

**Zone 24-Parcel 215 Evaluation
Todd Shipyard Inc.
Alameda, California**

**Contract No. N62474-93-D-2151
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Department of the Navy
Engineering Field Activity, West
Naval Facilities Engineering Command
900 Commodore Drive, Building B-208
San Bruno, California 94066-5006

Submitted by:

IT Corporation
4585 Pacheco Boulevard
Martinez, California 94553

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Zone 24-Parcel 215 Evaluation Plan

This Zone and Parcel Evaluation Plan (PEP) describes the proposed Environmental Baseline Survey (EBS) evaluation strategy for Parcel 215 (Zone 24) at the former NAS Alameda (Figure 215-1). Zone 24, the Todd Shipyard Zone, contains only one Parcel which has been designated as EBS Parcel 215. The parcel, located at the northeastern edge of the base, was previously used by Todd Shipyard for ship repair support, although ownership of the property was retained by the Navy.

The property included in this parcel constitutes only a small portion of the Todd Shipyard operational area, with the majority of the shipyard operation located east of the parcel. The parcel was not included in the original 23 Zones designated by the Phase 1 EBS, but has subsequently been added as Zone 24 of Alameda Point (NAS Alameda). The parcel designation (Parcel 215) was assigned to the property as a continuation of the numbering sequence used in the Phase 1 EBS. This plan includes elements of both Zone and Parcel Evaluation Plans and is patterned after the plans generated by ERM-West as part of the original EBS Phase 1.

The parcel is 4.63 acres in size, 1.47 acres of which is dry land. The parcel has been classified as requiring a moderate level of effort to meet the objectives outline in Section 1 of the Draft Shell Work Plan (ERM-West, 1994). No RCRA sites are located on this parcel. One zone-wide and five parcel-specific investigation target areas have been identified on this parcel. Surface soil sampling, subsurface soil sampling, and groundwater sampling will be used to accomplish the investigation. Table 215-1 provides the complete list of samples and analyses prescribed by this plan. This parcel-specific evaluation plan has been developed in accordance with Preliminary Endangerment Assessment requirements. Historical activities, site related facilities and data gaps are discussed below to provide a basis for the proposed investigation of Parcel 215. The details of the proposed screening level investigation are outlined in this document. This approach is consistent with the Phase 2A and 2B sampling conducted for the majority of Alameda Point (NAS Alameda). The activity associated with the investigation of Parcel 215 is considered part of the Phase 2C EBS investigation.

Background and Historical Activities

This subsection summarizes the historical information available for Parcel 215, consistent with the objectives identified in Section 1.0 of the Draft Shell Work Plan (ERM-West, 1994). This subsection also identifies Installation Restoration Program (IR) sites and other areas of potential concern related to Parcel 215. Past and present use of this parcel was determined from site inspections and a review of permits, aerial photos, historical maps and historical records (county, state and Federal archives). This information was used to determine areas on the parcel where sampling is necessary to delineate potential impacts of chemicals of concern.

The parcel area was originally inundated by the San Francisco Bay, lying within the tidally influenced San Antonio Creek. The area was filled between 1900 and 1915 in conjunction with the general development of the Island of Alameda and the Oakland Estuary. The parcel was filled to its current configuration by 1915 and the ground level has not changed significantly since that time.

Property Ownership

The Todd Shipyard site is located at the north end Main Street in Alameda, California, and is adjacent to the Oakland Inner Harbor. This portion of the shipyard was owned by the United States Navy and leased to Todd Shipyard Inc. This lease area included the western segment of the shipyard, north of the previously established boundary of NAS Alameda. The Navy's leased shipyard property included three parcels: G, L, and N. These parcels were conveyed to the United States by the City of Alameda in 1931 as part of an 1,100-acre conveyance upon which NAS Alameda was constructed. The parcels included approximately 4.63 acres that are referred to in related documents as (Todd Shipyard) Parcel 2. These parcels were leased to Todd Shipyard Corporation until 1970, when under a Quit Claim Deed (recorded 2/18/70, Alameda County) issued by the United States of America ownership was transferred to the Todd Shipyard Corporation. The City of Alameda, in 1994, challenged the transfer of the property to Todd in an action filed with the U.S. District Court San Francisco. A compromise agreement, filed on September 21, 1994, was made between City, State and Federal representatives that reverted the ownership of the property back to the United States of America. The matter was closed in June of 1995 with the submittal of a Quit Claim Deed by the Todd Shipyard Corporation releasing parcels G, L, and N back to the possession of the United States of America. Parcels G, L, and N are collectively referred to in this document as (EBS) Parcel 215.

The routine operation of Todd Shipyard facility included activity on the Navy lease property, and industrial activities at the yard made no distinction with respect to the property boundary. Parcel 215 is the primary area of interest for the EBS investigation and, whenever possible, the information herein discusses operations specific to that parcel. Although records of operations conducted on the parcel do not document sources of hazardous substances, undocumented activities on the parcel and at the adjacent Todd Shipyard property potentially impacted Parcel 215. Investigations conducted on Parcel 215 during this EBS investigation will assume the potential for soil and groundwater impact does exist.

Historical Summary

Operations in the general area began on or about 1913, when Southern Pacific Railroad Company began construction of a railway maintenance yard. Numerous spur tracks extended across the parcel and operations such as rail car washing were conducted on the property. United Engineering Company, Ltd., leased the property from the City of Alameda in 1939 and, by early 1942, the company began construction on two shipbuilding ways that extended onto the Navy

lease property (Parcel 215). The shipbuilding ways were dismantled and a warehouse was constructed sometime prior to 1948.

