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Engineers • Consultants • Inspectors

August 20, 2020

Wisconsin Department of Natural Resources
Mr. Jeremy Mitchell
2984 Shawano Avenue
Green Bay, WI 54313

RE: SITE INVESTIGATION WORK PLAN
Former Neighborhood Cleaners
611 West Northland Avenue
Appleton, Wisconsin
GEC Project Number: 2-0120-82
BRRTS No. 02-45-585245

Dear Mr. Mitchell:

Introduction

General Engineering Company (GEC) is pleased to submit this Work Plan for the performance of site investigation activities at the above-referenced location (Site). The Site is currently being developed with an Aldi grocery store.

This Work Plan has been prepared in general accordance with Wisconsin Administrative Code (WAC) NR 716.09.

Responsible Party and Consultant

Site Name and Location:	Former Neighborhood Cleaners 611 West Northland Avenue Appleton, Wisconsin Northwest ¼ of the Northwest ¼ of Section 23, Township 21 North, Range 17 East Outagamie County, Wisconsin
Site Operations:	The Site is currently being developed with an Aldi grocery store that is planned to open in November of 2020.

Responsible Party: R Lewis & R Lewis, LLC
c/o Rebecca Lewis
P.O. Box 22190
Green Bay, Wisconsin 54305
Phone: (920) 338-0125 x103
becky@rlewistechnologies.com

Consultant: General Engineering Company
916 Silver Lake Drive
Portage, WI 53901
Phone: (608) 742-2169

Project Manager: Brian Youngwirth
General Engineering Company
916 Silver Lake Drive
Portage, WI 53901
Phone: (608) 742-2169
byoungwirth@generalengineering.net

Authorization

Authorization to prepare this Site Investigation Work Plan was provided by Ms. Rebecca Lewis of R Lewis & R Lewis, LLC, the responsible party (RP) and current owner of the Site.

Site Features

The Site formerly consisted of five land parcels, including Parcel IDs 316286100 (0.1249-acres), 316286000 (0.3077-acres), 316769200 (0.2914-acres), 316769100 (0.2757-acres), and the western half of parcel 316770400 (2.9627-acres). Parcel 316770400 was historically occupied by a commercial strip mall with addresses of 621 West Northland Avenue and 2702 North Richmond Street. The strip mall was comprised of 5 units most recently occupied from west to east by a vacant former muffler repair shop, Pho House Restaurant, Pinnacle Therapy Solutions, Coin Laundry, and a vacant sports memorabilia store. The remaining parcels comprising the Site consisted of vacant land, although it is understood that residential homes formerly occupied at least two of the parcels (316769100 and 316769200). The Site was consolidated into 1 parcel of land on April 3, 2020 (Lot 1 of CSM No. 7884), which is 2.5334-acres in size. The strip mall was demolished during May of 2020. An approximate 20,000-square-foot Aldi Grocery Store is currently being constructed on the Site. The Site is located on the east side of North Richmond Street with the Northwest ¼ of the Northwest ¼ of Section 23, Township 21 North, Range 17 East. A Site Location Map is shown on Figure 1, Appendix A. The Site Plan for the proposed Aldi development is shown of Figure 2, Appendix A. The Historic Site Plan is shown on Figure 2A, Appendix A.

The topography of the Site and surrounding area was historically relatively flat with a down-gradient slope toward the east and south. During the site development activities, the existing ground surface was raised approximately 4 to 5 feet on the southern end of the Site while undercuts of approximately 1 to 2 feet were performed in the area of the northeastern portion of the parking lot. A water detention basin is being

constructed at the far south end of the Site. The Site is serviced by the City of Appleton municipal water and sewer systems.

The Site is bound to the north by an access drive, followed by Fazoli's and Starbucks; to the south by Weekend Dental Associates School, J & J Electronics and residential properties; to the east by Play It Again Sports and residential properties; and to the west by North Richmond Street, followed by Associated Bank, BP Gasoline Station, Chester's Pub, and Richmond Street Inn.

Background

GEC was originally retained by GB Real Estate Investments, LLC on September 30, 2019, to perform a Phase I Environmental Site Assessment (ESA) on the Site. During the preliminary research for the Phase I ESA, and review of a prior Phase I ESA performed by GME Consultants, Inc., dated August 31, 1990, provided to GEC by the current owner of the Site, GEC identified several Recognized Environmental Conditions (RECs) in connection with the Site, which are identified below.

1. The western portion of the existing building had been utilized as a vehicle maintenance facility for several decades. According to review of the prior Phase I ESA, five hydraulic lifts were formerly utilized within the building and are believed to have leaked. These hoists were eventually converted to aboveground mechanical hoists. The former hoist locations were not visible during the site visit performed by GEC. A hoist pit was also reportedly present within the service garage at the time of the prior Phase I ESA, which was not visible at the time of GEC's site visit. The hoist pit reportedly continually filled with groundwater.

2. According to review of the prior Phase I ESA, aboveground storage tanks (ASTs) containing fuel oil and waste oil were observed outside of the building. In addition, other ASTs and barrels containing hydraulic fluid and other unidentified contents were stored outside of the building. A former building was also identified in the prior Phase I ESA, just north of the existing building, and several other barrels and an AST were observed outside the eastern end of that building. A 20-gallon waste oil spill was indicated to have occurred on the Site from leaking barrels in 1988. The spill case was closed by the Wisconsin Department of Natural Resources (WDNR).

3. According to the current owner of the Site, the eastern portion of the existing building was formerly utilized as a dry-cleaning facility during the 1990s.

4. A former Leaking Underground Storage Tank (LUST) case (Shell Station at 2619 North Richmond Street) and presently operating BP gasoline station is present on the western adjoining property, beyond North Richmond Street. The LUST case was closed by the WDNR on March 16, 2000. GEC reviewed the case file on the WDNR BRRTS website. Monitoring wells installed at the eastern limits of that property reportedly contained petroleum contaminants exceeding the NR 140 enforcement standard (ES) at the time of closure and no monitoring wells were installed beyond the eastern limits of the Shell Station property at that time. Groundwater flow was identified to be toward the east. GEC also reviewed a Phase 2.5 Report prepared by TRC, dated October 7, 2014, which identified soil and groundwater contamination within the western portion of the North Richmond Street Right-Of-Way (ROW). Therefore, it does not appear that the eastern limits of the groundwater contamination (toward the Site) were defined, and the property has continued to operate as a gasoline station since case closure in 2000.

Due to the above identified RECs, GB Real Estate Investments, LLC requested that the Phase I ESA be terminated and that the Limited Phase II ESA be performed in conjunction with geotechnical activities being performed for the planned Aldi development.

The scope of the initial Limited Phase II ESA and geotechnical activities included the advancement of 18 total soil borings, 9 of which were evaluated for environmental purposes including B-1, B-2, and B-12 to B-18. On October 29, 2019, GEC was present to oversee the advancement of soil borings B-1, B-2, and B-12 to B-18. Soil borings B-1, B-12, B-14, and B-17 were converted to temporary monitoring wells (TW-1 to TW-4) to depths of 15 feet below ground surface (bgs). The soil borings were performed by Gestra Engineering, Inc. (Gestra) of Milwaukee, Wisconsin. A Geotechnical Report, dated November 21, 2019, was prepared by Gestra under a separate contract. Soil boring and monitoring well locations are shown on Figure 3, Appendix A.

Soil samples were collected from B-1, B-12 to B-16, and B-18 and submitted for laboratory analysis for the presence of volatile organic compounds (VOCs). Groundwater samples were collected from temporary wells TW-1 to TW-4 and the open borehole in B-2 and submitted for laboratory analysis for the presence of VOCs. Groundwater samples were collected from the temporary monitoring wells or geotechnical borings utilizing single-use disposable polyethylene bailers. Upon completion of the soil and water testing, the boreholes and temporary wells were abandoned with bentonite.

The soil sample collected from the B-1 at a depth of 4.5 to 6 feet bgs reported tetrachloroethene (PCE) at a concentration of 151 micrograms per kilogram (µg/kg), which exceeded its Wisconsin Administrative Code Chapter NR 720 (WAC NR 720) soil to groundwater residual contaminant level (RCL) of 4.5 µg/kg. None of the other soil samples reported detectable concentrations of VOCs.

The groundwater samples collected from temporary wells TW-1 and TW-4 reported PCE at concentrations of 0.69J micrograms per liter (µg/L) and 0.87J µg/L, respectively, which exceeded the WAC NR 140 preventive action limit (PAL) of 0.5 µg/L for PCE. No other VOCs were detected at concentrations exceeding their respective standards at any of the other test locations.

GEC prepared a Limited Phase II ESA Report, dated December 3, 2019, and recommended that additional work be performed near B-1, TW-1, and TW-4 to further evaluate the potential degree and extent of the identified soil and groundwater contamination. GEC was subsequently contracted by the current owner the Site (R Lewis and R Lewis, LLC) to perform the additional site investigation work.

On January 13, 2020, GEC was present on-site to oversee the advancement of soil probes GP-19 to GP-27. Soil probes GP-19, GP-20, GP-21, GP-23, GP-24, and GP-26 were converted to temporary monitoring wells designated TW-5 to TW-10, respectively, to depths of 15 feet bgs. The soil probes were performed by On-Site Environmental Services of Sun Prairie, Wisconsin. The soil probe and temporary monitoring well locations are shown on Figure 3, Appendix A.

