

**Site 12 Fieldwork
Phase IV NTCRA SWDA Westside
Radiological Areas of Interest**

Former Naval Station Treasure Island

*Restoration Advisory Board
February 9, 2021 Meeting*

Site 12 SWDA Westside Overview



- Solid Waste Disposal Area (SWDA) Westside is an approximately 4.5 acre area within the 93-acre IR Site 12 housing area
- Consists of a radiologically controlled area within the fenced portion of the SWDA
- Subject to various excavations as part of several Non-Time Critical Removal Action (NTCRA) phases

Phase IV NTCRA Objectives



Phase IV Non-Time Critical Removal Action (NTCRA) is an extension of the previous project phases (1-3) per the 2007 Action Memorandum (Navy, 2007). This final phase will address the following objectives:

- Clear and remove vegetation
- Remove trash and miscellaneous debris
- Remove existing Phase III soil stockpiles and radiological screening pads
- Restore SWDA Westside to pre-existing ground surface

Phases of Fieldwork



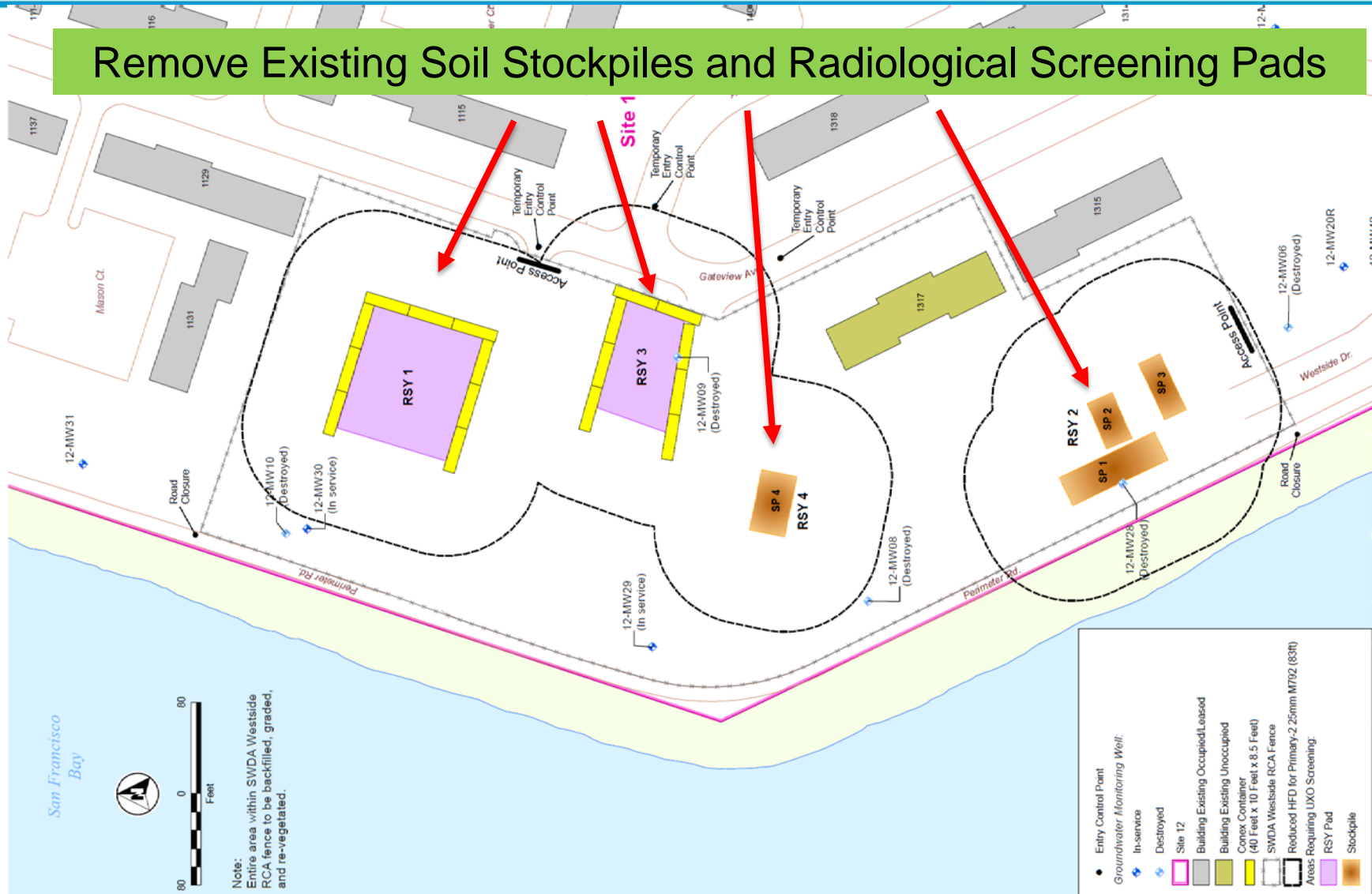
Existing Vegetation Slated For Removal



Phases of Fieldwork (continued)



Remove Existing Soil Stockpiles and Radiological Screening Pads



Phases of Fieldwork (continued)



Example of Existing Soil Stockpile to be Removed



Phases of Fieldwork (continued)



