IEPA

GeoThink, LLC

Environmental and Natural Resource Services Provider

July 7, 2016

Mr. Rhett Rossi, Project Manager
Illinois Environmental Protection Agency-Site Remediation Program
Bureau of Land – Remedial Project Management Section
1021 North Grand Avenue East // P.O. Box 19276
Springfield, Illinois 62794-9276

Subject: **Remedial Action Plan Document**
Aldi, Inc. 9.75 Acre Site – Proposed Packey Webb Ford Dealership
Located at 1815 West Ogden Avenue in Downers Grove, IL. 60515;
LPC # 0430305287 – DuPage County / Aldi, Inc.
Site Remediation / Technical Reports

Dear Mr. Rossi:

Enclosed please find the Remedial Action Plan (RAP) document for the above-referenced Aldi, Inc., a 9.75 acre site that was a reported automobile scrapyard operation at this location from 1932 to 1982. This RAP document describes proposed remedial action activities that will occur in conjunction with site redevelopment pending IEPA approval. Descriptions of the GEOTHINK subsurface investigation involving soil, soil gas and groundwater sampling and testing for potential contaminants of concern; along with the summarized results of the prior EPI 2007, Versar 2000, and RUST 1996 investigations have already been described in the Comprehensive Site Investigation and Remedial Objectives Report, which the Agency found acceptable in Correspondence dated June 14, 2016.

If you have questions regarding the information in this Remedial Action Plan, please do not hesitate to contact GEOTHINK at (630) 208-5050.

Sincerely,
GEOTHINK, LLC

Thomas M. Mangan

Thomas M. Mangan, P.G.
Senior Professional Geologist / President

C: Mr. Brad Webb, Packey Webb Ford
Mr. Jeff Lietz, CVGA
Mr. Stan Popovich, Village of Downers Grove
GEOTHINK, LLC - Project File

611 Stevens Street | 630-208-5050
Geneva, Illinois 60134

REMEDIAL ACTION PLAN

of the

9.75 Acre Aldi Inc. Commercial Property
(Former Pollack Auto Scrapyard)
1815 West Ogden Avenue (LPC #0430305287)
Downers Grove, Illinois 60515, DuPage County

Prepared for:

Mr. Brad Webb
Packey Webb Ford
2150 West Ogden Avenue
Downers Grove, Illinois 60515

&

Mr. Rhett Rossi, Project Manager
Illinois EPA- Site Remediation Program
Bureau of Land – Remedial Project Management Section
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Prepared by:

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GEOTHINK, LLC Project # 2015-01028

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Thomas M. Mangan — July 7, 2016

Thomas M. Mangan, P.G. # 196-000449 — **Date**
Senior Professional Geologist

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EXECUTIVE SUMMARY

A Remedial Action Plan (RAP) in accordance with Section 740.450 regulation has been completed for Mr. Brad Webb of Packey Webb Ford (Remedial Applicant), located at *1815 West Ogden Avenue, Downers Grove, DuPage County, Illinois* (Remediation Site). Proposed remedial activities include soil excavation, soil consolidation, soil relocation and envelopment, soil containment under engineered barriers, and/or limited soil disposal off-site at licensed landfill to mitigate metal and PNA contaminated fill/soils to below applicable Tier 1 Class II Soil Remediation Objectives (SROs). Engineered barriers will be employed like the proposed building slab for capping remaining impacted and encapsulated soils with clean soil, or asphalt layer, and/or concrete pavement as needed for placement after completion of multiple remediation stages. Remedial activities will occur during 2016–2017 site redevelopment process into an operating Packey Webb Ford (PWF) automotive dealership sometime in 2017-2018.

A Comprehensive Site Investigation (CSI) was performed to evaluate the possible presence of potential constituents of concern (PCOC), which are the volatile organic compounds (VOCs), Poly-Nuclear-Aromatic Hydrocarbons (PNAs), semi-volatile organics (SVOCs), Polychlorinated-Biphenyls (PCBs), and metals specifically, arsenic, barium, cadmium, chromium, copper, cyanide, lead, mercury, nickel, selenium, silver, and zinc in the subsurface soil, soil vapor, and/or groundwater on the former auto yard site. The evaluation of the possible presence of PCOCs was done in order to support development of risk-based remedial objectives (if necessary) and issuance of a Comprehensive No Further Remediation determination for this industrial/commercial (I/C) brownfield property to allow its redevelopment into an automobile dealership. The results of the CSI and other environmental investigations were presented in the GEOTHINK, LLC (GEOTHINK) CSIR and Remediation Objectives Report (ROR), submitted to the IEPA on April 11, 2016, and Agency approved on June 14, 2016.

The soil contaminants of concern (COCs) above Tier 1 Class II SROs are identified as PNA compounds Benzo (a) pyrene and Dibenzo (a, h) anthracene, and metals Antimony, Barium, Chromium, Lead, Mercury and Selenium. No groundwater COCs above Tier 1 Class II Ground Water Remediation Objectives (GROs) have been identified for the subject property.

The Subject Property is located on two parcels covering approximately 9.75 acres that is currently unoccupied and owned by Aldi, Inc. The site is located at the south side of Ogden Avenue, directly south of the intersection of Ogden Avenue and Lacey Street in the Village of Downers Grove, IL northwest side. The surrounding properties are currently occupied by commercial to the north, northwest and northeast, while residential areas are to the west, south and southeast sides of the site.

Most of the subject property consists of open field with scattered clumps of trees that contain broken concrete piles and/or automobile scrap metal parts. The uneven ground surface contains broken concrete pieces along with metal pieces of car parts as part of the surface fill layer that seems to extend across the eastern and southern portions of the property. Wooded areas were observed along the eastern, southern, and western property boundaries. A small intermittent drainage flowing from west to east was observed along the southern property boundary that was delineated to be 0.33-acre regulated wetland. This wetland drainage along the southern portion of the site discharges by surface flow into large open water wetland observed off-site adjacent to the southeastern corner of the subject property. Remnant scrapyard auto parts are intermixed in the ground surface composed of topsoil and fill impacted with metals 1 to 2 feet deep, and less extensive 'pockets' of metals and/or PNA impacted soils that extend 2 to 4 feet deep, or isolated "pockets" of impacted soil 6 to 8 feet deep as determined at the subject property by the CSIR. The subject property slopes from high ground along the western property line to the northeast and to the southeast with a ridge divide at the east-central part of the property. The northeast and southeast corners of the site each contain low elevation areas.

The proposed RAP will address soil COC exceedences above ROR identified Tier 1 Industrial/Commercial Soil Ingestion SROs, Construction Worker Soil Inhalation SRO, and Tier 1 Class II Soil Component to Groundwater Ingestion Exposure Route (SCGIER) SROs. The RAP will be conducted in multiple stages of soil management actions across the subject property prior to and concurrently with the excavation and construction of two (2) underground stormwater detention systems (includes LA2) and one (1) above ground open compensatory storage area (LA3), along with subsequent cut and fill grading work to construct dealership building pad and adjacent parking lot pads. In addition, the 0.33-acre Village regulated wetland along the southern portion of the site will be excavated to remove surface and subsurface metal contamination. A Village issued stormwater permit will be obtained authorizing wetland impacts to be mitigated off-site through "Payment in Lieu" to the Village. The stormwater permit will allow the necessary removal of trees in the southern and eastern boundary limits to allow subsequent remediation excavation and grading access to those areas.

The Village of Downers Grove has a ground water ordinance that prohibits water well installation within the Village limits. Therefore, a separate ground water use restriction for the PWF property is not necessary. No groundwater COCs above Tier 1 Class II GROs have been identified for the subject property in the IEPA approved CSIR. Therefore, a groundwater management zone is not required for the PWF site and this RAP. A construction worker notification is recommended as part of the GEOTHINK generated RAP Health and Safety Plan in order to notify and protect construction/remediation workers from COCs including mercury soil contamination above Tier 1 SRO construction worker soil inhalation SRO. A copy of the RAP Health and Safety Plan (HSP) will be posted on-site at an accessible location(s).

A significant volume of COC contaminated topsoil/fill/soil materials are present at the subject property. The excavation, transport and landfill disposal of significant volumes of contaminated materials is cost-prohibitive to this PWF redevelopment project. Therefore, GEOTHINK on behalf of PWF request IEPA approval of the Establishment of Soil Management Zones at the subject property per Section 740.535 regulations to remediate on-site a majority of the COC contaminated soils. The purpose of the proposed soil management zones (SMZ) is to allow the consideration and approval of on-site solutions to on-site non-hazardous soil contamination that complies with IEPA solid waste disposal regulations.

The proposed RAP implementation Stages and the establishment of Soil Management Zones to conduct an effective remediation of the COCs to applicable Tier 1 SROs for I/C land is as follows:

Soil Management Zone areas are identified as: Soil Management Zone #1 (SMZ #1) is the LA3 above ground compensatory storage area at the southeast corner of the site, Soil Management Zone #2 (SMZ #2) includes the 45,505 sf dealership building footprint (slab on grade – 740' F.F.E.) and Soil Management Zone #3 (SMZ #3) are those designated asphalt parking lot pad areas on the east, north, south and west sides of the building as needed to manage and contain COC impacted soils.

Soil Remediation will commence only after receipt of IEPA letter approving this RAP and concurrently the Village issuance of grading / stormwater permit to PWF. Once the IEPA approves the RAP, the RA (PWF) will begin proceedings to complete the purchase of the subject property from the current owner ALDI, Inc. and consolidate the two PIN parcels into one (1) new parcel.

STAGE 1 of soil remediation will take place after site preparation tree removals and updated groundwater testing have been completed and prior to **STAGE 2** excavation and construction of stormwater systems. **STAGE 1** soil excavation will remove the top 1-2 foot layer of topsoil/fill (non-contaminated) and topsoil/fill contaminated with metals/PNAs across the site. The 1 to 2 foot layer of topsoil/fill is an estimated 14,000 cubic yards and the contaminated portion of that material is an estimated 7,000 to 8,000 cubic yards in volume.

Additional ground surface areas (2 underground storage detention areas, 1 above ground compensatory storage area, parking lots, utility right of ways) identified as containing lead contaminated soils with lesser coverage "impacted areas" of metal contaminated (antimony, barium, chromium, mercury, or selenium) topsoil/fill from near the eastern and southern property line areas will be removed and temporarily stockpiled on-site. Organic topsoil material is unsuitable as fill material beneath proposed building slab or parking lots or sidewalks.

STAGE 1 will include the COC sampling and testing of groundwater (PNAs and 5 Metals) collected from the existing 5 monitor wells to provide the RA and IEPA a Pre-Remediation Groundwater Quality Baseline Characterization. In addition, 3 new monitoring wells will be drilled, constructed and tested for COCs along the southern and eastern boundaries for use in Post-Remediation Groundwater monitoring. The wells MW-2, MW-3, MW and MW-5 will be properly abandoned after groundwater sampling and testing has been conducted and prior to STAGE 1 earthmoving excavation of impacted surface topsoil/fill.

The **STAGE 1** impacted soils will be temporarily stockpiled at designated on-site locations and covered/secured to prohibit erosion runoff. Scattered piles of concrete rubble and larger automobile parts in the ground surface will be exhumed, segregated and stockpiled on-site at designated locations for later recycling. Upon the removals of the surface 1-2 feet of impacted topsoil/fill materials, GEOTHINK geologist will conduct select soil confirmation sampling and testing for metals and PNAs at specific locations along excavation base floor depths within: **a)** the footprint of the building, **b)** footprints of the 2 underground and 1 above ground stormwater structures, and **c)** designated parking lot pads around the building for documentation of contaminant site remediation conditions.

STAGE 2 involves the excavation and construction of the 2 underground storm water detention systems (includes LA2) and 1 above ground open compensatory storage area (LA3) stretching along the entire eastern portion of the subject property. The larger underground detention system will be composed of 8' and 10' diameter CMP to store a potential 4.6 acre-feet, while LA2 underground detention will be composed of 8' diameter CMP to store a potential 0.96 acre-feet. The above ground LA3 compensatory storage area will be excavated to sufficient depth for impacted topsoil/fill placement and encapsulation, while performing 2.06 acre-feet of runoff storage. Excavation will be performed in these three designated areas from 8 to 15 feet below existing grades (potentially deeper as needed) to allow construction of these stormwater structures. While these 3 structures are excavated, the GEOTHINK geologist will direct the work to ensure isolated hot spots of impacted soils are identified, segregated and stockpiled on-site, while clean clay material is segregated and placed in designated stockpiles for later re-use as fill.

During these **STAGE 2** excavations, several dewatering sumps will be constructed per excavation area at locations to be determined by GEOTHINK geologist. Ground water pumped from dedicated excavations sumps will be run through pretreatment train to remove sediments prior to discharge to Village authorized Ogden Avenue stormwater system, and/or to the far southeast corner of the site. Since each of these 2 underground detention and 1 above ground compensatory storage area currently contain areas of impacted soils/fill, the GEOTHINK geologist will conduct selective soil confirmation sampling and testing for COCs at specific locations along the below ground detention structure excavation sidewalls and floor depths to determine the effectiveness of remedial excavation and document clean soil conditions.

The ~0.55 acre designated LA3 compensatory storage area located at the far southeast corner of the PWF site is proposed to manage several critical functions towards the achieving the successful remediation and redevelopment of the property to comply with IEPA SRP and TACO regulations and Village Stormwater Ordinance requirements. The existing portion of the on-site 0.33-acre wetland that crosses the LA3 area along with the rest of the wetland will be removed and mitigated through the Village.

The LA3 above ground open compensatory storage area is designed to comply with Village Stormwater Ordinance requirements. A total of 2.06 acre feet of stormwater storage on-site are available to aid in minimizing possible off-site Wetland #2401 impacts from periodic floodwaters that inundate the adjacent off-site wetlands and ease the potential for flood damages to nearby residences. The LA3 bottom (above ground) and slopes are to be planted after construction with appropriate native seed mixes and cover crop.

This LA3 above ground compensatory storage area is RAP proposed to become the Soil Management Zone #1 (**SMZ #1**) area for soil consolidation, engineered burial and envelopment of the **STAGE 1** spoils containing mostly metal contaminated topsoil/fill materials. Under the direction of GEOTHINK geologist during **STAGE 2** excavation work, the **SMZ #1** area will be excavated into clean clay materials to an ideal depth of 15 feet BGL with 1:1 slopes. However the excavation may extend deeper as needed. Exposed and anticipated clean clay walls and excavation bottom conditions will be confirmed with sufficient number of confirmation COCs soil tests conducted to confirm clean conditions at SMU #1.

STAGE 3 will involve the transport and relocation on-site of contaminated topsoil/fill materials from their designated stockpile(s) to the **SMZ #1** facility. GEOTHINK geologist will then direct the placement and consolidation below ground of an estimated 7,000 cubic yards of contaminated topsoil/fill materials into the open excavation in appropriate lifts to within 3 feet of the proposed LA3 bottom elevation, where a three-foot layer of compacted clean clay will be emplaced at the top as an engineered barrier, while the existing 3 foot + thick native silty clay soils along the floor and walls of the excavated and filled SMZ #1 will perform as natural engineered barrier. The proposed 3 foot thick clay layer cap atop SMZ #1 along with the existing native clay walls and floor will together perform as an engineered barrier for **SMZ #1** to mitigate soil vapor inhalation exposure, soil ingestion exposure and SCGIER exposure pathways. The actual SMZ #1 structure is estimated to be constructed weather permitting in September-November 2016.

An as-built drawing of the **SMZ #1** (LA3) facility along with photographic log will be generated by GEOTHINK after remediation/construction completion for incorporation into the pending Remedial Action Completion Report (RACR).

Three (3) monitoring wells are proposed in **STAGE 1** to monitor ground water quality at the property boundary next to Soil Management Zone #1 area (LA3). Well MW-6 will be installed near the south side of **SMZ #1**, while well MW-7 and MW-8 will be installed on the east side of **SMZ #1**. These wells will be tested Pre-Remediation and Pre-Construction of SMZ #1. After **STAGE 2** construction of the **SMZ #1** is completed along with slope grading and native planting work, Post-remediation groundwater samples will be collected from these monitoring wells and be analyzed for COCs and pH. Monitor wells MW-1, MW-3, MW-4 and MW-5 will be abandoned and sealed during **STAGE 1** earth moving.

STAGE 4 remediation area identified as Soil Management Zone #2 (**SMZ #2**) addresses the residual COC soil contamination that remains in the subsurface within the 45,505 sf building footprint after the STAGE 1 excavation and removal of the top 1-2 foot layer of topsoil/fill containing metal debris and metal/PNA contamination has been completed. The proposed first floor concrete slab elevation is 740.0 feet. Additional clean fill along with engineered fill will be placed atop the exposed excavated ground surface to allow the installation of a 10-ml sheet vapor barrier underneath the proposed 5-inch thick poured concrete slab floor that is an engineered barrier covering the entire 45,505 sf building footprint. The 10-ml sheet vapor barrier and the overlying building concrete floor slab (no basements or sump pump basins) will together perform as an engineered barrier for the **SMZ #2** dealership building to mitigate soil vapor inhalation exposure, soil ingestion exposure and SCGIER exposure pathways. One (1) concrete lined elevator vault will extend below the building footprint. The actual building concrete floor slab is estimated to be constructed weather permitting in April-June 2017.

STAGE 5 remediation area includes those areas of the site where utility conduit/ utility right of way trenching excavations expose COCs in the subsurface at depths below 1-2 feet BGL, where the previously conducted Stage 1 remediation actions removed the surface topsoil/fill materials for subsequent encapsulation and containment in **SMZ #1**. These exposed and excavated utility trench COC impacted fills/soils will be transported on-site to a designated stockpile, while clean soils will be removed, segregated and stockpiled on-site for later reuse as fill.
GEOTHINK geologist will conduct selective soil confirmation sampling and testing for metals and PNAs at specific locations along trench excavation sidewalls and floors to determine the effectiveness of remedial excavation and document clean soil conditions. These impacted COC soils along with other COC impacted soils not placed in **SMZ #1** or **SMZ #2** areas, or those COC soils not transported off-site for landfill disposal will be consolidated, transported and contained in the subsurface beneath an engineered barrier of designated asphalt parking lots identified as Soil Management Zone #3 (**SMZ #3**).
During STAGE 1 and STAGE 2 excavations across the site, and depending upon grade requirements, some deeper contaminated soils may remain in-place for eventual encapsulation by engineered fill and asphalt pavement as part of SMZ #3.

STAGE 5 remediation area also includes residual COC soil contamination that remains in the subsurface within scattered pockets of the proposed asphalt parking lot footprints for use as **SMZ #3**, where the previously conducted Stage 1 remediation actions removed the surface topsoil/fill materials for subsequent encapsulation and containment in **SMZ #1**. GEOTHINK geologist will conduct selective soil confirmation sampling and testing for metals and PNAs at specific locations at the prior Stage 1 excavation limits to determine the effectiveness of remedial excavation and document clean soil conditions. Additional clean fill along with engineered fill will be placed atop the exposed excavated ground surface to allow the installation of a minimum 4-inch layer of asphalt pavement to construct the **SMZ #3** parking lots. The asphalt parking lot layer and engineered barrier for **SMZ #3** will mitigate soil ingestion exposure and SCGIER exposure pathways from residual impacted soils beneath. The completed asphalt pavement engineered barrier (2 lifts of 2" thick asphalt) parking lots are estimated to be constructed weather permitting in July – September 2017.

It is estimated that between 600 to 1,000 cubic yards of unsuitable contaminated soils/fill materials exhumed at this PWF site will have to be managed for off-site disposal at licensed landfill as "special wastes". The actual volume of materials transported off-site to landfill will be documented, as the general source areas of these "special wastes" will be documented as well.

Post construction groundwater monitoring of the SMZ #1 and the PWF site will be conducted by sampling and testing of wells MW-6, MW-7 and MW-8 for COCs, along with well MW-2 near the northwest corner of the site in July 2017.

The results of the site remediation on-site by soil management zones, soil landfill disposal, soil confirmation and groundwater testing and implementation of engineered barriers and institutional controls will be included with the Remedial Action Completion Report (RACR) along with DRM-2 form certification and signoff by licensed Illinois professional engineer (P.E.) and licensed Illinois professional geologist (P.G.). The RACR will be generated and submitted to the IEPA in September/October 2017 after the last SMZ #3 asphalt parking lot pad(s) has been constructed to comply with IEPA Part 742 definition of engineered barrier.

Upon receipt of a "Draft NFR" from the IEPA, GEOTHINK and RA will review and modify as appropriate the draft document, then resubmit with changes to the IEPA for completion of Final NFR letter that will be recorded with the property deed in DuPage County Illinois.

1.0 BACKGROUND AND INTRODUCTION

This Remedial Action Plan (RAP) has been completed for Mr. Brad Webb of Packey Webb Ford (Remedial Applicant), located at *1815 West Ogden Avenue, Downers Grove, DuPage County, Illinois* (Remediation Site). Proposed remedial activities include soil excavation, soil consolidation, and soil placement for encapsulation activities associated with site redevelopment. Engineered barriers consisting concrete and asphalt pavements for the building footprint and surrounding parking lot areas, and 3 feet of clean clay materials for the stormwater compensatory storage area will perform effective environmental barriers to contain metal and PNA impacted soils on-site encapsulated within the subsurface. Remedial activities will occur in stages during the site redevelopment process into an automotive dealership.

A Comprehensive Site Investigation (CSI) was performed to evaluate the possible presence of potential constituents of concern (PCOC), which are the volatile organic compounds (VOCs), Poly-Nuclear-Aromatic Hydrocarbons (PNAs), semi-volatile organics (SVOCs), Polychlorinated-Biphenyls (PCBs), and metals specifically, arsenic, barium, cadmium, chromium, copper, cyanide, lead, mercury, nickel, selenium, silver, and zinc in the subsurface soil, soil vapor, and/or groundwater on the former auto yard site in order to support development of risk-based remedial objectives (if necessary) and issuance of a Comprehensive No Further Remediation (NFR) determination for this industrial/commercial (I/C) brownfield property to allow its redevelopment into a PWF automobile dealership. The results of the CSI and other environmental investigations are presented in the Comprehensive Site Investigation Report (CSIR) and Remediation Objectives Report (ROR), submitted to the Illinois Environmental Protection Agency (IEPA) on April 11, 2016, and approved by the Agency on June 14, 2016. A copy of the IEPA correspondence and IEPA SRP DRM-2 form for this RAP submittal are provided in **Appendix A.**

The soil COCs above Tier 1 Soil Remediation Objectives (SROs) are identified as PNA compounds Benzo (a) pyrene and Dibenzo (a, h) anthracene, and metals Antimony, Barium, Chromium, Lead, Mercury and Selenium. No groundwater COCs above Tier 1 Class II Ground Water Remediation Objectives (GROs) have been identified for the subject property.

1.1 Project Contacts

1.1.1 Remedial Applicant (Private)

Mr. Brad Webb
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2150 West Ogden Avenue
Downers Grove, Illinois
630-624-7600

1.1.2 Environmental Consultant

Mr. Thomas M. Mangan, PG
GEOTHINK, LLC
611 Stevens Street
Geneva, Illinois 60134
Phone: 630.208.5050
Facsimile: 630.208.9895

1.2 Sources Reviewed or Consulted

The following sources were reviewed or consulted in relation to the work performed:

- Title 35 of the Illinois Administrative Code, Part 740: *Site Remediation Program*;
- Title 35 of the Illinois Administrative Code, Part 742: *Tiered Approach to Corrective Action Objectives with 2013 Updates*;
- Title 35 of the Illinois Administrative Code, Part 620: *Groundwater Quality*;
- *Fact Sheet: Use of Push Driven Technology*, Illinois EPA Bureau of Land, April 2001;
- *Fact Sheet: Performing Well Surveys*, Illinois EPA Office of Community Relations, May 2003;
- *Fact Sheet: SW-846 Method 5035*, Illinois EPA Bureau of Land, October 1998; and
- GEOTHINK, LLC. April 11, 2016, *Comprehensive Site Investigation Report and Remedial Objectives Report.*

Other sources reviewed or consulted in relation to the work performed are referenced in the body of the Remedial Action Plan (RAP). The April 11, 2016 GEOTHINK CSIR-ROR document is incorporated by reference for use in this RAP document.

1.3 Remediation Site Location

The legal description of the site is as follows: "All Lot 4 and Lot 5 (Except The Westerly 165 Feet Of the North 264 Feet Thereof) In Branigar Bros' Ogden Avenue Farms, Being A Subdivision In The Southwest Quarter Of Section 6, Township 38 North, Range 11, East Of the Third Principal Meridian, According To The Plat recorded Thereof February 15, 1921 As Document 146501, In DuPage County, Illinois".

The site location map **Figure 1** shows the subject property located on the south side of the Ogden Avenue business corridor south of Interstate 88 and east of Interstate 355. **Figure 2** details the site location and the surrounding properties along Ogden Avenue to the north, Stonewall Avenue to the west, and Lee Avenue to the east of the 9.75 acre property.

1.4 Legal Description, PINs and Remediation Property Description

The legal description of the 9.75 acre site currently owned by Aldi, Inc. of Batavia, IL. is as follows: "All Lot 4 and Lot 5 (Except The Westerly 165 Feet Of the North 264 Feet Thereof) In Branigar Bros' Ogden Avenue Farms, Being A Subdivision In The Southwest Quarter Of Section 6, Township 38 North, Range 11, East Of the Third Principal Meridian, According To The Plat recorded Thereof February 15, 1921 As Document 146501, In DuPage County, Illinois". The Subject Property has two (2) real estate Parcel Identification Numbers (PIN): 09-06-304-013 and 09-06-304-014.

Most of the subject property consisted of an open field with scattered clumps of trees that contained broken concrete piles and/or automobile scrap metal parts. The uneven ground surface contained broken concrete pieces along with metal pieces of car parts as part of the surface fill zone that seemed to extend across the eastern and southern portions of the property. Wooded areas were observed along the eastern, southern, and western property boundaries. A modified R.A. Smith National Sheet C100 Demolition and Initial Erosion Control Plan drawing identified as **Figure 3** provides a 2015 topographic map of the subject property that contains the on-site wetland drainageway along the southern portion of the site.

A small intermittent drainage flowing from west to east was observed along the southern property boundary that has been delineated and confirmed as 0.33-acre non-waters of the U.S. wetland regulated by County of DuPage and Village of Downers Grove (Village). This wetland drainage along the southern portion of the site discharges into the large open water wetland observed off-site adjacent to the southeastern corner of the subject property.

1.5 Site History and Recognized Environmental Conditions

GEOTHINK performed a Phase 1 ESA and CSI investigation between November 2015 and April 2016 on the undeveloped 9.75-acre sized former automobile scrap yard property (operated from 1932 to 1982) located at 1815 (formerly 1863) West Ogden Avenue, Downers Grove, Illinois 60515. GEOTHINK downloaded several environmental reports and related correspondence from the IEPA website, including two (2) previous ESAs and the titles and copies of these reports previously submitted to IEPA are incorporated by reference in this RAP. A copy of the GEOTHINK Phase I ESA was provided to the IEPA with the remediation site SRP application on January 19, 2016. These documents were incorporated by reference in prior GEOTHINK CSIR that was approved by the IEPA on June 14, 2016.

Prior Aldi consultant EPI determined in 2007 that Class II groundwater resource standards applied to the Aldi, Inc. SRP site. The subsequent remedial action plan by EPI dated November 30, 2007 on behalf of Bradford Real Estate Company recommended soil excavation remediation to achieve Tier 1 Residential SRO standards. This remediation work was never completed.

GEOTHINK performed subsurface site investigation activities between January 2016 and April 2016. These activities included digging twelve (12) test pits, advancing nineteen (19) soil borings, installing five (5) monitoring wells and six (6) soil vapor monitoring points, hydraulic conductivity testing, ground water sampling, soil vapor sampling, elevation survey and collection of multiple rounds of groundwater static levels. This site investigation was conducted in accordance with the IEPA Site Remediation Program (SRP) reporting requirements pursuant to *Title 35 Illinois Administrative Code (35 IAC) Part 740*, and the Tiered Approach to Corrective Action Objectives (TACO) guidelines in *35 IAC Part 742*.