The soil samples collected from GP-24 at a depth of 6 to 7 feet bgs; GP-25 at a depth of 2 to 3 feet bgs, and GP-26 at a depth of 6 to 7 feet bgs reported PCE at concentrations of 135 µg/kg, 79J µg/kg, and 64J µg/kg, respectively, exceeding its NR 720 soil to groundwater RCL of 4.5 µg/kg. The soil samples collected from GP-24 at a depth of 3 to 4 feet bgs and GP-25 at a depth of 2 to 3 feet bgs reported trichloroethene (TCE) at concentrations ranging from 42J µg/kg to 98J µg/kg, respectively, exceeding its NR 720 soil to groundwater RCL of 3.6 µg/kg. The laboratory “J” flag indicates the concentrations are estimated and above the laboratory method detection limit but below the quantitation limit. None of the other soil sample reported detectable concentrations of VOCs.

Groundwater samples were collected from small diameter wells TW-5 to TW-10 on January 17, 2020. The groundwater samples collected from temporary wells TW-8, TW-9, and TW-10 reported PCE at concentrations of 76 µg/L, 166 µg/L, and 22.5 µg/L, respectively, which exceeded its respective WAC NR 140 enforcement standard (ES) of 5 µg/L. The groundwater samples collected from TW-8, TW-9, and TW-10 also reported TCE at concentrations of 1.32 µg/L, 1.68 µg/L, and 0.67J µg/L, respectively, which

exceeded its WAC NR 140 PAL of 0.5 µg/L. No other VOCs were detected at concentrations exceeding their respective standards at any of the other test locations.

GEC prepared a Limited Phase II ESA Update, dated January 30, 2020, which recommended that the WDNR be notified of the contamination and that an additional site investigation be performed to further characterize and evaluate the extent of contaminated soil to facilitate construction of the planned Aldi building and landfill disposal, if required. The report also recommended that that clay plugs be installed along utility lines, and that a vapor mitigation system be placed under the new building. Accordingly, the WDNR was notified and the Site was issued Bureau for Remediation and Redevelopment Tracking System (BRRTS) No. 02-45-585245, and the WDNR issued a responsible party letter dated February 7, 2020. However, due to the planned construction of the Aldi building, it was recommended that the additional investigation (soil borings and monitoring wells) not commence until the construction of the Aldi building has been completed.

The scope of work recommended in the Limited Phase II ESA Update was formally submitted to the WDNR by GEC in a Work Plan dated February 6, 2020. The scope of the additional site investigation and remedial activities included the collection of 1 round of groundwater samples from small diameter monitoring wells TW-5 to TW-10, abandonment of the small diameter monitoring wells TW-5 to TW-10, performance of 10 test pits (TP-1 to TP-10), oversight of the relevant earthwork performed for the proposed Aldi building, transportation of identified contaminated soil to the landfill for proper disposal, collection of two groundwater samples from the water utility trenches (Sump and Sump 2), laboratory testing of soil and groundwater samples, analysis of the data obtained, and preparation of a summary report. The Sump groundwater sample was obtained from the water utility trench to the north of the identified contamination and was observed to contain water migrating through the backfill of an existing utility line further north on the Site, where contamination had not been detected during the previous testing. Sump 2 was located just south of the known contaminated area within the City water line trench. Clay plugs were installed within the up and down gradient ends of each new water line installation.

The test pits were performed by Bayland Excavating, Inc. of Green Bay, Wisconsin under the direction of GEC. The dimensions of the test pits were approximately 3 feet wide by 6 feet long by 2 feet to 5 feet in depth, depending on the planned depth of the footing excavations. The test pits were performed near the rear doors of the former dry cleaner building, near the estimated location of the former dry cleaning machine, and beyond the prior test locations, where chlorinated compounds were detected along the planned northern and eastern footing lines. One to two soil samples were collected from each test pit and submitted for laboratory analysis for the presence of VOCs. The soil sampling results from the test pits and previous soil borings and probes were utilized to determine soils that would be transported to the landfill for proper disposal.

Groundwater samples were collected from small diameter wells TW-5 to TW-10 with a plastic bailer and from water pumped from the water line utility excavations (during water line installation) and submitted for laboratory analysis for the presence of VOCs. Upon completion of the groundwater sampling at small diameter monitoring wells TW-5 to TW-10, the wells were abandoned with bentonite due to their likely damage during the building and parking lot demolition activities.

The soil samples collected from test pits TP-2 (1-foot and 5 feet bgs), TP-3 (5 feet bgs), TP-4 (5 feet bgs), TP-5 (2 feet bgs), TP-8 (2 feet bgs), and TP-10 (3 feet bgs) reported PCE at concentrations ranging from 32J µg/kg to 370 µg/kg, respectively, exceeding its NR 720 soil to groundwater RCL of 4.5 µg/kg. None of the other test pit soil samples reported detectable concentrations of VOCs. The results of the chemical analyses of the soil samples are summarized in Table 1 included in Appendix B. Laboratory analytical results and chain-of-custody forms were included in prior reports.

The groundwater samples collected from temporary wells TW-6, TW-8, TW-9, and TW-10 reported PCE at concentrations of 5.1 µg/L, 78 µg/L, 153 µg/L, and 13.9 µg/L, respectively, which exceeded its respective NR 140 ES of 5 µg/L. The groundwater sample collected from TW-7 reported vinyl chloride at a concentration of 0.27 J µg/L, which exceeded its NR 140 ES of 0.2 µg/L, and benzene at a concentration of 2.03 µg/L, which exceeded its NR 140 PAL of 0.5 µg/L. The groundwater samples collected from TW-6. TW-8, and TW-9 also reported TCE at concentrations of 0.55J µg/L, 1.32J µg/L, and 3.2 µg/L, respectively, which exceeded its NR 140 PAL of 0.5 µg/L. The groundwater sample collected from Sump 2 reported PCE at a concentration of 4.6 µg/L, which exceeds its NR 140 PAL of 0.5 µg/L. No other VOCs were detected at concentrations exceeding their respective standards at any of the other test locations. The results of the chemical analysis of the groundwater samples are summarized in Table 2 in Appendix B. Laboratory analytical results and chain-of-custody forms were included in prior reports.

On June 1 and 3, 2020, GEC oversaw the excavation of 1,000.97 tons of chlorinated VOC-contaminated soils. Excavation activities were performed by Bayland Excavating, Inc. Affected soils were transported to Waste Management Ridgeview Landfill in Whitelaw, Wisconsin for proper disposal. The limits of the remedial soil excavation are shown on Figure 4, Appendix A.

The excavation activities were performed along the northern footing line, along the northern portion of the eastern footing line, within undercut areas in the planned parking lot area just to the north of the planned Aldi building, and during water line excavations for the City water line and the Site water line where they extended through the contaminated area. Footing excavations extended to depths of 4 feet bgs, water line utility excavations extended to depths of 7 to 8 feet bgs, and the parking lot undercuts extended to depths of 1 to 2 feet bgs. Clean groundwater removed during the utility work at the initial sump location was discharged to the storm sewer on the Site. Groundwater at the location of Sump 2 was discharged to the sanitary sewer under a permit obtained through the City of Appleton. Groundwater within the Site private water line (located within a few feet of the main line) was discharged in a similar fashion to the City main water line. GEC observed the installation of compacted clay plugs just north of the contamination on each of the water line installations and on the southern line of the City main line (beyond the known contaminated soils) and the Site private water line prior to where it will enter the new building. Since the extent of soil contamination had been defined by the previous soil borings, probes, and test pits, and additional soil borings are planned beyond the previous test locations, soil samples for laboratory analysis were not collected from the excavation limits. Only the soils necessary to facilitate the construction were removed and landfilled.

A Remedial Documentation Report was submitted to the WDNR on June 18, 2020 summarizing the work performed with a recommendation for the necessary site investigation work to be performed subsequent to the construction of the Aldi grocery store, which was approved by the WDNR. Accordingly, GEC is submitting this Site Investigation Work Plan for the necessary work.

Regional Geology and Hydrogeology

According to the United States Department of Agriculture (USDA) soil survey, soils on the Site consist of the Kewaunee silt loam. The geologic deposits are associated with ground moraines with a parent material of loess over clayey till and/or calcareous, dense clayey till. The “Depth to Bedrock Map of Wisconsin” indicates bedrock in the area to be Ordovician age Prairie Du Chien Group dolomite with some sandstone and shale occurring at depths ranging from 30 feet to 100 feet bgs. Based on the previous work performed on the Site, groundwater occurs at depths less than 10 feet bgs. The horizontal flow appears to be toward the east/southeast.

Work Plan – Area Potable and Municipal Wells

The Site and surrounding properties are currently service by municipal water services. GEC will evaluate the locations and construction of any identifiable potable or municipal wells within 1,200 feet of the Site. Pending the results of the soil and groundwater testing, GEC will evaluate the likelihood that any nearby wells (if any) have been impacted by this release. No other sensitive species, habitat, ecosystem, wetlands, or outstanding resource waters are located in the direct vicinity of the affected area.