Construction Debris to be Removed



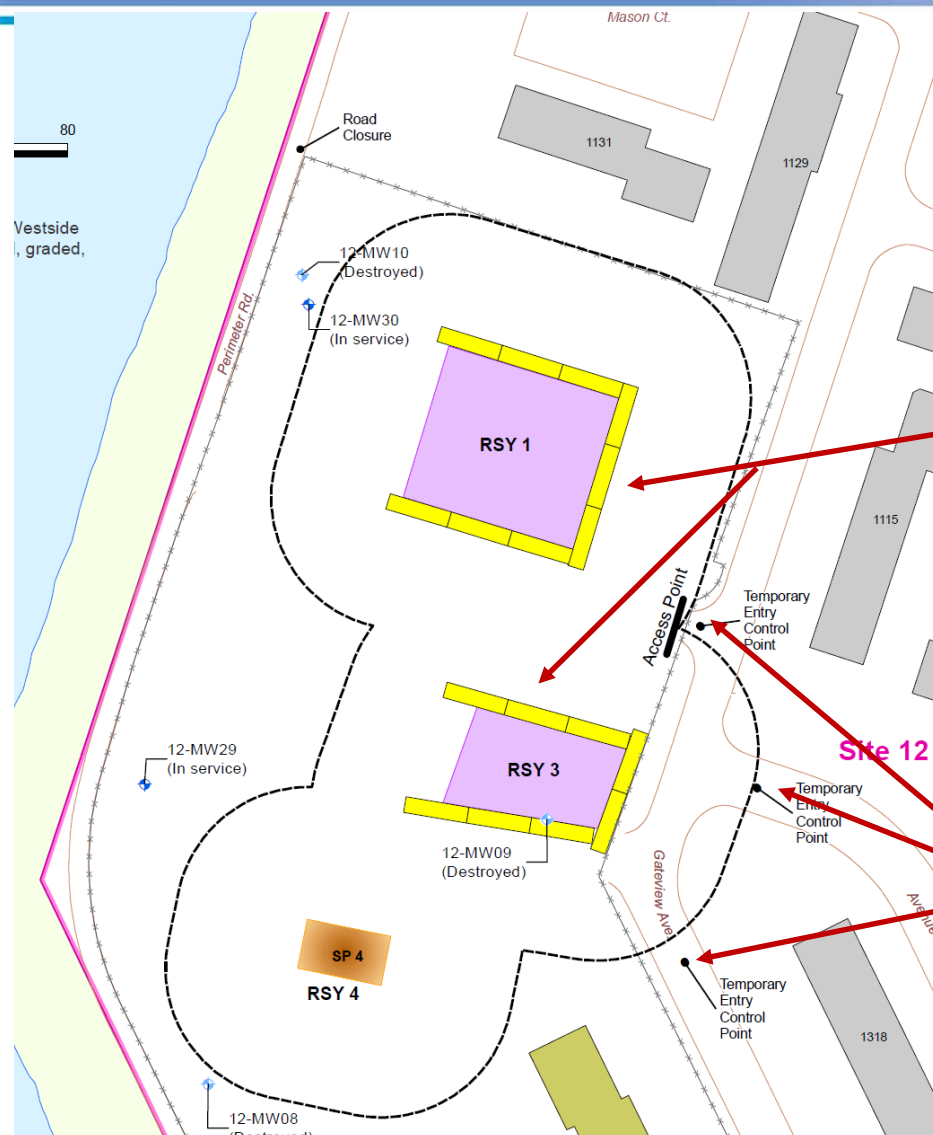
SWDA Westside Implementation



Removal of Old Radiological Screening Pads



Munitions Screening Safety Measures Engineering Controls (ECs)



- ECs based on excavation of two objects
 - MK II Hand Grenade
 - 81mm Japanese Mortar
- Steel-lined shipping containers used to reduce hazardous fragmentation distance
- Access control points & closures to limit non-essential personnel from site and vicinity access

Site Restoration and Backfill



