suspected release from a regulated UST was reported on 08/26/05. No soil or ground water contamination was reported. Corrective actions in progress as of 12/01/06.
Wexner Heritage House	1151 College Ave	0.5 mile SE	No details were available.
Muffler King, Inc.	2140 E. Livingston	0.125 mile S	No details were available.
Former Sun Oil	2182 E. Livingston	0.125 mile SSE	A suspected release from a regulated UST was reported on 03/24/92. Soil and ground water contamination was reported. A release was confirmed on 01/10/06.
Orphan Tank	Main Street and Park Avenue	0.5 mile N	No details were available.

One Brownfield site was identified within a ½-mile radius of the subject property. The site is summarized in Table 2.

TABLE 2
BROWNFIELD SITE

SITE	ADDRESS	DISTANCE FROM SUBJECT PROPERTY	SITE STATUS
Container Management Company	1826 E. Livingston Ave	0.5 mile SW	No additional information was available in the USEPA Brownfield database. However, this site was identified as having a cleanup profile in the Brownfield Cleanup Program database.

The sites identified in the environmental records review are unlikely to pose a concern for the subject property due to their distance from the subject property.

5.2 Additional Environmental Record Sources

Subsurface drilling activities associated with a Geotechnical Study performed by H.C. Nutting Company in January 2003 revealed glass and metal fragments present in the soil underlying property adjoining the subject property to the south. H.C. Nutting Company also completed a Phase I ESA in February 2003 on 1.75-acres of vacant land adjoining the subject property to the south. Their assessment revealed the presence of a residential landfill prior to the 1950s on the assessed property (adjoining to the south of the subject property). Due to its proximity to the subject property, past landfill activities may have affected the subject property. It is possible contaminants from the landfill leached to the ground water and migrated north to the subject property.

Stone Environmental contacted the Bexley City Health Department to inquire about recognized environmental conditions in association with the subject property. No response has been received as of the writing of this report.

5.3 Physical Setting Sources

The subject property is shown on the United States Geological Survey's topographic map of the Southeast Columbus, Ohio quadrangle at approximate coordinates of 39.9499 north latitude and 82.9408 west longitude. Topography at the site is gently rolling and peaks at approximately 750 feet above mean sea level. A topographic map is presented in Figure 3.

The United States Department of Agriculture, Natural Resource Conservation Service identifies three soil types on the subject property: Bennington-Urban land complex, 2 to 6 percent slopes (BfB); Cardington-urban land complex, 6 to 12 percent slopes (CbC); and Eel silt loam, occasionally flooded (Ee). A soil map is presented in Figure 4. Descriptions of the soils are presented below:

- Bennington-Urban land complex, 2 to 6 percent slopes (BfB) is a gently sloping, very deep, somewhat poorly drained soil. Typically, the surface layer is silt loam about 9 inches thick. The surface layer has a moderate content of organic matter. The slowest permeability is slow. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. This soil contains a maximum amount of 18% calcium carbonate. According to the USDA NRCS BfB is not classified as a hydric soil[5]. However, isolated inclusions of Pewamo series soils make up

[5] Hydric soils are one indication of the presence of wetlands.

approximately 5% of BfB soil within Franklin County, particularly within depressions. Pewamo is classified as a hydric soil. BfB soil underlies the eastern portion of the subject property.

- Cardington-urban land complex, 6 to 12 percent slopes (CbC) is a moderately sloping, very deep, moderately well drained soil. Typically, the surface layer is silt loam about 6 inches thick. The surface layer has a moderate content of organic matter. The slowest permeability is moderately slow. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 20% calcium carbonate. According to the USDA NRCS CbC soil is not classified as a hydric soil. However, isolated inclusions of Pewamo series soils make up approximately 5% of CbC soil within Franklin County, particularly within depressions. Pewamo is classified as a hydric soil. CbC soil underlies the center portion of the subject property.

- Eel silt loam, occasionally flooded (Ee) is a nearly level, very deep, moderately well drained soil. Typically, the surface layer is silt loam about 8 inches thick. The surface layer has a moderate content of organic matter. The slowest permeability is moderate. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 54 inches. The soil contains a maximum amount of 35% calcium carbonate. According to the USDA NRCS Ee soil is not classified as a hydric soil. However, isolated inclusions of Sloan series soils make up approximately 5% of Ee soil within Franklin County, particularly within depressions. Sloan is classified as a hydric soil. Ee soil underlies the western portion of the subject property.

5.4 Historical Use Information on the Property

The history of the subject property was determined through review of historical aerial photographs, deed transfer records, and historical topographic maps. Sanborn Fire Insurance Maps and city directories are not available for the subject property.

Aerial photographs were available from 1938, 1950, 1957, 1964, 1972, 1980 and 1989 from the Franklin County Soil and Water Conservation District office, and from 1994 and 2004 from Internet resources. The photographs are presented in Figures 5A – 5I. A description of the subject property as it appears in the photographs follows.

1938: The subject property appears to be primarily undeveloped grassy land. A large rectangular area is noticeable on the western portion of the site. Centrally located along the northern boundary of the site appears a second rectangular area. A few mature trees are scattered throughout the site. Other similar sites in the area appear to be used for agricultural purposes, but the exact purpose of the rectangular areas is unknown.

1950: The subject property appears to be grassy land. The eastern portion of the site appears to be divided into vertical rectangular areas. It is presumed the purpose of the divided areas was for a large garden or other agricultural purpose; however, the true purpose is unknown. The eastern and western perimeters of the property appear to be densely wooded. Note: at this time the subject property was owned by the residential occupants adjoining to the east.

1957: The subject property appears to be grassy land. The eastern portion of the site appears to be divided into horizontal rectangular areas, presumably for gardening or a similar purpose. The eastern and western perimeters of the property appear densely wooded. Note: at this time the subject property was owned by the residential occupants adjoining to the east.

1964: A rectangular structure and rectangular cleared area appear on the northern portion of the subject property. At this time, the subject property was owned by the residential occupants adjoining to the east. The remainder of the subject property appears to be grassy land with a few mature trees spread throughout. The eastern perimeter appears densely wooded and the western perimeter has been cleared to create a north-south pathway.

1972: The subject property appears virtually unchanged from the 1964 photograph. Note: at this time the subject property was owned by the residential occupants adjoining to the east.

1980: The subject property appears to be moderately wooded with mature trees. A moderately sized building and adjoining cleared rectangular area (possibly paved) appear on the western portion of the property. At this time the subject property is owned by Bexley Village, the owner of the apartment complex to the north of the subject property. The purpose of the building on the site is unknown, but likely serves the residents or administration of Bexley Village Apartments.

1989: The subject property appears moderately wooded. A tennis court appears on the northern portion of the site. A path or access road appears along the western perimeter of the subject property.

1994: The subject property appears virtually unchanged from the 1989 photograph.

2004: The subject property appears virtually unchanged from the 1989 photograph.

Deed transfer records, on file at the Franklin County Auditor's Office, were reviewed to determine past ownership of the subject property. A summary of the deed transfer review is presented in Table 3.

TABLE 3
DEED TRANSFER REVIEW

PARCEL # 020-000157		
DATE	**GRANTOR**	**GRANTEE**
06/24/93	Bexley Village Ltd	Bvl Associates Ltd
11/05/76	Columbus Savings & Loan Association	Bexley Village Ltd
03/22/76	The Sheridan Company	Columbus Savings & Loan Association
04/27/73	Moorehead, Zita	The Sheridan Company
08/03/71	Moorehead, Zita et al (3)	Moorehead, Zita
02/18/69	Moorehead, Byron C. & Zita	Moorehead, Zita et al (3)
10/07/49	Althaus, Lillian B. & Edith Dever	Moorehead, Byron C. & Zita
09/27/49	Frey, Hattie M	Althaus, Lillian B. & Edith Dever
03/31/49	Frey, Hattie M	Frey, Hattie M
11/16/33	Frey, Cornelius & Hattie M	Frey, Hattie M
12/04/22	Jones, Susan et al	Frey, Cornelius & Hattie M
08/26/21		Jones, Susan et al
PARCEL # 020-003693		
DATE	**GRANTOR**	**GRANTEE**
06/24/93	Bexley Village Ltd	Bvl Associates Ltd
11/05/76	Columbus Savings & Loan Association	Bexley Village Ltd
03/22/76	The Sheridan Company	Columbus Savings & Loan Association
04/27/73	Bigrigg, Wayne & Marilyn	The Sheridan Company
06/03/57	Dever, Edith	Bigrigg, Wayne & Marilyn
05/20/57	Althaus, George J	Dever, Edith
05/13/57	Althaus, George J & Lillian B	Althaus, George J
12/04/22		Althaus, George J & Lillian B

Two USGS 7.5 Minute topographic maps dated 1925 and 1943 were available from Internet resources. The 1925 map shows no development on the subject property or on adjoining property. The 1943 map shows no development on the subject property. The maps are presented in Figures 6A-6B.

Historical use information does not indicate evidence of historical recognized environmental conditions in connection with past uses of the subject property.

5.5 Historical Use Information on Adjoining Properties

The vicinity of the subject property consists of a mix of commercial and residential development. The history of adjoining properties was determined through a review of the same sources discussed in Section 5.4.

Aerial photographs of the subject property and adjoining properties are presented in Figures 5A – 5I. Adjoining properties as they appear in historical aerial photographs are described below:

1938: Adjoining the subject property to the north appears to be a densely wooded area and vacant grassy land used for agricultural purposes. Adjoining to the east appears single-family residential development. Adjoining to the south appears vacant grassy land. Further south appears a cleared area and bare soil, indicative of landfill activity. Adjoining to the west appears a grassy area and a densely wooded riparian corridor. Further west appears Alum Creek.

