TVGA
CONSULTANTS

1996 CLEAN WATER/CLEAN AIR BOND ACT ENVIRONMENTAL RESTORATION PROJECT

APPLICATION FOR INVESTIGATION

FORMER EDGEWOOD WAREHOUSE SITE

320 South Roberts Road, City of Dunkirk
Chautauqua County

PREPARED ON BEHALF OF:
Chautauqua County Department of Public Facilities
454 North Work Street
Falconer, New York 14733

March 2007

PREPARED FOR:
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

APPLICATION CONTENTS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ENVIRONMENTAL RESTORATION PROGRAM (ERP) APPLICATION

1996 CLEAN WATER/CLEAN AIR BOND ACT

ECL ARTICLE 56 - 6NYCRR 375-4

3/14/06

Applicant Information

NAME OF MUNICIPALITY Chautauqua County		FED. ID # 16-600-2556
NAME OF INDIVIDUAL AUTHORIZED TO SIGN APPLICATION Greg Edwards, Esq.		
TITLE OF AUTHORIZED INDIVIDUAL Chautauqua County Executive		
ADDRESS Gerace Office Building, 3 North Erie Street		
CITY/TOWN Mayville		ZIP CODE 14757-1007
PHONE 716-753-4211	FAX 716-753-4756	E-MAIL
NAME OF COMMUNITY BASED ORGANIZATION (IF APPLICABLE)		
COMMUNITY BASED ORGANIZATION'S REPRESENTATIVE		
ADDRESS		
CITY/TOWN		ZIP CODE
PHONE	FAX	E-MAIL

Site Information

SITE NAME Edgewood Warehouse Site	
SITE ADDRESS 320 South Roberts Road	
CITY/TOWN Dunkirk	ZIP CODE 14048
COUNTY Chautauqua	SIZE (ACRES) 7.0
LATITUDE (degrees/minutes/seconds) 42 ° 29 ' 12 "	LONGITUDE (degrees/minutes/seconds) 79 ° 19 ' 07 "

PLEASE ATTACH A COUNTY TAX MAP WITH IDENTIFIER NUMBERS, ALONG WITH ANY FIGURES NEEDED TO SHOW THE LOCATION AND BOUNDARIES OF THE SITE. ALSO INCLUDE A USGS 7.5 MINUTE QUAD MAP IN WHICH THE SITE IS LOCATED.

1. DO THE SITE BOUNDARIES CORRESPOND TO TAX MAP METES AND BOUNDS? IF NO, PLEASE ATTACH A METES AND BOUNDS DESCRIPTION OF THE SITE IF ONE IS COMPLETED. ☑ YES ☐ NO
2. IS THE SITE PART OF A DESIGNATED BROWNFIELD OPPORTUNITY AREA PURSUANT TO GML970-R? IF YES, IDENTIFY AREA (NAME) City of Dunkirk BOA ☑ YES ☐ NO
3. IS THE SITE LISTED ON THE NYS REGISTRY OF INACTIVE HAZARDOUS WASTE DISPOSAL SITES? IF YES, FILL IN CURRENT REGISTRY SITE NUMBER AND CLASSIFICATION. ☐ YES ☑ NO

REGISTRY SITE NUMBER:_____ CLASSIFICATION: _____

Applicant Eligibility Information

1. HAS THE APPLICANT GENERATED, TRANSPORTED OR DISPOSED OF, OR ARRANGED FOR OR CAUSED THE GENERATION, TRANSPORTATION OR DISPOSAL OF, HAZARDOUS WASTE OR PETROLEUM ON THE SITE? ☐YES ☑NO

2. HAS THE APPLICANT UNDERTAKEN, OR INTEND TO UNDERTAKE, ANY INDEMNIFICATION OBLIGATION RESPECTING A PARTY RESPONSIBLE UNDER LAW FOR THE REMEDIATION OF THE SITE? ☐YES ☑NO

3. HAS THE APPLICANT LEASED THE SITE TO ANOTHER PARTY THAT GENERATED, TRANSPORTED OR DISPOSED OF, OR THAT ARRANGED FOR OR CAUSED THE GENERATION, TRANSPORTATION OR DISPOSAL OF HAZARDOUS WASTE OR PETROLEUM ON THE SITE? IF YES, CHECK ONE OF THE FOLLOWING: ☐YES ☑NO

   ☐ A. THE APPLICANT DID NOT KNOW THAT SUCH OTHER PARTY GENERATED, TRANSPORTED OR DISPOSED OF, OR ARRANGED FOR OR CAUSED THE GENERATION, TRANSPORTATION OR DISPOSAL OF SUCH HAZARDOUS WASTE OR PETROLEUM.

   ☐ B. THE APPLICANT KNEW THAT SUCH OTHER PARTY GENERATED, TRANSPORTED OR DISPOSED OF, OR ARRANGED FOR OR CAUSED THE GENERATION, TRANSPORTATION OR DISPOSAL OF SUCH HAZARDOUS WASTE OR PETROLEUM AND DID NOT TAKE ACTION TO REMEDIATE OR CAUSE THE REMEDIATION OF SUCH HAZARDOUS WASTE OR PETROLEUM.

   ☐ C. THE APPLICANT KNEW THAT SUCH OTHER PARTY GENERATED, TRANSPORTED OR DISPOSED OF, OR ARRANGED FOR OR CAUSED THE GENERATION, TRANSPORTATION OR DISPOSAL OF SUCH HAZARDOUS WASTE OR PETROLEUM AND TOOK ACTION TO REMEDIATE OR CAUSE THE REMEDIATION OF SUCH HAZARDOUS WASTE OR PETROLEUM.

4. DOES THE APPLICANT CURRENTLY OWN THE SITE OR HAS IT OBTAINED TEMPORARY INCIDENTS OF OWNERSHIP FOR AN INVESTIGATION PURSUANT TO ECL 56-0508? ☐YES ☑NO

IF THE APPLICANT CURRENTLY OWNS THE SITE, ATTACH A COPY OF THE DEED, ATTORNEY CERTIFICATION OF PROOF OF OWNERSHIP, AND, IF THE APPLICANT HAS OBTAINED ONE WITHIN THE PAST YEAR, A TITLE REPORT. IF THE APPLICANT HAS OBTAINED TEMPORARY INCIDENTS OF OWNERSHIP, ATTACH A COPY OF THE ORDER OF THE COURT.

Project Description

PLEASE ATTACH A DESCRIPTION OF THE PROJECT WHICH INCLUDES THE FOLLOWING INFORMATION (REFER TO THE ENVIRONMENTAL RESTORATION PROGRAM PROCEDURES HANDBOOK FOR DETAILED INSTRUCTIONS).

- PURPOSE AND SCOPE OF THE PROJECT;
- CURRENT AND PROPOSED FUTURE USE OF THE SITE (RESIDENTIAL, COMMERCIAL, INDUSTRIAL);
- ESTIMATED PROJECT COST (INCLUDE ANY RESPONSIBLE PARTY COST RECOVERY PAYMENTS RECEIVED OR ANTICIPATED, AS WELL AS ANY OTHER ACTUAL OR POTENTIAL FUNDING SOURCES FOR THE PROJECT);
- HOW THE PROJECT WOULD SATISFY THE CRITERIA OF ECL 56-0505; AND AN
- ESTIMATED PROJECT SCHEDULE (FIELD WORK MUST BEGIN WITHIN 12 MONTHS OF THE APPLICATION APPROVAL DATE)

Site's Environmental History

TO THE EXTENT THAT EXISTING INFORMATION/STUDIES/REPORTS ARE AVAILABLE TO THE APPLICANT, PLEASE ATTACH THE FOLLOWING:

1. **ENVIRONMENTAL DATA**
   A PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT PREPARED IN ACCORDANCE WITH ASTM E 1527 (American Society for Testing and Materials: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process), AND ALL ENVIRONMENTAL REPORTS RELATED TO CONTAMINANTS ON OR EMANATING FROM THE SITE.
2. **OWNERS**
   A LIST OF PREVIOUS OWNERS WITH NAMES, LAST KNOWN ADDRESSES AND TELEPHONE NUMBERS (DESCRIBE APPLICANT'S RELATIONSHIP, IF ANY, TO EACH PREVIOUS OWNER LISTED. IF NO RELATIONSHIP, PUT "NONE").
3. **OPERATORS**
   A LIST OF PREVIOUS OPERATORS WITH NAMES, LAST KNOWN ADDRESSES AND TELEPHONE NUMBER (DESCRIBE APPLICANT'S RELATIONSHIP, IF ANY, TO EACH PREVIOUS OPERATOR LISTED. IF NO RELATIONSHIP, PUT "NONE").

