

AAI PHASE I ENVIRONMENTAL SITE ASSESSMENT

**PARK WEST "D" REDEVELOPMENT
NORTH 24TH STREET AND WEST NORTH AVENUE
MILWAUKEE, WISCONSIN**

PREPARED FOR:

**Sister Edna Lonergan
c/o Ms. Kathryn Berger
Urban Strategies
600 E. Mason Street, Suite 302
Milwaukee, WI 53202-3831**

PREPARED BY:



PROJECT REFERENCE #13364

AUGUST 2012

TABLE OF CONTENTS

EXECUTIVE SUMMARY i

1.0 INTRODUCTION 1

 1.1 Purpose 1

 1.2 Methodology 1

 1.3 Significant Assumptions 1

 1.4 Limitations and Exceptions 2

 1.5 Special Terms and Conditions 2

 1.6 User Reliance 3

2.0 SITE DESCRIPTION 3

 2.1 Location, Legal Description, and General Characteristics 3

 2.2 Current Use of the Property 3

 2.3 Site and Vicinity Characteristics 3

 2.4 Descriptions of Structures, Roads, and Other Improvements on the Site 3

 2.5 Current Uses of the Adjoining Properties 3

3.0 USER-PROVIDED INFORMATION 4

 3.1 Title Records 4

 3.2 Environmental Liens or Activity and Use Limitations 4

 3.3 Specialized Knowledge 4

 3.4 Valuation Reduction of Environmental Issues 4

 3.5 Owner, Property Manager, and Occupant Information 4

 3.6 Reasons for Performing Phase I 5

4.0 RECORDS REVIEW 5

 4.1 Standard Environmental Record Sources 5

 4.1.1 National Priority List 5

 4.1.2 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) 5

 4.1.3 Resource Conservation and Recovery Act Corrective Action Report (CORRACTS) 5

 4.1.4 Resource Conservation and Recovery Act (RCRA) 5

 4.1.5 Emergency Response Notification System (ERNS) 6

 4.1.6 State Hazardous Waste (SHWS) 6

 4.1.7 State Landfill 6

 4.1.8 Leaking Underground Storage Tank (LUST) 6

 4.1.9 Underground Storage Tanks (USTs) 7

 4.2 Additional Environmental Record Sources 7

 4.2.1 Wisconsin Environmental Repair Program (ERP) 7

 4.2.2 Lists of Registered Aboveground Storage Tanks 7

 4.2.3 Local Land Records 7

 4.2.4 Emergency Release Reports 7

 4.2.5 RCRA Administration Action Tracking System (RAATS) 8

 4.2.6 Hazardous Materials Incident Report System (HMIRS) 8

 4.2.7 PCB Activity Database (PADS) 8

 4.2.8 Facility Index System (FINDS) 8

 4.2.9 Toxic Release Inventory System (TRIS) 8

 4.2.10 Toxic Substance Control Act (TSCA) 8

 4.2.11 Historical Auto Stations 8

4.2.12 Historical Cleaners	8
4.2.13 Orphan Summary.....	8
4.3 Physical Setting Sources	9
4.3.1 United States Geologic Survey Topographic Map.....	9
4.3.2 Regional Geology and Hydrogeology.....	9
4.4 Historical Use Information on the Subject Property	10
4.4.1 Occupancy History	10
4.4.2 Aerial Photographs	10
4.4.3 Fire Insurance Maps.....	11
4.5 Historical Use Information on Adjoining Properties.....	11
4.5.1 Occupancy History	11
4.5.2 Aerial Photographs	12
4.5.3 Fire Insurance Maps.....	12
5.0 SITE RECONNAISSANCE	12
5.1 Methodology and Limiting Conditions.....	12
5.2 Observations	13
5.2.1 Hazardous Substances and Petroleum Products in Connection with Identified Uses	13
5.2.2 Storage Tanks and Drums.....	13
5.2.3 Odors, Pools of Liquids, Stained Soil or Pavement, Stressed Vegetation Not observed.....	13
5.2.4 Hazardous Substances and Petroleum Products Not Necessarily Used in Connection with Identified Uses	13
5.2.5 Unidentified Substance Containers	13
5.2.6 Polychlorinated Biphenyls (PCBs)	13
5.2.7 Wastewater Pits, Ponds or Lagoons	13
5.2.8 Wastewater.....	13
5.2.9 Solid Waste	13
5.2.10 Heating	13
5.2.11 Emergency Generators	13
5.2.12 Stains or Corrosion	13
5.2.13 Drains or Sumps.....	13
6.0 INTERVIEWS.....	14
6.1 Interviews with Site Owners.....	14
6.2 Interviews with Local Government Officials.....	14
6.2.1 City of Milwaukee Assessors Department.....	14
6.2.2 City of Milwaukee Building Inspection Department.....	14
7.0 PREVIOUS REPORTS.....	14
8.0 FINDINGS.....	17
9.0 OPINIONS	18
10.0 CONCLUSIONS	20
11.0 DEVIATIONS.....	21
12.0 REFERENCES	21

13.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS 21

14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS 21

FIGURES

1 Site Location Map

2 Site Plan Map

APPENDICES

A Milwaukee County Parcel Map

B User Questionnaire

C Historical Land Use Investigation Report

D Environmental Data Resources, Inc., Radius Map™ Report

E City Directory Report

F Aerial Photographs

G Sanborn Map Report

H Site Photographs

I Resumes of Project Team

EXECUTIVE SUMMARY

Sister Edna Lonergan, on behalf of St. Ann's Center for Intergenerational Care, retained Sigma Environmental Services, Inc. (Sigma) of Milwaukee, Wisconsin to conduct an AAI Phase I Environmental Site Assessment (ESA) of the Park West "D" property located and extending from North 24th Street west to North 25th Street and West North Avenue north to West Meinecke Avenue, in Milwaukee, Wisconsin (subject property). The purpose of the environmental assessment was to identify any recognized environmental conditions (RECs), as defined by ASTM in its Standard Practice for Environmental Site Assessments (E 1527-05), on the subject property. To perform the service, Sigma compiled a site history, reviewed available regulatory documents, reviewed area geology and hydrogeology and conducted limited site observations between July 12, 2012 through August 1, 2012.

RECs, as defined by ASTM, include the presence or likely presence of 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, groundwater or surface water of the property. The term includes hazardous substances and petroleum products even under conditions in compliance with the law. This term is not intended to include de minimis conditions that do not generally present a material risk to human health or the environment and would not be the subject of an enforcement action if brought to the attention of the appropriate authorities. Conditions determined to be de minimis are not recognized environmental conditions.

The subject property consists of 27 parcels which range in size from 0.046-acres to 2.38-acres and together make up an approximately 6.6-acre piece of land located in the City of Milwaukee, Milwaukee County, Wisconsin. Specifically the subject property is bounded by North 24th Street, West Medford Avenue, West Meinecke Avenue, North 25th Street, and West North Avenue and split by North 24th Place. At the time of this assessment, the subject property parcels were vacant and undeveloped. Historically, the subject property parcels were primarily occupied by residences with the exception of various store fronts and auto sales and service/repair uses which were present along West North Avenue (southern extent of the subject property). The former structures associated with the subject property were demolished between the 1950's and 1995, with the majority of the demolition activities occurring in the mid1990's.

Review of the historic city directories and Sanborn maps indicates that the southern portion of the subject property (along North Avenue) was primarily utilized by numerous auto sales and/or service businesses between the 1920's and 1960's. In addition, a municipal yard as also depicted on the east side of North 25th Street (2334 North 25th Street). Two gasoline tanks associated with an auto sale business located at 2428 West North Avenue were depicted within the North 24th Place right-of-way on the 1951 Sanborn map.

