



Narrative Information Sheet

1. Applicant Information

Spanish Speaking Unity Council of Alameda County Inc. dba The Unity Council
1900 Fruitvale Avenue, Ste 2A
Oakland, CA 94601

2. Website URL

<https://unitycouncil.org/>

3. Funding Requested

- a. Grant Type: FY25 BROWNFIELD CLEANUP GRANT
- b. Federal Funds Requested: \$1,527,160

4. Location:

- a. Oakland
- b. Alameda
- c. California

5. Property Information (Please refer to Attachment A for Maps of each project site)

- a. 3073 International Blvd, Oakland CA 94601
- b. 2700 International Blvd, Oakland CA 94601

6. Contacts

a. Project directors

Eileen Sochia (3073 International)

esochia@unitycouncil.org

1900 Fruitvale Ave, Ste 2A Oakland CA 94601

Paul Schroeder (2700 International)

510-626-0165

pschroeder@unitycouncil.org

1900 Fruitvale Ave, Ste 2A Oakland CA 94601

b. Chief Executive / Highest Ranking Elected Official

Aubra Levine

510-535-6112

alevine@unitycouncil.org

1900 Fruitvale Ave, Ste 2A Oakland CA 94601

7. Population

Oakland California: 440,646 (2020 Census)

8. Other Factors



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Other Factors	3073 International	2700 International
Community population is 15,000 or less	N/A	N/A
The applicant is, or will assist, a federally recognized Indian Tribe or United States Territory	N/A	N/A
The proposed brownfield site(s) is impacted by mine-scarred land	N/A	N/A
Secured firm leveraging commitment ties directly to the project and will facilitate completion of the remediation/reuse; secured resource is identified in the Narrative and substantiated in the attached documentation.	Yes	Yes - see pg
The proposed site(s) is adjacent to a body of water (i.e., the border of the proposed site(s) is contiguous or partially contiguous to the body of water, or would be contiguous or partially contiguous with a body of water but for a street, road, or other public thoroughfare separating them).	N/A	N/A
The proposed site(s) is in a federally designated flood plain.	N/A	N/A
The reuse of the proposed cleanup site(s) will facilitate renewable energy from wind, solar, or geothermal energy.	Yes	Yes - see pg
The reuse of the proposed cleanup site(s) will incorporate energy efficiency measures.	Yes	Yes - see pg
The proposed project will improve local climate adaptation/mitigation capacity and resilience to protect residents and community investments.	N/A	N/A
The target area(s) is impacted by a coal-fired power plant that has recently closed (2014 or later) or is closing.	N/A	N/A

9. Releasing Copies of Applications: N/A, application does not have confidential, privileged, or sensitive information



Narrative / Ranking Criteria

1. Project AREA DESCRIPTION AND PLANS FOR REVITALIZATION

a. Target Area and Brownfields

i. Overview of Brownfield Challenges and Description of Target Area

Located in northern California, just east of San Francisco, is the City of Oakland (pop. 440,000). East Oakland comprises about 15 square miles, stretching from the edge of downtown to the City of San Leandro in the south. The Target Area (TA) within East Oakland consists of thirty-eight (38) census tracts (about 10 square miles) west of the MacArthur Freeway (I-580), from the northernmost, adjacent to 23rd Avenue (06001460300), to the tract on the border of San Leandro (06001410400). The western edge of the Target Area fronts on a basin of the San Francisco Bay.

Two major waves of in-migration shape today's East Oakland: first, many San Francisco residents came after the 1906 earthquake, an episode which transformed East Oakland into a residential area from primarily agricultural. Second, the area saw an influx of job-seekers during World War II, many of whom were Black and Latino individuals and families seeking opportunity. Post-war Urban Renewal displaced some Oakland communities of color, many of whom settled in East Oakland. Racist housing policies encouraged white and higher-income residents to bring their tax dollars to the segregated suburbs, and in tandem, redlining maps set the stage for public-sanctioned disinvestment in the area by designating all of East Oakland as a risky place for banks to lend. This encouraged industrial, manufacturing and automotive uses to become predominant, especially along the main thoroughfare, International Boulevard. To this day, these uses remain prevalent in the area, exemplified by the General Electric site, a highly toxic 25-acre former transformer plant declared a public nuisance by the City in 2011.

Two major highways delineate East Oakland: the MacArthur Freeway (I-580) to the east, a dividing line between East Oakland and the wealthier Oakland hills, and the Nimitz Freeway (I-880) to the west. Both highways are a cause of pollutants in East Oakland, especially the crowded and dangerous Nimitz Freeway, which runs adjacent to dense commercial and residential areas and has the highest volume of truck traffic in the region, due to the City's truck ban. These historic and ongoing sources of pollution and contamination in East Oakland mean that the area has among the highest proportion of brownfield sites, groundwater quality threats, hazardous waste sites, and environmental pollutants in the State, according to the State Office of Environmental Health Hazard Assessment (OEHHA) and EPA's EJ Screen. Diesel particulate matter, toxic releases, traffic emissions, and lead contamination are primary pollutants of the air, groundwater, and soil. These pollutants, which have created the disproportionate number of brownfield sites in East Oakland, are a direct result of governmental policies that concentrated industry, highways, and other polluting uses in this area. This systematic neglect has allowed brownfields to remain intact and pose health risks to the predominantly lower-income and minority population in East Oakland for generations. In the current day, TA residents are 90% non-white and have an average income half the County average.



ii. Description of the Proposed Brownfield Sites

Site Description

3073 International Blvd

The Site is a rectangular 0.43-acre property, located on the southern side of International Boulevard, between 31st Avenue and East 13th Street, in a mixed residential and commercial area in Oakland. It is comprised of three contiguous parcels, with Alameda County Assessor's Parcel Numbers 25-690-9, 25-690-10 and 25-690-11 and the following addresses: 3073 International Boulevard, 1315 and 1305 31st Avenue. It is currently developed with a vacant commercial building; a two-story mixed-use building, with commercial space on the ground and second floors; and two vacant lots. TUC is the current owner of the Site via 3073 International LLC (of which TUC is the sole member and manager).

The areas surrounding the Site consist primarily of office and commercial buildings to the north and southeast and residential properties to the northwest and southwest.

2700 International Blvd

The Site is a rectangular 0.61-acre property, located on the northern side of International Boulevard, between 27th Avenue and Mitchell Street, in a mixed residential and commercial area in Oakland (Figure 1). It is comprised of seven contiguous parcels, with Alameda County Assessor's Parcel Numbers 25-712-14, 25-712-15, 25-712-16, 25-712-17, and 25-712-19-2, and the following addresses: 2700 International Boulevard, 2712-2716 International Boulevard, 2720 International Boulevard, 1409 Mitchell Street, and 1415 Mitchell Street. It is currently developed with a medical/commercial office building; a two-story mixed-use building, with commercial space on the ground floor and residential above; and parking lots. TUC is the current owner of the Site.

The areas surrounding the Site consist primarily of office and commercial buildings to the northwest, residential development (apartments) to the southwest, residential properties to the north and southeast, and City property to the southeast.

Historic Uses

3073 International Blvd

As reported in the Phase I ESA (CREtelligent, 2022), the Site was undeveloped through 1925. By 1930, a commercial property (the current building) was noted on the northern parcel, and two dwellings were identified on the central and southern parcels. The commercial building was occupied by a creamery through at least 1980. Between 1950 and 1975, the dwelling on the central parcel was redeveloped into a warehouse. Between 1985 and 1991, the dwelling on the southern parcel was demolished, and that property has been vacant since. Vagos Tires and Brakes operated at the property, in the former creamery building, from 1996 to 2013. Other occupants of the commercial and warehouse buildings



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have included a liquor store, various markets, electrical supply, Satya Yuga fine arts, a doctor's office, a salon, and a tax service. In December 2016, the warehouse property on the central property, also known as the Ghost Ship, was destroyed by fire; its remnants were demolished in 2023. Boost Mobile was the only tenant present in the commercial building when the Phase I ESA was completed, and the entire building is currently vacant.

2700 International Blvd:

2700 International Boulevard was developed with residential buildings and lawns during the early 1900s, then with medical offices around 1950. The current building was constructed around 1968, when it appears the 2700 International Boulevard parcel was merged with a parcel addressed as 2708 International Boulevard. The parcel is currently developed with medical/commercial office space and a parking lot.

2712-2716 International Boulevard was developed with the current two-story building, with commercial space on the ground floor and residential above, sometime between 1911 and 1950.

2720 International Boulevard was developed with doctor's offices sometime around 1950 until around 1982. The parcel is currently a parking lot.

1409 Mitchell Street was developed with a residential building sometime before 1939 and then was developed as a parking lot sometime after 1974.

1415 Mitchell Street was developed with a residential building sometime before 1939 and was then used as a "utility service yard" from 1964 until sometime before 2005. The parcel is currently a parking lot. This address was listed in regulatory databases as a Resource and Conservation Recovery Act (RCRA)-Small Quantity Generator (SQG) of hazardous waste in 1996 and as a RCRA-Large Quantity Generator (LQG) of hazardous waste in 1981. It is unclear what substances were generated for these database listings; however, they indicate hazardous substances were likely used on Site, and releases of hazardous substances may have occurred due to this former use, though none were documented.

Site Characterization and Known Contaminants

3073 International Blvd:

The potential sources of these contaminants of potential concern include the 2016 fire at the warehouse on the middle parcel (dioxins in soil), on-Site auto repair operations on the northern parcel (TPHs and VOCs such as benzene and ethylbenzene in soil, soil vapor and/or groundwater), off-Site UST discovered in the sidewalk along 31st Avenue (TPHs and VOCs such as benzene and ethylbenzene in soil, soil vapor



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and/or groundwater), and off-Site dry cleaning operations across 31st Avenue or transported via sewer corridor or other preferential pathway (VOCs such as PCE in soil vapor).

Dioxins in soil are present at concentrations exceeding DTSC remediation criteria in an approximate 20' by 20' northwestern corner of the middle parcel. Benzene and ethylbenzene were detected in several soil vapor probes across all parcels at depths ranging from sub-slab to 15 ft bgs; PCE and chloroform are present in soil vapor in at concentrations exceeding DTSC screening criteria in soil vapor probes along the eastern property boundary at depths ranging from sub-slab to 15 ft bgs; 1,3-butadiene was detected in one soil vapor probe in the middle of the northern parcel at 15 ft bgs; bromodichloromethane was detected in one soil vapor probe on the southern parcel at 15 ft bgs; and 1,1,2-trichloroethane was detected in one soil vapor probe on the southern parcel at 5 ft bgs. Benzene exceeds DTSC tapwater screening levels in one sample along the northern property boundary, but concentrations do not exceed MCLs.

2700 International:

Working under the US EPA Brownfields grant, our Environmental Consultant Ninyo & Moore completed a Phase I ESA, which did not identify any recognized environmental concerns (RECs). However, because the 1415 Mitchell Street parcel was historically used as a "utility service yard" from 1964 until sometime before 2005, and there was documented generation and disposal of hazardous wastes listed in the RCRA-LQG and RCRA-SQG databases, this portion of the Site was considered a potential environmental concern. Based on this potential environmental concern, Ninyo & Moore recommended a subsurface investigation on the 1415 Mitchell Street property.

On June 8 2020, Ninyo & Moore conducted a Phase II ESA, advancing eight soil borings and collecting soil samples. Soil samples were analyzed for total petroleum hydrocarbons (TPHs), volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), asbestos, and metals; and analytical results were compared to San Francisco Bay RWQCB Tier 1 Environmental Screening Levels (ESLs; RWQCB, 2019). TPHs as diesel (TPHd) and TPH as motor oil (TPHmo) and metals were detected. Of these, only TPHd, arsenic, lead, nickel and vanadium exceeded Tier 1 ESLs. No VOCs, PCBs or asbestos were detected in soil.

During November 2022, Ninyo & Moore conducted a Supplemental Site Investigation (SSI), advancing thirteen borings to collect soil samples and installing five soil vapor probes to collect soil vapor samples. TPHd, organochlorine pesticides (OCPs) and metals were detected in soil. Of these, only TPHd, arsenic, mercury and lead were detected at concentrations exceeding applicable screening levels. VOCs were detected in soil vapor, and only tetrachloroethylene (PCE) concentrations (in two soil vapor probes) exceeded DTSC screening levels using an attenuation factor (AF) of 0.03.

