
WEAVER

BOOS

CONSULTANTS

December 17, 2010
Project Number 0917-451-19

ALDI, Incorporated
c/o Mr. Chris Stair, Director of Real Estate
1200 N. Kirk Road
Batavia, IL 60510

**Re: Results of Environmental Assessment
Proposed ALDI Development
25 Lake Street
Oak Park, Illinois**

Dear Chris:

Weaver Boos Consultants, LLC (Weaver Boos) has completed the environmental assessment of the above-referenced property (the Property) located at the southeast corner of Lake Street and Humphrey Avenue (see **Figure 1**). The scope of the services provided was outlined in our proposal to ALDI, Incorporated (ALDI), October 15, 2010. Authorization to proceed for Tasks 1 and 2 of the proposal were provided by ALDI via email on October 18, 2010. Authorization to proceed for Tasks 3 and 4 were provided by ALDI via email on November 12, 2010.

The Property consists of a former ALDI store (vacated since early 2010), adjoining truck receiving dock, and customer parking lot (see **Figure 2**). The former ALDI store was originally constructed prior to 1947 as a car garage. Multiple renovations and various usages of the building have since occurred. Mr. Jim Toto of MS Consultants, Inc. (Project Engineer) has informed Weaver Boos that ALDI is planning to replace the existing building with a larger facility with parking being provided via a parking deck situated above the new building (see **Figure 3**). The new structure will completely span the Property. The Project Engineer has also informed Weaver Boos that storm water will be detained below ground.

BACKGROUND

On October 11, 2010 Weaver Boos mobilized to the Property to complete a geotechnical exploration. The exploration consisted of seven borings/geoprobes drilled across the Property including the existing parking lot and within the existing vacated building. In summary, five of the seven borings encountered a hydrocarbon odor which was detected in soil samples collected above a depth of six feet, both inside the building and within the parking lot.

Due to structural concerns, portions of this impacted soil (in some cases identified as fill during the geotechnical study) will require removal during initial stages of development. Other concerns could include soil vapor intrusion into the proposed building. Additional developmental costs including excavation, landfill disposal, and the need for a vapor barrier may be incurred due to the soil impacts. In addition, the source of contamination has not been identified. Illinois regulations require that the source be identified, addressed, and any potential soil/groundwater impacts be characterized to determine if any adverse impact to the environment is present.

In response to the findings from the geotechnical exploration, Weaver Boos obtained additional information regarding the historical usage of the Property via Sanborn Fire Insurance Maps that were subsequently provided to ALDI (see **Attachment**). The maps show that the Property was occupied by an auto garage and filling/service station. The maps indicate that activities identified as “greasing and washing” occurred on the Property at the service station. In addition, five underground storage tanks (USTs) were identified associated with the auto filling station and one UST was identified associated with the auto garage. We believe this may have been the use of the original structure prior to later renovations by ALDI. Based on this information, the source of the hydrocarbon odor could be from a release from these USTs or the historical activities associated with the service station.

Based on these findings, Weaver Boos recommended obtaining additional historical information pertaining to past usage of the Property and an additional characterization of the subsurface.

SCOPE OF WORK

TASK 1 - HISTORICAL ASSESSMENT

Weaver Boos collected additional information regarding potential environmental conditions associated with the Property. This information included requesting under the Federal Freedom of Information Act (FOIA) copies of any available federal, state, and local environmental records

that may be applicable to this site. Weaver Boos sought records from the United States Environmental Protection Agency (USEPA), Illinois Environmental Protection Agency (IEPA), Illinois Office of State Fire Marshall (OSFM), and the City of Oak Park. Weaver Boos reviewed available records to assess potential environmental concerns associated with the Property.

In addition, Weaver Boos obtained and reviewed several aerial photographs of the Property for the years 1938, 1951, 1955, 1962, 1970, 1981, 1988, 1994, 1999, 2005, and 2009.

TASK 2 - GEOPHYSICAL SURVEY

Weaver Boos assumed that the information obtained from the historical investigation will not account for all of the USTs that could or were present. As a result, Weaver Boos completed a geophysical survey (both inside and outside the existing building) to determine if USTs could still be present. Specific methodologies regarding the survey were outlined in the Weaver Boos proposal.

TASK 3 – SUBSURFACE SOIL/GROUNDWATER SAMPLING

Upon the conclusion of Tasks 1 and 2, Weaver Boos proceeded to expand the scope of the environmental investigation to include subsurface soil and/or ground water sampling via soil probes. The actual number of soil probes and samples collected were predicated on the results of Task 1 and 2.