A search of available environmental records was conducted by Environmental Data Resources Inc. (EDR; Milford, CT). EDR identified the subject property on the Wisconsin Department of Natural Resources (DNR) Leaking Underground Storage Tank (LUST), Wisconsin Department of Health and Safety (DSPS) Underground Storage Tank (UST) database.

Specifically, the subject property is associated with three LUST listings (BRRTS 03-41-524486, 03-41-003632, 03-41-524478). The LUST listings pertain to the investigation activities which were conducted under the direction of the City of Milwaukee Redevelopment Authority in the area bounded by North 24th Street, West Meinecke Avenue, North 27th Street, and West North Avenue. The LUST investigation activities were initiated in 1993 in an effort to prepare the property for redevelopment and for the right-of-way expansion of West North Avenue.

The LUST investigation referenced by BRRTS #03-41-524486 occurred at the 2328 North 27th Street property and subsequently was not located on the subject property. The LUST investigation referenced by BRRTS #03-41-00362 occurred between North 24th Place and North 26th Street and therefore incorporates the western half of the subject property. The LUST investigation referenced by BRRTS #03-41-524478 occurred at the 2416 West North Avenue parcel, located in the southeast portion of the subject property.

The LUST investigations associated with the subject property evaluated the historic auto-related uses and associated tanks along West North Avenue and the historic municipal yard use on the east side of North 25th Street. Results of the LUST investigation activities indicate that fill material, consisting primarily of silty sand, gravel, and clay soils and ranging in thickness from 6 inches to 10 feet, was observed within the investigation areas. In addition, petroleum-related and/or lead soil and groundwater impacts were identified within select areas of the subject property (primarily along West North Avenue). Each of the LUST releases associated with the subject received case closure from the DNR in 1998 or 2007.

The LUST case associated with the southeast portion of the subject property (2416 West North Avenue, BRRTS #03-41-524486) was placed on the geographic information systems (GIS) registry due to the residual soil and groundwater impacts remaining at the time of case closure (2007). In addition, although not included on the GIS registry, it should be noted that low-level (slightly above state standards) petroleum-related and/or lead soil impacts also remained present at the time of the DNR case closure associated with the western portion of the subject property (BRRTS# 03-41-003632). Given the closed status, the LUST releases are considered a historic REC.

The UST listing for the subject property, as referenced by 2480 West North Avenue, pertains to a 1,111-gallon agricultural UST closed and removed from the subject property in 1974. In addition, a UST listing for the 2416 through 2428 West North Avenue (subject property) pertains to two 300-gallon and one 2,000-gallon leaded gasoline UST closed and removed in 1969, a 1,111-gallon fuel oil UST abandoned without product in 1974 and a 1,111-gallon UST (contents listed as "other") closed and removed in 1974. Potential releases associated with the above referenced USTs were evaluated as a part of the LUST investigations discussed above. Given the closed status of the UST and the associated LUST releases, the historic documented USTs are not expected to further impact the subject property.

Review of the historic reports associated with the subject property LUST incidents indicates that a soil pile generated during the 1993 investigation activities is located on the western portion of the subject property (between North 24th Place and North 25th Street). Soil samples were collected by Sigma in 1995 for the purposes of soil characterization and disposal profiling. Results of the 1995 laboratory analysis indicate that slightly elevated

concentrations of lead and diesel range organics (DRO) were reported above the current state standards within one or more of the soil samples collected from the soil pile area. The soil pile was observed at the subject property during the recent site reconnaissance. Given that the soil pile was generated as a part of the 1993 LUST investigation and the associated LUST case (BRRTS #03-41-003632) received closure in 1998, the soil pile is considered a historic REC.

In addition to the subject property, EDR identified several sites in the vicinity of the subject property on one or more of the environmental databases researched by EDR. Based on the relative distance between the reported sites and the subject property, the site status, and/or results of the previous investigation activities completed at the subject property, the identified sites are not expected to impact the subject property.

The Phase I Environmental Site Assessment has been performed in conformance with the scope and limitations of ASTM Practice E 1527(-05). This assessment has not revealed evidence recognized environmental conditions in connection with the property. However, the following historic RECs were identified:

- Two LUST releases (BRRTS #03-41-003632 and #03-41-524478) were reported at the subject property. The LUST releases pertain to petroleum and/or lead-related soil and/or groundwater impacts identified within select areas of the subject property (primarily within the historic auto-related use areas along West North Avenue and the former municipal yard located on North 25th Street). The DNR granted case closure for each of the LUST releases in 1998 or 2007; however, residual soil and/or groundwater impacts were documented to remain in place at the time of case closure. If encountered during redevelopment activities, the residual contaminated soil or groundwater would require appropriate management in accordance with applicable state and federal regulations.
- A soil pile containing low-level impacted soil generated during the 1993 LUST investigation activities conducted at the subject property remains present on the subject property. The LUST case associated with the soil pile generation (BRRTS #03-41-003632) received case closure from the DNR in 1998. Soil disturbed from the soil pile would require appropriate management in accordance with applicable state and federal regulations.

With the exception of time constraints there were no limiting conditions to this report. Where observations were limited, Sigma renders no opinion as to the presence of hazardous substances, wastes or contamination potential.

The conclusions included in this assessment report should not be construed as legal advice. This practice is intended to reflect a commercially prudent and reasonable inquiry as no environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with the subject property. Performance of the ASTM E 1527-05 practice is intended to reduce, but not eliminate that uncertainty. Finally, even a finding of no recognized environmental conditions is not a warranty or guarantee that the property is free from contamination.

1.0 INTRODUCTION

1.1 Purpose

Sister Edna Lonergan, on behalf of St. Ann's Center for Intergenerational Care, retained Sigma Environmental Services, Inc. (Sigma) of Milwaukee, Wisconsin to conduct an AAI Phase I Environmental Site Assessment (ESA) of the Park West "D" property located and extending from North 24th Street west to North 25th Street and West North Avenue north to West Meinecke Avenue, in Milwaukee, Wisconsin (subject property). The purpose of the environmental assessment was to identify any recognized environmental conditions (RECs), as defined by ASTM in its Standard Practice for Environmental Site Assessments (E 1527-05), on the subject property. To perform the service, Sigma compiled a site history, reviewed available regulatory documents, reviewed area geology and hydrogeology and conducted limited site observations between July 12, 2012 through August 1, 2012. The findings of the assessment are summarized in this report.

The ASTM Standard E 1527-05 defines a REC as:

"The 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. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions."

1.2 Methodology

Research of the property evaluated its historical use and examined the generation, treatment, storage, and disposal of hazardous chemicals, materials, substances, and wastes for potential sources of environmental concern. Research included a review of reasonably ascertainable records, interviews of knowledgeable local and state officials, and a site reconnaissance.

1.3 Significant Assumptions

This report was prepared under constraints of cost, time, and scope, and reflects a limited assessment and evaluation rather than a total, complete, or extensive assessment and evaluation. Sigma's review was performed using the degree of care and skill ordinarily exercised under similar localities. No other warranty or guarantee, expressed or implied, is made as to the conclusions and recommendations included in this report.

The findings of this report, to the best of our knowledge, are valid as of the date of this review. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, from the broadening of knowledge, or from other reasons. Accordingly,

the findings of this report may be invalidated wholly or partially by changes outside our control.

Specified information contained in this report has been obtained from publicly available sources and other secondary sources of information produced by entities other than Sigma. Although care has been taken by Sigma in compiling the information, Sigma disclaims any and all liability for any errors, omissions, or inaccuracies of the third parties in such information and data, and for any consequences arising there from.

The conclusions contained in this report are based upon information provided by the client, a limited on-site inspection, and our investigation of available public records and should not be considered legal advice. Latent conditions at the site are not known. The review did not include sampling of rock, soil, groundwater, surface water, air or all on-site substances or materials. It is, therefore, not possible to confirm the presence or absence of toxic or hazardous substances, wastes or materials in the environments associated with the site. Sigma makes no warranties, expressed or implied, as to marketability or fitness of the property for a particular purpose.