GEOTHINK confirmed Class II groundwater conditions at the site based on water levels that ranged from 3.0 to 6.6 feet below the ground surface, hydraulic conductivity testing and prior site findings by EPI 2007 and Versar 2000. GEOTHINK applied all soil testing results to industrial/commercial Tier 1 SROs and Class II SCGIER values, while groundwater results were compared to Class II GROs.

GEOTHINK collected a series of water level measurements from the five (5) existing monitor wells from February 12, 2016 to the most recent date of May 11, 2016. The 2016 water level measurements and groundwater elevations are provided in **TABLE 1**. This table details the higher (shallower) water levels recorded for May 11, 2016 (3.11 feet to 5.14 feet) associated with spring heavy rainfall events.

The twelve (12) exploratory test pit excavations conducted January 13th, 2016 had soil samples collected from 2 and 4 foot deep intervals per each test pit. No VOCs, SVOCs, PCBs or TCLP metals were detected above laboratory detection limits, and/or above Tier 1 SROs. One Total lead soil sample detected lead concentration above Tier 1 SROs. Each of the test pit excavations had fill materials tested for possible asbestos containing materials (ACMs) and the PLM testing indicated no ACMs. The TCLP metals soil results from 2 or 4 foot deep soil sample intervals indicate that: 1) no hazardous levels of metals are present on the subject property soils, and 2) surface soil contamination by metals Barium, Chromium, Lead, Mercury and Selenium above Tier 1 SROs confirmed by prior EPI site investigation work is not mobilizing and migrating through the surficial fill and silty clay materials to deeper horizons.

Subsequent soil borings, soil vapor probes and monitor well soil samples collected February 9th and 10th, 2016 were tested for pH, Total Lead, RCRA metals, and/or PNAs. Multiple soil samples contained total lead, barium and chromium levels above Tier 1 SROs, while PNA testing results were BDL, and/or below Tier I SROs. The five monitoring wells had groundwater samples collected on February 15th, 2016 and the samples were analyzed for VOCs, SVOCs, PCBs, and RCRA metals. Analytical results were BDL and/or below Class II GROs for all tested parameters. Six (6) soil gas vapor samples were collected on February 23rd, 2016 for volatile organics per method TO-15; however no Indoor Inhalation Soil Gas remediation objective exceedances were observed or determined for these soil gas sample locations.

VOC testing was conducted within the shallow subsurface of the proposed 45,505 sf building footprint within soils (TP-4 at 2.0', TP-6 at 2.0'), soil gas (GVP-4) and groundwater (MW-1 and MW-5) mediums to potentially detect VOC soil, soil gas and/or groundwater contamination. Based on the testing results, no VOCs were detected in the soils beneath the building above BDL concentrations, no VOCs were detected in the shallow groundwater above BDL concentrations, and no soil gas vapors were detected above both residential and I/C Indoor Air Soil Gas remediation objectives (diffusion and advection) or Outdoor Air Soil Gas remediation objectives.

The soil COCs above Tier 1 SROs are identified as PNA compounds Benzo (a) pyrene and Dibenzo (a, h) anthracene, and metals Antimony, Barium, Chromium, Lead, Mercury and Selenium. No groundwater COCs above Tier 1 Class II GROs have been identified for the subject property.

The results of the CSI and other environmental investigations were presented in the CSIR and ROR, submitted to the IEPA on April 11, 2016, and approved by the Agency on June 14, 2016. Copies of IEPA correspondence pertaining to this subject property are included as **Appendix A.**

1.6 Topographic Setting

Based upon the **Figure 3** 2015 Topographic and Existing Site Conditions Map along with on-site observations during the site investigation, surface topography at the southern one-third of the subject property appears to flow east to southeast toward an off-site wetland observed adjacent to the southeast corner of the subject property. Surface topography appeared to dip in a northeasterly direction across the northern two-thirds of the subject property, towards a stormwater drainage swale that appeared to flow in a northerly direction underneath Ogden Avenue. Site elevation ranges from 756 feet (NW corner of site) to 729-feet (SE and NE corners of site) above mean sea-level. Wooded areas were observed along the eastern, southern, and western property boundaries.

1.7 Proposed Future Redevelopment Land Use of Remediation Site

The planned future land-use for the current undeveloped subject site is dependent upon IEPA SRP approvals of this proposed RAP remediation work for Packey Webb Ford to eventually allow them to purchase the 9.75 acre property from Aldi, Inc. and then redevelop the location into an automobile dealership sales and service operation. The modified **Figure 4** Packey Webb Ford Site Plan drawing (R.A. Smith National Sheet C200) displays the most recent June 10, 2016 Site Plan layout for construction of the automobile dealership that includes 45,505 square foot slab on grade building with adjacent parking lots and two access driveways to Ogden Avenue. The existing Village regulated 0.33-acre wetland will be storm water permitted and fee in kind paid to the Village to mitigate on-site wetland impacts off-site.

The modified **Figure 5** Packey Webb Ford Grading Plan drawing (R.A. Smith National Sheet C300) displays the most recent June 10, 2016 Grading Plan and Earthwork Estimate for construction of the automobile dealership. Significant grading work is needed to balance the site and allow 45,505 sf building slab at 740 feet (F.F.E.) to be constructed with adjacent terraced parking lots, two access driveways to Ogden Avenue, stormwater drainage swale along southern boundary, compensatory storage area at southeast corner of the site with overflow swale at eastern boundary and allow installation of two subsurface stormwater detention basins.

The modified **Figure 6** Packey Webb Ford Utility Plan drawing (R.A. Smith National Sheet C400) displays the most recent June 10, 2016 Utility Plan for construction of the automobile dealership. Significant utility work is to conducted at the site to comply with Village Stormwater Ordinance regulations to construct two (2) underground detention systems (LA2 Compensatory Storage and Proposed Underground Detention) and one (1) above ground LA3 Compensatory Storage area to store 7.62 acre feet of stormwater runoff (100-yr. event) along the entire eastern portion of the site. In addition, numerous utility conduits for fire protection, drinking water, electrical, communications, sanitary sewer and stormwater conveyance will crisscross the planned facility.

A graphic display of site renderings showing the proposed building and property layout from different directions of viewing are provided in **Appendix B** along with the Site Plan drawing (R.A. Smith National Sheet C200) showing the proposed configuration of the building on the subject property.

The Village of Downers Grove will be supplying water and sanitary services to the subject property. The Village of Downers Grove has a ground water ordinance that prohibits water well installation within the Village limits. Ordinance Number 4423 effective August 1, 2003 prohibits groundwater supply wells on private property within the Village of Downers Grove limits. This Ordinance Number 4423 has been approved by the IEPA Bureau of Land (BOL) and a copy is provided in **Appendix C**. The source of the Village supplied potable water is Lake Michigan origin.

1.8 Current & Future Surrounding Land Use

Future off-site property usage is expected to be similar to current usage.

South – Wooded areas adjacent to residential properties. An off-site open water Village regulated wetland was observed east of the southeast corner of the subject property.

West – One (1) commercial property (West Suburban Humane Society) and multiple residential properties that front Stonewall Avenue upslope from the subject property.

North – Ogden Avenue and associated right-of-way. Commercial properties (including several auto sales and repair facilities, were observed adjacent to the north side of Ogden Avenue.

East - Two (2) vacant parcels were observed immediately adjacent to the east side of the subject property. What appeared to be a residence and closed tavern/eating establishment were observed at 1731 Ogden Avenue, which appears to be adjacent to the east side of the vacant parcels. Star Motors (1725 Ogden Avenue) reportedly purchased the 1731 property to be incorporated into larger redevelopment of Star Motors facility that fronts Ogden Ave. and Lee Street. Lee Street sits at lower elevation than PWF.

2.0 SITE TESTING CONDITIONS AND REMEDIATION OBJECTIVES

GEOTHINK evaluated four (4) general exposure pathways at this industrial/commercial (I/C) Remediation Site:

1. Soil Ingestion Exposure Route;
2. Soil Inhalation Exposure Route; and
3. Groundwater Ingestion Exposure Route:
   a. Soil Component of the Groundwater Ingestion Exposure Route (SCGIER), and
   b. Direct Ingestion of Groundwater Exposure Route.
4. Indoor Inhalation Exposure Route.

Due to the prior history of the subject site and planned future use as a car dealership, industrial/commercial (I/C) soil remediation objectives were employed for risk evaluation as part of the comprehensive site investigation (CSIR) and remedial objectives report (ROR) that was IEPA approved on June 14, 2016. GEOTHINK 2016 investigation soil testing results from exploratory test pits, soil borings and soil probes did not detect any VOCs and PCBs parameters in concentrations above Tier 1 industrial/commercial SROs. Test pit soil samples tested for TCLP metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc) detected BDL concentrations, and/ or below Tier 1 SROs for all metals. See **TABLE 2** and **TABLE 3** for GEOTHINK soil testing results from the CSIR.

EPI 2007 investigation soil testing results did not detect VOCs, SVOCs, Pesticides, PCBs and PNAs except compounds Benzo (a) pyrene and Dibenzo (a, h) anthracene above Tier 1 SROs.

The GeoThink 2016, EPI 2007, Versar 2000 and RUST 1996 investigation results for RCRA metals, Total lead and Priority Pollutant metals detected antimony, barium, chromium, lead and selenium at concentrations above industrial/commercial Tier 1 Class II SROs and mercury was detected above Tier 1 I/C construction worker inhalation SRO at one location along southern boundary of site at SE corner.

The soil COCs identified for the subject property as a result of the CSIR are identified as PNA compounds Benzo (a) pyrene and Dibenzo (a,h) anthracene, and metals Antimony, Barium, Chromium, Lead, Mercury and Selenium.

GeoThink 2016 groundwater investigation results for VOCs, PNAs, PCBs, SVOCs, pH, cyanide, zinc and RCRA metals were BDL concentrations or below Class II GROs. EPI 2007 and Versar 2000 groundwater investigation results for VOCs, Pesticides, PNAs, SVOCs, PCBs and RCRA metals were BDL concentrations or below Class II GROs. See **TABLE 4** for the GEOTHINK groundwater testing results from the CSIR. **TABLE 5** provides a groundwater elevation graph of 2016 water levels.

No COCs were identified in the groundwater for the subject property as a result of the CSIR.

The extents of impacted soils by the COCs are shown on the **Figure 7** Soil Contamination Map Existing Topography and Wetlands and the **Figure 8** Soil Contamination Map –Site Plan. The majority of the southern third of the property and the far northern portion of the proposed building footprint contain lead soil contamination above Tier 1 I/C Class II SROs. A modest area of chromium soil contamination is present at the southeast corner and southern boundary area of the site. While isolated pockets of PNA soil contamination above Tier 1 I/C Soil Ingestion are present at far Northeast corner and north end of building on the site. Smaller isolated pockets of metals antimony, barium, mercury and selenium above Tier 1 Class II SCGIER SROs and mercury CW inhalation are located just east and south of the building footprint, as well as near the southern boundary at the Southeast corner of the site.

2.1 TACO Pathway Exclusion Analysis for On-Site Soil Management Zones

Subpart C of TACO prescribes the approach for exposure pathway exclusion that will apply to the proposed use of soil management zones in this RAP. General criteria for excluding the exposure pathways are outlined in Sections 300 (Exclusion of Exposure Route) and 305 (Contaminant Source and Free Product Determination). Criteria for excluding the groundwater ingestion exposure route are outlined in Section 320 (Groundwater Ingestion Exposure Route).

The proposed RAP implementation Stages and the establishment of Soil Management Zones to conduct an effective remediation of the COCs to applicable Tier 1 SROs for I/C land is as follows: **Soil Management Zone** areas are identified as: Soil Management Zone #1 (SMZ #1) is the LA3 above ground compensatory storage area at the southeast corner of the site, Soil Management Zone #2 (SMZ #2) includes the 45,505 sf dealership building footprint (slab on grade – 740' F.F.E.) and Soil Management Zone #3 (SMZ #3) are those designated asphalt parking lot pad areas on the east, north, south and west sides of the building as needed to manage and contain COC impacted soils. **Figure 9** details the proposed locations and constructed functions of these SMZ #1, #2 and #3.

2.2 Contaminant Source and Free Product Determination (742.305)

In accordance with Subpart C, Section 305 of TACO, the following criteria must be met prior to excluding any potential exposure pathway using the prescriptive approach:

1. *The sum of the concentrations of all organic contaminants of concern must be less than the soil attenuation capacity.* **Response:** Analytical results demonstrate the soil attenuation capacity has not been exceeded. The sum of all reported VOC, SVOC, and PCB concentrations were below the lowest Fractional Organic Carbon (FOC) value of 0.00409 g/g (4,090 mg/kg) identified at TP-10 (4').

2. *The concentrations of any organic contaminants of concern remaining in the soil must be below the soil saturation limit.* **Response:** Soil Analytical results demonstrate that No VOCs, SVOCs, or PCBs exceeded their respective soil saturation limits.

3. *Soils cannot exhibit any of the characteristics of reactivity for hazardous waste.* **Response:** The COCs in the soils identified as metals antimony, barium, chromium, lead, mercury, and selenium are not characteristically reactive nor do they degrade into reactive by-products.

4. *Soil pH must be greater than 2.0 or less than or equal to 12.5.* **Response:** Analytical results report pH values between 6.49 standard units (su) (GSB-7, 8'-10') and 9.35 su (Test Pit 12, 4').

5. *Any soils which contain arsenic, barium, cadmium, chromium, lead, mercury, selenium or silver as COC or their salts shall not exhibit any of the characteristics of toxicity for hazardous waste for these metals.* **Response:** The GeoThink 2016 TCLP soil testing and the prior EPI 2007 TCLP metals testing results indicated no hazardous waste levels of these metals.

6. *If contaminants of concern include polychlorinated biphenyls (PCBs), the concentration of any PCBs in the soil shall not exceed 50 parts per million as determined by SW-846 Methods.* **Response:**The highest total PCBs concentration and the only PCB compound detection from GeoThink test pit soil samples was 0.403 mg/kg at Test Pit 4 (2'), and EPI 2007 investigation boring B-23 at 0-8" with a 0.256 mg/kg concentration.

2.3 Soil Ingestion Exposure Route

As shown in prior investigation results, total lead was identified to exceed the residential, construction worker, and industrial/commercial (I/C) soil ingestion exposure pathways at multiple soil sample locations. **Lead was detected above Construction Worker Soil Ingestion SRO of 700 mg/kg** –

GeoThink test results of 2,400 mg/kg @ MW-4 (1'-3'), 959 mg/kg @ GSB-3 (1'-3'), and 1,140 mg/kg @ GSB-4 (1'-3'); and
EPI 2007 SI boring results of 3,010 mg/kg @ B23 (0-1') and 2,340 mg/kg @ B24 (0-1'); and
Versar 2000 soil results of 740 mg/kg @ L-9 (1'), 1,480 mg/kg @ SB-4 (0-0.5'), 3,060 mg/kg @ SB-5 (0-0.5'), 3,410 mg/kg @ SB-5 (0.5 – 1.0'), 1,030 mg/kg @ SB-5 (1-1.5'), and 1700 mg/kg @ I-1 (1'); and
RUST 1996 surface samples (0-1') results of 967 mg/kg @ B8, 962 mg/kg @B9, 1,260 mg/kg @ B10, 1,160 mg/kg @ B11 at 1,400 mg/kg @ B12, 1,120 mg/kg @ C8, 1,020 mg/kg @ C9, 1,600 mg/kg @ C10, 1,220 mg/kg @ C11, 1,720 mg/kg @ C12, 948 mg/kg @ D4, 701 mg/kg @ D5, 1,290 mg/kg @ D7, 995 mg/kg @ D9, 3,150 mg/kg @ D10, 2,920 mg/kg @ D11, 832 mg/kg @ D12, 784 mg/kg @ E4, 1,400 mg/kg @ E5, 787 mg/kg @ E7, 974 mg/kg at E9, 5170 mg/kg at E10, 968 mg/kg @ E11, 914 mg/kg at F7, 1130 mg/kg @ F8, 1050 mg/kg @ F9, and 1,720 mg/kg at G8.

Lead was detected above Industrial/Commercial Soil Ingestion SRO of 800 mg/kg – **GeoThink** test results of 2,400 mg/kg @ MW-4 (1'-3'), 959 mg/kg @ GSB-3 (1'-3'), and 1,140 mg/kg @ GSB-4 (1'-3'); and **EPI** 2007 SI boring results of 3,010 mg/kg @ B23 (0-1') and 2,340 mg/kg @ B24 (0-1'); and
Versar 2000 soil results of 1,480 mg/kg @ SB-4 (0-0.5'), 3,060 mg/kg @ SB-5 (0-0.5'), 3,410 mg/kg @ SB-5 (0.5 – 1.0'), 1,030 mg/kg @ SB-5 (1-1.5'), and 1700 mg/kg @ I-1 (1'); and
RUST 1996 surface samples (0-1') results 967 mg/kg @ B8, 962 mg/kg @B9, 1,260 mg/kg @ B10, 1,160 mg/kg @ B11, 1,400 mg/kg @ B12, 1,120 mg/kg @ C8, 1,020 mg/kg @ C9, 1,600 mg/kg @ C10, 1,220 mg/kg @ C11, 1,720 mg/kg @ C12, 948 mg/kg @ D4, 1,290 mg/kg @ D7, 995 mg/kg @ D9, 3,150 mg/kg @ D10, 2,920 mg/kg @ D11, 832 mg/kg @ D12, 1,400 mg/kg @ E5, 974 mg/kg at E9, 5170 mg/kg at E10, 968 mg/kg @ E11, 914 mg/kg at F7, 1130 mg/kg @ F8, 1050 mg/kg @ F9, and 1,720 mg/kg at G8.

Under this RAP, these lead soil exceedences locations will either be excavated and relocated within SMZ #1, SMZ #2 or SMZ #3 areas, or remain in-place within SMZ areas #2 and #3, and/or hauled off-site for landfill disposal.

2 PNA compounds were detected above I/C Soil Ingestion SROs of 0.80 mg/kg: PNAs – Benzo (a) pyrene (BAP) was detected above I/C soil ingestion SRO of 0.8 mg/kg in: **EPI** 2007 investigation results of 0.866 mg/kg @ B10 (6-8'); and **Versar** boring soil samples of 0.860 mg/kg @ SB-5 (0-0.5') and 2.0 mg/kg @ SB-5 (1-1.5').

PNAs – Dibenzo (a, h) anthracene (DBA) was detected in only one sample above I/C soil ingestion SRO of 0.8 mg/kg in **EPI** 2007 investigation results of 0.804 mg/kg @ B10 (2-4').

Under this RAP, these PNA soil exceedences locations will either be excavated and relocated within SMZ #1, SMZ #2 or SMZ #3 areas, or remain in-place within SMZ areas #2 and #3, and/or hauled off-site for landfill disposal.

2.4 Soil Inhalation Exposure Route

EPI 2007 SI boring results detected 0.240 mg/kg mercury @ B23 (0-1') above 0.10 mg/kg SRO for construction worker soil inhalation caution near the southern boundary at the Southeast corner of the site per **Figure 8.**

Under this RAP, this mercury soil exceedences location will be excavated and relocated in SMZ #1.

2.5 Soil Component of the Groundwater Ingestion Exposure Route

The following SCGIER SRO exceedences were reported in the analytical results: **Tier 1 Class II Soil Component to Ground Water Ingestion (pH-Specific)**

Antimony – **EPI** test results of 20.3 mg/kg @ B23 (0'-1') and 24.2 mg/kg @ B24 (0-1') above 20 mg/kg SRO;
Barium – **GeoThink** result of 1,790 mg/kg @ MW-4 (1'-3') above 1,700 mg/kg SRO; no EPI SRO exceedance;
Chromium – **GeoThink** soil test results of 77.7 mg/kg @ MW-4 (1'-3'), 44.8 mg/kg @ GSB-3 (1'-3'), and 51.8 mg/kg @ GSB-4 (1'-3') above SCGIER Class II SRO of 36.0 mg/kg; and **EPI** 2007 results of 41.4 mg/kg @ B10 (2-4'), 69.0 mg/kg @ B23 (0-1'), 64.1 mg/kg @ B24 (0-1'), and 36.0 mg/kg @ B29 (0-1'); above Tier 1 Class II SRO of 36.0 mg/kg;

Lead – GeoThink test results of 2,400 mg/kg @ MW-4 (1'-3') above SRO of 1,420 mg/kg; and **EPI** 2007 SI boring results of 3,010 mg/kg @ B23 (0-1') and 2,340 mg/kg @ B24 (0-1') above 1420 mg/kg SRO; and **Versar** 2000 soil results of 1,480 mg/kg @ SB-4 (0-0.5'), 3,060 mg/kg @ SB-5 (0-0.5'), 3,410 mg/kg @ SB-5 (0.5 – 1.0'), and 1700 mg/kg @ I-1 (1') above 1,420 mg/kg SRO; and **RUST** 1996 surface samples (0-1') results of 1,600 mg/kg @ C10, 1,720 mg/kg @ C12, 3,150 mg/kg @ D10, 2,920 mg/kg @ D11, 5,70 mg/kg @ E10, and 1720 mg/kg @ G8 above Tier 1 Class II pH adjusted SCGIER SRO of 1,420 mg/kg.

Selenium – **EPI** investigation result of 15 mg/kg @ B19 (6-8') above 4.5 mg/kg SRO; and No GeoThink results above SRO;

Under this RAP, these metal soil exceedences locations will either be excavated and relocated within SMZ #1, SMZ #2 or SMZ #3 areas, or remain in-place within SMZ areas #2 and #3, and/or hauled off-site for landfill disposal.

2.6 Indoor and Outdoor Air Inhalation Exposure Routes

No VOCs or mercury were detected in groundwater at concentrations above BDL limits, and/or above the Tier 1 Class I and Class II groundwater remediation objectives pertaining to the indoor air inhalation exposure path. In addition, analytical results for soil vapor samples collected did not report concentrations above indoor air or outdoor air soil gas remediation objectives. Therefore, further assessment of this exposure pathway is not warranted, and therefore excluded from further assessment.

2.7 Groundwater Ingestion Exposure Route-Specific Exclusion Criteria (742.320)

In accordance with Subpart C, Section 320 of TACO, the following route-specific criteria must be met prior to excluding the groundwater exposure pathway using the prescriptive approach:

1. *The requirements of Sections 742.300 and 742.305 are met.* **Response:** The requirements of Sections 742.300 and 742.305 have been met. The Remediation Site has been characterized and the contaminant source and free product determination has been completed.

2. *Free product has been removed to the maximum extent practicable.* **Response:** Free product was not detected at the Remediation Site.

3. *The source of the release is not located within the minimum or designated maximum setback zone or within a regulated recharges area of a potable water supply well.* **Response:** No municipal and no private potable water supply wells exist within the minimum or maximum setback zone of the subject property.

4. *For any area within 2,500 feet from the source of the release, an ordinance adopted by a unit of local government is in place that effectively prohibits the installation of potable water supply wells and the use of such wells.* **Response:** The Village of Downers Grove has an ordinance that covers the subject property. A copy of the ordinance is provided in **Appendix C**.

5. *As demonstrated using Equation R26, the concentration of any contaminant of concern in groundwater within the minimum or designated maximum setback zone of an existing potable water supply well will meet the applicable Tier 1 groundwater RO.* **Response:** R-26 modeling is not needed for this subject property, since no groundwater sampling test results for VOCs, PNAs, Pesticides, PCBs, SVOCs, and metals exceeded Class I Tier 1 GROs, except for lead. Based on Class II groundwater remediation objectives, the lead groundwater concentration does not exceed Class II GRO of 0.10 mg/L. Therefore the subject property has no groundwater contamination and this exposure route pathway can be excluded from any further assessment.

6. *As demonstrated using Equation R26, the concentration of any contaminant of concern in groundwater discharging into a surface water will meet the applicable surface water quality standard under 35 Ill. Adm. Code 302.* **Response:** Based on the groundwater testing results there is no groundwater contamination and R-26 modeling is not needed for the subject property. Therefore, no contaminants of concern have been identified in the local subject property groundwater to pose a threat to the closest surface water identified as off-site open water wetland pond southeast of the site. The subject property has no groundwater contamination and this exposure route pathway can be excluded from any further assessment.

3.0 PROPOSED REMEDIATION TECHNOLOGY

3.1 Soil Excavation, On-Site Reuse/Encapsulation, and Off-Site Disposal

The extents of impacted soils by the COCs are shown on the **Figure** 7 Soil Contamination Map Existing Topography and Wetlands predevelopment. Remnant scrapyard auto parts are intermixed in the ground surface composed of topsoil and fill impacted with COC metals 1 to 2 feet deep, and less extensive 'pockets' of COC metals and/or PNA impacted soils that extend 2 to 4 feet deep, or isolated "pockets" of impacted soil 6 to 8 feet deep as determined at the subject property by the CSIR.

The **Figure 8** Soil Contamination Map –Site Plan displays the COC impacted areas on-site per the proposed Site Plan. The majority of the southern third of the property and the far northern portion of the proposed building footprint contain lead soil contamination above Tier 1 I/C Class II SROs. A modest area of chromium soil contamination is present at the southeast corner and southern boundary area of the site. While isolated pockets of PNA soil contamination above Tier 1 I/C Soil Ingestion are present at far Northeast corner and north end of building on the site. Smaller isolated pockets of metals antimony, barium, mercury and selenium above Tier 1 Class II SCGIER SROs and mercury CW inhalation are located east and south of the building, as well as near the southern boundary at Southeast corner of site.

As part of the proposed site redevelopment grading plan per **Figure 5**, approximately 14,000 cubic yards of topsoil/fill material 1-2 feet deep will be scrapped/excavated from across the site (not suitable fill material) and managed accordingly depending upon if COC contaminated per **Figure** 7 and **Figure 8** Soil Contamination maps. It is estimated that approximately 7,000 to 8,000 cubic yards (cy) of COC impacted soils will need to be excavated for site grading, building foundation, LA2 and LA3 compensatory storage areas, underground stormwater detention systems, and subsurface utilities. The proposed underground stormwater detention and compensatory storage areas will be constructed along the eastern portion and property boundary areas of the site. These will consist of two (2) subsurface stormwater detention systems that includes LA2 area and one (1) above ground open compensatory storage area (LA3) as shown in **Figure 6** –Site Utility Plan (modified Sheet C400). The landfill disposal off-site of 7,000 to 8,000 cy of contaminated soil is cost-prohibitive to this PWF project.

Soil excavation followed by engineered barriers encapsulation is the most feasible remedial alternative since it will occur during site redevelopment. Contaminants not removed will be capped with engineered barriers or clean soil, which will minimize human exposure. This method is deemed satisfactory since it will remove contaminant mass from the exposed surface areas of the site, and minimize potential for human exposure. Most of this excavated impacted soil will remain on-site, being placed in proposed Soil Management Zone #1 (LA3 compensatory storage area) remediation area located at SE corner of property.

The proposed RAP will address COC exceedences above ROR identified Tier 1 Industrial/Commercial Soil Ingestion SROs, Construction Worker Soil Inhalation SRO, and Tier 1 Class II Soil Component to Groundwater Ingestion Exposure Route (SCGIER) SROs. The RAP will be conducted in multiple stages of soil management actions across the subject property prior to and concurrently with the excavation and construction of two (2) underground stormwater detention systems (includes LA2) and one (1) above ground open compensatory storage area (LA3), along with subsequent cut and fill grading work to construct dealership building pad and adjacent parking lot pads. In addition, the 0.33-acre Village regulated wetland along the southern portion of the site will be excavated to remove surface and subsurface metal contamination. A Village issued stormwater permit will be obtained authorizing wetland impacts to be mitigated off-site through "Payment in Lieu" to the Village. The stormwater permit will allow the necessary removal of trees in the interior areas of the site as well as to the southern and eastern boundary limits to allow subsequent remediation excavation and grading access to those areas.

