

EXECUTIVE SUMMARY

EnSafe Inc. conducted a Phase I Environmental Site Assessment (ESA) of Tax Parcel 005019 00001C (subject property) at East G.E. Patterson Avenue and Hadden Street in Memphis, Shelby County, Tennessee. The Phase I ESA was conducted in support of the Wolf River Brownfields Assessment Project for the Shelby County Division of Planning and Development and Inner Vision Development Company dba Inner Vision Memphis (Inner Vision), the current property owner who plans to redevelop the site to assist the City of Memphis improve the South Central Business Improvement District (CBID) "South Forum" area redevelopment. A Phase I ESA is an integral part of all appropriate inquiry (AAI), as codified in Title 40 Code of Federal Regulations Part 312, into the previous ownership and uses of the property consistent with good commercial or customary practice. The ASTM International (ASTM) Standard E 1527-05 is the industry standard used to comply with the AAI requirements.

SIGNIFICANT FINDINGS

Site Location, Description, and Current Uses

The 0.264-acre vacant, unused subject property is irregularly shaped and appears as a north-pointing arrow, with a triangular portion at the north end and a rectangular portion at the south end. Inner Vision purchased the subject property in 2007. Historical warranty deeds describe the property as two combined parcels: Parcel I (north end) and Parcel II (south end). Parcel I is the triangular portion bordered on the north and east by South Third Street and on the west by Hadden Street, and Parcel II is the rectangular parcel bordered on the east by South Third Street, on the south by East G.E. Patterson Avenue, and on the west by Hadden Street. Parcel I is paved with deteriorated and cracked concrete, and Parcel II is grassy with areas of stressed vegetation interspersed with gravel. The subject property and southeast-adjointing 0.09-acre property (Tax Parcel 005019 00002 at 521 South Third Street) — known as the Don Brignole Site — comprise a triangular piece of land bound on the north and east by South Third Street, on the south by East G.E. Patterson Avenue, and on the west by Hadden Street.

Site History

Parcel I was undeveloped in the late 1880s to early 1900s, at which time the north and east borders were the Gayoso Bayou, which discharged downtown Memphis storm water and sanitary sewage to the Wolf River Harbor (slack harbor of the Mississippi River). From 1932 to 1969, Parcel I was developed with an irregularly shaped building that fronted South Third Street and Hadden Street and was occupied by automobile repair, tire sales and service, and wholesale automobile parts businesses. Vehicles were parked in the north tip portion not covered by the building footprint. The building was demolished circa 1970, and the parcel sporadically used to park vehicles, semi-trucks, and/or trailers. Within the past decade, vehicle parking has ceased and the concrete appears to have deteriorated and become partially overgrown with grass.

Parcel II was developed residentially in the mid- to late 1800s with single-family homes fronting Hadden Street, Rayburn Boulevard (prior name of South Third Street), East Calhoun Avenue (prior name of East G.E. Patterson Avenue) through the early 1900s. At the turn of the century, the ground floors of buildings fronting East Calhoun Avenue became stores and restaurants, with residents occupying upper floors. The Plaza Hotel operated at this corner from 1913 to 1958, providing service to the Union Station railroad depot to the southwest, across East Calhoun Avenue. The building was demolished circa 1970, and the parcel has remained unused.

Regulatory Research

Standard and additional federal, state, and local environmental records sources were researched for the subject property. Regulatory research identified no documented records of reported releases to the subject property, or subject property addresses or prior occupants on regulatory databases or tracking systems, or with environmental/regulatory permits.