1.4 Limitations and Exceptions

Conclusions in this report represent our professional judgment and are limited to those site conditions and potential impacts from neighboring properties that could be discovered under the scope of services authorized by the proposal. The conclusions presented were based on an inspection of the property and a review of relevant records.

Sigma attempted to review all reasonably ascertainable, practically reviewable information regarding the history of the subject property; however, data gaps were encountered during preparation of this report. It is Sigma's opinion that the data gaps do not significantly affect, as defined by ASTM E 1527-05, the ability to identify recognized environmental conditions in connection with the subject property.

The conclusions and interpretations of this report do not collectively define all the risks associated with purchase or other use of the property. Should you, our client, or other interested parties, wish to further reduce the risks associated with undiscovered or unquantified environmental impacts, you may want to consider having additional assessment activities performed such as collecting and analyzing soil, groundwater, or other appropriate samples for compounds of relevant and particular concern, or complete other investigation activities as appropriate.

This report does not address or include regulatory compliance issues, cultural or historic resources, industrial hygiene, health and safety issues, ecological resources, endangered species, vapor intrusion, mold or indoor air quality. Further this report does not purport to identify or quantify asbestos, radon, lead-based paint, lead in drinking water, extremely low frequency radiation (ELF) or electromagnetic frequency radiation (EMF) on-site.

1.5 Special Terms and Conditions

No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from Sigma Environmental Services, Inc.

1.6 User Reliance

This document contains proprietary and confidential information, which is the sole and exclusive property of Sigma Environmental Services, Inc. and St. Ann's Center for Intergenerational Care. This document may not be used or duplicated by those other than St. Ann's Center for Intergenerational Care in any manner without the express written consent of Sigma Environmental Services, Inc. and St. Ann's Center for Intergenerational Care. The environmental conditions of an operating facility change continuously. This report documents the status of environmental issues as of the date of the report. We caution reliance on this information as time progresses without an appropriate review and update to this environmental assessment.

2.0 SITE DESCRIPTION

2.1 Location, Legal Description, and General Characteristics

The subject property consists of 27 parcels which range in size from 0.046-acres to 2.38-acres and together make up an approximately 6.6-acre piece of land located in the City of Milwaukee, Milwaukee County, Wisconsin. A GIS image of the subject property, obtained from Milwaukee County, is included in **Appendix A** of this report. The subject property location is presented on **Figures 1 and 2**.

2.2 Current Use of the Property

At the time of this assessment, the subject property parcels were undeveloped.

2.3 Site and Vicinity Characteristics

The subject property occupies two city blocks which are split by North 24th Place and bounded by North 24th Street, West Medford Avenue, West Meinecke Avenue, North 25th Street, and West North Avenue and split by North 24th Place. The subject property is located within an area of Milwaukee that is generally comprised of commercial and residential properties. The City of Milwaukee has included the subject property within an area that is zoned light industrial (IL2).

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

At the time of this assessment, the subject property parcels undeveloped/vacant.

Utilities are not currently located at the Subject Property; however, water, gas, electric, communications and sewer services are available in this area of Milwaukee.

2.5 Current Uses of the Adjoining Properties

At the time of this assessment, adjoining properties included West Meinecke Avenue then residences to the north, West Medford Avenue and North 24th Street then residences, a grocery store, and vacated car lot and service center to the east, West North Avenue then Auto Zone, a child care center, and a church to the south, and the North 25th Street then a church, Family Dollar, and a school to the west. A Site Plan and Area Map are included as **Figure 2** of this report.

3.0 USER-PROVIDED INFORMATION

3.1 Title Records

Sigma attempted to review available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls for the subject property. Deed information was not available at the printing of this report. Although deed information was not available for review for the subject property, based on the information that was available for review, it is Sigma's opinion that the data gap does not significantly affect, as defined by ASTM E 1527-05, the ability to identify recognized environmental conditions in connection with the property.

3.2 Environmental Liens or Activity and Use Limitations

In accordance with the ASTM standard, Sigma requested information from Sister Edna Lonergan of St. Ann's Center for Intergenerational Care, user of the report, regarding known environmental liens on the subject property. Sister Lonergan reported no knowledge of environmental liens. A copy of the completed questionnaire is included as **Appendix B**.

3.3 Specialized Knowledge

In accordance with the ASTM standard, Sigma requested information from Sister Lonergan regarding information about previous ownership or uses of the property that may be material to identifying recognized environmental conditions. Sister Lonergan reported no specialized knowledge. A copy of the completed questionnaire is included as **Appendix B**.

3.4 Valuation Reduction of Environmental Issues

In accordance with the ASTM standard, Sigma requested information from Sister Lonergan regarding value reduction of the subject property to comparable properties. Sister Lonergan reported no value reduction associated with environmental issues. A copy of the completed questionnaire is included as **Appendix B**.

3.5 Owner, Property Manager, and Occupant Information

Sigma interviewed Ms. Karen Dettmer, representative of the Redevelopment Authority of the City of Milwaukee (RACM), subject property owner to obtain additional information pertaining to the property. Ms. Dettmer provided Sigma with a copy of the Historical Land Use Investigation of Park West "D" Milwaukee, Wisconsin report dated May 30, 2012. Ms. Dettmer indicated that she had no additional knowledge of the property beyond what was included in the above referenced report.

Review of the Historical Land Use Investigation report indicates that a portion of the project site was historically utilized by a coal company and auto repair shop. In addition, six underground storage tanks are documented to have been located at the subject property (discussed in section 4.1.9 of this report) and three leaking underground storage tank (LUST) investigations have been associated with the property (discussed in section 4.1.8). The report also indicates that city permits are on file for a 275-gallon fuel oil tank at three parcels associated with the subject property (discussed in section 6.2.2). The historic property uses and USTs identified by RACM have been evaluated by the LUST investigation activities conducted from 1993 through 2007 (see section 7.0 of this report). A copy of the Historical Land Use Investigation report is included in **Appendix C**.

3.6 Reasons for Performing Phase I

The purpose of this report is to qualify for the innocent landowner defense to CERCLA liability and to assist the user in making business decisions in regard to the subject property.

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources

Sigma utilized the services of Environmental Data Resources (EDR, Milford, Connecticut) to provide regulatory data, meeting the ASTM Standard E 1527-05, from Federal and State agencies. The federal regulatory data includes the National Priorities List (NPL), the Resource Conservation and Recovery Act (RCRA) notifiers, the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) database, and the Emergency Response Notification System (ERNS) database. The state data includes the Leaking Underground Storage Tanks (LUST) list, the Registered Underground Storage Tank list, and the State Solid Waste Facilities/Landfill Sites list. During review of the data provided by EDR, Sigma focused on sites within a 1.0 mile radius or less of the property. The EDR summary report is included as **Appendix D** of this Phase I Environmental Site Assessment report. The findings of select inventories are discussed below.

4.1.1 National Priority List

The EPA publishes a National Priorities List (NPL) of sites included in the "Superfund" program as authorized by CERCLA and the Superfund Amendments and Reauthorization Act (SARA). EDR did not identify the subject property as a "Proposed" Superfund, Superfund or "Delisted" Superfund site, nor were "Proposed" Superfund, Superfund or "Delisted" Superfund sites identified within a 1.0-mile radius of the subject property.

4.1.2 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)

The CERCLIS list is a compilation of known or suspected uncontrolled or abandoned hazardous waste sites that are under investigation or have been investigated by the EPA to determine if the site(s) should be remediated under the Superfund program. EDR did not identify the subject property as a CERCLIS or CERCLIS - No Further Remedial Action Planned (NFRAP) site, nor were CERCLIS-NFRAP sites identified within a 0.50-mile radius of the subject property.

