LENDRUM COURT LAND USE CONTROL AREAS A AND B SITE-SPECIFIC ADDENDUM TO THE PRESIDIO TRUST LAND USE CONTROLS MASTER REFERENCE REPORT

PRESIDIO OF SAN FRANCISCO, CALIFORNIA

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May 2022
For the Presidio Trust by TRC Solutions, Inc.

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Presidio of San Francisco, California

CONTENTS

1. INTRODUCTION AND DECISION DOCUMENT

The Lendrum Court Site (Site) is shown on Figure 1, and was remediated in conformance with the *Final Removal Action Work Plan, Lendrum Court, Presidio of San Francisco, California* (RAWP) (TRC, 2015), which was approved by the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) on August 5, 2015. DTSC transmitted the August 5, 2015 *Final RAWP, Approval Record* to the Presidio Trust (Trust) in a letter dated August 12, 2015. The approved remedy included implementation of land use controls (LUCs). The following outlines the Site-Specific LUCs for the Site and is incorporated as an addendum to the *Presidio Trust Land Use Controls Master Reference Report, Presidio of San Francisco, California* (LUCMRR) (Presidio Trust, 2009).

2. AREAS INCLUDED IN THE LAND USE CONTROL

There are three LUC Areas associated with the Lendrum Court Site: the Lendrum Court Cap Area, the North of Building 1255/1256 Forest Area, and the Incinerator Area. The Lendrum Court Cap (LUC Area A) and North of Building 1255/1256 Forest Area (LUC Area B) limits are defined based on a survey of post-remediation Site conditions as documented in the *Final Construction Completion Report, Lendrum Court, Presidio of San Francisco, California (CCR)* (TRC, 2019). The Incinerator Area limits are defined in the RAWP. The Incinerator Area generally underlies the Presidio Parkway (Doyle Drive replacement roadway) which is located in Area B of the Presidio and is maintained by the California Department of Transportation (Caltrans). The Incinerator Area will be addressed in a subsequent LUCMRR Addendum.

Figure 2 shows the location and extent of the LUC areas. LUC coordinates (as north, south, west, and east boundary coordinates of each LUC area) are summarized in Table 1 and shown on Figure 2. The Lendrum Court Cap and Forest LUC Areas are located in the North Fort Scott Area within Area B of the Presidio, which is managed by the Trust.

3. REMEDIATION SUMMARY AND REMAINING CHEMICALS OF CONCERN

This section describes remedial actions implemented at Lendrum Court and identifies chemicals of concern (COCs) remaining in soil above applicable cleanup levels (CULs) in the two LUC areas. Detailed summaries of remedial activities for Lendrum Court are provided in the Remedial Investigation (RI) Summary Report (EKI, 2015), RAWP (TRC, 2015) and CCR (TRC, 2019).

3.1 Site History and Remedial Activities

The Site history is described in detail in the RI prepared by Erler & Kalinowski, Inc. (EKI, 2015). Prior to 1936, the area was generally open space. The US Army operated an incinerator just south of the Site. The incinerator was abandoned in 1936 when Doyle Drive, the predecessor roadway to the present-day Presidio Parkway, was constructed. The Army generally disposed of debris and incinerator ash associated with incinerator operations in piles at the ground surface in the area of present day Lendrum Court. Doyle Drive was constructed above the foundation of the former incinerator, effectively burying the incinerator, debris, and ash beneath the roadway. Debris and ash placed outside the highway footprint in present day Lendrum Court remained in place.

In 1970 and 1971, the Site was developed for residential use by Army personnel. The residential area was graded to create a series of terraces generally sloping to the northeast. Debris and ash associated with the former incinerator was mixed into shallow soils during grading. Buildings 1255, 1256, 1257, 1258, 1259, 1278, 1279, 1280, and 1282, were constructed around present day Lendrum Court. The residential buildings were built on the graded surface and landscaping was installed around the buildings. The northeastern slope, behind Buildings 1259, 1278, and 1279 was planted in orchard style with large trees and a thick understory of smaller statured trees and shrubs. This area is designated as Historic Forest, as described in the 2002 *Presidio Trust Management Plan* (PTMP).

The Presidio Trust conducted remedial investigations beginning in 2010. The RI report was completed and approved by DTSC in May 2015. The RAWP was completed and approved shortly thereafter in August 2015.

For the Lendrum Court area, the preferred remedial alternative consisted of: excavation and consolidation of waste; construction of a soil cap above consolidated waste; revegetation, and post-remediation maintenance; and implementation of LUCs. Waste that could not be consolidated was disposed of off-site. The processes and procedures guiding implementation of the approved remedy were outlined in the *Revised Remedial Design and Implementation Plan (Revised RDIP), Lendrum Court, Presidio of San Francisco, California* (TRC, 2016) which was approved by DTSC on June 2, 2016.

The Trust implemented the approved remedy at Lendrum Court between June 2016 and September 2017. The remedial action activities are documented in detail in the CCR (TRC, 2019) and summarized below. A site plan is provided in Figure 3, and cap as-built details are provided in Figure 4.

- **Waste Excavation and Off-Site Disposal –** Several areas were clean closed by removing contaminated soil and debris to extents determined by confirmation sampling and analysis, which were conducted in conformance with the sampling plan included in the Revised RDIP, or to impermeable surfaces, such as existing sidewalks, bedrock, etc. Additionally, surface soil that was unsuitable for reuse due to heavy organic and root content was excavated and stockpiled for off-site disposal. Approximately 1,577 cubic yards of soil was disposed as non-RCRA California hazardous waste and approximately 1,000 cubic yards of soil was disposed as California non-hazardous waste.

- **Waste Excavation, Consolidation and Capping –** Except for soil unsuitable for reuse, soils excavated for clean closure and for general rough grading were transferred to areas where consolidation under the clean soil cap was feasible. When excavation and consolidation activities were complete, approximately 7,000 cubic yards of clean soil was imported to construct the soil cap, which was later vegetated for stability. Additionally, new and existing hard scape elements such as sidewalks, paths, patios, and roadways serve as part of the cap. The capping elements are shown on Figures 2 and 3, and are summarized below.

    - Buildings and Patios: Buildings 1257, 1258, 1259, 1278 and 1279 and their associated patios serve as caps for impacted material beneath foundations.
    - Other Hardscaping: The following hardscape elements provide cap protection as well:
        - asphalt concrete paved streets and paths,
        - cement concrete sidewalks, drainage elements, and stairs,
        - aggregate base pads adjacent to residences,
        - aggregate base paths through soil capped areas.
    - Vegetated Cap: Open ground areas that were not covered by the structures listed above were capped with 18 inches of clean imported soil over gopher wire mesh and planted with vegetation.
    - Tree Island Cap: Landscaped area located in Lendrum Court where gopher wire and a minimum of two inches of wood mulch and compacted aggregate base was installed surrounding existing tree to serve as cap.
    - Vegetated Cover: Forest area north of Buildings 1255 and 1256 (LUC Area B) to act as a vegetated cover.

- **Establishment of a LUC** – The approved remedy includes implementation of site-specific LUCs in areas where waste is left to be managed in place. These LUCs are documented below.

3.2 Residual Chemicals that Necessitate the LUC and Potential Receptors

Table 2 summarizes COCs in remaining soil above cleanup levels at LUC Areas A and B. For LUC Area B, lead is the only COC retained due to the absence of ash or incinerator debris in soil. COCs are also summarized on Figure 2. There are no groundwater COCs.

Data tables summarizing concentrations of COCs in soil left in place at LUC Area A (Lendrum Court Cap Area) and LUC Area B (North of Building 1255/1256 Forest Area) are provided in Attachment 1 and sampling locations are provided in Figures 5 and 6. Figure 6 presents the locations of RI soil sampling locations that correspond to soil that was consolidated and capped at LUC Area A.

The current and planned land use at Lendrum Court is residential, ecological buffer zone in landscaped areas, and ecological special status in the Historic Forest, located northeast and east of the residences. As presented in the RAWP, the potential human receptors for exposure to soils are residents, recreational visitors, and commercial/industrial workers. Potential ecological receptors include plants, soil invertebrates, birds and mammals.

4. SITE-SPECIFIC LAND USE RESTRICTIONS

The following site-specific land use restrictions and notifications apply within the Lendrum Court Cap LUC Area:

LUC AREA A

- Health & Safety Requirements - Personnel potentially exposed to soils in the Lendrum Court Cap LUC Area shall follow a site-specific Health and Safety Plan, have the appropriate level of health and safety training, and use the appropriate level of personal protective equipment specified in a Health and Safety Plan.

- Soil Management Requirements - Soil excavated from the Lendrum Court Cap LUC Area shall be managed and/or disposed in accordance with Presidio policies and procedures and applicable federal, state, and local laws and regulations. Earthwork associated with any activity beyond general Operations and Maintenance (O&M) will be performed in accordance with the DTSC approved Presidio Wide Soil Management Plan (currently in development) or equivalent Site-Specific Soil Management Plan (SSSMP). For consistency with the Presidio Wide Soil

Management Plan, “routine” vs “non-routine” work will be used to determine when a SSSMP is required. Typical routine activities include repair of soil cover due to erosion, plant replacement, irrigation line repair, utility repair, and sidewalk and street repair. Non-routine activities may include major earthwork repair due to slope failure, installation of a new utility line below the engineered soil Cap, or construction of new structures with foundations.

