Environmental Documents

Request 13: Documents given to contractors regarding environmental issues at West Los Angeles

80. Environmental Assessment Report by Locus (Oct 23, 2000)

Report

Environmental Assessment

Brentwood School Athletic Fields Grading Project and Recreation Facility Development Los Angeles, California

Prepared for:

Veterans Administration Greater Los Angeles Healthcare System

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Project No. 20-013

Locus

Report

Environmental Assessment

Brentwood School Athletic Fields
Grading Project and Recreation
Facility Development
Los Angeles, California

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ENVIRONMENTAL ASSESSMENT BRENTWOOD SCHOOL ATHLETIC FIELDS GRADING PROJECT AND RECREATION FACILITY DEVELOPMENT

EXECUTIVE SUMMARY

The project being assessed by this report consists of grading, development, and construction of athletic facilities (Project) on a portion of the Veterans Administration Greater Los Angeles Healthcare System (GLAHS). The Project area is to be leased to the Brentwood School. The construction of athletic facilities at the Project area is the culmination of a series of projects that began with the extension of the City of Los Angeles Storm Drain (Phase I). The new storm drain extension was installed at the bottom of the former arroyo (Figure 3). Approximately 100,000 cubic yards of soil was placed in the arroyo as cover material for the new storm drain extension (Phase II). Construction of the athletic facilities constitutes Phase III.

The Project area is divided into two parts: an upper bench and a lower bench. The upper bench is located east of the former arroyo and will contain the planned baseball, softball and soccer fields. The lower bench was formed by the placement of fill in the former arroyo, which was filled to cover the City of Los Angeles storm drain extension. The lower bench will be the site of a planned football field, basketball courts and tennis courts.

This assessment identified potential impacts to the human environment from several sources. These include:

- Solid wastes including household debris and medical debris
- Medical waste including low-level radioactive materials
- Physical hazards

- Apparent medical incinerator ash
- Reported diesel fuel in soil
- Construction debris

No obvious impacts to the human environment that have not been mitigated by previous or current measures were identified by this assessment. Solid wastes and medical wastes have been covered by fill material to depths of twenty to thirty feet or more. Physical hazards and apparent medical incinerator ash were isolated in a contaminated soil stockpile, and are being disposed at permitted off-site facilities. Reported diesel fuel in soil used for backfill in the arroyo appears not to be an actual impact because observations made during prior backfill activities indicate that only clean soil was used for fill. Construction debris, although located south of the project area and not known to contain asbestos, may have an impact because of potential increased human presence after the project is completed, if it contains asbestos. Mitigation measures include documentation of the past and current activities that have mitigated these potential hazards, and sampling to confirm that no significant impacts are present.

ENVIRONMENTAL ASSESSMENT BRENTWOOD SCHOOL ATHLETIC FIELDS GRADING PROJECT AND RECREATION FACILITY DEVELOPMENT

1. INTRODUCTION

This Environmental Assessment (EA) report has been prepared by Locus Technologies (Locus) under contract to Coastal Safety and Health Services, Inc. of Hermosa Beach, California, (Coastal) on behalf of the Veterans Administration Greater Los Angeles Healthcare System (GLAHS) in Los Angeles, California. This EA assesses a project consisting of grading, development, and construction of athletic facilities (Project) on a portion of the GLAHS and develop it as additional recreational facilities for the Brentwood School.

The primary purpose of an EA is to determine whether a project is likely to have a significant effect on the quality of the human environment. To achieve this purpose effectively and efficiently, this EA examines information developed during a recent project to extend a storm drain from its previous outlet structure in the northern portion of the GLAHS property approximately 2,500 lineal feet to the south through an arroyo, including associated cut and fill activities accomplished to cover the storm drain pipe and reduce the slope of the arroyo sides. The available information for the storm drain extension project includes an EA prepared by Jack K. Bryant Engineers (JKB) on behalf of the GLAHS (JKB, 1995).

In addition, this EA also incorporates information presented in the URS Greiner Woodward-Clyde Phase I Environmental Site Assessment (ESA) prepared for the Brentwood School Lease Area (URS, 1999). The Phase I ESA identified low-level radiological waste, solvents, asbestos-containing material and medical debris as potential areas of concern. With the exception of medical debris, all of these potential hazards described in the Phase I ESA were reported to be buried outside the Project area in adjacent GLAHS property.

Thus, due to the close proximity of these buried potential hazards to the Project area, grading activities were to be performed with caution. Contractors performing grading work were informed about the presence of buried potential hazards and contingency plans were prepared, in case these hazards were encountered during grading operations.

The URS Greiner Woodward-Clyde Phase I ESA also recommended an intrusive investigation of all historically disturbed areas. This was found to be impractical by the GLAHS, since the entire area appeared to have been disturbed from the early 1940s to the present. The GLAHS decided that the entire Project area should be over-excavated at least to a depth of 5 feet below ground surface in order to provide a buffer of at least 5 feet between the public and any buried potential hazards. In fact, portions of the Project area were over-excavated to a depth of approximately 20 feet.

In addition to over-excavation during grading operations, the GLAHS required the grading contractor to operate under the following safety, health and environmental guidelines.

A GLAHS site superintendent was present during all excavation activities in order to inspect each cut for debris. The debris would be identified as either medical debris or non-medical debris. The GLAHS site superintendent had the authority to halt all activities if suspicious material was uncovered during grading operations. The GLAHS site superintendent would also record all activities with photographs. The site superintendent would also use a photo ionization detector and a radiation monitor to sample any suspicious areas of soil uncovered during grading operations. These instruments were available at the Project area throughout the duration of grading operations (Shirtz, 2000).

If significant amounts of medical debris were encountered, all activity in that area would be suspended and a Health and Safety Plan (HSP) would be prepared. The HSP would delineate waste handling procedures, disposition and personnel protection. Because medical debris was encountered during grading operations, a HSP was prepared (Shirtz, 2000).

If chemical wastes, as defined under the Resource Conservation and Recovery Act (RCRA) were encountered, then all Project area activities would be suspended. A site-specific HSP would be prepared in accordance with the Code of Federal Regulations, Part 29, Section 1910.120. All provisions with this

federal regulation would be followed to the letter, if RCRA wastes were encountered. RCRA wastes were not uncovered during grading operations at the Project area (Shirtz, 2000).

Locus has prepared this EA in conformance with our proposal to Coastal, in accordance with GLAHS policies implementing the National Environmental Policy Act (NEPA), and in accord with California Environmental Quality Act (CEQA) guidelines. Where achieving our goal of effectiveness and efficiency has been enhanced by summarizing and referencing the EA prepared by JKB, we have done so.

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EA-11

2. PROJECT DESCRIPTION

The Project is situated in the northwest area of Los Angeles (Figure 1). When developed, the site will be leased by the GLAHS to the Brentwood School. Portions of the Project are located within areas that have been partially developed for a storm drain extension project. Project location, Project background, Project objectives, analysis of the alternatives to the Project, Project implementation and the completed Project characteristics for the Brentwood School lease area are described in the sections that follow.

2.1. Project Location

The Project occupies 20 acres of the northwest corner of the 450-acre GLAHS property. The GLAHS is located at 11301 Wilshire Boulevard in the City of Los Angeles, California, on the west side of the 405 Freeway. The Project area is bordered by the Brentwood School to the north, the remainder of the GLAHS facilities to the east and south, and the Barrington Recreational Center to the west (Figure 2).

2.2. Project Background

A recently completed project to extend a storm sewer through an arroyo in the northern area of the GLAHS forms the background in which the grading and additional recreation facility development project will be accomplished. The storm sewer extension project was accomplished to eliminate erosion and other damage to property and potential threats to human life, health and welfare caused by flooding and erosion events in the arroyo. The storm drain installation has involved trenching in the bottom of the arroyo; extension of a storm drain pipe approximately 2,500 linear feet in a southerly direction from an existing storm drain outlet toward an existing inlet structure at the neck of the arroyo; placement of approximately 50,000 cubic yards of soil in the upstream (northern portion) of the arroyo to cover the drain pipe; grading, construction of catch basins at approximate intervals of 300 feet, and planting to provide positive drainage and reduce the accumulation of trash in the arroyo; and construction of three acres of wetlands at the southern reach of the storm drain extension. The source of the fill earth was a

former stockpile located beneath a helicopter landing pad at the southern end of the GLAHS property (Figure 2).

Subsequent to completion of the storm sewer installation, grading and placement of additional fill (approximately 84,000 cubic yards) was completed to reduce the slopes of the arroyo, provide for additional erosion control, and make the property suitable for development of additional athletic fields and courts. The primary source of fill was the same stockpile used for cover over the storm drain; a secondary source of fill earth (approximately 26,000 cubic yards) was cut from the sides of the arroyo and placed in lower elevations as part of the grading done for erosion control and site preparation. These cut, fill, and grading operations resulted in two benches in the northern area of the GLAHS property, for example, an upper bench formed from cut operations and a lower bench formed by fill operations (Figure 2).

During the storm drain extension project in 1996, existing conditions were encountered that relate to this environmental assessment of the Project to grade the site and develop it as playing fields and tennis courts for the Brentwood School. During installation of the storm drain pipeline, residential trash and some medical debris were encountered in the arroyo, predominantly on the western bank. Crushed asphalt was placed over trash and debris as required to provide proper support of the drain pipe (URS, 12/1999). The presence of domestic solid waste and the past disposal of medical debris in the arroyo are well documented (NRC, 1981; EIR, 1983; JKB, 1995; URS 12/1999). Approximate locations of these documented disposal areas are shown on Figure 2.

On 7 July 2000, three 30-gallon polyethylene bags of medical debris and an apparent former ash pit were encountered while grading operations were in progress on the upper bench (Shirtz, 2000). Areas where medical debris and ash were encountered on the upper bench are depicted on Figure 3. These materials, along with approximately 800 cubic yards of soil potentially contaminated by these materials, were excavated and placed in a stockpile located near the neck at the southern end of the arroyo for later disposal in accordance with applicable regulations. The location of this stockpile is shown on Figure 2.

Other events relevant to Project background include: a) a complaint by a resident of an adjacent neighborhood, who entered the GLAHS facility property; b) a limited soil investigation in the lower bench

area conducted on the behalf of the GLAHS; and c) a property transaction environmental site assessment. The individual from the neighborhood who entered the site was present during the period of backfill operations to cover the drainage pipe. This individual complained of diesel odors in the stockpile of soil that was being used as the source of backfill material (Shirtz, 2000). Subsequently, a limited soil sampling program was accomplished in the lower bench area (URS 10/1999) to investigate the condition and quality of the soil being used in the arroyo as fill to cover the storm drain pipe and in the second phase of backfill work to further improve the site. Soil was investigated to a depth of 30 feet below ground surface in limited areas. In addition, a site walkdown inspection occurred as part of the ESA prepared for the Brentwood School Lease Area (URS, 12/1999). During this site walkdown inspection, demolition debris was observed on the west side of the arroyo on the GLAHS property near where it abuts the Barrington Park property (Figure 2).

2.3. Project Objectives

The primary objectives of this Project are to convert previously unproductive property to productive use, and to improve the sports and recreation facilities available to the children of the community served by the Brentwood School. Secondary objectives include further improvement of erosion and drainage control in the northern portion of the GLAHS property; further reduction of the potential for trash and residential debris to accumulate in undeveloped areas of the site and newly constructed wetland areas; and further improvement of the conditions at the site relative to past disposal practices. These objectives are accomplished in several ways as described in the sections that follow.

2.3.1. Placement of Additional Fill and Grading

Placement of additional fill in the arroyo above fill that has been used to cover the storm drain pipeline that was installed to eliminate environmental damage being caused by increased erosion will bring the elevations of the site to suitable levels for further development of the land. The additional fill and associated rough grading, flattens the areas at suitable elevations so they can be used for constructing fields and courts. This grading also acts to reduce the slope of the arroyo banks thereby reducing erosion and further improving drainage. The fill increases the already substantial barrier between the land surface, trash and medical debris known to be buried in the arroyo. Grading exposes near-surface hazards or

potential hazards from past disposal practices in these areas so they can be located, identified, and removed.

2.3.2. Construction of Playing Fields, Courts, and Other Facilities for Sports and Recreation

Development of the site for sports and recreation make the site suitable for lease, and provides improved facilities for the community served by the Brentwood School. Placement of clean fill and topsoil, landscaping, and construction of paved areas for tennis courts, basketball courts, and parking further improve erosion control, drainage, and barriers relative to past disposal practices beneath the facilities.

2.4. Analysis of Alternatives to the Project

There are no viable alternatives to this Project that could achieve the primary objectives of putting the site to productive use and meeting the needs of the community served by the Brentwood School (See Section 2.3). There are several alternatives that could meet one or more of the secondary objectives of this Project.

2.4.1. Landscape with Native Vegetation

Landscaping the Brentwood School Lease Area site with native vegetation would meet neither of the primary objectives of the Project. Restoring the site to an as natural condition as possible after the sewer line installation would not promote making the site suitable for lease, or provide facilities for the Brentwood School. Secondary objectives of erosion control and drainage would be improved by such a project. However, no improvement would occur with respect to barriers between the land surface and existing wastes from past disposal practices, or would be likely to occur regarding future accumulation of residential trash. In addition, the native vegetation posed a fire hazard each summer due to dry brush. Proceeding with the Project eliminates an annual fire hazard.

2.4.2. Develop the Site for Public Use

Developing the site for public use would not meet the objectives of creating a parcel that can be attractively leased, or improving the facilities for the Brentwood School. Developing the site for public

use could meet all of the secondary objectives of the Project. However, because of the site location, public use would likely be limited to residents of the immediate neighborhood adjacent to the GLAHS, unless there were significant development of the site and surrounding areas of the property for parking, access roads, and other public facilities.

2.4.3. Develop the Site for Residential or Other Commercial Use

Because of the site location, developing the site for residential or commercial use would be less likely to meet the primary objective of creating an attractive lease use for the site, and would not meet the objective of improving the facilities for the Brentwood School. The secondary objectives could be met by such a development. However, development of the site for residential or other commercial use would result in building out one of the few remaining areas of urban open space suitable for large playing fields and other sports and recreation facilities.

2.5. Project Implementation

The construction of athletic facilities at the Project area is the culmination of a series of projects that began with the extension of the City of Los Angeles Storm Drain (Phase I). The new storm drain extension was installed in the bottom of the arroyo located at the northwest corner of the GLAHS property. Approximately 100,000 cubic yards of soil was placed in the arroyo as cover material for the new storm drain extension (Phase II). The fill material was taken from a soil stockpile located at the southern end of the GLAHS property where a basement had been excavated for a new hospital. Construction of the athletic facilities constitutes Phase III.

Each of the three phases of work is discussed below in further detail. Discussion of Phase I and II is included only for reference purposes. Phase III is the scope of work for the purposes of this EA.

2.5.1. Installation of Storm Drain Extension

The Los Angeles County storm drain terminated and discharged into the north end of the former arroyo. Stormwater discharge was causing continuing erosion problems, which were impacting the Barrington Recreational Center located along the west side of the arroyo. The Los Angeles County Department of

Public Works proposed extending the storm drain through the arroyo and installing an energy dissipation structure at the terminus at the south end of the arroyo. GLAHS commissioned the preparation of an EA by JKB to evaluate the potential for environmental impacts associated with the storm drain extension (JKB, 1995). JKB concluded that no significant environmental impacts would occur as a result of proceeding with the storm drain extension.

The storm drain extension project was completed in 1996. Approximately 2,500 lineal feet of pipe was installed at the bottom of the arroyo. Approximately 100,000 cubic yards of soil, taken from a soil stockpile located at the southern end of the GLAHS property, were used to fill in the arroyo to provide cover over the storm drain extension and to reduce the arroyo side slopes to facilitate future development at this location.

2.5.2. Construction of Upper and Lower Bench Areas

The Project area is divided into two parts: an upper bench and a lower bench. The upper bench is the eastern side slope of the arroyo, which has been leveled to provide approximately 6 acres of space (Figure 3). The upper bench will contain the planned baseball, softball and soccer fields (Figure 4). Approximately 26,000 cubic yards of existing soil from the upper bench area was excavated and used as fill material in the lower bench area. The lower bench, which was filled for the City of Los Angeles storm drain extension, has been leveled to provide approximately 14 acres of space. The upper and lower benches are separated by a side slope approximately 30 feet high.

Buried apparent medical incinerator ash was discovered during excavation activities at the upper bench area (Figure 3). Approximately 780 cubic yards of apparent medical incinerator ash were visually screened, segregated and stockpiled on plastic sheeting (visqueen) outside the Project area at the south end of the arroyo (Shirtz, 2000).

Three buried plastic garbage bags of medical debris were also encountered during rough grading activities at the upper bench area (Figure 3). Soils where medical debris was encountered was segregated and transported to the stockpile area at the south end of the arroyo (Shirtz, 2000).

According to Mr. John Shirtz, CIH, the onsite Health and Safety Coordinator, the medical debris was encountered just prior to the completion of excavation operations at the upper bench. Excavated soil from the upper bench area, which passed visual screening, was transported to the lower bench for use as fill material. After a sufficient quantity of soil was excavated from the upper bench to satisfy the quantity of fill material required in the lower bench area, approximately 20,000 cubic yards of imported fill material will be placed at the upper bench area. Imported fill material is being used at this stage of construction because on-site sources of fill material were exhausted during construction of the lower bench area.

2.5.3. Development of Recreation Facilities

A conceptual plan of the recreational facilities after construction is completed is shown on Figure 4. A soccer field will occupy the center of the upper bench. A softball field will be installed at the north end of the upper bench, and a baseball diamond will be located at the south end of the upper bench.

The entrance to the recreational facilities is located at the northwest corner of the Project area. The first parking lot will be placed at the northern most end of the lower bench, opposite the entrance. A football field surrounded by a running track will occupy the northern half of the lower bench. Basketball courts and tennis courts will be placed at the southern half of the lower bench. The second parking lot is located opposite the basketball courts along the western perimeter. The third parking lot is located adjacent to the tennis courts at the southern end of the lower bench.

2.6. Site Characteristics Subsequent to Project Completion

After completion of the Project, the site will have the following characteristics:

- The site will have been brought to final grade elevations by placement of clean fill, topsoil, and finish grading.
- Drainage will be controlled by a series of catch basins located at intervals of approximately 300 feet, which discharge to the extended storm drain beneath the site.

- Landscaped recreation facilities will include: a football field surrounded by a track with facilities for discuss, shot-put, long jump, and other track and field events; a baseball field with bullpens and a batting cage; a softball field; a soccer field that also serves as the outfield for the baseball and softball facilities.

