Lendrum Court Soil Testing Results

North Fort Scott

Neighborhood Information Session

December 11, 2013

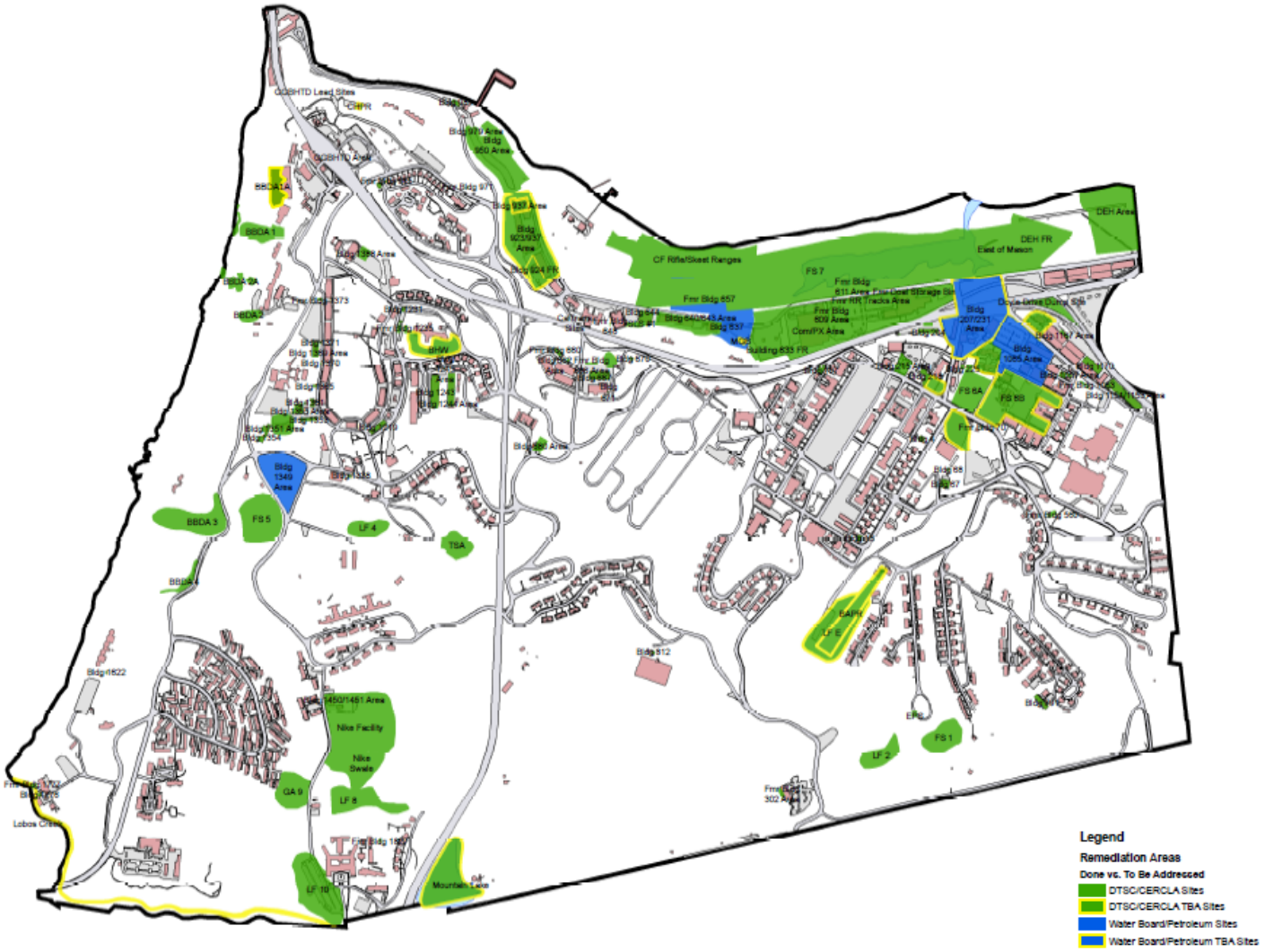
Agenda

- Welcome and Introductions
- Overview of Presidio Remediation Program
- DTSC Site Cleanup Process
- Results of Soil Testing at Lendrum Court
- Trust Recommendations for Next Steps
- Questions & Answers