- Surface Cover Requirements - Contaminated soil in the Lendrum Court Cap LUC Area shall remain covered with a minimum of 18 inches of clean soil underlain by gopher wire, or covered with hardscape elements equivalent to what was constructed during remediation as shown on Figure 4.

- Tenant Disclosure and Restrictions Requirements - Disclosure of the LUC to tenants of Buildings 1255, 1256, 1257, 1258, 1259, 1278, 1279, 1280, and 1282 is required. This Site-specific addendum to the LUCMRR shall be incorporated by reference in each and every lease for any portion of the property. Current tenant restrictions on soil-disturbing activities and prohibitions on planting in-ground or disturbing the ground surface will continue to be enforced. Raised planter beds are prohibited unless constructed with an impermeable bottom, atop hardscape or elevated off the ground surface so that plant roots do not contact soil beneath.

- Notification Requirements – During the project planning and permitting process, the appropriate Trust staff and project proponents shall be notified of the presence of site COCs and the LUC area so that informed decisions regarding project implementation can be made. Notification to DTSC will be required 30 days prior to the start of non-routine work along with a SSSMP that includes information about monitoring and mitigation measures. Routine soil disturbing activities in Area A and B will be reported in the dig permit tracking table in the Annual O&M Report.

- Sensitive Use Restrictions – Restrictions are in place against operation of schools, hospitals, playground and daycares onsite without further remediation and written approval by DTSC.

The following site-specific land use restrictions and notifications apply to the North of Building 1255/1256 Forest Area LUC Area:

LUC AREA B

- Health & Safety Requirements - Personnel potentially exposed to soils in the North of Building 1255/1256 Forest Area LUC Area shall follow a site-specific Health and Safety Plan, have the appropriate level of health and safety training, and use the appropriate level of personal protective equipment specified in a Health and Safety Plan.

- Vegetation Requirement - The area will remain forested with understory vegetation that is comprised of dense vegetation acting as a barrier to exposure. If the area is

deforested in the future, the Trust will consult with DTSC on the need for and nature of additional remediation measures to be implemented.

- Soil Management Requirements - Soil excavated from the North of Building 1255/1256 Forest Area LUC Area shall be managed and/or disposed in accordance with Presidio policies and procedures and applicable federal, state, and local laws and regulations. Earthwork associated with any activity beyond general O&M will be performed in accordance with the DTSC approved Presidio Wide Soil Management Plan (currently in development) or equivalent SSSMP. For consistency with the Presidio Wide Soil Management Plan, "routine" vs "non-routine" work will be used to determine when a SSSMP is required. Routine activities include repair of soil cover due to erosion, fence repair, and plant replacement. Non-routine activities in this area are unlikely but could include tree removal and change of land use.

- Tenant Disclosure and Restriction Requirements - Disclosure of the LUC to tenants in Buildings 1255, 1256, 1257, 1258, 1259, 1278, 1279, 1280 and 1282 and in the vicinity as warranted. This Site-specific addendum to the LUCMRR shall be incorporated by reference in each and every lease for any portion of the property. Current tenant restrictions on soil-disturbing activities and planting will continue to be enforced. No raised planter beds are permitted in Lendrum LUC Area B.

- Notification Requirements – During the planning and permitting process for any routine maintenance or non-routine project, the appropriate Trust staff and project proponents shall be notified of the presence of lead above the applicable CUL and that the vegetated barrier within the LUC area must be maintained, and if removed, additional remediation may be required. Notification to DTSC will be required 30 days prior to the start of non-routine work along with a SSSMP that includes information about monitoring and mitigation measures. Routine soil disturbing activities in Area A and B will be reported in the dig permit tracking table in the Annual O&M Report.

- Sensitive Use Restrictions – Restrictions are in place against construction of housing and/or operation of schools, hospitals, playground and daycares onsite without further remediation and written approval by DTSC.

5. INSPECTION, MAINTENANCE, AND REPAIR REQUIREMENTS

The Trust has prepared an Operations and Maintenance (O&M) Plan for the Lendrum Court Site outlining post-closure requirements for inspection, repair, and upkeep of the constructed cap and forest area (TRC, 2019). The O&M Plan is a part of the remedy at Lendrum Ct. Additionally, the Lendrum Court LUC Areas will be inspected annually in accordance with the LUCMRR.

Activities completed as part of post-closure O&M and the results of inspections and maintenance of the Lendrum Court Cap and Forest area will be summarized in the annual Presidio O&M report submitted to DTSC in March of the following calendar year in conformance with the approved O&M Agreement (DTSC, 2012).

The first Five-Year Review Report for the site will be completed in 2022. All subsequent Five-Year Review Reports will be completed five years from the date of the prior Five-Year Review Report. Five-year reviews will follow guidance documents provided by the EPA at the following location: https://www.epa.gov/superfund/writing-five-year-reviews-superfund-sites.

6. REFERENCES

California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) (2015) Final Removal Action Work Plan, Lendrum Court, Presidio of San Francisco, California, Approval Record. August 5.

DTSC, 2012. Presidio Operation and Maintenance Agreement. December 3.

Erler & Kalinowski (EKI), 2015. Remedial Investigation Summary Report and Screening Risk Evaluation, Presidio of San Francisco. May.

Presidio Trust, 2002. Presidio Trust Management Plan.

Presidio Trust, 2009. Presidio Trust Land Use Controls Master Reference Report, Presidio of San Francisco, California. September.

TRC Solutions, Inc. (TRC), 2015. Removal Action Work Plan, Lendrum Court, Presidio of San Francisco, California. July.

TRC, 2016. Final Remediation Design and Implementation Plan, Lendrum Court, Presidio of San Francisco, California. May.

TRC, 2019a. Final Construction Completion Report, Lendrum Court, Presidio of San Francisco, California. November.

TRC, 2019b. Final Operations and Maintenance Plan, Lendrum Court, Presidio of San Francisco, California. November.

TABLE 1
LENDRUM COURT LAND USE CONTROL AREA SURVEY COORDINATES

Site Name (Trust GIS System)	LUCs	Coordinates		LUCMRR Addendum Information	
		Eastings	Northings	Name	Date
LendCt_LUCAREA_A	• Health & Safety • Soil Management • Surface Cover requirements • Notification	5992217.5 5992202.5 5992006.5 599244.5783	2121737.5 2121440 2121591.5 2121577.6061	Lendrum Court Cap Area	7/16/2018
LendCt_LUCAREA_B	• Health & Safety • Soil Management • Notification	5991961.0084 5991978.8571 5991993.4963 5991974.5	2121657.4009 2121667.6509 2121655.0565 2121633.5503	Lendrum Court North of Building 1255/1256 Forest Area	7/16/2018

TABLE 2 CONCENTRATIONS OF COCs REMAINING IN LENDRUM COURT LAND USE CONTROL AREA SOIL				
COC	**LUC Area A – Lendrum Court Cap Area[1]**	**LUC Area A – Site-Specific Cleanup Level[2]**	**LUC Area B – Lendrum Court North of Building 1255/1256 Forest Area[3]**	**LUC Area B – Site-Specific Cleanup Level[4]**
Metals (mg/kg)				
Arsenic	3.4 – 10	6.2	N/A	--
Barium	83 – 920	500	N/A	--
Copper	13 – 440	120	N/A	--
Lead	3 – 2,400	80	8.1 – 500	160
Zinc	31 – 1,100	160	N/A	--
PAHs (mg/kg)				
Benzo(a)pyrene	<0.0051 – 0.097	0.046	N/A	--
Dibenzo(a,h)anthracene	<0.051 – 0.69	0.046	N/A	--
Dioxins/Furans (pg/g)				
Dioxins and Furans	0.0033 – 17.8	3.5	N/A	--

Table 2 Notes:

[1] See Attachment 1A for summary of remaining COC concentrations in soil at LUC Area A.