- Import fill to restore pre-existing ground surface
- Prevent seasonal ponding
- Allow proper drainage



Schedule



- February 2021 Finalize Phase IV NTCRA Work Plan
 - Issue Work Notice
- Feb/Mar 2021 Begin Phase IV NTCRA Fieldwork
- Feb/Mar Through June 2021 Fieldwork
- June 2021 Begin Preparation of Post Construction Summary Report (PCSR)
- August/September 2021 Submit Draft PCSR to Agencies

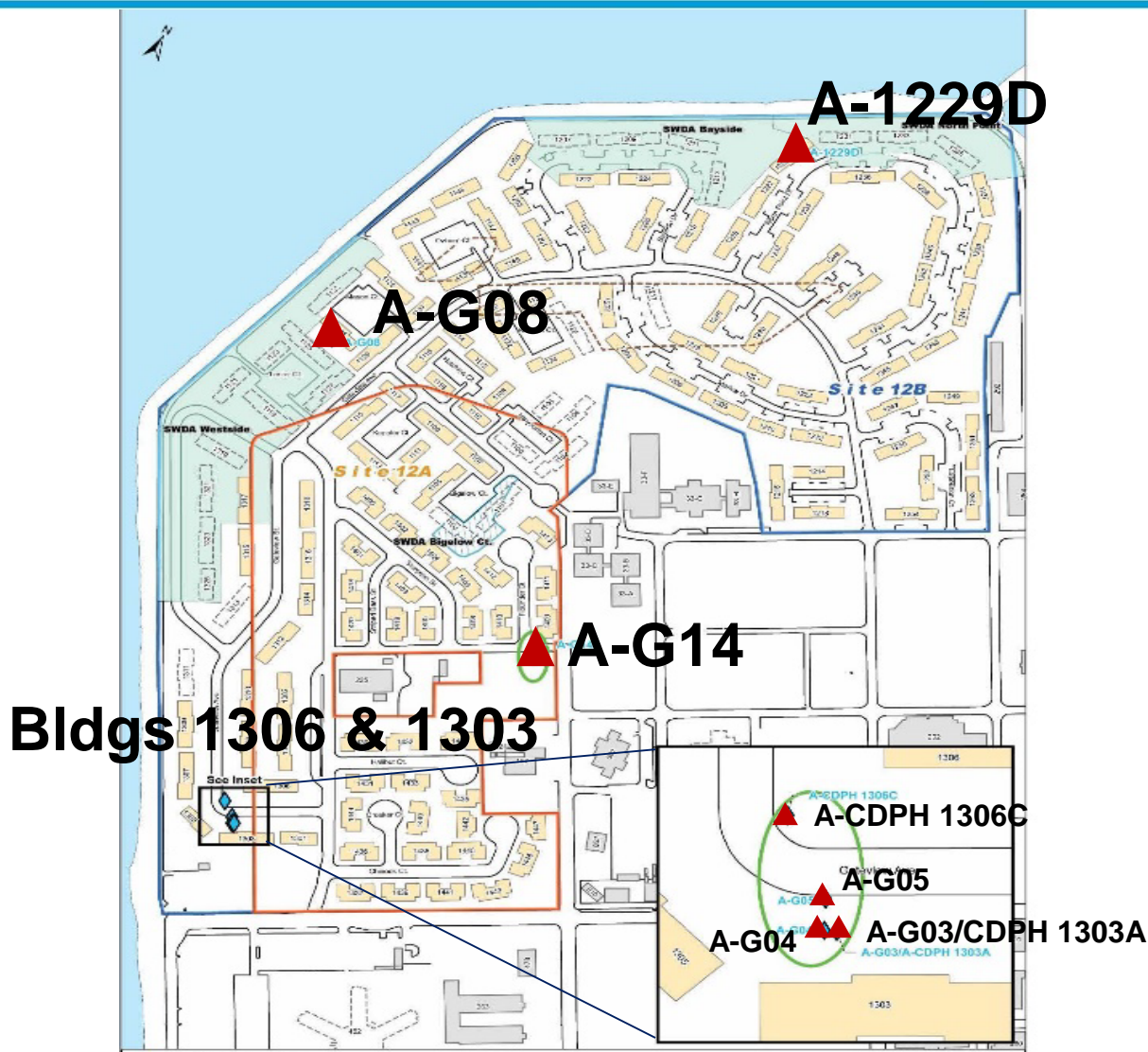
General Purpose – Areas of Interest Investigation