4.1.3 Resource Conservation and Recovery Act Corrective Action Report (CORRACTS)

The United States EPA maintains the CORRACTS database. The database includes RCRA facilities, which are undergoing corrective action due to a release of hazardous waste or constituents into the environment. EDR did not identify the subject property as a CORRACTS site; however, one CORRACTS site (Master Lock) was identified within a 1.0-mile radius of the subject property. Based on the relative distance between the reported site and the subject property, the subject property is not expected to be impacted by CORRACTS activities.

4.1.4 Resource Conservation and Recovery Act (RCRA)

RCRA includes selective information compiled by the EPA on sites, which generate, store, transport, treat, and/or dispose of hazardous waste. EDR did not identify the subject

property as a RCRA site; however, two RCRA hazardous waste generators were identified within a 0.25-mile radius of the subject property. Based on the relative distance between the reported sites and the subject property and the site status, the subject property is not expected to be impacted by RCRA hazardous waste generator activities.

EDR did not identify the subject property as an RCRA-Treatment, storage, or disposal facility, nor were RCRA-Treatment, storage, or disposal facilities identified within a 0.50-mile radius of the subject property.

4.1.5 Emergency Response Notification System (ERNS)

The ERNS list contains information on reported releases of oil and hazardous substances. EDR did not identify the subject property as an ERNS site.

4.1.6 State Hazardous Waste (SHWS)

The state hazardous waste site record, the Hazard Ranking List, is compiled by the Wisconsin Department of Natural Resources (DNR) and is generally the state's equivalent to the CERCLIS list. EDR did not identify the subject property as a state hazardous waste site, nor were state hazardous waste sites identified within a 1.0-mile radius of the subject property.

4.1.7 State Landfill

The state landfill list, the Registry of Waste Disposal Sites, is compiled by the DNR and includes an inventory of solid waste disposal facilities or landfills. EDR did not identify the subject property as a state landfill or waste disposal site, nor were waste disposal sites identified within a 0.50-mile radius of the subject property.

4.1.8 Leaking Underground Storage Tank (LUST)

The LUST list is compiled by the DNR and contains an inventory of reported LUST incidents. EDR identified the subject property as a LUST site. Specifically, the subject property is associated with three LUST listings (BRRS 03-41-524486, 03-41-003632, 03-41-524478). The LUST listings pertain to the investigation activities which were conducted under the direction of the City of Milwaukee Redevelopment Authority in the area bounded by North 24th Street, West Meinecke Avenue, North 27th Street, and West North Avenue.

The LUST investigation referenced by BRRS #03-41-524486 occurred at the 2328 North 27th Street property and subsequently was not located on the subject property. The LUST investigation referenced by BRRS #03-41-00362 occurred between North 24th Place and North 26th Street and therefore incorporates the western half of the subject property. The LUST investigation referenced by BRRS #03-41-524478 occurred at the 2416 West North Avenue parcel, located in the southeast portion of the subject property.

The LUST releases located on the subject property received case closure from the DNR in 1998 or 2007 and subsequently are considered historic RECs. Additional information related to the LUST investigations is included in Section 7.0 of this report.

In addition, EDR identified 33 LUST sites within a 0.50-mile radius of the subject property. Based on the relative distance between the reported sites and the subject property and/or the closed status, the LUST sites are not expected to impact the subject property.

4.1.9 Underground Storage Tanks (USTs)

The list of registered USTs is compiled by the Wisconsin Department of Safety and Professional Services (DSPS) and contains information on the site name, location, and number of tanks. EDR identified the subject property as referenced by 2416-28 West North Avenue and 2480 West North Avenue on the UST database. The UST listing for the 2480 West North Avenue subject property parcel pertains to a 1,111-gallon agricultural UST closed and removed from the subject property in 1974. In addition, the UST listing for the 2416 through 2428 West North Avenue subject property parcel pertains to two 300-gallon and one 2,000-gallon leaded gasoline UST closed and removed in 1969, a 1,111-gallon fuel oil UST abandoned without product in 1974 and a 1,111-gallon UST (contents listed as "other") closed and removed in 1974. Potential releases associated with the above referenced USTs were evaluated as a part of the LUST investigations discussed in Section 4.1.8 and 7.0 of this report. Given the closed status of the USTs and the associated LUST releases, the historic documented USTs are not expected to further impact the subject property.

In addition, EDR identified 17 registered UST sites within a 0.25-mile radius of the subject property. Based on the relative distance between the reported sites and the subject property and/or the closed status, the UST sites are not expected to impact the subject property.

4.2 Additional Environmental Record Sources

Sigma utilized EDR's services to provide regulatory data, exceeding the ASTM Standard E 1527-05, from Federal and State agencies. During review of the data provided by EDR, Sigma focused on sites within a 1.0 mile radius or less of the property.

4.2.1 Wisconsin Environmental Repair Program (ERP)

The ERP program database is compiled by the DNR and generally includes non-UST related spills. EDR did not identify the subject property as an ERP site; however, 23 ERP sites were identified within a 0.50-mile radius of the subject property. Based on the relative distance between the reported sites and the subject property, the closed status, and/or the perceived groundwater flow direction, the ERP sites are not expected to impact the subject property.

4.2.2 Lists of Registered Aboveground Storage Tanks

The list of registered ASTs is compiled by the Wisconsin Department of Safety and Professional Services (DSPS) and contains information on the site name, location, and number of tanks. EDR did not identify the subject property in the AST database.

4.2.3 Local Land Records

The Milwaukee Assessor's office was used to verify current recorded ownership information on the subject property. The City of Milwaukee Redevelopment Authority owns the subject property parcels.

4.2.4 Emergency Release Reports

The DNR spills inventory was checked by EDR. EDR did not identify the subject property in the Spills database.

4.2.5 RCRA Administration Action Tracking System (RAATS)

RAATS contains records based on the enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. EDR did not identify the subject property in the RAATS database.

4.2.6 Hazardous Materials Incident Report System (HMIRS)

HMIRS contains a log of hazardous material spill incidents, which have been reported to the United States Department of Transportation. EDR did not identify the subject property in the HMIRS database.

4.2.7 PCB Activity Database (PADS)

PADS identifies generators, transporters, commercial storers and/or brokers, and disposers of polychlorinated biphenyls (PCBs) who are required to notify the EPA of such activities. EDR did not identify the subject property in the PADS database.

4.2.8 Facility Index System (FINDS)

The FINDS list contains facility information and “pointers” to other sources. EDR did not identify the subject property in the FINDS database.

4.2.9 Toxic Release Inventory System (TRIS)

TRIS identifies facilities, which release toxic chemicals to the air, water, and land in “reportable quantities” under Title III of SARA. EDR did not identify the subject property in the TRIS database.

4.2.10 Toxic Substance Control Act (TSCA)

TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. EDR did not identify the subject property in the TSCA database.

4.2.11 Historical Auto Stations

The EDR Historical Auto Stations list includes listings of potential gas station/filling station/service station establishments. EDR did not identify the subject property as a historical auto station site; however EDR identified one historical auto station sites within a 0.25-mile radius of the subject property. Based on the results of the soil and groundwater investigation activities completed at the subject property between 1993 and 2005, the historical auto station site is not expected to impact the subject property.

4.2.12 Historical Cleaners

The EDR Historical Cleaners list includes potential dry cleaner sites. EDR did not identify the subject property as a potential dry cleaner site; however, EDR identified four historical cleaner sites within a 0.25-mile radius of the subject property. Based on the relative distance between the reported sites and the subject property, the historic cleaner sites are not expected to impact the subject property.

4.2.13 Orphan Summary

Orphan sites are sites with incomplete addresses that could not be plotted on the EDR Radius Map. EDR reported 81 orphan sites in its Radius Map report. All orphan sites had some address information available. Based on a review of available addresses, none of the sites are located at or adjacent to the subject property and are not expected to impact the subject property.