1950: Property adjoining to the north, east and west of the subject property appears virtually unchanged from the 1938 photograph, except that the vacant grassy land to the north appears to no longer be used for agricultural purposes. Adjoining the subject property to the south is vacant grassy land and a few mature trees. An unimproved access road or path appears to cut through the grassy land.

1957: Property adjoining to the east and west of the subject property appears virtually unchanged from the 1938 photograph, with the exception of further tree growth within the riparian corridor. Adjoining the subject property to the north appears a densely wooded area. Adjoining to the south appears vacant grassy land and a cleared area. The purpose of the cleared area is not apparent. Further south is a densely wooded area and commercial and residential development.

1964: Property adjoining to the east of the subject property appears virtually unchanged from the 1938 photograph. Adjoining the subject property to the north appears to be a large densely wooded area, vacant grassy land and two unimproved access roads or paths. Adjoining to the west appears an unimproved access road or path, a narrow wooded riparian corridor and Alum Creek. Adjoining to the south appears multi-family and single-family residential development. Further south appears commercial development.

1972: Property adjoining to the east of the subject property appears virtually unchanged from the 1938 photograph. Adjoining the subject property to the north appears vacant grassy land. Adjoining to the south appears vacant grassy land and a cleared area that appears to consist of bare soil. The cleared area is small and adjoins single-family residential development further south. Also further south is multi-family residential development. Property adjoining to the west is difficult to discern due to a mark on the photograph; however, Alum Creek and a narrow wooded riparian corridor are visible.

1980: Property adjoining to the east appears virtually unchanged from the 1938 photograph. Adjoining the subject property to the south appears grassy and wooded land. Further south appears multi-family and single-family residential development. Adjoining to the west appears a densely wooded riparian corridor and Alum Creek. Adjoining to the north appears a densely wooded area and multi-family residential development.

1989: Property adjoining to the east appears virtually unchanged from the 1938 photograph. Property adjoining to the south, north and west appears virtually unchanged from the 1980 photograph, with the exception of fewer mature trees.

1994: Property adjoining to the east appears virtually unchanged from the 1938 photograph. Property adjoining to the south, north and west appears virtually unchanged from the 1980 photograph, with the exception of fewer mature trees.

2004: Property adjoining to the east appears virtually unchanged from the 1938 photograph. Property adjoining to the south, north and west appears virtually unchanged from the 1980 photograph, with the exception of fewer mature trees.

Two USGS 7.5 Minute topographic maps dated 1925 and 1943 were available from Internet resources. The 1925 map shows no apparent development on adjoining properties. Alum Creek is located further west of the subject property. An unimproved road and some residential development appear further north of the subject property. Livingston Road is located further south of the subject property. The 1943 shows Alum Creek is located west of the subject property. North and east of the subject property are built-up areas. Livingston Road is located to the south of the subject property. The maps are presented in Figures 6A-6B.

Historical use information indicates evidence of historical recognized environmental conditions in connection with past uses of adjoining property. In a 1938 aerial photograph, property south of the subject property appears to have been used as a landfill. According to a Phase I ESA performed by H.C. Nutting in February 2003, the area was used as a residential landfill prior to 1950. This information was obtained from an interview conducted by H.C. Nutting with an Administrator for the City of Bexley. Also, subsurface geotechnical investigations in the area performed by H.C. Nutting revealed glass present in the soil. The glass is likely from the landfill activities and due to the presumed age of the glass, the glass may contain lead which has the potential to leach into the soil.

6 INFORMATION FROM SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

Jon Zanders, of Stone Environmental, visited the subject property on April 17, 2007 and again on April 27, 2007 at approximately 10:00 AM. Weather conditions were slightly overcast and warm during both site visits. The Phase I and II investigations were conducted during the April 27, 2007 site visit. The property was observed for evidence of recognized environmental conditions. The site visits commenced by observing the site from the vacant lot south of the site then proceeding to walk the perimeter of the property to locate potential soil boring and temporary monitoring well locations. The site visit concluded by collecting ground water samples from the temporary monitoring wells, removing the wells, and backfilling the boreholes with soil cuttings and bentonite.

Limiting conditions during site reconnaissance included densely wooded areas and underbrush obscuring observations of the ground surface. In addition, during Phase II investigations, there was very little soil recovery in the soil cores from the 4 feet to 8 feet interval due to the presence of unnatural material. Photographs taken during site reconnaissance are presented in Appendix B.

6.2 General Site Setting

The subject property consists of undeveloped wooded land. A partially wooded lot borders the subject property to the north and a vacant grass lot borders to the south. A paved access road borders to the east. Unusual hydrogeologic conditions were not observed on the subject property during the various site visits.

6.3 Phase I Exterior Observations

The site was reviewed for the presence of solid waste piles, waste dumps, unusual mounding of soil or unnatural materials, oil stains, adjoining land use, discolored soil or pavement, unusual odors, sumps and drains, vent pipes, fill caps or any other indicators of recognized environmental conditions. Two areas of stressed vegetation were observed on the east and west sides of the property. These areas were considered areas of concern during the Phase II investigations. No other indicators of recognized environmental conditions were observed on the subject property.

The subject property consists of wooded and grassy land contained on two lots. According to the Franklin County Auditor, the land classification is Commercial Structure and Vacant Commercial Land. Both mature and young trees are located throughout both lots and densely concentrated throughout the central and eastern

portions. Remnants of an elevated wood tennis court are located on the eastern portion of the subject property. Remnants of a wood and chicken-wire fence were observed in the wooded portion on the east side of the site. This area was considered an area of concern during Phase II investigations. Household trash and debris was observed near the southeast corner of the subject property. An asphalt-paved private road traverses in a north-south direction along the western portion of the site and is used as a walking trail and emergency vehicle access.

Adjoining properties were observed from the subject property. Adjoining to the north is a partially wooded lot, across from which is a parking lot for multi-family condominiums. Adjoining to the east are single-family residences. Adjoining to the south is a vacant wooded lot owned by the City of Bexley. Adjoining to the west is a landscaped area used for recreation along the east bank of Alum Creek.

6.4 Phase II Exterior Observations

On April 27, 2007, Jon Zanders of Stone Environmental conducted soil and ground water sampling activities in locations determined to be void of underground utilities but that were accessible by the truck-mounted drill rig. A detailed site map showing boring locations is presented in Figure 7.

A truck-mounted GeoProbe® unit was used to install five soil borings using the direct-push method. Macro-core sampling tubes, each four feet long, two and a half inches in diameter and fitted with a polyethylene liner, were pushed to a depth of approximately 16 feet below ground surface (bgs) at each location with the exception of borings B2 and B5. Boring B2 was installed to 24 feet bgs and boring B5 was installed to 12 feet bgs. The liner containing each soil sample was extracted from its tube and split in order to be physically examined. Soil samples were collected from discrete intervals and placed in zip-lock plastic bags for subsequent headspace screening. Duplicates of selected samples were placed in laboratory supplied glass jars, labeled, and placed in a cooler with ice for possible laboratory analyses. Field boring logs were prepared, and texture and odor of the soil samples were noted on the logs. The boring logs are presented in Appendix C.

Each soil sample was physically examined for odor, discoloration and unnatural characteristics. The sample split into the ziplock™ bag was placed in direct sunlight and allowed to equilibrate for approximately 30-minutes. The sample was then field-screened using a calibrated photoionization detector (PID) to detect the presence of volatile organic compounds (VOCs). Field-screen readings did not indicate the presence of VOCs in the soil. Documentation of the PID calibration is included in Appendix D.

Soils from each boring remained consistent throughout the property with topsoil and silty sand and clay to approximately 2 feet bgs, unnatural materials including glass, cinders, organic matter from decay, and brick to approximately 8 feet bgs, and silt clay and clay to gray mottled clay to approximately 24 feet bgs (boring B2). Ground water was encountered at approximately 12 feet bgs and 18.5 feet bgs on the western portion of the subject property. Borings B1 and B2 were converted to temporary 1-inch diameter monitoring wells. Boring B1 (MW-1) was set at 15 feet bgs with 5 feet of screened casing to 10 feet bgs to capture the uppermost aquifer. Boring B2 (MW-2) was set at 22 feet bgs with 5 feet of screened casing to 17 feet bgs to capture the lower aquifer at the depth of Alum Creek.

No visual or physical evidence of soil or ground water contamination was encountered in any of the five soil borings. Soil samples for laboratory analysis were chosen based on the location, physical description, and risk-based assessment (exposure). The selected samples were analyzed for heavy metals and volatile organic compounds. Analytical results are summarized in Sections 8 and 10 and the laboratory report is included in Appendix E.

Two areas of stressed vegetation were observed and targeted as an area of concern. Composite samples C6 and C7 were collected from these areas by using a clean, dedicated stainless steel trowel and bowl. Samples C6 and C7 were analyzed for heavy metals and volatile organic compounds. Analytical results are summarized in Sections 8 and 10.

6.5 Interior Observations

There are no structures located on the subject property.

7 INTERVIEWS

7.1 Interview with Owner

The owner was not interviewed as part of this assessment.

7.2 Interview with Site Manager

This section is not applicable.

7.3 Interview with Occupants

This section is not applicable.

7.4 Interview with Local Government Officials

Stone Environmental contacted the Bexley City Health Department to inquire about recognized environmental conditions in association with the subject property. No response has been received as of the writing of this report.

7.5 Interview with Others

Mr. Bruce Langner the City of Bexley Development Director was interviewed during the first site visit conducted on April 7, 2007. According to Mr. Langner, the subject property was either part of or adjacent to a former "residential" landfill which accepted waste sometime before the 1950s. In addition, the vacant lot adjoining the south of the subject property is currently owned by the City of Bexley and past investigations have shown that unnatural materials are contained within the subsurface of that lot.