Each soil probe was advanced to a maximum depth of 12 feet. The soils were visually observed to assess their grain size, texture, composition, and moisture content. Soil/fill samples were collected and field screened with a photoionization detector (PID) for hydrocarbon impact. Samples with the highest indication of impact were submitted to the analytical laboratory for analysis. Each sample was tested for petroleum constituents, including volatile organic compounds (VOCs) (EPA Method 8260), polynuclear aromatic hydrocarbons (PNAs) (EPA Method 8270), and heavy metals (various methods). Where groundwater was present, a ground water sample was collected and tested for VOCs and PNAs. If there were no indications of soil impact, no samples were tested. If elevated heavy metal concentrations were detected, the sample with the highest concentrations was also tested for hazardous waste characteristics.

RESULTS OF INVESTIGATION

TASK 1 – HISTORICAL ASSESSMENT

To evaluate if the Property may be a documented site of environmental concern, Weaver Boos retained Environmental Data Resources (EDR) of Milford, Connecticut to complete a computerized search of select state and federal environmental databases that identify various properties with a record of environmental activity. A copy of the compiled EDR Report has been included as an attachment. Databases reported by EDR and summarized below include:

- Federal National Priorities List (NPL)
- Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) List
- Federal Resource Conservation and Recovery Act (RCRA) Generator Lists, Corrective Action Facilities, and Treatment, Storage and Disposal Facilities List
- Federal Emergency Response Notification System (ERNS) List-
- State lists of hazardous waste sites (HWS)
- State solid waste facilities (SWF/LF) list
- State registered underground storage tank (UST) list
- State leaking reported underground storage tank (LUST) list
- Facility Index System (FINDS)

The Property is not listed on any of the databases searched by EDR.

No environmental records were identified that were associated with the Property either at the United States Environmental Protection Agency, the Illinois Environmental Protection Agency, or the Illinois Office of the State Fire Marshall. However, the Village of Oak Park Fire Department did contain records of five underground storage tanks (USTs) being removed from the Property in 1988. Weaver Boos obtained a copy of the record (see **Attachment**). The records indicate that five USTs (three 3,000-gallon USTs and two 500-gallon USTs) were discovered beneath the present parking lot and were removed in May 1988 by RW Collins. The USTs did contain liquid product which was emptied from each tank prior to removal. The product identified in each tank was not identified. The Property owner indicated in the record was ALDI and the tanks were being removed as part of an overall renovation project of the building and parking lot.

Additional information was obtained from historical aerial photographs for the years 1938, 1951, 1955, 1962, 1970, 1981, 1988, 1994, 1999, 2005, and 2009 (see **Attachment**). There are visual

indications that the existing building is present in each aerial photograph. No remarkable findings are noted with the following exceptions. In the 1951, 1962, 1970, 1981 and 1988 aerial photos there is an addition to the southwest corner of the existing building. This addition is not present in the 1938, 1994, 1999, 2005, or 2009 aerial photographs. There is an additional building located at the southwest corner of the Property in the 1938, 1951, and possibly the 1955 aerial photograph. Due to the configuration of the western half of the Property, there are visual indications of a filling station in the 1938 and possibly the 1951 aerial photographs.

TASK 2 – GEOPHYSICAL SURVEY

The results of the geophysical survey completed on November were earlier forwarded to ALDI on October 25, 2010 (see **Figure 4**). The results indicated the following:

- The data was generally unremarkable with several exceptions. High-amplitude anomalies were observed over or near metal site features, such as manholes or light poles, and within the driveway along the south side of the site. Based on this response and subsequent ground penetrating radar (GPR) surveying, the driveway appears to be reinforced.
- One high-amplitude electromagnetic (EM) anomaly was observed at center coordinate (44,107) that is not attributable to an observed site feature (such as a manhole or drain). This signature is indicative of a buried metal target at this location, buried within 12 feet of the ground surface.
- No GPR signatures indicative of USTs were observed inside the building.
- One GPR anomaly (red box, **Figure 4**) was noted at center coordinate (56,130). The shape and dimension of the reflections are consistent with an excavation, approximately 12x15 ft in size. No other GPR anomalies suggesting buried USTs were observed within surveyed boundaries west or south of the existing building.
- One relatively low-amplitude linear anomaly was observed west of the building, oriented north-south. It is shaded yellow in **Figure 4**. It appears to head south along x=115, then split near y=79. There were no additional EM or GPR anomalies observed at either end of this feature.

The geophysicist did note that the area beneath and in close proximity to two trash dumpsters located to the south of the building could not be surveyed due to obstruction and interference.