Contaminant Information

INDICATE KNOWN OR SUSPECTED CONTAMINANTS AND THE MEDIA WHICH ARE KNOWN OR SUSPECTED TO HAVE BEEN AFFECTED:

Contaminant Category	Soil	Groundwater	Surface Water	Sediment	Soil Gas
Petroleum	✔	✔			
Chlorinated Solvents	✔	✔			
Other VOCs				✔	
SVOCs	✔	✔		✔	
Metals	✔	✔		✔	
Pesticides					
PCBs	✔	✔		✔	
Other* Radioactivity	✔				

*PLEASE DESCRIBE: The former presence of a x-ray facility on the Edgewood Warehouse Site was documented on Historic Site Pla

Project Information (Complete for Remediation Projects Only)

1. HAS THE DEC ISSUED A RECORD OF DECISION FOR THE SITE UNDER THE ERP? ☐YES ☐NO
2. HAS GROUNDWATER OR A SURFACE WATER BODY BEEN CONTAMINATED ABOVE STANDARDS? ☐YES ☐NO
   IF YES, CHECK ALL THAT APPLY:
   - ☐ A. THE INFLUENT TO A PUBLIC OR PRIVATE WATER SUPPLY HAS BEEN CONTAMINATED OR THREATENED.
   - ☐ B. A CLASS A OR AA SURFACE WATER BODY OR A PRIMARY OR PRINCIPAL AQUIFER HAS BEEN CONTAMINATED WITHOUT AFFECTING AN EXISTING WATER SUPPLY.
   - ☐ C. GROUNDWATER HAS BEEN CONTAMINATED ABOVE STANDARDS OR A SURFACE WATER HAS BEEN IMPACTED.
3. HAVE ENDANGERED, THREATENED OR RARE SPECIES, STATE PROTECTED STREAMS, OR STATE REGULATED WETLANDS BEEN IMPACTED BY RELEASES FROM THE SITE? ☐YES ☐NO
4. ARE CONTAMINANTS PRESENT IN SOILS/WASTE AT LEVELS THAT EXCEED DEC DIVISION OF ENVIRONMENTAL REMEDIATION GUIDANCE VALUES? ☐YES ☐NO
5. IS THE SITE LOCATED IN A DESIGNATED EMPIRE ZONE? ☐YES ☐NO
6. IS THE SITE LOCATED IN A DESIGNATED EN-ZONE PURSUANT TO TL § 21 (b)(6)? ☐YES ☐NO
7. HAS ALL OR PART OF THE SITE BEEN IDLE OR ABANDONED FOR MORE THAN ONE YEAR? ☐YES ☐NO
8. HAS THE APPLICANT SIGNED AN AGREEMENT WITH A PRIVATE PARTY TO REUSE THE SITE ONCE IT IS RESTORED? ☐YES ☐NO
9. HAS THE APPLICANT COMMITTED TO A NEW PUBLIC OR RECREATIONAL USE? ☐YES ☐NO
10. HAS THE APPLICANT COMPLIED WITH THE STATE ENVIRONMENTAL QUALITY REVIEW ACT (SEQRA) REGARDING THIS ACTION? IF YES, INCLUDE THE DETERMINATION (NEGATIVE DECLARATION OR FINDINGS STATEMENT) IN THE ATTACHED PROJECT DESCRIPTION AND IDENTIFY ALL INVOLVED AGENCIES IN THE COORDINATED REVIEW. ☐YES ☐NO
11. IS THE APPLICANT AWARE OF OTHER FUNDING SOURCES FOR REMEDIATING THE SITE? ☐YES ☐NO
    IF YES, PROVIDE SOURCES(S) AND DOLLAR AMOUNT IN THE ATTACHED PROJECT DESCRIPTION.

Municipality Certification

The undersigned, on behalf of the applicant, does hereby certify that:

- All statements made for the purpose of obtaining State assistance for the proposed project either are set out in full in this application, or are set out in full in exhibits attached to this application and incorporated by this reference; and
- The individual whose signature appears hereon is authorized to sign this application for the municipality.

A FALSE STATEMENT MADE HEREIN IS PUNISHABLE AS A CLASS "A" MISDEMEANOR PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

Stephen M. Stodelle, Acting County Executive — 3/23/07

Signature of Individual Authorized to Sign the Application — Date

Please note: The application must include a certified copy of the municipal authorization which designates, by title (Mayor, Town Supervisor, etc.), the representative authorized to act on behalf of that municipality in all matters related to financial assistance. The authorization must empower the representative to make application, execute the State Assistance Contract, and otherwise act for the municipality in all State assistance-related matters. A sample form is provided in the Environmental Restoration Projects Procedures Handbook.

Community Based Organization Certification (if applicable)

The undersigned, on behalf of the Community Based Organization acting in partnership with the municipality, does hereby certify that:

- The Community Based Organization is a not-for-profit corporation, exempt from taxation under section 501(c)(3) of the internal revenue code whose stated mission is promoting reuse of brownfield sites within a specified geographic area in which the Community Based Organization is located, which has 25% or more of its board of directors residing in the community in such area;
- The Community Based Organization represents a community with a demonstrated financial need;
- Not more than 25% of the members, officers or directors of the Community Based Organization are or were employed by or receiving compensation from any person responsible for a site under title 13 or title 14 of article 27 of the Environmental Conservation Law, article 12 of the navigation law or under applicable principles of statutory or common law liability; and
- The individual whose signature appears hereon is authorized to sign this application for the Community Based Organization.

A FALSE STATEMENT MADE HEREIN IS PUNISHABLE AS A CLASS "A" MISDEMEANOR PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

Signature of Individual Authorized to Sign for the Community Based Organization — Date

SUBMITTAL INFORMATION:

Three (3) complete copies, one with original signatures, are required.

- **Two (2)** of the copies, one hard copy with original signatures and one electronic copy in Portable Document Format (PDF), on a CD or diskette, must be sent to:

  Chief, Site Control Section
  New York State Department of Environmental Conservation
  Division of Environmental Remediation
  625 Broadway
  Albany, NY 12233-7020

- **One (1)** copy must be sent to the DEC regional contact in the regional office covering the county in which the site is located. Please check our website for the addresses of our regional offices: http://www.dec.state.ny.us/website/der/index.html

FOR DEPARTMENT USE ONLY:

ERP SITE NO:_____ **ERP SITE T&A CODE:**_____ **PROJECT MANAGER:**_____

RES. NO. 54-07

Authorize County Executive to Apply for and Accept NYS Funds for Investigation of Properties in City of Dunkirk

By Public Facilities and Audit & Control Committees:
At the Request of County Executive Gregory J. Edwards, Chairman Keith D. Ahlstrom, Legislator Ronald Szot, and Legislator Robert Duff

WHEREAS, the parcels identified in the City of Dunkirk as (old tax numbers) 30-1-10.2, 30-1-9 and 30-1-7.1 and (new tax numbers) 79.2-4-32, 79.16-2-2 and 79.16-2-77 are tax delinquent; and

WHEREAS, these parcels are adjacent to the former Roblin Steel site which is owned by Chautauqua County and has been the subject of a State and Federally funded environmental investigation and remediation as part of a major economic development project in this area; and

WHEREAS, thorough investigation of the delinquent parcels is necessary to fully delineate environmental issues and well as determine the site's eligibility for State and Federal environmental grant funding; and

WHEREAS, depending on the results of the investigation, Chautauqua County may foreclose on these parcels in order to expand the redevelopment project; therefore be it

RESOLVED, That the Chautauqua County Executive is authorized to apply for New York State 1996 Clean Water/Clean Air Bond Act Environmental Restoration Project funds to investigate these three parcels; and further be it

RESOLVED, That if this grant application is approved, Chautauqua County commits to its 10% share of the cost of the investigation estimated at $150,000; and further be it

RESOLVED, That the County Attorney and Director of Real Property Tax Services are authorized as necessary in their discretion to commence proceedings to foreclose on the parcels and/or to seek a court order granting the County temporary incidents of ownership pursuant to Environmental Conservation Law Section 56-0508 for the purpose of entering the parcels and conducting an environmental investigation project upon the parcels; and further be it

RESOLVED, Upon approval of the grant application, that the Director of Finance be authorized to establish appropriate accounts.

Signed: Anderson, Lus, Trusso, Park, Babbage, Stutzman, Cornell, Richmond, Gould

Unanimously Adopted – February 28, 2007

GPS 2-6-07
SMC 2/7/07
SMA 2/12/07
GJE 2/12/07

CHAUTAUQUA COUNTY
RESOLUTION NO. 54-07

TITLE: Authorize County Executive to apply for and accept NYS Funds for Investigation of Properties in City of Dunkirk

BY: Public Facilities and Audit & Control Committees

AT THE REQUEST OF: County Executive Edwards and Legislators Szot, Ahlstrom and Duff

WHEREAS, the parcels identified in the City of Dunkirk as (old tax numbers) 30-1-10.2, 30-1-9 and 30-1-7.1 and (new tax numbers) 79.2-4-32, 79.16-2-2 and 79.16-2-77 are tax delinquent, and

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RESOLVED, upon approval of the grant application, that the Director of Finance be authorized to establish appropriate accounts.

I, THE UNDERSIGNED CLERK OF THE LEGISLATURE HEREBY CERTIFY THIS TO BE A TRUE AND COMPLETE COPY OF A RESOLUTION DULY ADOPTED BY THE LEGISLATURE OF CHAUTAUQUA COUNTY ON February 2007
CLERK OF LEGISLATURE

✓ APPROVED
_____ VETOES (VETO MESSAGE ATTACHED)

County Executive 3/1/07 Date

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A. PURPOSE AND SCOPE

The purpose of this project is to investigate known and suspected contamination at the former Edgewood Warehouse Site (subject site) (Figure 1). The subject site is part of a larger, inactive industrial park located at 320 South Roberts Road in the City of Dunkirk, occupies approximately 7.0 acres, and contains an inactive warehouse and a second smaller building that is currently unused. The remainder of the property consists primarily of aged asphalt and gravel parking areas. The location and configuration of the tax parcel that comprises the subject site is depicted on Figure 2. The subject site is identified by SBL number 30-1-9.