- Investigate by excavation seven (7) previously identified radiological anomaly areas of interest within IR Site 12
 - Are there radioactive items causing the anomaly?
 - Is there no identifiable source of the anomaly?

- Each location had an exceedance of an IR Site 12 screening level without identification of the potential source (i.e. radiological item)
 - Sample collected from bottom of excavation
 - Scan of bottom of excavation
 - Inability to access the potential radiological source

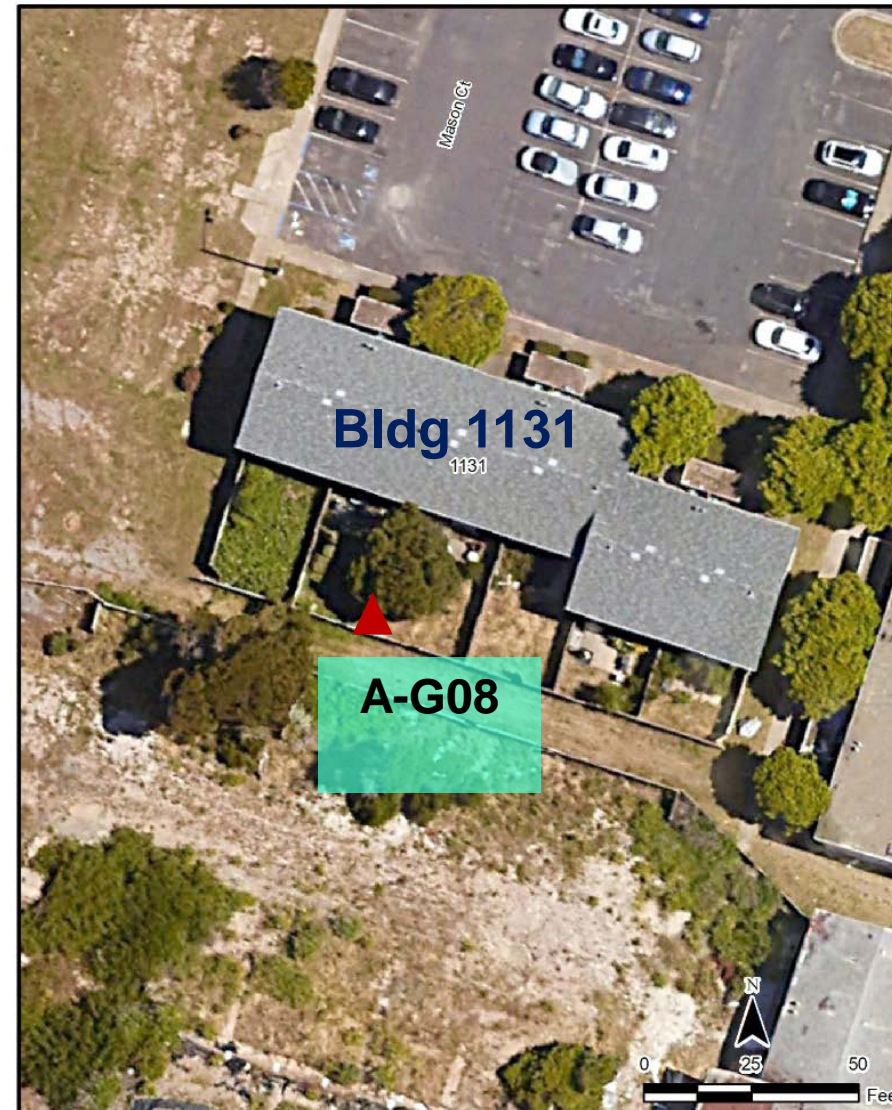
Areas of Interest Anomaly Locations



Bldg 1131 (Anomaly A-G08)



- Identified in 2013 Investigation in the southwest corner of fenced backyard of Bldg 1131
- Soil sample concentration of Radium 226 exceeded screening level
- Further Investigation in February 2018 was performed using hand tools
- Excavation stopped at 1.5 feet bgs when a large, hard surface was encountered
- No discrete radiological source identified



Bldg 1229 (Anomaly A-1229D)

- The anomaly was identified in February 2018 based on surface measurements