8 FINDINGS

Phase I and II Environmental Site Assessment (ESA) services were furnished to City of Bexley, 2242 East Main Street, Bexley, Ohio 43209, for Franklin County Parcels 020-000157 and 020-003693 adjacent to Sheridan Avenue, Bexley, Ohio 43209. This assessment has revealed no evidence of recognized environmental conditions or historical recognized environmental conditions in connection with the subject property, except for the following:

- A 1938 aerial photograph shows landfill activity adjoining to the south of the subject property. According to a Phase I ESA performed by H.C. Nutting in February 2003, the area near the southern boundary of the subject property was used as a residential landfill prior to 1950. Also, subsurface geotechnical investigations in the area performed by H.C. Nutting revealed glass present in the soil. The glass is likely from the landfill activities and due to the presumed age of the glass, the glass may contain lead which has the potential to leach into the soil.

- Phase II investigations indicate the subject property is part of former landfill.

- Two areas of stressed grass cover were observed on the eastern and western portion of the subject property, respectively. Surface soil samples were collected from each area (samples C 6 and C 7) and subsequently analyzed for metals and VOCs.

- Analytical results reveal six soil samples exceeded the designated U.S. EPA PRG action level for arsenic, of which four exceeded the Ohio VAP clean-up level for residential use. Two soil samples exceeded the U.S. EPA PRG and Ohio VAP designated action levels for lead. No concentrations of VOCs were reported above detection limits in any of the soil samples. The results are summarized on Table 4 on the following page.

- Analytical results reveal the ground water sample collected from the uppermost saturated zone exceeds the U.S. EPA PRG and Ohio VAP designated action levels for cadmium. No concentrations of VOCs were reported above detection limits in either of the two ground water samples submitted for laboratory analysis. The results are summarized on Table 4 on the following page.

Table 4
Analytical Results

Metals Results
EPA Methods 6010B, 7470B - Solid
EPA Methods 200.7, 245.1 - Water

	Detection Limit		Action Levels				Sample ID							
			US EPA Region 9 PRGs		Ohio VAP - Residential		Soil (mg/Kg)						Ground Water (µg/L)	
	soil (mg/kg)	water (µg/L)	soil (mg/kg)	water (µg/L)	soil (mg/kg)	water (µg/L)	B1 4"-6"	B3 4'-8'	B4 4'	B5 0-4"	C6	C7	MW-1	MW-2
Arsenic	1.2	40	0.39	0.045	6.8	50	**6.75**	**5.3**	**16.89**	**11.37**	**8.23**	**7.09**	<40	<40
Barium	0.3	10	5400	2600	5400	2000	73.67	484.5	369.9	143.8	108	217.2	248	124
Cadmium	0.3	5	37	18	35	5	0.44	2.88	0.86	1.68	0.94	1.48	**1769**	<5
Chromium	0.3	10	210	110 (Cr(VI))	230 (Cr(VI))	100	9.85	28.33	16.88	11.32	12.98	18.66	<10	<10
Copper	0.3	10	3100	1500	N/A	N/A	23.95	126.5	113.7	92.42	32.7	229.6	<10	<10
Lead	1	30	400	15	400	15	44.06	**703.4**	**581.7**	371.5	169.9	**680.9**	<30	<30
Mercury	0.1	0.2	6.1	11	7.8	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2
Nickel	0.3	10	1600	730	1500	100	14.5	31.72	23.08	13.43	18.7	16.25	<10	38
Selenium	1.5	50	390	180	390	50	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<50	<50
Silver	0.3	10	390	180	390	78	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<10	<10
Zinc	0.3	10	23000	11000	23000	4700	84.06	588.7	441.8	270.9	150.4	504.3	1980	102

All samples collected 4/27/2007
analytical results above Action Level

9 OPINION

This Phase I ESA was performed in accordance with ASTM Practice E1527-05 and AAI and under the direction of Mr. Henry R. Stonerook, P.E., of Stone Environmental, an environmental professional as defined in ASTM Practice E1527-05 and AAI. According to the professional opinion of Mr. Stonerook, the site has recognized environmental conditions associated with it. Analytical results from on-site sampling reveal heavy metal contamination in excess of published action levels.

10 CONCLUSIONS

Stone Environmental Engineering & Science, Inc. has performed a Phase I and II Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-05 and AAI of Franklin County Parcels 610-241145 and 610-241146, the property. There were no exceptions to, or deletions from, this practice. This assessment has revealed no evidence of recognized environmental conditions or historical recognized environmental conditions in connection with the property, except for the following:

- A 1938 aerial photograph shows landfill activity adjoining to the south of the subject property. The landfill is believed to have been used to dispose of residential waste.

- Areas throughout the subject property contain soil that consist of concentrations of arsenic and lead above U.S. EPA PRG and Ohio VAP designated action levels.

- The ground water sampled from the uppermost saturated zone exceeds the U.S. EPA PRG and Ohio VAP designated action levels for cadmium.

11 DEVIATIONS

There were no deletions and/or deviations from ASTM Practice E1527-05 or AAI or ASTM Standard 1903-97(2002).

12 ADDITIONAL SERVICES

There were no additional services performed as part of this Phase I and II ESA.

13 REFERENCES

The following are published sources that were used to complete this Phase I and II ESA report:

- Franklin County Auditor
  - http://www.co.franklin.oh.us/auditor/
- Franklin County Soil Survey – USDA NRCS
  - http://websoilsurvey.nrcs.usda.gov/app/
- TopoZone
  - http://www.topozone.com/
- Mapquest
  - http://www.mapquest.com/
- TerraServer
  - http://terraserver.microsoft.com/
- Maptech
  - http://historical.maptech.com/
- The Right-to-Know Network
  - http://www.rtk.net/
- EPA Envirofacts
  - http://www.epa.gov/enviro/
- Ohio EPA Facility Lists
  - http://www.epa.state.oh.us/dsiwm/pages/general.html
- Ohio Bureau of Underground Storage Tank Regulations
  - https://www.com.state.oh.us/sfm/bustr/PublicInquiry.asp
- Sanborn Fire Insurance Maps
  - http://ohiodmc.ohiolink.edu.proxy.oplin.org/Sanborn/NewLogin
- Franklin County Soil and Water Conservation District
  - Aerial photographs

14 QUALIFICATIONS AND SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

Stone Environmental provides consulting services to industry and commercial entities throughout the United States. The company has conducted numerous Phase I and Phase II ESAs since 1989. This Phase I ESA was performed under the direction of Mr. Henry R. Stonerook, P.E., DEE. Mr. Stonerook, President of Stone Environmental, is a registered professional engineer in Ohio (42181) and four other states, and a Diplomat of the American Academy of Environmental Engineers (No. 88-10020).

Mr. Stonerook has more than 30 years of diversified engineering experience, including more than 15 years of industrial/environmental engineering consulting. He has completed a variety of Phase I and II Environmental Site Assessments in Ohio and several other states, including redevelopment projects, and industrial and commercial property. Many of these assessments included detailed Phase II investigations and the development of cost opinions for remediation.

I, Henry Stonerook, declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. In addition, I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

_____

Henry R. Stonerook, P.E., BCEE

Contact information:

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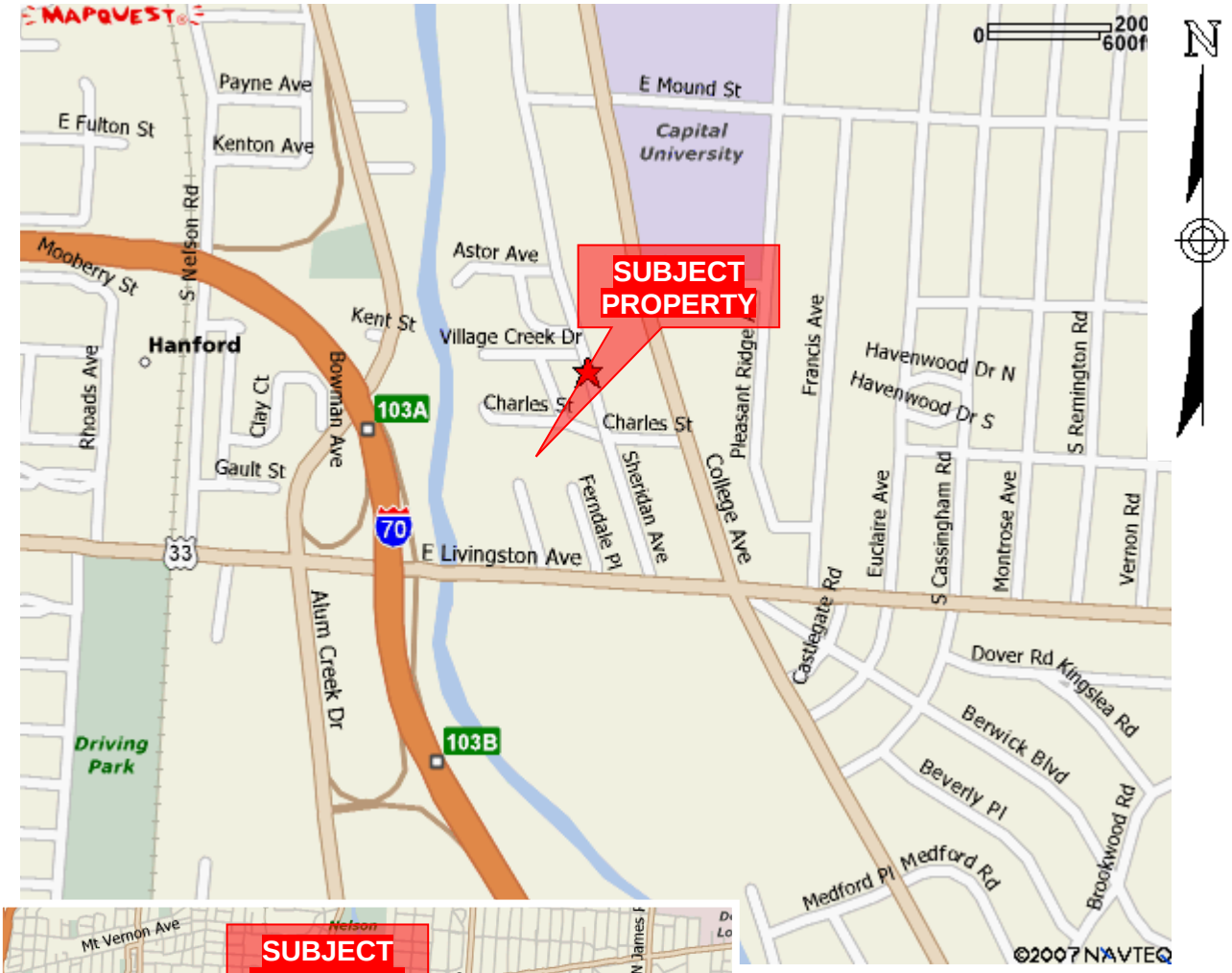
614-888-8043 (f)
hankstonerook@stoneenvironmental.com