Work Plan – Vapor Investigation

American Radon Reduction designed and partially installed a sub-slab vapor system at the Site on August 5, 2020. As of the date of this Work Plan, the sub-slab piping has been installed and stubbed out for vent lines, but the concrete floors have not been entirely poured yet. Subsequent to the floor finishing (August 21, 2020), the system installation will be completed. The system consists of 5 separate runs of corrugated, 4-inch diameter drain tile piping traversing the majority of the area beneath the floor slab of the new building. Each horizontal run of sub-slab piping will be connected to a vertical run of Schedule 40, 4-inch diameter polyvinyl chloride (PVC) pipe along the east end of building that will extend from the concrete surface to a "Radon Away" electric fan blower, followed by an additional PVC run that will vent above the roof line. The system piping configuration is shown on Figure 5, Appendix A. The piping has been bedded in approximately 10-12 inches of ¾-inch crushed gravel.

Subsequent to the concrete being installed for the floor slab of the building, GEC will install four sub slab vapor ports in the locations shown on Figure 5, pending the actual building layout. Each sub-slab vapor port will be installed by drilling a 1.5-inch hole in the concrete floor to approximately 2 inches followed by a 5/8-inch hole through the remainder of the concrete. GEC utilizes Cox-Colvin Vapor Kits to place the vapor points. A rubber vapor pin sleeve is placed over a stainless steel pin, which is hammered into the hole and creates a seal. The 1.5-inch hole that is drilled to place the cover is also used as a dam to ensure there are no leaks and a proper seal is in place. The plastic hose for the SUMMA® Canister is then placed over the pin for a sealed sample. Two rounds of vapor samples will be collected including one after the initial installation and one during the heating season after the HVAC system has been activated. The samples will be submitted for laboratory analysis of chlorinated volatile organic compounds (CVOCs). Pending the results of the testing, the system may be commissioned, voluntarily utilized, or remain inactive.

Utility installations performed during construction along the eastern end of the building within the known area of contamination were backfilled with compacted screenings (which will not promote vapor migration) and clay plugs were installed each end of the utilities beyond the area of contamination and prior to entering the building. Therefore, the newly installed utilities are not anticipated to act as conduits for vapor migration. Pending the outcome of the other planned soil and groundwater testing (discussed below), and the proximity of the soil and groundwater contaminant plumes to remaining and new utility lines and other nearby buildings, additional vapor testing of utility corridors, sub-slab vapor testing of nearby buildings, or ambient air testing may be necessary.

Work Plan – Post Construction of Aldi Development

The purpose of the proposed post-construction site investigation activities will be to further evaluate the vertical and horizontal extent of VOC-affected soils and groundwater on the Site. Dependent upon the findings of this study, it may be possible to request case closure. However, if this phase is not sufficient in determining the extent of contamination, it may be necessary to perform additional exploratory work in order to fully evaluate on-site and off-site conditions.

The post-construction field exploration for this site investigation will consist of 7 soil borings, 6 to a depth

of up to 15 feet bgs, which will be converted to monitoring wells, and 1 to a depth of 25 feet bgs, which will be converted to a piezometer. The approximate locations of the planned soil borings/monitoring wells/piezometer are shown on Figure 6, Appendix A.

The soil borings will be advanced with a track-mounted Geoprobe® unit, and samples will be secured continuously at 5 foot intervals throughout the depth of the borings. The obtained soil samples will be subjected to testing in the field with a Mini Rae Photo Ionization Detector (PID), to evaluate for the presence of volatile vapors. Selected companion samples from the estimated soil boring locations will be submitted for analytical testing to determine the levels of VOCs. One soil sample from the upper 4 feet of each boring will be submitted for laboratory analysis.

The monitoring well construction will consist of a 5-foot (piezometer) or 10-foot (monitoring wells) sections of 2-inch diameter, machine slotted PVC screen placed at or near the bottom of the borehole. This will be surrounded by a properly graded granular filter medium in the annular space, with unslotted riser pipe extending from the screened section to about 6 inches bgs. A bentonite seal of approximately 2 feet will be placed above the granular filter medium. The remaining annular space will be filled to the ground surface with a mixture of bentonite and Portland cement, or bentonite chips. Flush-mounted protective covers will be used to protect the wells.

GEC will develop the monitoring wells by alternately surging and purging with a bailer or pump with vinyl tubing. The wells will be bailed until the wells are dry, or until they produce relatively sediment-free water. The development water will be placed into drums until after receipt of the testing results of the wells. Well development tools will be cleaned with a non-phosphate detergent solution and potable water followed with multiple rinses of distilled water prior to development of each well. Water samples for laboratory analysis will be obtained from each well utilizing a single-use disposable polyethylene bailer. The groundwater samples obtained from each of the monitoring wells will be submitted for analytical testing for the presence VOCs.

Groundwater elevations and the top-of-casing elevation at the newly installed monitoring wells will be established using conventional surveying techniques. Elevations will be referenced to mean sea level (MSL). Static groundwater levels within the wells will be measured to the nearest 0.01 foot, prior to obtaining the samples for analysis.

The installation of the monitoring wells, and the sample collection and analysis will be performed in general accordance with the guidelines and codes utilized by the WDNR and standard environmental practices. The samples for chemical analysis will be properly collected and preserved in containers provided by the laboratory. The samples will be placed on ice and standard chain-of-custody procedures will be utilized. The sampling tools will be properly cleaned during the course of the field-testing.

Following the completion of the soil testing performed after the demolition activities, a Status Update Report will be prepared. A report will also be prepared subsequent to the vapor testing work, and to further document the investigation/remedial activities, and provide a timeline for the installation of the soil borings/monitoring wells.

If you have any questions, please contact GEC at (608) 742-2169.

Sincerely,

GENERAL ENGINEERING COMPANY

Brian Youngwirth

Environmental Project Manager

Bernadette Greenwood

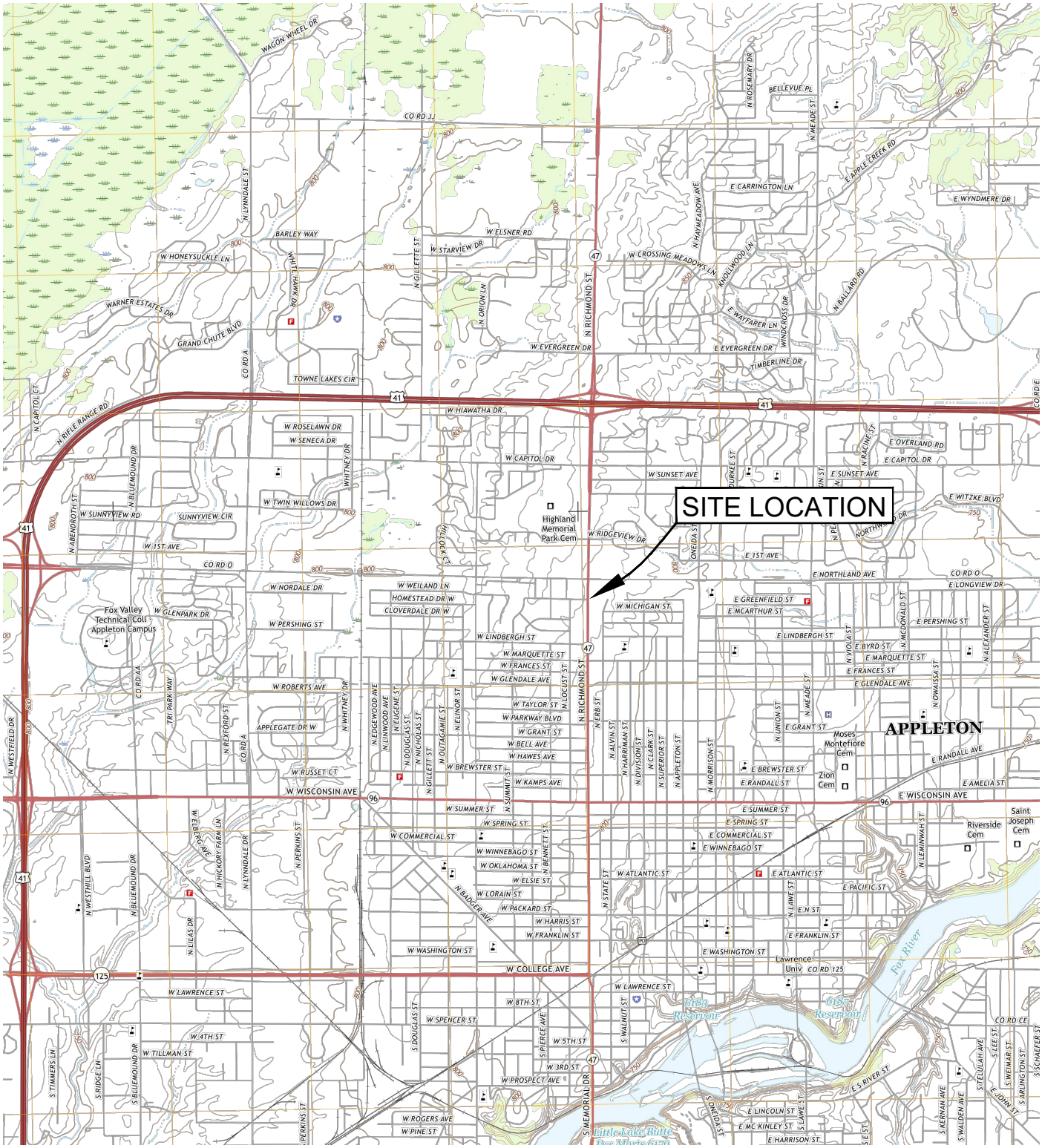
Bernadette Greenwood, P.G.
Senior Geologist