The Village of Downers Grove has a ground water ordinance that prohibits water well installation within the Village limits. Therefore, a separate ground water use restriction for the PWF property is not necessary. No groundwater COCs above Tier 1 Class II GROs have been identified for the subject property in the IEPA approved CSIR. Therefore, a groundwater management zone is not required for the PWF site and this RAP. A construction worker notification is recommended as part of the GEOTHINK generated RAP Health and Safety Plan in order to notify and protect construction/remediation workers from COCs including mercury soil contamination above Tier 1 SRO construction worker soil inhalation SRO. A copy of the RAP Health and Safety Plan (HSP) will be posted on-site at an accessible location(s).

A significant volume of COC contaminated topsoil/fill/soil materials are present at the subject property. The excavation, transport and landfill disposal of significant volumes of contaminated materials is cost-prohibitive to this PWF redevelopment project. However, Approximately 600 to 1,000 cy of contaminated soil/fill is estimated for off-site disposal. Buried debris and automobile parts encountered during excavation activities will be included with soil selected for off-site disposal, and not placed into designated soil management areas on-site.

Therefore, GEOTHINK on behalf of PWF request IEPA approval of the Establishment of Soil Management Zones at the subject property per Section 740.535 regulations to remediate on-site a majority of the COC contaminated soils. The purpose of the proposed soil management zones (SMZ) is to allow the consideration and approval of on-site solutions to on-site non-hazardous soil contamination that complies with IEPA solid waste disposal regulations.

3.2 Proposed Soil Management Zones

GEOTHINK proposes the use of soil management zones per Section 740.535 for on-site solutions to on-site soil contamination that was previously documented in the IEPA approved CSIR-ROR.

The proposed three (3) soil management zones (**see Figure 9**) are to be used for **A)** placement of contaminated soils for structural fill (suitable clay materials for placement beneath asphalt or concrete barriers) and land reclamation (stripping contaminated topsoil/fill layer of ground surface including wetland area making it suitable for redevelopment) and **B)** consolidation of contaminated soils within the remediation site (stripping contaminated topsoil/fill layer of ground surface and re-deposit organic soils into SMU #1).

The RAP provides the following information to support the use of soil management zones that complies with the following requirements:

1) The soils identified for soil management zone uses for the subject property as a result of the CSIR (Section 740.420) are identified as COCs PNA compounds Benzo (a) pyrene and Dibenzo (a,h) anthracene, and metals Antimony, Barium, Chromium, Lead, Mercury and Selenium.

2) The horizontal and vertical dimensions of the soil management zones are defined in detail as Soil Management Zones #1, #2 and #3 per **Figure 9** – Proposed Soil Management Zones Map.

3) The uses of the soil management zone are defined as the following:

Soil Management Zone areas are identified as: Soil Management Zone #1 (SMZ #1) is the LA3 above ground compensatory storage area at the southeast corner of the site, Soil Management Zone #2 (SMZ #2) includes the 45,505 sf dealership building footprint (slab on grade – 740' F.F.E.) and

Soil Management Zone #3 (SMZ #3) are those designated asphalt parking lot pad areas on the east, north, south and west sides of the building as needed to manage and contain COC impacted soils.

4) All COCs proposed for encapsulation and containment within the soil management zones meet the Part 742.305 (a-f) criteria as follows:

a) *The sum of the concentrations of all organic contaminants of concern must be less than the soil attenuation capacity.* **Response:** Analytical results demonstrate the soil attenuation capacity has not been exceeded. The sum of all reported VOC, SVOC, and PCB concentrations were below the lowest Fractional Organic Carbon (FOC) value of 0.00409 g/g (4,090 mg/kg) identified at Test Pit TP-10 (4' deep).

b) *The concentrations of any organic contaminants of concern remaining in the soil must be below the soil saturation limit.* **Response:** Soil Analytical results demonstrate that No VOCs, SVOCs, or PCBs exceeded their respective soil saturation limits.

c) *Soils cannot exhibit any of the characteristics of reactivity for hazardous waste.* **Response:** The COCs in the soils identified as metals antimony, barium, chromium, lead, mercury, and selenium are not characteristically reactive nor do they degrade into reactive by-products.

d) *Soil pH must be greater than 2.0 or less than or equal to 12.5.* **Response:** Analytical results report pH values between 6.49 standard units (su) (GSB-7, 8'-10') & 9.35 su (Test Pit 12, 4').

e) *Any soils which contain arsenic, barium, cadmium, chromium, lead, mercury, selenium or silver as COC or their salts shall not exhibit any of the characteristics of toxicity for hazardous waste for these metals.* **Response:** The GeoThink 2016 TCLP soil testing and the prior EPI 2007 TCLP metals testing results indicated no hazardous waste levels of metals.

f) *If contaminants of concern include polychlorinated biphenyls (PCBs), the concentration of any PCBs in the soil shall not exceed 50 parts per million as determined by SW-846 Methods.* **Response:** The highest total PCBs concentration and the only PCB compound detection from GeoThink test pit soil samples was 0.403 mg/kg at Test Pit 4 (2'), and EPI 2007 investigation boring B-23 at 0-8" with a 0.256 mg/kg concentration.

5) All applicable exposure routes will be addressed in the soil management zone that will include institutional controls of industrial/commercial land use for the subject property 2 parcels, use of Village Groundwater Ordinance and construction of engineered barriers (5-inches of concrete – building footprint floor slab = SMZ #2), 4-inches of asphalt (asphalt parking lots-SMZ #3) and 3 feet of clean clay (top, sides and bottom of SMZ #1) to be in compliance with Part 742 Subparts J and K. The 3 soil management zones have been designated to address the applicable general exposure pathways which must be considered at an industrial/commercial site where encapsulation and containment with engineered barriers is the cost effective solution to manage and mitigate COC contaminated soils.

Since the PWF site exhibits shallow groundwater flow direction in the fill zone/silty clay interface (4 to 8 feet deep) zone is to the east as shown in the most recent **Figure 10** Groundwater Elevation Contour Map of May 19, 2016, and the proposed soil management zone structures are to be located across the eastern portion of the subject property (**Figure 9**); there is a real need to monitor the groundwater post remediation to ensure no groundwater contamination is occurring.

The four (4) general exposure pathways which must be considered at this industrial/commercial (I/C) Remediation Site:

1) Soil Ingestion Exposure Route; **(does apply to Lead and PNAs)**
2) Soil Inhalation Exposure Route; **(does apply only to Mercury)** and
3) Groundwater Ingestion Exposure Route:
   a. Soil Component of the Groundwater Ingestion Exposure Route (SCGIER), **(does apply to antimony, barium, chromium, lead, and selenium)** and
   b. Direct Ingestion of Groundwater Exposure Route **(does not apply CSIR; may apply post remediation construction of SMZ #1, SMZ #2 and SMZ #3)**.
4) Indoor Inhalation Exposure Route. **(does not apply)**

The proposed RAP implementation Stages and the establishment of Soil Management Zones to conduct an effective remediation of the COCs to applicable Tier 1 SROs for I/C land is as follows:

SOIL MANAGEMENT ZONE #1 AREA (SMZ #1) = LA3 Compensatory Storage Basin Area – Stormwater Compliance; SMZ #1 – Contaminated organic topsoils/metal debris laden surface soils/fill 1-2 ft. deep will be removed from remediation site surfaces during STAGE 1 and stockpiled including SMZ #1 area. While excavation of LA3 are is deepened in STAGE 2 to 15+ feet deep to remove clean clays and stockpile for reuse as fill, any exposed contaminated soils will be segregated and stockpiled. During STAGE 3 the SMZ #1 excavation will be filled with ~ 7,000 CY contaminated topsoil/fill (STAGE 1 material) in a thickness of 10 – 11 feet to within 3' of LA3 bottom grade; Then 3' of clean clay placed as engineered barrier atop spoils with 3' of native clay walls and bottom floor of excavation, and with top of clay layer (LA3 bottom -Top of SMZ #1) is planted with native seed mix. Confirmation soil samples tested for COCs will be conducted at excavation limit walls and bottom.

SOIL MANAGEMENT ZONE #2 AREA (SMZ #2) Dealership Building Concrete Slab Floor Footprint Area – 45,505 SF; SMZ #2 – Contaminated organic topsoil/metal debris laden surface 1-2 ft. deep will be removed from 45,505 SF Building Footprint (SMZ #2) areas during STAGE 1 and stockpiled; then later placed into SMZ #1. While depending upon grade, deeper contamination can remain in-place per soil confirmation sample testing for COCs. Impacted soils exposed during utility trench work will be removed and stockpiled for later encapsulation in SMZ #2 or SMZ #3 areas. Impacted soils underneath the bldg. footprint encapsulated by engineered fill, 10 ml vapor barrier and covered with 5+" concrete floor slab to 740.0' elevation as engineered barrier. **(No basement)**

SOIL MANAGEMENT ZONE #3 AREA (SMZ #3) Dealership Parking Lot Areas excluding SW Detention – 4.4 acre area; SMZ #3 – Contaminated organic topsoil/metal debris laden surface 1-2 ft. Deep removed from those parking lots, sidewalks, and 2 underground SW detention system areas during STAGE 1 and stockpiled; then later placed into SMZ #1. During Stage 2 excavations of 2 SW detention basins, any exposed impacted soils will be segregated from clean clay and stockpiled for later encapsulation into SMZ #3 parking lots. While depending upon grade, deeper contamination may remain in-place as documented by confirmation soil testing for COCs. Impacted soils exposed during utility trench work will be removed and stockpiled for later encapsulation in SMZ #3 areas. Placed or remaining impacted soils encapsulated by engineered fill and covered by 4" Layer of protective Asphalt pavement in SMZ #3 as engineered barrier.

Figure 11 – Proposed Site Plan Conditions – June 2016 identifies three new wells MW-6, MW-7 and MW-8 to be placed on the south and east sides of SMZ #1 structure to monitor pre-remediation and post-remediation groundwater quality for this area of the subject property to address direct groundwater ingestion exposure pathway for COCs. As shown in **TABLE 5** groundwater elevation graphs for 2016, the proposed excavation/construction elevations for SMZ #1 (LA3) bottom at roughly 715.0 feet and the two stormwater detention excavation bottoms at roughly 723.0 feet will require some significant dewatering of the shallow groundwater elevations per measured water levels in wells MW-4 (729 feet) and MW-3 (727 feet) from those immediate surrounding areas.

Figure 12 – Proposed Construction of SMZ #1 and Confirmation Soil Test/Monitor Well Location Map details the configuration of SMZ #1 during construction and post remediation construction. A total of 11 soil confirmation sample tests for COCs at the bottom elevation (estimated 715 feet) and total of 14 soil confirmation sample tests for COCs at the side wall elevation (estimated 720-722 feet) will be conducted to insure the clean clay soil conditions are present around the exterior perimeter of the SMZ #1 facility.

The geologic setting of the SMZ #1 location is suitable for the encapsulation and containment of an estimated 7,000 cy of COC impacted materials mostly topsoil/fill. According to ISGS Circular 532, the geologic setting of the subject site area has been rated as having a slight potential to transmit near surface contamination to shallow aquifer. The geology of the subject site area has been assigned a rating of E and D2 for the potential for contamination of shallow aquifers regarding land burial of municipal wastes (Plate 1), and near surface waste disposal (Plate 2), respectively. The E and D2 ratings indicates that the soil is generally impermeable silty clayey till more than twenty (20) feet thick, without any sand and gravel alluvium and is variable in composition and thickness (Berg et. al., 1984).

Appendix D contains soil boring logs (GEOTHINK, G2 and EPI) for those eleven (11) borings within or immediately adjacent to the proposed SMZ #1 location at the Southeast corner of the site. GEOTHINK borings GSB-3, GSB-4 and MW-4 located west of the SMZ #1 within 50 to 70 feet reached depths of 10 to 15 feet below grade. These 3 borings all documented the dominant presence of dense silty clay sediments with occasional silt seams at 10 and 15 feet bgs. Five (5) EPI borings B18, B21, B22, B23 and B50 located within the SMZ #1 footprint reaching depths of 3 to 12 feet bgs documented gray silty clay sediment to 12 feet of depth. G2 Consulting conducted 3 geotechnical borings some 60 to 80 feet west of SMZ #1 to depths ranging from 20 to 25 feet bgs. All 3 G2 borings detailed mostly dry hard silty clay sediments are present to depths ranging from 20 to 25 feet bgs. Based on this information, the existing hard silty clay sediments in the SMZ #1 area will provide suitable clean clay materials for reuse on-site and these same hard silty clay sediments will provide an effective minimum 3-feet plus of native low permeability clay engineered barrier at the SMZ #1 excavation walls and floor limits.

6) The soil management zone shall be constructed, operated and maintained in a manner that: **A)** the 2 PNA compounds and 6 metal COCs do not present any odors and the proposed encapsulation by engineered barriers of concrete, asphalt and/or soil will prohibit odors from occurring. **B)** the proposed handling, temporary stockpiling and then re-deposit of contaminated soils will involve temporary cover and water spraying as needed of the soils to keep dust generation minimized. **C)** The temporary stockpiles of contaminated soils will be covered in plastic sheeting and anchored at the ground surface by staked straw bales to prohibit contaminated runoff until which time the soils are relocated on-site for encapsulation in Soil Management Zones 1, 2, or 3. **D)** The soil management zones will be maintained and constructed properly to not provide a breeding place or food source for vectors.

7) No hazardous wastes were determined by the CSIR-ROR to be present on-site.

8) The COCs for this industrial/commercial site exceed Tier 1 Industrial/Commercial Soil Ingestion SROs, Construction Worker Soil Inhalation SRO, and Tier 1 Class II Soil Component to Groundwater Ingestion Exposure Route (SCGIER) SROs. The majority of the site surface area was previously identified as contaminated by metal Lead above Tier 1 residential SROs; however since Class II soil conditions apply to the commercial property, the size of the area contaminated by metal Lead above Tier 1 industrial/commercial SROs has been reduced by 50% coverage. All 3 soil management zones include some portions that contain impacted soils previously applicable under Tier 1 residential and currently applicable under industrial/commercial SROs.

Each of the 3 soil management zones will be located within the subject property (PWF) site boundaries. No boundary violations are proposed in this RAP. The three dimensional boundaries of the soil management zone are provided; however subject to change based on confirmation sampling testing of COCs. An as-built drawing of each constructed soil management zone when completed with required engineered barriers will be provided in the RACR document.

We propose the soil management zones will be in effect from date of RAP approval by the Agency, until which time an NFR is completed and recorded with DuPage County and the IEPA SRP.

3.3 Proposed Soil Remediation Work Plan Stages

Soil Remediation will commence only after receipt of IEPA letter approving this RAP and concurrently the Village issuance of grading / stormwater permit to PWF. Once the IEPA approves the RAP, the RA (PWF) will begin proceedings to complete the purchase of the subject property from the current owner ALDI, Inc. and consolidate the two PIN parcels into one (1) new parcel.

STAGE 1 of soil remediation will take place after site preparation tree removals and updated groundwater testing have been completed and prior to **STAGE 2** excavation and construction of stormwater systems. **STAGE 1** soil excavation will remove the top 1-2 foot layer of topsoil/fill (non-contaminated) and topsoil/fill contaminated with metals/PNAs across the site. The 1 to 2 foot layer of topsoil/fill is an estimated 14,000 cubic yards and the contaminated portion of that material is an estimated 7,000 to 8,000 cubic yards in volume.
Additional ground surface areas (2 underground storage detention areas, 1 above ground compensatory storage area, parking lots, utility right of ways) identified as containing lead contaminated soils with lesser coverage "impacted areas" of metal contaminated (antimony, barium, chromium, mercury, or selenium) topsoil/fill from near the eastern and southern property line areas will be removed and temporarily stockpiled on-site. Organic topsoil material is unsuitable as fill material beneath proposed building slab or parking lots or sidewalks.

STAGE 1 will include the COC sampling and testing of groundwater (PNAs and 5 Metals) collected from the existing 5 monitor wells to provide the RA and IEPA a Pre-Remediation Groundwater Quality Baseline Characterization. In addition, 3 new monitoring wells will be drilled, constructed and tested for COCs along the southern and eastern boundaries for use in Post-Remediation Groundwater monitoring. The wells MW-2, MW-3, MW and MW-5 will be properly abandoned after groundwater sampling and testing has been conducted and prior to STAGE 1 earthmoving excavation of impacted surface topsoil/fill.

The **STAGE 1** impacted soils will be temporarily stockpiled at designated on-site locations and covered/secured to prohibit erosion runoff. Scattered piles of concrete rubble and larger automobile parts in the ground surface will be exhumed, segregated and stockpiled on-site at designated locations for later recycling. Upon the removals of the surface 1-2 feet of impacted topsoil/fill materials, GEOTHINK geologist will conduct select soil confirmation sampling and testing for metals and PNAs at specific locations along excavation base floor depths within: **a)** the footprint of the building, **b)** footprints of the 2 underground and 1 above ground stormwater structures, and **c)** designated parking lot pads around the building for documentation of contaminant site remediation conditions.

STAGE 2 involves the excavation and construction of the 2 underground storm water detention systems (includes LA2) and 1 above ground open compensatory storage area (LA3) stretching along the entire eastern portion of the subject property. The larger underground detention system will be composed of 8' and 10' diameter CMP to store a potential 4.6 acre-feet, while LA2 underground detention will be composed of 8' diameter CMP to store a potential 0.96 acre-feet. The above ground LA3 compensatory storage area will be excavated to sufficient depth for impacted topsoil/fill placement and encapsulation, while performing 2.06 acre-feet of runoff storage. Excavation will be performed in these three designated areas from 8 to 15 feet below existing grades (potentially deeper as needed) to allow construction of these stormwater structures. While these 3 structures are excavated, the GEOTHINK geologist will direct the work to ensure isolated hot spots of impacted soils are identified, segregated and stockpiled on-site, while clean clay material is segregated and placed in designated stockpiles for later re-use as fill.

During these **STAGE 2** excavations, several dewatering sumps will be constructed per excavation area at locations to be determined by GEOTHINK geologist. Ground water pumped from dedicated excavations sumps will be run through pretreatment train to remove sediments prior to discharge to Village authorized Ogden Avenue stormwater system, and/or to the far southeast corner of the site. Since each of these 2 underground detention and 1 above ground compensatory storage area currently contain areas of impacted soils/fill, the GEOTHINK geologist will conduct selective soil confirmation sampling and testing for COCs at specific locations along the below ground detention structure excavation sidewalls and floor depths to determine the effectiveness of remedial excavation and document clean soil conditions.

The ~0.55 acre designated LA3 compensatory storage area located at the far southeast corner of the PWF site is proposed to manage several critical functions towards the achieving the successful remediation and redevelopment of the property to comply with IEPA SRP and TACO regulations and Village Stormwater Ordinance requirements. The existing portion of the on-site 0.33-acre wetland that crosses the LA3 area along with the rest of the wetland will be removed and mitigated through the Village.
The LA3 above ground open compensatory storage area is designed to comply with Village Stormwater Ordinance requirements. A total of 2.06 acre feet of stormwater storage on-site are available to aid in minimizing possible off-site Wetland #2401 impacts from periodic floodwaters that inundate the adjacent off-site wetlands and ease the potential for flood damages to nearby residences. The LA3 bottom (above ground) and slopes are to be planted after construction with appropriate native seed mixes and cover crop.

This LA3 above ground compensatory storage area is RAP proposed to become the Soil Management Zone #1 (**SMZ #1**) area for soil consolidation, engineered burial and envelopment of the **STAGE 1** spoils containing mostly metal contaminated topsoil/fill materials. Under the direction of GEOTHINK geologist during **STAGE 2** excavation work, the **SMZ #1** area will be excavated into clean clay materials to an ideal depth of 15 feet BGL with 1:1 slopes. However the excavation may extend deeper as needed. Exposed and anticipated clean clay walls and excavation bottom conditions will be confirmed with sufficient number of confirmation COCs soil tests conducted to confirm clean conditions at SMU #1.

STAGE 3 will involve the transport and relocation on-site of contaminated topsoil/fill materials from their designated stockpile(s) to the **SMZ #1** facility. GEOTHINK geologist will then direct the placement and consolidation below ground of an estimated 7,000 cubic yards of contaminated topsoil/fill materials into the open excavation in appropriate lifts to within 3 feet of the proposed LA3 bottom elevation, where a three-foot layer of compacted clean clay will be emplaced at the top as an engineered barrier, while the existing 3 foot + thick native silty clay soils along the floor and walls of the excavated and filled SMZ #1 will perform as natural engineered barrier. The proposed 3 foot thick clay layer cap atop SMZ #1 along with the existing native clay walls and floor will together perform as an engineered barrier for **SMZ #1** to mitigate soil vapor inhalation exposure, soil ingestion exposure and SCGIER exposure pathways. The actual SMZ #1 structure is estimated to be constructed weather permitting in September-November 2016.

An as-built drawing of the **SMZ #1** (LA3) facility along with photographic log will be generated by GEOTHINK after remediation/construction completion for incorporation into the pending Remedial Action Completion Report (RACR).

Three (3) monitoring wells are proposed in **STAGE 1** to monitor ground water quality at the property boundary next to Soil Management Zone #1 area (LA3). Well MW-6 will be installed near the south side of **SMZ #1**, while well MW-7 and MW-8 will be installed on the east side of **SMZ #1**. These wells will be tested Pre-Remediation and Pre-Construction of SMZ #1. After **STAGE 2** construction of the **SMZ #1** is completed along with slope grading and native planting work, Post-remediation groundwater samples will be collected from these monitoring wells and be analyzed for COCs and pH. Monitor wells MW-1, MW-3, MW-4 and MW-5 will be abandoned and sealed during **STAGE 1** earth moving.

STAGE 4 remediation area identified as Soil Management Zone #2 (**SMZ #2**) addresses the residual COC soil contamination that remains in the subsurface within the 45,505 sf building footprint after the STAGE 1 excavation and removal of the top 1-2 foot layer of topsoil/fill containing metal debris and metal/PNA contamination has been completed. The proposed first floor concrete slab elevation is 740.0 feet. Additional clean fill along with engineered fill will be placed atop the exposed excavated ground surface to allow the installation of a 10-ml sheet vapor barrier underneath the proposed 5-inch thick poured concrete slab floor that is an engineered barrier covering the entire 45,505 sf building footprint. The 10-ml sheet vapor barrier and the overlying building concrete floor slab (no basements or sump pump basins) will together perform as an engineered barrier for the **SMZ #2** dealership building to mitigate soil vapor inhalation exposure, soil ingestion exposure and SCGIER exposure pathways. One (1) concrete lined elevator vault will extend below the building footprint. The actual building concrete floor slab is estimated to be constructed weather permitting in April-June 2017.

STAGE 5 remediation area includes those areas of the site where utility conduit/ utility right of way trenching excavations expose COCs in the subsurface at depths below 1-2 feet BGL, where the previously conducted Stage 1 remediation actions removed the surface topsoil/fill materials for subsequent encapsulation and containment in **SMZ #1**. These exposed and excavated utility trench COC impacted fills/soils will be transported on-site to a designated stockpile, while clean soils will be removed, segregated and stockpiled on-site for later reuse as fill.
GEOTHINK geologist will conduct selective soil confirmation sampling and testing for metals and PNAs at specific locations along trench excavation sidewalls and floors to determine the effectiveness of remedial excavation and document clean soil conditions. These impacted COC soils along with other COC impacted soils not placed in **SMZ #1** or **SMZ #2** areas, or those COC soils not transported off-site for landfill disposal will be consolidated, transported and contained in the subsurface beneath an engineered barrier of designated asphalt parking lots identified as Soil Management Zone #3 (**SMZ #3**).

During STAGE 1 and STAGE 2 excavations across the site, and depending upon grade requirements, some deeper contaminated soils may remain in-place for eventual encapsulation by engineered fill and asphalt pavement as part of SMZ #3.

STAGE 5 remediation area also includes residual COC soil contamination that remains in the subsurface within scattered pockets of the proposed asphalt parking lot footprints for use as **SMZ #3**, where the previously conducted Stage 1 remediation actions removed the surface topsoil/fill materials for subsequent encapsulation and containment in **SMZ #1**. GEOTHINK geologist will conduct selective soil confirmation sampling and testing for metals and PNAs at specific locations at the prior Stage 1 excavation limits to determine the effectiveness of remedial excavation and document clean soil conditions. Additional clean fill along with engineered fill will be placed atop the exposed excavated ground surface to allow the installation of a minimum 4-inch layer of asphalt pavement to construct the **SMZ #3** parking lots. The asphalt parking lot layer and engineered barrier for **SMZ #3** will mitigate soil ingestion exposure and SCGIER exposure pathways from residual impacted soils beneath. The completed asphalt pavement engineered barrier (2 lifts of 2" thick asphalt) parking lots are estimated to be constructed weather permitting in July – September 2017.

It is estimated that between 600 to 1,000 cubic yards of unsuitable contaminated soils/fill materials exhumed at this PWF site will have to be managed for off-site disposal at licensed landfill as "special wastes". The actual volume of materials transported off-site to landfill will be documented, as the general source areas of these "special wastes" will be documented as well. Prior to disposal, waste characterization profiling may be necessary. Required samples will be submitted for laboratory analysis of landfill-required analytical parameters. The required parameters are currently unknown, and will depend upon the chosen landfill.

Post construction groundwater monitoring of the SMZ #1 and the PWF site will be conducted by sampling and testing of wells MW-6, MW-7 and MW-8 for COCs, along with well MW-2 near the northwest corner of the site in July/August 2017.

4.0 CONFIRMATION SAMPLING PLAN

As shown in **Figure 12** – Proposed Construction of SMZ #1 and Confirmation Soil Test/Monitor Well Location Map details the configuration of SMZ #1 during construction and post remediation construction. A total of 11 soil confirmation sample tests for COCs at the bottom elevation (estimated 715 feet) and total of 14 soil confirmation sample tests for COCs at the side wall elevation (estimated 720-722 feet) will be conducted to insure the clean clay soil conditions are present around the exterior perimeter of the SMZ #1 facility.

For all other soil remediation areas excluding SMZ #2, SMZ #3 and 2 underground detention excavations, soil samples for COCs will be collected for floor samples from STAGE 1 excavation of surface 1-2 ft. deep topsoil/fill proposed to be collected on 40 foot centers with no sidewall samples taken. In the SMZ #2, SMZ #3 and 2 underground detention excavations an appropriate number of sidewall samples will be collected at 30 foot intervals along each excavation sidewall and at 30 foot center intervals at each excavation floor as needed. The purpose is to determine if SRO exceedences remain at excavated locations that will be covered with engineered barriers.

The proposed project schedule for confirmation soil sampling and testing is on **TABLE 6.**

5.0 ENGINEERED BARRIERS AND INSTITUTIONAL CONTROLS

Engineered barriers will be installed at the site to minimize human exposure to subsurface contaminants, and minimize potential for contaminant migration by soil erosion and leaching to ground water. Proposed engineered barriers include 5-inches of concrete slab pavement for the proposed 45,505 sf building (SMZ #2 area), 4-inches of asphalt pavement for the parking lot areas (SMZ #3 areas) and three (3) feet of clean clay over impacted soils buried at SMZ #1 (LA3) area. Proposed G2 specifications for asphalt and concrete pavement materials that can be employed as engineered barriers are provided in **Appendix B**.

The Village of Downers Grove has a ground water ordinance that prohibits water well installation within the Village. Therefore, a separate ground water use restriction for the property will not be necessary if GRO impacts are encountered during additional ground water sampling, post-remediation monitoring and/or dewatering activities. **Appendix C** contains a copy of the Ordinance.

A construction worker notification is also recommended for mercury inhalation exposure. The purpose is to protect construction workers from undetected subsurface contaminants.

6.0 CONCLUSIONS

This Remedial Action Plan (RAP) has been completed for Mr. Brad Webb of Packey Webb Ford (Remedial Applicant), located at *1815 West Ogden Avenue, Downers Grove, DuPage County, Illinois* (Remediation Site). Proposed remedial activities include soil excavation, soil consolidation, and soil placement for encapsulation activities associated with site redevelopment. Engineered barriers consisting concrete and asphalt pavements for the building footprint and surrounding parking lot areas, and 3 feet of clean clay materials for the stormwater compensatory storage area will perform effective environmental barriers to contain metal and PNA impacted soils on-site encapsulated within the subsurface. Remedial activities will occur in stages during the site redevelopment process into an automotive dealership.