- b. Revitalization of the Target Area
 - i. Reuse Strategy and Alignment with Revitalization Plans



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The City's 2015-2023 Housing Element (a policy document outlining affordable housing needs and strategies to address them) states that preserving and producing housing for low- and moderate-income households is a priority. It further states that, to date, the City has not reached its own goals for this housing type. Building permit data from 2014 when the Housing Element was last updated show that while 7,140 low- and moderate-income housing units were needed, only 1,664 had been permitted. TUC's work in producing and preserving affordable housing will directly contribute to the City's ability to reach its stated housing goals. Furthermore, in its long-range regional plan called Plan Bay Area 2040, ABAG and the City have designated three areas in East Oakland to be Priority Development Areas (PDAs). The Fruitvale, Eastmont and Coliseum PDAs cover about three-quarters of the TA defined in this application. These are designated growth areas for affordable housing, in line with municipal and regional goals.

The State of California has a stated commitment to both affordable housing and environmental justice. The State designates certain "disadvantaged communities" based on "geographic, socioeconomic, public health, and environmental hazard criteria." Approximately half of the TA is defined as a disadvantaged community by CalEPA, and is therefore prioritized for targeted investments in infrastructure and housing. In addition, in 2021 California's governor signed new legislation, related to land use, density, and permitting, to expedite the cleanup and reuse of brownfield properties, especially those in historically disadvantaged communities. TUC will be able to leverage these funds to support the transformation of existing housing sites with environmental concerns into safe, healthy, permanently affordable housing.

ii. Outcomes and Benefits of Reuse Strategy

The construction of 3073 and 2700 International would add 133 units of permanently affordable housing and community-serving spaces into the East Oakland community. These housing units would be reserved for residents of extremely low to low incomes (30 - 60% AMI), a population which is disadvantaged economically and also disproportionately persons of color. It will help bring workers closer to employment opportunities. These housing units will be owned and operated by TUC, an experienced service provider, who would provide support to the residents to bolster their health, financial and educational wellbeing. Because of building code requirements and sustainable building practices by TUC, these buildings will be energy efficient and make use of solar technologies and other fossil fuel reduction measures as much as possible.

c. Strategy for Leveraging Resources



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i. Resources Needed for Site Characterization

None.

ii. Resources Needed for Site Remediation

TUC staff have submitted multiple applications to the Department of Toxic Substance Control's (DTSC) Office of Brownfields for Equitable Community Revitalization Grants (ECRG) for grant proceeds both for site assessment of TUC's various sites as well as proceeds for remediation activities and oversight. However, the total request of EPA Grant proceeds we believe will cover direct and oversight costs related to proposed remediation activities for both 3073 and 2700 International Blvd.

iii. Resources Needed for Site Reuse

TUC's Real Estate Development Department is an experienced team skilled in leveraging multiple funding sources for the acquisition, reuse, and development of affordable housing and community-serving commercial space. The State Department of Housing and Community Development (HCD) includes funding for brownfield cleanup as part of many housing development related grant and loan programs, including the Infill Infrastructure Grant program and others. 2700 International has secured funding commitments from HCD relating to the Veterans Housing and Homelessness Prevention Program (VHHP). The state and federal low-income housing tax credit programs provide funding for affordable housing renovation and development, including the cost of environmental remediation, as applicable. TUC has experience in applying for funding from all of these sources. Finally, TUC works closely with the City, the County of Alameda, and commercial and mission-driven lenders to secure financing commitments on housing development and acquisition projects. These funds can in part be used to remediate existing sites to create safe affordable housing. 2700 International has several funding commitments from the City of Oakland, Oakland Housing Authority and private lending institutes that will be used for the proposed development's various design, construction and development costs. EPA's site assessment funding will open the door to leveraging site reuse with all of these funding sources and more.

iv. Use of Existing Infrastructure

Building housing near transit (Transit-Oriented Development, or TOD) is a priority for the City, State and County. East Oakland is served by a rapid-transit train, an existing bus network, and a new bus-rapid-transit line. Both 3073 and 2700 International are located near a newly constructed Bus Rapid Transit line along International Blvd. In addition, there is an ongoing regional plan to connect East Oakland to Downtown Oakland by means of a new dedicated bike path. Development of TUC's priority sites will enable those residents to make use of this existing and planned infrastructure.



In previous development of affordable housing and community space, TUC has made upgrades to existing infrastructure by, for example, repaving sidewalks and streets, enhancing lighting and wayfinding, and upgrading utility infrastructure. TUC has received national recognition for its redevelopment of the area around the local rapid transit station into a pedestrian boulevard and gathering space, known as the Fruitvale Transit Village. East Oakland has known aging infrastructure issues that is outdated and/or in need of repair. For the priority sites, as in the past, TUC would upgrade infrastructure as needed using project funds such as state and federal tax credit funds, state HCD housing development funds, City and County grant and loan programs, and traditional loan funds.

2. COMMUNITY NEED AND COMMUNITY ENGAGEMENT

a. Community Need

i. The Community's Need for Funding

Like all housing nonprofits, TUC does not have funds specifically set aside for site assessment and due diligence. Since California abolished redevelopment agencies, the City and County do not fund site assessment, and the state has limited and sporadic funds available for due diligence. Furthermore, recent cuts to the State's budget have made limited resources for affordable housing more competitive. Currently, funds for site assessment and community outreach around site reuse and development are sourced on a project-by-project basis through grants, loans, and lines of credit. TUC has successfully obtained grant funding for site assessment on a previous reuse site, and will continue to spend staff time and resources applying for funds on a site-by-site basis. The EPA Community-Wide Assessment Grant would amplify TUC's capacity to preserve and protect affordable housing in the East Oakland area by providing necessary funds for remediation activities for two of its proposed projects at 3073 and 2700 International.

The Target Area's (TA) poverty rates in East Oakland make clear that there is limited capital available to address environmental health, despite its urgency as a public health matter. In the TA, 2019 Census data show that 22% of residents were below the poverty line, compared with 8% in the County. Of the 38 TA Census tracts, 24 experience persistent poverty as measured by the 1990 and 2000 decennial censuses and the most recent Small Area Income and Poverty Estimates.

ii. Threats to Sensitive Populations

East Oakland in general and the TA in particular are home to a disproportionately high number of children. As much of the San Francisco Bay Area becomes increasingly unaffordable to



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families with children, East Oakland has remained a bastion for families. About 26% of the TA population is under 18, as compared to about 20% of the County population. Children are more vulnerable than adults to almost every kind of environmental pollutant, whether in air, soil, groundwater, or building materials, and their heightened vulnerability to these contaminants is a key reason why identifying brownfields in this neighborhood is crucial and time critical.

Key characteristics pulled from 2019 Census data demonstrate broad disparities between the TA and the surrounding region. In the TA, income and educational attainment lag behind the rest of the County to a staggering degree. Only about 20% of TA residents over 25 have a college degree, as compared to nearly 50% county-wide. Unemployment in the TA is almost double the County average, at nearly 8%, and household income is about half that in the rest of the County (\$55,882 vs \$110,397).

A majority of households rent rather than own their homes (60%) while in the County as a whole, most households live in homes they own. TA residents, on average, pay about 32% of their total household income on rent, which is not only a significantly higher percentage than is paid by most renters in the County, but which also means that the average householder in the TA is “cost burdened” by housing, as defined by the Department of Housing and Urban Development. Households are cramped, with 15% of homes overcrowded as opposed to 7% in the rest of the County. Homelessness in Oakland almost doubled from 2017 to 2019 and has continued to rise after the pandemic reaching around 5,500 unhoused people in the City in 2024. The financial burden borne by TA residents breeds vulnerability. In the case of a job loss or medical issue, households which are already paying too much for rent and who don’t have significant savings, home equity, or job prospects to fall back on are a greater risk of a housing or financial crisis.

The population of the TA is primarily persons of color; approximately 50% of all residents identify as Latino and 25% identify as Black, compared to 20% and 8% respectively in the County overall. East Oakland has historically served as a community anchor for Black and Latino Americans. There is a rich cultural heritage and an irreplaceable network of community resources located in East Oakland that displacement and other economic pressures threaten to erase.

The assessment, cleanup and reuse and/or preservation of these sites will reduce exposure to environmental toxins, accelerate construction of healthy affordable housing for hundreds of vulnerable residents, and improve prospects for economic advancement and access to services. This grant will facilitate increased capacity to assess sites and plan for cleanup.



- b. Community Engagement
 - i. Project Involvement / ii. Project Roles

TUC represents the East Oakland community before City and State government. TUC was formed in 1964 to give an organized voice to the marginalized Latino residents of Fruitvale (part of East Oakland). When it comes to redevelopment, TUC starts with the community perspective and designs from there, rather than the other way around. This is possible because of the many ways in which TUC engages with and uplifts the East Oakland community as part of daily programming, including resident and senior services, Head Start centers and public charter school sites, the Fruitvale Business Improvement District (BID), the Fruitvale Transit Village, and the Career Services Center. TUC also works closely with community partner organizations to meet the community’s needs. In 2017, TUC was a founding member of the [Resilient Fruitvale Collaborative](#), a coalition of local organizations designed to spearhead community-led responses to health issues and other challenges in East Oakland. During the COVID-19 pandemic, the Collaborative became a lifeline for tens of thousands of East Bay low-income families who depend on member organizations for healthcare, food, emergency financial support, information, and resources. Use of the Assessment Grant funds are directly in line with Resilient Fruitvale’s objectives, and will be guided by member organizations. A select number of these organizations are listed in the table below:

Organization Name	Contact Information	Organizational Mission
La Clinica de la Raza	Jane Garcia, Executive Director, jgarcia@laclinica.org	A community-based healthcare provider offering culturally and linguistically appropriate services to diverse and medically underserved populations
Causa Justa/Just Cause	Shaketa Redden, Executive Director, shaketa@cjjc.org	Uses rights-based services, policy campaigns, civic engagement, and direct action to improve conditions in lower-income neighborhoods in the San Francisco Bay Area
Centro Legal de la Raza	Monique Berlanga, Co-Executive Director, mberlanga@centrolegal.org	A legal services agency protecting and advancing the rights of low-income, immigrant, Black, and Latino communities through bilingual legal representation, education, and advocacy
Native American Health Center	Martin Waukazoo, Executive Director, martinw@nativehealth.org	A Federally Qualified Health Center serving California’s Bay Area Native Population and other underserved communities
CURYJ	George Galvis, Executive Director, ggalvis@curyj.org	Engage youth impacted by the criminal justice, immigration, and foster care systems
Mujeres Unidas y Activas	Juana Flores, Executive Director, juanita@mujeresunidas.net	A grassroots organization of Latina immigrant women with a dual mission of promoting personal transformation and building



		community power for social and economic justice
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TUC’s communications team of five staff works to develop and implement communications strategies. These include bilingual, multimedia campaigns incorporating traditional media, grassroots outreach, and social media. TUC has a distribution list of more than 5,000 emails to which the communications team sends updates and announcements about programs, opportunities, and new developments. Previous engagement efforts include conducting personal phone calls and distributing multilingual flyers and posters describing services in local churches, community-based organizations, public agencies, schools, merchant organizations, neighborhood associations, recreation centers, schools, Head Start centers, and community colleges. TUC also conducts significant “in-reach” to the approximately 8,000 clients served annually by TUC programs.