FIGURES



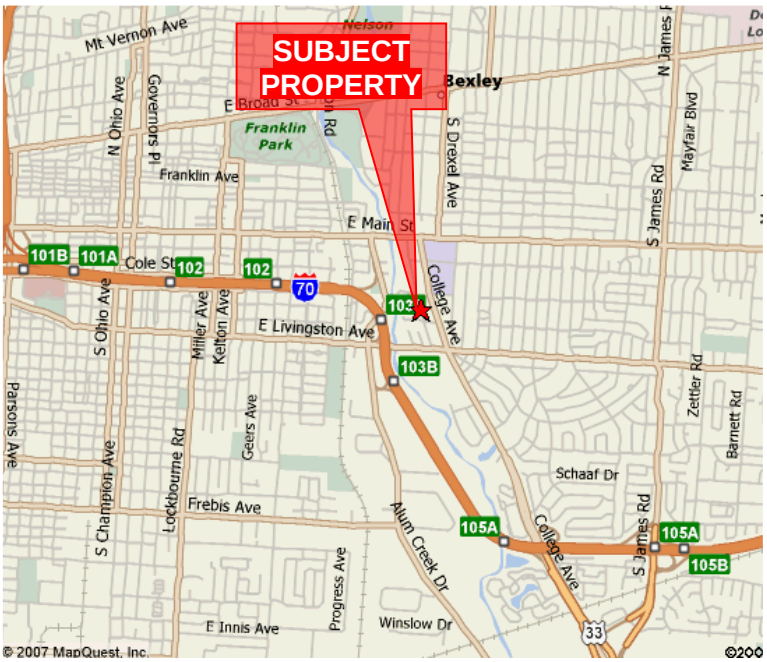


FIGURE 1 – Vicinity Map

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: www.mapquest.com

Note: boundaries are not accurate

Stone Environmental
Engineering & Science, Inc.
748A Green Crest Drive
Westerville, Ohio 43081

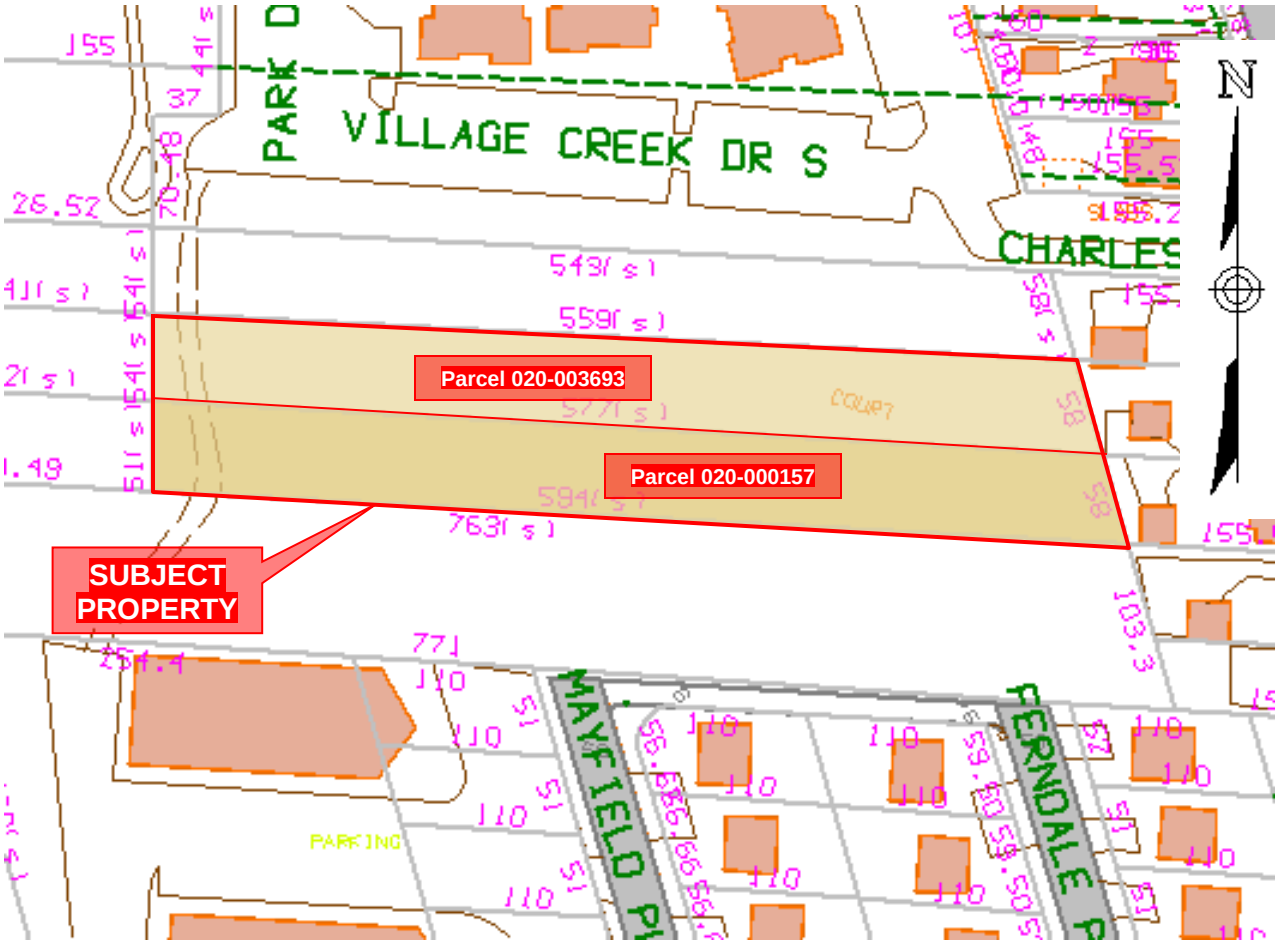


FIGURE 2 – Parcel Map

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: Franklin County Auditor

Stone Environmental
Engineering & Science, Inc.
748A Green Crest Drive
Westerville, Ohio 43081

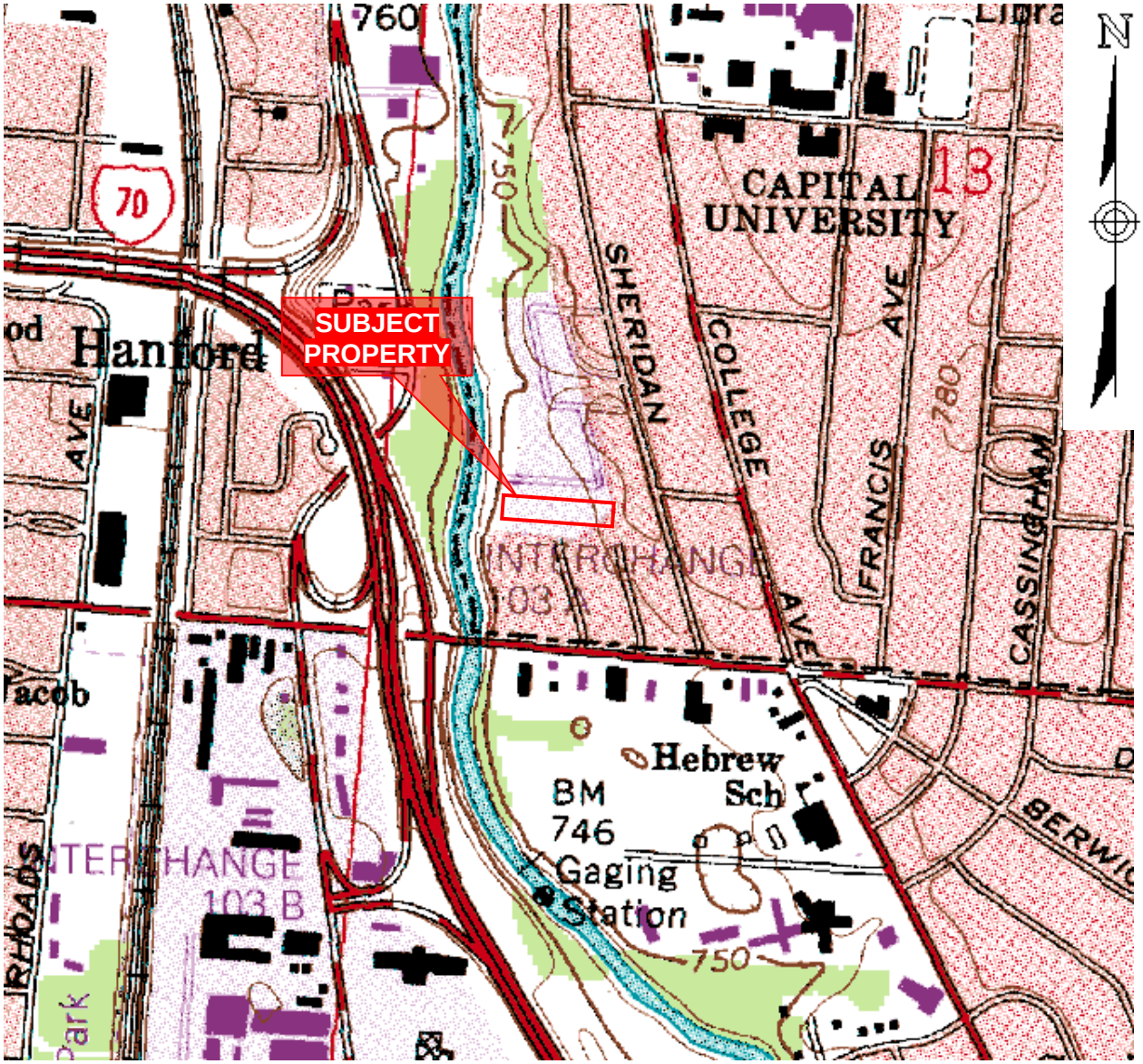


FIGURE 3 – USGS 7.5 Minute Topographic Map

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: www.topozone.com

Note: boundaries are not accurate

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Engineering & Science, Inc.
748A Green Crest Drive
Westerville, Ohio 43081