The results of the site remediation on-site by soil management zones, soil landfill disposal, soil confirmation and groundwater testing and implementation of engineered barriers and institutional controls will be included with the Remedial Action Completion Report (RACR) along with DRM-2 form certification and signoff by licensed Illinois professional engineer (P.E.) and licensed Illinois professional geologist (P.G.). The RACR will be generated and submitted to the IEPA in September/October 2017 after the last SMZ #3 asphalt parking lot pad(s) has been constructed to comply with IEPA Part 742 definition of engineered barrier. Manifests and/or landfill disposal tickets documenting proper disposal will be collected, and copies will be included with the Remedial Action Completion Report (RACR).

Upon receipt of a "Draft NFR" from the IEPA, GEOTHINK and RA will review and modify as appropriate the draft document, then resubmit with changes to the IEPA for completion of Final NFR letter that will be recorded with the property deed in DuPage County Illinois.

5.0 ENGINEERED BARRIERS AND INSTITUTIONAL CONTROLS

Engineered barriers will be installed at the site to minimize human exposure to subsurface contaminants, and minimize potential for contaminant migration by soil erosion and leaching to ground water. Proposed engineered barriers include 5-inches of concrete slab pavement for the proposed 45,505 sf building (SMZ #2 area), 4-inches of asphalt pavement for the parking lot areas (SMZ #3 areas) and three (3) feet of clean clay over impacted soils buried at SMZ #1 (LA3) area. Proposed G2 specifications for asphalt and concrete pavement materials that can be employed as engineered barriers are provided in **Appendix B**.

The Village of Downers Grove has a ground water ordinance that prohibits water well installation within the Village. Therefore, a separate ground water use restriction for the property will not be necessary if GRO impacts are encountered during additional ground water sampling, post-remediation monitoring and/or dewatering activities. **Appendix C** contains a copy of the Ordinance.

A construction worker notification is also recommended for mercury inhalation exposure. The purpose is to protect construction workers from undetected subsurface contaminants. The site will remain industrial/ commercial land use as part of deed restriction.

6.0 CONCLUSIONS

This Remedial Action Plan (RAP) has been completed for Mr. Brad Webb of Packey Webb Ford (Remedial Applicant), located at *1815 West Ogden Avenue, Downers Grove, DuPage County, Illinois* (Remediation Site). Proposed remedial activities include soil excavation, soil consolidation, and soil placement for encapsulation activities associated with site redevelopment. Engineered barriers consisting concrete and asphalt pavements for the building footprint and surrounding parking lot areas, and 3 feet of clean clay materials for the stormwater compensatory storage area will perform effective environmental barriers to contain metal and PNA impacted soils on-site encapsulated within the subsurface. Remedial activities will occur in stages during the site redevelopment process into an automotive dealership.

The results of the site remediation on-site by soil management zones, soil landfill disposal, soil confirmation and groundwater testing and implementation of engineered barriers and institutional controls will be included with the Remedial Action Completion Report (RACR) along with DRM-2 form certification and signoff by licensed Illinois professional engineer (P.E.) and licensed Illinois professional geologist (P.G.). The RACR will be generated and submitted to the IEPA in September/October 2017 after the last SMZ #3 asphalt parking lot pad(s) has been constructed to comply with IEPA Part 742 definition of engineered barrier. Manifests and/or landfill disposal tickets documenting proper disposal will be collected, and copies will be included with the Remedial Action Completion Report (RACR).

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FIGURE 1 – SITE LOCATION And TOPOGRAPHIC MAP

This report includes information from the following map sheet(s).

TP, Wheaton, 2012, 7.5-minute

E, Hinsdale, 2012, 7.5-minute

Miles 0.25 0.5 1 1.5

SITE

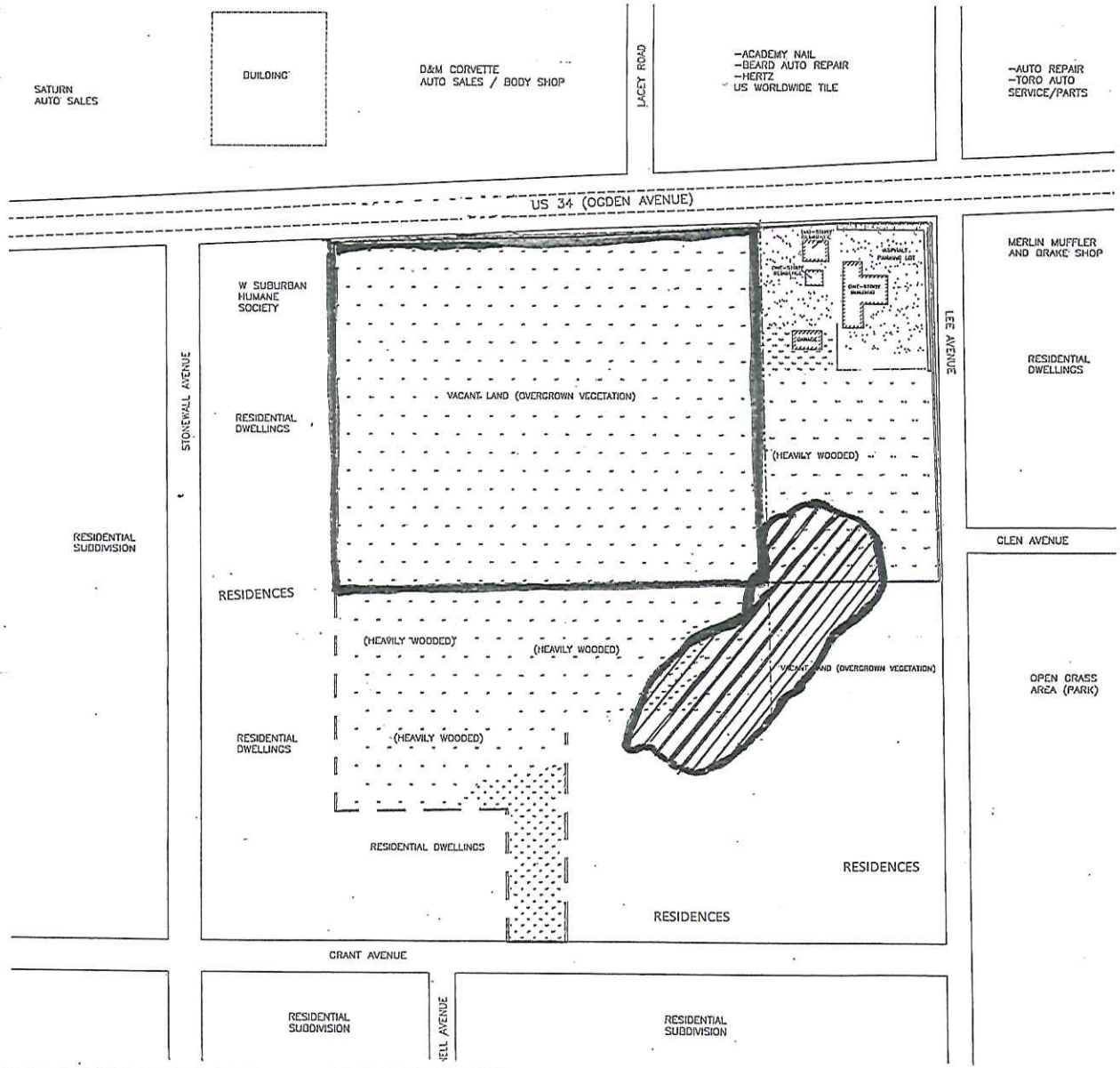
WETLAND AREA

750 Ft. CONTOUR

NW N NE
W E
SW S SE

9.75-Acre Former Scrapyard Property
1815 Ogden Avenue (formerly 1863)
Downers Grove, IL. 61515, DuPage Co.

N



LEGEND

FIGURE 2 – SITE LOCATION And SURROUNDING PROPERTIES MAP

9.75-Acre Former Scrapyard Property
1815 Ogden Avenue (formerly 1863)
Downers Grove, IL. 61515, DuPage Co.

SUBJECT PROPERTY BOUNDARY

REGULATED WETLANDS

Note: Drawing adapted from EPI report - 2007

NTS = Not to Scale

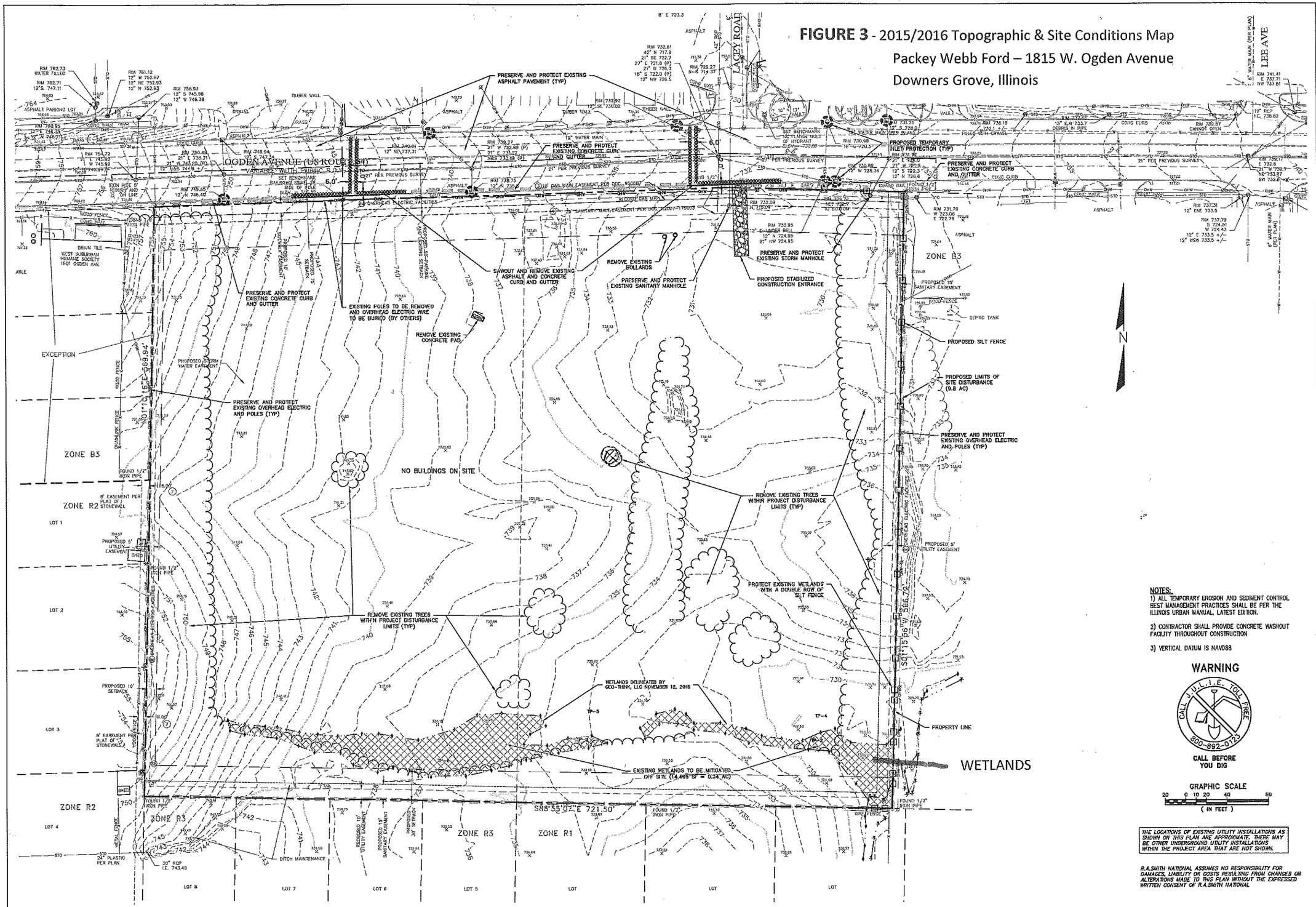
PROJECT NO. : 2015-01028
DATE: DECEMBER 8, 2015

GEO-THINK, LLC
ENVIRONMENTAL AND NATURAL RESOURCE PROVIDER
611 Stevens Street
Geneva, IL 60134
630-208-5050

FIGURE 3 - 2015/2016 Topographic & Site Conditions Map

Packey Webb Ford – 1815 W. Ogden Avenue

Downers Grove, Illinois



NOTES:

1) ALL TEMPORARY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SHALL BE PER THE ILLINOIS URBAN MANUAL, LATEST EDITION.

2) CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT FACILITY THROUGHOUT CONSTRUCTION

3) VERTICAL DATUM IS NAVD88

WARNING

CALL J.U.L.I.E. TOLL FREE 800-892-0123

CALL BEFORE YOU DIG

GRAPHIC SCALE

20 0 10 20 40 60

(IN FEET)

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

R.A.SMITH NATIONAL ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH NATIONAL

DATE	DESCRIPTION

R.A. Smith National

Beyond Surveying and Engineering

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PACKEY WEBB FORD

VILLAGE OF DOWNERS GROVE, ILLINOIS

DEMOLITION & INITIAL EROSION CONTROL PLAN

PRELIMINARY
NOT FOR CONSTRUCTION

DATE:	08-10-16
SCALE:	1"=40'
JOB NO.	3150545
PROJECT MANAGER:	DAVID CLEARY, P.E.
DESIGNED BY:	KLL
CHECKED BY:	RTP

SHEET NUMBER

C100

P:\3150545\Dwg\Sheets\DP001240.dwg, Demolition and Erosion Control Plan, 8/8/2016 11:20:22 AM, kll

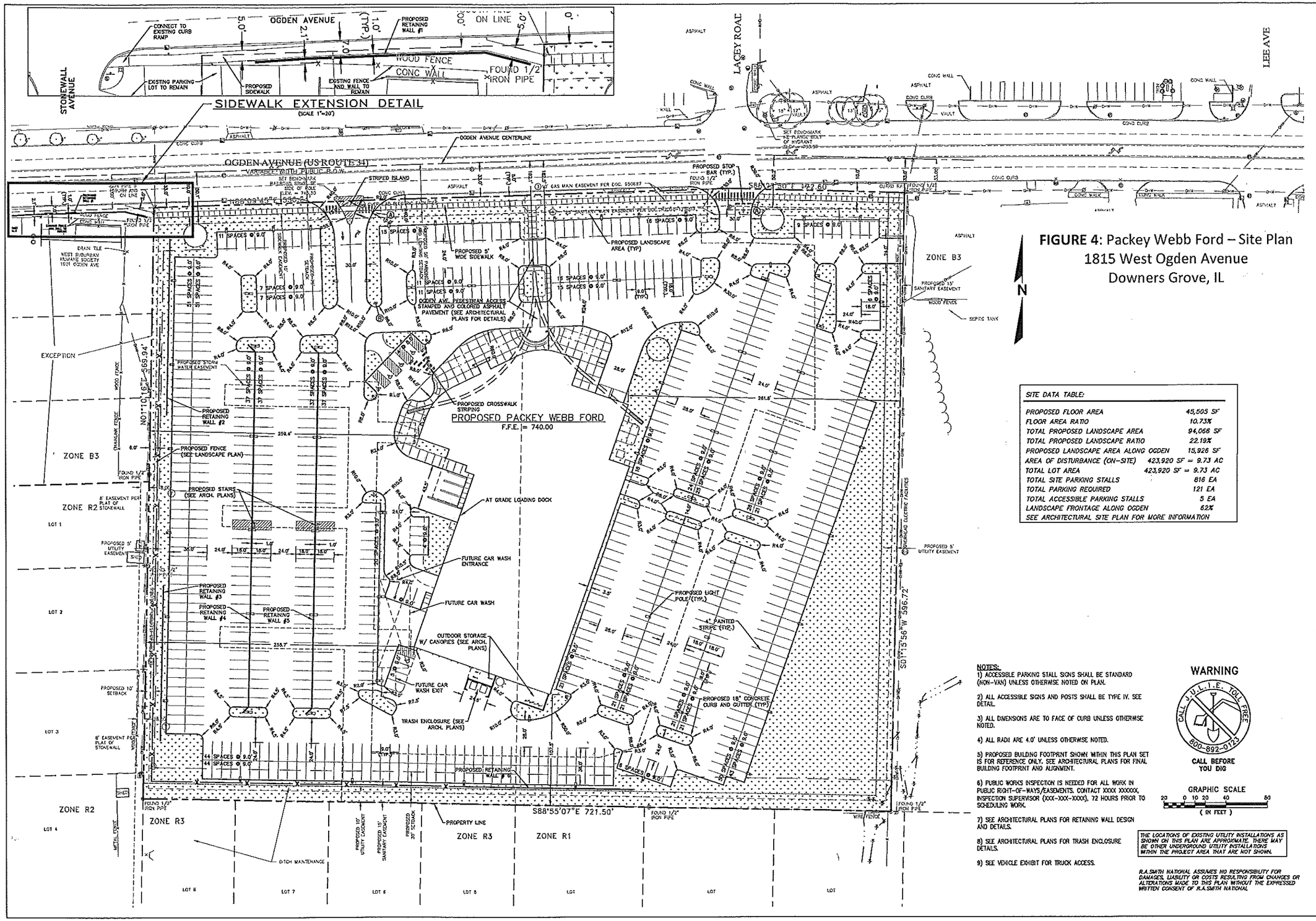


FIGURE 4: Packey Webb Ford – Site Plan
1815 West Ogden Avenue
Downers Grove, IL

SITE DATA TABLE:	
PROPOSED FLOOR AREA	45,505 SF
FLOOR AREA RATIO	10.73%
TOTAL PROPOSED LANDSCAPE AREA	94,066 SF
TOTAL PROPOSED LANDSCAPE RATIO	22.19%
PROPOSED LANDSCAPE AREA ALONG OGDEN	15,926 SF
AREA OF DISTURBANCE (ON-SITE)	423,920 SF = 9.73 AC
TOTAL LOT AREA	423,920 SF = 9.73 AC
TOTAL SITE PARKING STALLS	816 EA
TOTAL PARKING REQUIRED	121 EA
TOTAL ACCESSIBLE PARKING STALLS	5 EA
LANDSCAPE FRONTAGE ALONG OGDEN	62%
SEE ARCHITECTURAL SITE PLAN FOR MORE INFORMATION	

NOTES:
1) ACCESSIBLE PARKING STALL SIGNS SHALL BE STANDARD (NON-VAN) UNLESS OTHERWISE NOTED ON PLAN.

2) ALL ACCESSIBLE SIGNS AND POSTS SHALL BE TYPE IV. SEE DETAIL.

3) ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.

4) ALL RADII ARE 4.0' UNLESS OTHERWISE NOTED.

5) PROPOSED BUILDING FOOTPRINT SHOWN WITHIN THIS PLAN SET IS FOR REFERENCE ONLY. SEE ARCHITECTURAL PLANS FOR FINAL BUILDING FOOTPRINT AND ALIGNMENT.

6) PUBLIC WORKS INSPECTION IS NEEDED FOR ALL WORK IN PUBLIC RIGHT-OF-WAYS/EASEMENTS. CONTACT XXXX XXXXXX, INSPECTION SUPERVISOR (XXX-XXX-XXXX), 72 HOURS PRIOR TO SCHEDULING WORK.

7) SEE ARCHITECTURAL PLANS FOR RETAINING WALL DESIGN AND DETAILS.

8) SEE ARCHITECTURAL PLANS FOR TRASH ENCLOSURE DETAILS.

9) SEE VEHICLE EXHIBIT FOR TRUCK ACCESS.

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

DESCRIPTION	DATE

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8460, www.rasmithnational.com
Appleton, WI Madison, WI Naperville (Chicago), IL Irvine, CA Oakmont (Pittsburgh), PA

PACKEY WEBB FORD
VILLAGE OF DOWNERS GROVE, ILLINOIS

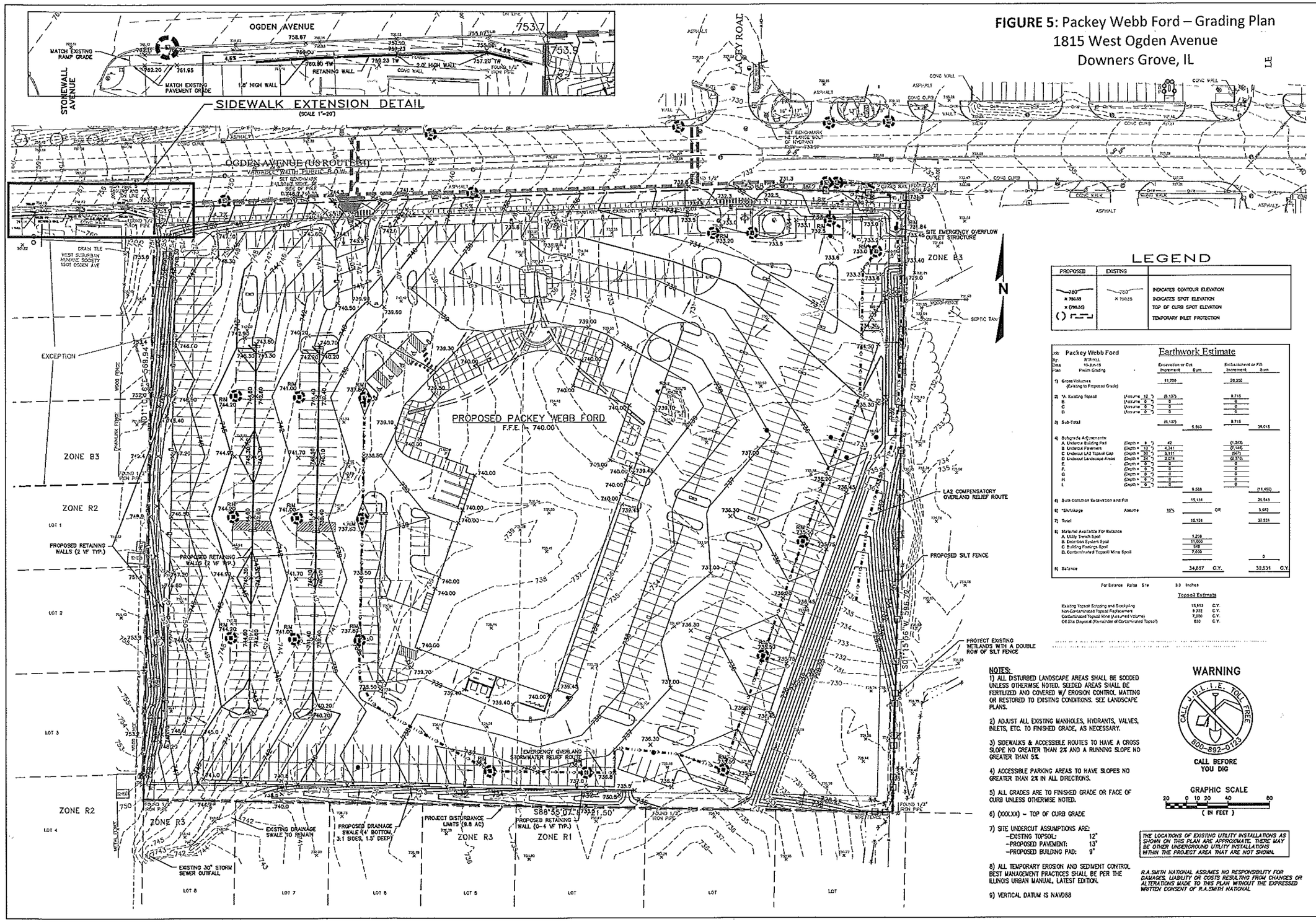
SITE PLAN

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 06-10-16
SCALE: 1"=40'
JOB NO. 3150545
PROJECT MANAGER: DAVID CLEARY, P.E.
DESIGNED BY: KLL
CHECKED BY: RTP

SHEET NUMBER
C200

FIGURE 5: Packey Webb Ford – Grading Plan
1815 West Ogden Avenue
Downers Grove, IL



LEGEND

PROPOSED	EXISTING	
760	760	INDICATES CONTOUR ELEVATION
× 750.53	× 750.25	INDICATES SPOT ELEVATION
× (750.53)		TOP OF CURB SPOT ELEVATION
		TEMPORARY INLET PROTECTION

Earthwork Estimate

Job: Packey Webb Ford
By: RWHALL
Date: 10-Jun-16
Plan: Prelim Grading

		Excavation or Cut Increment	Excavation or Cut Sum	Embankment or Fill Increment	Embankment or Fill Sum
1) Gross Volumes (Existing to Proposed Grade)		11,720		29,300	
2) *A Existing Topsoil	(Assume 12 ")	(8,137)		8,715	
B	(Assume 0 ")	0		0	
C	(Assume 0 ")	0		0	
D	(Assume 0 ")	0		0	
3) Sub-Total		(8,137)	5,583	8,715	38,015
4) Subgrade Adjustments:					
A. Undercut Building Pad	(Depth = 9 ")	42		(1,203)	
B. Undercut Pavement	(Depth = 13 ")	4,341		(7,148)	
C. Undercut LA2 Topsoil Cap	(Depth = 36 ")	3,111		(567)	
D. Undercut Landscape Areas	(Depth = 24 ")	2,074		(2,573)	
E.	(Depth = 0 ")	0		0	
F.	(Depth = 0 ")	0		0	
G.	(Depth = 0 ")	0		0	
H.	(Depth = 0 ")	0		0	
I.	(Depth = 0 ")	0		0	
		9,568		(11,490)	
5) Sum Common Excavation and Fill		15,151		26,549	
6) *Shrinkage	Assume 35%		OR	9,982	
7) Total		15,151		30,531	
8) Material Available For Balance					
A. Utility Trench Spoil		1,208			
B. Detention System Spoil		11,000			
C. Building Footings Spoil		568			
D. Contaminated Topsoil Mine Spoil		7,000		0	
9) Balance		34,927 C.Y.		30,531 C.Y.	

For Balance Raise Site 3.3 Inches

Topsoil Estimate

Existing Topsoil Stripping and Stockpiling	15,853 C.Y.
Non-Contaminated Topsoil Replacement	9,222 C.Y.
Contaminated Topsoil Mine (Assumed Volume)	7,000 C.Y.
Off Site Disposal (Remainder of Contaminated Topsoil)	630 C.Y.

NOTES:

1) ALL DISTURBED LANDSCAPE AREAS SHALL BE SODDED UNLESS OTHERWISE NOTED. SEEDED AREAS SHALL BE FERTILIZED AND COVERED W/ EROSION CONTROL MATTING OR RESTORED TO EXISTING CONDITIONS. SEE LANDSCAPE PLANS.

2) ADJUST ALL EXISTING MANHOLES, HYDRANTS, VALVES, INLETS, ETC. TO FINISHED GRADE, AS NECESSARY.

3) SIDEWALKS & ACCESSIBLE ROUTES TO HAVE A CROSS SLOPE NO GREATER THAN 2% AND A RUNNING SLOPE NO GREATER THAN 5%

4) ACCESSIBLE PARKING AREAS TO HAVE SLOPES NO GREATER THAN 2% IN ALL DIRECTIONS.

5) ALL GRADES ARE TO FINISHED GRADE OR FACE OF CURB UNLESS OTHERWISE NOTED.

6) (XXX.XX) – TOP OF CURB GRADE

7) SITE UNDERCUT ASSUMPTIONS ARE:
- –EXISTING TOPSOIL: 12"
- –PROPOSED PAVEMENT: 13"
- –PROPOSED BUILDING PAD: 9"

8) ALL TEMPORARY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SHALL BE PER THE ILLINOIS URBAN MANUAL, LATEST EDITION.