Each affordable housing project includes a community outreach component whereby neighbors and stakeholders can make their voices heard with regard to the project and its impacts on the neighborhood. TUC’s standard community outreach entails connecting with neighbors by mail and phone, doing targeted outreach to community groups and other stakeholders like schools and local businesses, and posting public information on the development site to solicit public engagement. Initial informational outreach is followed by two to three community meetings in which public input is solicited and incorporated through design charrettes and moderated feedback sessions. During the COVID-19 pandemic, TUC’s strategy has nimbly adjusted to include online meetings, as well as use of social media and TUC’s website to provide information and receive feedback. A combination of all of these approaches will be used moving forward to reach the broadest possible group. With staff who are fluent in six languages, TUC excels at culturally competent outreach. Solicitations for input are translated into other languages where appropriate, and are distributed in ways that accommodate a range of digital fluency and any other barriers to comprehension. TUC prides itself on a community-centered approach and is committed to incorporating community input to the highest extent feasible. With funds from the EPA Community-Wide Assessment Grant, this process would be expanded to include community outreach around environmental site assessment, as well as investigation and cleanup, as applicable.

ii. Incorporating Community Input

Community input on projects is received through group and individual engagement with neighbors, community organizations, local schools and businesses, and other stakeholders, as described above. TUC incorporates all input to the extent possible by, for example, modifying building and site designs, changing features of the affordable housing unit mix, and modifying



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programming. While not all feedback can always be incorporated, TUC responds to and considers all input from community members and plans and designs buildings that will meet the needs of neighborhood stakeholders as well as future residents. Staff have held several community outreach meetings both in person and remotely for both 3073 and 2700 International to understand neighborhood priorities and feedback about proposed designs and the overall need for the projects. Additionally, staff have secured letters of support from local nonprofit housing organizations, neighborhood groups and local government leaders highlighting the need for deeply affordable housing and quality projects like 3073 and 2700 International.

3. TASK DESCRIPTIONS, COST ESTIMATES, AND MEASURING PROGRESS

a. Proposed Cleanup Plan

3073 International Blvd

Based on the information provided in the Phase I and II, ESA and SSI, site COPCs are total dioxins in soil; several VOCs, including benzene, ethylbenzene and PCE in soil vapor; and benzene in groundwater. The site Remedial Action Objectives (RAOs) are a list of actions utilized in order to protect site workers and off-site receptors during construction activities, future site residents, maintenance and building staff, and site visitors.

The RAOs include:

- Minimizing or eliminating potential exposure of receptors to total dioxins in site soil through direct contact, ingestion and inhalation;
- Reducing the human health-based risks associated with on-site total dioxin contamination in soil to a level that is acceptable for unrestricted land use;
- Removing impacted soil that exceeds the DTSC remedial goal for dioxin TEQ of 50 pg/g;
- Mitigating VOC-impacted soil vapor to remove the potential for soil vapor intrusion in the site structures;
- Restricting groundwater use on site via land use restrictions; and
- Protecting human health and the environment by preventing the generation and release of fugitive dust potentially containing elevated concentrations of COPCs in excess of site dust monitoring protocols.

Remediation for contaminated soils will include excavation and off-site disposal of soils containing concentrations of COPCs above the site cleanup goals. Excavated soils will be directly loaded into trucks for transportation and disposal, or may be stockpiled on site then sampled and analyzed to determine its classification as either non-hazardous or hazardous waste pursuant to CCR Title 22 guidelines. A licensed hauler would transport the soils to an approved receiving facility.

Waste characterization and waste acceptance from the appropriate landfill facilities will be



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completed prior to and during excavation activities. If excavated waste soil exceeds the Total Threshold Limit Concentration (TTL) or Soluble Threshold Limit Concentration (STLC) criteria, the waste soil will be classified and managed as hazardous waste and directed to a facility licensed to accept hazardous waste.

Soil removal activities will be conducted in accordance with applicable local permit requirements and the requirements of a RAW that would be submitted to the DTSC for approval prior to implementing site remediation/mitigation activities. Following confirmation of adequate removal of impacted soils (based on confirmation sample results), the excavated areas will be backfilled and graded in preparation for redevelopment. This alternative will remove impacted soils with the planned control measures of the RAW and protect human health and the environment.

Remediation for soil vapors will include installation of a vapor monitoring mitigation system (VIMS). The VIMS can be installed during site construction and will be the most practical and effective option for mitigating the concentrations of VOCs in soil vapor on site. A VIMS typically includes a vapor barrier integrated into the building slab and foundation and vapor vent piping to redirect soil vapors and discharge from vents above the building's roof. The VIMS will be constructed as a passive system; however, there will be an option to convert the VIMS to active if elevated soil vapor concentrations exceeding DTSC-SLs are reported in soil vapor samples collected during routine monitoring events. Prior to converting the VIMS to active, indoor air samples would need to be collected and analyzed, and the results compared to Residential DTSC-SLs.

Permitting with the Bay Area Air Quality Management District (BAAQMD) and routine vapor sampling and reporting are generally required during the first few years after VIMS construction. If there is potential for an off-site VOC soil vapor source, utility-trench dams may also be constructed/installed to inhibit soil-vapor migration through the relatively permeable trench backfill. Trench dams are commonly constructed of a bentonite soil mixture or a sand-cement slurry. The dams should extend at least 3 feet from the building perimeter and at least six inches above the bottom of the perimeter footing to the base of the trench.

2700 International Blvd

Based on the information provided in the Phase I and II ESAs, SSI, and HHRA, the site COPCs are arsenic and lead in soil and PCE in soil vapor. Arsenic exceeded naturally occurring background concentrations in several soil samples, and lead was reported exceeding residential DTSC-SLs in several soil samples. PCE and chloroform were reported in a few soil vapor samples exceeding site DTSC-SLs as well. The proposed clean up plan for the COPCs and PCE contaminants identified above are outlined below and listed as Alternative 3 and 4 in the attached Analysis of Brownfields Clean Up Alternatives (ABCA).



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Proposed Remediation of COPCs

COPC-impacted soils will be excavated from four areas on site. The total soil volume proposed to be excavated is approximately 650 cubic yards (cy). Excavated soils may be directly loaded into trucks for transportation and disposal, or may be stockpiled on site then sampled and analyzed to determine its classification as either non-hazardous or hazardous waste pursuant to CCR Title 22 guidelines. A licensed hauler would transport the soils to an approved receiving facility.

Waste characterization and waste acceptance from the appropriate landfill facilities would be completed prior to and during excavation activities. If excavated waste soil exceeds the Total Threshold Limit Concentration (TTL) or Soluble Threshold Limit Concentration (STLC) criteria, the waste soil would be classified and managed as hazardous waste and directed to a facility licensed to accept hazardous waste.

Soil removal activities would be conducted in accordance with applicable local permit requirements and the requirements of a RAW after its approval by DTSC. Following confirmation of adequate removal of impacted soils (based on confirmation sample results), the excavated areas would be backfilled and graded in preparation for redevelopment. This alternative would remove impacted soils with the planned control measures of the RAW and protect human health and the environment.

Proposed Remediation of PCEs

The proposed plan includes several potential options to mitigate soil vapors from intruding into the planned site structures. The most cost-effective and practical method of soil vapor mitigation is the installation of a Vapor Intrusion Mitigation System (VIMS). The VIMS can be installed during site construction and would be the most practical and effective option for mitigating the low concentrations of PCE and chloroform in soil vapor onsite. A VIMS typically includes a vapor barrier integrated into the building slab and foundation and vapor vent piping to redirect soil vapors and discharge from vents above the building's roof. The VIMS will be constructed as a passive system; however, there will be an option to convert the VIMS to active if indoor air samples exceed screening levels. Permitting with the Bay Area Air Quality Management District (BAAQMD) and routine vapor sampling and reporting are generally required during the first few years after site construction. Utility-trench dams may also be constructed to inhibit soil-vapor migration through the relatively permeable trench backfill. Trench dams are commonly constructed of a bentonite soil mixture or a sand-cement slurry. The dams should extend at least 3 feet from the building perimeter and at least six inches above the bottom of the perimeter footing to the base of the trench.



b. Description of Tasks / Activities and Outputs

3073 International Blvd

Task	Project Implementation	Project Schedule	Task / Activity Lead	Outputs
Soil Excavation	As outlined above, this activity includes excavation of roughly 100 cubic yards of contaminated soils. Excavated soils will be loaded into trucks for transportation and disposal or may be stockpiled on site then sampled and analyzed to determine its classification as either non-hazardous or hazardous waste pursuant to CCR Title 22 guidelines. A licensed hauler will transport soils to approved receiving facility	Estimated 1 month duration at start of construction Estimated 2/2026 - 3/2026	Main Leads are: - Licensed Hauler (TBD) - Ninyo & Moore (Testing & oversight)	Testing and Removal of Contaminated Soil of roughly 100 cubic yards
Design & Installation of VIMS	As outlined above, this activity includes both the design and installation of a VIMS system. A VIMS typically includes a vapor barrier integrated into the building slab and foundation and vapor vent piping to redirect soil vapors and discharge from vents. The VIMS will be constructed as a passive system with option to convert to active if indoor air samples exceed screening level.	Estimated Design: 2/2025 - 7/2025 Estimated Installation: 4/2026- 7/2026	Main Leads are - Ninyo & Moore (Environmental Consulting, VIMS Design & Monitoring) - Licensed Contractor (TBD)	Design and installation of VIMS system in building slab and foundation



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Project Management	TUC will manage all aspects of the project, including procurement of consultants, design oversight as well as monitoring spending of program funds. TUC staff will complete all required reporting including quarterly and annual reports and ACRES updates, and document all meetings, outcomes, and accomplishments. TUC staff will participate in quarterly meetings with EPA to manage the grant's cooperative agreement as well as preparing regular program updates in accordance with the agreed-upon schedule.	11/2024 - 11/2028	TUC Project Manager: Eileen Sochia	TUC will participate in quarterly meetings with EPA and provide annual progress reports and ACRES reporting
DTSC Oversight	DTSC will review and approve proposed Remedial Action Work Plan (RAW) outlining preferred alternatives listed in the ABCA. Once ok-ed DTSC will provide revised CEQA Negative Declaration for the project. DTSC staff will also work with TUC staff to ensure proposed alternatives are being met during construction and ensure all testing, off-haul and installation procedures are met.	11/2024 - 11/2028	Main Leads are Rana Georges (DTSC Senior Analyst and Portfolio Manager) Brooke Bu (DTSC Project Manager)	DTSC will review proposed alternatives and approve all work documents including RAW, Negative Declaration

2700 International Blvd

Task	Project Implementation	Project Schedule	Task / Activity Lead	Outputs
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Soil Excavation	As outlined above, this activity includes excavation of roughly 650 cubic yards of contaminated soils across four areas onsite. Excavated soils will be loaded into trucks for transportation and disposal or may be stockpiled on site then sampled and analyzed to determine its classification as either non-hazardous or hazardous waste pursuant to CCR Title 22 guidelines. A licensed hauler will transport soils to approved receiving facility	Estimated 1 month duration at start of construction Estimated 1/2026 - 2/2026	Main Leads are - Licensed Hauler (TBD) - Cahill Contractors (GC) - Ninyo & Moore (Testing & Oversight)	Testing and Removal of Contaminated Soil of roughly ~650 cubic yards
Design & Installation of VIMS	As outlined above, this activity includes both the design and installation of a VIMS system. A VIMS typically includes a vapor barrier integrated into the building slab and foundation and vapor vent piping to redirect soil vapors and discharge from vents. The VIMS will be constructed as a passive system with option to convert to active if indoor air samples exceed screening level.	Estimated Design: 11/2024 - 3/2025 Estimated Installation: 3/2026- 6/2026	Main Leads are - Ninyo & Moore (Env Consultant & Monitoring) - Pyatok (Architect) - Cahill Contractors (GC)	Design and installation of VIMS system in building slab and foundation
Project Management	TUC will manage all aspects of the project, including procurement of consultants, design oversight as well as monitoring spending of program funds. TUC staff will complete all required reporting including quarterly and annual reports and ACRES updates, and document all meetings, outcomes, and accomplishments. TUC staff will participate in quarterly meetings with EPA to manage the grant's cooperative agreement as well as preparing regular program updates in accordance with the agreed-upon schedule.	11/2024 - 11/2028	TUC Project Manager: Paul Schroeder	TUC will participate in quarterly meetings with EPA and provide annual progress reports and ACRES reporting



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DTSC Oversight	DTSC will review and approve proposed Remedial Action Work Plan (RAW) outlining preferred alternatives listed in the ABCA. Once approved DTSC will provide revised CEQA Negative Declaration for the project. DTSC staff will also work with TUC staff to ensure proposed alternatives are being met during construction and ensure all testing, off-haul and installation procedures are met.	11/2024 - 11/2028	Main Leads are Rana Georges (DTSC Senior Analyst and Portfolio Manager) Kristina Femal (DTSC Project Manager)	DTSC will review proposed alternatives and approve all work documents including RAW, Negative Declaration
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c. Cost Estimates –

