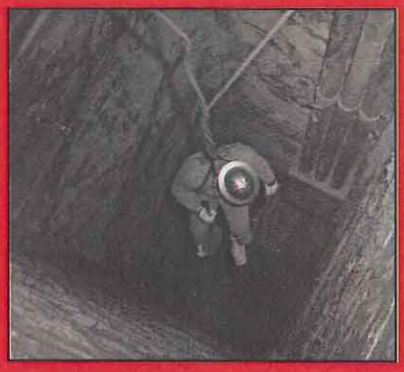
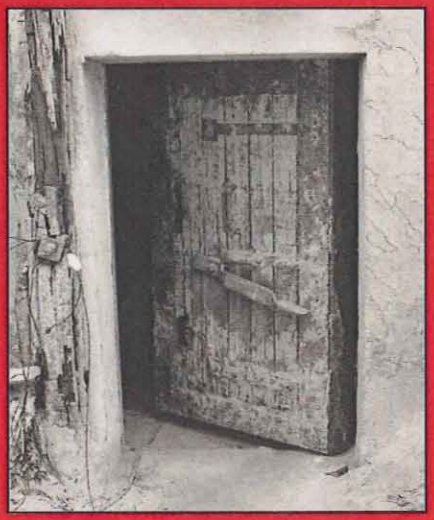
LA-UR-04-7938

Historic Context of Hot Point Site, Technical Area 33

Volume 1





RRES-ECO Heritage Resources and Environmental Policy Compliance Team
Risk Reduction and Environmental Stewardship Division
LOS ALAMOS NATIONAL LABORATORY

LA-UR-04-7938

Historic Context of Hot Point Site, Technical Area 33

Historic Building Report No. 238

Los Alamos National Laboratory

October 31, 2004
Survey Nos. 665, 762, 861, 913, and 944

Prepared for the
Department of Energy, National Nuclear Security Administration
Los Alamos Site Office

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RRES-ECO Heritage Resources and Environmental Policy Compliance (HREPC) Team
Risk Reduction and Environmental Stewardship Division
LOS ALAMOS NATIONAL LABORATORY

TABLE OF CONTENTS

Volume 1

Acronyms 3

Introduction 4

Historical Overview

- Manhattan Project (1942–1946) 5
- Early Cold War Era (1946–1956) 9
- Late Cold War Era (1956–1990) 10

Historic Context of Technical Area (TA) 33, Hot Point (HP) Site

- General Overview 11
  - Site Selection 12
  - Initiator Testing 12
    - Underground Chamber Tests 12
    - ½-Scale and Full-Scale Pad Shots 13
- Area 1/East Site 14
  - Area 1 (1948-1955) 16
    - Trinity Site and "Sleeping Beauty" 16
    - Underground Chamber Testing 19
    - 1952 TNT Test 22
  - East Site (1955-1972) 26
    - Full-Scale Pad Shots 26
- Area 6 28
- South Site 32
  - Underground Chamber Testing 34
  - ½-Scale Pad Shots 34
  - Tower Area 35
  - Blivit Storage Area 35
- Main Site 38
  - The Gas Handling Facility – TA-33-86 41
- National Radio Astronomy Observatory (NRAO) Site 43

Property Descriptions (TA-33-1, -2, -24, -25, -26, -40, -86, -90) 46

References Cited 56

List of Appendices

Appendix A1	Historic Building Inventory Forms with Representative Photographs and Building Drawings for Buildings TA-33-24, -25, and -26
Appendix A2	Previously Submitted Historic Building Inventory Forms with Representative Photographs and Building Drawings for Buildings TA-33-1, -2, -40, -86, and -90
Appendix B	Maps Showing Location of Eligible and Non Eligible Properties and TA-33's Construction History
Appendix C	Interview Information
Appendix D	Listing of Drawings on File at LANL for Properties at TA-33

Volume 2

Archival Photographs with Index

ACRONYMS

AEC – Atomic Energy Commission

HP – Hot Point

LANL – Los Alamos National Laboratory

LASO – Department of Energy, National Nuclear Security Administration, Los Alamos Site Office

MOA – Memorandum of Agreement

NASA – National Aeronautics and Space Administration

NRAO – National Radio Astronomy Observatory

NTS – Nevada Test Site

SHPO – State Historic Preservation Officer

SRP – Savannah River Plant

TA – Technical Area

TNT – Trinitrotolulene

VLBA – Very Long Baseline Array

WWII – World War II

INTRODUCTION

The following documentation fulfills the terms set forth in two memoranda of agreement (MOAs) between the Department of Energy, National Nuclear Security Administration, Los Alamos Site Office (LASO) and the New Mexico Historic Preservation Division regarding the demolition of buildings 1, 2, 40, 86, and 90 at Technical Area (TA) 33, Los Alamos National Laboratory (LANL). As per the terms of the MOAs, finalized on February 26, 1999, and April 10, 2002, Volume 1 of this report includes a history and description of TA-33. Appendices to Volume 1 include historic building inventory forms with selected photographs and building drawings (Appendix A), maps showing TA-33's construction history and the location of eligible and non-eligible properties (Appendix B), oral interview information (Appendix C), and a listing of drawings on file at LANL for the five buildings listed in the two MOAs (Appendix D). A set of indexed archival photographs of the MOA properties is included in Volume 2. Buildings TA-33-1, -2, -40, -86, and -90 were determined eligible for the National Register of Historic Places (Register) under Criterion A in correspondence between the SHPO and LASO on February 22, 1999 and November 19, 2001. Initial recommendations for eligibility are contained in two reports written by LANL heritage resource managers (*Decontamination and Decommissioning of Buildings 86 and 90 at Technical Area 33*, Report No. 158, LA-UR-98-4463 and *Decontamination and Decommissioning of Buildings 1, 2, and 40 at Technical Area 33*, Report No. 195, LA-UR-01-5308).

Additional information related to buildings TA-33-24, TA-33-25, and TA-33-26 is also being submitted in this documentation report and includes historic building inventory forms, drawing lists, and archival photos. These three Cold War era buildings were inadvertently impacted by LANL remodeling activities prior to consultation with the New Mexico State Historic Preservation Officer (SHPO) and prior to the development of a MOA concerning the resolution of adverse effects. In verbal consultation between representatives of LASO and the SHPO, all parties agreed that the three properties were eligible for the Register under Criterion A and C and that adverse effects to the buildings would be resolved by implementing the terms of LASO's standard MOA regarding the demolition or modification of buildings.

TA-33 is an isolated technical area located in the southeastern corner of the Laboratory. Situated near Bandelier National Monument, this technical area was historically known as Hot Point (HP) Site (Map 1). TA-33 was established in 1947 and has functioned primarily as a test site for weapons components called initiators.[1] Over the years, weapons components tests have been conducted at various locations within TA-33 and have included underground and surface experiments, many using large guns that fire experimental projectiles into bermed areas. The Laboratory discontinued firing tests at TA-33 in 1972. Other significant facilities at TA-33 include a high-pressure tritium facility ("the Gas Handling Facility"), which was operated at TA-33 from the mid 1950s until late 1990, and an antenna of the National Radio Astronomy Observatory (NRAO) Very Long Baseline Array radio telescope, which was sited at TA-33 in 1985 and is still in operation (Los Alamos National Laboratory 1992). TA-33 includes five main sites: East Site/Area 1 (the eastern firing site), Area 6 (the western firing site), South Site (the southern firing site), Main Site (the central administrative area), and the NRAO Site (the radio telescope site) (Map 2).

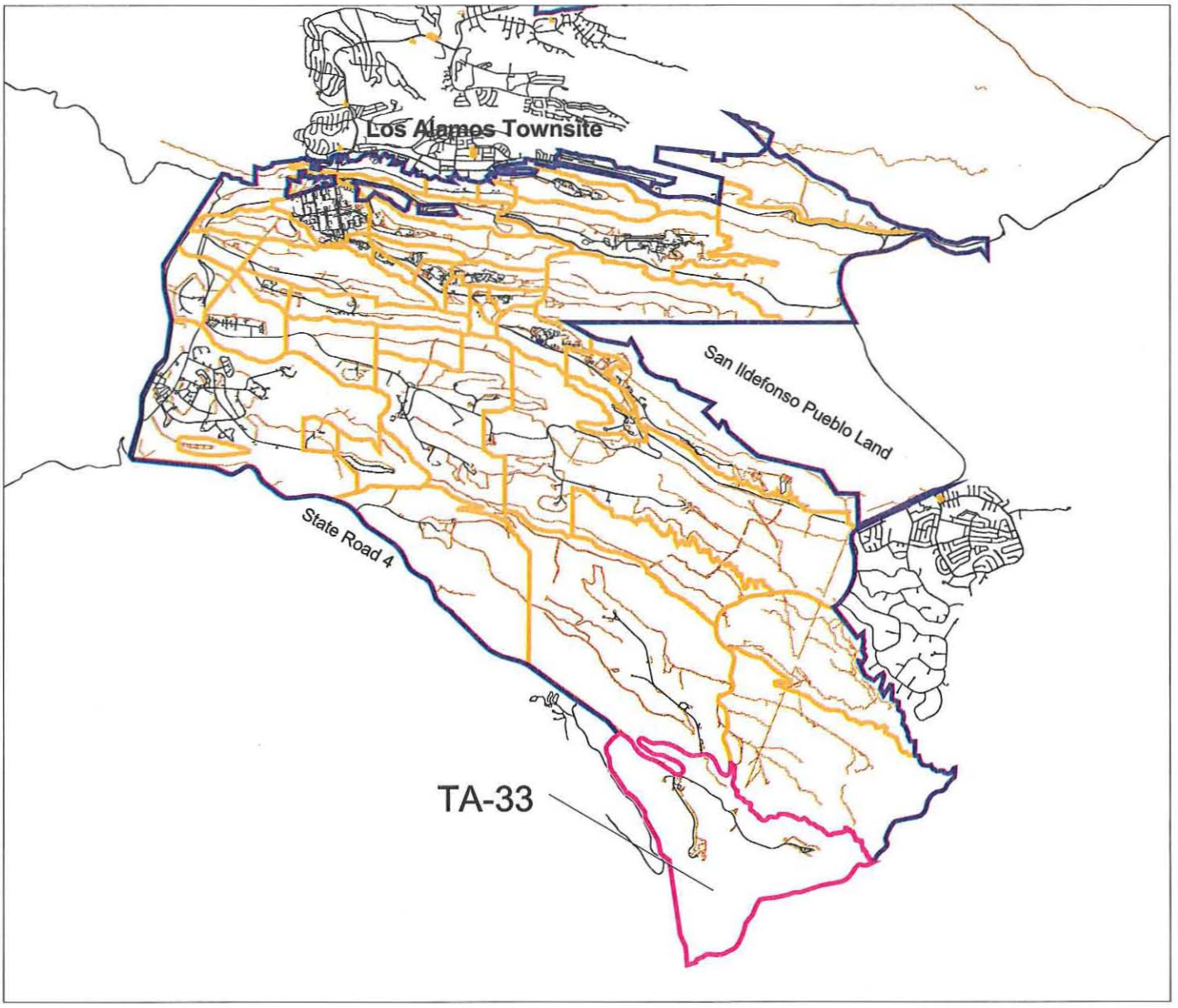
HISTORICAL OVERVIEW

Manhattan Project (1942–1946)

In 1939, Albert Einstein wrote a letter to President Franklin Roosevelt warning him of a possible German atomic bomb threat (Rothman 1992). President Roosevelt, acting on Einstein's concerns, gave approval to develop the world's first atomic bomb and appointed Brigadier General Leslie Groves to head the "Manhattan Project." Groves, in turn, chose Robert Oppenheimer to coordinate the design of the bomb.

A single isolated and secret research facility was proposed. General Groves had several criteria: security, isolation, a good water supply, an adequate transportation network, a suitable climate, an available labor force, and a locale west of the Mississippi located "at least 200 miles from any international border or the West Coast" (Rothman 1992). In 1942, Oppenheimer, who had visited the Pajarito Plateau on a horseback trip, suggested the Los Alamos Ranch School.

[1] Nuclear weapons rely on initiator devices to supply a source of neutrons that will quickly enhance the chain reaction at exactly the right moment.



Los Alamos
National Laboratory

Heritage Resources and
Environmental Policy Compliance Team
RRES-ECO Ecology Group

1:110000

4000 0 4000 8000 12000 16000 Feet

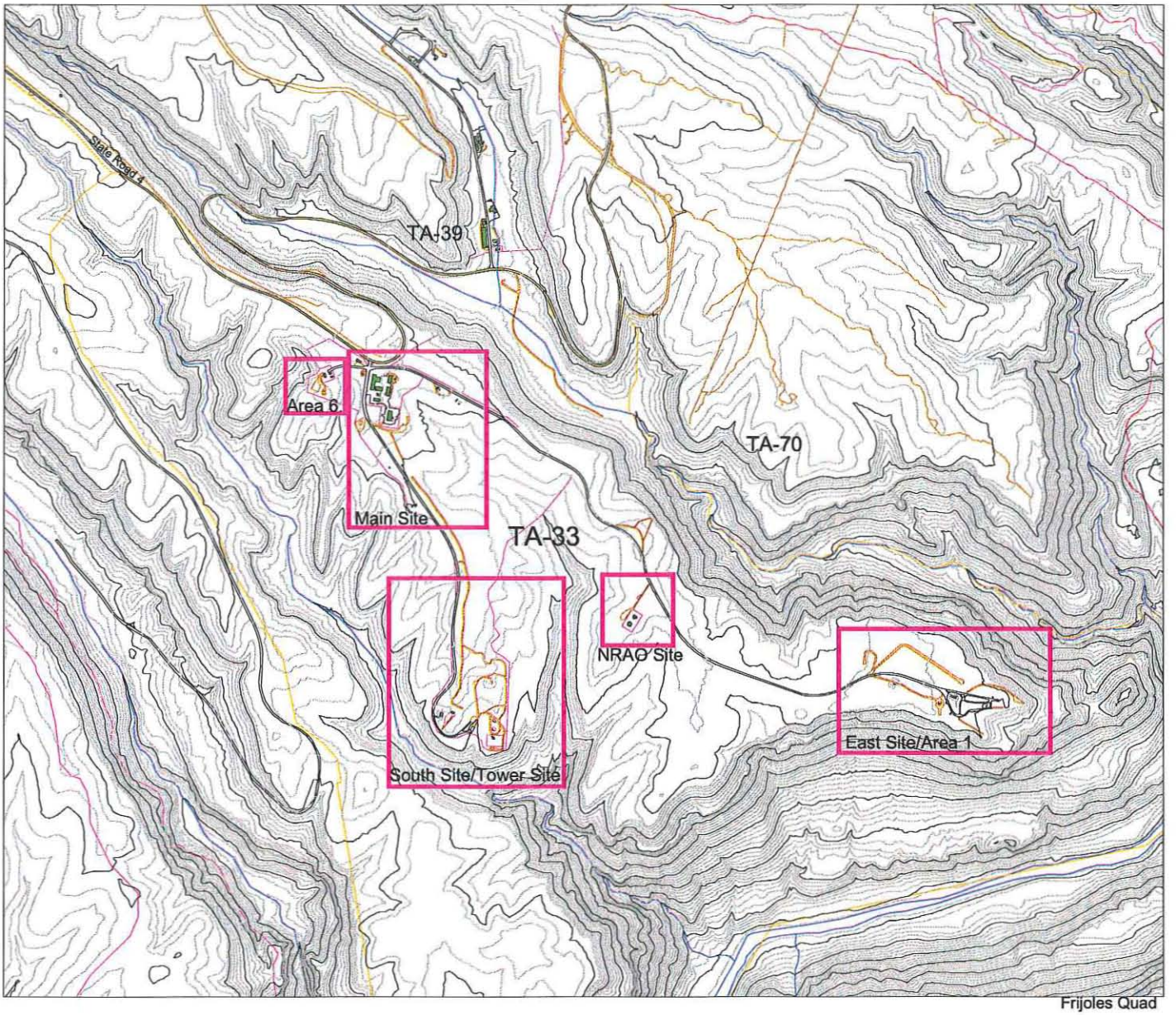
1000 0 1000 2000 3000 4000 Meters

N
W E
S

Tech Area 33
LANL Boundary
LANL Tech Area Boundary
Roads
Roaddirt
Parkpave
Parkdirt

TA-33

Map 1



Los Alamos
National Laboratory

Heritage Resources and
Environmental Policy Compliance Team
RRES-ECO Ecology Group

1:24000

900 0 900 1800 2700 Feet

200 0 200 400 600 800 Meters

N
W E
S

20 Foot Contours
100 Foot Contours
Techarea
Drainage
Trails
Roads
Roaddirt
Parkpave
Parkdirt
Fences
Buildings/Structures

TA-33 Areas

Map 2

Oppenheimer and his staff moved to Los Alamos in early 1943 to begin work. The recruitment of the country's "best scientific talent" and the construction of technical buildings were top priorities (LANL 1995:8). The University of California agreed to operate the site, code name "Project Y," under contract with the government (an arrangement that has continued to this day). Although the fission bomb was conceptually attainable, many difficulties stood in the way of producing a usable weapon. Technical problems included timing the release of energy from fissionable material and overcoming engineering challenges related to producing a deliverable weapon. Nuclear material and high explosive studies were of immediate importance (LANL 1995).

Two bomb designs appeared to be the most promising: a uranium "gun" device and a plutonium "implosion" device. The gun device involved shooting one subcritical mass of uranium-235 into another at sufficient speed to avoid pre-detonation. Together, the two subcritical masses would form a supercritical mass, which would release a tremendous amount of nuclear energy (Hoddeson *et al.* 1998). This method led to the development of the "Little Boy" device. Because it was conceptually simple, "Little Boy" was never tested before its use at Hiroshima. Scientists were less confident about the implosion design, which used shaped high explosives to compress a subcritical mass of plutonium-239. The symmetrical compression would increase the density of the fissionable material and cause a critical reaction.

In 1944, the uncertainties surrounding the plutonium device necessitated a search for an appropriate test site for the implosion design, later used in the "Fat Man" device. Manhattan Project personnel chose the Alamogordo Bombing Range in south-central New Mexico for the location of the test. A trial run involving 100 tons of trinitrotolulene (TNT) was conducted at the test site ("Trinity Site") on May 7, 1945. This dress rehearsal provided measurement data and simulated the dispersal of radioactive products (LANL 1995). The Trinity test was planned for July and its objectives were "to characterize the nature of the implosion, measure the release of nuclear energy, and assess the damage" (LANL 1995:11). The world's first atomic device was successfully detonated in the early morning of July 16, 1945. Little Boy, the untested uranium gun device, was exploded over the Japanese city of Hiroshima on August 6, 1945. On August 9, 1945, Fat Man was exploded over Nagasaki, essentially ending the war with Japan.

Early Cold War Era (1946–1956)

The future of the early Laboratory was in question after the end of World War II (WWII). Many scientists and site workers left Los Alamos and went back to their pre-war existences. Norris Bradbury had been appointed director of the Laboratory following Oppenheimer's return to his pre-WWII duties (LANL 1993). Bradbury felt that the nation needed "a laboratory for research into military applications of nuclear energy" (LANL 1993:62). In late 1945, General Groves directed Los Alamos to begin stockpiling and developing additional atomic weapons (Gosling 2001). Post-war weapon assembly work was now tasked to Los Alamos's Z Division, which had been relocated to an airbase (now Sandia) in nearby Albuquerque, New Mexico (Gosling 2001).

In 1946, Los Alamos became involved in "Operation Crossroads," the first of many atmospheric tests in the Pacific. Later, also in 1946, the U.S. Atomic Energy Commission (AEC) was established to act as a civilian steward for the new atomic technology born of WWII. The AEC formally took over the Laboratory in 1947, making a commitment to retain Los Alamos as a permanent weapons facility.

With the beginning of the Cold War—the term "Cold War" was first coined in 1947—weapons research once again became a national priority. Weapons research at Los Alamos, spearheaded by Edward Teller and Stanislaw Ulam, focused on the development of the hydrogen bomb, the feasibility of which had been discussed seriously at Los Alamos as early as 1946. The simmering Cold War came to a full boil in late 1949 with the successful test of "Joe I," the Soviet Union's first atomic bomb. In January 1950, President Truman approved the development of the hydrogen bomb; Truman's decision led to the remobilization of the country's weapons laboratories and production plants. The year 1950 also marked the first meeting of Los Alamos's "Family Committee"—a committee tasked with developing the first two thermonuclear devices (LANL 2001). In 1951, the Nevada Proving Ground (now the Nevada Test Site [NTS]) was established and the first Nevada atmospheric test, "Able," was conducted. In the same year, Los Alamos directed "Operation Greenhouse" in the Pacific and successfully conducted both the first thermonuclear test, "George," and the first thermonuclear "boosted" test, "Item." In 1952, the

first thermonuclear bomb, known as "Mike," was detonated at Enewetak Atoll[2] in the Pacific (LANL 1993). In short order, the Soviet Union responded with a successful demonstration of the use of fusion in August 1953, followed by a test of a hydrogen bomb in 1955. The arms race was on. By 1956, Los Alamos had successfully tested a new generation of high explosives (plastic-bonded explosives) and had begun to make improvements to the primary stage of a nuclear weapon (LANL 2001).

Although weapons research and development has always played a major role in the history of LANL, other key themes for the years 1942–1956 include supercomputing advancements, fundamental biomedical and health physics research, high explosives research and development, reactor research and development, pioneering physics research, and the development of the field of high-speed photography (McGehee and Garcia 1999). The Early Cold War era at Los Alamos ended in 1956, a date that marks the completion of all basic nuclear weapons design at LANL; later research at Los Alamos focused on the engineering of nuclear weapons to fit specific delivery systems. The year 1956 was also the last year that Los Alamos was a closed facility—the gates into the Los Alamos townsite came down in 1957.

Late Cold War Era (1956–1990)

The Late Cold War era saw Los Alamos's continued support of the atmospheric testing programs in the Pacific and at NTS. In 1957, the first of many underground tests at NTS was conducted. Other defense mission undertakings during this time included treaty and test ban verification programs (such as using satellite sensors to detect nuclear explosions), research and development of space-based weapons, and continued involvement with stockpile stewardship issues. Non-weapons undertakings supported nuclear medicine, genetic studies, National Aeronautics and Space Administration (NASA) collaborations, superconducting research, contained fusion reaction research, and other types of energy research (McGehee and Garcia 1999).

[2] A better understanding of the Marshall Islands language has permitted a more accurate transliteration of Marshall Island names into English. Enewetak is now the preferred spelling (formerly Eniwetok).

HISTORIC CONTEXT OF TECHNICAL AREA (TA) 33, HOT POINT (HP) SITE

General Overview

(LANL, RRES-ECO/HREPC, #DCP_1718)

Figure 1. TA-33, Hot Point Site

TA-33 was initially developed in 1947 for the Laboratory's weapons testing group M-3 (later W-3) as a substitute test site for implosion-type initiator experiments being conducted at Trinity Site in southern New Mexico. Early initiator experiments were performed in underground chambers and on surface firing pads. Additional initiator tests were carried out at firing sites equipped with large guns that fired projectiles into earthen berms. These tests used conventional high explosives as well as uranium, beryllium, and polonium radiation sources. Unrelated to initiator testing activities, an important high-pressure tritium facility (TA-33-86) was built at TA-33 in 1955 (LANL 1992, Los Alamos National Laboratory Archives).

Firing tests ended at TA-33 in 1973, and W-3 personnel were transferred to WX and GMX divisions (Hoard 1991). Building TA-33-86, the Gas Handling Facility, continued its operations until 1990. In later years, much of TA-33 was used for offices, laboratories, and storage space by

the Hot Dry Rock Group, which conducted experiments at the Fenton Hill site in the Jemez Mountains, and for the International Technologies Group, which engaged in electronics design and fabrication (LANL 1992). At present, all TA-33 facilities are under the administrative control of the International, Space, and Response (ISR) Division.

Site Selection

Group M-3 was formed in 1945 to study weapons initiators. Basic initiator designs had already been developed during the war years at Los Alamos; however, additional design work was needed. Post-World War II work related to refinements of design and to the specific study of the timing of initiators. From 1945 to 1947, a variety of development and testing locations were used by Group M-3, including Sandia Canyon (formerly TA-20), TA-21 (DP East), P-Site (now part of TA-16), and the Trinity Site near Alamogordo, New Mexico. TA-33 was designated a Laboratory technical area on November 28, 1947, after the Forest Service authorized use of the land. TA-33's present location was chosen because of its large land area and distance from the townsite. In early 1948, TA-33 was "accepted" for start up and the first phase of construction at Area 6 was completed. Area 1 (present day East Site) was also operational by 1948 (Los Alamos National Laboratory Archives). Early facilities at Hot Point Site included an underground test chamber, three portable buildings, and a portable elevator. Upon completion of the site in 1948, work moved from TA-13 (P Site) to TA-33 (U.S. DOE 1986).

Initiator Testing

Underground Chamber Tests

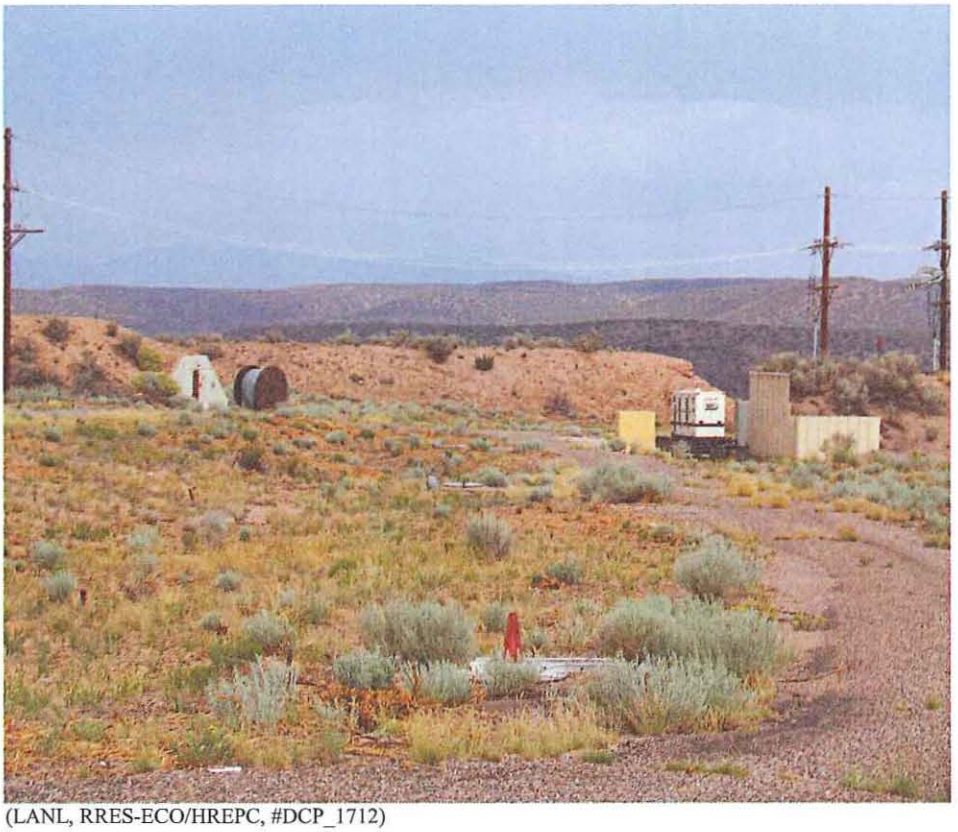
Underground chamber tests were carried out at TA-33 during the 1940s and early 1950s to support atomic tests being conducted in the Pacific. Additional tests had to be completed in order to refine the design of implosion-type initiators before critical atmospheric tests could be performed. Five underground chambers and support facilities were constructed at Hot Point Site for this purpose.

½-Scale and Full-Scale Pad Shots

Much of the later work performed at TA-33 involved gun assembly design and testing related to classified weapons projects, a continuation of work begun during the Manhattan Project at TA-8's Gun Site facility. In the early 1950s, shot experimentation changed from underground to aboveground testing; chamber facilities were abandoned in favor of firing pads and gun shots. Operations conducted at TA-33 were associated with specific LANL weapon designs, and facilities at this technical area are unique to Los Alamos. However, Los Alamos researchers at TA-33 did collaborate with the Army and Navy during the various phases of the stockpile design and testing process. For example, much of the gun research at TA-33, which started in the early 1950s and continued until the mid-1960s, was sponsored by the Bureau of Ordnance and the United States Navy (U.S. DOE 1986). Some Los Alamos gun tests were also carried out at the Dahlgren Naval Proving Grounds in Virginia.

At TA-33, the majority of gun shots were performed on firing pads, and full-scale and ½-scale pad shot facilities for initiator development were established. The ½-scale site was located at South Site and the full-scale was at East Site/Area 1. At East Site, guns fired projectiles into berms or "catcher boxes" full of soil, wood chips, and vermiculite. Projectiles would then be retrieved and studied. These assemblies incorporated combinations of various metals with radionuclides and high explosives. Occasionally, projectiles would stray from the target or break open during testing, spreading contamination throughout the area. The firing program was originally thought to be temporary at TA-33, but actually continued for many years (U.S. DOE 1986).

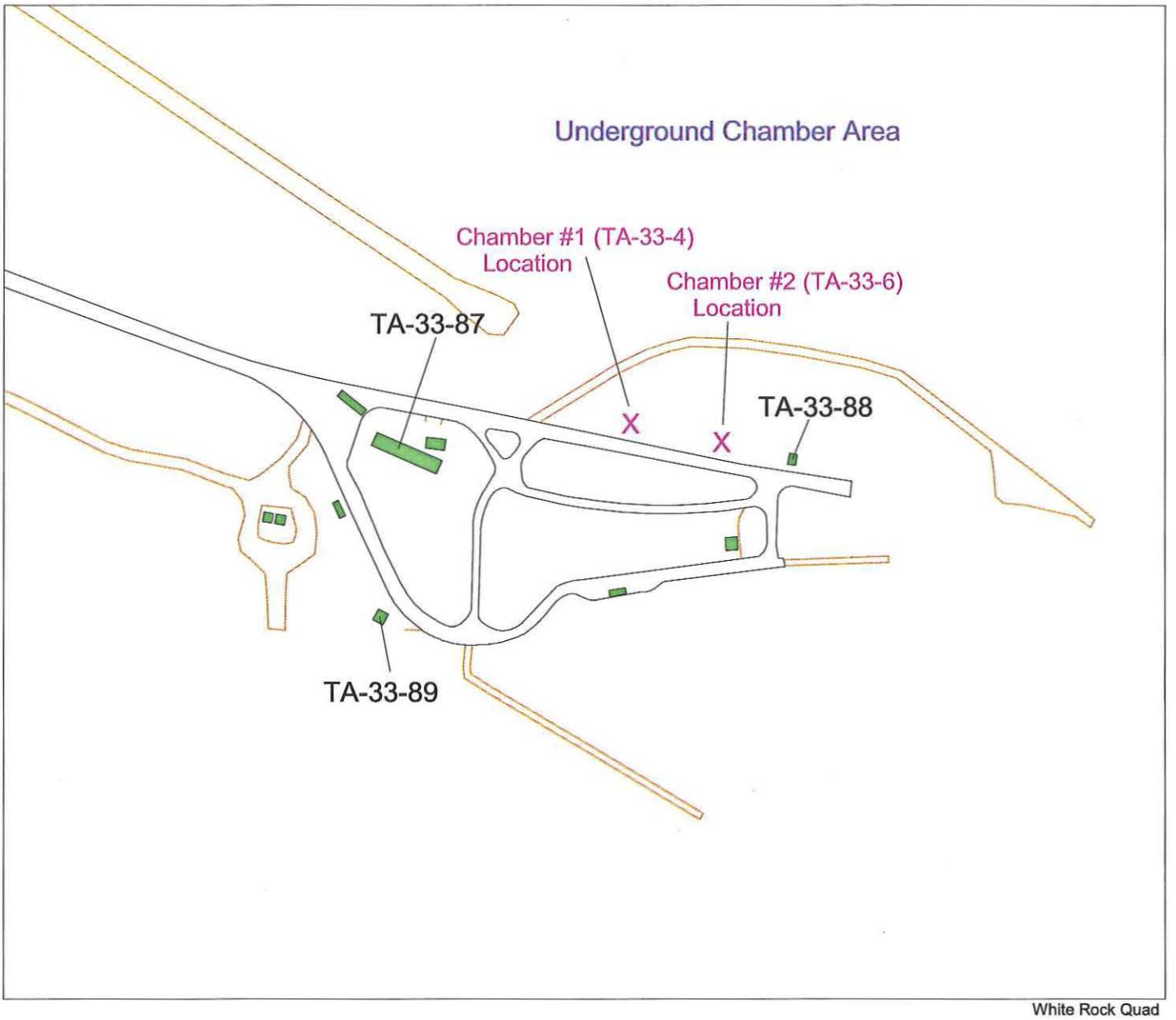
Area 1/East Site



(LANL, RRES-ECO/HREPC, #DCP_1712)

Figure 2. East Site (looking east toward TA-33-88)

East Site (formerly known as Area 1) is a firing site located at the easternmost point of a mesa overlooking the Rio Grande (LANL 1992) (Map 3). After the end of WWII, two bomb designs were being developed for use in the United States stockpile: a plutonium "implosion" device and a uranium "gun-type" device. The implosion design used shaped high explosives to compress a subcritical mass of plutonium-239 and cause a critical reaction (LANL 1995). "Area 1" was originally developed in the late 1940s as a test site for underground tests on implosion-type initiators.



White Rock Quad

Los Alamos
National Laboratory

Heritage Resources and
Environmental Policy Compliance Team
RRES-ECO Ecology Group

1:2500

100 0 100 200 300 400 Feet

40 0 40 80 120 Meters

N
W E
S

- Techarea
- Drainage
- Township, Section, Range
- USGS 7.5 Minute Quad
- Trails
- Roads
- Roaddirt
- Parkpave
- Parkdirt
- Fences
- Buildings/Structures

TA-33
East Site

Map 3

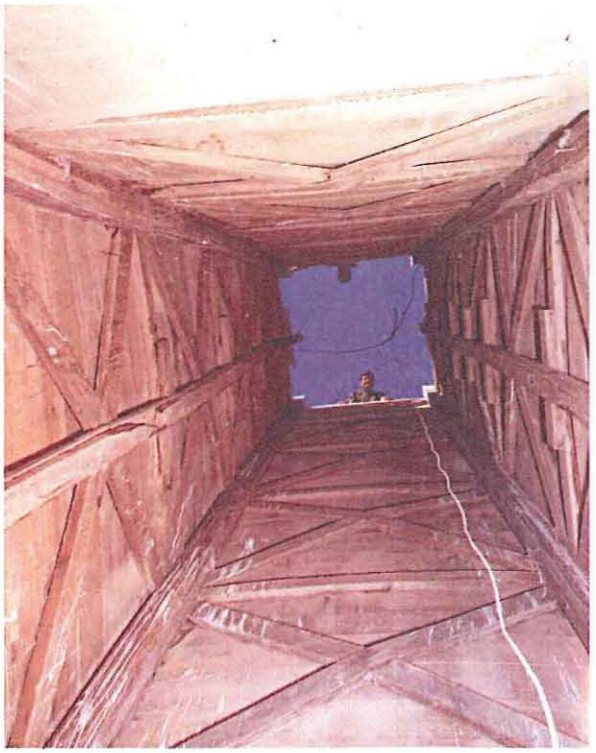
Area 1 (1948-1955)

Trinity Site and "Sleeping Beauty"

Area 1, also known as the "original Hot Point," was selected as an alternate location for underground tests that had been conducted at Trinity Site in southern New Mexico. Although Trinity Site was used during WWII for the first test of the implosion or Fat Man weapon design (the "Trinity Device"), three underground chambers for containment shots were also constructed at the site after the war. Post-war initiator testing was necessary because scientists were still refining the design of basic weapons components. Unfortunately, testing at Trinity Site was an inconvenient proposition because of the site's poor working conditions and great distance from Los Alamos. In 1946, Los Alamos researchers set up an initiator experiment in an underground test chamber near Trinity Site's ground zero. The test failed to fire and fueled existing concerns about working conditions at the remote site. Known as "Sleeping Beauty," the misfired experiment was left in place for twenty years. Los Alamos scientists felt that the test assembly did not pose a serious hazard because it was buried under 40 ft of earth.

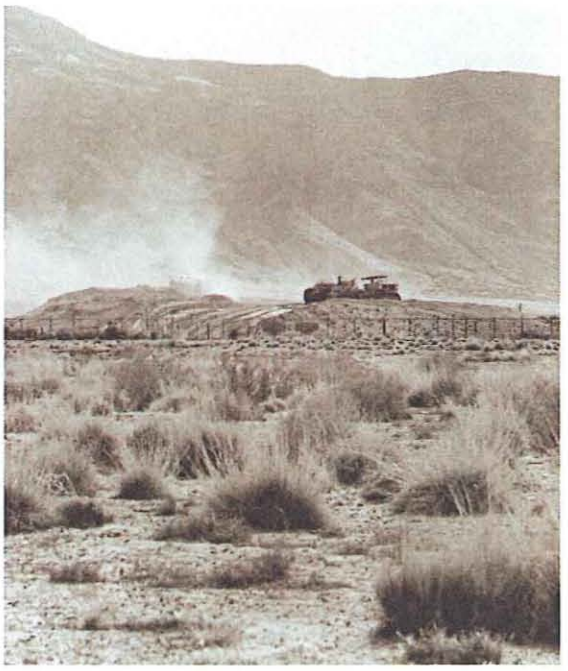
Although several chamber tests were successfully conducted at Trinity Site, the Laboratory focused its attention on the TA-33 area as a possible local test site. Underground chambers similar to those at Trinity were eventually constructed at HP Site. TA-33-4 (Chamber #1) and TA-33-6 (Chamber #2) were built together at Area 1/East Site. TA-33-29 (Chamber #3) was built at South Site along with TA-33-70 (Chamber #4) and TA-33-71 (Chamber #5). Of the five built, three were eventually used.

In 1967, Laboratory personnel went to Trinity Site to clean up the Sleeping Beauty shot. After removing the soil overburden, a work crew unearthed the bunker and opened the door of the chamber. The high explosives test package was still intact along with a set of six radiation counters. Workers destroyed the test chamber by using a 100-lb explosive charge. Figures 3 through 6 show the undamaged test chamber during and after the 1967 excavation (WSMR 2004).



LANL, IM-9 Photography)

Figure 3. Original Elevator Shaft

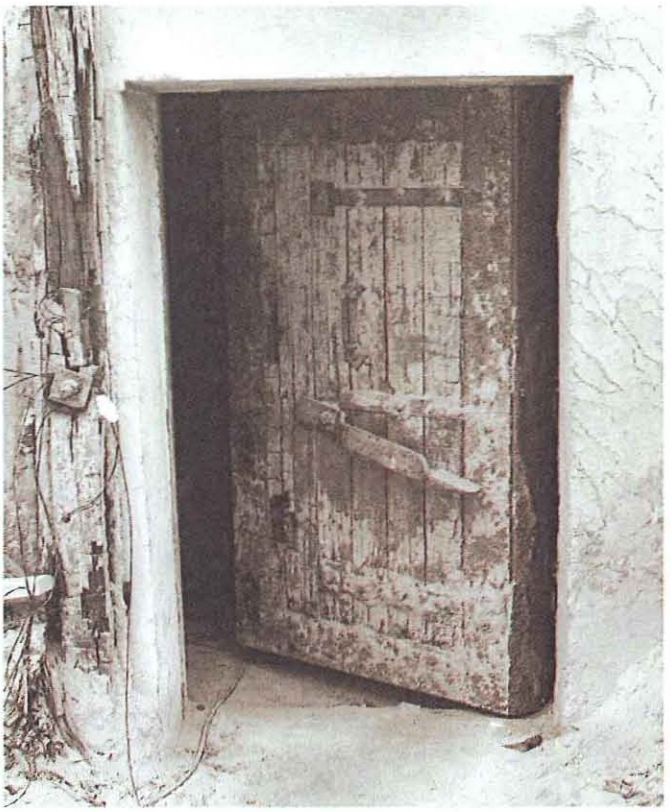


(LANL, IM-9 Photography, #PUB 6446-3)

Figure 4. Removal of Overburden

(LANL, IM-9 Photography)

Figure 5. "Sleeping Beauty" Unearthed; View of Octagonal Concrete Chamber



(LANL, IM-9 Photography, #PUB 6446-165)

Figure 6. Chamber Door

Underground Chamber Testing

Like the Trinity Site experiments, the underground initiator tests at Los Alamos were designed to be one-time events, and a new pit facility was dug for each test. Typically, a pit structure and associated entrance shaft were constructed underground. The chambers themselves were octagonal in shape and made of concrete. These chambers were located approximately 30 ft below grade and were accessed by a portable elevator; the elevator building was placed over the shaft until just before the test was conducted (Figures 7 and 8). Scientists placed the initiator experimental apparatus and associated neutron counters in the reinforced concrete pit or "chamber," and routed electronic cables from the pit structure to a distant control room. Instrumentation in the control room received the completed test data via electronic cables (Los Alamos National Laboratory Archives, U.S. DOE 1986). Known hazardous materials that made up the shots included high explosives and polonium.

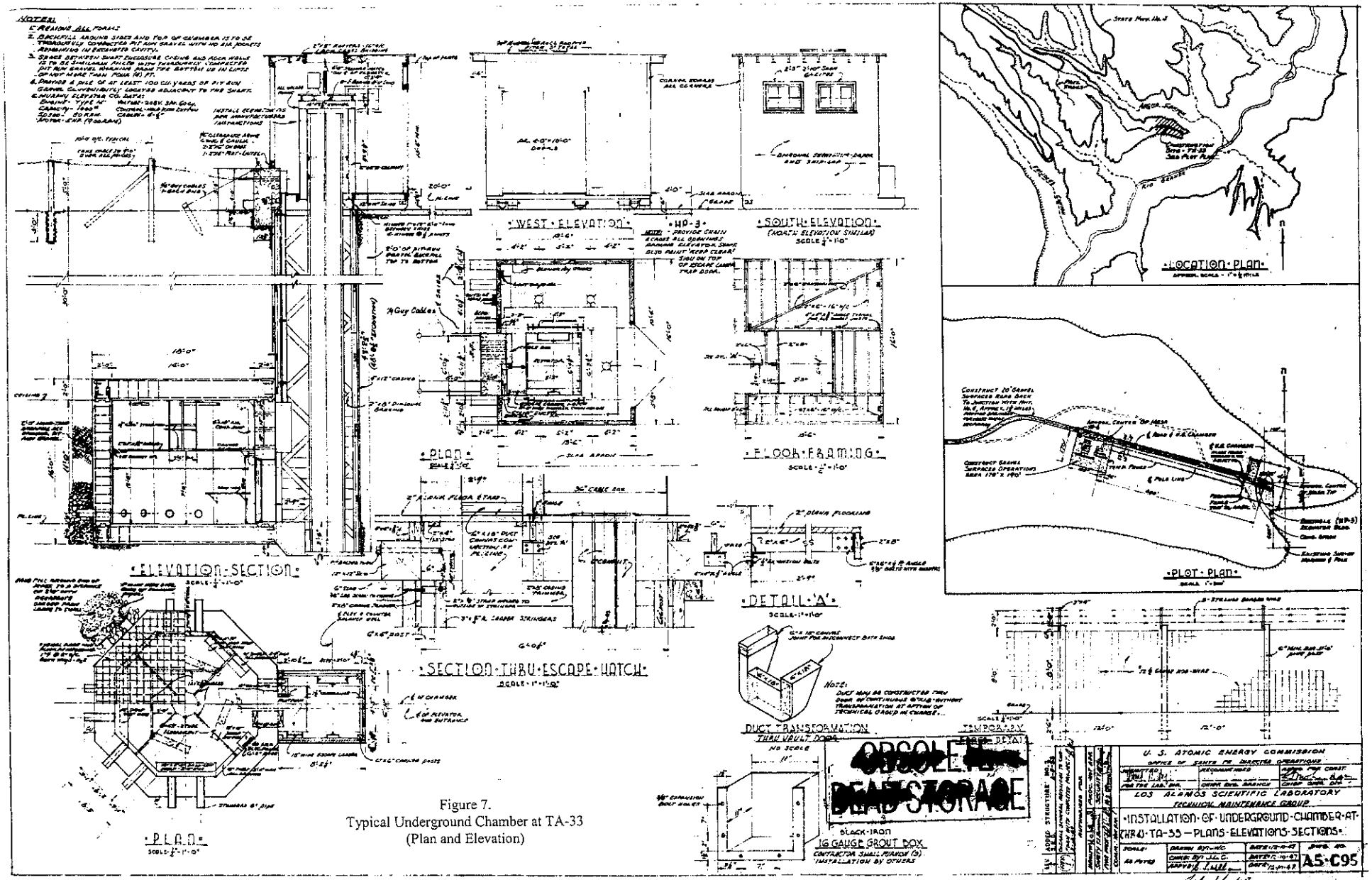
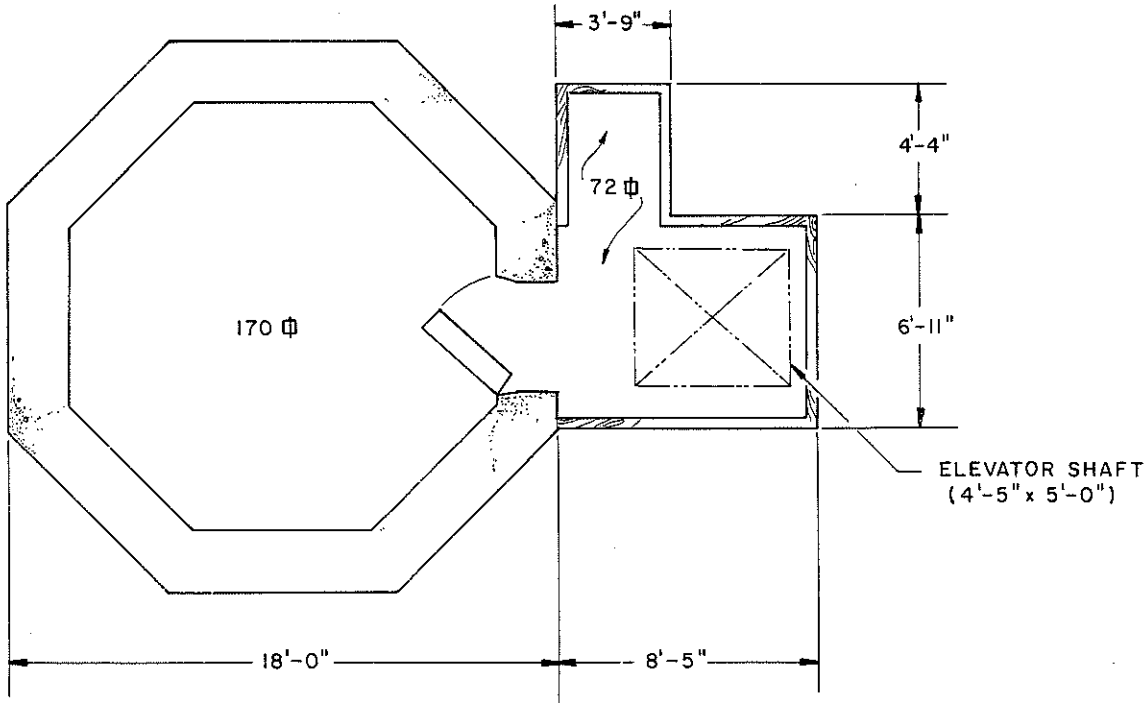


Figure 7.
Typical Underground Chamber at TA-33
(Plan and Elevation)



TOTAL SQ. FT. 242

5 4 3 2 1 0
SCALE IN FEET

Figure 8.
Underground Chamber
(Simplified Floor Plan)

REV.	DATE	REVISION	BY	CKD.	APP.
1	9-22-83	REVISED TO STATUS OF 9-22-83	H&N		

UNIVERSITY OF CALIFORNIA
Los Alamos
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

FACILITIES ENGINEERING DIVISION

FLOOR PLAN

UNDERGROUND CHAMBERS #4 & #5

BLDG. HP-70, 71 TA-33

SEC. CLASSIFICATION
CLASS. U
REVIEWER Thomas
DATE 10-31-83

SUBMITTED	RECOMMENDED	APPROVED
E Trujillo	Dan King	W.T. Elliott

DRAWN	DATE	SHEET NO.	DRAWING NO.
MESSIMER	1-11-71	1 OF 1	ENG-R1690
CHECKED Humble H&N			

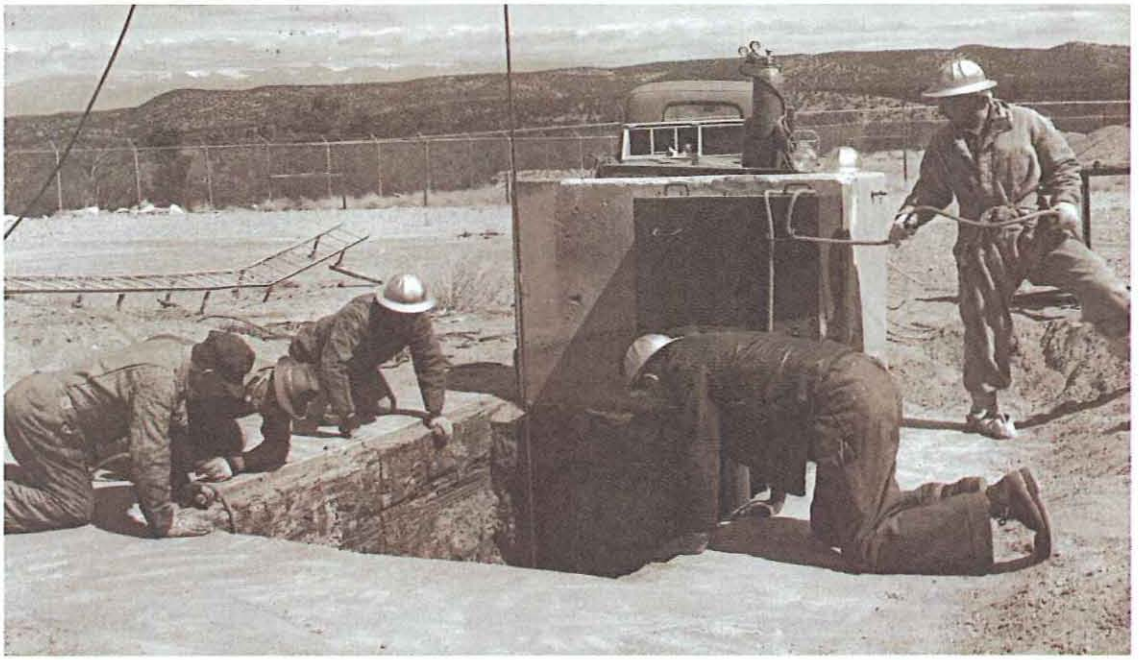
At Area 1, buildings such as TA-33-1 (a laboratory and office) and TA-33-2 (a warehouse) were built on skids so that they could be moved to a new location at the completion of each underground test. Other portable buildings at Area 1 included TA-33-3 (an elevator building) and TA-33-5 (a guard house). The construction of Chamber #1 was completed January 21, 1948, and tested April 14, 1948. Another underground chamber (Chamber #2) was completed October 8, 1948, and tested in December of the same year. Mothballed after the end of underground chamber testing, Area 1 was reactivated for the testing of gun-type initiators in 1955 (LANL 1992, Los Alamos National Laboratory Archives, U.S. DOE 1986).

1952 TNT Test

Chamber 2 was larger and situated deeper than the first test chamber, and, as a result, was not completely destroyed during a December 1948 test. Chamber 2 was reopened in 1952 to investigate its condition and stability. The damaged chamber was retested and ultimately destroyed as part of a high-explosives experiment, resulting in the formation of a 10-ft crater (LANL 1992, Los Alamos National Laboratory Archives, U.S. DOE 1986) (Figures 9 through 16).

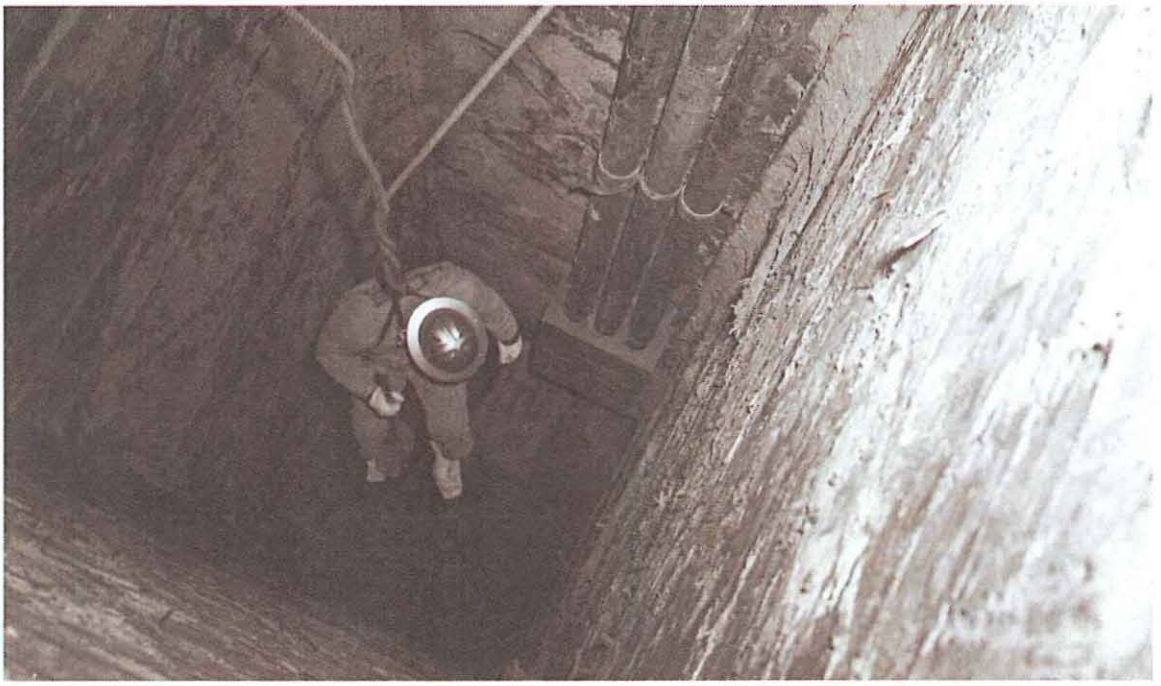
(LANL, IM-9 Photography, #22087)

Figure 9. Underground Chamber 2, HP-6



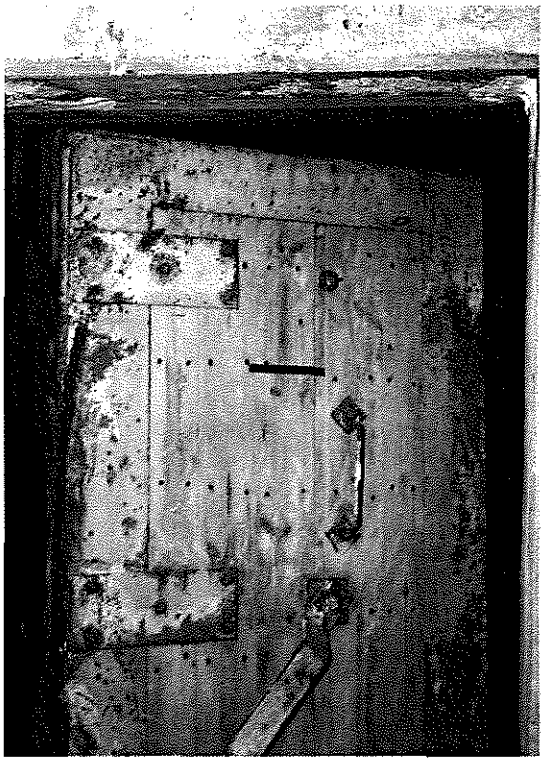
(LANL, IM-9 Photography, #22086)

Figure 10. HP-6 and View of Shaft Entrance



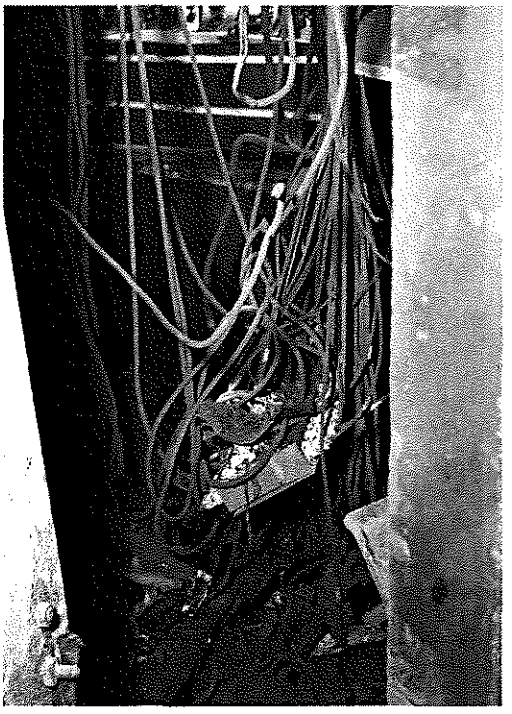
(LANL, IM-9 Photography, #22093)

Figure 11. Elevator Shaft



(LANL, IM-9 Photography, #22100)

Figure 12. Chamber Door



(LANL, IM-9 Photography, #22099)

Figure 13. View into Chamber

(LANL, IM-9 Photography, #22161)

Figure 14. TNT for Test

(LANL, IM-9 Photography, #22158)

Figure 15. Post-Explosion

(LANL, IM-9 Photography, #22201)

Figure 16. Close-up of Blast Damage

East Site (1955-1972)

Full-Scale Pad Shots

The new "East Site" (formerly Area 1) grew in the 1950s to include firing areas used for a variety of experiments relating to gun-type weapons. In one series of experiments, neutrons were measured in a large, doughnut-shaped, liquid scintillation counter. In another series, projectiles were X-rayed as they were shot past a recording setup. Uranium projectiles containing beryllium and polonium-210 or cobalt-60 were also used in gun tests. The projectiles were not detonated—some were shot into berms and others were shot into catcher boxes for recovery and later sectioning (Los Alamos National Laboratory 1992, U.S. Department of Energy 1986).

The first permanent buildings at East Site were completed by June 1955. Other East Site facilities included two adjacent crescent-shaped berms, each 10 ft high and 200 ft across the face, with concrete shot pads located in the center of each crescent. Reinforced concrete gun mounts were located at the west end of the firing area. An X-ray shack, TA-33-151, was located near the two shot pads (Los Alamos National Laboratory 1992, Hoard 1991).

TA-33-87 was completed in 1955 to support shot testing at East Site. The building was primarily used as a control room and had a darkroom for film processing (Ahlquist 1983, Los Alamos National Laboratory 1992). TA-33-89, "the X-unit vault," was built as a storage building for X-units used to set off the test shots at East Site (U.S. DOE 1986).[3]

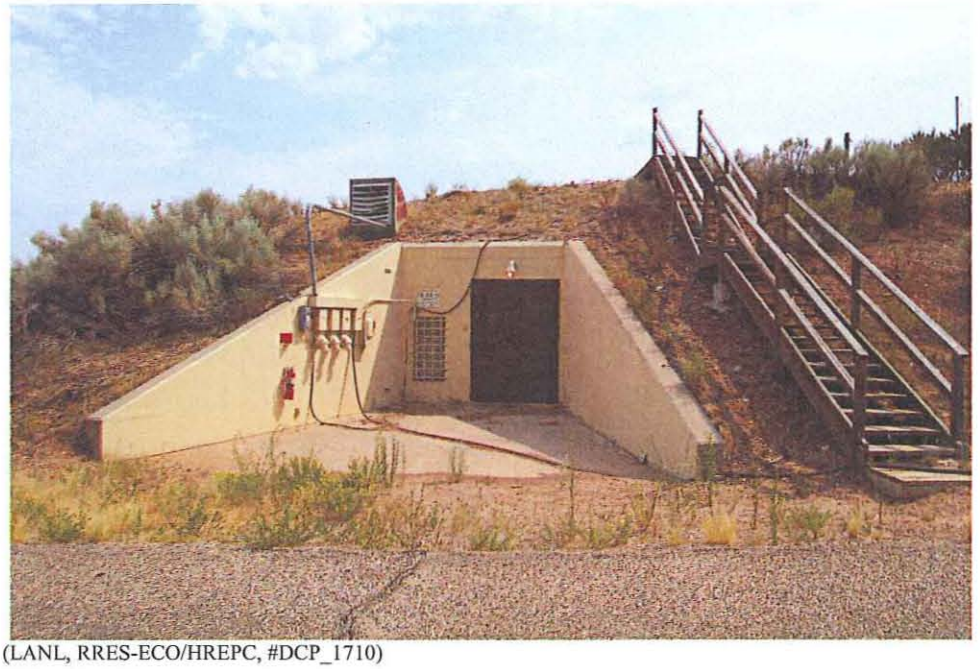
A cable tunnel connected the control room (TA-33-87) to an instrumentation building located further to the east (TA-33-88). Cabling also extended to the X-unit vault (TA-33-89) and to the X-ray shack discussed above. The cables were housed in a 36-in. diameter corrugated metal pipe running along the length of the 6 ft 10 in. high tunnel. The cable tunnel was designed to be accessed through a series of manholes (Hoard 1991).

[3] An X-unit is an electronic firing unit used to fire detonators.

(LANL, RRES-ECO/HREPC, #DCP_1711)

Figure 17. Cable Tunnel Entrance with Manhole, Near TA-33-87

A berm-covered transformer vault, TA-33-95, is also located at East Site. The vault was constructed to withstand explosive blast effects in order to protect the power transformer (LANL 1992).



(LANL, RRES-ECO/HREPC, #DCP_1710)

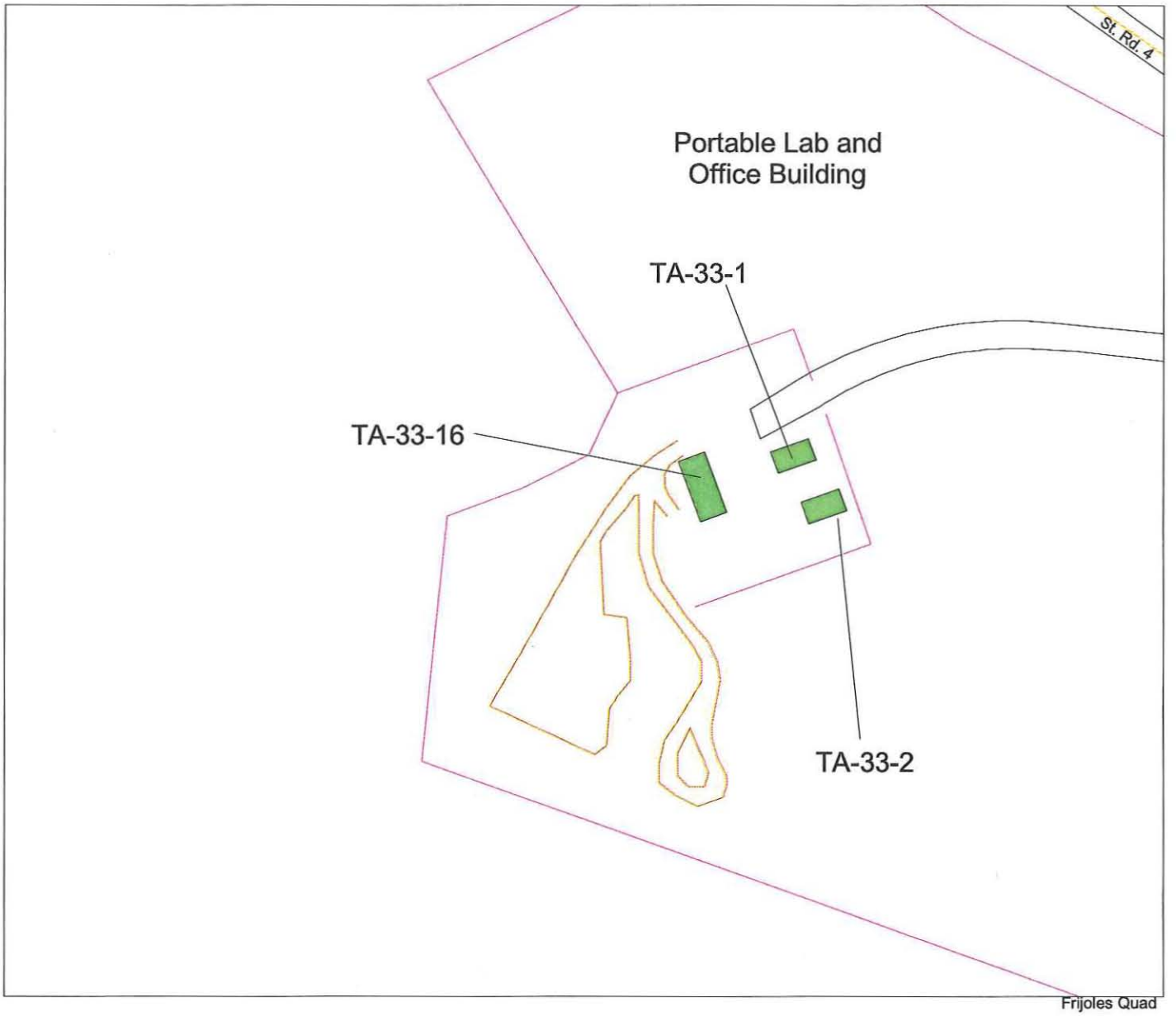
Figure 18. Transformer Vault, TA-33-95

Area 6

(LANL, IM-9 Photography, #RN91-202-021)

Figure 19. Area 6 (foreground)

Area 6, located west of the main guard gate, was developed in 1948 for initiator experiments. Work at Area 6 focused primarily on the testing of initiators used in gun devices (Map 4). Buildings TA-33-1 and TA-33-2 were moved from Area 1 to Area 6 in late 1948 or early 1949 to support the Elsie Program (a gun-type device). TA-33-16, a key facility at Area 6, was completed in March 1949 and originally housed an air gun that fired at initiator targets located outside the building (Ahlquist 1983). At this time (in the late 1940s), the program to test implosion initiators moved from Area 1 to South Site, and both types of initiator testing continued at Area 6 and South Site during the 1950s. At Area 6, TA-33-1 was used as an office and laboratory space before the Main Site administrative center at TA-33 was fully developed. TA-33-2 was used as shop, warehouse, and laboratory (Los Alamos National Laboratory Archives).