- Inside vacant Unit D at 1229 North Point Dr
- Intrusive investigation was recommended based on surface measurements



Figure 5. Photograph Showing Location of A-1229D within Grid 12 of Building 1229, Unit D

Bldg 1303 (Anomalies A-G03, A-G04, AG05)



- **A-G03/CDPH A-1303A**

- March 2013: Small, discrete particles with radium 226 were identified and removed
- October 2013: soil sample collected at 1.5 feet depth had concentration of radium 226 exceeding screening level

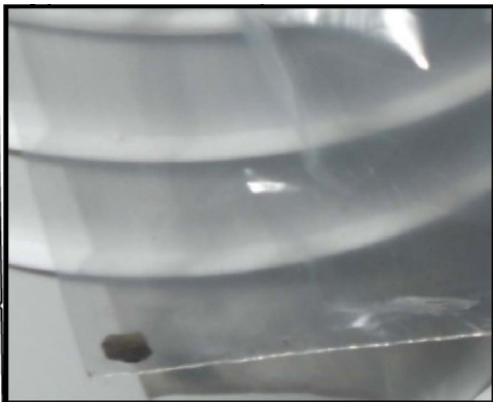
- **A-G04 and A-G05**

- October 2013: Soil removed to 1 foot bgs at both locations with no radiological items identified
- Radium 226 concentrations found in samples from bottoms of excavations exceeded screening level



Bldg 1306 (Anomaly A-CDPH 1306C)

- March 2013: CDPH identified and removed an Octagonal radiological item as the anomaly source



LLRO # 579

- Samples collected from excavation bottom (16 inch depth) and scans of the excavation bottom after removal of the radiological item exceeded screening levels.