3073 International

	Cost
Excavation	
Work Plan (RAW)	\$ 10,000
N&M Field Work	\$ 10,000
Excavation	\$ 36,000
Lab	\$ 2,500
Dust Monitoring	\$ 2,000
IDW disposal	\$ 26,000
Report	\$ 16,200
VIMS	
Design	\$ 15,000
Installation	\$ 190,000
Inspection	\$ 21,500
Record Report of Construction	\$ 11,500
DTSC Time	\$ 114,520
TUC Staff Time	\$ 81,940
Total	\$ 537,160



2700 International Blvd

Activity	Estimated Cost
Design Costs	
VIMS Design	\$ 30,000.00
Construction Costs	
Soil Excavation	\$ 530,000.00
VIMS Installation	\$ 210,000.00
Oversight Costs	
VIMS Monitoring	\$ 30,000.00
TUC Project Management	\$ 100,000.00
DTSC Oversight	\$ 120,000.00
Sum of Costs	\$ 990,000.00

d. Plan to Measure and Evaluate Environmental Progress and Results

Specific metrics and deliverables will be tracked and reported to EPA through quarterly reports, meetings, and ACRES to ensure that the project is meeting projected milestones according to the schedule detailed in the workplan. If the schedule and/or deliverables deviate from the workplan, TUC staff in coordination with EPA will reevaluate these items to ensure that they are in line with clear, attainable deliverables on an actionable timeline. Metrics by which TUC will measure and track the results of this work, are:

- Number of sites assessed
- Number of property transactions
- Units constructed or affordability preserved
- Number of cleanup plans created
- Amount of funding leveraged for cleanup and remediation
- Number of affordable housing units assessed for environmental health conditions
- Acreage of land in East Oakland assessed for environmental health conditions

All of these metrics will be tracked through ongoing reporting and monitoring activities and refinement of these tracking efforts will be discussed at regular meetings with EPA.

4. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

With approximately 300 employees and an annual budget of over \$42 million, TUC’s services reach more than 12,000 individuals in five languages annually. Over the years, TUC has invested over \$100 million in community assets, including over 200,000 square feet of community-



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servicing facilities including a public library branch, charter high school, senior center, health clinic, and early education center. TUC owns and manages approximately 400 affordable and market-rate apartments in ten buildings, with several hundred more in the pipeline. TUC specializes in infill housing development and adaptive reuse of existing buildings, many with pre-existing environmental concerns.

The Chief Executive Officer of TUC reports to a twelve-member Board of Directors. The Board supports the work of TUC and provides mission-based leadership and strategic governance. While day-to-day operations are led by the CEO, board members are responsible for approving TUC's annual budget, audit reports, and material business decisions. The board's Real Estate Committee is composed of members with relevant expertise. This committee approves all real estate-related decisions. TUC's Senior Leadership team and Board of Directors are composed entirely of underrepresented and/or minority groups, and TUC's 300 employees are 70% Latino, 13% Black, and 8% Asian. The list below summarizes the staff involvement with an EPA Community-Wide Assessment Grant.

Chris Iglesias, CEO: A recognized public sector leader with a longstanding career in the Bay Area. Previously San Francisco Mayor's Senior Advisor on Jobs and Contracting Programs, Executive Director of San Francisco's Human Rights Commission, and the Founding Director of CityBuild—San Francisco's nationally recognized construction workforce program aimed at training residents for public and private construction projects. *Role: oversee community outreach and communications plan; strategize with the Board Committee.*

Aubra Levine, Vice President of Real Estate Development: An industry thought leader with over a decade of experience building affordable housing and community-serving commercial space. *Role: manage site selection and acquisition strategy; oversee site acquisition and interaction with public entities.*

Eileen Sochia, Senior Project Manager: An experienced affordable housing professional with 6 years of experience in development, finance and construction of affordable housing and community spaces. She has a Masters's in Business Administration from Mills College. *Role: Oversee Project Management, Procurement, Design Review and Coordination with Consultants and DTSC*

Paul Schroeder, Project Manager: An experienced affordable housing professional with 6 years of experience in development, finance and construction of affordable housing and community spaces. He has a Masters's in Sustainable Design & Construction from Stanford University. *Role: Oversee Project Management, Procurement, Design Review and Coordination with Consultants and DTSC*



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Karen Webb, Grants and Contracts Manager: An experienced financial manager with over 30 years in grant and financial management, she oversees \$10 million annually in Federal, State, and local grants. *Role: provide expertise on reporting and grant management.*

4.a.iv. Acquiring Additional Resources: TUC has successfully selected contractors to perform ESAs and other site diligence for all sites in its portfolio. In each instance where necessary, TUC will issue Requests for Proposals or Qualifications for all contractor services pertaining to the Community-Wide Assessment in conformance with EPA's fair and open competition requirements listed in 2 CFR Part 200 and 2 CFR Part 1500.

4.b.1. Past Performance and Accomplishments: In June 2022, TUC received \$500,000 in EPA Brownfield Communitywide Assessment Grant proceeds. TUC has utilized these funds for various activities associated with program management, community outreach, environmental site assessment and cleanup and reuse planning. These proceeds directly helped 3073 and 2700 International in characterizing existing environmental contaminants as well as generating environmental clean up plans for the projects in addition to other infill sites that TUC acquired in East Oakland. This includes initiating and completing site characterization activities associated with 2700 International. In addition Project team attend EPA training and submitted quarterly reports associated with the Communitywide Grant funding.

4.b.2. Compliance with Grant Requirements. The grants above are in full compliance with administrative regulations. They have been found to be in full compliance after review by the City's grant administrator. This is representative of TUC's excellent reputation as a diligent and responsible administrator with timely and acceptable reporting and fiscal management experience. TUC has the capacity and systems in place to manage over \$10 million in complex funding streams from Federal and State grants, foundations, and contracts, including more than \$3 million each year in unrestricted fundraising from various sources. Independent audits of TUC financials have showed no findings in the past six years. TUC provides thorough and timely impact reports and comply with any external audit/evaluation requests to demonstrate to funders that their support is used in responsible and impactful ways.

November 1, 2024
Project No. 404251002

The Unity Council
1900 Fruitvale Avenue, Suite 2A
Oakland, California 94601

Subject: Analysis of Brownfield Cleanup Alternatives
Preliminary Evaluation
3073 International Boulevard
Oakland, California

1 INTRODUCTION AND BACKGROUND

The purpose of this preliminary Analysis of Brownfields Cleanup Alternatives (ABCA) is to provide information about contamination issues at the site and evaluate possible remedial alternatives. This evaluation will be revised, as necessary, and incorporated into a final Removal Action Work Plan (RAW) for review by the community, project partners, regulatory oversight agencies, and the United States Environmental Protection Agency (USEPA).

1.1 Site Location

The site is located at 3073 International Boulevard in Oakland, California and is identified as a roughly rectangular 0.53-acre property located on the southwestern corner of International Boulevard and 31st Avenue, in a mixed residential and commercial/industrial area in Oakland, California (Figure 1). It is comprised of three contiguous parcels with Alameda County Assessor's Parcel Numbers 25-690-11, 25-690-10, and 25-690-09. The northeastern parcel is currently developed with a two-story 23,942 square-foot commercial building/warehouse; the middle parcel contained the remnants of the Ghost Ship warehouse, which burned in 2016 and was demolished in 2023, and the southwestern parcel is a vacant lot.

1.2 Ownership and Previous Site Uses

The site is currently owned by The Unity Council (TUC). As reported in a Phase I Environmental Site Assessment (ESA) prepared by CREtelligent in 2022 (CREtelligent, 2022), the site was undeveloped through 1925. The Phase I ESA lists the property address as 1305 31st Avenue, Oakland, California; however, the properties listed in the Phase I ESA are the same as the site. By 1930, a commercial

property (current site building), was noted on the northern parcel, and two dwellings were identified on the central and southern parcels. The commercial building was occupied by a creamery through at least 1980. Between 1950 and 1975, the dwelling on the central parcel was redeveloped into a warehouse. Between 1985 and 1991, the dwelling on the southern parcel was demolished, and that property has been vacant since. Vagos Tires and Brakes operated at the property, in the former creamery building, from 1996 to 2013. Other occupants of the commercial and warehouse buildings have included a liquor store, various markets, electrical supply, Satya Yuga fine arts, a doctor's office, a salon, and a tax service. In December 2016, the warehouse property on the central property, also known as the Ghost Ship, was destroyed by fire; its remnants were demolished in 2023. Boost Mobile was the only tenant present in the commercial building when the Phase I ESA was completed, and the entire building is currently vacant.

1.3 Site Assessment Findings

Phase I Environmental Site Assessment

CREtelligent prepared a Phase I ESA for the property dated February 7, 2022 (CREintelligent, 2022). The Phase I ESA was conducted using procedures and practices conforming with the ASTM E1527-13, Standard Practice for Environmental Site Assessments: Phase I ESA Process.

The Phase I ESA identified the following recognized environmental conditions (RECs):

- The middle parcel of the site was impacted by a large fire in 2016 that resulted in the total loss of the structure and interior materials. Hazardous materials were stored and used on site at the time of the fire and included paints, solvents, and varnishes. During the Phase I ESA site inspection, multiple floor drains and potential pathways to the subsurface were identified, and burned materials were still present within the building. Based on the potential for impacts to the subsurface, the fire at the subject property represents a REC.
- The northern portion of the site was historically used as an auto repair facility, and during the Phase I ESA inspection multiple floor drains and standpipes of unknown use were identified within the property interior spaces. The potential for subsurface features associated with historic auto repair uses represents a REC for the subject property.
- A dry-cleaning facility was identified in historical documents on an adjacent property (3107 International Boulevard), located across 31st Avenue to the east. Dry cleaners generally used tetrachloroethene (PCE) in their daily dry-cleaning operations, which, when released to the environment may impact soils, soil vapor and groundwater. Although a review of the available regulatory database listings in the Phase I ESA did not identify any open or closed cases, or releases for this property, the Phase I ESA reported that there was a significant data gap that was identified it as a REC due to the following:
 - The approximate distance from the subject property (approximately 150 feet east);

- The cross-gradient direction in relation to groundwater flow; and
- The absence of records regarding former chemical usage, storage, and/or disposal at the noted dry-cleaning facility.

Based on these RECs, the Phase I ESA made the following recommendations:

- Conduct a Limited Subsurface Investigation on site in the area of the fire to evaluate whether this portion of the subject property has been impacted by the fire.
- Conduct a Geophysical Survey evaluate the potential for underground storage tanks and/or associated piping related to the historical auto repair on site.
- Investigate the potential impacts to subsurface conditions relating to the former dry cleaners adjacent to the site.

Limited Phase II Subsurface Investigation Report

A Limited Phase II ESA was conducted by AEI in August 2022 (AEI, 2022). The Phase II ESA scope of work included a geophysical survey, the installation of three sub-slab soil vapor probes and advancement of ten soil/soil vapor borings. Groundwater sampling was planned, but groundwater was not encountered in the borings.

The geophysical survey identified an underground storage tank (UST) in the sidewalk along 31st Avenue, buried at approximately 4 feet below ground surface (bgs) and with the following approximate dimensions: 8 feet in diameter and 20 feet long. The survey also identified a well located west of the sewer line inside the building on the northern parcel. The sewer line trends parallel and adjacent to the inside of the western wall of the former creamery building on the northern parcel. The well was reported to be 16 feet deep, with water at the bottom inside an 8-inch-diameter pipe.

Soil samples were collected from depths of 1, 2.5, 5, 15, and 20 feet bgs. Selected soil samples were analyzed for total petroleum hydrocarbons (TPH) as diesel and motor oil (TPHd and TPHmo) using EPA Method 8015M, TPH as gasoline (TPHg) and volatile organic compounds (VOCs) using EPA Method 8260B, semi-VOCs (SVOCs) using EPA Method 8270C, dioxins using EPA Method 8290A and, polychlorinated biphenyls (PCBs) using EPA Method 8082, Title 22 Metals using EPA Method 6010B and asbestos using polarized light microscopy (PLM). Sample analytical results were compared to Regional Water Quality Control Board Residential, Commercial and Industrial Environmental Screening Levels (ESLs; RWQCB, 2019) and Department of Toxic Substance Control (DTSC) Human and Ecological Risk Office (HERO) Note 3 Screening Levels (DTSC-SLs;DTSC, 2020).