- Paved areas will include six tennis courts; two basketball courts with shade structures; access roads; a parking lot near the football field; paths between facilities; and additional parking spaces along the access road in proximity to basketball and tennis facilities.

- Small structures and support facilities will include viewing stands at the football and baseball fields; a storage, vending, and restroom building located centrally among the tennis courts, basketball courts, and football field area; a storage and restroom facility at the baseball, softball and soccer field; drinking fountains; and an equipment storage container near the football field.

- The site will be planted and landscaped to provide open grass areas between facilities and landscape medians

- The site will be fenced with access provided through entry gates.

3. ENVIRONMENTAL IMPACT ANALYSIS

3.1. Solid Waste

Solid wastes have been documented to be present in the northwest area of the site and in the arroyo. Solid wastes were also encountered during installation of the storm drain extension. During the period 1960-1968, medical wastes consisting of papers and rags, syringes, labware, planchets, small animal carcasses and excreta, scintillation media and vials were buried on the northwest area of the GLAHS property where it abuts the Barrington Park property (Figure 2). Construction debris and soil from the demolition of the GLAHS Wadsworth Hospital was spread over unused areas of the GLAHS property in 1971, including the area abutting what is now Barrington Park. (EIR, 1983; URS 12/1999).

Other Historic solid waste debris consisting of glass and ceramic fragments was discovered at three places on the banks of the arroyo (Figure 2) during a field survey conducted in February 1995 (JKB, 1995). In addition; residential refuse, plastics, metal pipes, brick, headstones, asphalt, rebar, bottles, toys and hospital syringes were encountered during installation of the storm drain pipe in the bottom of the arroyo (URS, 12/1999). The location of the storm drain under the Brentwood School lease is shown on Figure 3. Construction debris was also observed to be protruding from the west slope of the arroyo in the vicinity of Barrington Park (URS, 12/1999) as shown on Figure 2. In addition, three bags of medical debris and an old ash pit were uncovered during grading operations (Shirtz, 2000) on the upper bench area of the portion of the property that will become the Brentwood School lease area. The locations where these materials were unearthed are shown on Figure 3.

3.1.1. Mitigation Measures

Solid wastes present in the footprint of the Brentwood School lease area will be covered by sufficient clean fill, topsoil, and/or pavement, or will be removed from the site for off-site disposal in accordance with applicable regulations. Wastes present in the arroyo are overlain by up to 30-40 feet of soil that was used to cover the storm drain and decrease the slope of the arroyo banks. Bags of medical debris, ash, and soil unsuitable for backfill encountered during grading of the upper bench was stockpiled near the south

end of the arroyo, and will be disposed off-site to a permitted solid waste landfill in accordance with regulations.

3.2. Hazardous or Potentially Hazardous Waste

Some portions of the solid wastes that have been documented at the site, or observed at the site, are hazardous or potentially hazardous wastes. In addition, written and oral reports regarding the site imply the potential presence of hazardous wastes. These conditions and implied conditions, and their associated mitigating measures, are discussed in the sections that follow.

3.2.1. Medical Debris Containing Hypodermic Needles and other Sharps

Solid waste buried in the arroyo, medical waste placed in trenches and buried under construction debris in the area adjacent to Barrington Park, and debris removed during grading of the upper bench are known to contain hypodermic needles and other sharp objects (sharps). These wastes were deposited on the GLAHS site prior to 1971 (URS, 12/1999).

3.2.1.1. Mitigation Measures

Medical debris buried in the area adjacent to Barrington Park is covered by 20-30 feet of soil and construction debris (EIR, 1983). Medical debris encountered in the arroyo during storm drain installation is buried under 30-40 feet of fill. The entire foot print of the Brentwood School lease area, including the area of the upper bench where hypodermic needles and sharps were encountered and removed, will be thoroughly inspected prior to the placement of topsoil or pavement. All hypodermic needles, sharps, or other medical debris encountered during grading operations were removed. Soil that was removed from the bench area was thoroughly inspected (see Appendix A); loads containing medical debris, ash, or unsuitable material have been segregated and will be properly disposed off-site. Soil cut from the upper bench and placed in the lower bench will have an additional five feet of clean fill and topsoil placed over it during final grading, or will be thoroughly inspected prior to the placement of topsoil and pavement. All hypodermic needles or sharps that were found were removed and disposed at an off-site, permitted disposal facility.

3.2.2. *Apparent Medical Incinerator Ash*

Ash that was uncovered in the upper bench area (Shirtz, 2000) could be medical incinerator ash. Medical incinerator ash may contain regulated metals, and other contaminants if the ash originated from "open pit" burning, which can result in incomplete combustion of the waste (Skinner, 2000).

3.2.2.1. Mitigation Measures

Medical incinerator ash was removed and stockpiled with unacceptable fill material outside the Project Area on GLAHS property. The stockpile will be disposed in accordance with regulations at an offsite, permitted disposal facility. Confirmatory soil sampling will be conducted in the area where the ash pit was uncovered to confirm that the ash was removed from the upper bench.

3.2.3. *Potential Asbestos-containing Construction Debris*

Construction debris, including concrete and rebar, is protruding from the ground surface near the southern junction of the roads that roughly parallel the east and west sides of the arroyo. This debris is likely the result of demolition of the GLAHS Wadsworth Hospital, subsequent to the San Fernando Earthquake in 1971. By implication, demolition debris from this source could contain asbestos (URS, 12/1999).

3.2.3.1. Mitigation Measures

Any construction debris found within the footprint of the Brentwood School lease area during grading will be removed and disposed off-site in accordance with applicable regulations. Construction debris protruding from the ground surface near the southern junction of the roads that parallel the east and west sides of the arroyo will be inspected and tested. If the construction debris contains asbestos, it will be removed and disposed off-site at a permitted facility. These mitigating measures will be in accordance with regulations that govern the operations and maintenance (O&M) of asbestos-containing materials, and/or the handling, transportation, and disposal of asbestos-containing wastes.

3.2.4. *Low-level Radioactive Medical Waste and Carrier Solvents*

Three former low-level radioactive medical waste burial pits are located in the vicinity of the Project area. These three burial pits are located between GLAHS Parking Lot No. 38 and the Barrington Recreational

Center (GLAHS, 1996) as identified on Figure 2. GLAHS buried low-level radioactive medical waste in the three burial pits with the approval of the United States Nuclear Regulatory Commission (NRC) under License No. 04-00181-04 from approximately 1960 through 1968. According to the NRC, the medical waste consisted primarily of short-lived tritium and carbon-14. Tritium and carbon-14 are typically used in the preparation of liquid scintillation cocktails for biomedical research.

Liquid scintillation counting is a laboratory technique used to measure minute quantities of radioisotopes (tracers) used during biomedical research. The tracer material is typically tritium or carbon-14. A biological sample is added to a vial of liquid scintillation cocktail. The cocktail is a mixture of an organic solvent, emulsifiers and a fluorescent solute. Toluene is typically used to prepare liquid scintillation cocktails; however, p-dioxane is also used in preparations due to its high miscibility in water. If the water content in a biological sample is high, then p-dioxane would be the solvent of choice.

A NRC Team inspected Waste Burial Sites A, B, and C at the GLAHS on 7 May 1981. The five inspectors investigated the three former waste burial sites and did not detect any gamma radiation above background levels. The NRC team concluded that no radioactive material was detected (NRC, 1981). In 1981, the NRC team estimated that the former waste burial sites were buried under approximately 20 to 30 feet of mixed demolition debris and soil .

Mr. Robert A. Wood, a radiochemist with the University of California at Los Angeles (UCLA), Laboratory of Biomedical and Environmental Sciences conducted another radiation survey in April 1983. A total of eighty-five surface and subsurface soil samples were collected from the former waste disposal sites and the arroyo located adjacent to the former waste disposal sites. The investigation did not find any radio-contamination levels above background levels (UCLA, 1983).

3.2.4.1. Mitigation Measures

The former medical waste burial sites were buried under approximately 20 to 30 feet of mixed construction debris and soil in 1981 and are located approximately 700 feet south of the Project area (Figure 2). Liquid scintillation cocktails are comprised of short-lived tritium and carbon-14 radioisotopes,

toluene and p-dioxane. Radioisotopes were not detected by either the NRC inspection team or the radiochemist from UCLA, consequently, additional testing is not required.

3.2.5. Reported Diesel Fuel Issue

During installation of the storm sewer extension, a resident of the neighborhood entered the GLAHS property and made a complaint about diesel odors in the soil stockpile being used as the source of fill to cover the pipeline (Shirtz, 2000). Although there have been no known underground storage tanks located at the GLAHS site, diesel fuel was used historically to clean storage containers, and the stockpile of fill resulted from a basement excavation of one of the buildings (URS, 12/1999; JKB, 1995; EIR, 1983). In September 1999 a limited soil investigation was conducted to evaluate shallow soil conditions to depths of up to 30 feet in areas where fill had been placed within the arroyo (URS 10/1999). A single soil sample from this study contained hydrocarbons at a concentration less than 30 milligrams per kilogram (mg/kg). Other soil samples taken from the fill in the arroyo and from the stockpile used as the source of fill have contained no detectable hydrocarbons (URS, 12/1999).

3.2.5.1. Mitigation Measures

The soil data available for the site are consistent with the fill in the arroyo not being contaminated by diesel fuel to levels requiring further action. However, because of the limited nature of the soil investigation to date, characterization of the near surface fill in the arroyo is incomplete. Shallow soil in the fill within the Brentwood School Lease Area footprint will be sampled with a statistically significant number of soil samples in order to confirm the acceptable condition of the fill. Shallow soil that could be disturbed by future activities at the site will be sampled. If soil with diesel concentrations at or above levels requiring further action is encountered, it will be removed and disposed off-site in accordance with applicable regulations.

3.3. Air Resources

The Project area is located within the South Coast Air Basin. The South Coast Air Basin has been designated by the United States Environmental Protection Agency as a non-attainment area with respect to

the Clean Air Act. Air quality standards for carbon monoxide, ozone, nitrogen dioxide, and total suspended particulates are routinely exceeded in the South Coast Air Basin.

Impacts to air quality will be a result of diesel exhaust from trucks and earth moving equipment during excavation and grading activities at the Project area. Fugitive dust will also be generated during grading, excavation and transport of fill material. Approximately 100,000 cubic yards of onsite fill material from a soil stockpile located at the southern end of the GLAHS property was transported to and placed at the lower bench area. Another 26,000 cubic yards of on-site fill material was excavated from the upper bench area and transported to the lower bench area for use as fill material. Approximately 800 cubic yards of excavated material from the upper bench was deemed unsuitable for use as fill material and was transported and stockpiled outside the Project area (see Section 2.2). Upon completion, the Project should not emit any of the air pollutants mentioned above.

The estimated exhaust emissions from trucks and earth moving equipment used during construction of the Project are listed below.

TABLE 1 - Estimated Diesel-Powered Vehicle Emissions

Pollutant	Emission Factor (EF) grams/mile*	Total Emissions per Day (grams) EF x 200 miles	Total Emissions (grams) for 90 days
Carbon Monoxide	8.37	1,674	150,660
Diesel Exhaust Hydrocarbons	2.93	586	52,740
Nitrogen Oxides	17.2	3,440	309,600
Sulfur Oxides	3.2	640	57,600
Particulates	3.3	660	59,400

* *Emission Factors from the South Coast Air Quality Management District's Air Quality Handbook for Preparing Environmental Impact Reports, 1987.*

Two to three scrapers each circulated approximately 20 times a day during an 8-hour day. Each round trip was approximately 1.5 miles around the circumference of the lower bench of the Project area. In addition, another 3 diesel powered bulldozers, and a water truck were used each day for earth moving, grading, and dust control.

3.3.1. *Mitigation Measures*

Fugitive dust emissions were controlled with a water truck, which constantly circulated throughout the Project area. The water trucks sprayed the soil surface constantly with water, thereby reducing dust emissions by approximately 50 percent or better. Unnecessary idling of heavy equipment was avoided as much as possible.

3.4. Earth Resources

Earth resources, such as topography, geology, hydrogeology, hydrology and water quality, at the Project area are discussed below. Facts regarding earth resources are taken from the JKB Environmental Assessment for the Storm Drain Extension Project prepared for the GLAHS, dated June 1995. The Storm Drain Extension Project area is totally included within the lower bench area for this Project, i.e., the construction of athletic facilities at the Brentwood School Lease area.

3.4.1. *Topography*

The Project area is located at the northwestern corner of the GLAHS property. The foothills of the Santa Monica Mountains are several miles to the northwest and northeast. The gently rolling hills of Beverly Hills lies to the east. The relatively flat topography of West Los Angeles lies to the south and Brentwood lies to the west.

The elevation of the Project area ranges from 473 feet above sea level at the northern end to 280 feet above sea level at the southern end. Upon completion of the Project, the approximate elevation of the lower bench will be 430 feet above sea level and the approximate elevation of the upper bench will be 468 feet above sea level.

3.4.2. *Geology*

The Project area is located within the Sawtelle Plain of the Coastal Plain of Los Angeles County. The Sawtelle Plain is an alluvial apron formed at the foot of the Santa Monica Mountains. Erosion from historic streambeds gradually built up over geologic time to form the flatlands of West Los Angeles. The thickness of the alluvial layer ranges from 30 to 40 feet (JKB, 1995).

3.4.3. Hydrogeology

The Santa Monica Basin underlies the Sawtelle Plain, which includes the Silverado Aquifer of the San Pedro Formation. The Silverado Aquifer ranges from approximately 150 to 250 feet below ground surface and is comprised of sand and gravel, with occasional clay lenses. Groundwater flow direction is from north to south. The general area is traversed by the Charnock and Overland Avenue faults and act as hydrogeologic barriers to groundwater flow. In fact, the Sawtelle Plain behaves like a perched or semi-perched aquifer when compared to surrounding groundwater plains (JKB, 1995).

The Project is not expected to impact existing groundwater quality.

3.4.4. Hydrology

The June 1995 EA prepared by JKB estimated 12,637,954 cubic feet of water per year would flow through the arroyo, assuming 2 feet of rainfall per year. All of this stormwater currently flows through the completed Los Angeles County storm drain extension.

The Project area, which is comprised of a lower and upper bench, constitutes a total drainage area of approximately 20 acres or 871,200 square feet. Assuming an average annual rainfall of 2 feet results in an annual stormwater flow 1,742,400 cubic feet. The annual stormwater flowrate is estimated to be 0.005 cubic feet per second.

This is an extremely conservative estimate, which overestimates the stormwater flow because nearly 60 percent of the Project area is comprised of an unpaved football field, soccer and baseball fields. Thus, the Project area will not generate any environmental impacts as a result of additional stormwater flow.

3.4.5. Water Quality

The Los Angeles Department of Water and Power (LADWP) provides drinking water to the City of Los Angeles. According to the 1999 Annual Water Quality Report, LADWP is in compliance with the drinking water standards set by the California Department of Health Services and the Federal Environmental Protection Agency. However, the LADWP is out of compliance with respect to the

Surface Water Treatment Rule. LADWP expects to be back in compliance after construction of four bypass facilities is completed in 2004 (LADWP, 1999).

3.5. Transportation and Parking

All grading and earth moving work will take place inside the GLAHS property. Approximately 100,000 cubic yards of fill material required for the Project originated from a large soil stockpile located at the southern end of the GLAHS property, where construction of a new hospital building is ongoing. Nearly 20,000 cubic yards of imported fill material will be brought to the Project area for final grading. Vehicular traffic is minimal at the GLAHS and is comprised of employees and out-patients. Construction workers typically park their personal vehicles close to the Project area in the vicinity of the upper bench area. Earth moving equipment travel over temporary access roads between the upper and lower benches. Regular traffic patterns at the GLAHS will not be affected by construction activities at the Project area.

3.6. Noise

Noise during the construction phase of the Project will emanate from diesel-powered vehicles, i.e., earth moving and grading equipment. Construction noise will be short-term and intermittent. The Los Angeles Noise Control Ordinance allows a maximum noise level of 85 dbA for non-scheduled, intermittent, short-term operation of mobile equipment at Business Structures. Noise levels measured at a distance of 50 feet for construction equipment are listed below (Bolt, 1971):

Type of Equipment	Noise Level range in dbA
Compactors (Rollers)	70-75
Front End Loaders	70-85
Backhoes	70-95
Scrapers, Graders	80-95
Trucks	75-85
Concrete Mixers	75-85
Cranes (movable)	75-85

No significant noise impacts are expected as a result of construction activities at the Project area. The majority of earthmoving and grading operations will be greater than 50 feet away from buildings located outside the GLAHS property.

3.6.1. Mitigation Measures

Earth moving and grading work is being performed between the hours of 8 a.m. and 5 p.m., in accordance with the Los Angeles County Noise Ordinance (Shirtz, 2000).

3.7. Aesthetics

The former arroyo has been filled and now constitutes the lower bench area, which will be developed into a football field, running track, basketball courts and tennis courts. The upper bench area will be developed into a softball field, baseball field and soccer fields. The arroyo had been collecting debris as a result of runoff from nearby roads and even an abandoned car had been deposited there. Once the athletic facilities are completed, the aesthetic value of the Project area will be much improved.

3.8. Historic and Cultural Resources

JKB conducted a thorough survey of archaeological and cultural resources at the arroyo prior to installation of the Los Angeles County Storm Drain extension. Three historic mounds of broken glass and ceramic debris were found along the banks of the former arroyo. The glass patterns and colors are indicative of the 1920's through 1930's time period. JKB concluded that the debris was trash, which originated from past operations at the GLAHS (JKB, 1995).

3.9. Economic Aspects

Upon completion of the athletic facilities, the Project will provide jobs for athletic directors, maintenance personnel, and landscaping personnel, at a minimum. Thus, the Project will have a positive impact with respect to job creation.

3.10. Biological Resources

The 1995 Environmental Assessment prepared by JKB for the Los Angeles County Storm Drain Extension has an exhaustive review of biological resources at the former arroyo (JKB, 1995). In summary, no endangered or sensitive animal species were identified at the former arroyo during the biological resources survey conducted by JKB on 13 February 1995. Several coast live oak trees, which are protected by a City of Los Angeles and a Los Angeles County Ordinance, were identified during the survey. JKB concluded that filling in the arroyo to cover the storm drain extension would likely result in loss of habitat for unspecified animal species, and that urban species of birds may experience population growth at the expense of rural species. JKB also concluded that Federal and State jurisdictional wetlands are present at the former arroyo area, based on the identification of riparian vegetation during the biological resources survey.