9) VERTICAL DATUM IS NAVD88

WARNING

CALL J.U.L.I.E. TOLL FREE 800-892-0123

CALL BEFORE YOU DIG

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)

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DATE	DESCRIPTION

R.A. Smith National
Beyond Surveying and Engineering
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262-781-1000 Fax 262-781-3460, www.rasmithnational.com
Appleton, WI Madison, WI Naperville (Chicago), IL Irvine, CA Cakmount (Pittsburgh), PA

PACKEY WEBB FORD
VILLAGE OF DOWNERS GROVE, ILLINOIS

GRADING, PAVING, & FINAL EROSION CONTROL PLAN

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 06-10-16
SCALE: 1"=40'
JOB NO. 3150545
PROJECT MANAGER: DAVID CLEARY, P.E.
DESIGNED BY: KLL
CHECKED BY: RTP

SHEET NUMBER
C300

P:\3150545\Dwg\Sheets\GP\001040.dwg, Grading Plans, 6/27/2016 9:29:51 AM, rtp

FIGURE 6: Packey Webb Ford – Utility Plan
1815 West Ogden Avenue
Downers Grove, IL

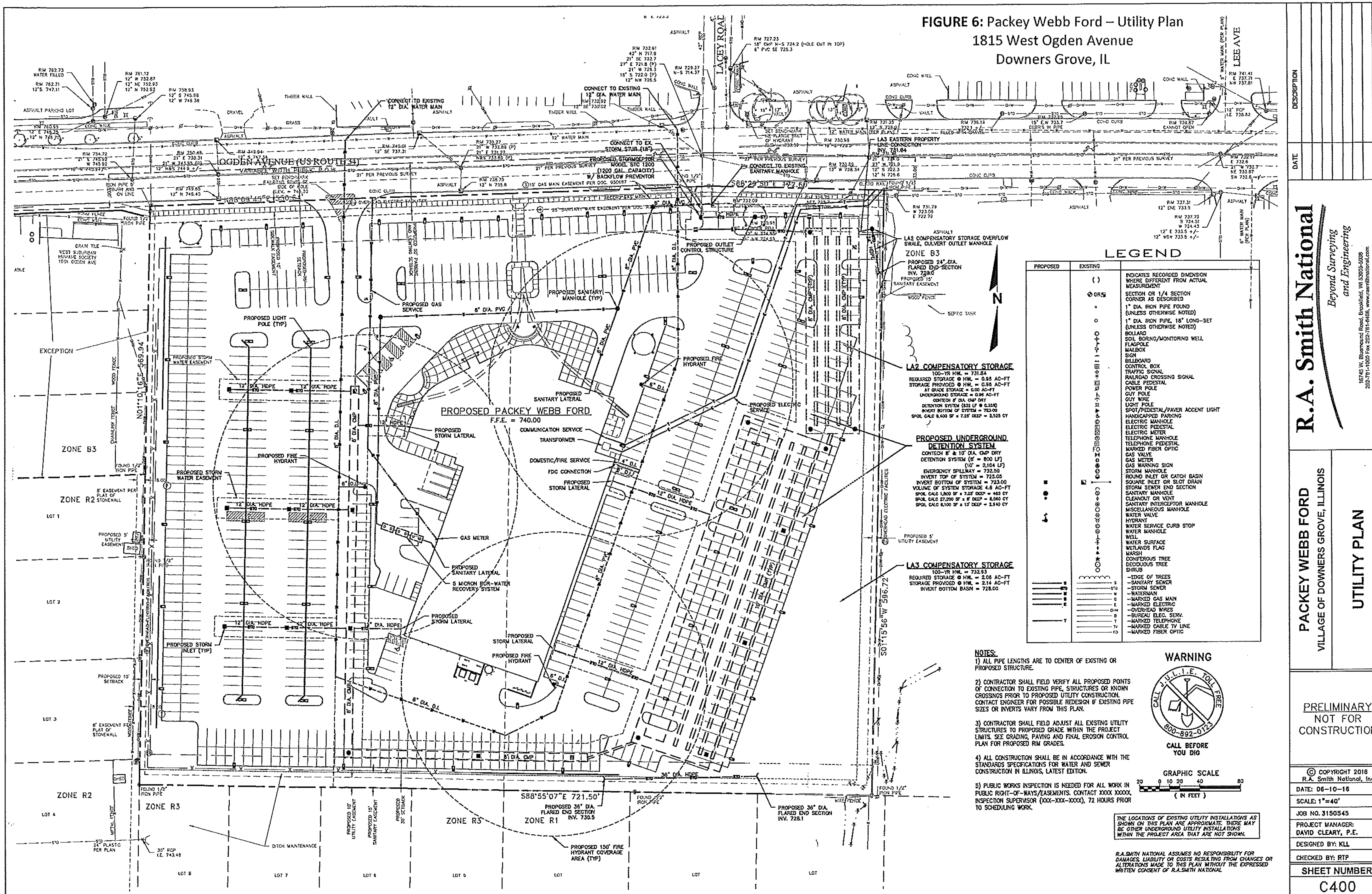
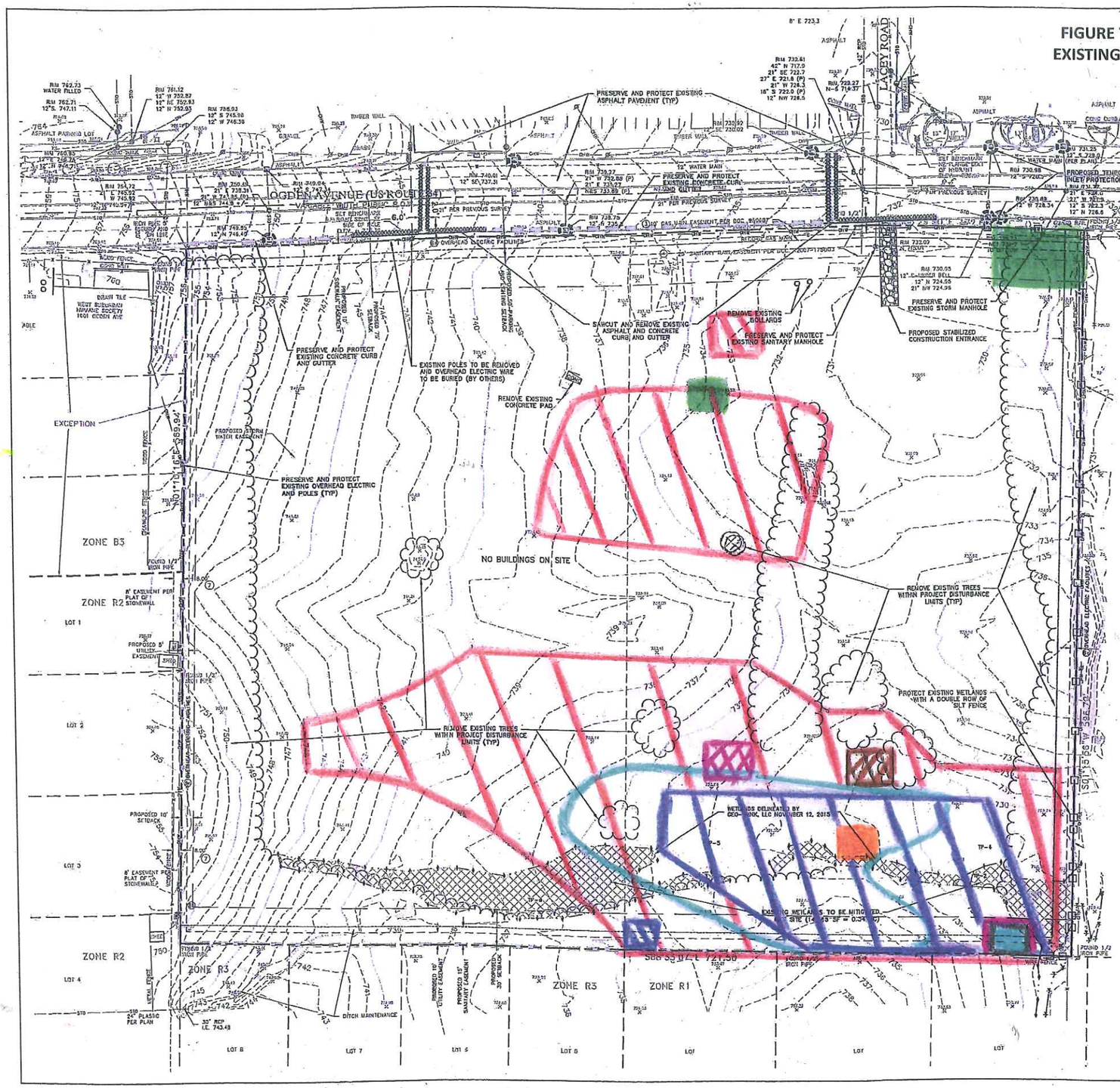


FIGURE 7- SOIL CONTAMINATION MAP
EXISTING TOPOGRAPHY AND WETLANDS



SITE INVESTIGATION SOIL TESTING RESULTS

Semi-Volatile Compounds

PNAs > IEPA Tier 1 Soil Ingestion Exposure Levels

Metals

Antimony > IEPA Tier 1 Class II SCGIER Level

BARIUM > IEPA Tier 1 Class II SCGIER Level

Chromium > IEPA Tier 1 Class II SCGIER Level

LEAD > IEPA Tier 1 Class II SCGIER Level

LEAD > IEPA Tier 1 I/C Construction Worker Caution And I/C Soil Ingestion Exposure Route Levels

Mercury > IEPA Tier 1 I/C CW Soil Inhalation Level

Selenium > IEPA Tier 1 Class II SCGIER Level

NOTES:

SCGIER = Soil Component to Groundwater Ingestion Exposure Route
I/C = Industrial / Commercial land use category for regulatory closure
PNAs = Poly Nuclear Aromatic Hydrocarbons
CW = Construction Worker

GEOTHINK Conducted Site Investigation Jan-April 2016;
No Groundwater Contamination, No Hazardous Wastes
And No VOC Contamination in Soils and Groundwater.
IEPA Letter Approval of CSIR / ROR on June 14, 2016

Village Regulated Wetland (0.33 Acres)
Delineated by GEOTHINK October 2015

DATE	DESCRIPTION

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Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262.781.1000 Fax 262.781.1001 www.rasmithnational.com
Appleton, WI Madison, WI Naperville (Chicago), IL Irvine, CA Oakmount (Pittsburgh), PA

PACKEY WEBB FORD
VILLAGE OF DOWNERS GROVE, ILLINOIS

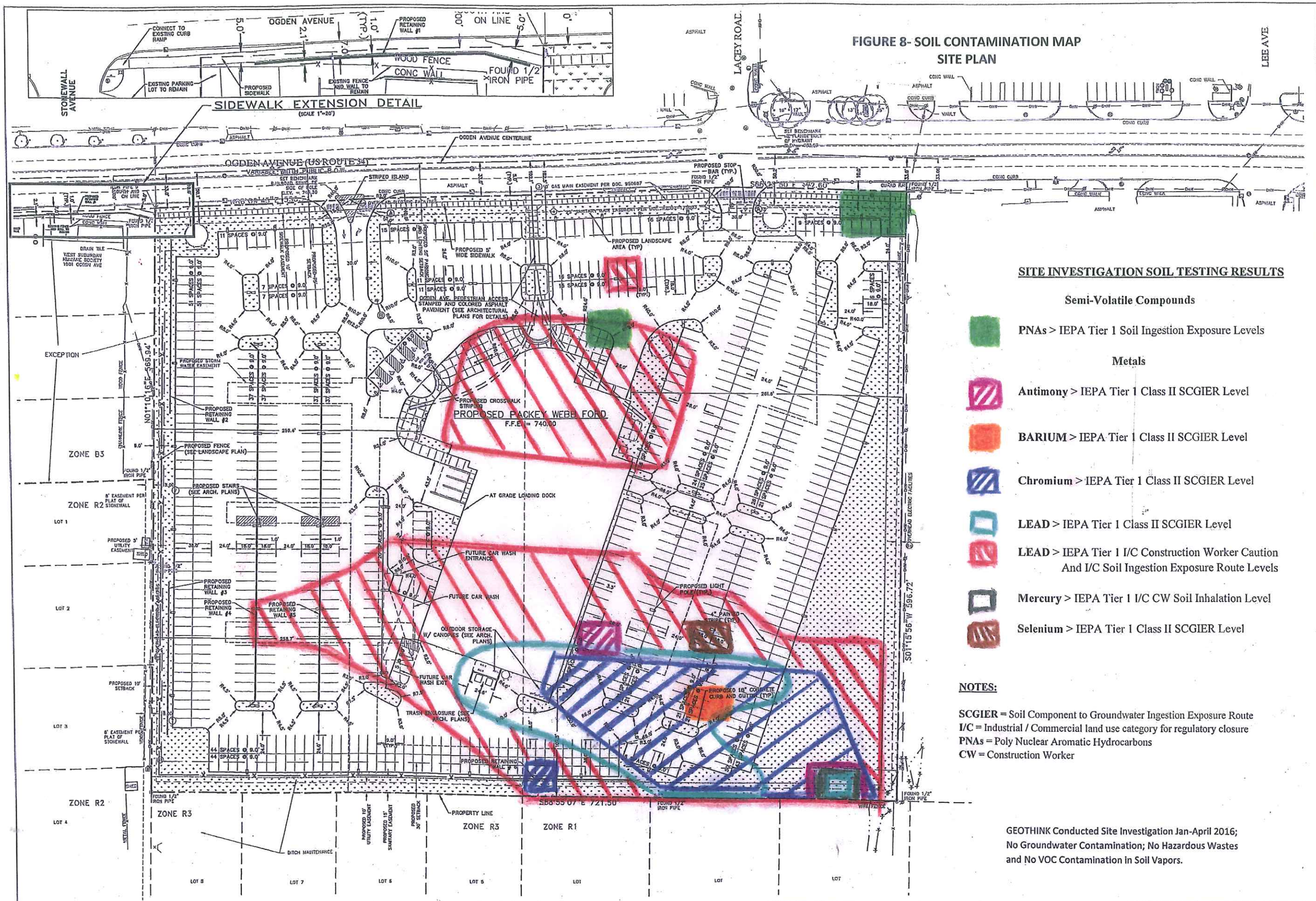
DEMOLITION & INITIAL EROSION CONTROL PLAN

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 06-10-16
SCALE: 1"=40'
JOB NO. 3150545
PROJECT MANAGER: DAVID CLEARY, P.E.
DESIGNED BY: KLL
CHECKED BY: RTP

SHEET NUMBER
C100

FIGURE 8- SOIL CONTAMINATION MAP
SITE PLAN



SITE INVESTIGATION SOIL TESTING RESULTS

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PNAs > IEPA Tier 1 Soil Ingestion Exposure Levels

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LEAD > IEPA Tier 1 Class II SCGIER Level

LEAD > IEPA Tier 1 I/C Construction Worker Caution And I/C Soil Ingestion Exposure Route Levels

Mercury > IEPA Tier 1 I/C CW Soil Inhalation Level

Selenium > IEPA Tier 1 Class II SCGIER Level

NOTES:

SCGIER = Soil Component to Groundwater Ingestion Exposure Route
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PNAs = Poly Nuclear Aromatic Hydrocarbons
CW = Construction Worker

GEOTHINK Conducted Site Investigation Jan-April 2016; No Groundwater Contamination; No Hazardous Wastes and No VOC Contamination in Soil Vapors.

DESCRIPTION | DATE

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Madison, WI Naperville (Chicago), IL Irvine, CA Oakmount (Pittsburgh), PA

PACKEY WEBB FORD
VILLAGE OF DOWNERS GROVE, ILLINOIS

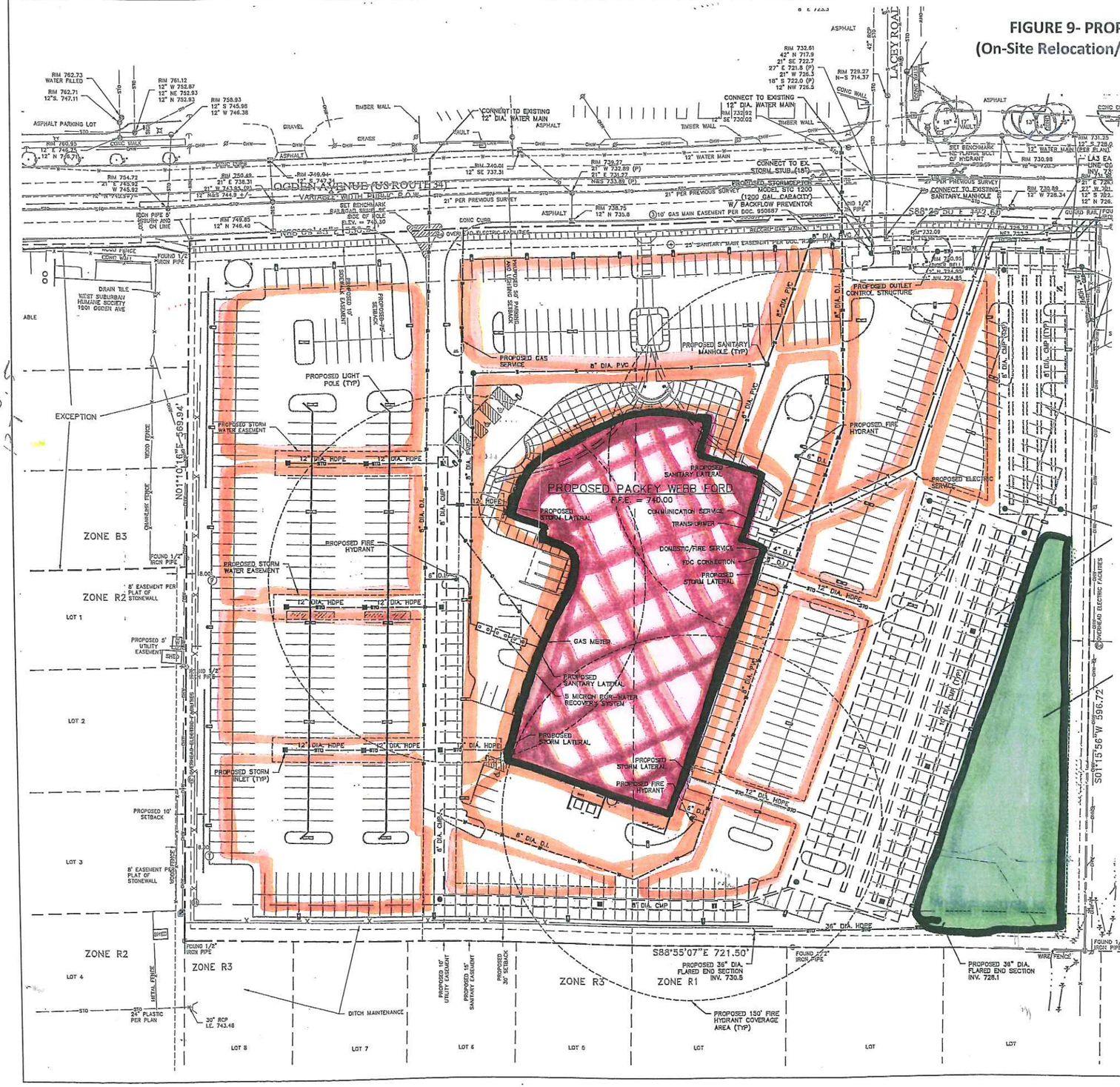
SITE PLAN

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 06-10-16
SCALE: 1"=40'
JOB NO. 3150545
PROJECT MANAGER: DAVID CLEARY, P.E.
DESIGNED BY: KLL
CHECKED BY: RTP

SHEET NUMBER
C200

FIGURE 9- PROPOSED SOIL MANAGEMENT ZONES MAP
(On-Site Relocation/Burial, Encapsulation & Engineered Barriers)



LEGEND

SOIL MANAGEMENT ZONE #1 AREA (SMZ #1)

LA3 Compensatory Storage Basin Area – Stormwater Compliance; SMZ #1 – Contaminated organic topsoils/metal debris laden surface soils/fill 1-2 ft. deep will be removed from ~0.55-acre SMZ #1 area during STAGE 1 and stockpiled. While excavation is deepened in STAGE 2 to remove clean clays and stockpile for reuse as fill, any exposed contaminated soils will be segregated and stockpiled. During STAGE 3 the SMZ #1 excavation will be filled with ~ 7,000 CY contaminated topsoils/fill (STAGE 1 material) to within 3' of LA3 bottom grade; Then 3' of clean clay placed as engineered barrier atop spoils and top of clay layer (LA3 bottom -Top of SMZ #1) is planted with native seed mix.

SOIL MANAGEMENT ZONE #2 AREA (SMZ #2)

Dealership Building Concrete Slab Floor Footprint Area – 45,505 SF; SMZ #2 – Contaminated organic topsoils/metal debris laden surface 1-2 ft. deep will be removed from 45,505 SF Building Footprint (SMZ #2) areas during STAGE 1 and stockpiled; then later placed into SMZ #1. While depending upon grade, deeper contamination can remain in-place. Impacted soils exposed during utility trench work will be removed and stockpiled for later encapsulation in SMZ #2 or SMZ #3 areas. Impacted soils underneath the bldg. footprint encapsulated by engineered fill, 10mil vapor barrier and covered with 5" concrete floor slab to 740.0' elevation as engineered barrier. **(No basement)**

SOIL MANAGEMENT ZONE #3 AREA (SMZ #3)

Dealership Parking Lot Areas excluding SW Detention – 4.4 acre area; SMZ #3 – Contaminated organic topsoils/metal debris laden surface 1-2 ft. deep removed from those parking lots, sidewalks, and 2 underground SW detention areas during STAGE 1 and stockpiled; then later placed into SMZ #1. During Stage 2 excavations of 2 SW detention basins, any exposed Impacted soils will be segregated from clean clay and stockpiled for later encapsulation into SMZ #3. While depending upon grade, deeper contamination may remain in-place. Impacted soils exposed during utility trench work will be removed and stockpiled for later encapsulation in SMZ #3 areas. Placed or remaining impacted soils encapsulated by engineered fill and covered by 4" Layer of protective Asphalt pavement in SMZ #3 as engineered barrier.

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)

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Appleton, WI Madison, WI Naperville (Chicago), IL Irvine, CA Oakmount (Pittsburgh), PA

PACKEY WEBB FORD
VILLAGE OF DOWNERS GROVE, ILLINOIS

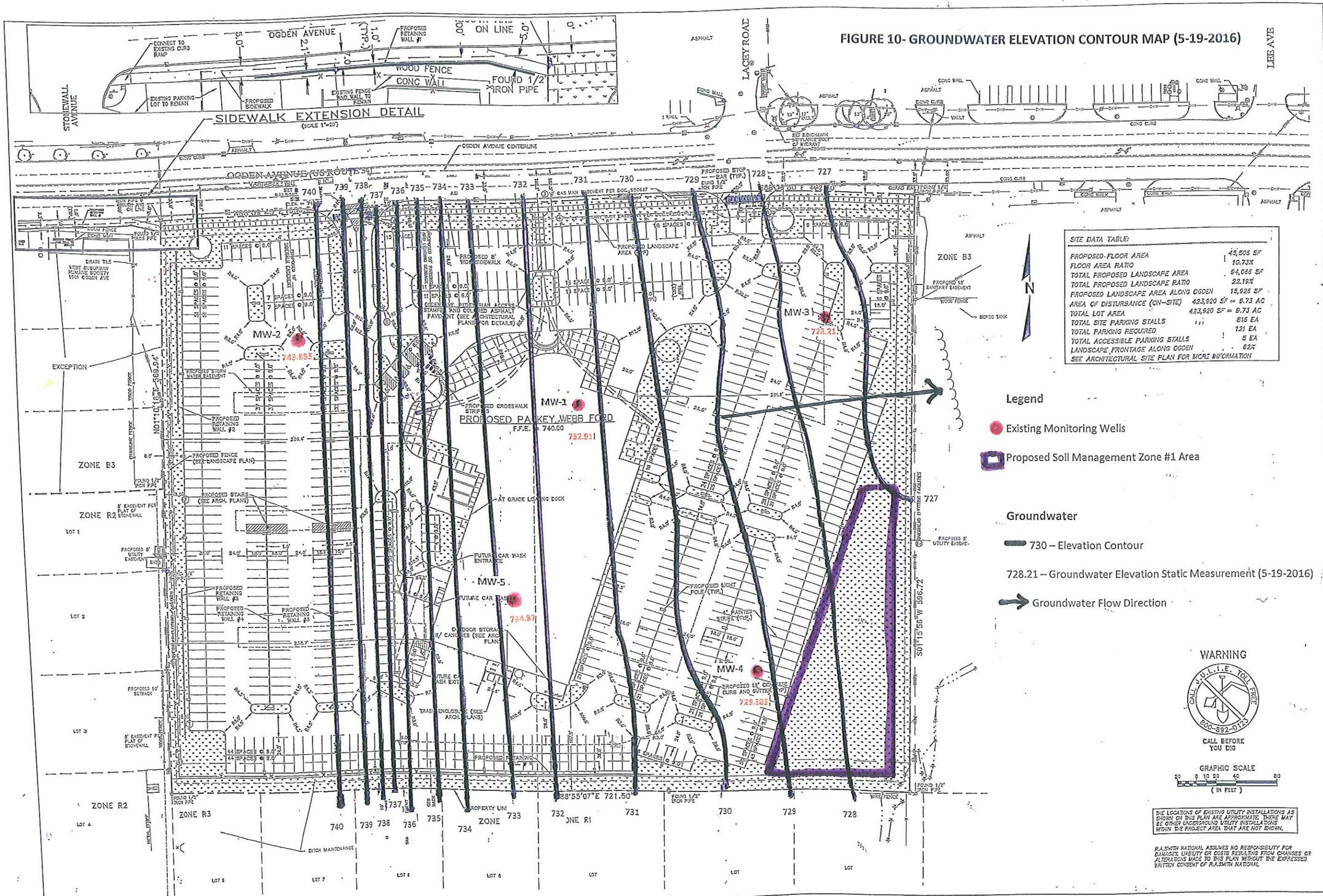
UTILITY PLAN

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 06-10-16
SCALE: 1"=40'
JOB NO. 3150545
PROJECT MANAGER: DAVID CLEARY, P.E.
DESIGNED BY: KLL
CHECKED BY: RTP

SHEET NUMBER
C400

FIGURE 10- GROUNDWATER ELEVATION CONTOUR MAP (5-19-2016)



SITE DATA TABLE:	
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TOTAL SITE PARKING STALLS	816 EA
TOTAL PARKING REQUIRED	121 EA
TOTAL ACCESSIBLE PARKING STALLS	5 EA
LANDSCAPE FRONTAGE ALONG OGDEN	62%
SEE ARCHITECTURAL SITE PLAN FOR MORE INFORMATION	

WARNING
CALL J.U.L.I.E. TOLL FREE 800-892-0123
CALL BEFORE YOU DIG

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)

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Appleton, WI Madison, WI Naperville (Chicago), IL Irvine, CA Collinsville (Pittsburgh), PA

PACKEY WEBB FORD
VILLAGE OF DOWNERS GROVE, ILLINOIS

SITE PLAN

PRELIMINARY NOT FOR CONSTRUCTION

DATE: 06-10-16
SCALE: 1"=40'
JOB NO. 3150545
PROJECT MANAGER: DAVID CLEARY, P.E.
DESIGNED BY: KLL
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C200