Appendix A: Figures
Appendix B Tables

cc: R Lewis & R Lewis, LLC

APPENDIX A

FIGURES



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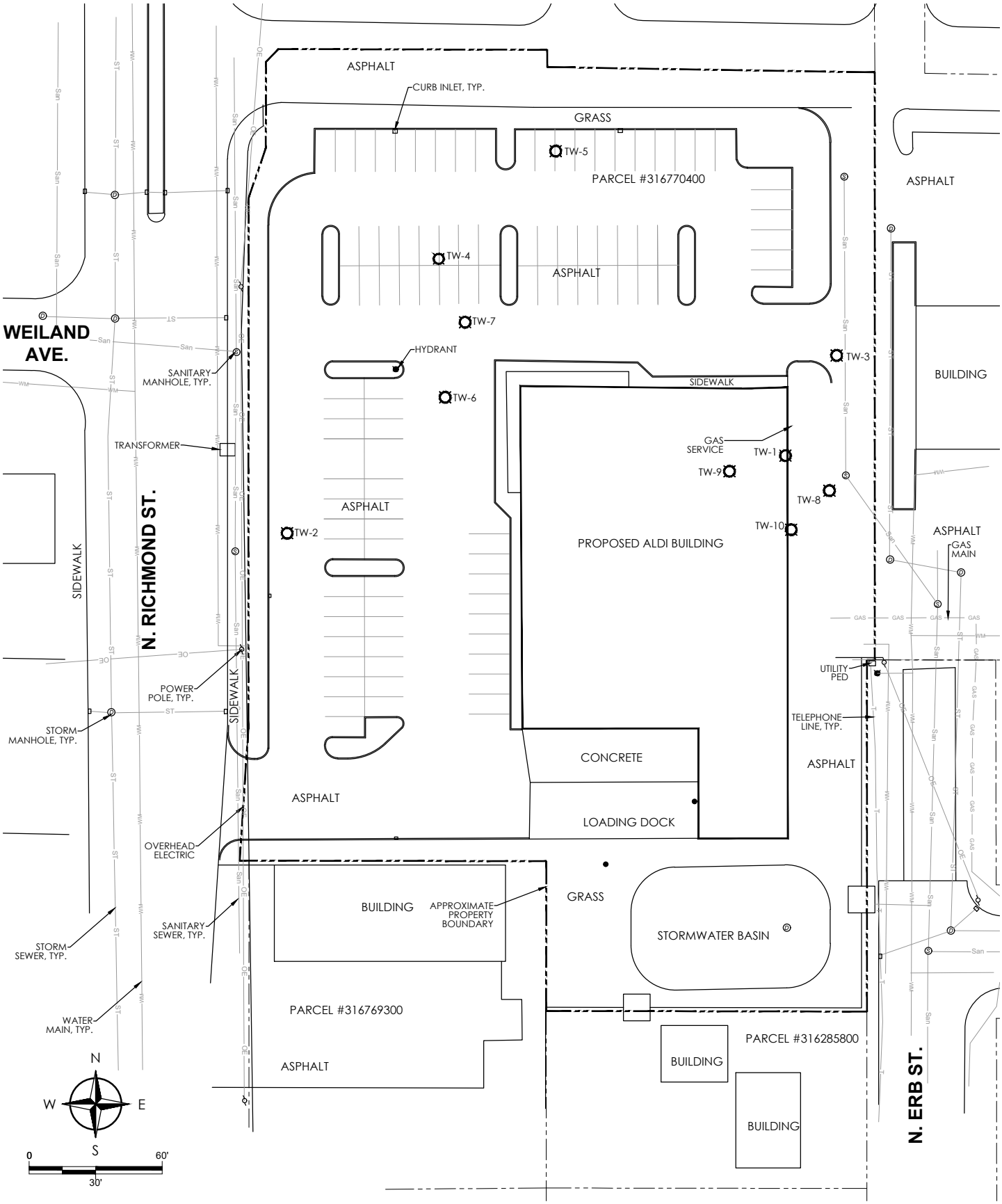
SITE LOCATION MAP
FORMER NEIGHBORHOOD CLEANERS

611 W. NORTHLAND

CITY OF APPLETON

OUTAGAMIE COUNTY, WI

DRAWN BY	KP
REVIEWED BY	LMB
ISSUE DATE	JUNE 2020
GEC FILE NO.	2-0120-82
SHEET NO.	**FIGURE 1**



LEGEND

EXISTING PROPERTY LINE

MW-2 ABANDONED MONITORING WELL LOCATION

General Engineering Company

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SITE PLAN
FORMER NEIGHBORHOOD CLEANERS

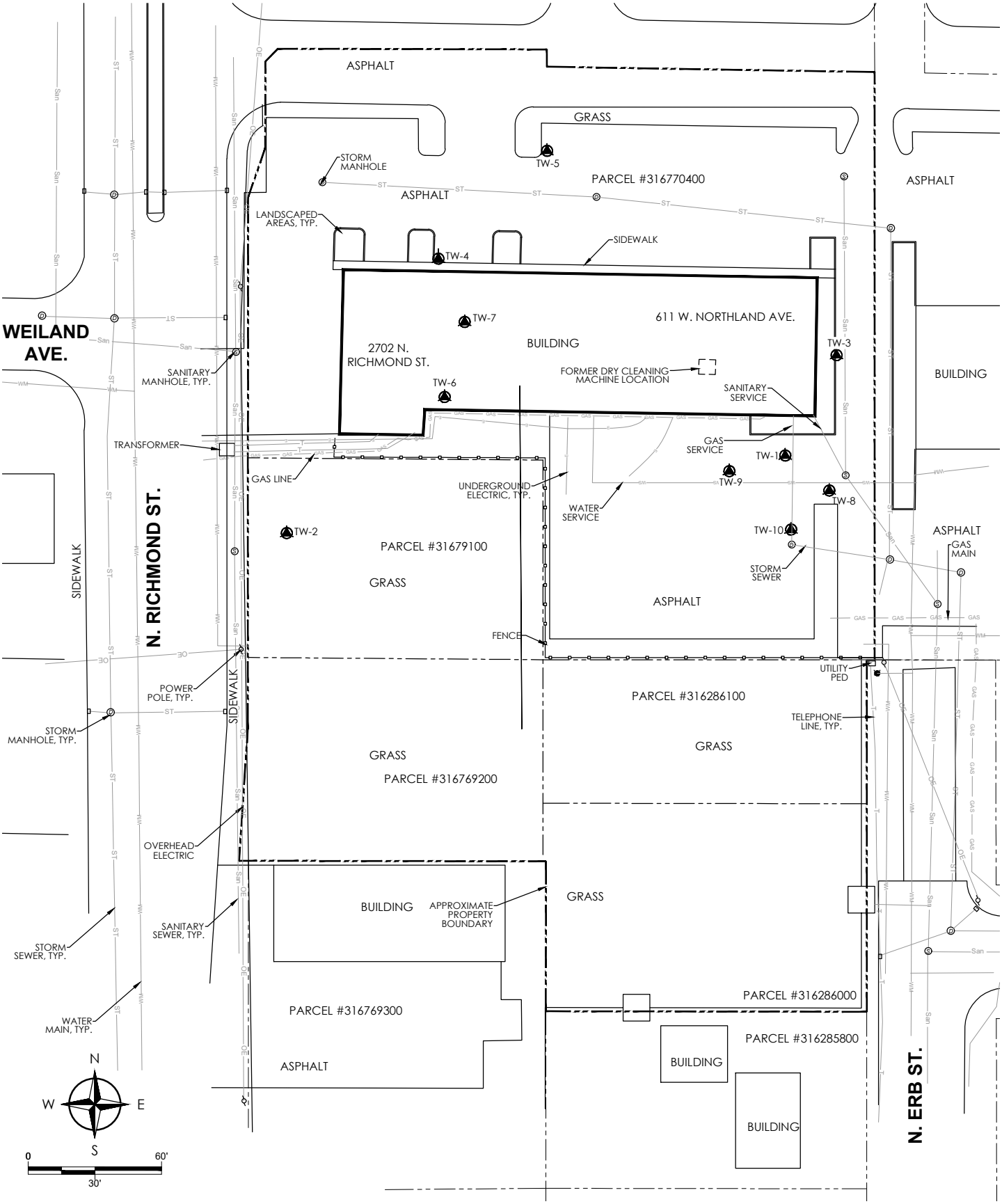
611 W. NORTHLAND AVENUE

CITY OF APPLETON

OUTAGAMIE COUNTY, WI

DRAWN BY	
REVIEWED BY	LMB
ISSUE DATE	JUNE 2020
GEC FILE NO.	2-0120-82
SHEET NO.	