Matson Navigation Company acquired United Engineering Company in 1945. The principal activity conducted by Matson at the site between 1945 and 1947 involved converting wartime troop transports to peacetime passenger ships. In 1947, Matson leased the Alameda facility to Todd Shipyard Corporation. By the early 1950s, the Todd site was the only active ship repairing yard in Alameda, and its operations included ship repair and conversion. Todd purchased the main shipyard property in 1959 and continued to operate there until November 1981.

Documentation pertaining to Todd Shipyard's waste discharge and dredging activities provides information relative to potential compounds of concern at the Parcel. Waste discharge requirements were issued by Water Pollution Control Board in the 1950s relative to sodium arsenite treatment of wooden dry docks at the shipyard. Specific notification and release criteria as well as sampling of discharge water and estuary sediment were stipulated in the requirements. Sampling for arsenic-associated constituents continued throughout the 1960s and into 1970s. Metal constituents represent potential compounds of concern and their presence is to be evaluated during the EBS investigation.

Documentation from the early 1970s indicates that the U.S. Army Corps of Engineers became involved in control of waste streams from the shipyard. A 1972 Army Corps of Engineers industrial waste discharge permit stipulated requirements relative to handling oily wastes from vessels or shipyard operations, boiler wash down, steam cleaning operations; as well as arsenic discharge associated with treating drydocks. The State of California became involved in regulating activity in the mid-seventies and the Todd Shipyard Corporation submitted a Water Pollution Control Plan to the State of California Regional Water Quality Control Board in 1975. The plan described the on-site storage of contaminated water or oily wastes, procedures for washing down the plant boiler, and on-site disposal of spent abrasive materials. The Control Plan noted that the abrasive waste could not be used as fill material in areas where it could be washed into the waters of the state. Oily wastes, PCBs and metals are potential compounds of concern related to these activities and are discussed in greater detail below under the discussion of the parcel "open space".

Permits submitted to Army Corps of Engineers, San Francisco Bay Conservation Development Commission, Regional Water Quality Control Board, and the City of Alameda indicate that Todd engaged in routine maintenance dredging from the 1960s through the 1970s. Compounds resulting from historical activities on and off site were of potential concern in dredged areas. Sampling conducted to support dredging activity, outside the Parcel 215 boundaries, in the Oakland Estuary and at main at the Todd shipyard, suggest chemicals which may be important to this investigation. Dredging operations are discussed in below under the "Pier 5" discussion.

Open Space

The parcel is currently devoid of improvements except for the peripheral structures of the Marginal Wharf (Pier 5). Previously existing structures have been demolished and the parcel surface consists of a roughly graded open space. The parcel is currently used for Alameda Ferry Terminal overflow parking. The ferry terminal is located immediately east of Parcel 215. Seventy percent of the parcel is a subaqueous (below water) part of the Oakland Estuary. The remainder of the parcel (30%) is undeveloped open ground which is used for parking. The open space currently is 100 percent unpaved and is covered with non-vegetated sandy soil. The open space once contained a warehouse structure which has since been demolished (Figure 215-1). Based on historical aerial photographs the area west of the warehouse was once used for equipment storage. Two access ramps were constructed to access Pier 5 (Figure 215-1). Portions of these access ramps are within the parcel boundaries. Equipment staging areas were located adjacent to the west access ramp. No documents were found that recorded storage of chemicals, chemical spills or incidents in the open space, although investigations conducted adjacent to Parcel 215 suggest chemicals were potentially present at the site.

A former surface impoundment containing an unknown quantity of fluid was identified from aerial photographs near the southwest boundary of the parcel. The impoundment is present in photographs from 1973 through 1989. The impoundment was located south of the parcel (outside the boundary) but sampling is being conducted during this investigation due to the potential impacts from activities conducted on the parcel. The impoundment was not identified as a storage area or receptor of oil, waste or hazardous substances. The most probable use of the impoundment was for retention of surface runoff water.

The Water Pollution Control Plan, submitted in 1975, indicated that spent abrasives were to be dumped in the southeastern section of the main Todd Shipyard at a location distant from Parcel 215. The plan indicated that spent abrasives were not to be used for fill material in areas where materials could be washed into the waters by storm water runoff, or by tidal or wave action. No mention was made in the plan of where the dumping of spent material had occurred previously. No spent abrasives disposal was documented within the Parcel 215, although air photos indicate that fill material was deposited within the parcel. Spent abrasive materials may have been used for fill prior to the development of the Pollution Control Plan, although no direct evidence is available to indicate this.

Alameda Gateway Inc. conducted an investigation at the Todd Shipyard in 1984 to evaluate PCB (Arochlor) in soils. This investigation included limited sampling on Parcel 215 for both PCBs and asbestos with one sample collected and analyzed for each constituent.

One sample was collected for PCB analysis from a location near the western access ramp to Pier 5. The sample, identified as Sample No.1, was collected from what was referred to as the North Sump located approximately 100 feet east of the Pier 5 western access ramp. This area was suggested to be the location of equipment stripping and cleaning activity. Soil samples were taken from between ground surface and 1 meter depth and were analyzed for PCB constituents

only. Arochlor 1254/1260 was detected at 2.8 ppm. This concentration exceeds the 1.4 ppm PRG for Arochlor 1254 and was considerably above the non-specific Arochlor PRG of 0.05 ppm. The report did not recommend cleanup or further investigative activity the sample location. Additional action (removal) was recommended and conducted at another location on the Todd Shipyard main property. This data suggests that PCBs are potentially present on the parcel and that samples should be collected during the EBS to further evaluate the presence of PCBs.