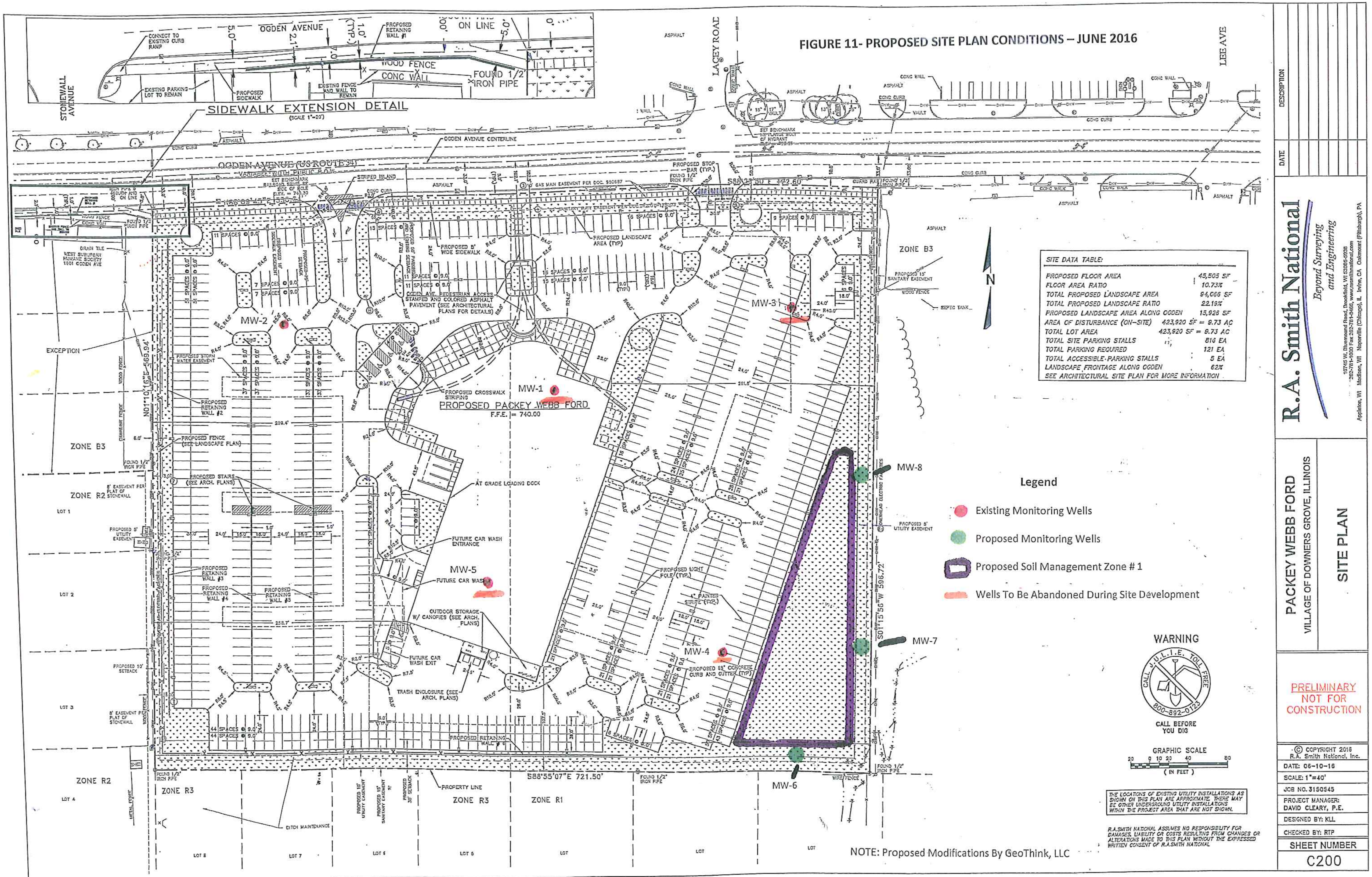
FIGURE 11- PROPOSED SITE PLAN CONDITIONS – JUNE 2016
SIDEWALK EXTENSION DETAIL
(SCALE 1"=20')
OGDEN AVENUE
CONNECT TO EXISTING CURB RAMP
PROPOSED RETAINING WALL #1
WOOD FENCE
CONC WALL
FOUND 1/2" IRON PIPE
EXISTING PARKING LOT TO REMAIN
PROPOSED SIDEWALK
EXISTING FENCE AND WALL TO REMAIN
STONEWALL AVENUE
LACEY ROAD
LEE AVE
OGDEN AVENUE CENTERLINE
OGDEN AVENUE (US ROUTE 34)
STRIPED ISLAND
GAS MAIN EASEMENT PER DOC. 950687
PROPOSED STOP BAR (TYP.)
PROPOSED LANDSCAPE AREA (TYP)
PROPOSED 5' WIDE SIDEWALK
OGDEN AVE. PEDESTRIAN ACCESS STAMPED AND COLORED ASPHALT PAVEMENT (SEE ARCHITECTURAL PLANS FOR DETAILS)
PROPOSED CROSSWALK STRIPING
PROPOSED PACKEY WEBB FORD
F.F.E. = 740.00
AT GRADE LOADING DOCK
FUTURE CAR WASH ENTRANCE
FUTURE CAR WASH
FUTURE CAR WASH EXIT
OUTDOOR STORAGE W/ CANOPIES (SEE ARCH. PLANS)
TRASH ENCLOSURE (SEE ARCH. PLANS)
PROPOSED LIGHT POLE (TYP.)
4" PAINTED STRIPE (TYP.)
PROPOSED 18" CONCRETE CURB AND GUTTER (TYP)
PROPOSED RETAINING WALL #2
PROPOSED RETAINING WALL #3
PROPOSED RETAINING WALL #4
PROPOSED RETAINING WALL #5
PROPOSED RETAINING WALL #6
PROPOSED STAIRS (SEE ARCH. PLANS)
PROPOSED FENCE (SEE LANDSCAPE PLAN)
PROPOSED STORM WATER EASEMENT
PROPOSED 15' SANITARY EASEMENT
PROPOSED 5' UTILITY EASEMENT
PROPOSED 10' SETBACK
PROPERTY LINE
DITCH MAINTENANCE
EXCEPTION
WEST SUBURBAN HUMANE SOCIETY 1901 OGDEN AVE
ZONE B3
ZONE R2
ZONE R3
ZONE R1
N01°10'16"E 569.94'
S88°55'07"E 721.50'
S01°15'56"W 596.72'
MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
N
SITE DATA TABLE:
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TOTAL PROPOSED LANDSCAPE RATIO 22.19%
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AREA OF DISTURBANCE (ON-SITE) 423,920 SF = 9.73 AC
TOTAL LOT AREA 423,920 SF = 9.73 AC
TOTAL SITE PARKING STALLS 816 EA
TOTAL PARKING REQUIRED 121 EA
TOTAL ACCESSIBLE PARKING STALLS 5 EA
LANDSCAPE FRONTAGE ALONG OGDEN 62%
SEE ARCHITECTURAL SITE PLAN FOR MORE INFORMATION
Legend
Existing Monitoring Wells
Proposed Monitoring Wells
Proposed Soil Management Zone # 1
Wells To Be Abandoned During Site Development
WARNING
CALL J.U.L.I.E. TOLL FREE 800-892-0123
CALL BEFORE YOU DIG
GRAPHIC SCALE
(IN FEET)
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NOTE: Proposed Modifications By GeoThink, LLC
DESCRIPTION
DATE
R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Madison, WI Naperville (Chicago), IL Irvine, CA Oakmount (Pittsburgh), PA
PACKEY WEBB FORD
VILLAGE OF DOWNERS GROVE, ILLINOIS
SITE PLAN
PRELIMINARY NOT FOR CONSTRUCTION
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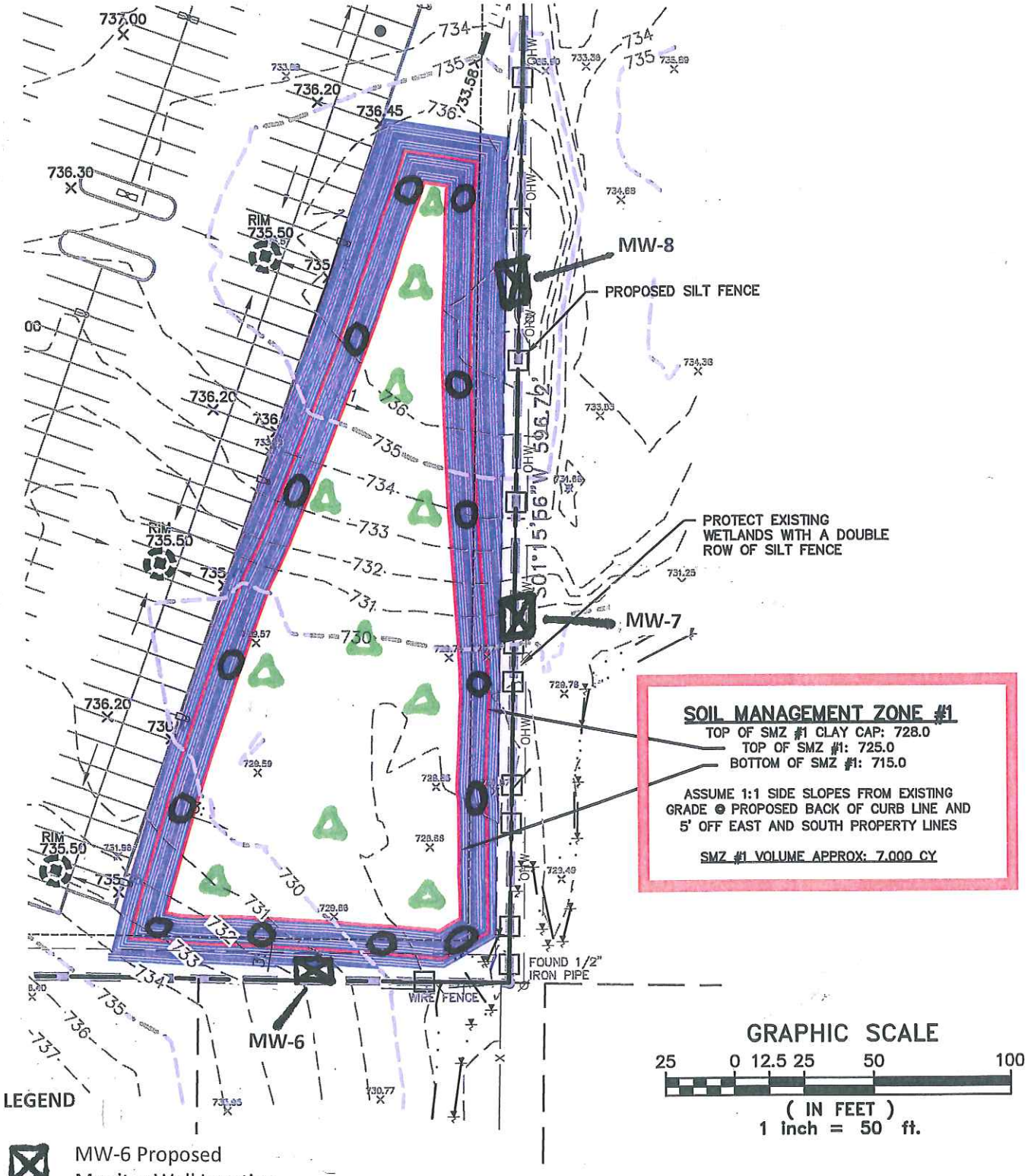
DATE: 06-10-16
SCALE: 1"=40'
JOB NO. 3150545
PROJECT MANAGER: DAVID CLEARY, P.E.
DESIGNED BY: KLL
CHECKED BY: RTP
SHEET NUMBER
C200

FIGURE 12 PROPOSED CONSTRUCTION OF SMZ#1 AND CONFIRMATION SOIL TESTS/MONITOR WELL LOCATION MAP



APPENDIX A

IEPA CORRESPONDENCE

And

DRM-2 FORMS and PE CERTIFICATION

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
BRUCE RAUNER, GOVERNOR LISA BONNETT, DIRECTOR

217/524-3300

June 14, 2016

Packey Webb Ford
Attn: Mr. Brad Webb
2150 West Ogden Avenue
Downers Grove, IL 60515

Re: 0430305287—DuPage County
Downers Grove/Aldi, Inc.
Site Remediation/Technical Reports

Dear Mr. Webb:

The Illinois Environmental Protection Agency (Illinois EPA) has conducted a review of your *Comprehensive Site Investigation and Remedial Objectives Report (log# 16-61932)* for the Aldi, Inc. site, dated April 13, 2016. The Illinois EPA finds the report acceptable, and provides the following information for your files.

Per IL Adm. Code 35, Section 740, a Remedial Action Plan, and Remedial Action Completion Report must be submitted to the Illinois EPA for review. You may elect to prepare and submit these reports for review individually or concurrently. If remedial activities are planned before submittal of these reports, the Illinois EPA requests that the dates and times be provided as soon as they are available.

If you have any questions, please contact me at 217/782-9283.

Sincerely,

Rhett M. Rossi
Voluntary Site Remediation Unit
Remedial Project Management Section
Bureau of Land

4302 N. Main St., Rockford, IL 61103 (815) 987-7760
595 S. State, Elgin, IL 60123 (847) 608-3131
2125 S. First St., Champaign, IL 61820 (217) 278-5800
2009 Mall St., Collinsville, IL 62234 (618) 346-5120

9511 Harrison St., Des Plaines, IL 60016 (847) 294-4000
412 SW Washington St., Suite D, Peoria, IL 61602 (309) 671-3022
2309 W. Main St., Suite 116, Marion, IL 62959 (618) 993-7200
100 W. Randolph, Suite 10-300, Chicago, IL 60601

PLEASE PRINT ON RECYCLED PAPER

Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

INSTRUCTIONS TO REQUEST REVIEW OR APPROVAL OF PLANS AND REPORTS BY THE ILLINOIS EPA UNDER THE SITE REMEDIATION PROGRAM (SRP) (FORM DRM-2)

General Information

A Remediation Applicant requesting review and evaluation of Site Remediation Program (SRP) plans and reports by the Illinois Environmental Protection Agency ("Illinois EPA") or by a Review and Evaluation Licensed Professional Engineer or Geologist ("RELPEG") must complete a DRM-2 Form for each plan or report. More than one plan or report may be submitted under cover of this form.

Please read the directions carefully and ensure that all required information is provided. When completing this form, the letters "NA" may be used, but only if the requested information is not applicable. Justification must be stated for any failure to provide applicable requested information. This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to:

Illinois Environmental Protection Agency
Bureau of Land
Remedial Project Management Section
Site Remediation Program
1021 N. Grand Avenue East
PO Box 19276
Springfield, IL 62794-9276

Hand-carried documents may be delivered during normal business hours (8:30 a.m. - 5 p.m.) to the above address.

To assist in implementing with your plans or reports, once they are approved by the Illinois EPA, you should keep a copy of every submittal and any relevant correspondence sent to the Illinois EPA.

Please fill out the applicable sections on this form. The requested information is described in the directions on the following pages.

*If a Review and Evaluation Licensed Professional Engineer or Geologist ("RELPEG") has been contracted to perform review and evaluation services, one additional copy of those plan(s) or report(s) must be included with the submittal. A RELPEG is a licensed professional engineer or geologist with whom a Remediation Applicant ("RA") has contracted to perform review and evaluation services under the direction of the Illinois EPA. The use of the RELPEG is an option available to an RA to obtain additional technical evaluation resources for a project. Additional information on how a RELPEG can used in the SRP is provide in the regulations (35 Ill. Adm. Code 740.235).

Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Site Remediation Program Form (DRM-2)
(To be Submitted with all Plans and Reports)

You may complete this form online, save a copy, print, sign and mail it to the address above.

I. Site Identification:

Site Name: Downers Grove/Aldi, Inc. - Packey Webb Ford - 9.75-Acre Commercial Redevelopment

Street Address: 1815 West Ogden Avenue P.O. Box:

City: Downers Grove State: IL Zip Code: 60515 Phone: NA

Illinois Inventory ID Number: 0430305287 IEMA Incident Number:

II. Remediation Applicant:

Applicant's Name: Mr./Ms. Mr. Brad Webb

Company: Packey Webb Ford

Street Address: 2150 West Ogden Avenue P.O. Box:

City: Downers Grove State: IL Zip Code: 60515 Phone: 630-598-4641

Email Address: brad.webb@packeywebbford.com

I hereby request that the Illinois EPA review and evaluate the attached project documents in accordance with the terms and conditions of the Environmental Protection Act (415 ILCS 5), implementing regulations, and the review and evaluation services agreement.

Remediation Applicant's Signature: Date: 6/27/16

III. Contact Person for Remediation Applicant:

Contact's Name: Mr./Ms. Mr. Jeff Lietz

Company: Charles Vincent George Architects

Street Address: 1245 East Diehl Road-Suite 101 P.O. Box:

City: Naperville State: IL Zip Code: 60563 Phone: 630-357-2023

Email Address: jlietz@cvgarchitects.com

Contact Person for Consultant:

Contact's Name: Mr./Ms. Mr. Thomas M. Mangan

Company: GEOTHINK, LLC

Street Address: 611 Stevens Street P.O. Box:

City: Geneva State: IL Zip Code: 60134 Phone: 630-208-5050

Email Address: tmangan@geothinkservices.com

IV. Review & Evaluation Licensed Professional Engineer or Geologist ("RELPEG"), if applicable:

RELPEG's Name: Mr./Ms. NA

Company:

Street Address: P.O. Box:

City: State: Zip Code: Phone:

Email Address:

V. Project Documents Being Submitted:

Document Title: Remedial Action Plan
Date of Preparation of Plan or Report: July 7,, 2016
Prepared by: GEOTHINK, LLC
Prepared For: Packey Webb Ford

Type of Document Submitted:

- [ ] Site Investigation Report - Comprehensive
- [ ] Site Investigation Report - Focused
- [ ] Remediation Objectives Report - Tier 1 or 2
- [ ] Remediation Objectives Report - Tier 3
- [x] Remedial Action Plan
- [ ] Remedial Action Completion Report
- [ ] Sampling Plan
- [ ] Health and Safety Plan
- [ ] Community Relations Plan
- [ ] Risk Assessment
- [ ] Containment Fate & Transport Modeling
- [ ] Other: _____

Document Title: _____
Date of Preparation of Plan or Report: _____
Prepared by: _____
Prepared For: _____

Type of Document Submitted:

- [ ] Site Investigation Report - Comprehensive
- [ ] Site Investigation Report - Focused
- [ ] Remediation Objectives Report - Tier 1 or 2
- [ ] Remediation Objectives Report - Tier 3
- [ ] Remedial Action Plan
- [ ] Remedial Action Completion Report
- [ ] Sampling Plan
- [ ] Health and Safety Plan
- [ ] Community Relations Plan
- [ ] Risk Assessment
- [ ] Containment Fate & Transport Modeling
- [ ] Other: _____

Document Title: _____
Date of Preparation of Plan or Report: _____
Prepared by: _____
Prepared For: _____

Type of Document Submitted:

- [ ] Site Investigation Report - Comprehensive
- [ ] Site Investigation Report - Focused
- [ ] Remediation Objectives Report - Tier 1 or 2
- [ ] Remediation Objectives Report - Tier 3
- [ ] Remedial Action Plan
- [ ] Remedial Action Completion Report
- [ ] Sampling Plan
- [ ] Health and Safety Plan
- [ ] Community Relations Plan
- [ ] Risk Assessment
- [ ] Containment Fate & Transport Modeling
- [ ] Other: _____

VI. Professional Engineer's or Geologist's Seal or Stamp:

I attest that all site investigations or remedial activities that are subject of this plan(s) or report(s) were performed under my direction, and this document and all attachments were prepared under my direction or reviewed by me, and to the best of my knowledge and belief, the work described in the plan and report has been designed or completed in accordance with the Illinois Environmental Protection Act (415 ILCS 5), 35 Ill. Adm. Code 740, and generally accepted engineering practices or principles of professional geology, and the information presented is accurate and complete.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Engineer's or Geologist's Name: Jason C. Fowler

Company: GEOTHINK, LLC

Registration Number: #062-062789 Phone: 630-208-5050

License Expiration Date: 11-30-2017

Signature: _____ Date: JULY 5, 2016

Professional Engineer's or Geologist's Seal or Stamp:

JASON C. FOWLER
062-062789
LICENSED
PROFESSIONAL
ENGINEER
STATE OF ILLINOIS

Note: The authority of a Licensed Professional Geologist to certify documents submitted to the Illinois Environmental Protection Agency for review and evaluation pursuant to Title XVII of the Environmental Protection Act is limited to Site Investigation Reports (415 ILCS 58.7(f), as amended by P. A. 92-0735, effective July 25, 2002. A Licensed Professional Geologist cannot certify Remediation Objectives Reports, Remedial Action Plans or Remedial Action Completion Reports.

All information submitted is available to the public except when specifically designated by the Remediation Applicant to be treated confidentially as a trade secret or secret process in accordance with the Illinois Compiled Statutes, Section 7(a) of the Environmental Protection Act, applicable Rules and Regulations of the Illinois Pollution Control Board and applicable Illinois EPA rules and guidelines. The Illinois EPA is authorized to require this information under Sections 415 ILCS 5/58 - 58.12 of the Environmental Protection Act and regulations proumulgated thereunder. Disclosure of this information is required as a condition of participation in the Site Remediation Program. Failure to do so may prevent this form from being processed and could result in your plan(s) or report(s) being rejected. This form has been approved by the Forms Management Center.

VI. Professional Engineer's or Geologist's Seal or Stamp:

I attest that all site investigations or remedial activities that are subject of this plan(s) or report(s) were performed under my direction, and this document and all attachments were prepared under my direction or reviewed by me, and to the best of my knowledge and belief, the work described in the plan and report has been designed or completed in accordance with the Illinois Environmental Protection Act (415 ILCS 5), 35 Ill. Adm. Code 740, and generally accepted engineering practices or principles of professional geology, and the information presented is accurate and complete.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 Felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Professional Engineer or Geologist's Seal or Stamp

LICENSED PROFESSIONAL GEOLOGIST
THOMAS M. MANGAN
196-000449
ILLINOIS

Engineer's or Geologist's Name: Thomas M. Mangan

Company: GEOTHINK, LLC

Registration Number: 196-000449 Phone: 630-208-5050

License Expiration Date: 03-31-2017

Signature: Thomas M. Mangan Date: July 5, 2016

Note: The authority of a Licensed Professional Geologist to certify documents submitted to the Illinois Environmental Protection Agency for review and evaluation pursuant to Title XVII of the Environmental Protection Act is limited to Site Investigation Reports (415 ILCS 58.7(f), as amended by P. A. 92-0735, effective July 25, 2002. A Licensed Professional Geologist cannot certify Remediation Objectives Reports, Remedial Action Plans or Remedial Action Completion Reports.

All information submitted is available to the public except when specifically designated by the Remediation Applicant to be treated confidentially as a trade secret or secret process in accordance with the Illinois Compiled Statutes, Section 7(a) of the Environmental Protection Act, applicable Rules and Regulations of the Illinois Pollution Control Board and applicable Illinois EPA rules and guidelines. The Illinois EPA is authorized to require this information under Sections 415 ILCS 5/58 - 58.12 of the Environmental Protection Act and regulations proumulgated thereunder. Disclosure of this information is required as a condition of participation in the Site Remediation Program. Failure to do so may prevent this form from being processed and could result in your plan(s) or report(s) being rejected. This form has been approved by the Forms Management Center.

APPENDIX B

CONCEPT RENDERING OF DEALERSHIP FACILITY

And

CONSTRUCTION RECOMMENDATIONS for ENGINEERED BARRIERS

And

SITE PLAN (Sheet C200)

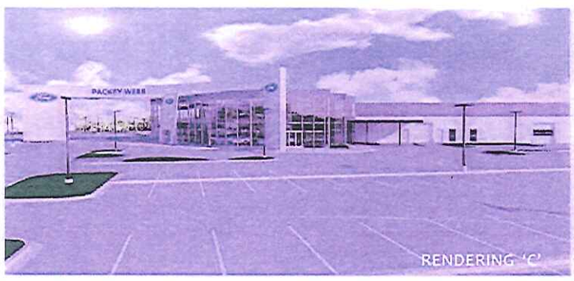
alpolilc metal panel
color - hairline aluminum

alcoa ribbed metal panel
color - slate grey

alpolic metal panel
color - mica mzg grey

sherwin williams paint
color - universal grey

sherwin williams paint
color - grimmy's grey



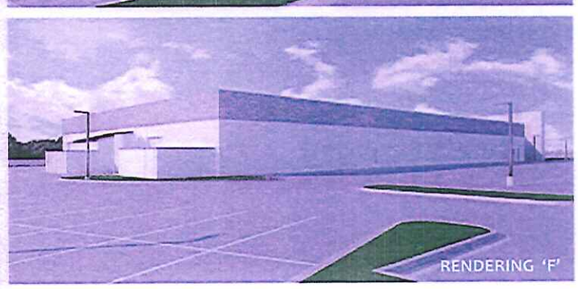
RENDERING 'C'

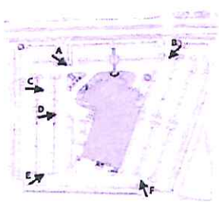

RENDERING 'D'

RENDERING 'B'


RENDERING 'E'

RENDERING 'A'


RENDERING 'F'



KEY PLAN

Packey Webb Ford
1815 Ogden Avenue | Downers Grove, Illinois
June 10, 2016 | project 2015-082

charles vincent george
ARCHITECTS
1245 E. Diehl Rd. Suite 101 • Naperville, IL 60563
P: 630.352.2013 • F: 630.352.2662

CONSTRUCTION RECOMMENDATIONS
(ENGINEER BARRIERS TO BE USED)

No specific data regarding expected traffic frequencies and type of vehicles was available; however, we expect traffic will include passenger vehicles and automobile delivery trucks. We performed a pavement design analysis in accordance with the "AASHTO Guide for Design of Pavement Structures". For evaluation purposes, we estimated a total of 50,000 18-kip equivalent single-axle loads (ESALs) over a 20-year design life for standard-duty pavement sections and 150,000 ESALs for heavy-duty pavement sections. In addition, we also used a serviceability loss of 2.0, a standard deviation of 0.35 for rigid pavement and 0.45 for flexible pavement, and a reliability factor of 0.85. If any traffic volume information becomes available, G2 should be notified so we can reevaluate our recommendations.

Minimum Flexible Pavement Section – Standard Duty	
Material	**Thickness**
Bituminous Surface Course (IDOT HMA Surface Course Class C, N50)	2 inches
Bituminous Binder Course (IDOT HMA Binder Course IL-19.0, N50)	2 inches
Dense-Graded Aggregate Base Course (IDOT Type B CA-6 Crushed)	8 inches

ENGINEER BARRIER

Minimum Flexible Pavement Section – Heavy Duty	
Material	**Thickness**
Bituminous Surface Course (IDOT HMA Surface Course Class C, N50)	2 inches
Bituminous Binder Course (IDOT HMA Binder Course IL-19.0, N50)	3 inches
Dense-Graded Aggregate Base Course (IDOT Type B CA-6 Crushed)	10 inches

ENGINEER BARRIER

Concrete Pavement Section – Standard Duty	
Material	**Thickness**
Portland Cement Concrete (IDOT PV)	5 inches
Dense-Graded Aggregate Base Course (IDOT Type B CA-6 Crushed)	4 inches

ENGINEER BARRIER

Concrete Pavement Section – Heavy Duty	
Material	**Thickness**
Portland Cement Concrete (IDOT PV)	6 inches
Dense-Graded Aggregate Base Course (IDOT Type B CA-6 Crushed)	4 inches

ENGINEER BARRIER

The flexible pavement section is based on a structural coefficient number of 0.40 for the bituminous surface course, a structural coefficient number of 0.33 for bituminous binder course, and a structural coefficient number of 0.14 for the aggregate base material.

Given that poor draining silty clay soils are generally present within the pavement subgrade, proper drainage is considered to be an important consideration for pavement design. We recommend "stub" or "finger" drains be provided around catch basins and other low parts of parts of the site to minimize the accumulation of water above and within any frost susceptible subgrade soils. The pavement and subgrade surface should be properly sloped to promote effective surface and subsurface drainage and prevent water from ponding. We also recommend pavement subbase material consist of non-frost-susceptible aggregates. Any subgrade undercuts backfilled with granular engineered fill will need to be tied into the edge drain system or nearby catch basin with finger drains to avoid creating a "bathtub" and trapping water within the granular undercuts.

Regular timely maintenance should be performed on the bituminous pavement to reduce the potential deterioration associated with moisture infiltration through surface cracks. The owner should be prepared to seal the cracks with a hot-applied elastic crack filler as soon as possible after cracking develops and as often as necessary to block the passage of water to the subgrade soils. It should be noted that if the existing fill soils and buried topsoil are left in place in the eastern pavement areas, some increased pavement maintenance costs can be expected over the life of the pavement due to uneven consolidation of the existing fill from engineered fill and pavement loads.

Large front-loading refuse trucks can impose significant concentrated wheel loads within trash pick-up areas. This type of loading can result in rutting of asphalt pavements and ultimately in failure. We recommend reinforced concrete pavement, at least 8 inches in thickness, be used in these areas.