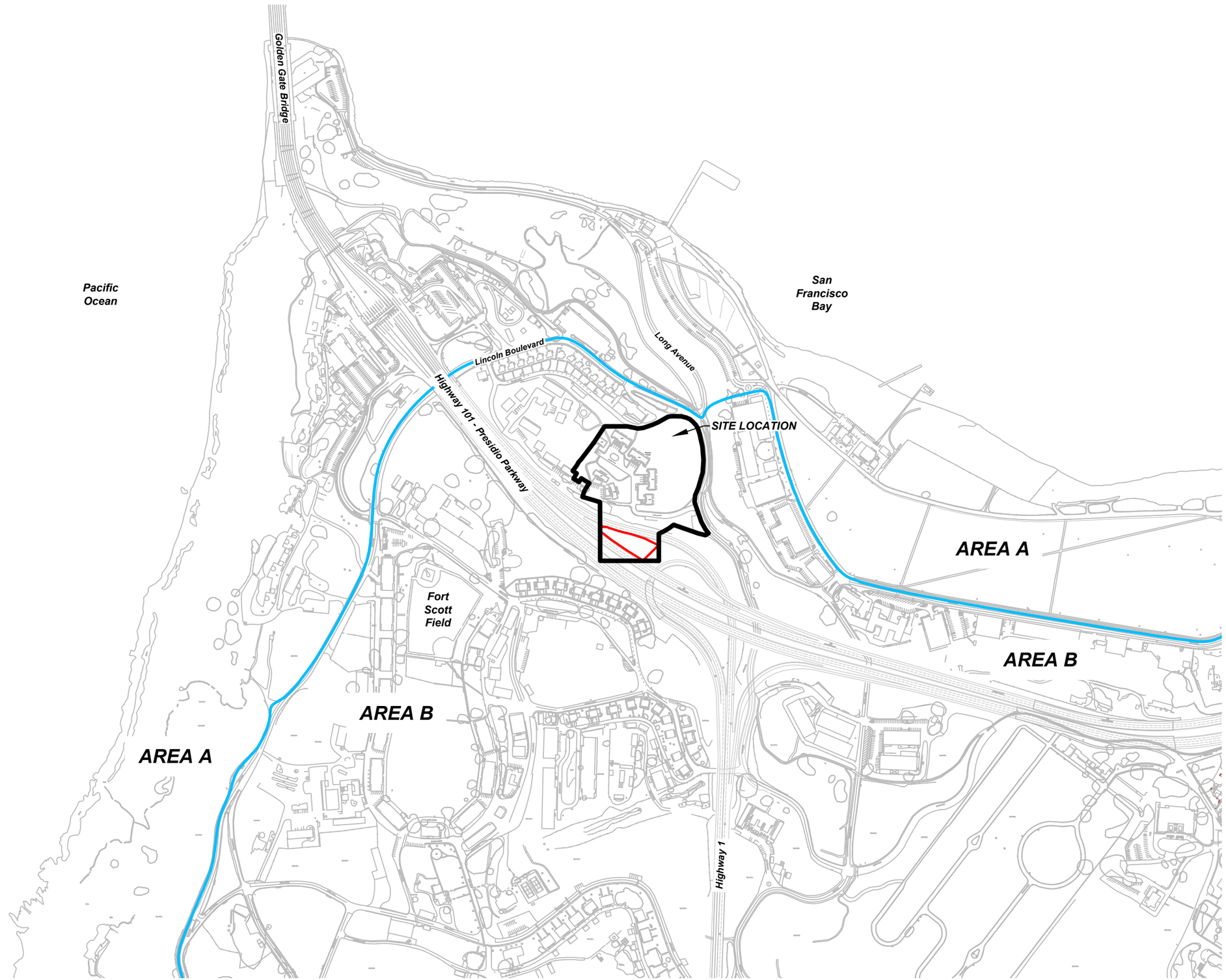
[2] Site-specific cleanup levels for the Lendrum Court Cap LUC Area landscaped/residential areas are the lower of the residential and ecological buffer zone (TRC, 2015).

[3] See Attachment 1B for summary of remaining COC concentrations in soil at LUC Area B.

[4] Lead was the only COC retained in the RAWP for the Lendrum Court Forest LUC Area; site-specific cleanup level for special-status ecological receptor (TRC, 2015).

-- – not applicable
COC – chemical of concern
LUC – land use control
mg/kg – milligrams per kilogram
N/A – Not analyzed
pg/g – picograms per gram

Figures



LEGEND

- LENDRUM COURT AREA
- APPROXIMATE FORMER INCINERATOR AREA
- AREA A / B BOUNDARY

N

0 500 1000

SCALE IN FEET

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AND INCINERATOR AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
SITE LOCATION MAP

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	J. H-D		**FIGURE 1**
APPROVED BY:	J. H-D		
DATE:	APRIL 2018		

TRC
505 Sansome Street
Suite 1600
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Phone: 415.434.2600

FILE NO.: Fig1 Site Location Map_20220204.dwg

LUC AREA B[2]	
Metals	COC Concentration Range (mg/kg)
Lead	8.1 - 500

LUC Area A[1]	
Metals	COC Concentration Range (mg/kg)
Arsenic	3.4 - 10
Barium	83 - 920
Copper	13 - 440
Lead	3 - 2,400
Zinc	31 - 1,100
PAHs	COC Concentration Range (mg/kg)
Benzo(a)pyrene	<0.0051 - 0.097
Dibenz(a,h)anthracene	<0.051 - 0.69
Dioxins and Furans	COC Concentration Range (pg/g)
TCDD TEQ	0.0033 - 17.8

LEGEND

- LENDRUM COURT CAP AREA (LUC AREA A)
- LENDRUM COURT FOREST AREA (LUC AREA B)
- INCINERATOR AREA
- NON-LUC AREA
- 140 — FINAL SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED CAP
- APPROXIMATE AREAS OF BUILDING THAT SERVE AS CAP
- AREAS OF ASPHALT, PAVEMENT AND HARDSCAPE THAT SERVE AS CAP
- VEGETATED LUC (NORTH 1255/1256 FOREST AREA)

NOTES

1. COC - CHEMICAL OF CONCERN
2. LUC - LAND USE CONTROL
3. mg/kg - MILLIGRAMS PER KILOGRAM
4. PAHS - POLYCYCLIC AROMATIC HYDROCARBONS
5. pg/g - PICOGRAMS PER GRAM
6. TCDD TEQ - 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN TOXIC EQUIVALENT QUOTIENT
7. [1]COC RESULTS FROM THE LENDRUM COURT REMEDIAL INVESTIGATION SUMMARY REPORT AND SCREENING LEVEL RISK EVALUATION (EKI, 2015).
8. [2]COC RESULTS FROM THE DRAFT CONSTRUCTION COMPLETION REPORT (TRC, 2018).

0 70 140
SCALE IN FEET

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
LUC AREAS AND REMAINING COC CONCENTRATIONS IN SOILS

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	C. PLATH		**FIGURE 2**
APPROVED BY:	J. H-D		
DATE:	AUGUST 2018		

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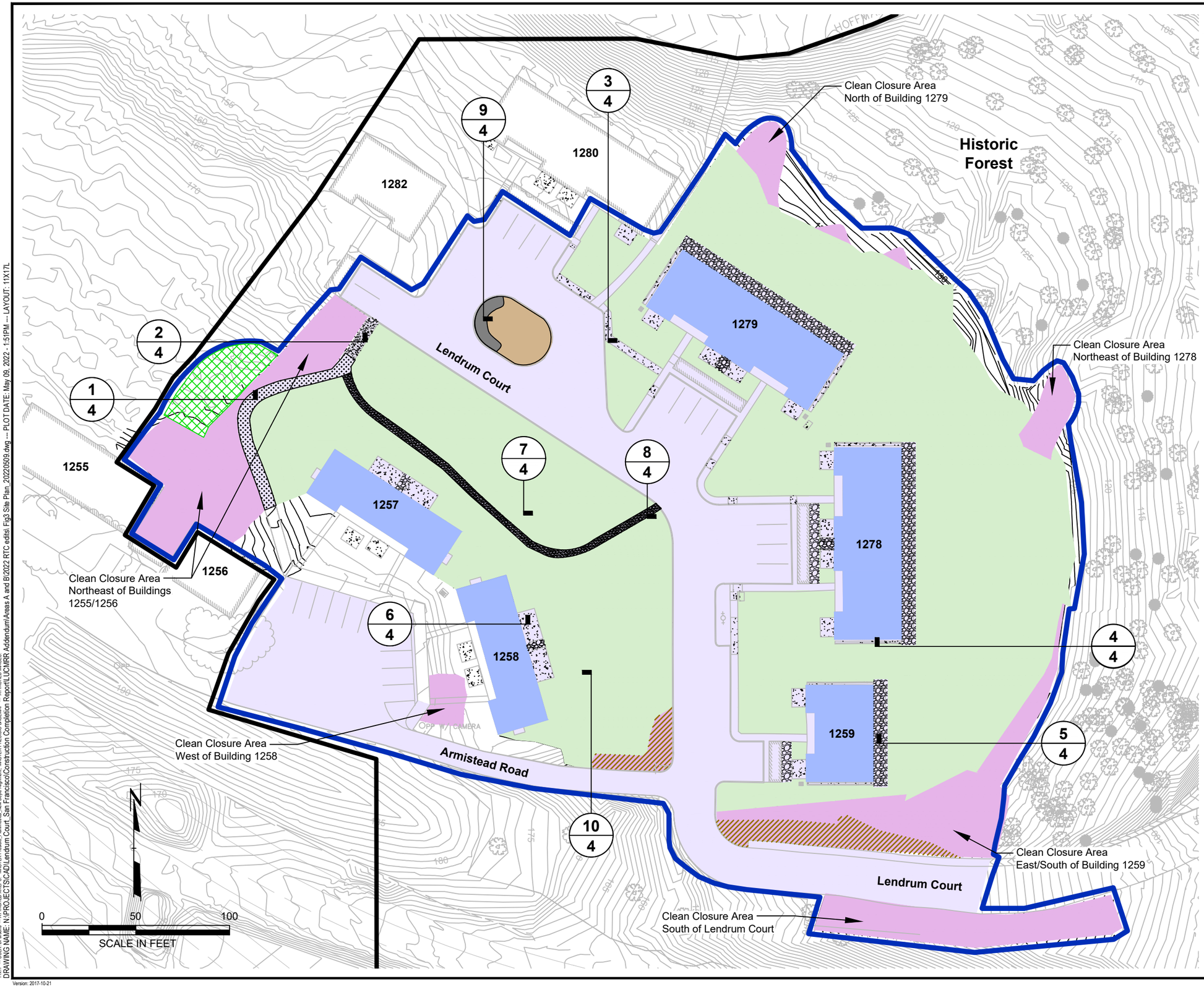
FILE NO.: Fig2 Extent of the Lendrum Court LUC Area_20220504.dwg