In June 1985, oil and water was found to be accumulating in a fence post hole on the main Todd Shipyard property. The fence post hole had been opened when the fence was removed during the excavation of surface soils containing PCBs. The back hoe which was on site for the excavation work was used to excavate seven trenches near the fence post hole. A thin layer of oil was observed at a depth of approximately three feet in all of the trenches. Water was encountered at a depth of approximately four feet. The oil in the fence post was tested for PCBs. The result showed 1.6 mg/kg PCBs. Oil was also observed in the ditch that parallels the railroad tracks near the area. Although this investigation did not directly address Parcel 215 the result further support the testing of EBS samples for PCBs.

Former Warehouse 3 (Building 63)

A building, identified from historical aerial photographs as Warehouse 3 and identified as Building 63 in later documentation, was formerly located at the eastern boundary of the parcel. Approximately half of the building was located on Parcel 215 with the remainder of the structure on the adjacent Todd Shipyard property. The building was constructed in the early 1950s and appears to have remained active until approximately 1981. The building was removed from the parcel prior to 1989. The structure was a steel frame building with a concrete floor and was designated as a warehouse on site maps. No additional information was found regarding the building construction or use and, for the purpose of this investigation, it is assumed that uses were associated with storage related to ship building and maintenance.

Asbestos was once used extensively aboard ships for fireproofing and heat containment. The potential for the structures of the shipyard to contain asbestos was recognized and steps were taken to evaluate the asbestos content of the shipyard buildings. Asbestos sampling was conducted in conjunction with PCB investigations at the Todd Shipyard by the Alameda Gateways Inc. in 1984. One sample was taken from the east end of the then standing Building 63. Material was removed from a wall section the standing warehouse structure. No asbestos was found in the sample.

Marginal Pier (Pier 5)

The Marginal Pier (Pier 5) is a work structure that supported repair and refit activities for deep draft ocean going vessels. Pier 5 is largely outside of the Parcel 215 boundary, although 200 feet at the pier's western end (the central access ramp and part of the eastern access ramp) are within the parcel. A floating dry dock was placed in operation at the east end of Pier 5, adjacent to

Parcel 215, in 1968. This dry dock operation continues to the present day at this location. The central section of Pier 5 is currently the location of the Alameda Passenger Ferry terminal.

Floating dry dock facilities were located Pier 5 east and north of Parcel 215 and in wet basins further east on the Todd Shipyard Property. Marine wood borers were periodically controlled in the floating dry docks by mixing sodium arsenate (Penite 8) in water held within the dry docks. This activity was conducted during the 1960s on an annual basis with permission of the California Regional Water Quality Control Board. Activities conducted at these locations may have impacted the subaqueous sections of the parcel and areas within IR Site 20 out board of the Pier. Surface water and subaqueous sediment sampling were conducted at locations adjacent to the parcel to evaluate dredging disposal requirements and to determine the impacts of dry dock chemical treatments.

Impacts to surface water quality and sediment metal concentrations were evaluated by the British Columbia Research Council (BCRC 1963). Surface water and subaqueous sediment samples were obtained to evaluate compliance with discharge requirements and examine arsenic concentrations in sediments below the dry dock YFD-18 at Todd. The report documents compliance with the discharge permit and reports the results of sediment sampling for arsenic from below the dry dock. The discharge permit limit of 19 ppm arsenic for discharge water was not exceeded during the period discussed in the report. Total arsenic concentrations within the soil ranged from 13.4 to 42.2 ppm although soluble arsenic concentrations did not exceed 1 ppm. Later dredging operations at Pier 5 in 1968 and 1977 may have removed the arsenic laden sediment from the channel.

Dredging operations conducted at other locations on the main Todd Shipyard provide insight into additional compounds that are potentially present on Parcel 215. Sampling conducted in 1971, prior to dredging at Pier 3 on the main Todd Shipyard Property, detected levels of mercury, oil and grease and chemical oxygen demand (COD) that were of concern to the U.S. Fish and Wildlife Service. The State Water Resources Control Board noted the presence of mercury, copper and zinc in concentrations sufficient to have adverse effects on the marine environment if dredge materials were disposed of at the normal bay dumping areas. The Board issued a letter dated July 1971 granting permission for additional dredging operations on the condition that the spoils be disposed of on land rather than through dumping at the normal spoils dumping area off Yerba Buena Island in the San Francisco Bay. Todd Shipyard representatives responded that the initial sampling methods did not provide an accurate picture of the average sediment. The sediments were re-sampled resulting in the approval for Todd to dredge and dispose of the material at the disposal site near Alcatraz Island. The net effect of the dredging operations was to reduce the levels of organic and inorganic constituents in the immediate vicinity at Pier 5 and in the adjacent water covered sections of Parcel 215.

Based on the relative location of the parcel to the existing IR Site 20 (the Oakland Inner Harbor) no parcel specific sampling is to be conducted in the subaqueous portions of Parcel 215. Sampling of sediments by Todd in the estuary in association with dredging and waste discharge

permits indicates that arsenic and mercury as well as oil and grease were present in the subaqueous sediment north of the Parcel 215 boundary. It is reasonable to expect that similar conditions exist on the portions of Parcel 215 which are within the Oakland estuary. Potential remedial actions associated with Alameda IR Site 20 should be similar to those required for Parcel 215. Based on the physical juxtaposition and similar history, no additional sampling will be conducted in the submerged portion of Parcel 215.

Underground Storage Tanks

No evidence of underground storage tanks has been identified at this parcel. Neither the document review nor the site inspection identified any information indicating that underground tanks are, or were present at this parcel.