UNDERGROUND STORM WATER DETENTION

Based on the preliminary Proposed Compensatory Storage Exhibit prepared dated January 29, 2016, we understand the underground storm water detention system will consist of 8-foot diameter corrugated metal pipe (CMP) in the northeast corner of the site and 4-foot diameter CMP in the southeast corner of the site. The northeast CMP will have an invert elevation of 723.00 feet and the southeast CMP will have an invert elevation of 729.00 feet. The northeast detention system will outlet to an existing storm sewer manhole along Ogden Avenue and the southeast detention system will outlet to a storm water detention area in the southeast corner of the property.

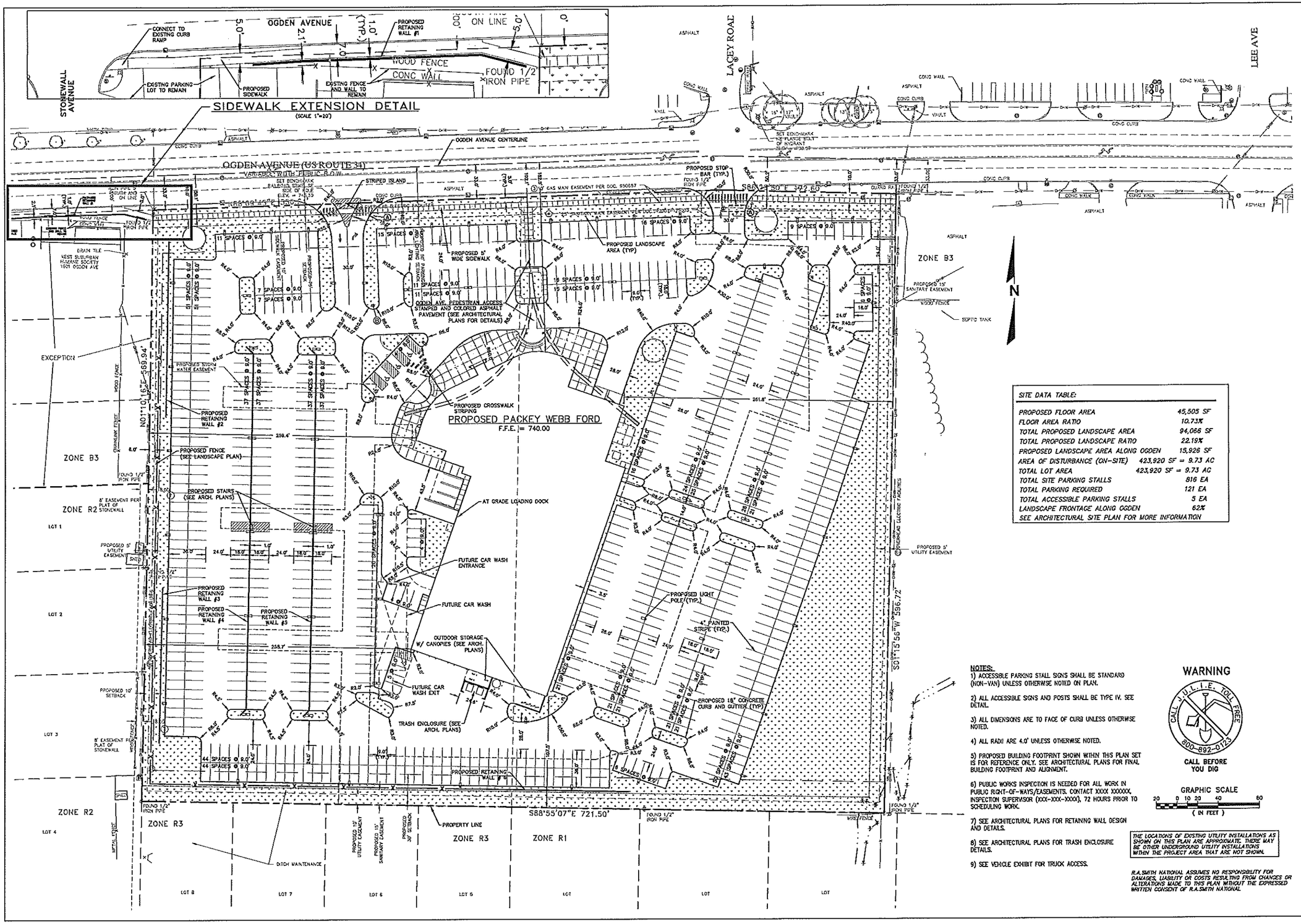
Soil borings B-14 and B-15 and test pit TP-20 were performed in the northeastern portion of the site and borings B-16 and B-17 and test pit TP-29 were performed in the southeast portion of the site. Soil conditions at the borings and test pits consist of soft to hard silty clay. Groundwater at the soil borings locations was encountered below proposed invert elevations; however groundwater was measured at an approximate depth of 2 feet, corresponding to an approximate elevation of 728 feet, upon completion of excavation operations for test pit TP-20.

We anticipate groundwater can be controlled by pumping from properly constructed sumps during excavation; however, since the storm water detention systems will be constructed within cohesive soils, a perched groundwater condition can develop that will impose buoyant forces on the CMP. Depending on the size of the bearing depth and thickness of fill over the CMP, it may be necessary to either anchor the CMP to mat foundations or use a combination of helical piles with straps and ballast in the CMP to resist buoyant forces due to fluctuations in the groundwater level. Installation of monitoring wells may be considered at the storm water detention locations to determine the seasonal groundwater elevations and provide a more definitive groundwater elevation for design purposes.

We recommend the CMP pipe be bedded on a minimum of 6 inches of open-graded stone such as pea stone or crushed stone meeting the gradation requirements of IDOT CA 7. Additionally, we recommend open-graded stone be used to backfill the pipe haunches as well due to the ease of placement and compaction within the haunch area. Once backfill is above the pipe haunches, a dense-graded engineered fill may be used to complete backfill operations. A filter fabric should be placed between the open-graded stone and dense-graded stone to prevent soil loss into the open-graded stone matrix. Soft soils are present at an approximate depth of 8-1/2 feet in boring B-14, approximate elevation 722-1/2 feet. We recommend a geotextile fabric be placed below the bedding material where soft soils are present at the invert elevations.

CONSTRUCTION CONSIDERATIONS

We anticipate engineered fill placed within the proposed building area will predominantly consist of on-site cohesive soils and we anticipate foundation and utility excavations can be performed neatly within these soils; however, occasional layers of silt should be anticipated and caving and sloughing of the silt



DATE	DESCRIPTION

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-6036
262-781-1650 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Madison, WI Naperville (Chicago), IL Irvine, CA Oakmount (Pittsburgh), PA

PACKEY WEBB FORD
VILLAGE OF DOWNERS GROVE, ILLINOIS

SITE PLAN

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 06-10-16
SCALE: 1"=40'
JOB NO. 3150545
PROJECT MANAGER: DAVID CLEARY, P.E.
DESIGNED BY: KLL
CHECKED BY: RTP

SHEET NUMBER
C200

APPENDIX C

VILLAGE OF DOWNERS GROVE GROUND WATER ORDINANCE

Run Date :8/20/2003

DLC Assignment Form

Assignment ID :2496
Subject :Automotive Services/Downers Grove
Subject Type :Ordinance Review
DLC In Date :8/20/2003
DLC File No. :
Correspondence No. :03082002

DLC Completed Date. : 9/8/03

Assigned Staff:
Wight, Mark Attorney

Project Details:
Status Issued Date: 8/20/2003 Due Date: 9/19/2003
please review new submittal of Downers Grove ordinance Nos. 2942, 3301 and 4423.
Denied previously as OC03061301

Comments: see attached memorandum

STATE OF ILLINOIS

COUNTY OF DU PAGE

CERTIFICATE

I, April K. Holden, DO HEREBY CERTIFY THAT I am the Village Clerk of the Village of Downers Grove, Du Page County, Illinois, and as such officer I have the lawful power and duty to keep an index and record of all proceedings of the Village Council of said Village, and of all ordinances and resolutions presented to or passed by said Village Council.

I DO HEREBY FURTHER CERTIFY, THAT the foregoing document is a true, correct and complete copy of a certain ordinance now on file in my office, designated as Ordinance No. 4423 and that said ordinance was duly passed and approved by the Council of said Village at a meeting duly called and held in accordance with applicable law, at which a quorum was present and acting throughout.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of the Village of Downers Grove, Illinois, in the State and County aforesaid, this 1st day of August 2003.

SEAL

April K. Holden
Municipal Clerk

4423

06/03/02

ORDINANCE NO. 4423

AN ORDINANCE AMENDING SECTION 25-52 REGARDING GROUNDWATER WELLS

BE IT ORDAINED by the Council of the Village of Downers Grove, in DuPage County, Illinois, as follows: (Additions are indicated by shading; deletions by ~~strikeout~~.)

SECTION 1. That Section 25-52 of the Downers Grove Municipal Code is hereby amended as follows:

25-52. Private water wells; permit required.

(a) For purposes of this section, the following terms shall be defined as follows:

Person - any individual, partnership, co-partnership, firm, company, limited liability corporation, association, joint stock company, trust, estate, political subdivision, or any other legal entity, or their legal representatives, agents or employees.

Potable Water - any water used for human or domestic consumption, including, but not limited to water used for drinking, bathing, swimming, washing dishes or preparing food.

Groundwater - is any underground water which occurs within the saturated zone and geological materials where the fluid pressure in the pore space is equal to or greater than atmospheric pressure.

(b) Except for such uses or methods in existence prior to February 19, 2002, the use or attempt to use by any person, including the Village of Downers Grove, as ~~a potable water~~ supply groundwater from any location within the corporate limits of the Village by the installation or drilling of wells or by any other method is hereby prohibited.

(c) It shall be unlawful for any person to dig, drill, redrill or extend, or cause to be dug, drilled, redrilled, or extended, any well, hole or other excavation in the ground for the purpose of extracting water therefrom, at any location within the corporate limits of the Village~~, except:~~

~~(1) Any well intended and used exclusively for irrigation and watering of crops or landscaping or in cooling towers used in conjunction with air conditioning systems; provided, that the well shall meet the following conditions:~~

~~(i) Such well shall not be drilled to a depth greater than two hundred feet; and~~

~~(ii) Such well shall not be connected in any way to any water system providing water for domestic use or human consumption, including but not limited to, the Village's water system. In order to assure that water from such well is not so connected, the Village may require that a periodic bacteriological sampling may be taken of the domestic water entering any building on the property served by such well. The charge for such sampling shall be automatically added to the water bill for Village water for such building, and shall constitute an expense to the owner thereof; and~~

~~(iii) Any such well with a column pipe up to four inches in size shall not be dug or drilled within fifty feet from any Village owned well. Any such well with a column pipe greater than five inches in size shall not be dug or drilled within one thousand feet from any Village owned well; and~~

~~(iv) Such well shall be no less than fifteen feet from any publicly or privately owned water main; and~~

~~(v) A backflow prevention device shall be installed on the water service pipe(s)/line(s) connecting any structure on the property to the public water supply.~~

~~(vi) Such wells shall not be subject to the water conservation regulations in Section 25-5 if the owner or occupant of the property on which the well is located obtains and displays a "private well" sign. A metal sign shall be placed in the front yard or a paper sign in the window of the~~

~~property in a location clearly visible from the street. Such signs shall be obtained from the Village: metal property signs for a cost of twenty dollars; paper window signs at no charge. Except as otherwise provided in the preceding sentences, such wells shall be subject to the water conservation regulations in Section 25-5.~~

~~(vii) If well water is used in cooling towers in conjunction with air conditioning systems, all such water shall dispense through evaporation or other appropriate means and shall not be discharged into the sanitary or storm sewer systems, or otherwise discharged into the ground.~~

~~(d) It shall be unlawful for any person to dig, drill, redrill or extend, or cause to be dug, drilled, redrilled, or extended, any well, hole or other excavation in the ground for the purpose of extracting water therefrom, without (1) having first applied for and obtained a permit for such well from the Village, which permit shall not be issued unless the applicant provides satisfactory evidence to the effect that such well is permitted under the provisions of subsection (a) above; (2) establishing that permits therefor have also been issued by DuPage County, the Illinois Department of Mines and Minerals and any other governmental authority having jurisdiction thereof; and (3) certifying that such well will be in full compliance with all applicable health and safety requirements of DuPage County. Fees for the permit required in paragraph (a) hereof shall be as follows:~~

~~Work Performed~~	~~Fee~~	~~Bond~~
~~Plan review and on-site inspection~~	~~$ 100.00~~	~~N/A~~
~~Electrical Inspection~~	~~6.00~~	~~N/A~~
~~Parkway opening~~	~~20.00~~	~~$200.00~~

(Ord. No. 2942, § 1; Ord. No. 3301, § 3.)

SECTION 2. That all ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

SECTION 3. That this ordinance shall be in full force and effect from and after its passage and publication in the manner provided by law.

Mayor

Passed: June 18, 2002

Published: June 19, 2002

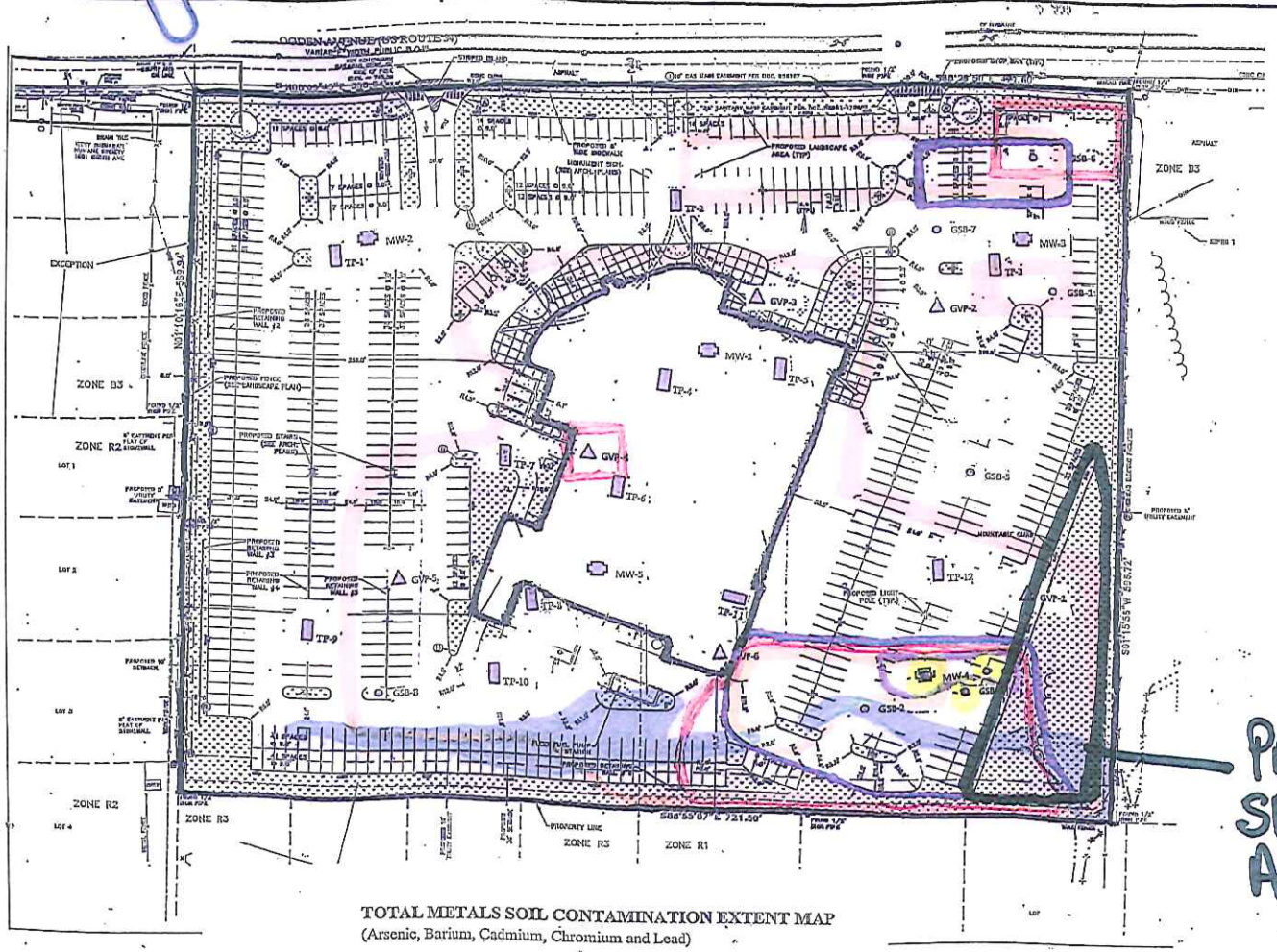
Attest: _____
Village Clerk

[grndh2o]

APPENDIX D

SOIL BORING LOGS AND SITE MAPS

FOR CONSIDERATION OF SMZ #1 CONSTRUCTION



TOTAL METALS SOIL CONTAMINATION EXTENT MAP
(Arsenic, Barium, Cadmium, Chromium and Lead)

LEGEND

- TP-10 = EXPLORATORY TEST PIT (TP) EXCAVATION LOCATIONS (12 TEST PITS EXCAVATIONS CONDUCTED BY GEOTHINK JAN. 13, 2016)
- GSB-4 = GEOTHINK SOIL BORING LOCATIONS (SOIL BORINGS CONDUCTED BY GEOTHINK FEB. 9th/10th, 2016)
- GVP-2 = GEOTHINK SOIL GAS VAPOR PROBE LOCATIONS (SOIL GAS VAPOR PROBES INSTALLED BY GEOTHINK FEB. 11, 2016)
- MW-5 = GEOTHINK MONITORING WELL LOCATIONS (BORINGS CONSTRUCTED INTO 2" PVC MONITOR WELLS ON FEB 9th, 2016)
- 0.33 ACRE WETLAND BOUNDARY

Total Metal Results for Arsenic, Barium, Cadmium, Chromium and Lead: Soil/Fill Concentrations > Tier 1 SROs for Construction Worker Caution, Soil Ingestion, and/or Soil Component to Groundwater Routes; and/or Metal Levels > MAC Table CCDD Limits for Clean Fill Materials.

- ARSENIC SOIL CONTAMINATION – ESTIMATED AREA
- BARIUM SOIL CONTAMINATION – ESTIMATED AREA
- CADMIUM SOIL CONTAMINATION – ESTIMATED AREA
- CHROMIUM SOIL CONTAMINATION – ESTIMATED AREA
- LEAD SOIL CONTAMINATION – ESTIMATED AREA
- PROPOSED BUILDING FOOTPRINT
- SUBJECT PROPERTY LINE

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)

THE LOCATIONS OF KNOWN UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

R.A.SMITH NATIONAL ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH NATIONAL.

PROJECT NUMBER: 2015-1028
DATE: FEBRUARY 15, 2016

PROPOSED SITE PLAN FOR PACKEY WEBB FORD DEALERSHIP
COMPREHENSIVE INVESTIGATION BORINGS/PROBES/WELL LOCATIONS
1815 OGDEN AVENUE DOWNERS GROVE, IL. 60515

NOTE: Site Plan Base Map Generated by R.A. Smith National on 1-29-2016 and Modified By GeoThink, LLC with Permission of Clients CVGA and PWF

GEO-THINK, LLC
ENVIRONMENTAL AND NATURAL RESOURCE PROVIDER
611 Stevens Street
Geneva, IL 60134
630-208-5050

GEOTHINK BORINGS SUBSURFACE GEOLOGY USED TO EVALUATE SUITABILITY OF PROPOSED SMZ #1 TO MAINTAIN CONTAINMENT OF IMPACTED (METALS/PNAs) TOPSOIL/FILL MATERIALS

GEOTHINK, LLC

611 Stevens Street
Geneva, Il. 60134

Proj. No.	2015-01028	Soil Boring No.	GSB-3
Site Name:	Packey Webb Ford	Driller:	Environmental Soil Probing
Location:	25' SE of MW-4	Dril Name	Derek, Tyler and Marcus
	110' S of TP-12	Sampling Depth:	1-3' and 8-10'
MW Diameter:	NA	Total Depth:	10.0'
Field Staff:	A. Stone/ S. Quinn	Date:	2/10/2016
Sampler Length:	5.0'	GW Level:	

GROUND ELEVATION (ft. NGVD):

SAMPLE DATA

BELOW BELOW GRND SURFACE	STRAT	SAMPLE DESCRIPTION	MW DIA	SMP ID No.	Rec. (%)	PID (ppm)	Penetrm Reading	Moisture Content
	F	0-2'		1	60	0	NA	
1.0		Black topsoil, Fill.						
		trace sand and gravel						
2.0								
	F	2-2.5' Crushed concrete Fill		1	60	0	NA	
3.0	F	some Stone and Black to Brown silty clay Fill						
	CL	3.0 to 5.0'		1	60	0	NA	moist
4.0		Clay with silt and organics. Black, stiff, medium						
		plasticity, very moist, no odor.						
5.0								
6.0								
	CL	5-10'		2	60	0	NA	wet
7.0								
		Silty clay, gray, soft to medium plasticity.						
8.0		Wet with no odor.						
9.0								
10.0								
11.0		END OF BORING AT 10' BGS						
12.0								
13.0								
14.0								
15.0								
16.0								
17.0								
18.0								
19.0								
20.0								

NOTES:

Telephone No. (630) 208-5050

GEOTHINK, LLC

611 Stevens Street
Geneva, Il. 60134

Proj. No.	2015-01028	Soil Boring No.	GSB-4
Site Name:	Packey Webb Ford	Driller:	Environmental Soil Probing
Location:	60' E of MW-4	Dril Name	Derek, Tyler and Marcus
	100' S of TP-12	Sampling Depth:	1-3', 8-10'
MW Diameter:	NA	Total Depth:	10.0'
Field Staff:	A. Stone/ S. Quinn	Date:	2/10/2016
Sampler Length:	5.0'	GW Level:	

GROUND ELEVATION (ft. NGVD):

BELOW BELOW GRND SURFACE	STRAT	SAMPLE DESCRIPTION	MW DIA	SMP ID No.	Rec. (%)	PID (ppm)	Penetrm Reading	Moisture Content
1.0	F	0-2'						
		Poor recovery. Frozen at the top. No odor.		1	33	0	NA	frozen
2.0	F	Black clayey topsoil/fill, with some glass.						
3.0	CL	Mottled Brown and Black stiff silty Clay,		1		0	NA	moist
		with trace sand and gravel, no odors						
4.0								
5.0	CL	Mottled Brown and Black stiff silty Clay,						
		with trace sand and gravel, no odors		2	60	0	NA	Moist
6.0								
7.0	CL	6-10'		2	78	0	NA	moist-wet
		Clay with silt and trace fine to coarse sands.						
8.0		Gray, medium consistency, medium plasticity.						
9.0		Very moist to wet, no odor. Some roots.						
	CL			2	78	0	NA	Moist
10.0								
11.0		END OF BORING AT 10' BGS						
12.0								
13.0								
14.0								
15.0								
16.0								
17.0								
18.0								
19.0								
20.0								

NOTES:

Telephone No. (630) 208-5050

GEOTHINK, LLC

611 Stevens Street
Geneva, Il. 60134

Proj. No.	2015-01028	Soil Boring No.	MW-4
Site Name:	Packey Webb Ford	Driller:	Environmental Soil Probing
Location:	100' SW of TP-12	Dril Name	Derek, Tyler and Marcus
	170' W of E woods	Sampling Depth:	0-5', 5-7.5', 10-15'
MW Diameter:	2" PVC SCH 40	Total Depth:	15.0'
Field Staff:	T. Mangan/ S. Quinn	Date:	2/9/2016
Sampler Length:	5.0'	GW Level:	

GROUND ELEVATION (ft. NGVD):

BELOW BELOW GRND SURFACE	STRAT	SAMPLE DESCRIPTION	MW DIA	SAMPLE DATA SMP ID No.	Rec. (%)	PID (ppm)	Penetrm Reading	Moisture Content
1.0	F	0-5'		1	36	0	NA	
2.0		Blacken topsoil, and Black silty Clay Fill; some sand and gravels, no odors.						
3.0								
4.0								
5.0	F	Same as Above becoming more mottled brown						
6.0	CL	5-10'		2	46	0	NA	moist-wet
7.0		Mottled with silt and trace fine to coarse sand, Trace gravel. Black - Brown, medium consistency, medium plasticity, very moist to wet. No odor.						
8.0								
9.0								
10.0								
11.0	CL	10-15'		3	70	0	NA	wet
12.0		Same as above but brown-gray. 1 mm seam of silt at 13', wet						
13.0								
14.0	CL	medium to stiff Gray silty Clay with trace gravel and sand		3	70	0	NA	wet to moist
15.0								
16.0		END OF BORING AT 15' BGS						
17.0								
18.0								
19.0		Set permanent well 2" PVC with stick up steel well casing.						
20.0		Groundwater Samples Collected 2-15-16						

NOTES:

Telephone No. (630) 208-5050

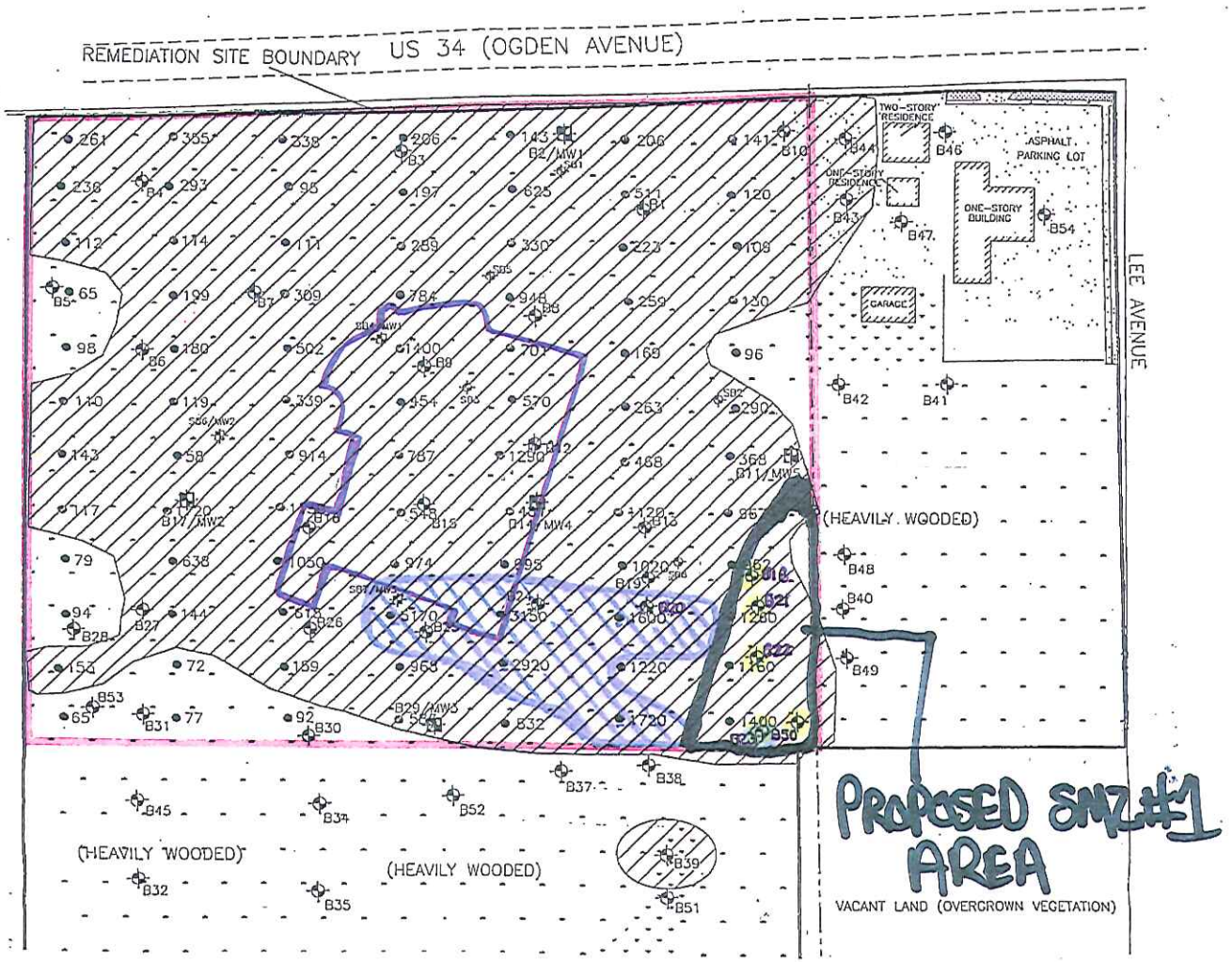


FIGURE 7

LEAD SCGIER SOIL CONTAMINATION MAP -2016 TIER 1 CLASS II SRO

LEGEND

- PROPOSED BUILDING FOOTPRINT
- REMEDIATION SITE BOUNDARY
- EXTENT OF LEAD IMPACTED SOIL EXCEEDING TIER 1 SOIL COMPONENT OF GROUNDWATER INGESTION EXPOSURE ROUTE FOR CLASS II GROUNDWATER (GEOTHINK, EPI, VERSAR and RUST TEST RESULTS)
- B1 — SOIL BORING (EPI – 2007)
- B2/MW1 — SOIL BORING/MONITORING WELL (EPI – 2007)
- 65 — RUST ENV. SOIL SAMPLE LOCATION – SURFACE AND SAMPLE RESULTS – TOTAL LEAD (MG/KG)
- 94 F-11 — VERSAR SOIL SAMPLE LOCATION – SURFACE (2000) AND SAMPLE RESULTS – TOTAL LEAD (MG/KG) (F-11: VERSAR'S SAMPLE ID – UTILIZED DIFFERENT GRID LAYOUT THAN RUST ENV. AND INFRA.)
- SB8 — VERSAR SOIL BORING AND MONITORING WELL LOCATION (2000)
- EXTENT OF LEAD-IMPACTED SOIL EXCEEDING TIER 1 ROs FOR THE SOIL COMPONENT OF GROUNDWATER INGESTION EXPOSURE ROUTE FOR CLASS I GROUNDWATER EPI 2007

