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NARRATIVE INFORMATION SHEET: CITY OF LOS ANGELES FORMER CROCKER PLATING WORKS CLEANUP GRANT

1. Applicant ID	Citywide Brownfields Program, City of Los Angeles Department of Public Works, LA Sanitation and Environment (LASAN)	
2. Funding Requested	**a. Grant Type:** Single Site Cleanup **b. Federal Funds Requested:** $500,000 (no cost share waiver is requested)	
3. Location	City of Los Angeles, County of Los Angeles, State of California	
4. Property Information	Former Crocker Plating Works (4 parcels), 5879, 5887, 5888, and 5910 Crocker Street, Los Angeles, CA, 90003, Council District 9	
5. Project Contacts	**Project Director**	**Chief Executive**
Name and Title	Nuna Tersibashian, Citywide Brownfields Program Manager (Project Director), LASAN	Enrique C. Zaldivar, Director and General Manager, LASAN
Address	1149 S. Broadway, 5th Floor, (Mail Stop 944) Los Angeles, CA 90015	1149 S. Broadway, 9th Floor Los Angeles, CA 90015
Phone Number	(213) 485-3791	(213) 485-2210
Email Address	nuna.tersibashian@lacity.org	Enrique.zaldivar@lacity.org
6. Population	3,959,657 (City of Los Angeles; American Community Survey, 7/1/2018)	

Other Factors Checklist

Other Factors	Page #
Community population is 10,000 or less.	N/A
The applicant is, or will assist, a federally recognized Indian tribe or United States territory.	N/A
The proposed brownfield site(s) is impacted by mine-scarred land.	N/A
Secured firm leveraging commitment ties directly to the project and will facilitate completion of the project/reuse; secured resource is identified in the Narrative and substantiated in the attached documentation.	Narrative Section 1.c.i (pages 2-3) and Narrative Attachment A
The proposed site(s) is adjacent to a body of water (i.e., the border of the 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
The proposed site(s) is in a federally designated flood plain.	N/A
The redevelopment of the proposed cleanup site(s) will facilitate renewable energy from wind, solar, or geothermal energy; or any energy efficiency improvement projects.	Narrative Section 1.b.ii (page 2)

N/A = not applicable

Department of Toxic Substances Control

Jared Blumenfeld
Secretary for
Environmental Protection

Meredith Williams, Ph.D.
Director
5796 Corporate Avenue
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Gavin Newsom
Governor

October 19, 2020

Colette Monell
Environmental Specialist II, Brownfields Program
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Via email: colette.monell@lacity.org

ACKNOWLEDGMENT OF A UNITED STATES ENVIRONMENTAL PROTECTION AGENCY BROWNFIELD CLEANUP GRANT PROPOSAL

Dear Ms. Monelle:

The Department of Toxic Substances Control (DTSC) of the California Environmental Protection Agency acknowledges and supports the City of Los Angeles, application for a U. S. Environmental Protection Agency (USEPA) Brownfield Cleanup (US EPA grant) for the Former Crocker Plating Works (4 parcels) located at 5879, 5887, 5888, and 5910 Crocker Street, Los Angeles, California, 90003.

The City's ability to secure these grant funds will significantly assist the residents and businesses in the surrounding area by conducting an environmental cleanup and moving forward toward entitlement and development.

We look forward to the possible award of the USEPA grant to the City of Los Angeles to facilitate the success of the City's goals. DTSC stands ready to provide the necessary technical support and regulatory oversight, as needed, for projects and sites that are covered by the grant. If you need further information or assistance regarding specific brownfield sites, or any of the DTSC's brownfield programs, please feel free to contact me at Maryam.Tasnif-abbasi@dtsc.ca.gov .

Sincerely,

Maryam Tasnif-Abbasi
Brownfields Development Manager
Site Mitigation and Restoration Program

1. PROJECT AREA DESCRIPTION AND PLANS FOR REVITALIZATION

1.a.i. Target Area and Brownfields/Background and Description of Target Area

The City of Los Angeles (LA; the "City") grew into an industrial center in the late 1800s when several railroads chose it as their western terminus. In 1892, oil was discovered in what is now Downtown LA, and later, in other areas of the City. During World War II, LA was a major center for production of aircraft and war supplies, and after the war, the economy continued to boom with significant growth in aircraft-related industries, oil production/refining, and auto manufacturing. By 1958, the LA Metropolitan Area ranked as the second largest manufacturing center in the United States (US), with 16,910 manufacturing establishments and with nearly 725,000 total manufacturing employees. Beginning in the 1970s the larger industrial facilities gradually left LA, and regional decline in manufacturing has continued to this day, particularly in South LA. Since 1990, the number of LA residents employed in manufacturing has declined by 47% (from 307,874 to 163,169)[1]. Much of the industrial and oil production activities occurred prior to the era of environmental regulation, and the closure of these facilities has resulted in the presence of thousands of brownfield sites in LA, polluted from past industrial and oil production activities.

The former Crocker Plating Works property (the "Site") for which Environmental Protection Agency (EPA) Cleanup funding is being requested, is a former metal plating facility located ½-block south of the boundary between the South Park and Florence Neighborhoods and about 3 miles due south of downtown LA. The two neighborhoods represent the Target Area for the grant and are among the most densely populated districts in the City. The neighborhoods are characterized by modest homes constructed on small lots beginning in the early 1900s. The two blocks containing the Site include a mix of industrial, commercial, and residential uses. Over 92,000 residents (99.4% minority) live in the 21 census tracts (CTs) and 4.2 square mile area forming the Target Area[2]. The per capita income of $12,330 for this area is approximately one-third that for California (CA)[3]. The EPA grant will be used to remediate the Site and convert it into 160 units of permanent supportive housing for chronically homeless low-income residents.

1.a.ii. Description of the Brownfield Site:

The Site encompasses four parcels totaling 0.84 acres acquired by the City in 2013. Two of the parcels (the "West Lot"; 5879-5887 Crocker Street) are located on the west side of Crocker Street and served as a parking lot and outdoor storage area for the former plating facility. The other two parcels (the "East Lot"; 5888-5910 Crocker Street) are located on the east side of Crocker Street and were occupied by the former plating facility until Site buildings were demolished by the City in 2010. No structures are currently present on the Site and both lots are vacant and secured by chain link fences installed by the City.

The Site was first developed for residential uses beginning in 1909, and by 1923 was occupied by six single family residences and three small residential garages. Use remained residential until 1950 when a machine shop was constructed on the East Lot. By 1953, the building on the East Lot was in use as a plating shop, to which a series of additions were constructed through 1963. The plating shop (Memley Plating Works and Crocker Plating Works) operated from 1953 through 2008. Residential use of the West Lot also ended by 1950, when a C-shaped building of unknown use was constructed. The building was demolished before 1965, and the West Lot appears to have served as a parking lot and outdoor storage area for the plating shop. Both lots were acquired by the Community Redevelopment Agency of the City of Los Angeles (CRA/LA) in 2008 at which time use of the Site for industrial purposes ended.

Phase I and II environmental site assessments (ESAs) were completed at the Site by the CRA/LA in 2008 prior to acquiring the Site. A supplemental Phase II ESA was completed at the Site in August 2020 to support cleanup and redevelopment of the Site. In total sampling included collection and analysis of 49 soil samples and 51 soil vapor samples from 25 soil boring/vapor probe locations. Soil samples were analyzed for Title 22 metals, total cyanide, polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), and/or petroleum hydrocarbons as diesel-, gasoline-, and motor oil-range organics (DRO/GRO/MRO). Soil vapor samples were analyzed for VOCs and GRO. Groundwater was not sampled as it was not encountered at maximum depth explored (20.5 feet), and data for other nearby remedial sites suggest that the depth to groundwater at the Site is >100 feet. Four primary contaminants of concern (COCs) were documented for soil gas: tetrachloroethylene (PCE), trichloroethylene (TCE), GRO, and benzene which exceed the EPA residential screening levels (RSLs) in many analyzed samples. PCE was detected above applicable residential screening levels in 47 of the 49 analyzed soil vapor samples. The highest PCE concentrations in soil vapor are present on the central and east portions of the East Lot at concentrations up

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[1] Manufacturing employment: 1990 = US Decennial Census; 2017 = American Community Survey (ACS) 5-year estimate for 2013-17. Data for the City were downloaded from Social Explorer website on 9/10/2020.

[2] The target area is defined as including CTs 2285, 2286, 2292, 2293, 2294.1, 2294.2, 2319, 2328, 2392.01, 2392.02, 2393.1, 2393.2, 2393.3, 2395.01, 2395.02, 2396.01, 2396.02, 2397.01, 2397.02, 2398.01, and 2398.02.

[3] Minority and per capita income = ACS 5-year estimates (2014-18).

to 27 times above the residential screening levels. Key COCs in soil include lead, total petroleum hydrocarbons as DRO (TPH-DRO), and total cyanide, for which impacts are documented primarily on the East Lot. Leaching tests performed for metals on select soil samples documented soluble cadmium in one sample at a concentration of 0.9 milligrams per liter (mg/L) and soluble lead at a concentration of 3.3 mg/L. Although these concentrations are below the corresponding California hazardous waste (CA Haz Waste) threshold values of 1.0 and 5.0 mg/L, respectively, it is assumed that near surface soil in some areas of the East Lot contain higher concentrations of soluble cadmium and/or lead that may result in excavated soil being classified as CA Haz Waste.

1.b.i. Revitalization of the Target Area/Reuse Strategy & Alignment w/ Revitalization Plans

It is proposed by Council District 9 to redevelop both lots for permanent supportive housing. The project will include 120 one-bedroom live/work units on the East Lot arranged in a five-story building and 40 studio units on the West Lot arranged in a four-story building. All units on both lots will target the chronically homeless and will be rent restricted for affordability at the low income level (defined as households making less than 80% of the median income in the area).

The project will include 11,800 square feet (ft^2) of landscaped common open space on the ground level for resident use (10,200 ft^2 on the East Lot and 1,600 ft^2 on the West Lot). Common spaces will also include eight at-grade parking spaces (six on East Lot and two on West Lot) for supportive services, and bicycle storage space. The ground-floor lobby area will provide a community room, offices for supportive services, mail, and laundry facilities. Each unit will be fully furnished and provide a full private bathroom and kitchen, with plentiful natural light. All units will be American with Disabilities Act (ADA)-ready or adaptable and therefore compliant for persons with disabilities.

Development of the Site for affordable housing was discussed extensively in public meetings and is consistent with the designation of this former industrial property as "Subarea N – Multi-Family" in the Southeast LA Community Plan Implementation Overlay District adopted on 4/5/2019 (Ordinance No. 185925). The project is consistent with the purpose for this designation which is "*to encourage mixed-income and affordable housing development and minimize potential displacement*." The project will advance multiple goals and policies within Chapter 6 (Housing Goals Objectives, Policies, and Programs) of the 2013-2021 Housing Element of LA's General Plan; in particular Goal 1 ("*A City where housing production and preservation result in an adequate supply of ownership and rental housing that is safe, healthy and affordable to people of all income levels, races, ages, and suitable for their various needs*"), Goal 4 ("*A City committed to preventing and ending homelessness*"), and Policy 4.1.3 ("*Provide permanent supportive housing options with services for homeless persons and persons/families at risk of homelessness to ensure that they remain housed and get the individualized help they may need*"). The project will advance four goals for housing and development included in LA's Green New Deal Sustainable City Plan 2019. These goals include: 1) end street homelessness by 2028; 2) increase cumulative new housing unit construction to 150,000 by 2025; 3) ensure 57% of new housing units are built within 1,500 feet of transit by 2025; and 4) create or preserve 50,000 income-restricted affordable housing units by 2035 and increase stability for renters.

1.b.ii. Outcomes and Benefits of Reuse Strategy

The census tract that contains the Site (as well as the neighboring CTs to the east, southeast and south) are designated Opportunity Zones (OZs). The OZ designation is anticipated to encourage long-term investments through a federal tax incentive. The proposed development of 160 units of permanent supportive housing for chronically homeless residents will result in significant immediate economic impacts for the OZ resulting from the estimated $25.3 million (M) redevelopment costs which includes all acquisition, development and construction costs, as well as long-term indirect benefits from providing up to 160 individuals or households with housing necessary as a foundation for gaining stable permanent employment. Therefore, the economic benefits will accrue to residents with the direst economic needs. The City will require that prevailing wages be paid during all phases of the Project and contractors will be required to employ residents from the neighborhood.

As a requirement for meeting the definition of permanent affordable housing, the project will be required to incorporate high-energy efficient measures and common open space. Specifically, development considerations for the Site will also include heat pump water heaters, space conditioning and dryers, advanced walls and insulation, advanced building controls, high-capacity electrical panels, induction cooktops, home energy management systems, smart thermostats, solar photovoltaic (PV) panels, and battery storage systems. Within the CT and OZ are several specific community programs managed by the Department of Community Services and Development which are geared to promote energy efficiency projects. These programs include the Single Family/Small Multi-Family Energy Efficiency and Solar Water Heating program and the Single-Family Solar PV programs. It is anticipated that these programs will be utilized during Site redevelopment.

1.c.i. Strategy for Leveraging Resources / Resources Needed for Site Reuse

The City and its project partners are eligible for a combination of public and private funding. There are many number State of CA funding programs available for developers of multi-family affordable housing and/or permanent housing for homeless residents. Some of these key programs include Cal HOME grants[4], CA Emergency Solutions and Housing (CESH) grants[5], Emergency Solutions (ES) grants[6], Home Investment Partnerships Program grants[7], No Place Like Home Program grants[8], and Multifamily Housing Program (MHP) loans[9]. The MHP is a new program supported by $1.5 billion (B) in bonds that will provide deferred payment loans with a 55-year term and 3% simple interest on unpaid principal balance. This project will be privately funded and the City is in early negotiations with the developer at the time of this application. To leverage resources, City staff will work with the developer to secure additional funding sources as they become available. Having EPA Cleanup funding in place to address the environmental liabilities would enhance the scoring for several of the referenced funding programs, and enhance the likelihood of securing funding.

The Site is located within an Enterprise Zone/Employment and Economic Incentive Program Area as well as an OZ, both of which will aid in raising private investment needed for the project. The project is a type of project that would be directly eligible for OZ fund investments, as well as one that will indirectly benefit from other beneficial criteria applicable to projects in OZs (such as reduced Federal Housing Administration mortgage insurance application fees – reduced from $3 per $1,000 of requested mortgage amount to $1 available to affordable housing projects[10]). Finally, the City has an existing EPA brownfields community wide assessment (CWA) grant that can be utilized to conduct any necessary additional assessment and remedial planning activities. In addition, funding for assessment and remedial planning is available through a separate EPA CWA grant awarded to the National Development Council which was used to perform the 2020 Phase II ESA for the Site.

1.c.ii. Use of Existing Infrastructure

The project is in a long-established City neighborhood and on a street fully served by existing infrastructure, including sanitary sewer, water, gas, electric, high speed internet and paved streets with curbs, sidewalks, and streetlights. An 8-inch diameter sanitary sewer runs through the center of Crocker Street. The site is easily accessible from the 110 Freeway (with access ramps located ¾-mile to the west). The site is serviced by the local 48, 51, 52, 108, 352 and 358 bus routes, with the 108 and 358 buses along Slauson Avenue connecting to the Metro Blue Line. Finally, the site is optimally located to benefit from a major infrastructure investment project – the conversion of a 10-mile former railroad right-of-way into a multi-purpose pedestrian and bicycle transportation corridor (the "Rail to River Corridor"). Section A is 5.6 miles in length and borders Slauson Avenue – ½ block north of the Site and will connect the Metro Crenshaw/LA Airport and the Metro Blue light rail lines. The availability of multiple forms of public transportation is aligned exceptionally well with the needs of the community that will be served by the planned development. The project is designed to leverage the existing public transit infrastructure, with only 8 parking spaces to be included for 160 proposed housing units.

2. COMMUNITY NEED AND COMMUNITY ENGAGEMENT

2.a.i. Community Need / The Community's Need for Funding

The grant will help meet the needs of a low-income community lacking the initial funding to advance the project without EPA assistance. The community bordering the Site is low-income with a per capita income that is about one-third that of the City, County, State and US, and the unemployment and poverty rates are approximately 2-1/2 times the corresponding rates for the US (**Table 1**).

Table 1. Economic Distress Data (American Community Survey [ACS] 2018 5-Year Estimates[11])

Data Type	South Park Neighborhood [A]	Florence Neighborhood [B]	City of LA	LA County	State of CA	United States
Median Household Income [C]	**$34,388**	**$37,205**	$58,385	$64,251	$71,228	$60,293
Per capita income [C]	**$12,152**	**$12,440**	$33,420	$32,469	$35,021	$32,621
Unemployment rate (July 2019) [D]	n/a	n/a	5.0%	5.0%	4.4%	4.0%
Unemployment rate (July 2020) [D]	n/a	n/a	18.5%	18.5%	13.9%	10.5%

[4] https://www.hcd.ca.gov/grants-funding/active-no-funding/calhome.shtml
[5] https://www.hcd.ca.gov/grants-funding/active-funding/cesh.shtml
[6] https://www.hcd.ca.gov/grants-funding/active-funding/esg.shtml
[7] https://www.hcd.ca.gov/grants-funding/active-funding/home.shtml
[8] https://www.hcd.ca.gov/grants-funding/active-funding/nplh.shtml
[9] https://www.hcd.ca.gov/grants-funding/active-funding/mhp.shtml
[10] https://www.hud.gov/sites/dfiles/OCHCO/documents/2019-07hsgn.pdf
[11] *Notes for Table 1. Data downloaded from the US Census Bureau website on 10/1/2020. All data are 5-year estimates for 2014-18, except for the unemployment rate.*

Select acronyms: ACRES = Assessment, Cleanup, and Redevelopment Exchange System; CA = California; CT = census tract; CWA = community-wide assessment; DTSC = Department of Toxic Substances Control; EPA = Environmental Protection Agency; EJ = environmental justice; ESA = environmental site assessment; LA = Los Angeles; LASAN = LA Sanitation and Environment; M = million; OZ = opportunity zone; US = United States; VCP = Voluntary Cleanup Program

Poverty rate	**37.3%**	**31.8%**	19.1%	16.0%	14.3%	14.1%
Poverty rate for children (<18 years)	**48.3%**	**42.7%**	27.3%	22.5%	19.5%	19.5%

A) Combined data for CTs 2285, 2286, 2292, 2293, 2294.1, 2294.2, 2319, and 2328. B) Combined data for CTs 2392.01, 2392.02, 2393.1, 2393.2, 2393.3, 2395.01, 2395.02, 2396.01, 2396.02, 2397.01, 2397.02, 2398.01, and 2398.02. C) In 2018 inflation adjusted dollars. D) Civilian population in labor force ≥16 years, 1-year unemployment rate.

