

August 1, 2024

Mr. Sven Lindstrom
State of Hawaii Department of Health
Hazard Evaluation and Emergency Response Office
2385 Waimano Home Road
Pearl City, Hawaii 96782

Project No. 24-2398

Subject: Responses to State of Hawaii Department of Health (HDOH) Comments on Draft *Site Investigation Work Plan, Kuhio Park Terrace Low-Rise Apartments Property Located at Ahonui and Linapuni Streets, Tax Map Key Nos. (TMKs) No: (1) 1-3-039: Parcels 006 and 008, Kalihi-Palama, Honolulu, Oahu, Hawaii*, FAI Project Number 24-2398: dated June 13, 2024

Dear Mr. Lindstrom:

Ford & Associates, Inc. (FAI) has reviewed your comments related to the review of the above referenced report, which were discussed in your letter dated July 12, 2024. FAI is providing the following responses.

Work Plan Comments

With regards to the comments related to the Work Plan:

- *Comment #1: Please elaborate on how the Contaminants of Potential Concern (COPCs) were selected for this project. The COPCs lead and pesticides (dieldrin and endrin) are listed in the work plan as having been detected at other areas of the property in previous investigation. But how did you rule out other COPCs that could be present in different areas of the property. For example, could elevated concentrations of arsenic be present anywhere? If previous investigations were limited to building perimeters, could arsenic be present under the slabs? Were other COPCs identified in the Phase I Environmental Site Assessments that should be considered in this investigation? Are PCBs or petroleum contaminants potentially present anywhere at the property? Please expand this discussion and include additional COPCs that may be present at the site, if any, in this investigation.*

FAI Response: Per EnviroServices & Training Center, LLC (ETC) Summary of Environmental Investigation History included in the Environmental Hazard Evaluation/Environmental Hazard Management Plan (EHE/EHMP) document dated September 2012, the following was conducted at the site:

- In 1997, soil samples were collected from a portion of the site and analyzed for a number of pesticides, and elevated concentrations of the pesticide dieldrin were detected.

- In 2010, soil samples were collected from portions of the site and adjoining areas, including the collection of 30 to 33 multi increment surface soil samples from 23 decision units (DUs) throughout the area. The DU locations included the building perimeters around the foundations of the on-site apartment buildings and the backyard areas. The samples were analyzed for total lead and chlorinated pesticides and elevated concentrations were detected, specifically lead, dieldrin and endrin.

For these reasons, Lead and Organochlorine Pesticides are the only COPCs included in the Work Plan. Furthermore, based on the recent Phase I ESA recently conducted by FAI in July 2024 and previous Phase I ESAs, testing for additional COPCs does not appear warranted due to the historical site use as housing. The Work Plan was revised accordingly, including the addition of Section 3.0 Summary of Investigations.

- *Comment # 2: Section 2.1.3, please provide an approximate depth to groundwater at the site (both the upper and lower aquifers) and provide a reference for the information.*

FAI Response: Based upon the Phase I ESA prepared by FAI in July 2024, the estimated depth to shallow groundwater is approximately 80 to 95 feet. The language in Section 2.1.3 of the Work Plan was revised accordingly.

- *Comment #3: It is unclear how you plan to sample under the buildings. Will you core through the slabs? Or will the buildings be demolished prior to sampling? If the buildings will be demolished prior to sampling? If the buildings will be demolished prior to sampling, then a Qualified Environmental Professional (QEP) with at least five years' experience in environmental oversight should be present when potentially contaminated soil will be encountered or disturbed, and all workers should have appropriate hazardous materials training. Please include additional details as to how the samples will be collected from beneath the buildings.*

FAI Response: We plan to perform soil sampling beneath the buildings prior to demolition and have revised the Work Plan accordingly, specifically with additions to language in Section 5.0 Scope of Work.

- *Comment #4: Section 4.4:*

- a. Please state how many increments will be collected for each sample. The HEER Office Technical Guidance Manual (TGM) recommends 50 increments per sample. If less than 50 increments will be collected, provide a justification for collecting fewer than the recommended number and state that as a results the data may have limited usability.*

FAI Response: At least 50 increments will be collected for each sample. The Work Plan was revised accordingly, including additions to Section 5.3 Drilling and Soil Sampling.

- b. *Please provide additional description of how/where increments will be collected across each DU such that they are spaced in a “systematic random” configuration as described in the TGM to ensure representative coverage.*

FAI Response: Revised the Work Plan accordingly, specifically language added to Section 5.3 Drilling and Soil Sampling.

- c. *It is unclear how the trowel and end cap will be used to collect representative increments from the acetate liners, please provide more description and note that all increments from all samples should be equivalent in mass and represent the entire depth range of the increment.*

FAI Response: The Work Plan was revised accordingly, with language added to Section 5.4 Soil Sampling Using the Multi-Increment Approach.

- d. *Is the slide hammer sampler a hand tool? Please elaborate. How deep will the sampler be driven into the ground?*

FAI Response: Revised the Work Plan accordingly with additions to Section 5.3 Drilling and Soil Sampling and Section 5.4 Soil Sampling Using the Multi-Increment Approach.

- *Comment #5: Section 4.7: Will the slide hammer require decontamination between samples? If so, please include in the description. Note, decontamination of tools will not be required between the collection of sample increments within a single DU area.*

FAI Response: We plan to decontaminate all sampling equipment between DUs and the Work Plan was revised accordingly, specifically language added to Section 5.8 Decontamination Procedures.

- *Comment #6: Please include a section discussing how replicate sample data will be used to evaluate accuracy of the analytical data and the data usability.*

FAI Response: Revised the Work Plan accordingly with addition of Section 5.6 Field Replicate Sampling.

- *Comment #7: This work plan only includes sampling to a depth of one foot below ground surface (bgs). Please state what conclusions will be made and actions taken if contamination is encountered in the deeper layers of soil. Will additional sampling be conducted to characterize the vertical extent of the contamination? Does the proposed future work only involve disturbing the top one foot bgs of soil?*

FAI Response: In the event that COPCs are detected at concentrations above EALs in the deeper layer, additional soil sampling will be performed to characterize the vertical extent of the

contamination. The Work Plan was revised accordingly, specifically language added to 5.5 Laboratory Analytical Procedures.

- Comment #8: *Please also state that a final report of the investigation findings will be provided to the HEER Office for review*

FAI Response: Revised accordingly with language added to Section 4.2 Objectives.

- Comment #9: *Although not the purview of the HEER Office, please note that this work plan should include a Health and Safety Plan (HASP) for the workers who will be conducting the sampling. All workers who may come into contact with contaminated media must have adequate hazardous materials training, including HAZWOPER training certification, and should be overseen by a QEP with at least five years' experience in site investigations. It would be appropriate to include a brief section in this work plan on worker training requirements with a reference to the project-specific HASP.*

FAI Response: Revised the Work Plan accordingly with addition of Section 4.4 Worker Notifications and Protections.

If you have any questions, please do not hesitate to contact us at 808.426.6927.

Sincerely,



Noah Kippen
Project Geologist



Daniel P. Ford, PG, MBA
Principal Geologist

NAK/dpf