The 1995 JKB Environmental Assessment proposed that lost coast live oak trees be replaced at a ratio of two to one. Lost wetlands habitat should be replaced at a ratio of 1.5 times the area lost due to filling the former arroyo. JKB also recommended that the fill area be landscaped with native vegetation.

3.11. Community Services and Utilities

The Project is not expected to significantly impact any community services and utilities, except for water supply. The Project will require significant quantities of water for dust suppression throughout construction activities. After construction is complete, water will be required for irrigation of the football field and soccer field.

4. ENVIRONMENTAL COMPLIANCE

This environmental assessment has been prepared in accordance with GLAHS policies implementing NEPA, and as such it conforms to CEQA guidelines for an initial study. It addresses requirements set forth in the Code of Federal Regulations, including those relating to the Clean Water Act, the Clean Air Act, and the Resource Conservation and Recovery Act. It also addresses requirements set forth in the California Code of Regulations (CCR), including CCR Title 22. Local regulations taken into account include Rules and Regulations of the South Coast Air Quality Management District.

5. LIST OF PREPARERS

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John Schweizer, P.E.	M.S., Chemical Engineering B.S., Chemical Engineering	26
Patricia Hobson	B.A., Chemistry	18
Alan Lui, P.E.	B.S., Civil Engineering	15
Gregory Murphy, R.G.	M.S., Geology B.A., Geology	15

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(Skinner, 2000) Electronic mail with *Memorandum* from Mr. Clint Skinner to Mr. John Schweizer, September 18, 2000.

(UCLA, 1983) University of California at Los Angeles Laboratory of Biomedical and Environmental Sciences, (1983), *Radioassay for Tritium and Carbon-14 at the Waste Disposal Site*, April.

(URS, Oct. 1999) URS Greiner Woodward Clyde, (1999), *Soil Investigation Report for the Veteran Administration Medical Center*, Los Angeles, California, October 18, 1999.

(URS, Dec. 1999) URS Greiner Woodward Clyde, (1999), *Phase I Environmental Site Assessment, Brentwood School Lease Area, Veterans Administration Hospital*, 11301 Wilshire Blvd., Los Angeles, California December 23, 1999.

(Wood, 1983) Robert A. Wood, (1983), *Radioassay for Tritium and Carbon-14 at the Waste Disposal Site*, West Los Angeles Veterans Administration Hospital.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 7, 2000 - Photos 1-6

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 1 Grading operations on the lower bench for construction of the football field.

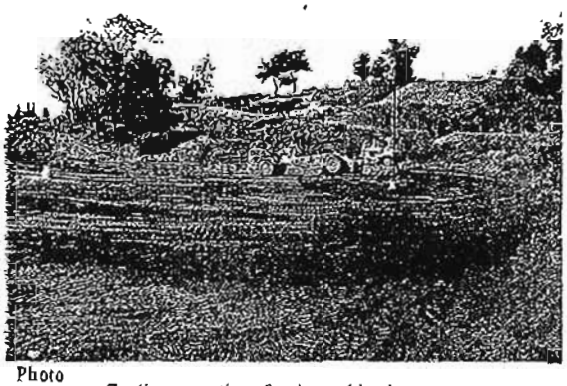


Photo 2 Grading operations for the parking lot.

Photo 3 Grading operations for the parking lot and football field.

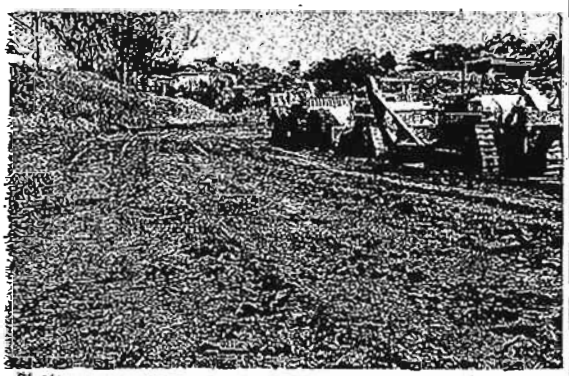


Photo 4 Grading operations for basketball court construction.

Photo 5 Electrical boot insulation covers for high amperage electrical wire.

Photo 6 Earth moving equipment at work.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 7, 2000 - Photos 7-12

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 7 — Burnt debris encountered at approx. 14 feet below ground surface in the vicinity of the planned basketball courts.

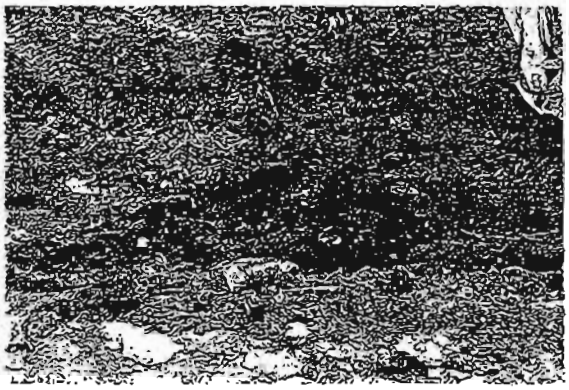


Photo 8 — Same area as shown in Photo 7.

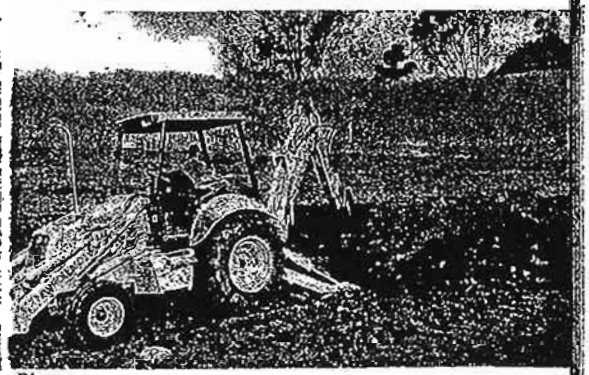


Photo 9 — Pothole excavation in the basketball court area.

Photo 10 — Grading operations in the upper bench for construction of soccer field, facing north.

Photo 11 — Picture of Brentwood School from the upper bench.

Photo 12 — Picture of Brentwood School from the upper bench.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 7, 2000 - Photos 13-16
July 10, 2000 - Photos 17,18

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

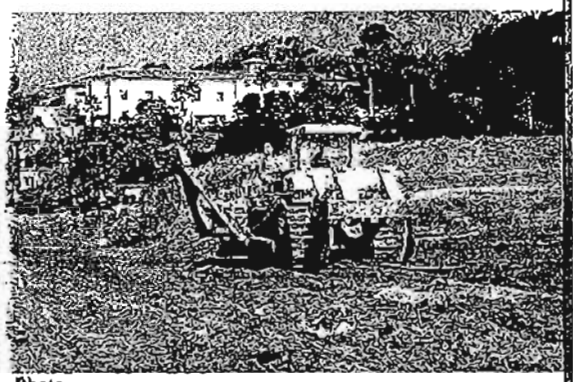


Photo 13 Picture of Brentwood School from the upper bench.

Photo 14 Pothole excavation.

Photo 15 Grading operations at the upper bench.

Photo 16 Grading operations at the upper bench when medical debris was first encountered.

Photo 17 Grading operations at the upper bench.

Photo 18 View from the upper bench looking east.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 10, 2000 - Photos 19-20
July 13, 2000 – Photos 21-24

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 19 Melted petri dishes.

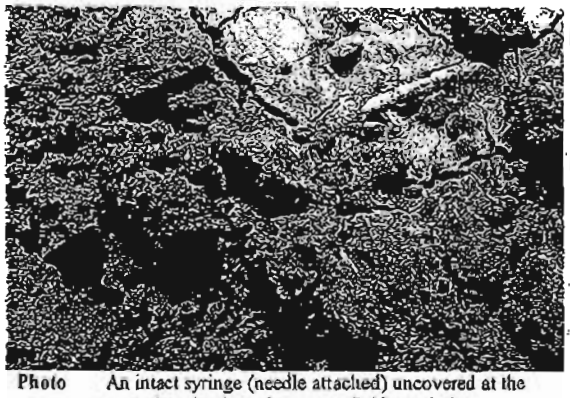


Photo 20 An intact syringe (needle attached) uncovered at the upper bench where the soccer fields are being constructed.

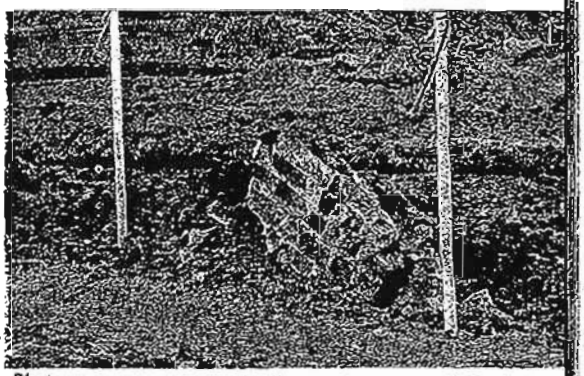


Photo 21 Brick wall fragment discovered at approx. 10 feet below ground surface at the lower bench.

Photo 22 Clayey soil and char.

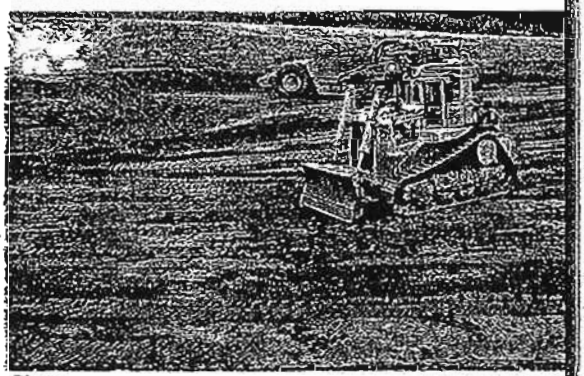


Photo 23 Clayey soil and char.

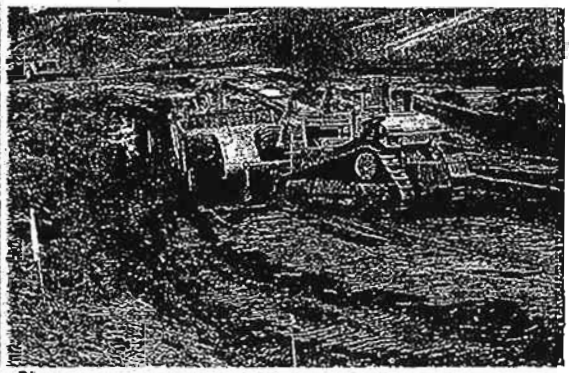


Photo 24 Deep soil cut where tennis courts will be constructed.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 13, 2000 – Photos 25-30

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

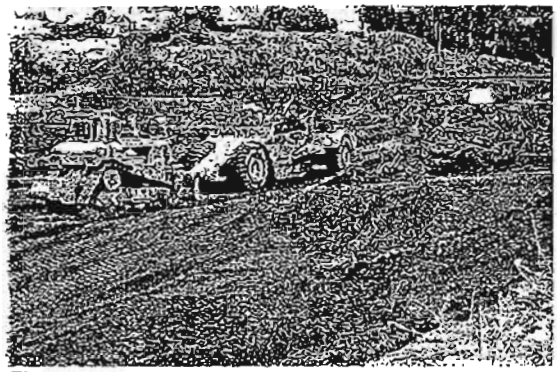


Photo 25 Grading operations at the tennis court construction area.

Photo 26 Upper bench where medical debris was first encountered.

Photo 27 Pothole excavation at the upper bench where medical debris was first encountered.

Photo 28 Medical debris appears limited to the upper two feet of soil at the upper bench.

Photo 29 Trench excavation at the upper bench.

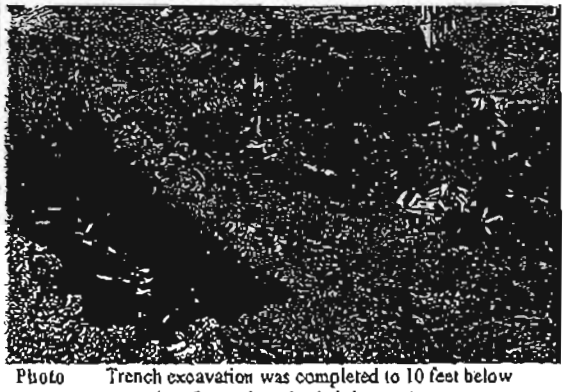


Photo 30 Trench excavation was completed to 10 feet below ground surface, where buried tires and trees were encountered.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 13, 2000 - Photo 31
July 14, 2000 - Photos 32-36

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 31 Soil was over-excavated to a depth of 20 feet below ground surface, where tennis courts will be constructed.

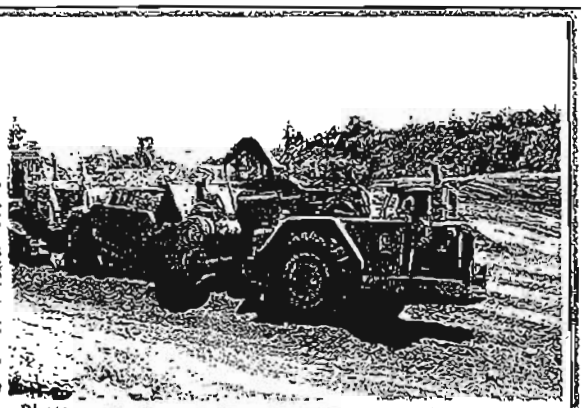


Photo 32 Grading activities where tennis courts will be constructed.

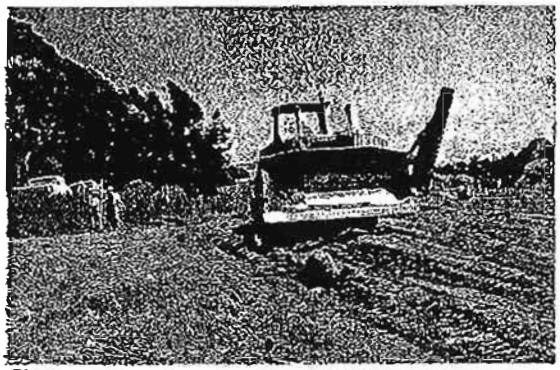


Photo 33 The western edge of the upper bench, where medical debris was first encountered.

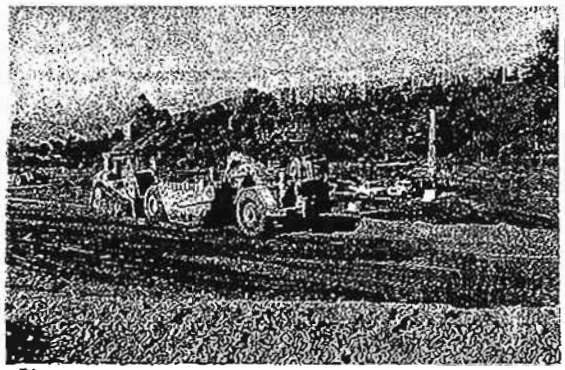


Photo 34 Grading operations at the lower bench.

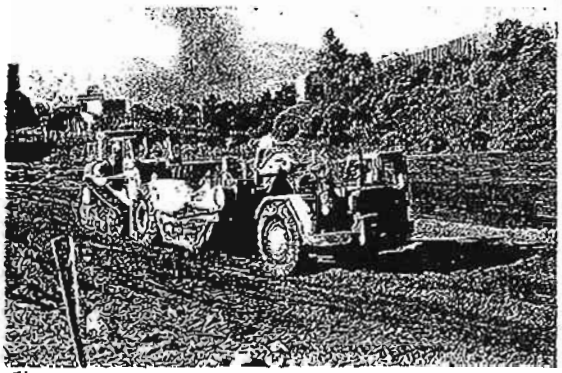


Photo 35 Same area as shown in Photo 34.

Photo 36 Drilling a geotechnical soil boring.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 14, 2000 - Photos 37-42

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

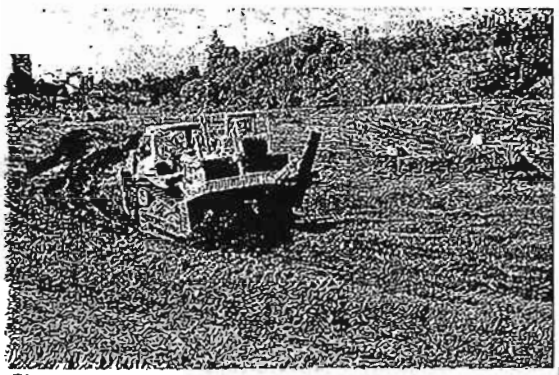


Photo 37 Expanding the boundaries of the lower bench excavation due to revised planned location of tennis courts.

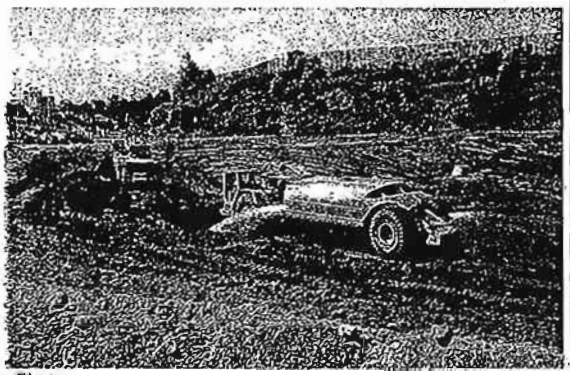


Photo 38 Another photograph of lower bench excavation for relocated tennis courts.

Photo 39 Clayey soil.

Photo 40 Over-excavation of soil where basketball courts will be constructed. The depth of cut is approx. 20 feet below ground surface.

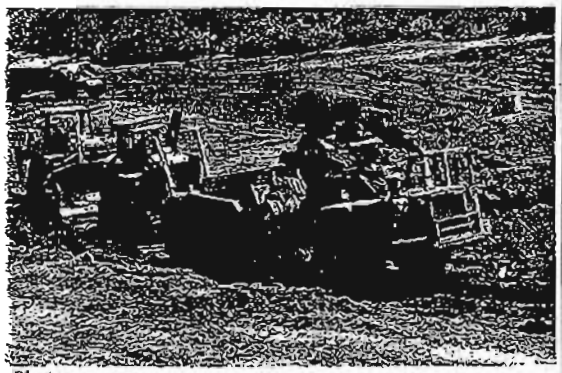


Photo 41 South manhole.