The subject site and the two other sites within the inactive industrial site, the former Roblin Steel and Alumax Extrusions sites, are all former heavy industrial sites that have been abandoned, underutilized and/or dormant for well over a decade. The former Roblin Steel site is owned by Chautauqua County and has been investigated and remediated under the Environmental Restoration Program (ERP). The County is currently negotiating the acquisition of the former Alumax Extrusions site, which was remediated under the State's Voluntary Cleanup Program (VCP), the predecessor of the State's current Brownfield Cleanup Program (BCP). Acquiring the subject site would put all three of these brownfield sites under the County's control, effectively creating a land assemblage of approximately 30 acres available for redevelopment.

Chautauqua County has identified the area containing the subject site and the two adjacent brownfield sites as a prime candidate for restoration and redevelopment because of the following factors:

- Located within an Empire Zone;
- Located within a Brownfields Opportunity Area;
- Situated within an area zoned for industrial/commercial land use within 2 miles of Interchange 59 of the New York State Thruway (I-90);
- Bounded by active CSX and Norfolk Southern rail lines;
- Located within a burgeoning business corridor that includes the County's Chadwick Bay Industrial Park and other major employers such as Nestle-Purina and Cliffstar that are expanding or have indicated plans to expand;
- Existing infrastructure is available including municipal sanitary sewer, water, electric, etc.; and
- The presence of a large existing structures that could be rehabilitated and reused; and

Despite many of the attributes listed above, the subject site is tax delinquent, abandoned and contains documented contamination that has blocked private redevelopment interests.

Chautauqua County is considering the acquisition of the subject site via tax foreclosure. Upon the commencement of the proceeding to foreclose on the subject site, Chautauqua County will move at a special term in the court for an order granting the County temporary incidents of ownership of the subject site for the sole purpose of entering the subject site and conducting an environmental investigation under the ERP.

The property has a long history of industrial, manufacturing and commercial use, having been utilized as a machine shop and for storage and for the manufacture of locomotives, military equipment, steel tubes and heat exchangers, and wood products. Based upon previous investigations of the subject property and adjoining properties, the following environmental conditions were identified in conjunction with the subject site:

- Asbestos containing materials are present in the warehouse building and asbestos waste from former demolition activities may be buried on-site;
- Contaminated soil and/or groundwater on the property;
- Electrical equipment that contains polychlorinated biphenyls (PCBs) within the on-site buildings;
- Contaminated sediment or sludge in on-site pits, drains, and vaults; and
- The subject property is hydraulically downgradient from the adjacent Roblin and Alumax sites, where historic soil, groundwater and surface contamination has been documented.

The scope of the site investigation developed to address these environmental concerns is detailed in the attached Draft Statement of Work for the Remedial Investigation/Alternatives Analysis (RI/AA), and includes:

- Detailed review of historical information pertaining to the subject site;
- Site reconnaissance;
- Development of a final RI/AA Work Plan;
- A radiological survey of the subject site;
- A geophysical survey of the subject site to investigate areas of potential cisterns and tunnels;
- Delineation of the existing storm and sanitary sewer lines and investigation of vaults, sumps and drains that were not previously investigated;
- Completion of a subsurface investigation to further characterize the physical and chemical properties of the soil and groundwater beneath the subject site; and
- A sampling and analysis program to characterize the chemistry of surface soil and potential fill materials.

B. INTENDED FUTURE USE

The primary goals of this brownfield restoration project are to identify and remediate threats to public health, safety and the environment posed by current site conditions, and return the subject site to productive commercial use following the completion of any required site remediation. By returning the subject site to the tax roles and encouraging investment opportunities in Chautauqua County, the ultimate goal of job creation will be realized.

The project site is located in a former industrial corridor that parallels an active rail transportation corridor. This area has been largely converted to facilities associated with the food processing industry, and has supported the development of the adjacent Chadwick Bay Industrial Park. The project site is zoned for industrial use and is situated in a New York State designated economic development zone.

Several local companies have expressed interest in the redevelopment of the project site, once it has been remediated. Although not yet fully defined, redevelopment would likely also involve the rehabilitation of the existing on-site structure and linkage with the existing Chadwick Bay Industrial Park.

The redevelopment of the project site provides an opportunity to salvage the existing 165,000 SF structure on the project site and to restore the existing utility infrastructure (e.g., sanitary sewer, storm sewer, natural gas, and electric). The redevelopment of the project site would also likely share linkages with the redevelopment of two adjacent brownfield sites, which are serviced by the same infrastructure as the project site. Furthermore, the redevelopment of the project site would stimulate the further development of this corridor into a destination for food processing and associated industries. In addition, site redevelopment would create opportunities to better utilize the existing highway and rail transportation infrastructure by: (1) linking the site with a County highway, enabling site-generated vehicular traffic to avoid residential streets within the City and to better utilize the existing County and State highway network; and (2) re-establish a connection with the adjacent rail corridor.

The redevelopment concept for the project site is consistent with the business development goals established in the Chadwick Bay Region 1997 Comprehensive Plan, which encompasses the City of Dunkirk and surrounding community. The Comprehensive Plan places an emphasis on the reuse and redevelopment of brownfield sites as a means of creating opportunities for business and industrial development in the region. The project is also consistent with the community's economic development plan, which is reflected in the documentation generated in 1998 for the Dunkirk-Sheridan Empire Zone, which is a State-designated economic development zone. The Empire Zone indicates that brownfield redevelopment is an important component of the local and regional economic development strategy, and identifies the project site as a critical redevelopment site.

C. COST ESTIMATE

The estimated cost for completing the RI/AA for the project is presented in Table 1. The estimated costs should only be used as a budgetary guideline. These costs are based upon related project experience and anticipated field conditions without the formal solicitation of contractor bids.

D. FUNDING SOURCES

The subject site has been significantly under-utilized for over two decades and was recently abandoned. There is also substantial debt associated with the subject site, as the current owner of the subject site is several years delinquent with real property tax payments. Consequently, it is doubtful that either the current owner or the previous owner/tenants have the financial resources to correct the adverse conditions or satisfy outstanding debts associated with the subject site. Furthermore, the debt and environmental history of the subject site are likely to continue to hinder privately funded remediation and redevelopment. Therefore, the 1996 Clean Water/Clean Air

Bond Act Environmental Restoration Program is the proposed primary funding source available for this project.

Chautauqua County intends to fund the Site Investigation pursuant to the certified resolution contained in this application, which provides funding for the investigation of the subject site, and authorizes the appropriation of the County's 10% share under the Bond Act.

E. PROJECT BENEFITS

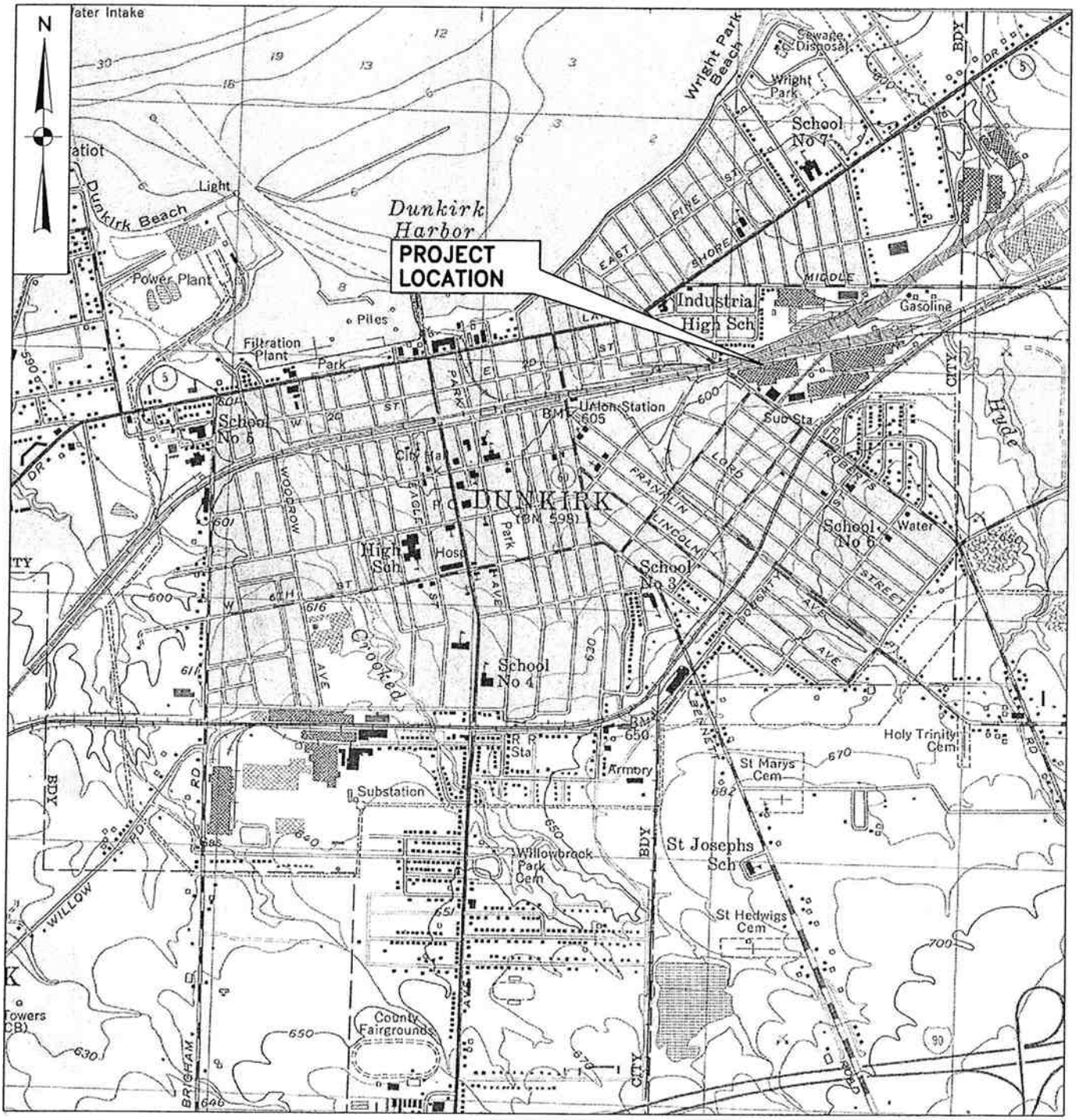
The proposed restoration project satisfies the criteria relating to environmental and economic benefits established in the Environmental Conservation Law (ECL) 56-0505. Additionally, the lack of opportunities for funding sources other than the 1996 Clean Water/Clean Air Bond Act Environmental Restoration Program, as discussed in the previous section, indicates that the project is a suitable candidate for funding under this program. Pursuant to the *Brownfields Procedures Handbook*, the following paragraphs provide a brief discussion concerning the project's compliance with the criteria established in ECL 56-0505.