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Drainage
Township, Section, Range
USGS 7.5 Minute Quad
Trails
Roads
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Parkpave
Parkdirt
Fences
Buildings/Structures Not Yet Evaluated

TA-33
Area 6

Map 4

In 1951, Area 6 was renovated to support another experimental program. Priorities included constructing an additional gun area and a saw building. This new phase of development at Area 6 included the construction of TA-33-19, TA-33-20, and TA-33-40 (the Saw Building) and led to the creation of Main Site. In addition to the new construction, the Butler building at Area 6 (TA-33-16) was remodeled and electronic control room equipment was added (Los Alamos National Laboratory Archives). Two outside firing areas were active at this time. One was located near TA-33-16 and consisted of a concrete shot pad where a large-bore gun was mounted. Projectiles were fired at targets placed in front of barricades or shot into catcher boxes built of timbers and filled with soil, wood chips, and vermiculite. Compressed air or high explosives were used to fire the guns, and the projectiles fired into the boxes were recovered and sectioned. A second firing area was located 100 ft southwest of TA-33-16 and consisted of a shot pad and two wooden barricades. This firing area, located near a basaltic cinder cone, was used to test nuclear gun mock-ups. Shrapnel from these tests left marks on the side of TA-33-16 (Los Alamos National Laboratory 1992, Hoard 1990). Figure 20 shows the remains of this firing area.

Work at Area 6 diminished in importance as additional gun testing was carried out at East Site (old Area 1) in the mid-1950s. By 1955, shots were discontinued at Area 6. In 1956, TA-33-16 was being used to make and machine a glass laminated material and other materials such as barium titonate and epoxy resins. TA-33-1 housed experiments to make niobate crystals, and TA-33-2 was being used as a shop (Los Alamos National Laboratory 1992, U.S. DOE 1986).

(LANL, RRES-ECO/HREPC, #DCP_0101)

Figure 20. Shot Pad (foreground), Barricades, and TA-33-16 (background)

The following excerpt sheds some light on some of the specific details of the gun tests conducted at Area 6:

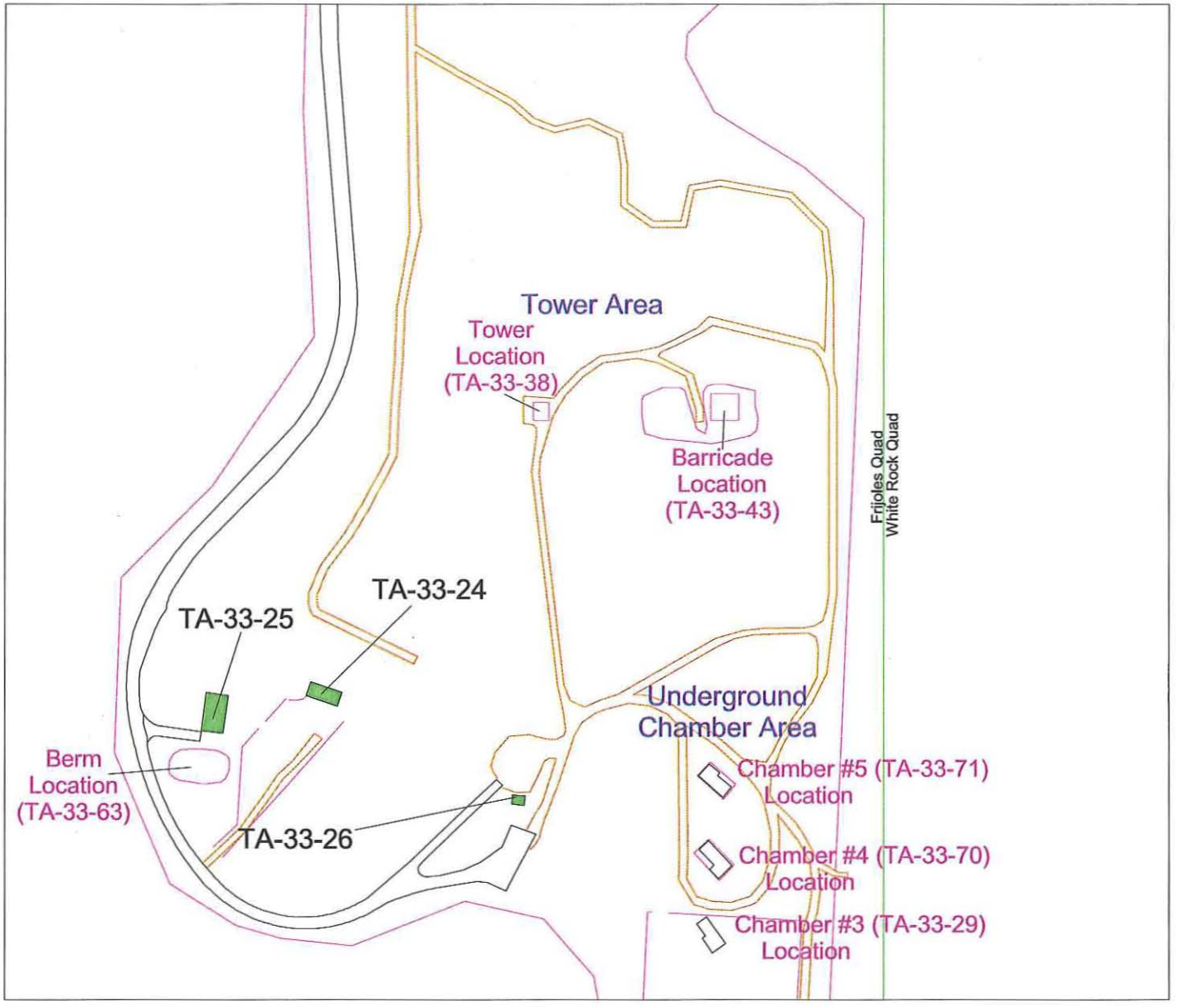
> An airgun in HP-16 had screw bolts behind the projectile; these bolts failed at a certain pressure. The projectile was propelled by the sudden exposure to the built-up pressure. Projectiles were fired into a catcher box south of the building. There was a gun mounted to the east of HP-16 in addition to one on the west. Only gun-type shots were fired at Area 6. The initiators contained Be and Po-210; projectiles were of uranium....The guns were free-recoil type that, on recoil slid along a girder and into a berm behind the gun. The gun barrel was equipped with a cable which could be hooked to a tractor. After the recoil the tractor extracted the gun barrel from the berm. These guns were muzzle loaded. Such a gun provides a quick and easy method for short range firing tests. The firing pad to the west of HP-16 held a turret-type gun with the barrel on a mount. An iron plate approximately one foot thick was bolted to the pad. The plate had overlapping grooves extending the width of the plate. The gun mount slid sideways onto the plate, then was bolted in place....The guns were routinely contaminated with Po-210. They were quickly spray painted to be readied for the next shot. Eventually the guns were sent back to the Army or the Navy (Hoard 1991).

South Site

(LANL, IM-9 Photography, #RN91-202-018)

Figure 21. South Site

South Site is located south of the main entrance area at TA-33 (Map 5). The testing area was situated near the edge of White Rock Canyon in a large bowl-shaped depression. Originally developed in 1948 to support underground initiator experiments and ½-scale gun shots, South Site, also known as the tower area, supported the Pacific testing program as well. An additional area at South Site was set aside for leaking tritium reservoirs. The activities at this so called "blivit area" were not related to gun testing; rather, they supported tritium operations conducted at building TA-33-86 and at TA-41 (W Site).



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Buildings/Structures Not Yet Evaluated
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Drainage
Township, Section, Range
USGS 7.5 Minute Quad
Trails
Roads
Roaddirt
Parkpave
Parkdirt
Fences
Buildings/Structures Not Yet Evaluated

TA-33 South Site

Map 5

Underground Chamber Testing

Work began in November 1949 on the construction of TA-33-29 (Chamber #3). The underground chamber, designed for a 30-lb explosive charge, was completed in February 1950. Like the other chamber experiments tested at Area 1, the test facility had an entrance shaft with an octagonal test chamber to one side. Chamber 3 collapsed during an experiment in April 1950 and the area around it was developed as a waste disposal area (Material Disposal Area E) (Hoard 1991). Two additional underground chambers were built in 1951; these were never used because of changes to the design of initiators (U.S. DOE 1986).

½-Scale Pad Shots

There were two gun-firing areas at South Site; the earliest facilities were completed by June 1950. One gun area was situated 600 ft north of TA-33-26. This firing area consisted of a 6-ft square concrete gun mount pad (TA-33-85), a 125-ft-diameter half-circle berm (TA-33-43), and an area west of the berm used to test a free-recoil weapon. A second gun-firing area was located west of TA-33-26 and included an electronics building (TA-33-24), a gun building (TA-33-25), a barricade (TA-33-63), and a control room/X-unit vault (TA-33-26). Guns located in TA-33-25 fired projectiles south into TA-33-63. These projectiles contained uranium, beryllium, and tungsten. Initiator implosion shots were conducted near TA-33-26, and some of these tests involved up to 2,000-3,000 lbs of high explosives.

Conflicts between the Laboratory and Bandelier National Monument arose during the gun program at South Site because the shrapnel zone of larger shots at the X-unit vault (TA-33-26) included part of the monument's land. Bandelier's main access road had to be closed during some of these shots. This problem was resolved by limiting shot size when possible. However, it did not solve the shrapnel problem: there were reports of large pieces of shot debris landing on Bandelier land. Eventually, two new firing pads were constructed at East Site—a testing area thought to have a "safer radius" (LANL 1992, U.S. DOE 1986, Hoard 1991).

Tower Area

In 1946, within one year of the first use of atomic weapons, the U.S. government launched an atmospheric nuclear testing program that continued until 1962.[4] During this time, the United States conducted over 200 atmospheric tests in the Pacific, at the Nevada Test Site, and at several other locations. Nuclear tests were principally conducted to ascertain the yield and performance of new weapons designs; devices were commonly dropped from the air or detonated on towers.

The tower area at South Site supported atmospheric testing conducted at Enewetak Atoll in the Pacific. The tower (TA-33-38) was built to help mock up gadgets for Enewetak shots (Ahlquist 1983) (Figures 22 and 23). The two top floors of the tower were eventually taken to the Pacific as part of the testing program. Navy gun penetrator shots and initiator implosion shots were also performed in this area of South Site, which was known as "New Hot Point." Penetrator tests were performed with a free-recoil weapon firing projectiles into a nearby cliff (Ahlquist 1983). Testing at the tower area took place during the 1950s and 1960s. Shot sizes ranged from 700-2500 lbs of high explosives, and many of the shots used uranium (U.S. DOE 1986, Hoard 1991).

Blivit Storage Area

A "blivit" storage area was located at South Site near TA-33-24 and TA-33-25. Reservoirs, called blivits, were filled to high pressures with tritium gas. These reservoirs underwent acceleration tests at TA-33. After the tests, leaking blivits were placed in a storage area and allowed to discharge (Ahlquist 1983). A fence and warning sign were put up for the protection of personnel. The Laboratory discontinued this practice by 1972 (LANL 1992).

[4] Atmospheric tests formally ended with the signing of the Partial Atmospheric Test Ban Treaty of 1963.

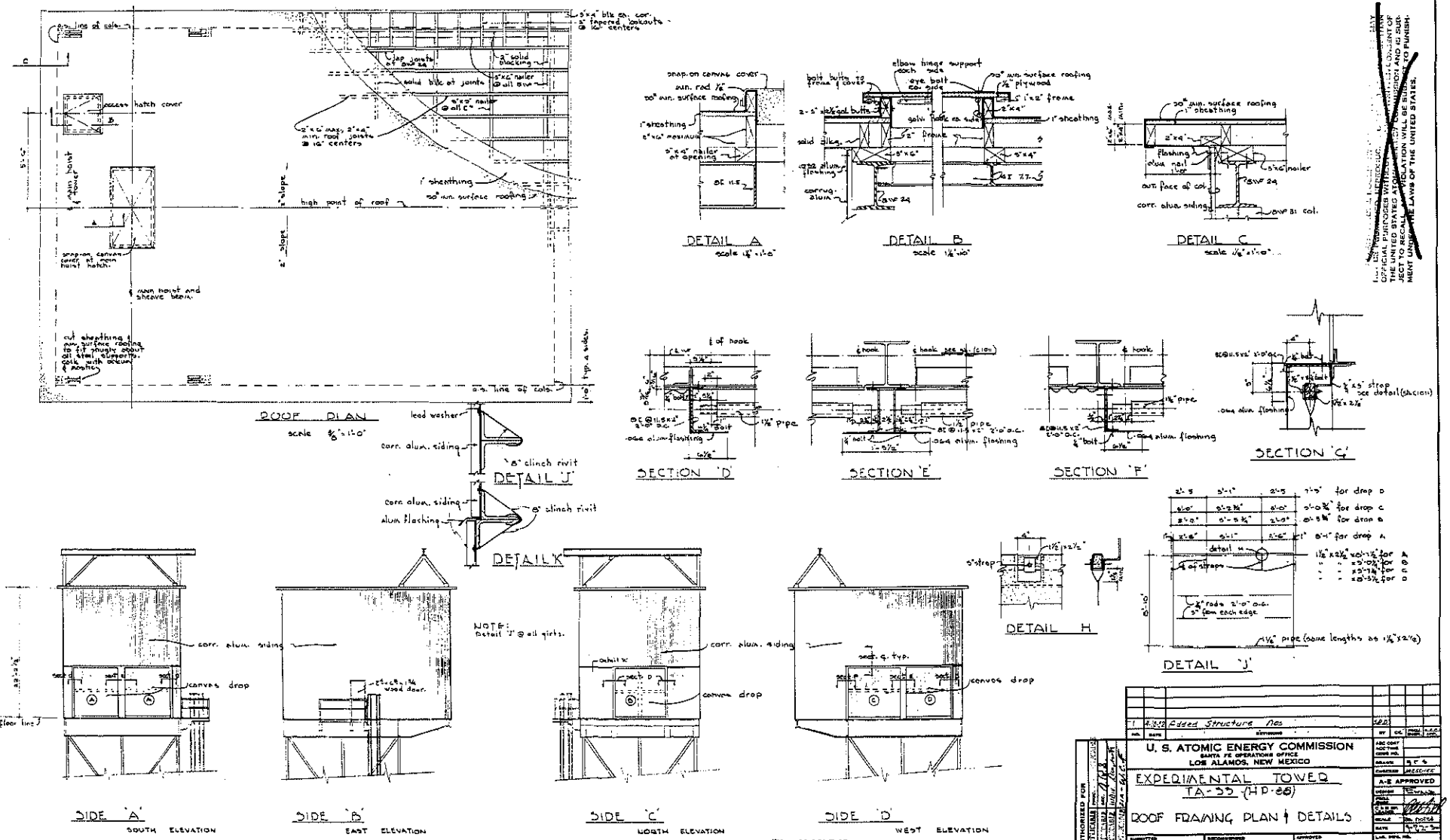


Figure 22.
Experimental Tower
(HP-38)

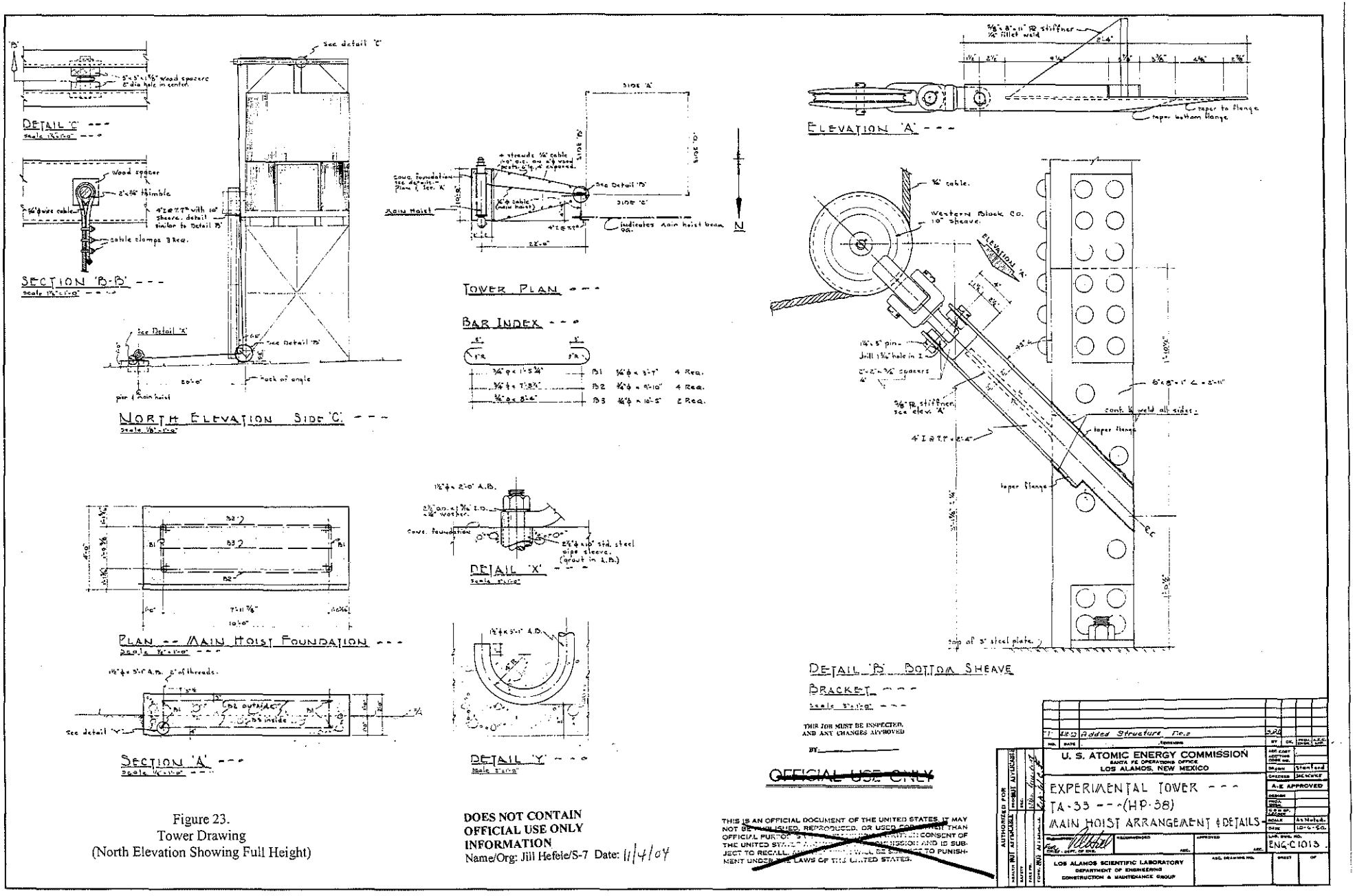


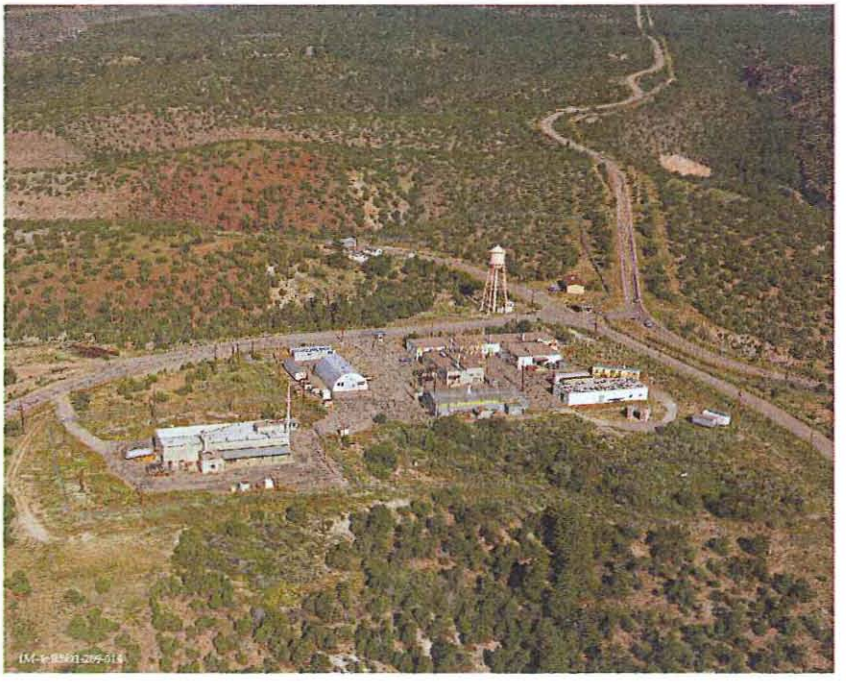
Figure 23.
Tower Drawing
(North Elevation Showing Full Height)

DOES NOT CONTAIN OFFICIAL USE ONLY INFORMATION
Name/Org: Jill Hefele/S-7 Date: 11/4/04

Main Site

(LANL, IM-9 Photography, #RN-91-209-013)

Figure 24. Main Site, direction south



(LANL, IM-9 Photography, #RN91-209-014)

Figure 25. Main Site, direction west

Main Site, one of the last areas to be developed at Hot Point Site, eventually became TA-33's primary administrative area (Map 6). The buildings at Main Site were constructed over a 13-year period (1949 to 1962) and did not relate to specific weapons research initiatives. Key facilities included TA-33-19 (Office and Laboratory Building), TA-33-20 (Warehouse Building), TA-33-39 (Shop Building), TA-33-86 (Gas Handling Facility), and TA-33-114 (Office and Laboratory Building). The warehouse building, TA-33-20, was built in June 1950 and was used to store beryllium and uranium. The shop building (TA-33-39) was completed in 1951; it housed welding, soldering, lead melting, machining, and sandblasting operations.

TA-33-40 (the slit-saw building) was built at Main Site in 1951. The saw housed in this building was used to open experimental casings or projectiles related to initiator research and development. The use of the slit saw was critical in determining the results of the various initiator tests. In 1953, building TA-33-40 was moved to another location at Main Site to make room for a new facility. Another early laboratory building, TA-33-21, was located near the tritium facility (TA-33-86). TA-33-21 was built in 1950 and contained glove boxes used during hazardous operations—uranium, beryllium, and polonium were handled in this facility. In April 1960, a mixture of plutonium and beryllium powders was accidentally released, contaminating the entire building. The laboratory building was decontaminated within weeks, but never used again. In 1974, the entire complex, including the building and associated septic system, drains, and leach field, was removed and the area was decontaminated (LANL 1992). Harlow Russ, a former site work, recounted the contamination incident in a 1991 interview:

> Part of HP-21 was reinforced concrete; part was wood, for easy disposal if it became contaminated. The structure was not intended for plutonium work. The Pu [plutonium] spill involved a pressurized can of Pu that blew up before it was supposed to. Russ was talking on the phone in the concrete section of the building. A colleague dashed in and pulled him from the building, leaving the phone dangling off the hook. They rushed to the shower at HP-19. Russ' suit was contaminated, so it had to be destroyed. The Health Protection monitors could track his radioactive footprints between the two buildings (Hoard 1991).

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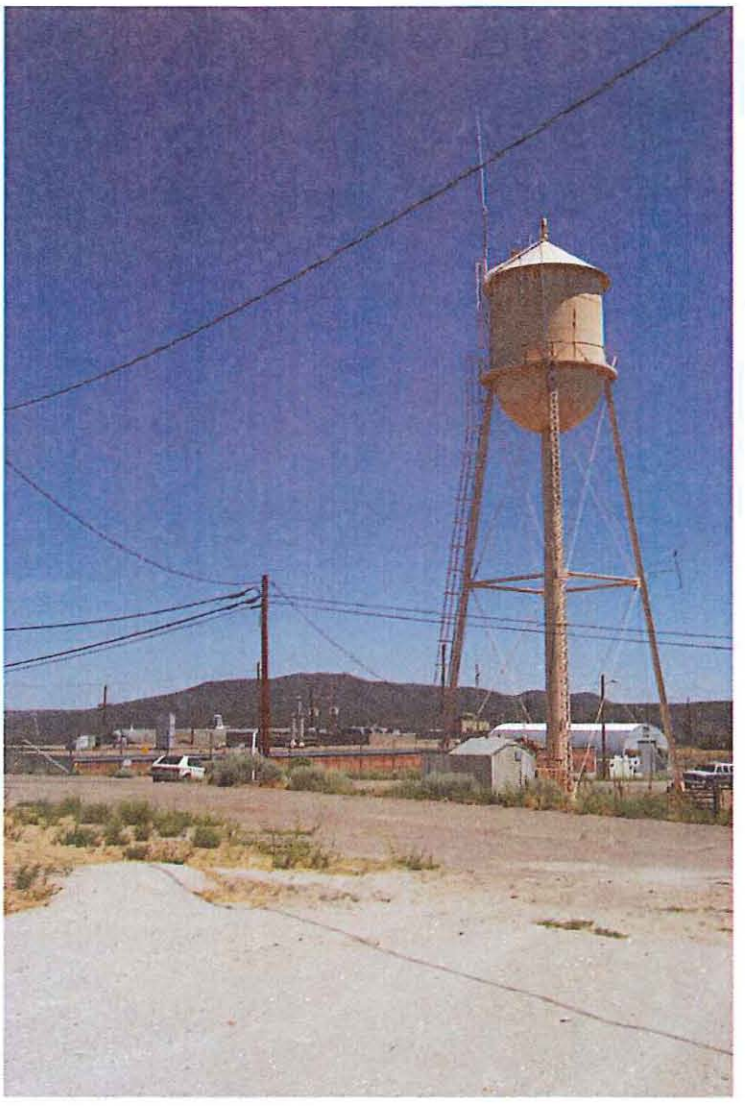
TA-33
Main Site

Map 6



(LANL, RRES-ECO/HREPC, #P0001578)

Figure 26. Main Site Water Tower

The Gas Handling Facility– TA-33-86

The Gas Handling Facility, TA-33-86, began operations in June 1955. It was the first facility at LANL to handle "large" quantities of tritium gas for the Laboratory's nuclear weapons program. TA-33-86 was built to support research and development on tritium handling technology that would feed into the Savannah River Plant (SRP) tritium production activity. However, during the mid 1960s, the SRP was not ready to handle and fill gas reservoirs or "bottles," so LANL took over the production work for a brief period of time. The tritium facility at TA-33 processed

tritium gas, repackaging tritium gas into small-volume high-pressure vessels "gas containers" which were used in several weapon systems and devices that were tested at the Nevada Test Site (Ziemer 1991, Estrada 1998).

TA-33-86 also housed a tritium decontamination facility that used benzene, acetone, and methanol in a chemical fume hood equipped with an exhaust fan (Shulte 1957). High-resolution mass spectrometry was also conducted in TA-33-86 "to measure the purity of the tritium gas" (Estrada 1998). In 1960, a working model of a high-temperature, uranium fluidized-bed reaction vessel was installed. This reaction vessel was later shipped to Brookhaven (Ahlquist 1983, LANL 1992:3-21). TA-33-86 ceased operations in December 1990 (Los Alamos National Laboratory 1992:3-22).

National Radio Astronomy Observatory (NRAO) Site

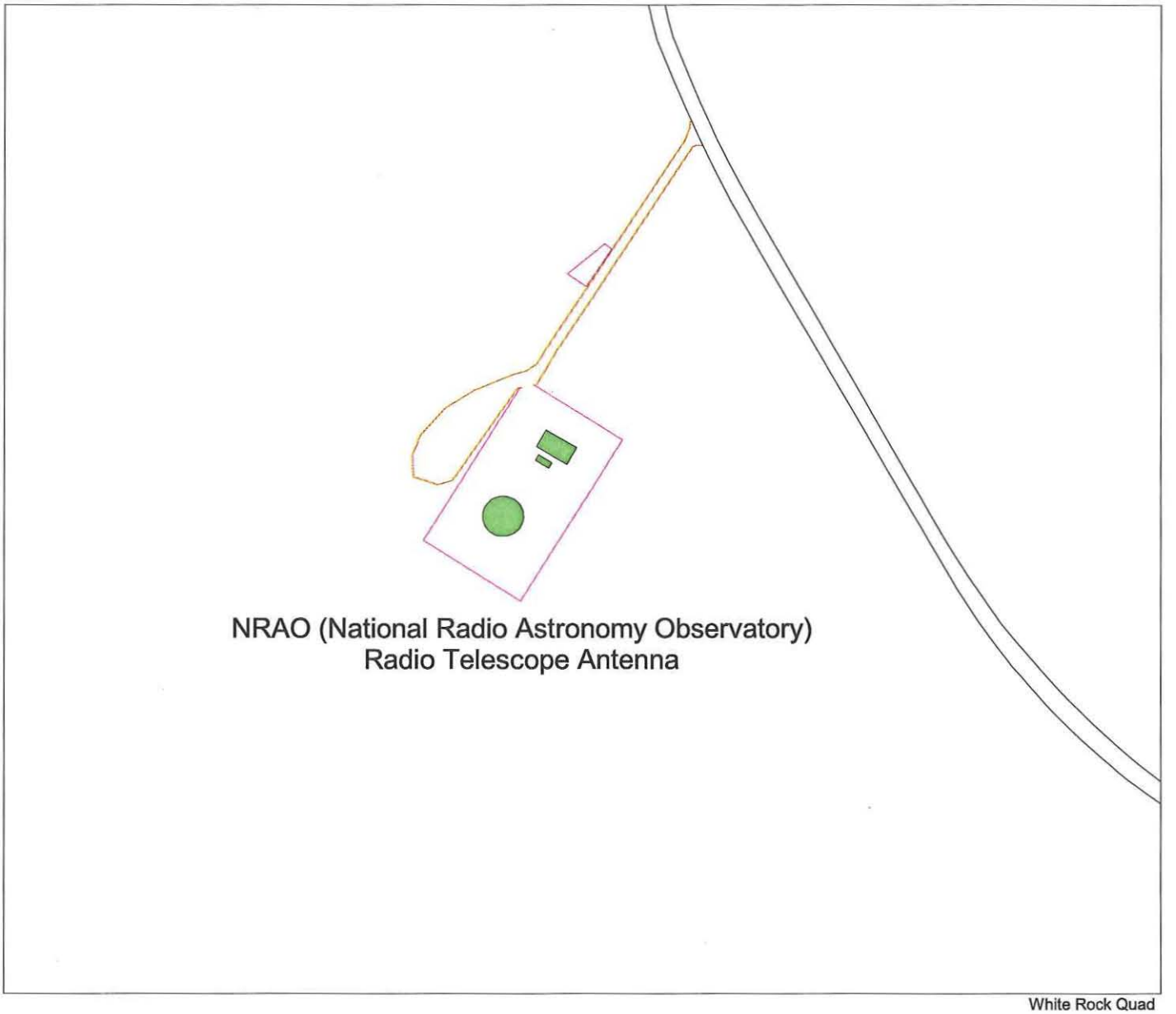
(LANL, RRES-ECO/HREPC, #DCP_1717)

Figure 27. NRAO Antenna

(LANL, IM-9 Photography, #RN91-202-011)

Figure 28. NRAO Site, Aerial View

The National Radio Astronomy Observatory (NRAO), one of the world's leading radio astronomy research facilities, operates an 82-ft diameter radio telescope antenna at TA-33's NRAO complex. The radio telescope is located about one mile from TA-33's main entrance, along the East Site Road (Map 7). Completed in 1987, the complex includes a support building and radio telescope. The telescope is controlled remotely from the main NRAO complex near Magdalena, New Mexico, and is part of the Very Long Baseline Array (VLBA), a series of radio antennas located in the United States and its territories, extending from Hawaii to the Virgin Islands. At each antenna site, astronomical information is recorded on digital tape and sent to the main NRAO operations center in New Mexico for correlation. By recording the differing amounts of radio emission from certain areas of the sky, the radio telescopes can produce pictures of celestial bodies. The National Science Foundation operates the NRAO in support of United States and international research in physics and astronomy (LANL 1992, NRAO 2003).



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Township, Section, Range
USGS 7.5 Minute Quad
Trails
Roads
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Parkpave
Parkdirt
Fences
Buildings/Structures

TA-33
NRAO Site

Map 7

PROPERTY DESCRIPTIONS (TA-33-1, -2, -24, -25, -26, -40, -86, and -90)

The buildings discussed in this report are identified using the current LANL system of placing the TA prefix before each building number. Historically, however, the "HP" prefix (for Hot Point) was used before each building number and some of the drawings included in this report may use the old system of building identification. For example, TA-33-40 is the same building as HP-40.

TA-33-1 and TA-33-2

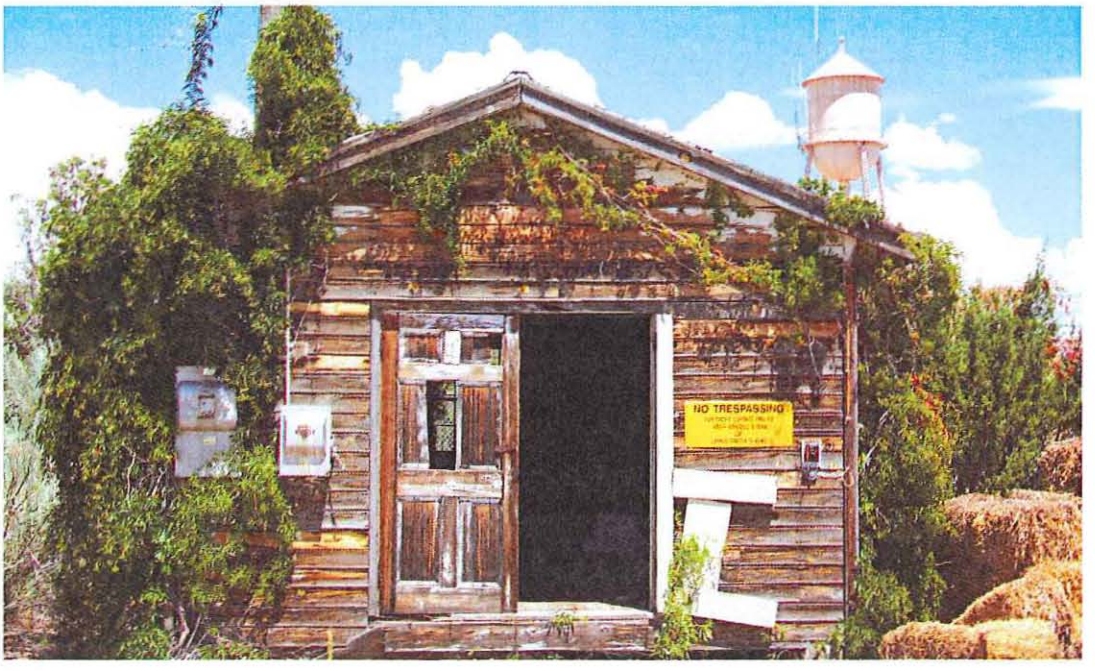
TA-33-1 and TA-33-2 were both constructed by R.E. McKee between December 12, 1947, and January 21, 1948, and are primarily associated with initiator testing at Area 6. However, they were originally constructed for use at Area 1 (now East Site) and were moved to their present site at Area 6 sometime between July 1948, and January 1949 (Los Alamos National Laboratory 1992; Los Alamos National Laboratory Drawings A5-C162 and ENG4-R45). The relocation of these two buildings from East Site corresponds to the completion of an underground initiator test at Chamber #2 in late 1948.

(LANL, RRES-ECO/HREPC, #DCP_0054)

TA-33-1

TA-33-1 was originally designed as a laboratory and office space. This small building (450 ft^2 in size) had wood-frame construction, a pitched roof, and painted wood siding on its exterior. The roof was composed of rolled asphalt over wood framing. The building was designed to be portable and sat on wooden skids. A laboratory sink and workbench were the only notable equipment remaining in the building. Overall, TA-33-1 was in fair condition when it was originally assessed, although it was suffering from the effects of time and from exposure to the elements.

TA-33-1 was used at Area 6 as an office and laboratory building in support of the initiator testing program until 1955, when gun testing programs were moved to East Site. TA-33-1 was used after 1955 for the production of potassium niobate crystals. It is likely that active work in this building ceased before the end of the initiator testing program in 1972. TA-33-1 was last used for general storage.



(LANL, RRES-ECO/HREPC, #DCP_0059)

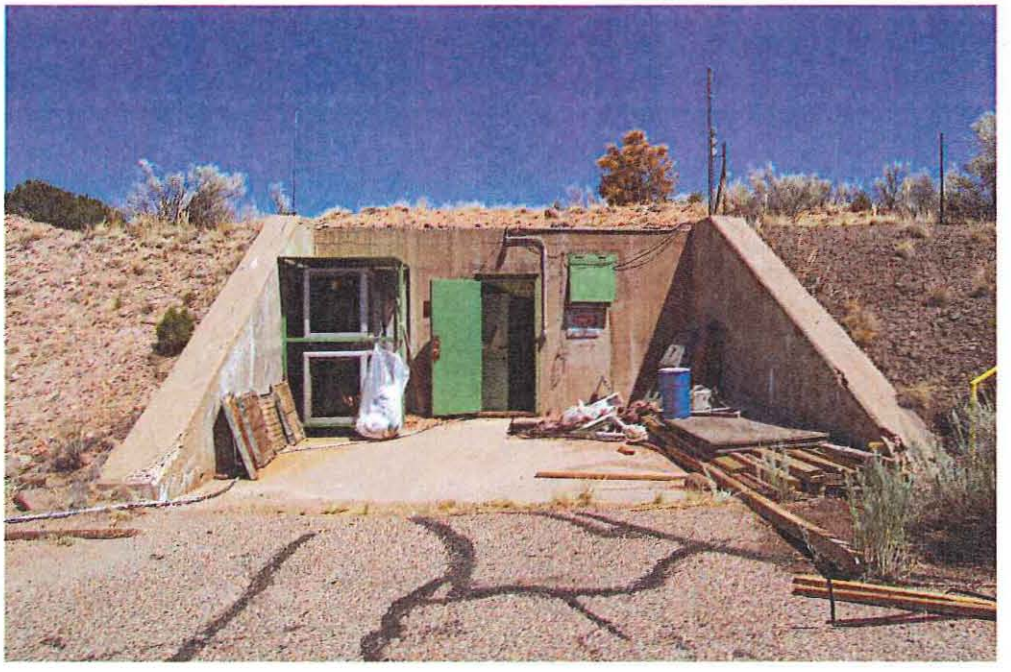
TA-33-2

TA-33-2 was originally designed to be a portable warehouse. Over the years, it also was used as a machine shop and laboratory space in support of TA-33's initiator testing program. TA-33-2

was a one-story building and was approximately 450 ft^2 in size. Like TA-33-1, it was of wood-frame construction, sat on wooden skids, had a pitched roof, and had painted wood siding on its exterior. The roof was composed of rolled asphalt over wood framing and was in fair condition. The exterior of the building was deteriorating and was generally in poor condition.

After 1955, when testing activities moved to East Site, TA-33-2 continued to be used in its capacity as a shop. As was the case with TA-33-1, active work in this building was probably discontinued before the end of the initiator testing program. It was last used for general storage.

TA-33-24



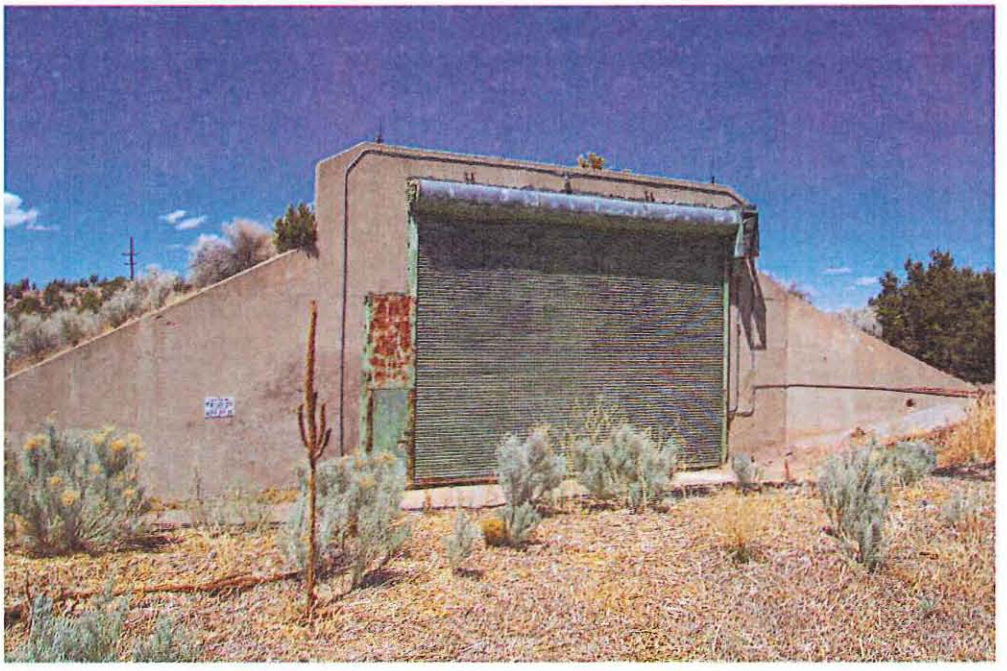
(LANL, RRES-ECO/HREPC, #DCP_0497)

TA-33-24

TA-33-24 was built in 1950. It housed electronics in support of operations conducted in TA-33-26 and served principally as a control building for experiments at TA-33's South Site, including those conducted in the tower area. A cable tunnel leads from TA-33-24 to the TA-33-26 X-unit chamber.

The structure is a bunkered facility with earth berms on all sides except the west elevation. TA-33-24's interior is divided into one large central room and four alcove type rooms used as bathroom, darkroom, and mechanical and electrical rooms. The square footage is 1,016. The roof is covered over by an earth mound with sparse vegetation. The exposed structure is cast-in-place concrete with its structural integrity and natural color intact. The entry door and frame are hollow metal. Based on the concrete visible from the inside, the walls, floor, and ceiling are cast-in-place, exposed concrete. The floor has cast-in-place raceways for electrical and signal conductors. Numerous exposed conduits are mounted on the concrete surface of the walls and ceiling. There are no interior finishes on the floor or walls.

TA-33-25



(LANL, RRES-ECO/HREPC, #DCP_0491)

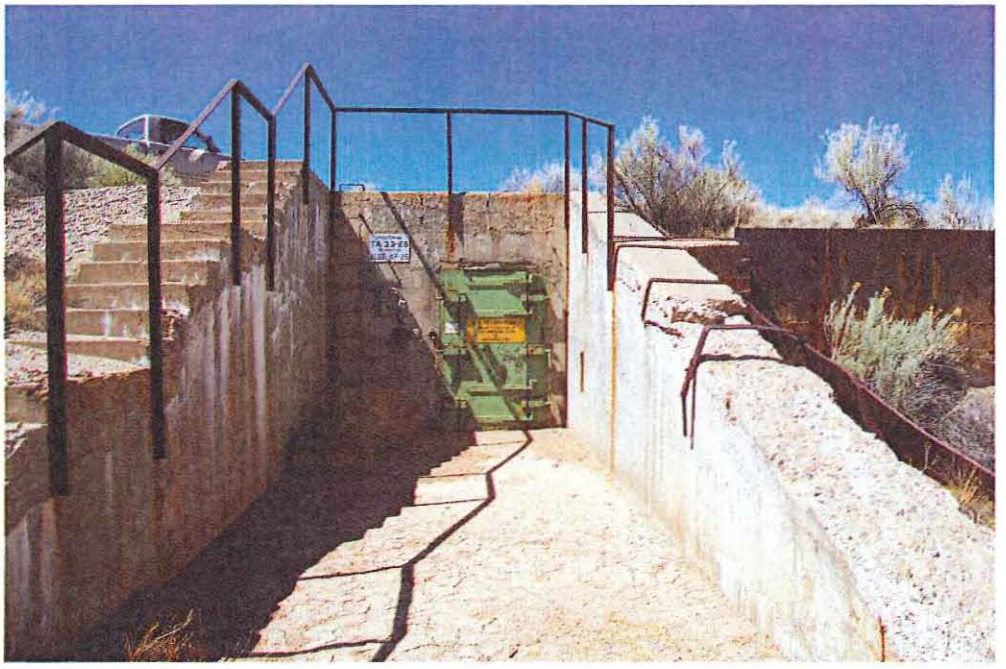
TA-33-25

This formidable bunkered structure, referred to as the "Gun Building," was built in 1950 and housed an experimental gun. The gun was remotely operated from the TA-33-24 control building, and the gun's projectiles were fired into a nearby berm (HP-63) (Hoard 1991). During a 1990 interview, a former site worker described the operations conducted in this facility:

> The building has steel roll-up doors to allow operations to project beyond the building. The tests involved using a modified navy gun to fire projectiles into a target placed near the muzzle of the gun. The projectiles were of tuballoy and steel-tungsten alloy, containing some copper parts. The projectile was loaded into the breech of the gun. The target was also tuballoy, with some copper, tungsten and nickel parts. The target was placed near the muzzle of the gun. When the projectile was fired, the impact carried the target and projectile into the berm HP-63. The assembly had pin contacts to measure motion and accurate cameras for photos of the shots (Hoard 1990).

The high, arched, open bay area is formed from a corrugated iron half section. The end abutments are cast-in-place concrete structures, which support the overhead doors and hold back or abut the earth mound that covers the structure. The roof and wall sections are earth covered and rest on a concrete stem wall 3-ft high on the sides or bearing walls of the structure. The stem wall is penetrated by conduit openings with 6 to 8-in. diameters. Recessed lighting fixtures that shine onto the floor are also evident around the perimeter of the stem wall. Two overhead coiling doors enclosed the openings on each end. The floor is cast-in-place concrete slab with in-floor electrical duct space and sloped perimeter drains around the building at the wall base. A bridge crane with a 5-ton trolley hoist spans the entire building. The interior space is approximately 40 ft by 40 ft, encompassing 1530 ft^2. The overall sense of the facility is that of a small, robust, and functional hangar.

TA-33-26



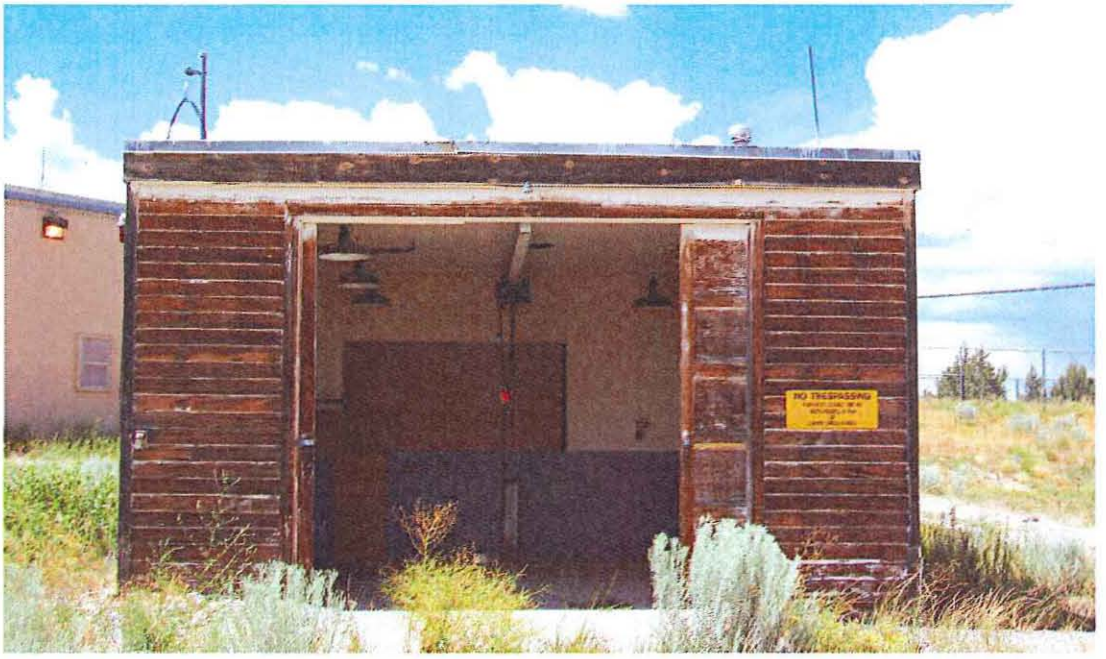
(LANL, RRES-ECO/HREPC, #DCP_0536)

TA-33-26

TA-33-26 is an underground structure located near TA-33-24 and TA-33-25. Built in 1950, TA-33-26 was used as a control room and as an X-unit chamber (U.S. DOE 1986). The shot pad atop TA-33-26 is about 25 ft in diameter. Implosion shots were detonated at the HP-26 firing pad, and test devices were often contained in a steel assembly, which was then contained in a copper can to prevent stray currents from igniting the shots. A wooden shack was built around the entire assembly.

The structure is cast-in-place concrete with earth mounded over the structure, which is cut into a hillside. The interior is unfinished cast-in-place concrete. Electrical controls and instrumentation devices were mounted in this small earth bunkered facility. The building occupies 161 ft^2 and is covered with earth. A concrete abutment with a steel door and frame face east. Concrete stairs allow movement to the top of the facility, which was occasionally used as an implosion shot pad. Steel blast shields are evident on north elevation. Shrapnel marks are visible on the steel plates.

TA-33-40



(LANL, RRES-ECO/HREPC, #DCP_0065)

TA-33-40

TA-33-40 was built by the Zia Company between February 12, 1951, and March 23, 1951. It was a windowless, one-story building of approximately 335 ft^2. TA-33-40 was of wood-frame construction and had a slightly pitched, shed-type roof. The building was constructed at Main Site to house saw operations previously being conducted in TA-33-16 at Area 6 (Los Alamos National Laboratory Engineering Documents Lab Job #755).

TA-33-40 originally housed a 24" saw with self-contained coolant. This slit saw was used to open steel and uranium (both depleted and natural) projectiles containing polonium and beryllium after they were retrieved from initiator experiments (Los Alamos National Laboratory 1992). In 1953, TA-33-40 was relocated northeast of TA-33-39 at Main Site to make room for the Gas Handling Facility, TA-33-86. Heating, plumbing, and electrical alterations, including room exhaust modifications were made to accommodate the relocation. At its new location, a sand bag barricade was situated approximately 4 ft from the building around the east, north, and west elevations (Los Alamos National Laboratory Drawing ENG-C2956). This barricade was constructed to shield a nearby road from possible shrapnel (Los Alamos National Laboratory

Engineering Documents Lab Job # 1362). TA-33-40 continued to be used as a saw building at its new location until 1972 when W-3 operations ended. The building was last used as a general storage area.

TA-33-86

(LANL, RRES-ECO/HREPC, Scanned Polaroid)

TA-33-86

The Gas Handling Facility, TA-33-86, began operations in June 1955. It was the first facility at LANL to handle "large" quantities of tritium gas for the nuclear weapons program. Building TA-33-86 was a roughly rectangular, reinforced concrete structure with a slightly concave roof for drainage. The roof was constructed of tarpaper, tar, and gravel with metal edging "flashing" along all sides. The building had 19 rooms. These included restrooms, a janitorial closet, several equipment rooms, several large shop-type rooms, the tritium laboratory, the control room for the tritium laboratory, office space, and other work areas. The doors to the building were painted green and interior walls were painted either green or white. There were two inner metal pedestrian doors with exterior steel pedestrian doors (for extra security) located on the east side of the building. Towards the center of the east side there was also a single metal pedestrian door. On the south end of the east side there was a translucent, 90-paned "glass-brick" window. A

canopy of galvanized corrugated metal was added along the east wall of the building in 1963 to protect small gas cylinders stored along the wall.

An equipment room extended east from the east side of the building. The north side of this extension had a double metal pedestrian door. A small cinder (pumice) block addition was constructed on the east side of the utility equipment room in 1958. There were double metal pedestrian doors with single-paned windows located on the north side of the addition. On the east side of the addition there was a single metal pedestrian door and a three-paned, metal frame window. The north side of the building had one metal pedestrian door and a translucent, 144-paned "glass-brick" window. The exhaust stack for the building was located several ft to the north of the north wall. On the west side of the building, at the north end, there were three translucent, 120-paned "glass-brick" windows. Towards the south end of the west side there was one translucent, 144-paned "glass-brick" window. Additionally, there were two metal roll-up garage type doors on the west side. On the south side of the building there was one metal roll-up garage type door. A metal loading dock with a low concrete barrier was adjacent to the south wall. This barrier enabled oxygen trucks to back up and connect hoses to the valves on the barrier, which fed into the building. The walkway allowed an operator to control the valves on the back of the truck. There was a "penthouse" room on the roof of the north end of the building. This room housed additional utility equipment (pump motors for the building's air stack).

TA-33-90

(LANL, RRES-ECO/HREPC, Scanned Polaroid)

TA-33-90

TA-33-90 was built in 1955 and served as a guard station for the Gas Handling Facility (TA-33-86). The building was used for storage after TA-33-86 ceased operations in 1990. The building had "Transite" nonfriable asbestos siding on the exterior. The building was constructed of wood-frame and had a flat roof. The roof was constructed of tarpaper, tar, and gravel with metal edging "flashing" on all sides.

Building TA-33-90 was a small, square, wood-frame building with a green door and green window frames. The roof of the building overhung the building by approximately 2-2½ ft. The 12 by 12-ft building had two rooms, the main room plus a small restroom. All windows in the building had wood and metal frames. A wooden pedestrian door with a large window and a fixed single-paned window was located on the east side of the building. The north side of the building had two side-by-side windows. One was fixed and single-paned and the other was a double-hung sash window with four panes. The west side of the building had two single-paned fixed windows. On the south side there were three side-by-side windows. The center one was a double-hung sash window and the two "outside" windows were fixed and single-paned.

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Appendix A1: Historic Building Inventory Forms with Representative Photographs and Building Drawings for Buildings TA-33-24, -25, and -26

LANL TA- Building # 33-0024

Camera 984244

Frame #s DCP_0496 through DCP_0518

Surveyor(s) K. Garcia, J. Ronquillo, K. Towery

Date 05/24/2002

Los Alamos National Laboratory
HREPCT Historic Building Survey Form

Building Name Control Building UTMs easting 386786 northing 3959187 zone 13

Legal Description: Map Frijoles Quad 1984 tnsp 18N range 6E sec

Current Use/ Function Building is currently not in use Original Use/ Function The building served as a Control Building for experiments at TA-33 South Site.

Date (estimated) 1950 Date (actual) 1949 Property Type Support

Type of Construction

Pre-Fabricated Metal ☐ Steel Frame ☐ Wood Frame ☐ CMU ☐ Reinforced Concrete ☑

Other Type of Construction Cast in place concrete. # of Stories 1

Foundation Reinforced Concrete.

Exterior CMU-Exterior ☐ Reinforced Concrete-Exterior ☑ Steel (galvanized) ☐ Steel (corrugated) ☐

Wood Siding ☐ Asbestos Shingles-Exterior ☐ In-Fill Panels ☐ Other-Exterior

Exterior Treatment (painted, stuccoed, etc) The structure is a bunkered facility with earth berms on the north, south, and east elevations. The west elevation is the entrance into the building. The west elevation is unpainted concrete.

Exterior Features (docks, speakers, lights, signs, etc) There is a driveway and parking area to the west of the building.

Addition CMU-Addition ☐ Reinforced Concrete-Addition ☐ Steel (galvanized)- Addition ☑ Wood ☐

Steel (corrugated)-Addition ☐ Asbestos Shingles-Addition ☐ Other- Addition

Exterior Treatment-Addition N/A

Exterior Features-Addition N/A

Roof Form Slanted/Shed ☐ Gable ☐ Other Roof Type Bunkered earth berm

Degree of Pitch/ Slope Slight

Roof Materials Corrugated Metal ☐ Rolled Asphalt ☐ Asbestos Shingles ☐ 4-Ply Built Up ☐

Other Roof Materials Based on the exposed concrete visible from the inside, the ceiling appears to be cast in place-exposed concrete. The roof is covered over by an earth mound with sparse vegetation.

Window Type Casement ☐ Single Hung Sash ☐ Double Hung Sash ☐ Fixed Window ☐

Other Window Type N/A

# of Each Window Type/ Comments N/A

Glass Type Clear ☐ Wire Glass ☐ Opaque ☐ Painted Glass ☐ Glass Block ☐

Light Pattern N/A

Door Type

Personnel Door Types — Exterior: Fire Door ☐ Single ☑ Double ☐ Roll-up ☐ Sliding ☐
Hollow Metal ☑ Solid Wood ☐ 1/2 Glazed ☐ Paneled ☐
Louvered ☐ Painted ☑

Personnel Door Types — Interior: Fire Door ☐ Single ☐ Double ☐ Roll-up ☐ Sliding ☐
Hollow Metal ☑ Solid Wood ☐ 1/2 Glazed ☐ Paneled ☐
Louvered ☐ Painted ☑

Equipment Door Types — Exterior: Fire Door ☐ Single ☐ Double ☐ Roll-up ☐ Sliding ☐
Hollow Metal ☐ Solid Wood ☐ 1/2 Glazed ☐ Paneled ☐
Louvered ☐ Painted ☐

Equipment Door Types — Interior: Fire Door ☐ Single ☐ Double ☐ Roll-up ☐ Sliding ☐
Hollow Metal ☐ Solid Metal ☐ 1/2 Glazed ☐ Paneled ☐
Louvered ☐ Painted ☐

# of Each Door Type/Comments: There are four hollow metal, interior personnel doors that were painted at one time.

Interior Wall Gypsum Board ☐ Reinforced Concrete- Interior ☑

CMU- Interior ☐ Plywood ☐ Other- Interior

In-Wall Electrical Wiring ☐ On-Wall Electrical Wiring ☑

Ceiling Drop Ceiling ☐

Interior Comments (Equipment, etc) Exposed concrete ceiling with glued on sound panels.

Degree of Remodeling Unknown/None

Condition Excellent ☐ Good ☑ Fair ☐ Deteriorating ☐ Contaminated ☐ Burned ☐

Associated Building ☐

If yes, list building names and #s: TA-33-25, and TA-33-26.

Integrity

Significance

Eligible Under Criterion A ☑ B ☐ C ☐ D ☐ Not Eligible ☐

DOE Themes

Nuclear Weapon Components and Assembly ☐
Nuclear Weapon Design and Testing ☑
Nuclear Propulsion ☐
Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐
Energy and Environment: Research Design Projects ☐

LANL Themes

Weapons Research and Design, Testing, and Stockpile Support ☑ Super Computing ☐

Reactor Technology ☐ Biomedical/Health Physics ☐ Strategic and Supporting Research ☐

Environment/Waste Management ☐ Administration and Social History ☐ Architectural History ☐

Recommendations/ Additional Comments

Architectural Features (elevations) This structure is a bunkered facility with earth berms on the north, south, and east elevations. The west elevation is unpainted concrete and contains the entrance. The roof is covered over by an earth mound with sparse vegetation.

Total sq ft 1,016 gross **Architect/ Builder** Haddock Engineers, Ltd.

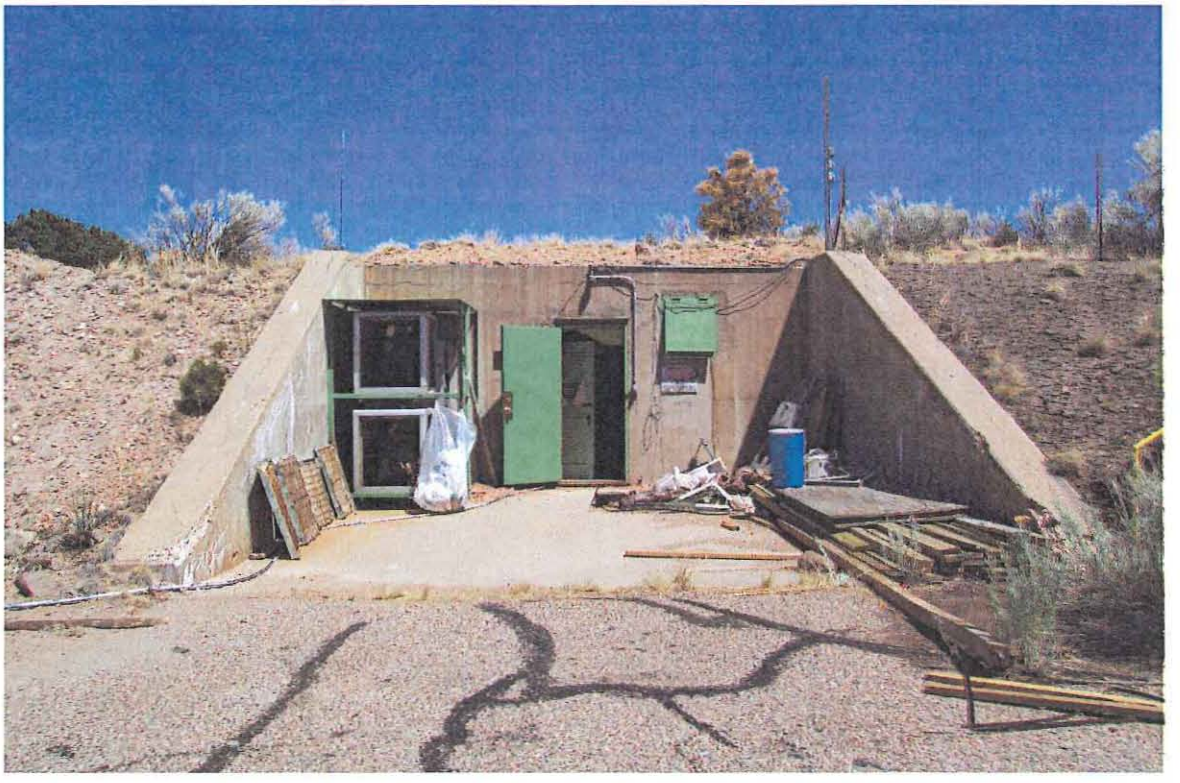
Alterations

List of Drawings (Cntrl + Enter for para break)

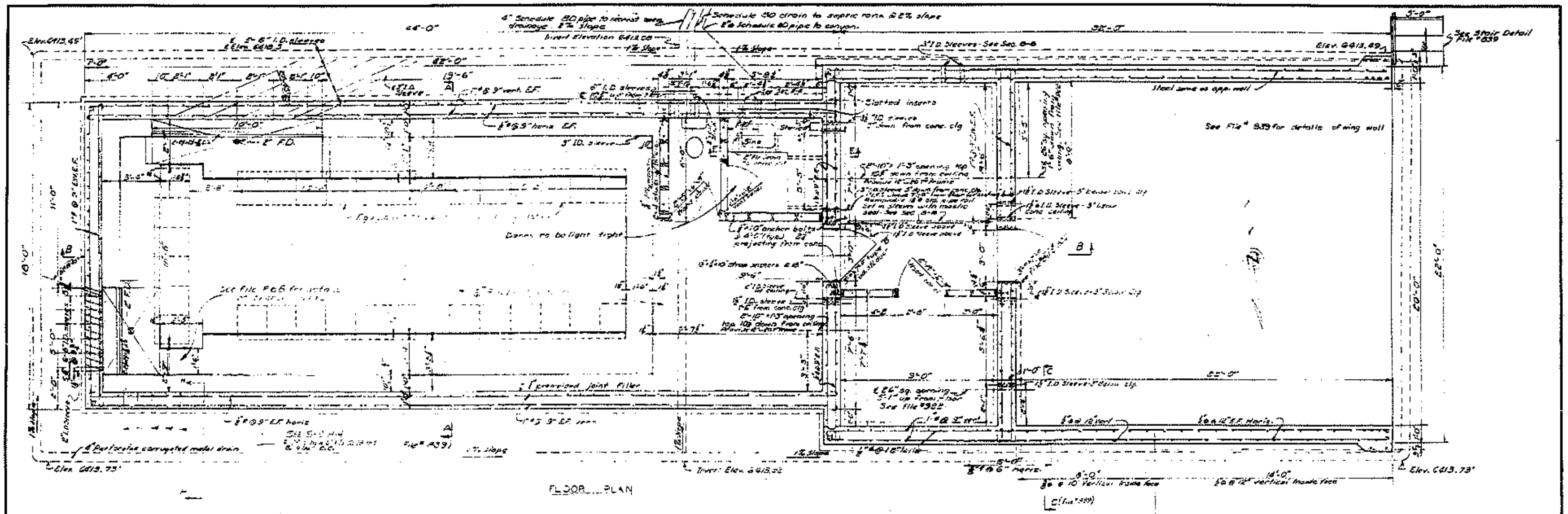
ENG-C 11551
Sheet 41 of 137
TA-33, HP-24
Structural Layout, Floor Plan & Longitudinal Section
April 5, 1949

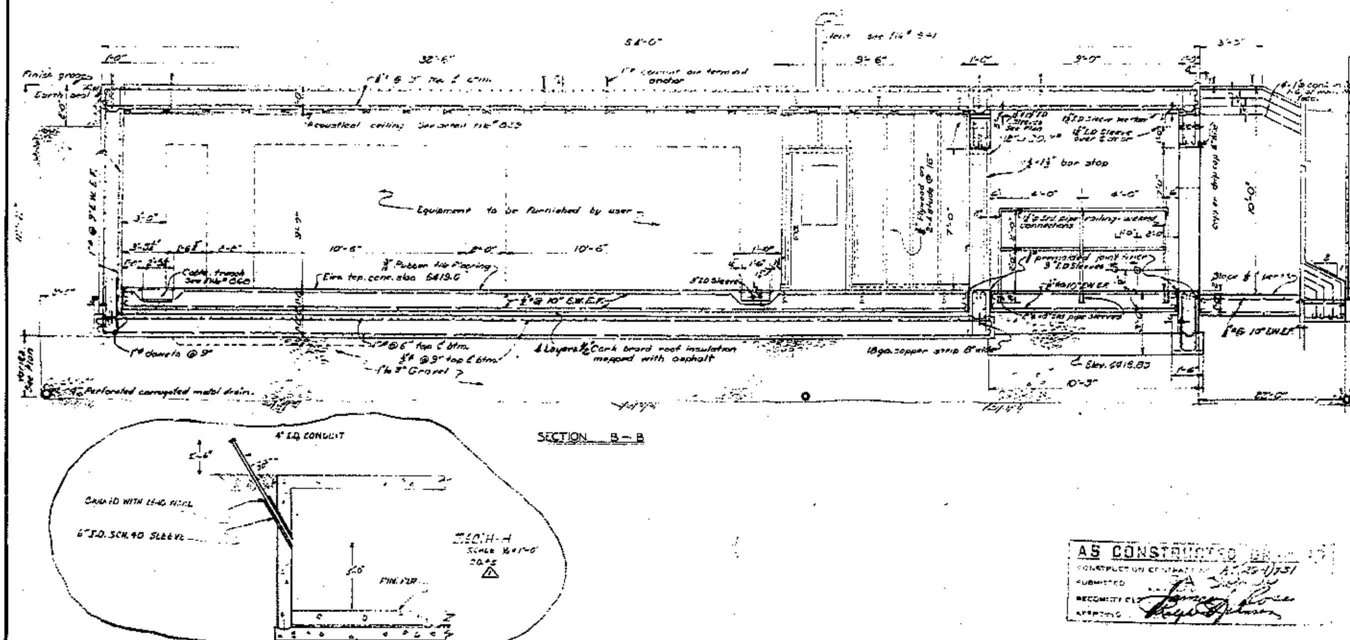
ENG-C 3027
TA-33, Bldg. HP-24
Control Building
Floor Plan
May 24, 1973

TA-33-24
Bunker
Elevation
Cold War Era Buildings
Historic Context
November 1, 2004



TA-33-24, West side, direction east





Reference Drawings:

File # 570	Plot Plan (East Half)
File # 811 & 832	Door Frame Details & Assembly
File # 806	Heating & Ventilating Layout
File # 881	Plumbing Layout
File # 839	Wing Wall, Acoustical Ceiling detail. Roof Plan & Sections
File # 868	Trench & Cover Details
File # 846 & 847	Electrical Layout
File # 878	Lightning Protection & Grounding Details
File # 922	Ventilator Cover Details

General Notes:

(1) All concrete shall be Type A and shall develop a strength of 3000 psi @ 28 days.
(2) Mix ½ lb. cement disperser with each sack of cement used.
(3) Reinforcement shall be intermediate grade deformed bars - all bars hooked.
(4) Interior wall forms shall be of plywood and walls shall be finished smooth. Exterior walls may be left rough.
(5) Interior walls, ceilings, all exposed metal and wood shall be given three coats of lead and oil paint.
(6) Exterior building walls that are to be covered with earth shall be waterproofed with three plys felt and coal tar pitch.
(7) ~~Roof and exposed exterior building walls shall be coated with metallic waterproofing.~~ DELETE: C.O.# TA-33-33! (2)
(8) Bond reinforcing steel by welding at 3'-0" intervals in each direction. Bond all other metal to reinforcing steel by direct weld or suitable metal strap.
(9) Connect reinforcing to grounding system with # 1/0 bare stranded copper cable.
(10) Floors shall be given a smooth integral cement finish and shall be covered with 3/16" rubber tile on felt base where shown on plans.
(11) All foundations shall be carried to solid bearing with a minimum excavation of 12 in. into rock (Tuff).
(12) See applicable section of General Specifications for detailed information.