4.3 Physical Setting Sources

4.3.1 United States Geologic Survey Topographic Map

The subject property, which is located at an elevation of approximately 673 feet above mean sea level (MSL), is characterized by a topography that is relatively flat with the exception of debris piles and a soil pile which are present in various areas of the property. The topography in the general vicinity of the subject property is also relatively flat.

A United States Geological Survey (USGS) 7.5 Minute topographic map, designated as the Milwaukee, Wisconsin Quadrangle, was reviewed as part of this assessment. The map, completed in 1971, depicts the southern portion of the subject property as developed with two structures while the northern portion is indicated as a urban area (**Figure 1**).

4.3.2 Regional Geology and Hydrogeology

Sigma reviewed GeoScience Wisconsin (Vol. 7, 1983), and Soil Survey of Milwaukee and Waukesha Counties (July, 1971), each prepared by the Wisconsin Geologic and Natural History Survey (WGNHS), for information concerning the geology and hydrogeology beneath the subject property.

The surficial deposits in Milwaukee County consist of till and outwash deposits interbedded with fine-grained and stratified lake sediments. Deposited by the glacial Lake Michigan Lobe (or a sublobe) and its associated meltwater streams, the till is generally represented by the Oak Creek Formation. The Oak Creek Formation includes fine-grained till; lacustrine clay, silt, and sand; and some glaciofluvial sand and gravel. Beneath the glacial deposits lies undifferentiated dolomites which are underlain by a series of sedimentary rocks consisting largely of sandstones.

Additionally, Sigma reviewed available geologic information provided by EDR, which obtained information concerning the geology and hydrogeology beneath the subject property from the United States Department of Agriculture's (USDA) Soil Conservation Service (SCS). The Soil Conservation Service identified the subject property in an unmapped area.

Hydrogeologically, Milwaukee County is included in District No. 4 (Eastern Drift Paleozoic), as designated by the WGNHS. The aquifers of this district are described as a thick productive multilayered complex of Paleozoic sandstone and dolomite interbedded with non-productive layers and locally overlain by productive water-bearing sand and gravel. Groundwater in Milwaukee County moves within two (2) systems: a shallow water-table system and a deep artesian system. Regionally, within the shallow system (sand/gravel and Niagara), the groundwater flow is toward nearby lakes and streams. Groundwater flow within the deeper sandstone aquifer is generally from the west to east across the county. Groundwater flow at a particular site is best determined using site-specific well data. Cultural influences, including deep sewer systems and/or high capacity wells, may affect shallow groundwater flow direction.

4.4 Historical Use Information on the Subject Property

4.4.1 Occupancy History

Originally a list of residents, city directories provide the name of resident or business and the type of business (if unclear) in a business index, a resident index and a street index. Available city directories, dating from 1920 to 2003, were reviewed in approximately five-year increments by Environmental Data Resources (EDR; Milford, Connecticut) for the subject property. Historical occupants of the subject property parcels were primarily listed as residences with the exception of the following:

- 2304-2310 N 24th Place - Northwestern Motor Car Co., side entrance (1958),
- 2402 W North Avenue – Schneiberg Wholesale Fruits (1920-1930), Beer Auto Sales (1941-1947)
- 2416 -28 W North Avenue – Northwestern Motor Car (1920-1965)
- 2436 W North Avenue - Coronilla Co apron manufacturer (1930), Becker Motor Car (1930)
- 2440-46 W North Avenue – Motor Truck Sales (1925-1930)
- 2450 W North Avenue – Shoe repair (1925-1930)
- 2452 W North Avenue – Barber (1920-1930)
- 2454 W North Avenue – Pfister Thos G Furniture (1925-1930), Phillip soft drinks (1925), Tegge Motors used cars (1941-1958), 56 Tate Auto (1965)
- 2456 W North Avenue – Tegge Motors used cars (1941-1958), Painting contractors (1970)
- 2458 W North Avenue – Coronilla Co apron manufacturers (1935)
- 2460 W North Avenue – Keinfoger Leo C hobby shop (1947-1952)
- 2470 W North Avenue – Community Motors/Lubotsky & Anton Sales and Service (1935), Reo Motors Inc. (1947-1952)
- 2478 W North Avenue – Shoe repair (1935-1947)
- 2480 W North Avenue – barber (1935-1947), Northwestern Motor Car Co body shop (1952-1970)
- 2484 W North Avenue – tavern (1935)
- 2310 N 25th Street – Midwest Garage/Svehlek Garage (1935-1947),
- 2334 N 25th Street - Department of Public Works br/ward yards (1935-1965),

A copy of the city directory report is included in **Appendix E**.

4.4.2 Aerial Photographs

Sigma reviewed aerial photographs for the subject property. Available photographs, obtained from EDR, were dated 1937, 1950, 1956, 1963, 1969, 1979, 1981, 1985, 1992, 2000, 2005 and 2008. Based on the scale and general nature of the historical photographs, only major development or construction projects could be confirmed.

The 1937 and 1950 photographs generally depict the subject property as developed with numerous residences (typical residential city block); however two larger buildings are depicted on the southern portion of the property along West North Avenue. Residential property uses remains the prominent use of the subject property in the 1956 and 1963 photographs; however the eastern most residences (North 24th Street) appear to have been demolished and replaced with a parking lot. Demolish appears to have continued along the western and southern portion of the property in the 1969 and 1979 photographs. The remaining residences appear to have been demolished between the 1992 and 2000

photographs. The 2000 through 2008 photographs depict the subject property in its currently configuration, vacant. Copies of the photographs are included in **Appendix F**.

4.4.3 Fire Insurance Maps

Sigma contacted EDR for available Sanborn Fire Insurance maps depicting the subject property. Developed in the late 1800's, the maps were used until approximately the mid-1900s. A copy of the Sanborn Map report is presented in **Appendix G**. The following information is identified on the Sanborn maps:

Sanborn Map Summary	
Year	Subject Property Description
1894	The subject property consists of 49 separate parcels which are located in an area bounded by West North Avenue, North 24 th Street, West Kilbourn Avenue (Medford Avenue), West Meinecke Avenue, and North 25 th Street and split by North 24 th Place and multiple alleys. Each of the subject property parcels generally occupies a typical city lot and appears to be undeveloped or developed with one or more residential dwellings with the exception of 2434½ West North Avenue which is developed with a Cooper Shop and 2432, 2434 and 2528 West North Avenue which are developed with store fronts/dwellings.
1910	Essentially similar to the 1894 map; however, the subject property now consists of 51 parcels. The majority of the parcels are developed with residential dwellings with the exception of five parcels which are undeveloped. Additional property uses include a city tool yard (830 North 25 th Street), a lumber shed (857 West 24 th Place), store fronts (2432, 2450-2454 West North Avenue), an undertaker (2436 West North Avenue), and a trunk factory (2416 West North Avenue).
1951	The subject property consists of 36 separate parcels which are developed with one or more residential dwellings along North 24 th Street, West Medford Avenue, West Meinecke Avenue, and North 25 th Street. The city tool yard present at 2334 (formerly 828-830) North 25 th Street. Two auto sales and service businesses and an auto repair shop are depicted along West North Avenue (2428, 2456, and 2462-2484) and occupy the majority of the southern extent of the subject property. In addition two gasoline tanks are depicted within the North 24 th Place right of way just north of West North Avenue.
1969	Essentially similar to the 1951map; however a numerous residential dwellings along North 24 th Street have been demolished and property uses are depicted as "parking". In addition, the buildings located west of North 24 th Place and select buildings on West North Avenue are depicted with an "X" indicating that they are proposed to be demolished. In addition the auto sales and service business formerly located at 2428 West North Avenue is vacant and the most recent use is identified as truck rental.