Photo 42 Large round boulders were uncovered at the tennis court over-excavation area.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 14, 2000 – Photo 43
July 17, 2000 – Photos 44-48

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

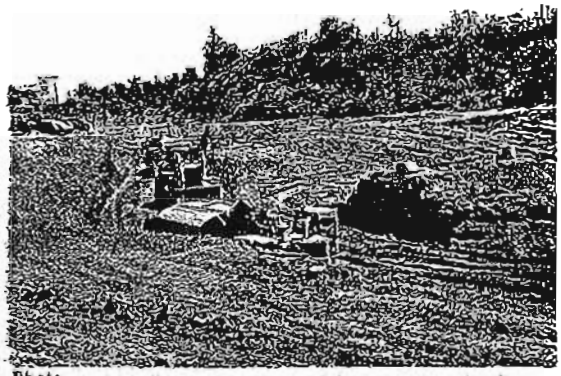


Photo 43 Extending the boundaries of the over-excavation for tennis court construction.

Photo 44 Tennis court over-excavation area.

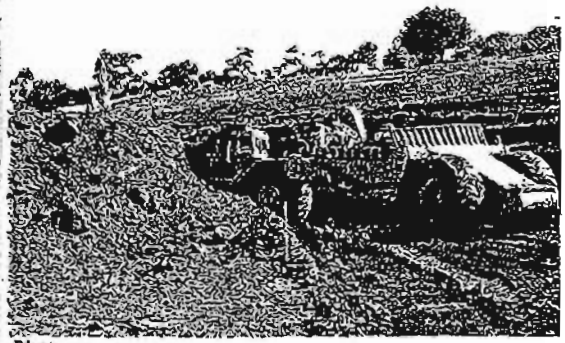


Photo 45 Same area as shown in Photo 44.

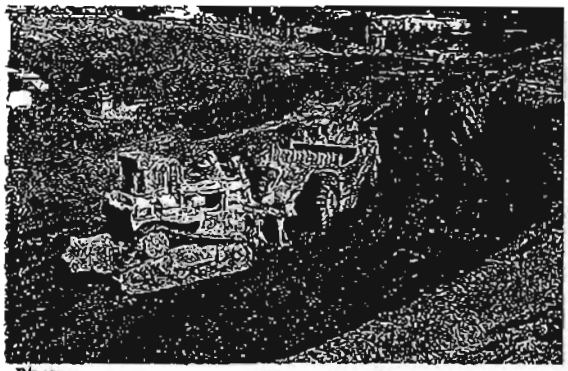


Photo 46 Same area shown in Photo 44, looking west.

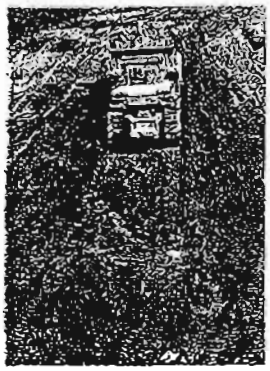


Photo 47 Clayey soil and some char.

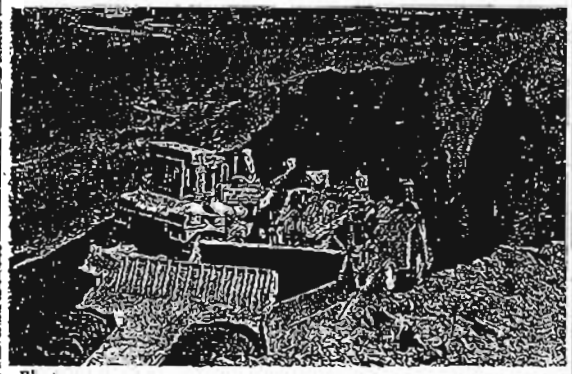


Photo 48 Water truck just passed through this area.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 17, 2000 - Photos 49-54

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

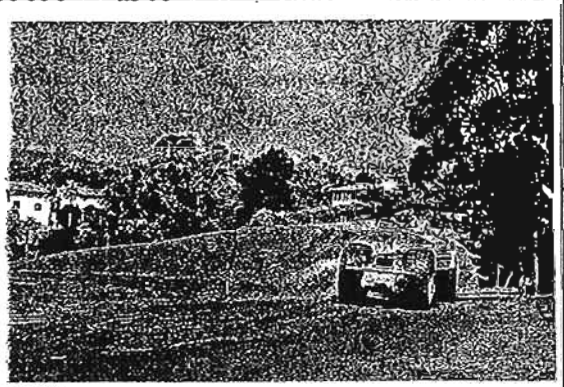


Photo 49 Grading operations at the upper bench.

Photo 50 Extending the tennis court over-excavation to the east.

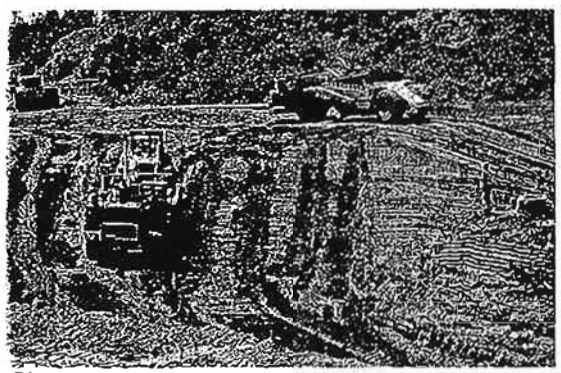


Photo 51 Same area as shown is Photo 50

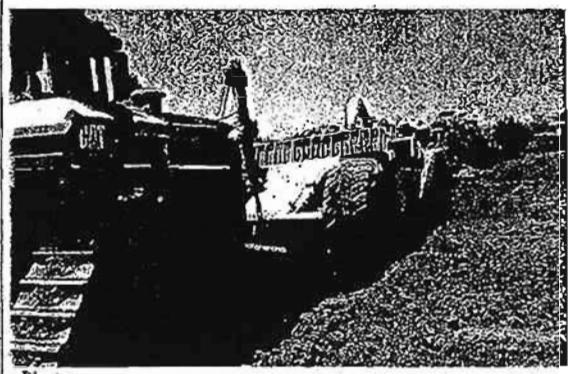


Photo 52 Earthmoving equipment.

Photo 53 Grading operations at the lower bench.

Photo 54 Same area as shown in Photo 53.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 17, 2000 – Photos 55-56
July 26, 2000 – Photos 57-60

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 55 Grading operations at the upper bench.

Photo 56 A sprinkler line was damaged by earthmoving equipment.

Photo 57 Western edge of the upper bench where medical debris was first encountered.

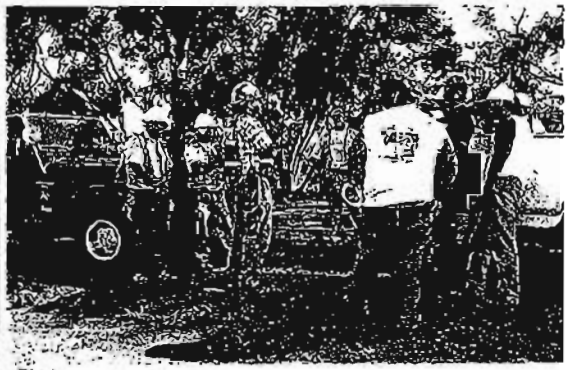


Photo 58 Health and safety tailgate meeting.

Photo 59 Trenching at the upper bench to a depth of approx. 2 feet below ground surface.

Photo 60 Domestic waste.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 26, 2000 - Photos 61-66

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

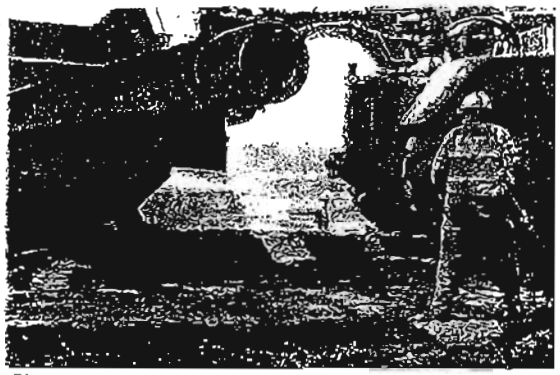


Photo 61 GLAHS Health and Safety personnel watching the scraper.

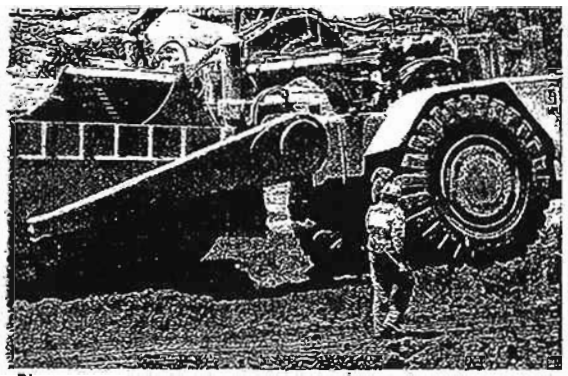


Photo 62 Photograph of earthmoving equipment.

Photo 63 Medical debris encountered at the upper bench was raked by hand and then excavated using a scraper.

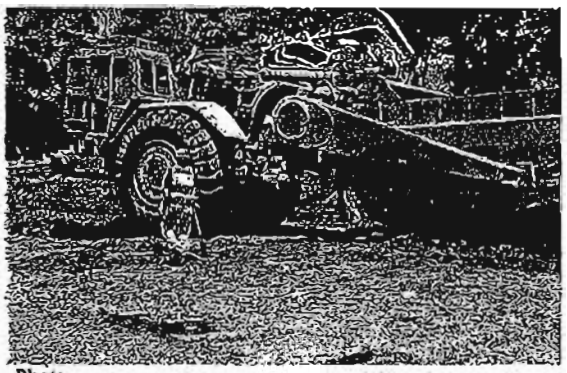


Photo 64 Another photograph of medical debris which was excavated using a scraper.

Photo 65 A hubcap uncovered during excavation activities.

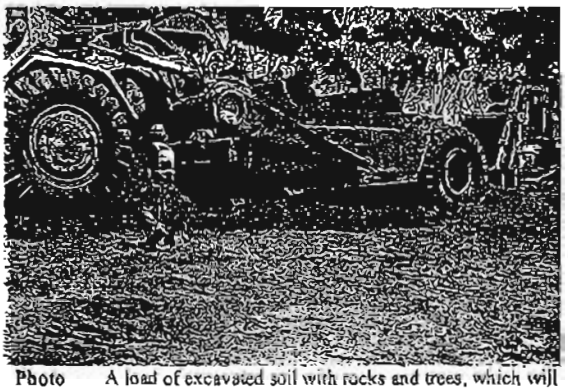


Photo 66 A load of excavated soil with rocks and trees, which will be transported to the soil stockpile of unacceptable fill material.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 26, 2000 - Photos 67-72

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

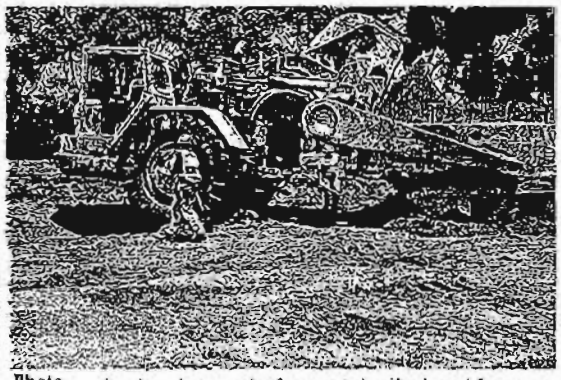


Photo 67 Another photograph of excavated soil rejected for use as fill material.

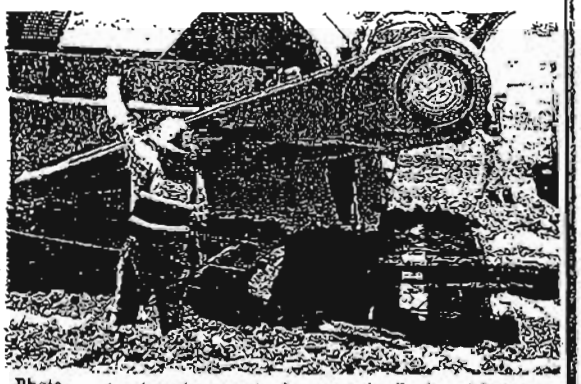


Photo 68 Another photograph of excavated soil rejected for use as fill material.

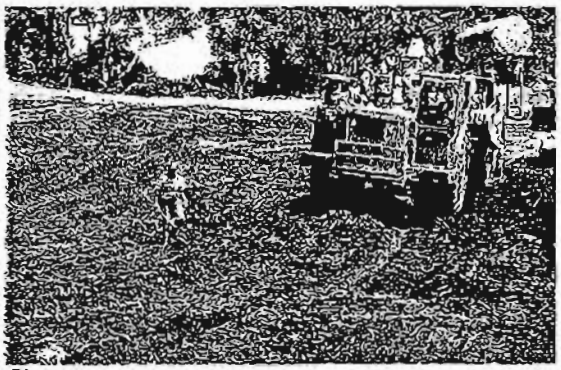


Photo 69 Photograph of the ash pit at the upper bench.

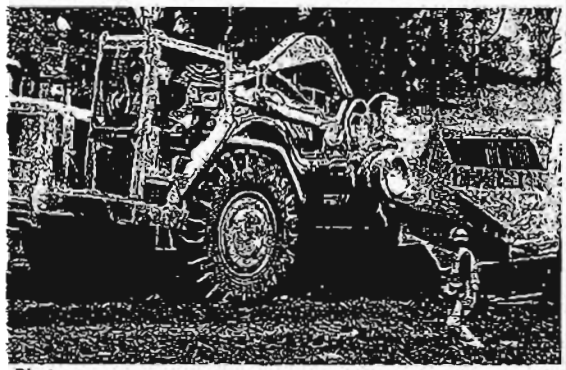


Photo 70 Checking the load of excavated soil for foreign objects.

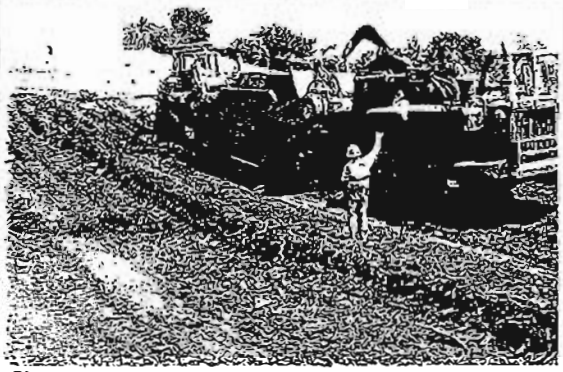


Photo 71 Excavating charred debris from the ash pit area at the upper bench.

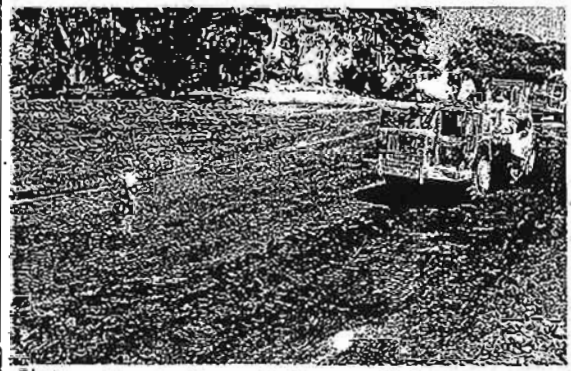


Photo 72 The ash pit excavation is approx. 12 feet below ground surface in the photograph.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 27, 2000 - Photos 73-78

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

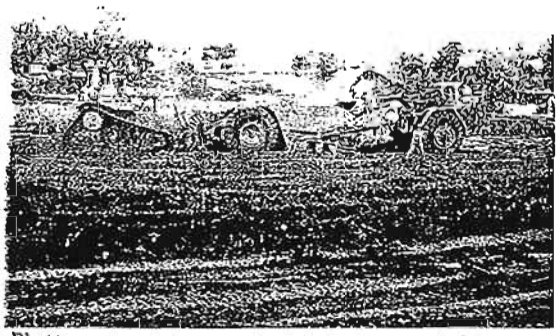


Photo 73 The ash pit excavation is in the foreground of the photograph.

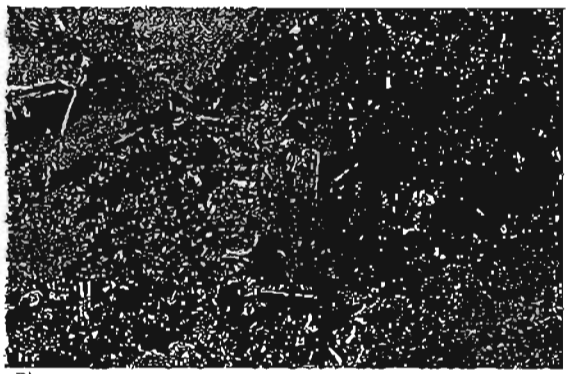


Photo 74 Charred debris in the ash pit excavation.

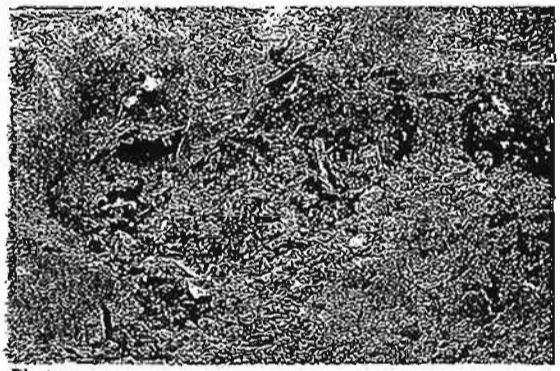


Photo 75 More charred debris in the ash pit excavation.

Photo 76 Pothole excavation at the ash pit at the upper bench.

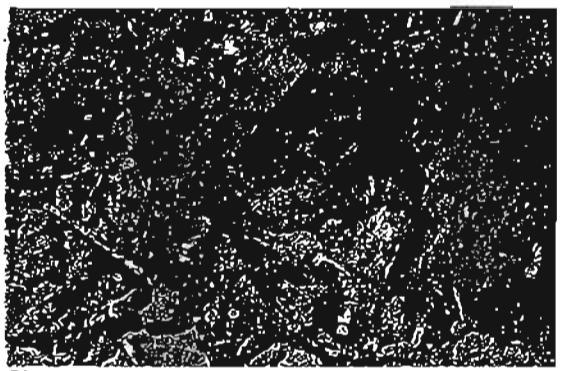


Photo 77 More charred debris in the ash pit excavation.