Scale: 1/4" = 1'-0" See Also File # 868 & 839

AS CONSTRUCTED DRAWING

STRUCTURAL LAYOUT BLDG (NO. 7) FLOOR PLAN & LONGITUDINAL SECTION

File No. 808

LOS ALAMOS TA 33 NEW MEXICO

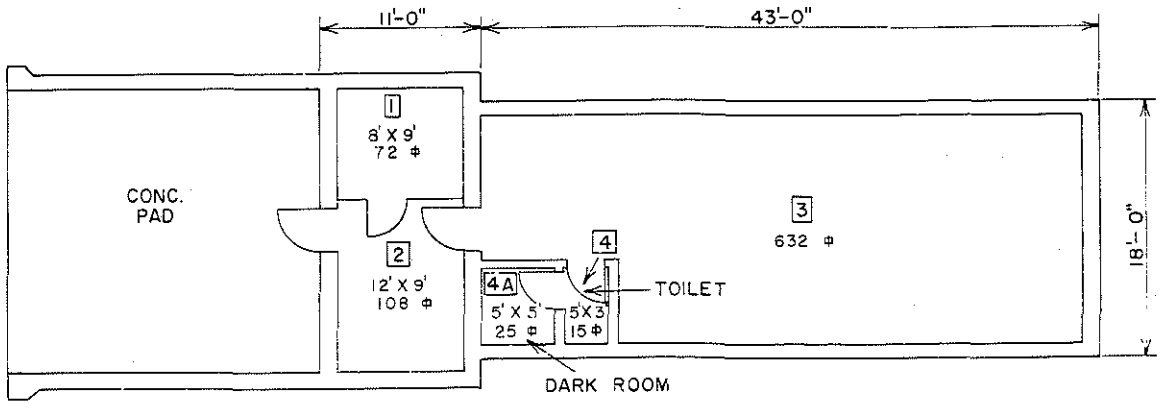
BLACK & VEATCH — CONSULTING ENGINEERS

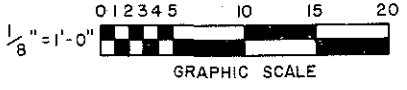
Date 4/5/49 Sheet 41 of 137

(2) C.O. # TA-33-33 DELETE METALLIC WATERPROOFING ON EXTERIOR WALLS.
(1) C.O. TA-33-5 ... ADDITIONAL ... I.D. SLEEVES ...

LAB JOB 190

L.A.S.L. DWG. NO. ENG-R 11,551 SFA-OK-1/41





TOTAL SQ. FT. 852

REV.	DATE	REVISION	BY	CKD.	APP.
3	9-22-83	REVISED TO STATUS OF 9-22-83	H&N		

UNIVERSITY OF CALIFORNIA
Los Alamos
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

FACILITIES ENGINEERING DIVISION

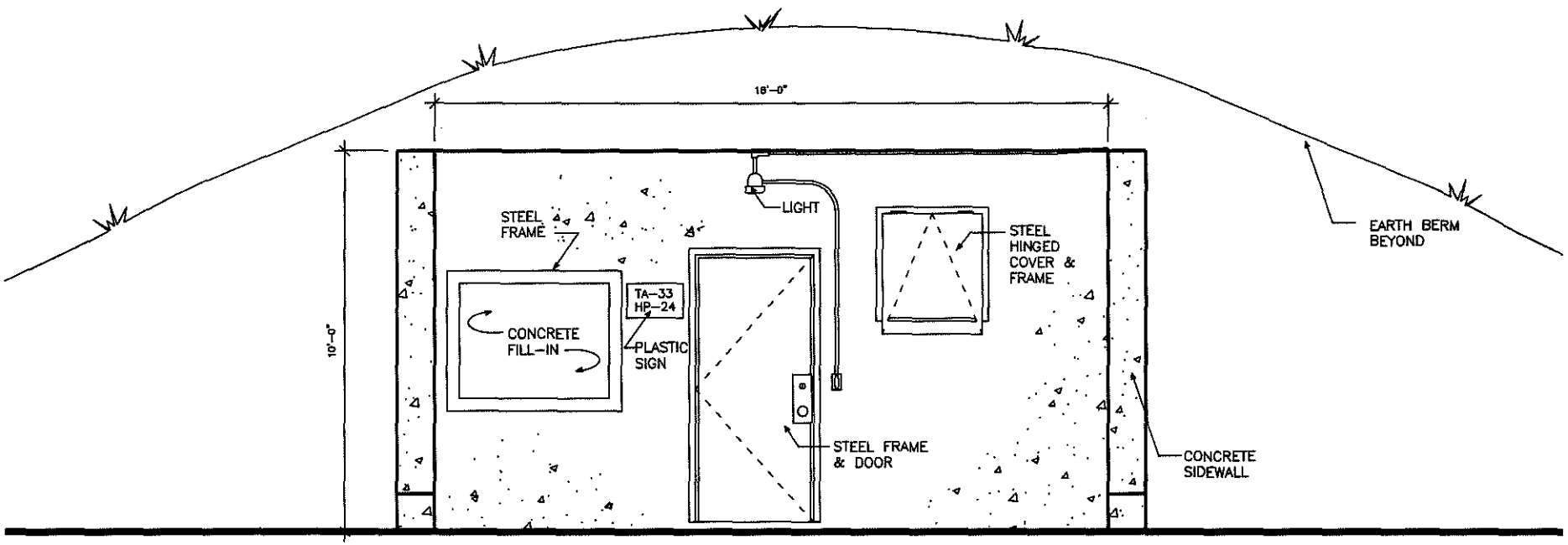
CONTROL BUILDING
FLOOR PLAN
BLDG. HP-24 TA-33

SEC. CLASSIFICATION
CLASS. U
REVIEWER Rhodrick
DATE 10-31-83

SUBMITTED	RECOMMENDED	APPROVED
Ed. Trujillo	Dominic Rapp	W. T. Enlow

DRAWN	DATE	SHEET NO.	DRAWING NO.
NARANJO	5-24-73	1 OF 1	ENG-R3027
CHECKED Herbert H&N			

11-23-83



NORTH ELEVATION
SCALE: 3/4"=1'-0

1
A-1

COLD WAR ERA BUILDINGS HISTORIC CONTEXT	DRAWN	K. HOWD
	DESIGN	———
	CHECKED	K. TOWERY
TA-33-24 BUNKER	DATE	NOV 04
	APPROVED FOR RELEASE	
Los Alamos NATIONAL LABORATORY PO Box 1663 Los Alamos, New Mexico 87545	SHEET	A-1
		1 OF 1
CLASSIFICATION U	REVISION	DATE 11/1/04

LANL TA- Building # 33-0025

Camera 984244

Frame #s DCP_0479 through DCP_0495 and DCP_0519 through DCP_0534

Surveyor(s) K. Garcia, K. Towery, J. Ronquillo

Date 05/24/2002

Los Alamos National Laboratory
HREPCT Historic Building Survey Form

Building Name Gun Building UTMs easting 386743 northing 3959180 zone 13

Legal Description: Map Frijoles Quad 1984 tnsp 18N range 6E sec

Current Use/ Function The building is not currently occupied. Original Use/ Function Experimental testing facility.

Date (estimated) 1950 Date (actual) 1950 Property Type Laboratory/Processing

Type of Construction

Pre-Fabricated Metal ☐ Steel Frame ☑ Wood Frame ☐ CMU ☐ Reinforced Concrete ☑

Other Type of Construction # of Stories 1

Foundation Reinforced Concrete.

Exterior CMU-Exterior ☑ Reinforced Concrete-Exterior ☐ Steel (galvanized) ☐ Steel (corrugated) ☐

Wood Siding ☐ Asbestos Shingles-Exterior ☐ In-Fill Panels ☐ Other-Exterior Earth bermed

Exterior Treatment (painted, stuccoed, etc) Bunkered building with an earth berm running from east to west including across the roof. The north and south elevations are exposed concrete walls that support metal overheard doors.

Exterior Features (docks, speakers, lights, signs, etc) Two large overhead coiling doors enclose the openings on the north and south end.

Addition CMU-Addition ☐ Reinforced Concrete-Addition ☐ Steel (galvanized)- Addition ☐ Wood ☐

Steel (corrugated)-Addition ☐ Asbestos Shingles-Addition ☐ Other- Addition

Exterior Treatment-Addition N/A

Exterior Features-Addition N/A

Roof Form Slanted/Shed ☐ Gable ☐ Other Roof Type Bunkered, covered with earth.

Degree of Pitch/ Slope Moderate

Roof Materials Corrugated Metal ☐ Rolled Asphalt ☐ Asbestos Shingles ☐ 4-Ply Built Up ☐

Other Roof Materials

Window Type Casement ☐ Single Hung Sash ☐ Double Hung Sash ☐ Fixed Window ☐

Other Window Type N/A

# of Each Window Type/ Comments N/A

Glass Type Clear ☐ Wire Glass ☐ Opaque ☐ Painted Glass ☐ Glass Block ☐

Light Pattern: N/A

Door Type

Personnel Door Types — Exterior: Fire Door ☐ Single ☑ Double ☐ Roll-up ☐ Sliding ☐
Hollow Metal ☑ Solid Wood ☐ 1/2 Glazed ☐ Paneled ☐
Louvered ☐ Painted ☑

Personnel Door Types — Interior: Fire Door ☐ Single ☐ Double ☐ Roll-up ☐ Sliding ☐
Hollow Metal ☐ Solid Wood ☐ 1/2 Glazed ☐ Paneled ☐
Louvered ☐ Painted ☐

Equipment Door Types — Exterior: Fire Door ☐ Single ☑ Double ☐ Roll-up ☐ Sliding ☐
Hollow Metal ☑ Solid Wood ☐ 1/2 Glazed ☐ Paneled ☐
Louvered ☐ Painted ☑

Equipment Door Types — Interior: Fire Door ☐ Single ☐ Double ☐ Roll-up ☐ Sliding ☐
Hollow Metal ☐ Solid Metal ☐ 1/2 Glazed ☐ Paneled ☐
Louvered ☐ Painted ☐

# of Each Door Type/Comments: There are two hollow metal personnel doors built into the framework of the two overhead coiling doors, located at each end of the building.

Interior Wall

Gypsum Board ☐ Reinforced Concrete- Interior ☐
CMU- Interior ☐ Plywood ☐ Other- Interior: There are no interior walls.
In-Wall Electrical Wiring ☐ On-Wall Electrical Wiring ☐

Ceiling Drop Ceiling ☐

Interior Comments (Equipment, etc): The building interior is comprised of a high arched, open bay formed from a structural, 18-foot high bolted panel, corrugated iron half section forming a clear, and open space. A bridge crane with a 5-ton trolley hoist spans the entire building.

Degree of Remodeling: Unknown/None

Condition Excellent ☐ Good ☑ Fair ☐ Deteriorating ☐ Contaminated ☐ Burned ☐

Associated Building ☐

If yes, list building names and #s: TA-33-24, TA-33-26

Integrity: Fair

Significance: Eligible

Eligible Under Criterion A ☑ B ☐ C ☐ D ☐ Not Eligible ☐

DOE Themes

Nuclear Weapon Components and Assembly ☐
Nuclear Weapon Design and Testing ☑
Nuclear Propulsion ☐
Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐
Energy and Environment: Research _Design Projects ☐

LANL Themes

Weapons Research and Design, Testing, and Stockpile Support ☑ Super Computing ☐
Reactor Technology ☐ Biomedical/Health Physics ☐ Strategic and Supporting Research ☐

Environment/Waste Management ☐ Administration and Social History ☐ Architectural History ☐

Recommendations/ Additional Comments

Architectural Features (elevations) The formidable structure is a bunkered building. The roof/wall sections are earth covered with some vegetation growing on it. The north and south elevations are symmetrical each containing a large overhead coiling door with a hollow metal personnel door within the framework.

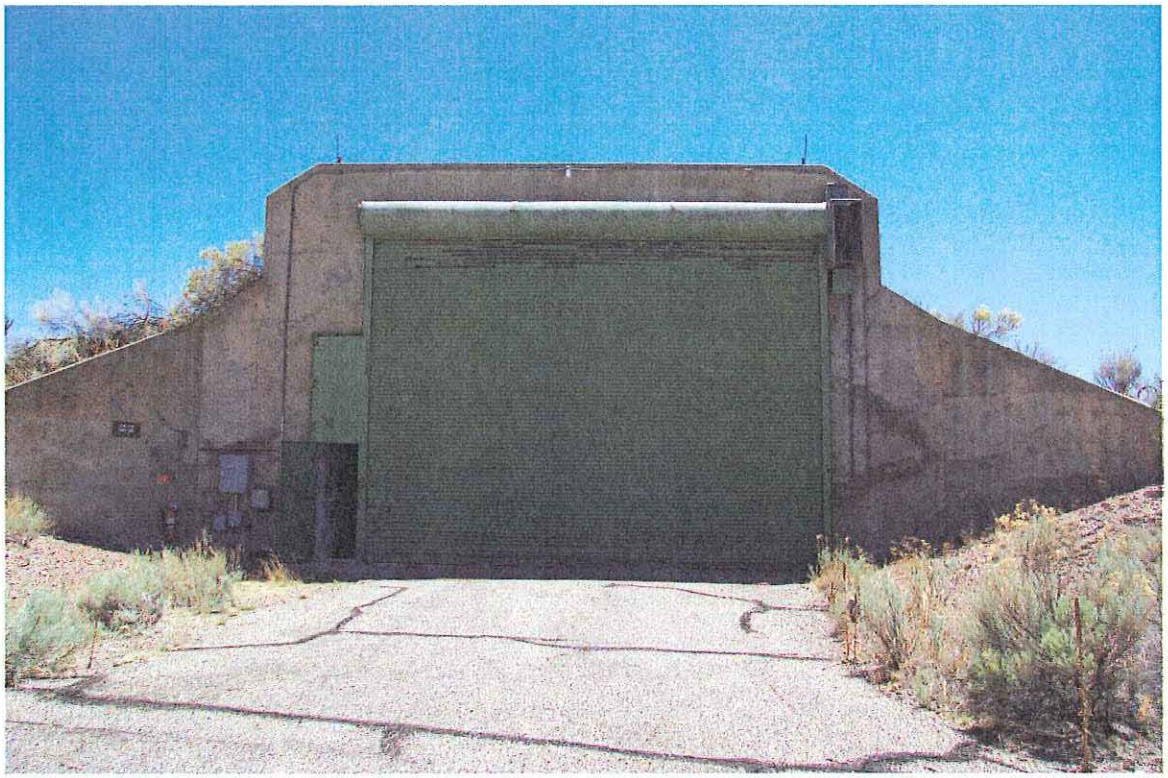
Total sq ft 1,530 Gross **Architect/ Builder** Haddock Engineers, Ltd.

Alterations

List of Drawings (Cntrl + Enter for para break)

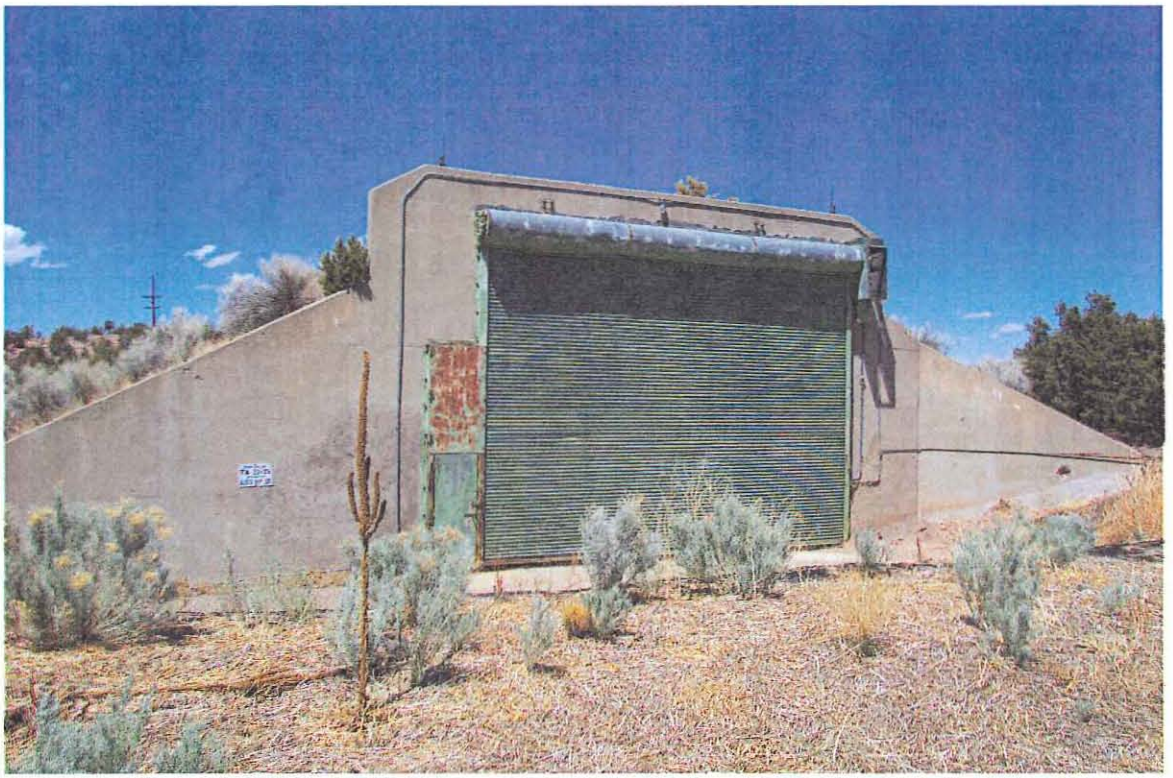
ENG-C 11554
Sheet 44 of 137 c
Building No. (8), HP-25
Structural Layout
Plan, Elevation & Section
April 5, 1949

ENG-R 3028
TA-33, Bldg. HP-25
Gun Building
Floor Plan
March 22, 1963

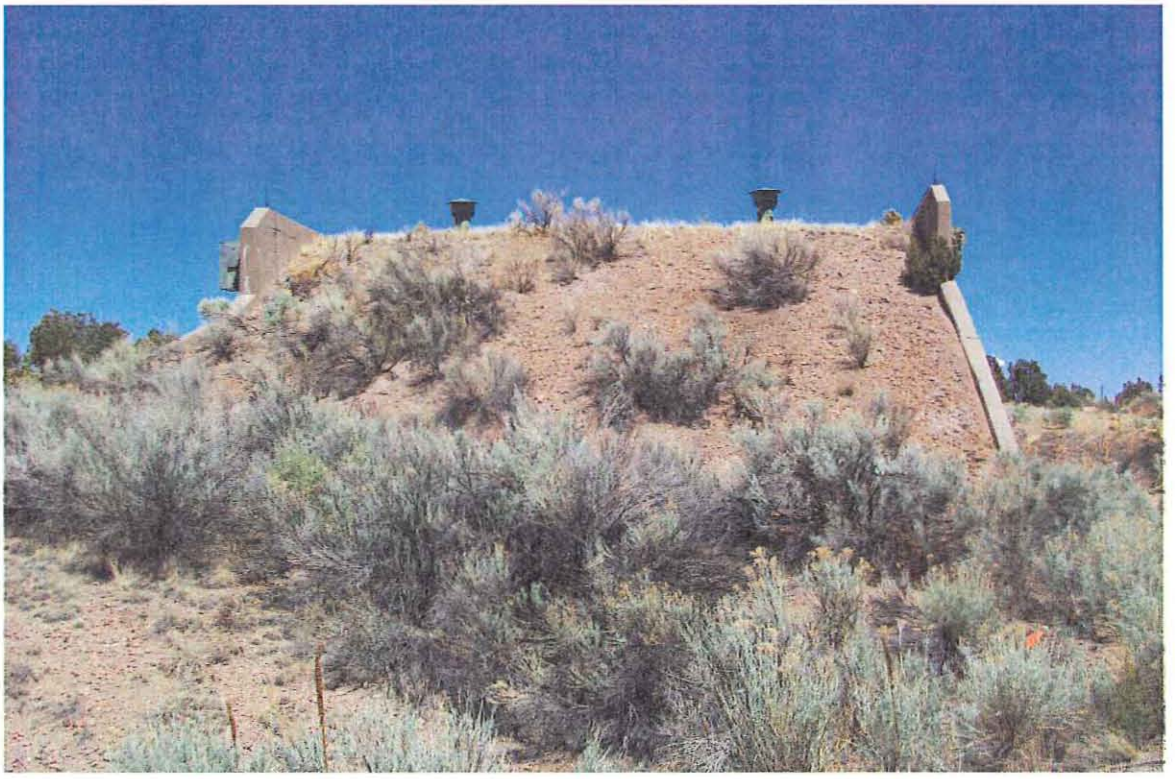


TA-33-25, North side, direction south

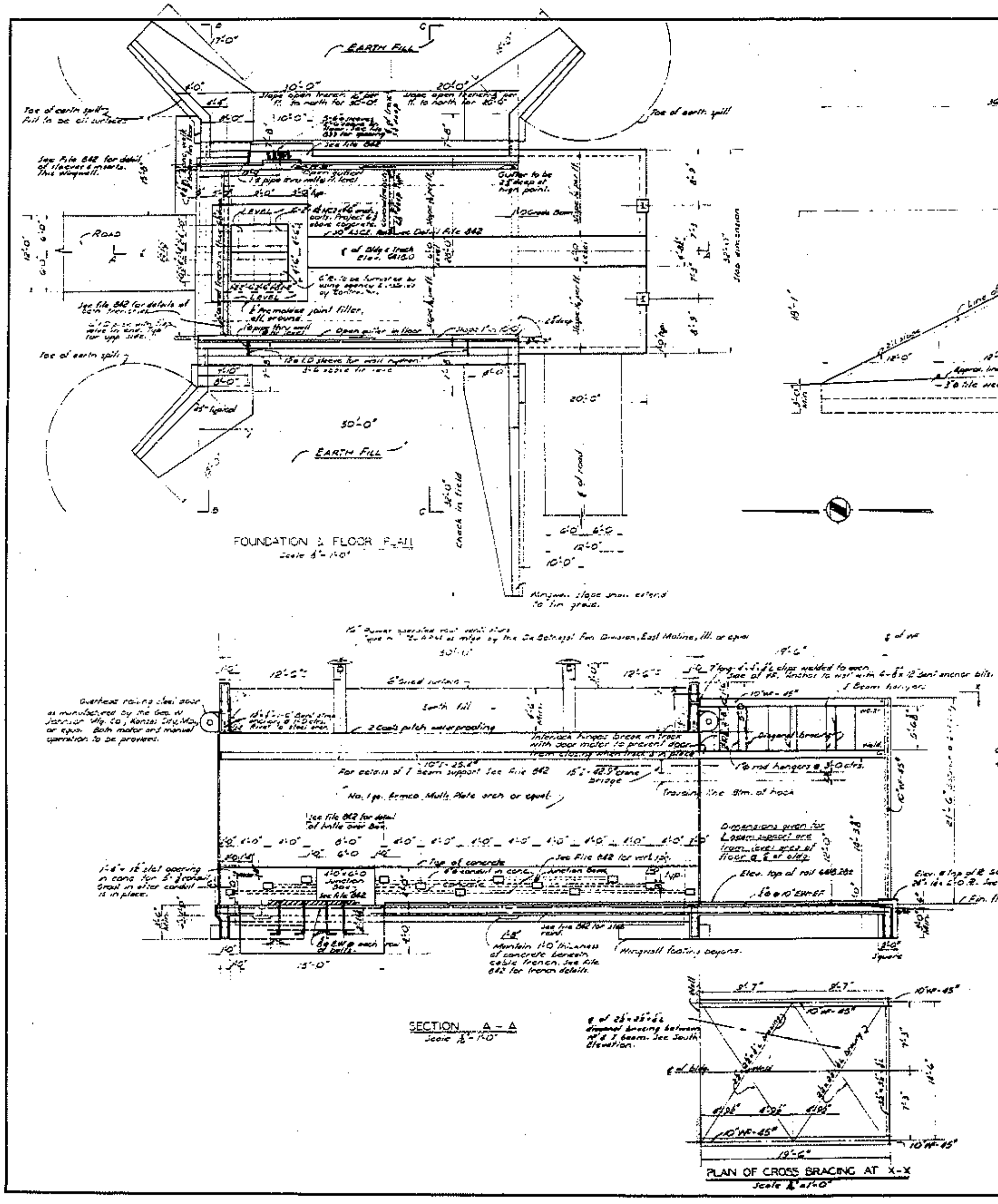
TA-33-25, West side, direction east

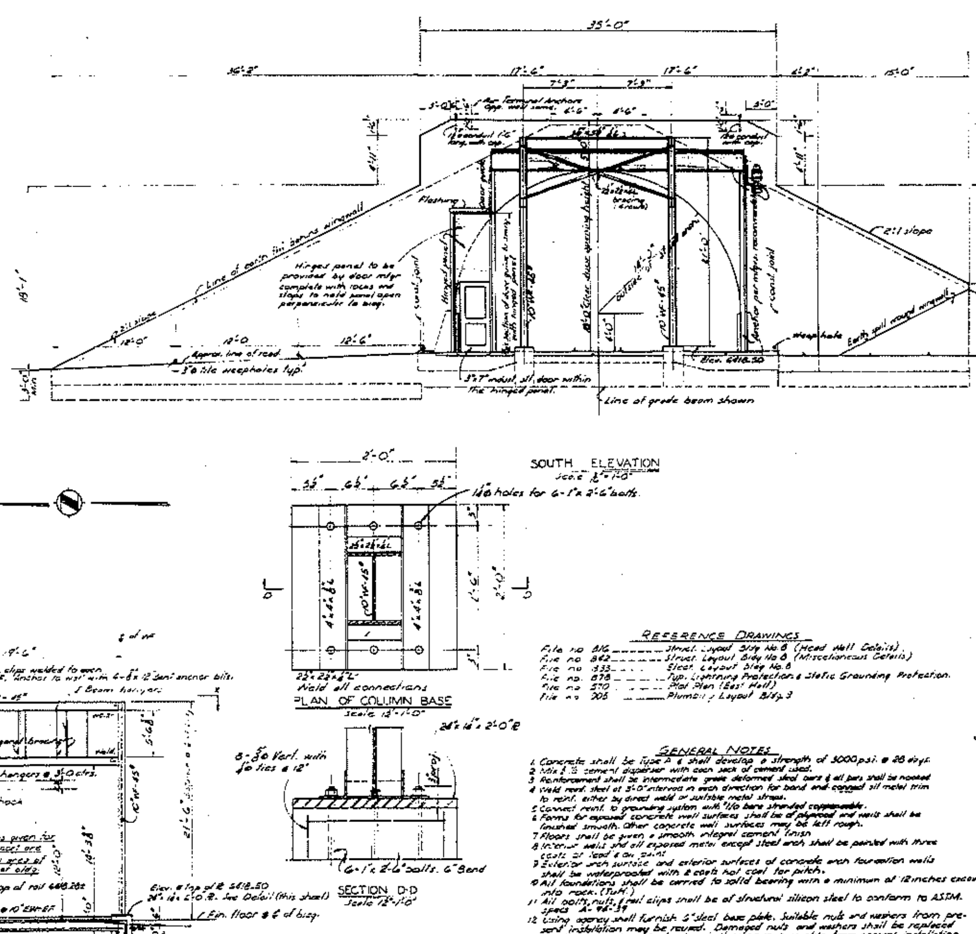


TA-33-25, South side, direction northeast



TA-33-25, East side, direction west





REFERENCE DRAWINGS

File no. 816 — Struct. Layout Bldg No. 8 (Head Wall Details).
File no. 842 — Struct. Layout Bldg No. 8 (Miscellaneous Details)
File no. 833 — Elect. Layout Bldg No. 8
File no. 878 — Typ. Lightning Protection & Static Grounding Protection.
File no. 570 — Plot Plan (East Hall)
File no. 905 — Plumbing Layout Bldg. 8

GENERAL NOTES

1. Concrete shall be Type A & shall develop a strength of 3000 p.s.i. @ 28 days.
2. Mix 1/2 lb cement disperser with each sack of cement used.
3. Reinforcement shall be intermediate grade deformed steel bars & all bars shall be hooked.
4. Weld reinf. steel at 5'-0" intervals in each direction for bond and connect all metal trim to reinf. either by direct weld or suitable metal straps.
5. Connect reinf. to grounding system with 1/0 bare stranded copper cable.
6. Forms for exposed concrete wall surfaces shall be of plywood and walls shall be finished smooth. Other concrete wall surfaces may be left rough.
7. Floors shall be given a smooth integral cement finish.
8. Interior walls and all exposed metal except steel arch shall be painted with three coats of lead & oil paint.
9. Exterior arch surface and exterior surfaces of concrete arch foundation walls shall be waterproofed with 2 coats hot coal tar pitch.
10. All foundations shall be carried to solid bearing with a minimum of 12 inches excav. into rock. (Tuff.)
11. All bolts, nuts, & rail clips shall be of structural silicon steel to conform to A.S.T.M. specs. A-94-39
12. Using agency shall furnish 5" steel base plate. Suitable nuts and washers from present installation may be reused. Damaged nuts and washers shall be replaced by the contractor. Contractor shall remove base plate from present installation and transport to & install at site. Contractor shall furnish anchor bolts. Plate shall be leveled with approx. 1/2" of mortar.
13. The top 6" of earth fill over bldg. shall be of compacted oiled earth.
14. See applicable section of General Specifications for detailed information.
15. All anchor bolt locations for steel base plate shall be checked in field against spacing of holes in base plate, before installing anchor bolts.

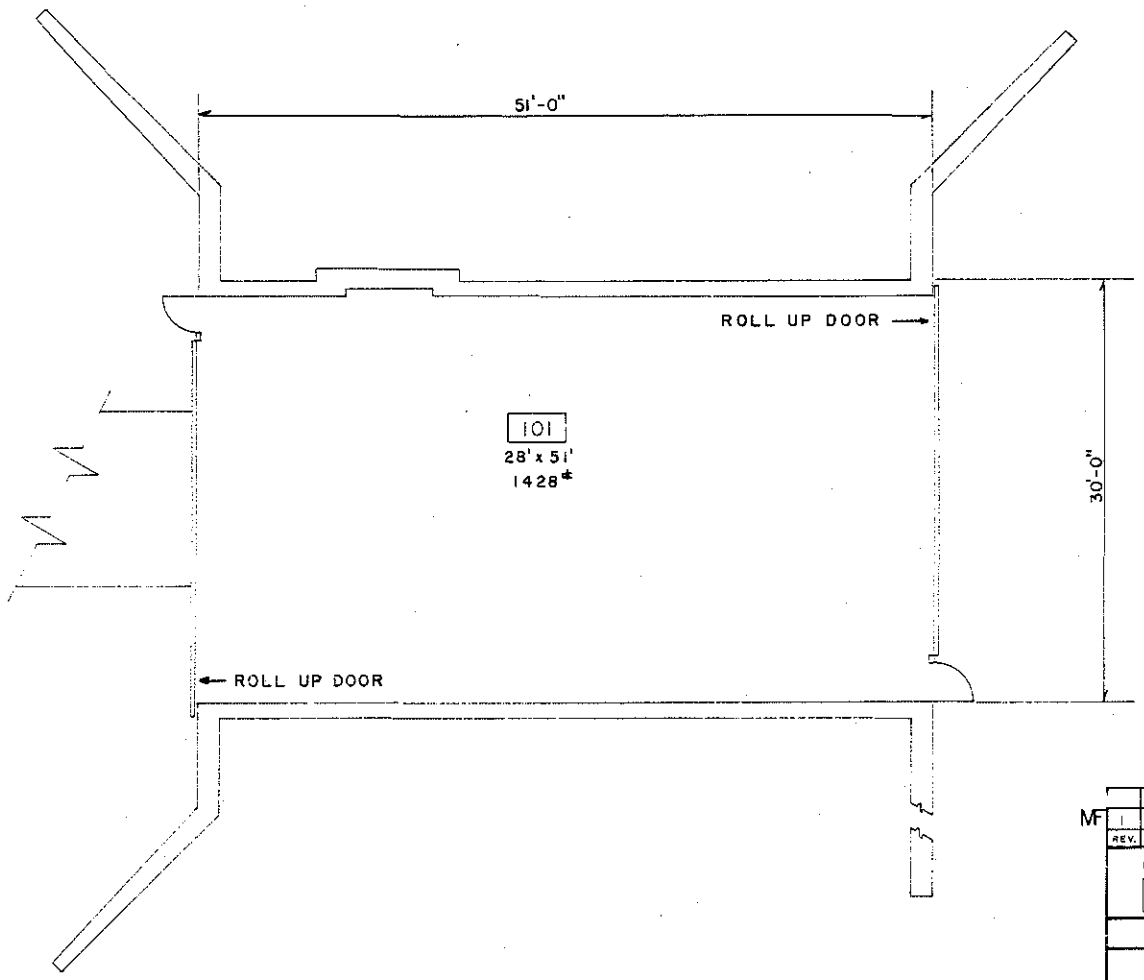
Scale: As noted.   Also see Files no. 816 & 842

AS CONSTRUCTED DRAWING
Construction Contract No. AT(29-1)731
Submitted
Recommended
Approved

STRUCTURAL LAYOUT - BUILDING NO. (8) HP25 PLAN, ELEVATION & SECTION		File no. 815
LOS ALAMOS — T. A. - 3 3 — NEW MEXICO		Drawn WET 3-15-49
BLACK & VEATCH —— CONSULTING ENGINEERS		Checked 4-4-49
5-3-49		Date 4/5/49
		Sheet 44 of 137

LAR 108.190

L.A.S.L. DWG. NO. ENG-C 11554 SFA-DX-1/44



(1/8"=1'-0")

GRAPHIC SCALE 10 5 10

TOTAL SQ. FT. 1428

REV.	DATE	REVISION	BY	CKD.	APP.
1	6-8-84	REVISED TO STATUS OF 6-8-84	H&N		

UNIVERSITY OF CALIFORNIA
Los Alamos
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

FACILITIES ENGINEERING DIVISION

GUN BUILDING
FLOOR PLAN

BLDG. HP-25 TA-33

SEC. CLASSIFICATION
CLASS. U
REVIEWER
DATE 6-11-84

SUBMITTED	RECOMMENDED	APPROVED
E. Trujillo		

DRAWN	CHECKED	DATE	SHEET NO.	DRAWING NO.
LEMON	H&N	3-22-63	1 OF 1	ENG-R3028

7/11/84

K+E ALBANENE 1861

LANL TA- Building # 33-0026

Camera 984244

Frame #s DCP_0535 through DCP_0538

Surveyor(s) K. Garcia, J. Ronquillo, K.Towery

Date 05/24/2002

Los Alamos National Laboratory
HREPCT Historic Building Survey Form

Building Name Storage Building UTMs easting 386863 northing 3959143 zone 13

Legal Description: Map Frijoles Quad 1984 tnsp 18N range 6E sec

Current Use/ Function This building is currently not in use. Original Use/ Function Support for Bldg. 24 and 25.

Date (estimated) 1950 Date (actual) 1950 Property Type Support

Type of Construction

Pre-Fabricated Metal ☐ Steel Frame ☐ Wood Frame ☐ CMU ☐ Reinforced Concrete ☑

Other Type of Construction # of Stories 1

Foundation

Exterior CMU-Exterior ☐ Reinforced Concrete-Exterior ☑ Steel (galvanized) ☐ Steel (corrugated) ☐

Wood Siding ☐ Asbestos Shingles-Exterior ☐ In-Fill Panels ☐ Other-Exterior

Exterior Treatment (painted, stuccoed, etc) The only elevation that is exposed is the east elevation. This elevation is a cast in place concrete wall with a steel door leading in and out of the small structure.

Exterior Features (docks, speakers, lights, signs, etc) This structure is totally underground with the exception of the east elevation.

Addition CMU-Addition ☐ Reinforced Concrete-Addition ☐ Steel (galvanized)- Addition ☐ Wood ☐

Steel (corrugated)-Addition ☐ Asbestos Shingles-Addition ☐ Other- Addition N/A

Exterior Treatment-Addition

Exterior Features-Addition

Roof Form Slanted/Shed ☐ Gable ☐ Other Roof Type Bunkered facility covered with earth.

Degree of Pitch/ Slope Slight

Roof Materials Corrugated Metal ☐ Rolled Asphalt ☐ Asbestos Shingles ☐ 4-Ply Built Up ☐

Other Roof Materials Reinforced Concrete.

Window Type Casement ☐ Single Hung Sash ☐ Double Hung Sash ☐ Fixed Window ☐

Other Window Type N/A

# of Each Window Type/ Comments N/A

Glass Type Clear ☐ Wire Glass ☐ Opaque ☐ Painted Glass ☐ Glass Block ☐

Light Pattern N/A

Door Type Personnel Door Types Exterior Fire Door ☐ Single ☑ Double ☐ Roll-up ☐ Sliding ☐ Hollow Metal ☐ Solid Wood ☐ 1/2 Glazed ☐ Paneled ☐ Louvered ☐ Painted ☑

Interior Fire Door ☐ Single ☐ Double ☐ Roll-up ☐ Sliding ☐ Hollow Metal ☐ Solid Wood ☐ 1/2 Glazed ☐ Paneled ☐ Louvered ☐ Painted ☐

Equipment Door Types Exterior Fire Door ☐ Single ☐ Double ☐ Roll-up ☐ Sliding ☐ Hollow Metal ☐ Solid Wood ☐ 1/2 Glazed ☐ Paneled ☐ Louvered ☐ Painted ☐

Interior Fire Door ☐ Single ☐ Double ☐ Roll-up ☐ Sliding ☐ Hollow Metal ☐ Solid Metal ☐ 1/2 Glazed ☐ Paneled ☐ Louvered ☐ Painted ☐

# of Each Door Type/Comments: The door into this small bunker room is a steel door.

Interior Wall Gypsum Board ☐ Reinforced Concrete- Interior ☐

CMU- Interior ☐ Plywood ☐ Other- Interior

In-Wall Electrical Wiring ☐ On-Wall Electrical Wiring ☐

Ceiling Drop Ceiling ☐

Interior Comments (Equipment, etc) Reinforced Concrete Roof/Ceiling.

Degree of Remodeling Unknown/None

Condition Excellent ☐ Good ☑ Fair ☐ Deteriorating ☐ Contaminated ☐ Burned ☐

Associated Building ☐

If yes, list building names and #s: TA-33-24, TA-33-25

Integrity Good

Significance Eligible

Eligible Under Criterion A ☑ B ☐ C ☐ D ☐ Not Eligible ☐

DOE Themes

Nuclear Weapon Components and Assembly ☐ Nuclear Weapon Design and Testing ☑ Nuclear Propulsion ☐

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: Research Design Projects ☐

LANL Themes

Weapons Research and Design, Testing, and Stockpile Support ☑ Super Computing ☐

Reactor Technology ☐ Biomedical/Health Physics ☐ Strategic and Supporting Research ☐

Environment/Waste Management ☐ Administration and Social History ☐ Architectural History ☐

Recommendations/ Additional Comments

Architectural Features (elevations) This underground structure is a cast in place concrete structure with earth mounded over the structure. The structure is cut into the hillside. A concrete abutment with a steel door and frame face east. Concrete stairs allow movement to the top of the facility.

Total sq ft 161 Gross **Architect/ Builder** Haddock Engineers, Ltd.

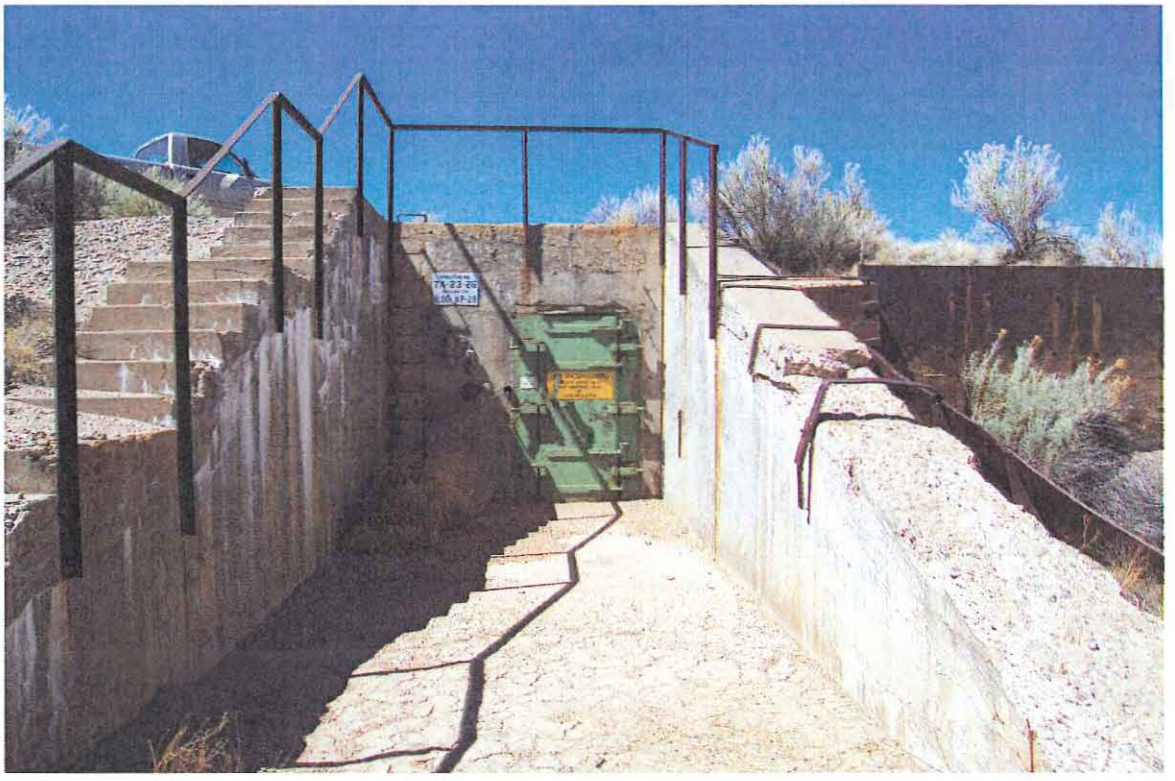
Alterations

List of Drawings (Cntrl + Enter for para break)

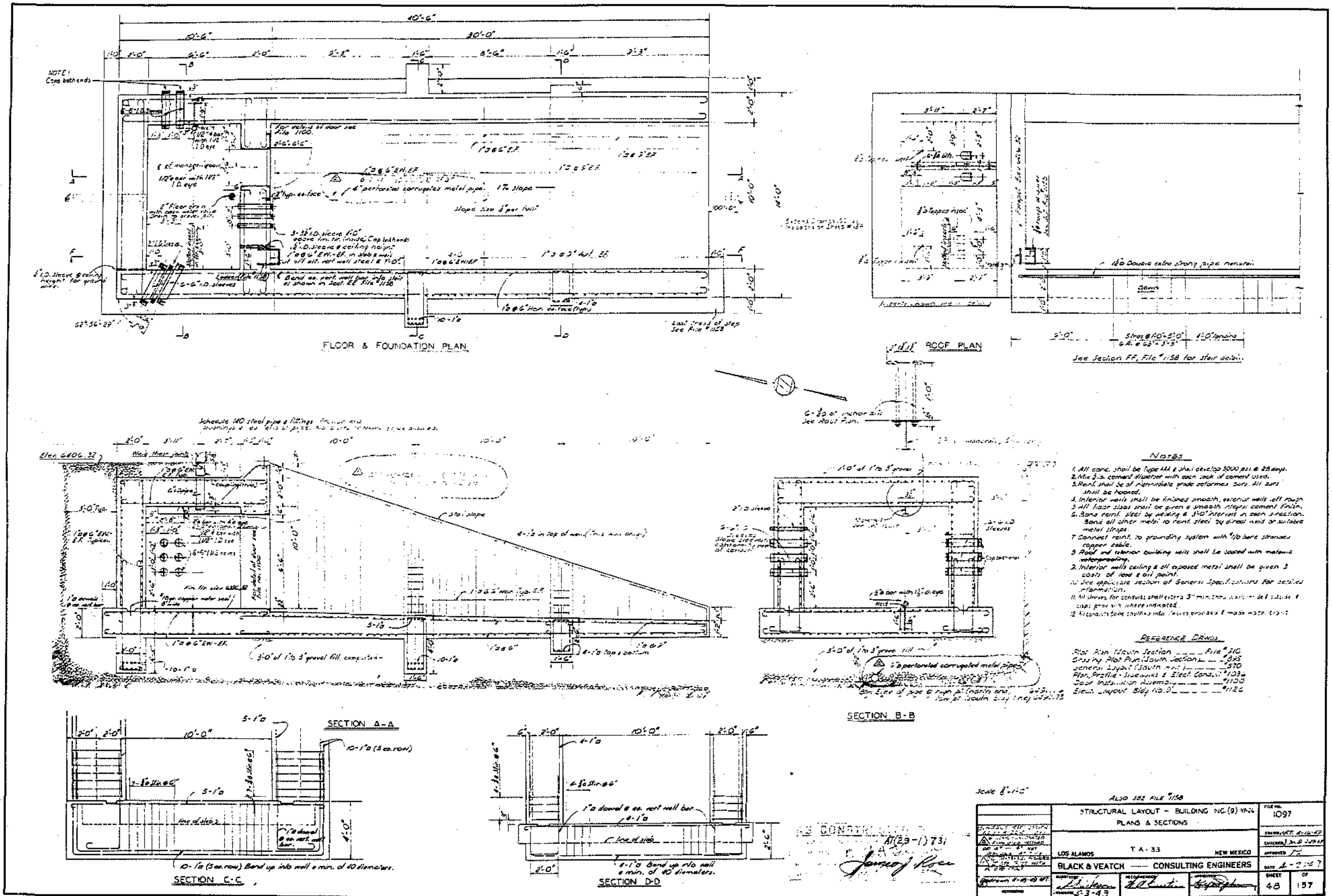
ENG-C 11558
Sheet 48 of 137
TA-33, Building No. (9), HP-26
Structural Layout
Plans & Sections
April 30, 1949

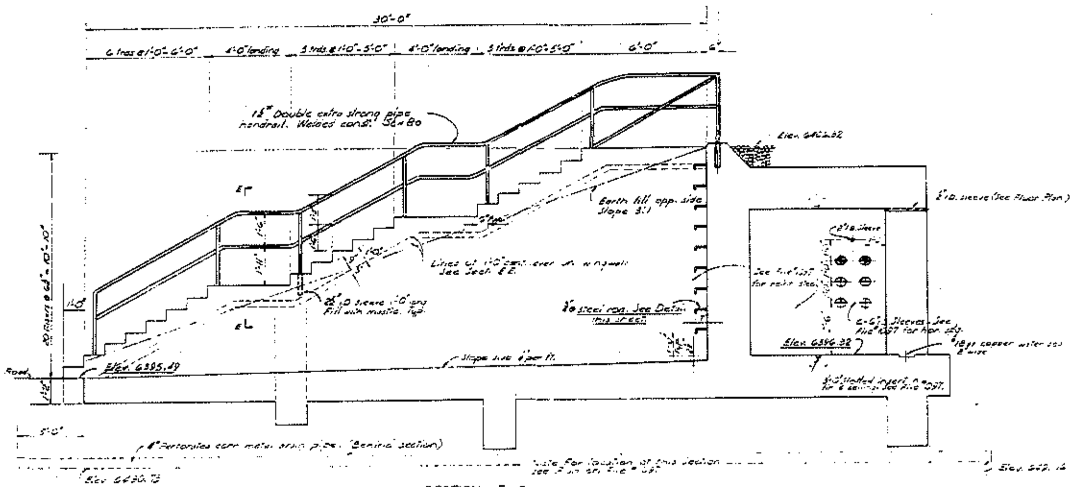
ENG-C 11559
Sheet 49 of 137
TA-33, Building No. (9), HP-26
Structural Layout
Sections & Elevation
April 30, 1949

ENG-R 3029
TA-33, Bldg. HP-26
X-Unit Chamber
Floor Plan
September 23, 1983

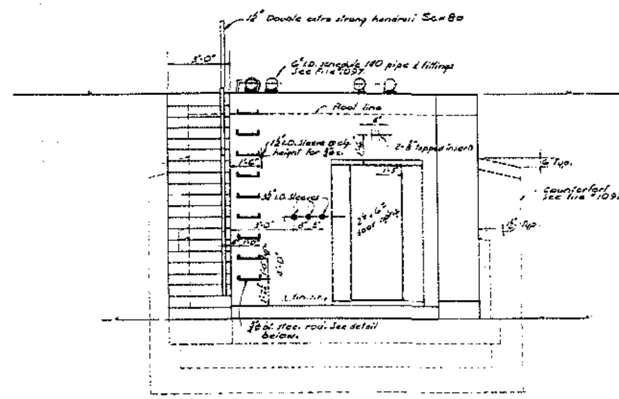


Ta-33-26, East side, direction west

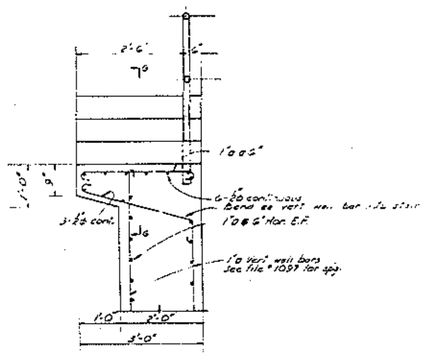

FLOOR & FOUNDATION PLAN
ROOF PLAN
SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D
See Section FF, File #1158 for stair details.
Notes
1. All conc. shall be Type AAA & shall develop 3000 psi. @ 28 days.
2. Mix 3 lb. cement dispenser with each sack of cement used.
3. Reinf. shall be of intermediate grade deformed bars. All bars shall be hooked.
4. Interior walls shall be finished smooth, exterior walls left rough.
5. All floor slabs shall be given a smooth integral cement finish.
6. Bond reinf. steel by welding @ 3'-0" intervals in each direction. Bond all other metal to reinf. steel by direct weld or suitable metal straps.
7. Connect reinf. to grounding system with #1/0 bare stranded copper cable.
8. Roof and exterior building walls shall be coated with membrane waterproofing.
9. Interior walls ceiling & all exposed metal shall be given 2 coats of lead & oil paint.
10. See applicable section of General Specifications for detailed information.
Reference Drwgs.
Plot Plan (South Section — File #510
Grading Plot Plan (South Section — #895
General Layout (South Area) — #570
Plan, Profile - Sidewalks & Elect. Conduit #1036
Door Installation Assembly — #1100
Elect. Layout Bldg No. 9 — #1126
Scale 1/8" = 1'-0"
Also see file #1158
STRUCTURAL LAYOUT – BUILDING NO. (9) 48-24
PLANS & SECTIONS
T.A.-33
LOS ALAMOS
NEW MEXICO
BLACK & VEATCH — CONSULTING ENGINEERS
FILE NO. 1097
SHEET 48 OF 157
5-3-43
AT(29-1)731



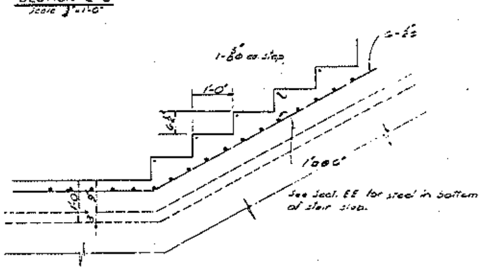
SECTION F-F
Scale ⅛"=1'-0"



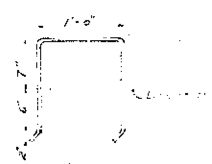
FRONT ELEVATION
Scale ⅛"=1'-0"



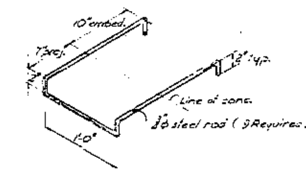
SECTION E-E
Scale ¾"=1'-0"



SECTION G-G
Scale ¾"=1'-0"



DETAIL OF TOP RUNG



DETAIL OF LADDER RUNG

AS CONSTRUCTED ... AT (23-1)731

SCALE: AS NOTED

ALSO SEE FILE NO. 1097

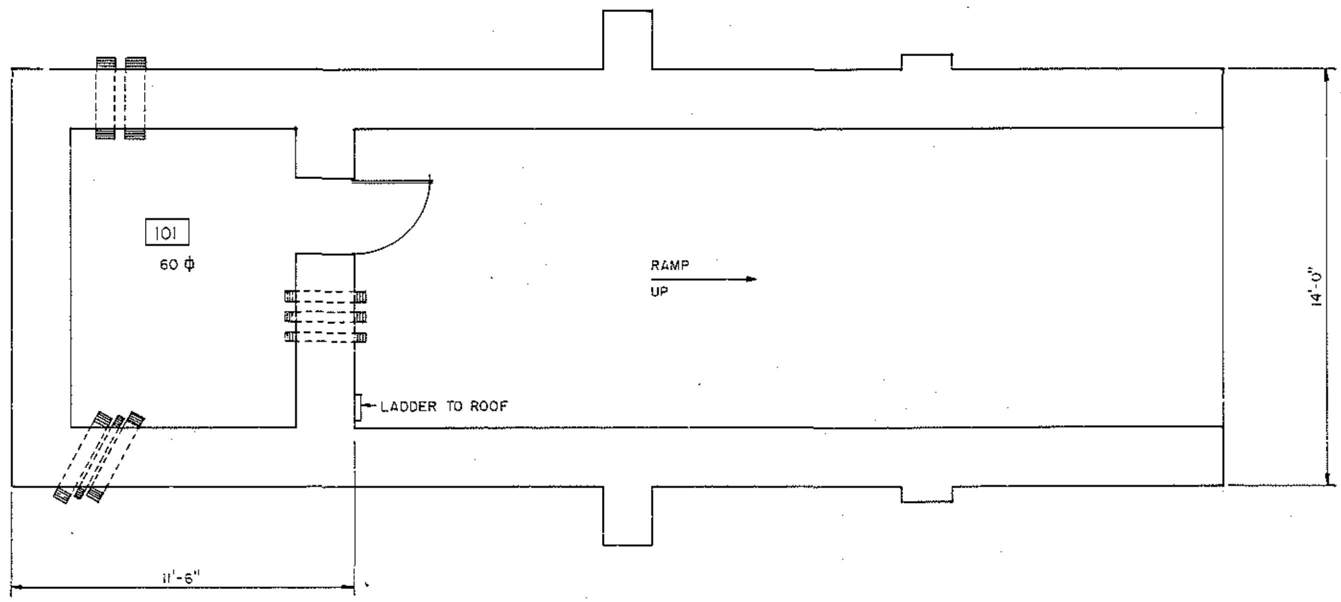
STRUCTURAL LAYOUT - BUILDING NO. (9) RP-24
SECTIONS & ELEVATION
LOS ALAMOS T. A. 33 NEW MEXICO
BLACK & VEATCH —— CONSULTING ENGINEERS

FILE NO. 1158
DATE 4-30-49
SHEET 49 OF 137

LAB JOB 190

L.A.S.L. DWG. NO. ENG-C 11,559 SFA-DX-1/49

83489



1/4"=1'-0"   0' 2' 4' 8'
GRAPHIC SCALE

BLDG. TOTAL 60 Φ

MF

REV.	DATE	REVISION	BY	CKD.	APP.
2	1-31-84	REVISED TO STATUS OF 1-31-84	H&N	EJ	DR
1	9-23-83	REDRAWN & REVISED TO STATUS OF 9-23-83	H&N	EJ	DR

UNIVERSITY OF CALIFORNIA
Los Alamos
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

FACILITIES ENGINEERING DIVISION

X-UNIT CHAMBER
FLOOR PLAN

BLDG. HP-26   TA-33

SEC. CLASSIFICATION	
CLASS.	U
REVIEWER	[signature]
DATE	3-12-84

SUBMITTED	RECOMMENDED	APPROVED
E. Trujillo	[signature]	[signature]

DRAWN	H&N	DATE	SHEET NO.	DRAWING NO.
CHECKED	[signature] H&N	9-23-83	1 OF 1	ENG-R 3029

3/30/84

Appendix A2: Previously Submitted Historic Building Inventory Forms with Representative Photographs and Building Drawings for Buildings TA-33-1, -2, -40, -86, and -90

NEW MEXICO HISTORIC BUILDING INVENTORY FORM

Building threatened? **Yes**	Surveyed date **7/29/2001 by J. Ronquillo and Ken Towery**	County **Los Alamos**	ID no. **TA-33-1**

Field map Number **n/a**	UTM reference: Easting **386334** Northing **3960494** Zone **13**

Location description **Technical Area (TA) 33, HP (Hot Point) Site, Area 6**	City/town **Los Alamos** Land grant/reservation **n/a**

Building name **TA-33-1** Original name **TA-33-1 (HP-1), Portable Laboratory**	Legal description **USGS Frijoles 7.5 Series** tnsp **19N** range **6E** sec **Unplatted**

Camera name **SBSP**	Negative nos. **51 - 56**	Location of neg. **LANL, ESH-20**	Date of construction ____ estimate **12/2/1947 to 1/21/48** actual source **Facility & Waste Operations Division (FWO) records (LANL)**

Style	Foundation material	Use	Condition
TA-33-1 is a wood frame building with a gable roof. (see below for more information)	**Concrete slab and wooden skids** Wall material/surface **The exterior surface is covered with wood siding. The interior walls consist of gypsum board.**	Present residential ✓other **According to the MOADS database, TA-33-1 is currently being used for general storage.** historic residential ✓other **TA-33-1 was originally used as a laboratory to support early initiator experiments.**	____ excellent _____ good __X__ fair __X__ deteriorating

Degree of remodeling
__X__ minor _____ moderate ____ major
describe: **In 1948, a sink and C.W. (cold water?) supply were added to TA-33-1. The raceway, breakers, outlets, and water lines were replaced in 1957 as part of upgrades to the toilet facilities. The interior walls were modified at some time with the addition of 1" rigid insulation under 5/8" gypsum board.**

Surroundings	Relationship to surroundings	District potential
Developed Laboratory Technical Area 33	__X__ similar ____ not similar	____ yes __X__ no

Significance	Associated building?	Associated drawings
__X__ Eligible __ of interest __ none if not eligible, why?	__X__ yes What type? **Laboratory and shop buildings** If inventoried, list ID nos. **TA-33-2 and TA-33-16**	(Photos and copies of the drawings are on following pages.) **A5-C96** **Installation of Underground Chamber at TA-33,** **Plan, Sections, Details** **December 10, 1947** **SK No. ENG 4-513** **Install Sink and C.W. Supply In HQ Bldg. HP-1, TA-33** **February 16, 1948**

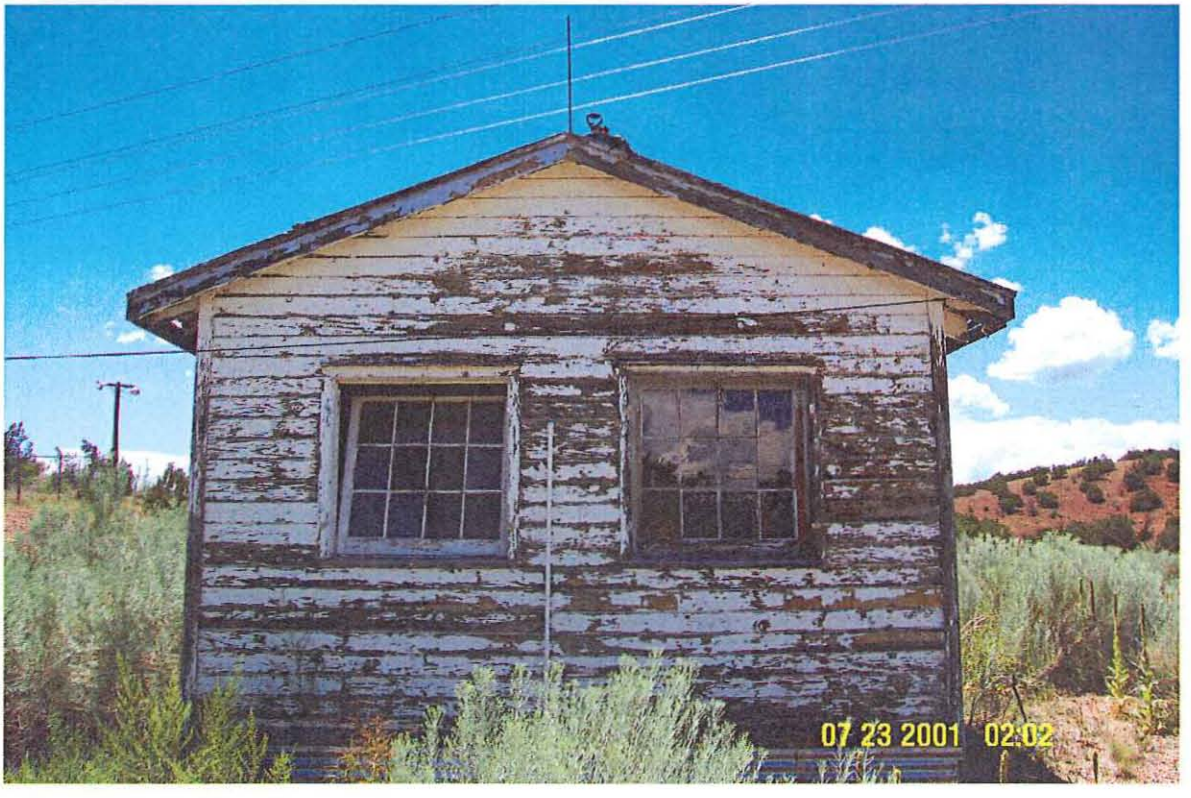
		SK No. ENG 4-522 **Lighting For TA-33 Area 1** **February 25, 1948** **A5-C162** **Underground Chamber No. 2 (HP-6)** **TA-33, Plot Plan and Details** **July 24, 1948** **ENG 4-R45** **Topo and Plot Plan, TA-33** **January 27, 1949** **ENG-C18787 (sheet 1 of 1)** **Toilet Facilities** **Bldg. HP-1, TA-33** **January 17, 1957** **ENG-R3017 (sheet 1 of 1)** **Portable Laboratory** **Floor Plan** **June 19, 1964** Size **450 gross ft^2** **(406 net ft^2)**