4.5 Historical Use Information on Adjoining Properties

4.5.1 Occupancy History

Originally a list of residents, city directories provide the name of resident or business and the type of business (if unclear) in a business index, a resident index and a street index. Available city directories, dating from 1920 to 2003, were reviewed in approximately five-year increments by Environmental Data Resources (EDR; Milford, Connecticut) for the adjoining properties. Historical occupants within the area of the subject property primarily

included residences and commercial/retail businesses. Additional neighboring property uses included churches, schools, auto sales and service, tile company, machine tools, weatherstrip manufacturer, and a laundry. A copy of the city directory report is included in **Appendix E**.

4.5.2 Aerial Photographs

Sigma reviewed aerial photographs for the adjoining properties. Available photographs, obtained from EDR, were dated 1937, 1950, 1956, 1963, 1969, 1979, 1981, 1985, 1992, 2000, 2005 and 2008. Based on the scale and general nature of the historical photographs, only major development or construction projects could be confirmed.

The 1937 photograph generally depicts the area surrounding the subject property to be primarily developed with residential properties. Residential development remains the primary property use surrounding the subject property in the 1950 through 1963 photograph; however, the larger (non-residential) structures are visible along West North Avenue and a large parking lot is present east of the property across West Medford Avenue. The residences to the west of the subject property generally appear to have been demolished (except the northern most building-church) and are no longer present in the 1969 and 1979 photographs. The properties to the west of the subject property generally remain vacant until the 2000 photographs when the property appears to be redeveloped with the current structure, a multi-tenant commercial building. The 2000 and 2008 photographs generally depict the area surrounding the subject property similar to the current configuration with residences to the north, a parking lot, commercial building (grocery store) and residences to the east, commercial buildings to the south, and a commercial building and church to the west. Copies of the photographs are included in **Appendix F**.

4.5.3 Fire Insurance Maps

Review of the Sanborn maps indicates that majority of the area surrounding the subject property parcels was generally developed with residences. Vacant city lots were observed on the 1894 and 1910 Sanborn maps but were no longer visible on the 1951 and 1969 Sanborn maps. Additional property uses of note included a auto repair shop (battery sales and service and auto painting) located west of the subject property across North 25th Street (2500-2526 West North Avenue) and south of the subject property across West North Avenue (2469 West North Avenue). A copy of the Sanborn Map report is presented in **Appendix G**.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

On July 23, 2012, Sigma conducted a limited inspection of the subject property to examine the site for visual signs of contamination. Observations of the subject property were made of readily accessible and visually apparent areas. Where observations were limited, Sigma renders no opinion as to the presence of hazardous substances, wastes or contamination potential. Conditions at the time of the visit included sunny skies with temperatures in the 80s (°F).

The subject property was vacant/undeveloped at the time of the site reconnaissance. During the site reconnaissance, Sigma observed a large berm area along the west side of

North 24th Place. Based on the berm location, it appears that the berm was generated during the 1993 investigation activities (see section 7.0 of this report). In addition various piles of construction/demolition rubble were also observed. Site photographs are included in **Appendix H**.

5.2 Observations

5.2.1 Hazardous Substances and Petroleum Products in Connection with Identified Uses
Not observed.

5.2.2 Storage Tanks and Drums
Not observed.

5.2.3 Odors, Pools of Liquids, Stained Soil or Pavement, Stressed Vegetation
Not observed.

5.2.4 Hazardous Substances and Petroleum Products Not Necessarily Used in Connection with Identified Uses
Not observed.

5.2.5 Unidentified Substance Containers
Not observed.

5.2.6 Polychlorinated Biphenyls (PCBs)
Not observed.

5.2.7 Wastewater Pits, Ponds or Lagoons
Not observed.

5.2.8 Wastewater
Not observed.

5.2.9 Solid Waste
Various piles of construction/demolition rubble were observed at the subject property.

5.2.10 Heating
Not observed.

5.2.11 Emergency Generators
Not observed.

5.2.12 Stains or Corrosion
Not observed.

5.2.13 Drains or Sumps
Not observed.

Additionally, from within the boundaries of the subject property, Sigma examined the adjoining properties for conditions that might indicate recognizable environmental conditions (RECs). No physically observable RECs were identified on the adjoining properties.

6.0 INTERVIEWS

6.1 Interviews with Site Owners

See Section 3.5 of this report.

6.2 Interviews with Local Government Officials

6.2.1 City of Milwaukee Assessors Department

In lieu of interviews, Sigma reviewed available assessor records for the subject property on the City of Milwaukee property date website. A review of city assessor records indicated that the subject property consists of 27 parcels which range in size from 0.046-acres to 2.38-acres. Each of the subject property parcels are vacant and zoned as light industrial (IL2). Records of environmental significance were not found.

6.2.2 City of Milwaukee Building Inspection Department

In lieu of interviews, Sigma reviewed available building inspection records for the subject property at the City of Milwaukee Building Department. The records were primarily limited to various construction-related permits, raze orders, and demolition permits. Identified records of environmental significance are as follows:

- Permit to install a 275-gallon fuel oil tank in basement, 2375 N 24th Place – 1952
- Permit to install a 275-gallon fuel oil tank (location not provided), 2368 N 25th Street – 1957
- Permit to install a 275-gallon fuel oil tank in basement, 2340 N 24th Place – 1949
- Occupancy permit for a used car lot, 2402-04 W North Avenue – 1951
- Occupancy permit for the sale of used cars, 2408 W North Avenue – 1952
- Electrical permit indicates used car lot building, 2412-14 W North Avenue – 1954
- Occupancy permit for auto sales and service, 2458-60 W North Avenue – 1937 and 1940
- Permit to construct a 10 compartment garage, 2478-84 W North Avenue – 1920
- Permit to construct a garage and shop, 2478-84 W North Avenue - 1925

7.0 PREVIOUS REPORTS

On July 31, 2012, Sigma reviewed the DNR file for the LUST releases associated with the subject property (BRRTS #03-41-003632 and #03-41-524478). In addition, given that Sigma conducted the post-1995 investigation activities, Sigma's in-house file for the LUST incidents associated with the subject property was also reviewed. The following is a summary of the investigation activities documented to date for the subject property.

In 1991 the City of Milwaukee conducted a Phase I Environmental Site Assessment (ESA) on the property located on the north side of the West North Avenue between North 24th Street and North 26th Street (the eastern half of which includes the subject property). The 1991 Phase I revealed that the property (of which the subject property is a part) was historically occupied by various automobile dealerships, engine repair facilities, auto body

shops, batteries and tire shops, a radiator repair shop and a farm store. In addition, a City of Milwaukee Department of Public Works Ward Yard (2334 North 25th Street) was also reported to be located on the east side of North 25th Street (subject property).

In February 1993 STS Consultants, Ltd. (STS) conducted a Phase II assessment on the property located on the north side of the West North Avenue between North 24th Street and North 27th Street (of which the subject property is a part) which included a search for USTs/magnetometer investigation, soil boring advancement, test pit excavations, monitoring well installation, and associated soil and groundwater sample collection and analysis. Specifically, STS advanced four soil borings/monitoring wells (BW-4/MW-4, BW/MW-5, BW-6, BW-7/MW-7) and 14 test pits (TP-14 through TP-27).

The results of the STS investigation indicated that gasoline-related soil impacts were identified within the area of the former municipal yard (2334 North 25th Street), diesel-related soil impacts were identified within the area formerly occupied by auto-related uses between North 24th Place and North 25th Street along West North Avenue (2456 and 2460 West North Avenue), and petroleum-related soil impacts were identified within the area formerly occupied by the Northwestern Motor Car Company (2416-28 West North Avenue). In addition fill material consisting primarily of silty sand, gravel, and clay soils ranging in thickness from 6 inches to 10 feet was observed during the February 1993 investigation activities conducted at the subject property.