The City faces daunting financial challenges, with annual pension costs that have more than tripled since 2005-06 (increasing from $435M to $1.39B in 2019-20). The City is experiencing enormous costs associated with what is currently the greatest homeless population of any US City, which, since 2013 has increased by 80% to an estimated 41,290 individuals in January 2020[12]. Of the City's budget for 2019-20, $458M is being allocated to address homelessness. LA has been one of the major US cities most severely impacted by the COVID-19 pandemic. As shown on **Table 1**, the increase in the unemployment rate (July 2019-July 2020) has been nearly double the increase experienced in the US. In September 2020, the LA City Council declared a fiscal emergency and approved plans to furlough more than 15,000 employees, as well as to carry out early retirement buyouts for another 1,280 employees to help recoup lost revenue due to the COVID-19 pandemic[13]. The homelessness crisis that LA was already experiencing has been made far worse by the COVID-19 pandemic.

2.a.ii Threats to Sensitive Populations / (1) Health or Welfare of Sensitive Populations

As shown in **Table 2** below, over 99% of residents in the Target Area census tracts are minorities. There is also a greater relative percentage of children ≤5 years old and women of child-bearing age in the Target Area neighborhoods, versus the City, County, State or US. Over 50% of adults lack a high school education and over 35% of residents lack health insurance.

Table 2. Sensitive Populations in the Target Area (ACS 2018 5-Year Estimates[14])

Data Type	South Park Neighborhood [A]	Florence Neighborhood [B]	City of LA	LA County	State of CA	US
Minority residents (% of total population) [C]	**99.6%**	**99.3%**	71.5%	73.7%	62.5%	38.9%
Hispanic residents (% of total population)	**88.0%**	**81.0%**	48.6%	48.5%	38.9%	17.8%
Children <5 years (% of total population)	**9.8%**	**8.7%**	6.0%	6.2%	6.3%	6.1%
Children ≤ 18 years (% of total population)	**33.1%**	**31.8%**	21.0%	22.2%	23.2%	22.8%
Woman 15-44 years (% of female population)	**46.5%**	**48.3%**	44.8%	42.4%	40.9%	38.8%
Adults (≥25 yrs) without a high school degree	**56.3%**	**50.1%**	23.0%	23.6%	17.5%	12.7%
Households that are Housing Cost Burdened	**72.5%**	**72.8%**	60.0%	58.3%	55.4%	50.2%
% of Housing built 1979 or earlier	**84.6%**	**83.8%**	75.9%	74.8%	59.8%	54.2%

A) Combined data for CTs 2285, 2286, 2292, 2293, 2294.1,2 294.2, 2319, and 2328. B) Combined data for CTs 2392.01, 2392.02, 2393.1, 2393.2, 2393.3, 2395.01, 2395.02, 2396.01, 2396.02, 2397.01, 2397.02, 2398.01, and 2398.02. C) Calculated by subtracting the reported census values for "white, not Hispanic" from 100%.

Welfare concerns in the neighborhood include high homeless population, high crime rates and gang violence, lack affordable quality housing, and the blighting influence of former industrial properties. The grant will help convert the Site from an on-going source of blight to a community asset, will provide permanent, high quality affordable housing providing shelter and services for homeless residents.

2.a.ii (2) Greater Than Normal Incidence of Disease and Adverse Health Conditions

Table 3 summarizes prevalence rates for eight chronic disease and health indicators for residents living within Census Tract (CT) 2392.02, as well as the average prevalence for all 994 CTs in the City of LA, based on estimates developed by the Centers for Disease Control and Prevention (CDC) and published in 2018[15]. The average prevalence rates for CT 2392.02 were also ranked relative to all 5,237 urban CTs in CA evaluated as part of the CDC study.

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[12] *Increase from 22,993 to 41,290; http://www.laalmanac.com/social/so14.php; https://www.lahsa.org/news?article=726-2020-greater-los-angeles-homeless-count-results#:~:text=LOS%20ANGELES%2C%20CA%E2%80%94The%20Los,point%2Din%2Dtime%20count.*

[13] *https://losangeles.cbslocal.com/2020/09/02/la-declares-fiscal-emergency-furloughs-buyouts/*

[14] *Notes for Table 2. Data downloaded on 10/1/20 from the US Census Bureau website. All data are ACS 5-year estimates for 2014-18.*

[15] *https://chronicdata.cdc.gov/500-Cities/500-Cities-Census-Tract-level-Data-GIS-Friendly-Fo/k86t-wghb/data*

Table 3. Health Measure Estimates for Target Area Census Tract (CT)[16] [A]

Health Measure *(see footnote 16 at bottom of this page for explanation of notes A-F)*	Prevalence in Target Area (CT 2392.02) [B]	Average Prevalence in LA [C]	Percentile among 5,237 CA CTs [D]	Health Measure	Prevalence in Target Area (CT 2392.02) [B]	Average Prevalence in LA [C]	Percentile among 5,237 CA CTs [D]
Lack of Health Insurance [E]	**35.6%**	17.4%	**99.1**	Limited Physical Activity Time [E]	**37.2%**	22.7%	**98.3**
Asthma [E]	**10.7%**	8.5%	**94.4**	Poor Mental Health [F]	**20.1%**	13.1%	**99.1**
Diagnosed Diabetes [E]	**14.6%**	10.4%	**95.1**	Obesity [E]	**37.9%**	26.3%	**98.3**
Kidney Disease [E]	**4.1%**	2.9%	**95.5**	Poor Physical Health [F]	**20.7%**	13.0%	**99.0**

The immediate CT containing the Site scores significantly worse (i.e., has higher prevalence percentages) for all eight health measures than the City as a whole, and ranks between the 94.4 and 99.1 percentiles relative to the values for all 5,237 urban CTs throughout CA included in the CDC study (representing >22 million people). Lead poisoning data were not provided by CDC, but are available for all zip code areas in CA for 2012[17]. The Site lies in the 90003 zip code for which 3.75% of children <6 years old had blood lead levels of ≥4.5 micrograms per deciliter (indicative of lead poisoning). This rate of lead poisoning is the 10th highest of 164 total zip code areas in LA, and due in part to the high percentage (83.8-84.6%) of housing built before 1980 (and therefore prone to contain lead-based paint). Removal or capping of lead impacted soil will help to reduce/eliminate lead exposure risks. Addressing the vapor intrusion threat posed by PCE is important given the extraordinarily high asthma rates for residents in the area. Providing safe housing opportunities will help reduce the extraordinarily detrimental mental and physical impacts resulting from homelessness.

2.a.ii (3) Disproportionately Impacted Populations

Sensitive populations in the Target Area are at a higher exposure risk to cumulative pollution sources. EPA's EJSCREEN Tool was used to evaluate the CT containing the site (CT 2392.02) for 11 environmental justice (EJ) indices[18]. The CT ranked between the 93rd and 98th percentile among CTs in the US for all 10 indices, demonstrating a disproportionate burden and vulnerability of residents in the area to multiple sources of contamination. A similar analysis for all 8,035 California CTs on the CalEnviroScreen website showed that CT 2392.02 ranked at the 99.8th percentile for its overall combined pollution burden/population characteristics score[19].

How the Grant Will Serve to Address (or Identify) and Reduce Threats: As a significantly contaminated property located in the center of densely populated and primarily residential neighborhood, the Site in its current condition represents a significant and long-term contributor to EJ concerns in the adjoining neighborhoods. The grant will help to advance cleanup of the Site and its transformation from a multi-decade source of blight into a community asset that will provide safe housing for at least 160 individuals or families now living on the street or in homeless shelters. In addition, cleanup and redevelopment of the Site will help spur additional neighborhood redevelopment by providing stable housing opportunities to residents. Lead is one of the major contaminants at the Site and represents a potential threat to children in the area who are already experiencing higher levels of lead poisoning. The project will remove or cap extensive areas of lead-impacted soil and eliminate potential exposure to lead-impacted windblown dust and from contaminated PCE vapors emanating from the Site.

2.b.i/ii Community Engagement / Project Involvement and Roles

Information on project partners is provided below.

Organization Name, Contact, and Specific Involvement in Project or Assistance Provided
California Department of Toxic Substances (DTSC) (contact person will be assigned upon enlisting the Site in the Voluntary Cleanup Program (VCP): DTSC will provide regulatory oversight, help guide the cleanup project to ensure that the development is protective of human health and the environment, review and approve all key environmental reports and plans, and assist with public outreach.
Homeless Outreach Program Integrated Care System (HOPICS), 5849 Crocker St., Los Angeles, CA 90003, https://www.hopics.org/ (Victor James, Associate Director of Interim Housing; vjames@hopics.org; 323- 948-0444): HOPICS was created to help homeless residents in South LA navigate the complexities of the social service system. Their facility at 5849 Crocker Street (less than ¼ block north from the Site) is a one-stop shop where homeless individuals receive a menu of services or referrals for services for housing, behavioral health (mental health and substance abuse), primary help and reentry services. They will provide input on cleanup to design of the

[16] Notes for Table 3. A) Data accessed from the CDC website on 9/1/2020. B) The Site is located within CT 2392.08. C) Average of values for all 994 City of LA CTs. D) Ranking of the value for CT2392.02 versus all 5,237 urban CTs in CA included in the study. A percentile value of 99.0% means that the prevalence in the target area CT is higher (worse) than that in 99.0% of all 5,237 CA CTs evaluated. E) Model-based estimate for crude prevalence among adults aged ≥ 18 yrs, 2016. F) Crude prevalence of mental or physical health not good for ≥14 days among adults aged ≥18 yrs, 2016.

[17] https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/CLPPB/CDPH%20Document%20Library/zip_code_2012_250_tested.pdf

[18] Source: https://www.epa.gov/ejscreen Accessed 10/2/2020.

[19] https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30

facility, and subsequently in providing referrals for homeless residents in need of shelter, and over the long-term in helping these residents to obtain the services and support they need for "reentry" and to successfully move forward with their lives.
Brotherhood Crusade, 200 E. Slauson Ave., Los Angeles, CA 90011, https://brotherhoodcrusade.org, (Stacy Hill-Williams, Director of Communications & Development; swilliams@brotherhoodcrusade.org; 323-846-1649): The Brotherhood Crusade is a 50-year old grassroots organization working to improve the quality of life and meeting the unmet needs of low-income, underserved, under-represented and disenfranchised individuals in South LA. From their headquarters (approximately 2 blocks west of the Site) they serve over 100,000 residents annually. They will provide advice and input on the cleanup plans and redevelopment plans. They will also provide services for residents of the planned project.
Community and Neighbors for Ninth District Unity (CANNDU), http://www.canndunc.org, (Stephanie Campbell, Chair, scampbell@canndunc.org): CANNDU is the neighborhood council for the Florence Neighborhood, within which the Site is located. CANNDU hosted the community outreach meeting on 10/22/2020 at which the draft grant application and Analysis of Brownfields Cleanup Alternatives (ABCA) were presented for public input. CAANDU will continue to support the project in providing updates through their website, newsletters, Council Meetings, etc.

2.b.iii. Incorporating Community Input

The City will share copies of this EPA grant application and the draft Analysis of Brownfields Cleanup Alternatives (ABCA) to project partners to solicit their input on the proposed cleanup project. In addition, the City will communicate progress and solicit input on the project in accordance with a Public Engagement Plan (PEP) to be completed upon notification of the EPA Grant award. Outreach for the cleanup project will be integrated with the public input/approval process to be implemented for the planned development project. The participation of Council District 9, representatives from the two neighborhood councils, and DTSC staff will be critical in assuring that the project and the proposed cleanup plan have the support of neighborhood residents and the local elected official responsible for representing the community. As detailed in the threshold criteria, public input on the grant application and draft ABCA was solicited in October 2020 through publication of documents on the City's Brownfield Program website and presentation at a virtual public meeting on 10/22/2020. This active engagement will continue in 2021 as reuse/remedial plans are finalized.

Methods used to communicate progress and solicit input will include public meetings, postings of the Council District 9 and LA Sanitation and Environment (LASAN) Brownfields Program websites, and virtual meetings/presentations made at CANNDU Council Meetings which are held every 4th Thursday of each month. Attendance information will be collected at each meeting (virtual or in person). Meeting schedules and community outreach initiatives may be adjusted based on developing COVID-19 regulations in CA and LA County. All environmental data and reports for the Site will be made available to the public on the DTSC EnviroStor database[20].

3. TASK DESCRIPTIONS, COST ESTIMATES, AND MEASURING PROGRESS

3.a. Proposed Cleanup Plan

As noted in Section 1.a.ii, key contaminants at the Site include lead, cyanide, and TPH-DRO in soil, and PCE, TCE, GRO, and benzene in soil gas, which exceed residential RSLs and other DTSC screening levels for residential receptors in Site soil and soil gas. Site cleanup will utilize a combination of remedial alternatives as detailed under Alternative 3 in the draft ABCA. The remedial plans will be integrated with redevelopment plans for the East Lot which envisions construction of a 5-story building with a footprint of 13,480 ft^2, shared outdoor open space totaling 10,200 ft^2, and the balance (2,460 ft^2) consisting of ADA-accessible parking spaces, covered entrances, and walkways. The remedial plans for the West Lot which envisions construction of a 4-story building with a footprint of 5,500 ft^2, shared outdoor open space totaling 1,600 ft^2, and the balance (3,350 ft^2) consisting of ADA-accessible parking spaces, covered entrances, and walkways.

Proposed remedial activities that will be funded, in part, by the EPA Grant include: (a) excavation, removal, and off-site disposal of an estimated 1,560 tons of contaminated soil from select areas of the Site, (b) construction of a 2-foot thick clean soil cover system in landscaped areas, and (c) construction of a vapor barrier and subslab ventilation system beneath Site buildings.

3.b. Description of Tasks/ Activities & Outputs

Implementation of the EPA grant and completion of the project will be a collaborative effort between City staff in the LASAN, the LA Economic and Workforce Development Department (EWDD), and City Council District 9, supported by project partners and one or more environmental contractors retained in accordance with City and 2 CFR 200.317-326 procurement requirements. DTSC staff will also play a significant role throughout the cleanup process. The scope of work has been organized into four tasks, for which the specific activities, deliverables, and roles are summarized below. Details on the required 20% match are provided in Section 3.c.

[20] https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=19470006

Summary of Tasks, Schedule, Leads, and Outputs

Task 1: Community Involvement/Grant Management

i. Task/Activity Description: Community involvement activities will include: 1) public meetings, 2) providing updates on the LASAN and Council District 9 websites, and 3) preparation of fact sheets and mailers. Grant management activities will include: 1) quarterly progress reporting, 2) annual disadvantaged business enterprise (DBE) reporting, 3) Property Profile Form submission and updates in the Assessment, Cleanup and Redevelopment Exchange System (ACRES), 4) preparation of a final report, and 5) expenses associated with grantee attendance at two brownfield educational conferences.

ii. Anticipated Schedule: Community outreach will be on-going throughout the project. Progress reports will be submitted on or before January 30th, April 30th, July 30th, October 30th of each year. Annual DBE reports will be submitted on or before October 30th of each year. Initial information on the Site will be entered into ACRES following execution of the cooperative agreement, and updated upon completion of milestones related to remediation, DTSC approvals, and site redevelopment.

iii. Task/Activity Lead(s): **Council District 9 staff** (led by Sherilyn Correa) will lead the community involvement process for the project, and the specific outreach that will be conducted in conjunction with preparation of a final approved Response Plan with support from **LASAN staff** (Nuna Tersibashian supported by Colette Monell), who will assist through participation in meetings, but also have primary responsibility for completion of reporting and other programmatic activities required for the EPA Grant.

iv. Outputs: 1) Outreach meetings (3 to 4 total) with notices, agendas, presentations, sign-in sheets, and meeting notes; 2) Outreach materials (fact sheets; results summary sheets; website updates with all materials prepared in both Spanish and English); 3) Quarterly progress reports, annual DBE reports, final closeout report, ACRES updates (as needed); and, 4) Davis Bacon reporting.

Task 2 – Cleanup Planning

i. Task/Activity Description: LASAN will utilize one of its five on-call environmental contractors to prepare a final ABCA, the remedial action work plan (RAWP), a human health risk assessment (HHRA), as well as bid specifications for cleanup activities to be completed using EPA grant funds. A quality assurance project plan (QAPP) will be completed specifying field and laboratory procedures to be used for any environmental monitoring or verification sampling completed as part of cleanup activities. LASAN staff (or on-call contractors) will complete EPA required threatened or Endangered Species Act (ESA §7(a)(2)) and National Historic Preservation Act (NHPA §106) review activities, as appropriate. In addition, a Supplemental Environmental Impact Report (EIR) for the project will be completed to comply with California Environmental Quality Act (CEQA) requirements.

ii. Anticipated Schedule: Following notice of award by EPA, LASAN will request approval from EPA to proceed with completion of a final ABCA and RAWP as pre-award activities, with a goal of gaining approval of the RAWP from DTSC by the end of 2021.

iii. Task/Activity Lead(s): LASAN staff led by Nuna Tersibashian will manage Task 2. Outputs will be completed by LASAN staff with support from one or more on-call environmental consultant(s).

iv. Outputs: 1) Final ABCA; 2) Final RAWP; 3) QAPP; 4) ESA/NHPA Screening Documentation; and, 5) Remediation Bid Specifications and Bid Package.

Task 3 – Site Cleanup

i. Task/Activity Description: Task 3 activities will include:

1) LASAN will issue a work order to one of the City's on-call contractors to perform environmental oversight, documentation, and sampling in accordance with the RAWP and QAPP.

2) LASAN will work with DTSC to provide at least a 2-week advance notice of remedial work to project stakeholders and residents living in close proximity to the Site.

3) LASAN will retain a qualified cleanup contractor through a competitive request for proposal (RFP) process based on the RAWP and specifications developed during Task 2. The contractor will:

a) Complete all permitting and pre-work submittals including health and safety plan preparation.

b) Set-up controls to secure the Site and to comply with stormwater management requirements, and survey and stake the boundaries for planned excavation areas.

c) Excavate 1,560 tons of contaminated soil from select areas of the Site. Haul and dispose of contaminated media at landfill. Backfill with imported clean soil or geotechnical fill and compact per engineering requirements.

d) Monitor, field screen, and as appropriate, segregate and stockpile soil removed for construction of foundations. Conduct additional sampling in accordance with the approved SMP. Disposal of soil exceeding applicable screening levels.

e) Install subslab soil venting system and vapor barrier beneath each building pad.

f) Import clean fill and place in landscaping areas as necessary to complete soil cover system in outdoor areas.