Presidio Remediation Program

- Objective: Remediation of former Army Waste Release Sites and cleanup of lead-based paint (LBP) in soil around buildings
- Trust took responsibility for program in 1999
- Regulatory Oversight by:
  - California Department of Toxic Substances Control (DTSC) for waste regulated under CERCLA and LBP in soil
  - State Regional Water Quality Control Board (RWQCB) for Petroleum waste releases
- Waste release sites located throughout the Presidio in residential, commercial, and recreational areas
- Over 800 buildings and structures assessed for LBP

Overview of Enumerated CERCLA and Petroleum Sites



Not shown: 500+ former petroleum tanks at several building sites; 8 miles of petroleum-fuel piping serving individual tanks

Site Cleanup Process

- Site Discovery
- Remedial Investigations to characterize nature and extent of contamination
- Human Health and Ecological Risk Assessment
- Feasibility Study to evaluate remedial alternatives
- Remedial Action Plan or similar document to select remedy
- California Environmental Quality Act Initial Study to evaluate environmental impacts of remedy
- Remedial Construction to implement remedy
- Regulatory Agency certification that remedy was implemented per plan
- Operation & Maintenance of remediated site

Lendrum Court Background

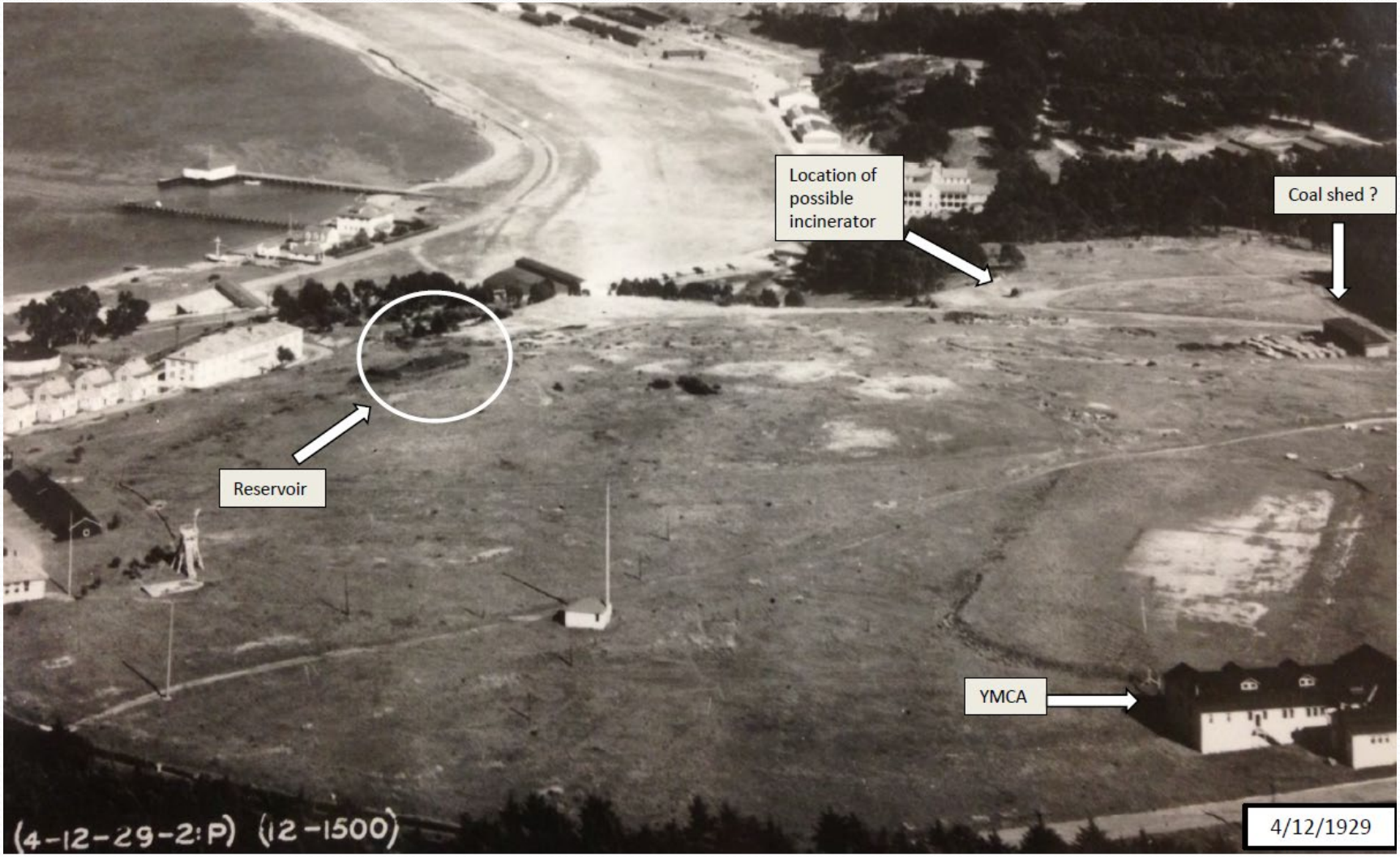
- Lendrum Court not previously identified as an Army waste site
- In response to reports of glass, Trust completed 3 trenches (test pits) at Lendrum Court
- Debris and ash were encountered 2.5-feet below ground surface in 1 of the 3 test pits
- Trust sampled and tested the debris/ash layer
  - Polycyclic aromatic hydrocarbons (PAHs) and dioxins and furans (constituents often present in ash) were detected at concentrations above human health screening levels but within regional background
- Trust notified Army and DTSC of the potential waste release site at Lendrum Court
- DTSC provided written guidance to conduct further assessment to clarify potential human health risks