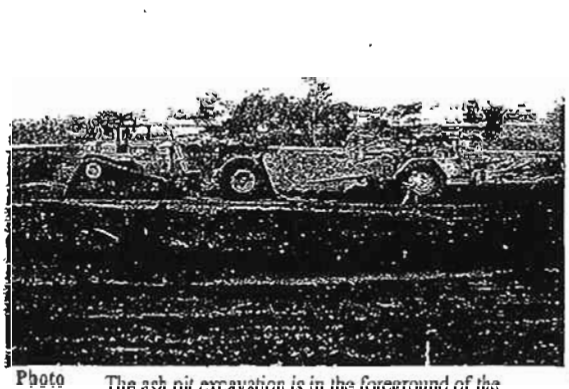


Photo 78 The ash pit excavation is in the foreground of the photograph.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 27, 2000 - Photos 79-84

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

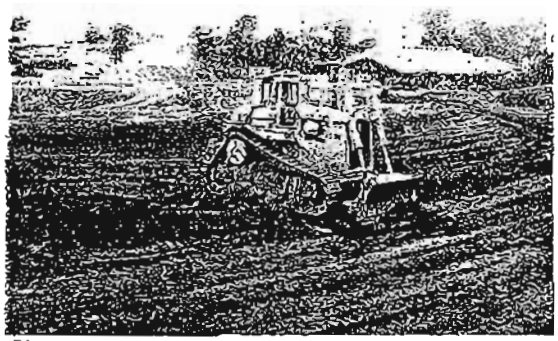


Photo 79 A tree uncovered during grading operations

Photo 80 Grading operations north of the ash pit excavation.

Photo 81 Same area as shown in Photo 80.

Photo 82 Photograph of unacceptable fill material (rocks & trees).

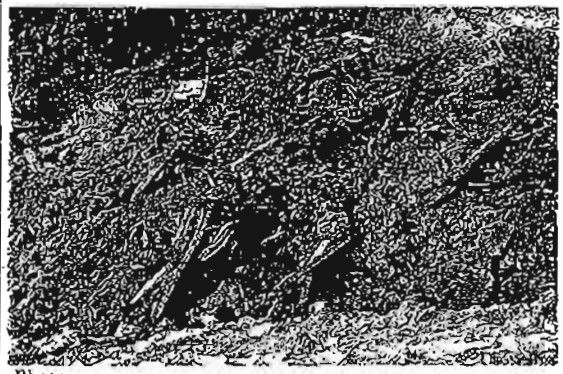


Photo 83 Charred debris in the ash pit excavation.

Photo 84 Charred debris in the ash pit excavation.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 27, 2000 - Photos 85-90

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 85 Spreading the charred debris in the ash pit excavation with a bulldozer so that the scraper can excavate the debris and a shallow layer of soil.

Photo 86 Medical debris at approx. 2 feet below ground surface at the upper bench.

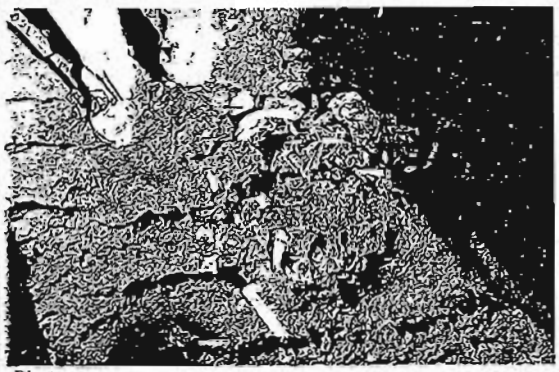


Photo 87 Medical debris at approx. 2 feet below ground surface at the upper bench.

Photo 88 Medical debris at approx. 2 feet below ground surface at the upper bench.

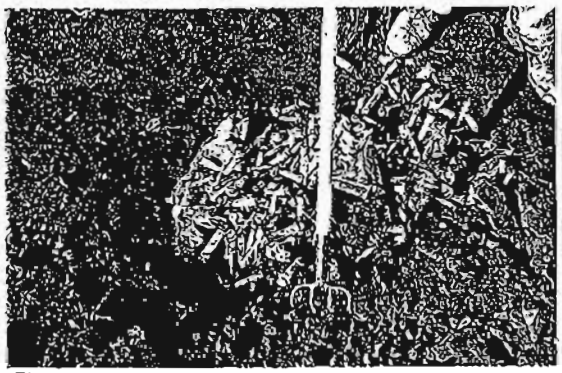


Photo 89 Medical debris at approx. 2 feet below ground surface at the upper bench.

Photo 90 Medical debris at approx. 2 feet below ground surface at the upper bench.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 27, 2000 - Photos 91-96

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 91 Two metal garbage cans with the lid riveted to the can were encountered during grading operations at the upper bench near the ash pit excavation. The garbage cans were filled with syringes and melted petri dishes. The medical debris was segregated, and disposed by the GLAHS medical waste contractor.

Photo 92 Medical debris from the buried garbage cans.

Photo 93 Medical debris from the buried garbage cans.

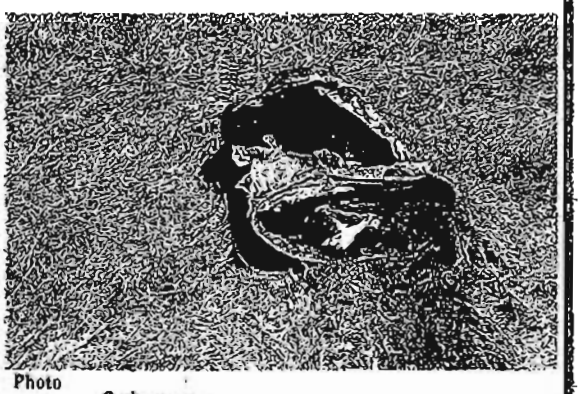


Photo 94 Garbage can.

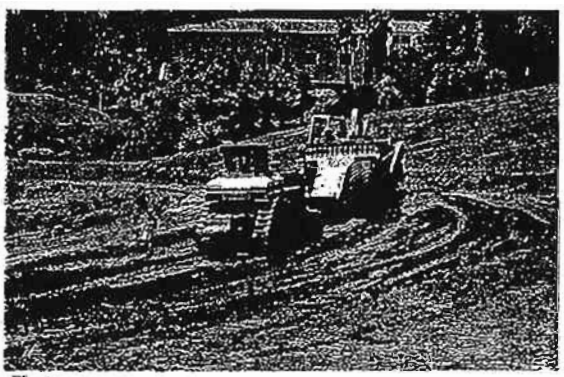


Photo 95 Grading operations at the ash pit.

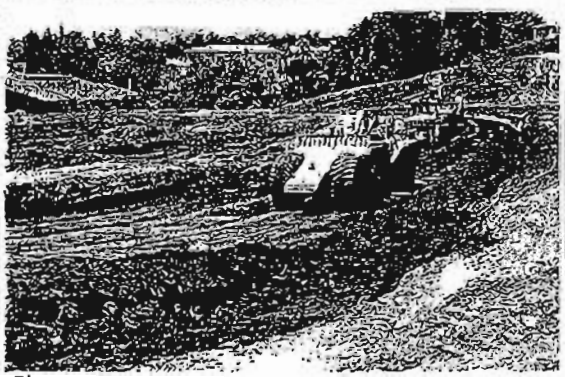


Photo 96 Charred debris.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 27, 2000 - Photos 97-102

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

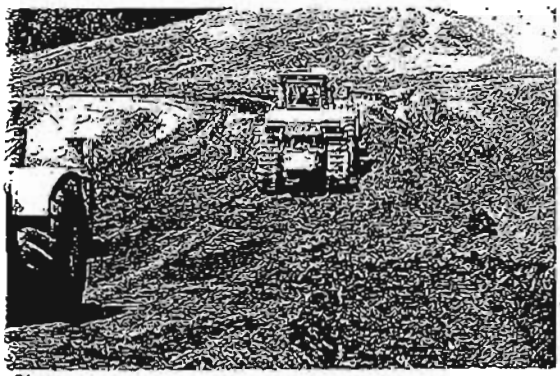


Photo 97 Charred debris.

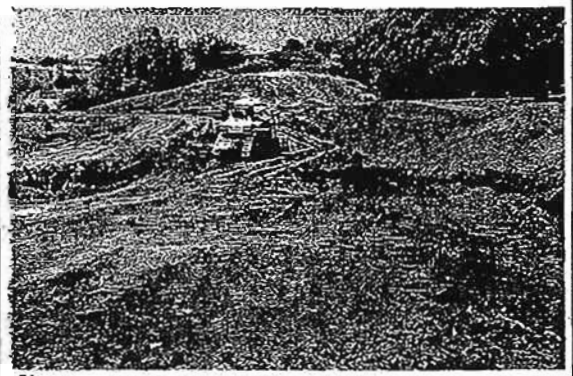


Photo 98 The ash pit excavation is in the foreground of the photograph.

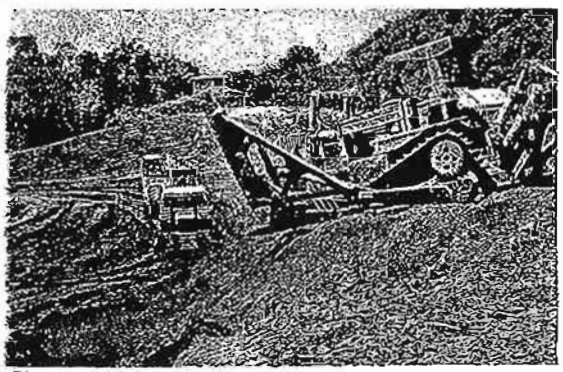


Photo 99 The ash pit excavation is in the foreground of the photograph.

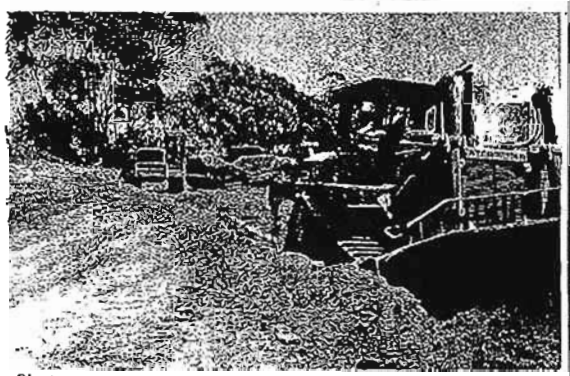


Photo 100 Grading operations in order to move the soccer field to the east.

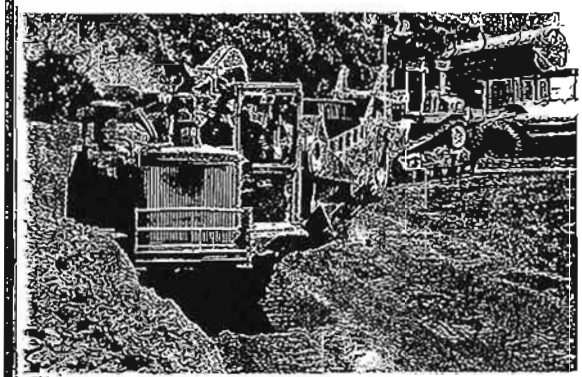


Photo 101 Grading operations near the ash pit excavation. The ash pit is located to the right of the photograph.

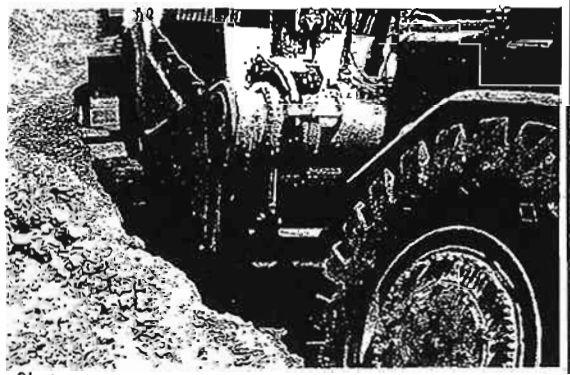


Photo 102 Grading operations near the ash pit excavation. The ash pit is located to the right of the photograph.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 27, 2000 - Photos 103-108

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

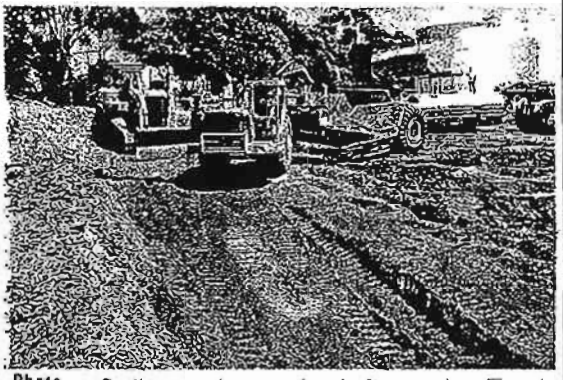


Photo 103 Grading operations near the ash pit excavation. The ash pit is located to the right of the photograph.

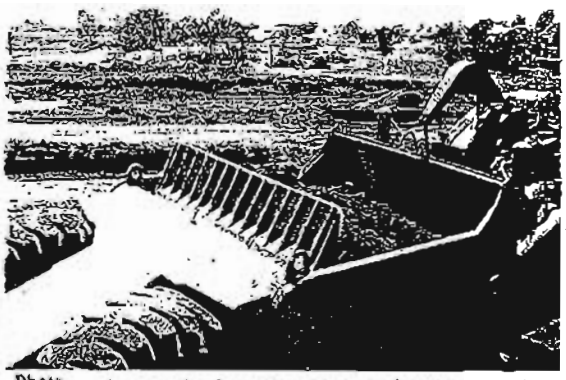


Photo 104 An example of an acceptable load of excavated soil for use as fill material.

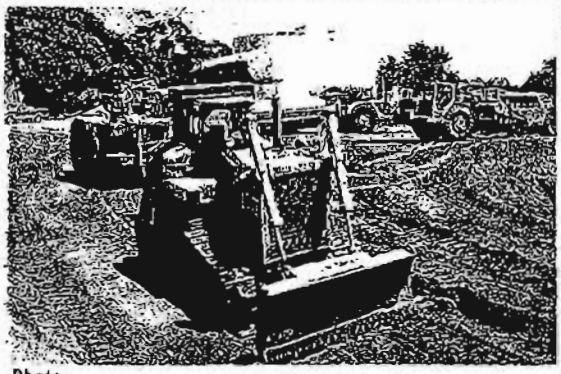


Photo 105 Grading operations at the upper bench.

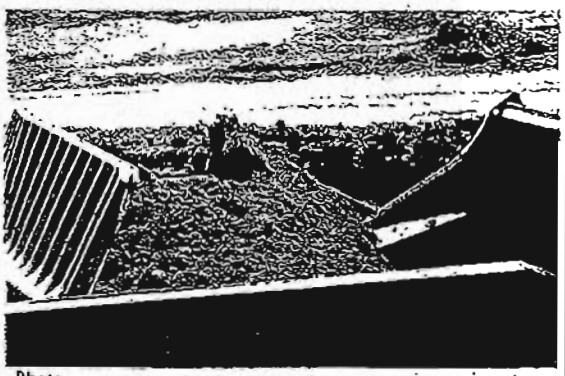


Photo 106 An example of an acceptable load of excavated soil for use as fill material.

Photo 107 An example of an acceptable load of excavated soil for use as fill material.

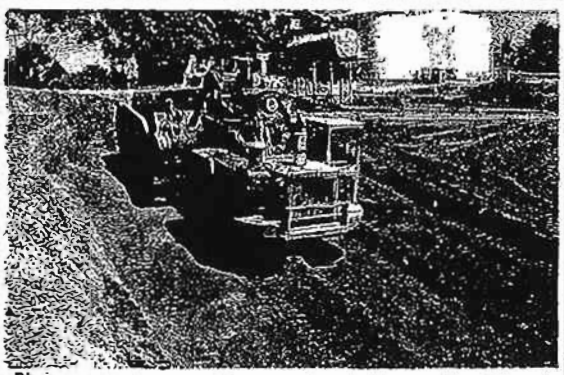


Photo 108 Grading operations near the ash pit excavation. The ash pit is located to the right of the photograph.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 1, 2000 - Photos 109-114

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 109 High amperage electrical cable uncovered during grading operations.

Photo 110 Large trees and sheet metals uncovered during grading operations.

Photo 111 Charred debris being excavated from the upper bench.

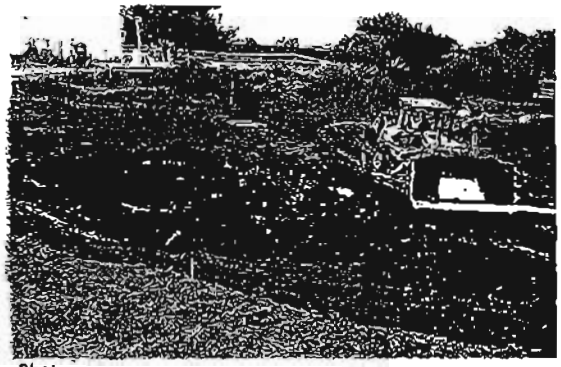


Photo 112 Charred debris being excavated from the upper bench.

Photo 113 Approaching the bottom of the ash pit excavation at 20 feet below ground surface.

Photo 114 Approaching the bottom of the ash pit excavation at 20 feet below ground surface.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 1, 2000 – Photos 115-118
August 2, 2000 – Photos 119-120

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 115 Grading operations at the upper bench, facing north.

Photo 116 The ash pit excavation was completed at approx. 20 feet below ground surface.

Photo 117 The ash pit excavation was completed at approx. 20 feet below ground surface.

Photo 118 The ash pit excavation was completed at approx. 20 feet below ground surface.

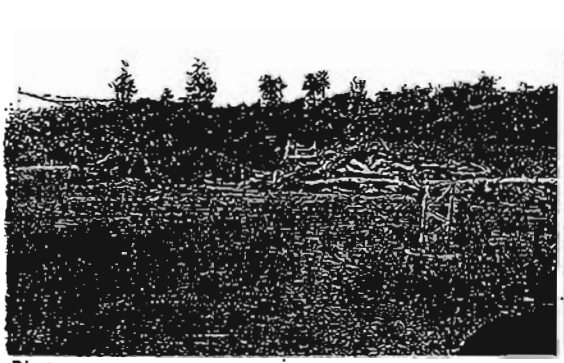


Photo 119 Tree debris segregated from excavated soil.

Photo 120 Trash uncovered during grading operations at the tennis court construction area.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 2, 2000 - Photos 121-126

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 121 Trash uncovered during grading operations at the tennis court construction area.

Photo 122 Trash uncovered during grading operations at the tennis court construction area.

Photo 123 Trash uncovered during grading operations at the tennis court construction area.