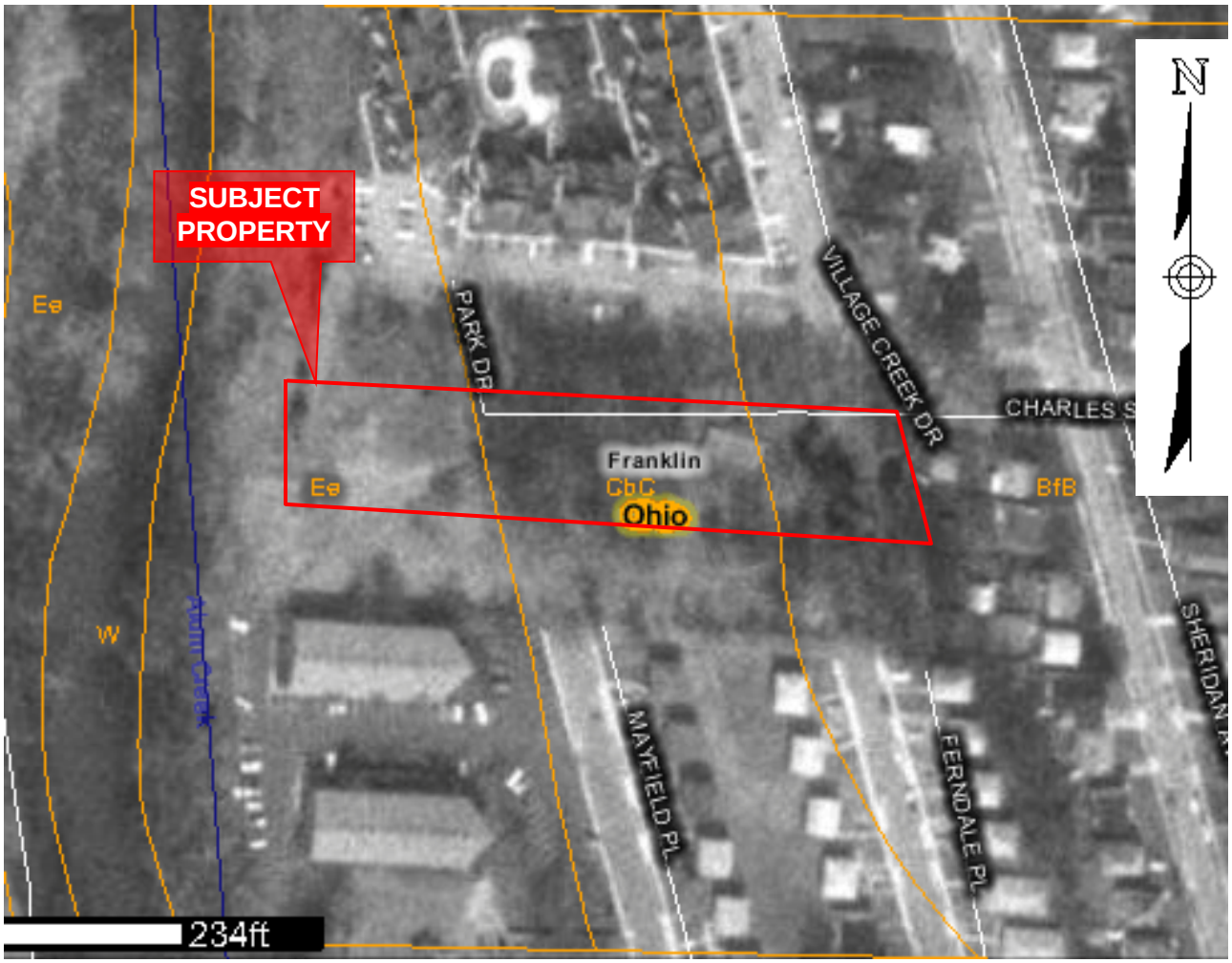

FIGURE 4 – Soil Map

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: USDA NRCS Soil Survey for Franklin County, Ohio

Note: boundaries are not accurate

Stone Environmental
Engineering & Science, Inc.
748A Green Crest Drive
Westerville, Ohio 43081

FIGURE 5A – 2004 Aerial Photo

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: Franklin County Auditor

Note: boundaries are not accurate

Stone Environmental
Engineering & Science, Inc.
748A Green Crest Drive
Westerville, Ohio 43081

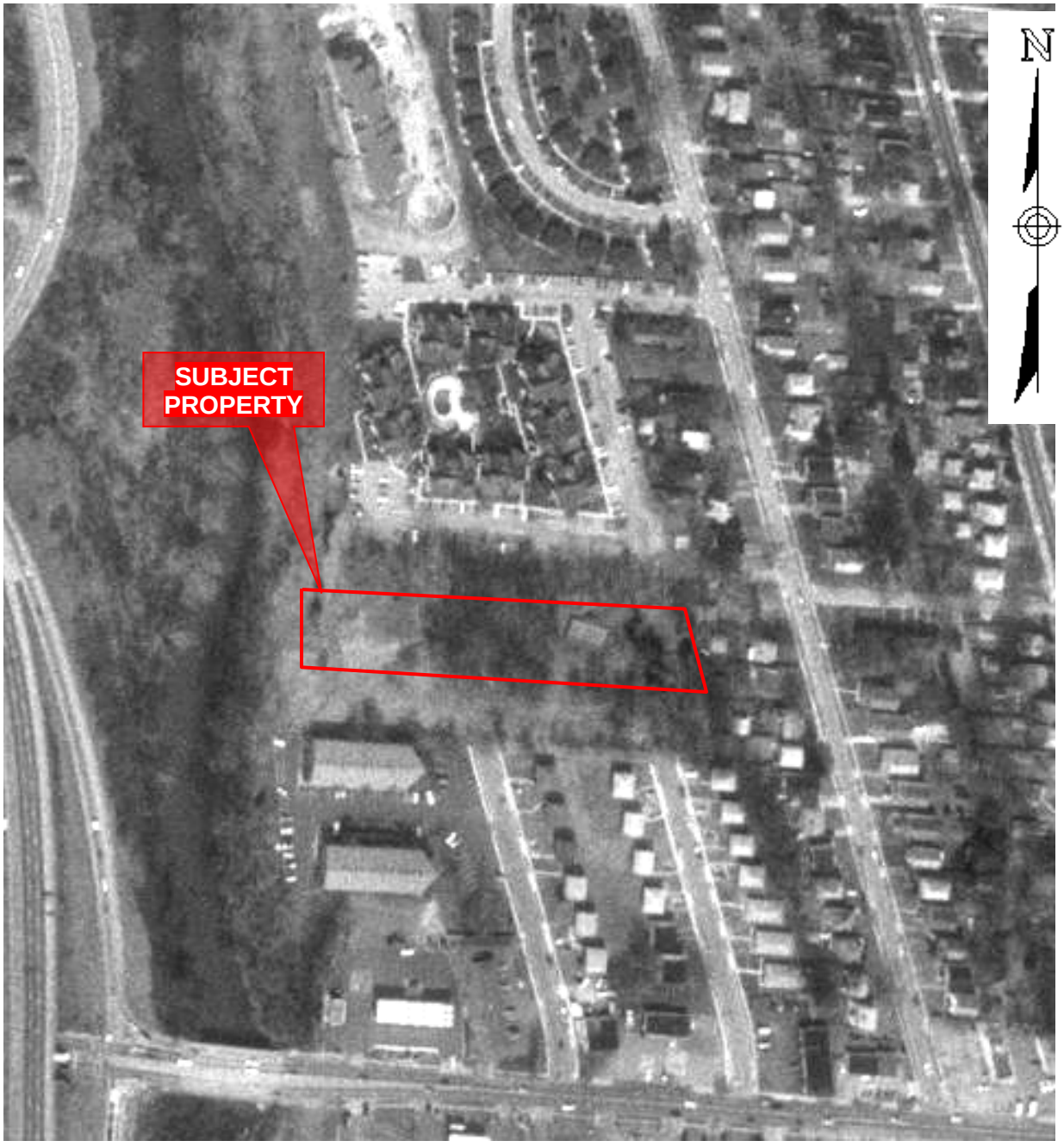

FIGURE 5B – 1994 Aerial Photo

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: www.terraserver.com

Note: boundaries are not accurate

Stone Environmental
Engineering & Science, Inc.
748A Green Crest Drive
Westerville, Ohio 43081