Parcel Boundary Conditions

Parcel 215 is bounded to the south by Parcel 62 (Zone 8) Alameda Point. The main Todd Shipyard area, east and north of Parcel 215, is not under Navy ownership and is held by various public and private entities. A passenger ferry terminal is operated by the City of Alameda immediately east of Parcel 215. The Alameda Ferry passenger terminal is located on the segment of Pier 5 immediately northeast of Parcel 215.

Pier 5 was part on the original Todd Shipyard facility. The southwestern extension of the Pier 5 and the access ramps to the pier are located within the Parcel 215 boundary. The majority of the Pier is outside the Navy owned property. Parcel 215 is bounded to the north by Pier 5 and the Alameda Ship Channel of the Oakland Inner Harbor (Estuary). Installation Restoration (IR) Program Site 20 includes much of the Oakland Estuary adjacent to Parcel 215. The boundary of IR Site 20, which includes subaqueous areas of the Oakland Estuary, currently excludes the submerged areas of Parcel 215.

RCRA Sites

This subsection identifies RCRA sites and requirements associated with such sites (on the parcel) consistent with the objectives stated in Section 1 of the Draft Shell Work Plan (ERM-West 1994). No RCRA sites were identified on Parcel 215.

Parcel Reclassification and Data Gaps Summary

This subsection discusses data gaps and BRAC reclassification issues for Parcel 215, consistent with the objective described in Section 1 of the Draft Shell Work Plan (ERM-West, 1994). Parcel 215 was not included in the original Phase 1 activity and was not given an initial BRAC classification. The current status of the parcel would reflect a Category 7 which requires reclassification. This PEP provides a means to accomplish that reclassification. A data gap, as

defined here, is a parcel-specific issue for which there is a separate ongoing investigation, insufficient information, or no information, that prevents a parcel from being reclassified from BRAC Category 7 to another BRAC category. Separate programs are in place to address the following data gaps at this parcel: transformers, lead based paint, asbestos, radiological concerns, and Installation Restoration Sites. No sewer lines are present on the parcel and as a result no separate sewer line investigation was conducted. No Industrial Hygiene (IH) sampling is required for Parcel 215 because no industrial buildings are currently present.

Parcel 215 does not have any open space that is or was landscaped. Based on current EPA/Cal-EPA policy, only landscaped areas that likely received more than normal pesticide applications require sampling for pesticides prior to lease or transfer. Only moderate-use areas (i.e., unpaved areas where vegetation was actively suppressed) and intensive-use areas (i.e., unpaved agricultural areas, blending, storage, or distribution areas, etc.) require sampling for pesticides.

Once the data gaps in Table 215-2 are addressed and screening-level sampling results from the target areas described below are compared to the appropriate screening levels, Parcel 215 may be reclassified from BRAC Category 7 to another BRAC category.

Target Areas and Compounds of Concern

This subsection of the PEP discusses the specific parcel target areas. The nature and location of the parcel-specific target areas were evaluated to determine field investigation and sampling strategies. Final sample locations will be determined in the field based on historical information, visual observation and accessibility constraints. This parcel contains one zone-wide and five parcel specific target areas.

- Zone 24 Target Area Z1 (Railroad Tracks): This parcel was once part the Southern Pacific rail yard and the entire parcel was in one respect or another part of the rail line operation. The Z1 Target area includes the entire area of Parcel 215 and the target area is not specifically indicated on Figure 215-2. These areas potentially have been impacted by historical releases of TPH, PCBs, SVOCs, and lead from railroad cars and engines. No zone-wide samples were specified for this parcel, although the target analytes from the parcel specific target areas include constituents normally associated with rail line operation. Information gathered from the Parcel 215 target areas during this investigation will be utilized to evaluate the zone-wide target area.
- Target Area 1 (Dock): The segment of the parcel designated as Target Area 1 is within the physical extent of the Oakland estuary. The character of sediments found within the estuary is expected to be similar to peripheral areas sampled by the IR Program during the IR Site 20 investigation. A review of data available from the IR Program indicates that the sediments within the estuary have been sufficiently sampled and no additional sampling is planned for this investigation.

- Target Area 2 (Dock Staging Area): The dock staging area encompasses approximately 50,000 square feet. The soils in this area may have been impacted by materials staged in this area. Equipment preparation and wash down were conducted in this area. A sump that was once located within the target area was sampled for PCBs in 1985 with a resulting detection of 2.8 ppm. The sump is no longer present at the site but samples will be collected from the general area to evaluate potential impacts.
- Target Area 3 (former Warehouse No. 3-Building 63): The building which was constructed across the boundary line of the property was approximately 40,000 square feet in size. The portion of the building which included on Parcel 215 is approximately 12,000 square feet. Soils and groundwater have potentially been impacted by the handling of equipment and storage of materials related to warehouse operations.
- Target Area 4 (Equipment Storage Area): The equipment storage area is approximately 29,000 square feet and is located to the west of Building 63. The soils in this area may have been impacted by materials staged in this area.
- Target Area 5 (Impoundment): This target area was identified from historical air photos which show an impoundment area with an unknown liquid existing for several year at the southern margin of the parcel. The size of the impoundment varies in size over the years when it is visible on the photographs but is approximately 21,000 square feet at its maximum. The fluids may have been bilge water or other fluids discharged from the ships docked at Todd Shipyard.

Screening-Level Investigation

Screening-level investigation sampling will be employed to assess conditions in the designated target areas and to identify areas that may require further sampling if the follow-up detailed evaluation phase is necessary. This sampling will include surface soil sampling, subsurface Geoprobe soil sampling, and Hydropunch groundwater sampling. Table 215-1 summarizes screening-level sampling and analysis. One surface soil sample, one subsurface soil sample, and one groundwater sample will be collected from each of the locations show on Figure 215-2.

