



ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES
FORMER CITY OF HOUSTON VELASCO INCINERATOR SITE
0 NORTH VELASCO STREET
(BALL STREET RIGHT-OF-WAY AND BLOCKS 6, 7, 8, AND 9,
WEISENBACH SS, HARRIS COUNTY)
HOUSTON, HARRIS COUNTY, TEXAS 77003

SKA PROJECT NO. 12022-0001

Prepared for:

HOUSTON LAND BANK
1214 ELGIN STREET
HOUSTON, TEXAS 77004

Submitted by:

SKA CONSULTING, L.P.
1888 STEBBINS DRIVE, SUITE 100
HOUSTON, TEXAS 77043

Prepared by:

TORY C. BALDERRAMA, P.G.
SENIOR GEOLOGIST/PROJECT MANAGER

Signature

SCOTT K. LEAFE
PRESIDENT/MANAGING PARTNER

Signature

Reviewed by:

BRIAN T. WEAVER, P.G.
EXECUTIVE VICE PRESIDENT/PARTNER

Signature

OCTOBER 12, 2023

TEXAS REGISTERED ENGINEERING FIRM NO. F-005009
TEXAS REGISTERED GEOSCIENCE FIRM NO. 50011

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Figure 1 Site Location Map

Figure 2 Site Plan

List of Acronyms

ABCA	Analysis of Brownfields Cleanup Alternatives
ASTM	ASTM International, Inc.
BBEM	Buffalo Bayou East Masterplan
BBP	Buffalo Bayou Partnership
BMP	Best Management Practices
cm/sec	Centimeters per second
COC	Chemical of Concern
COH	City of Houston
CY	Cubic yards
DBRA	Davis-Bacon and Related Acts
DBSA	Daniel B. Stephens & Associates, Inc.
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
ft-bgs	Feet below ground surface
JESCO	JESCO Environmental and Geotechnical Services, Inc.
Leaaf	Leaaf Environmental, LLC
LSI	Limited Subsurface Investigation
LPCI	Lead Products Company, Inc.
MSD	Municipal Setting Designation
MW	Monitoring well
O&M	Operation and Maintenance
PCBs	Polychlorinated Biphenyls
PCL	Protective Concentration Level
PRACR	Post-Response Action Care Report
RACR	Response Action Completion Report
RAO	Remedial Action Objectives
ROW	Right-of-way
SBLRBRA	Small Business Liability Relief and Brownfields Revitalization Act
SKA	SKA Consulting, L.P.
SQ-FT	Square-feet
SVOC	Semi-volatile organic compound
SWR	Solid Waste Registration
TAC	Texas Administrative Code
TBA	Targeted Brownfields Assessment
TCE	Trichloroethene
TCEQ	Texas Commission on Environmental Quality
Terracon	Terracon Consultants, Inc.
THSC	Texas Health and Safety Code
TRRP	Texas Risk Reduction Program
USEPA	United States Environmental Protection Agency
VCP	Voluntary Cleanup Program
VEC	Vapor Encroachment Condition
Weston	Weston Solutions, Inc.

1.0 Introduction and Background

The following subsections introduce the project location and background.

1.1 Site Location

The Former City of Houston Velasco Incinerator Site is located at 0 North Velasco Street in Houston, Harris County, Texas (the Site). The Site is south of Buffalo Bayou, about a mile east of Houston's downtown core and the Central Business District (see **Figure 1**). It is adjacent west to North Velasco Street and lies just north of the major Navigation Boulevard east-west thoroughfare. The approximately 4.7-acre Site comprises the unimproved Ball Street ROW and Blocks 6 through 9 of the Weisenbach SS survey (see **Figure 2**).

1.2 Forecasted Climate Conditions

The Houston, Texas, area receives approximately 51.84 inches of precipitation per year, and the average annual temperature ranges from 60°F to 80°F, with maximum temperatures during the summer often reaching 100°F or higher. Harris County has experienced periodic extreme weather events over the last 50 years, including hurricanes, tropical storms, and significant flooding. For instance, in August 2017 and September 2019, the Houston area was affected by Hurricane Harvey and Tropical Storm Imelda. Increased precipitation that may affect stormwater runoff is most applicable to Site cleanup.

According to the FEMA Federal Insurance Rate Map No. 48201C0690N (dated January 6, 2017), the Site is classified as Zone X (unshaded), consisting of areas determined by FEMA to be of minimal flood hazard. Changing climate conditions and increased precipitation may result in changes to the flood zone and increased flooding risks at the Site.