Architectural features	Comments
TA-33-1 is a free standing, one-story building of approximately 450 gross square feet. It is of wood frame construction, has a pitched roof, and has painted wood siding on the exterior. The roof is composed of rolled asphalt over wood framing and is in an advanced state of deterioration. The building was designed to be portable and sits on wooden skids. On the west elevation, there is one pedestrian door and one hopper-type window with single pane glass. The window has twelve individual panes of clear glass and appears to be of original construction. There are similar windows on the south (4), east (2), and north (3) elevations. The interior walls are in a bad state of deterioration and appear to have been modified at some time with the addition of 1" rigid insulation under 5/8" gypsum board. Today the building stands empty. A laboratory sink and workbench are the only notable equipment remaining in the building. Overall, TA-33-1 is in fair condition although it is suffering from the effects of time and from exposure to the elements.	**Built by R.E. McKee. The history of this building is closely linked with that of TA-33-2. Both buildings were moved to Area 6 from Area 1 (now East Site) sometime between July of 1948 and January of 1949.** Associated historic theme **Cold War Nuclear Weapons Research and Development (specifically initiator testing)** Property type: **Laboratory/Processing** Contamination history **Possible hazardous or radioactive materials used in or near the building include barium, lead, uranium, beryllium, high explosives, volatile organics, and photoprocessing chemicals.** Integrity **Fair** Eligibility: **Eligible under Criterion A**

TA-33-1 North Elevation

TA-33-1 West Elevation

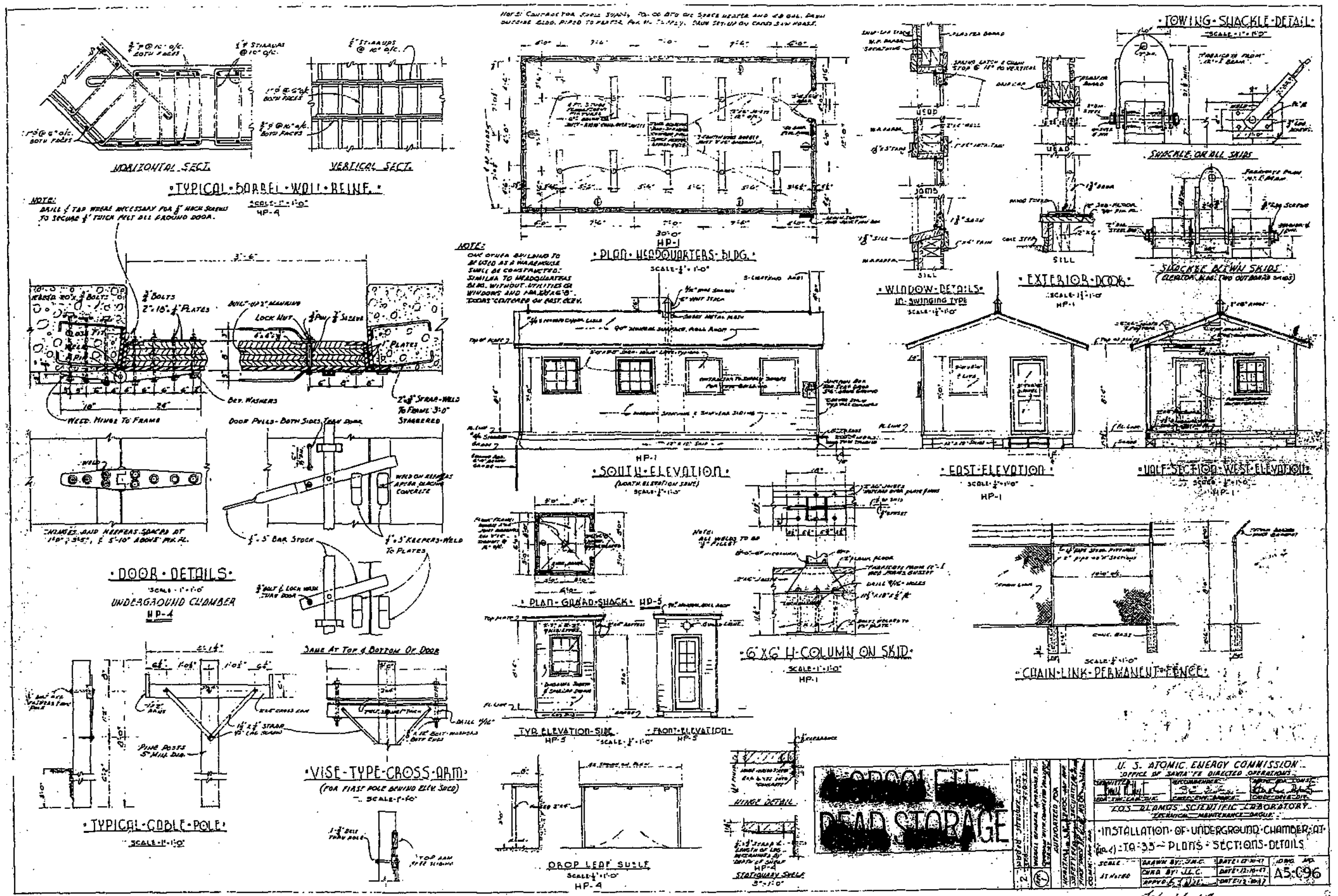
TA-33-1 South Elevation



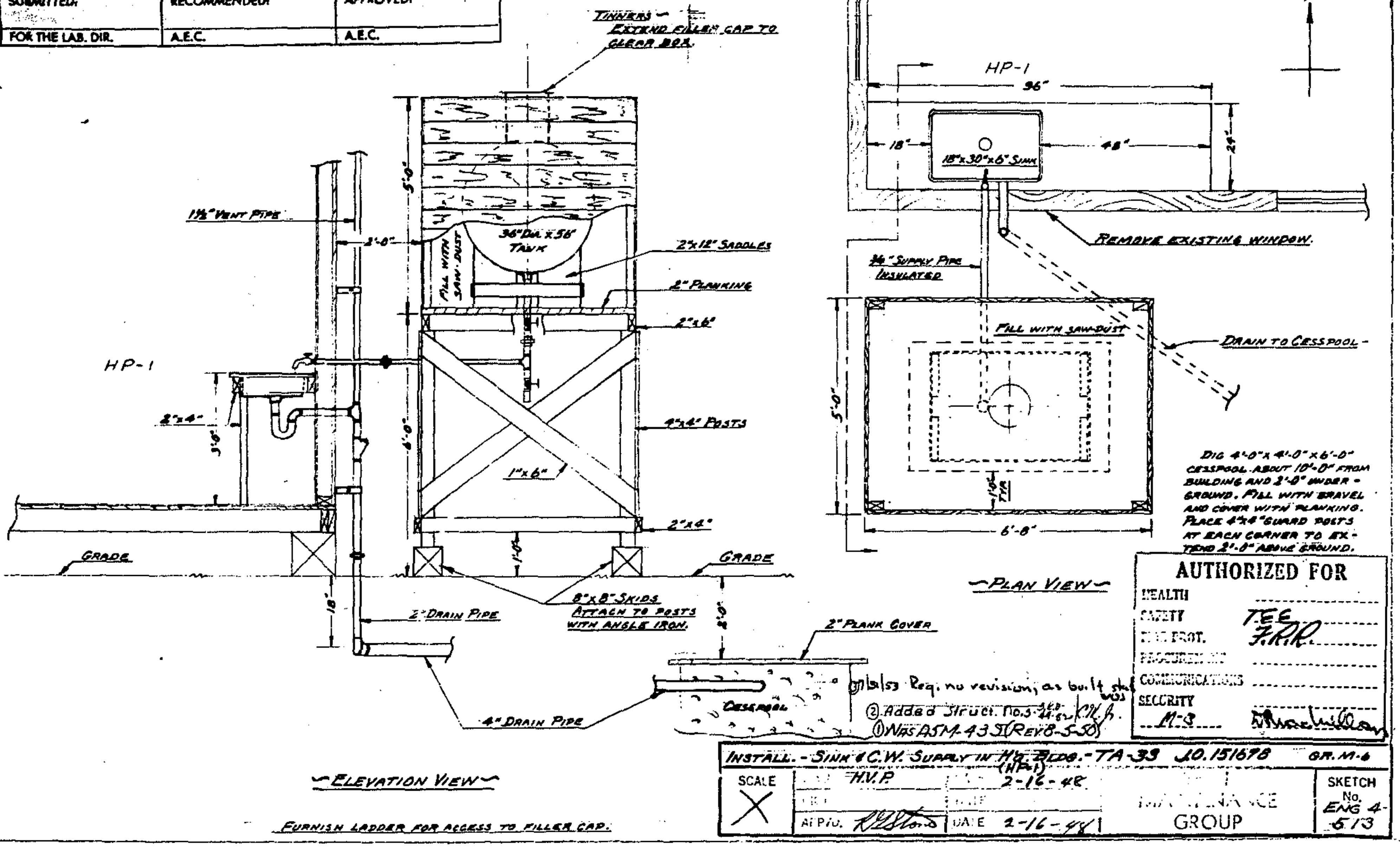
TA-33-1 East Elevation

TA-33-1 Interior looking East

TA-33-1 Interior looking West



HORIZONTAL SECT.
VERTICAL SECT.
TYPICAL BARREL WALL REINF.
SCALE 1" = 1'-0"
HP-4
PLAN - HEADQUARTERS BLDG.
SCALE 1/4" = 1'-0"
HP-1
WINDOW DETAILS
IN-SWINGING TYPE
EXTERIOR DOOR
TOWING SHACKLE DETAIL
SHACKLE ON ALL SKIDS
SHACKLE BETWN SKIDS
SOUTH ELEVATION
(NORTH ELEVATION SAME)
EAST ELEVATION
HALF SECTION - WEST ELEVATION
DOOR DETAILS
UNDERGROUND CHAMBER
HP-4
PLAN - GUARD SHACK HP-5
6"X6" H-COLUMN ON SKID
CHAIN LINK PERMANENT FENCE
TYPICAL CABLE POLE
VISE-TYPE CROSS ARM
(FOR FIRST POLE BEHIND ELEV. SHED)
TYP. ELEVATION - SIDE HP-5
FRONT ELEVATION HP-5
DROP LEAF SHELF
HP-4
HINGE DETAIL
STATIONARY SHELF
DEAD STORAGE
U. S. ATOMIC ENERGY COMMISSION
OFFICE OF SANTA FE DIRECTED OPERATIONS
LOS ALAMOS SCIENTIFIC LABORATORY
TECHNICAL MAINTENANCE GROUP
INSTALLATION OF UNDERGROUND CHAMBER AT TA-33 ~ PLANS ~ SECTIONS ~ DETAILS
DWG. NO. A5-C96



RECORD DRAWING--AS BUILT CONSTRUCTION

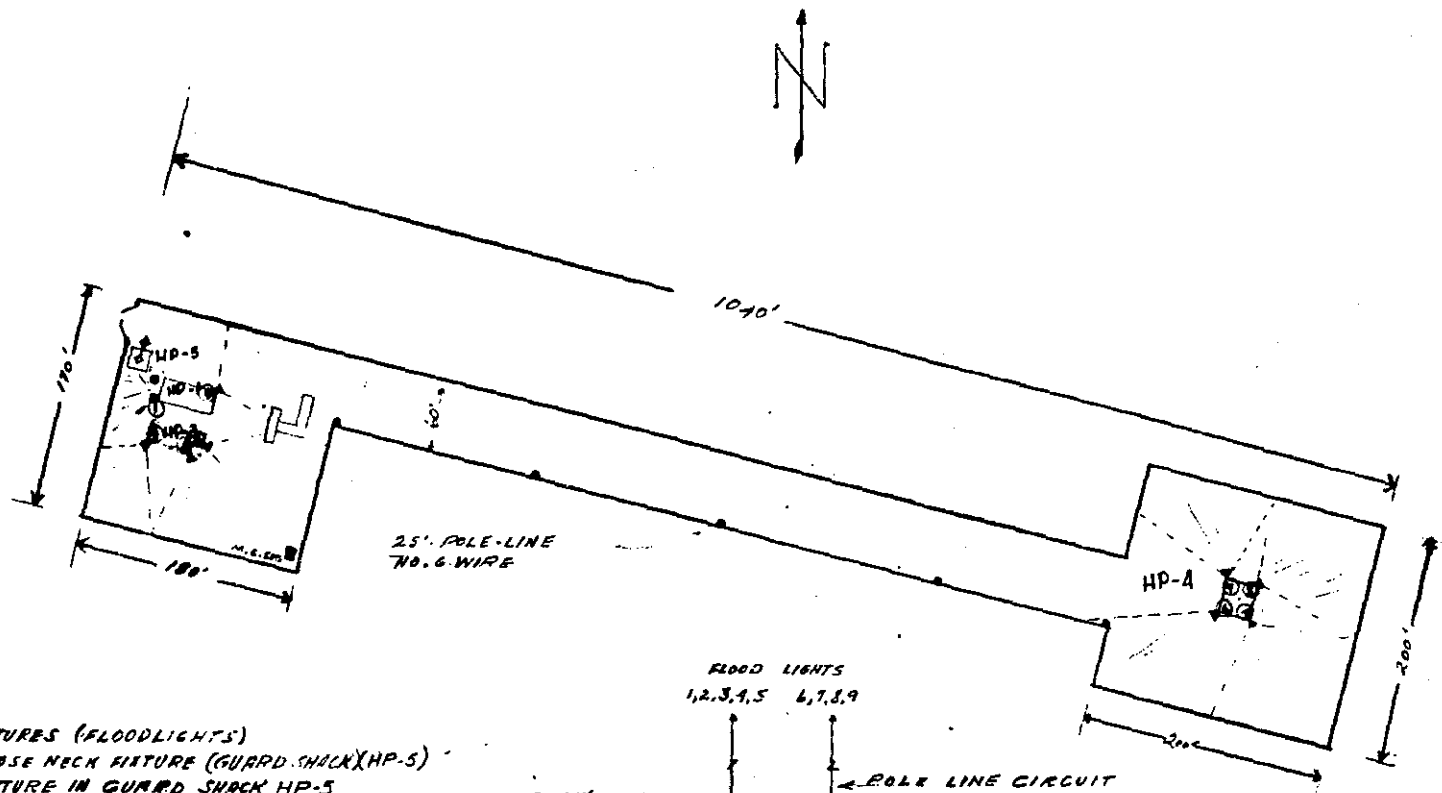
SUBMITTED:	RECOMMENDED:	APPROVED:
FOR THE LAB. DIR.	A.E.C.	A.E.C.

AUTHORIZED FOR

HEALTH
SAFETY T.E.E.
FIRE PROT. F.R.R.
PROCUREMENT
COMMUNICATIONS
SECURITY M-3

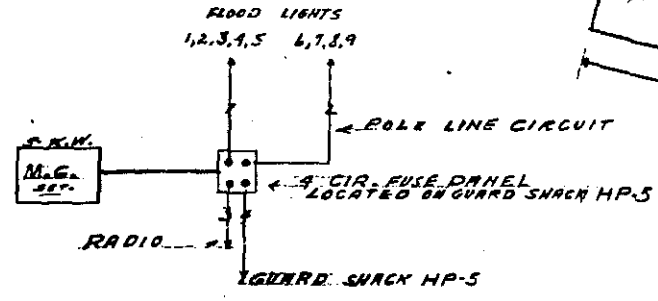
6/8/53 Req. no revision; as built status was
② Added Struct. No. 3-24 & 44-6 ...
① Was ASM-43 SI (Rev 8-5-50)

INSTALL. - SINK & C.W. SUPPLY IN H.Q. BLDG. - TA-33 (HP-1)		J.O. 151678	GR. M-6
SCALE X	BY H.V.P. — DATE 2-16-48	MAINTENANCE GROUP	SKETCH No. ENG 4-513
	APPD. [signature] — DATE 2-16-48		



▲ • 300 W FIXTURES (FLOODLIGHTS)
◆ • 200 W · GOOSE NECK FIXTURE (GUARD SHACK)(HP-5)
◇ • 200-W · FIXTURE IN GUARD SHACK HP-5
■ • 5 K.W. M.G. SET.

LOAD -	CIR. NO. 1 =	1500 WATTS
"	CIR NO. 2 =	1200 "
"	" NO. 3 =	500 "
"	" NO. 4 =	400 "
TOTAL LOAD		3600 - WATTS



Symbols Required no revision, as built status
(2) revised title - SED - 4-2-52
(1) WAS A5M-451 (REV 8-5-50) C.M.H.

AUTHORIZED FOR

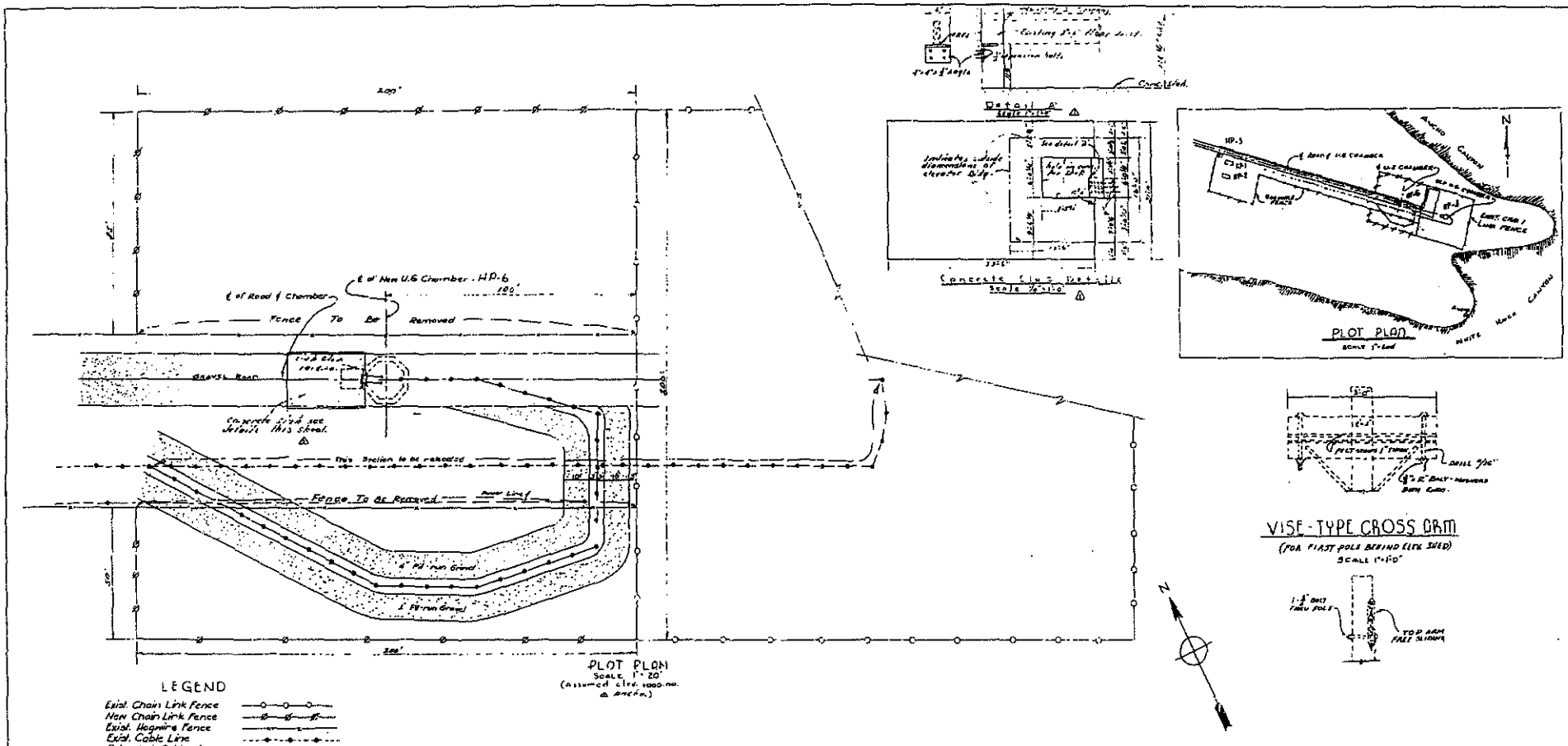
HEALTH	
SAFETY ✓	TEE
ENGINEERING ✓	P.R.R. by E.H.
PROCUREMENT	
COMMUNICATIONS	
SECURITY	
M-3	

RECORD DRAWING—AS BUILT CONSTRUCTION

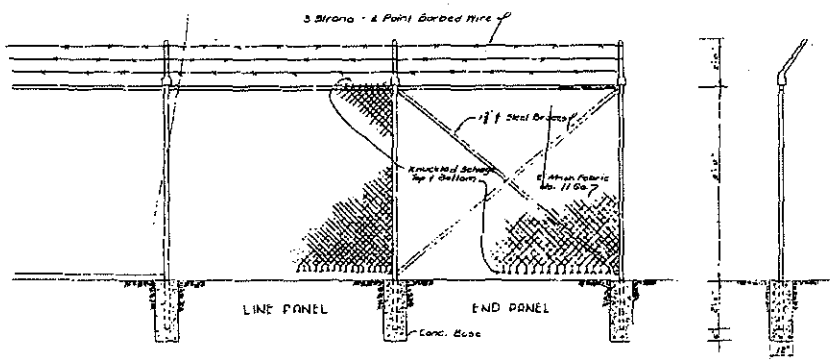
SUBMITTED:	RECOMMENDED:	APPROVED:
FOR THE LAB. DIR.	A.E.C.	A.E.C.

LIGHTING FOR T.A. 33-Area 1 JO. 153927 SECURITY

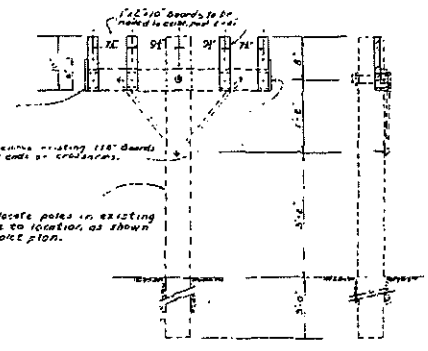
SCALE	DWG. CLARK	DATE 2-25-48	MAINTENANCE GROUP	SKETCH No. ENG 4-832
X	CKD. RMS	DATE 3-4-48		
	APPVD. RCH	DATE		



VISE-TYPE CROSS ARM
(FOR FIRST POLE BEHIND ELEC. SHED)
SCALE 1"=1'0"



CHAIN LINK FENCE



TYPICAL CABLE POLE

REFERENCE
Dwg. AS-C163 U.G. Chamber No.2, TA-33, Structural & Electrical

OBSOLETE DEAD STORAGE

FOR OFFICIAL USE ONLY

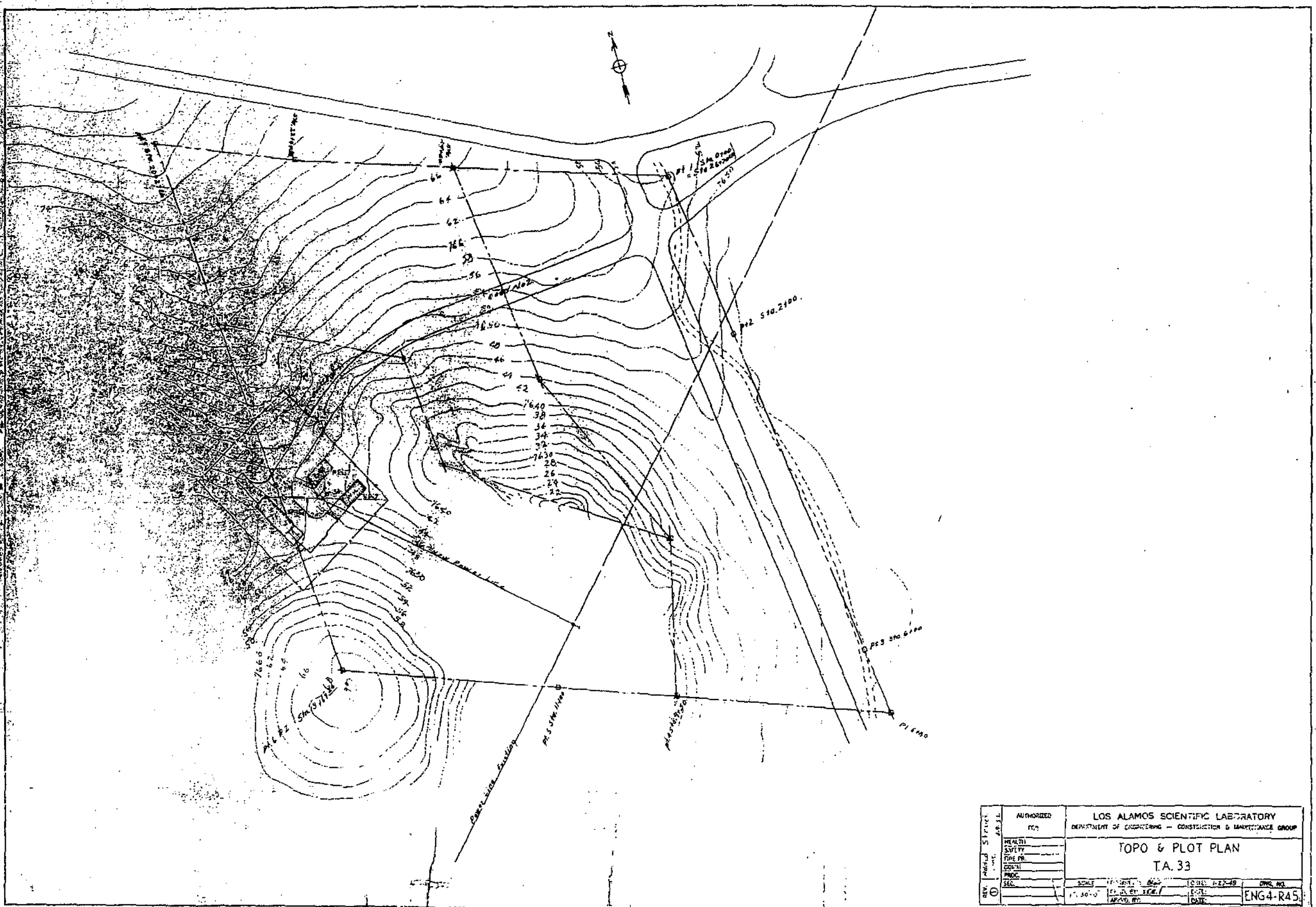
U. S. ATOMIC ENERGY COMMISSION
OFFICE OF SANTA FE DIRECTED OPERATIONS
SUBMITTED
FOR THE LAB. DIR.
RECOMMENDED
CHIEF, ENG. BRANCH
APPRD. FOR CONST.
CHIEF, OPER. DIV.

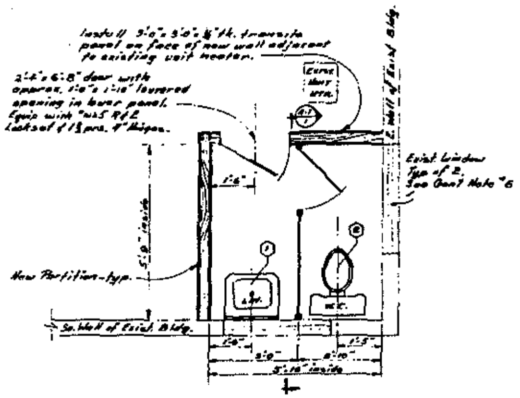
LOS ALAMOS SCIENTIFIC LABORATORY
DEPARTMENT OF ENGINEERING

UNDERGROUND CHAMBER NO. 2
(HP-6) TA-33
PLOT PLAN & DETAILS

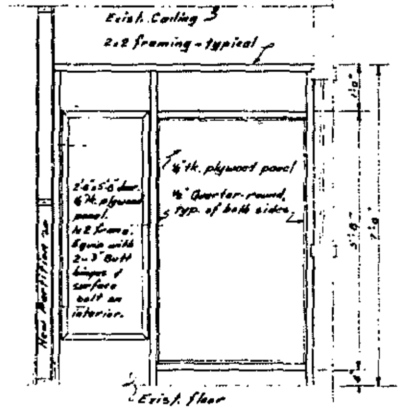
SCALE: AS NOTED
DRAWN BY: R. L. G. DATE: 7-24-1962
CHKD. BY: DATE: 7/26/62
APPVD. BY: DATE: 7-27-62
DWG. NO. AS-C162

Job. No. 174

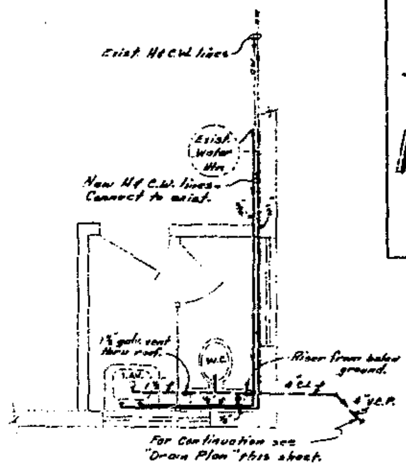

LOS ALAMOS SCIENTIFIC LABORATORY
DEPARTMENT OF ENGINEERING — CONSTRUCTION & MAINTENANCE GROUP
TOPO & PLOT PLAN
T.A. 33
AUTHORIZED
HEALTH
SAFETY
FIRE PR.
CONST.
PROC.
SEC.
SCALE
DWG. NO.
ENG4-R45
REV.
DATE
APPVD. BY
Power Line Existing
Pt 2 Sta. 21+00
Pt 3 Sta. 61+00
7640
7630
7650
7660



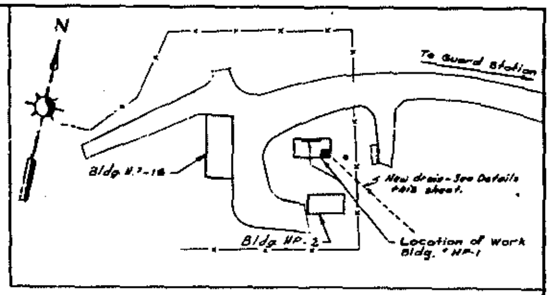
PARTIAL PLAN - BLDG HP-1
Scale ½" = 1'-0"



SECTION (A-1)
Scale ¾" = 1'-0"



PIPING PLAN
No Scale

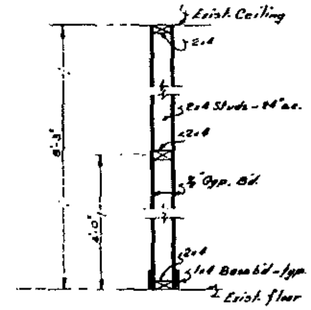


LOCATION PLAN
BLDG. I — AREA 6 — TA-33

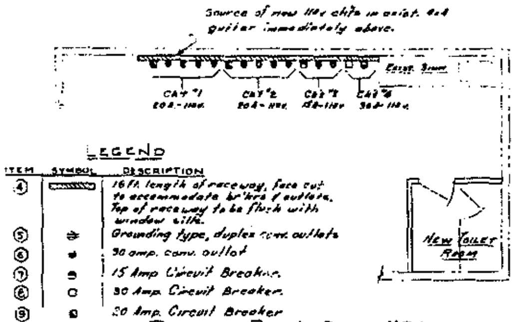
ITEM NO.	REQ'D	DESCRIPTION	CAT. NO.	MFG BY
1	1	Lavatory, white porcelain, complete with faucets & 1¼" P Trap.	To be furnished by L.A.S.L., Grp. Eng 4	
2	1	Water Closet "Wellworth," close-coupled vitreous china.	K-3705-P	Kohler Co.
3	1	Septic Tank, 500 gal., 4" Connections, Commercial Standard.	65 COM	Houstine Tank Perry, N.Y.
4	16-ft.	Electrical Raceway, nominal size 3⅜x3⅛ complete with fittings & cover plate		Alwalt Co. Modesto, Calif.
5	16	Grounding Type, Duplex Conv. Outlets	5262	Harvey Hubbell, Inc.
6	1	30 amp, 3 wire outlet & cap	9344 & 9334	
7	1	15 amp. Circuit Breaker.	0411	Heinemann Elec. Co.
8	1	30 amp. Circuit Breaker.	0411	
9	2	20 amp. Circuit Breaker.	0411	
10	16-ft.	3 conductor, #12 wire, rubber covered flexible cable		Gen'l Elec. Co.
11	3	Surface Cover & 4" sq. x 1½" dp. box.	8370	Appleton Elec.
12	3	Rubber finger-grip cap, 3 wire	5275	Hubbell.

GENERAL NOTES.

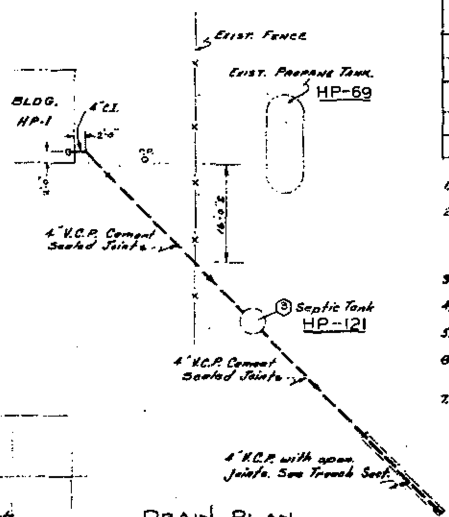
1. New water lines are to be galvanized pipe with globe valves installed adjacent to fixtures. Hot water line only is to be insulated.
2. Existing electric heater along north building wall is to be removed & salvaged by direction of Eng. 4 field engineer. Remove excess breakers from exist. 4x4 gutter to allow for installation of new raceway. New outlets & breakers are to be equally spaced along length of raceway.
3. The entire electrical installation is to be made in accordance with the current rules of the N.E.C.
4. New raceway, breakers & outlets shall be bonded to the exist. building grounding system.
5. All wire shall be #12 AWG, type TW except for the 30 amp. circuit which shall be wired with #10 AWG, type TW.
6. Paint interior of exist. window lites within new toilet room with one coat of flat white. Paint all new construction to match existing adjacent walls.
7. Equal, approved substitutions may be made for any or all items in the List of Equipment.



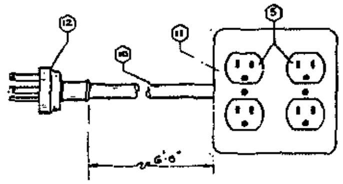
NEW PARTITION
TYPICAL SECTION
Scale 1" = 1'-0"



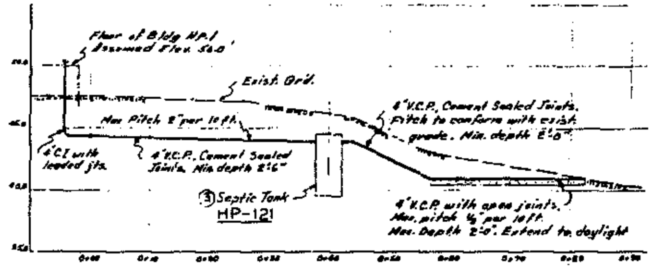
PARTIAL PLAN - BLDG HP-1
Showing Electrical installation.
Not to Scale



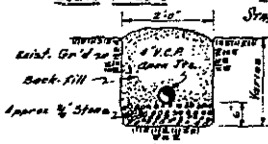
DRAIN PLAN
Scale 1" = 20'-0"



EXTENSION CORD
3 REQUIRED
Not to Scale



DRAIN PROFILE



TRENCH SECTION
Not to Scale

NO.	DATE	REVISIONS	BY	CHK'D		

AUTHORIZED FOR: HEALTH, SAFETY, FIRE PROT., SEC.

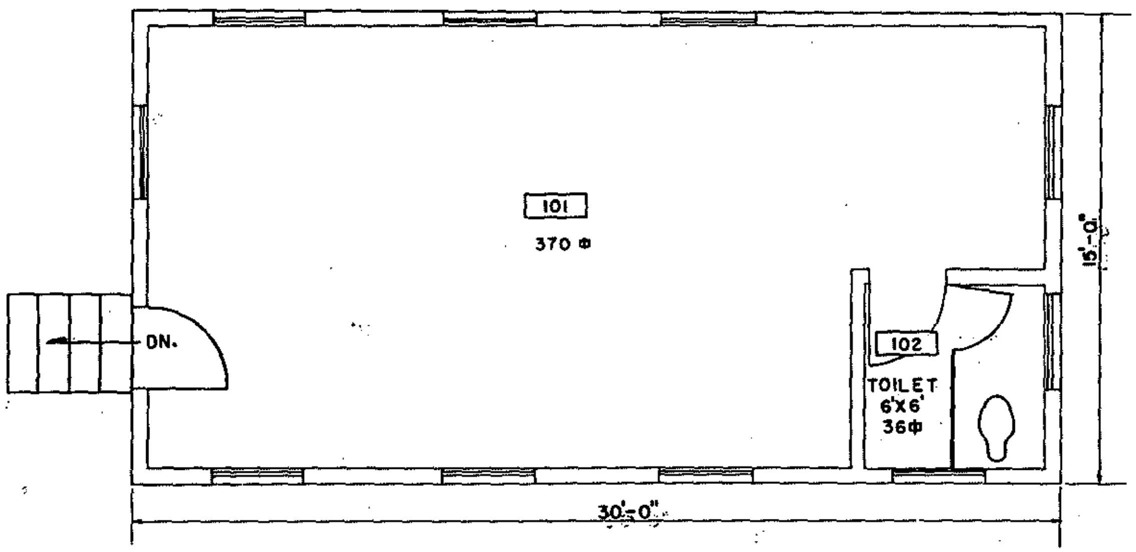
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO

TOILET FACILITIES
BLDG HP-1 TA-33

Drawn: E.B. Johnston
Scale: Noted
Date: Jan 17, 1957
Sheet 1 of 1
ENG-C 18787

L.A. NO. ______ LAB. JOB NO. 1952

NO.	DATE	REVISIONS	BY	CHKD	GRP. LDR	ENG D.O.
1	8-16-65	REVISED TO STATUS OF 8-12-65	DRK			



(1/4"=1'-0") 1 0 5 10
GRAPHIC SCALE

TOTAL SQ. FT. 406

REV.	DATE	REVISION	BY	CKD.	APR.
2	6-8-84	REVISED TO STATUS OF 6-8-84			

UNIVERSITY OF CALIFORNIA
Los Alamos
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

FACILITIES ENGINEERING DIVISION

PORTABLE LABORATORY
FLOOR PLAN

BLDG. HP-1 TA-33

SEC. CLASSIFICATION — CLASS. U — REVIEWER — DATE

SUBMITTED — RECOMMENDED — APPROVED

DRAWN BREMER — CHECKED — DATE 6-19-64 — SHEET NO. 1 OF 1 — DRAWING NO. ENG-R3017

REC'D. ...... LOGGED ✓ TO VAULT

NEW MEXICO HISTORIC BUILDING INVENTORY FORM

Building threatened?	Surveyed	County	ID no.
yes	date **7/29/2001** by **J. Ronquillo and Ken Towery**	**Los Alamos**	**TA-33-2**

Field map Number	UTM reference: Easting **386341** Northing **3960482** Zone **13**
n/a	

Location description	City/town
Technical Area (TA) 33, HP (Hot Point) Site, Area 6	**Los Alamos** Land grant/reservation **n/a**

Building name	Legal description **USGS Frijoles 7.5 Series**
TA-33-2 Original name **TA-33-2 (HP-2) Portable Warehouse**	tnsp **19N** range **6E** sec **Unplatted**

Camera name	Negative nos.	Location of neg.	Date of construction
SBSP	**57 - 63**	**LANL, ESH-20**	_____ estimate **12/2/1947 to 1/21/48** actual source **Facility & Waste Operations Division (FWO) records (LANL)**

Style	Foundation material	Use	Condition
TA-33-2 is a wood frame building with a gable roof. (see below for more information)	**Partial concete slab on grade and wooden skids** Wall material/surface **The exterior walls are covered with wood siding. The interior walls consist of either sheet rock or asbestos board material.**	Present residential ✓other **According to the MOADS database TA-33-2 is currently being used for general storage.** historic residential ✓other **TA-33-2 was originally used as a warehouse, shop, and occasional laboratory in support of early initiator experiments.**	____ excellent ___ good __X__ fair __X__ deteriorating

Degree of remodeling
__X__ minor _____ moderate ____major
Describe: **There is no evidence of remodeling at TA-33-2.**

Surroundings	Relationship to surroundings	District potential
Developed Laboratory Technical Area 33	__X__ similar ___not similar	___ yes __X__ no

	Associated building? __X__ yes What type? **Laboratory buildings** If inventoried, list ID nos. **TA-33-1 and TA-33-16**	Associated drawings (Photos and copies of the drawings are on following pages.) **A5-C162** **Underground Chamber No. 2 (HP-6)** **TA-33, Plot Plan and Details** **July 24, 1948** **ENG 4-R45** **Topo and Plot Plan, TA-33** **January 27, 1949** **ENG-R3018 (sheet 1 of 1)**

		Portable Warehouse **Floor Plan** **Bldg. HP-2, TA-33** **June 18, 1964** Size **450 gross ft^2** **(406 net ft^2)**

Architectural features

TA-33-2 is a free standing, one-story building of approximately 450 gross square feet. It is of wood frame construction, has a pitched roof, and has painted wood siding on the exterior. The roof is composed of rolled asphalt over wood framing and is in fair condition. The building was designed to be portable and sits on wooden skids. Currently, a portion of the floor is a concrete slab sitting on grade. On the west elevation, there is a wood-paneled, double door and one hopper-type window with single pane glass. The window has sixteen individual panes of clear glass and appears to be of original construction. The exterior of the building is deteriorating and is generally in poor condition. The interior walls appear to be original and are composed of wood framing and either sheet rock or asbestos board material. There is an asphalt drive and parking area west of the building.

Comments

Built by R.E. McKee. The history of this building is closely linked with that of TA-33-1. Both buildings were moved to Area 6 from Area 1 (now East Site) sometime between July of 1948 and January of 1949.

Associated historic theme

Cold War Nuclear Weapons Research and Development (specifically initiator testing)

Property type

Support and Laboratory/Processing

Contamination history

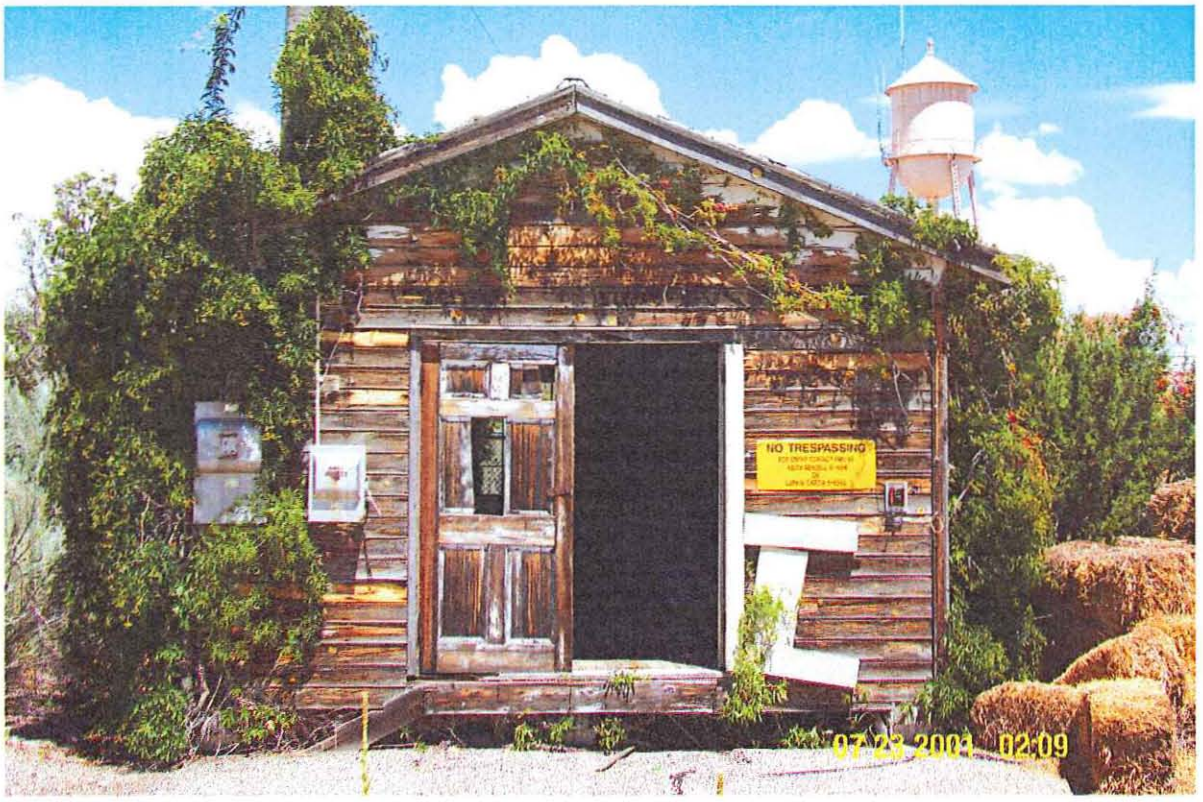
Possible hazardous or radioactive materials used in or near the building include barium, lead, uranium, beryllium, and high explosives.

Integrity

Fair

Eligibility

Eligible under Criterion A

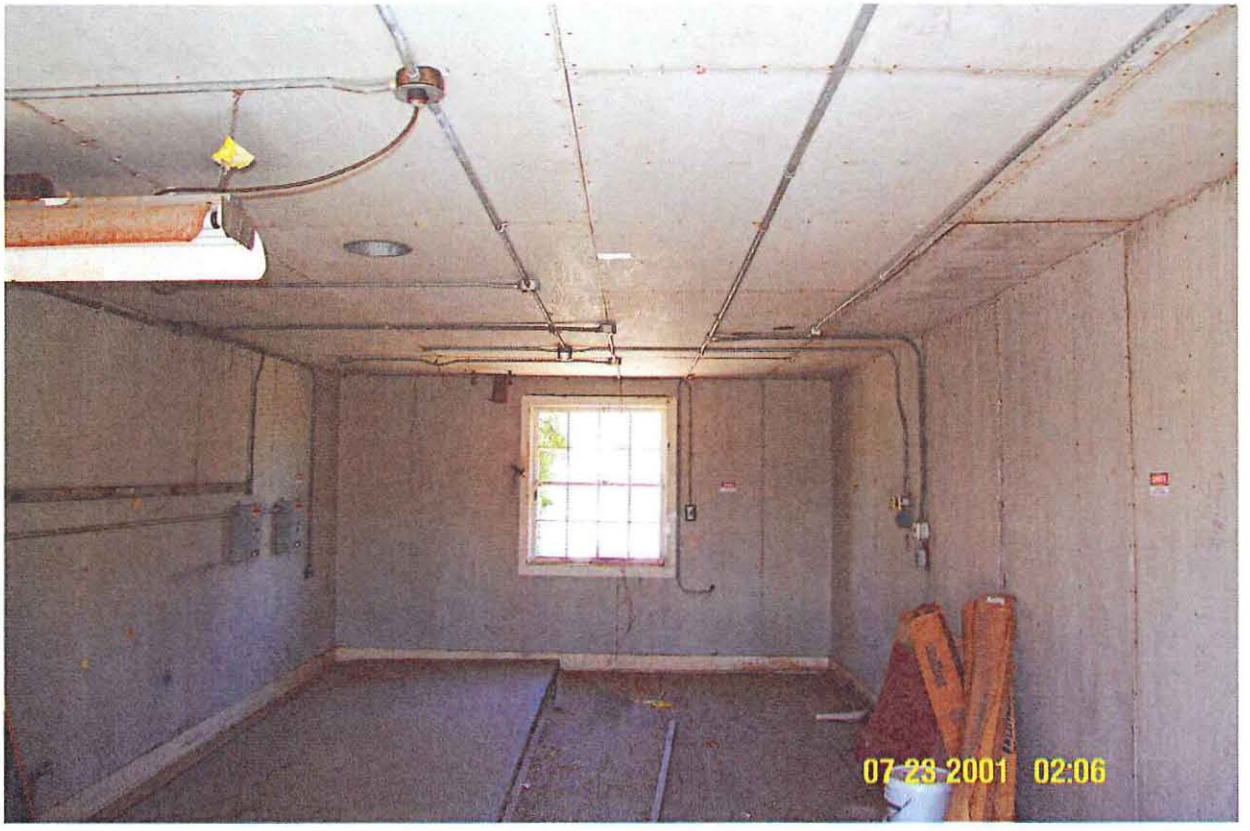


TA-33-2 West Elevation

TA-33-2 North Elevation

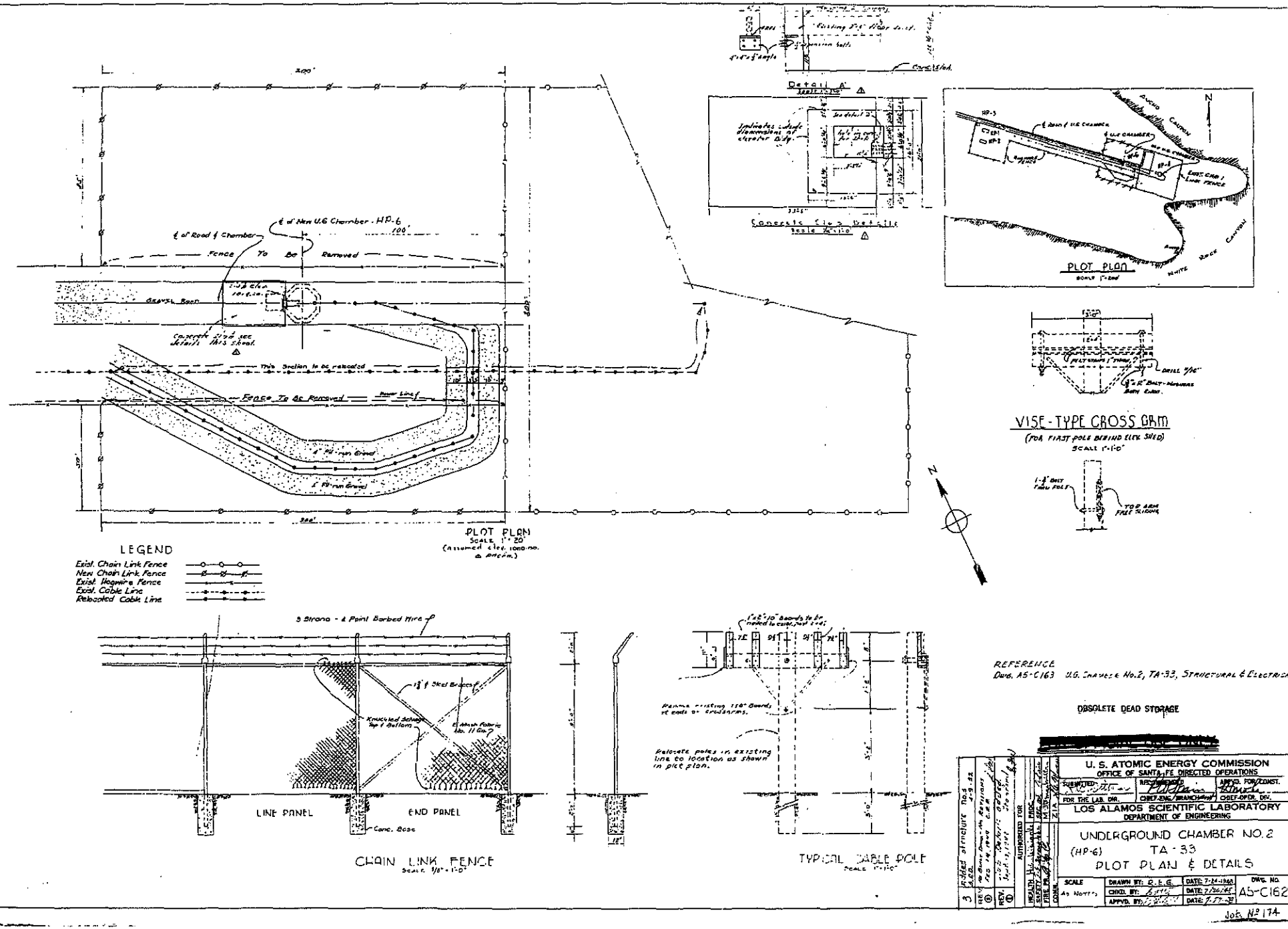
TA-33-2 East Elevation

TA-33-2 South Elevation



TA-33-2 Interior looking East

TA-33-2 Interior looking West



U. S. ATOMIC ENERGY COMMISSION
OFFICE OF SANTA FE DIRECTED OPERATIONS

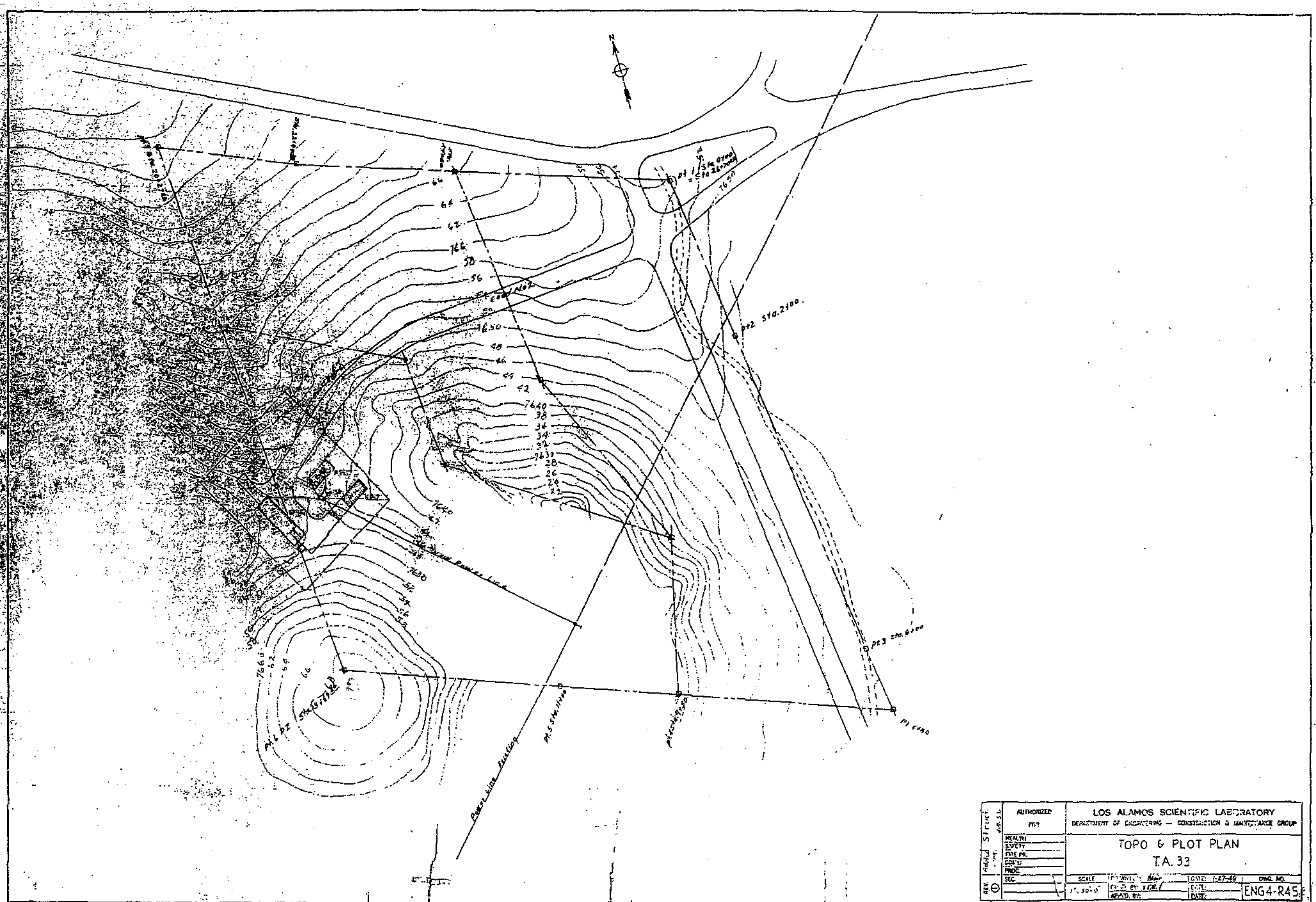
LOS ALAMOS SCIENTIFIC LABORATORY
DEPARTMENT OF ENGINEERING

UNDERGROUND CHAMBER NO. 2
(HP-6) TA-33
PLOT PLAN & DETAILS

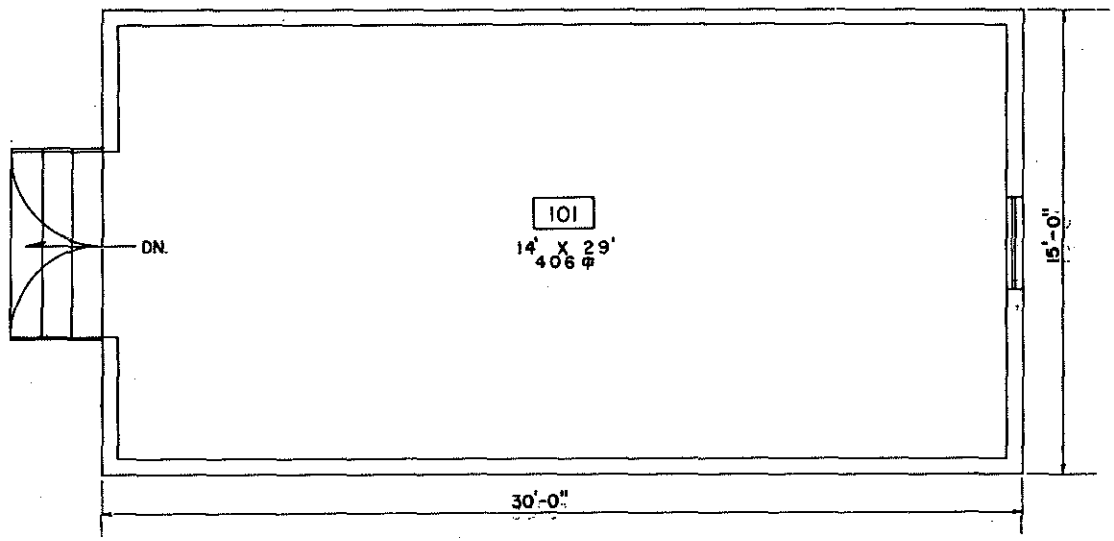
SCALE As Noted
DRAWN BY: C.E.G. DATE: 7-24-1968
CHKD. BY: DATE: 7/26/68
APPVD. BY: DATE: 7-29-68

DWG. NO. A5-C162

Job No. 174



Pt 1 Sta 0+00
Pt 2 Sta. 21+00
Pt 3 Sta. 60+00
Pt 5 Sta. 114+00
Power Line Existing
Power Line
7650
7640
7630
7620
AUTHORIZED
HEALTH
SAFETY
FIRE PR.
PROC.
SEC.
REV.
LOS ALAMOS SCIENTIFIC LABORATORY
DEPARTMENT OF ENGINEERING — CONSTRUCTION & MAINTENANCE GROUP
TOPO & PLOT PLAN
T.A. 33
SCALE
APP'D. BY:
DATE: 1-27-49
DATE:
DWG. NO.
ENG4-R45



(1/4"=1'-0")

1 0 5 10

GRAPHIC SCALE

TOTAL SQ. FT. 406

REV.	DATE	REVISION	BY	CHKD.	APP.
1	6-8-64	REVISED TO STATUS OF 5-8-64	H&N		

UNIVERSITY OF CALIFORNIA
Los Alamos
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

FACILITIES ENGINEERING DIVISION

PORTABLE WAREHOUSE
FLOOR PLAN

BLDG. HP-2 TA-33

SEC. CLASSIFICATION
CLASS. U
REVIEWER
DATE 6-18-64

SUBMITTED RECOMMENDED APPROVED

DRAWN BREMER
CHECKED
DATE 6-18-64
SHEET NO. 1 OF 1
DRAWING NO. ENG-R3018

REC'D LOGGED TO VAULT

REC'D 6/18/64 LOGGED 6/18/64 TO VAULT 6/18/64

NEW MEXICO HISTORIC BUILDING INVENTORY FORM

Building threatened?	Surveyed	County	ID no.
yes	date 7/29/2001 by J. Ronquillo and Ken Towery	Los Alamos	TA-33-40

Field map Number	UTM reference: Easting 386582 Northing 3960472 Zone 13
n/a	

Location description	City/town
Technical Area (TA) 33, HP (Hot Point) Site, Main Site	Los Alamos Land grant/reservation n/a

Building name	Legal description USGS Frijoles 7.5 Series
TA-33-40 Original name TA-33-40 (HP-40) Saw Building	tnsp 19N range 6E sec Unplatted

Camera name	Negative nos.	Location of neg.	Date of construction
SBSP	64 - 69	LANL, ESH-20	____ estimate 2/12/51 to 3/23/1951 actual source Facility & Waste Operations Division (FWO) records (LANL).