This environmental restoration project will result in a benefit to public health, safety and the environment through the remediation of potential sources of soil, and groundwater contamination occurring on the subject site. As such, the project will address historic contamination that might otherwise go unmitigated.

The return of the subject site to a productive use will also result in economic benefits to the community and New York State in the form of increased employment and tax revenues. Lastly the redevelopment of the subject site will take advantage of the area's existing infrastructure, which for the most part is currently underutilized, while avoiding the potential impacts and additional costs associated with construction on undeveloped green space.

F. ESTIMATED PROJECT SCHEDULE

The scoping and preparation of the Draft RI/AA Work Plan would be in initiated within one month of the NYSDEC's approval of this application, and it is anticipated that the Work Plan would be finalized and approved within three months of the application approval date. Field work would be initiated within four months of application approval date, and the RI/AA is expected to be complete within 9-12 months of this date.



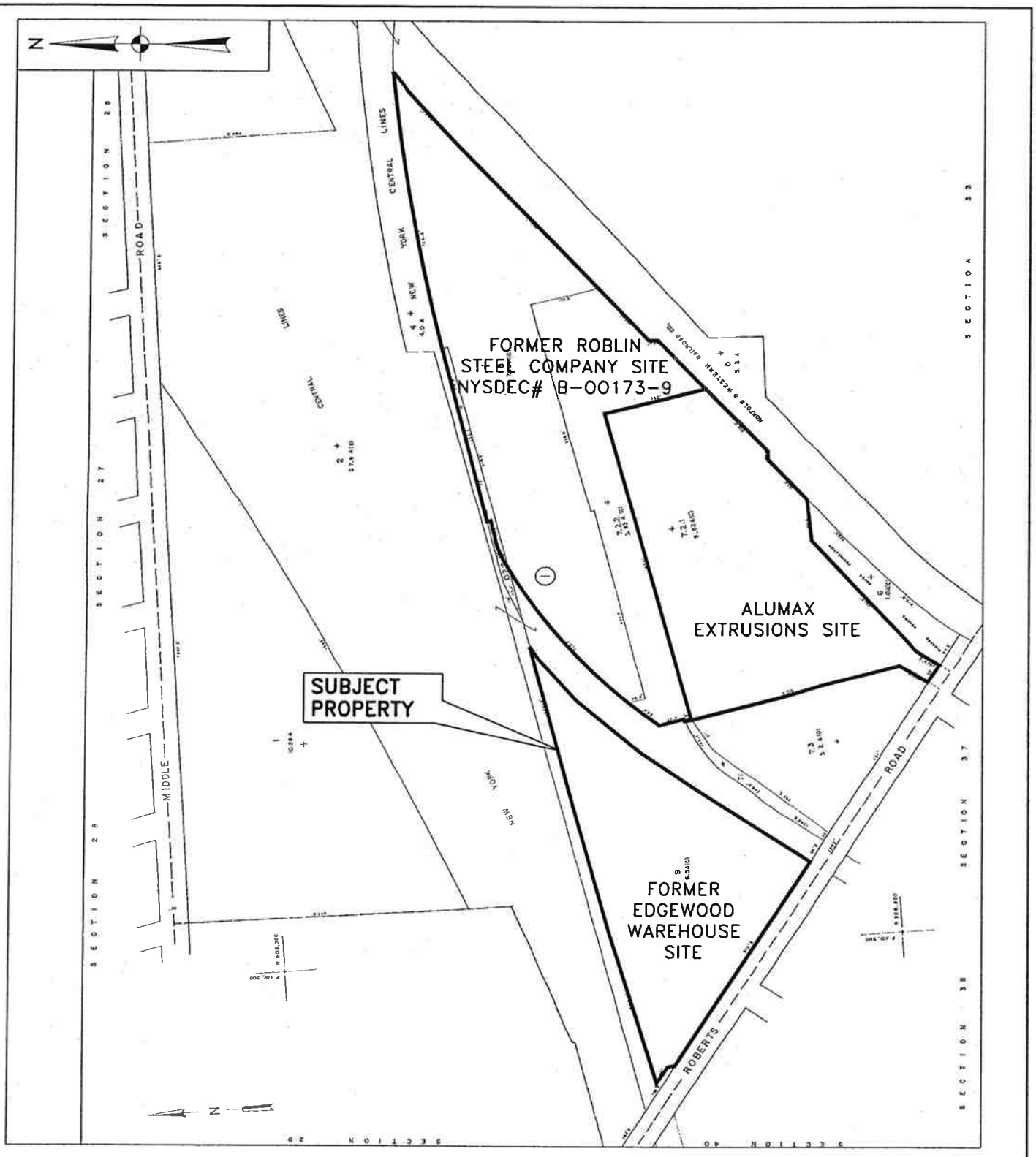
U.S.G.S CITY OF DUNKIRK QUADRANGLE

USGS TOPOGRAPHIC MAP

TVGA CONSULTANTS
1000 MAPLE ROAD
ELMA, NEW YORK 14059-9530
P. 716.655.8842
F. 716.655.0937
www.tvga.com

EDGEWOOD WAREHOUSE
CITY OF DUNKIRK, NEW YORK
CHAUTAUQUA COUNTY

PROJECT NO. 2006.0026.01	SCALE: 1" = 1,000	DATE: DECEMBER 2006	FIGURE NO. 1



TAX MAP

TVGA CONSULTANTS
1000 MAPLE ROAD
ELMA, NEW YORK 14059-9530
P. 716.655.8842
F. 716.655.0937
www.tvga.com

EDGEWOOD WAREHOUSE
CITY OF DUNKIRK, NEW YORK
CHAUTAUQUA COUNTY

PROJECT NO. 2006.0026.01	SCALE: 1" = 200'	DATE: DECEMBER 2006	FIGURE NO. 2

Table 1 - Estimated Project Cost

RI/AA Former Edgewood Warehouse Site

PHASE	TASKS	COST BREAKDOWN		SUBTOTAL
RI Scoping	Historical Information Review Site Reconnaissance.	Labor	$2,665	$11,640
		Expenses	$263	
		Survey/Title Search	$8,712	
RI/AA Work Plan	SI Work Plan Field Sampling Plan QA/QC Plan Health and Safety Plan Citizen Participation Plan	Labor	$6,400	$6,885
		Expenses	$485	
Remedial Investigation	Geophysical/Radiological Survey Test Pits Test Probes Monitoring Well Installation Subsurface Soil Sampling Groundwater Sampling Survey Well/Sample Locations Indoor Air Quality Sampling	Labor	$18,090	$100,617
		Expenses and Equipment	$3,821	
		Geophysical	$13,000	
		Drilling/Probing	$9,663	
		Excavation	County Provided	
		Laboratory and Validation	$51,303	
		Survey of Investigation	$4,740	
Draft RI Report	Data Review and Evaluation Risk Assessment Report Preparation	Labor	$11,650	$12,048
		Expenses	$398	
Draft AA Report	Identify/Analyze Remedial Alternatives Report Preparation	Labor	$8,670	$8,825
		Expenses	$155	
Final RI/AA Report Preparation of PRAP	Finalization of Draft Reports	Labor	$6,660	$7,048
		Expenses	$388	
RI/AA Estimated Cost				**$147,062**
TOTAL PROJECT COST				**$147,062**

NYSDEC PORTION (90%)	**$132,356**
Chautauqua County (10%)	**$14,706**

SUMMARY OF ENVIRONMENTAL HISTORY

The Former Edgewood Warehouse Site is part of a larger, inactive industrial park located at 320 South Roberts Road in the City of Dunkirk. The Edgewood Warehouse site is approximately 7.0 acres in size and contains an inactive warehouse, and a second smaller building that is currently unused. The remainder of the property consists primarily of aged asphalt and gravel parking areas. The property has been utilized for various heavy industrial and commercial uses from 1909 to the present. In addition to a warehouse, the property has been used as:

- A locomotive manufacturing facility;
- A manufacturing facility of military equipment;
- A tank paint shop, offices, and storage facilities;
- A machine shop;
- Manufacturing stainless steel feed-water tubes and heat exchangers; and
- Manufacturing wooden crates and boxes.