In September 1993, Graef, Anhalt, Scholoemer & Associates, Inc. (Graef) conducted remedial investigation activities along the West North Avenue right-of-way within the vicinity of North 24th Place and North 27th Street (of which the subject property is a part) in preparation of the West North Avenue right-of-way expansion. Remedial investigation conducted by Graef at the subject property included the advancement of two test pits (TP-15A and TP-15-B) and associated soil sample collection to further evaluate the diesel related soil contamination previously identified by STS. Contaminant concentrations were not reported above the method detection limits with the exception of diesel range organics (DRO) reported at a concentrations of 43 parts per million (ppm) within the soil sample collected from TP-15, 9 feet.

Between 1995 and 1999, Sigma conducted a supplemental investigation which included a geophysical survey to identify potential USTs and the advancement of eleven soil borings (GP-1 through GP-7, GP-12, and B-15 through B-17), installation of seven groundwater monitoring wells (MW-8 through MW-11 and MW-15 through MW-17), and soil and groundwater analysis to further evaluate the petroleum-related impacts identified by STS in 1993. In addition, Sigma conducted a soil characterization of the soil pile located between North 24th Place and North 25th Street which was generated during the 1993 investigation activities.

Results of the soil pile characterization indicated that slightly elevated concentrations of lead and diesel range organics (DRO) were reported above the current state standards within one or more of the soil samples collected from the soil pile area. Documentation of the removal of the soil pile was not identified during this Phase I ESA.

Review of the investigation results (STS, Graef, and Sigma's investigation) for the area of the subject property located between North 24th Place and North 25th Street (former auto-related uses along West North Avenue, municipal yard, and soil pile area) indicated that

petroleum-related soil impacts, which are confined to a relatively small area, were reported at concentrations slightly above the state standards within select areas of the western portion of the subject property. Groundwater impacts were not reported above the state standards during each of the three sampling events (February 1996, June 1996, and May 1998) with the exception of select polynuclear aromatic hydrocarbons (PAHs) reported above the Chapter NR 140 Enforcement Standard (ES) during the first sampling event (February 1996). Given the low level soil impacts present within select areas of the site (including the soil pile) and the lack of groundwater impacts identified during the final two sampling events, the DNR granted case closure for the western half of the subject property (BRRTS #03-41-003632) in December 1998.

The investigation results (STS, Graef, and Sigma's investigation) for the area of the subject property located between North 24th Street and North 24th Place (former auto-related uses along West North Avenue) indicated that petroleum and/or lead-related soil and groundwater impacts were identified within the area of two former 300-gallon USTs. In November 1998 Sigma oversaw the excavation of approximate 2,026 tons of impacted soil from the southeast portion of the subject property. Following the remedial excavation, quarterly groundwater monitoring was conducted from March 1999 through January 2003.

In 2006 one additional groundwater monitoring well (MW-18) was installed and two additional groundwater sampling events were conducted to further define the down gradient extent of the groundwater impact plume. The results of the 2006 sampling event indicate that residual groundwater impacts are confined to the area of monitoring well MW-17 (southwest corner of North 24th Place and West North Avenue). The DNR granted case closure for the southeast portion of the subject property (BRRTs #03-41-524478) in May 2012 following the inclusion of the site on the geographic information systems (GIS) registry for the residual soil and groundwater impacts.

Given the size, the environmental reports reviewed by Sigma are not included as an attachment to this report but are available upon request. The reports reviewed as a part of this Phase I include, but are not limited to the following:

- Phase II Environmental Assessment Report dated May 1993 and prepared by STS Consultants, Ltd.
- Remedial Investigation Report dated July 1994 and prepared by Graef, Anhalt, Schloemer & Associated, Inc.
- Laboratory Report, soil pile characterization samples (S-1 through S-5) dated December 18, 1995 and prepared by Enviroscan
- Closure Request for Redevelopment Authority of the City of Milwaukee North Avenue Commerce Center – Area B dated August 18, 1997 and June 11, 1998 and prepared by Sigma Environmental Services, Inc.
- Summary of Remedial Action Request for Site Closure, North 24th Street and North 24th Place at West North Avenue, Area C, Milwaukee, Wisconsin dated June 2005 and prepared by Sigma Environmental Services, Inc.
- Summary of Supplemental Investigation Findings, RACM Area "C" Property, 2416 W. North Avenue, Milwaukee, Wisconsin dated January 2, 2007 and prepared by Sigma Environmental Services, Inc.

8.0 FINDINGS

The subject property consists of 27 parcels which range in size from 0.046-acres to 2.38-acres and together make up an approximately 6.6-acre piece of land located in the City of Milwaukee, Milwaukee County, Wisconsin. Specifically the subject property is bounded by North 24th Street, West Medford Avenue, West Meinecke Avenue, North 25th Street, and West North Avenue and split by North 24th Place. At the time of this assessment, the subject property parcels were vacant and undeveloped. Historically, the subject property parcels were primarily occupied by residences with the exception of various store fronts and auto sales and service/repair uses which were present along West North Avenue (southern extent of the subject property). The former structures associated with the subject property were demolished between the 1950's and 1995, with the majority of the demolition activities occurring in the mid1990's.

Review of the historic city directories and Sanborn maps indicates that the southern portion of the subject property (along North Avenue) was primarily utilized by numerous auto sales and/or service businesses between the 1920's and 1960's. In addition, a municipal yard as also depicted on the east side of North 25th Street (2334 North 25th Street). Two gasoline tanks associated with an auto sale business located at 2428 West North Avenue were depicted within the North 24th Place right-of-way on the 1951 Sanborn map.

A search of available environmental records was conducted by Environmental Data Resources Inc. (EDR; Milford, CT). EDR identified the subject property on the Wisconsin Department of Natural Resources (DNR) Leaking Underground Storage Tank (LUST), Wisconsin Department of Health and Safety (DSPS) Underground Storage Tank (UST) database.

Specifically, the subject property is associated with three LUST listings (BRRS 03-41-524486, 03-41-003632, 03-41-524478). The LUST listings pertain to the investigation activities which were conducted under the direction of the City of Milwaukee Redevelopment Authority in the area bounded by North 24th Street, West Meinecke Avenue, North 27th Street, and West North Avenue. The LUST investigation activities were initiated in 1993 in an effort to prepare the property for redevelopment and for the right-of-way expansion of West North Avenue.

The LUST investigation referenced by BRRS #03-41-524486 occurred at the 2328 North 27th Street property and subsequently was not located on the subject property. The LUST investigation referenced by BRRS #03-41-00362 occurred between North 24th Place and North 26th Street and therefore incorporates the western half of the subject property. The LUST investigation referenced by BRRS #03-41-524478 occurred at the 2416 West North Avenue parcel, located in the southeast portion of the subject property.

The LUST investigations associated with the subject property evaluated the historic auto-related uses and associated tanks along West North Avenue and the historic municipal yard use on the east side of North 25th Street. Results of the LUST investigation activities indicate that fill material, consisting primarily of silty sand, gravel, and clay soils and ranging in thickness from 6 inches to 10 feet, was observed within the investigation areas. In addition, petroleum-related and/or lead soil and groundwater impacts were identified within select areas of the subject property (primarily along West North Avenue). Each of

the LUST releases associated with the subject received case closure from the DNR in 1998 or 2007.

The LUST case associated with the southeast portion of the subject property 2416 West North Avenue, BRRTS #03-41-524486) was placed on the geographic information systems (GIS) registry due to the residual soil and groundwater impacts remaining at the time of case closure (2007). In addition, although not included on the GIS registry, it should be noted that low-level (slightly above state standards) petroleum-related and/or lead soil impacts also remained present at the time of the DNR case closure associated with the western portion of the subject property (BRRTS# 03-41-003632).