FIGURE 2



LEGEND

- EXISTING PROPERTY LINE
- TW-1 SMALL DIAMETER MONITORING WELL
- TW-1 ABANDONED SMALL DIAMETER MONITORING WELL

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HISTORIC SITE PLAN
FORMER NEIGHBORHOOD CLEANERS

611 W. NORTHLAND AVENUE

CITY OF APPLETON

OUTAGAMIE COUNTY, WI

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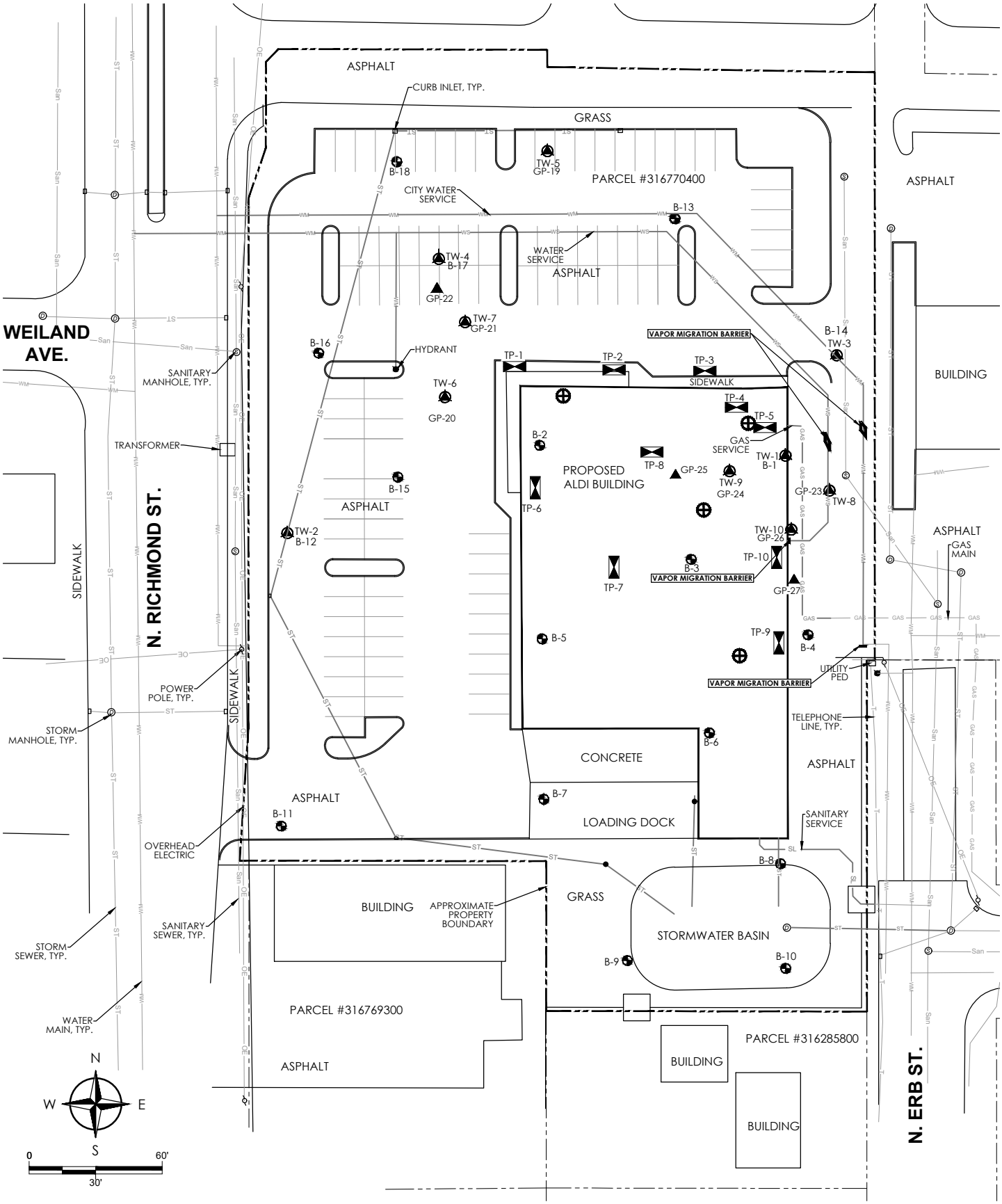
FIGURE 2A



LEGEND

- EXISTING PROPERTY LINE
- TW-1 / B-2 — SOIL BORING/SMALL DIAMETER MONITORING WELL
- B-2 — SOIL BORING
- GP-1 — GEOPROBE
- TP-1 — TEST PIT LOCATIONS

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SOIL BORING, PROBE, MONITORING WELL & TEST PIT LOCATION MAP
FORMER NEIGHBORHOOD CLEANERS

611 W. NORTHLAND AVENUE

CITY OF APPLETON

OUTAGAMIE COUNTY, WI

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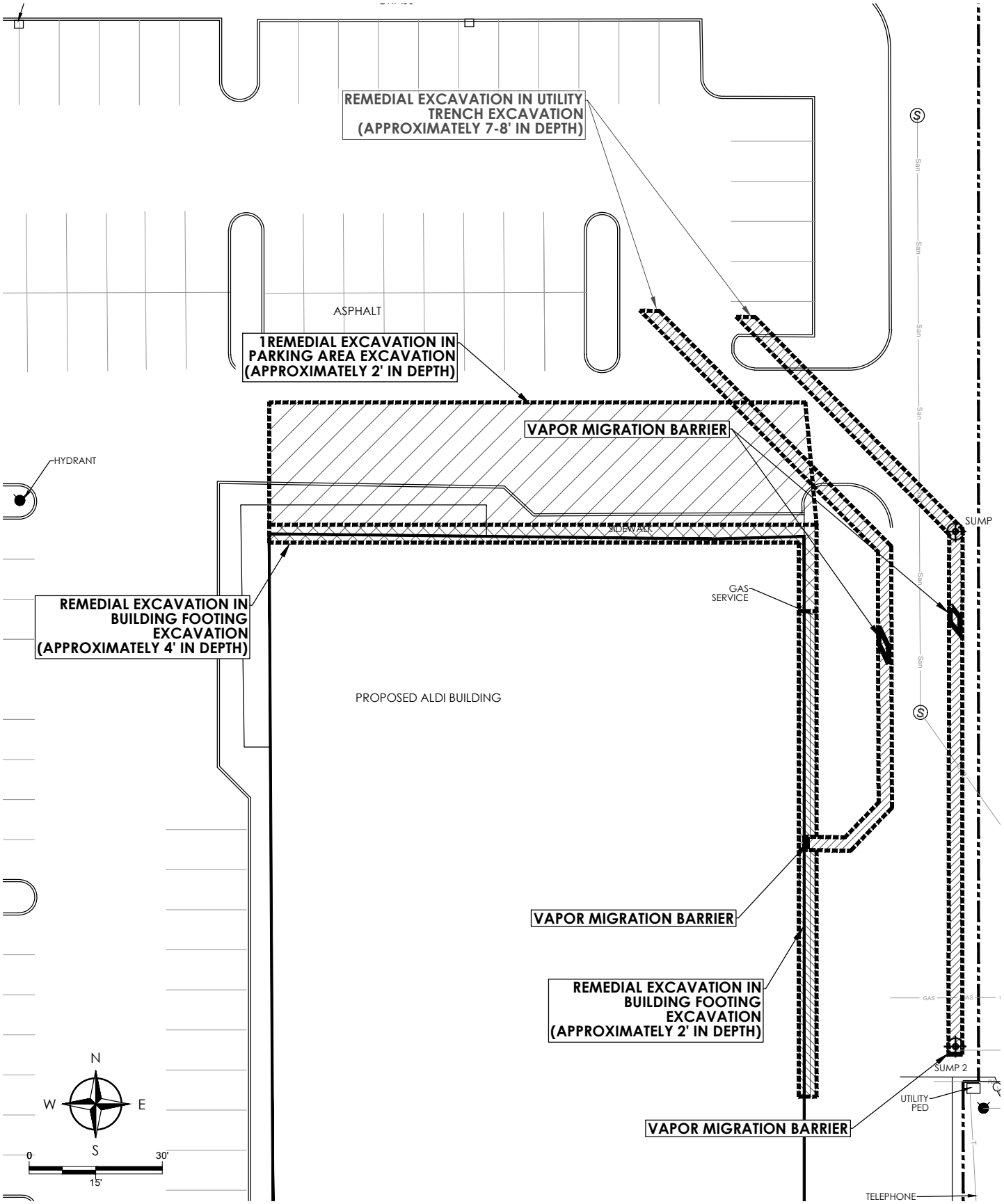
REVIEWED BY	LMB
ISSUE DATE	JUNE 2020
GEC FILE NO.	2-0120-82
SHEET NO.	**FIGURE 3**



LEGEND

- EXISTING PROPERTY LINE
- TW-1 / B-2 — SOIL BORING/SMALL DIAMETER MONITORING WELL
- B-2 — SOIL BORING
- GP-1 — GEOPROBE
- TP-1 — TEST PIT LOCATIONS
- SUMP — EXCAVATION DEWATERING SUMP LOCATION