In the past, the property also contained another building that housed the facility power plant, repair shop, development area for experimental equipment, and the plant hospital. That building was demolished in 1989. A second building, presently vacant, is located near the northeastern corner of the property. It is believed that it was a former scale house associated with the rail access to the industrial complex.

In 1997, a Phase I Environmental Site Assessment Report (ESA) was prepared to identify recognized environmental conditions in connection with the property. In 1999, a Phase II ESA was prepared to identify potential areas of concern identified in the previous Phase I ESA. Based upon a review of both assessments, the following conclusions were developed:

- An asbestos survey indicated the presence of asbestos containing materials (ACMs) in the warehouse building including pipe insulation, exterior siding, piping, and boiler insulation. Local records also indicate that asbestos waste from within the former power plant building was potentially buried on-site during the building demolition.

- A survey of electrical equipment in the warehouse indicated that fluorescent and HID lighting fixtures that are equipped with ballasts that are likely to contain polychlorinated biphenels (PCBs) are present within the structure.

- Field observations and geologic samples indicated that industrial fill containing foundry sand, slag, and other debris was present across the site. The analysis of the samples revealed that polycyclic aromatic hydrocarbons (PAHs) and metals were the primary contaminants detected in the surface and subsurface soil samples. In addition, concentrations of PCBs were detected in surface and subsurface soil samples that were equal to or near the soil cleanup objectives.

- Petroleum odors and a slight sheen on samples were observed in a groundwater monitoring well that was installed in the center of the warehouse. Petroleum odors and elevated TOV concentrations were also observed in a test boring located down gradient from the former power plant building, wherein a basement petroleum spill occurred in the late 1980s. Chlorinated hydrocarbons at concentrations that exceed the groundwater standards were detected in two monitoring wells installed along the down-gradient site boundary. Detected compounds included trichloroethene (TCE) as well as compounds that result from the breakdown of TCE in the environment. These compounds were also detected in the subsurface soil samples during the drilling of those wells, and have also been documented in groundwater in both the adjoining Roblin and Alumax Brownfields sites. The on-site groundwater wells were only sampled once during the Phase II investigation and the lateral and vertical extent of contamination has not been fully delineated.

- Concentrations of inorganic and organic parameters that exceed the restricted use cleanup objectives for soil were detected in the sediment samples collected from floor drains within the warehouse, and catch basins and trench drains along the perimeter of the warehouse. Elevated concentrations of toluene and PCBs were also detected in drainage structures located inside of the on-site structure. In addition, several drainage structures were either inaccessible or not fully investigated as part of the Phase II ESA, and, therefore; have the potential to contain contaminated sediments. Lastly, the routes of storm and sanitary sewer lines are not well understood and should be delineated.

It is worthwhile to note that a significant amount of environmental investigation work and remedial activity has been performed at the adjacent former Roblin Steel site. (Since the Phase I and II ESAs were completed, a significant amount of investigation and remedial work has also been performed at the nearby former Alumax Extrusions site). The position of the Edgewood Warehouse site is immediately adjacent to and hydraulically downgradient from the Roblin and Alumax sites, where historic soil, groundwater and surface contamination has been documented. The potential for contaminant migration from those sites via groundwater and surface water runoff is a significant environmental concern.

A site investigation is necessary to define the magnitude and extent of contamination identified as a result of previous investigations and to confirm or deny the presence of contamination on the subject site in areas that have not yet been fully assessed.

PREVIOUS OWNERS AND OPERATORS

The subject site is currently owned by Edgewood Investments, Inc., which operated a warehouse within the existing main building from 1982 until recent years. The warehouse was used for the storage of packaging supplies, operational supplies and equipment from the former Dunkirk Ice cream and current Fieldbrook Farms Dairy facility. Prior to 1982, the site was occupied by the Plymouth Tube Company, which began operation in the existing main building in 1967 and went out of business in 1982. The Plymouth Tube Company manufactured stainless steel feedwater heater tubes for heat exchangers. During this time period, Cenedella Wood Products also

occupied a 4-story building that was formerly located on the subject site, but was demolished in 1988. Cenedella Wood Products manufactured wooden pallets, crates and boxes that were utilized by Plymouth Tube to ship their final products.

From 1963 until 1966, the subject site was owned by Progress Park, Inc., whose mission was to facilitate the re-occupation of the shuttered industrial complex containing the subject site. Prior to 1963, this industrial complex, including the subject site, was owned and operated by the American Locomotive Company (ALCO), which first developed the site in 1910. ALCO manufactured locomotives at this complex until 1930, at which time it converted to manufacture process equipment primarily consisting of heat exchangers, feed water heaters, tunnel shields, pressure vessels and steel pipe, fittings and conduits. During and after World War II, manufacturing operations at the plant were expanded to include military equipment. This equipment included gun carriages, fragmentation bombs, thrust shafts and king posts for navel vessels, missile housings, nozzles, boosters and other components. Following the war, ALCO was contracted by the Atomic Energy Commission to manufacture nuclear reactor components and packaged reactor units. Work on nuclear reactors at the Dunkirk plant included the development, production, and testing of a skid-mounted, portable nuclear reactor, built to power a remote Army base on the Greenland icecap. In addition to the nuclear reactor, ALCO manufactured components for the crawler for the Apollo/Saturn V space rocket. ALCO closed the Dunkirk plant in 1963 due to a combination of labor, union and management problems.

PRELIMINARY STATEMENT OF WORK

REMEDIAL INVESTIGATION/ ALTERNATIVES ANALYSIS REPORT

FORMER EDGEWOOD WAREHOUSE SITE
320 SOUTH ROBERTS ROAD, CITY OF DUNKIRK
CHAUTAUQUA COUNTY, NEW YORK

Prepared for:

CHAUTAUQUA COUNTY DEPARTMENT OF PUBLIC FACILITIES
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Prepared by:

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ELMA, NEW YORK 14059

March 2007

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1.0 GENERAL DISCUSSION

The *Statement of Work* (SOW) outlined herein has been developed by TVGA Consultants for the completion of a *Remedial Investigation/Alternatives Analysis* (RI/AA) Report for the former Edgewood Warehouse Site located at 320 South Roberts Road, Dunkirk, New York (subject site). Figure 1 is included as a Site Location Map. This SOW has been prepared on behalf of the Chautauqua County Department of Public Facilities in association with the possible environmental restoration and redevelopment of the subject site under the Environmental Restoration Program administered by the New York State Department of Environmental Conservation (NYSDEC). Chautauqua County is applying to the NYSDEC for State financial assistance under Title 5 of the Clean Water/Clean Air Bond Act of 1996 for the investigation of the subject site. The purpose of the RI/AA is to investigate the nature and extent of contamination at the subject site and to develop and evaluate remedial alternatives, as appropriate.

The site consists of approximately seven acres located within the City of Dunkirk limits. The site contains an inactive warehouse, and a second smaller building that is currently unused. The remainder of the property consists primarily of aged asphalt and gravel parking areas. The location and configuration of the tax parcel that comprises the subject site is depicted on Figure 2.

The property has a long history of industrial, manufacturing and commercial use, having been utilized as a machine shop and for storage and the manufacture of locomotives, military equipment, steel tubes and heat exchangers, and wood products. Based upon previous investigations of the subject property and adjoining properties, the following environmental conditions were identified in conjunction with the subject site:

- Asbestos containing materials are present in the warehouse building and asbestos waste from historic building demolition activities may be buried on site.
- Contaminated fill/soil and groundwater has been documented on the property;
- Electrical equipment that contains polychlorinated biphenyls (PCBs) may be present within the on-site buildings;
- Radiological sources were historically utilized on-site and there is the potential for the presence of radioactive materials on-site;
- Contaminated sediment and/or sludge was documented in on-site pits, drains, and vaults; and
- The subject property is hydraulically downgradient from the adjacent Roblin and Alumax sites, where historic soil, groundwater and surface contamination has been documented.

The following sections outline the primary tasks associated with the completion of the RI/AA for the subject site. Information and data obtained during preliminary stages of the site investigation (e.g., review of historical records) will direct the nature and extent of subsequent phases of the investigation.

2.0 REMEDIAL INVESTIGATION/ALTERNATIVES ANALYSIS REPORT WORK PLAN

TVGA will prepare a *RI/AA Work Plan* that provides a detailed description of the approach to be employed in completing the RI/AA. The Work Plan will be prepared for NYSDEC review and will include the items discussed below.

2.1 Scoping of RI/AA

Scoping of the RI/AA will involve a detailed review of historical information and completion of site reconnaissance.

TVGA will complete a review of historical information pertaining to the subject site and operations occurring thereon. This historical review will focus on on-site chemical use and storage, waste generation and disposal, and environmental discharges. Existing information will be supplemented through the review of additional records and the performance of interviews with former facility employees.

A site reconnaissance will be completed to familiarize ourselves with the subject site, assess the subject site for recognized environmental conditions, and evaluate site accessibility for equipment to be utilized during the site investigation phase of work.

Based upon this information, and in consultation with Chautauqua County and the NYSDEC, TVGA will define the remedial goals of the project consistent with 6 NYCRR Part 375 and reflective of the intended end use of the property, and will identify likely decisions, data requirements and the schedule for the project.