Research into Site History

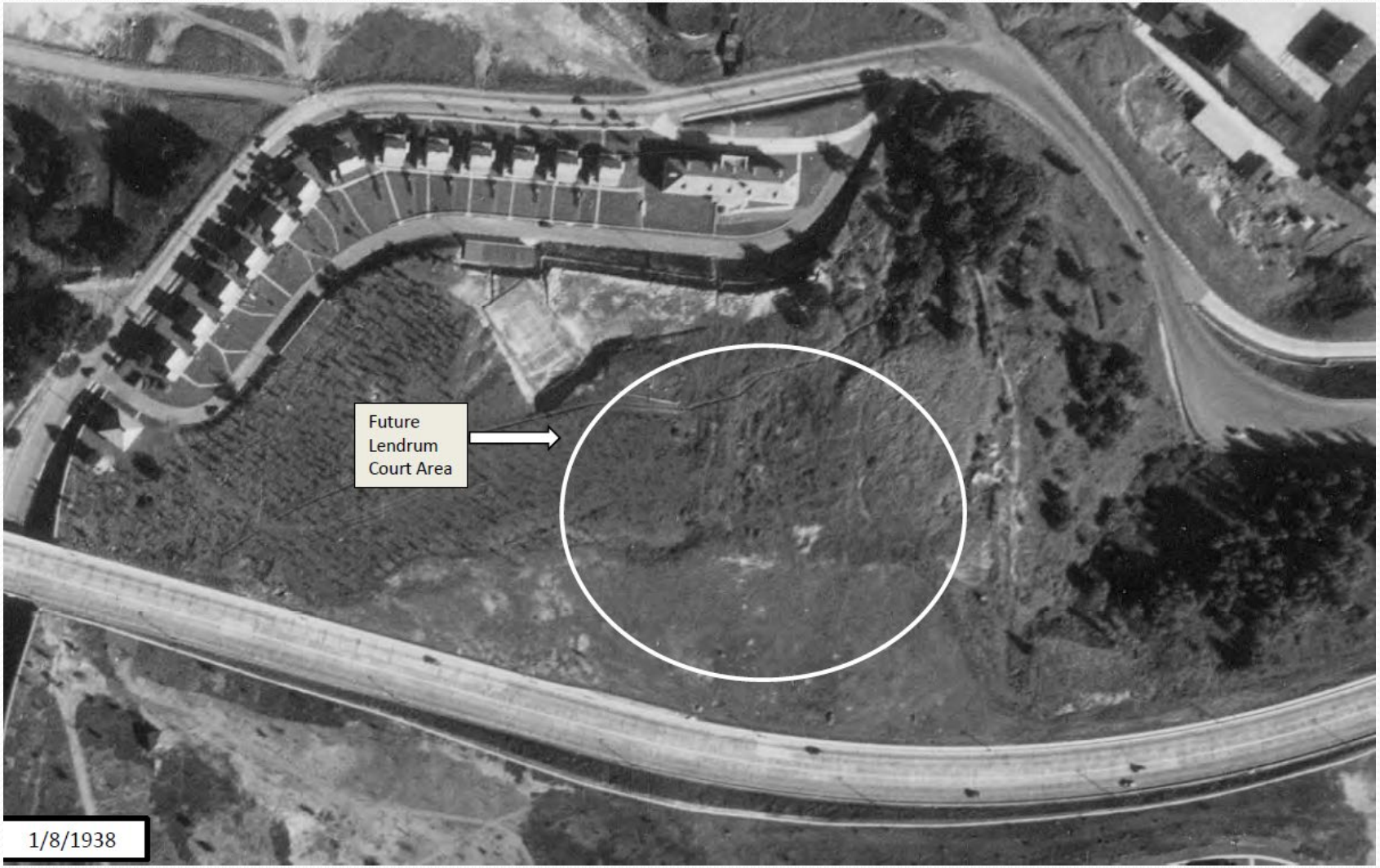
- Army Archives Review
  - No data indicating land filling activity or other sources of contamination in Army's records
- Photo Documentation Review
  - 1921 map shows a potential incinerator 150 feet southeast of present day Lendrum Court, not identified on later maps
  - 1936 Doyle Drive constructed through area where potential incinerator was located
  - 1936 – 1970 - Site remains undeveloped
  - 1970 and 1975 - Residential buildings, parking, and landscaping constructed