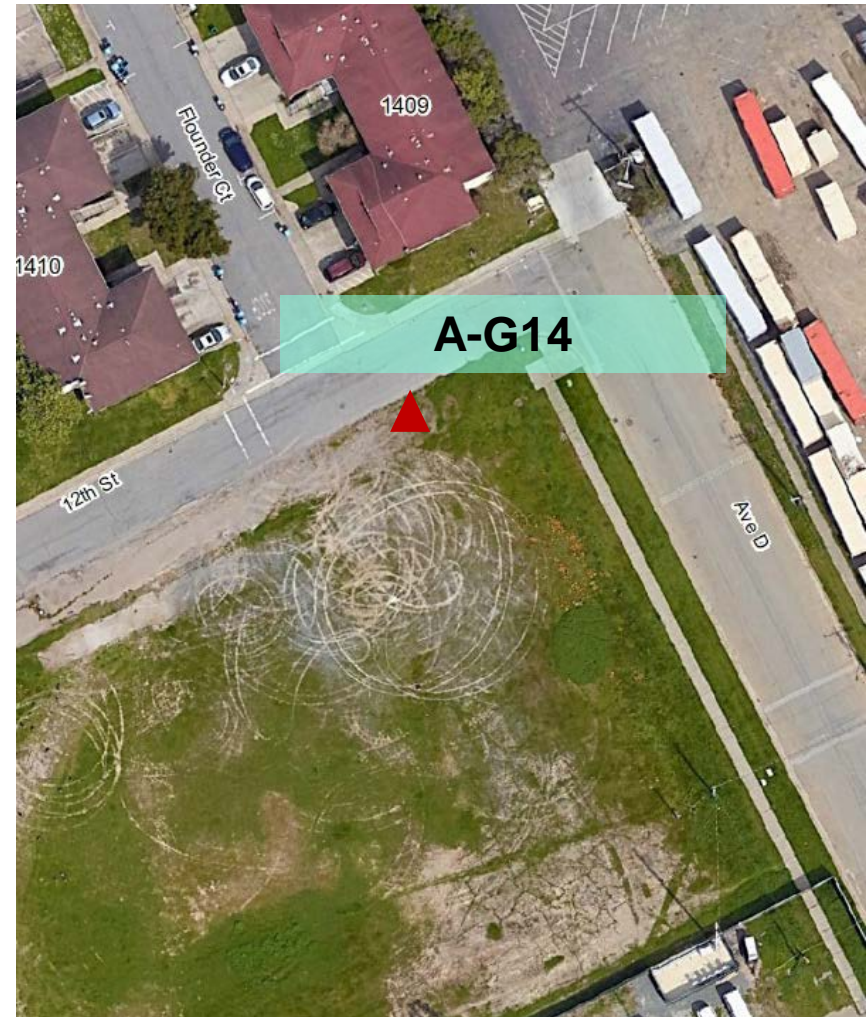
Anomaly A-G14

- Three radiological items were discovered during excavations in 2013



LLRO # 1284, 1285, 1286

- Sample collected at bottom of excavation (1.5 feet depth) had radium 226 concentration exceeding screening level