1.3 Previous Site Use(s)

The Site was formerly operated as a municipal incinerator facility from the 1930s through the late 1960s. All Site buildings were removed by 1995, except for two incinerator stacks, a 100-foot by 250-foot concrete building foundation, and a COH sanitary sewer lift station. The Site is heavily covered in native grasses and trees and is bounded on all sides by chain-link fencing recently installed by the COH.

1.4 Site Assessment Findings

Environmental investigations began at the Site in early 2006 that comprised a Phase I ESA by Weston on a portion of the Site (Block 6 or the southernmost 1.6 acres) and an LSI by Terracon for the entire Site. Weston identified the Site's historical use as a municipal incinerator and concluded that regulated lead was often found at such facilities. In addition, an LPCI facility adjoining the Site to the south had recycled lead-acid batteries for many years. Weston concluded that such business activities could have resulted in surface water runoff of lead-

impacted stormwater onto the Site.¹ Based on these findings, Terracon performed an LSI to assess possible adverse impacts on the Site from the onsite historical municipal incinerator and nearby battery recycling activities.

The results of Terracon's LSI revealed the presence of buried fill material throughout the northern approximately two-thirds of the Site. The buried fill material reportedly consisted of dark brown to black ash with silt/sand and broken glass fragments. Terracon observed the fill material from about 4 to 10 ft-bgs on the Site's southern portion and progressively increasing in thickness to 35 ft-bgs on the north-central part of the Site.²

The LSI sampling results identified elevated arsenic, barium, cadmium, lead, and silver concentrations in surface (≤ 15 ft-bgs) and subsurface (>15 ft-bgs) soil/fill at the Site exceeding the TCEQ TRRP critical residential soil PCLs. In addition, a low-level total petroleum hydrocarbon concentration was identified in subsurface soil in the northeast part of the Site. No other COC concentrations exceeding their TCEQ TRRP critical residential soil PCLs were found in Site soils.³

Terracon also collected groundwater samples from seven permanent monitoring wells (MW-1, MW-1A, and MW-2 through MW-6) installed across the Site. The groundwater sampling results identified a lead concentration above the critical TCEQ TRRP residential groundwater PCL in the northeast portion of the Site (MW-5). In addition, a low-level chlorinated solvent (TCE) concentration was noted near the Site's southeast corner in MW-1A. Further, a low-level SVOC [i.e., bis (2-ethylhexyl) phthalate] was identified along the west-central boundary of the Site in MW-4. No other COC concentrations exceeding their TCEQ TRRP residential groundwater PCLs were reported in shallow groundwater beneath the Site. Finally, Terracon determined that the shallow groundwater flow direction was north toward Buffalo Bayou.⁴

A Phase I ESA was performed for the entire Site in August 2017 by DBSA. The results of the Phase I ESA affirmed the past Site use as an incinerator and characterized the presence of buried fill material as a landfill. Moreover, DBSA acknowledged the metals impacts to soil and TCE and bis (2-ethylhexyl) phthalate impacts to shallow groundwater at the Site. Further, DBSA identified the adjacent south LPCI facility as a concern for the Site.⁵ Finally, DBSA concluded that the presence of buried incinerator waste at the Site and the adjoining LPCI facility represented a possible indoor VEC for the Site.⁶

¹ *Limited Site Investigation, City of Houston - Vacant Land, 800 Block North Velasco Street, Houston, Harris County, Texas* (Houston, TX: Terracon Consultants, Inc., November 20, 2006), 1.

² *Ibid.*, 9.

³ *Ibid.*, 16.

⁴ *Ibid.*

⁵ *Phase I Environmental Site Assessment - City of Houston Incinerator Site - BSA G181, 0 North Velasco Street, Texarkana [sic], Texas* (Austin, TX: Daniel B. Stephens & Associates, Inc., August 31, 2017), viii.

⁶ *Ibid.*, 38.

Based on the Phase I ESA findings, DBSA recommended, among other things, that further sampling be performed at the Site to assess the magnitude and extent of the soil and groundwater impacts identified by Terracon in 2006. Moreover, DBSE recommended that further assessments include other COCs, such as dioxins, PCBs, and tetrahydrofurans. Finally, DBSA recommended additional evaluations for possible indoor vapor intrusion concerns at the Site.⁷

JESCO and Leaaf conducted a TBA at the Site based on the DBSA Phase I ESA recommendations. The TBA comprised the installation and sampling of eight soil borings advanced to terminal depths of 8 ft-bgs, primarily in the northern two-thirds of the Site (i.e., where Terracon had previously demonstrated the most significant presence of buried fill material/ash). Selected soil samples were tested in a laboratory for arsenic, lead, mercury, dioxins and furans, PCBs, TCE, and bis (2-ethylhexyl) phthalate.⁸ The sampling results revealed elevated arsenic, lead, mercury, PCBs, and dioxins and furans in surface soils at the Site at concentrations exceeding critical TCEQ TRRP residential soil PCLs. Consequently, JESCO/Leaaf recommended a site-specific risk evaluation to “refine the areas of impacted soil that may pose a risk to human health or the environment.”⁹