Contaminants detected above laboratory reporting limits included TPHmo, toluene, SVOCs, and Title 22 Metals; however, none exceeded RWQCB ESLs with the exception of arsenic, which, because it is naturally occurring at levels normally exceeding ESLs, is generally compared to the RWQCB acceptable background arsenic concentration in Bay Area soils of 11 mg/kg (Duvergé, 2011). No arsenic concentrations exceeded this background screening level. There is no ESL for total chromium; however, the chromium concentrations were well within range of background concentration in East Bay soils (LBNL, 2002). No PCBs or asbestos were detected above laboratory reporting limits in soil samples.

The Phase II ESA reported that total tetradoxins were below the residential DTSC-SL for 2,3,7,8-tetrachlorodibenzo-p-dioxin. However, total dioxins were above the Residential DTSC-SL of 4.8 picograms per gram (pg/g) in one sample. Total tetrafurans and pentafurans were also detected in soil samples above laboratory reporting limits; however, there are no DTSC-SLs for furans.

Soil vapor samples were collected from five soil vapor probes and analyzed for TPHg and VOCs using EPA Method TO-15, and ASTM D 1946-90. VOCs reported above Residential DTSC-SLs included benzene and PCE.

Preliminary Endangerment Assessment

AEI was contracted to expedite select portions of the Preliminary Endangerment Assessment (PEA) in February 2023. Their investigation efforts include the advancement of three borings for the collection of soil, groundwater and soil vapor samples and advance an additional six borings for soil vapor sampling. The additional subsurface investigation concluded the following:

- TPHd, TPHg and benzene were reported in concentrations above Tap Water DTSC-SLs in shallow groundwater.
- Benzene, ethylbenzene and PCE were detected above Residential DTSC-SLs in soil vapor.

Ninyo & Moore completed the PEA in May 2023. Field activities included installing seven borings to 2.5 feet bgs for the collection of soil samples. Two borings were converted to dual-nested soil vapor wells at 5 and 15 feet bgs and one boring was converted to a nested soil vapor well at 5 and 8 feet bgs due to shallow groundwater conditions. In addition, sub-slab Vapor Pins® were installed in three locations.

In April 2023, Ninyo & Moore also collected a grab water sample from the existing site well due to the presence of free product. The well depth was not determined due to shallow obstructions in the well. In May 2023, 200 gallons of water were pumped from the well in attempt to remove the free

product and to allow for a camera to be placed down the well. Ninyo & Moore collected another grab sample after the well had recharged, but due to the continued presence of free product, the camera could not be deployed. In June 2023, Ninyo & Moore measured the well and confirmed it was constructed of 10-inch-diameter steel casing and was approximately 58 feet bgs in depth. Depth to water was measured at 14.4 feet bgs, and there was approximately 0.3 foot of free product in the well.

Soil analytical results were reported and included the following:

- Total dioxins in exceeded Residential DTSC-SLs at depths between 0.5 (surface) and 2.5 feet bgs. The dioxin toxic equivalency (TEQ) for one surface sample exceeded the DTSC remedial goal for TEQ of 50 pg/g.
- No SVOCs were reported exceeding Residential DTSC-SLs.

Soil vapor analytical results were reported and included the following:

- Chloroform was reported in one deeper sample exceeding the Residential DTSC-SL;
- Benzene was reported in sample in one shallow and one deeper nested probe exceeding the Residential DTSC SL; and
- PCE was reported in one shallow and one deeper nested well sample exceeding the Residential DTSC-SL.

The site well water samples were analyzed for TPHd, TPHmo and TPHg, VOCs and PCBs. The well water sample collected during the May 2023 sampling event exceeded the RWQCB Tap Water ESLs.

A Human Health Risk Assessment (HHRA) was included as part of the PEA, and was prepared to assess the impacts of site contaminants of potential concern (COPCs) to site receptors. The HHRA concluded that total dioxins detected in soil, and benzene, chloroform and 1,3-butadiene detected in soil gas could pose a health hazard to on-site residents.

Supplemental Site Investigation

Ninyo & Moore prepared a Revised Supplemental Site Investigation (SSI) Work Plan in June 2024 (Ninyo & Moore, 2024). The purpose of the SSI Work Plan is to fill data gaps, and it included a discussion of previous investigations and results, a conceptual site model (CSM), and description of proposed filed activities including soil and soil vapor sampling.

The CSM was prepared partly to evaluate site COPCs, which include total dioxins in soil, and several VOCs in soil vapor and groundwater that exceeded site screening levels (i.e., DTSC-SLs, EPA Regional Screening Levels [RSLs; USEPA, 2021] and RWQCB ESLs). The potential sources of these COPCs include the 2016 warehouse fire, on-site auto repair operations, an off-site UST, and off-site dry-cleaning operations. Potential receptors include commercial workers and future site occupants (residential and/or commercial), construction workers, and neighbors. Potentially complete exposure pathways discussed in the CSM include future site occupants and construction workers who could come into contact with soil, construction workers and neighbors who could come into contact with dust during construction, and vapor intrusion to future site occupants.

The primary objectives of the SSI Work Plan were to fill data gaps identified in the CSM, and to collect data to be used to update the HHRA. The purpose of the proposed investigation was to adequately characterize the site, determine if COPCs pose a risk to future receptors or the environment, and to inform the need for remediation and/or mitigation. Specifically, the proposed scope of work is intended to:

- Assess the extent, magnitude and temporal variability of COPCs in soil vapor methodically across the overall site;
- Determine if hexavalent chromium was a site COPC;
- Assess the extent and magnitude of dioxins in soil methodically across the middle parcel; and
- Obtain usable analytical data to update the HHRA.

To achieve these goals, the SSI Work Plan proposed resampling the 12 soil vapor probes and 3 sub-slab soil vapor probes on site and analyzing the soil vapor samples for VOCs using US EPA Method TO-15. In order to assess the extent of dioxins and the potential for hexavalent chromium in soil, three step-out soil borings were proposed near the dioxin TEQ exceedance sample. Two shallow soil samples were proposed to be collected from each boring (from the surface and at 2.5 feet bgs) and to be analyzed for total dioxins using US EPA Method 8290 and hexavalent chromium analyzed using US EPA Method 7199 modified. This proposed work is currently in progress.

1.4 Project Goals

TUC purchased the property on May 12, 2023. TUC submitted a proposal to build 58 units of affordable housing at this site in October 2024.

2 APPLICABLE REGULATIONS AND CLEANUP STANDARDS

2.1 Cleanup Oversight Responsibility

TUC entered into a Standard Voluntary Agreement with the DTSC on March 20, 2022, and a Voluntary Cleanup Program case was opened. The DTSC will oversee and regulate all remediation activities.

2.2 Cleanup Standards for Major Contaminants

The Residential DTSC-SLs and EPA RSLs will be used as cleanup standards for soil and soil vapor site COPCs. State Maximum Contaminant Limits (MCLs) will be used as the cleanup standards for groundwater, if applicable.

2.3 Laws and Regulations Applicable to the Cleanup

Laws and regulations that are applicable to this cleanup include the Federal Small Business Liability Relief and Brownfields Revitalization Act, the Federal Davis-Bacon Act, DTSC-SLs and EPA RSLs, and California Code of Regulations (CCR), Title 22 Characterization of Hazardous Waste guidelines, and Applicable or Relevant and Appropriate Requirements (ARARs).

ARARs are federal and state environmental statutes, regulations, and standards. Applicable requirements are federal or state laws or regulations that specifically address a hazardous substance, pollutant, contaminant, remedial action, or location. State requirements are ARARs only if they are more stringent than federal requirements. In addition to ARARs, this analysis includes an evaluation of To Be Considered Criteria (TBCs). TBCs are advisories, criteria, or guidance that may be considered for a particular action or specific issue, as appropriate. TBCs are not ARARs because they are neither promulgated nor enforceable. The ARARs or TBCs may be chemical-, location-, or activity-specific. Chemical-specific ARARs or TBCs are usually health- or risk-based numerical values or methodologies used to determine acceptable concentrations of chemicals that may be found in, or discharged to, the environment. Location-specific ARARs or TBCs restrict actions or contaminant concentrations in certain environmentally sensitive areas. Examples of areas regulated under various federal laws include locations where endangered species or historically significant resources are present. Action-specific ARARs or TBCs are usually technology- or activity-based requirements or limitations on actions or conditions involving specific chemicals of concern.

Because this project receives Federal funding, federal, state, and local laws regarding procurement of contractors, equal opportunity, and the participation of small, women and minority-owned businesses will be applied.

3 EVALUATION OF BROWNFIELDS CLEANUP ALTERNATIVES

3.1 Cleanup Action Objectives

Based on the information provided in the environmental reports discussed herein, site COPCs are total dioxins in soil; several VOCs, including benzene, ethylbenzene and PCE in soil vapor; and benzene in groundwater. The site Remedial Action Objectives (RAOs) are a list of actions utilized in order to protect site workers and off- site receptors during construction activities, future site residents, maintenance and building staff, and site visitors.

The RAOs include:

- Minimizing or eliminating potential exposure of receptors to total dioxins in site soil through direct contact, ingestion and inhalation;
- Reducing the human health-based risks associated with on-site total dioxin contamination in soil to a level that is acceptable for unrestricted land use;
- Removing impacted soil that exceeds the DTSC remedial goal for dioxin TEQ of 50 pg/g;
- Mitigating VOC-impacted soil vapor to remove the potential for soil vapor intrusion in the site structures;
- Restricting groundwater use on site via land use restrictions; and
- Protecting human health and the environment by preventing the generation and release of fugitive dust potentially containing elevated concentrations of COPCs in excess of site dust monitoring protocols.

3.2 Identification and Evaluation of Cleanup Alternatives

To address soil contamination and soil vapor impacts at the site, four different cleanup alternatives were considered, including Alternative #1: No Action, Alternative #2: Surface Capping and Institutional Controls, Alternative #3: Excavation with Off-Site Disposal, and Alternative #4, Soil Vapor Mitigation and Monitoring. A brief description of each alternative follows along with a discussion of their effectiveness, implementability and cost.

- **Alternative #1:** As required by the DTSC, the no action alternative has been included to provide a baseline for comparisons among other remedial alternatives. The no action alternative would not require implementing any measures at the site, and no costs would be incurred. This action includes no institutional controls, no treatment of soil, and no monitoring. In the no action alternative, impacted soil would remain in place with no further action.
 - Effectiveness: This alternative would not be effective in reducing the concentrations of the COCs for human receptors, including future site residents and workers.
 - Implementability: This alternative can easily be implemented.
 - Cost: No costs would be generated through the implementation of this alternative.
- **Alternative #2:** This remedial alternative involves the construction of an engineered cap over the COPC-impacted soils. The cap would prevent contact with COPC-impacted site soils and impede percolation of rainwater and water-influenced leaching and migration of COPCs. Typically, engineered caps without a hardscape cover consist of a minimum 2-foot thick layer of clean cover soils with a demarcation material installed between the contaminated and clean soils. The lower approximately 1-foot of cap material typically consists of a compacted layer of low permeable soils, overlain by 1-foot of soil often referred to as the erosional layer. The demarcation material would be placed between the engineered cap material and the COPC-impacted soils. At hardscape areas, the engineered cap would consist of base materials and overlying hardscape materials (e.g., asphalt, synthetic turf or concrete foundations/slab/pavements), reducing the overall required soil cap thickness to 1-foot. Because the future site would be for affordable housing, the site cap would most likely consist of hardscape materials covering most of the site, including slab on grade commercial and apartment units, and parking lot areas, with landscaping installed around the site perimeter.