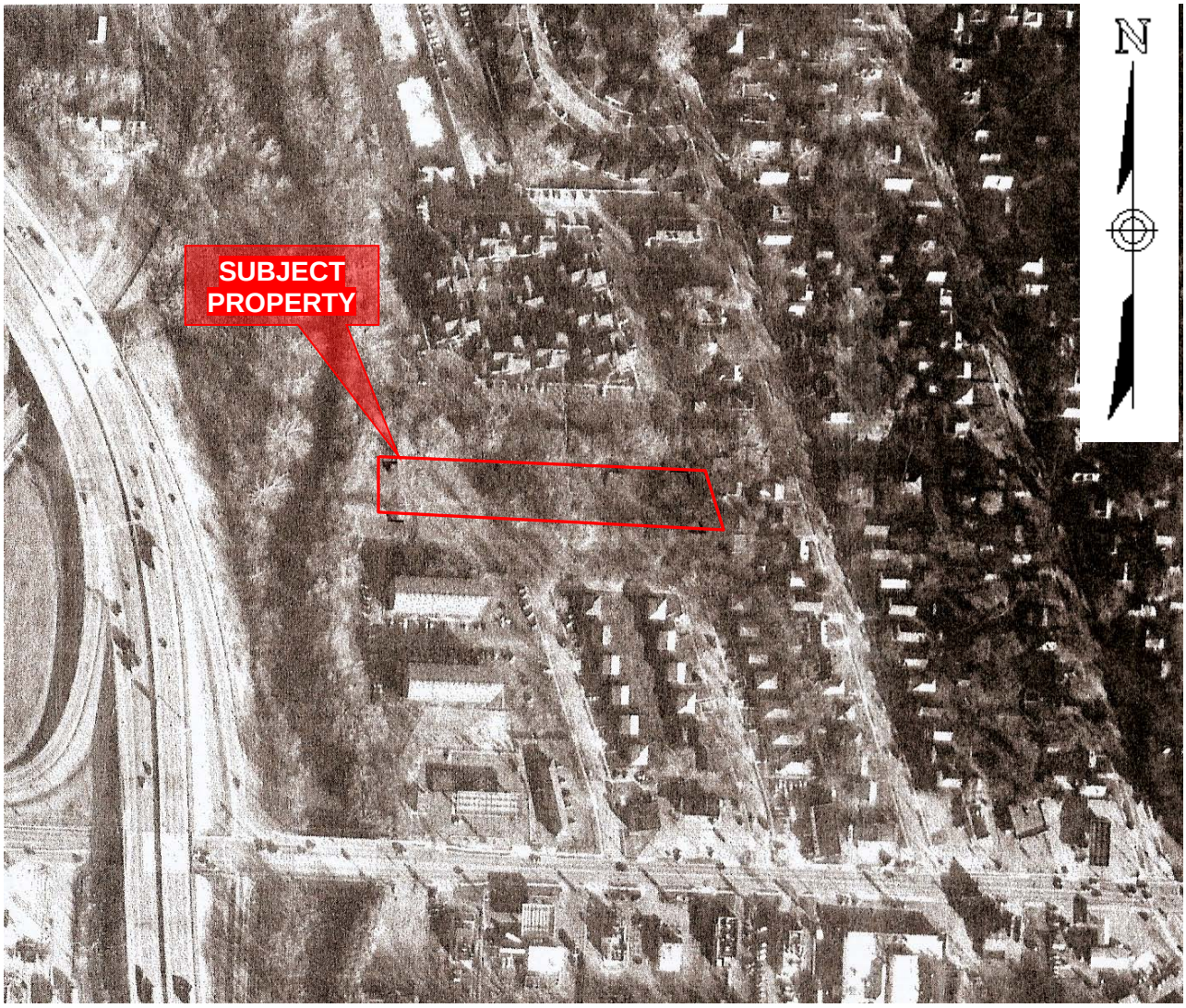

FIGURE 5C – 1989 Aerial Photo

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: USDA NRCS Soil and Water Conservation District Office, Franklin County

Note: boundaries are not accurate

Stone Environmental
Engineering & Science, Inc.
748A Green Crest Drive
Westerville, Ohio 43081

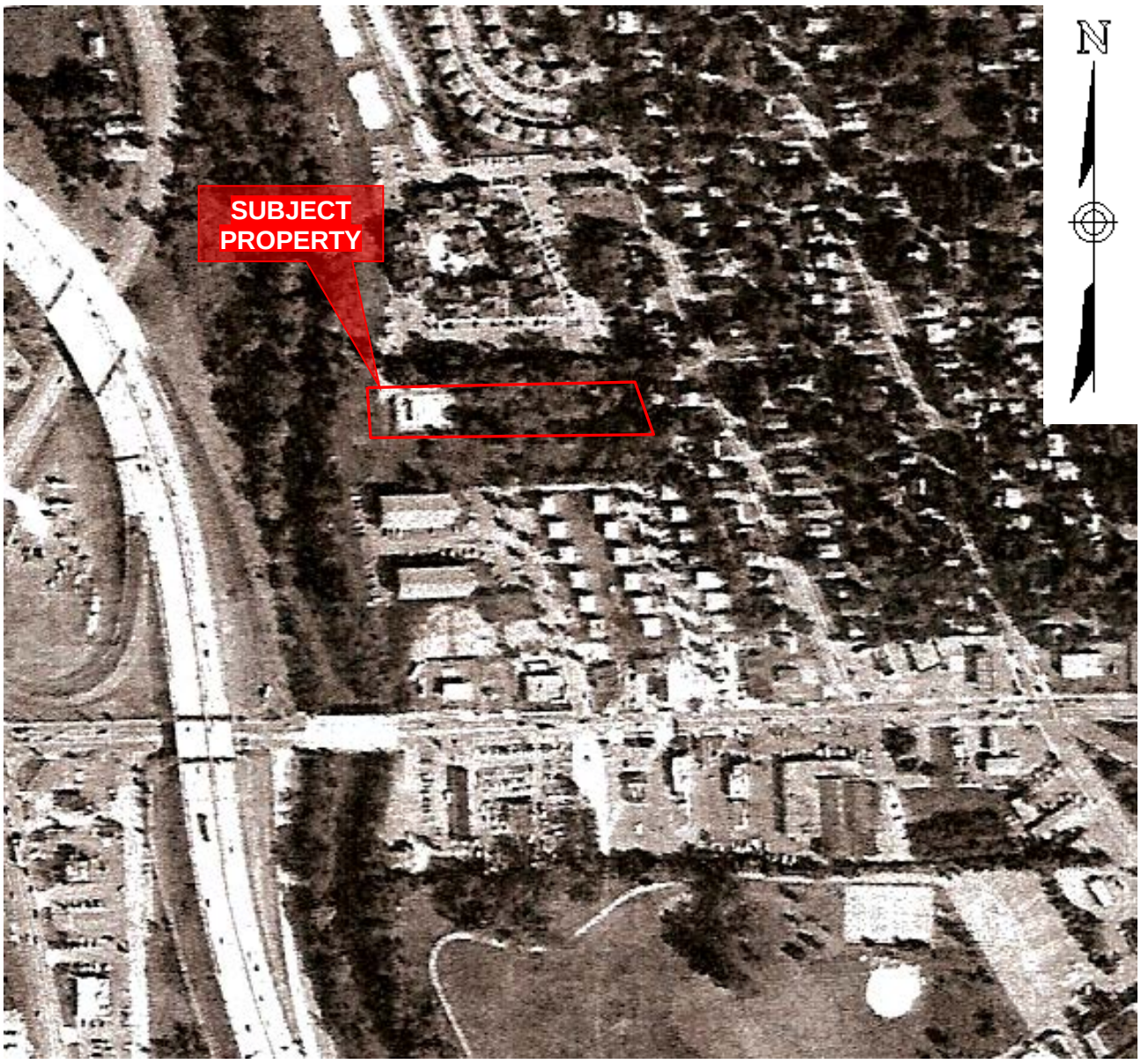

FIGURE 5D – 1980 Aerial Photo

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: USDA NRCS Soil and Water Conservation District Office, Franklin County

Note: boundaries are not accurate

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Westerville, Ohio 43081

FIGURE 5E – 1972 Aerial Photo

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: USDA NRCS Soil and Water Conservation District Office, Franklin County

Note: boundaries are not accurate

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Westerville, Ohio 43081

FIGURE 5F – 1964 Aerial Photo

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: USDA NRCS Soil and Water Conservation District Office, Franklin County

Note: boundaries are not accurate

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748A Green Crest Drive
Westerville, Ohio 43081