PILOTS ROW
FORT
WINFIELD SCOTT
Future Lendrum Court Area
Location of possible incinerator
LENDRUM COURT
FORT SCOTT
December 1921

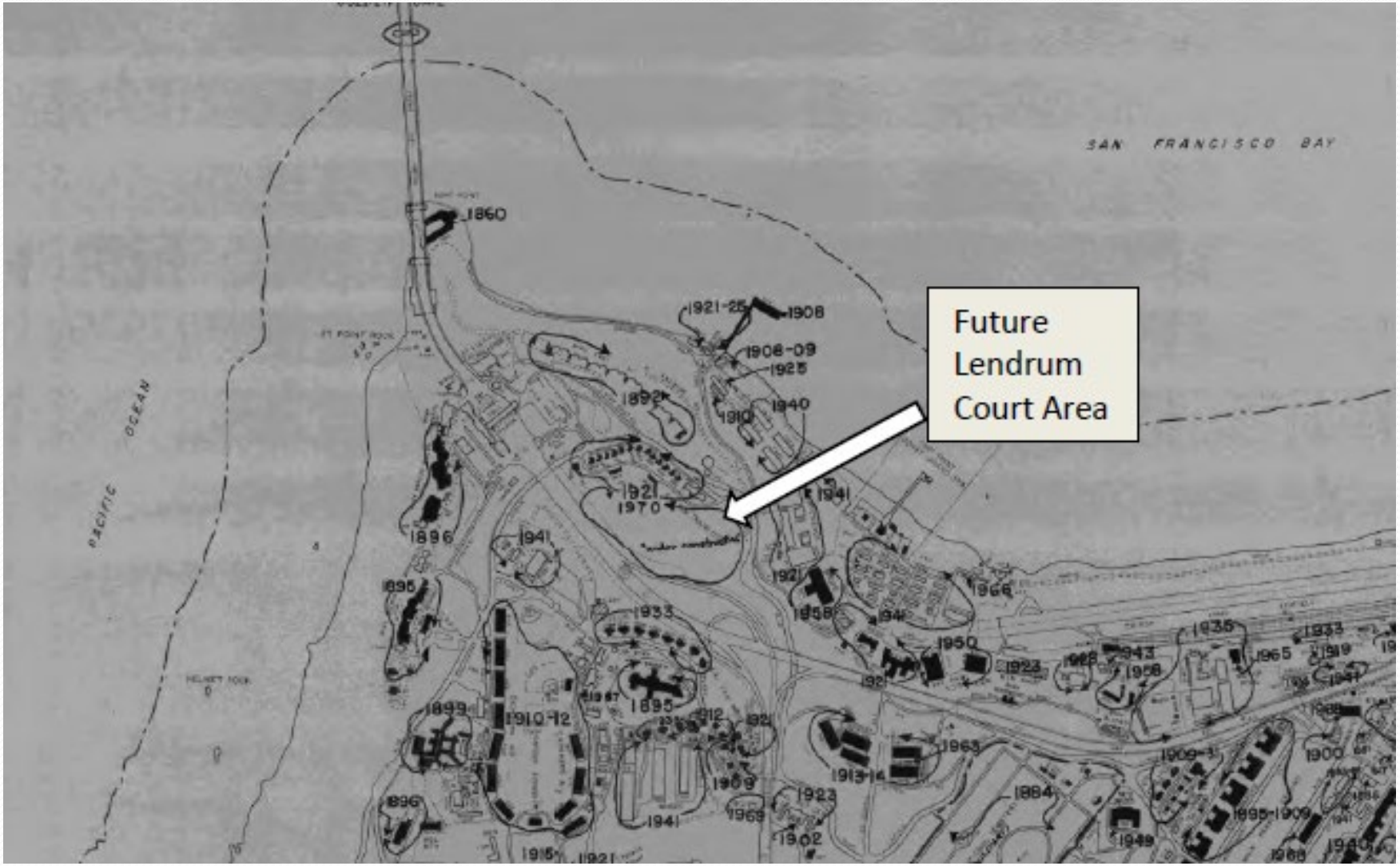
April 1929


Location of possible incinerator
Coal shed ?
Reservoir
YMCA
(4-12-29-2:P) (12-1500)
4/12/1929