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ESTIMATED LIMITS OF REMEDIAL EXCAVATION

FORMER NEIGHBORHOOD CLEANERS

611 W. NORTHLAND AVENUE

CITY OF APPLETON

OUTAGAMIE COUNTY, WI

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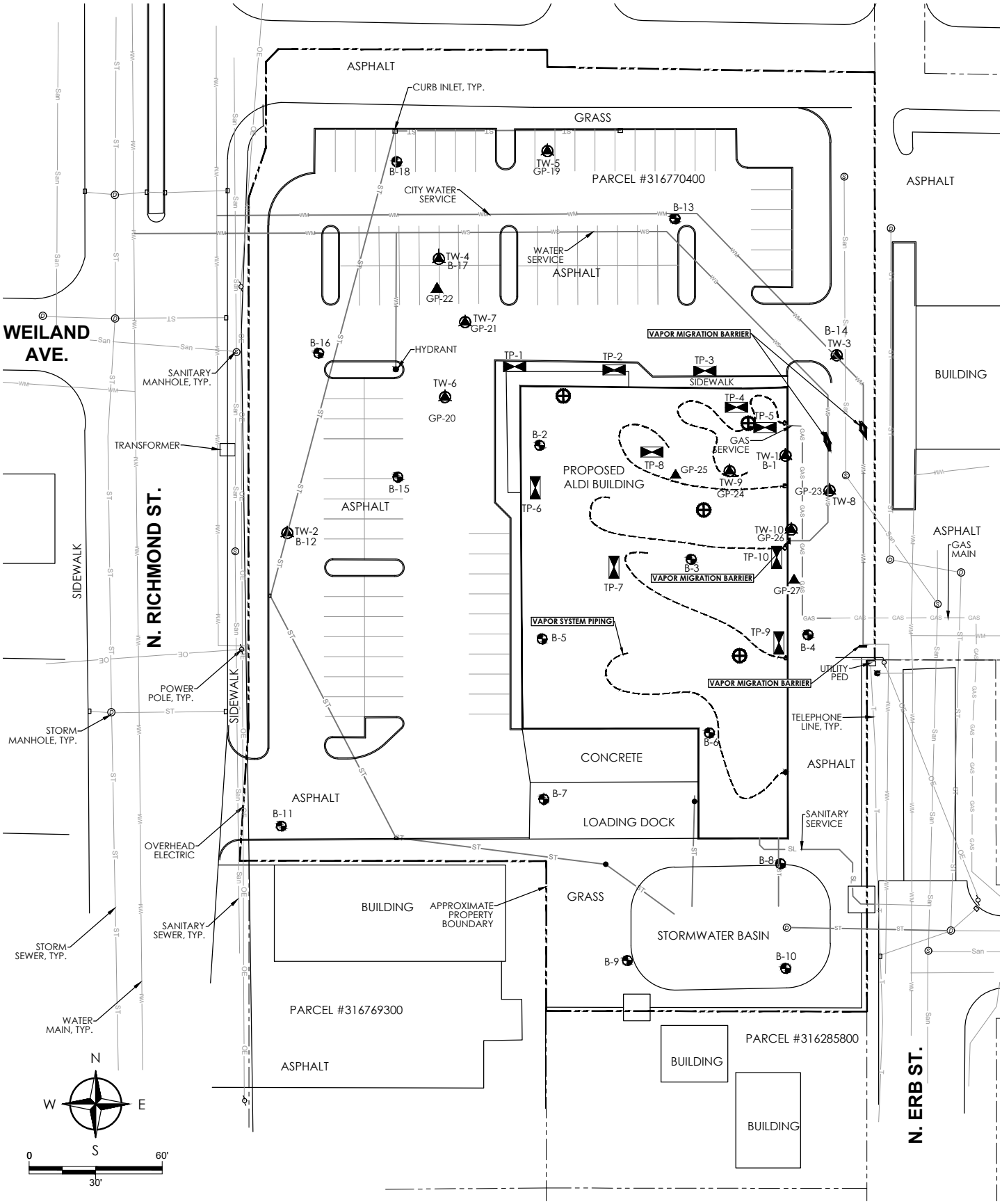
SHEET NO.	

FIGURE 4



LEGEND

- EXISTING PROPERTY LINE
- TW-1 / B-2 — SOIL BORING/SMALL DIAMETER MONITORING WELL
- B-2 — SOIL BORING
- GP-1 — GEOPROBE
- TP-1 — TEST PIT LOCATIONS
- VAPOR SYSTEM PIPING
- PROPOSED VAPOR PORT

General Engineering Company

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VAPOR SYSYTEM PIPING & PROPOSED VAPOR PORT LOCATION MAP

FORMER NEIGHBORHOOD CLEANERS

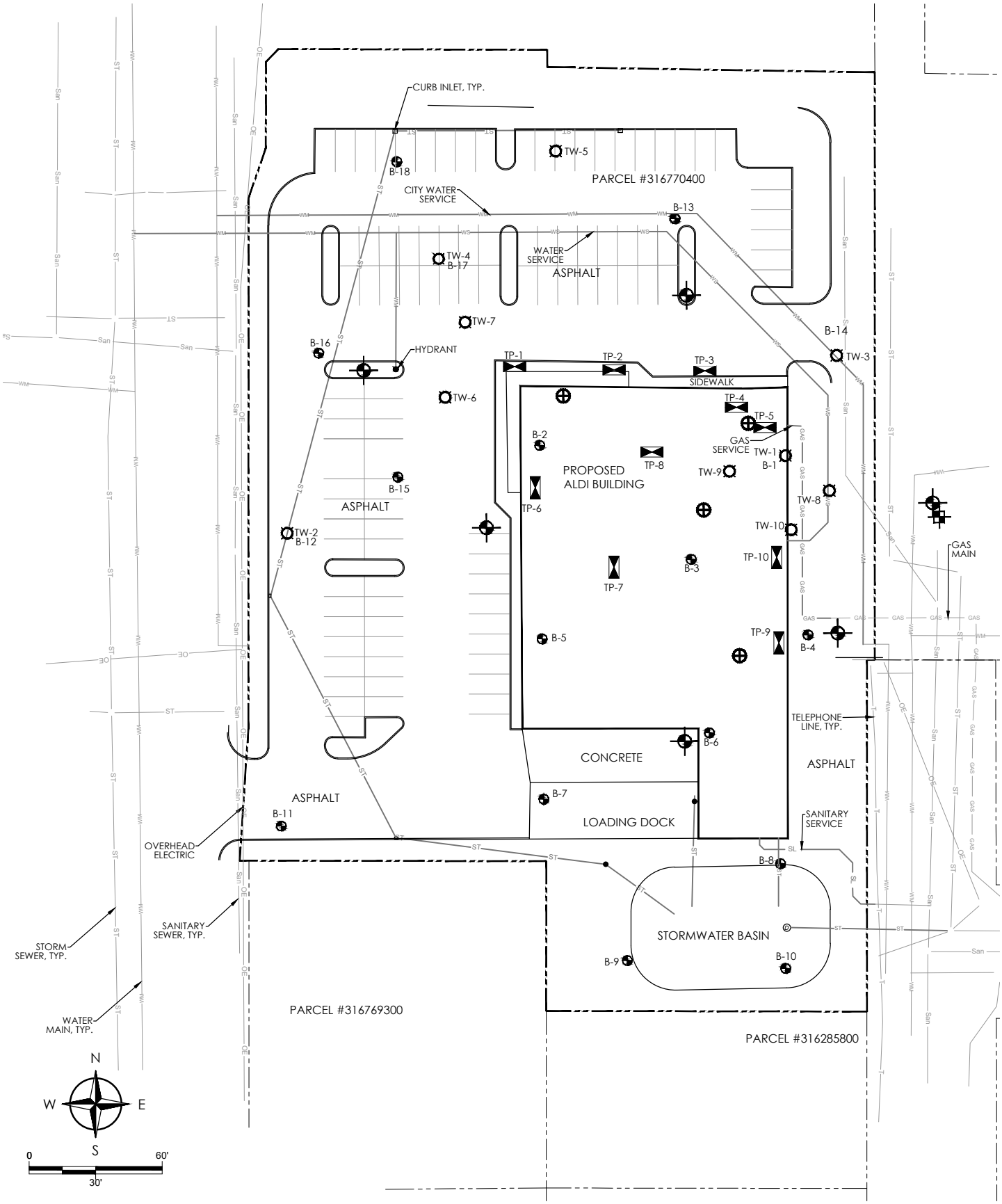
611 W. NORTHLAND AVENUE

CITY OF APPLETON

OUTAGAMIE COUNTY, WI

DRAWN BY	
REVIEWED BY	LMB
ISSUE DATE	AUG 2020
GEC FILE NO.	2-0120-82
SHEET NO.	