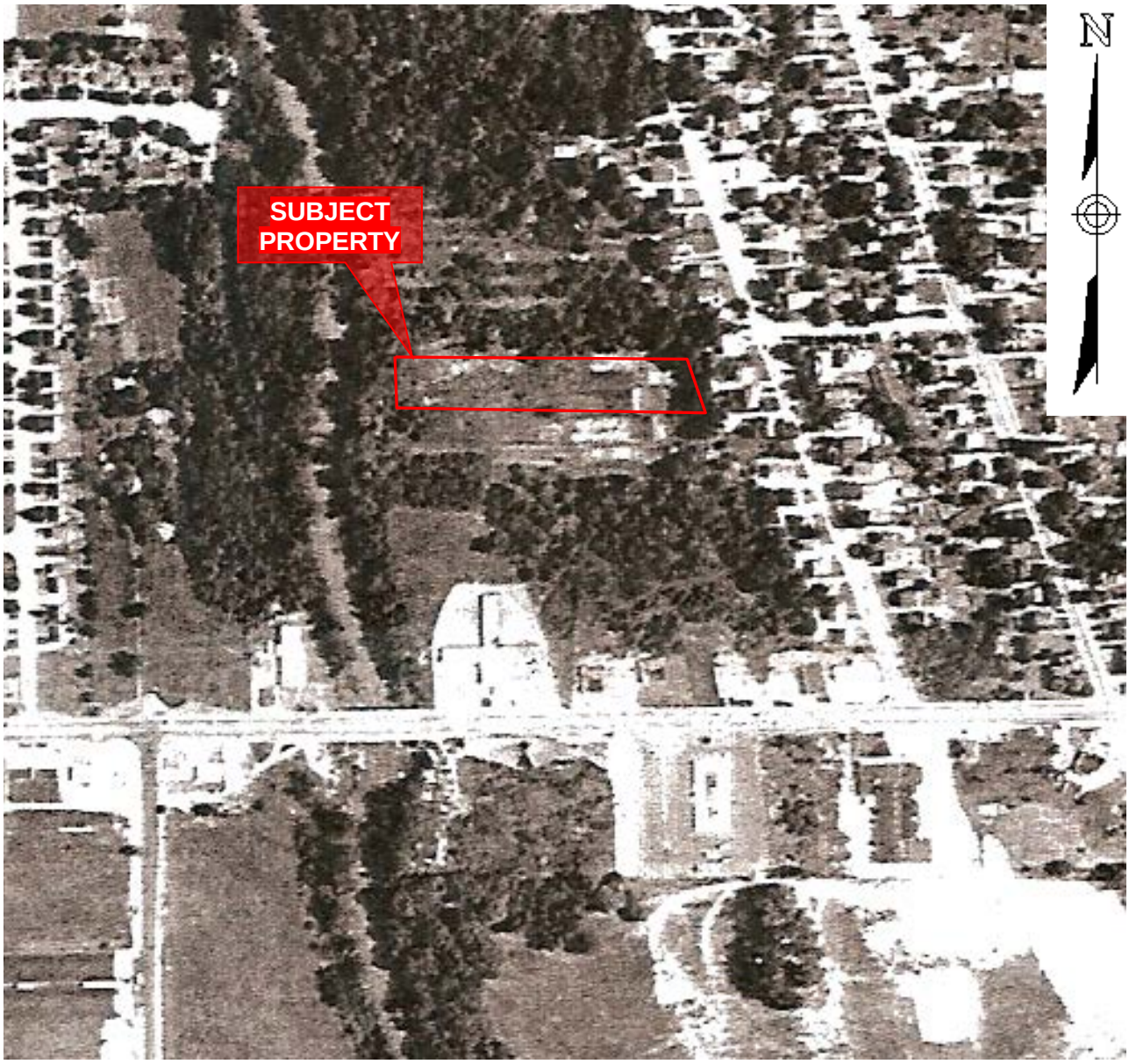

FIGURE 5G – 1957 Aerial Photo

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: USDA NRCS Soil and Water Conservation District Office, Franklin County

Note: boundaries are not accurate

Stone Environmental
Engineering & Science, Inc.
748A Green Crest Drive
Westerville, Ohio 43081

FIGURE 5H – 1950 Aerial Photo

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: USDA NRCS Soil and Water Conservation District Office, Franklin County

Note: boundaries are not accurate

Stone Environmental
Engineering & Science, Inc.
748A Green Crest Drive
Westerville, Ohio 43081

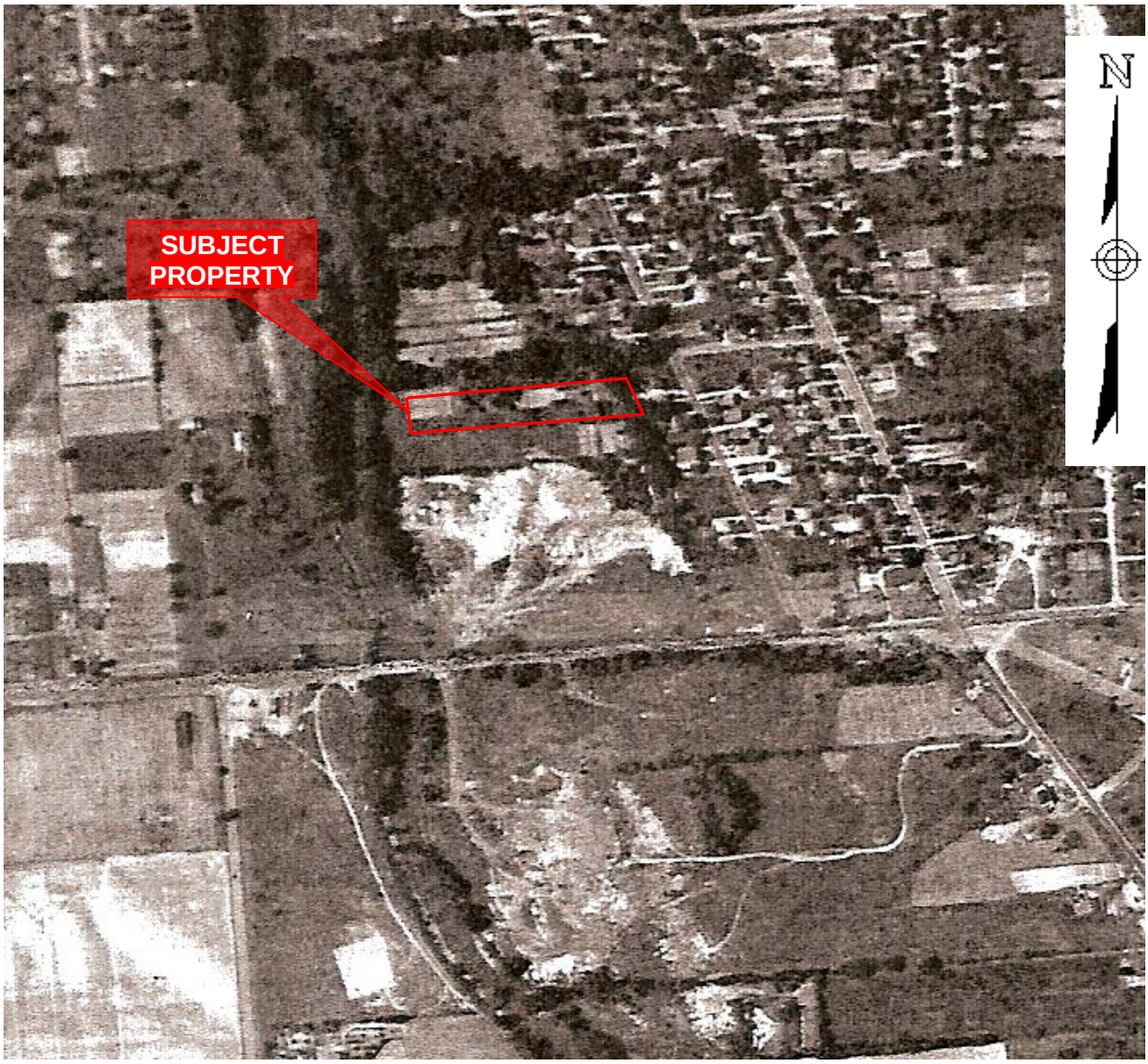

FIGURE 5I – 1938 Aerial Photo

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: USDA NRCS Soil and Water Conservation District Office, Franklin County

Note: boundaries are not accurate

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Engineering & Science, Inc.
748A Green Crest Drive
Westerville, Ohio 43081

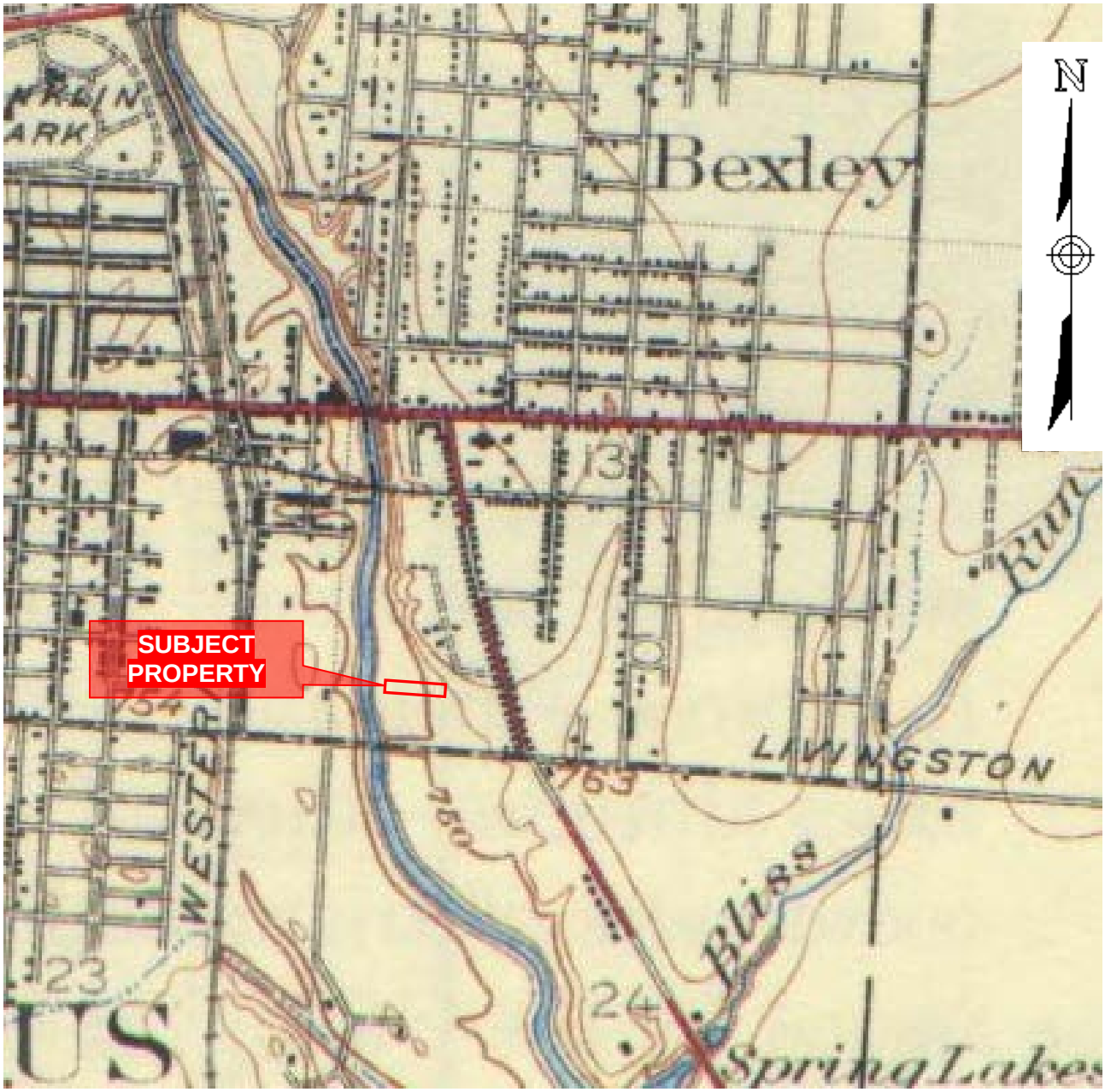

FIGURE 6A – 1925 USGS 7.5 Minute Topographic Map

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: www.maptech.com

Note: boundaries are approximate

Stone Environmental
Engineering & Science, Inc.
748A Green Crest Drive
Westerville, Ohio 43081