From the previous assessment information prepared by others, SKA has estimated the area of buried waste/fill materials is about 134,568 square feet (sq-ft) and encompasses about the northern two-thirds (roughly 68%) of the Site. Therefore, where statements are made in the subsequent remedial alternatives discussions regarding areas of suspected buried waste/fill, those suspected areas would be within the northern two-thirds of the Site only for purposes of this ABCA.

1.5 Project Goal

The planned reuse for the Site is a recreational park that can be incorporated into the BBEM, a waterfront revitalization plan comprised of multimodal connections, small-scale parks, and open spaces tying the more prominent destinations together to create a cohesive network of green spaces and attractions reinvigorating Buffalo Bayou East. The Site has the potential to be aligned and well-integrated with the BBEM as an integral part of creating a safe, sustainable, and resilient waterfront.

⁷ Ibid., 53-54.

⁸ *Targeted Brownfields Assessment, Phase II Environmental Site Assessment, Vacant Land, 800 Block of North Velasco Street, Houston, Harris County, Texas 77003* (Jennings, LA; Gretna, LA: JESCO Environmental and Geotechnical Services, Inc.; Leaaf Environmental, LLC, October 31, 2019), 3-4.

⁹ Ibid., 5.

2.0 Applicable Regulations and Cleanup Standards

2.1 Cleanup Oversight Responsibility

The TCEQ VCP will oversee the cleanup for the Site under a to-be-assigned VCP number. A VCP Application and Agreement for the Site were submitted to the TCEQ on October 9, 2023.

2.2 Cleanup Standards for Major Contaminants

Based on the cumulative historical media sampling and testing results for the Site, the RAOs for the Site will be the TRRP rules. The TCEQ TRRP residential land use standards will require the removal of all identified human health exposure pathways through remediation of the affected media, control of the affected media, or a combination of remediation and controls.

2.3 Laws and Regulations Applicable to the Cleanup

The laws and regulations applicable to this cleanup include the federal SBLRBRA (Public Law 107-118); the federal DBRA (Public Law 107-217-AUG. 21, 2002, as amended); THSC, Chapter 361, Subchapter S, as amended; 30 TAC §333, Subchapter A, as amended (relating to the VCP Section); 30 TAC §350 (TRRP; effective September 23, 1999, as amended); and COH ordinances and by-laws. Federal, state, and local laws regarding the procurement of contractors to conduct the cleanup will be followed. In addition, all appropriate permits (e.g., notify before you dig) will be obtained before the work commences.

3.0 Cleanup Alternatives

3.1 Cleanup Alternatives Considered

The following sub-sections describe selected remedial action options for the Site based on the preliminary Site redevelopment scenario extrapolated from likely BBEM improvements on nearby properties along Buffalo Bayou.

3.1.1 Remedial Alternative #1 – Capping the Entire Site

Under this alternative and all remaining alternatives, the Site will be enrolled in the TCEQ VCP, through which a VCP Certificate of Completion for residential land use will be pursued. As described below, the VCP Certificate of Completion is expected to be conditional; the regulatory closure will be based on maintaining an engineered cap over the entire Site. Remedial Alternative #1 meets the RAO of remediating and/or controlling human health exposure to affected media at the Site.

Under this alternative, the entire Site will be cleared and grubbed of all vegetation, and the concrete foundation will be removed. The incinerator stacks will be retained for historical preservation purposes. Next, the Site will be graded practically and topographically to support the construction of future recreational amenities. Any buried fill/waste material and overburden soil encountered during the Site grading will be redistributed across the Site.¹⁰ The remaining portions of the Site where buried waste/fill is suspected will then be capped with a 2-foot-thick compacted engineered clay cap constructed over the underlying fill/waste materials to prevent human exposure to the affected media and assure long-term waste containment with minimum post-closure maintenance.

The engineered clay cap (i.e., compacted heavy clay) will be placed in lifts not less than 6 inches nor greater than 9 inches and machine compacted to 95% proctor with low permeability of 1×10^{-7} cm/sec or less. Upon completion, 6 inches of topsoil will be placed over the engineered clay cap and hydro-mulched with suitable grass. The grass maintenance (i.e., periodic watering) will continue for three months.