2.2 Remedial Investigation Work Plan

TVGA will prepare a *Remedial Investigation* (RI) *Work Plan* detailing the methods to be employed to characterize the subject site. The RI Work Plan will present the initial evaluation of the existing data and background information performed during the scoping process, and will define the scope and objectives of site characterization activities, to the extent possible. Because the RI/AA process is dynamic and iterative, the *RI Work Plan* will be modified during the site characterization process to incorporate new information and refined project objectives, as necessary.

The RI Work Plan will identify the methods to be utilized to generate sufficient information to:

- Identify and characterize the sources of contamination;
- Describe the amount, concentration, persistence, mobility, state, and other significant characteristics of the contamination present;
- Evaluate the extent to which contaminants have migrated or are expected to migrate and whether future migration may pose a threat to human health or the environment;

- Identify all actual routes of exposure;
- Identify actual populations and environmental receptors which may be at risk;
- Define hydrogeological factors (e.g., soil permeability, depth to saturated zone, hydrologic gradients, proximity to a drinking water aquifer, flood plain, or wetland);
- Describe groundwater characteristics and current and potential groundwater use;
- Identify active private wells within 1,000 feet of the subject site and be prepared to develop an appropriate sampling plan for them, if necessary;
- Identify potentially affected surface water classifications and existing use designations;
- Quantitatively describe the property's contribution to an air, land, water, biota, or food chain contamination problem;
- Determine the extent to which contamination levels pose an unacceptable risk to public health and/or the environment;
- Identify local ordinances and rules which may pertain to the site; and
- Discuss other appropriate factors.

2.3 Site Specific Field Sampling Plan

The *Field Sampling Plan* (FSP) will be prepared to identify and describe: (1) sampling objectives; (2) sampling equipment and methods; (3) sample types, locations and frequency; (4) sample identification system; (5) sample handling and analysis; (6) field documentation and record keeping procedures; and (7) a schedule of events and deliverables.

2.4 Quality Assurance/Quality Control Plan

The *Quality Assurance/Quality Control* (QA/QC) *Plan* will address all elements of the site investigation and will include:

- A project description;
- A project organization chart illustrating the lines of responsibility of the sampling personnel;
- Quality assurance objectives for data;

- Sample custody procedures;
- The type and frequency of calibration procedures for field and laboratory instruments, internal quality control checks, and quality assurance performance audits and system audits;
- Preventative maintenance procedures and schedule and corrective action procedures for the field and laboratory instruments;
- Specific procedures to assess data precision, representativeness, comparability, accuracy, and completeness of specific measurement parameters; and
- Data documentation and tracking procedures.

2.5 Health and Safety Plan

A site specific *Health and Safety Plan* (HASP) complying with 29 CFR 1910.120 will be prepared prior to the commencement of field activities. The HASP will provide a site background discussion and describe personnel responsibilities, protective equipment, health and safety procedures and protocols, decontamination procedures, personnel training, and type and extent of any necessary medical surveillance. Procedures for protecting third parties, such as visitors or the surrounding community, will also be specified in the HASP.

2.6 Citizen Participation Plan

The *Citizen Participation* (CP) *Plan* will describe the types of information to be provided to the public and outline the opportunities for community comment and input during the RI/AA. This Plan will include a preliminary list of potentially interested parties, a list of information repositories, community outreach, and other appropriate citizen participation activities. Furthermore, the CP Plan will describe the procedures to be used to ensure that:

- Pertinent documents will be readily available to the public;
- Communication with the public takes place at critical decision points in the remedial program;
- Informational notices are mailed out and/or announced in the local media;
- Project staff are identified and made accessible to the public; and
- Interested and/or affected parties are identified.

3.0 REMEDIAL INVESTIGATION

The remedial investigation will be performed in accordance with the *RI/AA Work Plan* and will involve the field work necessary to complete the site characterization program, including but not limited to: a geophysical survey, test pit excavations, test borings, monitoring well installation, environmental sampling and measurement, field screening, laboratory analyses, surveying, and data validation. The remedial investigation will provide sufficient information to:

- Further identify the study area of the RI/AA;
- Identify potential remedial alternatives;
- Identify probable remedial goals and determine the extent to which they have been exceeded or contravened; and
- Perform a qualitative health and environmental risk assessment, as necessary.

3.1 Preliminary Scope of Remedial Investigation

The preliminary scope of the site characterization program to be detailed in the *RI/AA Work Plan* is outlined in the following subsections. This preliminary scope is intended to define the initial extent of site characterization activities and will be modified as necessary to account for information obtained during project scoping. Data gathered as a result of these activities will be utilized to determine the necessity for additional investigation of the subject site.

3.1.1 Subsurface Investigation

A subsurface investigation will be conducted to characterize soil and groundwater conditions occurring on the subject site. The investigation will include radiological and geophysical surveys, and the installation of test pits, test borings and monitoring wells to facilitate the collection and chemical analysis of soil/fill and groundwater samples. The preliminary scope of the subsurface investigation will include the following:

- A radiological survey will be completed to confirm or deny the presence of radioactive materials (e.g. radioactive source materials used for the inspection of steel tubes and welds).
- A geophysical survey will be completed to investigate density anomalies (e.g. cisterns, tunnels, underground utilities) potentially present in suspect areas identified during the historical review and site reconnaissance.
- Test pits will be completed in areas of the subject site where the geophysical survey results define density anomalies. Additionally, test pits will be excavated in areas across the subject site and will be the primary means to:

- Characterize surficial geology across the site;
- Investigate the thickness of fill material;
- Identify and delineate areas of subsurface contamination via the field screening and chemical analysis of soil samples.

It is anticipated that this will include three days of test pit excavations. We have assumed Chautauqua County will provide an excavator and operator to complete the test pits.

- Two days of test probing will be performed on the project site, primarily within the warehouse to facilitate the classification, field screening and collection of subslab soil samples for laboratory analysis.

- Four test borings will be drilled on the project site with a drill rig to facilitate the classification, field screening and collection of subsurface soil samples for laboratory analysis. All four of the test borings will be completed with groundwater monitoring wells to supplement the existing monitoring well network and enable the confirmation of groundwater flow direction and gradient, and the hydraulic conductivity of the upper-most water-bearing zone, as well as the collection of groundwater samples for chemical analysis.

- Test boring, test probe and monitoring well locations will be based upon the project objectives, ease of access, freedom from obstructions, and safety considerations (appropriate set backs from overhead wires and buried services).

- Previous investigations of the site and adjoining properties indicated the presence of fill material consisting of slag, foundry sand, soil, gravel, brick and concrete. The fill material extended from the ground surface to a depth of 2 to 7 feet below grade. The fill overlies a heterogeneous mixture of fine-grained glacial deposits ranging from clayey silts to silty clay units with varying percentages of sand and gravel. Groundwater was found in a confined or semi-confined condition within these glacial deposits, which were generally comprised of an upper, lacustrine unit underlain by a thin till unit that unconformably overlies shale bedrock, which occurs at depths ranging from 2 to 15 feet below the ground surface. Bedrock core samples collected during the investigation of the adjoining Roblin Steel Site indicate that the upper 3 to 5 feet of bedrock is slightly to severely weathered and consists mainly of dark gray to gray shale.

- The average depth of the monitoring wells will be 20 feet bgs. All test borings will be advanced using 4-1/4-inch I.D. hollow stem augers with continuous split spoon sampling. The wells will be constructed of 2-inch Schedule 40 screens and risers, and will be fitted with locking caps. Rock

coring will be performed when competent rock is encountered and will be performed in accordance with ASTM D2113-83.

- All subsurface soil/fill samples collected from test pits, test probes and test borings will be screened for Total Organic Vapors (TOVs) using a photoionization detector. Visual observations will also be made to identify discolored or stained soils. Field screening results will be used to select up to 27 soil samples for chemical analysis.

- The four newly installed monitoring wells will be developed and, along with the eight existing wells, will be gauged to determine static water levels for the purpose of confirming groundwater flow direction and gradient.

- In-situ hydraulic conductivity tests will be completed on the four new monitoring wells to determine the permeability of the upper most water-bearing unit.

- Representative groundwater samples will be obtained from the four new wells for chemical analysis. In addition, the eight existing groundwater monitoring wells at the project site will be purged and sampled. These wells were installed during the course of the 1999 Phase II ESA and have only been sampled once.

- Soil/fill and groundwater samples will be submitted and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and PCBs appearing on the Target Compound List (TCL) using NYSDEC Analytical Services Protocol (ASP) Method 2000. The samples will also be analyzed for the metals appearing on the Target Analyte List (TAL) using ASP methods. All chemical analyses will be performed by a laboratory that is accredited under the New York State Environmental Laboratory Approval Program (ELAP) Contract Laboratory Program (CLP). In addition, eight soil samples will be analyzed for asbestos using Phase Contrast Microscopy (PCM).

- A total of four indoor air quality samples will be collected from within the warehouse using the USEPA's TO-15 methodology. The TO-15 analysis, as written by the EPA, refers to a specific list of 62 regulated compounds. Of particular concern is the known presence of solvents (e.g. TCE and its decomposition products) in soils and groundwater located on the project site and adjoining properties.

- A survey will be completed to locate the actual position of the test borings, monitoring wells, monitoring well casing elevations, test pits, and sample locations. These locations will be superimposed on the base map.

3.1.2 Surface Soil/Fill Investigation

A sampling and analysis program will be implemented to characterize the chemistry of surface soil and/or fill materials. Grab samples will be collected from previously identified areas of concern (e.g., locations of former drum storage, areas of stained soil, etc.), as well as from points selected to represent conditions across the subject site. We have estimated that 20 surface soil samples will be collected for analysis. These samples will be analyzed for SVOCs and PCBs appearing on the TCL and the metals appearing on the TAL, and will be supplemented by the background data collected in conjunction with the RI/AA of the former Roblin Steel site, which adjoins the subject site.