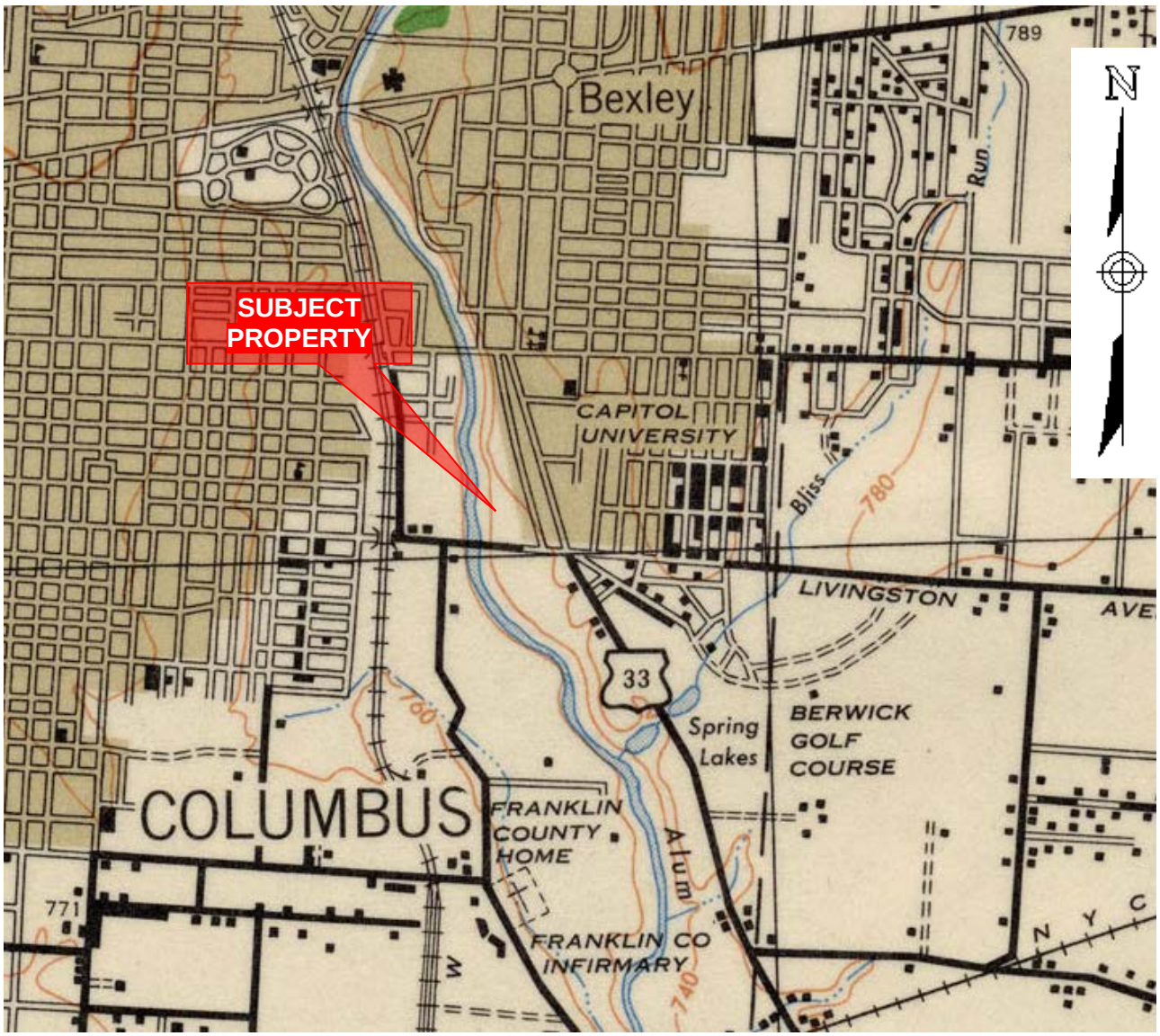

FIGURE 6B – 1943 USGS 7.5 Minute Topographic Map

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

REFERENCE: www.maptech.com

Note: boundaries are approximate.

Stone Environmental
Engineering & Science, Inc.
748A Green Crest Drive
Westerville, Ohio 43081

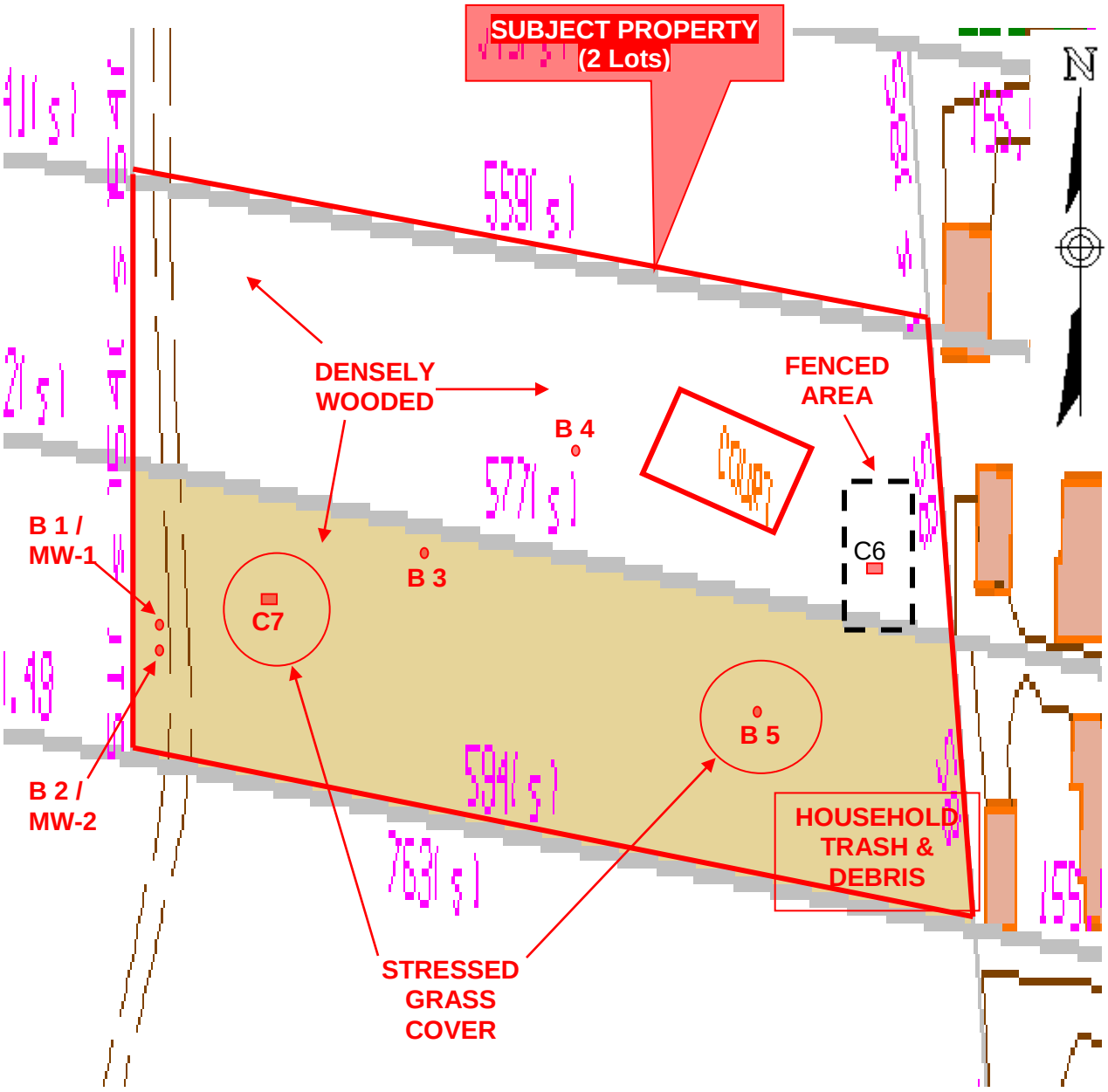

FIGURE 7 – Site Map w/ Boring and Sample Locations

Phase I and II ESA
835 Sheridan Avenue
Bexley, Ohio 43209

COMPOSITE SAMPLE COLLECTED BY HAND
SOIL BORING LOCATION

REFERENCE: FRANKLIN COUNTY AUDITOR GIS

Note: boundaries are approximate

Stone Environmental
Engineering & Science, Inc.
748A Green Crest Drive
Westerville, Ohio 43081