This alternative would leave COPC-impacted soils exceeding the site remedial goals on site and capped in place. DTSC approved Institutional Controls (ICs) in the form of Land Use Restrictions would be included in a Land Use Covenant (LUC) for the site. To ensure that the cap remains intact, this alternative would require annual inspections and reporting and a 5-year Remedial Performance Report prepared by a Registered Professional Geologist or Engineer.

- Effectiveness: The alternative would involve very little soil disturbance of COPC - impacted soils, and would limit exposure to construction workers; however, it also leaves contaminated soils in place. The impacted soils will be isolated by primarily a hardscape cap, and thus eliminating direct contact to site occupants and maintenance workers. A predominately hardscape cap would also be effective in preventing rainwater from leaching to the contaminated soils and minimize leaching to groundwater. In site areas where landscaped (softscape) areas are located, a bright orange demarcation fabric will be installed to indicate the clean soil/COPC - impacted soil boundary, and thus effectively warning maintenance and utility workers of the depth of contaminated soils. Because the site will be monitored regularly, any problems with the cap condition will be repaired in order to maintain the caps effectiveness.
- Implementability: This alternative employs treatment technologies that have been proven effective in the field and are easily implemented. Because this is a fairly sizable construction site, there is plenty of space for mobilizing and staging the equipment for implementing all site remediation activities.

- Cost, including labor and reporting: \$75,000.
- **Alternative 3:** This alternative includes excavation and off-site disposal of soils containing concentrations of COPCs above the site cleanup goals. Excavated soils may be directly loaded into trucks for transportation and disposal, or may be stockpiled on site then sampled and analyzed to determine its classification as either non-hazardous or hazardous waste pursuant to CCR Title 22 guidelines. A licensed hauler would transport the soils to an approved receiving facility.

Waste characterization and waste acceptance from the appropriate landfill facilities would be completed prior to and during excavation activities. If excavated waste soil exceeds the Total Threshold Limit Concentration (TTLC) or Soluble Threshold Limit Concentration (STLC) criteria, the waste soil would be classified and managed as hazardous waste and directed to a facility licensed to accept hazardous waste.

Soil removal activities would be conducted in accordance with applicable local permit requirements and the requirements of a RAW that would be submitted to the DTSC for approval prior to implementing site remediation/mitigation activities. Following confirmation of adequate removal of impacted soils (based on confirmation sample results), the excavated areas would be backfilled and graded in preparation for redevelopment. This alternative would remove impacted soils with the planned control measures of the RAW and protect human health and the environment.

- Effectiveness: This alternative removes soils that exceed the remediation goals, and; therefore, it provides the highest degree of long-term effectiveness.
- Implementability: This alternative employs treatment technologies that have been proven effective in the field and are easily implemented. Because this is a fairly sizable construction site, there is plenty of space for mobilizing and staging the equipment for implementing all site remediation activities.
- Cost, including labor and reporting: \$102,700.
- **Alternative #4:** This alternative includes several options to mitigate soil vapors from intruding into the planned site structures. Options include soil vapor extraction, thermal treatment with soil vapor extraction, and a vapor intrusion mitigation system (VIMS). The two soil vapor remediation technologies (soil vapor extraction and thermal treatment with soil vapor extraction) are not practical applications for remediating site soil vapor mainly due to the soil characteristics, shallow groundwater (approximately 10 feet below ground surface) and the length of time it would take to permit and operate soil vapor extraction with or without thermal treatment. Because of these negating factors installation of a VIMS is the most practical and cost-effective system for soil vapor mitigation on site.

The VIMS can be installed during site construction and would be the most practical and effective option for mitigating the concentrations of VOCs in soil vapor on site. A VIMS typically includes a vapor barrier integrated into the building slab and foundation and vapor vent piping to redirect soil vapors and discharge from vents above the building's roof. The VIMS will be constructed as a passive system; however, there will be an option to convert the VIMS to active if elevated soil vapor concentrations exceeding DTSC-SLs are reported in soil vapor samples collected during routine monitoring events. Prior to converting the VIMS to active, indoor air samples would need to be collected and analyzed, and the results compared to Residential DTSC-SLs.

Permitting with the Bay Area Air Quality Management District (BAAQMD) and routine vapor sampling and reporting are generally required during the first few years after VIMS construction. If there is potential for an off-site VOC soil vapor source, utility-trench dams may also be constructed/installed to inhibit soil-vapor migration through the relatively permeable trench backfill. Trench dams are commonly constructed of a bentonite soil mixture or a sand-cement slurry. The dams should extend at least 3 feet from the building perimeter and at least six inches above the bottom of the perimeter footing to the base of the trench.

- Effectiveness: This alternative would greatly reduce the potential for vapor intrusion, and sample ports installed within the VIMS would monitor the effectiveness of the VIMS. In the event that VIMS vapor sampling reported VOC concentrations exceeding DTSC-SLs, indoor air monitoring may be conducted to evaluate the potential for vapor intrusion within the interior of the site building.
- Implementability: This alternative employs treatment technologies that have been proven effective in the field and are easily implemented. Because this is a fairly sizable construction site, there is plenty of space for mobilizing and staging the equipment for implementing all site remediation activities.
- Cost including VIMS construction and soil vapor monitoring for 2-years (four events): \$282,000.

3.3 Recommended Cleanup Alternative

The recommended cleanup alternatives are Alternative #3: Excavation with Off-Site Disposal, and #4, Soil Vapor Mitigation and Monitoring. Alternative #1: No Action cannot be recommended since it does not address site risks. Alternative #2: Capping does not permanently remove the impacted soils and will have fees associated with preparing and implementing a long-term O&M Plan for the site. Alternative 3 is more effective in the long term and will permanently remove the contaminated soils and the health risks associated with them, and Alternative #4 will effectively mitigate the potential for soil vapor intrusion inside the site buildings. Therefore, Alternative #3 and #4 are the best site alternatives.

4 LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities. Please also note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analysis. Further assessment of potential adverse environmental impacts from past on-site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil and/or groundwater conditions will exist beyond the points explored in this evaluation.

The environmental interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the subject site. The testing and analyses have been conducted by an independent laboratory which is certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

This report may be relied upon by, and is intended exclusively for, TUC. Any use or reuse of the findings, opinions, and/or conclusions of this report by parties other than those listed above is undertaken at said parties' sole risk.

5 REFERENCES

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FIGURE

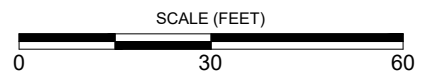
LEGEND

--- SITE BOUNDARY

⊕ WELL



NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE
REFERENCES: RADIUS, 2022; AEI CONSULTANTS, 2022, 2023; GOOGLE EARTH, 2022



404251002.dwg 10/21/2024-AEK

FIGURE 1

October 31, 2024
Project No. 404102003

The Unity Council
1900 Fruitvale Avenue, Suite 2A
Oakland, California 94601

Subject: Analysis of Brownfield Cleanup Alternatives
Preliminary Evaluation
2700 International Boulevard
Oakland, California

1 INTRODUCTION AND BACKGROUND

The purpose of this preliminary Analysis of Brownfields Cleanup Alternatives (ABCA) is to provide information about contamination issues at the site and evaluate possible remedial alternatives. This evaluation will be revised, as necessary, and incorporated into a final Removal Action Work Plan (RAW) for review by the community, project partners, regulatory oversight agencies, and the United States Environmental Protection Agency (USEPA).

1.1 Site Location

The site is a rectangular 0.64-acre property, located on the northern side of International Boulevard, between 27th Avenue and Mitchell Street, in a mixed residential and commercial area in Oakland, California (Figure 1). It is comprised of five contiguous parcels, with Alameda County Assessor's Parcel Numbers (APN) 25-712-14, 25-712-15, 25-712-16, 25-712-17, and 25-712-19-2, and the following addresses: 2700 International Boulevard, 2712-2716 International Boulevard, 2720 International Boulevard, 1409 Mitchell Street, and 1415 Mitchell Street. It is currently developed with a three-story medical/commercial office building; a two-story mixed-use building, with commercial space on the ground floor and residential above; and parking lots.

1.2 Ownership and Previous Site Uses

The Site is currently owned by The Unity Council (TUC). Previous uses for each of the site addresses include the following:

2700 International Boulevard: This parcel, located on the western portion of the site, was developed with residential buildings and lawns during the early 1900s, then with medical offices around 1950. The current three-story building was constructed around 1968, when it appears

the 2700 International Boulevard parcel was merged with a parcel addressed as 2708 International Boulevard. The parcel is currently developed with medical/commercial office space and a parking lot.

2712-2716 International Boulevard: The centrally located parcel was developed with the current two-story building, with commercial space on the ground floor and residential above, sometime between 1911 and 1950.

2720 International Boulevard: The southeastern parcel was developed with doctor's offices sometime around 1950 until around 1982. It is currently a parking lot.

1409 Mitchell Street: The central eastern parcel was developed with a residential building sometime before 1939 and then was developed as a parking lot sometime after 1974.

1415 Mitchell Street: The northeastern parcel was developed with a residential building sometime before 1939 and was then used as a "utility service yard" from 1964 until sometime before 2005. The parcel is currently a parking lot. This address was listed in regulatory databases as a Resource and Conservation Recovery Act (RCRA)-Small Quantity Generator (SQG) of hazardous waste in 1996 and as a RCRA-Large Quantity Generator (LQG) of hazardous waste in 1981. It is unclear what substances were generated for these database listings; however, they indicate hazardous substances were likely used on site, and releases of hazardous substances may have occurred due to this former use, though none were documented.

1.3 Site Assessment Findings

Phase I Environmental Site Assessment

Working under a USEPA Brownfields grant, Ninyo & Moore completed a Phase I Environmental Site Assessment (ESA) in August 2019, which did not identify any recognized environmental concerns (RECs). However, because the 1415 Mitchell Street parcel was historically used as a "utility service yard" from 1964 until sometime before 2005, and there was documented generation and disposal of hazardous wastes listed in the RCRA-LQG and RCRA-SQG databases, this portion of the site was considered a potential environmental concern. Based on this potential environmental concern, we recommended a subsurface investigation on the 1415 Mitchell Street property (Ninyo & Moore, 2019).

Phase II Environmental Site Assessment

On June 8 2020, Ninyo & Moore conducted a Phase II ESA, advancing eight soil borings (SB-1 through SB-8) and collecting soil samples. Soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), diesel (TPHd), and motor oil (TPHmo), volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), asbestos, and Title 22 metals. The laboratory analytical results were compared to San Francisco Bay Regional Water Quality Board (RWQCB) Tier 1, Residential, and Construction Worker Environmental Screening Levels (ESLs; RWQCB, 2019). However, because naturally occurring arsenic concentrations in Bay Area soils generally exceeded ESLs, arsenic concentrations were compared to a RWQCB approved background arsenic concentration of 11 milligrams per kilogram (mg/kg; Duverge, 2011). No VOCs, PCBs or asbestos were detected above their respective reporting limits in soil samples; however, TPHd exceeded the Tier 1 and Residential ESLs in one soil sample, and arsenic and lead exceeded Tier 1 and Residential ESLs in several soil samples. Lead also exceeded the California Code of Regulations (CCR), Title 22 criteria for hazardous waste in three soil samples. Arsenic concentrations also exceeded the naturally occurring arsenic concentrations in Bay Area soils in four samples. Although mercury didn't exceed any of the ESLs in the Phase II ESA soil samples, one soil sample, where mercury was reported at 1.2 mg/kg, exceeded Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note Number 3 Residential screening levels (DTSC-SLs; DTSC, 2020) as discussed below.

Supplemental Site Investigations

Ninyo & Moore conducted an initial Supplemental Site Investigation (SSI) in November 2022 (Ninyo & Moore, 2022), advancing thirteen borings (SB-9 through SB-21) for collection of soil samples, and installing five soil vapor probes (SB-11-SV, SB-12-SV, SB-16-SV, and SB-21-SV) to collect soil vapor samples (Ninyo & Moore, 2023). Soil samples were analyzed for TPHd, organochlorine pesticides (OCPs), VOCs, PCBs, Title 22 Metals and asbestos. The analytical data was compared to RWQCB Residential, Commercial and Leaching to Groundwater ESLs and Residential DTSC-SLs (DTSC, 2020). Soil vapor samples results were also compared to Residential DTSC-SLs using attenuation factors (AFs) of 0.03 and 0.001, respectively.