3.1.3 Investigation of Sumps, Vaults and Pits

Sumps, vaults and pits that were not investigated during previous assessments of the project site will be examined to determine their probable functions and their contents will be sampled and analyzed for TCL VOCs and SVOCs, PCBs and TAL metals. We have estimated that 4 samples will be collected from these structures for chemical analysis.

4.0 DATA EVALUATION AND ASSESSMENT OF RISKS

Once the accuracy and precision of the data has been verified, evaluation of the data will be performed. All site investigation data will be analyzed and the results of the analyses will be presented in an organized and logical manner so that the relationship between site investigation results for each medium is apparent. Typical activities associated with data evaluation include:

- Data review, reduction and tabulation;
- Comparison with applicable regulatory levels; and
- Environmental fate and transport modeling/evaluation.

Using these data, a risk assessment will be performed to qualitatively assess the potential human health and environmental risks associated with the site. The following activities are typically associated with this task:

- Identification of contaminants of concern;
- Exposure assessment;
- Toxicity assessment; and
- Risk Characterization.

5.0 REMEDIAL INVESTIGATION REPORT

A RI Report will be prepared which: (1) summarizes and documents the investigative methods employed to characterize the site; (2) describes the physical characteristics of the site; (3) defines the nature and extent of contamination; (4) presents the results of contaminant fate and transport modeling/evaluations; (5) identifies potential health and environmental risks posed by the site; and (6) provides recommendations relative to future work requirements and remedial action objectives. A draft Table of Contents for the RI Report is presented in Attachment A.

6.0 DEVELOPMENT AND ANALYSIS OF REMEDIAL ALTERNATIVES

6.1 Development of Alternatives

A range of remedial alternatives will be developed to address contaminated media at the site, as deemed necessary in the RI, and to provide adequate protection of human health and the environment. The potential alternatives will encompass a range of alternatives including treatment, containment and removal options.

General response actions will be identified for each medium of interest. General response actions typically include containment, excavation, extraction, treatment, disposal or other actions, singly or in combination to satisfy remedial action objectives. Volumes or areas of media to which general response actions may apply will be identified. Subsequently, treatment technologies for each general response action will be identified and screened relative to their technical and economic feasibility for implementation at the site, and the potential technologies will be combined into media-specific or site-wide alternatives. The alternatives will be screened on a general basis with respect to their effectiveness, implementability, and cost, to limit the number of alternatives that undergo the detailed analysis and to provide consideration of the most promising options.

6.2 Detailed Analysis of Alternatives

A detailed analysis of each alternative will be completed in accordance with the requirements outlined in 6 NYCRR Part 375-1.10, Remedy Selection. An individual analysis of each alternative will be performed relative to the following criteria:

- Overall protection of human health and the environment;
- Compliance with Standards, Criteria and Guidance;
- Short-term effectiveness;
- Long-term effectiveness and permanence;
- Reduction of toxicity, mobility, or volume;

- Feasibility; and
- Community Acceptance.

Furthermore, a comparative analysis of all of the remedial alternatives with respect to each other will be completed in terms of the above listed criteria.

7.0 ALTERNATIVES ANALYSIS REPORT

An *Alternatives Analysis* (AA) Report will be prepared that describes the process utilized to develop and screen remedial alternatives, presents the results of the detailed analysis of alternatives, and identifies the most suitable remedy considering the remedial action objectives. A draft Table of Contents for the AA is presented in Attachment B. The AA will present sufficient information to enable the preparation of a *Proposed Remedial Action Plan* (PRAP), which summarizes the proposed remedy for public review and comment.

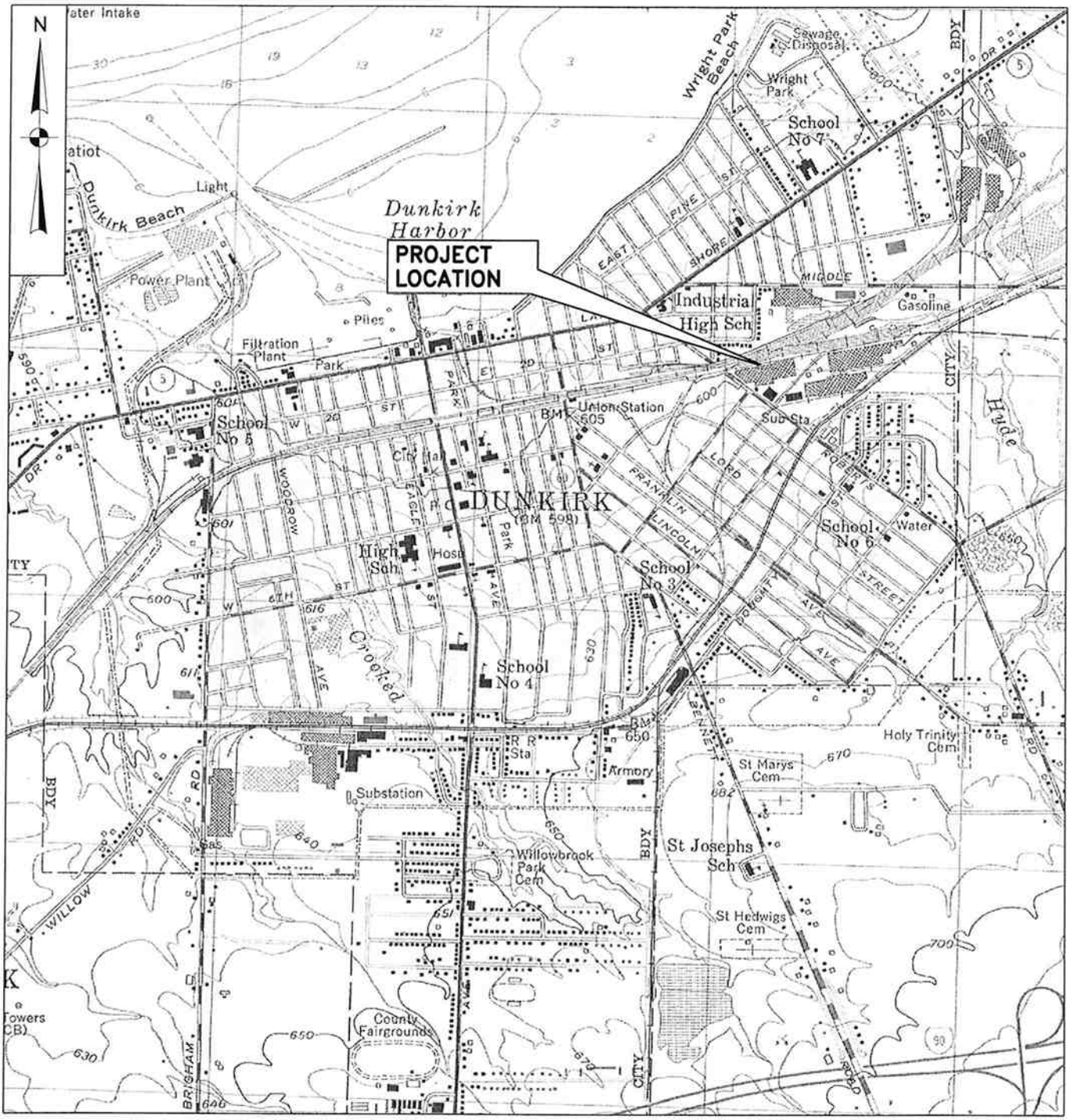
8.0 FINAL RI/AA REPORT

A Final RI/AA Report that addresses comments from the NYSDEC, NYSDOH and Chautauqua County will be prepared. As part of this process, responses to one (1) round of comments on the draft reports from each of these agencies will be prepared, and the documents will be revised after obtaining agency concurrence on said responses. The Final RI/AA Report will serve as the basis for the PRAP and *Record of Decision* (ROD) for the project.

9.0 PROPOSED REMEDIAL ACTION PLAN

A draft Proposed Remedial Action Plan (PRAP) will be prepared for the property by incorporating the project background, remedial investigation findings, and analysis of remedial alternatives in a template PRAP provided by the NYSDEC.