Adjoining Properties

The Don Brignole Site historically operated as gas station, used auto sales, and restaurant businesses. Demolition of an approximately 750-square-foot structure on the Don Brignole Site began in 2011, at which time three underground storage tanks (USTs) were identified and removed. The site was inspected by the Tennessee Department of Environment and Conservation (TDEC) Memphis Environmental Field Office (EFO) Division of Underground Storage Tanks (DUST) and transferred to the Nashville Central Office Division of Solid Waste Management (DSWM) State Remediation Program (SRP). The UST Closure did not appear to be in compliance with the DUST or Memphis Fire Department requirements based on reasonably ascertainable information. The tanks, which had been staged onsite awaiting disposal, were reportedly stolen, during which the contents of the tanks were dumped; information obtained did not indicate if any of the contents were placed on the subject property. Subsequent sampling by Brignole's consultants determined the former tank contents were hazardous with the characteristic of lead. Roy Crowder, the SRP Project Manager, met with EnSafe and the Don Brignole Site property owner, and indicated he would "most likely" issue a "No Further Action" letter based on the information provided to him, and that demolition activities could be completed. During EnSafe's July 17, 2012, site visit, this site had an open excavation from which the tanks had been removed and the north portion of the building remained. Demolition debris was observed on the subject property primarily along the former west building wall of the restaurant. Since EnSafe's initial site visits in June 2012, trash and debris appeared to have been placed or blown into the excavation.

The remaining adjoining properties are separated from the subject property by city streets and have been developed since at least the mid- to late 1800s. Properties to the north and east have historically been occupied by gas stations and automobile maintenance and repair shops. The north- and east-adjoining properties have had unregistered and registered petroleum USTs for which no regulatory documentation (regarding closure, removal, sampling, etc.) is available. Currently, the north-adjoining property is occupied by a vacant building also owned by Inner Vision and the east-adjoining properties house a billboard and are used for surface parking. The surface parking lot is the only adjoining property listed on an environmental database (for registered USTs).

The west-adjoining properties were originally residential interspersed with stores, a coal yard, and city stables through the early 1900s. Between the 1930s and 1950s, larger buildings had been constructed fronting Hadden Street that housed manufacturing businesses (beauty cream and luggage) and a live cricket farm and, fronting East Calhoun Avenue, service businesses (barber shop, grocery, and watch repair), entertainment businesses (restaurants and pool hall) and retail (jewelry and liquor) stores. In the 1960s and 1970s, the buildings fronting Hadden Street were redeveloped (some fronting East Butler Avenue), renovated, and/or occupied by businesses that provided machinery and automobile repair services, and sold and serviced heating/air conditioning, plumbing, and electrical supplies and equipment; the stores, service, and entertainment businesses remained through the early 1990s. Currently, only the west-adjoining 5,550-square-foot retail building is occupied by Renee's Sandwich Shop and Porter Paints at 202 and 206 to 208 East G.E. Patterson Avenue, respectively.

The south-adjointing property has had three uses: residential (through 1912), the Union Station railroad depot (1913 through 1969), and the U.S. Postal Service Packaging and Distribution Center (1970 to 2012).

Surrounding Area Properties

The subject property is within the South CBID near the center of the South Main Historic District Association in an area that has been developed since at least 1858 (date of the earliest useful historical source obtained for this Phase I ESA). Primarily residential initially, this portion of Memphis transitioned into a mixed-use area (with businesses and development associated with entertainment, retail stores, service, offices, gas stations, hotels, warehouses, and manufacturing) as emphasis on railroad transportation increased because of the proximity to both railroad depots (Union Station and Central Station) and the Mississippi River. Declining demand for railroad and river transportation, de-industrialization, and civil unrest precipitated a population shift to the suburbs in the latter half of the 20th century, causing this area of downtown Memphis to become abandoned and neglected. The most prevalent historical businesses with operations commonly associated with use, storage, disposal, and releases of hazardous substances and petroleum products include gas stations and drycleaners, followed by various manufacturing and automobile maintenance and repair operations.

Review of environmental databases identified the following within 0.25 mile: 28 sites where automobiles have been repaired, serviced, and/or fueled, 12 sites with registered USTs (three of which have reported a release), 35 facilities that have reported generating hazardous waste, and 21 sites where dry cleaning may have been conducted. Within 0.5 mile are six additional sites with reported releases from USTs, four sites that have been assessed for inclusion on the National Priorities List (one of which is a State Superfund Site encumbered with an environmental lien for emergency response action), and two sites that have entered into a voluntary cleanup program with TDEC Division of Remediation (DOR). Site-specific information for these facilities identified on environmental databases, with permits or other environmental records, and/or with reported releases were researched through city, county, state, and federal sources; most information was obtained from reviewing files at the TDEC Memphis EFO and interviewing personnel with TDEC's DSWM, DUST, and DOR.