The post-closure care will include O&M of the engineered clay cap for up to 30 years. During the O&M period, regular onsite inspections and maintenance events of the engineered clay cap would be performed. The engineering maintenance can include adding soil to the engineered cap due to settling or erosion, reseeding grass/surface cover over the cap, and selective re-compaction of the capped soils, among other things. The approximate maintenance costs are included for the 30-year post-closure care monitoring period. In addition, after each onsite inspection, a PRACR will be prepared and submitted to the TCEQ. Accordingly, 12 PRACRs are proposed during the 30-year post-closure care monitoring period.

¹⁰ The TCEQ typically allows such soil redistribution at regulated Sites pursuant to: Michael Shapiro, *Letter - Scope and Applicability of the Area of Concern (AOC) Concept* (Washington, DC: U. S. Environmental Protection Agency, Office of Solid Waste, March 25, 1996).

With the soil exposure pathways addressed by the engineered cap, the groundwater exposure pathways at the Site will be controlled by obtaining an MSD ordinance from the COH for the Site and an MSD Certificate from the TCEQ. The combined MSD Ordinance/Certificate will prohibit the withdrawal and use of groundwater at the Site for potable purposes, thus controlling the human groundwater contact and ingestion exposure pathways at the Site. This control is enforced by the COH Ordinance and the TCEQ rules and is formally recorded in the Deed Records for the Site.

3.1.2 Remedial Alternative #2 – Partial Soil Remediation to Support Ball Street Extension and Redistribution to Support Recreational Amenities

Remedial Alternative #2 also contemplates enrolling the Site in the TCEQ VCP, through which a VCP Certificate of Completion for residential land use will be pursued. As previously described and reiterated below, the VCP Certificate of Completion is expected to be conditional; the regulatory closure will be based on maintaining an engineered cap over most of the Site. Remedial Alternative #2 meets the RAO of remediating and/or controlling human health exposure to affected media at the Site.

The soil response actions proposed under Remedial Alternative #2 are two-fold. First, the entire Site will be cleared and grubbed of all vegetation, and the concrete foundation will be removed. The incinerator stacks will be retained for historical preservation purposes. A sufficient volume of buried fill/waste material and overburden soil (about 10,500 CY loose volume) will then be removed from the Site's southern portion to support the construction of an extension of Ball Street (about 14,000 sq-ft) from the west to North Velasco Street. This street extension is necessary to relieve traffic congestion in the west adjoining residential areas to the Site. The excavated fill/waste materials will be characterized for disposal, transported offsite, and disposed of at a TCEQ-permitted facility.

Second, an additional 14,000 sq-ft area will be excavated to support future amenities or other improvements at the Site. The approximately 10,500 CY of buried fill/waste material and overburden soil from this area will be redistributed across the Site in a manner intended to practically and topographically support the construction of future recreational amenities. The onsite areas outside the Ball Street ROW and the additional excavation area where buried waste/fill materials are suspected will then be capped with a 2-foot-thick compacted engineered clay cap constructed over the underlying fill/waste materials to prevent human exposure to the affected media and assure long-term waste containment with minimum post-closure maintenance.

The engineered clay cap (i.e., compacted heavy clay) will be placed in lifts not less than 6 inches nor greater than 9 inches and machine compacted to 95% proctor with low permeability of 1×10^{-7} cm/sec or less. Upon completion, 6 inches of topsoil will be placed over the engineered clay cap and hydro-mulched with suitable grass. The grass maintenance (i.e., periodic watering) will continue for three months.

The post-closure care will include O&M of the engineered clay cap for up to 30 years. During the O&M period, regular onsite inspections and maintenance events of the engineered clay cap would be performed. The engineering maintenance can include adding soil to the engineered cap due to settling or erosion, reseeding grass/surface cover over the cap, and selective re-

compaction of the capped soils, among other things. The approximate maintenance costs are included for the 30-year post-closure care monitoring period. In addition, after each onsite inspection, a PRACR will be prepared and submitted to the TCEQ. Accordingly, 12 PRACRs are proposed during the 30-year post-closure care monitoring period.

As with Remedial Alternative #1, since the engineered cap will address the soil exposure pathways, the groundwater exposure pathways at the Site will be controlled by obtaining an MSD ordinance from the COH for the Site and an MSD Certificate from the TCEQ. The combined MSD Ordinance/Certificate will prohibit the withdrawal and use of groundwater at the Site for potable purposes, thus controlling the human groundwater contact and ingestion exposure pathways at the Site. Again, this control is enforced by the COH Ordinance and the TCEQ rules and is formally recorded in the Deed Records for the Site.