FIGURES



U.S.G.S CITY OF DUNKIRK QUADRANGLE

USGS TOPOGRAPHIC MAP

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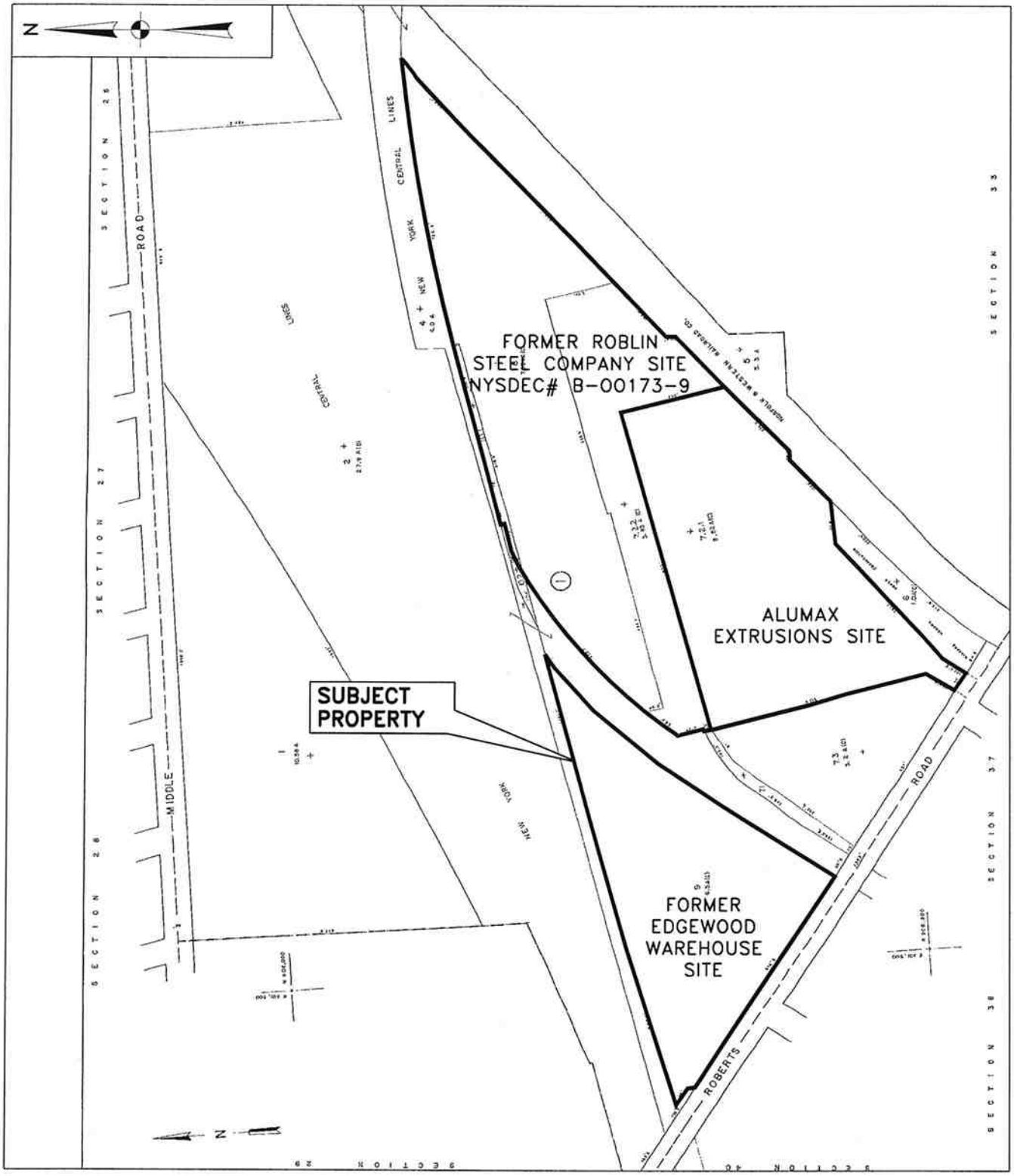
EDGEWOOD WAREHOUSE
CITY OF DUNKIRK, NEW YORK
CHAUTAUQUA COUNTY

PROJECT NO. 2006.0026.01	SCALE: 1" = 1,000	DATE: DECEMBER 2006	FIGURE NO. 1



TAX MAP

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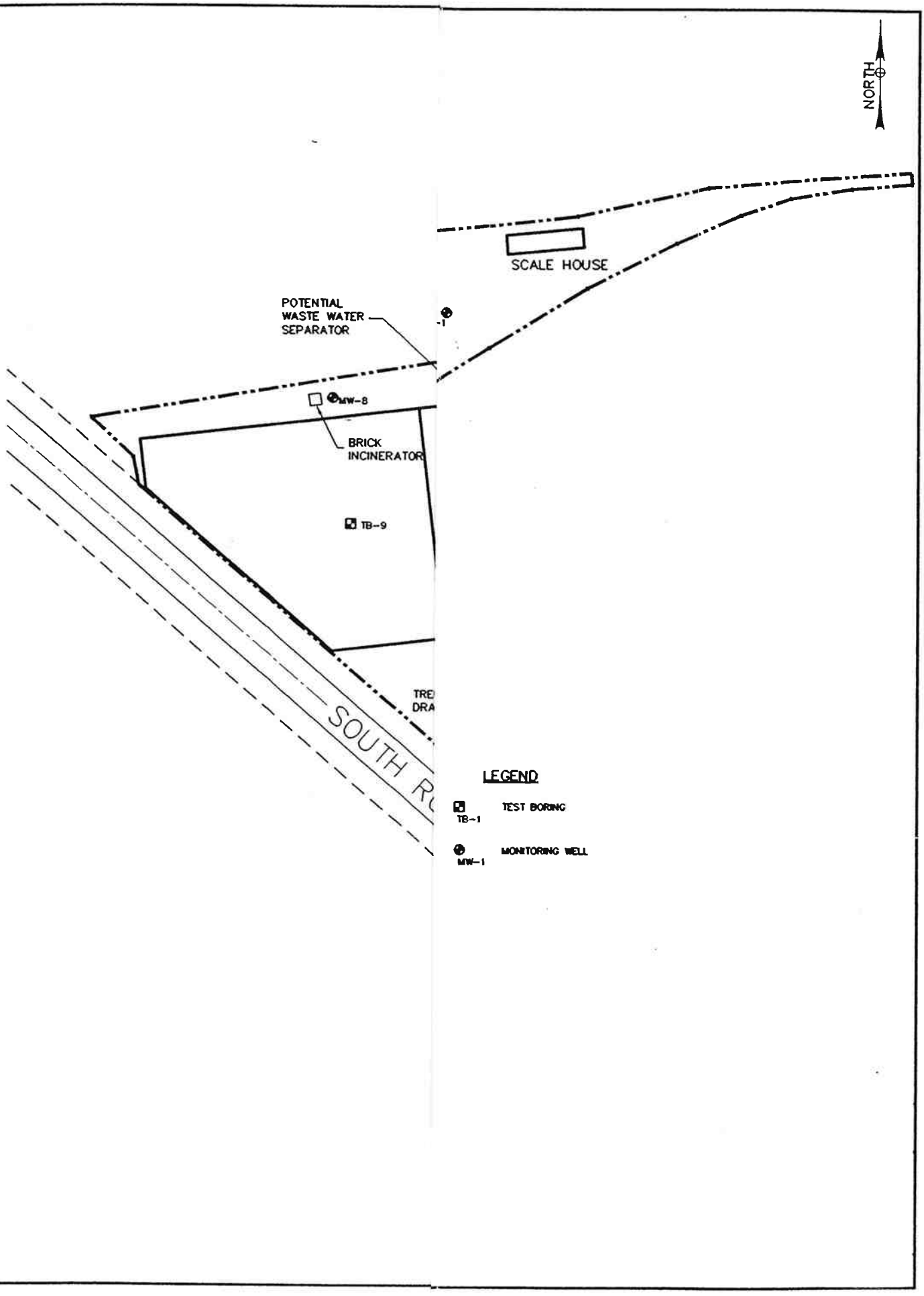
EDGEWOOD WAREHOUSE
CITY OF DUNKIRK, NEW YORK
CHAUTAUQUA COUNTY

PROJECT NO. 2006.0026.01	SCALE: 1" = 200'	DATE: DECEMBER 2006	FIGURE NO. 2


NORTH
SCALE HOUSE
POTENTIAL
WASTE WATER
SEPARATOR
MW-8
BRICK
INCINERATOR
TB-9
SOUTH
LEGEND
TB-1
TEST BORING
MW-1
MONITORING WELL

ATTACHMENT A

REMEDIAL INVESTIGATION REPORT
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REMEDIAL INVESTIGATION REPORT
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4.1 Presents the results of site Characterization, both natural chemical components and contaminants in some, but not necessarily all, of the following media:

- 4.1.1 Sources (lagoons, sludges, tanks, etc.)
- 4.1.2 Soils and Vadose Zone
- 4.1.3 Groundwater
- 4.1.4 Surface Water and Sediments
- 4.1.5 Air

5. Contaminant Fate and Transport

- 5.1 Potential Routes of Migration (i.e., air, groundwater, etc.)
- 5.2 Contaminant Persistence
  - 5.2.1 If they are applicable (i.e., for organic contaminants), describe estimated persistence in the study area environment and physical, chemical, and/or biological factors of importance for the media of interest.
- 5.3 Contaminant Migration
  - 5.3.1 Discuss factors affecting media of importance (e.g., sorption onto soils, solubility in water, movement of groundwater, etc.)
  - 5.3.2 Discuss modeling methods and results, if applicable.

6. Baseline Risk Assessment (If necessary)

- 6.1 Public Health Evaluation
  - 6.1.1 Exposure Assessment
  - 6.1.2 Toxicity Assessment
  - 6.1.3 Risk Characterization
- 6.2 Environmental Assessment

7. Summary and Conclusions

- 7.1 Summary
  - 7.1.1 Nature and extent of Contamination
  - 7.1.2 Fate and Transport
  - 7.1.3 Risk Assessment
- 7.2 Conclusions
  - 7.2.1 Data Limitations and Recommendations for Future Work
  - 7.2.2 Recommended Remedial Action Objectives

Appendices

A. Technical Correspondence on Field Activities (if applicable)
B. Analytical Data and QA/QC Evaluation Results
C. Risk Assessment Methods

ATTACHMENT B

ALTERNATIVES ANALYSIS REPORT
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ALTERNATIVES ANALYSIS REPORT
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