TASK 3 – SUBSURFACE SOIL/GROUNDWATER INVESTIGATION

Based on the results of Tasks 1 and 2, thirteen geoprobes (GP-1 through GP-13) were advanced at the locations shown on **Figures 2** and **3** on November 29, 2010. The soil probes GP-2, GP-3,

GP-4, and GP-11 were located to assess the subsurface conditions near the anomalies identified during Task 2. The remainder of the soil probes were located to assess the subsurface conditions associated with the hydrocarbon odors identified during the geotechnical exploration, and probable former locations of USTs and pump islands identified in the Sanborn Fire Insurance Maps.

General Site Conditions

The results of the investigation are similar to findings from the earlier geotechnical exploration. The soil probes (logs provided as an **Attachment**) encountered approximately 0 to 7 ft of man-placed material (fill) predominantly underlain by firm natural clayey soils with varying percentages of silt. The fill consisted of a variety of materials including, but not limited to, brown to dark brown and black sandy lean clay and silty sand containing variable amounts of gravel, glass, cinders and brick and concrete fragments. Groundwater, where encountered (GP-3 and GP-6), was measured at a depths of about 4 to 6 ft below existing grade. The soil was noticeably moist at that soil interval at the other probe locations but no water was identified on the probe or in the hole.

Geoprobe #4 (GP-4), which was located at the location of the buried metallic anomaly identified during the geophysical survey, was terminated at several locations at a consistent depth of approximately 2 feet due to an apparent obstruction (possibly metallic). GP-4 was subsequently offset until the obstruction was not encountered. The subsurface obstruction is less than 36 square feet in area (less than 6' x 6'). Based on the consistent depth of the obstruction and area, the obstruction is not likely a horizontal cylinder-shaped UST, but could be a vertical cylinder-shaped UST. Geoprobe #6 (GP-6) was also terminated at several locations at a constant depth of approximately 7 feet due to an apparent concrete obstruction. GP-6 was subsequently off-set several feet to the east. Weaver Boos believes the concrete obstruction could be remnants of a former basement slab associated with a former building. Above the concrete obstruction is demolition fill.

Soil Analytical Results

In the field, elevated PID readings (indicative of a possible hydrocarbon or VOC impact) were identified in all of the soil probes with the exception of GP-2, GP-9, and GP-11. As a result, no soil samples were collected from these three probes for laboratory analysis. The PID readings are tabulated in the soil probe logs that are attached. Generally, the highest PID reading at each soil

probe was detected at a soil interval between 4-7 feet where a seam of moist soil or fill was encountered. A soil sample was collected from this interval at ten probe locations and submitted to an analytical laboratory. The highest PID reading (1,221 ppm) was identified at a depth of 4-5 feet at GP-10.

The results of the laboratory analysis are tabulated on **Table 1**. A copy of the analytical laboratory report is attached. Arsenic, barium, chromium, and/or lead were detected in samples collected from all thirteen soil probes. However, the metal concentrations that were detected were below Illinois Tier 1 Soil Remediation Objectives (SROs) for Industrial/Commercial Land Use.

Volatile organic compounds (VOCs) were detected in the samples collected from each soil probe with the exception of GP-12. Compounds detected include benzene, n-butylbenzene, sec-butylbenzene, n-hexane, isopropylbenzene (Cumene), p-isopropyltoluene, naphthalene, n-propylbenzene, toluene, trichloroethene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and total xylenes. All other VOC compounds tested using EPA Method 8260 were not detected. Detected concentrations were below the Illinois Tier 1 SROs for Industrial/Commercial Land Use with the following exceptions. Benzene was detected in a sample collected from GP-1 at a concentration that exceeded the Illinois Tier 1 SRO (soil component of the migration to groundwater ingestion exposure route). N-Hexane was detected in samples collected from GP-1, GP-4, and GP-5 that exceeded the Illinois Tier 1 SRO (construction worker inhalation exposure route). Trichloroethene was detected in a sample collected from GP-7 that exceeded the Illinois Tier 1 SRO ((soil component of the migration to groundwater ingestion exposure route). 1,2,4-trimethylbenzene was detected in a sample collected from GP-6 that exceeded the Illinois Tier 1 SRO (construction worker inhalation pathway). Illinois does not have a default regulatory limit for n-butylbenzene, sec-butylbenzene, isopropylbenzene (Cumene), p-isopropyltoluene, or n-propylbenzene.

Several PNA constituents were detected in the soil samples collected. Most concentrations detected were below the Illinois Tier I SROs. However, benzo(a)pyrene and benzo(b)fluoranthene was detected in the sample collected from GP-6 at concentrations that exceeded the Illinois Tier 1 SRO (ingestion pathway). 2-methylnaphthalene was detected in the sample collected from GP-8 at concentrations that exceed the Illinois Tier 1 SRO (component of the migration to groundwater ingestion exposure route).