4) The oversight contractor will observe/document the cleanup activities, and complete the following:

a) Confirmation soil sampling to document removal of impacted soil and residual contaminant concentrations remaining at the excavation base and sidewalls.

b) Assist LASAN in completing a Removal Action Implementation Report.
ii. Anticipated Schedule: Complete contracting activities during January-June 2022. Complete remediation and associated activities/outputs during an 18-month construction period (July 2022 to December 2023).
iii. Task/Activity Lead(s): LASAN staff (led by Nuna Tersibashian) will direct cleanup activities at the Site, which will be completed/overseen by environmental contractors retained in accordance with 2 CFR 200.317-326.
iv. Outputs: 1) Contractor RFPs and bid results, 2) Contractor Pre-Work Submittals, 3) Laboratory Testing Reports, and 4) Response Plan implementation Report.
Task 4 – Voluntary Cleanup Program (VCP) Oversight
i. Task/Activity Description and Roles: DTSC staff will assist with outreach activities, participate in public meetings, provide review and approval of work plans and technical reports associated with Tasks 1-3. DTSC charges VCP participants for staff time required for oversight.
ii. Anticipated Schedule: DTSC involvement will be on-going throughout grant implementation, as meetings are held and plans and reports are submitted for review/comment/approval.
iii. Task/Activity Lead(s): DTSC staff will perform the oversight activities funded as part of Task 4. LASAN staff (with assistance from Council District 9 staff) will coordinate involvement by DTSC staff in the project.
iv. Outputs: 1) Outreach materials prepared by DTSC. 2) Comment and approval letters.

3.c. Cost Estimates

The City is requesting $500,000 in hazardous substance funding as detailed below.

Line #		Budget Categories	Task 1 Outreach & Grant Mgmt.	Task 2 Cleanup Planning	Task 3 Site Cleanup	Task 4 VCP Oversight	Totals
1	Direct Costs	Personnel (LASAN)	$4,000	$4,000	$5,000	$4,000	$17,000
2		Travel	$5,000	$0	$0	$0	$5,000
3		Supplies	$3,000	$0	$0	$0	$3,000
4		Contractual	$0	$40,000	$375,000	$0	$415,000
5		Other (VCP fees)	$0	$0	$0	$60,000	$60,000
6	Total Direct Costs		$12,000	$44,000	$380,000	$64,000	$500,000
7	Indirect Costs		$0	$0	$0	$0	$0
8	Total Federal Funding		$12,000	$44,000	$380,000	$64,000	$500,000
9	Cost Share		$40,000	$20,000	$20,000	$20,000	$100,000
10	**Total Budget**		$52,000	$64,000	$400,000	$84,000	$600,000

* No funding is being requested for fringe benefits or equipment. Therefore, these budget categories are not shown.

Development and Application of Cost Estimates:

Task 1 – Community Involvement/Grant Management: Total Budget = $52,000 ($12,000 EPA Grant; $40,000 City Match)
Personnel costs of **$4,000** for grant reporting activities by LASAN staff (40 hrs @ $100/hr). **Travel costs** of **$5,000** for LASAN staff to attend regional or national brownfield conferences and include airfare costs (2 staff; 2 conferences; $500/ticket = $2,000) and hotel/meal/local transportation costs (2 staff @ 2 conferences; 3 days/conference; $250/day = $3,000). **Supply costs** of **$3,000** include $500 for printing and $2,500 for mailing expenses associated with public notices and other outreach expenses. The **cost share** of **$40,000** for Task 1 will be provided through 400 hrs of work (average rate = $100/hr) by LASAN and Council District 9 staff conducting outreach and completing other cleanup grant coordination.
Task 2 – Cleanup Planning: Total Budget = $64,000 ($44,000 EPA Grant; $20,000 City Match)
Personnel costs of **$4,000** for cleanup planning activities by LASAN staff (40 hrs @ $100/hr). The **contractual cost** of $**40,000** is for an estimated 320 hours of work (@ $125/hr) by an environmental consultant preparing the final ABCA and RAWP. The **cost share** of **$20,000** for Task 2 will be provided through an estimated 200 hrs of work (@ $100/hr) by LASAN staff coordinating and assisting with completion of the various outputs identified for Task 2.
Task 3 – Cleanup: Total Budget = $400,000 ($380,000 EPA Grant; $20,000 City Match)
Personnel costs of **$5,000** for coordination of cleanup activities to be performed by LASAN staff (50 hrs @ $100/hr). **Total cleanup costs** as detailed in the ABCA are estimated at $487,760 and include: 1) $25,000 for mobilization and pre-work submittals; 2) $227,760 for 18,980 ft^2 of vapor barrier; 3) excavation of 1,560 tons of contaminated soil @ $35/ton = $54,600; 4) trucking and off-site disposal (landfilling) of contaminated soil (1,560 tons @ $60/ton = $93,600); 5) import, placement, and compaction of clean fill (1,560 tons @ $30/ton = $46,800); 6) 10 years of quarterly inspections and operation and maintenance of the soil cover system (40 inspections @$1,000 per inspection = $40,000). **Cleanup contractual costs** of **$375,000** will be paid for via the EPA Grant and the remainder will be funded by the City of the developer. Cleanup contractor costs assume payment of prevailing wages under the Davis-Bacon Act. The **cost share** of **$20,000** for Task 3 will be provided

through 200 hrs of work @ $100/hr by LASAN staff conducting oversight activities (50 hrs coordination; 100 hrs on-site oversight activities; 50 hrs report preparation).
Task 4 – VCP Oversight: Total Budget = $84,000 ($64,000 EPA Grant; $20,000 City Match)
Personnel costs of **$4,000** for Task 4 are for coordination of DTSC oversight activities by LASAN staff (40 hrs @ $100/hr). **Other costs** of **$60,000** for hourly fees that will be charged by DTSC for work by DTSC staff providing oversight for cleanup under the VCP. DTSC also will assist with outreach activities, participate in public meetings, provide review and approval of work plans and technical reports associated with Tasks 1-3. DTSC fees are estimated at 600 hrs @ $100/hr. The estimate is based on VCP charges incurred by the City on recent cleanup projects of similar complexity and scope. The **cost share** of **$20,000** for Task 4 will be provided through 200 hrs of work @ $100/hr by LASAN staff to coordinate with DTSC in managing cleanup activities within the VCP. This includes: 1) applying to the VCP; 2) negotiating an agreement with DTSC, 3) implementing the agreed upon cleanup plan, and 4) fulfilling DTSC requirements to obtain a certification of completion or a "No Further Action" letter.

Cost Share: The City will meet the 20% cost share through LASAN and Council District 9 staff time spent performing outreach, project management, cleanup oversight and coordination in conjunction with implementation of Tasks 1 through 4. Estimates for LASAN staff time required for each task are based on time expended on past cleanup projects funded in part through EPA Cleanup Grants. A contingency for either the City or the developer to provide additional funding (if needed to meet the match requirement), will be incorporated into the final development agreement to be executed between the City and the developer. A portion of the estimated $112,760 in additional eligible contractual cleanup costs under Task 3 could also be used, if needed, to meet the match requirements.

3.d. Measuring Environmental Results

Upon notice of award, the project schedule will be updated with tasks, subtasks, milestones, and reporting requirements specific to the EPA grant, including the outputs associated with each task as detailed in Section 3.b. This schedule will be reviewed on at least a monthly basis throughout the project to identify deviations in schedule as soon as they occur, so that corrective measures can be developed and implemented to maintain progress. Copies of the updated schedule will be included with each quarterly progress report submitted to EPA. The high level of involvement by DTSC staff throughout all phases of assessment, public outreach, and remedial planning process will enhance the ability of DTSC to review and approve the final RAWP on a timely basis.

Environmental Cleanup Results: The anticipated short-term cleanup results or outcomes for the project will be documented and include: 1) the quantity and mass of contaminated soil, and associated mass of individual contaminants of concern removed, 2) the land area made safe for residential use through hot spot removal, cap construction, and vapor mitigation measures.

Redevelopment Outcomes: The eventual long-term redevelopment outcomes that will be tracked and measured will include: 1) acres of land for which environmental exposure risks have been fully addressed and thereby made available for reuse, 2) number of permanent supportive housing units created, and 3) dollars of public and private funding leveraged. All outputs and outcomes completed during and after the three-year grant period will be reported and updated in ACRES.

4. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

4.a.i/ii. Programmatic Capability / Organizational Structure and Description of Key Staff

The Cleanup Grant will be administered by the Citywide Brownfields Program housed in the Department of Public Works, LASAN, which has managed 12 previous EPA Brownfield Grants and thereby familiar with all steps and strategies for timely and successful expenditure of funds, as well as technical, administrative, financial, and reporting requirements. LASAN's team includes staff from the Financial Management Division and Office of Accounting who will be processing invoices and providing financial administrative support.

EPA Brownfields Cleanup Grant Manager – Nuna Tersibashian, Program Manager, LA Citywide Brownfields Program, LASAN. Nuna will manage the administrative and programmatic requirements. Ms. Tersibashian has a Master of Science in environmental geology, a Bachelor of Science in geology, and over 15 years of experience as an environmental professional. She has managed the LA Citywide Brownfields Program for the past 11 years including several previous EPA Brownfields Grants. Her responsibilities include: applying for and administering environmental grants; performing brownfield project related coordination and outreach with Council Offices, the Mayor's Office, regulatory agencies, developers, property owners, community organizations, and other stakeholders; and overseeing grant supported program activities.

Sherilyn Correa, Director of Planning & Economic Development, Office of Council District 9. Sherilyn is responsible for managing various entitlement projects, planning policy and economic development opportunities for Council District 9. Current projects include the expansion and redevelopment of the **Los Angeles Convention Center**, the **Slauson Specific Plan**, and numerous housing and hotel developments throughout the District. Ms. Correa's experience includes work for public, private and nonprofit organizations, including more than 10 years' experience in real estate and community development. She is a licensed real estate broker and until recently, worked as a Principal

Project Coordinator with the City Administrator's Office analyzing City-owned parcels for affordable and homeless housing development. Her accomplishments include overseeing the development of homeless housing and a full-service navigation center, and she has served as a project manager for various Federal and State grants, neighborhood studies and community charrettes.

4.a.iii. Acquiring Additional Resources

The City as a whole, as well as LASAN, procures millions of dollars of professional engineering and environmental services annually, and has the ability to procure and secure any additional expertise or resources necessary to implement the Grant and successfully complete the project. The procurement process routinely used by LASAN is fully compliant with 2 CFR 200.317-326 requirements. LASAN has contracts in place with five qualified on-call environmental consultants for use on this or other EPA-grant funded projects[21].

4.b.i (1&2) Past Performance – Accomplishments (Currently Has or Previously Received an EPA Brownfields Grant) and Compliance with Grant Requirements

Since 1997, the City has received 12 EPA Brownfields grants. All quarterly performance reports, technical reporting and ACRES reporting were acceptable and submitted on time. LASAN was compliant with all terms and conditions of all grants. Outputs and outcomes for these grants have been fully reported in ACRES.

Information on the City's three most recent EPA Brownfields Grants is provided below.

FY2020 $500,000 Cleanup Grant (BF-98T06601): The CA for this grant was finalized on 10/1/2020.

FY2019 $500,000 Cleanup Grant (BF-99T95101): In April 2019, the City secured $6.9M for site reuse through execution of a conservation easement agreement with the Mountains Recreation and Conservation Authority (MRCA). The City is in the process of finalizing the cleanup planning documentation, including the Response Plan, Feasibility Study, and HHRA. The City is in the final stages of selecting a contractor for implementation of the cleanup work to be funded by the grant. On 1/20/2020, an "LA River Park Partnership Letter of Intent" was executed between the City, the California State Park System, and the MRCA to jointly collaborate in the creation of a unified LA River Park – one component of which is the 12.5 acre parcel that is the focus for the FY2019 Cleanup Grant[22]. The properties collectively include 100 acres of unified open space and are unique in biological and social character and will be the single largest open space to be created along the LA River in the past 100 years. The collaboration will include cooperation on the design, construction, financing, operation, and maintenance and management of the project (one component of which is the 12.5 acre parcel and another component the 6-acre Paseo del Rio property that is the subject of the City's FY2020 EPA Cleanup Grant).

FY2017 $300,000 Community Wide Assessment (CWA) Grant (BF-99T55401): Final contracts with five on-call environmental consultant(s) that will be used to implement the grant were executed on 11/26/2019. The City has identified and secured access for 5 priority brownfields sites that are expected to fully utilize available funds. Task order solicitations for the work have been issued, but implementation has been delayed due to COVID-19 work restrictions.

Other Cleanup Grants: **South Los Angeles Wetland Park:** A $200,000 EPA Cleanup Grant (FY2009) helped leverage $26M in funding used to cleanup and convert a 9-acre former bus yard into a park. The site is located approximately 3 blocks north of the former Crocker Plating Works property. The project was managed by LASAN and was awarded an "Envision Platinum Award" from the Institute for Sustainable Infrastructure.

OPEN ASSISTANCE AGREEMENTS: FY2020 $500,000 Cleanup Grant (BF-98T06601; 10/1/2020-9/30/2023): The City has secured federal funding for the planned cleanup project at the Paseo Del Rio brownfield site in the amount of $600,000 ($500K from EPA and $100K from LASAN). The project is on schedule to fully expend all EPA grant funds by 10/31/2023.

FY2019 $500,000 Cleanup Grant (BF-99T95101; 10/1/2019-10/31/2022): The City has secured $6.9M in funding for the planned cleanup project at River Park including $600,000 from this EPA Cleanup Grant ($500K from EPA and $100K from LASAN). The project is on schedule to fully expend all EPA grant funds by 10/31/2022.

FY2017 CWA Grant (BF-99T55401; 10/1/2017-10/31/2021): Final contracts with five on-call environmental consultant(s) that will be used to implement the grant were executed on 11/26/2019. The City has identified and secured access for 5 priority brownfield sites that are expected to fully utilize available funds. Task order solicitations for the work have been issued, but implementation has been delayed due to COVID-19 related work restrictions.

FY2014 CWA Grant (BF-99T09601; 10/1/2014-10/31/2021): All funding has been expended, except for $6,744 reserved for two Phase I ESAs which was delayed due to COVID-19 related restrictions.

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[21] *On-Call Environmental Site Assessment and Technical Support for Brownfields Program, Solicitation BAVN ID #33691. Contracts executed on 11/26/2019.*

[22] https://f6435985-e6ec-4ea5-b97b-7f7789c55d50.filesusr.com/ugd/1965cf_3f58f3394e4248d5b61cb850dab3c48b.pdf

NARRATIVE ATTACHMENT – DOCUMENTATION OF LEVERAGED FUNDS

(Attached is a copy of the cooperative agreement for the City's EPA Fiscal Year 2017 Community Wide Assessment Grant, which has funding available for the City to complete necessary additional environmental investigation and remedial planning activities at the site), and this revised ABCA is provided herein).

U.S. ENVIRONMENTAL PROTECTION AGENCY

Cooperative Agreement

GRANT NUMBER (FAIN): [redacted]	
MODIFICATION NUMBER: 0	**DATE OF AWARD** 09/18/2017
PROGRAM CODE: [redacted]	
TYPE OF ACTION New	**MAILING DATE** 09/25/2017
PAYMENT METHOD: Advance	**ACH#** 90567

RECIPIENT TYPE:
Municipal

Send Payment Request to:
Las Vegas Finance Center email:
lvfc-grants@epa.gov

RECIPIENT:
City of Los Angeles - Dept of Public Works
Bureau of Sanitation
1149 S Broadway,9th Floor, Ste 900
Los Angeles, CA 90015
EIN: 95-6000735

PAYEE:
City of Los Angeles - Dept of Public Works
Bureau of Sanitation
1149 S Broadway, 9th Floor, Ste 900
Los Angeles, CA 90015

PROJECT MANAGER	EPA PROJECT OFFICER	EPA GRANT SPECIALIST
Nuna Tersibashian Bureau of Sanitation 1149 S Broadway, 9th Floor, Ste 900 Los Angeles, CA 90015 **E-Mail:** nuna.tersibashian@lacity.org **Phone:** 213-485-3971	Noemi Emeric-Ford 75 Hawthorne Street, SFD-6-1 San Francisco, CA 94105 **E-Mail:** Emeric-Ford.Noemi@epa.gov **Phone:** 213-244-1821	Veronica Adams Grants Management Section, EMD-6-1 **E-Mail:** adams.veronica@epa.gov **Phone:** 415-972-3677

PROJECT TITLE AND DESCRIPTION
Brownfields Assessment Cooperative Agreement
This assistance agreement will provide funding for the City of Los Angeles, California to inventory, characterize, assess, and conduct cleanup planning and community involvement related activities for Brownfields sites in the city. Brownfields are real property, the expansion, development or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

This assistance agreement provides the federal funding amount of [redacted]

BUDGET PERIOD	PROJECT PERIOD	TOTAL BUDGET PERIOD COST	TOTAL PROJECT PERIOD COST
10/01/2017 - 10/31/2021	10/01/2017 - 10/31/2021	[redacted]	[redacted]

NOTICE OF AWARD

[redacted]

ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)	AWARD APPROVAL OFFICE
ORGANIZATION / ADDRESS	**ORGANIZATION / ADDRESS**
U.S. EPA, Region 9 - Grants Management Section, EMD 6-1 75 Hawthorne Street San Francisco, CA 94105	U.S. EPA, Region 9 Superfund Division, SFD-1 75 Hawthorne Street San Francisco, CA 94105

THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY

Digital signature applied by EPA Award Official Craig A. Wills - Grants Management Officer	**DATE** 09/18/2017

THRESHOLD CRITERIA FOR BROWNFIELD CLEANUP GRANTS

1. Applicant Eligibility

The City of Los Angeles is a "general purpose unit of local government" as that term is defined in 2 CFR § 200.64 and is therefore eligible to receive a United States Environmental Protection Agency (USEPA) Brownfields Cleanup Grant. If awarded funding by USEPA, the Citywide Brownfields Program within the City of Los Angeles Department of Public Works, LA Sanitation and Environment (LASAN) will administer this grant.

2. Previously Awarded Cleanup Grants

The site that will be the focus of the Fiscal Year (FY) 2021 Cleanup Grant, if awarded, is named the "Former Crocker Plating Works" and has not received funding from a previously awarded USEPA Brownfields Cleanup Grant.

3. Site Ownership

The City of Los Angeles is the sole owner of the Site. The property was transferred to the City by the Community Redevelopment Agency of the City of Los Angeles (CRA/LA) via quit claim deed on May 24, 2013.