- Zone 24 Target Area Z (Railroad Tracks): No zone-wide samples were specified for this parcel, although the target analyses from the parcel specific target areas include constituents normally associated with rail line operation. Information gathered from the Parcel 215 target areas during this investigation will be utilized to evaluate the zone-wide target area.
- Target Area 1 (Dock): A review of IR Program and historical data indicates that sediments within the estuary have been sampled at a sufficient density to provide a reasonable

evaluation of subaqueous areas of the parcel. No additional sampling is planned for this target area.

- Target Area 2 (Dock Staging Area): Surface and subsurface soil samples will be collected at three locations (Figure 215-2) and will be analyzed using methods identified on Table 215-2. Groundwater samples will be collected at two locations within the Target Area. Surface samples will be analyzed for metals, SVOCs, Pesticide/PCBs, and TPH (purgeable and extractable). Subsurface soil and water samples will also be analyzed for VOCs.
- Target Area 3 (former Warehouse No. 3-Building 63): Surface soil and subsurface soil samples will be collected at one location (Figure 215-2). Surface samples will be analyzed for metals, SVOCs, Pesticide/PCBs, and TPH (purgeable and extractable). Subsurface soil sand water samples will also be analyzed for VOCs.
- Target Area 4 (Equipment Storage Area): Surface soil and subsurface soil samples will be collected at two locations (Figure 215-2). Surface samples will be analyzed for metals, SVOCs, Pesticide/PCBs, and TPH (purgeable and extractable). Subsurface soil samples will also be analyzed for VOCs.
- Target Area 5 (Impoundment): Surface soil, subsurface soil, and water samples will be collected at one location (Figure 215-2). Surface samples will be analyzed for metals, SVOCs, Pesticide/PCBs, and TPH (purgeable and extractable). Subsurface soil and water samples will also be analyzed for VOCs.

Detailed Evaluation Phase

The detailed evaluation phase of sampling, if required, will more fully characterize target areas that exhibit elevated levels of compounds detected during the screening-level investigation. Additional characterization will utilize screening technologies similar to those discussed above. Detailed evaluation, if necessary, would focus additional sampling on locations of potential concern and provide a higher sampling density to refine the distribution of constituents detected in the first phase of sampling.

**Table 24-215-1
Summary of Recommended Samples
NAS Alameda Parcel 215**

Sample Number	Sample Location	Sample Depth	Sample Type	Sample Media	Purpose	Target Analytes	Analytical Method
215-001	215-002-001	0.0-0.5'	Surface Soil	Soil	TA-2	TPH, metals, Pesticide/PCBs, SVOCs	Modified EPA 8015, CLP
215-002	215-002-001	3.0-3.5'	Subsurface Soil	Soil	TA-2	TPH, metals, Pesticide/PCBs, SVOCs, VOCs	Modified EPA 8015, CLP
215-003	215-002-002	0.0-0.5'	Surface Soil	Soil	TA-2	TPH, metals, Pesticide/PCBs, SVOCs	Modified EPA 8015, CLP
215-004	215-002-002	3.0-3.5'	Subsurface Soil	Soil	TA-2	TPH, metals, Pesticide/PCBs, SVOCs, VOCs	Modified EPA 8015, CLP
215-005	215-002-002	8.0-8.5'	Hydropunch	Water	TA-2	TPH, metals, Pesticide/PCBs, SVOCs, VOCs	Modified EPA 8015, CLP
215-006	215-002-003	0.0-0.5'	Surface Soil	Soil	TA-2	TPH, metals, Pesticide/PCBs, SVOCs	Modified EPA 8015, CLP
215-007	215-002-003	3.0-3.5'	Subsurface Soil	Soil	TA-2	TPH, metals, Pesticide/PCBs, SVOCs, VOCs	Modified EPA 8015, CLP
215-008	215-002-003	8.0-8.5'	Hydropunch	Water	TA-2	TPH, metals, Pesticide/PCBs, SVOCs, VOCs	Modified EPA 8015, CLP
215-009	215-003-004	0.0-0.5"	Surface Soil	Soil	TA-3	TPH, metals, Pesticide/PCBs, SVOCs	Modified EPA 8015, CLP
215-010	215-003-004	3.0-3.5'	Subsurface Soil	Soil	TA-3	TPH, metals, Pesticide/PCBs, SVOCs, VOCs	Modified EPA 8015, CLP
215-011	215-003-004	8.0-8.5'	Hydropunch	Water	TA-3	TPH, metals, Pesticide/PCBs, SVOCs, VOCs	Modified EPA 8015, CLP
215-012	215-004-005	0.0-0.5'	Surface Soil	Soil	TA-4	TPH, metals, Pesticide/PCBs, SVOCs	Modified EPA 8015, CLP
215-013	215-004-005	3.0-3.5'	Subsurface Soil	Soil	TA-4	TPH, metals, Pesticide/PCBs, SVOCs, VOCs	Modified EPA 8015, CLP
215-014	215-004-006	0.0-0.5'	Surface Soil	Soil	TA-4	TPH, metals, Pesticide/PCBs, SVOCs	Modified EPA 8015, CLP
215-015	215-004-006	3.0-3.5'	Subsurface Soil	Soil	TA-4	TPH, metals, Pesticide/PCBs, SVOCs, VOCs	Modified EPA 8015, CLP
215-016	215-005-007	0.0-0.5'	Surface Soil	Soil	TA-5	TPH, metals, Pesticide/PCBs, SVOCs	Modified EPA 8015, CLP
215-017	215-005-007	3.0-3.5'	Subsurface Soil	Soil	TA-5	TPH, metals, Pesticide/PCBs, SVOCs, VOCs	Modified EPA 8015, CLP