FIGURE 5



LEGEND

- EXISTING PROPERTY LINE
- B-2 SOIL BORING LOCATION
- MW-2 ABANDONED MONITORING WELL LOCATION
- TP-1 TEST PIT LOCATIONS
- PROPOSED MONITORING WELL
- PROPOSED PIEZOMETER

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PROPOSED MONITORING WELL & PIEZOMETER LOCATION MAP
FORMER NEIGHBORHOOD CLEANERS
611 W. NORTHLAND AVENUE
CITY OF APPLETON
OUTAGAMIE COUNTY, WI

DRAWN BY	
REVIEWED BY	LMB
ISSUE DATE	AUG 2020
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SHEET NO.	

FIGURE 6

APPENDIX B

TABLES

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
FORMER NEIGHBORHOOD CLEANERS - 611 WEST NORTHLAND AVENUE, APPLETON, WISCONSIN
GEC PROJECT #2-0120-82

Sample No.	NR 720 Non-Industrial Cancer RCL	WDNR NR 720 Non-Industrial Direct Contact RCL	WDNR NR 720 Soil to Groundwater RCL	B-1	B-12	B-13	B-14	B-15	B-16	B-18	
Sampling Date				10/29/2019	10/29/2019	10/29/2019	10/29/2019	10/29/2019	10/29/2019	10/29/2019	
Sample Depth (feet)				4.5-6 (U/S)	3-5 (U)	8-10 (S)	3-5 (U)	8-10 (S)	8-10 (S)	3-5 (U)	8-10 (S)
VOLATILE ORGANIC COMPOUNDS (VOCs) (µg/kg)											
Benzene	1,600	1,600	5.1	<30	<30	<30	<30	<30	<30	<30	<30
cis 1,2 Dichloroethene	NE	156,000	41.2	<32	<32	<32	<32	<32	<32	<32	<32
Ethylbenzene	8,020	8,020	1,570	<35	<35	<35	<35	<35	<35	<35	<35
Methyl tert-butyl ether	63,800	63,800	27	<50	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	33,000	33,000	4.5	**151**	<32	<32	<32	<32	<32	<32	<32
Toluene	NE	818,000	1,107.2	<32	<32	<32	<32	<32	<32	<32	<32
Trichloroethene	1,300	1,300	3.6	<41	<41	<41	<41	<41	<41	<41	<41
1,2,4-Trimethylbenzene	NE	219,000	1,378.7	<25	<25	<25	<25	<25	<25	<25	<25
1,3,5-Trimethylbenzene	NE	182,000	1,378.7	<32	<32	<32	<32	<32	<32	<32	<32
Vinyl Chloride	67	67	0.1	<19	<19	<19	<19	<19	<19	<19	<19
Xylenes, -m, -p	NE	260,000	3,960	<116	<116	<116	<116	<116	<116	<116	<116
Xylenes, -o											

J = Analyte detected above laboratory limit of detection but below limit of quantitation.
Bold indicates analytical results exceed NR 720 RCL or generic RCL for direct contact or groundwater pathway
RCL = Residual Contaminant Level
U=Unsaturated S=Saturated
DCL = Direct-Contact Levels
NE = NR 720 RCL not established

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
FORMER NEIGHBORHOOD CLEANERS - 611 WEST NORTHLAND AVENUE, APPLETON, WISCONSIN
GEC PROJECT #2-0120-82

Sample No.	NR 720 Non-Industrial Cancer RCL	WDNR NR 720 Non-Industrial Direct Contact RCL	WDNR NR 720 Soil to Groundwater RCL	GP-19	GP-20		GP-21		GP-22	
Sampling Date				1/13/2020	1/13/2020		1/13/2020		1/13/2020	
Sample Depth (feet)				3-5 (U)	3-5 (U)	8-10 (S)	3-5 (U)	5-7 (S)	3-5 (U)	7-9 (S)
VOLATILE ORGANIC COMPOUNDS (VOCs) (µg/kg)										
Benzene	1,600	1,600	5.1	<30	<30	<30	<30	<30	<30	<30
cis 1,2 Dichloroethene	NE	156,000	41.2	<32	<32	<32	<32	<32	<32	<32
Ethylbenzene	8,020	8,020	1,570	<35	<35	<35	<35	<35	<35	<35
Methyl tert-butyl ether	63,800	63,800	27	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	33,000	33,000	4.5	<32	<32	<32	<32	<32	<32	<32
Toluene	NE	818,000	1,107.2	<32	<32	<32	<32	<32	<32	<32
Trichloroethene	1,300	1,300	3.6	<41	<41	<41	<41	<41	<41	<41
1,2,4-Trimethylbenzene	NE	219,000	1,378.7	<25	<25	<25	<25	<25	<25	<25
1,3,5-Trimethylbenzene	NE	182,000	1,378.7	<32	<32	<32	<32	<32	<32	<32
Vinyl Chloride	67	67	0.1	<19	<19	<19	<19	<19	<19	<19
Xylenes, -m, -p	NE	260,000	3,960	<116	<116	<116	<116	<116	<116	<116
Xylenes, -o										

J = Analyte detected above laboratory limit of detection but below limit of quantitation.
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RCL = Residual Contaminant Level
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NE = NR 720 RCL not established

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
FORMER NEIGHBORHOOD CLEANERS - 611 WEST NORTHLAND AVENUE, APPLETON, WISCONSIN
GEC PROJECT #2-0120-82

Sample No.	NR 720 CANCER RCL	WDNR NR 720 Non-Industrial Direct Contact RCL	WDNR NR 720 Soil to Groundwater RCL	GP-23		GP-24		GP-25		GP-26		GP-27	
Sampling Date				1/13/2020		1/13/2020		1/13/2020		1/13/2020		1/13/2020	
Sample Depth (feet)				2-4 (U)	5-7 (S)	3-4 (U)	6-7 (S)	2-3 (U)	6-7 (S)	2-3 (U)	6-7 (S)	1-2 (U)	6-7 (S)
VOLATILE ORGANIC COMPOUNDS (VOCs) (µg/kg)													
Benzene	1,600	1,600	5.1	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
cis 1,2 Dichloroethene	NE	156,000	41.2	<32	<32	<32	<32	<32	<32	<32	<32	<32	<32
trans-1,2 Dichloroethene	NE	1,560,000	62.6	<28	<28	33J	<28	<28	<28	<28	<28	<28	<28
Ethylbenzene	8,020	8,020	1,570	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35
Methyl tert-butyl ether	63,800	63,800	27	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	33,000	33,000	4.5	<32	<32	<32	**135**	**79J**	<32	<32	**64J**	<32	<32
Toluene	NE	818,000	1,107.2	<32	<32	<32	<32	<32	<32	<32	<32	<32	<32
Trichloroethene	1,300	1,300	3.6	<41	<41	**42J**	<41	**98J**	<41	<41	<41	<41	<41
1,2,4-Trimethylbenzene	NE	219,000	1,378.7	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
1,3,5-Trimethylbenzene	NE	182,000	1,378.7	<32	<32	<32	<32	<32	<32	<32	<32	<32	<32
Vinyl Chloride	67	67	0.1	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19
Xylenes, -m, -p	NE	260,000	3,960	<116	<116	<116	<116	<116	<116	<116	<116	<116	<116
Xylenes, -o													

J = Analyte detected above laboratory limit of detection but below limit of quantitation.
Bold indicates analytical results exceed NR 720 RCL or generic RCL for direct contact or groundwater pathway
RCL = Residual Contaminant Level
U=Unsaturated S=Saturated
DCL = Direct-Contact Levels
NE = NR 720 RCL not established

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
FORMER NEIGHBORHOOD CLEANERS - 611 WEST NORTHLAND AVENUE, APPLETON, WISCONSIN
GEC PROJECT #2-0120-82

Sample No.	NR 720 CANCER RCL	WDNR NR 720 Non-Industrial Direct Contact RCL	WDNR NR 720 Soil to Groundwater RCL	TP-1		TP-2		TP-3		TP-4	
Sampling Date				5/22/2020		5/22/2020		5/22/2020		1/13/2020	
Sample Depth (feet)				1 (U)	5 (S)	1 (U)	5 (S)	1 (U)	5 (S)	2 (U)	5 (S)
VOLATILE ORGANIC COMPOUNDS (VOCs) (µg/kg)											
Benzene	1,600	1,600	5.1	<30	<30	<30	<30	<30	<30	<30	<30
cis 1,2 Dichloroethene	NE	156,000	41.2	<32	<32	<32	<32	<32	<32	<32	<32
trans-1,2 Dichloroethene	NE	1,560,000	62.6	<28	<28	33J	<28	<28	<28	<28	<28
Ethylbenzene	8,020	8,020	1,570	<35	<35	<35	<35	<35	<35	<35	<35
Methyl tert-butyl ether	63,800	63,800	27	<50	<50	<50	<50	<50	<50	<50	<50
Tetrachloroethene	33,000	33,000	4.5	<32	<32	**171**	**370**	<32	**58J**	<32	**234**
Toluene	NE	818,000	1,107.2	<32	<32	<32	<32	<32	<32	<32	<32
Trichloroethene	1,300	1,300	3.6	<41	<41	<41	<41	<41	<41	<41	<41
1,2,4-Trimethylbenzene	NE	219,000	1,378.7	<25	<25	<25	<25	<25	<25	<25	<25
1,3,5-Trimethylbenzene	NE	182,000	1,378.7	<32	<32	<32	<32	<32	<32	<32	<32
Vinyl Chloride	67	67	0.1	<19	<19	<19	<19	<19	<19	<19	<19
Xylenes, -m, -p	NE	260,000	3,960	<116	<116	<116	<116	<116	<116	<116	<116
Xylenes, -o											