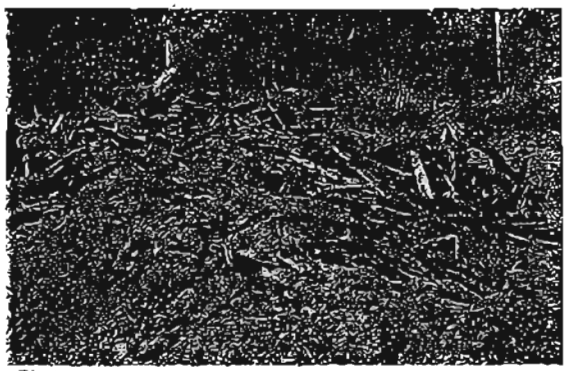


Photo 124 Tree and sheet metal debris.

Photo 125 Grading operations at the basketball court construction area.

Photo 126 Filling operations at the tennis court construction area.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 2, 2000 - Photos 127-132

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

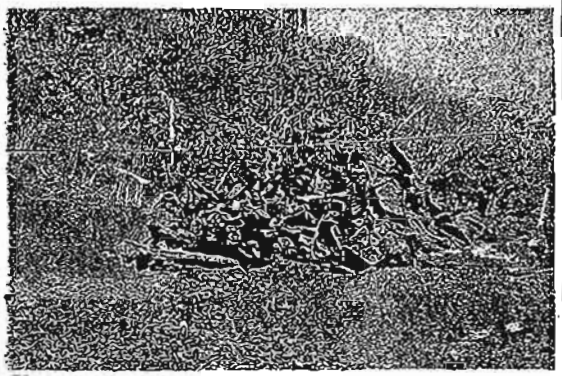


Photo 127 Tree and sheet metal debris.

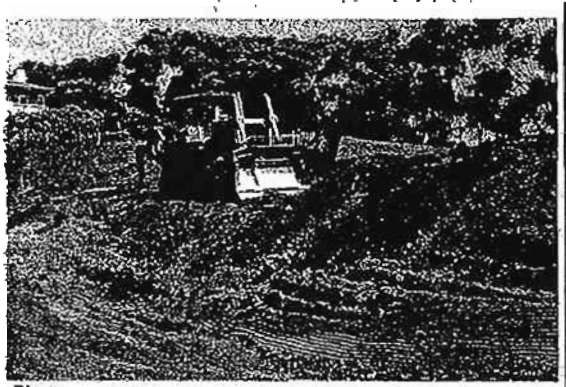


Photo 128 Grading operations at the northeast end of the upper bench.

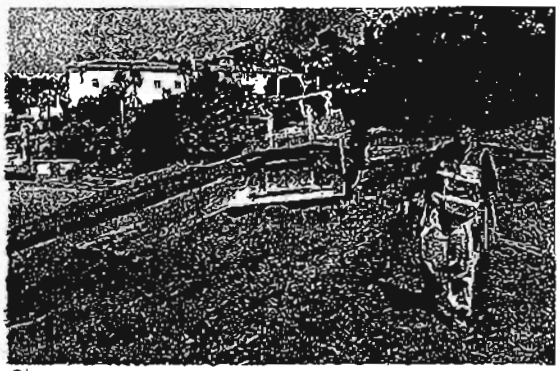


Photo 129 Construction of the elevated foot path along the western edge of the upper bench.

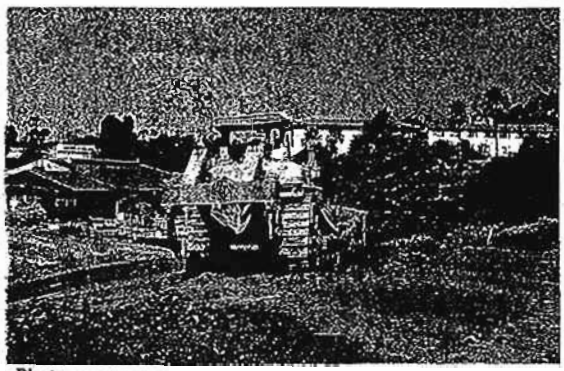


Photo 130 Construction of the elevated foot path along the western edge of the upper bench.

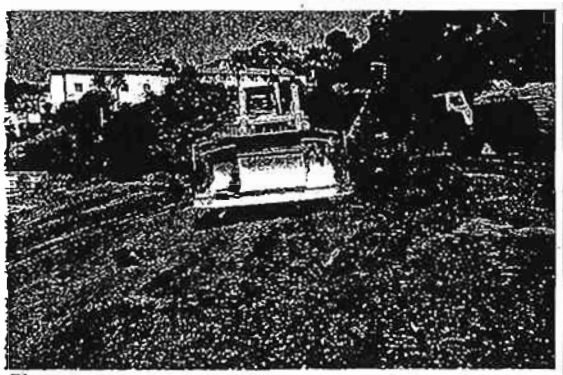


Photo 131 Construction of the elevated foot path along the western edge of the upper bench.

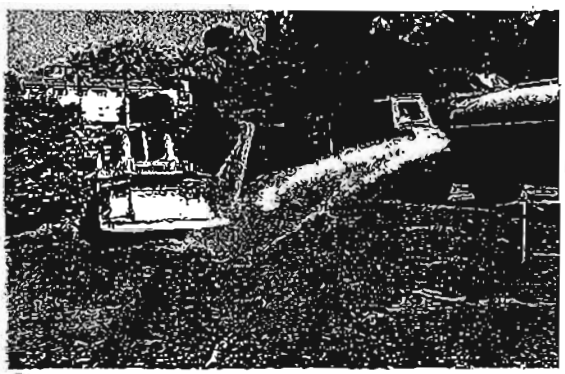


Photo 132 Grading operations at the northeast end of the upper bench.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 2, 2000 - Photos 133-138

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

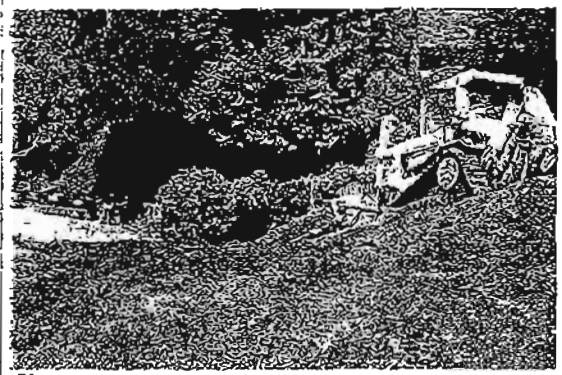


Photo 133 Grading operations at the northeast end of the upper bench.

Photo 134 Filling operations at the lower bench are nearly complete. The depth of excavation had been as much as 20 feet below ground surface.

Photo 135 Grading operations at the northeast end of the upper bench.

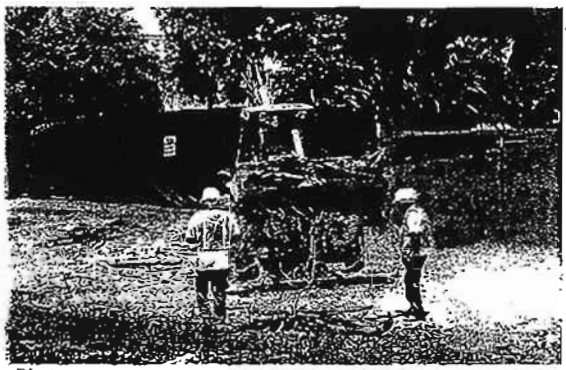


Photo 136 Municipal waste.

Photo 137 Municipal waste.

Photo 138 Municipal waste.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 2, 2000 - Photos 139-143
August 3, 2000 - Photo 144

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 139 Municipal waste.

Photo 140 Municipal waste.

Photo 141 Municipal waste.

Photo 142 Unacceptable fill material from the upper bench was stockpiled and covered outside the project area, at the southern end

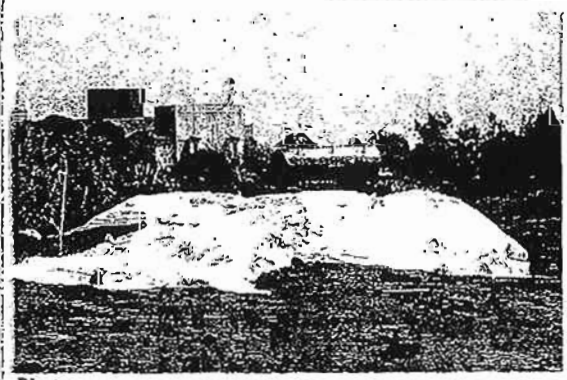


Photo 143 Same area as shown in Photo 142.

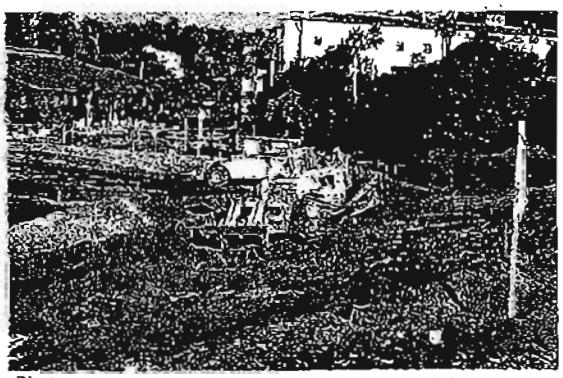


Photo 144 Grading operations at the northeast end of the upper bench.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 3, 2000 - Photos 145-150

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 145 Carefully trying to determine the depth of a 36-inch potable water distribution force main.

Photo 146 Uncovered buried boulders at the lower bench.

Photo 147 Uncovered buried boulders at the lower bench.

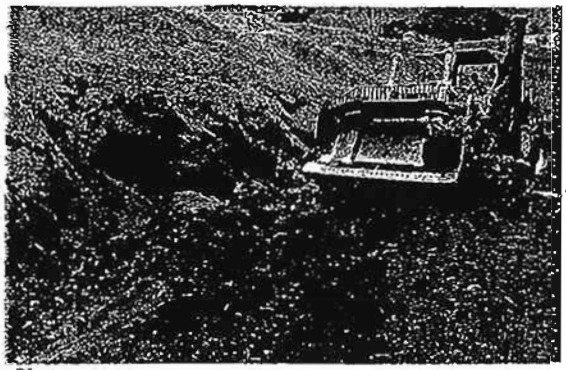


Photo 148 Extending the basketball courts over-excavation to the west.

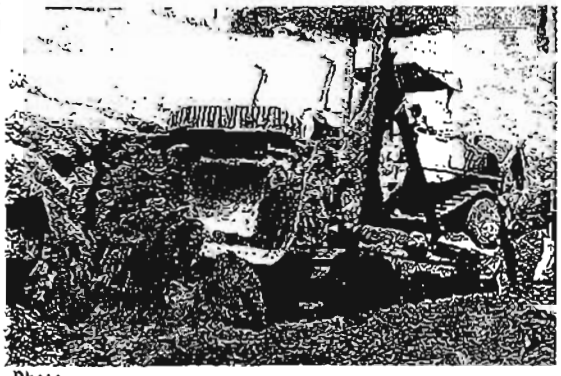


Photo 149 Same area as shown in Photo 148.

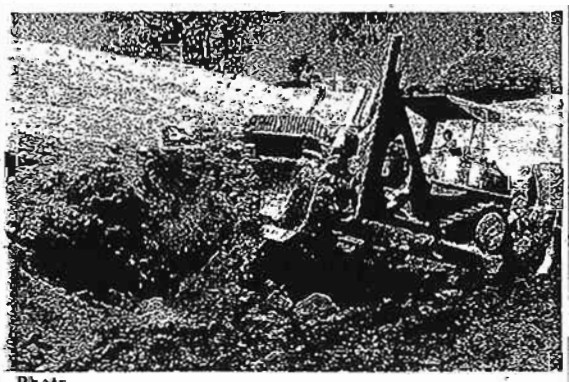


Photo 150 Same area as shown in Photo 148.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 3, 2000 - Photos 151-154
August 4, 2000 – Photos 155-156

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

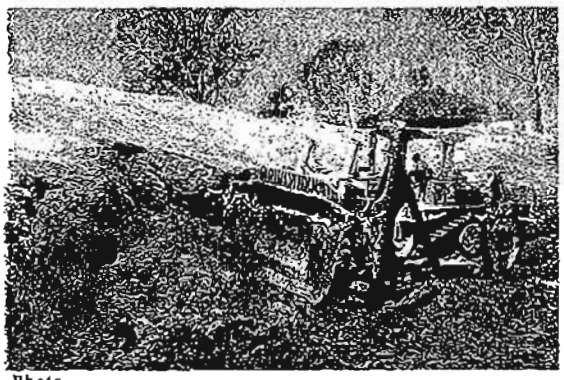


Photo 151 Same area as shown in Photo 148.

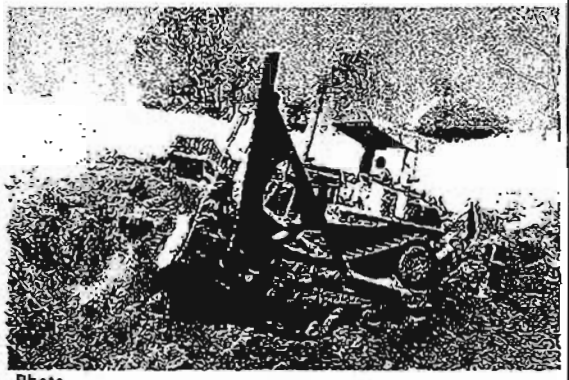


Photo 152 Same area as shown in Photo 148.

Photo 153 Same area as shown in Photo 148.

Photo 154 Same area as shown in Photo 148. Grading operations beginning to uncover ceramic fragments.

Photo 155 Filling operations at the lower bench in the vicinity of the south manholes.

Photo 156 Same area as shown in Photo 155.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 4, 2000 - Photos 157-162

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 157 Filling operations at the lower bench.

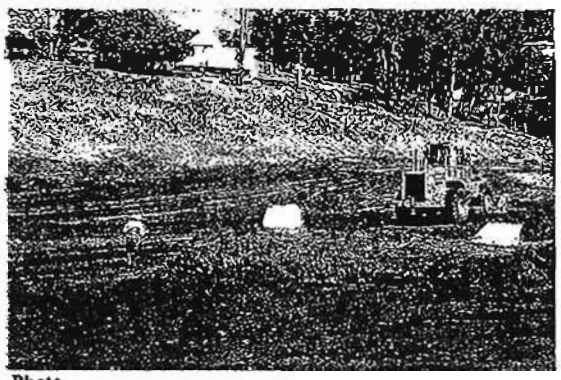


Photo 158 Filling operations at the lower bench.

Photo 159 Filling operations at the lower bench.

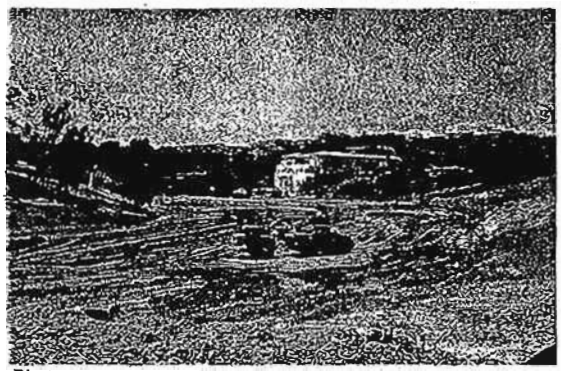


Photo 160 Excavating compacted fill due to the presence of boulders.

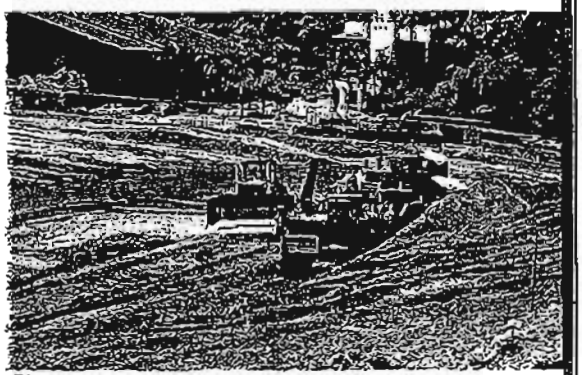


Photo 161 The Brentwood School Gymnasium is shown to the left of the photograph.

Photo 162 The Brentwood School Gymnasium is shown to the left of the photograph.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 4, 2000 - Photos 163-164
August 7, 2000 - Photos 165-168

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 163 Tree debris located alongside the football field construction area.

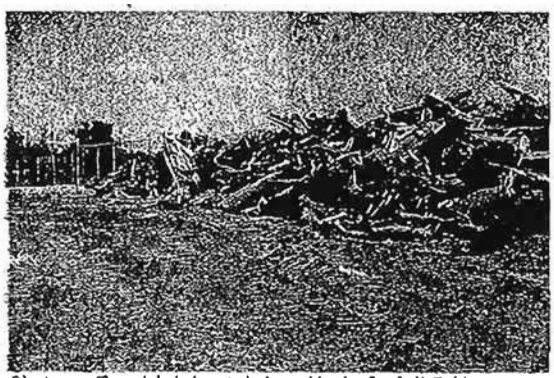


Photo 164 Tree debris located alongside the football field construction area. Tree debris was segregated from excavated soil and taken to the soil stockpile located south of the project area.

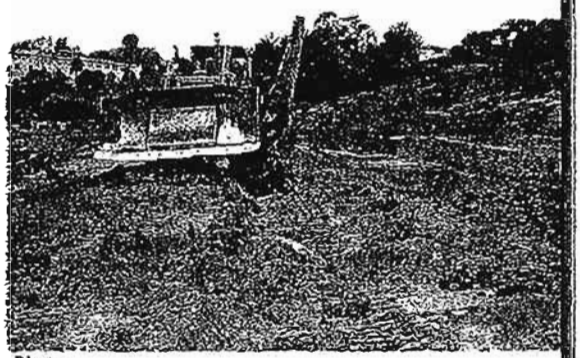


Photo 165 Boulders uncovered during grading operations.

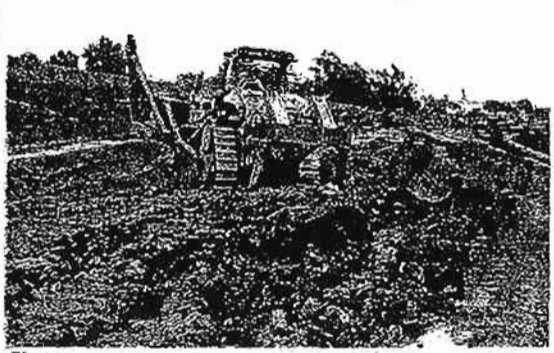


Photo 166 Boulders uncovered during grading operations.

Photo 167 Boulders uncovered during grading operations.