3.1.3 Remedial Alternative #3 – Comprehensive Soil Remediation to Support Ball Street Extension, Site Improvements, and Recreational Amenities

Remedial Alternative #3 also contemplates obtaining a TCEQ VCP Certificate of Completion for residential land use. However, under this remedial alternative, the VCP Certificate of Completion for residential land use is expected to be final, with no post-closure actions required. Remedial Alternative #3 meets the RAO of remediating and/or controlling human health exposure to affected media at the Site.

First, the entire Site will be cleared and grubbed of all vegetation, and the concrete foundation will be removed. The incinerator stacks will be retained for historical preservation purposes. Next, an estimated 187,677 CY of buried fill/waste material and overburdened soil will be excavated from the Site (based on prior investigations by others at the Site, the suspected area of buried waste/fill materials measures approximately 134,568 sq-ft and comprises nearly 68% of the Site). Post-excavation confirmation soil sampling will confirm that the remaining soils meet TCEQ residential land use standards. The excavated fill/waste materials will then be characterized for disposal, transported offsite, and disposed of at a TCEQ-permitted facility. Clean fill soil will be imported and placed in lifts not less than 6 inches nor greater than 9 inches and machine compacted to 95% proctor. While future redevelopment plans will determine the final Site elevation and slopes, this ABCA has assumed restoring the Site to the existing grade. Therefore, about 187,700 CY of clean fill material is expected to be placed at the Site. Since no waste materials will remain at the Site, a RACR will be prepared and submitted to the TCEQ for these soil remediation activities.

Despite the soil remediation efforts described above, the groundwater exposure pathways must still be addressed under the TRRP rules. Again, as with Remedial Alternatives 1 and 2, the groundwater exposure pathways at the Site will be controlled by obtaining an MSD ordinance from the COH for the Site and an MSD Certificate from the TCEQ. The combined MSD Ordinance/Certificate will prohibit the withdrawal and use of groundwater at the Site for potable purposes, thus controlling the human groundwater contact and ingestion exposure pathways at the Site. Again, this control is enforced by the COH Ordinance and the TCEQ rules and is formally recorded in the Deed Records for the Site.

3.2 Evaluation of Cleanup Alternatives

To satisfy USEPA requirements, the effectiveness, implementability, and cost of each remedial alternative have been considered before selecting a recommended cleanup alternative.

3.2.1 Effectiveness – Including Climate Change Considerations

- Remedial Alternative #1: Capping effectively prevents recreational receptors from directly contacting contaminated soils and buried wastes at the Site if the cap is maintained. In addition, institutional controls (a land use restriction and an MSD Ordinance and Certificate) would need to be recorded on the deed to prohibit penetrating the cap and/or contact with groundwater to eliminate the direct contact pathway for recreational receptors.
- Remedial Alternative #2: Excavation with offsite disposal of the Ball Street ROW effectively eliminates the risk of contacting contaminated soils and buried wastes in this Site area during the construction and long-term maintenance of the Ball Street ROW and street extension. Again, capping is an effective way to prevent recreational receptors from coming into direct contact with contaminated soils and/or buried waste in the remaining portions of the Site if the cap is maintained. Finally, institutional controls (a land use restriction and an MSD Ordinance and Certificate) would be recorded on the deed to prohibit penetrating the capped areas of the Site and/or contact with groundwater to eliminate the direct contact pathway for recreational receptors.
- Remedial Alternative #3: Excavation with offsite disposal effectively eliminates risk at the Site since all soil contamination and buried waste will be removed, and the soil exposure pathways will no longer exist. However, an institutional control (MSD Ordinance and Certificate) would still be recorded on the deed to prohibit contacting Site groundwater to eliminate the direct contact pathway for recreational receptors.

General Climate Considerations

Part of the design planning is to divert stormwater runoff at the Site into earthen drainage ditches along the east and west Site boundaries, which discharge into Buffalo Bayou to the north-northeast. Increased stormwater discharge is not expected to impact the Site with proper engineering, which is planned.

3.2.2 Implementability

- Remedial Alternative #1: The anticipated schedule to obtain a VCP Conditional Certificate of Completion for residential land use under Remedial Alternative #1 is 3.5 to 4 years, with up to 30 years of post-closure maintenance.
- Remedial Alternative #2: The anticipated schedule to obtain a VCP Conditional Certificate of Completion for residential land use under Remedial Alternative #2 is about 3.5 to 4 years, with up to 30 years of post-closure maintenance.

- Remedial Alternative #3: The anticipated schedule to obtain a final VCP Certificate of Completion for residential land use under Remedial Alternative #3 is about 3.5 years with no post-closure maintenance.