Groundwater Analytical Results

Although a moist seam of soil/fill was encountered in almost every soil probe, recoverable groundwater was only identified in the probe hole at GP-3 and GP-6 (4-5 feet bgs). A groundwater sample was collected from both soil probes and submitted to the analytical laboratory. The results of the laboratory analysis are tabulated on **Table 2**. A copy of the analytical report is attached.

No VOCs or PNAs were detected in the sample collected from GP-3. The sample collected from GP-6 also did not contain detectable concentrations of VOCs. However, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene were detected at concentrations that exceeded the Illinois Tier 1 Groundwater Remediation Objectives (GROs) for Class I Groundwater. All other detected PNA constituents were below the Illinois Tier 1 GROs.

CONCLUSIONS AND RECOMMENDATIONS

General Site Conditions

The subsurface fill soil/fill conditions identified during this assessment are similar to those described in the Weaver Boos Geotechnical Exploration, dated November 4, 2010. Demolition debris/soil fill was encountered near the ground surface to a depth of 7 feet across the site. The principal locations of the extensive fill were identified at the southwest corner of the Property (where a building with possible basement was once present) and possibly two locations where five USTs were once located (see **Figure 2**).

Based on the historical assessment, at least six USTs were located on the Property (five in the existing parking lot) and one UST immediately south of the existing building. According to records obtained from the Village of Oak Park Building Department and the results of a geophysical survey, five USTs were removed from the existing parking lot in 1988. The UST located immediately south of the existing building was not identified during the geophysical survey (note the survey could not scan the area beneath or in close proximity to two trash dumpsters which were located south of the existing building). There are indications based on the results of the geophysical survey and the soil/groundwater investigation (see GP-4) that at least one UST may still be present.

Soil

Soil impacts (VOCs and PNAs) attributable to past hydrocarbon releases were identified at several locations across the Property, principally across the western two thirds of the existing parking lot (where an auto filling station and service garage was located) and southeast corner of the existing building (where at least one UST was formerly located). The soil was impacted near the ground surface to a depth of approximately 7-8 feet. The vertical extent of impact was confined by an underlying layer of silt and clay. Based on our findings, the impacts to the soil may have migrated via preferential pathways in the buried fill and a seam of moist/wet sandy silt where the highest VOC concentrations were detected (4-7 feet bgs).

The impacts identified exceed Illinois Tier 1 Soil Remediation Objectives for industrial/commercial properties. Since new construction is proposed, Weaver Boos believes that an unacceptable exposure pathway may exist for indoor inhalation of VOCs due to the constituents detected and the proximity of the impacted soil to the surface. Illinois is currently developing regulations to address indoor inhalation. As a result of these site conditions and proposed construction, Weaver Boos suggests that ALDI consider enrolling the Property into Illinois Site Remediation Program for purposes of securing a focused No Further Remediation (NFR) Letter.

Since the Property is provided with municipal water and the groundwater identified is isolated, the soil to groundwater migration exposure pathway can be excluded from further consideration. Further, the Village of Oak Park has adopted a ground water use control ordinance that prohibits the use of any underlying groundwater as a potable water supply. Construction worker exposure may be abated by using the appropriate safety precautions. As a result, the remaining concern associated with the identified soil impacts is indoor inhalation. Under the new guidelines being considered by the IEPA, the soil concentrations will not likely be above the proposed Illinois Tier I Soil Objectives for Indoor Air, but further evaluation (collection of soil gas samples) may be required should ALDI enroll into the Illinois SRP. This evaluation would not likely be required if building control measures associated with the new building are employed to exclude the indoor inhalation pathway. These building control technologies include:

- Sub-slab depressurization
- Sub-membrane depressurization
- Membrane barrier systems place below concrete slabs
- Vented raised floors

The new guidelines being considered outline specific requirements for each building control technology. A copy of these requirements are attached.

Groundwater

Groundwater impacts were identified but could be categorized as isolated due to the relative impermeable subsurface soil conditions encountered. However, the impacts identified did exceed Illinois Tier 1 Groundwater Remediation Objectives for Class I groundwater. However, Weaver Boos believes that the groundwater does not meet the criteria for Class I groundwater but rather Class II groundwater. Since the impacts did not exceed Tier I Groundwater Remediation Objectives for Class II groundwater, no further actions will likely be required by the IEPA although ALDI will still need to perform an evaluation to demonstrate the groundwater meets the definition of Class II groundwater. Further, the Village of Oak Park has adopted a ground water use control ordinance that prohibits the use of any underlying groundwater as a potable water supply. As a result, potential exposure to the underlying impacted groundwater should it have migrated off-site is minimal.