DRAWING NAME: N:\PROJECTS\CAD\Lendrum Court, San Francisco\Construction Completion Report\LUCMRR Addendum\Areas A and B\2022 RTC edits\ Fig2 Extent of the Lendrum Court LUC Area_20220504.dwg --- PLOT DATE: May 04, 2022 - 1:26PM --- LAYOUT: 11X17L

Version: 2017-10-21



LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED SOIL CAP
- APPROXIMATE AREAS OF BUILDING THAT SERVE AS CAP
- AREAS OF ASPHALT, PAVEMENT, AB PADS, AND HARDSCAPE THAT SERVE AS CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- APPROXIMATE AREAS EXCAVATED TO EXPOSED BEDROCK (CLEAN CLOSURE AREA)
- TREE ISLAND CAP COMPACTED AGGREGATE BASE
- TREE ISLAND CAP WOOD MULCH
- NEW CONCRETE PATIOS, SIDEWALKS AND STAIRS
- RECYCLED CONCRETE AGGREGATE BASE PATH AND BOX STEPS
- NEW ASPHALT PATH
- NEW AGGREGATE BASE CAP
- VEGETATED LUC (NORTH 1255/1256 FOREST AREA)
- APPROXIMATE TREE LOCATION
- APPROXIMATE TOYON LOCATION
- 1/4 — CAP CROSS-SECTION DETAIL NUMBER
- FIGURE NUMBER WHERE DETAIL CAN BE FOUND

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
SITE PLAN

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 3**
DATE:	JUNE 2018		

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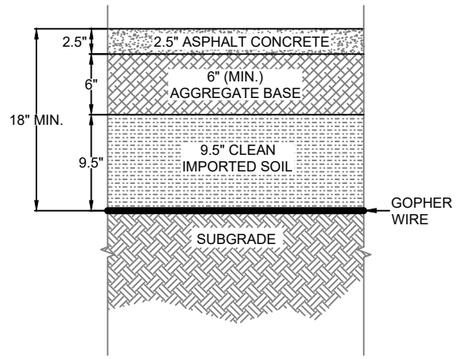
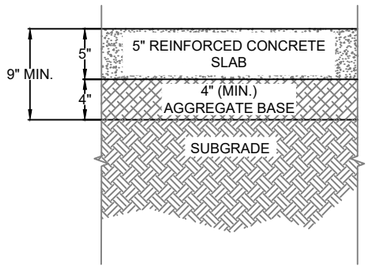
FILE NO.: Fig3 Site Plan_20220509.dwg



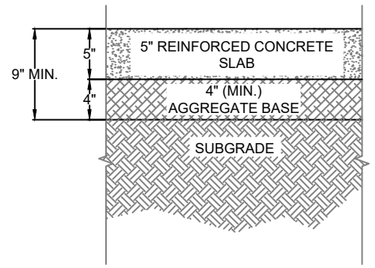
1/4 SECTION

ASPHALT CONCRETE PATH



2/4 SECTION

CONCRETE STAIRCASE



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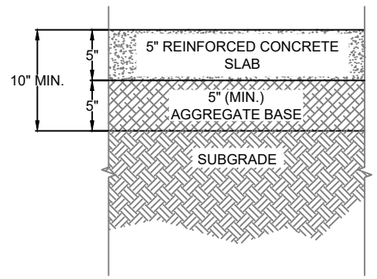
CONCRETE SIDEWALK



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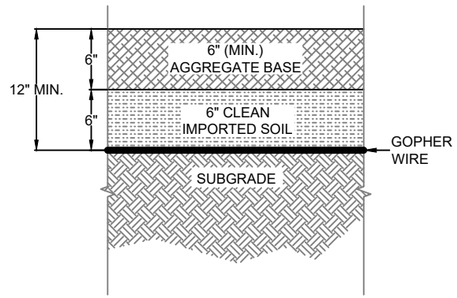
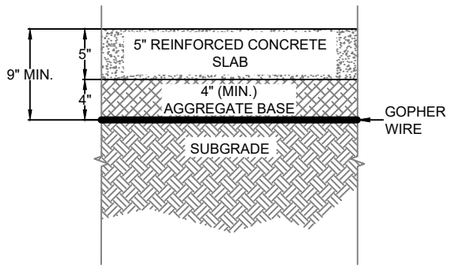
CONCRETE DRAIN



5/4 SECTION

AGGREGATE BASE PAD



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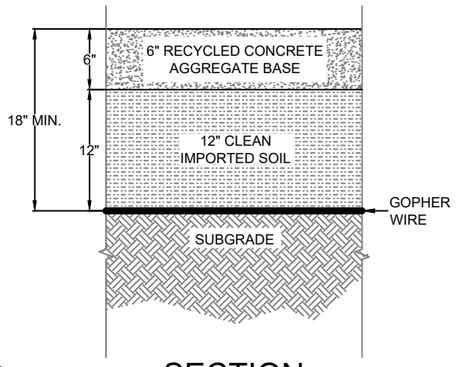
CONCRETE PATIO



7/4 SECTION

RECYCLED CONCRETE
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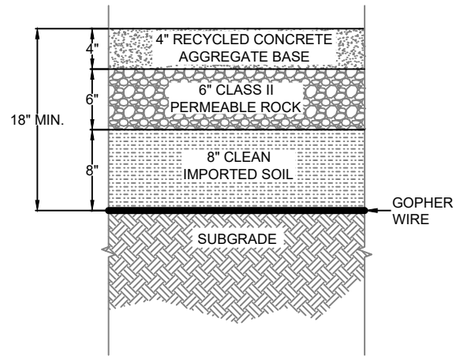

8/4 SECTION

RECYCLED CONCRETE
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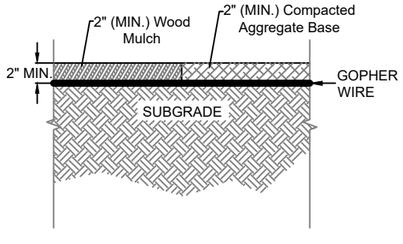
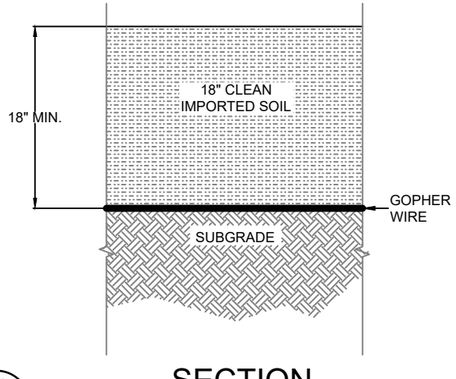


9/4 SECTION

TREE ISLAND CAP



10/4 SECTION

VEGETATED SOIL CAP

PROJECT:

THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

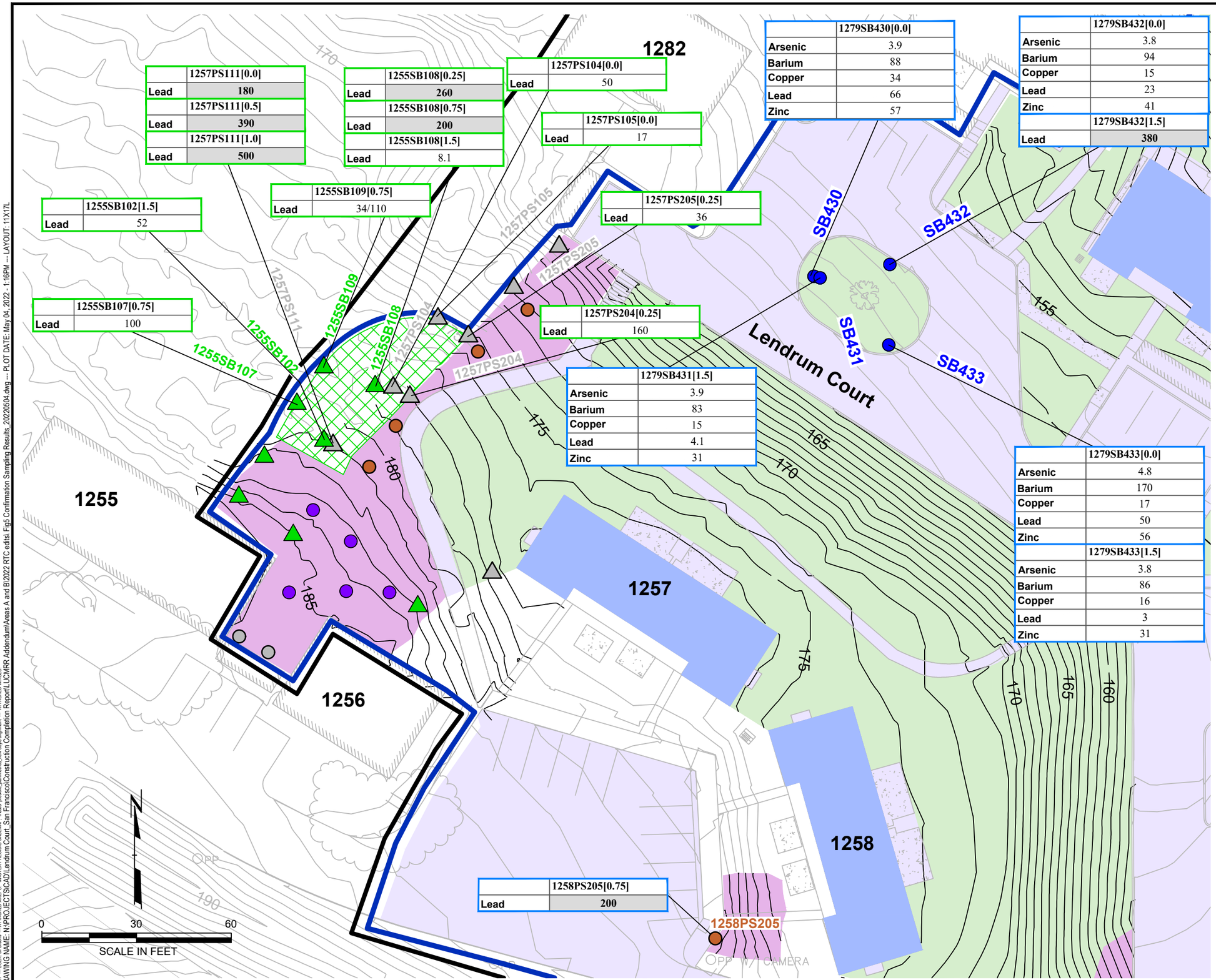
TITLE:

CAP CROSS-SECTIONS

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 4**
DATE:	JUNE 2018		

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: Fig4 Cap Cross-Sections.dwg



LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE REMEDIAL ACTION AREA
- 140 — SURFACE CONTOURS (OUTSIDE PROJECT AREA)
- 140 — FINAL PROJECT SURFACE CONTOURS
- APPROXIMATE LIMITS OF VEGETATED SOIL CAP
- APPROXIMATE AREAS OF BUILDING THAT SERVE AS CAP
- AREAS OF ASPHALT, PAVEMENT, AB PADS, AND HARDSCAPE THAT SERVE AS CAP
- APPROXIMATE AREAS EXCAVATED AND CLEAN CLOSED
- VEGETATED LUC (NORTH 1255/1256 FOREST AREA)
- PERIMETER CONFIRMATION SAMPLING LOCATION (2016)
- EXCAVATION CONFIRMATION SAMPLING LOCATION
- LANDSCAPED / RESIDENTIAL SCREENING LEVELS
- FOREST / RECREATION SCREENING LEVELS
- PERIMETER CONFIRMATION SAMPLING LOCATION (2017)
- EXCAVATION CONFIRMATION SAMPLING LOCATION (2017)
- SOIL SAMPLES (2015)
- HALEY & ALDRICH SAMPLE (2011)

NOTES

1. ALL RESULTS SHOWN ARE DETECTED CONCENTRATIONS. SEE TABLE 1A IN ATTACHMENT 1 FOR COMPLETE SUMMARY OF RESULTS.

	Sample ID
Analyte	Concentration (mg/kg)
	Concentration (mg/kg) exceeds applicable screening level

SOURCE: Base map by Towill, Oct.- Nov. 2015, Apr. 2016, May 2017, and Jan. 2018

PROJECT:
THE PRESIDIO TRUST
LENDRUM COURT AREA
SAN FRANCISCO, CALIFORNIA

TITLE:
COC REMEDIAL ACTION CONFIRMATION SOIL SAMPLING RESULTS AT LUC AREA A AND LUC AREA B

DRAWN BY:	K. LI	PROJ NO.:	229649.00005A.00000D
CHECKED BY:	A. ANG		
APPROVED BY:	J. H-D		**FIGURE 5**
DATE:	AUGUST 2018		

TRC
505 Sansome Street
Suite 1600
San Francisco, CA 94111
Phone: 415.434.2600

FILE NO.: Fig5 Confirmation Sampling Results_20220504.dwg

N

0 50 100

(Approximate Scale in Feet)

Legend:

- 1280 — Building with Building Number
- Existing Contour
- A1 — Grid Area with Grid Number September 2014
- Trench Locations
- Historic Trench Locations
- Pothole and Surface Soil Sample Location
- ?- - - ? — Estimated Extent of Debris Fill
- No Debris or Ash Observed
- Debris Observed
- Debris and Ash Observed

Notes:

1. All locations are approximate.
2. Lendrum Court Area: by PLS Surveys, Inc., dated October 2014, California State Plane Coordinate NAD27.
3. The top 6 inches of soil was removed and disposed of off site during the remedial action (TRC, 2018). Data from surface soil sample locations is not included.
4. Source: Erler & Kalinowski, Inc., Observed Debris and Ash, May 2015 (EKI, 2015).

PRESIDIO TRUST
LENDRUM COURT AREA SAN FRANCISCO, CALIFORNIA

RI SAMPLE LOCATIONS AT LUC AREA A

FIGURE 6

C:\Users\rcosta\appdata\local\temp\AcPublish_6272\Figure 4.dwg 5-15-15

Attachment 1

Attachment 1A: Lendrum Court Remedial Investigation and Remedial Action Summary of Soil Sampling Results, LUC Area A

Trench Location	Sample ID	Sample Date	Sample Depth (ft bgs)	Note	Analytical Results in mg/kg (a)(b)																
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Samples collected from Tree 6																					
430	1279SB-430	6/10/2015	0.0		<0.55	3.9	88	0.21	<0.14	92	11	34	66 F1	0.093	<0.55	98	<1.1	<0.28	<0.55	48	57
431	1279SB-431	6/10/2015	1.5		<0.46	3.9	83	0.37	<0.12	69	9.5	15	4.1	0.054	<0.46	39	<0.93	<0.23	<0.46	56	31
432	1279SB-432	6/10/2015	0.0		<0.50	3.8	94	0.24	<0.12	150	16	15	23	0.067	<0.50	160	<0.99	<0.25	<0.50	54	41
432	1279SB-432	6/10/2015	1.5		--	--	--	--	--	--	--	--	**380**	0.00021	--	--	--	--	--	--	--
433	1279SB-433	6/10/2015	0.0		<0.73	4.8	170	0.25	<0.18	98	34	17	50	0.057	0.46	97	<1.5	<0.37	<0.73	55	56
433	1279SB-433	6/10/2015	1.5		<0.40	3.8	86	0.24	<0.10	61	12	16	3	0.032	<0.40	36	<0.80	<0.20	<0.40	54	31
Samples collected from the Debris Layer																					
304	1279TP304-D[3.5]	9/22/2014	3.5	DEBRIS	0.40	3.8	280	0.51	0.66	110	17	83	**490**	0.27	0.66	120	0.31	0.21	0.10	55	470
305	1279TP305-D[3.5]	9/22/2014	3.5	DEBRIS	1.8	**7.2**	560	0.57	1.4	190	25	130	**950**	0.53	1.1	320	0.26	0.67	0.16	63	1,100
A	1279TPA1-2[2.0]D	9/23/2014	2.0	ASH	2.7	**6.6**	630	0.79	1.5	55	10	140	**1,800**	1.5	1.1	58	0.32	0.92	0.14	7	890
F0	1279TPF0-1[1.5]D	9/24/2014	1.5	ASH	2.2	**6.4**	920	0.98	1.7	55	1	350	**2,400**	1.8	1.1	58	0.26	1.7	0.19	79	980
F2	1279TPF2-1[0.0-1.0]D	9/24/2014	1.0	ASH	1.8	**6.0**	830	1.0	1.5	100	18	160	**1,500**	2.1	1.1	130	0.28	1.5	0.18	84	740
	1279TPF2-1[DUP]	9/24/2014	1.0	DUP	3.8	**6.5**	810	1.1	1.4	96	14	170	**1,700**	1.9	1.2	110	0.33	1.4	0.19	86	790
G	1279TPG1-2[0.5-1.5]D	9/24/2014	1.5	ASH	1.9	**6.6**	520	0.60	0.94	260	29	230	**1,300**	0.57	0.86	450	<0.25	0.83	0.13	65	610
SAMPLES COLLECTED FROM PREVIOUS INVESTIGATIONS																					
Samples collected from the Overburden																					
201	1279TP201-O[0.5]	6/17/2013	0.5		1.5	5.7	120	0.48	<0.26	67	13	18	**320**	0.094	0.53	50	<0.22	<0.13	0.25	55	63
202	1279TP202-O[0.75]	6/19/2013	0.75		0.31	4.1	130	0.43	<0.27	260	24	36	**130**	0.17	0.56	350	<0.23	<0.14	<0.069	56	110
203	1279TP203-O[1]	6/17/2013	1		1.6	5.3	170	0.54	<0.26	140	19	37	**260**	0.13	0.66	180	0.42	0.13	0.17	6	95
204	1279TP204-O[0.5]	6/20/2013	0.5		0.7	5.6	260	0.44	0.38	260	27	88	**510**	0.59	0.6	410	<0.22	0.33	0.27	58	290
205	1279TP205-O[0.5]	6/17/2013	0.5		4.6	**8**	130	0.44	<0.25	110	16	26	**1,000**	0.11	0.54	150	<0.21	<0.12	0.52	52	75
206	1279TP206-O[0.5]	6/20/2013	0.5		0.68	4.3	170	0.48	0.46	220	23	52	**230**	0.31	0.53	330	<0.21	0.22	0.11	52	200
207	1279TP207-O[0.5]	6/20/2013	0.5		1.1	**6.5**	290	0.41	0.63	190	30	89	**550**	0.63	0.43	390	<0.22	0.45	0.23	44	350
208	1279TP208-O[0.5]	6/19/2013	0.5		0.98	5.9	200	0.52	0.32	200	22	68	**250**	0.5	0.62	290	0.31	0.28	0.16	6	190
209	1279TP209-O[0.5]	6/19/2013	0.5		0.31	4.5	160	0.41	0.31	140	23	45	**210**	0.24	0.42	280	<0.22	0.18	<0.067	43	160
210	1279TP210-O[0.5]	6/19/2013	0.5		0.27	5	120	0.35	0.26	140	19	28	**180**	0.39	0.33	230	0.28	<0.13	<0.065	38	110
214	1279TP214-O[0.5]	6/18/2013	0.5		1.5	5	130	0.45	<0.25	86	14	20	**160**	0.09	0.42	76	<0.21	<0.13	<0.063	60	54
215	1279TP215-O[0.5]	6/17/2013	0.5		0.6	4.9	120	0.47	<0.26	130	19	22	**120**	0.16	0.69	170	<0.22	<0.13	<0.066	58	59
Residential Soil Screening Level (c)					*29*	*6.2*	*5,000*	*140*	*1.7*	*1,200*	*4,000*	*--*	*80*	*20*	*360*	*1,400*	*360*	*360*	*5.7*	*650*	*22,000*
Ecological Buffer Zone Soil Screening Level (c)					*5*	*64*	*500*	*10*	*0.23*	*23*	*48*	*120*	*300*	*1.6*	*300*	*71*	*1.1*	*2*	*1*	*5*	*50*
Colma Formation/Serpentinite Presidio Background Metals Concentrations (d)					*3/3*	*6.2/5.4*	*180/230*	*0.99/1.1*	*0.8/1.9*	*140/1,700*	*21/170*	*49/85*	*7.5/66*	*0.2/0.2*	*2/2*	*110/4,500*	*0.5/0.5*	*1/1.7*	*1/1*	*90/74*	*79/160*