3.2.3 Cost

- Remedial Alternative #1: The expected cost to complete Remedial Alternative #1 is \$2,422,000.
- Remedial Alternative #2: The expected cost to complete Remedial Alternative #2 is \$3,502,000.
- Remedial Alternative #3: The expected cost to complete Remedial Alternative #3 is \$21,962,000.

3.3 Recommended Cleanup Alternative

The recommended cleanup alternative is *Remedial Alternative #2: Partial Soil Remediation to Support Ball Street Extension and Redistribution to Support Recreational Amenities*. While *Remedial Alternative #1: Capping the Entire Site* is less expensive, this cleanup alternative is not recommended since it does not include soil remediation needed to extend Ball Street from the adjoining residential area to the west through the site's southern portion to North Velasco Street. This street extension is vital as it will relieve traffic congestion in the neighboring residential community to the west. Finally, while *Remedial Alternative #3: Comprehensive Soil Remediation to Support Ball Street Extension, Site Improvements, and Recreational Amenities* is a viable cleanup strategy, it is neither a cost-effective nor necessary strategy since Remedial Alternative #2 also prevents the same human exposure pathways and achieves the same end-use results. For these reasons, *Remedial Alternative #2: Partial Soil Remediation to Support Ball Street Extension and Redistribution to Support Recreational Amenities* is the recommended cleanup alternative.

3.4 Green and Sustainable Remediation Measures for Selected Alternative

Several techniques are planned to make the selected Remedial Alternative greener or more sustainable. First, the most recent BMPs issued under ASTM Standard E-2893: *Standard Guide for Greener Cleanups* will be used as a reference in this effort. Second, the cleanup contractors must follow an idle-reduction policy and utilize heavy equipment with advanced emissions controls operated on ultra-low sulfur diesel. Third, when practicable, the excavation work would be conducted during the dry-weather months (summertime) to minimize rainfall and other surface water infiltration into the excavation areas, reducing dewatering needs and the amount of dewatering liquids potentially requiring disposal/treatment. Fourth, the number of mobilizations to the Site would be minimized, and erosion control measures would be used to reduce runoff into environmentally sensitive areas. Finally, the bidding cleanup contractors will be asked to propose additional green remediation techniques in response to the Request for Proposals for the cleanup contract.

4.0 References

Phase I Environmental Site Assessment - City of Houston Incinerator Site - BSA G181, 0 North Velasco Street, Texarkana [sic], Texas. Austin, TX: Daniel B. Stephens & Associates, Inc., August 31, 2017.

Limited Site Investigation, City of Houston - Vacant Land, 800 Block North Velasco Street, Houston, Harris County, Texas. Houston, TX: Terracon Consultants, Inc., November 20, 2006.