PROJECT NO.: 2015-01028
DATE: March 28, 2016

PACKEY WEBB FORD – ALDI, INC. 9.75 ACRE PROPERTY
1815 W. OGDEN AVENUE DOWNERS GROVE, IL. 60515

NOTE: DRAWING ADAPTED FROM EPI DRAWING 071111R Dated 7/25/07

GEO-THINK, LLC
ENVIRONMENTAL AND NATURAL RESOURCE PROVIDER
611 Stevens Street
Geneva, IL 60134
630-208-5050

EPI AND VERSAR BORINGS SUBSURFACE GEOLOGY USED TO EVALUATE SUITABILITY OF PROPOSED SMZ #1 TO MAINTAIN CONTAINMENT OF IMPACTED TOPSOIL/FILL MATERIALS

Job Number: 071111 Site Name: PROPOSED RETAIL AND RESIDENTIAL DEVELOPMENT	Boring Number: B1B	Page: 1 of 1 Date: 06/13/07
Address: 19-ACRE PARCEL, SW CORNER OGDEN & LEE DOWNERS GROVE, ILLINOIS	Boring Location: See Attached Site Map	Start: Finish:

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Penetrometer (TSF)	PID (PPM)	Remarks:
			0.0'				
1	GP	85%	2.0'	TOPSOIL DARK BROWN SILTY CLAY WITH HIGH ORGANIC CONTENT	1.5	0	NO ODOR
					0.75	0	NO ODOR LAB SAMPLE
			4.0'		1.5	0	NO ODOR
2	GP	100%	6.0'	BROWN SILTY CLAY	1.0	0	NO ODOR LAB SAMPLE
			8.0'		0.5	0	NO ODOR
3	GP	100%	10.0'	GRAY SILTY CLAY	0.5	0	NO ODOR
			12.0'	END OF BORING @ 12 FEET			
			14.0'				
			16.0'				
			18.0'				
			20.0'				
			22.0'				
			24.0'				
			26.0'				
			28.0'				
			30.0'				

$C Q_u$ 0 2.0 4.0 6.0 8.0 10.0

$\angle N$ 0 10 20 30 40 50

● Natural Moisture Content 0 10 20 30 40 50

Note: Stratification lines are approximate: in-situ transition between soil types may be gradual.

▼ Groundwater Data
Depth While Drilling DRY

▽ Depth After Drilling Not Measured

Auger Depth 12 FEET Rig Type GEOPROBE
Rotary Depth N/A Manager AUSTIN LIST
Driller ENVIRO-CLEAN
Note: Boring backfilled unless otherwise noted.

EPI ENVIRONMENTAL PROTECTION INDUSTRIES

Job Number: 071111 Site Name: PROPOSED RETAIL AND RESIDENTIAL DEVELOPMENT	Boring Number: B21	Page: 1 of 1 Date: 06/13/07 Start: Finish:
Address: 19-ACRE PARCEL, SW CORNER OGDEN & LEE DOWNERS GROVE, ILLINOIS	Boring Location: See Attached Site Map	

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Penetrometer (TSF)	PID (PPM)	Remarks:
			0.0'				
1	GP	90%	2.0'	TOPSOIL	1.5	0	NO ODOR
				DARK BROWN SILTY CLAY WITH HIGH ORGANIC CONTENT	0.75	0	NO ODOR LAB SAMPLE
			4.0'		1.0	0	NO ODOR
2	GP	100%	6.0'	GRAY SILTY CLAY	0.5	0	NO ODOR LAB SAMPLE
			8.0'		0.2	0	NO ODOR
3	GP	100%	10.0'		0.2	0	NO ODOR
			12.0'	END OF BORING @ 12 FEET			
			14.0'				
			16.0'				
			18.0'				
			20.0'				
			22.0'				
			24.0'				
			26.0'				
			28.0'				
			30.0'				

$\circ Q_u$ 0 2.0 4.0 6.0 8.0 10.0

$\angle N$ 0 10 20 30 40 50

● Natural Moisture Content 0 10 20 30 40 50

Note: Stratification lines are approximate: in-situ transition between soil types may be gradual.

▼ Groundwater Data
Depth While Drilling 10 FEET

▽ Depth After Drilling Not Measured

Auger Depth 12 FEET Rig Type GEOPROBE
Rotary Depth N/A Manager AUSTIN LIST
Driller ENVIRO-CLEAN

Note: Boring backfilled unless otherwise noted.

ENVIRONMENTAL PROTECTION INDUSTRIES

Job Number: 071111 Site Name: PROPOSED RETAIL AND RESIDENTIAL DEVELOPMENT	Boring Number: B22	Page: 1 of 1 Date: 06/13/07	
Address: 19-ACRE PARCEL, SW CORNER OGDEN & LEE DOWNERS GROVE, ILLINOIS	Boring Location: See Attached Site Map	Start: _____ Finish: _____	

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Penetrometer (TSF)	PID (PPM)	Remarks:
			0.0'				
1	GP	80%	2.0'	TOPSOIL DARK BROWN SILTY CLAY WITH HIGHT ORGANIC CONTENT	1.5	0	NO ODOR
					1.5	0	NO ODOR LAB SAMPLE
2	GP	100%	4.0'	DARK GRAY SILT CLAY, MOIST	1.0	0	NO ODOR
			6.0'		1.0	0	NO ODOR LAB SAMPLE
			8.0'	CLAYEY SILTY TRACE GRAVEL ▼	–	0	NO ODOR
3	GP	95%	10.0'	GRAY SILTY CLAY TRACE GRAVEL	1.5	0	NO ODOR
			12.0'	END OF BORING @ 12 FEET			
			14.0'				
			16.0'				
			18.0'				
			20.0'				
			22.0'				
			24.0'				
			26.0'				
			28.0'				
			30.0'				

OQ_u 0 2.0 4.0 6.0 8.0 10.0

∠N 0 10 20 30 40 50

● Natural Moisture Content 0 10 20 30 40 50

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

▼ Groundwater Data
Depth While Drilling 9 FEET

— Depth After Drilling
√ Not Measured

Auger Depth 12 FEET Rig Type GEOPROBE
Rotary Depth N/A Manager AUSTIN LIST
Driller ENVIRO-CLEAN
Note: Boring backfilled unless otherwise noted.

EPI
ENVIRONMENTAL PROTECTION INDUSTRIES

Job Number: 071111 Site Name: PROPOSED RETAIL AND RESIDENTIAL DEVELOPMENT	Boring Number: B23	Page: 1 of 1 Date: 06/18/07	
Address: 19-ACRE PARCEL, SW CORNER OGDEN & LEE DOWNERS GROVE, ILLINOIS	Boring Location: See Attached Site Map	Start: _____ Finish: _____	

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	Penetrometer (TSP)	PID (PPM)	Remarks:
			0.0'				
1	HA	100%	0.5'	TOPSOIL DARK BROWN SILTY CLAY -HIGH ORGANIC CONTENT	-	0	NO ODOR LAB SAMPLE
			1.0'		-	0	NO ODOR
2	HA	100%	1.5'		-	0	NO ODOR
			2.0'		-	0	NO ODOR
3	HA	100%	2.5'		-	0	NO ODOR
			3.0'	END OF BORING @ 3 FEET			
			3.5'				
			4.0'				
			4.5'				
			5.0'				
			5.5'				
			6.0'				
			6.5'				
			7.0'				
			7.5'				

$\bigcirc Q_u$ 0 2.0 4.0 6.0 8.0 10.0

$\angle$ N 0 10 20 30 40 50

● Natural Moisture Content 0 10 20 30 40 50

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data
▼ Depth While Drilling DRY
" / Depth After Drilling Not Measured

Auger Depth 3 FEET Rig Type GEOPROBE
Rotary Depth N/A Manager AUSTIN LIST
Driller ENVIRO-CLEAN
Note: Boring backfilled unless otherwise noted.

ENVIRONMENTAL PROTECTION INDUSTRIES

Job Number: 071111 Site Name: PROPOSED RETAIL AND RESIDENTIAL DEVELOPMENT	Boring Number: B50	Page: 1 of 1 Date: 07/19/07
Address: 19-ACRE PARCEL, SW CORNER OGDEN & LEE DOWNERS GROVE, ILLINOIS	Boring Location: See Attached Site Map	Start: _____ Finish: _____

Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	OQ_u 0 2.0 4.0 6.0 8.0 10.0 / ∠N 0 10 20 30 40 50 / ● Natural Moisture Content 0 10 20 30 40 50	Penetrometer (TSF)	PID (PPM)	Remarks:
			0.0'					
1	HA	100%	0.5'	TOPSOIL DARK BROWN SILTY CLAY -HIGH ORGANIC CONTENT		–	0	NO ODOR LAB SAMPLE
			1.0'			–	0	NO ODOR
2	HA	100%	1.5'			–	0	NO ODOR
			2.0'	TOPSOIL DARK BROWN SILTY CLAY -HIGH ORGANIC CONTENT		–	0	NO ODOR LAB SAMPLE
3	HA	100%	2.5'			–	0	NO ODOR
			3.0'	END OF BORING @ 3 FEET		–	0	NO ODOR
			3.5'					
			4.0'					
			4.5'					
			5.0'					
			5.5'					
			6.0'					
			6.5'					
			7.0'					
			7.5'					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

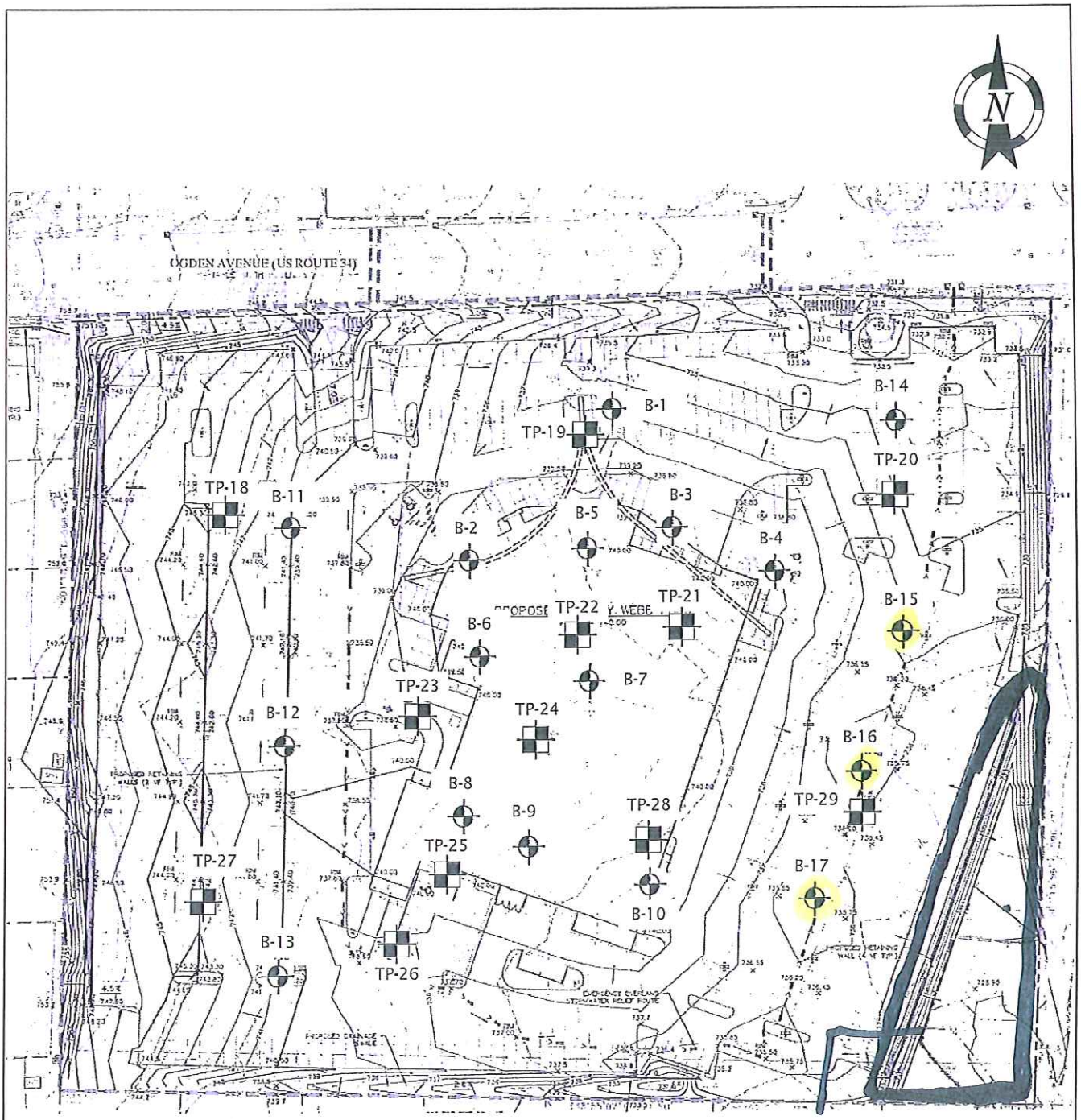
▼ Groundwater Data
Depth While Drilling DRY

▽ Depth After Drilling Not Measured

Auger Depth 3 FEET Rig Type HAND AUGER
Rotary Depth N/A Manager AUSTIN LIST
Driller ENVIRO-CLEAN

Note: Boring backfilled unless otherwise noted.

ENVIRONMENTAL PROTECTION INDUSTRIES



G2 BORINGS SUBSURFACE GEOLOGY USED TO EVALUATE SUITABILITY OF PROPOSED SNZ#1 TO MAINTAIN CONTAINMENT OF IMPACTED TOPSOIL/FILL MATERIALS

Legend

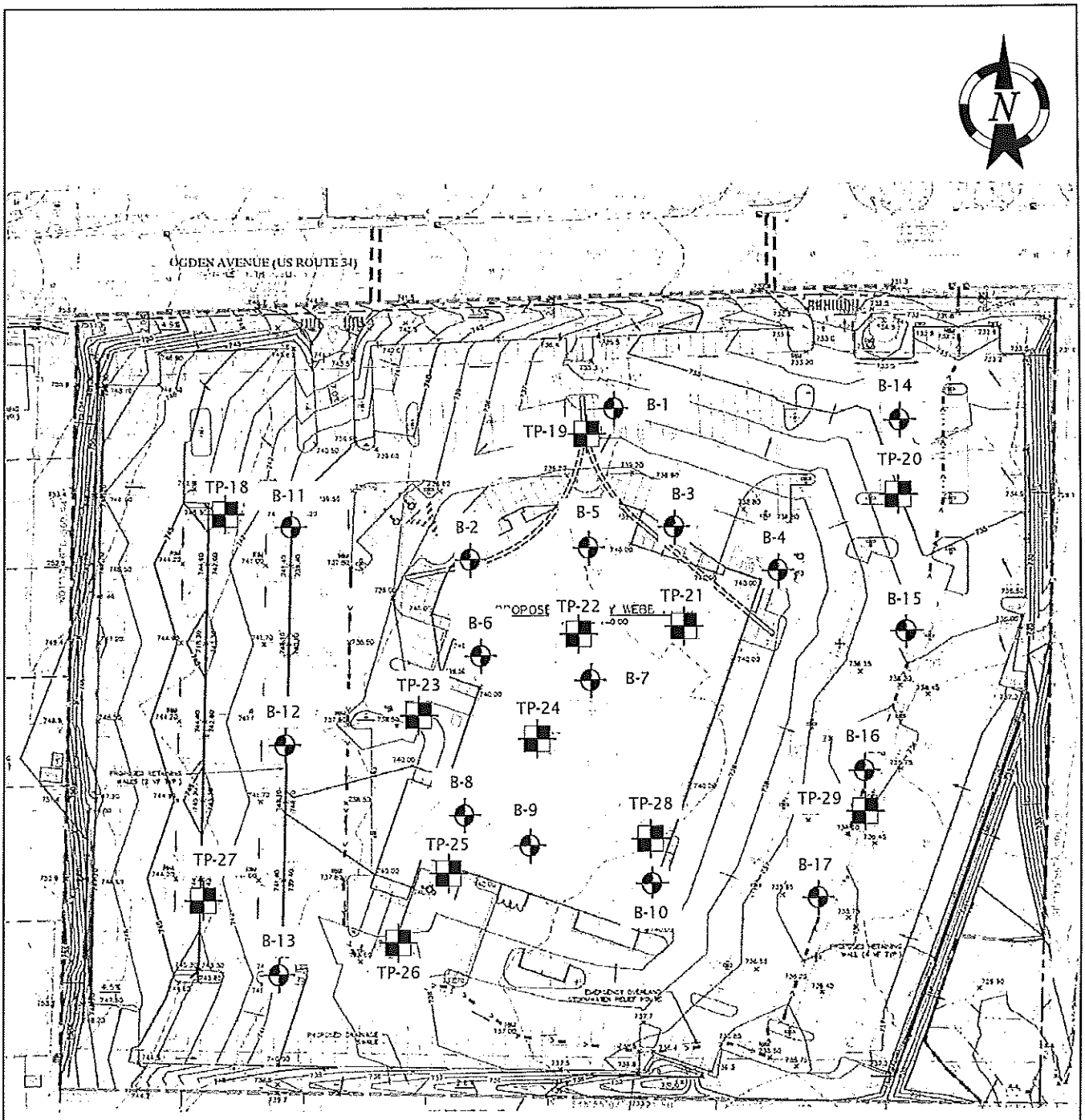
- Soil Borings Drilled by C.S. Drilling, Inc. on January 7, 8 , and 11, 2016
- Test Pits Excavated on January 13, 2016

Soil Boring/Test Pit Location Plan

Proposed Packey Webb Ford Dealership
Ogden Avenue (U.S. Route 34)
Downers Gove, Illinois 60515

G2 CONSULTING GROUP

Project No. 152455	
Drawn by: MGH	
Date: 1-25-16	Plate No. 1
Scale: NTS	



Soil Boring/Test Pit Location Plan

Proposed Packey Webb Ford Dealership
Ogden Avenue (U.S. Route 34)
Downers Gove, Illinois 60515

Legend

- Soil Borings Drilled by C.S. Drilling, Inc. on January 7, 8 , and 11, 2016
- Test Pits Excavated on January 13, 2016

CONSULTING GROUP

Project No. 152455	
Drawn by: MGH	
Date: 1-25-16	Plate No. 1
Scale: NTS	

Project Name: Proposed Packey Webb Ford Dealership

Project Location: Ogden Avenue (U.S. Route 34)
Downers Grove, Illinois 60515

G2 Project No. 152455

Latitude: 41.807397° Longitude: -88.029004°

Soil Boring No. B-15

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 733.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Black Silty Clay (2 inches) 0.2							
		Fill: Very Stiff Mottled Black and Brown Silty Clay with little gravel and trace sand 2.5		S-1	2 2 2	4	18.5		5000*
728.0			5	S-2	2 3 6	9	17.3		6500*
		Very Stiff to Hard Brown Silty Clay with trace sand and gravel		S-3	5 7 8	15	15.2		9000*
723.0			10	S-4	5 7 9	16	19.4		9000*
		12.0							
718.0		Hard Mottled Brown and Gray Silty Clay with trace sand and gravel	15	S-5	5 8 10	18	16.4		9000*
		17.0							
713.0			20	S-6	3 6 7	13	21.2		5000*
		Very Stiff to Hard Gray Silty Clay with trace sand and gravel							
708.0		25.0	25	S-7	3 8 9	17	15.3		9000*
		End of Boring @ 25 ft							
703.0			30						

Total Depth: 25 ft
Drilling Date: January 7, 2016
Inspector:
Contractor: C.S. Drilling, Inc.
Driller: Mark

Drilling Method:
3-1/4 inch inside diameter hollow-stem augers

Water Level Observation:
Dry during and upon completion of drilling operations

Notes:
Borehole collapsed at 17-1/2 ft after auger removal
* Calibrated Hand Penetrometer

Excavation Backfilling Procedure:
Soil boring backfilled with auger cuttings

Figure No. 15

SOIL / PAVEMENT BORING 152455.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 1/28/16

Project Name: Proposed Packey Webb Ford Dealership

Project Location: Ogden Avenue (U.S. Route 34)
Downers Grove, Illinois 60515

G2 Project No. 152455

Latitude: 41.80712° Longitude: -88.029098°

Soil Boring No. B-16

CONSULTING GROUP

ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 734.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Black Silty Clay (12 inches) 1.0							
		Fill: Stiff Black and Brown Silty Clay with trace sand and gravel 3.0		S-1	2 3 4	7	28.0		4000*
729.0		Stiff Mottled Black and Brown Silty Clay with trace sand and gravel 5.5	5	S-2	2 2 4	6	24.8		3500*
				S-3	4 6 8	14	17.0		8000*
724.0		Hard Brown Silty Clay with trace sand and gravel 12.0	10	S-4	3 6 9	15	18.4		9000*
719.0			15	S-5	3 7 9	16	13.6		9000*
714.0		Very Stiff to Hard Gray Silty Clay with trace sand and gravel 20.0	20	S-6	2 5 7	12	21.5		6500*
709.0		End of Boring @ 20 ft	25						
704.0			30						

Total Depth: 20 ft
Drilling Date: January 7, 2016
Inspector:
Contractor: C.S. Drilling, Inc.
Driller: Mark

Drilling Method:
3-1/4 inch inside diameter hollow-stem augers

Water Level Observation:
10 feet during drilling; 16 feet after completion of drilling operations

Notes:
* Calibrated Hand Penetrometer

Excavation Backfilling Procedure:
Soil boring backfilled with auger cuttings

Figure No. 16

SOIL / PAVEMENT BORING 152455.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 1/28/16

Project Name: Proposed Packey Webb Ford Dealership

Project Location: Ogden Avenue (U.S. Route 34)
Downers Grove, Illinois 60515

G2 Project No. 152455

Latitude: 41.806873° Longitude: -88.029198°

Soil Boring No. B-17

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 731.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Black Silty Clay (12 inches) 1.0							
		Fill: Very Stiff Black Silty Clay with trace sand and gravel 3.0		S-1	2 4 4	8	28.0		4500*
726.0		Stiff Mottled Brown and Black Silty Clay with trace sand and gravel 5.5	5	S-2	2 1 3	4	28.3		2500*
		Medium to Stiff Mottled Black and Gray Silty Clay with trace sand and gravel, occasional sandy clay seams 8.0		S-3	0 0 2	2	41.3		2000*
721.0			10	S-4	1 1 2	3	19.4		1500*
716.0		Medium to Stiff Gray Silty Clay with trace sand and gravel 17.0	15	S-5	2 2 4	6	18.0		3500*
711.0			20	S-6	3 6 8	14	14.8		9000*
706.0		Hard Gray Silty Clay with trace sand and gravel 25.0	25	S-7	3 4 7	11	19.0		8500*
701.0		End of Boring @ 25 ft	30						

Total Depth: 25 ft
Drilling Date: January 7, 2016
Inspector:
Contractor: C.S. Drilling, Inc.
Driller: Mark

Drilling Method:
3-1/4 inch inside diameter hollow-stem augers

Water Level Observation:
Dry during and upon completion of drilling operations

Notes:
* Calibrated Hand Penetrometer

Excavation Backfilling Procedure:
Soil boring backfilled with auger cuttings

Figure No. 17

SOIL / PAVEMENT BORING 152455.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 1/28/16

TABLE 6

PROPOSED SCHEDULE - ENVIRONMENTAL REMEDIAL ACTION PLAN AND SITE REDEVELOPMENT SCHEDULE – PWF DEALERSHIP 1815 W. Ogden Avenue Downers Grove, IL. LPC # 0430305287

JULY 2016 -	Submit RAP to IEPA SRP;
AUGUST 2016 –	IEPA Approval Letter For RAP with Modifications;
AUG/SEPT. 2016 -	Village Issues Stormwater Permit for Mass Grading;
AUG/SEPT. 2016 -	Tree Removals Conducted;
AUG/SEPT. 2016 -	Health & Safety Plan Implemented;
AUG/SEPT. 2016 -	Groundwater Testing and New Wells Installation;
AUG/SEPT. 2016 -	Abandonment and sealing of wells MW-1, MW-3, MW-4 and MW-5;
SEPT. /OCT. 2016-	STAGE 1 Earth Moving Excavations, Confirmation Sampling, Stockpiling of Impacted /Non-impacted soils/metal / concrete debris;
SEPT./OCT. 2016-	STAGE 2 Excavations of SMZ #1, and Excavations of 2 SW Detention basins for installation of structures, Confirmation Sampling, Stockpiling of Clean clay, stockpiling of Impacted soils, and stockpiling Of metal/concrete debris; dewatering operations;
SEPT. /OCT. 2016-	STAGE 3 Relocation of Contaminated Topsoil/Fill materials from Stockpiles into Excavations of SMZ #1, while dewatering operations ongoing, and construction of Clay Cap engineered barrier for SMZ #1; Cover crop and native seeding of SMZ #1 area;
OCT./NOV. 2016-	Commence STAGE 4 and STAGE 5 excavations and site prep work/monitoring Weather permitting; Conduct POST SMZ #1 Construction groundwater testing of wells MW-6, MW-7, MW-8 and MW-2;
NOV./DEC 2016-	Commence winter stabilization of the construction site; weather permitting;
FEBRUARY 2017-	RAP Progress Status Report to the IEPA SRP;
April/ May 2017-	weather permitting Complete STAGE 4 and STAGE 5 excavations and soil relocations/emplacements on-site, confirmation sampling, and prep work/monitoring;
May /June 2017-	Construct SMZ #2 building concrete floor pad and stabilize weather permitting;
June – Aug. 2017-	Complete construction of SMZ #3 asphalt parking lots as engineered barriers;
August 2017-	Conduct POST SMZ #1, SMZ #2 and SMZ #3 Construction groundwater testing of wells MW-6, MW-7, MW-8 and MW-2;
September 2017-	Submit RACR to IEPA;
Oct./Nov. 2017-	Draft NFR letter issued by IEPA;
NOV. 2017-	Response to Draft NFR Letter to IEPA;
December 2017-	Final NFR Letter Issued by IEPA- Recorded on Deed;