4. Basic Site Information

Name of Site: Former Crocker Plating Works
Site Address: 5879, 5887, 5888, and 5910 Crocker Street, Los Angeles, CA 90003
Current Owner: City of Los Angeles

The site is comprised of four parcels of land as summarized below:

Lot	Parcel Description	Parcel Address(es)	Legal Description	Assessor's Parcel No.	Parcel Dimensions	Parcel Area
West Lot	Former parking lot (north parcel)	5879 Crocker St	M B 6-108 N 40 ft of Lot 52	6006-029-900	40 ft X 130 ft	5,200 ft^2; 0.12 acres
	Former parking lot (south parcel)	5887 Crocker St	M B 6-108 S 10 ft of Lot 52 and N 30 ft of Lot 53	6006-029-901	40 ft X 130 ft	5,200 ft^2; 0.12 acres
East Lot	Former plating works (main parcel)	5888 Crocker St	The Walrath Tract Lots 29, 30, 31 and 32	6006-030-901	160 ft X 130 ft	20,800 ft^2; 0.48 acres
	Former plating works (south driveway)	5910 Crocker St	The Walrath Tract Lot 33	6006-030-902	40 ft X 130 ft	5,200 ft^2; 0.12 acres

The two parcels on the west side of Crocker Street (5879-5887) comprising the former parking lot are collectively referenced as the "west lot" and the two parcels on the east side of Crocker Street (5888-5910) as the "east lot."

5. Status and History of Contamination at the Site

a) The site is primarily contaminated with hazardous substances, including select metals, cyanide, and chlorinated solvents. Petroleum contamination (total petroleum hydrocarbons [TPH] as diesel range

organics (DRO) and gasoline range organics) was detected in a more limited area and generally at concentrations below applicable cleanup standards. Additional detail is provided in Section 5.d. below.

b) Building records document that the site was first developed with residential structures beginning in 1909. No uses other than single-family residences were indicated from 1909 until 1950, when a machine shop was present on the east lot. By 1923, the Sanborn fire insurance map documented the presence of six separate single-family residential dwellings on the site together with three associated residential garage buildings. The east lot was then occupied by a plating shop beginning in 1953, with build-out of the site structures lasting until 1964. The plating shop has operated under the name Memley Plating Works and Crocker Plating Works from 1953 to 2008. A C-shaped building was present on the west lot from sometime between 1950 and 1956, until sometime before 1965. The west lot appears to have consisted of vacant land from that time until the present.

Use of the property as a plating works ended in 2008 upon sale of the property to the CRA/LA on 10/31/2008. Structures on the east lot were demolished by the CRA/LA in 2010. The property was acquired by the City from the CRA/LA in 2013, and since that time, has remained vacant lots secured by fencing to provide unauthorized access.

c) Environmental concerns at the property include:

- Metals Impacts in Shallow Soil: Lead concentrations of 93 and 200 milligrams/kilogram (mg/kg) in both shallow (0.5 ft) soil samples collected on the East Lot AOC2-SB5, AOC2-SB10) exceed the San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Level (ESL) and the California department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Recommended Screening Levels (RSLs) for lead in residential soil of 80 mg/kg[1]. The sample with 93 mg/kg of total lead had a soluble threshold limit concentration (STLC) for soluble lead of 3.3 milligrams per liter (mg/L). Although below the California Non-RCRA Hazardous Waste (CA Haz-Waste) Threshold Value of 5.0 mg/L, the result indicates the potential for areas of shallow soil to be present on the East Lot that would exceed the CA Haz-Waste Threshold Value. Shallow soil on the East Lot is also impacted in some areas with other metals including arsenic, barium, cadmium, copper, nickel, and zinc, although the measured concentrations are well below applicable screening levels. However, the sample with the highest total cadmium concentration of 19 mg/kg had a STLC for soluble cadmium of 0.9 mg/L which is only slightly below the CA Haz Waste Threshold Value of 1.0 mg/L – suggesting that there is also the potential for areas of shallow soil to be present on the East Lot that would exceed the CA Haz-Waste Threshold Value.
- Cyanide impacts in Soil: Total cyanide was detected in six boring locations on the East Lot, with concentrations of 16 and 22 mg/kg in the initial and duplicate samples from a depth of 5 ft at AOC2-SB10, and a concentration of 31.9 mg/kg from a depth of 1 foot at SB2 exceeding the San Francisco RWQCB ESL for residential soil of 5.5 mg/kg. The elevated cyanide concentrations generally coincide with two former plating areas located in the north and south-central portions of the East Lot.
- Diesel Range Organic (DRO) Impacts in Soil: Analyses for DRO, GRO, and MRO on 30 investigative soil samples and one waste characterization sample were analyzed as part of the 2020 Phase II ESA.

[1] San Francisco Bay RWQCB ESLs (January 2019); DTSC HERO HHRA RSLs (June 2020)

Analyses for GRO on 18 soil samples and DRO on 10 soil samples were also performed as part of the 2008 Phase II ESA. Of the 118 total analyses performed for DRO, GRO, or MRO in the investigative samples, the results were "not detected" in all but four samples with DRO concentrations reported of 12 and 17 mg/kg and MRO concentrations of 57 and 87 mg/kg – all significantly below applicable screening levels. However, the waste characterization sample analyzed as part of the 2020 Phase II ESA had a DRO concentration of 180 mg/kg, which exceeds the EPA Regional Screening Level (RSL)[2] for residential soil of 97 mg/kg. The results (with the waste characterization sample having a reported concentration more than 10 times higher than that measured in any of the 30 investigative samples associated with the borings that generated the waste sample) are anomalous, but suggest that there are at least some areas at the site where DRO concentrations exceed applicable screening levels – even if the specific interval(s) was not selected for testing as one of the investigative samples.

- Chlorinated Solvent Impacts in Soil and Soil Vapor: A total of 24 soil vapor samples collected as part of the 2002 Phase II ESA and 29 samples collected as part of the 2020 Phase II ESA were analyzed for VOCs. The concentrations for PCE exceeded the DTSC HERO HHRA and San Francisco RWQCB residential subslab screening levels of 15.3 and 15 micrograms per cubic meter (µg/m^3) in 47 of the 53 combined samples analyzed. The concentrations for TCE exceeded the San Francisco RWQCB residential subslab screening level of 16 (µg/m^3) in 7 of 53 samples analyzed. The highest TCE concentrations generally coincide with the samples with the highest PCE concentrations with the exception of the sample from SB12-SV-15ft on the West Lot which was collected adjacent to a sewer and where the TCE concentration of 22.5 µg/m^3 exceeds the screening level whereas the PCE concentration of 9.7 µg/m^3 does not. The specific source(s) for the PCE and TCE impacts is/are unknown, as only trace VOC impacts were detected in 48 soil samples analyzed as part of the 2008 and 2020 Phase II ESAs. No VOCs were detected in the 30 soil samples analyzed as part of the 2020 Phase II ESA. PCE was detected in one of 18 soil samples analyzed as part of the 2008 Phase II ESA. The concentration of 309 µg/kg measured in the soil sample from SB2 (1 ft) exceeds the San Francisco RWQCB residential screening level of 80 µg/kg. Soils throughout the Site are described on boring logs as consisting of silty sand to poorly grade medium sand – which could facilitate the spreading of soil vapors throughout the subsurface from a limited number of small scattered, and as yet unidentified release areas. The highest PCE concentrations in soil vapor are present on the central and east portions of the East Lot. PCE concentrations generally 2 to 27 times greater than the residential subslab screening levels throughout the East Lot. On the West Lot, the PCE concentrations were below the screening level in 3 of 4 samples collected at a depth of 5 feet, and only slightly above the screening level in the other 5- or 15-foot samples (with concentrations of 18, 18, 23, and 32 µg/m^3).
- Petroleum Impacts in Soil Vapor: Trace concentrations of petroleum VOCs were detected in select soil vapor samples. However, with the exception of benzene and/or GRO in two samples (SB2-SV-15' and SB12-SV-15', both collected from 15 ft below ground surface), the concentrations are well below applicable screening levels. The benzene concentration of 3.8 µg/m^3 at SB12-SV-15' slightly exceeds the San Francisco Bay RWQCB screening level of 3.2 µg/m^3. The GRO concentrations of 7,730 and 8,130 µg/m^3 at SB2-SV-15 ft and SB12-SV-15 ft, respectively exceed the modified EPA

[2] United States Environmental Protection Agency Regional Screening Levels (May 2020)

residential subslab RSL of 1,033 µg/m^3 but are below the San Francisco Bay RWQCB residential subslab screening level of 20,000 µg/m^3. The sample at SB12-SV-15 ft is adjacent to a sewer and the right-of-way, thereby increasing the potential for an off-site unidentified source. Regardless, the petroleum impacts in soil vapor are much less pervasive and significantly lower in concentration relative to the PCE and TCE in soil vapor, and therefore unlikely to have any substantive influence on remediation requirements for the site.

- Other Environmental Concerns: Other environmental concerns relevant to redevelopment include contaminated sediment or residuals that may be present within abandoned former sanitary sewers underlying the East Lot. In addition, poorly consolidated undocumented fill materials may be present within the footprints of former buildings at the sites, including at least six former single-family residence and three former residential garages documented on historic Sanborn fire insurance maps.

d) The precise manner in which the site became contaminated is undetermined, but presumed to be associated primarily with the use of the East Lot for 55 years as a plating facility. There are no specific spill records associated with the property. The Phase II ESA reports do not identify specific past features or activities associated with documented areas of contamination, although there does appear to be a correlation between the occurrence of cyanide impacts in soil and the two areas of the East Lot identified as former plating areas.

6. **Brownfields Site Definition**

The Site is real property, for which reuse is significantly complicated by the presence of hazardous constituents associated with previous uses and activities. Per CERCLA §§ 101(39)(B)(ii), (iii), and (vii) and "Information on Sites Eligible for Brownfields Funding under CERCLA § 104(k)," the Site is: (a) not listed or proposed for listing on the National Priorities List; (b) not subject to unilateral administrative orders, court orders, administrative orders on consent, or judicial consent decrees issued to or entered into by parties under CERCLA; and (c) not subject to the jurisdiction, custody, or control of the U.S. government.

7. **Environmental Assessment Required for Cleanup Grant Applications**

A draft Phase II ESA report was completed by Ninyo & Moore on behalf of National Development Council (NDC) on August 28, 2020. The report was completed using funding from an USEPA Brownfields Coalition Assessment Grant awarded to NDC in 2019. The report was prepared in response to a request from the property owner – the City of Los Angeles. The report supplemented a previous Phase II ESA completed by SCS Engineers in 2008 on behalf of the CRA/LA.

8. **Enforcement or Other Actions**

There are no ongoing or anticipated enforcement actions at the Site.

9. **Sites Requiring a Property-Specific Determination**

The City affirms that the Site does not need a property-specific determination.

10. **Threshold Criteria Related to CERCLA/Petroleum Liability**

The site is primarily contaminated with hazardous substances, including select metals, cyanide, and chlorinated solvents. Petroleum contamination (TPH-DRO and TPH-GRO) was detected in a more limited area and generally at concentrations below applicable cleanup standards. Therefore, per the guidelines, responses are provided only for items under "10.a" below which pertain to hazardous substance sites.

a) Property Ownership Eligibility – Hazardous Substance Sites

i(3). Exemptions to CERCLA Liability - Property Acquired Under Certain Circumstances by Units of State and Local Government

The City asserts that it is exempt from CERCLA liability as a result of the property having been acquired through an inter-governmental transfer from the CRA/LA. In 2011, the Governor of California signed the Redevelopment Agency (RDA) Dissolution Bill which resulted in the CRA/LA and all other RDAs and community development agencies in California being dissolved and replaced by "successor" agencies.

b) Property Ownership Eligibility – Petroleum Sites:

Not applicable (commingled hazardous substance and petroleum contamination may be present at the Site, but the predominant contamination is from hazardous substances).

11. **Cleanup Authority and Oversight Structure**

a) Cleanup Oversight:

Cleanup of the property will be conducted by the City under either a California Land Reuse and Revitalization Act (CLRRA) Voluntary Clean-up Agreement or a recently created "Local Agency Agreement." The City is still evaluating which form of agreement with DTSC will be utilized for this site, but whatever agreement is used will include DTSC review, approval, and oversight of remedial planning, cleanup, and remedial documentation/site closure activities. LASAN staff assigned to the project have technical expertise in performing and overseeing environmental assessment and cleanup activities. In addition, the City relies on outside consultants procured in accordance with procurement provisions of 2 CFR §§ 200.317 through 200.326 to provide necessary oversight and technical expertise necessary for cleanup. Five qualified consultant firms are under contract with the City through a recently completed RFQ process completed for EPA Brownfield Grant funded projects.

b) Access to Neighboring Properties (if required):

Not applicable. There is currently no documentation of contamination from the site having migrated onto neighboring properties, other contaminated soil vapors which extend beneath the right of way for Crocker Street. The City owns the right-of-way and access as needed.

12. **Community Notification**

a) **Draft Analysis of Brownfield Cleanup Alternatives**

Printed copies of the draft application, including a draft ABCA were provided and made available to the public at a virtual public meeting scheduled for 7-8:30 pm on October 22, 2020 in conjunction with the regularly scheduled monthly meeting of the Community and Neighbors for Ninth District Unity (CANNDU) which is the neighborhood council for the Florence Neighborhood and whose boundaries encompass the Site. A copy of the draft ABCA, as updated in response to public comments, is provided as **Attachment A1**.

b) **Community Notification Ad**

A community notification ad was placed on the Los Angeles Citywide Brownfields Program website on October 13, 2020. A copy of the community notification documentation is provided as **Attachment A2**.

c) **Public Meeting**

A virtual public meeting was held from 7-8:30 pm on October 22, 2020 in conjunction with the regularly scheduled monthly meeting of the Community and Neighbors for Ninth District Unity (CANNDU) which is the neighborhood council for the Florence Neighborhood and whose boundaries encompass the Site. Due to a rescheduling of the CANNDU meeting, the virtual location was changed and LASAN hosted the meeting on Zoom. Updated links and registration information were posted on the LASAN, Council District 9, and CANNDU webpages in advance of the meeting. Documentation for this meeting is attached, including a summary of the meeting and presentation made to the public (**Attachment A3**), a summary of public comments received on the draft proposal and ABCA, and the responses provided by the City (**Attachment A4**), and the meeting sign-in sheet (**Attachment A5**).

d) **Submission of Community Notification Documents**

The following required community notification documents are provided as attachments:

Attachment	Description
A1	A copy of the draft ABCA, as updated in response to public comments received.
A2	Documentation of community notification to the public and solicitation for comments on the proposal, including a printout/screenshot of the notification posted on the Citywide Brownfield Program website beginning on October 13, 2020.
A3	A meeting summary (including a copy of the presentation made at the meeting).
A4	A summary of public comments received at the meeting or through subsequent emails, and a summary of the responses provided by the City.
A5	Copies of the sign-in sheets for the meeting.

13. **Statutory Cost Share**

The City of Los Angeles anticipates that it will be able to fully meet the 20 percent cost share of $100,000 through a combination of LASAN and Council District 9 staff time spent performing outreach, project management, cleanup oversight and coordination in conjunction with implementation of Tasks 1 through 4. Estimates for staff time required for each task were based on time expended on multiple past projects funded in part through EPA Cleanup Grants. In the event that additional match beyond staff time is needed, a contingency for provision of funds either by the City or the developer will be incorporated into the final development agreement to be executed with the developer for the site.

The City is not requesting a hardship waiver.

THRESHOLD CRITERIA – ATTACHMENT A1
DRAFT ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES (ABCA)

(Note: An initial draft ABCA dated October 21, 2020 was made available for public review and public comments from October 22, 2020 through October 25, 2020. The ABCA was revised and updated in response to public comments, and this revised ABCA is provided herein).

DRAFT ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES – Former Crocker Plating Works Facility

5879, 5887, 5888, and 5910 Crocker Street
Los Angeles, California 90003

October 26, 2020

Prepared for:
City of Los Angeles Brownfields Program City of Los Angeles Department of Public Works, Bureau of Sanitation and Environment
1149 S. Broadway, 5th Floor (Mail Stop 944)
Los Angeles, California 90015

Prepared by:
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Sign-off Sheet

This document entitled DRAFT ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES – Former Crocker Plating Works Facility was prepared by Stantec Consulting Services Inc. (“Stantec”) for the account of City of Los Angeles Brownfields Program, City of Los Angeles Department of Public Works, Sanitation and Environment (the “Client”). Any reliance on this document by any third party is strictly prohibited without the written consent of Stantec, which may be granted at Stantec’s sole discretion. The material in it reflects Stantec’s professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any third party use of this document is wholly the responsibility of such third party. Any reliance granted to a third party will require the use and acceptance of Stantec’s form of reliance letter.

Prepared by **DRAFT**

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Graeme Taylor, Associate

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(signature)

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Reviewed by **DRAFT**

(signature)

David B. Holmes, PG

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Abbreviations and Acronyms

ABCA	Analysis of Brownfield Cleanup Alternatives
bgs	Below Ground Surface
CA Haz-Waste	California (non-RCRA) Hazardous Waste
CFR	Code of Federal Regulations
City	City of Los Angeles
CRA/LA	Community Redevelopment Agency of the City of Los Angeles
DRO	Diesel range organic
DTSC	California Department of Toxic Substances Control
EC	Effectiveness Criterion
ESA	Environmental Site Assessment
ESL	Environmental screening level
ft	Feet
ft^2	Square feet
FY	Fiscal Year
GRO	Gasoline range organic
HERO	Human and Ecological Risk Office
ID	Identification
LA	City of Los Angeles
LASAN	City of Los Angeles Sanitation and Environment
Mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
MRO	Motor oil range organics
NDC	National Development Council
PAH	Polynuclear aromatic hydrocarbon
PCE	Tetrachloroethene
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/feasibility study
ROM	Rough order of magnitude
RSL	Regional Screening Level
RWQCB	San Francisco Bay Regional Water Quality Control Board
SL	Screening Level
Stantec	Stantec Consulting Services Inc.
STLC	Soluble threshold limit concentration

SVE	Soil vapor extraction
TCE	Trichloroethene
TPH	Total Petroleum Hydrocarbons
µg/kg	Micrograms per kilogram
$\mu g/m^3$	Micrograms per cubic meter
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compound

1.0 INTRODUCTION AND BACKGROUND

This Analysis of Brownfield Cleanup Alternatives (ABCA) has been prepared by Stantec Consulting Services Inc. (Stantec) for the Former Crocker Plating Works property (the "Site") addressed as 5879, 5887, 5888 and 5910 Crocker Street in Los Angeles, California. This ABCA was prepared in part to meet the requirements for submittal by the City of Los Angeles (LA or City) for an application for a United States Environmental Protection Agency (USEPA) Brownfields Cleanup Grant as part of USEPA's Fiscal Year (FY) 2021 Brownfields Grant Competition. If awarded funding by USEPA, the Citywide Brownfields Program within the City of Los Angeles Department of Public Works, Sanitation and Environment (LASAN) will administer the grant.