Trench Location	Sample ID	Sample Date	Sample Depth (ft bgs)	Note	Analytical Results in mg/kg (a)(b)																
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Samples collected from the Debris Layer																					
T1	1258EX100	10/20/2010	comp(c)	ASH	2	4.7	400	0.55	0.4	59	12	110	**340**	0.46	1.1	93	1	0.49	<0.55	5	200
202	1279TP202-D[5.5]	6/19/2013	5.5	ASH	0.85	5.9	710	0.95	0.8	300	35	150	**740**	0.75	1.6	530	0.43	0.66	0.42	85	450
203	1279TP203-D[3.5]	6/17/2013	3.5	ASH	0.93	4.9	480	0.87	**2.7**	52	15	150	**380**	0.6	1.4	110	0.61	0.72	0.18	67	1,000
204	1279TP204-D[2.5]	6/20/2013	2.5	DEBRIS	0.74	6.0	300	0.28	0.54	520	50	440	**490**	0.28	0.66	960	<0.22	0.56	0.27	64	320
205	1279TP205-D[1]	6/17/2013	1	DEBRIS	2.4	6.0	210	0.57	0.31	74	14	120	**480**	0.2	0.67	72	0.24	0.21	0.2	58	190
206	1279TP206-D[2.5]	6/20/2013	2.5	ASH	2.5	**7.4**	770	0.8	1.1	97	14	160	**1,100**	0.87	0.97	120	0.35	1.00	0.62	73	700
207	1279TP207-D[1]	6/20/2013	1	ASH	3.4	**8.9**	580	0.6	1.4	8	16	190	**2,100**	0.88	1	120	0.27	1.10	1	58	910
207	1279TP207-D[1]DUP	6/20/2013	1	ASH/DUP	3.4	**10.0**	600	0.59	1.6	98	22	190	**1,700**	0.69	1.2	160	<0.24	1.20	0.85	63	940
208	1279TP208-D[2]	6/19/2013	2	ASH	1.3	5.7	700	1.2	1.1	68	13	290	**960**	1.1.	1.3	64	0.57	4.1	0.61	110	560
209	1279TP209-D[4]	6/19/2013	4	DEBRIS	0.26	3.4	110	0.31	<0.27	180	23	20	59	0.19	0.29	300	<0.22	<0.13	<0.067	39	90
210	1279TP210-D[1]	6/19/2013	1	DEBRIS	0.26	3.4	140	0.3	<0.26	84	16	23	**97**	0.11	0.36	130	0.26	<0.13	0.14	40	80
210	1279TP210-D[1]DUP	6/19/2013	1	DUP	<0.24	3.4	140	0.27	<0.26	94	17	26	61	0.11	0.29	140	0.22	<0.13	<0.066	42	99
214	1279TP214-D[2]	6/18/2013	2	DEBRIS	2.4	**6.6**	390	0.52	0.31	68	11	61	**660**	1.1	0.53	58	<0.22	0.22	0.43	58	160
215	1279TP215-D[1.25]	6/17/2013	1.25	DEBRIS	0.35	4.7	140	0.55	<0.25	82	14	20	**120**	0.094	0.44	65	0.24	<0.13	<0.063	59	59
Residential Soil Screening Level (c)					*29*	*6.2*	*5,000*	*140*	*1.7*	*1,200*	*4,000*	*--*	*80*	*20*	*360*	*1,400*	*360*	*360*	*5.7*	*650*	*22,000*
Ecological Buffer Zone Soil Screening Level (c)					*5*	*64*	*500*	*10*	*0.23*	*23*	*48*	*120*	*300*	*1.6*	*300*	*71*	*1.1*	*2*	*1*	*5*	*50*
Colma Formation/Serpentinite Presidio Background Metals Concentrations (d)					*3/3*	*6.2/5.4*	*180/230*	*0.99/1.1*	*0.8/1.9*	*140/1,700*	*21/170*	*49/85*	*7.5/66*	*0.2/0.2*	*2/2*	*110/4,500*	*0.5/0.5*	*1/1.7*	*1/1*	*90/74*	*79/160*

Attachment 1A: Lendrum Court Remedial Investigation and Remedial Action Summary of Soil Sampling Results, LUC Area A (Continued)

Trench Location	Sample ID	Sample Date	Sample Depth (ft bgs)	Note	Analytical Results in mg/kg (a)(b)																
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Samples collected from the Base																					
201	1279TP201-B[2]	6/17/2013	2		<0.24	4.9	120	0.52	<0.27	75	17	19	8.4	0.042	0.55	52	<0.22	<0.13	<0.066	63	42
202	1279TP202-B[6.5]	6/19/2013	6.5		<0.25	4	150	0.49	<0.28	890	9	35	50	0.08	0.66	1,800	<0.23	<0.14	<0.069	70	75
203	1279TP203-B[6]	6/17/2013	6		0.25	5.5	170	0.56	<0.26	130	23	27	23	0.063	0.77	110	<0.22	<0.13	0.11	66	65
206	1279TP206-B[3.5]	6/20/2013	3.5		0.25	3.6	79	0.32	<0.25	100	14	14	43	0.034	0.42	83	<0.21	<0.13	<0.063	43	5
210	1279TP210-B[2.5]	6/19/2013	2.5		<0.24	4.4	97	0.45	<0.26	56	18	13	9	0.11	0.51	40	<0.22	<0.13	<0.066	53	42
Residential Soil Screening Level (c)					*29*	*6.2*	*5,000*	*140*	*1.7*	*1,200*	*4,000*	*--*	*80*	*20*	*360*	*1,400*	*360*	*360*	*5.7*	*650*	*22,000*
Ecological Buffer Zone Soil Screening Level (c)					*5*	*64*	*500*	*10*	*0.23*	*23*	*48*	*120*	*300*	*1.6*	*300*	*71*	*1.1*	*2*	*1*	*5*	*50*
Colma Formation/Serpentinite Presidio Background Metals Concentrations (d)					*3/3*	*6.2/5.4*	*180/230*	*0.99/1.1*	*0.8/1.9*	*140/1,700*	*21/170*	*49/85*	*7.5/66*	*0.2/0.2*	*2/2*	*110/4,500*	*0.5/0.5*	*1/1.7*	*1/1*	*90/74*	*79/160*

Sample Location	Sample ID	Sample Date	Sample Depth (ft bgs)	Note	Analytical Results in mg/kg (b)																
					Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Excavation West of Building 1258 (f)																					
Building 1258	1258PS205[0.75]	11/02/2016	1		--	--	--	--	--	--	--	--	**200**	--	--	--	--	--	--	--	--

Abbreviations:
-- - Not applicable or no data
<0.50 - Compound not detected at or above indicated laboratory reporting limit ASH - Ash observed in debris layer
Base - Below "Debris layer"
DEBRIS - Army era debris observed in soil Debris - Debris layer
DUP - duplicate sample
ft bgs - feet below ground surface mg/kg - milligrams per kilogram Overburden - Overburden layer
F1 = MS/MSD RPD exceeds control limits

Notes:
(a) Samples were analyzed by Curtis & Tompkins, Ltd, of Berkeley, California using EPA Method 6020/7471A. Results are reported to two significant figures.
(b) **Bold** value indicates detected concentration exceeds the Residential Soil Screening Level and background metals concentration. Underscored value indicates detected concentration exceeds the Ecological Buffer Zone Screening Level and background metals concentration.
(c) Residential Soil Screening Levels are Residential Human Health Preliminary Remediation Goals ("PRGs") from Table 7-2 of the Cleanup Level Document (EKI, 2002; with updates through 2013).
For lead, the California Human Health Screening Level of 80 mg/kg is applied (DTSC, 2013). Ecological Buffer Zone Soil Screening Levels are PRGs from Table 7-2 of the Cleanup Level Document (EKI, 2002; with updates through 2013).
(d) Site lithology is a mixture of Colma Formation and serpentine. For screening purposes, site concentrations are compared with the higher of the two background values.
(e) This sample is a composite of two discrete samples collected from the ash and debris layer at Trench T1 from depths of 4 and 7 feet below ground surface.
(f) 1258PS205[0.75] sidewall sample was collected at the edge of sidewalk and excavation could not be extended, therefore the adjacent sidewalk and Armistead street have been incorporated into the formal LUC (TRC, 2018).