Style	Foundation material	Use	Condition
TA-33-40 is a wood frame building with a slanted or shed roof. (see below for more information)	Reinforced concrete slab Wall material/surface The exterior walls are constructed of wood siding while the interior wall surface is finished with masonite panels	Present residential ✓other According to the MOADS database TA-33-40 is currently being used for general storage. historic residential ✓other TA-33-40 originally housed a slit saw and was called "the Saw Building."	____ excellent ____good __X__ fair ____deteriorating

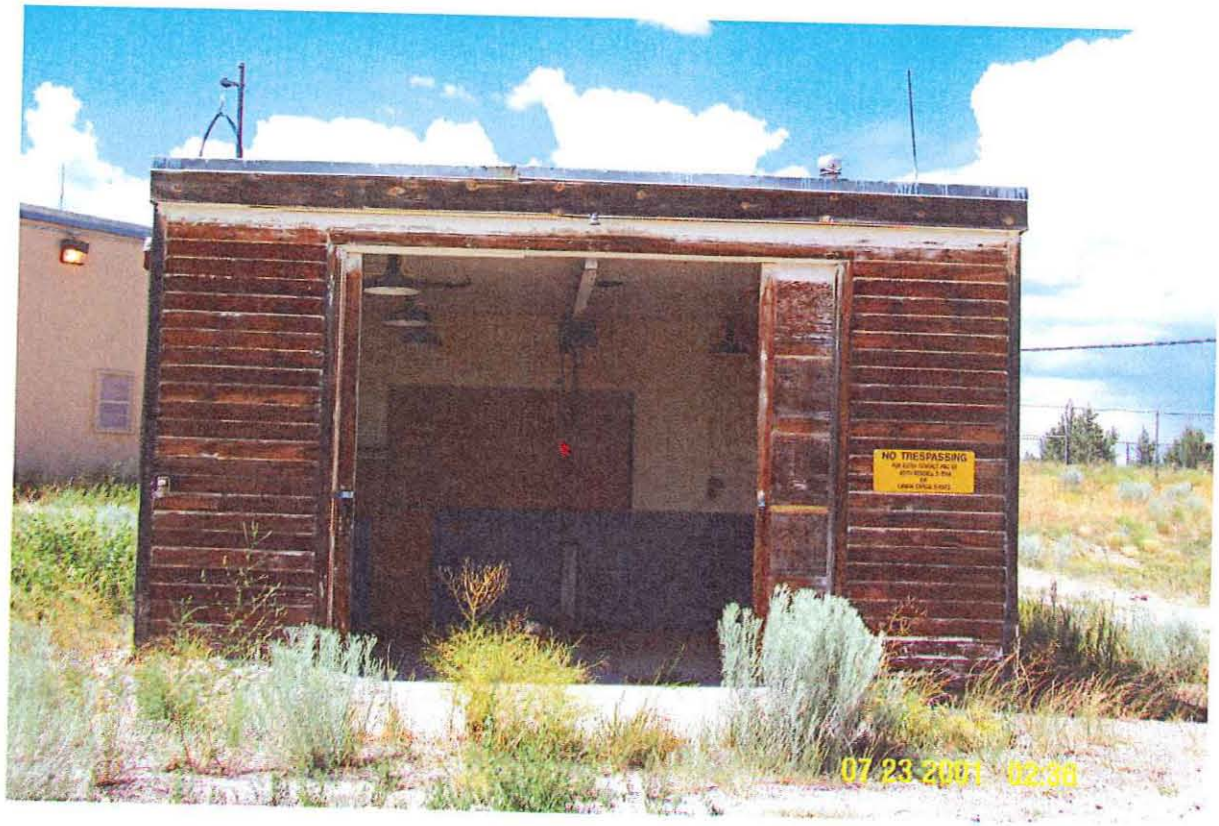
Degree of remodeling
__X__minor _____ moderate _____major
describe: **TA-33-40 was relocated northeast of building TA-33-39 in 1953 to make room for the Gas Handling Facility, TA-33-86. Heating, plumbing and electrical alterations, including room exhaust modifications were made to accommodate the relocation. A sand bag barricade was constructed around the building to shield a nearby road from possible shrapnel.**

Surroundings	Relationship to surroundings	district potential
Developed Laboratory Technical Area 33	__X__similar ____not similar	____ yes __X__no

Significance	Associated building?	Associated drawings
__X__Eligible __of interest __none if not eligible, why?	__X__yes What type? Industrial laboratory and office buildings If inventoried, list ID nos. TA-33-86, TA-33-19, TA-33-114, and other buildings at the Main Site area of TA-33.	(Photos and copies of the drawings are on following pages.) ENG-C1156 (sheet 1 of 3) Saw Bldg. HP-40, TA-33 Plot Plan & Details December 19, 1950 ENG-C1157 (sheet 2 of 3) Saw Building, HP-40, TA-33 Architectural Plan & Details Heating & Plumbing January 20, 1951

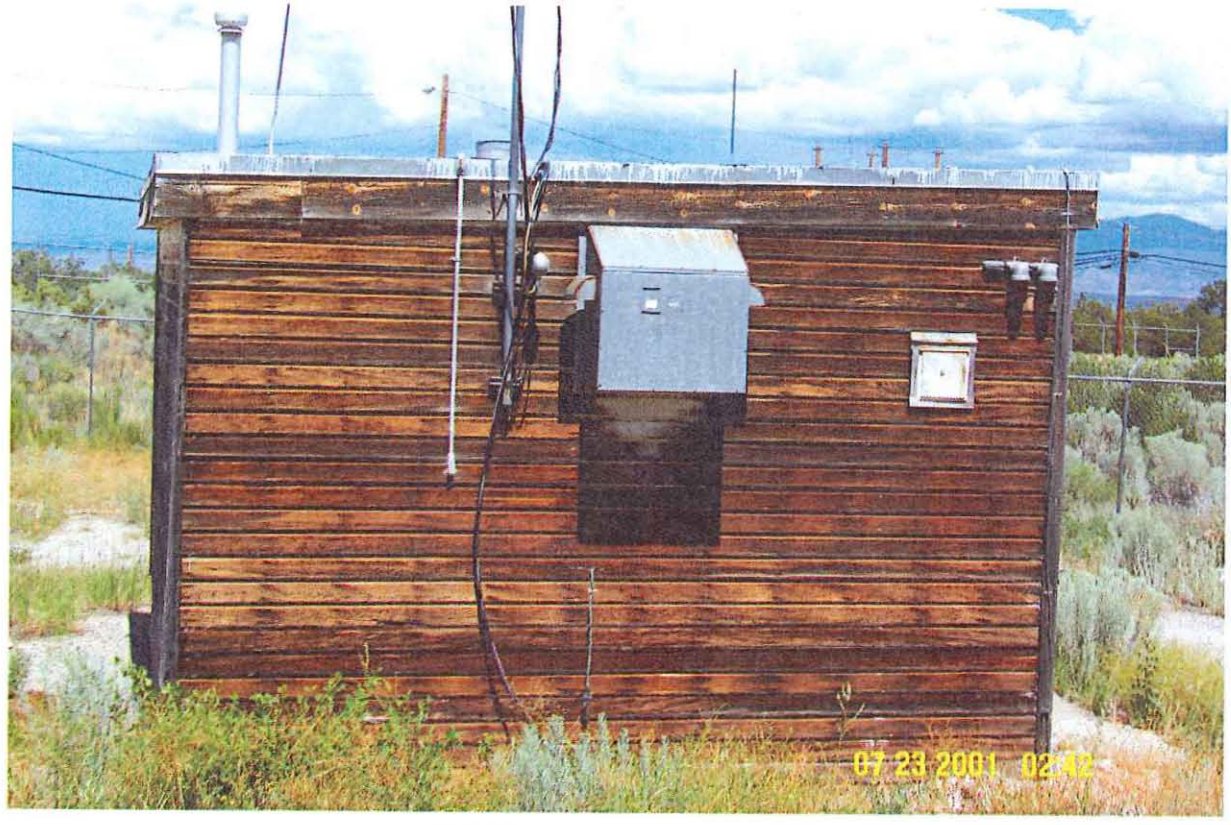
		ENG-C1158 (sheet 3 of 3) **Saw Building, HP-40, TA-33** **Electrical Plan & Section** **January 20, 1951** **ENG-C2955 (sheet 1 of 5)** **Relocation of Bldg. #40** **Plot Plan** **Bldg. HP-40, TA-33** **February 4, 1953** **ENG-C2956 (sheet 2 of 5)** **Relocation of Bldg. #40** **Foundation Plan & Sections** **Bldg. HP-40, TA-33** **February 4, 1953** **ENG-C2957 (sheet 3 of 5)** **Relocation of Bldg. #40** **Room Exhaust Modifications-** **Mech. Details** **Bldg. HP-40 (Saw Bldg.) TA-33** **February 17, 1953** **ENG-C2958 (sheet 4 of 5)** **Relocation of Bldg. #40** **Electrical-Plans- Dets.- Notes** **Bldg. HP-40, TA-33** **February 4, 1953** **ENG-C2959 (sheet 5 of 5)** **Relocation of Bldg. 40** **Electrical-Plot Plan- Notes** **Bldg. HP-40, TA-33** **February 4, 1953** **ENG-R3034 (sheet 1 of 1)** **Saw Building** **Floor Plan** **Bldg. HP-40, TA-33** **June 18, 1964** Size **335 gross ft^2** **(285 net ft^2)**

Architectural features	Comments
TA-33-40 is a free standing, windowless, one-story building of approximately 335 gross square feet. It is of wood frame construction and has a slightly pitched, shed-type "built up" roof. The building's exterior is ship-lapped, tongue and groove wood siding that has been painted. TA-33-40 sits on a reinforced concrete slab that ramps to the east of the building. It also has a sliding sectional wood door. The interior walls and ceiling are finished in masonite panels. There are five overhead pendant lights, a corner wall heater, and an overhead hoist inside the building. TA-33-40 originally housed a 24" saw with self-contained coolant. **According to drawing ENG-C2956, a sand bag barricade was situated approximately 4 feet from the building around the east, north and west elevations.**	**Built by the Zia Company. This building was relocated within the Main Site area in 1953 but its original function did not change. A slit saw in the building was used to saw open steel and uranium projectiles after they were retrieved from initiator experiments.** Associated historic theme **Cold War Nuclear Weapons Research and Development (specifically initiator testing)** Property type **Laboratory/Processing** Contamination history **Possible hazardous or radioactive materials used in or near the building include uranium and beryllium. LANL records indicate that a fan was installed in the roof of TA-33-40 because uranium fumes were emanating from saw operations.** Integrity **Fair** Eligibility **Eligible under Criterion A**



TA-33-40 South Elevation and Interior

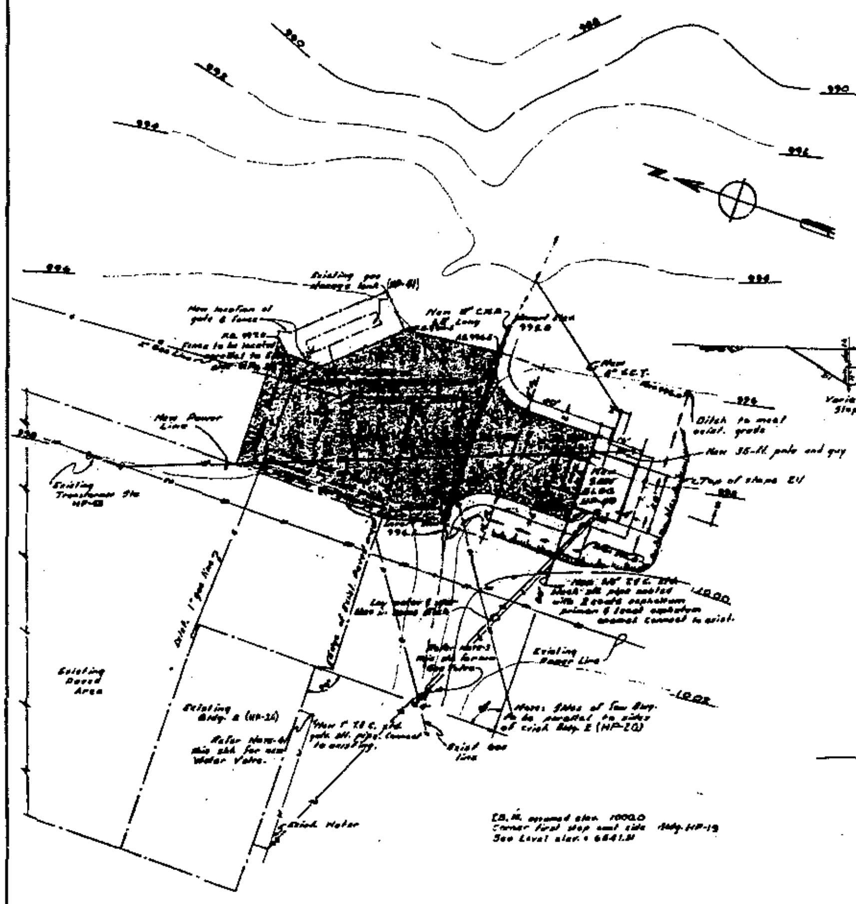
TA-33-40 East Elevation



TA-33-40 North Elevation

TA-33-40 West Elevation

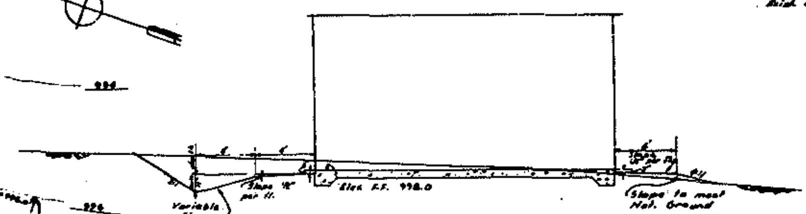
TA-33-40 Interior Sliding Section Door
looking southeast



PLOT PLAN

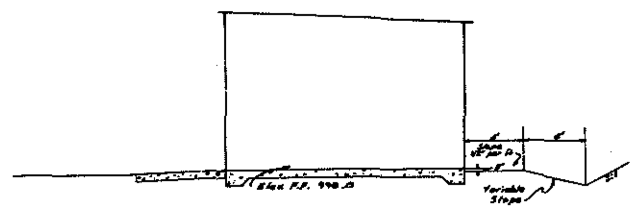
Scale: 1" = 20'

E.B.M. assumed elev. 1000.0 Corner first step east side Bldg. HP-19 Sea Level elev. = 6641.8'



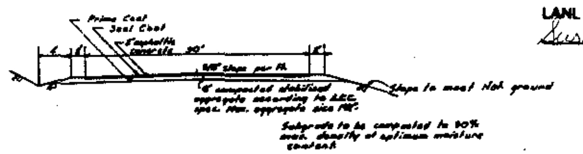
E-W SECTION

Scale 1/8" = 1'-0"



N-S SECTION

Scale 1/8" = 1'-0"

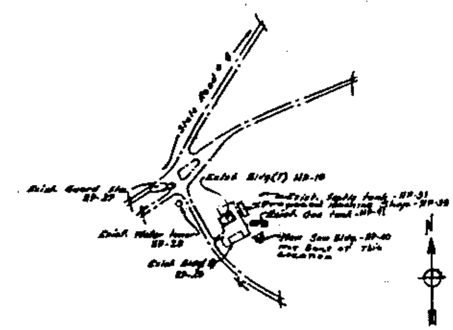


TYPICAL ROAD SECTION

Scale 1/8" = 1'-0"

The Set of Drawings Consists of:

ENG C 1156 Plot Plan & Details
ENG C 1157 Architectural Plan & Details, Heating & Plumbing
ENG C 1158 Electrical Plan & Sections



LOCATION PLAN

Scale 1" = 400'

NOTES:

1. Test for Gas Line: Compressed air at 75 p.s.i. for 2 hrs. with no pressure drop.
2. Test for Water Line: Compressed air at 100 p.s.i. for 2 hrs. with no pressure drop.
3. New gas valve to be 3/4" lubricated service cock with extension lubricant pipe - Walworth No. 2901, and Walworth No. 3934 extension service box for gas.
4. New water valve to be 1" Spring plug cock (Iron body) Walworth No. 662.
5. Where lines and grades are req'd. by construction indicated, they will be set by ENG-3 Survey Personnel prior to beginning of job.
6. Prime coat to consist of RC-1 cutback asphalt applied at the rate of 0.25 gal. per sq. yd.
7. 2" Hot Mix Asphaltic Concrete to meet A.S.C. specifications. Max. aggregate size 1".
8. Seal Coat to consist of R.C-4 applied at the rate of 0.3 gal. per sq. yd. and covered with 15 to 20 lb. of stone chips per sq. yd. Max. size of stone chips to be 3/8".
9. Paving indicated on drawing shall be delayed until warm weather permits the work to be done.

THIS JOB MUST BE INSPECTED, AND ANY CHANGES APPROVED BY Gelwicks

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Susan Roth 9/26/01

RECORD DRAWING - AS BUILT CONSTRUCTION		
SUBMITTED	RECOMMENDED	APPROVED
[illegible]	[illegible]	[illegible]

2	Relocated Gas & Water lines — As Built Conditions	
1	Added Structure TA-6	

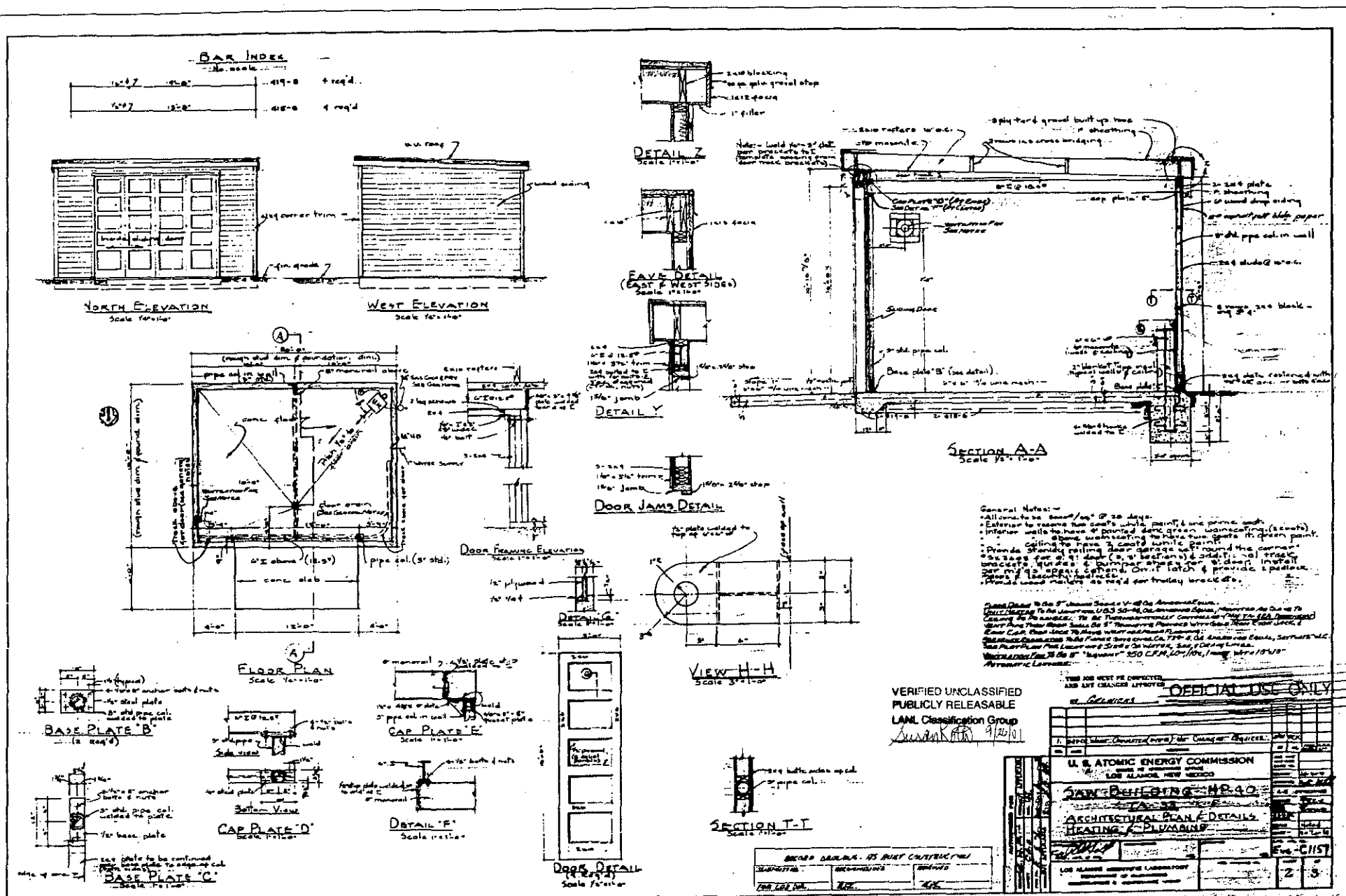
U. S. ATOMIC ENERGY COMMISSION
LOS ALAMOS, NEW MEXICO

SAW BLDG. HP-40
TA-33
PLOT PLAN & DETAILS

LOS ALAMOS SCIENTIFIC LABORATORY

ENG-C 1156

J.O. No. 130082 — 333


BAR INDEX
North Elevation
West Elevation
Detail Z
Eave Detail
Detail Y
Door Jamb Detail
Section A-A
Floor Plan
Door Framing Elevation
View H-H
Base Plate "B"
Cap Plate "E"
Cap Plate "D"
Detail "F"
Base Plate "C"
Door Detail
Section T-T
General Notes:
VERIFIED UNCLASSIFIED
PUBLICLY RELEASABLE
LANL Classification Group
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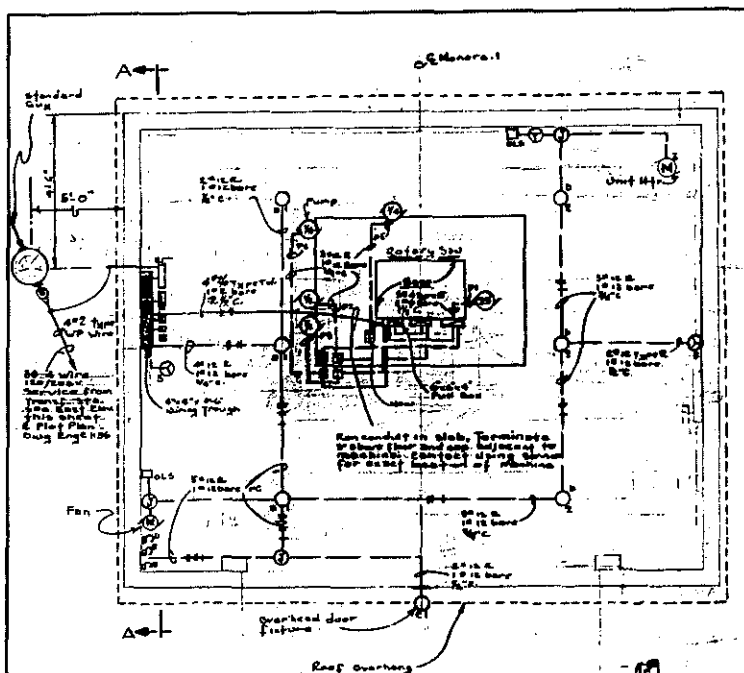
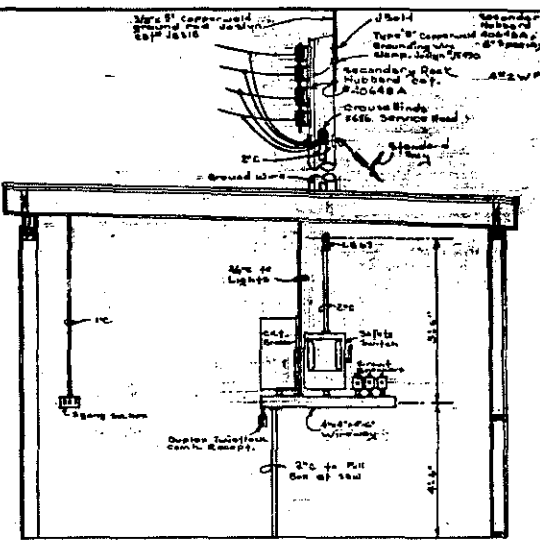
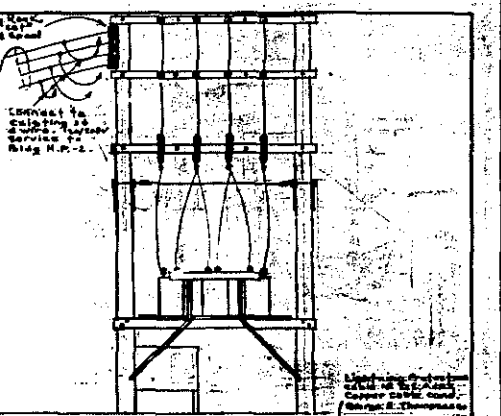
U. S. ATOMIC ENERGY COMMISSION
LOS ALAMOS, NEW MEXICO
SAW BUILDING HB-40
TA-21
ARCHITECTURAL PLAN & DETAILS
HEATING & PLUMBING
LOS ALAMOS SCIENTIFIC LABORATORY



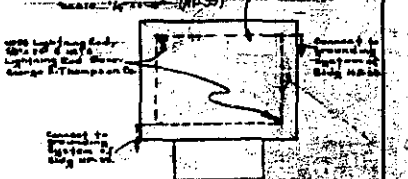
Plan HP-40
Scale ¼"=1'-0"



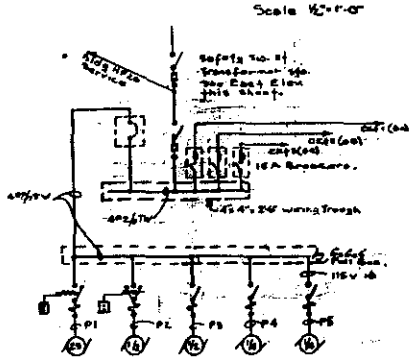
Section "A-A" HP-40
Scale ¼"=1'-0"



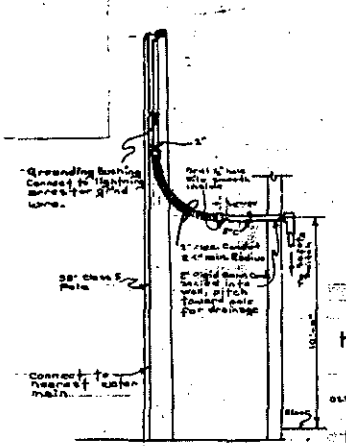
East Elevation
Existing Pram Building
Scale ¼"=1'-0" (HP-38)



Lightning Protection Plan HP-40
Scale ¼"=1'-0"



One Line Wiring Diagram



Pole Detail
Scale ¼"=1'-0"

THIS JOB MUST BE INSPECTED AND ANY CHANGES APPROVED BY GELNICK

Symbols

- Single Pole Switch Hubbell cat# 1221
- ELM standard Dome Reflector with 300W pendant type Med. Benjamin cat# 7644. Fixtures to be suspended from Crouse-Hinds Type EX Conduit & Type GUS Slip Aligner fixture hangers (5 req'd)
- ELM Standard dome Reflector with 200W Angle head Benjamin cat# 3648.
- Duplex "Tuteplock" Comb. Receptacle grounded, 115V, Hubbell cat# 5266
- Manual Thermal Overload Switch - G.E. cat# CR161-H1A1
- Motor (Number denotes H.P.)
- Magnetic Starter (Existing)
- Magnetic Reversing Starter (Existing)
- Fused Safety Switch, 3 Pole 100A. Westinghouse cat# DF 325
- Push Button Switch G.E. cat# CR10621M-2A (New)
- Circuit Breaker 115V., 15A. Heinemann cat# 5051
- Air Circuit Breaker 100A. 6 frame, interchangeable trip units 3 pole 250V. 100 A. Rating Westinghouse cat# DB 3311

General Notes.

1. The complete electrical installation shall be installed in accordance with the current rules of the N.E.C.
2. All catalog numbers are given for reference only. Substitutions may be made provided prior approval is obtained from the Engineering Department.
3. Fusible safety switch shall be provided with [illegible] cartridges fuses of the time delay type, capable of holding 125% load for 10 sec. as made by Bussman Mfg Co.
4. The contractor shall thoroughly check all motors, starters & associated equipment for damage after unloading parts and shall make any repairs or additions necessary for first class operation.
5. All conduit shall be galvanized rigid steel of approved type and manufacture & shall not be less than ¾" dia. No wire shall be smaller than #12 AWG for any branch circuit.
6. Provide conduit with grounding conductors to enclosures or frames of all electrical apparatus & equipment. Conductors shall be of bare soft drawn wire & such shall be in accordance with the current rules of the N.E.C.

"RECORD DRAWING - AS BUILT CONSTRUCTION"

SUBMITTED	APPROVED	DATE
TOOLEY INC.	REC.	

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U. S. ATOMIC ENERGY COMMISSION
LOS ALAMOS, NEW MEXICO

SAN BUILDING - HP-40
TA-33
ELECTRICAL PLAN & SECTION

LOS ALAMOS SCIENTIFIC LABORATORY
ENG-C1159
3 3

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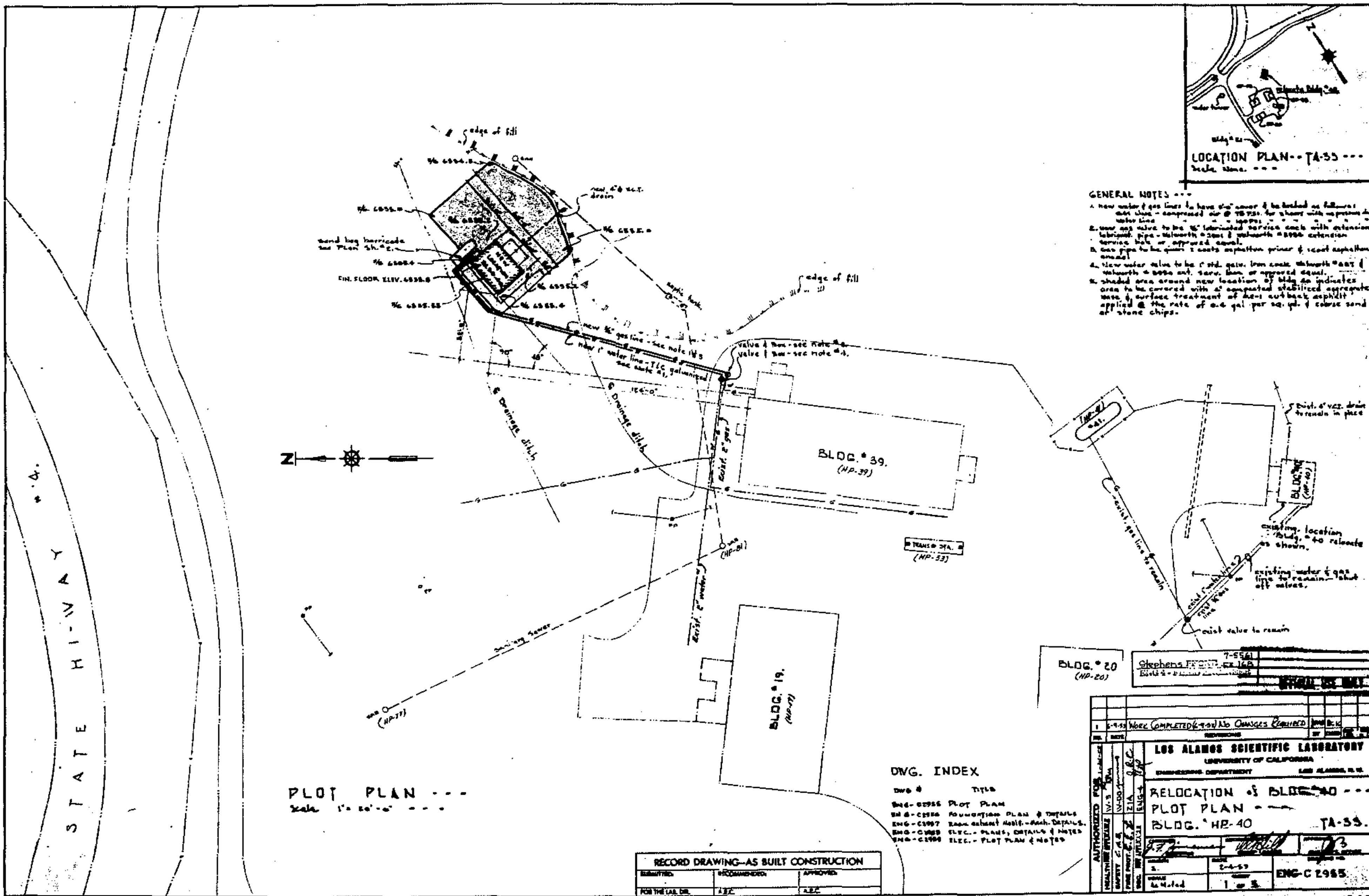
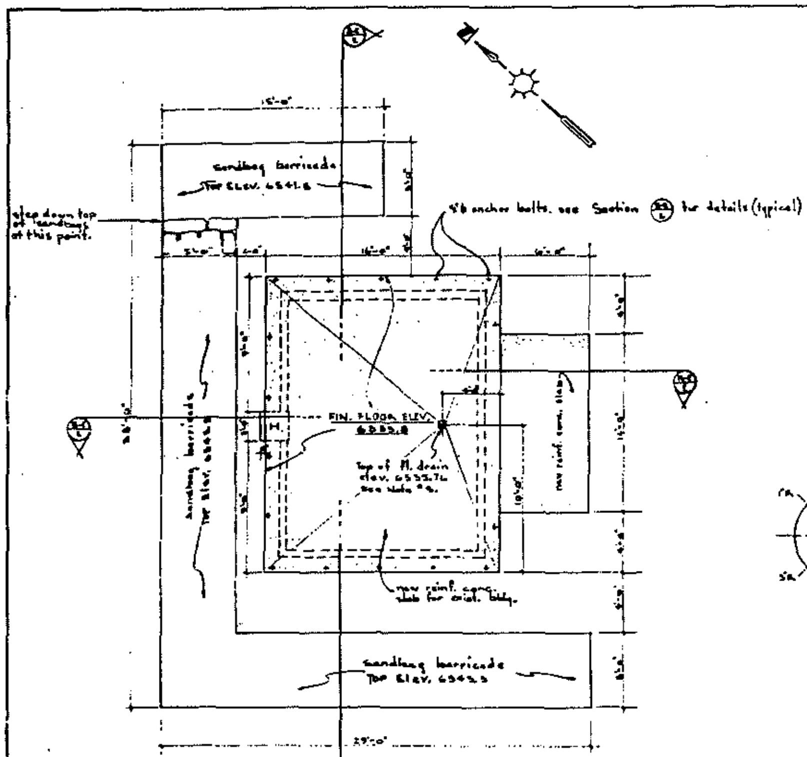
LANL Classification Group
9/26/01

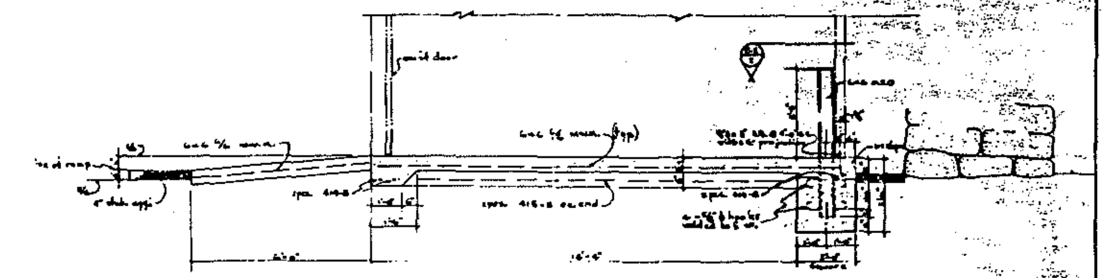
755



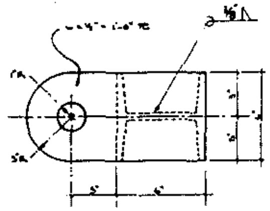
LOCATION PLAN - - TA-33 - - -
Scale None - - -
GENERAL NOTES - - -
edge of fill
Drainage ditch
septic tank
new 1" water line - TLC galvanized
Valve & box - see note 4.
BLDG. # 39.
(HP-39)
Exist. 2" gas
Exist. 2" water
Sanitary Sewer
TRANSF. STA.
(HP-33)
BLDG. # 19.
(HP-19)
BLDG. # 20
(HP-20)
exist. gas line to remain
exist. valve to remain
existing location bldg. # 40 relocate as shown.
existing water & gas line to remain - shut off valves.
STATE HI-WAY # 4.
PLOT PLAN - - -
DWG. INDEX
DWG # TITLE
ENG-C2955 PLOT PLAN
RECORD DRAWING—AS BUILT CONSTRUCTION
Stephens
7-5561
Work Completed No Changes Required
LOS ALAMOS SCIENTIFIC LABORATORY
UNIVERSITY OF CALIFORNIA
ENGINEERING DEPARTMENT
RELOCATION of BLDG. #40 - - -
PLOT PLAN - -
BLDG. # HP-40
TA-33.
2-4-59
1 of 5
ENG-C 2955
LAB. JOB NO. 1362



FOUNDATION PLAN - - -
scale 1/8"=1'-0" - - -



SECTION - - -
scale 1/4"=1'-0" - - -

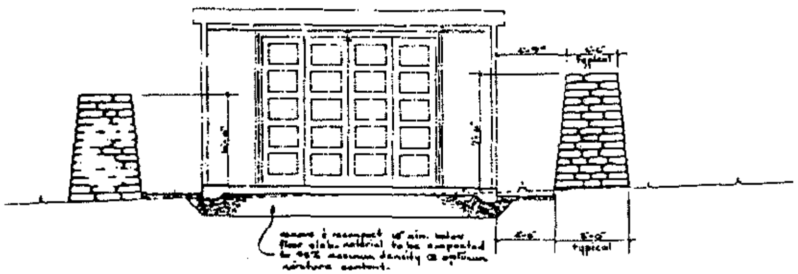


SECTION - - -
scale 3"=1'-0" - - -

GENERAL NOTES:

1. All concrete to be class 'A' 3000 psi @ 28 days.
2. Relocate Bldg #40 as shown on sh. #1.
3. Floor drain to be 8" Josam, series [illegible] or approved equal.
4. Sand bags to be filled with clay loam, with a maximum particle size of [illegible]

BAR INDEX - - -				
Bar designation	type	size	length	No. Reqd.
416-8	str.	#4	16'-8"	4
419-8	str.	#4	19'-6"	4



SECTION - - -
scale 1/4"=1'-0" - - -

RECORD DRAWING—AS BUILT CONSTRUCTION

FOR THE LAB. DIR. | A.E.C. | A.E.C.

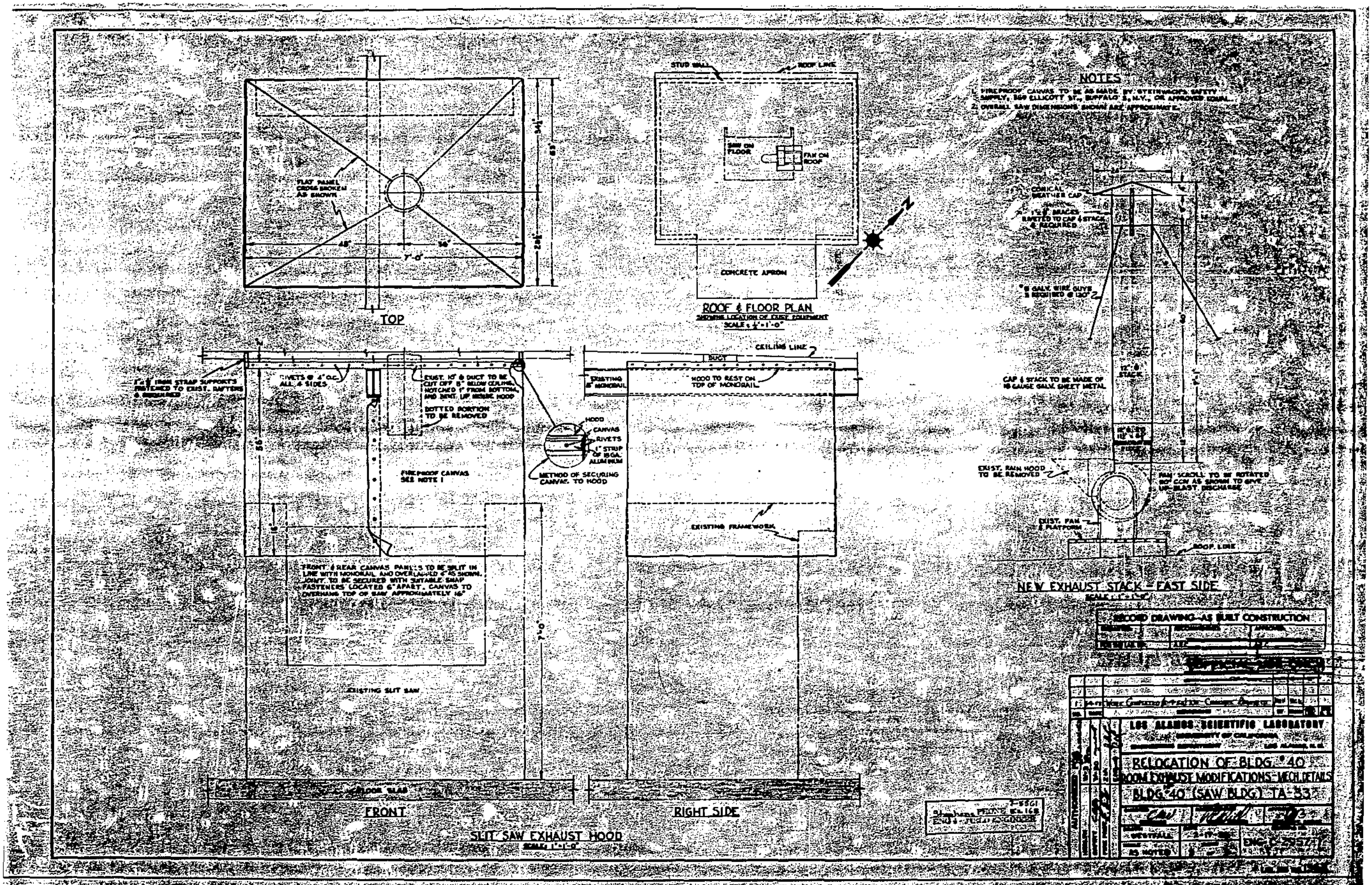
7-5521
Stephens PRINTS Ex. 148

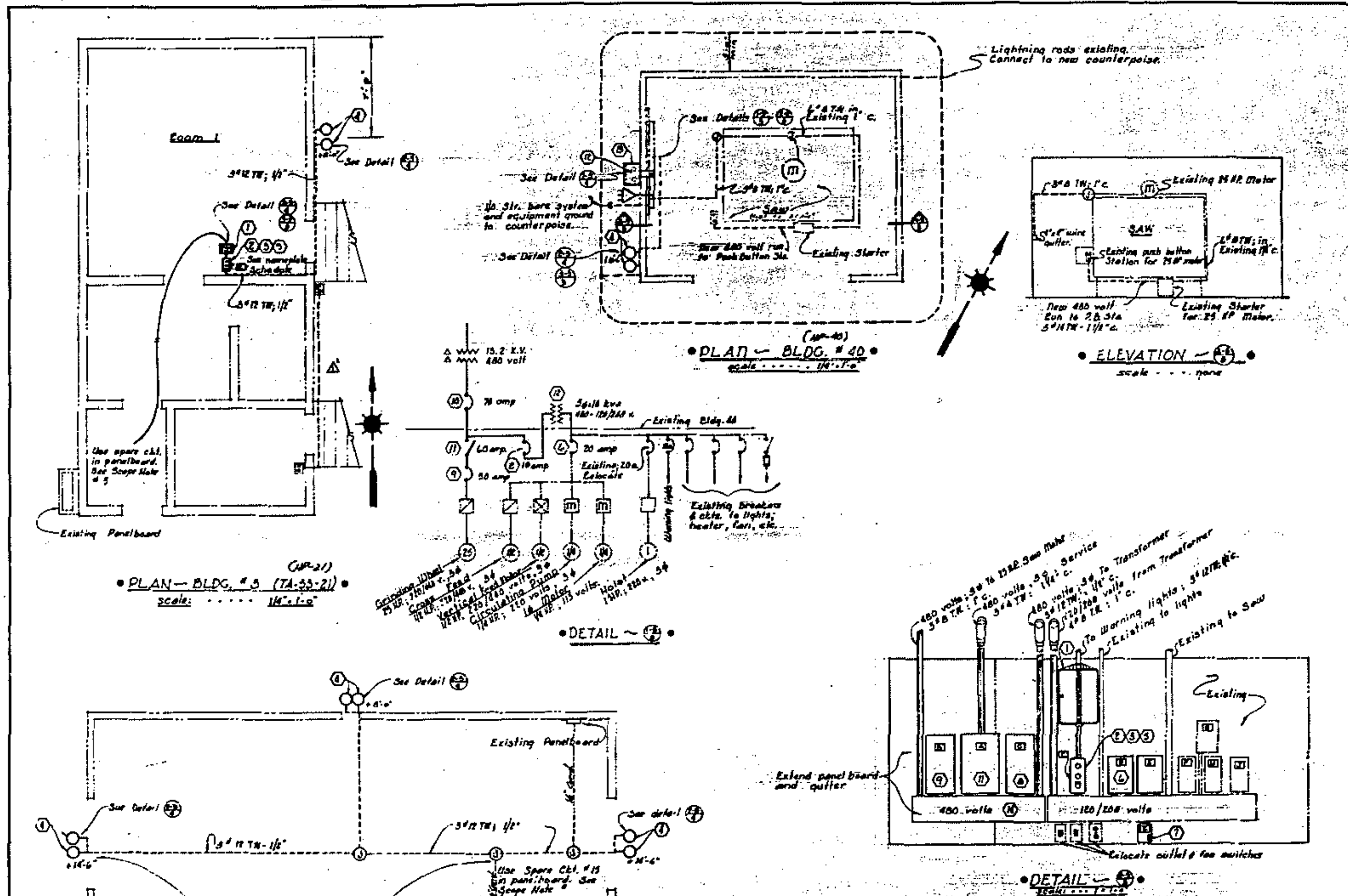
1 | Work Completed (as-of) No Changes Required

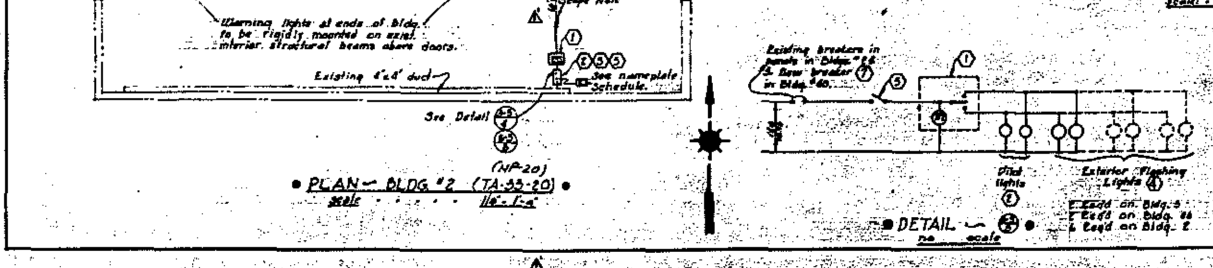
LOS ALAMOS SCIENTIFIC LABORATORY
UNIVERSITY OF CALIFORNIA
ENGINEERING DEPARTMENT — LOS ALAMOS, N.M.

RELOCATION of BLDG. #40.
FOUNDATION PLAN & SECTIONS -
BLDG. HEP-40 TA-33.

ENG-C 2956


NOTES
1. FIREPROOF CANVAS TO BE AS MADE BY STEINWACHS SAFETY SUPPLY, 569 ELLICOTT ST., BUFFALO 3, N.Y., OR APPROVED EQUAL.
2. OVERALL SAW DIMENSIONS SHOWN ARE APPROXIMATE.
TOP
FLAT PANEL CROSS BROKEN AS SHOWN
7'-0"
ROOF & FLOOR PLAN
SHOWING LOCATION OF EXIST. EQUIPMENT
STUD WALL
ROOF LINE
SAW ON FLOOR
FAN ON ROOF
CONCRETE APRON
CEILING LINE
DUCT
RIVETS @ 4" O.C. ALL 4 SIDES
EXIST. 10" Ø DUCT TO BE CUT OFF 8" BELOW CEILING, NOTCHED 1" FROM BOTTOM, AND BENT UP INSIDE HOOD
DOTTED PORTION TO BE REMOVED
FIREPROOF CANVAS SEE NOTE 1
HOOD
CANVAS
RIVETS
1" STRIP OF 18 GA. ALUMINUM
METHOD OF SECURING CANVAS TO HOOD
EXISTING MONORAIL
HOOD TO REST ON TOP OF MONORAIL
EXISTING FRAMEWORK
FRONT & REAR CANVAS PANELS TO BE SPLIT IN LINE WITH MONORAIL AND OVERLAPPED 6" AS SHOWN. JOINT TO BE SECURED WITH SUITABLE SNAP FASTENERS LOCATED 6" APART. CANVAS TO OVERHANG TOP OF SAW APPROXIMATELY 16"
EXISTING SLIT SAW
FLOOR SLAB
FRONT
RIGHT SIDE
SLIT SAW EXHAUST HOOD
SCALE: 1"=1'-0"
CONICAL WEATHER CAP
CAP & STACK TO BE MADE OF 16 GAUGE GALV. SHEET METAL
12" Ø STACK
EXIST. RAIN HOOD TO BE REMOVED
EXIST. FAN & PLATFORM
ROOF LINE
NEW EXHAUST STACK - EAST SIDE
RECORD DRAWING-AS BUILT CONSTRUCTION
LOS ALAMOS SCIENTIFIC LABORATORY
RELOCATION OF BLDG. 40
ROOM EXHAUST MODIFICATIONS - MECH. DETAILS
BLDG. 40 (SAW BLDG.) TA-33
AS NOTED





• BILL OF MATERIALS •

The Bill of Material is intended only as an aid in estimating and material take-off, and does not necessarily all materials required. Except where noted, catalog numbers are given as reference only; equal approved substitutions may be made.

Item No.	Description	Mfr. & Catalog No.	No. Req'd
1	Switch; Motor flashing: 20 to 50 flashes per min. 1800 watt; 15 amp. 115 volts; 60 cycle; 2 circuit with filter; double contact.	Crouse-Hinds #TSS 20 4LBB (in Zia Stock)	3
2	Pilot lights with transformer and 6-8 volt bulb. 110 volt, 60 cycle	Square D Class 9001 Type TP1E	6
3	Enclosures, Surface mounting. (If not available, fabricate encl. from 5"x8" duct.)	Square D Class 9001 Type TY-30	3
4	Lighting Fixtures: Vaportight, with guard and red glass globe. 100 w.	Crouse-Hinds #V1759	10
5	Selector Switch; S.P.D.T.; nameplate OFF-ON.	Square D Class 9001 Type TS14	3
6	Circuit Breaker; 3 pole; 20 amp. 250 volts.	Heinemann #8269 G1	1
7	Circuit Breaker; 1 pole; 15 amp. 115 volts.	Heinemann #5011	1
8	Circuit Breaker; 3 pole; 10 amp. 460 volts. (Zia Stock #3884294786)	Heinemann #5044	1
9	Circuit Breaker; 3 pole; 50 amp. 600 volts; General purpose enclosure.	Heinemann #5044	1
10	Circuit Breaker; 3 pole; 70 amp. 600 volts; Water & dust tight enclosure.	Trumbull #AT4346706	1
11	Safety Switch; 3 pole; 60 amp. 575 volts; non-fusible; NEMA-1 enclosure; Type "C"	Square D #C41842	1
12	Transformer; 460-120/208 volts; 3φ; 10 KVA.	Burton Style #1101 Serial #3146 Zia Stock #1726310184	1
13	Enclosure; 14 ga. galv. Sh. metal (for transformer) See Detail		1
14	Wire Gutter; 14 ga. Sheet metal 4"x4" x 8'-6" (Approx.)		1

NAMEPLATE SCHEDULE

	Main Disconnect; 480 volts; 3φ
	Saw; 480 volts; 3φ
	Transformer; 480-120/208 volts
	Saw; 120/208 volts; 3φ
	Hoist
	Lights
	Exhaust Fan
	Lights
	Heater
	Warning Lights

RECORD DRAWING—AS BUILT CONSTRUCTION

SUBMITTED	RECOMMENDED	APPROVED
FOR THE LAB. ORG.	A.E.C.	A.E.C.

Stephens T-5561 Ex 16B

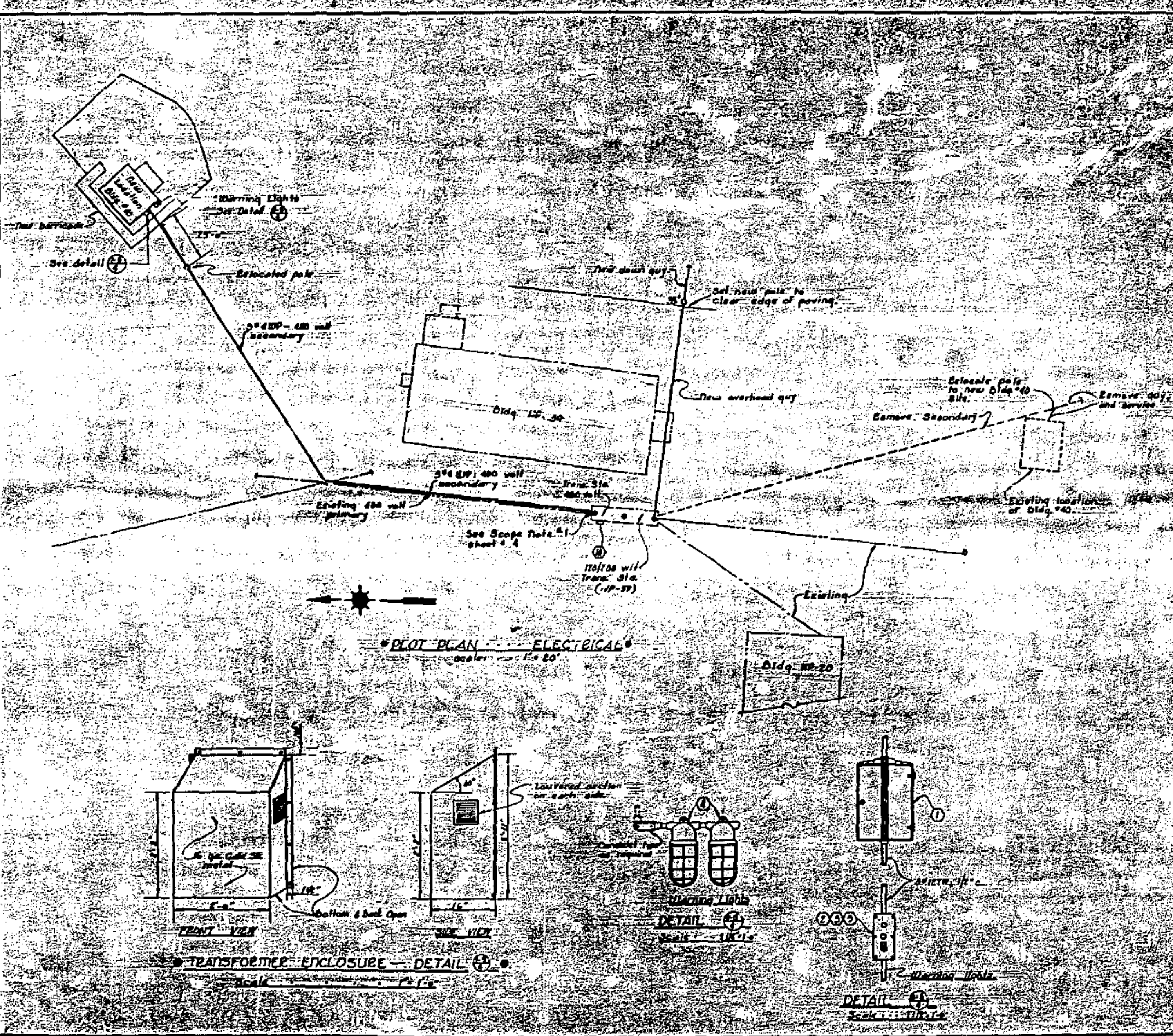
OFFICIAL USE ONLY

Revisions: As Built Status – Blended, E Cond. & Added Flasher Lights

LOS ALAMOS SCIENTIFIC LABORATORY
UNIVERSITY OF CALIFORNIA
ENGINEERING DEPARTMENT — LOS ALAMOS, N. M.

RELOCATION OF BLDG. # 40
ELECTRICAL — PLANS — DETS. — NOTES
BLDG. HP-40 — TA-33

Scale: as noted
Sheet 4 of 5
ENG-C 2958



SCOPE OF WORK

1. Relocate 13.8 KV primary [illegible] 480 volt transformer station [illegible] secondary. This will require relocation of 3 primary [illegible] to match primary of 120/208 volt transformer station. Mount new 70 amp circuit breaker on panel [illegible] 480 volt transformer [illegible]
2. Install new [illegible] 480 volt secondary to relocated Bldg. [illegible]
3. Revise service and power distribution panel at relocated Bldg. [illegible] for [illegible] volt service in accordance with drawings. This will include installation of [illegible] KVA [illegible] volt dry transformer in a weatherproof box on exterior of bldg. Ground secondary [illegible]
4. Re-connect [illegible] motor and starter for [illegible] volt operation. Provide separate conduit run for 480 volt circuit.
5. Provide and install warning light system at Bldgs. [illegible] in accordance with drawings. [illegible] breakers supplying warning lights to be [illegible]

GENERAL NOTES

1. The entire installation to be made in accordance with the current rules of the N.E.C.
2. All raceway and the frames and enclosures of all motors, breakers, switches, and other electrical equipment to be effectively grounded.
3. All branch circuits to be identified at panels, all individual circuit breakers, motor starters, and contactors to be identified by means of engraved laminated bakelite name plates, except where function is obvious.
4. Conduit runs shall be routed to suit equipment and building structure.
5. Holes made in exterior walls of buildings, for electrical conduit, to be sealed.
6. Reconnect exhaust fan on roof, to existing circuit.

RECORD DRAWING—AS BUILT CONSTRUCTION

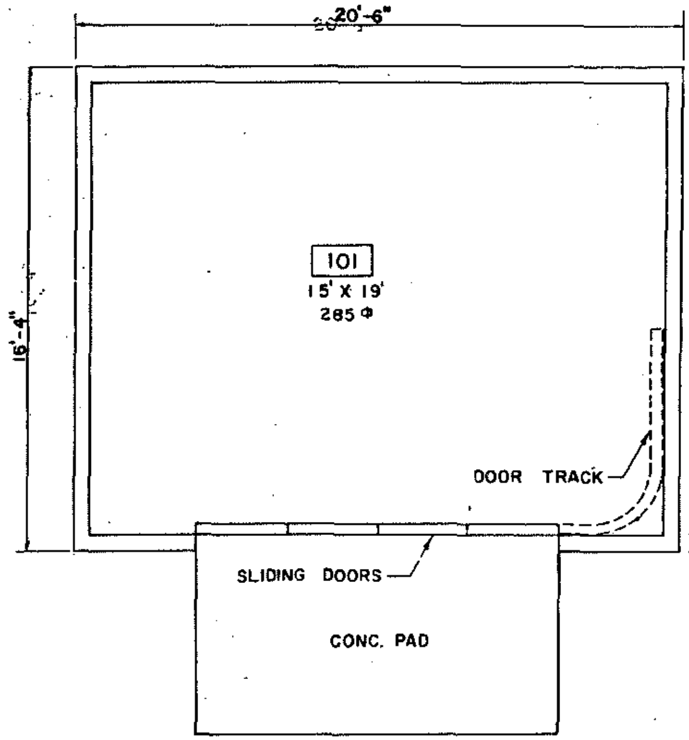
OFFICIAL USE ONLY

Work Completed (no) Changes Required

LOS ALAMOS SCIENTIFIC LABORATORY
UNIVERSITY OF CALIFORNIA
LOS ALAMOS, N. M.