The purpose of this ABCA is to outline environmental cleanup alternatives for the Site and to inform selection of an alternative that will best advance the community's goals for redevelopment of the Site. Four alternatives are evaluated in this ABCA based on their anticipated: 1) effectiveness, 2) implementability, and 3) cost.

1.1 SITE IDENTIFICATION

Site Name:	Former Crocker Plating Works Facility
Site Address:	5879, 5887, 5888 and 5910 Crocker Street Los Angeles, California 90003
Assessor's Parcel Numbers:	6006-029-900, 6006-029-901, 6006-030-901 and 6006-030-902
Property Owner:	City of Los Angeles Housing & Community Investment Department 1200 West 7th Street Los Angeles, California 90017

1.2 SITE LOCATION

The Site consists of four parcels in south Los Angeles, California between Slauson Avenue and East 59th Street. The Site vicinity is shown in **Figure 1**. The two parcels on the west side of Crocker Street (5879-5887) comprising the former parking lot are collectively referenced as the "West Lot" and the two parcels on the east side of Crocker Street (5888-5910) as the "East Lot." The West Lot totals an estimated 0.24 acres and the East Lot totals an estimated 0.6 acres. Collectively the Site consists of 0.84 acres and is shown in **Figures 2 and 3**.

The site is comprised of four parcels as summarized below:

Lot	Parcel Description	Parcel Address(es)	Legal Description	Assessor's Parcel No.	Parcel Dimensions	Parcel Area (ft^2)
West	Former parking lot	5879 Crocker	M B 6-108 N 40 ft of	6006-029-	40 ft X 130 ft	5,200

Lot	Parcel Description	Parcel Address(es)	Legal Description	Assessor's Parcel No.	Parcel Dimensions	Parcel Area (ft^2)
Lot	(north parcel)	St	Lot 52	900		
	Former parking lot (south parcel)	5887 Crocker St	M B 6-108 S 10 ft of Lot 52 and N 30 ft of Lot 53	6006-029-901	40 ft X 130 ft	5,200
East Lot	Former plating works (main parcel)	5888 Crocker St	The Walrath Tract Lots 29, 30, 31 and 32	6006-030-901	160 ft X 130 ft	20,800
	Former plating works (south driveway)	5910 Crocker St	The Walrath Tract Lot 33	6006-030-902	40 ft X 130 ft	5,200

ft = feet

ft^2 = square feet

1.3 SITE TOPOGRAPHY

The following summary is adapted from the draft Phase II Environmental Site Assessment (ESA) Report dated August 28, 2020 prepared by Ninyo & Moore (Ninyo & Moore, 2020). The Site is situated at an elevation of approximately 150 feet above mean sea level in a developed area of south Los Angeles. The Site and vicinity are predominately flat. Stormwater is expected to generally flow in a northeasterly direction towards the Los Angeles River, located approximately 3 miles northeast of the Site.

1.4 REGIONAL AND SITE GEOLOGY

The following summary of Site geology is adapted from the draft Phase II ESA Report (Ninyo & Moore, 2020). Los Angeles is located in a complex geologic position where several mountain ranges and hill systems converge. An extensive network of alluvial fans extends from these mountains and hills and eventually terminates at the Pacific Ocean coastline in the Los Angeles Coastal Plain which is part of the Southern California Coastal Plain (USDA, 2017). The Site is located within the Transverse Ranges Geomorphic Province and is situated within the Los Angeles Basin Coastal Plain. The Los Angeles Basin is bounded by the Santa Ana Mountains to the east, the Santa Monica Mountains and Puente Hills to the north, and the Pacific Ocean to west and south. The Site vicinity is underlain (at depth) by the Lakewood Formation. This formation is comprised of marine and continental sedimentary deposits that are overlain by Pleistocene age alluvium.

Based on soil logged during the Phase II ESA (Ninyo & Moore, 2020), soil at the Site generally consists of silty sand to poorly graded medium sand to the maximum explored depth of 20.5 feet below ground surface (bgs).

1.5 REGIONAL AND SITE HYDROGEOLOGY

The following summary of Site hydrogeology is adapted from the draft Phase II ESA Report (Ninyo & Moore, 2020). According to the California Department of Water Resources, the Site lies within the Los Angeles Forebay Area of the Central Groundwater Basin. Based on groundwater elevations for upper aquifer wells at the former Leach International Facility located at 5915 Avalon Boulevard in Los Angeles, California (located approximately 530 feet east of the Site), groundwater flow was easterly with a gradient of approximately 0.0025 feet per foot at depths ranging from approximately 119 to 144 feet bgs.

During the Phase II ESA (Ninyo & Moore, 2020) groundwater was not encountered in borings to a maximum explored depth of 20.5 feet bgs.

1.6 SITE HISTORY

Building records document that the Site was first developed with residential structures in 1909. No uses other than single-family residences were indicated from 1909 until 1950, when a machine shop was present on the East Lot. By 1923, the Sanborn fire insurance map documented the presence of six separate single-family residential dwellings on the Site together with three associated residential garage buildings. The East Lot was then occupied by a plating shop beginning in 1953, with build-out of Site structures lasting until 1964. The plating shop has operated under the name Memley Plating Works and Crocker Plating Works from 1953 to 2008. A C-shaped building was present on the West Lot from sometime between 1950 and 1956, until sometime before 1965. The West Lot appears to have consisted of vacant land from that time until the present.

Use of the Site as a metal plating facility ended in 2008 upon sale of the Site to the Community Redevelopment Agency of the City of Los Angeles (CRA/LA) on October 31, 2008. Structures on the East Lot were demolished by the CRA/LA in 2009 or 2010. The Site was acquired by the City from the CRA/LA in 2013, and since that time, has remained vacant and secured by fencing.

1.7 PREVIOUS ENVIRONMENTAL ASSESSMENT ACTIVITIES

A draft Phase II ESA report was completed by Ninyo & Moore on behalf of National Development Council (NDC) on August 28, 2020 (Ninyo & Moore, 2020). The report was completed using funding from an USEPA Brownfields Coalition Assessment Grant awarded to NDC in 2019. The report was prepared in response to a request from the City. The report supplemented a previous Phase II ESA completed by SCS Engineers in 2008 (SCS, 2008) on behalf of the CRA/LA prior to its acquisition of the Site.

The precise manner in which the Site became contaminated was not determined from previous assessment activities but was presumed to be associated primarily with the use of the East Lot as a metal plating facility for approximately 55 years. There are no specific spill records associated with the property and the only environmental record identified for the Site is a listing in the California Department of Toxic Substances Control (DTSC) EnviroStor database (ID 71002333) for having an assigned tiered permit.

1.8 SITE ASSESSMENT FINDINGS

In the 2020 Phase II ESA, soil and soil vapor analytical results were compared to residential and industrial land use USEPA Regional Screening Levels (RSLs; May, 2020), DTSC Human and Ecological Risk Office Human Health Risk Assessment Screening Levels (HERO HHRA SLs; June 2020) and San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels (RWQCB ESLs; 2019). It was determined that the Site is primarily contaminated with hazardous substances, including select metals, cyanide, and chlorinated solvents. Petroleum contamination (total petroleum hydrocarbons [TPH] as diesel range organics [DRO] and gasoline range organics [GRO]) was detected in a more limited area and generally at concentrations below applicable cleanup standards. The following sections provide a description of impacts to the Site by analyte group.

1.8.1 Metals Impacts in Shallow Soil

Lead concentrations of 93 and 200 milligrams/kilogram (mg/kg) in shallow (0.5 foot) soil samples collected on the East Lot (AOC2-SB5 and AOC2-SB10) exceed the San Francisco Bay RWQCB ESL and the DTSC HERO HHRA SLs for lead in residential soil of 80 mg/kg. The sample with 93 mg/kg of total lead had a soluble threshold limit concentration (STLC) for soluble lead of 3.3 milligrams per liter (mg/L). This concentration is below the California Non-Resource Conservation and Recovery Act (RCRA) Hazardous Waste (CA Haz-Waste) Threshold Value of 5.0 mg/L, above which the soil if excavated would be subject to management as a CA Haz-Waste. Shallow soil on the East Lot is also impacted in some areas with other metals including arsenic, barium, cadmium, chromium, copper, nickel, and zinc, although the measured concentrations are well below applicable screening levels or published background concentrations. It should be noted that samples were not analyzed for hexavalent chromium at the Site during prior investigations. One collected concrete core sample collected in 2008 had a mercury concentration above the DTSC HERO SL although since this sample was collected from a concrete core the detection is not considered to be representative of Site soil conditions. The sample with the highest total cadmium concentration of 19 mg/kg had a STLC for soluble cadmium of 0.9 mg/L which is slightly below the CA Haz Waste Threshold Value of 1.0 mg/L (suggesting that cadmium could be a concern if higher concentrations are present in areas or at depths not sampled as part of the Phase II ESAs).

1.8.2 Cyanide impacts in Soil

Total cyanide was detected six boring locations on the East Lot, with concentrations of 16 and 22 mg/kg in the initial and duplicate samples from a depth of 5 feet bgs at AOC2-SB10, and a concentration of 31.9 mg/kg from a depth of 1 foot bgs at SB2 exceeding the San Francisco RWQCB ESL for residential soil of 5.5 mg/kg. The elevated cyanide concentrations generally coincide with two former plating areas located in the north and south-central portions of the East Lot.

1.8.3 Diesel Range Organic Impacts in Soil

A total of 30 soil samples and one waste characterization sample were analyzed for DRO, GRO and motor oil range organics (MRO) during the 2020 Phase II ESA (Ninyo & Moore. 2020). Analyses for GRO on 18 soil samples and DRO on 10 soil samples were also performed as part of the 2008 Phase II ESA (SCS, 2008). Of

the 118 total analyses performed for DRO, GRO, or MRO in the investigative samples, the results were "not detected" in all but four samples with DRO concentrations detected at 12 and 17 mg/kg and MRO concentrations detected at 57 and 87 mg/kg. These concentrations are significantly below applicable screening levels. However, the waste characterization sample analyzed as part of the 2020 Phase II ESA had a DRO concentration of 180 mg/kg, which exceeds the USEPA RSL for residential soil of 97 mg/kg. The results (with the waste characterization sample having a reported concentration more than 10 times higher than that measured in any of the 30 investigative samples associated with the borings that generated the waste sample) are anomalous, but suggest that there are at least some areas at the Site where DRO concentrations exceed applicable screening levels.

1.8.4 Chlorinated Solvent Impacts in Soil and Soil Vapor

A total of 24 soil vapor samples collected as part of the 2008 Phase II ESA and 29 samples collected as part of the 2020 Phase II ESA were analyzed for volatile organic compounds (VOCs). The concentrations for tetrachloroethylene (PCE) exceeded the DTSC HERO HHRA and San Francisco RWQCB residential subslab screening levels of 15.3 and 15 micrograms per cubic meter (µg/m^3) in 47 of the 53 combined samples analyzed. The concentrations for trichloroethylene (TCE) exceeded the San Francisco RWQCB residential subslab screening level of 16 µg/m^3 in 7 of 53 samples analyzed. The highest TCE concentrations generally coincide with the samples with the highest PCE concentrations with the exception of the sample from SB12-SV-15ft on the West Lot which was collected adjacent to a sewer and where the TCE concentration of 22.5 µg/m^3 exceeds the screening level whereas the PCE concentration of 9.7 µg/m^3 does not. The specific source(s) for the PCE and TCE impacts is/are unknown, as only trace VOC impacts were detected in 48 soil samples analyzed as part of the 2008 and 2020 Phase II ESAs. No VOCs were detected in the 30 soil samples analyzed as part of the 2020 Phase II ESA. PCE was detected in one of 18 soil samples analyzed as part of the 2008 Phase II ESA. The concentration of 309 micrograms per kilogram (µg/kg) measured in the soil sample from SB2 (1-foot bgs) exceeds the San Francisco RWQCB residential RSL of 80 µg/kg. The highest PCE concentrations in soil vapor are present on the central and east portions of the East Lot. PCE concentrations generally are 2 to 27 times greater than the residential subslab screening levels throughout the East Lot. On the West Lot, the PCE concentrations were below the screening level in 3 of 4 samples collected at a depth of 5 feet, and only slightly above screening levels in the other 5- or 15-foot samples (with concentrations of 18, 18, 23, and 32 µg/m^3).

1.8.5 Petroleum Impacts in Soil Vapor

Trace concentrations of petroleum VOCs were detected in select soil vapor samples. However, except for benzene and/or GRO in two samples (SB2-SV-15 ft and SB12-SV-15 ft), concentrations were below appliable screening levels. The benzene concentration of 3.8 µg/m^3 at SB12-SV-15 slighted exceeds the San Francisco Bay RWQCB screening level of 3.2 µg/m^3. The GRO concentrations of 7,730 and 8,130 µg/m^3 at SB2-SV-15 ft and SB12-SV-15 ft, respectively exceed the modified USEPA residential subslab RSL of 1,033 µg/m^3 but are below the San Francisco Bay RWQCB residential subslab screening level of 20,000 µg/m^3. The sample at SB12-SV-15 ft is adjacent to a sewer and the right-of-way, increasing the potential for an off-site unidentified source. Regardless, the petroleum impacts in soil vapor are much less pervasive and significantly lower in

concentration relative to the PCE and TCE concentrations measured in soil vapor samples, and therefore unlikely to have any substantive influence on remediation requirements for the Site.

1.8.6 Other Environmental Concerns

Other environmental concerns relevant to redevelopment include contaminated sediment or residuals that may be present within abandoned former sanitary sewers underlying the East Lot. In addition, poorly consolidated undocumented fill materials may be present within the footprints of former Site buildings including at least six former single-family residences and three former residential garages documented at the Site on historic Sanborn fire insurance maps.

1.8.7 Site Assessment Findings Summary

A summary of previous Site assessment findings in soil and soil gas samples is shown in the tables below. If USEPA Cleanup Grant funding is awarded, an updated ABCA will be prepared in accordance with USEPA requirements and consistent with the final Remedial Action Work Plan approved by DTSC. Based on reported plans to redevelop the Site for residential use, the soil and soil gas samples are compared to applicable residential screening levels.

1.8.7.1 Site Assessment Findings Summary in Soil

For the purposes of this ABCA, concentrations of lead and cyanide in shallow soil that exceed applicable screening levels will be included in the alternatives for remediation. It should be noted however that although applicable screening values were exceeded in select samples for lead and cyanide, these analytes were not detected at elevated concentrations in the majority of samples and are not considered to present a substantial risk to human health or the environment. It is anticipated that a statistical analysis of these analytes using USEPA's Pro UCL or other statistical modelling tool will be conducted during remedial design activities to demonstrate that remediation of these areas is not required to protect human health and the environment.

The following table summarizes concentrations in soil from the 2008 and 2020 Phase II ESAs (SCS, 2008; Ninyo & Moore, 2020).

Constituent Group	Constituent(s)	# of Soil Samples Analyzed	Units of Measure	DTSC HERO SLs (residential soil)	USEPA RSLs for residential soil	Maximum Concentration Measured	# of Samples Exceeding applicable screening values
Metals	Antimony	51	mg/kg	NL	31	5.8	0
	Arsenic			0.11	0.68	6.9	0*
	Barium			NL	15,000	280	0
	Beryllium			16	160	0.61	0

Constituent Group	Constituent(s)	# of Soil Samples Analyzed	Units of Measure	DTSC HERO SLs (residential soil)	USEPA RSLs for residential soil	Maximum Concentration Measured	# of Samples Exceeding applicable screening values
	Cadmium			71	71	59	0
	Chromium			NL	120,000	570	0
	Cobalt			NL	23	16	0
	Copper			NL	3,100	668	0
	Lead			80	400	200	3
	Mercury			1.0	11	6.40	1**
	Molybdenum			NL	390	1.5	0
	Nickel			820	1,500	111	0
	Selenium			NL	390	<4.8	0
	Silver			NL	390	6.7	0
	Thallium			NL	0.78	<2.0	0
	Vanadium			NL	390	52	0
	Zinc			NL	23,000	4,580	0
Cyanide	Cyanide	42	mg/kg	NL	23	31.9	1
TPH	TPH-GRO	49	mg/kg	NL	82	<0.2	0
	TPH-DRO	41		NL	97	180	1***
	TPH-MRO	31		NL	2,400	900	0
PAHs	Anthracene	30	µg/kg	17,000,000	18,000,000	170	0
	Benzo(a)anthracene			1,100	1,100	4.8	0
	Benzo(a)pyrene			110	110	11	0
	Benzo(b)fluoranthene			1,100	1,100	8.7	0
	Benzo(g,h,i)perylene			NL	NL	10	0
	Chrysene			110,000	110,000	11	0
	Fluoranthene			2,400,000	2,400,000	13	0
	Pyrene			1,800,000	1,800,000	25	0
VOCs	PCE	49	µg/kg	590	24,000	309	0
	TCE			NL	940	16	0
	Toluene			1,100,000	4,900,000	3.4	0

Table Notes:

The data in the table above are summarized from the Phase II ESA reports (SCS, 2008 and Ninyo & Moore, 2020).

VOCs are not included in this screening summary table since they were reported as below applicable screening levels in soil during the 2020 Phase II ESA and are evaluated for cleanup in soil vapor samples.

The number of samples does not include quality control samples (equipment blanks).

Only detected analytes are included in this table.

One sample result for thallium had a lab reporting limit of 2.0 mg/kg.

PAHs = polycyclic aromatic hydrocarbons

NL = Not Listed

* = Arsenic exceeds soil screening value but is below background concentration listed at 12 mg/kg (DTSC).

** = Mercury was detected above an applicable screening value in one sample collected from a concrete core sample. This concentration is not considered to be representative of Site soil conditions.

*** = One sample analyzed for DRO exceeded an applicable screening value for the Site but in a waste characterization sample. This result is considered to be anomalous.

1.8.7.2 Site Assessment Findings Summary in Soil Vapor

The primary compound that exceeds applicable screening values on the Site is PCE in soil gas which was detected at concentrations that exceed the DTSC SLs for soil vapor at residential properties in 25 of 29 samples analyzed as part of the 2020 Phase II ESA. The precise source of PCE was not determined in previous investigation activities. TCE is a daughter product of PCE and is potentially present in Site soil vapor as a result of PCE degradation. The data for constituent concentrations in soil gas which exceed applicable screening values in at least one of the collected soil gas samples at the Site in 2020 are summarized in the table below.

Constituent	# of Soil Vapor Samples Analyzed	DTSC HERO SLs (residential subslab/soil gas) (µg/m^3)	USEPA RSLs for residential subslab/soil gas (µg/m^3)	Maximum Concentration Measured (µg/m^3) (and Sample ID where measured)	# of Samples with Concentrations Exceeding Applicable Screening Values
Benzene	29	3.2	12	3.8 (SB12-SV15')	1
Chloroform		NL	4	4.3 (SB2-SV15')	1
PCE		15.3	367	408 (SB6-SV5')	25
TCE		NL	16	60.1 (SB5-SV5')	4
GRO		NL	1,033	8,130 (SB12-SV15')	2

Table Notes:

The data in the table above are summarized from Table 5 in the Phase II ESA Report (Ninyo & Moore, 2020) using the attenuation factor of 0.03 applied to USEPA RSLs and DTSC HERO HHRA RSLs.