J = Analyte detected above laboratory limit of detection but below limit of quantitation.
Bold indicates analytical results exceed NR 720 RCL or generic RCL for direct contact or groundwater pathway
RCL = Residual Contaminant Level
U=Unsaturated S=Saturated
DCL = Direct-Contact Levels
NE = NR 720 RCL not established

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
FORMER NEIGHBORHOOD CLEANERS - 611 WEST NORTHLAND AVENUE, APPLETON, WISCONSIN
GEC PROJECT #2-0120-82

Sample No.	NR 720 CANCER RCL	WDNR NR 720 Non-Industrial Direct Contact RCL	WDNR NR 720 Soil to Groundwater RCL	TP-5	TP-6	TP-7	TP-8	TP-9	TP-10
Sampling Date				5/22/2020	5/22/2020	5/22/2020	5/22/2020	5/22/2020	5/22/2020
Sample Depth (feet)				2 (U)	3 (U)	4 (U)	2 (U)	3 (U)	3 (U)
VOLATILE ORGANIC COMPOUNDS (VOCs) (µg/kg)									
Benzene	1,600	1,600	5.1	<30	<30	<30	<30	<30	<30
cis 1,2 Dichloroethene	NE	156,000	41.2	<32	<32	<32	<32	<32	<32
trans-1,2 Dichloroethene	NE	1,560,000	62.6	<28	<28	<28	<28	<28	<28
Ethylbenzene	8,020	8,020	1,570	<35	<35	<35	<35	<35	<35
Methyl tert-butyl ether	63,800	63,800	27	<50	<50	<50	<50	<50	<50
Tetrachloroethene	33,000	33,000	4.5	**177**	<32	<32	**75J**	<32	**32J**
Toluene	NE	818,000	1,107.2	<32	<32	<32	<32	<32	<32
Trichloroethene	1,300	1,300	3.6	<41	<41	<41	<41	<41	<41
1,2,4-Trimethylbenzene	NE	219,000	1,378.7	<25	<25	<25	<25	<25	<25
1,3,5-Trimethylbenzene	NE	182,000	1,378.7	<32	<32	<32	<32	<32	<32
Vinyl Chloride	67	67	0.1	<19	<19	<19	<19	<19	<19
Xylenes, -m, -p	NE	260,000	3,960	<116	<116	<116	<116	<116	<116
Xylenes, -o									

J = Analyte detected above laboratory limit of detection but below limit of quantitation.
Bold indicates analytical results exceed NR 720 RCL or generic RCL for direct contact or groundwater pathway
RCL = Residual Contaminant Level
U=Unsaturated S=Saturated
DCL = Direct-Contact Levels
NE = NR 720 RCL not established

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
FORMER NEIGHBORHOOD CLEANERS- 611 WEST NORTHLAND AVENUE, APPLETON, WISCONSIN
GEC PROJECT #2-0120-82

Monitoring Well	NR 140		B-2	TW-1	TW-2	TW-3	TW-4
Sampling Date	**ES**	**PAL**	**10/30/2019**	**10/31/2019**	**11/5/2019**	**10/31/2019**	**10/30/2019**
VOLATILE ORGANIC COMPOUNDS (VOC) (µg/L)							
Benzene	5	0.5	<0.22	<0.22	<0.22	<0.22	<0.22
1,1 Dichloroethane	850	85	<0.36	<0.36	<0.36	<0.36	0.7J
cis 1,2 Dichloroethene	70	7	<0.37	<0.37	<0.37	<0.37	<0.37
trans 1,2 Dichloroethene	100	20	<0.34	<0.34	<0.34	<0.34	<0.34
Ethylbenzene	700	140	<0.26	<0.26	<0.26	<0.26	<0.26
p-Isopropyltoluene	NE	NE	<0.24	<0.24	<0.24	<0.24	<0.24
Methyl tert-butyl ether	60	12	<0.28	<0.28	<0.28	<0.28	<0.28
Tetrachloroethene	5	0.5	<0.38	*0.69J*	<0.38	<0.38	*0.87J*
Toluene	800	160	<0.19	<0.19	<0.19	<0.19	0.31J
Trichloroethene	5	0.5	<0.3	<0.3	<0.3	<0.3	<0.3
1,2,4-Trimethylbenzene	480	96	<0.8	<0.8	<0.8	<0.8	<0.8
1,3,5-Trimethylbenzene			<0.63	<0.63	<0.63	<0.63	<0.63
Vinyl Chloride	0.2	0.02	<0.2	<0.2	<0.2	<0.2	<0.2
Xylenes, o	2000	400	<0.43	<0.43	<0.43	<0.43	<0.43
Xylenes, -m, -p			<0.29	<0.29	<0.29	<0.29	<0.29

NE = NR 140 ES not established

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Italics indicated analytical results above NR 140 PAL

Bold indicates analytical results above NR 140 ES

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
FORMER NEIGHBORHOOD CLEANERS - 611 WEST NORTHLAND AVENUE, APPLETON, WISCONSIN
GEC PROJECT #2-0120-82

Monitoring Well	NR 140		TW-5		TW-6		TW-7		TW-8		TW-9		TW-10		Sump	Sump 2
Sampling Date	ES	PAL	1/17/2020	4/15/2020	1/17/2020	4/15/2020	1/17/2020	4/15/2020	1/17/2020	4/15/2020	1/17/2020	4/15/2020	1/17/2020	4/15/2020	6/1/2020	6/3/2020
VOLATILE ORGANIC COMPOUNDS (VOC) (µg/L)																
Benzene	5	0.5	<0.22	<0.33	<0.22	<0.33	<0.22	*2.03*	<0.22	<0.33	<0.22	<0.33	<0.22	<0.33	<0.33	<0.33
1,1 Dichloroethane	850	85	<0.36	<0.46	1.22	3.3	1.67	<0.46	<0.36	<0.46	<0.36	<0.46	<0.36	<0.46	<0.46	<0.46
cis 1,2 Dichloroethene	70	7	<0.37	<0.39	<0.37	<0.39	<0.37	0.41J	<0.37	<0.39	0.48J	3.8	1.54	<0.39	<0.39	<0.39
trans 1,2 Dichloroethene	100	20	<0.34	<0.37	<0.34	<0.37	<0.34	<0.37	<0.34	<0.37	0.83J	2.16	<0.34	<0.37	<0.37	<0.37
Ethylbenzene	700	140	<0.26	<0.32	<0.26	<0.32	<0.26	<0.32	<0.26	<0.32	<0.26	<0.32	<0.26	<0.32	<0.32	<0.32
p-Isopropyltoluene	NE	NE	<0.24	<0.47	<0.24	<0.47	<0.24	<0.47	<0.24	<0.47	0.63J	<0.47	0.74J	<0.47	<0.47	<0.47
Methyl tert-butyl ether	60	12	<0.28	<0.47	<0.28	<0.47	<0.28	<0.47	<0.28	<0.47	<0.28	<0.47	<0.28	<0.47	<0.47	<0.47
Tetrachloroethene	5	0.5	<0.38	<0.33	<0.38	**5.1**	<0.38	<0.33	**76**	**78**	**166**	**153**	**22.5**	**13.9**	<0.33	*4.6*
Toluene	800	160	0.38J	<0.26	<0.19	<0.26	<0.19	<0.26	<0.19	<0.26	0.22J	<0.26	<0.19	<0.26	<0.26	<0.26
1,1,1 Trichloroethane	200	40	<0.33	<0.3	<0.33	0.52J	<0.33	<0.3	<0.33	<0.3	<0.33	<0.3	<0.33	<0.3	<0.3	<0.3
Trichloroethene	5	0.5	<0.3	<0.47	<0.3	*0.55J*	<0.3	<0.47	*1.32*	*1.32J*	*1.68*	*3.2*	*0.67J*	<0.47	<0.47	<0.47
1,2,4-Trimethylbenzene	480	96	<0.8	<0.3	<0.8	<0.3	<0.8	<0.3	<0.8	<0.3	<0.8	<0.3	<0.8	<0.3	<0.3	<0.3
1,3,5-Trimethylbenzene			<0.63	<0.32	<0.63	<0.32	<0.63	<0.32	<0.63	<0.32	<0.63	<0.32	<0.63	<0.32	<0.32	<0.32
Vinyl Chloride	0.2	0.02	<0.2	<0.2	<0.2	<0.2	<0.2	**0.27J**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Xylenes, o	2000	400	<0.43	<1.1	<0.43	<1.1	<0.43	<1.1	<0.43	<1.1	<0.43	<1.1	<0.43	<1.1	<1.1	<1.1
Xylenes, -m, -p			<0.29	<0.38	<0.29	<0.38	<0.29	<0.38	<0.29	<0.38	<0.29	<0.38	<0.29	<0.38	<0.38	<0.38

NE = NR 140 ES not established

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Italics indicated analytical results above NR 140 PAL

Bold indicates analytical results above NR 140 ES