The UST listing for the subject property, as referenced by 2480 West North Avenue, pertains to a 1,111-gallon agricultural UST closed and removed from the subject property in 1974. In addition, a UST listing for the 2416 through 2428 West North Avenue (subject property) pertains to two 300-gallon and one 2,000-gallon leaded gasoline UST closed and removed in 1969, a 1,111-gallon fuel oil UST abandoned without product in 1974 and a 1,111-gallon UST (contents listed as "other") closed and removed in 1974. Potential releases associated with the above referenced USTs were evaluated as a part of the LUST investigations discussed above.

Review of the historic reports associated with the subject property LUST incidents indicates that a soil pile generated during the 1993 investigation activities is located on the western portion of the subject property (between North 24th Place and North 25th Street). Soil samples were collected by Sigma in 1995 for the purposes of soil characterization and disposal profiling. Results of the 1995 laboratory analysis indicate that slightly elevated concentrations of lead and diesel range organics (DRO) were reported above the current state standards within one or more of the soil samples collected from the soil pile area. The soil pile was observed at the subject property during the recent site reconnaissance.

In addition to the subject property, EDR identified several sites in the vicinity of the subject property on one or more of the environmental databases researched by EDR. Based on the relative distance between the reported sites and the subject property, the site status, and/or results of the previous investigation activities completed at the subject property, the identified sites are not expected to impact the subject property.

9.0 OPINIONS

Review of the historic city directories and Sanborn maps indicates that the southern portion of the subject property (along North Avenue) was primarily utilized by numerous auto sales and/or service businesses between the 1920's and 1960's. In addition, a municipal yard as also depicted on the east side of North 25th Street (2334 North 25th Street). Two gasoline tanks associated with an auto sale business located at 2428 West North Avenue were depicted within the North 24th Place right-of-way on the 1951 Sanborn map.

A search of available environmental records was conducted by Environmental Data Resources Inc. (EDR; Milford, CT). EDR identified the subject property on the Wisconsin Department of Natural Resources (DNR) Leaking Underground Storage Tank (LUST), Wisconsin Department of Health and Safety (DPS) Underground Storage Tank (UST) database.

Specifically, the subject property is associated with three LUST listings (BRRTS 03-41-524486, 03-41-003632, 03-41-524478). The LUST listings pertain to the investigation activities which were conducted under the direction of the City of Milwaukee Redevelopment Authority in the area bounded by North 24th Street, West Meinecke Avenue, North 27th Street, and West North Avenue. The LUST investigation activities were initiated in 1993 in an effort to prepare the property for redevelopment and for the right-of-way expansion of West North Avenue.

The LUST investigation referenced by BRRTS #03-41-524486 occurred at the 2328 North 27th Street property and subsequently was not located on the subject property. The LUST investigation referenced by BRRTS #03-41-00362 occurred between North 24th Place and North 26th Street and therefore incorporates the western half of the subject property. The LUST investigation referenced by BRRTS #03-41-524478 occurred at the 2416 West North Avenue parcel, located in the southeast portion of the subject property.

The LUST investigations associated with the subject property evaluated the historic auto-related uses and associated tanks along West North Avenue and the historic municipal yard use on the east side of North 25th Street. Results of the LUST investigation activities indicate that fill material, consisting primarily of silty sand, gravel, and clay soils and ranging in thickness from 6 inches to 10 feet, was observed within the investigation areas. In addition, petroleum-related and/or lead soil and groundwater impacts were identified within select areas of the subject property (primarily along West North Avenue). Each of the LUST releases associated with the subject received case closure from the DNR in 1998 or 2007.

The LUST case associated with the southeast portion of the subject property (2416 West North Avenue, BRRTS #03-41-524486) was placed on the geographic information systems (GIS) registry due to the residual soil and groundwater impacts remaining at the time of case closure (2007). In addition, although not included on the GIS registry, it should be noted that low-level (slightly above state standards) petroleum-related and/or lead soil impacts also remained present at the time of the DNR case closure associated with the western portion of the subject property (BRRTS# 03-41-003632). Given the closed status, the LUST releases are considered a historic REC.

The UST listing for the subject property, as referenced by 2480 West North Avenue, pertains to a 1,111-gallon agricultural UST closed and removed from the subject property in 1974. In addition, a UST listing for the 2416 through 2428 West North Avenue (subject property) pertains to two 300-gallon and one 2,000-gallon leaded gasoline UST closed and removed in 1969, a 1,111-gallon fuel oil UST abandoned without product in 1974 and a 1,111-gallon UST (contents listed as "other") closed and removed in 1974. Potential releases associated with the above referenced USTs were evaluated as a part of the LUST investigations discussed above. Given the closed status of the UST and the associated LUST releases, the historic documented USTs are not expected to further impact the subject property.

Review of the historic reports associated with the subject property LUST incidents indicates that a soil pile generated during the 1993 investigation activities is located on the western portion of the subject property (between North 24th Place and North 25th Street). Soil samples were collected by Sigma in 1995 for the purposes of soil characterization and

disposal profiling. Results of the 1995 laboratory analysis indicate that slightly elevated concentrations of lead and diesel range organics (DRO) were reported above the current state standards within one or more of the soil samples collected from the soil pile area. The soil pile was observed at the subject property during the recent site reconnaissance. Given that the soil pile was generated as a part of the 1993 LUST investigation and the associated LUST case (BRRTS #03-41-003632) received closure in 1998, the soil pile is considered a historic REC.

In addition to the subject property, EDR identified several sites in the vicinity of the subject property on one or more of the environmental databases researched by EDR. Based on the relative distance between the reported sites and the subject property, the site status, and/or results of the previous investigation activities completed at the subject property, the identified sites are not expected to impact the subject property.

10.0 CONCLUSIONS

Sigma has performed an environmental site assessment, in conformance with the scope and limitations of ASTM Practice E 1527(-05). Any exceptions to, or deletions from, this practice are described in Section 10 of this report. This assessment has not revealed evidence of recognized environmental conditions in connection with the property. However the following historic RECs were identified:

- Two LUST releases (BRRTS #03-41-003632 and #03-41-524478) were reported at the subject property. The LUST releases pertain to petroleum and/or lead-related soil and/or groundwater impacts identified within select areas of the subject property (primarily within the historic auto-related use areas along West North Avenue and the former municipal yard located on North 25th Street). The DNR granted case closure for each of the LUST releases in 1998 or 2007; however, residual soil and/or groundwater impacts were documented to remain in place at the time of case closure. If encountered during redevelopment activities, the residual contaminated soil or groundwater would require appropriate management in accordance with applicable state and federal regulations.
- A soil pile containing low-level impacted soil generated during the 1993 LUST investigation activities conducted at the subject property remains present on the subject property. The LUST case associated with the soil pile generation (BRRTS #03-41-003632 received case closure from the DNR in 1998. Soil disturbed from the soil pile would require appropriate management in accordance with applicable state and federal regulations.

The conclusions included in this assessment report should not be construed as legal advice. This practice is intended to reflect a commercially prudent and reasonable inquiry. No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with the subject property. Performance of the ASTM E 1527-05 practice is intended to reduce, but not eliminate that uncertainty. Finally, even a finding of no recognized environmental conditions is not a warranty or guarantee that the property is free from contamination.

11.0 DEVIATIONS

There were no intentional deviations from or additions to standard practices identified in the ASTM standard for Phase 1 ESAs ASTM-1527-05 except as noted within this report.

12.0 REFERENCES

Published referenced sources relied upon in preparing this Phase I Environmental Site Assessment are as noted in the body of the report.

13.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professional as defined in section 312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquires in general conformance with the standards and practices set forth in 40 CFR Part 312.



Mary E. Trotta
Project Scientist



Randy E. Boness, P.G.
Manager, Geosciences Group

14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Sigma Environmental Services, Inc. is a full-service environmental consulting and engineering firm located in Milwaukee, Wisconsin. Project team resumes are included in **Appendix I**.