RELOCATION OF BLDG 40
ELECTRICAL — PLOT PLAN — NOTES

as noted



(1/4" = 1'-0")

1 0 5 10
GRAPHIC SCALE

TOTAL SQ. FT. 285

REV.	DATE	REVISION	BY	CKD.	APR.
1	6-6-94	REVISED TO STATUS OF 6-6-94	HGN		

UNIVERSITY OF CALIFORNIA
Los Alamos
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

FACILITIES ENGINEERING DIVISION

SAW BUILDING
FLOOR PLAN

BLDG. HP-40 TA-33

SEC. CLASSIFICATION

DRAWN: BREMER
CHECKED: HGN
DATE: 6-18-64
SHEET NO. 1 OF 1
DRAWING NO. ENG-R3034

REC'D ..... LOGGED ✓ TO VAULT

NEW MEXICO HISTORIC BUILDING INVENTORY FORM

LA#

building threatened? **Yes**	surveyed date **8/31/98** by **K. L. Manz**	County **Los Alamos**	ID no. **TA-33-86**

field map **LANL Orthotopo** number **Sheet 18**	UTM reference: easting **386561** northing **3960331** zone **13**

location description **Technical Area (TA) 33, "Hot Point' (HP) site**	city/town **Los Alamos** land grant/reservation **n/a**

building name **TA-33-86, Original name: Gas Handling Facility, HP-86**	legal description **USGS Frijoles 7.5 Series** tnsp **18N** range **6E** sec **unplatted**

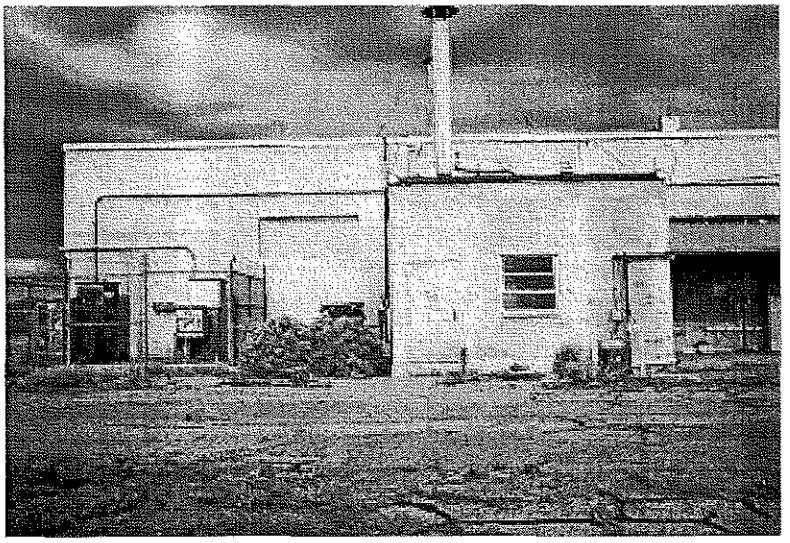
film roll by **ESH-20, LANL** nos. **511**	Negative nos. **15A, 20A, 21A, 22A, 23A, & 24A**	location of neg. **LANL, ESH-20**	date of construction _____ estimate **1954/1955** actual source **Facilities Engineering 9 (FE-9) records (LANL)**

Style **Reinforced concrete, industrial vernacular with slight concave roof (see below for more information)**	Foundation material **Concrete slab** Wall material/surface **Reinforced concrete**	use present residential ✔ other **abandoned** historic residential ✔ other **Gas Handling Facility**	Condition ___ excellent **X** fair to **X** good ___deteriorating

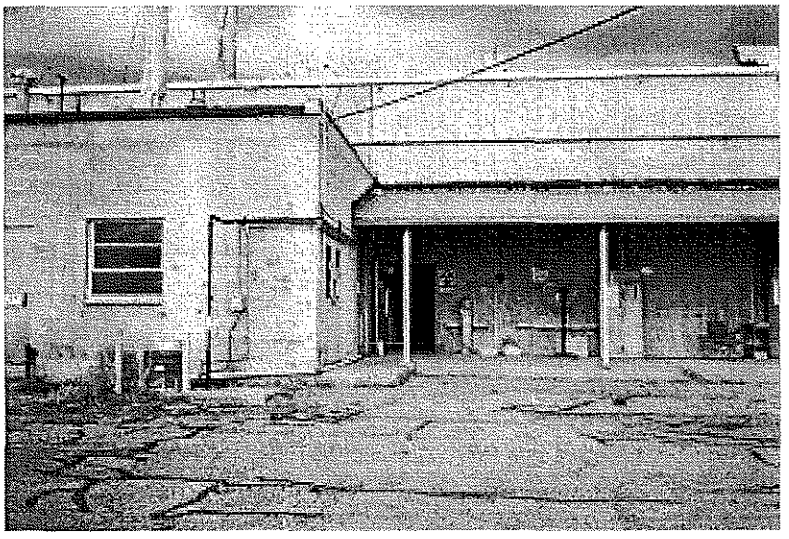
degree of remodeling **X** minor ___ moderate ___major describe: **A small cinder (pumice) block addition on east side of building added in 1958. A canopy of galvanized corrugated metal was added along east wall (northern portion) in 1963 to protect gas cylinders stored outside along the wall.**	Surroundings **Developed Laboratory Technical Area**	relationship to surroundings ___similar **X** not similar	district potential ___ yes **X** no

Significance	Associated buildings? _X_ yes	Photos and plan drawings are on following pages
_X_ eligible ____ of interest ____ none if not eligible, why? **Building 33-86 is not exceptionally significant, in its architectural style. Many other "laboratory" buildings where testing and research has and is occurring are also built with reinforced concrete and have similar roofs. However, the building is significant for its contribution to important events at LANL during the Cold War (i.e. LANLs role in the research and development on tritium handling technology that supported the Savannah River Plant tritium production activity). This building for a short period of time processed tritium gas, repackaging tritium gas into small-volume, high-pressure vessels which were used in weapons systems and devices tested at Nevada Test Site. Building TA-33-86 is eligible under Criterion "A", criteria consideration "G", since it is associated with the research and development of the hydrogen bomb.**	What type? **TA-33-90, second security check location for admittance to the Gas Handling Facility (TA-33-86).** if inventoried, list ID nos. **TA-33-90 also built during 1954/1955.**	**ENG-C 3316 Floor Plan - 1954** **ENG-C 3317 Elevations – 1954** **ENG-C 21363 New Addition – 1958** **ENG-R 3035 Floor Plan – 1982** **ENG-C 3316 Floor Plan - (modified 1998 showing the 1958 building addition)** **ENG-C 3317 Elevations – (modified 1998 showing the 1958 building addition)** size: **~6794 ft² (ground floor)** **391.5 ft² (penthouse)** **~7185.5 ft² (TOTAL)**

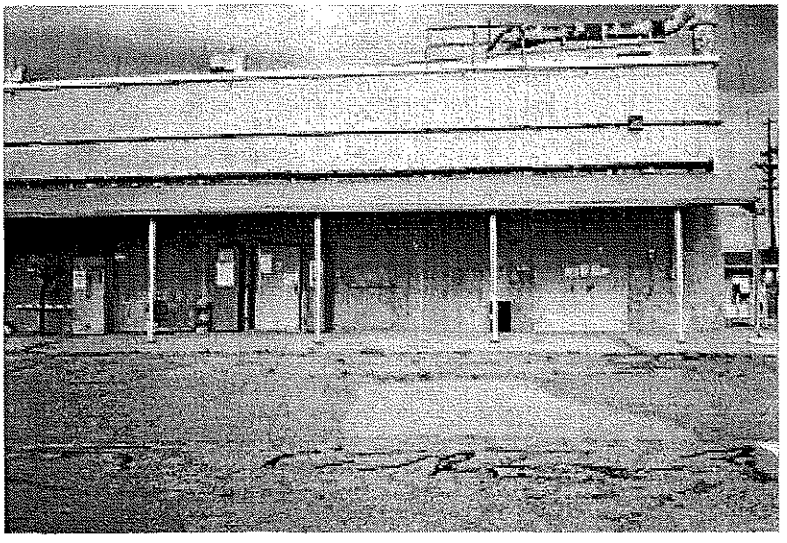
Architectural features	Comments
Building 33-86 is basically a rectangular, reinforced concrete structure with a small equipment room extending to the east from approximately the center of the east side of the building. Reinforced concrete, or hardened concrete is "poured", has an inner frame of rebar and is supported differently than regular concrete. The roof of the building is slightly concave for drainage. It is constructed of tarpaper, tar, and gravel and has metal edging "flashing" along all sides. The building has 18 rooms which includes several equipment rooms, a janitors closet, and restrooms. **On the east side of the building, at the northern end there are two inner metal pedestrian doors with exterior steel, safe/vault, combination lock, pedestrian doors for extra security. Towards the center of the east side there is also another metal pedestrian door. On the south end there is a translucent, 90-paned "glass-brick" window.** **A canopy of galvanized corrugated metal was added along the east wall of the building in 1963 to protect small gas cylinders stored along the wall.** **The utility equipment room extends east from the east side of the building. The north side of this extension has a double metal pedestrian door. A small cinder (pumice) block addition, was constructed on the east side of the utility equipment room in 1958. There is a set of double metal pedestrian doors with single–paned windows on the north side of the addition. On the east side of the addition there is a single metal pedestrian door and a three-paned, metal frame window.** **The north side of the building has one metal pedestrian door and a translucent, 144-paned "glass-brick" window. The exhaust stack for the building is located several feet to the north of the north wall.** **On the west side of the building at the north end there are three translucent, 120-paned "glass-brick" windows. There is one translucent, 144-paned "glass-brick" window towards the south end of the west side of the building. Additionally there are two metal roll-up garage type doors on the west side.** **On the south side of the building there is one metal roll-up garage type door and along the wall a metal loading dock with a low concrete barrier. This barrier enabled oxygen trucks to backup and connect with hoses to the valves on the barrier, which fed into the building. The walkway allowed an operator to control the valves on the back of the truck.** **There is a "penthouse" room on the roof of the north end of the building which houses additional utility equipment (pump motors for the buildings air stack).**	**Building was also designated as a fallout shelter.** **There is a fenced electrical transformer on the east side of the building. It is located to the south of the utility room extension and the small room addition.**



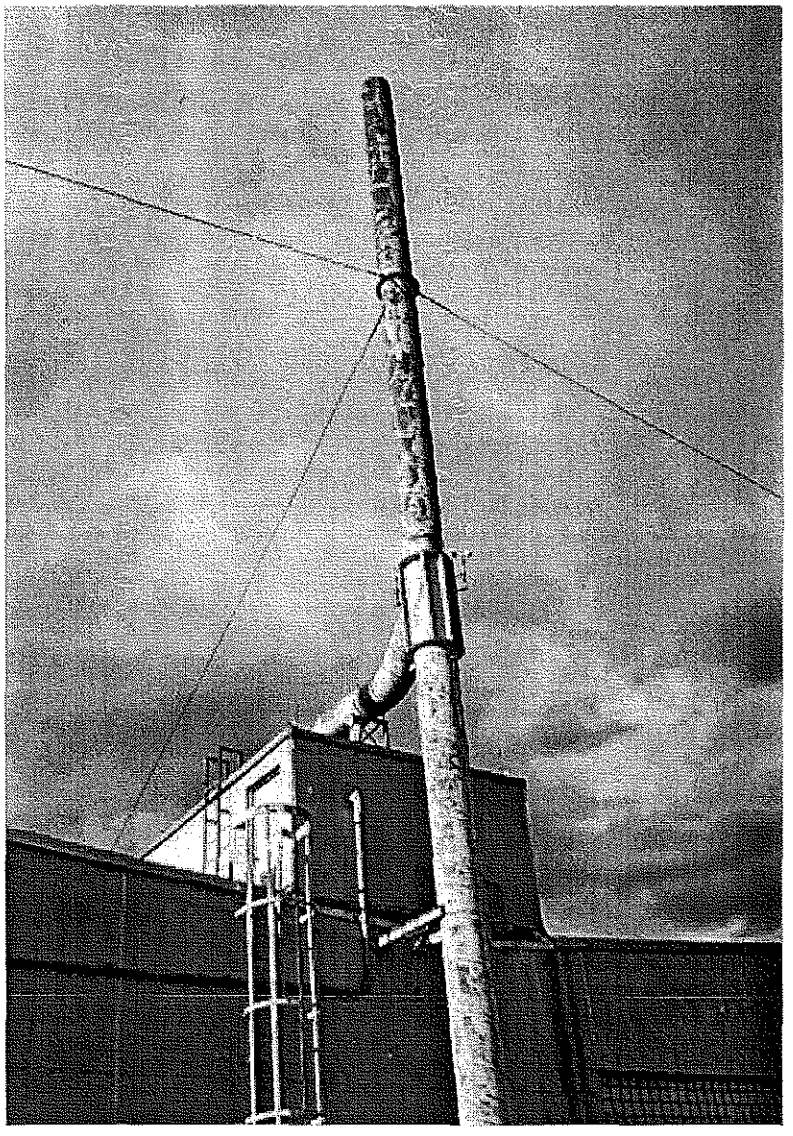
TA-33-86
East Side, South Portion



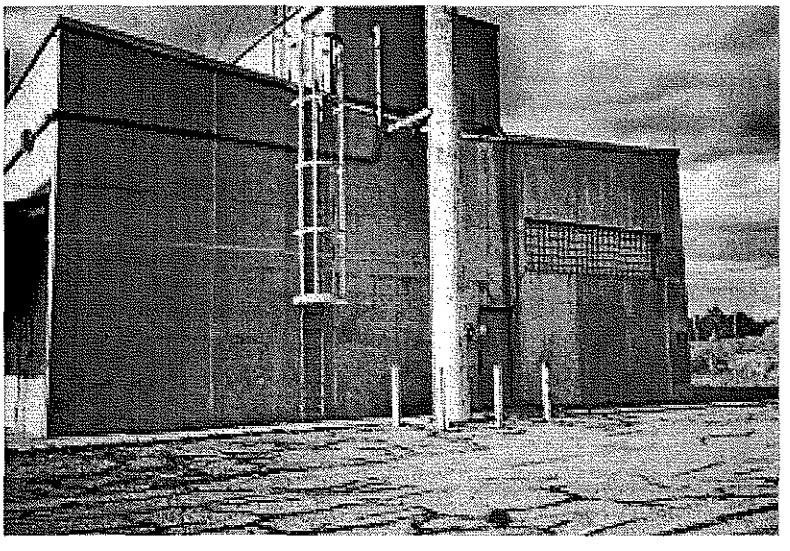
TA-33-86
East Side, Central Portion



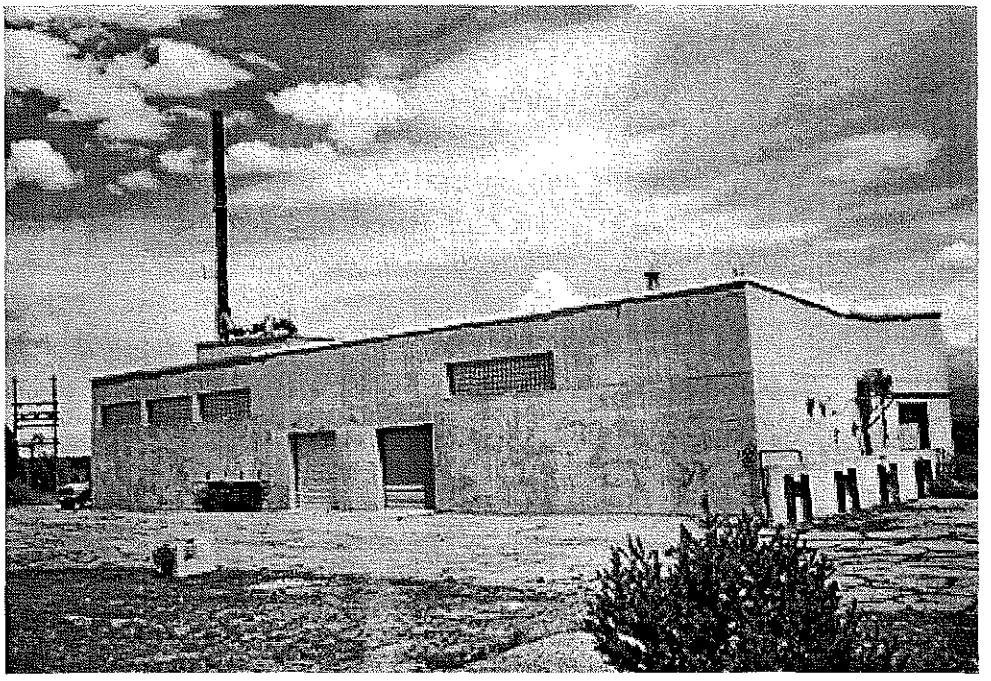
TA-33-86
East Side, North Portion



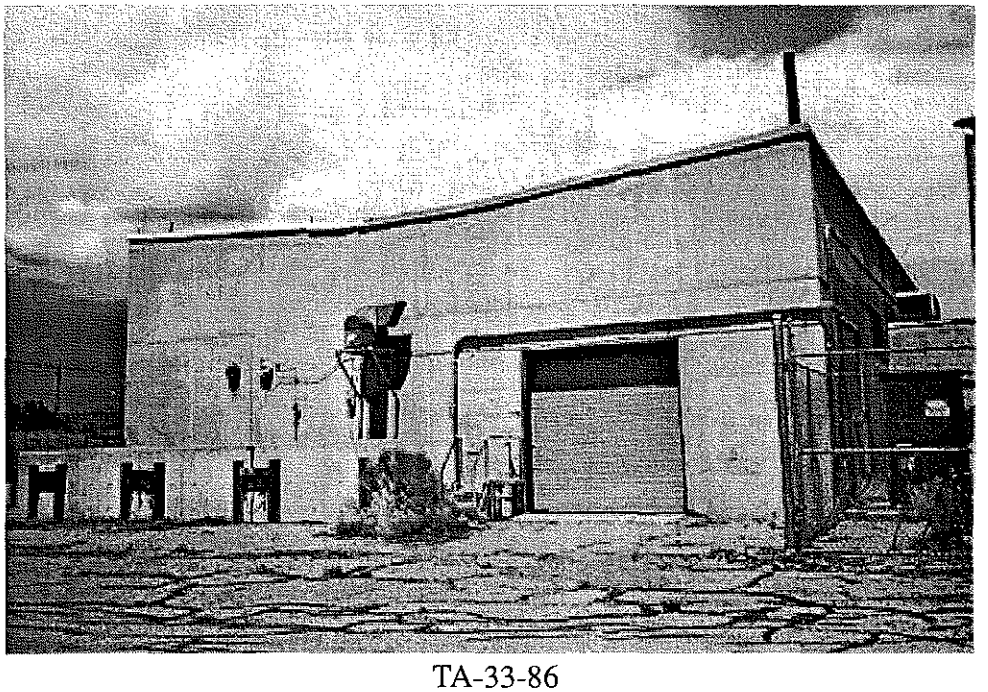
TA-33-86
North Side, Exhaust Stack



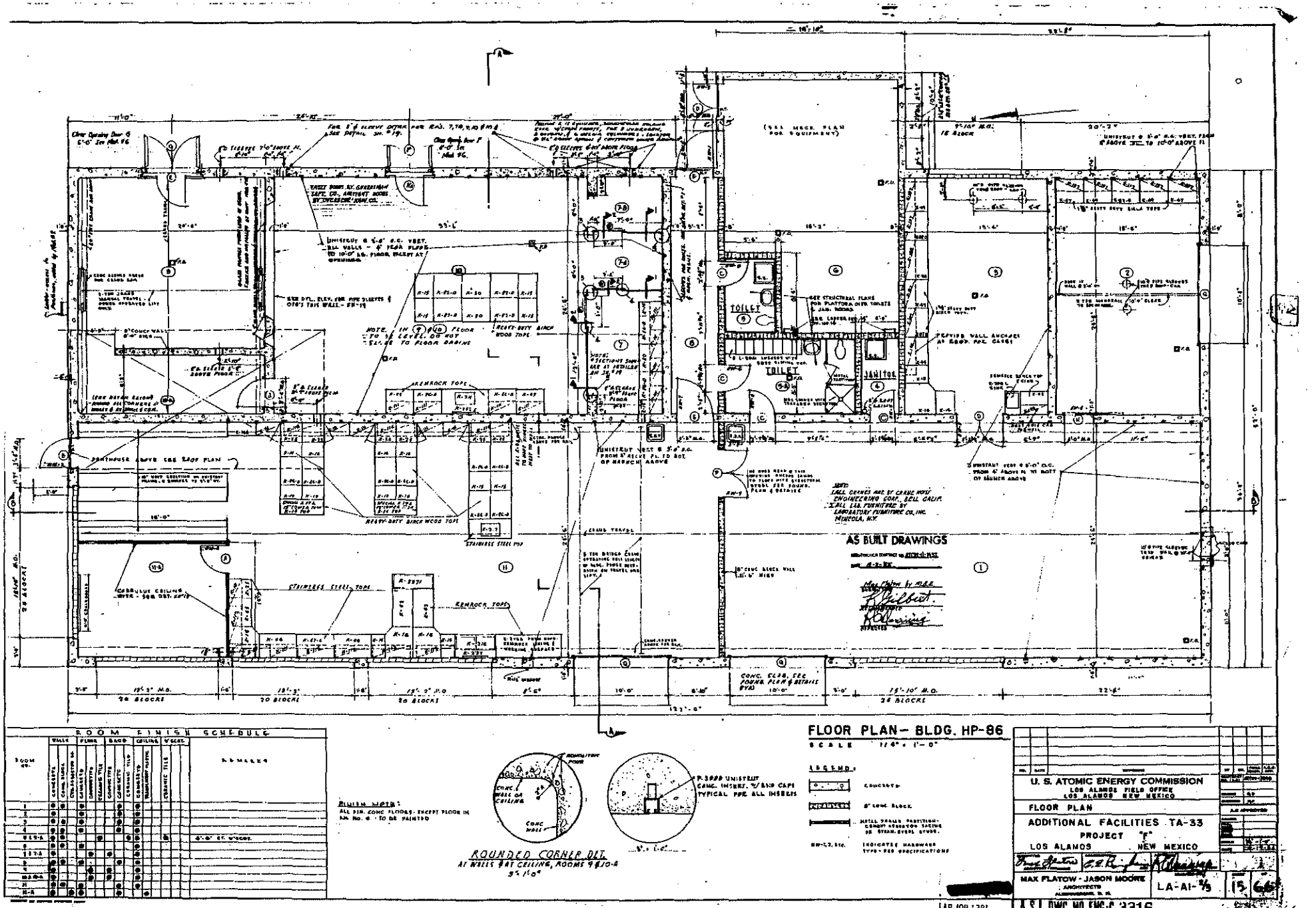
TA-33-86
North Side



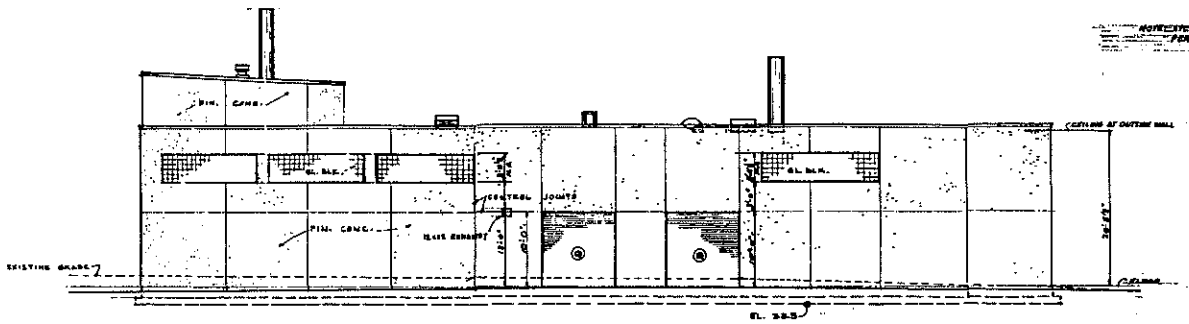
TA-33-86
West Side



TA-33-86
South Side

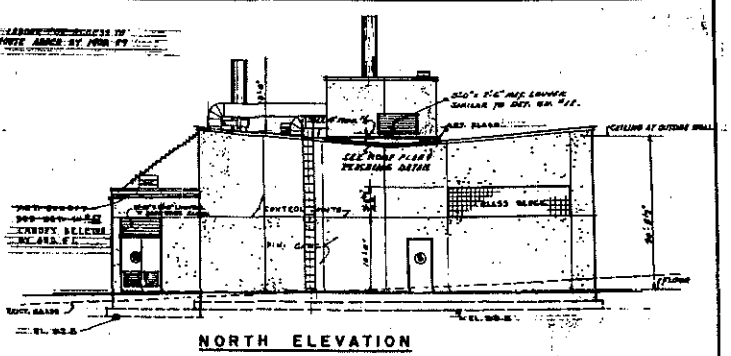


Building TA-33-86
LANL ENG-C 3316 (1954)
As Built Floor Plan



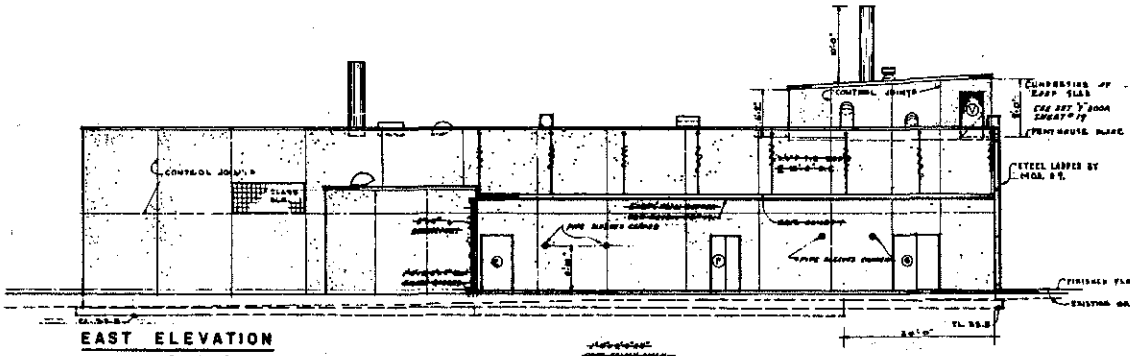
WEST ELEVATION

SCALE 1/8" = 1'-0"



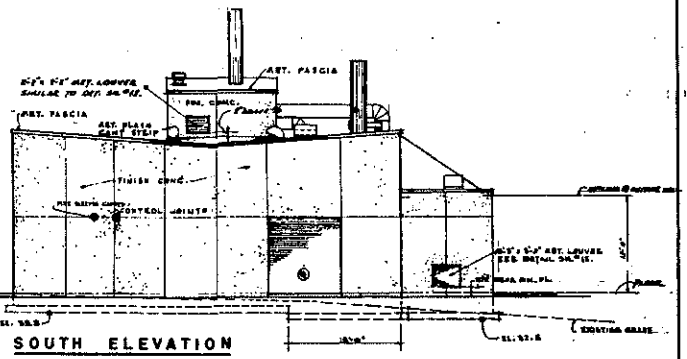
NORTH ELEVATION

SCALE 1/8" = 1'-0"



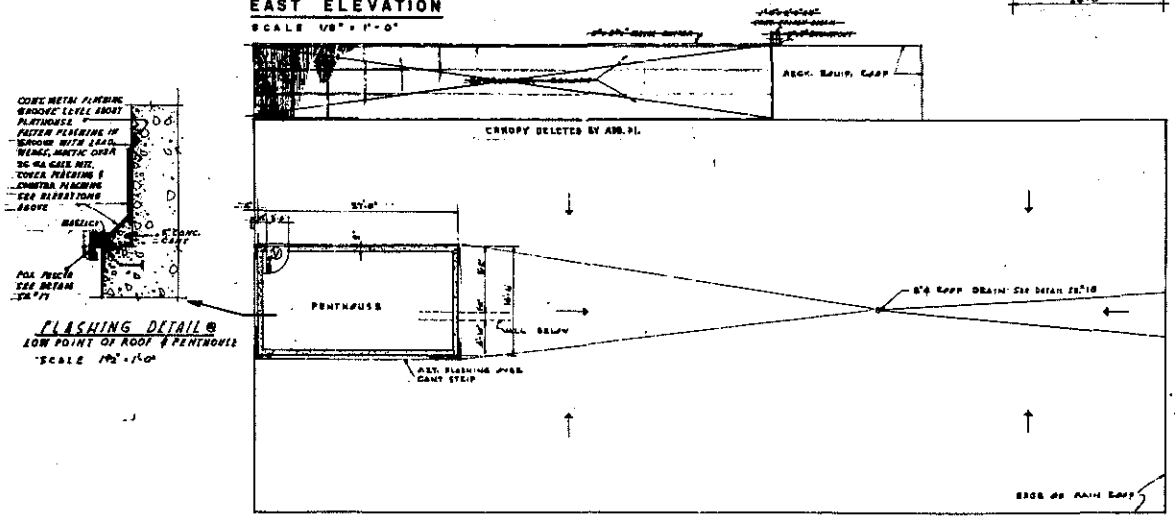
EAST ELEVATION

SCALE 1/8" = 1'-0"



SOUTH ELEVATION

SCALE 1/8" = 1'-0"



FLASHING DETAIL @ LOW POINT OF ROOF @ PENTHOUSE

SCALE 1½" = 1'-0"

ROOF PLAN

SCALE 1/8" = 1'-0"

AS BUILT DRAWINGS

BLDG. HP-86

U. S. ATOMIC ENERGY COMMISSION
LOS ALAMOS FIELD OFFICE
LOS ALAMOS NEW MEXICO

ELEVATIONS & ROOF PLAN

ADDITIONAL FACILITIES TA-33

PROJECT

LOS ALAMOS NEW MEXICO

MAX FLATOW - JASON MOORE
ARCHITECTS

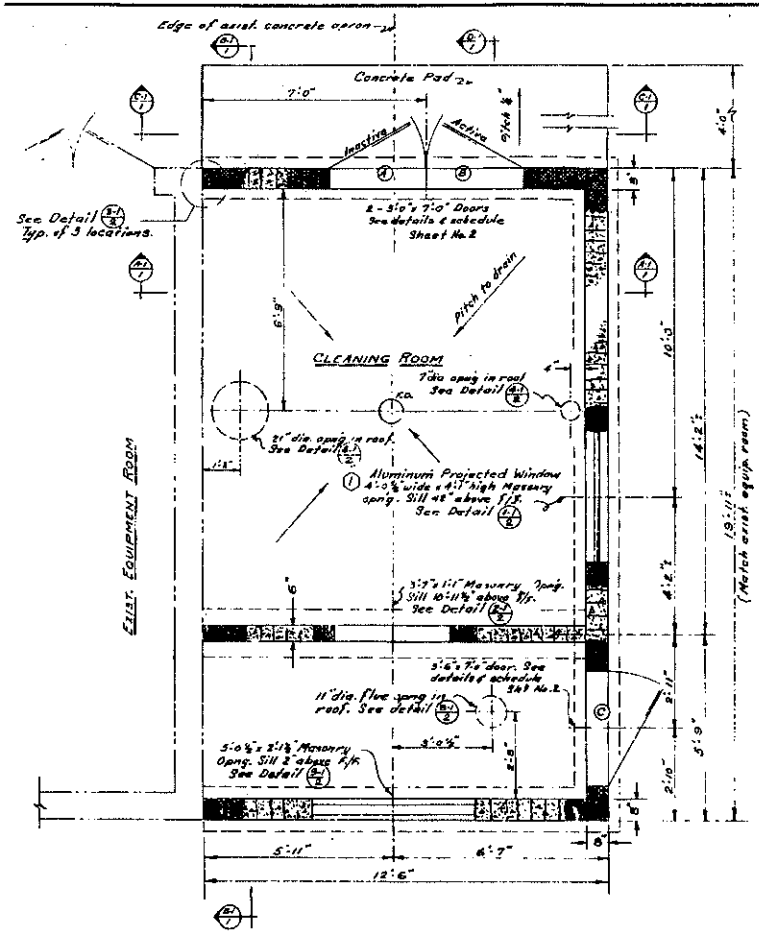
LA-AI-¼

16 66

LAB JOB 1381

L.A.S.L. DWG. NO. ENG-C 3317

Building TA-33-86
LANL ENG-C 3317 (1954)
As Built Elevations

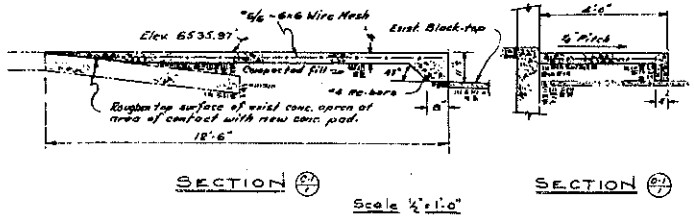


NEW ADDITION - FLOOR PLAN
Scale ½"=1'-0"

LEGEND

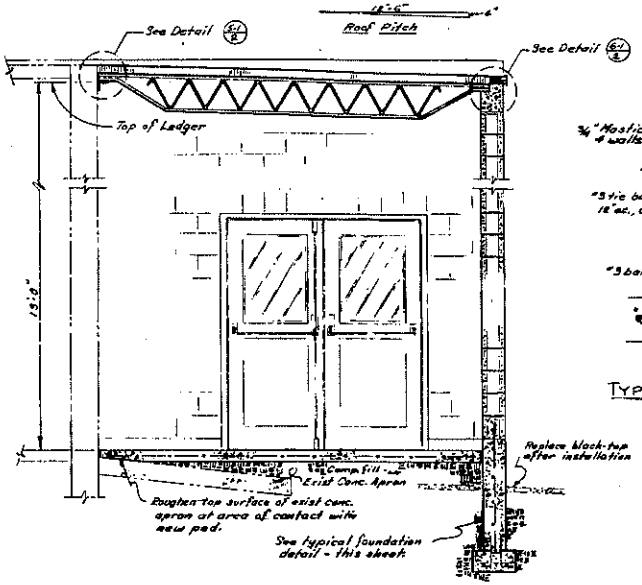
Pumice Block with concrete filled cores

Pumice Block with pumice filled cores.

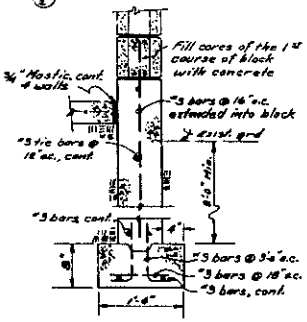


SECTION Scale ½"=1'-0"

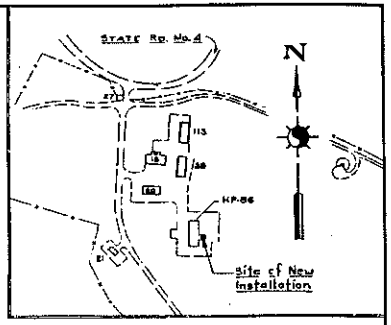
SECTION Scale ½"=1'-0"



SECTION Scale ½"=1'-0"

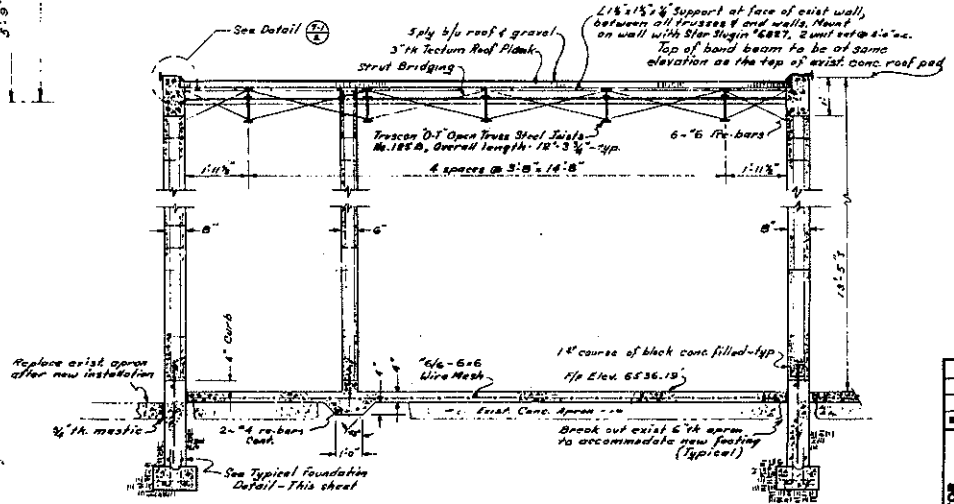


TYPICAL FOUNDATION DETAIL
Scale 1"=1'-0"



LOCATION PLAN
BLDG HP-86 TA-33

Building TA-33-86
LANL ENG-C 21363 (1958)
Addition - Floor Plan



SECTION Scale ½"=1'-0"

NOTE: ALL DIMENSIONS TO BE FIELD VERIFIED AND ANY DISCREPANCIES REPORTED TO STALLINGS PHONE 7-4388

AUTHORIZED FOR: HEALTH, SAFETY, FIRE PROT., SEC.

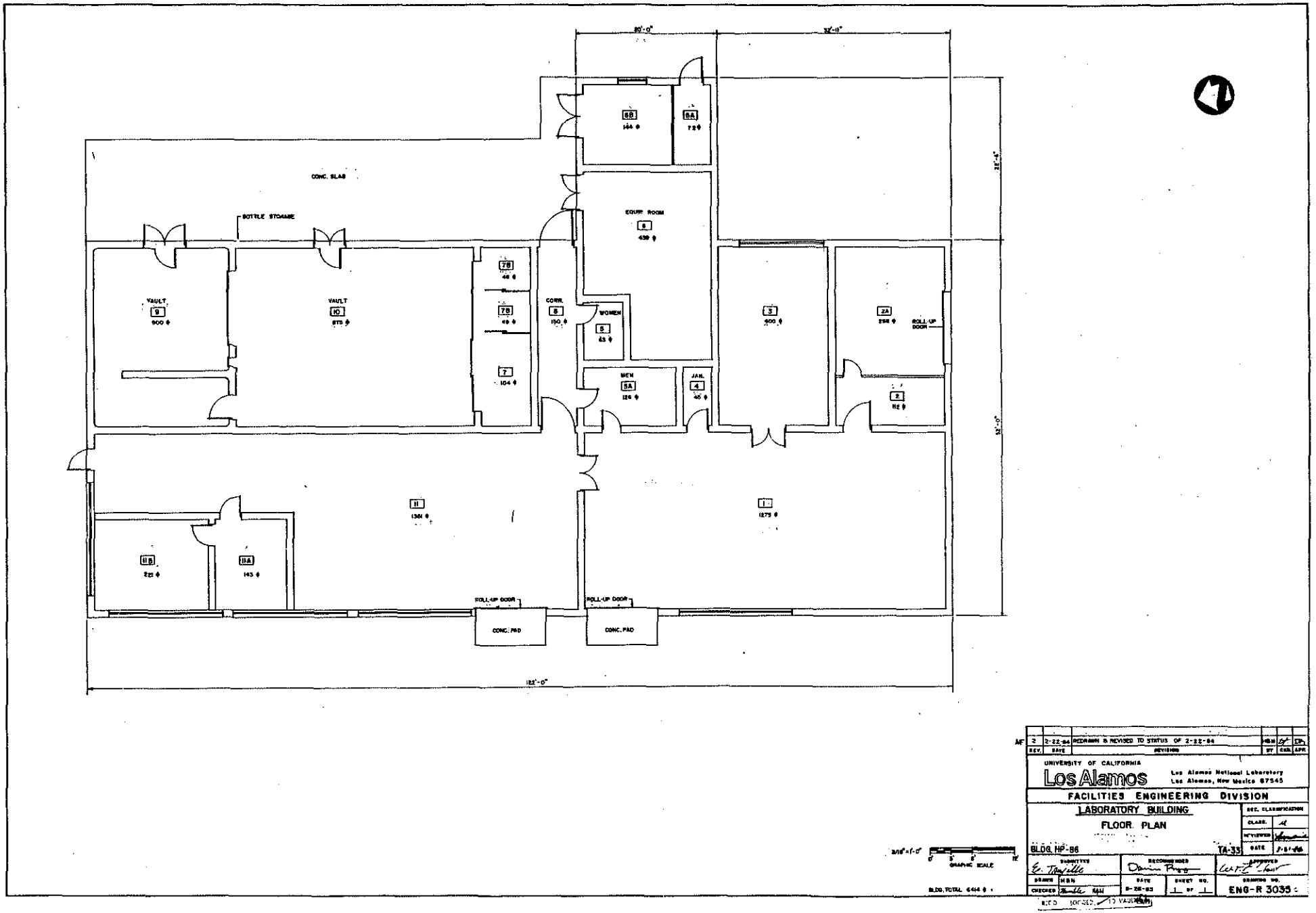
NO.	DATE	REVISIONS	BY

LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO

GAS HANDLING FACILITY IMPROVEMENTS
ARCHITECTURAL PLAN
SECTIONS & GENERAL NOTES
BLDG HP-86 TA-33

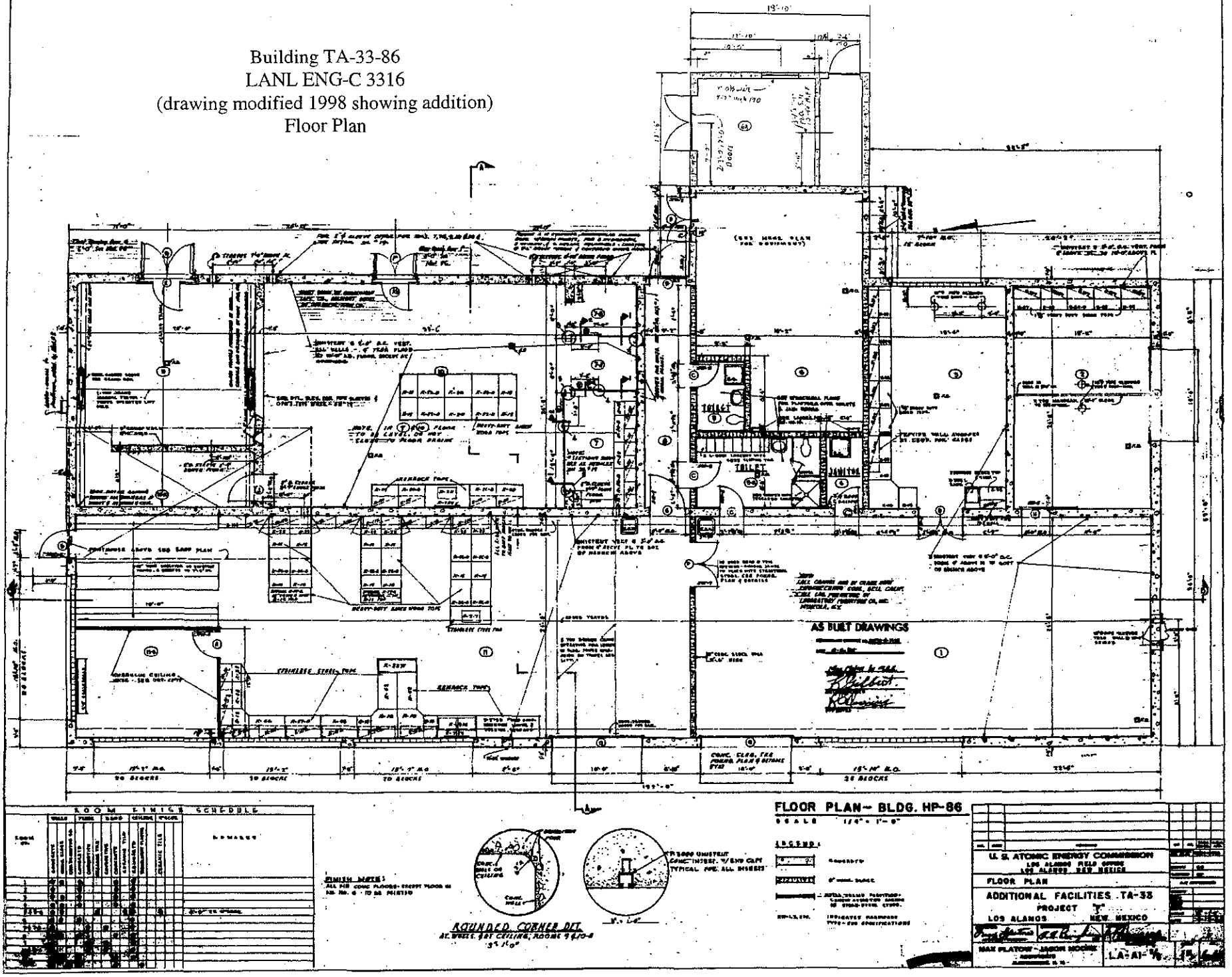
CHECKED	RECOMMENDED	APPROVED	
DESIGNED A. Llac	DATE FEB. 13, 1958	ENG. DEPT. OFFICE	DRAWING NO. 303
DRAWN E.B. Johnson	SHEET 1 OF 7		ENG-C 21363
SCALE Noted			

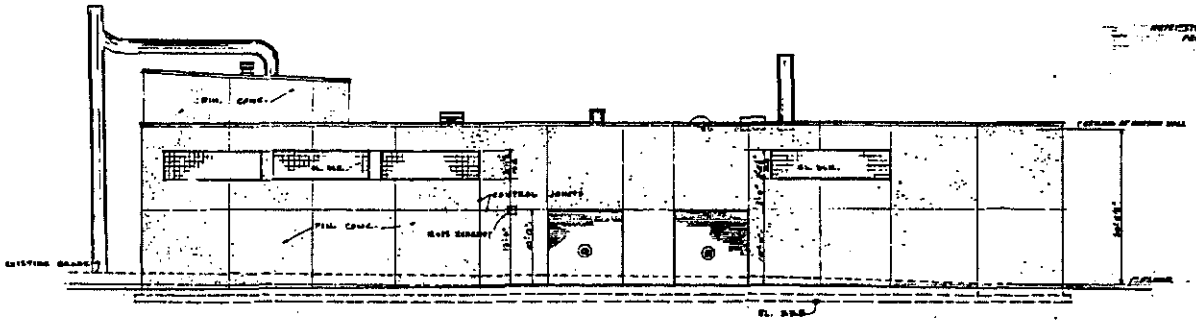
B. A. NO. _____ LAB. JOB NO. 1979



Building TA-33-86
LANL ENG-R 3033 (1982)
Floor Plan

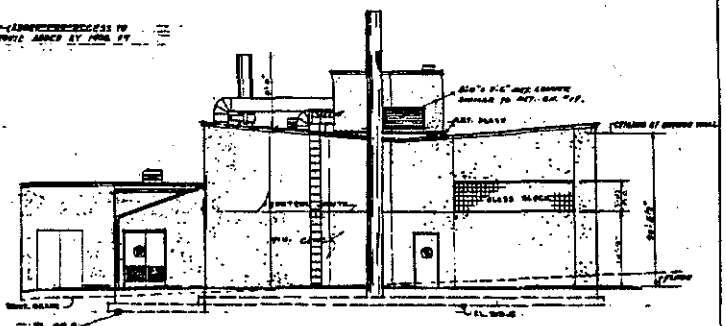
Building TA-33-86
LANL ENG-C 3316
(drawing modified 1998 showing addition)
Floor Plan





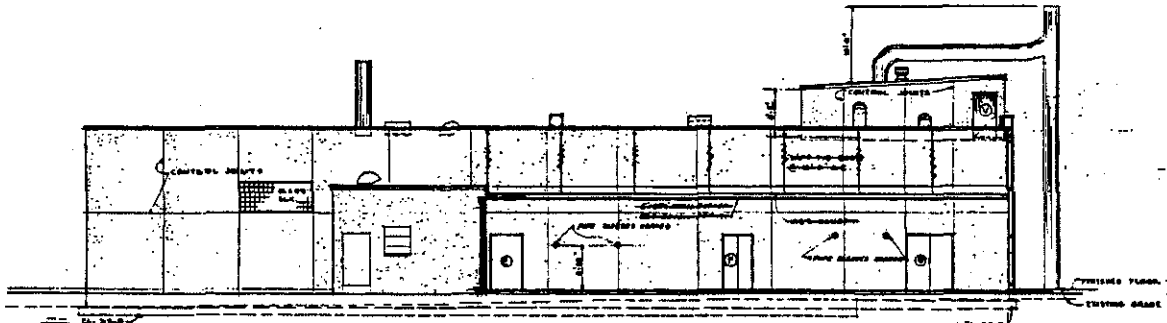
WEST ELEVATION

SCALE 1/8" = 1'-0"



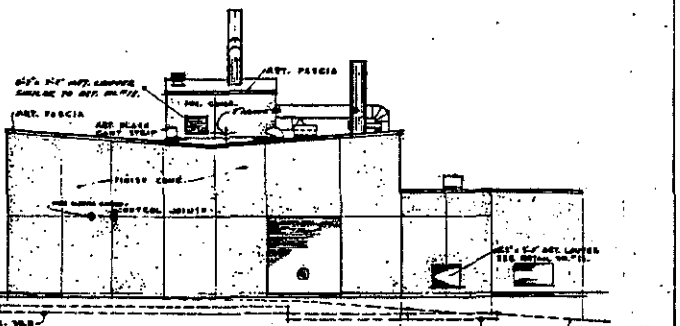
NORTH ELEVATION

SCALE 1/8" = 1'-0"



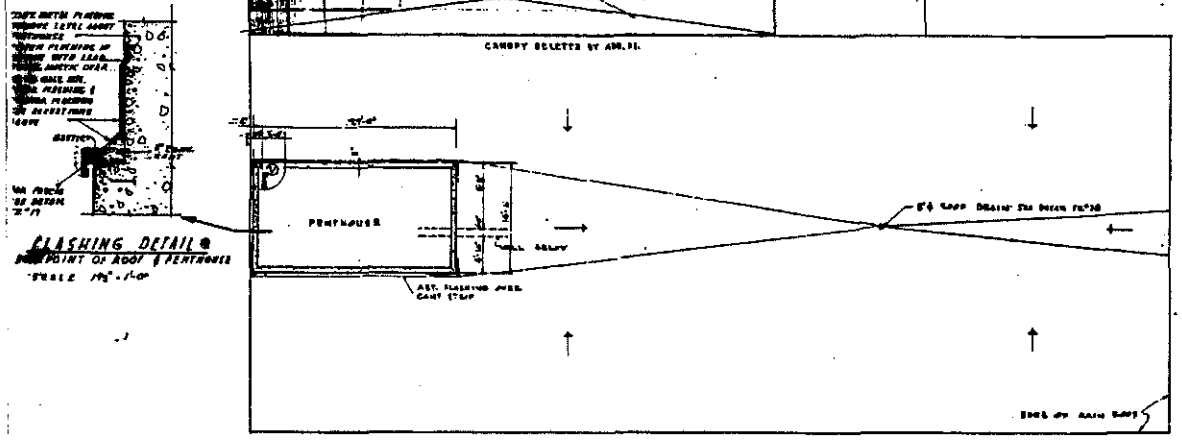
EAST ELEVATION

SCALE 1/8" = 1'-0"



SOUTH ELEVATION

SCALE 1/8" = 1'-0"



FLASHING DETAIL @ HIGH POINT OF ROOF @ PENTHOUSE

SCALE 1½" = 1'-0"

ROOF PLAN

SCALE 1/8" = 1'-0"

AS BUILT DRAWINGS

BLDG. HP-86

U. S. ATOMIC ENERGY COMMISSION
LOS ALAMOS FIELD OFFICE
LOS ALAMOS NEW MEXICO

ELEVATIONS & ROOF PLAN

ADDITIONAL FACILITIES TA-33
PROJECT Y
LOS ALAMOS NEW MEXICO

MAX FLATOW - JASON MOORE
ARCHITECTS

LA-AI-¾ | 16 | 66

Building TA-33-86
LANL ENG-C 3317
(drawing modified 1998 showing addition)
Elevations

NEW MEXICO HISTORIC BUILDING INVENTORY FORM

LA#

building threatened? **yes**	surveyed date **8/19/98** by **K. L. Manz**	County **Los Alamos**	ID no. **TA-33-90**

field map number **LANL Orthotopo Sheet 18**	UTM reference: easting **386546** northing **3960358** zone **13**
location description **Technical Area (TA) 33, "Hot Point" (HP) site**	city/town **Los Alamos** land grant/reservation **n/a**
building name **TA-33-90, Original name HP-90**	legal description **USGS Frijoles 7.5 Series** tnsp **18N** range **6E** sec **unplatted**

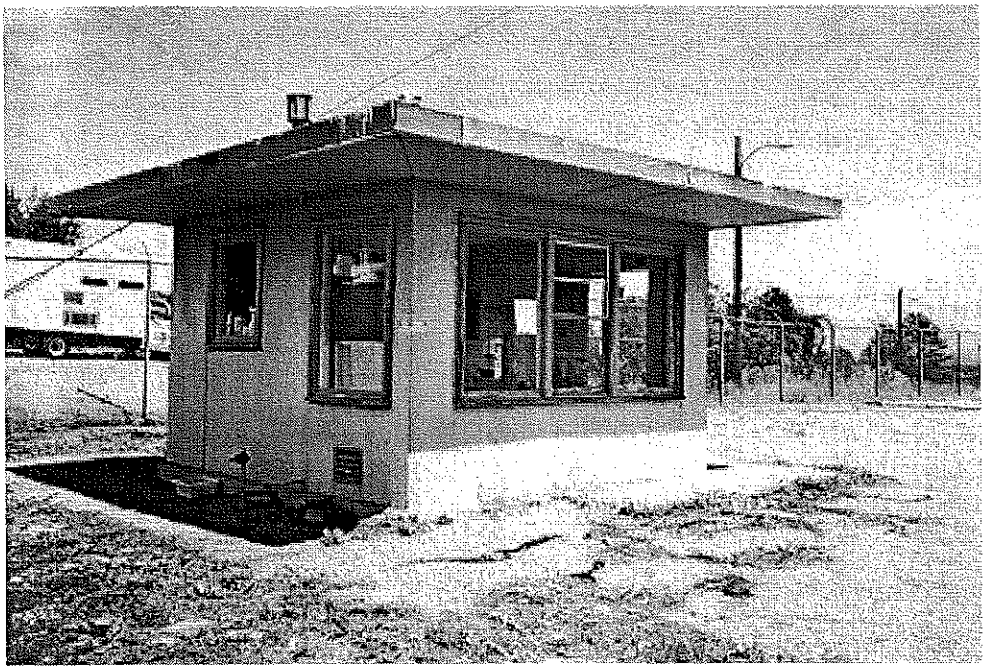
film roll by **ESH-20, LANL** nos. **511**	Negative nos. **16A, 17A, 18A, and 19A**	location of neg. **LANL, ESH-20**	date of construction _____ estimate **1945/1955** actual source **Facilities Engineering 9 (FE-9) records (LANL)**

Style **wood frame with flat roof (see below for more information)**	Foundation material **concrete slab** wall material/surface **wood**	use present residential ✔ other **abandoned** historic residential ✔ other **guard house**	Condition ___ excellent **X** fair to **X** good ___ deteriorating

degree of remodeling ___ minor ___ moderate ___major describe:	Surroundings **Developed Laboratory Technical Area**	relationship to surroundings ___similar **X** not similar	district potential ___yes **X** no

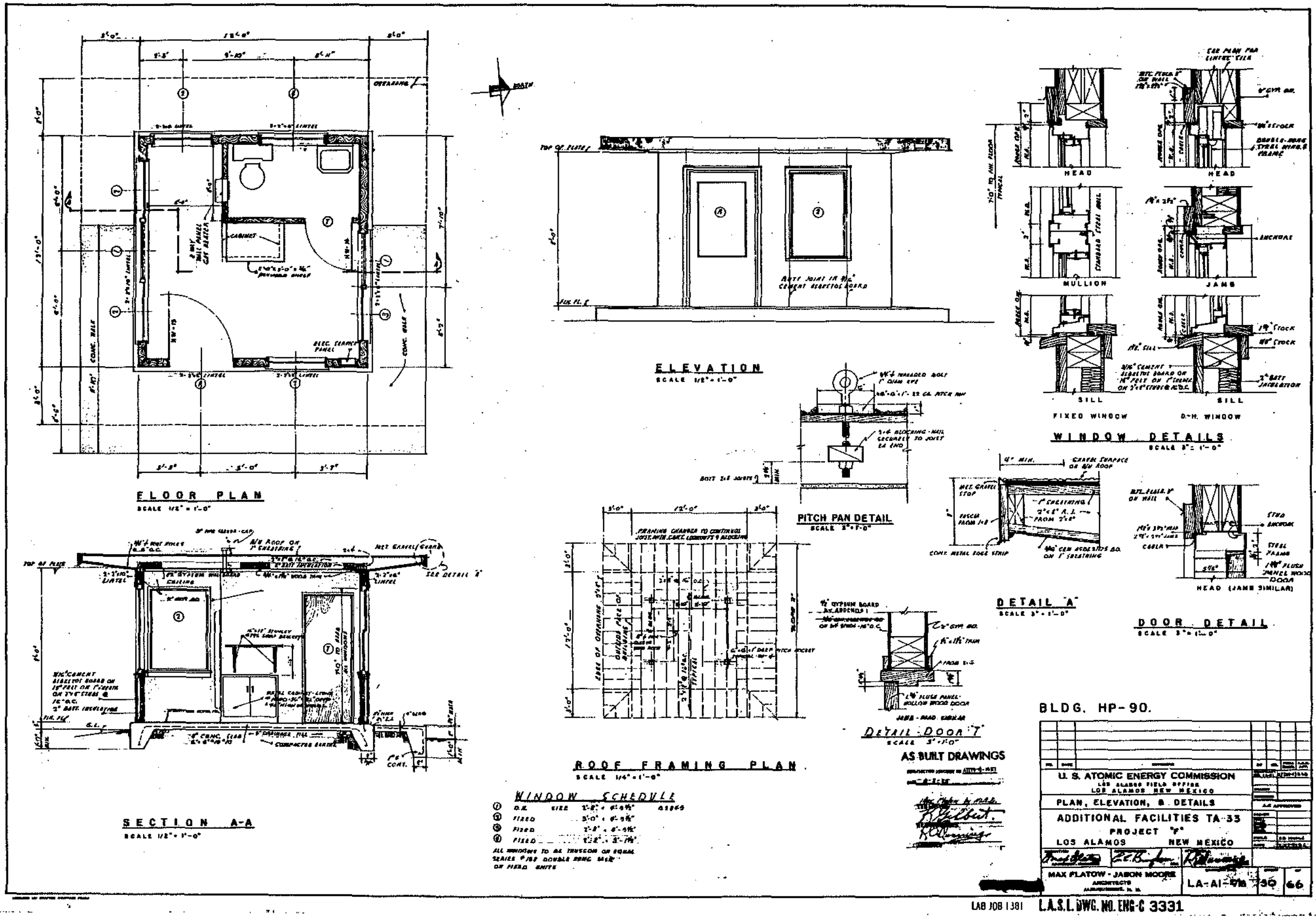
Significance **X** eligible ____of interest ___ none if not eligible, why? **Building 33-90 is not exceptionally significant, for its architectural style. It is the same style as the guard house (TA-33-27) at the entrance to TA-33, which is like other guardhouses throughout the Laboratory. Its importance is in that it is associated with the Gas Handling Facility, TA-33-86. It served as support facility, a second security check location for admittance to the Gas Handling Facility.**	Associated buildings? **X** yes What type? **TA-33-86, the Gas Handling Facility** if inventoried, list ID nos. **TA-33-86 also built during 1954/1955**	Photos and plan drawings are on following pages **ENG-C 3331 plan, elevation, & details 1954** **No other plans or drawings are available.** size: **144 ft²**

architectural features	Comments
Building 33-90 is a small square, wood frame structure with a flat roof and a concrete foundation. The wood frame is covered with "Transite", a non-friable asbestos siding. The roof of the building extends (overhangs) the building by approximately 2-2 1/2 feet. It is constructed of tarpaper, tar, and, gravel and has a metal "flashing" edging along all sides. The 12 by 12 foot building has two rooms, the main room plus a small restroom. **On the east side of the building there is a wooden pedestrian door with a large window. There is also a fixed 3' by 4'5½" single-paned window.** **All windows in the building have wood and metal frames.** **The north side of the building has two side-by-side windows. One is a fixed 2'8" by 4'5½" single-paned window and the other is a double-hung sash window 2'8" by 4'5½" with four panes.** **The west side of the building has two single-paned fixed windows. One is 3' by 4'5½" and the other is 2'8" by 3'½".** **On the south side there are three side-by-side windows. The center window is a double-hung sash window, 2'8" by 4'5½". The two "outside" windows are 3' by 4'5½", single-paned and fixed.**	



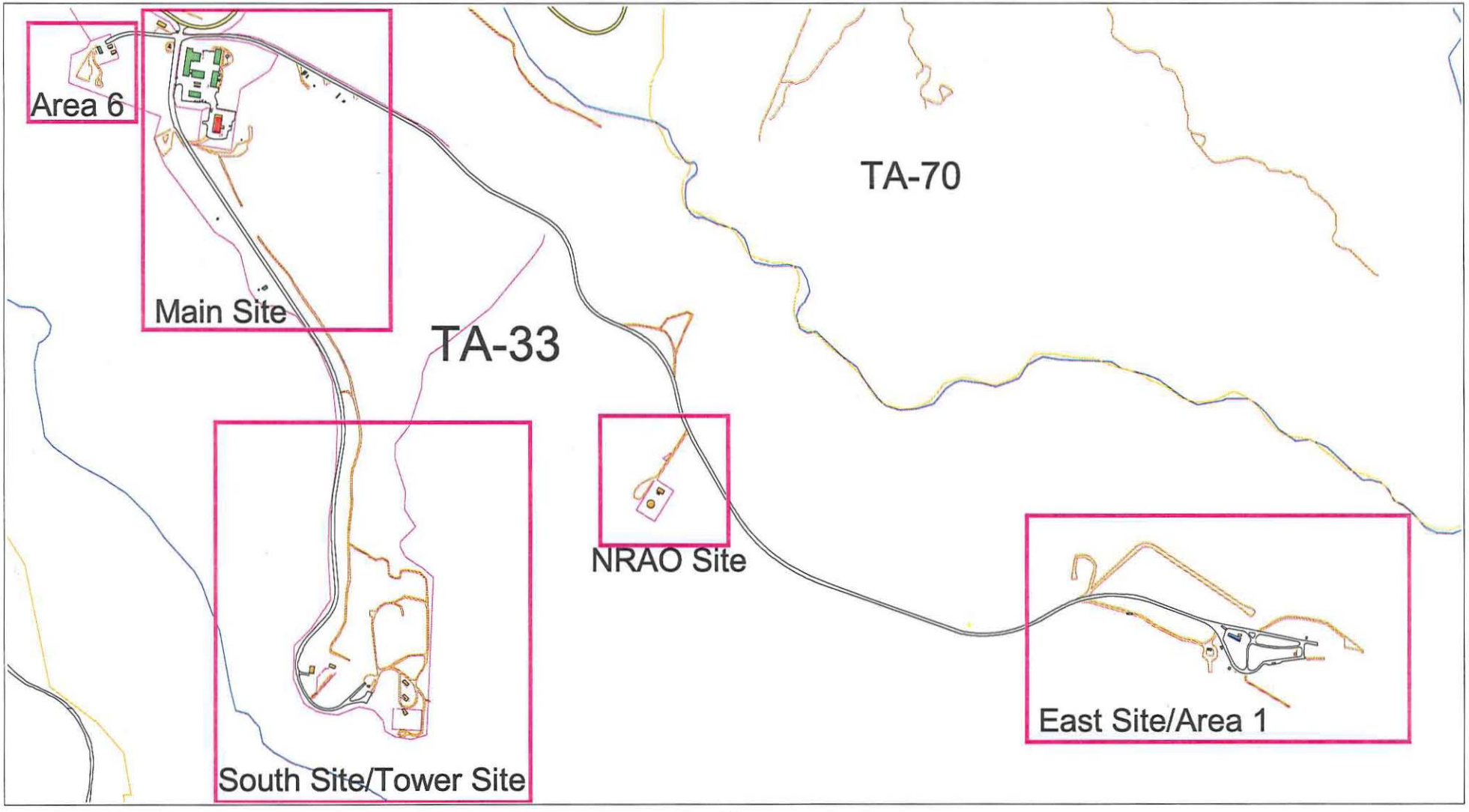
TA-33-90
West and South Sides

TA-33-90
East and North Sides


FLOOR PLAN
SCALE 1/2" = 1'-0"
SECTION A-A
SCALE 1/2" = 1'-0"
ELEVATION
SCALE 1/2" = 1'-0"
PITCH PAN DETAIL
ROOF FRAMING PLAN
SCALE 1/4" = 1'-0"
WINDOW SCHEDULE
WINDOW DETAILS
SCALE 3" = 1'-0"
FIXED WINDOW
D-H. WINDOW
HEAD
MULLION
JAMB
SILL
DETAIL "A"
SCALE 3" = 1'-0"
DOOR DETAIL
HEAD (JAMB SIMILAR)
DETAIL DOOR 7
AS BUILT DRAWINGS
BLDG. HP-90.
U. S. ATOMIC ENERGY COMMISSION
LOS ALAMOS NEW MEXICO
PLAN, ELEVATION, & DETAILS
ADDITIONAL FACILITIES TA-33
PROJECT "F"
LOS ALAMOS NEW MEXICO
MAX PLATOW - JASON MOORE
ARCHITECTS
66
LAB JOB 1381
L.A.S.L. DWG. NO. ENG-C 3331

Building TA-33-90
LANL ENG-C 3331 (1954)
As Built Floor Plan and Elevations

Appendix B: Maps Showing Location of Eligible and Non-Eligible Properties and TA-33's Construction History



Los Alamos
National Laboratory
Heritage Resources and
Environmental Policy Compliance Team
RRES-ECO (Ecology Group)

TA-33 Eligible and Not Eligible Properties

Map B-1

N
W E
S

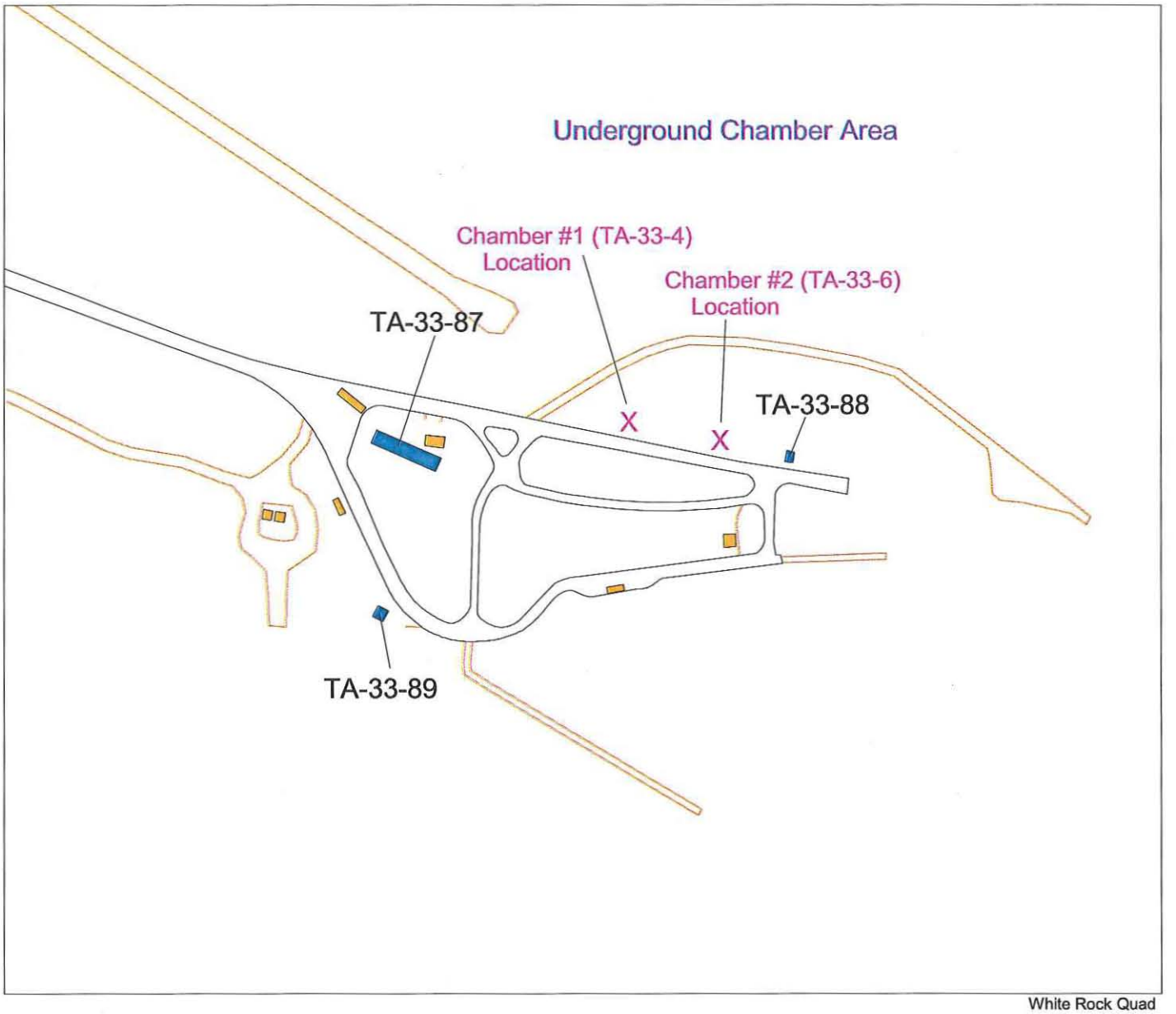
Eligible Buildings/Structures - Demolished
Eligible Buildings/Structures
Buildings/Structures Not Yet Evaluated
Exempt Buildings/Structures
Techarea
Drainage
Trails
Roads
Roaddirt
Parkpave
Parkdirt
Fences

1:12000

500 0 500 1000 1500 Feet

200 0 200 400 Meters

October 2004



White Rock Quad

Los Alamos
National Laboratory

Heritage Resources and
Environmental Policy Compliance Team
RRES-ECO Ecology Group

1:2500

100 0 100 200 300 400 Feet

40 0 40 80 120 Meters

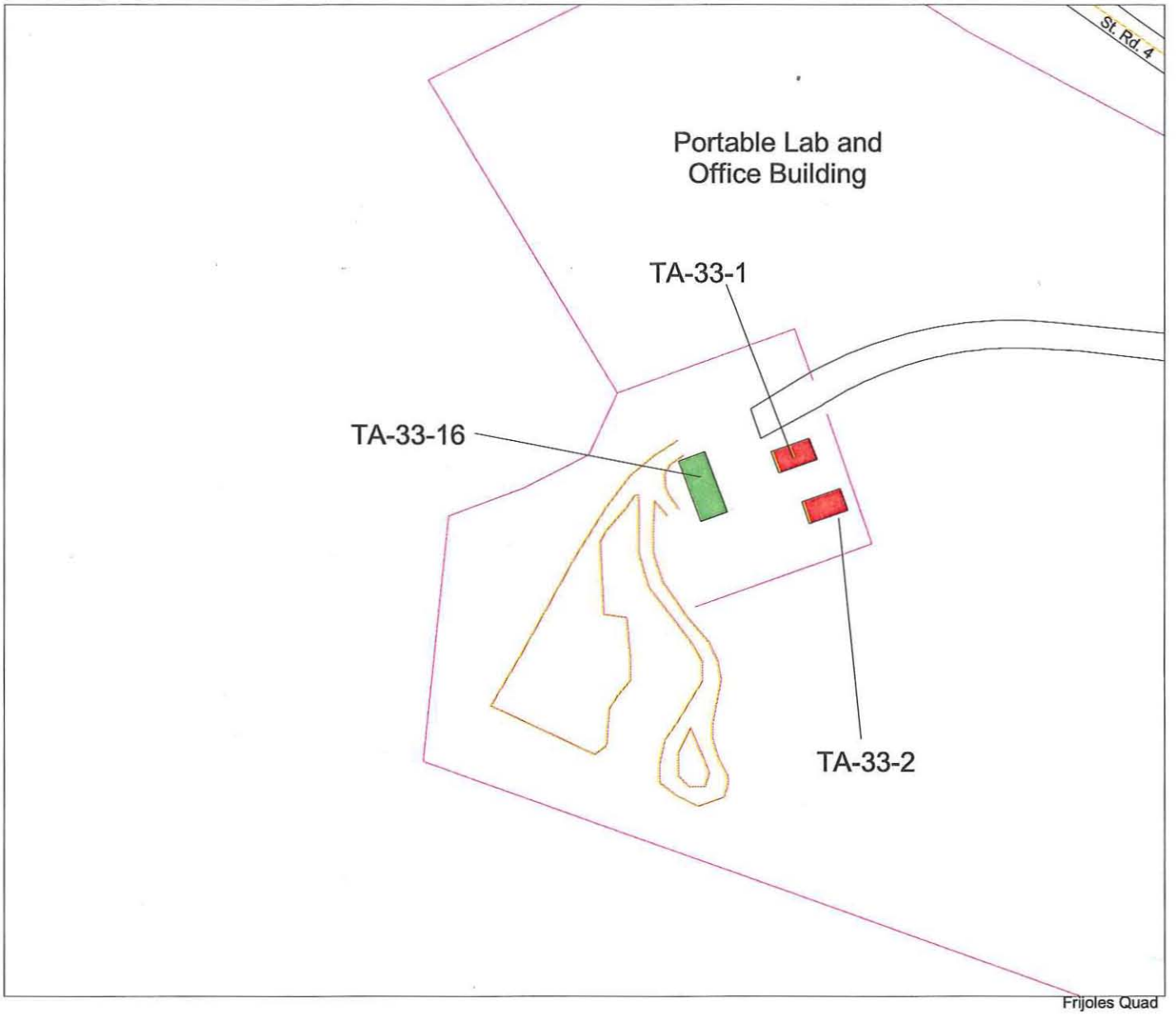
N
W E
S

- Eligible Buildings/Structures - Demolished
- Eligible Buildings/Structures
- Buildings/Structures Not Yet Evaluated
- Exempt Buildings/Structures
- Techarea
- Drainage
- Township, Section, Range
- USGS 7.5 Minute Quad
- Trails
- Roads
- Roaddirt
- Parkpave
- Parkdirt
- Fences

TA-33 East Site

Eligible and Not Eligible Properties

Map B-2



Los Alamos
National Laboratory

Heritage Resources and
Environmental Policy Compliance Team
RRES-ECO Ecology Group