**Table 24-215-1
Summary of Recommended Samples
NAS Alameda Parcel 215**

Sample Number	Sample Location	Sample Depth	Sample Type	Sample Media	Purpose	Target Analytes	Analytical Method
215-018	215-005-007	8.0-8.5'	Hydropunch	Water	TA-5	TPH, metals, Pesticide/PCBs, SVOCs, VOCs	Modified EPA 8015, CLP
215-019	215-004-005	3.0-3.5'	Subsurface Soil	Soil	Duplicate, Field (1)	TPH, metals, Pesticide/PCBs, SVOCs, VOCs	Modified EPA 8015, CLP
215-020	215-005-005	8.0-8.5'	Hydropunch	Water	Duplicate, Field (2)	TPH, metals, Pesticide/PCBs, SVOCs, VOCs	Modified EPA 8015, CLP

TA: Target Area

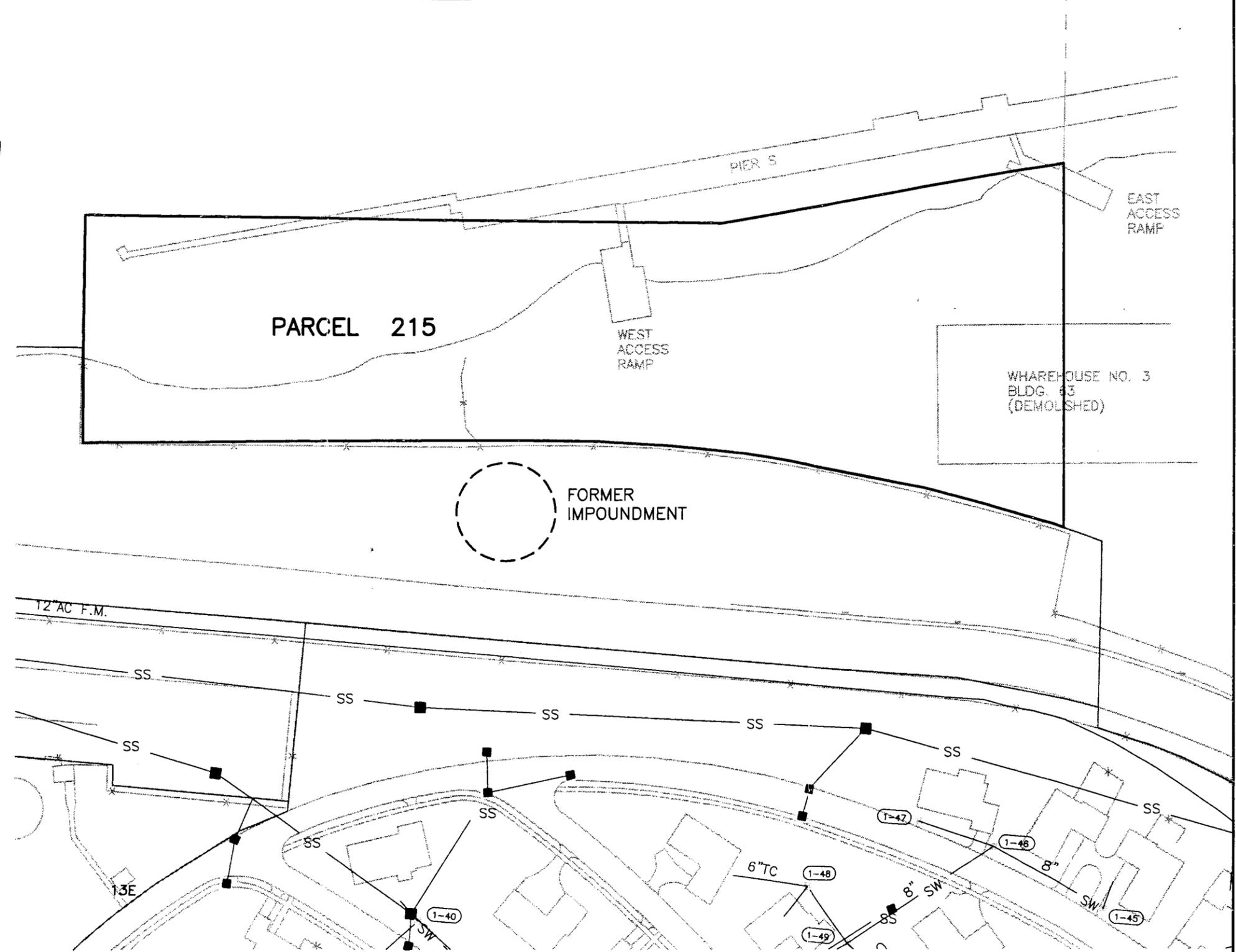
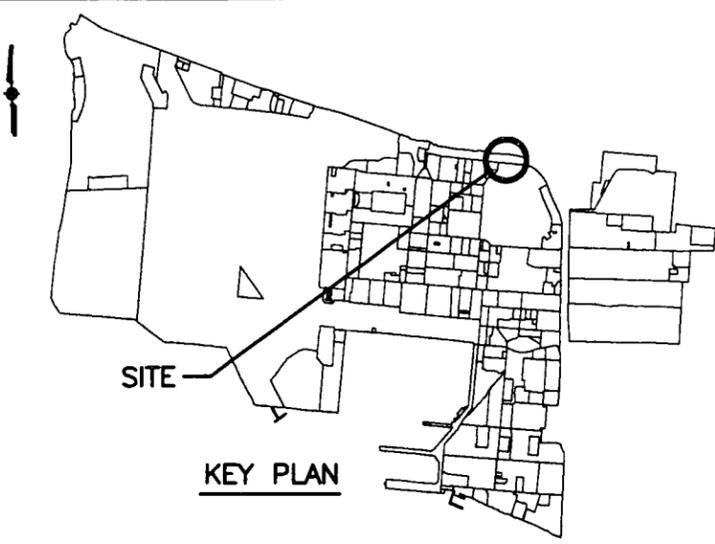
(1) Field Duplicate of Sample 215-013