TPHd, OCPs and metals were detected in multiple soil samples. Of these, arsenic and lead exceeded Residential ESLs in several samples. Arsenic also exceeded the naturally occurring arsenic screening level in three samples. VOCs were also detected in soil vapor samples; however, only tetrachloroethylene (PCE) was reported exceeding its DTSC-SL using an AF of 0.03. PCE was above the DTSC-SLs in two soil vapor samples. Based on these results, Ninyo & Moore

recommended resampling the existing soil vapor probes during the warmer/drier season to assess temporal variability of soil vapor concentrations.

Ninyo & Moore conducted an additional SSI in October 2024 (Ninyo & Moore, 2024) and resampled the existing soil vapor probes. VOCs were detected in soil vapor samples; however, only PCE and chloroform were reported exceeding DTSC-SLs using an AF of 0.03. PCE exceeded the DTSC-SLs in three soil vapor samples, and chloroform exceeded the DTSC-SLs in two soil vapor samples.

Ninyo & Moore generated a Conceptual Site Model (CSM) and HHRA from the analytical data collected during the sampling events. The HHRA concluded that only arsenic and lead in soil could pose a potential health risk to future on-site receptors. The only constituents in soil vapor reported above DTSC-SLs were PCE and chloroform, when the conservative 0.03 AF is used, and were below the criterion when the 0.001 AF is used. Based on this information, the site contaminants of potential concern (COPCs) are arsenic and lead in shallow soils and PCE and chloroform in soil vapor.

Prior to commencing redevelopment, TUC intends to prepare a RAW, which will describe the path forward for site remediation activities. The RAW will include, but not be limited to a discussion of the following:

- Site background, including a tabulation of all previous site analytical data and figures with all previous sample locations;
- Site screening levels and cleanup goals;
- CSM;
- HHRA;
- Removal action goals and objectives for remediating arsenic- and lead-impacted soils;
- Removal action implementation; and
- Vapor Intrusion Mitigation System (VIMS) constructed to mitigate PCE-impacted soil vapor.

1.4 Project Goals

TUC plans to redevelop the entire site into a six-story mixed use complex. Construction will be slab on grade with two non-hydraulic elevators, and the building will consist of low-income residential housing units with some community-serving commercial space and parking.

The planned redevelopment will include 75 units of affordable housing, with residences, retail and a courtyard/open space. The affordable units will be a combination of 1-, 2- and 3-bedroom units. No residences are located on the ground floor; the ground floor will be comprised of commercial space, resident services, and building management. The retail space is approximately 3,800 square feet and located along International Boulevard on the ground floor. Parking consists of 33 spaces in a ground-level covered podium garage. The podium courtyard (open space), located above the garage, is approximately 8,000 square feet and will house a playground, a seating area, and a community garden.

2 APPLICABLE REGULATIONS AND CLEANUP STANDARDS

2.1 Cleanup Oversight Responsibility

A Standard Voluntary Agreement to remediate the site was issued by the DTSC to the Spanish Speaking Unity Council of Alameda County, Inc. on November 30, 2021. The DTSC will oversee and regulate all remediation activities.

2.2 Cleanup Standards for Major Contaminants

The DTSC HERO, HHRA Note Number 3, DTSC Modified Screening Levels for Residential Use (DTSC-SLs), and the USEPA Residential Regional Screening Levels (RSLs) will be used as screening levels for site COPCs, which include arsenic and lead in soil and PCE in soil vapor.

2.3 Laws and Regulations Applicable to the Cleanup

Laws and regulations that are applicable to this cleanup include the Federal Small Business Liability Relief and Brownfields Revitalization Act, the Federal Davis-Bacon Act, DTSC-SLs and EPA RSLs, and California Code of Regulations (CCR), Title 22 Characterization of Hazardous Waste guidelines, and Applicable or Relevant and Appropriate Requirements (ARARs).

ARARs are federal and state environmental statutes, regulations, and standards. Applicable requirements are federal or state laws or regulations that specifically address a hazardous substance, pollutant, contaminant, remedial action, or location. State requirements are ARARs only if they are more stringent than federal requirements. In addition to ARARs, this analysis includes an evaluation of To Be Considered Criteria (TBCs). TBCs are advisories, criteria, or guidance that may be considered for a particular action or specific issue, as appropriate. TBCs are not ARARs because they are neither promulgated nor enforceable. The ARARs or TBCs may be chemical-, location-, or activity-specific. Chemical-specific ARARs or TBCs are usually health- or risk-based numerical

values or methodologies used to determine acceptable concentrations of chemicals that may be found in, or discharged to, the environment. Location-specific ARARs or TBCs restrict actions or contaminant concentrations in certain environmentally sensitive areas. Examples of areas regulated under various federal laws include locations where endangered species or historically significant resources are present. Action-specific ARARs or TBCs are usually technology- or activity-based requirements or limitations on actions or conditions involving specific chemicals of concern.

Because this project receives Federal funding, federal, state, and local laws regarding procurement of contractors, equal opportunity, and the participation of small, women and minority-owned businesses will be applied.

3 EVALUATION OF BROWNFIELDS CLEANUP ALTERNATIVES

3.1 Cleanup Action Objectives

Based on the information provided in the Phase I and II ESAs, SSI, and HHRA, the site COPCs are arsenic and lead in soil and PCE in soil vapor. Arsenic exceeded naturally occurring background concentrations in several soil samples, and lead was reported exceeding residential DTSC-SLs in several soil samples. PCE and chloroform were reported in a few soil vapor samples exceeding site DTSC-SLs as well. The site Remedial Action Objectives (RAOs) are a list of actions utilized in order to protect site workers and off-site receptors during construction activities, future site residents, maintenance and building staff, and site visitors.

The RAOs include:

- Minimizing or eliminating potential exposure of receptors to arsenic and lead in site soil through direct contact, ingestion and inhalation;
- Reducing the human health-based risks associated with on-site arsenic and lead contamination in soil to a level that is acceptable for unrestricted land use;
- Removing impacted soil that exceeds the residential DTSC-SL for lead of 80 mg/kg, and the calculated site background concentration for arsenic of 12 mg/kg;
- Mitigating PCE-impacted soil vapor to remove the potential for soil vapor intrusion in the site structures; and
- Protecting human health and the environment by preventing the generation and release of fugitive dust potentially containing elevated concentrations of COPCs in excess of site dust monitoring protocols.

3.2 Identification and Evaluation of Cleanup Alternatives

To address soil contamination at the site, four different cleanup alternatives were considered, including Alternative #1: No Action, Alternative #2: Surface Capping and Institutional Controls, Alternative #3: Excavation with Off-Site Disposal, and Alternative #4, Soil Vapor Mitigation and Monitoring. A brief description of each alternative follows along with a discussion of their effectiveness, implementability and cost.

- **Alternative #1:** As required by the DTSC, the no action alternative has been included to provide a baseline for comparisons among other remedial alternatives. The no action alternative would not require implementing any measures at the site, and no costs would be incurred. This action includes no institutional controls, no treatment of soil, and no monitoring. In the no action alternative, impacted soil would remain in place with no further action.
 - Effectiveness: This alternative would not reduce the concentrations of the contaminants of concern either for human health risks to future site residents and workers.
 - Implementability: This alternative can easily be implemented.
 - Cost: No costs would be generated through the implementation of this alternative.
- **Alternative #2:** This remedial alternative involves the construction of an engineered cap over the COPC-impacted soils. The cap would prevent contact with COPC-impacted site soils and impede percolation of rainwater and water-influenced leaching and migration of COPCs. Typically, engineered caps without a hardscape cover consist of a minimum 2-foot thick layer of cover soils with a demarcation material installed between the contaminated and clean soils. The lower approximately 1-foot of cap material typically consists of a compacted layer of low permeable soils, overlain by 1-foot of soil often referred to as the erosional layer. The demarcation material would be placed between the engineered cap material and the COPC-impacted soils. At hardscape areas, the engineered cap would consist of base materials and overlying hardscape materials (e.g., asphalt, synthetic turf or concrete pavements), reducing the overall required soil cap thickness to 1foot. The site cap would predominately consist of hardscape materials based on the development footprint consisting mostly of slab on grade commercial and apartment units, and parking lot areas.

This alternative would leave COPC-impacted soils exceeding the remedial goals on site and capped in place. Institutional Controls (ICs) in the form of Land Use Restrictions would be included in a Land Use Covenant (LUC) for the site. To ensure that the cap remains intact, this alternative would require annual inspections and reporting and a 5-year Remedial Performance Report prepared by a Registered Professional Geologist or Engineer.

- Effectiveness: The alternative would involve very little soil disturbance of COPC - impacted soils, and would limit exposure to construction workers; however, it also leaves waste in place. The impacted soils will be isolated by primarily a hardscape cap, and thus eliminating direct contact to site occupants and maintenance workers. A predominately hardscape cap would also keep rainwater from leaching to the waste material and minimizing leaching to groundwater. In site areas where landscaped (softscape) areas are located, a bright orange demarcation fabric will be installed to indicate the clean soil/COPC - impacted soil boundary,

and thus effectively warning maintenance and utility workers of the depth of contaminated soils. Because the site will be monitored regularly, any problems with the cap condition will be repaired in order to maintain the caps effectiveness.

- Implementability: This alternative employs treatment technologies that have been proven effective in the field and are easily implemented. Because this is a fairly sizable construction site, there is plenty of space for mobilizing and staging the equipment for implementing all Site remediation activities.
- Cost, including labor, and 30 years of inspections and reporting : \$310,000
- **Alternative 3:** This alternative includes excavation and off-site disposal of soils containing concentrations of COPCs above the site cleanup goals. COPC-impacted soils will be excavated from four areas on site (Figure 2). The total soil volume proposed to be excavated is approximately 650 cubic yards (cy). Excavated soils may be directly loaded into trucks for transportation and disposal, or may be stockpiled on site then sampled and analyzed to determine its classification as either non-hazardous or hazardous waste pursuant to CCR Title 22 guidelines. A licensed hauler would transport the soils to an approved receiving facility.

Waste characterization and waste acceptance from the appropriate landfill facilities would be completed prior to and during excavation activities. If excavated waste soil exceeds the Total Threshold Limit Concentration (TTLC) or Soluble Threshold Limit Concentration (STLC) criteria, the waste soil would be classified and managed as hazardous waste and directed to a facility licensed to accept hazardous waste.

Soil removal activities would be conducted in accordance with applicable local permit requirements and the requirements of a RAW after its approval by DTSC. Following confirmation of adequate removal of impacted soils (based on confirmation sample results), the excavated areas would be backfilled and graded in preparation for redevelopment. This alternative would remove impacted soils with the planned control measures of the RAW and protect human health and the environment.

- Effectiveness: This alternative removes soils that exceed the remediation goals, and; therefore, it provides the highest degree of long-term effectiveness.
- Implementability: This alternative employs treatment technologies that have been proven effective in the field and are easily implemented. Because this is a fairly sizable construction site, there is plenty of space for mobilizing and staging the equipment for implementing all site remediation activities.
- Cost including labor and reporting: Between \$360,000 to \$530,000 depending on the ratio of Class II non-hazardous waste to Class I non-RCRA hazardous waste.
- **Alternative #4:** This alternative includes several options to mitigate soil vapors from intruding into the planned site structures. Options include soil vapor extraction, thermal treatment with soil vapor extraction, and a VIMS. The two soil vapor remediation technologies (soil vapor extraction and thermal treatment with soil vapor extraction) are not practical applications for remediating site soil vapor mainly due to the soil characteristics, shallow groundwater (approximately 10 feet below ground surface) and the length of time it would take to permit and operate soil vapor extraction with or without thermal treatment. Because of these

negating factors, installation of a VIMS is the most practical and cost-effective system for soil vapor mitigation on site.

The VIMS can be installed during site construction and would be the most practical and effective option for mitigating the low concentrations of PCE and chloroform in soil vapor on site. A VIMS typically includes a vapor barrier integrated into the building slab and foundation and vapor vent piping to redirect soil vapors and discharge from vents above the building's roof. The VIMS will be constructed as a passive system; however, there will be an option to convert the VIMS to active if indoor air samples exceed screening levels.