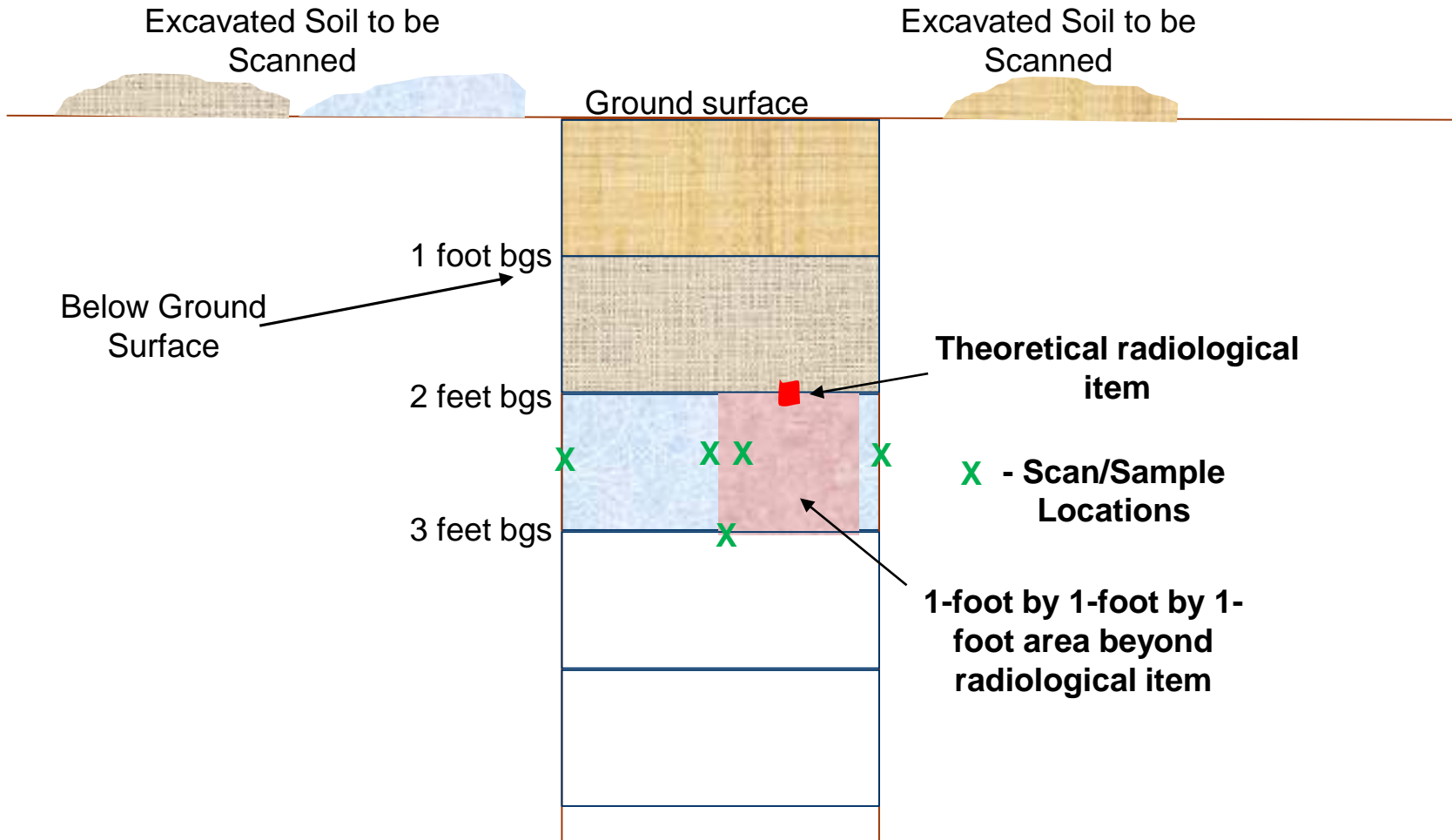


Areas of Interest - Investigation Approach



- Identify each anomaly location using GPS coordinates, field sketches, and/or pictures/figures included in historical documentation
- Establish a temporary radiologically controlled area (RCA) around each anomaly location
- Remove concrete or other hardscape, if present, at the anomaly location to allow for excavation
- Excavate 2 by 2-foot area in 1-foot increments

Areas of Interest - Investigation Approach



Areas of Interest - Investigation Approach



- If radiological item is detected remove the full extent of radiological material
- Remove a minimum of a 1-ft by 1-ft by 1-ft volume of soil around the around the radiological item
- Continue performing surveys within the excavation area to confirm all of radiological item has been removed
- Once confirmed excavation will be advanced at least 1 foot below the radiological item's location across the full 2-ft by 2-ft extent of the excavation
- If no radiological item is detected or found excavate to 1 foot beyond depth of previous exceedance

Areas of Interest - Schedule



- Fieldwork scheduled to begin in late March or early April 2021
- Duration of fieldwork is approximately 2 weeks
- Data from sampling available one month after fieldwork is completed
- Draft report scheduled to be issued in July 2021

Questions