(2) Field Duplicate of Sample 215-018

**Table 24-215-2
Summary of Data Gaps
NAS Alameda Parcel 215**

<u>Data Gap</u>	<u>Status/Description</u>
Asbestos-Containing Material (ACM)	<ul style="list-style-type: none"> • ACM issues are addressed under a separate program.
Endangered Species	<ul style="list-style-type: none"> • No nesting or mating grounds or migratory routes for endangered species identified
Industrial Hygiene Issues	<ul style="list-style-type: none"> • No industrial buildings area currently present at Parcel 215.
Installation Restoration (IR) Sites	<ul style="list-style-type: none"> • IR Site 20 is located adjacent to Parcel 215.
Lead-Based Paint (LBP)	<ul style="list-style-type: none"> • No structures have been identified as having lead-based paint.
PCB-Containing Equipment	<ul style="list-style-type: none"> • PCB-containing electrical equipment has not been identified at Parcel 215.
Potential Groundwater Contamination Migration from Neighboring Parcels	<ul style="list-style-type: none"> • Potential groundwater migration from the main Todd shipyard has been identified.
Potential Zone-Wide Release Areas	<ul style="list-style-type: none"> • Rail line
Potential Parcel-Specific Release Areas	<ul style="list-style-type: none"> • Dock • Dock Staging Area • Building 63 (Warehouse 3) • Equipment Storage Area • Impoundment Area
Radiological Compounds	<ul style="list-style-type: none"> • Radiological compounds are addressed under a separate program.
Underground Storage Tanks (USTs)	<ul style="list-style-type: none"> • No evidence of USTs identified.
Underground Utilities	<ul style="list-style-type: none"> • No storm sewer, sanitary sewer, electrical, natural gas, or water lines identified.
- Fuel Lines	<ul style="list-style-type: none"> • No fuel lines identified.
- Steam Lines	<ul style="list-style-type: none"> • No steam lines identified.
Wetlands	<ul style="list-style-type: none"> • No wetlands identified.
Other	<ul style="list-style-type: none"> • No evidence of other data gaps identified.

DRAWING NUMBER 773526-B1
 CHECKED BY DUB
 APPROVED BY TDA
 DATE 3/12/98
 DRAWN BY BJ



GENERAL LEGEND

— PARCEL OUTLINE

FUEL LINE LEGEND

--- FUEL LINES ABANDONED
 - - - FUEL LINES IN USE

SANITARY SEWER LINE LEGEND

(10) ■ SANITARY SEWER MANHOLE NO.
 ■ GREASE TRAP
 — SW — SANITARY SEWER LINE

MATERIALS:

C.I. — CAST IRON

NOTES:

1. ALL SANITARY SEWERS ARE VITRIFIED CLAY PIPE UNLESS NOTED OTHERWISE.

INDUSTRIAL WASTE LINE LEGEND

● INDUSTRIAL WASTE MANHOLE & NO.
 — IW — INDUSTRIAL WASTE LINE

STORM DRAIN LEGEND

■ 12A-1 STORM DRAIN MANHOLE & NO.
 ■ CATCH BASIN
 — SS — STORM SEWER LINE

MATERIALS:

RC REINFORCED CONCRETE

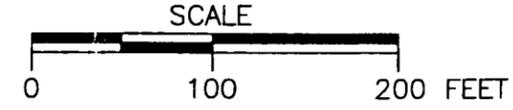
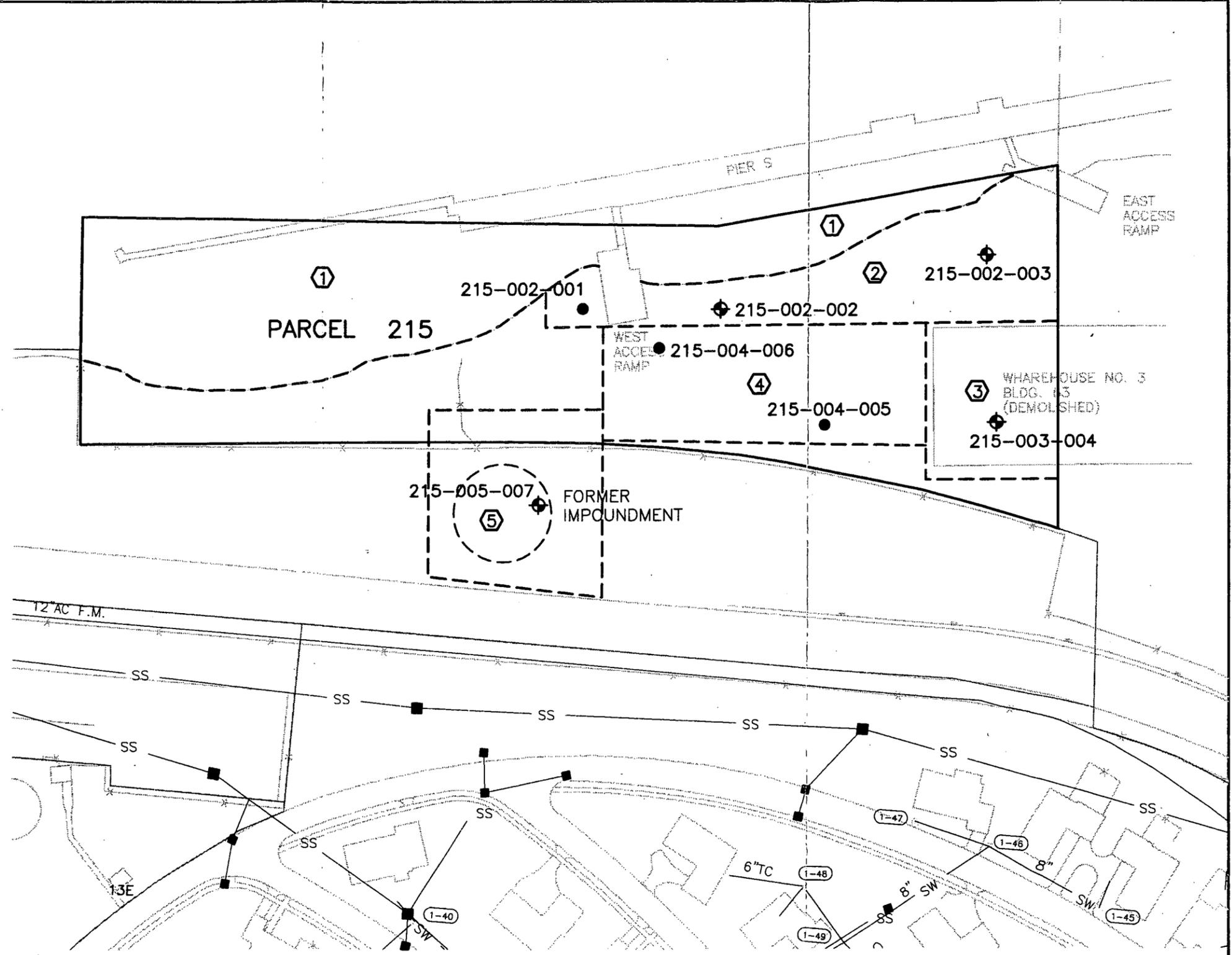
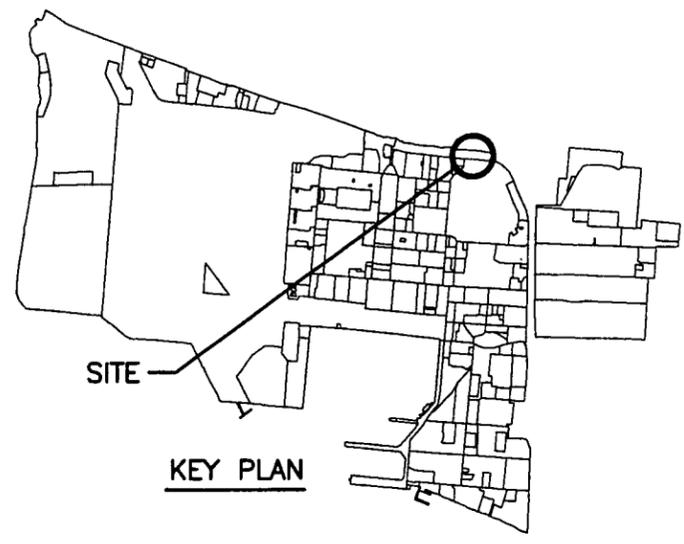


FIGURE 215-1
 EBS PHASE 2C, PARCEL 215
 TODD SHIPYARD

PREPARED FOR
 ALAMEDA NAVAL AIR STATION
 ALAMEDA, CALIFORNIA



DRAWING NUMBER 773526-B2
 CHECKED BY [Signature] 3/12/98
 APPROVED BY [Signature] 3/12/98
 DRAWN BY [Signature] 3/12/98



GENERAL LEGEND

- PARCEL OUTLINE
- ② PHASE 2C TARGET AREA
- ⊕ SURFACE AND SUBSURFACE SOIL AND HYDROPUNCH SAMPLING LOCATIONS
- ⊙ SURFACE SOIL SAMPLING LOCATION
- SURFACE AND SUBSURFACE SOIL SAMPLING LOCATIONS

215-005-001 SAMPLE LOCATION CODE

SANITARY SEWER LINE LEGEND

- ⑩ ■ SANITARY SEWER MANHOLE NO.
- GREASE TRAP
- SW — SANITARY SEWER LINE

MATERIALS:

C.I. — CAST IRON

NOTES:

1. ALL SANITARY SEWERS ARE VITRIFIED CLAY PIPE UNLESS NOTED OTHERWISE.

STORM DRAIN LEGEND

- 12A-1 STORM DRAIN MANHOLE & NO.
- CATCH BASIN
- SS — STORM SEWER LINE

MATERIALS:

RC REINFORCED CONCRETE

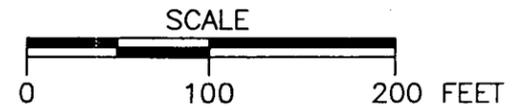


FIGURE 215-2
 PROPOSED SAMPLING
 EBS PHASE 2C, PARCEL 215
 TODD SHIPYARD

PREPARED FOR
 ALAMEDA NAVAL AIR STATION
 ALAMEDA, CALIFORNIA