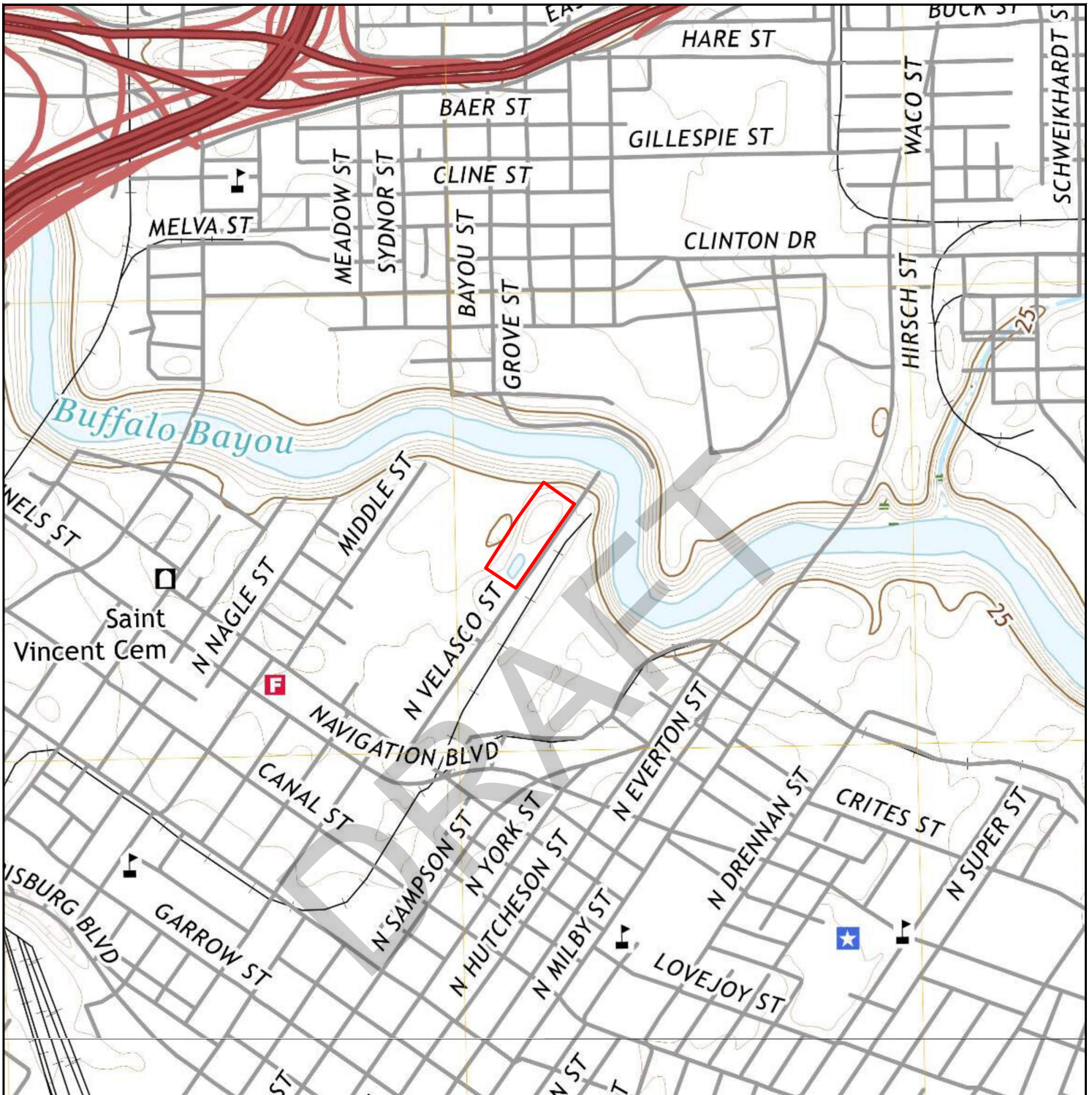
Targeted Brownfields Assessment, Phase II Environmental Site Assessment, Vacant Land, 800 Block of North Velasco Street, Houston, Harris County, Texas 77003. Jennings, LA; Gretna, LA: JESCO Environmental and Geotechnical Services, Inc.; Leaf Environmental, LLC, October 31, 2019.

Shapiro, Michael. *Letter - Scope and Applicability of the Area of Concern (AOC) Concept.* Washington, DC: U. S. Environmental Protection Agency, Office of Solid Waste, March 25, 1996.

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Figures

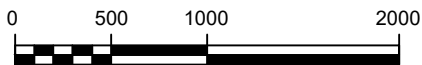
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LEGEND

 SUBJECT PROPERTY BOUNDARY

REFERENCE:
 USGS 7.5-MINUTE TOPOGRAPHIC QUADRANGLES
 SETTEGAST, TEXAS 2019
 PARK PLACE, TEXAS 2022



APPROXIMATE SCALE: 1"=1000'

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SKA CONSULTING, L.P.
 1888 STEBBINS DRIVE, SUITE 100
 HOUSTON, TX 77043

Texas Registered Engineering Firm F-005009
 Texas Registered Geoscience Firm 50011

SITE LOCATION MAP

ANALYSIS OF BROWNSFIELD CLEANUP ALTERNATIVES
 FORMER CITY OF HOUSTON VELASCO INCINERATOR SITE
 0 NORTH VELASCO STREET
 (BALL STREET RIGHT-OF-WAY AND BLOCKS 6, 7, 8, AND
 9, WEISENBACH SS, HARRIS COUNTY)
 HOUSTON, HARRIS COUNTY, TEXAS 77003