NL = Not Listed

2.0 REUSE PLAN, APPLICABLE REGULATIONS, AND CLEANUP STANDARDS

2.1 PROJECT GOALS AND SITE REUSE PLAN

The Site has been designated by the City for redevelopment for multi-family residential housing although development plans for the Site are still being finalized. Once the development plans are finalized, the City will complete a final Remedial Action Work Plan which will be subject to input from the community as well as reviewed and approval by the DTSC. If USEPA Cleanup Grant funding is awarded, an updated ABCA will be prepared in accordance with USEPA requirements and consistent with the final Remedial Action Work Plan approved by DTSC.

2.2 CLEANUP OVERSIGHT RESPONSIBILITY

Cleanup of the Site will be conducted by the City under a Voluntary Clean-up Agreement to be executed between the City and the DTSC. The specific type of agreement that will be utilized is still being evaluated by the City. However, whatever agreement is utilized will result in all remedial planning and cleanup activities being subject to plans submitted for review and approval by DTSC. LASAN staff assigned to the project have technical expertise in performing and overseeing environmental assessment and cleanup activities.

2.3 CLEANUP STANDARDS FOR MAJOR CONTAMINANTS

The evaluation of applicable cleanup standards will be completed by the City or one of its on-call environmental consultants as part of preparation of a Remedial Action Work Plan during 2021 (assuming that an USEPA Cleanup Grant is awarded). Cleanup standards will be developed in accordance with the planned future permanent use of the Site for residential development.

For the purpose of this ABCA, cleanup standards for soil at the Site are assumed to be the following:

- DTSC HERO HHRA SLs for residential soil (DTSC, 2020);
- USEPA RSLs for residential soil (USEPA 2019).

Cleanup standards for soil gas at the Site are assumed to be the following:

- DTSC HERO HHRA SLs for residential subslab soil gas (DTSC, 2020);
- USEPA RSLs for residential subslab soil gas (USEPA, 2019).

All final cleanup standards for the Site will be subject to review and approval by DTSC.

2.4 LAWS AND REGULATIONS APPLICABLE TO THE CLEANUP

Cleanup at the Site is subject to an array of federal, state, and local regulations. It is anticipated that the City will enter into a Voluntary Clean-up Agreement to be executed between the City and the DTSC. This voluntary clean-up agreement will guide the City remediation of the Site under DTSC supervision. Additional details regarding regulations and permits applicable to cleanup will be provided in the Remedial Action Work Plan and updated ABCA.

3.0 MAJOR ASSUMPTIONS

The following major assumptions were made when completing this ABCA:

- It is assumed that waste generated on the Site during cleanup activities will be classified as non-hazardous. Remediation costs for alternatives involving soil excavation and offsite disposal will increase if some or all of the contaminated materials must be handled as hazardous waste. It is also assumed that excavated soil will not be classified as a California hazardous waste as defined in Division 4.5 of Title 22 of the California Code of Regulations or as a RCRA hazardous waste as defined in Title 40 Code of Federal Regulations (CFR) parts 260 through 273.

- It is assumed that PCE in soil vapor is from one or more unidentified release areas on the Site that have resulted in PCE impacts to soil. In addition, it is assumed that there is at least one as yet unidentified off-site source of PCE contributing to PCE impacts detected in soil gas samples at the Site. No specific areas of PCE-impacted soil have been identified to date at the Site other than a PCE concentration of 309 µg/kg measured in soil sample SB2 (1-foot bgs) collected in 2008.

- It is assumed that the Site will be developed in the future with residential structures without subgrade parking. It is assumed that structures will be developed as slab-on-grade buildings on up to 50-percent of the Site or an estimated 18,300 square feet of building footprint (13,068 square feet on the East Lot and 5,225 square feet on the West Lot). It is assumed that 11,800 square feet of the Site will be redeveloped as landscaped areas (10,200 square feet on the East Lot and 1,600 square feet on the West Lot). The remainder of the Site will be redeveloped as hardscape (asphalt, concrete, pavers, etc.) estimated at 5,810 square feet.

- A Remedial Investigation and Feasibility Study (RI/FS) will be required to facilitate Site cleanup, and will further evaluate whether hexavalent chromium impacts are present, as well as the nature and extent of chlorinated solvents in soil to further inform the remedial action. The RI/FS would be reviewed and approved by DTSC prior to implementation.

- The cost estimates presented in the ABCA are planning-level engineering cost estimates with a precision of +50% / -30% and include a 10% contingency. Costs do not account for Site preparation costs associated with redevelopment, which could include a geotechnical suitability analysis and other engineering costs. Additional work will be needed for remedial planning and design to refine the selected remedy to take the outcome of the ABCA from planning level information to detailed design and construction level documents.

4.0 EVALUATION OF CLEANUP ALTERNATIVES

Based on the evaluation of Site contaminants and the future anticipated exposure pathways identified for the Site, the remedial actions selected for the Site should accomplish the following objectives:

1. Minimize or eliminate the potential for excavation/construction workers to be exposed to contaminated soils via direct contact, incidental ingestion, or inhalation of dust during construction activities.
2. Minimize or eliminate the potential for future Site residents and visitors to be exposed to contaminated surficial soils via direct contact, incidental ingestion, or inhalation of dust following future Site redevelopment.
3. Minimize of eliminate the potential for future Site residents to be exposed to VOCs in indoor air.
4. Reduce the toxicity, mobility, and volume of contaminants on Site.

To achieve these objectives, four remedial alternatives were considered for the Site to remediate contaminated soil and soil gas on the Site. Remediation alternatives evaluated in this ABCA include: 1) a "No Action" alternative; 2) a "Soil Excavation and Off-Site Disposal" alternative; 3) a "Soil Cover System with Targeted Excavation" alternative; and 4) a "Soil Vapor Extraction System with Targeted Excavation" alternative. These alternatives are summarized below.

4.1 CLEANUP ALTERNATIVES CONSIDERED

Four remedial action alternatives were considered for use at the Site, as briefly summarized below.

4.1.1 Alternative 1 – No Action

No action (e.g., not remediating soil or soil gas at the Site) is the baseline against which all other alternatives will be measured.

4.1.2 Alternative 2 – Soil Excavation and Off-Site Disposal

This alternative would consist of excavation, removal, and off-site disposal of contaminated soil from areas of the Site that exceed applicable screening values for either soil or soil vapor. It is assumed that soil excavation would mitigate elevated lead or cyanide concentrations detected in soil borings AOC2-SB-5, AOC2-SB9, and AOC2-SB10 and the general Site-wide presence of vapor-phase VOC concentrations above applicable screening levels detected on both the East Lot and the West Lot (Ninyo & Moore, 2020). A soil management plan would be written and implemented to appropriately manage impacted soils removed during excavation activities.

Based on available data, a Site-wide excavation to a depth of approximately 20 feet bgs is assumed for this alternative although these dimensions could be refined with additional Site assessment. Based on preliminary calculations, a total of 27,100 cubic yards (40,650 tons) of contaminated soil would be excavated and disposed of off-Site. This includes approximately 19,300 cubic yards (28,950 tons) of soil from the East Lot and 7,800 cubic yards (11,700 tons) from the West Lot. Demarcation fabric would be

placed at the base of each excavation area to delineate potentially contaminated soil. The excavated area would require backfill with clean structural fill above the demarcation fabric.

Major considerations in implementing this alternative will include:

- The final grading plans for the Site, and whether any or all of the excavated areas would need to be backfilled with clean imported fill materials.
- Plans for future construction, in particular buildings, where special measures may be required in backfilling of excavation, to minimize settlement and potential geotechnical issues.
- The locations of existing underground utility lines that would limit use of this alternative in some areas.

4.1.3 Alternative 3 – Soil Cover System with Targeted Excavation

Alternative 3 would consist of targeted excavations to remove contaminated soil for building footprints, utilities, landscaped areas and other required excavations and the installation of a soil cover system and vapor barrier. A soil management plan would be written and implemented to appropriately manage impacted soils removed during the targeted excavation.

Final cover systems would be integrated with Site redevelopment plans as a project cost-savings measure. The type of cover system (i.e. landscaped areas, paved parking lots, building foundation, etc.) will be dependent on final redevelopment plans and would be finalized during the remedial design. This design (including cover system details and locations) would be submitted to the DTSC for review and approval prior to the start of construction. A soil cover system would be constructed over areas of impacted soil to interrupt the direct contact pathway for future Site residential receptors.

Soil vapor mitigation measures for buildings typically include use of vapor barriers in constructing the slab and for outer walls extending below grade, and installation of an active or passive subslab venting or depressurization system. It is assumed that the vapor barrier would include a passive ventilation system at the Site. If an active ventilation system is determined to be required, additional installation and maintenance costs would be incurred.

The installation of a vapor barrier and ventilation system is not expected to remediate lead and cyanide impacts detected on the East Lot (Ninyo & Moore 2020). To address the reported lead and cyanide impact in these areas a total of three targeted soil excavations to depths ranging from approximately 5 to 10 feet bgs would be warranted, totaling approximately 167 cubic yards (250 tons) of soil that would require excavation and off-site disposal from the East Lot. It is assumed that to establish a soil cover for landscaped areas, assumed to be 11,800 square feet based on preliminary redevelopment designs. The soil cover in this area would consist of clean fill which would be placed at a minimum thickness of 2 feet for an estimated additional 875 cubic yards (1,310 tons) for excavation and disposal of contaminated soil and backfill using clean fill. The total excavation volume for this alternative is estimated at 1,560 tons.

Considerations in implementing this alternative will include:

- The planned locations for parking lot, paved paths, new building slabs, or other concrete or asphalt pavement in areas where it could serve as a long-term engineered barrier.
- The final grading plan, and the volume of soil that needs to be removed or brought to the Site to achieve the desired grade, and the extent to which construction of a cap may add to the challenges of meeting the grade (if plans require the removal of significant soil quantities).
- Whether the materials used to construct the cap are compatible with future Site plans.

4.1.4 Alternative 4 – Soil Vapor Extraction System with Targeted Excavation

This alternative would consist of installation and operation of a soil vapor extraction (SVE) system for the purpose of reducing VOC concentrations in select subsurface areas, where these present a threat of continuing releases to indoor air from contaminants in soil. SVE is most effective on contaminants with higher Henry's Law constants, in particular certain chlorinated solvents (i.e. PCE and TCE) and petroleum hydrocarbons.

The operation of an SVE system is not expected to remediate lead and cyanide impacts detected on the East Lot (Ninyo & Moore 2020). To address the reported lead and cyanide impact in these areas, a similar approach would be implemented as described in Alternative 3 with targeted excavation areas and soil cover established over those areas and over landscaped areas of the Site. Targeted excavation and soil cover is anticipated to include 650 tons of soil required for excavation, off-Site disposal and backfill.

Considerations in implementing this alternative will include:

- The planned locations for new building slabs and other permanent features which may affect the placement of vapor extraction wells, associated below-grade piping, and remediation compound.
- The permeability of subsurface soils when determining both the density of, and the construction details of the extraction well network.
- Potential noise concerns since the SVE system would be operated in close proximity to residences.
- The same considerations, as presented for Alternative 2, would be applicable for implementing the targeted soil excavation work.

4.2 EFFECTIVENESS, IMPLEMENTABILITY, AND COSTS FOR CLEANUP ALTERNATIVES

To assist in the selection of a remedial action alternative for the Site, this section presents an evaluation of the effectiveness, implementability, and preliminary estimated cost for each cleanup alterative.

4.2.1 Effectiveness

The effectiveness of the various remedial alternatives was evaluated in terms of their ability to:

1. Meet cleanup objectives (Effectiveness Criterion [EC] #1);
2. Protect future Site receptors from risks associated with exposure to contaminated soil and soil vapors (EC #2);

3. Prevent off-site movement of contamination in either groundwater, stormwater runoff or soil vapor (EC#3); and,
4. Facilitate desired reuse of the Site for residential development (EC #4).

4.2.1.1 Alternative 1 – No Action

The "no action" alternative would be ineffective at achieving any of the four effectiveness criteria listed in Section 4.2.1.

4.2.1.2 Alternative 2 – Soil Excavation and Off-Site Disposal

Excavation, removal, and off-site disposal of contaminated soil would be effective in achieving at least three of the effectiveness criteria listed in Section 4.2.1 (EC #1, EC#3, and EC #4). The nature and extent PCE detected in soil vapor samples has not been fully assessed. If the PCE originated onsite, the excavation, removal, and off-site disposal of contaminated soil would likely be effective in protecting future receptors of the Site from risks associated with contaminated soil or contaminated soil vapors (EC #2); although this would have to be determined by conducting additional Site investigation to determine deeper soil gas concentrations at the Site. However, if the PCE is migrating onto the Site from an off-site location (which is a major assumption presented in Section 3.0), the soil excavation activities may not satisfy EC #2 if the source of the PCE is located outside of the excavation footprint. For the purposes of this ABCA Alternative 2 is considered to be ineffective.

4.2.1.3 Alternative 3 – Soil Cover System with Targeted Excavation

Capping of contaminated soil would be effective in protecting future users of the project area from direct contact with contaminated soil (EC #2), and in preventing contaminating soil from being transporting off-Site via stormwater runoff (EC #3). The inclusion of soil vapor mitigation measures, including the use of vapor barriers, and possibly the installation of a passive or active subslab venting system would effectively mitigate the risk of volatile contaminants in the soil vapor (EC #2) that would potentially impact indoor air quality. The combination of capping and soil vapor mitigation measures, coupled with targeted excavation, are expected to meet cleanup objectives (EC #1) and enable the Site to be developed for residential uses (EC #4).

4.2.1.4 Alternative 4 – Use of Soil Vapor Extraction System with Targeted Excavation

The combined use of SVE to target vapor-phase VOC concentrations and targeted soil excavations would be effective in achieving the four effectiveness criteria listed in Section 4.2.1. Operation of the SVE system would effectively mitigate the risk of volatile contaminants in the soil vapor (EC #2 – partial) that would potentially impact indoor air quality, while targeted excavation would effectively protect future receptors of the Site from risks associated to contaminated soil (EC #2). The combination of SVE and targeted excavation, are expected to meet cleanup objectives (EC #1), prevent contaminating soil from being transporting off-site via stormwater runoff (EC #3), and enable the Site to be developed for residential use (EC #4).

4.2.2 Implementability

The implementability of the four remedial alternatives is evaluated below.

4.2.2.1 Alternative 1 – No Action

No action is the most implementable alternative since it involves no activities.

4.2.2.2 Alternative 2 – Soil Excavation and Off-Site Disposal

Alternative 2 is moderately difficult to implement. Coordination (e.g., dust suppression and monitoring) during cleanup activities and short-term disturbance to the community (e.g., trucks transporting contaminated soils and backfill) are anticipated. In addition, the potential exists that some of the generated soil stockpiles would end up being classified as hazardous waste. If hazardous soil stockpiles are generated, there would be a need to carefully define areas where soil is hazardous, and to segregate this soil from non-hazardous soil generated from other areas.

One favorable factor is the Site is currently undeveloped and split into two parcels located across the street from each other; accordingly, one parcel could be utilized as a staging area, while excavation and backfill activities are performed on the other parcel. Additionally, due to the contaminant distribution, the excavation sidewalls could be sloped, eliminating the need for sheet piling or other costly measures to prevent excavations from undermining neighboring structures, roadways and utilities. Another favorable factor is that groundwater is not expected to be encountered, negating the need for costly and complex dewatering activities. Overall, this Alternative is considered moderately difficult to implement.

4.2.2.3 Alternative 3 – Soil Cover System with Targeted Excavation

Capping is relatively easy to implement, although ongoing monitoring and maintenance of the cap will require periodic coordination and reporting. Similarly, the installation of vapor barriers (and possibly a passive or active subslab venting system) during construction would be relatively easy to implement; however, if an active subslab venting system was installed, it too would require ongoing monitoring and maintenance. The targeted excavation work would be relatively easy to implement, given the expected volume of soil that would necessitate off-site disposal. Overall, this Alternative is considered easy to implement.

4.2.2.4 Alternative 4 – Use of Soil Vapor Extraction System with Targeted Excavation

Use of SVE would be relatively complex to implement, as it could require installation of a significant number of SVE wells (assuming a 25-foot radius-of-influence, there could be as many as 15 SVE wells on the West Lot and 40 SVE wells on the East Lot), connected to two separate treatment systems. This SVE system would need to be designed around building footprints to allow for maintenance and decommissioning once remedial action objectives are achieved. The targeted excavation work would be relatively easy to implement, given the expected volume of soil that would necessitate off-site disposal. Overall, this Alternative is considered difficult to implement

4.2.3 Cost

This section provides a general discussion of estimated rough order of magnitude (ROM) costs associated with select remedial alternatives. The estimated costs are based on the current anticipated reuse plans, as understood by Stantec and rely on Stantec's past experiences remediating sites within Los Angeles County. These costs omit any additional assessment or feasibility testing required, as well as permitting costs, preparation of workplans, and any Agency interaction or public outreach activities. Cost estimates for Alternatives 2, 3, and 4 are included in **Appendix A**.

4.2.3.1 Alternative 1 – No Action

There is no direct cost associated with this alternative. However, redevelopment of the Site for residential land use could not be achieved if no action is taken to clean up the Site.

4.2.3.2 Alternative 2 – Soil Excavation and Off-Site Disposal

The costs for excavation, removal, and off-site disposal of non-hazardous soil, and the emplacement of clean fill material is expected to be approximately $90/ton; however, the disposal costs can decrease by approximately $10/ton if the material is suitable for use as daily cover at the disposal facility. Conversely, disposal costs can increase significantly if the generated soil is profiled as hazardous waste. For contaminants that are not easily subject to in-situ or on-site treatment, this alternative can be cost effective (assuming soil can be disposed of as a non-hazardous waste); however, the volume of soil that would be excavated under this alternative is significant.

The estimated cost to implement Alternative 2 is $5,176,575.

4.2.3.3 Alternative 3 – Soil Cover System with Targeted Excavation

The design and installation of a soil cover system to mitigate potential vapor intrusion into indoor air spaces is highly dependent on the Site redevelopment plan, type of construction, and the chemical compounds being addressed. Installation of a vapor barrier (including parts and subcontracted labor) during the construction phase of a project can be estimated at approximately $12/square foot. Additionally, it is estimated that a 10-year inspection period would be required for this alternative to ensure that the soil cover system is effective and properly maintained. No costs were included for significant maintenance of the soil cover system during the 10-year inspection period.