Permitting with the Bay Area Air Quality Management District (BAAQMD) and routine vapor sampling and reporting are generally required during the first few years after site construction. Utility-trench dams may also be constructed to inhibit soil-vapor migration through the relatively permeable trench backfill. Trench dams are commonly constructed of a bentonite soil mixture or a sand-cement slurry. The dams should extend at least 3 feet from the building perimeter and at least six inches above the bottom of the perimeter footing to the base of the trench.

- Effectiveness: This alternative would greatly reduce the potential for vapor intrusion, and sample ports installed within the VIMS would monitor the effectiveness of the VIMS. In the event that VIMS vapor sampling reported VOC concentrations exceeding DTSC-SLs, indoor air monitoring may be conducted to evaluate the potential for vapor intrusion within the interior of the site building.
- Implementability: This alternative employs treatment technologies that have been proven effective in the field and are easily implemented. Because this is a fairly sizable construction site, there is plenty of space for mobilizing and staging the equipment for implementing all site remediation activities.
- Cost including VIMS construction and monitoring for 2 years: \$240,000

3.3 Recommended Cleanup Alternative

The recommended cleanup alternatives are Alternative #3: Excavation with Off-Site Disposal, and #4, Soil Vapor Mitigation and Monitoring.

Alternative #1: No Action cannot be recommended since it does not address site risks. Alternative #2: Capping is viable but does not permanently remove the impacted soils and will have fees associated with preparing and implementing a long-term O&M Plan for the site. Therefore, Alternatives #3 and #4 are the recommended site alternatives at this time. Alternative 3 will permanently remove the contaminated soils and the health risks associated with them, and Alternative #4 will effectively mitigate the potential for soil vapor intrusion inside the site buildings.

4 LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities. Please also note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

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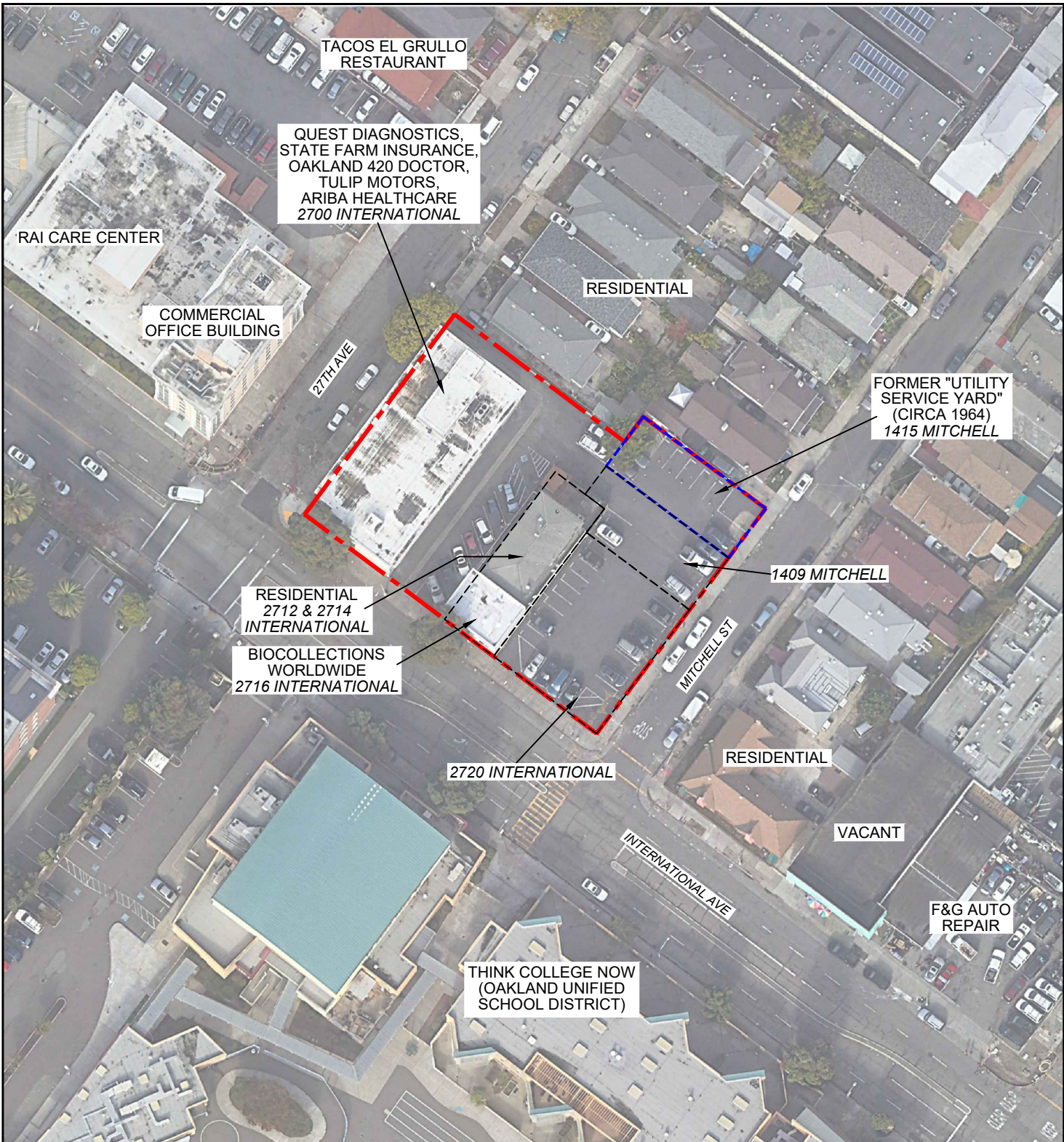
This report may be relied upon by, and is intended exclusively for, TUC. Any use or reuse of the findings, opinions, and/or conclusions of this report by parties other than those listed above is undertaken at said parties' sole risk.

5 REFERENCES

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- Ninyo & Moore, 2020. Phase II Environmental Site Assessment, 2700-2720 International Boulevard and 1409 and 1415 Mitchell Street, Oakland, California. July 22.
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- San Francisco Bay Regional Water Quality Control Board (RWQCB), 2019. Environmental Screening Levels. 2019 (Rev. 2).



FIGURES



LEGEND
 - - - - - SITE BOUNDARY

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE | REFERENCE: GOOGLE EARTH, 2019

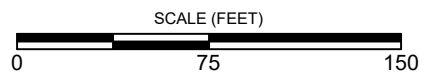


FIGURE 1

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LEGEND

- SITE BOUNDARY
- PROPOSED EXCAVATION AREA
- SB-9 SOIL SAMPLE
- SB-11 SOIL AND SOIL VAPOR SAMPLE
- ⊕ SB-1 PREVIOUS SOIL BORING (N&M, 2020)

ID	DATE	As	Pb
SB-1-0.0-0.5	06/08/20	8.5	75
SB-1-2.5-3.0	06/08/20	8.7	130

SOIL SAMPLE ID WITH SAMPLE DEPTH IN FEET BELOW GROUND SURFACE, SAMPLE DATE, AND SAMPLE RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)

ID	DATE	PCE
SB-11-SV	11/18/22	56

SOIL VAPOR SAMPLE ID, SAMPLE DATE, AND SAMPLE RESULTS TAKEN FROM 5.0 FEET BELOW GROUND SURFACE, IN MICROGRAMS PER CUBIC METER (µg/m³)

- NOTES:**
 SAMPLE RESULTS EXCEEDING RESIDENTIAL ENVIRONMENTAL SCREENING LEVELS OR BACKGROUND ARSENIC SHOWN IN **BOLD**
 As = ARSENIC (mg/kg)
 Pb = LEAD (mg/kg)
 PCE = TETRACHLOROETHYLENE (µg/m³)
 <X = NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMIT X
 J = CONCENTRATION IS CONSIDERED ESTIMATED
 * = DUPLICATE SAMPLE RESULT

UTILITY LINE LEGEND

GAS LINE	---	GAS
TELEPHONE	---	UC/TCL
ELECTRIC	---	UG/E
STREET LIGHT	---	SL
OVERHEAD UTIL.	---	OH UTIL.
SANITARY	---	SS
STORM	---	SD
WATER	---	WL
UNKNOWN	---	UNK

ID	DATE	As	Pb
SB-2-0.0-0.5	06/08/20	7.9	150
SB-2-2.5-3.0	06/08/20	5.0	24

ID	DATE	As	Pb
SB-9-0.0-0.5	11/07/22	14.5	102
SB-9-2.5-3.0	11/07/22	8.65	29.7
SB-9-4.5-5.0	11/07/22	7.65	10.7

ID	DATE	As	Pb
SB-4-0.0-0.5	06/08/20	18	340
SB-4-2.5-3.0	06/08/20	9.4	300

ID	DATE	As	Pb
SB-6-0.0-0.5	06/08/20	6.9	39
SB-6-2.5-3.0	06/08/20	3.8	7.5

ID	DATE	As	Pb
SB-8-0.0-0.5	06/08/20	3.4	37
SB-8-2.5-3.0	06/08/20	4.1 J	8.6

ID	DATE	As	Pb
SB-7-0.0-0.5	06/08/20	5.3	55
SB-7-2.5-3.0	06/08/20	4.7	15

ID	DATE	As	Pb
SB-5-0.0-0.5	06/08/20	16	41*
SB-5-2.5-3.0	06/08/20	6.3	33

ID	DATE	As	Pb
SB-15-0.0-0.5	11/07/22	2.38	<3.00
SB-15-2.5-3.0	11/07/22	6.20	7.95

ID	DATE	As	Pb
SB-11-0.0-0.5	11/04/22	7.80	236
SB-11-2.5-3.0	11/04/22	7.45*	136
SB-11-4.5-5.0	11/04/22	8.05	18.2
ID	DATE	PCE	
SB-11-SV	11/18/22	56	

ID	DATE	As	Pb
SB-13-0.0-0.5	11/07/22	8.85	54.0
SB-13-2.5-3.0	11/07/22	8.45	10.6

ID	DATE	As	Pb
SB-10-0.0-0.5	11/07/22	4.73	10.6
SB-10-2.5-3.0	11/07/22	7.95	11.6
SB-10-4.5-5.0	11/07/22	6.55	9.50

ID	DATE	As	Pb
SB-1-0.0-0.5	06/08/20	8.5	75
SB-1-2.5-3.0	06/08/20	8.7	130

ID	DATE	As	Pb
SB-14-0.0-0.5	11/07/22	11.7	331
SB-14-2.5-3.0	11/07/22	7.00	9.70

ID	DATE	As	Pb
SB-3-0.0-0.5	06/08/20	13	710
SB-3-2.5-3.0	06/08/20	7.5	53

ID	DATE	As	Pb
SB-17-0.0-0.5	11/07/22	4.08	18.3
SB-17-2.5-3.0	11/07/22	6.25	7.95

ID	DATE	As	Pb
SB-18-0.0-0.5	11/07/22	6.35	27.0
SB-18-2.5-3.0	11/07/22	6.35	7.50

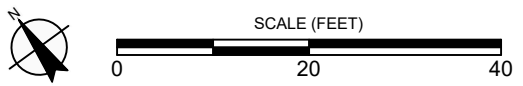
ID	DATE	As	Pb
SB-16-0.0-0.5	11/04/22	6.15	10.8
SB-16-2.5-3.0	11/04/22	5.80	8.00
ID	DATE	PCE	
SB-16-SV	11/18/22	8.8	

ID	DATE	As	Pb
SB-20-0.0-0.5	11/07/22	13.6	10.7
SB-20-2.5-3.0	11/07/22	6.90	8.25

ID	DATE	As	Pb
SB-21-0.0-0.5	11/04/22	7.35	127
SB-21-2.5-3.0	11/04/22	7.20	8.10
ID	DATE	PCE	
SB-21-SV	11/18/22	7.0	

ID	DATE	As	Pb
SB-19-0.0-0.5	11/04/22	7.60	9.00
SB-19-2.5-3.0	11/04/22	5.50	7.15
ID	DATE	PCE	
SB-19-SV	11/18/22	<3.4	

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE | REFERENCES: PYATOK PRELIMINARY PLAN SET, SHEET A.201



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