1:1500

50 0 50 100 150 200 Feet

30 0 30 60 Meters

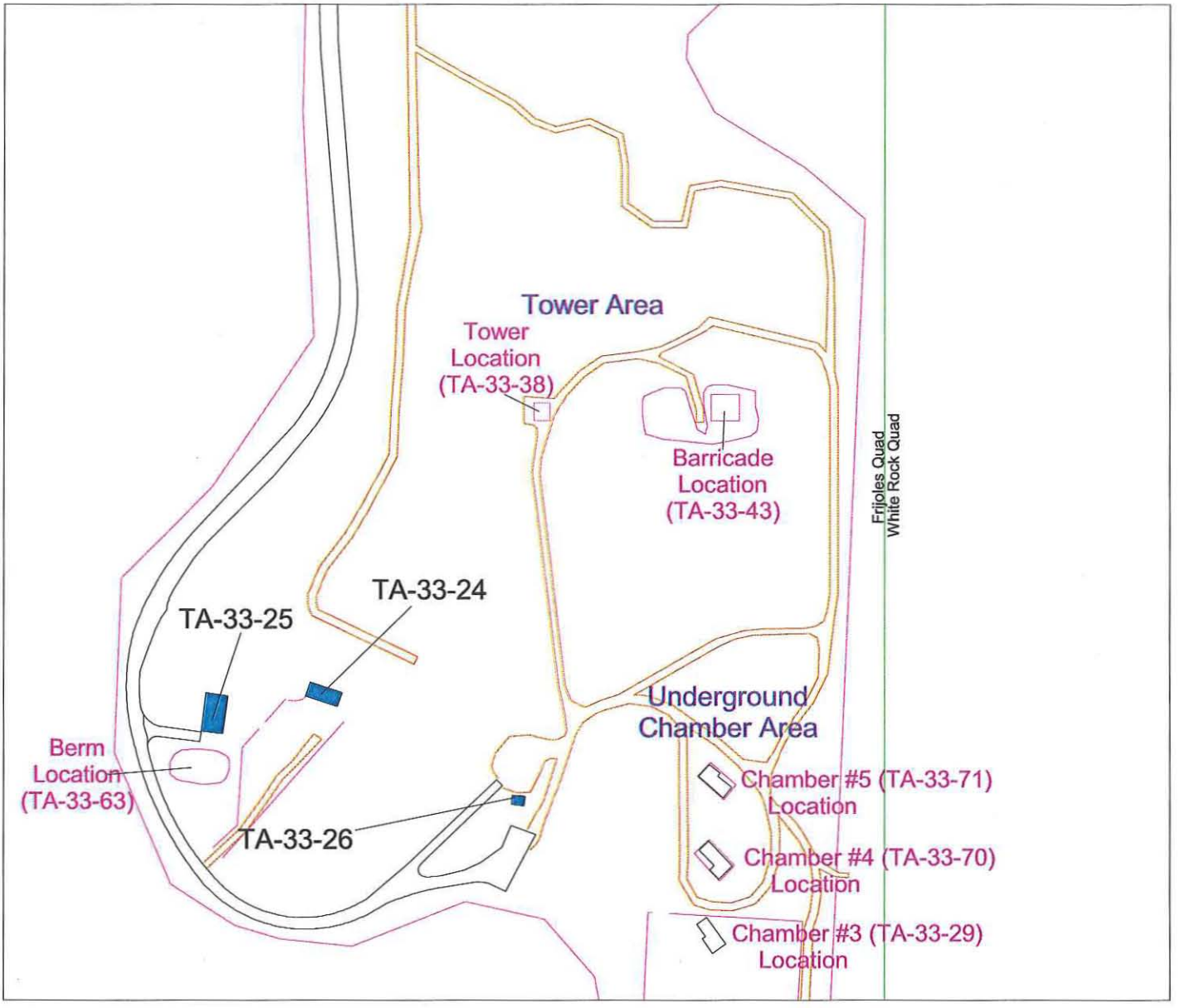
N
W E
S

- Eligible Buildings/Structures - Demolished
- Eligible Buildings/Structures
- Buildings/Structures Not Yet Evaluated
- Exempt Buildings/Structures
- Techarea
- Drainage
- Township, Section, Range
- USGS 7.5 Minute Quad
- Trails
- Roads
- Roaddirt
- Parkpave
- Parkdirt
- Fences

TA-33
Area 6

Eligible and Not Eligibile Properties

Map B-3



Los Alamos
National Laboratory

Heritage Resources and
Environmental Policy Compliance Team
RRES-ECO Ecology Group

1:1500

100 0 100 200 300 Feet

50 0 50 100 Meters

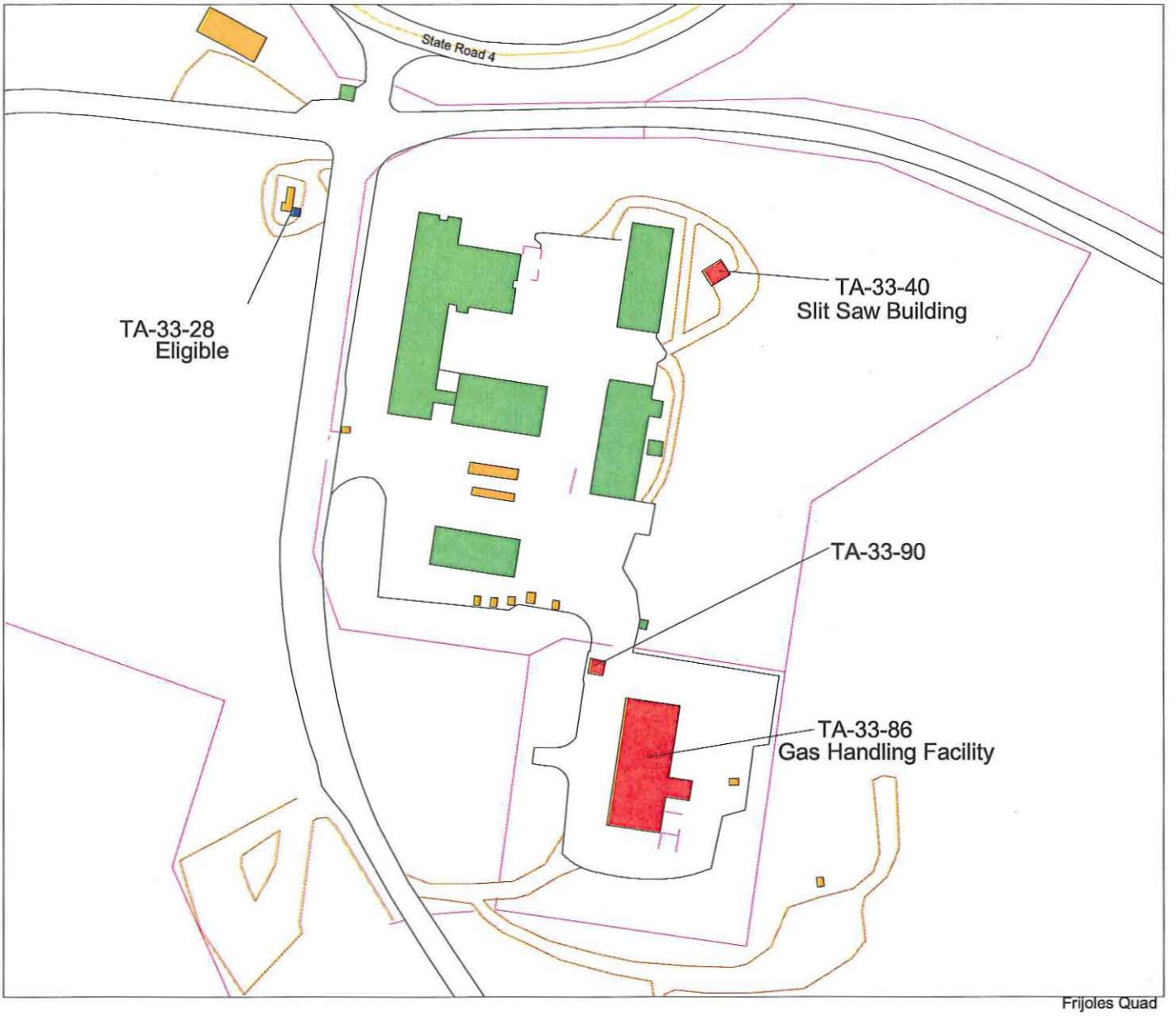
N
W E
S

Eligible Buildings/Structures - Demolished
Eligible Buildings/Structures
Buildings/Structures Not Yet Evaluated
Exempt Buildings/Structures
Techarea
Drainage
Township, Section, Range
USGS 7.5 Minute Quad
Trails
Roads
Roaddirt
Parkpave
Parkdirt
Fences

TA-33 South Site

Eligible and Not Eligible Properties

Map B-4



Los Alamos
National Laboratory

Heritage Resources and
Environmental Policy Compliance Team
RRES-ECO Ecology Group

1:1800

50 0 50 100 150 200 250 Feet

20 0 20 40 60 Meters

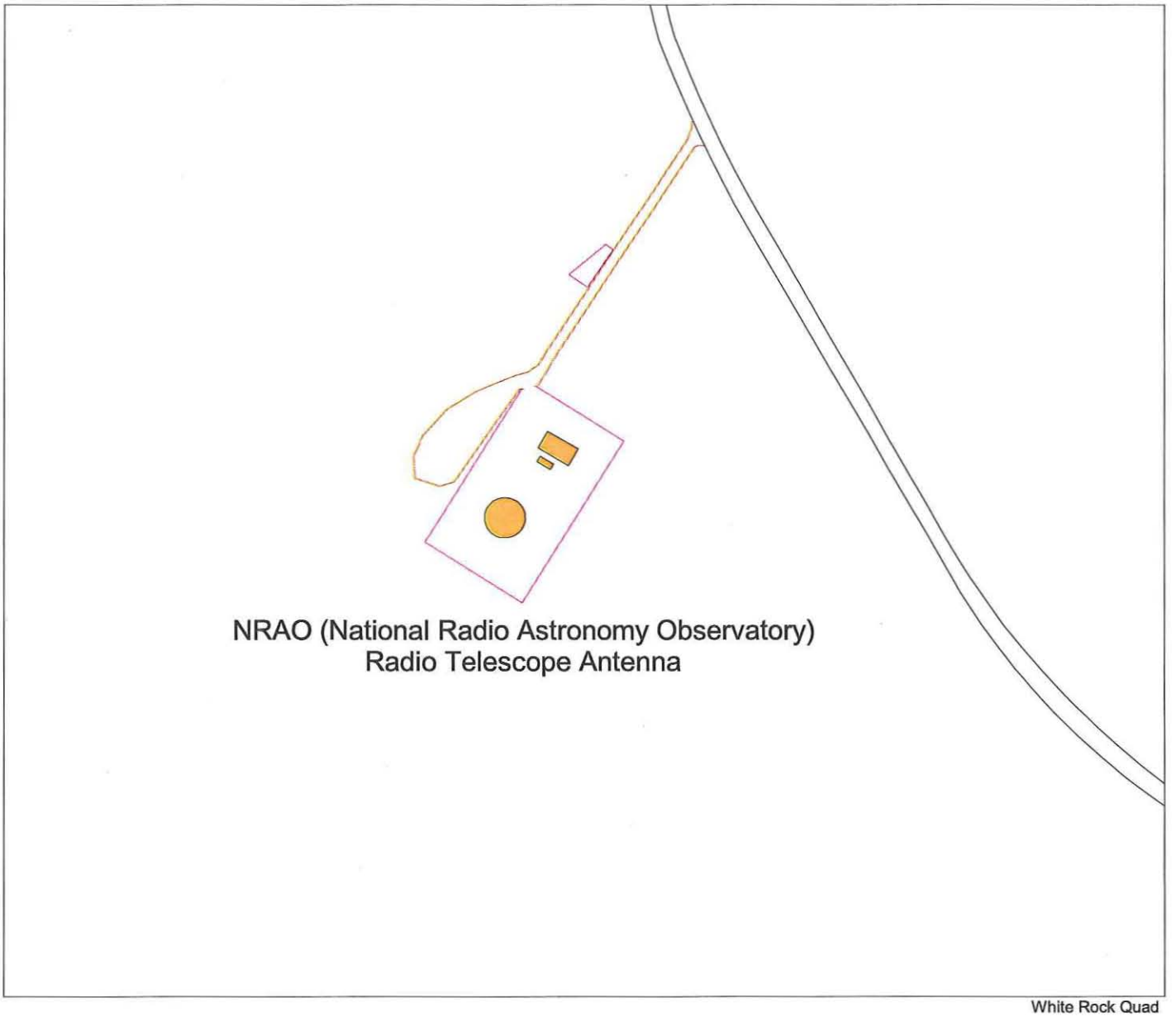
N
W E
S

Eligible Buildings/Structures - Demolished
Eligible Buildings/Structures
Buildings/Structures Not Yet Evaluated
Exempt Buildings/Structures
Techarea
Drainage
Township, Section, Range
USGS 7.5 Minute Quad
Trails
Roads
Roaddirt
Parkpave
Parkdirt
Fences

TA-33
Main Site

Eligible and Not Eligibile Properties

Map B-5



Los Alamos
National Laboratory

Heritage Resources and
Environmental Policy Compliance Team
RRES-ECO Ecology Group

1:1500

100 0 100 200 300 400 Feet

50 0 50 Meters

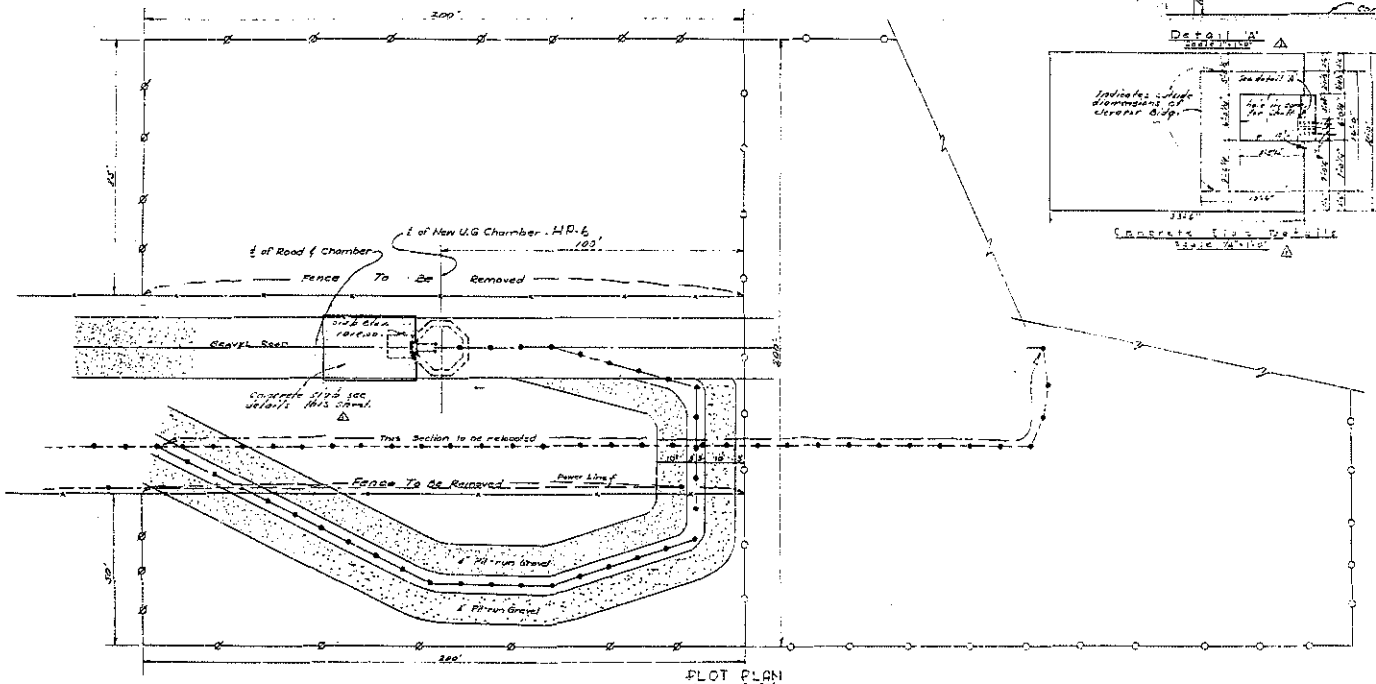
N
W E
S

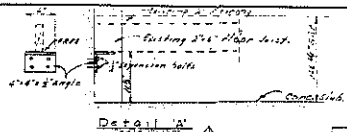
- Eligible Buildings/Structures - Demolished
- Eligible Buildings/Structures
- Buildings/Structures Not Yet Evaluated
- Exempt Buildings/Structures
- Techarea
- Drainage
- Township, Section, Range
- USGS 7.5 Minute Quad
- Trails
- Roads
- Roaddirt
- Parkpave
- Parkdirt
- Fences

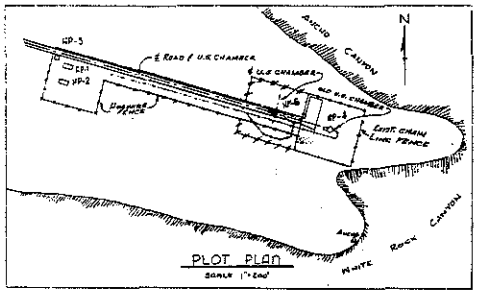
TA-33
NRAO Site

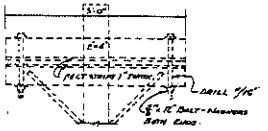
Eligible and Not Eligible Properties

Map B-6





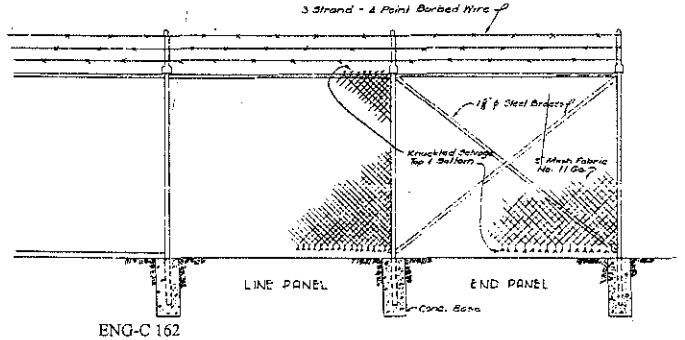




VISE-TYPE CROSS ARM
(FOR FIRST POLE BEHIND ELEV. SHED)
SCALE 1"=1'0"

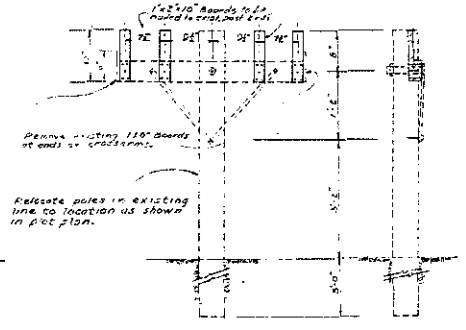
LEGEND

Exist. Chain Link Fence
New Chain Link Fence
Exist. Hogwire Fence
Exist. Cable Line
Relocated Cable Line



ENG-C 162
TA-33, HP-6
Underground Chamber No. 2
Plot Plan & Details
7/24/1948
Revised 9/13/1948

CHAIN LINK FENCE
Scale 3/8"=1'0"



TYPICAL CABLE POLE
Scale 1"=1'0"

REFERENCE
Dwg. AS-C163 U.S. Chamber No. 2, TA-33, Structural & Electrical

OBSOLETE DEAD STORAGE

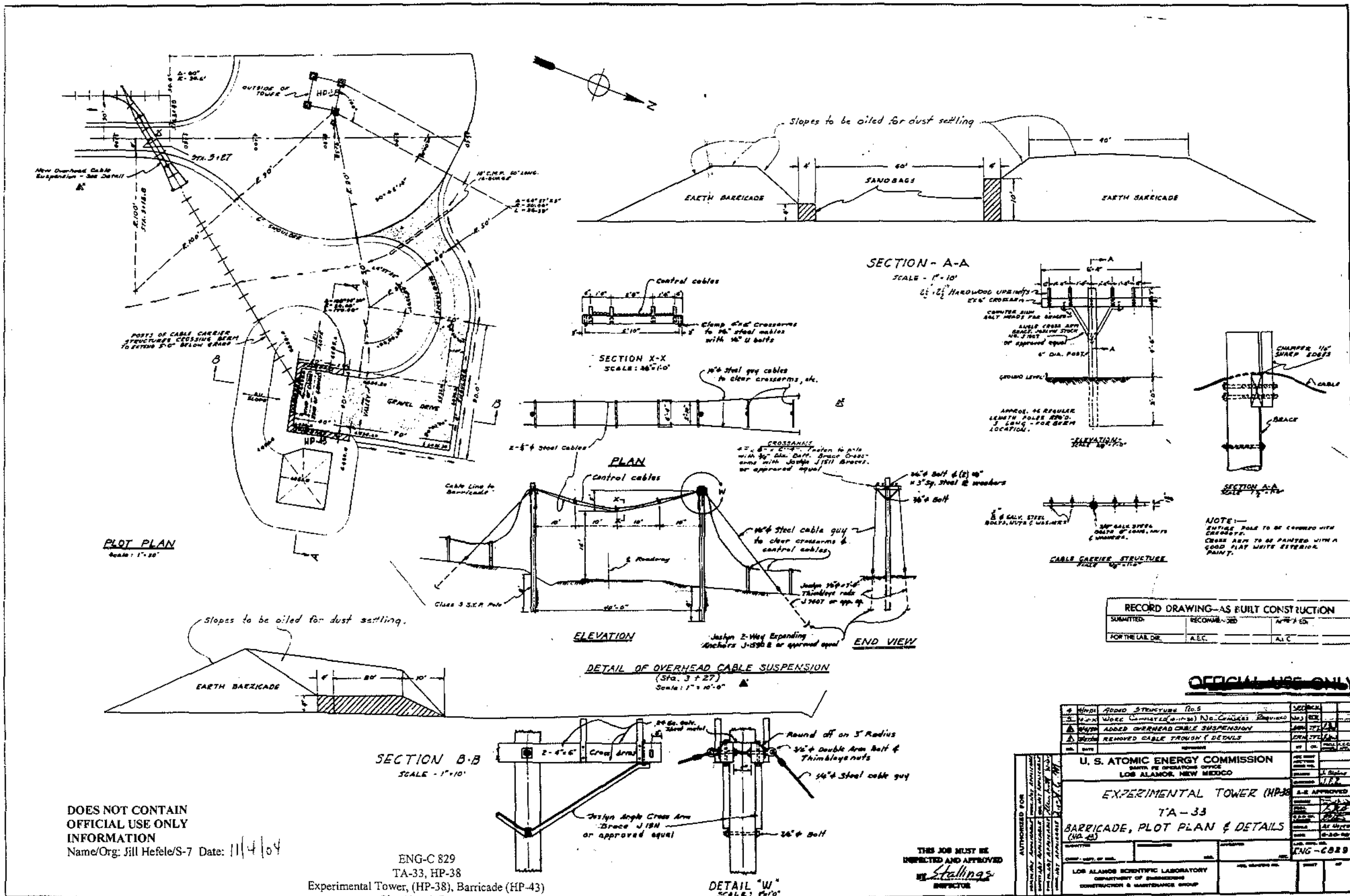
~~FOR OFFICIAL USE ONLY~~

U. S. ATOMIC ENERGY COMMISSION
OFFICE OF SANTA FE DIRECTED OPERATIONS
LOS ALAMOS SCIENTIFIC LABORATORY
DEPARTMENT OF ENGINEERING

UNDERGROUND CHAMBER NO. 2
(HP-6) TA - 33
PLOT PLAN & DETAILS

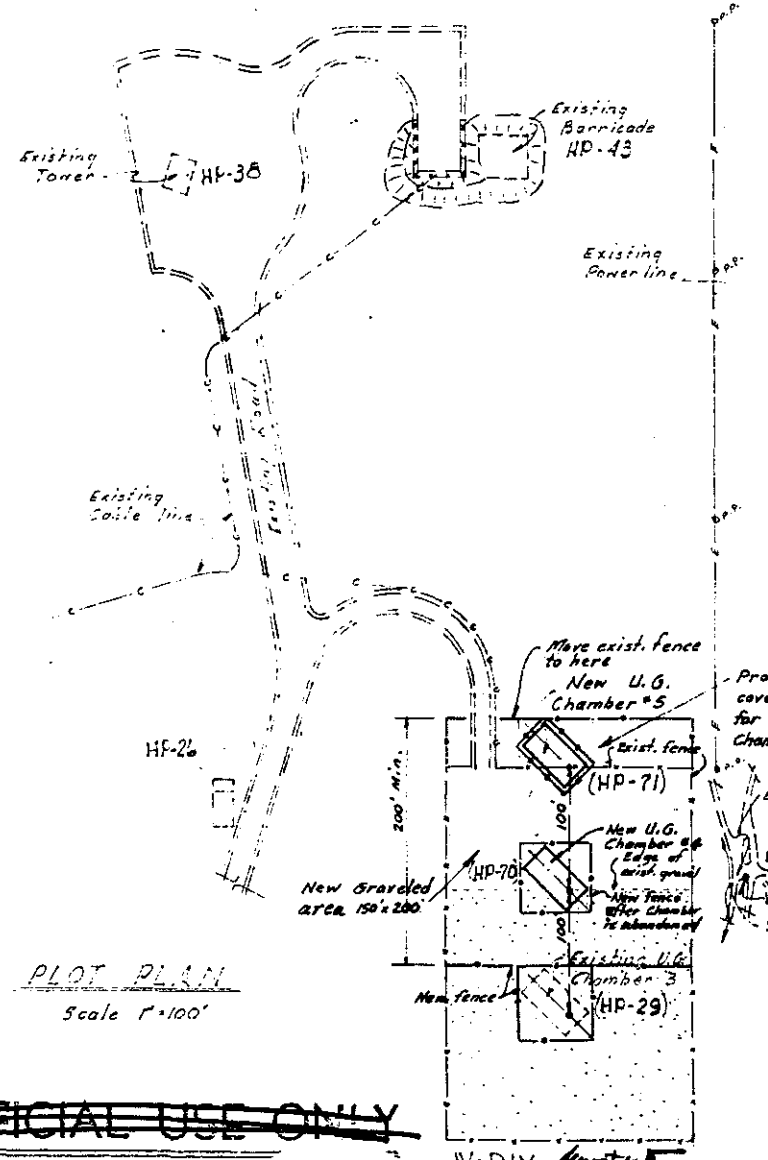
SCALE: As Noted
DRAWN BY: C. E. G. DATE: 7-24-1948
CHKD. BY: DATE: 7/30/48
APPVD. BY: DATE:
DWG. NO. AS-C162

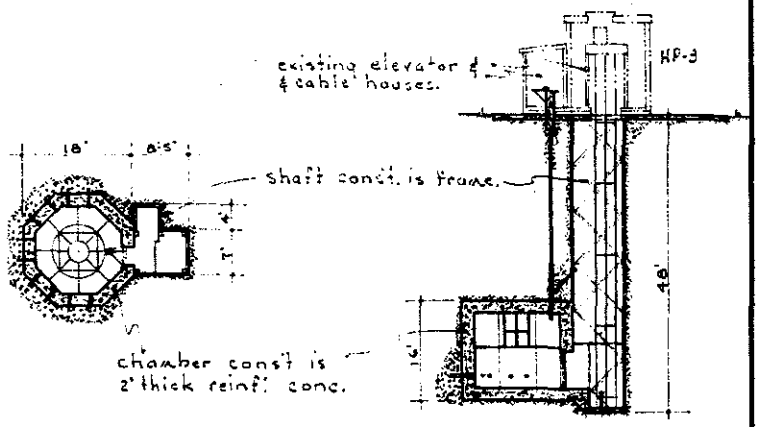
Job. No. 174


Slopes to be oiled for dust settling
EARTH BARRICADE
SANDBAGS
EARTH BARRICADE
SECTION - A-A
SCALE - 1" = 10'
SECTION X-X
PLAN
Control cables
ELEVATION
END VIEW
DETAIL OF OVERHEAD CABLE SUSPENSION
(Sta. 3 + 27)
PLOT PLAN
GRAVEL DRIVE
HP-38
HP-43
STA. 3+27
Slopes to be oiled for dust settling.
EARTH BARRICADE
SECTION B-B
SCALE - 1" = 10'
Round off on 3" Radius
DETAIL "W"
CABLE CARRIER STRUCTURE
SECTION A-A
ELEVATION
RECORD DRAWING—AS BUILT CONSTRUCTION
OFFICIAL USE ONLY
ADDED STRUCTURE No. 5
ADDED OVERHEAD CABLE SUSPENSION
REMOVED CABLE TROUGH & DETAILS
U. S. ATOMIC ENERGY COMMISSION
SANTA FE OPERATIONS OFFICE
LOS ALAMOS, NEW MEXICO
EXPERIMENTAL TOWER (HP-38)
TA-33
BARRICADE, PLOT PLAN & DETAILS
(HP-43)
ENG-C829
THIS JOB MUST BE INSPECTED AND APPROVED
BY Stallings
INSPECTOR
LOS ALAMOS SCIENTIFIC LABORATORY
DEPARTMENT OF ENGINEERING
CONSTRUCTION & MAINTENANCE GROUP

DOES NOT CONTAIN OFFICIAL USE ONLY INFORMATION
Name/Org: Jill Hefele/S-7 Date: 11/4/04

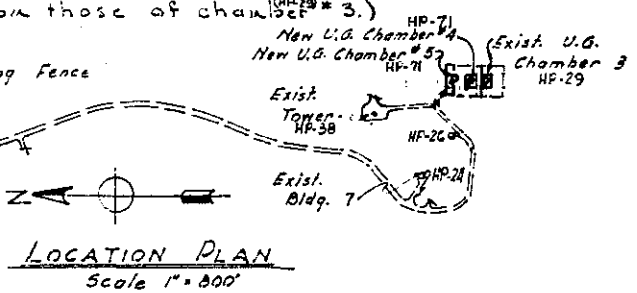
ENG-C 829
TA-33, HP-38
Experimental Tower, (HP-38), Barricade (HP-43)
Plot Plan & Details
6/30/1950





GENERAL NOTES - - -

1. Construction details similar to chamber #3 (HP-29)
2. Existing elevator, elevator house (HP-3) & cable house, to be reused for chambers #4 & #5 (HP-70, 71)
3. Relocate existing transformer station (HP-58) for power supply to chambers #4 & #5 (HP-70, 71). (It is assumed that the electrical requirements are not altered from those of chamber #3 (HP-29).)



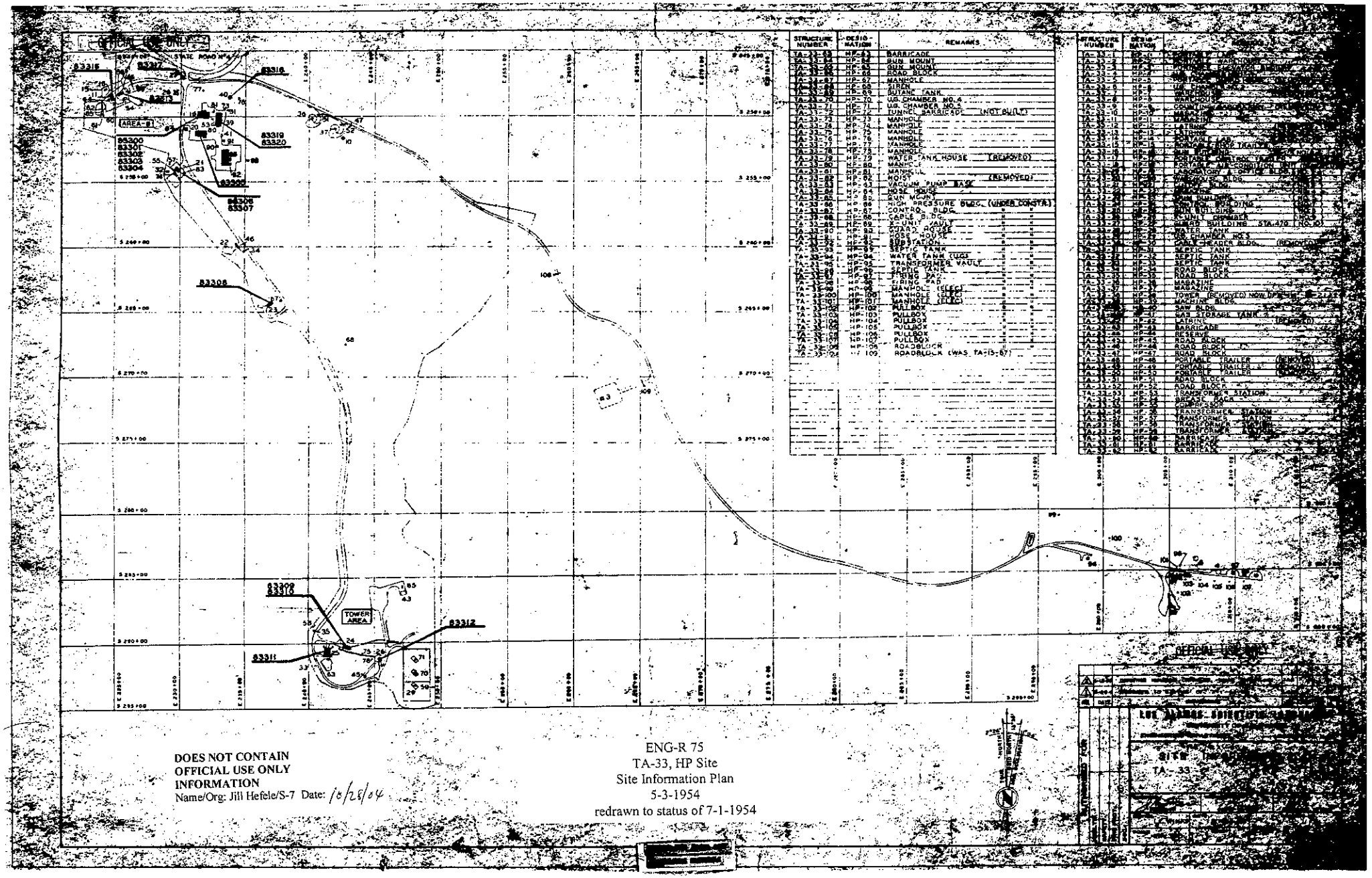
LOS ALAMOS SCIENTIFIC LABORATORY UNIVERSITY OF CALIFORNIA DEPARTMENT OF ENGINEERING . . CONST. & MAINT. GROUP		UNDERGROUND CHAMBERS #4 & #5 TA-33 HP-70 HP-71	
DRAWN: Blaine & Stanford	DATE 1-3-51	REV. ① Added Structure HP-3. S.E.D. 4-3-52	SCALE: NOTED
CHECKED: [illegible]	DATE 1-3-51	REV. ②	SKETCH NO. ENG. ■ 1009
APPR'VD: [illegible]	DATE 1-5-51	REV. ③	

LAB. JOB No. 761

DOES NOT CONTAIN OFFICIAL USE ONLY INFORMATION
Name/Org: Jill Hefele/S-7 Date: 11/4/04

OFFICIAL USE ONLY

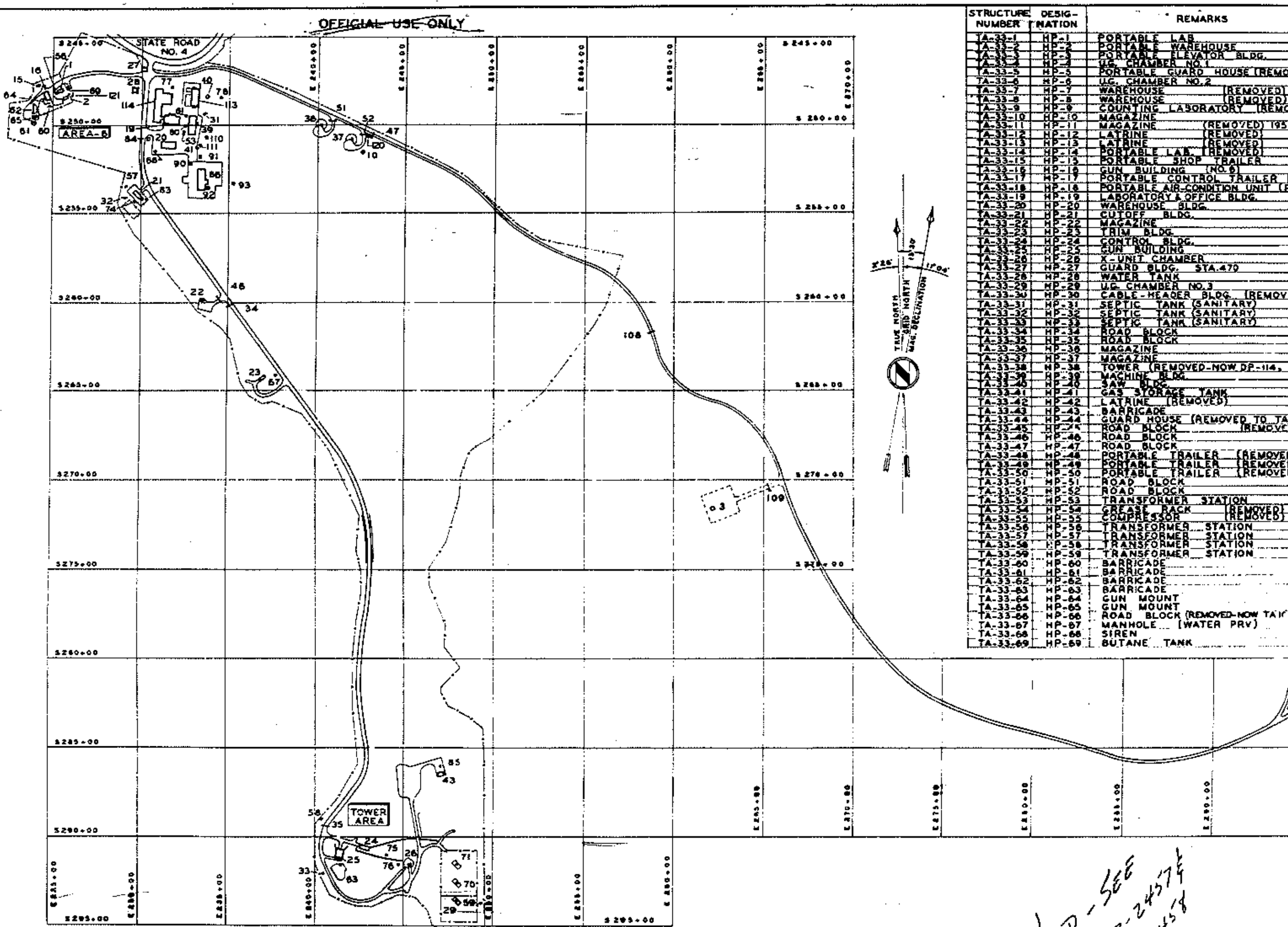
ENG-C 1009
TA-33, HP-70 & HP-71
Underground Chambers #4 & #5
1/3/1951



DOES NOT CONTAIN
OFFICIAL USE ONLY
INFORMATION
Name/Org: Jill Hefele/S-7 Date: 10/28/04

ENG-R 75
TA-33, HP Site
Site Information Plan
5-3-1954
redrawn to status of 7-1-1954

~~OFFICIAL USE ONLY~~



STRUCTURE NUMBER	DESIG-NATION	REMARKS
TA-33-1	HP-1	PORTABLE LAB
TA-33-2	HP-2	PORTABLE WAREHOUSE
TA-33-3	HP-3	PORTABLE ELEVATOR BLDG.
TA-33-4	HP-4	U.G. CHAMBER NO.1
TA-33-5	HP-5	PORTABLE GUARD HOUSE (REMOVED)
TA-33-6	HP-6	U.G. CHAMBER NO.2
TA-33-7	HP-7	WAREHOUSE (REMOVED) 1954
TA-33-8	HP-8	WAREHOUSE (REMOVED) 1954
TA-33-9	HP-9	COUNTING LABORATORY (REMOVED)
TA-33-10	HP-10	MAGAZINE
TA-33-11	HP-11	MAGAZINE (REMOVED) 1952
TA-33-12	HP-12	LATRINE (REMOVED)
TA-33-13	HP-13	LATRINE (REMOVED)
TA-33-14	HP-14	PORTABLE LAB. (REMOVED)
TA-33-15	HP-15	PORTABLE SHOP TRAILER
TA-33-16	HP-16	GUN BUILDING (NO.6)
TA-33-17	HP-17	PORTABLE CONTROL TRAILER (REM.)
TA-33-18	HP-18	PORTABLE AIR-CONDITION UNIT (REM.)
TA-33-19	HP-19	LABORATORY & OFFICE BLDG.
TA-33-20	HP-20	WAREHOUSE BLDG.
TA-33-21	HP-21	CUTOFF BLDG.
TA-33-22	HP-22	MAGAZINE
TA-33-23	HP-23	TRIM BLDG.
TA-33-24	HP-24	CONTROL BLDG.
TA-33-25	HP-25	GUN BUILDING
TA-33-26	HP-26	X-UNIT CHAMBER
TA-33-27	HP-27	GUARD BLDG. STA.470
TA-33-28	HP-28	WATER TANK
TA-33-29	HP-29	U.G. CHAMBER NO.3
TA-33-30	HP-30	CABLE-HEADER BLDG. (REMOVED) 1954
TA-33-31	HP-31	SEPTIC TANK (SANITARY)
TA-33-32	HP-32	SEPTIC TANK (SANITARY)
TA-33-33	HP-33	SEPTIC TANK (SANITARY)
TA-33-34	HP-34	ROAD BLOCK
TA-33-35	HP-35	ROAD BLOCK
TA-33-36	HP-36	MAGAZINE
TA-33-37	HP-37	MAGAZINE
TA-33-38	HP-38	TOWER (REMOVED-NOW DP-114, TA-21)
TA-33-39	HP-39	MACHINE BLDG.
TA-33-40	HP-40	SAW BLDG.
TA-33-41	HP-41	GAS STORAGE TANK
TA-33-42	HP-42	LATRINE (REMOVED)
TA-33-43	HP-43	BARRICADE
TA-33-44	HP-44	GUARD HOUSE (REMOVED TO TA-16-130)
TA-33-45	HP-45	ROAD BLOCK (REMOVED) 1953
TA-33-46	HP-46	ROAD BLOCK
TA-33-47	HP-47	ROAD BLOCK
TA-33-48	HP-48	PORTABLE TRAILER (REMOVED)
TA-33-49	HP-49	PORTABLE TRAILER (REMOVED)
TA-33-50	HP-50	PORTABLE TRAILER (REMOVED)
TA-33-51	HP-51	ROAD BLOCK
TA-33-52	HP-52	ROAD BLOCK
TA-33-53	HP-53	TRANSFORMER STATION
TA-33-54	HP-54	GREASE RACK (REMOVED) 1952
TA-33-55	HP-55	COMPRESSOR (REMOVED)
TA-33-56	HP-56	TRANSFORMER STATION
TA-33-57	HP-57	TRANSFORMER STATION
TA-33-58	HP-58	TRANSFORMER STATION
TA-33-59	HP-59	TRANSFORMER STATION
TA-33-60	HP-60	BARRICADE
TA-33-61	HP-61	BARRICADE
TA-33-62	HP-62	BARRICADE
TA-33-63	HP-63	BARRICADE
TA-33-64	HP-64	GUN MOUNT
TA-33-65	HP-65	GUN MOUNT
TA-33-66	HP-66	ROAD BLOCK (REMOVED-NOW TA-16-438)
TA-33-67	HP-67	MANHOLE (WATER PRV)
TA-33-68	HP-68	SIREN
TA-33-69	HP-69	BUTANE TANK

STRUCTURE NUMBER	DESIG-NATION	REMARKS
TA-33-70	HP-70	U.G. CHAMBER NO.4
TA-33-71	HP-71	U.G. CHAMBER NO.5
TA-33-72	HP-72	TUNNEL BARRICADE (NOT BUILT)
TA-33-73	HP-73	MANHOLE (ABANDONED)
TA-33-74	HP-74	MANHOLE (CONTAMINATED DRAIN)
TA-33-75	HP-75	MANHOLE (CONTROL)
TA-33-76	HP-76	MANHOLE (CONTROL)
TA-33-77	HP-77	MANHOLE (SANITARY SEWER)
TA-33-78	HP-78	MANHOLE (SANITARY SEWER)
TA-33-79	HP-79	WATER TANK HOUSE (REMOVED)
TA-33-80	HP-80	MANHOLE (SANITARY SEWER)
TA-33-81	HP-81	MANHOLE (SANITARY SEWER)
TA-33-82	HP-82	HOIST (REMOVED) 1951
TA-33-83	HP-83	VACUUM PUMP BASE
TA-33-84	HP-84	HOSE HOUSE
TA-33-85	HP-85	GUN MOUNT
TA-33-86	HP-86	HIGH PRESSURE BLDG.
TA-33-87	HP-87	CONTROL BLDG.
TA-33-88	HP-88	CABLE BLDG.
TA-33-89	HP-89	X-UNIT VAULT
TA-33-90	HP-90	GUARD HOUSE
TA-33-91	HP-91	HOSE HOUSE
TA-33-92	HP-92	SUBSTATION
TA-33-93	HP-93	SEPTIC TANK (SANITARY)
TA-33-94	HP-94	WATER TANK (UNDER-GROUND)
TA-33-95	HP-95	TRANSFORMER VAULT
TA-33-96	HP-96	SEPTIC TANK (SANITARY)
TA-33-97	HP-97	FIRING PAD
TA-33-98	HP-98	FIRING PAD
TA-33-99	HP-99	MANHOLE (ELECTRIC)
TA-33-100	HP-100	MANHOLE (ELECTRIC)
TA-33-101	HP-101	MANHOLE (ELECTRIC)
TA-33-102	HP-102	PULL BOX (CONTROL)
TA-33-103	HP-103	PULL BOX (CONTROL)
TA-33-104	HP-104	PULL BOX (CONTROL)
TA-33-105	HP-105	PULL BOX (CONTROL)
TA-33-106	HP-106	PULL BOX (CONTROL)
TA-33-107	HP-107	PULL BOX (CONTROL)
TA-33-108	HP-108	ROAD BLOCK
TA-33-109	HP-109	ROAD BLOCK (WAS TA-15-87)
TA-33-110	HP-110	INCINERATOR
TA-33-111	HP-111	PROPANE TANK (WAS TA-36-16)
TA-33-112	HP-112	WIGWAG
TA-33-113	HP-113	HOT MACHINE SHOP
TA-33-114	HP-114	LABORATORY OFFICE BUILDING
TA-33-115	HP-115	ROAD BLOCK (WAS TA-15-88)
TA-33-116	HP-116	GUN MOUNT
TA-33-117	HP-117	GUN MOUNT
TA-33-118	HP-118	RECOVERY BOX
TA-33-119	HP-119	SIREN
TA-33-120	HP-120	SIREN
TA-33-121	HP-121	SEPTIC TANK (SANITARY)

OBSOLETE DEAD STORAGE

NO.	DATE	REVISIONS	BY	CHKD	GRP. LDR.	ENG. & A.
9	1-4-60	REVISED TO FIELD CHECK STATUS OF 12-30-59	T.G.R.			
8	7-1-57	REVISED TO STATUS OF 7-1-57	DDS	JAS		
7	4/1/55	REDRAWN TO STATUS OF JULY 1, 1955	NOB	JAS		

AUTHORIZED FOR: HEALTH / SAFETY / FIRE PROT. / SEC.

LOS ALAMOS SCIENTIFIC LABORATORY
UNIVERSITY OF CALIFORNIA
ENGINEERING DEPARTMENT — LOS ALAMOS, N. M.

STRUCTURE LOCATION PLAN
TA-33 — HP SITE

CHECKED: DESIGNER — RECOMMENDED: GROUP LEADER — APPROVED: ENG. DEPARTMENT

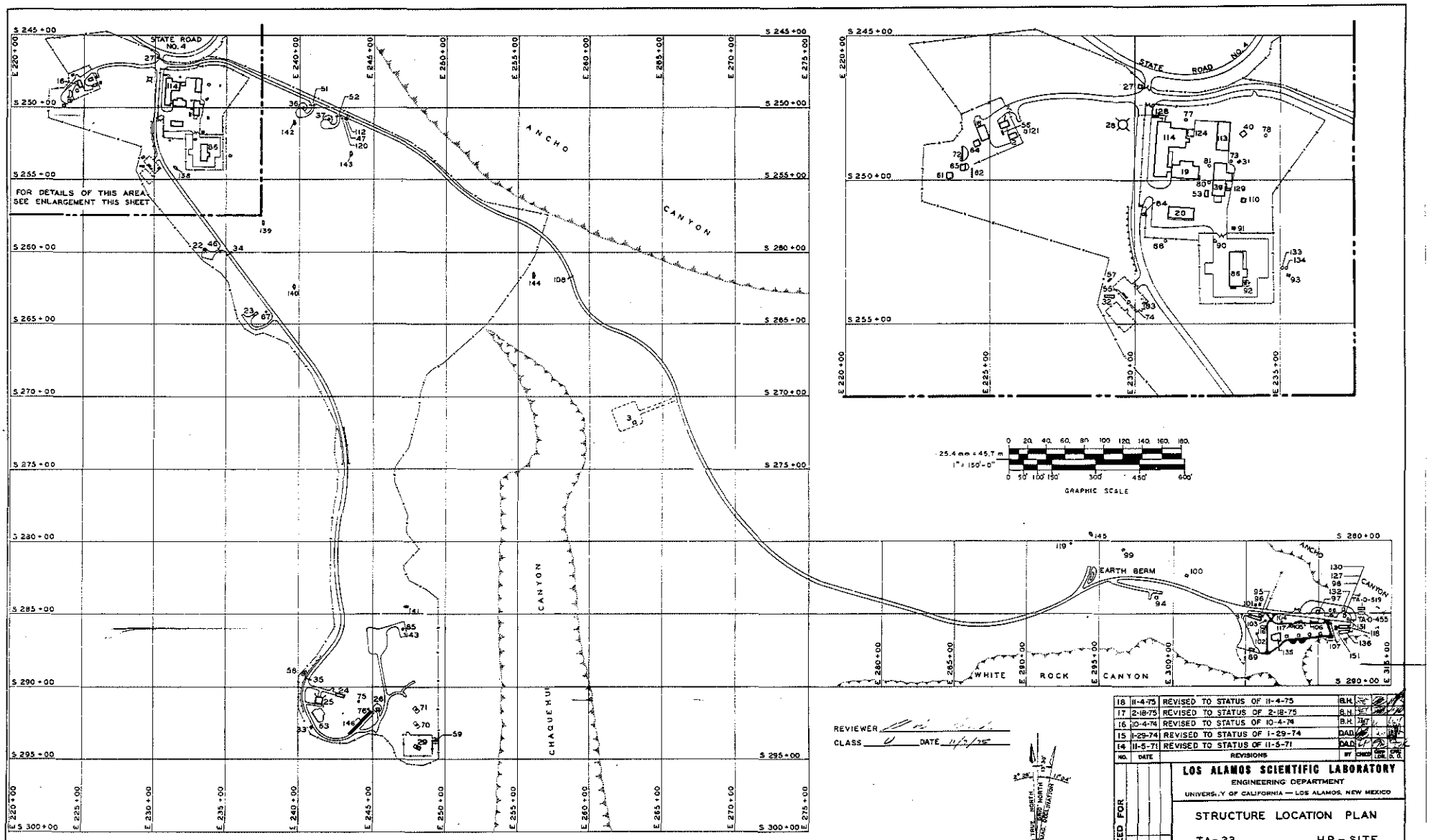
DRAWN: N. BYERS — DATE: 12/7/55 — DRAWING NO.: ENG-R 152
SCALE: 1" = 300' — SHEET 1 OF 1

Void - See Rev. 9, ENG. R-2457 1/4, ENG. R-2458

~~OFFICIAL USE ONLY~~

ENG-R 152
TA-33, HP Site
Structure Location Plan
12-7-1955

DOES NOT CONTAIN
OFFICIAL USE ONLY
INFORMATION
Name/Org: Jill Hefele/S-7 Date: 10/28/04



NO.	DATE	REVISIONS	BY	CHECK	ENGR.	DRFT.
18	11-4-75	REVISED TO STATUS OF 11-4-75	B.H.			
17	2-18-75	REVISED TO STATUS OF 2-18-75	B.H.			
16	10-4-74	REVISED TO STATUS OF 10-4-74	B.H.			
15	1-29-74	REVISED TO STATUS OF 1-29-74	DAD			
14	11-5-71	REVISED TO STATUS OF 11-5-71	DAD			

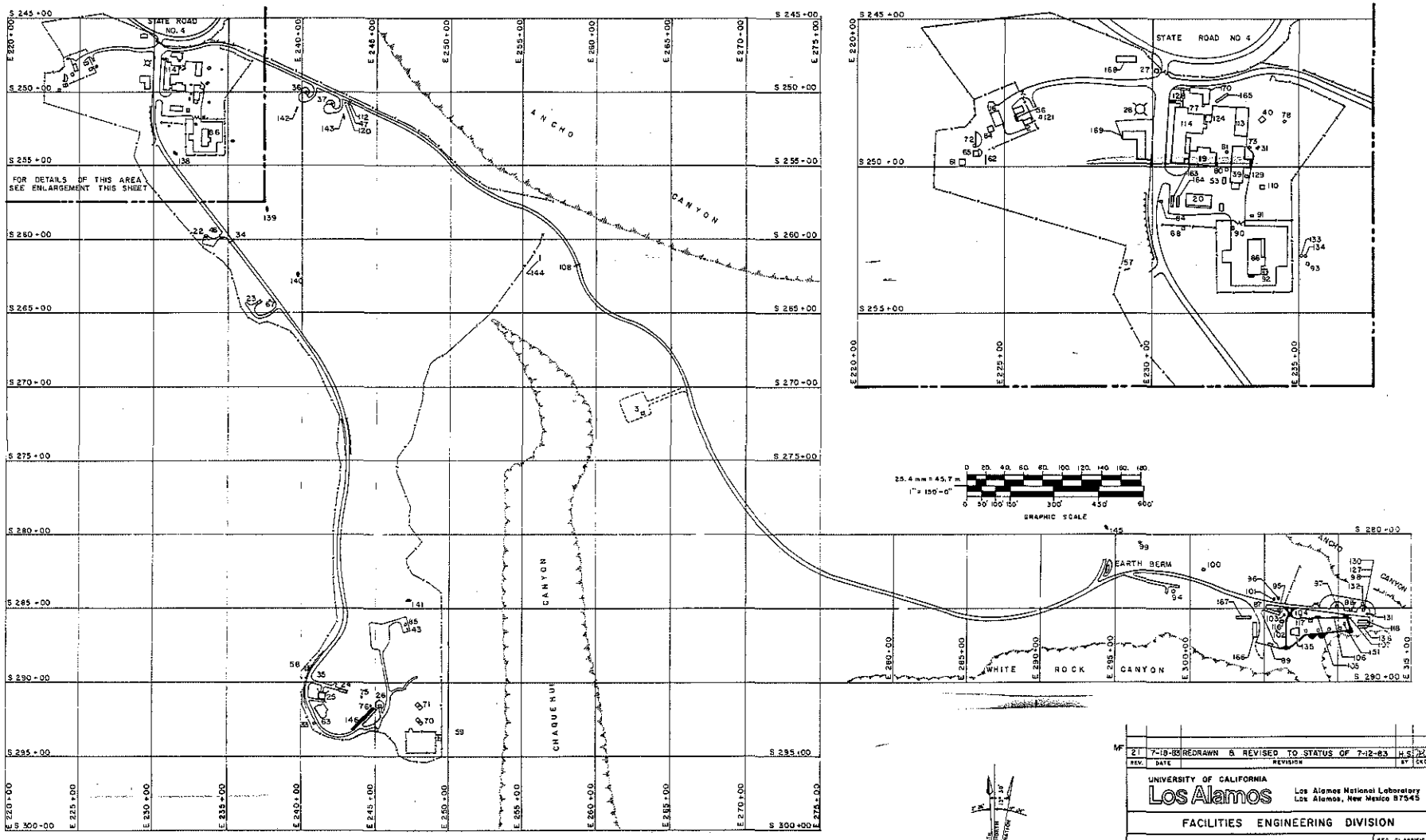
AUTHORIZED FOR: HEALTH, SAFETY, FIRE PROT., MCC.

LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO

STRUCTURE LOCATION PLAN
TA-33 HP-SITE

CHECKED	RECOMMENDED	APPROVED	
ENGR.	GROUP LEADER	ENG. DEPT. OFFICE	
DESIGNER	DATE 8-15-61	DRAWING NO.	ENG-R 2458
DRAWN D.D. SIMES	SHEET 2 OF 2		
SCALE AS NOTED			

ENG-R 2458
TA-33, HP Site
Structure Location Plan
8-15-1961



ENG-R 5116
TA-33, HP Site
Structure Location Plan
7-18-1983

REV.	DATE	REVISION	BY	CKD	APP
2	7-18-83	REDRAWN & REVISED TO STATUS OF 7-12-83	H.S.		DR.

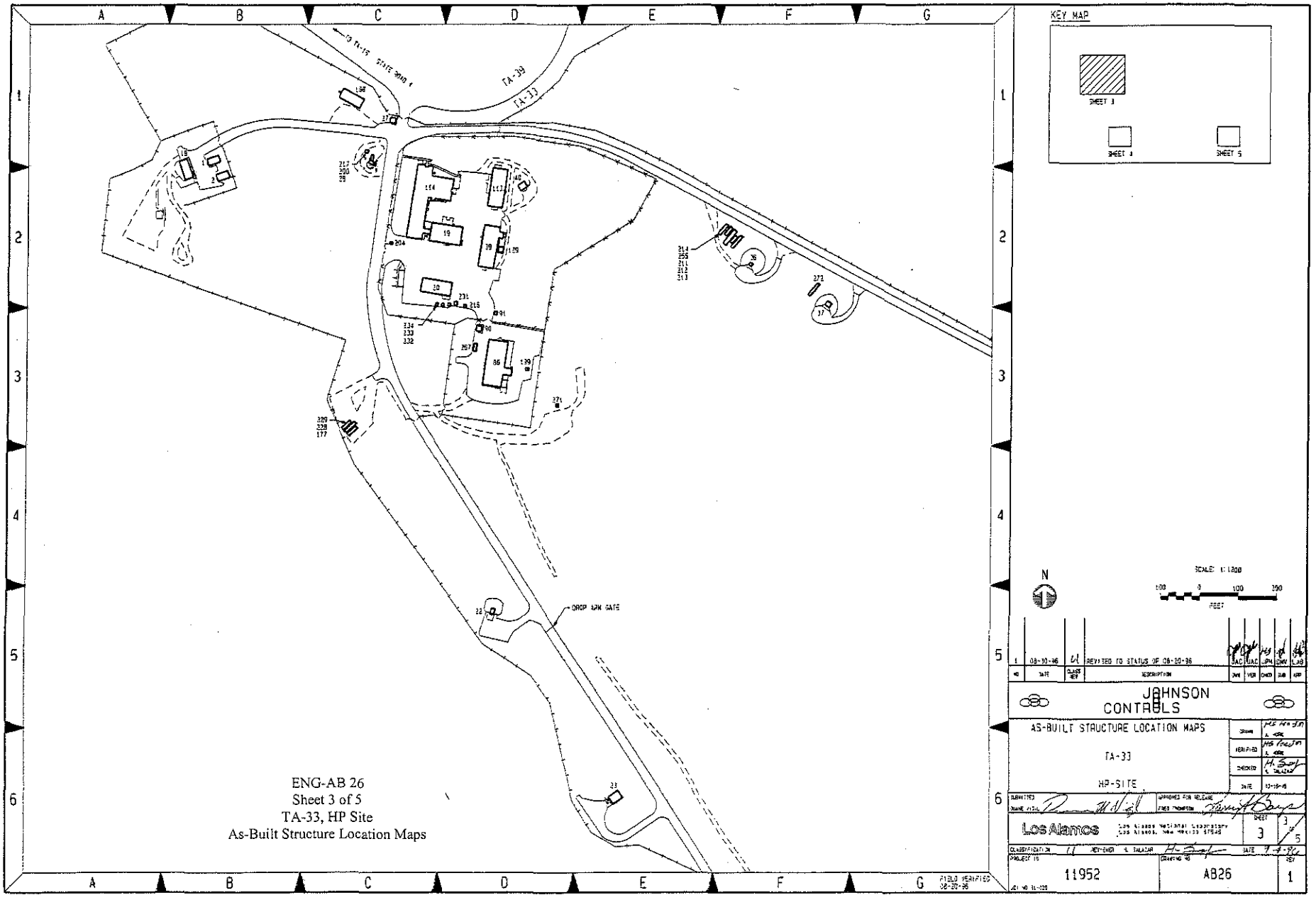
UNIVERSITY OF CALIFORNIA
Los Alamos
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

FACILITIES ENGINEERING DIVISION

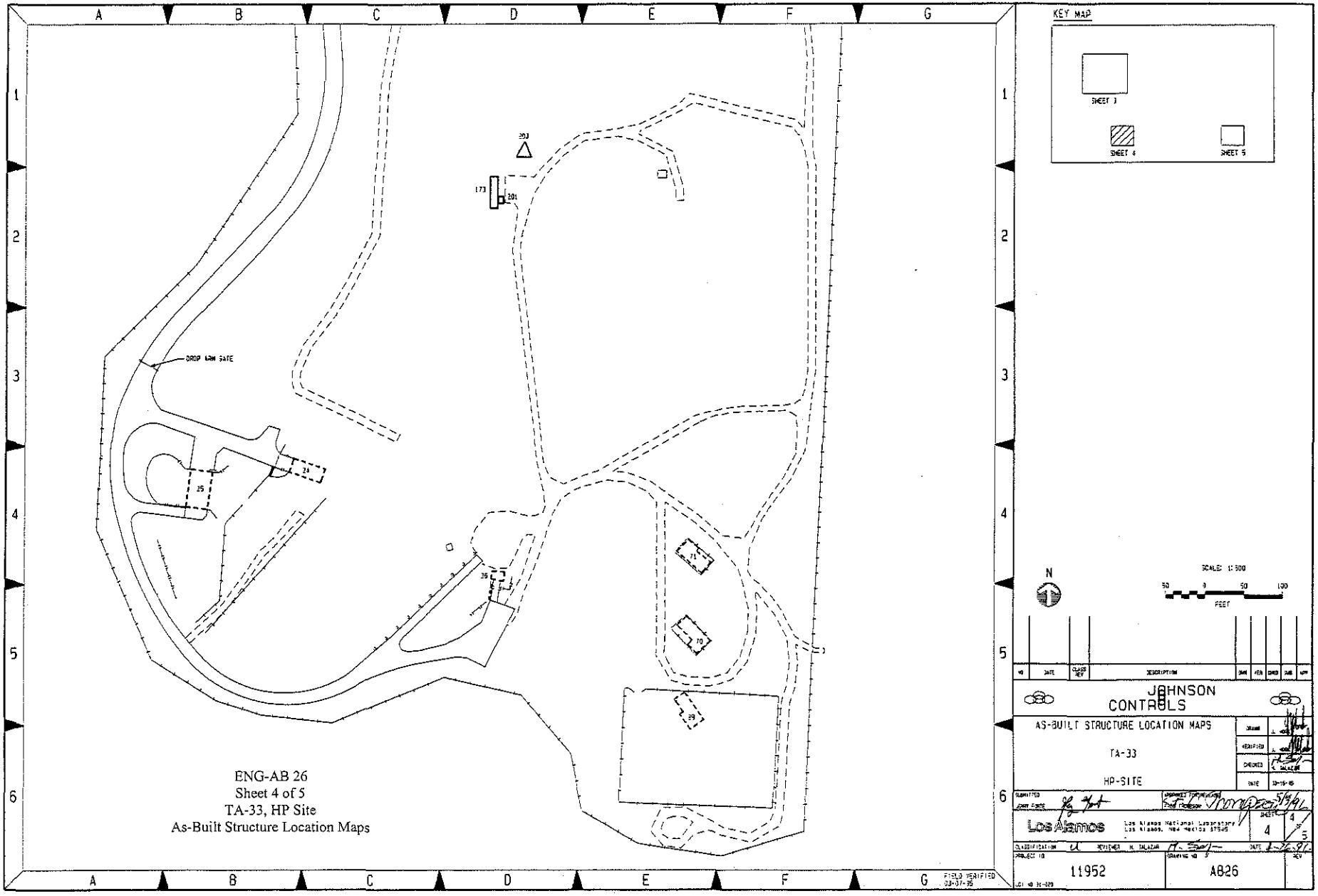
STRUCTURE LOCATION PLAN
TA-33 HP-SITE

SEC CLASSIFICATION: CLASS. U
REVIEWER
DATE 4-20-83

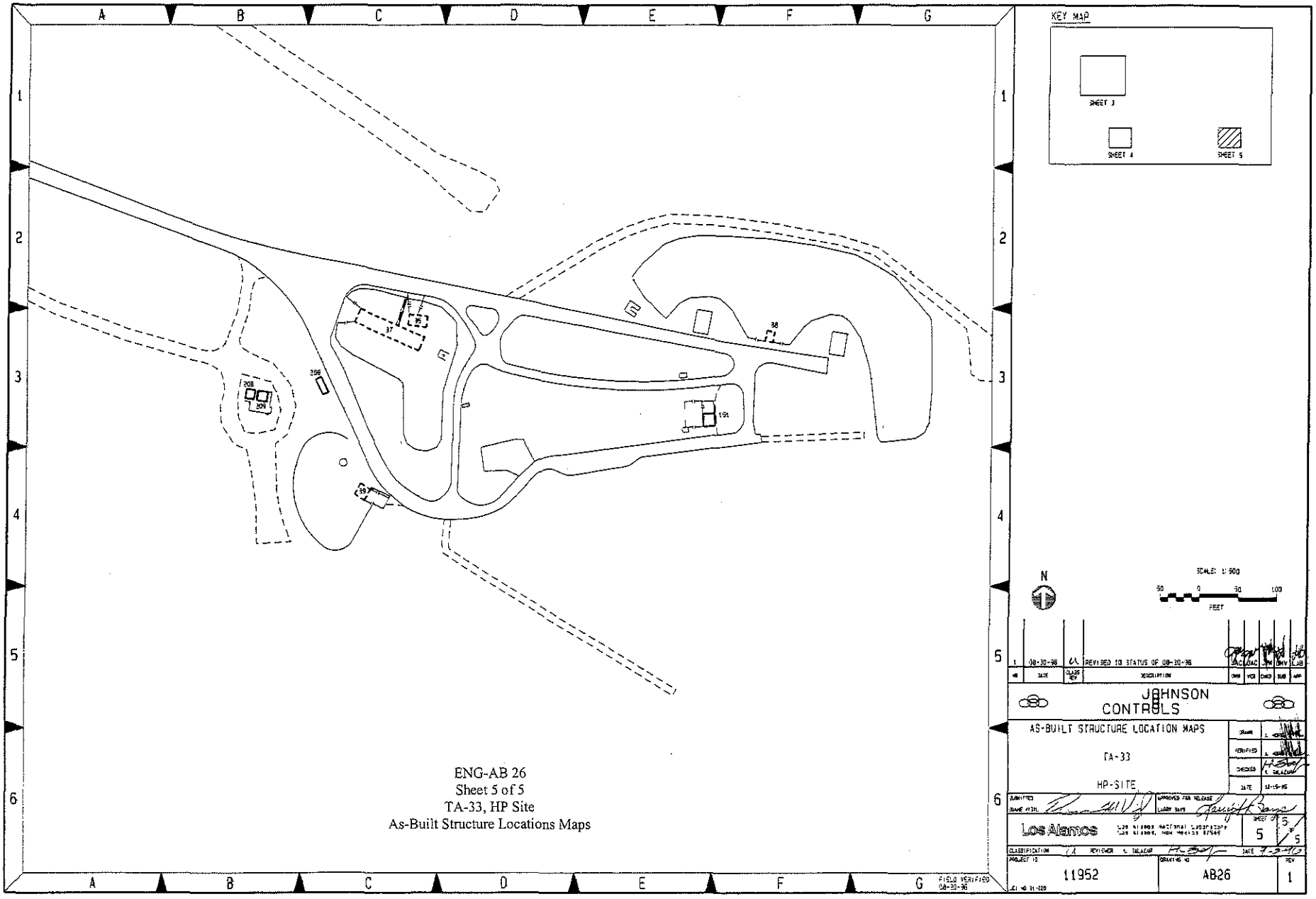
SUBMITTED
RECOMMENDED
APPROVED
DRAWN HERB SALGADO
CHECKED
DATE 7-18-83
SHEET NO. 2 OF 2
DRAWING NO. ENG-R5116



ENG-AB 26
Sheet 3 of 5
TA-33, HP Site
As-Built Structure Location Maps



ENG-AB 26
Sheet 4 of 5
TA-33, HP Site
As-Built Structure Location Maps



ENG-AB 26
Sheet 5 of 5
TA-33, HP Site
As-Built Structure Locations Maps

Appendix C: Interview Information

Oral Histories

Dougherty, J.