The estimated cost to implement Alternative 3 is $487,760.

4.2.3.4 Alternative 4 – Use of Soil Vapor Extraction System with Targeted Excavation

The costs for installation of a network of SVE wells and the associated remediation equipment can be significant. In addition, a significant amount of work to procure permits to install and operate the SVE system is typically required, and electrical service to the remediation compound needs to be secured. Additionally, operation of an SVE system requires ongoing Operation and Maintenance (O&M) visits (typically performed weekly or biweekly) and requires periodic sampling for laboratory analysis and

associated reporting. Additional O&M costs can include utilities, wear and tear on mechanical components, and periodic replacement of granular activated carbon (unless vapor abatement is not done via a thermal oxidizer which is generally more costly and may not be suitable for a residential redevelopment).

The estimated cost to implement Alternative 4 is $790,000.

4.3 RECOMMENDED REMEDIAL ACTION ALTERNATIVE

The initial recommended cleanup alternative is Alternative 3 (Installation of a Soil Cover System and Targeted Excavation). The recommended alternative would include a strategic removal of soil containing lead or cyanide at concentrations in excess of residential screening levels. The installation of a vapor barrier and (if warranted) subslab ventilation system would mitigate the potential for VOCs (namely PCE) to accumulate in indoor air.

Alternative 1 (No Action) cannot be recommended as it would support none of the City's goals for the Site. Although it would have the lowest direct cost, it would have the highest indirect or opportunity costs as it would result in none of the exceptional reuse opportunities associated with the Site.

Alternative 2 (Soil Excavation and Off-Site Disposal) cannot be recommended as it is significantly more expensive than the recommended alternative. Additionally, due to the lack of available Site knowledge and/or laboratory analytical data that could pinpoint location(s) of an off-site undocumented PCE source impacting the Site, it is not conclusive that this alternative would be effective.

Similarly, Alternative 4 (Soil Vapor Extraction System coupled with Targeted Excavation) is not a preferred remedial approach for the Site. Due to the propensity for PCE to volatilize, coupled with the low vapor-phase screening levels established by DTSC, a relatively small quantity of PCE adsorbed to soil or dissolved in groundwater can result in vapor-phase concentrations in excess of established screening levels. Without knowing the location of the PCE release, or whether the PCE is originating on-Site of from an off-Site source, installation of an SVE system as the sole remedial approach to mitigate the relatively widespread vapor-phase PCE concentrations observed beneath the Site is not a prudent approach. Furthermore, implementation of this alternative is considered difficult to incorporate into future construction design.

The actual combination of remedial alternatives used at the Site are subject to completion of the final reuse plan, further Site investigations and/or feasibility studies, further input from the public and project stakeholders regarding both the cleanup and reuse options, the timing and availability of other funding secured, DTSC approval of the final Remedial Action Work Plan, and other factors. The remedial approach for the Site will be refined as some of these unknown conditions are addressed.

5.0 REFERENCES

DTSC, 2020. California Department of Toxic Substances Control, 2019, Human Health Risk Assessment. Human and Ecological Risk Office Note 3, Recommended Screening Levels. Dated June 2020.

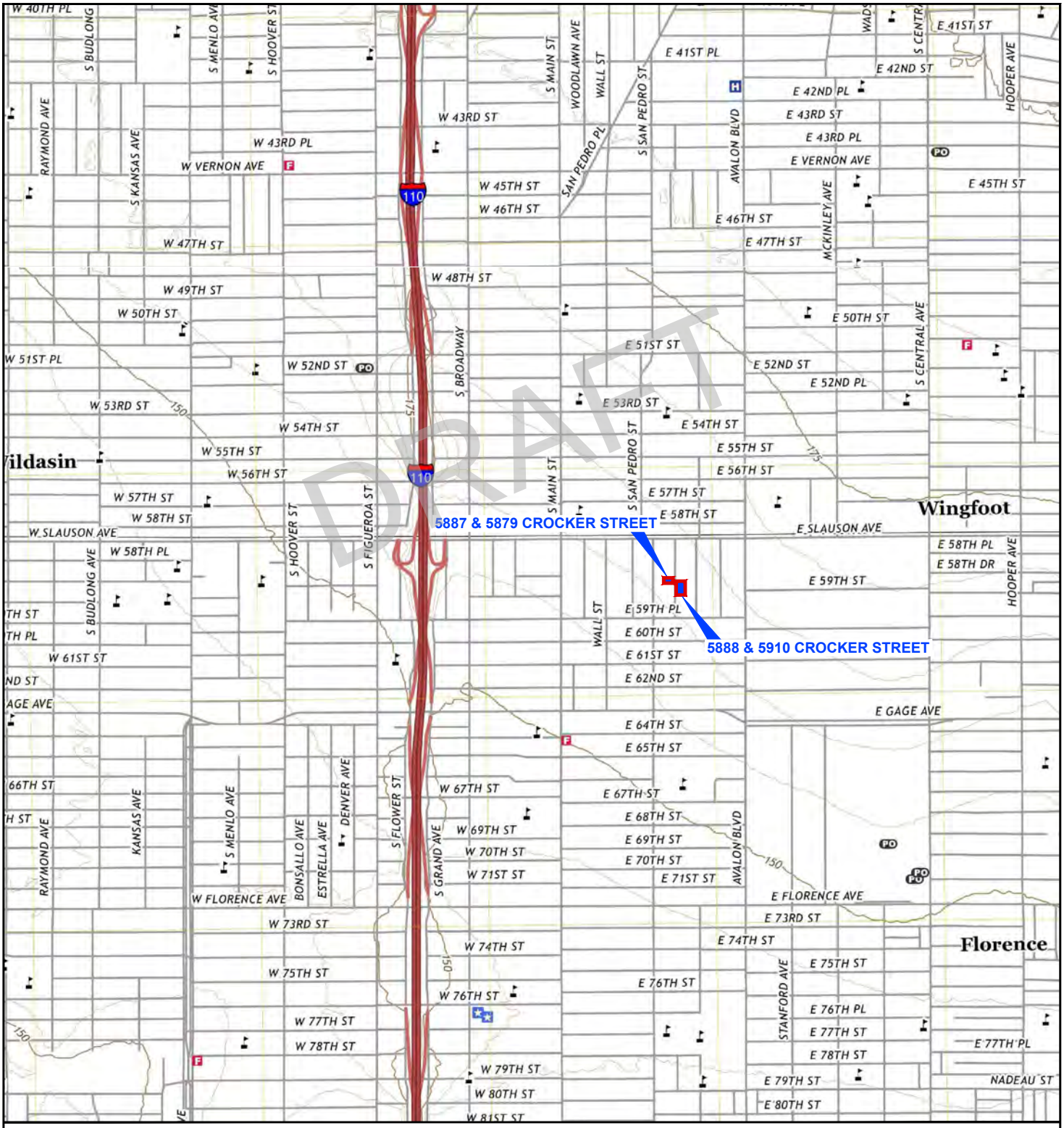
USEPA, 2020. Environmental Protection Agency Regional Screening Levels (RSLs) Summary Table (TR=1E-06, HQ-1), dated May 2020.

RWQCB, 2019. San Francisco Bay Regional Water Quality Control Board, Environmental Screening Levels. January 2019.

Ninyo & Moore, 2020. Limited Phase II Environmental Site Assessment Report. Former Crocker Plating Works 5879, 5887, 5888 and 5910 Crocker Street. Draft dated August 28, 2020.

SCS, 2008. Phase II Investigation – Crocker Plating Works Facility, 5879, 5887, 5888, and 5910 Crocker Street, Los Angeles, California. August 7, 2008.

USDA, 2017. United States Department of Agriculture, Natural Resources Conservation Service. 2017. Supplement to the soil survey of Los Angeles County, California, Southeastern Part. Accessible online at: http://soils.usda.gov/survey/printed_surveys/.



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. I REFERENCE: USGS, 2018.

N

FEET

0 2,000 4,000

211270002_SL.dwg 08/25/2020 (August 2020) JDP

FIGURE 1

SITE LOCATION

5879, 5887, 5888 AND 5910 CROCKER STREET
LOS ANGELES, CALIFORNIA

211270002 I 8/20

Ninyo & Moore
Geotechnical & Environmental Sciences Consultants

Notes:
bold indicates exceedance of regulatory screening level(s)
* - non-cancer endpoint
-- not analyzed
AOC - area of concern
bgs - below ground surface
DRO - diesel range organics
DTSC HERO HHRA - Department of Toxic Substances Control Human and Ecological Risk Office Human Health Risk Assessment, Note 3, Recommended Screening Levels for Soil (June 2020)
DUP - duplicate sample
EPA - United States Environmental Protection Agency
ESLs - San Francisco Bay RWQCB Environmental Screening Levels (January 2019)
ID - Identification
mg/kg - milligrams per kilogram
mg/l - milligrams per liter
NA - not applicable
ND< - not detected above the laboratory reporting limit
NL - not listed
RSLs - United States Environmental Protection Agency Regional Screening Levels (May 2020)
STLC - soluble threshold limit concentration
TCLP - toxicity characteristic leaching procedure
TPHs - total petroleum hydrocarbons
WC -waste characterization sample
Exceeds Residential Screening Level
Exceeds Residential & Industrial Screening Level

AOC2-SB5-0.5		
EPA Method 6010B/7471A		
Lead (mg/kg)	Lead STLC (mg/l)	Leachable Lead (mg/l)
93	3.3	--

AOC2-SB9-5
EPA Method 9014
Total Cyanide (mg/kg)
16
AOC2-SB9-5 (Dup 4)
EPA Method 9014
Total Cyanide (mg/kg)
22

AOC2-SB10-0.5		
EPA Method 6010B/7471A		
Lead (mg/kg)	Lead STLC (mg/l)	Leachable Lead (mg/l)
200	ND<0.20	0.24

WC-071620		
EPA Method 6010B/7471A		
Lead (mg/kg)	Lead STLC (mg/l)	Leachable Lead (mg/l)
160		

WC-071620
EPA Method 8015B
TPH DRO (mg/kg)
180

LEGEND

- SB/SV-13 — 2008 PHASE II ENVIRONMENTAL SITE ASSESSMENT BORING (SCS ENGINEERS)
- AOC3-SB13 — 2020 PHASE II ENVIRONMENTAL SITE ASSESSMENT BORING (NINYO & MOORE)
- SITE BOUNDARY
- 5879 — PROPERTY ADDRESS

Regulatory Screening Levels (mg/kg)	Lead (mg/kg)	Lead STLC (mg/l)	Leachable Lead (mg/l)	TPH DRO (mg/kg)	Total Cyanide (mg/kg)
EPA RSLs (Industrial Soil)	**800***	NA	NA	**560***	**150**
EPA RSLs (Residential Soil)	**400**	NA	NA	**97***	**23**
DTSC HERO HHRA (Industrial Soil)	**320***	NA	NA	**NL**	**NL**
DTSC HERO HHRA (Residential Soil)	**80***	NA	NA	**NL**	**NL**
San Francisco Bay RWQCB ESLs (Industrial Soil)	**320***	NA	NA	**1,200***	**25***
San Francisco Bay RWQCB ESLs (Residential Soil)	**80***	NA	NA	**260***	**5.5***

Hazardous Waste Criteria	Lead (mg/kg)	Lead STLC (mg/l)	Leachable Lead (mg/l)	TPH DRO (mg/kg)	Total Cyanide (mg/kg)
TCLP (mg/l)	NA	5.0	5.0	NA	NA
STLC (mg/l)	NA	5.0	5.0	NA	NA

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. I REFERENCE: PICTOMETRY, 2020.

N

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0 50 100

211270002_SP1.dwg 08/28/2020 (August 2020) JDP

FIGURE 2

Ninyo & Moore
Geotechnical & Environmental Sciences Consultants

BORING LOCATIONS AND SOIL EXCEEDANCES

5879, 5887, 5888 AND 5910 CROCKER STREET
LOS ANGELES, CALIFORNIA

211270002 I 8/20

Notes:

bold text indicates result in exceedance of screening level

† regulatory screening level values reflect cancer endpoint values, except when not available; in which case non-cancer endpoint values are shown

[1] Attenuation factor of 0.03 applied to EPA RSLs

[2] Attenuation factor of 0.03 applied to DTSC HERO HHRA screening levels

3 Attenuation factor of 0.001 applied to DTSC HERO HHRA screening levels

µg/m3 - micrograms per kilogram

a - 1/5 dilution

* - non-cancer endpoint

-- - not analyzed

AOC - area of concern

bgs - below ground surface

DTSC HERO HHRA - Department of Toxic Substances Control Human and Ecological Risk Office Human Health Risk Assessment, Note 3, Recommended Screening Levels (June 2020)

EPA - United States Environmental Protection Agency

EPA Method 8260B was used to analyze soil vapor samples

ESLs - San Francisco Bay RWQCB Environmental Screening Levels (January 2019)

GRO - gasoline range organics

ID - Identification

DTSC HERO HHRA - Department of Toxic Substances Control Human and Ecological Risk Office Human Health Risk Assessment, Note 3, Recommended Screening Levels for Soil,

ND - not detected above the laboratory reporting limit

NL - not listed

PCE - Tetrachloroethene

TCE - Trichloroethene

REP - replicate sample, listed below its primary sample

RSLs- United States Environmental Protection Agency Regional Screening Levels (May 2020)

Exceeds Residential Screening Level

Exceeds Residential & Industrial Screening Level

Regulatory Screening Levels (µg/m3)	Benzene (µg/m3)	Chloroform (µg/m3)	PCE (µg/m3)	TCE (µg/m3)	GRO (µg/m3)
Modified EPA RSLs (Industrial Subslab/Soil Gas)[1]	53	18	1,567	100	4,333
unmodified values (hide)	1.6	0.53	47	3	130
Modified EPA RSLs (Residential Subslab/Soil Gas)[1]	12	4	367	16	1,033
unmodified values (hide)	0.36	0.12	11	0	31
Modified DTSC HERO HHRA (Industrial Subslab/Soil Gas)[2]	14	NL	66.67	NL	NL
Modified DTSC HERO HHRA (Industrial Subslab/Soil Gas)[3]	420	NL	2,000	NL	NL
unmodified values (hide)	0.42	NL	2	NL	NL
Modified DTSC HERO HHRA (Residential Subslab/Soil Gas)[2]	3.2	NL	15.3	NL	NL
Modified DTSC HERO HHRA (Residential Subslab/Soil Gas)[3]	97.0	NL	460	NL	NL
unmodified values (hide)	0.097	NL	0.46	NL	NL
San Francisco Bay RWQCB ESLs (Industrial Subslab/Soil Gas)	14	18	67	100	83,000*
San Francisco Bay RWQCB ESLs (Residential Subslab/Soil Gas)	3.2	4.1	15	16	20,000*

LEGEND

SB/SV-13 — 2008 PHASE II ENVIRONMENTAL SITE ASSESSMENT BORING (SCS ENGINEERS)

AOC3-SB13 — 2020 PHASE II ENVIRONMENTAL SITE ASSESSMENT BORING (NINYO & MOORE)

SITE BOUNDARY

5879 — PROPERTY ADDRESS

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. I REFERENCE: PICTOMETRY, 2020.

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FEET

0 50 100

211270002_SP.dwg 08/28/2020 (August 2020) JDP

FIGURE 3

Ninyo & Moore
Geotechnical & Environmental Sciences Consultants

BORING LOCATIONS AND SOIL VAPOR EXCEEDANCES

5879, 5887, 5888 AND 5910 CROCKER STREET
LOS ANGELES, CALIFORNIA

211270002 I 8/20

Alternative 2 - Soil Excavation and Off-Site Disposal

Notes	Activity Description (see Notes 1, 2, 3)	Estimated Quantity	Units	Unit Cost	Activity Cost
4	Contractor mobilization	1	LS	$60,000	$60,000
5	Asphalt removal and disposal	10,500	SF	$0.75	$7,875
6,7	Soil excavation and loading	40,650	Tons	$35	$1,422,750
8	Hauling and off-site disposal of contaminated soil	40,650	Tons	$60	$2,439,000
	Import, place, and compact clean fill	40,650	Tons	$30	$1,219,500
9	Fine grading	36,600	SF	$0.75	$27,450
	TOTAL COSTS	**---**	**---**	**---**	**$5,176,575**

LS = lump sum; SF = square foot or feet

Assumptions:

1. Cleanup costs do not include fees for remedial planning, permitting, oversight by City of Los Angeles staff, or environmental consulting.
2. Environmental contractor unit costs were estimated by Stantec based on costs incurred on other recent large scale remediation projects performed in LA County by Stantec.
3. The remedial cost estimate does not include possible future remedial costs for vapor mitigation measures that may be required for future buildings being considered at the Site.
4. Assume the soil excavation and backfilling activities will take 30 working days to complete
5. Removal of 10,500 SF of weathered asphalt from West Lot.
6. Assume excavation of soil from across the Site to a depth of 20 feet (36,000 SF combined area). Soil volume estimate is 27,100 yds^3 This assumes an average soil density of 1.5 tons per cubic yard for a total of 40,650 tons.
7. Excavation sidewalls to be sloped, with no engineered shoring required. Also assumes no on-site treatment of soil is required, and no utilities need to be rerouted.
8. Assume all soil removed from site can be disposed of as a non-hazardous solid waste.
9. Assume grading will be completed for the entire 0.84 acre area (= 36,600 SF). Remaining area to be converted to parking lot using existing concrete and/or geotechnical fill.

Alternative 3 - Soil Cover System with Targeted Excavation

Notes	Activity Description (see Notes 1 and 2)	Estimated Quantity	Units	Unit Cost	Activity Cost
3	Contractor mobilization	1	LS	$25,000	$25,000
3, 4	Vapor barrier installation	18,980	SF	$12.00	$227,760
4, 5,6	Soil excavation and loading	1,560	Tons	$35	$54,600
4, 7	Hauling and off-site disposal of contaminated soil	1,560	Tons	$60	$93,600
4	Import, place, and compact clean fill	1,560	Tons	$30	$46,800
8	Periodic soil cover system inspection and O&M	1	LS	$40,000	$40,000
	TOTAL COSTS	**---**	**---**	**---**	**$487,760**

LS = lump sum; SF = square foot or feet

Assumptions:

1. Cleanup costs do not include fees for remedial planning, permitting, oversight by City of Los Angeles staff, or environmental consulting.
2. Environmental contractor unit costs were estimated by Stantec based on costs incurred on other recent large scale remediation projects performed in LA County by Stantec.
3. Assume the vapor barrier and passive subslab ventillation system installation will take 10 days and the soil excavation and backfilling activities will take 3 working days to complete.
4. Assume 50% of the site will be developed with habitable residential space. Clean fill would be placed at a thickness of 2 feet over landscaped areas estimated to be 10% of the Site estimated at an additional 270 yards^3.
5. Assume three 15-foot by 15-foot targeted excavations on East Lot to a depth of 5 feet, and one to a depth of 10 feet. Assume average soil density of 1.5 tons per cubic yard.
6. Excavation sidewalls to be sloped, with no engineered shoring required. Also assumes no on-Site treatment of soil is required, and no utilities need to be rerouted.
7. Assume all soil removed from site can be disposed of as a non-hazardous solid waste.
8. Assume 10 years of quarterly Site inspections at $1,000 per inspection.