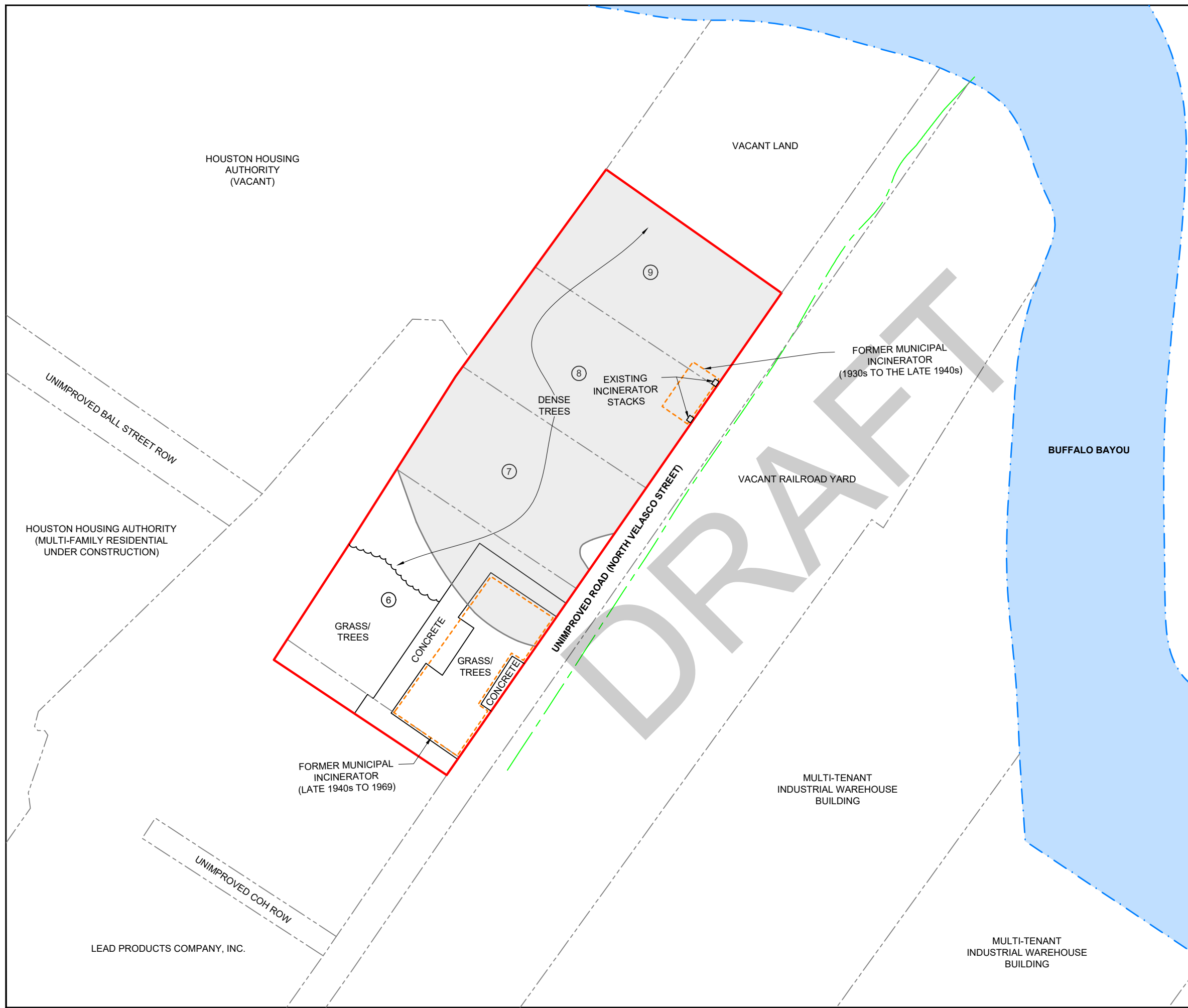
FIGURE

1



DATE: OCTOBER 2023 | JOB NO: 12022-0001 | SCALE: AS SHOWN

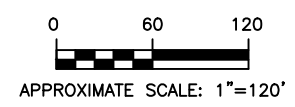
1 FIRST REVISION	DRAWN BY: CLK
2 SECOND REVISION	CHECKED BY: TCB
3 THIRD REVISION	APPROVED BY: TCB



LEGEND

	SUBJECT PROPERTY BOUNDARY
	LOT BOUNDARY
	EARTHEN DRAINAGE DITCH
	APPROXIMATE BURIED WASTE/FILL MATERIAL EXTENT (ON-SITE)
	BLOCK NUMBER

ABBREVIATION:
 - "COH" REPRESENTS CITY OF HOUSTON
 - "ROW" REPRESENTS RIGHT-OF-WAY



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SITE PLAN		
ANALYSIS OF BROWNSFIELD CLEANUP ALTERNATIVES FORMER CITY OF HOUSTON VELASCO INCINERATOR SITE 0 NORTH VELASCO STREET (BALL STREET RIGHT-OF-WAY AND BLOCKS 6, 7, 8, AND 9, WEISENBACH SS, HARRIS COUNTY) HOUSTON, HARRIS COUNTY, TEXAS 77003		
DATE: OCTOBER 2023	JOB NO: 12022-0001	SCALE: AS SHOWN
1 FIRST REVISION	DRAWN BY: CLK	
2 SECOND REVISION	CHECKED BY: TCB	
3 THIRD REVISION	APPROVED BY: TCB	

FIGURE
2