Photo 168 Boulders uncovered during grading operations.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 7, 2000 - Photos 169-174

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 169 Boulders uncovered during grading operations.

Photo 170 Boulders uncovered during grading operations.

Photo 171 Boulders uncovered during grading operations.

Photo 172 Clayey soil encountered during grading operations in the lower bench.

Photo 173 Clayey soil encountered during grading operations in the lower bench.

Photo 174 Removing boulders from the lower bench.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 7, 2000 – Photos 175-180

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

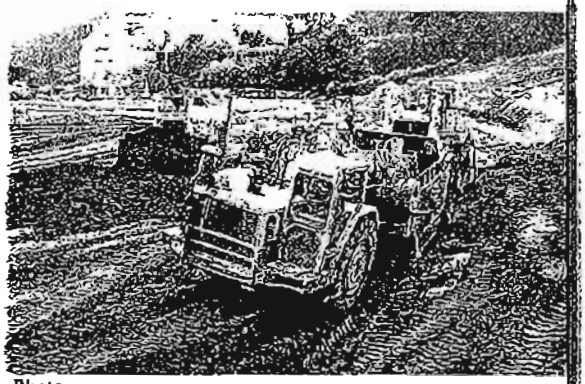


Photo 175 Excavating charred debris

Photo 176 Grading operations at the upper bench.

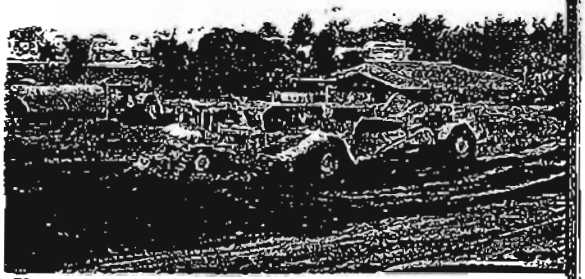


Photo 177 Grading operations at the upper bench.

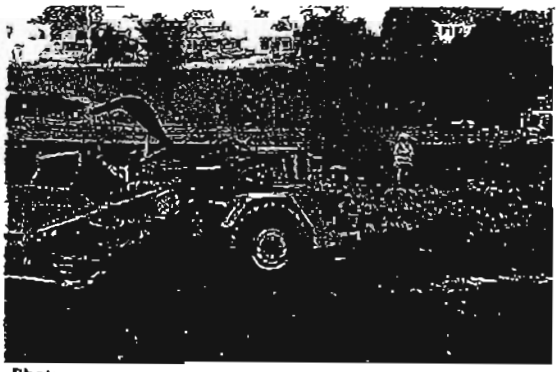


Photo 178 Grading operations at the upper bench.

Photo 179 Grading operations at the upper bench.

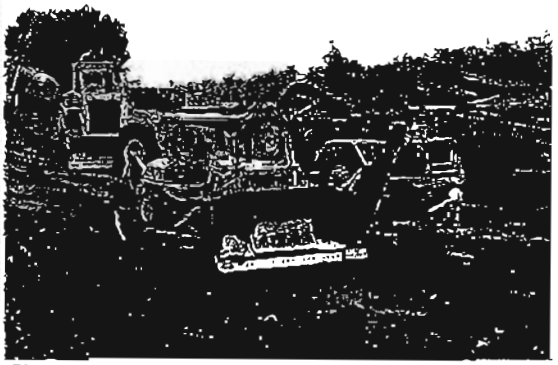


Photo 180 Grading operations at the upper bench.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 8, 2000 - Photos 181-186

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 181 Re-grading the northern end of the upper bench and adjusting the final slope.

Photo 182 Filling operations at the upper bench.

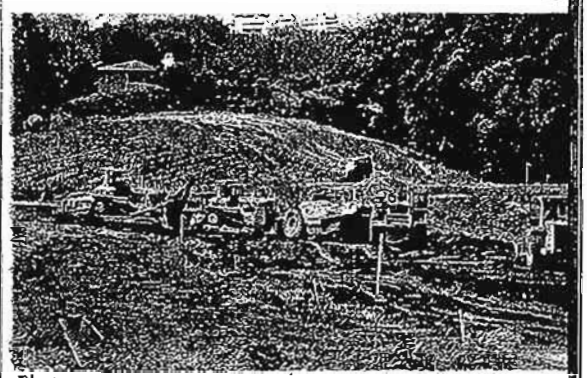


Photo 183 Filling operations at the upper bench.

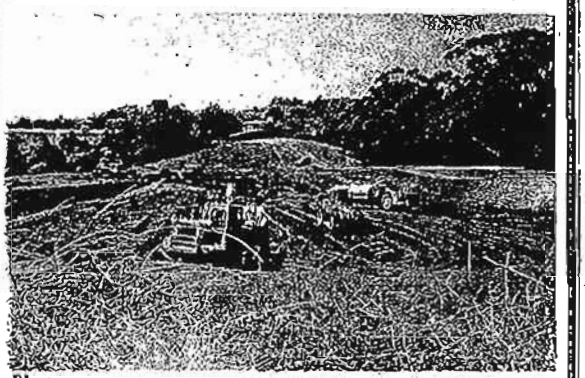


Photo 184 Filling operations at the upper bench.

Photo 185 Filling operations at the upper bench.

Photo 186 Grading operations at the upper bench.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 8, 2000 - Photos 187-192

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

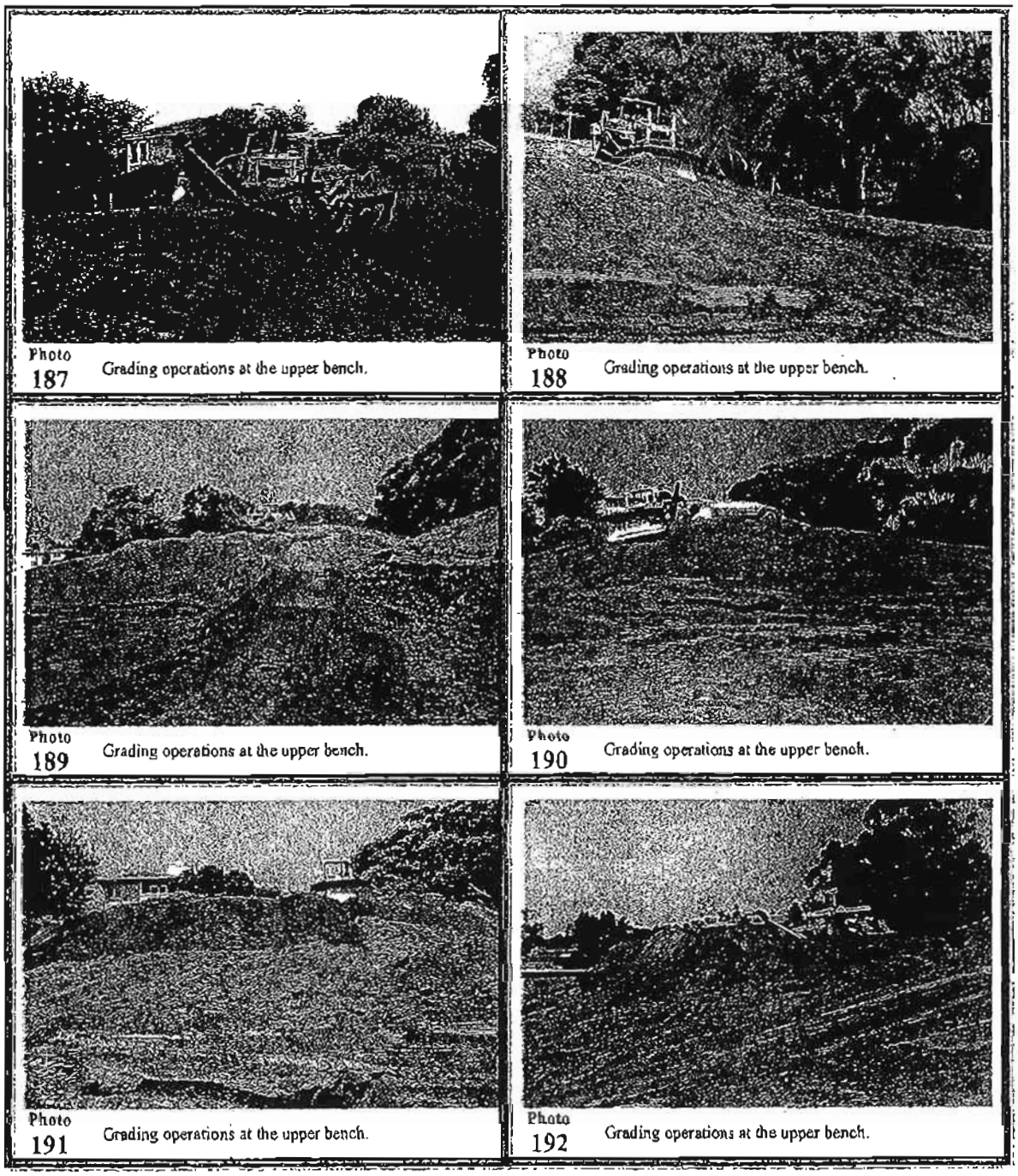


Photo 187 Grading operations at the upper bench.

Photo 188 Grading operations at the upper bench.

Photo 189 Grading operations at the upper bench.

Photo 190 Grading operations at the upper bench.

Photo 191 Grading operations at the upper bench.

Photo 192 Grading operations at the upper bench.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 8, 2000 - Photo 193
August 14, 2000 - Photos 194-196
September 5, 2000 – Photos 197-198

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

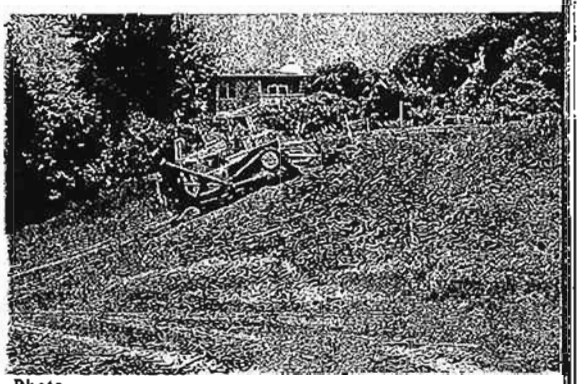


Photo 193 Grading operations at the upper bench.

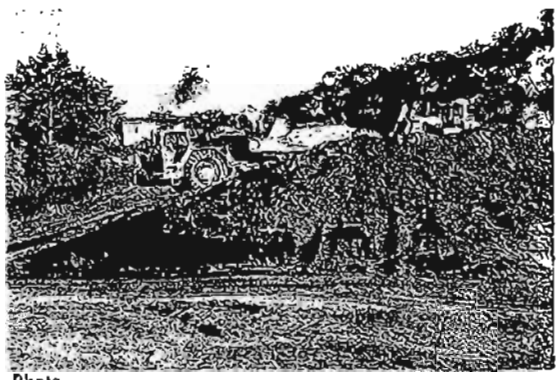


Photo 194 Finish grading at the upper bench.

Photo 195 Finish grading at the upper bench.

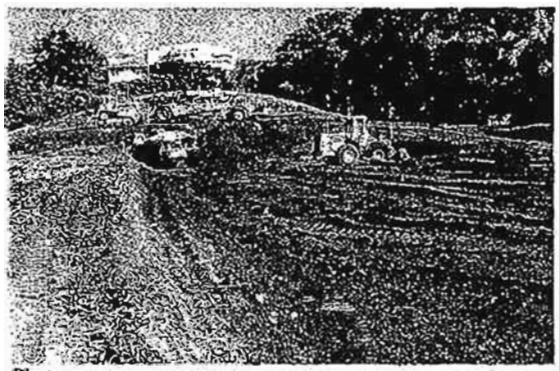


Photo 196 Finish grading at the upper bench.

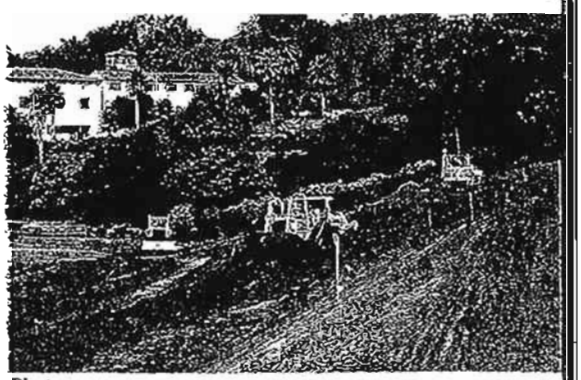


Photo 197 East bank of the lower bench, where bleachers for the football field will be installed.

Photo 198 East bank of the lower bench, where bleachers for the football field will be installed.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: September 5, 2000 - Photos 199-204

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

Photo 199 Upper bench is ready to receive imported fill material.

Photo 200 Same area as shown in Photo 199.

Photo 201 The upper bench receiving imported fill material.

Photo 202 Repositioned upper bench fill to accommodate a design change.

Photo 203 Adjustment completed.

Photo 204 Lower bench receiving new fill material.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: September 5, 2000 - Photos 205-207
September 6, 2000 - Photos 208-209
September 8, 2000 – Photo 210

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

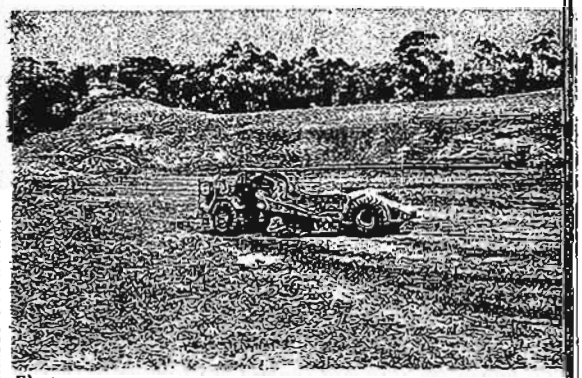


Photo 205 Grading for the football field bleachers area is complete.

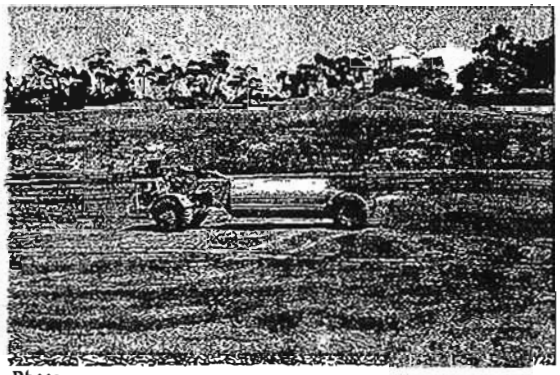


Photo 206 Same area as shown in Photo 205.

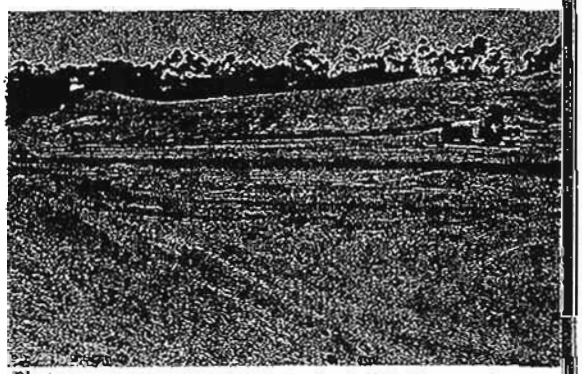


Photo 207 Grading operations for the football field are nearly complete.

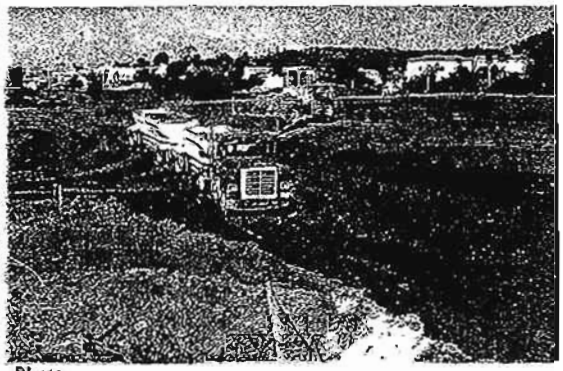


Photo 208 Imported fill being placed at the upper bench.

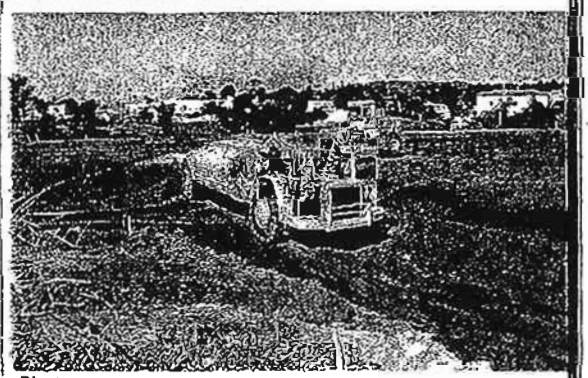


Photo 209 Compaction of new fill at the upper bench.

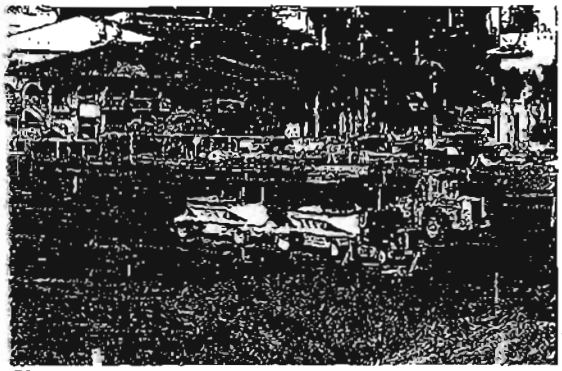


Photo 210 Imported fill for the parking area is being delivered.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: September 8, 2000 - Photos 211-216

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

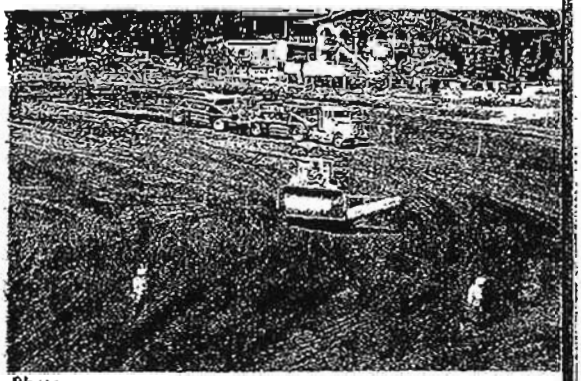


Photo 211 Imported fill for the parking area is being delivered.