Site Observations

Pieces of concrete curbing remain along the west and south property borders, chunks of concrete were at the northwest corner of Parcel I, and a pile of gravel was on the concrete in the northeast portion of Parcel I. A deteriorated sidewalk and approximately 3-foot by 3-foot concrete driveway are along the south border (East G.E. Patterson Avenue). Debris — including plastic garbage bags, bricks, concrete chunks, metal pipe, and fiberglass insulation — and roadside litter (e.g., paper bag, food bag, and paper) were observed onsite. Most of the debris and two mounds of soil (up to 12 inches high by 4 feet long) covered with dead vegetation were observed along the Parcel II east property border and appeared to have originated from historical demolition onsite and/or recent tank removal/demolition activities at the Don Brignole Site. The roadside litter was primarily along the Parcel II west border (Hadden Street).

Two approximately 3- to 4-foot deep, 1- to 2-foot diameter holes were at the north end of Parcel II. The soil surface around the smaller-diameter hole contained pieces of brick and concrete, rocks, paper, and plastic. Roadside litter (a plastic water bottle and paper) had blown into the hole. The second hole appeared to be beneath an approximately 2-inch thick piece of concrete-with-rock slab; roadside litter (paper bag and fast-food container) was also at the edge of the hole.

CONCLUSIONS AND ENVIRONMENTAL PROFESSIONAL OPINION

The historical uses of Parcel I for automobile repair and tire sales and service and the southeast-adjointing property (the Don Brignole Site) as a gas station and for automobile service and repair occurred prior to promulgation of environmental regulations that controlled the use, storage, and disposal of hazardous substances and petroleum products, and regulated closure of UST systems. Visual evidence of a release from historical operations onsite was not observed during the Phase I ESA. Based on the historical uses of the subject property and historical gas station operations, incomplete and/or non-compliant UST removal documentation, and potential for removal activities (particularly the emptying of hazardous waste sand/soil material) at the Don Brignole Site to have encroached on the subject property are considered a *recognized environmental condition*¹ in connection with the subject property. Additional investigation (a Phase II ESA) is recommended.

Available files at the TDEC Memphis EFO did not document that contaminants at other regulated adjoining or surrounding area facilities have migrated to the subject property or that the subject property was to be included in future investigations at those sites. However, the incompleteness of existing files, lack of available files, and number of sites with decades of historical operations expected to involve the use, storage, and/or disposal of hazardous substances or petroleum products and that have not been regulated or investigated is considered a *data gap*². Additional investigation recommended to fill the *data gap* is a Phase II ESA of soil and groundwater at the subject property.

The debris and trash observed onsite is considered *de minimis*³. Any soil, sand, or gravel on the subject property that originated from the Don Brignole Site may require characterization prior to disposal; disposal of a hazardous waste poses a potential *business environmental risk*⁴ because of the potential associated liability and costs. EnSafe recommends collecting a composite sample of any material remaining from the former UST contents to determine disposal options.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

The following summarize specific activities a Phase II ESA of the subject property may entail based on the Phase I ESA findings; corresponding cost estimates and timeframes for conducting the Phase II ESA are included.

¹ ASTM defines a *recognized environmental condition* as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws.

² A *data gap* is the lack off or inability to obtain information required by ASTM E 1527-05 despite good faith efforts and may result from incompleteness in any of the activities (e.g., interviews, file review).

³ *De minimis* conditions are those that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

⁴ A *business environmental risk* can have a material environmental or environmentally driven impact on the business associated with the current or planned use of a parcel of commercial real estate, and may involve addressing one or more non-scope considerations (such as asbestos, lead-based paint, radon, wetlands, etc.).

**Site-Specific Work Plan, Health and Safety Plan, and Quality Assurance Project Plan...
\$2,750/21 Days**

Subsurface Investigation \$15,000/60 Days

Direct-push technology borings to collect soil and groundwater samples along the property border shared with the Don Brignole Site, and within the north triangular portion and along the south border to investigate potential impact from historical onsite (automobile repair) and offsite (railroad depot, gas station, vehicle repair, and manufacturing) operations. Contaminants of concern are petroleum products, volatile organic compounds (including methyl tertiary-butyl ether, naphthalene, benzene, toluene, ethylbenzene, and xylene), and lead.