2001 Interview with John Ronquillo, Ken Towery, and Ellen McGehee. Recording of August 16, 2001 interview with John Dougherty on file at RRES-ECO, Los Alamos National Laboratory, Los Alamos, New Mexico.

Larson, R.

2003 Interview with John Ronquillo and Ellen McGehee. Recording of July 17, 2003 interview with Richard Larson on file at RRES-ECO, Los Alamos National Laboratory, Los Alamos, New Mexico.

MacMillan, D. P.

2001 Interview with John Ronquillo, Ken Towery, and Ellen McGehee. Recording of August 28, 2001 interview with Don MacMillan on file at RRES-ECO, Los Alamos National Laboratory, Los Alamos, New Mexico.

Other Interviews

Ahlquist, John

1983 "Conversations with Harlow Russ, Regarding TA-33, 10/27/83." Los Alamos National Laboratory memorandum to file, November 1, 1983, HSE-8/83-733, Los Alamos, New Mexico.

Estrada, Joe

1998 "Interview Notes on TA-33-86." Commodore Advanced Sciences, Inc. Memorandum regarding interview with John Dougherty, dated September 17, 1998, to Kari Manz, Los Alamos National Laboratory, on file at RRES-ECO, Los Alamos National Laboratory, Los Alamos, New Mexico.

Hoard, Dorothy

1990 "Conversations with John Dougherty Re. TA-33." Los Alamos National Laboratory memorandum to CLS-1 file, July 11, 1990, CLS-1/91-303-DH, Los Alamos, New Mexico.

1991 "Conversations with Harlow Russ, December 14, 1990." Laboratory memorandum to CLS-1 file, September 17, 1991, CLS-1/91-304-DH, Los Alamos, New Mexico.

Appendix D: Listing of Drawings on File at LANL for Properties at TA-33

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
33	1	C	18787	1	0		18-JAN-57		1952	UN	TOILET FACILITIES, BLDG. HP-1
33	1	R	3017	1	2		17-JUL-64	11-JUN-84	0	A	FLOOR PLAN, PORTABLE LABORATORY
33	1	SK	189	1	0		01-JUN-53	15-DEC-49	416	M	THREE TON CRANE INSTALLATION, RM. 6, BLDG. HP-1
33	1	SK	196	1	1		01-JUN-53	13-FEB-50	416	M	ADAPTER, 3-TON CRANE INSTALLATION HP-1, RM. #6
33	1	SK	513	1	3		01-JUN-53		0	UN	INSTALL SINK & C.W. SUPPLY IN HQ BLDG. HP-1, TA-33
33	1	SK	522	1	3		01-JUN-53		0	E	LIGHTING FOR TA-33 AREA 1

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
33	2	R	3018	1	1		17-JUL-64	11-JUN-84	0	A	FLOOR PLAN, PORTABLE WAREHOUSE
33	2	SK	1020	1	2		25-AUG-97	03-MAR-51	808	S	Concrete Slab for Machine at Bldg. #2, HP-20, Plan, Section and Details

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
33	24	C	1076	1	1		27-OCT-50	27-OCT-50	686	AC	REVISIONS TO HEATING & VENTILATION SYS., LOCATION PLANS & DUCT DET
33	24	C	1077	2	1		27-OCT-50	27-OCT-50	686	AC	REVISIONS TO HEATING & VENTILATION SYS., BLDG. HP-24. DETAILS.
33	24	C	1766	1	0		09-AUG-52	11-JUL-52	1178	C	CONTROL CABLE CARRIER, CONTROL ROOM TO UG CHAMBER (HP-24, HP-29, HP-70 HP-71)
33	24	C	11551	41	3		15-AUG-56	05-APR-49	190	S	LAYOUT, BLDG. HP-24 FLOOR PLAN AND LONGITUDINAL SECT.
33	24	C	11552	42	1		15-AUG-56	05-APR-49	190	S	LAYOUT, ROOF PLAN SECT. AND DETAILS
33	24	C	11553	43	1		15-AUG-56	05-APR-49	190	S	LAYOUT, TRENCH AND COVER DETAILS
33	24	C	11554	44	1		15-AUG-56	05-APR-49	190	S	LAYOUT ELEVATIONS AND SECTION
33	24	C	11570	60	3		15-AUG-56	05-APR-49	190	E	LAYOUT, BLDG. HP-24
33	24	C	11571	61	1		15-AUG-56	05-APR-49	190	E	DETAILS
33	24	C	11594	84	2		15-AUG-56	19-APR-49	190	M	HEATING & VENTILATING
33	24	C	11595	85	2		15-AUG-56	19-APR-49	190	M	HEATING & VENTILATING DETAILS
33	24	C	11596	86	1		15-AUG-56	23-APR-49	190	M	PLUMBING LAYOUT
33	24	C	11608	98	2		15-AUG-56	07-APR-49	190	A	DOOR & FRAME INSTALLATION ASSEMBLY STEEL DOOR
33	24	C	11609	99	1		15-AUG-56	07-APR-49	190	A	FRAME ASSEMBLY, STEEL DOOR
33	24	C	11610	100	1		15-AUG-56	07-APR-49	190	A	DOOR ASSEMBLY, PLATE STEEL
33	24	C	11611	101	1		15-AUG-56	07-APR-49	190	M	AIR PIPING AND ELECTRICAL LAYOUT, STEEL DOOR
33	24	C	11612	102	1		15-AUG-56	07-APR-49	190	A	HINGE ASSEMBLY, STEEL DOOR
33	24	C	11613	103	1		15-AUG-56	07-APR-49	190	A	BOLT & CYLINDER ASSEMBLY, STEEL DOOR
33	24	C	11614	104	2		15-AUG-56	07-APR-49	190	A	DETAILS, BOLT AND CYLINDER ASSEMBLY, STEEL DOOR
33	24	C	11615	105	1		15-AUG-56	07-APR-49	190	A	LOCK & BOLT ASSEMBLY, STEEL DOOR
33	24	C	11616	106	1		15-AUG-56	08-APR-49	190	A	DETAILS, LOCK & BOLT ASSEMBLY, STEEL DOOR
33	24	C	11617	107	1		15-AUG-56	18-APR-49	190	M	VENTILATION, OPENING ASSEMBLY
33	24	C	11618	108	1		15-AUG-56	18-APR-49	190	A	FRAME ASSEMBLY, VENTILATION OPENING
33	24	C	11619	109	1		15-AUG-56	18-APR-49	190	M	COVER ASSEMBLY, VENTILATION OPENING ASSEMBLY
33	24	C	11620	110	1		15-AUG-56	18-APR-49	190	M	ADAPTER PLATE, VENTILATION OPENING ASSEMBLY
33	24	C	11621	111	1		15-AUG-56	18-APR-49	190	M	DETAILS, VENTILATION OPENING ASSEMBLY
33	24	C	21513	5	0		07-APR-58		2053	E	ELECTRICAL - BLDG. HP-24 & HP-87
33	24	R	2327	1	0		06-APR-62	14-DEC-61	0	A	FALLOUT SHELTER SURVEY, FLOOR PLAN, HP-SITE
33	24	R	3027	1	3		06-MAY-63	31-OCT-83	0	A	FLOOR PLAN, CONTROL BUILDING

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
33	25	C	11555	45	1		15-AUG-56	05-APR-49	190	S	LAYOUT HEAD WALL DETAILS
33	25	C	11556	46	2		15-AUG-56	05-APR-49	190	S	LAYOUT, MISCELLANEOUS DETAILS
33	25	C	11557	47	1		15-AUG-56	05-APR-49	190	S	LAYOUT, WOOD RETAINING WALL, BLDG. HP-26
33	25	C	11572	62	1		15-AUG-56	05-APR-49	190	E	LAYOUT, BLDG. HP-25
33	25	C	11597	87	1		15-AUG-56	23-APR-49	190	M	PLUMBING
33	25	R	3028	1	1		21-MAY-63	11-JUN-84	0	A	FLOOR PLAN, GUN BUILDING

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
33	26	C	11558	48	3		15-AUG-56	30-APR-49	190	S	LAYOUT, PLANS & SECT. BLDG. HP-26
33	26	C	11559	49	1		15-AUG-56	30-APR-49	190	S	LAYOUT, SECTIONS & ELEVATIONS
33	26	C	11573	63	2		15-AUG-56	28-APR-49	190	E	LAYOUT, ELECTRICAL MANHOLES, HP-26
33	26	C	11622	112	1		15-AUG-56	29-APR-49	190	A	DOOR INSTALLATION ASSEMBLY, STEEL DOOR
33	26	C	11623	113	1		15-AUG-56	29-APR-49	190	A	DOOR DETAIL, STEEL DOOR
33	26	C	11624	114	1		15-AUG-56	29-APR-49	190	A	HINGE ASSEMBLY, STEEL DOOR
33	26	C	11625	115	1		15-AUG-56	29-APR-49	190	A	LATCH ASSEMBLY, STEEL DOOR
33	26	C	11626	116	1		15-AUG-56	29-APR-49	190	A	DETAILS, LATCH ASSEMBLY, STEEL DOOR
33	26	C	11627	117	1		15-AUG-56	29-APR-49	190	A	HANDLE, LATCH ASSEMBLY, STEEL DOOR
33	26	C	11628	118	1		15-AUG-56	29-APR-49	190	A	LOCK ASSEMBLY, STEEL DOOR
33	26	C	11629	119	1		15-AUG-56	29-APR-49	190	A	DETAILS, LOCK ASSEMBLY, STEEL DOOR
33	26	C	11630	120	1		15-AUG-56	29-APR-49	190	A	DETAILS, LOCK ASSEMBLY, STEEL DOOR
33	26	C	11631	121	1		15-AUG-56	29-APR-49	190	A	FRAME ASSEMBLY, STEEL DOOR
33	26	C	17574	1	0		29-JUL-59		0	F	MAKE-UP CHAMBER AT FIRE APRON, HP-26, AREA #8
33	26	R	2378	1	0		06-APR-62	30-MAR-62	0	A	FALLOUT SHELTER SURVEY, FLOOR PLAN
33	26	R	3029	1	2		17-JUL-64	13-MAR-84	0	A	FLOOR PLAN, X-UNIT CHAMBER

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
33	40	C	1156	1	2		12-MAY-53	19-DEC-50	755	C	SAW BLDG. HP-40. PLOT PLAN AND DETAILS
33	40	C	1157	2	1		12-MAY-53	20-JAN-51	755	A	SAW BLDG. HP-40. ARCHITECTURAL PLAN & DETAILS, HEATING & PLUMBING
33	40	C	1158	3	2		12-MAY-53	20-NOV-50	755	E	SAW BLDG. HP-40. ELECT. PLAN & SECTION
33	40	C	2955	1	1				1362	UN	RELOCATION OF BLDG. HP-40, PLOT PLAN
33	40	C	2956	2	1				1362	UN	RELOCATION, BLDG. HP-40, FOUNDATION PLAN & SECTIONS
33	40	C	2957	3	1				1362	M	RELOCATION, BLDG. HP-40, ROOM EXHAUST - MODIFICATIONS, MECH., DETAILS
33	40	C	2958	4	1				1362	E	RELOCATION BLDG. HP-40, ELECT. PLANS, DETAILS & NOTES
33	40	C	2959	5	1				1362	E	RELOCATION, BLDG. HP-40, ELECT. PLOT PLAN & NOTES
33	40	C	49864	1	0		12-APR-04	23-OCT-96	16854	T	WASTE STREAM CORRECTIONS, FMU#75, TITLE SHEET AND LIST OF DRAWINGS
33	40	C	49864	14	0		12-APR-04	23-OCT-96	16854	P	WASTE STREAM CORRECTIONS, FMU#75, MECH., DETAILS
33	40	C	49864	4	0		12-APR-04	23-OCT-96	16854	G	WASTE STREAM CORRECTIONS, FMU#75, GEN., NOTES & SCOPE OF WORK
33	40	C	49864	5	0		12-APR-04	23-OCT-96	16854	G	WASTE STREAM CORRECTIONS, FMU#75, GEN., INSPECTION PLAN AND TEST PLAN
33	40	C	49864	15	0		12-APR-04	23-OCT-96	16854	P	WASTE STREAM CORRECTIONS, FMU#75, MECH., CORRECTIVE ACTIONS SUMMARY
33	40	C	49864	8	0		12-APR-04	23-OCT-96	16854	P	WASTE STREAM CORRECTIONS, FMU#75, MECH., PLUMBING PLAN
33	40	C	49864	2	0		12-APR-04	23-OCT-96	16854	G	WASTE STREAM CORRECTIONS, FMU#75, GEN., LEGEND AND NOTES
33	40	C	49864	3	0		12-APR-04	23-OCT-96	16854	G	WASTE STREAM CORRECTIONS, FMU#75, GEN., NOTES
33	40	R	3034	1	1		17-JUL-64	11-JUN-84	0	A	FLOOR PLAN, SAW BUILDING

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
33	86	C	3303	2	1		19-APR-54	25-AUG-55	1381	C	ADDITIONAL FACILITIES, CIVIL, PLOT PLAN, AREA A, LEGEND, AND SUMP SEWER & SUBSTATION LOCATIONS
33	86	C	3314	13	0		19-APR-54	19-APR-54	1381	S	ADDITIONAL FACILITIES, STRUCT., PLANS & DETAILS, FOUNDATION PLAN, ROOF FRAMING PLAN, BASE PLATE DETAILS
33	86	C	3315	14	0		19-APR-54	19-APR-54	1381	S	ADDITIONAL FACILITIES, STRUCT., DETAILS, FLASHING AND LADDER DETAIL, CANOPY AND MONORAIL SUPPORT DETAIL
33	86	C	3316	15	0		19-APR-54	19-APR-54	1381	A	ADDITIONAL FACILITIES, ARCH., FLOOR PLAN
33	86	C	3317	16	0		19-APR-54	19-APR-54	1381	A	ADDITIONAL FACILITIES, ARCH., ELEVATIONS & ROOF PLAN
33	86	C	3318	17	0		19-APR-54	19-APR-54	1381	A	ADDITIONAL FACILITIES, ARCH., SECTIONS, CANOPY DETAIL AND ISOMETRIC OF FASCIA, FLASHING DETAIL
33	86	C	3319	18	0		19-APR-54	19-APR-54	1381	A	ADDITIONAL FACILITIES, ARCH., DETAILS, STEEL SHELVING, CHALKBOARD, EQUIPMENT LAYOUT, TOILET, GLASS BLOCK, ROOF DRAIN DETAILS
33	86	C	3320	19	0		19-APR-54	19-APR-54	1381	A	ADDITIONAL FACILITIES, ARCH., DOOR, WINDOW, WALL OPENING, SLIDING, VAULT DOORS, PENTHOUSE LOUVRE, AIR TIGHT DOOR DETAILS
33	86	C	3332	31	1		19-APR-54	25-AUG-55	1381	A	ADDITIONAL FACILITIES, ARCH., DOOR SCHEDULES
33	86	C	3333	32	1		19-APR-54	25-AUG-55	1381	A	ADDITIONAL FACILITIES, ARCH., DOOR DETAILS, OVERHEAD, LIGHTPROOF DOORS
33	86	C	3355	54	0		19-APR-54	19-APR-54	1381	M	ADDITIONAL FACILITIES, MECH., FLOOR PLAN, BOILER PIPING DIAGRAM, CHEMICAL FEEDER DIAGRAM
33	86	C	3356	55	0		19-APR-54	19-APR-54	1381	M	ADDITIONAL FACILITIES, MECH., PENTHOUSE & PARTIAL ROOF PLAN & DETAILS
33	86	C	3357	56	0		19-APR-54	19-APR-54	1381	M	ADDITIONAL FACILITIES, MECH., SERVICE PIPING PLAN, AIR COMPRESSOR PIPING DETAIL
33	86	C	3358	57	0		19-APR-54	19-APR-54	1381	M	ADDITIONAL FACILITIES, MECH., WASTE PIPING PLAN, FLOOR DRAIN DETAIL, FIXTURE SCHEDULE
33	86	C	3359	58	1		19-APR-54	19-APR-54	1381	M	ADDITIONAL FACILITIES, MECH., DETAILS, STEAM HEATING COIL PIPING DIAGRAM, SEPTIC TANK DETAIL, SCHEMATIC REFRIGERATION PIPING DIAGRAM, SUMP DETAIL
33	86	C	3360	59	0		19-APR-54	19-APR-54	1381	M	ADDITIOANL FACILITIES, MECH., CONTROL DIAGRAMS, SCHEMATIC FLOW DIAGRAMS
33	86	C	3362	61	0		19-APR-54	19-APR-54	1381	E	ADDITIONAL FACILIITES, ELEC., SITE PLAN, COMMUNICATION & LIGHTNING PROTECTION PLANS, SUBSTATION PAD LOCATION
											ADDITIONAL FACILITIES, ELEC., FLOOR PLAN, FIXTURE

33	86	C	3363	62	1	19-APR-54	25-AUG-55	1381	E	SCHEDULE, PENTHOUSE PLAN, FENCE GATE & SLAB ELEVATION
33	86	C	3364	63	0	19-APR-54	19-APR-54	1381	E	ADDITIONAL FACILITIES, ELEC., DETAILS, SIGNAL CONTROL PANEL, LIGHTNING PROTECTION & GROUNDING DETAILS, WIRING DIAGRAM, RACEWAY DETAILS, LEGEND
33	86	C	3366	65	2	25-AUG-55	19-APR-54	1381	E	ADDITIONAL FACILITIES, ELEC., RISER DIAGRAMS
33	86	C	16989	1	0	24-SEP-57		2023	M	W-3 MASS SPECTROMETER BLDG. HP-86 - MECHANICLA & ELECTRICAL PLAN AND DETAILS
33	86	C	18898	1	0	18-FEB-59		2198	A	SUPPLIED AIR SYSTEM BUILIDNG HP-86 - FLOOR PLAN & NOTES
33	86	C	18899	2	0	18-FEB-59		2198	UN	ELEVATIONS & DETAILS
33	86	C	19097	1	0	11-DEC-63		3004	A	CANOPY INSTALLATION, BLDG. HP-86 - ARCHITECTURAL
33	86	C	21344	1	0	17-DEC-57		1979	G	GAS HANDLING FACILITY IMPROVEMENT BLDG. 86 - INDEX OF DWGS. PLOT PLAN LIST OF EQ
33	86	C	21345	2	0	17-DEC-57		1979	UN	PENTHOUSE ADD., PLAN, ELEVATION & SECTIONS
33	86	C	21346	3	0	17-DEC-57		1979	UN	PENTHOUSE ADDITION, DETAILS
33	86	C	21347	4	0	17-DEC-57		1979	UN	STAIRS & PLATFORM DETAILS
33	86	C	21348	5	0	17-DEC-57		1979	M	MECH. PLANS & ELEVATIONS
33	86	C	21349	6	0	17-DEC-57		1979	M	MECH. ELEVATIONS
33	86	C	21350	7	0	17-DEC-57		1979	UN	CEILING HOOD DETAILS
33	86	C	21351	8	0	17-DEC-57		1979	UN	SERVICE PIPING - PLAN DIA.
33	86	C	21352	9	0	17-DEC-57		1979	UN	BOILER & COMPRESSOR INSTALL.
33	86	C	21353	10	0	17-DEC-57		1979	UN	CONTROL DIA. - PENTHOUSE & RM. 9 CONDITIONING REV. RMS. 7, 7A, 7B & 10
33	86	C	21354	11	0	17-DEC-57		1979	E	GAS HANDLING FAC. ELECT. - SCOPE, NOTES, MATL.
33	86	C	21355	12	0	17-DEC-57		1979	E	ELECT. - FIRST FLOOR PLAN
33	86	C	21356	13	0	17-DEC-57		1979	E	ELECT. - PENTHOUSE PLANS
33	86	C	21357	14	0	17-DEC-57		1979	E	ELECT. - DETAILS
33	86	C	21358	15	0	17-DEC-57		1979	E	ELECT. - SINGLE LINE DIA.
33	86	C	21359	16	0	17-DEC-57		1979	E	ELECT. - WIRING DIAGRAMS
33	86	C	21360	17	0	17-DEC-57		1979	E	ELECT. - SCHEMATIC DIA.
33	86	C	21361	18	0	17-DEC-57		1979	E	ELECT. - WIRING DIA.
33	86	C	21362	19	0	17-DEC-57		1979	E	ELECT. - CONNECTION DIA.
33	86	C	21363	1	0	18-FEB-58		1979	G	ARCHITECTURAL PLAN SECTIONS & GENERAL NOTES
33	86	C	21364	2	0	18-FEB-58		1979	A	ARCHITECTURAL DETAILS
33	86	C	21365	3	0	18-FEB-58		1979	M	MECH. PLAN & DETAILS
33	86	C	21366	4	0	18-FEB-58		1979	UN	CLEANING HOOD DETAILS

33	86	C	21367	5	0	18-FEB-58		1979	UN	PIPING DIAGRAM AND SPECIFICATIONS
33	86	C	21368	6	0	18-FEB-58		1979	E	ELECTRICAL PLAN, DIAGRAM, AND LIST OF EQUIPMENT
33	86	C	21369	7	0	18-FEB-58		1979	G	LIGHTNING PROTECTION & GENERAL NOTES
33	86	C	21399	1	0	16-DEC-58		1979	UN	GAS HANDLING FACILITY IMPROVEMENTS, BLDG. HP-86 - SERVICE PIPING & ACID SINK INS
33	86	C	21835	1	0	11-JAN-61		2394	M	REACTOR EXPERIMENT FACILITIES, BLDG. HP-86 - MECH. - PLAN - DETAIL & EQUIPMENT L
33	86	C	21836	2	0	11-JAN-61		2394	E	ELECTRICAL - PLAN & SECTION
33	86	C	21837	3	0	11-JAN-61		2394	E	ELECTRICAL - SINGLE LINE DIAGRAM & DETAILS
33	86	C	21858	1	1	22-JUN-60		2394	S	ADDITIONAL FACILITIES FOR REACTOR EXPERIMENTS, BLDG. HP-86 - STRUCTURAL & LOCATI
33	86	C	21859	2	1	22-JUN-60		2394	M	MECH. PROCESS PIPING PLAN, SECTIONS & DETAILS
33	86	C	21860	3	1	22-JUN-60		2394	M	MECH. & ELECT. CONTROL & INSTRUMENT PLAN, SECT. & DETAILS
33	86	C	21861	4	1	22-JUN-60		2394	M	MECHANICAL EQUIPMENT LIST
33	86	C	21876	1	0	18-NOV-63		2958	M	WELDING & SOLDERING HOOD INSTALLATION-ROOM 1-BLDG HP-86-MECH-HOOD-CABINET-DUCT P
33	86	C	21877	2	0	18-NOV-63		2958	M	MECHANICAL - HOODS & DUCTS DETAILS & SECTIONS
33	86	C	21878	3	0	18-NOV-63		2958	M	MECH. - FAN PLATFORM & PIPING DETAILS & SECTIONS
33	86	C	21879	4	0	18-NOV-63		2958	M	MECHANICAL - NOTES & MATERIAL LIST
33	86	C	23727	1	1	29-JAN-60		2336	AC	MODIFICATIONS TO VENTILATION SYSTEMS & CONTROLS, BLDG. HP-86 - PLANS & GENERAL N
33	86	C	23728	2	1	29-JAN-60		2336	UN	CONTROL PANEL & MISCELLANEOUS DETAILS
33	86	C	23729	3	1	29-JAN-60		2336	AC	MODS. TO VENTILATION SYS. & CONTROLS. HP-86 - REVISED PNEUMATIC CONTROL DIAGRAM
33	86	C	23730	4	1	29-JAN-60		2336	E	ELECTRICAL - CONTROL DIAGRAM
33	86	C	23731	5	1	29-JAN-60		2336	UN	OPERATIONAL SEQUENCE, EQUIPMENT & NAMEPLATE LISTS
33	86	C	23732	6	1	29-JAN-60		2336	UN	EXHAUST STACK DETAILS
33	86	C	23733	7	1	29-JAN-60		2336	UN	EXHAUST STACK DETAILS
33	86	C	27868	1	0	18-APR-66		3340	C	FISSIONABLE MAT. VAULT, BLDG. HP-86, CIVIL - PLANS, SECTIONS & DETS. & ELECTRICA
33	86	C	28470	1	0	19-JUL-65	12-JUL-65	3251	A	MODIFICATION TO BLDG. HP-86, PLAN & DETAILS
33	86	C	28471	2	0	19-JUL-65	12-JUL-65	3251	A	MODIFICATIONS TO BLDG. HP-86, PLAN & DETAILS
33	86	C	34799	1	0	23-DEC-66		3581	M	SAFETY EXHAUST SYSTEM, RM. 1, BLDG. HP-86 - MECHANICAL; PLAN, SECTION, DETAIL &
33	86	C	35618	1	0	27-SEP-67		3698	UN	TRITIUM TANK STORAGE RACK, RM. 9, BLDG. HP-86, PLAN & DETAILS

33	86	C	37603	1	0	27-JUN-69		4116	UN	DOOR MODIFICATIONS BLDG. HP-86, PLAN & DETAILS RMS. 9 & 10
33	86	C	39509	1	1	15-MAY-72		4559	AC	VENTILATION SYSTEM IMPROVEMENTS - MECHANICAL PLAN
33	86	C	39510	2	1	15-MAY-72		4559	M	MECHANICAL; PLANS, SECTIONS & DETAILS
33	86	C	39511	3	1	15-MAY-72		4559	M	MECHANICAL; PLAN, SECTIONS, DETAILS AND NOTES
33	86	C	39512	4	1	15-MAY-72		4559	M	MECHANICAL; ELEVATIONS, SECTIONS, DETAIL & CONTROL DIAGRAM
33	86	C	39513	5	1	15-MAY-72		4559	M	MECHANICAL; CONTROL DIAGRAM, PIPING SCHEMATIC & EQUIPMENT LIST
33	86	C	39514	6	1	15-MAY-72		4559	E	ELECTRICAL
33	86	C	39515	7	0	15-MAY-72		4559	E	ELECTRICAL PLAN
33	86	C	39516	8	1	15-MAY-72		4559	E	ELECTRICAL - CONNECTION DIAGRAM
33	86	C	39679	1	0	04-JUN-71		4510	AC	AIR CONDITIONING, RM. 3, HP-86 - MECHANICAL; PLAN - SECTIONS
33	86	C	39680	2	0	04-JUN-71		4510	M	MECHANICAL - DETAILS
33	86	C	39681	3	0	04-JUN-71		4510	M	MECHANICAL; NOTES AND EQUIPMENT
33	86	C	39682	4	0	04-JUN-71		4510	E	ELECTRICAL
33	86	C	42870	2	0	15-MAR-76		5438	M	MECH; DETAILS, NOTES, AND EQUIPMENT LIST
33	86	C	42870	1	0	15-MAR-76		5438	M	HEATING SYSTEM MODIFICATION, BLDG.HP-86, TA-33. MECH; PARTIAL PLAN AND DETAILS
33	86	C	44193	10	2	30-JAN-83	17-SEP-85	7275	M	STEAM HEATING SYSTEM REPLACEMENT, MECH., HVAC PNEUMATIC CONTROL SCHEMATIC FLOW DIAGRAM
33	86	C	44193	12	2	30-JAN-83	17-SEP-85	7275	E	STEAM HEATING SYSTEM REPLACEMENT, ELEC., NAMEPLATE SCHEDULE AND BILL OF MATERIALS
33	86	C	44193	11	2	30-JAN-83	17-SEP-85	7275	M	STEAM HEATING SYSTEM REPLACEMENT, MECH., SEQUENCE OF OPERATION
33	86	C	44193	1	2	30-JAN-83	17-SEP-85	7275	T	STEAM HEATING SYSTEM REPLACEMENT, TITLE SHEET, INDEX OF DRAWINGS, LOCATION PLAN
33	86	C	44193	5	2	30-JAN-83	17-SEP-85	7275	M	STEAM HEATING SYSTEM REPLACEMENT, MECH., NEW DESIGN, HOT WATER HEATING SYSTEM, PENTHOUSE PLAN, LEGEND
33	86	C	44193	7	3	30-JAN-83	17-SEP-85	7275	M	STEAM HEATING SYSTEM REPLACEMENT, MECH., PIPING DETAILS & SHCEMATIC, LEGEND
33	86	C	44193	4	2	30-JAN-83	17-SEP-85	7275	M	STEAM HEATING SYSTEM REPLACEMENT, MECH., EXISTING SYSTEM AND REMOVALS, LEGEND
33	86	C	44193	15	2	30-JAN-83	17-SEP-85	7275	E	STEAM HEATING SYSTEM REPLACEMENT, ELEC., HVAC CONTROL PANEL
33	86	C	44193	17	2	30-JAN-83	17-SEP-85	7275	E	STEAM HEATING SYSTEM REPLACEMENT, ELEC., SCHEMATIC

										DIAGRAMS
33	86	C	44193	8	2	30-JAN-83	17-SEP-85	7275	M	STEAM HEATING SYSTEM REPLACEMENT, MECH., EQUIPMENT LIST
33	86	C	44193	2	3	30-JAN-83	17-SEP-85	7275	G	STEAM HEATING SYSTEM REPLACEMENT, GEN., SUBMITTALS
33	86	C	44193	9	3	30-JAN-83	17-SEP-85	7275	M	STEAM HEATING SYSTEM REPLACEMENT, MECH., EQUIPMENT LIST
33	86	C	44193	14	2	30-JAN-83	17-SEP-85	7275	E	STEAM HEATING SYSTEM REPLACEMENT, ELEC., PENTHOUSE HVAC WIRING DIAGRAM
33	86	C	44193	6	3	30-JAN-83	17-SEP-85	7275	M	STEAM HEATING SYSTEM REPLACEMENT, MECH., AIR HANDLING UNIT DETAILS, EXHAUST FAN DETAILS
33	86	C	44193	3	2	30-JAN-83	17-SEP-85	7275	M	STEAM HEATING SYSTEM REPLACEMENT, MECH., SPECIFICATIONS LIST
33	86	C	44193	16	2	30-JAN-83	17-SEP-85	7275	E	STEAM HEATING SYSTEM REPLACEMENT, ELEC., HVAC HEATING WIRING DIAGRAM
33	86	C	44193	13	2	30-JAN-83	17-SEP-85	7275	E	STEAM HEATING SYSTEM REPLACEMENT, ELEC., HVAC HEATING WIRING DIAGRAM
33	86	C	48520	17	0	22-JAN-93		0	A	TYPICAL FLASHING DETAILS AND CATWALK DETAIL
33	86	C	48520	16	0	22-JAN-93		0	A	TYPICAL FLASHING DETAILS
33	86	C	48520	15	0	22-JAN-93		0	A	TYPICAL FLASHING DETAILS
33	86	C	48520	14	0	22-JAN-93		0	A	LOT-8-TA-33-86, ROOF PLAN EXISTING FEATURES, SITE PLAN & ELEVATIONS
33	86	R	944	1	0	13-APR-67	24-MAR-67	3659	E	AS BUILT BOILER WIRING DIAGRAM, RM.-6, BS-1
33	86	R	1921	1	2	11-JAN-63		0	F	FIRE ALARM EQUIPMENT, BLDG. HP-86, FLOOR PLAN (VOID)
33	86	R	2285	1	0	05-APR-62	18-DEC-61	0	A	FALLOUT SHELTER SURVEY, FLOOR PLAN, HP -SITE
33	86	R	3035	1	2	06-MAY-63	21-MAR-84	0	A	FLOOR PLAN, LABORATORY BUILDING
33	86	R	3808	1	0	28-SEP-66	15-SEP-66	3546	A	EQUIPMENT SURVEILLANCE SYSTEMS, FLOOR PLAN
33	86	SK	2302	5	0	10-SEP-97	04-MAR-53	1381	A	EXTENSION OF TA-33 FACILITIES, FLOOR PLAN,
33	86	SK	2303	6	0	10-SEP-97	04-MAR-53	1381	A	EXTENSION OF TA-33 FACILITIES, ELEVATIONS & SECTIONS
33	86	SK	2304	7	0	10-SEP-97	04-MAR-53	1381	A	EXTENSION OF TA-33 FACILITIES, ARCHITECTURAL OCC. BLDG.
33	86	SK	2305	8	0	10-SEP-97	04-MAR-53	1381	A	EXTENSION OF TA-33 FACILITIES, SERVICES OCC. BLDG.
33	86	SK	2310	13	0	10-SEP-97	04-MAR-53	1381	A	EXTENSION OF TA-33 FACILITIES, DOOR SCHEDULE

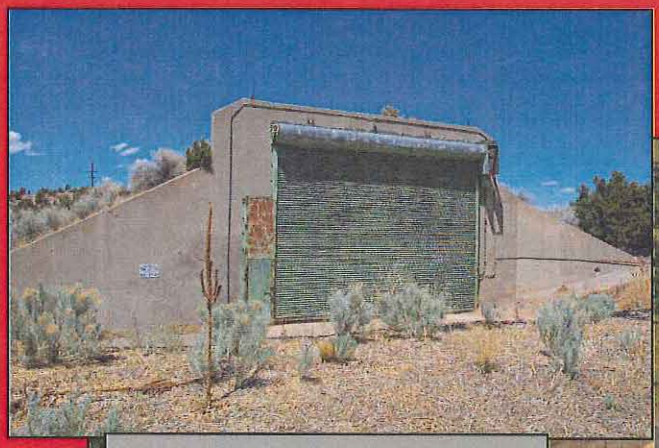
REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
33	90	C	3303	2	1		19-APR-54	25-AUG-55	1381	C	ADDITIONAL FACILITIES, CIVIL, PLOT PLAN, AREA A, LEGEND, AND SUMP SEWER & SUBSTATION LOCATIONS
33	90	C	3331	30	0		19-APR-54	19-APR-54	1381	A	ADDITIONAL FACILITIES, ARCH., FLOOR PLAN, ELEVATION & DETAILS, ROOF FRAMING PLAN, PITCH PAN, WINDOW AND DOOR DETAILS
33	90	C	3332	31	1		19-APR-54	25-AUG-55	1381	A	ADDITIONAL FACILITIES, ARCH., DOOR SCHEDULES
33	90	C	3361	60	0		19-APR-54	19-APR-54	1381	M	ADDITIONAL FACILITIES, MECH., FLOOR PLANS & SECTIONS, CONTROL DIAGRAM, FAN SYSTEM, AIR WASHER PIPING DIAGRAM
33	90	C	3362	61	0		19-APR-54	19-APR-54	1381	E	ADDITIONAL FACILIITES, ELEC., SITE PLAN, COMMUNICATION & LIGHTNING PROTECTION PLANS, SUBSTATION PAD LOCATION
33	90	C	3366	65	2		25-AUG-55	19-APR-54	1381	E	ADDITIONAL FACILITIES, ELEC., RISER DIAGRAMS
33	90	R	3039	1	1		17-JUL-64	11-JUN-84	0	A	FLOOR PLAN, GUARD HOUSE
33	90	SK	2309	12	0		10-SEP-97	04-MAR-53	1381	A	EXTENSION OF TA-33 FACILITIES, PLANS & SECTIONS, FLOOR AND ROOF PLAN

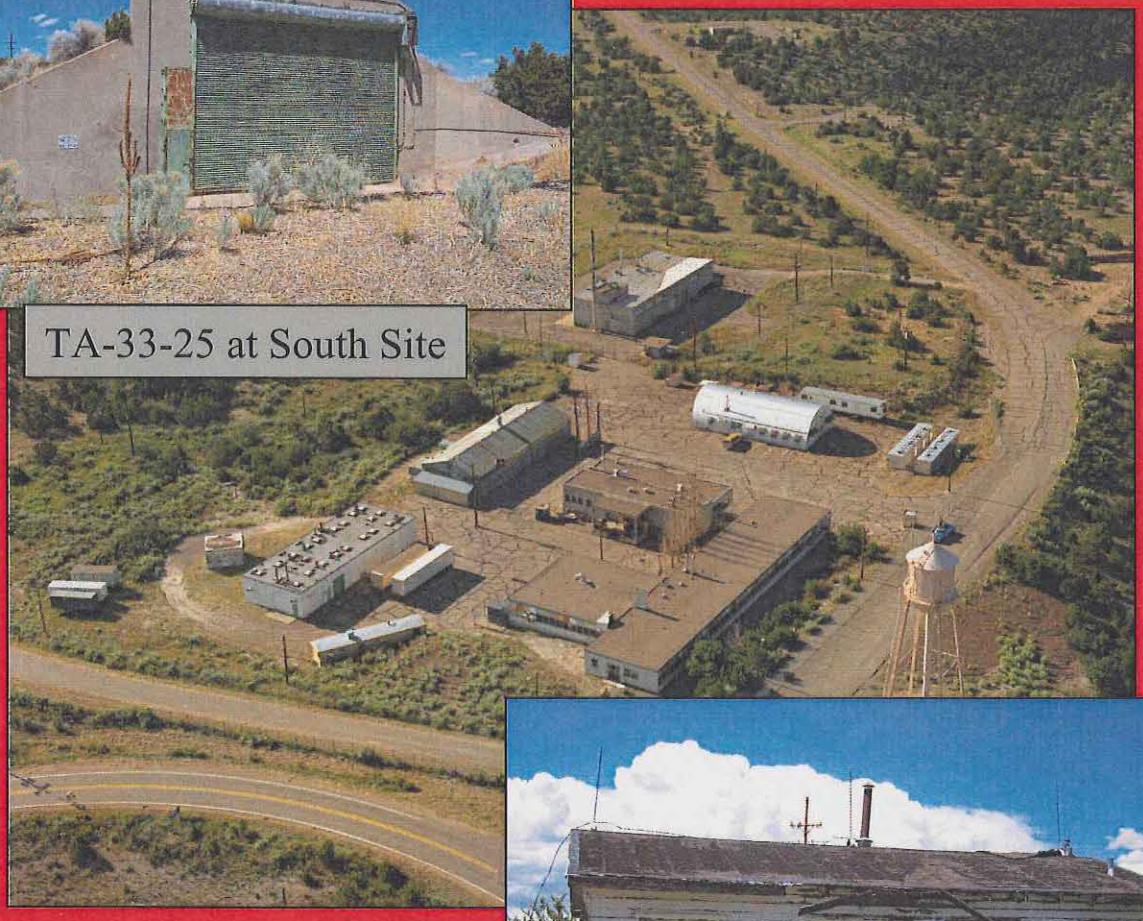
LA-UR-04-7938

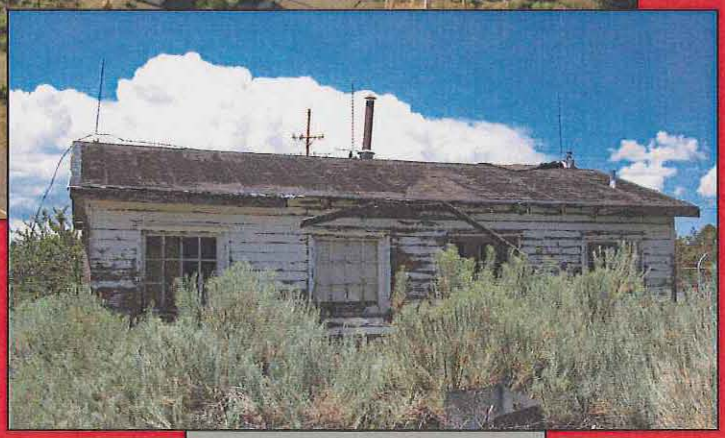
Historic Context of Hot Point Site, Technical Area 33

Volume 2a – Archival Photographs and Index



TA-33-25 at South Site





TA-33-1 at Area 6

RRES-ECO Heritage Resources and Environmental Policy Compliance Team
Risk Reduction and Environmental Stewardship Division
LOS ALAMOS NATIONAL LABORATORY

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 33 "Hot Point Site"
Technical Area 33, Structures (1, 2, and 40)
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Notes: The Laboratory is divided into different geographic areas called technical areas (TAs) that are designated by numbers. The properties at TA-33 "Hot Point" are identified using the current LANL system of placing the "TA" prefix and TA number before each building and structure number, creating a unique property identifier (ie. TA-33-40).

TA-33, or "Hot Point" Site, was initially developed in 1947 for the Laboratory's weapons testing group, M-3, as a substitute test site for experiments that were being conducted at Trinity Site in southern New Mexico. The area of TA-33 called "Area 1/East Site" was an early test site used to conduct underground tests on implosion-type initiators. Test data was received in control building TA-33-1. Building TA-33-1 and warehouse building TA-33-2 were originally designed to be portable so they could be moved to a new location at the completion of each underground test.

Area 6 was developed in 1948 for initiator experiments and the testing of initiators used in gun devices. Buildings TA-33-1 and TA-33-2 were moved to "Area 6" in late 1948 or 1949 to support work on a gun-type device. In this location, TA-33-1 was used as an office and laboratory space before the "Main Site" administrative center at TA-33 was fully developed. TA-33-2 was used as a shop, warehouse, and laboratory (Los Alamos National Laboratory Archives).

The main administration center at TA-33's "Main Site" was developed from 1949 to 1962. Facilities included several office and laboratory buildings, a warehouse, a shop building, a gas handling facility, and a saw building. TA-33-40, the saw building, was built in 1951 and housed a saw used to open experimental casings related to initiator research and development. In 1953, the saw building was moved within "Main Site" to make room for the new Gas Handling Facility.

Buildings TA-33-1, -2, and -40 were excess LANL properties and were eventually demolished. This action is in accordance with LANL's commitment to clean up inactive sites and facilities "so that no unacceptable risk to the public or environment remains" (U.S. Department of Energy 1994). The removal of these three properties was carried out by LANL's Decontamination and Decommissioning (D&D) Program. (For additional information, see related project documentation: *"Decontamination and Decommissioning of Buildings 1, 2, and 40 at Technical Area 33,"* LA-UR-01-5308, Cultural Resource Report No. 195, and *Historic Context of Hot Point Site, Technical Area 33*, LA-UR-04-7938, Historic Building Report No. 238).

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

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Los Alamos National Laboratory

1992 *RFI Work Plan for OU 1122, Environmental Restoration Program.* LA-UR-92-925, Los Alamos National Laboratory, Los Alamos, New Mexico.

Los Alamos National Laboratory Archives

Information acquired from the LANL Archives, TA-21-1001, Roger Meade, LANL Archivist. Files accessed include "Group M-3 and Group W-3 Monthly Progress Reports" and other general LANL organizational chart information on file at the archives. Los Alamos National Laboratory, Los Alamos, New Mexico.

U.S. Department of Energy

1994 *Environmental Restoration and Waste Management Five-Year Plan Fiscal Years 1994-1998.* DOE/S-00097P, U.S. Department of Energy, Washington, D.C.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 33 "Hot Point Site", Overview of buildings TA-33-1 and TA-33-2
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Ken Towery, Photographer, PM-1, LANL — December 5, 2001
RN02-008-001 through RN02-008-015, RN02-008-046 through RN02-008-066

Mike O'Keefe, Photographer, IM-4, LANL — July 3, 2002
RN02-020-037 through RN02-020-044

Photograph Number	Description
RN02-008-062	View of buildings TA-33-1 (left) and TA-33-2 (right), southwest sides (fronts), and southeast sides, facing north.
RN02-008-065	View of buildings TA-33-1 (left) and TA-33-2 (right), northwest sides, and southwest sides (fronts), facing east.
RN02-008-066	View of buildings TA-33-1 (right) and TA-33-2 (left), northeast sides (backs), facing south-southwest.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 33 "Hot Point Site", TA-33-1
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Photograph Number	Description
RN02-008-058	TA-33-1, southwest side (front), facing northeast.
RN02-008-059	TA-33-1, southeast side, facing north.
RN02-008-060	TA-33-1, northeast side (back), facing west.
RN02-008-057	TA-33-1, northwest side, facing southeast.
RN02-008-006	TA-33-1, room 101, facing northeast.
RN02-008-007	TA-33-1, room 101, facing southwest.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 33 "Hot Point Site", TA-33-2
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Photograph Number	Description
RN02-008-001	TA-33-2, southwest side (front), facing northeast.
RN02-008-002	TA-33-2, southeast side, facing north.
RN02-008-004	TA-33-2, northeast side (back), facing south-southwest.
RN02-008-005	TA-33-2, northwest side, and, southwest side (front), facing southeast.
RN02-008-008	TA-33-2, room 101, facing northeast.
RN02-008-009	TA-33-2, room 101, facing southwest.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 33 "Hot Point Site", TA-33-40
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Photograph Number	Description
RN02-020-037	TA-33-40, southeast side (front), facing northwest.
RN02-020-038	TA-33-40, northeast side, facing southwest.
RN02-020-039	TA-33-40, northwest side (back), facing southeast.
RN02-020-040	TA-33-40, southwest side, facing northeast.
RN02-020-041	TA-33-40, room 101, southwest and northwest walls, facing west.
RN02-020-042	TA-33-40, room 101, northwest and northeast walls, facing north.
RN02-020-043	TA-33-40, room 101, northeast and southeast walls, facing east.
RN02-020-044	TA-33-40, room 101, southeast and northwest walls, facing south.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

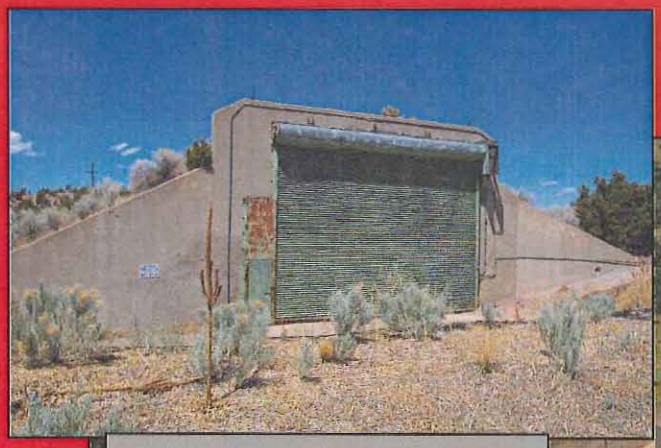
Technical Area 33 "Hot Point Site", TA-33-64 and TA-33-61 (Gun Mounts) and
TA-33-72 and TA-33-62 (Barricades)
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Photograph Number	Description
RN02-008-063	TA-33-64, gun mount on west side of TA-33-16, (which is west of TA-33-1 and TA-33-2), facing southeast.
RN02-008-061	Building TA-33-16, southwest side with TA-33-64 gun mount, facing north.
RN02-008-010	TA-33-61, gun mount, (which is southwest of TA-33-1, TA-33-2, and TA-33-16), facing northeast.
RN02-008-013	TA-33-72, barricade southwest of TA-33-16, facing northeast.

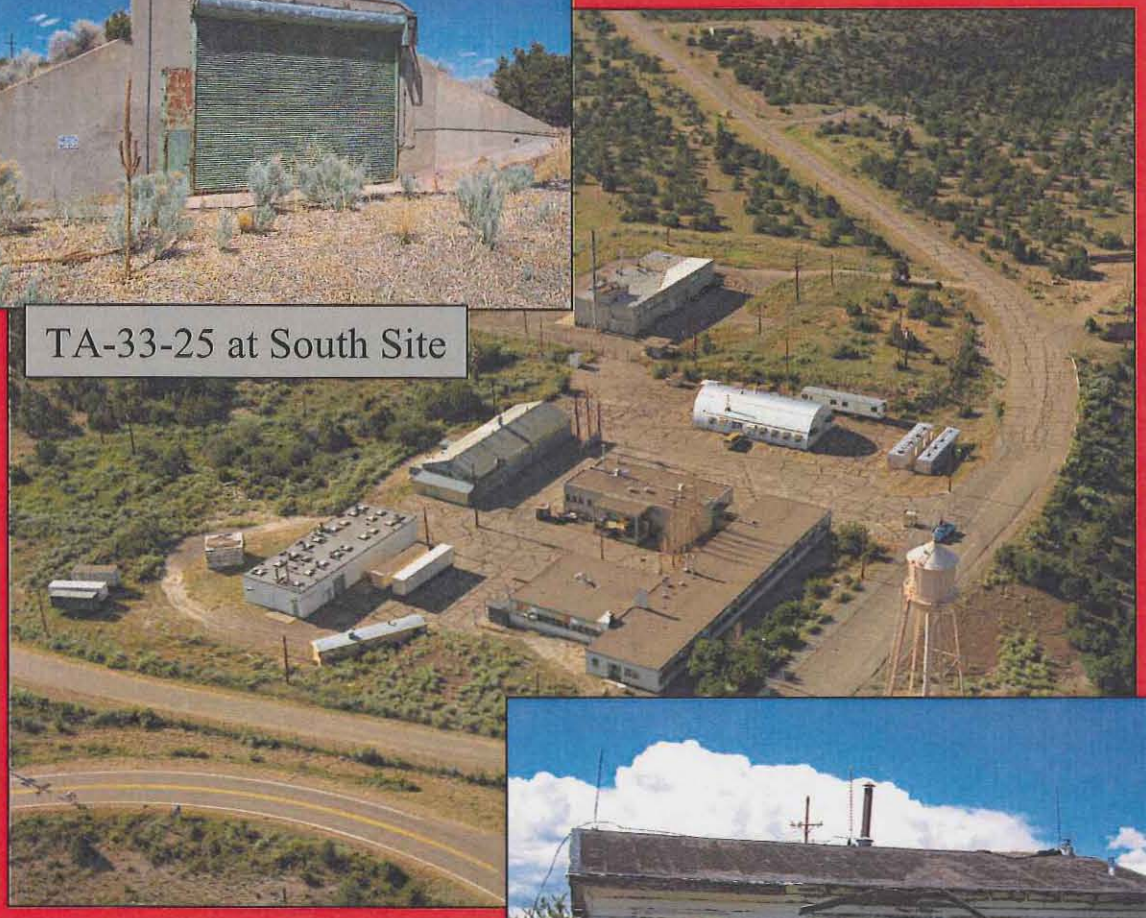
LA-UR-04-7938

Historic Context of Hot Point Site, Technical Area 33

Volume 2b – Archival Photographs and Index



TA-33-25 at South Site



TA-33-1 at Area 6

RRES-ECO Heritage Resources and Environmental Policy Compliance Team
Risk Reduction and Environmental Stewardship Division
LOS ALAMOS NATIONAL LABORATORY

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 33 "Hot Point Site"
Technical Area 33, Structures (24, 25, and 26)
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

South Site was developed in 1948 to support underground initiator experiments and ½-scale gun shots. South Site, also known as the "Tower Area," supported the Pacific atmospheric testing program as well. An additional area at South Site was set aside for leaking tritium reservoirs.

TA-33-24 housed electronics in support of operations conducted in TA-33-26 and served principally as a control building for experiments at South Site, including those conducted in the tower area. TA-33-25, known as the "Gun Building," was built in 1950 and housed an experimental gun. The gun was remotely operated from the TA-33-24 control building, and the gun's projectiles were fired into a nearby berm (HP-63). TA-33-26 is an underground structure located near TA-33-24 and TA-33-25. Built in 1950, TA-33-26 was used as a control room and as an X-unit chamber. The shot pad atop TA-33-26 was used for implosion test shots.

Buildings TA-33-24, -25, and -26 were inadvertently impacted by LANL remodeling activities prior to consultation with the New Mexico State Historic Preservation Officer (SHPO) and prior to the development of a memorandum of agreement (MOA) concerning the resolution of adverse effects. In verbal consultation between representatives of the Department of Energy, National Nuclear Security Administration, Los Alamos Site Office (LASO) and the SHPO, all parties agreed that the three properties were eligible for the National Register of Historic Places under Criterion A and C and that adverse effects to the buildings would be resolved by implementing the terms of LASO's standard MOA regarding the demolition or modification of buildings. (For additional information, see related project documentation: *Historic Context of Hot Point Site, Technical Area 33*, LA-UR-04-7938, Historic Building Report No. 238).

References

Los Alamos National Laboratory
1992 *RFI Work Plan for OU 1122, Environmental Restoration Program.* LA-UR-92-925, Los Alamos National Laboratory, Los Alamos, New Mexico.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 33 "Hot Point Site", TA-33-24
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Mike O'Keefe, Photographer, IM-4, LANL — June 18, 2002
RN02-020-001 through RN02-020-030

Bill Watson, ISR-5, LANL — June 2002
03-103, 03-106, 03-107, 03-109, 03-110, and 03-111

Kari Garcia, RRES-ECO, LANL — May 24, 2002
03-101, 03-102, 03-104, 03-105, and 03-108

Photograph Number	Description
RN02-020-005	TA-33-24, west side (front), facing east.
RN02-020-018	TA-33-24, room 1, facing northwest.
RN02-020-017	TA-33-24, room 1, facing northeast.
RN02-020-016	TA-33-24, room 2 looking into room 3, facing east.
RN02-020-013	TA-33-24, room 2, facing south.
RN02-020-014	TA-33-24, room 2, facing northwest. Note building entrance on left and doorway into room 1 center.
RN02-020-020	TA-33-24, room 3, facing east-southeast.
RN02-020-022	TA-33-24, room 3, facing west-southwest.
RN02-020-025	TA-33-24, room 4, facing south.
RN02-020-024	TA-33-24, room 4A, facing southwest.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 33 "Hot Point Site", TA-33-25
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Photograph Number	Description
RN02-020-003	TA-33-25, north side (front) and west side, without rollup doors, facing east-southeast. Note TA-33-24, west side (front) at left.
03-101	TA-33-25, north side (front), facing southeast.
03-103	TA-33-25, north side (front), facing south-southeast.
03-102	TA-33-25, west side, facing east.
03-104	TA-33-25, south side (back), facing northeast.
03-106	TA-33-25, south side (back), facing southeast.
03-105	TA-33-25, east side, facing west.
03-109	TA-33-25, room 101, facing southwest.
03-111	TA-33-25, room 101, facing northeast.
RN02-020-001	TA-33-25, north side (front), without rollup doors, facing south.
03-107	TA-33-25, north side (front) without rollup doors, facing south.
RN02-020-012	TA-33-25, room 101, 5-ton crane, facing south.
RN02-020-009	TA-33-25, south side (back) and east side, without rollup doors, facing northwest.
RN02-020-007	TA-33-25, south side (back), without rollup doors, facing north.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 33 "Hot Point Site", TA-33-26
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

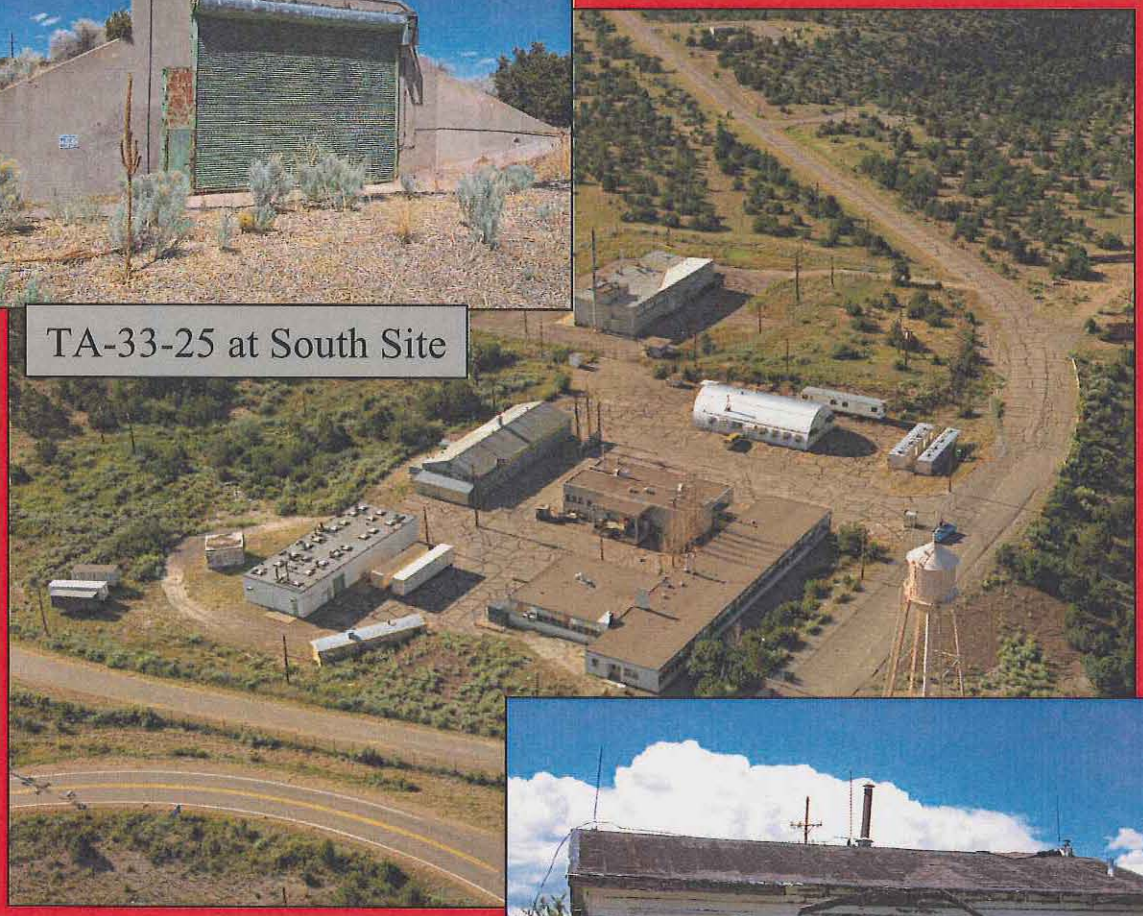
Photograph Number	Description
RN02-020-030	TA-33-26, south side (front), facing north.
03-108	TA-33-26, south side (front), facing north.
03-110	TA-33-26, south side (front), with door open, facing north.
RN02-020-028	TA-33-26, room 101, facing northeast.
RN02-020-027	TA-33-26, room 101, facing west.

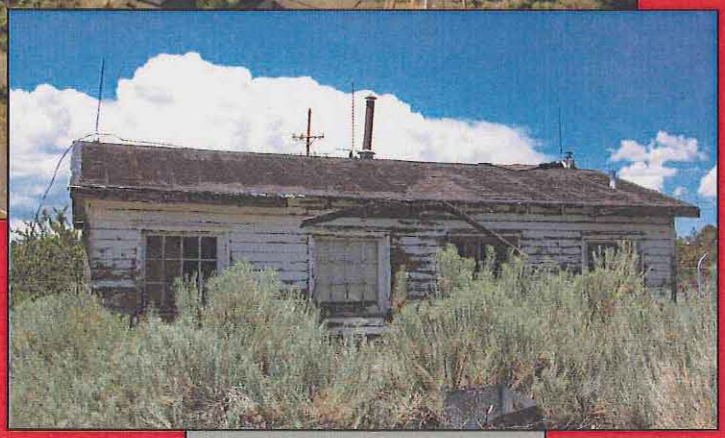
LA-UR-04-7938

Historic Context of Hot Point Site, Technical Area 33

Volume 2c – Archival Photographs and Index

TA-33-25 at South Site





TA-33-1 at Area 6

RRES-ECO Heritage Resources and Environmental Policy Compliance Team
Risk Reduction and Environmental Stewardship Division
LOS ALAMOS NATIONAL LABORATORY

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 33 Gas Handling Facility
Technical Area 33, Buildings (86 and 90)
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

The Gas Handling Facility, TA-33-86, began operations in June 1955. It was the first facility at LANL to handle "large" quantities of tritium gas for the Laboratory's nuclear weapons program. TA-33-86 was built to support research and development on tritium handling technology that would feed into the Savannah River Plant (SRP) tritium production activity. However, during the mid 1960s, the SRP was not ready to handle and fill gas reservoirs or "bottles," so LANL took over the production work for a brief period of time. The tritium facility at TA-33 processed tritium gas, repackaging tritium gas into small-volume high-pressure vessels "gas containers" which were used in several weapon systems and devices that were tested at the Nevada Test Site (Ziemer 1991).

TA-33-86 and its associated guard station (TA-33-90) were excess LANL properties and were eventually demolished. This action is in accordance with LANL's commitment to clean up inactive sites and facilities "so that no unacceptable risk to the public or environment remains" (U.S. Department of Energy 1994). The removal of these two properties was carried out by LANL's Decontamination and Decommissioning (D&D) Program. (For additional information see related project documentation: *"Decontamination and Decommissioning of Buildings 86 and 90 at Technical Area 33,* LA-UR-98-4463, Historic Building Survey Report No. 158, and *Historic Context of Hot Point Site, Technical Area 33*, LA-UR-04-7938, Historic Building Report No. 238).

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1994 *Environmental Restoration and Waste Management Five-Year Plan Fiscal Years 1994-1998.* DOE/S-00097P, U.S. Department of Energy, Washington, D.C.

Ziemer, Paul L.
1991 "National Environmental Policy Act (NEPA) Determination for the Deactivation, Disassembly, and Decontamination of Building 86 at TA-33 at the Los Alamos National Laboratory (LANL)". Department of Energy Memorandum dated November 14, 1991, from Assistant Secretary, Environment, Safety and Health, (EH-25) to Richard A. Claytor, Assistant Secretary for Defense Programs, Washington D.C.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 33 Gas Handling Facility, TA-33-86
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Mike O'Keefe, Photographer, IM-4, LANL — October 2001
RB01-108 through RB01-133

Photograph Number	Description
RB01-131	TA-33-86, front, east side, southern portion, facing west.
RB01-117	TA-33-86, front, east side central portion, facing west.
RB01-115	TA-33-86, front, east side, northern portion, facing west.
RB01-114	TA-33-86, north side, facing south.
RB01-116	TA-33-86, back, west side, facing east.
RB01-130	TA-33-86, south side, facing north.
RB01-108	TA-33-86, front, closeup of vault doors, southern set, facing west.
RB01-109	TA-33-86, front, closeup of vault doors, northern set, facing west.
RB01-121	TA-33-86, room 10, facing north.
RB01-127	TA-33-86, room 10, facing south.
RB01-112	TA-33-86, room 7, facing southwest.
RB01-119	TA-33-86, rooms 7A and 7B, facing southeast.
RB01-120	TA-33-86, room 11, facing north.
RB01-118	TA-33-86, room 11, facing south.
RB01-113	TA-33-86, room 11B, facing southwest.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

RB01-110	TA-33-86, room 11A, facing northwest.
RB01-128	TA-33-86, room 1, facing south.
RB01-123	TA-33-86, room 1, facing north.
RB01-125	TA-33-86, room 2, facing southeast.
RB01-122	TA-33-86, room 2A, facing southeast.
RB01-124	TA-33-86, room 3, facing east.
RB01-126	TA-33-86, room 6, facing southwest.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 33 Gas Handling Facility, TA-33-90
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Photograph Number	Description
RB01-132	TA-33-90, front – east side and north side, facing southwest.
RB01-133	TA-33-90, back – west side and south side, facing northeast.