Alternative 4 - Soil Vapor Extraction System with Targeted Excavation

Notes	Activity Description (see Notes 1, 2, 3)	Estimated Quantity	Units	Unit Cost	Activity Cost
3	Contractor mobilization	1	LS	$80,000	$80,000
4	SVE well installation	1	LS	$90,000	$90,000
5	SVE system installation	1	LS	$200,000	$200,000
6,7	Soil excavation and loading	1,560	Tons	$35	$54,600
8	Hauling and off-site disposal of contaminated soil	1,560	Tons	$60	$93,600
	Import, place, and compact clean fill	1,560	Tons	$30	$46,800
9	SVE system O&M	1	LS	$150,000	$150,000
	SVE system removal & well demo	1	LS	$75,000	$75,000
	TOTAL COSTS	**---**	**---**	**---**	**$790,000**

LS = lump sum; SF = square foot or feet

Assumptions:

1. Cleanup costs do not include fees for remedial planning, permitting, oversight by City of Los Angeles staff, or environmental consulting.
2. Environmental contractor unit costs were estimated by Stantec based on costs incurred on other recent large scale remediation projects performed in LA County by Stantec.
3. Assume the SVE well installation takes 18 days, SVE system installation takes 10 days, soil excavation and backfilling takes 3 days, and SVE system demolition takes 13 to complete
4. Assume a total of 55 SVE wells (15 on West Lot and 40 on East Lot) are installed to a depth of 20 feet.
5. Assume installation of two SVE systems following site grading but prior to construction. SVE systems installed in chainlink compounds with activated carbon for vapor abatement.
6. Assume three 15-foot by 15 foot targeted excavations on East Lot; two to a depth of 5 feet, and one to a depth of 10 feet. Assume average soil density of 1.5 tons per cubic yard.
7. Excavation sidewalls to be sloped, with no engineered shoring required. Also assumes no on-site treatment of soil is required, and no utilities need to be rerouted.
8. Assume all soil removed from site can be disposed of as a non-hazardous solid waste.
9. Assume two years of bi-weekly O&M visits, monthly collection of influent and effluent vapor samples, $2K/month in utility costs, and $10K/year in equipment repair/replacement costs.

THRESHOLD CRITERIA – ATTACHMENT A2
COMMUNITY NOTIFICATION DOCUMENTATION

- Home
- Earth Day LA
- One Water LA
- "Don't Flush That" Campaign
- Los Angeles Environmental Learning Center at Hyperion
- The Japanese Garden
- LASAN Open Houses
- Discovery Cube Los Angeles
- Plant Tours
- School Resources
- Legislative Updates
- LA Sanitation Roadshow

BROWNFIELDS RESOURCES AND NEWS

Brownfields Program News and Events

Former Crocker Plating Works Factory
The Citywide Brownfields Program will be participating in a virtual community meeting, hosted by the Community and Neighbors for Ninth District Unity (CANNDU) on Thursday, October 22, 2020 from 7:00 PM-8:30 PM. The meeting will further discuss and inform community members on the City's intent to apply for a United States Environmental Protection Agency (USEPA) Brownfields Cleanup Grant. Draft application and draft Analysis of Brownfield Cleanup Alternatives (ABCA) will be available for public review and comment during the meeting. Check back here for more details. The draft grant application and ABCA will be posted on our website prior to the meeting, together with an email address to which comments can be submitted (in addition to the opportunity to comment during the scheduled meeting).

US EPA Brownfields Cleanup Grant
On May 6, 2020, the Citywide Brownfields Program was awarded a $500,000 EPA Brownfields Cleanup Grant. The grant has been secured to remediate approximately 6.1 acres along the Paseo del Rio area as part of the Los Angeles River Revitalization effort. The site has been contaminated with various chemicals, metals and volatile organic compounds. The City of Los Angeles has partnered with more than 60 stakeholder groups to provide insight into the potential benefits of the completed project, including public green space, recreation, restored natural habitat, stormwater management, flood protection and river access. To read the full U.S. Environmental Protection Agency News Release, Click Here!

Grand Opening of the "Adopt-A-Lot" North Hills Community Space and Garden
On February 7, 2020, Citywide Brownfields Program helped celebrate the Grand Opening of the "Adopt-A-Lot" North Hills Community Space and Garden. With the collaborative efforts of Councilwoman Monica Rodriguez and nonprofit partners, the City-owned vacant lot was converted into a

SERVICE REQUEST
FEEDBACK
ALERTS

THRESHOLD CRITERIA – ATTACHMENT A3
MEETING SUMMARY

The draft narrative for the EPA Brownfields Cleanup Grant application as well as the draft ABCA were made available for public review at a virtual public meeting held on October 22, 2020. A copy of the presentation, together with a meeting summary, is attached.

CITYWIDE BROWNFIELDS PROGRAM

Application for EPA Cleanup Grant
Former Crocker Plating Works

environment LA SANITATION
CITY OF LOS ANGELES
zero waste • zero wasted water

Presented by LA Sanitation and Environment
Thursday, October 22, 2020 at 7:00 PM

City Application for EPA Cleanup Grant

- $500,000 US Environmental Protection Agency (EPA) Brownfields Cleanup Grant: Former Crocker Plating Works
- Draft copies of the grant application narrative and an Analysis of Brownfields Cleanup Alternatives (ABCA) are available for review.
- Submit comments to crockercleanup@stantec.com

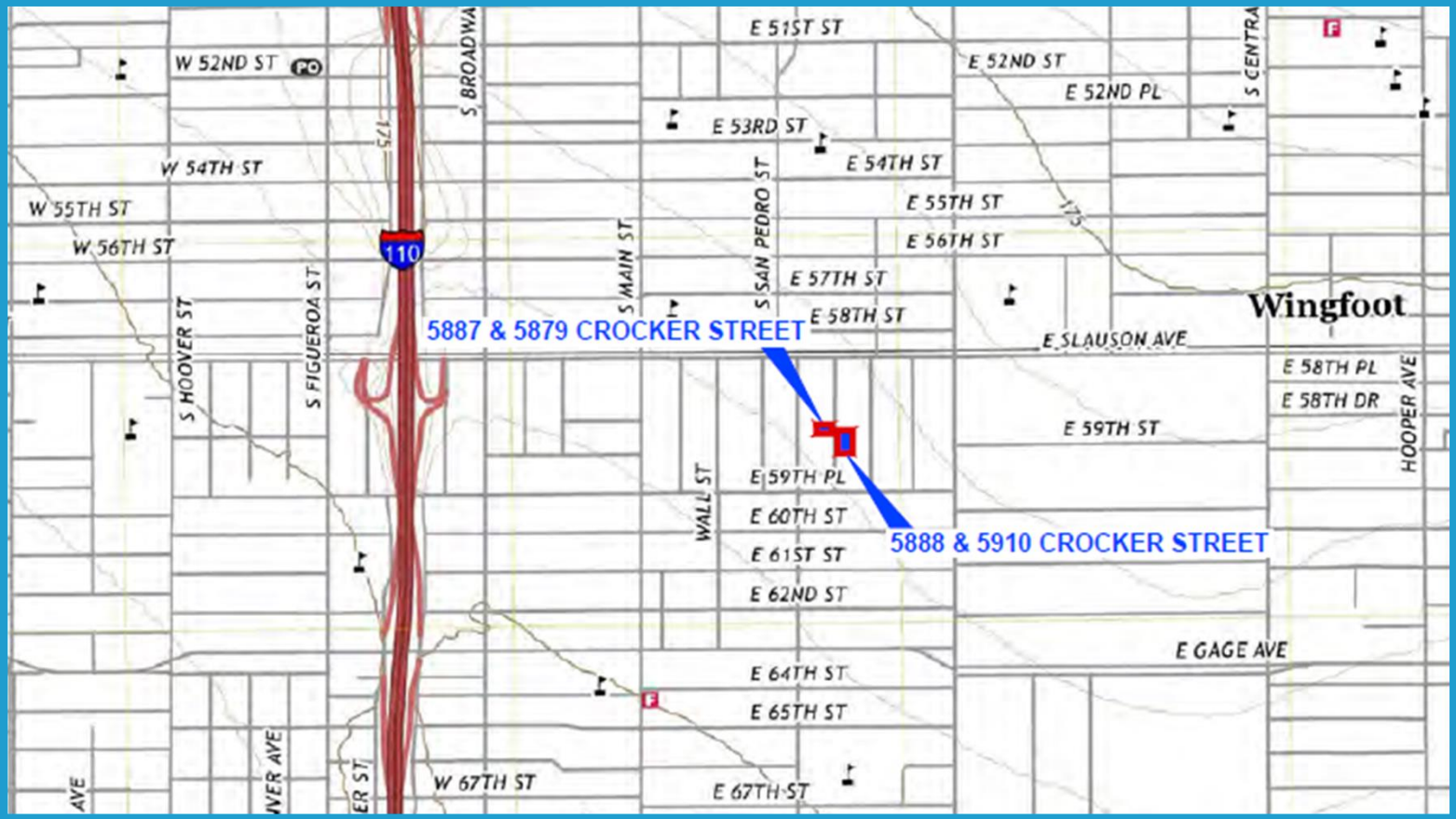
EPA Cleanup Grant Details

- Grant application deadline: ***October 28, 2020***
- Grant announcements anticipated: ***Spring 2021***
- Funding for remediation: ***October 2021– September 2024***
- Additional information on the US EPA Brownfields Grant Program is available at: www.epa.gov/brownfields/solicitations-brownfield-grants

Former Crocker Plating Works Background

- The former Crocker Plating Works property located ½ block south of the boundary between the South Park and Florence Neighborhoods about 3 miles due south of downtown LA.
- The Site encompasses four parcels totaling 0.84 acres acquired by the City in 2013. Two of the parcels are located on the west side of Crocker Street and served as parking lot and outdoor storage area for the former plating facility. The other two parcels are located on the east side of Crocker Street and were occupied by the former plating facility until demolished by the City in 2009-10.
- No structures currently exist on either lot, both of which vacant and secured by chain link fences installed by the City.
- Phase I and II environmental site assessments (ESAs) were completed at the Site by the CRA/LA in 2008 and a supplemental Phase II ESA was completed at the Site in 2020.

Former Crocker Plating Works Location



Former Crocker Plating Works Layout

LEGEND

SB/SV-13	2008 PHASE II ENVIRONMENTAL SITE ASSESSMENT BORING (SCS ENGINEERS)
AOC3-SB13	2020 PHASE II ENVIRONMENTAL SITE ASSESSMENT BORING (NINYO & MOORE)
	SITE BOUNDARY
5879	PROPERTY ADDRESS

SITE LAYOUT AND PHASE II ESA BORING LOCATIONS

5879, 5887, 5888 AND 5910 CROCKER STREET
LOS ANGELES, CALIFORNIA

environment LA SANITATION
CITY OF LOS ANGELES
zero waste • zero wasted water

Proposed Use of Grant Funds

- The EPA grant will be used to remediate the Site and prepare it for future redevelopment/reuse. In its current condition, the Site represents a significant and long-term contributor to Environmental Justice concerns in the surrounding neighborhoods.

- The grant will help to advance cleanup of the Site and its transformation from a multi-decade source of blight into a community asset

- The project will remove or cap areas of impacted soil and eliminate potential exposure to contaminated soil vapors present beneath the Site.

Questions and Comments

- Submit comments to crockercleanup@stantec.com
- Additional information on the US EPA Brownfields Grant Program is available at: www.epa.gov/brownfields/solicitations-brownfield-grants
- Visit lacitysan.org/brownfields
  - Follow @lacitysan and #brownfieldsLA on

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THRESHOLD CRITERIA – ATTACHMENT A4
SUMMARY OF PUBLIC COMMENTS RECEIVED, AND RESPONSES PROVIDED BY THE CITY

A summary of public comments received, and responses provided by the City is included on the meeting summary provided in Attachment A3. No additional comments were received following the meeting through the end of the public comment period (October 25, 2020).

Brownfields EPA Cleanup Grant - Crocker Street
Community Meeting & Presentation

Date/Time: October 22, 2020 at 7:00 PM
Location: Zoom (virtual meeting)
https://us02web.zoom.us/meeting/register/tZYkdeiqrz0pEt1n8gznMvsdM5DMXQJdR03l
Attendees: 9 total

Presentation Notes:

Sanitation focuses on 3 core program

- Clean water
- Watershed
- Solid resources
    - Brownfields

Specialty program include:

- Biodiversity
- Climate change
- Healthy Soils
- Environmental justice

Discussion of Application for EPA cleanup Grant

- Analysis of Brownfields Cleanup Alternatives (ABCA)
    - Outlines alternatives including excavation or capping
- ABCA and Draft Application are available for download in the comments section and on LASAN Brownfields website.
- Comments and questions are accepted tonight and through Sunday October 25,2020 at crockercleanup@stantec.com

This years application

- Cleanup grant is an annual grant
- Submissions are due October 28, 2020
- Announcement typically announced in spring
- City can apply for one grant per year

Crocker St.

- Consists of East and West lots (4 parcels)
- East lot - plating facility until demolition in 2009/2010
- West lot- storage & parking for facility
- Lot is currently vacant & secured by chain linked fence

Environmental Background

- 2008 PHI ESA & PHII
- 2020 Supplemental PHII conducted
- 49 soil samples collected

- 51 soil vapors collected

Intends to remediate the site for future developments
More information is available on USEPA Brownfields website

Public Question & Comments:

- **Question from resident:** Are these lots related to Exide contamination?
- **Answered**: No, these lots have been vacant for 10 years. Attempting to prepare for reuse and redevelopment.

- **Comment from resident:** Has observed parcels in Council District 15 reused as parks. Willing to share alternatives for vacant parcels.
- **Answered:** Always value feedback from all council districts. Always looking to provide assistance for vacant/underutilized. You can reach out to your Council office, or can contact Brownfields directly.

- **Comment from resident:** 311 has had a significant impact in neighborhoods. LASAN has a great social media presence.

- **Question from resident:** What other important information can be shared?
- **Answered:** A lot of samples were taken, 50 different locations with 2 depths. A lot of sampling for the size of the site. Came up with a cleanup plan for a housing project that would cover half of the site. Cleanup cost would almost be covered by the grant. This will be entered into the DTSC voluntary cleanup program. Very extensive process, reports etc. Regulators will have input along with community members.

- **Question from resident:** How will the application be competitive?
- **Answered:** The property would be very competitive due to the high minority population (99.5) environmental justice rating is high. This application should be extremely competitive.

- **Question from resident:** What would be developed on the site? Hoping for community use and greatest good for the community.
- **Answer:** Because the site was purchased by the redevelopment agency, the site will be used for affordable housing.

- **Question from resident:** Will there be more meetings for this project?
- **Answer:** Yes. Timing depends on the success of the grant. If not approved, we'll look for other funding options to explore and possibly will apply next year.

- **Question from resident:** Are other passive use options available until the site is developed?
- **Answer:** Will work with CD 9 to establish next steps.

THRESHOLD CRITERIA – ATTACHMENT A5
PUBLIC MEETING SIGN-IN SHEETS

Registrants for 'Meeting to discuss brownfields grant for former Crocker Plating Works Factory'

[ ]	Registrants	Email Address	Registration Date	
[ ]	Wendy Renteria		Oct 22, 2020 07:38 PM	Copy
[ ]	Mabel Vega		Oct 22, 2020 07:11 PM	Copy
[ ]	David Holmes		Oct 22, 2020 11:54 AM	Copy
[ ]	Wes Joe		Oct 21, 2020 05:08 PM	Copy
[ ]	Celia Gonzales		Oct 21, 2020 02:35 PM	Copy
[ ]	Sonia Holguin		Oct 21, 2020 02:08 PM	Copy
[ ]	David Issa		Oct 21, 2020 11:01 AM	Copy
[ ]	colette monell		Oct 21, 2020 11:01 AM	Copy
[ ]	Ruth Toledo		Oct 21, 2020 10:51 AM	Copy

Cancel Registration

OMB Number: 4040-0004
Expiration Date: 12/31/2022

Application for Federal Assistance SF-424

* 1. Type of Submission:	* 2. Type of Application:	* If Revision, select appropriate letter(s):
☐ Preapplication	☒ New	
☒ Application	☐ Continuation	* Other (Specify):
☐ Changed/Corrected Application	☐ Revision	

* 3. Date Received:	4. Applicant Identifier:
10/28/2020	

5a. Federal Entity Identifier:	5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:	7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: City of Los Angeles - Bureau of Sanitation

* b. Employer/Taxpayer Identification Number (EIN/TIN):	* c. Organizational DUNS:
[redacted]	1010548850000

d. Address:

* Street1:	1149 South Broadway, 9th Floor
Street2:	
* City:	Los Angeles
County/Parish:	
* State:	CA: California
Province:	
* Country:	USA: UNITED STATES
* Zip / Postal Code:	90015-2236

e. Organizational Unit:

Department Name:	Division Name:
LA Sanitation and Environment	Financial Management Division

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:	Ms.	* First Name:	Rowena
Middle Name:			
* Last Name:	Lau		
Suffix:			

Title: Senior Environmental Engineer

Organizational Affiliation:

* Telephone Number:	(213) 485-2427	Fax Number:	

* Email: rowena.lau@lacity.org

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

C: City or Township Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.818

CFDA Title:

Brownfields Assessment and Cleanup Cooperative Agreements

*** 12. Funding Opportunity Number:**

EPA-OLEM-OBLR-20-07

* Title:

FY21 GUIDELINES FOR BROWNFIELD CLEANUP GRANTS

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment | Delete Attachment | View Attachment

*** 15. Descriptive Title of Applicant's Project:**

City of Los Angeles Crocker Street Properties Cleanup

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant: 34 * b. Program/Project: 28

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 07/01/2021 * b. End Date: 06/30/2024

18. Estimated Funding ($):

* a. Federal	500,000.00
* b. Applicant	100,000.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	600,000.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment | Delete Attachment | View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: Mr. * First Name: Enrique

Middle Name: C.

* Last Name: Zaldivar

Suffix:

* Title: Director and General Manager

* Telephone Number: (213) 485-2210 Fax Number: (213) 485-2979

* Email: enrique.zaldivar@lacity.org

* Signature of Authorized Representative: Javier A Monarrez * Date Signed: 10/28/2020