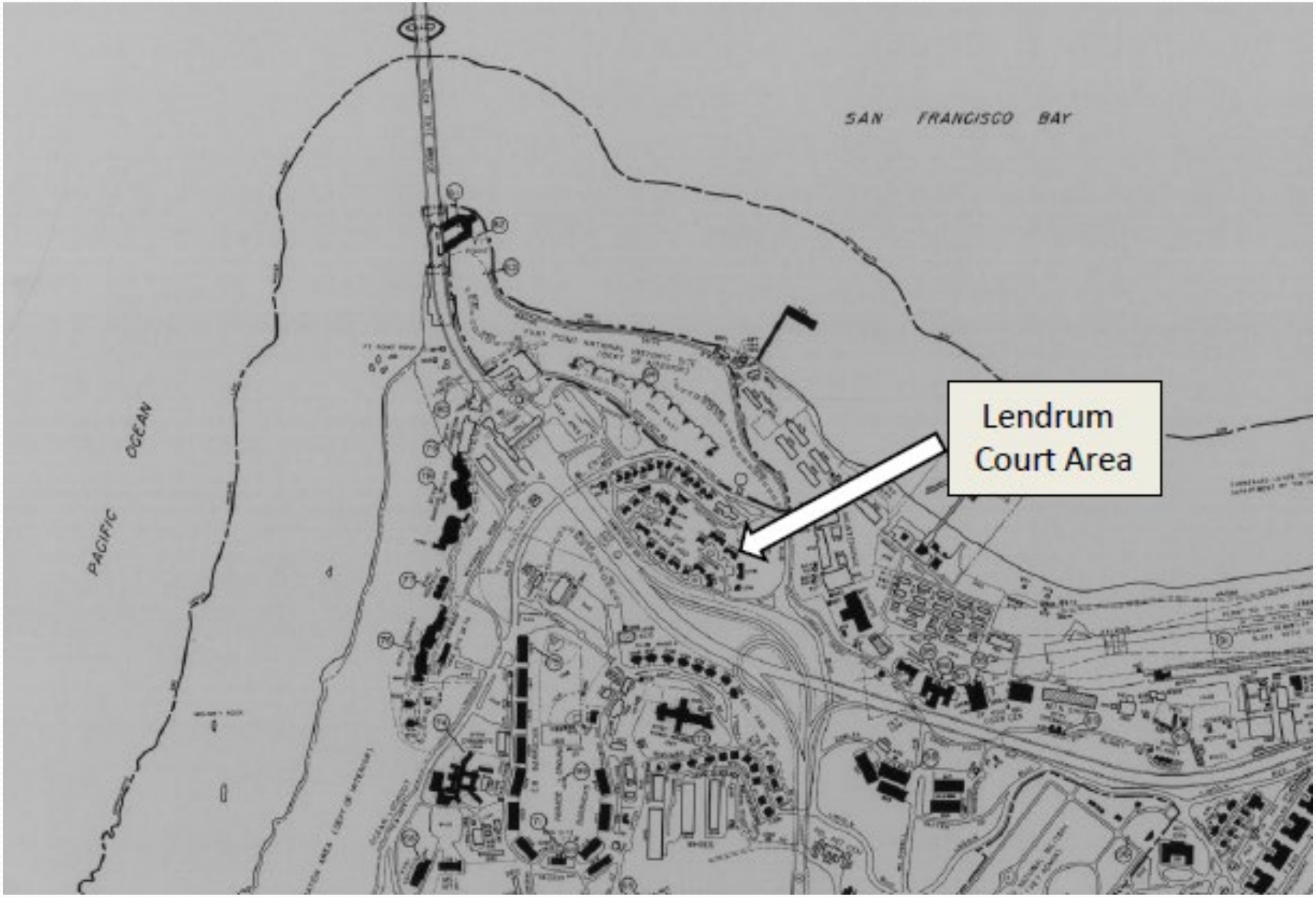
January 1938



May 1969

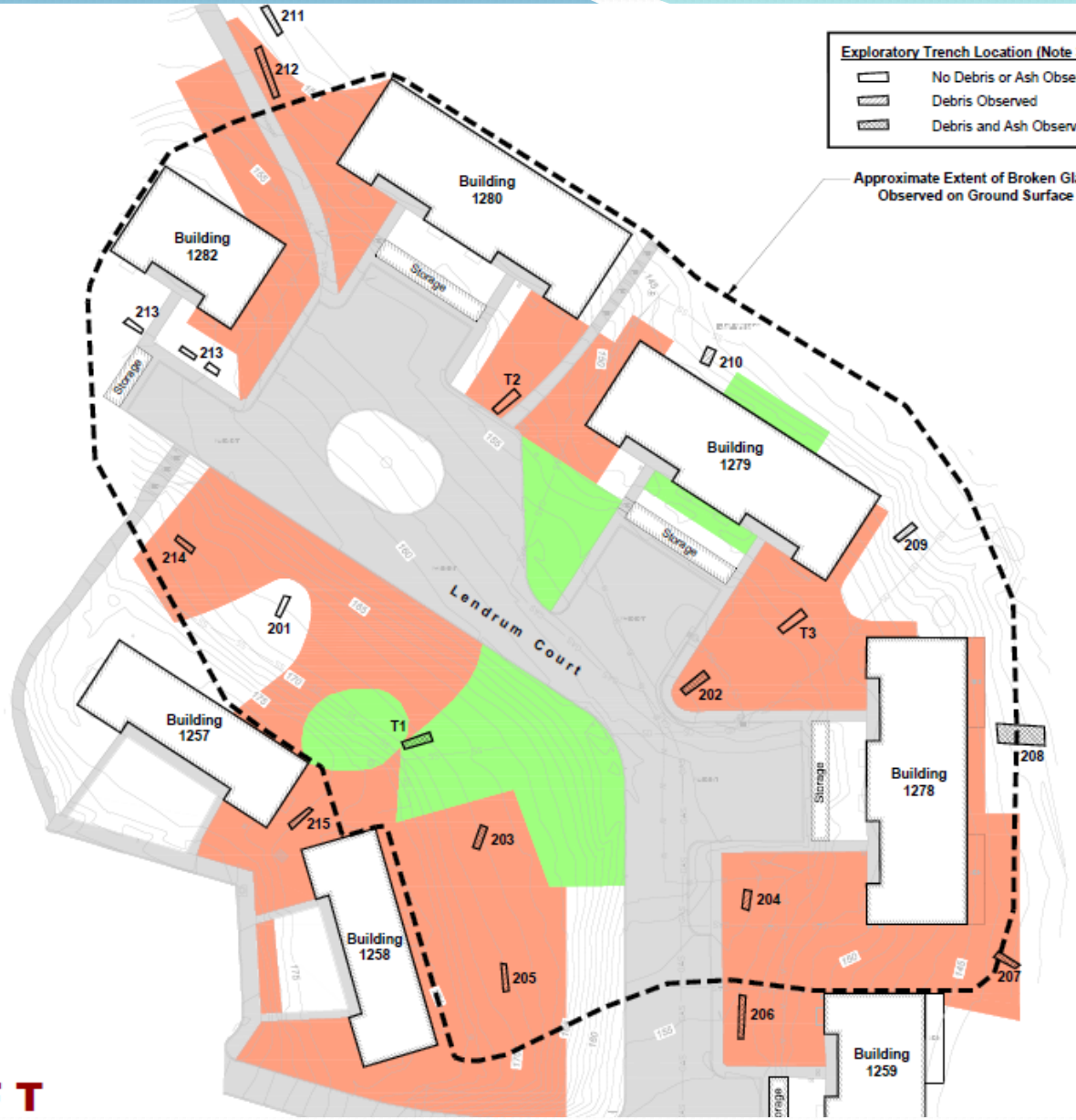


March 1975



June 2013 Field Investigation

- 15 trenches dug around residential buildings, targeting areas with glass and debris at ground surface
- Subsurface layers encountered
  - Overburden soil – 0.5 to 2.5 feet below ground surface, no debris
  - Debris – 3 inches to 5 feet thick below overburden soil; glass fragments, melted glass, ash, bottles, ceramics, terra cotta, and other miscellaneous items
  - Bottom fill soil and native soil below debris, no debris
- 37 soil samples collected from the three earth layers



DRAFT

N

0 40 80

(Approximate Scale in Feet)

Legend:

- Gas Line
- Storm Drain Line
- Sanitary Sewer Line
- Water Line
- Building
- Paved Areas

Explanation:

Ground Surface Observations on 21 June 2013:

- Abundant Gopher Holes
- Minimal and Abandoned Gopher Holes
- No Gopher Holes

Notes:

1. All locations are approximate.
2. Survey source: PLS Surveys, Inc., dated 9 July 2013. California State Plane Coordinates NAD1927.
3. Trenches 201 through 214 were excavated in June 2013. Trenches T1, T2, and T3 were excavated in October 2010 and were not surveyed.

Erler & Kalinowski, Inc.