Attachment 1A: Lendrum Court Remedial Investigation and Remedial Action Summary of Soil Sampling Results, LUC Area A (Continued)

Trench Location	Sample ID	Sample Date	Sample Depth (ft bgs)	Note	Analytical Results (mg/kg) (a)(b) Polycyclic Aromatic Hydrocarbons																
					Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	B(a)P Equivalents (c)
Samples collected from Tree 6																					
430	1279SB-430	6/10/2015	0		<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	0.059	<0.057	<0.057	<0.057	<0.057	0.058	--
431	1279SB-431	6/10/2015	1.5		<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	--
432	1279SB-432	6/10/2015	0		<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	--
432	1279SB-432	6/10/2015	1.5		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
433	1279SB-433	6/10/2015	0		<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	--
433	1279SB-433	6/10/2015	1.5		<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	--
Samples collected from the Overburden																					
201	1279TP201-O[0.5]	6/17/2013	0.5		<0.0052	<0.0052	<0.0052	0.009	0.012	0.017	0.0099	<0.0052	0.011	<0.0052	0.018	<0.0052	0.01	<0.0052	0.0076	0.015	0.018
202	1279TP202-O[0.75]	6/19/2013	0.75		<0.0055	<0.0055	<0.0055	<0.0055	0.006	0.01	0.0055	<0.0055	0.0091	<0.0055	0.0094	<0.0055	<0.0055	<0.0055	0.006	0.0075	0.01
203	1279TP203-O[1]	6/17/2013	1		<0.0053	<0.0053	<0.0053	0.02	0.023	0.037	0.013	0.0089	0.022	0.0053	0.03	<0.0053	0.014	<0.0053	0.013	0.026	0.036
204	1279TP204-O[0.5]	6/20/2013	0.5		<0.0052	<0.0052	<0.0052	0.019	0.02	0.042	0.014	0.01	0.024	0.0056	0.032	<0.0052	0.016	0.0065	0.014	0.028	0.034
205	1279TP205-O[0.5]	6/17/2013	0.5		<0.0052	<0.0052	0.011	0.059	**0.064**	0.095	0.037	0.023	0.062	0.018	0.01	<0.0052	0.043	0.015	0.047	0.076	**0.10**
206	1279TP206-O[0.5]	6/20/2013	0.5		<0.0052	<0.0052	<0.0052	0.015	0.024	0.037	0.02	0.01	0.018	0.0075	0.031	<0.0052	0.021	<0.0052	0.02	0.026	0.039
207	1279TP207-O[0.5]	6/20/2013	0.5		<0.0053	0.0082	<0.0053	0.017	0.02	0.026	0.014	0.036	0.022	<0.0053	0.034	0.01	0.016	0.008	0.022	0.028	0.029
208	1279TP208-O[0.5]	6/19/2013	0.5		<0.0052	<0.0052	<0.0052	0.011	0.012	0.018	0.0085	<0.0052	0.014	<0.0052	0.018	<0.0052	0.0076	<0.0052	0.011	0.013	0.018
209	1279TP209-O[0.5]	6/19/2013	0.5		<0.0054	<0.0054	<0.0054	0.0073	0.0083	0.013	<0.0054	<0.0054	0.0092	<0.0054	0.0095	<0.0054	<0.0054	<0.0054	0.006	0.013	0.013
210	1279TP210-O[0.5]	6/19/2013	0.5		<0.0053	<0.0053	<0.0053	0.0095	0.01	0.017	0.0053	<0.0053	0.0110	<0.0053	0.019	<0.0053	<0.0053	<0.0053	0.012	0.014	0.016
214	1279TP214-O[0.5]	6/18/2013	0.5		<0.0053	<0.0053	<0.0053	0.0065	0.0079	0.012	0.0063	<0.0053	0.0079	<0.0053	0.011	0.051	0.0062	<0.0053	0.0061	0.01	0.013
215	1279TP215-O[0.5]	6/17/2013	0.5		<0.005	<0.005	<0.005	<0.005	<0.005	0.0084	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	0.0056	0.006
Residential Soil Screening Level (d)					*2,700*	*--*	*5,900*	*0.46*	*0.046*	*0.46*	*620*	*4.6*	*46.0*	*0.046*	*820*	*770*	*0.46*	*910*	*600*	*620*	*0.046*
Ecological Buffer Zone Soil Screening Level (d)					*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*
Northern California PAH Background (e)					*--*	*--*	*--*	*--*	*1.5*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*1.5*

Trench Location	Sample ID	Sample Date	Sample Depth (ft bgs)	Note	Analytical Results (mg/kg) (a)(b) Polycyclic Aromatic Hydrocarbons																
					Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	B(a)P Equivalents (c)
Samples collected from the Debris Layer																					
T1	1258EX100	10/20/2010	comp (f)	ASH	<0.18	<0.37	<0.018	0.22	**0.31**	0.29	0.67	0.15	0.25	**0.69**	0.38	<0.037	**0.59**	<0.18	0.18	0.34	**1.1**
202	1279TP202-D[5.5]	6/19/2013	5.5	ASH	<0.0054	<0.0054	<0.0054	0.023	0.026	0.049	0.0075	0.012	0.027	<0.0054	0.035	<0.0054	0.0086	0.0095	0.02	0.039	0.037
203	1279TP203-D[3.5]	6/17/2013	3.5	ASH	<0.0056	0.0079	0.0140	0.086	**0.12**	0.23	0.098	0.046	0.079	0.036	0.09	<0.0056	0.16	<0.0056	0.037	0.077	**0.20**
204	1279TP204-D[2.5]	6/20/2013	2.5		<0.0053	<0.0053	<0.0053	0.011	0.01	0.021	0.0092	0.0058	0.014	<0.0053	0.021	<0.0053	0.0095	<0.0053	0.0093	0.017	0.017
205	1279TP205-D[1]	6/17/2013	1		<0.0051	<0.0051	<0.0051	0.016	0.017	0.033	0.012	0.0079	0.023	0.0052	0.029	<0.0051	0.014	0.0085	0.013	0.024	0.029
206	1279TP206-D[2.5]	6/20/2013	2.5	ASH	<0.0051	0.0068	0.0068	0.035	**0.049**	0.069	0.026	0.019	0.039	0.011	0.069	<0.0051	0.03	0.016	0.044	0.055	**0.074**
207	1279TP207-D[1]	6/20/2013	1	ASH	<0.0052	<0.0052	0.0057	0.045	**0.057**	0.094	0.032	0.024	0.047	0.013	0.049	<0.0052	0.038	0.011	0.022	0.047	**0.088**
207	1279TP207-D[1]DUP	6/20/2013	1	ASH/D	<0.0057	<0.0057	0.0058	0.063	**0.097**	0.092	0.067	0.017	0.064	**0.056**	0.0410	<0.0057	0.05	0.018	0.025	0.039	**0.17**
208	1279TP208-D[2]	6/19/2013	2	ASH	<0.0053	0.0059	0.0065	0.035	0.038	0.057	0.008	0.014	0.04	<0.0053	0.065	<0.0053	0.0099	0.0071	0.031	0.065	**0.051**
209	1279TP209-D[4]	6/19/2013	4		<0.0054	0.0085	<0.0054	0.012	0.012	0.063	<0.0054	0.02	0.013	<0.0054	0.023	0.015	0.0083	<0.0054	0.012	0.016	0.023
210	1279TP210-D[1]	6/19/2013	1		<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	0.0088	<0.0053	<0.0053	0.0058	<0.0053	0.0067	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	0.007
210	1279TP210-D[1]DUP	6/19/2013	1	DUP	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	0.0075	0.0055	<0.0053	0.0055	<0.0053	0.0071	<0.0053	<0.0053	<0.0053	<0.0053	0.0056	0.007
214	1279TP214-D[2]	6/18/2013	2		<0.0053	0.012	0.0000	0.064	**0.079**	0.15	0.066	0.034	0.074	0.025	0.10	<0.0053	0.091	0.0096	0.045	0.09	**0.13**
215	1279TP215-D[1.25]	6/17/2013	1.25		<0.01	<0.01	<0.01	<0.01	0.014	0.018	0.011	<0.01	<0.01	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	0.012	0.022
Residential Soil Screening Level (d)					*2,700*	*--*	*5,900*	*0.46*	*0.046*	*0.46*	*620*	*4.6*	*46.0*	*0.046*	*820*	*770*	*0.46*	*910*	*600*	*620*	*0.046*
Ecological Buffer Zone Soil Screening Level (d)					*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*
Northern California PAH Background (e)					*--*	*--*	*--*	*--*	*1.5*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*--*	*1.5*

Attachment 1A: Lendrum Court Remedial Investigation and Remedial Action Summary of Soil Sampling Results, LUC Area A (Continued)