Building Construction Considerations/Additional Development Costs

Any fill/soil excavated across most of the proposed building footprint (as part of the proposed construction project) will be impacted with hydrocarbons. The impacted area is principally across the western two thirds of the existing parking lot and southeast corner of the existing building, although isolated areas of impacted fill/soil outside these areas are possible given the historical activities that occurred on the site. Removal and off-site deposition of any soil/fill exhibited contaminant concentrations above Illinois Tier I SROs for residential properties will be regulated (require disposal as special waste at a licensed Subtitle D landfill). An approximate rate for excavation, transportation, and disposal could be \$50-60/ton. An anticipated cut varying between 3.5-8 feet beneath the proposed footing excavations, the recessed truck dock, and underground stormwater retention could cost (including backfill) approximately \$240,000-\$275,000. Engineering oversight costs (to monitor the removal of the fill, obtain landfill approval, etc.) would be approximately \$15,000-\$20,000. Additional disposal costs may also be incurred should the final subgrade of the proposed building floor slab be lower than present surface grade of the parking lot and existing building floor slab. Weaver Boos also anticipates that excavation and removal of the fill could be difficult (increasing earthwork costs) at some locations where buried concrete demolition including former building foundations and slabs are still present (primarily the southwest corner of the Property).

An estimated cost for the building control measures that can be employed to abate the indoor inhalation threat is approximately \$15,000 for a 18,726 square foot space.

Historical records indicate that the Property has a history of underground storage tanks. Based on the results of this assessment, several tanks were removed but at least one tank (in the existing parking lot) may still be present. A second tank may be present beneath the trash compactor. If tanks are present, ALDI could anticipate an additional cost of approximately \$5,000 per tank for removal and disposal. Further, ALDI would be required to obtain a permit from the Village of Oak Park and Illinois Office of State Fire Marshall to remove the tank(s). Any indication of a release from the tank(s) would be required to be reported to the Illinois Emergency Management Agency.

Based on our findings, there will likely be a short term period during earthwork activities that hydrocarbon odors will be prevalent during construction. Due to the foot traffic occurring nearby it is possible that a complaint will be filed with either the Village of Oak Park or the IEPA. As a result, the IEPA may inspect the Property and request that ALDI demonstrate that no threats are present that may adversely impact the environment. Construction may be suspended while this demonstration is being made, hence increasing overall development cost.

We are unaware of any specific reporting obligations that may apply to site conditions. However, consideration should be given to enrolling the property in the the Illinois Site Remediation Program (SRP). Upon acceptance into the SRP the applicant will be required to conduct investigation/remediation tasks necessary to comply with SRP requirements. The results of this environmental assessment may be used to fulfill part of that requirement. After all activities are completed the applicant will receive a focused No Further Remediation (NFR) Letter which releases the applicant from further responsibilities under the Illinois Environmental Protection Act.

Weaver Boos advises ALDI to not start any earthwork activities related to construction until the IEPA has issued a draft NFR letter and approved of the SRP-required remedial action plan (RAP) which undoubtedly will propose the use of engineered barriers and institutional controls to minimize exposure to the impacted soil/fill. The RAP is a key submittal in the SRP process to secure an NFR letter. These barriers could either include the proposed ALDI design (should ALDI redevelop the Property) or the existing structures (parking lot, floor slab) should ALDI sell the Property. Based on the results of this environmental assessment, active remediation of soils/groundwater will not likely be required. Weaver Boos can provide a quote to obtain the

focused NFR letter. ALDI may anticipate a general estimate of approximately \$ 30,000 - \$ 40,000 to obtain the NFR letter. Once enrolled into the SRP, Weaver Boos anticipates that a draft NFR letter and approval of the RAP could be obtained within four months. However this schedule is subject to change should the IEPA review of the required SRP reports including the RAP be longer than anticipated. A final NFR letter will not be issued until construction has been completed.

Weaver Boos understands that ALDI is also considering selling the Property as is to a potential buyer who may either redevelop the site or use the existing building and parking lot. If the Property is sold rather than redeveloped by ALDI, the potential buyer may still request an NFR letter, especially if the buyer proposes new construction.

If you have any questions, please contact the undersigned.

Very truly yours,

Weaver Boos Consultants, LLC



Edward B. Stefanek
Senior Project Manager

Attachments: Figures
 Table
 Geoprobe Logs
 Laboratory Analytical Report
 EDR Radius Report
 Sanborn Fire Insurance Maps
 Historical Aerial Photographs
 Village of Oak Park Records
 Proposed Illinois Building Control Technology Requirements