Generalized Area of Observed Debris and Gopher Activity at the Ground Surface

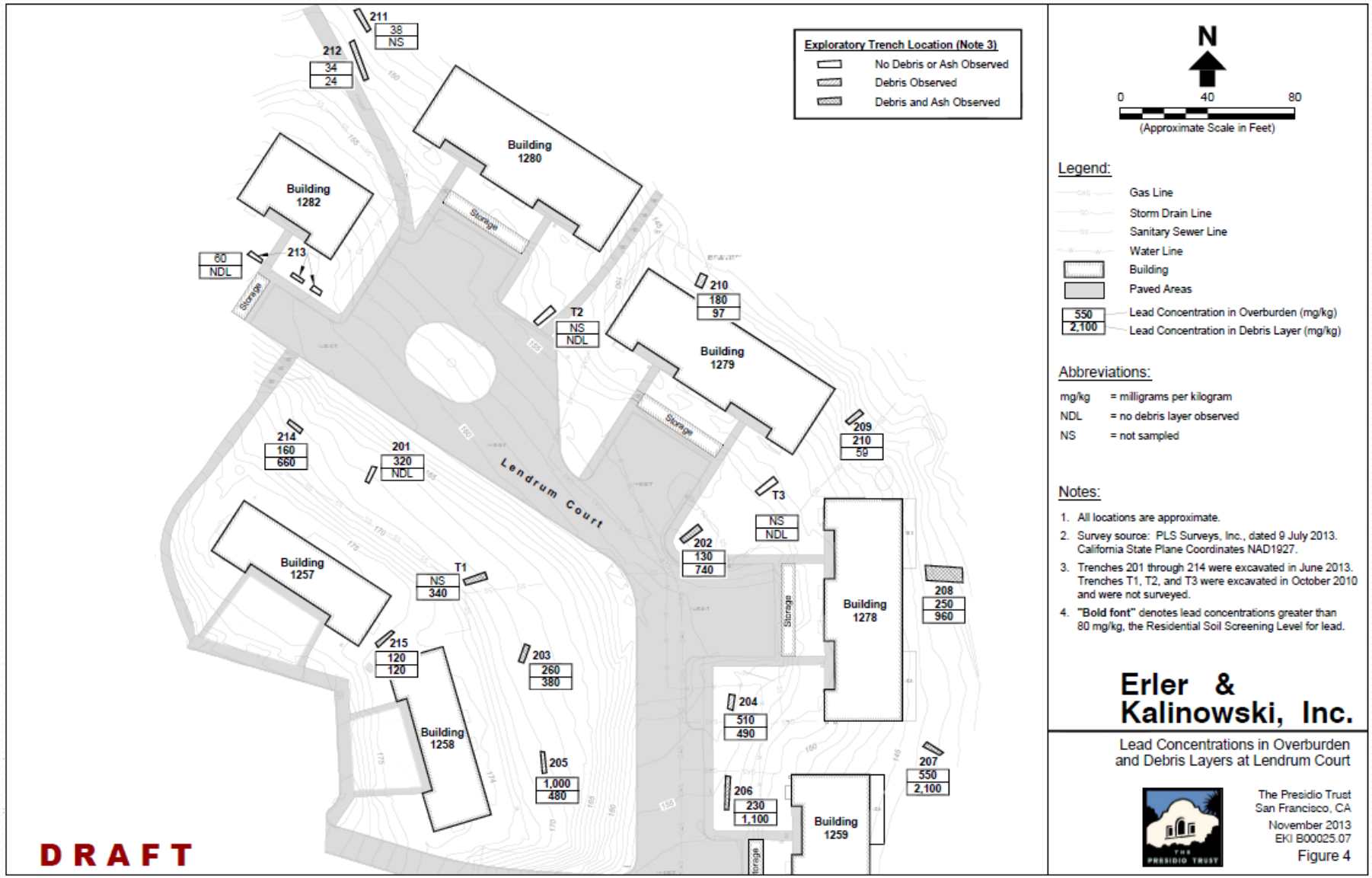
The Presidio Trust
San Francisco, CA
November 2013
EKI B00025.07
Figure 3

Results of Soil Sampling

- PAHs and dioxins and furans detected above soil screening levels for human health, but concentrations within expected urban ambient (background) range
- Metals detected in debris layer and overburden soil above soil screening levels for human health
- Metals also detected above soil screening levels for protection of ecological species

Human Health Screening Risk Evaluation

- Screening-level evaluation of risk to represent “reasonable maximum exposure” conditions
- Assumes residents and landscape/maintenance workers could be exposed to contaminants in soil via incidental ingestion and dermal contact at high soil contact rates
- Lead is primary contaminant of concern in soil
  - Detected above residential soil screening level of 80 mg/kg in 13 of 16 trenches, and worker level of 320 mg/kg in 9 of 16 trenches
  - Present in debris layer and overburden where debris brought to the surface by gophers



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Lead Concentrations in Overburden and Debris Layers at Lendrum Court

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November 2013
EKI B00025.07
Figure 4

Soil Screening Levels for Lead

- Soil screening level using DTSC LeadSpread Model
  - Assumes reasonable maximum exposure to soil (e.g., child eats 100 mg of soil 7 days per week for unlimited duration)
  - Assumes unrestricted residential land use with no restrictions on subsurface soil contact by child

Recent Changes to LeadSpread Model by DTSC:	LeadSpread Model 7	New (2011) LeadSpread Model 8
Target threshold blood-lead concentration in child	10 µg lead / dL blood	1 µg lead / dL blood
Soil screening level	400 mg/kg (ppm)	80 mg/kg (ppm)

Trust's Recommended Next Steps

- Complete additional investigations to determine extent of debris and site boundaries
  - To include broader area of playground, Armistead Road, and Ramsel Court to confirm site is limited to Lendrum Court
- Evaluate site-specific human health risks for residents and workers
- Develop remedial alternatives to mitigate human health and conduct site cleanup under DTSC oversight
- Continue neighborhood meetings to provide updates and solicit input

Project Contacts

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Questions and Answers