Trench Location	Sample ID	Sample Date	Sample Depth (ft bgs)	Note	Analytical Results (mg/kg) (a)(b) Polycyclic Aromatic Hydrocarbons																
					Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a)pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	Chrysene	Dibenz(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	B(a)P Equivalents (c)
Samples collected from the Base																					
202	1279TP202-B[6.5]	6/19/2013	6.5		<0.0055	<0.0055	<0.0055	0.012	0.017	0.019	0.0072	<0.0055	0.014	<0.0055	0.017	<0.0055	0.007	<0.0055	0.013	0.023	0.024
203	1279TP203-B[6]	6/17/2013	6		<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	0.0054	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	0.006
206	1279TP206-B[3.5]	6/20/2013	3.5		<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	ND
210	1279TP210-B[2.5]	6/19/2013	2.5		<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	ND
Residential Soil Screening Level (d)					*2,700*	--	*5,900*	*0.46*	*0.046*	*0.46*	*620*	*4.6*	*46.0*	*0.046*	*820*	*770*	*0.46*	*910*	*600*	*620*	*0.046*
Ecological Buffer Zone Soil Screening Level (d)					*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*	*40*
Northern California PAH Background (e)					--	--	--	--	*1.5*	--	--	--	--	--	--	--	--	--	--	--	*1.5*

Abbreviations:

-- - Not applicable or no data
<0.50 or ND - Compound not detected at or above indicated laboratory reporting limit
ASH - Ash observed in debris layer
B(a)P - Benzo(a)pyrene
Base - Below "Debris layer"
Debris - Debris layer
DUP - duplicate sample
ft bgs - feet below ground surface
mg/kg - milligrams per kilogram
Overburden - Overburden layer

Notes:

(a) Samples were analyzed by Curtis & Tompkins, Ltd, of Berkeley, California using EPA Method 8270C-SIM for PAHs. Results are reported to two significant figures.

(b) **Bold** value indicates detected concentration exceeds its respective Residential Soil Screening Level.

(c) Benzo(a)pyrene equivalents calculated with Toxicity Equivalency Factors for Carcinogenic Polycyclic Aromatic Hydrocarbons from EPA Region 9 Regional Screening Levels User's Guide, November 2013. For PAHs not included in the November 2013 User's Guide, values from the June 2011 HHRA Note Number 4 were used, as requested by DTSC. Values of one half the detection limit are used for results below the detection limit.

(d) Residential Soil Screening Levels are Residential Human Health Preliminary Remediation Goals ("PRGs") from Table 7-2 of the Cleanup Level Document (EKI, 2002; with updates through 2013). Ecological Buffer Zone Soil Screening Levels are PRGs from Tables 7-2 and 7-5 of the Cleanup Level Document (EKI, 2002; with updates through 2013).

(e) Northern California upper tolerance limit background concentration for benzo(a)pyrene potency equivalent is from ENVIRON, et al., 2002. The background concentrations in this study ranged from 0.0027 mg/kg to 2.8 mg/kg.

(f) This sample is a composite of two discrete samples collected from the ash and debris layer at Trench T1 from depths of 4 and 7 feet below ground surface.

Attachment 1A: Lendrum Court Remedial Investigation and Remedial Action Summary of Soil Sampling Results, LUC Area A (Continued)

Trench Location	Sample ID	Sample Date	Sample Depth (ft bgs)	Note	Analytical Results (pg/g) (a)																	
					2,3,7,8-Tetrachlorodibenzo-p-dioxin	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	1,2,3,7,8,9-Hexachlorodibenzofuran	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	1,2,3,7,8-Pentachlorodibenzofuran	1,2,3,6,7,8-Hexachlorodibenzofuran	1,2,3,4,7,8-Hexachlorodibenzofuran	2,3,7,8-Tetrachlorodibenzofuran	2,3,4,6,7,8-Hexachlorodibenzofuran	2,3,4,7,8-Pentachlorodibenzofuran	Octachlorodibenzofuran	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	Octachlorodibenzo-p-dioxin	1,2,3,4,6,7,8-Heptachlorodibenzofuran	TCDD TEQ (b)
Samples collected from the Debris Layer																						
304	1279TP304-D[3.5]	9/22/2014	3.5	DEBRIS	<1.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	1.63	<5.00	<5.00	<10.0	<5.00	23.2	<5.00	1.26
305	1279TP305-D[3.5]	9/22/2014	3.5	DEBRIS	<1.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	4.97	6.01	5.49	<10.0	<5.00	29.2	16.2	4.90
A1	1279TPA1-2[2.0]D	9/23/2014	2.0	ASH	<1.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	7.91	6.66	6.71	12.5	7.99	11.9	14.5	9.39	32.4	29.8	9.53
F0	1279TPF0-1[1.5]D	9/24/2014	1.5	ASH	1.05	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	9.50	9.54	10.2	15.5	12.3	17.8	17.3	14.2	34.8	50.1	15.7
F2	1279TPF2-1[0.0-1.0]D	9/24/2014	1.0	ASH	<1.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	7.55	7.07	7.12	12.3	9.17	13.5	24.6	18.0	99.9	34.1	12.0
	1279TPF2-1[DUP]	9/24/2014	1.0	DUP	1.14	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	8.12	7.61	7.58	14.6	9.53	14.0	15.0	19.6	85.8	32.4	13.2
G	1279TPG1-2[0.5-1.5]D	9/24/2014	1.5	ASH	<1.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	6.73	7.28	6.18	8.95	8.38	20.6	22.7	95.1	37.8	8.04
SAMPLES COLLECTED FROM PREVIOUS INVESTIGATIONS																						
Sample collected from the Overburden																						
203	1279TP203-O[1]	6/17/2013	1	Overburden	1.79	<5	<5	<5	<5	<5	<5	6.12	7.58	7.72	9.24	9.39	10.5	1	12.8	28.4	37.9	14
Samples collected from the Debris Layer																						
T1	1258EX100	10/20/2010	comp (c)		4.26 J	3.42 J	4.94 J	7.90 J	7.16 J	0.66 J	4.40 J	6.29 J	7.78 J	11.8 J	21.7	6.15 J	9.09 J	22.9 J	36	39	42	17.8
202	1279TP202-D[5.5]	6/19/2013	5.5	Debris	<1	<5	<5	<5	<5	<5	<5	<5	<5	<5	1.26	<5	<5	<10	<5	20.9	<5	0.738
203	1279TP203-D[3.5]	6/17/2013	3.5	Debris	<1	<5	<5	<5	<5	<5	<5	<5	<5	<5	2.14	<5	<5	<10	<5	<10	<5	1.11
204	1279TP204-D[2.5]	6/20/2013	2.5	Debris	<1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<5	<5	<10	<5	<10	<5	0.0033
Sample collected from the Base																						
203	1279TP203-B[6]	6/17/2013	6	Base	<1	<5	<5	<5	<5	<5	<5	<5	<5	<5	3.13	<5	<5	50.5	44.8	33	22.3	4.04
Residential Soil Screening Level (d)																						*3.5*
TCDD TEQ Background Range (DTSC, 2010)																						*7 to 20*

Abbreviations:
<0.50 - Compound not detected at or above indicated laboratory reporting limit
ASH - Ash observed in debris layer
DUP - duplicate sample
ft bgs - feet below ground surface
J - Estimated concentration
pg/g - picograms per gram
TCDD - 2,3,7,8-tetrachlorodibenzo-p-dioxin
TEQ - toxic equivalent quotient
Notes:
(a) Samples collected in 2013 and 2014 were analyzed by Vista Analytical Laboratory of El Dorado Hills, California using EPA Method 1613B for dioxins and furans.
(c) This sample is a composite of two discrete samples collected from the ash and debris layer at Trench T1 from depths of 4 and 7 feet below ground surface. Composite sample was analyzed by Maxxam Analytics of Ontario, Canada using EPA Method 8290.
(d) Residential Preliminary Remediation Goal from Technical Memorandum, Human Health Soil Preliminary Goals and Toxic Equivalency Values for Dioxins and Furans, Presidio of San Francisco, California (MACTEC, 2007) [update to the Presidio Cleanup Level Document (EKI, 2002)].
Reference:
(b) TCDD TEQ value calculated by the analytical laboratory using 2005 World Health Organization Toxicity Equivalent Factors. See laboratory sheets for details.
DTSC, 2010. Memorandum from Kimiko Klein to Virginia Lasky regarding Screening Risk Evaluation, Merchant Road Land Fill, The Presidio, San Francisco , dated 25 August 2010.

Attachment 1B: Summary of Confirmation Soil Sampling Results, LUC Area B

Sample ID	Date Collected	Sample Depth (feet bgs)	Total Lead[a] (mg/kg)	Location
1255SB102	3/28/2017	1.5	52	Forest Area
1255SB107	3/28/2017	0.75	100	Forest Area
1255SB108	3/28/2017	0.25	**260**	Forest Area
	3/28/2017	0.75	**200**	
	3/28/2017	1.5	8.1	
1257PS111	9/15/2016	0.0	**180**	Forest Area
	9/15/2016	0.5	**390**	
	9/15/2016	1.0	**500**	
1257PS104	6/03/2016	0.0	50	Forest Area
1257PS204	10/10/2016	0.3	160	Forest Area
1255SB109	3/28/2017	0.75	34	Forest Area
DUP-03282017-01	3/28/2017	0.75	110	

Footnotes:

[a]Total lead report on a dry weight basis. **Bold** values denote results above the site specific cleanup level of 160 mg/kg (Historic Forest/Recreational Level).

Abbreviations:
bgs = below ground surface
ID = identification
mg/kg = milligrams per kilogram