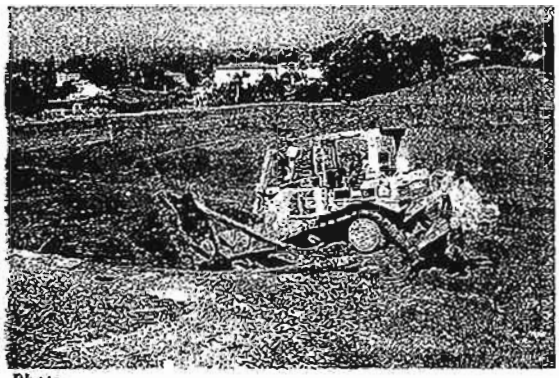


Photo 212 Redesign of the upper bench south bank.

Photo 213 Same area as shown in Photo 212.

Photo 214 Same area as shown in Photo 212

Photo 215 Preparation of the football field west bleacher area.

Photo 216 Same area as shown is Photo 215.

Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: September 8, 2000 - Photo 217

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

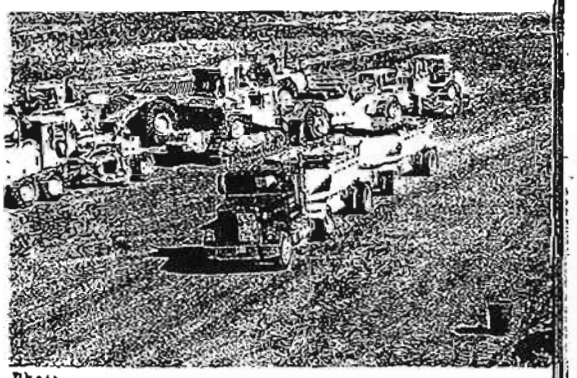
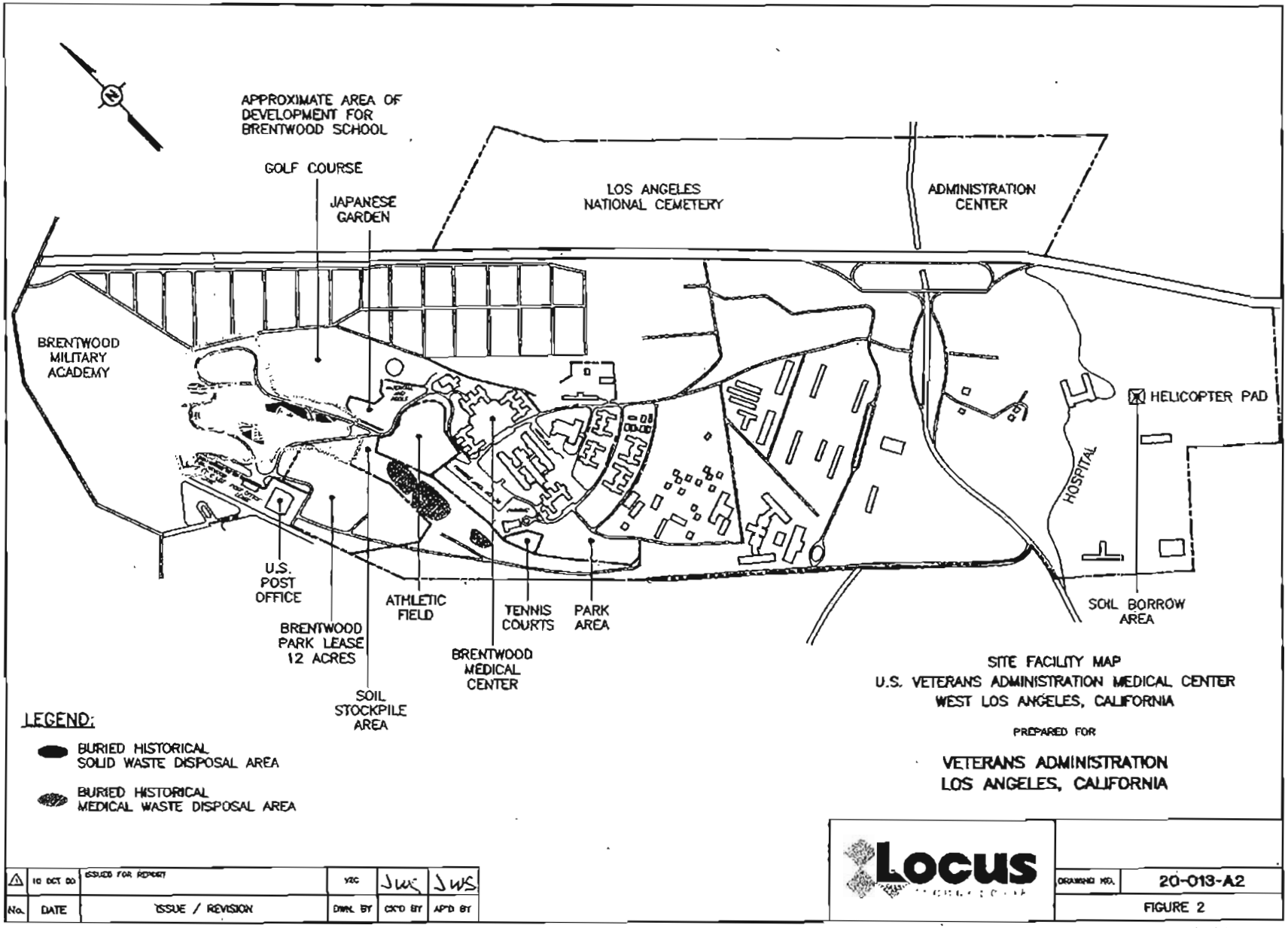


Photo 217 New fill material for the lower bench.



SITE FACILITY MAP
U.S. VETERANS ADMINISTRATION MEDICAL CENTER
WEST LOS ANGELES, CALIFORNIA

PREPARED FOR

VETERANS ADMINISTRATION
LOS ANGELES, CALIFORNIA

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	APP'D BY
1	10 OCT 00	ISSUED FOR REPORT	VZC	JWS	JWS

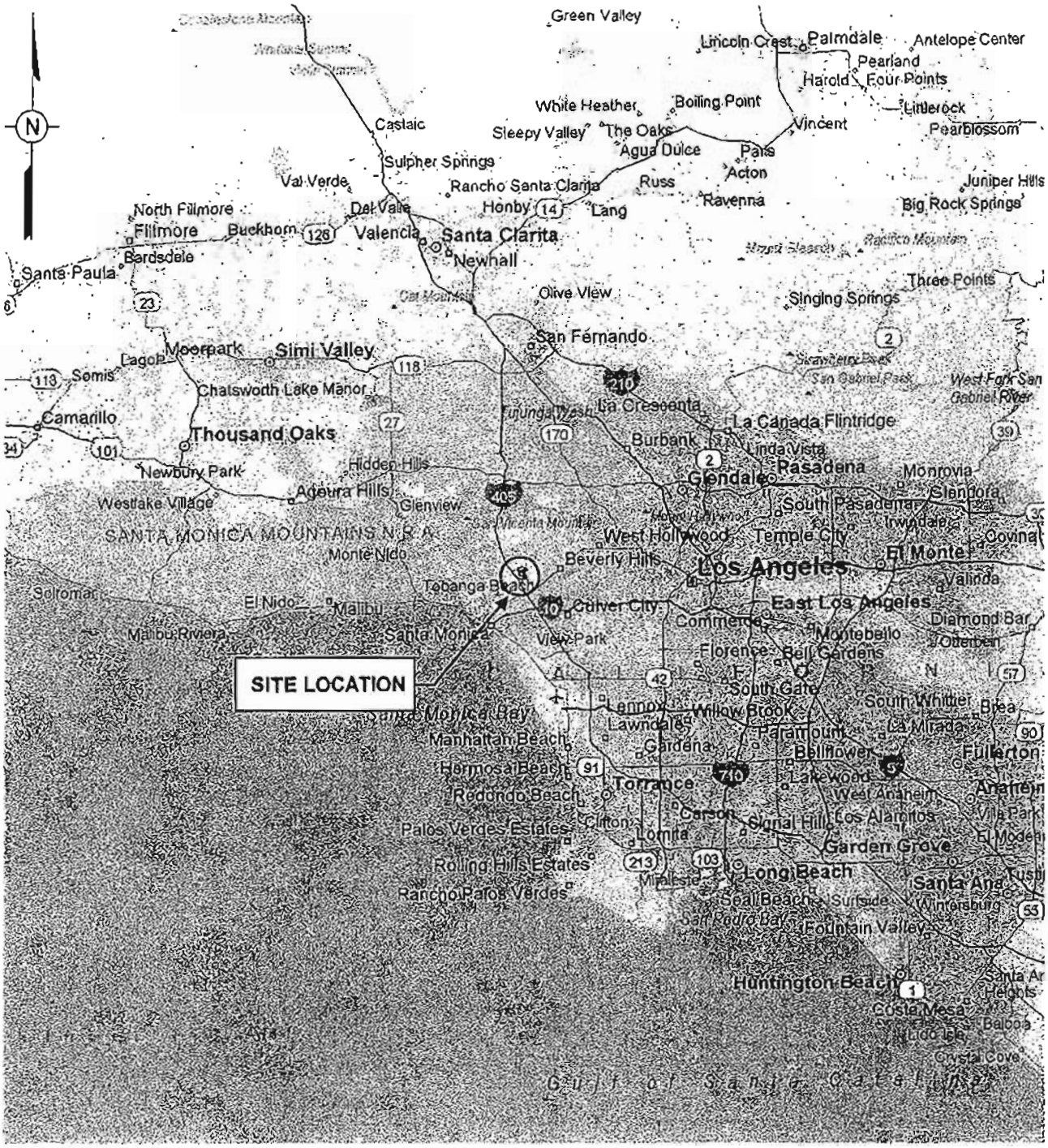
Locus

DRAWING NO. 20-013-A2

FIGURE 2

K:\20-013\A2.DWG 27 SEP 00

16-98



SITE LOCATION MAP
U.S. VETERANS ADMINISTRATION
WEST LOS ANGELES, CALIFORNIA

PREPARED FOR

VETERANS ADMINISTRATION
LOS ANGELES, CALIFORNIA

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	APP'D BY
1	29 SEP 00	ISSUED FOR REPORT	VZC		

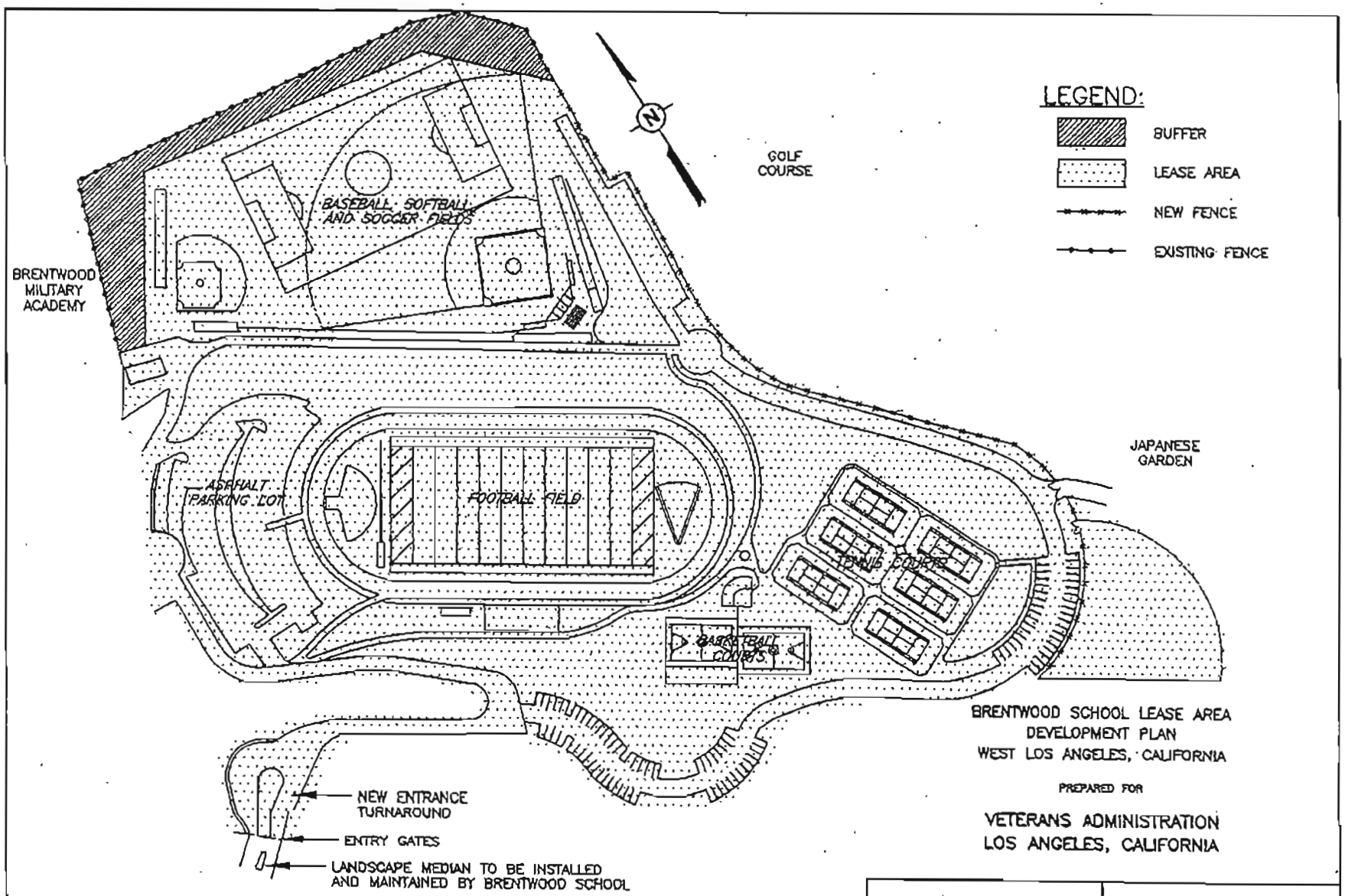
Locus

NOT TO SCALE

DRAWING NO. 20-013-A1

FIGURE 1

AR-72



No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	APP'D BY
1		ISSUED FOR REPORT	VZC		

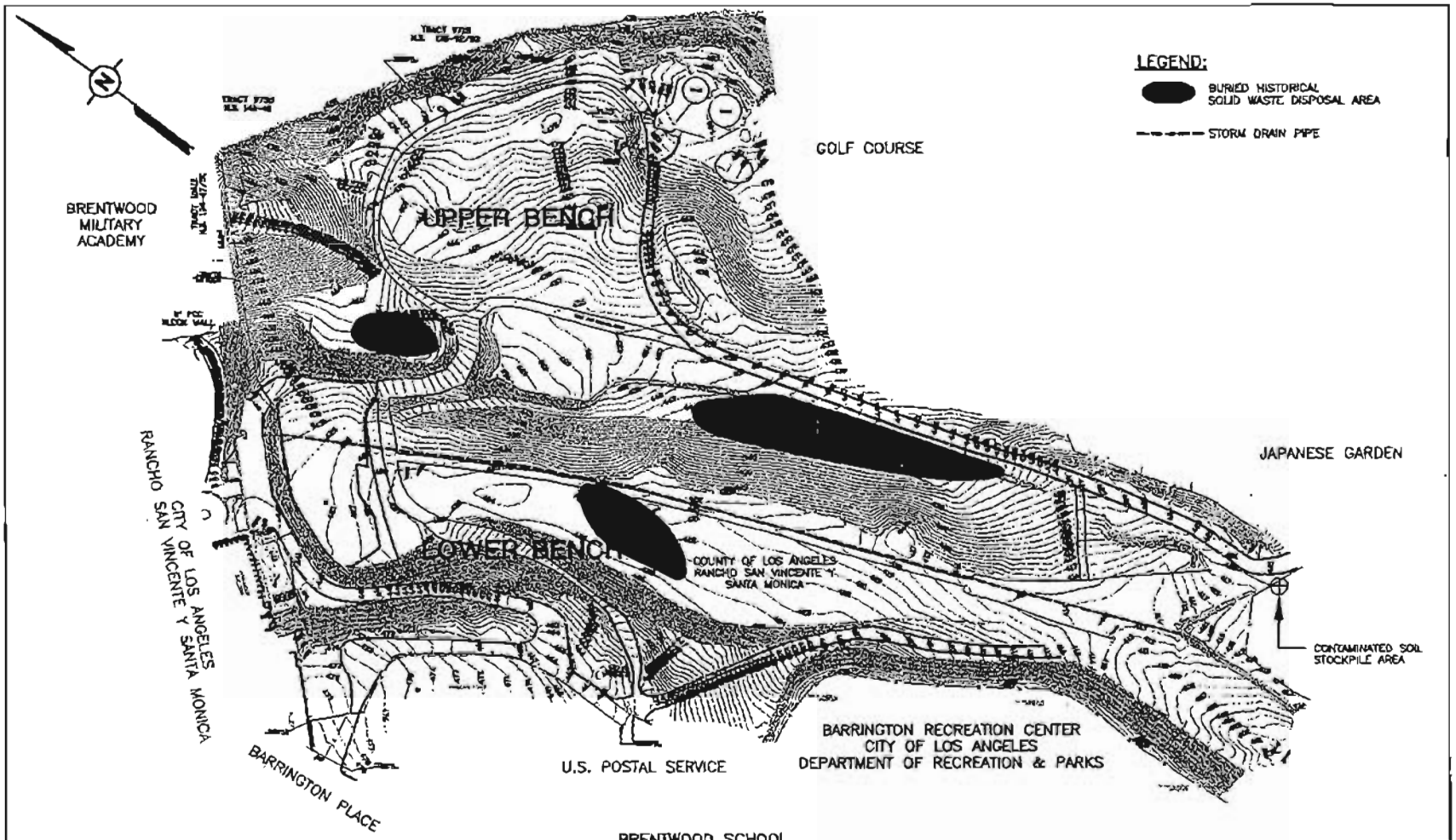
Locus TECHNOLOGIES

DRAWING NO. 20-013-A3

FIGURE 4

K:\20-013\A3.DWG 22 SEP 00

A1-13



BRENTWOOD SCHOOL
LEASE AREA SITE
WEST LOS ANGELES, CALIFORNIA

PREPARED FOR

VETERANS ADMINISTRATION
LOS ANGELES, CALIFORNIA

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY
1	20 OCT 00	ISSUED FOR REPORT	VJC	SWS	JWS

Locus

NOT TO SCALE

DRAWING NO. 20-013-A5

FIGURE 3

K:\20-013\A5.DWG 29 SEP 00